DENR USE ONLY ☐ Paper Report ☐ Electronic Data - Email CD (data loaded: Yes / No) Doc/Event #:

NC DENR
Division of Waste Management - Solid Waste

Environmental Monitoring Reporting Form

Notice: This form and any information attached to it are "Public Records" as defined in NC General Statute 132-1. As such, these documents are available for inspection and examination by any person upon request (NC General Statute 132-6).

Instructions:

- **Prepare one form for each individually monitored unit.**
- **Please type or print legibly.**
- Attach a notification table with values that attain or exceed NC 2L groundwater standards or NC 2B surface water standards. The notification must include a preliminary analysis of the cause and significance of each value. (e.g. naturally occurring, off-site source, pre-existing condition, etc.).
- Attach a notification table of any groundwater or surface water values that equal or exceed the reporting limits.
- Attach a notification table of any methane gas values that attain or exceed explosive gas levels. This includes any structures on or nearby the facility (NCAC 13B .1629 (4)(a)(i).
- Send the original signed and sealed form, any tables, and Electronic Data Deliverable to: Compliance Unit, NCDENR-DWM, Solid Waste Section, 1646 Mail Service Center, Raleigh, NC 27699-1646.

Solid Waste Monitoring Data Submittal Information

Name of entity submitting data (laboratory, consultant, facility owner):

Sherrill Environmental, Inc.

Contact for questions about data formatting. Include data preparer's name, telephone number and E-mail address:

Name: John (Jack) Sherrill Phone: 919-493-6555

E-mail: sherrill@nc.rr.com

Facility name:	Facility Address:	Facility Permit #	NC Landfill Rule: (.0500 or .1600)	Actual sampling dates (e.g., October 20-24, 2006)
Swift Creek Coal Combustion By-products Structural Fill Site	Highway 301, Battleboro, NC Nash County			June 26-27, 2011

Environmental Status: (Check all that apply)

☐ Initial/Background Monitoring ☐ Detection Monitoring ☒ Assessment Monitoring ☐ Corrective Action

Type of data submitted: (Check all that apply)

☒ Groundwater monitoring data from monitoring wells
☐ Groundwater monitoring data from private water supply wells
☐ Leachate monitoring data
☐ Surface water monitoring data
☐ Methane gas monitoring data
☐ Corrective action data (specify) _____
☐ Other(specify) _____

Notification attached?

☐ No. No groundwater or surface water standards were exceeded.
☒ Yes, a notification of values exceeding a groundwater or surface water standard is attached. It includes a list of groundwater and surface water monitoring points, dates, analytical values, NC 2L groundwater standard, NC 2B surface water standard or NC Solid Waste GWPS and preliminary analysis of the cause and significance of any concentration.
☐ Yes, a notification of values exceeding an explosive methane gas limit is attached. It includes the methane monitoring points, dates, sample values and explosive methane gas limits.

Certification

To the best of my knowledge, the information reported and statements made on this data submittal and attachments are true and correct. Furthermore, I have attached complete notification of any sampling values meeting or exceeding groundwater standards or explosive gas levels, and a preliminary analysis of the cause and significance of concentrations exceeding groundwater standards. I am aware that there are significant penalties for making any false statement, representation, or certification including the possibility of a fine and imprisonment.

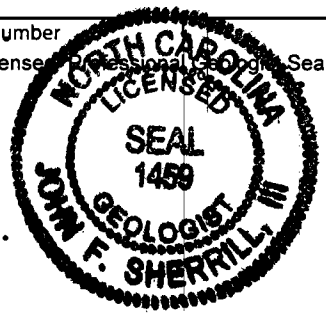
Sherrill Environmental, Inc., John Sherrill — President — 919-493-6555

Facility Representative Name (Print) — Title — (Area Code) Telephone Number

John Sherrill — 9/13/11

Signature — Date

Affix NC Licensed Professional Geologist Seal



3326 Rugby Rd. Durham, NC 27707

Facility Representative Address

NC PE Firm License Number (if applicable effective May 1, 2009)

NOTIFICATION OF EXCEEDANCE OF A REPORTING LIMIT
SWIFT CREEK CCB STRUCTURAL FILL
June 27, 2011

Summary of Environmental Samples with Detections above SWSLs			
	Concentration	SWLS	
MW-1S	ug/L	ug/L	
Barium	475	100	
Sulfate	590,000	250,000	
MW-2S			
Barium	182	100	
MW-3			
Barium	119	100	
Sulfate	790,000	250,000	
MW-4			
Barium	227	100	
MW-6			
Barium	717	100	
Mercury	0.95	0.2	
Sulfate	460,000	250,000	
MW-7			
Arsenic	134	10	
Barium	159	100	
Lead	396	10	
Mercury	0.33	0.2	
Sulfate	540,000	250,000	
MW-8			
Arsenic	207	10	
Barium	223	100	
Lead	103	10	
Sulfate	410,000	250,000	
SW-1	DRY		
SW-2	DRY		
SW-3	NONE		

NOTIFICATION OF EXCEEDANCE OF A STANDARD
SWIFT CREEK CCB STRUCTURAL FILL
June 27, 2011

Summary of Environmental Samples with Exceedances			
	Concentration	Standard	
	ug/L	ug/L	
MW-1S			
Sulfate	590,000	250,000	
MW-3			
Sulfate	790,000	250,000	
MW-6			
Barium	717	700	
Sulfate	460,000	250,000	
MW-7			
Arsenic	134	10	
Lead	396	15	
Sulfate	540,000	250,000	
MW-8			
Arsenic	207	10	
Lead	103	15	
Sulfate	410,000	250,000	
The above listed constituents are believed to be the result of materials in the structural fill. These constituents are not detected in the surface water samples from the creek/swamp that is the receptor of groundwater from the site. These results are consistent with historical data.			

August 24, 2011

Jaclynne Drummond
Hydrogeologist
Solid Waste Section
401 Oberlin Road Suite 150
1646 Mail Service Center
Raleigh, NC 27699-1646

Re: Assessment Monitoring Report—Swift Creek Coal Combustion By-products Structural Fill Site

Dear Ms. Drummond:

Enclosed please find the completed Assessment Monitoring Report for The Swift Creek Project, Highway 301, Nash County Rocky Mount, North Carolina. This report is dated June, 2011. It was prepared for REUSE TECHNOLOGY, INC., Charlotte, North Carolina, by Sherrill Environmental, Inc., Durham, North Carolina.

We will be happy to respond to any questions you may have concerning the report.

Very truly yours,

Moore & Van Allen PLLC

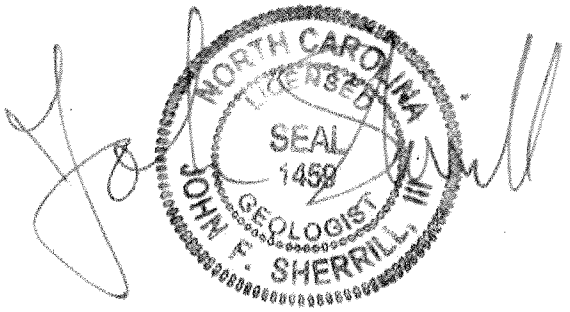
William A. White

cc: Robert Waldrop
Rick Neff

Assessment Monitoring Report
June 27, 2011
Swift Creek Project
Highway 301

Nash County
Rocky Mount, North Carolina

Prepared for:
REUSE TECHNOLOGY, INC.
Charlotte, North Carolina



August 2011

SHERRILL
ENVIRONMENTAL, INC
environmental & geologic services

Prepared by:
Sherrill Environmental, Inc.
3326 Rugby Road
Durham, NC 27707
(919) 493-6555

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APPENDIX

1.0 INTRODUCTION

Sherrill Environmental, Inc. (Sherrill) was contracted by ReUse Technology, Inc. (ReUse) to perform Semi-Annual Groundwater and Surface Water Monitoring at the Swift Creek Project. The Swift Creek Project is a "Beneficial Use" fill utilizing coal combustion by-products (CCBs) in the development of a commercial property. The Project is located on the east side on US Highway 301 at Swift Creek near Battleboro, North Carolina (Figure 1). As determined by a review of historical DOT aerial photographs the property was previously developed as a motel with a restaurant (1961). A 1981 aerial photograph shows the project area to consist of the motel and restaurant with the remaining portion of the project area in agricultural use.

On November 11, 1991, ReUse Technology, Inc. submitted a letter to the Solid Waste Management Section seeking approval to use coal ash as structural fill material in the development of 25 acres of commercial property along Highway 301 at Swift Creek. On December 3, 1991, the Solid Waste Section issued a letter to ReUse that stated "Based upon the information received, the project appears to meet the guidelines previously agreed to for such reuse." In September 1992, ReUse began placement of coal ash at the site. In January 2003, the last shipment of coal ash was accepted at the site. On March 23, 2003, the site had been graded, compacted, covered with an 18 inch soil cap and planted with grass seed. On November 4, 2004, the Closure Notice was forwarded to the Solid Waste Section. In March 2006, a Comprehensive Site Assessment (CSA) for the Swift Creek Project was submitted to the Solid Waste Section. In December 2006, an Assessment Monitoring Plan was submitted to the Solid Waste Section. On February 22, 2007, the Assessment Monitoring Plan was approved by the Solid Waste Section.

Eight sampling events have indicated that groundwater associated with the deeper monitoring wells (MW-1D, MW-2D, MW-5D) have not shown any impact from the CCB structural fill. The deeper wells were not sampled for this sampling event as Sherrill believes the existing analytical database is sufficient.

2.0 CORRECTIVE MEASURES

A corrective measure designed by Appian Consulting Engineers, P.A. consisting of a longitudinal subsurface drain along the western portion of the site was completed in January 2008. The purpose of the measure is to intercept groundwater flowing from west to east and therefore reduce the groundwater level in the area of the site. To monitor the effectiveness of the corrective measure, two piezometers (P-23 and P-24) were installed at 20 feet east and west of the cut-off drain. These piezometers monitor the effect of the cut-off drain in reducing the groundwater level at the project. The location of the cut-off drain (6" Lateral Subsurface Drain) and the piezometers are shown on the site map (Figure 2).

3.0 SITE GEOLOGY

The site surficial geology consists of an alluvial terrace constructed by the fluvial deposition silts, sands and gravels. The sequence coarsens downward with some coarse sand with gravel present near the base. The terrace deposit overlies the massive and extensive Yorktown Formation. The Yorktown Formation is Pliocene in age and was deposited in the Pliocene Yorktown Sea that covered the entire coastal plain and the eastern most portions of the Piedmont. Depositional environments were back barrier lagoons, shallow inner-bay and estuarine environments and on the open shallow shelf (The Geology of the Carolinas, Horton and Zullo, 1991). The Yorktown in the region of the site is generally described as blueish-gray fine to very fine, silty sands, sandy silt or silty clay, well-sorted and very shelly.

4.0 MONITORING WELLS

A total of 11 monitoring wells are located around the perimeter of the Swift Creek Project (Figure 2). Monitoring wells MW-1S (shallow) and MW-1D (deep) are paired monitoring wells located near the center of the project approximately 25 feet east from the edge of the CCB fill. The MW-1S is completed in alluvial sediments and MW-1D is completed in the deeper marine sediments of the Yorktown Formation.

The paired monitoring wells MW-2S (shallow) and MW-2D (deep) are constructed similar to the MW-1 pair. The MW-2 pair is located on a roadway constructed into the swamp and is approximately 160 feet downgradient from the edge of the CCB fill and 135 feet downgradient of MW-1S and MW-1D.

Another paired monitoring well set, MW-5S (shallow) and MW-5D (deep), is located upgradient of the Swift Creek Project on the west side of US Highway 301. Again, the

construction of this monitoring well set is similar with the shallow well screened in alluvial sandy sediments and the deeper well screened in the massive marine sediments.

Monitoring wells MW-3, MW-4, MW-6, MW-7 and MW-8 are shallow wells located at the southeast, southwest, northwest and northeast corners of the project. The borings were advanced through the alluvial material until the underlying marine unit was encountered as determined by split-spoon sampling. The alluvial material varied from a silty fine sand and clayey silty fine sand in the upper portion that generally coarsened downward. Borings at MW-5S, MW-6, MW-7 and MW-8 encountered medium to coarse quartz sand above the contact with the underlying marine unit.

All of the eleven borings were completed using 2-inch schedule 40 PVC with 10-foot slotted screens. The monitoring wells were completed with stick-up casing and 4-inch schedule 40 PVC protective casings with lockable caps.

5.0 GROUNDWATER TABLE

The average groundwater elevation as measured in the site monitoring wells from 2005 to 2011 ranged from a high of 93.45 feet to a low of 88.89 feet (Table 1). The average groundwater elevation at the site is 91.48 feet with a standard deviation of 1.20 feet.

The average water elevation as measured in piezometers screened in the coal ash fill (P-12 through P-20) from 2005 to 2011 have ranged from a high of 98.41 feet to a low of 90.65 feet (Table 2). The average water elevation measured in the ash fill is 95.11 feet with a standard deviation of 2.16 feet.

	12/1/05 to 10/22/07		3/22/08 to 6/27/11	
	Average	Stand. Dev.	Average	Stand. Dev.
Elevation of Water in Ash Fill (P-12 to P-20)	93.72	2.29	95.12	2.12
Elevation of Groundwater (MW-1 to MW-8)	91.56	1.82	91.47	0.97

The corrective measure of the longitudinal subsurface drain along the western portion of the site was completed in January 2008. As shown on the above table, the water elevations in the ash fill appear to have risen since the installation of the corrective measure. This rise is not believed to be a result of the corrective measure but due to precipitation, infiltration and holding. The elevation of groundwater appears to be approximately the same with a lower standard deviation suggesting that the 6" Lateral Subsurface Drain along the western edge of the project has served to reduce site groundwater fluctuation. The difference in the water elevation in the CCB fill and the elevation of the shallow groundwater table suggests that they are not connected. The

separation is; however, not complete as evident from the detection of CCB related contaminants in the shallow groundwater table.

A map of the shallow groundwater table is shown on Figure 3. The map shows that the shallow groundwater flow is in an east northeast direction.

6.0 SAMPLE COLLECTION

On June 26, 2011, the site monitoring wells were purged using a new disposable polyethylene bailer for each well. On June 27, 2011, groundwater samples were collected within 24 hours after purging. The resting period allowed for possible particulate in the water to settle prior to sampling. Samples were collected into laboratory prepared glassware, placed in an iced cooler and transferred to Enco Laboratories in Cary, North Carolina. Groundwater samples were analyzed for the Division's requested parameters of sulfate and total RCRA metals.

