N61165.AR.004943
CNC CHARLESTON
5090.3a

INITIAL GROUNDWATER ASSESSMENT REPORT FOR BUILDING 647 CNC CHARLESTON SC

1/1/2006

ADVENT ENVIRONMENTAL INC

BUILDING 647, INITIAL GROUNDWATER ASSESSMENT
CHARLESTON NAVAL COMPLEX, SOUTH CAROLINA

Prepared for:

Naval Facilities Engineering Command
North Charleston, South Carolina

Contract Number
N62467-05-C-0186

Prepared By:

ADVENT Environmental, Inc.
498 Wando Park Blvd.
Suite 500
Mt. Pleasant SC 29464

Brian R. Crawford, R.E.M.
Project Manager

Jeffrey C. Smoak, P.E.
Principal

January 2006
ADVENT 05-526

EXECUTIVE SUMMARY

ADVENT Environmental (ADVENT) was retained by the Naval Facilities Engineering Command – Engineering Field Division South (NAVFAC) to Perform an initial groundwater assessment (IGWA) at former UST 647 site at the former Building 647 located at the Charleston Naval Complex (CNC) in North Charleston, South Carolina. A Work Plan for *Monitored Natural Attenuation, at the Charleston Naval Complex* was submitted to NAVFAC and approved in October, 2005.

The CNC is located in North Charleston, South Carolina. The former Building 647 was operated as a maintenance facility that supported operations at the former navy base. The former UST-647 was removed by Terry Environmental Services, Inc. February 27, 2003. At the time of the UST closure pitting was noted in the bottom of the tank and contaminated soils were identified immediately adjacent to the UST.

Soil samples collected at the time of the UST removal indicated Constituent of Concern (CoC) levels that exceeded the Reporting Limit (RL) for Benzene and Toluene. Soil sample SS-1 contained a Benzene at a concentration of 8.86 micrograms/liter (μg/L) (RL = 5 μg/L), and Toluene at a concentration of 25.7 μg/L (RL = 5 μg/L). Soil sample SS-2 contained Toluene at a concentration of 9.68 μg/L.

ADVENT installed a monitoring well on November 16, 2005 at the site of the former UST in accordance with guidance from the approved Advent Work Plan "Monitored Natural Attenuation, Underground Storage Tank Closure Assessment, and Chicora Soil Remediation, at the Charleston Naval Complex" dated October, 2005. The monitoring well was installed by a South Carolina Certified Well Driller (Probe Technology, Inc.), using a 4.25-inch hollow stem auger. The well was installed to a depth of 13 feet below ground surface (bgs), with a screened interval of 10 feet (See Appendix-A). The monitoring well was developed by removing three (3) well volumes of water and then

sampled. Investigation Derived Waste (IDW) was contained within 55-gallon drums and disposed of by Transglobal at Giant Resource Recovery, Sumter, South Carolina (See Appendix-E for disposal manifest).

Soil samples were collected on two-foot centers during advancement of the borehole. The soil samples were subjected to head space screening using a Photo-Ionization Detector (PID). The sample exhibiting the highest PID reading was sampled for laboratory analysis. The soil and water samples were stored on ice, in appropriate containers, and shipped to a South Carolina Certified Laboratory (Severn Trent Laboratories) for evaluation.

Laboratory analyses on the submitted soil did not result in detection of any Contaminants of Concern (CoC's) that were in excess of the SCDHEC RL. Analyses on the water sample submitted did not detect any CoC's that were in excess of the RL for VOC's, PAH's or MTBE. The water sample did identify Dissolved CO_2 (7,600 μg/L), Ferrous Iron (83 μg/L), Total Lead (5.9 μg/L), and Methane (3,600 μg/L) were detected in the water sample in excess of the RL for these constituents (See Appendix-B).

INITIAL GROUND-WATER ASSESSMENT REPORT

Facility Name: Charleston Naval Complex, North Charleston – Building 647

UST Permit Number: Unregulated

UST Owner or Operator's Name: Charleston Naval Complex, North Charleston

Address: Charleston Naval Complex, North Charleston, South Carolina, 29405

Phone Number: 843-870-0703

Property Owner's Name (if different than UST owner/operator):

Address: same

Phone Number: same

Contractor: ADVENT Environmental, Inc. Cert. #149

Address: 498 Wando Park Blvd., Suite 500, Mount Pleasant, South Carolina, 29464

Phone Number: 843-388-1851

Well Driller: Probe Technology Cert. #1432

Address: P.O. Box 1369, Concord, North Carolina, 28026

Phone Number: 704-933-5538

Receptor and Site Data
Please place a check in the appropriate answer block for each question:

Receptor Survey Questions	No	Yes
Is there a drinking water supply well (public or private) or surface water supply intake within 1000 feet of the UST?	x	
Are irrigation or other non-drinking water wells located within 1000 feet of the UST?	x	
Are there other potential receptors (i.e., utilities, surface waters, wetlands) less than 500 feet from the UST?		x

Were any water wells within 250 ft radius sampled? _____ Yes ___x___ No

Is a public water supply line in the area? _____ Yes ___x___ No

Is the current use of the facility and surrounding properties commercial, residential, agricultural or industrial?

Site: commercial Adjacent Properties: commercial

See Appendix B for Chain of Custody Form and Laboratory Data.

Soil and Boring/Monitoring Well Data

Primary Soil Type: Clayey sand (SM)

Well Installation Method and Date: GeoProbe, November 16, 2005

Development Method: Purge by removal of three (3) well volumes using polyethylene disposable bailer.

Soil Sample obtained at 4 to 5 feet.

SOIL ANALYTICAL DATA

Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylenes (mg/kg)	Naphthalene (mg/kg)
<0.0069	<0.0069	<0.0069	<0.014	<0.0069

Benzo(a)-anthracene (mg/kg)	Benzo(b)-fluoranthene (mg/kg)	Benzo(k)-fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenz(a,h) anthracene (mg/kg)
<1.2	<1.2	<1.2	<1.2	<1.2

Total PAH (mg/kg)	Lead (mg/kg)
<1.2	NA for Soils

*For waste oil UST releases only:

Total Chromium* (ug/kg)	Mercury* (ug/kg)	Selenium* (kg/ug)	Silver* (kg/ug)
NA	NA	NA	NA

Arsenic* (ug/kg)	Barium* (ug/kg)	Cadmium* (ug/kg)
NA	NA	NA

Ground-Water Data

Depth to Ground Water: 5.10 feet below ground surface

Well Purging/Sampling Method: Purge using polyethylene disposable bailer

Date Sampled: November 17, 2005

Free Product Thickness: None

Equilibrated values:

Temperature: 21.04C pH: 6.902

Dissolved Oxygen: 7.698mg/L Specific Conductance: 4.146 um/sm

Soil/Water Disposal Method: IDW was contained within drums and removed by Transglobal and disposed of at Giant Resource Recovery, Sumpter, SC.

GROUND-WATER ANALYTICAL DATA

Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Xylenes (ug/l)	MTBE (ug/l)	Naphthalene (ug/l)
ND	ND	ND	ND	ND	ND

Benzo(a)-anthracene (ug/l)	Benzo(b)-fluoranthene (ug/l)	Benzo(k)-fluoranthene (ug/l)	Chrysene (ug/l)	Dibenz(a,h) anthracene (ug/l)
ND	ND	ND	ND	ND

EDB (ug/L)	Total PAH (ug/L)	Lead mg/L)
ND	ND	0.0059

.

Total Chromium* (ug/kg)	Mercury* (ug/kg)	Selenium* (kg/ug)	Silver* (kg/ug)
NA	NA	NA	NA

Arsenic* (ug/L)	Barium* (ug/L)	Cadmium* (ug/L)
NA	NA	NA

*For waste oil UST releases

Appendices

The appendices required for this report are as follows:

Appendix A. Well Construction Log
Appendix B. Laboratory Data
Appendix C. Topographic map with site location marked.
Appendix D. Site Base Map
Appendix E. Disposal Manifest(s). (Must be included for payment from SUPERB)
Appendix F. Additional Data (Sampling Results of Existing Ground-Water Wells)

Report Completed By: _____ Contractor Cert.# 149
(signature)

