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CASWELL COUNTY LANDFILL
YANCEYVILLE, NORTH CAROLINA

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Solid Waste Section

Semi-Annual Groundwater Monitoring Report
May 2007 Sampling
S&ME Project No. 1584-07-034

Prepared For:

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S&ME

I hereby certify this 15th day of August, 2007, that this report was prepared by me or under my direct supervision.

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1.0 EXECUTIVE SUMMARY

Six monitoring wells and two stream locations at the Caswell County Landfill were sampled on May 29, 2007. Six wells (MW-1, MW-2, MW-3, MW-4, MW-5, and MW-6) comprise the groundwater monitoring system for the closed Caswell County Landfill. This sampling event was conducted according to North Carolina Solid Waste Management Guidelines. Samples were analyzed by PACE Analytical Services, Inc. of Huntersville, North Carolina, a North Carolina certified laboratory. The six samples collected from the on-site monitoring wells were submitted for analysis of the North Carolina Landfill Appendix I volatile organic constituents and eight RCRA Metals for detection monitoring. The two surface water samples were analyzed in accordance with 15A NCAC 13B.0602 for the North Carolina Landfill Appendix I volatile organic constituent suite, as well as the eight RCRA metals.

Results from the six monitoring wells and two surface water samples indicate that no RCRA metals were detected at concentrations exceeding the corresponding 15A NCAC 2L groundwater quality standards (NCAC 2L groundwater quality standard) or 15A NCAC 2B surface water standards (NCAC 2B surface water standards) during this event.

The volatile organic constituent benzene was detected in MW-2 (2.2 μg/L) above the NCAC 2L standard for Class GA Groundwater (1 μg/L). The organic constituent 1,4-dichlorobenzene was detected in the groundwater samples collected from wells MW-2 (21 μg/L), MW-3 (4.8 μg/L), MW-4 (10 μg/L), and MW-5 (5.4 μg/L) at reported concentrations above the NCAC 2L groundwater quality standard (1.4 μg/L).

Xylenes, chlorobenzene, chloroethane, and 1,2-dichlorobenzene were detected in one or more groundwater samples during this monitoring event; however, all of the reported concentrations of these constituents were less than their respective NCAC 2L groundwater quality standard. No other volatile organic compounds were detected in the monitoring wells sampled during this event.

No Appendix I volatile organic constituents were detected in any of the surface water samples.

2.0 INTRODUCTION

The Caswell County Landfill is a closed facility that currently monitors groundwater under a Post Closure Care Plan on a semi-annual basis. The facility uses a network of six (6) groundwater monitoring wells to monitor groundwater quality at the Facility. The groundwater monitoring network is made up of one upgradient monitoring well (MW-1) and five downgradient compliance monitoring wells (MW-2, MW-3, MW-4, MW-5, and MW-6). The collected groundwater samples are analyzed in accordance with 15A NCAC 13B.1632 for the North Carolina Landfill Appendix I volatile organic constituent suite plus the 8 RCRA metals. Groundwater monitoring wells are purged and groundwater samples are collected using new, disposable Teflon bailers.

The facility also monitors surface water quality at the stream that crosses the downgradient region of the Facility. During each semi-annual monitoring event, two stream samples are collected from this stream at designated sampling points. The sampling locations are marked

with a stake along the stream bank to ensure consistent surface water quality monitoring. The stream sample locations are designated SW-1 and SW-2 and are analyzed in accordance with 15A NCAC 13B.0602 for the North Carolina Landfill Appendix I volatile organic constituent suite as well as the eight RCRA metals.

This report discusses the field procedures, summarizes the field measurements and analytical results for the May 29, 2007 water quality monitoring event.

3.0 SCOPE OF WORK

S&ME has performed the first semi-annual groundwater sampling of the six (6) network groundwater monitoring wells and two (2) surface water monitoring points/locations for the 2007 groundwater monitoring year. The network wells currently include one (1) upgradient monitoring well (MW-1) and five (5) downgradient compliance monitoring wells (MW-2, MW-3, MW-4, MW-5, and MW-6). The groundwater monitoring wells were purged, sampled and analyzed in accordance with 15A NCAC 13B.1632 for the North Carolina Appendix I volatile organic constituents as well as the eight RCRA metals. The surface water samples were collected and analyzed in accordance with 15A NCAC 13B.0602 for the North Carolina Appendix I volatile organic constituents as well as the eight RCRA metals. This semi-annual groundwater monitoring report (a copy of which will be sent to the North Carolina Department of Environment and Natural Resources) has been prepared to summarize the May 2007 groundwater monitoring event and includes:

- Summary Tables of the laboratory analytical data from each sampling event
- Development of a potentiometric map incorporating the latest groundwater monitoring data.
- A discussion of findings and results

4.0 METHODS EMPLOYED

4.1 Monitoring Well Sampling

Groundwater monitoring well sampling took place on May 29, 2007. The monitoring well locations are shown on **Figure 1**. A representative from S&ME opened each well and measured the static water level from the top edge of the PVC casing in wells. The total well depth used to determine the volume of water in wells MW-2, MW-3, MW-4, MW-5, and MW-6 was measured at the time of the sampling event. These data are summarized in **Table 1**.

Each well was manually purged using a new, sterile Teflon bailer prior to collecting the water samples. The bailer was lowered, by hand, using a nylon rope into the well in such a manner as to minimize agitation of the groundwater. The purge water from each of these wells was monitored for pH, conductivity, temperature, and turbidity. A sample was collected when the changes in those readings fluctuated no more than 10 percent or until the well was purged dry. The field data collected during sampling was recorded on the groundwater sampling field data sheets included in **Appendix A** and summarized in **Table 2** of this report.

Groundwater samples were collected with a new bottom-filling, disposable Teflon bailer. Immediately upon collection, each sample was placed in laboratory supplied containers, packed on ice, and placed under chain-of custody. The sampling technician wore latex gloves that were changed between wells to reduce the possibility of cross contamination.

All monitoring well samples were then sent to PACE Analytical Services, Inc. (PACE) in Huntersville, NC to be analyzed for Appendix I volatile organic constituents and the eight RCRA metals. S&ME released the samples under chain-of-custody to PACE on May 30, 2007.

4.2 Stream Sampling

Surface water sampling took place on May 29, 2007. Two stream samples (SW-1 and SW-2) were collected from an unnamed tributary of Moon Creek, which flows along the eastern portion of the Facility and flows easterly away from the Landfill. Surface water sample (SW-1) was collected from an upgradient position with respect to the waste management unit and SW-2 was collected downgradient of the waste management unit. The surface water samples were collected by immersing laboratory supplied containers directly into the stream at the locations to be sampled. After collection, the surface water samples were packed on ice and placed under chain-of-custody. All stream samples were analyzed for the North Carolina Appendix I volatile organic constituents as well as the 8 RCRA metals by PACE Analytical Services, Inc.; a North Carolina certified laboratory.

5.0 RESULTS

5.1 Groundwater Analytical Results

The results of the laboratory analyses for the groundwater monitoring well samples are summarized in **Tables 3** & **4** and the results of the laboratory analyses for the surface water samples are summarized in **Tables 5** & 6. The complete laboratory report is included in **Appendix B**. The following summarizes the groundwater sample analyses for the six wells (MW-1, MW-2, MW-3, MW-4, MW-5, MW-6) sampled on May 29, 2007.

- No inorganic constituents were detected in any monitoring well at concentrations that exceed the corresponding North Carolina Soil Waste Section Limits (NC SWSL).
- Volatile organic compound benzene was detected in monitoring well MW-2 a concentration of 2.2 micrograms per liter (μg/L). The detected concentration is above the NCAC 2L groundwater quality standard of 1.0μg/L.
- Volatile organic compound 1,4-dichlorobenzene was detected in monitoring wells MW-2 at 21.0 μg/L, in MW- 3 at 4.8 μg/L, in MW-4 at 10.0 μg/L and in MW-5 at 5.4 μg/L. The reported concentrations in these four wells are above the NCAC 2L groundwater quality standard of 1.4 μg/L.
- The organic constituents xylenes, chlorobenzene, chloroethane, and 1,2-dichlorobenzene were detected in one or more groundwater samples during this monitoring event; however, all of the reported concentrations of these constituents were less than their respective NCAC 2L groundwater quality standard. No other volatile organic compounds were detected in the monitoring wells sampled during this event.

5.2 Groundwater Flow Direction

The static water levels in the monitoring wells were measured on May 29, 2007. The depth to the water table ranged from 8.39 to 21.47 feet below the top of well casing on this date. Groundwater elevation data are presented in **Table 1**. Ground surface elevations were taken from surface topography illustrated on Plan Sheet No. 3 of the Caswell County Landfill Closure Plans prepared by Dewberry and Davis in March 1994. The groundwater elevation at each monitoring well was calculated by taking the difference of the ground surface elevation (topography) and the depth to static water in each monitoring well. A groundwater contour map was constructed using the calculated groundwater elevation data from the May 29, 2007 sampling event and is presented as **Figure 2**. The groundwater elevation data collected during this monitoring event indicates that the groundwater beneath the landfill generally flows easterly toward the unnamed tributary of Moon Creek.

5.3 Surface Water

The results of the laboratory analyses for Appendix I constituents in the surface water samples are summarized in **Tables 5 & 6.** No Appendix I volatile organic or inorganic compounds were detected above the NCAC 2B surface water standards at either of the surface water sample locations on the date sampled. The complete laboratory reports are included in **Appendix B**.

5.4 Quality Assurance

The monitoring wells were sampled using new, sterile Teflon disposable bailers. A Method Blank as well as a Duplicate Sample were also analyzed for the Appendix I Volatile Organic Compounds as well as the RCRA 8 metals. No volatile organic or inorganic constituents were present in these samples at detectable levels. Laboratory QC samples were analyzed for all constituents included in this sampling event. The results of the method blank, and laboratory QC sample analyses are included in **Appendix B**.

6.0 REFERENCES

Fetter, C. W., 1988, Applied Hydrogeology, New York; Macmillian Publishing Company, 1988, 592 pp.

North Carolina Administrative Code, Title 15A, Department of Environment, Health and Natural Resources, Division of Environmental Management, Subchapter 2L, Classifications and Water Quality Standards Applicable to the Groundwaters of North Carolina, Sections .0100, .0200, and .0300 (November 8, 1993); from the Environmental Management Commission Raleigh, North Carolina.

North Carolina Administrative Code, Title 15A, Department of Environment, Health and Natural Resources, Division of Environmental Management, Subchapter 2B, Classifications and Water Quality Standards Applicable to the Surface Waters of North Carolina, Section .0200 (April 1, 1991); from the Environmental Management Commission, Raleigh, North Carolina.

North Carolina Administrative Code, Title 15A, Department of Environment, Health and Natural Resources, Division of Solid Waste Management, subchapter 13B, Solid Waste Management, Section .1600 (January 1, 1997).

TABLES

Table 1

Groundwater Elevation Data Summary (5/29/07)
Caswell County Landfill
Yanceyville, North Carolina
S&ME Project No. 1584-07-034

Static Water Levels				
Well No.	Surface Elevation (Topographic)	Depth of Well (feet)	May 29, 2007	
			DTGW (feet)	Elevation (feet)
MW-1	572	24.5	17.47	554.53
MW-2	526.5	22.3	19.20	507.30
MW-3	511	17.8	10.15	500.85
MW-4	526.5	36.0	21.47	505.03
MW-5	498	24.7	8.65	489.35
MW-6	489	16.2	8.39	480.61

Topographic = ground elevation estimated from topographic map w/2 foot contour interval, not a surveyed elevation

Depth of well data as measured by S&ME Inc. personnel on date of sampling

DTGW = Depth to Groundwater

Elevation = calculated groundwater elevation

Table 2

Groundwater & Surface Water Field Data Summary (5-29-07)
Caswell County Landfill
Yanceyville, North Carolina
S&ME Project No. 1584-07-034

Location:	MW-1						
Time	Date	Temp-C	Temp-F	pH	SpC-mS/cm	Turbidity-NTU	Depth to Water-feet
1438	29-May-07	18.07	64.5	5.99	0.111	500	17.47
1443	29-May-07	15.66	60.2	5.20	0.132	400	

Location:	MW-2						
Time	Date	Temp-C	Temp-F	pH	SpC-mS/cm	Turbidity-NTU	Depth to Water-feet
1040	29-May-07	15.89	60.6	6.35	0.162	109	19.20

Location:	MW-3						
Time	Date	Temp-C	Temp-F	pH	SpC-mS/cm	Turbidity-NTU	Depth to Water-feet
1110	29-May-07	13.97	57.1	6.15	99.200	500	10.15

Location:	MW-4						
Time	Date	Temp-C	Temp-F	pH	SpC-mS/cm	Turbidity-NTU	Depth to Water-feet
1021	29-May-07	15.55	60.0	6.18	0.146	485	21.47
1024	29-May-07	15.55	60.0	6.25	0.144	300	

Location:	MW-5						
Time	Date	Temp-C	Temp-F	pH	SpC-mS/cm	Turbidity-NTU	Depth to Water-feet
1137	29-May-07	13.46	56.2	6.17	0.113	220	8.65
1141	29-May-07	14.33	57.8	6.18	0.108	100	
1144	29-May-07	14.88	58.8	6.18	0.107	11	

Location:	MW-6						
Time	Date	Temp-C	Temp-F	pH	SpC-mS/cm	Turbidity-NTU	Depth to Water-feet
1215	29-May-07	15.21	59.4	6.96	15.600	139	8.39

Location:	SW-1						
Time	Date	Temp-C	Temp-F	pH	SpC-mS/cm	Turbidity-NTU	Depth to Water-feet
1420	29-May-07	20.95	69.7	6.89	11.400	10	N/A

Location:	SW-2						
Time	Date	Temp-C	Temp-F	pH	SpC-mS/cm	Turbidity-NTU	Depth to Water-feet
1235	29-May-07	18.91	66.0	6.34	14.200	16	N/A

TABLE 3
GROUNDWATER ANALYTICAL RESULTS SUMMARY (5/29/07)
APPENDIX I - VOLATILE ORGANIC COMPOUNDS
CASWELL COUNTY LANDFILL
YANCEYVILLE, NORTH CAROLINA
S&ME PROJECT NO. 1584-07-034

Compound	Sample Locations						NC SWSL	NCAC 2L stds.
	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6		
Benzene	ND	2.2	ND	ND	ND	ND	1	1
Xylenes (Total)	ND	1.8	ND	ND	ND	ND	5	530
Chlorobenzene	ND	25	ND	5	ND	ND	3	50
Chloroethane	ND	2.7	1.4	1.3	ND	ND	10	2800
1,4-Dichlorobenzene	ND	21	4.8	10	5.4	ND	1	1.4
1,2-Dichlorobenzene	ND	3	ND	1.1	ND	ND	5	24

reported concentrations = micrograms per liter (ug/L)
NC SWSL = North Carolina Solid Waste Section Limit
ND = Analyate not detected
NCAC 2L stds. = 15A North Carolina Administrative Code 2L .0200, GW Quality Standards for Class GA groundwater.
Yellow highlights indicate a measurement higher than the NC SWSL
Orange highlights indicate a measurement higher than 2L standards.

TABLE 4
GROUNDWATER ANALYTICAL RESULTS SUMMARY (5/29/07)
8-RCRA METALS
CASWELL COUNTY LANDFILL
YANCEYVILLE, NORTH CAROLINA
S&ME PROJECT NO. 1584-07-034

Constituent	Sample Locations						NC SWSL	NCAC 2L stds.
	MW-1	MW-2	MW-3	MW-4	MW-5	MW-6		
Barium	19	71	51	61	25	21	100	2000
Copper	ND	ND	ND	ND	ND	ND	10	1000
Lead	ND	ND	ND	5.5	ND	ND	10	15
Mercury	ND	ND	ND	ND	ND	ND	0.2	1.05
Vanadium	ND	ND	ND	ND	ND	ND	25	ns
Zinc	ND	ND	ND	ND	ND	ND	10	1050

all concentrations reported in micrograms per liter (ug/L)
NC SWSL = North Carolina Solid Waste Section Limit
ND = Analyate not detected
NCAC 2L stds. = 15A North Carolina Administrative Code 2L .0200, Groundwater Quality Standards for Class GA groundwater.
ns = no standard listed according to NCAC 2L
Yellow highlights indicate a measurement higher than the NC SWSL
Orange highlights indicate a measurement higher than 2L standards.