On June 27, 2011, Sherrill collected surface water samples at stations SW-1 located at the Highway 301 bridge over Swift Creek. Due to low surface water levels which are typical for summer, insufficient water levels were present at the sampling stations SW-2 located near MW-2S and SW-3 located in Lane Swamp near MW-8.

7.0 GROUNDWATER ANALYSIS

The analytical results for this and the previous groundwater sampling event are summarized on Table 3 and the laboratory report is included in the Appendix. Exceedences of the NCAC 2L Groundwater Standard were detected in the groundwater samples from the shallow downgradient monitoring wells MW-1S, MW-3, MW-6, MW-7 and MW-8 (Figure 4). No exceedance of the 2L Groundwater Standard was detected in the groundwater samples from MW-4 and the shallow upgradient monitoring well MW-5S. The analytical laboratory (Enco) reported that samples for MW-7 and MW-8 were diluted due to matrix interference and samples for MW-1S, MW-3, and MW-6 were diluted for high concentrations of non-target analytes. This resulted in elevated reporting limits for the RCRA metals.

Arsenic – The 2L Standard for arsenic is 0.010 mg/L. Arsenic was detected in the northeast monitoring wells in concentrations 0.134 mg/L at MW-7 and 0.207 mg/L at MW-8. These concentrations are down from what had been an increasing trend.

Lead – The 2L Standard for lead is 0.015 mg/L. Lead concentrations that exceeded the 2L Standard were limited to the northeast portion of the site. Lead concentrations were 0.396 mg/L at MW-7 and 0.103 mg/L at MW-8. These concentrations are down from what had been an increasing trend.

Mercury - The 2L Standard for mercury is 0.001 mg/L. Mercury was detected in concentrations less than the 2L Standard at MW-6 with a concentration of 0.00095 mg/L and at MW-7 with a concentration of 0.00033 mg/L. Detections of mercury above the 2L Standard are not typical for this site.

Sulfate – The 2L Standard for sulfate is 250 mg/L. Concentrations of sulfate were detected in the eastern downgradient monitoring wells MW-1S and MW-3 at 590 mg/L and 790 mg/L, respectively. Sulfate concentrations in the northern portion of the site were 460 mg/L at MW-6, 540 mg/L at MW-7 and 410 mg/L at MW-8.

Barium was detected in concentrations less than the 2L Standard and above the NC Solid Waste Section Limit (SWSL). Chromium, silver and selenium were not detected in any concentration above the Solid Waste Section SWSLs.

8.0 SURFACE WATER ANALYSIS

The analytical results for this and the previous surface water sampling events are summarized on Table 4 and the laboratory report is included in the Appendix. Surface water samples were collected at the Highway 301 bridge over Swift Creek (SW-1). Due to low surface water levels which are typical for summer, insufficient water levels were present at the sampling stations SW-2 and SW-3.

None of the tested parameters exceeded the NCAC 2B Surface Water Standard. Barium was detected at 0.041 mg/L at SW-1. All of the other parameters were less than their respective method detection limit.

9.0 DISCUSSION AND SUMMARY

Exceedances of the 2L Groundwater Standard were detected in the samples from monitoring wells MW-1S, MW-3, MW-6, MW-7 and MW-8. These wells monitor shallow groundwater downgradient of the CCB fill. No exceedance of a 2L Standard was detected in the upgradient monitoring well MW-5S. The deeper monitoring wells (MW-1D, MW-2D and MW-5D) were not sampled as it has been demonstrated that they are not in connection with the shallow site contamination. No exceedance of a 2B Surface Water Standard was detected.

The corrective measure of the longitudinal subsurface drain along the western portion of the site was completed in January 2008. The water elevations in the ash fill appear to have risen since the installation of the corrective measure. The elevation of groundwater appears to be approximately the same with a lower standard deviation suggesting that the subsurface drain has served to reduce site groundwater fluctuation. This data suggests a

separation between the CCB fill and the shallow groundwater table. The separation is, however, not complete as evident from the detection of ash related contaminants in the shallow groundwater table. This information also suggests that the source of the water present in the CCB fill is from on site precipitation.

In summary, some shallow groundwater contamination is present adjacent and downgradient of the CCB fill. The contamination appears limited vertically as has been shown by no contaminants detected in the deeper monitoring wells. The contamination appears limited to the east side of Highway 301 as no contaminants have been detected in the upgradient shallow and deep pair of monitoring wells MW-5S and MW-5D on the west side of Highway 301. The direction of groundwater flow is to the east and northeast. The shallow groundwater associated with the site is likely to discharge to the surface water of Lane Creek Swamp and the Swift Creek Swamp. Analysis of surface water samples has not indicated any contamination. No receptors are identifiable for this site and the low level of contamination attenuates as it migrates from the project area into the adjacent swamp.

This sampling event is the first decrease in an increasing trend of concentrations of arsenic and lead observed at the northeast monitoring wells MW-7 and MW-8. Arsenic concentrations decreased from 0.230 mg/L to 0.134 mg/L at MW-7 and from 0.267 mg/L to 0.207 mg/L at MW-8. Lead concentrations decreased from 0.649 mg/L to 0.396 mg/L at MW-7 and from 0.369 mg/L to 0.103 mg/L at MW-8. Sulfate concentrations also showed a decrease with 590 mg/L to 540 mg/L at MW-7 and from 470 mg/L to 410 mg/L at MW-8.

10.0 RECOMMENDATIONS

Sherrill recommends continuing with the Assessment Monitoring. The next quarterly event for measuring water levels is scheduled for September 2011. The next semiannual event for measuring water levels and collecting groundwater and surface water samples is scheduled for December 2011.

TABLES

TABLE 1
GROUNDWATER ELEVATIONS
SWIFT CREEK PROJECT

Sherrill Environmental, Inc.

	MW-1S	MW-1D	MW-2S	MW-2D	MW-3	MW-4	MW-5S	MW-5D	MW-6	MW-7	MW-8	Average	Lane Swamp Bridge	
TOC ELV.	99.54	99.90	94.87	95.22	102.15	106.06	102.68	102.67	98.41	98.63	95.42		92.25	
12/1/2005	8.21	8.57	4.72	4.70	9.65	11.24	6.01	6.40	7.17	7.63				
GW ELV.	91.33	91.33	90.15	90.52	92.50	94.82	96.67	96.27	91.24	91.00		92.58		
1/8/2006	8.11	8.28	NM	NM	9.48	10.15	5.86	5.68	7.18	7.74				
GW ELV.	91.43	91.62			92.67	95.91	96.82	96.99	91.23	90.89		93.45		
6/9/2006	8.69	9.05	4.83	4.87	10.32	11.41	6.94	6.84	7.74	8.66				
GW ELV.	90.85	90.85	90.04	90.35	91.83	94.65	95.74	95.83	90.67	89.97		92.08		
4/4/2007	7.80	8.18	4.40	4.75	9.31	9.96	6.12	5.96	7.28	7.80	4.84			
GW ELV.	91.74	91.72	90.47	90.47	92.84	96.10	96.56	96.71	91.13	90.83	90.58	92.65		
8/21/2007	10.89	11.30	6.77	6.82	11.40	13.28	9.57	9.42	10.80	10.71	7.67			
GW ELV.	88.65	88.60	88.10	88.40	90.75	92.78	93.11	93.25	87.61	87.92	87.75	89.72		
10/21/2007	11.40	11.76	7.31	7.43	12.98	14.06	10.62	10.63	11.90	11.41	8.30			
GW ELV.	88.14	88.14	87.56	87.79	89.17	92.00	92.06	92.04	86.51	87.22	87.12	88.89		
1/31/2008	9.13	9.42	4.86	5.02	10.70	14.11	7.65	8.11	8.44	8.71	5.57			
GW ELV.	90.41	90.48	90.01	90.20	91.45	91.95	95.03	94.56	89.97	89.92	89.85	91.26		
3/22/2008	8.10	8.44	4.40	4.54	9.18	13.28	6.98	7.34	7.18	7.79	4.78		2.51	
GW ELV.	91.44	91.46	90.47	90.68	92.97	92.78	95.70	95.33	91.23	90.84	90.64	92.14	89.74	
6/17/2008	9.12	9.42	5.03	5.23	10.54	14.05	8.93	8.92	8.36	9.06	6.09		3.20	
GW ELV.	90.42	90.48	89.84	89.99	91.61	92.01	93.75	93.75	90.05	89.57	89.33	90.98	89.05	
9/4/2008	9.26	9.47	4.58	5.02	10.98	14.82	10.87	10.72	8.92	9.06	5.97		3.10	
GW ELV.	90.28	90.43	90.29	90.20	91.17	91.24	91.81	91.95	89.49	89.57	89.45	90.53	89.15	
1/13/2009	8.22	8.55	4.26	4.46	9.35	13.41	7.16	7.54	7.02	7.60	4.58		2.52	
GW ELV.	91.32	91.35	90.61	90.76	92.80	92.65	95.52	95.13	91.39	91.03	90.84	92.13	89.73	
3/31/2009	7.60	7.96	4.36	4.38	6.74	12.43	5.98	6.22	6.81	7.20	4.21		2.50	
GW ELV.	91.94	91.94	90.51	90.84	95.41	93.63	96.70	96.45	91.60	91.43	91.21	92.88	89.75	
6/23/2009	8.62	8.92	4.41	4.77	10.06	13.86	9.83	9.63	7.72	8.52	5.56		2.90	
GW ELV.	90.92	90.98	90.46	90.45	92.09	92.20	92.85	93.04	90.69	90.11	89.86	91.24	89.35	
9/30/2009	8.86	9.18	4.64	5.00	10.82	14.70	10.40	10.26	8.08	8.51	5.50		3.15	
GW ELV.	90.68	90.72	90.23	90.22	91.33	91.36	92.28	92.41	90.33	90.12	89.92	90.87	89.10	
12/15/2009	7.54	NM	4.22	NM	8.68	12.85	6.30	NM	6.78	7.13	4.21		2.60	
GW ELV.	92.00		90.65		93.47	93.21	96.38		91.63	91.50	91.21	92.51	89.65	
3/31/2010	7.37	7.74	2.42	4.46	8.64	12.52	5.80	6.19	6.77	7.93	3.96		2.14	
GW ELV.	92.17	92.16	92.45	90.76	93.51	93.54	96.88	96.48	91.64	90.70	91.46	92.89	90.11	
6/29/2010	9.35	NM	4.94	NM	10.66	14.62	9.97	NM	9.21	9.25	6.31		3.35	
GW ELV.	90.19		89.93		91.49	91.44	92.71		89.20	89.38	89.11	90.43	88.90	
9/28/2010	9.23	10.05	4.80	5.50	11.55	14.80	10.85	11.10	9.11	8.52	5.48		4.10	
GW ELV.	90.31	89.85	90.07	89.72	90.60	91.26	91.83	91.57	89.30	90.11	89.94	90.41	88.15	
12/13/2010	8.54	NM	4.36	NM	10.12	14.02	8.72	NM	7.37	7.93	4.81		2.02	
GW ELV.	91.00		90.51		92.03	92.04	93.96		91.04	90.70	90.61	91.49	90.23	
3/28/2011	8.03	8.42	4.35	4.67	9.17	13.32	7.45	7.84	7.25	7.53	4.42		2.85	
GW ELV.	91.51	91.48	90.52	90.55	92.98	92.74	95.23	94.83	91.16	91.10	91.00	92.10	89.40	
6/26/2011	10.05	10.35	6.02	6.32	11.23	14.82	10.59	10.43	9.20	9.98	7.04		2.85	
GW ELV.	89.49	89.55	88.85	88.90	90.92	91.24	92.09	92.24	89.21	88.65	88.38	89.96	89.40	
	Average Groundwater Elevation (12/05 to 10/07)						91.56		Average Groundwater Elevation			91.48		
	Standard Deviation						1.82		Standard Deviation			1.20		
		Average Groundwater Elevation (3/08 to 6/11)					91.47				Average Lane Swamp Elv.			89.41
		Standard Deviation					0.97				Standard Deviation			0.53

TABLE 2
PIEZOMETER WATER ELEVATIONS
SWIFT CREEK PROJECT

	P-12	P-13	P-14	P-15	P-16	P-17	P-18	P-19	P-20	Average	St. Dev.
12/1/05	96.00	96.71	93.08	93.83	93.64	94.23	95.12	98.41	94.61	95.07	1.70
6/10/06	95.93	97.23	91.60	92.19	92.89	93.80	95.51	97.82	94.66	94.63	2.19
9/25/06	97.92	98.89	93.43	94.75	94.16	95.11	97.04	99.56	95.24	96.23	2.19
8/21/07	93.11	95.09	88.16	90.18		88.59	93.67	94.80	93.20	92.10	2.74
10/22/07	91.60	93.45	87.67	87.09		87.69	93.07	93.11	91.54	90.65	2.72
1/31/08	94.47	94.43	89.93	92.15	91.13	93.96	93.33	94.93	94.2	93.17	1.72
3/22/08	97.84	98.56	95.17	96.47	95	94.93	95.64	102.24	96.27	96.90	2.37
6/17/08	96.04	97.04	92.68	91.66	93.58	94.14	94.99	99.23	95.25	94.96	2.30
9/4/08	94.89	95.19	90.66	90.96	NM	90.47	93.49	96.38	94.50	93.32	2.31
1/13/09	98.13	97.35	95.16	97.08	94.60	95.03	94.62	99.50	96.11	96.40	1.73
3/31/2009	100.94	101.09	96.72	98.12	95.58	95.29	96.51	104.45	96.98	98.41	3.09
6/23/2009	97.57	96.99	92.92	94.13	93.38	94.56	94.73	98.09	95.06	95.27	1.85
9/30/09	95.89	95.45	92.54	94.91	NM	94.43	93.35	95.56	94.73	94.61	1.15
12/15/09	100.42	100.53	96.16	98.51	NM	95.26	96.07	103.01	97.10	98.38	2.72
3/31/10	101.67	101.87	97.14	98.42	95.5	95.21	97.56	104.41	96.94	98.75	3.18
6/29/10	95.92	96.69	91.76	91.22	92.45	93.08	94.61	97.84	94.8	94.26	2.29
9/28/10	94.1	97.85	95.3	93.09	93.7	93.14	94.71	94.32	93.9	94.46	1.45
12/14/10	95.64	95.89	92.48	93.34	92.8	93.81	94.26	97.08	94.7	94.44	1.53
3/28/11	98.46	99.46	94.73	96.7	94.2	95	96.63	101.26	96.03	96.94	2.36
6/26/11	95.38	96.21	91.1	90.56	91.8	89.86	94.38	97.27	94.57	93.46	2.68
Average										95.12	2.12
	Average Water Elevation in Ashfill (12/05 to 10/07)					93.74					
	Standard Deviation					2.29					
		Average Water Elevation in Ashfill (3/08 to 6/11)					95.75				
		Standard Deviation					1.86				