Date: January, 2006

APPENDIX A
Well Construction Log

PROJECT NUMBER	WELL NUMBER	
05-526	CNC 647 MW01	SHEET 1 OF 1

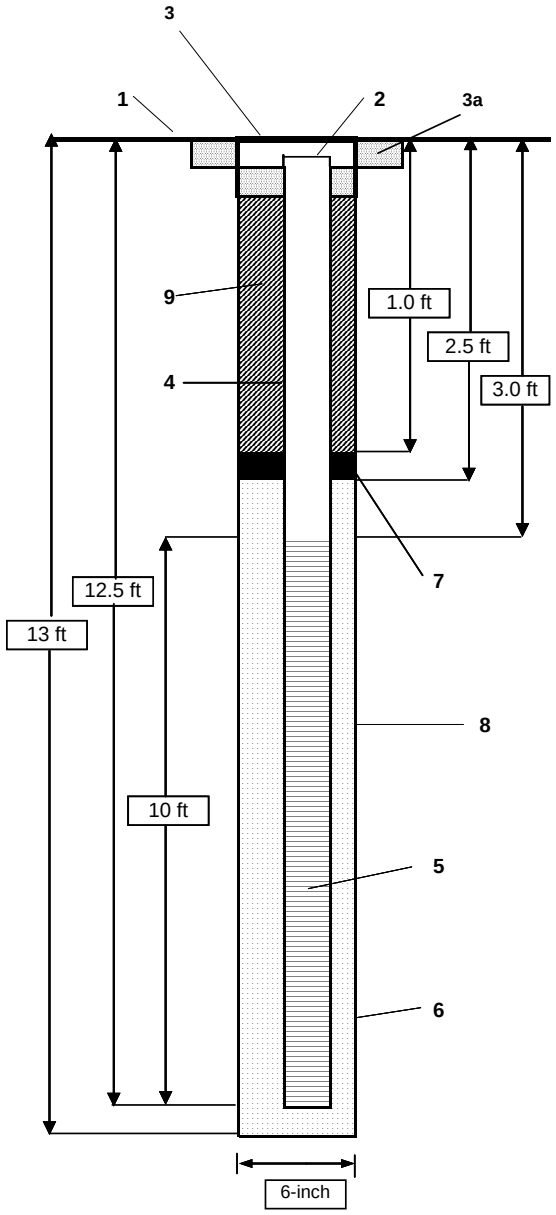
WELL COMPLETION DIAGRAM

PROJECT : CNC Building 647 LOCATION : North Charleston, SC

DRILLING CONTRACTOR : Probe Technology NORTHING 370411.43

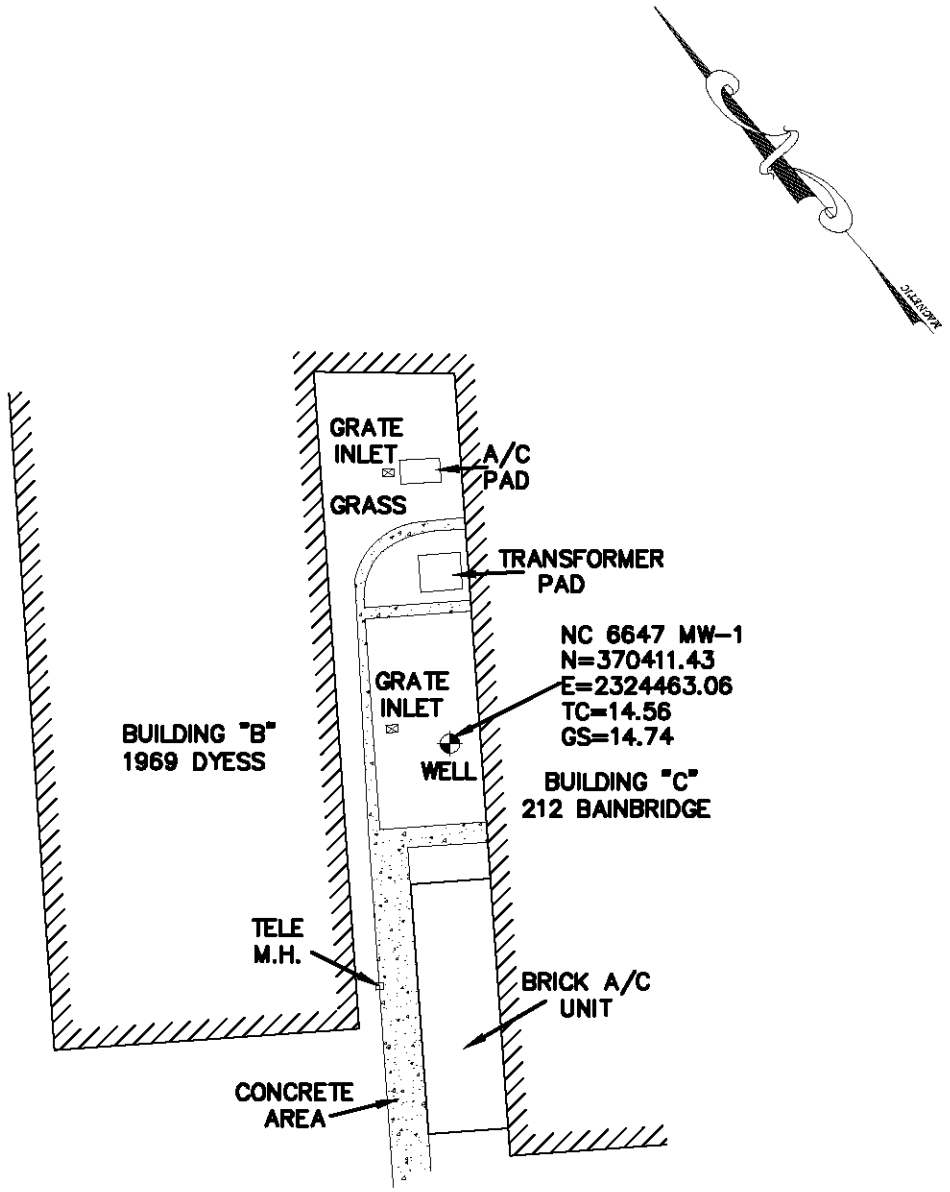
DRILLING METHOD AND EQUIPMENT USED Hollow Stem Auger 4.25" (ID) from Geoprobe 66-DT EASTING: 2324463.06

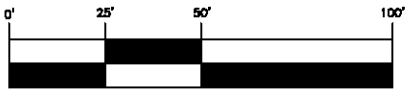
WATER LEVELS : 5.1 START : 11/16/2005 END: 11/16/2005 LOGGER : SM



1- Ground elevation at well	14.74 ft
2- Top of casing elevation	14.56 ft
3- Protective cover type	8-ich dia. flush mount manhole vault
a) concrete pad dimensions	2 ft x 2 ft x 4-inches deep
4- Dia./type of well casing	2-inch inside diameter schedule 40 PVC
5- Type/slot size of screen	0.010-inch dia. machine slotted PVC
6- Type filter pack	20/30 Sieve Size Silica Sand
7- Type of seal	3/8-inch bentonite pellets
8- Borehole diameter	6-inch
9- Grout	Portland cement

Note: Diagram not to scale.





(IN FEET)
1 INCH =50FT.
GRAPHIC SCALE

VERTICAL DATUM = NGVD 29
HORIZONTAL DATUM = NAD 83
TC = TOP OF CASIN
GS = GROUND SURFACE

LINDBERGH
&ASSOCIATES,LLC
2170 Ashley Phosphate Road- Suite 504
Charleston, South Carolina, 29406
Phone: (843)553-6670 Fax (843) 553-0755

PROJECT# 38214

WELL SURVEY
CHARLESTON NAVAL BASE
CHARLESTON, SC

WELL SURVEY
BUILDING# 6647
(PASSPORT OFFICE)

APPENDIX B
Laboratory Data

Analytical Results for CNC-647
Samples Collected: 16 Nov, 2005

Constituent	SB-647 (Soil)		CNC 647MW01 (Water)	
	Result ug/kg	RL ug/kg	Result ug/L	RL ug/L
Benzene	<0.0069	5	ND	5
Toluene	<0.0069	5	ND	5
Ethylbenzene	<0.0069	5	ND	5
Total Xylenes	<0.014	5	ND	5
Naphthalene	<0.0069	5	ND	5
Benzo(a)anthracene	<1.2	660	ND	10
Benzo(b)flouranthene	<1.2	660	ND	10
Benzo(k)flouranthene	<1.2	660	ND	10
Chrysene	<1.2	660	ND	10
Dibenz(a,h)anthracene	<1.2	660	ND	10
Ethylene Dibromide (EDB)	**	**	ND	5
TPH (DRO)	<3.5	10,000	**	**
Total Organic Carbon	3,100	10,000	**	**
Methyl Tertiary Butyl Ether (MTBE)	**	**	ND	40
Dissolved Oxygen	**	**	470	1,000
Dissolvec Carbon Dioxide	**	**	**7,600**	1,000
Ferrous Iron	**	**	**83**	30
Total Lead	**	**	**5.9**	5
Methane (Kerr Method)	**	**	**3,600**	1,000
Nitrates	**	**	61	100
Sulfates	**	**	ND	100

*** = Constituent not tested for based on SCDHEC IGWA standards Table-1*
RL = Reporting Limit
< = Presence of CoC, but below minimum detection level used at the laboratory
ND = Constituent not detected

ANALYTICAL REPORT

Job Number: 400-6998-1

SDG Number: 05-526

Job Description: Bld. 647

For:

Advent Environmental, Inc.
498 Wando Park Blvd.
Suite 500
Mt. Pleasant, SC 29464

Attention: Mr. Brian Crawford

Erin S Carter

Project Manager I

ecarter@stl-inc.com

12/15/2005

cc: James Weeg

The test results in this report meet all NELAP requirements for accredited parameters. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced except in full, and with written approval from the laboratory. STL Pensacola Certifications and Approvals: Alabama (#40150), Arizona (#AZ0589), Arkansas (#88-0689), California (#2510), Connecticut (#PH-0697), Florida (#E81010), Florida CQAP (#980156), Illinois (#200041), Iowa (#367), Kansas (#E10253), Kentucky (#90043), Kentucky UST (#0053), Louisiana (#30748), Maryland (#233), Massachusetts (#M-FL094), Michigan (#9912), New Hampshire (#250502), New Jersey (#FL006), North Carolina (#314), North Dakota (#R-108), Oklahoma (#9810), Pennsylvania (#68-467), South Carolina (#96026), Tennessee (#02907), Virginia (#00008), West Virginia (#136), EPA ICR (#ICRFL031), USDA Foreign Soil Permit (#S-37599).

METHOD SUMMARY

Client: Advent Environmental, Inc.

Job Number: 400-6998-1
Sdg Number: 05-526

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Volatile Organic Compounds by GC/MS	STL-PEN	SW846 8260B	
Closed System Purge & Trap/Field Preservation	STL-PEN		SW846 5035
Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)	STL-PEN	SW846 8270C	
Ultrasonic Extraction	STL-PEN		SW846 3550B
Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)	STL-PEN	SW846 8015B	
Ultrasonic Extraction	STL-PEN		SW846 3550B
Percent Moisture	STL-PEN	EPA 160.3	
Total Organic Carbon (Walkley Black)	STL-PEN	MSA WALKLEY BLACK	

LAB REFERENCES:

STL-PEN = STL-Pensacola

METHOD REFERENCES:

EPA - US Environmental Protection Agency

MSA - "Methods Of Soil Analysis, Chemical And Microbiological Properties", Part 2, 2nd Ed., 1982 And Subsequent Revisions.

SW846 - "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: Advent Environmental, Inc.

Job Number: 400-6998-1
Sdg Number: 05-526

Method	Analyst	Analyst ID
SW846 8260B	Bowers, David	DB
SW846 8270C	Wingo, Rita	RW
SW846 8015B	Enfinger, Isabel	IE
EPA 160.3	Nelson, Darlene	DN
MSA WALKLEY BLACK	Goldman, Mary	MG

SAMPLE SUMMARY

Client: Advent Environmental, Inc.

Job Number: 400-6998-1
Sdg Number: 05-526

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
400-6998-1	SB-647 (CNC)	Solid	11/16/2005 0930	11/17/2005 0940
400-6998-2	SB-1174 (CNC)	Solid	11/16/2005 1215	11/17/2005 0940

SAMPLE RESULTS

Analytical Data

Client: Advent Environmental, Inc.

Job Number: 400-6998-1
Sdg Number: 05-526

Client Sample ID: **SB-647 (CNC)**

Lab Sample ID:	400-6998-1			Date Sampled:	11/16/2005 0930
Client Matrix:	Solid	% Moisture:	29	Date Received:	11/17/2005 0940

8260B Volatile Organic Compounds by GC/MS

Method:	8260B	Analysis Batch: 400-17033		Instrument ID:	GC/MS
Preparation:	5035	Prep Batch: 400-17029		Lab File ID:	6998A1.D
Dilution:	1.0			Initial Weight/Volume:	5.08 g
Date Analyzed:	11/22/2005 1049			Final Weight/Volume:	5 mL
Date Prepared:	11/22/2005 0800				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL
Benzene		<0.0069		0.0069
Toluene		<0.0069		0.0069
Ethylbenzene		<0.0069		0.0069
Xylenes, Total		<0.014		0.014
Naphthalene		<0.0069		0.0069

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	89	82 - 154
Dibromofluoromethane	103	68 - 155
Toluene-d8	97	85 - 186

Analytical Data

Client: Advent Environmental, Inc.

Job Number: 400-6998-1
Sdg Number: 05-526

Client Sample ID: SB-1174 (CNC)

Lab Sample ID:	400-6998-2			Date Sampled:	11/16/2005 1215
Client Matrix:	Solid	% Moisture:	38	Date Received:	11/17/2005 0940

8260B Volatile Organic Compounds by GC/MS

Method:	8260B	Analysis Batch: 400-17033		Instrument ID:	GC/MS
Preparation:	5035	Prep Batch: 400-17029		Lab File ID:	6998A2.D
Dilution:	1.0			Initial Weight/Volume:	5.04 g
Date Analyzed:	11/22/2005 1108			Final Weight/Volume:	5 mL
Date Prepared:	11/22/2005 0800				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL
Benzene		<0.0080		0.0080
Toluene		<0.0080		0.0080
Ethylbenzene		<0.0080		0.0080
Xylenes, Total		<0.016		0.016
Naphthalene		<0.0080		0.0080

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	96	82 - 154
Dibromofluoromethane	101	68 - 155
Toluene-d8	98	85 - 186

Analytical Data

Client: Advent Environmental, Inc.

Job Number: 400-6998-1
Sdg Number: 05-526

Client Sample ID: SB-647 (CNC)

Lab Sample ID:	400-6998-1			Date Sampled:	11/16/2005 0930
Client Matrix:	Solid	% Moisture:	29	Date Received:	11/17/2005 0940

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 400-17086		Instrument ID:	GC/MSD
Preparation:	3550B	Prep Batch: 400-16842		Lab File ID:	6998A1.D
Dilution:	1.0			Initial Weight/Volume:	11.75 g
Date Analyzed:	11/26/2005 1954			Final Weight/Volume:	1.0 mL
Date Prepared:	11/22/2005 0714			Injection Volume:	

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL
Acenaphthene		<1.2		1.2
Acenaphthylene		<1.2		1.2
Anthracene		<1.2		1.2
Benzo[a]anthracene		<1.2		1.2
Benzo[a]pyrene		<1.2		1.2
Benzo[b]fluoranthene		<1.2		1.2
Benzo[g,h,i]perylene		<1.2		1.2
Benzo[k]fluoranthene		<1.2		1.2
Chrysene		<1.2		1.2
Dibenz(a,h)anthracene		<1.2		1.2
Fluoranthene		<1.2		1.2
Fluorene		<1.2		1.2
Indeno[1,2,3-cd]pyrene		<1.2		1.2
Naphthalene		<1.2		1.2
Phenanthrene		<1.2		1.2
Pyrene		<1.2		1.2
1-Methylnaphthalene		<1.2		1.2
2-Methylnaphthalene		<1.2		1.2

Surrogate	%Rec	Acceptance Limits
2-Fluorobiphenyl	50	45 - 93
Nitrobenzene-d5	42	37 - 89
Terphenyl-d14	65	43 - 122

Analytical Data

Client: Advent Environmental, Inc.

