



# ***ANALYTICAL REPORT***

Client: H Kramer

Sampling Location: Chicago, IL

Sampling Date(s): 9/17 - 9/20/13

Lab Project Number: 08-573

COC Numbers(s): 6951, 6952 & 6463

Analysis Date(s): 9/20 - 9/26/13

Analytical Method(s): USEPA Method 5, USEPA Method 202

***Prepared For:***

ARI Environmental, Inc.  
951 Old Rand Road, Unit 106  
Wauconda, IL 60084  
Project Mgr: Larry Goldfine  
Phone: 847-487-1580 x103  
Fax: 847-487-1587  
E-mail: lgoldfine@arienv.com

***Prepared By:***

ARI Environmental, Inc.  
951 Old Rand Road, Unit 106  
Wauconda, IL 60084  
Eric Vogt, Lab Manager  
Phone: 847-487-1580 ext.116  
Fax: 847-487-1587  
E-mail: evogt@arienv.com

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State of Texas TCEQ/NELAP Certificate ID: T104704428-12-4  
State of Louisiana LDEQ/LELAP Certificate ID: 02010  
State of New Jersey NJDEP Certification ID: IL007



## Project Narrative

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### **Sample Receipt and Acceptance Quality Assurance:**

Thirty-seven (37) samples were received in good condition and were logged in at the ARI laboratory located in Wauconda, IL on 9/20/13. All sample receipt acceptance criteria were met as documented in the Sample Receipt Checklist included in this report.

### **Analytical Quality Assurance:**

Analysis of samples met the procedural requirements and QA/QC criteria set forth in the TNI Standard, applicable reference methods and standard operating procedures and, where applicable, the project test plan.

### **Data Interpretation and Comments:**

There were no deviations from the test methods and no non-standard conditions that may affect the quality of the test results. Test results reported under this project number apply only to the samples as received and identified on the chain-of-custody document(s) included in this report.

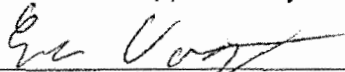
### **Scope of Accreditation:**

All test methods and analytes were analyzed under ARI's current scope of accreditation under TCEQ/NELAP.

### **Laboratory Contact Information:**

If you have any questions regarding these test results, please contact Mr. Eric Vogt, Laboratory Manager, at 847-487-1580 ext.116 or by e-mail at [evogt@arienv.com](mailto:evogt@arienv.com).

Reviewed and Approved by:

  
\_\_\_\_\_  
Signature: Laboratory Manager

9/26/13  
\_\_\_\_\_  
Date



**ANALYTICAL SUMMARY**

**CLIENT:** H. Kramer  
**LOCATION:** Chicago, IL  
**SOURCE:** North and South Baghouses  
**SAMPLE DATE:** 9/17/13 - 9/20/13  
**ANALYSIS:** Particulates  
**METHOD:** USEPA Methods 5/202

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**ANALYST:** J. Ruggaber  
**DATE OF COMPLETION:** 9/26/2013  
**TEMPLATE CONTROL ID:** USEPA- Method 5/202-Partic-Template-060T-REV3  
**PROJECT NUMBER:** 08-573

**Method 5**

Identification	LIMS Number	Solvent Mass (g)	Tare	WT1	WT2	WT 1 - WT 2 (mg)	% difference	Particulate (mg)	Blank Corrected Particulate (mg)	Total M5 Particulate (mg)
North PM-1 Filter	11442	-	813.6	812.8	812.4	0.40	N/A	<0.10	-	1.92
North PM-1 PW	11441	107.5	116365.0	116367.1	116367.0	0.10	N/A	2.05	1.92	
North PM-2 Filter	11447	-	816.4	815.7	815.5	0.20	N/A	<0.10	-	0.25
North PM-2 PW	11446	80.7	109161.9	109162.2	109162.3	-0.10	N/A	0.35	0.25	
North PM-3 Filter	11452	-	813.8	813.0	812.7	0.30	N/A	<0.10	-	1.11
North PM-3 PW	11451	72.5	110925.7	110927.1	110926.7	0.40	N/A	1.20	1.11	
South PM-1 Filter	11457	-	826.1	825.4	825.3	0.10	N/A	<0.10	-	1.33
South PM-1 PW	11456	98.9	113451.0	113452.5	113452.4	0.10	N/A	1.45	1.33	
South PM-2 Filter	11462	-	819.1	818.3	818.0	0.30	N/A	<0.10	-	0.92
South PM-2 PW	11461	103.4	112785.3	112786.4	112786.3	0.10	N/A	1.05	0.92	
South PM-3 Filter	11467	-	819.0	818.1	818.0	0.10	N/A	<0.10	-	1.16
South PM-3 PW	11466	109.1	115415.2	115416.5	115416.5	0.00	N/A	1.30	1.16	
Acetone Blank	11474	161.3	121914.8	121915.1	121914.9	0.20	N/A	0.20	-	-

Identification		Volume (mL)	Tare	WT1	WT2	WT 1 - WT 2 (mg)	Condensate (mg)	Target Weight (mg)	% Accuracy	Pass/Fail
LCS	QC	100	109191.8	109293.9	109293.9	0.0	102.1	100.7	101.4	Pass

C-4

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 ANALYSIS: Particulates  
 METHOD: USEPA Methods 5/202

page 2 of 2

ANALYST: J. Ruggaber  
 DATE OF COMPLETION: 9/26/2013  
 TEMPLATE CONTROL ID: USEPA- Method 5/202-Partic-Template-060T-REV3  
 PROJECT NUMBER: 08-573

**M202 Organic Rinse**

Identification	LIMS Number	Tare	WT1	WT2	WT 1 - WT 2 (mg)	% difference	Condensate (mg)
North PM-1	11444	114943.5	114944.9	114944.9	0.00	N/A	1.40
North PM-2	11449	114786.0	114787.2	114786.8	0.40	N/A	1.00
North PM-3	11454	116998.8	116999.9	116999.6	0.30	N/A	0.95
South PM-1	11459	117399.6	117401.3	117400.8	0.50	N/A	1.45
South PM-2	11464	115528.9	115530.6	115530.4	0.20	N/A	1.60
South PM-3	11469	107557.4	107558.5	107558.3	0.20	N/A	1.00
Field Blank	11476	107936.0	107937.0	107936.8	0.20	N/A	0.90
Acetone Blank	11473	115358.8	115359.5	115359.3	0.20	N/A	0.60
Hexane Blank	11471	117024.8	117025.3	117025.1	0.20	N/A	0.40

**M202 Imp Contents***(INORGANIC Rinse)*

Identification	LIMS Number	mL of NH <sub>4</sub> OH added	Tare	WT1	WT2	WT 1 - WT 2 (mg)	% difference	Condensate (mg)
North PM-1	11443	N/A	104404.1	104407.1	104406.9	0.20	N/A	2.90
North PM-2	11448	N/A	97748.0	97751.6	97751.2	0.40	N/A	3.40
North PM-3	11453	N/A	104010.4	104014.0	104013.9	0.10	N/A	3.55
South PM-1	11458	N/A	110303.8	110306.6	110306.1	0.50	N/A	2.55
South PM-2	11463	N/A	114622.6	114628.2	114628.0	0.20	N/A	5.50
South PM-3	11468	N/A	113288.7	113294.0	113293.8	0.20	N/A	5.20
Field Blank	11475	N/A	109441.5	109443.9	109443.4	0.50	N/A	2.15
DI Water Blank	11472	N/A	113550.4	113550.8	113550.8	0.00	N/A	0.40

Ammonium Hydroxide Conc = N/A



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Chicago, IL  
North and South

Lab Project #: 08-573  
Project Manager: Larry Goldfine  
Received: 9/20/2013  
Reported: 9/26/2013

<b>Sample ID:</b>	<b>North PM-1 PW</b>			<b>Date Sampled:</b>	09/17/2013	
<b>Lab Sample #:</b>	<b>11441</b>			<b>Field #:</b>	53764	
<b>Analyte</b>	<b>Method</b>	<b>Analyst</b>	<b>Analysis Date</b>	<b>Result</b>	<b>Units</b>	<b>Notes</b>
Particulate	USEPA Method 5	Joel Ruggaber	09/26/2013	1.92	mg	
<b>Sample ID:</b>	<b>North PM-1 M5 Filter</b>			<b>Date Sampled:</b>	09/17/2013	
<b>Lab Sample #:</b>	<b>11442</b>			<b>Field #:</b>	51987	
<b>Analyte</b>	<b>Method</b>	<b>Analyst</b>	<b>Analysis Date</b>	<b>Result</b>	<b>Units</b>	<b>Notes</b>
Particulate	USEPA Method 5	Joel Ruggaber	09/26/2013	<0.10	mg	
<b>Sample ID:</b>	<b>North PM-1 Imps</b>			<b>Date Sampled:</b>	09/17/2013	
<b>Lab Sample #:</b>	<b>11443</b>			<b>Field #:</b>	53766	
<b>Analyte</b>	<b>Method</b>	<b>Analyst</b>	<b>Analysis Date</b>	<b>Result</b>	<b>Units</b>	<b>Notes</b>
Inorganic Residue	USEPA Method 202	Joel Ruggaber	09/26/2013	2.90	mg	
<b>Sample ID:</b>	<b>North PM-1 Organic Rinse</b>			<b>Date Sampled:</b>	09/17/2013	
<b>Lab Sample #:</b>	<b>11444</b>			<b>Field #:</b>	53767	
<b>Analyte</b>	<b>Method</b>	<b>Analyst</b>	<b>Analysis Date</b>	<b>Result</b>	<b>Units</b>	<b>Notes</b>
Organic Residue	USEPA Method 202	Joel Ruggaber	09/26/2013	1.40	mg	
<b>Sample ID:</b>	<b>North PM-1 CPM Filter</b>			<b>Date Sampled:</b>	09/17/2013	
<b>Lab Sample #:</b>	<b>11445</b>			<b>Field #:</b>	53768	
<b>Analyte</b>	<b>Method</b>	<b>Analyst</b>	<b>Analysis Date</b>	<b>Result</b>	<b>Units</b>	<b>Notes</b>



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Lab Project #: 08-573  
Project Manager: Larry Goldfine  
Received: 9/20/2013  
Reported: 9/26/2013

Sample ID: North PM-2 PW  
Lab Sample #: 11446  
Date Sampled: 09/17/2013  
Field #: 53769

Analyte	Method	Analyst	Analysis Date	Result	Units	Notes
Particulate	USEPA Method 5	Joel Ruggaber	09/26/2013	0.25	mg	

Sample ID: North PM-2 M5 Filter  
Lab Sample #: 11447  
Date Sampled: 09/17/2013  
Field #: 53640

Analyte	Method	Analyst	Analysis Date	Result	Units	Notes
Particulate	USEPA Method 5	Joel Ruggaber	09/26/2013	<0.10	mg	

Sample ID: North PM-2 Imps  
Lab Sample #: 11448  
Date Sampled: 09/17/2013  
Field #: 53771

Analyte	Method	Analyst	Analysis Date	Result	Units	Notes
Inorganic Residue	USEPA Method 202	Joel Ruggaber	09/26/2013	3.40	mg	

Sample ID: North PM-2 Organic Rinse  
Lab Sample #: 11449  
Date Sampled: 09/17/2013  
Field #: 53772

Analyte	Method	Analyst	Analysis Date	Result	Units	Notes
Organic Residue	USEPA Method 202	Joel Ruggaber	09/26/2013	1.00	mg	

Sample ID: North PM-2 CPM Filter  
Lab Sample #: 11450  
Date Sampled: 09/17/2013  
Field #: 53773

Analyte	Method	Analyst	Analysis Date	Result	Units	Notes
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Received: 9/20/2013  
Reported: 9/26/2013

Sample ID: North PM-3 PW  
Lab Sample #: 11451  
Date Sampled: 09/18/2013  
Field #: 53774

Analyte	Method	Analyst	Analysis Date	Result	Units	Notes
Particulate	USEPA Method 5	Joel Ruggaber	09/26/2013	1.11	mg	

Sample ID: North PM-3 M5 Filter  
Lab Sample #: 11452  
Date Sampled: 09/18/2013  
Field #: 53641

Analyte	Method	Analyst	Analysis Date	Result	Units	Notes
Particulate	USEPA Method 5	Joel Ruggaber	09/26/2013	<0.10	mg	

Sample ID: North PM-3 Imps  
Lab Sample #: 11453  
Date Sampled: 09/18/2013  
Field #: 53776

Analyte	Method	Analyst	Analysis Date	Result	Units	Notes
Inorganic Residue	USEPA Method 202	Joel Ruggaber	09/26/2013	3.55	mg	

Sample ID: North PM-3 Organic Rinse  
Lab Sample #: 11454  
Date Sampled: 09/18/2013  
Field #: 53777

Analyte	Method	Analyst	Analysis Date	Result	Units	Notes
Organic Residue	USEPA Method 202	Joel Ruggaber	09/26/2013	0.95	mg	

Sample ID: North PM-3 CPM Filter  
Lab Sample #: 11455  
Date Sampled: 09/18/2013  
Field #: 53778

Analyte	Method	Analyst	Analysis Date	Result	Units	Notes
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Lab Project #: 08-573  
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Received: 9/20/2013  
Reported: 9/26/2013

Sample ID: South PM-1 PW Date Sampled: 09/19/2013  
Lab Sample #: 11456 Field #: 53760

Analyte	Method	Analyst	Analysis Date	Result	Units	Notes
Particulate	USEPA Method 5	Joel Ruggaber	09/26/2013	1.33	mg	

Sample ID: South PM-1 M5 Filter Date Sampled: 09/19/2013  
Lab Sample #: 11457 Field #: 53646

Analyte	Method	Analyst	Analysis Date	Result	Units	Notes
Particulate	USEPA Method 5	Joel Ruggaber	09/26/2013	<0.10	mg	

Sample ID: South PM-1 Imps Date Sampled: 09/19/2013  
Lab Sample #: 11458 Field #: 53782

Analyte	Method	Analyst	Analysis Date	Result	Units	Notes
Inorganic Residue	USEPA Method 202	Joel Ruggaber	09/26/2013	2.55	mg	

Sample ID: South PM-1 Organic Rinse Date Sampled: 09/19/2013  
Lab Sample #: 11459 Field #: 53783

Analyte	Method	Analyst	Analysis Date	Result	Units	Notes
Organic Residue	USEPA Method 202	Joel Ruggaber	09/26/2013	1.45	mg	

Sample ID: South PM-1 CPM Filter Date Sampled: 09/19/2013  
Lab Sample #: 11460 Field #: 53784

Analyte	Method	Analyst	Analysis Date	Result	Units	Notes
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<b>Sample ID:</b>	<b>South PM-2 PW</b>			<b>Date Sampled:</b>	09/19/2013	
<b>Lab Sample #:</b>	<b>11461</b>			<b>Field #:</b>	53785	
<b>Analyte</b>	<b>Method</b>	<b>Analyst</b>	<b>Analysis Date</b>	<b>Result</b>	<b>Units</b>	<b>Notes</b>
Particulate	USEPA Method 5	Joel Ruggaber	09/26/2013	0.92	mg	

<b>Sample ID:</b>	<b>South PM-2 M5 Filter</b>			<b>Date Sampled:</b>	09/19/2013	
<b>Lab Sample #:</b>	<b>11462</b>			<b>Field #:</b>	53642	
<b>Analyte</b>	<b>Method</b>	<b>Analyst</b>	<b>Analysis Date</b>	<b>Result</b>	<b>Units</b>	<b>Notes</b>
Particulate	USEPA Method 5	Joel Ruggaber	09/26/2013	<0.10	mg	

<b>Sample ID:</b>	<b>South PM-2 Imps</b>			<b>Date Sampled:</b>	09/19/2013	
<b>Lab Sample #:</b>	<b>11463</b>			<b>Field #:</b>	53787	
<b>Analyte</b>	<b>Method</b>	<b>Analyst</b>	<b>Analysis Date</b>	<b>Result</b>	<b>Units</b>	<b>Notes</b>
Inorganic Residue	USEPA Method 202	Joel Ruggaber	09/26/2013	5.50	mg	