TABLE 5
SURFACE WATER ANALYTICAL RESULTS SUMMARY (5/29/07)
APPENDIX I - VOLATILE ORGANIC COMPOUNDS
CASWELL COUNTY LANDFILL
YANCEYVILLE, NORTH CAROLINA
S&ME PROJECT NO. 1584-07-034

Compound	Sample Locations		NC SWSL	15A NCAC 2B Standards*
	SW-1	SW-2		
Benzene	ND	ND	1	1.19
Xylenes (Total)	ND	ND	5	ns
Chlorobenzene	ND	ND	3	488
Chloroethane	ND	ND	10	ns
1,4-Dichlorobenzene	ND	ND	1	488
1,2-Dichlorobenzene	ND	ND	5	488

NC SWSL= North Carolina Solid Waste Section Limit

ND = compound not detected in sample

** = Title 15A NCAC 2B Standards for Class B, C surface water*

J = Parameters are estimated values between the detection limit and the NC SWSL.

ns = Title 15A NCAC 2B provides no established standard for these constituents

Quantities highlighted in yellow were detected above the NC SWSL

Quantities highlighted in orange were detected above the 2B standards

TABLE 6
SURFACE WATER ANALYTICAL RESULTS SUMMARY
(5/29/07)
8-RCRA METALS
CASWELL COUNTY LANDFILL
YANCEYVILLE, NORTH CAROLINA
S&ME PROJECT NO. 1584-07-034

Constituent	Sample Locations		NC SWSL	15A NCAC 2B Standards*
	SW-1	SW-2		
Barium	19	17	100	1000
Copper	ND	ND	10	3
Lead	ND	ND	10	ns
Mercury	ND	ND	0.2	ns
Vanadium	ND	ND	25	ns
Zinc	ND	ND	10	ns

NC SWSL = North Carolina Solid Waste Section Limit
ND = Parameter not detected
** = Title 15A NCAC 2B Standards for Class B, C surface water*
ns = Title 15A NCAC 2B provides no established standard for these constituents

Yellow highlights indicate a measurement higher than the NC SWSL
Orange highlights indicate a measurement higher than 2B standards.

Monitoring Well Samples

FACILITY PERMIT	WELL ID	SWS ID	CAS Number	PARAMETER	RESULT	UNITS	COLLECT DATE	Time of Sampling	Sampler(s)
	MW-1	318	318	DTW	17.47	feet	05/29/2007	1530	G. Simcox
	MW-1	320	320	pH	5.2	stu	05/29/2007	1530	G. Simcox
	MW-1	323	323	Specific Cond.	132	umhos/cm	05/29/2007	1530	G. Simcox
	MW-1	325	325	Temperature	15.66	oC	05/29/2007	1530	G. Simcox
	MW-2	318	318	DTW	19.2	feet	05/29/2007	1340	G. Simcox
	MW-2	320	320	pH	6.35	stu	05/29/2007	1340	G. Simcox
	MW-2	323	323	Specific Cond.	162	umhos/cm	05/29/2007	1340	G. Simcox
	MW-2	325	325	Temperature	15.89	oC	05/29/2007	1340	G. Simcox
	MW-3	318	318	DTW	10.15	feet	05/29/2007	1325	G. Simcox
	MW-3	320	320	pH	6.15	stu	05/29/2007	1325	G. Simcox
	MW-3	323	323	Specific Cond.	99200	umhos/cm	05/29/2007	1325	G. Simcox
	MW-3	325	325	Temperature	13.97	oC	05/29/2007	1325	G. Simcox
	MW-4	318	318	DTW	21.47	feet	05/29/2007	1355	G. Simcox
	MW-4	320	320	pH	6.25	stu	05/29/2007	1355	G. Simcox
	MW-4	323	323	Specific Cond.	144	umhos/cm	05/29/2007	1355	G. Simcox
	MW-4	325	325	Temperature	15.55	oC	05/29/2007	1355	G. Simcox
	MW-5	318	318	DTW	8.65	feet	05/29/2007	1310	G. Simcox
	MW-5	320	320	pH	6.17	stu	05/29/2007	1310	G. Simcox
	MW-5	323	323	Specific Cond.	113	umhos/cm	05/29/2007	1310	G. Simcox
	MW-5	325	325	Temperature	13.46	oC	05/29/2007	1310	G. Simcox
	MW-6	318	318	DTW	8.39	feet	05/29/2007	1255	G. Simcox
	MW-6	320	320	pH	6.96	stu	05/29/2007	1255	G. Simcox
	MW-6	323	323	Specific Cond.	15600	umhos/cm	05/29/2007	1255	G. Simcox
	MW-6	325	325	Temperature	15.21	oC	05/29/2007	1255	G. Simcox

Surface Water Samples

FACILITY PERMIT	WELL ID	SWS ID	CAS Number	PARAMETER	RESULT	UNITS	COLLECT DATE	Time of Sampling	Sampler(s)
	SW-1	318	318	DTW	NA	feet	05/29/2007	1420	G. Simcox
	SW-1	320	320	pH	6.89	stu	05/29/2007	1420	G. Simcox
	SW-1	323	323	Specific Cond.	20950	umhos/cm	05/29/2007	1420	G. Simcox
	SW-1	325	325	Temperature	20.95	oC	05/29/2007	1420	G. Simcox
	SW-2	318	318	DTW	NA	feet	05/29/2007	1235	G. Simcox
	SW-2	320	320	pH	6.34	stu	05/29/2007	1235	G. Simcox
	SW-2	323	323	Specific Cond.	14200	umhos/cm	05/29/2007	1235	G. Simcox
	SW-2	325	325	Temperature	18.91	oC	05/29/2007	1235	G. Simcox

FIGURES

APPENDIX A

Groundwater Sampling Field Data Sheets

S&ME FIELD DATA SHEET FOR GROUNDWATER SAMPLING

DATE 5/29/07
FIELD PERSONNEL Gary Simcox
FACILITY NAME Caswell County Landfill
EPA ID NO.
WELL ID NO. MW-1

☑ UPGRADIENT ☐ DOWNGRADIENT

WEATHER CONDITIONS RAINY/CLEAR/WINDY/PARTLY CLOUDY/WARM/HOT
AIR TEMPERATURE 85 °F
TOTAL WELL DEPTH (TWD) 24.5 1/100 ft
DEPTH TO GROUNDWATER (DGW) 17.47 1/100 ft
LENGTH OF WATER COLUMN (LWC) = TWD − DGW = 7 ft
1 CASING VOLUME (OCV) = LWC X .17 = 1.2 gal
3 CASING VOLUMES = 3.6 GAL. = STD EVACUATION VOLUME
METHOD OF WELL EVACUATION SUBMERSIBLE PUMP/GEL T BAILER/B-K PUMP
METHOD OF SAMPLE COLLECTION DEDICATED T BAILER/GEL-T BAILER/B-K BAILER
TOTAL VOLUME OF WATER REMOVED gal

CASING DIAMETER ☑ 2 INCHES ☐ 4 INCHES
CASING MATERIAL ☑ PVC ☐ TEFLON ☐ STEEL
MEASURING POINT ELEVATION (MSL) 1/100 ft
WATER TABLE ELEVATION (MSL) 1/100 ft
pH/SPECIAL CONDITION METER CAL (DATE/TIME)
pH BUFFER SOLUTION USED
STEEL GUARD PIPE AROUND CASING ☑ YES ☐ NO
LOCKING CAP ☑ YES ☐ NO
PROTECTIVE ABUTMENT ☐ YES ☑ NO
WELL INTEGRITY SATISFACTORY ☑ YES ☐ NO
WELL YIELD ☐ LOW ☐ MEDIUM ☐ HIGH

CONTAINERS

PERSONNEL	DATE	TIME	NO.	TYPE	PRESERV	PARAMETER
Gary Simcox	5/29/07	1530	4			

(MODERATE RECOVERY WITHIN 30 MINUTES)

FIELD ANALYSIS

DRY @ 2.3 GALLONS

VOLUME PURGED (GAL.)	0	1	2				
TIME (MILITARY)		1438	1443				
pH (S.U.)		5.99	5.20				
CONDUCTIVITY S/m		.111	.132				
WATER TEMP (°C)		18.07	15.66				
TURBIDITY (SUBJECTIVE)*		500	400				
ODOR (SUBJECTIVE)**							

* (1) clear (2) slight (3) moderate (4) high ** (1) none (2) faint (3) moderate (4) high

S&ME FIELD DATA SHEET FOR GROUNDWATER SAMPLING

DATE 5/29/07
FIELD PERSONNEL Gary Simcox
FACILITY NAME Caswell County Landfill
EPA ID NO.
WELL ID NO. MW-2

☐ UPGRADIENT ☑ DOWNGRADIENT

WEATHER CONDITIONS RAINY/(CLEAR)/WINDY/PARTLY CLOUDY/(WARM)/HOT
AIR TEMPERATURE 80 °F
TOTAL WELL DEPTH (TWD) 22.3 1/100 ft
DEPTH TO GROUNDWATER (DGW) 19.20 1/100 ft
LENGTH OF WATER COLUMN (LWC) = TWD − DGW = 3.1 ft
1 CASING VOLUME (OCV) = LWC X .17 = .53 gal
3 CASING VOLUMES = 1.6 GAL. = STD EVACUATION VOLUME
METHOD OF WELL EVACUATION SUBMERSIBLE PUMP/GEL-T (BAILER)/B-K PUMP
METHOD OF SAMPLE COLLECTION DEDICATED T BAILER/GEL-T BAILER/B-K (BAILER)
TOTAL VOLUME OF WATER REMOVED gal

CASING DIAMETER ☑ 2 INCHES ☐ 4 INCHES
CASING MATERIAL ☑ PVC ☐ TEFLON ☐ STEEL
MEASURING POINT ELEVATION (MSL) 1/100 ft
WATER TABLE ELEVATION (MSL) 1/100 ft
pH/SPECIAL CONDITION METER CAL (DATE/TIME)
pH BUFFER SOLUTION USED
STEEL GUARD PIPE AROUND CASING ☑ YES ☐ NO
LOCKING CAP ☑ YES ☐ NO
PROTECTIVE ABUTMENT ☐ YES ☑ NO
WELL INTEGRITY SATISFACTORY ☑ YES ☐ NO
WELL YIELD ☑ LOW ☐ MEDIUM ☐ HIGH

CONTAINERS

PERSONNEL	DATE	TIME	NO.	TYPE	PRESERV	PARAMETER
Gary Simcox	5/29/07	1340	4			

BAILER

FIELD ANALYSIS

DRY @ 1.0 GALLON

VOLUME PURGED (GAL.)	0	.5					
TIME (MILITARY)	1035	1040					
pH (S.U.)		6.35					
CONDUCTIVITY	S/m	.162					
WATER TEMP (°C)	°C	15.89					
TURBIDITY (SUBJECTIVE)*	NTU	109					
ODOR (SUBJECTIVE)**							

* (1) clear (2) slight (3) moderate (4) high ** (1) none (2) faint (3) moderate (4) high

NOTE: SLOW RECOVERY < 2' IN WELL

FIELD DATA SHEET FOR GROUNDWATER SAMPLING

S&ME

DATE 5/29/07
FIELD PERSONNEL Gary Simcox
FACILITY NAME Caswell County Landfill
EPA ID NO.
WELL ID NO. MW-3

☐ UPGRADIENT ☑ DOWNGRADIENT

WEATHER CONDITIONS RAINY/CLEAR/WINDY/PARTLY CLOUDY/WARM/HOT
AIR TEMPERATURE 80 °F
TOTAL WELL DEPTH (TWD) 17.8 1/100 ft
DEPTH TO GROUNDWATER (DGW) 10.15 1/100 ft
LENGTH OF WATER COLUMN (LWC) = TWD − DGW = 7.7 ft
1 CASING VOLUME (OCV) = LWC X .17 = 1.3 gal
3 CASING VOLUMES = 4.0 GAL. = STD EVACUATION VOLUME
METHOD OF WELL EVACUATION SUBMERSIBLE PUMP/GEL T BAILER/B-K PUMP
METHOD OF SAMPLE COLLECTION DEDICATED T BAILER/GEL-T BAILER/B-K BAILER
TOTAL VOLUME OF WATER REMOVED gal

CASING DIAMETER ☑ 2 INCHES ☐ 4 INCHES
CASING MATERIAL ☑ PVC ☐ TEFLON ☐ STEEL
MEASURING POINT ELEVATION (MSL) 1/100 ft
WATER TABLE ELEVATION (MSL) 1/100 ft
pH/SPECIAL CONDITION METER CAL (DATE/TIME)
pH BUFFER SOLUTION USED
STEEL GUARD PIPE AROUND CASING ☑ YES ☐ NO
LOCKING CAP ☑ YES ☐ NO
PROTECTIVE ABUTMENT ☐ YES ☑ NO
WELL INTEGRITY SATISFACTORY ☑ YES ☐ NO
WELL YIELD ☑ LOW ☐ MEDIUM ☐ HIGH

CONTAINERS

PERSONNEL	DATE	TIME	NO.	TYPE	PRESERV	PARAMETER
Gary Simcox	5/29/07	1325	4			

BAILER

FIELD ANALYSIS

DEW @ 1.5 GALLONS

VOLUME PURGED (GAL.)	0	1					
TIME (MILITARY)		1110					
pH (S.U.)		6.15					
CONDUCTIVITY	S/m	99.2					
WATER TEMP (°C)	°C	13.97					
TURBIDITY (SUBJECTIVE)*	NTU	500					
ODOR (SUBJECTIVE)**							

* (1) clear (2) slight (3) moderate (4) high ** (1) none (2) faint (3) moderate (4) high

NOTE: NEED TO USE PERISTALTIC PUMP @ NEXT VISIT

S&ME FIELD DATA SHEET FOR GROUNDWATER SAMPLING

DATE 5/29/07
FIELD PERSONNEL Gary Simcox
FACILITY NAME Caswell County Landfill
EPA ID NO.
WELL ID NO. MW-4

☐ UPGRADIENT ☑ DOWNGRADIENT

WEATHER CONDITIONS RAINY/CLEAR/WINDY/PARTLY CLOUDY/WARM/HOT
AIR TEMPERATURE 80 °F
TOTAL WELL DEPTH (TWD) 36.0 1/100 ft
DEPTH TO GROUNDWATER (DGW) 21.47 1/100 ft
LENGTH OF WATER COLUMN (LWC) = TWD − DGW = 14.5 ft
1 CASING VOLUME (OCV) = LWC X .17 = 2.5 gal
3 CASING VOLUMES = 7.5 GAL. = STD EVACUATION VOLUME
METHOD OF WELL EVACUATION SUBMERSIBLE PUMP/GEL T BAILER/B-K PUMP
METHOD OF SAMPLE COLLECTION DEDICATED T BAILER/GEL-T BAILER/B-K BAILER
TOTAL VOLUME OF WATER REMOVED gal

CASING DIAMETER ☑ 2 INCHES ☐ 4 INCHES
CASING MATERIAL ☑ PVC ☐ TEFLON ☐ STEEL
MEASURING POINT ELEVATION (MSL) 1/100 ft
WATER TABLE ELEVATION (MSL) 1/100 ft
pH/SPECIAL CONDITION METER CAL (DATE/TIME)
pH BUFFER SOLUTION USED
STEEL GUARD PIPE AROUND CASING ☑ YES ☐ NO
LOCKING CAP ☑ YES ☐ NO
PROTECTIVE ABUTMENT ☐ YES ☑ NO
WELL INTEGRITY SATISFACTORY ☑ YES ☐ NO
WELL YIELD ☑ LOW ☐ MEDIUM ☐ HIGH

