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VARIOUS TANK ACTIONS FOR SOIL BORINGS AND GROUNDWATER SAMPLING AT THE RESERVE TRAINING CENTER CNC CHARLESTON SC
3/18/2009
ADVENT ENVIRONMENTAL INC

# VARIOUS TANK ACTIONS
# SOIL BORINGS AND GROUNDWATER SAMPLING
# AT THE RESERVE TRAINING CENTER

## FORMER CHARLESTON NAVAL COMPLEX
## NORTH CHARLESTON, SOUTH CAROLINA

13370

**Prepared for:**

NAVFAC
Naval Facilities Engineering Command
NAVFAC SOUTHEAST

**Naval Facilities Engineering Command – Southeast**

**And**

RECEIVED
APR 0 6 2009
SITE ASSESSMENT,
REMEDIATION &
REVITALIZATION

**BRAC Program Management Office – Southeast**

**Contract Number**
N62467-06-D-0125
**Task Order**
0048

**ADVENT Project 09-500**
**March 18, 2009**

**Various Tank Actions**
**Soil Borings and Groundwater Sampling at the RTC**

Former Charleston Naval Complex
North Charleston, South Carolina

Contract N62467-06-D-0125
Task Order 0048
ADVENT Project 09-500
March 18, 2009

RECEIVED
APR 0 6 2009
SITE ASSESSMENT, REMEDIATION & REVITALIZATION

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# CERTIFICATION PAGE

## REGISTERED SOUTH CAROLINA PROFESSIONAL GEOLOGIST CERTIFICATION

By affixing my seal to this report, I certify the data and interpretations stated in the *Various Tank Actions, Soil Borings and Groundwater Sampling at the Reserve Training Center, Former Charleston Naval Complex (CNC)* are true and accurate to the best of my knowledge. I further certify that I am registered to practice geology in the state of South Carolina and that it is within my professional expertise to verify the correctness of this information.

JAMES WILLIAM WEEG
REGISTERED
PROFESSIONAL GEOLOGIST
SOUTH CAROLINA
No. 2494

3/18/09

James W. Weeg — Date

Registration Number: 2494 (South Carolina)

# LIST OF ACRONYMS AND ABBREVIATIONS

| | |
|---|---|
| BDL | Below Detection Level |
| BGS | Below Ground Surface |
| BRAC | Base Realignment and Closure Commission |
| CNC | Charleston Naval Complex |
| CTF | Chicora Tank Farm |
| IGWA | Initial Groundwater Investigation |
| MNA | Monitored Natural Attenuation |
| MSL | Mean Sea Level |
| NAVFAC | Naval Facilities Engineering Command, Southeast |
| NFA | No Further Action |
| OVA | Organic Vapor Analyzer |
| PAH | Poly-cyclic Aromatic Hydrocarbons |
| PID | Photo Ionization Detector |
| PMO | Program Management Office |
| PPM | Parts Per Million |
| RBSL | Risk Based Screening Level |
| RL | Reporting Limit |
| RTC | Reserve Training Center |
| SAS | Surficial Aquifer System |
| SCDHEC | South Carolina Department of Health and Environmental Control |
| TMW | Temporary Monitoring Well |
| VOCs | Volatile Organic Compounds |

# 1.0 INTRODUCTION

ADVENT Environmental, Inc. (ADVENT) was retained by the Naval Facilities Engineering Command – Southeast (NAVFAC) and the Base Realignment and Closure (BRAC) Program Management Office (PMO) – Southeast to conduct a limited Direct Push Technology (DPT) investigation of soil and groundwater in the vicinity of two former fuel oil underground storage tanks (USTs) at the Reserve Training Center (RTC), as part of the task order to provide service for Various Tank Actions at the Chicora Tank Farm (CTF), Buildings 236, and 1279, and the Reserve Training Center located at the former Charleston Naval Complex (CNC), in North Charleston, South Carolina. A Work Plan for *Various Tank Actions at the Chicora Tank Farm, Buildings 236, 1279, and the Reserve Training Center* was submitted to the BRAC Office and approved in January 2009. The RTC is located at Building 205, South Hobson Avenue, at the former CNC. A site location map is presented as Figure 1.

## 1.1 LOCAL SITE DESCRIPTION

The former CNC is located in North Charleston, South Carolina. Building 205 was previously used as the RTC. The building is currently occupied by the National Oceanic and Atmospheric Association (NOAA) and is operational as the Coastal Services Center.

Local site conditions were assessed by analyzing the topography, geology, hydrogeology, and the overall visual appearance of the site. The following section describes the local site conditions at Building 205.

## 1.2 TOPOGRAPHY AND SITE CONDITIONS

Topographic relief at the RTC is moderate. Mean elevation at the site is approximately 7 feet above mean sea level (MSL), with a minimum elevation of approximately 5 feet (at RTC SB03) and a maximum elevation of approximately 9 feet (at RTC SB01).

The RTC is currently occupied by the NOAA Coastal Services Center and is used in an office/administrative capacity. The building is located adjacent to Pier-J and the Cooper River. The sites of the two former USTs are currently grass covered and located immediately adjacent to the Building 205.

The RTC is bordered to the north by an asphalt parking lot for the NOAA Coastal Services Center, to the east by the Cooper River, to the south by additional buildings used by the Federal Law Enforcement Training Center (FLETC), and to the west by South Hobson Avenue. A site map showing the location of the Building 205 as well as the four sampling sites is presented as Figure 2.

## 1.3 GEOLOGY AND HYDROGEOLOGY

Charleston County, South Carolina, is located within the Coastal Plain Physiographic Province. The Coastal Plain extends along the Atlantic seaboard from Florida to southern New Jersey. The Coastal Plain is characterized by sediments that overlay basement rocks, thickening from just a few feet near the Fall Line to approximately 3,800 feet at the southernmost corner of South Carolina (Hydrologic Investigations Atlas 730-G).

Charleston County overlies the Surficial Aquifer System (SAS) which extends from Southern Florida to North Carolina. The SAS consists mostly of unconsolidated sand and minor beds of shells and oolitic limestone. At depth these formations are generally confined above and below by impermeable clay layers. SAS sediments range in age from late Miocene to Holocene. The SAS is typically less than 50 feet thick; however the system thickens coastward.

Groundwater flow in the SAS is mostly unconfined. Locally, thin clay beds create semi-confined conditions within the system. Water that enters the SAS moves quickly along short flow paths and discharges as baseflow to streams. Generally, groundwater flows southeast towards the coast. The transmissivity of the SAS is extremely variable depending on location. Well yields in South Carolina average 50 gallons per minute (Hydrologic Investigations Atlas 730-G).

## 1.4 HISTORICAL SUMMARY

Very limited historical information is available for this site. Based on an e-mail from Janice Cooke (SCDHEC) it is understood that two USTs for heating oil where located behind the former RTC (currently the NOAA Coastal Service Center). It is understood that these two USTs where removed as part of the BRAC process for the Charleston Naval Complex. It is also understood that at the time of the removal, contamination was identified in the soils adjacent to the sites. Per Janice Cooke's request, a limited DPT investigation is recommended to verify the condition of the site.

# 2.0 RESERVE TRAINING CENTER SOIL BORINGS

ADVENT performed four (4) soil borings, adjacent to the RTC, located at the former CNC located in North Charleston, South Carolina on February 17, 2009. The borings were performed using a South Carolina certified Well Driller. The SCDHEC authorization for borings is presented in Appendix B.

## 2.1 SOIL BORING LOCATIONS

Two (2) soil borings were performed in the vicinity of each former UST. The approved ADVENT Work Plan (dated January 2009) for this task detailed a proposal boring plan to drill one bore-hole at the down-slope side of the former UST, and to drill the second bore-hole approximately 15 feet further down-slope from the former UST. This plan was performed successfully for RTC SB01 and RTC SB02 at UST 2. However, site conditions, specifically, buried utilities, prohibited this approach at UST 1. Therefore, RTC SB04 was drilled approximately 20 feet down-slope of UST-1, and RTC SB03 was drilled 15 feet further down gradient from RTC SB04.

## 2.2 ORGANIC VAPOR ANALYZER RESULTS AT SOIL BORINGS

All of the borings were sedimentologically similar. The bedding layers where thinly varved layers of silts and sands that is typically indicative of fluvial environments such as that encountered at the RTC site. The DPT drill-rig collects core samples in 5 foot intervals. Due to the downward pressure of the drill head there is often compaction of the sample. As such, the results recorded in the field log include descriptions of each sample run and recovery length (See Appendix A).

In accordance with the approved ADVENT Work Plan (dated January 14, 2009), each sample run was contained in an airtight bag and allowed to volatilize for 5 minutes. At the end of 5 minutes, the headspace in the airtight bag was analyzed using a Photo-Ionization Detector (PID), a type of Organic Vapor Analyzer (OVA) that analyzes

volatile organic compounds (VOC's) that are naturally volatilized through exposure to open air or sunlight.

Sample intervals where collected continually at each boring location until ground water was encountered. The sampling run with the highest PID reading was then sampled using an Econo 5035 Sample Smart Kit™. The 0-5 foot interval was collected for analysis for each of the four (RTC SB01, RTC SB02, RTC SB03, and RTC SB04). The PID readings for the borings were 83.4 parts per million (ppm), 19.9 ppm, 0.6 ppm, and 0.2 ppm respectively.

## 2.3 SOIL BORING ANALYTICAL RESULTS

Two of the analytical samples substantially exceeded the reporting limit (RL) contained in SCDHECs *Underground Storage Tank Assessment Guidelines,* dated February 14, 2006. Toluene was detected at both RTC SB01 (154 μg/kg ) and RTC SB02 (53.5 μg/kg). The RL for toluene is 5 μg/kg.

# 3.0 RTC GROUNDWATER SAMPLING

Core sample collection and analysis ceased once groundwater was encountered at each soil boring. The boring was advanced far enough, at each site, to allow a Temporary Monitoring Well (TMW) to be installed with a minimum of 5 feet of screened interval below the water table. These temporary wells consisted of 1 inch ID, schedule-40 PVC pipe, set to a depth of approximately 15 feet below ground surface (BGS) with a five foot screened interval. A sand filter was installed from approximately 15 feet bgs to 8 feet bgs. A bentonite seal was installed from approximately 8 feet bgs to ground surface.

## 3.1 TMW PURGING AND SAMPLE COLLECTION

TMW installation was completed on February 17, 2009. On February 18, 2009 ADVENT personnel purged the TMWs in accordance with the *EPA Ground Water Issue, Low-Flow (Minimal Drawdown) Ground-Water Sampling Procedures,* dated April 1996. Once purging was completed, samples were collected and analyzed by a South Carolina certified laboratory for VOCs (EPA Method 8260) and poly-nuclear aromatic hydrocarbons (PAHs) (EPA Method 8270).

## 3.2 GROUNDWATER ANALYTICAL RESULTS

None of the analytical samples exceeded the RL contained in SCDHECs *Underground Storage Tank Assessment Guidelines,* dated February 14, 2006.

## 3.3 TEMPORARY MONITORING WELLS ABANDONMENT

ADVENT abandoned the four TMWs, installed adjacent to the RTC, located at the former CNC located in North Charleston, South Carolina on February 18, 2009. The TMWs were abandoned using a South Carolina certified Well Driller. Abandonment documentation (DHEC Form 1903) for the four groundwater monitoring wells is included in Appendix C.

All four TMWs consisted of temporary, stick-up wells set directly into the ground, in a grassy area. The well piping was removed using a wench on the DPT drill rig. Grouting of the wells was by forced injection of a bentonite/cement mixture through a tremie pipe. The abandonment was carried out as one continuous operation and the wells were filled from the bottom of the well to the ground surface.

## 4.0 CONCLUSIONS AND RECOMMENDATIONS

The SOW asserts that fuel oil contamination in the soils had been identified at both UST sites at the time of their closure by removal. There is no evidence of contamination in the groundwater at any of the TMWs sampled and analyzed as part of this task order. However, the two soil borings associated with UST-2 (RTC SB01 and RTC SB02) had analytical results that were in excess of the established SCDHEC RL for toluene. Both of these samples came from the 0-5 foot boring run, which would indicate that the contamination is located near the ground surface. Additionally, the higher result (RTC SB01, 154μg/l) is upgradient from the lower result (RTC SB02, 53.5μg/l), which would appear to indicate that the contamination is not mobile. Therefore, ADVENT recommends that a limited excavation of the soils at the former site of UST-2 be performed, and then replaced with clean fill. This should be followed by confirmatory sampling.

# TABLES

**Table 1**
**Soil Borings Analytical Results**
**Reserve Training Center, Former CNC**
**February 17, 2009**

| COC/Method | RTC SB01 | RTC SB02 | RTC SB03 | RTC SB04 | RBSL |
|---|---|---|---|---|---|
| **8270 PAH SPE** | **µg/kg** | **µg/kg** | **µg/kg** | **µg/kg** | **µg/kg** |
| Benzo(a)anthracene | ND | ND | ND | ND | 10 |
| Benzo(b)flouranthene | ND | ND | ND | ND | 10 |
| Benzo(k)frouranthene | ND | ND | ND | ND | 10 |
| Chrysene | ND | ND | ND | ND | 10 |
| Dibenz(a,h)anthracene | ND | ND | ND | ND | 10 |
| **8260 Volatile Organics** | **µg/kg** | **µg/kg** | **µg/kg** | **µg/kg** | **µg/kg** |
| Benzene | ND | ND | ND | ND | 5 |
| Ethylbenzene | **1.5J** | ND | ND | ND | 5 |
| Naphthalene | ND | ND | ND | ND | 5 |
| Toluene | **154** | **53.5** | ND | **1.6J** | 5 |
| m&p -xylene | ND | ND | ND | ND | 5 |
| o-xylene | ND | ND | ND | ND | 5 |
| o-xylene | ND | ND | ND | ND | 5 |

Created by: JWW, 03/18/09
Checked by: ECS, 03/18/09

*COC = Contaminant of Concern*
*ND = Not Detected*
*RBSL = Risk Based Screening Level (from Underground Storage Tank Assessment Guidelines, August 18, 2004)*
*Red = Value exceeds the RBSL*
*J = Estimted concentration above the adjusted method detection limit and below the adjusted reporting limit.*

**Table 2**
**Groundwater Analytical Results**
**Reserve Training Center, Former CNC**
**February 18, 2009**

| COC/Method | RTC TMW01 | RTC TMW02 | RTC TMW03 | RTC TMW04 | RBSL |
|---|---|---|---|---|---|
| **8270 PAH SPE** | µg/L | µg/L | | µg/L | µg/L |
| Benzo(a)anthracene | ND | ND | ND | ND | 10 |
| Benzo(b)flouranthene | ND | ND | ND | ND | 10 |
| Benzo(k)frouranthene | ND | ND | ND | ND | 10 |
| Chrysene | ND | ND | ND | ND | 10 |
| Dibenz(a,h)anthracene | ND | ND | ND | ND | 10 |
| **8260 MSV Low Level** | µg/L | µg/L | µg/L | µg/L | µg/L |
| Benzene | ND | ND | ND | ND | 5 |
| Ethylbenzene | ND | ND | ND | ND | 700 |
| Methyl-tert-buty ether (MTBE) | ND | ND | ND | ND | 40 |
| Naphthalene | ND | ND | ND | ND | 25 |
| Toluene | **0.60J** | **0.40J** | ND | ND | 1,000 |
| m&p -xylene | ND | ND | ND | ND | 5,000 |
| o-xylene | ND | ND | ND | ND | 5,000 |

Created by: JWW, 03/18/09
Checked by: ECS, 03/18/09

*COC = Contaminant of Concern*
*ND = Not Detected*
*RBSL = Risk Based Screening Level (from Underground Storage Tank Assessment Guidelines, August 18, 2004)*
*Red = Value exceeds the RBSL*
*J = Estimted concentration above the adjusted method detection limit and below the adjusted reporting limit.*

# FIGURES

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# Figure 1

Site Location Map
Reserve Training Center, Former CNC
Charleston, South Carolina
ADVENT Project 09-500
March 2009

*Source: SC GIS Data Clearinghouse*

Notes:
1. NUMBERS IN PARENTHESES ARE THE ANALYTICAL RESULTS FOR TOLUENE (IN PARTS PER MILLION). THE ONLY CONSTITUENT TO EXCEED THE ESTABLISHED REPORTING LIMIT AT THE SITE.

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**Legend**

- Soil Boring/ TMW
- Former UST Location
- RTC Buildings

N

0 5 10 20 30 40 50
Feet

Projection: Clarke 1866 UTM Zone 17N
Map Scale: 1:200
Created by: JWW, 03/12/2009
Checked by: ECS, 03/12/2009

**Figure 2**

**Site Map/Toluene Concentrations**
**Reserve Training Center, Former CNC**
**North Charleston, SC**
**ADVENT Project 09-500**
**March 2009**

Source: SC GIS Data Clearinghouse

Prepared for:

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**Legend**

- SB/TMW Sites
- GW Elevation Contour
- Elevation Inferred Where Dashed
- Flow Direction
- Former UST Location
- RTC Buildings

N

0 5 10 20 30 40 50
Feet

*Projection: Clarke 1866 UTM Zone 17N*
*Map Scale: 1:200*
*Created by: JWW, 03/12/2009*
*Checked by: ECS, 03/12/2009*

# Figure 3

**Potentiometric Map**
**Reserve Training Center, Former CNC**
**North Charleston, SC**
**ADVENT Project 09-500**
**March 2009**

*Source: SC GIS Data Clearinghouse*

# APPENDIX A

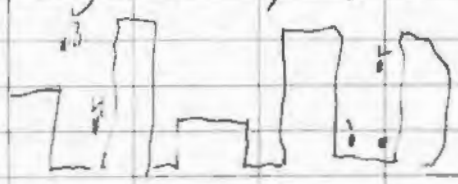
Date 02/17/09
Weather CLR 35°F
Location CNC
TDT 0720
Pers JW

0720 - Onsite at CNC awaiting LL with probe tech personnel

0745 - Made contact with Melissa Sherman (FLETC Env.) about passes - long term security clearance did not get done - will do day passes at gate.

0800 - LL with proper tech & move to RTC

0830 - Begin DIT Gps at RTC





SB-1 0-3ft recovery 0-5' — PID 83.4
Organics 0-1'
Red clay 1-2
Light Sandy silt 2-3

4ft recovery 5'-10' — PID 5.0
Fine light sand 0-1
Dark organics 1-2
Tan clay 2-4
- water table at approx 8'
- Drill to 15' to emplace TMW

SB-2 4' Recovery 0-5' — PID 19.9
Organics 0-1.5
Dark Sandy Silt - no aroma 1.5-2
White coarse sand 2-2.5
Dark fine sand 2.5-4'

- Water table at 5.5'
- Emplace well at 10'

0905 - Sample SB-01 0-5' Interval
0910 - Sample SB-02 0-5' Interval

SB-03 3' recovery 0'-5' Interval PID 0.6
Organics - 0-1
Fine tan sand 1-3
Dark med. Sand 3-4
- Water table at Approx 4' bgs

SB-04 3' recovery 0'-5' Interval PID 0.7
Organics - 0-0.5'
Disturbed Sand 0.5-3'

4' recovery 5'-10' Interval PID 0.2
Brown Med Sand 0-1'
Black Med/Coarse Sand 1-4'
- Water Table at ≈ 9' Bgs

0950 - Sampled SB03 0'-5' Int.
1000 - Sampled SB04 0'-5' Int.
- Sampled Duplicate

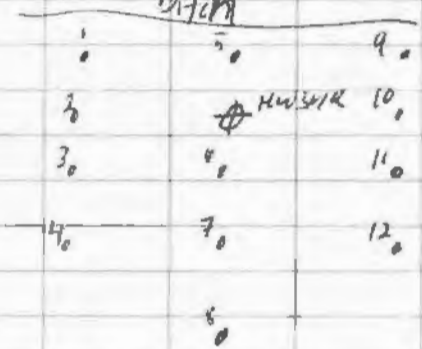
1010 - Move to CTF

1025 - Drill crew offsite to pick up water for Decon ops



Fence

Bldg




SB01 - 0-5' Int. 4' Recovery PID 3.1
Organics 0-1
Red, clayey Sand 1-3.5'
Tan, fine Sand 3.5-4.0

- 5-10' Int 4' Recovery PID 2.2
Red/Tan fine Sand 0-1'
Tan fine Sand 1-4
Water Table ≈ 6'

1200 - Sampled SB01 0-5' Int.

1545 - Marking all temporary wells

1600 - Off site - drive to Fedex



Date 2/18/09
Location CTF + RTC
TOT 0750
Weather Rain, 50°F
Personnel TW + CB

0730 - Onsite at CTF - load-out sample kits to CB - Install go to RTC + Sample wells.

0800 - Begin sampling at the RTC

0840 - Sampled RTC TMW01

0910 - Sampled RTC TMW02

0940 - Sampled RTC TMW03

1015 - Sampled RTC TMW04 and collected RTC TMW DUP.

1030 - Drive to CTF

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# LOW FLOW PURGE DATA SHEET

**PROJECT SITE NAME:** Reserve Training Center
**PROJECT NUMBER:** 09-500
**Depth to Water:** 8.72

**WELL ID:** RTC 1MW 01
**DATE:** 2/18/09
**DTB:** 15.00

Casing - 1.6

**Well Volume: (DTB - DTW) x ~~0.17~~ 0.08 = Well Volume:** (15 - 8.4) x 0.08 = 0.52 gal

1¼ pipe

| Time (Hrs) | Water Level (Ft below TOC) | Volume (gal) | pH (S.U.) | Cond. (mS/cm) | Turb. (NTU) | DO (mg/L) | Temp. (Celcius) | ORP (mV) | Comments |
|---|---|---|---|---|---|---|---|---|---|
| 0820 | 8.72 | 0.25 | 7.05 | 0.607 | 422.0 | 1.12 | 17.65 | -30 | |
| 0823 | 8.72 | 0.50 | 6.99 | 0.588 | 187.0 | 6.31 | 17.84 | -53 | |
| 0826 | 8.72 | 0.75 | 6.97 | 0.589 | 150.0 | 2.98 | 17.83 | -61 | |
| 0829 | 8.72 | 1.00 | 6.94 | 0.585 | 87.4 | 0.49 | 17.96 | -74 | |
| 0832 | 8.72 | 1.25 | 6.93 | 0.584 | 61.8 | 0.09 | 17.97 | -77 | |
| 0835 | 8.72 | 1.50 | 6.92 | 0.581 | 41.2 | 0.00 | 18.01 | -84 | |
| 0838 | 8.72 | 1.75 | 6.93 | 0.581 | 41.3 | 0.00 | 18.02 | -80 | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

**Sample Time:** 0840

**Total Vol. Purged:** 1.75 gal

$Fe^{2+}$: NA
$H_2S$: NA
Diss. $CO_2$: NA

**Stabilization Factors**
pH ± 0.1 DO ± 10%
Conductivity ± 3% Turbidity ± 10%
ORP ± 10Mv

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# LOW FLOW PURGE DATA SHEET

**PROJECT SITE NAME:** Reserve Training Center
**PROJECT NUMBER:** 09-500
**Depth to Water:** 9.20

**WELL ID:** RTC TMW 02
**DATE:** 2/18/09
**DTB:** 15.02

**Well Volume: (DTB - DTW) x 0.17 = Well Volume:** (15.02 x 7.2) x 0.08 = 0.62 gal

| Time (Hrs) | Water Level (Ft below TOC) | Volume (gal) | pH (S.U.) | Cond. (mS/cm) | Turb. (NTU) | DO (mg/L) | Temp. (Celcius) | ORP (mV) | Comments |
|---|---|---|---|---|---|---|---|---|---|
| 0852 | 7.25 | 0.25 | 7.13 | 0.773 | 378.0 | 3.43 | 17.12 | -64 | |
| 0855 | 7.25 | 0.50 | 7.13 | 0.746 | 324.0 | 1.25 | 17.38 | -76 | |
| 0859 | 7.25 | 0.75 | 7.13 | 0.724 | 216.0 | 0.31 | 17.44 | -88 | |
| 0902 | 7.25 | 1.00 | 7.13 | 0.724 | 176.0 | 0.00 | 17.43 | -93 | |
| 0905 | 7.25 | 1.25 | 7.13 | 0.723 | 145.0 | 0.00 | 17.42 | -96 | |
| 0908 | 7.25 | 1.50 | 7.13 | 0.721 | 142.0 | 0.00 | 17.42 | -99 | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

**Sample Time:** 0910

**Total Vol. Purged:** 1.50 gal

$Fe^{2+}$: NA
$H_2S$: NA
Diss $CO_2$: NA

**Stabilization Factors**
pH ± 0.1 DO ± 10%
Conductivity ± 3% Turbidity ± 10%
ORP ± 10Mv

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# LOW FLOW PURGE DATA SHEET

**PROJECT SITE NAME:** Reserve Training Center
**PROJECT NUMBER:** 09-500
**Depth to Water:** 5.64

**WELL ID:** RTC TMW03
**DATE:** 2/18/09
**DTB:** 15.00

**Well Volume: (DTB - DTW) x 0.17 = Well Volume:** (15 - 5.64) x 0.08 = 0.75

| Time (Hrs) | Water Level (Ft below TOC) | Volume (gal) | pH (S.U.) | Cond. (mS/cm) | Turb. (NTU) | DO (mg/L) | Temp. (Celcius) | ORP (mV) | Comments |
|---|---|---|---|---|---|---|---|---|---|
| 0926 | 6.13 | 0.25 | 6.84 | 2.88 | 190.0 | 2.47 | 16.69 | -194 | |
| 0929 | 6.13 | 0.50 | 6.91 | 2.50 | 65.1 | 0.05 | 16.75 | -241 | |
| 0932 | 6.13 | 0.75 | 6.95 | 2.40 | 20.8 | 0.00 | 16.79 | -278 | |
| 0935 | 6.13 | 1.00 | 6.95 | 2.39 | 16.9 | 0.00 | 16.80 | -284 | |
| 0938 | 6.13 | 1.25 | 6.95 | 2.38 | 16.5 | 0.00 | 16.81 | -280 | |
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**Sample Time:** 0940

**Total Vol. Purged:** 1.25 gal.

$Fe^{2+}$: NA
$H_2S$: NA
Diss. $CO_2$: NA

**Stabilization Factors**

pH ± 0.1
DO ± 10%
Conductivity ± 3%
Turbidity ± 10%
ORP ± 10Mv

ADVENT

# LOW FLOW PURGE DATA SHEET

**PROJECT SITE NAME:** Reserve Training Center
**PROJECT NUMBER:** 09-500
**Depth to Water:** 6.24

**WELL ID:** RTC TMW Ø4
**DATE:** 2/18/02
**DTB:** 15.00

**Well Volume: (DTB - DTW) x 0.17 = Well Volume:** (15 - 6.24) x 0.08 = 0.70

| Time (Hrs) | Water Level (Ft below TOC) | Volume (gal) | pH (S.U.) | Cond. (mS/cm) | Turb. (NTU) | DO (mg/L) | Temp. (Celcius) | ORP (mV) | Comments |
|---|---|---|---|---|---|---|---|---|---|
| 0959 | 6.35 | 0.25 | 7.13 | 2.75 | 118.0 | 1.86 | 16.01 | -239 | |
| 1002 | 6.35 | 0.50 | 7.10 | 2.74 | 85.6 | 0.68 | 16.04 | -243 | |
| 1005 | 6.35 | 0.75 | 7.09 | 2.72 | 51.6 | 0.06 | 16.06 | -245 | |
| 1008 | 6.35 | 1.00 | 7.08 | 2.69 | 35.6 | 0.00 | 16.07 | -247 | |
| 1011 | 6.35 | 1.25 | 7.08 | 2.65 | 34.8 | 0.00 | 16.08 | -249 | |
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**Sample Time:** 1015

**Total Vol. Purged:** 1.25 gal

$Fe^{2+}$: NA
$H_2S$: NA
Diss. $CO_2$: NA

**Stabilization Factors**
pH ± 0.1 DO ± 10%
Conductivity ± 3% Turbidity ± 10%
ORP ± 10Mv

Collected TMW Dup

| FIELD SAMPLING REPORT | ADVENT<br>498 Wando Park Blvd Suite 500<br>Mt. Pleasant, SC 29464<br>(843) 388-1851 | JOB NUMBER 09-500<br>JOB NAME DPT Investigation at RTC<br>SAMPLING POINT<br>(LOCATION) RTC at CNC<br>DATE 2/18/09 TIME 0840 |
|---|---|---|

**SAMPLING INFORMATION** SAMPLE I.D. NUMBER: RTC TMW 01 HAZARDOUS?: ____ YES ____ NO X UNKNOWN

**SOIL SAMPLING DATA:**

SAMPLING DATE: NA
TIME: NA

SAMPLER TYPE & MATERIAL: NA
SAMPLING DEPTH: NA
SAMPLE DESCRIPTION: NA

**WELL SAMPLING DATA:**

SAMPLING DATE: 2/18/09
TIME: 0840

PURGE METHOD & MATERIALS: *Low Flow/Low Stress Peristaltic Pump with Teflon Lined Tubing*
WELL VOLUME [(DTB - DTW) x Constant = Well Volume]: (15-8.4) x 0.08 = 0.52 gal
VOLUME OF WATER PURGED: 1.75 gal
PURGE DATE: 2/18/09 START TIME: 0820 END TIME: 0838
SAMPLER TYPE & MATERIAL: *Geopump-II using flex tubing and teflon lined tubing*
SAMPLE DESCRIPTION: NA

DEPTH TO GROUND WATER (ft): 8.40 TOTAL WELL DEPTH (ft): 15.00

| CONTAINER | | PRESERVATIVE/ANALYSIS METHOD | NUMBER | FILTERING | COC |
|---|---|---|---|---|---|
| TYPE | VOLUME | | | | |
| Glass | 40ml Amber | HCl / EPA SW-846 Method 8260B | 3 | No | BTEX, Naphthalene |
| Glass | 1 L Amber | None/EPA SW-846 Method 8270 | 2 | No | PAH |
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**FIELD MEASUREMENTS**

| PARAMETER | FINAL MEASUREMENT | COMMENTS |
|---|---|---|
| pH (STD UNITS) | 6.93 | |
| SPEC. COND (um/sm) | 0.581 | |
| Turbidity (NTU) | 41.3 | |
| Dissolved Oxygen (mg/L) | 0.00 | |
| Temperature © | 18.02 | |
| ORP (mV) | -80 | |

**GENERAL INFORMATION**

WEATHER: Rain AIR TEMP. 50°F

SAMPLES COLLECTED BY: Jim

PARAMETERS MEASURED WITH (EQUIPMENT TYPE & SER. NUM): Horiba U-22 S/N# 8153004

MODE OF SHIPMENT: ____ CAR/TRUCK ____ BUS ____ PLANE ____ X COMMER VEH.