Job Number: 400-6998-1
Sdg Number: 05-526

Client Sample ID: SB-1174 (CNC)

Lab Sample ID:	400-6998-2			Date Sampled:	11/16/2005 1215
Client Matrix:	Solid	% Moisture:	38	Date Received:	11/17/2005 0940

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method:	8270C	Analysis Batch: 400-17086		Instrument ID:	GC/MSD
Preparation:	3550B	Prep Batch: 400-16842		Lab File ID:	6998A2.D
Dilution:	1.0			Initial Weight/Volume:	18.03 g
Date Analyzed:	11/26/2005 2025			Final Weight/Volume:	1.0 mL
Date Prepared:	11/22/2005 0714			Injection Volume:	

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL
Acenaphthene		<0.89		0.89
Acenaphthylene		<0.89		0.89
Anthracene		<0.89		0.89
Benzo[a]anthracene		<0.89		0.89
Benzo[a]pyrene		<0.89		0.89
Benzo[b]fluoranthene		<0.89		0.89
Benzo[g,h,i]perylene		<0.89		0.89
Benzo[k]fluoranthene		<0.89		0.89
Chrysene		<0.89		0.89
Dibenz(a,h)anthracene		<0.89		0.89
Fluoranthene		<0.89		0.89
Fluorene		<0.89		0.89
Indeno[1,2,3-cd]pyrene		<0.89		0.89
Naphthalene		<0.89		0.89
Phenanthrene		<0.89		0.89
Pyrene		<0.89		0.89
1-Methylnaphthalene		<0.89		0.89
2-Methylnaphthalene		<0.89		0.89

Surrogate	%Rec	Acceptance Limits
2-Fluorobiphenyl	51	45 - 93
Nitrobenzene-d5	46	37 - 89
Terphenyl-d14	63	43 - 122

Analytical Data

Client: Advent Environmental, Inc.

Job Number: 400-6998-1
Sdg Number: 05-526

Client Sample ID: SB-647 (CNC)

Lab Sample ID:	400-6998-1			Date Sampled:	11/16/2005 0930
Client Matrix:	Solid	% Moisture:	29	Date Received:	11/17/2005 0940

8015B Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Method:	8015B	Analysis Batch: 400-16951		Instrument ID:	GC/FID/FID
Preparation:	3550B	Prep Batch: 400-16841		Lab File ID:	1601019.D
Dilution:	1.0			Initial Weight/Volume:	30.06 g
Date Analyzed:	11/23/2005 0812			Final Weight/Volume:	5.0 mL
Date Prepared:	11/22/2005 0705			Injection Volume:	
				Column ID:	PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL
Diesel Range Organics [C10-C28]		<3.5		3.5

Surrogate	%Rec	Acceptance Limits
o-Terphenyl	85	64 - 164

Analytical Data

Client: Advent Environmental, Inc.

Job Number: 400-6998-1
Sdg Number: 05-526

Client Sample ID: SB-1174 (CNC)

Lab Sample ID:	400-6998-2			Date Sampled:	11/16/2005 1215
Client Matrix:	Solid	% Moisture:	38	Date Received:	11/17/2005 0940

8015B Nonhalogenated Organics using GC/FID -Modified (Diesel Range Organics)

Method:	8015B	Analysis Batch: 400-16951		Instrument ID:	GC/FID/FID
Preparation:	3550B	Prep Batch: 400-16841		Lab File ID:	1701020.D
Dilution:	1.0			Initial Weight/Volume:	30.27 g
Date Analyzed:	11/23/2005 0817			Final Weight/Volume:	5.0 mL
Date Prepared:	11/22/2005 0705			Injection Volume:	
				Column ID:	PRIMARY

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	RL
Diesel Range Organics [C10-C28]		<4.0		4.0

Surrogate	%Rec	Acceptance Limits
o-Terphenyl	78	64 - 164

Client: Advent Environmental, Inc.

Job Number: 400-6998-1
Sdg Number: 05-526

General Chemistry

Client Sample ID: SB-647 (CNC)

Lab Sample ID: 400-6998-1
Client Matrix: Solid

Date Sampled: 11/16/2005 0930
Date Received: 11/17/2005 0940

Analyte	Result	Qual	Units	RL	Dil	Method
Total Organic Carbon	3.1		Percent	0.050	1.0	WALKLEY BLA

Anly Batch: 400-16905 Date Analyzed 11/21/2005 1600 DryWt Corrected: N

Analyte	Result	Qual	Units	RL	Dil	Method
Percent Solids	71		%	0.10	1.0	160.3

Anly Batch: 400-16696 Date Analyzed 11/18/2005 0000

Client Sample ID: SB-1174 (CNC)

Lab Sample ID: 400-6998-2
Client Matrix: Solid

Date Sampled: 11/16/2005 1215
Date Received: 11/17/2005 0940

Analyte	Result	Qual	Units	RL	Dil	Method
Total Organic Carbon	0.45		Percent	0.050	1.0	WALKLEY BLA

Anly Batch: 400-16905 Date Analyzed 11/21/2005 1600 DryWt Corrected: N

Analyte	Result	Qual	Units	RL	Dil	Method
Percent Solids	62		%	0.10	1.0	160.3

Anly Batch: 400-16696 Date Analyzed 11/18/2005 0000

DATA REPORTING QUALIFIERS

Client: Advent Environmental, Inc.

Job Number: 400-6998-1
Sdg Number: 05-526

Lab Section	Qualifier	Description
GC/MS Semi VOA		
	*	LCS, LCSD, MS, MSD, MD, or Surrogate exceeds the control limits

QUALITY CONTROL RESULTS

Client: Advent Environmental, Inc.

Job Number: 400-6998-1
Sdg Number: 05-526

QC Association Summary

Lab Sample ID	Client Sample ID	Client Matrix	Method	Prep Batch
GC/MS VOA				
Prep Batch: 400-17029				
LCS 400-17029/2-A	Lab Control Spike	Solid	5035	
MB 400-17029/1-A	Method Blank	Solid	5035	
400-6998-1	SB-647 (CNC)	Solid	5035	
400-6998-2	SB-1174 (CNC)	Solid	5035	
Analysis Batch:400-17033				
LCS 400-17029/2-A	Lab Control Spike	Solid	8260B	400-17029
MB 400-17029/1-A	Method Blank	Solid	8260B	400-17029
400-6998-1	SB-647 (CNC)	Solid	8260B	400-17029
400-6998-2	SB-1174 (CNC)	Solid	8260B	400-17029
GC/MS Semi VOA				
Prep Batch: 400-16842				
LCS 400-16842/21-A	Lab Control Spike	Solid	3550B	
MB 400-16842/22-A	Method Blank	Solid	3550B	
400-6998-1	SB-647 (CNC)	Solid	3550B	
400-6998-2	SB-1174 (CNC)	Solid	3550B	
400-7093-A-1-D MS	Matrix Spike	Solid	3550B	
400-7093-A-1-E MSD	Matrix Spike Duplicate	Solid	3550B	
Analysis Batch:400-17086				
LCS 400-16842/21-A	Lab Control Spike	Solid	8270C	400-16842
MB 400-16842/22-A	Method Blank	Solid	8270C	400-16842
400-6998-1	SB-647 (CNC)	Solid	8270C	400-16842
400-6998-2	SB-1174 (CNC)	Solid	8270C	400-16842
400-7093-A-1-D MS	Matrix Spike	Solid	8270C	400-16842
400-7093-A-1-E MSD	Matrix Spike Duplicate	Solid	8270C	400-16842
GC Semi VOA				
Prep Batch: 400-16841				
LCS 400-16841/19-A	Lab Control Spike	Solid	3550B	
MB 400-16841/20-A	Method Blank	Solid	3550B	
640-4185-A-1-A MS	Matrix Spike	Solid	3550B	
640-4185-A-1-B MSD	Matrix Spike Duplicate	Solid	3550B	
400-6998-1	SB-647 (CNC)	Solid	3550B	
400-6998-2	SB-1174 (CNC)	Solid	3550B	
Analysis Batch:400-16951				
LCS 400-16841/19-A	Lab Control Spike	Solid	8015B	400-16841
MB 400-16841/20-A	Method Blank	Solid	8015B	400-16841
640-4185-A-1-A MS	Matrix Spike	Solid	8015B	400-16841
640-4185-A-1-B MSD	Matrix Spike Duplicate	Solid	8015B	400-16841
400-6998-1	SB-647 (CNC)	Solid	8015B	400-16841
400-6998-2	SB-1174 (CNC)	Solid	8015B	400-16841

Client: Advent Environmental, Inc.

Job Number: 400-6998-1
Sdg Number: 05-526

QC Association Summary

Lab Sample ID	Client Sample ID	Client Matrix	Method	Prep Batch
General Chemistry				
Analysis Batch:400-16696				
400-6998-1	SB-647 (CNC)	Solid	160.3	
400-6998-2	SB-1174 (CNC)	Solid	160.3	
Analysis Batch:400-16905				
LCS 400-16905/2	Lab Control Spike	Solid	WALKLEY BLACK	
MB 400-16905/1	Method Blank	Solid	WALKLEY BLACK	
400-6451-A-2 MS	Matrix Spike	Solid	WALKLEY BLACK	
400-6451-A-2 MSD	Matrix Spike Duplicate	Solid	WALKLEY BLACK	
400-6998-1	SB-647 (CNC)	Solid	WALKLEY BLACK	
400-6998-2	SB-1174 (CNC)	Solid	WALKLEY BLACK	

Client: Advent Environmental, Inc.

Job Number: 400-6998-1
Sdg Number: 05-526

Method Blank - Batch: 400-17029

Method: 8260B
Preparation: 5035

Lab Sample ID: MB 400-17029/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/22/2005 0834
Date Prepared: 11/22/2005 0800

Analysis Batch: 400-17033
Prep Batch: 400-17029
Units: mg/Kg

Instrument ID: GC/MS
Lab File ID: KS415ABK.D
Initial Weight/Volume: 5 g
Final Weight/Volume: 5 mL

Analyte	Result	Qual	RL
Benzene	<0.0050		0.0050
Toluene	<0.0050		0.0050
Ethylbenzene	<0.0050		0.0050
Xylenes, Total	<0.010		0.010
Naphthalene	<0.0050		0.0050

Surrogate	% Rec	Acceptance Limits
4-Bromofluorobenzene	96	82 - 154
Dibromofluoromethane	100	68 - 155
Toluene-d8	99	85 - 186

Laboratory Control Sample - Batch: 400-17029

Method: 8260B
Preparation: 5035

Lab Sample ID: LCS 400-17029/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/22/2005 0932
Date Prepared: 11/22/2005 0800

Analysis Batch: 400-17033
Prep Batch: 400-17029
Units: mg/Kg

Instrument ID: GC/MS
Lab File ID: KS415LCS.D
Initial Weight/Volume: 5 g
Final Weight/Volume: 5 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Benzene	0.0500	0.051	102	86 - 115	
Toluene	0.0500	0.054	109	86 - 112	
Ethylbenzene	0.0500	0.054	108	86 - 120	
Xylenes, Total	0.150	0.17	110	85 - 123	
Naphthalene	0.0500	0.049	99	53 - 152	

Surrogate	% Rec	Acceptance Limits
4-Bromofluorobenzene	100	82 - 154
Dibromofluoromethane	95	68 - 155
Toluene-d8	98	85 - 186

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Advent Environmental, Inc.

Job Number: 400-6998-1
Sdg Number: 05-526

Method Blank - Batch: 400-16842

Method: 8270C
Preparation: 3550B

Lab Sample ID: MB 400-16842/22-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/26/2005 1649
Date Prepared: 11/22/2005 0714

Analysis Batch: 400-17086
Prep Batch: 400-16842
Units: mg/Kg

Instrument ID: GC/MSD
Lab File ID: MB16842S.D
Initial Weight/Volume: 30.00 g
Final Weight/Volume: 1.0 mL
Injection Volume:

Analyte	Result	Qual	RL
Acenaphthene	<0.33		0.33
Acenaphthylene	<0.33		0.33
Anthracene	<0.33		0.33
Benzo[a]anthracene	<0.33		0.33
Benzo[a]pyrene	<0.33		0.33
Benzo[b]fluoranthene	<0.33		0.33
Benzo[g,h,i]perylene	<0.33		0.33
Benzo[k]fluoranthene	<0.33		0.33
Chrysene	<0.33		0.33
Dibenz(a,h)anthracene	<0.33		0.33
Fluoranthene	<0.33		0.33
Fluorene	<0.33		0.33
Indeno[1,2,3-cd]pyrene	<0.33		0.33
Naphthalene	<0.33		0.33
Phenanthrene	<0.33		0.33
Pyrene	<0.33		0.33
1-Methylnaphthalene	<0.33		0.33
2-Methylnaphthalene	<0.33		0.33

Surrogate	% Rec	Acceptance Limits
2-Fluorobiphenyl	91	45 - 93
Nitrobenzene-d5	87	37 - 89
Terphenyl-d14	87	43 - 122

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Advent Environmental, Inc.

