NINTH PROGRESS REPORT
NORFOLK SOUTHERN RAILWAY COMPANY
OLD ATHENS TURNPIKE LEAD SITE
OLD ATHENS ROAD
PRINCETON, WEST VIRGINIA
NSRC FILE NO. SA08-253-001

November 25, 2009

Prepared For:

Mr. Kevin Hauschildt, *Manager Environmental Remediation & Audits*
NORFOLK SOUTHERN RAILWAY COMPANY
110 Franklin Road, S.E., Box 13
Roanoke, VA 24042-0013
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Prepared By:

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MM&A Project No. NS1691

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Senior Scientist

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APPENDIX A – Laboratory Certificate-of-Analysis and Chain-of-Custody

1.0 INTRODUCTION

This Progress Report was prepared on behalf of Norfolk Southern Railway Company (NSRC) by Marshall Miller & Associates (MM&A). The Progress Report describes response actions in accordance with Section 8.7 of the Administrative Settlement and Order on Consent for Removal Response Action, hereafter referred to as the Settlement Agreement (SA), between the United States Environmental Protection Agency (USEPA) and NSRC. The effective date of the SA was July 2, 2009. Response actions are being performed in the Old Athens Turnpike right-of-way in accordance with the Response Action Plan (RAP) submitted to USEPA on July 6, 2009, as amended on July 16, 2009. NSRC received USEPA's July 29, 2009 approval of the RAP, as well as notification of access to the portion of the Site not owned by NSRC, on July 31, 2009. In accordance with the SA, NSRC commenced on-site implementation of the RAP on August 5, 2009, within seven business days of receipt of the RAP approval and access notification. NSRC submitted the First Progress Report on August 6, 2009, the Second Progress Report on August 20, 2009, the Third Progress Report on September 3, 2009, the Fourth Progress Report on September 17, 2009, the Fifth Progress Report on October 1, 2009, the Sixth Progress Report on October 15, 2009, the Seventh Progress Report on October 29, 2009, and the Eighth Progress Report on November 12, 2009, each providing information on activities performed during the fourteen days following the respective prior progress report. In accordance with the SA, this Ninth Progress Report provides information on activities performed during the fourteen days following the Eighth Progress Report.

The Old Athens Turnpike right-of-way (hereafter referred to as the R-O-W) is located in Princeton, Mercer County, West Virginia. For purposes of the RAP, the Site consists of (1) a portion of the R-O-W (approximately 50 feet wide by 300 feet long) adjacent to the former salvage facility (referred to herein as the S.S. Belcher property) that was operated by S.S. Belcher & Company (S.S. Belcher) on NSRC property, and (2) a small overwash area (approximately 30 feet wide by 50 feet long) located on NSRC's property formerly leased to S.S. Belcher. NSRC owns Parcel Number 9 in Princeton, Mercer County, West Virginia, which extends southwestward to the centerline of the former R-O-W. Access to the portion

of the Site not owned by NSRC was granted to USEPA by a warrant issued on July 23, 2009. USEPA notified NSRC of the issuance of the warrant granting NSRC access, as USEPA's agent for that purpose, by letter dated July 29, 2009. Lead-impacted surface soil is being assessed and remediated at the R-O-W in accordance with the approved RAP.

2.0 RESPONSE ACTIONS COMPLETED DURING REPORTING PERIOD

In accordance with the SA and RAP, MM&A has completed the following activities during this reporting period:

1. Maintained high visibility security fencing and keep out signs around the R-O-W to deter access by persons not conducting or overseeing the response actions, to preclude interference with the performance of the response activities and to provide for safety of the public during non-working hours.

2. Analytical results for soil samples collected from the Cherry Hollow borrow site were evaluated. It was determined that target compound list (TCL) volatile organic compounds (VOCs), polychlorinated biphenyls (PCB), total petroleum hydrocarbons (TPH)-diesel range organics (DRO)/oil range organics (ORO), TCL semi-volatile organic compounds (SVOCs), organochloride pesticides, chlorinated herbicides, and target analyte list (TAL) metals were within acceptable ranges for fill material. On November 16, 2009, the USEPA approved the use of borrow material from the Cherry Hollow borrow site for backfill in the Old Athens Turnpike R-O-W excavation.

3.0 PROBLEMS ENCOUNTERED OR ANTICIPATED

Saturated soil conditions caused by rainfall may impair the removal of borrow material from the Cherry Hollow site as well as accessibility to the Old Athens Turnpike R-O-W for backfilling.

4.0 ACTIONS TO PREVENT OR MITIGATE PROBLEMS

Loading of borrow material from Cherry Hollow, transportation and placement of backfill in the Old Athens Turnpike R-O-W will be planned around precipitation events.

5.0 SCHEDULE FOR COMPLETING PROBLEM MITIGATION

Weather permitting, it is anticipated that backfilling of the excavation will begin on November 24, 2009.

6.0 COPIES OF ANALYTICAL DATA

Lancaster Laboratories certificate-of-analysis and chain-of-custody copies for Cherry Hollow borrow material are included as **Appendix A**.

7.0 RESPONSE ACTION PLAN MODIFICATIONS

No other modifications were made to the response action, the RAP or the schedule.

8.0 REMEDIAL ACTIONS OVER NEXT FOURTEEN DAYS

The following response actions are anticipated to be completed in the next fourteen days in accordance with the schedule included in the RAP:

1. Backfilling will be conducted in accordance with Item 14 of Section 2.1 of the RAP, including sampling requirements, and ground cover will be placed in accordance with Item 15 of Section 2.1 of the RAP. Since the average dry weight XRF total lead concentration for post-excavation soil samples is below 400 mg/kg, the excavation will be backfilled using clean material without a fabric filter or liner.

Appendix A
Laboratory Certificate-of-Analysis and Chain-of-Custody

Lancaster Laboratories

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

ANALYTICAL RESULTS

Prepared for:

Norfolk Southern Railway Co
110 Franklin Road SE
Box 13
Roanoke VA 24042-0013

540-981-4993

Prepared by:

Lancaster Laboratories
2425 New Holland Pike
Lancaster, PA 17605-2425

November 16, 2009

Project: Old Athens Turnpike, WV

Samples arrived at the laboratory on Wednesday, November 04, 2009. The PO# for this group is 1-9-WV-PRTN-SA08 and the release number is SC8675#8453760. The group number for this submittal is 1169339.

Client Sample Description	Lancaster Labs (LLI) #
Cherry Hollow-1 Composite Soil Sample	5825593
Cherry Hollow-2 Composite Soil Sample	5825594
Cherry Hollow-3 Composite Soil Sample	5825595

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

ELECTRONIC COPY TO	Marshall Miller & Associates	Attn: Chuck Cline
ELECTRONIC COPY TO	Marshall Miller & Associates	Attn: George Robertson
1 COPY TO	Data Package Group	

Lancaster Laboratories

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

Questions? Contact your Client Services Representative
Megan A Moeller at (717) 656-2300

Respectfully Submitted,

Matthew E. Barton
Senior Specialist

Lancaster Laboratories

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

Sample Description: Cherry Hollow-1 Composite Soil Sample
Old Athens Turnpike

LLI Sample # SW 5825593
LLI Group # 1169339
WV

Project Name: Old Athens Turnpike, WV

Collected: 11/03/2009 11:45 by JK

Account Number: 11716

Submitted: 11/04/2009 09:00
Reported: 11/16/2009 at 16:00
Discard: 12/17/2009

Norfolk Southern Railway Co
110 Franklin Road SE
Box 13
Roanoke VA 24042-0013

OLDC1 SDG#: ATH05-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	
06292	Acetone	67-64-1	95		7	0.83
06292	Benzene	71-43-2	N.D.		0.5	0.83
06292	Bromodichloromethane	75-27-4	N.D.		1	0.83
06292	Bromoform	75-25-2	N.D.		1	0.83
06292	Bromomethane	74-83-9	N.D.		2	0.83
06292	2-Butanone	78-93-3	8	J	4	0.83
06292	Carbon Disulfide	75-15-0	2	J	1	0.83
06292	Carbon Tetrachloride	56-23-5	N.D.		1	0.83
06292	Chlorobenzene	108-90-7	N.D.		1	0.83
06292	Chloroethane	75-00-3	N.D.		2	0.83
06292	Chloroform	67-66-3	N.D.		1	0.83
06292	Chloromethane	74-87-3	N.D.		2	0.83
06292	Dibromochloromethane	124-48-1	N.D.		1	0.83
06292	1,1-Dichloroethane	75-34-3	N.D.		1	0.83
06292	1,2-Dichloroethane	107-06-2	N.D.		1	0.83
06292	1,1-Dichloroethene	75-35-4	N.D.		1	0.83
06292	cis-1,2-Dichloroethene	156-59-2	N.D.		1	0.83
06292	trans-1,2-Dichloroethene	156-60-5	N.D.		1	0.83
06292	1,2-Dichloropropane	78-87-5	N.D.		1	0.83
06292	cis-1,3-Dichloropropene	10061-01-5	N.D.		1	0.83
06292	trans-1,3-Dichloropropene	10061-02-6	N.D.		1	0.83
06292	Ethylbenzene	100-41-4	N.D.		1	0.83
06292	2-Hexanone	591-78-6	N.D.		3	0.83
06292	4-Methyl-2-pentanone	108-10-1	N.D.		3	0.83
06292	Methylene Chloride	75-09-2	N.D.		2	0.83
06292	Styrene	100-42-5	N.D.		1	0.83
06292	1,1,2,2-Tetrachloroethane	79-34-5	N.D.		1	0.83
06292	Tetrachloroethene	127-18-4	N.D.		1	0.83
06292	Toluene	108-88-3	N.D.		1	0.83
06292	1,1,1-Trichloroethane	71-55-6	N.D.		1	0.83
06292	1,1,2-Trichloroethane	79-00-5	N.D.		1	0.83
06292	Trichloroethene	79-01-6	N.D.		1	0.83
06292	Vinyl Chloride	75-01-4	N.D.		1	0.83
06292	Xylene (Total)	1330-20-7	N.D.		1	0.83
GC/MS Semivolatiles	**SW-846 8270C**		**ug/kg**		**ug/kg**	
04688	Acenaphthene	83-32-9	N.D.		41	1
04688	Acenaphthylene	208-96-8	N.D.		41	1
04688	Anthracene	120-12-7	N.D.		41	1
04688	Benzo(a)anthracene	56-55-3	N.D.		41	1
04688	Benzo(a)pyrene	50-32-8	N.D.		41	1
04688	Benzo(b)fluoranthene	205-99-2	N.D.		41	1
04688	Benzo(g,h,i)perylene	191-24-2	N.D.		41	1
04688	Benzo(k)fluoranthene	207-08-9	N.D.		41	1
04688	4-Bromophenyl-phenylether	101-55-3	N.D.		41	1
04688	Butylbenzylphthalate	85-68-7	N.D.		81	1
04688	Di-n-butylphthalate	84-74-2	N.D.		81	1
04688	Carbazole	86-74-8	N.D.		41	1
04688	4-Chloro-3-methylphenol	59-50-7	N.D.		81	1

Sample Description: Cherry Hollow-1 Composite Soil Sample
Old Athens Turnpike

LLI Sample # SW 5825593
LLI Group # 1169339
WV

Project Name: Old Athens Turnpike, WV

Collected: 11/03/2009 11:45 by JK

Account Number: 11716

Submitted: 11/04/2009 09:00
Reported: 11/16/2009 at 16:00
Discard: 12/17/2009

Norfolk Southern Railway Co
110 Franklin Road SE
Box 13
Roanoke VA 24042-0013

OLDC1 SDG#: ATH05-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C			**ug/kg**	**ug/kg**	
04688	4-Chloroaniline	106-47-8	N.D.	81	1
04688	bis(2-Chloroethoxy)methane	111-91-1	N.D.	41	1
04688	bis(2-Chloroethyl)ether	111-44-4	N.D.	41	1
04688	2-Chloronaphthalene	91-58-7	N.D.	41	1
04688	2-Chlorophenol	95-57-8	N.D.	41	1
04688	4-Chlorophenyl-phenylether	7005-72-3	N.D.	41	1
04688	2,2'-oxybis(1-Chloropropane)	108-60-1	N.D.	41	1
04688	Chrysene	218-01-9	N.D.	41	1
04688	Dibenz(a,h)anthracene	53-70-3	N.D.	41	1
04688	Dibenzofuran	132-64-9	N.D.	41	1
04688	1,2-Dichlorobenzene	95-50-1	N.D.	41	1
04688	1,3-Dichlorobenzene	541-73-1	N.D.	41	1
04688	1,4-Dichlorobenzene	106-46-7	N.D.	41	1
04688	3,3'-Dichlorobenzidine	91-94-1	N.D.	120	1
04688	2,4-Dichlorophenol	120-83-2	N.D.	41	1
04688	Diethylphthalate	84-66-2	N.D.	81	1
04688	2,4-Dimethylphenol	105-67-9	N.D.	81	1
04688	Dimethylphthalate	131-11-3	N.D.	81	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	N.D.	200	1
04688	2,4-Dinitrophenol	51-28-5	N.D.	810	1
04688	2,4-Dinitrotoluene	121-14-2	N.D.	81	1
04688	2,6-Dinitrotoluene	606-20-2	N.D.	41	1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	81	1
04688	Fluoranthene	206-44-0	N.D.	41	1
04688	Fluorene	86-73-7	N.D.	41	1
04688	Hexachlorobenzene	118-74-1	N.D.	41	1
04688	Hexachlorobutadiene	87-68-3	N.D.	81	1
04688	Hexachlorocyclopentadiene	77-47-4	N.D.	200	1
04688	Hexachloroethane	67-72-1	N.D.	41	1
04688	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	41	1
04688	Isophorone	78-59-1	N.D.	41	1
04688	2-Methylnaphthalene	91-57-6	N.D.	41	1
04688	2-Methylphenol	95-48-7	N.D.	81	1
04688	4-Methylphenol	106-44-5	N.D.	81	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.				
04688	Naphthalene	91-20-3	N.D.	41	1
04688	2-Nitroaniline	88-74-4	N.D.	41	1
04688	3-Nitroaniline	99-09-2	N.D.	81	1
04688	4-Nitroaniline	100-01-6	N.D.	81	1
04688	Nitrobenzene	98-95-3	N.D.	41	1
04688	2-Nitrophenol	88-75-5	N.D.	41	1
04688	4-Nitrophenol	100-02-7	N.D.	200	1
04688	N-Nitroso-di-n-propylamine	621-64-7	N.D.	41	1
04688	N-Nitrosodiphenylamine	86-30-6	390	41	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.				
04688	Di-n-octylphthalate	117-84-0	N.D.	81	1

