

Jan 14, 2008
ARCADIS BBL
465 New Karner Road
First Floor
Albany, NY 12205-3839

Attention: Mr. Allen Evans

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
777 New Durham Road
Edison, NJ 08817
Tel 732 549 3900
Fax 732 549 3679
www.testamericainc.com
Federal ID #:23-29199996

Laboratory Results
Job No. O848 - National Grid

Dear Mr. Evans:

Enclosed are the results you requested for the following sample(s) received at our laboratory on December 13, 2007.

<u>Lab No.</u>	<u>Client ID</u>	<u>Analysis Required</u>
885831	FILL-1	Sieve Only

This report is not to be reproduced, except in full, without the written approval of the laboratory.

TestAmerica Edison has following Laboratory Certifications: New Jersey(12028),
New York(11452), Pennsylvania(68-00522), Connecticut(PH-0200), Rhode Island(LAO00132)

If you have any questions, please contact me at (732) 549-3900.

Very Truly Yours,



Janae McCloud
Project Manager

Analytical Results Summary	1
Chain of Custody	22
This is the Last Page of the Document	24

Analytical Results Summary

TestAmerica South Burlington, VT

Sample Data Summary Package

SDG: 0848

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

December 19, 2007

Ms. Janae McCloud
TestAmerica, Inc.
777 New Durham Road
Edison, NJ 08817

Re: Laboratory Project No. 27011
Case: ARCADIS; SDG: O848

Dear Ms. McCloud:

Enclosed are the analytical results for the sample that was received by TestAmerica Burlington on December 17th, 2007. A laboratory identification number was assigned, and designated as follows:

<u>Lab ID</u>	<u>Client Sample ID</u>	<u>Sample Date</u>	<u>Sample Matrix</u>
Received: 12/17/07 ETR No: 123457			
735700	FILL-1	11/15/07	SOIL

Documentation of the condition of the sample at the time of its receipt and any exception to the laboratory's Sample Acceptance Policy is documented in the Sample Handling section of this submittal.

The sample was analyzed for particle size, sieve only, by ASTM D422. There were no exceptions to the method quality control criteria during the analysis of this sample.

The analytical results associated with the sample presented in this test report were generated under a quality system that adheres to requirements specified in the NELAC standard. Release of the data in this test report and any associated electronic deliverables is authorized by the Laboratory Director's designee as verified by the following signature.

If there are any questions regarding this submittal, please contact me at 802 660-1990.

Sincerely,



Kristine A. Dusablon
Project Manager

Enclosure

CHAIN OF CUSTODY / ANALYSIS REQUEST

[illegible]

Special Instructions Please Call w/ any questions

Relinquished by	Company	Date/Time	Received by	Company
1. Allen G Evans	ARCADIS BBL	12/10/07 15:22	<i>[Signature]</i>	12/17/07 09:45 TAL BUR
Relinquished by	Company	Date/Time	Received by	Company
2.				
Relinquished by	Company	Date/Time	Received by	Company
3.				
Relinquished by	Company	Date/Time	Received by	Company
4.				

Laboratory Certifications:	New Jersey (12028),	New York (11452),	Pennsylvania (68-522),	Connecticut (PH-0200),	Rhode Island (132).