Job Number: 400-6998-1
Sdg Number: 05-526

Laboratory Control Sample - Batch: 400-16842

Method: 8270C
Preparation: 3550B

Lab Sample ID: LCS 400-16842/21-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/26/2005 1720
Date Prepared: 11/22/2005 0714

Analysis Batch: 400-17086
Prep Batch: 400-16842
Units: mg/Kg

Instrument ID: GC/MSD
Lab File ID: LS16842S.D
Initial Weight/Volume: 30.00 g
Final Weight/Volume: 1.0 mL
Injection Volume:

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Acenaphthene	1.67	1.5	93	54 - 104	
Acenaphthylene	1.67	1.6	97	52 - 115	
Anthracene	1.67	1.5	93	54 - 117	
Benzo[a]anthracene	1.67	1.5	90	65 - 109	
Benzo[a]pyrene	1.67	1.5	91	62 - 111	
Benzo[b]fluoranthene	1.67	1.4	87	60 - 107	
Benzo[g,h,i]perylene	1.67	1.5	90	50 - 121	
Benzo[k]fluoranthene	1.67	1.7	99	64 - 118	
Chrysene	1.67	1.5	91	64 - 108	
Dibenz(a,h)anthracene	1.67	1.5	92	38 - 105	
Fluoranthene	1.67	1.5	90	56 - 124	
Fluorene	1.67	1.5	92	61 - 108	
Indeno[1,2,3-cd]pyrene	1.67	1.5	90	48 - 112	
Naphthalene	1.67	1.5	91	51 - 93	
Phenanthrene	1.67	1.6	97	62 - 112	
Pyrene	1.67	1.5	89	58 - 107	
1-Methylnaphthalene	1.67	1.6	93	55 - 101	
2-Methylnaphthalene	1.67	1.5	91	51 - 95	

Surrogate	% Rec	Acceptance Limits
2-Fluorobiphenyl	93	45 - 93
Nitrobenzene-d5	88	37 - 89
Terphenyl-d14	92	43 - 122

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Advent Environmental, Inc.

Job Number: 400-6998-1
Sdg Number: 05-526

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 400-16842

Method: 8270C
Preparation: 3550B

MS Lab Sample ID:	400-7093-A-1-D MS	Analysis Batch: 400-17086	Instrument ID: GC/MSD
Client Matrix:	Solid	Prep Batch: 400-16842	Lab File ID: MS16842S.D
Dilution:	1.0		Initial Weight/Volume: 30.22 g
Date Analyzed:	11/26/2005 1751		Final Weight/Volume: 1.0 mL
Date Prepared:	11/22/2005 0714		Injection Volume:

MSD Lab Sample ID:	400-7093-A-1-E MSD	Analysis Batch: 400-17086	Instrument ID: GC/MSD
Client Matrix:	Solid	Prep Batch: 400-16842	Lab File ID: MD16842S.D
Dilution:	1.0		Initial Weight/Volume: 30.00 g
Date Analyzed:	11/26/2005 1822		Final Weight/Volume: 1.0 mL
Date Prepared:	11/22/2005 0714		Injection Volume:

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Acenaphthene	66	82	47 - 92	22	27		
Acenaphthylene	69	85	45 - 102	21	25		
Anthracene	72	85	50 - 103	18	23		
Benzo[a]anthracene	71	86	53 - 98	19	23		
Benzo[a]pyrene	71	82	48 - 101	16	19		
Benzo[b]fluoranthene	67	79	46 - 103	17	25		
Benzo[g,h,i]perylene	70	85	25 - 116	19	24		
Benzo[k]fluoranthene	78	96	48 - 113	21	20		*
Chrysene	73	87	54 - 97	18	23		
Dibenz(a,h)anthracene	70	86	17 - 102	21	28		
Fluoranthene	72	83	37 - 118	15	26		
Fluorene	70	86	51 - 99	22	25		
Indeno[1,2,3-cd]pyrene	69	83	25 - 107	20	26		
Naphthalene	59	69	34 - 94	16	37		
Phenanthrene	74	91	51 - 103	21	22		
Pyrene	70	83	45 - 100	18	31		
1-Methylnaphthalene	63	76	44 - 97	19	34		
2-Methylnaphthalene	62	72	40 - 90	17	32		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
2-Fluorobiphenyl	61	74	45 - 93
Nitrobenzene-d5	54	62	37 - 89
Terphenyl-d14	71	84	43 - 122

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Advent Environmental, Inc.

Job Number: 400-6998-1
Sdg Number: 05-526

Method Blank - Batch: 400-16841

Method: 8015B
Preparation: 3550B

Lab Sample ID: MB 400-16841/20-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/23/2005 0703
Date Prepared: 11/22/2005 0705

Analysis Batch: 400-16951
Prep Batch: 400-16841
Units: mg/Kg

Instrument ID: GC/FID/FID
Lab File ID: 0201005.D
Initial Weight/Volume: 30.00 g
Final Weight/Volume: 5.0 mL
Injection Volume:
Column ID: PRIMARY

Analyte	Result	Qual	RL
Diesel Range Organics [C10-C28]	<2.5		2.5

Surrogate	% Rec	Acceptance Limits
o-Terphenyl	99	64 - 164

Laboratory Control Sample - Batch: 400-16841

Method: 8015B
Preparation: 3550B

Lab Sample ID: LCS 400-16841/19-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/23/2005 0708
Date Prepared: 11/22/2005 0705

Analysis Batch: 400-16951
Prep Batch: 400-16841
Units: mg/Kg

Instrument ID: GC/FID/FID
Lab File ID: 0301006.D
Initial Weight/Volume: 30.00 g
Final Weight/Volume: 5.0 mL
Injection Volume:
Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Diesel Range Organics [C10-C28]	337	300	90	55 - 133	

Surrogate	% Rec	Acceptance Limits
o-Terphenyl	93	64 - 164

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Advent Environmental, Inc.

Job Number: 400-6998-1
Sdg Number: 05-526

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 400-16841

Method: 8015B
Preparation: 3550B

MS Lab Sample ID:	640-4185-A-1-A MS	Analysis Batch: 400-16951	Instrument ID: GC/FID/FID
Client Matrix:	Solid	Prep Batch: 400-16841	Lab File ID: 0401007.D
Dilution:	1.0		Initial Weight/Volume: 30.47 g
Date Analyzed:	11/23/2005 0713		Final Weight/Volume: 5.0 mL
Date Prepared:	11/22/2005 0705		Injection Volume:
			Column ID: PRIMARY

MSD Lab Sample ID:	640-4185-A-1-B MSD	Analysis Batch: 400-16951	Instrument ID: GC/FID/FID
Client Matrix:	Solid	Prep Batch: 400-16841	Lab File ID: 0501008.D
Dilution:	1.0		Initial Weight/Volume: 30.36 g
Date Analyzed:	11/23/2005 0718		Final Weight/Volume: 5.0 mL
Date Prepared:	11/22/2005 0705		Injection Volume:
			Column ID: PRIMARY

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Diesel Range Organics [C10-C28]	81	87	8 - 176	8	64		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
o-Terphenyl	84	93	64 - 164

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Advent Environmental, Inc.

Job Number: 400-6998-1
Sdg Number: 05-526

Method Blank - Batch: 400-16905

Method: WALKLEY BLACK
Preparation: N/A

Lab Sample ID: MB 400-16905/1
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/21/2005 1600
Date Prepared: N/A

Analysis Batch: 400-16905
Prep Batch: N/A
Units: Percent

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume:

Analyte	Result	Qual	RL
Total Organic Carbon	<0.050		0.050

Laboratory Control Sample - Batch: 400-16905

Method: WALKLEY BLACK
Preparation: N/A

Lab Sample ID: LCS 400-16905/2
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/21/2005 1600
Date Prepared: N/A

Analysis Batch: 400-16905
Prep Batch: N/A
Units: Percent

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume:

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Total Organic Carbon	0.260	0.27	103	75 - 120	

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 400-16905

Method: WALKLEY BLACK
Preparation: N/A

MS Lab Sample ID: 400-6451-A-2 MS
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/21/2005 1600
Date Prepared: N/A

Analysis Batch: 400-16905
Prep Batch: N/A

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume:

MSD Lab Sample ID: 400-6451-A-2 MSD
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 11/21/2005 1600
Date Prepared: N/A

Analysis Batch: 400-16905
Prep Batch: N/A

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume:

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Total Organic Carbon	78	87	60 - 126	6	24		

Calculations are performed before rounding to avoid round-off errors in calculated results.

SERIAL NUMBER: 33538 1.4C

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

SEVERN TRENT **STL**

STL Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone: 850-474-1001
Fax: 850-478-2671
Website: www.stl-inc.com

QUOTE NO.

BOTTLE ORDER NO.: ESC

ORDER - LOG-IN NO.: CL400-6998

CLIENT: ADVENT

ADDRESS: brcrawford@adventenv.com

PROJECT NAME: 05-526

PROJECT NO.: Bld. 647

CLIENT PROJECT MANAGER: Brian Crawford

PROJECT LOC. (STATE):

SAMPLED BY: Scm

CONTRACT / P.O. NO.: 05-526

CLIENT PHONE: 843-388-1851

CLIENT E-MAIL OR FAX: 388-1891

TAT REQUESTED: RUSH NEEDS LAB PREAPPROVAL ☐ NORMAL - 10 BUSINESS DAYS ☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☐ 5 DAYS ☐ 20 DAYS (Package) ☐ OTHER:

SAMPLE DISPOSAL: ☐ RETURN TO CLIENT ☒ DISPOSAL BY LAB ☐ SEE CONTRACT ☐ OTHER:

REQUESTED ANALYSIS: BTEX by 8260; Nap by 8260; PAH by 8270; DRO by 8015; TOC by 9060

PAGE 1 OF 1

POSSIBLE HAZARD IDENTIFICATION: Δ NON-HAZARD Δ FLAMMABLE Δ RADIOACTIVE Δ POISON B Δ UNKNOWN Δ OTHER:

NO. OF COOLERS PER SHIPMENT:

SPECIAL INSTRUCTIONS/ CONDITIONS OF RECEIPT

LAB USE ONLY - SAMPLE NUMBER

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	PRESERVATIVE: No Preservative	HCL - Hydrochloric Acid	HNO3 - Nitric Acid	H2SO4 - Sulfuric Acid or H3PO4	NAOH - Sodium Hydroxide	CH3OH - Methanol	NAHSO4 - Sodium Bisulfate	NA2S2O3 - Sodium Thiosulfate	Other:	MATRIX: Drinking Water	Ageous GW, SW, WW	Solid, Semisolid, Sediment	Air	NonAqueous (Oil,Solvent, etc.)	BTEX by 8260	Nap by 8260	PAH by 8270	DRO by 8015	TOC by 9060
11/16/05	9:30	SB-647 (CNC)															✓	✓	✓	✓	✓
"	12:15	SB-1174 (CNC)															✓	✓	✓	✓	✓

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
[signature]	11-16-05	1645	SCMalm	11/16/05	15:00	fedex		
RECEIVED BY: (SIGNATURE)	**DATE**	**TIME**	**RECEIVED BY: (SIGNATURE)**	**DATE**	**TIME**	**RECEIVED BY: (SIGNATURE)**	**DATE**	**TIME**
EMPTY CONTAINERS			fedex					

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY:	DATE	TIME	CUSTODY INTACT?	CUSTODY SEAL NO.	REMARKS:
[signature]	11/17/05	0940	☒ YES Δ NO	6820930	

LOGIN SAMPLE RECEIPT CHECK LIST

Client: Advent Environmental, Inc.