Sample Description: Cherry Hollow-1 Composite Soil Sample
Old Athens Turnpike

LLI Sample # SW 5825593
LLI Group # 1169339
WV

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Discard: 12/17/2009

Norfolk Southern Railway Co
110 Franklin Road SE
Box 13
Roanoke VA 24042-0013

OLDC1 SDG#: ATH05-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270C**		**ug/kg**	**ug/kg**	
04688	Pentachlorophenol	87-86-5	N.D.	200	1
04688	Phenanthrene	85-01-8	N.D.	41	1
04688	Phenol	108-95-2	N.D.	41	1
04688	Pyrene	129-00-0	N.D.	41	1
04688	1,2,4-Trichlorobenzene	120-82-1	N.D.	41	1
04688	2,4,5-Trichlorophenol	95-95-4	N.D.	81	1
04688	2,4,6-Trichlorophenol	88-06-2	N.D.	41	1
GC Volatiles	**SW-846 8015B**		**mg/kg**	**mg/kg**	
01637	TPH-GRO soil C6-C10	n.a.	N.D.	0.2	25.25
Herbicides	**SW-846 8151A**		**ug/kg**	**ug/kg**	
01865	2,4-D	94-75-7	N.D.	15	1
01865	Dalapon	75-99-0	180	36	1
01865	2,4-DB	94-82-6	N.D.	7.5	1
01865	Dicamba	1918-00-9	N.D.	4.9	1
01865	Dinoseb	88-85-7	N.D.	9.7	1
01865	2,4-DP (Dichloroprop)	120-36-5	N.D.	9.7	1
01865	MCPA	94-74-6	N.D.	920	1
01865	MCPP (Mecoprop)	93-65-2	N.D.	910	1
01865	Pentachlorophenol	87-86-5	N.D.	0.40	1
01865	2,4,5-T	93-76-5	N.D.	1.0	1
01865	2,4,5-TP	93-72-1	N.D.	0.91	1

The LCS recovery for dinoseb is outside the QC limits. Since the recovery is within our statistical limit of 0%-36%, the results are reported.

Pesticides/PCBs	**SW-846 8081A**		**ug/kg**	**ug/kg**	
06001	Aldrin	309-00-2	N.D.	0.40	1
06001	Alpha BHC	319-84-6	N.D.	0.21	1
06001	Beta BHC	319-85-7	N.D.	0.77	1
06001	Gamma BHC - Lindane	58-89-9	N.D.	0.21	1
06001	Chlordane	57-74-9	N.D.	4.9	1
06001	p,p-DDD	72-54-8	N.D.	0.40	1
06001	p,p-DDE	72-55-9	N.D.	0.40	1
06001	p,p-DDT	50-29-3	N.D.	0.40	1
06001	Delta BHC	319-86-8	N.D.	0.38	1
06001	Dieldrin	60-57-1	N.D.	0.40	1
06001	Endosulfan I	959-98-8	N.D.	0.27	1
06001	Endosulfan II	33213-65-9	N.D.	0.40	1
06001	Endosulfan Sulfate	1031-07-8	N.D.	0.40	1
06001	Endrin	72-20-8	N.D.	0.40	1
06001	Endrin Aldehyde	7421-93-4	N.D.	0.40	1
06001	Heptachlor	76-44-8	N.D.	0.21	1
06001	Heptachlor Epoxide	1024-57-3	N.D.	0.21	1
06001	Kepone	143-50-0	N.D.	2.8	1
06001	Methoxychlor	72-43-5	N.D.	2.1	1
06001	Toxaphene	8001-35-2	N.D.	13	1
Pesticides/PCBs	**SW-846 8082**		**ug/kg**	**ug/kg**	

Sample Description: Cherry Hollow-1 Composite Soil Sample
Old Athens Turnpike

LLI Sample # SW 5825593
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Norfolk Southern Railway Co
110 Franklin Road SE
Box 13
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OLDC1 SDG#: ATH05-01

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082**		**ug/kg**		**ug/kg**	
02033	PCB-1016	12674-11-2	N.D.		4.01	1
02033	PCB-1221	11104-28-2	N.D.		4.87	1
02033	PCB-1232	11141-16-5	N.D.		6.45	1
02033	PCB-1242	53469-21-9	N.D.		4.01	1
02033	PCB-1248	12672-29-6	N.D.		4.01	1
02033	PCB-1254	11097-69-1	N.D.		4.01	1
02033	PCB-1260	11096-82-5	N.D.		4.01	1
GC Extractable TPH	**SW-846 8015B**		**mg/kg**		**mg/kg**	
08270	TPH-DRO soil C10-C28	n.a.	14	J	4.9	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	
01643	Aluminum	7429-90-5	22,700		6.12	1
06944	Antimony	7440-36-0	1.63	J	1.22	1
06935	Arsenic	7440-38-2	12.3		1.16	1
06946	Barium	7440-39-3	142		0.0487	1
06947	Beryllium	7440-41-7	1.25		0.0827	1
06949	Cadmium	7440-43-9	0.299	J	0.170	1
01650	Calcium	7440-70-2	2,320		7.46	1
06951	Chromium	7440-47-3	21.9		0.718	1
06952	Cobalt	7440-48-4	18.9		0.231	1
06953	Copper	7440-50-8	29.4		0.243	1
01654	Iron	7439-89-6	34,700		5.73	1
06955	Lead	7439-92-1	18.4		0.730	1
01657	Magnesium	7439-95-4	3,960		3.09	1
06958	Manganese	7439-96-5	663		0.0681	1
06961	Nickel	7440-02-0	30.6		0.219	1
01662	Potassium	7440-09-7	2,580		15.9	1
06936	Selenium	7782-49-2	N.D.		1.19	1
06966	Silver	7440-22-4	N.D.		0.219	1
01667	Sodium	7440-23-5	66.8	J	45.4	1
06925	Thallium	7440-28-0	N.D.		1.76	1
06971	Vanadium	7440-62-2	28.4		0.207	1
06972	Zinc	7440-66-6	73.7		0.803	1
	SW-846 7471B		**mg/kg**		**mg/kg**	
00159	Mercury	7439-97-6	0.0153	J	0.0135	1
Wet Chemistry	**EPA 365.1**		**mg/kg**		**mg/kg**	
05893	Total Phosphorus as P (solid)	7723-14-0	221		58.7	5
	SM20 4500NH3 B/C modified		**mg/kg**		**mg/kg**	
00573	Ammonia Nitrogen	7664-41-7	28.3	J	20.7	1
	SW-846 9045C modified		**Std. Units**		**Std. Units**	

Sample Description: Cherry Hollow-1 Composite Soil Sample
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OLDC1 SDG#: ATH05-01

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**SW-846 9045C modified**		**Std. Units**	**Std. Units**	
00394	pH	n.a.	8.74	0.0100	1
Wet Chemistry	**SM20 2540 G**		**%**	**%**	
00111	Moisture	n.a.	17.8	0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06292	TCL by 8260 (soil)	SW-846 8260B	1	X093102AA	11/06/2009 19:51	Chelsea B Eastep	0.83
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	200930819712	11/03/2009 11:45	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	200930819712	11/03/2009 11:45	Client Supplied	1
07579	GC/MS-Field PreservedMeOH-NC	SW-846 5035A	1	200930819712	11/03/2009 11:45	Client Supplied	1
04688	TCL SW846 Semivolatiles Soil	SW-846 8270C	1	09308SLG026	11/08/2009 14:17	Brian K Graham	1
00381	BNA Soil Sonication	SW-846 3550B	1	09308SLG026	11/04/2009 21:30	Karen L Beyer	1
01637	TPH-GRO soil C6-C10	SW-846 8015B	1	09299B34B	11/07/2009 14:55	Marie D John	25.25
01150	GC - Bulk Soil Prep	SW-846 5030A	1	200930919722	11/05/2009 12:05	Larry E Bevins	n.a.
01865	Herbicides in Soils	SW-846 8151A	1	093090008A	11/06/2009 13:29	Michele D Hamilton	1
06001	App. IX OC Pesticides in Soils	SW-846 8081A	1	093140013A	11/12/2009 13:12	Lindsey K Lafferty	1
02033	PCBs in Soil	SW-846 8082	1	093080004A	11/07/2009 08:28	Andrea J Covey	1
06006	PPL Pesticide Solid Extraction	SW-846 3550B	1	093080004A	11/04/2009 16:15	JoElla L Rice	1
06006	PPL Pesticide Solid Extraction	SW-846 3550B	3	093140013A	11/11/2009 03:30	David V Hershey Jr	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	093090008A	11/05/2009 21:05	Elaine F Stoltzfus	1
08270	TPH-DRO soil C10-C28	SW-846 8015B	1	093080017A	11/05/2009 16:55	Diane V Do	1
07004	Extraction - DRO (Soils)	SW-846 3550B	1	093080017A	11/05/2009 07:00	Joseph S Feister	1
01643	Aluminum	SW-846 6010C	1	093100637001	11/09/2009 19:19	John P Hook	1
06944	Antimony	SW-846 6010C	1	093100637001	11/09/2009 19:19	John P Hook	1
06935	Arsenic	SW-846 6010C	1	093100637001	11/09/2009 19:19	John P Hook	1

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Analysis Report

Sample Description: Cherry Hollow-1 Composite Soil Sample
Old Athens Turnpike

LLI Sample # SW 5825593
LLI Group # 1169339
WV

Project Name: Old Athens Turnpike, WV

Collected: 11/03/2009 11:45 by JK

Account Number: 11716

Submitted: 11/04/2009 09:00
Reported: 11/16/2009 at 16:00
Discard: 12/17/2009

Norfolk Southern Railway Co
110 Franklin Road SE
Box 13
Roanoke VA 24042-0013

OLDC1 SDG#: ATH05-01

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06946	Barium	SW-846 6010C	1	093100637001	11/09/2009 19:19	John P Hook	1
06947	Beryllium	SW-846 6010C	1	093100637001	11/09/2009 19:19	John P Hook	1
06949	Cadmium	SW-846 6010C	1	093100637001	11/09/2009 19:19	John P Hook	1
01650	Calcium	SW-846 6010C	1	093100637001	11/10/2009 06:15	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	093100637001	11/09/2009 19:19	John P Hook	1
06952	Cobalt	SW-846 6010C	1	093100637001	11/09/2009 19:19	John P Hook	1
06953	Copper	SW-846 6010C	1	093100637001	11/09/2009 19:19	John P Hook	1
01654	Iron	SW-846 6010C	1	093100637001	11/09/2009 19:19	John P Hook	1
06955	Lead	SW-846 6010C	1	093100637001	11/09/2009 19:19	John P Hook	1
01657	Magnesium	SW-846 6010C	1	093100637001	11/10/2009 06:15	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	093100637001	11/09/2009 19:19	John P Hook	1
06961	Nickel	SW-846 6010C	1	093100637001	11/09/2009 19:19	John P Hook	1
01662	Potassium	SW-846 6010C	1	093100637001	11/09/2009 19:19	John P Hook	1
06936	Selenium	SW-846 6010C	1	093100637001	11/09/2009 19:19	John P Hook	1
06966	Silver	SW-846 6010C	1	093100637001	11/09/2009 19:19	John P Hook	1
01667	Sodium	SW-846 6010C	1	093100637001	11/09/2009 19:19	John P Hook	1
06925	Thallium	SW-846 6010C	1	093100637001	11/09/2009 19:19	John P Hook	1
06971	Vanadium	SW-846 6010C	1	093100637001	11/09/2009 19:19	John P Hook	1
06972	Zinc	SW-846 6010C	1	093100637001	11/09/2009 19:19	John P Hook	1
00159	Mercury	SW-846 7471B	1	093100638001	11/09/2009 16:49	Nelli S Markaryan	1
10637	SW SW846 (IV) ICP Digest	SW-846 3050B	1	093100637001	11/08/2009 20:00	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	093100638001	11/08/2009 23:15	Annamaria Stipkovits	1
05893	Total Phosphorus as P (solid)	EPA 365.1	1	09313109201A	11/10/2009 15:00	Venia B McFadden	5
08262	Total Phos as P Prep (solid)	EPA 365.1	2	09313109201A	11/09/2009 10:30	Nancy J Shoop	1
00573	Ammonia Nitrogen	SM20 4500NH3 B/C modified	1	09313057301A	11/09/2009 06:30	Michele L Graham	1
00394	pH	SW-846 9045C modified	1	09311039401B	11/07/2009 07:00	Daniel S Smith	1
00111	Moisture	SM20 2540 G	1	09308820007B	11/04/2009 20:03	Scott W Freisher	1