<b>Sample ID:</b>	<b>South PM-2 Organic Rinse</b>			<b>Date Sampled:</b>	09/19/2013	
<b>Lab Sample #:</b>	<b>11464</b>			<b>Field #:</b>	53788	
<b>Analyte</b>	<b>Method</b>	<b>Analyst</b>	<b>Analysis Date</b>	<b>Result</b>	<b>Units</b>	<b>Notes</b>
Organic Residue	USEPA Method 202	Joel Ruggaber	09/26/2013	1.60	mg	

<b>Sample ID:</b>	<b>South PM-2 CPM Filter</b>			<b>Date Sampled:</b>	09/19/2013	
<b>Lab Sample #:</b>	<b>11465</b>			<b>Field #:</b>	53789	
<b>Analyte</b>	<b>Method</b>	<b>Analyst</b>	<b>Analysis Date</b>	<b>Result</b>	<b>Units</b>	<b>Notes</b>



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<b>Sample ID:</b>	<b>South PM-3 PW</b>	<b>Date Sampled:</b>	09/20/2013			
<b>Lab Sample #:</b>	<b>11466</b>	<b>Field #:</b>	53790			
<b>Analyte</b>	<b>Method</b>	<b>Analyst</b>	<b>Analysis Date</b>	<b>Result</b>	<b>Units</b>	<b>Notes</b>
Particulate	USEPA Method 5	Joel Ruggaber	09/26/2013	1.16	mg	

<b>Sample ID:</b>	<b>South PM-3 M5 Filter</b>	<b>Date Sampled:</b>	09/20/2013			
<b>Lab Sample #:</b>	<b>11467</b>	<b>Field #:</b>	53643			
<b>Analyte</b>	<b>Method</b>	<b>Analyst</b>	<b>Analysis Date</b>	<b>Result</b>	<b>Units</b>	<b>Notes</b>
Particulate	USEPA Method 5	Joel Ruggaber	09/26/2013	<0.10	mg	

<b>Sample ID:</b>	<b>South PM-3 Imps</b>	<b>Date Sampled:</b>	09/20/2013			
<b>Lab Sample #:</b>	<b>11468</b>	<b>Field #:</b>	53792			
<b>Analyte</b>	<b>Method</b>	<b>Analyst</b>	<b>Analysis Date</b>	<b>Result</b>	<b>Units</b>	<b>Notes</b>
Inorganic Residue	USEPA Method 202	Joel Ruggaber	09/26/2013	5.20	mg	

<b>Sample ID:</b>	<b>South PM-3 Organic Rinse</b>	<b>Date Sampled:</b>	09/20/2013			
<b>Lab Sample #:</b>	<b>11469</b>	<b>Field #:</b>	53793			
<b>Analyte</b>	<b>Method</b>	<b>Analyst</b>	<b>Analysis Date</b>	<b>Result</b>	<b>Units</b>	<b>Notes</b>
Organic Residue	USEPA Method 202	Joel Ruggaber	09/26/2013	1.00	mg	

<b>Sample ID:</b>	<b>South PM-3 CPM Filter</b>	<b>Date Sampled:</b>	09/20/2013			
<b>Lab Sample #:</b>	<b>11470</b>	<b>Field #:</b>	53794			
<b>Analyte</b>	<b>Method</b>	<b>Analyst</b>	<b>Analysis Date</b>	<b>Result</b>	<b>Units</b>	<b>Notes</b>



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<b>Sample ID:</b>	<b>Hexane Reagent Blank</b>	<b>Date Sampled:</b>	09/17/2013			
<b>Lab Sample #:</b>	<b>11471</b>	<b>Field #:</b>	53763			
<b>Analyte</b>	<b>Method</b>	<b>Analyst</b>	<b>Analysis Date</b>	<b>Result</b>	<b>Units</b>	<b>Notes</b>
Organic Residue	USEPA Method 202	Joel Ruggaber	09/26/2013	0.40	mg	

<b>Sample ID:</b>	<b>DI H2O Reagent Blank</b>	<b>Date Sampled:</b>	09/17/2013			
<b>Lab Sample #:</b>	<b>11472</b>	<b>Field #:</b>	53762			
<b>Analyte</b>	<b>Method</b>	<b>Analyst</b>	<b>Analysis Date</b>	<b>Result</b>	<b>Units</b>	<b>Notes</b>
Inorganic Residue	USEPA Method 202	Joel Ruggaber	09/26/2013	0.40	mg	

<b>Sample ID:</b>	<b>Acetone Reagent Blank M202</b>	<b>Date Sampled:</b>	09/17/2013			
<b>Lab Sample #:</b>	<b>11473</b>	<b>Field #:</b>	53761			
<b>Analyte</b>	<b>Method</b>	<b>Analyst</b>	<b>Analysis Date</b>	<b>Result</b>	<b>Units</b>	<b>Notes</b>
Organic Residue	USEPA Method 202	Joel Ruggaber	09/26/2013	0.60	mg	

<b>Sample ID:</b>	<b>Acetone Reagent Blank M5</b>	<b>Date Sampled:</b>	09/17/2013			
<b>Lab Sample #:</b>	<b>11474</b>	<b>Field #:</b>	53867			
<b>Analyte</b>	<b>Method</b>	<b>Analyst</b>	<b>Analysis Date</b>	<b>Result</b>	<b>Units</b>	<b>Notes</b>
Particulate	USEPA Method 5	Joel Ruggaber	09/26/2013	0.20	mg	

<b>Sample ID:</b>	<b>DI H2O Field Train Blank</b>	<b>Date Sampled:</b>	09/17/2013			
<b>Lab Sample #:</b>	<b>11475</b>	<b>Field #:</b>	53866			
<b>Analyte</b>	<b>Method</b>	<b>Analyst</b>	<b>Analysis Date</b>	<b>Result</b>	<b>Units</b>	<b>Notes</b>
Inorganic Residue	USEPA Method 202	Joel Ruggaber	09/26/2013	2.15	mg	



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<b>Sample ID:</b>	<b>Organic Rinses Field Train Blank</b>	<b>Date Sampled:</b>	09/17/2013			
<b>Lab Sample #:</b>	<b>11476</b>	<b>Field #:</b>	53869			
<b>Analyte</b>	<b>Method</b>	<b>Analyst</b>	<b>Analysis Date</b>	<b>Result</b>	<b>Units</b>	<b>Notes</b>
Organic Residue	USEPA Method 202	Joel Ruggaber	09/26/2013	0.90	mg	

<b>Sample ID:</b>	<b>CPM Filter Field Train Blank</b>	<b>Date Sampled:</b>	09/17/2013			
<b>Lab Sample #:</b>	<b>11477</b>	<b>Field #:</b>	53870			
<b>Analyte</b>	<b>Method</b>	<b>Analyst</b>	<b>Analysis Date</b>	<b>Result</b>	<b>Units</b>	<b>Notes</b>

- Notes: UA - Not a NELAC accredited analyte under this method.  
 NA - Sample not tested for this analyte.  
 D - Value calculated from dilution.  
 J - Value less than the low standard but above the Limit of Detection (LOD).  
 L - Sample leaked before receipt.  
 H - Value greater than the high standard.



## USEPA METHOD 5 TASK SCHEDULE FORM

Document Number: WL-DRYING-FORM-020A

Revision Number: 1

Effective Date: 10/30/10

USEPA METHOD 5 TASK SCHEDULE

Client: H. Kramer

Location: Chicago, IL

Project Manager: L. Goldfine

Date Sampled: 9/17/13 – 9/20/13

Lab Project #: 08-573

Spreadsheet Template ID: USEPA-Method 5/202-Partic-Template-060T-REV3

Analyst: J. Ruggaber

DATE	TIME	EQUIPMENT	TASK
9/20/13	16:00	Desiccator # 2	Place labeled beakers in desiccator (store 24 hrs)
9/24/13	9:41	Oven #2	Heat filters in oven at 105 °C (min. 2 hours)
9/24/13	11:43	Desiccator #2	Place filters in desiccator (store min. 24 hours)
9/23/13	9:45	Balance #1	Weigh conditioned beakers and record tares
9/23/13 – 9/24/13	-	-	Dry down probe washes in tared beakers
9/24/13	8:40	Desiccator #2	Place beakers in desiccator (store min. 24 hours)
9/25/13	15:27	Balance #1	Beaker weighing #1
9/26/13	9:29	Balance #1	Beaker weighing #2 (min. 6 hrs after weighing #1)
N/A	N/A	N/A	Beaker weighing #3 (min. 6 hrs after weighing #2)
N/A	N/A	N/A	Beaker weighing #4 (min. 6 hrs after weighing #3)
9/25/13	14:55	Balance #1	Filter weighing #1 (min. 24 hrs in desiccator)
9/26/13	9:09	Balance #1	Filter weighing #2 (min. 6 hrs after weighing #1)
N/A	N/A	N/A	Filter weighing #3 (min. 6 hrs after weighing #2)
N/A	N/A	N/A	Filter weighing #4 (min. 6 hrs after weighing #3)
9/26/13	-	-	Prepare report
			Report QA review
			Report distribution

LCS Sodium Chloride Solution: 1.0073 g/L NaCl in DI water, WL-Log#5-Log-037A:4



## USEPA METHOD 202 TASK SCHEDULE FORM

Document Number: WL-202TASK-FORM-025B

Revision Number: 2

Effective Date: 01/20/11

USEPA METHOD 202 TASK SCHEDULE

Client: H. Kramer

Location: Chicago, IL

Project Manager: L. Goldfine

Date Sampled: 9/17/13 – 9/20/13

Lab Project #: 08-573

Spreadsheet Template ID: USEPA-Method 5/202-Partic-Template-060T-REV3

Analyst: J. Ruggaber

**Reagent Information**

Hexane Lot #13040459, Tedia

Phenolphthalein Solution (if needed): N/A

0.1 N Ammonium Hydroxide Lot # (if needed): N/A

Sodium Chloride Solution: 1.0073 g/L NaCl in DI water, WL-Log#5-Log-037A:4

DATE	TIME	EQUIPMENT	TASK
9/20/13	16:00	Desiccator # 2	Label beakers for hexane rinse, imp samples, and LCS sample. Place beakers in desiccator (store 24 hrs).
9/23/13	9:54	Balance #1	Weigh conditioned beakers and record tares.
9/23/13	-	-	Sonicate filter in water for at least two minutes. Add the water to the imp contents. Repeat 2 more times.
9/23/13	-	-	Sonicate filter in hexane for at least two minutes. Add the hexane to the hexane sample contents. Repeat 2 more times.
9/23/13	-	-	Extract the imp contents with 30 mL of hexane 3 times. Collect all hexane extractions in the labeled and tared hexane beaker. Add the hexane sample to the hexane extractions.
9/23/13	-	-	Drain the water phase into the labeled and tared beaker.
9/23/13 - 9/24/13	- - -	- - -	Evaporate hexane beakers to dryness in a fume hood.
9/23/13	-	-	Transfer 100 mL of the sodium chloride solution into the tared LCS beaker.



## USEPA METHOD 202 TASK SCHEDULE FORM

Document Number: WL-202TASK-FORM-025B

Revision Number: 2

Effective Date: 01/20/11

9/23/13			Place the water phase beakers and LCS sample in an oven or hot plate and evaporate to not less than 10 mL. Allow to evaporate to dryness in a fume hood at room temperature.
9/24/13			
9/24/13	8:40	Desiccator #2	Place hexane beakers in desiccator (store min. 24 hours)
9/24/13	14:41	Desiccator #2	Place aqueous beakers in desiccator (store min. 24 hours)
9/25/13	15:19	Balance #1	Hexane beaker weighing #1
9/26/13	9:23	Balance #1	Hexane beaker weighing #2 (min. 6 hrs after weighing #1)
N/A	N/A	N/A	Hexane beaker weighing #3 (min. 6 hrs after weighing #2)
N/A	N/A	N/A	Hexane beaker weighing #4 (min. 6 hrs after weighing #3)
9/25/13	15:10	Balance #1	Water Phase and LCS beaker weighing #1
9/26/13	9:14	Balance #1	Water Phase and LCS beaker weighing #2 (min. 6 hrs after weighing #1)
9/26/13	15:43	Balance #1	Water Phase and LCS beaker weighing #3 (min. 6 hrs after weighing #2)
N/A	N/A	N/A	Water Phase and LCS beaker weighing #4 (min. 6 hrs after weighing #3)
<b>If Water Phase Beakers achieve constant weight, skip this section</b>			
N/A	N/A	N/A	Redissolve the residue from water phases in 100 mL of DI water. Add approximately 5 drops of phenolphthalein.
N/A	N/A	N/A	Titrate with 0.1 N ammonium hydroxide. Record the amount of ammonium hydroxide used.
N/A	N/A	N/A	Return the water phase beakers to the oven or hot plate and evaporate to not less than 10 mL. Allow to evaporate to dryness in a fume hood at room temperature.
N/A	N/A	N/A	Place beakers in desiccator (store min. 24 hours)
N/A	N/A	N/A	Water Phase beaker weighing #1
N/A	N/A	N/A	Water Phase beaker weighing #2 (min. 6 hrs after weighing #1)
N/A	N/A	N/A	Water Phase beaker weighing #3 (min. 6 hrs after weighing #2)
N/A	N/A	N/A	Water Phase beaker weighing #4 (min. 6 hrs after weighing #3)
<b>End Section</b>			
9/26/13	-	-	Prepare report
			Report QA review
			Report distribution



951 Old Rand Road, Unit 106  
Wauconda, Illinois 60084



1710 Preston Road, Unit C  
Pasadena, Texas 77503

## SAMPLE RECEIPT CHECKLIST

Client Name: H. Kramer

Site Location: Chicago, IL

ARI Project Manager: L. Goldfine

Sample Collection Date(s): 9/17 - 9/20/13

Chain-of-Custody Number(s): 6951, 6952, 6463

Chain-of-Custody Form(s):

Custody release signatures, dates, and times present	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Preservation code noted	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Project information clearly identified	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Sample information clearly identified	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Analysis request clearly identified	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Report tier level noted	<input checked="" type="radio"/> Yes	<input type="radio"/> No

Sample Containers:

Quantity of samples match number on COC	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Container label ID numbers and descriptions match COC	<input checked="" type="radio"/> Yes	<input type="radio"/> No
All containers received in good condition	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Liquid levels at marked heights on containers	<input checked="" type="radio"/> Yes	<input type="radio"/> No
All container labels are legible	<input checked="" type="radio"/> Yes	<input type="radio"/> No
All sample IDs are unique	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Samples received in correct type of container	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Samples received within the required holding time	<input checked="" type="radio"/> Yes	<input type="radio"/> No
Samples received under the required preservation code	<input checked="" type="radio"/> Yes	<input type="radio"/> No

Non-Conformances and/or Corrective Actions Applied:

All criteria for sample acceptance met

Samples Received by: Joel Ruggaber  
Printed Name

[Signature]  
Signature

Date and Time Received: 9/20/13 15:23





951 N. Old Rand Rd, Unit 106  
Wauconda, Illinois 60084

# ARI ENVIRONMENTAL, INC.

## Chain of Custody Record 6951



1710 Preston Rd., Unit C  
Pasadena, Texas 77503

LAB USE ONLY			Number of Containers	Container Type (Petri, Bottle, Bag, Tube, Summa, Bomb)	Preservation Code	Analysis Request			Preservation Code	
08-573	H Kramer	Chicago, IL				Method 5	Method 200			1 = Ambient Temp.
Lab Project No.	Client Name	Location								2 = 4°C (Ice Packs)
Larry Goldfine		SE, IG, RE, TM								3 = Dry Ice
ARI Project Manager	ARI Sampler Initials						4 = Other (Noted)			
Analysis Location (Wauconda or Pasadena)								Comments		
Engineering or Compliance Test Samples										
Sample No.	Date Collected	Sample ID								
53764	9/17/13	North PM-1 PW	1	250W	1	X				
1187 <del>53765</del>	9/17/13	North PM-1 MS Filter	1	Petri	1	X				
53766	9/17/13	North PM-1 IMPs + DI Rinses	1	500W	1		X			
53767	9/17/13	North PM-1 Organic Rinses	1	250A	1		X			
53768	9/17/13	North PM-1 CPM Filter	1	250A	1		X			
53769	9/17/13	North PM-2 PW	1	250W	1	X				
3640 <del>53770</del>	9/17/13	North PM-2 MS Filter	1	Petri	1	X				
53771	9/17/13	North PM-2 IMPs + DI Rinses	1	500W	1		X			
53772	9/17/13	North PM-2 Organic Rinses	1	250A	1		X			
53773	9/17/13	North PM-2 CPM Filter	1	250A	1		X			
53774	9/18/13	North PM-3 PW	1	250W	1	X				
3641 <del>53775</del>	9/18/13	North PM-3 MS Filter	1	Petri	1	X				
53776	9/18/13	North PM-3 IMPs + DI Rinses	1	500W	1		X			
53777	9/18/13	North PM-3 Organic Rinses	1	250A	1		X			
53778	9/18/13	North PM-3 CPM Filter	1	250A	1		X			
Special Instructions / Comments			(1) Relinquished By	(2) Relinquished By	(3) Relinquished By	SHIPMENT:				
			Timothy Martin			HAND CARRY				
			(1) Date / Time	(2) Date / Time	(3) Date / Time	FEDX				
			9-20-13 14:15			UPS				
			(1) Company	(2) Company	(3) Company	Custody				
			ARI			Seal				
Requested Analysis Completion Date:			(1) Received By	(2) Received By	(3) Received By	Applied				
			ARI			Yes (No)				
Report Level:			(1) Date / Time	(2) Date / Time	(3) Date / Time					
Tier I: Engineering			9/20/12 15:23							
Tier II: Compliance			(1) Company	(2) Company	(3) Company					
Tier III: QAPP			ARI							
Route Results Through: Larry Goldfine										



00951 N. Old Rand Rd, Unit 106  
Wauconda, Illinois 60084

# ARI ENVIRONMENTAL, INC.

## Chain of Custody Record 6952



1710 Preston Rd., Unit C  
Pasadena, Texas 77503

LAB USE ONLY			Number of Containers	Container Type (Petri, Bottle, Bag, Tube, Summa, Bomb)	Preservation Code	Analysis Request			Preservation Code	
Lab Project No.	Client Name	Location				Method 5	Method 202			1 = Ambient Temp.
ARI Project Manager	ARI Sampler Initials									2 = 4°C (Ice Packs)
Analysis Location (Wauconda or Pasadena)										3 = Dry Ice
Engineering or Compliance Test Samples										4 = Other (Noted)
Sample No.	Date Collected	Sample ID	Comments							
53780	9.19.13	South PM-1 PW	1	ZSWM	1	X				
53781	9.19.13	South PM-1 MS Filter	1	Petri	1	X				
53782	9.19.13	South PM-1 IMPs + DI Rinses	1	YDN	1		X			
53783	9.19.13	South PM-1 Organic Rinses	1	ZSUA	1		X			
53784	9.19.13	South PM-1 CPM Filter	1	ZSUA	1		X			
53785	9.19.13	South PM-2 PW	1	ZSOW	1	X				
53786	9.19.13	South PM-2 MS Filter	1	Petri	1	X				
53787	9.19.13	South PM-2 IMPs + DI Rinses	1	YDN	1		X			
53788	9.19.13	South PM-2 Organic Rinses	1	ZSUA	1		X			
53789	9.19.13	South PM-2 CPM Filter	1	ZSUA	1		X			
53790	9.20.13	South PM-3 PW	1	ZSOW	1	X				
53791	9.20.13	South PM-3 MS Filter	1	Petri	1	X				
53792	9.20.13	South PM-3 IMPs + DI Rinses	1	YDN	1		X			
53793	9.20.13	South PM-3 Organic Rinses	1	ZSUA	1		X			
53794	9.20.13	South PM-3 CPM Filter	1	ZSUA	1		X			

Special Instructions / Comments	(1) Relinquished By J. M. [Signature]	(2) Relinquished By	(3) Relinquished By	SHIPMENT: HAND CARRY FEDX UPS
	(1) Date / Time 9-20-13 11:15	(2) Date / Time	(3) Date / Time	
	(1) Company ARI	(2) Company	(3) Company	
Requested Analysis Completion Date:	(1) Received By [Signature]	(2) Received By	(3) Received By	Custody Seal Applied Yes (No)
Report Level: Tier I: Engineering Tier II: Compliance Tier III: QAPP	(1) Date / Time 9/20/13 15:23	(2) Date / Time	(3) Date / Time	
Route Results Through: Larry Goldline	(1) Company ARI	(2) Company	(3) Company	



# DAT Reports®

## Data Analysis Technologies, Inc.

7715 Corporate Blvd.  
Plain City, OH 43064  
800-733-8644

## Sample Analysis Certificate

Client: ARI Environmental, Inc.  
Address: 951 Old Rand Road, Unit 106  
Wauconda, IL 60084

Date: 10/12/2013  
DAT Project ID: 0913036  
Date Received: 9/27/2013

Attn: Larry Goldfine  
Client Project: Kramer  
Analysis: M29- Metals

The following samples were received on 9/27/2013:

DAT Sample ID	Client Sample ID	Date Sampled	Matrix
0913036-01	53823 Audit Sample Metals in Imp Solution	9/18/2013	Liquid
0913036-02	53824 Audit Sample Metals on GF Filter	9/18/2013	Solid
0913036-03	52688 North 29-1 M29 Filter Cont 1	9/17/2013	Filter
0913036-04	53796 North 29-1 Nitric Probe Rinse Cont 3	9/17/2013	Liquid
0913036-05 A&B	53797/53871 North 29-1 Imp1&2 Nitric Rinse Cont 4	9/17/2013	Liquid
0913036-06	53798 North 29-1 Imp 3 Nitric Rinse Cont 5A	9/17/2013	Liquid
0913036-07	52687 North 29-2 M29 Filter Cont 1	9/17/2013	Filter
0913036-08	53800 North 29-2 Nitric Probe Rinse Cont 3	9/17/2013	Liquid
0913036-09 A&B	53801/53820 North 29-2 Imp1&2 Nitric Rinse Cont 4	9/17/2013	Liquid
0913036-10	53802 North 29-2 Imp 3 Nitric Rinse Cont 5A	9/17/2013	Liquid

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0913036-11	53648 North 29-3 M29 Filter Cont 1	9/18/2013	Filter
0913036-12	53804 North 29-3 Nitric Probe Rinse Cont 3	9/18/2013	Liquid
0913036-13	53805 North 29-3 Imp1&2 Nitric Rinse Cont 4	9/18/2013	Liquid
0913036-14	53806 North 29-3 Imp 3 Nitric Rinse Cont 5A	9/18/2013	Liquid
0913036-15	53647 South 29-1 M29 Filter Cont 1	9/19/2013	Filter
0913036-16	53808 South 29-1 Nitric Probe Rinse Cont 3	9/19/2013	Liquid
0913036-17	53809 South 29-1 Imp1&2 Nitric Rinse Cont 4	9/19/2013	Liquid
0913036-18	53810 South 29-1 Imp 3 Nitric Rinse Cont 5A	9/19/2013	Liquid
0913036-19	52828 South 29-2 M29 Filter Cont 1	9/19/2013	Filter
0913036-20	53812 South 29-2 Nitric Probe Rinse Cont 3	9/19/2013	Liquid
0913036-21	53813 South 29-2 Imp1&2 Nitric Rinse Cont 4	9/19/2013	Liquid
0913036-22	53814 South 29-2 Imp 3 Nitric Rinse Cont 5A	9/19/2013	Liquid
0913036-23	53699 South 29-3 M29 Filter Cont 1	9/20/2013	Filter
0913036-24	53816 South 29-3 Nitric Probe Rinse Cont 3	9/20/2013	Liquid
0913036-25	53817 South 29-3 Imp1&2 Nitric Rinse Cont 4	9/20/2013	Liquid
0913036-26	53818 South 29-3 Imp 3 Nitric Rinse Cont 5A	9/20/2013	Liquid
0913036-27	53681 Field Blank M29 Filter Cont 1	9/20/2013	Filter
0913036-28	53828 Field Blank Imp1&2 Nitric Rinse Cont 4	9/20/2013	Liquid
0913036-29	53827 Field Blank Imp 3 Nitric Rinse Cont 5A	9/20/2013	Liquid
0913036-30	52693 Blank Filter Cont 12	9/18/2013	Filter
0913036-31	53822 Blank 0.1N HNO3 Cont 8A	9/18/2013	Liquid
0913036-32	53819 Acidic Peroxide Cont 9	9/18/2013	Liquid

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**Results:** See attached summary.

**QC:** Met the criteria for the method.



Reviewed and approved for release by:

Ronald K. Mitchum, Ph.D.  
President, DAT

Date: 10/11/2013



# ARI ENVIRONMENTAL, INC.

## Chain of Custody Record 6464



951 N. Old Rand Rd, Unit 106  
Wauconda, Illinois 60084

1710 Preston Rd., Unit C  
Pasadena, Texas 77503

LAB USE ONLY			Number of Containers	Container Type (Petri, Bottle, Bag, Tube, Summa, Bomb)	Preservation Code	Analysis Request			Preservation Code
Lab Project No.	Client Name	Location				USEPA Method 29	USEPA Method 24	All metals except P	1 = Ambient Temp.
ARI Project Manager	ARI Sampler Initials	2 = 4°C (Ice Packs)							
Analysis Location (Wauconda or Pasadena)	Engineering or Compliance Test Samples	3 = Dry Ice							
Sample No.	Date Collected	Sample ID				4 = Other (Noted)	Comments		
53819	9-18-13	BLANK - Acidic Peroxide (200ul)	1	250A	1	X			
53822	9-18-13	BLANK - 0.1N HNO <sub>3</sub> (300ul)	1	500A	1	X			
52693	9-18-13	BLANK - Filter	1	Petri	1	X			
<b>ERA AUDIT SAMPLES</b>									
53824	NA	Metals on GF Filter	1	Petri	1	X	X	Cont. 1426 Proj. 090313F	
53823	NA	Metals in Teflon Solution	1	Vial	1	X	X	Cont. 1426 Proj. 090313F	
<b>Special Instructions / Comments</b>			(1) Relinquished By James M. Martel	(2) Relinquished By James M. Martel	(3) Relinquished By James M. Martel	SHIPMENT: <b>HAND CARRY</b>			
Analyze for the following: Sb, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Mn, Ni, P, Se, Ag, <del>Al</del> , Ti, Zn			(1) Date / Time 9-20-13 14:15	(2) Date / Time 9-26-13 10:17	(3) Date / Time 9-27-13 904	FEDX UPS			
Requested Analysis Completion Date: Standard TA			(1) Company ARI	(2) Company ARI	(3) Company ARI	Custody			
Report Level:	Tier I: Engineering	Tier II: Compliance	(1) Date / Time 9-20-13 15:23	(2) Date / Time 9-26-13 10:20	(3) Date / Time 9-27-13 09:04	Seal Applied			
Route Results Through: Larry Goldline - ARI			(1) Company ARI	(2) Company ARI	(3) Company 0913036	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>			

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C-23

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951 N. Old Rand Rd., Unit 108  
Wauconda, Illinois 60084

**ARI ENVIRONMENTAL, INC.**

**Chain of Custody Record 6954**



1710 Preston Rd., Unit C  
Pasadena, Texas 77503

LAB USE ONLY			Number of Containers	Container Type (Petri, Bottle, Bag, Tube, Summa, Bomb)	Preservation Code	Analysis Request			Preservation Code
Lab Project No.	Client Name	Location				USEPA Method	Hold		1 = Ambient Temp. 2 = 4°C (Ice Packs) 3 = Dry Ice 4 = Other (Noted)
H Kramer Larry Goldline H DAT Compliance Engineering or Compliance Test: Samples									
Sample No.	Date Collected	Sample ID							Comments
53810	9-17-13	South 29-1 IMP 3+Nitric Rinse	1	WDA		X			
<del>53811</del>	9-17-13	South 29-2 M29 Filter	1	Petri		X			
53812	9-16-13	South 29-2 Nitric Probe Rinse	1	WDA		X			
53813	9-16-13	South 29-2 IMPs 1+2+Nitric Rinse	1	WDA		X			Top 2
53814	9-19-13	South 29-2 IMP 3+Nitric Rinse	1	WDA		X			
<del>53815</del>	9-20-13	South 29-3 M29 Filter	1	Petri		X			
53816	9-20-13	South 29-3 Nitric Probe Rinse	1	WDA		X			
53817	9-20-13	South 29-3 IMPs 1+2+Nitric Rinse	1	WDA		X			Top 2
53818	9-20-13	South 29-3 IMP 3+Nitric Rinse	1	WDA		X			
53821	9-17-13	North 29-1 IMPs 1+2+Nitric Rinse	1	WDA		X			Top 2 (Run North)
53820	9-17-13	North 29-2 IMPs 1+2+Nitric Rinse	1	WDA		X			Top 2 (Run North)
<del>53822</del>	9-20-13	Field blank M29 Filter	1	Petri		X	X		
53828	9-20-13	Field blank Imps 1+2+Nitric Rinse	1	WDA		X	X		
53827	9-20-13	Field blank Imp 3+Nitric Rinse	1	WDA		X	X		
<b>Special Instructions / Comments</b> Analyze for the following: Sb, As, Ba, Cd, Co, Cr, Pb, Mn, Ni, P, Se, Ag, Tl & Zn			(1) Relinquished By: J. Amthor (1) Date / Time: 9-20-13 14:15 (1) Company: ARI		(2) Relinquished By: J. Amthor (2) Date / Time: 9-26-13 10:17 (2) Company: ARI		(3) Relinquished By: J. Amthor (3) Date / Time: 9-27-13 904 (3) Company: ARI		SHIPMENT: HAND CARRY FEDX UPS
Requested Analysis Completion Date: Standard TA			(1) Received By: J. Amthor (1) Date / Time: 9-20-13 15:28 (1) Company: ARI		(2) Received By: J. Amthor (2) Date / Time: 9-26-13 10:20 (2) Company: ARI		(3) Received By: J. Amthor (3) Date / Time: 9-27-13 904 (3) Company: ARI		Custody Seal Applied Yes (No)
Report Level: Tier I: Engineering, Tier II: Compliance, Tier III: QAPP			Route Results Through: ARI - Larry Goldline			0913036			Yes (No)

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851 N. Old Rand Rd., Unit 106  
Wauconda, Illinois 60084