Job Number: 400-6998-1
Sdg Number: 05-526

Login Number: 6998

Question	T/F/NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	NA	
The cooler's custody seal, if present.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	1.4°C
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	False	40ml vials have too much volume, at least 2 plugs
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present	True	
Samples do not require splitting or compositing	True	

ANALYTICAL REPORT

Job Number: 400-7046-1

SDG Number: 05-526

Job Description: CNC

For:

Advent Environmental, Inc.
498 Wando Park Blvd.
Suite 500
Mt. Pleasant, SC 29464

Attention: Mr. Brian Crawford

Erin S Carter

Project Manager I

ecarter@stl-inc.com

12/15/2005

cc: James Weeg

The test results in this report meet all NELAP requirements for accredited parameters. Any exceptions to NELAP requirements are noted in this report. Pursuant to NELAP, this report may not be reproduced except in full, and with written approval from the laboratory. STL Pensacola Certifications and Approvals: Alabama (#40150), Arizona (#AZ0589), Arkansas (#88-0689), California (#2510), Connecticut (#PH-0697), Florida (#E81010), Florida CQAP (#980156), Illinois (#200041), Iowa (#367), Kansas (#E10253), Kentucky (#90043), Kentucky UST (#0053), Louisiana (#30748), Maryland (#233), Massachusetts (#M-FL094), Michigan (#9912), New Hampshire (#250502), New Jersey (#FL006), North Carolina (#314), North Dakota (#R-108), Oklahoma (#9810), Pennsylvania (#68-467), South Carolina (#96026), Tennessee (#02907), Virginia (#00008), West Virginia (#136), EPA ICR (#ICRFL031), USDA Foreign Soil Permit (#S-37599).

METHOD SUMMARY

Client: Advent Environmental, Inc.

Job Number: 400-7046-1
Sdg Number: 05-526

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Volatile Organic Compounds by GC/MS	STL-PEN	SW846 8260B	
Purge-and-Trap	STL-PEN		SW846 5030B
Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)	STL-PEN	SW846 8270C	
Continuous Liquid-Liquid Extraction	STL-PEN		SW846 3520C
Dissolved Gases in Water	STL-PEN	RSK RSK-175	
EDB, DBCP, and 123TCP by Microextraction and Gas Chromatography	STL-PEN	SW846 8011	
EDB, DBCP, and 123TCP in Water by	STL-PEN		SW846 8011
Inductively Coupled Plasma - Atomic Emission Spectrometry	STL-PEN	SW846 6010B	
Acid Digestion of Waters for Total Recoverable or	STL-PEN		SW846 3005A
Ferrous and Ferric Iron	STL-PEN	SM18 3500 FE D	
Nitrogen, Nitrate-Nitrite (Colorimetric, Automated, Cadmium Reduction)	STL-PEN	MCAWW 353.2	
Sulfate (Turbidimetric)	STL-PEN	MCAWW 375.4	

LAB REFERENCES:

STL-PEN = STL-Pensacola

METHOD REFERENCES:

MCAWW - "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

RSK - Sample Prep And Calculations For Dissolved Gas Analysis In Water Samples Using A GC Headspace Equilibration Technique, RSKSOP-175, Rev. 0, 8/11/94, USEPA Research Lab

SM18 - "Standard Methods For The Examination Of Water And Wastewater", 18th Edition, 1992.

SW846 - "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

METHOD / ANALYST SUMMARY

Client: Advent Environmental, Inc.

Job Number: 400-7046-1
Sdg Number: 05-526

Method	Analyst	Analyst ID
SW846 8260B	Drew, Walter	WD
SW846 8270C	Schumann, Jane	JS
RSK RSK-175	Wilhite, Steve	SW
SW846 8011	Bubien, Stephanie	SB
SW846 6010B	Reed, John	JR
SM18 3500 FE D	Goldman, Mary	MG
MCAWW 353.2	Khramova, Galina	GK
MCAWW 375.4	Goldman, Mary	MG

SAMPLE SUMMARY

Client: Advent Environmental, Inc.

Job Number: 400-7046-1
Sdg Number: 05-526

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
400-7046-1	CNC 1174MW01	Water	11/17/2005 1100	11/18/2005 0925
400-7046-2	CNC 647MW01	Water	11/17/2005 1230	11/18/2005 0925

SAMPLE RESULTS

Analytical Data

Client: Advent Environmental, Inc.

Job Number: 400-7046-1
Sdg Number: 05-526

Client Sample ID: **CNC 1174MW01**

Lab Sample ID: 400-7046-1
Client Matrix: Water

Date Sampled: 11/17/2005 1100
Date Received: 11/18/2005 0925

8260B Volatile Organic Compounds by GC/MS

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 11/25/2005 0759
Date Prepared: 11/25/2005 0759

Analysis Batch: 400-16996

Instrument ID: GC/MS
Lab File ID: 4070461.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDLE	RL
Benzene	ND		1.0	1.0
Ethylbenzene	ND		0.90	5.0
Methyl tert-butyl ether	ND		0.89	5.0
Toluene	ND		0.80	5.0
Xylenes, Total	ND		1.6	10
Naphthalene	ND		1.8	5.0

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	95	83 - 126
Dibromofluoromethane	107	69 - 130
Toluene-d8	98	86 - 116

Analytical Data

Client: Advent Environmental, Inc.

Job Number: 400-7046-1
Sdg Number: 05-526

Client Sample ID: **CNC 647MW01**

Lab Sample ID: 400-7046-2
Client Matrix: Water

Date Sampled: 11/17/2005 1230
Date Received: 11/18/2005 0925

8260B Volatile Organic Compounds by GC/MS

Method: 8260B
Preparation: 5030B
Dilution: 1.0
Date Analyzed: 11/25/2005 0830
Date Prepared: 11/25/2005 0830

Analysis Batch: 400-16996

Instrument ID: GC/MS
Lab File ID: 4070462.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result (ug/L)	Qualifier	MDLE	RL
Benzene	ND		1.0	1.0
Ethylbenzene	ND		0.90	5.0
Methyl tert-butyl ether	ND		0.89	5.0
Toluene	ND		0.80	5.0
Xylenes, Total	ND		1.6	10
Naphthalene	ND		1.8	5.0

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	96	83 - 126
Dibromofluoromethane	109	69 - 130
Toluene-d8	100	86 - 116

Client: Advent Environmental, Inc.

Job Number: 400-7046-1
Sdg Number: 05-526

Client Sample ID: **CNC 1174MW01**

Lab Sample ID: 400-7046-1
Client Matrix: Water

Date Sampled: 11/17/2005 1100
Date Received: 11/18/2005 0925

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method: 8270C
Preparation: 3520C
Dilution: 1.0
Date Analyzed: 11/26/2005 1512
Date Prepared: 11/21/2005 1645

Analysis Batch: 400-17113
Prep Batch: 400-16825

Instrument ID: GC/MS
Lab File ID: 7046D1.D
Initial Weight/Volume: 1010 mL
Final Weight/Volume: 1.0 mL
Injection Volume:

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acenaphthene	ND		0.19	9.9
Acenaphthylene	ND		0.15	9.9
Anthracene	ND		0.099	9.9
Benzo[a]anthracene	ND		0.17	9.9
Benzo[a]pyrene	ND		0.59	9.9
Benzo[b]fluoranthene	ND		0.12	9.9
Benzo[g,h,i]perylene	ND		0.14	9.9
Benzo[k]fluoranthene	ND		0.19	9.9
Chrysene	ND		0.19	9.9
Dibenz(a,h)anthracene	ND		0.12	9.9
Fluoranthene	ND		0.12	9.9
Fluorene	ND		0.13	9.9
Indeno[1,2,3-cd]pyrene	ND		0.14	9.9
Naphthalene	ND		0.12	9.9
Phenanthrene	ND		0.16	9.9
Pyrene	ND		0.17	9.9
1-Methylnaphthalene	ND		0.59	9.9
2-Methylnaphthalene	ND		0.18	9.9

Surrogate	%Rec	Acceptance Limits
2-Fluorobiphenyl	70	47 - 120
Nitrobenzene-d5	71	36 - 120
Terphenyl-d14	90	51 - 131

Analytical Data

Client: Advent Environmental, Inc.

Job Number: 400-7046-1
Sdg Number: 05-526

Client Sample ID: **CNC 647MW01**

Lab Sample ID: 400-7046-2
Client Matrix: Water

Date Sampled: 11/17/2005 1230
Date Received: 11/18/2005 0925

8270C Semivolatile Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)

Method: 8270C
Preparation: 3520C
Dilution: 1.0
Date Analyzed: 11/26/2005 1543
Date Prepared: 11/21/2005 1645

Analysis Batch: 400-17113
Prep Batch: 400-16825

Instrument ID: GC/MS
Lab File ID: 7046D2.D
Initial Weight/Volume: 1010 mL
Final Weight/Volume: 1.0 mL
Injection Volume:

Analyte	Result (ug/L)	Qualifier	MDL	RL
Acenaphthene	0.60	J	0.19	9.9
Acenaphthylene	ND		0.15	9.9
Anthracene	ND		0.099	9.9
Benzo[a]anthracene	ND		0.17	9.9
Benzo[a]pyrene	ND		0.59	9.9
Benzo[b]fluoranthene	ND		0.12	9.9
Benzo[g,h,i]perylene	ND		0.14	9.9
Benzo[k]fluoranthene	ND		0.19	9.9
Chrysene	ND		0.19	9.9
Dibenz(a,h)anthracene	ND		0.12	9.9
Fluoranthene	ND		0.12	9.9
Fluorene	ND		0.13	9.9
Indeno[1,2,3-cd]pyrene	ND		0.14	9.9
Naphthalene	ND		0.12	9.9
Phenanthrene	ND		0.16	9.9
Pyrene	ND		0.17	9.9
1-Methylnaphthalene	ND		0.59	9.9
2-Methylnaphthalene	ND		0.18	9.9

Surrogate	%Rec		Acceptance Limits
2-Fluorobiphenyl	46	*	47 - 120
Nitrobenzene-d5	44		36 - 120
Terphenyl-d14	70		51 - 131

Analytical Data

Client: Advent Environmental, Inc.

Job Number: 400-7046-1
Sdg Number: 05-526

Client Sample ID: **CNC 1174MW01**

Lab Sample ID: 400-7046-1
Client Matrix: Water

Date Sampled: 11/17/2005 1100
Date Received: 11/18/2005 0925

RSK-175 Dissolved Gases in Water

Method: RSK-175
Preparation: N/A
Dilution: 1.0
Date Analyzed: 11/25/2005 0913
Date Prepared: N/A

Analysis Batch: 400-17122

Instrument ID: NO EQUIPMENT
Lab File ID: N/A
Initial Weight/Volume: 5 mL
Final Weight/Volume: 1 mL
Injection Volume:
Column ID: PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Carbon dioxide	5100		7.0	50
Methane	28		0.49	1.0
Oxygen	670	B	39	50

Analytical Data

Client: Advent Environmental, Inc.

Job Number: 400-7046-1
Sdg Number: 05-526

Client Sample ID: **CNC 647MW01**

Lab Sample ID: 400-7046-2
Client Matrix: Water

Date Sampled: 11/17/2005 1230
Date Received: 11/18/2005 0925

RSK-175 Dissolved Gases in Water

Method: RSK-175
Preparation: N/A
Dilution: 1.0
Date Analyzed: 11/25/2005 0922
Date Prepared: N/A

Analysis Batch: 400-17122

Instrument ID: NO EQUIPMENT
Lab File ID: N/A
Initial Weight/Volume: 5 mL
Final Weight/Volume: 1 mL
Injection Volume:
Column ID: PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Carbon dioxide	7600		7.0	50
Oxygen	470	B	39	50

Client: Advent Environmental, Inc.

Job Number: 400-7046-1
Sdg Number: 05-526

Client Sample ID: **CNC 647MW01**

Lab Sample ID: 400-7046-2
Client Matrix: Water

Date Sampled: 11/17/2005 1230
Date Received: 11/18/2005 0925

RSK-175 Dissolved Gases in Water

Method: RSK-175
Preparation: N/A
Dilution: 5.0
Date Analyzed: 11/25/2005 0954
Date Prepared: N/A

Analysis Batch: 400-17122

Instrument ID: NO EQUIPMENT
Lab File ID: N/A
Initial Weight/Volume: 5 mL
Final Weight/Volume: 1 mL
Injection Volume:
Column ID: PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Methane	3600		2.5	5.0

Client: Advent Environmental, Inc.

Job Number: 400-7046-1
Sdg Number: 05-526

Client Sample ID: **CNC 1174MW01**

Lab Sample ID: 400-7046-1
Client Matrix: Water

Date Sampled: 11/17/2005 1100
Date Received: 11/18/2005 0925

8011 EDB, DBCP, and 123TCP by Microextraction and Gas Chromatography

Method: 8011
Preparation: 8011
Dilution: 1.0
Date Analyzed: 12/01/2005 0710
Date Prepared: 11/30/2005 1245

Analysis Batch: 400-17359
Prep Batch: 400-17312

Instrument ID: GC/ECD/ECD
Lab File ID: 002.D
Initial Weight/Volume: 35 mL
Final Weight/Volume: 35 mL
Injection Volume:
Column ID: PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylene Dibromide	ND		0.0050	0.020

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	112	70 - 130

Client: Advent Environmental, Inc.