CONTAINERS

PERSONNEL	DATE	TIME	NO.	TYPE	PRESERV	PARAMETER
Gary Simcox	5/29/07	1355	4			

Waterra Pump w/ Ball Valve

FIELD ANALYSIS

Dry @ 3.0 gallons (Grabbed sample w/ bailer)

VOLUME PURGED (GAL.)	0	1	2.5				
TIME (MILITARY)	1020	1021	1024				
pH (S.U.)		6.18	6.25				
CONDUCTIVITY	S/m	.146	.144				
WATER TEMP (°C)	°C	15.55					
TURBIDITY (SUBJECTIVE)*	NTU	[redacted] 485	[redacted] 300				
ODOR (SUBJECTIVE)**							

* (1) clear (2) slight (3) moderate (4) high ** (1) none (2) faint (3) moderate (4) high

Note: Barely enough to fill 3 VOA's + 250ml plastic (very slow recovery)

FIELD DATA SHEET FOR GROUNDWATER SAMPLING

S&ME

DATE 5/29/07
FIELD PERSONNEL Gary Simcox
FACILITY NAME Caswell County Landfill
EPA ID NO.
WELL ID NO. MW-5

☐ UPGRADIENT ☑ DOWNGRADIENT

WEATHER CONDITIONS RAINY/CLEAR/WINDY/PARTLY CLOUDY/WARM/HOT
AIR TEMPERATURE 82 °F
TOTAL WELL DEPTH (TWD) 24.7 1/100 ft
DEPTH TO GROUNDWATER (DGW) 8.65 1/100 ft
LENGTH OF WATER COLUMN (LWC) = TWD − DGW = 16 ft
1 CASING VOLUME (OCV) = LWC X .17 = 2.8 gal
3 CASING VOLUMES = 8.2 GAL = STD EVACUATION VOLUME
METHOD OF WELL EVACUATION SUBMERSIBLE PUMP/GEL T BAILER/B-K PUMP
METHOD OF SAMPLE COLLECTION DEDICATED T BAILER/GEL-T BAILER/B-K BAILER
TOTAL VOLUME OF WATER REMOVED gal

CASING DIAMETER ☑ 2 INCHES ☐ 4 INCHES
CASING MATERIAL ☑ PVC ☐ TEFLON ☐ STEEL
MEASURING POINT ELEVATION (MSL) 1/100 ft
WATER TABLE ELEVATION (MSL) 1/100 ft
pH/SPECIAL CONDITION METER CAL (DATE/TIME)
pH BUFFER SOLUTION USED
STEEL GUARD PIPE AROUND CASING ☑ YES ☐ NO
LOCKING CAP ☑ YES ☐ NO
PROTECTIVE ABUTMENT ☐ YES ☑ NO
WELL INTEGRITY SATISFACTORY ☑ YES ☐ NO
WELL YIELD ☑ LOW ☐ MEDIUM ☐ HIGH

CONTAINERS

PERSONNEL	DATE	TIME	NO.	TYPE	PRESERV	PARAMETER
Gary Simcox	5/29/07	1310	4			

Whaler pump w/ ball valve

FIELD ANALYSIS

DRY @ 3.0 GALLONS

	0	1	2	3			
VOLUME PURGED (GAL)							
TIME (MILITARY)	1135	1137	1141	1144			
pH (S.U.)		6.17	6.18	6.18			
CONDUCTIVITY	S/m	.113	.108	.107			
WATER TEMP (°C)	°C	13.46	14.33	14.88			
TURBIDITY (SUBJECTIVE)*	NTU	220	100	11			
ODOR (SUBJECTIVE)**							

* (1) clear (2) slight (3) moderate (4) high ** (1) none (2) faint (3) moderate (4) high

NOTE: NEED TO USE PERISTALTIC PUMP @ NEXT EVENT (GRABBED SAMPLE W/ BAILER)

FIELD DATA SHEET FOR GROUNDWATER SAMPLING

S&ME

DATE 5/29/07
FIELD PERSONNEL Gary Simcox
FACILITY NAME Caswell County Landfill
EPA ID NO.
WELL ID NO. MW-6

☐ UPGRADIENT ☑ DOWNGRADIENT

WEATHER CONDITIONS RAINY/CLEAR/WINDY/PARTLY CLOUDY/WARM/HOT
AIR TEMPERATURE 85 °F
TOTAL WELL DEPTH (TWD) 16.2 1/100 ft
DEPTH TO GROUNDWATER (DGW) 8.39 1/100 ft
LENGTH OF WATER COLUMN (LWC) = TWD − DGW = 7.8 ft
1 CASING VOLUME (OCV) = LWC X .17 = 1.3 gal
3 CASING VOLUMES = 4.0 GAL. = STD EVACUATION VOLUME
METHOD OF WELL EVACUATION SUBMERSIBLE PUMP/GEL-T BAILER/B-K PUMP
METHOD OF SAMPLE COLLECTION DEDICATED T BAILER/GEL-T BAILER/B-K BAILER
TOTAL VOLUME OF WATER REMOVED gal

CASING DIAMETER ☑ 2 INCHES ☐ 4 INCHES
CASING MATERIAL ☑ PVC ☐ TEFLON ☐ STEEL
MEASURING POINT ELEVATION (MSL) 1/100 ft
WATER TABLE ELEVATION (MSL) 1/100 ft
pH/SPECIAL CONDITION METER CAL (DATE/TIME)
pH BUFFER SOLUTION USED
STEEL GUARD PIPE AROUND CASING ☑ YES ☐ NO
LOCKING CAP ☑ YES ☐ NO
PROTECTIVE ABUTMENT ☐ YES ☑ NO
WELL INTEGRITY SATISFACTORY ☑ YES ☐ NO
WELL YIELD ☐ LOW ☐ MEDIUM ☐ HIGH

CONTAINERS

PERSONNEL	DATE	TIME	NO.	TYPE	PRESERV	PARAMETER
Gary Simcox	5/29/07	1255	4			

BAILER

• LET WELL RECOVER APPROX. 30 MIN ! COULD ONLY FILL 3 VOAS

FIELD ANALYSIS

DRY @ 1.5 GALLONS

• LET WELL RECOVER ANOTHER HR & COULD ONLY FILL 1/2 OFF THE 250mL

VOLUME PURGED (GAL)	0	1					
TIME (MILITARY)		1215					
pH (S.U.)		6.96					
CONDUCTIVITY	mS/m	15.6					
WATER TEMP (°C)	°C	15.21					
TURBIDITY (SUBJECTIVE)*	NTU	139					
ODOR (SUBJECTIVE)**							

* (1) clear (2) slight (3) moderate (4) high ** (1) none (2) faint (3) moderate (4) high

NOTE: NEED TO USE PERISTALTIC PUMP @ NEXT EVENT

S&ME FIELD DATA SHEET FOR GROUNDWATER SAMPLING

DATE 5/29/07
FIELD PERSONNEL Gary Simcox
FACILITY NAME Caswell County Landfill
EPA ID NO.
WELL ID NO. SW-1

☑ UPGRADIENT ☐ DOWNGRADIENT

WEATHER CONDITIONS RAINY/CLEAR/WINDY/PARTLY CLOUDY/WARM/HOT
AIR TEMPERATURE °F
TOTAL WELL DEPTH (TWD) 1/100 ft
DEPTH TO GROUNDWATER (DGW) 1/100 ft
LENGTH OF WATER COLUMN (LWC) = TWD − DGW = ft
1 CASING VOLUME (OCV) = LWC X = gal
3 CASING VOLUMES = GAL. = STD EVACUATION VOLUME
METHOD OF WELL EVACUATION SUBMERSIBLE PUMP/GEL T BAILER/B-K PUMP
METHOD OF SAMPLE COLLECTION DEDICATED T BAILER/GEL-T BAILER/B-K BAILER
TOTAL VOLUME OF WATER REMOVED gal

CASING DIAMETER ☐ 2 INCHES ☐ 4 INCHES
CASING MATERIAL ☐ PVC ☐ TEFLON ☐ STEEL
MEASURING POINT ELEVATION (MSL) 1/100 ft
WATER TABLE ELEVATION (MSL) 1/100 ft
pH/SPECIAL CONDITION METER CAL (DATE/TIME)
pH BUFFER SOLUTION USED
STEEL GUARD PIPE AROUND CASING ☐ YES ☐ NO
LOCKING CAP ☐ YES ☐ NO
PROTECTIVE ABUTMENT ☐ YES ☐ NO
WELL INTEGRITY SATISFACTORY ☐ YES ☐ NO
WELL YIELD ☑ LOW ☐ MEDIUM ☐ HIGH

CONTAINERS

PERSONNEL	DATE	TIME	NO.	TYPE	PRESERV	PARAMETER

FIELD ANALYSIS

VOLUME PURGED (GAL)							
TIME (MILITARY)	1420						
pH (S.U.)	6.89						
CONDUCTIVITY mS/m	11.4						
WATER TEMP (°C)	20.95						
TURBIDITY (SUBJECTIVE)*	[redacted] 10						
ODOR (SUBJECTIVE)**							

* (1) clear (2) slight (3) moderate (4) high ** (1) none (2) faint (3) moderate (4) high

S&ME FIELD DATA SHEET FOR GROUNDWATER SAMPLING

DATE 5/29/07
FIELD PERSONNEL Gary Simcox
FACILITY NAME Caswell County Landfill
EPA ID NO.
WELL ID NO. SW-2

☐ UPGRADIENT ☑ DOWNGRADIENT

WEATHER CONDITIONS RAINY/CLEAR/WINDY/PARTLY CLOUDY/WARM/HOT
AIR TEMPERATURE 85 °F
TOTAL WELL DEPTH (TWD) N/A 1/100 ft
DEPTH TO GROUNDWATER (DGW) N/A 1/100 ft
LENGTH OF WATER COLUMN (LWC) = TWD − DGW = ___ ft
1 CASING VOLUME (OCV) = LWC X ___ = ___ gal
3 CASING VOLUMES = ___ GAL. = STD EVACUATION VOLUME
METHOD OF WELL EVACUATION SUBMERSIBLE PUMP/GEL T BAILER/B-K PUMP
METHOD OF SAMPLE COLLECTION DEDICATED T BAILER/GEL-T BAILER/B-K BAILER
TOTAL VOLUME OF WATER REMOVED ___ gal

CASING DIAMETER ☐ 2 INCHES ☐ 4 INCHES
CASING MATERIAL ☐ PVC ☐ TEFLON ☐ STEEL
MEASURING POINT ELEVATION (MSL) ___ 1/100 ft
WATER TABLE ELEVATION (MSL) ___ 1/100 ft
pH/SPECIAL CONDITION METER CAL (DATE/TIME) ___
pH BUFFER SOLUTION USED ___
STEEL GUARD PIPE AROUND CASING ☐ YES ☐ NO
LOCKING CAP ☑ YES ☐ NO
PROTECTIVE ABUTMENT ☐ YES ☐ NO
WELL INTEGRITY SATISFACTORY ☐ YES ☐ NO
WELL YIELD ☐ LOW ☐ MEDIUM ☐ HIGH

CONTAINERS

PERSONNEL	DATE	TIME	NO.	TYPE	PRESERV	PARAMETER

FIELD ANALYSIS

VOLUME PURGED (GAL)							
TIME (MILITARY)	1235						
pH (S.U.)	6.34						
CONDUCTIVITY mS/m	14.2						
WATER TEMP (°C)	18.91						
TURBIDITY (SUBJECTIVE)*	16						
ODOR (SUBJECTIVE)**							

* (1) clear (2) slight (3) moderate (4) high ** (1) none (2) faint (3) moderate (4) high

APPENDIX B

Laboratory Analytical Reports

Pace Analytical®
www.pacelabs.com

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Pace Analytical Services, Inc.
2225 Riverside Drive
Asheville, NC 28804
Phone: 828.254.7176
Fax: 828.252.4618

June 07, 2007

Mr. Connel Ware
S&ME
3718 Old Battleground Rd.
Greensboro, NC 27410

RE: Lab Project Number: 92145537
Client Project ID: CASWELL COUNTY LANDFILL

Dear Mr. Ware:

Enclosed are the analytical results for sample(s) received by the laboratory on May 30, 2007. 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 Charlotte laboratory unless otherwise footnoted.

The results relate only to samples in this report.

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

Sincerely,

Kevin Herring
kevin.herring@pacelabs.com
Project Manager

Enclosures

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www.pacelabs.com

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Pace Analytical Services, Inc.
2225 Riverside Drive
Asheville, NC 28804
Phone: 828.254.7176
Fax: 828.252.4618

Lab Project Number: 92145537
Client Project ID: CASWELL COUNTY LANDFILL

Lab Sample No: 928447168 | Project Sample Number: 92145537-001 | Date Collected: 05/29/07 14:20
Client Sample ID: SW-1 | Matrix: Water | Date Received: 05/30/07 15:25

Parameters	Results	Units	Report Limit	DF	Analyzed	By	CAS No.	Qual	RegLmt
Metals									
Trace ICP Metals	Prep/Method: EPA 200.7 / EPA 200.7								
Arsenic	ND	ug/l	5.0	1.0	06/05/07 17:07	SHB	7440-38-2		
Barium	19.	ug/l	5.0	1.0	06/05/07 17:07	SHB	7440-39-3		
Cadmium	ND	ug/l	1.0	1.0	06/05/07 17:07	SHB	7440-43-9		
Chromium	ND	ug/l	5.0	1.0	06/05/07 17:07	SHB	7440-47-3		
Lead	ND	ug/l	5.0	1.0	06/05/07 17:07	SHB	7439-92-1		
Selenium	ND	ug/l	10.	1.0	06/05/07 17:07	SHB	7782-49-2		
Silver	ND	ug/l	5.0	1.0	06/05/07 17:07	SHB	7440-22-4		
Date Digested	06/04/07 16:10				06/04/07 16:10				
Mercury, CVAAS, in Water	Method: EPA 245.1								
Mercury	ND	ug/l	0.20	1.0	06/01/07 11:50	ALV	7439-97-6		
GC/MS Volatiles									
GC/MS VOCs by 8260, low level	Method: EPA 8260								
Acetone	ND	ug/l	25.	1.0	05/31/07 18:39	MSF	67-64-1		
Benzene	ND	ug/l	1.0	1.0	05/31/07 18:39	MSF	71-43-2		
Bromobenzene	ND	ug/l	1.0	1.0	05/31/07 18:39	MSF	108-86-1		
Bromochloromethane	ND	ug/l	1.0	1.0	05/31/07 18:39	MSF	74-97-5		
Bromodichloromethane	ND	ug/l	1.0	1.0	05/31/07 18:39	MSF	75-27-4		
Bromoform	ND	ug/l	1.0	1.0	05/31/07 18:39	MSF	75-25-2		
Bromomethane	ND	ug/l	1.0	1.0	05/31/07 18:39	MSF	74-83-9		
2-Butanone (MEK)	ND	ug/l	2.0	1.0	05/31/07 18:39	MSF	78-93-3		
Carbon tetrachloride	ND	ug/l	1.0	1.0	05/31/07 18:39	MSF	56-23-5		
Chlorobenzene	ND	ug/l	1.0	1.0	05/31/07 18:39	MSF	108-90-7		
Chloroethane	ND	ug/l	1.0	1.0	05/31/07 18:39	MSF	75-00-3		
Chloroform	ND	ug/l	1.0	1.0	05/31/07 18:39	MSF	67-66-3		
Chloromethane	ND	ug/l	1.0	1.0	05/31/07 18:39	MSF	74-87-3		
1,2-Dibromo-3-chloropropane	ND	ug/l	1.0	1.0	05/31/07 18:39	MSF	96-12-8		
Dibromochloromethane	ND	ug/l	1.0	1.0	05/31/07 18:39	MSF	124-48-1		
1,2-Dibromoethane (EDB)	ND	ug/l	1.0	1.0	05/31/07 18:39	MSF	106-93-4		
Dibromomethane	ND	ug/l	1.0	1.0	05/31/07 18:39	MSF	74-95-3		
1,2-Dichlorobenzene	ND	ug/l	1.0	1.0	05/31/07 18:39	MSF	95-50-1		
1,4-Dichlorobenzene	ND	ug/l	1.0	1.0	05/31/07 18:39	MSF	106-46-7		
1,1-Dichloroethane	ND	ug/l	1.0	1.0	05/31/07 18:39	MSF	75-34-3		
1,2-Dichloroethane	ND	ug/l	1.0	1.0	05/31/07 18:39	MSF	107-06-2		
1,1-Dichloroethene	ND	ug/l	1.0	1.0	05/31/07 18:39	MSF	75-35-4		
cis-1,2-Dichloroethene	ND	ug/l	1.0	1.0	05/31/07 18:39	MSF	156-59-2		