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Analysis Report

Sample Description: Cherry Hollow-2 Composite Soil Sample
Old Athens Turnpike

LLI Sample # SW 5825594
LLI Group # 1169339
WV

Project Name: Old Athens Turnpike, WV

Collected: 11/03/2009 12:00 by JK

Account Number: 11716

Submitted: 11/04/2009 09:00
Reported: 11/16/2009 at 16:00
Discard: 12/17/2009

Norfolk Southern Railway Co
110 Franklin Road SE
Box 13
Roanoke VA 24042-0013

OLDC2 SDG#: ATH05-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**		**ug/kg**	
06292	Acetone	67-64-1	78		6	0.71
06292	Benzene	71-43-2	N.D.		0.5	0.71
06292	Bromodichloromethane	75-27-4	N.D.		0.9	0.71
06292	Bromoform	75-25-2	N.D.		0.9	0.71
06292	Bromomethane	74-83-9	N.D.		2	0.71
06292	2-Butanone	78-93-3	5	J	4	0.71
06292	Carbon Disulfide	75-15-0	N.D.		0.9	0.71
06292	Carbon Tetrachloride	56-23-5	N.D.		0.9	0.71
06292	Chlorobenzene	108-90-7	N.D.		0.9	0.71
06292	Chloroethane	75-00-3	N.D.		2	0.71
06292	Chloroform	67-66-3	N.D.		0.9	0.71
06292	Chloromethane	74-87-3	N.D.		2	0.71
06292	Dibromochloromethane	124-48-1	N.D.		0.9	0.71
06292	1,1-Dichloroethane	75-34-3	N.D.		0.9	0.71
06292	1,2-Dichloroethane	107-06-2	N.D.		0.9	0.71
06292	1,1-Dichloroethene	75-35-4	N.D.		0.9	0.71
06292	cis-1,2-Dichloroethene	156-59-2	N.D.		0.9	0.71
06292	trans-1,2-Dichloroethene	156-60-5	N.D.		0.9	0.71
06292	1,2-Dichloropropane	78-87-5	N.D.		0.9	0.71
06292	cis-1,3-Dichloropropene	10061-01-5	N.D.		0.9	0.71
06292	trans-1,3-Dichloropropene	10061-02-6	N.D.		0.9	0.71
06292	Ethylbenzene	100-41-4	N.D.		0.9	0.71
06292	2-Hexanone	591-78-6	N.D.		3	0.71
06292	4-Methyl-2-pentanone	108-10-1	N.D.		3	0.71
06292	Methylene Chloride	75-09-2	N.D.		2	0.71
06292	Styrene	100-42-5	N.D.		0.9	0.71
06292	1,1,2,2-Tetrachloroethane	79-34-5	N.D.		0.9	0.71
06292	Tetrachloroethene	127-18-4	N.D.		0.9	0.71
06292	Toluene	108-88-3	N.D.		0.9	0.71
06292	1,1,1-Trichloroethane	71-55-6	N.D.		0.9	0.71
06292	1,1,2-Trichloroethane	79-00-5	N.D.		0.9	0.71
06292	Trichloroethene	79-01-6	N.D.		0.9	0.71
06292	Vinyl Chloride	75-01-4	N.D.		0.9	0.71
06292	Xylene (Total)	1330-20-7	N.D.		0.9	0.71
GC/MS Semivolatiles	**SW-846 8270C**		**ug/kg**		**ug/kg**	
04688	Acenaphthene	83-32-9	N.D.		42	1
04688	Acenaphthylene	208-96-8	N.D.		42	1
04688	Anthracene	120-12-7	N.D.		42	1
04688	Benzo(a)anthracene	56-55-3	N.D.		42	1
04688	Benzo(a)pyrene	50-32-8	N.D.		42	1
04688	Benzo(b)fluoranthene	205-99-2	N.D.		42	1
04688	Benzo(g,h,i)perylene	191-24-2	N.D.		42	1
04688	Benzo(k)fluoranthene	207-08-9	N.D.		42	1
04688	4-Bromophenyl-phenylether	101-55-3	N.D.		42	1
04688	Butylbenzylphthalate	85-68-7	N.D.		85	1
04688	Di-n-butylphthalate	84-74-2	N.D.		85	1
04688	Carbazole	86-74-8	N.D.		42	1
04688	4-Chloro-3-methylphenol	59-50-7	N.D.		85	1

Sample Description: Cherry Hollow-2 Composite Soil Sample
Old Athens Turnpike

LLI Sample # SW 5825594
LLI Group # 1169339
WV

Project Name: Old Athens Turnpike, WV

Collected: 11/03/2009 12:00 by JK

Account Number: 11716

Submitted: 11/04/2009 09:00
Reported: 11/16/2009 at 16:00
Discard: 12/17/2009

Norfolk Southern Railway Co
110 Franklin Road SE
Box 13
Roanoke VA 24042-0013

OLDC2 SDG#: ATH05-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C			**ug/kg**	**ug/kg**	
04688	4-Chloroaniline	106-47-8	N.D.	85	1
04688	bis(2-Chloroethoxy)methane	111-91-1	N.D.	42	1
04688	bis(2-Chloroethyl)ether	111-44-4	N.D.	42	1
04688	2-Chloronaphthalene	91-58-7	N.D.	42	1
04688	2-Chlorophenol	95-57-8	N.D.	42	1
04688	4-Chlorophenyl-phenylether	7005-72-3	N.D.	42	1
04688	2,2'-oxybis(1-Chloropropane)	108-60-1	N.D.	42	1
04688	Chrysene	218-01-9	N.D.	42	1
04688	Dibenz(a,h)anthracene	53-70-3	N.D.	42	1
04688	Dibenzofuran	132-64-9	N.D.	42	1
04688	1,2-Dichlorobenzene	95-50-1	N.D.	42	1
04688	1,3-Dichlorobenzene	541-73-1	N.D.	42	1
04688	1,4-Dichlorobenzene	106-46-7	N.D.	42	1
04688	3,3'-Dichlorobenzidine	91-94-1	N.D.	130	1
04688	2,4-Dichlorophenol	120-83-2	N.D.	42	1
04688	Diethylphthalate	84-66-2	N.D.	85	1
04688	2,4-Dimethylphenol	105-67-9	N.D.	85	1
04688	Dimethylphthalate	131-11-3	N.D.	85	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	N.D.	210	1
04688	2,4-Dinitrophenol	51-28-5	N.D.	850	1
04688	2,4-Dinitrotoluene	121-14-2	N.D.	85	1
04688	2,6-Dinitrotoluene	606-20-2	N.D.	42	1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	85	1
04688	Fluoranthene	206-44-0	N.D.	42	1
04688	Fluorene	86-73-7	N.D.	42	1
04688	Hexachlorobenzene	118-74-1	N.D.	42	1
04688	Hexachlorobutadiene	87-68-3	N.D.	85	1
04688	Hexachlorocyclopentadiene	77-47-4	N.D.	210	1
04688	Hexachloroethane	67-72-1	N.D.	42	1
04688	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	42	1
04688	Isophorone	78-59-1	N.D.	42	1
04688	2-Methylnaphthalene	91-57-6	N.D.	42	1
04688	2-Methylphenol	95-48-7	N.D.	85	1
04688	4-Methylphenol	106-44-5	N.D.	85	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.				
04688	Naphthalene	91-20-3	N.D.	42	1
04688	2-Nitroaniline	88-74-4	N.D.	42	1
04688	3-Nitroaniline	99-09-2	N.D.	85	1
04688	4-Nitroaniline	100-01-6	N.D.	85	1
04688	Nitrobenzene	98-95-3	N.D.	42	1
04688	2-Nitrophenol	88-75-5	N.D.	42	1
04688	4-Nitrophenol	100-02-7	N.D.	210	1
04688	N-Nitroso-di-n-propylamine	621-64-7	N.D.	42	1
04688	N-Nitrosodiphenylamine	86-30-6	300	42	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.				
04688	Di-n-octylphthalate	117-84-0	N.D.	85	1

Sample Description: Cherry Hollow-2 Composite Soil Sample
Old Athens Turnpike

LLI Sample # SW 5825594
LLI Group # 1169339
WV

Project Name: Old Athens Turnpike, WV

Collected: 11/03/2009 12:00 by JK

Account Number: 11716

Submitted: 11/04/2009 09:00
Reported: 11/16/2009 at 16:00
Discard: 12/17/2009

Norfolk Southern Railway Co
110 Franklin Road SE
Box 13
Roanoke VA 24042-0013

OLDC2 SDG#: ATH05-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270C**		**ug/kg**		**ug/kg**	
04688	Pentachlorophenol	87-86-5	N.D.		210	1
04688	Phenanthrene	85-01-8	N.D.		42	1
04688	Phenol	108-95-2	N.D.		42	1
04688	Pyrene	129-00-0	N.D.		42	1
04688	1,2,4-Trichlorobenzene	120-82-1	N.D.		42	1
04688	2,4,5-Trichlorophenol	95-95-4	N.D.		85	1
04688	2,4,6-Trichlorophenol	88-06-2	N.D.		42	1
GC Volatiles	**SW-846 8015B**		**mg/kg**		**mg/kg**	
01637	TPH-GRO soil C6-C10	n.a.	N.D.		0.2	24.56
Herbicides	**SW-846 8151A**		**ug/kg**		**ug/kg**	
01865	2,4-D	94-75-7	N.D.		15	1
01865	Dalapon	75-99-0	40	J	38	1
01865	2,4-DB	94-82-6	N.D.		7.9	1
01865	Dicamba	1918-00-9	N.D.		5.1	1
01865	Dinoseb	88-85-7	N.D.		10	1
01865	2,4-DP (Dichloroprop)	120-36-5	N.D.		10	1
01865	MCPA	94-74-6	N.D.		960	1
01865	MCPP (Mecoprop)	93-65-2	N.D.		950	1
01865	Pentachlorophenol	87-86-5	N.D.		0.42	1
01865	2,4,5-T	93-76-5	N.D.		1.0	1
01865	2,4,5-TP	93-72-1	N.D.		0.95	1
Pesticides/PCBs	**SW-846 8081A**		**ug/kg**		**ug/kg**	
06001	Aldrin	309-00-2	N.D.		0.42	1
06001	Alpha BHC	319-84-6	N.D.		0.22	1
06001	Beta BHC	319-85-7	N.D.		0.80	1
06001	Gamma BHC - Lindane	58-89-9	N.D.		0.22	1
06001	Chlordane	57-74-9	N.D.		5.1	1
06001	p,p-DDD	72-54-8	N.D.		0.42	1
06001	p,p-DDE	72-55-9	N.D.		0.42	1
06001	p,p-DDT	50-29-3	N.D.		0.42	1
06001	Delta BHC	319-86-8	N.D.		0.39	1
06001	Dieldrin	60-57-1	N.D.		0.42	1
06001	Endosulfan I	959-98-8	N.D.		0.28	1
06001	Endosulfan II	33213-65-9	N.D.		0.42	1
06001	Endosulfan Sulfate	1031-07-8	N.D.		0.42	1
06001	Endrin	72-20-8	N.D.		0.42	1
06001	Endrin Aldehyde	7421-93-4	N.D.		0.42	1
06001	Heptachlor	76-44-8	N.D.		0.22	1
06001	Heptachlor Epoxide	1024-57-3	N.D.		0.22	1
06001	Kepone	143-50-0	N.D.		2.9	1
06001	Methoxychlor	72-43-5	N.D.		2.2	1
06001	Toxaphene	8001-35-2	N.D.		14	1
Pesticides/PCBs	**SW-846 8082**		**ug/kg**		**ug/kg**	
02033	PCB-1016	12674-11-2	N.D.		4.19	1