Job Number: 400-7046-1
Sdg Number: 05-526

Client Sample ID: **CNC 647MW01**

Lab Sample ID: 400-7046-2
Client Matrix: Water

Date Sampled: 11/17/2005 1230
Date Received: 11/18/2005 0925

8011 EDB, DBCP, and 123TCP by Microextraction and Gas Chromatography

Method: 8011
Preparation: 8011
Dilution: 1.0
Date Analyzed: 12/01/2005 0729
Date Prepared: 11/30/2005 1245

Analysis Batch: 400-17359
Prep Batch: 400-17312

Instrument ID: GC/ECD/ECD
Lab File ID: 003.D
Initial Weight/Volume: 35 mL
Final Weight/Volume: 35 mL
Injection Volume:
Column ID: PRIMARY

Analyte	Result (ug/L)	Qualifier	MDL	RL
Ethylene Dibromide	ND		0.0050	0.020

Surrogate	%Rec	Acceptance Limits
4-Bromofluorobenzene	100	70 - 130

Client: Advent Environmental, Inc.

Job Number: 400-7046-1
Sdg Number: 05-526

Client Sample ID: CNC 1174MW01

Lab Sample ID:	400-7046-1	Date Sampled:	11/17/2005 1100
Client Matrix:	Water	Date Received:	11/18/2005 0925

6010B Inductively Coupled Plasma - Atomic Emission Spectrometry-Total Recoverable

Method:	6010B	Analysis Batch: 400-16998		Instrument ID:	ICP-AES
Preparation:	3005A	Prep Batch: 400-16885		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	11/23/2005 2017			Final Weight/Volume:	50 mL
Date Prepared:	11/22/2005 1210				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Lead	0.0037	J	0.0020	0.0050

Client: Advent Environmental, Inc.

Job Number: 400-7046-1
Sdg Number: 05-526

Client Sample ID: CNC 647MW01

Lab Sample ID:	400-7046-2	Date Sampled:	11/17/2005 1230
Client Matrix:	Water	Date Received:	11/18/2005 0925

6010B Inductively Coupled Plasma - Atomic Emission Spectrometry-Total Recoverable

Method:	6010B	Analysis Batch: 400-16998		Instrument ID:	ICP-AES
Preparation:	3005A	Prep Batch: 400-16885		Lab File ID:	N/A
Dilution:	1.0			Initial Weight/Volume:	50 mL
Date Analyzed:	11/23/2005 2021			Final Weight/Volume:	50 mL
Date Prepared:	11/22/2005 1210				

Analyte	Result (mg/L)	Qualifier	MDL	RL
Lead	0.0059		0.0020	0.0050

Client: Advent Environmental, Inc.

Job Number: 400-7046-1
Sdg Number: 05-526

General Chemistry

Client Sample ID: **CNC 1174MW01**

Lab Sample ID: 400-7046-1
Client Matrix: Water

Date Sampled: 11/17/2005 1100
Date Received: 11/18/2005 0925

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Ferrous Iron	0.36		mg/L	0.011	0.050	1.0	3500 FE D
Anly Batch: 400-17286	Date Analyzed 11/29/2005 0953						
Nitrogen, Nitrate	0.047	J	mg/L	0.019	0.10	1.0	353.2
Anly Batch: 400-16796	Date Analyzed 11/21/2005 1300						
Sulfate	220		mg/L	11	50	10	375.4
Anly Batch: 400-16967	Date Analyzed 11/23/2005 0954						

Client Sample ID: **CNC 647MW01**

Lab Sample ID: 400-7046-2
Client Matrix: Water

Date Sampled: 11/17/2005 1230
Date Received: 11/18/2005 0925

Analyte	Result	Qual	Units	MDL	RL	Dil	Method
Ferrous Iron	0.083		mg/L	0.011	0.050	1.0	3500 FE D
Anly Batch: 400-17286	Date Analyzed 11/29/2005 0953						
Nitrogen, Nitrate	0.061	J	mg/L	0.019	0.10	1.0	353.2
Anly Batch: 400-16796	Date Analyzed 11/21/2005 1300						
Sulfate	ND		mg/L	1.1	5.0	1.0	375.4
Anly Batch: 400-16967	Date Analyzed 11/23/2005 0954						

DATA REPORTING QUALIFIERS

Client: Advent Environmental, Inc.

Job Number: 400-7046-1
Sdg Number: 05-526

Lab Section	Qualifier	Description
GC/MS Semi VOA		
	*	LCS, LCSD, MS, MSD, MD, or Surrogate exceeds the control limits
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
GC VOA		
	B	Compound was found in the blank and sample.
Metals		
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
General Chemistry		
	4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

QUALITY CONTROL RESULTS

Client: Advent Environmental, Inc.

Job Number: 400-7046-1
Sdg Number: 05-526

QC Association Summary

Lab Sample ID	Client Sample ID	Client Matrix	Method	Prep Batch
GC/MS VOA				
Analysis Batch:400-16996				
LCS 400-16996/2	Lab Control Spike	Water	8260B	
MB 400-16996/1	Method Blank	Water	8260B	
400-7046-1	CNC 1174MW01	Water	8260B	
400-7046-1MS	Matrix Spike	Water	8260B	
400-7046-1MSD	Matrix Spike Duplicate	Water	8260B	
400-7046-2	CNC 647MW01	Water	8260B	
GC/MS Semi VOA				
Prep Batch: 400-16825				
LCS 400-16825/22-A	Lab Control Spike	Water	3520C	
MB 400-16825/21-A	Method Blank	Water	3520C	
400-7046-1	CNC 1174MW01	Water	3520C	
400-7046-2	CNC 647MW01	Water	3520C	
Analysis Batch:400-17113				
LCS 400-16825/22-A	Lab Control Spike	Water	8270C	400-16825
MB 400-16825/21-A	Method Blank	Water	8270C	400-16825
400-7046-1	CNC 1174MW01	Water	8270C	400-16825
400-7046-2	CNC 647MW01	Water	8270C	400-16825
GC VOA				
Analysis Batch:400-17122				
LCS 400-17122/2	Lab Control Spike	Water	RSK-175	
LCS 400-17122/3	Lab Control Spike	Water	RSK-175	
MB 400-17122/1	Method Blank	Water	RSK-175	
400-7046-1	CNC 1174MW01	Water	RSK-175	
400-7046-2	CNC 647MW01	Water	RSK-175	
GC Semi VOA				
Prep Batch: 400-17312				
LCS 400-17312/2-A	Lab Control Spike	Water	8011	
MB 400-17312/1-A	Method Blank	Water	8011	
400-7046-1	CNC 1174MW01	Water	8011	
400-7046-2	CNC 647MW01	Water	8011	
Analysis Batch:400-17359				
LCS 400-17312/2-A	Lab Control Spike	Water	8011	400-17312
MB 400-17312/1-A	Method Blank	Water	8011	400-17312
400-7046-1	CNC 1174MW01	Water	8011	400-17312
400-7046-2	CNC 647MW01	Water	8011	400-17312

Client: Advent Environmental, Inc.

Job Number: 400-7046-1
Sdg Number: 05-526

QC Association Summary

Lab Sample ID	Client Sample ID	Client Matrix	Method	Prep Batch
Metals				
Prep Batch: 400-16885				
LCS 400-16885/11-A	Lab Control Spike	Water	3005A	
MB 400-16885/10-A	Method Blank	Water	3005A	
400-7046-1	CNC 1174MW01	Water	3005A	
400-7046-2	CNC 647MW01	Water	3005A	
400-7057-A-8-F MS*R	Matrix Spike	Water	3005A	
400-7057-A-8-G MSD*R	Matrix Spike Duplicate	Water	3005A	
Analysis Batch:400-16998				
LCS 400-16885/11-A	Lab Control Spike	Water	6010B	400-16885
MB 400-16885/10-A	Method Blank	Water	6010B	400-16885
400-7046-1	CNC 1174MW01	Water	6010B	400-16885
400-7046-2	CNC 647MW01	Water	6010B	400-16885
400-7057-A-8-F MS*R	Matrix Spike	Water	6010B	400-16885
400-7057-A-8-G MSD*R	Matrix Spike Duplicate	Water	6010B	400-16885
General Chemistry				
Analysis Batch:400-16796				
LCS 400-16796/2	Lab Control Spike	Water	353.2	
MB 400-16796/1	Method Blank	Water	353.2	
400-7037-D-1 MS	Matrix Spike	Water	353.2	
400-7037-D-1 MSD	Matrix Spike Duplicate	Water	353.2	
400-7039-B-1 DU	Duplicate	Water	353.2	
400-7046-1	CNC 1174MW01	Water	353.2	
400-7046-2	CNC 647MW01	Water	353.2	
Analysis Batch:400-16967				
LCS 400-16967/2	Lab Control Spike	Water	375.4	
MB 400-16967/1	Method Blank	Water	375.4	
400-7037-C-3 DU	Duplicate	Water	375.4	
400-7039-A-1 MS	Matrix Spike	Water	375.4	
400-7039-A-1 MSD	Matrix Spike Duplicate	Water	375.4	
400-7046-1	CNC 1174MW01	Water	375.4	
400-7046-2	CNC 647MW01	Water	375.4	
Analysis Batch:400-17286				
LCS 400-17286/2	Lab Control Spike	Water	3500 FE D	
MB 400-17286/1	Method Blank	Water	3500 FE D	
400-7046-1	CNC 1174MW01	Water	3500 FE D	
400-7046-2	CNC 647MW01	Water	3500 FE D	
400-7046-2MS	Matrix Spike	Water	3500 FE D	
400-7046-2MSD	Matrix Spike Duplicate	Water	3500 FE D	

Client: Advent Environmental, Inc.

Job Number: 400-7046-1
Sdg Number: 05-526

Method Blank - Batch: 400-16996

Method: 8260B
Preparation: 5030B

Lab Sample ID: MB 400-16996/1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/25/2005 0625
Date Prepared: 11/25/2005 0625

Analysis Batch: 400-16996
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS
Lab File ID: LW280ABK.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Result	Qual	MDLE	RL
Benzene	ND		1.0	1.0
Ethylbenzene	ND		0.90	5.0
Methyl tert-butyl ether	ND		0.89	5.0
Toluene	ND		0.80	5.0
Xylenes, Total	ND		1.6	10
Naphthalene	ND		1.8	5.0

Surrogate	% Rec	Acceptance Limits
4-Bromofluorobenzene	97	83 - 126
Dibromofluoromethane	110	69 - 130
Toluene-d8	99	86 - 116

Laboratory Control Sample - Batch: 400-16996

Method: 8260B
Preparation: 5030B

Lab Sample ID: LCS 400-16996/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/25/2005 0657
Date Prepared: 11/25/2005 0657

Analysis Batch: 400-16996
Prep Batch: N/A
Units: ug/L

Instrument ID: GC/MS
Lab File ID: LW280LCS.D
Initial Weight/Volume: 5 mL
Final Weight/Volume: 5 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Benzene	50.0	49	98	83 - 110	
Ethylbenzene	50.0	51	103	76 - 123	
Methyl tert-butyl ether	50.0	49	98	71 - 123	
Toluene	50.0	51	102	82 - 117	
Xylenes, Total	150	150	103	76 - 130	
Naphthalene	50.0	37	75	64 - 138	

Surrogate	% Rec	Acceptance Limits
4-Bromofluorobenzene	100	83 - 126
Dibromofluoromethane	111	69 - 130
Toluene-d8	99	86 - 116

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Advent Environmental, Inc.