### ARI ENVIRONMENTAL, INC.

### Chain of Custody Record 6953



1710 Preston Rd., Unit C  
Pasadena, Texas 77503

LAB USE ONLY			Number of Containers	Container Type (Paint, Bottle, Bag, Tube, Summa, Bomb)	Preservation Code	Analysis Request			Preservation Code	Comments			
Lab Project No.	Client Name	Location				USEM Methodology							1 = Ambient Temp. 2 = 4°C (Ice Packs) 3 = Dry Ice 4 = Other (Noted)
ARI Project Manager	ARI Sampler Initials												
Analysis Location (Wauconda or Pasadena):													
Engineering or Compliance Test Samples													
Sample No.	Date Collected	Sample ID											
2688 53751	9/17/13	North 29-1 M29 Filter	1	Petri	1	X							
53796	9/17/13	North 29-1 Nitric Probe Rinse	1	250W	1	X							
53797	9/17/13	North 29-1 IMPs H2+Nitric Rinse	1	250A	1	X			1 of 2				
53798	9/17/13	North 29-1 IMP 3+Nitric Rinse	1	250A	1	X							
53799	9/17/13	North 29-2 M29 Filter	1	Petri	1	X							
53800	9/17/13	North 29-2 Nitric Probe Rinse	1	250W	1	X							
53801	9/17/13	North 29-2 IMPs H2+Nitric Rinse	1	250A	1	X			1 of 2				
53802	9/17/13	North 29-2 IMP 3+Nitric Rinse	1	250A	1	X							
53803	9/18/13	North 29-3 M29 Filter	1	Petri	1	X							
53804	9/18/13	North 29-3 Nitric Probe Rinse	1	250W	1	X							
53805	9/18/13	North 29-3 IMPs H2+Nitric Rinse	1	250A	1	X			1 of 2				
53806	9/18/13	North 29-3 IMP 3+Nitric Rinse	1	250A	1	X							
53807	9/19/13	South 29-1 M29 Filter	1	Petri	1	X							
53808	9/19/13	South 29-1 Nitric Probe Rinse	1	250W	1	X							
53809	9/19/13	South 29-1 IMPs H2+Nitric Rinse	1	250	1	X			1 of 2				
Special Instructions / Comments			(1) Relinquished By D. [Signature]		(2) Relinquished By [Signature]		(3) Relinquished By		SHIPMENT:				
Analyze for the following: Sb, As, Ba, Be, Cd, Co, Cr, Pb, Mn, Ni, P, Se, Ag, Tl, & Zn			(1) Date / Time 9-20-13 14:15		(2) Date / Time 9-26-13 10:18		(3) Date / Time		HAND CARRY				
			(1) Company ARI		(2) Company ARI		(3) Company		FEDX				
Requested Analysis Completion Date: Standard TA			(1) Received By [Signature]		(2) Received By [Signature]		(3) Received By [Signature]		UPS				
Report Level: Tier I: Engineering Tier II: Compliance Tier III: OAPP			(1) Date / Time 9-26-13 15:28		(2) Date / Time 10:20		(3) Date / Time 9-27-13 09:04		Custody Seal Applied				
Route Results Through: ARI-Larry Goldfine			(1) Company ARI		(2) Company ARI		(3) Company ARI		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				

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0913036  
Page 6 of 7  
3648  
53647  
53808

C-25

# DAT SAMPLE RECEIVING

7715 Corporate Blvd. Plain City, OH 43064.

**Project Number:** 0913036

<b>Date Received:</b> 9/27/2013	<b>Carrier:</b> Hand Delivered
<b>Client Name:</b> ARI Environmental	<b>Analysis:</b> M29A Metals
<b>Tracking number:</b> NA	<b>Package Temp:</b> 17.5° C (Amb-Room)
<b>Custody Seals ?</b> No	<b>COC:</b> <input checked="" type="checkbox"/> check if COC from client

**Sample Information**

Client ID.	Laboratory ID	Date	Matrix:	Container:	Comment:
53823 Audit Sample Metals in Imp Solution	0913036-01	9/18/2013	Liquid	20mL Clear Vial (ERA Box)	CatN. 1426 Proj 090313F
53824 Audit Sample Metals on GF Filter	0913036-02	9/18/2013	Solid	Petri Dish-mini (Yellow Bag)	CatN. 1425 Proj 090313F
52688 North 29-1 M29 Filter Cont 1	0913036-03	9/17/2013	Filter	Perti Dish-Lg	
53796 North 29-1 Nitric Probe Rinse Cont 3	0913036-04	9/17/2013	Liquid	250mL Clear SS Jar	
53797/53871 North 29-1 Imp1&2 Nitric Rinse Cont 4	0913036-05 A&B	9/17/2013	Liquid	250mL Amber WM Bottle	
53798 North 29-1 Imp 3 Nitric Rinse Cont 5A	0913036-06	9/17/2013	Liquid	250mL Amber WM Bottle	
52687 North 29-2 M29 Filter Cont 1	0913036-07	9/17/2013	Filter	Perti Dish-Lg	

*La 1 of 4*

Laboratory Receiving Initials

0913036

9/27/2013 10:42:10 AM

**DAT SAMPLE RECEIVING**

7715 Corporate Blvd. Plain City, OH 43064.

**Project Number:** 0913036

Client ID	Laboratory ID	Date	Matrix:	Container:	Comment:
53800 North 29-2 Nitric Probe Rinse Cont 3	0913036-08	9/17/2013	Liquid	250mL Clear SS Jar	
53801/53820 North 29-2 Imp1&2 Nitric Rinse Cont 4	0913036-09 A&B	9/17/2013	Liquid	250mL Amber WM Bottle	
53802 North 29-2 Imp 3 Nitric Rinse Cont 5A	0913036-10	9/17/2013	Liquid	250mL Amber WM Bottle	
53648 North 29-3 M29 Filter Cont 1	0913036-11	9/18/2013	Filter	Perti Dish-Lg	
53804 North 29-3 Nitric Probe Rinse Cont 3	0913036-12	9/18/2013	Liquid	250mL Clear SS Jar	
53805 North 29-3 Imp1&2 Nitric Rinse Cont 4	0913036-13	9/18/2013	Liquid	500mL Amber WM Bottle	
53806 North 29-3 Imp 3 Nitric Rinse Cont 5A	0913036-14	9/18/2013	Liquid	250mL Amber WM Bottle	
53647 South 29-1 M29 Filter Cont 1	0913036-15	9/19/2013	Filter	Perti Dish-Lg	
53808 South 29-1 Nitric Probe Rinse Cont 3	0913036-16	9/19/2013	Liquid	250mL Clear SS Jar	
53809 South 29-1 Imp1&2 Nitric Rinse Cont 4	0913036-17	9/19/2013	Liquid	500mL Amber WM Bottle	

LE

ZofH

Laboratory Receiving Initials

0913036

9/27/2013 10:26:56 AM

**DAT SAMPLE RECEIVING**

7715 Corporate Blvd. Plain City, OH 43064.

**Project Number: 0913036**

Client ID	Laboratory ID	Date	Matrix	Container	Comment
53810 South 29-1 Imp 3 Nitric Rinse Cont 5A	0913036-18	9/19/2013	Liquid	250mL Amber WM Bottle	
52828 South 29-2 M29 Filter Cont 1	0913036-19	9/19/2013	Filter	Perti Dish-Lg	
53812 South 29-2 Nitric Probe Rinse Cont 3	0913036-20	9/19/2013	Liquid	250mL Clear SS Jar	
53813 South 29-2 Imp 1&2 Nitric Rinse Cont 4	0913036-21	9/19/2013	Liquid	500mL Amber WM Bottle	
53814 South 29-2 Imp 3 Nitric Rinse Cont 5A	0913036-22	9/19/2013	Liquid	250mL Amber WM Bottle	
53699 South 29-3 M29 Filter Cont 1	0913036-23	9/20/2013	Filter	Perti Dish-Lg	
53816 South 29-3 Nitric Probe Rinse Cont 3	0913036-24	9/20/2013	Liquid	250mL Clear SS Jar	
53817 South 29-3 Imp 1&2 Nitric Rinse Cont 4	0913036-25	9/20/2013	Liquid	500mL Amber WM Bottle	
53818 South 29-3 Imp 3 Nitric Rinse Cont 5A	0913036-26	9/20/2013	Liquid	250mL Amber WM Bottle	
53681 Field Blank M29 Filter Cont 1	0913036-27	9/20/2013	Filter	Perti Dish-Lg	Hold

*LA* *3 of 4*

Laboratory Receiving Initials

0913036

9/27/2013 10:28:58 AM

# DAT SAMPLE RECEIVING

7715 Corporate Blvd. Plain City, OH 43064.

**Project Number:** 0913036

Client ID	Laboratory ID	Date	Matrix:	Container:	Comment:
53828 Field Blank Imp1&2 Nitric Rinse Cont 4	0913036-28	9/20/2013	Liquid	500mL Amber WM Bottle	Hold
53827 Field Blank Imp 3 Nitric Rinse Cont 5A	0913036-29	9/20/2013	Liquid	250mL Amber WM Bottle	Hold
52693 Blank Filter Cont 12	0913036-30	9/18/2013	Filter	Perti Dish-Lg	
53822 Blank 0.1N HNO3 Cont 8A	0913036-31	9/18/2013	Liquid	500mL Amber WM Bottle	
53819 Acidic Peroxide Cont 9	0913036-32	9/18/2013	Liquid	250mL Amber WM Bottle	

LA

4/4

Laboratory Receiving Initials

0913036

9/27/2013 10:28:56 AM

C-30

### DAT Labs Inc. Sample Receipt Report

Client/Number: <u>ARI Environmental (10119)</u> Custodian Initial: <u>lee</u> Date: <u>9-27-13</u>	The client has been contacted. Yes _____ No _____
Secondary Review:      Initials:      Date:	

Upon receipt of samples, check if any of the following discrepancies have been noted.

Discrepancy Type	Specify applicable client ID or "all"
COC and samples do not match	
No unique sample identifications	
Samples received outside of the required temp criteria.      Receipt Temp: <u>16.9 C</u>	
No preservation type was noted      Correction Factor: <u>0.6 C</u>	
No date of collection stated      Corrected Temp: <u>17.5 C</u>	<u>(Amb-Room)</u>
No time of collection stated	
The sample collector was not named	
Sample containers were not appropriate	
Sample labels were destroyed or unreadable	
Samples were received outside of holding time	
There was not enough sample to perform the requested analysis.	
Samples showed sign of damage or contamination.	
Aqueous samples for volatile analysis:    Headspace?    Y    N      If Yes, list sample ID(s) in details:	

Details: Sple # 0913036-17-only 1splc

Sample pH for nonvolatile aqueous samples and presence or absence of headspace (Y or N) for VOA aqueous samples shall be recorded at time of sample log-in. Under no circumstances shall VOA vials be opened at time of sample receipt.

Other Discrepancies:

Sample ID	Discrepancy	Container Return
_____	_____	Yes/No _____
_____	_____	Price: _____
_____	_____	Size: _____
_____	_____	Return Spl wt: _____

Upon receipt, the samples met all of DAT's acceptance criteria.      DAT Project # 0913036

0913036 Page 11 of 29.

## **EPA Method 29: Multi-Metals**

A stack sample is withdrawn isokinetically from the source, particulate emissions are collected in the probe and on a heated filter, and gaseous emissions are then collected in an aqueous acidic solution of hydrogen peroxide (analyzed for all metals including Hg) and an aqueous acidic solution of potassium permanganate (analyzed only for Hg). The recovered samples are digested, and appropriate fractions are analyzed for Hg by cold vapor atomic absorption spectroscopy (CVAAS) and for Sb, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Mn, Ni, P, Se, Ag, Ti, and Zn by inductively coupled argon plasma emission spectroscopy

Data Analysis Technologies, Inc.  
7715 Corporate Boulevard  
Plain City, OH 43064

## Sample Analysis Certificate

### Method 29 Metals

<b>Client:</b>	ARI Environmental		<b>Project #:</b> 0913036	
<b>Client Run/Test No.</b>	52688 North 29-1 M29			
<b>Site:</b>	ARI - Kramer		<b>Lab Sample ID:</b>	
			<b>FH1:</b>	0913036-03
<b>Sample Date:</b>	9/17/2013		<b>FH2:</b>	0913036-04
<b>Preparation Date:</b>	10/9/2013		<b>BH:</b>	0913036-05 A&B
<b>Analysis Date:</b>	10/11/2013		<b>Matrix:</b>	Train

Analyte:	Metals on Filter Paper				Metals in Impinger Solution			
	MDL, ug	LOQ, ug	Front Half		MDL, ug	LOQ, ug	Back Half	
			Total ug	Q			Total ug	Q
Antimony	1.25	5.00	1.29	J	1.25	5.00	2.87	J
Arsenic	1.25	5.00	ND		1.25	5.00	ND	
Barium	2.50	10.00	8.96	J	2.50	10.00	ND	
Beryllium	0.06	0.30	ND		0.06	0.30	0.15	J
Cadmium	0.63	2.50	ND		0.63	2.50	ND	
Chromium	0.25	1.00	7.87		0.25	1.00	2.52	
Cobalt	0.63	2.50	ND		0.63	2.50	ND	
Copper	0.32	1.00	1.41		0.32	1.00	3.96	
Lead	1.25	5.00	25.71		1.25	5.00	ND	
Manganese	0.63	2.50	0.78	J	0.63	2.50	1.40	J
Nickel	0.63	2.50	4.07		0.63	2.50	2.39	J
Phosphorus	2.50	10.00	179.14		2.50	10.00	307.63	
Selenium	1.25	5.00	12.13		1.25	5.00	12.48	
Silver	0.63	2.50	ND		0.63	2.50	ND	
Thallium	1.25	5.00	ND		1.25	5.00	ND	
Zinc	0.63	2.50	12.93		0.63	2.50	22.82	

J= below the reporting limit

D=Value obtained from a dilution

Data Analysis Technologies, Inc.  
7715 Corporate Blvd.,  
Plain City, OH 43064

Method 29

1-800-733-8644



Data Analysis Technologies, Inc.  
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 Plain City, OH 43064

## Sample Analysis Certificate

### Method 29 Metals

<b>Client:</b>	ARI Environmental	<b>Project #:</b>	0913036	
<b>Client Run/Test No.</b>	52687 North 29-2 M29			
<b>Site:</b>	ARI - Kramer	<b>Lab Sample ID:</b>		
		<b>FH1:</b>	0913036-07	
<b>Sample Date:</b>	9/17/2013	<b>FH2:</b>	0913036-08	
<b>Preparation Date:</b>	10/9/2013	<b>BH:</b>	0913036-09 A&B	
<b>Analysis Date:</b>	10/11/2013	<b>Matrix:</b>	Train	

Analyte:	Metals on Filter Paper				Metals in Impinger Solution			
	<i>MDL, ug</i>	<i>LOQ, ug</i>	Front Half		<i>MDL, ug</i>	<i>LOQ, ug</i>	Back Half	
			Total ug	Q			Total ug	Q
Antimony	1.25	5.00	2.02	J	1.25	5.00	ND	
Arsenic	1.25	5.00	ND		1.25	5.00	ND	
Barium	2.50	10.00	6.60	J	2.50	10.00	11.89	
Beryllium	0.06	0.30	ND		0.06	0.30	0.10	J
Cadmium	0.63	2.50	ND		0.63	2.50	0.92	J
Chromium	0.25	1.00	5.05		0.25	1.00	3.13	
Cobalt	0.63	2.50	ND		0.63	2.50	ND	
Copper	0.32	1.00	3.59		0.32	1.00	4.41	
Lead	1.25	5.00	20.56		1.25	5.00	ND	
Manganese	0.63	2.50	2.26	J	0.63	2.50	0.88	J
Nickel	0.63	2.50	4.46		0.63	2.50	2.03	J
Phosphorus	2.50	10.00	206.46		2.50	10.00	314.91	
Selenium	1.25	5.00	6.36		1.25	5.00	ND	
Silver	0.63	2.50	ND		0.63	2.50	ND	
Thallium	1.25	5.00	ND		1.25	5.00	ND	
Zinc	0.63	2.50	19.88		0.63	2.50	10.14	

J= below the reporting limit  
 D=Value obtained from a dilution

Data Analysis Technologies, Inc.  
 7715 Corporate Blvd.,  
 Plain City, OH 43064

Method 29

1-800-733-8644

Data Analysis Technologies, Inc.  
7715 Corporate Boulevard  
Plain City, OH 43064