Sample Data Summary – Geotechnical

Particle Size of Soils by ASTM D422_MOD

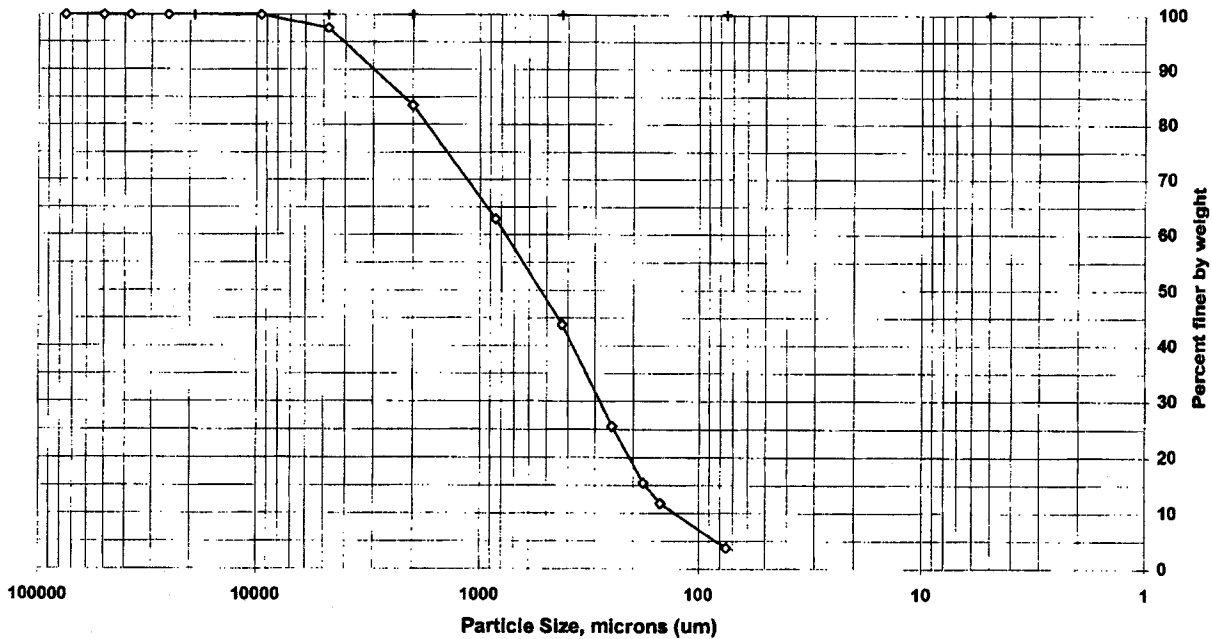
Client Code: STLNJE
 Sample ID: FILL-1
 Lab ID: 735700

SDG: O848
 ETR(s): 123457

Date Received: 12/17/2007
 Start Date: 12/18/2007
 End Date: 12/19/2007

Percent Solids: 91.5%
 Specific Gravity: 2.650
 Maximum Particle Size: 9.5 mm

Non-soil material: na
 Shape (> #10): subrounded
 Hardness (> #10): hard



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	97.5	2.5
#10	2000	83.5	14.0
#20	850	62.8	20.7
#40	425	43.8	19.0
#60	250	25.6	18.2
#80	180	15.4	10.2
#100	150	11.7	3.7
#200	75	3.7	8.0

Soil Classification	Percent of Total Sample
Gravel	2.5
Sand	93.8
Coarse Sand	14.0
Medium Sand	39.7
Fine Sand	40.0
Fines	3.7

Preparation Method: **D2217**
 Dispersion Device: Mechanical mixer with
a metal paddle.
 Dispersion Period: 1 minute

TestAmerica
South Burlington, VT

Extended Data Package

SDG: O848

Case Narrative	1
Chain of Custody	2
Particle Size Results	4
Sample Handling	9
Last Page of this Document.....	12



Case Narrative

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

December 19, 2007

Ms. Janae McCloud
TestAmerica, Inc.
777 New Durham Road
Edison, NJ 08817

Re: Laboratory Project No. 27011
Case: ARCADIS; SDG: O848

Dear Ms. McCloud:

Enclosed are the analytical results for the sample that was received by TestAmerica Burlington on December 17th, 2007. A laboratory identification number was assigned, and designated as follows:

<u>Lab ID</u>	<u>Client Sample ID</u>	<u>Sample Date</u>	<u>Sample Matrix</u>
Received: 12/17/07 ETR No: 123457			
735700	FILL-1	11/15/07	SOIL

Documentation of the condition of the sample at the time of its receipt and any exception to the laboratory's Sample Acceptance Policy is documented in the Sample Handling section of this submittal.

The sample was analyzed for particle size, sieve only, by ASTM D422. There were no exceptions to the method quality control criteria during the analysis of this sample.

The analytical results associated with the sample presented in this test report were generated under a quality system that adheres to requirements specified in the NELAC standard. Release of the data in this test report and any associated electronic deliverables is authorized by the Laboratory Director's designee as verified by the following signature.