COMMENTS (FIELD MODIFICATIONS, INSTRUMENT PROBLEMS, SAMPLE DUPLICATE, ETC.): Nt

| FIELD SAMPLING REPORT | ADVENT<br>498 Wando Park Blvd Suite 500<br>Mt. Pleasant, SC 29464<br>(843) 388-1851 | JOB NUMBER 09-500<br>JOB NAME DPT Investigation at RTC<br>SAMPLING POINT<br>(LOCATION) RTC at CNC<br>DATE 2/18/09 TIME 0910 |
|---|---|---|

**SAMPLING INFORMATION** SAMPLE I.D. NUMBER: RTC TMW 02 HAZARDOUS? ____ YES ____ NO X UNKNOWN

**SOIL SAMPLING DATA:**

SAMPLING DATE: NA
TIME: NA

SAMPLER TYPE & MATERIAL: NA
SAMPLING DEPTH: NA
SAMPLE DESCRIPTION: NA

**WELL SAMPLING DATA:**

SAMPLING DATE: 2/18/09
TIME: 0910

PURGE METHOD & MATERIALS: *Low Flow/Low Stress Peristaltic Pump with Teflon Lined Tubing*
WELL VOLUME [(DTB - DTW) x Constant = Well Volume]: (15.02 - 7.2) x 0.08 = 0.62 gal
VOLUME OF WATER PURGED: 1.5 gal
PURGE DATE: 2/18/09 START TIME: 0852 END TIME: 0908
SAMPLER TYPE & MATERIAL: *Geopump-II using flex tubing and teflon lined tubing*
SAMPLE DESCRIPTION: MA

DEPTH TO GROUND WATER (ft): 7.20 TOTAL WELL DEPTH (ft): 15.02

| CONTAINER TYPE | CONTAINER VOLUME | PRESERVATIVE/ANALYSIS METHOD | NUMBER | FILTERING | COC |
|---|---|---|---|---|---|
| Glass | 40ml Amber | HCl / EPA SW-846 Method 8260B | 3 | No | BTEX, Naphthalene |
| Glass | 1 L Amber | None/EPA SW-846 Method 8270 | 2 | No | PAH |
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**FIELD MEASUREMENTS**

| PARAMETER | FINAL MEASUREMENT | COMMENTS |
|---|---|---|
| pH (STO UNITS) | 7.13 | |
| SPEC. COND (um/sm) | 0.921 | |
| Turbidity (NTU) | 147.0 | |
| Dissolved Oxygen (mg/L) | 0.00 | |
| Temperature © | 17.42 | |
| ORP (mV) | -99 | |

**GENERAL INFORMATION**

WEATHER: Rain AIR TEMP: 50°F
SAMPLES COLLECTED BY: JW
PARAMETERS MEASURED WITH (EQUIPMENT TYPE & SER. NUM): Horiba U-22 SN# 8153004
MODE OF SHIPMENT: ____ CAR/TRUCK ____ BUS ____ PLANE X COMMER VEH

COMMENTS (FIELD MODIFICATIONS, INSTRUMENT PROBLEMS, SAMPLE DUPLICATE, ETC.): MA

| FIELD SAMPLING REPORT | ADVENT<br>498 Wando Park Blvd Suite 500<br>Mt. Pleasant, SC 29464<br>(843) 388-1851 | JOB NUMBER 09-500<br>JOB NAME DPT Investigation at RTC<br>SAMPLING POINT (LOCATION) RTC at CNC<br>DATE 2/18/09 TIME 0940 |
|---|---|---|

**SAMPLING INFORMATION** SAMPLE I.D. NUMBER: RTC TMW 03 HAZARDOUS?: ____ YES ____ NO X UNKNOWN

**SOIL SAMPLING DATA:**

SAMPLING DATE: NA
TIME: NA

SAMPLER TYPE & MATERIAL: NA
SAMPLING DEPTH: NA
SAMPLE DESCRIPTION: NA

**WELL SAMPLING DATA:**

SAMPLING DATE: 2/18/09
TIME: 0940

PURGE METHOD & MATERIALS: *Low Flow/Low Stress Peristaltic Pump with Teflon Lined Tubing*
WELL VOLUME [(DTB - DTW) x Constant = Well Volume]: (15 - 5.64) x 0.08 = 0.75
VOLUME OF WATER PURGED: 1.25 gal.
PURGE DATE: 2/18/09 START TIME: 0926 END TIME: 0938
SAMPLER TYPE & MATERIAL: *Geopump-II using flex tubing and teflon lined tubing*
SAMPLE DESCRIPTION: NA

DEPTH TO GROUND WATER (ft): 5.64 TOTAL WELL DEPTH (ft): 15.00

| CONTAINER TYPE | CONTAINER VOLUME | PRESERVATIVE/ANALYSIS METHOD | NUMBER | FILTERING | COC |
|---|---|---|---|---|---|
| Glass | 40ml Amber | HCl / EPA SW-846 Method 8260B | 3 | No | BTEX, Naphthalene |
| Glass | 1 L Amber | None/EPA SW-846 Method 8270 | 2 | No | PAH |
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**FIELD MEASUREMENTS**

| PARAMETER | FINAL MEASUREMENT | COMMENTS |
|---|---|---|
| pH (STO UNITS) | 6.95 | |
| SPEC. COND (um/sm) | 2.38 | |
| Turbidity (NTU) | 16.5 | |
| Dissolved Oxygen (mg/L) | 0.00 | |
| Temperature © | 16.81 | |
| ORP (mV) | -280 | |

**GENERAL INFORMATION**

WEATHER Rain AIR TEMP. 50 °F
SAMPLES COLLECTED BY: Jw
PARAMETERS MEASURED WITH (EQUIPMENT TYPE & SER. NUM): Horiba U-22 SN# 8153004
MODE OF SHIPMENT: ____ CAR/TRUCK ____ BUS ____ PLANE X COMMER VEH.
COMMENTS (FIELD MODIFICATIONS, INSTRUMENT PROBLEMS, SAMPLE DUPLICATE, ETC.): NA

| FIELD SAMPLING REPORT | ADVENT<br>498 Wando Park Blvd Suite 500<br>Mt. Pleasant, SC 29464<br>(843) 388-1851 | JOB NUMBER 09-500<br>JOB NAME DPT Investigation at RTC<br>SAMPLING POINT (LOCATION) RTC at CNC<br>DATE 2/18/09 TIME 1015 |
|---|---|---|

**SAMPLING INFORMATION**

SAMPLE I.D. NUMBER: RTC TMW 04 HAZARDOUS?: ____ YES ____ NO X UNKNOWN

**SOIL SAMPLING DATA:**

SAMPLING DATE: NA
TIME: NA

SAMPLER TYPE & MATERIAL: NA
SAMPLING DEPTH: NA
SAMPLE DESCRIPTION: NA

**WELL SAMPLING DATA:**

SAMPLING DATE: 2/18/09
TIME: 1015

PURGE METHOD & MATERIALS: *Low Flow/Low Stress Peristaltic Pump with Teflon Lined Tubing*
WELL VOLUME [(DTB - DTW) x Constant = Well Volume]: (15 - 6.24) x 0.08 = 0.70 gal
VOLUME OF WATER PURGED: 1.25 gal.
PURGE DATE: 2/18/09 START TIME: 0959 END TIME: 1011
SAMPLER TYPE & MATERIAL: *Geopump-II using flex tubing and teflon lined tubing*
SAMPLE DESCRIPTION: NA

DEPTH TO GROUND WATER (ft): 6.24 TOTAL WELL DEPTH (ft): 15.00

| CONTAINER TYPE | CONTAINER VOLUME | PRESERVATIVE/ANALYSIS METHOD | NUMBER | FILTERING | COC |
|---|---|---|---|---|---|
| Glass | 40ml Amber | HCl / EPA SW-846 Method 8260B | 3 | No | BTEX, Naphthalene |
| Glass | 1 L Amber | None/EPA SW-846 Method 8270 | 2 | No | PAH |
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**FIELD MEASUREMENTS**

| PARAMETER | FINAL MEASUREMENT | COMMENTS |
|---|---|---|
| pH (STO UNITS) | 7.08 | |
| SPEC. COND (um/sm) | 2.65 | |
| Turbidity (NTU) | 34.8 | |
| Dissolved Oxygen (mg/L) | 0.00 | |
| Temperature © | 16.08 | |
| ORP (mV) | -248 | |

**GENERAL INFORMATION**

WEATHER: Rain AIR TEMP: 50°F

SAMPLES COLLECTED BY: JWW

PARAMETERS MEASURED WITH (EQUIPMENT TYPE & SER. NUM): Horiba U-22 SN# 8153004

MODE OF SHIPMENT: ____ CAR/TRUCK ____ BUS ____ PLANE X COMMER VEH.

COMMENTS (FIELD MODIFICATIONS, INSTRUMENT PROBLEMS, SAMPLE DUPLICATE, ETC.): Collected RTC TMW DUP

| FIELD SAMPLING REPORT | ADVENT<br>498 Wando Park Blvd Suite 500<br>Mt. Pleasant, SC 29464<br>(843) 388-1851 | JOB NUMBER 09-500<br>JOB NAME DPT Invest igation RTC<br>SAMPLING POINT (LOCATION) RTC at CNC<br>DATE 2/17/09 TIME 0905 |
|---|---|---|

**SAMPLING INFORMATION**

SAMPLE I.D. NUMBER: RTC SB01 HAZARDOUS?: ____ YES ____ NO X UNKNOWN

**SOIL SAMPLING DATA:**

SAMPLING DATE: 2/17/09
TIME: 0905

SAMPLER TYPE & MATERIAL: Econo 5035 Sample Saver Kit
SAMPLING DEPTH: 0-5' Interval (3' of recovery)
SAMPLE DESCRIPTION: Organics (0-1) Red, moist, sandy clay (1-2) Medium, Tan, sand (2-3)

**WELL SAMPLING DATA:**

SAMPLING DATE: NA
TIME: NA

PURGE METHOD & MATERIALS: *Low Flow/Low Stress Peristaltic Pump with Teflon Lined Tubing*
WELL VOLUME [(DTB - DTW) x Constant = Well Volume]: NA
VOLUME OF WATER PURGED: NA
PURGE DATE: NA START TIME: NA END TIME : NA
SAMPLER TYPE & MATERIAL: NA
SAMPLE DESCRIPTION: NA

DEPTH TO GROUND WATER (ft): NA TOTAL WELL DEPTH (ft): NA

| CONTAINER | | | | | |
|---|---|---|---|---|---|
| TYPE | VOLUME | PRESERVATIVE/ANALYSIS METHOD | NUMBER | FILTERING | COC |
| Glass | 40ml | 2 x $NaHSO_4$, 1 x Methanol, 1 x Upreserved | 4 | No | BTEX, Naphthalene |
| Glass | 4 oz Clear | None | 1 | No | PAH |
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**FIELD MEASUREMENTS**

| PARAMETER | FINAL MEASUREMENT | COMMENTS |
|---|---|---|
| pH (STO UNITS) | NA | |
| SPEC. COND (um/sm) | NA | |
| Turbidity (NTU) | NA | |
| Dissolved Oxygen (mg/L) | NA | |
| Temperature © | NA | |
| ORP (mV) | NA | |

**GENERAL INFORMATION**

WEATHER: CLR AIR TEMP. 37°F
SAMPLES COLLECTED BY: JWW
PARAMETERS MEASURED WITH (EQUIPMENT TYPE & SER. NUM): NA
MODE OF SHIPMENT: ____ CAR/TRUCK ____ BUS ____ PLANE ____ X COMMER VEH.
COMMENTS (FIELD MODIFICATIONS, INSTRUMENT PROBLEMS, SAMPLE DUPLICATE, ETC.): NA

| FIELD SAMPLING REPORT | ADVENT<br>498 Wando Park Blvd Suite 500<br>Mt. Pleasant, SC 29464<br>(843) 388-1851 | JOB NUMBER 09-500<br>JOB NAME DPT Investigation RTC<br>SAMPLING POINT (LOCATION) RTC at CNC<br>DATE 2/17/09 TIME 0960 |
|---|---|---|

**SAMPLING INFORMATION**

SAMPLE I.D. NUMBER: RTC SB 02 HAZARDOUS?: ____ YES ____ NO X UNKNOWN

**SOIL SAMPLING DATA:**

SAMPLING DATE: 2/17/09

TIME: 0960

SAMPLER TYPE & MATERIAL: Eldno 5035 Sample Smart Kit

SAMPLING DEPTH: 0'-5' Interval (4' of recovery)

SAMPLE DESCRIPTION: organics (0-1.6) Black Sandy silt (1.5-2) White, coarse sand (2-2.5) Black, fine sand (2.5-4)

**WELL SAMPLING DATA:**

SAMPLING DATE: NA

TIME: NA

PURGE METHOD & MATERIALS: *Low Flow/Low Stress Peristaltic Pump with Teflon Lined Tubing*

WELL VOLUME ((DTB - DTW) x Constant = Well Volume): NA

VOLUME OF WATER PURGED: NA

PURGE DATE: NA START TIME: NA END TIME : NA

SAMPLER TYPE & MATERIAL: NA

SAMPLE DESCRIPTION: NA

DEPTH TO GROUND WATER (ft): NA TOTAL WELL DEPTH (ft): NA

| CONTAINER | | | | | |
|---|---|---|---|---|---|
| TYPE | VOLUME | PRESERVATIVE/ANALYSIS METHOD | NUMBER | FILTERING | COC |
| Glass | 40ml | 2 x $NaHSO_4$, 1 x Methanol, 1 x Upreserved | 4 | No | BTEX, Naphthalene |
| Glass | 4 oz Clear | None | 1 | No | PAH |
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**FIELD MEASUREMENTS**

| PARAMETER | FINAL MEASUREMENT | COMMENTS |
|---|---|---|
| pH (STD UNITS) | NA | |
| SPEC. COND (um/sm) | NA | |
| Turbidity (NTU) | NA | |
| Dissolved Oxygen (mg/L) | NA | |
| Temperature © | NA | |
| ORP (mV) | NA | |

**GENERAL INFORMATION**

WEATHER: CLR AIR TEMP. 37°F

SAMPLES COLLECTED BY: JWW

PARAMETERS MEASURED WITH (EQUIPMENT TYPE & SER. NUM): NA

MODE OF SHIPMENT: ____ CAR/TRUCK ____ BUS ____ PLANE ____ X COMMER VEH.

COMMENTS (FIELD MODIFICATIONS, INSTRUMENT PROBLEMS, SAMPLE DUPLICATE, ETC.): NA

| FIELD SAMPLING REPORT | ADVENT<br>498 Wando Park Blvd Suite 500<br>Mt. Pleasant, SC 29464<br>(843) 388-1851 | JOB NUMBER 09-500<br>JOB NAME DPT Investigation RTC<br>SAMPLING POINT (LOCATION) RTC at CNC<br>DATE 2/17/09 TIME 0950 |
|---|---|---|

**SAMPLING INFORMATION**

SAMPLE I.D. NUMBER: RTL SB03 HAZARDOUS?: ____ YES ____ NO X UNKNOWN

**SOIL SAMPLING DATA:**

SAMPLING DATE: 2/17/09
TIME: 0950

SAMPLER TYPE & MATERIAL: Econo 5035 Sample Support Kit
SAMPLING DEPTH: 0'-5' Interval (4' of recovery)
SAMPLE DESCRIPTION: Organics (0-1) fine, Tan, Sand (1-3) Black, Medium, Sand (3-4)

**WELL SAMPLING DATA:**

SAMPLING DATE: NA
TIME: NA

PURGE METHOD & MATERIALS: *Low Flow/Low Stress Peristaltic Pump with Teflon Lined Tubing*
WELL VOLUME [(DTB - DTW) x Constant = Well Volume]: NA
VOLUME OF WATER PURGED: NA
PURGE DATE: NA START TIME: NA END TIME : NA
SAMPLER TYPE & MATERIAL: NA
SAMPLE DESCRIPTION: NA

DEPTH TO GROUND WATER (ft): NA TOTAL WELL DEPTH (ft): NA

| CONTAINER | | | | | |
|---|---|---|---|---|---|
| TYPE | VOLUME | PRESERVATIVE/ANALYSIS METHOD | NUMBER | FILTERING | COC |
| Glass | 40ml | 2 x $NaHSO_4$, 1 x Methanol, 1 x Upreserved | 4 | No | BTEX, Naphthalene |
| Glass | 4 oz Clear | None | 1 | No | PAH |
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**FIELD MEASUREMENTS**

| PARAMETER | FINAL MEASUREMENT | COMMENTS |
|---|---|---|
| pH (STO UNITS) | NA | |
| SPEC. COND (um/sm) | NA | |
| Turbidity (NTU) | NA | |
| Dissolved Oxygen (mg/L) | NA | |
| Temperature © | NA | |
| ORP (mV) | NA | |

**GENERAL INFORMATION**

WEATHER: CLR AIR TEMP.: 40°F
SAMPLES COLLECTED BY: JWW
PARAMETERS MEASURED WITH (EQUIPMENT TYPE & SER. NUM): NA
MODE OF SHIPMENT: ____ CAR/TRUCK ____ BUS ____ PLANE ____ X COMMER VEH.
COMMENTS (FIELD MODIFICATIONS, INSTRUMENT PROBLEMS, SAMPLE DUPLICATE, ETC.): NA

| FIELD SAMPLING REPORT | ADVENT<br>498 Wando Park Blvd Suite 500<br>Mt. Pleasant, SC 29464<br>(843) 388-1851 | JOB NUMBER 09-500<br>JOB NAME DPT Investigation RTC<br>SAMPLING POINT (LOCATION) RTC at CNC<br>DATE 2/17/09 TIME 1000 |
|---|---|---|

**SAMPLING INFORMATION**

SAMPLE I.D. NUMBER: RTC SB 04 HAZARDOUS?: _____ YES _____ NO X UNKNOWN

**SOIL SAMPLING DATA:**

SAMPLING DATE: 2/17/09
TIME: 1000

SAMPLER TYPE & MATERIAL: Econo 5035 Sample Smart Kit
SAMPLING DEPTH: 0'-5' Interval (3' of recovery)
SAMPLE DESCRIPTION: Organics (0-0.5) Black, medium, sand (0.5-3)

**WELL SAMPLING DATA:**

SAMPLING DATE: NA
TIME: NA

PURGE METHOD & MATERIALS: *Low Flow/Low Stress Peristaltic Pump with Teflon Lined Tubing*
WELL VOLUME [(DTB - DTW) x Constant = Well Volume]: NA
VOLUME OF WATER PURGED: NA
PURGE DATE: NA START TIME: NA END TIME : NA
SAMPLER TYPE & MATERIAL: NA
SAMPLE DESCRIPTION: NA

DEPTH TO GROUND WATER (ft): NA TOTAL WELL DEPTH (ft): NA

| CONTAINER | | | | | |
|---|---|---|---|---|---|
| TYPE | VOLUME | PRESERVATIVE/ANALYSIS METHOD | NUMBER | FILTERING | COC |
| Glass | 40ml | 2 x $NaHSO_4$, 1 x Methanol, 1 x Upreserved | 4 | No | BTEX, Naphthalene |
| Glass | 4 oz Clear | None | 1 | No | PAH |
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**FIELD MEASUREMENTS**

| PARAMETER | FINAL MEASUREMENT | COMMENTS |
|---|---|---|
| pH (STO UNITS) | NA | |
| SPEC. COND (um/sm) | NA | |
| Turbidity (NTU) | NA | |
| Dissolved Oxygen (mg/L) | NA | |
| Temperature © | NA | |
| ORP (mV) | NA | |

**GENERAL INFORMATION**

WEATHER: CLR AIR TEMP: 42°F

SAMPLES COLLECTED BY: TW
PARAMETERS MEASURED WITH (EQUIPMENT TYPE & SER. NUM): N/A

MODE OF SHIPMENT: _____ CAR/TRUCK _____ BUS _____ PLANE _____ X COMMER VEH.

COMMENTS (FIELD MODIFICATIONS, INSTRUMENT PROBLEMS, SAMPLE DUPLICATE, ETC.): RTC Dup. collected at this location.

# APPENDIX B

Pace Analytical Services, Inc.
2225 Riverside Dr
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave Suite 100
Huntersville, NC 28078
(704)875-9092

March 02, 2009

Mr. James Weeg
ADVENT ENVIRONMENTAL
498 Wando Park Blvd
Mount Pleasant, SC 29464

RE: Project: 09-500 RTC 7937
Pace Project No.: 9238205

Dear Mr. Weeg:
Enclosed are the analytical results for sample(s) received by the laboratory on February 18, 2009. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

Inorganic Wet Chemistry and Metals analyses were performed at our Pace Asheville laboratory and Organic testing was performed at our Pace Huntersville laboratory unless otherwise footnoted. All Microbiological analyses were performed at the laboratory where the samples were received.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Bonnie McKee

bonnie.mckee@pacelabs.com
Project Manager

Enclosures

cc Larry Fowler, ADVENT ENVIRONMENTAL



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without the written consent of Pace Analytical Services, Inc.

Pace Analytical Services, Inc.
2225 Riverside Dr.
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave. Suite 100
Huntersville, NC 28078
(704)875-9092

## CERTIFICATIONS

Project: 09-500 RTC 7937
Pace Project No.: 9238205

**Charlotte Certification IDs**

West Virginia Certification #: 357
Virginia Certification #: 00213
Tennessee Certification #: 04010
South Carolina Drinking Water Cert. #: 990060003
South Carolina Certification #: 990060001
Pennsylvania Certification #: 68-00784
Connecticut Certification #: PH-0104
North Carolina Field Services Certification #: 5342
North Carolina Drinking Water Certification #: 37706
New Jersey Certification #: NC012
Louisiana/LELAP Certification #: 04034
Kentucky UST Certification #: 84
Florida/NELAP Certification #: E87627
North Carolina Wastewater Certification #: 12

**Asheville Certification IDs**

West Virginia Certification #: 356
Virginia Certification #: 00072
Connecticut Certification #: PH-0106
Florida/NELAP Certification #: E87648
Tennessee Certification #: 2980
South Carolina Certification #: 99030001
South Carolina Bioassay Certification #: 99030002
Pennsylvania Certification #: 68-03578
North Carolina Wastewater Certification #: 40
North Carolina Drinking Water Certification #: 37712
North Carolina Bioassay Certification #: 9
New Jersey Certification #: NC011
Massachusetts Certification #: M-NC030
Louisiana/LELAP Certification #: 03095

**Eden Certification IDs**

North Carolina Wastewater Certification #: 633
Virginia Drinking Water Certification #: 00424
North Carolina Drinking Water Certification #: 37738



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## SAMPLE SUMMARY

Project 09-500 RTC 7937
Pace Project No 9238205

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|---|---|---|---|---|
| 9238205001 | RTCSB01 | Solid | 02/17/09 09:05 | 02/18/09 10 15 |
| 9238205002 | RTCSB02 | Solid | 02/17/09 09 10 | 02/18/09 10:15 |
| 9238205003 | RTCSB03 | Solid | 02/17/09 09:50 | 02/18/09 10:15 |
| 9238205004 | RTCSB04 | Solid | 02/17/09 10:00 | 02/18/09 10 15 |
| 9238205005 | RTCSBDUP | Solid | 02/17/09 10:00 | 02/18/09 10:15 |



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## SAMPLE ANALYTE COUNT

Project: 09-500 RTC 7937
Pace Project No 9238205

| Lab ID | Sample ID | Method | Analysts | Analytes Reported |
|---|---|---|---|---|
| 9238205001 | RTCSB01 | ASTM D2974-87 | TNM | 1 |
| | | EPA 8260 | DLK | 70 |
| | | EPA 8270 | BET | 21 |
| 9238205002 | RTCSB02 | ASTM D2974-87 | TNM | 1 |
| | | EPA 8260 | DLK | 70 |
| | | EPA 8270 | BET | 21 |
| 9238205003 | RTCSB03 | ASTM D2974-87 | TNM | 1 |
| | | EPA 8260 | DLK | 70 |
| | | EPA 8270 | BET | 21 |
| 9238205004 | RTCSB04 | ASTM D2974-87 | TNM | 1 |
| | | EPA 8260 | DLK | 70 |
| | | EPA 8270 | BET | 21 |
| 9238205005 | RTCSBDUP | ASTM D2974-87 | TNM | 1 |
| | | EPA 8260 | DLK | 70 |
| | | EPA 8270 | BET | 21 |