Asheville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC 99030
FL NELAP E87648

REPORT OF LABORATORY ANALYSIS
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Charlotte Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006
FL NELAP E87627

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Asheville, NC 28804
Phone: 828.254.7176
Fax: 828.252.4618

Lab Project Number: 92145537
Client Project ID: CASWELL COUNTY LANDFILL

Lab Sample No: 928447168 | Project Sample Number: 92145537-001 | Date Collected: 05/29/07 14:20
Client Sample ID: SW-1 | Matrix: Water | Date Received: 05/30/07 15:25

Parameters	Results	Units	Report Limit	DF	Analyzed	By	CAS No.	Qual	RegLmt
trans-1,2-Dichloroethene	ND	ug/l	1.0	1.0	05/31/07 18:39	MSF	156-60-5		
1,2-Dichloropropane	ND	ug/l	1.0	1.0	05/31/07 18:39	MSF	78-87-5		
Ethylbenzene	ND	ug/l	1.0	1.0	05/31/07 18:39	MSF	100-41-4		
Methylene chloride	ND	ug/l	2.0	1.0	05/31/07 18:39	MSF	75-09-2		
Styrene	ND	ug/l	1.0	1.0	05/31/07 18:39	MSF	100-42-5		
1,1,1,2-Tetrachloroethane	ND	ug/l	1.0	1.0	05/31/07 18:39	MSF	630-20-6		
1,1,2,2-Tetrachloroethane	ND	ug/l	1.0	1.0	05/31/07 18:39	MSF	79-34-5		
Tetrachloroethene	ND	ug/l	1.0	1.0	05/31/07 18:39	MSF	127-18-4		
Toluene	ND	ug/l	1.0	1.0	05/31/07 18:39	MSF	108-88-3		
1,1,1-Trichloroethane	ND	ug/l	1.0	1.0	05/31/07 18:39	MSF	71-55-6		
1,1,2-Trichloroethane	ND	ug/l	1.0	1.0	05/31/07 18:39	MSF	79-00-5		
Trichloroethene	ND	ug/l	1.0	1.0	05/31/07 18:39	MSF	79-01-6		
Trichlorofluoromethane	ND	ug/l	1.0	1.0	05/31/07 18:39	MSF	75-69-4		
1,2,3-Trichloropropane	ND	ug/l	1.0	1.0	05/31/07 18:39	MSF	96-18-4		
Vinyl chloride	ND	ug/l	1.0	1.0	05/31/07 18:39	MSF	75-01-4		
m&p-Xylene	ND	ug/l	2.0	1.0	05/31/07 18:39	MSF			
o-Xylene	ND	ug/l	1.0	1.0	05/31/07 18:39	MSF	95-47-6		
Toluene-d8 (S)	100	%		1.0	05/31/07 18:39	MSF	2037-26-5		
4-Bromofluorobenzene (S)	97	%		1.0	05/31/07 18:39	MSF	460-00-4		
Dibromofluoromethane (S)	99	%		1.0	05/31/07 18:39	MSF	1868-53-7		
1,2-Dichloroethane-d4 (S)	97	%		1.0	05/31/07 18:39	MSF	17060-07-0		

Asheville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC 99030
FL NELAP E87648

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NC Drinking Water 37706
SC 99006
FL NELAP E87627

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Lab Project Number: 92145537
Client Project ID: CASWELL COUNTY LANDFILL

Lab Sample No: 928447176 | Project Sample Number: 92145537-002 | Date Collected: 05/29/07 12:35
Client Sample ID: SW-2 | Matrix: Water | Date Received: 05/30/07 15:25

Parameters	Results	Units	Report Limit	DF	Analyzed	By	CAS No.	Qual	RegLmt
Metals									
Trace ICP Metals	Prep/Method: EPA 200.7 / EPA 200.7								
Arsenic	ND	ug/l	5.0	1.0	06/05/07 17:10	SHB	7440-38-2		
Barium	17.	ug/l	5.0	1.0	06/05/07 17:10	SHB	7440-39-3		
Cadmium	ND	ug/l	1.0	1.0	06/05/07 17:10	SHB	7440-43-9		
Chromium	ND	ug/l	5.0	1.0	06/05/07 17:10	SHB	7440-47-3		
Lead	ND	ug/l	5.0	1.0	06/05/07 17:10	SHB	7439-92-1		
Selenium	ND	ug/l	10.	1.0	06/05/07 17:10	SHB	7782-49-2		
Silver	ND	ug/l	5.0	1.0	06/05/07 17:10	SHB	7440-22-4		
Date Digested	06/04/07 16:10				06/04/07 16:10				
Mercury, CVAAS, in Water	Method: EPA 245.1								
Mercury	ND	ug/l	0.20	1.0	06/01/07 11:55	ALV	7439-97-6		
GC/MS Volatiles									
GC/MS VOCs by 8260, low level	Method: EPA 8260								
Acetone	ND	ug/l	25.	1.0	05/31/07 19:02	MSF	67-64-1		
Benzene	ND	ug/l	1.0	1.0	05/31/07 19:02	MSF	71-43-2		
Bromobenzene	ND	ug/l	1.0	1.0	05/31/07 19:02	MSF	108-86-1		
Bromochloromethane	ND	ug/l	1.0	1.0	05/31/07 19:02	MSF	74-97-5		
Bromodichloromethane	ND	ug/l	1.0	1.0	05/31/07 19:02	MSF	75-27-4		
Bromoform	ND	ug/l	1.0	1.0	05/31/07 19:02	MSF	75-25-2		
Bromomethane	ND	ug/l	1.0	1.0	05/31/07 19:02	MSF	74-83-9		
2-Butanone (MEK)	ND	ug/l	2.0	1.0	05/31/07 19:02	MSF	78-93-3		
Carbon tetrachloride	ND	ug/l	1.0	1.0	05/31/07 19:02	MSF	56-23-5		
Chlorobenzene	ND	ug/l	1.0	1.0	05/31/07 19:02	MSF	108-90-7		
Chloroethane	ND	ug/l	1.0	1.0	05/31/07 19:02	MSF	75-00-3		
Chloroform	ND	ug/l	1.0	1.0	05/31/07 19:02	MSF	67-66-3		
Chloromethane	ND	ug/l	1.0	1.0	05/31/07 19:02	MSF	74-87-3		
1,2-Dibromo-3-chloropropane	ND	ug/l	1.0	1.0	05/31/07 19:02	MSF	96-12-8		
Dibromochloromethane	ND	ug/l	1.0	1.0	05/31/07 19:02	MSF	124-48-1		
1,2-Dibromoethane (EDB)	ND	ug/l	1.0	1.0	05/31/07 19:02	MSF	106-93-4		
Dibromomethane	ND	ug/l	1.0	1.0	05/31/07 19:02	MSF	74-95-3		
1,2-Dichlorobenzene	ND	ug/l	1.0	1.0	05/31/07 19:02	MSF	95-50-1		
1,4-Dichlorobenzene	ND	ug/l	1.0	1.0	05/31/07 19:02	MSF	106-46-7		
1,1-Dichloroethane	ND	ug/l	1.0	1.0	05/31/07 19:02	MSF	75-34-3		
1,2-Dichloroethane	ND	ug/l	1.0	1.0	05/31/07 19:02	MSF	107-06-2		
1,1-Dichloroethene	ND	ug/l	1.0	1.0	05/31/07 19:02	MSF	75-35-4		
cis-1,2-Dichloroethene	ND	ug/l	1.0	1.0	05/31/07 19:02	MSF	156-59-2		

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Lab Project Number: 92145537
Client Project ID: CASWELL COUNTY LANDFILL

Lab Sample No: 928447176 | Project Sample Number: 92145537-002 | Date Collected: 05/29/07 12:35
Client Sample ID: SW-2 | Matrix: Water | Date Received: 05/30/07 15:25

Parameters	Results	Units	Report Limit	DF	Analyzed	By	CAS No.	Qual	RegLmt
trans-1,2-Dichloroethene	ND	ug/l	1.0	1.0	05/31/07 19:02	MSF	156-60-5		
1,2-Dichloropropane	ND	ug/l	1.0	1.0	05/31/07 19:02	MSF	78-87-5		
Ethylbenzene	ND	ug/l	1.0	1.0	05/31/07 19:02	MSF	100-41-4		
Methylene chloride	ND	ug/l	2.0	1.0	05/31/07 19:02	MSF	75-09-2		
Styrene	ND	ug/l	1.0	1.0	05/31/07 19:02	MSF	100-42-5		
1,1,1,2-Tetrachloroethane	ND	ug/l	1.0	1.0	05/31/07 19:02	MSF	630-20-6		
1,1,2,2-Tetrachloroethane	ND	ug/l	1.0	1.0	05/31/07 19:02	MSF	79-34-5		
Tetrachloroethene	ND	ug/l	1.0	1.0	05/31/07 19:02	MSF	127-18-4		
Toluene	ND	ug/l	1.0	1.0	05/31/07 19:02	MSF	108-88-3		
1,1,1-Trichloroethane	ND	ug/l	1.0	1.0	05/31/07 19:02	MSF	71-55-6		
1,1,2-Trichloroethane	ND	ug/l	1.0	1.0	05/31/07 19:02	MSF	79-00-5		
Trichloroethene	ND	ug/l	1.0	1.0	05/31/07 19:02	MSF	79-01-6		
Trichlorofluoromethane	ND	ug/l	1.0	1.0	05/31/07 19:02	MSF	75-69-4		
1,2,3-Trichloropropane	ND	ug/l	1.0	1.0	05/31/07 19:02	MSF	96-18-4		
Vinyl chloride	ND	ug/l	1.0	1.0	05/31/07 19:02	MSF	75-01-4		
m&p-Xylene	ND	ug/l	2.0	1.0	05/31/07 19:02	MSF			
o-Xylene	ND	ug/l	1.0	1.0	05/31/07 19:02	MSF	95-47-6		
Toluene-d8 (S)	99	%		1.0	05/31/07 19:02	MSF	2037-26-5		
4-Bromofluorobenzene (S)	99	%		1.0	05/31/07 19:02	MSF	460-00-4		
Dibromofluoromethane (S)	97	%		1.0	05/31/07 19:02	MSF	1868-53-7		
1,2-Dichloroethane-d4 (S)	93	%		1.0	05/31/07 19:02	MSF	17060-07-0		

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Lab Project Number: 92145537
Client Project ID: CASWELL COUNTY LANDFILL

Lab Sample No: 928447184 | Project Sample Number: 92145537-003 | Date Collected: 05/29/07 15:30
Client Sample ID: MW-1 | Matrix: Water | Date Received: 05/30/07 15:25

Parameters	Results	Units	Report Limit	DF	Analyzed	By	CAS No.	Qual	RegLmt
Metals									
Trace ICP Metals	Prep/Method: EPA 200.7 / EPA 200.7								
Arsenic	ND	ug/l	5.0	1.0	06/05/07 17:13	SHB	7440-38-2		
Barium	19.	ug/l	5.0	1.0	06/05/07 17:13	SHB	7440-39-3		
Cadmium	ND	ug/l	1.0	1.0	06/05/07 17:13	SHB	7440-43-9		
Chromium	ND	ug/l	5.0	1.0	06/05/07 17:13	SHB	7440-47-3		
Lead	ND	ug/l	5.0	1.0	06/05/07 17:13	SHB	7439-92-1		
Selenium	ND	ug/l	10.	1.0	06/05/07 17:13	SHB	7782-49-2		
Silver	ND	ug/l	5.0	1.0	06/05/07 17:13	SHB	7440-22-4		
Date Digested	06/04/07 16:10				06/04/07 16:10				
Mercury, CVAAS, in Water	Method: EPA 245.1								
Mercury	ND	ug/l	0.20	1.0	06/01/07 12:00	ALV	7439-97-6		
GC/MS Volatiles									
GC/MS VOCs by 8260, low level	Method: EPA 8260								
Acetone	ND	ug/l	25.	1.0	05/31/07 19:26	MSF	67-64-1		
Benzene	ND	ug/l	1.0	1.0	05/31/07 19:26	MSF	71-43-2		
Bromobenzene	ND	ug/l	1.0	1.0	05/31/07 19:26	MSF	108-86-1		
Bromochloromethane	ND	ug/l	1.0	1.0	05/31/07 19:26	MSF	74-97-5		
Bromodichloromethane	ND	ug/l	1.0	1.0	05/31/07 19:26	MSF	75-27-4		
Bromoform	ND	ug/l	1.0	1.0	05/31/07 19:26	MSF	75-25-2		
Bromomethane	ND	ug/l	1.0	1.0	05/31/07 19:26	MSF	74-83-9		
2-Butanone (MEK)	ND	ug/l	2.0	1.0	05/31/07 19:26	MSF	78-93-3		
Carbon tetrachloride	ND	ug/l	1.0	1.0	05/31/07 19:26	MSF	56-23-5		
Chlorobenzene	ND	ug/l	1.0	1.0	05/31/07 19:26	MSF	108-90-7		
Chloroethane	ND	ug/l	1.0	1.0	05/31/07 19:26	MSF	75-00-3		
Chloroform	ND	ug/l	1.0	1.0	05/31/07 19:26	MSF	67-66-3		
Chloromethane	ND	ug/l	1.0	1.0	05/31/07 19:26	MSF	74-87-3		
1,2-Dibromo-3-chloropropane	ND	ug/l	1.0	1.0	05/31/07 19:26	MSF	96-12-8		
Dibromochloromethane	ND	ug/l	1.0	1.0	05/31/07 19:26	MSF	124-48-1		
1,2-Dibromoethane (EDB)	ND	ug/l	1.0	1.0	05/31/07 19:26	MSF	106-93-4		
Dibromomethane	ND	ug/l	1.0	1.0	05/31/07 19:26	MSF	74-95-3		
1,2-Dichlorobenzene	ND	ug/l	1.0	1.0	05/31/07 19:26	MSF	95-50-1		
1,4-Dichlorobenzene	ND	ug/l	1.0	1.0	05/31/07 19:26	MSF	106-46-7		
1,1-Dichloroethane	ND	ug/l	1.0	1.0	05/31/07 19:26	MSF	75-34-3		
1,2-Dichloroethane	ND	ug/l	1.0	1.0	05/31/07 19:26	MSF	107-06-2		
1,1-Dichloroethene	ND	ug/l	1.0	1.0	05/31/07 19:26	MSF	75-35-4		
cis-1,2-Dichloroethene	ND	ug/l	1.0	1.0	05/31/07 19:26	MSF	156-59-2		

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Lab Project Number: 92145537
Client Project ID: CASWELL COUNTY LANDFILL

Lab Sample No: 928447184 | Project Sample Number: 92145537-003 | Date Collected: 05/29/07 15:30
Client Sample ID: MW-1 | Matrix: Water | Date Received: 05/30/07 15:25