## Sample Analysis Certificate

### Method 29 Metals

<b>Client:</b>	ARI Environmental	<b>Project #:</b>	0913036	
<b>Client Run/Test No.</b>	53648 North 29-3 M29			
<b>Site:</b>	ARI - Kramer	<b>Lab Sample ID:</b>		
		<b>FH1:</b>	0913036-11	
<b>Sample Date:</b>	9/18/2013	<b>FH2:</b>	0913036-12	
<b>Preparation Date:</b>	10/9/2013	<b>BH:</b>	0913036-13	
<b>Analysis Date:</b>	10/11/2013	<b>Matrix:</b>	Train	

Analyte:	Metals on Filter Paper				Metals in Impinger Solution			
	<i>MDL, ug</i>	<i>LOQ, ug</i>	Front Half		<i>MDL, ug</i>	<i>LOQ, ug</i>	Back Half	
			Total ug	Q			Total ug	Q
Antimony	1.25	5.00	1.41	J	1.25	5.00	7.63	
Arsenic	1.25	5.00	ND		1.25	5.00	ND	
Barium	2.50	10.00	8.22	J	2.50	10.00	ND	
Beryllium	0.06	0.30	ND		0.06	0.30	ND	
Cadmium	0.63	2.50	ND		0.63	2.50	1.23	J
Chromium	0.25	1.00	6.57		0.25	1.00	4.49	
Cobalt	0.63	2.50	ND		0.63	2.50	ND	
Copper	0.32	1.00	1.18		0.32	1.00	4.66	
Lead	1.25	5.00	22.35		1.25	5.00	3.69	J
Manganese	0.63	2.50	ND		0.63	2.50	1.53	J
Nickel	0.63	2.50	4.92		0.63	2.50	2.10	J
Phosphorus	2.50	10.00	145.94		2.50	10.00	320.31	
Selenium	1.25	5.00	12.48		1.25	5.00	10.99	
Silver	0.63	2.50	0.75	J	0.63	2.50	ND	
Thallium	1.25	5.00	ND		1.25	5.00	ND	
Zinc	0.63	2.50	17.24		0.63	2.50	12.54	

J= below the reporting limit  
D=Value obtained from a dilution

Data Analysis Technologies, Inc.  
7715 Corporate Blvd.,  
Plain City, OH 43064

Method 29

1-800-733-8644

Data Analysis Technologies, Inc.  
 7715 Corporate Boulevard  
 Plain City, OH 43064

### Sample Analysis Certificate

#### Method 29 Metals

*Duplicate*  
*NORTH*  
*29-2 FH*

<b>Client:</b>	ARI Environmental	<b>Project #:</b>	0913036
<b>Client Run/Test No.</b>	Duplicate Result		
<b>Site:</b>	ARI - Kramer	<b>Lab Sample ID:</b>	
		<b>FH1:</b>	0913036-07
<b>Sample Date:</b>	9/17/2013	<b>FH2:</b>	0913036-08
<b>Preparation Date:</b>	10/9/2013		
<b>Analysis Date:</b>	10/11/2013	<b>Matrix:</b>	Train

Analyte:	MDL, ug	LOQ, ug	Front Half	
			Total ug	Q
Antimony	1.25	5.00	ND	
Arsenic	1.25	5.00	ND	
Barium	2.50	10.00	2.93	J
Beryllium	0.06	0.30	ND	
Cadmium	0.63	2.50	ND	
Chromium	0.25	1.00	6.17	
Cobalt	0.63	2.50	ND	
Copper	0.32	1.00	3.34	
Lead	1.25	5.00	20.98	
Manganese	0.63	2.50	0.83	J
Nickel	0.63	2.50	4.44	
Phosphorus	2.50	10.00	205.62	
Selenium	1.25	5.00	9.63	
Silver	0.63	2.50	ND	
Thallium	1.25	5.00	ND	
Zinc	0.63	2.50	25.90	

Data Analysis Technologies, Inc.  
 7715 Corporate Boulevard  
 Plain City, OH 43064

**Sample Analysis Certificate**  
 Method 29 Metals

*Duplicate  
 NORTH  
 2a-2  
 BH*

<b>Client:</b>	ART Environmental	<b>Project #:</b>	0913036
<b>Client Run/Test No.</b>	Duplicate Result		
<b>Site:</b>	ARI - Kramer	<b>Lab Sample ID:</b>	
		<b>FH1:</b>	
<b>Sample Date:</b>	9/17/2013	<b>FH2:</b>	
<b>Preparation Date:</b>	10/9/2013	<b>BH:</b>	0913036-13
<b>Analysis Date:</b>	10/11/2013	<b>Matrix:</b>	Train

Analyte	MDL ug	LOQ ug	Back Half Total ug	Q
Antimony	1.25	5.00	ND	
Arsenic	1.25	5.00	ND	
Barium	2.50	10.00	ND	
Beryllium	0.06	0.30	ND	
Cadmium	0.63	2.50	1.97	J
Chromium	0.25	1.00	4.12	
Cobalt	0.63	2.50	ND	
Copper	0.32	1.00	4.19	
Lead	1.25	5.00	ND	
Manganese	0.63	2.50	2.27	J
Nickel	0.63	2.50	ND	
Phosphorus	2.50	10.00	308.24	
Selenium	1.25	5.00	6.90	
Silver	0.63	2.50	ND	
Thallium	1.25	5.00	ND	
Zinc	0.63	2.50	10.31	

Data Analysis Technologies, Inc.  
 7715 Corporate Boulevard  
 Plain City, OH 43064

## Sample Analysis Certificate

### Method 29 Metals

<b>Client:</b>	ARI Environmental	<b>Project #:</b>	0913036
<b>Client Run/Test No.</b>	53647 South 29-1 M29		
<b>Site:</b>	ARI - Kramer	<b>Lab Sample ID:</b>	
		<b>FH1:</b>	0913036-15
<b>Sample Date:</b>	9/19/2013	<b>FH2:</b>	0913036-16
<b>Preparation Date:</b>	10/9/2013	<b>BH:</b>	0913036-17
<b>Analysis Date:</b>	10/11/2013	<b>Matrix:</b>	Train

Analyte:	Metals on Filter Paper				Metals in Impinger Solution			
	MDL, ug	LOQ, ug	Front Half		MDL, ug	LOQ, ug	Back Half	
			Total ug	Q			Total ug	Q
Antimony	1.25	5.00	ND		1.25	5.00	ND	
Arsenic	1.25	5.00	ND		1.25	5.00	ND	
Barium	2.50	10.00	6.05	J	2.50	10.00	2.70	J
Beryllium	0.06	0.30	ND		0.06	0.30	ND	
Cadmium	0.63	2.50	ND		0.63	2.50	0.68	J
Chromium	0.25	1.00	4.63		0.25	1.00	4.56	
Cobalt	0.63	2.50	7.12		0.63	2.50	ND	
Copper	0.32	1.00	2.00		0.32	1.00	4.67	
Lead	1.25	5.00	28.23		1.25	5.00	ND	
Manganese	0.63	2.50	0.89	J	0.63	2.50	1.66	J
Nickel	0.63	2.50	2.05	J	0.63	2.50	2.67	
Phosphorus	2.50	10.00	195.92		2.50	10.00	326.67	
Selenium	1.25	5.00	10.71		1.25	5.00	4.78	J
Silver	0.63	2.50	ND		0.63	2.50	ND	
Thallium	1.25	5.00	ND		1.25	5.00	ND	
Zinc	0.63	2.50	41.25		0.63	2.50	14.12	

J= below the reporting limit  
 D=Value obtained from a dilution

Data Analysis Technologies, Inc.  
7715 Corporate Boulevard  
Plain City, OH 43064

## Sample Analysis Certificate

### Method 29 Metals

<b>Client:</b>	ARI Environmental				<b>Project #:</b>	0913036			
<b>Client Run/Test No.</b>	52828 South 29-2 M29								
<b>Site:</b>	ARI - Kramer				<b>Lab Sample ID:</b>				
					<b>FH1:</b>	0913036-19			
<b>Sample Date:</b>	9/19/2013				<b>FH2:</b>	0913036-20			
<b>Preparation Date:</b>	10/9/2013				<b>BH:</b>	0913036-21			
<b>Analysis Date:</b>	10/11/2013				<b>Matrix:</b>	Train			
<b>Metals on Filter Paper</b>					<b>Metals in Impinger Solution</b>				
			<b>Front Half</b>				<b>Back Half</b>		
<b>Analyte:</b>	<i>MDL, ug</i>	<i>LOQ, ug</i>	<b>Total ug</b>	<b>Q</b>	<i>MDL, ug</i>	<i>LOQ, ug</i>	<b>Total ug</b>	<b>Q</b>	
Antimony	1.25	5.00	<b>8.29</b>		1.25	5.00	<b>ND</b>		
Arsenic	1.25	5.00	<b>ND</b>		1.25	5.00	<b>ND</b>		
Barium	2.50	10.00	<b>5.69</b>	J	2.50	10.00	<b>11.48</b>		
Beryllium	0.06	0.30	<b>ND</b>		0.06	0.30	<b>0.16</b>	J	
Cadmium	0.63	2.50	<b>ND</b>		0.63	2.50	<b>4.16</b>		
Chromium	0.25	1.00	<b>6.19</b>		0.25	1.00	<b>1.65</b>		
Cobalt	0.63	2.50	<b>ND</b>		0.63	2.50	<b>ND</b>		
Copper	0.32	1.00	<b>3.67</b>		0.32	1.00	<b>5.76</b>		
Lead	1.25	5.00	<b>42.56</b>		1.25	5.00	<b>7.71</b>		
Manganese	0.63	2.50	<b>1.07</b>	J	0.63	2.50	<b>3.38</b>		
Nickel	0.63	2.50	<b>2.82</b>		0.63	2.50	<b>2.15</b>	J	
Phosphorus	2.50	10.00	<b>165.35</b>		2.50	10.00	<b>294.37</b>		
Selenium	1.25	5.00	<b>11.02</b>		1.25	5.00	<b>7.45</b>		
Silver	0.63	2.50	<b>ND</b>		0.63	2.50	<b>ND</b>		
Thallium	1.25	5.00	<b>ND</b>		1.25	5.00	<b>ND</b>		
Zinc	0.63	2.50	<b>25.58</b>		0.63	2.50	<b>14.54</b>		

J= below the reporting limit  
D=Value obtained from a dilution

Data Analysis Technologies, Inc.  
7715 Corporate Blvd.,  
Plain City, OH 43064

Method 29

1-800-733-8644

Data Analysis Technologies, Inc.  
7715 Corporate Boulevard  
Plain City, OH 43064

## Sample Analysis Certificate

### Method 29 Metals

<b>Client:</b>	ARI Environmental		<b>Project #:</b> 0913036					
<b>Client Run/Test No.</b>	53699 South 29-3 M29							
<b>Site:</b>	ARI - Kramer		<b>Lab Sample ID:</b>					
			<b>FH1:</b>	0913036-23				
<b>Sample Date:</b>	9/20/2013		<b>FH2:</b>	0913036-24				
<b>Preparation Date:</b>	10/9/2013		<b>BH:</b>	0913036-25				
<b>Analysis Date:</b>	10/11/2013		<b>Matrix:</b>	Train				
<b>Metals on Filter Paper</b>								
<b>Metals in Impinger Solution</b>								
	<b>Front Half</b>				<b>Back Half</b>			
<b>Analyte:</b>	<i>MDL, ug</i>	<i>LOQ, ug</i>	<b>Total ug</b>	<b>Q</b>	<i>MDL, ug</i>	<i>LOQ, ug</i>	<b>Total ug</b>	<b>Q</b>
Antimony	1.25	5.00	ND		1.25	5.00	2.40	J
Arsenic	1.25	5.00	ND		1.25	5.00	ND	
Barium	2.50	10.00	7.68	J	2.50	10.00	6.06	J
Beryllium	0.06	0.30	ND		0.06	0.30	ND	
Cadmium	0.63	2.50	6.47		0.63	2.50	1.10	J
Chromium	0.25	1.00	10.31		0.25	1.00	7.26	
Cobalt	0.63	2.50	8.66		0.63	2.50	11.08	
Copper	0.32	1.00	3.51		0.32	1.00	4.64	
Lead	1.25	5.00	43.47		1.25	5.00	2.80	J
Manganese	0.63	2.50	1.61	J	0.63	2.50	2.44	J
Nickel	0.63	2.50	2.84		0.63	2.50	2.66	
Phosphorus	2.50	10.00	43.57		2.50	10.00	304.59	
Selenium	1.25	5.00	5.91		1.25	5.00	14.47	
Silver	0.63	2.50	ND		0.63	2.50	ND	
Thallium	1.25	5.00	ND		1.25	5.00	ND	
Zinc	0.63	2.50	62.06		0.63	2.50	46.90	

J= below the reporting limit  
D=Value obtained from a dilution

Data Analysis Technologies, Inc.  
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 Plain City, OH 43064

## Sample Analysis Certificate

### Method 29 Metals

<b>Client:</b>	ARI Environmental	<b>Project #:</b>	0913036	
<b>Client Run/Test No.</b>	52693 Blank			
<b>Site:</b>	ARI - Kramer	<b>Lab Sample ID:</b>		
		<b>FH1:</b>	0913036-30	
<b>Sample Date:</b>	9/18/2013	<b>FH2:</b>	0913036-31	
<b>Preparation Date:</b>	10/9/2013	<b>BH:</b>	0913036-32	
<b>Analysis Date:</b>	10/11/2013	<b>Matrix:</b>	Train	

Analyte:	Metals on Filter Paper				Metals in Impinger Solution			
	MDL, ug	LOQ, ug	Front Half		MDL, ug	LOQ, ug	Back Half	
			Total ug	Q			Total ug	Q
Antimony	1.25	5.00	7.15		1.25	5.00	17.76	
Arsenic	1.25	5.00	ND		1.25	5.00	ND	
Barium	2.50	10.00	11.02		2.50	10.00	ND	
Beryllium	0.06	0.30	ND		0.06	0.30	0.43	
Cadmium	0.63	2.50	ND		0.63	2.50	3.51	
Chromium	0.25	1.00	5.44		0.25	1.00	ND	
Cobalt	0.63	2.50	1.01	J	0.63	2.50	ND	
Copper	0.32	1.00	1.55		0.32	1.00	5.16	
Lead	1.25	5.00	21.09		1.25	5.00	8.25	
Manganese	0.63	2.50	1.26	J	0.63	2.50	ND	
Nickel	0.63	2.50	2.12	J	0.63	2.50	ND	
Phosphorus	2.50	10.00	171.49		2.50	10.00	322.35	
Selenium	1.25	5.00	11.63		1.25	5.00	ND	
Silver	0.63	2.50	ND		0.63	2.50	ND	
Thallium	1.25	5.00	ND		1.25	5.00	ND	
Zinc	0.63	2.50	5.24		0.63	2.50	ND	

J= below the reporting limit  
 D=Value obtained from a dilution

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 Plain City, OH 43064

Method 29

1-800-733-8644



## **EPA Method 29: QC Summary**

### **Summary:**

A stack sample is withdrawn isokinetically from the source, particulate emissions are collected in the probe and on a heated filter, and gaseous emissions are then collected in an aqueous acidic solution of hydrogen peroxide (analyzed for all metals including Hg) and an aqueous acidic solution of potassium permanganate (analyzed only for Hg). The recovered samples are digested, and appropriate fractions are analyzed for Hg by cold vapor atomic absorption spectroscopy (CVAAS) and for Sb, As, Ba, Be, Cd, Cr, Co, Cu, Pb, Mn, Ni, P, Se, Ag, Tl, and Zn by inductively coupled argon plasma emission spectroscopy

### **QC:**

Matrix Blank- Matrix such as hydrogen peroxide, nitric acid and permanganate  
Used to determine if any interferences are present in the associated blank

LCS - laboratory control spike ( 80-120%R)

Used to assess the digestion and instrument suitability for measurement

PDS-Post digestion Spike (80-120%R)

Use to determine if any bias is introduced by the sample

Data Analysis Technologies, Inc.  
7715 Corporate Boulevard  
Plain City, OH 43064