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# ANALYTICAL RESULTS

Project: 09-500 RTC 7937
Pace Project No 9238205

**Sample: RTCSB01** **Lab ID: 9238205001** Collected: 02/17/09 09.05 Received 02/18/09 10:15 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8270 MSSV Microwave** | Analytical Method EPA 8270 Preparation Method EPA 3546 | | | | | | | | |
| Acenaphthene | ND | ug/kg | 381 | 87 7 | 1 | 02/19/09 00:00 | 02/28/09 09:11 | 83-32-9 | |
| Acenaphthylene | ND | ug/kg | 381 | 90 1 | 1 | 02/19/09 00:00 | 02/28/09 09:11 | 208-96-8 | |
| Anthracene | ND | ug/kg | 381 | 85.4 | 1 | 02/19/09 00:00 | 02/28/09 09:11 | 120-12-7 | |
| Benzo(a)anthracene | ND | ug/kg | 381 | 70.4 | 1 | 02/19/09 00:00 | 02/28/09 09:11 | 56-55-3 | |
| Benzo(a)pyrene | ND | ug/kg | 381 | 72 7 | 1 | 02/19/09 00:00 | 02/28/09 09:11 | 50-32-8 | |
| Benzo(b)fluoranthene | ND | ug/kg | 381 | 65 8 | 1 | 02/19/09 00:00 | 02/28/09 09.11 | 205-99-2 | |
| Benzo(g,h,i)perylene | ND | ug/kg | 381 | 97.0 | 1 | 02/19/09 00 00 | 02/28/09 09:11 | 191-24-2 | |
| Benzo(k)fluoranthene | ND | ug/kg | 381 | 75 0 | 1 | 02/19/09 00:00 | 02/28/09 09:11 | 207-08-9 | |
| Chrysene | ND | ug/kg | 381 | 50.8 | 1 | 02/19/09 00:00 | 02/28/09 09:11 | 218-01-9 | |
| Dibenz(a,h)anthracene | ND | ug/kg | 381 | 80.8 | 1 | 02/19/09 00.00 | 02/28/09 09.11 | 53-70-3 | |
| Fluoranthene | ND | ug/kg | 381 | 55 4 | 1 | 02/19/09 00:00 | 02/28/09 09:11 | 206-44-0 | |
| Fluorene | ND | ug/kg | 381 | 78 5 | 1 | 02/19/09 00.00 | 02/28/09 09.11 | 86-73-7 | |
| Indeno(1,2,3-cd)pyrene | ND | ug/kg | 381 | 78.5 | 1 | 02/19/09 00 00 | 02/28/09 09:11 | 193-39-5 | |
| 1-Methylnaphthalene | ND | ug/kg | 381 | 99.3 | 1 | 02/19/09 00:00 | 02/28/09 09 11 | 90-12-0 | |
| 2-Methylnaphthalene | ND | ug/kg | 381 | 82 0 | 1 | 02/19/09 00.00 | 02/28/09 09 11 | 91-57-6 | |
| Naphthalene | ND | ug/kg | 381 | 93 5 | 1 | 02/19/09 00 00 | 02/28/09 09:11 | 91-20-3 | |
| Phenanthrene | ND | ug/kg | 381 | 63.5 | 1 | 02/19/09 00:00 | 02/28/09 09:11 | 85-01-8 | |
| Pyrene | ND | ug/kg | 381 | 64 7 | 1 | 02/19/09 00.00 | 02/28/09 09:11 | 129-00-0 | |
| Nitrobenzene-d5 (S) | 80 | % | 30-150 | | 1 | 02/19/09 00:00 | 02/28/09 09:11 | 4165-60-0 | |
| 2-Fluorobiphenyl (S) | 79 | % | 46-120 | | 1 | 02/19/09 00:00 | 02/28/09 09:11 | 321-60-8 | |
| Terphenyl-d14 (S) | 95 | % | 38-108 | | 1 | 02/19/09 00 00 | 02/28/09 09:11 | 1718-51-0 | |
| **8260/5035A Volatile Organics** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | **27.5J** | ug/kg | 52.8 | 5.3 | 1 | | 02/21/09 08:54 | 67-64-1 | |
| Benzene | **1.7J** | ug/kg | 2.6 | 0.85 | 1 | | 02/21/09 08:54 | 71-43-2 | |
| Bromobenzene | ND | ug/kg | 2.6 | 1.1 | 1 | | 02/21/09 08:54 | 108-86-1 | |
| Bromochloromethane | ND | ug/kg | 2.6 | 0.90 | 1 | | 02/21/09 08:54 | 74-97-5 | |
| Bromodichloromethane | ND | ug/kg | 2.6 | 1.0 | 1 | | 02/21/09 08:54 | 75-27-4 | |
| Bromoform | ND | ug/kg | 2.6 | 1.2 | 1 | | 02/21/09 08:54 | 75-25-2 | |
| Bromomethane | ND | ug/kg | 5.3 | 1.3 | 1 | | 02/21/09 08:54 | 74-83-9 | |
| 2-Butanone (MEK) | **7.2J** | ug/kg | 52.8 | 1.5 | 1 | | 02/21/09 08:54 | 78-93-3 | |
| n-Butylbenzene | ND | ug/kg | 2.6 | 0.95 | 1 | | 02/21/09 08:54 | 104-51-8 | |
| sec-Butylbenzene | ND | ug/kg | 2.6 | 0 85 | 1 | | 02/21/09 08:54 | 135-98-8 | |
| tert-Butylbenzene | ND | ug/kg | 2.6 | 1 1 | 1 | | 02/21/09 08:54 | 98-06-6 | |
| Carbon tetrachloride | ND | ug/kg | 2 6 | 1 4 | 1 | | 02/21/09 08:54 | 56-23-5 | |
| Chlorobenzene | ND | ug/kg | 2.6 | 1 0 | 1 | | 02/21/09 08:54 | 108-90-7 | |
| Chloroethane | ND | ug/kg | 5.3 | 1 3 | 1 | | 02/21/09 08:54 | 75-00-3 | |
| Chloroform | ND | ug/kg | 2.6 | 0.85 | 1 | | 02/21/09 08:54 | 67-66-3 | |
| Chloromethane | ND | ug/kg | 5.3 | 1.3 | 1 | | 02/21/09 08:54 | 74-87-3 | |
| 2-Chlorotoluene | ND | ug/kg | 2.6 | 0.90 | 1 | | 02/21/09 08:54 | 95-49-8 | |
| 4-Chlorotoluene | ND | ug/kg | 2.6 | 0 95 | 1 | | 02/21/09 08:54 | 106-43-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 2 6 | 1 8 | 1 | | 02/21/09 08:54 | 96-12-8 | |
| Dibromochloromethane | ND | ug/kg | 2.6 | 0 95 | 1 | | 02/21/09 08:54 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/kg | 2 6 | 0.95 | 1 | | 02/21/09 08:54 | 106-93-4 | |
| Dibromomethane | ND | ug/kg | 2.6 | 1.3 | 1 | | 02/21/09 08:54 | 74-95-3 | |



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# ANALYTICAL RESULTS

Project 09-500 RTC 7937
Pace Project No 9238205

**Sample: RTCSB01** **Lab ID: 9238205001** Collected 02/17/09 09:05 Received 02/18/09 10:15 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260/5035A Volatile Organics** | Analytical Method: EPA 8260 | | | | | | | | |
| 1,2-Dichlorobenzene | ND | ug/kg | 2.6 | 1.0 | 1 | | 02/21/09 08:54 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/kg | 2.6 | 1.1 | 1 | | 02/21/09 08:54 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/kg | 2.6 | 0.90 | 1 | | 02/21/09 08:54 | 106-46-7 | |
| Dichlorodifluoromethane | ND | ug/kg | 5.3 | 1.9 | 1 | | 02/21/09 08:54 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/kg | 2.6 | 0.79 | 1 | | 02/21/09 08:54 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/kg | 2.6 | 1.2 | 1 | | 02/21/09 08:54 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/kg | 2.6 | 0.95 | 1 | | 02/21/09 08:54 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/kg | 2.6 | 0.74 | 1 | | 02/21/09 08:54 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/kg | 2.6 | 1.0 | 1 | | 02/21/09 08:54 | 156-60-5 | |
| 1,2-Dichloropropane | ND | ug/kg | 2.6 | 0.90 | 1 | | 02/21/09 08:54 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/kg | 2.6 | 1.0 | 1 | | 02/21/09 08:54 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/kg | 2.6 | 0.90 | 1 | | 02/21/09 08:54 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/kg | 2.6 | 0.79 | 1 | | 02/21/09 08:54 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/kg | 2.6 | 0.95 | 1 | | 02/21/09 08:54 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/kg | 2.6 | 0.79 | 1 | | 02/21/09 08:54 | 10061-02-6 | |
| Diisopropyl ether | ND | ug/kg | 2.6 | 0.90 | 1 | | 02/21/09 08:54 | 108-20-3 | |
| Ethylbenzene | **1.5J** | ug/kg | 2.6 | 0.95 | 1 | | 02/21/09 08:54 | 100-41-4 | |
| Hexachloro-1,3-butadiene | ND | ug/kg | 2.6 | 1.1 | 1 | | 02/21/09 08:54 | 87-68-3 | |
| 2-Hexanone | ND | ug/kg | 26.4 | 2.1 | 1 | | 02/21/09 08:54 | 591-78-6 | |
| Isopropylbenzene (Cumene) | ND | ug/kg | 2.6 | 1.0 | 1 | | 02/21/09 08:54 | 98-82-8 | |
| p-Isopropyltoluene | ND | ug/kg | 2.6 | 0.90 | 1 | | 02/21/09 08:54 | 99-87-6 | |
| Methylene Chloride | ND | ug/kg | 10.6 | 1.6 | 1 | | 02/21/09 08:54 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 26.4 | 2.0 | 1 | | 02/21/09 08:54 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/kg | 2.8 | 0.79 | 1 | | 02/21/09 08:54 | 1634-04-4 | |
| Naphthalene | ND | ug/kg | 2.6 | 0.63 | 1 | | 02/21/09 08:54 | 91-20-3 | |
| n-Propylbenzene | ND | ug/kg | 2.6 | 0.90 | 1 | | 02/21/09 08:54 | 103-65-1 | |
| Styrene | ND | ug/kg | 2.6 | 0.95 | 1 | | 02/21/09 08:54 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/kg | 2.6 | 1.1 | 1 | | 02/21/09 08:54 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 2.6 | 1.0 | 1 | | 02/21/09 08:54 | 79-34-5 | |
| Tetrachloroethene | ND | ug/kg | 2.6 | 0.90 | 1 | | 02/21/09 08:54 | 127-18-4 | |
| Toluene | **154** | ug/kg | 2.6 | 0.95 | 1 | | 02/21/09 08:54 | 108-88-3 | E |
| 1,2,3-Trichlorobenzene | ND | ug/kg | 2.6 | 1.2 | 1 | | 02/21/09 08:54 | 87-61-6 | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 2.6 | 0.85 | 1 | | 02/21/09 08:54 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/kg | 2.6 | 0.95 | 1 | | 02/21/09 08:54 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/kg | 2.6 | 1.1 | 1 | | 02/21/09 08:54 | 79-00-5 | |
| Trichloroethene | ND | ug/kg | 2.6 | 1.1 | 1 | | 02/21/09 08:54 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/kg | 2.6 | 1.2 | 1 | | 02/21/09 08:54 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/kg | 2.6 | 0.85 | 1 | | 02/21/09 08:54 | 96-18-4 | |
| 1,2,4-Trimethylbenzene | ND | ug/kg | 2.6 | 1.1 | 1 | | 02/21/09 08:54 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/kg | 2.6 | 0.95 | 1 | | 02/21/09 08:54 | 108-67-8 | |
| Vinyl acetate | ND | ug/kg | 26.4 | 4.6 | 1 | | 02/21/09 08:54 | 108-05-4 | L1 |
| Vinyl chloride | ND | ug/kg | 5.3 | 0.95 | 1 | | 02/21/09 08:54 | 75-01-4 | |
| m&p-Xylene | ND | ug/kg | 5.3 | 1.9 | 1 | | 02/21/09 08:54 | 1330-20-7 | |
| o-Xylene | ND | ug/kg | 2.6 | 1.0 | 1 | | 02/21/09 08:54 | 95-47-6 | |
| Dibromofluoromethane (S) | 98 | % | 79-116 | | 1 | | 02/21/09 08:54 | 1868-53-7 | |



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# ANALYTICAL RESULTS

Project 09-500 RTC 7937
Pace Project No 9238205

**Sample: RTCSB01** **Lab ID: 9238205001** Collected 02/17/09 09 05 Received: 02/18/09 10:15 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260/5035A Volatile Organics** | Analytical Method: EPA 8260 | | | | | | | | |
| Toluene-d8 (S) | 102 | % | 88-110 | | 1 | | 02/21/09 08:54 | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 88 | % | 74-115 | | 1 | | 02/21/09 08:54 | 460-00-4 | |
| 1,2-Dichloroethane-d4 (S) | 92 | % | 69-121 | | 1 | | 02/21/09 08:54 | 17060-07-0 | |
| **Percent Moisture** | Analytical Method: ASTM D2974-87 | | | | | | | | |
| Percent Moisture | **13.4** | % | 0 10 | 0 10 | 1 | | 02/19/09 08:33 | | |



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# ANALYTICAL RESULTS

Project: 09-500 RTC 7937
Pace Project No. 9238205

**Sample: RTCSB02** Lab ID: **9238205002** Collected: 02/17/09 09:10 Received: 02/18/09 10:15 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8270 MSSV Microwave** | Analytical Method: EPA 8270 Preparation Method: EPA 3546 | | | | | | | | |
| Acenaphthene | ND | ug/kg | 379 | 87.3 | 1 | 02/19/09 00:00 | 02/28/09 09:34 | 83-32-9 | |
| Acenaphthylene | ND | ug/kg | 379 | 88.6 | 1 | 02/19/09 00:00 | 02/28/09 09:34 | 208-96-8 | |
| Anthracene | ND | ug/kg | 379 | 85.0 | 1 | 02/19/09 00:00 | 02/28/09 09:34 | 120-12-7 | |
| Benzo(a)anthracene | ND | ug/kg | 379 | 70.1 | 1 | 02/19/09 00:00 | 02/28/09 09:34 | 56-55-3 | |
| Benzo(a)pyrene | ND | ug/kg | 379 | 72.4 | 1 | 02/19/09 00:00 | 02/28/09 09:34 | 50-32-8 | |
| Benzo(b)fluoranthene | ND | ug/kg | 379 | 65.5 | 1 | 02/19/09 00:00 | 02/28/09 09:34 | 205-99-2 | |
| Benzo(g,h,i)perylene | ND | ug/kg | 379 | 96.5 | 1 | 02/19/09 00:00 | 02/28/09 09:34 | 191-24-2 | |
| Benzo(k)fluoranthene | ND | ug/kg | 379 | 74.7 | 1 | 02/19/09 00:00 | 02/28/09 09:34 | 207-08-9 | |
| Chrysene | ND | ug/kg | 379 | 50.5 | 1 | 02/19/09 00:00 | 02/28/09 09:34 | 218-01-9 | |
| Dibenz(a,h)anthracene | ND | ug/kg | 379 | 80.4 | 1 | 02/19/09 00:00 | 02/28/09 09:34 | 53-70-3 | |
| Fluoranthene | ND | ug/kg | 379 | 55.1 | 1 | 02/19/09 00:00 | 02/28/09 09:34 | 206-44-0 | |
| Fluorene | ND | ug/kg | 379 | 78.1 | 1 | 02/19/09 00:00 | 02/28/09 09:34 | 86-73-7 | |
| Indeno(1,2,3-cd)pyrene | ND | ug/kg | 379 | 78.1 | 1 | 02/19/09 00:00 | 02/28/09 09:34 | 193-39-5 | |
| 1-Methylnaphthalene | ND | ug/kg | 379 | 98.8 | 1 | 02/19/09 00:00 | 02/28/09 09:34 | 90-12-0 | |
| 2-Methylnaphthalene | ND | ug/kg | 379 | 81.5 | 1 | 02/19/09 00:00 | 02/28/09 09:34 | 91-57-6 | |
| Naphthalene | ND | ug/kg | 379 | 93.0 | 1 | 02/19/09 00:00 | 02/28/09 09:34 | 91-20-3 | |
| Phenanthrene | ND | ug/kg | 379 | 63.2 | 1 | 02/19/09 00:00 | 02/28/09 09:34 | 85-01-8 | |
| Pyrene | ND | ug/kg | 379 | 64.3 | 1 | 02/19/09 00:00 | 02/28/09 09:34 | 129-00-0 | |
| Nitrobenzene-d5 (S) | 72 | % | 30-150 | | 1 | 02/19/09 00:00 | 02/28/09 09:34 | 4165-60-0 | |
| 2-Fluorobiphenyl (S) | 70 | % | 46-120 | | 1 | 02/19/09 00:00 | 02/28/09 09:34 | 321-60-8 | |
| Terphenyl-d14 (S) | 100 | % | 38-108 | | 1 | 02/19/09 00:00 | 02/28/09 09:34 | 1718-51-0 | |
| **8260/5035A Volatile Organics** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | **12.9J** | ug/kg | 57.2 | 5.7 | 1 | | 02/21/09 09:12 | 67-64-1 | |
| Benzene | ND | ug/kg | 2.9 | 0.92 | 1 | | 02/21/09 09:12 | 71-43-2 | |
| Bromobenzene | ND | ug/kg | 2.9 | 1.1 | 1 | | 02/21/09 09:12 | 108-86-1 | |
| Bromochloromethane | ND | ug/kg | 2.9 | 0.97 | 1 | | 02/21/09 09:12 | 74-97-5 | |
| Bromodichloromethane | ND | ug/kg | 2.9 | 1.1 | 1 | | 02/21/09 09:12 | 75-27-4 | |
| Bromoform | ND | ug/kg | 2.9 | 1.3 | 1 | | 02/21/09 09:12 | 75-25-2 | |
| Bromomethane | ND | ug/kg | 5.7 | 1.4 | 1 | | 02/21/09 09:12 | 74-83-9 | |
| 2-Butanone (MEK) | **6.7J** | ug/kg | 57.2 | 1.7 | 1 | | 02/21/09 09:12 | 78-93-3 | |
| n-Butylbenzene | ND | ug/kg | 2.9 | 1.0 | 1 | | 02/21/09 09:12 | 104-51-8 | |
| sec-Butylbenzene | ND | ug/kg | 2.9 | 0.92 | 1 | | 02/21/09 09:12 | 135-98-8 | |
| tert-Butylbenzene | ND | ug/kg | 2.9 | 1.1 | 1 | | 02/21/09 09:12 | 98-06-6 | |
| Carbon tetrachloride | ND | ug/kg | 2.9 | 1.5 | 1 | | 02/21/09 09:12 | 56-23-5 | |
| Chlorobenzene | ND | ug/kg | 2.9 | 1.1 | 1 | | 02/21/09 09:12 | 108-90-7 | |
| Chloroethane | ND | ug/kg | 5.7 | 1.4 | 1 | | 02/21/09 09:12 | 75-00-3 | |
| Chloroform | ND | ug/kg | 2.9 | 0.92 | 1 | | 02/21/09 09:12 | 67-66-3 | |
| Chloromethane | ND | ug/kg | 5.7 | 1.4 | 1 | | 02/21/09 09:12 | 74-87-3 | |
| 2-Chlorotoluene | ND | ug/kg | 2.9 | 0.97 | 1 | | 02/21/09 09:12 | 95-49-8 | |
| 4-Chlorotoluene | ND | ug/kg | 2.9 | 1.0 | 1 | | 02/21/09 09:12 | 106-43-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 2.9 | 2.1 | 1 | | 02/21/09 09:12 | 96-12-8 | |
| Dibromochloromethane | ND | ug/kg | 2.9 | 1.0 | 1 | | 02/21/09 09:12 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/kg | 2.9 | 1.0 | 1 | | 02/21/09 09:12 | 106-93-4 | |
| Dibromomethane | ND | ug/kg | 2.9 | 1.4 | 1 | | 02/21/09 09:12 | 74-95-3 | |



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# ANALYTICAL RESULTS

Project: 09-500 RTC 7937
Pace Project No.: 9238205

**Sample: RTCSB02** **Lab ID: 9238205002** Collected: 02/17/09 09:10 Received: 02/18/09 10:15 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260/5035A Volatile Organics** | Analytical Method: EPA 8260 | | | | | | | | |
| 1,2-Dichlorobenzene | ND | ug/kg | 2.9 | 1.1 | 1 | | 02/21/09 09:12 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/kg | 2.9 | 1.1 | 1 | | 02/21/09 09:12 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/kg | 2.9 | 0.97 | 1 | | 02/21/09 09:12 | 106-46-7 | |
| Dichlorodifluoromethane | ND | ug/kg | 5.7 | 2.1 | 1 | | 02/21/09 09:12 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/kg | 2.9 | 0.86 | 1 | | 02/21/09 09:12 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/kg | 2.9 | 1.3 | 1 | | 02/21/09 09:12 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/kg | 2.9 | 1.0 | 1 | | 02/21/09 09:12 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/kg | 2.9 | 0.80 | 1 | | 02/21/09 09:12 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/kg | 2.9 | 1.1 | 1 | | 02/21/09 09:12 | 156-60-5 | |
| 1,2-Dichloropropane | ND | ug/kg | 2.9 | 0.97 | 1 | | 02/21/09 09:12 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/kg | 2.9 | 1.1 | 1 | | 02/21/09 09:12 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/kg | 2.9 | 0.97 | 1 | | 02/21/09 09:12 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/kg | 2.9 | 0.86 | 1 | | 02/21/09 09:12 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/kg | 2.9 | 1.0 | 1 | | 02/21/09 09:12 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/kg | 2.9 | 0.86 | 1 | | 02/21/09 09:12 | 10061-02-6 | |
| Diisopropyl ether | ND | ug/kg | 2.9 | 0.97 | 1 | | 02/21/09 09:12 | 108-20-3 | |
| Ethylbenzene | ND | ug/kg | 2.9 | 1.0 | 1 | | 02/21/09 09:12 | 100-41-4 | |
| Hexachloro-1,3-butadiene | ND | ug/kg | 2.9 | 1.1 | 1 | | 02/21/09 09:12 | 87-68-3 | |
| 2-Hexanone | ND | ug/kg | 28.6 | 2.2 | 1 | | 02/21/09 09:12 | 591-78-6 | |
| Isopropylbenzene (Cumene) | ND | ug/kg | 2.9 | 1.1 | 1 | | 02/21/09 09:12 | 98-82-8 | |
| p-Isopropyltoluene | ND | ug/kg | 2.9 | 0.97 | 1 | | 02/21/09 09:12 | 99-87-6 | |
| Methylene Chloride | **13.9** | ug/kg | 11.4 | 1.7 | 1 | | 02/21/09 09:12 | 75-09-2 | Z3 |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 28.6 | 2.1 | 1 | | 02/21/09 09:12 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/kg | 2.9 | 0.86 | 1 | | 02/21/09 09:12 | 1634-04-4 | |
| Naphthalene | ND | ug/kg | 2.9 | 0.69 | 1 | | 02/21/09 09:12 | 91-20-3 | |
| n-Propylbenzene | ND | ug/kg | 2.9 | 0.97 | 1 | | 02/21/09 09:12 | 103-65-1 | |
| Styrene | ND | ug/kg | 2.9 | 1.0 | 1 | | 02/21/09 09:12 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/kg | 2.9 | 1.2 | 1 | | 02/21/09 09:12 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 2.9 | 1.1 | 1 | | 02/21/09 09:12 | 79-34-5 | |
| Tetrachloroethene | ND | ug/kg | 2.9 | 0.97 | 1 | | 02/21/09 09:12 | 127-18-4 | |
| Toluene | **53.5** | ug/kg | 2.9 | 1.0 | 1 | | 02/21/09 09:12 | 108-88-3 | |
| 1,2,3-Trichlorobenzene | ND | ug/kg | 2.9 | 1.3 | 1 | | 02/21/09 09:12 | 87-61-6 | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 2.9 | 0.92 | 1 | | 02/21/09 09:12 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/kg | 2.9 | 1.0 | 1 | | 02/21/09 09:12 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/kg | 2.9 | 1.2 | 1 | | 02/21/09 09:12 | 79-00-5 | |
| Trichloroethene | ND | ug/kg | 2.9 | 1.2 | 1 | | 02/21/09 09:12 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/kg | 2.9 | 1.3 | 1 | | 02/21/09 09:12 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/kg | 2.9 | 0.92 | 1 | | 02/21/09 09:12 | 96-18-4 | |
| 1,2,4-Trimethylbenzene | ND | ug/kg | 2.9 | 1.1 | 1 | | 02/21/09 09:12 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/kg | 2.9 | 1.0 | 1 | | 02/21/09 09:12 | 108-67-8 | |
| Vinyl acetate | ND | ug/kg | 28.6 | 5.0 | 1 | | 02/21/09 09:12 | 108-05-4 | L1 |
| Vinyl chloride | ND | ug/kg | 5.7 | 1.0 | 1 | | 02/21/09 09:12 | 75-01-4 | |
| m&p-Xylene | ND | ug/kg | 5.7 | 2.1 | 1 | | 02/21/09 09:12 | 1330-20-7 | |
| o-Xylene | ND | ug/kg | 2.9 | 1.1 | 1 | | 02/21/09 09:12 | 95-47-6 | |
| Dibromofluoromethane (S) | 96 | % | 79-116 | | 1 | | 02/21/09 09:12 | 1868-53-7 | |



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# ANALYTICAL RESULTS

Project: 09-500 RTC 7937
Pace Project No.: 9238205

**Sample: RTCSB02** **Lab ID: 9238205002** Collected: 02/17/09 09:10 Received: 02/18/09 10:15 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260/5035A Volatile Organics** | Analytical Method: EPA 8260 | | | | | | | | |
| Toluene-d8 (S) | 108 | % | 88-110 | | 1 | | 02/21/09 09:12 | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 94 | % | 74-115 | | 1 | | 02/21/09 09:12 | 460-00-4 | |
| 1,2-Dichloroethane-d4 (S) | 91 | % | 69-121 | | 1 | | 02/21/09 09:12 | 17060-07-0 | |
| **Percent Moisture** | Analytical Method: ASTM D2974-87 | | | | | | | | |
| Percent Moisture | **12.9** | % | 0.10 | 0.10 | 1 | | 02/19/09 08:34 | | |



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# ANALYTICAL RESULTS

Project: 09-500 RTC 7937
Pace Project No.. 9238205

**Sample: RTCSB03** Lab ID: **9238205003** Collected 02/17/09 09 50 Received 02/18/09 10:15 Matrix Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8270 MSSV Microwave** | Analytical Method EPA 8270 Preparation Method EPA 3546 | | | | | | | | |
| Acenaphthene | ND | ug/kg | 380 | 87 5 | 1 | 02/19/09 00.00 | 02/28/09 09:58 | 83-32-9 | |
| Acenaphthylene | ND | ug/kg | 380 | 89.8 | 1 | 02/19/09 00:00 | 02/28/09 09:58 | 208-96-8 | |
| Anthracene | ND | ug/kg | 380 | 85.2 | 1 | 02/19/09 00:00 | 02/28/09 09:58 | 120-12-7 | |
| Benzo(a)anthracene | ND | ug/kg | 380 | 70.3 | 1 | 02/19/09 00:00 | 02/28/09 09:58 | 56-55-3 | |
| Benzo(a)pyrene | ND | ug/kg | 380 | 72.6 | 1 | 02/19/09 00.00 | 02/28/09 09:58 | 50-32-8 | |
| Benzo(b)fluoranthene | ND | ug/kg | 380 | 65 7 | 1 | 02/19/09 00:00 | 02/28/09 09:58 | 205-99-2 | |
| Benzo(g,h,i)perylene | ND | ug/kg | 380 | 96.8 | 1 | 02/19/09 00:00 | 02/28/09 09:58 | 191-24-2 | |
| Benzo(k)fluoranthene | ND | ug/kg | 380 | 74 9 | 1 | 02/19/09 00:00 | 02/28/09 09:58 | 207-08-9 | |
| Chrysene | ND | ug/kg | 380 | 50 7 | 1 | 02/19/09 00:00 | 02/28/09 09:58 | 218-01-9 | |
| Dibenz(a,h)anthracene | ND | ug/kg | 380 | 80.6 | 1 | 02/19/09 00 00 | 02/28/09 09:58 | 53-70-3 | |
| Fluoranthene | ND | ug/kg | 380 | 55.3 | 1 | 02/19/09 00 00 | 02/28/09 09:58 | 206-44-0 | |
| Fluorene | ND | ug/kg | 380 | 78 3 | 1 | 02/19/09 00:00 | 02/28/09 09:58 | 86-73-7 | |
| Indeno(1,2,3-cd)pyrene | ND | ug/kg | 380 | 78.3 | 1 | 02/19/09 00 00 | 02/28/09 09.58 | 193-39-5 | |
| 1-Methylnaphthalene | ND | ug/kg | 380 | 99 1 | 1 | 02/19/09 00:00 | 02/28/09 09:58 | 90-12-0 | |
| 2-Methylnaphthalene | ND | ug/kg | 380 | 81.8 | 1 | 02/19/09 00:00 | 02/28/09 09:58 | 91-57-6 | |
| Naphthalene | ND | ug/kg | 380 | 93.3 | 1 | 02/19/09 00 00 | 02/28/09 09:58 | 91-20-3 | |
| Phenanthrene | ND | ug/kg | 380 | 63 4 | 1 | 02/19/09 00:00 | 02/28/09 09:58 | 85-01-8 | |
| Pyrene | ND | ug/kg | 380 | 64 5 | 1 | 02/19/09 00:00 | 02/28/09 09:58 | 129-00-0 | |
| Nitrobenzene-d5 (S) | 67 | % | 30-150 | | 1 | 02/19/09 00 00 | 02/28/09 09.58 | 4165-60-0 | |
| 2-Fluorobiphenyl (S) | 64 | % | 46-120 | | 1 | 02/19/09 00:00 | 02/28/09 09:58 | 321-60-8 | |
| Terphenyl-d14 (S) | 92 | % | 38-108 | | 1 | 02/19/09 00:00 | 02/28/09 09:58 | 1718-51-0 | |
| **8260/5035A Volatile Organics** | Analytical Method EPA 8260 | | | | | | | | |
| Acetone | ND | ug/kg | 69 2 | 6.9 | 1 | | 02/21/09 09.30 | 67-64-1 | |
| Benzene | ND | ug/kg | 3.5 | 1 1 | 1 | | 02/21/09 09:30 | 71-43-2 | |
| Bromobenzene | ND | ug/kg | 3 5 | 1 4 | 1 | | 02/21/09 09:30 | 108-86-1 | |
| Bromochloromethane | ND | ug/kg | 3 5 | 1.2 | 1 | | 02/21/09 09:30 | 74-97-5 | |
| Bromodichloromethane | ND | ug/kg | 3 5 | 1.3 | 1 | | 02/21/09 09:30 | 75-27-4 | |
| Bromoform | ND | ug/kg | 3.5 | 1.6 | 1 | | 02/21/09 09:30 | 75-25-2 | |
| Bromomethane | ND | ug/kg | 6.9 | 1.7 | 1 | | 02/21/09 09:30 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/kg | 69.2 | 2.0 | 1 | | 02/21/09 09:30 | 78-93-3 | |
| n-Butylbenzene | ND | ug/kg | 3 5 | 1.2 | 1 | | 02/21/09 09:30 | 104-51-8 | |
| sec-Butylbenzene | ND | ug/kg | 3 5 | 1 1 | 1 | | 02/21/09 09.30 | 135-98-8 | |
| tert-Butylbenzene | ND | ug/kg | 3.5 | 1 4 | 1 | | 02/21/09 09:30 | 98-06-6 | |
| Carbon tetrachloride | ND | ug/kg | 3 5 | 1 8 | 1 | | 02/21/09 09.30 | 56-23-5 | |
| Chlorobenzene | ND | ug/kg | 3.5 | 1 3 | 1 | | 02/21/09 09:30 | 108-90-7 | |
| Chloroethane | ND | ug/kg | 6 9 | 1 7 | 1 | | 02/21/09 09:30 | 75-00-3 | |
| Chloroform | ND | ug/kg | 3 5 | 1 1 | 1 | | 02/21/09 09.30 | 67-66-3 | |
| Chloromethane | ND | ug/kg | 6 9 | 1 7 | 1 | | 02/21/09 09:30 | 74-87-3 | |
| 2-Chlorotoluene | ND | ug/kg | 3.5 | 1 2 | 1 | | 02/21/09 09:30 | 95-49-8 | |
| 4-Chlorotoluene | ND | ug/kg | 3 5 | 1 2 | 1 | | 02/21/09 09:30 | 106-43-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 3 5 | 2.5 | 1 | | 02/21/09 09:30 | 96-12-8 | |
| Dibromochloromethane | ND | ug/kg | 3 5 | 1 2 | 1 | | 02/21/09 09.30 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/kg | 3 5 | 1 2 | 1 | | 02/21/09 09:30 | 106-93-4 | |
| Dibromomethane | ND | ug/kg | 3 5 | 1.7 | 1 | | 02/21/09 09:30 | 74-95-3 | |