If there are any questions regarding this submittal, please contact me at 802 660-1990.

Sincerely,



Kristine A. Dusablon
Project Manager

Enclosure

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Chain of Custody

777 New Durham Road

Co-Kris Visation Burlington

CHAIN OF CUSTODY / ANALYSIS REQUEST

Phone: (732) 549-3900 Fax: (732) 549-3679

PAGE 1 OF 1

[illegible]

Special Instructions Please Call w/ any questions Cooler Temp:

Special instructions (add, del, or init)	Company	Date/Time	Received by	Company	Date/Time	Received by	Company
1. Allen & Evans	ARCADIS BBL	12/13/07 15:22	12/13/07 09:45	TAL BUR			
Relinquished by	Company	Date/Time	Received by	Company			
2.							
Relinquished by	Company	Date/Time	Received by	Company			
3.							
Relinquished by	Company	Date/Time	Received by	Company			
4.							

Laboratory Certifications:	New Jersey (12028),	New York (11452),	Pennsylvania (68-522),	Connecticut (PH-0200),	Rhode Island (132).
----------------------------	---------------------	-------------------	------------------------	------------------------	---------------------

STL-6003



Particle Size Results

Particle Size of Soils by ASTM D422_MOD

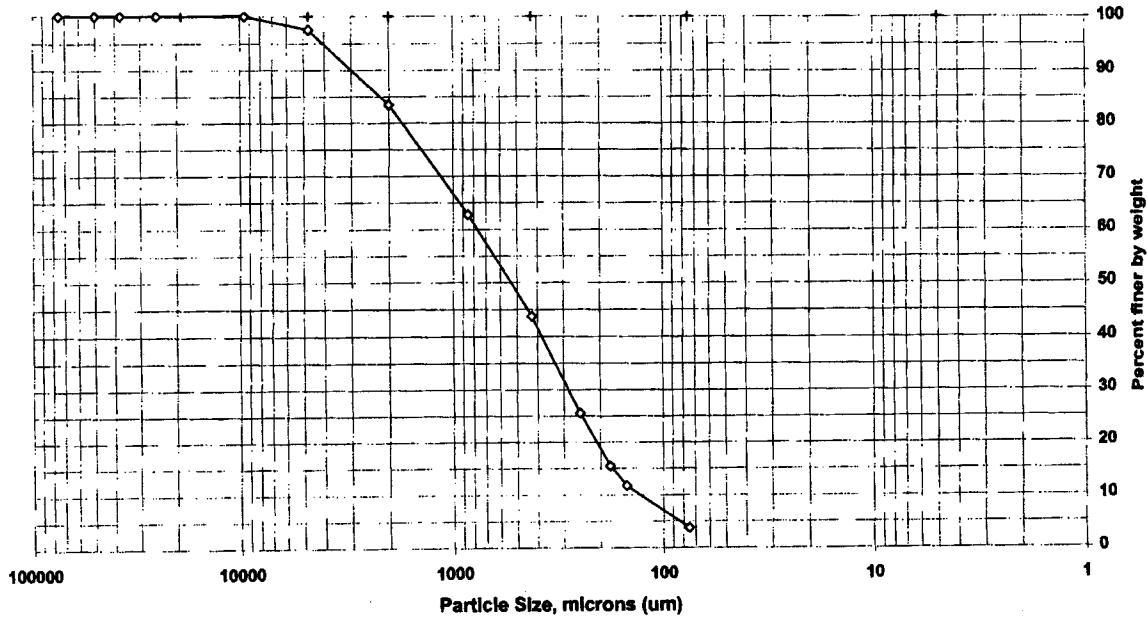
Client Code: STLNJE
 Sample ID: FILL-1
 Lab ID: 735700

SDG: O848
 ETR(s): 123457

Date Received: 12/17/2007
 Start Date: 12/18/2007
 End Date: 12/19/2007

Percent Solids: 91.5%
 Specific Gravity: 2.650
 Maximum Particle Size: 9.5 mm

Non-soil material: na
 Shape (> #10): subrounded
 Hardness (> #10): hard



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	97.5	2.5
#10	2000	83.5	14.0
#20	850	62.8	20.7
#40	425	43.8	19.0
#60	250	25.6	18.2
#80	180	15.4	10.2
#100	150	11.7	3.7
#200	75	3.7	8.0