Sample Description: Cherry Hollow-2 Composite Soil Sample
Old Athens Turnpike

LLI Sample # SW 5825594
LLI Group # 1169339
WV

Project Name: Old Athens Turnpike, WV

Collected: 11/03/2009 12:00 by JK

Account Number: 11716

Submitted: 11/04/2009 09:00
Reported: 11/16/2009 at 16:00
Discard: 12/17/2009

Norfolk Southern Railway Co
110 Franklin Road SE
Box 13
Roanoke VA 24042-0013

OLDC2 SDG#: ATH05-02

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082**		**ug/kg**		**ug/kg**	
02033	PCB-1221	11104-28-2	N.D.		5.08	1
02033	PCB-1232	11141-16-5	N.D.		6.73	1
02033	PCB-1242	53469-21-9	N.D.		4.19	1
02033	PCB-1248	12672-29-6	N.D.		4.19	1
02033	PCB-1254	11097-69-1	N.D.		4.19	1
02033	PCB-1260	11096-82-5	N.D.		4.19	1
GC Extractable TPH	**SW-846 8015B**		**mg/kg**		**mg/kg**	
08270	TPH-DRO soil C10-C28	n.a.	6.0	J	5.1	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	
01643	Aluminum	7429-90-5	21,900		6.32	1
06944	Antimony	7440-36-0	N.D.		1.26	1
06935	Arsenic	7440-38-2	3.92	J	1.19	1
06946	Barium	7440-39-3	120		0.0503	1
06947	Beryllium	7440-41-7	0.983	J	0.0854	1
06949	Cadmium	7440-43-9	0.239	J	0.176	1
01650	Calcium	7440-70-2	937		7.70	1
06951	Chromium	7440-47-3	21.2		0.741	1
06952	Cobalt	7440-48-4	18.3		0.239	1
06953	Copper	7440-50-8	19.2		0.251	1
01654	Iron	7439-89-6	31,000		5.92	1
06955	Lead	7439-92-1	15.6		0.754	1
01657	Magnesium	7439-95-4	3,370		3.19	1
06958	Manganese	7439-96-5	612		0.0704	1
06961	Nickel	7440-02-0	25.8		0.226	1
01662	Potassium	7440-09-7	2,470		16.5	1
06936	Selenium	7782-49-2	N.D.		1.23	1
06966	Silver	7440-22-4	N.D.		0.226	1
01667	Sodium	7440-23-5	56.5	J	46.9	1
06925	Thallium	7440-28-0	N.D.		1.82	1
06971	Vanadium	7440-62-2	29.6		0.214	1
06972	Zinc	7440-66-6	66.9		0.829	1
	SW-846 7471B		**mg/kg**		**mg/kg**	
00159	Mercury	7439-97-6	0.0223	J	0.0143	1
Wet Chemistry	**EPA 365.1**		**mg/kg**		**mg/kg**	
05893	Total Phosphorus as P (solid)	7723-14-0	200		12.2	1
	SM20 4500NH3 B/C modified		**mg/kg**		**mg/kg**	
00573	Ammonia Nitrogen	7664-41-7	34.2	J	21.6	1
	SW-846 9045C modified		**Std. Units**		**Std. Units**	
00394	pH	n.a.	7.28		0.0100	1

Sample Description: Cherry Hollow-2 Composite Soil Sample
Old Athens Turnpike

LLI Sample # SW 5825594
LLI Group # 1169339
WV

Project Name: Old Athens Turnpike, WV

Collected: 11/03/2009 12:00 by JK

Account Number: 11716

Submitted: 11/04/2009 09:00
Reported: 11/16/2009 at 16:00
Discard: 12/17/2009

Norfolk Southern Railway Co
110 Franklin Road SE
Box 13
Roanoke VA 24042-0013

OLDC2 SDG#: ATH05-02

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**SM20 2540 G**		%	%	
00111	Moisture	n.a.	21.2	0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06292	TCL by 8260 (soil)	SW-846 8260B	1	X093102AA	11/06/2009 20:14	Chelsea B Eastep	0.71
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	200930819712	11/03/2009 12:00	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	200930819712	11/03/2009 12:00	Client Supplied	1
07579	GC/MS-Field PreservedMeOH-NC	SW-846 5035A	1	200930819712	11/03/2009 12:00	Client Supplied	1
04688	TCL SW846 Semivolatiles Soil	SW-846 8270C	1	09308SLG026	11/08/2009 14:41	Brian K Graham	1
00381	BNA Soil Sonication	SW-846 3550B	1	09308SLG026	11/04/2009 21:30	Karen L Beyer	1
01637	TPH-GRO soil C6-C10	SW-846 8015B	1	09299B34B	11/07/2009 15:31	Marie D John	24.56
01150	GC - Bulk Soil Prep	SW-846 5030A	1	200930919722	11/05/2009 12:04	Larry E Bevins	n.a.
01865	Herbicides in Soils	SW-846 8151A	1	093100009A	11/10/2009 10:49	Michele D Hamilton	1
06001	App. IX OC Pesticides in Soils	SW-846 8081A	1	093140013A	11/12/2009 13:25	Lindsey K Lafferty	1
02033	PCBs in Soil	SW-846 8082	1	093080004A	11/07/2009 09:04	Andrea J Covey	1
06006	PPL Pesticide Solid Extraction	SW-846 3550B	1	093080004A	11/04/2009 16:15	JoElla L Rice	1
06006	PPL Pesticide Solid Extraction	SW-846 3550B	3	093140013A	11/11/2009 03:30	David V Hershey Jr	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	093100009A	11/07/2009 05:30	David V Hershey Jr	1
08270	TPH-DRO soil C10-C28	SW-846 8015B	1	093080017A	11/05/2009 17:17	Diane V Do	1
07004	Extraction - DRO (Soils)	SW-846 3550B	1	093080017A	11/05/2009 07:00	Joseph S Feister	1
01643	Aluminum	SW-846 6010C	1	093100637001	11/09/2009 19:40	John P Hook	1
06944	Antimony	SW-846 6010C	1	093100637001	11/09/2009 19:40	John P Hook	1
06935	Arsenic	SW-846 6010C	1	093100637001	11/09/2009 19:40	John P Hook	1
06946	Barium	SW-846 6010C	1	093100637001	11/09/2009 19:40	John P Hook	1
06947	Beryllium	SW-846 6010C	1	093100637001	11/09/2009 19:40	John P Hook	1
06949	Cadmium	SW-846 6010C	1	093100637001	11/09/2009 19:40	John P Hook	1
01650	Calcium	SW-846 6010C	1	093100637001	11/10/2009 06:36	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	093100637001	11/09/2009 19:40	John P Hook	1

Sample Description: Cherry Hollow-2 Composite Soil Sample
Old Athens Turnpike

LLI Sample # SW 5825594
LLI Group # 1169339
WV

Project Name: Old Athens Turnpike, WV

Collected: 11/03/2009 12:00 by JK

Account Number: 11716

Submitted: 11/04/2009 09:00
Reported: 11/16/2009 at 16:00
Discard: 12/17/2009

Norfolk Southern Railway Co
110 Franklin Road SE
Box 13
Roanoke VA 24042-0013

OLDC2 SDG#: ATH05-02

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06952	Cobalt	SW-846 6010C	1	093100637001	11/09/2009 19:40	John P Hook	1
06953	Copper	SW-846 6010C	1	093100637001	11/09/2009 19:40	John P Hook	1
01654	Iron	SW-846 6010C	1	093100637001	11/09/2009 19:40	John P Hook	1
06955	Lead	SW-846 6010C	1	093100637001	11/09/2009 19:40	John P Hook	1
01657	Magnesium	SW-846 6010C	1	093100637001	11/10/2009 06:36	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	093100637001	11/09/2009 19:40	John P Hook	1
06961	Nickel	SW-846 6010C	1	093100637001	11/09/2009 19:40	John P Hook	1
01662	Potassium	SW-846 6010C	1	093100637001	11/09/2009 19:40	John P Hook	1
06936	Selenium	SW-846 6010C	1	093100637001	11/09/2009 19:40	John P Hook	1
06966	Silver	SW-846 6010C	1	093100637001	11/09/2009 19:40	John P Hook	1
01667	Sodium	SW-846 6010C	1	093100637001	11/09/2009 19:40	John P Hook	1
06925	Thallium	SW-846 6010C	1	093100637001	11/09/2009 19:40	John P Hook	1
06971	Vanadium	SW-846 6010C	1	093100637001	11/09/2009 19:40	John P Hook	1
06972	Zinc	SW-846 6010C	1	093100637001	11/09/2009 19:40	John P Hook	1
00159	Mercury	SW-846 7471B	1	093100638001	11/09/2009 16:50	Nelli S Markaryan	1
10637	SW SW846 (IV) ICP Digest	SW-846 3050B	1	093100637001	11/08/2009 20:00	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	093100638001	11/08/2009 23:15	Annamaria Stipkovits	1
05893	Total Phosphorus as P (solid)	EPA 365.1	1	09313109201A	11/10/2009 15:03	Venia B McFadden	1
08262	Total Phos as P Prep (solid)	EPA 365.1	2	09313109201A	11/09/2009 10:30	Nancy J Shoop	1
00573	Ammonia Nitrogen	SM20 4500NH3 B/C modified	1	09313057301A	11/09/2009 06:30	Michele L Graham	1
00394	pH	SW-846 9045C modified	1	09311039401B	11/07/2009 07:00	Daniel S Smith	1
00111	Moisture	SM20 2540 G	1	09308820007B	11/04/2009 20:03	Scott W Freisher	1

Lancaster Laboratories

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

Sample Description: Cherry Hollow-3 Composite Soil Sample
Old Athens Turnpike

LLI Sample # SW 5825595
LLI Group # 1169339
WV

Project Name: Old Athens Turnpike, WV

Collected: 11/03/2009 12:15 by JK

Account Number: 11716

Submitted: 11/04/2009 09:00
Reported: 11/16/2009 at 16:00
Discard: 12/17/2009

Norfolk Southern Railway Co
110 Franklin Road SE
Box 13
Roanoke VA 24042-0013

OLDC3 SDG#: ATH05-03*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/kg**	**ug/kg**	
06292	Acetone	67-64-1	130	8	0.82
06292	Benzene	71-43-2	N.D.	0.5	0.82
06292	Bromodichloromethane	75-27-4	N.D.	1	0.82
06292	Bromoform	75-25-2	N.D.	1	0.82
06292	Bromomethane	74-83-9	N.D.	2	0.82
06292	2-Butanone	78-93-3	11	4	0.82
06292	Carbon Disulfide	75-15-0	N.D.	1	0.82
06292	Carbon Tetrachloride	56-23-5	N.D.	1	0.82
06292	Chlorobenzene	108-90-7	N.D.	1	0.82
06292	Chloroethane	75-00-3	N.D.	2	0.82
06292	Chloroform	67-66-3	N.D.	1	0.82
06292	Chloromethane	74-87-3	N.D.	2	0.82
06292	Dibromochloromethane	124-48-1	N.D.	1	0.82
06292	1,1-Dichloroethane	75-34-3	N.D.	1	0.82
06292	1,2-Dichloroethane	107-06-2	N.D.	1	0.82
06292	1,1-Dichloroethene	75-35-4	N.D.	1	0.82
06292	cis-1,2-Dichloroethene	156-59-2	N.D.	1	0.82
06292	trans-1,2-Dichloroethene	156-60-5	N.D.	1	0.82
06292	1,2-Dichloropropane	78-87-5	N.D.	1	0.82
06292	cis-1,3-Dichloropropene	10061-01-5	N.D.	1	0.82
06292	trans-1,3-Dichloropropene	10061-02-6	N.D.	1	0.82
06292	Ethylbenzene	100-41-4	N.D.	1	0.82
06292	2-Hexanone	591-78-6	N.D.	3	0.82
06292	4-Methyl-2-pentanone	108-10-1	N.D.	3	0.82
06292	Methylene Chloride	75-09-2	N.D.	2	0.82
06292	Styrene	100-42-5	N.D.	1	0.82
06292	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	1	0.82
06292	Tetrachloroethene	127-18-4	N.D.	1	0.82
06292	Toluene	108-88-3	N.D.	1	0.82
06292	1,1,1-Trichloroethane	71-55-6	N.D.	1	0.82
06292	1,1,2-Trichloroethane	79-00-5	N.D.	1	0.82
06292	Trichloroethene	79-01-6	N.D.	1	0.82
06292	Vinyl Chloride	75-01-4	N.D.	1	0.82
06292	Xylene (Total)	1330-20-7	N.D.	1	0.82
GC/MS Semivolatiles	**SW-846 8270C**		**ug/kg**	**ug/kg**	
04688	Acenaphthene	83-32-9	N.D.	44	1
04688	Acenaphthylene	208-96-8	N.D.	44	1
04688	Anthracene	120-12-7	N.D.	44	1
04688	Benzo(a)anthracene	56-55-3	N.D.	44	1
04688	Benzo(a)pyrene	50-32-8	N.D.	44	1
04688	Benzo(b)fluoranthene	205-99-2	N.D.	44	1
04688	Benzo(g,h,i)perylene	191-24-2	N.D.	44	1
04688	Benzo(k)fluoranthene	207-08-9	N.D.	44	1
04688	4-Bromophenyl-phenylether	101-55-3	N.D.	44	1
04688	Butylbenzylphthalate	85-68-7	N.D.	89	1
04688	Di-n-butylphthalate	84-74-2	N.D.	89	1
04688	Carbazole	86-74-8	N.D.	44	1
04688	4-Chloro-3-methylphenol	59-50-7	N.D.	89	1