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# ANALYTICAL RESULTS

Project: 09-500 RTC 7937
Pace Project No.: 9238205

**Sample: RTCSB03** Lab ID: **9238205003** Collected: 02/17/09 09:50 Received: 02/18/09 10:15 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260/5035A Volatile Organics** | Analytical Method: EPA 8260 | | | | | | | | |
| 1,2-Dichlorobenzene | ND | ug/kg | 3.5 | 1.3 | 1 | | 02/21/09 09:30 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/kg | 3.5 | 1.4 | 1 | | 02/21/09 09:30 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/kg | 3.5 | 1.2 | 1 | | 02/21/09 09:30 | 106-46-7 | |
| Dichlorodifluoromethane | ND | ug/kg | 6.9 | 2.5 | 1 | | 02/21/09 09:30 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/kg | 3.5 | 1.0 | 1 | | 02/21/09 09:30 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/kg | 3.5 | 1.5 | 1 | | 02/21/09 09:30 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/kg | 3.5 | 1.2 | 1 | | 02/21/09 09:30 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/kg | 3.5 | 0.97 | 1 | | 02/21/09 09:30 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/kg | 3.5 | 1.3 | 1 | | 02/21/09 09:30 | 156-60-5 | |
| 1,2-Dichloropropane | ND | ug/kg | 3.5 | 1.2 | 1 | | 02/21/09 09:30 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/kg | 3.5 | 1.3 | 1 | | 02/21/09 09:30 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/kg | 3.5 | 1.2 | 1 | | 02/21/09 09:30 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/kg | 3.5 | 1.0 | 1 | | 02/21/09 09:30 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/kg | 3.5 | 1.2 | 1 | | 02/21/09 09:30 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/kg | 3.5 | 1.0 | 1 | | 02/21/09 09:30 | 10061-02-6 | |
| Diisopropyl ether | ND | ug/kg | 3.5 | 1.2 | 1 | | 02/21/09 09:30 | 108-20-3 | |
| Ethylbenzene | ND | ug/kg | 3.5 | 1.2 | 1 | | 02/21/09 09:30 | 100-41-4 | |
| Hexachloro-1,3-butadiene | ND | ug/kg | 3.5 | 1.4 | 1 | | 02/21/09 09:30 | 87-68-3 | |
| 2-Hexanone | ND | ug/kg | 34.6 | 2.7 | 1 | | 02/21/09 09:30 | 591-78-6 | |
| Isopropylbenzene (Cumene) | ND | ug/kg | 3.5 | 1.3 | 1 | | 02/21/09 09:30 | 98-82-8 | |
| p-Isopropyltoluene | ND | ug/kg | 3.5 | 1.2 | 1 | | 02/21/09 09:30 | 99-87-6 | |
| Methylene Chloride | ND | ug/kg | 13.8 | 2.1 | 1 | | 02/21/09 09:30 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 34.6 | 2.6 | 1 | | 02/21/09 09:30 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/kg | 3.5 | 1.0 | 1 | | 02/21/09 09:30 | 1634-04-4 | |
| Naphthalene | ND | ug/kg | 3.5 | 0.83 | 1 | | 02/21/09 09:30 | 91-20-3 | |
| n-Propylbenzene | ND | ug/kg | 3.5 | 1.2 | 1 | | 02/21/09 09:30 | 103-65-1 | |
| Styrene | ND | ug/kg | 3.5 | 1.2 | 1 | | 02/21/09 09:30 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/kg | 3.5 | 1.5 | 1 | | 02/21/09 09:30 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 3.5 | 1.3 | 1 | | 02/21/09 09:30 | 79-34-5 | |
| Tetrachloroethene | ND | ug/kg | 3.5 | 1.2 | 1 | | 02/21/09 09:30 | 127-18-4 | |
| Toluene | ND | ug/kg | 3.5 | 1.2 | 1 | | 02/21/09 09:30 | 108-88-3 | |
| 1,2,3-Trichlorobenzene | ND | ug/kg | 3.5 | 1.5 | 1 | | 02/21/09 09:30 | 87-61-6 | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 3.5 | 1.1 | 1 | | 02/21/09 09:30 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/kg | 3.5 | 1.2 | 1 | | 02/21/09 09:30 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/kg | 3.5 | 1.5 | 1 | | 02/21/09 09:30 | 79-00-5 | |
| Trichloroethene | ND | ug/kg | 3.5 | 1.5 | 1 | | 02/21/09 09:30 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/kg | 3.5 | 1.5 | 1 | | 02/21/09 09:30 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/kg | 3.5 | 1.1 | 1 | | 02/21/09 09:30 | 96-18-4 | |
| 1,2,4-Trimethylbenzene | ND | ug/kg | 3.5 | 1.4 | 1 | | 02/21/09 09:30 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/kg | 3.5 | 1.2 | 1 | | 02/21/09 09:30 | 108-67-8 | |
| Vinyl acetate | ND | ug/kg | 34.6 | 6.1 | 1 | | 02/21/09 09:30 | 108-05-4 | L1 |
| Vinyl chloride | ND | ug/kg | 6.9 | 1.2 | 1 | | 02/21/09 09:30 | 75-01-4 | |
| m&p-Xylene | ND | ug/kg | 6.9 | 2.5 | 1 | | 02/21/09 09:30 | 1330-20-7 | |
| o-Xylene | ND | ug/kg | 3.5 | 1.3 | 1 | | 02/21/09 09:30 | 95-47-6 | |
| Dibromofluoromethane (S) | 96 | % | 79-116 | | 1 | | 02/21/09 09:30 | 1868-53-7 | |



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# ANALYTICAL RESULTS

Project: 09-500 RTC 7937
Pace Project No. 9238205

**Sample: RTCSB03** **Lab ID: 9238205003** Collected: 02/17/09 09:50 Received 02/18/09 10:15 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260/5035A Volatile Organics** | Analytical Method: EPA 8260 | | | | | | | | |
| Toluene-d8 (S) | 115 | % | 88-110 | | 1 | | 02/21/09 09:30 | 2037-26-5 | S0 |
| 4-Bromofluorobenzene (S) | 94 | % | 74-115 | | 1 | | 02/21/09 09:30 | 460-00-4 | |
| 1,2-Dichloroethane-d4 (S) | 93 | % | 69-121 | | 1 | | 02/21/09 09:30 | 17060-07-0 | |
| **Percent Moisture** | Analytical Method: ASTM D2974-87 | | | | | | | | |
| Percent Moisture | **13.2** | % | 0.10 | 0.10 | 1 | | 02/19/09 08:34 | | |



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# ANALYTICAL RESULTS

Project: 09-500 RTC 7937
Pace Project No. 9238205

**Sample: RTCSB04** **Lab ID: 9238205004** Collected 02/17/09 10:00 Received 02/18/09 10:15 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8270 MSSV Microwave** | Analytical Method: EPA 8270 Preparation Method: EPA 3546 | | | | | | | | |
| Acenaphthene | ND | ug/kg | 388 | 89.3 | 1 | 02/19/09 00:00 | 02/28/09 10:22 | 83-32-9 | |
| Acenaphthylene | ND | ug/kg | 388 | 91.6 | 1 | 02/19/09 00:00 | 02/28/09 10:22 | 208-96-8 | |
| Anthracene | ND | ug/kg | 388 | 86.9 | 1 | 02/19/09 00:00 | 02/28/09 10:22 | 120-12-7 | |
| Benzo(a)anthracene | ND | ug/kg | 388 | 71.6 | 1 | 02/19/09 00:00 | 02/28/09 10:22 | 56-55-3 | |
| Benzo(a)pyrene | ND | ug/kg | 388 | 74.0 | 1 | 02/19/09 00:00 | 02/28/09 10:22 | 50-32-8 | |
| Benzo(b)fluoranthene | ND | ug/kg | 388 | 67.0 | 1 | 02/19/09 00:00 | 02/28/09 10:22 | 205-99-2 | |
| Benzo(g,h,i)perylene | ND | ug/kg | 388 | 98.7 | 1 | 02/19/09 00:00 | 02/28/09 10:22 | 191-24-2 | |
| Benzo(k)fluoranthene | ND | ug/kg | 388 | 76.3 | 1 | 02/19/09 00:00 | 02/28/09 10:22 | 207-08-9 | |
| Chrysene | ND | ug/kg | 388 | 51.7 | 1 | 02/19/09 00:00 | 02/28/09 10:22 | 218-01-9 | |
| Dibenz(a,h)anthracene | ND | ug/kg | 388 | 82.2 | 1 | 02/19/09 00:00 | 02/28/09 10:22 | 53-70-3 | |
| Fluoranthene | ND | ug/kg | 388 | 56.4 | 1 | 02/19/09 00:00 | 02/28/09 10:22 | 206-44-0 | |
| Fluorene | ND | ug/kg | 388 | 79.9 | 1 | 02/19/09 00:00 | 02/28/09 10:22 | 86-73-7 | |
| Indeno(1,2,3-cd)pyrene | ND | ug/kg | 388 | 79.9 | 1 | 02/19/09 00:00 | 02/28/09 10:22 | 193-39-5 | |
| 1-Methylnaphthalene | ND | ug/kg | 388 | 101 | 1 | 02/19/09 00:00 | 02/28/09 10:22 | 90-12-0 | |
| 2-Methylnaphthalene | ND | ug/kg | 388 | 83.4 | 1 | 02/19/09 00:00 | 02/28/09 10:22 | 91-57-6 | |
| Naphthalene | ND | ug/kg | 388 | 95.1 | 1 | 02/19/09 00:00 | 02/28/09 10:22 | 91-20-3 | |
| Phenanthrene | ND | ug/kg | 388 | 64.6 | 1 | 02/19/09 00:00 | 02/28/09 10:22 | 85-01-8 | |
| Pyrene | ND | ug/kg | 388 | 65.8 | 1 | 02/19/09 00:00 | 02/28/09 10:22 | 129-00-0 | |
| Nitrobenzene-d5 (S) | 84 | % | 30-150 | | 1 | 02/19/09 00:00 | 02/28/09 10:22 | 4165-60-0 | |
| 2-Fluorobiphenyl (S) | 74 | % | 46-120 | | 1 | 02/19/09 00:00 | 02/28/09 10:22 | 321-60-8 | |
| Terphenyl-d14 (S) | 104 | % | 38-108 | | 1 | 02/19/09 00:00 | 02/28/09 10:22 | 1718-51-0 | |
| **8260/5035A Volatile Organics** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | **9.6J** | ug/kg | 79.3 | 7.9 | 1 | | 02/21/09 09:49 | 67-64-1 | |
| Benzene | ND | ug/kg | 4.0 | 1.3 | 1 | | 02/21/09 09:49 | 71-43-2 | |
| Bromobenzene | ND | ug/kg | 4.0 | 1.6 | 1 | | 02/21/09 09:49 | 108-86-1 | |
| Bromochloromethane | ND | ug/kg | 4.0 | 1.3 | 1 | | 02/21/09 09:49 | 74-97-5 | |
| Bromodichloromethane | ND | ug/kg | 4.0 | 1.5 | 1 | | 02/21/09 09:49 | 75-27-4 | |
| Bromoform | ND | ug/kg | 4.0 | 1.8 | 1 | | 02/21/09 09:49 | 75-25-2 | |
| Bromomethane | ND | ug/kg | 7.9 | 2.0 | 1 | | 02/21/09 09:49 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/kg | 79.3 | 2.3 | 1 | | 02/21/09 09:49 | 78-93-3 | |
| n-Butylbenzene | ND | ug/kg | 4.0 | 1.4 | 1 | | 02/21/09 09:49 | 104-51-8 | |
| sec-Butylbenzene | ND | ug/kg | 4.0 | 1.3 | 1 | | 02/21/09 09:49 | 135-98-8 | |
| tert-Butylbenzene | ND | ug/kg | 4.0 | 1.6 | 1 | | 02/21/09 09:49 | 98-06-6 | |
| Carbon tetrachloride | ND | ug/kg | 4.0 | 2.1 | 1 | | 02/21/09 09:49 | 56-23-5 | |
| Chlorobenzene | ND | ug/kg | 4.0 | 1.5 | 1 | | 02/21/09 09:49 | 108-90-7 | |
| Chloroethane | ND | ug/kg | 7.9 | 1.9 | 1 | | 02/21/09 09:49 | 75-00-3 | |
| Chloroform | ND | ug/kg | 4.0 | 1.3 | 1 | | 02/21/09 09:49 | 67-66-3 | |
| Chloromethane | ND | ug/kg | 7.9 | 1.9 | 1 | | 02/21/09 09:49 | 74-87-3 | |
| 2-Chlorotoluene | ND | ug/kg | 4.0 | 1.3 | 1 | | 02/21/09 09:49 | 95-49-8 | |
| 4-Chlorotoluene | ND | ug/kg | 4.0 | 1.4 | 1 | | 02/21/09 09:49 | 106-43-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 4.0 | 2.9 | 1 | | 02/21/09 09:49 | 96-12-8 | |
| Dibromochloromethane | ND | ug/kg | 4.0 | 1.4 | 1 | | 02/21/09 09:49 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/kg | 4.0 | 1.4 | 1 | | 02/21/09 09:49 | 106-93-4 | |
| Dibromomethane | ND | ug/kg | 4.0 | 2.0 | 1 | | 02/21/09 09:49 | 74-95-3 | |



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# ANALYTICAL RESULTS

Project 09-500 RTC 7937
Pace Project No. 9238205

**Sample: RTCSB04** **Lab ID: 9238205004** Collected: 02/17/09 10:00 Received 02/18/09 10:15 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | Df | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260/5035A Volatile Organics** | Analytical Method: EPA 8260 | | | | | | | | |
| 1,2-Dichlorobenzene | ND | ug/kg | 4.0 | 1.5 | 1 | | 02/21/09 09:49 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/kg | 4.0 | 1.6 | 1 | | 02/21/09 09:49 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/kg | 4.0 | 1.3 | 1 | | 02/21/09 09:49 | 106-46-7 | |
| Dichlorodifluoromethane | ND | ug/kg | 7.9 | 2.9 | 1 | | 02/21/09 09:49 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/kg | 4.0 | 1.2 | 1 | | 02/21/09 09:49 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/kg | 4.0 | 1.7 | 1 | | 02/21/09 09:49 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/kg | 4.0 | 1.4 | 1 | | 02/21/09 09:49 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/kg | 4.0 | 1.1 | 1 | | 02/21/09 09:49 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/kg | 4.0 | 1.5 | 1 | | 02/21/09 09:49 | 156-60-5 | |
| 1,2-Dichloropropane | ND | ug/kg | 4.0 | 1.3 | 1 | | 02/21/09 09:49 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/kg | 4.0 | 1.5 | 1 | | 02/21/09 09:49 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/kg | 4.0 | 1.3 | 1 | | 02/21/09 09:49 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/kg | 4.0 | 1.2 | 1 | | 02/21/09 09:49 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/kg | 4.0 | 1.4 | 1 | | 02/21/09 09:49 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/kg | 4.0 | 1.2 | 1 | | 02/21/09 09:49 | 10061-02-6 | |
| Diisopropyl ether | ND | ug/kg | 4.0 | 1.3 | 1 | | 02/21/09 09:49 | 108-20-3 | |
| Ethylbenzene | ND | ug/kg | 4.0 | 1.4 | 1 | | 02/21/09 09:49 | 100-41-4 | |
| Hexachloro-1,3-butadiene | ND | ug/kg | 4.0 | 1.6 | 1 | | 02/21/09 09:49 | 87-68-3 | |
| 2-Hexanone | ND | ug/kg | 39.6 | 3.1 | 1 | | 02/21/09 09:49 | 591-78-6 | |
| Isopropylbenzene (Cumene) | ND | ug/kg | 4.0 | 1.5 | 1 | | 02/21/09 09:49 | 98-82-8 | |
| p-Isopropyltoluene | ND | ug/kg | 4.0 | 1.3 | 1 | | 02/21/09 09:49 | 99-87-6 | |
| Methylene Chloride | ND | ug/kg | 15.9 | 2.4 | 1 | | 02/21/09 09:49 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 39.6 | 2.9 | 1 | | 02/21/09 09:49 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/kg | 4.0 | 1.2 | 1 | | 02/21/09 09:49 | 1634-04-4 | |
| Naphthalene | ND | ug/kg | 4.0 | 0.95 | 1 | | 02/21/09 09:49 | 91-20-3 | |
| n-Propylbenzene | ND | ug/kg | 4.0 | 1.3 | 1 | | 02/21/09 09:49 | 103-65-1 | |
| Styrene | ND | ug/kg | 4.0 | 1.4 | 1 | | 02/21/09 09:49 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/kg | 4.0 | 1.7 | 1 | | 02/21/09 09:49 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 4.0 | 1.5 | 1 | | 02/21/09 09:49 | 79-34-5 | |
| Tetrachloroethene | ND | ug/kg | 4.0 | 1.3 | 1 | | 02/21/09 09:49 | 127-18-4 | |
| Toluene | **1.6J** | ug/kg | 4.0 | 1.4 | 1 | | 02/21/09 09:49 | 108-88-3 | |
| 1,2,3-Trichlorobenzene | ND | ug/kg | 4.0 | 1.7 | 1 | | 02/21/09 09:49 | 87-61-6 | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 4.0 | 1.3 | 1 | | 02/21/09 09:49 | 120-82-1 | |
| 1,1,1-Trichloroethane | ND | ug/kg | 4.0 | 1.4 | 1 | | 02/21/09 09:49 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/kg | 4.0 | 1.7 | 1 | | 02/21/09 09:49 | 79-00-5 | |
| Trichloroethene | ND | ug/kg | 4.0 | 1.7 | 1 | | 02/21/09 09:49 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/kg | 4.0 | 1.7 | 1 | | 02/21/09 09:49 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/kg | 4.0 | 1.3 | 1 | | 02/21/09 09:49 | 96-18-4 | |
| 1,2,4-Trimethylbenzene | ND | ug/kg | 4.0 | 1.6 | 1 | | 02/21/09 09:49 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/kg | 4.0 | 1.4 | 1 | | 02/21/09 09:49 | 108-67-8 | |
| Vinyl acetate | ND | ug/kg | 39.6 | 7.0 | 1 | | 02/21/09 09:49 | 108-05-4 | L1 |
| Vinyl chloride | ND | ug/kg | 7.9 | 1.4 | 1 | | 02/21/09 09:49 | 75-01-4 | |
| m&p-Xylene | ND | ug/kg | 7.9 | 2.9 | 1 | | 02/21/09 09:49 | 1330-20-7 | |
| o-Xylene | ND | ug/kg | 4.0 | 1.5 | 1 | | 02/21/09 09:49 | 95-47-6 | |
| Dibromofluoromethane (S) | 86 | % | 79-116 | | 1 | | 02/21/09 09:49 | 1868-53-7 | |



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# ANALYTICAL RESULTS

Project 09-500 RTC 7937
Pace Project No 9238205

**Sample: RTCSB04** **Lab ID: 9238205004** Collected 02/17/09 10:00 Received 02/18/09 10:15 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260/5035A Volatile Organics** | Analytical Method: EPA 8260 | | | | | | | | |
| Toluene-d8 (S) | 103 | % | 88-110 | | 1 | | 02/21/09 09:49 | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 83 | % | 74-115 | | 1 | | 02/21/09 09:49 | 460-00-4 | |
| 1,2-Dichloroethane-d4 (S) | 85 | % | 69-121 | | 1 | | 02/21/09 09:49 | 17060-07-0 | |
| **Percent Moisture** | Analytical Method: ASTM D2974-87 | | | | | | | | |
| Percent Moisture | **14.9** | % | 0.10 | 0.10 | 1 | | 02/19/09 08:34 | | |



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# ANALYTICAL RESULTS

Project: 09-500 RTC 7937
Pace Project No.: 9238205

**Sample: RTCSBDUP** **Lab ID: 9238205005** Collected: 02/17/09 10:00 Received: 02/18/09 10:15 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8270 MSSV Microwave** | Analytical Method: EPA 8270 Preparation Method: EPA 3546 | | | | | | | | |
| Acenaphthene | ND | ug/kg | 391 | 90.1 | 1 | 02/19/09 00:00 | 02/28/09 10:46 | 83-32-9 | |
| Acenaphthylene | ND | ug/kg | 391 | 92.5 | 1 | 02/19/09 00:00 | 02/28/09 10:46 | 208-96-8 | |
| Anthracene | ND | ug/kg | 391 | 87.7 | 1 | 02/19/09 00:00 | 02/28/09 10:46 | 120-12-7 | |
| Benzo(a)anthracene | ND | ug/kg | 391 | 72.3 | 1 | 02/19/09 00:00 | 02/28/09 10:46 | 56-55-3 | |
| Benzo(a)pyrene | ND | ug/kg | 391 | 74.7 | 1 | 02/19/09 00:00 | 02/28/09 10:46 | 50-32-8 | |
| Benzo(b)fluoranthene | ND | ug/kg | 391 | 67.6 | 1 | 02/19/09 00:00 | 02/28/09 10:46 | 205-99-2 | |
| Benzo(g,h,i)perylene | ND | ug/kg | 391 | 99.6 | 1 | 02/19/09 00:00 | 02/28/09 10:46 | 191-24-2 | |
| Benzo(k)fluoranthene | ND | ug/kg | 391 | 77.1 | 1 | 02/19/09 00:00 | 02/28/09 10:46 | 207-08-9 | |
| Chrysene | ND | ug/kg | 391 | 52.2 | 1 | 02/19/09 00:00 | 02/28/09 10:46 | 218-01-9 | |
| Dibenz(a,h)anthracene | ND | ug/kg | 391 | 83.0 | 1 | 02/19/09 00:00 | 02/28/09 10:46 | 53-70-3 | |
| Fluoranthene | ND | ug/kg | 391 | 56.9 | 1 | 02/19/09 00:00 | 02/28/09 10:46 | 206-44-0 | |
| Fluorene | ND | ug/kg | 391 | 80.6 | 1 | 02/19/09 00:00 | 02/28/09 10:46 | 86-73-7 | |
| Indeno(1,2,3-cd)pyrene | ND | ug/kg | 391 | 80.6 | 1 | 02/19/09 00:00 | 02/28/09 10:46 | 193-39-5 | |
| 1-Methylnaphthalene | ND | ug/kg | 391 | 102 | 1 | 02/19/09 00:00 | 02/28/09 10:46 | 90-12-0 | |
| 2-Methylnaphthalene | ND | ug/kg | 391 | 84.2 | 1 | 02/19/09 00:00 | 02/28/09 10:46 | 91-57-6 | |
| Naphthalene | ND | ug/kg | 391 | 96.0 | 1 | 02/19/09 00:00 | 02/28/09 10:46 | 91-20-3 | |
| Phenanthrene | ND | ug/kg | 391 | 65.2 | 1 | 02/19/09 00:00 | 02/28/09 10:46 | 85-01-8 | |
| Pyrene | ND | ug/kg | 391 | 66.4 | 1 | 02/19/09 00:00 | 02/28/09 10:46 | 129-00-0 | |
| Nitrobenzene-d5 (S) | 84 | % | 30-150 | | 1 | 02/19/09 00:00 | 02/28/09 10:46 | 4165-60-0 | |
| 2-Fluorobiphenyl (S) | 75 | % | 46-120 | | 1 | 02/19/09 00:00 | 02/28/09 10:46 | 321-60-8 | |
| Terphenyl-d14 (S) | 98 | % | 38-108 | | 1 | 02/19/09 00:00 | 02/28/09 10:46 | 1718-51-0 | |
| **8260/5035A Volatile Organics** | Analytical Method: EPA 8260 | | | | | | | | |
| Acetone | **15.7J** | ug/kg | 74.4 | 7.4 | 1 | | 02/21/09 10:07 | 67-64-1 | |
| Benzene | **2.3J** | ug/kg | 3.7 | 1.2 | 1 | | 02/21/09 10:07 | 71-43-2 | |
| Bromobenzene | ND | ug/kg | 3.7 | 1.5 | 1 | | 02/21/09 10:07 | 108-86-1 | |
| Bromochloromethane | ND | ug/kg | 3.7 | 1.3 | 1 | | 02/21/09 10:07 | 74-97-5 | |
| Bromodichloromethane | ND | ug/kg | 3.7 | 1.4 | 1 | | 02/21/09 10:07 | 75-27-4 | |
| Bromoform | ND | ug/kg | 3.7 | 1.7 | 1 | | 02/21/09 10:07 | 75-25-2 | |
| Bromomethane | ND | ug/kg | 7.4 | 1.9 | 1 | | 02/21/09 10:07 | 74-83-9 | |
| 2-Butanone (MEK) | ND | ug/kg | 74.4 | 2.2 | 1 | | 02/21/09 10:07 | 78-93-3 | |
| n-Butylbenzene | ND | ug/kg | 3.7 | 1.3 | 1 | | 02/21/09 10:07 | 104-51-8 | |
| sec-Butylbenzene | ND | ug/kg | 3.7 | 1.2 | 1 | | 02/21/09 10:07 | 135-98-8 | |
| tert-Butylbenzene | ND | ug/kg | 3.7 | 1.5 | 1 | | 02/21/09 10:07 | 98-06-6 | |
| Carbon tetrachloride | ND | ug/kg | 3.7 | 1.9 | 1 | | 02/21/09 10:07 | 56-23-5 | |
| Chlorobenzene | ND | ug/kg | 3.7 | 1.4 | 1 | | 02/21/09 10:07 | 108-90-7 | |
| Chloroethane | ND | ug/kg | 7.4 | 1.8 | 1 | | 02/21/09 10:07 | 75-00-3 | |
| Chloroform | ND | ug/kg | 3.7 | 1.2 | 1 | | 02/21/09 10:07 | 67-66-3 | |
| Chloromethane | ND | ug/kg | 7.4 | 1.8 | 1 | | 02/21/09 10:07 | 74-87-3 | |
| 2-Chlorotoluene | ND | ug/kg | 3.7 | 1.3 | 1 | | 02/21/09 10:07 | 95-49-8 | |
| 4-Chlorotoluene | ND | ug/kg | 3.7 | 1.3 | 1 | | 02/21/09 10:07 | 106-43-4 | |
| 1,2-Dibromo-3-chloropropane | ND | ug/kg | 3.7 | 2.7 | 1 | | 02/21/09 10:07 | 96-12-8 | |
| Dibromochloromethane | ND | ug/kg | 3.7 | 1.3 | 1 | | 02/21/09 10:07 | 124-48-1 | |
| 1,2-Dibromoethane (EDB) | ND | ug/kg | 3.7 | 1.3 | 1 | | 02/21/09 10:07 | 106-93-4 | |
| Dibromomethane | ND | ug/kg | 3.7 | 1.9 | 1 | | 02/21/09 10:07 | 74-95-3 | |