Soil Classification	Percent of Total Sample
Gravel	2.5
Sand	93.8
Coarse Sand	14.0
Medium Sand	39.7
Fine Sand	40.0
Fines	3.7

Preparation Method: D2217
 Dispersion Device: Mechanical mixer with a metal paddle.
 Dispersion Period: 1 minute

Particle Size Analysis of Soils
By ASTM D422_MOD
Hydrometer Data

Set Number
0848

Client Code: STLNUJ
SDG: O848
ETR(s): 123457

Date Received: 17-Dec-07
Start Date: 18-Dec-07
End Date: 19-Dec-07

Date and Analyst

Percent Solids		Weighed		Mixed		Large sieves		Small sieves	
DJP 12/18/07	DJP 12/18/07	DJP 12/18/07	DJP 12/18/07	DJP 12/18/07	DJP 12/18/07	DJP 12/18/07	DJP 12/18/07	DJP 12/18/07	DJP 12/18/07
DJP 12/19/07	DJP 12/19/07					DJP 12/19/07	DJP 12/19/07	DJP 12/19/07	DJP 12/19/07

1	2	3	4	5	6	7	8	9	10	11	12
Test number											
Lab number											

Time, min. (2)

Reading

Temperature, C

Time, min. (5)

Reading

Temperature, C

Time, min. (15)

Reading

Temperature, C

Time, min. (30)

Reading

Temperature, C

Time, min. (60)

Reading

Temperature, C

Time, min. (250)

Reading

Temperature, C

Time, min. (1440)

Reading

Temperature, C

Hydrometer used:

N/A	N/A	Model #:	N/A	H Temp, C	H read
L Temp, C	L read	N/A	N/A	23.0	N/A
17.0					

Callibrations:

Manufacturer: N/A
Cal. Date: N/A

Hydrometer start time: N/A
Hydrometer data entered: N/A

FSL024:07 29.05:0
STL Burlington

O848so 12/19/2007

Particle Size Analysis of Soils
By ASTM D422_MOD
Hydrometer Data

Set Number
0848

Client Code: STLNJE
SDG: 0848
ETR(s): 123457

Date Received: 17-Dec-07
Start Date: 18-Dec-07
End Date: 12-19-07

Date and Analyst

Percent Solids		Weighted	Mixed	Large sieves		Small sieves	
07P 12-18-07	07P 12-19-07	07P 12-19-07	07P 12-18-07	07P 12-18-07	07P 12-19-07	07P 12-18-07	07P 12-19-07

Test number	1	2	3	4	5	6	7	8	9	10	11	12
Lab number	735700											

Time, min. (2)												
Reading												
Temperature, C												
Time, min. (5)												
Reading												
Temperature, C												
Time, min. (15)												
Reading												
Temperature, C												
Time, min. (30)												
Reading												
Temperature, C												
Time, min. (60)												
Reading												
Temperature, C												
Time, min. (250)												
Reading												
Temperature, C												
Time, min. (1440)												
Reading												
Temperature, C												

"Sieve Only" Analysis Requested. Hydrometer test not performed.

Hydrometer used:

Calibrations:	N/A	Model #:	N/A	Manufacturer:	N/A	Hydrometer start time:	N/A
L temp. C	17.0	L read	N/A	Cal. Date:	N/A	Hydrometer data entered:	N/A
H temp. C	23.0	H read	N/A				

FSL024:07.29.05:0
STL Burlington

0848SO 12/18/2007

Particle Size Analysis of
Soils By ASTM D422_MOD
Sieve Data

Client Code: STLNJJE

ETR(s): 123457
SDG: 0648Date Rec: 17-Dec-07 Start Date: 18-Dec-07
End Date: 19-Dec-07

SET: Q848

Test	1	2	3	4	5	6	7	8	9	10	11	12
Laboratory No	735700											
Sample ID	FILL-1											
Sample Prep	D2217											
Pan, g												
Pan/sample, g	628.18											
Pan/dry sample, g												