Sample Description: Cherry Hollow-3 Composite Soil Sample
Old Athens Turnpike

LLI Sample # SW 5825595
LLI Group # 1169339
WV

Project Name: Old Athens Turnpike, WV

Collected: 11/03/2009 12:15 by JK

Account Number: 11716

Submitted: 11/04/2009 09:00
Reported: 11/16/2009 at 16:00
Discard: 12/17/2009

Norfolk Southern Railway Co
110 Franklin Road SE
Box 13
Roanoke VA 24042-0013

OLDC3 SDG#: ATH05-03*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles SW-846 8270C			**ug/kg**	**ug/kg**	
04688	4-Chloroaniline	106-47-8	N.D.	89	1
04688	bis(2-Chloroethoxy)methane	111-91-1	N.D.	44	1
04688	bis(2-Chloroethyl)ether	111-44-4	N.D.	44	1
04688	2-Chloronaphthalene	91-58-7	N.D.	44	1
04688	2-Chlorophenol	95-57-8	N.D.	44	1
04688	4-Chlorophenyl-phenylether	7005-72-3	N.D.	44	1
04688	2,2'-oxybis(1-Chloropropane)	108-60-1	N.D.	44	1
04688	Chrysene	218-01-9	N.D.	44	1
04688	Dibenz(a,h)anthracene	53-70-3	N.D.	44	1
04688	Dibenzofuran	132-64-9	N.D.	44	1
04688	1,2-Dichlorobenzene	95-50-1	N.D.	44	1
04688	1,3-Dichlorobenzene	541-73-1	N.D.	44	1
04688	1,4-Dichlorobenzene	106-46-7	N.D.	44	1
04688	3,3'-Dichlorobenzidine	91-94-1	N.D.	130	1
04688	2,4-Dichlorophenol	120-83-2	N.D.	44	1
04688	Diethylphthalate	84-66-2	N.D.	89	1
04688	2,4-Dimethylphenol	105-67-9	N.D.	89	1
04688	Dimethylphthalate	131-11-3	N.D.	89	1
04688	4,6-Dinitro-2-methylphenol	534-52-1	N.D.	220	1
04688	2,4-Dinitrophenol	51-28-5	N.D.	890	1
04688	2,4-Dinitrotoluene	121-14-2	N.D.	89	1
04688	2,6-Dinitrotoluene	606-20-2	N.D.	44	1
04688	bis(2-Ethylhexyl)phthalate	117-81-7	N.D.	89	1
04688	Fluoranthene	206-44-0	N.D.	44	1
04688	Fluorene	86-73-7	N.D.	44	1
04688	Hexachlorobenzene	118-74-1	N.D.	44	1
04688	Hexachlorobutadiene	87-68-3	N.D.	89	1
04688	Hexachlorocyclopentadiene	77-47-4	N.D.	220	1
04688	Hexachloroethane	67-72-1	N.D.	44	1
04688	Indeno(1,2,3-cd)pyrene	193-39-5	N.D.	44	1
04688	Isophorone	78-59-1	N.D.	44	1
04688	2-Methylnaphthalene	91-57-6	N.D.	44	1
04688	2-Methylphenol	95-48-7	N.D.	89	1
04688	4-Methylphenol	106-44-5	N.D.	89	1
	3-Methylphenol and 4-methylphenol cannot be resolved under the chromatographic conditions used for sample analysis. The result reported for 4-methylphenol represents the combined total of both compounds.				
04688	Naphthalene	91-20-3	N.D.	44	1
04688	2-Nitroaniline	88-74-4	N.D.	44	1
04688	3-Nitroaniline	99-09-2	N.D.	89	1
04688	4-Nitroaniline	100-01-6	N.D.	89	1
04688	Nitrobenzene	98-95-3	N.D.	44	1
04688	2-Nitrophenol	88-75-5	N.D.	44	1
04688	4-Nitrophenol	100-02-7	N.D.	220	1
04688	N-Nitroso-di-n-propylamine	621-64-7	N.D.	44	1
04688	N-Nitrosodiphenylamine	86-30-6	1,600	44	1
	N-nitrosodiphenylamine decomposes in the GC inlet forming diphenylamine. The result reported for N-nitrosodiphenylamine represents the combined total of both compounds.				
04688	Di-n-octylphthalate	117-84-0	N.D.	89	1

Sample Description: Cherry Hollow-3 Composite Soil Sample
Old Athens Turnpike

LLI Sample # SW 5825595
LLI Group # 1169339
WV

Project Name: Old Athens Turnpike, WV

Collected: 11/03/2009 12:15 by JK

Account Number: 11716

Submitted: 11/04/2009 09:00
Reported: 11/16/2009 at 16:00
Discard: 12/17/2009

Norfolk Southern Railway Co
110 Franklin Road SE
Box 13
Roanoke VA 24042-0013

OLDC3 SDG#: ATH05-03*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit	Dilution Factor
GC/MS Semivolatiles	**SW-846 8270C**		**ug/kg**		**ug/kg**	
04688	Pentachlorophenol	87-86-5	N.D.		220	1
04688	Phenanthrene	85-01-8	N.D.		44	1
04688	Phenol	108-95-2	N.D.		44	1
04688	Pyrene	129-00-0	N.D.		44	1
04688	1,2,4-Trichlorobenzene	120-82-1	N.D.		44	1
04688	2,4,5-Trichlorophenol	95-95-4	N.D.		89	1
04688	2,4,6-Trichlorophenol	88-06-2	N.D.		44	1
GC Volatiles	**SW-846 8015B**		**mg/kg**		**mg/kg**	
01637	TPH-GRO soil C6-C10	n.a.	N.D.		0.3	25
Herbicides	**SW-846 8151A**		**ug/kg**		**ug/kg**	
01865	2,4-D	94-75-7	N.D.		16	1
01865	Dalapon	75-99-0	150		40	1
01865	2,4-DB	94-82-6	N.D.		8.2	1
01865	Dicamba	1918-00-9	N.D.		5.3	1
01865	Dinoseb	88-85-7	N.D.		11	1
01865	2,4-DP (Dichloroprop)	120-36-5	N.D.		11	1
01865	MCPA	94-74-6	N.D.		1,000	1
01865	MCPP (Mecoprop)	93-65-2	N.D.		1,000	1
01865	Pentachlorophenol	87-86-5	N.D.		0.44	1
01865	2,4,5-T	93-76-5	N.D.		1.1	1
01865	2,4,5-TP	93-72-1	N.D.		1.0	1
Pesticides/PCBs	**SW-846 8081A**		**ug/kg**		**ug/kg**	
06001	Aldrin	309-00-2	N.D.		0.44	1
06001	Alpha BHC	319-84-6	N.D.		0.23	1
06001	Beta BHC	319-85-7	N.D.		0.84	1
06001	Gamma BHC - Lindane	58-89-9	1.5		0.23	1
06001	Chlordane	57-74-9	N.D.		5.3	1
06001	p,p-DDD	72-54-8	N.D.		0.44	1
06001	p,p-DDE	72-55-9	0.92	J	0.44	1
06001	p,p-DDT	50-29-3	N.D.		0.44	1
06001	Delta BHC	319-86-8	N.D.		0.41	1
06001	Dieldrin	60-57-1	N.D.		0.44	1
06001	Endosulfan I	959-98-8	N.D.		0.29	1
06001	Endosulfan II	33213-65-9	N.D.		0.44	1
06001	Endosulfan Sulfate	1031-07-8	N.D.		0.44	1
06001	Endrin	72-20-8	N.D.		0.44	1
06001	Endrin Aldehyde	7421-93-4	N.D.		0.44	1
06001	Heptachlor	76-44-8	N.D.		0.23	1
06001	Heptachlor Epoxide	1024-57-3	N.D.		0.23	1
06001	Kepone	143-50-0	N.D.		3.1	1
06001	Methoxychlor	72-43-5	N.D.		2.3	1
06001	Toxaphene	8001-35-2	N.D.		15	1
Pesticides/PCBs	**SW-846 8082**		**ug/kg**		**ug/kg**	

The LCS recovery for dinoseb is outside the QC limits. Since the recovery is within our statistical limit of 0%-36%, the results are reported.

Sample Description: Cherry Hollow-3 Composite Soil Sample
Old Athens Turnpike

LLI Sample # SW 5825595
LLI Group # 1169339
WV

Project Name: Old Athens Turnpike, WV

Collected: 11/03/2009 12:15 by JK

Account Number: 11716

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Norfolk Southern Railway Co
110 Franklin Road SE
Box 13
Roanoke VA 24042-0013

OLDC3 SDG#: ATH05-03*

CAT No.	Analysis Name	CAS Number	Dry Result		Dry Method Detection Limit	Dilution Factor
Pesticides/PCBs	**SW-846 8082**		**ug/kg**		**ug/kg**	
02033	PCB-1016	12674-11-2	N.D.		4.38	1
02033	PCB-1221	11104-28-2	N.D.		5.31	1
02033	PCB-1232	11141-16-5	N.D.		7.04	1
02033	PCB-1242	53469-21-9	N.D.		4.38	1
02033	PCB-1248	12672-29-6	N.D.		4.38	1
02033	PCB-1254	11097-69-1	N.D.		4.38	1
02033	PCB-1260	11096-82-5	N.D.		4.38	1
GC Extractable TPH	**SW-846 8015B**		**mg/kg**		**mg/kg**	
08270	TPH-DRO soil C10-C28	n.a.	N.D.		5.3	1
Metals	**SW-846 6010C**		**mg/kg**		**mg/kg**	
01643	Aluminum	7429-90-5	25,700		6.49	1
06944	Antimony	7440-36-0	1.37	J	1.29	1
06935	Arsenic	7440-38-2	6.98		1.22	1
06946	Barium	7440-39-3	153		0.0516	1
06947	Beryllium	7440-41-7	1.42		0.0877	1
06949	Cadmium	7440-43-9	0.297	J	0.181	1
01650	Calcium	7440-70-2	1,390		7.90	1
06951	Chromium	7440-47-3	24.1		0.761	1
06952	Cobalt	7440-48-4	19.1		0.245	1
06953	Copper	7440-50-8	23.6		0.258	1
01654	Iron	7439-89-6	36,000		6.07	1
06955	Lead	7439-92-1	18.2		0.774	1
01657	Magnesium	7439-95-4	4,440		3.27	1
06958	Manganese	7439-96-5	881		0.0722	1
06961	Nickel	7440-02-0	35.6		0.232	1
01662	Potassium	7440-09-7	3,460		16.9	1
06936	Selenium	7782-49-2	N.D.		1.26	1
06966	Silver	7440-22-4	N.D.		0.232	1
01667	Sodium	7440-23-5	82.2	J	48.1	1
06925	Thallium	7440-28-0	N.D.		1.87	1
06971	Vanadium	7440-62-2	30.7		0.219	1
06972	Zinc	7440-66-6	82.2		0.851	1
	SW-846 7471B		**mg/kg**		**mg/kg**	
00159	Mercury	7439-97-6	0.0148	J	0.0148	1
Wet Chemistry	**EPA 365.1**		**mg/kg**		**mg/kg**	
05893	Total Phosphorus as P (solid)	7723-14-0	399		65.7	5
	SM20 4500NH3 B/C modified		**mg/kg**		**mg/kg**	
00573	Ammonia Nitrogen	7664-41-7	N.D.		22.6	1
	SW-846 9045C modified		**Std. Units**		**Std. Units**	

Sample Description: Cherry Hollow-3 Composite Soil Sample
Old Athens Turnpike

LLI Sample # SW 5825595
LLI Group # 1169339
WV

Project Name: Old Athens Turnpike, WV

Collected: 11/03/2009 12:15 by JK

Account Number: 11716

Submitted: 11/04/2009 09:00
Reported: 11/16/2009 at 16:00
Discard: 12/17/2009

Norfolk Southern Railway Co
110 Franklin Road SE
Box 13
Roanoke VA 24042-0013

OLDC3 SDG#: ATH05-03*

CAT No.	Analysis Name	CAS Number	Dry Result	Dry Method Detection Limit	Dilution Factor
Wet Chemistry	**SW-846 9045C modified**		**Std. Units**	**Std. Units**	
00394	pH	n.a.	6.15	0.0100	1
Wet Chemistry	**SM20 2540 G**		**%**	**%**	
00111	Moisture	n.a.	24.7	0.50	1

"Moisture" represents the loss in weight of the sample after oven drying at 103 - 105 degrees Celsius. The moisture result reported above is on an as-received basis.

General Sample Comments

All QC is compliant unless otherwise noted. Please refer to the Quality Control Summary for overall QC performance data and associated samples.