Job Number: 400-7046-1
Sdg Number: 05-526

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 400-16996

Method: 8260B
Preparation: 5030B

MS Lab Sample ID:	400-7046-1	Analysis Batch:	400-16996	Instrument ID:	GC/MS
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	LW280MS.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	11/25/2005 1350			Final Weight/Volume:	5 mL
Date Prepared:	11/25/2005 1350				

MSD Lab Sample ID:	400-7046-1	Analysis Batch:	400-16996	Instrument ID:	GC/MS
Client Matrix:	Water	Prep Batch:	N/A	Lab File ID:	LW280MD.D
Dilution:	1.0			Initial Weight/Volume:	5 mL
Date Analyzed:	11/25/2005 1422			Final Weight/Volume:	5 mL
Date Prepared:	11/25/2005 1422				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Benzene	98	98	85 - 116	0	11		
Ethylbenzene	103	102	83 - 121	2	18		
Methyl tert-butyl ether	92	80	51 - 152	14	20		
Toluene	101	105	84 - 119	4	14		
Xylenes, Total	103	104	82 - 126	1	18		
Naphthalene	74	68	62 - 153	9	23		

Surrogate	MS % Rec	MSD % Rec	Acceptance Limits
4-Bromofluorobenzene	101	98	83 - 126
Dibromofluoromethane	110	102	69 - 130
Toluene-d8	101	99	86 - 116

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Advent Environmental, Inc.

Job Number: 400-7046-1
Sdg Number: 05-526

Method Blank - Batch: 400-16825

Method: 8270C
Preparation: 3520C

Lab Sample ID: MB 400-16825/21-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/26/2005 1308
Date Prepared: 11/21/2005 1645

Analysis Batch: 400-17113
Prep Batch: 400-16825
Units: ug/L

Instrument ID: GC/MS
Lab File ID: MB16825W.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1.0 mL
Injection Volume:

Analyte	Result	Qual	MDL	RL
Acenaphthene	ND		0.19	10
Acenaphthylene	ND		0.15	10
Anthracene	ND		0.10	10
Benzo[a]anthracene	ND		0.17	10
Benzo[a]pyrene	ND		0.60	10
Benzo[b]fluoranthene	ND		0.12	10
Benzo[g,h,i]perylene	ND		0.14	10
Benzo[k]fluoranthene	ND		0.19	10
Chrysene	ND		0.19	10
Dibenz(a,h)anthracene	ND		0.12	10
Fluoranthene	ND		0.12	10
Fluorene	ND		0.13	10
Indeno[1,2,3-cd]pyrene	ND		0.14	10
Naphthalene	ND		0.12	10
Phenanthrene	ND		0.16	10
Pyrene	ND		0.17	10
1-Methylnaphthalene	ND		0.60	10
2-Methylnaphthalene	ND		0.18	10

Surrogate	% Rec	Acceptance Limits
2-Fluorobiphenyl	57	47 - 120
Nitrobenzene-d5	55	36 - 120
Terphenyl-d14	87	51 - 131

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Advent Environmental, Inc.

Job Number: 400-7046-1
Sdg Number: 05-526

Laboratory Control Sample - Batch: 400-16825

Method: 8270C
Preparation: 3520C

Lab Sample ID: LCS 400-16825/22-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/26/2005 1339
Date Prepared: 11/21/2005 1645

Analysis Batch: 400-17113
Prep Batch: 400-16825
Units: ug/L

Instrument ID: GC/MS
Lab File ID: LS16825W.D
Initial Weight/Volume: 1000 mL
Final Weight/Volume: 1.0 mL
Injection Volume:

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Acenaphthene	50.0	38	76	60 - 117	
Acenaphthylene	50.0	40	81	55 - 129	
Anthracene	50.0	40	79	60 - 122	
Benzo[a]anthracene	50.0	39	79	65 - 120	
Benzo[a]pyrene	50.0	41	83	60 - 118	
Benzo[b]fluoranthene	50.0	39	77	60 - 117	
Benzo[g,h,i]perylene	50.0	36	73	52 - 131	
Benzo[k]fluoranthene	50.0	45	90	64 - 130	
Chrysene	50.0	41	83	68 - 117	
Dibenz(a,h)anthracene	50.0	39	79	43 - 109	
Fluoranthene	50.0	43	86	59 - 130	
Fluorene	50.0	38	77	65 - 122	
Indeno[1,2,3-cd]pyrene	50.0	37	74	50 - 121	
Naphthalene	50.0	36	72	57 - 108	
Phenanthrene	50.0	41	82	63 - 122	
Pyrene	50.0	43	86	60 - 118	
1-Methylnaphthalene	50.0	38	75	58 - 118	
2-Methylnaphthalene	50.0	37	74	52 - 110	

Surrogate	% Rec	Acceptance Limits
2-Fluorobiphenyl	80	47 - 120
Nitrobenzene-d5	80	36 - 120
Terphenyl-d14	93	51 - 131

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Advent Environmental, Inc.

Job Number: 400-7046-1
Sdg Number: 05-526

Method Blank - Batch: 400-17122

Method: RSK-175
Preparation: N/A

Lab Sample ID: MB 400-17122/1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/25/2005 0834
Date Prepared: N/A

Analysis Batch: 400-17122
Prep Batch: N/A
Units: ug/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 5 mL
Final Weight/Volume: 1 mL
Injection Volume:

Analyte	Result	Qual	MDL	RL
Carbon dioxide	ND		7.0	50
Methane	ND		0.49	1.0
Oxygen	70		39	50

Laboratory Control Sample - Batch: 400-17122

Method: RSK-175
Preparation: N/A

Lab Sample ID: LCS 400-17122/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/25/2005 0843
Date Prepared: N/A

Analysis Batch: 400-17122
Prep Batch: N/A
Units: ug/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 5 mL
Final Weight/Volume: 1 mL
Injection Volume:

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Methane	5.27	5.5	104	80 - 120	

Laboratory Control Sample - Batch: 400-17122

Method: RSK-175
Preparation: N/A

Lab Sample ID: LCS 400-17122/3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/25/2005 0853
Date Prepared: N/A

Analysis Batch: 400-17122
Prep Batch: N/A
Units: ug/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 5 mL
Final Weight/Volume: 1 mL
Injection Volume:

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Carbon dioxide	996	1200	120	80 - 120	
Oxygen	1000	940	94	80 - 120	

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Advent Environmental, Inc.

Job Number: 400-7046-1
Sdg Number: 05-526

Method Blank - Batch: 400-17312

Method: 8011
Preparation: 8011

Lab Sample ID: MB 400-17312/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 12/01/2005 0141
Date Prepared: 11/30/2005 1245

Analysis Batch: 400-17359
Prep Batch: 400-17312
Units: ug/L

Instrument ID: GC/ECD/ECD
Lab File ID: 8501097.D
Initial Weight/Volume: 35 mL
Final Weight/Volume: 35 mL
Injection Volume:
Column ID: PRIMARY

Analyte	Result	Qual	MDL	RL
Ethylene Dibromide	ND		0.0050	0.020

Surrogate	% Rec	Acceptance Limits
4-Bromofluorobenzene	116	70 - 130

Laboratory Control Sample - Batch: 400-17312

Method: 8011
Preparation: 8011

Lab Sample ID: LCS 400-17312/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 12/01/2005 0200
Date Prepared: 11/30/2005 1245

Analysis Batch: 400-17359
Prep Batch: 400-17312
Units: ug/L

Instrument ID: GC/ECD/ECD
Lab File ID: 8601098.D
Initial Weight/Volume: 35 mL
Final Weight/Volume: 35 mL
Injection Volume:
Column ID: PRIMARY

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Ethylene Dibromide	0.250	0.29	117	88 - 117	

Surrogate	% Rec	Acceptance Limits
4-Bromofluorobenzene	90	70 - 130

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Advent Environmental, Inc.

Job Number: 400-7046-1
Sdg Number: 05-526

Method Blank - Batch: 400-16885

Method: 6010B
Preparation: 3005A
Total Recoverable

Lab Sample ID: MB 400-16885/10-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/23/2005 1924
Date Prepared: 11/22/2005 1210

Analysis Batch: 400-16998
Prep Batch: 400-16885
Units: mg/L

Instrument ID: ICP-AES
Lab File ID: N/A
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDL	RL
Lead	ND		0.0020	0.0050

Laboratory Control Sample - Batch: 400-16885

Method: 6010B
Preparation: 3005A
Total Recoverable

Lab Sample ID: LCS 400-16885/11-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/23/2005 1929
Date Prepared: 11/22/2005 1210

Analysis Batch: 400-16998
Prep Batch: 400-16885
Units: mg/L

Instrument ID: ICP-AES
Lab File ID: N/A
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Lead	1.00	1.0	102	80 - 120	

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 400-16885

Method: 6010B
Preparation: 3005A
Total Recoverable

MS Lab Sample ID: 400-7057-A-8-F MS*R
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/23/2005 1946
Date Prepared: 11/22/2005 1210

Analysis Batch: 400-16998
Prep Batch: 400-16885

Instrument ID: ICP-AES
Lab File ID: N/A
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

MSD Lab Sample ID: 400-7057-A-8-G MSD*R
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/23/2005 1950
Date Prepared: 11/22/2005 1210

Analysis Batch: 400-16998
Prep Batch: 400-16885

Instrument ID: ICP-AES
Lab File ID: N/A
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Lead	106	107	75 - 125	1	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Advent Environmental, Inc.

Job Number: 400-7046-1
Sdg Number: 05-526

Method Blank - Batch: 400-17286

Method: 3500 FE D
Preparation: N/A

Lab Sample ID: MB 400-17286/1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/29/2005 0953
Date Prepared: N/A

Analysis Batch: 400-17286
Prep Batch: N/A
Units: mg/L

Instrument ID: UV-VIS
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume:

Analyte	Result	Qual	MDL	RL
Ferrous Iron	ND		0.011	0.050

Laboratory Control Sample - Batch: 400-17286

Method: 3500 FE D
Preparation: N/A

Lab Sample ID: LCS 400-17286/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/29/2005 0953
Date Prepared: N/A

Analysis Batch: 400-17286
Prep Batch: N/A
Units: mg/L

Instrument ID: UV-VIS
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume: 25 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Ferrous Iron	0.200	0.21	103	90 - 110	

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 400-17286

Method: 3500 FE D
Preparation: N/A

MS Lab Sample ID: 400-7046-2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/29/2005 0953
Date Prepared: N/A

Analysis Batch: 400-17286
Prep Batch: N/A

Instrument ID: UV-VIS
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume: 25 mL

MSD Lab Sample ID: 400-7046-2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/29/2005 0953
Date Prepared: N/A

Analysis Batch: 400-17286
Prep Batch: N/A

Instrument ID: UV-VIS
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume: 25 mL

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Ferrous Iron	90	91	75 - 125	1	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Advent Environmental, Inc.

Job Number: 400-7046-1
Sdg Number: 05-526

Method Blank - Batch: 400-16796

Method: 353.2
Preparation: N/A

Lab Sample ID: MB 400-16796/1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/21/2005 1300
Date Prepared: N/A

Analysis Batch: 400-16796
Prep Batch: N/A
Units: mg/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume:

Analyte	Result	Qual	MDL	RL
Nitrogen, Nitrate	N/A		0.019	0.10

Laboratory Control Sample - Batch: 400-16796

Method: 353.2
Preparation: N/A

Lab Sample ID: LCS 400-16796/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/21/2005 1300
Date Prepared: N/A

Analysis Batch: 400-16796
Prep Batch: N/A
Units: mg/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume: 10.0 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Nitrogen, Nitrate Nitrite	2.00	2.0	101	90 - 110	

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 400-16796

Method: 353.2
Preparation: N/A

MS Lab Sample ID: 400-7037-D-1 MS
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/21/2005 1300
Date Prepared: N/A

Analysis Batch: 400-16796
Prep Batch: N/A

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume: 10.0 mL

MSD Lab Sample ID: 400-7037-D-1 MSD
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/21/2005 1300
Date Prepared: N/A

Analysis Batch: 400-16796
Prep Batch: N/A

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume: 10.0 mL

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Nitrogen, Nitrate Nitrite	78	80	67 - 126	2	6		

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Advent Environmental, Inc.

Job Number: 400-7046-1
Sdg Number: 05-526

Matrix Duplicate - Batch: 400-16796

Method: 353.2
Preparation: N/A

Lab Sample ID: 400-7039-B-1 DU
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/21/2005 1300
Date Prepared: N/A

Analysis Batch: 400-16796
Prep Batch: N/A
Units: mg/L

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume:

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Nitrogen, Nitrate		N/A			

Calculations are performed before rounding to avoid round-off errors in calculated results.

Client: Advent Environmental, Inc.