Parameters	Results	Units	Report Limit	DF	Analyzed	By	CAS No.	Qual	RegLmt
trans-1,2-Dichloroethene	ND	ug/l	1.0	1.0	05/31/07 19:26	MSF	156-60-5		
1,2-Dichloropropane	ND	ug/l	1.0	1.0	05/31/07 19:26	MSF	78-87-5		
Ethylbenzene	ND	ug/l	1.0	1.0	05/31/07 19:26	MSF	100-41-4		
Methylene chloride	ND	ug/l	2.0	1.0	05/31/07 19:26	MSF	75-09-2		
Styrene	ND	ug/l	1.0	1.0	05/31/07 19:26	MSF	100-42-5		
1,1,1,2-Tetrachloroethane	ND	ug/l	1.0	1.0	05/31/07 19:26	MSF	630-20-6		
1,1,2,2-Tetrachloroethane	ND	ug/l	1.0	1.0	05/31/07 19:26	MSF	79-34-5		
Tetrachloroethene	ND	ug/l	1.0	1.0	05/31/07 19:26	MSF	127-18-4		
Toluene	ND	ug/l	1.0	1.0	05/31/07 19:26	MSF	108-88-3		
1,1,1-Trichloroethane	ND	ug/l	1.0	1.0	05/31/07 19:26	MSF	71-55-6		
1,1,2-Trichloroethane	ND	ug/l	1.0	1.0	05/31/07 19:26	MSF	79-00-5		
Trichloroethene	ND	ug/l	1.0	1.0	05/31/07 19:26	MSF	79-01-6		
Trichlorofluoromethane	ND	ug/l	1.0	1.0	05/31/07 19:26	MSF	75-69-4		
1,2,3-Trichloropropane	ND	ug/l	1.0	1.0	05/31/07 19:26	MSF	96-18-4		
Vinyl chloride	ND	ug/l	1.0	1.0	05/31/07 19:26	MSF	75-01-4		
m&p-Xylene	ND	ug/l	2.0	1.0	05/31/07 19:26	MSF			
o-Xylene	ND	ug/l	1.0	1.0	05/31/07 19:26	MSF	95-47-6		
Toluene-d8 (S)	99	%		1.0	05/31/07 19:26	MSF	2037-26-5		
4-Bromofluorobenzene (S)	98	%		1.0	05/31/07 19:26	MSF	460-00-4		
Dibromofluoromethane (S)	96	%		1.0	05/31/07 19:26	MSF	1868-53-7		
1,2-Dichloroethane-d4 (S)	92	%		1.0	05/31/07 19:26	MSF	17060-07-0		

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Lab Project Number: 92145537
Client Project ID: CASWELL COUNTY LANDFILL

Lab Sample No: 928447192 | Project Sample Number: 92145537-004 | Date Collected: 05/29/07 13:40
Client Sample ID: MW-2 | Matrix: Water | Date Received: 05/30/07 15:25

Parameters	Results	Units	Report Limit	DF	Analyzed	By	CAS No.	Qual	RegLmt
Metals									
Trace ICP Metals	Prep/Method: EPA 200.7 / EPA 200.7								
Arsenic	ND	ug/l	5.0	1.0	06/05/07 17:23	SHB	7440-38-2		
Barium	71.	ug/l	5.0	1.0	06/05/07 17:23	SHB	7440-39-3		
Cadmium	ND	ug/l	1.0	1.0	06/05/07 17:23	SHB	7440-43-9		
Chromium	ND	ug/l	5.0	1.0	06/05/07 17:23	SHB	7440-47-3		
Lead	ND	ug/l	5.0	1.0	06/05/07 17:23	SHB	7439-92-1		
Selenium	ND	ug/l	10.	1.0	06/05/07 17:23	SHB	7782-49-2		
Silver	ND	ug/l	5.0	1.0	06/05/07 17:23	SHB	7440-22-4		
Date Digested	06/04/07 16:10				06/04/07 16:10				
Mercury, CVAAS, in Water	Method: EPA 245.1								
Mercury	ND	ug/l	0.20	1.0	06/01/07 12:03	ALV	7439-97-6		
GC/MS Volatiles									
GC/MS VOCs by 8260, low level	Method: EPA 8260								
Acetone	ND	ug/l	25.	1.0	06/01/07 17:38	MSF	67-64-1		
Benzene	2.2	ug/l	1.0	1.0	06/01/07 17:38	MSF	71-43-2		
Bromobenzene	ND	ug/l	1.0	1.0	06/01/07 17:38	MSF	108-86-1		
Bromochloromethane	ND	ug/l	1.0	1.0	06/01/07 17:38	MSF	74-97-5		
Bromodichloromethane	ND	ug/l	1.0	1.0	06/01/07 17:38	MSF	75-27-4		
Bromoform	ND	ug/l	1.0	1.0	06/01/07 17:38	MSF	75-25-2		
Bromomethane	ND	ug/l	1.0	1.0	06/01/07 17:38	MSF	74-83-9		
2-Butanone (MEK)	ND	ug/l	2.0	1.0	06/01/07 17:38	MSF	78-93-3		
Carbon tetrachloride	ND	ug/l	1.0	1.0	06/01/07 17:38	MSF	56-23-5		
Chlorobenzene	25.	ug/l	1.0	1.0	06/01/07 17:38	MSF	108-90-7		
Chloroethane	2.7	ug/l	1.0	1.0	06/01/07 17:38	MSF	75-00-3		
Chloroform	ND	ug/l	1.0	1.0	06/01/07 17:38	MSF	67-66-3		
Chloromethane	ND	ug/l	1.0	1.0	06/01/07 17:38	MSF	74-87-3		
1,2-Dibromo-3-chloropropane	ND	ug/l	1.0	1.0	06/01/07 17:38	MSF	96-12-8		
Dibromochloromethane	ND	ug/l	1.0	1.0	06/01/07 17:38	MSF	124-48-1		
1,2-Dibromoethane (EDB)	ND	ug/l	1.0	1.0	06/01/07 17:38	MSF	106-93-4		
Dibromomethane	ND	ug/l	1.0	1.0	06/01/07 17:38	MSF	74-95-3		
1,2-Dichlorobenzene	3.0	ug/l	1.0	1.0	06/01/07 17:38	MSF	95-50-1		
1,4-Dichlorobenzene	21.	ug/l	1.0	1.0	06/01/07 17:38	MSF	106-46-7		
1,1-Dichloroethane	ND	ug/l	1.0	1.0	06/01/07 17:38	MSF	75-34-3		
1,2-Dichloroethane	ND	ug/l	1.0	1.0	06/01/07 17:38	MSF	107-06-2		
1,1-Dichloroethene	ND	ug/l	1.0	1.0	06/01/07 17:38	MSF	75-35-4		
cis-1,2-Dichloroethene	ND	ug/l	1.0	1.0	06/01/07 17:38	MSF	156-59-2		

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Lab Project Number: 92145537
Client Project ID: CASWELL COUNTY LANDFILL

Lab Sample No: 928447192 | Project Sample Number: 92145537-004 | Date Collected: 05/29/07 13:40
Client Sample ID: MW-2 | Matrix: Water | Date Received: 05/30/07 15:25

Parameters	Results	Units	Report Limit	DF	Analyzed	By	CAS No.	Qual	RegLmt
trans-1,2-Dichloroethene	ND	ug/l	1.0	1.0	06/01/07 17:38	MSF	156-60-5		
1,2-Dichloropropane	ND	ug/l	1.0	1.0	06/01/07 17:38	MSF	78-87-5		
Ethylbenzene	ND	ug/l	1.0	1.0	06/01/07 17:38	MSF	100-41-4		
Methylene chloride	ND	ug/l	2.0	1.0	06/01/07 17:38	MSF	75-09-2		
Styrene	ND	ug/l	1.0	1.0	06/01/07 17:38	MSF	100-42-5		
1,1,1,2-Tetrachloroethane	ND	ug/l	1.0	1.0	06/01/07 17:38	MSF	630-20-6		
1,1,2,2-Tetrachloroethane	ND	ug/l	1.0	1.0	06/01/07 17:38	MSF	79-34-5		
Tetrachloroethene	ND	ug/l	1.0	1.0	06/01/07 17:38	MSF	127-18-4		
Toluene	ND	ug/l	1.0	1.0	06/01/07 17:38	MSF	108-88-3		
1,1,1-Trichloroethane	ND	ug/l	1.0	1.0	06/01/07 17:38	MSF	71-55-6		
1,1,2-Trichloroethane	ND	ug/l	1.0	1.0	06/01/07 17:38	MSF	79-00-5		
Trichloroethene	ND	ug/l	1.0	1.0	06/01/07 17:38	MSF	79-01-6		
Trichlorofluoromethane	ND	ug/l	1.0	1.0	06/01/07 17:38	MSF	75-69-4		
1,2,3-Trichloropropane	ND	ug/l	1.0	1.0	06/01/07 17:38	MSF	96-18-4		
Vinyl chloride	ND	ug/l	1.0	1.0	06/01/07 17:38	MSF	75-01-4		
m&p-Xylene	ND	ug/l	2.0	1.0	06/01/07 17:38	MSF			
o-Xylene	1.8	ug/l	1.0	1.0	06/01/07 17:38	MSF	95-47-6		
Toluene-d8 (S)	99	%		1.0	06/01/07 17:38	MSF	2037-26-5		
4-Bromofluorobenzene (S)	100	%		1.0	06/01/07 17:38	MSF	460-00-4		
Dibromofluoromethane (S)	98	%		1.0	06/01/07 17:38	MSF	1868-53-7		
1,2-Dichloroethane-d4 (S)	96	%		1.0	06/01/07 17:38	MSF	17060-07-0		

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Lab Project Number: 92145537
Client Project ID: CASWELL COUNTY LANDFILL

Lab Sample No: 928447200 | Project Sample Number: 92145537-005 | Date Collected: 05/29/07 13:25
Client Sample ID: MW-3 | Matrix: Water | Date Received: 05/30/07 15:25

Parameters	Results	Units	Report Limit	DF	Analyzed	By	CAS No.	Qual	RegLmt
Metals									
Trace ICP Metals	Prep/Method: EPA 200.7 / EPA 200.7								
Arsenic	ND	ug/l	5.0	1.0	06/05/07 17:27	SHB	7440-38-2		
Barium	51.	ug/l	5.0	1.0	06/05/07 17:27	SHB	7440-39-3		
Cadmium	ND	ug/l	1.0	1.0	06/05/07 17:27	SHB	7440-43-9		
Chromium	ND	ug/l	5.0	1.0	06/05/07 17:27	SHB	7440-47-3		
Lead	ND	ug/l	5.0	1.0	06/05/07 17:27	SHB	7439-92-1		
Selenium	ND	ug/l	10.	1.0	06/05/07 17:27	SHB	7782-49-2		
Silver	ND	ug/l	5.0	1.0	06/05/07 17:27	SHB	7440-22-4		
Date Digested	06/04/07 16:10				06/04/07 16:10				
Mercury, CVAAS, in Water	Method: EPA 245.1								
Mercury	ND	ug/l	0.20	1.0	06/01/07 12:05	ALV	7439-97-6		
GC/MS Volatiles									
GC/MS VOCs by 8260, low level	Method: EPA 8260								
Acetone	ND	ug/l	25.	1.0	06/01/07 18:02	MSF	67-64-1		
Benzene	ND	ug/l	1.0	1.0	06/01/07 18:02	MSF	71-43-2		
Bromobenzene	ND	ug/l	1.0	1.0	06/01/07 18:02	MSF	108-86-1		
Bromochloromethane	ND	ug/l	1.0	1.0	06/01/07 18:02	MSF	74-97-5		
Bromodichloromethane	ND	ug/l	1.0	1.0	06/01/07 18:02	MSF	75-27-4		
Bromoform	ND	ug/l	1.0	1.0	06/01/07 18:02	MSF	75-25-2		
Bromomethane	ND	ug/l	1.0	1.0	06/01/07 18:02	MSF	74-83-9		
2-Butanone (MEK)	ND	ug/l	2.0	1.0	06/01/07 18:02	MSF	78-93-3		
Carbon tetrachloride	ND	ug/l	1.0	1.0	06/01/07 18:02	MSF	56-23-5		
Chlorobenzene	ND	ug/l	1.0	1.0	06/01/07 18:02	MSF	108-90-7		
Chloroethane	1.4	ug/l	1.0	1.0	06/01/07 18:02	MSF	75-00-3		
Chloroform	ND	ug/l	1.0	1.0	06/01/07 18:02	MSF	67-66-3		
Chloromethane	ND	ug/l	1.0	1.0	06/01/07 18:02	MSF	74-87-3		
1,2-Dibromo-3-chloropropane	ND	ug/l	1.0	1.0	06/01/07 18:02	MSF	96-12-8		
Dibromochloromethane	ND	ug/l	1.0	1.0	06/01/07 18:02	MSF	124-48-1		
1,2-Dibromoethane (EDB)	ND	ug/l	1.0	1.0	06/01/07 18:02	MSF	106-93-4		
Dibromomethane	ND	ug/l	1.0	1.0	06/01/07 18:02	MSF	74-95-3		
1,2-Dichlorobenzene	ND	ug/l	1.0	1.0	06/01/07 18:02	MSF	95-50-1		
1,4-Dichlorobenzene	4.8	ug/l	1.0	1.0	06/01/07 18:02	MSF	106-46-7		
1,1-Dichloroethane	ND	ug/l	1.0	1.0	06/01/07 18:02	MSF	75-34-3		
1,2-Dichloroethane	ND	ug/l	1.0	1.0	06/01/07 18:02	MSF	107-06-2		
1,1-Dichloroethene	ND	ug/l	1.0	1.0	06/01/07 18:02	MSF	75-35-4		
cis-1,2-Dichloroethene	ND	ug/l	1.0	1.0	06/01/07 18:02	MSF	156-59-2		

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Lab Project Number: 92145537
Client Project ID: CASWELL COUNTY LANDFILL

Lab Sample No: 928447218 | Project Sample Number: 92145537-006 | Date Collected: 05/29/07 13:55
Client Sample ID: MW-4 | Matrix: Water | Date Received: 05/30/07 15:25

Parameters	Results	Units	Report Limit	DF	Analyzed	By	CAS No.	Qual	RegLmt
Metals									
Trace ICP Metals	Prep/Method: EPA 200.7 / EPA 200.7								
Arsenic	ND	ug/l	5.0	1.0	06/05/07 17:31	SHB	7440-38-2		
Barium	61.	ug/l	5.0	1.0	06/05/07 17:31	SHB	7440-39-3		
Cadmium	ND	ug/l	1.0	1.0	06/05/07 17:31	SHB	7440-43-9		
Chromium	ND	ug/l	5.0	1.0	06/05/07 17:31	SHB	7440-47-3		
Lead	5.5	ug/l	5.0	1.0	06/05/07 17:31	SHB	7439-92-1		
Selenium	ND	ug/l	10.	1.0	06/05/07 17:31	SHB	7782-49-2		
Silver	ND	ug/l	5.0	1.0	06/05/07 17:31	SHB	7440-22-4		
Date Digested	06/04/07 16:10				06/04/07 16:10				
Mercury, CVAAS, in Water	Method: EPA 245.1								
Mercury	ND	ug/l	0.20	1.0	06/01/07 12:08	ALV	7439-97-6		
GC/MS Volatiles									
GC/MS VOCs by 8260, low level	Method: EPA 8260								
Acetone	ND	ug/l	25.	1.0	06/01/07 18:25	MSF	67-64-1		
Benzene	ND	ug/l	1.0	1.0	06/01/07 18:25	MSF	71-43-2		
Bromobenzene	ND	ug/l	1.0	1.0	06/01/07 18:25	MSF	108-86-1		
Bromochloromethane	ND	ug/l	1.0	1.0	06/01/07 18:25	MSF	74-97-5		
Bromodichloromethane	ND	ug/l	1.0	1.0	06/01/07 18:25	MSF	75-27-4		
Bromoform	ND	ug/l	1.0	1.0	06/01/07 18:25	MSF	75-25-2		
Bromomethane	ND	ug/l	1.0	1.0	06/01/07 18:25	MSF	74-83-9		
2-Butanone (MEK)	ND	ug/l	2.0	1.0	06/01/07 18:25	MSF	78-93-3		
Carbon tetrachloride	ND	ug/l	1.0	1.0	06/01/07 18:25	MSF	56-23-5		
Chlorobenzene	5.0	ug/l	1.0	1.0	06/01/07 18:25	MSF	108-90-7		
Chloroethane	1.3	ug/l	1.0	1.0	06/01/07 18:25	MSF	75-00-3		
Chloroform	ND	ug/l	1.0	1.0	06/01/07 18:25	MSF	67-66-3		
Chloromethane	ND	ug/l	1.0	1.0	06/01/07 18:25	MSF	74-87-3		
1,2-Dibromo-3-chloropropane	ND	ug/l	1.0	1.0	06/01/07 18:25	MSF	96-12-8		
Dibromochloromethane	ND	ug/l	1.0	1.0	06/01/07 18:25	MSF	124-48-1		
1,2-Dibromoethane (EDB)	ND	ug/l	1.0	1.0	06/01/07 18:25	MSF	106-93-4		
Dibromomethane	ND	ug/l	1.0	1.0	06/01/07 18:25	MSF	74-95-3		
1,2-Dichlorobenzene	1.1	ug/l	1.0	1.0	06/01/07 18:25	MSF	95-50-1		
1,4-Dichlorobenzene	10.	ug/l	1.0	1.0	06/01/07 18:25	MSF	106-46-7		
1,1-Dichloroethane	ND	ug/l	1.0	1.0	06/01/07 18:25	MSF	75-34-3		
1,2-Dichloroethane	ND	ug/l	1.0	1.0	06/01/07 18:25	MSF	107-06-2		
1,1-Dichloroethene	ND	ug/l	1.0	1.0	06/01/07 18:25	MSF	75-35-4		
cis-1,2-Dichloroethene	ND	ug/l	1.0	1.0	06/01/07 18:25	MSF	156-59-2		

