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FINAL ANNUAL GROUNDWATER MONITORING REPORT YEAR 2 FOR OPERABLE UNIT 9 (OU 9) SITE 57 NAS CECIL FIELD FL

8/1/2005

THE SI GROUP INC

FINAL
ANNUAL NATURAL ATTENUATION GROUNDWATER MONITORING REPORT
YEAR 2
FOR
OPERABLE UNIT 9, SITE 57

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

August 2005

FINAL
ANNUAL NATURAL ATTENUATION GROUNDWATER MONITORING REPORT – YEAR 2

FOR

OPERABLE UNIT 9, SITE 57
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

Submitted to:
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Naval Facilities Engineering Command
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Contract Number N62467-03-G-0124
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THE SI Group

CERTIFICATION OF TECHNICAL
DATA CONFORMITY

The contractor, The SI Group, Inc., herby 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.

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Acronyms

BTEX	Benzene, toluene, ethylbenzene, and xylenes
COCs	Chemicals of concern
CTO	Contract Task Order
DCA	Dichloroethane
DCE	Dichloroethene
DO	Dissolved Oxygen
EISOPQAM	Environmental Investigations Standard Operating Procedures and Quality Assurance Manual
FDEP	Florida Department of Environmental Protection
GCTLs	Groundwater cleanup target levels
LTM	Ling Term Monitoring
LUCs	Land Use Controls
mg/L	Milligrams per Liter
μg/L	Micrograms per Liter
NA	Natural Attenuation
NAS	Naval Air Station
ORP	Oxidation-reduction potential
OU	Operable Unit
PAH	Polynuclear Aromatic Hydrocarbon
PRE	Preliminary Risk Evaluation
QAPP	Quality Assurance Project Plan
RAO	Remedial Action Objective
ROD	Record of Decision
RI	Remedial Investigation
SIG	The SI Group, Inc.
SOP	Standard Operating Procedure
TCE	Trichloroethene
TOC	Total Organic Carbon
TRPH	Total Recoverable Petroleum Hydrocarbons
TTNUS	Tetra Tech NUS
VOC	Volatile organic compound

1.0 INTRODUCTION

This Annual Natural Attenuation Groundwater Monitoring Report – Year 2 presents a summary of the work performed for the second semi-annual round of sampling for the second year of groundwater monitoring at Operable Unit (OU) 9, Site 57 at the former Naval Air Station (NAS) Cecil Field, located in Jacksonville, Florida. The location of Site 57 at NAS Cecil Field is detailed on Figure 1. A Site Map for Site 57 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 57 consists of groundwater contaminated with petroleum-related and chlorinated volatile organic compounds (VOCs). The Site 57 Petroleum Plume is located in the shallow and intermediate portions of the surficial aquifer and was delineated in the Remedial Investigation (RI) as approximately 750 feet long with an average width of approximately 225 feet. The Petroleum Plume includes exceedances of benzene, toluene, ethylbenzene, and xylenes (BTEX), polynuclear aromatic hydrocarbons (PAHs), and total recoverable petroleum hydrocarbons (TRPH). Site 57 also includes a Trichloroethene (TCE) Plume that partially overlaps the petroleum plume. The Site 57 TCE Plume is located in the shallow zone of the surficial aquifer and was delineated in the RI as approximately 250 feet long with an average width of approximately 180 feet. The RI at OU 9, Site 57 was conducted in 2001 and 2002 to delineate the nature and extent of groundwater contamination, to assess the human health and environmental risks posed by contamination [a Preliminary Risk Evaluation (PRE) rather than a Baseline Risk Assessment], and to provide a basis for selecting alternatives for remediation of the site. (TTNUS, 2003)

Site 57 includes the Day Tank 1 area wells with common petroleum-related groundwater contamination. The Site 57 Petroleum Plume is defined by benzene concentrations greater than the Florida Department of Environmental Protection (FDEP) Groundwater Cleanup Target Level (GCTL) of 1 microgram per liter (µg/L) that extend from the northeastern portion of the former Building 846 location toward the southeast to the area east and southeast of Building 824A, as detected during the RI. The Site 57 TCE Plume, defined by TCE concentrations greater than the GCTL of 3 µg/L, is centered to the east of the Site 57 Petroleum Plume. The TCE Plume also extends toward the southeast, parallel to the Petroleum Plume. (TTNUS, 2003)

The Record of Decision (ROD) details the selected remedy for OU 9, Site 57, which includes the following:

- Land use controls (LUCs) to prohibit usage of the surficial aquifer beneath the site and thereby preclude unacceptable risks from exposure to contaminated groundwater.

- Long-term groundwater monitoring to verify that no chemicals of concern (COCs) are migrating past selected compliance wells and to evaluate the natural attenuation of the COCs (TtNUS, 2004).

The Groundwater Remedial Design Work Plan was completed in April 2003. The selected remedial alternative for contaminated groundwater at Site 57 was natural attenuation. Groundwater sampling events at OU9, Site 57 have occurred as follows:

- Baseline/first quarter sampling (Year 1) – April 2003
- Second quarter sampling (Year 1) – July 2003
- Third quarter sampling (Year 1) – October 2003
- Fourth quarter sampling (Year 1) – January 2004
- First semi-annual (Year 2) – July 2005
- Second semi-annual (Year 2) – February 2005

The SI Group (SIG) mobilized to Site 57 on February 11, 2005 for the Second Semi-Annual Year 2 Long-Term Monitoring (LTM) event. For the Second Semi-Annual Year 2 LTM Event, SIG measured the depth to groundwater in 32 monitoring wells. The wells groundwater level measurements were collected from are as follows:

- CEF-293-03
- CEF-293-05
- CEF-293-10
- CEF-293-11
- CEF-293-13
- CEF-293-14
- CEF-293-19
- CEF-293-20
- CEF-293-21
- CEF-824A-01Sa
- CEF-824A-02S
- CEF-824A-03S
- CEF-824A-04S
- CEF-824A-05S
- CEF-824A-07S
- CEF-824A-08S
- CEF-824A-09S
- CEF-824A-10S
- CEF-824A-11S
- CEF-824A-12I
- CEF-824A-13D
- CEF-824A-14S
- CEF-824A-15I
- CEF-824A-17I
- CEF-824A-18S
- CEF-824A-19S

- CEF-824A-20S
- CEF-824A-21I
- CEF-824A-22S
- CEF-825LS-01S
- CEF-16-38S

Water level measurements obtained from the February 2005 event as well as historical sampling events are presented in Table 1. Potentiometric surface elevations from the data collected during the February 2005 sampling event are presented on Figure 3. Based on the water level elevations, groundwater at the site during the Second Semi-Annual Year 2 LTM event flows to the southeast. The groundwater flow direction at Site 57 has not changed significantly from historical LTM events.

On February 14-16, 2005 SIG collected groundwater samples from twenty-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. Sample collection procedures were 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 FDEP Standard Operating Procedures (SOP) FS 2200. Sampling procedures are detailed in the approved Final Quality Assurance Project Plan (QAPP) completed by SIG for Site 57 and dated June 7, 2004.

Groundwater samples were collected for fixed-base laboratory analysis from the following wells at Site 57:

- CEF-293-03
- CEF-293-11*
- CEF-293-13*
- CEF-293-19*
- CEF-293-20
- CEF-293-21
- CEF-824A-01Sa
- CEF-824A-03S*
- CEF-824A-04S
- CEF-824A-07S
- CEF-824A-08S
- CEF-824A-09S
- CEF-824A-10S*
- CEF-824A-11S*
- CEF-824A-12I*
- CEF-824A-13D
- CEF-824A-14S
- CEF-824A-15I
- CEF-824A-17I
- CEF-824A-19S*
- CEF-824A-20S*
- CEF-824A-21I*
- CEF-824A-22S*

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

- TCL VOCs (SW–846 8260B)
- PAHs (SW–846 8310)
- TRPH (FL-PRO Method) (Only wells denoted by *)
- Alkalinity (EPA Method 310.1)
- Nitrate, Nitrite, Ortho-phosphate, Sulfate, and Chloride (EPA Method 300)
- Dissolved Iron (SW-846 6010B)
- Methane, Ethane, and Ethene (RSK 147 & 175)
- Total Organic Carbon (TOC) (EPA Method 415.1)

Results of the laboratory analysis of groundwater samples are discussed in Section 3.0.

During sampling activities, groundwater collected at Sites 57 was field analyzed for Natural Attenuation (NA) parameters. The field measured NA parameters and methods of analysis are as follows:

- Dissolved Oxygen (Chemetrics Kits K-7501 and K-7512)
- Ferrous Iron (HACH Test Kit IR-18C)
- Hydrogen Sulfide (HACH Test Kit HS-C)
- Sulfide (HACH DR-890)
- Carbon dioxide (Chemetrics Kits K-1910, K-1920, and K-1925)
- Alkalinity (Chemetrics Kits K-9810, K-9815, and K-9820)

Results of the Field Measurement of NA parameters are discussed in Section 3.0.

Of the twenty-three monitoring wells sampled, eight of the wells are used primarily to monitor the TCE plume. The eight wells consist of one upgradient well (824A-10S), one side-gradient well (824A-9S) and six source wells. The six TCE plume source wells are 293-19, 293-20, 824A-12I, 824A -13D, 824A -14S, and 824A -15I. Thirteen wells are used primarily to monitor the BTEX plume. The thirteen wells consist of one upgradient well (293-03), two downgradient wells (824A-03S and 824A-22S), and ten source wells. The source area wells are as follows: 293-11, 293-13, 293-21, 824A-01Sa, 824A-04S, 824A-07S, 824A-08S, 824A-11S, 824A-17I, and 824A-21I. There are also two sentinel wells used to monitor whether contamination from either plume is migrating off-site. The sentinel wells are 824A-19S and 824A-20S.

2.0 SITE CHEMICALS OF CONCERN

The COCs for OU 9, Site 57 relate to two groundwater contaminate plumes underlying the site. The first contaminate plume consists of petroleum related contaminates and the second plume consists of chlorinated solvents. The COCs for the hydrocarbon plume have been BTEX, Naphthalene, 1-Methylnaphthalene, 2-Methylnaphthalene, and TRPH. The COCs for the chlorinated plume have been TCE, 1,1-Dichloroethane (DCA), 1,1-dichloroethene (DCE), and cis-1,2-DCE. The historical and current frequency of detection for each constituent of concern is presented in Table 2.

3.0 ANALYTICAL RESULTS

Findings from past natural attenuation groundwater monitoring at Site 57 have resulted in a recommendation for the alteration of the frequency of sampling from quarterly to semi-annually after the completion of the Year 1 sampling events.

The samples for laboratory analysis during the Year 2 sampling event were collected from the twenty-three monitoring wells discussed in Section 1.0. The groundwater samples were analyzed for VOCs, PAHs, TRPH, Alkalinity, Nitrate, Nitrite, Ortho-phosphate, Sulfate, Chloride, Dissolved Iron, Methane, Ethane, Ethene, and TOC.

Based on the maximum concentrations of contaminants for the monitoring wells in the Petroleum Plume, BTEX concentrations have generally increased and PAH and TRPH concentrations have generally decreased since the RI. Based on the maximum concentrations of contaminants in monitoring wells in the TCE Plume, TCE concentrations have generally decreased and concentrations of daughter products (1,1-DCA, 1,1-DCE, cis-1,2-DCE, and vinyl chloride) have generally increased since the RI. Benzene, ethylbenzene, toluene, xylenes, 1,1-DCA, cis-1,2-DCE, 1,1-DCE, TCE, vinyl chloride, 1-methylnaphthalene, 2-methylnaphthalene, naphthalene, and TRPH were detected at concentrations greater than FDEP GCTLs during Year 1 groundwater monitoring.

3.1.1 Petroleum Plume

The discussion in this section focuses on concentrations of petroleum-related contaminants. Chlorinated contaminant concentrations are discussed in Section 3.1.2.

Petroleum-related COCs were not detected at concentrations greater than FDEP GCTLs in monitoring well CEF-293-03, upgradient of the Petroleum Plume.

Shallow source area monitoring wells within the Petroleum Plume include CEF-293-11 and CEF-824A-04S. In CEF-293-11, BTEX, PAH, and TRPH concentrations decreased from the first to second sampling event. Concentrations of BTEX, naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene exceeded GCTLs during both Year 2 events; the TRPH concentration did not exceed the GCTL in either event. COC constituent levels are generally just below the levels detected during the RI. In CEF-824A-04S, BTEX and PAH concentrations decreased from the first to second event. Concentrations of benzene, ethylbenzene, xylenes, and naphthalene exceeded GCTLs during the first event, however, only benzene exceeded the GCTL during the second event. BTEX and naphthalene concentrations were at least one half the concentration

detected during the RI. Concentrations of 1-methylnaphthalene and 2-methylnaphthalene were slightly greater than those detected during the RI, but still below GCTLs.

Intermediate monitoring wells located in the source area include CEF-824A-21I and CEF-824A-17I. In CEF-824A-21I, betex, ethylbenzene, xylenes, and TRPH were detected at low concentrations (less than GCTLs) during both events. 1-mehtylnaphthalene concentrations in CEF-824A-21I remained relatively consistent with previous events and less than GCTLs during Year 1 sampling. Concentrations of 2-methylnaphthalene decreased to below the GCTL between the first and second events. Benzene and toluene have decrease relative to the concentrations detected during the RI. TRPH, 1-metylnaphthalene, and 2-methylnaphthalene have remained consistent with the concentrations detected during the RI. Ethylbenzene and Xylenes have increased slightly relative to the concentrations detected during the RI, but are still below the GCTLs. In CEF-824A-17I, naphthalene at a low estimated concentration was the only COC detected during the first sampling event. Benzene, ethylbenzene, xylenes, and PAH COC concentrations increased during Year 1; concentrations of benzene, xylenes, and naphthalene exceeded GCTLs during the fourth sampling event. All concentrations returned to levels below GCTLs or were not detected.

BTEX and TRPH concentrations decreased during Year 2 in well CEF-824A-11S, located within the Petroleum Plume. PAH concentrations have decreased from Year 1 to the second event of Year 2, with some fluctuation during the first event of Year 2. Benzene, and Ethylbenzene decreased to concentrations below GCTLs. Xylenes, naphthalene, and 1- and 2-methylnaphthalene concentrations exceeded GCTLs during Year 2 sampling. All COC concentrations have decreased by at least half from those detected during the RI. In CEF-293-21, also located within the Petroleum Plume, BTEX, PAH, and TRPH concentrations decreased steadily from those detected in the RI and Year 1. During the second event of Year 2 1-methylnapthalene and 2-methylnaphthalene were the only constituents detected. Benzene was detected greater than the GCTL during the first event but was not detected during the second.

In downplume monitoring well CEF-824A-07S, BTEX, PAH, and TRPH concentrations generally decreased from the RI to the second event. Benzene, TCE, 1-methylnaphthalene, and 2-methylnaphthalene exceeded the GCTLs during the first Year 2 event. During the second Year 2 event there were no detections of PAHs reported, this anomaly will be discussed further at the end of this section. In downplume well CEF-824A-08S, benzene, xylenes, and naphthalene were detected at concentrations lower than GCTLs.

Wells side gradient to the Petroleum Plume include CEF-293-13, CEF-824A-01Sa, CEF-824A-10S, and CEF-293-20. CEF-293-13 had no detections and CEF-824A-01Sa had low detections of 1-methylnaphthalene and 2-methylnaphthalene, with concentrations less than FDEP GCTLs. Naphthalene and TRPH concentrations in CEF-824A-10S exceeded the FDEP GCTLs during both Year 2 monitoring events. Toluene, and xylenes were also detected in CEF-824A-10S but at concentrations less than GCTLs. In CEF-293-20, low levels of benzene and naphthalene were detected during Year 2 sampling. In downgradient monitoring well CEF-824A-03S, benzene and ethylbenzene were detected during the first event with benzene detected above the GCTL, however, no detections were reported for the second event.

COCs were not detected during Year 2 in sentinel wells CEF-824A-20S. However, 1-methylnaphthalene, 2-methylnaphthalene, and naphthalene were reported in sentinel well CEF-824A-19S. The levels of 1-methylnaphthalene and 2-methylnaphthalene reported exceeded GCTLs. Upon detailed review of the laboratory reported results from wells CEF-824A-07S and CEF-824A-19S, SIG has determined that it is likely that the PAH samples from the two wells were switched by the laboratory and analyzed under improper sample numbers. The analytical report indicates that the samples were analyzed at the same time with laboratory ID of sequential numbers (B520785*5 and B520785*4, respectively). Naphthalene is analyzed as both a VOC and a PAH. Naphthalene in well –7S was reported at a level of 20μg/l as a VOC and not detected as a PAH, conversely, Napthalene was not detected as a VOC in well –19S, but was reported at a level of 12 μg/l as a PAH. The laboratory stated that they could not prove that the samples were switched, but stated that it was possible. Based on the historical results in each well and the naphthalene VOC results, SIG recommended resampling of monitoring well CEF-824A-19S for PAHs to determine if COC are present in the sentinel well.

SIG returned to Site 57 on May 11, 2005 to resample the sentinel well, CEF-824A-19S, for PAHs. The analytical results from the May 2005 resampling indicated that no constituents were detected above laboratory detection limits.

3.1.2 TCE Plume

The discussion in this section focuses on concentrations of chlorinated contaminants. Petroleum-related contaminant concentrations are discussed in Section 3.1.1.

During Year 2 sampling, CEF-824A-10S, located upgradient of the TCE Plume, had low concentrations of TCE, cis-1,2-DCE, and 1,1-DCA, less than FDEP GCTLs. Concentrations generally decreased during both events.

Concentrations of chlorinated VOCs in the source area shallow well, CEF-293-19 generally decreased during the Year 2 events. TCE and cis-1,2-DCE exceeded GCTLs during Year 2. In the intermediate source area well, CEF-824A-12I, only tetrachloroethene was detected at low concentrations (1.5 µg/L) in the second event only. COCs were not detected in deep source area well CEF-824A-13D.

In CEF-824A-14S, within the TCE Plume, concentrations of cis-1,2-DCE, and TCE were detected at levels greater than GCTLs during the second event of Year 2. 1,1-DCA was detected above the GCTL during the first event, but not the second event. 1,1-DCE, trans-1,2-DCE, and tetrachloroethene were detected at low concentrations. No constituents were detected in CEF-824A-15I during the second Year 2 event.

Chlorinated COC concentrations in monitoring well CEF-293-20, downplume within the TCE Plume, generally decreased from Year 1 to Year 2. TCE, cis-1.2-DCE, 1,1-DCA, and 1,1-DCE were detected at levels below GCTLs.

In CEF-824A-08S, downgradient of the TCE Plume, TCE was detected in the second at a concentration less than the GCTL. 1,1-DCA, 1,1-DCE, and cis-1,1-DCE generally decreased from the levels detected during the RI and Year 1. The detected 1,1-DCE concentration exceeded its GCTL during both events.

In the TCE Plume side gradient monitoring well (CEF-824A-09S), 1,1-DCA and TCE were detected at low levels, less than FDEP GCTLs during Year 2 sampling. Chlorinated VOCs were not detected in sentinel monitoring wells CEF-824A-19S and CEF-824A-20S.

3.2 NATURAL ATTENUATION PARAMETERS

Fixed-base laboratory analyses and field analytical tests to determine natural attenuation parameters were performed on the groundwater samples during each sampling event. Fixed-base analytical parameters included alkalinity, chloride, dissolved iron, methane, ethane, ethene, nitrate, nitrite, orthophosphate, sulfate, dissolved sulfide, and TOC. Field analytical tests included pH, specific conductance, temperature, turbidity, dissolved oxygen (DO), hydrogen sulfide, sulfide, carbon dioxide, ferrous iron, oxidation-reduction potential (ORP), and alkalinity. Natural attenuation indicator parameter results are presented in Table 3-4 and on Figures 3-4 through 3-9.

3.2.1 Natural Attenuation Overview

The following provides a general overview of the processes involved in biodegradation natural attenuation and of the parameters collected to evaluate natural attenuation at Site 57. Section 3.2.2 provides a site-specific evaluation of the results of natural attenuation sampling at Site 57.

3.2.1.1 Dissolved Oxygen

DO is utilized as an electron acceptor during microbial aerobic respiration to mineralize hydrocarbons such as BTEX, which act as electron donors, into carbon dioxide and water providing microorganisms with carbon and energy. Aerobic respiration, or oxygen reduction, is generally the most efficient process by which BTEX constituents are degraded. For chlorinated hydrocarbons, anaerobic degradation pathways are generally more efficient than aerobic pathways.

At DO concentrations greater than approximately 0.5 to 1 mg/L (aerobic conditions), microorganisms can breakdown natural or anthropogenic sources of carbon, including BTEX, through aerobic respiration. DO decreases as oxygen in the aquifer is consumed by these reactions and anaerobic microbes become more successful than aerobic microbes. Chlorinated compounds are generally more efficiently degraded under anaerobic (reducing) conditions. After DO is consumed (DO concentrations less than 0.5 mg/L), anaerobic microorganisms typically use additional electron acceptors (as available) in the following order: nitrate, iron, and sulfate. Following sulfate reduction, degradation via methanogenesis is the dominant process. Many factors, including the natural geochemical makeup of the aquifer and complex oxidation-reduction conditions, affect whether and to what degree each process can occur.

In aquifers that typically exhibit anaerobic conditions, DO concentrations less than 1.0 to 0.5 mg/L in contaminated areas suggest that indigenous anaerobic bacterial populations are established and actively degrading natural organic carbon or anthropogenic carbon sources (e.g., petroleum hydrocarbons) in these areas. As stated above, anaerobic biodegradation is more efficient at reducing concentrations of chlorinated contaminants compared to BTEX constituents.

3.2.1.2 Nitrate and Nitrite

During nitrate reduction, nitrate acts as an electron acceptor, generating nitrite and carbon dioxide. Decreasing nitrate concentrations and increasing nitrite concentrations in a downgradient direction indicate reducing conditions favorable to reductive dechlorination of chlorinated contaminants. However, nitrate may compete with chlorinated hydrocarbons as electron acceptors if present at moderate concentrations

(greater than 1 mg/L). Therefore, in order for reductive dechlorination to occur, nitrate concentrations should be between approximately 0.5 mg/L and 1.0 mg/L.

3.2.1.3 Ferrous Iron

Under anaerobic conditions, ferric iron (iron III) can be used as an electron acceptor. Ferric iron available to microorganisms cannot be measured because it is insoluble; however, soluble ferrous iron, a product of iron reduction, can be used as an indicator. Increasing concentrations of ferrous iron along the flow path within the plume area indicate iron-reducing conditions favorable to anaerobic biodegradation.

3.2.1.4 Sulfate, Sulfide, and Hydrogen Sulfide

Sulfate reduction occurs after ferric iron electron acceptors have been exhausted. Chlorinated solvents themselves can be used as electron acceptors during reductive dechlorination, and sulfate may compete as an electron acceptor if present at moderate concentrations (greater than 20 mg/L). Therefore, in order for reductive dechlorination to occur, sulfate should be present but less than approximately 20.0 mg/L in the plume. The process of sulfate reduction results in the generation of hydrogen sulfide/sulfide. A decreasing trend in sulfate concentrations coupled with an increasing trend in hydrogen sulfide or sulfide concentrations in the direction of groundwater flow is a strong positive indicator of a sulfate-reducing environment.

3.2.1.5 Methane, Ethene, and Ethane

During methanogenesis (an anaerobic biodegradation process), some types of bacteria utilize carbon dioxide as an electron acceptor, generating methane as a by-product of fermentation. The presence of methane above background concentrations in areas of contaminated groundwater is a key indicator of strong reducing conditions favorable to anaerobic biodegradation. Ethene and ethane are by-products of the reductive dechlorination of chlorinated ethenes. The presence of ethene and ethane in areas of contaminated groundwater is a key indicator of biodegradation of the chlorinated ethenes.

3.2.1.6 Oxidation-Reduction Potential

ORP of groundwater is a measure of the relative tendency of the groundwater solution to accept or donate electrons as well as the amount of energy released during electron transfers within the solution. ORP depends upon and influences the rates and types of biodegradation processes; therefore, the measurement of ORP can provide evidence of the types of biodegradation processes that are active in a particular plume or even within different portions of the same plume. In general, reductive dechlorination is possible at ORP levels of less than 50 millivolts, and reductive pathways are likely at ORP levels of

less than -100 millivolts. However, great care must be taken during the evaluation of ORP data because most natural waters usually have mixed potentials that cannot be related to a single electron couple. ORP should only be used as a qualitative indicator of the overall oxidation-reduction state of an aquifer.

3.2.1.7 Carbon Dioxide and Alkalinity

Carbon dioxide is both produced and utilized during the biodegradation of hydrocarbons. Carbon dioxide is produced during aerobic respiration and during anaerobic processes of denitrification, iron reduction, and sulfate reduction. Carbon dioxide is utilized during the anaerobic process of methanogenesis as an electron acceptor in the generation of methane as a by-product of fermentation. Carbon dioxide concentrations approximately two times greater than concentrations in the background wells are an indication that biodegradation processes (except methanogenesis) are occurring.

Alkalinity is a measure of the aquifer's buffering (neutralizing) capacity of acids in water and is expressed as calcium carbonate in mg/L. Alkalinity can give a general indication of the amount of carbon dioxide generated in a plume. Source area and downgradient alkalinity concentrations greater than approximately two times background concentrations suggest carbon dioxide generation associated with biodegradation processes.

3.2.1.8 Chloride

Chloride is released into groundwater during dechlorination of a solvent plume. Therefore, an increase in chloride ion concentrations in the downgradient direction provides direct evidence that dechlorination is occurring.

3.2.1.9 Total Organic Carbon

Because chlorinated hydrocarbons are used as electron acceptors during reductive dechlorination, there needs to be a sufficient supply of organic carbon as the primary substrate for microbial growth. Such a supply can come from native organic carbon in the aquifer or anthropogenic sources such as BTEX. Organic carbon concentrations greater than 20 mg/L in the aquifer indicate a sufficient supply of carbon to act as the primary substrate. TOC is a measure of the natural and anthropogenic carbon present in the aquifer.

3.2.2 Natural Attenuation Evaluation

Shallow groundwater at Site 57 flows from northwest to southeast. Each area of each plume is briefly described in terms of select natural attenuation parameters and contaminant concentrations, and comparisons are made to the upgradient area. This

discussion supplements Section 3.1, which discusses contaminant concentration trends over time, a primary line of evidence in determining if monitored natural attenuation is occurring.

3.2.2.1 Petroleum Plume

3.2.2.1.1 Background

Upgradient geochemical and COC characteristics based on Year 2 data from well CEF-293-03 are as follows:

- Concentrations of COCs were less than FDEP GCTLs
- DO concentrations ranged from 0.4 mg/L to 0.9 mg/L. Similar to Year 1.
- Ferrous iron concentrations were 0.2 mg/L for both events. Similar to Year 1.
- Sulfate concentrations ranged from 6.8 mg/L to 7.6 mg/L. Up from non detect during Year 1.
- Methane concentrations ranged from 4.4 to 13 µg/L, and ethene or ethane were not detected. Down from the fourth quarter of Year 1.
- Carbon dioxide concentrations ranged from 40 to 100 mg/L. Similar to Year 1.
- Laboratory alkalinity concentrations ranged from non detect to 12 mg/L. Below Year 1 during first event and above Year 1 in second event.
- TOC concentrations ranged from 4.9 to 6.2 mg/L. Similar to Year 1.

3.2.2.1.2 Shallow and Intermediate Wells Within the Plume

Geochemical and COC characteristics based on Year 2 data from shallow wells CEF-293-11, CEF-293-21, CEF-824A-04S, and CEF-824A-11S and intermediate wells CEF-824A-17I and CEF-824A-21I are as follows:

- Concentrations of petroleum-related COCs decreased during Year 2; no chlorinated COCs were detected. In CEF-824A-21I, benzene, ethylbenzene, xylenes, and naphthalene concentrations in the second event were greater than Year 2 first event and Year 1 concentrations.
- Concentrations of geochemical parameters fluctuated.
- DO concentrations were greater than 0.5 mg/L during both events in CEF-293-21 and CEF-824A-04S and during the second event in CEF-824A-17I. Similar to Year 1.
- Carbon dioxide concentrations generally decreased from Year 1 to Year 2.

- Laboratory alkalinity concentrations were similar to the concentrations from the last quarter of Year 1.
- Sulfate was just above detection levels in all of the wells except for CEF-293-21, in which concentrations ranged from 19 to 40 mg/L. Sulfide and hydrogen sulfide were detected at generally low levels in CEF-293-21 and generally higher levels downgradient of this well. Similar to Year 1.
- Ferrous iron concentrations were less than 1 mg/L in shallow wells. Concentrations in intermediate wells ranged from 1.4 to 2.8 mg/L. Similar to Year 1.
- Methane concentrations generally decreased from those in Year 1 except for well CEF-824A-21I, which had a slight increase.

DO concentrations indicated fluctuations between aerobic and anaerobic conditions, with aerobic conditions favorable to degradation of petroleum-related VOCs predominating for Year 2. Carbon dioxide and alkalinity concentrations indicated similar biological activity within the plume. Low concentrations of sulfate were detected in most wells, but was detected at higher levels in CEF-293-11, located in the central portion of the plume. Sulfate-reducing conditions may occur when conditions become more aerobic and may be present downgradient of this well because sulfate was detected at low levels in CEF-824A-04S or CEF-824A-17I (downgradient of CEF-293-11), and sulfide concentrations were greater in these wells than in CEF-293-11. Iron-reducing conditions were not indicated by site data – ferrous iron concentrations were greater than background concentrations in one of the shallow wells and the two intermediate wells, but no increase in the downgradient direction was observed. Methane concentration data do not support the strongly reducing conditions indicative of methanogenesis.

3.2.2.1.3 Downplume Wells

Geochemical and COC characteristics based on Year 2 data from wells CEF-824A-07S and CEF-824A-08S (furthest downgradient within the plume) are as follows:

- BTEX and chlorinated VOCs were detected in these wells. Concentrations generally decreased from those reported during Year 1.

- DO concentrations were less than 0.5 mg/L in both events in CEF-824A-08S and one event in CEF-824A-07S.

- Carbon dioxide concentrations decreased from Year 1 concentrations in CEF-824A-07S and increased in CEF-824A-08S.

- Alkalinity decreased from Year 1 concentrations in CEF-824A-07S and was not detected in CEF-824A-08S.

- Sulfate was detected at low levels; sulfide and hydrogen sulfide were similar to Year 1 in both of these wells.

- Concentrations of ferrous iron were less than 0.6 mg/L, not significantly greater than background levels.

- Methane concentrations were similar to those detected during Year 1. Ethane and ethene were detected at low concentrations during the first event, but were not detected during the second event.

Similar to within and just downgradient of the source areas, DO concentrations indicated fluctuations between aerobic and anaerobic conditions, with aerobic conditions unfavorable to degradation of petroleum-related VOCs during Year 2. Carbon dioxide and alkalinity concentrations indicated less biological activity in this area. Sulfate-reducing conditions may continue in this area when conditions become more anaerobic. Sulfate was detected at low levels and sulfide concentrations were similar to CEF-824A-04S and CEf-824A-17I, just upgradient within the plume. Methane concentrations were significantly elevated in this area as well, but other data do not support the strongly reducing conditions indicative of methanogenesis in this area.

3.2.2.1.4 Downgradient and Sentinel Wells

Geochemical and COC characteristics based on Year 2 data from wells CEF-824A-03S, CEF-824A-19S, and CEF-824A-20S are as follows:

- COC concentrations were low or non-detect, except anomalous SVOC concentrations in well CEF-824A-19S discussed in Section 3.1.1. Only chlorinated VOCs at low levels were detected in CEF-824A-22S.

- DO concentrations were less than 0.5 mg/L.

- Carbon dioxide and laboratory alkalinity concentrations were similar to background levels.

- Sulfate was detected at low levels, and concentrations of sulfide and hydrogen sulfide were generally less than levels just upgradient and within the plume.

- Ferrous iron concentrations ranged from 0.6 to 1.4 mg/L.

- Methane concentrations ranged from 31 to 1500 µg/L. Ethane and ethene were not detected.

DO concentrations indicate a return to more anaerobic conditions. Carbon dioxide and alkalinity concentrations indicate decreased biological activity compared to areas within the plume.

3.2.2.2 3.2.2.2 TCE Plume

3.2.2.2.1 Background

Geochemical and COC characteristics based on Year 2 data from well CEF-293-03 were described above in the Petroleum Plume discussion. TOC concentrations in the upgradient well ranged from 4.9 to 6.2 mg/L, indicating a minimal supply of natural organic carbon in the aquifer to act as a substrate for reductive dechlorination. This lack of natural organic carbon as an energy source could limit the biodegradation potential at the site; however, there is a source of anthropogenic carbon in the Petroleum Plume that partially overlaps the TCE Plume. This anthropogenic carbon is available at the site to provide an energy source and act as a substrate for reductive dechlorination. In areas where anaerobic conditions exist in the aquifer, it is possible that these petroleum-related contaminants are being used as the carbon source to drive the reductive dechlorination process.

3.2.2.2.2 Shallow Wells in the Central Portion of the Plume

Geochemical and COC characteristics based on Year 2 data from wells CEF-293-19 and CEF-824A-14S are as follows:

- COC concentrations fluctuated and included BTEX and chlorinated constituents. Concentrations in CEF-293-19 were generally less than Year 1 except for trans-1,2-DCE, xylenes, and TRPH which were greater than Year 1 concentrations. Concentrations in CEF-824A-14S generally decreased from Year 1 concentrations except for trans-1,2-DCE and xylenes.

- DO concentrations were greater than 0.5 mg/L during the first event and lower than 0.5 mg/L during the second event.

- Ferrous iron concentrations ranged from 0.1 to 0.8 mg/L in CEF-293-19 and 1.4 to 2.2 mg/L in CEF-824A-14S. Similar to Year 1.

- Sulfate was detected at low levels; sulfide and hydrogen sulfide were detected, but concentrations did not increase in a downgradient direction.

- Methane concentrations were greater than 500 µg/L in both wells. Ethene and ethane were detected sporadically at low levels.

- Carbon dioxide concentrations generally decreased from Year 1 levels.

- Laboratory alkalinity concentrations were greater than two times the maximum background concentration during both events in both wells.

DO concentrations indicated that conditions in the area of CEF-293-19 and CEF-824A-14S were aerobic during the first event and turned slightly anaerobic in the second event. Ferrous iron concentrations increased in a downgradient direction (CEF-293-19 to CEF-824A-14S), indicating that iron-reducing conditions may be present when the groundwater is more anaerobic. Sulfate was detected at low levels in the upgradient wells and these wells, and no increase in sulfide concentrations in a downgradient direction was observed. Therefore, sulfate-reducing conditions are not indicated by site data. Methane concentrations were elevated (greater than 500 µg/L) in both wells throughout Year 2, potentially indicating the occurrence of methanogenesis; however, elevated methane concentrations were not accompanied by the strongly reducing conditions indicative of methanogenesis. Carbon dioxide and alkalinity concentrations indicated increased biological activity in this area.

3.2.2.2.3 *Downplume Well*

Geochemical and COC characteristics based on Year 2 data from well CEF-293-20 are as follows:

- BTEX and chlorinated COC concentrations generally decreased from Year 1 concentrations.

- The DO concentration was greater 2.0 mg/L during the first event and less than 0.5 mg/L in the second event. Similar to Year 1.

- Concentrations of ferrous iron were 1 mg/L during both events. Similar to Year 1.

- Sulfate was detected at low levels, and sulfide and hydrogen sulfide concentrations were generally consistent with levels further upgradient within the plume.

- Methane was detected at concentrations greater than background but less than 500 µg/L. Ethene and ethane were not detected, except for the first event where ethene was detected at a low level.

- Concentrations of carbon dioxide were generally less than Year 1 concentrations.

- Laboratory alkalinity concentrations were greater than two times background during both events.

DO concentrations indicated aerobic conditions in the first event and anaerobic conditions in the second. Ferrous iron concentrations decreased from levels further upgradient within the plume. Sulfate was detected at low levels in the upgradient wells and these wells, and no increase in sulfide concentrations in a downgradient direction was observed. Therefore, sulfate- and iron-reducing conditions are not indicated by site data. Carbon dioxide and alkalinity concentrations indicated increased biological activity in this area compared to background conditions.

3.2.2.2.4 Downgradient Wells

Geochemical and COC characteristics based on Year 2 data from well CEF-824A-08S and CEF-824A-19S are as follows:

- In CEF-824A-08S, BTEX and chlorinated COC concentrations were detected at generally at low levels, except 1,1-DCE. COCs were not detected in CEF-824A-19S except anomalous SVOC concentrations in well CEF-824A-19S discussed in Section 3.1.1.

- DO concentrations were less than 0.5 mg/L.

- Concentrations of ferrous iron were less than 1 mg/L.

- Sulfate was detected at low levels. In CEF-824A-08S, sulfide and hydrogen sulfide concentrations were generally consistent with levels further upgradient within the plume. Sulfide concentrations were low in CEF-824A-19S.

- Methane was detected at concentrations greater than 500 µg/L in CEF-824A-08S and below 500 µg/L in CEF-824A-19S. Ethene and ethane were not detected

- Concentrations of carbon dioxide were less than two times the maximum background concentration.

- Laboratory alkalinity was non-detect in CEF-824A-08S and was consistent with background levels in CEF-824A-19S.

DO concentrations indicated a transition back to anaerobic conditions downgradient of the plume. Carbon dioxide and alkalinity concentrations indicated decreased biological activity in this area compared to conditions within the plume.

4.0 CONCLUSIONS AND RECOMMENDATIONS

4.1 CONCLUSIONS

The ROD identified the following Remedial Action Objectives (RAOs) for OU 9, Site 57:

- Prevent unacceptable risk from exposure to Site 57 groundwater with concentrations of chlorinated VOCs, BTEX, PAHs, and TRPH greater than the cleanup goals that are the federal Maximum Contaminant Levels and FDEP GCTLs.

- Restore groundwater contaminated concentrations at Site 57 to less than cleanup goals that are the federal Maximum Contaminant Levels and FDEP GCTLs.

The selected remedy, as detailed in the ROD, includes the following:

- Implementation of institutional controls (LUCs).

- Natural attenuation evaluation.

- Long-term monitoring to evaluate the progress of remediation.

Based on an evaluation of groundwater elevations, the groundwater pattern for the semi-annual Year 2 sampling events was similar to the RI and Year 1. The current well network adequately monitors contaminant trends and potential plume migration at Site 57, and sentinel wells CEF-824A-19S and CEF-824A-20S are properly placed downgradient compliance wells within the monitoring network.

The concentrations of contaminants in the Petroleum Plume have generally decreased since the RI. Similarly, the concentrations of contaminants in the TCE Plume have generally decreased the RI. BTEX, cis-1,2-DCE, 1,1-DCE, 1,1-DCA, TCE, 1-methylnaphthalene, 2-methylnaphthalene, naphthalene, and TRPH have been detected at concentrations greater than GCTLs.

The geochemical parameters indicate that natural attenuation processes (especially biological) are active at the site and should impact contaminant concentrations. DO concentrations are generally less than 1 mg/L, which indicate conditions favorable for anaerobic biological activity. The concentrations of ferrous iron, sulfides, methane, carbon dioxide, and alkalinity increase at the source and then gradually decrease

downgradient and the concentration of sulfate decrease at the source. Geochemical conditions generally indicate iron-reducing and sulfate-reducing conditions are present and methanogenesis is occurring within the plumes.

The geochemical environment is not optimal for the degradation of Petroleum Plume (most efficiently degraded under aerobic conditions); however, the anaerobic biodegradation will be more efficient for the destruction of chlorinated COCs as compared to Petroleum Plume. The ongoing geochemical conditions will promote biodegradation processes in both plumes.

4.2 RECOMMENDATIONS

1-Methylnaphthalene, 2-methylnaphthalene, and naphthalene were reported in sentinel well CEF-824A-19S. The levels of 1-methylnaphthalene and 2-methylnaphthalene reported exceeded GCTLs. Upon detailed review of the laboratory reported results from wells CEF-824A-07S and CEF-824A-19S, SIG has determined that it is likely that the PAH samples from the two wells were switched by the laboratory and analyzed under improper sample numbers. The analytical report indicates that the samples were analyzed at the same time with laboratory ID of sequential numbers (B520785*5 and B520785*4, respectively). Naphthalene is analyzed as both a VOC and a PAHC. Naphthalene in well –7S was reported at a level of 20μg/l as a VOC and not detected as a PAH, conversely, Napthalene was not detected as a VOC in well –19S, but was reported at a level of 12 μg/l as a PAH. The laboratory stated that they could not prove that the samples were switched, but stated that it was possible. Based on the historical results in each well and the naphthalene VOC results, SIG recommended resampling of monitoring well CEF-824A-19S for PAHs to determine if COC are present in the sentinel well.

SIG returned to Site 57 on May 11, 2005 to resample the sentinel well, CEF-824A-19S, for PAHs. The analytical results from the May 2005 resampling indicated that no constituents were detected above laboratory detection limits.

Based on evaluation of data collected during the second year of groundwater monitoring, it is recommended that the sampling program continue as planned. The first sampling event of Year 3 is scheduled for July 2005 with the sampling of twenty-three wells.

Appendix A
Site Figures

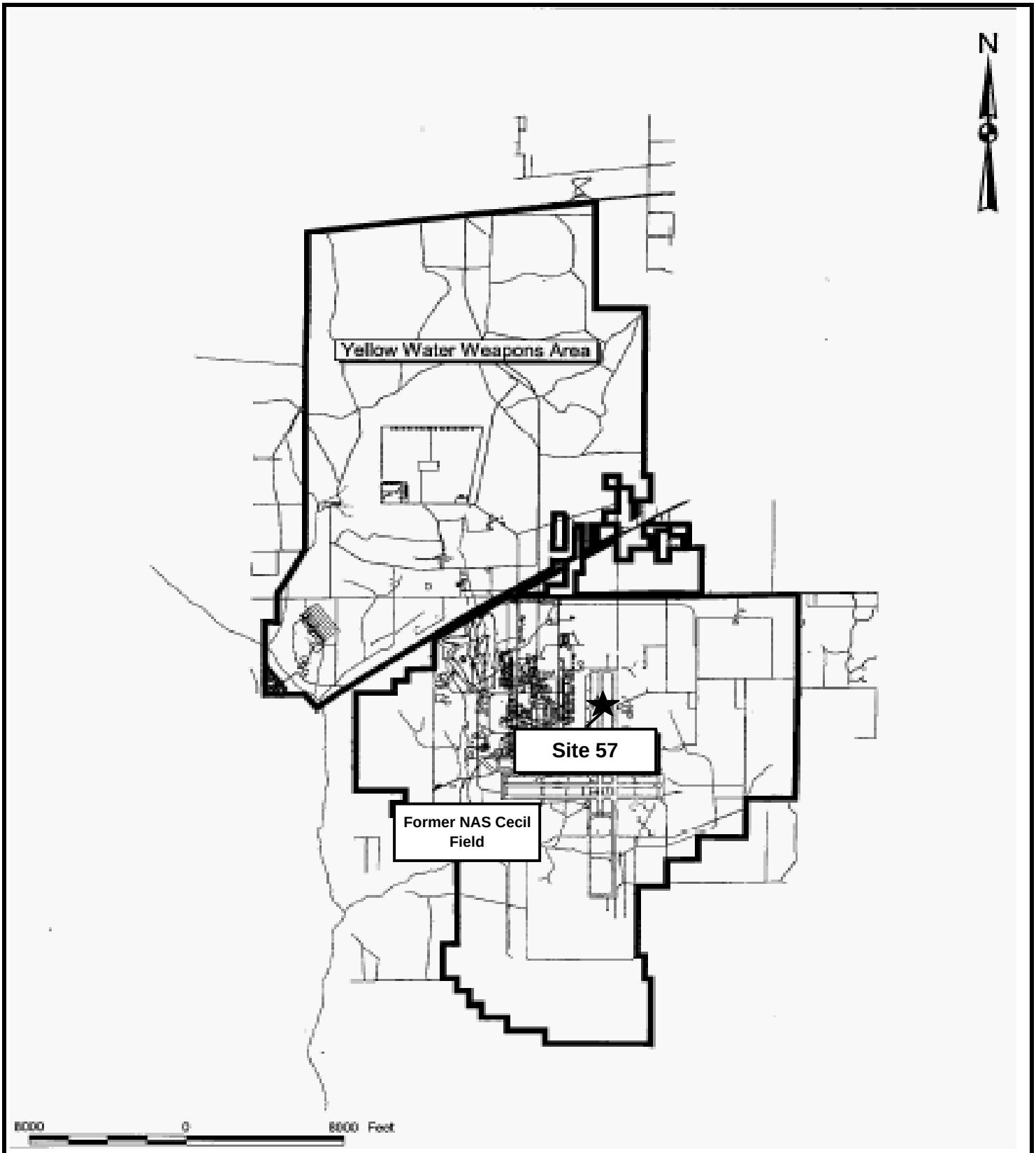
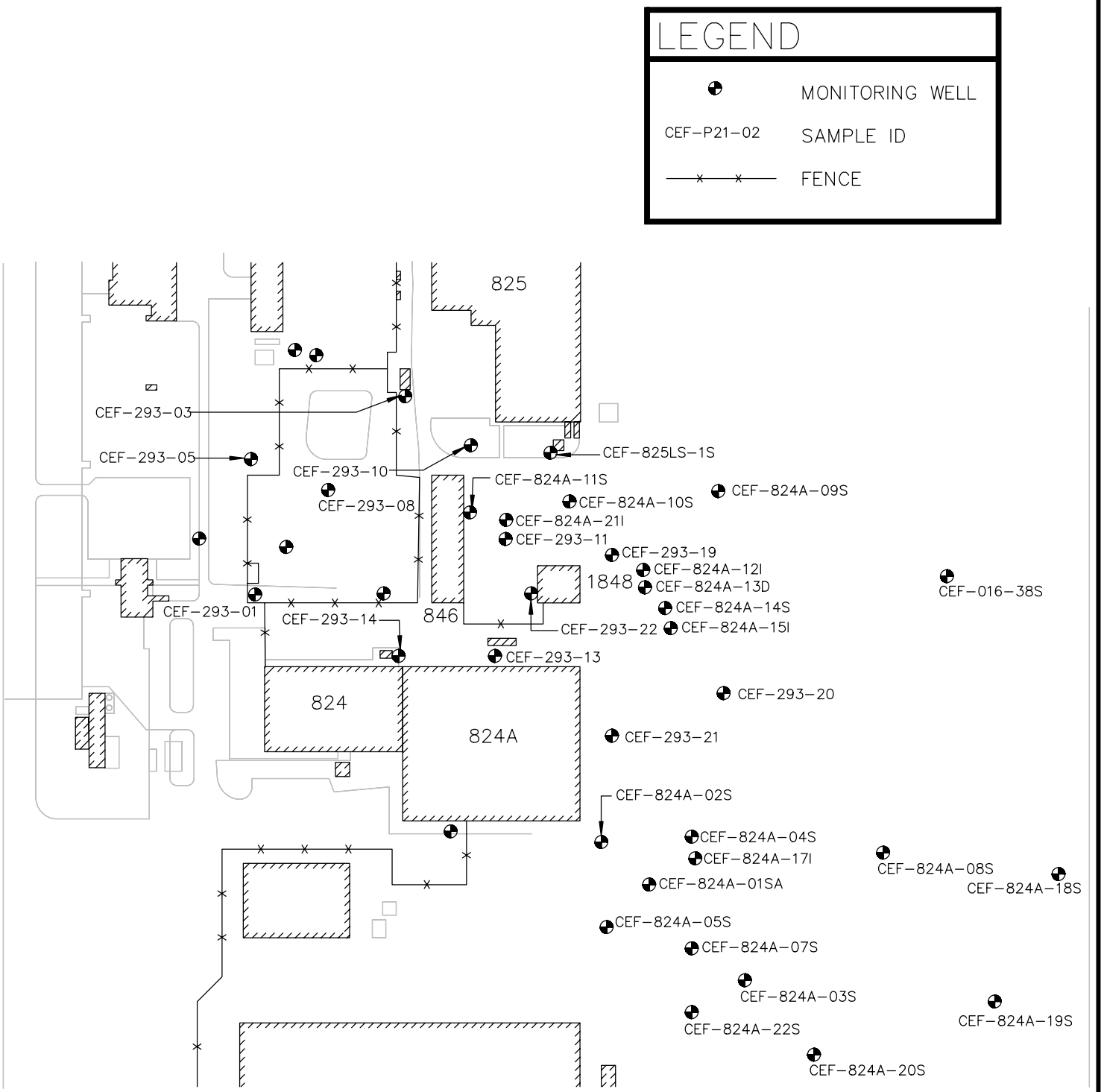


Figure 1 **Site Location Map**	LONG-TERM MONITORING SITE 57 Former Naval Air Station Cecil Field	THE SI Group 4191 San Juan Avenue, Ste. 2E Jacksonville, Florida 32210 Phone: (904) 384-4199



N

NOTE: NOT TO SCALE
ALL DIMENSIONS ARE APPROXIMATE

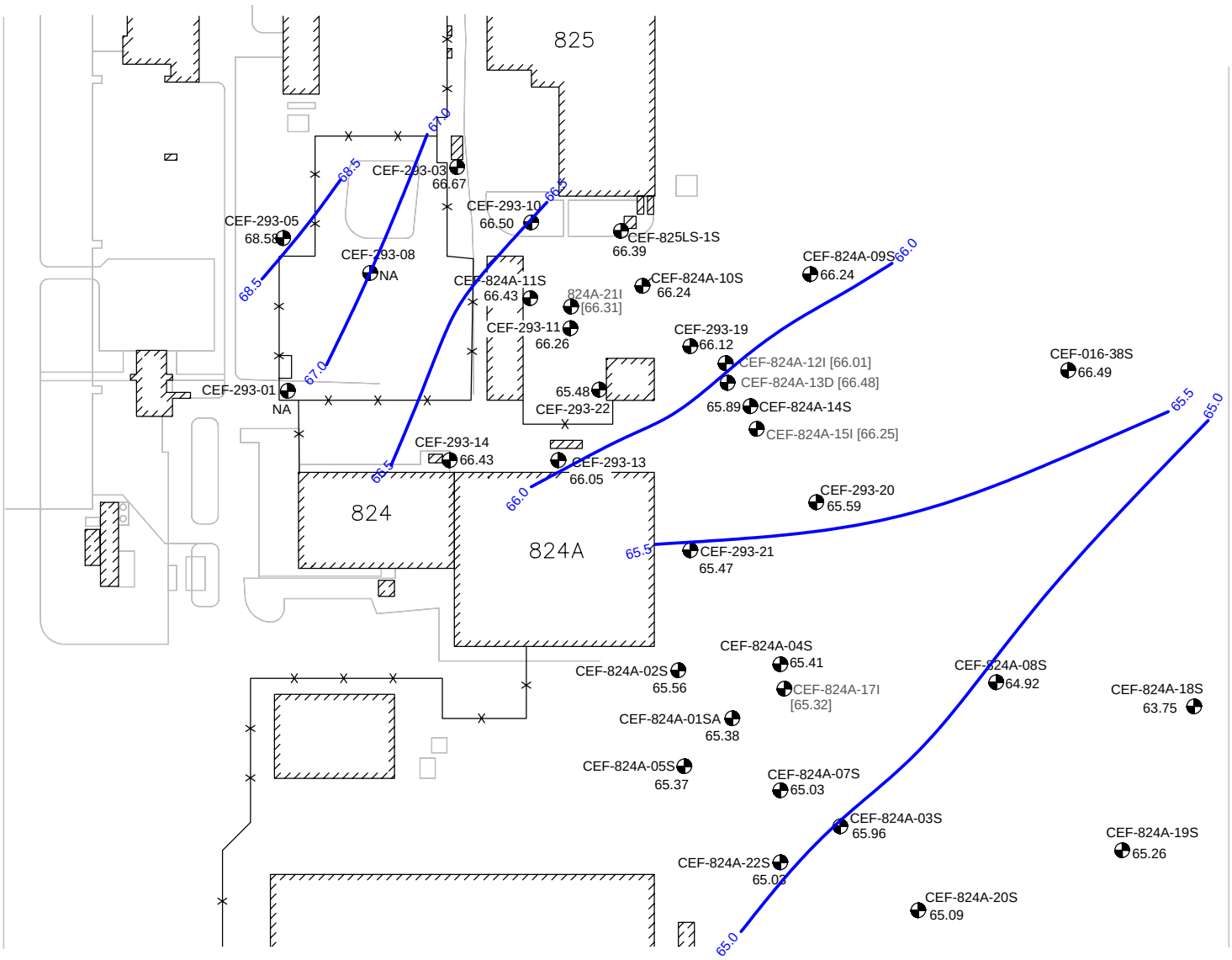
FILE NAME: NAVAL AIR STATION, SITE 57

Figure 2
Site Map

LONG-TERM
MONITORING
SITE 57
FORMER NAVAL AIR STATION
CECIL FIELD

THE SI Group

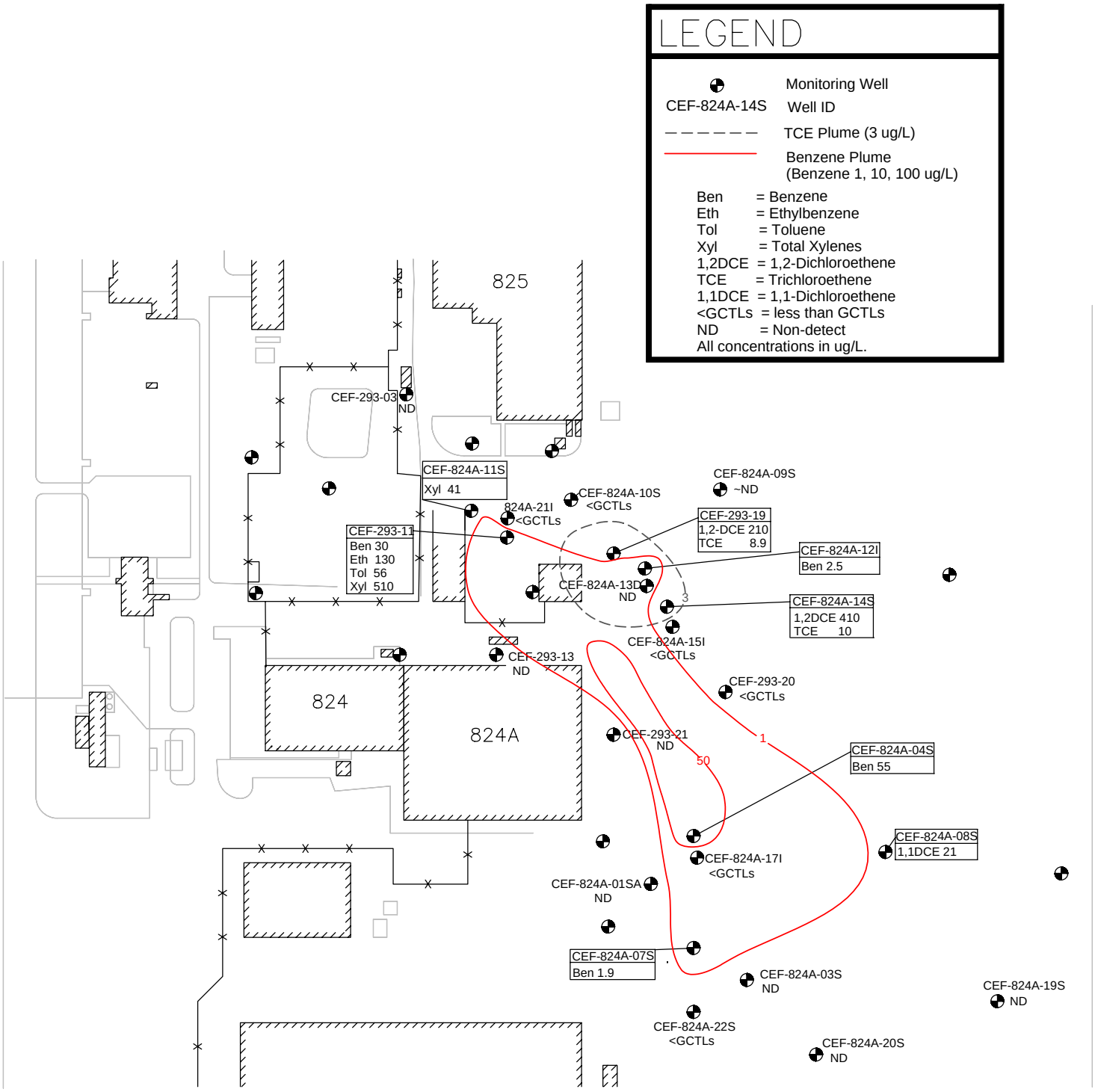
4191 San Juan Ave., #2E
Jacksonville, Florida
Phone: (904) 384-4199



Note: Only shallow wells included in potentiometric calculation.

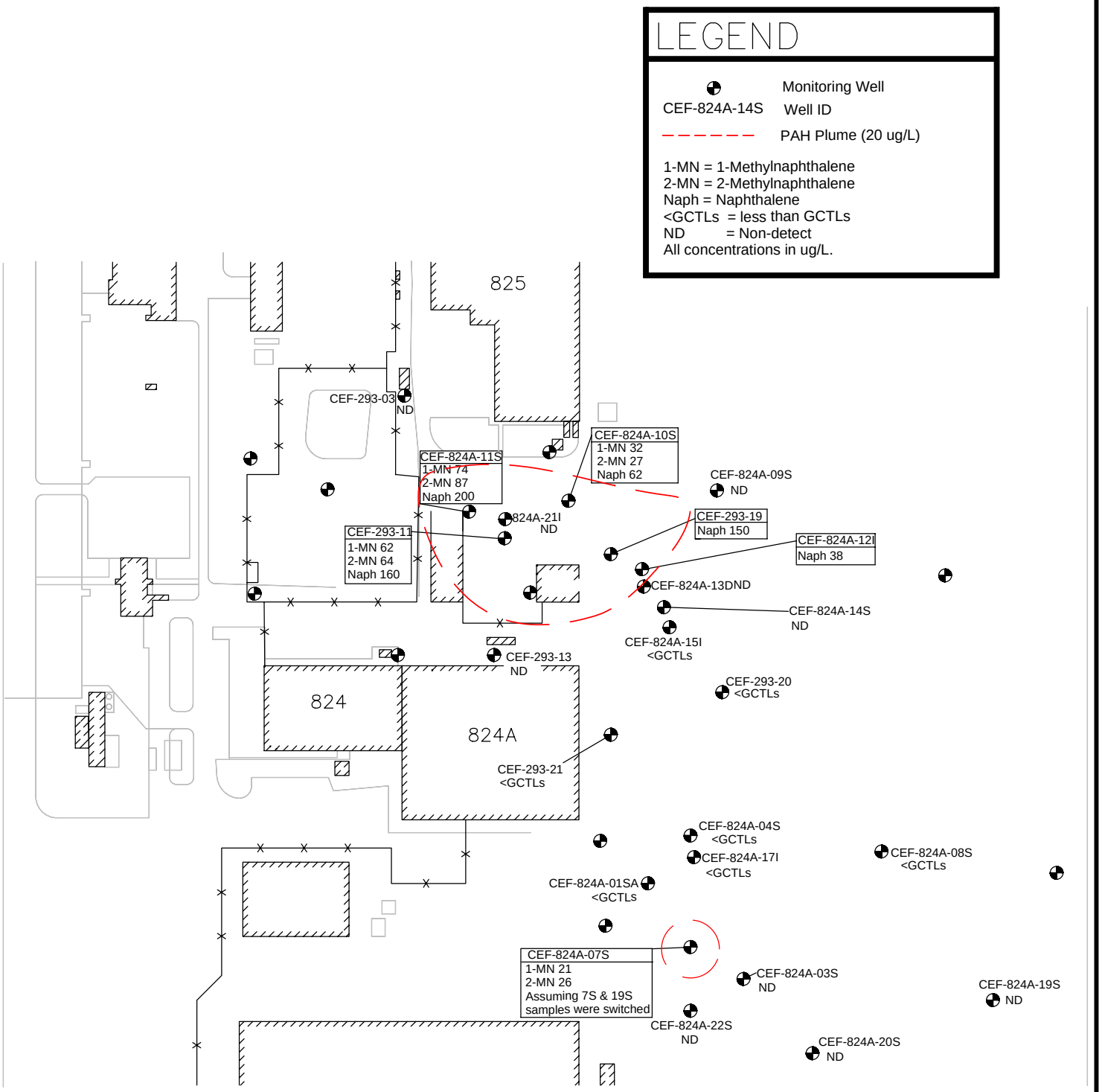
NOTE: NOT TO SCALE
ALL DIMENSIONS ARE APPROXIMATE

Figure 3 Groundwater Elevations January 2005	LONG-TERM MONITORING SITE 57 FORMER NAVAL AIR STATION CECIL FIELD	THE SI Group 4191 San Juan Ave., #2E Jacksonville, Florida Phone: (904) 384-4199



NOTE: NOT TO SCALE
ALL DIMENSIONS ARE APPROXIMATE

Figure 4 VOCs Exceedances in Groundwater	LONG-TERM MONITORING SITE 57 FORMER NAVAL AIR STATION CECIL FIELD	THE SI Group 4191 San Juan Ave., #2E Jacksonville, Florida Phone: (904) 384-4199



NOTE: NOT TO SCALE
ALL DIMENSIONS ARE APPROXIMATE

Figure 5
PAHs Exceedances in Groundwater

LONG-TERM MONITORING
SITE 57
FORMER NAVAL AIR STATION
CECIL FIELD

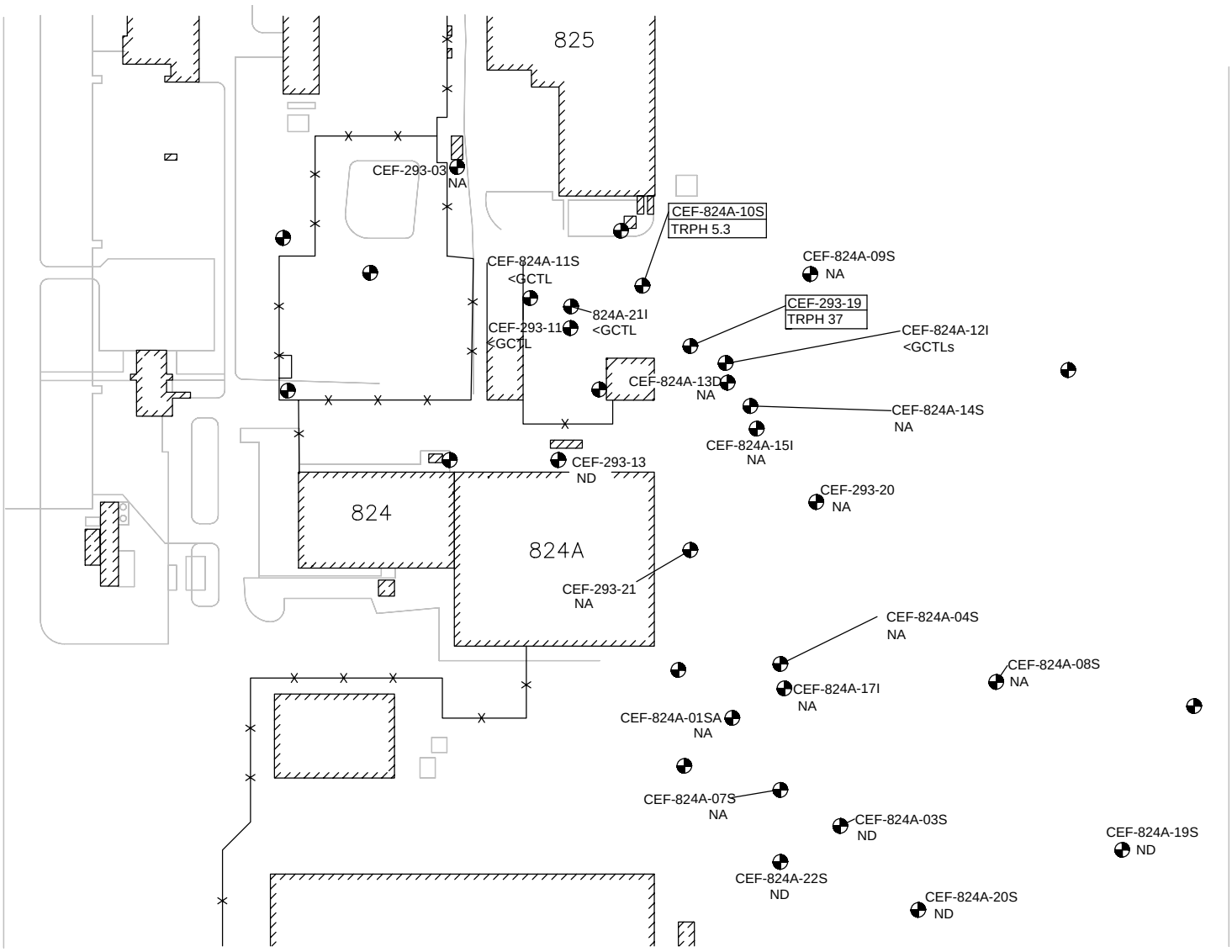
THE SI Group
4191 San Juan Ave., #2E
Jacksonville, Florida
Phone: (904) 384-4199

LEGEND

Monitoring Well

CEF-824A-14S Well ID

TRPH = Total Rec. Petroleum Hydrocarbons
<GCTLs = less than GCTLs
ND = Non-detect
NA = Not Analyzed
All concentrations in mg/L.