### LCS Summary

#### Method 29 Metals

**Client:** ARI Environmental  
**Sample ID** 0913036 LCS-F  
**Analysis Date:** 10/11/2013  
**Project #:** 0913036

Analyte	Amt Found, ug/L	Amt Spiked, ug/L	% Rec	QC Limits
Antimony	910.34	1000	91	80-120
Arsenic	1014.35	1000	101	80-120
Barium	2099.30	2000	105	80-120
Beryllium	49.19	50	98	80-120
Cadmium	461.07	500	92	80-120
Chromium	202.61	200	101	80-120
Cobalt	491.05	500	98	80-120
Copper	273.28	250	109	80-120
Lead	987.00	1000	99	80-120
Manganese	489.70	500	98	80-120
Nickel	474.59	2000	24	80-120
Phosphorus	1969.18	2000	98	80-120
Selenium	1023.56	1000	102	80-120
Silver	226.40	250	91	80-120
Thallium	1055.96	1000	106	80-120
Zinc	454.02	500	91	80-120

\*Outside of QC limits

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Plain City, OH 43064

### LCS Summary

#### Method 29 Metals

**Client:** ARI Environmental  
**Sample ID:** 0913036 LCS-B  
**Analysis Date:** 10/11/2013  
**Project #:** 0913036

Analyte	Amt Found, ug/L	Amt Spiked, ug/L	% Rec	QC Limits
Antimony	896.89	1000	90	80-120
Arsenic	1011.98	1000	101	80-120
Barium	1885.15	2000	94	80-120
Beryllium	50.01	50	100	80-120
Cadmium	471.52	500	94	80-120
Chromium	218.09	200	109	80-120
Cobalt	563.57	500	113	80-120
Copper	250.52	250	100	80-120
Lead	937.19	1000	94	80-120
Manganese	454.59	500	91	80-120
Nickel	469.77	2000	23	80-120
Phosphorus	2030.97	2000	102	80-120
Selenium	1045.25	1000	105	80-120
Silver	210.00	250	84	80-120
Thallium	1053.01	1000	105	80-120
Zinc	461.89	500	92	80-120

\*Outside of QC limits

Data Analysis Technologies, Inc.  
7715 Corporate Boulevard  
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## Sample Analysis Certificate

### Method 29 Metals

<b>Client:</b>	ARI Environmental				<b>Project #:</b>	0913036			
<b>Client Run/Test No.</b>	Method Blank								
<b>Site:</b>	ARI - Kramer				<b>Lab Sample ID:</b>				
					<b>FH1:</b>	0913036-MBF			
<b>Sample Date:</b>	9/18/2013				<b>FH2:</b>	0913036-MBF			
<b>Preparation Date:</b>	10/9/2013				<b>BH:</b>	0913036-MBB			
<b>Analysis Date:</b>	10/11/2013				<b>Matrix:</b>	Train			
<b>Metals on Filter Paper</b>					<b>Metals in Impinger Solution</b>				
			<b>Front Half</b>				<b>Back Half</b>		
<b>Analyte:</b>	<i>MDL, ug</i>	<i>LOQ, ug</i>	<b>Total ug</b>	<b>Q</b>	<i>MDL, ug</i>	<i>LOQ, ug</i>	<b>Total ug</b>	<b>Q</b>	
Antimony	1.25	5.00	ND		1.25	5.00	ND		
Arsenic	1.25	5.00	ND		1.25	5.00	ND		
Barium	2.50	10.00	ND		2.50	10.00	ND		
Beryllium	0.06	0.30	0.07	J	0.06	0.30	0.19	J	
Cadmium	0.63	2.50	ND		0.63	2.50	2.48	J	
Chromium	0.25	1.00	ND		0.25	1.00	ND		
Cobalt	0.63	2.50	ND		0.63	2.50	ND		
Copper	0.32	1.00	2.36		0.32	1.00	2.44		
Lead	1.25	5.00	ND		1.25	5.00	ND		
Manganese	0.63	2.50	ND		0.63	2.50	ND		
Nickel	0.63	2.50	ND		0.63	2.50	ND		
Phosphorus	2.50	10.00	ND		2.50	10.00	ND		
Selenium	1.25	5.00	ND		1.25	5.00	4.13	J	
Silver	0.63	2.50	ND		0.63	2.50	ND		
Thallium	1.25	5.00	40.65		1.25	5.00	23.80		
Zinc	0.63	2.50	0.84	J	0.63	2.50	ND		

J= below the reporting limit  
D=Value obtained from a dilution

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7715 Corporate Blvd.,  
Plain City, OH 43064

Method 29

1-800-733-8644

Data Analysis Technologies, Inc.  
7715 Corporate Boulevard  
Plain City, OH 43064

**PDS Summary**

**Method 29 Metals**

Client: ARI Environmental  
Sample ID: 0913036-19:29 PDS  
Analysis Date: 10/11/2013  
Project #: 0913036

Analyte	Amt Found, ug/L	Amt Spiked, ug/L	Sample Amt, ug/L	Q % Rec	QC Limits
Antimony	1174.90	1000	62.853	109	80-120
Arsenic	1112.48	1000	10.273	110	80-120
Barium	2266.66	2000	56.853	110	80-120
Beryllium	61.75	50	0.000	123	80-120
Cadmium	548.57	500	0.000	110	80-120
Chromium	224.56	200	61.938	81	80-120
Cobalt	436.88	500	0.000	87	80-120
Copper	330.42	250	36.668	118	80-120
Lead	1355.70	1000	425.597	93	80-120
Manganese	545.05	500	10.696	107	80-120
Nickel	547.22	2000	28.217	26	80-120
Phosphorus	3852.22	2000	1653.526	110	80-120
Selenium	1079.70	1000	110.215	97	80-120
Silver	246.06	250	0.000	98	80-120
Thallium	620.19	1000	0.000	62	80-120
Zinc	829.21	500	255.841	115	80-120

\*Outside of QC limits

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**PDS Summary**

**Method 29 Metals**

Client: ART Environmental  
Sample ID: 0913036-25 PDS  
Analysis Date: 10/11/2013  
Project #: 0913036

Analyte	Amt Found, ug/L	Amt Spiked, ug/L	Sample Amt, ug/L	Q % Rec	QC Limits
Antimony	1219.63	1000	23.980	120	80-120
Arsenic	1128.00	1000	0.000	113	80-120
Barium	2321.84	2000	60.642	113	80-120
Beryllium	63.28	50	-1.277	129	80-120
Cadmium	587.62	500	10.987	115	80-120
Chromium	244.23	200	72.641	86	80-120
Cobalt	507.11	500	110.807	79	80-120
Copper	363.32	250	46.417	127	80-120
Lead	1165.84	1000	28.021	114	80-120
Manganese	618.66	500	24.369	119	80-120
Nickel	619.52	2000	26.635	30	80-120
Phosphorus	5813.30	2000	3045.667	138	80-120
Selenium	1247.04	1000	144.680	110	80-120
Silver	271.86	250	-4.324	110	80-120
Thallium	279.89	1000	-762.704	104	80-120
Zinc	1394.96	500	468.952	185	80-120

\*Outside of QC limits

## **Method 5- Particulate Matter (PM)**

### Summary of Method

Particulate matter is withdrawn isokinetically from the source and collected on a glass fiber filter maintained at a temperature of  $120 \pm 14$ C.

PM is determined on the filter and in the acetone rinse.

## Data Analysis Technologies, Inc.

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Plain City, OH 43064

**Data Summary Table****Particulate Matter**

**Client:** ARI  
**Client Project:** Kramer  
**DAT Project:** 0913936  
**Date Received:** 9/27/2013  
**Date Analyzed:** 10/9/2013  
**Analyst:** JJK

Client ID	DAT ID	Date Sampled	Filter		Q
			Particulate, mg	PQL, mg	
52688 North 29-1 M29	0913036-03	17-Sep-13	0.8	0.1	
52687 North 29-2 M29	0913036-07	17-Sep-13	1.3	0.1	
53648 North 29-3 M29	0913036-11	18-Sep-13	0.5	0.1	
53647 South 29-1 M29	0913036-15	19-Sep-13	0.5	0.1	
52828 South 29-2 M29	0913036-19	19-Sep-13	1.4	0.1	
53699 South 29-3 M29	0913036-23	20-Sep-13	1.2	0.1	
Field Blank	0913036-30	20-Sep-13	1.1	0.1	

NT= No tare weight given for filter, wt is after sampling filter wt

ND = Not detected at the estimated practical quantitation limit shown.





A Waters Company

October 15, 2013

Hank Taylor  
ARI Environmental  
951 Old Rand Road  
Suite 106  
Wauconda, IL 60084

Enclosed is your final report for ERA's Stationary Source Audit Sample (SSAS) Program. Your final report includes an evaluation of all results submitted by your laboratory to ERA.

Data Evaluation Protocols: All analytes in ERA's SSAS Program have been evaluated comparing the reported result to the acceptance limits generated using the criteria contained in the TNI SSAS Table.

For any "Not Acceptable" results, please contact your state regulator for any corrective action requirements.

Thank you for your participation in ERA's SSAS Program. If you have any questions, please contact our Proficiency Testing Department at 1-800-372-0122.

Sincerely,

A handwritten signature in black ink, appearing to read "Kristina Sanchez", is written over a faint circular stamp or watermark.

Kristina Sanchez  
Quality Officer

cc: Project File Number 090313F



A Waters Company

Recipient Type	Report Recipient	Contact
Agency	IL EPA Des Plaines (SSAS) 9511 Harrison Street Des Plaines, IL 60016 USA	Kevin Mattison kevin.mattison@illinois.gov Phone: 847-294-4019
Facility	H. Kramer Brass & Bronze Foundry 1345 W 21st Street Chicago, IL 60608 USA	Randy Weil weilr@hkramer.com Phone: 312-226-6600
Lab	Data Analysis Technologies Inc 7715 Corporate Blvd Plain City, OH 43064 USA	Dr. Ronald K. Mitchum President ron@datlab.com Phone: 614-873-0710
Tester	ARI Environmental 951 Old Rand Road Suite 106 Wauconda, IL 60084 USA	Hank Taylor htaylor@arienv.com Phone: 847-487-1580 ext 114





A Waters Company

## 090313F Laboratory Exception Report

Dr. Ronald K. Mitchum  
President  
Data Analysis Technologies Inc  
7715 Corporate Blvd  
Plain City, OH 43064  
614-873-0710

EPA ID:  
ERA Customer Number:

Not Reported  
D113523

### Evaluation Checks

There are no values reported with < where the assigned value was greater than 0.

### Not Acceptable Evaluations

There were no Not Acceptable evaluations for this study.

C-51





A Waters Company

## Final Report Results For Laboratory Data Analysis Technologies Inc





A Waters Company

## SSAP Evaluation Report

Project Number: **090313F**

ERA Customer Number: **D113523**

Laboratory Name: **Data Analysis  
Technologies Inc**

### Inorganic Results





# 090313F Evaluation Final Complete Report

Dr. Ronald K. Mitchum  
 President  
 Data Analysis Technologies Inc  
 7715 Corporate Blvd  
 Plain City, OH 43064  
 614-873-0710

EPA ID:  
 ERA Customer Number:

Not Reported  
 D113523

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
<i>SSAP Metals on Filter Paper (cat# 1125) Study Dates: 09/03/13 - 10/15/13</i>												
1005	Antimony	µg/Filter	96.8	85.8	64.4 - 107	Acceptable	EPA 29 2000	10/11/2013	0			
1010	Arsenic	µg/Filter	50.2	49.6	37.2 - 62.0	Acceptable	EPA 29 2000	10/11/2013	0			
1015	Barium	µg/Filter	97.0	91.2	68.4 - 114	Acceptable	EPA 29 2000	10/11/2013	0			
1020	Beryllium	µg/Filter	45.7	39.3	29.5 - 49.1	Acceptable	EPA 29 2000	10/11/2013	0			
1030	Cadmium	µg/Filter	55.5	53.3	42.6 - 64.0	Acceptable	EPA 29 2000	10/11/2013	0			
1040	Chromium	µg/Filter	58.4	54.1	43.3 - 64.9	Acceptable	EPA 29 2000	10/11/2013	0			
1050	Cobalt	µg/Filter	56.9	57.0	42.8 - 71.2	Acceptable	EPA 29 2000	10/11/2013	0			
1055	Copper	µg/Filter	56.7	51.2	38.4 - 64.0	Acceptable	EPA 29 2000	10/11/2013	0			
1075	Lead	µg/Filter	123.9	118	94.4 - 142	Acceptable	EPA 29 2000	10/11/2013	0			
1090	Manganese	µg/Filter	39.8	37.4	29.9 - 44.9	Acceptable	EPA 29 2000	10/11/2013	0			
1105	Nickel	µg/Filter	75.0	69.2	55.4 - 83.0	Acceptable	EPA 29 2000	10/11/2013	0			
1140	Selenium	µg/Filter	79.4	65.0	48.8 - 81.2	Acceptable	EPA 29 2000	10/11/2013	0			
1150	Silver	µg/Filter	142.5	137	95.9 - 178	Acceptable	EPA 29 2000	10/11/2013	0			
1165	Thallium	µg/Filter	109.3	100	75.0 - 125	Acceptable	EPA 29 2000	10/11/2013	0			
1190	Zinc	µg/Filter	71.4	68.8	51.6 - 86.0	Acceptable	EPA 29 2000	10/11/2013	0			





A Waters Company

# 090313F Evaluation Final Complete Report

Dr. Ronald K. Mitchum  
 President  
 Data Analysis Technologies Inc  
 7715 Corporate Blvd  
 Plain City, OH 43064  
 614-873-0710

EPA ID:  
 ERA Customer Number:

Not Reported  
 D113523

TNI Analyte Code	Analyte	Units	Reported Value	Assigned Value	Acceptance Limits	Performance Evaluation	Method Description	Analysis Date	Z Score	Study Mean	Study Standard Deviation	Analyst Name
<i>SSAP Metals in Impinger Solution (cat# 1126) Study Dates: 09/03/13 - 10/15/13</i>												
1005	Antimony	µg/mL	1.44	1.37	1.03 - 1.71	Acceptable	EPA 29 2000	10/11/2013	0			
1010	Arsenic	µg/mL	1.15	1.00	0.750 - 1.25	Acceptable	EPA 29 2000	10/11/2013	0			
1015	Barium	µg/mL	1.19	1.17	0.875 - 1.46	Acceptable	EPA 29 2000	10/11/2013	0			
1020	Beryllium	µg/mL	1.84	1.61	1.21 - 2.01	Acceptable	EPA 29 2000	10/11/2013	0			
1030	Cadmium	µg/mL	1.32	1.15	0.920 - 1.38	Acceptable	EPA 29 2000	10/11/2013	0			
1040	Chromium	µg/mL	1.97	2.02	1.62 - 2.42	Acceptable	EPA 29 2000	10/11/2013	0			
1050	Cobalt	µg/mL	1.68	1.53	1.15 - 1.91	Acceptable	EPA 29 2000	10/11/2013	0			
1055	Copper	µg/mL	1.33	1.35	1.01 - 1.69	Acceptable	EPA 29 2000	10/11/2013	0			
1075	Lead	µg/mL	1.38	1.18	0.885 - 1.48	Acceptable	EPA 29 2000	10/11/2013	0			
1090	Manganese	µg/mL	1.21	1.06	0.795 - 1.32	Acceptable	EPA 29 2000	10/11/2013	0			
1105	Nickel	µg/mL	2.23	1.98	1.58 - 2.38	Acceptable	EPA 29 2000	10/11/2013	0			
1140	Selenium	µg/mL	1.63	1.34	1.00 - 1.68	Acceptable	EPA 29 2000	10/11/2013	0			
1150	Silver	µg/mL	1.17	1.04	0.780 - 1.30	Acceptable	EPA 29 2000	10/11/2013	0			
1165	Thallium	µg/mL	1.40	1.37	1.03 - 1.71	Acceptable	EPA 29 2000	10/11/2013	0			
1190	Zinc	µg/mL	1.49	1.22	0.915 - 1.52	Acceptable	EPA 29 2000	10/11/2013	0			





**APPENDIX D**

H. Kramer & Company: Chicago, IL  
North and South Baghouse Stacks  
Test Dates: 9/17 - 9/20/13

**Production Data**

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**Larry Goldfine**

---

**From:** Randy Weil <WeilR@hkramer.com>  
**Sent:** Thursday, October 10, 2013 1:40 PM  
**To:** lgoldfine@arienv.com  
**Cc:** Mark A. Bilut  
**Subject:** FW: Kramer  
**Attachments:** Scan0145.pdf

Sorry Larry, wrong address on the first attempt

Randall K Weil  
Executive Vice President  
H. Kramer & Co.  
1-312-226-6600 phone  
1-312-226-4713 fax  
[weilr@hkramer.com](mailto:weilr@hkramer.com)

**From:** Randy Weil  
**Sent:** Thursday, October 10, 2013 1:37 PM  
**To:** [lgoldfine@ari.com](mailto:lgoldfine@ari.com)  
**Cc:** 'Mark A. Bilut'  
**Subject:** Kramer

Hi Larry

Attached is a purchase order for the stack testing at Kramer.