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Lab Project Number: 92145537
Client Project ID: CASWELL COUNTY LANDFILL

Lab Sample No: 928447218 | Project Sample Number: 92145537-006 | Date Collected: 05/29/07 13:55
Client Sample ID: MW-4 | Matrix: Water | Date Received: 05/30/07 15:25

Parameters	Results	Units	Report Limit	DF	Analyzed	By	CAS No.	Qual	RegLmt
trans-1,2-Dichloroethene	ND	ug/l	1.0	1.0	06/01/07 18:25	MSF	156-60-5		
1,2-Dichloropropane	ND	ug/l	1.0	1.0	06/01/07 18:25	MSF	78-87-5		
Ethylbenzene	ND	ug/l	1.0	1.0	06/01/07 18:25	MSF	100-41-4		
Methylene chloride	ND	ug/l	2.0	1.0	06/01/07 18:25	MSF	75-09-2		
Styrene	ND	ug/l	1.0	1.0	06/01/07 18:25	MSF	100-42-5		
1,1,1,2-Tetrachloroethane	ND	ug/l	1.0	1.0	06/01/07 18:25	MSF	630-20-6		
1,1,2,2-Tetrachloroethane	ND	ug/l	1.0	1.0	06/01/07 18:25	MSF	79-34-5		
Tetrachloroethene	ND	ug/l	1.0	1.0	06/01/07 18:25	MSF	127-18-4		
Toluene	ND	ug/l	1.0	1.0	06/01/07 18:25	MSF	108-88-3		
1,1,1-Trichloroethane	ND	ug/l	1.0	1.0	06/01/07 18:25	MSF	71-55-6		
1,1,2-Trichloroethane	ND	ug/l	1.0	1.0	06/01/07 18:25	MSF	79-00-5		
Trichloroethene	ND	ug/l	1.0	1.0	06/01/07 18:25	MSF	79-01-6		
Trichlorofluoromethane	ND	ug/l	1.0	1.0	06/01/07 18:25	MSF	75-69-4		
1,2,3-Trichloropropane	ND	ug/l	1.0	1.0	06/01/07 18:25	MSF	96-18-4		
Vinyl chloride	ND	ug/l	1.0	1.0	06/01/07 18:25	MSF	75-01-4		
m&p-Xylene	ND	ug/l	2.0	1.0	06/01/07 18:25	MSF			
o-Xylene	ND	ug/l	1.0	1.0	06/01/07 18:25	MSF	95-47-6		
Toluene-d8 (S)	97	%		1.0	06/01/07 18:25	MSF	2037-26-5		
4-Bromofluorobenzene (S)	98	%		1.0	06/01/07 18:25	MSF	460-00-4		
Dibromofluoromethane (S)	93	%		1.0	06/01/07 18:25	MSF	1868-53-7		
1,2-Dichloroethane-d4 (S)	91	%		1.0	06/01/07 18:25	MSF	17060-07-0		

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Lab Project Number: 92145537
Client Project ID: CASWELL COUNTY LANDFILL

Lab Sample No: 928447226 | Project Sample Number: 92145537-007 | Date Collected: 05/29/07 13:10
Client Sample ID: MW-5 | Matrix: Water | Date Received: 05/30/07 15:25

Parameters	Results	Units	Report Limit	DF	Analyzed	By	CAS No.	Qual	RegLmt
Metals									
Trace ICP Metals	Prep/Method: EPA 200.7 / EPA 200.7								
Arsenic	ND	ug/l	5.0	1.0	06/05/07 17:35	SHB	7440-38-2		
Barium	25.	ug/l	5.0	1.0	06/05/07 17:35	SHB	7440-39-3		
Cadmium	ND	ug/l	1.0	1.0	06/05/07 17:35	SHB	7440-43-9		
Chromium	ND	ug/l	5.0	1.0	06/05/07 17:35	SHB	7440-47-3		
Lead	ND	ug/l	5.0	1.0	06/05/07 17:35	SHB	7439-92-1		
Selenium	ND	ug/l	10.	1.0	06/05/07 17:35	SHB	7782-49-2		
Silver	ND	ug/l	5.0	1.0	06/05/07 17:35	SHB	7440-22-4		
Date Digested	06/04/07 16:10				06/04/07 16:10				
Mercury, CVAAS, in Water	Method: EPA 245.1								
Mercury	ND	ug/l	0.20	1.0	06/01/07 12:10	ALV	7439-97-6		
GC/MS Volatiles									
GC/MS VOCs by 8260, low level	Method: EPA 8260								
Acetone	ND	ug/l	25.	1.0	06/01/07 18:49	MSF	67-64-1		
Benzene	ND	ug/l	1.0	1.0	06/01/07 18:49	MSF	71-43-2		
Bromobenzene	ND	ug/l	1.0	1.0	06/01/07 18:49	MSF	108-86-1		
Bromochloromethane	ND	ug/l	1.0	1.0	06/01/07 18:49	MSF	74-97-5		
Bromodichloromethane	ND	ug/l	1.0	1.0	06/01/07 18:49	MSF	75-27-4		
Bromoform	ND	ug/l	1.0	1.0	06/01/07 18:49	MSF	75-25-2		
Bromomethane	ND	ug/l	1.0	1.0	06/01/07 18:49	MSF	74-83-9		
2-Butanone (MEK)	ND	ug/l	2.0	1.0	06/01/07 18:49	MSF	78-93-3		
Carbon tetrachloride	ND	ug/l	1.0	1.0	06/01/07 18:49	MSF	56-23-5		
Chlorobenzene	ND	ug/l	1.0	1.0	06/01/07 18:49	MSF	108-90-7		
Chloroethane	ND	ug/l	1.0	1.0	06/01/07 18:49	MSF	75-00-3		
Chloroform	ND	ug/l	1.0	1.0	06/01/07 18:49	MSF	67-66-3		
Chloromethane	ND	ug/l	1.0	1.0	06/01/07 18:49	MSF	74-87-3		
1,2-Dibromo-3-chloropropane	ND	ug/l	1.0	1.0	06/01/07 18:49	MSF	96-12-8		
Dibromochloromethane	ND	ug/l	1.0	1.0	06/01/07 18:49	MSF	124-48-1		
1,2-Dibromoethane (EDB)	ND	ug/l	1.0	1.0	06/01/07 18:49	MSF	106-93-4		
Dibromomethane	ND	ug/l	1.0	1.0	06/01/07 18:49	MSF	74-95-3		
1,2-Dichlorobenzene	ND	ug/l	1.0	1.0	06/01/07 18:49	MSF	95-50-1		
1,4-Dichlorobenzene	5.4	ug/l	1.0	1.0	06/01/07 18:49	MSF	106-46-7		
1,1-Dichloroethane	ND	ug/l	1.0	1.0	06/01/07 18:49	MSF	75-34-3		
1,2-Dichloroethane	ND	ug/l	1.0	1.0	06/01/07 18:49	MSF	107-06-2		
1,1-Dichloroethene	ND	ug/l	1.0	1.0	06/01/07 18:49	MSF	75-35-4		
cis-1,2-Dichloroethene	ND	ug/l	1.0	1.0	06/01/07 18:49	MSF	156-59-2		

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Lab Project Number: 92145537
Client Project ID: CASWELL COUNTY LANDFILL

Lab Sample No: 928447226 | Project Sample Number: 92145537-007 | Date Collected: 05/29/07 13:10
Client Sample ID: MW-5 | Matrix: Water | Date Received: 05/30/07 15:25

Parameters	Results	Units	Report Limit	DF	Analyzed	By	CAS No.	Qual	RegLmt
trans-1,2-Dichloroethene	ND	ug/l	1.0	1.0	06/01/07 18:49	MSF	156-60-5		
1,2-Dichloropropane	ND	ug/l	1.0	1.0	06/01/07 18:49	MSF	78-87-5		
Ethylbenzene	ND	ug/l	1.0	1.0	06/01/07 18:49	MSF	100-41-4		
Methylene chloride	ND	ug/l	2.0	1.0	06/01/07 18:49	MSF	75-09-2		
Styrene	ND	ug/l	1.0	1.0	06/01/07 18:49	MSF	100-42-5		
1,1,1,2-Tetrachloroethane	ND	ug/l	1.0	1.0	06/01/07 18:49	MSF	630-20-6		
1,1,2,2-Tetrachloroethane	ND	ug/l	1.0	1.0	06/01/07 18:49	MSF	79-34-5		
Tetrachloroethene	ND	ug/l	1.0	1.0	06/01/07 18:49	MSF	127-18-4		
Toluene	ND	ug/l	1.0	1.0	06/01/07 18:49	MSF	108-88-3		
1,1,1-Trichloroethane	ND	ug/l	1.0	1.0	06/01/07 18:49	MSF	71-55-6		
1,1,2-Trichloroethane	ND	ug/l	1.0	1.0	06/01/07 18:49	MSF	79-00-5		
Trichloroethene	ND	ug/l	1.0	1.0	06/01/07 18:49	MSF	79-01-6		
Trichlorofluoromethane	ND	ug/l	1.0	1.0	06/01/07 18:49	MSF	75-69-4		
1,2,3-Trichloropropane	ND	ug/l	1.0	1.0	06/01/07 18:49	MSF	96-18-4		
Vinyl chloride	ND	ug/l	1.0	1.0	06/01/07 18:49	MSF	75-01-4		
m&p-Xylene	ND	ug/l	2.0	1.0	06/01/07 18:49	MSF			
o-Xylene	ND	ug/l	1.0	1.0	06/01/07 18:49	MSF	95-47-6		
Toluene-d8 (S)	100	%		1.0	06/01/07 18:49	MSF	2037-26-5		
4-Bromofluorobenzene (S)	96	%		1.0	06/01/07 18:49	MSF	460-00-4		
Dibromofluoromethane (S)	103	%		1.0	06/01/07 18:49	MSF	1868-53-7		
1,2-Dichloroethane-d4 (S)	102	%		1.0	06/01/07 18:49	MSF	17060-07-0		

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Lab Project Number: 92145537
Client Project ID: CASWELL COUNTY LANDFILL

Lab Sample No: 928447234 | Project Sample Number: 92145537-008 | Date Collected: 05/29/07 12:55
Client Sample ID: MW-6 | Matrix: Water | Date Received: 05/30/07 15:25

Parameters	Results	Units	Report Limit	DF	Analyzed	By	CAS No.	Qual	RegLmt
Metals									
Trace ICP Metals	Prep/Method: EPA 200.7 / EPA 200.7								
Arsenic	ND	ug/l	5.0	1.0	06/05/07 17:38	SHB	7440-38-2		
Barium	21.	ug/l	5.0	1.0	06/05/07 17:38	SHB	7440-39-3		
Cadmium	ND	ug/l	1.0	1.0	06/05/07 17:38	SHB	7440-43-9		
Chromium	ND	ug/l	5.0	1.0	06/05/07 17:38	SHB	7440-47-3		
Lead	ND	ug/l	5.0	1.0	06/05/07 17:38	SHB	7439-92-1		
Selenium	ND	ug/l	10.	1.0	06/05/07 17:38	SHB	7782-49-2		
Silver	ND	ug/l	5.0	1.0	06/05/07 17:38	SHB	7440-22-4		
Date Digested	06/04/07 16:10				06/04/07 16:10				
Mercury, CVAAS, in Water	Method: EPA 245.1								
Mercury	ND	ug/l	0.20	1.0	06/01/07 12:13	ALV	7439-97-6		
GC/MS Volatiles									
GC/MS VOCs by 8260, low level	Method: EPA 8260								
Acetone	ND	ug/l	25.	1.0	06/01/07 19:12	MSF	67-64-1		
Benzene	ND	ug/l	1.0	1.0	06/01/07 19:12	MSF	71-43-2		
Bromobenzene	ND	ug/l	1.0	1.0	06/01/07 19:12	MSF	108-86-1		
Bromochloromethane	ND	ug/l	1.0	1.0	06/01/07 19:12	MSF	74-97-5		
Bromodichloromethane	ND	ug/l	1.0	1.0	06/01/07 19:12	MSF	75-27-4		
Bromoform	ND	ug/l	1.0	1.0	06/01/07 19:12	MSF	75-25-2		
Bromomethane	ND	ug/l	1.0	1.0	06/01/07 19:12	MSF	74-83-9		
2-Butanone (MEK)	ND	ug/l	2.0	1.0	06/01/07 19:12	MSF	78-93-3		
Carbon tetrachloride	ND	ug/l	1.0	1.0	06/01/07 19:12	MSF	56-23-5		
Chlorobenzene	ND	ug/l	1.0	1.0	06/01/07 19:12	MSF	108-90-7		
Chloroethane	ND	ug/l	1.0	1.0	06/01/07 19:12	MSF	75-00-3		
Chloroform	ND	ug/l	1.0	1.0	06/01/07 19:12	MSF	67-66-3		
Chloromethane	ND	ug/l	1.0	1.0	06/01/07 19:12	MSF	74-87-3		
1,2-Dibromo-3-chloropropane	ND	ug/l	1.0	1.0	06/01/07 19:12	MSF	96-12-8		
Dibromochloromethane	ND	ug/l	1.0	1.0	06/01/07 19:12	MSF	124-48-1		
1,2-Dibromoethane (EDB)	ND	ug/l	1.0	1.0	06/01/07 19:12	MSF	106-93-4		
Dibromomethane	ND	ug/l	1.0	1.0	06/01/07 19:12	MSF	74-95-3		
1,2-Dichlorobenzene	ND	ug/l	1.0	1.0	06/01/07 19:12	MSF	95-50-1		
1,4-Dichlorobenzene	ND	ug/l	1.0	1.0	06/01/07 19:12	MSF	106-46-7		
1,1-Dichloroethane	ND	ug/l	1.0	1.0	06/01/07 19:12	MSF	75-34-3		
1,2-Dichloroethane	ND	ug/l	1.0	1.0	06/01/07 19:12	MSF	107-06-2		
1,1-Dichloroethene	ND	ug/l	1.0	1.0	06/01/07 19:12	MSF	75-35-4		
cis-1,2-Dichloroethene	ND	ug/l	1.0	1.0	06/01/07 19:12	MSF	156-59-2		

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Lab Project Number: 92145537
Client Project ID: CASWELL COUNTY LANDFILL

Lab Sample No: 928447234 | Project Sample Number: 92145537-008 | Date Collected: 05/29/07 12:55
Client Sample ID: MW-6 | Matrix: Water | Date Received: 05/30/07 15:25