N

NOTE: NOT TO SCALE
ALL DIMENSIONS ARE APPROXIMATE

Figure 6
TRPH Exceedances in Groundwater

LONG-TERM MONITORING
SITE 57
FORMER NAVAL AIR STATION
CECIL FIELD

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

Appendix B
Tables

Table 1
Summary of Fixed-Base Laboratory Analytical Methods
Site 57
NAS Cecil Field, Jacksonville, Florida

Analysis	Analytical Method	Sample Volume	Bottleware	Preservation [1]	Holding Time [2]
TCL VOCs	SW-846 8260B	3 x 40 mL	Glass vial Teflon-lined septum cap	HCl to pH < 2 Cool to 4° C Zero headspace	14 days to analysis
PAHs	SW-846 8310	2 x 1 L	Amber glass Teflon-lined cap	Cool to 4° C	7 days to extraction Analysis within 40 days
TRPH	CHEMetrics Kits K-7501 and K-7512 and Direct reading meter	2 x 1 L	Amber glass Teflon-lined cap	H_2SO_4 to pH < 2 Cool to 4° C	7 days to extraction Analysis within 40 days

1 - HCL - Hydrochloric acid; H2SO4 - Sulfuric acid

2 - Holding times are measured from the date and time of sample collection

Table 2
Summary of Fixed-Base Laboratory Methods for Natural Attenuation Parameters
Site 57
NAS Cecil Field, Jacksonville, Florida

Analysis	Analytical Method (1)	Sample Volume	Bottleware	Preservation (2)	Holding Time (3)	Data Use
Alkalinity	EPA 310.1	1 x 250 mL	Plastic container	Cool to 4° C	14 days to analysis	General water quality parameter used to verify that site samples are obtained from the same groundwater sytem and to measure the buffer capacity of the groundwater.
Iron (Dissolved)(4)	SW-846 6010B	1 x 500 mL	Plastic container	HNO_3 to pH < 2 Cool to 4° C	Analysis within 6 months	Iron can act as an electron acceptor during biodegradation.
Nitrate (NO_3)	K-7501 and K-7512	1 x 250 mL	Plastic container	Cool to 4° C	Analysis within 48 hours	Potential substrate for microbial respiration. May compete as an electron acceptor if present at moderate concentrations (> 1.0 mg/L)
Nitrite (NO_2)	EPA 300	1 x 250 mL	Plastic container	Cool to 4° C	Analysis within 48 hours	Provides additional information on microbial and geochemical conditions.
Ortho-Phosphate (PO_4)	EPA 300	1 x 250 mL	Plastic container	Cool to 4° C	Analysis within 48 hours	Potential substrate for microbial respiration. Provides additional information on microbial and geochemical conditions.
Sulfate (SO_4^{-2})	EPA 300	1 x 250 mL	Plastic container	Cool to 4° C	Analysis within 28 days	Potential substrate for microbial respiration. May compete as an electron acceptor if present at moderate concentrations (> 20 mg/L)
Chloride	EPA 300	1 x 250 mL	Plastic container	Cool to 4° C	Analysis within 28 days	Provides direct evidence of dechlorination. Provides additional information on geochemical conditions.
Dissolved Sulfide (S^{-2})(4)	EPA 376.1	1 x 500 mL	Plastic container	NaOH to pH > 9 Cool to 4° C	Analysis within 7 days	Provides evidence of sulfate-based anerobic degradation.
Methane, Ethane, Ethene	RSK SOP-147 & 175	3 x 40 mL	Glass vial Teflon-lined septum cap	HCl to pH < 2 Cool to 4° C	Analysis within 14 days	Presence of methane indicates biological degradation via an anaerobic pathway utilizing CO2 as an electron acceptor. Ethane and ethene also indicate biological degradation of chlorinated VOCs.
Total Organic Carbon (TOC)	E 415.1	1 x 125 L	Amber glass	H_2SO_4 to pH < 2 Cool to 4° C	Analysis within 28 days	Indicates if the groundwater has a sufficient supply of carbon to act as the primary substrate. Collect from well located upgradient of site.

1 - Method refers to U.S EPA test methods. Standard Methods are based on Standard Methods for the Examination of Water and Wastewater (Clesceri, et al, 1992)

2 - HCl - Hydrochloric acid; H_2SO_4 - Sulfuric acid; HNO_3 - Nitric acid

3 - Holding times are measured from the date and time of sample collection

4 - Filtered in the field through a 1-micron filter

Table 3
Summary of Field Analytical Methods for Natural Attenuation Parameters
Site 57
NAS Cecil Field, Jacksonville, Florida

Analysis	Method	Data Use
Temperature	Direct-reading meter	Biological processes are temperature dependent.
Turbidity	Direct-reading meter	General water quality parameter used to assess metals data and the need to filter samples.
Dissolved oxygen	CHEMetrics Kits K-7501 and K-7512 and Direct reading meter	Concentration <1.0 mg/L indicates anaerobic conditions.
pH	Direct-reading meter	Biological processes are pH sensitive.
Conductivity	Direct-reading meter	General water quality parameter used to verify that site samples are obtained from the same groundwater system.
Ferrous Iron (Fe^{+2})	HACH Test Kit IR-18C	Presence of ferrous iron may indicate presence of an anaerobic degradation process due to depletion of oxygen, nitrate, and manganese.
Hydrogen sulfide (H_2S)	HACH Test Kit HS-C	Provides evidence of sulfate-based anaerobic degradation. May also indicate natural H_2S production.
Sulfide (S^{-2})	HACH DR-850	Provides evidence of sulfate-based anaerobic degradation.
Oxidation/reduction potenial (ORP)	Direct-reading meter	ORP provides information on Redox conditions to interpret the nature and state of chemical compounds and biological conditions. ORP ranges from +200mV in aerobic, oxidizing conditions to -400mV in anaerobic, reductive conditions.
Alkalinity	CHEMetrics Kits K-9810, K-9815, K-9820	Total alkalinity provides an indication of the amount of CO_2 generated during aerobic or anaerobic reduction of a hydrocarbon.
Carbon dioxide (CO_2)	CHEMetrics Kits K-1910, K-1920, K-1925	Compared to background values as an indication of aerobic and anaerobic processes. Produced during aerobic respiration and anaerobic processes. Utilized during methanogenesis.

TABLE 3

CHEMICALS OF CONCERN IN GROUNDWATER
OPERABLE UNIT 9, SITE 57 - BUILDING 824A/DAY TANK 1 AREA
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

PARAMETER	TARGET CLEANUP GOAL(1)	CEF-293-3						
		Sep-01	Apr-03	Jul-03	Oct-03***	Jan-04	Jul-04	Feb-05
VOLATILE ORGANIC COMPOUNDS (µg/L)								
Acetone	700	50 U	5 U	5 U	NA	5 U	9.9 U	9.9 U
Benzene	1	1 U	1 U	1 U	NA	0.5 U	0.27 U	0.27 U
Chloroform	5.7	2 U	1 U	1 U	NA	0.5 U	0.90 U	0.90 U
cis-1,2-Dichloroethene	70	2 U	1 U	1 U	NA	0.5 U	0.65 U	0.65 U
1,1-Dichloroethane	70	2 U	1 U	1 U	NA	0.5 U	0.52 U	0.52 U
1,1-Dichloroethene	7	2 U	1 U	1 U	NA	0.5 U	0.45 U	0.45 U
Ethylbenzene	30	2 U	1 U	1 U	NA	0.5 U	0.83 U	0.83 U
4-Methyl-2-pentanone	560	10 U	5 U	5 U	NA	2.5 U	3.8 U	3.8 U
Methylene chloride	5	5 U	1 U	1 U	NA	1 U	1.0 U	1.0 U
Methyl tert-butyl ether	50	2 U	1 U	NA	NA	NA	NA	NA
Tetrachloroethene	3	2 U	1 U	1 U	NA	0.5 U	0.34 U	0.34 U
Toluene	40	2 U	1 U	1 U	NA	0.5 U	0.51 U	0.51 U
trans-1,2-Dichloroethene	31	2 U	1 U	1 U	NA	0.5 U	0.44 U	0.44 U
Trichloroethene	3	2 U	1 U	1 U	NA	0.5 U	0.28 U	0.28 U
Vinyl Chloride	1	1 U	0.5 U	1 U	NA	0.5 U	0.50 U	0.50 U
Xylenes, total	20	6 U	3 U	3 U	NA	1 U	0.78 U	0.78 U
SEMIVOLATILE ORGANIC COMPOUNDS (µg/L)								
Acenaphthene	20	4.4 U	4.3 U	4.2 U	NA	1.1 U	0.075 U	0.20 U
1-Methylnaphthalene	20	2.2 U	2.2 U	2.1 U	NA	0.53 U	0.11 U	0.12 U
2-Methylnaphthalene	20	2.2 U	2.2 U	2.1 U	NA	0.53 U	0.076 U	0.13 U
Naphthalene	20	2.2 U	2.2 U	2.1 U	NA	**0.7 J**	0.089 U	0.084 U
TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (TRPH) (mg/L)								
TRPH	5	0.28 U	NA	NA	NA	NA	NA	NA

TABLE 3

CHEMICALS OF CONCERN IN GROUNDWATER
OPERABLE UNIT 9, SITE 57 - BUILDING 824A/DAY TANK 1 AREA
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

PARAMETER	TARGET CLEANUP GOAL(1)	CEF-293-11									
		Sep-01	Dec-01	Apr-03		Jul-03	Oct-03		Jan-04	Jul-04	Feb-05
				Sample	Duplicate		Sample	Duplicate			
VOLATILE ORGANIC COMPOUNDS (µg/L)											
Acetone	700	250 U	250 U	25 U	**13**	25 U	25 U	25 U	**11.2**	9.9 U	9.9 U
Benzene	1	**30.5**	**32**	**41.8**	**52**	**31.7**	**37.4**	**36.8**	**44.4**	**50**	**30**
Chloroform	5.7	10 U	10 U	5 U	2 U	5 U	2.5 U	2.5 U	0.5 U	0.90 U	0.90 U
cis-1,2-Dichloroethene	70	10 U	10 U	5 U	2 U	5 U	2.5 U	2.5 U	0.5 U	0.65 U	0.65 U
1,1-Dichloroethane	70	10 U	10 U	5 U	2 U	5 U	2.5 U	2.5 U	0.5 U	0.52 U	0.52 U
1,1-Dichloroethene	7	10 U	10 U	5 U	2 U	5 U	2.5 U	2.5 U	0.5 U	0.45 U	0.45 U
Ethylbenzene	30	**148**	**151**	**205**	**200**	**157**	**221**	**200**	**238**	**190**	**130**
4-Methyl-2-pentanone	560	50 U	50 U	25 U	10 U	25 U	13 U	13 U	2.5 U	3.8 U	3.8 U
Methylene chloride	5	25 U	25 U	5 U	2 U	5 U	5 U	5 U	1 U	1.0 U	1.0 U
Methyl tert-butyl ether	50	10 U	10 U	5 U	2 U	NA	NA	NA	NA	NA	NA
Tetrachloroethene	3	10 U	10 U	5 U	2 U	5 U	2.5 U	2.5 U	0.5 U	0.34 U	0.34 U
Toluene	40	**66**	**59.6**	**120**	**154**	**87.2**	**95.8**	**90.8**	**126**	**96**	**56**
trans-1,2-Dichloroethene	31	10 U	10 U	5 U	2 U	5 U	2.5 U	2.5 U	0.5 U	0.44 U	0.44 U
Trichloroethene	3	10 U	10 U	5 U	2 U	5 U	2.5 U	2.5 U	0.5 U	0.28 U	0.28 U
Vinyl Chloride	1	5 U	5 U	2.5 U	1 U	5 U	2.5 U	2.5 U	0.5 U	0.50 U	0.50 U
Xylenes, total	20	**572**	**549**	**683**	**678**	**520**	**748**	**674**	**863**	**750**	**510**
SEMIVOLATILE ORGANIC COMPOUNDS (µg/L)											
Acenaphthene	20	21 U	20 U	16 U	20 U	4.2 U	1 U	1 U	1.1 U	**15**	0.20 U
1-Methylnaphthalene	20	**60.4**	**84.8**	**57.8**	**58.6**	**38**	**74.2**	**52.8**	**80.5**	**120**	**62**
2-Methylnaphthalene	20	**57.5**	**84.8**	**56.3**	**56.7**	**41.4**	**80.7**	**53.7**	**88.6**	**82**	**64**
Naphthalene	20	**126**	**155**	**117**	**116**	**74.1**	**150**	**91.7**	**168**	**120**	**160**
TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (TRPH) (mg/L)											
TRPH	5	**2.46**	**5.95**	**4.38**	**3.93**	**3.52**	**5.24**	**4.12**	**5.18**	**4.2**	**3.4**

TABLE 3

CHEMICALS OF CONCERN IN GROUNDWATER
OPERABLE UNIT 9, SITE 57 - BUILDING 824A/DAY TANK 1 AREA
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

PARAMETER	TARGET CLEANUP GOAL(1)	CEF-293-13							
		Sep-01		Apr-03	Jul-03	Oct-03	Jan-04	Jul-04	Feb-05
		Sample	Duplicate						
VOLATILE ORGANIC COMPOUNDS (µg/L)									
Acetone	700	50 U	50 U	5 U	5 U	5 U	5 U	9.9 U	9.9 U
Benzene	1	1 U	1 U	1 U	1 U	0.5 U	0.5 U	0.27 U	0.27 U
Chloroform	5.7	2 U	2 U	1 U	1 U	0.5 U	0.5 U	0.90 U	0.90 U
cis-1,2-Dichloroethene	70	2 U	2 U	1 U	1 U	0.5 U	0.5 U	0.65 U	0.65 U
1,1-Dichloroethane	70	2 U	2 U	1 U	1 U	0.5 U	0.5 U	0.52 U	0.52 U
1,1-Dichloroethene	7	2 U	2 U	1 U	1 U	0.5 U	0.5 U	0.45 U	0.45 U
Ethylbenzene	30	2 U	2 U	1 U	1 U	0.5 U	0.5 U	0.83 U	0.83 U
4-Methyl-2-pentanone	560	10 U	10 U	5 U	5 U	2.5 U	2.5 U	3.8 U	3.8 U
Methylene chloride	5	5 U	5 U	1 U	1 U	1 U	1 U	1.0 U	1.0 U
Methyl tert-butyl ether	50	2 U	2 U	1 U	NA	NA	NA	NA	NA
Tetrachloroethene	3	2 U	2 U	1 U	1 U	0.5 U	0.5 U	0.34 U	0.34 U
Toluene	40	2 U	2 U	1 U	1 U	0.5 U	0.5 U	0.51 U	0.51 U
trans-1,2-Dichloroethene	31	2 U	2 U	1 U	1 U	0.5 U	0.5 U	0.44 U	0.44 U
Trichloroethene	3	2 U	2 U	1 U	1 U	0.5 U	0.5 U	0.28 U	0.28 U
Vinyl Chloride	1	1 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.50 U	0.50 U
Xylenes, total	20	6 U	6 U	3 U	3 U	1 U	1 U	0.78 U	0.78 U
SEMIVOLATILE ORGANIC COMPOUNDS (µg/L)									
Acenaphthene	20	4 U	4 U	4 U	4.2 U	1 U	1 U	0.084 U	0.20 U
1-Methylnaphthalene	20	**1.4 J**	**2.0**	2 U	2.1 U	0.51 U	0.52 U	0.086 U	0.12 U
2-Methylnaphthalene	20	**1.6 J**	**2.4**	2 U	2.1 U	0.51 U	0.52 U	0.070 U	0.13 U
Naphthalene	20	2 U	2 U	2 U	2.1 U	0.51 U	0.52 U	0.096 U	0.084 U
TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (TRPH) (mg/L)									
TRPH	5	**0.404**	**0.372**	0.25 U	0.26 U	0.18 U	0.19 U	0.10 U	0.10 U

TABLE 3

CHEMICALS OF CONCERN IN GROUNDWATER
OPERABLE UNIT 9, SITE 57 - BUILDING 824A/DAY TANK 1 AREA
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

PARAMETER	TARGET CLEANUP GOAL(1)	CEF-293-19									
		Sep-01	Apr-03	Jul-03		Oct-03	Jan-04		Jul-04	Feb-05	
				Sample	Duplicate		Sample	Duplicate		Sample	Duplicate
VOLATILE ORGANIC COMPOUNDS (µg/L)											
Acetone	700	**190**	**22.4**	**62.9**	**98.2**	**125**	**838**	**618**	**520**	**670**	**360**
Benzene	1	**1.8**	**0.63 J**	**0.79 J**	**0.86 J**	1.3 U	2.5 U	2.5 U	0.61 U	**0.70 J**	**0.60 J**
Chloroform	5.7	2 U	1 U	1 U	1 U	1.3 U	2.5 U	2.5 U	0.90 U	0.90 U	0.90 U
cis-1,2-Dichloroethene	70	**825**	**214**	**249**	**299**	**174**	**344**	**313**	**220**	**210**	**200**
1,1-Dichloroethane	70	**58.6**	**30.1**	**32.4**	**42.1**	**28.8**	**59.4**	**53.8**	**31**	**29**	**25**
1,1-Dichloroethene	7	2 U	1 U	1 U	1 U	1.3 U	2.5 U	2.5 U	0.45 U	0.45 U	0.45 U
Ethylbenzene	30	**5**	**2.1**	**2.9**	**3.7**	**2.5**	**5.4**	**4.7 J**	**2.5**	**3.3**	**3.1**
4-Methyl-2-pentanone	560	**76.1**	**12.1**	**16.8**	**28.7**	**23.5**	**313**	**225**	**310**	**440**	**350**
Methylene chloride	5	5 U	1 U	1 U	1 U	2.5 U	5 U	5 U	1.0 U	1.0 U	1.0 U
Methyl tert-butyl ether	50	2 U	1 U	NA	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	3	2 U	1 U	1 U	1 U	1.3 U	2.5 U	2.5 U	0.34 U	0.34 U	0.34 U
Toluene	40	**33.4**	**9.6**	**8.6**	**12.3**	**6.6**	**31**	**26.4**	**25**	**30**	**27**
trans-1,2-Dichloroethene	31	**5.1**	**1.3**	**1.5**	**1.8**	1.3 U	2.5 U	2.5 U	0.44 U	**2.0**	**1.9**
Trichloroethene	3	**43**	**10.8**	**13.4**	**16**	**9.9**	**16.3**	**14.8**	**9.2**	**8.9**	**7.7**
Vinyl Chloride	1	1 U	0.5 U	1 U	1 U	1.3 U	2.5 U	2.5 U	0.50 U	0.50 U	0.50 U
Xylenes, total	20	**31.8**	**12.5**	**13.7**	**20.1**	**10.8**	**30.3**	**26.8**	**16.8**	**15**	**20.5**
SEMIVOLATILE ORGANIC COMPOUNDS (µg/L)											
Acenaphthene	20	8 U	8.2 U	**3.6 J**	**3.6 J**	**4.4**	4.4 U	4.3 U	**3.8**	**0.57 J**	**0.62 J**
1-Methylnaphthalene	20	4 U	4.1 U	**1.6 J**	**1.9 J**	**1.7 J**	2.2 U	2.2 U	**1.3**	**1.2**	**1.5**
2-Methylnaphthalene	20	4 U	4.1 U	**2.5**	**2.9**	**2.7**	2.2 U	2.2 U	**1.1**	**1.4**	**1.4**
Naphthalene	20	**46**	**52.6**	**51.4**	**59.5**	**89.5**	**182**	**160**	**110**	**160**	**150**
TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (TRPH) (mg/L)											
TRPH	5	**4.44**	**3.53**	**2.79**	0.26 U	**4.74**	**8.28**	**9.3**	**36**	**44**	**37**

TABLE 3

CHEMICALS OF CONCERN IN GROUNDWATER
OPERABLE UNIT 9, SITE 57 - BUILDING 824A/DAY TANK 1 AREA
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

PARAMETER	TARGET CLEANUP GOAL(1)	CEF-293-20						
		Sep-01	Apr-03	Jul-03	Oct-03	Jan-04	Jul-04	Feb-05
VOLATILE ORGANIC COMPOUNDS (µg/L)								
Acetone	700	50 U	5 U	**10.1**	10 U	5 U	9.9 U	9.9 U
Benzene	1	**0.87 J**	**0.56 J**	**0.67 J**	1 U	**0.88 J**	**0.51**	**0.29 J**
Chloroform	5.7	2 U	1 U	1 U	1 U	0.5 U	0.90 U	0.90 U
cis-1,2-Dichloroethene	70	**136**	**83.8**	**62.3**	**89.1**	**111**	**67**	**49**
1,1-Dichloroethane	70	**1.6 J**	**1.3**	**0.87 J**	**1.3 J**	**2.6**	**1.2**	**0.87 J**
1,1-Dichloroethene	7	2 U	**0.96 J**	1 U	1 U	**2.3**	**1.1**	**0.84 J**
Ethylbenzene	30	2 U	1 U	1 U	1 U	0.5 U	0.83 U	0.83 U
4-Methyl-2-pentanone	560	10 U	5 U	5 U	5 U	2.5 U	3.8 U	3.8 U
Methylene chloride	5	5 U	1 U	1 U	2 U	1 U	1.0 U	1.0 U
Methyl tert-butyl ether	50	2 U	1 U	NA	NA	NA	NA	NA
Tetrachloroethene	3	2 U	1 U	1 U	1 U	0.5 U	0.34 U	0.34 U
Toluene	40	2 U	1 U	1 U	1 U	0.5 U	0.51 U	0.51 U
trans-1,2-Dichloroethene	31	**0.52 J**	1 U	1 U	1 U	**0.91 J**	**0.73**	0.44 U
Trichloroethene	3	**3.3**	**2.4**	**1**	**2.1**	**4.1**	**1.9**	**1.6**
Vinyl Chloride	1	1 U	0.5 U	1 U	1 U	**0.57 J**	0.50 U	0.50 U
Xylenes, total	20	6 U	3 U	3 U	2 U	1 U	0.78 U	0.78 U
SEMIVOLATILE ORGANIC COMPOUNDS (µg/L)								
Acenaphthene	20	4 U	4.2 U	4.4 U	1 U	1.1 U	0.075 U	0.20 U
1-Methylnaphthalene	20	2 U	2.1 U	2.2 U	0.52 U	0.54 U	0.11 U	0.12 U
2-Methylnaphthalene	20	2 U	2.1 U	2.2 U	0.52 U	0.54 U	0.076 U	0.13 U
Naphthalene	20	**1.2 J**	**0.57 J**	2.2 U	**2.4**	0.54 U	0.089 U	**0.34 J**
TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (TRPH) (mg/L)								
TRPH	5	**0.58**	NA	NA	NA	NA	NA	NA

TABLE 3

CHEMICALS OF CONCERN IN GROUNDWATER
OPERABLE UNIT 9, SITE 57 - BUILDING 824A/DAY TANK 1 AREA
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

PARAMETER	TARGET CLEANUP GOAL(1)	CEF-293-21									
		Dec-01		Apr-03		Jul-03	Oct-03	Jan-04		Jul-04	Feb-05
		Sample	Duplicate	Sample	Duplicate			Sample	Duplicate		
VOLATILE ORGANIC COMPOUNDS (µg/L)											
Acetone	700	50 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	9.9 U	9.9 U
Benzene	1	**30.8**	**28.9**	**5.1**	**7.8**	**90.7**	**6.9**	**7.9**	**3.8**	**2.7**	0.27 U
Chloroform	5.7	2 U	2 U	1 U	1 U	1 U	0.5 U	0.5 U	0.5 U	0.90 U	0.90 U
cis-1,2-Dichloroethene	70	2 U	2 U	1 U	1 U	1 U	0.5 U	0.5 U	0.5 U	0.65 U	0.65 U
1,1-Dichloroethane	70	2 U	2 U	1 U	1 U	1 U	0.5 U	0.5 U	0.5 U	0.52 U	0.52 U
1,1-Dichloroethene	7	2 U	2 U	1 U	1 U	1 U	0.5 U	0.5 U	0.5 U	0.45 U	0.45 U
Ethylbenzene	30	**2.7**	**2.8**	1 U	**0.73 J**	**18.4**	**0.73 J**	**1.4**	**0.65 J**	0.83 U	0.83 U
4-Methyl-2-pentanone	560	10 U	10 U	5 U	5 U	5 U	2.5 U	2.5 U	2.5 U	3.8 U	3.8 U
Methylene chloride	5	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1 U	1.0 U	1.0 U
Methyl tert-butyl ether	50	2 U	2 U	1 U	1 U	NA	NA	NA	NA	NA	NA
Tetrachloroethene	3	2 U	2 U	1 U	1 U	1 U	0.5 U	0.5 U	0.5 U	0.34 U	0.34 U
Toluene	40	2 U	2 U	1 U	1 U	**2.7**	0.5 U	0.5 U	0.5 U	0.51 U	0.51 U
trans-1,2-Dichloroethene	31	2 U	2 U	1 U	1 U	1 U	0.5 U	0.5 U	0.5 U	0.44 U	0.44 U
Trichloroethene	3	2 U	2 U	1 U	1 U	1 U	0.5 U	0.5 U	0.5 U	0.28 U	0.28 U
Vinyl Chloride	1	1 U	1 U	0.5 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
Xylenes, total	20	**4.1 J**	**4.9 J**	3 U	3 U	**44.9**	1 U	1 U	1 U	0.78 U	0.78 U
SEMIVOLATILE ORGANIC COMPOUNDS (µg/L)											
Acenaphthene	20	4.4 U	4.4 U	4.1 U	4.1 U	4 U	1.1 U	1 U	1 U	0.075 U	0.20 U
1-Methylnaphthalene	20	**2.2**	**2.5**	**1.3 J**	**1.2 J**	**5.7**	**0.89 J**	**3.2**	**4.7**	**3.8**	**0.27 J**
2-Methylnaphthalene	20	**2.2**	**2.6**	**1.1 J**	**1.1 J**	**5.6**	**1.1 J**	**3.4**	**5**	**3.0**	**0.45 J**
Naphthalene	20	**2.5**	**3**	**0.84 J**	**0.88 J**	**4.5**	**1.7 J**	**1.4 J**	**1.9 J**	**1.0**	0.084 U
TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (TRPH) (mg/L)											
TRPH	5	**0.269**	**0.242 J**	NA	NA	NA	NA	NA	NA	NA	NA

TABLE 3

CHEMICALS OF CONCERN IN GROUNDWATER
OPERABLE UNIT 9, SITE 57 - BUILDING 824A/DAY TANK 1 AREA
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

PARAMETER	TARGET CLEANUP GOAL(1)	CEF-824A-01Sa							
		Sep-01	Dec-01	Apr-03	Jul-03	Oct-03	Jan-04	Jul-04	Feb-05
VOLATILE ORGANIC COMPOUNDS (µg/L)									
Acetone	700	50 U	50 U	5 U	5 U	5 U	5 U	9.9 U	9.9 U
Benzene	1	1 U	1 U	1 U	1 U	0.5 U	0.5 U	0.27 U	0.27 U
Chloroform	5.7	2 U	2 U	1 U	1 U	0.5 U	0.5 U	0.90 U	0.90 U
cis-1,2-Dichloroethene	70	2 U	2 U	1 U	1 U	0.5 U	0.5 U	0.65 U	0.65 U
1,1-Dichloroethane	70	2 U	2 U	1 U	1 U	0.5 U	0.5 U	0.52 U	0.52 U
1,1-Dichloroethene	7	2 U	2 U	1 U	1 U	0.5 U	0.5 U	0.45 U	0.45 U
Ethylbenzene	30	2 U	2 U	1 U	1 U	0.5 U	0.5 U	0.83 U	0.83 U
4-Methyl-2-pentanone	560	10 U	10 U	5 U	5 U	2.5 U	2.5 U	3.8 U	3.8 U
Methylene chloride	5	5 U	5 U	1 U	1 U	1 U	1 U	1.0 U	1.0 U
Methyl tert-butyl ether	50	2 U	2 U	1 U	NA	NA	NA	NA	NA
Tetrachloroethene	3	2 U	2 U	1 U	1 U	0.5 U	0.5 U	0.34 U	0.34 U
Toluene	40	2 U	2 U	1 U	1 U	0.5 U	0.5 U	0.51 U	0.51 U
trans-1,2-Dichloroethene	31	2 U	2 U	1 U	1 U	0.5 U	0.5 U	0.44 U	0.44 U
Trichloroethene	3	2 U	2 U	1 U	1 U	0.5 U	**1.9**	**0.93**	0.28 U
Vinyl Chloride	1	1 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.50 U	0.50 U
Xylenes, total	20	6 U	6 U	3 U	3 U	1 U	1 U	0.78 U	0.78 U
SEMIVOLATILE ORGANIC COMPOUNDS (µg/L)									
Acenaphthene	20	4.4 U	4 U	4.1 U	4.3 U	1.1 U	1.1 U	0.075 U	0.20 U
1-Methylnaphthalene	20	**2.1 J**	**1.2 J**	**0.59 J**	**0.82 J**	**0.71 J**	**0.6 J**	**0.20**	**0.40 J**
2-Methylnaphthalene	20	**3.7**	**2**	**1.2 J**	**1.3 J**	**1.2 J**	**1 J**	**0.47**	**0.59 J**
Naphthalene	20	2.2 U	2 U	2 U	2.1 U	0.54 U	0.54 U	0.089 U	0.084 U
TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (TRPH) (mg/L)									
TRPH	5	**0.482**	**0.438**	NA	NA	NA	NA	NA	NA

TABLE 3

CHEMICALS OF CONCERN IN GROUNDWATER
OPERABLE UNIT 9, SITE 57 - BUILDING 824A/DAY TANK 1 AREA
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

PARAMETER	TARGET CLEANUP GOAL(1)	CEF-824A-3S						
		Sep-01	Apr-03	Jul-03	Oct-03	Jan-04	Jul-04	Feb-05
VOLATILE ORGANIC COMPOUNDS (µg/L)								
Acetone	700	50 U	5 U	5 U	5 U	5 U	9.9 U	9.9 U
Benzene	1	1 U	1 U	1 U	0.5 U	0.5 U	**4.4**	0.27 U
Chloroform	5.7	2 U	1 U	1 U	0.5 U	0.5 U	0.90 U	0.90 U
cis-1,2-Dichloroethene	70	2 U	1 U	1 U	0.5 U	0.5 U	0.65 U	0.65 U
1,1-Dichloroethane	70	2 U	1 U	1 U	0.5 U	0.5 U	0.52 U	0.52 U
1,1-Dichloroethene	7	2 U	1 U	1 U	0.5 U	0.5 U	0.45 U	0.45 U
Ethylbenzene	30	2 U	1 U	1 U	0.5 U	0.5 U	**1.4**	0.83 U
4-Methyl-2-pentanone	560	10 U	5 U	5 U	2.5 U	2.5 U	3.8 U	3.8 U
Methylene chloride	5	5 U	1 U	1 U	1 U	1 U	1.0 U	1.0 U
Methyl tert-butyl ether	50	2 U	1 U	NA	NA	NA	NA	NA
Tetrachloroethene	3	2 U	1 U	1 U	0.5 U	0.5 U	**0.49 J**	0.34 U
Toluene	40	2 U	1 U	1 U	0.5 U	0.5 U	0.51 U	0.51 U
trans-1,2-Dichloroethene	31	2 U	1 U	1 U	0.5 U	0.5 U	0.44 U	0.44 U
Trichloroethene	3	2 U	1 U	1 U	0.5 U	0.5 U	**0.30 J**	0.28 U
Vinyl Chloride	1	1 U	0.5 U	1 U	0.5 U	0.5 U	0.50 U	0.50 U
Xylenes, total	20	6 U	3 U	3 U	1 U	1 U	0.78 U	0.78 U
SEMIVOLATILE ORGANIC COMPOUNDS (µg/L)								
Acenaphthene	20	4 U	4.3 U	4.2 U	1.1 U	1 U	0.075 U	0.20 U
1-Methylnaphthalene	20	2 U	2.2 U	2.1 U	0.54 U	0.52 U	0.11 U	0.12 U
2-Methylnaphthalene	20	2 U	2.2 U	2.1 U	0.54 U	0.52 U	0.076 U	0.13 U
Naphthalene	20	2 U	2.2 U	2.1 U	0.54 U	**0.59 J**	0.089 U	0.084 U
TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (TRPH) (mg/L)								
TRPH	5	0.25 U	**0.189 J**	**0.19 J**	0.18 U	0.18 U	0.10 U	0.10 U

TABLE 3

CHEMICALS OF CONCERN IN GROUNDWATER
OPERABLE UNIT 9, SITE 57 - BUILDING 824A/DAY TANK 1 AREA
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

PARAMETER	TARGET CLEANUP GOAL(1)	CEF-824A-4S								
		Sep-01		Apr-03	Jul-03	Oct-03	Jan-04	Jul-04		Feb-05
		Sample	Duplicate					Sample	Duplicate	
VOLATILE ORGANIC COMPOUNDS (µg/L)										
Acetone	700	50 U	50 U	10 U	5 U	5 U	5 U	9.9 U	9.9 U	9.9 U
Benzene	1	**254**	**242**	**134**	**275**	**111**	**315**	**220**	**260**	**55**
Chloroform	5.7	2 U	2 U	2 U	1 U	0.5 U	0.5 U	0.90 U	0.90 U	0.90 U
cis-1,2-Dichloroethene	70	2 U	2 U	2 U	1 U	0.5 U	0.5 U	0.65 U	0.65 U	0.65 U
1,1-Dichloroethane	70	2 U	2 U	2 U	1 U	0.5 U	0.5 U	0.52 U	0.52 U	0.52 U
1,1-Dichloroethene	7	2 U	2 U	2 U	1 U	0.5 U	0.5 U	0.45 U	0.45 U	0.45 U
Ethylbenzene	30	**27.8**	**20.7**	**23.9**	**58**	**14.9**	**59.3**	**47**	**52**	**6.6**
4-Methyl-2-pentanone	560	10 U	10 U	10 U	5 U	2.5 U	2.5 U	3.8 U	3.8 U	3.8 U
Methylene chloride	5	5 U	5 U	2 U	1 U	1 U	1 U	1.0 U	1.0 U	1.0 U
Methyl tert-butyl ether	50	2 U	2 U	2 U	NA	NA	NA	NA	NA	NA
Tetrachloroethene	3	2 U	2 U	2 U	1 U	0.5 U	0.5 U	0.34 U	0.34 U	0.34 U
Toluene	40	**2.3**	**1.7 J**	**1.5 J**	**3.4**	**0.72 J**	**4.6**	**3.1**	**3.3**	0.51 U
trans-1,2-Dichloroethene	31	2 U	2 U	2 U	1 U	0.5 U	0.5 U	0.44 U	0.44 U	0.44 U
Trichloroethene	3	2 U	2 U	2 U	1 U	0.5 U	0.5 U	0.28 U	0.28 U	0.28 U
Vinyl Chloride	1	5 U	1 U	1 U	1 U	0.5 U	0.5 U	0.50 U	0.50 U	0.50 U
Xylenes, total	20	**71.6**	**51.9**	**66.9**	**150**	**33.2**	**161**	**156**	**180**	**13.7**
SEMIVOLATILE ORGANIC COMPOUNDS (µg/L)										
Acenaphthene	20	8.8 U	8.8 U	8 U	4.2 U	1.1 U	1.1 U	**5**	**4.1**	0.20 U
1-Methylnaphthalene	20	**7.8**	**7.4**	**5.8**	**11.3**	**5.9**	**12.6**	**18**	**14**	**12**
2-Methylnaphthalene	20	**8.9**	**8.6**	**7.1**	**15.6**	**8.4**	**21**	**21**	**17**	**14**
Naphthalene	20	**30.3**	**30.8**	**19.4**	**38.1**	**11.8**	**37.7**	**48**	**37**	**15**
TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (TRPH) (mg/L)										
TRPH	5	**1.72**	**1.69**	NA	NA	NA	NA	NA	NA	NA

TABLE 3

CHEMICALS OF CONCERN IN GROUNDWATER
OPERABLE UNIT 9, SITE 57 - BUILDING 824A/DAY TANK 1 AREA
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

PARAMETER	TARGET CLEANUP GOAL(1)	CEF-824A-7S								
		Sep-01	Dec-01	Apr-03	Jul-03	Oct-03		Jan-04	Jul-04	Feb-05
						Sample	Duplicate			
VOLATILE ORGANIC COMPOUNDS (µg/L)										
Acetone	700	50 U	50 U	5 U	5 U	5 U	5 U	5 U	9.9 U	9.9 U
Benzene	1	**3.8**	**2**	**5.6**	**5.3**	**8.1**	**7.6**	**7**	**1.1**	**1.9**
Chloroform	5.7	2 U	2 U	1 U	1 U	0.5 U	0.5 U	0.5 U	0.90 U	0.90 U
cis-1,2-Dichloroethene	70	2 U	2 U	1 U	1 U	0.5 U	0.5 U	0.5 U	0.65 U	0.65 U
1,1-Dichloroethane	70	**1.1 J**	**2.9**	**0.81 J**	**1.4**	**2.1**	**2**	0.5 U	0.52 U	0.52 U
1,1-Dichloroethene	7	2 U	2 U	1 U	1 U	0.5 U	0.5 U	0.5 U	0.45 U	0.45 U
Ethylbenzene	30	**2.3**	**2.1**	**2.6**	**2**	**4.1**	**4**	**2.5**	**1.5**	**1.4**
4-Methyl-2-pentanone	560	10 U	10 U	5 U	5 U	2.5 U	2.5 U	2.5 U	3.8 U	3.8 U
Methylene chloride	5	5 U	5 U	1 U	1 U	1 U	1 U	1 U	1.0 U	1.0 U
Methyl tert-butyl ether	50	2 U	2 U	1 U	NA	NA	NA	NA	NA	NA
Tetrachloroethene	3	2 U	2 U	1 U	1 U	0.5 U	0.5 U	0.5 U	0.34 U	0.34 U
Toluene	40	2 U	2 U	1 U	1 U	0.5 U	0.5 U	0.5 U	0.51 U	0.51 U
trans-1,2-Dichloroethene	31	2 U	2 U	1 U	1 U	0.5 U	0.5 U	0.5 U	0.44 U	0.44 U
Trichloroethene	3	**4.8**	**0.84 J**	**1.1**	**1.2**	**0.93 J**	**0.97 J**	**1.4**	**12**	**2.6**
Vinyl Chloride	1	1 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.5 U	0.50 U	0.50 U
Xylenes, total	20	**2.8 J**	6 U	3 U	3 U	1 U	1 U	1 U	0.78 U	0.78 U
SEMIVOLATILE ORGANIC COMPOUNDS (µg/L)										
Acenaphthene	20	4 U	4 U	4.1 U	4.2 U	1 U	1 U	1.1 U	**1.2**	0.20 U
1-Methylnaphthalene	20	**25.5**	**24.6**	**30.5**	**22.9**	**34.4**	**28.9**	**30.9**	**32**	0.12 U
2-Methylnaphthalene	20	**30.4**	**30.9**	**39.4**	**27.9**	**45.8**	**38.9**	**42.2**	**27**	0.13 U
Naphthalene	20	**13.9**	**25.7**	**22.3**	**17.8**	**23.1**	**19.6**	**20.4**	**8.1**	0.084 U
TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (TRPH) (mg/L)										
TRPH	5	**1.67**	**2.13**	NA	NA	NA	NA	NA	NA	NA

TABLE 3

CHEMICALS OF CONCERN IN GROUNDWATER
OPERABLE UNIT 9, SITE 57 - BUILDING 824A/DAY TANK 1 AREA
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

PARAMETER	TARGET CLEANUP GOAL(1)	CEF-824A-8S						
		Dec-01	Apr-03	Jul-03	Oct-03	Jan-04	Jul-04	Feb-05
VOLATILE ORGANIC COMPOUNDS (µg/L)								
Acetone	700	50 U	5 U	5 U	5 U	5 U	9.9 U	9.9 U
Benzene	1	**1.5**	**1.4**	**0.79 J**	**1.3**	**1**	**0.92 J**	**0.96 J**
Chloroform	5.7	2 U	1 U	1 U	0.5 U	0.5 U	0.90 U	0.90 U
cis-1,2-Dichloroethene	70	**0.94 J**	**2.5**	**2.2**	**2.6**	**1.2**	**1.6**	**0.89 I**
1,1-Dichloroethane	70	**9.9**	**10**	**10.5**	**10.8**	**10.6**	**7.2**	**7.2**
1,1-Dichloroethene	7	**33.8**	**29.1**	**29.9**	**38.6**	**39.2**	**24**	**21**
Ethylbenzene	30	2 U	**0.51 J**	1 U	0.5 U	0.5 U	0.83 U	0.83 U
4-Methyl-2-pentanone	560	10 U	5 U	5 U	2.5 U	2.5 U	3.8 U	3.8 U
Methylene chloride	5	5 U	1 U	1 U	1 U	1 U	1.0 U	1.0 U
Methyl tert-butyl ether	50	2 U	1 U	NA	NA	NA	NA	NA
Tetrachloroethene	3	2 U	1 U	1 U	0.5 U	0.5 U	0.34 U	0.34 U
Toluene	40	2 U	**0.99 J**	1 U	0.5 U	0.5 U	0.51 U	0.51 U
trans-1,2-Dichloroethene	31	2 U	1 U	1 U	0.5 U	0.5 U	0.44 U	0.44 U
Trichloroethene	3	2 U	**0.58 J**	1 U	**0.65 J**	0.5 U	0.28 U	**0.41 J**
Vinyl Chloride	1	1 U	0.5 U	1 U	0.5 U	0.5 U	0.50 U	0.50 U
Xylenes, total	20	**1.9 J**	**3**	**1.1 J**	**1.8 J**	**1.7 J**	**1.2**	**1.5**
SEMIVOLATILE ORGANIC COMPOUNDS (µg/L)								
Acenaphthene	20	4.4 U	4.2 U	4 U	1 U	1 U	0.075 U	0.20 U
1-Methylnaphthalene	20	2.2 U	2.1 U	2 U	0.51 U	0.5 U	0.11 U	0.12 U
2-Methylnaphthalene	20	2.2 U	2.1 U	2 U	0.51 U	0.5 U	0.076 U	0.13 U
Naphthalene	20	2.2 U	2.1 U	**2.8**	0.51 U	**0.67 J**	0.089 U	**0.31 J**
TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (TRPH) (mg/L)								
TRPH	5	0.30 U	NA	NA	NA	NA	NA	NA

TABLE 3

CHEMICALS OF CONCERN IN GROUNDWATER
OPERABLE UNIT 9, SITE 57 - BUILDING 824A/DAY TANK 1 AREA
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

PARAMETER	TARGET CLEANUP GOAL(1)	CEF-824A-9S							
		Sep-01	Apr-03	Jul-03	Oct-03	Jan-04	Jul-04		Feb-05
							Sample	Duplicate	
VOLATILE ORGANIC COMPOUNDS (µg/L)									
Acetone	700	50 U	5 U	5 U	5 U	5 U	9.9 U	9.9 U	9.9 U
Benzene	1	1 U	1 U	1 U	0.5 U	0.5 U	0.27 U	0.27 U	0.27 U
Chloroform	5.7	2 U	1 U	1 U	0.5 U	0.5 U	0.90 U	0.90 U	0.90 U
cis-1,2-Dichloroethene	70	2 U	1 U	1 U	0.5 U	0.5 U	0.65 U	0.65 U	0.65 U
1,1-Dichloroethane	70	**2.4**	**1.1**	**1**	**0.88 J**	**0.93 J**	**0.79 J**	**0.81 J**	**0.63 J**
1,1-Dichloroethene	7	2 U	1 U	1 U	0.5 U	0.5 U	0.45 U	0.45 U	0.45 U
Ethylbenzene	30	2 U	1 U	1 U	0.5 U	0.5 U	0.83 U	0.83 U	0.83 U
4-Methyl-2-pentanone	560	10 U	5 U	5 U	2.5 U	2.5 U	3.8 U	3.8 U	3.8 U
Methylene chloride	5	5 U	1 U	1 U	1 U	1 U	1.0 U	1.0 U	1.0 U
Methyl tert-butyl ether	50	2 U	1 U	NA	NA	NA	NA	NA	NA
Tetrachloroethene	3	2 U	1 U	1 U	0.5 U	0.5 U	0.34 U	0.34 U	0.34 U
Toluene	40	2 U	1 U	1 U	0.5 U	0.5 U	0.51 U	0.51 U	0.51 U
trans-1,2-Dichloroethene	31	2 U	1 U	1 U	0.5 U	0.5 U	0.44 U	0.44 U	0.44 U
Trichloroethene	3	**1 J**	**0.92 J**	**0.89 J**	**0.61 J**	**0.85 J**	**0.88 J**	**0.93 J**	**0.96 J**
Vinyl Chloride	1	1 U	0.5 U	1 U	0.5 U	0.5 U	0.50 U	0.50 U	0.50 U
Xylenes, total	20	6 U	3 U	3 U	1 U	1 U	0.78 U	0.78 U	0.78 U
SEMIVOLATILE ORGANIC COMPOUNDS (µg/L)									
Acenaphthene	20	4 U	4.3 U	4.2 U	1 U	1 U	0.075 U	0.075 U	0.20 U
1-Methylnaphthalene	20	2 U	2.1 U	2.1 U	0.5 U	0.52 U	0.11 U	0.11 U	0.12 U
2-Methylnaphthalene	20	2 U	2.1 U	2.1 U	0.5 U	0.52 U	0.076 U	0.076 U	0.13 U
Naphthalene	20	2 U	2.1 U	2.1 U	0.5 U	0.52 U	0.089 U	0.089 U	0.084 U
TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (TRPH) (mg/L)									
TRPH	5	**0.352**	NA	NA	NA	NA	NA	NA	NA

TABLE 3

CHEMICALS OF CONCERN IN GROUNDWATER
OPERABLE UNIT 9, SITE 57 - BUILDING 824A/DAY TANK 1 AREA
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

PARAMETER	TARGET CLEANUP GOAL(1)	CEF-824A-10S							
		Sep-01	Apr-03	Jul-03		Oct-03	Jan-04	Jul-04	Feb-05
				Sample	Duplicate				
VOLATILE ORGANIC COMPOUNDS (µg/L)									
Acetone	700	50 U	**50.1**	5 U	**18**	**119**	**92.2**	**31**	**20**
Benzene	1	1 U	1 U	1 U	1 U	0.5 U	0.5 U	0.27 U	0.27 U
Chloroform	5.7	2 U	1 U	1 U	1 U	0.5 U	0.5 U	0.90 U	0.90 U
cis-1,2-Dichloroethene	70	**3.7**	**17.8**	**8**	**11.3**	**27.2**	**22.6**	**5.8**	**5.2**
1,1-Dichloroethane	70	**1.1 J**	**3.1**	**1.1**	**1.4**	**3.4**	**3.1**	**1.4**	**1.3**
1,1-Dichloroethene	7	2 U	1 U	1 U	1 U	0.5 U	0.5 U	0.45 U	0.45 U
Ethylbenzene	30	**8.6**	**3.3**	**4.3**	**4.3**	**3**	**1.3**	**1.3**	0.83 U
4-Methyl-2-pentanone	560	10 U	**34.9**	**15.9**	**19.2**	**115**	**8.7**	**9.8 J**	**3.9 J**
Methylene chloride	5	**3 J**	1 U	1 U	1 U	1 U	1 U	1.0 U	1.0 U
Methyl tert-butyl ether	50	2 U	1 U	NA	NA	NA	NA	NA	NA
Tetrachloroethene	3	2 U	1 U	1 U	1 U	0.5 U	0.5 U	**0.63 J**	0.34 U
Toluene	40	**1.0 J**	**9.5**	**2.1**	**3.6**	**11.4**	**11.2**	**5.5**	**0.74 J**
trans-1,2-Dichloroethene	31	2 U	1 U	1 U	1 U	0.5 U	0.5 U	0.14 U	0.44 U
Trichloroethene	3	2 U	**0.72 J**	1 U	1 U	**0.85 J**	**0.78 J**	**0.38 J**	**0.41 J**
Vinyl Chloride	1	1 U	0.5 U	1 U	1 U	0.5 U	0.5 U	0.50 U	0.50 U
Xylenes, total	20	**4.0 J**	**4.2**	**2.2 J**	**2.9 J**	**5**	**6.3**	**5.7**	**2.09**
SEMIVOLATILE ORGANIC COMPOUNDS (µg/L)									
Acenaphthene	20	20 U	4.3 U	4 U	4 U	1.1 U	1.1 U	4.8	0.20 U
1-Methylnaphthalene	20	**15.7**	**3.9**	**13.6**	**19.6**	**17.8**	**15.4**	**32**	**16**
2-Methylnaphthalene	20	**16.8**	**2.8**	**15**	**21.5**	**17.2**	**15.7**	**27**	**19**
Naphthalene	20	**128**	**68.3**	**66.7**	**91.5**	**68**	**54.7**	**62**	**89**
TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (TRPH) (mg/L)									
TRPH	5	**4.83**	**7.12**	**4.32**	**4.55**	**5.39**	**5.96**	**10**	**5.3**

TABLE 3

CHEMICALS OF CONCERN IN GROUNDWATER
OPERABLE UNIT 9, SITE 57 - BUILDING 824A/DAY TANK 1 AREA
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

PARAMETER	TARGET CLEANUP GOAL(1)	CEF-824A-11S							
		Sep-01	Dec-01	Apr-03	Jul-03	Oct-03	Jan-04	Jul-04	Feb-05
VOLATILE ORGANIC COMPOUNDS (µg/L)									
Acetone	700	50 U	250 U	25 U	13 U	13 U	**8**	9.9 U	9.9 U
Benzene	1	**8.7**	**7.6**	**4.5 J**	**3.3**	**2.2 J**	**1.1**	**0.93 J**	0.27 U
Chloroform	5.7	2 U	10 U	5 U	2.5 U	1.3 U	0.5 U	0.90 U	0.90 U
cis-1,2-Dichloroethene	70	2 U	10 U	5 U	2.5 U	1.3 U	0.5 U	0.65 U	0.65 U
1,1-Dichloroethane	70	2 U	10 U	5 U	2.5 U	1.3 U	0.5 U	0.52 U	0.52 U
1,1-Dichloroethene	7	2 U	10 U	5 U	2.5 U	1.3 U	0.5 U	0.45 U	0.45 U
Ethylbenzene	30	**84.9**	**85.4**	**107**	**75.9**	**83.8**	**78.2**	**46**	**18**
4-Methyl-2-pentanone	560	10 U	50 U	25 U	13 U	6.3 U	2.5 U	3.8 U	3.8 U
Methylene chloride	5	5 U	25 U	5 U	2.5 U	2.5 U	1 U	1.0 U	1.0 U
Methyl tert-butyl ether	50	2 U	10 U	5 U	NA	NA	NA	NA	NA
Tetrachloroethene	3	2 U	10 U	5 U	2.5 U	1.3 U	0.5 U	0.34 U	0.34 U
Toluene	40	**56.6**	**43.2**	**5.8**	2.5 U	1.3 U	0.5 U	0.51 U	0.51 U
trans-1,2-Dichloroethene	31	2 U	10 U	5 U	2.5 U	1.3 U	0.5 U	0.44 U	0.44 U
Trichloroethene	3	2 U	10 U	5 U	2.5 U	1.3 U	0.5 U	0.28 U	0.28 U
Vinyl Chloride	1	1 U	5 U	2.5 U	2.5 U	1.3 U	0.5 U	0.50 U	0.50 U
Xylenes, total	20	**334**	**305**	**307**	**181**	**184**	**136**	**97**	**41**
SEMIVOLATILE ORGANIC COMPOUNDS (µg/L)									
Acenaphthene	20	80 U	40 U	33 U	4.2 U	10 U	1 U	**7.3**	0.20 U
1-Methylnaphthalene	20	**175**	**145**	**76.1**	**158**	**155**	**105**	**98**	**74**
2-Methylnaphthalene	20	**196**	**172**	**86.7**	**185**	**180**	**127**	**69**	**87**
Naphthalene	20	**438**	**354**	**190**	**382**	**332**	**247**	**130**	**200**
TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (TRPH) (mg/L)									
TRPH	5	**13.6**	**15.0**	**12.6**	**14.3**	**14.7**	**11.4**	**7.5**	**4.8**

TABLE 3

CHEMICALS OF CONCERN IN GROUNDWATER
OPERABLE UNIT 9, SITE 57 - BUILDING 824A/DAY TANK 1 AREA
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

PARAMETER	TARGET CLEANUP GOAL(1)	CEF-824A-12I						
		Sep-01	Apr-03	Jul-03	Oct-03	Jan-04	Jul-04	Feb-05
VOLATILE ORGANIC COMPOUNDS (µg/L)								
Acetone	700	50 U	5 U	5 U	5 U	5 U	9.9 U	9.9 U
Benzene	1	**3.5**	**2.8**	**3.4**	**5.1**	**6.1**	**3.1**	**2.5**
Chloroform	5.7	2 U	1 U	1 U	0.5 U	0.5 U	0.90 U	0.90 U
cis-1,2-Dichloroethene	70	2 U	1 U	1 U	0.5 U	0.5 U	0.44 U	0.65 U
1,1-Dichloroethane	70	2 U	1 U	1 U	0.5 U	0.5 U	0.52 U	0.52 U
1,1-Dichloroethene	7	2 U	1 U	1 U	0.5 U	0.5 U	0.45 U	0.45 U
Ethylbenzene	30	**10.4**	**10.1**	**10.5**	**17.2**	**19**	**4.6**	**3.4**
4-Methyl-2-pentanone	560	10 U	5 U	5 U	2.5 U	2.5 U	3.8 U	3.8 U
Methylene chloride	5	5 U	1 U	1 U	1 U	1 U	1.0 U	1.0 U
Methyl tert-butyl ether	50	2 U	1 U	NA	NA	NA	NA	NA
Tetrachloroethene	3	**1 J**	**0.51 J**	1 U	0.5 U	**0.64 J**	0.34 U	**1.5**
Toluene	40	2 U	1 U	1 U	0.5 U	0.5 U	0.51 U	0.51 U
trans-1,2-Dichloroethene	31	2 U	1 U	1 U	0.5 U	0.5 U	0.44 U	0.44 U
Trichloroethene	3	2 U	1 U	1 U	0.5 U	0.5 U	0.28 U	0.28 U
Vinyl Chloride	1	1 U	0.5 U	1 U	0.5 U	0.5 U	0.50 U	0.50 U
Xylenes, total	20	**36.2**	**33.7**	**39.2**	**46.4**	**52.4**	**25**	**12**
SEMIVOLATILE ORGANIC COMPOUNDS (µg/L)								
Acenaphthene	20	4.4 U	4.1 U	4 U	1.1 U	1.1 U	0.075 U	0.20 U
1-Methylnaphthalene	20	**12.5**	**21.7**	**26.9**	**25.4**	**16.4**	**21**	**14**
2-Methylnaphthalene	20	**12.3**	**22.1**	**30.6**	**28.8**	**19.4**	**23**	**16**
Naphthalene	20	**49.1**	**58.7**	**78.4**	**87**	**46.7**	**42**	**38**
TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (TRPH) (mg/L)								
TRPH	5	**3.28**	**1.71**	**2.48**	**3.26**	**3.28**	**3.28**	**2.1**

TABLE 3

CHEMICALS OF CONCERN IN GROUNDWATER
OPERABLE UNIT 9, SITE 57 - BUILDING 824A/DAY TANK 1 AREA
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

PARAMETER	TARGET CLEANUP GOAL(1)	CEF-824A-13D							
		Sep-01	Apr-03	Jul-03	Oct-03	Jan-04	Jul-04	Feb-05	
								Sample	Duplicate
VOLATILE ORGANIC COMPOUNDS (µg/L)									
Acetone	700	50 U	5 U	5 U	5 U	5 U	9.9 U	9.9 U	9.9 U
Benzene	1	1 U	1 U	1 U	0.5 U	0.5 U	0.27 U	0.27 U	0.27 U
Chloroform	5.7	2 U	1 U	1 U	0.5 U	0.5 U	0.90 U	0.90 U	0.90 U
cis-1,2-Dichloroethene	70	2 U	1 U	1 U	0.5 U	0.5 U	0.65 U	0.65 U	0.65 U
1,1-Dichloroethane	70	2 U	1 U	1 U	0.5 U	0.5 U	0.52 U	0.52 U	0.52 U
1,1-Dichloroethene	7	2 U	1 U	1 U	0.5 U	0.5 U	0.45 U	0.45 U	0.45 U
Ethylbenzene	30	2 U	1 U	1 U	0.5 U	0.5 U	0.83 U	0.83 U	0.83 U
4-Methyl-2-pentanone	560	10 U	5 U	5 U	2.5 U	2.5 U	3.8 U	3.8 U	3.8 U
Methylene chloride	5	5 U	1 U	1 U	1 U	1 U	1.0 U	1.0 U	1.0 U
Methyl tert-butyl ether	50	2 U	1 U	NA	NA	NA	NA	NA	NA
Tetrachloroethene	3	2 U	1 U	1 U	0.5 U	0.5 U	0.34 U	0.34 U	0.34 U
Toluene	40	2 U	1 U	1 U	0.5 U	0.5 U	0.51 U	0.51 U	0.51 U
trans-1,2-Dichloroethene	31	2 U	1 U	1 U	0.5 U	0.5 U	0.44 U	0.44 U	0.44 U
Trichloroethene	3	2 U	1 U	1 U	0.5 U	0.5 U	0.28 U	0.28 U	0.28 U
Vinyl Chloride	1	1 U	0.5 U	1 U	0.5 U	0.5 U	0.50 U	0.50 U	0.50 U
Xylenes, total	20	6 U	3 U	3 U	1 U	1 U	0.78 U	0.78 U	0.78 U
SEMIVOLATILE ORGANIC COMPOUNDS (µg/L)									
Acenaphthene	20	4 U	4.1 U	4.3 U	1 U	1.1 U	0.075 U	0.20 U	0.20 U
1-Methylnaphthalene	20	2 U	2.1 U	2.2 U	0.52 U	0.53 U	0.11 U	0.12 U	0.12 U
2-Methylnaphthalene	20	2 U	2.1 U	2.2 U	0.52 U	0.53 U	0.076 U	0.13 U	0.13 U
Naphthalene	20	2 U	2.1 U	2.2 U	0.52 U	0.53 U	0.089 U	**0.015 J**	0.084 U
TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (TRPH) (mg/L)									
TRPH	5	0.25 U	NA	NA	NA	NA	NA	NA	NA

TABLE 3

CHEMICALS OF CONCERN IN GROUNDWATER
OPERABLE UNIT 9, SITE 57 - BUILDING 824A/DAY TANK 1 AREA
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

PARAMETER	TARGET CLEANUP GOAL(1)	CEF-824A-14S						
		Sep-01	Apr-03	Jul-03	Oct-03	Jan-04	Jul-04	Feb-05
VOLATILE ORGANIC COMPOUNDS (µg/L)								
Acetone	700	100 U	25 U	**6.9**	100 U	50 U	9.9 U	9.9 U
Benzene	1	2 U	5 U	**2.3**	10 U	5 U	**2.8**	**0.96 J**
Chloroform	5.7	4 U	5 U	1 U	10 U	5 U	0.90 U	0.90 U
cis-1,2-Dichloroethene	70	**139**	**441**	**1100**	**1740**	**1010**	**540**	**410**
1,1-Dichloroethane	70	**97.2**	**120**	**185**	**203**	**124**	**99**	**42**
1,1-Dichloroethene	7	**5.0**	**4.5 J**	**4.4**	10 U	5 U	**2.6**	**0.87 J**
Ethylbenzene	30	**4.4**	**4.4 J**	**3.9**	**10.1 J**	**7.2 J**	**5**	**2.1**
4-Methyl-2-pentanone	560	20 U	25 U	5 U	50 U	25 U	3.8 U	**5.4**
Methylene chloride	5	10 U	5 U	1 U	20 U	10 U	1.0 U	1.0 U
Methyl tert-butyl ether	50	2 U	5 U	NA	NA	NA	NA	NA
Tetrachloroethene	3	4 U	5 U	**1.2**	10 U	5 U	**2.0**	**1.8**
Toluene	40	**4.9**	**9.1**	**19.4**	**33.7**	**26.7**	**48**	**8.3**
trans-1,2-Dichloroethene	31	4 U	5 U	**4**	**10.2 J**	**5 J**	**20**	**1.6**
Trichloroethene	3	**9.0**	**13.8**	**21.5**	**40.5**	**33.8**	**30**	**10**
Vinyl Chloride	1	2 U	2.5 U	**2**	10 U	5 U	0.50 U	0.50 U
Xylenes, total	20	**4.9 J**	15 U	**3.8**	20 U	10 U	**7.0**	**3.8**
SEMIVOLATILE ORGANIC COMPOUNDS (µg/L)								
Acenaphthene	20	4 U	4.3 U	4.1 U	1 U	1 U	0.075 U	0.20 U
1-Methylnaphthalene	20	2 U	2.2 U	2.1 U	0.52 U	0.51 U	0.11 U	0.12 U
2-Methylnaphthalene	20	2 U	2.2 U	2.1 U	0.52 U	0.51 U	0.076 U	0.13 U
Naphthalene	20	2 U	2.2 U	2.1 U	0.52 U	0.51 U	0.089 U	0.084 U
TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (TRPH) (mg/L)								
TRPH	5	**2.01**	NA	NA	NA	NA	NA	NA

TABLE 3

CHEMICALS OF CONCERN IN GROUNDWATER
OPERABLE UNIT 9, SITE 57 - BUILDING 824A/DAY TANK 1 AREA
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