TABLE 3
SUMMARY OF GROUNDWATER ANALYSES
SWIFT CREEK PROJECT

		Arsenic	Barium	Cadmium	Chromium	Lead	Selenium	Silver	Mercury	Sulfate
NCAC	**2L Std.**	0.01	0.7	0.002	0.01	0.015	0.02	0.02	0.001	250
NCDWM	**SWSL**	0.01	0.1	0.001	0.01	0.01	0.01	0.01	0.0002	
MW-1S	6/7/04	0.028	0.190	<0.001	<0.01	**0.068**	<0.01	<0.01	<0.0002	**490**
	12/1/05	0.020	0.170	<0.001	<0.01	**0.042**	<0.01	<0.01	<0.0002	**608**
	6/10/06	0.012	0.472	<0.001	<0.01	**0.052**	<0.01	<0.01	0.00064	**740**
	4/5/07	<0.01	0.458	<0.001	<0.01	<0.010	<0.01	<0.01	0.00047	**420**
	11/15/07	<0.01	0.529	<0.001	<0.01	**0.031**	<0.01	<0.01	0.00089	**520**
	6/18/08	<0.01	0.619	<0.001	<0.01	0.011	<0.01	<0.01	0.00051	**470**
	1/14/09	<0.01	0.416	<0.001	<0.01	<0.010	<0.01	<0.01	<0.0002	210
	6/24/09	<0.01	0.412	<0.001	<0.01	<0.010	<0.01	<0.01	<0.0002	220
	12/16/09	<0.01	0.256	0.001	<0.01	<0.010	**0.022**	<0.01	<0.0002	160
	6/30/10	**0.012**	0.691	0.001	<0.01	<0.010	<0.01	<0.01	<0.0002	**280**
	12/14/10	<0.01	0.599	**0.003**	<0.01	<0.010	<0.01	<0.01	<0.0002	**400**
	6/27/11	<0.10	0.475	<0.01	<0.10	<0.10	<0.10	<0.10	<0.00028	**590**
MW-1D	6/7/04	<0.01	0.540	<0.001	<0.01	<0.01	<0.01	<0.01	<0.0002	13
	12/1/05	<0.01	0.360	<0.001	<0.01	<0.01	<0.01	<0.01	<0.0002	7.7
	6/10/06	<0.01	0.341	<0.001	<0.01	<0.01	<0.01	<0.01	<0.0002	20
	4/5/07	<0.01	0.343	<0.001	<0.01	<0.010	<0.01	<0.01	<0.0002	12
	10/22/07	<0.01	0.365	<0.001	<0.01	<0.010	<0.01	<0.01	<0.0002	11
	6/18/08	<0.01	0.334	<0.001	<0.01	<0.010	<0.01	<0.01	<0.0002	14
	1/14/08	<0.01	0.356	NR	NR	<0.010	NR	NR	<0.0002	14
	6/24/09	<0.01	0.403	NR	NR	<0.010	NR	NR	<0.0002	20
MW-2S	6/22/04	<0.01	<0.10	<0.001	<0.01	<0.01	<0.01	<0.01	<0.0002	32
	12/1/05	<0.01	0.180	<0.001	<0.01	<0.01	<0.01	<0.01	<0.0002	10.1
	6/10/06	<0.01	0.198	<0.001	<0.01	<0.01	<0.01	<0.01	<0.0002	<5
	4/5/07	<0.01	0.232	<0.001	<0.01	<0.010	<0.01	<0.01	<0.0002	4.4
	10/22/07	<0.01	0.256	<0.001	<0.01	<0.010	<0.01	<0.01	<0.0002	3.6
	6/18/08	<0.01	0.103	<0.001	<0.01	<0.010	<0.01	<0.01	<0.0002	4.4
	1/14/09	<0.01	0.164	NR	NR	<0.010	NR	NR	<0.0002	<5
	6/24/09	<0.01	0.173	NR	NR	<0.010	NR	NR	<0.0002	<5
	12/16/09	<0.01	0.218	<0.001	<0.01	<0.010	<0.01	<0.01	<0.0002	<5
	6/30/10	<0.01	0.229	<0.001	<0.01	<0.010	<0.01	<0.01	<0.0002	<5
	12/14/10	<0.01	0.235	<0.001	<0.01	<0.010	<0.01	<0.01	<0.0002	<5
	6/27/11	<0.01	0.182	<0.001	<0.01	<0.010	<0.01	<0.01	<0.0002	<5
MW-2D	6/22/04	<0.01	0.170	<0.001	<0.01	<0.01	<0.01	<0.01	<0.0002	5.6
	12/1/05	<0.01	0.300	<0.001	<0.01	<0.01	<0.01	<0.01	<0.0002	3.1
	6/10/06	<0.01	0.290	<0.001	<0.01	<0.01	<0.01	<0.01	<0.0002	11
	4/5/07	<0.01	0.254	<0.001	<0.01	<0.010	<0.01	<0.01	<0.0002	2.9
	10/22/07	<0.01	0.273	<0.001	<0.01	<0.010	<0.01	<0.01	<0.0002	4.8
	6/18/08	<0.01	0.265	<0.001	<0.01	<0.010	<0.01	<0.01	<0.0002	22
	1/14/09	<0.01	0.253	NR	NR	<0.010	NR	NR	<0.0002	16
	6/24/09	<0.01	0.289	NR	NR	<0.010	NR	NR	<0.0002	6.3

TABLE 3
SUMMARY OF GROUNDWATER ANALYSES
SWIFT CREEK PROJECT

		Arsenic	Barium	Cadmium	Chromium	Lead	Selenium	Silver	Mercury	Sulfate
NCAC	**2L Std.**	0.01	0.7	0.002	0.01	0.015	0.02	0.02	0.001	250
NCDWM	**SWSL**	0.01	0.1	0.001	0.01	0.01	0.01	0.01	0.0002	
MW-5S	12/1/05	<0.01	0.450	<0.001	<0.01	<0.01	<0.01	<0.01	<0.0002	6.1
	6/10/06	<0.01	0.121	<0.001	<0.01	<0.01	<0.01	<0.01	<0.0002	7
	4/5/07	<0.01	0.218	<0.001	<0.01	<0.010	<0.01	<0.01	<0.0002	4.7
	10/22/07	<0.01	0.278	<0.001	<0.01	<0.010	<0.01	<0.01	<0.0002	4.9
	6/18/08	<0.01	0.046	<0.001	<0.01	<0.010	<0.01	<0.01	<0.0002	8.7
	1/14/09	<0.01	0.051	NR	NR	<0.010	NR	NR	<0.0002	10
	6/24/09	<0.01	0.058	NR	NR	<0.010	NR	NR	<0.0002	13
	12/16/09	<0.01	0.056	<0.001	<0.01	<0.010	<0.01	<0.01	<0.0002	17
	6/30/10	<0.01	0.057	<0.001	<0.01	<0.010	<0.01	<0.01	<0.0002	12
	12/14/10	<0.01	0.102	<0.001	<0.01	<0.010	<0.01	<0.01	<0.0002	14
	6/27/11	<0.01	0.064	<0.001	<0.01	<0.010	<0.01	<0.01	<0.0002	17
MW-5D	12/1/05	<0.01	0.170	<0.001	<0.01	<0.01	<0.01	<0.01	<0.0002	8.1
	6/10/06	<0.01	0.236	<0.001	<0.01	<0.01	<0.01	<0.01	<0.0002	6
	4/5/07	<0.01	0.227	<0.001	<0.01	<0.010	<0.01	<0.01	<0.0002	5.8
	10/22/07	<0.01	0.258	<0.001	<0.01	<0.010	<0.01	<0.01	<0.0002	6.6
	6/18/08	<0.01	0.254	<0.001	<0.01	<0.010	<0.01	<0.01	<0.0002	10
	1/14/09	<0.01	0.255	NR	NR	<0.010	NR	NR	<0.0002	10
	6/24/09	<0.01	0.261	NR	NR	<0.010	NR	NR	<0.0002	17
MW-3	12/1/05	<0.01	<0.10	<0.001	<0.01	<0.01	<0.01	<0.01	<0.0002	**334**
	6/10/06	<0.01	0.192	<0.001	<0.01	<0.01	<0.01	<0.01	<0.0002	**580**
	4/5/07	<0.01	0.342	<0.001	<0.01	<0.010	<0.01	<0.01	<0.0002	**570**
	11/15/07	<0.01	0.133	<0.001	<0.01	**0.036**	<0.01	<0.01	<0.0002	**380**
	6/18/08	<0.01	0.145	<0.001	<0.01	**0.022**	<0.01	<0.01	<0.0002	**370**
	1/14/09	<0.01	0.144	<0.001	<0.01	0.013	<0.01	<0.01	<0.0002	**550**
	6/24/09	<0.01	0.202	<0.001	<0.01	**0.081**	<0.01	<0.01	<0.0002	**570**
	12/16/09	**0.012**	0.192	<0.001	<0.01	<0.010	<0.01	<0.01	<0.0002	**710**
	6/30/10	**0.011**	0.094	<0.001	<0.01	<0.010	<0.01	<0.01	<0.0002	**840**
	12/14/10	<0.01	0.125	<0.001	<0.01	<0.010	<0.01	<0.01	<0.0002	**690**
	6/27/11	<0.10	0.119	<0.01	<0.10	<0.10	<0.10	<0.10	<0.0002	**790**
MW-4	12/1/05	<0.01	0.460	<0.001	<0.01	<0.01	<0.01	<0.01	<0.0002	5.7
	6/10/06	<0.01	0.171	<0.001	<0.01	<0.01	<0.01	<0.01	<0.0002	<5
	4/5/07	<0.01	<0.100	<0.001	<0.01	<0.010	<0.01	<0.01	<0.0002	8.6
	10/22/07	<0.01	0.147	<0.001	<0.01	<0.010	<0.01	<0.01	<0.0002	5.9
	6/18/08	<0.01	0.198	<0.001	<0.01	<0.010	<0.01	<0.01	<0.0002	5.4
	1/14/09	<0.01	0.083	NR	NR	<0.010	NR	NR	<0.0002	6.4
	6/24/09	<0.01	0.349	NR	NR	<0.010	NR	NR	<0.0002	7.7
	12/16/09	<0.01	0.121	<0.001	<0.01	<0.010	<0.01	<0.01	<0.0002	7.5
	6/30/10	<0.01	0.181	<0.001	0.018	<0.010	<0.01	<0.01	0.0006	15
	12/14/10	**0.016**	0.195	<0.001	<0.01	<0.010	<0.01	<0.01	<0.0002	16
	6/27/11	<0.01	0.227	<0.001	<0.01	<0.010	<0.01	<0.01	<0.0002	28

TABLE 3
SUMMARY OF GROUNDWATER ANALYSES
SWIFT CREEK PROJECT

		Arsenic	Barium	Cadmium	Chromium	Lead	Selenium	Silver	Mercury	Sulfate
NCAC	**2L Std.**	0.01	0.7	0.002	0.01	0.015	0.02	0.02	0.001	250
NCDWM	**SWSL**	0.01	0.1	0.001	0.01	0.01	0.01	0.01	0.0002	
MW-6	12/1/05	<0.01	1.300	<0.001	<0.01	0.01	<0.01	<0.01	<0.0002	174
	6/10/06	<0.01	0.816	<0.001	<0.01	0.013	<0.01	<0.01	<0.0002	**510**
	4/5/07	<0.01	0.312	<0.001	<0.01	**0.032**	<0.01	<0.01	<0.0002	220
	11/15/07	<0.01	0.120	<0.001	<0.01	**0.074**	<0.01	<0.01	0.00026	**290**
	6/18/08	<0.01	0.080	<0.001	<0.01	**0.054**	<0.01	<0.01	0.00091	**490**
	1/14/09	<0.01	0.066	NR	NR	0.014	NR	NR	<0.0002	**560**
	6/24/09	0.018	0.155	NR	NR	**0.016**	NR	NR	0.00026	**430**
	12/16/09	**0.014**	0.126	<0.001	<0.01	0.010	<0.01	<0.01	<0.0002	220
	6/30/10	**0.109**	0.313	<0.001	<0.01	**0.155**	<0.01	<0.01	0.0003	**300**
	12/14/10	**0.018**	0.138	<0.001	<0.01	<0.010	<0.01	<0.01	<0.0002	**350**
	6/27/11	<0.10	0.717	<0.01	<0.10	<0.10	<0.10	<0.10	0.00095	**460**
MW-7	12/1/05	0.038	<0.10	<0.001	<0.01	**0.093**	<0.01	<0.01	<0.0002	**379**
	6/10/06	0.03	0.059	<0.001	<0.01	**0.053**	<0.01	<0.01	<0.0002	**500**
	4/5/07	0.017	<0.100	<0.001	<0.01	**0.047**	<0.01	<0.01	0.0003	**460**
	11/15/07	0.029	<0.100	<0.001	<0.01	**0.124**	<0.01	<0.01	0.00072	**250**
	6/18/08	0.019	0.042	<0.001	<0.01	**0.072**	<0.01	<0.01	<0.0002	**420**
	1/14/09	0.022	0.052	<0.001	<0.01	**0.088**	<0.01	<0.01	<0.0002	**500**
	6/24/09	**0.072**	0.080	<0.001	<0.01	**0.171**	<0.01	<0.01	<0.0002	**500**
	12/16/09	**0.128**	0.123	<0.01	<0.01	**0.273**	<0.100	<0.10	0.0006	**490**
	6/30/10	**0.208**	0.172	<0.01	<0.01	**0.379**	<0.100	<0.10	0.0002	**530**
	12/14/10	**0.230**	0.255	<0.01	<0.01	**0.649**	<0.100	<0.10	0.00057	**590**
	6/27/11	**0.134**	0.159	<0.01	<0.10	**0.396**	<0.100	<0.10	0.00033	**540**
MW-8	4/5/07	0.025	<0.100	<0.001	<0.01	**0.024**	<0.01	<0.01	<0.0002	**400**
	11/15/07	0.030	<0.100	<0.001	<0.01	**0.038**	<0.01	<0.01	<0.0002	**430**
	6/18/08	0.031	0.048	<0.001	<0.01	**0.027**	<0.01	<0.01	<0.0002	**300**
	1/14/09	0.028	0.039	NR	NR	**0.032**	NR	NR	<0.0002	**350**
	6/24/09	**0.159**	0.114	NR	NR	**0.173**	NR	NR	0.0003	**460**
	12/16/09	**0.569**	0.286j	<0.016	<0.050	**0.376j**	<0.135	<0.095	0.0002	**460**
	6/30/10	**0.366**	0.232	<0.016	<0.050	**0.283**	<0.135	<0.095	0.0002	**500**
	12/14/10	**0.267**	0.243	<0.01	<0.100	**0.369**	<0.100	<0.100	**0.0013**	**470**
	6/27/11	**0.207**	0.223	<0.01	<0.100	**0.103**	<0.100	<0.100	<0.0002	**410**
Concentrations in mg/L (ppm), "j" = estimated conce										
Bold values exceed the 2L Groundwater Standard										
MW-1S, MW-2S and MW-5S are screened shallow (approx. 3 to 13 feet).										
MW-1D, MW-2D, and MW-5D are screened deep (approx. 23 to 33 feet).										
MW-3, MW-4, MW-6 and MW-7 are shallow wells located on the SE, SW, NW and NE corners.										