Dry prep = D421

Wet prep = D2217

Standard
Values

Opening, um

75000

50000

37500

25000

19000

9500

4750

2000

850

425

250

180

150

75

Hygroscopic Moisture correction factor (HMCf) for dry prep / Percent Solids for dry and wet prep

Pan, g 11.45

Pan/sample, g 543.37

Pan/dry sample, g 498.21

HMCf 100.0%

Description of >#10 particles

Non-soil material na

Shape subrounded

Hardness hard

Sample % Solids 91.5%

Dry sample wt, g 573.02

Sieve (tares)

Mass, g

3 inch

2 inch

1.5 inch

1 inch

3/4 inch

3/8 inch

#4

#10

#20

#40

#60

#80

#100

#200

484.95

459.16

383.01

354.90

338.28

325.87

334.09

323.41

Sieve + Sample Weights

Mass, g

3 inch

2 inch

1.5 inch

1 inch

3/4 inch

3/8 inch

#4

#10

#20

#40

#60

#80

#100

#200

498.19

539.45

561.58

463.98

442.45

384.25

355.26

369.08

Maximum Particle size

9.5 mm

Default SG

2.65

Specific gravity

2.650

Sample Mass Parameters

Sample Mass >#10, g 94.53

Sample mass <#10, g 478.49

0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!	#VALUE!

FSL024: 07.29.05:0
STL Burlington

0848so 12/19/2007



Sample Handling

From: Origin ID: DSV4 (518)452-7826
 ALLEN EVANS
 ARCADIS BBL
 465 New Karner Road
 First Floor
 ALBANY, NY 12205



CL 800007/2123

SHIP TO: (802)660-1990

BILL SENDER

Kris Dusablon
STL-Burlington
30 Community Drive, Suite 11
Suite 11
South Burlington, VT 05403

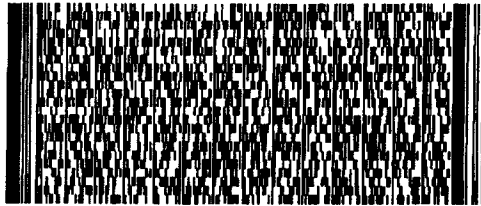
Ship Date: 13DEC07
 ActWgt: 11 LB
 System#: 4515692/INET7091
 Account#: S *****

Dimmed: 15 X 14 X 9 IN

Delivery Address Bar Code



Ref # 36643.018 - 11773
 Invoice #
 PO #
 Dept #

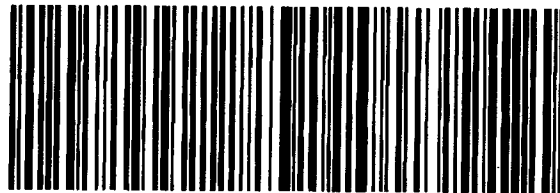


TRK# 7918 1588 3761
 0201

FRI - 14DEC AA
STANDARD OVERNIGHT

ZF-BTVA

BTV
 VT-US
 05403



12/17/07 0945

Shipping Label: Your shipment is complete

1. Use the 'Print' feature from your browser to send this page to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

Warning: Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com.

FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our Service Guide. Written claims must be filed within strict time limits, see current FedEx Service Guide.

STL BURLINGTON SAMPLE RECEIPT & LOG IN CHECKLIST

Client: STL NJE Date Received: 12/17/07 Log In Date: 12/17/07
 ETR: 123457 Time Received: 0945 By: JEG
 SDG: 0848 Received By: JEG Signature: [Signature]
 Project: 27011 # Coolers Received: 1 PM Signature: [Signature]
 Samples Delivered By: ☒ Shipping Service ☐ Courier ☐ Hand ☐ Other (specify) Date: 12/19/07
 List Air bill Number(s) or Attach a photocopy of the Air Bill:

COOLER SCREEN	YES	NO	NA	COMMENTS
There is no evidence to indicate tampering	☒			
Custody seals are present and intact		☒		
Custody seal numbers are present			☒	
If yes, list custody seal numbers:				