PARAMETER	TARGET CLEANUP GOAL(1)	CEF-824A-15I						
		Sep-01	Apr-03	Jul-03	Oct-03	Jan-04	Jul-04	Feb-05
VOLATILE ORGANIC COMPOUNDS (µg/L)								
Acetone	700	50 U	5 U	**8.1**	5 U	5 U	9.9 U	**19**
Benzene	1	1 U	1 U	1 U	0.5 U	0.5 U	**0.47 J**	0.27 U
Chloroform	5.7	4 U	1 U	1 U	0.5 U	0.5 U	0.90 U	0.90 U
cis-1,2-Dichloroethene	70	2 U	1 U	1 U	0.5 U	0.5 U	0.14 U	0.65 U
1,1-Dichloroethane	70	2 U	1 U	1 U	0.5 U	0.5 U	0.52 U	0.52 U
1,1-Dichloroethene	7	2 U	1 U	1 U	0.5 U	0.5 U	0.45 U	0.45 U
Ethylbenzene	30	**1.0 J**	1 U	1 U	0.5 U	0.5 U	0.83 U	0.83 U
4-Methyl-2-pentanone	560	10 U	5 U	5 U	2.5 U	2.5 U	3.8 U	3.8 U
Methylene chloride	5	5 U	1 U	1 U	1 U	1 U	1.0 U	1.0 U
Methyl tert-butyl ether	50	2 U	1 U	NA	NA	NA	NA	NA
Tetrachloroethene	3	**1.5 J**	**0.53 J**	**0.58 J**	**0.86 J**	**1.3**	**0.80 J**	0.34 U
Toluene	40	2 U	1 U	1 U	0.5 U	0.5 U	0.51 U	0.51 U
trans-1,2-Dichloroethene	31	2 U	1 U	1 U	0.5 U	0.5 U	0.44 U	0.44 U
Trichloroethene	3	2 U	1 U	1 U	**0.53 J**	0.5 U	0.28 U	0.28 U
Vinyl Chloride	1	1 U	0.5 U	1 U	0.5 U	0.5 U	0.50 U	0.50 U
Xylenes, total	20	**5.2 J**	3 U	3 U	1 U	1 U	0.78 U	0.78 U
SEMIVOLATILE ORGANIC COMPOUNDS (µg/L)								
Acenaphthene	20	4 U	4.3 U	4.4 U	1.1 U	1 U	**0.27 J**	0.20 U
1-Methylnaphthalene	20	**2.0**	**3.8**	**2.5**	**3.1**	**3.9**	**4.4**	**5.0**
2-Methylnaphthalene	20	2 U	**3.1**	**2.3**	**2.9**	**3.7**	**4.4**	**5.2**
Naphthalene	20	**2.4**	**9.9**	**7.2**	**8**	**8.5**	**6.5**	**5.8**
TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (TRPH) (mg/L)								
TRPH	5	**1.21**	NA	NA	NA	NA	NA	NA

TABLE 3

CHEMICALS OF CONCERN IN GROUNDWATER
OPERABLE UNIT 9, SITE 57 - BUILDING 824A/DAY TANK 1 AREA
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

PARAMETER	TARGET CLEANUP GOAL(1)	CEF-824A-17I						
		Sep-01	Apr-03	Jul-03	Oct-03	Jan-04	Jul-04	Feb-05
VOLATILE ORGANIC COMPOUNDS (µg/L)								
Acetone	700	50 U	5 U	**6.6**	5 U	5 U	9.9 U	9.9 U
Benzene	1	1 U	1 U	1 U	**0.93 J**	**4.2**	**0.46 J**	**0.31 J**
Chloroform	5.7	2 U	1 U	1 U	0.5 U	0.5 U	0.90 U	0.90 U
cis-1,2-Dichloroethene	70	2 U	1 U	1 U	0.5 U	0.5 U	0.65 U	0.65 U
1,1-Dichloroethane	70	2 U	1 U	1 U	0.5 U	0.5 U	0.52 U	0.52 U
1,1-Dichloroethene	7	2 U	1 U	1 U	0.5 U	0.5 U	0.45 U	0.45 U
Ethylbenzene	30	2 U	1 U	1 U	**0.63 J**	**3.1**	0.83 U	0.83 U
4-Methyl-2-pentanone	560	10 U	5 U	5 U	2.5 U	2.5 U	3.8 U	3.8 U
Methylene chloride	5	5 U	1 U	1 U	1 U	1 U	1.0 U	1.0 U
Methyl tert-butyl ether	50	2 U	1 U	NA	NA	NA	NA	NA
Tetrachloroethene	3	2 U	1 U	1 U	0.5 U	0.5 U	0.34 U	0.34 U
Toluene	40	2 U	1 U	1 U	0.5 U	0.5 U	0.51 U	0.51 U
trans-1,2-Dichloroethene	31	2 U	1 U	1 U	0.5 U	0.5 U	0.44 U	0.44 U
Trichloroethene	3	2 U	1 U	1 U	0.5 U	0.5 U	0.28 U	0.28 U
Vinyl Chloride	1	1 U	0.5 U	1 U	0.5 U	0.5 U	0.50 U	0.50 U
Xylenes, total	20	**4.3 J**	3 U	**1.5 J**	**6.8**	**29.5**	**5.2**	0.78 U
SEMIVOLATILE ORGANIC COMPOUNDS (µg/L)								
Acenaphthene	20	4.4 U	4 U	4.2 U	1 U	1 U	**1.4**	0.20 U
1-Methylnaphthalene	20	2.2 U	2 U	2.1 U	**0.68 J**	**2.1**	**2.5**	**0.30 J**
2-Methylnaphthalene	20	2.2 U	2 U	**0.77 J**	**1 J**	**3**	**0.65 J**	**0.44 J**
Naphthalene	20	2.2 U	**1.4 J**	**2.2**	**5.9**	**21.9**	**16**	**2.5**
TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (TRPH) (mg/L)								
TRPH	5	**0.533**	NA	NA	NA	NA	NA	NA

TABLE 3

CHEMICALS OF CONCERN IN GROUNDWATER
OPERABLE UNIT 9, SITE 57 - BUILDING 824A/DAY TANK 1 AREA
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

PARAMETER	TARGET CLEANUP GOAL(1)	CEF-824A-19S							
		Sep-01	Apr-03	Jul-03	Oct-03	Jan-04	Jul-04	Feb-05	May-05 Resample
VOLATILE ORGANIC COMPOUNDS (µg/L)									
Acetone	700	50 U	5 U	5 U	5 U	5 U	9.9 U	9.9 U	9.9 U
Benzene	1	1 U	1 U	1 U	0.5 U	0.5 U	0.27 U	0.27 U	0.27 U
Chloroform	5.7	2 U	1 U	1 U	0.5 U	0.5 U	0.90 U	0.90 U	0.90 U
cis-1,2-Dichloroethene	70	2 U	1 U	1 U	0.5 U	0.5 U	0.65 U	0.65 U	0.65 U
1,1-Dichloroethane	70	2 U	1 U	1 U	0.5 U	0.5 U	0.52 U	0.52 U	0.52 U
1,1-Dichloroethene	7	2 U	1 U	1 U	0.5 U	0.5 U	0.45 U	0.45 U	0.45 U
Ethylbenzene	30	2 U	1 U	1 U	0.5 U	0.5 U	0.83 U	0.83 U	0.83 U
4-Methyl-2-pentanone	560	10 U	5 U	5 U	2.5 U	2.5 U	3.8 U	3.8 U	3.8 U
Methylene chloride	5	5 U	1 U	1 U	1 U	1 U	1.0 U	1.0 U	1.0 U
Methyl tert-butyl ether	50	2 U	1 U	NA	NA	NA	NA	NA	NA
Tetrachloroethene	3	2 U	1 U	1 U	0.5 U	0.5 U	0.34 U	0.34 U	0.34 U
Toluene	40	2 U	1 U	1 U	0.5 U	0.5 U	0.51 U	0.51 U	0.51 U
trans-1,2-Dichloroethene	31	2 U	1 U	1 U	0.5 U	0.5 U	0.44 U	0.44 U	0.44 U
Trichloroethene	3	2 U	1 U	1 U	0.5 U	0.5 U	0.28 U	0.28 U	0.28 U
Vinyl Chloride	1	1 U	0.5 U	1 U	0.5 U	0.5 U	0.50 U	0.50 U	0.50 U
Xylenes, total	20	6 U	3 U	3 U	1 U	1 U	0.78 U	0.78 U	0.78 U
SEMIVOLATILE ORGANIC COMPOUNDS (µg/L)									
Acenaphthene	20	4 U	4.1 U	4.2 U	1.1 U	1 U	0.075 U	0.20 U	0.077 U
1-Methylnaphthalene	20	2 U	2.1 U	2.1 U	0.53 U	0.51 U	0.11 U	**21**	0.11 U
2-Methylnaphthalene	20	2 U	2.1 U	2.1 U	0.53 U	0.51 U	0.076 U	**26**	0.13 U
Naphthalene	20	2 U	2.1 U	2.1 U	0.53 U	0.51 U	0.089 U	**12**	0.085 U
TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (TRPH) (mg/L)									
TRPH	5	0.28 U	0.26 U	0.26 U	0.26 U	0.18 U	0.10 U	0.10 U	0.10 U

TABLE 3

CHEMICALS OF CONCERN IN GROUNDWATER
OPERABLE UNIT 9, SITE 57 - BUILDING 824A/DAY TANK 1 AREA
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

PARAMETER	TARGET CLEANUP GOAL(1)	CEF-824A-20S						
		Sep-01	Apr-03	Jul-03	Oct-03	Jan-04	Jul-04	Feb-05
VOLATILE ORGANIC COMPOUNDS (µg/L)								
Acetone	700	50 U	5 U	5 U	5 U	5 U	9.9 U	9.9 U
Benzene	1	1 U	1 U	1 U	0.5 U	0.5 U	0.27 U	0.27 U
Chloroform	5.7	2 U	1 U	1 U	0.5 U	0.5 U	0.90 U	0.90 U
cis-1,2-Dichloroethene	70	2 U	1 U	1 U	0.5 U	0.5 U	0.65 U	0.65 U
1,1-Dichloroethane	70	1 U	1 U	1 U	0.5 U	0.5 U	0.52 U	0.52 U
1,1-Dichloroethene	7	1 U	1 U	1 U	0.5 U	0.5 U	0.45 U	0.45 U
Ethylbenzene	30	1 U	1 U	1 U	0.5 U	0.5 U	0.83 U	0.83 U
4-Methyl-2-pentanone	560	10 U	5 U	5 U	2.5 U	2.5 U	3.8 U	3.8 U
Methylene chloride	5	5 U	1 U	1 U	1 U	1 U	1.0 U	1.0 U
Methyl tert-butyl ether	50	2 U	1 U	NA	NA	NA	NA	NA
Tetrachloroethene	3	1 U	1 U	1 U	0.5 U	0.5 U	0.34 U	0.34 U
Toluene	40	1 U	1 U	1 U	0.5 U	0.5 U	0.51 U	0.51 U
trans-1,2-Dichloroethene	31	NA	1 U	1 U	0.5 U	0.5 U	0.44 U	0.44 U
Trichloroethene	3	1 U	1 U	1 U	0.5 U	0.5 U	0.28 U	0.28 U
Vinyl Chloride	1	1 U	0.5 U	1 U	0.5 U	0.5 U	0.50 U	0.50 U
Xylenes, total	20	1 U	3 U	3 U	1 U	1 U	0.78 U	0.78 U
SEMIVOLATILE ORGANIC COMPOUNDS (µg/L)								
Acenaphthene	20	4.4 U	4.2 U	4.4 U	1.1 U	1.1 U	0.075 U	0.20 U
1-Methylnaphthalene	20	2.2 U	2.1 U	2.2 U	0.53 U	0.53 U	0.11 U	0.12 U
2-Methylnaphthalene	20	2.2 U	2.1 U	2.2 U	0.53 U	0.53 U	0.076 U	0.13 U
Naphthalene	20	2.2 U	2.1 U	2.2 U	0.53 U	0.53 U	0.089 U	0.084 U
TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (TRPH) (mg/L)								
TRPH	5	0.28 U	0.26 U	0.26 U	0.17 U	0.19 U	0.10 U	0.20 U

TABLE 3

CHEMICALS OF CONCERN IN GROUNDWATER
OPERABLE UNIT 9, SITE 57 - BUILDING 824A/DAY TANK 1 AREA
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

PARAMETER	TARGET CLEANUP GOAL(1)	CEF-824A-21I**						
		Sep-01	Apr-03	Jul-03	Oct-03	Jan-04	Jul-04	Feb-05
VOLATILE ORGANIC COMPOUNDS (µg/L)								
Acetone	700	50 U	5 U	5 U	5 U	**6.8**	9.9 U	9.9 U
Benzene	1	**1.8**	1 U	1 U	0.5 U	0.5 U	**0.60 J**	**0.94 J**
Chloroform	5.7	2 U	1 U	1 U	0.5 U	0.5 U	0.90 U	0.90 U
cis-1,2-Dichloroethene	70	2 U	1 U	1 U	0.5 U	0.5 U	0.65 U	0.65 U
1,1-Dichloroethane	70	2 U	1 U	1 U	0.5 U	0.5 U	0.52 U	0.52 U
1,1-Dichloroethene	7	2 U	1 U	1 U	0.5 U	0.5 U	0.45 U	0.45 U
Ethylbenzene	30	**2.2**	**0.81 J**	1 U	**0.62 J**	**0.73 J**	**5.4**	**11**
4-Methyl-2-pentanone	560	10 U	5 U	5 U	2.5 U	2.5 U	3.8 U	3.8 U
Methylene chloride	5	5 U	1 U	1 U	1 U	1 U	1.0 U	1.0 U
Methyl tert-butyl ether	50	2 U	1 U	NA	NA	NA	NA	NA
Tetrachloroethene	3	2 U	1 U	1 U	0.5 U	0.5 U	0.34 U	0.34 U
Toluene	40	**1.5 J**	1 U	1 U	0.5 U	0.5 U	0.51 U	0.51 U
trans-1,2-Dichloroethene	31	2 U	1 U	1 U	0.5 U	0.5 U	0.44 U	0.44 U
Trichloroethene	3	2 U	1 U	1 U	0.5 U	0.5 U	0.28 U	0.28 U
Vinyl Chloride	1	1 U	0.5 U	1 U	0.5 U	0.5 U	0.50 U	0.50 U
Xylenes, total	20	**9**	**1.1 J**	3 U	1 U	**1.8 J**	**6**	**16.6**
SEMIVOLATILE ORGANIC COMPOUNDS (µg/L)								
Acenaphthene	20	4 U	4.1 U	4.2 U	1.1 U	1.1 U	**0.52 J**	**0.20 U**
1-Methylnaphthalene	20	**10.5**	**18.3**	**15**	**13.2**	**14.5**	**18**	**11**
2-Methylnaphthalene	20	**13.3**	**26.5**	**23**	**19.5**	**20.8**	**20**	**14**
Naphthalene	20	**6.3**	**4.2**	**3.1**	**2.6**	**3.4**	**7.5**	**12**
TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (TRPH) (mg/L)								
TRPH	5	**0.744**	**0.686**	**0.739**	**0.538**	**0.479**	**0.85**	**0.67**

TABLE 3

CHEMICALS OF CONCERN IN GROUNDWATER
OPERABLE UNIT 9, SITE 57 - BUILDING 824A/DAY TANK 1 AREA
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

PARAMETER	TARGET CLEANUP GOAL(1)	CEF-824A-22S**							
		Sep-01		Apr-03	Jul-03	Oct-03	Jan-04	Jul-04	Feb-05
		Sample	Duplicate						
VOLATILE ORGANIC COMPOUNDS (µg/L)									
Acetone	700	50 U	50 U	5 U	5 U	5 U	5 U	9.9 U	9.9 U
Benzene	1	1 U	1 U	1 U	1 U	0.5 U	0.5 U	0.27 U	0.27 U
Chloroform	5.7	2 U	2 U	1 U	1 U	0.5 U	0.5 U	0.90 U	0.90 U
cis-1,2-Dichloroethene	70	2 U	2 U	1 U	1 U	0.5 U	**0.59 J**	0.14 U	**1.2**
1,1-Dichloroethane	70	2 U	2 U	1 U	1 U	0.5 U	0.5 U	0.52 U	0.52 U
1,1-Dichloroethene	7	2 U	2 U	1 U	1 U	0.5 U	0.5 U	0.45 U	0.45 U
Ethylbenzene	30	2 U	2 U	1 U	1 U	0.5 U	0.5 U	0.83 U	0.83 U
4-Methyl-2-pentanone	560	10 U	10 U	5 U	5 U	2.5 U	2.5 U	3.8 U	3.8 U
Methylene chloride	5	5 U	5 U	1 U	1 U	1 U	1 U	1.0 U	1.0 U
Methyl tert-butyl ether	50	2 U	2 U	1 U	NA	NA	NA	NA	NA
Tetrachloroethene	3	2 U	2 U	1 U	1 U	0.5 U	0.5 U	0.34 U	0.34 U
Toluene	40	2 U	2 U	1 U	1 U	0.5 U	0.5 U	0.51 U	0.51 U
trans-1,2-Dichloroethene	31	2 U	2 U	1 U	1 U	0.5 U	0.5 U	0.44 U	0.44 U
Trichloroethene	3	2 U	2 U	**1.3**	**0.87 J**	**1.1**	**1.3**	**1.4**	**1.4**
Vinyl Chloride	1	1 U	1 U	0.5 U	1 U	0.5 U	0.5 U	0.50 U	0.50 U
Xylenes, total	20	6 U	6 U	3 U	3 U	1 U	1 U	0.78 U	0.78 U
SEMIVOLATILE ORGANIC COMPOUNDS (µg/L)									
Acenaphthene	20	4 U	4.8 U	4.2 U	4.2 U	1.1 U	1.1 U	0.075 U	0.20 U
1-Methylnaphthalene	20	2 U	2.4 U	2.1 U	2.1 U	0.54 U	0.53 U	0.11 U	0.12 U
2-Methylnaphthalene	20	2 U	2.4 U	2.1 U	2.1 U	0.54 U	0.53 U	0.076 U	0.13 U
Naphthalene	20	2 U	2.4 U	2.1 U	**0.77 J**	0.54 U	**0.58 J**	0.089 U	0.084 U
TOTAL RECOVERABLE PETROLEUM HYDROCARBONS (TRPH) (mg/L)									
TRPH	5	0.28 U	0.28 U	0.26 U	0.25 U	0.19 U	0.19 U	0.10 U	0.20 U

U = Not detected at/above method detection limit.
J = Estimated value.
NA = Not analyzed.
NC = No criterion.
* Total of o-, m-, and p-xylenes.

(1) FDEP GCTL, F.A.C. 62-777, 1999.
(2) U.S. EPA Region IX PRGs.
(3) U.S. EPA federal MCLs.
** Wells CEF-824A-21I and CEF-824A-22S were installed in December 2001.
*** Well CEF-293-3 was abandoned and re-installed in October 2003.

Bolded values exceed detection limits.
Shaded values exceed target cleanup goals.

TABLE 4

SUMMARY OF NATURAL ATTENUATION INDICATOR PARAMETERS IN GROUNDWATER
OPERABLE UNIT 9, SITE 57 - BUILDING 824A/DAY TANK 1 AREA
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

PARAMETER	UNITS	CEF-293-3					
		Apr-03	Jul-03	Oct-03*	Jan-04	Jul-04	Feb-05
Alkalinity	mg/L	7	7.5	NA	7.5	1.0 U	12
Alkalinity, field	mg/L	<10	80	NA	<10	0	0
Carbon dioxide	mg/L	50	29	NA	105	100	40
Chloride	mg/L	20 U	20 U	NA	20 U	4.7	2.8
Ferrous iron	mg/L	0.15	0.13	NA	0.21	0.2	0.2
Dissolved oxygen	mg/L	1	0.6	NA	1	0.4	0.9
Dissolved sulfide	mg/L	1 U	1 U	NA	1 U	1.0 U	1.0 U
Hydrogen sulfide (H_2S)	mg/L	0	0	NA	0.3	0	0
Field sulfide (S^{-2})	mg/L	0.01	0.01	NA	0.13	0.03	0.04
Nitrate	mg/L	0.1 U	0.1 U	NA	0.1 U	0.010 U	0.065
Nitrite	mg/L	0.1 U	0.1 U	NA	0.1 U	0.010 U	0.010 U
Orthophosphate	mg/L	20 U	0.1 U	NA	0.1 U	0.0090 U	0.009 U
pH	St. units	5.34	4.82	NA	4.45	4.51	5.14
ORP	mV	214	213.3	NA	172.2	32	185
Specific conductance	mS/cm	0.041	0.059	NA	0.052	0.06	0.13
Sulfate	mg/L	20 U	20 U	NA	20 U	6.8	7.6
Temperature	^{o}C	22.6	25.64	NA	23.34	24.3	5.14
TOC [(1)]	mg/L	5.6	6.8	NA	3.9	4.9	6.2
Turbidity	NTU	0	2.2	NA	4.13	23	42
Ethane	ug/L	1 U	1 U	NA	0.6 U	0.35 U	0.35 U
Ethene	ug/L	1 U	1 U	NA	0.8 U	0.33 U	0.33 U
Methane	ug/L	0.98	0.5 U	NA	67.4	13	4.4
Iron, filtered	ug/L	31.9 U	7.1 U	NA	439	330	0.044 J

TABLE 4

SUMMARY OF NATURAL ATTENUATION INDICATOR PARAMETERS IN GROUNDWATER
OPERABLE UNIT 9, SITE 57 - BUILDING 824A/DAY TANK 1 AREA
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

PARAMETER	UNITS	CEF-293-11						
		Sep-01	Apr-03	Jul-03	Oct-03	Jan-04	Jul-04	Feb-05
Alkalinity	mg/L	20.6	31	27.5	18.5	13.5	8	20
Alkalinity, field	mg/L	65	<10	<10	<10	<10	0	18
Carbon dioxide	mg/L	190	225	150	170	60	250	40
Chloride	mg/L	23.1	20 U	20 U	20 U	20 U	6.1	7.5
Ferrous iron	mg/L	0.02	0.09	0	0.01	0.03	0.1	0
Dissolved oxygen	mg/L	0.25	0.3	1	1	0.4	0.2	0.2
Dissolved sulfide	mg/L	2 U	1.5	1.8	1.4	1.6	3.4	3.0
Hydrogen sulfide (H_2S)	mg/L	2.0	2	5	>5	2	2.0	2.0
Field sulfide (S^{-2})	mg/L	>0.80	>0.8	>0.8	>0.8	>0.8	>0.80	>0.80
Nitrate	mg/L	2.6	0.1 U	1.4	0.39	0.12	0.010 U	0.28
Nitrite	mg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.010 U	0.010 U
Orthophosphate	mg/L	0.1 UJ	20 U	0.1 U	0.1 U	0.1 U	0.0090 U	0.034 J
pH	St. units	5.83	5.11	5.29	4.8	4.77	4.61	5.21
ORP	mV	-155	14.4	-113.3	90.8	10.2	-75	-25
Specific conductance	mS/cm	0.232	0.119	0.133	0.094	0.075	0.08	0.114
Sulfate	mg/L	20 U	20 U	20 U	20 U	20 U	3.1 J	4.71
Temperature	^oC	26.82	23.13	26.06	26.1	22.03	26.2	22.3
TOC [(1)]	mg/L	NA	22.6	22.9	23.7	24.4	18	24
Turbidity	NTU	0	1.8	0.9	1.3	0.21	35	40
Ethane	ug/L	1 U	1 U	1 U	0.6 U	0.6 U	0.35 U	0.35 U
Ethene	ug/L	1 U	1 U	1 U	0.8 U	0.8 U	0.33 U	0.33 U
Methane	ug/L	1693	1670	3400	2881	2635	870	680
Iron, filtered	ug/L	26.9 U	81.5 U	32.8 U	57.9 B	122 B	190	65

TABLE 4

SUMMARY OF NATURAL ATTENUATION INDICATOR PARAMETERS IN GROUNDWATER
OPERABLE UNIT 9, SITE 57 - BUILDING 824A/DAY TANK 1 AREA
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

PARAMETER	UNITS	CEF-293-13						
		Sep-01	Apr-03	Jul-03	Oct-03	Jan-04	Jul-04	Feb-05
Alkalinity	mg/L	5 U	5 U	5.5	6	5 U	3.0	4.0
Alkalinity, field	mg/L	<10	<10	<10	<10	<10	<10	0
Carbon dioxide	mg/L	19	28	20	16	19	14	13
Chloride	mg/L	20 U	20 U	20 U	20 U	20 U	6.4	8.5
Ferrous iron	mg/L	0.03	0.06	0.05	0.09	0	0	0
Dissolved oxygen	mg/L	1.0	0.8	0.8	0.6	1	0.3	0
Dissolved sulfide	mg/L	2 U	1 U	1 U	1 U	1 U	1.0 U	1.1
Hydrogen sulfide (H_2S)	mg/L	0	0	0	0	0	0.1	0
Field sulfide (S^{-2})	mg/L	0.05	0.01	0.1	0.04	0	0.1	0.04
Nitrate	mg/L	9.2	0.1 U	4.8	2	2.2	1.2	1.6
Nitrite	mg/L	0.5 U	0.1 U	0.1 U	0.1 U	0.1 U	0.010 U	0.010 U
Orthophosphate	mg/L	0.1 U	26.8	0.1 U	0.1 U	0.1 U	0.012 J	0.009 U
pH	St. units	5.43	5.4	5.3	5.22	5.32	5.03	5.18
ORP	mV	-81	55.7	35.4	183.3	64.2	-4	-27
Specific conductance	mS/cm	0.192	0.136	0.151	0.096	0.102	0.09	0.149
Sulfate	mg/L	21.8	26.8	26.2	21.2	21.8	37	24
Temperature	^oC	25.90	21.72	27.18	26.64	20.68	26.7	20.7
TOC [(1)]	mg/L	NA	9.4	9.1	9.2	8	7.7	8.3
Turbidity	NTU	12.4	6.7	2.3	8.32	7.9	4	53
Ethane	ug/L	1 U	1 U	1 U	0.6 U	0.6 U	0.35 U	0.35 U
Ethene	ug/L	1 U	1 U	1 U	0.8 U	0.8 U	0.34	0.33
Methane	ug/L	4.8	1.54	1.13	1.87	4.51	0.94	65
Iron, filtered	ug/L	26.0 U	39.5 U	7.1 U	38.9 B	31.5 B	66	0.037 U

TABLE 4

SUMMARY OF NATURAL ATTENUATION INDICATOR PARAMETERS IN GROUNDWATER
OPERABLE UNIT 9, SITE 57 - BUILDING 824A/DAY TANK 1 AREA
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

PARAMETER	UNITS	CEF-293-19						
		Sep-01	Apr-03	Jul-03	Oct-03	Jan-04	Jul-04	Feb-05
Alkalinity	mg/L	20	97	89	85	37.5	36	35
Alkalinity, field	mg/L	66.4	50	48	50	<10	15	10
Carbon dioxide	mg/L	300	250	200	70	250	150	50
Chloride	mg/L	40.9	20 U	20 U	20 U	20 U	12	12
Ferrous iron	mg/L	1.18	0.46	0.6	0.4	0.43	0.8	0.1
Dissolved oxygen	mg/L	0.2	1	1	0.6	0.4	1	0.4
Dissolved sulfide	mg/L	3.2	2.1	3.3	3	2.2	2.4	2.4
Hydrogen sulfide (H_2S)	mg/L	2.0	0.5	>5	1	0.7	5	0.5
Field sulfide (S^{-2})	mg/L	>0.80	>0.8	0.8	>0.8	>0.8	>0.8	>0.80
Nitrate	mg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.0261	0.010 U
Nitrite	mg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.010 U	0.010 U
Orthophosphate	mg/L	0.1 UJ	20 U	0.13	0.1 U	0.1 U	0.0090 U	0.012
pH	St. units	5.65	5.75	5.49	5.63	5.22	4.95	5.12
ORP	mV	-167	-52.1	-166	-5.9	-7.5	-102	-57
Specific conductance	mS/cm	0.201	0.25	0.269	0.243	0.142	0.16	0.169
Sulfate	mg/L	20 U	20 U	20 U	20 U	20 U	1.7 U	2.6 J
Temperature	^oC	29.09	24.48	28.4	28.29	23.26	27.4	22.7
TOC (1)	mg/L	NA	65.6	68.4	74.5	102	120	200
Turbidity	NTU	2.8	3.9	4.5	4.4	3.3	0	71
Ethane	ug/L	1 U	1 U	1 U	0.6 U	0.6 U	0.66	0.35 U
Ethene	ug/L	1 U	1 U	1 U	0.8 U	0.8 U	0.42	0.78
Methane	ug/L	5352	4050	4420	4031	6094	2600	6800
Iron, filtered	ug/L	1170	617	573	464	543	540	0.54

TABLE 4

SUMMARY OF NATURAL ATTENUATION INDICATOR PARAMETERS IN GROUNDWATER
OPERABLE UNIT 9, SITE 57 - BUILDING 824A/DAY TANK 1 AREA
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

PARAMETER	UNITS	CEF-293-20						
		Sep-01	Apr-03	Jul-03	Oct-03	Jan-04	Jul-04	Feb-05
Alkalinity	mg/L	5.7	61.5	54	44	39	38	30
Alkalinity, field	mg/L	23.9	25	45	12	25	18	12
Carbon dioxide	mg/L	225	225	70	135	275	200	40
Chloride	mg/L	20 U	20 U	20 U	20 U	20 U	11	11
Ferrous iron	mg/L	0.46	1.33	1.4	0.74	0.66	1.0	1.0
Dissolved oxygen	mg/L	1.0	0.3	0.6	1	0.3	2	0.4
Dissolved sulfide	mg/L	2 U	1.5	1.8	1.9	2.4	2.7	2.4
Hydrogen sulfide (H_2S)	mg/L	>5	>5	5	5	>5	5	2
Field sulfide (S^{-2})	mg/L	>0.80	0.8	0.8	>0.8	>0.8	>0.80	>0.80
Nitrate	mg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.010 U	0.010 U
Nitrite	mg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.010 U	0.010 U
Orthophosphate	mg/L	0.1 UJ	20 U	0.1 U	0.1 U	0.1 U	0.013 J	0.015 J
pH	St. units	5.11	6.11	5.38	5.47	5.48	5.15	5.12
ORP	mV	-140	-151	-34.8	-102.4	-88	-130	-11
Specific conductance	mS/cm	0.118	0.142	170	0.155	141	0.14	0.148
Sulfate	mg/L	20 U	20 U	20 U	20 U	20 U	2.3 J	8
Temperature	^oC	26.00	25.9	30.71	28.79	24.18	29.9	23.1
TOC (1)	mg/L	NA	24.8	22.4	25.7	17.7	18	19
Turbidity	NTU	8.9	0	2.34	1.8	0.7	0	12
Ethane	ug/L	1 U	1 U	1 U	0.6 U	0.6 U	0.35 U	0.35 U
Ethene	ug/L	1 U	1 U	1 U	0.8 U	0.8 U	0.46	0.33 U
Methane	ug/L	500	171	167	237	304	170	320
Iron, filtered	ug/L	499	1280	952	889	578	650	0.64

TABLE 4

SUMMARY OF NATURAL ATTENUATION INDICATOR PARAMETERS IN GROUNDWATER
OPERABLE UNIT 9, SITE 57 - BUILDING 824A/DAY TANK 1 AREA
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

PARAMETER	UNITS	CEF-293-21					
		Apr-03	Jul-03	Oct-03	Jan-04	Jul-04	Feb-05
Alkalinity	mg/L	59	47	54.5	1	44	32
Alkalinity, field	mg/L	30	<10	16	<10	20	25
Carbon dioxide	mg/L	100	60	70	75	35	30
Chloride	mg/L	20 U	20 U	20 U	4	7.5	9
Ferrous iron	mg/L	0.04	0.15	0.06	0.07	0.2	0
Dissolved oxygen	mg/L	0.8	0.6	0.4	1	1	1
Dissolved sulfide	mg/L	1 U	1 U	1 U	7	1.0 U	1.8
Hydrogen sulfide (H_2S)	mg/L	0.3	0.3	0	0.03	0	0.1
Field sulfide (S^{-2})	mg/L	0.2	0.05	0.02	0.07	0.01	0.08
Nitrate	mg/L	0.1 U	2.9	4	10	0.84	2.6
Nitrite	mg/L	0.1 U	0.1 U	0.1 U	11	0.010 U	0.010 U
Orthophosphate	mg/L	28.1	0.1 U	0.1 U	12	0.0090 U	0.013 J
pH	St. units	5.75	5.13	5.72	5.45	5.4	5.48
ORP	mV	50.6	329	194	32.8	20	98
Specific conductance	mS/cm	0.231	229	0.207	0.174	0.17	0.699
Sulfate	mg/L	28.1	23.7	23.4	16	19	40
Temperature	^{o}C	23.94	29.98	28.25	23.43	29.8	22.1
TOC [(1)]	mg/L	10.9	10.3	9.9	18	8.7	7.8
Turbidity	NTU	0.7	1.03	3.2	4.31	0	13
Ethane	ug/L	1 U	1 U	0.6 U	20	0.56	0.35 U
Ethene	ug/L	1 U	1 U	0.8 U	21	0.63	0.33 U
Methane	ug/L	6.56	69.6	7	22	6	7.1
Iron, filtered	ug/L	93.9 U	7.1 U	7.1 U	23	70	0.037 U

TABLE 4

SUMMARY OF NATURAL ATTENUATION INDICATOR PARAMETERS IN GROUNDWATER
OPERABLE UNIT 9, SITE 57 - BUILDING 824A/DAY TANK 1 AREA
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

PARAMETER	UNITS	CEF-824A-1Sa					
		Apr-03	Jul-03	Oct-03	Jan-04	Jul-04	Feb-05
Alkalinity	mg/L	12	10	11.5	13	14	10
Alkalinity, field	mg/L	<10	<10	<10	<10	0	0
Carbon dioxide	mg/L	100	40	37.5	60	140	25
Chloride	mg/L	20 U	20 U	20 U	20 U	7.0	8.2
Ferrous iron	mg/L	0.07	0	0.05	0.06	0	0
Dissolved oxygen	mg/L	1	0.4	1	1	0.3	0.2
Dissolved sulfide	mg/L	1 U	1 U	1 U	1 U	1.0 U	1.0 U
Hydrogen sulfide (H_2S)	mg/L	0.5	0.5	0.2	0.3	0.3	0.4
Field sulfide (S^{-2})	mg/L	0.23	0.21	0.21	0.27	>0.8	0.16
Nitrate	mg/L	0.1 U	0.51	0.1 U	0.1 U	0.0391	0.029 J
Nitrite	mg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.010 U	0.010 U
Orthophosphate	mg/L	25.7	0.1 U	0.1 U	0.15	0.0090 U	0.011 J
pH	St. units	5.18	4.84	5.14	5.14	4.85	4.69
ORP	mV	17.8	211.5	41	45.9	-41	58
Specific conductance	mS/cm	0.107	109	0.105	109	0.12	0.122
Sulfate	mg/L	25.7	22.8	23.3	22.6	24	24
Temperature	^{o}C	24.99	29.37	28.21	23.4	29.9	22.6
TOC [(1)]	mg/L	7.6	2.8	6.5	6	6.8	6.0
Turbidity	NTU	8.7	0.67	1.84	9.4	20	59
Ethane	ug/L	1 U	1 U	0.6 U	0.6 U	0.35 U	0.35 U
Ethene	ug/L	1 U	1 U	0.8 U	0.8 U	0.33 U	0.33 U
Methane	ug/L	4.84	7.41	10.3	10.1	2.7	17
Iron, filtered	ug/L	30.7 U	7.1 U	38 B	12.5 B	37	37 U

TABLE 4

SUMMARY OF NATURAL ATTENUATION INDICATOR PARAMETERS IN GROUNDWATER
OPERABLE UNIT 9, SITE 57 - BUILDING 824A/DAY TANK 1 AREA
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

PARAMETER	UNITS	CEF-824A-3S					
		Apr-03	Jul-03	Oct-03	Jan-04	Jul-04	Feb-05
Alkalinity	mg/L	6	5 U	5 U	6	6.0	4.0
Alkalinity, field	mg/L	<10	<10	<10	<10	0	0
Carbon dioxide	mg/L	145	120	180	110	180	130
Chloride	mg/L	20 U	20 U	20 U	20 U	9.8	10
Ferrous iron	mg/L	0.94	1.04	1.03	1.1	0.6	1.2
Dissolved oxygen	mg/L	1.5	1	1	0.8	0.2	0.1
Dissolved sulfide	mg/L	1.9	1.2	2.8	3	3.2	2.6
Hydrogen sulfide (H_2S)	mg/L	2	>5	1	5	5.0	2.0
Field sulfide (S^{-2})	mg/L	0.8	>0.8	>0.8	>0.8	>0.80	>0.80
Nitrate	mg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.012 J	0.010 U
Nitrite	mg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.010 U	0.010 U
Orthophosphate	mg/L	20 U	0.1 U	0.1 U	0.1 U	0.0090 U	0.009 U
pH	St. units	4.22	4.74	4.96	4.71	4.59	5.01
ORP	mV	-71	-60.7	-85.9	-24.1	-76	-3
Specific conductance	mS/cm	0.052	0.076	0.058	0.067	0.07	4.48
Sulfate	mg/L	20 U	20 U	20 U	20 U	1.7	2.2 J
Temperature	^oC	25.9	28.71	27.54	25	27.9	23.7
TOC [(1)]	mg/L	10.2	10.2	11.2	10.7	14	11
Turbidity	NTU	2.8	1.7	1.09	1.11	1	4
Ethane	ug/L	1 U	1 U	0.6 U	0.6 U	0.35 U	0.35 U
Ethene	ug/L	1 U	1 U	0.8 U	0.8 U	0.33 U	0.33 U
Methane	ug/L	429	570	382	484	1500	260
Iron, filtered	ug/L	1160	1090	1100	1130	950	1100

TABLE 4

SUMMARY OF NATURAL ATTENUATION INDICATOR PARAMETERS IN GROUNDWATER
OPERABLE UNIT 9, SITE 57 - BUILDING 824A/DAY TANK 1 AREA
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

PARAMETER	UNITS	CEF-824A-4S						
		Sep-01	Apr-03	Jul-03	Oct-03	Jan-04	Jul-04	Feb-05
Alkalinity	mg/L	5 U	9.5	7.5	8	6.5	3.0	6.0
Alkalinity, field	mg/L	10.5	<10	<10	<10	<10	0	0
Carbon dioxide	mg/L	220	<10	180	700	70	140	30
Chloride	mg/L	20 U	20 U	20 U	20 U	20 U	15	8.0
Ferrous iron	mg/L	0.43	0.25	0.3	0.28	0	0.2	0.2
Dissolved oxygen	mg/L	0.5	0.2	1	1	0.8	0.1	0.6
Dissolved sulfide	mg/L	8.7	1.7	2.4	2.2	1.9	3.2	1.9
Hydrogen sulfide (H_2S)	mg/L	>5	5	>5	>5	5	2.0	5.0
Field sulfide (S^{-2})	mg/L	>0.80	NA	0.02	>0.8	0.8	>0.80	>0.80
Nitrate	mg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.0251	0.010 U
Nitrite	mg/L	0.1	0.1 U	0.1 U	0.1 U	0.1 U	0.010 U	0.010 U
Orthophosphate	mg/L	0.1 UJ	20 U	0.1 U	0.1 U	0.1 U	0.0090 U	0.009 U
pH	St. units	4.88	4.75	4.79	4.67	4.73	4.48	4.47
ORP	mV	-152	-132	-102	-16.6	-52.1	-76	19
Specific conductance	mS/cm	0.073	0.061	0.075	0.75	0.087	0.09	0.9
Sulfate	mg/L	20 U	20 U	20 U	20 U	20 U	4.91	13
Temperature	^oC	28.47	25.42	25.58	28.58	23.76	28.9	23.6
TOC [(1)]	mg/L	NA	12.3	14	14.5	13	15	13
Turbidity	NTU	1.08	0	4.2	2.6	0	0	23
Ethane	ug/L	1 U	1 U	1 U	0.6 U	0.6 U	0.35 U	0.35 U
Ethene	ug/L	1 U	1 U	1 U	0.8 U	0.8 U	0.33	0.33 U
Methane	ug/L	2040	594	964	547	866	360	150
Iron, filtered	ug/L	474	268 U	300	314	346	300	0.28

TABLE 4

SUMMARY OF NATURAL ATTENUATION INDICATOR PARAMETERS IN GROUNDWATER
OPERABLE UNIT 9, SITE 57 - BUILDING 824A/DAY TANK 1 AREA
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

PARAMETER	UNITS	CEF-824A-7S						
		Sep-01	Apr-03	Jul-03	Oct-03	Jan-04	Jul-04	Feb-05
Alkalinity	mg/L	5 U	6	5.5	5.5	6	1.0	2.0
Alkalinity, field	mg/L	<10	<10	<10	<10	<10	0	0
Carbon dioxide	mg/L	170	130	170	180	190	50	105
Chloride	mg/L	20 U	20 U	20 U	20 U	20 U	8.9	4.9
Ferrous iron	mg/L	0.62	0.38	0.41	0.31	0.36	0.4	0.6
Dissolved oxygen	mg/L	0.9	0.2	0.8	1	1	1	0
Dissolved sulfide	mg/L	2 U	2.5	3.2	2	2.6	3.0	1.4
Hydrogen sulfide (H_2S)	mg/L	>5	>5	>5	5	>5	5	2
Field sulfide (S^{-2})	mg/L	>0.80	>0.8	>0.8	>0.8	0.8	>0.80	>0.80
Nitrate	mg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.010 U	0.010 U
Nitrite	mg/L	0.13	0.1 U	0.1 U	0.1 U	0.1 U	0.010 U	0.010 U
Orthophosphate	mg/L	0.1 UJ	0.1 U	20 U	0.1 U	0.1 U	0.016 J	0.009 U
pH	St. units	4.81	4.82	4.73	4.71	4.42	4.50	4.44
ORP	mV	-148	-116.4	16.5	11.9	24	-81	14
Specific conductance	mS/cm	0.056	0.068	0.058	0.058	0.059	0.07	0.064
Sulfate	mg/L	20 U	20 U	20 U	20 U	20 U	10	9.2
Temperature	^oC	28.10	28.34	24.78	27.45	24.26	28.1	23.6
TOC [(1)]	mg/L	NA	8.5	9.6	9.2	8	6.1	7.4
Turbidity	NTU	0	7.4	1.8	7.06	4.11	0	40
Ethane	ug/L	1 U	1 U	1 U	0.6 U	0.6 U	0.41	0.35 U
Ethene	ug/L	1 U	1 U	1 U	0.8 U	0.8 U	0.52	0.33 U
Methane	ug/L	370	217	259	294	391	240	270
Iron, filtered	ug/L	503	293	370	398	347	320	260

TABLE 4

SUMMARY OF NATURAL ATTENUATION INDICATOR PARAMETERS IN GROUNDWATER
OPERABLE UNIT 9, SITE 57 - BUILDING 824A/DAY TANK 1 AREA
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

PARAMETER	UNITS	CEF-824A-8S					
		Apr-03	Jul-03	Oct-03	Jan-04	Jul-04	Feb-05
Alkalinity	mg/L	5 U	5 U	5 U	5 U	1.0 U	1.0 U
Alkalinity, field	mg/L	<10	<10	<10	<10	0	0
Carbon dioxide	mg/L	<10	60	50	200	160	120
Chloride	mg/L	20 U	20 U	20 U	20 U	8.9	7.7
Ferrous iron	mg/L	0.46	0.38	0.44	0.38	0.4	0.2
Dissolved oxygen	mg/L	0.4	0.2	1	1	0.4	0.3
Dissolved sulfide	mg/L	2.3	2.7	2.4	3.5	3.4	2.6
Hydrogen sulfide (H_2S)	mg/L	5	5	>5	>5	5.0	5.0
Field sulfide (S^{-2})	mg/L	0.8	0.8	>0.8	>0.8	>0.80	>0.80
Nitrate	mg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.0321	0.010 U
Nitrite	mg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.010 U	0.010 U
Orthophosphate	mg/L	20 U	0.1 U	0.1 U	0.1 U	0.0090 U	0.009 U
pH	St. units	4.71	4.64	4.4	4.59	4.91	4.09
ORP	mV	-100	-61.9	32	-23.2	-67	15
Specific conductance	mS/cm	0.041	62	0.06	60	0.06	0.061
Sulfate	mg/L	20 U	20 U	20 U	20 U	5.1	3.0
Temperature	^{o}C	26.5	28.89	28.83	25.29	29.1	24.0
TOC [(1)]	mg/L	14.6	15.7	14.8	14.7	16	15
Turbidity	NTU	0.85	0.41	5.08	7	13	56
Ethane	ug/L	1 U	1 U	0.6 U	0.6 U	0.43	0.35 U
Ethene	ug/L	1 U	1 U	0.8 U	0.8 U	0.36	0.33 U
Methane	ug/L	1140	1300	1583	1615	900	1500
Iron, filtered	ug/L	475	389	390	401	440	430

TABLE 4

SUMMARY OF NATURAL ATTENUATION INDICATOR PARAMETERS IN GROUNDWATER
OPERABLE UNIT 9, SITE 57 - BUILDING 824A/DAY TANK 1 AREA
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

PARAMETER	UNITS	CEF-824A-9S						
		Sep-01	Apr-03	Jul-03	Oct-03	Jan-04	Jul-04	Feb-05
Alkalinity	mg/L	5 U	9	9	7.5	9	6.0	10.0
Alkalinity, field	mg/L	144	<10	20	<10	<10	0	0
Carbon dioxide	mg/L	210	>1000	35	70	250	225	50
Chloride	mg/L	22.7	20 U	20 U	20 U	20 U	6.1	5
Ferrous iron	mg/L	1.06	0.44	0.2	0.4	0.47	0.4	0.8
Dissolved oxygen	mg/L	1.1	1	0.3	1	1	0.2	0.05
Dissolved sulfide	mg/L	2 U	1.7	1.1	2.1	2	1.0 U	1.8
Hydrogen sulfide (H_2S)	mg/L	5	2	2	2	5	2	5
Field sulfide (S^{-2})	mg/L	>0.80	0.38	0.8	>0.8	0.75	0	0.75
Nitrate	mg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.010 U	0.010 U
Nitrite	mg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.1 U	0.010 U	0.010 U
Orthophosphate	mg/L	0.1 UJ	20 U	0.1 U	0.1 U	0.12	0.010 J	0.009 U
pH	St. units	4.80	5	4.77	4.35	4.77	4.57	4.47
ORP	mV	-103	-58	-45.6	6.3	-43.5	-46	29
Specific conductance	mS/cm	0.080	0.047	61	0.07	0.059	0.06	0.068
Sulfate	mg/L	20 U	20 U	20 U	20 U	20 U	2.5 J	3.0 J
Temperature	^oC	29.00	25.5	28.42	28.2	23.54	29.1	23.1
TOC (1)	mg/L	NA	14.8	16.4	18.2	16.8	17	19
Turbidity	NTU	0	0	0.48	2.02	8.2	33	44
Ethane	ug/L	1 U	1 U	1 U	0.6 U	0.6 U	0.42	0.35 U
Ethene	ug/L	1 U	1 U	1 U	0.8 U	0.8 U	0.53	0.38
Methane	ug/L	534	319	407	464	525	480	750
Iron, filtered	ug/L	1210	471	365	372	407	420	0.5

TABLE 4

SUMMARY OF NATURAL ATTENUATION INDICATOR PARAMETERS IN GROUNDWATER
OPERABLE UNIT 9, SITE 57 - BUILDING 824A/DAY TANK 1 AREA
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

PARAMETER	UNITS	CEF-824A-10S					
		Apr-03	Jul-03	Oct-03	Jan-04	Jul-04	Feb-05
Alkalinity	mg/L	10	7	7.5	10	1.0 U	6.0
Alkalinity, field	mg/L	<10	<10	<10	<10	0	0
Carbon dioxide	mg/L	90	70	180	100	250	80
Chloride	mg/L	20 U	20 U	20 U	20 U	11	8.5
Ferrous iron	mg/L	0.22	0.26	0.09	0	0.2	0
Dissolved oxygen	mg/L	0.8	0.3	0.8	1	0.2	0.1
Dissolved sulfide	mg/L	4.4	3.6	3.5	3.2	4.3	3.2
Hydrogen sulfide (H_2S)	mg/L	5	NA	5	>5	5	5
Field sulfide (S^{-2})	mg/L	0.49	0.59	0.8	0.8	>0.80	>0.80
Nitrate	mg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.010 U	0.010 U
Nitrite	mg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.010 U	0.010 U
Orthophosphate	mg/L	20 U	0.1 U	0.1 U	0.1 U	0.021 J	0.018 J
pH	St. units	4.85	4.66	4.67	4.7	4.47	4.45
ORP	mV	-124	-46.1	-39.1	10.6	-82	-4
Specific conductance	mS/cm	0.071	86	0.089	0.128	0.13	0.148
Sulfate	mg/L	20 U	20 U	20 U	20 U	27	27
Temperature	^{o}C	24.8	27.52	27.5	24.3	27.4	22.7
TOC [(1)]	mg/L	65.1	60.8	77.3	62.7	57	63
Turbidity	NTU	4.9	1.27	1.8	1	40	43
Ethane	ug/L	1 U	1 U	0.6 U	0.6 U	0.35 U	0.35 U
Ethene	ug/L	1 U	1 U	0.8 U	0.8 U	0.33 U	0.33 U
Methane	ug/L	2500	974	1263	982	300	160
Iron, filtered	ug/L	130 U	53.1 U	50.7 B	127 B	130	140

TABLE 4

SUMMARY OF NATURAL ATTENUATION INDICATOR PARAMETERS IN GROUNDWATER
OPERABLE UNIT 9, SITE 57 - BUILDING 824A/DAY TANK 1 AREA
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

PARAMETER	UNITS	CEF-824A-11S					
		Apr-03	Jul-03	Oct-03	Jan-04	Jul-04	Feb-05
Alkalinity	mg/L	14.5	13	11.5	11.5	8.0	10.0
Alkalinity, field	mg/L	<10	<10	<10	<10	0	0
Carbon dioxide	mg/L	400	400	250	90	220	70
Chloride	mg/L	20 U	20 U	20 U	20 U	6.1	6.0
Ferrous iron	mg/L	1.35	2.87	1.39	0.8	0.6	0.6
Dissolved oxygen	mg/L	0.3	1	0.6	0.4	0.3	0.05
Dissolved sulfide	mg/L	1.2	2.5	2	2.4	3.4	1.4
Hydrogen sulfide (H_2S)	mg/L	5	>5	5	>5	5.0	0.5
Field sulfide (S^{-2})	mg/L	>0.8	0.8	>0.8	0.8	>0.80	0.76
Nitrate	mg/L	0.1 U	0.17	0.1	0.1 U	0.010 U	0.069
Nitrite	mg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.010 U	0.010 U
Orthophosphate	mg/L	20 U	0.1 U	0.1 U	0.1 U	0.0090 U	0.009 U
pH	St. units	4.68	4.67	4.6	4.75	4.50	4.39
ORP	mV	31.5	-105	68.5	28.6	-74	28
Specific conductance	mS/cm	0.082	0.095	0.073	77	0.07	0.071
Sulfate	mg/L	20 U	20 U	20 U	20 U	3.1 J	4.21
Temperature	^{o}C	23.18	26.6	26.9	22.8	27	21.6
TOC (1)	mg/L	21.3	24.2	23.1	20.7	18	17
Turbidity	NTU	0	0	1.52	0.5	0	24
Ethane	ug/L	1 U	1 U	0.6 U	0.6 U	0.35 U	0.35 U
Ethene	ug/L	1 U	1 U	0.8 U	0.8 U	0.33 U	0.33 U
Methane	ug/L	1220	1810	1611	1622	870	250
Iron, filtered	ug/L	1900	2010	1240	1590	1200	690

TABLE 4

SUMMARY OF NATURAL ATTENUATION INDICATOR PARAMETERS IN GROUNDWATER
OPERABLE UNIT 9, SITE 57 - BUILDING 824A/DAY TANK 1 AREA
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

PARAMETER	UNITS	CEF-824A-12I					
		Apr-03	Jul-03	Oct-03	Jan-04	Jul-04	Feb-05
Alkalinity	mg/L	6	5 U	5 U	5 U	1.0 U	1.0 U
Alkalinity, field	mg/L	<10	<10	<10	<10	0	0
Carbon dioxide	mg/L	190	<10	90	<10	200	70
Chloride	mg/L	20 U	20 U	20 U	20 U	5.6	3.7
Ferrous iron	mg/L	0.38	0.48	0.47	0.02	0.2	0.2
Dissolved oxygen	mg/L	0.6	0.3	0.2	0.8	1	0.3
Dissolved sulfide	mg/L	2.1	1.8	1.8	2.1	3.2	2.4
Hydrogen sulfide (H_2S)	mg/L	5	5	>5	1	2.0	0.1
Field sulfide (S^{-2})	mg/L	>0.8	0.04	>0.8	0.8	>0.80	0.17
Nitrate	mg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.0251	0.010 U
Nitrite	mg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.010 U	0.010 U
Orthophosphate	mg/L	20 U	0.1 U	0.1 U	0.12	0.0090 U	0.009 U
pH	St. units	4.51	4.32	4.1	4.27	4.00	4.43
ORP	mV	17.8	44.2	-6.5	2.6	-53	12
Specific conductance	mS/cm	0.051	0.54	0.042	0.044	0.05	0.09
Sulfate	mg/L	20 U	20 U	20 U	20 U	1.7 U	2.8 J
Temperature	^{o}C	26.64	28.93	25.72	23.27	25.3	24.6
TOC [(1)]	mg/L	16.5	17.9	17.3	17.7	20	8.3
Turbidity	NTU	37	8.38	9.97	1.9	16	47
Ethane	ug/L	1 U	1 U	0.6 U	0.6 U	0.56	0.35 U
Ethene	ug/L	1 U	1 U	0.8 U	0.8 U	0.46	6.2
Methane	ug/L	1410	2400	2908	3160	220	2400
Iron, filtered	ug/L	374	462	429	430	300	0.27

TABLE 4

SUMMARY OF NATURAL ATTENUATION INDICATOR PARAMETERS IN GROUNDWATER
OPERABLE UNIT 9, SITE 57 - BUILDING 824A/DAY TANK 1 AREA
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

PARAMETER	UNITS	CEF-824A-13D						
		Apr-03	Jul-03	Oct-03	Jan-04	Jul-04	Jul-04	Feb-05
Alkalinity	mg/L	258	258	243	254	210	210	240
Alkalinity, field	mg/L	175	<10	175	175	70	70	50
Carbon dioxide	mg/L	30	<10	18	<10	12	12	18
Chloride	mg/L	20 U	20 U	20 U	20 U	10	10	3.7
Ferrous iron	mg/L	0.13	0.23	0.26	0	0	0	0.2
Dissolved oxygen	mg/L	1	0.6	0.6	0.8	0.4	0.4	0.2
Dissolved sulfide	mg/L	1 U	1 U	1 U	1 U	1.0 U	1.0 U	1.0 U
Hydrogen sulfide (H_2S)	mg/L	0	0	0	0	0	0	0.1
Field sulfide (S^{-2})	mg/L	0.07	0	0.04	0.02	0.01	0.01	0.14
Nitrate	mg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.011 J	0.011 J	2
Nitrite	mg/L	0.23	0.1 U	0.1 U	0.1 U	0.010 U	0.010 U	0.010 U
Orthophosphate	mg/L	20 U	0.25	0.19	0.36	0.13	0.13	0.13
pH	St. units	6.84	6.58	7.05	7.04	7.06	7.06	7.12
ORP	mV	42.1	301.1	-2	-113	-42	-42	-145
Specific conductance	mS/cm	0.477	498	0.414	0.478	0.42	0.42	0.524
Sulfate	mg/L	20 U	20 U	20 U	20 U	3.1 J	3.1 J	2.6 J
Temperature	^oC	25.63	28.99	25.22	23.02	25.7	25.7	24.1
TOC [(1)]	mg/L	3.6	3.2	2.4	2.1	3.6	3.6	3.1
Turbidity	NTU	11	3.1	3.4	3.4	0	0	70
Ethane	ug/L	1 U	1 U	0.6 U	0.6 U	0.65	0.65	0.35 U
Ethene	ug/L	1 U	1 U	0.8 U	0.8 U	2.7	2.7	15
Methane	ug/L	10.9	14.2	15.5	19	5.1	5.1	100
Iron, filtered	ug/L	350	317	297 B	7.1 U	200	200	0.19

TABLE 4

SUMMARY OF NATURAL ATTENUATION INDICATOR PARAMETERS IN GROUNDWATER
OPERABLE UNIT 9, SITE 57 - BUILDING 824A/DAY TANK 1 AREA
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

PARAMETER	UNITS	CEF-824A-14S					
		Apr-03	Jul-03	Oct-03	Jan-04	Jul-04	Feb-05
Alkalinity	mg/L	26.5	26	24.5	19	16	10
Alkalinity, field	mg/L	<10	<10	<10	<10	0	0
Carbon dioxide	mg/L	90	70	60	<10	90	50
Chloride	mg/L	20 U	20 U	20 U	20 U	13	11
Ferrous iron	mg/L	2.93	2.24	1.97	1.59	1.4	2.2
Dissolved oxygen	mg/L	0.3	0.4	1	1	0.8	0.2
Dissolved sulfide	mg/L	2.1	2	1.7	1.9	1.0 U	2.6
Hydrogen sulfide (H_2S)	mg/L	2	5	2	1	2.0	2.0
Field sulfide (S^{-2})	mg/L	0.77	0.69	>0.8	0.8	>0.80	2.6
Nitrate	mg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.010 U	0.010 U
Nitrite	mg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.010 U	0.010 U
Orthophosphate	mg/L	20 U	0.11	0.1 U	0.14	0.023 J	0.013
pH	St. units	5.47	4.82	5.03	4.86	4.67	4.70
ORP	mV	-111	139.6	-3.4	-28	-72	10
Specific conductance	mS/cm	0.099	122	0.115	0.105	0.11	0.117
Sulfate	mg/L	20 U	20 U	20 U	20 U	1.7 U	3.6 J
Temperature	^{o}C	24.7	28.85	27.71	23.56	28.6	22.8
TOC (1)	mg/L	47.6	45.3	46.4	41.6	41	42
Turbidity	NTU	8.2	1.75	5.9	0.09	27	86
Ethane	ug/L	1 U	1 U	3 U	1.2 U	0.35 U	0.35 U
Ethene	ug/L	1 U	1 U	4 U	1.6 U	0.33 U	0.77
Methane	ug/L	3290	4390	6143	4894	3200	4900
Iron, filtered	ug/L	3120	2440	2390	2290	1800	1.9

TABLE 4

SUMMARY OF NATURAL ATTENUATION INDICATOR PARAMETERS IN GROUNDWATER
OPERABLE UNIT 9, SITE 57 - BUILDING 824A/DAY TANK 1 AREA
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

PARAMETER	UNITS	CEF-824A-15I					
		Apr-03	Jul-03	Oct-03	Jan-04	Jul-04	Feb-05
Alkalinity	mg/L	12.5	12	8.5	9.5	3.0	26.0
Alkalinity, field	mg/L	<10	16	<10	<10	0	30
Carbon dioxide	mg/L	160	80	60	<10	80	35
Chloride	mg/L	20 U	20 U	20 U	20 U	7.5	4.6
Ferrous iron	mg/L	3.29	3.6	>3.3	1.85	3.6	1.2
Dissolved oxygen	mg/L	0.4	1	1.5	1	0.8	0.2
Dissolved sulfide	mg/L	1.7	1.2	1.2	2.3	2.6	2.2
Hydrogen sulfide (H_2S)	mg/L	5	1	2	5	2.0	5.0
Field sulfide (S^{-2})	mg/L	0.38	0.8	>0.8	0.8	7.80	>0.080
Nitrate	mg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.011 J	0.010 U
Nitrite	mg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.010 U	0.010 U
Orthophosphate	mg/L	20 U	0.1 U	0.1 U	0.16	0.021 J	0.018
pH	St. units	5.19	4.78	4.8	4.77	4.51	6.1
ORP	mV	-74	44.2	17.9	27.6	-91	-44
Specific conductance	mS/cm	0.061	80	0.069	0.07	0.07	0.152
Sulfate	mg/L	20 U	20 U	20 U	20 U	4.8 J	7.8
Temperature	^{o}C	25.5	28.48	26.09	24.36	26.2	24
TOC [(1)]	mg/L	16.6	16.7	18.5	19	15	12
Turbidity	NTU	8.2	1.41	1.2	0	19	28
Ethane	ug/L	1 U	1 U	0.6 U	0.6 U	0.35 U	0.35 U
Ethene	ug/L	1 U	1 U	0.8 U	0.8 U	0.33 U	0.8
Methane	ug/L	720	75.9	1464	1956	830	1400
Iron, filtered	ug/L	4590	4700	3950	3170	3000	1.9

TABLE 4

SUMMARY OF NATURAL ATTENUATION INDICATOR PARAMETERS IN GROUNDWATER
OPERABLE UNIT 9, SITE 57 - BUILDING 824A/DAY TANK 1 AREA
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

PARAMETER	UNITS	CEF-824A-17I					
		Apr-03	Jul-03	Oct-03	Jan-04	Jul-04	Feb-05
Alkalinity	mg/L	260	21	19	11.5	13	28
Alkalinity, field	mg/L	<10	<10	<10	<10	0	35
Carbon dioxide	mg/L	<10	150	500	60	150	35
Chloride	mg/L	20 U	20 U	20 U	20 U	6.1	5.0
Ferrous iron	mg/L	2.5	238	2.05	1.36	1.7	1.4
Dissolved oxygen	mg/L	1	1	0.2	0.1	0.3	1
Dissolved sulfide	mg/L	2.2	2.2	2.7	2.6	3.4	2.9
Hydrogen sulfide (H_2S)	mg/L	5	5	>5	5	5.0	0.5
Field sulfide (S^{-2})	mg/L	0.8	0.01	>0.8	0.8	>0.80	0.20
Nitrate	mg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.0281	0.010 U
Nitrite	mg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.010 U	0.010 U
Orthophosphate	mg/L	20 U	0.1 U	0.1 U	0.1 U	0.0090 U	0.010 J
pH	St. units	5.38	5.11	4.77	4.78	4.45	5.89
ORP	mV	-115	-96.7	-35.9	-21.8	-67	1
Specific conductance	mS/cm	0.068	0.07	0.076	0.054	0.07	0.186
Sulfate	mg/L	20 U	20 U	20 U	20 U	1.7 U	2.7 J
Temperature	^{o}C	25	26.81	25.54	24.07	25.9	24.3
TOC [(1)]	mg/L	22.9	23.7	23	21.1	21	17
Turbidity	NTU	5	1	2.08	0	5	19
Ethane	ug/L	1 U	1 U	0.6 U	0.6 U	0.35 U	0.35 U
Ethene	ug/L	1 U	1 U	0.8 U	0.8 U	0.47	0.33 U
Methane	ug/L	766	1030	1179	1487	530	82
Iron, filtered	ug/L	2830	2660	2410	2220	2000	5.2

TABLE 4

SUMMARY OF NATURAL ATTENUATION INDICATOR PARAMETERS IN GROUNDWATER
OPERABLE UNIT 9, SITE 57 - BUILDING 824A/DAY TANK 1 AREA
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

PARAMETER	UNITS	CEF-824A-19S					
		Apr-03	Jul-03	Oct-03	Jan-04	Jul-04	Feb-05
Alkalinity	mg/L	6.5	6.5	8	5.5	3.0	4.0
Alkalinity, field	mg/L	<10	<10	<10	<10	0	0
Carbon dioxide	mg/L	40	40	40	50	110	130
Chloride	mg/L	20 U	20 U	20 U	20 U	10	10
Ferrous iron	mg/L	0.54	0.66	1.11	0.43	0.6	0.6
Dissolved oxygen	mg/L	1	0.4	0.9	1	0.4	0
Dissolved sulfide	mg/L	1 U	1 U	1 U	1 U	1.0 U	1.0 U
Hydrogen sulfide (H_2S)	mg/L	0	0.3	0.2	0.1	0.7	0.1
Field sulfide (S^{-2})	mg/L	0.15	0.06	0.17	0.05	0.17	0.17
Nitrate	mg/L	0.1 U	0.1	0.1 U	0.1 U	0.010 U	0.010 U
Nitrite	mg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.010 U	0.010 U
Orthophosphate	mg/L	20 U	0.1 U	0.1 U	0.1 U	0.061	0.013 J
pH	St. units	4.79	4.87	4.55	4.79	4.58	4.33
ORP	mV	84	126.9	87	97	-1	175
Specific conductance	mS/cm	0.045	67	0.071	0.061	0.06	0.028
Sulfate	mg/L	20 U	20 U	20 U	20 U	1.7 U	2.2 J
Temperature	^{o}C	26.67	29.38	28.21	25.05	30.0	23.8
TOC [(1)]	mg/L	7.6	6.7	6	7.1	7.0	6.3
Turbidity	NTU	5.6	6.5	17	3.1	27	110
Ethane	ug/L	1 U	1 U	0.6 U	0.6 U	0.35 U	0.35 U
Ethene	ug/L	1 U	1 U	0.8 U	0.8 U	0.33 U	0.35 U
Methane	ug/L	163	178	261	239	350	250
Iron, filtered	ug/L	448	356	978	893	830	560

TABLE 4

SUMMARY OF NATURAL ATTENUATION INDICATOR PARAMETERS IN GROUNDWATER
OPERABLE UNIT 9, SITE 57 - BUILDING 824A/DAY TANK 1 AREA
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

PARAMETER	UNITS	CEF-824A-20S					
		Apr-03	Jul-03	Oct-03	Jan-04	Jul-04	Feb-05
Alkalinity	mg/L	5	5 U	5 U	5 U	1.0 U	1.0 U
Alkalinity, field	mg/L	<10	<10	<10	<10	0	0
Carbon dioxide	mg/L	120	120	400	25	115	120
Chloride	mg/L	20 U	20 U	20 U	20 U	10	10
Ferrous iron	mg/L	0.77	0.88	0.99	0.77	1.2	1.4
Dissolved oxygen	mg/L	0.3	0.05	0.3	1	0.3	0.3
Dissolved sulfide	mg/L	1 U	1 U	1 U	1 U	1.1	1.0 U
Hydrogen sulfide (H_2S)	mg/L	0.5	>5	1	0.5	2.0	0.7
Field sulfide (S^{-2})	mg/L	0.41	0.49	0.58	0.23	0.57	0.3
Nitrate	mg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.011 J	0.010 U
Nitrite	mg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.010 U	0.010 U
Orthophosphate	mg/L	20 U	0.1 U	0.1 U	0.1 U	0.0090 U	0.009 U
pH	St. units	4.6	4.63	4.42	4.44	4.31	4.01
ORP	mV	30.5	-27.1	103.6	-28.1	-36	83
Specific conductance	mS/cm	0.072	0.091	0.073	0.089	0.08	0.094
Sulfate	mg/L	20 U	20 U	20 U	20 U	11	13
Temperature	^{o}C	26	30.54	29.18	23.26	29.2	23.4
TOC [(1)]	mg/L	4	4	3.3	3	3.6	3.8
Turbidity	NTU	0.12	0.9	1.63	0.1	0	30
Ethane	ug/L	1 U	1 U	0.6 U	0.6 U	0.35 U	0.35 U
Ethene	ug/L	1 U	1 U	0.8 U	0.8 U	0.33 U	0.33 U
Methane	ug/L	34.3	90.2	49.1	20.1	110	31
Iron, filtered	ug/L	861	1060	929	845	1200	840

TABLE 4

SUMMARY OF NATURAL ATTENUATION INDICATOR PARAMETERS IN GROUNDWATER
OPERABLE UNIT 9, SITE 57 - BUILDING 824A/DAY TANK 1 AREA
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

PARAMETER	UNITS	CEF-824A-21I					
		Apr-03	Jul-03	Oct-03	Jan-04	Jul-04	Feb-05
Alkalinity	mg/L	5 U	5 U	5 U	5 U	1.0 U	2.0
Alkalinity, field	mg/L	<10	<10	<10	<10	0	0
Carbon dioxide	mg/L	250	220	180	70	70	50
Chloride	mg/L	20 U	20 U	20 U	20 U	4.7	4.0
Ferrous iron	mg/L	2.95	2.74	2.63	1.97	2.6	2.8
Dissolved oxygen	mg/L	0.6	0.2	0.6	0.4	0.2	0.2
Dissolved sulfide	mg/L	1.6	1.5	1.2	1.5	3.2	1.0 U
Hydrogen sulfide (H_2S)	mg/L	5	3	2	1	5	1.0
Field sulfide (S^{-2})	mg/L	>0.8	>0.8	>0.8	0.8	0.8	>0.80
Nitrate	mg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.010 U	0.016 J
Nitrite	mg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.010 U	0.010 U
Orthophosphate	mg/L	20 U	0.1 U	0.1 U	0.1 U	0.0090 U	0.009 U
pH	St. units	4.51	4.57	3.93	4.46	4.34	4.08
ORP	mV	49.3	-30.5	124	17.9	-47	38
Specific conductance	mS/cm	0.044	0.049	0.05	0.04	0.05	0.052
Sulfate	mg/L	20 U	20 U	20 U	20 U	1.7 U	2.21
Temperature	^{o}C	24.74	24.9	24.21	21.03	24.8	23.6
TOC [(1)]	mg/L	25.3	22.8	21.7	24.1	27	24
Turbidity	NTU	150	9	9.8	1.92	4	24
Ethane	ug/L	1 U	1 U	0.6 U	0.6 U	0.35 U	0.35 U
Ethene	ug/L	1 U	1 U	0.8 U	0.8 U	0.33 U	0.33 U
Methane	ug/L	247	347	180	540	600	680
Iron, filtered	ug/L	3100	2920	3030	2780	3000	140

TABLE 4

SUMMARY OF NATURAL ATTENUATION INDICATOR PARAMETERS IN GROUNDWATER
OPERABLE UNIT 9, SITE 57 - BUILDING 824A/DAY TANK 1 AREA
NAVAL AIR STATION CECIL FIELD
JACKSONVILLE, FLORIDA

PARAMETER	UNITS	CEF-824A-22S					
		Apr-03	Jul-03	Oct-03	Jan-04	Jul-04	Feb-05
Alkalinity	mg/L	5 U	5.5	5 U	5 U	1.0 U	1.0 U
Alkalinity, field	mg/L	<10	<10	<10	<10	0	0
Carbon dioxide	mg/L	160	120	50	145	70	105
Chloride	mg/L	20 U	20 U	20 U	20 U	9.4	10
Ferrous iron	mg/L	6.5	4.6	5.2	1.35	4.8	3.4
Dissolved oxygen	mg/L	0.1	1	1	1	0.2	0.05
Dissolved sulfide	mg/L	1 U	1 U	1 U	1 U	1.0 U	2.6
Hydrogen sulfide (H_2S)	mg/L	0.3	0.2	0.1	0	2	0.1
Field sulfide (S^{-2})	mg/L	0.19	0.01	0.09	0.11	0.40	0.21
Nitrate	mg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.018 J	0.010 U
Nitrite	mg/L	0.1 U	0.1 U	0.1 U	0.1 U	0.010 U	0.010 U
Orthophosphate	mg/L	48.6	0.1 U	0.1 U	0.1 U	0.0090 U	0.009 U
pH	St. units	4.11	4.8	4.7	4.52	4.21	4.22
ORP	mV	36	-0.04	10.3	65	-90	114
Specific conductance	mS/cm	0.153	0.176	0.148	176	0.18	0.203
Sulfate	mg/L	48.6	36.6	43.3	51.7	54	49
Temperature	^oC	25.5	29.12	28.66	22.15	29.4	22.6
TOC [(1)]	mg/L	3.1	1.9	2.9	2.9	2.6	3
Turbidity	NTU	0	8	3.2	12	0	49
Ethane	ug/L	1 U	1 U	0.6 U	0.6 U	0.41	0.35 U
Ethene	ug/L	1 U	1 U	0.8 U	0.8 U	0.49	0.33 U
Methane	ug/L	19.7	25.9	26	34.2	78	28
Iron, filtered	ug/L	6950	5280	5880	7800	7300	6800

U = Not detected at/above method detection limit.
J = Estimated concentration.
[1] TOC analysis for upgradient well (CEF-293-04) only.
mS/Cm = microSiemens/centimeter.