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# ANALYTICAL RESULTS

Project 09-500 RTC 7937
Pace Project No 9238205

**Sample: RTCSBDUP** **Lab ID: 9238205005** Collected 02/17/09 10 00 Received 02/18/09 10 15 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260/5035A Volatile Organics** | Analytical Method EPA 8260 | | | | | | | | |
| 1,2-Dichlorobenzene | ND | ug/kg | 3.7 | 1 4 | 1 | | 02/21/09 10:07 | 95-50-1 | |
| 1,3-Dichlorobenzene | ND | ug/kg | 3.7 | 1.5 | 1 | | 02/21/09 10:07 | 541-73-1 | |
| 1,4-Dichlorobenzene | ND | ug/kg | 3.7 | 1 3 | 1 | | 02/21/09 10:07 | 106-46-7 | |
| Dichlorodifluoromethane | ND | ug/kg | 7.4 | 2 7 | 1 | | 02/21/09 10:07 | 75-71-8 | |
| 1,1-Dichloroethane | ND | ug/kg | 3.7 | 1 1 | 1 | | 02/21/09 10:07 | 75-34-3 | |
| 1,2-Dichloroethane | ND | ug/kg | 3.7 | 1.6 | 1 | | 02/21/09 10:07 | 107-06-2 | |
| 1,1-Dichloroethene | ND | ug/kg | 3 7 | 1 3 | 1 | | 02/21/09 10:07 | 75-35-4 | |
| cis-1,2-Dichloroethene | ND | ug/kg | 3 7 | 1 0 | 1 | | 02/21/09 10:07 | 156-59-2 | |
| trans-1,2-Dichloroethene | ND | ug/kg | 3 7 | 1 4 | 1 | | 02/21/09 10:07 | 156-60-5 | |
| 1,2-Dichloropropane | ND | ug/kg | 3 7 | 1 3 | 1 | | 02/21/09 10:07 | 78-87-5 | |
| 1,3-Dichloropropane | ND | ug/kg | 3 7 | 1 4 | 1 | | 02/21/09 10:07 | 142-28-9 | |
| 2,2-Dichloropropane | ND | ug/kg | 3.7 | 1 3 | 1 | | 02/21/09 10:07 | 594-20-7 | |
| 1,1-Dichloropropene | ND | ug/kg | 3.7 | 1 1 | 1 | | 02/21/09 10 07 | 563-58-6 | |
| cis-1,3-Dichloropropene | ND | ug/kg | 3 7 | 1 3 | 1 | | 02/21/09 10:07 | 10061-01-5 | |
| trans-1,3-Dichloropropene | ND | ug/kg | 3 7 | 1 1 | 1 | | 02/21/09 10:07 | 10061-02-6 | |
| Diisopropyl ether | ND | ug/kg | 3.7 | 1 3 | 1 | | 02/21/09 10 07 | 108-20-3 | |
| Ethylbenzene | ND | ug/kg | 3 7 | 1 3 | 1 | | 02/21/09 10.07 | 100-41-4 | |
| Hexachloro-1,3-butadiene | ND | ug/kg | 3 7 | 1 5 | 1 | | 02/21/09 10:07 | 87-68-3 | |
| 2-Hexanone | ND | ug/kg | 37.2 | 2 9 | 1 | | 02/21/09 10:07 | 591-78-6 | |
| Isopropylbenzene (Cumene) | ND | ug/kg | 3 7 | 1 4 | 1 | | 02/21/09 10.07 | 98-82-8 | |
| p-Isopropyltoluene | ND | ug/kg | 3.7 | 1 3 | 1 | | 02/21/09 10:07 | 99-87-6 | |
| Methylene Chloride | ND | ug/kg | 14.9 | 2 2 | 1 | | 02/21/09 10:07 | 75-09-2 | |
| 4-Methyl-2-pentanone (MIBK) | ND | ug/kg | 37.2 | 2 8 | 1 | | 02/21/09 10:07 | 108-10-1 | |
| Methyl-tert-butyl ether | ND | ug/kg | 3 7 | 1 1 | 1 | | 02/21/09 10:07 | 1634-04-4 | |
| Naphthalene | ND | ug/kg | 3.7 | 0.89 | 1 | | 02/21/09 10:07 | 91-20-3 | |
| n-Propylbenzene | ND | ug/kg | 3.7 | 1.3 | 1 | | 02/21/09 10:07 | 103-65-1 | |
| Styrene | ND | ug/kg | 3.7 | 1 3 | 1 | | 02/21/09 10:07 | 100-42-5 | |
| 1,1,1,2-Tetrachloroethane | ND | ug/kg | 3.7 | 1.6 | 1 | | 02/21/09 10:07 | 630-20-6 | |
| 1,1,2,2-Tetrachloroethane | ND | ug/kg | 3.7 | 1 4 | 1 | | 02/21/09 10:07 | 79-34-5 | |
| Tetrachloroethene | ND | ug/kg | 3.7 | 1.3 | 1 | | 02/21/09 10:07 | 127-18-4 | |
| Toluene | **2.3J** | ug/kg | 3.7 | 1 3 | 1 | | 02/21/09 10:07 | 108-88-3 | |
| 1,2,3-Trichlorobenzene | ND | ug/kg | 3.7 | 1 6 | 1 | | 02/21/09 10:07 | 87-61-6 | |
| 1,2,4-Trichlorobenzene | ND | ug/kg | 3.7 | 1 2 | 1 | | 02/21/09 10:07 | 120-82-1 | |
| 1 1,1-Trichloroethane | ND | ug/kg | 3.7 | 1 3 | 1 | | 02/21/09 10:07 | 71-55-6 | |
| 1,1,2-Trichloroethane | ND | ug/kg | 3.7 | 1.6 | 1 | | 02/21/09 10:07 | 79-00-5 | |
| Trichloroethene | ND | ug/kg | 3 7 | 1 6 | 1 | | 02/21/09 10:07 | 79-01-6 | |
| Trichlorofluoromethane | ND | ug/kg | 3.7 | 1 6 | 1 | | 02/21/09 10.07 | 75-69-4 | |
| 1,2,3-Trichloropropane | ND | ug/kg | 3.7 | 1 2 | 1 | | 02/21/09 10:07 | 96-18-4 | |
| 1,2,4-Trimethylbenzene | ND | ug/kg | 3.7 | 1 5 | 1 | | 02/21/09 10:07 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | ND | ug/kg | 3 7 | 1 3 | 1 | | 02/21/09 10:07 | 108-67-8 | |
| Vinyl acetate | ND | ug/kg | 37 2 | 6.5 | 1 | | 02/21/09 10.07 | 108-05-4 | L1 |
| Vinyl chloride | ND | ug/kg | 7.4 | 1 3 | 1 | | 02/21/09 10:07 | 75-01-4 | |
| m&p-Xylene | ND | ug/kg | 7 4 | 2.7 | 1 | | 02/21/09 10:07 | 1330-20-7 | |
| o-Xylene | ND | ug/kg | 3.7 | 1 4 | 1 | | 02/21/09 10:07 | 95-47-6 | |
| Dibromofluoromethane (S) | 100 | % | 79-116 | | 1 | | 02/21/09 10:07 | 1868-53-7 | |



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## ANALYTICAL RESULTS

Project 09-500 RTC 7937
Pace Project No 9238205

**Sample: RTCSBDUP** **Lab ID: 9238205005** Collected: 02/17/09 10:00 Received 02/18/09 10:15 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8260/5035A Volatile Organics** | Analytical Method: EPA 8260 | | | | | | | | |
| Toluene-d8 (S) | 110 | % | 88-110 | | 1 | | 02/21/09 10:07 | 2037-26-5 | |
| 4-Bromofluorobenzene (S) | 91 | % | 74-115 | | 1 | | 02/21/09 10:07 | 460-00-4 | |
| 1,2-Dichloroethane-d4 (S) | 96 | % | 69-121 | | 1 | | 02/21/09 10:07 | 17060-07-0 | |
| **Percent Moisture** | Analytical Method: ASTM D2974-87 | | | | | | | | |
| Percent Moisture | **15.6** | % | 0.10 | 0.10 | 1 | | 02/19/09 08:34 | | |



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# QUALITY CONTROL DATA

Project 09-500 RTC 7937
Pace Project No. 9238205

QC Batch MSV/6167 Analysis Method EPA 8260
QC Batch Method. EPA 8260 Analysis Description 8260 MSV 5035A Volatile Organics
Associated Lab Samples. 9238205001, 9238205002, 9238205003, 9238205004, 9238205005

METHOD BLANK: 239935 Matrix: Solid
Associated Lab Samples: 9238205001, 9238205002, 9238205003, 9238205004, 9238205005

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ug/kg | ND | 5.0 | 02/21/09 04:39 | |
| 1,1,1-Trichloroethane | ug/kg | ND | 5.0 | 02/21/09 04:39 | |
| 1,1,2,2-Tetrachloroethane | ug/kg | ND | 5.0 | 02/21/09 04:39 | |
| 1,1,2-Trichloroethane | ug/kg | ND | 5.0 | 02/21/09 04:39 | |
| 1,1-Dichloroethane | ug/kg | ND | 5.0 | 02/21/09 04:39 | |
| 1,1-Dichloroethene | ug/kg | ND | 5.0 | 02/21/09 04:39 | |
| 1,1-Dichloropropene | ug/kg | ND | 5.0 | 02/21/09 04:39 | |
| 1,2,3-Trichlorobenzene | ug/kg | ND | 5.0 | 02/21/09 04:39 | |
| 1,2,3-Trichloropropane | ug/kg | ND | 5.0 | 02/21/09 04:39 | |
| 1,2,4-Trichlorobenzene | ug/kg | ND | 5.0 | 02/21/09 04:39 | |
| 1,2,4-Trimethylbenzene | ug/kg | ND | 5.0 | 02/21/09 04:39 | |
| 1,2-Dibromo-3-chloropropane | ug/kg | ND | 5.0 | 02/21/09 04:39 | |
| 1,2-Dibromoethane (EDB) | ug/kg | ND | 5.0 | 02/21/09 04:39 | |
| 1,2-Dichlorobenzene | ug/kg | ND | 5.0 | 02/21/09 04:39 | |
| 1,2-Dichloroethane | ug/kg | ND | 5.0 | 02/21/09 04:39 | |
| 1,2-Dichloropropane | ug/kg | ND | 5.0 | 02/21/09 04:39 | |
| 1,3,5-Trimethylbenzene | ug/kg | ND | 5.0 | 02/21/09 04:39 | |
| 1,3-Dichlorobenzene | ug/kg | ND | 5.0 | 02/21/09 04:39 | |
| 1,3-Dichloropropane | ug/kg | ND | 5.0 | 02/21/09 04:39 | |
| 1,4-Dichlorobenzene | ug/kg | ND | 5.0 | 02/21/09 04:39 | |
| 2,2-Dichloropropane | ug/kg | ND | 5.0 | 02/21/09 04:39 | |
| 2-Butanone (MEK) | ug/kg | ND | 100 | 02/21/09 04:39 | |
| 2-Chlorotoluene | ug/kg | ND | 5.0 | 02/21/09 04:39 | |
| 2-Hexanone | ug/kg | ND | 50.0 | 02/21/09 04:39 | |
| 4-Chlorotoluene | ug/kg | ND | 5.0 | 02/21/09 04:39 | |
| 4-Methyl-2-pentanone (MIBK) | ug/kg | ND | 50.0 | 02/21/09 04:39 | |
| Acetone | ug/kg | ND | 100 | 02/21/09 04:39 | |
| Benzene | ug/kg | ND | 5.0 | 02/21/09 04:39 | |
| Bromobenzene | ug/kg | ND | 5.0 | 02/21/09 04:39 | |
| Bromochloromethane | ug/kg | ND | 5.0 | 02/21/09 04:39 | |
| Bromodichloromethane | ug/kg | ND | 5.0 | 02/21/09 04:39 | |
| Bromoform | ug/kg | ND | 5.0 | 02/21/09 04:39 | |
| Bromomethane | ug/kg | ND | 10.0 | 02/21/09 04:39 | |
| Carbon tetrachloride | ug/kg | ND | 5.0 | 02/21/09 04:39 | |
| Chlorobenzene | ug/kg | ND | 5.0 | 02/21/09 04:39 | |
| Chloroethane | ug/kg | ND | 10.0 | 02/21/09 04:39 | |
| Chloroform | ug/kg | ND | 5.0 | 02/21/09 04:39 | |
| Chloromethane | ug/kg | ND | 10.0 | 02/21/09 04:39 | |
| cis-1,2-Dichloroethene | ug/kg | ND | 5.0 | 02/21/09 04:39 | |
| cis-1,3-Dichloropropene | ug/kg | ND | 5.0 | 02/21/09 04:39 | |
| Dibromochloromethane | ug/kg | ND | 5.0 | 02/21/09 04:39 | |
| Dibromomethane | ug/kg | ND | 5.0 | 02/21/09 04:39 | |
| Dichlorodifluoromethane | ug/kg | ND | 10.0 | 02/21/09 04:39 | |



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# QUALITY CONTROL DATA

Project 09-500 RTC 7937
Pace Project No 9238205

METHOD BLANK: 239935 Matrix: Solid

Associated Lab Samples 9238205001, 9238205002, 9238205003, 9238205004, 9238205005

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Diisopropyl ether | ug/kg | ND | 5.0 | 02/21/09 04:39 | |
| Ethylbenzene | ug/kg | ND | 5.0 | 02/21/09 04:39 | |
| Hexachloro-1,3-butadiene | ug/kg | ND | 5.0 | 02/21/09 04:39 | |
| Isopropylbenzene (Cumene) | ug/kg | ND | 5.0 | 02/21/09 04:39 | |
| m&p-Xylene | ug/kg | ND | 10.0 | 02/21/09 04:39 | |
| Methyl-tert-butyl ether | ug/kg | ND | 5.0 | 02/21/09 04:39 | |
| Methylene Chloride | ug/kg | ND | 20.0 | 02/21/09 04:39 | |
| n-Butylbenzene | ug/kg | ND | 5.0 | 02/21/09 04:39 | |
| n-Propylbenzene | ug/kg | ND | 5.0 | 02/21/09 04:39 | |
| Naphthalene | ug/kg | ND | 5.0 | 02/21/09 04:39 | |
| o-Xylene | ug/kg | ND | 5.0 | 02/21/09 04:39 | |
| p-Isopropyltoluene | ug/kg | ND | 5.0 | 02/21/09 04:39 | |
| sec-Butylbenzene | ug/kg | ND | 5.0 | 02/21/09 04:39 | |
| Styrene | ug/kg | ND | 5.0 | 02/21/09 04:39 | |
| tert-Butylbenzene | ug/kg | ND | 5.0 | 02/21/09 04:39 | |
| Tetrachloroethene | ug/kg | ND | 5.0 | 02/21/09 04:39 | |
| Toluene | ug/kg | ND | 5.0 | 02/21/09 04:39 | |
| trans-1,2-Dichloroethene | ug/kg | ND | 5.0 | 02/21/09 04:39 | |
| trans-1,3-Dichloropropene | ug/kg | ND | 5.0 | 02/21/09 04:39 | |
| Trichloroethene | ug/kg | ND | 5.0 | 02/21/09 04:39 | |
| Trichlorofluoromethane | ug/kg | ND | 5.0 | 02/21/09 04:39 | |
| Vinyl acetate | ug/kg | ND | 50.0 | 02/21/09 04:39 | |
| Vinyl chloride | ug/kg | ND | 10.0 | 02/21/09 04:39 | |
| 1,2-Dichloroethane-d4 (S) | % | 96 | 69-121 | 02/21/09 04:39 | |
| 4-Bromofluorobenzene (S) | % | 97 | 74-115 | 02/21/09 04:39 | |
| Dibromofluoromethane (S) | % | 103 | 79-116 | 02/21/09 04:39 | |
| Toluene-d8 (S) | % | 115 | 88-110 | 02/21/09 04:39 | S0 |

LABORATORY CONTROL SAMPLE: 239936

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ug/kg | 50 | 52.4 | 105 | 75-137 | |
| 1,1,1-Trichloroethane | ug/kg | 50 | 60.6 | 121 | 70-140 | |
| 1,1,2,2-Tetrachloroethane | ug/kg | 50 | 55.3 | 111 | 74-133 | |
| 1,1,2-Trichloroethane | ug/kg | 50 | 54.7 | 109 | 79-129 | |
| 1,1-Dichloroethane | ug/kg | 50 | 58.3 | 117 | 72-139 | |
| 1,1-Dichloroethene | ug/kg | 50 | 59.3 | 119 | 69-154 | |
| 1,1-Dichloropropene | ug/kg | 50 | 56.3 | 113 | 74-138 | |
| 1,2,3-Trichlorobenzene | ug/kg | 50 | 59.6 | 119 | 71-150 | |
| 1,2,3-Trichloropropane | ug/kg | 50 | 54.2 | 108 | 74-135 | |
| 1,2,4-Trichlorobenzene | ug/kg | 50 | 57.2 | 114 | 68-150 | |
| 1,2,4-Trimethylbenzene | ug/kg | 50 | 61.2 | 122 | 70-130 | |
| 1,2-Dibromo-3-chloropropane | ug/kg | 50 | 51.4 | 103 | 65-146 | |
| 1,2-Dibromoethane (EDB) | ug/kg | 50 | 59.1 | 118 | 77-136 | |
| 1,2-Dichlorobenzene | ug/kg | 50 | 56.5 | 113 | 75-141 | |



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# QUALITY CONTROL DATA

Project 09-500 RTC 7937
Pace Project No 9238205

LABORATORY CONTROL SAMPLE 239936

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| 1,2-Dichloroethane | ug/kg | 50 | 56.2 | 112 | 74-134 | |
| 1,2-Dichloropropane | ug/kg | 50 | 58.1 | 116 | 77-138 | |
| 1,3,5-Trimethylbenzene | ug/kg | 50 | 59.6 | 119 | 65-128 | |
| 1,3-Dichlorobenzene | ug/kg | 50 | 54.6 | 109 | 76-133 | |
| 1,3-Dichloropropane | ug/kg | 50 | 53.5 | 107 | 79-132 | |
| 1,4-Dichlorobenzene | ug/kg | 50 | 59.5 | 119 | 75-137 | |
| 2,2-Dichloropropane | ug/kg | 50 | 58.7 | 117 | 73-137 | |
| 2-Butanone (MEK) | ug/kg | 100 | 103 | 103 | 61-138 | |
| 2-Chlorotoluene | ug/kg | 50 | 54.0 | 108 | 73-138 | |
| 2-Hexanone | ug/kg | 100 | 110 | 110 | 58-159 | |
| 4-Chlorotoluene | ug/kg | 50 | 56.8 | 114 | 75-136 | |
| 4-Methyl-2-pentanone (MIBK) | ug/kg | 100 | 103 | 103 | 74-139 | |
| Acetone | ug/kg | 100 | 109 | 109 | 58-150 | |
| Benzene | ug/kg | 50 | 57.4 | 115 | 71-140 | |
| Bromobenzene | ug/kg | 50 | 54.9 | 110 | 72-144 | |
| Bromochloromethane | ug/kg | 50 | 54.9 | 110 | 78-133 | |
| Bromodichloromethane | ug/kg | 50 | 55.0 | 110 | 78-133 | |
| Bromoform | ug/kg | 50 | 57.9 | 116 | 74-132 | |
| Bromomethane | ug/kg | 50 | 78.9 | 158 | 63-184 | |
| Carbon tetrachloride | ug/kg | 50 | 61.0 | 122 | 73-143 | |
| Chlorobenzene | ug/kg | 50 | 54.2 | 108 | 77-137 | |
| Chloroethane | ug/kg | 50 | 55.0 | 110 | 68-146 | |
| Chloroform | ug/kg | 50 | 56.3 | 113 | 75-137 | |
| Chloromethane | ug/kg | 50 | 66.2 | 132 | 54-143 | |
| cis-1,2-Dichloroethene | ug/kg | 50 | 58.9 | 118 | 71-143 | |
| cis-1,3-Dichloropropene | ug/kg | 50 | 58.6 | 117 | 76-133 | |
| Dibromochloromethane | ug/kg | 50 | 56.8 | 114 | 77-131 | |
| Dibromomethane | ug/kg | 50 | 53.9 | 108 | 63-184 | |
| Dichlorodifluoromethane | ug/kg | 50 | 62.9 | 128 | 36-173 | |
| Diisopropyl ether | ug/kg | 50 | 52.9 | 106 | 68-144 | |
| Ethylbenzene | ug/kg | 50 | 56.6 | 113 | 69-141 | |
| Hexachloro-1,3-butadiene | ug/kg | 50 | 57.8 | 116 | 70-152 | |
| Isopropylbenzene (Cumene) | ug/kg | 50 | 56.9 | 114 | 77-143 | |
| m&p-Xylene | ug/kg | 100 | 114 | 114 | 72-138 | |
| Methyl-tert-butyl ether | ug/kg | 50 | 60.0 | 120 | 2-138 | |
| Methylene Chloride | ug/kg | 50 | 47.5 | 95 | 69-136 | |
| n-Butylbenzene | ug/kg | 50 | 60.6 | 121 | 65-128 | |
| n-Propylbenzene | ug/kg | 50 | 56.4 | 113 | 72-139 | |
| Naphthalene | ug/kg | 50 | 65.0 | 130 | 61-138 | |
| o-Xylene | ug/kg | 50 | 55.8 | 112 | 74-137 | |
| p-Isopropyltoluene | ug/kg | 50 | 60.5 | 121 | 66-128 | |
| sec-Butylbenzene | ug/kg | 50 | 56.7 | 113 | 72-140 | |
| Styrene | ug/kg | 50 | 59.0 | 118 | 76-137 | |
| tert-Butylbenzene | ug/kg | 50 | 56.5 | 113 | 68-141 | |
| Tetrachloroethene | ug/kg | 50 | 58.7 | 117 | 72-136 | |
| Toluene | ug/kg | 50 | 53.1 | 106 | 69-139 | |
| trans-1,2-Dichloroethene | ug/kg | 50 | 55.6 | 111 | 72-144 | |
| trans-1,3-Dichloropropene | ug/kg | 50 | 57.7 | 115 | 73-135 | |



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# QUALITY CONTROL DATA

Project: 09-500 RTC 7937
Pace Project No.: 9238205

LABORATORY CONTROL SAMPLE: 239936

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Trichloroethene | ug/kg | 50 | 57.6 | 115 | 75-136 | |
| Trichlorofluoromethane | ug/kg | 50 | 58.2 | 116 | 69-144 | |
| Vinyl acetate | ug/kg | 100 | 176 | 176 | 50-150 | L0 |
| Vinyl chloride | ug/kg | 50 | 58.7 | 117 | 61-145 | |
| 1,2-Dichloroethane-d4 (S) | % | | | 101 | 69-121 | |
| 4-Bromofluorobenzene (S) | % | | | 101 | 74-115 | |
| Dibromofluoromethane (S) | % | | | 101 | 79-116 | |
| Toluene-d8 (S) | % | | | 96 | 88-110 | |

MATRIX SPIKE SAMPLE: 240396

| Parameter | Units | 9237899006 Result | Spike Conc. | MS Result | MS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethene | ug/kg | ND | .52 | 0.50 | 96 | 33-158 | |
| Benzene | ug/kg | ND | .52 | 0.54 | 103 | 46-143 | |
| Chlorobenzene | ug/kg | ND | .52 | 0.51 | 98 | 29-159 | |
| Toluene | ug/kg | ND | .52 | 0.60 | 113 | 38-145 | |
| Trichloroethene | ug/kg | ND | .52 | 0.55 | 104 | 70-130 | |
| 1,2-Dichloroethane-d4 (S) | % | | | | 96 | 69-121 | |
| 4-Bromofluorobenzene (S) | % | | | | 99 | 74-115 | |
| Dibromofluoromethane (S) | % | | | | 101 | 79-116 | |
| Toluene-d8 (S) | % | | | | 108 | 88-110 | |

SAMPLE DUPLICATE: 240395

| Parameter | Units | 9238305002 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| 1,1,1,2-Tetrachloroethane | ug/kg | ND | ND | | 30 | |
| 1,1,1-Trichloroethane | ug/kg | ND | ND | | 30 | |
| 1,1,2,2-Tetrachloroethane | ug/kg | ND | ND | | 30 | |
| 1,1,2-Trichloroethane | ug/kg | ND | ND | | 30 | |
| 1,1-Dichloroethane | ug/kg | ND | ND | | 30 | |
| 1,1-Dichloroethene | ug/kg | ND | ND | | 30 | |
| 1,1-Dichloropropene | ug/kg | ND | ND | | 30 | |
| 1,2,3-Trichlorobenzene | ug/kg | ND | ND | | 30 | |
| 1,2,3-Trichloropropane | ug/kg | ND | ND | | 30 | |
| 1,2,4-Trichlorobenzene | ug/kg | ND | ND | | 30 | |
| 1,2,4-Trimethylbenzene | ug/kg | ND | ND | | 30 | |
| 1,2-Dibromo-3-chloropropane | ug/kg | ND | ND | | 30 | |
| 1,2-Dibromoethane (EDB) | ug/kg | ND | ND | | 30 | |
| 1,2-Dichlorobenzene | ug/kg | ND | ND | | 30 | |
| 1,2-Dichloroethane | ug/kg | ND | ND | | 30 | |
| 1,2-Dichloropropane | ug/kg | ND | ND | | 30 | |
| 1,3,5-Trimethylbenzene | ug/kg | ND | ND | | 30 | |
| 1,3-Dichlorobenzene | ug/kg | ND | ND | | 30 | |
| 1,3-Dichloropropane | ug/kg | ND | ND | | 30 | |
| 1,4-Dichlorobenzene | ug/kg | ND | ND | | 30 | |



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# QUALITY CONTROL DATA

Project 09-500 RTC 7937
Pace Project No.: 9238205

SAMPLE DUPLICATE: 240395

| Parameter | Units | 9238305002 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| 2,2-Dichloropropane | ug/kg | ND | ND | | 30 | |
| 2-Butanone (MEK) | ug/kg | ND | ND | | 30 | |
| 2-Chlorotoluene | ug/kg | ND | ND | | 30 | |
| 2-Hexanone | ug/kg | ND | ND | | 30 | |
| 4-Chlorotoluene | ug/kg | ND | ND | | 30 | |
| 4-Methyl-2-pentanone (MIBK) | ug/kg | ND | ND | | 30 | |
| Acetone | ug/kg | ND | ND | | 30 | |
| Benzene | ug/kg | ND | ND | | 30 | |
| Bromobenzene | ug/kg | ND | ND | | 30 | |
| Bromochloromethane | ug/kg | ND | ND | | 30 | |
| Bromodichloromethane | ug/kg | ND | ND | | 30 | |
| Bromoform | ug/kg | ND | ND | | 30 | |
| Bromomethane | ug/kg | ND | ND | | 30 | |
| Carbon tetrachloride | ug/kg | ND | ND | | 30 | |
| Chlorobenzene | ug/kg | ND | ND | | 30 | |
| Chloroethane | ug/kg | ND | ND | | 30 | |
| Chloroform | ug/kg | ND | ND | | 30 | |
| Chloromethane | ug/kg | ND | ND | | 30 | |
| cis-1,2-Dichloroethene | ug/kg | ND | ND | | 30 | |
| cis-1,3-Dichloropropene | ug/kg | ND | ND | | 30 | |
| Dibromochloromethane | ug/kg | ND | ND | | 30 | |
| Dibromomethane | ug/kg | ND | ND | | 30 | |
| Dichlorodifluoromethane | ug/kg | ND | ND | | 30 | |
| Diisopropyl ether | ug/kg | ND | ND | | 30 | |
| Ethylbenzene | ug/kg | ND | ND | | 30 | |
| Hexachloro-1,3-butadiene | ug/kg | ND | ND | | 30 | |
| Isopropylbenzene (Cumene) | ug/kg | ND | ND | | 30 | |
| m&p-Xylene | ug/kg | ND | ND | | 30 | |
| Methyl-tert-butyl ether | ug/kg | ND | ND | | 30 | |
| Methylene Chloride | ug/kg | ND | ND | | 30 | |
| n-Butylbenzene | ug/kg | ND | ND | | 30 | |
| n-Propylbenzene | ug/kg | ND | ND | | 30 | |
| Naphthalene | ug/kg | ND | ND | | 30 | |
| o-Xylene | ug/kg | ND | ND | | 30 | |
| p-Isopropyltoluene | ug/kg | ND | ND | | 30 | |
| sec-Butylbenzene | ug/kg | ND | ND | | 30 | |
| Styrene | ug/kg | ND | ND | | 30 | |
| tert-Butylbenzene | ug/kg | ND | ND | | 30 | |
| Tetrachloroethene | ug/kg | ND | ND | | 30 | |
| Toluene | ug/kg | ND | ND | | 30 | |
| trans-1,2-Dichloroethene | ug/kg | ND | ND | | 30 | |
| trans-1,3-Dichloropropene | ug/kg | ND | ND | | 30 | |
| Trichloroethene | ug/kg | ND | ND | | 30 | |
| Trichlorofluoromethane | ug/kg | ND | ND | | 30 | |
| Vinyl acetate | ug/kg | ND | ND | | 30 | |
| Vinyl chloride | ug/kg | ND | ND | | 30 | |
| 1,2-Dichloroethane-d4 (S) | % | 95 | 85 | 24 | | |
| 4-Bromofluorobenzene (S) | % | 99 | 91 | 27 | | |



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## QUALITY CONTROL DATA

Project: 09-500 RTC 7937
Pace Project No.. 9238205

SAMPLE DUPLICATE 240395

| Parameter | Units | 9238305002 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| Dibromofluoromethane (S) | % | 102 | 82 | 14 | | |
| Toluene-d8 (S) | % | 115 | 97 | 19 | | |



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# QUALITY CONTROL DATA

Project: 09-500 RTC 7937
Pace Project No 9238205

QC Batch: OEXT/5931 Analysis Method EPA 8270
QC Batch Method EPA 3546 Analysis Description 8270 Solid MSSV Microwave
Associated Lab Samples: 9238205001 9238205002, 9238205003, 9238205004, 9238205005

METHOD BLANK: 239248 Matrix: Solid
Associated Lab Samples: 9238205001, 9238205002, 9238205003, 9238205004, 9238205005