TABLE 4
SUMMARY OF SURFACE WATER ANALYSES
SWIFT CREEK PROJECT

		Arsenic	Barium	Cadmium	Chromium	Lead	Selenium	Silver	Mercury	Sulfate
NCAC	**2B Std.**	0.05	1.0	0.002	0.05	0.025	0.005	0.06	0.000012	250
NCDWM	**SWSL**	0.01	0.1	0.001	0.01	0.01	0.01	0.01	0.0002	
SW-1	3/4/03	<0.01	<0.10	<0.001	<0.01	<0.005	<0.01	<0.01	<0.0002	12
	6/22/04	<0.01	<0.10	<0.001	<0.01	<0.01	<0.01	<0.01	<0.0002	<2.0
	12/1/05	<0.01	<0.10	<0.001	<0.01	<0.01	<0.01	<0.01	<0.0002	6.3
	6/10/06	<0.01	<0.10	<0.001	<0.01	<0.01	<0.01	<0.01	<0.0002	<5
	4/5/07	<0.01	<0.10	<0.001	<0.01	<0.01	<0.01	<0.01	<0.0002	6.6
	10/22/07	<0.01	<0.10	<0.001	<0.01	<0.01	<0.01	<0.01	<0.0002	3.8
	6/18/08	<0.01	<0.10	<0.001	<0.01	<0.01	<0.01	<0.01	<0.0002	2.5
	1/14/09	<0.01	<0.10	NR	NR	<0.01	NR	NR	<0.0002	5.6
	6/24/09	<0.01	0.03	NR	NR	<0.01	NR	NR	<0.0002	<5
	12/16/09	<0.01	0.048	<0.001	<0.01	<0.01	<0.01	<0.01	<0.0002	6.2
	6/30/10	<0.01	0.032	<0.001	<0.01	<0.01	<0.01	<0.01	<0.0002	<5
	12/14/10	<0.01	0.025	<0.001	<0.01	<0.01	<0.01	<0.01	<0.0002	<5
	6/27/11	<0.01	0.041	<0.001	<0.01	<0.01	<0.01	<0.01	<0.0002	<5
SW-2	3/4/03	<0.01	<0.10	<0.001	<0.01	<0.005	<0.01	<0.01	<0.0002	13
	6/22/04	<0.01	<0.10	<0.001	<0.01	<0.01	<0.01	<0.01	<0.0002	<2.0
	12/1/05	<0.01	<0.10	<0.001	<0.01	<0.01	<0.01	<0.01	<0.0002	10.2
	6/10/06	<0.01	0.090	<0.001	<0.01	<0.01	<0.01	<0.01	<0.0002	<5
	4/5/07	<0.01	<0.10	<0.001	<0.01	<0.01	<0.01	<0.01	<0.0002	3.5
	10/22/07	DRY								
	7/8/08	<0.01	<0.10	<0.001	<0.01	<0.01	<0.01	<0.01	<0.0002	13
	1/14/09	<0.01	<0.10	NR	NR	<0.01	NR	NR	<0.0002	6.1
	6/24/09	<0.01	0.088	NR	NR	<0.01	NR	NR	<0.0002	<5
	12/16/09	<0.01	0.025	<0.001	<0.01	<0.01	<0.01	<0.01	<0.0002	7.5
	6/30/10	DRY								
	12/14/10	<0.01	0.034	<0.001	<0.01	<0.01	<0.01	<0.01	<0.0002	5.3
	6/27/11	DRY								
SW-3	4/5/07	<0.01	<0.10	<0.001	<0.01	<0.01	<0.01	<0.01	<0.0002	2.4
	10/22/07	DRY								
	6/18/08	<0.01	0.089	<0.001	<0.01	<0.01	<0.01	<0.01	<0.0002	3.3
	1/14/09	<0.01	<0.10	NR	NR	<0.01	NR	NR	<0.0002	20
	6/24/09	<0.01	0.087	NR	NR	<0.01	NR	NR	<0.0002	<5
	12/16/09	<0.01	0.075	<0.001	<0.01	<0.01	<0.01	<0.01	<0.0002	14
	6/30/10	<0.01	0.328	<0.001	<0.01	<0.01	<0.01	<0.01	<0.0002	47
	12/14/10	<0.01	0.074	<0.001	<0.01	<0.01	<0.01	<0.01	<0.0002	16
	6/27/11	DRY								
Concentrations in mg/L (ppm)										
Bold values exceed the 2B Surface Water Standard										
SW-1 Swift Creek at bridge (background).										
SW-2 in swamp near MW-2S and MW-2D										
SW-3 in Lane Swamp north of MW-8										

TABLE 5
MONITORING WELL AND PIEZOMETER SUMMARY
SWIFT CREEK PROJECT

Piezometer	Top of Casing Elev.	Ground Surface Elev.	Casing Stick Up	Screen Interval	Total Depth (TOC)	Measured Total Depth 8/2007	Ash/Soil Contact	Ash/Soil Contact Elv.	Alluvial/ Marine contact Elv.	Comments
P-1	108.19	105.6	2.6	20-30	32.6		14.4	91.2		Missing
P-2	109.53	106.7	2.8	20-30	32.8	33.90	16.1	90.6		
P-3	106.18	104.4	1.8	18-28	30.0		12.5	91.9		
P-4	106.57	104.0	2.6	20-30	32.6		14.0	90.0		
P-5	108.39	105.9	2.5	20-30	32.5	32.57	13	92.9		
P-6	109.79	107.5	2.3	20-30	32.3	32.35	13.5	94.0		
P-7	107.77	105.9	1.9	30-40	41.9	42.30	14.3	91.6	82.9	
P-8	106.53	103.9	2.6	30-40	42.6	42.15	13.3	90.7	82.9	
P-9	103.32	100.9	2.4	20-30	32.4	32.87	Soil		87.0	
P-10	108.17	106.1	2.1	20-30	32.1		Soil		89.1	Removed
P-11	101.88	99.2	2.7	13-23	25.7		Soil		82.0	Removed
P-12	107.04	104.0	3.0	6-16	19.0	19.44	13.8	90.2		
P-13	108.99	105.9	3.1	6-16	19.1	19.16	13.3	92.7		
P-14	105.38	101.9	3.5	4-14	17.5	17.95	11.5	90.4		
P-15	103.76	101.0	2.8	4-14	16.8	16.85	11.1	89.9		
P-16	105.28	102.1	3.2	4-14	17.2		11.5	90.6		
P-17	105.31	101.8	3.5	4-14	17.5	17.93	11.5	90.3		
P-18	111.21	107.5	3.7	5-15	18.7	18.30	13.5	94.0		
P-19	111.86	108.3	3.6	7-17	20.6	20.00	15.2	93.1		
P-20	107.00	104.2	2.8	7-17	19.8	19.94	15.0	89.2		
P-21	104.99	99.5	5.5	4.5-11.5	16.5	16.60	9.5	90.0		
P-22	103.60	101.8	1.8	17-27	28.8		Soil		87.0	
P-23	109.75	107.1	2.7	9-19	21.8		12.0	95.0	90.0	
P-24	103.17	101.1	2.1	3-13	15.3		Soil		90.0	
B-1	107.66	105.7	2.0	14-19	21.0	19.40	13.5	92.2	88.9	1" casing
Monitoring Wells										
MW-1S	99.54	96.8	2.7	3-13	15.7				84.0	
MW-1D	99.90	97.1	2.8	23-33	35.7				84.0	
MW-2S	94.87	92.1	2.8	6-16	18.7				78.5	
MW-2D	95.22	92.2	3.0	26-36	39.1				78.5	
MW-3	102.15	99.2	3.0	7-17	20.0				82.2	
MW-4	106.06	104.1	2.0	8-18	20.0				89.1	
MW-5S	102.68	99.7	3.0	6-16	17.0				88.2	
MW-5D	102.67	99.8	2.9	25-35	37.9				88.2	
MW-6	98.41	95.0	3.4	6-16	19.4				79.0	
MW-7	98.63	95.1	3.5	6-16	19.5				79.0	
MW-8	95.42	92.4	3.0	6-16	19.0				76.4	

FIGURES

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REUSE TECHNOLOGY, INC.

SWIFT CREEK PROJECT

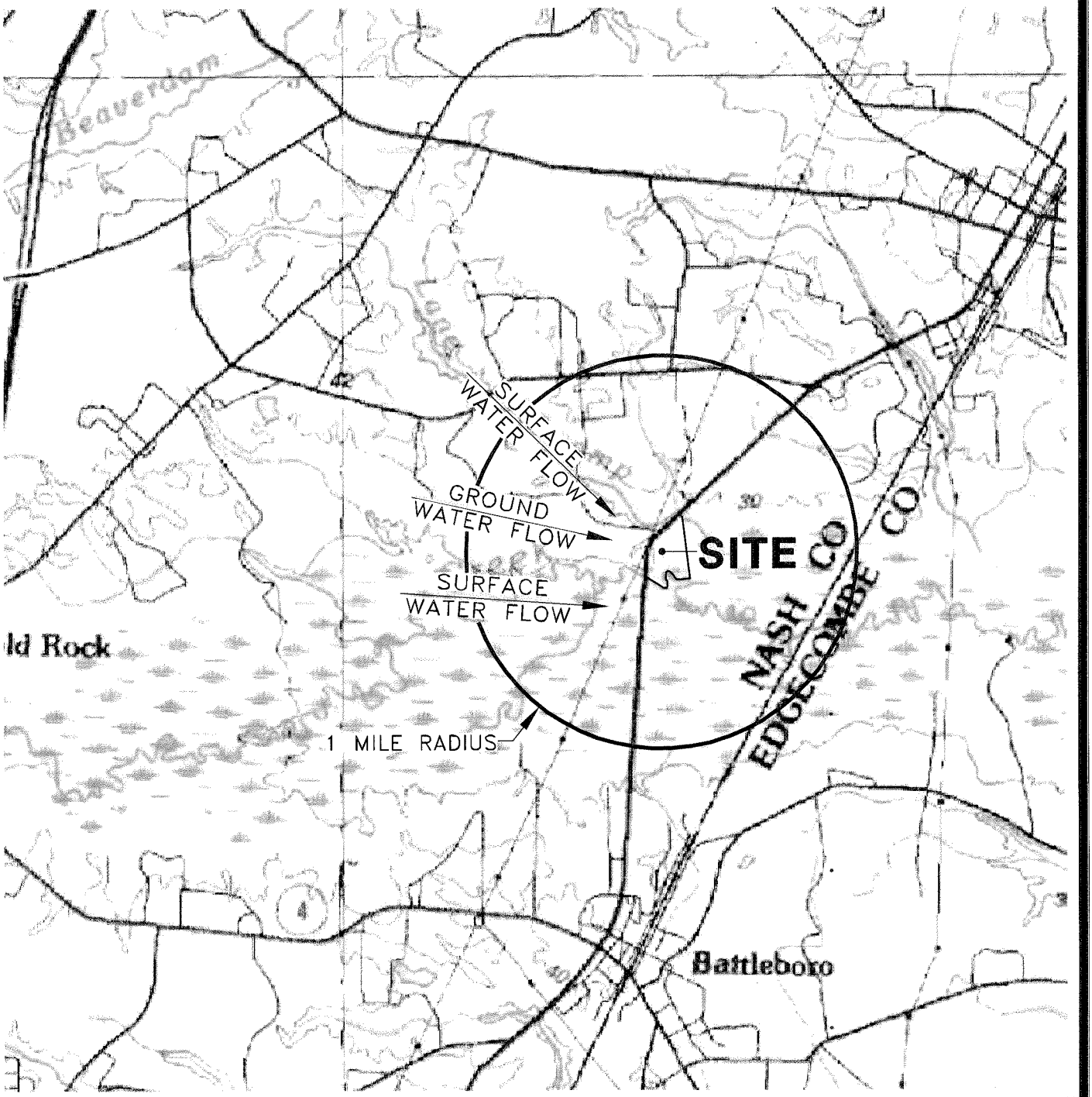


FIGURE 1
SITE LOCATON MAP

SHERRILL ENVIRONMENTAL, INC
environmental & geologic services

3326 Rugby Rd.
Durham N.C. 27707
Phone (919) 493-6555
sherrill@nc.rr.com

ACE JOB #:	DATE:
01-060	6-27-11
SCALE: 1"=4,000'	SHEET #: 1 OF 4

Appian

APPIAN CONSULTING ENGINEERS, P.A.
CIVIL, MUNICIPAL & STRUCTURAL ENGINEERS
COMPREHENSIVE ENVIRONMENTAL SERVICES
P.O. Box 7966 / Rocky Mount, N.C. 27804
Phone: (252) 972-7703 / Fax: (252) 972-7638
www.appianengineers.com