NTU = Nephelometric turbidity units.
TOC = Total organic carbon.
ORP = Oxidation-reduction potential.
* Well CEF-293-3 was abandoned and re-installed in October 2003.

^oC = degrees Celcius.
NA = Not analyzed.

Appendix C
Groundwater Sample Collection Records

GROUNDWATER SAMPLE LOG SHEET

THE SI Group

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Project Site Name:	Site 57	Sample ID No.:	CEF-824A-MW-03S-16
Project:	Cecil Field Long Term Monitoring	Sample Location:	MW824A-03S
		Sampled By:	J. Ferranti & L. Middleton
[ ] Domestic Well Data		C.O.C. No.:	
[X] Monitoring Well Data		Type of Sample:	Groundwater
[ ] Other Well Type:		[X] Low Concentration	
[ ] QA Sample Type:		[ ] High Concentration	

SAMPLING DATA

Date: 2/14/05 Time: 0905	Color Visual	pH Standard	S.C. mS/cm	Turbidity NTU	DO mg/l	Temp. °C	ORP mV	Other:
Method: Low Flow Peristaltic	CLEAR	5.01	4.48	4	0	23.7	-3	

PURGE DATA

Date: 2/14/05	Time	Water Level (ft)	Volume (liters)	Flow (mL/Min.)	pH	Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp (Cel)	ORP (mV)
Method: Low Flow Peristaltic	0835	8.90	0	400	—	—	—	—	—	—
Monitor Reading (ppm): 0	0845	8.92	4	400	4.70	0.90	3	0	24.0	32
Well Casing Diameter: 2"	0850	8.92	6	400	4.90	4.50	5	0	24.1	5
Well Casing Material: PVC	0855	8.92	8	400	5.01	4.80	3	0	23.8	-2
Total Well Depth (TD): 18	0900	8.92	10	400	5.01	4.48	4	0	23.7	-3
Static Water Level (WL): 8.90										
One Casing Volume(gal/L): 6										
Start Purge (hrs): 0835										
End Purge (hrs): 0900										
Total Purge Time (min): 25										
Total Vol. Purged (gal/L): 10										

SAMPLE COLLECTION INFORMATION

Analysis			Preservative	Container Requirements	Collected
VOCs	8260B		HCL	3 40-mil VOA vials	✓
PAHs	8310		None	2 - 1 liter glass ambers	✓
Alkalinity	3101.1		None	1 - 1 liter plastic bottle	✓
Anions	300		None	1 - 1 liter plastic bottle	✓
Dissolved Iron	6010B	1 um filter	HNO3	1 - 1 liter plastic bottle	✓
Dis. Sulfate	376.1	1 um filter	None	1 - 0.5 liter plastic bottle	✓
Meth/Eth/Ethen	RSK SOP 147 & 175		None	3 40-mil VOA vials	✓
TOC	415.1		H2SO4	1 - 0.5 liter amber bottle	✓
TRPH	FL-PRO		H2SO4	2 - 1 liter glass ambers	✓

OBSERVATIONS / NOTES

Circle if Applicable:		Signature(s):
MS/MSD	Duplicate ID No.:	

FIELD NATURAL ATTENUATION FORM

THE SI Group

Site: Site 57
Project Name: NAS Cecil Field Long-Term Monitoring
Project No.:
Personnel: Joe Ferranti & Lane Middleton
Well ID: CEF-824A-MW-03S
Sample ID: CEF-824A-MW-03S-16

Date: 2/14/05	Color	ORP (Eh)	S.C.	Temp.	Turbidity	DO	Sal.	pH
Time: 0905	(Visual)	(+/- mv)	(mS/cm)	(°C)	(NTU)	(Meter, mg/l)	(%)	(SU)
Method: PERI	CLEAR	-3	4.48	23.7	4	0		5.81

Natural Attenuation Field Analysis:

Dissolved Oxygen

Equipment: Chemetrics Kits K7501 & K7512
CHEMetrics Range: ☒ 0-1.0 mg/L ☐ 1-12 mg/L
Analysis Time: 0916
CHEMetrics: 0.1 mg/L
Notes:

Alkalinity

Equipment: Chemetrics Kits K-7501 & K7512
CHEMetrics (Range: 100 - 1000 mg/L)
Analysis Time: 0920
CHEMetrics: 0 mg/L
Notes:

Carbon Dioxide

Equipment: Chemetrics Kits K-1910, K1920 & K1925
CHEMetrics (Range: 10-100 mg/L)
Analysis Time: 0922
CHEMetrics: 130.0 mg/L
Notes:

Ferrous Iron

Equipment: HACH IR18C Colorwheel
Analysis Time: 0913
Concentration: 1.2 mg/L
Notes:

Sulfide

Equipment: HACH DR-890 Colorimeter
Analysis Time: 0911
Concentration: 0.80 Limit mg/L
Notes:

Hydrogen Sulfide

Equipment: HACH Test Kit 1R-18C
Analysis Time: 0907
Concentration: 2.0 mg/L
Notes:

QA/QC Checklist:

All data fields have been completed as necessary: ☐
Correct measurement units are cited in the SAMPLING DATA block: ☐
Final calulated concentration is within the appropriate *Range Used* block: ☐
QA/QC sample (e.g., Std. Additions, etc.) frequency is appropriate as per the project planning document: ☐
Title block is initialized by person who performed the QA/QC Ckecklist: ☐

GROUNDWATER SAMPLE LOG SHEET

THE SI Group

Page___ of ___

Project Site Name: **Site 57**
Project: Cecil Field Long Term Monitoring

[ ] Domestic Well Data
[X] Monitoring Well Data
[ ] Other Well Type:
[ ] QA Sample Type:

Sample ID No.: **CEF-824A-MW-22S-16**
Sample Location: MW824A-22S
Sampled By: J. Ferranti & L. Middleton
C.O.C. No.:
Type of Sample: Groundwater
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA

Date: 2/14/05	Color Visual	pH Standard	S.C. mS/cm	Turbidity NTU	DO mg/l	Temp. °C	ORP mV	Other:
Time: 0955								
Method: Low Flow Peristaltic	CLEAR	4.22	0.203	49	~~4.00~~ 0	~~0.203~~ 22.6	~~49~~ 114	

PURGE DATA

Date: 2/14/05	Time	Water Level (ft)	Volume (liters)	Flow (mL/Min.)	pH	Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp (Cel)	ORP (mV)
Method: Low Flow Peristaltic	0925	9.39	—	400	—	—	—	—	—	—
Monitor Reading (ppm): 0	0935	9.64	4	400	3.86	0.276	31	0	22.9	176
Well Casing Diameter: 2"	0940	9.65	6	400	3.98	0.203	41	0	22.9	145
Well Casing Material: PVC	0945	9.65	8	400	4.11	0.210	46	0	22.6	136
Total Well Depth (TD): 14	0950	9.65	10	400	4.22	0.203	49	0	22.6	114
Static Water Level (WL): 9.39										
One Casing Volume(gal/L): 0.25										
Start Purge (hrs): 0925										
End Purge (hrs): 0950										
Total Purge Time (min): 25										
Total Vol. Purged (gal/L): 10										

SAMPLE COLLECTION INFORMATION

Analysis			Preservative	Container Requirements	Collected
VOCs	8260B		HCL	3 40-mil VOA vials	✓
PAHs	8310		None	2 - 1 liter glass ambers	✓
Alkalinity	3101.1		None	1 - 1 liter plastic bottle	✓
Anions	300		None	1 - 1 liter plastic bottle	✓
Dissolved Iron	6010B	1 um filter	HNO3	1 - 1 liter plastic bottle	✓
Dis. Sulfate	376.1	1 um filter	None	1 - 0.5 liter plastic bottle	✓
Meth/Eth/Ethen	RSK SOP 147 & 175		None	3 40-mil VOA vials	✓
TOC	415.1		H2SO4	1 - 0.5 liter amber bottle	✓
TRPH	FL-PRO		H2SO4	2 - 1 liter glass ambers	✓

OBSERVATIONS / NOTES

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

FIELD NATURAL ATTENUATION FORM

THE SI Group

Site: Site 57
Project Name: NAS Cecil Field Long-Term Monitoring
Project No.:
Personnel: Joe Ferranti & Lane Middleton
Well ID: CEF-824A-MW-22S
Sample ID: CEF-824A-MW-22S-16

Date: 2/14/05 Time: 0955 Method: LOW FLOW	Color (Visual)	ORP (Eh) (+/- mv)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (Meter, mg/l)	Sal. (%)	pH (SU)
	CLEAR	114	0.203	22.6	49	0	-	4.22

Natural Attenuation Field Analysis:

Dissolved Oxygen

Equipment: Chemetrics Kits K7501 & K7512

CHEMetrics Range: ☒ 0-1.0 mg/L ☐ 1-12 mg/L

Analysis Time: 1007

CHEMetrics: 0.05 mg/L

Notes:

Alkalinity

Equipment: Chemetrics Kits K-7501 & K7512

CHEMetrics (Range: 10-104 mg/L)

Analysis Time: 0957

CHEMetrics: 0.0 mg/L

Notes:

Carbon Dioxide

Equipment: Chemetrics Kits K-1910, K1920 & K1925

CHEMetrics (Range: 100-1000 mg/L)

Analysis Time: 0958

CHEMetrics: 105 mg/L

Notes:

Ferrous Iron

Equipment: HACH IR18C Colorwheel

Analysis Time: 1009

Concentration: 3.4 mg/L

Notes:

Sulfide

Equipment: HACH DR-890 Colorimeter

Analysis Time: 0954

Concentration: 6.21 mg/L

Notes:

Hydrogen Sulfide

Equipment: HACH Test Kit 1R-18C

Analysis Time: 1005

Concentration: 0.1 mg/L

Notes:

QA/QC Checklist:

All data fields have been completed as necessary: ☐

Correct measurement units are cited in the SAMPLING DATA block: ☐

Final calulated concentration is within the appropriate *Range Used* block: ☐

QA/QC sample (e.g., Std. Additions, etc.) frequency is appropriate as per the project planning document: ☐

Title block is initialized by person who performed the QA/QC Ckecklist: ☐

GROUNDWATER SAMPLE LOG SHEET

THE SI Group

Page___ of ___

Project Site Name: Site 57
Project: Cecil Field Long Term Monitoring

[ ] Domestic Well Data
[X] Monitoring Well Data
[ ] Other Well Type:
[ ] QA Sample Type:

Sample ID No.: CEF-824A-MW-20S-16
Sample Location: MW824A-20S
Sampled By: J. Ferranti & L. Middleton
C.O.C. No.:
Type of Sample: Groundwater
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA

Date: 2/14/05 Time: 1230	Color Visual	pH Standard	S.C. mS/cm	Turbidity NTU	DO mg/l	Temp. °C	ORP mV	Other:
Method: Low Flow Peristaltic	CLEAR	4.01	0.094	30	0	23.4	83	

PURGE DATA

Date: 2/14/05	Time	Water Level (ft)	Volume (liters)	Flow (mL/Min.)	pH	Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp (Cel)	ORP (mV)
Method: Low Flow Peristaltic	1200	8.28	—	400	—	—	—	—	—	—
Monitor Reading (ppm): 0	1210	8.35	4	400	3.85	0.098	23	0	23.2	126
Well Casing Diameter: 2"	1215	8.36	6	400	3.95	0.096	28	0	23.4	108
Well Casing Material: PVC	1220	8.36	8	400	4.02	0.094	30	0	23.4	98
Total Well Depth (TD): 15	1225	8.36	10	400	4.01	0.094	30	0	23.4	83
Static Water Level (WL): 8.28										
One Casing Volume(gal/L): 4.2										
Start Purge (hrs): 1200										
End Purge (hrs): 1225										
Total Purge Time (min): 25										
Total Vol. Purged (gal/L): 10										

SAMPLE COLLECTION INFORMATION

Analysis			Preservative	Container Requirements	Collected
VOCs	8260B		HCL	3 40-mil VOA vials	✓
PAHs	8310		None	2 - 1 liter glass ambers	✓
Alkalinity	3101.1		None	1 - 1 liter plastic bottle	✓
Anions	300		None	1 - 1 liter plastic bottle	✓
Dissolved Iron	6010B	1 um filter	HNO3	1 - 1 liter plastic bottle	✓
Dis. Sulfate	376.1	1 um filter	None	1 - 0.5 liter plastic bottle	✓
Meth/Eth/Ethen	RSK SOP 147 & 175		None	3 40-mil VOA vials	✓
TOC	415.1		H2SO4	1 - 0.5 liter amber bottle	✓
TRPH	FL-PRO		H2SO4	2 - 1 liter glass ambers	✓

OBSERVATIONS / NOTES

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

FIELD NATURAL ATTENUATION FORM

THE SI Group

Site: Site 57
Project Name: NAS Cecil Field Long-Term Monitoring
Project No.:
Personnel: Joe Ferranti & Lane Middleton
Well ID: CEF-824A-MW-20S
Sample ID: CEF-824A-MW-20S-16

Date: 2/14/05	Color	ORP (Eh)	S.C.	Temp.	Turbidity	DO	Sal.	pH
Time: 1230	(Visual)	(+/- mv)	(mS/cm)	(°C)	(NTU)	(Meter, mg/l)	(%)	(SU)
Method:	CLEAR	83	0.094	23.4	30	0		4.01

Natural Attenuation Field Analysis:

Dissolved Oxygen

Equipment: Chemetrics Kits K7501 & K7512

CHEMetrics Range: ☒ 0-1.0 mg/L ☐ 1-12 mg/L

Analysis Time: 1232
CHEMetrics: 0.3 mg/L
Notes:

Alkalinity

Equipment: Chemetrics Kits K-7501 & K7512

CHEMetrics (Range: 0-100 mg/L)

Analysis Time: 1237
CHEMetrics: 0.0 mg/L
Notes:

Carbon Dioxide

Equipment: Chemetrics Kits K-1910, K1920 & K1925

CHEMetrics (Range: 100-1000 mg/L)

Analysis Time: 1231
CHEMetrics: 120 mg/L
Notes:

Ferrous Iron

Equipment: HACH IR18C Colorwheel

Analysis Time: 1234
Concentration: 1.4 mg/L
Notes:

Sulfide

Equipment: HACH DR-890 Colorimeter

Analysis Time: 1238
Concentration: 0.30 mg/L
Notes:

Hydrogen Sulfide

Equipment: HACH Test Kit 1R-18C

Analysis Time: 1230
Concentration: 0.7 mg/L
Notes:

QA/QC Checklist:

All data fields have been completed as necessary: ☐
Correct measurement units are cited in the SAMPLING DATA block: ☐
Final calulated concentration is within the appropriate *Range Used* block: ☐
QA/QC sample (e.g., Std. Additions, etc.) frequency is appropriate as per the project planning document: ☐
Title block is initialized by person who performed the QA/QC Ckecklist: ☐

GROUNDWATER SAMPLE LOG SHEET

THE SI Group

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Project Site Name:	Site 57	Sample ID No.:	CEF-824A-MW-19S-16
Project:	Cecil Field Long Term Monitoring	Sample Location:	MW824A-19S
		Sampled By:	J. Ferranti & L. Middleton
[ ] Domestic Well Data		C.O.C. No.:	
[X] Monitoring Well Data		Type of Sample:	Groundwater
[ ] Other Well Type:		[X] Low Concentration	
[ ] QA Sample Type:		[ ] High Concentration	

SAMPLING DATA

Date: 2/14/05 Time: 1335	Color Visual	pH Standard	S.C. mS/cm	Turbidity NTU	DO mg/l	Temp. °C	ORP mV	Other:
Method: Low Flow Peristaltic	CLEAR	4.33	0.078	110	0	23.8	175	

PURGE DATA

Date: 2/14/05	Time	Water Level (ft)	Volume (liters)	Flow (mL/Min.)	pH	Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp (Cel)	ORP (mV)
Method: Low Flow Peristaltic	1305	9.73	—	400	—	—	—	—	—	—
Monitor Reading (ppm): 0	1315	9.75	4	400	4.64	0.083	220	0.34	23.5	254
Well Casing Diameter: 2"	1320	9.75	6	400	4.46	0.082	140	0.22	23.7	236
Well Casing Material: PVC	1325	9.75	8	400	4.34	0.079	130	0	23.7	201
Total Well Depth (TD): 14	1330	9.75	10	400	4.33	0.078	110	0	23.8	175
Static Water Level (WL): 9.73										
One Casing Volume(gal/L): 0.3										
Start Purge (hrs): 1305										
End Purge (hrs): 1330										
Total Purge Time (min): 25										
Total Vol. Purged (gal/L): 10										

SAMPLE COLLECTION INFORMATION

Analysis			Preservative	Container Requirements	Collected
VOCs	8260B		HCL	3 40-mil VOA vials	✓
PAHs	8310		None	2 - 1 liter glass ambers	✓
Alkalinity	3101.1		None	1 - 1 liter plastic bottle	✓
Anions	300		None	1 - 1 liter plastic bottle	✓
Dissolved Iron	6010B	1 um filter	HNO3	1 - 1 liter plastic bottle	✓
Dis. Sulfate	376.1	1 um filter	None	1 - 0.5 liter plastic bottle	✓
Meth/Eth/Ethen	RSK SOP 147 & 175		None	3 40-mil VOA vials	✓
TOC	415.1		H2SO4	1 - 0.5 liter amber bottle	✓
TRPH	FL-PRO		H2SO4	2 - 1 liter glass ambers	✓

OBSERVATIONS / NOTES

Circle if Applicable:		Signature(s):
MS/MSD	Duplicate ID No.:	

FIELD NATURAL ATTENUATION FORM

THE SI Group

Site: Site 57
Project Name: NAS Cecil Field Long-Term Monitoring
Project No.:
Personnel: Joe Ferranti & Lane Middleton
Well ID: CEF-824A-MW-19S
Sample ID: CEF-824A-MW-19S-16

Date: 2/14/05	Color	ORP (Eh)	S.C.	Temp.	Turbidity	DO	Sal.	pH
Time: 1335	(Visual)	(+/- mv)	(mS/cm)	(°C)	(NTU)	(Meter, mg/l)	(%)	(SU)
Method: PERE	CLEAR	175	0.028	23.8	110	0		4.33

Natural Attenuation Field Analysis:

Dissolved Oxygen
Equipment: Chemetrics Kits K7501 & K7512
CHEMetrics Range: ☐ 0-1.0 mg/L ☐ 1-12 mg/L
Analysis Time: 1345
CHEMetrics: 0.8 mg/L
Notes:

Alkalinity
Equipment: Chemetrics Kits K-7501 & K7512
CHEMetrics (Range: _____mg/L)
Analysis Time: 1335
CHEMetrics: 0 mg/L
Notes:

Carbon Dioxide
Equipment: Chemetrics Kits K-1910, K1920 & K1925
CHEMetrics (Range: _____mg/L)
Analysis Time: 1341
CHEMetrics: 130 mg/L
Notes:

Ferrous Iron
Equipment: HACH IR18C Colorwheel
Analysis Time: 1345
Concentration: 0.6 mg/L
Notes:

Sulfide
Equipment: HACH DR-890 Colorimeter
Analysis Time: 1344
Concentration: 0.17 mg/L
Notes:

Hydrogen Sulfide
Equipment: HACH Test Kit 1R-18C
Analysis Time: 1343
Concentration: 0.1 mg/L
Notes:

QA/QC Checklist:
All data fields have been completed as necessary: ☐
Correct measurement units are cited in the SAMPLING DATA block: ☐
Final calulated concentration is within the appropriate *Range Used* block: ☐
QA/QC sample (e.g., Std. Additions, etc.) frequency is appropriate as per the project planning document: ☐
Title block is initialized by person who performed the QA/QC Ckecklist: ☐

GROUNDWATER SAMPLE LOG SHEET

THE SI Group

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Project Site Name: Site 57
Project: Cecil Field Long Term Monitoring

[ ] Domestic Well Data
[X] Monitoring Well Data
[ ] Other Well Type:
[ ] QA Sample Type:

Sample ID No.: CEF-824A-MW-07S-16
Sample Location: MW824A-07S
Sampled By: J. Ferranti & L. Middleton
C.O.C. No.:
Type of Sample: Groundwater
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA

Date: 2/14/05	Color Visual	pH Standard	S.C. mS/cm	Turbidity NTU	DO mg/l	Temp. °C	ORP mV	Other:
Time: 1045								
Method: Low Flow Peristaltic	CLEAR	4.44	0.064	40	0	23.6	14	

PURGE DATA

Date: 2/14/05	Time	Water Level (ft)	Volume (liters)	Flow (mL/Min.)	pH	Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp (Cel)	ORP (mV)
Method: Low Flow Peristaltic	1015	9.40	—	400	—	—	—	—	—	—
Monitor Reading (ppm): 0	1025	9.58	4		4.39	0.062	44	0	23.5	22
Well Casing Diameter: 2"	1030	9.51	6		4.34	0.064	42	0	23.4	25
Well Casing Material: PVC	1035	9.52	8		4.40	0.064	41	0	23.5	19
Total Well Depth (TD): 15	1040	9.52	10		4.44	0.064	40	0	23.6	14
Static Water Level (WL): 9.40										
One Casing Volume(gal/L): 3.3										
Start Purge (hrs): 1015										
End Purge (hrs): 1040										
Total Purge Time (min): 25										
Total Vol. Purged (gal/L): 10										

SAMPLE COLLECTION INFORMATION

Analysis			Preservative	Container Requirements	Collected
VOCs	8260B		HCL	3 40-mil VOA vials	✓
PAHs	8310		None	2 - 1 liter glass ambers	✓
Alkalinity	3101.1		None	1 - 1 liter plastic bottle	✓
Anions	300		None	1 - 1 liter plastic bottle	✓
Dissolved Iron	6010B	1 um filter	HNO3	1 - 1 liter plastic bottle	✓
Dis. Sulfate	376.1	1 um filter	None	1 - 0.5 liter plastic bottle	✓
Meth/Eth/Ethen	RSK SOP 147 & 175		None	3 40-mil VOA vials	✓
TOC	415.1		H2SO4	1 - 0.5 liter amber bottle	

OBSERVATIONS / NOTES

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s):

FIELD NATURAL ATTENUATION FORM

THE SI Group

Site: Site 57
Project Name: NAS Cecil Field Long-Term Monitoring
Project No.:
Personnel: Joe Ferranti & Lane Middleton
Well ID: CEF-824A-MW-07S
Sample ID: CEF-824A-MW-07S-16

Date: 2/14/05	Color	ORP (Eh)	S.C.	Temp.	Turbidity	DO	Sal.	pH
Time: 1045	(Visual)	(+/- mv)	(mS/cm)	(°C)	(NTU)	(Meter, mg/l)	(%)	(SU)
Method:	CLEAR	~~[illegible]~~	0.064	23.6	40	0		4.44

Natural Attenuation Field Analysis:

Dissolved Oxygen

Equipment: Chemetrics Kits K7501 & K7512
CHEMetrics Range: ☒ 0-1.0 mg/L ☐ 1-12 mg/L
Analysis Time: 1055
CHEMetrics: 6.0 mg/L
Notes:

Alkalinity

Equipment: Chemetrics Kits K-7501 & K7512
CHEMetrics (Range: 10-100 mg/L)
Analysis Time: 1050
CHEMetrics: 0.0 mg/L
Notes:

Carbon Dioxide

Equipment: Chemetrics Kits K-1910, K1920 & K1925
CHEMetrics (Range: 100-1000 mg/L)
Analysis Time: 1040
CHEMetrics: 105 mg/L
Notes:

Ferrous Iron

Equipment: HACH IR18C Colorwheel
Analysis Time: ~~0.6~~ 1045
Concentration: 0.6 mg/L
Notes:

Sulfide

Equipment: HACH DR-890 Colorimeter
Analysis Time: 1056
Concentration: 70.80 mg/L
Notes:

Hydrogen Sulfide

Equipment: HACH Test Kit 1R-18C
Analysis Time: 1053
Concentration: ~~70.80~~ mg/L ← 2.0
Notes:

QA/QC Checklist:

All data fields have been completed as necessary: ☐
Correct measurement units are cited in the SAMPLING DATA block: ☐
Final calulated concentration is within the appropriate *Range Used* block: ☐
QA/QC sample (e.g., Std. Additions, etc.) frequency is appropriate as per the project planning document: ☐
Title block is initialized by person who performed the QA/QC Ckecklist: ☐

GROUNDWATER SAMPLE LOG SHEET

THE SI Group

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Project Site Name:	Site 57	Sample ID No.:	CEF-824A-MW-08S-16
Project:	Cecil Field Long Term Monitoring	Sample Location:	MW824A-08S
		Sampled By:	J. Ferranti & L. Middleton
[ ] Domestic Well Data		C.O.C. No.:	
[X] Monitoring Well Data		Type of Sample:	Groundwater
[ ] Other Well Type:		[X] Low Concentration	
[ ] QA Sample Type:		[ ] High Concentration	

SAMPLING DATA

Date: 2/14/05 Time: 1425	Color Visual	pH Standard	S.C. mS/cm	Turbidity NTU	DO mg/l	Temp. °C	ORP mV	Other:
Method: Low Flow Peristaltic	CLEAR	4.09	0.061	56	0	24.0	15	

PURGE DATA

Date: 2/14/05	Time	Water Level (ft)	Volume (liters)	Flow (mL/Min.)	pH	Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp (Cel)	ORP (mV)
Method: Low Flow Peristaltic	1355	9.50	—	400	—	—	—	—	—	—
Monitor Reading (ppm): 0	1405	9.58	4	400	4.14	0.062	62	0	24.2	20
Well Casing Diameter: 2"	1410	9.58	6	400	4.10	0.062	61	0	24.1	16
Well Casing Material: PVC	1415	9.58	8	400	4.12	0.061	58	0	24.1	2
Total Well Depth (TD): 15	1420	9.59	10	400	4.09	0.061	56	0	24.0	15
Static Water Level (WL): 9.58										
One Casing Volume(gal/L): 0.36										
Start Purge (hrs): 1355										
End Purge (hrs): 1420										
Total Purge Time (min): 25										
Total Vol. Purged (gal/L): 0.10										

SAMPLE COLLECTION INFORMATION

Analysis			Preservative	Container Requirements	Collected
VOCs	8260B		HCL	3 40-mil VOA vials	✓
PAHs	8310		None	2 - 1 liter glass ambers	✓
Alkalinity	3101.1		None	1 - 1 liter plastic bottle	✓
Anions	300		None	1 - 1 liter plastic bottle	✓
Dissolved Iron	6010B	1 um filter	HNO3	1 - 1 liter plastic bottle	✓
Dis. Sulfate	376.1	1 um filter	None	1 - 0.5 liter plastic bottle	✓
Meth/Eth/Ethen	RSK SOP 147 & 175		None	3 40-mil VOA vials	✓
TOC	415.1		H2SO4	1 - 0.5 liter amber bottle	✓

OBSERVATIONS / NOTES

Circle if Applicable:		Signature(s):
MS/MSD	Duplicate ID No.:	

FIELD NATURAL ATTENUATION FORM

THE SI Group

Site: Site 57
Project Name: NAS Cecil Field Long-Term Monitoring
Project No.:
Personnel: Joe Ferranti & Lane Middleton
Well ID: CEF-824A-MW-08S
Sample ID: CEF-824A-MW-08S-16

Date: 2/14/05	Color	ORP (Eh)	S.C.	Temp.	Turbidity	DO	Sal.	pH
Time: 1425	(Visual)	(+/- mv)	(mS/cm)	(°C)	(NTU)	(Meter, mg/l)	(%)	(SU)
Method:	CLEAR	15	0.061	24.0	56	0		4.09

Natural Attenuation Field Analysis:

Dissolved Oxygen

Equipment: Chemetrics Kits K7501 & K7512
CHEMetrics Range: [X] 0-1.0 mg/L
[ ] 1-12 mg/L
Analysis Time: 1414
CHEMetrics: 0.3 mg/L
Notes:

Alkalinity

Equipment: Chemetrics Kits K-7501 & K7512
CHEMetrics (Range: 10-100 mg/L)
Analysis Time: 1428
CHEMetrics: 0 mg/L
Notes:

Carbon Dioxide

Equipment: Chemetrics Kits K-1910, K1920 & K1925
CHEMetrics (Range: 10-100 mg/L)
Analysis Time: 1424
CHEMetrics: 120 mg/L
Notes:

Ferrous Iron

Equipment: HACH IR18C Colorwheel
Analysis Time: 1424
Concentration: 0.2 mg/L
Notes:

Sulfide

Equipment: HACH DR-890 Colorimeter
Analysis Time: 1422
Concentration: 70.80 mg/L
Notes:

Hydrogen Sulfide

Equipment: HACH Test Kit 1R-18C
Analysis Time: 1420
Concentration: 5.0 mg/L
Notes:

QA/QC Checklist:

All data fields have been completed as necessary: [ ]
Correct measurement units are cited in the SAMPLING DATA block: [ ]
Final calulated concentration is within the appropriate *Range Used* block: [ ]
QA/QC sample (e.g., Std. Additions, etc.) frequency is appropriate as per the project planning document: [ ]
Title block is initialized by person who performed the QA/QC Ckecklist: [ ]

GROUNDWATER SAMPLE LOG SHEET

THE SI Group

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Project Site Name:	Site 57	Sample ID No.:	CEF-824A-MW-01Sa-16
Project:	Cecil Field Long Term Monitoring	Sample Location:	MW824A-01Sa
		Sampled By:	J. Ferranti & L. Middleton
[ ] Domestic Well Data		C.O.C. No.:	
[X] Monitoring Well Data		Type of Sample:	Groundwater
[ ] Other Well Type:		[X] Low Concentration	
[ ] QA Sample Type:		[ ] High Concentration	

SAMPLING DATA

Date: 2/14/05 Time: 1505	Color Visual	pH Standard	S.C. mS/cm	Turbidity NTU	DO mg/l	Temp. °C	ORP mV	Other:
Method: Low Flow Peristaltic	clear	4.69	0.122	59	0	22.6	58	

PURGE DATA

Date: 2/14/05	Time	Water Level (ft)	Volume (liters)	Flow (mL/Min.)	pH	Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp (Cel)	ORP (mV)
Method: Low Flow Peristaltic	1435	9.48	—	400	—	—	—	—	—	—
Monitor Reading (ppm): 0	1445	4.54	4	400	4.55	0.123	75	0	22.7	70
Well Casing Diameter: 2"	1450	4.55	6	400	4.57	0.120	67	0	22.7	67
Well Casing Material: PVC	1455	4.55	8	400	4.68	0.122	61	0	22.6	62
Total Well Depth (TD): 14	1500	4.55	10	400	4.69	0.122	59	0	22.6	58
Static Water Level (WL): 9.48										
One Casing Volume(gal/L): 3										
Start Purge (hrs): 1435										
End Purge (hrs): 1500										
Total Purge Time (min): 25										
Total Vol. Purged (gal/L): 10										

SAMPLE COLLECTION INFORMATION

Analysis			Preservative	Container Requirements	Collected
VOCs	8260B		HCL	3 40-mil VOA vials	✓
PAHs	8310		None	2 - 1 liter glass ambers	✓
Alkalinity	3101.1		None	1 - 1 liter plastic bottle	✓
Anions	300		None	1 - 1 liter plastic bottle	✓
Dissolved Iron	6010B	1 um filter	HNO3	1 - 1 liter plastic bottle	✓
Dis. Sulfate	376.1	1 um filter	None	1 - 0.5 liter plastic bottle	✓
Meth/Eth/Ethen	RSK SOP 147 & 175		None	3 40-mil VOA vials	✓
TOC	415.1		H2SO4	1 - 0.5 liter amber bottle	✓

OBSERVATIONS / NOTES

Circle if Applicable:		Signature(s):
MS/MSD	Duplicate ID No.:	

FIELD NATURAL ATTENUATION FORM

THE SI Group

Site: Site 57
Project Name: NAS Cecil Field Long-Term Monitoring
Project No.:
Personnel: Joe Ferranti & Lane Middleton
Well ID: CEF-824A-MW-01Sa
Sample ID: CEF-824A-MW-01Sa-1(

Date: 2/14/05	Color	ORP (Eh)	S.C.	Temp.	Turbidity	DO	Sal.	pH
Time: 1505	(Visual)	(+/- mv)	(mS/cm)	(^{0}C)	(NTU)	(Meter, mg/l)	(%)	(SU)
Method: PERE	clr	58	0.122	22.6	59	0		4.64

Natural Attenuation Field Analysis:

Dissolved Oxygen

Equipment: Chemetrics Kits K7501 & K7512
CHEMetrics Range: ☐ 0-1.0 mg/L ☐ 1-12 mg/L
Analysis Time: 1512
CHEMetrics: 0.2 mg/L
Notes:

Alkalinity

Equipment: Chemetrics Kits K-7501 & K7512
CHEMetrics (Range: _____mg/L)
Analysis Time: 1501
CHEMetrics: 0.0 mg/L
Notes:

Carbon Dioxide

Equipment: Chemetrics Kits K-1910, K1920 & K1925
CHEMetrics (Range: 10-100 mg/L)
Analysis Time: 1514
CHEMetrics: 25 mg/L
Notes:

Ferrous Iron

Equipment: HACH IR18C Colorwheel
Analysis Time: 1510
Concentration: 0.0 mg/L
Notes:

Sulfide

Equipment: HACH DR-890 Colorimeter
Analysis Time: 1507
Concentration: 0.16 mg/L
Notes:

Hydrogen Sulfide

Equipment: HACH Test Kit 1R-18C
Analysis Time: 1505
Concentration: 0.4 mg/L
Notes:

QA/QC Checklist:

All data fields have been completed as necessary: ☐
Correct measurement units are cited in the SAMPLING DATA block: ☐
Final calulated concentration is within the appropriate *Range Used* block: ☐
QA/QC sample (e.g., Std. Additions, etc.) frequency is appropriate as per the project planning document: ☐
Title block is initialized by person who performed the QA/QC Ckecklist: ☐

GROUNDWATER SAMPLE LOG SHEET

THE SI Group

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Project Site Name:	Site 57	Sample ID No.:	CEF-824A-MW-10S-16
Project:	Cecil Field Long Term Monitoring	Sample Location:	MW824A-10S
		Sampled By:	J. Ferranti & L. Middleton
[ ] Domestic Well Data		C.O.C. No.:	
[X] Monitoring Well Data		Type of Sample:	Groundwater
[ ] Other Well Type:		[X] Low Concentration	
[ ] QA Sample Type:		[ ] High Concentration	

SAMPLING DATA

Date: 2/15/05 Time: 1250	Color Visual	pH Standard	S.C. mS/cm	Turbidity NTU	DO mg/l	Temp. °C	ORP mV	Other:
Method: Low Flow Peristaltic	CLR	4.95	0.148	43	0	22.7	-4	

PURGE DATA

Date: 2/15/05	Time	Water Level (ft)	Volume (liters)	Flow (mL/Min.)	pH	Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp (Cel)	ORP (mV)
Method: Low Flow Peristaltic	1220	7.89	—	400	—	—	—	—	—	—
Monitor Reading (ppm): 0	1230	7.92	4	400	4.27	0.155	76	0	22.6	6
Well Casing Diameter: 2"	1235	7.92	6	400	4.32	0.152	48	0	22.6	6
Well Casing Material: PVC	1240	7.92	8	400	4.45	0.149	46	0	22.6	0
Total Well Depth (TD): 15	1245	7.92	10	400	4.45	0.148	43	0	22.7	-4
Static Water Level (WL): 7.89										
One Casing Volume(gal/L): 4.5										
Start Purge (hrs): 1220										
End Purge (hrs): 1245										
Total Purge Time (min): 25										
Total Vol. Purged (gal/L): 10										

SAMPLE COLLECTION INFORMATION

Analysis			Preservative	Container Requirements	Collected
VOCs	8260B		HCL	3 40-mil VOA vials	✓
PAHs	8310		None	2 - 1 liter glass ambers	✓
Alkalinity	3101.1		None	1 - 1 liter plastic bottle	✓
Anions	300		None	1 - 1 liter plastic bottle	✓
Dissolved Iron	6010B	1 um filter	HNO3	1 - 1 liter plastic bottle	✓
Dis. Sulfate	376.1	1 um filter	None	1 - 0.5 liter plastic bottle	✓
Meth/Eth/Ethen	RSK SOP 147 & 175		None	3 40-mil VOA vials	✓
TOC	415.1		H2SO4	1 - 0.5 liter amber bottle	✓
TRPH	FL-PRO		H2SO4	2 - 1 liter glass ambers	✓

OBSERVATIONS / NOTES

Circle if Applicable:		Signature(s):
MS/MSD	Duplicate ID No.:	

FIELD NATURAL ATTENUATION FORM

THE SI Group

Site: Site 57
Project Name: NAS Cecil Field Long-Term Monitoring
Project No.:
Personnel: Joe Ferranti & Lane Middleton
Well ID: CEF-824A-MW-10S
Sample ID: CEF-824A-MW-10S-16

Date: 2/15/05 Time: 1250	Color (Visual)	ORP (Eh) (+/- mv)	S.C. (mS/cm)	Temp. (°C)	Turbidity (NTU)	DO (Meter, mg/l)	Sal. (%)	pH (SU)
Method:	CLR	-4	0.148	22.7	43	0		4.45

Natural Attenuation Field Analysis:

Dissolved Oxygen
Equipment: Chemetrics Kits K7501 & K7512
CHEMetrics Range: ☐ 0-1.0 mg/L ☐ 1-12 mg/L
Analysis Time: 1250
CHEMetrics: 0.1 mg/L
Notes:

Alkalinity
Equipment: Chemetrics Kits K-7501 & K7512
CHEMetrics (Range: 10-100 mg/L)
Analysis Time: 1256
CHEMetrics: 9 mg/L
Notes:

Carbon Dioxide
Equipment: Chemetrics Kits K-1910, K1920 & K1925
CHEMetrics (Range: 10-100 mg/L)
Analysis Time: 1250
CHEMetrics: 80 mg/L
Notes:

Ferrous Iron
Equipment: HACH IR18C Colorwheel
Analysis Time: 1253
Concentration: 0.0 mg/L
Notes:

Sulfide
Equipment: HACH DR-890 Colorimeter
Analysis Time: 1251
Concentration: 70-80 mg/L Limit
Notes:

Hydrogen Sulfide
Equipment: HACH Test Kit 1R-18C
Analysis Time: 1250
Concentration: 5.0 mg/L
Notes:

QA/QC Checklist:

All data fields have been completed as necessary: ☐
Correct measurement units are cited in the SAMPLING DATA block: ☐
Final calulated concentration is within the appropriate *Range Used* block: ☐
QA/QC sample (e.g., Std. Additions, etc.) frequency is appropriate as per the project planning document: ☐
Title block is initialized by person who performed the QA/QC Ckecklist: ☐

GROUNDWATER SAMPLE LOG SHEET

THE SI Group

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Project Site Name: **Site 57**
Project: Cecil Field Long Term Monitoring

[ ] Domestic Well Data
[X] Monitoring Well Data
[ ] Other Well Type:
[ ] QA Sample Type:

Sample ID No.: **CEF-293-MW-11-16**
Sample Location: MW293-11
Sampled By: J. Ferranti & L. Middleton
C.O.C. No.:
Type of Sample: Groundwater
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA

Date: 2/15/05 Time: 1405	Color Visual	pH Standard	S.C. mS/cm	Turbidity NTU	DO mg/l	Temp. °C	ORP mV	Other:
Method: Low Flow Peristaltic	CLR	5.21	0.114	40	0	22.3	-25	

PURGE DATA

Date: 2/15/05	Time	Water Level (ft)	Volume (liters)	Flow (mL/Min.)	pH	Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp (Cel)	ORP (mV)
Method: Low Flow Peristaltic	1335	8.99	—	400	—	—	—	—	—	—
Monitor Reading (ppm): 0	1345	9.18	4	400	5.05	0.132	160	0	22.1	-8
Well Casing Diameter: 2"	1350	9.22	6	400	5.17	0.123	87	0	22.1	-19
Well Casing Material: PVC	1355	9.22	8	400	5.17	0.113	48	0	22.3	-22
Total Well Depth (TD): 14.25	1400	9.22	10	400	5.21	0.114	40	0	22.3	-25
Static Water Level (WL): 8.99										
One Casing Volume(gal/L): 3.5										
Start Purge (hrs): 1335										
End Purge (hrs): 1400										
Total Purge Time (min): 25										
Total Vol. Purged (gal/L): 10										

SAMPLE COLLECTION INFORMATION

Analysis			Preservative	Container Requirements	Collected
VOCs	8260B		HCL	3 40-mil VOA vials	✓
PAHs	8310		None	2 - 1 liter glass ambers	✓
Alkalinity	3101.1		None	1 - 1 liter plastic bottle	✓
Anions	300		None	1 - 1 liter plastic bottle	✓
Dissolved Iron	6010B	1 um filter	HNO3	1 - 1 liter plastic bottle	✓
Dis. Sulfate	376.1	1 um filter	None	1 - 0.5 liter plastic bottle	✓
Meth/Eth/Ethen	RSK SOP 147 & 175		None	3 40-mil VOA vials	✓
TOC	415.1		H2SO4	1 - 0.5 liter amber bottle	✓
TRPH	FL-PRO		H2SO4	2 - 1 liter glass ambers	✓

OBSERVATIONS / NOTES

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

FIELD NATURAL ATTENUATION FORM

THE SI Group

Site: Site 57
Project Name: NAS Cecil Field Long-Term Monitoring
Project No.:
Personnel: Joe Ferranti & Lane Middleton
Well ID: CEF-293-MW-11
Sample ID: CEF-293-MW-11-16

Date: 2/15/05	Color	ORP (Eh)	S.C.	Temp.	Turbidity	DO	Sal.	pH
Time: 1405	(Visual)	(+/- mv)	(mS/cm)	(°C)	(NTU)	(Meter, mg/l)	(%)	(SU)
Method:	CLR	-25	0.114	22.3	40	0		5.21

Natural Attenuation Field Analysis:

Dissolved Oxygen

Equipment: Chemetrics Kits K7501 & K7512

CHEMetrics Range: ☐ 0-1.0 mg/L ☐ 1-12 mg/L

Analysis Time: 1414
CHEMetrics: 0.2 mg/L
Notes:

Alkalinity

Equipment: Chemetrics Kits K-7501 & K7512

CHEMetrics (Range: 10-10 mg/L)

Analysis Time: 1410
CHEMetrics: 18 mg/L
Notes:

Carbon Dioxide

Equipment: Chemetrics Kits K-1910, K1920 & K1925

CHEMetrics (Range: _____ mg/L)

Analysis Time: 1402
CHEMetrics: 40 mg/L
Notes:

Ferrous Iron

Equipment: HACH IR18C Colorwheel

Analysis Time: 1412
Concentration: 0.0 mg/L
Notes:

Sulfide

Equipment: HACH DR-890 Colorimeter

Analysis Time: 1405
Concentration: >80 mg/L
Notes:

Hydrogen Sulfide

Equipment: HACH Test Kit 1R-18C

Analysis Time: 1404
Concentration: 2 mg/L
Notes:

QA/QC Checklist:

All data fields have been completed as necessary: ☐
Correct measurement units are cited in the SAMPLING DATA block: ☐
Final calulated concentration is within the appropriate *Range Used* block: ☐
QA/QC sample (e.g., Std. Additions, etc.) frequency is appropriate as per the project planning document: ☐
Title block is initialized by person who performed the QA/QC Ckecklist: ☐

GROUNDWATER SAMPLE LOG SHEET

THE SI Group

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Project Site Name: Site 57
Project: Cecil Field Long Term Monitoring

[ ] Domestic Well Data
[X] Monitoring Well Data
[ ] Other Well Type:
[ ] QA Sample Type:

Sample ID No.: CEF-824A-MW-21I-16
Sample Location: MW824A-21I
Sampled By: J. Ferranti & L. Middleton
C.O.C. No.:
Type of Sample: Groundwater
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA

Date: 2/15/05 Time: 1445	Color Visual	pH Standard	S.C. mS/cm	Turbidity NTU	DO mg/l	Temp. °C	ORP mV	Other:
Method: Low Flow Peristaltic	CLR	4.08	0.052	24	1.79	23.6	38	

PURGE DATA

Date: 2/15/05	Time	Water Level (ft)	Volume (liters)	Flow (mL/Min.)	pH	Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp (Cel)	ORP (mV)
Method: Low Flow Peristaltic	1415	8.68	—	400	—	—	—	—	—	—
Monitor Reading (ppm): 0	1425	8.73	4	400	4.00	0.056	23	0	23.8	53
Well Casing Diameter: 2"	1430	8.75	6	400	3.87	0.052	17	0.43	23.7	54
Well Casing Material: PVC	1435	8.75	8	400	3.97	0.052	24	1.38	23.7	45
Total Well Depth (TD):	1440	8.75	9	400	4.08	0.052	24	1.79	23.6	38
Static Water Level (WL): 8.68										
One Casing Volume(gal/L):										
Start Purge (hrs): 1415										
End Purge (hrs): 1440										
Total Purge Time (min): 25										
Total Vol. Purged (gal/L): 10										

SAMPLE COLLECTION INFORMATION

Analysis			Preservative	Container Requirements	Collected
VOCs	8260B		HCL	3 40-mil VOA vials	✓
PAHs	8310		None	2 - 1 liter glass ambers	✓
Alkalinity	3101.1		None	1 - 1 liter plastic bottle	✓
Anions	300		None	1 - 1 liter plastic bottle	✓
Dissolved Iron	6010B	1 um filter	HNO3	1 - 1 liter plastic bottle	✓
Dis. Sulfate	376.1	1 um filter	None	1 - 0.5 liter plastic bottle	✓
Meth/Eth/Ethen	RSK SOP 147 & 175		None	3 40-mil VOA vials	✓
TOC	415.1		H2SO4	1 - 0.5 liter amber bottle	✓
TRPH	FL-PRO		H2SO4	2 - 1 liter glass ambers	✓

OBSERVATIONS / NOTES

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

GROUNDWATER SAMPLE LOG SHEET

THE SI Group

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Project Site Name:	Site 57	Sample ID No.:	CEF-824A-MW-11S-16
Project:	Cecil Field Long Term Monitoring	Sample Location:	MW824A-11S
		Sampled By:	J. Ferranti & L. Middleton
[ ] Domestic Well Data		C.O.C. No.:	
[X] Monitoring Well Data		Type of Sample:	Groundwater
[ ] Other Well Type:		[X] Low Concentration	
[ ] QA Sample Type:		[ ] High Concentration	

SAMPLING DATA

Date: 2/15/05	Color	pH	S.C.	Turbidity	DO	Temp.	ORP	Other:
Time: 1530	Visual	Standard	mS/cm	NTU	mg/l	°C	mV	
Method: Low Flow Peristaltic	CLR	4.39	0.071	24	0	21.6	25	

PURGE DATA

Date: 2/15/05	Time	Water Level (ft)	Volume (liters)	Flow (mL/Min.)	pH	Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp (Cel)	ORP (mV)
Method: Low Flow Peristaltic	1500	8.52	–	400	–	–	–	–	–	–
Monitor Reading (ppm):	1510	8.60	4	400	4.19	0.069	20	0	21.4	67
Well Casing Diameter: 2"	1515	8.60	6	400	4.23	0.070	22	0	21.4	49
Well Casing Material: PVC	1520	8.60	8	400	4.39	0.072	24	0	21.5	33
Total Well Depth (TD): 15.1	1525	8.60	10	400	4.39	0.071	24	0	21.6	28
Static Water Level (WL): 8.52										
One Casing Volume(gal/L): 4										
Start Purge (hrs): 1500										
End Purge (hrs): 1525										
Total Purge Time (min): 25										
Total Vol. Purged (gal/L): 10										

SAMPLE COLLECTION INFORMATION

Analysis			Preservative	Container Requirements	Collected
VOCs	8260B		HCL	3 40-mil VOA vials	✓
PAHs	8310		None	2 - 1 liter glass ambers	✓
Alkalinity	3101.1		None	1 - 1 liter plastic bottle	✓
Anions	300		None	1 - 1 liter plastic bottle	✓
Dissolved Iron	6010B	1 um filter	HNO3	1 - 1 liter plastic bottle	✓
Dis. Sulfate	376.1	1 um filter	None	1 - 0.5 liter plastic bottle	✓
Meth/Eth/Ethen	RSK SOP 147 & 175		None	3 40-mil VOA vials	✓
TOC	415.1		H2SO4	1 - 0.5 liter amber bottle	✓
TRPH	FL-PRO		H2SO4	2 - 1 liter glass ambers	✓

OBSERVATIONS / NOTES

Circle if Applicable:		Signature(s):
MS/MSD	Duplicate ID No.:	

FIELD NATURAL ATTENUATION FORM

THE SI Group

Site: Site 57
Project Name: NAS Cecil Field Long-Term Monitoring
Project No.:
Personnel: Joe Ferranti & Lane Middleton
Well ID: CEF-824A-MW-11S
Sample ID: CEF-824A-MW-11S-16

Date: 2/15/05	Color	ORP (Eh)	S.C.	Temp.	Turbidity	DO	Sal.	pH
Time: 1530	(Visual)	(+/- mv)	(mS/cm)	(°C)	(NTU)	(Meter, mg/l)	(%)	(SU)
Method: LFP	CLR	28	0.071	21.6	24	0		4.38

Natural Attenuation Field Analysis:

Dissolved Oxygen

Equipment: Chemetrics Kits K7501 & K7512
CHEMetrics Range: ☒ 0-1.0 mg/L ☐ 1-12 mg/L
Analysis Time: 1539
CHEMetrics: 0.05 mg/L
Notes:

Alkalinity

Equipment: Chemetrics Kits K-7501 & K7512
CHEMetrics (Range: 10-100 mg/L)
Analysis Time: 1534
CHEMetrics: 0 mg/L
Notes:

Carbon Dioxide

Equipment: Chemetrics Kits K-1910, K1920 & K1925
CHEMetrics (Range: 10-100 mg/L)
Analysis Time: 1538
CHEMetrics: 70 mg/L
Notes:

Ferrous Iron

Equipment: HACH IR18C Colorwheel
Analysis Time: 1529
Concentration: 0.6 mg/L
Notes:

Sulfide

Equipment: HACH DR-890 Colorimeter
Analysis Time: 1531
Concentration: 0.76 mg/L
Notes:

Hydrogen Sulfide

Equipment: HACH Test Kit 1R-18C
Analysis Time: 1530
Concentration: 0.5 mg/L
Notes:

QA/QC Checklist:

All data fields have been completed as necessary: ☐
Correct measurement units are cited in the SAMPLING DATA block: ☐
Final calulated concentration is within the appropriate *Range Used* block: ☐
QA/QC sample (e.g., Std. Additions, etc.) frequency is appropriate as per the project planning document: ☐
Title block is initialized by person who performed the QA/QC Ckecklist: ☐

GROUNDWATER SAMPLE LOG SHEET

THE SI Group

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Project Site Name:	Site 57	Sample ID No.:	CEF-824A-MW-17I-16
Project:	Cecil Field Long Term Monitoring	Sample Location:	MW824A-17I
		Sampled By:	J. Ferranti & L. Middleton
[ ] Domestic Well Data		C.O.C. No.:	
[X] Monitoring Well Data		Type of Sample:	Groundwater
[ ] Other Well Type:		[X] Low Concentration	
[ ] QA Sample Type:		[ ] High Concentration	

SAMPLING DATA

Date: 2/15/05	Color	pH	S.C.	Turbidity	DO	Temp.	ORP	Other:
Time: 0805	Visual	Standard	mS/cm	NTU	mg/l	°C	mV	
Method: Low Flow Peristaltic	LLR	5.89	0.186	19	1.21	24.3	1	

PURGE DATA

Date: 2/15/05	Time	Water Level (ft)	Volume (liters)	Flow (mL/Min.)	pH	Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp (Cel)	ORP (mV)
Method: Low Flow Peristaltic	0740	9.08	—	400	—	—	—	—	—	—
Monitor Reading (ppm): 0	0750	9.23	4	400	6.25	0.111	20	8.25	24.8	174
Well Casing Diameter: 2"	0755	9.23	6	400	5.94	0.139	20	3.27	24.5	18
Well Casing Material: PVC	0800	9.23	8	400	5.91	0.143	17	1.96	24.5	4
Total Well Depth (TD): 41	0805	9.23	10	400	5.89	0.186	19	1.21	24.3	1
Static Water Level (WL): 9.08										
One Casing Volume(gal/L): 3.1										
Start Purge (hrs): 0740										
End Purge (hrs): 0805										
Total Purge Time (min): 25										
Total Vol. Purged (gal/L) 10										

SAMPLE COLLECTION INFORMATION

Analysis			Preservative	Container Requirements	Collected
VOCs	8260B		HCL	3 40-mil VOA vials	✓
PAHs	8310		None	2 - 1 liter glass ambers	✓
Alkalinity	3101.1		None	1 - 1 liter plastic bottle	✓
Anions	300		None	1 - 1 liter plastic bottle	✓
Dissolved Iron	6010B	1 um filter	HNO3	1 - 1 liter plastic bottle	✓
Dis. Sulfate	376.1	1 um filter	None	1 - 0.5 liter plastic bottle	✓
Meth/Eth/Ethen	RSK SOP 147 & 175		None	3 40-mil VOA vials	✓
TOC	415.1		H2SO4	1 - 0.5 liter amber bottle	✓

OBSERVATIONS / NOTES

Circle if Applicable:		Signature(s):
MS/MSD	Duplicate ID No.:	

FIELD NATURAL ATTENUATION FORM

THE SI Group

Site:	Site 57
Project Name:	NAS Cecil Field Long-Term Monitoring
Project No.:	
Personnel:	Joe Ferranti & Lane Middleton
Well ID:	CEF-824A-MW-17I
Sample ID:	CEF-824A-MW-17I-16

Date: 2/15/05	Color	ORP (Eh)	S.C.	Temp.	Turbidity	DO	Sal.	pH
Time: 0805	(Visual)	(+/- mv)	(mS/cm)	(°C)	(NTU)	(Meter, mg/l)	(%)	(SU)
Method:	CLR	1	0.186	24.3	1.9	1.21		5.88

Natural Attenuation Field Analysis:

Dissolved Oxygen

Equipment: Chemetrics Kits K7501 & K7512

CHEMetrics Range: ☐ 0-1.0 mg/L ☒ 1-12 mg/L

Analysis Time: 0808

CHEMetrics: 1.0 mg/L

Notes:

Alkalinity

Equipment: Chemetrics Kits K-7501 & K7512

CHEMetrics (Range: _____ mg/L)

Analysis Time: 0807

CHEMetrics: 35 mg/L

Notes:

Carbon Dioxide

Equipment: Chemetrics Kits K-1910, K1920 & K1925

CHEMetrics (Range: 10-100 mg/L)

Analysis Time: 0813

CHEMetrics: 35 mg/L

Notes:

Ferrous Iron

Equipment: HACH IR18C Colorwheel

Analysis Time: 0814

Concentration: 1.4 mg/L

Notes:

Sulfide

Equipment: HACH DR-890 Colorimeter

Analysis Time: 0809

Concentration: 0.20 mg/L

Notes:

Hydrogen Sulfide

Equipment: HACH Test Kit 1R-18C

Analysis Time: 0810

Concentration: 0.5 mg/L

Notes:

QA/QC Checklist:

All data fields have been completed as necessary: ☐

Correct measurement units are cited in the SAMPLING DATA block: ☐

Final calulated concentration is within the appropriate *Range Used* block: ☐

QA/QC sample (e.g., Std. Additions, etc.) frequency is appropriate as per the project planning document: ☐

Title block is initialized by person who performed the QA/QC Ckecklist: ☐

GROUNDWATER SAMPLE LOG SHEET

THE SI Group

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Project Site Name:	Site 57	Sample ID No.:	CEF-824A-MW-04S-16
Project:	Cecil Field Long Term Monitoring	Sample Location:	MW824A-04S
		Sampled By:	J. Ferranti & L. Middleton
[ ] Domestic Well Data		C.O.C. No.:	
[X] Monitoring Well Data		Type of Sample:	Groundwater
[ ] Other Well Type:		[X] Low Concentration	
[ ] QA Sample Type:		[ ] High Concentration	

SAMPLING DATA

Date: 2/15/05 Time: 0850	Color Visual	pH Standard	S.C. mS/cm	Turbidity NTU	DO mg/l	Temp. °C	ORP mV	Other:
Method: Low Flow Peristaltic	CLR	4.47	0.90	23	0	23.6	19	

PURGE DATA

Date: 2/15/05	Time	Water Level (ft)	Volume (liters)	Flow (mL/Min.)	pH	Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp (Cel)	ORP (mV)
Method: Low Flow Peristaltic	0820	9.25	—	400	—	—	—	—	—	—
Monitor Reading (ppm): 0	0830	9.38	4	400	4.39	0.110	27	0	23.6	49
Well Casing Diameter: 2"	0835	9.38	6	400	4.35	0.695	25	0	23.6	37
Well Casing Material: PVC	0840	9.39	8	400	4.40	0.90	26	0	23.7	22
Total Well Depth (TD): 9.25	0845	9.39	10	400	4.47	0.90	23	0	23.6	19
Static Water Level (WL): 15										
One Casing Volume(gal/L): 4										
Start Purge (hrs): 0820										
End Purge (hrs): 0845										
Total Purge Time (min): 25										
Total Vol. Purged (gal/L): 10										

SAMPLE COLLECTION INFORMATION

Analysis			Preservative	Container Requirements	Collected
VOCs	8260B		HCL	3 40-mil VOA vials	✓
PAHs	8310		None	2 - 1 liter glass ambers	✓
Alkalinity	3101.1		None	1 - 1 liter plastic bottle	✓
Anions	300		None	1 - 1 liter plastic bottle	✓
Dissolved Iron	6010B	1 um filter	HNO3	1 - 1 liter plastic bottle	✓
Dis. Sulfate	376.1	1 um filter	None	1 - 0.5 liter plastic bottle	✓
Meth/Eth/Ethen	RSK SOP 147 & 175		None	3 40-mil VOA vials	✓
TOC	415.1		H2SO4	1 - 0.5 liter amber bottle	✓

OBSERVATIONS / NOTES

Circle if Applicable:		Signature(s):
MS/MSD	Duplicate ID No.:	

GROUNDWATER SAMPLE LOG SHEET

THE SI Group

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Project Site Name: Site 57
Project: Cecil Field Long Term Monitoring

[ ] Domestic Well Data
[X] Monitoring Well Data
[ ] Other Well Type:
[ ] QA Sample Type:

Sample ID No.: CEF-293-MW-21-16
Sample Location: MW293-21
Sampled By: J. Ferranti & L. Middleton
C.O.C. No.:
Type of Sample: Groundwater
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA

Date: 2/15/05 Time: 0930	Color Visual	pH Standard	S.C. mS/cm	Turbidity NTU	DO mg/l	Temp. °C	ORP mV	Other:
Method: Low Flow Peristaltic	CLR	5.48	0.699	13	0.93	22.1	98	

PURGE DATA

Date: 2/15/05	Time	Water Level (ft)	Volume (liters)	Flow (mL/Min.)	pH	Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp (Cel)	ORP (mV)
Method: Low Flow Peristaltic	0900	8.98	—	400	—	—	—	—	—	—
Monitor Reading (ppm): 0	0910	9.17	4	400	5.14	0.226	11	1.46	22.3	117
Well Casing Diameter: 2"	0915	9.18	6	400	5.21	0.659	13	0.98	22.2	120
Well Casing Material: PVC	0920	9.18	8	400	5.28	0.667	14	1.17	22.1	117
Total Well Depth (TD): 14.8	0925	9.18	10	400	5.48	0.699	13	0.93	22.1	98
Static Water Level (WL): 8.98										
One Casing Volume(gal/L): 3										
Start Purge (hrs): 0900										
End Purge (hrs): 0925										
Total Purge Time (min): 25										
Total Vol. Purged (gal/L): 10										

SAMPLE COLLECTION INFORMATION

Analysis			Preservative	Container Requirements	Collected
VOCs	8260B		HCL	3 40-mil VOA vials	✓
PAHs	8310		None	2 - 1 liter glass ambers	✓
Alkalinity	3101.1		None	1 - 1 liter plastic bottle	✓
Anions	300		None	1 - 1 liter plastic bottle	✓
Dissolved Iron	6010B	1 um filter	HNO3	1 - 1 liter plastic bottle	✓
Dis. Sulfate	376.1	1 um filter	None	1 - 0.5 liter plastic bottle	✓
Meth/Eth/Ethen	RSK SOP 147 & 175		None	3 40-mil VOA vials	✓
TOC	415.1		H2SO4	1 - 0.5 liter amber bottle	✓

OBSERVATIONS / NOTES

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s):

FIELD NATURAL ATTENUATION FORM

THE SI Group

Site: Site 57
Project Name: NAS Cecil Field Long-Term Monitoring
Project No.:
Personnel: Joe Ferranti & Lane Middleton
Well ID: CEF-293-MW-21
Sample ID: CEF-293-MW-21-16

Date: 2/15/05	Color	ORP (Eh)	S.C.	Temp.	Turbidity	DO	Sal.	pH
Time: 0930	(Visual)	(+/- mv)	(mS/cm)	(°C)	(NTU)	(Meter, mg/l)	(%)	(SU)
Method:	CLR	98	0.699	22.1	13	0.83		5.48

Natural Attenuation Field Analysis:

Dissolved Oxygen
Equipment: Chemetrics Kits K7501 & K7512
CHEMetrics Range: [X] 0-1.0 mg/L [ ] 1-12 mg/L
Analysis Time: 0937
CHEMetrics: 1.0 mg/L
Notes:

Alkalinity
Equipment: Chemetrics Kits K-7501 & K7512
CHEMetrics (Range: 10-100 mg/L)
Analysis Time: 0934
CHEMetrics: 25 mg/L
Notes:

Carbon Dioxide
Equipment: Chemetrics Kits K-1910, K1920 & K1925
CHEMetrics (Range: 10-100 mg/L)
Analysis Time: 0928
CHEMetrics: 30 mg/L
Notes:

Ferrous Iron
Equipment: HACH IR18C Colorwheel
Analysis Time: 0930
Concentration: 0.0 mg/L
Notes:

Sulfide
Equipment: HACH DR-890 Colorimeter
Analysis Time: 0927
Concentration: 0.08 mg/L
Notes:

Hydrogen Sulfide
Equipment: HACH Test Kit 1R-18C
Analysis Time: 0926
Concentration: 0.1 mg/L
Notes:

QA/QC Checklist:
All data fields have been completed as necessary: [ ]
Correct measurement units are cited in the SAMPLING DATA block: [ ]
Final calulated concentration is within the appropriate *Range Used* block: [ ]
QA/QC sample (e.g., Std. Additions, etc.) frequency is appropriate as per the project planning document: [ ]
Title block is initialized by person who performed the QA/QC Ckecklist: [ ]

GROUNDWATER SAMPLE LOG SHEET

THE SI Group

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Project Site Name: Site 57
Project: Cecil Field Long Term Monitoring

[ ] Domestic Well Data
[X] Monitoring Well Data
[ ] Other Well Type:
[ ] QA Sample Type:

Sample ID No.: CEF-293-MW-20-16
Sample Location: MW293-20
Sampled By: J. Ferranti & L. Middleton
C.O.C. No.:
Type of Sample: Groundwater
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA

Date: 2/15/05 Time: 1015 Method: Low Flow Peristaltic	Color Visual	pH Standard	S.C. mS/cm	Turbidity NTU	DO mg/l	Temp. °C	ORP mV	Other:
	CLR	5.12	0.148	12	0	23.1	-11	

PURGE DATA

Date: 2/15/05	Time	Water Level (ft)	Volume (liters)	Flow (mL/Min.)	pH	Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp (Cel)	ORP (mV)
Method: Low Flow Peristaltic	0945	8.94	—	400	—	—	—	—	-	-
Monitor Reading (ppm): 0	0955	9.21	4	400	4.95	0.385	14	0	22.8	21
Well Casing Diameter: 2"	1000	9.23	6	400	4.98	0.159	14	0	23.0	14
Well Casing Material: PVC	1005	9.23	8	400	5.13	0.152	13	0	23.0	-3
Total Well Depth (TD): 15	1010	9.24	10	400	5.12	0.148	12	0	23.1	-11
Static Water Level (WL): 8.94										
One Casing Volume(gal/L): 3.1										
Start Purge (hrs): 0945										
End Purge (hrs): 1010										
Total Purge Time (min): 25										
Total Vol. Purged (gal/L): 6.10										

SAMPLE COLLECTION INFORMATION

Analysis			Preservative	Container Requirements	Collected
VOCs	8260B		HCL	3 40-mil VOA vials	✓
PAHs	8310		None	2 - 1 liter glass ambers	✓
Alkalinity	3101.1		None	1 - 1 liter plastic bottle	✓
Anions	300		None	1 - 1 liter plastic bottle	✓
Dissolved Iron	6010B	1 um filter	HNO3	1 - 1 liter plastic bottle	✓
Dis. Sulfate	376.1	1 um filter	None	1 - 0.5 liter plastic bottle	✓
Meth/Eth/Ethen	RSK SOP 147 & 175		None	3 40-mil VOA vials	✓
TOC	415.1		H2SO4	1 - 0.5 liter amber bottle	✓

OBSERVATIONS / NOTES

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

FIELD NATURAL ATTENUATION FORM

THE SI Group

Site: Site 57
Project Name: NAS Cecil Field Long-Term Monitoring
Project No.:
Personnel: Joe Ferranti & Lane Middleton
Well ID: CEF-293-MW-20
Sample ID: CEF-293-MW-20-16

Date: 2/15/05	Color	ORP (Eh)	S.C.	Temp.	Turbidity	DO	Sal.	pH
Time: 1015	(Visual)	(+/- mv)	(mS/cm)	(^{0}C)	(NTU)	(Meter, mg/l)	(%)	(SU)
Method:	CLR	-11	0.148	23.1	12	0		5.12

Natural Attenuation Field Analysis:

Dissolved Oxygen

Equipment: Chemetrics Kits K7501 & K7512
CHEMetrics Range: [X] 0-1.0 mg/L [ ] 1-12 mg/L
Analysis Time: 1015
CHEMetrics: 0.4 mg/L
Notes:

Alkalinity

Equipment: Chemetrics Kits K-7501 & K7512
CHEMetrics (Range: 10-100 mg/L)
Analysis Time: 1017
CHEMetrics: 12 mg/L
Notes:

Carbon Dioxide

Equipment: Chemetrics Kits K-1910, K1920 & K1925
CHEMetrics (Range: 10-100 mg/L)
Analysis Time: 1020
CHEMetrics: 40 mg/L
Notes:

Ferrous Iron

Equipment: HACH IR18C Colorwheel
Analysis Time: 1010
Concentration: 1.0 mg/L
Notes:

Sulfide

Equipment: HACH DR-890 Colorimeter
Analysis Time: 1012
Concentration: 70.80 mg/L Line
Notes:

Hydrogen Sulfide

Equipment: HACH Test Kit 1R-18C
Analysis Time: 1015
Concentration: 2.0 mg/L
Notes:

QA/QC Checklist:

All data fields have been completed as necessary: [ ]
Correct measurement units are cited in the SAMPLING DATA block: [ ]
Final calulated concentration is within the appropriate *Range Used* block: [ ]
QA/QC sample (e.g., Std. Additions, etc.) frequency is appropriate as per the project planning document: [ ]
Title block is initialized by person who performed the QA/QC Ckecklist: [ ]

GROUNDWATER SAMPLE LOG SHEET

THE SI Group

Page___ of ___

Project Site Name: **Site 57**
Project: Cecil Field Long Term Monitoring

[ ] Domestic Well Data
[X] Monitoring Well Data
[ ] Other Well Type:
[ ] QA Sample Type:

Sample ID No.: **CEF-824A-MW-09S-16**
Sample Location: MW824A-09S
Sampled By: J. Ferranti & L. Middleton
C.O.C. No.:
Type of Sample: Groundwater
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA

Date: 2/15/05 Time: 1205	Color Visual	pH Standard	S.C. mS/cm	Turbidity NTU	DO mg/l	Temp. °C	ORP mV	Other:
Method: Low Flow Peristaltic	CLR	4.47	0.068	44	0	23.1	29	

PURGE DATA

Date: 2/15/05	Time	Water Level (ft)	Volume (liters)	Flow (mL/Min.)	pH	Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp (Cel)	ORP (mV)
Method: Low Flow Peristaltic	1135	8.94	—	400	—	—	—	—	—	—
Monitor Reading (ppm): 0	1145	9.11	4	400	4.32	0.220	43	0	23.1	48
Well Casing Diameter: 2"	1150	9.11	6	400	4.30	0.070	46	0	23.0	45
Well Casing Material: PVC	1155	9.11	8	400	4.36	0.070	48	0	23.0	38
Total Well Depth (TD): 15	1200	9.11	10	400	4.47	0.068	44	0	23.1	29
Static Water Level (WL): 8.94										
One Casing Volume(gal/L): 0.4										
Start Purge (hrs): 1135										
End Purge (hrs): 1200										
Total Purge Time (min): 25										
Total Vol. Purged (gal/L): 10										

SAMPLE COLLECTION INFORMATION

Analysis			Preservative	Container Requirements	Collected
VOCs	8260B		HCL	3 40-mil VOA vials	✓
PAHs	8310		None	2 - 1 liter glass ambers	✓
Alkalinity	3101.1		None	1 - 1 liter plastic bottle	✓
Anions	300		None	1 - 1 liter plastic bottle	✓
Dissolved Iron	6010B	1 um filter	HNO3	1 - 1 liter plastic bottle	✓
Dis. Sulfate	376.1	1 um filter	None	1 - 0.5 liter plastic bottle	✓
Meth/Eth/Ethen	RSK SOP 147 & 175		None	3 40-mil VOA vials	✓
TOC	415.1		H2SO4	1 - 0.5 liter amber bottle	✓

OBSERVATIONS / NOTES

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

FIELD NATURAL ATTENUATION FORM

THE SI Group

Site: Site 57
Project Name: NAS Cecil Field Long-Term Monitoring
Project No.:
Personnel: Joe Ferranti & Lane Middleton
Well ID: CEF-824A-MW-09S
Sample ID: CEF-824A-MW-09S-16

Date: 2/15/05	Color	ORP (Eh)	S.C.	Temp.	Turbidity	DO	Sal.	pH
Time: 1205	(Visual)	(+/- mv)	(mS/cm)	(°C)	(NTU)	(Meter, mg/l)	(%)	(SU)
Method:	CLR	29	0.068	23.1	44	0		4.47

Natural Attenuation Field Analysis:

Dissolved Oxygen

Equipment: Chemetrics Kits K7501 & K7512
CHEMetrics Range: ☒ 0-1.0 mg/L ☐ 1-12 mg/L
Analysis Time: 1211
CHEMetrics: 0.05 mg/L
Notes:

Alkalinity

Equipment: Chemetrics Kits K-7501 & K7512
CHEMetrics (Range: 10-100 mg/L)
Analysis Time: 1155
CHEMetrics: 0 mg/L
Notes:

Carbon Dioxide

Equipment: Chemetrics Kits K-1910, K1920 & K1925
CHEMetrics (Range: 10-100 mg/L)
Analysis Time: 1206
CHEMetrics: 50 mg/L
Notes:

Ferrous Iron

Equipment: HACH IR18C Colorwheel
Analysis Time: 1204
Concentration: 0.8 mg/L
Notes:

Sulfide

Equipment: HACH DR-890 Colorimeter
Analysis Time: 1202
Concentration: 0.75 mg/L
Notes:

Hydrogen Sulfide

Equipment: HACH Test Kit 1R-18C
Analysis Time: 1200
Concentration: 5.0 mg/L
Notes:

QA/QC Checklist:

All data fields have been completed as necessary: ☐
Correct measurement units are cited in the SAMPLING DATA block: ☐
Final calulated concentration is within the appropriate *Range Used* block: ☐
QA/QC sample (e.g., Std. Additions, etc.) frequency is appropriate as per the project planning document: ☐
Title block is initialized by person who performed the QA/QC Ckecklist: ☐

GROUNDWATER SAMPLE LOG SHEET

THE SI Group

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Project Site Name:	Site 57	Sample ID No.:	CEF-824A-MW-12I-16
Project:	Cecil Field Long Term Monitoring	Sample Location:	MW824A-12I
		Sampled By:	J. Ferranti & L. Middleton
[ ] Domestic Well Data		C.O.C. No.:	
[X] Monitoring Well Data		Type of Sample:	Groundwater
[ ] Other Well Type:		[X] Low Concentration	
[ ] QA Sample Type:		[ ] High Concentration	

SAMPLING DATA

Date: 2/16/05 Time: 1200	Color Visual	pH Standard	S.C. mS/cm	Turbidity NTU	DO mg/l	Temp. °C	ORP mV	Other:
Method: Low Flow Peristaltic	CLR	4.43	0.090	47	2.51	24.6	12	

PURGE DATA

Date: 2/16/05	Time	Water Level (ft)	Volume (liters)	Flow (mL/Min.)	pH	Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp (Cel)	ORP (mV)
Method: Low Flow Peristaltic	1130	9.18	—	400	—	—	—	—	—	—
Monitor Reading (ppm): 0	1140	9.30	4	400	4.46	0.082	40	0	24.6	92
Well Casing Diameter: 2"	1145	9.31	6	400	4.51	0.080	43	0.13	24.6	64
Well Casing Material: PVC	1150	9.31	8	400	4.50	0.089	48	1.30	24.6	40
Total Well Depth (TD): 40	1155	9.31	10	400	4.43	0.090	47	2.51	24.6	12
Static Water Level (WL): 9.18										
One Casing Volume(gal/L): 0.62										
Start Purge (hrs): 1130										
End Purge (hrs): 1155										
Total Purge Time (min): 25										
Total Vol. Purged (gal/L): 10										

SAMPLE COLLECTION INFORMATION

Analysis			Preservative	Container Requirements	Collected
VOCs	8260B		HCL	3 40-mil VOA vials	✓
PAHs	8310		None	2 - 1 liter glass ambers	✓
Alkalinity	3101.1		None	1 - 1 liter plastic bottle	✓
Anions	300		None	1 - 1 liter plastic bottle	✓
Dissolved Iron	6010B	1 um filter	HNO3	1 - 1 liter plastic bottle	✓
Dis. Sulfate	376.1	1 um filter	None	1 - 0.5 liter plastic bottle	✓
Meth/Eth/Ethen	RSK SOP 147 & 175		None	3 40-mil VOA vials	✓
TOC	415.1		H2SO4	1 - 0.5 liter amber bottle	✓
TRPH	FL-PRO		H2SO4	2 - 1 liter glass ambers	✓

OBSERVATIONS / NOTES

Circle if Applicable:		Signature(s):
MS/MSD	Duplicate ID No.:	

FIELD NATURAL ATTENUATION FORM

THE SI Group

Site: Site 57
Project Name: NAS Cecil Field Long-Term Monitoring
Project No.:
Personnel: Joe Ferranti & Lane Middleton
Well ID: CEF-824A-MW-12I
Sample ID: CEF-824A-MW-12I-16

Date: 2/16/15	Color	ORP (Eh)	S.C.	Temp.	Turbidity	DO	Sal.	pH
Time: 1200	(Visual)	(+/- mv)	(mS/cm)	(°C)	(NTU)	(Meter, mg/l)	(%)	(SU)
Method:	clr	12	0.090	24.6	47	2.51		4.43

Natural Attenuation Field Analysis:

Dissolved Oxygen
Equipment: Chemetrics Kits K7501 & K7512
CHEMetrics Range: [X] 0-1.0 mg/L [ ] 1-12 mg/L
Analysis Time: 1205
CHEMetrics: 0.3 mg/L
Notes:

Alkalinity
Equipment: Chemetrics Kits K-7501 & K7512
CHEMetrics (Range: _____ mg/L)
Analysis Time: 1202
CHEMetrics: 0 mg/L
Notes:

Carbon Dioxide
Equipment: Chemetrics Kits K-1910, K1920 & K1925
CHEMetrics (Range: 10-100 mg/L)
Analysis Time: 1204
CHEMetrics: 70 mg/L
Notes:

Ferrous Iron
Equipment: HACH IR18C Colorwheel
Analysis Time: 1158
Concentration: 0.2 mg/L
Notes:

Sulfide
Equipment: HACH DR-890 Colorimeter
Analysis Time: 1200
Concentration: 0.17 mg/L
Notes:

Hydrogen Sulfide
Equipment: HACH Test Kit 1R-18C
Analysis Time: 1201
Concentration: 0.1 mg/L
Notes:

QA/QC Checklist:
All data fields have been completed as necessary: [ ]
Correct measurement units are cited in the SAMPLING DATA block: [ ]
Final calulated concentration is within the appropriate *Range Used* block: [ ]
QA/QC sample (e.g., Std. Additions, etc.) frequency is appropriate as per the project planning document: [ ]
Title block is initialized by person who performed the QA/QC Ckecklist: [ ]

GROUNDWATER SAMPLE LOG SHEET

THE SI Group

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Project Site Name:	Site 57	Sample ID No.:	CEF-293-MW-19-16
Project:	Cecil Field Long Term Monitoring	Sample Location:	MW293-19
		Sampled By:	J. Ferranti & L. Middleton
[ ] Domestic Well Data		C.O.C. No.:	
[X] Monitoring Well Data		Type of Sample:	Groundwater
[ ] Other Well Type:		[X] Low Concentration	
[ ] QA Sample Type:		[ ] High Concentration	

SAMPLING DATA

Date: 2/16/05	Color	pH	S.C.	Turbidity	DO	Temp.	ORP	Other:
Time: 1250	Visual	Standard	mS/cm	NTU	mg/l	°C	mV	
Method: Low Flow Peristaltic	clr	5.12	0.169	71	2.85	22.7	-57	

PURGE DATA

Date: 2/16/05	Time	Water Level (ft)	Volume (liters)	Flow (mL/Min.)	pH	Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp (Cel)	ORP (mV)
Method: Low Flow Peristaltic	1220	9.72	—	400	—	—	—	—	—	—
Monitor Reading (ppm):	1230	10.52	4	400	5.09	0.175	69	1.59	22.8	-39
Well Casing Diameter: 2"	1235	10.44	6	400	5.17	0.171	69	2.26	22.7	-53
Well Casing Material: PVC	1240	10.40	8	400	5.21	0.169	72	2.58	22.8	-57
Total Well Depth (TD): 14.1	1245	10.41	10	400	5.12	0.169	71	2.85	22.7	-57
Static Water Level (WL): 9.72										
One Casing Volume(gal/L): 0.3										
Start Purge (hrs): 1220										
End Purge (hrs): 1245										
Total Purge Time (min): 25										
Total Vol. Purged (gal/L): 10										

SAMPLE COLLECTION INFORMATION

Analysis			Preservative	Container Requirements	Collected
VOCs	8260B		HCL	3 40-mil VOA vials	✓
PAHs	8310		None	2 - 1 liter glass ambers	✓
Alkalinity	3101.1		None	1 - 1 liter plastic bottle	✓
Anions	300		None	1 - 1 liter plastic bottle	✓
Dissolved Iron	6010B	1 um filter	HNO3	1 - 1 liter plastic bottle	✓
Dis. Sulfate	376.1	1 um filter	None	1 - 0.5 liter plastic bottle	✓
Meth/Eth/Ethen	RSK SOP 147 & 175		None	3 40-mil VOA vials	✓
TOC	415.1		H2SO4	1 - 0.5 liter amber bottle	✓
TRPH	FL-PRO		H2SO4	2 - 1 liter glass ambers	✓

OBSERVATIONS / NOTES

Circle if Applicable:		Signature(s):
MS/MSD	Duplicate ID No.: DUPB-16	

FIELD NATURAL ATTENUATION FORM

THE SI Group

Site: Site 57
Project Name: NAS Cecil Field Long-Term Monitoring
Project No.:
Personnel: Joe Ferranti & Lane Middleton
Well ID: CEF-293-MW-19
Sample ID: CEF-293-MW-19-16

Date: 2/16/05	Color	ORP (Eh)	S.C.	Temp.	Turbidity	DO	Sal.	pH
Time: 1250	(Visual)	(+/- mv)	(mS/cm)	(°C)	(NTU)	(Meter, mg/l)	(%)	(SU)
Method:	CLR	-57	0.164	22.7	71	2.85		5.12

Natural Attenuation Field Analysis:

Dissolved Oxygen

Equipment: Chemetrics Kits K7501 & K7512
CHEMetrics Range: ☐ 0-1.0 mg/L ☐ 1-12 mg/L
Analysis Time: 1258
CHEMetrics: 0.4 mg/L
Notes:

Alkalinity

Equipment: Chemetrics Kits K-7501 & K7512
CHEMetrics (Range: 10-100 mg/L)
Analysis Time: 1255
CHEMetrics: 10 mg/L
Notes:

Carbon Dioxide

Equipment: Chemetrics Kits K-1910, K1920 & K1925
CHEMetrics (Range: 10-100 mg/L)
Analysis Time: 1257
CHEMetrics: 50 mg/L
Notes:

Ferrous Iron

Equipment: HACH IR18C Colorwheel
Analysis Time: 1252
Concentration: 0.1 mg/L
Notes:

Sulfide

Equipment: HACH DR-890 Colorimeter
Analysis Time: 1254
Concentration: limit 0.05 mg/L
Notes:

Hydrogen Sulfide

Equipment: HACH Test Kit 1R-18C
Analysis Time: 1253
Concentration: 0.5 mg/L
Notes:

QA/QC Checklist:

All data fields have been completed as necessary: ☐
Correct measurement units are cited in the SAMPLING DATA block: ☐
Final calulated concentration is within the appropriate *Range Used* block: ☐
QA/QC sample (e.g., Std. Additions, etc.) frequency is appropriate as per the project planning document: ☐
Title block is initialized by person who performed the QA/QC Ckecklist: ☐

GROUNDWATER SAMPLE LOG SHEET

THE SI Group

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Project Site Name:	Site 57	Sample ID No.:	CEF-293-MW-13-16
Project:	Cecil Field Long Term Monitoring	Sample Location:	MW293-13
		Sampled By:	J. Ferranti & L. Middleton
[ ] Domestic Well Data		C.O.C. No.:	
[X] Monitoring Well Data		Type of Sample:	Groundwater
[ ] Other Well Type:		[X] Low Concentration	
[ ] QA Sample Type:		[ ] High Concentration	

SAMPLING DATA

Date: 2/16/05	Color	pH	S.C.	Turbidity	DO	Temp.	ORP	Other:
Time: 1525	Visual	Standard	mS/cm	NTU	mg/l	°C	mV	
Method: Low Flow Peristaltic	CLR	5.18	0.149	53	0	20.7	-27	

PURGE DATA

Date: 2/16/05	Time	Water Level (ft)	Volume (liters)	Flow (mL/Min.)	pH	Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp (Cel)	ORP (mV)
Method: Low Flow Peristaltic	1455	8.40	—	400	—	—	—	—	—	—
Monitor Reading (ppm): 0	1505	8.55	4	400	4.91	0.141	41	0.13	20.9	89
Well Casing Diameter: 2"	1510	8.55	6	400	4.98	0.147	41	0.05	20.8	36
Well Casing Material: PVC	1515	8.55	8	400	5.04	0.148	49	0	20.9	13
Total Well Depth (TD): 14.65	1520	8.55	10	400	5.18	0.149	53	0	20.7	-27
Static Water Level (WL): 8.40										
One Casing Volume(gal/L): 4										
Start Purge (hrs): 1455										
End Purge (hrs): 1520										
Total Purge Time (min): 25										
Total Vol. Purged (gal/L): 10										

SAMPLE COLLECTION INFORMATION

Analysis			Preservative	Container Requirements	Collected
VOCs	8260B		HCL	3 40-mil VOA vials	✓
PAHs	8310		None	2 - 1 liter glass ambers	✓
Alkalinity	3101.1		None	1 - 1 liter plastic bottle	✓
Anions	300		None	1 - 1 liter plastic bottle	✓
Dissolved Iron	6010B	1 um filter	HNO3	1 - 1 liter plastic bottle	✓
Dis. Sulfate	376.1	1 um filter	None	1 - 0.5 liter plastic bottle	✓
Meth/Eth/Ethen	RSK SOP 147 & 175		None	3 40-mil VOA vials	✓
TOC	415.1		H2SO4	1 - 0.5 liter amber bottle	✓
TRPH	FL-PRO		H2SO4	2 - 1 liter glass ambers	✓

OBSERVATIONS / NOTES

Circle if Applicable:		Signature(s):
MS/MSD	Duplicate ID No.:	

FIELD NATURAL ATTENUATION FORM

THE SI Group

Site:	Site 57
Project Name:	NAS Cecil Field Long-Term Monitoring
Project No.:	
Personnel:	Joe Ferranti & Lane Middleton
Well ID:	CEF-293-MW-13
Sample ID:	CEF-293-MW-13-16

Date: 2/16/05	Color	ORP (Eh)	S.C.	Temp.	Turbidity	DO	Sal.	pH
Time: 1525	(Visual)	(+/- mv)	(mS/cm)	(^{0}C)	(NTU)	(Meter, mg/l)	(%)	(SU)
Method:	Clr	-27	0.149	20.7	53	0		5.18

Natural Attenuation Field Analysis:

Dissolved Oxygen

Equipment: Chemetrics Kits K7501 & K7512

CHEMetrics Range: ☐ 0-1.0 mg/L ☐ 1-12 mg/L

Analysis Time: 1531

CHEMetrics: 0.6 mg/L

Notes:

Alkalinity

Equipment: Chemetrics Kits K-7501 & K7512

CHEMetrics (Range: _____mg/L)

Analysis Time: 1527

CHEMetrics: 0 mg/L

Notes:

Carbon Dioxide

Equipment: Chemetrics Kits K-1910, K1920 & K1925

CHEMetrics (Range: _____mg/L)

Analysis Time: 1526

CHEMetrics: 13 mg/L

Notes:

Ferrous Iron

Equipment: HACH IR18C Colorwheel

Analysis Time: 1530

Concentration: 0 mg/L

Notes:

Sulfide

Equipment: HACH DR-890 Colorimeter

Analysis Time: 1522

Concentration: 0.04 mg/L

Notes:

Hydrogen Sulfide

Equipment: HACH Test Kit 1R-18C

Analysis Time: 1525

Concentration: 0 mg/L

Notes:

QA/QC Checklist:

All data fields have been completed as necessary: ☐

Correct measurement units are cited in the SAMPLING DATA block: ☐

Final calulated concentration is within the appropriate *Range Used* block: ☐

QA/QC sample (e.g., Std. Additions, etc.) frequency is appropriate as per the project planning document: ☐

Title block is initialized by person who performed the QA/QC Ckecklist: ☐

GROUNDWATER SAMPLE LOG SHEET

THE SI Group

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Project Site Name:	Site 57	Sample ID No.:	CEF-824A-MW-15I-16
Project:	Cecil Field Long Term Monitoring	Sample Location:	MW824A-15I
		Sampled By:	J. Ferranti & L. Middleton
[ ] Domestic Well Data		C.O.C. No.:	
[X] Monitoring Well Data		Type of Sample:	Groundwater
[ ] Other Well Type:		[X] Low Concentration	
[ ] QA Sample Type:		[ ] High Concentration	

SAMPLING DATA

Date: 2/15/05 Time: 0855	Color Visual	pH Standard	S.C. mS/cm	Turbidity NTU	DO mg/l	Temp. °C	ORP mV	Other:
Method: Low Flow Peristaltic	CCR	6.10	6.152	28	0	24.0	-44	

PURGE DATA

Date: 2/15/05	Time	Water Level (ft)	Volume (liters)	Flow (mL/Min.)	pH	Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp (Cel)	ORP (mV)
Method: Low Flow Peristaltic	0825	9.50	—	400	—	—	—	—	—	—
Monitor Reading (ppm): 0	0835	9.51	4	400	6.30	0.280	22	0	23.7	-56
Well Casing Diameter: 2"	0840	9.51	6	400	6.20	0.399	25	0	23.9	-50
Well Casing Material: PVC	0845	9.51	8	400	6.18	0.226	25	0	23.9	-45
Total Well Depth (TD): 15.50	0850	9.51	10	400	6.10	0.152	28	0	24.0	-44
Static Water Level (WL): 9.50										
One Casing Volume(gal/L): 6.2										
Start Purge (hrs): 0825										
End Purge (hrs): 0850										
Total Purge Time (min): 25										
Total Vol. Purged (gal/L): 10										

SAMPLE COLLECTION INFORMATION

Analysis			Preservative	Container Requirements	Collected
VOCs	8260B		HCL	3 40-mil VOA vials	✓
PAHs	8310		None	2 - 1 liter glass ambers	✓
Alkalinity	3101.1		None	1 - 1 liter plastic bottle	✓
Anions	300		None	1 - 1 liter plastic bottle	✓
Dissolved Iron	6010B	1 um filter	HNO3	1 - 1 liter plastic bottle	✓
Dis. Sulfate	376.1	1 um filter	None	1 - 0.5 liter plastic bottle	✓
Meth/Eth/Ethen	RSK SOP 147 & 175		None	3 40-mil VOA vials	✓
TOC	415.1		H2SO4	1 - 0.5 liter amber bottle	✓

OBSERVATIONS / NOTES

Circle if Applicable:		Signature(s):
MS/MSD	Duplicate ID No.:	

FIELD NATURAL ATTENUATION FORM

THE SI Group

Site: Site 57
Project Name: NAS Cecil Field Long-Term Monitoring
Project No.:
Personnel: Joe Ferranti & Lane Middleton
Well ID: CEF-824A-MW-15I
Sample ID: CEF-824A-MW-15I-16

Date: 2/16/05	Color	ORP (Eh)	S.C.	Temp.	Turbidity	DO	Sal.	pH
Time: 0855	(Visual)	(+/- mv)	(mS/cm)	(°C)	(NTU)	(Meter, mg/l)	(%)	(SU)
Method:	CLR	-44	0.152	24.0	28	0		6.10

Natural Attenuation Field Analysis:

Dissolved Oxygen

Equipment: Chemetrics Kits K7501 & K7512
CHEMetrics Range: [X] 0-1.0 mg/L
[ ] 1-12 mg/L
Analysis Time: 0902
CHEMetrics: ~~35~~ 0.2 mg/L
Notes:

Alkalinity

Equipment: Chemetrics Kits K-7501 & K7512
CHEMetrics (Range: 10-100 mg/L)
Analysis Time: 0859
CHEMetrics: 30 mg/L
Notes:

Carbon Dioxide

Equipment: Chemetrics Kits K-1910, K1920 & K1925
CHEMetrics (Range: 10-100 mg/L)
Analysis Time: 0901
CHEMetrics: 35 mg/L
Notes:

Ferrous Iron

Equipment: HACH IR18C Colorwheel
Analysis Time: 0855
Concentration: 1.2 mg/L
Notes:

Sulfide

Equipment: HACH DR-890 Colorimeter
Analysis Time: 0854
Concentration: Lim. 70.80 mg/L
Notes:

Hydrogen Sulfide

Equipment: HACH Test Kit 1R-18C
Analysis Time: 0856
Concentration: 5.0 mg/L
Notes:

QA/QC Checklist:

All data fields have been completed as necessary: [ ]
Correct measurement units are cited in the SAMPLING DATA block: [ ]
Final calulated concentration is within the appropriate *Range Used* block: [ ]
QA/QC sample (e.g., Std. Additions, etc.) frequency is appropriate as per the project planning document: [ ]
Title block is initialized by person who performed the QA/QC Ckecklist: [ ]

GROUNDWATER SAMPLE LOG SHEET

THE SI Group

Page___ of ___

Project Site Name: Site 57
Project: Cecil Field Long Term Monitoring

[ ] Domestic Well Data
[X] Monitoring Well Data
[ ] Other Well Type:
[ ] QA Sample Type:

Sample ID No.: CEF-824A-MW-14S-16
Sample Location: MW824A-14S
Sampled By: J. Ferranti & L. Middleton
C.O.C. No.:
Type of Sample: Groundwater
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA

Date: 2/15/05	Color	pH	S.C.	Turbidity	DO	Temp.	ORP	Other:
Time: 0940	Visual	Standard	mS/cm	NTU	mg/l	°C	mV	
Method: Low Flow Peristaltic	CR	4.70	0.117	86	0.62	22.8	10	

PURGE DATA

Date: 2/15/05	Time	Water Level (ft)	Volume (liters)	Flow (mL/Min.)	pH	Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp (Cel)	ORP (mV)
Method: Low Flow Peristaltic	0910	9.52	—	400	—	—	—	—	—	—
Monitor Reading (ppm): 0	0920	9.74	4	400	4.53	0.119	87	0	22.6	22
Well Casing Diameter: 2"	0925	9.74	6	400	4.61	0.119	86	0.33	22.6	22
Well Casing Material: PVC	0930	9.74	8	400	4.65	0.118	83	0.60	22.7	16
Total Well Depth (TD): 14	0935	9.74	10	400	4.70	0.117	86	0.62	22.8	10
Static Water Level (WL): 9.52										
One Casing Volume(gal/L): 0.3										
Start Purge (hrs): 0910										
End Purge (hrs): 0935										
Total Purge Time (min): 25										
Total Vol. Purged (gal/L): 10										

SAMPLE COLLECTION INFORMATION

Analysis			Preservative	Container Requirements	Collected
VOCs	8260B		HCL	3 40-mil VOA vials	✓
PAHs	8310		None	2 - 1 liter glass ambers	✓
Alkalinity	3101.1		None	1 - 1 liter plastic bottle	✓
Anions	300		None	1 - 1 liter plastic bottle	✓
Dissolved Iron	6010B	1 um filter	HNO3	1 - 1 liter plastic bottle	✓
Dis. Sulfate	376.1	1 um filter	None	1 - 0.5 liter plastic bottle	✓
Meth/Eth/Ethen	RSK SOP 147 & 175		None	3 40-mil VOA vials	✓
TOC	415.1		H2SO4	1 - 0.5 liter amber bottle	✓

OBSERVATIONS / NOTES

Circle if Applicable:

MS/MSD

Duplicate ID No.:

Signature(s):

FIELD NATURAL ATTENUATION FORM

THE SI Group

Site:	Site 57
Project Name:	NAS Cecil Field Long-Term Monitoring
Project No.:	
Personnel:	Joe Ferranti & Lane Middleton
Well ID:	CEF-824A-14S
Sample ID:	CEF-824A-14S-16

Date: 2/16/05	Color	ORP (Eh)	S.C.	Temp.	Turbidity	DO	Sal.	pH
Time: 0940	(Visual)	(+/- mv)	(mS/cm)	(^{0}C)	(NTU)	(Meter, mg/l)	(%)	(SU)
Method:	CLR	10	0.117	22.8	86	0.62		4.70

Natural Attenuation Field Analysis:

Dissolved Oxygen

Equipment: Chemetrics Kits K7501 & K7512

CHEMetrics Range: ☒ 0-1.0 mg/L ☐ 1-12 mg/L

Analysis Time: 0943

CHEMetrics: 0.2 mg/L

Notes:

Alkalinity

Equipment: Chemetrics Kits K-7501 & K7512

CHEMetrics (Range: 10-100 mg/L)

Analysis Time: 0943

CHEMetrics: 0 mg/L

Notes:

Carbon Dioxide

Equipment: Chemetrics Kits K-1910, K1920 & K1925

CHEMetrics (Range: 10-100 mg/L)

Analysis Time: 0942

CHEMetrics: 50 mg/L

Notes:

Ferrous Iron

Equipment: HACH IR18C Colorwheel

Analysis Time: 0930

Concentration: 2.2 mg/L

Notes:

Sulfide

Equipment: HACH DR-890 Colorimeter

Analysis Time: 0940

Concentration: Int 70-80 mg/L

Notes:

Hydrogen Sulfide

Equipment: HACH Test Kit 1R-18C

Analysis Time: 0931

Concentration: 2.0 mg/L

Notes:

QA/QC Checklist:

All data fields have been completed as necessary: ☐

Correct measurement units are cited in the SAMPLING DATA block: ☐

Final calulated concentration is within the appropriate *Range Used* block: ☐

QA/QC sample (e.g., Std. Additions, etc.) frequency is appropriate as per the project planning document: ☐

Title block is initialized by person who performed the QA/QC Ckecklist: ☐

GROUNDWATER SAMPLE LOG SHEET

THE SI Group

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Project Site Name:	Site 57	Sample ID No.:	CEF-824A-MW-13D-16
Project:	Cecil Field Long Term Monitoring	Sample Location:	MW824A-13D
		Sampled By:	J. Ferranti & L. Middleton
[ ] Domestic Well Data		C.O.C. No.:	
[X] Monitoring Well Data		Type of Sample:	Groundwater
[ ] Other Well Type:		[X] Low Concentration	
[ ] QA Sample Type:		[ ] High Concentration	

SAMPLING DATA

Date: 2/16/05	Color Visual	pH Standard	S.C. mS/cm	Turbidity NTU	DO mg/l	Temp. °C	ORP mV	Other:
Time: 1020								
Method: Low Flow Peristaltic	Clr	7.12	0.524	70	0	24.1	-145	

PURGE DATA

Date: 2/16/05	Time	Water Level (ft)	Volume (liters)	Flow (mL/Min.)	pH	Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp (Cel)	ORP (mV)
Method: Low Flow Peristaltic	0950	9.70	—	400	—	—	—	—	—	—
Monitor Reading (ppm): 0	1000	9.92	4	400	6.83	0.431	44	0	24.3	-59
Well Casing Diameter: 2"	1005	9.92	6	400	6.92	0.515	72	0	24.2	-103
Well Casing Material: PVC	1010	9.92	8	400	7.14	0.522	78	0	24.2	-134
Total Well Depth (TD): 87	1015	9.92	10	400	7.12	0.524	70	0	24.1	-145
Static Water Level (WL): 9.70										
One Casing Volume(gal/L): 6.2										
Start Purge (hrs): 0950										
End Purge (hrs): 1015										
Total Purge Time (min): 25										
Total Vol. Purged (gal/L): 10										

SAMPLE COLLECTION INFORMATION

Analysis			Preservative	Container Requirements	Collected
VOCs	8260B		HCL	3 40-mil VOA vials	✓
PAHs	8310		None	2 - 1 liter glass ambers	✓
Alkalinity	3101.1		None	1 - 1 liter plastic bottle	✓
Anions	300		None	1 - 1 liter plastic bottle	✓
Dissolved Iron	6010B	1 um filter	HNO3	1 - 1 liter plastic bottle	✓
Dis. Sulfate	376.1	1 um filter	None	1 - 0.5 liter plastic bottle	✓
Meth/Eth/Ethen	RSK SOP 147 & 175		None	3 40-mil VOA vials	✓
TOC	415.1		H2SO4	1 - 0.5 liter amber bottle	✓

OBSERVATIONS / NOTES

Circle if Applicable:		Signature(s):
MS/MSD	Duplicate ID No.: DUPA-16	R. L. [illegible]

FIELD NATURAL ATTENUATION FORM

THE SI Group

Site: Site 57
Project Name: NAS Cecil Field Long-Term Monitoring
Project No.:
Personnel: Joe Ferranti & Lane Middleton
Well ID: CEF-824A-13D
Sample ID: CEF-824A-13D-16

Date: 2/16/05	Color	ORP (Eh)	S.C.	Temp.	Turbidity	DO	Sal.	pH
Time: 1020	(Visual)	(+/- mv)	(mS/cm)	(°C)	(NTU)	(Meter, mg/l)	(%)	(SU)
Method:	CLR	-145	0.524	24.1	70	0		7.12

Natural Attenuation Field Analysis:

Dissolved Oxygen

Equipment: Chemetrics Kits K7501 & K7512
CHEMetrics Range: [X] 0-1.0 mg/L
[ ] 1-12 mg/L
Analysis Time: 1032
CHEMetrics: 0.2 mg/L
Notes:

Alkalinity

Equipment: Chemetrics Kits K-7501 & K7512
CHEMetrics (Range: 10-100 mg/L)
Analysis Time: 1029
CHEMetrics: 50 mg/L
Notes:

Carbon Dioxide

Equipment: Chemetrics Kits K-1910, K1920 & K1925
CHEMetrics (Range: 10-100 mg/L)
Analysis Time: 1031
CHEMetrics: 18 mg/L
Notes:

Ferrous Iron

Equipment: HACH IR18C Colorwheel
Analysis Time: 1026
Concentration: 0.2 mg/L
Notes:

Sulfide

Equipment: HACH DR-890 Colorimeter
Analysis Time: 1027
Concentration: 0.14 mg/L
Notes:

Hydrogen Sulfide

Equipment: HACH Test Kit 1R-18C
Analysis Time: 1030
Concentration: 0.1 mg/L
Notes:

QA/QC Checklist:

All data fields have been completed as necessary: [ ]
Correct measurement units are cited in the SAMPLING DATA block: [ ]
Final calulated concentration is within the appropriate *Range Used* block: [ ]
QA/QC sample (e.g., Std. Additions, etc.) frequency is appropriate as per the project planning document: [ ]
Title block is initialized by person who performed the QA/QC Ckecklist: [ ]

GROUNDWATER SAMPLE LOG SHEET

THE SI Group

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Project Site Name:	Site 57	Sample ID No.:	CEF-293-MW-03-16
Project:	Cecil Field Long Term Monitoring	Sample Location:	MW293-03
		Sampled By:	J. Ferranti & L. Middleton
[ ] Domestic Well Data		C.O.C. No.:	
[X] Monitoring Well Data		Type of Sample:	Groundwater
[ ] Other Well Type:		[X] Low Concentration	
[ ] QA Sample Type:		[ ] High Concentration	

SAMPLING DATA

Date: 2/16/05 Time: 1415	Color Visual	pH Standard	S.C. mS/cm	Turbidity NTU	DO mg/l	Temp. °C	ORP mV	Other:
Method: Low Flow Peristaltic	Clr	5.14	0.130	42	0.70	21.1	185	

PURGE DATA

Date: 2/16/05	Time	Water Level (ft)	Volume (liters)	Flow (mL/Min.)	pH	Cond. (mS/cm)	Turb. (NTU)	DO (mg/L)	Temp (Cel)	ORP (mV)
Method: Low Flow Peristaltic	1345	8.80	—	400	—	—	—	—	-	—
Monitor Reading (ppm): 0	1355	8.91	4	400	4.84	0.087	49	1.51	21.2	183
Well Casing Diameter: 2"	1400	8.91	6	400	4.96	0.086	46	1.11	21.2	186
Well Casing Material: PVC	1405	8.91	8	400	5.13	0.102	42	0.86	21.2	185
Total Well Depth (TD): 15	1410	8.91	10	400	5.14	0.130	42	0.70	21.1	185
Static Water Level (WL): 8.80										
One Casing Volume(gal/L): 0.4										
Start Purge (hrs): 1345										
End Purge (hrs): 1410										
Total Purge Time (min): 25										
Total Vol. Purged (gal/L): 10										

SAMPLE COLLECTION INFORMATION

Analysis			Preservative	Container Requirements	Collected
VOCs	8260B		HCL	3 40-mil VOA vials	✓
PAHs	8310		None	2 - 1 liter glass ambers	✓
Alkalinity	3101.1		None	1 - 1 liter plastic bottle	✓
Anions	300		None	1 - 1 liter plastic bottle	✓
Dissolved Iron	6010B	1 um filter	HNO3	1 - 1 liter plastic bottle	✓
Dis. Sulfate	376.1	1 um filter	None	1 - 0.5 liter plastic bottle	✓
Meth/Eth/Ethen	RSK SOP 147 & 175		None	3 40-mil VOA vials	✓
TOC	415.1		H2SO4	1 - 0.5 liter amber bottle	✓

OBSERVATIONS / NOTES

Circle if Applicable:		Signature(s):
MS/MSD	Duplicate ID No.:	

FIELD NATURAL ATTENUATION FORM

THE SI Group

Site: Site 57
Project Name: NAS Cecil Field Long-Term Monitoring
Project No.:
Personnel: Joe Ferranti & Lane Middleton
Well ID: CEF-293-MW-03
Sample ID: CEF-293-MW-03-16

Date: 2/16/05	Color	ORP (Eh)	S.C.	Temp.	Turbidity	DO	Sal.	pH
Time: 1415	(Visual)	(+/- mv)	(mS/cm)	(°C)	(NTU)	(Meter, mg/l)	(%)	(SU)
Method:	CLR	185	0.130	21.1	42	0.70		5.14

Natural Attenuation Field Analysis:

Dissolved Oxygen
Equipment: Chemetrics Kits K7501 & K7512
CHEMetrics Range: [X] 0-1.0 mg/L [X] 1-12 mg/L
Analysis Time: 1414
CHEMetrics: 0.9 mg/L
Notes:

Alkalinity
Equipment: Chemetrics Kits K-7501 & K7512
CHEMetrics (Range: 10-100 mg/L)
Analysis Time: 1409
CHEMetrics: Ø mg/L
Notes:

Carbon Dioxide
Equipment: Chemetrics Kits K-1910, K1920 & K1925
CHEMetrics (Range: 10-100 mg/L)
Analysis Time: 1410
CHEMetrics: 40 mg/L
Notes:

Ferrous Iron
Equipment: HACH IR18C Colorwheel
Analysis Time: 1416
Concentration: 0.2 mg/L
Notes:

Sulfide
Equipment: HACH DR-890 Colorimeter
Analysis Time: 1413
Concentration: 0.04 mg/L
Notes:

Hydrogen Sulfide
Equipment: HACH Test Kit 1R-18C
Analysis Time: 1412
Concentration: Ø mg/L
Notes:

QA/QC Checklist:
All data fields have been completed as necessary: [ ]
Correct measurement units are cited in the SAMPLING DATA block: [ ]
Final calulated concentration is within the appropriate *Range Used* block: [ ]
QA/QC sample (e.g., Std. Additions, etc.) frequency is appropriate as per the project planning document: [ ]
Title block is initialized by person who performed the QA/QC Ckecklist: [ ]

The SI Group

GROUNDWATER SAMPLE LOG SHEET

Project Site Name: Cecil Field - Site 57 - LTM
Project No.:

[ ] Domestic Well Data
[X] Monitoring Well Data
[ ] Other Well Type:
[ ] QA Sample Type:

Sample ID No.: CEF-824A- MW-19S-16R
Sample Location: MW824A-19S
Sampled By: L.Middleton&J.Ferranti
C.O.C. No.:
Type of Sample:
[X] Low Concentration
[ ] High Concentration

SAMPLING DATA

Date: 5/11/2005	Color	pH	S.C.	Turbidity	DO	Temp.	ORP	Other
Time: 0945	Visual	Standard	mS/cm	NTU	mg/l	°C	mV	
Method: Low Flow Peristaltic								

PURGE DATA

Date: 5/11/2005	Time	pH	S.C.	Turbidity	DO	Temp (°C)	ORP	Color	Volume
Method: Low Flow Peristaltic	0920	–	–	–	–	–	–	Clear	0
Monitor Reading (ppm):	0925	4.61	13	19	2.72	25.1	280	400 mL	2 L
Well Casing Diameter: 2"	0930	4.68	10	13	2.50	25.2	226	400 mL	4 L
Well Casing Material: PVC	0935	4.70	8	6	2.09	25.3	230	400	6 L
Total Well Depth (TD): 14	0940	4.71	8	12	1.93	25.3	221	400	8 L
Static Water Level (WL):	0945	Sample							
One Casing Volume(gal/L):									
Start Purge (hrs): 0920									
End Purge (hrs): 0940									
Total Purge Time (min): 20									
Total Vol. Purged (gal/L): 8L									

SAMPLE COLLECTION INFORMATION

Analysis	Preservative	Container Requirements	Collected
VOCs	HCl	3-40mL vials	X
PAHs	None	2 - 1L amber bottle	X

OBSERVATIONS / NOTES

Circle if Applicable:

MS/MSD | Duplicate ID No.:

Signature(s):

Appendix D
Laboratory Analytical Results

SEVERN TRENT STL

STL Tampa • 6712 Benjamin Road • Suite 100 • Tampa, FL 33634 • Tel 813 885 7427 • Fax 813 885 7049 • www.stl-inc.com

March 1, 2005

Joe Ferranti
The SI Group
4191 San Juan Avenue, Suite 2E
Jacksonville, FL 32210

Dear Mr. Ferranti,

STL is currently implementing the new STL Laboratory Information Management Systems (STL-LIMS). This is a database that is used to generate both hard copy and electronic reports. This database has been under development at STL for several years, and is specifically designed for our laboratory group. When fully implemented this will bring to you a number of important benefits including more uniform products and services and improved support for electronic data deliverables.

This implementation is starting in our southeast group of laboratories – Savannah, Mobile, Tampa, Tallahassee and Pensacola. You may see changes in some of the formatting of our data reports. These new reports should have the same content although you might have a little trouble quickly locating a particular item on your new hard copy report. If you are having any difficulty, feel free to contact me.

We intend to make this transition as smooth as possible. We hope that you will enjoy the features and benefits that our new LIMS.

Sincerely,

Tina Fritz
Project Manager
STL Tampa
(813) 885 7427
tfritz@stl-inc.com

STL Tampa 6712 Benjamin Road, Suite 100 - Tampa FL 33634 Telephone:(813) 885-7427 Fax:(813) 885-7049

Analytical Report

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

Order Number: B520810
SDG Number:
Client Project ID:
Project: Cecil Field Site 57
Report Date: 02/28/2005
Sampled By: Client
Sample Received Date: 02/17/2005
Requisition Number:
Purchase Order: CECIL-57

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.