Parameters	Results	Units	Report Limit	DF	Analyzed	By	CAS No.	Qual	RegLmt
trans-1,2-Dichloroethene	ND	ug/l	1.0	1.0	06/01/07 19:12	MSF	156-60-5		
1,2-Dichloropropane	ND	ug/l	1.0	1.0	06/01/07 19:12	MSF	78-87-5		
Ethylbenzene	ND	ug/l	1.0	1.0	06/01/07 19:12	MSF	100-41-4		
Methylene chloride	ND	ug/l	2.0	1.0	06/01/07 19:12	MSF	75-09-2		
Styrene	ND	ug/l	1.0	1.0	06/01/07 19:12	MSF	100-42-5		
1,1,1,2-Tetrachloroethane	ND	ug/l	1.0	1.0	06/01/07 19:12	MSF	630-20-6		
1,1,2,2-Tetrachloroethane	ND	ug/l	1.0	1.0	06/01/07 19:12	MSF	79-34-5		
Tetrachloroethene	ND	ug/l	1.0	1.0	06/01/07 19:12	MSF	127-18-4		
Toluene	ND	ug/l	1.0	1.0	06/01/07 19:12	MSF	108-88-3		
1,1,1-Trichloroethane	ND	ug/l	1.0	1.0	06/01/07 19:12	MSF	71-55-6		
1,1,2-Trichloroethane	ND	ug/l	1.0	1.0	06/01/07 19:12	MSF	79-00-5		
Trichloroethene	ND	ug/l	1.0	1.0	06/01/07 19:12	MSF	79-01-6		
Trichlorofluoromethane	ND	ug/l	1.0	1.0	06/01/07 19:12	MSF	75-69-4		
1,2,3-Trichloropropane	ND	ug/l	1.0	1.0	06/01/07 19:12	MSF	96-18-4		
Vinyl chloride	ND	ug/l	1.0	1.0	06/01/07 19:12	MSF	75-01-4		
m&p-Xylene	ND	ug/l	2.0	1.0	06/01/07 19:12	MSF			
o-Xylene	ND	ug/l	1.0	1.0	06/01/07 19:12	MSF	95-47-6		
Toluene-d8 (S)	99	%		1.0	06/01/07 19:12	MSF	2037-26-5		
4-Bromofluorobenzene (S)	99	%		1.0	06/01/07 19:12	MSF	460-00-4		
Dibromofluoromethane (S)	97	%		1.0	06/01/07 19:12	MSF	1868-53-7		
1,2-Dichloroethane-d4 (S)	97	%		1.0	06/01/07 19:12	MSF	17060-07-0		

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Lab Project Number: 92145537
Client Project ID: CASWELL COUNTY LANDFILL

PARAMETER FOOTNOTES

Dilution factor shown represents the factor applied to the reported result and reporting limit due to changes in sample preparation, dilution of the extract, or moisture content

Method 9071B modified to use ASE.

All pH, Free Chlorine, Total Chlorine and Ferrous Iron analyses conducted outside of EPA recommended immediate hold time.

Depending on the moisture content the PRLs can be elevated for all soil samples reported on a dry weight basis.

2-Chloroethyl vinyl ether has been shown to degrade in the presence of acid.

ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit
(S)	Surrogate

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QUALITY CONTROL DATA

Lab Project Number: 92145537
Client Project ID: CASWELL COUNTY LANDFILL

QC Batch: 190251 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: GC/MS VOCs by 8260, low level
Associated Lab Samples: 928447168 928447176 928447184

METHOD BLANK: 928450014
Associated Lab Samples: 928447168 928447176 928447184

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Acetone	ug/l	ND	25.	
Benzene	ug/l	ND	1.0	
Bromobenzene	ug/l	ND	1.0	
Bromochloromethane	ug/l	ND	1.0	
Bromodichloromethane	ug/l	ND	1.0	
Bromoform	ug/l	ND	1.0	
Bromomethane	ug/l	ND	1.0	
2-Butanone (MEK)	ug/l	ND	2.0	
Carbon tetrachloride	ug/l	ND	1.0	
Chlorobenzene	ug/l	ND	1.0	
Chloroethane	ug/l	ND	1.0	
Chloroform	ug/l	ND	1.0	
Chloromethane	ug/l	ND	1.0	
1,2-Dibromo-3-chloropropane	ug/l	ND	1.0	
Dibromochloromethane	ug/l	ND	1.0	
1,2-Dibromoethane (EDB)	ug/l	ND	1.0	
Dibromomethane	ug/l	ND	1.0	
1,2-Dichlorobenzene	ug/l	ND	1.0	
1,4-Dichlorobenzene	ug/l	ND	1.0	
1,1-Dichloroethane	ug/l	ND	1.0	
1,2-Dichloroethane	ug/l	ND	1.0	
1,1-Dichloroethene	ug/l	ND	1.0	
cis-1,2-Dichloroethene	ug/l	ND	1.0	
trans-1,2-Dichloroethene	ug/l	ND	1.0	
1,2-Dichloropropane	ug/l	ND	1.0	
Ethylbenzene	ug/l	ND	1.0	
Methylene chloride	ug/l	ND	2.0	
Styrene	ug/l	ND	1.0	
1,1,1,2-Tetrachloroethane	ug/l	ND	1.0	
1,1,2,2-Tetrachloroethane	ug/l	ND	1.0	
Tetrachloroethene	ug/l	ND	1.0	

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QUALITY CONTROL DATA

Lab Project Number: 92145537
Client Project ID: CASWELL COUNTY LANDFILL

METHOD BLANK: 928450014
Associated Lab Samples: 928447168 928447176 928447184

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Toluene	ug/l	ND	1.0	
1,1,1-Trichloroethane	ug/l	ND	1.0	
1,1,2-Trichloroethane	ug/l	ND	1.0	
Trichloroethene	ug/l	ND	1.0	
Trichlorofluoromethane	ug/l	ND	1.0	
1,2,3-Trichloropropane	ug/l	ND	1.0	
Vinyl chloride	ug/l	ND	1.0	
m&p-Xylene	ug/l	ND	2.0	
o-Xylene	ug/l	ND	1.0	
Toluene-d8 (S)	%	98		
4-Bromofluorobenzene (S)	%	96		
Dibromofluoromethane (S)	%	97		
1,2-Dichloroethane-d4 (S)	%	92		

LABORATORY CONTROL SAMPLE: 928450022

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Acetone	ug/l	100.00	91.91	92	
Benzene	ug/l	50.00	47.22	94	
Bromobenzene	ug/l	50.00	52.10	104	
Bromochloromethane	ug/l	50.00	56.28	113	
Bromodichloromethane	ug/l	50.00	51.02	102	
Bromoform	ug/l	50.00	54.85	110	
Bromomethane	ug/l	50.00	56.88	114	
2-Butanone (MEK)	ug/l	100.00	94.88	95	
Carbon tetrachloride	ug/l	50.00	54.29	109	
Chlorobenzene	ug/l	50.00	52.03	104	
Chloroethane	ug/l	50.00	50.14	100	
Chloroform	ug/l	50.00	53.76	108	
Chloromethane	ug/l	50.00	47.50	95	
1,2-Dibromo-3-chloropropane	ug/l	50.00	46.05	92	
Dibromochloromethane	ug/l	50.00	54.55	109	
1,2-Dibromoethane (EDB)	ug/l	50.00	51.25	103	
Dibromomethane	ug/l	50.00	55.11	110	

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QUALITY CONTROL DATA

Lab Project Number: 92145537
Client Project ID: CASWELL COUNTY LANDFILL

LABORATORY CONTROL SAMPLE: 928450022

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
1,2-Dichlorobenzene	ug/l	50.00	52.80	106	
1,4-Dichlorobenzene	ug/l	50.00	52.66	105	
1,1-Dichloroethane	ug/l	50.00	57.82	116	
1,2-Dichloroethane	ug/l	50.00	51.97	104	
1,1-Dichloroethene	ug/l	50.00	54.43	109	
cis-1,2-Dichloroethene	ug/l	50.00	54.67	109	
trans-1,2-Dichloroethene	ug/l	50.00	54.07	108	
1,2-Dichloropropane	ug/l	50.00	53.17	106	
Ethylbenzene	ug/l	50.00	49.16	98	
Methylene chloride	ug/l	50.00	53.58	107	
Styrene	ug/l	50.00	54.54	109	
1,1,1,2-Tetrachloroethane	ug/l	50.00	54.71	109	
1,1,2,2-Tetrachloroethane	ug/l	50.00	51.97	104	
Tetrachloroethene	ug/l	50.00	54.47	109	
Toluene	ug/l	50.00	45.43	91	
1,1,1-Trichloroethane	ug/l	50.00	58.12	116	
1,1,2-Trichloroethane	ug/l	50.00	49.66	99	
Trichloroethene	ug/l	50.00	52.45	105	
Trichlorofluoromethane	ug/l	50.00	57.73	115	
1,2,3-Trichloropropane	ug/l	50.00	51.24	102	
Vinyl chloride	ug/l	50.00	54.62	109	
m&p-Xylene	ug/l	100.00	99.91	100	
o-Xylene	ug/l	50.00	52.84	106	
Toluene-d8 (S)				98	
4-Bromofluorobenzene (S)				100	
Dibromofluoromethane (S)				103	
1,2-Dichloroethane-d4 (S)				102	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 928450212 928450220

Parameter	Units	928445642 Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	RPD	Footnotes
Benzene	ug/l	0	50.00	76.26	55.39	152	111	32	1,2
Chlorobenzene	ug/l	0	50.00	49.06	48.62	98	97	1	
1,1-Dichloroethene	ug/l	0	50.00	44.53	42.99	89	86	4	
Toluene	ug/l	0	50.00	59.00	48.66	118	97	19	

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QUALITY CONTROL DATA

Lab Project Number: 92145537
Client Project ID: CASWELL COUNTY LANDFILL

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 928450212 928450220

Parameter	Units	928445642 Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	RPD	Footnotes
Trichloroethene	ug/l	0	50.00	51.09	49.03	102	98	4	
Toluene-d8 (S)						100	100		
4-Bromofluorobenzene (S)						99	101		
Dibromofluoromethane (S)						102	103		
1,2-Dichloroethane-d4 (S)						105	102		

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QUALITY CONTROL DATA

Lab Project Number: 92145537
Client Project ID: CASWELL COUNTY LANDFILL

QC Batch: 190351 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: GC/MS VOCs by 8260, low level
Associated Lab Samples: 928447192 928447200 928447218 928447226 928447234

METHOD BLANK: 928454925
Associated Lab Samples: 928447192 928447200 928447218 928447226 928447234

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Acetone	ug/l	ND	25.	
Benzene	ug/l	ND	1.0	
Bromobenzene	ug/l	ND	1.0	
Bromochloromethane	ug/l	ND	1.0	
Bromodichloromethane	ug/l	ND	1.0	
Bromoform	ug/l	ND	1.0	
Bromomethane	ug/l	ND	1.0	
2-Butanone (MEK)	ug/l	ND	2.0	
Carbon tetrachloride	ug/l	ND	1.0	
Chlorobenzene	ug/l	ND	1.0	
Chloroethane	ug/l	ND	1.0	
Chloroform	ug/l	ND	1.0	
Chloromethane	ug/l	ND	1.0	
1,2-Dibromo-3-chloropropane	ug/l	ND	1.0	
Dibromochloromethane	ug/l	ND	1.0	
1,2-Dibromoethane (EDB)	ug/l	ND	1.0	
Dibromomethane	ug/l	ND	1.0	
1,2-Dichlorobenzene	ug/l	ND	1.0	
1,4-Dichlorobenzene	ug/l	ND	1.0	
1,1-Dichloroethane	ug/l	ND	1.0	
1,2-Dichloroethane	ug/l	ND	1.0	
1,1-Dichloroethene	ug/l	ND	1.0	
cis-1,2-Dichloroethene	ug/l	ND	1.0	
trans-1,2-Dichloroethene	ug/l	ND	1.0	
1,2-Dichloropropane	ug/l	ND	1.0	
Ethylbenzene	ug/l	ND	1.0	
Methylene chloride	ug/l	ND	2.0	
Styrene	ug/l	ND	1.0	
1,1,1,2-Tetrachloroethane	ug/l	ND	1.0	
1,1,2,2-Tetrachloroethane	ug/l	ND	1.0	
Tetrachloroethene	ug/l	ND	1.0	

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QUALITY CONTROL DATA

Lab Project Number: 92145537
Client Project ID: CASWELL COUNTY LANDFILL

METHOD BLANK: 928454925
Associated Lab Samples: 928447192 928447200 928447218 928447226 928447234

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Toluene	ug/l	ND	1.0	
1,1,1-Trichloroethane	ug/l	ND	1.0	
1,1,2-Trichloroethane	ug/l	ND	1.0	
Trichloroethene	ug/l	ND	1.0	
Trichlorofluoromethane	ug/l	ND	1.0	
1,2,3-Trichloropropane	ug/l	ND	1.0	
Vinyl chloride	ug/l	ND	1.0	
m&p-Xylene	ug/l	ND	2.0	
o-Xylene	ug/l	ND	1.0	
Toluene-d8 (S)	%	101		
4-Bromofluorobenzene (S)	%	99		
Dibromofluoromethane (S)	%	107		
1,2-Dichloroethane-d4 (S)	%	106		

LABORATORY CONTROL SAMPLE: 928454933

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Acetone	ug/l	100.00	112.5	112	
Benzene	ug/l	50.00	49.11	98	
Bromobenzene	ug/l	50.00	54.68	109	
Bromochloromethane	ug/l	50.00	57.16	114	
Bromodichloromethane	ug/l	50.00	53.63	107	
Bromoform	ug/l	50.00	59.22	118	
Bromomethane	ug/l	50.00	56.02	112	
2-Butanone (MEK)	ug/l	100.00	106.9	107	
Carbon tetrachloride	ug/l	50.00	57.88	116	
Chlorobenzene	ug/l	50.00	54.72	109	
Chloroethane	ug/l	50.00	49.86	100	
Chloroform	ug/l	50.00	54.08	108	
Chloromethane	ug/l	50.00	49.71	99	
1,2-Dibromo-3-chloropropane	ug/l	50.00	50.36	101	
Dibromochloromethane	ug/l	50.00	56.62	113	
1,2-Dibromoethane (EDB)	ug/l	50.00	53.92	108	
Dibromomethane	ug/l	50.00	57.51	115	

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QUALITY CONTROL DATA

Lab Project Number: 92145537
Client Project ID: CASWELL COUNTY LANDFILL

LABORATORY CONTROL SAMPLE: 928454933

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
1,2-Dichlorobenzene	ug/l	50.00	55.30	111	
1,4-Dichlorobenzene	ug/l	50.00	54.86	110	
1,1-Dichloroethane	ug/l	50.00	58.57	117	
1,2-Dichloroethane	ug/l	50.00	52.87	106	
1,1-Dichloroethene	ug/l	50.00	54.12	108	
cis-1,2-Dichloroethene	ug/l	50.00	54.81	110	
trans-1,2-Dichloroethene	ug/l	50.00	54.18	108	
1,2-Dichloropropane	ug/l	50.00	55.46	111	
Ethylbenzene	ug/l	50.00	51.16	102	
Methylene chloride	ug/l	50.00	53.00	106	
Styrene	ug/l	50.00	56.89	114	
1,1,1,2-Tetrachloroethane	ug/l	50.00	57.39	115	
1,1,2,2-Tetrachloroethane	ug/l	50.00	55.33	111	
Tetrachloroethene	ug/l	50.00	57.78	116	
Toluene	ug/l	50.00	48.05	96	
1,1,1-Trichloroethane	ug/l	50.00	59.66	119	
1,1,2-Trichloroethane	ug/l	50.00	52.32	105	
Trichloroethene	ug/l	50.00	55.78	112	
Trichlorofluoromethane	ug/l	50.00	56.64	113	
1,2,3-Trichloropropane	ug/l	50.00	55.12	110	
Vinyl chloride	ug/l	50.00	56.07	112	
m&p-Xylene	ug/l	100.00	104.7	105	
o-Xylene	ug/l	50.00	54.59	109	
Toluene-d8 (S)				100	
4-Bromofluorobenzene (S)				102	
Dibromofluoromethane (S)				100	
1,2-Dichloroethane-d4 (S)				96	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 928455633 928455641