GENESIS 1:1

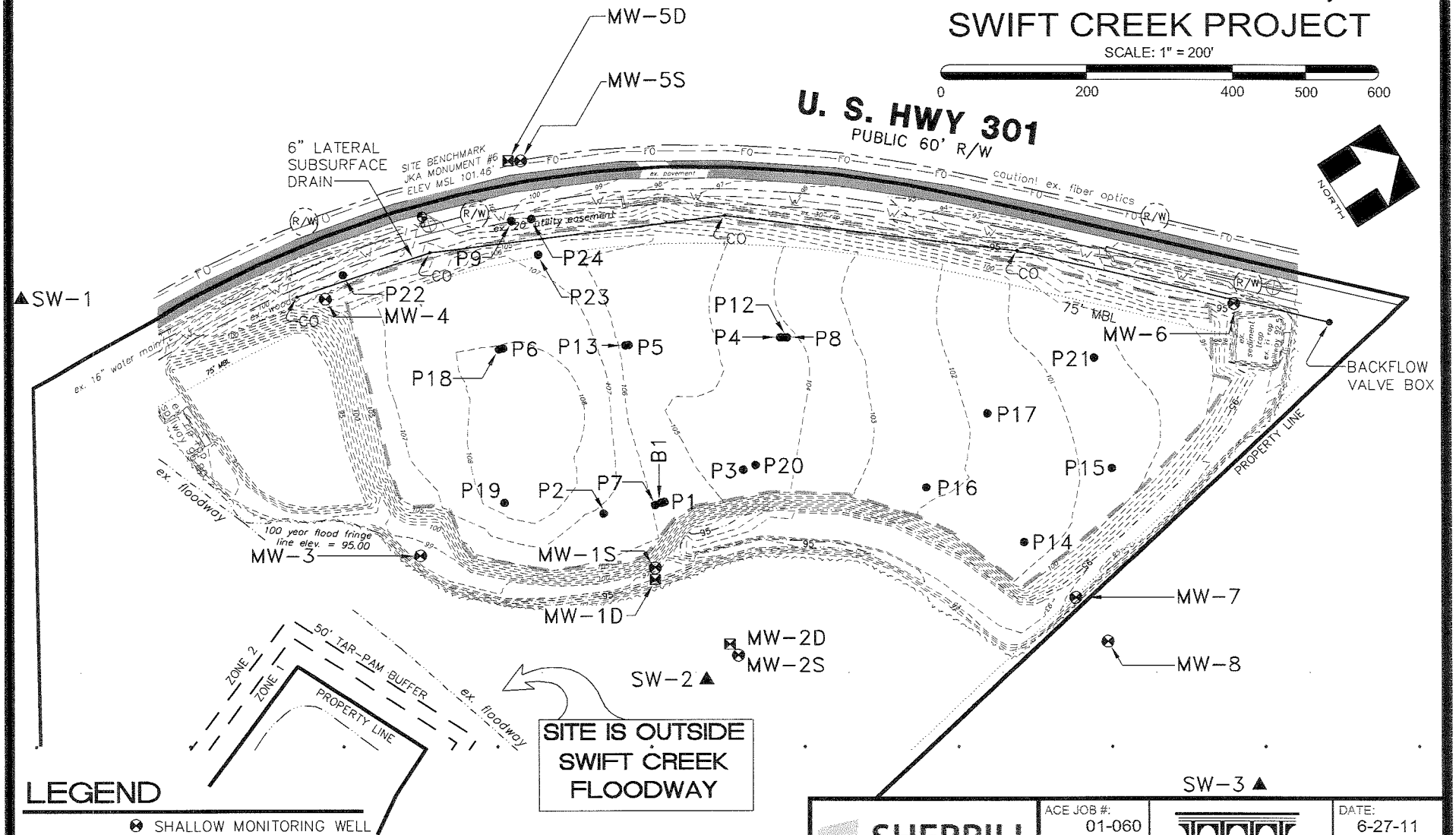
F:\Appian Projects – Shared Folders\01060-swiftcreek\01060-08-11.dwg <FIG-2 (6-27-11)> 08/04/2011 – 3:53:41 PM

REUSE TECHNOLOGY, INC.

SWIFT CREEK PROJECT

SCALE: 1" = 200'

0 200 400 500 600



LEGEND

- SHALLOW MONITORING WELL (ALLUVIAL TERRACE)
- DEEP MONITORING WELL (MARINE SEDIMENTS)
- PIEZOMETER
- SURFACE WATER LOCATION
- LIMITS OF ASH FILL PER PAUL ODEN WITH REUSE TECHNOLOGIES FEB. 21, 2003

FIGURE 2
SITE MAP

SHERRILL ENVIRONMENTAL, INC
environmental & geologic services

3326 Rugby Rd.
Durham N.C. 27707
Phone (919) 493-6555
sherrill@nc.rr.com

ACE JOB #: 01-060
SCALE: 1"=200'
DATE: 6-27-11
SHEET #: 2 OF 4

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www.appianengineers.com

GENESIS 1:1

F:\Appian Projects - Shared Folders\01060-swiftcreek\01060-08-11.dwg <FIG-3 (6-27-11)> 08/04/2011 - 3:56:25 PM

REUSE TECHNOLOGY, INC.

SWIFT CREEK PROJECT

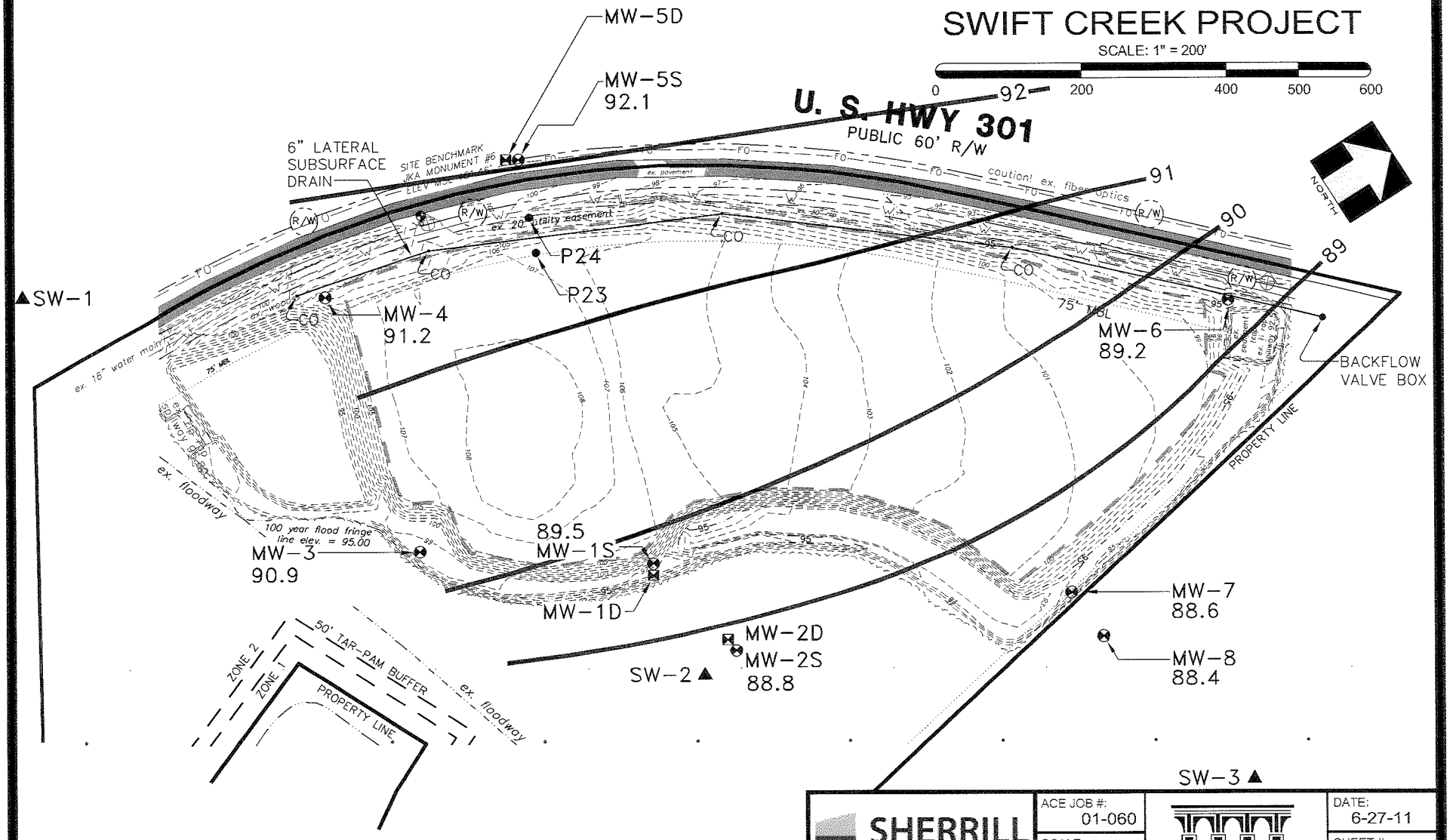

FIGURE 3

MAP OF GROUNDWATER TABLE

6/27/11

SHERRILL ENVIRONMENTAL, INC
environmental & geologic services

3326 Rugby Rd.
Durham N.C. 27707
Phone (919) 493-6555
sherrill@nc.rr.com

ACE JOB #:	01-060
SCALE:	1"=200'
DATE:	6-27-11
SHEET #:	3 OF 4

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www.appianengineers.com

GENESIS 1:1

F:\Appian Projects – Shared Folders\01060-swiftcreek\01060-08-11.dwg <FIG-4 (6-27-11)> 08/04/2011 – 3:57:34 PM

NOTE:
CONCENTRATIONS IN mg/L (ppm)
NS = NOT SAMPLED

REUSE TECHNOLOGY, INC.
SWIFT CREEK PROJECT

SCALE: 1" = 200'
0 200 400 500 600

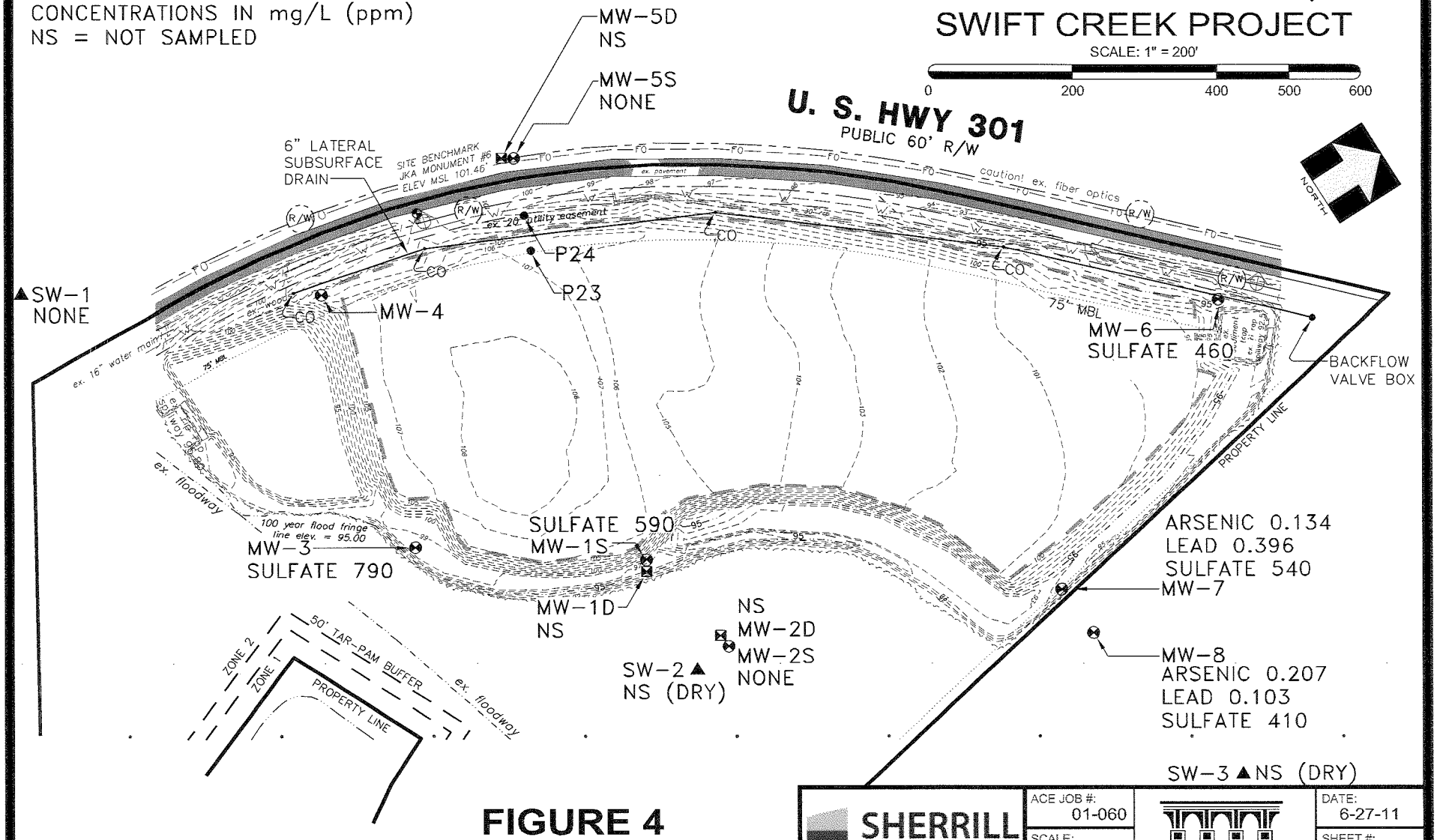

FIGURE 4
CONSTITUENTS EXCEEDING 2L GROUNDWATER STANDARDS 6/27/11

SHERRILL ENVIRONMENTAL, INC
environmental & geologic services
3326 Rugby Rd.
Durham N.C. 27707
Phone (919) 493-6555
sherrill@nc.rr.com

ACE JOB #: 01-060
SCALE: 1"=200'
DATE: 6-27-11
SHEET #: 4 OF 4

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COMPREHENSIVE ENVIRONMENTAL SERVICES
P.O. Box 7966 / Rocky Mount, N.C. 27804
Phone: (252) 972-7703 / Fax: (252) 972-7638
www.appianengineers.com
GENESIS 1:1

APPENDIX

Environmental Conservation Laboratories, Inc.
102-A Woodwinds Industrial Court
Cary NC, 27511
Phone: 919.467.3090 FAX: 919.467.3515

www.encolabs.com

Monday, July 11, 2011

Sherrill Environmental, Inc. (SH004)

Attn: Jack Sherrill

3326 Rugby Road

Durham, NC 27707

RE: Laboratory Results for
Project Number: [none], Project Name/Desc: Swift Creek
ENCO Workorder: C107922

Dear Jack Sherrill,

Enclosed is a copy of your laboratory report for test samples received by our laboratory on Tuesday, June 28, 2011.