SEVERN TRENT STL

STL Tampa 6712 Benjamin Road, Suite 100 - Tampa FL 33634 Telephone:(813) 885-7427 Fax:(813) 885-7049

Sample Summary

Order: B520810
Date Received: 02/17/2005

Client: The SI Group
Project: Cecil Field Site 57

Client Sample ID	Lab Sample ID	Matrix	Date Sampled
CEF-827A-MW12I-16	B520810*1	Liquid	02/16/2005 12:00
CEF-293-MW19-16	B520810*2	Liquid	02/16/2005 12:50
CEF-293-MW13-16	B520810*3	Liquid	02/16/2005 15:25
CEF-824A-MW15I-16	B520810*4	Liquid	02/16/2005 08:55
CEF-824A-MW14S-16	B520810*5	Liquid	02/16/2005 09:40
CEF-827A-MW13D-16	B520810*6	Liquid	02/16/2005 10:20
CEF-293-MW03-16	B520810*7	Liquid	02/16/2005 14:15
CEF-57-DUPA-16	B520810*15	Liquid	02/16/2005
CEF-57-DUPB-16	B520810*16	Liquid	02/16/2005
CEF-57-EB01-16	B520810*17	Liquid	02/16/2005

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Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20810-1	CEF-827A-MW12I-16	Liquid	02/17/05	02/16/05 12:00	
20810-2	CEF-293-MW19-16	Liquid	02/17/05	02/16/05 12:50	
20810-3	CEF-293-MW13-16	Liquid	02/17/05	02/16/05 15:25	

Parameter	Units	Lab Sample IDs 20810-1	20810-2	20810-3
Volatiles by GC/MS (8260)				
Benzene	ug/l	2.5	0.70I	0.27U
Bromobenzene	ug/l	0.58U	0.58U	0.58U
Bromochloromethane	ug/l	0.58U	0.58U	0.58U
Bromodichloromethane	ug/l	0.35U	0.35U	0.35U
Bromoform	ug/l	0.58U	0.58U	0.58U
Bromomethane (Methyl bromide)	ug/l	0.66U	0.66U	0.66U
n-Butylbenzene	ug/l	1.8	0.67U	0.67U
sec-Butylbenzene	ug/l	1.8	1.6	0.63U
tert-Butylbenzene	ug/l	0.84U	0.84U	0.84U
Carbon tetrachloride	ug/l	0.42U	0.42U	0.42U
Chlorobenzene	ug/l	0.63U	0.63U	0.63U
Chloroethane	ug/l	0.80U	0.80U	0.80U
Chloroform	ug/l	0.90U	0.90U	1.0
Chloromethane	ug/l	0.64U	0.64U	0.64U
2-Chlorotoluene	ug/l	0.65U	0.65U	0.65U
4-Chlorotoluene	ug/l	0.52U	0.52U	0.52U
Dibromochloromethane	ug/l	0.34U	0.34U	0.34U
1,2-Dibromo-3-chloropropane	ug/l	0.74U	0.74U	0.74U
1,2-Dibromoethane (EDB)	ug/l	0.50U	0.50U	0.50U
Dibromomethane	ug/l	0.41U	0.41U	0.41U
1,2-Dichlorobenzene	ug/l	0.44U	0.44U	0.44U
1,3-Dichlorobenzene	ug/l	0.64U	0.64U	0.64U
1,4-Dichlorobenzene	ug/l	0.52U	0.52U	0.52U
Dichlorodifluoromethane	ug/l	0.40U	0.40U	0.40U
1,1-Dichloroethane	ug/l	0.52U	29	0.52U
1,2-Dichloroethane	ug/l	0.57U	0.57U	0.57U
1,1-Dichloroethene	ug/l	0.45U	0.45U	0.45U
cis-1,2-Dichloroethene	ug/l	0.65U	210L	0.65U

SEVERN TRENT STL

STL Tampa 6712 Benjamin Road, Suite 100 - Tampa FL 33634 Telephone:(813) 885-7427 Fax:(813) 885-7049

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20810-1	CEF-827A-MW12I-16	Liquid	02/17/05	02/16/05 12:00	
20810-2	CEF-293-MW19-16	Liquid	02/17/05	02/16/05 12:50	
20810-3	CEF-293-MW13-16	Liquid	02/17/05	02/16/05 15:25	

Parameter	Units	Lab Sample IDs 20810-1	20810-2	20810-3
Volatiles by GC/MS (8260)				
trans-1,2-Dichloroethene	ug/l	0.44U	2.0	0.44U
1,2-Dichloropropane	ug/l	0.52U	0.52U	0.52U
1,3-Dichloropropane	ug/l	0.39U	0.39U	0.39U
2,2-Dichloropropane	ug/l	0.36U	0.36U	0.36U
1,1-Dichloropropylene	ug/l	0.31U	0.31U	0.31U
cis-1,3-Dichloropropene	ug/l	0.14U	0.14U	0.14U
trans-1,3-Dichloropropene	ug/l	0.14U	0.14U	0.14U
Ethylbenzene	ug/l	3.4	3.3	0.83U
Hexachlorobutadiene	ug/l	0.46U	0.46U	0.46U
Isopropylbenzene	ug/l	3.2	1.7	0.19U
p-Cymene	ug/l	0.69U	0.69U	0.69U
Methylene chloride (Dichloromethane)	ug/l	1.0U	1.0U	1.0U
Naphthalene	ug/l	61	250L	0.94U
n-Propylbenzene	ug/l	2.2	2.3	0.59U
Styrene	ug/l	0.98U	0.98U	0.98U
1,1,1,2-Tetrachloroethane	ug/l	0.63U	0.63U	0.63U
1,1,2,2-Tetrachloroethane	ug/l	0.14U	0.14U	0.14U
Tetrachloroethene	ug/l	1.5	0.34U	0.34U
Toluene	ug/l	0.51U	30	0.51U
1,2,3-Trichlorobenzene	ug/l	0.77U	0.77U	0.77U
1,2,4-Trichlorobenzene	ug/l	0.58U	0.58U	0.58U
1,1,1-Trichloroethane	ug/l	0.46U	0.46U	0.46U
1,1,2-Trichloroethane	ug/l	0.47U	0.47U	0.47U
Trichloroethene	ug/l	0.28U	8.9	0.28U
Trichlorofluoromethane	ug/l	0.98U	0.98U	0.98U
1,2,3-Trichloropropane	ug/l	0.15U	0.15U	0.15U
1,2,4-Trimethylbenzene	ug/l	38	80	0.86U

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Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20810-1	CEF-827A-MW12I-16	Liquid	02/17/05	02/16/05 12:00	
20810-2	CEF-293-MW19-16	Liquid	02/17/05	02/16/05 12:50	
20810-3	CEF-293-MW13-16	Liquid	02/17/05	02/16/05 15:25	

Parameter	Units	Lab Sample IDs 20810-1	20810-2	20810-3
Volatiles by GC/MS (8260)				
1,3,5-Trimethylbenzene	ug/l	3.8	15	0.54U
Vinyl chloride	ug/l	0.50U	0.50U	0.50U
o-Xylene	ug/l	12	15	0.78U
m&p-Xylene	ug/l	0.74U	0.74U	0.74U
Acetone	ug/l	9.9U	670	9.9U
2-Butanone (MEK)	ug/l	8.4U	8.4U	8.4U
4-Methyl-2-pentanone (MIBK)	ug/l	3.8U	440	3.8U
Carbon disulfide	ug/l	0.85U	0.85U	0.85U
2-Hexanone	ug/l	4.4U	4.4U	4.4U
Methyl t-butyl ether (MTBE)	ug/l	0.88U	0.88U	0.88U
Surrogate - Toluene-d8 *	%	96 %	104 %	98 %
Surrogate - 4-Bromofluorobenzene *	%	98 %	96 %	100 %
Surrogate - Dibromofluoromethane *	%	92 %	94 %	96 %
Analysis Date		02/22/05	02/22/05	02/22/05
Polynuclear Aromatics (8310)				
Acenaphthene	ug/l	0.20U	0.57IP	0.20U
Acenaphthylene	ug/l	0.12U	5.5	0.12U
Anthracene	ug/l	0.0028U	0.0028U	0.0028U
Benzo(a)anthracene	ug/l	0.016U	0.016U	0.016U
Benzo(a)pyrene	ug/l	0.016U	0.016U	0.0074U
Benzo(b)fluoranthene	ug/l	0.0040U	0.0040U	0.0040U
Benzo(g,h,i)perylene	ug/l	0.014U	0.014U	0.014U
Benzo(k)fluoranthene	ug/l	0.0051U	0.0051U	0.0051U
Chrysene	ug/l	0.011U	0.011U	0.011U

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Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20810-1	CEF-827A-MW12I-16	Liquid	02/17/05	02/16/05 12:00	
20810-2	CEF-293-MW19-16	Liquid	02/17/05	02/16/05 12:50	
20810-3	CEF-293-MW13-16	Liquid	02/17/05	02/16/05 15:25	

Parameter	Units	Lab Sample IDs 20810-1	20810-2	20810-3
Polynuclear Aromatics (8310)				
Dibenzo(a,h)anthracene	ug/l	0.031U	0.031U	0.031U
Fluoranthene	ug/l	0.015U	0.015U	0.015U
Fluorene	ug/l	0.019U	0.21IP	0.019U
Indeno(1,2,3-cd)pyrene	ug/l	0.0079U	0.0079U	0.0079U
Naphthalene	ug/l	38*F42	160*F42	0.084U
Phenanthrene	ug/l	0.0093U	0.0093U	0.0093U
Pyrene	ug/l	0.020U	0.020U	0.020U
1-Methylnaphthalene	ug/l	14	1.2	0.12U
2-Methylnaphthalene	ug/l	16	1.4	0.13U
Surrogate - Terphenyl-d14 *	%	84 %	80 %	84 %
Prep Date		02/18/05	02/18/05	02/18/05
Analysis Date		02/25/05	02/25/05	02/23/05
Petroleum Range Organics (FL-PRO) (FL-PRO)				
Petroleum Hydrocarbons	mg/l	2.1	44	0.10U
Surrogate, o-Terphenyl *	%	82 %	*F33	97 %
Prep Date		02/21/05	02/21/05	02/21/05
Analysis Date		02/23/05	02/23/05	02/23/05
Total Organic Carbon (415.1)				
Total Organic Carbon	mg/l	19	200	8.3
Analysis Date		02/22/05	02/23/05	02/22/05

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Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20810-1	CEF-827A-MW12I-16	Liquid	02/17/05	02/16/05 12:00	
20810-2	CEF-293-MW19-16	Liquid	02/17/05	02/16/05 12:50	
20810-3	CEF-293-MW13-16	Liquid	02/17/05	02/16/05 15:25	

Parameter	Units	Lab Sample IDs 20810-1	20810-2	20810-3
Dissolved Gases (SOP AR30)				
Methane, Dissolved	ug/l	2400	6800	65
Ethane, Dissolved	ug/l	0.35U	0.35U	0.35U
Ethene, Dissolved	ug/l	6.2	0.78	0.33
Prep Date		02/23/05	02/23/05	02/23/05
Analysis Date		02/23/05	02/23/05	02/23/05
Sulfide (376.1)				
Sulfide	mg/l	2.4	2.4	1.1
Analysis Date		02/19/05	02/19/05	02/19/05
Iron (Dissolved) (6010)				
Iron (Dissolved)	mg/l	0.27	0.54	0.037U
Prep Date		02/24/05	02/24/05	02/24/05
Analysis Date		02/25/05	02/25/05	02/25/05
Alkalinity (to pH 4.5) as CaCO3 (310.1)				
Alkalinity (to pH 4.5) as CaCO3	mg/l	1.0U	35	4.0
Analysis Date		02/22/05	02/22/05	02/22/05

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Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20810-1	CEF-827A-MW12I-16	Liquid	02/17/05	02/16/05 12:00	
20810-2	CEF-293-MW19-16	Liquid	02/17/05	02/16/05 12:50	
20810-3	CEF-293-MW13-16	Liquid	02/17/05	02/16/05 15:25	

Parameter	Units	Lab Sample IDs 20810-1	20810-2	20810-3
Nitrite-N (353.2)				
Nitrite-N	mg/l	0.010U	0.010U	0.010U
Analysis Date		02/18/05	02/18/05	02/18/05
Nitrate-N (353.2)				
Nitrate-N	mg/l	0.010U	0.010U	1.6
Analysis Date		02/18/05	02/18/05	02/18/05
Ortho Phosphate-P (365.2)				
Ortho Phosphate-P	mg/l	0.009U	0.012	0.009U
Analysis Date		02/17/05	02/17/05	02/17/05
Sulfate as SO4 (375.4)				
Sulfate as SO4	mg/l	2.8I	2.6I	24
Analysis Date		02/23/05	02/23/05	02/23/05
Chloride (325.3)				
Chloride	mg/l	3.7	12	8.5
Analysis Date		02/21/05	02/21/05	02/21/05

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Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20810-4	CEF-824A-MW15I-16	Liquid	02/17/05	02/16/05 08:55	
20810-5	CEF-824A-MW14S-16	Liquid	02/17/05	02/16/05 09:40	
20810-6	CEF-827A-MW13D-16	Liquid	02/17/05	02/16/05 10:20	
20810-7	CEF-293-MW03-16	Liquid	02/17/05	02/16/05 14:15	

Parameter	Units	Lab Sample IDs 20810-4	20810-5	20810-6	20810-7
Volatiles by GC/MS (8260)					
Benzene	ug/l	0.27U	0.96I	0.27U	0.27U
Bromobenzene	ug/l	0.58U	0.58U	0.58U	0.58U
Bromochloromethane	ug/l	0.58U	0.58U	0.58U	0.58U
Bromodichloromethane	ug/l	0.35U	0.35U	0.35U	0.35U
Bromoform	ug/l	0.58U	0.58U	0.58U	0.58U
Bromomethane (Methyl bromide)	ug/l	0.66U	0.66U	0.66U	0.66U
n-Butylbenzene	ug/l	0.67U	0.67U	0.67U	0.67U
sec-Butylbenzene	ug/l	0.63U	0.63U	0.63U	0.63U
tert-Butylbenzene	ug/l	0.84U	0.84U	0.84U	0.84U
Carbon tetrachloride	ug/l	0.42U	0.42U	0.42U	0.42U
Chlorobenzene	ug/l	0.63U	0.63U	0.63U	0.63U
Chloroethane	ug/l	0.80U	0.80U	0.80U	0.80U
Chloroform	ug/l	0.90U	0.90U	0.90U	0.90U
Chloromethane	ug/l	0.64U	0.64U	0.64U	0.64U
2-Chlorotoluene	ug/l	0.65U	0.65U	0.65U	0.65U
4-Chlorotoluene	ug/l	0.52U	0.52U	0.52U	0.52U
Dibromochloromethane	ug/l	0.34U	0.34U	0.34U	0.34U
1,2-Dibromo-3-chloropropane	ug/l	0.74U	0.74U	0.74U	0.74U
1,2-Dibromoethane (EDB)	ug/l	0.50U	0.50U	0.50U	0.50U
Dibromomethane	ug/l	0.41U	0.41U	0.41U	0.41U
1,2-Dichlorobenzene	ug/l	0.44U	0.44U	0.44U	0.44U
1,3-Dichlorobenzene	ug/l	0.64U	0.64U	0.64U	0.64U
1,4-Dichlorobenzene	ug/l	0.52U	0.52U	0.52U	0.52U
Dichlorodifluoromethane	ug/l	0.40U	0.40U	0.40U	0.40U
1,1-Dichloroethane	ug/l	0.52U	42	0.52U	0.52U
1,2-Dichloroethane	ug/l	0.57U	0.57U	0.57U	0.57U
1,1-Dichloroethene	ug/l	0.45U	0.87I	0.45U	0.45U

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Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20810-4	CEF-824A-MW15I-16	Liquid	02/17/05	02/16/05 08:55	
20810-5	CEF-824A-MW14S-16	Liquid	02/17/05	02/16/05 09:40	
20810-6	CEF-827A-MW13D-16	Liquid	02/17/05	02/16/05 10:20	
20810-7	CEF-293-MW03-16	Liquid	02/17/05	02/16/05 14:15	

Parameter	Units	Lab Sample IDs 20810-4	20810-5	20810-6	20810-7
Volatiles by GC/MS (8260)					
cis-1,2-Dichloroethene	ug/l	0.65U	410*F42	0.65U	0.65U
trans-1,2-Dichloroethene	ug/l	0.44U	1.6	0.44U	0.44U
1,2-Dichloropropane	ug/l	0.52U	0.52U	0.52U	0.52U
1,3-Dichloropropane	ug/l	0.39U	0.39U	0.39U	0.39U
2,2-Dichloropropane	ug/l	0.36U	0.36U	0.36U	0.36U
1,1-Dichloropropylene	ug/l	0.31U	0.31U	0.31U	0.31U
cis-1,3-Dichloropropene	ug/l	0.14U	0.14U	0.14U	0.14U
trans-1,3-Dichloropropene	ug/l	0.14U	0.14U	0.14U	0.14U
Ethylbenzene	ug/l	0.83U	2.1	0.83U	0.83U
Hexachlorobutadiene	ug/l	0.46U	0.46U	0.46U	0.46U
Isopropylbenzene	ug/l	0.21I	0.19U	0.19U	0.19U
p-Cymene	ug/l	0.69U	0.69U	0.69U	0.69U
Methylene chloride (Dichloromethane)	ug/l	1.0U	1.0U	1.0U	1.0U
Naphthalene	ug/l	6.7	4.2	0.94U	0.94U
n-Propylbenzene	ug/l	0.59U	0.59U	0.59U	0.59U
Styrene	ug/l	0.98U	0.98U	0.98U	0.98U
1,1,1,2-Tetrachloroethane	ug/l	0.63U	0.63U	0.63U	0.63U
1,1,2,2-Tetrachloroethane	ug/l	0.14U	0.14U	0.14U	0.14U
Tetrachloroethene	ug/l	0.34U	1.8	0.34U	0.34U
Toluene	ug/l	0.51U	8.3	0.51U	0.51U
1,2,3-Trichlorobenzene	ug/l	0.77U	0.77U	0.77U	0.77U
1,2,4-Trichlorobenzene	ug/l	0.58U	0.58U	0.58U	0.58U
1,1,1-Trichloroethane	ug/l	0.46U	0.46U	0.46U	0.46U
1,1,2-Trichloroethane	ug/l	0.47U	0.47U	0.47U	0.47U
Trichloroethene	ug/l	0.28U	10	0.28U	0.28U
Trichlorofluoromethane	ug/l	0.98U	0.98U	0.98U	0.98U

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Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20810-4	CEF-824A-MW15I-16	Liquid	02/17/05	02/16/05 08:55	
20810-5	CEF-824A-MW14S-16	Liquid	02/17/05	02/16/05 09:40	
20810-6	CEF-827A-MW13D-16	Liquid	02/17/05	02/16/05 10:20	
20810-7	CEF-293-MW03-16	Liquid	02/17/05	02/16/05 14:15	

Parameter	Units	Lab Sample IDs 20810-4	20810-5	20810-6	20810-7
Volatiles by GC/MS (8260)					
1,2,3-Trichloropropane	ug/l	0.15U	0.15U	0.15U	0.15U
1,2,4-Trimethylbenzene	ug/l	3.4	3.6	0.86U	0.86U
1,3,5-Trimethylbenzene	ug/l	0.54U	0.64I	0.54U	0.54U
Vinyl chloride	ug/l	0.50U	0.50U	0.50U	0.50U
o-Xylene	ug/l	0.78U	2.5	0.78U	0.78U
m&p-Xylene	ug/l	0.74U	1.3	0.74U	0.74U
Acetone	ug/l	19	9.9U	9.9U	9.9U
2-Butanone (MEK)	ug/l	8.4U	8.4U	8.4U	8.4U
4-Methyl-2-pentanone (MIBK)	ug/l	3.8U	5.4	3.8U	3.8U
Carbon disulfide	ug/l	0.85U	0.85U	0.85U	0.85U
2-Hexanone	ug/l	4.4U	4.4U	4.4U	4.4U
Methyl t-butyl ether (MTBE)	ug/l	0.88U	0.88U	0.88U	0.88U
Surrogate - Toluene-d8 *	%	92 %	100 %	92 %	92 %
Surrogate - 4-Bromofluorobenzene *	%	90 %	94 %	98 %	98 %
Surrogate - Dibromofluoromethane *	%	92 %	96 %	92 %	90 %
Analysis Date		02/22/05	02/23/05	02/22/05	02/22/05
Polynuclear Aromatics (8310)					
Acenaphthene	ug/l	0.20U	0.20U	0.20U	0.20U
Acenaphthylene	ug/l	0.12U	0.12U	0.12U	0.12U
Anthracene	ug/l	0.0028U	0.0028U	0.0028U	0.0028U
Benzo(a)anthracene	ug/l	0.016U	0.016U	0.016U	0.016U
Benzo(a)pyrene	ug/l	0.0074U	0.0074U	0.0074U	0.0074U
Benzo(b)fluoranthene	ug/l	0.0040U	0.0040U	0.0040U	0.0040U

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Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20810-4	CEF-824A-MW15I-16	Liquid	02/17/05	02/16/05 08:55	
20810-5	CEF-824A-MW14S-16	Liquid	02/17/05	02/16/05 09:40	
20810-6	CEF-827A-MW13D-16	Liquid	02/17/05	02/16/05 10:20	
20810-7	CEF-293-MW03-16	Liquid	02/17/05	02/16/05 14:15	

Parameter	Units	Lab Sample IDs 20810-4	20810-5	20810-6	20810-7
Polynuclear Aromatics (8310)					
Benzo(g,h,i)perylene	ug/l	0.014U	0.014U	0.014U	0.014U
Benzo(k)fluoranthene	ug/l	0.0051U	0.0051U	0.0051U	0.0051U
Chrysene	ug/l	0.011U	0.011U	0.011U	0.011U
Dibenzo(a,h)anthracene	ug/l	0.031U	0.031U	0.031U	0.031U
Fluoranthene	ug/l	0.015U	0.015U	0.015U	0.015U
Fluorene	ug/l	0.019U	0.019U	0.019U	0.019U
Indeno(1,2,3-cd)pyrene	ug/l	0.0079U	0.0079U	0.0079U	0.0079U
Naphthalene	ug/l	5.8*F42	0.084U	0.084U	0.084U
Phenanthrene	ug/l	0.0093U	0.0093U	0.015I	0.0093U
Pyrene	ug/l	0.020U	0.020U	0.020U	0.020U
1-Methylnaphthalene	ug/l	5.0*F42	0.12U	0.12U	0.12U
2-Methylnaphthalene	ug/l	5.2*F42	0.13U	0.13U	0.13U
Surrogate - Terphenyl-d14 *	%	64 %	84 %	92 %	60 %
Prep Date		02/18/05	02/18/05	02/18/05	02/18/05
Analysis Date		02/24/05	02/24/05	02/23/05	02/23/05
Total Organic Carbon (415.1)					
Total Organic Carbon	mg/l	12	42	3.1	6.2
Analysis Date		02/22/05	02/23/05	02/22/05	02/22/05
Dissolved Gases (SOP AR30)					
Methane, Dissolved	ug/l	1400	4900	100	4.4
Ethane, Dissolved	ug/l	0.35U	0.35U	0.35U	0.35U
Ethene, Dissolved	ug/l	0.80	0.77	15	0.33U
Prep Date		02/23/05	02/23/05	02/23/05	02/23/05
Analysis Date		02/23/05	02/23/05	02/23/05	02/23/05

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20810-4	CEF-824A-MW15I-16	Liquid	02/17/05	02/16/05 08:55	
20810-5	CEF-824A-MW14S-16	Liquid	02/17/05	02/16/05 09:40	
20810-6	CEF-827A-MW13D-16	Liquid	02/17/05	02/16/05 10:20	
20810-7	CEF-293-MW03-16	Liquid	02/17/05	02/16/05 14:15	

Parameter	Units	Lab Sample IDs 20810-4	20810-5	20810-6	20810-7
Sulfide (376.1)					
Sulfide	mg/l	2.2	2.6	1.0U	1.0U
Analysis Date		02/19/05	02/19/05	02/19/05	02/19/05
Iron (Dissolved) (6010)					
Iron (Dissolved)	mg/l	1.9	1.9	0.19	0.044I
Prep Date		02/24/05	02/24/05	02/24/05	02/24/05
Analysis Date		02/25/05	02/25/05	02/25/05	02/25/05
Alkalinity (to pH 4.5) as CaCO3 (310.1)					
Alkalinity (to pH 4.5) as CaCO3	mg/l	26	10	240	12
Analysis Date		02/22/05	02/22/05	02/22/05	02/22/05
Nitrite-N (353.2)					
Nitrite-N	mg/l	0.010U	0.010U	0.010U	0.010U
Analysis Date		02/18/05	02/18/05	02/18/05	02/18/05
Nitrate-N (353.2)					
Nitrate-N	mg/l	0.010U	0.010U	2.0	0.065
Analysis Date		02/18/05	02/18/05	02/18/05	02/18/05

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20810-5	CEF-824A-MW14S-16	Liquid	02/17/05	02/16/05 09:40	
20810-6	CEF-827A-MW13D-16	Liquid	02/17/05	02/16/05 10:20	
20810-7	CEF-293-MW03-16	Liquid	02/17/05	02/16/05 14:15	

Parameter	Units	Lab Sample IDs 20810-4	20810-5	20810-6	20810-7
Ortho Phosphate-P (365.2)					
Ortho Phosphate-P	mg/l	0.018	0.013	0.13	0.009U
Analysis Date		02/17/05	02/17/05	02/17/05	02/17/05
Sulfate as SO4 (375.4)					
Sulfate as SO4	mg/l	7.8	3.6I	2.6I	7.6
Analysis Date		02/23/05	02/23/05	02/23/05	02/23/05
Chloride (325.3)					
Chloride	mg/l	4.6	11	3.7	2.8
Analysis Date		02/21/05	02/21/05	02/21/05	02/21/05

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Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20810-15	CEF-57-DUPA-16	Liquid	02/17/05	02/16/05	

Parameter	Units	Lab Sample IDs 20810-15
Volatiles by GC/MS (8260)		
Benzene	ug/l	0.27U
Bromobenzene	ug/l	0.58U
Bromochloromethane	ug/l	0.58U
Bromodichloromethane	ug/l	0.35U
Bromoform	ug/l	0.58U
Bromomethane (Methyl bromide)	ug/l	0.66U
n-Butylbenzene	ug/l	0.67U
sec-Butylbenzene	ug/l	0.63U
tert-Butylbenzene	ug/l	0.84U
Carbon tetrachloride	ug/l	0.42U
Chlorobenzene	ug/l	0.63U
Chloroethane	ug/l	0.80U
Chloroform	ug/l	0.90U
Chloromethane	ug/l	0.64U
2-Chlorotoluene	ug/l	0.65U
4-Chlorotoluene	ug/l	0.52U
Dibromochloromethane	ug/l	0.34U
1,2-Dibromo-3-chloropropane	ug/l	0.74U
1,2-Dibromoethane (EDB)	ug/l	0.50U
Dibromomethane	ug/l	0.41U
1,2-Dichlorobenzene	ug/l	0.44U
1,3-Dichlorobenzene	ug/l	0.64U
1,4-Dichlorobenzene	ug/l	0.52U
Dichlorodifluoromethane	ug/l	0.40U
1,1-Dichloroethane	ug/l	0.52U
1,2-Dichloroethane	ug/l	0.57U
1,1-Dichloroethene	ug/l	0.45U
cis-1,2-Dichloroethene	ug/l	0.65U
trans-1,2-Dichloroethene	ug/l	0.44U
1,2-Dichloropropane	ug/l	0.52U

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Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20810-15	CEF-57-DUPA-16	Liquid	02/17/05	02/16/05	

Parameter	Units	Lab Sample IDs 20810-15
Volatiles by GC/MS (8260)		
1,3-Dichloropropane	ug/l	0.39U
2,2-Dichloropropane	ug/l	0.36U
1,1-Dichloropropylene	ug/l	0.31U
cis-1,3-Dichloropropene	ug/l	0.14U
trans-1,3-Dichloropropene	ug/l	0.14U
Ethylbenzene	ug/l	0.83U
Hexachlorobutadiene	ug/l	0.46U
Isopropylbenzene	ug/l	0.19U
p-Cymene	ug/l	0.69U
Methylene chloride (Dichloromethane)	ug/l	1.0U
Naphthalene	ug/l	0.94U
n-Propylbenzene	ug/l	0.59U
Styrene	ug/l	0.98U
1,1,1,2-Tetrachloroethane	ug/l	0.63U
1,1,2,2-Tetrachloroethane	ug/l	0.14U
Tetrachloroethene	ug/l	0.34U
Toluene	ug/l	0.51U
1,2,3-Trichlorobenzene	ug/l	0.77U
1,2,4-Trichlorobenzene	ug/l	0.58U
1,1,1-Trichloroethane	ug/l	0.46U
1,1,2-Trichloroethane	ug/l	0.47U
Trichloroethene	ug/l	0.28U
Trichlorofluoromethane	ug/l	0.98U
1,2,3-Trichloropropane	ug/l	0.15U
1,2,4-Trimethylbenzene	ug/l	0.86U
1,3,5-Trimethylbenzene	ug/l	0.54U
Vinyl chloride	ug/l	0.50U
o-Xylene	ug/l	0.78U
m&p-Xylene	ug/l	0.74U

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Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20810-15	CEF-57-DUPA-16	Liquid	02/17/05	02/16/05	

Parameter	Units	Lab Sample IDs 20810-15
Volatiles by GC/MS (8260)		
Acetone	ug/l	9.9U
2-Butanone (MEK)	ug/l	8.4U
4-Methyl-2-pentanone (MIBK)	ug/l	3.8U
Carbon disulfide	ug/l	0.85U
2-Hexanone	ug/l	4.4U
Methyl t-butyl ether (MTBE)	ug/l	0.88U
Surrogate - Toluene-d8 *	%	88 %
Surrogate - 4-Bromofluorobenzene *	%	98 %
Surrogate - Dibromofluoromethane *	%	92 %
Analysis Date		02/22/05
Polynuclear Aromatics (8310)		
Acenaphthene	ug/l	0.20U
Acenaphthylene	ug/l	0.12U
Anthracene	ug/l	0.0028U
Benzo(a)anthracene	ug/l	0.016U
Benzo(a)pyrene	ug/l	0.0074U
Benzo(b)fluoranthene	ug/l	0.0040U
Benzo(g,h,i)perylene	ug/l	0.014U
Benzo(k)fluoranthene	ug/l	0.0051U
Chrysene	ug/l	0.011U
Dibenzo(a,h)anthracene	ug/l	0.031U
Fluoranthene	ug/l	0.015U
Fluorene	ug/l	0.019U
Indeno(1,2,3-cd)pyrene	ug/l	0.0079U
Naphthalene	ug/l	0.084U
Phenanthrene	ug/l	0.0093U

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Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20810-15	CEF-57-DUPA-16	Liquid	02/17/05	02/16/05	

Parameter	Units	Lab Sample IDs 20810-15
Polynuclear Aromatics (8310)		
Pyrene	ug/l	0.020U
1-Methylnaphthalene	ug/l	0.12U
2-Methylnaphthalene	ug/l	0.13U
Surrogate - Terphenyl-d14 *	%	68 %
Prep Date		02/18/05
Analysis Date		02/24/05

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Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20810-16	CEF-57-DUPB-16	Liquid	02/17/05	02/16/05	
20810-17	CEF-57-EB01-16	Liquid	02/17/05	02/16/05	

Parameter	Units	Lab Sample IDs 20810-16	20810-17
Volatiles by GC/MS (8260)			
Benzene	ug/l	0.60I	0.27U
Bromobenzene	ug/l	0.58U	0.58U
Bromochloromethane	ug/l	0.58U	0.58U
Bromodichloromethane	ug/l	0.35U	0.35U
Bromoform	ug/l	0.58U	0.58U
Bromomethane (Methyl bromide)	ug/l	0.66U	0.66U
n-Butylbenzene	ug/l	0.67U	0.67U
sec-Butylbenzene	ug/l	1.2	0.63U
tert-Butylbenzene	ug/l	0.84U	0.84U
Carbon tetrachloride	ug/l	0.42U	0.42U
Chlorobenzene	ug/l	0.63U	0.63U
Chloroethane	ug/l	0.80U	0.80U
Chloroform	ug/l	0.90U	0.90U
Chloromethane	ug/l	0.64U	0.64U
2-Chlorotoluene	ug/l	0.65U	0.65U
4-Chlorotoluene	ug/l	0.52U	0.52U
Dibromochloromethane	ug/l	0.34U	0.34U
1,2-Dibromo-3-chloropropane	ug/l	0.74U	0.74U
1,2-Dibromoethane (EDB)	ug/l	0.50U	0.50U
Dibromomethane	ug/l	0.41U	0.41U
1,2-Dichlorobenzene	ug/l	0.44U	0.44U
1,3-Dichlorobenzene	ug/l	0.64U	0.64U
1,4-Dichlorobenzene	ug/l	0.52U	0.52U
Dichlorodifluoromethane	ug/l	0.40U	0.40U
1,1-Dichloroethane	ug/l	25	0.52U
1,2-Dichloroethane	ug/l	0.57U	0.57U
1,1-Dichloroethene	ug/l	0.45U	0.45U
cis-1,2-Dichloroethene	ug/l	200*F42	0.65U
trans-1,2-Dichloroethene	ug/l	1.9	0.44U

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Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20810-16	CEF-57-DUPB-16	Liquid	02/17/05	02/16/05	
20810-17	CEF-57-EB01-16	Liquid	02/17/05	02/16/05	

Parameter	Units	Lab Sample IDs 20810-16	20810-17
Volatiles by GC/MS (8260)			
1,2-Dichloropropane	ug/l	0.52U	0.52U
1,3-Dichloropropane	ug/l	0.39U	0.39U
2,2-Dichloropropane	ug/l	0.36U	0.36U
1,1-Dichloropropylene	ug/l	0.31U	0.31U
cis-1,3-Dichloropropene	ug/l	0.14U	0.14U
trans-1,3-Dichloropropene	ug/l	0.14U	0.14U
Ethylbenzene	ug/l	3.1	0.83U
Hexachlorobutadiene	ug/l	0.46U	0.46U
Isopropylbenzene	ug/l	1.4	0.19U
p-Cymene	ug/l	5.8	0.69U
Methylene chloride (Dichloromethane)	ug/l	1.0U	1.0U
Naphthalene	ug/l	250*F42	0.94U
n-Propylbenzene	ug/l	2.0	0.59U
Styrene	ug/l	0.98U	0.98U
1,1,1,2-Tetrachloroethane	ug/l	0.63U	0.63U
1,1,2,2-Tetrachloroethane	ug/l	0.14U	0.14U
Tetrachloroethene	ug/l	0.34U	0.34U
Toluene	ug/l	27	0.51U
1,2,3-Trichlorobenzene	ug/l	0.77U	0.77U
1,2,4-Trichlorobenzene	ug/l	0.58U	0.58U
1,1,1-Trichloroethane	ug/l	0.46U	0.46U
1,1,2-Trichloroethane	ug/l	0.47U	0.47U
Trichloroethene	ug/l	7.7	0.28U
Trichlorofluoromethane	ug/l	0.98U	0.98U
1,2,3-Trichloropropane	ug/l	0.15U	0.15U
1,2,4-Trimethylbenzene	ug/l	68	0.86U
1,3,5-Trimethylbenzene	ug/l	13	0.54U
Vinyl chloride	ug/l	0.50U	0.50U

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Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20810-16	CEF-57-DUPB-16	Liquid	02/17/05	02/16/05	
20810-17	CEF-57-EB01-16	Liquid	02/17/05	02/16/05	

Parameter	Units	Lab Sample IDs 20810-16	20810-17
Volatiles by GC/MS (8260)			
o-Xylene	ug/l	12	0.78U
m&p-Xylene	ug/l	8.5	0.74U
Acetone	ug/l	360	14
2-Butanone (MEK)	ug/l	20	8.4U
4-Methyl-2-pentanone (MIBK)	ug/l	350	3.8U
Carbon disulfide	ug/l	0.85U	0.85U
2-Hexanone	ug/l	4.4U	4.4U
Methyl t-butyl ether (MTBE)	ug/l	0.88U	0.88U
Surrogate - Toluene-d8 *	%	98 %	94 %
Surrogate - 4-Bromofluorobenzene *	%	100 %	100 %
Surrogate - Dibromofluoromethane *	%	86 %	90 %
Analysis Date		02/23/05	02/22/05
Polynuclear Aromatics (8310)			
Acenaphthene	ug/l	0.62IP	0.20U
Acenaphthylene	ug/l	0.12U	0.12U
Anthracene	ug/l	0.0028U	0.0028U
Benzo(a)anthracene	ug/l	0.016U	0.35
Benzo(a)pyrene	ug/l	0.0074U	0.62
Benzo(b)fluoranthene	ug/l	0.0040U	0.69
Benzo(g,h,i)perylene	ug/l	0.014U	0.78
Benzo(k)fluoranthene	ug/l	0.0051U	0.68
Chrysene	ug/l	0.011U	0.42
Dibenzo(a,h)anthracene	ug/l	0.031U	1.0
Fluoranthene	ug/l	0.015U	0.015U
Fluorene	ug/l	0.019U	0.019U

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Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20810-16	CEF-57-DUPB-16	Liquid	02/17/05	02/16/05	
20810-17	CEF-57-EB01-16	Liquid	02/17/05	02/16/05	

Parameter	Units	Lab Sample IDs 20810-16	20810-17
Polynuclear Aromatics (8310)			
Indeno(1,2,3-cd)pyrene	ug/l	0.0079U	0.74
Naphthalene	ug/l	150*F42	0.084U
Phenanthrene	ug/l	0.0093U	0.039I
Pyrene	ug/l	0.020U	0.020U
1-Methylnaphthalene	ug/l	1.5	0.12U
2-Methylnaphthalene	ug/l	1.4	0.13U
Surrogate - Terphenyl-d14 *	%	76 %	96 %
Prep Date		02/18/05	02/18/05
Analysis Date		02/24/05	02/24/05
Petroleum Range Organics (FL-PRO) (FL-PRO)			
Petroleum Hydrocarbons	mg/l	37	0.10U
Surrogate, o-Terphenyl *	mg/l	*F33	98 %
Prep Date		02/21/05	02/21/05
Analysis Date		02/25/05	02/23/05

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Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20810-8	Method Blank	Liquid	02/17/05		
20810-9	Accuracy (%Rec)	Liquid	02/17/05		
20810-10	LCS Accuracy Control Limit (%R)	Liquid	02/17/05		
20810-11	Precision (%RPD)	Liquid	02/17/05		
20810-12	LCS Precision Control Limit (Advisory) %RPD	Liquid	02/17/05		

Parameter	Units	Lab Sample IDs 20810-8	20810-9	20810-10	20810-11	20810-12
Volatiles by GC/MS (8260)						
Benzene	ug/l	0.27U	87 %	62-135 %	6.9 %	<37 %
Bromobenzene	ug/l	0.58U				
Bromochloromethane	ug/l	0.58U				
Bromodichloromethane	ug/l	0.35U				
Bromoform	ug/l	0.58U				
Bromomethane (Methyl bromide)	ug/l	0.66U				
n-Butylbenzene	ug/l	0.67U				
sec-Butylbenzene	ug/l	0.63U				
tert-Butylbenzene	ug/l	0.84U				
Carbon tetrachloride	ug/l	0.42U				
Chlorobenzene	ug/l	0.63U	97 %	72-127 %	2.1 %	<22 %
Chloroethane	ug/l	0.80U				
Chloroform	ug/l	0.90U				
Chloromethane	ug/l	0.64U				
2-Chlorotoluene	ug/l	0.65U				
4-Chlorotoluene	ug/l	0.52U				
Dibromochloromethane	ug/l	0.34U				
1,2-Dibromo-3-chloropropane	ug/l	0.74U				
1,2-Dibromoethane (EDB)	ug/l	0.50U				
Dibromomethane	ug/l	0.41U				
1,2-Dichlorobenzene	ug/l	0.44U				
1,3-Dichlorobenzene	ug/l	0.64U				
1,4-Dichlorobenzene	ug/l	0.52U				
Dichlorodifluoromethane	ug/l	0.40U				
1,1-Dichloroethane	ug/l	0.52U				
1,2-Dichloroethane	ug/l	0.57U				

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Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20810-8	Method Blank	Liquid	02/17/05		
20810-9	Accuracy (%Rec)	Liquid	02/17/05		
20810-10	LCS Accuracy Control Limit (%R)	Liquid	02/17/05		
20810-11	Precision (%RPD)	Liquid	02/17/05		
20810-12	LCS Precision Control Limit (Advisory) %RPD	Liquid	02/17/05		

Parameter	Units	Lab Sample IDs 20810-8	20810-9	20810-10	20810-11	20810-12
Volatiles by GC/MS (8260)						
1,1-Dichloroethene	ug/l	0.45U	86 %	46-147 %	14 %	<30 %
cis-1,2-Dichloroethene	ug/l	0.65U				
trans-1,2-Dichloroethene	ug/l	0.44U				
1,2-Dichloropropane	ug/l	0.52U				
1,3-Dichloropropane	ug/l	0.39U				
2,2-Dichloropropane	ug/l	0.36U				
1,1-Dichloropropylene	ug/l	0.31U				
cis-1,3-Dichloropropene	ug/l	0.14U				
trans-1,3-Dichloropropene	ug/l	0.14U				
Ethylbenzene	ug/l	0.83U				
Hexachlorobutadiene	ug/l	0.46U				
Isopropylbenzene	ug/l	0.19U				
p-Cymene	ug/l	0.69U				
Methylene chloride (Dichloromethane)	ug/l	1.0U				
Naphthalene	ug/l	0.94U				
n-Propylbenzene	ug/l	0.59U				
Styrene	ug/l	0.98U				
1,1,1,2-Tetrachloroethane	ug/l	0.63U				
1,1,2,2-Tetrachloroethane	ug/l	0.14U				
Tetrachloroethene	ug/l	0.34U				
Toluene	ug/l	0.51U	89 %	68-131 %	2.2 %	<33 %
1,2,3-Trichlorobenzene	ug/l	0.77U				
1,2,4-Trichlorobenzene	ug/l	0.58U				
1,1,1-Trichloroethane	ug/l	0.46U				
1,1,2-Trichloroethane	ug/l	0.47U				

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Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20810-8	Method Blank	Liquid	02/17/05		
20810-9	Accuracy (%Rec)	Liquid	02/17/05		
20810-10	LCS Accuracy Control Limit (%R)	Liquid	02/17/05		
20810-11	Precision (%RPD)	Liquid	02/17/05		
20810-12	LCS Precision Control Limit (Advisory) %RPD	Liquid	02/17/05		

Parameter	Units	Lab Sample IDs 20810-8	20810-9	20810-10	20810-11	20810-12
Volatiles by GC/MS (8260)						
Trichloroethene	ug/l	0.28U	87 %	56-143 %	2.3 %	<35 %
Trichlorofluoromethane	ug/l	0.98U				
1,2,3-Trichloropropane	ug/l	0.15U				
1,2,4-Trimethylbenzene	ug/l	0.86U				
1,3,5-Trimethylbenzene	ug/l	0.54U				
Vinyl chloride	ug/l	0.50U				
o-Xylene	ug/l	0.78U				
m&p-Xylene	ug/l	0.74U				
Acetone	ug/l	9.9U				
2-Butanone (MEK)	ug/l	8.4U				
4-Methyl-2-pentanone (MIBK)	ug/l	3.8U				
Carbon disulfide	ug/l	0.85U				
2-Hexanone	ug/l	4.4U				
Methyl t-butyl ether (MTBE)	ug/l	0.88U				
Surrogate - Toluene-d8 *	%	90 %	86/86 %	77-122 %		
Surrogate - 4-Bromofluorobenzene *	%	100 %	94/86 %	74-126 %		
Surrogate - Dibromofluoromethane *	%	92 %	88/88 %	70-130 %		
Analysis Date		02/22/05	02/21/05		02/21/05	

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Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20810-8	Method Blank	Liquid	02/17/05		
20810-9	Accuracy (%Rec)	Liquid	02/17/05		
20810-10	LCS Accuracy Control Limit (%R)	Liquid	02/17/05		
20810-11	Precision (%RPD)	Liquid	02/17/05		
20810-12	LCS Precision Control Limit (Advisory) %RPD	Liquid	02/17/05		

Parameter	Units	Lab Sample IDs 20810-8	20810-9	20810-10	20810-11	20810-12
Petroleum Range Organics (FL-PRO) (FL-PRO)						
Petroleum Hydrocarbons	mg/l	0.10U	74 %	55-118 %	0 %	<20 %
Surrogate, o-Terphenyl *	%	92 %	93/94 %	38-156 %		
Prep Date		02/21/05	02/21/05		02/21/05	
Analysis Date		02/23/05	02/23/05		02/23/05	
Total Organic Carbon (415.1)						
Total Organic Carbon	mg/l	0.53U	108 %	80-120 %	0 %	<25 %
Analysis Date		02/22/05	02/22/05		02/22/05	
Dissolved Gases (SOP AR30)						
Methane, Dissolved	ug/l	0.19U	87 %	75-125 %	0 %	<30 %
Ethane, Dissolved	ug/l	0.35U	97 %	75-125 %	0 %	<30 %
Ethene, Dissolved	ug/l	0.33U	98 %	75-125 %	3.9 %	<30 %
Prep Date		02/23/05	02/23/05		02/23/05	
Analysis Date		02/23/05	02/23/05		02/23/05	
Sulfide (376.1)						
Sulfide	mg/l	1.0U	93 %	75-125 %	0 %	<30 %
Analysis Date		02/19/05	02/19/05		02/19/05	

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Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20810-8	Method Blank	Liquid	02/17/05		
20810-9	Accuracy (%Rec)	Liquid	02/17/05		
20810-10	LCS Accuracy Control Limit (%R)	Liquid	02/17/05		
20810-11	Precision (%RPD)	Liquid	02/17/05		
20810-12	LCS Precision Control Limit (Advisory) %RPD	Liquid	02/17/05		

Parameter	Units	Lab Sample IDs 20810-8	20810-9	20810-10	20810-11	20810-12
Iron (Dissolved) (6010)						
Iron (Dissolved)	mg/l	0.037U	97 %	75-125 %	0.89 %	<20 %
Prep Date		02/24/05	02/24/05		02/24/05	
Analysis Date		02/25/05	02/25/05		02/25/05	
Alkalinity (to pH 4.5) as CaCO3 (310.1)						
Alkalinity (to pH 4.5) as CaCO3	mg/l	1.0U	105 %	80-120 %	0.81 %	<30 %
Analysis Date		02/22/05	02/22/05		02/22/05	
Nitrite-N (353.2)						
Nitrite-N	mg/l	0.010U	99 %	80-120 %	6.4 %	<30 %
Analysis Date		02/18/05	02/18/04		02/18/05	
Nitrate-N (353.2)						
Nitrate-N	mg/l	0.010U	102 %	80-120 %	1.0 %	<30 %
Analysis Date		02/18/05	02/18/05		02/18/05	
Ortho Phosphate-P (365.2)						
Ortho Phosphate-P	mg/l	0.009U	97 %	90-110 %	0.95 %	<30 %
Analysis Date		02/17/05	02/17/05		02/17/05	

SEVERN TRENT STL

STL Tampa 6712 Benjamin Road, Suite 100 - Tampa FL 33634 Telephone:(813) 885-7427 Fax:(813) 885-7049

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20810-8	Method Blank	Liquid	02/17/05		
20810-9	Accuracy (%Rec)	Liquid	02/17/05		
20810-10	LCS Accuracy Control Limit (%R)	Liquid	02/17/05		
20810-11	Precision (%RPD)	Liquid	02/17/05		
20810-12	LCS Precision Control Limit (Advisory) %RPD	Liquid	02/17/05		

Parameter	Units	Lab Sample IDs 20810-8	20810-9	20810-10	20810-11	20810-12
Sulfate as SO4 (375.4)						
Sulfate as SO4	mg/l	1.7U	91 %	75-125 %	2.2 %	<30 %
Analysis Date		02/23/05	02/23/05		02/23/05	
Chloride (325.3)						
Chloride	mg/l	0.90U	102 %	90-110 %	6.1 %	<30 %
Analysis Date		02/21/05	02/21/05		02/21/05	
Polynuclear Aromatics (8310)						
Acenaphthene	ug/l	0.20U	40 %	43-130 %	45 %	<30 %
Acenaphthylene	ug/l	0.12U	88 %	42-125 %	9.5 %	<30 %
Anthracene	ug/l	0.0028U	72 %	33-125 %	32 %	<30 %
Benzo(a)anthracene	ug/l	0.016U	88 %	39-135 %	17 %	<30 %
Benzo(a)pyrene	ug/l	0.0074U	94 %	39-135 %	29 %	<30 %
Benzo(b)fluoranthene	ug/l	0.0040U	92 %	31-137 %	9.3 %	<30 %
Benzo(g,h,i)perylene	ug/l	0.014U	100 %	44-125 %	18 %	<30 %
Benzo(k)fluoranthene	ug/l	0.0051U	88 %	60-129 %	12 %	<30 %
Chrysene	ug/l	0.011U	92 %	59-134 %	11 %	<30 %
Dibenzo(a,h)anthracene	ug/l	0.031U	52 %	51-125 %	12 %	<30 %
Fluoranthene	ug/l	0.015U	85 %	42-125 %	14 %	<30 %
Fluorene	ug/l	0.019U	82 %	31-125 %	14 %	<30 %
Indeno(1,2,3-cd)pyrene	ug/l	0.0079U	92 %	55-125 %	15 %	<30 %
Naphthalene	ug/l	0.084U	84 %	21-125 %	15 %	<30 %
Phenanthrene	ug/l	0.0093U	81 %	52-129 %	11 %	<30 %
Pyrene	ug/l	0.020U	92 %	38-137 %	14 %	<30 %

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Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20810-8	Method Blank	Liquid	02/17/05		
20810-9	Accuracy (%Rec)	Liquid	02/17/05		
20810-10	LCS Accuracy Control Limit (%R)	Liquid	02/17/05		
20810-11	Precision (%RPD)	Liquid	02/17/05		
20810-12	LCS Precision Control Limit (Advisory) %RPD	Liquid	02/17/05		

Parameter	Units	Lab Sample IDs 20810-8	20810-9	20810-10	20810-11	20810-12
Polynuclear Aromatics (8310)						
1-Methylnaphthalene	ug/l	0.12U	92 %	45-125 %	19 %	<30 %
2-Methylnaphthalene	ug/l	0.13U	88 %	46-125 %	15 %	<30 %
Surrogate - Terphenyl-d14 *	%	80 %	92 %	30-130 %		
Prep Date		02/18/05	02/18/05			
Analysis Date		02/23/05	02/23/05			

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Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20810-13	Practical Quantitation Limit (PQL)	Liquid	02/17/05		
20810-14	Method Detection Limit (MDL)	Liquid	02/17/05		

Parameter	Units	Lab Sample IDs 20810-13	20810-14
Volatiles by GC/MS (8260)			
Benzene	ug/l	1.0	0.27
Bromobenzene	ug/l	1.0	0.58
Bromochloromethane	ug/l	1.0	0.58
Bromodichloromethane	ug/l	1.0	0.35
Bromoform	ug/l	1.0	0.58
Bromomethane (Methyl bromide)	ug/l	1.0	0.66
n-Butylbenzene	ug/l	1.0	0.67
sec-Butylbenzene	ug/l	1.0	0.63
tert-Butylbenzene	ug/l	1.0	0.84
Carbon tetrachloride	ug/l	1.0	0.42
Chlorobenzene	ug/l	1.0	0.63
Chloroethane	ug/l	1.0	0.80
Chloroform	ug/l	1.0	0.90
Chloromethane	ug/l	1.0	0.64
2-Chlorotoluene	ug/l	1.0	0.65
4-Chlorotoluene	ug/l	1.0	0.52
Dibromochloromethane	ug/l	1.0	0.34
1,2-Dibromo-3-chloropropane	ug/l	1.0	0.74
1,2-Dibromoethane (EDB)	ug/l	1.0	0.50
Dibromomethane	ug/l	1.0	0.41
1,2-Dichlorobenzene	ug/l	1.0	0.44
1,3-Dichlorobenzene	ug/l	1.0	0.64
1,4-Dichlorobenzene	ug/l	1.0	0.52
Dichlorodifluoromethane	ug/l	1.0	0.40
1,1-Dichloroethane	ug/l	1.0	0.52
1,2-Dichloroethane	ug/l	1.0	0.57
1,1-Dichloroethene	ug/l	1.0	0.45
cis-1,2-Dichloroethene	ug/l	1.0	0.65
trans-1,2-Dichloroethene	ug/l	1.0	0.44

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Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20810-13	Practical Quantitation Limit (PQL)	Liquid	02/17/05		
20810-14	Method Detection Limit (MDL)	Liquid	02/17/05		

Parameter	Units	Lab Sample IDs 20810-13	20810-14
Volatiles by GC/MS (8260)			
1,2-Dichloropropane	ug/l	1.0	0.52
1,3-Dichloropropane	ug/l	1.0	0.39
2,2-Dichloropropane	ug/l	1.0	0.36
1,1-Dichloropropylene	ug/l	1.0	0.31
cis-1,3-Dichloropropene	ug/l	1.0	0.14
trans-1,3-Dichloropropene	ug/l	1.0	0.14
Ethylbenzene	ug/l	1.0	0.83
Hexachlorobutadiene	ug/l	1.0	0.46
Isopropylbenzene	ug/l	1.0	0.19
p-Cymene	ug/l	1.0	0.69
Methylene chloride (Dichloromethane)	ug/l	5.0	1.0
Naphthalene	ug/l	1.0	0.94
n-Propylbenzene	ug/l	1.0	0.59
Styrene	ug/l	1.0	0.98
1,1,1,2-Tetrachloroethane	ug/l	1.0	0.63
1,1,2,2-Tetrachloroethane	ug/l	1.0	0.14
Tetrachloroethene	ug/l	1.0	0.34
Toluene	ug/l	1.0	0.51
1,2,3-Trichlorobenzene	ug/l	1.0	0.77
1,2,4-Trichlorobenzene	ug/l	1.0	0.58
1,1,1-Trichloroethane	ug/l	1.0	0.46
1,1,2-Trichloroethane	ug/l	1.0	0.47
Trichloroethene	ug/l	1.0	0.28
Trichlorofluoromethane	ug/l	1.0	0.98
1,2,3-Trichloropropane	ug/l	1.0	0.15
1,2,4-Trimethylbenzene	ug/l	1.0	0.86
1,3,5-Trimethylbenzene	ug/l	1.0	0.54
Vinyl chloride	ug/l	1.0	0.50

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Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20810-13	Practical Quantitation Limit (PQL)	Liquid	02/17/05		
20810-14	Method Detection Limit (MDL)	Liquid	02/17/05		

Parameter	Units	Lab Sample IDs 20810-13	20810-14
Volatiles by GC/MS (8260)			
o-Xylene	ug/l	1.0	0.78
m&p-Xylene	ug/l	1.0	0.74
Acetone	ug/l	10	9.9
2-Butanone (MEK)	ug/l	10	8.4
4-Methyl-2-pentanone (MIBK)	ug/l	10	3.8
Carbon disulfide	ug/l	1.0	0.85
2-Hexanone	ug/l	10	4.4
Methyl t-butyl ether (MTBE)	ug/l	1.0	0.88
Petroleum Range Organics (FL-PRO) (FL-PRO)			
Petroleum Hydrocarbons	mg/l	0.30	0.10
Total Organic Carbon (415.1)			
Total Organic Carbon	mg/l	1.0	0.53
Dissolved Gases (SOP AR30)			
Methane, Dissolved	ug/l	0.19	0.19
Ethane, Dissolved	ug/l	0.35	0.35
Ethene, Dissolved	ug/l	0.33	0.33
Sulfide (376.1)			
Sulfide	mg/l	1.0	1.0

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Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20810-13	Practical Quantitation Limit (PQL)	Liquid	02/17/05		
20810-14	Method Detection Limit (MDL)	Liquid	02/17/05		

Parameter	Units	Lab Sample IDs 20810-13	20810-14
Iron (Dissolved) (6010)			
Iron (Dissolved)	mg/l	0.050	0.037
Alkalinity (to pH 4.5) as CaCO3 (310.1)			
Alkalinity (to pH 4.5) as CaCO3	mg/l	1.0	1.0
Nitrite-N (353.2)			
Nitrite-N	mg/l	0.050	0.010
Nitrate-N (353.2)			
Nitrate-N	mg/l	0.050	0.010
Ortho Phosphate-P (365.2)			
Ortho Phosphate-P	mg/l	0.050	0.009
Sulfate as SO4 (375.4)			
Sulfate as SO4	mg/l	5.0	1.7
Chloride (325.3)			
Chloride	mg/l	1.0	0.90

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STL Tampa 6712 Benjamin Road, Suite 100 - Tampa FL 33634 Telephone:(813) 885-7427 Fax:(813) 885-7049

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20810-13	Practical Quantitation Limit (PQL)	Liquid	02/17/05		
20810-14	Method Detection Limit (MDL)	Liquid	02/17/05		

Parameter	Units	Lab Sample IDs 20810-13	20810-14
Polynuclear Aromatics (8310)			
Acenaphthene	ug/l	1.0	0.20
Acenaphthylene	ug/l	1.0	0.12
Anthracene	ug/l	0.20	0.0028
Benzo(a)anthracene	ug/l	0.20	0.016
Benzo(a)pyrene	ug/l	0.20	0.0074
Benzo(b)fluoranthene	ug/l	0.20	0.0040
Benzo(g,h,i)perylene	ug/l	0.50	0.014
Benzo(k)fluoranthene	ug/l	0.20	0.0051
Chrysene	ug/l	0.20	0.011
Dibenzo(a,h)anthracene	ug/l	0.20	0.031
Fluoranthene	ug/l	0.50	0.015
Fluorene	ug/l	0.50	0.019
Indeno(1,2,3-cd)pyrene	ug/l	0.20	0.0079
Naphthalene	ug/l	1.0	0.084
Phenanthrene	ug/l	0.20	0.0093
Pyrene	ug/l	0.50	0.020
1-Methylnaphthalene	ug/l	1.0	0.12
2-Methylnaphthalene	ug/l	1.0	0.13

Order Number: B520810

Method: EPA 600/4-79-020,SW-846,FDEP
DOH Certification #E84282

I = The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

U = Indicates that the compound was analyzed for but not detected.

The 8310 analysis subcontracted to
STL Tallahassee, 2846 Industrial Plaza Drive, Tallahassee, FL 32301
Phone #850/878-3994. DOH Certification #E81005.

Dissolved Gases subcontracted to
STL Savannah, 5102 LaRoche Ave., Savannah, GA 31404
Phone #912/354-7858. DOH Certification #E87052

These test results meet all the requirements of NELAC. All questions regarding this test report should be directed to the STL project manager who signed this test report.
The estimated uncertainty associated with these reported results is available upon request.

L = Off-scale high. All available vials were consumed.

*F33 = Control limits are established only for surrogate concentration levels specified by EPA methods. Because the sample was diluted prior to analysis, surrogate recoveries are not reported.

*F42 = Target compounds were quantitated from a secondary dilution due to analyte abundance in the sample.

Serial Number 17413

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

SEVERN TRENT

STL B520810

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	PROJECT NO.	PROJECT LOCATION (STATE)
Site 57 - Cecil Field	Site 57	FL

SAMPLER'S SIGNATURE	P.O. NUMBER	CONTRACT NO.
[signature]	(See attached)	(See attached)

CLIENT (SITE) PM	CLIENT PHONE	CLIENT FAX
Joe Ferranti	904-384-4199	384-4806

CLIENT NAME	CLIENT E-MAIL
SI Group	jferranti@thesigroup.com

CLIENT ADDRESS: 4191 San Juan Ave, Jax, FL 32210

COMPANY CONTRACTING THIS WORK (if applicable): —

PAGE 1 OF 1

STANDARD REPORT DELIVERY ⊗

DATE DUE

EXPEDITED REPORT DELIVERY (SURCHARGE) ○

DATE DUE

NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

PRESERVATIVE

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G) INDICATE	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT,...)	VOCs (8260)	PAHs (8310)	Alkalinity & Anions (310.1) (300)	Dis. Iron (6010B)	Dis. Sulfate (375.4)	MBE (8015/8021)	TOC (415.1)	TRPH (418.1)			REMARKS
								HCl	—	—	HNO_3	ZnA_c	HCl	H_2SO_4	HCl			
2/16/05	0855	CEF-824A-MW15I-16	G					3	2	1	1	1	3	1				
	0940	CEF-824A-MW14S-16	G					3	2	1	1	1	3	1				
	1020	CEF-824A-MW13D-16	G					3	2	1	1	1	3	1				
	1200	CEF-824A-MW12I-16	G					3	2	1	1	1	3	1	2			
	1250	CEF-293-MW19-16	G					3	2	1	1	1	3	1	2			
	1415	CEF-293-MW03-16	G					3	2	1	1	1	3	1				
	1525	CEF-293-MW13-16	G					3	2	1	1	1	3	1	2			
	0000	CEF-57-Dup A-16	G					3	2									
	0000	CEF-57-Dup B-16	G					3	2						2			
	----	CEF-57-EB01-16	G					3	2						1			

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
[signature]	2-9-05	1530	[signature]	2/16/05	1605	[signature]	21605	1730

RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME
EMPTY CONTAINERS			[signature]	2/16/05	1625			

4°X4 UPS

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	CUSTODY SEAL NO.	STL TAMPA LOG NO.	LABORATORY REMARKS
[signature]	2-17-05	1030	YES ○ NO ○	~~B520810~~ CW 2-17-05	B520810	

STL8240-660 (12/02)

SEVERN TRENT STL

STL Tampa 6712 Benjamin Road, Suite 100 - Tampa FL 33634 Telephone:(813) 885-7427 Fax:(813) 885-7049

Analytical Report

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

Order Number: B520785
SDG Number:
Client Project ID:
Project: Cecil Field Site 57
Report Date: 02/28/2005
Sampled By: Client
Sample Received Date: 02/15/2005
Requisition Number:
Purchase Order: CECIL-57

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.

STL Tampa 6712 Benjamin Road, Suite 100 - Tampa FL 33634 Telephone:(813) 885-7427 Fax:(813) 885-7049

Sample Summary

Order: B520785
Date Received: 02/15/2005

Client: The SI Group
Project: Cecil Field Site 57

Client Sample ID	Lab Sample ID	Matrix	Date Sampled
CEF-57-824A-MW03S-16	B520785*1	Liquid	02/14/2005 09:05
CEF-57-824A-MW22S-16	B520785*2	Liquid	02/14/2005 09:55
CEF-57-824A-MW20S-16	B520785*3	Liquid	02/14/2005 12:30
CEF-57-824A-MW19S-16	B520785*4	Liquid	02/14/2005 13:35
CEF-57-824A-MW07S-16	B520785*5	Liquid	02/14/2005 10:45
CEF-57-824A-MW08S-16	B520785*6	Liquid	02/14/2005 14:25
CEF-57-824A-01SA-16	B520785*7	Liquid	02/14/2005 15:05
CEF-57-TB-021405	B520785*8	Liquid	02/14/2005

SEVERN TRENT STL

STL Tampa 6712 Benjamin Road, Suite 100 - Tampa FL 33634 Telephone:(813) 885-7427 Fax:(813) 885-7049

Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20785-1	CEF-57-824A-MW03S-16	Liquid	02/15/05	02/14/05 09:05	
20785-2	CEF-57-824A-MW22S-16	Liquid	02/15/05	02/14/05 09:55	
20785-3	CEF-57-824A-MW20S-16	Liquid	02/15/05	02/14/05 12:30	
20785-4	CEF-57-824A-MW19S-16	Liquid	02/15/05	02/14/05 13:35	

Parameter	Units	Lab Sample IDs 20785-1	20785-2	20785-3	20785-4
Volatiles by GC/MS (8260)					
Benzene	ug/l	0.27U	0.27U	0.27U	0.27U
Bromobenzene	ug/l	0.58U	0.58U	0.58U	0.58U
Bromochloromethane	ug/l	0.58U	0.58U	0.58U	0.58U
Bromodichloromethane	ug/l	0.35U	0.35U	0.35U	0.35U
Bromoform	ug/l	0.58U	0.58U	0.58U	0.58U
Bromomethane (Methyl bromide)	ug/l	0.66U	0.66U	0.66U	0.66U
n-Butylbenzene	ug/l	0.67U	0.67U	0.67U	0.67U
sec-Butylbenzene	ug/l	0.63U	0.63U	0.63U	0.63U
tert-Butylbenzene	ug/l	0.84U	0.84U	0.84U	0.84U
Carbon tetrachloride	ug/l	0.42U	0.42U	0.42U	0.42U
Chlorobenzene	ug/l	0.63U	0.63U	0.63U	0.63U
Chloroethane	ug/l	0.80U	0.80U	0.80U	0.80U
Chloroform	ug/l	0.90U	0.90U	0.90U	0.90U
Chloromethane	ug/l	0.64U	0.64U	0.64U	0.64U
2-Chlorotoluene	ug/l	0.65U	0.65U	0.65U	0.65U
4-Chlorotoluene	ug/l	0.52U	0.52U	0.52U	0.52U
Dibromochloromethane	ug/l	0.34U	0.34U	0.34U	0.34U
1,2-Dibromo-3-chloropropane	ug/l	0.74U	0.74U	0.74U	0.74U
1,2-Dibromoethane (EDB)	ug/l	0.50U	0.50U	0.50U	0.50U
Dibromomethane	ug/l	0.41U	0.41U	0.41U	0.41U
1,2-Dichlorobenzene	ug/l	0.44U	0.44U	0.44U	0.44U
1,3-Dichlorobenzene	ug/l	0.64U	0.64U	0.64U	0.64U
1,4-Dichlorobenzene	ug/l	0.52U	0.52U	0.52U	0.52U
Dichlorodifluoromethane	ug/l	0.40U	0.40U	0.40U	0.40U
1,1-Dichloroethane	ug/l	0.52U	0.52U	0.52U	0.52U
1,2-Dichloroethane	ug/l	0.57U	0.57U	0.57U	0.57U
1,1-Dichloroethene	ug/l	0.45U	0.45U	0.45U	0.45U

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Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20785-1	CEF-57-824A-MW03S-16	Liquid	02/15/05	02/14/05 09:05	
20785-2	CEF-57-824A-MW22S-16	Liquid	02/15/05	02/14/05 09:55	
20785-3	CEF-57-824A-MW20S-16	Liquid	02/15/05	02/14/05 12:30	
20785-4	CEF-57-824A-MW19S-16	Liquid	02/15/05	02/14/05 13:35	

Parameter	Units	Lab Sample IDs 20785-1	20785-2	20785-3	20785-4
Volatiles by GC/MS (8260)					
cis-1,2-Dichloroethene	ug/l	0.65U	1.2	0.65U	0.65U
trans-1,2-Dichloroethene	ug/l	0.44U	0.44U	0.44U	0.44U
1,2-Dichloropropane	ug/l	0.52U	0.52U	0.52U	0.52U
1,3-Dichloropropane	ug/l	0.39U	0.39U	0.39U	0.39U
2,2-Dichloropropane	ug/l	0.36U	0.36U	0.36U	0.36U
1,1-Dichloropropylene	ug/l	0.31U	0.31U	0.31U	0.31U
cis-1,3-Dichloropropene	ug/l	0.14U	0.14U	0.14U	0.14U
trans-1,3-Dichloropropene	ug/l	0.14U	0.14U	0.14U	0.14U
Ethylbenzene	ug/l	0.83U	0.83U	0.83U	0.83U
Hexachlorobutadiene	ug/l	0.46U	0.46U	0.46U	0.46U
Isopropylbenzene	ug/l	0.19U	0.19U	0.19U	0.19U
p-Cymene	ug/l	0.69U	0.69U	0.69U	0.69U
Methylene chloride (Dichloromethane)	ug/l	1.0U	1.0U	1.0U	1.0U
Naphthalene	ug/l	0.94U	0.94U	0.94U	0.94U
n-Propylbenzene	ug/l	0.59U	0.59U	0.59U	0.59U
Styrene	ug/l	0.98U	0.98U	0.98U	0.98U
1,1,1,2-Tetrachloroethane	ug/l	0.63U	0.63U	0.63U	0.63U
1,1,2,2-Tetrachloroethane	ug/l	0.14U	0.14U	0.14U	0.14U
Tetrachloroethene	ug/l	0.34U	0.34U	0.34U	0.34U
Toluene	ug/l	0.51U	0.51U	0.51U	0.51U
1,2,3-Trichlorobenzene	ug/l	0.77U	0.77U	0.77U	0.77U
1,2,4-Trichlorobenzene	ug/l	0.58U	0.58U	0.58U	0.58U
1,1,1-Trichloroethane	ug/l	0.46U	0.46U	0.46U	0.46U
1,1,2-Trichloroethane	ug/l	0.47U	0.47U	0.47U	0.47U
Trichloroethene	ug/l	0.28U	1.4	0.28U	0.28U
Trichlorofluoromethane	ug/l	0.98U	0.98U	0.98U	0.98U

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Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20785-1	CEF-57-824A-MW03S-16	Liquid	02/15/05	02/14/05 09:05	
20785-2	CEF-57-824A-MW22S-16	Liquid	02/15/05	02/14/05 09:55	
20785-3	CEF-57-824A-MW20S-16	Liquid	02/15/05	02/14/05 12:30	
20785-4	CEF-57-824A-MW19S-16	Liquid	02/15/05	02/14/05 13:35	

Parameter	Units	Lab Sample IDs 20785-1	20785-2	20785-3	20785-4
Volatiles by GC/MS (8260)					
1,2,3-Trichloropropane	ug/l	0.15U	0.15U	0.15U	0.15U
1,2,4-Trimethylbenzene	ug/l	0.86U	0.86U	0.86U	0.86U
1,3,5-Trimethylbenzene	ug/l	0.54U	0.54U	0.54U	0.54U
Vinyl chloride	ug/l	0.50U	0.50U	0.50U	0.50U
o-Xylene	ug/l	0.78U	0.78U	0.78U	0.78U
m&p-Xylene	ug/l	0.74U	0.74U	0.74U	0.74U
Acetone	ug/l	9.9U	9.9U	9.9U	9.9U
2-Butanone (MEK)	ug/l	8.4U	8.4U	8.4U	8.4U
4-Methyl-2-pentanone (MIBK)	ug/l	3.8U	3.8U	3.8U	3.8U
Carbon disulfide	ug/l	0.85U	0.85U	0.85U	0.85U
2-Hexanone	ug/l	4.4U	4.4U	4.4U	4.4U
Methyl t-butyl ether (MTBE)	ug/l	0.88U	0.88U	0.88U	0.88U
Surrogate - Toluene-d8 *	%	88 %	90 %	92 %	94 %
Surrogate - 4-Bromofluorobenzene *	%	90 %	90 %	96 %	90 %
Surrogate - Dibromofluoromethane *	%	94 %	96 %	94 %	98 %
Analysis Date		02/17/05	02/17/05	02/17/05	02/17/05
Polynuclear Aromatics (8310)					
Acenaphthene	ug/l	0.20U	0.20U	0.20U	0.20U
Acenaphthylene	ug/l	0.12U	0.12U	0.12U	0.12U
Anthracene	ug/l	0.0028U	0.0028U	0.0028U	0.0028U
Benzo(a)anthracene	ug/l	0.016U	0.016U	0.016U	0.016U
Benzo(a)pyrene	ug/l	0.0074U	0.0074U	0.0074U	0.0074U
Benzo(b)fluoranthene	ug/l	0.0040U	0.0040U	0.0040U	0.0040U

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Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20785-1	CEF-57-824A-MW03S-16	Liquid	02/15/05	02/14/05 09:05	
20785-2	CEF-57-824A-MW22S-16	Liquid	02/15/05	02/14/05 09:55	
20785-3	CEF-57-824A-MW20S-16	Liquid	02/15/05	02/14/05 12:30	
20785-4	CEF-57-824A-MW19S-16	Liquid	02/15/05	02/14/05 13:35	