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06292	TCL by 8260 (soil)	SW-846 8260B	1	X093102AA	11/06/2009 20:37	Chelsea B Eastep	0.82
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	1	200930819712	11/03/2009 12:15	Client Supplied	1
02392	GC/MS - Field Preserved NaHSO4	SW-846 5035A	2	200930819712	11/03/2009 12:15	Client Supplied	1
07579	GC/MS-Field PreservedMeOH-NC	SW-846 5035A	1	200930819712	11/03/2009 12:15	Client Supplied	1
04688	TCL SW846 Semivolatiles Soil	SW-846 8270C	1	09308SLG026	11/08/2009 15:05	Brian K Graham	1
00381	BNA Soil Sonication	SW-846 3550B	1	09308SLG026	11/04/2009 21:30	Karen L Beyer	1
01637	TPH-GRO soil C6-C10	SW-846 8015B	1	09299B34B	11/07/2009 16:07	Marie D John	25
01150	GC - Bulk Soil Prep	SW-846 5030A	1	200930919722	11/05/2009 12:03	Larry E Bevins	n.a.
01865	Herbicides in Soils	SW-846 8151A	1	093090008A	11/06/2009 15:45	Michele D Hamilton	1
06001	App. IX OC Pesticides in Soils	SW-846 8081A	1	093140013A	11/12/2009 13:39	Lindsey K Lafferty	1
02033	PCBs in Soil	SW-846 8082	1	093080004A	11/07/2009 09:16	Andrea J Covey	1
06006	PPL Pesticide Solid Extraction	SW-846 3550B	1	093080004A	11/04/2009 16:15	JoElla L Rice	1
06006	PPL Pesticide Solid Extraction	SW-846 3550B	3	093140013A	11/11/2009 03:30	David V Hershey Jr	1
04181	Herbicide Soil Extraction	SW-846 3550B/SW-846 8151A	1	093090008A	11/05/2009 21:05	Elaine F Stoltzfus	1
08270	TPH-DRO soil C10-C28	SW-846 8015B	1	093080017A	11/05/2009 15:30	Diane V Do	1
07004	Extraction - DRO (Soils)	SW-846 3550B	1	093080017A	11/05/2009 07:00	Joseph S Feister	1
01643	Aluminum	SW-846 6010C	1	093100637001	11/09/2009 19:43	John P Hook	1
06944	Antimony	SW-846 6010C	1	093100637001	11/09/2009 19:43	John P Hook	1
06935	Arsenic	SW-846 6010C	1	093100637001	11/09/2009 19:43	John P Hook	1

Lancaster Laboratories

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Analysis Report

Sample Description: Cherry Hollow-3 Composite Soil Sample
Old Athens Turnpike

LLI Sample # SW 5825595
LLI Group # 1169339
WV

Project Name: Old Athens Turnpike, WV

Collected: 11/03/2009 12:15 by JK

Account Number: 11716

Submitted: 11/04/2009 09:00
Reported: 11/16/2009 at 16:00
Discard: 12/17/2009

Norfolk Southern Railway Co
110 Franklin Road SE
Box 13
Roanoke VA 24042-0013

OLDC3 SDG#: ATH05-03*

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
06946	Barium	SW-846 6010C	1	093100637001	11/09/2009 19:43	John P Hook	1
06947	Beryllium	SW-846 6010C	1	093100637001	11/09/2009 19:43	John P Hook	1
06949	Cadmium	SW-846 6010C	1	093100637001	11/09/2009 19:43	John P Hook	1
01650	Calcium	SW-846 6010C	1	093100637001	11/10/2009 06:39	Tara L Snyder	1
06951	Chromium	SW-846 6010C	1	093100637001	11/09/2009 19:43	John P Hook	1
06952	Cobalt	SW-846 6010C	1	093100637001	11/09/2009 19:43	John P Hook	1
06953	Copper	SW-846 6010C	1	093100637001	11/09/2009 19:43	John P Hook	1
01654	Iron	SW-846 6010C	1	093100637001	11/09/2009 19:43	John P Hook	1
06955	Lead	SW-846 6010C	1	093100637001	11/09/2009 19:43	John P Hook	1
01657	Magnesium	SW-846 6010C	1	093100637001	11/10/2009 06:39	Tara L Snyder	1
06958	Manganese	SW-846 6010C	1	093100637001	11/09/2009 19:43	John P Hook	1
06961	Nickel	SW-846 6010C	1	093100637001	11/09/2009 19:43	John P Hook	1
01662	Potassium	SW-846 6010C	1	093100637001	11/09/2009 19:43	John P Hook	1
06936	Selenium	SW-846 6010C	1	093100637001	11/09/2009 19:43	John P Hook	1
06966	Silver	SW-846 6010C	1	093100637001	11/09/2009 19:43	John P Hook	1
01667	Sodium	SW-846 6010C	1	093100637001	11/09/2009 19:43	John P Hook	1
06925	Thallium	SW-846 6010C	1	093100637001	11/09/2009 19:43	John P Hook	1
06971	Vanadium	SW-846 6010C	1	093100637001	11/09/2009 19:43	John P Hook	1
06972	Zinc	SW-846 6010C	1	093100637001	11/09/2009 19:43	John P Hook	1
00159	Mercury	SW-846 7471B	1	093100638001	11/09/2009 16:52	Nelli S Markaryan	1
10637	SW SW846 (IV) ICP Digest	SW-846 3050B	1	093100637001	11/08/2009 20:00	Annamaria Stipkovits	1
10638	SW SW846 (IV) Hg Digest	SW-846 7471B	1	093100638001	11/08/2009 23:15	Annamaria Stipkovits	1
05893	Total Phosphorus as P (solid)	EPA 365.1	1	09313109201A	11/10/2009 15:05	Venia B McFadden	5
08262	Total Phos as P Prep (solid)	EPA 365.1	2	09313109201A	11/09/2009 10:30	Nancy J Shoop	1
00573	Ammonia Nitrogen	SM20 4500NH3 B/C modified	1	09313057301A	11/09/2009 06:30	Michele L Graham	1
00394	pH	SW-846 9045C modified	1	09311039401B	11/07/2009 07:00	Daniel S Smith	1
00111	Moisture	SM20 2540 G	1	09308820007B	11/04/2009 20:03	Scott W Freisher	1

Quality Control Summary

Client Name: Norfolk Southern Railway Co Group Number: 1169339
Reported: 11/16/09 at 04:00 PM

Matrix QC may not be reported if site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: X093102AA	Sample number(s): 5825593-5825595							
Acetone	N.D.	7.	ug/kg	91	92	32-209	1	30
Benzene	N.D.	0.5	ug/kg	98	100	80-120	2	30
Bromodichloromethane	N.D.	1.	ug/kg	94	98	78-120	5	30
Bromoform	N.D.	1.	ug/kg	78	83	70-120	7	30
Bromomethane	N.D.	2.	ug/kg	86	83	32-162	3	30
2-Butanone	N.D.	4.	ug/kg	82	84	53-160	2	30
Carbon Disulfide	N.D.	1.	ug/kg	98	98	67-122	0	30
Carbon Tetrachloride	N.D.	1.	ug/kg	97	99	69-122	2	30
Chlorobenzene	N.D.	1.	ug/kg	95	98	80-120	3	30
Chloroethane	N.D.	2.	ug/kg	95	95	37-154	0	30
Chloroform	N.D.	1.	ug/kg	102	104	80-120	2	30
Chloromethane	N.D.	2.	ug/kg	91	90	54-132	2	30
Dibromochloromethane	N.D.	1.	ug/kg	87	94	77-120	8	30
1,1-Dichloroethane	N.D.	1.	ug/kg	100	106	80-120	6	30
1,2-Dichloroethane	N.D.	1.	ug/kg	98	101	71-129	3	30
1,1-Dichloroethene	N.D.	1.	ug/kg	102	102	73-123	0	30
cis-1,2-Dichloroethene	N.D.	1.	ug/kg	98	101	80-120	2	30
trans-1,2-Dichloroethene	N.D.	1.	ug/kg	100	103	79-120	2	30
1,2-Dichloropropane	N.D.	1.	ug/kg	96	99	80-120	4	30
cis-1,3-Dichloropropene	N.D.	1.	ug/kg	85	91	80-120	7	30
trans-1,3-Dichloropropene	N.D.	1.	ug/kg	84	89	77-120	6	30
Ethylbenzene	N.D.	1.	ug/kg	98	100	80-120	3	30
2-Hexanone	N.D.	3.	ug/kg	67	76	45-155	13	30
4-Methyl-2-pentanone	N.D.	3.	ug/kg	76	80	61-134	5	30
Methylene Chloride	N.D.	2.	ug/kg	100	105	76-124	4	30
Styrene	N.D.	1.	ug/kg	91	95	76-120	5	30
1,1,2,2-Tetrachloroethane	N.D.	1.	ug/kg	84	90	71-123	7	30
Tetrachloroethene	N.D.	1.	ug/kg	96	101	77-120	5	30
Toluene	N.D.	1.	ug/kg	99	101	80-120	2	30
1,1,1-Trichloroethane	N.D.	1.	ug/kg	99	101	71-125	3	30
1,1,2-Trichloroethane	N.D.	1.	ug/kg	91	99	80-120	8	30
Trichloroethene	N.D.	1.	ug/kg	99	99	80-120	0	30
Vinyl Chloride	N.D.	1.	ug/kg	94	92	53-120	2	30
Xylene (Total)	N.D.	1.	ug/kg	96	101	80-120	4	30
Batch number: 09308SLG026	Sample number(s): 5825593-5825595							
Acenaphthene	N.D.	33.	ug/kg	97		76-111		
Acenaphthylene	N.D.	33.	ug/kg	101		75-122		
Anthracene	N.D.	33.	ug/kg	101		76-112		
Benzo(a)anthracene	N.D.	33.	ug/kg	103		73-112		
Benzo(a)pyrene	N.D.	33.	ug/kg	98		69-122		
Benzo(b)fluoranthene	N.D.	33.	ug/kg	106		61-127		
Benzo(g,h,i)perylene	N.D.	33.	ug/kg	94		65-122		
Benzo(k)fluoranthene	N.D.	33.	ug/kg	106		67-125		
4-Bromophenyl-phenylether	N.D.	33.	ug/kg	95		79-117		
Butylbenzylphthalate	N.D.	67.	ug/kg	108		75-115		

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Norfolk Southern Railway Co Group Number: 1169339
Reported: 11/16/09 at 04:00 PM

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Di-n-butylphthalate	N.D.	67.	ug/kg	99		79-112		
Carbazole	N.D.	33.	ug/kg	97		77-113		
4-Chloro-3-methylphenol	N.D.	67.	ug/kg	97		74-119		
4-Chloroaniline	N.D.	67.	ug/kg	26		10-110		
bis(2-Chloroethoxy)methane	N.D.	33.	ug/kg	96		70-118		
bis(2-Chloroethyl)ether	N.D.	33.	ug/kg	98		70-104		
2-Chloronaphthalene	N.D.	33.	ug/kg	106		51-130		
2-Chlorophenol	N.D.	33.	ug/kg	95		72-112		
4-Chlorophenyl-phenylether	N.D.	33.	ug/kg	99		79-110		
2,2'-oxybis(1-Chloropropane)	N.D.	33.	ug/kg	98		67-130		
Chrysene	N.D.	33.	ug/kg	104		76-113		
Dibenz(a,h)anthracene	N.D.	33.	ug/kg	97		70-128		
Dibenzofuran	N.D.	33.	ug/kg	99		79-108		
1,2-Dichlorobenzene	N.D.	33.	ug/kg	95		62-107		
1,3-Dichlorobenzene	N.D.	33.	ug/kg	92		70-98		
1,4-Dichlorobenzene	N.D.	33.	ug/kg	91		60-112		
3,3'-Dichlorobenzidine	N.D.	100.	ug/kg	67		31-111		
2,4-Dichlorophenol	N.D.	33.	ug/kg	100		75-111		
Diethylphthalate	N.D.	67.	ug/kg	101		76-111		
2,4-Dimethylphenol	N.D.	67.	ug/kg	92		72-111		
Dimethylphthalate	N.D.	67.	ug/kg	101		77-109		
4,6-Dinitro-2-methylphenol	N.D.	170.	ug/kg	107		53-110		
2,4-Dinitrophenol	N.D.	670.	ug/kg	92		44-106		
2,4-Dinitrotoluene	N.D.	67.	ug/kg	101		73-115		
2,6-Dinitrotoluene	N.D.	33.	ug/kg	100		79-115		
bis(2-Ethylhexyl)phthalate	N.D.	67.	ug/kg	107		75-117		
Fluoranthene	N.D.	33.	ug/kg	99		71-108		
Fluorene	N.D.	33.	ug/kg	99		75-116		
Hexachlorobenzene	N.D.	33.	ug/kg	93		78-116		
Hexachlorobutadiene	N.D.	67.	ug/kg	92		70-112		
Hexachlorocyclopentadiene	N.D.	170.	ug/kg	91		46-115		
Hexachloroethane	N.D.	33.	ug/kg	92		55-108		
Indeno(1,2,3-cd)pyrene	N.D.	33.	ug/kg	94		64-119		
Isophorone	N.D.	33.	ug/kg	85		69-110		
2-Methylnaphthalene	N.D.	33.	ug/kg	96		76-105		
2-Methylphenol	N.D.	67.	ug/kg	99		66-110		
4-Methylphenol	N.D.	67.	ug/kg	89		66-117		
Naphthalene	N.D.	33.	ug/kg	96		73-106		
2-Nitroaniline	N.D.	33.	ug/kg	99		78-116		
3-Nitroaniline	N.D.	67.	ug/kg	89		62-109		
4-Nitroaniline	N.D.	67.	ug/kg	74		38-100		
Nitrobenzene	N.D.	33.	ug/kg	98		71-104		
2-Nitrophenol	N.D.	33.	ug/kg	97		81-114		
4-Nitrophenol	N.D.	170.	ug/kg	89		56-118		
N-Nitroso-di-n-propylamine	N.D.	33.	ug/kg	96		63-107		
N-Nitrosodiphenylamine	N.D.	33.	ug/kg	93		85-133		
Di-n-octylphthalate	N.D.	67.	ug/kg	116		68-130		
Pentachlorophenol	N.D.	170.	ug/kg	77		35-106		
Phenanthrene	N.D.	33.	ug/kg	95		77-113		
Phenol	N.D.	33.	ug/kg	91		58-112		
Pyrene	N.D.	33.	ug/kg	106		75-115		
1,2,4-Trichlorobenzene	N.D.	33.	ug/kg	93		73-108		
2,4,5-Trichlorophenol	N.D.	67.	ug/kg	96		76-107		
2,4,6-Trichlorophenol	N.D.	33.	ug/kg	98		78-111		