Unless otherwise noted in an attached project narrative, all samples were received in acceptable condition and processed in accordance with the referenced methods/procedures. Results for these procedures apply only to the samples as submitted.

The analytical results contained in this report are in compliance with NELAC standards, except as noted in the project narrative. This report shall not be reproduced except in full, without the written approval of the Laboratory.

This report contains only those analyses performed by Environmental Conservation Laboratories. Unless otherwise noted, all analyses were performed at ENCO Cary. Data from outside organizations will be reported under separate cover.

If you have any questions or require further information, please do not hesitate to contact me.

Sincerely,

Stephanie Franz

Project Manager

Enclosure(s)

The total number of pages in this report, including this page is 38.

www.encolabs.com

PROJECT NARRATIVE

Date: 11 July 2011
Client: Sherrill Environmental, Inc. (SH004)
Project: Swift Creek
Lab ID: C107922

Overview

Environmental Conservation Laboratories, Inc. (ENCO) analyzed all submitted samples in accordance with the methods referenced in the laboratory report. Any particular difficulties encountered during sample handling by ENCO are discussed in the QC Remarks section below.

Quality Control Samples

No Comments

Quality Control Remarks

Samples MW-7 and MW-8 were analyzed for the 6010C elements at a dilution due to matrix interference. This resulted in elevated reporting limits.

Other Comments

Samples MW-1S, MW-6, and MW-7 were reprepped and reanalyzed for Mercury to confirm the reported detections. The prep method was modified slightly to remove potential interference that could cause false positive readings. The detections were confirmed, and the original results are reported.

The analytical data presented in this report are consistent with the methods as referenced in the analytical report. Any exceptions or deviations are noted in the QC remarks section of this narrative or in the Flags/Notes and Definitions section of the report.

Released By:
Environmental Conservation Laboratories, Inc.

Stephanie Franz
Project Manager

SAMPLE SUMMARY/LABORATORY CHRONICLE

Client ID: MW-1S	Lab ID: C107922-01	Sampled: 06/27/11 10:45	Received: 06/28/11 07:22
Parameter	**Hold Date/Time(s)**	**Prep Date/Time(s)**	**Analysis Date/Time(s)**
EPA 300.0	07/25/11	06/30/11 12:00	7/1/2011 00:20
EPA 7470A	07/25/11	06/29/11 10:01	6/29/2011 17:27

Client ID: MW-1S	Lab ID: C107922-01RE1	Sampled: 06/27/11 10:45	Received: 06/28/11 07:22
Parameter	**Hold Date/Time(s)**	**Prep Date/Time(s)**	**Analysis Date/Time(s)**
EPA 6010C	12/24/11	06/28/11 12:27	6/29/2011 11:15

Client ID: MW-2S	Lab ID: C107922-02	Sampled: 06/27/11 10:50	Received: 06/28/11 07:22
Parameter	**Hold Date/Time(s)**	**Prep Date/Time(s)**	**Analysis Date/Time(s)**
EPA 300.0	07/25/11	06/30/11 12:00	7/1/2011 00:38
EPA 6010C	12/24/11	06/28/11 12:27	6/29/2011 12:09
EPA 7470A	07/25/11	06/29/11 10:01	6/29/2011 17:30

Client ID: MW-3	Lab ID: C107922-03	Sampled: 06/27/11 10:36	Received: 06/28/11 07:22
Parameter	**Hold Date/Time(s)**	**Prep Date/Time(s)**	**Analysis Date/Time(s)**
EPA 300.0	07/25/11	06/30/11 12:00	7/1/2011 00:55
EPA 7470A	07/25/11	06/29/11 10:01	6/29/2011 17:39

Client ID: MW-3	Lab ID: C107922-03RE1	Sampled: 06/27/11 10:36	Received: 06/28/11 07:22
Parameter	**Hold Date/Time(s)**	**Prep Date/Time(s)**	**Analysis Date/Time(s)**
EPA 6010C	12/24/11	06/28/11 12:27	6/29/2011 12:56

Client ID: MW-4	Lab ID: C107922-04	Sampled: 06/27/11 10:20	Received: 06/28/11 07:22
Parameter	**Hold Date/Time(s)**	**Prep Date/Time(s)**	**Analysis Date/Time(s)**
EPA 300.0	07/25/11	06/30/11 12:00	7/1/2011 01:13
EPA 6010C	12/24/11	06/28/11 12:27	6/29/2011 12:13
EPA 7470A	07/25/11	06/29/11 10:01	6/29/2011 17:42

Client ID: MW-5S	Lab ID: C107922-05	Sampled: 06/27/11 10:10	Received: 06/28/11 07:22
Parameter	**Hold Date/Time(s)**	**Prep Date/Time(s)**	**Analysis Date/Time(s)**
EPA 300.0	07/25/11	06/30/11 12:00	7/1/2011 01:31
EPA 6010C	12/24/11	06/28/11 12:27	6/29/2011 12:16
EPA 7470A	07/25/11	06/29/11 10:01	6/29/2011 17:45

Client ID: MW-6	Lab ID: C107922-06	Sampled: 06/27/11 11:10	Received: 06/28/11 07:22
Parameter	**Hold Date/Time(s)**	**Prep Date/Time(s)**	**Analysis Date/Time(s)**
EPA 300.0	07/25/11	06/30/11 12:00	7/1/2011 01:48
EPA 7470A	07/25/11	06/29/11 10:01	6/29/2011 17:47

Client ID: MW-6	Lab ID: C107922-06RE1	Sampled: 06/27/11 11:10	Received: 06/28/11 07:22
Parameter	**Hold Date/Time(s)**	**Prep Date/Time(s)**	**Analysis Date/Time(s)**
EPA 6010C	12/24/11	06/28/11 12:27	6/29/2011 12:58

Client ID: MW-7	Lab ID: C107922-07	Sampled: 06/27/11 10:55	Received: 06/28/11 07:22
Parameter	**Hold Date/Time(s)**	**Prep Date/Time(s)**	**Analysis Date/Time(s)**
EPA 300.0	07/25/11	06/30/11 12:00	7/1/2011 02:06
EPA 7470A	07/25/11	06/29/11 10:01	6/29/2011 17:50

Client ID: MW-7	Lab ID: C107922-07RE1	Sampled: 06/27/11 10:55	Received: 06/28/11 07:22
Parameter	**Hold Date/Time(s)**	**Prep Date/Time(s)**	**Analysis Date/Time(s)**
EPA 6010C	12/24/11	06/28/11 12:27	6/29/2011 13:00

Client ID: MW-8	Lab ID: C107922-08	Sampled: 06/27/11 11:00	Received: 06/28/11 07:22
Parameter	**Hold Date/Time(s)**	**Prep Date/Time(s)**	**Analysis Date/Time(s)**
EPA 300.0	07/25/11	06/30/11 12:00	7/1/2011 02:24
EPA 7470A	07/25/11	06/29/11 10:01	6/29/2011 17:53

Client ID: MW-8	Lab ID: C107922-08RE1	Sampled: 06/27/11 11:00	Received: 06/28/11 07:22
Parameter	**Hold Date/Time(s)**	**Prep Date/Time(s)**	**Analysis Date/Time(s)**
EPA 6010C	12/24/11	06/28/11 12:27	6/29/2011 13:02

Client ID: SW-1	Lab ID: C107922-09	Sampled: 06/27/11 10:30	Received: 06/28/11 07:22
Parameter	**Hold Date/Time(s)**	**Prep Date/Time(s)**	**Analysis Date/Time(s)**
EPA 300.0	07/25/11	06/30/11 12:00	7/1/2011 03:17
EPA 6010C	12/24/11	06/28/11 12:27	6/29/2011 12:46
EPA 7470A	07/25/11	06/29/11 10:01	6/29/2011 17:56

SAMPLE DETECTION SUMMARY

Client ID: MW-1S **Lab ID: C107922-01**

Analyte	Results	Flag	MDL	PQL	Units	Method	Notes
Mercury - Total	0.285		0.170	0.200	ug/L	EPA 7470A	
Sulfate as SO4	590	D	0.20	50	mg/L	EPA 300.0	

Client ID: MW-1S **Lab ID: C107922-01RE1**

Analyte	Results	Flag	MDL	PQL	Units	Method	Notes
Barium - Total	475	D	10.0	100	ug/L	EPA 6010C	R-05

Client ID: MW-2S **Lab ID: C107922-02**

Analyte	Results	Flag	MDL	PQL	Units	Method	Notes
Barium - Total	182		1.00	10.0	ug/L	EPA 6010C	

Client ID: MW-3 **Lab ID: C107922-03**

Analyte	Results	Flag	MDL	PQL	Units	Method	Notes
Sulfate as SO4	790	D	0.20	50	mg/L	EPA 300.0	

Client ID: MW-3 **Lab ID: C107922-03RE1**

Analyte	Results	Flag	MDL	PQL	Units	Method	Notes
Barium - Total	119	D	10.0	100	ug/L	EPA 6010C	R-05

Client ID: MW-4 **Lab ID: C107922-04**

Analyte	Results	Flag	MDL	PQL	Units	Method	Notes
Barium - Total	227		1.00	10.0	ug/L	EPA 6010C	
Sulfate as SO4	28		0.02	5.0	mg/L	EPA 300.0	

Client ID: MW-5S **Lab ID: C107922-05**

Analyte	Results	Flag	MDL	PQL	Units	Method	Notes
Barium - Total	64.4		1.00	10.0	ug/L	EPA 6010C	
Sulfate as SO4	17		0.02	5.0	mg/L	EPA 300.0	

Client ID: MW-6 **Lab ID: C107922-06**

Analyte	Results	Flag	MDL	PQL	Units	Method	Notes
Mercury - Total	0.949		0.170	0.200	ug/L	EPA 7470A	
Sulfate as SO4	460	D	0.20	50	mg/L	EPA 300.0	

Client ID: MW-6 **Lab ID: C107922-06RE1**

Analyte	Results	Flag	MDL	PQL	Units	Method	Notes
Barium - Total	717	D	10.0	100	ug/L	EPA 6010C	R-05

Client ID: MW-7 **Lab ID: C107922-07**

Analyte	Results	Flag	MDL	PQL	Units	Method	Notes
Mercury - Total	0.329		0.170	0.200	ug/L	EPA 7470A	
Sulfate as SO4	540	D	0.20	50	mg/L	EPA 300.0	

Client ID: MW-7 **Lab ID: C107922-07RE1**

Analyte	Results	Flag	MDL	PQL	Units	Method	Notes
Arsenic - Total	134	D	28.0	100	ug/L	EPA 6010C	
Barium - Total	159	D	10.0	100	ug/L	EPA 6010C	

Client ID: MW-7			Lab ID: C107922-07RE1				
Analyte	**Results**	**Flag**	**MDL**	**PQL**	**Units**	**Method**	**Notes**
Lead - Total	396	D	19.0	100	ug/L	EPA 6010C	

Client ID: MW-8			Lab ID: C107922-08				
Analyte	**Results**	**Flag**	**MDL**	**PQL**	**Units**	**Method**	**Notes**
Sulfate as SO4	410	D	0.20	50	mg/L	EPA 300.0	

Client ID: MW-8			Lab ID: C107922-08RE1				
Analyte	**Results**	**Flag**	**MDL**	**PQL**	**Units**	**Method**	**Notes**
Arsenic - Total	207	D	28.0	100	ug/L	EPA 6010C	
Barium - Total	223	D	10.0	100	ug/L	EPA 6010C	
Lead - Total	103	D	19.0	100	ug/L	EPA 6010C	

Client ID: SW-1			Lab ID: C107922-09				
Analyte	**Results**	**Flag**	**MDL**	**PQL**	**Units**	**Method**	**Notes**
Barium - Total	41.2		1.00	10.0	ug/L	EPA 6010C	

ANALYTICAL RESULTS

Description: MW-1S
Matrix: Ground Water
Project: Swift Creek

Lab Sample ID: C107922-01
Sampled: 06/27/11 10:45
Sampled By: John Sherrill

Received: 06/28/11 07:22
Work Order: C107922

Metals by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MRL	Batch	Method	Analyzed	By	Notes
Mercury [7439-97-6] ^	**0.285**		ug/L	1	0.200	1F29019	EPA 7470A	06/29/11 17:27	NLH	

Description: MW-1S
Matrix: Ground Water
Project: Swift Creek

Lab Sample ID: C107922-01
Sampled: 06/27/11 10:45
Sampled By: John Sherrill

Received: 06/28/11 07:22
Work Order: C107922

Metals (total recoverable) by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MRL	Batch	Method	Analyzed	By	Notes
Arsenic [7440-38-2] ^	100	UD	ug/L	10	100	1F28024	EPA 6010C	06/29/11 11:15	JDH	R-05
Barium [7440-39-3] ^	**475**	D	ug/L	10	100	1F28024	EPA 6010C	06/29/11 11:15	JDH	R-05
Cadmium [7440-43-9] ^	10.0	UD	ug/L	10	10.0	1F28024	EPA 6010C	06/29/11 11:15	JDH	R-05
Chromium [7440-47-3] ^	100	UD	ug/L	10	100	1F28024	EPA 6010C	06/29/11 11:15	JDH	R-05
Lead [7439-92-1] ^	100	UD	ug/L	10	100	1F28024	EPA 6010C	06/29/11 11:15	JDH	R-05
Selenium [7782-49-2] ^	100	UD	ug/L	10	100	1F28024	EPA 6010C	06/29/11 11:15	JDH	R-05
Silver [7440-22-4] ^	100	UD	ug/L	10	100	1F28024	EPA 6010C	06/29/11 11:15	JDH	R-05

Description: MW-1S
Matrix: Ground Water
Project: Swift Creek

Lab Sample ID: C107922-01
Sampled: 06/27/11 10:45
Sampled By: John Sherrill

Received: 06/28/11 07:22
Work Order: C107922

Classical Chemistry Parameters

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MRL	Batch	Method	Analyzed	By	Notes
Sulfate as SO4 [14808-79-8] ^	**590**	D	mg/L	10	50	1F30020	EPA 300.0	07/01/11 00:20	CCB	