Parameter	Units	Lab Sample IDs 20785-1	20785-2	20785-3	20785-4
Polynuclear Aromatics (8310)					
Benzo(g,h,i)perylene	ug/l	0.014U	0.014U	0.014U	0.014U
Benzo(k)fluoranthene	ug/l	0.0051U	0.0051U	0.0051U	0.0051U
Chrysene	ug/l	0.011U	0.011U	0.011U	0.011U
Dibenzo(a,h)anthracene	ug/l	0.031U	0.031U	0.031U	0.031U
Fluoranthene	ug/l	0.015U	0.015U	0.015U	0.015U
Fluorene	ug/l	0.019U	0.019U	0.019U	0.019U
Indeno(1,2,3-cd)pyrene	ug/l	0.014I	0.0079U	0.0079U	0.0079U
Naphthalene	ug/l	0.084U	0.084U	0.084U	12
Phenanthrene	ug/l	0.0093U	0.0093U	0.0093U	0.0093U
Pyrene	ug/l	0.020U	0.020U	0.020U	0.020U
1-Methylnaphthalene	ug/l	0.12U	0.12U	0.12U	21
2-Methylnaphthalene	ug/l	0.13U	0.13U	0.13U	26*F42
Surrogate - Terphenyl-d14 *	%	80 %	68 %	80 %	84 %
Prep Date		02/17/05	02/17/05	02/17/05	02/17/05
Analysis Date		02/22/05	02/22/05	02/22/05	02/22/05
Petroleum Range Organics (FL-PRO) (FL-PRO)					
Petroleum Hydrocarbons	mg/l	0.10U	0.10U	0.10U	0.10U
Surrogate, o-Terphenyl *	%	96 %	91 %	95 %	94 %
Prep Date		02/18/05	02/18/05	02/18/05	02/18/05
Analysis Date		02/23/05	02/23/05	02/23/05	02/23/05

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Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20785-1	CEF-57-824A-MW03S-16	Liquid	02/15/05	02/14/05 09:05	
20785-2	CEF-57-824A-MW22S-16	Liquid	02/15/05	02/14/05 09:55	
20785-3	CEF-57-824A-MW20S-16	Liquid	02/15/05	02/14/05 12:30	
20785-4	CEF-57-824A-MW19S-16	Liquid	02/15/05	02/14/05 13:35	

Parameter	Units	Lab Sample IDs 20785-1	20785-2	20785-3	20785-4
Total Organic Carbon (415.1)					
Total Organic Carbon	mg/l	11	3.0	3.8	6.3
Analysis Date		02/18/05	02/18/05	02/18/05	02/18/05
Dissolved Gases (SOP AR30)					
Methane, Dissolved	ug/l	260	28	31	250
Ethane, Dissolved	ug/l	0.35U	0.35U	0.35U	0.35U
Ethene, Dissolved	ug/l	0.33U	0.33U	0.33U	0.33U
Prep Date		02/23/05	02/23/05	02/23/05	02/23/05
Analysis Date		02/23/05	02/23/05	02/23/05	02/23/05
Sulfide (376.1)					
Sulfide	mg/l	2.6	1.0U	1.0U	1.0U
Analysis Date		02/18/05	02/18/05	02/18/05	02/18/05
Iron (Dissolved) (6010)					
Iron (Dissolved)	mg/l	1.1	6.8	0.84	0.56
Prep Date		02/15/05	02/15/05	02/15/05	02/15/05
Analysis Date		02/16/05	02/16/05	02/16/05	02/16/05

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20785-1	CEF-57-824A-MW03S-16	Liquid	02/15/05	02/14/05 09:05	
20785-2	CEF-57-824A-MW22S-16	Liquid	02/15/05	02/14/05 09:55	
20785-3	CEF-57-824A-MW20S-16	Liquid	02/15/05	02/14/05 12:30	
20785-4	CEF-57-824A-MW19S-16	Liquid	02/15/05	02/14/05 13:35	

Parameter	Units	Lab Sample IDs 20785-1	20785-2	20785-3	20785-4
Alkalinity (to pH 4.5) as CaCO3 (310.1)					
Alkalinity (to pH 4.5) as CaCO3	mg/l	4.0	1.0U	1.0U	4.0
Analysis Date		02/22/05	02/22/05	02/22/05	02/22/05
Nitrite-N (353.2)					
Nitrite-N	mg/l	0.010U	0.010U	0.010U	0.010U
Analysis Date		02/16/05	02/16/05	02/16/05	02/16/05
Nitrate-N (353.2)					
Nitrate-N	mg/l	0.010U	0.010U	0.010U	0.010U
Analysis Date		02/16/05	02/16/05	02/16/05	02/16/05
Ortho Phosphate-P (365.2)					
Ortho Phosphate-P	mg/l	0.009U	0.009U	0.009U	0.013I
Analysis Date		02/15/05	02/15/05	02/15/05	02/15/05
Sulfate as SO4 (375.4)					
Sulfate as SO4	mg/l	2.2I	49	13	2.2I
Analysis Date		02/21/05	02/21/05	02/21/05	02/21/05

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Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20785-1	CEF-57-824A-MW03S-16	Liquid	02/15/05	02/14/05 09:05	
20785-2	CEF-57-824A-MW22S-16	Liquid	02/15/05	02/14/05 09:55	
20785-3	CEF-57-824A-MW20S-16	Liquid	02/15/05	02/14/05 12:30	
20785-4	CEF-57-824A-MW19S-16	Liquid	02/15/05	02/14/05 13:35	

Parameter	Units	Lab Sample IDs 20785-1	20785-2	20785-3	20785-4
Chloride (325.3)					
Chloride	mg/l	10	7.5	10	10
Analysis Date		02/21/05	02/21/05	02/21/05	02/21/05

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Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20785-5	CEF-57-824A-MW07S-16	Liquid	02/15/05	02/14/05 10:45	
20785-6	CEF-57-824A-MW08S-16	Liquid	02/15/05	02/14/05 14:25	
20785-7	CEF-57-824A-01SA-16	Liquid	02/15/05	02/14/05 15:05	

Parameter	Units	Lab Sample IDs 20785-5	20785-6	20785-7
Volatiles by GC/MS (8260)				
Benzene	ug/l	1.9	0.96I	0.27U
Bromobenzene	ug/l	0.58U	0.58U	0.58U
Bromochloromethane	ug/l	0.58U	0.58U	0.58U
Bromodichloromethane	ug/l	0.35U	0.35U	0.35U
Bromoform	ug/l	0.58U	0.58U	0.58U
Bromomethane (Methyl bromide)	ug/l	0.66U	0.66U	0.66U
n-Butylbenzene	ug/l	3.9	0.67U	0.67U
sec-Butylbenzene	ug/l	0.63U	0.63U	0.63U
tert-Butylbenzene	ug/l	0.84U	0.84U	0.84U
Carbon tetrachloride	ug/l	0.42U	0.42U	0.42U
Chlorobenzene	ug/l	0.63U	0.63U	0.63U
Chloroethane	ug/l	0.80U	0.80U	0.80U
Chloroform	ug/l	0.90U	0.90U	0.90U
Chloromethane	ug/l	0.64U	0.64U	0.64U
2-Chlorotoluene	ug/l	0.65U	0.65U	0.65U
4-Chlorotoluene	ug/l	0.52U	0.52U	0.52U
Dibromochloromethane	ug/l	0.34U	0.34U	0.34U
1,2-Dibromo-3-chloropropane	ug/l	0.74U	0.74U	0.74U
1,2-Dibromoethane (EDB)	ug/l	0.50U	0.50U	0.50U
Dibromomethane	ug/l	0.41U	0.41U	0.41U
1,2-Dichlorobenzene	ug/l	0.44U	0.44U	0.44U
1,3-Dichlorobenzene	ug/l	0.64U	0.64U	0.64U
1,4-Dichlorobenzene	ug/l	0.52U	0.52U	0.52U
Dichlorodifluoromethane	ug/l	0.40U	0.40U	0.40U
1,1-Dichloroethane	ug/l	0.52U	7.2	0.52U
1,2-Dichloroethane	ug/l	0.57U	0.57U	0.57U
1,1-Dichloroethene	ug/l	0.45U	21	0.45U
cis-1,2-Dichloroethene	ug/l	0.65U	0.89I	0.65U

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20785-5	CEF-57-824A-MW07S-16	Liquid	02/15/05	02/14/05 10:45	
20785-6	CEF-57-824A-MW08S-16	Liquid	02/15/05	02/14/05 14:25	
20785-7	CEF-57-824A-01SA-16	Liquid	02/15/05	02/14/05 15:05	

Parameter	Units	Lab Sample IDs 20785-5	20785-6	20785-7
Volatiles by GC/MS (8260)				
trans-1,2-Dichloroethene	ug/l	0.44U	0.44U	0.44U
1,2-Dichloropropane	ug/l	0.52U	0.52U	0.52U
1,3-Dichloropropane	ug/l	0.39U	0.39U	0.39U
2,2-Dichloropropane	ug/l	0.36U	0.36U	0.36U
1,1-Dichloropropylene	ug/l	0.31U	0.31U	0.31U
cis-1,3-Dichloropropene	ug/l	0.14U	0.14U	0.14U
trans-1,3-Dichloropropene	ug/l	0.14U	0.14U	0.14U
Ethylbenzene	ug/l	1.4	0.83U	0.83U
Hexachlorobutadiene	ug/l	0.46U	0.46U	0.46U
Isopropylbenzene	ug/l	1.6	0.19U	0.19U
p-Cymene	ug/l	0.69U	0.69U	0.69U
Methylene chloride (Dichloromethane)	ug/l	1.0U	1.0U	1.0U
Naphthalene	ug/l	20	1.2	0.94U
n-Propylbenzene	ug/l	1.3	0.59U	0.59U
Styrene	ug/l	0.98U	0.98U	0.98U
1,1,1,2-Tetrachloroethane	ug/l	0.63U	0.63U	0.63U
1,1,2,2-Tetrachloroethane	ug/l	0.14U	0.14U	0.14U
Tetrachloroethene	ug/l	0.34U	0.34U	0.34U
Toluene	ug/l	0.51U	0.51U	0.51U
1,2,3-Trichlorobenzene	ug/l	0.77U	0.77U	0.77U
1,2,4-Trichlorobenzene	ug/l	0.58U	0.58U	0.58U
1,1,1-Trichloroethane	ug/l	0.46U	0.46U	0.46U
1,1,2-Trichloroethane	ug/l	0.47U	0.47U	0.47U
Trichloroethene	ug/l	2.6	0.41I	0.28U
Trichlorofluoromethane	ug/l	0.98U	0.98U	0.98U
1,2,3-Trichloropropane	ug/l	0.15U	0.15U	0.15U
1,2,4-Trimethylbenzene	ug/l	14	0.96I	0.86U

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Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20785-5	CEF-57-824A-MW07S-16	Liquid	02/15/05	02/14/05 10:45	
20785-6	CEF-57-824A-MW08S-16	Liquid	02/15/05	02/14/05 14:25	
20785-7	CEF-57-824A-01SA-16	Liquid	02/15/05	02/14/05 15:05	

Parameter	Units	Lab Sample IDs 20785-5	20785-6	20785-7
Volatiles by GC/MS (8260)				
1,3,5-Trimethylbenzene	ug/l	0.54U	0.54U	0.54U
Vinyl chloride	ug/l	0.50U	0.50U	0.50U
o-Xylene	ug/l	0.78U	1.5	0.78U
m&p-Xylene	ug/l	0.74U	0.74U	0.74U
Acetone	ug/l	9.9U	9.9U	9.9U
2-Butanone (MEK)	ug/l	8.4U	8.4U	8.4U
4-Methyl-2-pentanone (MIBK)	ug/l	3.8U	3.8U	3.8U
Carbon disulfide	ug/l	0.85U	0.85U	0.85U
2-Hexanone	ug/l	4.4U	4.4U	4.4U
Methyl t-butyl ether (MTBE)	ug/l	0.88U	0.88U	0.88U
Surrogate - Toluene-d8 *	%	92 %	92 %	90 %
Surrogate - 4-Bromofluorobenzene *	%	94 %	90 %	98 %
Surrogate - Dibromofluoromethane *	%	96 %	100 %	96 %
Analysis Date		02/17/05	02/17/05	02/17/05
Polynuclear Aromatics (8310)				
Acenaphthene	ug/l	0.20U	0.20U	0.20U
Acenaphthylene	ug/l	0.12U	0.12U	0.12U
Anthracene	ug/l	0.0028U	0.0028U	0.0028U
Benzo(a)anthracene	ug/l	0.016U	0.016U	0.016U
Benzo(a)pyrene	ug/l	0.0074U	0.0074U	0.0074U
Benzo(b)fluoranthene	ug/l	0.025I	0.0040U	0.0040U
Benzo(g,h,i)perylene	ug/l	0.065I	0.014U	0.014U
Benzo(k)fluoranthene	ug/l	0.034I	0.0051U	0.0051U
Chrysene	ug/l	0.041I	0.011U	0.011U

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20785-6	CEF-57-824A-MW08S-16	Liquid	02/15/05	02/14/05 14:25	
20785-7	CEF-57-824A-01SA-16	Liquid	02/15/05	02/14/05 15:05	

		Lab Sample IDs		
Parameter	Units	20785-5	20785-6	20785-7
Polynuclear Aromatics (8310)				
Dibenzo(a,h)anthracene	ug/l	0.19I	0.031U	0.031U
Fluoranthene	ug/l	0.015U	0.015U	0.015U
Fluorene	ug/l	0.019U	0.019U	0.072I
Indeno(1,2,3-cd)pyrene	ug/l	0.081I	0.0079U	0.0079U
Naphthalene	ug/l	0.084U	0.31I	0.084U
Phenanthrene	ug/l	0.0093U	0.0093U	0.10IP
Pyrene	ug/l	0.020U	0.020U	0.020U
1-Methylnaphthalene	ug/l	0.12U	0.12U	0.40I
2-Methylnaphthalene	ug/l	0.13U	0.13U	0.59I
Surrogate - Terphenyl-d14 *	%	80 %	72 %	88 %
Prep Date		02/17/05	02/17/05	02/17/05
Analysis Date		02/22/05	02/22/05	02/22/05
Total Organic Carbon (415.1)				
Total Organic Carbon	mg/l	7.4	15	6.0
Analysis Date		02/18/05	02/18/05	02/18/05
Dissolved Gases (SOP AR30)				
Methane, Dissolved	ug/l	270	1500	17
Ethane, Dissolved	ug/l	0.35U	0.35U	0.35U
Ethene, Dissolved	ug/l	0.33U	0.33U	0.33U
Prep Date		02/23/05	02/23/05	02/23/05
Analysis Date		02/23/05	02/23/05	02/23/05

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20785-6	CEF-57-824A-MW08S-16	Liquid	02/15/05	02/14/05 14:25	
20785-7	CEF-57-824A-01SA-16	Liquid	02/15/05	02/14/05 15:05	

Parameter	Units	Lab Sample IDs 20785-5	20785-6	20785-7
Sulfide (376.1)				
Sulfide	mg/l	1.4	2.6	1.0U
Analysis Date		02/18/05	02/18/05	02/18/05
Iron (Dissolved) (6010)				
Iron (Dissolved)	mg/l	0.26	0.43	0.037U
Prep Date		02/15/05	02/15/05	02/15/05
Analysis Date		02/16/05	02/16/05	02/16/05
Alkalinity (to pH 4.5) as CaCO3 (310.1)				
Alkalinity (to pH 4.5) as CaCO3	mg/l	2.0	1.0U	10
Analysis Date		02/22/05	02/22/05	02/22/05
Nitrite-N (353.2)				
Nitrite-N	mg/l	0.010U	0.010U	0.010U
Analysis Date		02/16/05	02/16/05	02/16/05
Nitrate-N (353.2)				
Nitrate-N	mg/l	0.010U	0.010U	0.029I
Analysis Date		02/16/05	02/16/05	02/16/05

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Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20785-5	CEF-57-824A-MW07S-16	Liquid	02/15/05	02/14/05 10:45	
20785-6	CEF-57-824A-MW08S-16	Liquid	02/15/05	02/14/05 14:25	
20785-7	CEF-57-824A-01SA-16	Liquid	02/15/05	02/14/05 15:05	

Parameter	Units	Lab Sample IDs 20785-5	20785-6	20785-7
Ortho Phosphate-P (365.2)				
Ortho Phosphate-P	mg/l	0.009U	0.009U	0.011I
Analysis Date		02/15/05	02/15/05	02/15/05
Sulfate as SO4 (375.4)				
Sulfate as SO4	mg/l	9.2	3.0	24
Analysis Date		02/21/05	02/21/05	02/21/05
Chloride (325.3)				
Chloride	mg/l	4.9	7.7	8.2
Analysis Date		02/21/05	02/21/05	02/21/05

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Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20785-8	CEF-57-TB-021405	Liquid	02/15/05	02/14/05	

Parameter	Units	Lab Sample IDs 20785-8
Volatiles by GC/MS (8260)		
Benzene	ug/l	0.27U
Bromobenzene	ug/l	0.58U
Bromochloromethane	ug/l	0.58U
Bromodichloromethane	ug/l	0.35U
Bromoform	ug/l	0.58U
Bromomethane (Methyl bromide)	ug/l	0.66U
n-Butylbenzene	ug/l	0.67U
sec-Butylbenzene	ug/l	0.63U
tert-Butylbenzene	ug/l	0.84U
Carbon tetrachloride	ug/l	0.42U
Chlorobenzene	ug/l	0.63U
Chloroethane	ug/l	0.80U
Chloroform	ug/l	0.90U
Chloromethane	ug/l	0.64U
2-Chlorotoluene	ug/l	0.65U
4-Chlorotoluene	ug/l	0.52U
Dibromochloromethane	ug/l	0.34U
1,2-Dibromo-3-chloropropane	ug/l	0.74U
1,2-Dibromoethane (EDB)	ug/l	0.50U
Dibromomethane	ug/l	0.41U
1,2-Dichlorobenzene	ug/l	0.44U
1,3-Dichlorobenzene	ug/l	0.64U
1,4-Dichlorobenzene	ug/l	0.52U
Dichlorodifluoromethane	ug/l	0.40U
1,1-Dichloroethane	ug/l	0.52U
1,2-Dichloroethane	ug/l	0.57U
1,1-Dichloroethene	ug/l	0.45U
cis-1,2-Dichloroethene	ug/l	0.65U
trans-1,2-Dichloroethene	ug/l	0.44U
1,2-Dichloropropane	ug/l	0.52U

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Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20785-8	CEF-57-TB-021405	Liquid	02/15/05	02/14/05	

Parameter	Units	Lab Sample IDs 20785-8
Volatiles by GC/MS (8260)		
1,3-Dichloropropane	ug/l	0.39U
2,2-Dichloropropane	ug/l	0.36U
1,1-Dichloropropylene	ug/l	0.31U
cis-1,3-Dichloropropene	ug/l	0.14U
trans-1,3-Dichloropropene	ug/l	0.14U
Ethylbenzene	ug/l	0.83U
Hexachlorobutadiene	ug/l	0.46U
Isopropylbenzene	ug/l	0.19U
p-Cymene	ug/l	0.69U
Methylene chloride (Dichloromethane)	ug/l	1.0U
Naphthalene	ug/l	0.94U
n-Propylbenzene	ug/l	0.59U
Styrene	ug/l	0.98U
1,1,1,2-Tetrachloroethane	ug/l	0.63U
1,1,2,2-Tetrachloroethane	ug/l	0.14U
Tetrachloroethene	ug/l	0.34U
Toluene	ug/l	0.51U
1,2,3-Trichlorobenzene	ug/l	0.77U
1,2,4-Trichlorobenzene	ug/l	0.58U
1,1,1-Trichloroethane	ug/l	0.46U
1,1,2-Trichloroethane	ug/l	0.47U
Trichloroethene	ug/l	0.28U
Trichlorofluoromethane	ug/l	0.98U
1,2,3-Trichloropropane	ug/l	0.15U
1,2,4-Trimethylbenzene	ug/l	0.86U
1,3,5-Trimethylbenzene	ug/l	0.54U
Vinyl chloride	ug/l	0.50U
o-Xylene	ug/l	0.78U
m&p-Xylene	ug/l	0.74U

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Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20785-8	CEF-57-TB-021405	Liquid	02/15/05	02/14/05	

Parameter	Units	Lab Sample IDs 20785-8
Volatiles by GC/MS (8260)		
Acetone	ug/l	9.9U
2-Butanone (MEK)	ug/l	8.4U
4-Methyl-2-pentanone (MIBK)	ug/l	3.8U
Carbon disulfide	ug/l	0.85U
2-Hexanone	ug/l	4.4U
Methyl t-butyl ether (MTBE)	ug/l	0.88U
Surrogate - Toluene-d8 *	%	90 %
Surrogate - 4-Bromofluorobenzene *	%	90 %
Surrogate - Dibromofluoromethane *	%	96 %
Analysis Date		02/17/05

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Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20785-9	Method Blank	Liquid	02/15/05		
20785-10	Accuracy (%Rec)	Liquid	02/15/05		
20785-11	LCS Accuracy Control Limit (%R)	Liquid	02/15/05		
20785-12	Precision (%RPD)	Liquid	02/15/05		
20785-13	LCS Precision Control Limit (Advisory) %RPD	Liquid	02/15/05		

Parameter	Units	Lab Sample IDs 20785-9	20785-10	20785-11	20785-12	20785-13
Volatiles by GC/MS (8260)						
Benzene	ug/l	0.27U	98 %	62-135 %	4.1 %	<37 %
Bromobenzene	ug/l	0.58U				
Bromochloromethane	ug/l	0.58U				
Bromodichloromethane	ug/l	0.35U				
Bromoform	ug/l	0.58U				
Bromomethane (Methyl bromide)	ug/l	0.66U				
n-Butylbenzene	ug/l	0.67U				
sec-Butylbenzene	ug/l	0.63U				
tert-Butylbenzene	ug/l	0.84U				
Carbon tetrachloride	ug/l	0.42U				
Chlorobenzene	ug/l	0.63U	96 %	72-127 %	8.3 %	<22 %
Chloroethane	ug/l	0.80U				
Chloroform	ug/l	0.90U				
Chloromethane	ug/l	0.64U				
2-Chlorotoluene	ug/l	0.65U				
4-Chlorotoluene	ug/l	0.52U				
Dibromochloromethane	ug/l	0.34U				
1,2-Dibromo-3-chloropropane	ug/l	0.74U				
1,2-Dibromoethane (EDB)	ug/l	0.50U				
Dibromomethane	ug/l	0.41U				
1,2-Dichlorobenzene	ug/l	0.44U				
1,3-Dichlorobenzene	ug/l	0.64U				
1,4-Dichlorobenzene	ug/l	0.52U				
Dichlorodifluoromethane	ug/l	0.40U				
1,1-Dichloroethane	ug/l	0.52U				
1,2-Dichloroethane	ug/l	0.57U				

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Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20785-9	Method Blank	Liquid	02/15/05		
20785-10	Accuracy (%Rec)	Liquid	02/15/05		
20785-11	LCS Accuracy Control Limit (%R)	Liquid	02/15/05		
20785-12	Precision (%RPD)	Liquid	02/15/05		
20785-13	LCS Precision Control Limit (Advisory) %RPD	Liquid	02/15/05		

Parameter	Units	Lab Sample IDs 20785-9	20785-10	20785-11	20785-12	20785-13
Volatiles by GC/MS (8260)						
1,1-Dichloroethene	ug/l	0.45U	98 %	46-147 %	0 %	<30 %
cis-1,2-Dichloroethene	ug/l	0.65U				
trans-1,2-Dichloroethene	ug/l	0.44U				
1,2-Dichloropropane	ug/l	0.52U				
1,3-Dichloropropane	ug/l	0.39U				
2,2-Dichloropropane	ug/l	0.36U				
1,1-Dichloropropylene	ug/l	0.31U				
cis-1,3-Dichloropropene	ug/l	0.14U				
trans-1,3-Dichloropropene	ug/l	0.14U				
Ethylbenzene	ug/l	0.83U				
Hexachlorobutadiene	ug/l	0.46U				
Isopropylbenzene	ug/l	0.19U				
p-Cymene	ug/l	0.69U				
Methylene chloride (Dichloromethane)	ug/l	1.0U				
Naphthalene	ug/l	0.94U				
n-Propylbenzene	ug/l	0.59U				
Styrene	ug/l	0.98U				
1,1,1,2-Tetrachloroethane	ug/l	0.63U				
1,1,2,2-Tetrachloroethane	ug/l	0.14U				
Tetrachloroethene	ug/l	0.34U				
Toluene	ug/l	0.51U	94 %	68-131 %	4.2 %	<33 %
1,2,3-Trichlorobenzene	ug/l	0.77U				
1,2,4-Trichlorobenzene	ug/l	0.58U				
1,1,1-Trichloroethane	ug/l	0.46U				
1,1,2-Trichloroethane	ug/l	0.47U				

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20785-9	Method Blank	Liquid	02/15/05		
20785-10	Accuracy (%Rec)	Liquid	02/15/05		
20785-11	LCS Accuracy Control Limit (%R)	Liquid	02/15/05		
20785-12	Precision (%RPD)	Liquid	02/15/05		
20785-13	LCS Precision Control Limit (Advisory) %RPD	Liquid	02/15/05		

Parameter	Units	Lab Sample IDs 20785-9	20785-10	20785-11	20785-12	20785-13
Volatiles by GC/MS (8260)						
Trichloroethene	ug/l	0.28U	100 %	56-143 %	0 %	<35 %
Trichlorofluoromethane	ug/l	0.98U				
1,2,3-Trichloropropane	ug/l	0.15U				
1,2,4-Trimethylbenzene	ug/l	0.86U				
1,3,5-Trimethylbenzene	ug/l	0.54U				
Vinyl chloride	ug/l	0.50U				
o-Xylene	ug/l	0.78U				
m&p-Xylene	ug/l	0.74U				
Acetone	ug/l	9.9U				
2-Butanone (MEK)	ug/l	8.4U				
4-Methyl-2-pentanone (MIBK)	ug/l	3.8U				
Carbon disulfide	ug/l	0.85U				
2-Hexanone	ug/l	4.4U				
Methyl t-butyl ether (MTBE)	ug/l	0.88U				
Surrogate - Toluene-d8 *	%	98 %	94/90 %	77-122 %		
Surrogate - 4-Bromofluorobenzene *	%	96 %	92/90 %	74-126 %		
Surrogate - Dibromofluoromethane *	%	106 %	100/96 %	70-130 %		
Analysis Date		02/17/05	02/17/05		02/17/05	

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20785-9	Method Blank	Liquid	02/15/05		
20785-10	Accuracy (%Rec)	Liquid	02/15/05		
20785-11	LCS Accuracy Control Limit (%R)	Liquid	02/15/05		
20785-12	Precision (%RPD)	Liquid	02/15/05		
20785-13	LCS Precision Control Limit (Advisory) %RPD	Liquid	02/15/05		

Parameter	Units	Lab Sample IDs 20785-9	20785-10	20785-11	20785-12	20785-13
Petroleum Range Organics (FL-PRO) (FL-PRO)						
Petroleum Hydrocarbons	mg/l	0.10U	83 %	55-118 %	4.4 %	<20 %
Surrogate, o-Terphenyl *	%	100 %	94/96 %	38-156 %		
Prep Date		02/18/05	02/18/05		02/18/05	
Analysis Date		02/23/05	02/23/05		02/23/05	
Total Organic Carbon (415.1)						
Total Organic Carbon	mg/l	0.53U	85 %	80-120 %	19 %	<25 %
Analysis Date		02/18/05	02/18/05		02/18/05	
Dissolved Gases (SOP AR30)						
Methane, Dissolved	ug/l	0.19U	87 %	75-125 %	0 %	<30 %
Ethane, Dissolved	ug/l	0.35U	97 %	75-125 %	0 %	<30 %
Ethene, Dissolved	ug/l	0.33U	98 %	75-125 %	3.9 %	<30 %
Prep Date		02/23/05	02/23/05		02/23/05	
Analysis Date		02/23/05	02/23/05		02/23/05	
Sulfide (376.1)						
Sulfide	mg/l	1.0U	94 %	75-125 %	1.7 %	<30 %
Analysis Date		02/18/05	02/18/05		02/18/05	

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20785-9	Method Blank	Liquid	02/15/05		
20785-10	Accuracy (%Rec)	Liquid	02/15/05		
20785-11	LCS Accuracy Control Limit (%R)	Liquid	02/15/05		
20785-12	Precision (%RPD)	Liquid	02/15/05		
20785-13	LCS Precision Control Limit (Advisory) %RPD	Liquid	02/15/05		

Parameter	Units	Lab Sample IDs 20785-9	20785-10	20785-11	20785-12	20785-13
Iron (Dissolved) (6010)						
Iron (Dissolved)	mg/l	0.037U	102 %	75-125 %	5.2 %	<20 %
Prep Date		02/15/05	02/15/05		02/15/05	
Analysis Date		02/16/05	02/16/05		02/16/05	
Alkalinity (to pH 4.5) as CaCO3 (310.1)						
Alkalinity (to pH 4.5) as CaCO3	mg/l	1.0U	105 %	80-120 %	0.81 %	<30 %
Analysis Date		02/22/05	02/22/05		02/22/05	
Nitrite-N (353.2)						
Nitrite-N	mg/l	0.010U	100 %	80-120 %	6.2 %	<30 %
Analysis Date		02/16/05	02/16/05		02/16/05	
Nitrate-N (353.2)						
Nitrate-N	mg/l	0.010U	101 %	80-120 %	0.80 %	<30 %
Analysis Date		02/16/05	02/16/05		02/16/05	
Ortho Phosphate-P (365.2)						
Ortho Phosphate-P	mg/l	0.009U	101 %	90-110 %	0.33 %	<30 %
Analysis Date		02/15/05	02/15/05		02/15/05	

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20785-9	Method Blank	Liquid	02/15/05		
20785-10	Accuracy (%Rec)	Liquid	02/15/05		
20785-11	LCS Accuracy Control Limit (%R)	Liquid	02/15/05		
20785-12	Precision (%RPD)	Liquid	02/15/05		
20785-13	LCS Precision Control Limit (Advisory) %RPD	Liquid	02/15/05		

Parameter	Units	Lab Sample IDs 20785-9	20785-10	20785-11	20785-12	20785-13
Sulfate as SO4 (375.4)						
Sulfate as SO4	mg/l	1.7U	97 %	75-125 %	2.1 %	<30 %
Analysis Date		02/21/05	02/21/05		02/21/05	
Chloride (325.3)						
Chloride	mg/l	0.90U	102 %	90-110 %	6.1 %	<30 %
Analysis Date		02/21/05	02/21/05		02/21/05	
Polynuclear Aromatics (8310)						
Acenaphthene	ug/l	0.20U	84 %	43-130 %	0 %	<30 %
Acenaphthylene	ug/l	0.12U	88 %	42-125 %	0 %	<30 %
Anthracene	ug/l	0.0028U	68 %	33-125 %	0 %	<30 %
Benzo(a)anthracene	ug/l	0.016U	90 %	39-135 %	4.5 %	<30 %
Benzo(a)pyrene	ug/l	0.0074U	92 %	39-135 %	2.2 %	<30 %
Benzo(b)fluoranthene	ug/l	0.0040U	94 %	31-137 %	2.2 %	<30 %
Benzo(g,h,i)perylene	ug/l	0.014U	92 %	44-125 %	8.7 %	<30 %
Benzo(k)fluoranthene	ug/l	0.0051U	90 %	60-129 %	0 %	<30 %
Chrysene	ug/l	0.011U	94 %	59-134 %	4.3 %	<30 %
Dibenzo(a,h)anthracene	ug/l	0.031U	51 %	51-125 %	12 %	<30 %
Fluoranthene	ug/l	0.015U	92 %	42-125 %	8.7 %	<30 %
Fluorene	ug/l	0.019U	78 %	31-125 %	0 %	<30 %
Indeno(1,2,3-cd)pyrene	ug/l	0.0079U	88 %	55-125 %	21 %	<30 %
Naphthalene	ug/l	0.084U	72 %	21-125 %	0 %	<30 %
Phenanthrene	ug/l	0.0093U	81 %	52-129 %	5.3 %	<30 %
Pyrene	ug/l	0.020U	92 %	38-137 %	0 %	<30 %

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Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20785-9	Method Blank	Liquid	02/15/05		
20785-10	Accuracy (%Rec)	Liquid	02/15/05		
20785-11	LCS Accuracy Control Limit (%R)	Liquid	02/15/05		
20785-12	Precision (%RPD)	Liquid	02/15/05		
20785-13	LCS Precision Control Limit (Advisory) %RPD	Liquid	02/15/05		

		Lab Sample IDs				
Parameter	Units	20785-9	20785-10	20785-11	20785-12	20785-13
Polynuclear Aromatics (8310)						
1-Methylnaphthalene	ug/l	0.12U	76 %	45-125 %	0 %	<30 %
2-Methylnaphthalene	ug/l	0.13U	72 %	46-125 %	5.4 %	<30 %
Surrogate - Terphenyl-d14 *	%	80 %	100 %	30-130 %		
Prep Date		02/17/05	02/17/05			
Analysis Date		02/22/05	02/22/05			

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Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20785-14	Practical Quantitation Limit (PQL)	Liquid	02/15/05		
20785-15	Method Detection Limit (MDL)	Liquid	02/15/05		

Parameter	Units	Lab Sample IDs 20785-14	20785-15
Volatiles by GC/MS (8260)			
Benzene	ug/l	1.0	0.27
Bromobenzene	ug/l	1.0	0.58
Bromochloromethane	ug/l	1.0	0.58
Bromodichloromethane	ug/l	1.0	0.35
Bromoform	ug/l	1.0	0.58
Bromomethane (Methyl bromide)	ug/l	1.0	0.66
n-Butylbenzene	ug/l	1.0	0.67
sec-Butylbenzene	ug/l	1.0	0.63
tert-Butylbenzene	ug/l	1.0	0.84
Carbon tetrachloride	ug/l	1.0	0.42
Chlorobenzene	ug/l	1.0	0.63
Chloroethane	ug/l	1.0	0.80
Chloroform	ug/l	1.0	0.90
Chloromethane	ug/l	1.0	0.64
2-Chlorotoluene	ug/l	1.0	0.65
4-Chlorotoluene	ug/l	1.0	0.52
Dibromochloromethane	ug/l	1.0	0.34
1,2-Dibromo-3-chloropropane	ug/l	1.0	0.74
1,2-Dibromoethane (EDB)	ug/l	1.0	0.50
Dibromomethane	ug/l	1.0	0.41
1,2-Dichlorobenzene	ug/l	1.0	0.44
1,3-Dichlorobenzene	ug/l	1.0	0.64
1,4-Dichlorobenzene	ug/l	1.0	0.52
Dichlorodifluoromethane	ug/l	1.0	0.40
1,1-Dichloroethane	ug/l	1.0	0.52
1,2-Dichloroethane	ug/l	1.0	0.57
1,1-Dichloroethene	ug/l	1.0	0.45
cis-1,2-Dichloroethene	ug/l	1.0	0.65
trans-1,2-Dichloroethene	ug/l	1.0	0.44

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Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20785-14	Practical Quantitation Limit (PQL)	Liquid	02/15/05		
20785-15	Method Detection Limit (MDL)	Liquid	02/15/05		

Parameter	Units	Lab Sample IDs 20785-14	20785-15
Volatiles by GC/MS (8260)			
1,2-Dichloropropane	ug/l	1.0	0.52
1,3-Dichloropropane	ug/l	1.0	0.39
2,2-Dichloropropane	ug/l	1.0	0.36
1,1-Dichloropropylene	ug/l	1.0	0.31
cis-1,3-Dichloropropene	ug/l	1.0	0.14
trans-1,3-Dichloropropene	ug/l	1.0	0.14
Ethylbenzene	ug/l	1.0	0.83
Hexachlorobutadiene	ug/l	1.0	0.46
Isopropylbenzene	ug/l	1.0	0.19
p-Cymene	ug/l	1.0	0.69
Methylene chloride (Dichloromethane)	ug/l	5.0	1.0
Naphthalene	ug/l	1.0	0.94
n-Propylbenzene	ug/l	1.0	0.59
Styrene	ug/l	1.0	0.98
1,1,1,2-Tetrachloroethane	ug/l	1.0	0.63
1,1,2,2-Tetrachloroethane	ug/l	1.0	0.14
Tetrachloroethene	ug/l	1.0	0.34
Toluene	ug/l	1.0	0.51
1,2,3-Trichlorobenzene	ug/l	1.0	0.77
1,2,4-Trichlorobenzene	ug/l	1.0	0.58
1,1,1-Trichloroethane	ug/l	1.0	0.46
1,1,2-Trichloroethane	ug/l	1.0	0.47
Trichloroethene	ug/l	1.0	0.28
Trichlorofluoromethane	ug/l	1.0	0.98
1,2,3-Trichloropropane	ug/l	1.0	0.15
1,2,4-Trimethylbenzene	ug/l	1.0	0.86
1,3,5-Trimethylbenzene	ug/l	1.0	0.54
Vinyl chloride	ug/l	1.0	0.50

SEVERN TRENT STL

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Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20785-14	Practical Quantitation Limit (PQL)	Liquid	02/15/05		
20785-15	Method Detection Limit (MDL)	Liquid	02/15/05		

Parameter	Units	Lab Sample IDs 20785-14	20785-15
Volatiles by GC/MS (8260)			
o-Xylene	ug/l	1.0	0.78
m&p-Xylene	ug/l	1.0	0.74
Acetone	ug/l	10	9.9
2-Butanone (MEK)	ug/l	10	8.4
4-Methyl-2-pentanone (MIBK)	ug/l	10	3.8
Carbon disulfide	ug/l	1.0	0.85
2-Hexanone	ug/l	10	4.4
Methyl t-butyl ether (MTBE)	ug/l	1.0	0.88
Petroleum Range Organics (FL-PRO) (FL-PRO)			
Petroleum Hydrocarbons	mg/l	0.30	0.10
Total Organic Carbon (415.1)			
Total Organic Carbon	mg/l	1.0	0.53
Dissolved Gases (SOP AR30)			
Methane, Dissolved	ug/l	0.19U	0.19U
Ethane, Dissolved	ug/l	0.35U	0.35U
Ethene, Dissolved	ug/l	0.33U	0.33U
Sulfide (376.1)			
Sulfide	mg/l	1.0	1.0

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Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20785-14	Practical Quantitation Limit (PQL)	Liquid	02/15/05		
20785-15	Method Detection Limit (MDL)	Liquid	02/15/05		

Parameter	Units	Lab Sample IDs 20785-14	20785-15
Polynuclear Aromatics (8310)			
Acenaphthene	ug/l	1.0	0.20
Acenaphthylene	ug/l	1.0	0.12
Anthracene	ug/l	0.20	0.0028
Benzo(a)anthracene	ug/l	0.20	0.016
Benzo(a)pyrene	ug/l	0.20	0.0074
Benzo(b)fluoranthene	ug/l	0.20	0.0040
Benzo(g,h,i)perylene	ug/l	0.50	0.014
Benzo(k)fluoranthene	ug/l	0.20	0.0051
Chrysene	ug/l	0.20	0.011
Dibenzo(a,h)anthracene	ug/l	0.20	0.031
Fluoranthene	ug/l	0.50	0.015
Fluorene	ug/l	0.50	0.019
Indeno(1,2,3-cd)pyrene	ug/l	0.20	0.0079
Naphthalene	ug/l	1.0	0.084
Phenanthrene	ug/l	0.20	0.0093
Pyrene	ug/l	0.50	0.020
1-Methylnaphthalene	ug/l	1.0	0.12
2-Methylnaphthalene	ug/l	1.0	0.13

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Order Number: B520785

Method: EPA 600/4-79-020,SW-846,FDEP
DOH Certification #E84282

I = The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

U = Indicates that the compound was analyzed for but not detected.

The 8310 analysis subcontracted to
STL Tallahassee, 2846 Industrial Plaza Drive, Tallahassee, FL 32301
Phone #850/878-3994. DOH Certification #E81005.

Dissolved Gases subcontracted to
STL Savannah, 5102 LaRoche Ave., Savannah, GA 31404
Phone #912/354-7858. DOH Certification #E87052

These test results meet all the requirements of NELAC. All questions regarding this test report should be directed to the STL project manager who signed this test report.
The estimated uncertainty associated with these reported results is available upon request.

*F42 = Target compounds were quantitated from a secondary dilution due to analyte abundance in the sample.

Serial Number 17411

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

SEVERN TRENT **STL**

BS20785

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	PROJECT NO.	PROJECT LOCATION (STATE)
CECIL Field	–	FL
SAMPLER'S SIGNATURE	P.O. NUMBER	CONTRACT NO.
[signature]	Cecil-57	–
CLIENT (SITE) PM	CLIENT PHONE	CLIENT FAX
JOE Ferranti	904-384-4119	384-4806
CLIENT NAME	CLIENT E-MAIL	
SZ Group	JFerranti@thesigroup.com	
CLIENT ADDRESS		
4191 San Juan Ave Suite 1A, JAX, FL 32210		
COMPANY CONTRACTING THIS WORK (if applicable)		

PAGE ___ OF ___

STANDARD REPORT DELIVERY ☒

DATE DUE _____

EXPEDITED REPORT DELIVERY (SURCHARGE) ○

DATE DUE _____

NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G) INDICATE	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT,...)	VOCs 8260	PAHs 8310	Alk (310.1) + Anions (300)	Dis. Iron (6010B)	Dis. Sulfate (375.4)	M/E/E (1476/1475)	TOC (415.1)	TRPH (FF/Ro)			REMARKS
								HCl	–	–	HNO_3	Zn Act	HCl	H_2SO_4	H_2SO_4 HCl			
								NUMBER OF CONTAINERS SUBMITTED										
2/14/05	0905	CEF-57-824A-MW035-16	G	X				3	2	1	1	1	3	1	2			
	0955	CEF-57-824A-MW225-16	G	X				3	2	1	1	1	3	1	2			
	1045	CEF-57-824A-MW075-16	G	X				3	2	1	1	1	3	1				
	1230	CEF-57-824A-MW205-16	G	X				3	2	1	1	1	3	1	2			
	1335	CEF-57-824A-MW195-16	G	X				3	2	1	1	1	3	1	2			
	1425	CEF-57-824A-MW085-16	G	X				3	2	1	1	1	3	1				
	1505	CEF-57-824A-015G-16	G	X				3	2	1	1	1	3	1				
2/14/05	—	CEF-57-TB-021405	–					2										

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
[signature]	2-9-05	1500	[signature]	2/14/05	1605	[signature]	2/14/05	1730
RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME
			[signature]	2/14/05	1605			

LABORATORY USE ONLY 40x3

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	CUSTODY SEAL NO.	STL TAMPA LOG NO.	LABORATORY REMARKS
[signature]	2-15-05	1145	YES ☒ NO ○	N/S	BS20785	

STL8240-660 (12/02)

SEVERN TRENT STL

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Analytical Report

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

Order Number: B520799
SDG Number:
Client Project ID:
Project: Cecil Field Site 57
Report Date: 02/28/2005
Sampled By: Client
Sample Received Date: 02/16/2005
Requisition Number:
Purchase Order: CECIL-57

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.

SEVERN TRENT STL

STL Tampa 6712 Benjamin Road, Suite 100 - Tampa FL 33634 Telephone:(813) 885-7427 Fax:(813) 885-7049

Sample Summary

Order: B520799
Date Received: 02/16/2005

Client: The SI Group
Project: Cecil Field Site 57

Client Sample ID	Lab Sample ID	Matrix	Date Sampled
CEF-824A-MW10S-16	B520799*1	Liquid	02/15/2005 12:50
CEF-293-MW11-16	B520799*2	Liquid	02/15/2005 14:05
CEF-824A-MW21I-16	B520799*3	Liquid	02/15/2005 14:45
CEF-824A-MW11S-16	B520799*4	Liquid	02/15/2005 15:30
CEF-824A-MW17I-16	B520799*5	Liquid	02/15/2005 08:05
CEF-824A-MW04S-16	B520799*6	Liquid	02/15/2005 08:50
CEF-293-MW21-16	B520799*7	Liquid	02/15/2005 09:30
CEF-293-MW20-16	B520799*8	Liquid	02/15/2005 10:15
CEF-824A-MW09S-16	B520799*9	Liquid	02/15/2005 12:05

SEVERN TRENT STL

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Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20799-1	CEF-824A-MW10S-16	Liquid	02/16/05	02/15/05 12:50	
20799-2	CEF-293-MW11-16	Liquid	02/16/05	02/15/05 14:05	
20799-3	CEF-824A-MW21I-16	Liquid	02/16/05	02/15/05 14:45	
20799-4	CEF-824A-MW11S-16	Liquid	02/16/05	02/15/05 15:30	

Parameter	Units	Lab Sample IDs 20799-1	20799-2	20799-3	20799-4
Volatiles by GC/MS (8260)					
Benzene	ug/l	0.27U	30	0.94I	0.27U
Bromobenzene	ug/l	0.58U	0.58U	0.58U	0.58U
Bromochloromethane	ug/l	0.58U	0.58U	0.58U	0.58U
Bromodichloromethane	ug/l	0.35U	0.35U	0.35U	0.35U
Bromoform	ug/l	0.58U	0.58U	0.58U	0.58U
Bromomethane (Methyl bromide)	ug/l	0.66U	0.66U	0.66U	0.66U
n-Butylbenzene	ug/l	0.67U	0.67U	1.9	0.67U
sec-Butylbenzene	ug/l	4.0	12	1.4	6.0
tert-Butylbenzene	ug/l	0.84U	1.4	0.84U	0.84U
Carbon tetrachloride	ug/l	0.42U	0.42U	0.42U	0.42U
Chlorobenzene	ug/l	0.63U	0.63U	0.63U	0.63U
Chloroethane	ug/l	0.80U	0.80U	0.80U	0.80U
Chloroform	ug/l	0.90U	0.90U	0.90U	0.90U
Chloromethane	ug/l	0.64U	0.64U	0.64U	0.64U
2-Chlorotoluene	ug/l	0.65U	0.65U	0.65U	0.65U
4-Chlorotoluene	ug/l	0.52U	0.52U	0.52U	0.52U
Dibromochloromethane	ug/l	0.34U	0.34U	0.34U	0.34U
1,2-Dibromo-3-chloropropane	ug/l	0.74U	0.74U	0.74U	0.74U
1,2-Dibromoethane (EDB)	ug/l	0.50U	0.50U	0.50U	0.50U
Dibromomethane	ug/l	0.41U	0.41U	0.41U	0.41U
1,2-Dichlorobenzene	ug/l	0.44U	0.44U	0.44U	0.44U
1,3-Dichlorobenzene	ug/l	0.64U	0.64U	0.64U	0.64U
1,4-Dichlorobenzene	ug/l	0.52U	0.52U	0.52U	0.52U
Dichlorodifluoromethane	ug/l	0.40U	0.40U	0.40U	0.40U
1,1-Dichloroethane	ug/l	1.3	0.52U	0.52U	0.52U
1,2-Dichloroethane	ug/l	0.57U	0.57U	0.57U	0.57U
1,1-Dichloroethene	ug/l	0.45U	0.45U	0.45U	0.45U

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Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20799-1	CEF-824A-MW10S-16	Liquid	02/16/05	02/15/05 12:50	
20799-2	CEF-293-MW11-16	Liquid	02/16/05	02/15/05 14:05	
20799-3	CEF-824A-MW21I-16	Liquid	02/16/05	02/15/05 14:45	
20799-4	CEF-824A-MW11S-16	Liquid	02/16/05	02/15/05 15:30	

Parameter	Units	Lab Sample IDs 20799-1	20799-2	20799-3	20799-4
Volatiles by GC/MS (8260)					
cis-1,2-Dichloroethene	ug/l	5.2	0.65U	0.65U	0.65U
trans-1,2-Dichloroethene	ug/l	0.44U	0.44U	0.44U	0.44U
1,2-Dichloropropane	ug/l	0.52U	0.52U	0.52U	0.52U
1,3-Dichloropropane	ug/l	0.39U	0.39U	0.39U	0.39U
2,2-Dichloropropane	ug/l	0.36U	0.36U	0.36U	0.36U
1,1-Dichloropropylene	ug/l	0.31U	0.31U	0.31U	0.31U
cis-1,3-Dichloropropene	ug/l	0.14U	0.14U	0.14U	0.14U
trans-1,3-Dichloropropene	ug/l	0.14U	0.14U	0.14U	0.14U
Ethylbenzene	ug/l	0.83U	130	11	18
Hexachlorobutadiene	ug/l	0.46U	0.46U	0.46U	0.46U
Isopropylbenzene	ug/l	0.50I	32	2.3	7.9
p-Cymene	ug/l	3.5	9.7	0.69U	4.9
Methylene chloride (Dichloromethane)	ug/l	1.0U	1.0U	1.0U	1.0U
Naphthalene	ug/l	170*F42	240*F42	42	310*F42
n-Propylbenzene	ug/l	2.1	33	2.9	12
Styrene	ug/l	0.98U	0.98U	0.98U	0.98U
1,1,1,2-Tetrachloroethane	ug/l	0.63U	0.63U	0.63U	0.63U
1,1,2,2-Tetrachloroethane	ug/l	0.14U	0.14U	0.14U	0.14U
Tetrachloroethene	ug/l	0.34U	0.34U	0.34U	0.34U
Toluene	ug/l	0.74I	56	0.51U	0.51U
1,2,3-Trichlorobenzene	ug/l	0.77U	0.77U	0.77U	0.77U
1,2,4-Trichlorobenzene	ug/l	0.58U	0.58U	0.58U	0.58U
1,1,1-Trichloroethane	ug/l	0.46U	0.46U	0.46U	0.46U
1,1,2-Trichloroethane	ug/l	0.47U	0.47U	0.47U	0.47U
Trichloroethene	ug/l	0.41I	0.28U	0.28U	0.28U
Trichlorofluoromethane	ug/l	0.98U	0.98U	0.98U	0.98U

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Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20799-1	CEF-824A-MW10S-16	Liquid	02/16/05	02/15/05 12:50	
20799-2	CEF-293-MW11-16	Liquid	02/16/05	02/15/05 14:05	
20799-3	CEF-824A-MW21I-16	Liquid	02/16/05	02/15/05 14:45	
20799-4	CEF-824A-MW11S-16	Liquid	02/16/05	02/15/05 15:30	

Parameter	Units	Lab Sample IDs 20799-1	20799-2	20799-3	20799-4
Volatiles by GC/MS (8260)					
1,2,3-Trichloropropane	ug/l	0.15U	0.15U	0.15U	0.15U
1,2,4-Trimethylbenzene	ug/l	35	220*F42	25	110
1,3,5-Trimethylbenzene	ug/l	7.9	61	6.1	36
Vinyl chloride	ug/l	0.50U	0.50U	0.50U	0.50U
o-Xylene	ug/l	1.3	130	10	24
m&p-Xylene	ug/l	0.79I	380*F42	6.6	17
Acetone	ug/l	20	9.9U	9.9U	9.9U
2-Butanone (MEK)	ug/l	8.4U	8.4U	8.4U	8.4U
4-Methyl-2-pentanone (MIBK)	ug/l	3.9I	3.8U	3.8U	3.8U
Carbon disulfide	ug/l	0.85U	0.85U	0.85U	0.85U
2-Hexanone	ug/l	4.4U	4.4U	4.4U	4.4U
Methyl t-butyl ether (MTBE)	ug/l	0.88U	0.88U	0.88U	0.88U
Surrogate - Toluene-d8 *	%	90 %	92 %	92 %	94 %
Surrogate - 4-Bromofluorobenzene *	%	88 %	98 %	100 %	100 %
Surrogate - Dibromofluoromethane *	%	100 %	96 %	104 %	102 %
Analysis Date		02/25/05	02/25/05	02/25/05	02/25/05
Polynuclear Aromatics (8310)					
Acenaphthene	ug/l	0.20U	0.20U	0.20U	0.20U
Acenaphthylene	ug/l	0.12U	0.12U	0.12U	0.12U
Anthracene	ug/l	0.0028U	0.0036IP	0.0028U	0.0028U
Benzo(a)anthracene	ug/l	0.016U	0.016U	0.016U	0.016U
Benzo(a)pyrene	ug/l	0.0074U	0.0074U	0.0074U	0.0074U
Benzo(b)fluoranthene	ug/l	0.0040U	0.0040U	0.0040U	0.0040U

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Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20799-1	CEF-824A-MW10S-16	Liquid	02/16/05	02/15/05 12:50	
20799-2	CEF-293-MW11-16	Liquid	02/16/05	02/15/05 14:05	
20799-3	CEF-824A-MW21I-16	Liquid	02/16/05	02/15/05 14:45	
20799-4	CEF-824A-MW11S-16	Liquid	02/16/05	02/15/05 15:30	

Parameter	Units	Lab Sample IDs 20799-1	20799-2	20799-3	20799-4
Polynuclear Aromatics (8310)					
Benzo(g,h,i)perylene	ug/l	0.014U	0.014U	0.014U	0.014U
Benzo(k)fluoranthene	ug/l	0.0051U	0.0051U	0.0051U	0.0051U
Chrysene	ug/l	0.011U	0.011U	0.011U	0.011U
Dibenzo(a,h)anthracene	ug/l	0.031U	0.031U	0.031U	0.031U
Fluoranthene	ug/l	0.015U	0.015U	0.015U	0.015U
Fluorene	ug/l	0.066IP	0.18IP	0.029IP	0.35IP
Indeno(1,2,3-cd)pyrene	ug/l	0.0079U	0.0079U	0.0079U	0.0079U
Naphthalene	ug/l	89*F42	160*F42	12	200*F42
Phenanthrene	ug/l	0.0093U	0.0093U	0.0093U	0.0093U
Pyrene	ug/l	0.020U	0.020U	0.020U	0.020U
1-Methylnaphthalene	ug/l	16	62*F42	11	74*F42
2-Methylnaphthalene	ug/l	19	64*F42	14	87*F42
Surrogate - Terphenyl-d14 *	%	64 %	56 %	64 %	76 %
Prep Date		02/18/05	02/18/05	02/18/05	02/18/05
Analysis Date		02/23/05	02/23/05	02/23/05	02/23/05
Petroleum Range Organics (FL-PRO) (FL-PRO)					
Petroleum Hydrocarbons	mg/l	5.3	3.4	0.67	4.8
Surrogate, o-Terphenyl *	%	110 %	91 %	81 %	89 %
Prep Date		02/21/05	02/21/05	02/21/05	02/21/05
Analysis Date		02/23/05	02/23/05	02/23/05	02/23/05

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Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20799-1	CEF-824A-MW10S-16	Liquid	02/16/05	02/15/05 12:50	
20799-2	CEF-293-MW11-16	Liquid	02/16/05	02/15/05 14:05	
20799-3	CEF-824A-MW21I-16	Liquid	02/16/05	02/15/05 14:45	
20799-4	CEF-824A-MW11S-16	Liquid	02/16/05	02/15/05 15:30	

Parameter	Units	Lab Sample IDs 20799-1	20799-2	20799-3	20799-4
Total Organic Carbon (415.1)					
Total Organic Carbon	mg/l	63	24	28	17
Analysis Date		02/18/05	02/21/05	02/21/05	02/18/05
Dissolved Gases (SOP AR30)					
Methane, Dissolved	ug/l	160	680	730	250
Ethane, Dissolved	ug/l	0.35U	0.35U	0.35U	0.35U
Ethene, Dissolved	ug/l	0.33U	0.33U	0.33U	0.33U
Prep Date		02/18/05	02/18/05	02/18/05	02/18/05
Analysis Date		02/18/05	02/18/05	02/18/05	02/18/05
Sulfide (376.1)					
Sulfide	mg/l	3.2	3.0	1.0U	1.4
Analysis Date		02/18/05	02/18/05	02/18/05	02/18/05
Iron (Dissolved) (6010)					
Iron (Dissolved)	mg/l	0.14	0.065	2.9	0.69
Prep Date		02/25/05	02/25/05	02/25/05	02/25/05
Analysis Date		02/26/05	02/26/05	02/26/05	02/26/05

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Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20799-1	CEF-824A-MW10S-16	Liquid	02/16/05	02/15/05 12:50	
20799-2	CEF-293-MW11-16	Liquid	02/16/05	02/15/05 14:05	
20799-3	CEF-824A-MW21I-16	Liquid	02/16/05	02/15/05 14:45	
20799-4	CEF-824A-MW11S-16	Liquid	02/16/05	02/15/05 15:30	

Parameter	Units	Lab Sample IDs 20799-1	20799-2	20799-3	20799-4
Alkalinity (to pH 4.5) as CaCO3 (310.1)					
Alkalinity (to pH 4.5) as CaCO3	mg/l	6.0	20	2.0	10
Analysis Date		02/18/05	02/18/05	02/18/05	02/18/05
Nitrite-N (353.2)					
Nitrite-N	mg/l	0.010U	0.010U	0.010U	0.010U
Analysis Date		02/17/05	02/17/05	02/17/05	02/17/05
Nitrate-N (353.2)					
Nitrate-N	mg/l	0.010U	0.28	0.016I	0.069
Analysis Date		02/17/05	02/17/05	02/17/05	02/17/05
Ortho Phosphate-P (365.2)					
Ortho Phosphate-P	mg/l	0.018I	0.034I	0.009U	0.009U
Analysis Date		02/16/05	02/16/05	02/16/05	02/16/05
Sulfate as SO4 (375.4)					
Sulfate as SO4	mg/l	27	4.7I	2.2I	4.2I
Analysis Date		02/21/05	02/21/05	02/21/05	02/21/05

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Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20799-1	CEF-824A-MW10S-16	Liquid	02/16/05	02/15/05 12:50	
20799-2	CEF-293-MW11-16	Liquid	02/16/05	02/15/05 14:05	
20799-3	CEF-824A-MW21I-16	Liquid	02/16/05	02/15/05 14:45	
20799-4	CEF-824A-MW11S-16	Liquid	02/16/05	02/15/05 15:30	

Parameter	Units	Lab Sample IDs 20799-1	20799-2	20799-3	20799-4
Chloride (325.3)					
Chloride	mg/l	8.5	7.5	4.0	6.0
Analysis Date		02/22/05	02/22/05	02/22/05	02/22/05

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Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20799-5	CEF-824A-MW17I-16	Liquid	02/16/05	02/15/05 08:05	
20799-6	CEF-824A-MW04S-16	Liquid	02/16/05	02/15/05 08:50	
20799-7	CEF-293-MW21-16	Liquid	02/16/05	02/15/05 09:30	
20799-8	CEF-293-MW20-16	Liquid	02/16/05	02/15/05 10:15	
20799-9	CEF-824A-MW09S-16	Liquid	02/16/05	02/15/05 12:05	

Parameter	Units	Lab Sample IDs 20799-5	20799-6	20799-7	20799-8	20799-9
Volatiles by GC/MS (8260)						
Benzene	ug/l	0.31I	55	0.27U	0.29I	0.27U
Bromobenzene	ug/l	0.58U	0.58U	0.58U	0.58U	0.58U
Bromochloromethane	ug/l	0.58U	0.58U	0.58U	0.58U	0.58U
Bromodichloromethane	ug/l	0.35U	0.35U	0.35U	0.35U	0.35U
Bromoform	ug/l	0.58U	0.58U	0.58U	0.58U	0.58U
Bromomethane (Methyl bromide)	ug/l	0.66U	0.66U	0.66U	0.66U	0.66U
n-Butylbenzene	ug/l	0.67U	0.67U	0.67U	0.67U	0.67U
sec-Butylbenzene	ug/l	0.63U	4.4	0.63U	0.63U	0.63U
tert-Butylbenzene	ug/l	0.84U	0.84U	0.84U	0.84U	0.84U
Carbon tetrachloride	ug/l	0.42U	0.42U	0.42U	0.42U	0.42U
Chlorobenzene	ug/l	0.63U	0.63U	0.63U	0.63U	0.63U
Chloroethane	ug/l	0.80U	0.80U	0.80U	0.80U	0.80U
Chloroform	ug/l	0.90U	0.90U	0.90U	0.90U	0.90U
Chloromethane	ug/l	0.64U	0.64U	0.64U	0.64U	0.64U
2-Chlorotoluene	ug/l	0.65U	0.65U	0.65U	0.65U	0.65U
4-Chlorotoluene	ug/l	0.52U	0.52U	0.52U	0.52U	0.52U
Dibromochloromethane	ug/l	0.34U	0.34U	0.34U	0.34U	0.34U
1,2-Dibromo-3-chloropropane	ug/l	0.74U	0.74U	0.74U	0.74U	0.74U
1,2-Dibromoethane (EDB)	ug/l	0.50U	0.50U	0.50U	0.50U	0.50U
Dibromomethane	ug/l	0.41U	0.41U	0.41U	0.41U	0.41U
1,2-Dichlorobenzene	ug/l	0.44U	0.44U	0.44U	0.44U	0.44U
1,3-Dichlorobenzene	ug/l	0.64U	0.64U	0.64U	0.64U	0.64U
1,4-Dichlorobenzene	ug/l	0.52U	0.52U	0.52U	0.52U	0.52U
Dichlorodifluoromethane	ug/l	0.40U	0.40U	0.40U	0.40U	0.40U
1,1-Dichloroethane	ug/l	0.52U	0.52U	0.52U	0.87I	0.63I
1,2-Dichloroethane	ug/l	0.57U	0.57U	0.57U	0.57U	0.57U

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Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20799-5	CEF-824A-MW17I-16	Liquid	02/16/05	02/15/05 08:05	
20799-6	CEF-824A-MW04S-16	Liquid	02/16/05	02/15/05 08:50	
20799-7	CEF-293-MW21-16	Liquid	02/16/05	02/15/05 09:30	
20799-8	CEF-293-MW20-16	Liquid	02/16/05	02/15/05 10:15	
20799-9	CEF-824A-MW09S-16	Liquid	02/16/05	02/15/05 12:05	

Parameter	Units	Lab Sample IDs 20799-5	20799-6	20799-7	20799-8	20799-9
Volatiles by GC/MS (8260)						
1,1-Dichloroethene	ug/l	0.45U	0.45U	0.45U	0.84I	0.45U
cis-1,2-Dichloroethene	ug/l	0.65U	0.65U	0.65U	49	0.65U
trans-1,2-Dichloroethene	ug/l	0.44U	0.44U	0.44U	0.44U	0.44U
1,2-Dichloropropane	ug/l	0.52U	0.52U	0.52U	0.52U	0.52U
1,3-Dichloropropane	ug/l	0.39U	0.39U	0.39U	0.39U	0.39U
2,2-Dichloropropane	ug/l	0.36U	0.36U	0.36U	0.36U	0.36U
1,1-Dichloropropylene	ug/l	0.31U	0.31U	0.31U	0.31U	0.31U
cis-1,3-Dichloropropene	ug/l	0.14U	0.14U	0.14U	0.14U	0.14U
trans-1,3-Dichloropropene	ug/l	0.14U	0.14U	0.14U	0.14U	0.14U
Ethylbenzene	ug/l	0.83U	6.6	0.83U	0.83U	0.83U
Hexachlorobutadiene	ug/l	0.46U	0.46U	0.46U	0.46U	0.46U
Isopropylbenzene	ug/l	0.24I	8.5	0.19U	0.19U	0.19U
p-Cymene	ug/l	0.69U	0.70I	0.69U	0.69U	0.69U
Methylene chloride (Dichloromethane)	ug/l	1.0U	1.0U	1.0U	1.0U	1.0U
Naphthalene	ug/l	7.1	34	0.94U	0.94U	0.94U
n-Propylbenzene	ug/l	0.59U	4.5	0.59U	0.59U	0.59U
Styrene	ug/l	0.98U	0.98U	0.98U	0.98U	0.98U
1,1,1,2-Tetrachloroethane	ug/l	0.63U	0.63U	0.63U	0.63U	0.63U
1,1,2,2-Tetrachloroethane	ug/l	0.14U	0.14U	0.14U	0.14U	0.14U
Tetrachloroethene	ug/l	0.34U	0.34U	0.34U	0.34U	0.34U
Toluene	ug/l	0.51U	0.51U	0.51U	0.51U	0.51U
1,2,3-Trichlorobenzene	ug/l	0.77U	0.77U	0.77U	0.77U	0.77U
1,2,4-Trichlorobenzene	ug/l	0.58U	0.58U	0.58U	0.58U	0.58U
1,1,1-Trichloroethane	ug/l	0.46U	0.46U	0.46U	0.46U	0.46U
1,1,2-Trichloroethane	ug/l	0.47U	0.47U	0.47U	0.47U	0.47U