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| 1-Methylnaphthalene | ug/kg | ND | 330 | 02/26/09 07:30 | |
| 2-Methylnaphthalene | ug/kg | ND | 330 | 02/26/09 07:30 | |
| Acenaphthene | ug/kg | ND | 330 | 02/26/09 07:30 | |
| Acenaphthylene | ug/kg | ND | 330 | 02/26/09 07:30 | |
| Anthracene | ug/kg | ND | 330 | 02/26/09 07:30 | |
| Benzo(a)anthracene | ug/kg | ND | 330 | 02/26/09 07:30 | |
| Benzo(a)pyrene | ug/kg | ND | 330 | 02/26/09 07:30 | |
| Benzo(b)fluoranthene | ug/kg | ND | 330 | 02/26/09 07:30 | |
| Benzo(g,h,i)perylene | ug/kg | ND | 330 | 02/26/09 07:30 | |
| Benzo(k)fluoranthene | ug/kg | ND | 330 | 02/26/09 07:30 | |
| Chrysene | ug/kg | ND | 330 | 02/26/09 07:30 | |
| Dibenz(a,h)anthracene | ug/kg | ND | 330 | 02/26/09 07:30 | |
| Fluoranthene | ug/kg | ND | 330 | 02/26/09 07:30 | |
| Fluorene | ug/kg | ND | 330 | 02/26/09 07:30 | |
| Indeno(1,2,3-cd)pyrene | ug/kg | ND | 330 | 02/26/09 07:30 | |
| Naphthalene | ug/kg | ND | 330 | 02/26/09 07:30 | |
| Phenanthrene | ug/kg | ND | 330 | 02/26/09 07:30 | |
| Pyrene | ug/kg | ND | 330 | 02/26/09 07:30 | |
| 2-Fluorobiphenyl (S) | % | 80 | 46-120 | 02/26/09 07:30 | |
| Nitrobenzene-d5 (S) | % | 89 | 30-150 | 02/26/09 07:30 | |
| Terphenyl-d14 (S) | % | 86 | 38-108 | 02/26/09 07:30 | |

LABORATORY CONTROL SAMPLE: 239249

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| 1-Methylnaphthalene | ug/kg | 1670 | 1350 | 81 | 50-150 | |
| 2-Methylnaphthalene | ug/kg | 1670 | 1100 | 66 | 50-150 | |
| Acenaphthene | ug/kg | 1670 | 1230 | 74 | 50-150 | |
| Acenaphthylene | ug/kg | 1670 | 1350 | 81 | 50-150 | |
| Anthracene | ug/kg | 1670 | 1360 | 81 | 50-150 | |
| Benzo(a)anthracene | ug/kg | 1670 | 1370 | 82 | 50-150 | |
| Benzo(a)pyrene | ug/kg | 1670 | 1420 | 85 | 50-150 | |
| Benzo(b)fluoranthene | ug/kg | 1670 | 1510 | 91 | 50-150 | |
| Benzo(g,h,i)perylene | ug/kg | 1670 | 835 | 50 | 24-117 | |
| Benzo(k)fluoranthene | ug/kg | 1670 | 1320 | 79 | 50-150 | |
| Chrysene | ug/kg | 1670 | 1300 | 78 | 50-150 | |
| Dibenz(a,h)anthracene | ug/kg | 1670 | 888 | 53 | 17-128 | |
| Fluoranthene | ug/kg | 1670 | 1270 | 76 | 50-150 | |
| Fluorene | ug/kg | 1670 | 1230 | 74 | 50-150 | |
| Indeno(1,2,3-cd)pyrene | ug/kg | 1670 | 850 | 51 | 19-128 | |
| Naphthalene | ug/kg | 1670 | 1240 | 74 | 50-150 | |



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# QUALITY CONTROL DATA

Project: 09-500 RTC 7937
Pace Project No. 9238205

LABORATORY CONTROL SAMPLE: 239249

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Phenanthrene | ug/kg | 1670 | 1320 | 79 | 50-150 | |
| Pyrene | ug/kg | 1670 | 1330 | 80 | 50-150 | |
| 2-Fluorobiphenyl (S) | % | | | 78 | 46-120 | |
| Nitrobenzene-d5 (S) | % | | | 86 | 30-150 | |
| Terphenyl-d14 (S) | % | | | 82 | 38-108 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 239250 239251

| Parameter | Units | 9238128002 Result | MS Spike Conc. | MSD Spike Conc | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene | ug/kg | ND | 1870 | 1870 | 1390 | 1380 | 74 | 74 | 50-150 | .3 | 30 | |
| Pyrene | ug/kg | ND | 1870 | 1870 | 1520 | 1500 | 81 | 81 | 50-150 | .8 | 30 | |
| 2-Fluorobiphenyl (S) | % | | | | | | 75 | 78 | 46-120 | | | |
| Nitrobenzene-d5 (S) | % | | | | | | 81 | 79 | 30-150 | | | |
| Terphenyl-d14 (S) | % | | | | | | 80 | 83 | 38-108 | | | |



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# QUALITY CONTROL DATA

Project: 09-500 RTC 7937
Pace Project No.: 9238205

QC Batch: PMST/2291 | Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87 | Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 9238205001, 9238205002, 9238205003, 9238205004, 9238205005

SAMPLE DUPLICATE: 238398

| Parameter | Units | 9238217001 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| Percent Moisture | % | 7.9 | 7.7 | 3 | 25 | |

SAMPLE DUPLICATE: 238407

| Parameter | Units | 9238217002 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| Percent Moisture | % | 6.0 | 5.6 | 7 | 25 | |



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# QUALIFIERS

Project: 09-500 RTC 7937
Pace Project No 9238205

## DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit

MDL - Adjusted Method Detection Limit

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable

Pace Analytical is NELAP accredited Contact your Pace PM for the current list of accredited analytes.

U - Indicates the compound was analyzed for, but not detected

## ANALYTE QUALIFIERS

| | |
|---|---|
| E | Analyte concentration exceeded the calibration range The reported result is estimated |
| L0 | Analyte recovery in the laboratory control sample (LCS) was outside QC limits |
| L1 | Analyte recovery in the laboratory control sample (LCS) was above QC limits Results for this analyte in associated samples may be biased high. |
| S0 | Surrogate recovery outside laboratory control limits |
| Z3 | Methylene chloride is a common laboratory contaminant. Results for this analyte should be considered estimated unless the amount found in the sample is 3 to 5 times higher than that found in the method blank |



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March 06, 2009

Mr. James Weeg
ADVENT ENVIRONMENTAL
498 Wando Park Blvd
Mount Pleasant, SC 29464

RE: Project: 09-500 RTC 7937
Pace Project No.: 9238343

Dear Mr. Weeg:
Enclosed are the analytical results for sample(s) received by the laboratory on February 19, 2009. The results relate only to the samples included in this report. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

Inorganic Wet Chemistry and Metals analyses were performed at our Pace Asheville laboratory and Organic testing was performed at our Pace Huntersville laboratory unless otherwise footnoted. All Microbiological analyses were performed at the laboratory where the samples were received.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Bonnie McKee

bonnie.mckee@pacelabs.com
Project Manager

Enclosures

cc Larry Fowler, ADVENT ENVIRONMENTAL



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# CERTIFICATIONS

Project: 09-500 RTC 7937
Pace Project No.: 9238343

**Charlotte Certification IDs**

West Virginia Certification #: 357
Virginia Certification #: 00213
Tennessee Certification #: 04010
South Carolina Drinking Water Cert. #: 990060003
South Carolina Certification #: 990060001
Pennsylvania Certification #: 68-00784
Connecticut Certification #: PH-0104
North Carolina Field Services Certification #: 5342
North Carolina Drinking Water Certification #: 37706
New Jersey Certification #: NC012
Louisiana/LELAP Certification #: 04034
Kentucky UST Certification #: 84
Florida/NELAP Certification #: E87627
North Carolina Wastewater Certification #: 12

**Asheville Certification IDs**

West Virginia Certification #: 356
Virginia Certification #: 00072
Connecticut Certification #: PH-0106
Florida/NELAP Certification #: E87648
Tennessee Certification #: 2980
South Carolina Certification #: 99030001
South Carolina Bioassay Certification #: 99030002
Pennsylvania Certification #: 68-03578
North Carolina Wastewater Certification #: 40
North Carolina Drinking Water Certification #: 37712
North Carolina Bioassay Certification #: 9
New Jersey Certification #: NC011
Massachusetts Certification #: M-NC030
Louisiana/LELAP Certification #: 03095

**Eden Certification IDs**

North Carolina Wastewater Certification #: 633
Virginia Drinking Water Certification #: 00424
North Carolina Drinking Water Certification #: 37738



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## SAMPLE SUMMARY

Project 09-500 RTC 7937
Pace Project No. 9238343

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|---|---|---|---|---|
| 9238343001 | RTC TMW01 | Water | 02/18/09 08:40 | 02/19/09 09:30 |
| 9238343002 | RTC TMW02 | Water | 02/18/09 09:10 | 02/19/09 09:30 |
| 9238343003 | RTC TMW03 | Water | 02/18/09 09:40 | 02/19/09 09:30 |
| 9238343004 | RTC TMW04 | Water | 02/18/09 10:15 | 02/19/09 09:30 |
| 9238343005 | RTC TMWDUP | Water | 02/18/09 10:15 | 02/19/09 09:30 |



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## SAMPLE ANALYTE COUNT

Project 09-500 RTC 7937
Pace Project No. 9238343

| Lab ID | Sample ID | Method | Analysts | Analytes Reported |
|---|---|---|---|---|
| 9238343001 | RTC TMW01 | EPA 8260 | AW | 10 |
| | | EPA 8270 | BET | 21 |
| 9238343002 | RTC TMW02 | EPA 8260 | AW | 10 |
| | | EPA 8270 | BET | 21 |
| 9238343003 | RTC TMW03 | EPA 8260 | AW | 10 |
| | | EPA 8270 | BET | 21 |
| 9238343004 | RTC TMW04 | EPA 8260 | AW | 10 |
| | | EPA 8270 | BET | 21 |
| 9238343005 | RTC TMWDUP | EPA 8260 | AW | 10 |
| | | EPA 8270 | BET | 21 |



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# ANALYTICAL RESULTS

Project: 09-500 RTC 7937
Pace Project No.: 9238343

**Sample: RTC TMW01** **Lab ID: 9238343001** Collected: 02/18/09 08:40 Received: 02/19/09 09:30 Matrix: Water

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8270 MSSV PAH SPE** | Analytical Method: EPA 8270 Preparation Method: EPA 3535 | | | | | | | | |
| Acenaphthene | **1.5J** | ug/L | 10.3 | 0.49 | 1 | 02/24/09 00:00 | 02/25/09 22:15 | 83-32-9 | |
| Acenaphthylene | ND | ug/L | 10.3 | 0.47 | 1 | 02/24/09 00:00 | 02/25/09 22:15 | 208-96-8 | |
| Anthracene | ND | ug/L | 10.3 | 0.66 | 1 | 02/24/09 00:00 | 02/25/09 22:15 | 120-12-7 | |
| Benzo(a)anthracene | ND | ug/L | 10.3 | 0.73 | 1 | 02/24/09 00:00 | 02/25/09 22:15 | 56-55-3 | |
| Benzo(a)pyrene | ND | ug/L | 10.3 | 0.64 | 1 | 02/24/09 00:00 | 02/25/09 22:15 | 50-32-8 | |
| Benzo(b)fluoranthene | ND | ug/L | 10.3 | 0.59 | 1 | 02/24/09 00:00 | 02/25/09 22:15 | 205-99-2 | |
| Benzo(g,h,i)perylene | ND | ug/L | 10.3 | 0.70 | 1 | 02/24/09 00:00 | 02/25/09 22:15 | 191-24-2 | |
| Benzo(k)fluoranthene | ND | ug/L | 10.3 | 0.68 | 1 | 02/24/09 00:00 | 02/25/09 22:15 | 207-08-9 | |
| Chrysene | ND | ug/L | 10.3 | 0.72 | 1 | 02/24/09 00:00 | 02/25/09 22:15 | 218-01-9 | |
| Dibenz(a,h)anthracene | ND | ug/L | 10.3 | 0.59 | 1 | 02/24/09 00:00 | 02/25/09 22:15 | 53-70-3 | |
| Fluoranthene | ND | ug/L | 10.3 | 0.74 | 1 | 02/24/09 00:00 | 02/25/09 22:15 | 206-44-0 | |
| Fluorene | ND | ug/L | 10.3 | 0.66 | 1 | 02/24/09 00:00 | 02/25/09 22:15 | 86-73-7 | |
| Indeno(1,2,3-cd)pyrene | ND | ug/L | 10.3 | 0.60 | 1 | 02/24/09 00:00 | 02/25/09 22:15 | 193-39-5 | |
| 1-Methylnaphthalene | ND | ug/L | 10.3 | 10.3 | 1 | 02/24/09 00:00 | 02/25/09 22:15 | 90-12-0 | |
| 2-Methylnaphthalene | ND | ug/L | 10.3 | 0.32 | 1 | 02/24/09 00:00 | 02/25/09 22:15 | 91-57-6 | |
| Naphthalene | ND | ug/L | 10.3 | 0.44 | 1 | 02/24/09 00:00 | 02/25/09 22:15 | 91-20-3 | |
| Phenanthrene | ND | ug/L | 10.3 | 0.70 | 1 | 02/24/09 00:00 | 02/25/09 22:15 | 85-01-8 | |
| Pyrene | ND | ug/L | 10.3 | 0.68 | 1 | 02/24/09 00:00 | 02/25/09 22:15 | 129-00-0 | |
| Nitrobenzene-d5 (S) | 44 | % | 10-120 | | 1 | 02/24/09 00:00 | 02/25/09 22:15 | 4165-60-0 | |
| 2-Fluorobiphenyl (S) | 57 | % | 10-120 | | 1 | 02/24/09 00:00 | 02/25/09 22:15 | 321-60-8 | |
| Terphenyl-d14 (S) | 68 | % | 10-116 | | 1 | 02/24/09 00:00 | 02/25/09 22:15 | 1718-51-0 | |
| **8260 MSV Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Benzene | ND | ug/L | 1.0 | 0.25 | 1 | | 02/28/09 03:02 | 71-43-2 | |
| Ethylbenzene | ND | ug/L | 1.0 | 0.30 | 1 | | 02/28/09 03:02 | 100-41-4 | |
| Naphthalene | ND | ug/L | 1.0 | 0.24 | 1 | | 02/28/09 03:02 | 91-20-3 | |
| Toluene | **0.60J** | ug/L | 1.0 | 0.26 | 1 | | 02/28/09 03:02 | 108-88-3 | |
| m&p-Xylene | ND | ug/L | 2.0 | 0.68 | 1 | | 02/28/09 03:02 | 1330-20-7 | |
| o-Xylene | ND | ug/L | 1.0 | 0.23 | 1 | | 02/28/09 03:02 | 95-47-6 | |
| 4-Bromofluorobenzene (S) | 98 | % | 87-109 | | 1 | | 02/28/09 03:02 | 460-00-4 | |
| Dibromofluoromethane (S) | 105 | % | 85-115 | | 1 | | 02/28/09 03:02 | 1868-53-7 | |
| 1,2-Dichloroethane-d4 (S) | 107 | % | 79-120 | | 1 | | 02/28/09 03:02 | 17060-07-0 | |
| Toluene-d8 (S) | 100 | % | 70-120 | | 1 | | 02/28/09 03:02 | 2037-26-5 | |



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# ANALYTICAL RESULTS

Project: 09-500 RTC 7937
Pace Project No. 9238343

**Sample: RTC TMW02** **Lab ID: 9238343002** Collected: 02/18/09 09:10 Received 02/19/09 09:30 Matrix: Water

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8270 MSSV PAH SPE** | Analytical Method: EPA 8270 Preparation Method EPA 3535 | | | | | | | | |
| Acenaphthene | ND | ug/L | 10.5 | 0.51 | 1 | 02/24/09 00:00 | 02/25/09 22:37 | 83-32-9 | |
| Acenaphthylene | ND | ug/L | 10.5 | 0.48 | 1 | 02/24/09 00:00 | 02/25/09 22:37 | 208-96-8 | |
| Anthracene | ND | ug/L | 10.5 | 0.67 | 1 | 02/24/09 00:00 | 02/25/09 22:37 | 120-12-7 | |
| Benzo(a)anthracene | ND | ug/L | 10.5 | 0.75 | 1 | 02/24/09 00:00 | 02/25/09 22:37 | 56-55-3 | |
| Benzo(a)pyrene | ND | ug/L | 10.5 | 0.65 | 1 | 02/24/09 00:00 | 02/25/09 22:37 | 50-32-8 | |
| Benzo(b)fluoranthene | ND | ug/L | 10.5 | 0.60 | 1 | 02/24/09 00:00 | 02/25/09 22:37 | 205-99-2 | |
| Benzo(g,h,i)perylene | ND | ug/L | 10.5 | 0.72 | 1 | 02/24/09 00:00 | 02/25/09 22:37 | 191-24-2 | |
| Benzo(k)fluoranthene | ND | ug/L | 10.5 | 0.69 | 1 | 02/24/09 00:00 | 02/25/09 22:37 | 207-08-9 | |
| Chrysene | ND | ug/L | 10.5 | 0.74 | 1 | 02/24/09 00:00 | 02/25/09 22:37 | 218-01-9 | |
| Dibenz(a,h)anthracene | ND | ug/L | 10.5 | 0.60 | 1 | 02/24/09 00:00 | 02/25/09 22:37 | 53-70-3 | |
| Fluoranthene | ND | ug/L | 10.5 | 0.76 | 1 | 02/24/09 00:00 | 02/25/09 22:37 | 206-44-0 | |
| Fluorene | ND | ug/L | 10.5 | 0.67 | 1 | 02/24/09 00:00 | 02/25/09 22:37 | 86-73-7 | |
| Indeno(1,2,3-cd)pyrene | ND | ug/L | 10.5 | 0.61 | 1 | 02/24/09 00:00 | 02/25/09 22:37 | 193-39-5 | |
| 1-Methylnaphthalene | ND | ug/L | 10.5 | 10.5 | 1 | 02/24/09 00:00 | 02/25/09 22:37 | 90-12-0 | |
| 2-Methylnaphthalene | ND | ug/L | 10.5 | 0.33 | 1 | 02/24/09 00:00 | 02/25/09 22:37 | 91-57-6 | |
| Naphthalene | ND | ug/L | 10.5 | 0.45 | 1 | 02/24/09 00:00 | 02/25/09 22:37 | 91-20-3 | |
| Phenanthrene | ND | ug/L | 10.5 | 0.72 | 1 | 02/24/09 00:00 | 02/25/09 22:37 | 85-01-8 | |
| Pyrene | ND | ug/L | 10.5 | 0.69 | 1 | 02/24/09 00:00 | 02/25/09 22:37 | 129-00-0 | |
| Nitrobenzene-d5 (S) | 45 | % | 10-120 | | 1 | 02/24/09 00:00 | 02/25/09 22:37 | 4165-60-0 | |
| 2-Fluorobiphenyl (S) | 57 | % | 10-120 | | 1 | 02/24/09 00:00 | 02/25/09 22:37 | 321-60-8 | |
| Terphenyl-d14 (S) | 81 | % | 10-116 | | 1 | 02/24/09 00:00 | 02/25/09 22:37 | 1718-51-0 | |
| **8260 MSV Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Benzene | ND | ug/L | 1.0 | 0.25 | 1 | | 02/28/09 03:26 | 71-43-2 | |
| Ethylbenzene | ND | ug/L | 1.0 | 0.30 | 1 | | 02/28/09 03:26 | 100-41-4 | |
| Naphthalene | ND | ug/L | 1.0 | 0.24 | 1 | | 02/28/09 03:26 | 91-20-3 | |
| Toluene | **0.40J** | ug/L | 1.0 | 0.26 | 1 | | 02/28/09 03:26 | 108-88-3 | |
| m&p-Xylene | ND | ug/L | 2.0 | 0.66 | 1 | | 02/28/09 03:26 | 1330-20-7 | |
| o-Xylene | ND | ug/L | 1.0 | 0.23 | 1 | | 02/28/09 03:26 | 95-47-6 | |
| 4-Bromofluorobenzene (S) | 98 | % | 87-109 | | 1 | | 02/28/09 03:26 | 460-00-4 | |
| Dibromofluoromethane (S) | 106 | % | 85-115 | | 1 | | 02/28/09 03:26 | 1868-53-7 | |
| 1,2-Dichloroethane-d4 (S) | 106 | % | 79-120 | | 1 | | 02/28/09 03:26 | 17060-07-0 | |
| Toluene-d8 (S) | 99 | % | 70-120 | | 1 | | 02/28/09 03:26 | 2037-26-5 | |



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# ANALYTICAL RESULTS

Project 09-500 RTC 7937
Pace Project No. 9238343

**Sample: RTC TMW03** Lab ID: **9238343003** Collected: 02/18/09 09:40 Received 02/19/09 09:30 Matrix: Water

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8270 MSSV PAH SPE** | Analytical Method: EPA 8270 Preparation Method: EPA 3535 | | | | | | | | |
| Acenaphthene | **1.9J** | ug/L | 10.4 | 0.50 | 1 | 02/24/09 00:00 | 02/25/09 23:00 | 83-32-9 | |
| Acenaphthylene | ND | ug/L | 10.4 | 0.48 | 1 | 02/24/09 00:00 | 02/25/09 23:00 | 208-96-8 | |
| Anthracene | ND | ug/L | 10.4 | 0.67 | 1 | 02/24/09 00:00 | 02/25/09 23:00 | 120-12-7 | |
| Benzo(a)anthracene | ND | ug/L | 10.4 | 0.74 | 1 | 02/24/09 00:00 | 02/25/09 23:00 | 56-55-3 | |
| Benzo(a)pyrene | ND | ug/L | 10.4 | 0.65 | 1 | 02/24/09 00:00 | 02/25/09 23:00 | 50-32-8 | |
| Benzo(b)fluoranthene | ND | ug/L | 10.4 | 0.59 | 1 | 02/24/09 00:00 | 02/25/09 23:00 | 205-99-2 | |
| Benzo(g,h,i)perylene | ND | ug/L | 10.4 | 0.71 | 1 | 02/24/09 00:00 | 02/25/09 23:00 | 191-24-2 | |
| Benzo(k)fluoranthene | ND | ug/L | 10.4 | 0.69 | 1 | 02/24/09 00:00 | 02/25/09 23:00 | 207-08-9 | |
| Chrysene | ND | ug/L | 10.4 | 0.73 | 1 | 02/24/09 00:00 | 02/25/09 23:00 | 218-01-9 | |
| Dibenz(a,h)anthracene | ND | ug/L | 10.4 | 0.59 | 1 | 02/24/09 00:00 | 02/25/09 23:00 | 53-70-3 | |
| Fluoranthene | ND | ug/L | 10.4 | 0.75 | 1 | 02/24/09 00:00 | 02/25/09 23:00 | 206-44-0 | |
| Fluorene | ND | ug/L | 10.4 | 0.67 | 1 | 02/24/09 00:00 | 02/25/09 23:00 | 86-73-7 | |
| Indeno(1,2,3-cd)pyrene | ND | ug/L | 10.4 | 0.60 | 1 | 02/24/09 00:00 | 02/25/09 23:00 | 193-39-5 | |
| 1-Methylnaphthalene | ND | ug/L | 10.4 | 10.4 | 1 | 02/24/09 00:00 | 02/25/09 23:00 | 90-12-0 | |
| 2-Methylnaphthalene | ND | ug/L | 10.4 | 0.32 | 1 | 02/24/09 00:00 | 02/25/09 23:00 | 91-57-6 | |
| Naphthalene | ND | ug/L | 10.4 | 0.45 | 1 | 02/24/09 00:00 | 02/25/09 23:00 | 91-20-3 | |
| Phenanthrene | ND | ug/L | 10.4 | 0.71 | 1 | 02/24/09 00:00 | 02/25/09 23:00 | 85-01-8 | |
| Pyrene | ND | ug/L | 10.4 | 0.69 | 1 | 02/24/09 00:00 | 02/25/09 23:00 | 129-00-0 | |
| Nitrobenzene-d5 (S) | 37 | % | 10-120 | | 1 | 02/24/09 00:00 | 02/25/09 23:00 | 4165-60-0 | |
| 2-Fluorobiphenyl (S) | 47 | % | 10-120 | | 1 | 02/24/09 00:00 | 02/25/09 23:00 | 321-60-8 | |
| Terphenyl-d14 (S) | 66 | % | 10-116 | | 1 | 02/24/09 00:00 | 02/25/09 23:00 | 1718-51-0 | |
| **8260 MSV Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Benzene | ND | ug/L | 1.0 | 0.25 | 1 | | 02/28/09 03:50 | 71-43-2 | |
| Ethylbenzene | ND | ug/L | 1.0 | 0.30 | 1 | | 02/28/09 03:50 | 100-41-4 | |
| Naphthalene | ND | ug/L | 1.0 | 0.24 | 1 | | 02/28/09 03:50 | 91-20-3 | |
| Toluene | ND | ug/L | 1.0 | 0.26 | 1 | | 02/28/09 03:50 | 108-88-3 | |
| m&p-Xylene | ND | ug/L | 2.0 | 0.66 | 1 | | 02/28/09 03:50 | 1330-20-7 | |
| o-Xylene | ND | ug/L | 1.0 | 0.23 | 1 | | 02/28/09 03:50 | 95-47-6 | |
| 4-Bromofluorobenzene (S) | 97 | % | 87-109 | | 1 | | 02/28/09 03:50 | 460-00-4 | |
| Dibromofluoromethane (S) | 105 | % | 85-115 | | 1 | | 02/28/09 03:50 | 1868-53-7 | |
| 1,2-Dichloroethane-d4 (S) | 106 | % | 79-120 | | 1 | | 02/28/09 03:50 | 17060-07-0 | |
| Toluene-d8 (S) | 100 | % | 70-120 | | 1 | | 02/28/09 03:50 | 2037-26-5 | |



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# ANALYTICAL RESULTS

Project: 09-500 RTC 7937
Pace Project No.: 9238343

**Sample: RTC TMW04** **Lab ID: 9238343004** Collected: 02/18/09 10:15 Received: 02/19/09 09:30 Matrix: Water

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8270 MSSV PAH SPE** | Analytical Method: EPA 8270 Preparation Method: EPA 3535 | | | | | | | | |
| Acenaphthene | **2.2J** | ug/L | 10.2 | 0.49 | 1 | 02/24/09 00:00 | 02/25/09 23:22 | 83-32-9 | |
| Acenaphthylene | ND | ug/L | 10.2 | 0.47 | 1 | 02/24/09 00:00 | 02/25/09 23:22 | 208-96-8 | |
| Anthracene | ND | ug/L | 10.2 | 0.65 | 1 | 02/24/09 00:00 | 02/25/09 23:22 | 120-12-7 | |
| Benzo(a)anthracene | ND | ug/L | 10.2 | 0.72 | 1 | 02/24/09 00:00 | 02/25/09 23:22 | 56-55-3 | |
| Benzo(a)pyrene | ND | ug/L | 10.2 | 0.63 | 1 | 02/24/09 00:00 | 02/25/09 23:22 | 50-32-8 | |
| Benzo(b)fluoranthene | ND | ug/L | 10.2 | 0.58 | 1 | 02/24/09 00:00 | 02/25/09 23:22 | 205-99-2 | |
| Benzo(g,h,i)perylene | ND | ug/L | 10.2 | 0.69 | 1 | 02/24/09 00:00 | 02/25/09 23:22 | 191-24-2 | |
| Benzo(k)fluoranthene | ND | ug/L | 10.2 | 0.67 | 1 | 02/24/09 00:00 | 02/25/09 23:22 | 207-08-9 | |
| Chrysene | ND | ug/L | 10.2 | 0.71 | 1 | 02/24/09 00:00 | 02/25/09 23:22 | 218-01-9 | |
| Dibenz(a,h)anthracene | ND | ug/L | 10.2 | 0.58 | 1 | 02/24/09 00:00 | 02/25/09 23:22 | 53-70-3 | |
| Fluoranthene | ND | ug/L | 10.2 | 0.73 | 1 | 02/24/09 00:00 | 02/25/09 23:22 | 206-44-0 | |
| Fluorene | ND | ug/L | 10.2 | 0.65 | 1 | 02/24/09 00:00 | 02/25/09 23:22 | 86-73-7 | |
| Indeno(1,2,3-cd)pyrene | ND | ug/L | 10.2 | 0.59 | 1 | 02/24/09 00:00 | 02/25/09 23:22 | 193-39-5 | |
| 1-Methylnaphthalene | ND | ug/L | 10.2 | 10.2 | 1 | 02/24/09 00:00 | 02/25/09 23:22 | 90-12-0 | |
| 2-Methylnaphthalene | ND | ug/L | 10.2 | 0.32 | 1 | 02/24/09 00:00 | 02/25/09 23:22 | 91-57-6 | |
| Naphthalene | ND | ug/L | 10.2 | 0.44 | 1 | 02/24/09 00:00 | 02/25/09 23:22 | 91-20-3 | |
| Phenanthrene | ND | ug/L | 10.2 | 0.69 | 1 | 02/24/09 00:00 | 02/25/09 23:22 | 85-01-8 | |
| Pyrene | ND | ug/L | 10.2 | 0.67 | 1 | 02/24/09 00:00 | 02/25/09 23:22 | 129-00-0 | |
| Nitrobenzene-d5 (S) | 33 | % | 10-120 | | 1 | 02/24/09 00:00 | 02/25/09 23:22 | 4165-60-0 | |
| 2-Fluorobiphenyl (S) | 46 | % | 10-120 | | 1 | 02/24/09 00:00 | 02/25/09 23:22 | 321-60-8 | |
| Terphenyl-d14 (S) | 64 | % | 10-116 | | 1 | 02/24/09 00:00 | 02/25/09 23:22 | 1718-51-0 | |
| **8260 MSV Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Benzene | ND | ug/L | 1.0 | 0.25 | 1 | | 02/28/09 04:13 | 71-43-2 | |
| Ethylbenzene | ND | ug/L | 1.0 | 0.30 | 1 | | 02/28/09 04:13 | 100-41-4 | |
| Naphthalene | ND | ug/L | 1.0 | 0.24 | 1 | | 02/28/09 04:13 | 91-20-3 | |
| Toluene | ND | ug/L | 1.0 | 0.26 | 1 | | 02/28/09 04:13 | 108-88-3 | |
| m&p-Xylene | ND | ug/L | 2.0 | 0.66 | 1 | | 02/28/09 04:13 | 1330-20-7 | |
| o-Xylene | ND | ug/L | 1.0 | 0.23 | 1 | | 02/28/09 04:13 | 95-47-6 | |
| 4-Bromofluorobenzene (S) | 97 | % | 87-109 | | 1 | | 02/28/09 04:13 | 460-00-4 | |
| Dibromofluoromethane (S) | 106 | % | 85-115 | | 1 | | 02/28/09 04:13 | 1868-53-7 | |
| 1,2-Dichloroethane-d4 (S) | 105 | % | 79-120 | | 1 | | 02/28/09 04:13 | 17060-07-0 | |
| Toluene-d8 (S) | 101 | % | 70-120 | | 1 | | 02/28/09 04:13 | 2037-26-5 | |