Thermal Preservation Type: ☐ Wet Ice ☐ Blue Ice ☒ None ☐ Other (specify)				
IR Gun ID: 63	Correction Factor (CF) = 0 °C			
Cooler 1: 2.8	°C Cooler 6	°C Cooler 11	°C Cooler 16	°C
Cooler 2:	°C Cooler 7	°C Cooler 12	°C Cooler 17	°C
Cooler 3:	°C Cooler 8	°C Cooler 13	°C Cooler 18	°C
Cooler 4:	°C Cooler 9	°C Cooler 14	°C Cooler 19	°C
Cooler 5:	°C Cooler 10	°C Cooler 15	°C Cooler 20	°C

Unless otherwise documented, the recorded temperature readings are adjusted readings to account for the CF of the IR Gun
 EPA Criteria: 0-6°C, except for air and geo samples which should be at ambient temperature and tissue samples, which may be frozen.
 Some clients require thermal preservation criteria of 2-4°C or other such criteria. The PM must notify SM when alternate criteria is specified.

SAMPLE CONDITION	YES	NO	NA	COMMENTS
Sample containers were received intact	☒			
Legible sample labels are affixed to each container	☒			

CHAIN OF CUSTODY (COC)	YES	NO	NA	COMMENTS
------------------------	-----	----	----	----------

COC is present and includes the following information for each container:

• Sample ID / Sample Description	☒			
• Date of Sample Collection	☒			
• Time of Sample Collection	☒			
• Identification of the Sampler	☒			
• Preservation Type			☒	
• Requested Tests Method(s)	☒			
• Necessary Signatures	☒			
Internal Chain of Custody (ICOC) Required		☒		
If yes to above, ICOC Record initiated for every Worksheet			☒	

SAMPLE INTEGRITY / USABILITY	YES	NO	NA	COMMENTS
The sample container matches the COC		☒		Sample label not present
Appropriate sample containers were received for the tests requested	☒			
Samples were received within holding time	☒			
Sufficient amount of sample is provided for requested analyses	☒			
VOA vials do not have headspace or a bubble >6mm (1/4" diameter)			☒	
Appropriate preservatives were used for the tests requested			☒	
pH of inorganic samples checked and is within method specification			☒	
If no, attach Inorganic Sample pH Adjustment Form			☒	

ANOMALY / NCR SUMMARY



Last Page of this Document

Chain of Custody

CHAIN OF CUSTODY / ANALYSIS REQUEST

777 New Durham Road

Edison, New Jersey 08817

Phone: (732) 549-3900 Fax: (732) 549-3679

PAGE 1 OF 1

Name (for report and invoice) Allen Evans		Sampler's Name (Printed) Allen Evans		Site/Project Identification National Grid/Brookfield School Street	
Company ARCADIS BBL		P.O. #		State (Location of Site): NJ: ☐ NY: ☒ Other:	
Address 465 NEWKARNER RD		Analysis Turnaround Time Standard ☐ Rush Charges Authorized For: 1 Week ☒ 3 Day ☐ Other ☐		Regulatory Program:	
City ALBANY		State NY		ANALYSIS REQUESTED (ENTER "X" BELOW TO INDICATE REQUEST)	
Zip 12205		No. of Cont. 1		Project No. 0848	
Phone 518-452-7026 x31		Fax 518-452-7086		Sample Numbers 885831	
Sample Identification		Time Matrix		LAB USE ONLY	
Date		No. of Cont.		Project No.	
11/15/07		1		0848	
1430		Soil		885831	
Soil: NONE		Water:			
Preservation Used: 1 = ICE, 2 = HCl, 3 = H ₂ SO ₄ , 4 = HNO ₃ , 5 = NaOH		6 = Other			

Special Instructions Please Call w/ any questions		Cooler Temp:		Water Metals Filtered (Yes/No)?	
Relinquished by Allen Evans	Company ARCADIS BBL	Date/Time 11/15/07 15:22	Received by	Company	
Relinquished by	Company	Date/Time	Received by	Company	
Relinquished by	Company	Date/Time	Received by	Company	
Relinquished by	Company	Date/Time	Received by	Company	

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132).

STL-6003

This is the Last Page of the Document