Description: MW-2S
Matrix: Ground Water
Project: Swift Creek

Lab Sample ID: C107922-02
Sampled: 06/27/11 10:50
Sampled By: John Sherrill

Received: 06/28/11 07:22
Work Order: C107922

Metals by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MRL	Batch	Method	Analyzed	By	Notes
Mercury [7439-97-6] ^	0.200	U	ug/L	1	0.200	1F29019	EPA 7470A	06/29/11 17:30	NLH	

www.encolabs.com

Description: MW-2S
Matrix: Ground Water
Project: Swift Creek

Lab Sample ID: C107922-02
Sampled: 06/27/11 10:50
Sampled By: John Sherrill

Received: 06/28/11 07:22
Work Order: C107922

Metals (total recoverable) by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MRL	Batch	Method	Analyzed	By	Notes
Arsenic [7440-38-2] ^	10.0	U	ug/L	1	10.0	1F28024	EPA 6010C	06/29/11 12:09	JDH	
Barium [7440-39-3] ^	**182**		ug/L	1	10.0	1F28024	EPA 6010C	06/29/11 12:09	JDH	
Cadmium [7440-43-9] ^	1.00	U	ug/L	1	1.00	1F28024	EPA 6010C	06/29/11 12:09	JDH	
Chromium [7440-47-3] ^	10.0	U	ug/L	1	10.0	1F28024	EPA 6010C	06/29/11 12:09	JDH	
Lead [7439-92-1] ^	10.0	U	ug/L	1	10.0	1F28024	EPA 6010C	06/29/11 12:09	JDH	
Selenium [7782-49-2] ^	10.0	U	ug/L	1	10.0	1F28024	EPA 6010C	06/29/11 12:09	JDH	
Silver [7440-22-4] ^	10.0	U	ug/L	1	10.0	1F28024	EPA 6010C	06/29/11 12:09	JDH	

Description: MW-2S
Matrix: Ground Water
Project: Swift Creek

Lab Sample ID: C107922-02
Sampled: 06/27/11 10:50
Sampled By: John Sherrill

Received: 06/28/11 07:22
Work Order: C107922

Classical Chemistry Parameters

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MRL	Batch	Method	Analyzed	By	Notes
Sulfate as SO4 [14808-79-8] ^	5.0	U	mg/L	1	5.0	1F30020	EPA 300.0	07/01/11 00:38	CCB	

www.encolabs.com

Description: MW-3
Matrix: Ground Water
Project: Swift Creek

Lab Sample ID: C107922-03
Sampled: 06/27/11 10:36
Sampled By: John Sherrill

Received: 06/28/11 07:22
Work Order: C107922

Metals by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MRL	Batch	Method	Analyzed	By	Notes
Mercury [7439-97-6] ^	0.200	U	ug/L	1	0.200	1F29019	EPA 7470A	06/29/11 17:39	NLH	

www.encolabs.com

Description: MW-3
Matrix: Ground Water
Project: Swift Creek

Lab Sample ID: C107922-03
Sampled: 06/27/11 10:36
Sampled By: John Sherrill

Received: 06/28/11 07:22
Work Order: C107922

Metals (total recoverable) by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MRL	Batch	Method	Analyzed	By	Notes
Arsenic [7440-38-2] ^	100	UD	ug/L	10	100	1F28024	EPA 6010C	06/29/11 12:56	JDH	R-05
Barium [7440-39-3] ^	**119**	D	ug/L	10	100	1F28024	EPA 6010C	06/29/11 12:56	JDH	R-05
Cadmium [7440-43-9] ^	10.0	UD	ug/L	10	10.0	1F28024	EPA 6010C	06/29/11 12:56	JDH	R-05
Chromium [7440-47-3] ^	100	UD	ug/L	10	100	1F28024	EPA 6010C	06/29/11 12:56	JDH	R-05
Lead [7439-92-1] ^	100	UD	ug/L	10	100	1F28024	EPA 6010C	06/29/11 12:56	JDH	R-05
Selenium [7782-49-2] ^	100	UD	ug/L	10	100	1F28024	EPA 6010C	06/29/11 12:56	JDH	R-05
Silver [7440-22-4] ^	100	UD	ug/L	10	100	1F28024	EPA 6010C	06/29/11 12:56	JDH	R-05

Description: MW-3
Matrix: Ground Water
Project: Swift Creek

Lab Sample ID: C107922-03
Sampled: 06/27/11 10:36
Sampled By: John Sherrill

Received: 06/28/11 07:22
Work Order: C107922

Classical Chemistry Parameters

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MRL	Batch	Method	Analyzed	By	Notes
Sulfate as SO4 [14808-79-8] ^	**790**	D	mg/L	10	50	1F30020	EPA 300.0	07/01/11 00:55	CCB	

www.encolabs.com

Description: MW-4
Matrix: Ground Water
Project: Swift Creek

Lab Sample ID: C107922-04
Sampled: 06/27/11 10:20
Sampled By: John Sherrill

Received: 06/28/11 07:22
Work Order: C107922

Metals by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MRL	Batch	Method	Analyzed	By	Notes
Mercury [7439-97-6] ^	0.200	U	ug/L	1	0.200	1F29019	EPA 7470A	06/29/11 17:42	NLH	

www.encolabs.com

Description: MW-4
Matrix: Ground Water
Project: Swift Creek

Lab Sample ID: C107922-04
Sampled: 06/27/11 10:20
Sampled By: John Sherrill

Received: 06/28/11 07:22
Work Order: C107922

Metals (total recoverable) by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MRL	Batch	Method	Analyzed	By	Notes
Arsenic [7440-38-2] ^	10.0	U	ug/L	1	10.0	1F28024	EPA 6010C	06/29/11 12:13	JDH	
Barium [7440-39-3] ^	**227**		ug/L	1	10.0	1F28024	EPA 6010C	06/29/11 12:13	JDH	
Cadmium [7440-43-9] ^	1.00	U	ug/L	1	1.00	1F28024	EPA 6010C	06/29/11 12:13	JDH	
Chromium [7440-47-3] ^	10.0	U	ug/L	1	10.0	1F28024	EPA 6010C	06/29/11 12:13	JDH	
Lead [7439-92-1] ^	10.0	U	ug/L	1	10.0	1F28024	EPA 6010C	06/29/11 12:13	JDH	
Selenium [7782-49-2] ^	10.0	U	ug/L	1	10.0	1F28024	EPA 6010C	06/29/11 12:13	JDH	
Silver [7440-22-4] ^	10.0	U	ug/L	1	10.0	1F28024	EPA 6010C	06/29/11 12:13	JDH	

Description: MW-4
Matrix: Ground Water
Project: Swift Creek

Lab Sample ID: C107922-04
Sampled: 06/27/11 10:20
Sampled By: John Sherrill

Received: 06/28/11 07:22
Work Order: C107922

Classical Chemistry Parameters

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MRL	Batch	Method	Analyzed	By	Notes
Sulfate as SO4 [14808-79-8] ^	**28**		mg/L	1	5.0	1F30020	EPA 300.0	07/01/11 01:13	CCB	

Description: MW-5S
Matrix: Ground Water
Project: Swift Creek

Lab Sample ID: C107922-05
Sampled: 06/27/11 10:10
Sampled By: John Sherrill

Received: 06/28/11 07:22
Work Order: C107922

Metals by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MRL	Batch	Method	Analyzed	By	Notes
Mercury [7439-97-6] ^	0.200	U	ug/L	1	0.200	1F29019	EPA 7470A	06/29/11 17:45	NLH	

Description: MW-5S
Matrix: Ground Water
Project: Swift Creek

Lab Sample ID: C107922-05
Sampled: 06/27/11 10:10
Sampled By: John Sherrill

Received: 06/28/11 07:22
Work Order: C107922

Metals (total recoverable) by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MRL	Batch	Method	Analyzed	By	Notes
Arsenic [7440-38-2] ^	10.0	U	ug/L	1	10.0	1F28024	EPA 6010C	06/29/11 12:16	JDH	
Barium [7440-39-3] ^	**64.4**		ug/L	1	10.0	1F28024	EPA 6010C	06/29/11 12:16	JDH	
Cadmium [7440-43-9] ^	1.00	U	ug/L	1	1.00	1F28024	EPA 6010C	06/29/11 12:16	JDH	
Chromium [7440-47-3] ^	10.0	U	ug/L	1	10.0	1F28024	EPA 6010C	06/29/11 12:16	JDH	
Lead [7439-92-1] ^	10.0	U	ug/L	1	10.0	1F28024	EPA 6010C	06/29/11 12:16	JDH	
Selenium [7782-49-2] ^	10.0	U	ug/L	1	10.0	1F28024	EPA 6010C	06/29/11 12:16	JDH	
Silver [7440-22-4] ^	10.0	U	ug/L	1	10.0	1F28024	EPA 6010C	06/29/11 12:16	JDH	

Description: MW-5S
Matrix: Ground Water
Project: Swift Creek

Lab Sample ID: C107922-05
Sampled: 06/27/11 10:10
Sampled By: John Sherrill

Received: 06/28/11 07:22
Work Order: C107922

Classical Chemistry Parameters

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MRL	Batch	Method	Analyzed	By	Notes
Sulfate as SO4 [14808-79-8] ^	**17**		mg/L	1	5.0	1F30020	EPA 300.0	07/01/11 01:31	CCB	

Description: MW-6
Matrix: Ground Water
Project: Swift Creek

Lab Sample ID: C107922-06
Sampled: 06/27/11 11:10
Sampled By: John Sherrill

Received: 06/28/11 07:22
Work Order: C107922

Metals by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MRL	Batch	Method	Analyzed	By	Notes
Mercury [7439-97-6] ^	**0.949**		ug/L	1	0.200	1F29019	EPA 7470A	06/29/11 17:47	NLH	

Description: MW-6
Matrix: Ground Water
Project: Swift Creek

Lab Sample ID: C107922-06
Sampled: 06/27/11 11:10
Sampled By: John Sherrill

Received: 06/28/11 07:22
Work Order: C107922

Metals (total recoverable) by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MRL	Batch	Method	Analyzed	By	Notes
Arsenic [7440-38-2] ^	100	UD	ug/L	10	100	1F28024	EPA 6010C	06/29/11 12:58	JDH	R-05
Barium [7440-39-3] ^	**717**	D	ug/L	10	100	1F28024	EPA 6010C	06/29/11 12:58	JDH	R-05
Cadmium [7440-43-9] ^	10.0	UD	ug/L	10	10.0	1F28024	EPA 6010C	06/29/11 12:58	JDH	R-05
Chromium [7440-47-3] ^	100	UD	ug/L	10	100	1F28024	EPA 6010C	06/29/11 12:58	JDH	R-05
Lead [7439-92-1] ^	100	UD	ug/L	10	100	1F28024	EPA 6010C	06/29/11 12:58	JDH	R-05
Selenium [7782-49-2] ^	100	UD	ug/L	10	100	1F28024	EPA 6010C	06/29/11 12:58	JDH	R-05
Silver [7440-22-4] ^	100	UD	ug/L	10	100	1F28024	EPA 6010C	06/29/11 12:58	JDH	R-05

Description: MW-6
Matrix: Ground Water
Project: Swift Creek

Lab Sample ID: C107922-06
Sampled: 06/27/11 11:10
Sampled By: John Sherrill

Received: 06/28/11 07:22
Work Order: C107922

Classical Chemistry Parameters

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MRL	Batch	Method	Analyzed	By	Notes
Sulfate as SO4 [14808-79-8] ^	**460**	D	mg/L	10	50	1F30020	EPA 300.0	07/01/11 01:48	CCB	

Description: MW-7
Matrix: Ground Water
Project: Swift Creek

Lab Sample ID: C107922-07
Sampled: 06/27/11 10:55
Sampled By: John Sherrill

Received: 06/28/11 07:22
Work Order: C107922

Metals by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MRL	Batch	Method	Analyzed	By	Notes
Mercury [7439-97-6] ^	**0.329**		ug/L	1	0.200	1F29019	EPA 7470A	06/29/11 17:50	NLH	

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Description: MW-7
Matrix: Ground Water
Project: Swift Creek

Lab Sample ID: C107922-07
Sampled: 06/27/11 10:55
Sampled By: John Sherrill

Received: 06/28/11 07:22
Work Order: C107922

Metals (total recoverable) by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MRL	Batch	Method	Analyzed	By	Notes
Arsenic [7440-38-2] ^	**134**	D	ug/L	10	100	1F28024	EPA 6010C	06/29/11 13:00	JDH	
Barium [7440-39-3] ^	**159**	D	ug/L	10	100	1F28024	EPA 6010C	06/29/11 13:00	JDH	
Cadmium [7440-43-9] ^	10.0	UD	ug/L	10	10.0	1F28024	EPA 6010C	06/29/11 13:00	JDH	
Chromium [7440-47-3] ^	100	UD	ug/L	10	100	1F28024	EPA 6010C	06/29/11 13:00	JDH	
Lead [7439-92-1] ^	**396**	D	ug/L	10	100	1F28024	EPA 6010C	06/29/11 13:00	JDH	
Selenium [7782-49-2] ^	100	UD	ug/L	10	100	1F28024	EPA 6010C	06/29/11 13:00	JDH	
Silver [7440-22-4] ^	100	UD	ug/L	10	100	1F28024	EPA 6010C	06/29/11 13:00	JDH	

Description: MW-7
Matrix: Ground Water
Project: Swift Creek

Lab Sample ID: C107922-07
Sampled: 06/27/11 10:55
Sampled By: John Sherrill

Received: 06/28/11 07:22
Work Order: C107922

Classical Chemistry Parameters

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MRL	Batch	Method	Analyzed	By	Notes
Sulfate as SO4 [14808-79-8] ^	**540**	D	mg/L	10	50	1F30020	EPA 300.0	07/01/11 02:06	CCB	

Description: MW-8
Matrix: Ground Water
Project: Swift Creek

Lab Sample ID: C107922-08
Sampled: 06/27/11 11:00
Sampled By: John Sherrill

Received: 06/28/11 07:22
Work Order: C107922

Metals by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MRL	Batch	Method	Analyzed	By	Notes
Mercury [7439-97-6] ^	0.200	U	ug/L	1	0.200	1F29019	EPA 7470A	06/29/11 17:53	NLH	