Also, the data you requested is:

	Avg. lb. Charged 24 hr. cycle	Avg. lb. Charged For Hrs. Charged	Avg. lb. Poured For Hrs. Poured
R7149	3,368	10,430	16,625
R7150	3,745	8,170	21,310
K4032	5,349	16,565	26,320
K4033	4,759	24,460	24,165

Furnace temperature is held steady from tap-out time throughout pouring cycle

Small Rotary (R-1)	1,960F +/- 10F
Large Rotary (R-2)	1,980F +/- 15F

An attempt to darken the images of the charge sheet printouts was not very rewarding. I have printed them again with darker text and am overnighting them to you now.

If you need anything further, please let me know.

Thanks and best regards,  
Randy

Randall K Weil

R007149 C123 (81-3-7-9) ROTARY FURNACE 1									
Date	Time	DC3 DP In. H <sub>2</sub> O	DC4 DP In. H <sub>2</sub> O	FAN Amps	INLET TEMP Deg F.	OUTLET TEMP Deg F.	PARTICULATE Picoamps	STACK ACFM	NAF DP In. H <sub>2</sub> O
Run 1 North Baghouse									
9/17/2013	8:15:26	5.23	0.00	300.00	95.00	100.00	13.75	61,359	1.76
9/17/2013	8:16:26	5.27	0.00	301.00	95.00	101.00	9.70	61,741	1.76
9/17/2013	8:17:26	5.30	0.00	302.00	95.00	100.00	8.49	60,927	1.83
9/17/2013	8:18:26	5.03	0.00	300.00	95.00	100.00	9.58	61,772	1.82
9/17/2013	8:19:26	5.10	0.00	300.00	95.00	100.00	9.44	61,497	1.71
9/17/2013	8:20:26	5.26	0.00	301.00	95.00	100.00	14.66	62,007	1.72
9/17/2013	8:21:26	5.19	0.00	298.00	94.00	100.00	6.91	61,418	1.75
9/17/2013	8:22:26	5.34	0.00	300.00	94.00	100.00	9.11	61,732	1.76
9/17/2013	8:23:26	5.43	0.00	301.00	94.00	100.00	5.38	62,636	1.91
9/17/2013	8:24:26	5.02	0.00	297.00	94.00	100.00	7.26	61,438	1.79
9/17/2013	8:25:26	5.12	0.00	301.00	94.00	100.00	5.87	62,380	1.75
9/17/2013	8:26:26	5.26	0.00	295.00	95.00	100.00	14.57	61,890	1.75
9/17/2013	8:27:26	5.35	0.00	302.00	95.00	100.00	6.55	62,714	1.71
9/17/2013	8:28:26	5.27	0.00	298.00	95.00	100.00	13.58	62,047	1.73
9/17/2013	8:29:26	5.39	0.00	298.00	95.00	100.00	10.06	61,458	1.76
9/17/2013	8:30:26	5.31	0.00	302.00	95.00	100.00	10.67	62,459	1.79
9/17/2013	8:31:26	5.16	0.00	297.00	95.00	100.00	11.95	61,418	1.89
9/17/2013	8:32:26	5.31	0.00	299.00	95.00	100.00	13.01	62,341	1.79
9/17/2013	8:33:26	5.33	0.00	298.00	95.00	100.00	8.84	61,693	1.83
9/17/2013	8:34:26	5.21	0.00	299.00	95.00	100.00	7.80	61,399	1.84
9/17/2013	8:35:26	5.02	0.00	301.00	95.00	100.00	14.44	61,732	1.82
9/17/2013	8:36:26	5.20	0.00	296.00	96.00	101.00	6.56	61,622	1.66
9/17/2013	8:37:26	5.16	0.00	296.00	99.00	101.00	8.39	61,858	1.76
9/17/2013	8:38:26	5.31	0.00	296.00	101.00	102.00	7.98	61,375	1.83
9/17/2013	8:39:26	5.25	0.00	294.00	104.00	103.00	7.22	61,643	1.80
9/17/2013	8:40:26	5.30	0.00	297.00	106.00	105.00	6.49	62,837	1.79
9/17/2013	8:41:26	5.28	0.00	293.00	108.00	106.00	5.10	61,913	1.81
9/17/2013	8:42:26	5.31	0.00	296.00	108.00	108.00	6.80	61,391	1.81
9/17/2013	8:43:26	5.27	0.00	299.00	108.00	109.00	7.71	62,200	1.83
9/17/2013	8:44:26	5.45	0.00	294.00	107.00	109.00	5.91	62,220	1.83
9/17/2013	8:45:26	5.34	0.00	294.00	106.00	109.00	8.94	63,482	1.81
9/17/2013	8:46:26	5.29	0.00	295.00	106.00	109.00	8.68	62,601	1.80
9/17/2013	8:47:26	5.29	0.00	291.00	107.00	109.00	7.36	61,179	1.80
9/17/2013	8:48:26	5.47	0.00	293.00	110.00	110.00	6.83	61,748	1.82
9/17/2013	8:49:26	5.36	0.00	293.00	112.00	111.00	5.18	61,052	1.72
9/17/2013	8:50:26	5.33	0.00	289.00	114.00	112.00	7.46	61,905	1.87
9/17/2013	8:51:26	5.26	0.00	293.00	116.00	113.00	4.07	62,415	1.75
9/17/2013	8:52:26	5.42	0.00	288.00	118.00	115.00	3.29	62,168	1.68
9/17/2013	8:53:26	5.34	0.00	289.00	119.00	116.00	2.79	62,094	1.84
9/17/2013	8:54:26	5.31	0.00	289.00	119.00	117.00	5.24	61,511	1.78
9/17/2013	8:55:26	5.39	0.00	291.00	119.00	118.00	2.80	61,984	1.86
9/17/2013	8:56:26	5.30	0.00	291.00	121.00	119.00	3.01	61,459	1.82
9/17/2013	8:57:26	5.30	0.00	294.00	121.00	120.00	2.99	62,321	1.81
9/17/2013	8:58:26	5.31	0.00	295.00	120.00	120.00	2.73	63,117	1.77
9/17/2013	8:59:26	5.29	0.00	296.00	118.00	120.00	2.30	62,934	1.82
9/17/2013	9:00:26	5.09	0.00	302.00	116.00	120.00	1.95	62,341	1.84
9/17/2013	9:01:26	5.19	0.00	298.00	114.00	119.00	3.12	63,517	1.79
9/17/2013	9:02:26	5.15	0.00	299.00	112.00	118.00	2.44	63,205	1.85
9/17/2013	9:03:26	5.13	0.00	297.00	111.00	117.00	3.41	63,217	1.78
9/17/2013	9:04:26	5.68	0.00	301.00	110.00	116.00	4.78	63,108	2.02
9/17/2013	9:05:26	5.30	0.00	300.00	108.00	115.00	4.37	62,694	1.78
9/17/2013	9:06:26	5.33	0.00	299.00	108.00	114.00	5.34	63,171	1.83
9/17/2013	9:07:26	5.36	0.00	298.00	107.00	113.00	4.58	62,960	1.59
9/17/2013	9:08:26	5.16	0.00	301.00	106.00	113.00	3.67	63,384	1.83
9/17/2013	9:09:26	5.15	0.00	302.00	106.00	112.00	4.73	63,173	1.75
9/17/2013	9:10:26	5.33	0.00	303.00	106.00	111.00	4.58	62,560	1.81
9/17/2013	9:11:26	5.29	0.00	298.00	108.00	111.00	4.56	61,937	1.76
9/17/2013	9:12:26	5.38	0.00	301.00	110.00	112.00	4.01	62,066	1.78
9/17/2013	9:13:26	5.24	0.00	299.00	113.00	112.00	5.04	61,360	1.75

ROTARY FURNACE 1									
Date	Time	DC3 DP In. H <sub>2</sub> O	DC4 DP In. H <sub>2</sub> O	FAN Amps	INLET TEMP Deg F.	OUTLET TEMP Deg F.	PARTICULATE Picoamps	STACK ACFM	NAF DP In. H <sub>2</sub> O
9/17/2013	9:14:26	5.37	0.00	295.00	115.00	114.00	4.01	61,635	1.82
9/17/2013	9:15:26	5.22	0.00	292.00	118.00	115.00	2.96	61,480	1.81
9/17/2013	9:16:26	5.15	0.00	290.00	120.00	117.00	2.99	61,247	1.74
9/17/2013	9:17:26	5.30	0.00	286.00	122.00	119.00	7.33	61,785	1.75
9/17/2013	9:18:26	5.41	0.00	286.00	124.00	120.00	2.14	62,199	1.81
9/17/2013	9:19:26	5.30	0.00	289.00	124.00	122.00	3.08	62,945	1.79
9/17/2013	9:20:26	5.44	0.00	291.00	122.00	122.00	1.53	63,478	1.79
9/17/2013	9:21:26	5.31	0.00	292.00	120.00	122.00	3.21	62,228	1.82
9/17/2013	9:22:26	5.34	0.00	290.00	118.00	122.00	2.59	63,151	1.78
9/17/2013	9:23:26	5.09	0.00	291.00	116.00	121.00	3.75	63,144	1.81
9/17/2013	9:24:26	5.35	0.00	289.00	115.00	120.00	2.16	62,055	1.77
9/17/2013	9:25:26	5.27	0.00	296.00	113.00	119.00	3.10	62,886	1.82
9/17/2013	9:26:26	5.12	0.00	294.00	112.00	119.00	5.83	62,764	1.70
9/17/2013	9:27:26	5.37	0.00	295.00	111.00	118.00	3.75	62,594	1.78
9/17/2013	9:28:26	5.26	0.00	295.00	110.00	117.00	3.23	62,202	1.76
9/17/2013	9:29:26	5.11	0.00	294.00	110.00	116.00	3.84	62,500	1.80
9/17/2013	9:30:26	5.35	0.00	294.00	109.00	116.00	4.40	63,209	1.75
9/17/2013	9:31:26	5.06	0.00	296.00	109.00	115.00	6.27	63,686	1.85
9/17/2013	9:32:26	5.34	0.00	301.00	109.00	115.00	3.68	61,561	1.80
9/17/2013	9:33:26	5.18	0.00	296.00	108.00	114.00	4.42	63,635	1.84
9/17/2013	9:34:26	5.29	0.00	295.00	108.00	114.00	3.12	62,201	1.79
9/17/2013	9:35:26	5.29	0.00	295.00	108.00	114.00	3.12	62,201	1.79
9/17/2013	9:36:26	5.05	0.00	297.00	107.00	114.00	3.24	62,141	1.86
9/17/2013	9:37:26	5.17	0.00	296.00	107.00	113.00	6.84	62,557	1.75
9/17/2013	9:38:26	5.36	0.00	300.00	107.00	113.00	3.37	62,335	1.81
9/17/2013	9:39:26	5.40	0.00	292.00	108.00	113.00	4.17	62,032	1.81
9/17/2013	9:40:26	5.12	0.00	295.00	108.00	113.00	3.82	62,497	1.83
9/17/2013	9:41:26	5.17	0.00	294.00	108.00	113.00	6.79	62,375	1.74
9/17/2013	9:42:26	5.16	0.00	296.00	108.00	113.00	6.39	61,932	1.79
9/17/2013	9:43:26	5.32	0.00	294.00	108.00	113.00	8.32	62,516	1.85
9/17/2013	9:44:26	5.21	0.00	291.00	110.00	113.00	4.91	61,932	1.78
9/17/2013	9:45:26	5.13	0.00	289.00	112.00	114.00	3.94	63,029	1.84
9/17/2013	9:46:26	5.20	0.00	291.00	114.00	115.00	2.76	62,876	1.90
9/17/2013	9:47:26	5.40	0.00	289.00	117.00	116.00	5.85	61,465	1.84
9/17/2013	9:48:26	5.34	0.00	284.00	119.00	117.00	1.97	61,491	1.73
9/17/2013	9:49:26	5.30	0.00	284.00	121.00	119.00	1.63	62,172	1.83
9/17/2013	9:50:26	5.09	0.00	289.00	123.00	120.00	3.66	62,402	1.82
9/17/2013	9:51:26	5.22	0.00	285.00	125.00	122.00	37.33	62,003	1.80
9/17/2013	9:52:26	5.31	0.00	284.00	126.00	123.00	40.91	63,321	1.87
9/17/2013	9:53:26	5.18	0.00	288.00	125.00	124.00	2.09	62,833	1.82
9/17/2013	9:54:26	5.37	0.00	285.00	123.00	124.00	1.94	62,073	1.78
9/17/2013	9:55:26	5.31	0.00	289.00	121.00	124.00	2.19	63,100	1.81
9/17/2013	9:56:26	5.25	0.00	289.00	120.00	124.00	2.76	62,873	1.87
9/17/2013	9:57:26	5.20	0.00	291.00	119.00	123.00	11.83	63,382	1.75
9/17/2013	9:58:26	5.29	0.00	293.00	120.00	122.00	2.63	62,577	1.78
9/17/2013	9:59:26	5.25	0.00	296.00	121.00	122.00	2.93	62,966	1.82
9/17/2013	10:00:26	4.99	0.00	291.00	124.00	123.00	9.54	61,925	1.75
9/17/2013	10:01:26	5.20	0.00	290.00	126.00	124.00	2.84	60,859	1.80
9/17/2013	10:02:26	5.20	0.00	292.00	129.00	125.00	16.50	62,014	1.82
9/17/2013	10:03:26	5.41	0.00	294.00	131.00	127.00	6.29	61,502	1.85
9/17/2013	10:04:26	5.18	0.00	290.00	131.00	129.00	2.81	62,977	1.82
9/17/2013	10:05:26	5.36	0.00	294.00	129.00	129.00	6.56	63,060	1.87
9/17/2013	10:06:26	5.35	0.00	294.00	127.00	129.00	4.93	63,060	1.87
9/17/2013	10:07:26	5.24	0.00	294.00	125.00	128.00	5.66	62,973	1.79
9/17/2013	10:08:26	5.37	0.00	294.00	124.00	127.00	4.03	62,784	1.79
9/17/2013	10:09:26	5.25	0.00	297.00	122.00	127.00	15.50	63,011	1.85
9/17/2013	10:10:26	5.05	0.00	296.00	121.00	126.00	8.31	63,193	1.94
9/17/2013	10:11:26	5.40	0.00	297.00	119.00	125.00	5.21	63,600	1.88
9/17/2013	10:12:26	5.27	0.00	295.00	118.00	124.00	7.19	62,483	1.76
9/17/2013	10:13:26	5.36	0.00	297.00	117.00	123.00	29.62	62,848	1.78
9/17/2013	10:14:26	5.23	0.00	302.00	116.00	122.00	25.28	62,884	1.84
9/17/2013	10:15:26	5.30	0.00	300.00	116.00	121.00	34.06	63,165	1.80