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# ANALYTICAL RESULTS

Project 09-500 RTC 7937
Pace Project No 9238343

**Sample: RTC TMWDUP** **Lab ID: 9238343005** Collected 02/18/09 10 15 Received: 02/19/09 09:30 Matrix: Water

| Parameters | Results | Units | Report Limit | MDL | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **8270 MSSV PAH SPE** | Analytical Method: EPA 8270 Preparation Method: EPA 3535 | | | | | | | | |
| Acenaphthene | **2.2J** | ug/L | 10 1 | 0.48 | 1 | 02/24/09 00:00 | 02/25/09 23:44 | 83-32-9 | |
| Acenaphthylene | ND | ug/L | 10 1 | 0.46 | 1 | 02/24/09 00.00 | 02/25/09 23:44 | 208-96-8 | |
| Anthracene | ND | ug/L | 10 1 | 0 65 | 1 | 02/24/09 00.00 | 02/25/09 23:44 | 120-12-7 | |
| Benzo(a)anthracene | ND | ug/L | 10 1 | 0 72 | 1 | 02/24/09 00:00 | 02/25/09 23:44 | 56-55-3 | |
| Benzo(a)pyrene | ND | ug/L | 10 1 | 0.83 | 1 | 02/24/09 00 00 | 02/25/09 23:44 | 50-32-8 | |
| Benzo(b)fluoranthene | ND | ug/L | 10.1 | 0.58 | 1 | 02/24/09 00 00 | 02/25/09 23:44 | 205-99-2 | |
| Benzo(g,h,i)perylene | ND | ug/L | 10 1 | 0.69 | 1 | 02/24/09 00:00 | 02/25/09 23.44 | 191-24-2 | |
| Benzo(k)fluoranthene | ND | ug/L | 10 1 | 0.67 | 1 | 02/24/09 00.00 | 02/25/09 23:44 | 207-08-9 | |
| Chrysene | ND | ug/L | 10 1 | 0.71 | 1 | 02/24/09 00 00 | 02/25/09 23.44 | 218-01-9 | |
| Dibenz(a,h)anthracene | ND | ug/L | 10 1 | 0.58 | 1 | 02/24/09 00:00 | 02/25/09 23.44 | 53-70-3 | |
| Fluoranthene | ND | ug/L | 10.1 | 0 73 | 1 | 02/24/09 00 00 | 02/25/09 23 44 | 206-44-0 | |
| Fluorene | ND | ug/L | 10 1 | 0 65 | 1 | 02/24/09 00:00 | 02/25/09 23:44 | 86-73-7 | |
| Indeno(1,2.3-cd)pyrene | ND | ug/L | 10.1 | 0 59 | 1 | 02/24/09 00:00 | 02/25/09 23:44 | 193-39-5 | |
| 1-Methylnaphthalene | ND | ug/L | 10.1 | 10.1 | 1 | 02/24/09 00 00 | 02/25/09 23.44 | 90-12-0 | |
| 2-Methylnaphthalene | ND | ug/L | 10 1 | 0.31 | 1 | 02/24/09 00 00 | 02/25/09 23 44 | 91-57-6 | |
| Naphthalene | ND | ug/L | 10 1 | 0 43 | 1 | 02/24/09 00.00 | 02/25/09 23:44 | 91-20-3 | |
| Phenanthrene | ND | ug/L | 10.1 | 0 69 | 1 | 02/24/09 00:00 | 02/25/09 23.44 | 85-01-8 | |
| Pyrene | ND | ug/L | 10 1 | 0 67 | 1 | 02/24/09 00 00 | 02/25/09 23:44 | 129-00-0 | |
| Nitrobenzene-d5 (S) | 36 | % | 10-120 | | 1 | 02/24/09 00.00 | 02/25/09 23:44 | 4185-60-0 | |
| 2-Fluorobiphenyl (S) | 53 | % | 10-120 | | 1 | 02/24/09 00:00 | 02/25/09 23.44 | 321-60-8 | |
| Terphenyl-d14 (S) | 68 | % | 10-116 | | 1 | 02/24/09 00:00 | 02/25/09 23:44 | 1718-51-0 | |
| **8260 MSV Low Level** | Analytical Method: EPA 8260 | | | | | | | | |
| Benzene | ND | ug/L | 1.0 | 0 25 | 1 | | 02/28/09 04 37 | 71-43-2 | |
| Ethylbenzene | ND | ug/L | 1.0 | 0.30 | 1 | | 02/28/09 04:37 | 100-41-4 | |
| Naphthalene | ND | ug/L | 1 0 | 0 24 | 1 | | 02/28/09 04:37 | 91-20-3 | |
| Toluene | ND | ug/L | 1.0 | 0.26 | 1 | | 02/28/09 04.37 | 108-88-3 | |
| m&p-Xylene | ND | ug/L | 2.0 | 0.66 | 1 | | 02/28/09 04:37 | 1330-20-7 | |
| o-Xylene | ND | ug/L | 1.0 | 0 23 | 1 | | 02/28/09 04:37 | 95-47-6 | |
| 4-Bromofluorobenzene (S) | 97 | % | 87-109 | | 1 | | 02/28/09 04:37 | 460-00-4 | |
| Dibromofluoromethane (S) | 107 | % | 85-115 | | 1 | | 02/28/09 04:37 | 1868-53-7 | |
| 1,2-Dichloroethane-d4 (S) | 106 | % | 79-120 | | 1 | | 02/28/09 04:37 | 17060-07-0 | |
| Toluene-d8 (S) | 99 | % | 70-120 | | 1 | | 02/28/09 04 37 | 2037-26-5 | |



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# QUALITY CONTROL DATA

Project: 09-500 RTC 7937
Pace Project No.: 9238343

QC Batch: MSV/6233 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV Low Level
Associated Lab Samples: 9238343001, 9238343002, 9238343003, 9238343004, 9238343005

METHOD BLANK: 242892 Matrix: Water
Associated Lab Samples: 9238343001, 9238343002, 9238343003, 9238343004, 9238343005

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Benzene | ug/L | ND | 1.0 | 02/28/09 00:16 | |
| Ethylbenzene | ug/L | ND | 1.0 | 02/28/09 00:16 | |
| m&p-Xylene | ug/L | ND | 2.0 | 02/28/09 00:16 | |
| Naphthalene | ug/L | ND | 1.0 | 02/28/09 00:16 | |
| o-Xylene | ug/L | ND | 1.0 | 02/28/09 00:16 | |
| Toluene | ug/L | ND | 1.0 | 02/28/09 00:16 | |
| 1,2-Dichloroethane-d4 (S) | % | 102 | 79-120 | 02/28/09 00:16 | |
| 4-Bromofluorobenzene (S) | % | 99 | 87-109 | 02/28/09 00:16 | |
| Dibromofluoromethane (S) | % | 103 | 85-115 | 02/28/09 00:16 | |
| Toluene-d8 (S) | % | 100 | 70-120 | 02/28/09 00:16 | |

LABORATORY CONTROL SAMPLE: 242893

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Benzene | ug/L | 50 | 49.7 | 99 | 78-128 | |
| Ethylbenzene | ug/L | 50 | 50.2 | 100 | 80-127 | |
| m&p-Xylene | ug/L | 100 | 103 | 103 | 82-127 | |
| Naphthalene | ug/L | 50 | 65.7 | 131 | 52-136 | |
| o-Xylene | ug/L | 50 | 51.8 | 104 | 83-124 | |
| Toluene | ug/L | 50 | 48.3 | 97 | 76-126 | |
| 1,2-Dichloroethane-d4 (S) | % | | | 103 | 79-120 | |
| 4-Bromofluorobenzene (S) | % | | | 102 | 87-109 | |
| Dibromofluoromethane (S) | % | | | 99 | 85-115 | |
| Toluene-d8 (S) | % | | | 99 | 70-120 | |



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# QUALITY CONTROL DATA

Project 09-500 RTC 7937
Pace Project No 9238343

QC Batch: OEXT/5970 Analysis Method EPA 8270
QC Batch Method EPA 3535 Analysis Description: 8270 Water PAH MSSV
Associated Lab Samples: 9238343001, 9238343002, 9238343003, 9238343004, 9238343005

METHOD BLANK: 240782 Matrix: Water
Associated Lab Samples: 9238343001, 9238343002, 9238343003, 9238343004, 9238343005

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| 1-Methylnaphthalene | ug/L | ND | 10.0 | 02/25/09 16:43 | |
| 2-Methylnaphthalene | ug/L | ND | 10.0 | 02/25/09 16:43 | |
| Acenaphthene | ug/L | ND | 10.0 | 02/25/09 16:43 | |
| Acenaphthylene | ug/L | ND | 10.0 | 02/25/09 16:43 | |
| Anthracene | ug/L | ND | 10.0 | 02/25/09 16:43 | |
| Benzo(a)anthracene | ug/L | ND | 10.0 | 02/25/09 16:43 | |
| Benzo(a)pyrene | ug/L | ND | 10.0 | 02/25/09 16:43 | |
| Benzo(b)fluoranthene | ug/L | ND | 10.0 | 02/25/09 16:43 | |
| Benzo(g,h,i)perylene | ug/L | ND | 10.0 | 02/25/09 16:43 | |
| Benzo(k)fluoranthene | ug/L | ND | 10.0 | 02/25/09 16:43 | |
| Chrysene | ug/L | ND | 10.0 | 02/25/09 16:43 | |
| Dibenz(a,h)anthracene | ug/L | ND | 10.0 | 02/25/09 16:43 | |
| Fluoranthene | ug/L | ND | 10.0 | 02/25/09 16:43 | |
| Fluorene | ug/L | ND | 10.0 | 02/25/09 16:43 | |
| Indeno(1,2,3-cd)pyrene | ug/L | ND | 10.0 | 02/25/09 16:43 | |
| Naphthalene | ug/L | ND | 10.0 | 02/25/09 16:43 | |
| Phenanthrene | ug/L | ND | 10.0 | 02/25/09 16:43 | |
| Pyrene | ug/L | ND | 10.0 | 02/25/09 16:43 | |
| 2-Fluorobiphenyl (S) | % | 56 | 10-120 | 02/25/09 16:43 | |
| Nitrobenzene-d5 (S) | % | 46 | 10-120 | 02/25/09 16:43 | |
| Terphenyl-d14 (S) | % | 70 | 10-118 | 02/25/09 16:43 | |

LABORATORY CONTROL SAMPLE: 240783

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| 1-Methylnaphthalene | ug/L | 50 | 30.9 | 62 | 29-108 | |
| 2-Methylnaphthalene | ug/L | 50 | 25.5 | 51 | 30-104 | |
| Acenaphthene | ug/L | 50 | 30.1 | 60 | 39-109 | |
| Acenaphthylene | ug/L | 50 | 34.3 | 69 | 41-109 | |
| Anthracene | ug/L | 50 | 35.7 | 71 | 45-114 | |
| Benzo(a)anthracene | ug/L | 50 | 35.6 | 71 | 45-109 | |
| Benzo(a)pyrene | ug/L | 50 | 36.3 | 73 | 47-117 | |
| Benzo(b)fluoranthene | ug/L | 50 | 33.5 | 67 | 32-113 | |
| Benzo(g,h,i)perylene | ug/L | 50 | 33.6 | 67 | 10-149 | |
| Benzo(k)fluoranthene | ug/L | 50 | 30.8 | 62 | 41-104 | |
| Chrysene | ug/L | 50 | 36.0 | 72 | 35-116 | |
| Dibenz(a,h)anthracene | ug/L | 50 | 35.6 | 71 | 13-139 | |
| Fluoranthene | ug/L | 50 | 32.4 | 65 | 43-110 | |
| Fluorene | ug/L | 50 | 32.2 | 64 | 40-111 | |
| Indeno(1,2,3-cd)pyrene | ug/L | 50 | 34.9 | 70 | 17-135 | |
| Naphthalene | ug/L | 50 | 28.6 | 57 | 26-120 | |



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Pace Analytical Services, Inc.
2225 Riverside Dr
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave Suite 100
Huntersville, NC 28078
(704)875-9092

# QUALITY CONTROL DATA

Project: 09-500 RTC 7937
Pace Project No.: 9238343

LABORATORY CONTROL SAMPLE: 240783

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Phenanthrene | ug/L | 50 | 34.8 | 70 | 45-110 | |
| Pyrene | ug/L | 50 | 35.1 | 70 | 38-114 | |
| 2-Fluorobiphenyl (S) | % | | | 64 | 10-120 | |
| Nitrobenzene-d5 (S) | % | | | 43 | 10-120 | |
| Terphenyl-d14 (S) | % | | | 65 | 10-116 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 240784 240785

| Parameter | Units | 9238215001 Result | MS Spike Conc | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1-Methylnaphthalene | ug/L | ND | 104 | 104 | 54.1 | 68.2 | 51 | 64 | 29-108 | 23 | 30 | |
| 2-Methylnaphthalene | ug/L | 1.2J | 104 | 104 | 44.9 | 56.1 | 42 | 53 | 30-104 | 22 | 30 | |
| Acenaphthene | ug/L | ND | 104 | 104 | 53.6 | 68.2 | 51 | 65 | 17-104 | 24 | 30 | |
| Acenaphthylene | ug/L | ND | 104 | 104 | 60.1 | 75.7 | 58 | 73 | 10-200 | 23 | 30 | |
| Anthracene | ug/L | ND | 104 | 104 | 61.1 | 77.3 | 59 | 74 | 10-150 | 23 | 30 | |
| Benzo(a)anthracene | ug/L | ND | 104 | 104 | 61.2 | 80.4 | 59 | 77 | 10-172 | 27 | 30 | |
| Benzo(a)pyrene | ug/L | ND | 104 | 104 | 63.0 | 80.8 | 60 | 78 | 10-173 | 25 | 30 | |
| Benzo(b)fluoranthene | ug/L | ND | 104 | 104 | 57.8 | 93.7 | 56 | 90 | 10-200 | 47 | 30 | R1 |
| Benzo(g,h,i)perylene | ug/L | ND | 104 | 104 | 54.0 | 53.6 | 52 | 51 | 10-120 | 7 | 30 | |
| Benzo(k)fluoranthene | ug/L | ND | 104 | 104 | 53.8 | 57.4 | 52 | 55 | 10-145 | 6 | 30 | |
| Chrysene | ug/L | ND | 104 | 104 | 60.4 | 72.5 | 58 | 70 | 10-146 | 18 | 30 | |
| Dibenz(a,h)anthracene | ug/L | ND | 104 | 104 | 59.0 | 65.7 | 57 | 63 | 10-120 | 11 | 30 | |
| Fluoranthene | ug/L | ND | 104 | 104 | 55.8 | 72.4 | 54 | 70 | 20-120 | 28 | 30 | |
| Fluorene | ug/L | ND | 104 | 104 | 55.2 | 69.6 | 53 | 67 | 10-109 | 23 | 30 | |
| Indeno(1,2,3-cd)pyrene | ug/L | ND | 104 | 104 | 57.4 | 62.8 | 55 | 60 | 11-120 | 9 | 30 | |
| Naphthalene | ug/L | ND | 104 | 104 | 49.4 | 59.4 | 47 | 57 | 10-120 | 18 | 30 | |
| Phenanthrene | ug/L | ND | 104 | 104 | 58.0 | 75.1 | 56 | 72 | 10-145 | 26 | 30 | |
| Pyrene | ug/L | ND | 104 | 104 | 58.5 | 75.0 | 56 | 72 | 13-114 | 25 | 30 | |
| 2-Fluorobiphenyl (S) | % | | | | | | 53 | 65 | 10-120 | | | |
| Nitrobenzene-d5 (S) | % | | | | | | 52 | 60 | 10-120 | | | |
| Terphenyl-d14 (S) | % | | | | | | 61 | 77 | 10-116 | | | |



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Pace Analytical Services, Inc
2225 Riverside Dr
Asheville, NC 28804
(828)254-7176

Pace Analytical Services, Inc.
9800 Kincey Ave Suite 100
Huntersville NC 28078
(704)875-9092

# QUALIFIERS

Project: 09-500 RTC 7937
Pace Project No. 9238343

## DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content

ND - Not Detected at or above adjusted reporting limit

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit

MDL - Adjusted Method Detection Limit

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

Pace Analytical is NELAP accredited. Contact your Pace PM for the current list of accredited analytes.

U - Indicates the compound was analyzed for, but not detected.

## ANALYTE QUALIFIERS

R1 RPD value was outside control limits.



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Pace Analytical

# CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately

Page : 1 Of 1

| Section A Required Client Information: | | Section B Required Project Information: | | Section C Invoice Information: | |
|---|---|---|---|---|---|
| Company | ADVENT ENVIRONMENTAL | Report To: | James Weeg | Attention: | Accounts Payable |
| Address: | 498 Wando Park Blvd | Copy To: | | Company Name: | Advent Environmental |
| Mount Pleasant, SC 29464 | | | | Address | 498 Wando Park Blvd., Mount Pleasant, |
| Email To: | jweeg@adventenv.com | Purchase Order No | 09-500 | Pace Quote Reference | |
| Phone: | (843) 388-1851 Fax | Client Project ID. | 09-500 RTC | Pace Project Manager: | McKee, Bonnie |
| Requested Due Date/TAT: | 10 Day (Default) | Container Order Number | 7937 | Pace Profile #: | |

RCRA - Resource Conservation and Recovery Act

South Carolina

| ITEM# | SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique) | MATRIX CODE (see valid codes to left) | SAMPLE TYPE (G=GRAB C=COMP) | COLLECTED START DATE | COLLECTED START TIME | COLLECTED END DATE | COLLECTED END TIME | SAMPLE TEMP AT COLLECTION | # OF CONTAINERS | Unpreserved | H2SO4 | HNO3 | HCl | NaOH | Na2S2O3 | Methanol | Other | VOC LL 8260 | PAH/8270 | BTEXN | Residual Chlorine (Y/N) | 01238205 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ~~RTC SB-1~~ RTCSB01 | SL | C | | | 2/17 | 0905 | | 4 | X | | | | | X | X | | X | X | | | |
| | ~~RTC SB-2~~ RTCSB02 | SL | C | | | 2/17 | 0940 | | 4 | X | | | | | X | X | | X | X | | | |
| | ~~RTC SB-3~~ RTCSB03 | SL | C | | | 2/17 | 0950 | | 4 | X | | | | | X | X | | X | X | | | |
| | ~~RTC SB-4~~ RTCSB04 | SL | C | | | 2/17 | 1000 | | 4 | X | | | | | X | X | | X | X | | | |
| | ~~RTC Dup-1~~ RTCSB DUP | SL | C | | | 2/17 | 1000 | | 4 | X | | | | | X | X | | X | X | | | |
| | ~~RTC MW-1~~ | WT | | | | | | | | | | | | | | | | | X | X | | |
| | ~~RTC MW-2~~ | WT | | | | | | | | | | | | | | | | | X | X | | |
| | ~~RTC MW-3~~ | WT | | | | | | | | | | | | | | | | | X | X | | |
| | ~~RTC MW-4~~ | WT | | | | | | | | | | | | | | | | | X | X | | |
| | ~~RTC DUP-2~~ | WT | | | | | | | | | | | | | | | | | X | X | | |

Soil Samples that are being analyzed for VOC's under 8260 needs to include Naphthalene also

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | 02/18/09 | 1015 | 2.7 | Yes | No | Yes |

PRINT Name of SAMPLER: James Weeg

SIGNATURE of SAMPLER: [signature]

DATE Signed: 2/17/09

TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

## Sample Condition Upon Receipt

Pace Analytical

Client Name: ADVENT Project # 92382205

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other_____

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes ☐ no

| Optional | |
|---|---|
| Proj. Due Date: | N/A |
| Proj. Name: | N/A |

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other_____

Thermometer Used T060 Type of Ice: (Wet) Blue None ☑ Samples on ice, cooling process has begun

Cooler Temperature 2.7 Biological Tissue is Frozen: Yes No (N/A)

Date and Initials of person examining contents: JEA 02/18/09

Temp should be above freezing to 6°C

| | | Comments: |
|---|---|---|
| Chain of Custody Present: | ☑Yes ☐No ☐N/A | 1. |
| Chain of Custody Filled Out: | ☑Yes ☐No ☐N/A | 2. |
| Chain of Custody Relinquished: | ☐Yes ☑No ☐N/A | 3. |
| Sampler Name & Signature on COC: | ☑Yes ☐No ☐N/A | 4. |
| Samples Arrived within Hold Time: | ☑Yes ☐No ☐N/A | 5. |
| Short Hold Time Analysis (<72hr): | ☐Yes ☑No ☐N/A | 6. |
| Rush Turn Around Time Requested: | ☐Yes ☑No ☐N/A | 7. |
| Sufficient Volume: | ☑Yes ☐No ☐N/A | 8. |
| Correct Containers Used: | ☑Yes ☐No ☐N/A | 9. |
| -Pace Containers Used: | ☑Yes ☐No ☐N/A | |
| Containers Intact: | ☑Yes ☐No ☐N/A | 10. |
| Filtered volume received for Dissolved tests | ☐Yes ☐No ☑N/A | 11. |
| Sample Labels match COC: | ☑Yes ☐No ☐N/A | 12. |
| -Includes date/time/ID/Analysis Matrix:_____ | | |
| All containers needing preservation have been checked. | ☑Yes ☐No ☐N/A | 13. |
| All containers needing preservation are found to be in compliance with EPA recommendation. | ☑Yes ☐No ☐N/A | |
| exceptions: VOA, coliform, TOC, O&G, WI-DRO (water) | ☐Yes ☐No | Initial when completed |
| Samples checked for dechlorination: | ☐Yes ☐No ☑N/A | 14. |
| Headspace in VOA Vials ( >6mm): | ☐Yes ☐No ☑N/A | 15. |
| Trip Blank Present: | ☐Yes ☐No ☑N/A | 16. |
| Trip Blank Custody Seals Present | ☐Yes ☐No ☑N/A | |
| Pace Trip Blank Lot # (if purchased): N/A | | |

Client Notification/ Resolution: Field Data Required? Y / N / N/A

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: BKM Date: 2/18/09

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office ( i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical

# CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.



**Section A** Required Client Information:

| | |
|---|---|
| Company: | ADVENT ENVIRONMENTAL |
| Address: | 498 Wando Park Blvd |
| | Mount Pleasant, SC 29464 |
| Email To: | jwweeg@adventenv.com |
| Phone: | (843) 388-1851 Fax: |
| Requested Due Date/TAT: | 10 Day (Default) |

**Section B** Required Project Information:

| | |
|---|---|
| Report To: | James Weeg |
| Copy To: | |
| Purchase Order No: | 09-500 |
| Client Project ID: | 09-500 RTC |
| Container Order Number: | 7937 |

**Section C** Invoice Information:

| | |
|---|---|
| Attention: | Accounts Payable |
| Company Name: | Advent Environmental |
| Address: | 498 Wando Park Blvd., Mount Pleasant, |
| Pace Quote Reference | |
| Pace Project Manager | McKee, Bonnie |
| Pace Profile #: | |

RCRA - Resource Conservation and Recovery Act

South Carolina

| ITEM# | SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique) | MATRIX CODE (see valid codes to left) | SAMPLE TYPE (G=GRAB C=COMP) | COLLECTED START DATE | COLLECTED START TIME | COLLECTED END DATE | COLLECTED END TIME | SAMPLE TEMP AT COLLECTION | # OF CONTAINERS | Unpreserved | H2SO4 | HNO3 | HCl | NaOH | Na2S2O3 | Methanol | Other | VOC (1L 8260) | PAH/8270 | BTEXN | Residual Chlorine (Y/N) | 9238343 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | RTC TMW01 | WT | C | | | 18-Feb | 0840 | | 5 | X | | | X | | | | | | X | X | | 001 |
| | RTC TMW02 | WT | C | | | 18-Feb | 0910 | | 5 | X | | | X | | | | | | X | X | | 002 |
| | RTC TMW03 | WT | C | | | 18-Feb | 0940 | | 5 | X | | | X | | | | | | X | X | | 003 |
| | RTC TMW04 | WT | C | | | 18-Feb | 1015 | | 5 | X | | | X | | | | | | X | X | | 004 |
| | RTC TMW DUP | WT | C | | | 18-Feb | 1015 | | 5 | X | | | X | | | | | | X | X | | 005 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | 2/18/09 | 9:30 | 1.9 | yes | no | yes |

| | |
|---|---|
| PRINT Name of SAMPLER: | James Weeg |
| SIGNATURE of SAMPLER: | DATE Signed: 2/18/2009 |

TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

## Sample Condition Upon Receipt

Pace Analytical

Client Name: Advent Project # 9238343

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other_____

| Optional | |
|---|---|
| Proj. Due Date: | N/A |
| Proj. Name: | N/A |

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☑ yes ☐ no

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None ☐ Other_____

Thermometer Used T060 Type of Ice: Wet Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature 1.9 Biological Tissue is Frozen: Yes No N/A

Date and Initials of person examining contents: CW 2/19

Temp should be above freezing to 6°C

| | | | | Comments: |
|---|---|---|---|---|
| Chain of Custody Present: | ☑Yes | ☐No | ☐N/A | 1. |
| Chain of Custody Filled Out: | ☑Yes | ☐No | ☐N/A | 2. |
| Chain of Custody Relinquished: | ☑Yes | ☐No | ☐N/A | 3. |
| Sampler Name & Signature on COC: | ☑Yes | ☐No | ☐N/A | 4. |
| Samples Arrived within Hold Time: | ☑Yes | ☐No | ☐N/A | 5. |
| Short Hold Time Analysis (<72hr): | ☐Yes | ☑No | ☐N/A | 6. |
| Rush Turn Around Time Requested: | ☐Yes | ☑No | ☐N/A | 7. |
| Sufficient Volume: | ☑Yes | ☐No | ☐N/A | 8. |
| Correct Containers Used: | ☑Yes | ☐No | ☐N/A | 9. |
| -Pace Containers Used: | ☑Yes | ☐No | ☐N/A | |
| Containers Intact: | ☑Yes | ☐No | ☐N/A | 10. |
| Filtered volume received for Dissolved tests | ☐Yes | ☐No | ☑N/A | 11. |
| Sample Labels match COC: | ☑Yes | ☐No | ☐N/A | 12. |
| -Includes date/time/ID/Analysis Matrix: WT | | | | |
| All containers needing preservation have been checked | ☑Yes | ☐No | ☐N/A | 13. |
| All containers needing preservation are found to be in compliance with EPA recommendation. | ☑Yes | ☐No | ☐N/A | |
| exceptions: VOA, coliform, TOC, O&G, WI-DRO (water) | ☐Yes | ☐No | | Initial when completed |
| Samples checked for dechlorination: | ☑Yes | ☐No | ☐N/A | 14. |
| Headspace in VOA Vials ( >6mm): | ☐Yes | ☑No | ☐N/A | 15. |
| Trip Blank Present: | ☐Yes | ☐No | ☑N/A | 16. |
| Trip Blank Custody Seals Present | ☐Yes | ☐No | ☐N/A | |
| Pace Trip Blank Lot # (if purchased): N/A | | | | |

Client Notification/ Resolution: Field Data Required? Y / N / N/A

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: BKM Date: 2/19/09

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office ( i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

**FedEx** Express — US Airbill

FedEx Tracking Number: 8686 5982 0169

0200 — Sender's Copy

**1 From** (Please print and press hard)

Date 2/17/09 — Sender's FedEx Account Number 2787858 8-2

Sender's Name James Weeg — Phone (843) 388-1851

Company Advant Env. Inc.

Address 498 Wando Park Blvd. — Dept./Floor/Suite/Room 500

City Mt. Pleasant — State SC — ZIP 29464

**2 Your Internal Billing Reference** (First 24 characters will appear on invoice)

**3 To**

Recipient's Name — Phone (704) 875-9092

Company Pace Analytical

Recipient's Address 9800 Kinsey Ave. — Dept./Floor/Suite/Room 100

We cannot deliver to P.O. boxes or P.O. ZIP codes.