Job Number: 400-7046-1
Sdg Number: 05-526

Method Blank - Batch: 400-16967

Method: 375.4
Preparation: N/A

Lab Sample ID: MB 400-16967/1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/23/2005 0954
Date Prepared: N/A

Analysis Batch: 400-16967
Prep Batch: N/A
Units: mg/L

Instrument ID: UV-VIS
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume: 10 mL

Analyte	Result	Qual	MDL	RL
Sulfate	ND		1.1	5.0

Laboratory Control Sample - Batch: 400-16967

Method: 375.4
Preparation: N/A

Lab Sample ID: LCS 400-16967/2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/23/2005 0954
Date Prepared: N/A

Analysis Batch: 400-16967
Prep Batch: N/A
Units: mg/L

Instrument ID: UV-VIS
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume: 10 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Sulfate	20.0	20	100	90 - 110	

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 400-16967

Method: 375.4
Preparation: N/A

MS Lab Sample ID: 400-7039-A-1 MS
Client Matrix: Water
Dilution: 10
Date Analyzed: 11/23/2005 0954
Date Prepared: N/A

Analysis Batch: 400-16967
Prep Batch: N/A

Instrument ID: UV-VIS
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume: 10 mL

MSD Lab Sample ID: 400-7039-A-1 MSD
Client Matrix: Water
Dilution: 10
Date Analyzed: 11/23/2005 0954
Date Prepared: N/A

Analysis Batch: 400-16967
Prep Batch: N/A

Instrument ID: UV-VIS
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume: 10 mL

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Sulfate	46	38	54 - 136	1	19	4	4

Calculations are performed before rounding to avoid round-off errors in calculated results.

Quality Control Results

Client: Advent Environmental, Inc.

Job Number: 400-7046-1
Sdg Number: 05-526

Matrix Duplicate - Batch: 400-16967

Method: 375.4
Preparation: N/A

Lab Sample ID: 400-7037-C-3 DU
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 11/23/2005 0954
Date Prepared: N/A

Analysis Batch: 400-16967
Prep Batch: N/A
Units: mg/L

Instrument ID: UV-VIS
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume: 10 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Sulfate	ND	ND	NC	25	

Calculations are performed before rounding to avoid round-off errors in calculated results.

100-7046 3.1C

SERIAL NUMBER: 33539

ANALYSIS REQUEST AND CHAIN OF CUSTODY RECORD

SEVERN TRENT **STL**

STL Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone: 850-474-1001
Fax: 850-478-2671
Website: www.stl-inc.com

QUOTE NO.

BOTTLE ORDER NO.

ORDER - LOG-IN NO.: C 400-J7046

CLIENT: ADVENT

ADDRESS: 498 Wando Park Blvd. Suite 500, mt. Pleasant

PAGE 1 OF 1

PROJECT NAME: CNC

PROJECT NO.: 05-526

CLIENT PROJECT MANAGER: Brian Crawford

PROJECT LOC. (STATE): SC

SAMPLED BY: SCM

CONTRACT / P.O. NO.: 05-526

CLIENT PHONE: 843-388-1851

CLIENT E-MAIL OR FAX: 388-1891

TAT REQUESTED: RUSH NEEDS LAB PREAPPROVAL ☐ NORMAL - 10 BUSINESS DAYS
☐ 1 DAY ☐ 2 DAYS ☐ 3 DAYS ☐ 5 DAYS ☐ 20 DAYS (Package) ☐ OTHER:

SAMPLE DISPOSAL: ☐ RETURN TO CLIENT ☐ DISPOSAL BY LAB
☐ SEE CONTRACT ☐ OTHER:

POSSIBLE HAZARD IDENTIFICATION
Δ NON-HAZARD
Δ FLAMMABLE
Δ RADIOACTIVE
Δ POISON B
Δ UNKNOWN
Δ OTHER:

NO. OF COOLERS PER SHIPMENT:

LAB USE ONLY - SAMPLE NUMBER

REQUESTED ANALYSIS / NUMBER OF CONTAINERS SUBMITTED

SAMPLE DATE	SAMPLE TIME	SAMPLE IDENTIFICATION	No Preservative	HCL - Hydrochloric Acid	HNO3 - Nitric Acid	H2SO4 - Sulfuric Acid or H3PO4	NAOH - Sodium Hydroxide	CH3OH - Methanol	NAHSO4 - Sodium Bisulfate	NA2S2O3 - Sodium Thiosulfate	Other:	Drinking Water	Aqeuous GW, SW, WW	Solid, Semisolid, Sediment	Air	NonAqueous (Oil,Solvent, etc.)	BTEX, NAP, MTBE (8260)	EDB (8260)	PAH (8270)	DO + CO2 (SM4500-CO2)	Fe (SM3500-Fe B)	Total Pb (7421)	Methane (Kem)	Nitrates (9056)	Sulfates (9056)	SPECIAL INSTRUCTIONS/ CONDITIONS OF RECEIPT
11/17/05	11:00	CNC 1174MW01															✓	✓	✓	✓	✓	✓	✓	✓	✓	
"	12:30	CNC 647MW01															✓	✓	✓	✓	✓	✓	✓	✓	✓	

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RELINQUISHED BY: (SIGNATURE)	DATE	TIME
EMPTY CONTAINERS			SCMali	11/17/05	15:00			

RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	DATE	TIME
EMPTY CONTAINERS								

LABORATORY USE ONLY

RECEIVED FOR LABORATORY BY:	DATE	TIME	CUSTODY INTACT?	CUSTODY SEAL NO.	REMARKS:
Krista L. Foster	11/18/05	09:25	Δ YES Δ NO	680910	

LOGIN SAMPLE RECEIPT CHECK LIST

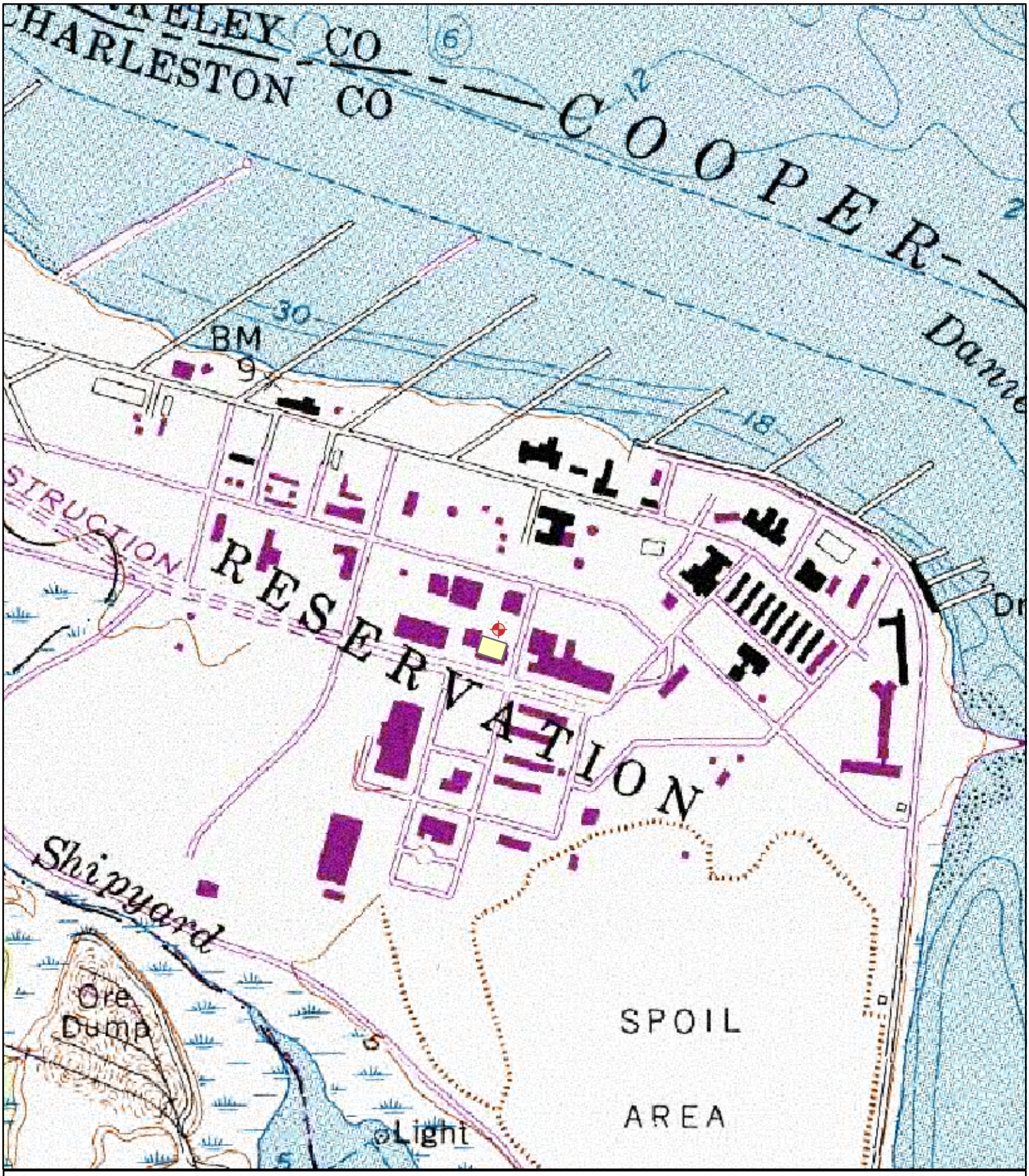
Client: Advent Environmental, Inc.

Job Number: 400-7046-1
Sdg Number: 05-526

Login Number: 7046

Question	T/F/NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	NA	
The cooler's custody seal, if present.	True	680910
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	3.1°C
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present	True	
Samples do not require splitting or compositing	True	

APPENDIX C
Topographic Map



Building 647

0 225 450 900 1,350 1,800 Feet

Figure 1
Site Location Map
Building 647
Former Charleston Naval Complex
Project 05-526

Date: 12/21/2005
Created by: CL Stroh

APPENDIX D
Site Base Map

Building 647

Monitoring well

0 87.5 175 350 525 700 Feet

N W E S

Date: 12/21/2005
Created by: CL Stroh

Figure 2
Site Base Map
Building 647
Former Charleston Naval Complex
Project 05-526

APPENDIX-E
Disposal Manifests

South Carolina Department of Health and Environmental Control

Bureau of Solid & Hazardous Waste Mgt.
2600 Bull Street, Columbia, SC 29201
Phone: (803) 896-4000
Emergency & Holidays: (803) 253-6488

PLEASE PRINT or TYPE (Form designed for use on elite [12-pitch] typewriter) Form Approved. OMB No. 2050-0039 Expires 9-30-99

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's U.S. EPA ID No. | Manifest Document No. | 2. Page 1 of

Information in the shaded areas is not required by Federal law, but is by State law.

3. Generator's Name and Mailing Address
CHARLESTON NAVAL COMPLEX - 1880 SHIPYARD BLVD
CHARLESTON, SC 29408

4. Generator's Phone ( )

A. State Manifest Document Number: 8 8 3 3 0
B. State Generator's ID
C. State Transporter's ID
D. Transporter's Phone
E. State Transporter's ID
F. Transporter's Phone
G. State Facility's ID
H. Facility's Phone: 803/773/1400

5. Transporter 1 Company Name | 6. U.S. EPA ID Number
7. Transporter 2 Company Name | 8. U.S. EPA ID Number
9. Designated Facility Name and Site Address
GIANT RESOURCE RECOVERY-SUMTER
55 INDUSTRIAL ROAD
SUMTER, SC 29150
10. U.S. EPA ID Number: S C D 0 3 8 2 7 5 8 2

11. U.S. Dot Description (including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol.	I. Waste Number
a. SOIL AND WATER* 14080 NON-HAZARDOUS/NON REGULATED					NRED
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above
A. 14080 C. NRED
B. NRED D.

K. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
Send CD to Disposal
24 Hour Emergency Response Channel: 1-800-255-3924
Non-Emergency Chemical Transportation and Emergency Response Standard 1-800-424-9300

Public reporting burden for this collection of information is estimated to average: 37 minutes for generators, 15 minutes for transporters, and 10 minutes for treatment storage and disposal facilities. This includes time for reviewing instructions, gathering data, and completing and reviewing the form. Send comments regarding the burden estimate, including suggestions for reducing this burden, to Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 401 M St., S.W., Washington, D.C. 20460; and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, D.C. 20503.

GENERATOR

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations and the laws of the State of South Carolina.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name | Signature | Month Day Year

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Type Name | Signature | Month Day Year

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name | Signature | Month Day Year

FACILITY

19. Discrepancy Indication Space
a lbs. c lbs.
b lbs. d lbs.

20. Facility Owner or Operator; Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.
Printed/Typed Name | Signature | Month Day Year