Description: MW-8
Matrix: Ground Water
Project: Swift Creek

Lab Sample ID: C107922-08
Sampled: 06/27/11 11:00
Sampled By: John Sherrill

Received: 06/28/11 07:22
Work Order: C107922

Metals (total recoverable) by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MRL	Batch	Method	Analyzed	By	Notes
Arsenic [7440-38-2] ^	**207**	D	ug/L	10	100	1F28024	EPA 6010C	06/29/11 13:02	JDH	
Barium [7440-39-3] ^	**223**	D	ug/L	10	100	1F28024	EPA 6010C	06/29/11 13:02	JDH	
Cadmium [7440-43-9] ^	10.0	UD	ug/L	10	10.0	1F28024	EPA 6010C	06/29/11 13:02	JDH	
Chromium [7440-47-3] ^	100	UD	ug/L	10	100	1F28024	EPA 6010C	06/29/11 13:02	JDH	
Lead [7439-92-1] ^	**103**	D	ug/L	10	100	1F28024	EPA 6010C	06/29/11 13:02	JDH	
Selenium [7782-49-2] ^	100	UD	ug/L	10	100	1F28024	EPA 6010C	06/29/11 13:02	JDH	
Silver [7440-22-4] ^	100	UD	ug/L	10	100	1F28024	EPA 6010C	06/29/11 13:02	JDH	

Description: MW-8
Matrix: Ground Water
Project: Swift Creek

Lab Sample ID: C107922-08
Sampled: 06/27/11 11:00
Sampled By: John Sherrill

Received: 06/28/11 07:22
Work Order: C107922

Classical Chemistry Parameters

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MRL	Batch	Method	Analyzed	By	Notes
Sulfate as SO4 [14808-79-8] ^	**410**	D	mg/L	10	50	1F30020	EPA 300.0	07/01/11 02:24	CCB	

Description: SW-1
Matrix: Ground Water
Project: Swift Creek

Lab Sample ID: C107922-09
Sampled: 06/27/11 10:30
Sampled By: John Sherrill

Received: 06/28/11 07:22
Work Order: C107922

Metals by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MRL	Batch	Method	Analyzed	By	Notes
Mercury [7439-97-6] ^	0.200	U	ug/L	1	0.200	1F29019	EPA 7470A	06/29/11 17:56	NLH	

Description: SW-1
Matrix: Ground Water
Project: Swift Creek

Lab Sample ID: C107922-09
Sampled: 06/27/11 10:30
Sampled By: John Sherrill

Received: 06/28/11 07:22
Work Order: C107922

Metals (total recoverable) by EPA 6000/7000 Series Methods

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MRL	Batch	Method	Analyzed	By	Notes
Arsenic [7440-38-2] ^	10.0	U	ug/L	1	10.0	1F28024	EPA 6010C	06/29/11 12:46	JDH	
Barium [7440-39-3] ^	**41.2**		ug/L	1	10.0	1F28024	EPA 6010C	06/29/11 12:46	JDH	
Cadmium [7440-43-9] ^	1.00	U	ug/L	1	1.00	1F28024	EPA 6010C	06/29/11 12:46	JDH	
Chromium [7440-47-3] ^	10.0	U	ug/L	1	10.0	1F28024	EPA 6010C	06/29/11 12:46	JDH	
Lead [7439-92-1] ^	10.0	U	ug/L	1	10.0	1F28024	EPA 6010C	06/29/11 12:46	JDH	
Selenium [7782-49-2] ^	10.0	U	ug/L	1	10.0	1F28024	EPA 6010C	06/29/11 12:46	JDH	
Silver [7440-22-4] ^	10.0	U	ug/L	1	10.0	1F28024	EPA 6010C	06/29/11 12:46	JDH	

Description: SW-1
Matrix: Ground Water
Project: Swift Creek

Lab Sample ID: C107922-09
Sampled: 06/27/11 10:30
Sampled By: John Sherrill

Received: 06/28/11 07:22
Work Order: C107922

Classical Chemistry Parameters

^ - ENCO Cary certified analyte [NC 591]

Analyte [CAS Number]	Results	Flag	Units	DF	MRL	Batch	Method	Analyzed	By	Notes
Sulfate as SO4 [14808-79-8] ^	5.0	U	mg/L	1	5.0	1F30020	EPA 300.0	07/01/11 03:17	CCB	

QUALITY CONTROL

Metals by EPA 6000/7000 Series Methods - Quality Control

Batch 1F29019 - EPA 245.1

Blank (1F29019-BLK1) Prepared: 06/29/2011 10:01 Analyzed: 06/29/2011 16:42

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	0.200	U	0.200	ug/L							

LCS (1F29019-BS1) Prepared: 06/29/2011 10:01 Analyzed: 06/29/2011 16:45

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	4.92		0.200	ug/L	5.00		98	85-115			

Matrix Spike (1F29019-MS1) Prepared: 06/29/2011 10:01 Analyzed: 06/29/2011 16:52

Source: C106842-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	12.2		0.200	ug/L	5.00	6.67	111	85-115			

Matrix Spike Dup (1F29019-MSD1) Prepared: 06/29/2011 10:01 Analyzed: 06/29/2011 16:55

Source: C106842-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	11.8		0.200	ug/L	5.00	6.67	103	85-115	3	15	

Post Spike (1F29019-PS1) Prepared: 06/29/2011 10:01 Analyzed: 06/29/2011 17:03

Source: C106842-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	10.9		0.200	ug/L	5.00	6.67	84	75-125			

Batch 1G07017 - EPA 245.1

Blank (1G07017-BLK1) Prepared: 07/07/2011 09:45 Analyzed: 07/07/2011 15:45

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	0.200	U	0.200	ug/L							

LCS (1G07017-BS1) Prepared: 07/07/2011 09:45 Analyzed: 07/07/2011 15:38

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	5.30		0.200	ug/L	5.00		106	85-115			

Matrix Spike (1G07017-MS1) Prepared: 07/07/2011 09:45 Analyzed: 07/07/2011 15:48

Source: C107922-06RE1

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	5.86		0.200	ug/L	5.00	0.980	98	85-115			

Matrix Spike Dup (1G07017-MSD1) Prepared: 07/07/2011 09:45 Analyzed: 07/07/2011 15:51

Source: C107922-06RE1

QUALITY CONTROL

Metals by EPA 6000/7000 Series Methods - Quality Control

Batch 1G07017 - EPA 245.1

Matrix Spike Dup (1G07017-MSD1) Continued Prepared: 07/07/2011 09:45 Analyzed: 07/07/2011 15:51

Source: C107922-06RE1

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	6.02		0.200	ug/L	5.00	0.980	101	85-115	3	15	

Post Spike (1G07017-PS1) Prepared: 07/07/2011 09:45 Analyzed: 07/07/2011 15:54

Source: C107922-06RE1

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Mercury	6.23		0.200	ug/L	5.00	0.980	105	75-125			

Metals (total recoverable) by EPA 6000/7000 Series Methods - Quality Control

Batch 1F28024 - EPA 3005A

Blank (1F28024-BLK1) Prepared: 06/28/2011 12:27 Analyzed: 06/29/2011 10:45

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	10.0	U	10.0	ug/L							
Barium	10.0	U	10.0	ug/L							
Cadmium	1.00	U	1.00	ug/L							
Chromium	10.0	U	10.0	ug/L							
Lead	10.0	U	10.0	ug/L							
Selenium	10.0	U	10.0	ug/L							
Silver	10.0	U	10.0	ug/L							

LCS (1F28024-BS1) Prepared: 06/28/2011 12:27 Analyzed: 06/29/2011 10:48

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	507		10.0	ug/L	500		101	80-120			
Barium	519		10.0	ug/L	500		104	80-120			
Cadmium	264		1.00	ug/L	250		106	80-120			
Chromium	524		10.0	ug/L	500		105	80-120			
Lead	513		10.0	ug/L	500		103	80-120			
Selenium	515		10.0	ug/L	500		103	80-120			
Silver	265		10.0	ug/L	250		106	80-120			

Matrix Spike (1F28024-MS1) Prepared: 06/28/2011 12:27 Analyzed: 06/29/2011 10:59

Source: C107922-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	473		10.0	ug/L	500	8.95	93	75-125			
Barium	792		10.0	ug/L	500	383	82	75-125			
Cadmium	198		1.00	ug/L	250	0.830	79	75-125			
Chromium	401		10.0	ug/L	500	2.84	80	75-125			
Lead	387		10.0	ug/L	500	10.0 U	77	75-125			
Selenium	525		10.0	ug/L	500	78.3	89	75-125			
Silver	240		10.0	ug/L	250	5.67	94	75-125			

QUALITY CONTROL

Metals (total recoverable) by EPA 6000/7000 Series Methods - Quality Control

Batch 1F28024 - EPA 3005A

Matrix Spike Dup (1F28024-MSD1) Prepared: 06/28/2011 12:27 Analyzed: 06/29/2011 11:02

Source: C107922-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	486		10.0	ug/L	500	8.95	95	75-125	3	20	
Barium	802		10.0	ug/L	500	383	84	75-125	1	20	
Cadmium	201		1.00	ug/L	250	0.830	80	75-125	1	20	
Chromium	406		10.0	ug/L	500	2.84	81	75-125	1	20	
Lead	391		10.0	ug/L	500	10.0 U	78	75-125	1	20	
Selenium	530		10.0	ug/L	500	78.3	90	75-125	0.9	20	
Silver	242		10.0	ug/L	250	5.67	95	75-125	1	20	

Post Spike (1F28024-PS1) Prepared: 06/28/2011 12:27 Analyzed: 06/29/2011 11:04

Source: C107922-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Arsenic	0.913		0.0100	mg/L	1.00	0.00895	90	80-120			
Barium	1.19		0.0100	mg/L	1.00	0.383	81	80-120			
Cadmium	0.389		0.00100	mg/L	0.500	0.000830	78	80-120			QM-08
Chromium	0.787		0.0100	mg/L	1.00	0.00284	78	80-120			QM-08
Lead	0.752		0.0100	mg/L	1.00	-0.00994	76	80-120			QM-08
Selenium	0.956		0.0100	mg/L	1.00	0.0783	88	80-120			
Silver	0.467		0.0100	mg/L	0.500	0.00567	92	80-120			

Classical Chemistry Parameters - Quality Control

Batch 1F30020 - NO PREP

Blank (1F30020-BLK1) Prepared: 06/30/2011 12:00 Analyzed: 06/30/2011 20:13

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Sulfate as SO4	5.0	U	5.0	mg/L							

LCS (1F30020-BS1) Prepared: 06/30/2011 12:00 Analyzed: 06/30/2011 20:30

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Sulfate as SO4	47		5.0	mg/L	50.0		95	90-110			

Matrix Spike (1F30020-MS1) Prepared: 06/30/2011 12:00 Analyzed: 06/30/2011 20:48

Source: C105866-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Sulfate as SO4	22		5.0	mg/L	20.0	4.5	85	90-110			QM-05

Matrix Spike Dup (1F30020-MSD1) Prepared: 06/30/2011 12:00 Analyzed: 06/30/2011 21:06

Source: C105866-01

Analyte	Result	Flag	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Sulfate as SO4	21		5.0	mg/L	20.0	4.5	84	90-110	2	10	QM-05

FLAGS/NOTES AND DEFINITIONS

B	The analyte was detected in the associated method blank.
D	The sample was analyzed at dilution.
J	The reported value is between the laboratory method detection limit (MDL) and the laboratory method reporting limit (MRL), adjusted for actual sample preparation data and moisture content, where applicable.
U	The analyte was analyzed for but not detected to the level shown, adjusted for actual sample preparation data and moisture content, where applicable.
E	The concentration indicated for this analyte is an estimated value above the calibration range of the instrument. This value is considered an estimate.
MRL	Method Reporting Limit. The MRL is roughly equivalent to the practical quantitation limit (PQL) and is based on the low point of the calibration curve, when applicable, sample preparation factor, dilution factor, and, in the case of soil samples, moisture content.
QM-05	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.
QM-08	Post-digestion spike did not meet method requirements due to confirmed matrix effects (dilution test).
R-05	The sample was diluted due to the presence of high levels of non-target analytes resulting in elevated reporting limits.

ENVIRONMENTAL CONSERVATION LABORATORIES CHAIN-OF-CUSTODY RECORD

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Cary, NC 27511
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Client Name: Sherrill Environmental, Inc. (SH004)	Project Number: [none]
Address: 3326 Rugby Road	Project Name/Desc: Swift Creek
City/ST/Zip: Durham, NC 27707	PO # / Billing Info
Tel: (919) 493-6555 Fax: (919) 493-6554	Reporting Contact: Jack Sherrill
Sampler(s) Name, Affiliation (Print): John Sherrill-Sherrill Environmental	Billing Contact: Accounts Payable
Sampler(s) Signature: John Sherrill	Site Location / Time Zone

Requested Analyses

Requested Turnaround Times

Note : Rush requests subject to acceptance by the facility

☑ Standard

☐ Expedited

Due __/__/__

Lab Workorder: C107922

Item #	Sample ID (Field Identification)	Collection Date	Collection Time	Comp / Grab	Matrix (see codes)	Total # of Containers	Preservation (See Codes) (Combine as necessary) Ag,As,Ba,Cd,Cr,Pb,Se	Hg	Sulfate 300	Sample Comments
	MW-1S	6/27/11	1045		GW	2	X	X	X	
	MW-2S		1050		GW	2	X	X	X	
	MW-3		1036		GW	2	X	X	X	
	MW-4		1020		GW	2	X	X	X	
	MW-5S		1010		GW	2	X	X	X	
	MW-6		1110		GW	2	X	X	X	
	MW-7		1055		GW	2	X	X	X	
	MW-8		1100		GW	2	X	X	X	
	SW-1		1030		GW	2	X	X	X	
	~~SW-2~~ Dry				GW	2	X	X	X	
	~~SW-3~~ Dry				GW	2	X	X	X	

<-- Total # of Containers

Sample Kit Prepared By	Date/Time	Relinquished By: John Sherrill	Date/Time: 6/28/11 7:00	Received By: Stephanie Longo	Date/Time: 6/29/11 09:22
Comments/Special Reporting Requirements		Relinquished By	Date/Time	Received By	Date/Time
		Relinquished By	Date/Time	Received By	Date/Time
		Cooler #'s & Temps on Receipt: C-707 @ 3°C		Condition Upon Receipt: X Acceptable ___ Unacceptable	

Matrix : GW-Groundwater SO-Soil DW-Drinking Water SE-Sediment SW-Surface Water WW-Wastewater A-Air O-Other (detail in comments)

Preservation: I-Ice H-HCl N-HNO3 S-H2SO4 NO-NaOH O-Other (detail in comments)

Note : All samples submitted to ENCO Labs are in accordance with the terms and conditions listed on the reverse of this form, unless prior written agreements exist