Address (To request a package be held at a specific FedEx location, print FedEx address here)

City Huntersville — State NC — ZIP 28078

**4a Express Package Service** — Packages up to 150 lbs.

- ☐ FedEx Priority Overnight — Next business morning.* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- ☒ FedEx Standard Overnight — Next business afternoon.* Saturday Delivery NOT available.
- ☐ FedEx First Overnight — Earliest next business morning delivery to select locations.* Saturday Delivery NOT available.
- ☐ FedEx 2Day — Second business day.* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- ☐ FedEx Express Saver — Third business day.* Saturday Delivery NOT available.

FedEx Envelope rate not available. Minimum charge: One-pound rate.

* To most locations.

**4b Express Freight Service** — Packages over 150 lbs.

- ☐ FedEx 1Day Freight* — Next business day.** Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- ☐ FedEx 2Day Freight — Second business day.** Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- ☐ FedEx 3Day Freight — Third business day.** Saturday Delivery NOT available.

* Call for Confirmation. ** To most locations.

**5 Packaging**

- ☐ FedEx Envelope*
- ☐ FedEx Pak* — Includes FedEx Small Pak, FedEx Large Pak, and FedEx Sturdy Pak.
- ☐ FedEx Box
- ☐ FedEx Tube
- ☒ Other

* Declared value limit $500.

**6 Special Handling** (Available FedEx services as Sender's.)

- ☐ SATURDAY Delivery — NOT Available for FedEx Standard Overnight, FedEx First Overnight, FedEx Express Saver, or FedEx 3Day Freight.
- ☐ HOLD Weekday at FedEx Location — NOT Available for FedEx First Overnight.
- ☐ HOLD Saturday at FedEx Location — Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

Does this shipment contain dangerous goods?

- ☒ No
- ☐ Yes — As per attached Shipper's Declaration
- ☐ Yes — Shipper's Declaration not required
- ☐ Dry Ice — Dry Ice, 9, UN 1845 ____ x ____ kg

Dangerous goods including dry ice cannot be shipped in FedEx packaging.

☐ Cargo Aircraft Only

**7 Payment** Bill to: (Enter FedEx Acct. No. or Credit Card No. below.)

- ☒ Sender — Acct. No. in Section 1 will be billed.
- ☐ Recipient
- ☐ Third Party
- ☐ Credit Card
- ☐ Cash/Check

FedEx Acct. No. Credit Card No. 2787858 8-2 — Exp. Date

| Total Packages | Total Weight | Total Declared Value† |
|---|---|---|
| 1 | 22 | $ .00 |

†Our liability is limited to $100 unless you declare a higher value. See back for details. By using this Airbill you agree to the service conditions on the back of this Airbill and in the current FedEx Service Guide, including terms that limit our liability.

**8 Residential Delivery Signature Options** (If you require a signature, check Direct or Indirect.)

- ☐ No Signature Required — Package may be left without obtaining a signature for delivery.
- ☐ Direct Signature — Someone at the recipient's address may sign for delivery. Fee applies.
- ☐ Indirect Signature — If no one is available at recipient's address, someone at a neighboring address may sign for delivery. Fee applies.

520

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FedEx
5056 INTERNATIONAL BLVD
CHARLESTON, SC 29418

Location: CHSA
Device ID: CHSA-POS2
Employee: 9424
Transaction: 690316171 7

STANDARD OVERNIGHT
8686598201 69 21.05 lb (S) 19

Shipment subtotal: 1
Total Due: 1
FedEx Account: ****5882 1

W = Weight entered manually
S = Weight read from scale
T = Taxable item

Subject to additional charges. See FedEx Service Gu
at fedex.com for details. All merchandise sales fin

Visit us at: fedex.com
Or call 1.800.GoFedEx
1.800.463.3339

February 17, 2009 4:04:49 PM

**FedEx** Express — US Airbill

FedEx Tracking Number: 8686 5982 2210

Form ID No.: 0200

**Sender's Copy**

**1 From** Please print and press hard.

Date: 2/19/09 Sender's FedEx Account Number: 278785882

Sender's Name: James Weeg Phone: (843) 388-1851

Company: Advent Env., Inc.

Address: 498 Wando Park Blvd Dept/Floor/Suite/Room: 500

City: Mt. Pleasant State: SC ZIP: 29464

**2 Your Internal Billing Reference** First 24 characters will appear on invoice. 09-500

**3 To** Recipient's Name Phone: (704) 875-1092

Company: Pace Analytical Services

Recipient's Address: 9800 Kinsey Ave. Dept/Floor/Suite/Room: 100

We cannot deliver to P.O. boxes or P.O. ZIP codes.

Address: To request a package be held at a specific FedEx location, print FedEx address here.

City: Huntersville State: NC ZIP: 28078

**Schedule a pickup at fedex.com**
Simplify your shipping. Manage your account. Access all the tools you need.

**4a Express Package Service** — *Packages up to 150 lbs.*

- [ ] FedEx Priority Overnight — Next business morning.* Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [x] FedEx Standard Overnight — Next business afternoon.* Saturday Delivery NOT available.
- [ ] FedEx First Overnight — Earliest next business morning delivery to select locations.* Saturday Delivery NOT available.
- [ ] FedEx 2Day — Second business day.* Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [ ] FedEx Express Saver — Third business day.* Saturday Delivery NOT available.

FedEx Envelope rate not available. Minimum charge: One-pound rate.

* To most locations.

**4b Express Freight Service** — *Packages over 150 lbs.*

- [ ] FedEx 1Day Freight* — Next business day.** Friday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [ ] FedEx 2Day Freight — Second business day.** Thursday shipments will be delivered on Monday unless SATURDAY Delivery is selected.
- [ ] FedEx 3Day Freight — Third business day.** Saturday Delivery NOT available.

* Call for Confirmation:

** To most locations.

**5 Packaging**

- [ ] FedEx Envelope*
- [ ] FedEx Pak* — Includes FedEx Small Pak, FedEx Large Pak, and FedEx Sturdy Pak.
- [ ] FedEx Box
- [ ] FedEx Tube
- [x] Other

* Declared value limit $500.

**6 Special Handling** — Include FedEx address in Section 3.

- [ ] **SATURDAY Delivery** NOT Available for FedEx Standard Overnight, FedEx First Overnight, FedEx Express Saver, or FedEx 3Day Freight.
- [ ] **HOLD Weekday** at FedEx Location NOT Available for FedEx First Overnight.
- [ ] **HOLD Saturday** at FedEx Location Available ONLY for FedEx Priority Overnight and FedEx 2Day to select locations.

**Does this shipment contain dangerous goods?** One box must be checked.

- [ ] No
- [ ] Yes — As per attached Shipper's Declaration.
- [ ] Yes — Shipper's Declaration not required.
- [ ] Dry Ice — Dry ice, 9, UN 1845 ____ x ____ kg
- [ ] Cargo Aircraft Only

Dangerous goods (including dry ice) cannot be shipped in FedEx packaging.

**7 Payment** *Bill to:* Enter FedEx Acct. No. or Credit Card No. below.

- [x] Sender — Acct. No. in Section 1 will be billed.
- [ ] Recipient
- [ ] Third Party
- [ ] Credit Card
- [ ] Cash/Check

FedEx Acct. No. / Credit Card No.: 278785882 Exp. Date:

| Total Packages | Total Weight | Total Declared Value† |
|---|---|---|
| 1 | 20 | $ .00 |

†Our liability is limited to $100 unless you declare a higher value. See back for details. By using this Airbill you agree to the service conditions on the back of this Airbill and in the current FedEx Service Guide, including terms that limit our liability.

**8 Residential Delivery Signature Options** If you require a signature, check Direct or Indirect.

- [ ] No Signature Required — Package may be left without obtaining a signature for delivery.
- [ ] Direct Signature — Someone at recipient's address may sign for delivery. Fee applies.
- [ ] Indirect Signature — If no one is available at recipient's address, someone at a neighboring address may sign for delivery. Fee applies.

520

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# APPENDIX C

713

## Stewart, Kathryn A CIV OASN (IE), BRAC PMO SE

**From:** Michael A. Bishop [BISHOPMA@dhec.sc gov]
**Sent:** Monday, October 13, 2008 4:26 PM
**To:** Stewart, Kathryn A CIV OASN (I&E), BRAC PMO SE
**Cc:** Janice T. Cooke
**Subject:** 13370 - CNB Reserve Training Center

**Attachments:** RTC1.pdf

RTC1.pdf (60 KB)

Kathryn:

I have attached a map that notes the location of the two fuel oil USTs removed from the Bldg known as RTC 1. Both tanks need a GW investigation.

I recommend that the Navy do a limited DPT investigation for BTEX+Naph+PAHs. Please submit a work proposal to Ms. Cooke for review I have entered a tentative due date for the proposal of 30 January 2009

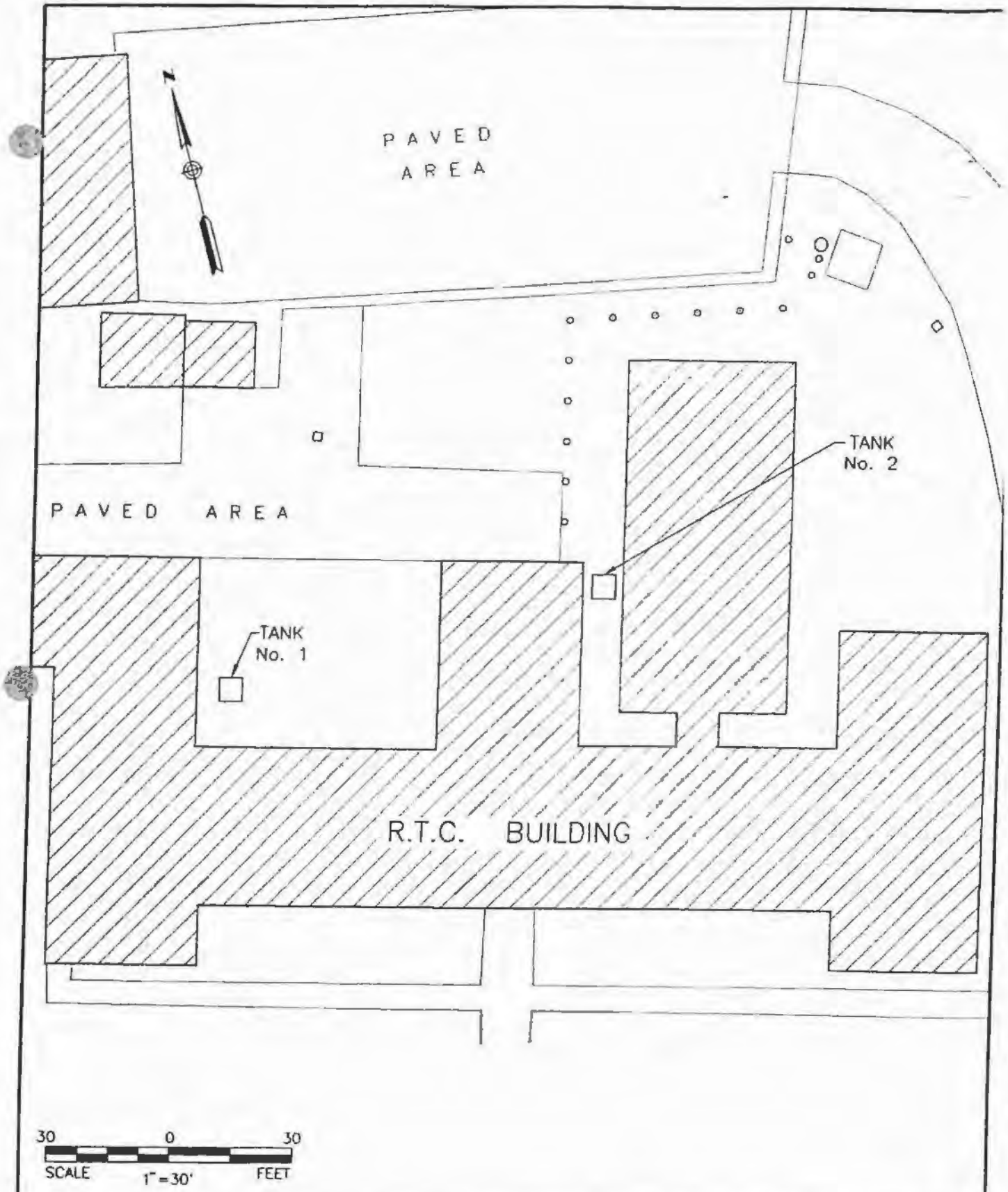


FIGURE 1-3

UST LOCATIONS

SECDONOHUE Project C1339

FEBRUARY, 1993

CONTAMINATION ASSESSMENT REPORT

NAVAL RESERVE TRAINING CENTER
CHARLESTON NAVAL STATION
CHARLESTON, S.C.

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

*Promoting and protecting the health of the public and the environment.*

February 10, 2009

Kathryn Stewart, P.E.
BRAC PMO SE
4130 Faber Place Drive, Suite 202
N. Charleston, SC 29405

Re: Reserve Training Center
**Site Identification # 13370**
Assessment Plan received February 9, 2009
Charleston County

Dear Ms. Stewart:

The South Carolina Department of Health and Environmental Control (SCDHEC) has reviewed and approved the referenced temporary monitoring well approval request submitted by Advent. The original temporary monitoring well approval has been sent to Advent and a copy is enclosed for your records. The analytical results from the groundwater samples should be submitted to my attention within thirty days (30) of receipt from the laboratory or on or before March 28, 2009. Please note the following:

- Well construction and sampling derived waste including but not limited to drill cuttings, drilling fluids, and development/purge water should be managed properly and in compliance with applicable requirements. If containerized, each vessel should be clearly labeled with regards to contents, source, and date of activity.

- Monitoring wells are to yield groundwater samples representative of the zone monitored per R.61-71 H.1.c of the South Carolina Well Standards and Regulations (e.g. low flow sampling techniques are recommended for samples to be analyzed for metals to reduce induced turbidity).

If you have any questions, please contact me at (803) 896-4179.

Sincerely,

Jan T. Cooke

Jan T. Cooke, Hydrogeologist
AST Petroleum Restoration & Site Environmental Investigations Section
Land Revitalization Division
Bureau of Land and Waste Management

enc: Monitor well approval
cc: Region 7
James Weeg; Advent (via pdf)
Meredith Amick, BL&WM (via pdf)

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

# Temporary Monitoring Well Approval

**Approval is hereby granted to:** Advent
**Facility:** Reserve Training Center
**Site ID # 13370**
Charleston County

This approval is for the installation of 4 temporary groundwater-monitoring wells. The temporary monitoring wells are to be installed in the locations as illustrated on Figure #1 and per the proposed construction details provided in the February 9, 2009 correspondence. The monitoring wells are to be installed following all of the applicable requirements of R.61-71.

***Please note that R.61-71 requires the following:***

1. All wells shall be drilled, constructed, and abandoned by a South Carolina certified well driller per R.61-71.D.1.

2. A Water Well Record Form or other form provided or approved by the Department shall be completed and submitted to the Department within 30 days after well completion or abandonment unless another schedule has been approved by the Department. The form should contain the "as-built" construction details and all other information required by R.61-71.H.1.f

3. All analytical data and water levels obtained from each monitoring well shall be submitted to the Department within 30 days of receipt of laboratory results unless another schedule has been approved by the Department as required by R.61-71.H.1.d.

4. All temporary monitoring wells shall be abandoned within 5 days of borehole completion using appropriate methods as required by R.61-71.H.4.c.

5. If any of the information provided to the Department changes, the project manager, Jan Cooke (803-898-4248) shall be notified a minimum of twenty-four hours prior to well construction as required by R.61-71.H.1.a.

This approval is pursuant to the provisions of Section 44-55-40 of the 1976 South Carolina Code of Laws and R.61-71 of the South Carolina Well Standards and Regulations, dated April 26, 2002.

**Date of Issuance:** **February 9, 2009** **Approval #: 3536**

Jan T. Cooke, Hydrogeologist
AST Petroleum Restoration & Site Environmental Investigations Section
Land Revitalization Division
Bureau of Land and Waste Management

DHEC
PROMOTE PROTECT PROSPER

# Water Well Record
## Bureau of Water

TMW-1

2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

**1. WELL OWNER INFORMATION:**
Name BRAC Program Management Office Southeast
(last) (first)
Address: 4130 Faber Place Drive, Suite 202
City North Charleston State SC Zip: 29405
attn: Kathy Stewart
Telephone Work: Home:

**2. LOCATION OF WELL:** COUNTY: Charleston
Name: Reserve training Center, Bldg. 205
Street Address: South Hobson Ave.
City: North Charleston Zip: 29405
Latitude: N 32 50' 09" Longitude: W 79 56' 52"

**3. PUBLIC SYSTEM NAME:** PUBLIC SYSTEM NUMBER:

**4. ABANDONMENT:** ☒ Yes ☐ No
Grouted Depth: from 0 ft to 15 ft.

| Formation Description | *Thickness of Stratum | Depth to Bottom of Stratum |
|---|---|---|
| Boring abandoned following sample collection | | |

*Indicate Water Bearing Zones
(Use a 2nd sheet if needed)

**5. REMARKS:**

**6. TYPE:** ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☒ Driven ☐ Cable tool ☐ Other

**7. PERMIT NUMBER:**

**8. USE:** ☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☒ Monitor Well ☐ Replacement

**9. WELL DEPTH** (completed) 15 ft
Date Started: 2-17-09
Date Completed: 2-18-09

**10. CASING:** ☒ Threaded ☐ Welded
Diam.: 1 inch
Type: ☒ PVC ☐ Galvanized ☐ Steel ☐ Other
0 ft in. to 10 ft. depth
in. to ft. depth
Height: Above ☐ Below ☐
Surface ft.
Weight lb./ft
Drive Shoe? ☐ Yes ☐ No

**11. SCREEN:**
Type: PVC Diam.: 1 inch
Slot/Gauge: 0.010 Length: 5 ft
Set Between: 10 ft. and 15 ft.
ft. and ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

**12. STATIC WATER LEVEL** ft. below land surface after 24 hours

**13. PUMPING LEVEL** Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☒ No
Yield:

**14. WATER QUALITY**
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

**15. ARTIFICIAL FILTER** (filter pack) ☒ Yes ☐ No
Installed from 8 ft. to 15 ft.
Effective size Uniformity Coefficient

**16. WELL GROUTED?** ☒ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☒ Bentonite/Cement ☐ Other
Depth: From 0 ft. to 15 ft.

**17. NEAREST SOURCE OF POSSIBLE CONTAMINATION:** ft. direction
Type
Well Disinfected ☐ Yes ☐ No Type: Amount:

**18. PUMP:** Date installed Not installed ☐
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

**19. WELL DRILLER:** Terry White
CERT. NO.:
Address: (Print) P O Box 1369
Concord, NC 28026
Level: A ☐ B ☐ C ☐ D ☒ (circle one)
Telephone No.: 704.933.5538 Fax No.: 704.933.5539

**20. WATER WELL DRILLER'S CERTIFICATION:** This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Terry R. White Jr. Date: 2/20/09
Well Driller

If D Level Driller, provide supervising driller's name:
Arlen Burney 1415B

DHEC 1903 (07/2003)

COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)

DHEC
PROMOTE PROTECT PROSPER

# Water Well Record
## Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

TMW-2

**1. WELL OWNER INFORMATION:**
Name (last) (first) BRAC Program Management Office Southeast
Address: 4130 Faber Place Drive, Suite 202
City: North Charleston State: SC Zip: 29405
attn: Kathy Stewart
Telephone: Work: Home:

**2. LOCATION OF WELL:** COUNTY: Charleston
Name: Reserve training Center, Bldg. 205
Street Address: South Hobson Ave.
City: North Charleston Zip: 29405
Latitude: N 32 50' 09" Longitude: W 79 56' 52"

**3. PUBLIC SYSTEM NAME:** PUBLIC SYSTEM NUMBER:

**4. ABANDONMENT:** ☒ Yes ☐ No
Grouted Depth from 0 ft. to 15 ft.

| Formation Description | *Thickness of Stratum | Depth to Bottom of Stratum |
|---|---|---|
| Boring abandoned following sample collection | | |

*Indicate Water Bearing Zones
(Use a 2nd sheet if needed)

**5. REMARKS:**

**6. TYPE:** ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☒ Driven ☐ Cable too ☐ Other

**7. PERMIT NUMBER:**

**8. USE:** ☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☒ Monitor Well ☐ Replacement

**9. WELL DEPTH** (completed) 15 ft
Date Started: 2-17-09
Date Completed: 2-18-09

**10. CASING:** ☒ Threaded ☐ Welded
Diam 1 inch
Type: ☒ PVC ☐ Galvanized ☐ Steel ☐ Other
0 ft in. to 10 ft. depth
in. to ft. depth
Height: Above ☐ Below ☐
Surface ft
Weight lb/ft
Drive Shoe? ☐ Yes ☐ No

**11. SCREEN:**
Type: PVC
Diam 1 inch
Slot/Gauge 0.010
Length 5 ft
Set Between 10 ft and 15 ft
ft and ft
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

**12. STATIC WATER LEVEL** ft. below land surface after 24 hours

**13. PUMPING LEVEL** Below Land Surface
ft after hrs Pumping G.P.M
Pumping Test ☐ Yes (please enclose) ☒ No
Yield

**14. WATER QUALITY**
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results

**15. ARTIFICIAL FILTER** (filter pack) ☒ Yes ☐ No
Installed from 8 ft to 15 ft
Effective size Uniformity Coefficient

**16. WELL GROUTED?** ☒ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☒ Bentonite/Cement ☐ Other
Depth: From 0 ft. to 15 ft

**17. NEAREST SOURCE OF POSSIBLE CONTAMINATION:** ft. direction
Type
Well Disinfected ☐ Yes ☐ No Type Amount

**18. PUMP:** Date installed Not installed ☐
Mfr. Name Model No.
H.P. Volts Length of drop pipe ft Capacity gpm
TYPE ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

**19. WELL DRILLER:** Terry White
Address: (Print) P O Box 1369
Concord, NC 28026
CERT. NO.:
Level A B C D (circle one) ☐ ☐ ☐ ☒
Telephone No.: 704.933.5538 Fax No.: 704.933.5539

**20. WATER WELL DRILLER'S CERTIFICATION:** This well was drilled under my direction and this report is true to the best of my knowledge and belief

Signed Terry R. White Jr. Date 2/20/09
Well Driller

If D Level Driller, provide supervising driller's name.
Arlen Burney 1415B

DHEC 1903 (07/2003) COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)

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# Water Well Record
## Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

TMW-3

**1. WELL OWNER INFORMATION:**
Name (last) (first): BRAC Program Management Office Southeast
Address: 4130 Faber Place Drive, Suite 202
City: North Charleston State: SC Zip: 29405
attn: Kathy Stewart
Telephone: Work: Home:

**2. LOCATION OF WELL:** COUNTY: Charleston
Name: Reserve training Center, Bldg. 205
Street Address: South Hobson Ave.
City: North Charleston Zip: 29405
Latitude: N 32 50' 09" Longitude: W 79 56' 52"

**3. PUBLIC SYSTEM NAME:** PUBLIC SYSTEM NUMBER:

**4. ABANDONMENT:** ☒ Yes ☐ No
Grouted Depth: from 0 ft. to 15 ft.

| Formation Description | *Thickness of Stratum | Depth to Bottom of Stratum |
|---|---|---|
| Boring abandoned following sample collection | | |
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| *Indicate Water Bearing Zones (Use a 2nd sheet if needed) | | |

**5. REMARKS:**

**6. TYPE:** ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☒ Driven ☐ Cable tool ☐ Other

**7. PERMIT NUMBER:**

**8. USE:** ☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☒ Monitor Well ☐ Replacement

**9. WELL DEPTH** (completed) 15 ft. Date Started: 2-17-09 Date Completed: 2-18-09

**10. CASING:** ☒ Threaded ☐ Welded
Diam: 1 inch
Type: ☒ PVC ☐ Galvanized ☐ Steel ☐ Other
0 ft in. to 10 ft. depth
in. to ft. depth
Height: Above ☐ Below ☐
Surface ft.
Weight lb./ft.
Drive Shoe? ☐ Yes ☐ No

**11. SCREEN:**
Type: PVC Diam.: 1 inch
Slot/Gauge: 0.010 Length: 5 ft
Set Between: 10 ft. and 15 ft.
ft. and ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis: ☐ Yes (please enclose) ☐ No

**12. STATIC WATER LEVEL** ft. below land surface after 24 hours

**13. PUMPING LEVEL** Below Land Surface
ft. after hrs. Pumping G.P.M
Pumping Test: ☐ Yes (please enclose) ☒ No
Yield:

**14. WATER QUALITY**
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results

**15. ARTIFICIAL FILTER** (filter pack) ☒ Yes ☐ No
Installed from 8 ft. to 15 ft.
Effective size Uniformity Coefficient

**16. WELL GROUTED?** ☒ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☒ Bentonite/Cement ☐ Other
Depth: From 0 ft. to 15 ft.

**17. NEAREST SOURCE OF POSSIBLE CONTAMINATION:** ft. direction
Type:
Well Disinfected ☐ Yes ☐ No Type: Amount:

**18. PUMP:** Date installed: Not installed ☐
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

**19. WELL DRILLER:** Terry White
Address (Print): P O Box 1369
Concord, NC 28026
CERT. NO.:
Level: A ☐ B ☐ C ☐ D ☒ (circle one)
Telephone No.: 704.933.5538 Fax No.: 704.933.5539

**20. WATER WELL DRILLER'S CERTIFICATION:** This well was drilled under my direction and this report is true to the best of my knowledge and belief

Signed: Terry R. White Jr. Date: 2/20/09
Well Driller

If D Level Driller, provide supervising driller's name:
Arlen Burney 1415B



COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)

DHEC

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# Water Well Record

TMW-4

## Bureau of Water

2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

**1. WELL OWNER INFORMATION:**

Name: BRAC Program Management Office Southeast (last) (first)

Address: 4130 Faber Place Drive, Suite 202

City: North Charleston State: SC Zip: 29405

attn: Kathy Stewart

Telephone: Work: Home:

**2. LOCATION OF WELL:** COUNTY: Charleston

Name: Reserve training Center, Bldg. 205

Street Address: South Hobson Ave.

City: North Charleston Zip: 29405

Latitude: N 32 50' 09" Longitude: W 79 56' 52"

**3. PUBLIC SYSTEM NAME:** **PUBLIC SYSTEM NUMBER:**

**4. ABANDONMENT:** ☒ Yes ☐ No

Grouted Depth: from 0 ft. to 15 ft.

| Formation Description | *Thickness of Stratum | Depth to Bottom of Stratum |
|---|---|---|
| Boring abandoned following sample collection | | |
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| *Indicate Water Bearing Zones (Use a 2nd sheet if needed) | | |

**5. REMARKS:**

**6. TYPE:** ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☒ Driven ☐ Cable tool ☐ Other

**7. PERMIT NUMBER:**

**8. USE:** ☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☒ Monitor Well ☐ Replacement

**9. WELL DEPTH** (completed) 15 ft. Date Started: 2-17-09 Date Completed: 2-18-09

**10. CASING:** ☒ Threaded ☐ Welded

Diam. 1 inch

Type ☒ PVC ☐ Galvanized ☐ Steel ☐ Other

0 ft in. to 10 ft. depth

in. to ft. depth

Height Above ☐ Below ☐ Surface ft. Weight lb./ft. Drive Shoe? ☐ Yes ☐ No

**11. SCREEN:** Type: PVC Diam 1 inch

Slot/Gauge: 0.010 Length 5 ft.

Set Between 10 ft. and 15 ft

ft. and ft

NOTE: MULTIPLE SCREENS USE SECOND SHEET

Sieve Analysis ☐ Yes (please enclose) ☐ No

**12. STATIC WATER LEVEL** ft. below land surface after 24 hours

**13. PUMPING LEVEL** Below Land Surface

ft after hrs Pumping G.P.M.

Pumping Test ☐ Yes (please enclose) ☒ No

Yield.

**14. WATER QUALITY**

Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No

Please enclose lab results

**15. ARTIFICIAL FILTER** (filter pack) ☒ Yes ☐ No

Installed from 8 ft. to 15 ft

Effective size Uniformity Coefficient

**16. WELL GROUTED?** ☒ Yes ☐ No

☐ Neat Cement ☐ Bentonite ☒ Bentonite/Cement ☐ Other

Depth: From 0 ft to 15 ft.

**17. NEAREST SOURCE OF POSSIBLE CONTAMINATION:** ft. direction

Type

Well Disinfected ☐ Yes ☐ No Type: Amount:

**18. PUMP:** Date installed Not installed ☐

Mfr. Name Model No

H.P. Volts Length of drop pipe ft. Capacity gpm

TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifuga

**19. WELL DRILLER:** Terry White CERT. NO.:

Address (Print) P O Box 1369 Level: A ☐ B ☐ C ☐ D ☒ (circle one)

Concord, NC 28026

Telephone No.: 704.933.5538 Fax No.: 704.933.5539

**20. WATER WELL DRILLER'S CERTIFICATION:** This well was drilled under my direction and this report is true to the best of my knowledge and belief

Signed Terry R. White Jr. Date 2/20/09

Well Driller

If D Level Driller, provide supervising driller's name.

Arlen Burney 1415B

DHEC 1903 (07/2003)

COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)