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Norfolk Southern Railway Co Group Number: 1169339
Reported: 11/16/09 at 04:00 PM

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 09299B34B	Sample number(s): 5825593-5825595							
TPH-GRO soil C6-C10	N.D.	0.2	mg/kg	87	81	67-119	8	30
Batch number: 093090008A	Sample number(s): 5825593,5825595							
2,4-D	N.D.	12.	ug/kg	67		40-140		
Dalapon	N.D.	30.	ug/kg	59		24-89		
2,4-DB	N.D.	6.2	ug/kg	130		34-138		
Dicamba	N.D.	4.0	ug/kg	68		20-164		
Dinoseb	N.D.	8.0	ug/kg	7*		10-36		
2,4-DP (Dichloroprop)	N.D.	8.0	ug/kg	126		60-141		
MCPA	N.D.	760.	ug/kg	70		34-113		
MCPP (Mecoprop)	N.D.	750.	ug/kg	63		29-154		
Pentachlorophenol	N.D.	0.33	ug/kg	52		34-112		
2,4,5-T	N.D.	0.82	ug/kg	64		33-145		
2,4,5-TP	N.D.	0.75	ug/kg	82		48-138		
Batch number: 093100009A	Sample number(s): 5825594							
2,4-D	N.D.	12.	ug/kg	90		40-140		
Dalapon	N.D.	30.	ug/kg	74		24-89		
2,4-DB	N.D.	6.2	ug/kg	91		34-138		
Dicamba	N.D.	4.0	ug/kg	87		20-164		
Dinoseb	N.D.	8.0	ug/kg	15		10-36		
2,4-DP (Dichloroprop)	N.D.	8.0	ug/kg	106		60-141		
MCPA	N.D.	760.	ug/kg	106		34-113		
MCPP (Mecoprop)	N.D.	750.	ug/kg	100		29-154		
Pentachlorophenol	N.D.	0.33	ug/kg	90		34-112		
2,4,5-T	N.D.	0.82	ug/kg	83		33-145		
2,4,5-TP	N.D.	0.75	ug/kg	93		48-138		
Batch number: 093080004A	Sample number(s): 5825593-5825595							
PCB-1016	N.D.	3.30	ug/kg	85		68-116		
PCB-1221	N.D.	4.00	ug/kg					
PCB-1232	N.D.	5.30	ug/kg					
PCB-1242	N.D.	3.30	ug/kg					
PCB-1248	N.D.	3.30	ug/kg					
PCB-1254	N.D.	3.30	ug/kg					
PCB-1260	N.D.	3.30	ug/kg	106		72-120		
Batch number: 093140013A	Sample number(s): 5825593-5825595							
Aldrin	N.D.	0.33	ug/kg	126		44-135		
Alpha BHC	N.D.	0.17	ug/kg	108		38-130		
Beta BHC	N.D.	0.63	ug/kg	110		56-134		
Gamma BHC - Lindane	N.D.	0.17	ug/kg	110		46-127		
Chlordane	N.D.	4.0	ug/kg					
p,p-DDD	N.D.	0.33	ug/kg	116		60-137		
p,p-DDE	N.D.	0.33	ug/kg	116		59-141		
p,p-DDT	N.D.	0.33	ug/kg	115		54-130		
Delta BHC	N.D.	0.31	ug/kg	119		55-144		
Dieldrin	N.D.	0.33	ug/kg	112		65-129		
Endosulfan I	N.D.	0.22	ug/kg	104		45-123		
Endosulfan II	N.D.	0.33	ug/kg	123		63-127		
Endosulfan Sulfate	N.D.	0.33	ug/kg	126		72-138		
Endrin	N.D.	0.33	ug/kg	119		62-129		
Endrin Aldehyde	N.D.	0.33	ug/kg	120		55-132		
Heptachlor	N.D.	0.17	ug/kg	108		43-124		

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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Norfolk Southern Railway Co Group Number: 1169339
Reported: 11/16/09 at 04:00 PM

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Heptachlor Epoxide	N.D.	0.17	ug/kg	120		38-159		
Kepone	N.D.	2.3	ug/kg	83	61	10-165	30	50
Methoxychlor	N.D.	1.7	ug/kg	107		59-125		
Toxaphene	N.D.	11.	ug/kg					
Batch number: 093080017A	Sample number(s): 5825593-5825595							
TPH-DRO soil C10-C28	N.D.	4.0	mg/kg	101	100	76-117	0	20
Batch number: 093100637001	Sample number(s): 5825593-5825595							
Aluminum	N.D.	5.03	mg/kg	97		84-116		
Antimony	N.D.	1.00	mg/kg	98		49-151		
Arsenic	N.D.	0.950	mg/kg	104		90-110		
Barium	N.D.	0.0400	mg/kg	101		87-113		
Beryllium	N.D.	0.0680	mg/kg	101		90-110		
Cadmium	N.D.	0.140	mg/kg	101		90-110		
Calcium	N.D.	6.13	mg/kg	99		88-112		
Chromium	N.D.	0.590	mg/kg	99		89-111		
Cobalt	N.D.	0.190	mg/kg	100		88-112		
Copper	N.D.	0.200	mg/kg	96		90-110		
Iron	N.D.	4.71	mg/kg	104		71-129		
Lead	N.D.	0.600	mg/kg	99		85-114		
Magnesium	N.D.	2.54	mg/kg	99		86-110		
Manganese	N.D.	0.0560	mg/kg	99		90-110		
Nickel	N.D.	0.180	mg/kg	97		89-111		
Potassium	N.D.	13.1	mg/kg	103		86-114		
Selenium	N.D.	0.980	mg/kg	103		90-109		
Silver	N.D.	0.180	mg/kg	102		90-109		
Sodium	N.D.	37.3	mg/kg	105		74-126		
Thallium	N.D.	1.45	mg/kg	99		81-119		
Vanadium	N.D.	0.170	mg/kg	97		87-113		
Zinc	N.D.	0.660	mg/kg	102		90-110		
Batch number: 093100638001	Sample number(s): 5825593-5825595							
Mercury	N.D.	0.0110	mg/kg	91		66-135		
Batch number: 09313109201A	Sample number(s): 5825593-5825595							
Total Phosphorus as P (solid)	N.D.	10.0	mg/kg	93	97	90-111	5	20
Batch number: 09311039401B	Sample number(s): 5825593-5825595							
pH				100		99-101		
Batch number: 09313057301A	Sample number(s): 5825593-5825595							
Ammonia Nitrogen	N.D.	17.0	mg/kg	94		89-101		
Batch number: 09308820007B	Sample number(s): 5825593-5825595							
Moisture				100		99-101		

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

	MS	MSD	MS/MSD	RPD	BKG	DUP	DUP	Dup RPD

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Norfolk Southern Railway Co Group Number: 1169339
Reported: 11/16/09 at 04:00 PM

Analysis Name	%REC	%REC	Limits	RPD	MAX	Conc	Conc	RPD	Max
Batch number: X093102AA	Sample number(s): 5825593-5825595 UNSPK: P821218								
Acetone	159		15-210						
Benzene	116		55-143						
Bromodichloromethane	112		53-136						
Bromoform	105		38-124						
Bromomethane	89		42-168						
2-Butanone	138		37-163						
Carbon Disulfide	117		48-146						
Carbon Tetrachloride	116		45-153						
Chlorobenzene	112		49-135						
Chloroethane	99		39-152						
Chloroform	118		61-142						
Chloromethane	109		51-163						
Dibromochloromethane	114		51-128						
1,1-Dichloroethane	121		63-142						
1,2-Dichloroethane	118		53-143						
1,1-Dichloroethene	124		61-149						
cis-1,2-Dichloroethene	116		60-136						
trans-1,2-Dichloroethene	121		59-142						
1,2-Dichloropropane	113		62-135						
cis-1,3-Dichloropropene	104		51-131						
trans-1,3-Dichloropropene	108		49-129						
Ethylbenzene	118		44-141						
2-Hexanone	133		32-160						
4-Methyl-2-pentanone	129		46-139						
Methylene Chloride	114		47-145						
Styrene	103		35-134						
1,1,2,2-Tetrachloroethane	152		40-152						
Tetrachloroethene	119		42-149						
Toluene	124		50-146						
1,1,1-Trichloroethane	116		57-165						
1,1,2-Trichloroethane	126		54-139						
Trichloroethene	117		53-144						
Vinyl Chloride	114		50-154						
Xylene (Total)	115		44-136						
Batch number: 09308SLG026	Sample number(s): 5825593-5825595 UNSPK: P823656								
Acenaphthene	95	94	59-126	1	30				
Acenaphthylene	95	96	63-128	0	30				
Anthracene	90	94	48-134	4	30				
Benzo(a)anthracene	101	100	37-148	1	30				
Benzo(a)pyrene	98	86	35-150	13	30				
Benzo(b)fluoranthene	99	95	23-156	3	30				
Benzo(g,h,i)perylene	93	87	40-143	6	30				
Benzo(k)fluoranthene	92	88	39-140	4	30				
4-Bromophenyl-phenylether	99	89	67-129	11	30				
Butylbenzylphthalate	111	114	58-135	3	30				
Di-n-butylphthalate	88	84	67-123	4	30				
Carbazole	140	151*	42-143	3	30				
4-Chloro-3-methylphenol	92	91	53-130	1	30				
4-Chloroaniline	50	61	11-114	20	30				
bis(2-Chloroethoxy)methane	93	92	54-117	1	30				
bis(2-Chloroethyl)ether	108	97	60-116	10	30				
2-Chloronaphthalene	79	81	41-136	3	30				
2-Chlorophenol	88	87	38-135	1	30				
4-Chlorophenyl-phenylether	97	91	64-119	6	30				
2,2'-oxybis(1-Chloropropane)	101	99	60-134	2	30				
Chrysene	99	98	35-148	2	30				

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Quality Control Summary

Client Name: Norfolk Southern Railway Co Group Number: 1169339
Reported: 11/16/09 at 04:00 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Dibenz(a,h)anthracene	95	85	36-143	11	30				
Dibenzofuran	103	104	71-112	1	30				
1,2-Dichlorobenzene	93	89	51-115	5	30				
1,3-Dichlorobenzene	82	86	63-109	5	30				
1,4-Dichlorobenzene	83	84	53-113	1	30				
3,3'-Dichlorobenzidine	81	83	10-143	2	30				
2,4-Dichlorophenol	94	87	33-147	8	30				
Diethylphthalate	94	94	66-118	0	30				
2,4-Dimethylphenol	88	86	40-140	3	30				
Dimethylphthalate	95	94	64-118	1	30				
4,6-Dinitro-2-methylphenol	0*	0*	10-148	0	30				
2,4-Dinitrophenol	0*	0*	20-143	0	30				
2,4-Dinitrotoluene	83	84	57-114	1	30				
2,6-Dinitrotoluene	90	89	44-140	1	30				
bis(2-Ethylhexyl)phthalate	137*	115	63-122	13	30				
Fluoranthene	81	89	14-153	9	30				
Fluorene	93	94	60-125	1	30				
Hexachlorobenzene	92	89	61-111	3	30				
Hexachlorobutadiene	89	83	62-120	7	30				
Hexachlorocyclopentadiene	0*	0*	10-153	0	30				
Hexachloroethane	64	60	21-129	7	30				
Indeno(1,2,3-cd)pyrene	96	92	36-144	4	30				
Isophorone	84	79	51-118	6	30				
2-Methylnaphthalene	98	94	50-129	4	30				
2-Methylphenol	96	94	62-131	2	30				
4-Methylphenol	89	83	55-126	7	30				
Naphthalene	102	98	33-140	4	30				
2-Nitroaniline	122	111	52-140	10	30				
3-Nitroaniline	81	86	34-134	5	30				
4-Nitroaniline	89	99	26-124	10	30				
Nitrobenzene	103	98	51-114	6	30				
2-Nitrophenol	83	81	26-152	3	30				
4-Nitrophenol	0*	0*	12-154	0	30				
N-Nitroso-di-n-propylamine	102	98	38-142	4	30				
N-Nitrosodiphenylamine	668 (2)	-1071 (2)	58-137	8	30				
Di-n-octylphthalate	98	104	56-126	6	30				
Pentachlorophenol	0*	0*	10-143	0	30				
Phenanthrene	90	92	33-156	2	30				
Phenol	90	89	44-128	2	30				
Pyrene	117	119	25-160	2	30				
1,2,4-Trichlorobenzene	85	88	59-119	3	30				
2,4,5-Trichlorophenol	87	90	22-149	3	30				
2,4,6-Trichlorophenol	91	89	28-155	2	30				
Batch number: 093090008A	Sample number(s): 5825593,5825595 UNSPK: 5825593								
2,4-D	77	71	28-161	8	35				
Dalapon	-9*	-11*	12-86	4	50				
2,4-DB	90	91	20-170	1	50				
Dicamba	76	74	33-120	3	50				
Dinoseb	10	10	1-44	3	35				
2,4-DP (Dichloroprop)	96	93	55-141	4	50				
MCPA	77	74	31-184	4	50				