Parameter	Units	928453422 Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	RPD	Footnotes
Benzene	ug/l	0	50.00	52.33	47.75	105	96	9	
Chlorobenzene	ug/l	0	50.00	53.72	51.73	107	104	4	
1,1-Dichloroethene	ug/l	0	50.00	50.52	45.66	101	91	10	
Toluene	ug/l	0.1895	50.00	48.64	44.27	97	88	9	

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QUALITY CONTROL DATA

Lab Project Number: 92145537
Client Project ID: CASWELL COUNTY LANDFILL

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 928455633 928455641

Parameter	Units	928453422 Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	RPD	Footnotes
Trichloroethene	ug/l	0	50.00	57.04	51.35	114	103	11	
Toluene-d8 (S)						99	98		
4-Bromofluorobenzene (S)						100	99		
Dibromofluoromethane (S)						97	94		
1,2-Dichloroethane-d4 (S)						98	91		

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QUALITY CONTROL DATA

Lab Project Number: 92145537
Client Project ID: CASWELL COUNTY LANDFILL

QC Batch: 190329 Analysis Method: EPA 245.1
QC Batch Method: EPA 245.1 Analysis Description: Mercury, CVAAS, in Water
Associated Lab Samples: 928447168 928447176 928447184 928447192 928447200 928447218 928447226 928447234

METHOD BLANK: 928454289
Associated Lab Samples: 928447168 928447176 928447184 928447192 928447200 928447218 928447226 928447234

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Mercury	ug/l	ND	0.20	

LABORATORY CONTROL SAMPLE: 928454297

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Mercury	ug/l	2.500	2.870	115	

MATRIX SPIKE: 928454305

Parameter	Units	928447168 Result	Spike Conc.	MS Result	MS % Rec	Footnotes
Mercury	ug/l	0	2.500	3.010	120	

SAMPLE DUPLICATE: 928454313

Parameter	Units	928447176 Result	DUP Result	RPD	Footnotes
Mercury	ug/l	ND	ND	NC	

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QUALITY CONTROL DATA

Lab Project Number: 92145537
Client Project ID: CASWELL COUNTY LANDFILL

QC Batch: 190465 — Analysis Method: EPA 200.7
QC Batch Method: EPA 200.7 — Analysis Description: Trace ICP Metals
Associated Lab Samples: 928447168 928447176 928447184 928447192 928447200 928447218 928447226 928447234

METHOD BLANK: 928463702
Associated Lab Samples: 928447168 928447176 928447184 928447192 928447200 928447218 928447226 928447234

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Arsenic	ug/l	ND	5.0	
Barium	ug/l	ND	5.0	
Cadmium	ug/l	ND	1.0	
Chromium	ug/l	ND	5.0	
Lead	ug/l	ND	5.0	
Selenium	ug/l	ND	10.	
Silver	ug/l	ND	5.0	

LABORATORY CONTROL SAMPLE: 928463710

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Arsenic	ug/l	500.00	350.0	70	
Barium	ug/l	500.00	332.0	66	
Cadmium	ug/l	500.00	353.0	71	
Chromium	ug/l	500.00	347.0	69	
Lead	ug/l	500.00	354.0	71	
Selenium	ug/l	500.00	350.0	70	
Silver	ug/l	250.00	182.0	73	

MATRIX SPIKE: 928463728

Parameter	Units	928447168 Result	Spike Conc.	MS Result	MS % Rec	Footnotes
Arsenic	ug/l	0	500.00	357.0	71	
Barium	ug/l	19.30	500.00	353.0	67	1
Cadmium	ug/l	0.4170	500.00	358.0	72	

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QUALITY CONTROL DATA

Lab Project Number: 92145537
Client Project ID: CASWELL COUNTY LANDFILL

MATRIX SPIKE: 928463728

Parameter	Units	928447168 Result	Spike Conc.	MS Result	MS % Rec	Footnotes
Chromium	ug/l	0.4760	500.00	353.0	70	
Lead	ug/l	0	500.00	355.0	71	
Selenium	ug/l	0	500.00	361.0	72	
Silver	ug/l	0.09000	250.00	184.0	74	

SAMPLE DUPLICATE: 928463736

Parameter	Units	928447176 Result	DUP Result	RPD	Footnotes
Arsenic	ug/l	ND	ND	NC	
Barium	ug/l	17.00	21.00	17	
Cadmium	ug/l	ND	ND	NC	
Chromium	ug/l	ND	ND	NC	
Lead	ug/l	ND	ND	NC	
Selenium	ug/l	ND	ND	NC	
Silver	ug/l	ND	ND	NC	

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Lab Project Number: 92145537
Client Project ID: CASWELL COUNTY LANDFILL

QUALITY CONTROL DATA PARAMETER FOOTNOTES

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

LCS(D)	Laboratory Control Sample (Duplicate)
MS(D)	Matrix Spike (Duplicate)
DUP	Sample Duplicate
ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit
RPD	Relative Percent Difference
(S)	Surrogate
[1]	The spike recovery was outside acceptance limits for the MS and /or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
[2]	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.

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CHAIN-OF-CUSTODY / Analytical Request Document

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

Page: of 1066776

Section A Required Client Information:

Company: S-ME INC.
Address: 3718 OLD BATTLEGROUND RD GREENSBORO, NC 27410
Email To:
Phone: 336-288-7180 Fax:
Requested Due Date/TAT:

Section B Required Project Information:

Report To: COLONEL WARE
Copy To:
Purchase Order No.: 14816
Project Name: CASWELL COUNTY LANDFILL
Project Number: 1584 07-034

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #: 1810-10

REGULATORY AGENCY
☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER
☐ UST ☐ RCRA ☐ OTHER _____
Site Location STATE: _____

Requested Analysis Filtered (Y/N)

Section D Required Client Information

Valid Matrix Codes

MATRIX	CODE
DRINKING WATER	DW WT
WATER	WW P
WASTE WATER	SL
PRODUCT	OL
SOIL/SOLID	WP
OIL	AR
WIPE	OT
AIR	TS
OTHER	
TISSUE	

ITEM #	SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED Composite Start DATE	Composite Start TIME	Composite End/Grab DATE	Composite End/Grab TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	Analysis Test Y/N: Appendix I VOC's	8 RCRA METALS	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	SW 1	WT	G			5/29	1420		4									X	X		92514553
2	SW 2	WT	G			5/29	1235		4									X	X		7140
3	MW 1	WT	G			5/29	1530		4									X	X		7141
4	MW 2	WT	G			5/29	1340		4									X	X		7142
5	MW 3	WT	G			5/29	1325		4									X	X		7143
6	MW 4	WT	G			5/29	1355		4									X	X		7144
7	MW 5	WT	G			5/29	1310		4									X	X		7145
8	MW 6	WT	G			5/29	1255		4									X	X		7146
9																					
10																					
11																					
12																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
		5/30/07	0730		5/30/07	13:00				
		5/30/07	15:25		5/30	1525	08	Y	N	Y

SAMPLER NAME AND SIGNATURE

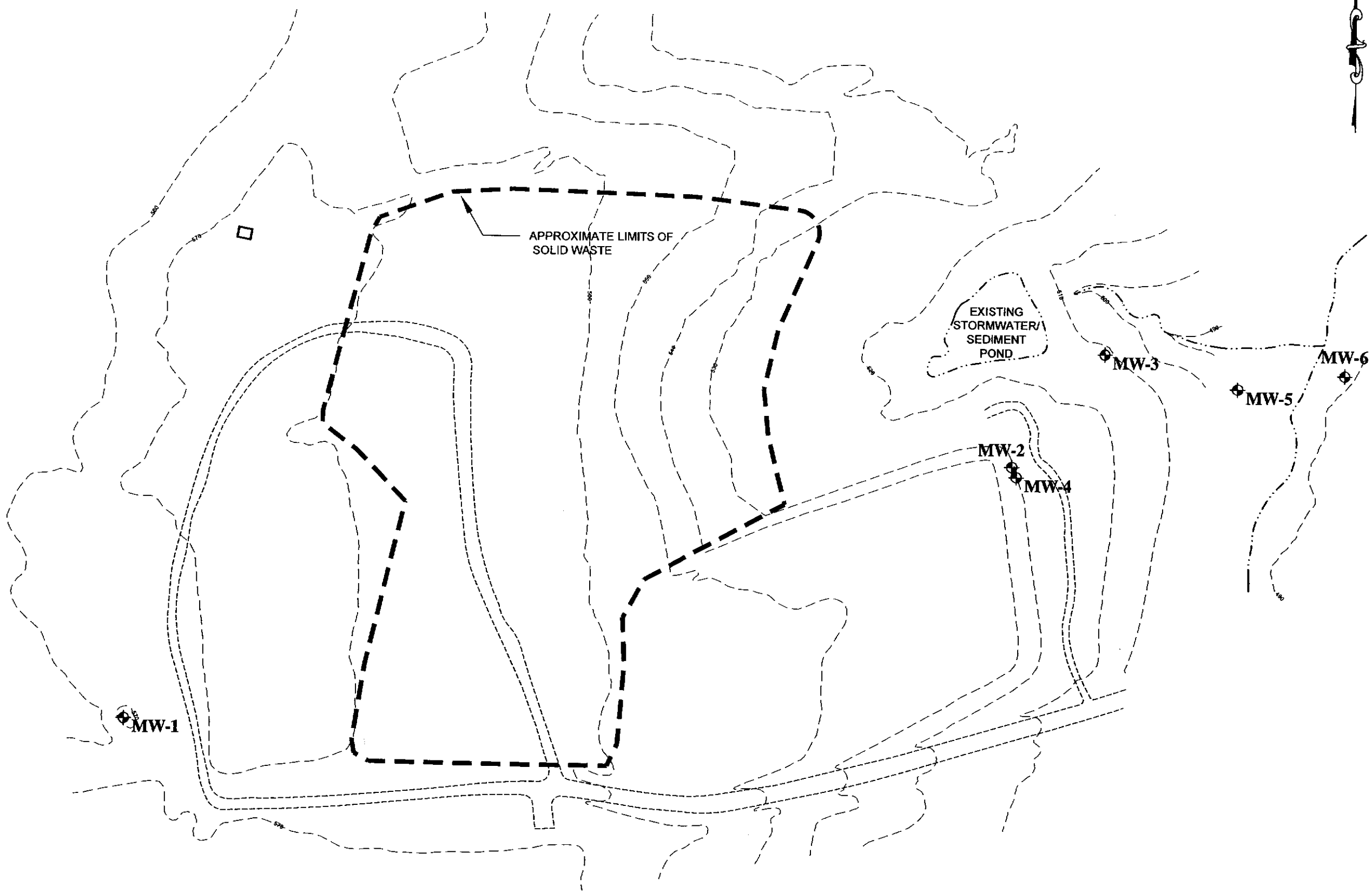
PRINT Name of SAMPLER: GARY SINGER

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY): 5/29/07

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

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.06, 2-Feb-2007



KEY
- MONITORING WELL LOCATION

GRAPHIC SCALE
120 60 0 120
SCALE: 1" = 120'

SITE PLAN
CASWELL COUNTY LANDFILL
YANCEYVILLE, NORTH CAROLINA

SCALE: AS SHOWN	DRAWN BY: RDM
JOB NO. 1584-07-034	DATE: AUGUST 2007
CHECKED BY: CDW	FIGURE NO. 1

S&ME
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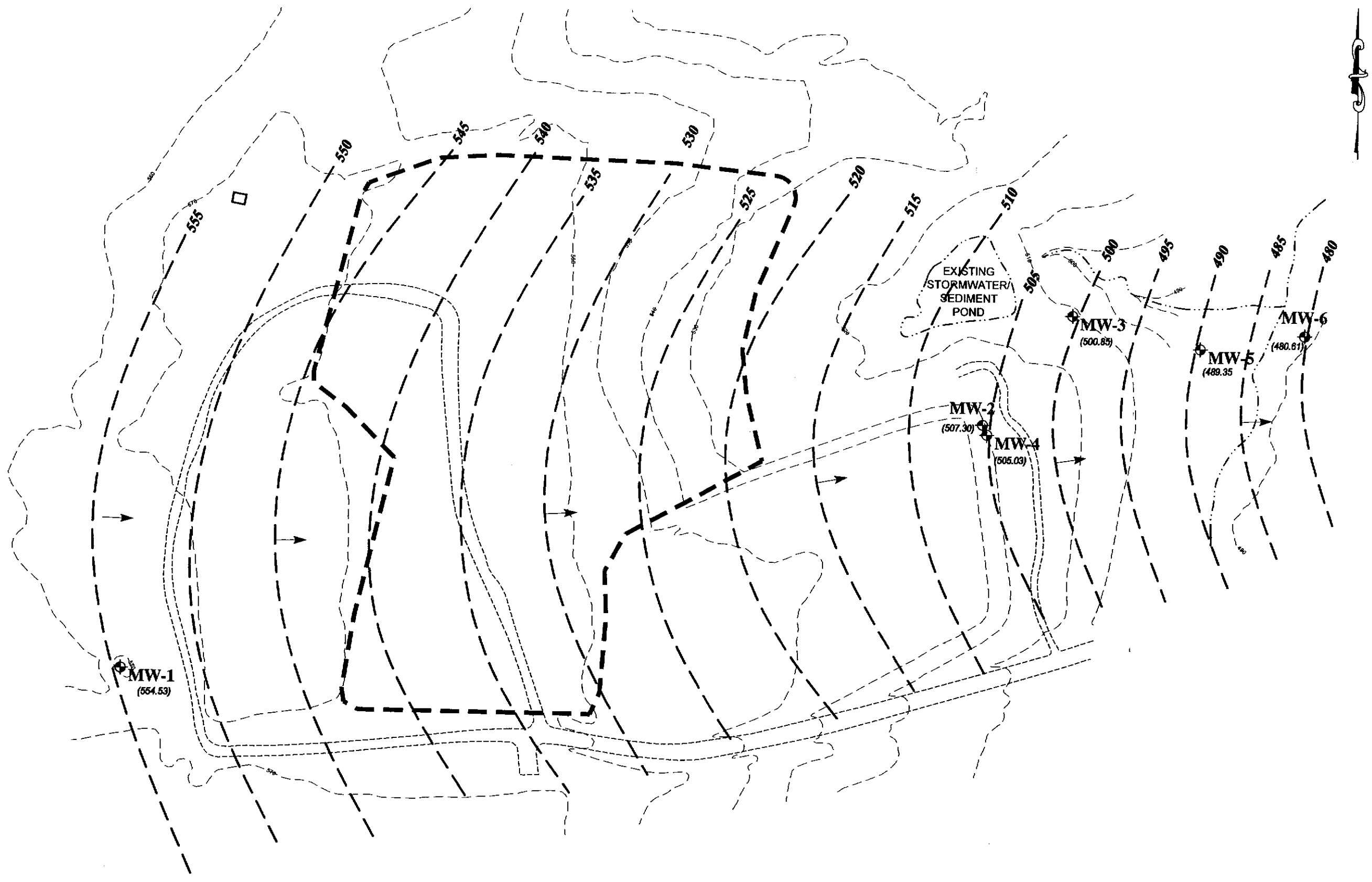
GREENSBORO, NC. 27410
PH. 336-288-7180
FAX. 336-288-8990
WWW.SMEINC.COM



KEY
- MONITORING WELL LOCATION
- GROUNDWATER CONTOUR
(554.53) - GROUNDWATER ELEVATION MEASURED IN MONITORING WELL
- GROUNDWATER FLOW DIRECTION

GRAPHIC SCALE
120 60 0 120
SCALE: 1" = 120'

GROUNDWATER CONTOUR MAP
CASWELL COUNTY LANDFILL
YANCEYVILLE, NORTH CAROLINA

SCALE: AS SHOWN	DRAWN BY: RDM	CHECKED BY: CDW	
JOB NO. 1584-07-034	DATE: AUGUST 2007	FIGURE NO. 2	

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