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Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20799-5	CEF-824A-MW17I-16	Liquid	02/16/05	02/15/05 08:05	
20799-6	CEF-824A-MW04S-16	Liquid	02/16/05	02/15/05 08:50	
20799-7	CEF-293-MW21-16	Liquid	02/16/05	02/15/05 09:30	
20799-8	CEF-293-MW20-16	Liquid	02/16/05	02/15/05 10:15	
20799-9	CEF-824A-MW09S-16	Liquid	02/16/05	02/15/05 12:05	

		Lab Sample IDs				
Parameter	Units	20799-5	20799-6	20799-7	20799-8	20799-9
Volatiles by GC/MS (8260)						
Trichloroethene	ug/l	0.28U	0.28U	0.28U	1.6	0.96I
Trichlorofluoromethane	ug/l	0.98U	0.98U	0.98U	0.98U	0.98U
1,2,3-Trichloropropane	ug/l	0.15U	0.15U	0.15U	0.15U	0.15U
1,2,4-Trimethylbenzene	ug/l	3.2	47	0.86U	0.90I	2.6
1,3,5-Trimethylbenzene	ug/l	0.54U	3.4	0.54U	0.54U	0.54U
Vinyl chloride	ug/l	0.50U	0.50U	0.50U	0.50U	0.50U
o-Xylene	ug/l	0.78U	3.8	0.78U	0.78U	0.78U
m&p-Xylene	ug/l	0.74U	9.9	0.74U	0.74U	0.74U
Acetone	ug/l	9.9U	9.9U	9.9U	9.9U	9.9U
2-Butanone (MEK)	ug/l	8.4U	8.4U	8.4U	8.4U	8.4U
4-Methyl-2-pentanone (MIBK)	ug/l	3.8U	3.8U	3.8U	3.8U	3.8U
Carbon disulfide	ug/l	0.85U	0.85U	0.85U	0.85U	0.85U
2-Hexanone	ug/l	4.4U	4.4U	4.4U	4.4U	4.4U
Methyl t-butyl ether (MTBE)	ug/l	0.88U	0.88U	0.88U	0.88U	0.88U
Surrogate - Toluene-d8 *	%	92 %	90 %	92 %	86 %	94 %
Surrogate - 4-Bromofluorobenzene *	%	96 %	94 %	94 %	84 %	96 %
Surrogate - Dibromofluoromethane *	%	96 %	100 %	98 %	94 %	96 %
Analysis Date		02/25/05	02/25/05	02/25/05	02/25/05	02/25/05

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Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20799-5	CEF-824A-MW17I-16	Liquid	02/16/05	02/15/05 08:05	
20799-6	CEF-824A-MW04S-16	Liquid	02/16/05	02/15/05 08:50	
20799-7	CEF-293-MW21-16	Liquid	02/16/05	02/15/05 09:30	
20799-8	CEF-293-MW20-16	Liquid	02/16/05	02/15/05 10:15	
20799-9	CEF-824A-MW09S-16	Liquid	02/16/05	02/15/05 12:05	

Parameter	Units	Lab Sample IDs 20799-5	20799-6	20799-7	20799-8	20799-9
Polynuclear Aromatics (8310)						
Acenaphthene	ug/l	0.20U	0.20U	0.20U	0.20U	0.20U
Acenaphthylene	ug/l	0.12U	0.12U	0.12U	0.12U	0.12U
Anthracene	ug/l	0.0028U	0.0028U	0.0028U	0.0028U	0.0028U
Benzo(a)anthracene	ug/l	0.016U	0.016U	0.016U	0.016U	0.016U
Benzo(a)pyrene	ug/l	0.0074U	0.0074U	0.0074U	0.0074U	0.0074U
Benzo(b)fluoranthene	ug/l	0.0040U	0.0040U	0.0040U	0.027IP	0.0040U
Benzo(g,h,i)perylene	ug/l	0.014U	0.014U	0.014U	0.067I	0.014U
Benzo(k)fluoranthene	ug/l	0.0051U	0.0051U	0.0051U	0.040I	0.0051U
Chrysene	ug/l	0.011U	0.011U	0.011U	0.033I	0.011U
Dibenzo(a,h)anthracene	ug/l	0.031U	0.031U	0.031U	0.11I	0.031U
Fluoranthene	ug/l	0.015U	0.015U	0.015U	0.015U	0.015U
Fluorene	ug/l	0.019U	0.019U	0.019U	0.019U	0.019U
Indeno(1,2,3-cd)pyrene	ug/l	0.0079U	0.0079U	0.0079U	0.057I	0.0079U
Naphthalene	ug/l	2.5	15	0.084U	0.34I	0.084U
Phenanthrene	ug/l	0.0093U	0.0093U	0.0093U	0.0093U	0.0093U
Pyrene	ug/l	0.020U	0.020U	0.020U	0.020U	0.020U
1-Methylnaphthalene	ug/l	0.30IP	12	0.27IP	0.12U	0.12U
2-Methylnaphthalene	ug/l	0.44I	14	0.45IP	0.13U	0.13U
Surrogate - Terphenyl-d14 *	%	68 %	80 %	84 %	88 %	96 %
Prep Date		02/18/05	02/18/05	02/18/05	02/18/05	02/18/05
Analysis Date		02/23/05	02/23/05	02/23/05	02/23/05	02/23/05

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Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20799-5	CEF-824A-MW17I-16	Liquid	02/16/05	02/15/05 08:05	
20799-6	CEF-824A-MW04S-16	Liquid	02/16/05	02/15/05 08:50	
20799-7	CEF-293-MW21-16	Liquid	02/16/05	02/15/05 09:30	
20799-8	CEF-293-MW20-16	Liquid	02/16/05	02/15/05 10:15	
20799-9	CEF-824A-MW09S-16	Liquid	02/16/05	02/15/05 12:05	

Parameter	Units	Lab Sample IDs 20799-5	20799-6	20799-7	20799-8	20799-9
Total Organic Carbon (415.1)						
Total Organic Carbon	mg/l	17	13	7.8	19	19
Analysis Date		02/18/05	02/18/05	02/18/05	02/18/05	02/18/05
Dissolved Gases (SOP AR30)						
Methane, Dissolved	ug/l	82	150	7.1	320	750
Ethane, Dissolved	ug/l	0.35U	0.35U	0.35U	0.35U	0.35U
Ethene, Dissolved	ug/l	0.33U	0.33U	0.33U	0.33U	0.38
Prep Date		02/18/05	02/18/05	02/21/05	02/21/05	02/21/05
Analysis Date		02/18/05	02/18/05	02/21/05	02/21/05	02/21/05
Sulfide (376.1)						
Sulfide	mg/l	2.9	1.9	1.8	2.4	1.8
Analysis Date		02/18/05	02/18/05	02/18/05	02/18/05	02/18/05
Iron (Dissolved) (6010)						
Iron (Dissolved)	mg/l	5.2	0.28	0.037U	0.64	0.50
Prep Date		02/25/05	02/25/05	02/25/05	02/25/05	02/25/05
Analysis Date		02/26/05	02/26/05	02/26/05	02/26/05	02/26/05

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Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20799-5	CEF-824A-MW17I-16	Liquid	02/16/05	02/15/05 08:05	
20799-6	CEF-824A-MW04S-16	Liquid	02/16/05	02/15/05 08:50	
20799-7	CEF-293-MW21-16	Liquid	02/16/05	02/15/05 09:30	
20799-8	CEF-293-MW20-16	Liquid	02/16/05	02/15/05 10:15	
20799-9	CEF-824A-MW09S-16	Liquid	02/16/05	02/15/05 12:05	

Parameter	Units	Lab Sample IDs 20799-5	20799-6	20799-7	20799-8	20799-9
Alkalinity (to pH 4.5) as CaCO3 (310.1)						
Alkalinity (to pH 4.5) as CaCO3	mg/l	28	6.0	32	30	10
Analysis Date		02/18/05	02/18/05	02/18/05	02/18/05	02/18/05
Nitrite-N (353.2)						
Nitrite-N	mg/l	0.010U	0.010U	0.010U	0.010U	0.010U
Analysis Date		02/17/05	02/17/05	02/17/05	02/17/05	02/17/05
Nitrate-N (353.2)						
Nitrate-N	mg/l	0.010U	0.010U	2.6	0.010U	0.010U
Analysis Date		02/17/05	02/17/05	02/17/05	02/17/05	02/17/05
Ortho Phosphate-P (365.2)						
Ortho Phosphate-P	mg/l	0.010I	0.009U	0.013I	0.015I	0.009U
Analysis Date		02/16/05	02/16/05	02/16/05	02/16/05	02/16/05
Sulfate as SO4 (375.4)						
Sulfate as SO4	mg/l	2.7I	13	40	8.0	3.0I
Analysis Date		02/21/05	02/21/05	02/21/05	02/21/05	02/21/05

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Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20799-5	CEF-824A-MW17I-16	Liquid	02/16/05	02/15/05 08:05	
20799-6	CEF-824A-MW04S-16	Liquid	02/16/05	02/15/05 08:50	
20799-7	CEF-293-MW21-16	Liquid	02/16/05	02/15/05 09:30	
20799-8	CEF-293-MW20-16	Liquid	02/16/05	02/15/05 10:15	
20799-9	CEF-824A-MW09S-16	Liquid	02/16/05	02/15/05 12:05	

Parameter	Units	Lab Sample IDs 20799-5	20799-6	20799-7	20799-8	20799-9
Chloride (325.3)						
Chloride	mg/l	5.0	8.0	9.0	11	5.0
Analysis Date		02/22/05	02/22/05	02/22/05	02/22/05	02/22/05

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Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20799-10	Method Blank	Liquid	02/16/05		
20799-11	Accuracy (%Rec)	Liquid	02/16/05		
20799-12	LCS Accuracy Control Limit (%R)	Liquid	02/16/05		
20799-13	Precision (%RPD)	Liquid	02/16/05		
20799-14	LCS Precision Control Limit (Advisory) %RPD	Liquid	02/16/05		

Parameter	Units	Lab Sample IDs 20799-10	20799-11	20799-12	20799-13	20799-14
Volatiles by GC/MS (8260)						
Benzene	ug/l	0.27U	106 %	62-135 %	7.5 %	<37 %
Bromobenzene	ug/l	0.58U				
Bromochloromethane	ug/l	0.58U				
Bromodichloromethane	ug/l	0.35U				
Bromoform	ug/l	0.58U				
Bromomethane (Methyl bromide)	ug/l	0.66U				
n-Butylbenzene	ug/l	0.67U				
sec-Butylbenzene	ug/l	0.63U				
tert-Butylbenzene	ug/l	0.84U				
Carbon tetrachloride	ug/l	0.42U				
Chlorobenzene	ug/l	0.63U	91 %	72-127 %	11 %	<22 %
Chloroethane	ug/l	0.80U				
Chloroform	ug/l	0.90U				
Chloromethane	ug/l	0.64U				
2-Chlorotoluene	ug/l	0.65U				
4-Chlorotoluene	ug/l	0.52U				
Dibromochloromethane	ug/l	0.34U				
1,2-Dibromo-3-chloropropane	ug/l	0.74U				
1,2-Dibromoethane (EDB)	ug/l	0.50U				
Dibromomethane	ug/l	0.41U				
1,2-Dichlorobenzene	ug/l	0.44U				
1,3-Dichlorobenzene	ug/l	0.64U				
1,4-Dichlorobenzene	ug/l	0.52U				
Dichlorodifluoromethane	ug/l	0.40U				
1,1-Dichloroethane	ug/l	0.52U				
1,2-Dichloroethane	ug/l	0.57U				

SEVERN TRENT STL

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Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20799-10	Method Blank	Liquid	02/16/05		
20799-11	Accuracy (%Rec)	Liquid	02/16/05		
20799-12	LCS Accuracy Control Limit (%R)	Liquid	02/16/05		
20799-13	Precision (%RPD)	Liquid	02/16/05		
20799-14	LCS Precision Control Limit (Advisory) %RPD	Liquid	02/16/05		

Parameter	Units	Lab Sample IDs 20799-10	20799-11	20799-12	20799-13	20799-14
Volatiles by GC/MS (8260)						
1,1-Dichloroethene	ug/l	0.45U	109 %	46-147 %	9.2 %	<30 %
cis-1,2-Dichloroethene	ug/l	0.65U				
trans-1,2-Dichloroethene	ug/l	0.44U				
1,2-Dichloropropane	ug/l	0.52U				
1,3-Dichloropropane	ug/l	0.39U				
2,2-Dichloropropane	ug/l	0.36U				
1,1-Dichloropropylene	ug/l	0.31U				
cis-1,3-Dichloropropene	ug/l	0.14U				
trans-1,3-Dichloropropene	ug/l	0.14U				
Ethylbenzene	ug/l	0.83U				
Hexachlorobutadiene	ug/l	0.46U				
Isopropylbenzene	ug/l	0.19U				
p-Cymene	ug/l	0.69U				
Methylene chloride (Dichloromethane)	ug/l	1.0U				
Naphthalene	ug/l	0.94U				
n-Propylbenzene	ug/l	0.59U				
Styrene	ug/l	0.98U				
1,1,1,2-Tetrachloroethane	ug/l	0.63U				
1,1,2,2-Tetrachloroethane	ug/l	0.14U				
Tetrachloroethene	ug/l	0.34U				
Toluene	ug/l	0.51U	97 %	68-131 %	6.2 %	<33 %
1,2,3-Trichlorobenzene	ug/l	0.77U				
1,2,4-Trichlorobenzene	ug/l	0.58U				
1,1,1-Trichloroethane	ug/l	0.46U				
1,1,2-Trichloroethane	ug/l	0.47U				

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Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20799-10	Method Blank	Liquid	02/16/05		
20799-11	Accuracy (%Rec)	Liquid	02/16/05		
20799-12	LCS Accuracy Control Limit (%R)	Liquid	02/16/05		
20799-13	Precision (%RPD)	Liquid	02/16/05		
20799-14	LCS Precision Control Limit (Advisory) %RPD	Liquid	02/16/05		

Parameter	Units	Lab Sample IDs 20799-10	20799-11	20799-12	20799-13	20799-14
Volatiles by GC/MS (8260)						
Trichloroethene	ug/l	0.28U	101 %	56-143 %	9.9 %	<35 %
Trichlorofluoromethane	ug/l	0.98U				
1,2,3-Trichloropropane	ug/l	0.15U				
1,2,4-Trimethylbenzene	ug/l	0.86U				
1,3,5-Trimethylbenzene	ug/l	0.54U				
Vinyl chloride	ug/l	0.50U				
o-Xylene	ug/l	0.78U				
m&p-Xylene	ug/l	0.74U				
Acetone	ug/l	9.9U				
2-Butanone (MEK)	ug/l	8.4U				
4-Methyl-2-pentanone (MIBK)	ug/l	3.8U				
Carbon disulfide	ug/l	0.85U				
2-Hexanone	ug/l	4.4U				
Methyl t-butyl ether (MTBE)	ug/l	0.88U				
Surrogate - Toluene-d8 *	%	100 %	92/91 %	77-122 %		
Surrogate - 4-Bromofluorobenzene *	%	96 %	94/90 %	74-126 %		
Surrogate - Dibromofluoromethane *	%	102 %	104/105 %	70-130 %		
Analysis Date		02/25/05	02/25/05		02/25/05	

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Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20799-10	Method Blank	Liquid	02/16/05		
20799-11	Accuracy (%Rec)	Liquid	02/16/05		
20799-12	LCS Accuracy Control Limit (%R)	Liquid	02/16/05		
20799-13	Precision (%RPD)	Liquid	02/16/05		
20799-14	LCS Precision Control Limit (Advisory) %RPD	Liquid	02/16/05		

Parameter	Units	Lab Sample IDs 20799-10	20799-11	20799-12	20799-13	20799-14
Petroleum Range Organics (FL-PRO) (FL-PRO)						
Petroleum Hydrocarbons	mg/l	0.10U	74 %	55-118 %	0 %	<20 %
Surrogate, o-Terphenyl *	%	92 %	93/94 %	38-156 %		
Prep Date		02/21/05	02/21/05		02/21/05	
Analysis Date		02/23/05	02/23/05		02/23/05	
Total Organic Carbon (415.1)						
Total Organic Carbon	mg/l	0.53U	85 %	80-120 %	19 %	<25 %
Analysis Date		02/18/05	02/18/05		02/18/05	
Dissolved Gases (SOP AR30)						
Methane, Dissolved	ug/l	0.26	104 %	75-125 %	12 %	<30 %
Ethane, Dissolved	ug/l	0.35U	94 %	75-125 %	16 %	<30 %
Ethene, Dissolved	ug/l	0.22J	106 %	75-125 %	16 %	<30 %
Prep Date		02/18/05	02/18/05		02/18/05	
Analysis Date		02/18/05	02/18/05		02/18/05	
Sulfide (376.1)						
Sulfide	mg/l	1.0U	94 %	75-125 %	1.7 %	<30 %
Analysis Date		02/18/05	02/18/05		02/18/05	

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Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20799-10	Method Blank	Liquid	02/16/05		
20799-11	Accuracy (%Rec)	Liquid	02/16/05		
20799-12	LCS Accuracy Control Limit (%R)	Liquid	02/16/05		
20799-13	Precision (%RPD)	Liquid	02/16/05		
20799-14	LCS Precision Control Limit (Advisory) %RPD	Liquid	02/16/05		

Parameter	Units	Lab Sample IDs 20799-10	20799-11	20799-12	20799-13	20799-14
Iron (Dissolved) (6010)						
Iron (Dissolved)	mg/l	0.037U	99 %	75-125 %	1.9 %	<20 %
Prep Date		02/25/05	02/25/05		02/25/05	
Analysis Date		02/26/05	02/26/05		02/26/05	
Alkalinity (to pH 4.5) as CaCO3 (310.1)						
Alkalinity (to pH 4.5) as CaCO3	mg/l	1.0U	106 %	80-120 %	0.80 %	<30 %
Analysis Date		02/18/05	02/18/05		02/18/05	
Nitrite-N (353.2)						
Nitrite-N	mg/l	0.010U	103 %	80-120 %	6.9 %	<30 %
Analysis Date		02/17/05	02/17/05		02/17/05	
Nitrate-N (353.2)						
Nitrate-N	mg/l	0.010U	96 %	80-120 %	4.0 %	<30 %
Analysis Date		02/17/05	02/17/05		02/17/05	
Ortho Phosphate-P (365.2)						
Ortho Phosphate-P	mg/l	0.009U	101 %	90-110 %	0.33 %	<30 %
Analysis Date		02/16/05	02/16/05		02/16/05	

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Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20799-10	Method Blank	Liquid	02/16/05		
20799-11	Accuracy (%Rec)	Liquid	02/16/05		
20799-12	LCS Accuracy Control Limit (%R)	Liquid	02/16/05		
20799-13	Precision (%RPD)	Liquid	02/16/05		
20799-14	LCS Precision Control Limit (Advisory) %RPD	Liquid	02/16/05		

Parameter	Units	Lab Sample IDs 20799-10	20799-11	20799-12	20799-13	20799-14
Sulfate as S04 (375.4)						
Sulfate as S04	mg/l	1.7U	97 %	75-125 %	2.1 %	<30 %
Analysis Date		02/21/05	02/21/05		02/21/05	
Chloride (325.3)						
Chloride	mg/l	1.0U	100 %	80-120 %	0 %	<25 %
Analysis Date		02/22/05	02/22/05		02/22/05	
Polynuclear Aromatics (8310)						
Acenaphthene	ug/l	0.20U	40 %	43-130 %	45 %	<30 %
Acenaphthylene	ug/l	0.12U	88 %	42-125 %	9.5 %	<30 %
Anthracene	ug/l	0.0028U	72 %	33-125 %	32 %*	<30 %
Benzo(a)anthracene	ug/l	0.016U	88 %	39-135 %	17 %	<30 %
Benzo(a)pyrene	ug/l	0.0074U	94 %	39-135 %	29 %	<30 %
Benzo(b)fluoranthene	ug/l	0.0040U	92 %	31-137 %	9.3 %	<30 %
Benzo(g,h,i)perylene	ug/l	0.014U	100 %	44-125 %	18 %	<30 %
Benzo(k)fluoranthene	ug/l	0.0051U	88 %	60-129 %	12 %	<30 %
Chrysene	ug/l	0.011U	92 %	59-134 %	11 %	<30 %
Dibenzo(a,h)anthracene	ug/l	0.031U	52 %	51-125 %	12 %	<30 %
Fluoranthene	ug/l	0.015U	85 %	42-125 %	14 %	<30 %
Fluorene	ug/l	0.019U	82 %	31-125 %	14 %	<30 %
Indeno(1,2,3-cd)pyrene	ug/l	0.0079U	92 %	55-125 %	15 %	<30 %
Naphthalene	ug/l	0.084U	84 %	21-125 %	15 %	<30 %
Phenanthrene	ug/l	0.0093U	81 %	52-129 %	11 %	<30 %
Pyrene	ug/l	0.020U	92 %	38-137 %	14 %	<30 %

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Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20799-10	Method Blank	Liquid	02/16/05		
20799-11	Accuracy (%Rec)	Liquid	02/16/05		
20799-12	LCS Accuracy Control Limit (%R)	Liquid	02/16/05		
20799-13	Precision (%RPD)	Liquid	02/16/05		
20799-14	LCS Precision Control Limit (Advisory) %RPD	Liquid	02/16/05		

Parameter	Units	Lab Sample IDs 20799-10	20799-11	20799-12	20799-13	20799-14
Polynuclear Aromatics (8310)						
1-Methylnaphthalene	ug/l	0.12U	92 %	45-125 %	19 %	<30 %
2-Methylnaphthalene	ug/l	0.13U	88 %	46-125 %	15 %	<30 %
Surrogate - Terphenyl-d14 *	%	80 %	92 %	30-130 %		
Prep Date		02/18/05	02/18/05			
Analysis Date		02/23/05	02/23/05			

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Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20799-15	Practical Quantitation Limit (PQL)	Liquid	02/16/05		
20799-16	Method Detection Limit (MDL)	Liquid	02/16/05		

Parameter	Units	Lab Sample IDs 20799-15	20799-16
Volatiles by GC/MS (8260)			
Benzene	ug/l	1.0	0.27
Bromobenzene	ug/l	1.0	0.58
Bromochloromethane	ug/l	1.0	0.58
Bromodichloromethane	ug/l	1.0	0.35
Bromoform	ug/l	1.0	0.58
Bromomethane (Methyl bromide)	ug/l	1.0	0.66
n-Butylbenzene	ug/l	1.0	0.67
sec-Butylbenzene	ug/l	1.0	0.63
tert-Butylbenzene	ug/l	1.0	0.84
Carbon tetrachloride	ug/l	1.0	0.42
Chlorobenzene	ug/l	1.0	0.63
Chloroethane	ug/l	1.0	0.80
Chloroform	ug/l	1.0	0.90
Chloromethane	ug/l	1.0	0.64
2-Chlorotoluene	ug/l	1.0	0.65
4-Chlorotoluene	ug/l	1.0	0.52
Dibromochloromethane	ug/l	1.0	0.34
1,2-Dibromo-3-chloropropane	ug/l	1.0	0.74
1,2-Dibromoethane (EDB)	ug/l	1.0	0.50
Dibromomethane	ug/l	1.0	0.41
1,2-Dichlorobenzene	ug/l	1.0	0.44
1,3-Dichlorobenzene	ug/l	1.0	0.64
1,4-Dichlorobenzene	ug/l	1.0	0.52
Dichlorodifluoromethane	ug/l	1.0	0.40
1,1-Dichloroethane	ug/l	1.0	0.52
1,2-Dichloroethane	ug/l	1.0	0.57
1,1-Dichloroethene	ug/l	1.0	0.45
cis-1,2-Dichloroethene	ug/l	1.0	0.65
trans-1,2-Dichloroethene	ug/l	1.0	0.44

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Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20799-15	Practical Quantitation Limit (PQL)	Liquid	02/16/05		
20799-16	Method Detection Limit (MDL)	Liquid	02/16/05		

Parameter	Units	Lab Sample IDs 20799-15	20799-16
Volatiles by GC/MS (8260)			
1,2-Dichloropropane	ug/l	1.0	0.52
1,3-Dichloropropane	ug/l	1.0	0.39
2,2-Dichloropropane	ug/l	1.0	0.36
1,1-Dichloropropylene	ug/l	1.0	0.31
cis-1,3-Dichloropropene	ug/l	1.0	0.14
trans-1,3-Dichloropropene	ug/l	1.0	0.14
Ethylbenzene	ug/l	1.0	0.83
Hexachlorobutadiene	ug/l	1.0	0.46
Isopropylbenzene	ug/l	1.0	0.19
p-Cymene	ug/l	1.0	0.69
Methylene chloride (Dichloromethane)	ug/l	5.0	1.0
Naphthalene	ug/l	1.0	0.94
n-Propylbenzene	ug/l	1.0	0.59
Styrene	ug/l	1.0	0.98
1,1,1,2-Tetrachloroethane	ug/l	1.0	0.63
1,1,2,2-Tetrachloroethane	ug/l	1.0	0.14
Tetrachloroethene	ug/l	1.0	0.34
Toluene	ug/l	1.0	0.51
1,2,3-Trichlorobenzene	ug/l	1.0	0.77
1,2,4-Trichlorobenzene	ug/l	1.0	0.58
1,1,1-Trichloroethane	ug/l	1.0	0.46
1,1,2-Trichloroethane	ug/l	1.0	0.47
Trichloroethene	ug/l	1.0	0.28
Trichlorofluoromethane	ug/l	1.0	0.98
1,2,3-Trichloropropane	ug/l	1.0	0.15
1,2,4-Trimethylbenzene	ug/l	1.0	0.86
1,3,5-Trimethylbenzene	ug/l	1.0	0.54
Vinyl chloride	ug/l	1.0	0.50

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Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20799-15	Practical Quantitation Limit (PQL)	Liquid	02/16/05		
20799-16	Method Detection Limit (MDL)	Liquid	02/16/05		

Parameter	Units	Lab Sample IDs 20799-15	20799-16
Volatiles by GC/MS (8260)			
o-Xylene	ug/l	1.0	0.78
m&p-Xylene	ug/l	1.0	0.74
Acetone	ug/l	10	9.9
2-Butanone (MEK)	ug/l	10	8.4
4-Methyl-2-pentanone (MIBK)	ug/l	10	3.8
Carbon disulfide	ug/l	1.0	0.85
2-Hexanone	ug/l	10	4.4
Methyl t-butyl ether (MTBE)	ug/l	1.0	0.88
Petroleum Range Organics (FL-PRO) (FL-PRO)			
Petroleum Hydrocarbons	mg/l	0.30	0.10
Total Organic Carbon (415.1)			
Total Organic Carbon	mg/l	1.0	0.53
Dissolved Gases (SOP AR30)			
Methane, Dissolved	ug/l	0.19	0.19
Ethane, Dissolved	ug/l	0.35	0.35
Ethene, Dissolved	ug/l	0.33	0.33
Sulfide (376.1)			
Sulfide	mg/l	1.0	1.0

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Analytical Data Report

Lab Sample ID	Description	Matrix	Date Received	Date Sampled	SDG#
20799-15	Practical Quantitation Limit (PQL)	Liquid	02/16/05		
20799-16	Method Detection Limit (MDL)	Liquid	02/16/05		

Parameter	Units	Lab Sample IDs 20799-15	20799-16
Iron (Dissolved) (6010)			
Iron (Dissolved)	mg/l	0.050	0.037
Alkalinity (to pH 4.5) as CaCO3 (310.1)			
Alkalinity (to pH 4.5) as CaCO3	mg/l	1.0	1.0
Nitrite-N (353.2)			
Nitrite-N	mg/l	0.050	0.010
Nitrate-N (353.2)			
Nitrate-N	mg/l	0.050	0.010
Ortho Phosphate-P (365.2)			
Ortho Phosphate-P	mg/l	0.050	0.009
Sulfate as SO4 (375.4)			
Sulfate as SO4	mg/l	5.0	1.7
Chloride (325.3)			
Chloride	mg/l	1.0	1.0

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Analytical Data Report

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20799-15	Practical Quantitation Limit (PQL)	Liquid	02/16/05		
20799-16	Method Detection Limit (MDL)	Liquid	02/16/05		

Parameter	Units	Lab Sample IDs 20799-15	20799-16
Polynuclear Aromatics (8310)			
Acenaphthene	ug/l	1.0	0.20
Acenaphthylene	ug/l	1.0	0.12
Anthracene	ug/l	0.20	0.0028
Benzo(a)anthracene	ug/l	0.20	0.016
Benzo(a)pyrene	ug/l	0.20	0.0074
Benzo(b)fluoranthene	ug/l	0.20	0.0040
Benzo(g,h,i)perylene	ug/l	0.50	0.014
Benzo(k)fluoranthene	ug/l	0.20	0.0051
Chrysene	ug/l	0.20	0.011
Dibenzo(a,h)anthracene	ug/l	0.20	0.031
Fluoranthene	ug/l	0.50	0.015
Fluorene	ug/l	0.50	0.019
Indeno(1,2,3-cd)pyrene	ug/l	0.20	0.0079
Naphthalene	ug/l	1.0	0.084
Phenanthrene	ug/l	0.20	0.0093
Pyrene	ug/l	0.50	0.020
1-Methylnaphthalene	ug/l	1.0	0.12
2-Methylnaphthalene	ug/l	1.0	0.13

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Order Number: B520799

Method: EPA 600/4-79-020,SW-846,FDEP
DOH Certification #E84282

I = The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

U = Indicates that the compound was analyzed for but not detected.

The 8310 analysis subcontracted to
STL Tallahassee, 2846 Industrial Plaza Drive, Tallahassee, FL 32301
Phone #850/878-3994. DOH Certification #E81005.

Dissolved Gases subcontracted to
STL Savannah, 5102 LaRoche Ave., Savannah, GA 31404
Phone #912/354-7858. DOH Certification #E87052

These test results meet all the requirements of NELAC. All questions regarding this test report should be directed to the STL project manager who signed this test report.
The estimated uncertainty associated with these reported results is available upon request.

*F42 = Target compounds were quantitated from a secondary dilution due to analyte abundance in the sample.

P = Identification of target analytes using GC methodology is based on retention time. Although two dissimilar GC columns confirmed the presence of the target analyte in the sample, relative percent difference is >40 %. Thus, viewer discretion should be employed during data review and interpretation of results for this target compound.

Serial Number 17412

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

SEVERN TRENT **STL**

~~660-212~~ B520799

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	PROJECT NO.	PROJECT LOCATION (STATE)
Site 57 Cecil Field	–	FL

SAMPLER'S SIGNATURE	P.O. NUMBER	CONTRACT NO.
[signature]	See attached	See attached

CLIENT (SITE) PM	CLIENT PHONE	CLIENT FAX
JoE Ferranti	904-384-4199	384-4806

CLIENT NAME	CLIENT E-MAIL
SZ Group	jferranti@thesizgroup.com

CLIENT ADDRESS: 4191 San Juan Ave, Suite 2E, Jax, FL 32210

COMPANY CONTRACTING THIS WORK (if applicable):

PAGE 1 OF 1

STANDARD REPORT DELIVERY ○
DATE DUE _____
EXPEDITED REPORT DELIVERY (SURCHARGE) ○
DATE DUE _____
NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G) INDICATE	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT,...)	VOCs 8260	PAHs 8310	Alkalinity 310.1 & 300	Dis. Iron 6010B	Dis. Sulfide 376.1	MEE 147.1 & 175	TOC (415.1)	TPH - FPH			REMARKS
2/15/05	0805	CEF-824A-MW17I-16	G	X				3	2	1	1	1	3	1				
	0850	CEF-824A-MW04S-16		X				3	2	1	1	1	3	1				
	0930	CEF-~~293~~-MW21-16		X				3	2	1	1	1	3	1				
	1015	CEF-293-MW20-16		X				3	2	1	1	1	3	1				
	1205	CEF-824A-MW09S-16		X				3	2	1	1	1	3	1				
	1250	CEF-824A-MW10S-16		X				3	2	1	1	1	3	1	2			
	1405	CEF-293-MW11-16		X				3	2	1	1	1	3	1	2			
	1445	CEF-824A-MW21I-16		X				3	2	1	1	1	3	1	2			
	1530	CEF-824A-MW11S-16		X				3	2	1	1	1	3	1	2			
	–	~~CEF-57-TB-021505~~						~~2~~										

PRESERVATIVE

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
[signature]	2-9-05	1500	[signature]	2/15/05	1620	[signature]	2/15/05	1730

RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME
			[signature]	21505	1620			

EMPTY CONTAINERS

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	CUSTODY SEAL NO.	STL TAMPA LOG NO.	LABORATORY REMARKS
[signature]	2-16-05	1100	YES ○ NO ○		660-212	

STL8240-660 (12/02)

SEVERN TRENT STL

ANALYTICAL REPORT

Job Number: 660-1874.1

Job Description: NAS Cecil Field

For:

The SI Group
4191 San Juan Avenue
Suite 2E
Jacksonville, FL 32210

Attention: Lane Middleton

Tina Fritz
Project Manager I
tfritz@stl-inc.com
05/18/2005

cc: Joe Ferranti

Methods: FDEP, DOH Certification #: E84282 These test results meet all the requirements of NELAC. All questions regarding this test report should be directed to the STL Project Manager who signed this test report. The estimated uncertainty associated with these reported results is available upon request.

Severn Trent Laboratories, Inc.
STL Tampa 6712 Benjamin Road, Suite 100, Tampa, FL 33634
Tel 813-8857427 Fax 813-8857049 www.stl-inc.com

SEVERN TRENT STL

METHOD SUMMARY

Client: The SI Group

Job Number: 660-1874.1

Description	Method	Preparation Method
Matrix: Water		
Volatile Organic Compounds by GC/MS	SW846 8260B	
Purge-and-Trap		SW846 5030B
General Sub Contract Method	Subcontract	

REFERENCES

SW846 - "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

SEVERN TRENT STL

SAMPLE SUMMARY

Client: The SI Group

Job Number: 660-1874.1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
660-1874-1	CEF-824A-MW-19S-16R	Water	05/11/2005 0945	05/12/2005 0800
660-1874-2	TRIP BLANK	Water	05/11/2005 0945	05/12/2005 0800

SEVERN TRENT STL

Analytical Data

Client: The SI Group

Job Number: 660-1874.1

Client Sample ID: **CEF-824A-MW-19S-16R**

Lab Sample ID: 660-1874-1
Client Matrix: Water

Date Sampled: 05/11/2005 0945
Date Received: 05/12/2005 0800

8260B Volatile Organic Compounds by GC/MS

Method: 8260B
Preparation:
Dilution: 1.0
Date Analyzed: 05/18/2005 1041
Date Prepared: 05/18/2005 1041

Analysis Batch: 660-7080

Instrument ID: BVMH GC/MS
Lab File ID: 1HE1802.D
Initial Weight/Volume:
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	PQL
Benzene	0.27	U	0.27	1.0
Bromobenzene	0.58	U	0.58	1.0
Chlorobromomethane	0.58	U	0.58	1.0
Dichlorobromomethane	0.35	U	0.35	1.0
Bromoform	0.58	U	0.58	1.0
Bromomethane	0.66	U	0.66	1.0
n-Butylbenzene	0.67	U	0.67	1.0
sec-Butylbenzene	0.63	U	0.63	1.0
tert-Butylbenzene	0.84	U	0.84	1.0
Carbon tetrachloride	0.42	U	0.42	1.0
Chlorobenzene	0.63	U	0.63	1.0
Chloroethane	0.80	U	0.80	1.0
Chloroform	0.90	U	0.90	1.0
Chloromethane	0.64	U	0.64	1.0
2-Chlorotoluene	0.65	U	0.65	1.0
4-Chlorotoluene	0.52	U	0.52	1.0
Chlorodibromomethane	0.34	U	0.34	1.0
1,2-Dibromo-3-Chloropropane	0.74	U	0.74	1.0
Ethylene Dibromide	0.50	U	0.50	1.0
Dibromomethane	0.41	U	0.41	1.0
1,2-Dichlorobenzene	0.44	U	0.44	1.0
1,3-Dichlorobenzene	0.64	U	0.64	1.0
1,4-Dichlorobenzene	0.52	U	0.52	1.0
Dichlorodifluoromethane	0.40	U	0.40	1.0
1,1-Dichloroethane	0.52	U	0.52	1.0
1,2-Dichloroethane	0.57	U	0.57	1.0
1,1-Dichloroethene	0.45	U	0.45	1.0
cis-1,2-Dichloroethene	0.65	U	0.65	1.0
trans-1,2-Dichloroethene	0.44	U	0.44	1.0
1,2-Dichloropropane	0.52	U	0.52	1.0
1,3-Dichloropropane	0.39	U	0.39	1.0
2,2-Dichloropropane	0.36	U	0.36	1.0
1,1-Dichloropropene	0.31	U	0.31	1.0
cis-1,3-Dichloropropene	0.14	U	0.14	1.0
trans-1,3-Dichloropropene	0.14	U	0.14	1.0
Ethylbenzene	0.44	U	0.44	1.0
Hexachlorobutadiene	0.46	U	0.46	1.0
Isopropylbenzene	0.19	U	0.19	1.0
4-Isopropyltoluene	0.69	U	0.69	1.0
Methylene Chloride	4.0	U	4.0	5.0
Naphthalene	0.48	U	0.48	1.0
N-Propylbenzene	0.59	U	0.59	1.0
Styrene	0.98	U	0.98	1.0

SEVERN TRENT STL

Analytical Data

Client: The SI Group

Job Number: 660-1874.1

Client Sample ID: **CEF-824A-MW-19S-16R**

Lab Sample ID: 660-1874-1
Client Matrix: Water

Date Sampled: 05/11/2005 0945
Date Received: 05/12/2005 0800

8260B Volatile Organic Compounds by GC/MS (Continued)

Method: 8260B
Analysis Batch: 660-7080
Instrument ID: BVMH GC/MS
Preparation:
Lab File ID: 1HE1802.D
Dilution: 1.0
Initial Weight/Volume:
Date Analyzed: 05/18/2005 1041
Final Weight/Volume: 5 mL
Date Prepared: 05/18/2005 1041

Analyte	Result (ug/L)	Qualifier	MDL	PQL
1,1,1,2-Tetrachloroethane	0.63	U	0.63	1.0
1,1,2,2-Tetrachloroethane	0.14	U	0.14	1.0
Tetrachloroethene	0.34	U	0.34	1.0
Toluene	0.51	U	0.51	1.0
1,2,3-Trichlorobenzene	0.77	U	0.77	1.0
1,2,4-Trichlorobenzene	0.58	U	0.58	1.0
1,1,1-Trichloroethane	0.46	U	0.46	1.0
1,1,2-Trichloroethane	0.47	U	0.47	1.0
Trichloroethene	0.28	U	0.28	1.0
Trichlorofluoromethane	0.98	U	0.98	1.0
1,2,3-Trichloropropane	0.15	U	0.15	1.0
1,2,4-Trimethylbenzene	0.86	U	0.86	1.0
1,3,5-Trimethylbenzene	0.54	U	0.54	1.0
Vinyl chloride	0.50	U	0.50	1.0
o-Xylene	0.30	U	0.30	1.0
Acetone	9.9	U	9.9	20
Methyl Ethyl Ketone	8.4	U	8.4	10
methyl isobutyl ketone	3.8	U	3.8	10
Carbon disulfide	0.85	U	0.85	1.0
2-Hexanone	4.4	U	4.4	10
Methyl tert-butyl ether	0.44	U	0.44	1.0
m-Xylene & p-Xylene	0.60	U	0.60	1.0

Surrogate	%Rec	Acceptance Limits
Toluene-d8	113	77 - 122
4-Bromofluorobenzene	99	74 - 126
Dibromofluoromethane	106	70 - 130

SEVERN TRENT STL

Analytical Data

Client: The SI Group

Job Number: 660-1874.1

Client Sample ID: **TRIP BLANK**

Lab Sample ID: 660-1874-2
Client Matrix: Water

Date Sampled: 05/11/2005 0945
Date Received: 05/12/2005 0800

8260B Volatile Organic Compounds by GC/MS

Method: 8260B
Preparation:
Dilution: 1.0
Date Analyzed: 05/18/2005 1022
Date Prepared: 05/18/2005 1022

Analysis Batch: 660-7080

Instrument ID: BVMH GC/MS
Lab File ID: 1HE1801.D
Initial Weight/Volume:
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDL	PQL
Benzene	0.27	U	0.27	1.0
Bromobenzene	0.58	U	0.58	1.0
Chlorobromomethane	0.58	U	0.58	1.0
Dichlorobromomethane	0.35	U	0.35	1.0
Bromoform	0.58	U	0.58	1.0
Bromomethane	0.66	U	0.66	1.0
n-Butylbenzene	0.67	U	0.67	1.0
sec-Butylbenzene	0.63	U	0.63	1.0
tert-Butylbenzene	0.84	U	0.84	1.0
Carbon tetrachloride	0.42	U	0.42	1.0
Chlorobenzene	0.63	U	0.63	1.0
Chloroethane	0.80	U	0.80	1.0
Chloroform	0.90	U	0.90	1.0
Chloromethane	0.64	U	0.64	1.0
2-Chlorotoluene	0.65	U	0.65	1.0
4-Chlorotoluene	0.52	U	0.52	1.0
Chlorodibromomethane	0.34	U	0.34	1.0
1,2-Dibromo-3-Chloropropane	0.74	U	0.74	1.0
Ethylene Dibromide	0.50	U	0.50	1.0
Dibromomethane	0.41	U	0.41	1.0
1,2-Dichlorobenzene	0.44	U	0.44	1.0
1,3-Dichlorobenzene	0.64	U	0.64	1.0
1,4-Dichlorobenzene	0.52	U	0.52	1.0
Dichlorodifluoromethane	0.40	U	0.40	1.0
1,1-Dichloroethane	0.52	U	0.52	1.0
1,2-Dichloroethane	0.57	U	0.57	1.0
1,1-Dichloroethene	0.45	U	0.45	1.0
cis-1,2-Dichloroethene	0.65	U	0.65	1.0
trans-1,2-Dichloroethene	0.44	U	0.44	1.0
1,2-Dichloropropane	0.52	U	0.52	1.0
1,3-Dichloropropane	0.39	U	0.39	1.0
2,2-Dichloropropane	0.36	U	0.36	1.0
1,1-Dichloropropene	0.31	U	0.31	1.0
cis-1,3-Dichloropropene	0.14	U	0.14	1.0
trans-1,3-Dichloropropene	0.14	U	0.14	1.0
Ethylbenzene	0.44	U	0.44	1.0
Hexachlorobutadiene	0.46	U	0.46	1.0
Isopropylbenzene	0.19	U	0.19	1.0
4-Isopropyltoluene	0.69	U	0.69	1.0
Methylene Chloride	4.0	U	4.0	5.0
Naphthalene	0.48	U	0.48	1.0
N-Propylbenzene	0.59	U	0.59	1.0
Styrene	0.98	U	0.98	1.0

SEVERN TRENT STL

Analytical Data

Client: The SI Group

Job Number: 660-1874.1

Client Sample ID: **TRIP BLANK**

Lab Sample ID: 660-1874-2
Client Matrix: Water

Date Sampled: 05/11/2005 0945
Date Received: 05/12/2005 0800

8260B Volatile Organic Compounds by GC/MS (Continued)

Method: 8260B
Analysis Batch: 660-7080
Instrument ID: BVMH GC/MS
Preparation:
Lab File ID: 1HE1801.D
Dilution: 1.0
Initial Weight/Volume:
Date Analyzed: 05/18/2005 1022
Final Weight/Volume: 5 mL
Date Prepared: 05/18/2005 1022

Analyte	Result (ug/L)	Qualifier	MDL	PQL
1,1,1,2-Tetrachloroethane	0.63	U	0.63	1.0
1,1,2,2-Tetrachloroethane	0.14	U	0.14	1.0
Tetrachloroethene	0.34	U	0.34	1.0
Toluene	0.51	U	0.51	1.0
1,2,3-Trichlorobenzene	0.77	U	0.77	1.0
1,2,4-Trichlorobenzene	0.58	U	0.58	1.0
1,1,1-Trichloroethane	0.46	U	0.46	1.0
1,1,2-Trichloroethane	0.47	U	0.47	1.0
Trichloroethene	0.28	U	0.28	1.0
Trichlorofluoromethane	0.98	U	0.98	1.0
1,2,3-Trichloropropane	0.15	U	0.15	1.0
1,2,4-Trimethylbenzene	0.86	U	0.86	1.0
1,3,5-Trimethylbenzene	0.54	U	0.54	1.0
Vinyl chloride	0.50	U	0.50	1.0
o-Xylene	0.30	U	0.30	1.0
Acetone	9.9	U	9.9	20
Methyl Ethyl Ketone	8.4	U	8.4	10
methyl isobutyl ketone	3.8	U	3.8	10
Carbon disulfide	0.85	U	0.85	1.0
2-Hexanone	4.4	U	4.4	10
Methyl tert-butyl ether	0.44	U	0.44	1.0
m-Xylene & p-Xylene	0.60	U	0.60	1.0

Surrogate	%Rec	Acceptance Limits
Toluene-d8	113	77 - 122
4-Bromofluorobenzene	102	74 - 126
Dibromofluoromethane	99	70 - 130

SEVERN TRENT STL

DATA REPORTING QUALIFIERS

Client: The SI Group

Job Number: 660-1874.1

Lab Section	Qualifier	Description
GC/MS VOA		
	U	Indicates that the compound was analyzed for but not detected .

SEVERN TRENT STL

Quality Control Results

Client: The SI Group

Job Number: 660-1874.1

8260B Volatile Organic Compounds by GC/MS

Method Blank - Batch: 660-7080

Lab ID: MB 660-7080/5
Matrix: Water

Date Analyzed: 05/18/2005 0149
Units: ug/L

Dilution: 1.0

Analyte	Result	Qualifier	MDL	PQL
Benzene	0.27	U	0.27	1.0
Bromobenzene	0.58	U	0.58	1.0
Chlorobromomethane	0.58	U	0.58	1.0
Dichlorobromomethane	0.35	U	0.35	1.0
Bromoform	0.58	U	0.58	1.0
Bromomethane	0.66	U	0.66	1.0
n-Butylbenzene	0.67	U	0.67	1.0
sec-Butylbenzene	0.63	U	0.63	1.0
tert-Butylbenzene	0.84	U	0.84	1.0
Carbon tetrachloride	0.42	U	0.42	1.0
Chlorobenzene	0.63	U	0.63	1.0
Chloroethane	0.80	U	0.80	1.0
Chloroform	0.90	U	0.90	1.0
Chloromethane	0.64	U	0.64	1.0
2-Chlorotoluene	0.65	U	0.65	1.0
4-Chlorotoluene	0.52	U	0.52	1.0
Chlorodibromomethane	0.34	U	0.34	1.0
1,2-Dibromo-3-Chloropropane	0.74	U	0.74	1.0
Ethylene Dibromide	0.50	U	0.50	1.0
Dibromomethane	0.41	U	0.41	1.0
1,2-Dichlorobenzene	0.44	U	0.44	1.0
1,3-Dichlorobenzene	0.64	U	0.64	1.0
1,4-Dichlorobenzene	0.52	U	0.52	1.0
Dichlorodifluoromethane	0.40	U	0.40	1.0
1,1-Dichloroethane	0.52	U	0.52	1.0
1,2-Dichloroethane	0.57	U	0.57	1.0
1,1-Dichloroethene	0.45	U	0.45	1.0
cis-1,2-Dichloroethene	0.65	U	0.65	1.0
trans-1,2-Dichloroethene	0.44	U	0.44	1.0
1,2-Dichloropropane	0.52	U	0.52	1.0
1,3-Dichloropropane	0.39	U	0.39	1.0
2,2-Dichloropropane	0.36	U	0.36	1.0
1,1-Dichloropropene	0.31	U	0.31	1.0
cis-1,3-Dichloropropene	0.14	U	0.14	1.0
trans-1,3-Dichloropropene	0.14	U	0.14	1.0
Ethylbenzene	0.44	U	0.44	1.0
Hexachlorobutadiene	0.46	U	0.46	1.0
Isopropylbenzene	0.19	U	0.19	1.0
4-Isopropyltoluene	0.69	U	0.69	1.0
Methylene Chloride	4.0	U	4.0	5.0
Naphthalene	0.48	U	0.48	1.0
N-Propylbenzene	0.59	U	0.59	1.0
Styrene	0.98	U	0.98	1.0
1,1,1,2-Tetrachloroethane	0.63	U	0.63	1.0
1,1,2,2-Tetrachloroethane	0.14	U	0.14	1.0

Calculations are performed before rounding to avoid round-off errors in calculated results.

SEVERN TRENT STL

Quality Control Results

Client: The SI Group

Job Number: 660-1874.1

8260B Volatile Organic Compounds by GC/MS

Method Blank - Batch: 660-7080

Lab ID: MB 660-7080/5
Matrix: Water

Date Analyzed: 05/18/2005 0149
Units: ug/L

Dilution: 1.0

Analyte	Result	Qualifier	MDL	PQL
Tetrachloroethene	0.34	U	0.34	1.0
Toluene	0.51	U	0.51	1.0
1,2,3-Trichlorobenzene	0.77	U	0.77	1.0
1,2,4-Trichlorobenzene	0.58	U	0.58	1.0
1,1,1-Trichloroethane	0.46	U	0.46	1.0
1,1,2-Trichloroethane	0.47	U	0.47	1.0
Trichloroethene	0.28	U	0.28	1.0
Trichlorofluoromethane	0.98	U	0.98	1.0
1,2,3-Trichloropropane	0.15	U	0.15	1.0
1,2,4-Trimethylbenzene	0.86	U	0.86	1.0
1,3,5-Trimethylbenzene	0.54	U	0.54	1.0
Vinyl chloride	0.50	U	0.50	1.0
o-Xylene	0.30	U	0.30	1.0
Acetone	9.9	U	9.9	20
Methyl Ethyl Ketone	8.4	U	8.4	10
methyl isobutyl ketone	3.8	U	3.8	10
Carbon disulfide	0.85	U	0.85	1.0
2-Hexanone	4.4	U	4.4	10
Methyl tert-butyl ether	0.44	U	0.44	1.0
m-Xylene & p-Xylene	0.60	U	0.60	1.0

Laboratory Control Sample/ Control Duplicate - Batch: 660-7080

LCS Lab ID: LCS 660-7080/3
LCSD Lab ID: LCSD 660-7080/4
Matrix: Water

Date Analyzed: 05/18/2005 0030
Date Analyzed: 05/18/2005 0051

Dilution: 1.0
Dilution: 1.0

Analyte	% Recovery LCS	% Recovery LCSD	Recovery Limits	RPD	RPD Limit	Qualifier
Benzene	102	99	62 - 135	3	37	
Chlorobenzene	101	99	72 - 127	2	22	
1,1-Dichloroethene	106	104	46 - 147	2	30	
Toluene	103	100	68 - 131	3	33	
Trichloroethene	102	98	56 - 143	4	35	

Calculations are performed before rounding to avoid round-off errors in calculated results.

Serial Number 13545

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

SEVERN TRENT **STL**

STL Tallahassee
2846 Industrial Plaza Drive
Tallahassee, FL 32301

Website: www.stl-inc.com
Phone: (850) 878-3994 660-1874
Fax: (850) 878-9504

Alternate Laboratory Name/Location
TAMPA

Phone:
Fax:

PROJECT REFERENCE	PROJECT NO.	PROJECT LOCATION (STATE)	PAGE	OF
CECEL FIELD SITE 57		FL	1	1
SAMPLER'S SIGNATURE	P.O. NUMBER	CONTRACT NO.		
KWM				
CLIENT (SITE) PM	CLIENT PHONE	CLIENT FAX		
LANE MIDDLETON	904-384-4199	904-384-4806		
CLIENT NAME	CLIENT E-MAIL			
SI GROUP	LMIDDLETON@BELLSOUTH.NET			
CLIENT ADDRESS				
4191 SAN JUAN AVE JACKSONVILLE, FL				
COMPANY CONTRACTING THIS WORK (if applicable)				
US NAVY				

STANDARD REPORT DELIVERY ✓
DATE DUE 5/18
EXPEDITED REPORT DELIVERY (SURCHARGE) ○
DATE DUE _____

NUMBER OF COOLERS SUBMITTED PER SHIPMENT:

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G) INDICATE	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT,...)	VOCs (HCl)	PAHs (PRESERVATIVE)	REMARKS
5/11/05	0945	CEF-824A-MW-19S-16R	G	✓				3	2	

NUMBER OF CONTAINERS SUBMITTED

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
KWM	5/11/5	1400		5/11/05	1730			
RECEIVED BY: (SIGNATURE)	**DATE**	**TIME**	**RECEIVED BY: (SIGNATURE)**	**DATE**	**TIME**	**RECEIVED BY: (SIGNATURE)**	**DATE**	**TIME**
	5/11/05	1400						

LABORATORY USE ONLY 4

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT	CUSTODY SEAL NO.	STL TALLAHASSEE LOG NO.	LABORATORY REMARKS
	5-12-05	0800	YES ✓ NO ○	N/A	660-1874	

STL8240-640 (12/02)

SEVERN TRENT STL

STL Denver
4955 Yarrow Street
Arvada, CO 80002

Tel: 303 736 0100 Fax: 303 431 7171
www.stl-inc.com

ANALYTICAL REPORT

Project Number: 660-1874

STL Denver Lot #: D5E140181

Tina Fritz

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

STL DENVER

Michael P. Phillips

Michael P. Phillips
Project Manager

May 20, 2005

Table Of Contents

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- **Case Narrative**
- **Executive Summary – Detection Highlights**
- **Methods Summary**
- **Method/Analyst Summary**
- **Lot Sample Summary**
- **Analytical Results**
- **QC Data Association Summary**
- **Chain-of-Custody**

Project Narrative
Lot D5E140181

With exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. All laboratory quality control samples analyzed in conjunction with the samples in this project were within established control limits, with any exceptions noted.

The test results presented in this report meet all requirements of NELAC, and any exceptions are noted. This report shall not be reproduced, except in full, without written permission from the laboratory.

Sample Arrival and Receipt

One sample was received under chain of custody on May 14, 2005. The sample was received in good condition at a temperature of 2.3°C.

PAH Compounds by HPLC, Method 8310

No MS/MSD analyses were performed for this sample due to insufficient sample volume.

The Continuing Calibration Verification (CCV) standards for Anthracene, Naphthalene, 2-Methylnaphthalene, Chrysene, and Dibenzo(a,h)anthracene by Method 8310 exceeded the percent difference limits. However, the overall mean percent difference is within control limits; therefore, the CCV is also in control and no corrective action was necessary. Additionally, all associated sample results were non-detect.

No other anomalies were observed.

EXECUTIVE SUMMARY - Detection Highlights

D5E140181

PARAMETER	RESULT	REPORTING LIMIT	UNITS	ANALYTICAL METHOD
NO DETECTABLE PARAMETERS				

METHODS SUMMARY

D5E140181

PARAMETER	ANALYTICAL METHOD	PREPARATION METHOD
Polynuclear Aromatic Hydrocarbons by HPLC	SW846 8310	SW846 3510

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

METHOD / ANALYST SUMMARY

D5E140181

ANALYTICAL METHOD	ANALYST	ANALYST ID
SW846 8310	Mike Dobransky	008777

References:

SW846 "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 and its updates.

SAMPLE SUMMARY

D5E140181

WO #	SAMPLE#	CLIENT SAMPLE ID	SAMPLED DATE	SAMP TIME
HAKLM	001	CEF-824A-MW-195-16R	05/11/05	09:45

NOTE(S):

- The analytical results of the samples listed above are presented on the following pages.
- All calculations are performed before rounding to avoid round-off errors in calculated results.
- Results noted as "ND" were not detected at or above the stated limit.
- This report must not be reproduced, except in full, without the written approval of the laboratory.
- Results for the following parameters are never reported on a dry weight basis: color, corrosivity, density, flashpoint, ignitability, layers, odor, paint filter test, pH, porosity pressure, reactivity, redox potential, specific gravity, spot tests, solids, solubility, temperature, viscosity, and weight.

STL TAMPA

Client Sample ID: CEF-824A-MW-195-16R

HPLC

Lot-Sample #...: D5E140181-001 Work Order #...: HAKLM1AA Matrix.....: WATER
Date Sampled...: 05/11/05 09:45 Date Received..: 05/14/05
Prep Date.....: 05/15/05 Analysis Date..: 05/17/05
Prep Batch #...: 5135048 Analysis Time..: 09:02
Dilution Factor: 1

Method.....: SW846 8310

PARAMETER	RESULT	REPORTING LIMIT	UNITS	MDL
Acenaphthene	ND	1.0	ug/L	0.077
Acenaphthylene	ND	1.0	ug/L	0.039
Anthracene	ND	0.30	ug/L	0.10
Benzo(a)anthracene	ND	0.20	ug/L	0.048
Benzo(a)pyrene	ND	0.10	ug/L	0.036
Benzo(b)fluoranthene	ND	0.10	ug/L	0.030
Benzo(ghi)perylene	ND	0.20	ug/L	0.072
Benzo(k)fluoranthene	ND	0.10	ug/L	0.031
Chrysene	ND	0.20	ug/L	0.054
Dibenzo(a,h)anthracene	ND	0.30	ug/L	0.088
Fluoranthene	ND	0.40	ug/L	0.13
Fluorene	ND	0.20	ug/L	0.044
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L	0.048
1-Methylnaphthalene	ND	1.0	ug/L	0.11
2-Methylnaphthalene	ND	1.0	ug/L	0.13
Naphthalene	ND	1.0	ug/L	0.085
Phenanthrene	ND	0.30	ug/L	0.099
Pyrene	ND	0.20	ug/L	0.036

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Terphenyl-d14	81	(72 - 102)

QC DATA ASSOCIATION SUMMARY

D5E140181

Sample Preparation and Analysis Control Numbers

SAMPLE#	MATRIX	ANALYTICAL METHOD	LEACH BATCH #	PREP BATCH #	MS RUN#
001	WATER	SW846 8310		5135048	

METHOD BLANK REPORT

HPLC

Client Lot #...: D5E140181 Work Order #...: HAK2E1AA Matrix.....: WATER
MB Lot-Sample #: D5E150000-048

Prep Date.....: 05/15/05 Analysis Time..: 03:56
Analysis Date..: 05/17/05 Prep Batch #...: 5135048
Dilution Factor: 1

PARAMETER	RESULT	REPORTING LIMIT	UNITS	METHOD
Acenaphthene	ND	1.0	ug/L	SW846 8310
Acenaphthylene	ND	1.0	ug/L	SW846 8310
Anthracene	ND	0.30	ug/L	SW846 8310
Benzo(a)anthracene	ND	0.20	ug/L	SW846 8310
Benzo(a)pyrene	ND	0.10	ug/L	SW846 8310
Benzo(b)fluoranthene	ND	0.10	ug/L	SW846 8310
Benzo(ghi)perylene	ND	0.20	ug/L	SW846 8310
Benzo(k)fluoranthene	ND	0.10	ug/L	SW846 8310
Chrysene	ND	0.20	ug/L	SW846 8310
Dibenzo(a,h)anthracene	ND	0.30	ug/L	SW846 8310
Fluoranthene	ND	0.40	ug/L	SW846 8310
Fluorene	ND	0.20	ug/L	SW846 8310
Indeno(1,2,3-cd)pyrene	ND	0.20	ug/L	SW846 8310
1-Methylnaphthalene	ND	1.0	ug/L	SW846 8310
2-Methylnaphthalene	ND	1.0	ug/L	SW846 8310
Naphthalene	ND	1.0	ug/L	SW846 8310
Phenanthrene	ND	0.30	ug/L	SW846 8310
Pyrene	ND	0.20	ug/L	SW846 8310

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Terphenyl-d14	79	(72 - 102)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

LABORATORY CONTROL SAMPLE EVALUATION REPORT

HPLC

Client Lot #...: D5E140181 Work Order #...: HAK2E1AC Matrix.....: WATER
LCS Lot-Sample#: D5E150000-048
Prep Date.....: 05/15/05 Analysis Date..: 05/17/05
Prep Batch #...: 5135048 Analysis Time..: 04:26
Dilution Factor: 1

PARAMETER	PERCENT RECOVERY	RECOVERY LIMITS	METHOD
Benzo(a)pyrene	**82**	**(70 - 117)**	**SW846 8310**
Fluorene	**81**	**(72 - 109)**	**SW846 8310**
Indeno(1,2,3-cd)pyrene	**82**	**(66 - 116)**	**SW846 8310**
Naphthalene	**75**	**(64 - 107)**	**SW846 8310**
Pyrene	**88**	**(80 - 118)**	**SW846 8310**

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Terphenyl-d14	86	(72 - 102)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

LABORATORY CONTROL SAMPLE DATA REPORT

HPLC

Client Lot #...: D5E140181 Work Order #...: HAK2E1AC Matrix.....: WATER
LCS Lot-Sample#: D5E150000-048
Prep Date.....: 05/15/05 Analysis Date..: 05/17/05
Prep Batch #...: 5135048 Analysis Time..: 04:26
Dilution Factor: 1

PARAMETER	SPIKE AMOUNT	MEASURED AMOUNT	UNITS	PERCENT RECOVERY	METHOD
Benzo(a)pyrene	20.0	16.5	ug/L	82	SW846 8310
Fluorene	20.0	16.1	ug/L	81	SW846 8310
Indeno(1,2,3-cd)pyrene	20.0	16.4	ug/L	82	SW846 8310
Naphthalene	20.0	15.0	ug/L	75	SW846 8310
Pyrene	20.0	17.6	ug/L	88	SW846 8310

SURROGATE	PERCENT RECOVERY	RECOVERY LIMITS
Terphenyl-d14	86	(72 - 102)

NOTE(S):

Calculations are performed before rounding to avoid round-off errors in calculated results.

Bold print denotes control parameters

TO STL TALL

Serial Number 24198

12

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

SEVERN TRENT **STL** 23 JA 5/14/05

⊗ 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	PROJECT NO. 660-1874	PROJECT LOCATION (STATE) FL	MATRIX TYPE					REQUIRED ANALYSIS										PAGE	OF
SAMPLER'S SIGNATURE	P.O. NUMBER 660-1874	CONTRACT NO.																STANDARD REPORT DELIVERY ⊗	
CLIENT (SITE) PM Tina Fritz	CLIENT PHONE	CLIENT FAX						8310										DATE DUE 5-18-05	
CLIENT NAME STL-Tampa	CLIENT E-MAIL																	EXPEDITED REPORT DELIVERY (SURCHARGE) ○	
CLIENT ADDRESS																		DATE DUE _____	
COMPANY CONTRACTING THIS WORK (if applicable)								1	PRESERVATIVE									NUMBER OF COOLERS SUBMITTED PER SHIPMENT:	

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	COMPOSITE (C) OR GRAB (G) INDICATE	AQUEOUS (WATER)	SOLID OR SEMISOLID	AIR	NONAQUEOUS LIQUID (OIL, SOLVENT,...)	NUMBER OF CONTAINERS SUBMITTED										REMARKS
5-11-05	0945	CEF-824A-MW-19S-16R	G	X				2										

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
EMPTY CONTAINERS			[signature]	5-12-05	1730			
RECEIVED BY: (SIGNATURE)	**DATE**	**TIME**	**RECEIVED BY: (SIGNATURE)**	**DATE**	**TIME**	**RECEIVED BY: (SIGNATURE)**	**DATE**	**TIME**
EMPTY CONTAINERS			[signature]	5/14/05	1040			

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY: (SIGNATURE)	DATE	TIME	CUSTODY INTACT YES ○ NO ○	CUSTODY SEAL NO.	STL TAMPA LOG NO.	LABORATORY REMARKS

STL8240-660 (12/02)