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Norfolk Southern Railway Co Group Number: 1169339
Reported: 11/16/09 at 04:00 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
MCPP (Mecoprop)	85	87	16-174	2	50				
Pentachlorophenol	61	70	6-161	13	30				
2,4,5-T	74	69	25-132	8	35				
2,4,5-TP	76	75	10-183	1	35				
Batch number: 093100009A	Sample number(s): 5825594 UNSPK: 5825594								
2,4-D	95	91	28-161	4	35				
Dalapon	65	60	12-86	7	50				
2,4-DB	99	94	20-170	5	50				
Dicamba	96	93	33-120	4	50				
Dinoseb	20	17	1-44	18	35				
2,4-DP (Dichloroprop)	120	102	55-141	16	50				
MCPA	117	107	31-184	9	50				
MCPP (Mecoprop)	111	103	16-174	7	50				
Pentachlorophenol	90	92	6-161	2	30				
2,4,5-T	85	82	25-132	3	35				
2,4,5-TP	98	93	10-183	6	35				
Batch number: 093080004A	Sample number(s): 5825593-5825595 UNSPK: 5825593								
PCB-1016	91	91	29-146	0	50				
PCB-1260	127	124	20-157	2	50				
Batch number: 093140013A	Sample number(s): 5825593-5825595 UNSPK: P825628								
Aldrin	113	108	16-126	4	50				
Alpha BHC	76	76	10-129	0	50				
Beta BHC	111	109	14-147	2	50				
Gamma BHC - Lindane	103	102	10-140	1	50				
p,p-DDD	115	112	16-163	3	50				
p,p-DDE	117	112	18-161	5	50				
p,p-DDT	114	114	10-176	0	50				
Delta BHC	114	111	23-140	3	50				
Dieldrin	109	106	19-154	2	50				
Endosulfan I	106	98	16-137	8	50				
Endosulfan II	118	122	28-154	3	50				
Endosulfan Sulfate	121	120	21-160	1	50				
Endrin	114	115	11-149	0	50				
Endrin Aldehyde	112	106	10-148	5	50				
Heptachlor	103	102	13-126	1	50				
Heptachlor Epoxide	119	114	13-157	4	50				
Methoxychlor	106	104	32-147	1	50				
Batch number: 093100637001	Sample number(s): 5825593-5825595 UNSPK: 5825593 BKG: 5825593								
Aluminum	5001 (2)	4549 (2)	90-110	3	20	18,700	19,000	2	20
Antimony	77	78	75-125	1	20	1.34 J	1.07 J	23* (1)	20
Arsenic	142*	75	75-125	38*	20	10.1	6.06	50* (1)	20
Barium	112	107	75-125	3	20	116	117	1	20
Beryllium	107	105	83-111	1	20	1.03	0.998 J	3 (1)	20
Cadmium	94	92	75-125	3	20	0.246 J	0.227 J	8 (1)	20
Calcium	106 (2)	584 (2)	75-125	58*	20	1,910	1,820	5	20
Chromium	129*	126*	75-125	1	20	18.0	18.2	1	20
Cobalt	95	98	75-122	2	20	15.5	15.1	3	20
Copper	108	84	75-125	12	20	24.2	21.2	13	20

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Norfolk Southern Railway Co Group Number: 1169339
Reported: 11/16/09 at 04:00 PM

Sample Matrix Quality Control

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike
Background (BKG) = the sample used in conjunction with the duplicate

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Iron	9019 (2)	804 (2)	75-125	25*	20	28,500	28,500	0	20
Lead	109	94	75-125	7	20	15.1	14.2	6 (1)	20
Magnesium	484 (2)	277 (2)	75-125	10	20	3,250	3,110	4	20
Manganese	307 (2)	261 (2)	75-125	3	20	545	538	1	20
Nickel	101	96	75-125	3	20	25.1	25.5	2	20
Potassium	340*	337*	75-125	0	20	2,120	2,170	2	20
Selenium	94	97	75-125	3	20	N.D.	N.D.	0 (1)	20
Silver	105	105	75-125	0	20	N.D.	N.D.	0 (1)	20
Sodium	102	103	75-125	1	20	54.9 J	56.1 J	2 (1)	20
Thallium	87	88	75-125	1	20	N.D.	N.D.	0 (1)	20
Vanadium	125	121	75-125	2	20	23.4	23.9	2	20
Zinc	124	102	75-125	9	20	60.6	60.6	0	20
Batch number: 093100638001	Sample number(s): 5825593-5825595 UNSPK: 5825595 BKG: 5825595								
Mercury	83	84	80-120	1	20	0.0112 J	0.0192 J	53* (1)	20
Batch number: 09313109201A	Sample number(s): 5825593-5825595 UNSPK: 5825593 BKG: 5825593								
Total Phosphorus as P (solid)	123		75-125			182	263	37* (1)	20
Batch number: 09311039401B	Sample number(s): 5825593-5825595 BKG: P825592								
pH						8.62	8.56	1	1
Batch number: 09313057301A	Sample number(s): 5825593-5825595 UNSPK: 5825593 BKG: 5825593								
Ammonia Nitrogen	91	90	73-127	6	13	23.3 J	N.D.	200* (1)	10
Batch number: 09308820007B	Sample number(s): 5825593-5825595 BKG: P823081								
Moisture						10.5	10.6	1	15

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed
unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: TCL by 8260 (soil)
Batch number: X093102AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
5825593	91	87	87	78
5825594	91	85	88	75
5825595	92	86	86	79
Blank	92	85	83	80
LCS	89	87	91	83
LCSD	88	86	92	84
MS	89	91	94	77
Limits:	71-114	70-109	70-123	70-111

Analysis Name: TCL SW846 Semivolatiles Soil
Batch number: 09308SLG026

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Norfolk Southern Railway Co Group Number: 1169339
Reported: 11/16/09 at 04:00 PM

Surrogate Quality Control

	Phenol-d6	2-Fluorophenol	2,4,6-Tribromophenol	Nitrobenzene-d5
5825593	93	92	80	84
5825594	86	85	69	80
5825595	88	86	81	83
Blank	87	89	87	86
LCS	91	92	88	88
MS	85	82	71	85
MSD	82	80	84	83
Limits:	54-116	47-122	43-131	49-120

	2-Fluorobiphenyl	Terphenyl-d14
5825593	82	109
5825594	81	85
5825595	84	85
Blank	86	77
LCS	88	82
MS	92	90
MSD	81	85
Limits:	55-117	43-131

Analysis Name: TPH-GRO soil C6-C10
Batch number: 09299B34B

	Trifluorotoluene-F
5825593	77
5825594	74
5825595	81
Blank	86
LCS	87
LCSD	83
Limits:	61-122

Analysis Name: PCBs in Soil
Batch number: 093080004A

	Tetrachloro-m-xylene	Decachlorobiphenyl
5825593	104	134*
5825594	106	121
5825595	110	126
Blank	92	112
LCS	100	116
MS	99	127
MSD	103	126
Limits:	38-132	53-133

Analysis Name: Herbicides in Soils
Batch number: 093090008A

	2,4-Dichlorophenylacetic acid
5825593	65

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Norfolk Southern Railway Co Group Number: 1169339
Reported: 11/16/09 at 04:00 PM

Surrogate Quality Control

5825595	78
Blank	48
LCS	75
MS	85
MSD	78
Limits:	36-156

Analysis Name: Herbicides in Soils
Batch number: 093100009A

	2,4-Dichlorophenylacetic acid
5825594	86
Blank	90
LCS	96
MS	102
MSD	97
Limits:	36-156

Analysis Name: App. IX OC Pesticides in Soils
Batch number: 093140013A

	Tetrachloro-m-xylene	Decachlorobiphenyl
5825593	78	104
5825594	85	102
5825595	94	107
Blank	95	107
LCS	101	109
LCSD	93	108
MS	95	108
MSD	91	104
Limits:	55-131	45-150

Analysis Name: TPH-DRO soil C10-C28
Batch number: 093080017A

	Orthoterphenyl
5825593	97
5825594	97
5825595	90
Blank	104
LCS	113
LCSD	112
Limits:	59-129

*- Outside of specification
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Analysis Request / Environmental Services Chain of Custody

Lancaster Laboratories
Where quality is a science.

For Lancaster Laboratories use only
Acct. # 11716 Group# 1169339 Sample # 5825593-95

COC # 0093964

(1) Norfolk Southern direct Please print. Instructions on reverse side correspond with circled numbers.

Client: NSRC/MMA Acct. #:
Project Name/#: OLD ATHENS TRK/NS11091 PWSID #:
Project Manager: Chuck Cline P.O.#:
Sampler: John Keczan (JK) Quote #:
Name of state where samples were collected:

(2) Sample Identification	Date Collected	Time Collected	(3) Grab	Composite	(4) Matrix: Soil	Water	Other	Total # of Containers
Cherry Hollow-1	9-03-09	01145		X	X			
Cherry Hollow-2	9-03-09	01200		X	X			
Cherry Hollow-3	9-03-09	01215		X	X			

Matrix: ☐ Potable ☐ NPDES Applicable

(5) Analyses Requested / Method

TCL-VOCs 8260B | TPH DRO/GRO 8015B | TCL SVOCs 8270C | Pest/Herb 8081A 8151A | TAL metals 6010C 7470A | PCB 8082 | Am Nitrogen 4500 NH3E mod | pH 9045C mod | phosphorus 365.1

For Lab Use Only
FSC:
SCR #:

(6) Remarks

☆ TCL organic chloride pesticides + chlorinated herbicides

Cooler Temp 1.1°C MBR 11/4/09

(6) Temperature of samples upon receipt (if requested)

(7) **Turnaround Time Requested** (TAT) (please circle): Normal (Rush)
(Rush TAT is subject to Lancaster Laboratories approval and surcharge.)
Date results are needed:
Rush results requested by (please circle): Phone Fax (E-mail)
Phone #: 276-322-5467 Fax #: 276-322-1510
E-mail address: chuck.cline@mma1.com

(8) **Data Package Options** (please circle if required)

QC Summary | Type VI (Raw Data) | SDG Complete? Yes No
(Type I (Tier I)) | GLP
Type II (Tier II) | Other
Type III (NJ Red. Del.)
Type IV (CLP)

Site-specific QC required? Yes No
(If yes, indicate QC sample and submit triplicate volume.)
Internal Chain of Custody required? Yes No

(9) Relinquished by:	Date	Time	Received by:	Date	Time
John Keczan	11/3/09	1540			
Relinquished by: fedEx #797076559156	Date 11/3/09	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by:	Date	Time
Relinquished by:	Date	Time	Received by: Mary Gerlach	Date 11/4/09	Time 900

Gary Gerlach

Lancaster Laboratories
Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

N.D.	none detected	**BMQL**	Below Minimum Quantitation Level
TNTC	Too Numerous To Count	**MPN**	Most Probable Number
IU	International Units	**CP Units**	cobalt-chloroplatinate units
umhos/cm	micromhos/cm	**NTU**	nephelometric turbidity units
C	degrees Celsius	**F**	degrees Fahrenheit
Cal	(diet) calories	**lb.**	pound(s)
meq	milliequivalents	**kg**	kilogram(s)
g	gram(s)	**mg**	milligram(s)
ug	microgram(s)	**l**	liter(s)
ml	milliliter(s)	**ul**	microliter(s)
m3	cubic meter(s)	**fib >5 um/ml**	fibers greater than 5 microns in length per ml

< less than – The number following the sign is the limit of quantitation, the smallest amount of analyte which can be reliably determined using this specific test.

> greater than

ppm parts per million – One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.

ppb parts per billion

Dry weight basis Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture.

U.S. EPA data qualifiers:

Organic Qualifiers

A	TIC is a possible aldol-condensation product
B	Analyte was also detected in the blank
C	Pesticide result confirmed by GC/MS
D	Compound quatitated on a diluted sample
E	Concentration exceeds the calibration range of the instrument
J	Estimated value
N	Presumptive evidence of a compound (TICs only)
P	Concentration difference between primary and confirmation columns >25%
U	Compound was not detected
X,Y,Z	Defined in case narrative

Inorganic Qualifiers

B	Value is <CRDL, but ≥IDL
E	Estimated due to interference
M	Duplicate injection precision not met
N	Spike amount not within control limits
S	Method of standard additions (MSA) used for calculation
U	Compound was not detected
W	Post digestion spike out of control limits
*****	Duplicate analysis not within control limits
+	Correlation coefficient for MSA <0.995

Analytical test results for methods listed on the laboratories' accreditation scope meet all requirements of NELAC unless otherwise noted under the individual analysis.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. This report shall not be reproduced except in full, without the written approval of the laboratory.

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