ROTARY FURNACE 1									
Date	Time	DC3 DP In. H <sub>2</sub> O	DC4 DP In. H <sub>2</sub> O	FAN Amps	INLET TEMP Deg F.	OUTLET TEMP Deg F.	PARTICULATE Picoamps	STACK ACFM	NAF DP In. H <sub>2</sub> O
9/17/2013	10:16:26	5.43	0.00	300.00	115.00	121.00	28.49	63,492	1.82
9/17/2013	10:17:26	5.31	0.00	299.00	114.00	120.00	12.96	62,974	1.86
9/17/2013	10:18:26	5.23	0.00	299.00	114.00	119.00	30.16	63,375	1.83
9/17/2013	10:19:26	5.42	0.00	303.00	113.00	119.00	7.16	63,477	1.75
9/17/2013	10:20:26	5.41	0.00	301.00	113.00	118.00	26.54	63,367	1.86
9/17/2013	10:21:26	5.12	0.00	297.00	112.00	118.00	36.92	62,899	1.80
9/17/2013	10:22:26	5.40	0.00	302.00	112.00	117.00	46.12	63,136	1.89
9/17/2013	10:23:26	5.23	0.00	296.00	113.00	117.00	34.87	61,531	1.87
9/17/2013	10:24:26	5.07	0.00	297.00	115.00	117.00	36.29	61,978	1.81
9/17/2013	10:25:26	5.28	0.00	297.00	117.00	117.00	56.51	63,197	1.82
9/17/2013	10:26:26	5.45	0.00	297.00	119.00	118.00	58.56	61,557	1.88
9/17/2013	10:27:26	5.42	0.00	294.00	121.00	119.00	18.69	62,214	1.79
9/17/2013	10:28:26	5.21	0.00	294.00	122.00	121.00	38.48	62,204	1.92
9/17/2013	10:29:26	5.35	0.00	295.00	122.00	121.00	19.45	61,835	1.83
9/17/2013	10:30:26	5.27	0.00	293.00	121.00	122.00	31.81	63,253	1.91
9/17/2013	10:31:26	5.28	0.00	297.00	120.00	122.00	48.49	63,806	1.81
9/17/2013	10:32:26	5.39	0.00	287.00	118.00	121.00	54.43	63,389	1.77
9/17/2013	10:33:26	5.27	0.00	292.00	117.00	121.00	47.78	63,042	1.84
9/17/2013	10:34:26	5.20	0.00	293.00	116.00	120.00	39.19	62,811	1.77
9/17/2013	10:35:26	5.31	0.00	291.00	115.00	119.00	19.63	62,682	1.80
9/17/2013	10:36:26	4.98	0.00	292.00	114.00	118.00	44.11	62,615	1.83
9/17/2013	10:37:26	5.32	0.00	292.00	113.00	118.00	48.43	61,841	1.80
9/17/2013	10:38:26	5.24	0.00	296.00	113.00	117.00	15.64	63,116	1.86
9/17/2013	10:39:26	5.06	0.00	297.00	112.00	117.00	18.60	63,928	1.93
9/17/2013	10:40:26	5.32	0.00	293.00	112.00	116.00	32.98	62,398	1.76
9/17/2013	10:41:26	5.14	0.00	290.00	111.00	116.00	29.96	63,229	1.77
9/17/2013	10:42:26	5.37	0.00	291.00	111.00	115.00	26.22	62,391	1.76
9/17/2013	10:43:26	5.05	0.00	290.00	111.00	115.00	26.23	63,038	1.74
9/17/2013	10:44:26	5.28	0.00	291.00	111.00	115.00	33.39	62,350	1.79
9/17/2013	10:45:26	5.14	0.00	295.00	111.00	115.00	40.14	63,565	1.87
9/17/2013	10:46:26	5.39	0.00	292.00	111.00	115.00	7.84	62,431	1.87
9/17/2013	10:47:26	5.24	0.00	294.00	111.00	115.00	10.39	63,240	1.79
9/17/2013	10:48:26	5.23	0.00	297.00	111.00	115.00	13.07	63,099	1.80
9/17/2013	10:49:26	5.43	0.00	302.00	111.00	115.00	6.88	62,694	1.79
9/17/2013	10:50:26	5.21	0.00	302.00	111.00	115.00	10.75	62,269	1.81
9/17/2013	10:51:26	5.17	0.00	301.00	111.00	115.00	13.99	62,917	1.81
9/17/2013	10:52:26	5.40	0.00	297.00	111.00	115.00	14.98	62,471	1.80
9/17/2013	10:53:26	5.17	0.00	300.00	111.00	115.00	18.71	62,998	1.88
9/17/2013	10:54:26	5.31	0.00	294.00	111.00	115.00	13.60	62,471	1.81
9/17/2013	10:55:26	5.23	0.00	298.00	111.00	115.00	8.31	62,572	1.86
9/17/2013	10:56:26	5.13	0.00	303.00	111.00	115.00	10.33	62,715	1.86
9/17/2013	10:57:26	5.22	0.00	295.00	112.00	115.00	11.61	62,654	1.75
9/17/2013	10:58:26	5.29	0.00	302.00	112.00	116.00	14.05	63,047	1.72
9/17/2013	10:59:26	5.27	0.00	294.00	112.00	116.00	16.41	62,317	1.74
9/17/2013	11:00:26	5.10	0.00	300.00	113.00	116.00	14.73	62,803	1.74
9/17/2013	11:01:26	5.17	0.00	295.00	113.00	116.00	7.43	62,986	1.75
9/17/2013	11:02:26	5.25	0.00	298.00	113.00	116.00	13.76	62,256	1.84
9/17/2013	11:03:26	5.33	0.00	297.00	113.00	117.00	13.72	62,952	1.81
9/17/2013	11:04:26	5.32	0.00	295.00	113.00	117.00	15.25	63,319	1.77
9/17/2013	11:05:26	4.92	0.00	294.00	113.00	117.00	4.48	62,080	1.81
9/17/2013	11:06:26	5.21	0.00	303.00	113.00	117.00	2.15	63,197	1.80
9/17/2013	11:07:26	5.38	0.00	299.00	113.00	117.00	2.40	63,339	1.82
9/17/2013	11:08:26	5.32	0.00	294.00	113.00	117.00	3.86	62,973	1.81
9/17/2013	11:09:26	5.38	0.00	296.00	114.00	117.00	3.28	62,385	1.79
9/17/2013	11:10:26	5.40	0.00	295.00	114.00	118.00	4.71	61,801	1.81
9/17/2013	11:11:26	5.19	0.00	299.00	114.00	118.00	2.44	62,615	1.79
9/17/2013	11:12:26	5.21	0.00	299.00	114.00	118.00	3.18	63,631	1.74
9/17/2013	11:13:26	5.28	0.00	298.00	114.00	118.00	4.25	63,205	1.84
9/17/2013	11:14:26	5.23	0.00	297.00	114.00	118.00	3.07	62,472	1.81
9/17/2013	11:15:26	5.31	0.00	296.00	114.00	118.00	2.62	62,635	1.85
9/17/2013	11:16:26	5.00	0.00	297.00	114.00	118.00	2.76	62,187	1.93
9/17/2013	11:17:26	5.14	0.00	299.00	114.00	118.00	2.41	62,757	1.86

ROTARY FURNACE 1									
Date	Time	DC3 DP In. H <sub>2</sub> O	DC4 DP In. H <sub>2</sub> O	FAN Amps	INLET TEMP Deg F.	OUTLET TEMP Deg F.	PARTICULATE Picoamps	STACK ACFM	NAF DP In. H <sub>2</sub> O
9/17/2013	11:18:26	5.22	0.00	293.00	113.00	118.00	2.13	62,940	1.80
9/17/2013	11:19:26	5.29	0.00	295.00	113.00	118.00	3.94	62,696	1.76
9/17/2013	11:20:26	5.36	0.00	292.00	113.00	118.00	4.11	62,512	1.77
9/17/2013	11:21:26	5.32	0.00	297.00	113.00	118.00	2.66	62,269	1.79
9/17/2013	11:22:26	5.28	0.00	296.00	114.00	118.00	3.53	62,228	1.84
9/17/2013	11:23:26	5.19	0.00	297.00	116.00	118.00	2.52	62,512	1.89
9/17/2013	11:24:26	5.49	0.00	295.00	118.00	118.00	3.67	62,167	1.72
9/17/2013	11:25:26	5.25	0.00	289.00	120.00	120.00	1.86	60,953	1.86
9/17/2013	11:26:26	5.23	0.00	291.00	121.00	121.00	4.03	62,121	1.89
9/17/2013	11:27:26	5.14	0.00	291.00	123.00	122.00	3.05	62,167	1.84
9/17/2013	11:28:26	5.38	0.00	290.00	125.00	124.00	2.21	61,908	1.74
9/17/2013	11:29:26	5.39	0.00	290.00	127.00	125.00	1.99	62,755	1.73
9/17/2013	11:30:26	5.33	0.00	291.00	128.00	126.00	1.26	62,883	1.87
9/17/2013	11:31:26	5.13	0.00	287.00	130.00	127.00	1.16	62,040	1.80
Run 1 Average		5.26	0.00	295.11	112.60	115.51	10.99	62,468	1.81
Run 2 North Baghouse									
9/17/2013	12:35:26	5.28	0.00	280.00	156.00	151.00	49.63	64,383	1.90
9/17/2013	12:36:26	5.28	0.00	280.00	156.00	151.00	49.63	64,383	1.90
9/17/2013	12:37:26	5.32	0.00	280.00	148.00	150.00	42.90	64,750	1.82
9/17/2013	12:38:26	5.38	0.00	281.00	144.00	148.00	50.44	64,602	1.79
9/17/2013	12:39:26	5.38	0.00	281.00	144.00	148.00	50.44	64,602	1.79
9/17/2013	12:40:26	5.33	0.00	284.00	141.00	146.00	51.40	64,582	1.94
9/17/2013	12:41:26	5.27	0.00	279.00	138.00	144.00	41.71	64,687	1.82
9/17/2013	12:42:26	5.38	0.00	285.00	133.00	140.00	53.06	64,343	1.82
9/17/2013	12:43:26	5.38	0.00	285.00	133.00	140.00	53.06	64,343	1.82
9/17/2013	12:44:26	5.42	0.00	282.00	131.00	138.00	35.09	63,203	1.79
9/17/2013	12:45:26	5.06	0.00	282.00	130.00	137.00	57.39	63,686	1.86
9/17/2013	12:46:26	5.16	0.00	285.00	129.00	135.00	44.69	63,786	1.86
9/17/2013	12:47:26	5.32	0.00	285.00	127.00	134.00	44.75	63,658	1.85
9/17/2013	12:48:26	5.40	0.00	284.00	126.00	133.00	33.68	63,613	1.83
9/17/2013	12:49:26	5.11	0.00	282.00	125.00	132.00	46.92	63,548	1.83
9/17/2013	12:50:26	5.20	0.00	287.00	124.00	131.00	6.93	63,773	1.88
9/17/2013	12:51:26	5.43	0.00	289.00	123.00	130.00	38.76	63,499	1.80
9/17/2013	12:52:26	5.33	0.00	289.00	123.00	129.00	35.71	62,645	1.85
9/17/2013	12:53:26	5.22	0.00	288.00	122.00	129.00	42.44	63,992	1.87
9/17/2013	12:54:26	5.20	0.00	285.00	121.00	128.00	65.33	63,656	1.82
9/17/2013	12:55:26	5.26	0.00	287.00	121.00	127.00	51.63	63,672	1.85
9/17/2013	12:56:26	5.38	0.00	288.00	120.00	126.00	46.10	63,213	1.87
9/17/2013	12:57:26	5.37	0.00	287.00	119.00	126.00	49.38	63,461	1.85
9/17/2013	12:58:26	5.10	0.00	287.00	119.00	125.00	37.04	63,290	1.85
9/17/2013	12:59:26	5.14	0.00	286.00	119.00	125.00	43.48	63,331	1.80
9/17/2013	13:00:26	5.20	0.00	284.00	118.00	124.00	39.25	64,313	1.75
9/17/2013	13:01:26	5.32	0.00	286.00	118.00	124.00	40.51	63,716	1.80
9/17/2013	13:02:26	5.23	0.00	289.00	118.00	124.00	50.54	63,347	1.88
9/17/2013	13:03:26	5.27	0.00	286.00	117.00	123.00	47.65	63,792	1.83
9/17/2013	13:04:26	5.71	0.00	293.00	117.00	123.00	4.28	63,772	1.81
9/17/2013	13:05:26	5.12	0.00	292.00	119.00	123.00	55.53	62,951	1.82
9/17/2013	13:06:26	5.33	0.00	294.00	122.00	123.00	44.72	62,746	1.85
9/17/2013	13:07:26	5.35	0.00	284.00	125.00	124.00	41.06	61,764	1.77
9/17/2013	13:08:26	5.06	0.00	290.00	127.00	126.00	41.67	64,285	1.85
9/17/2013	13:09:26	5.31	0.00	290.00	127.00	127.00	42.54	63,631	1.82
9/17/2013	13:10:26	5.25	0.00	295.00	126.00	128.00	47.43	63,905	1.88
9/17/2013	13:11:26	5.34	0.00	291.00	125.00	128.00	43.59	63,035	1.86
9/17/2013	13:12:26	5.40	0.00	291.00	124.00	127.00	52.46	62,804	1.89
9/17/2013	13:13:26	5.45	0.00	296.00	123.00	127.00	40.67	64,767	1.76
9/17/2013	13:14:26	4.97	0.00	290.00	123.00	127.00	27.90	63,321	1.85
9/17/2013	13:15:26	5.06	0.00	292.00	122.00	126.00	24.42	62,656	1.82
9/17/2013	13:16:26	5.12	0.00	293.00	122.00	126.00	26.89	64,038	1.85
9/17/2013	13:17:26	5.17	0.00	291.00	122.00	126.00	35.11	63,440	1.90
9/17/2013	13:18:26	5.17	0.00	293.00	122.00	125.00	24.81	63,661	1.85
9/17/2013	13:19:26	5.21	0.00	294.00	122.00	125.00	33.91	63,476	1.77
9/17/2013	13:20:26	5.21	0.00	288.00	122.00	125.00	9.88	63,147	1.85

ROTARY FURNACE 1									
Date	Time	DC3 DP In. H <sub>2</sub> O	DC4 DP In. H <sub>2</sub> O	FAN Amps	INLET TEMP Deg F.	OUTLET TEMP Deg F.	PARTICULATE Picoamps	STACK ACFM	NAF DP In. H <sub>2</sub> O
9/17/2013	13:21:26	5.23	0.00	289.00	122.00	125.00	13.21	62,755	1.82
9/17/2013	13:22:26	5.23	0.00	292.00	122.00	125.00	15.74	62,364	1.82
9/17/2013	13:23:26	5.34	0.00	299.00	122.00	125.00	13.71	63,105	1.84
9/17/2013	13:24:26	5.45	0.00	285.00	123.00	125.00	17.74	63,846	1.83
9/17/2013	13:25:26	5.24	0.00	283.00	122.00	125.00	12.60	63,991	1.75
9/17/2013	13:26:26	5.41	0.00	285.00	123.00	125.00	9.61	63,455	1.80
9/17/2013	13:27:26	5.23	0.00	284.00	126.00	125.00	7.61	61,850	1.76
9/17/2013	13:28:26	5.27	0.00	284.00	128.00	126.00	5.60	62,986	1.88
9/17/2013	13:29:26	5.35	0.00	279.00	131.00	127.00	9.68	62,226	1.80
9/17/2013	13:30:26	5.23	0.00	279.00	134.00	129.00	7.83	63,412	1.83
9/17/2013	13:31:26	5.18	0.00	280.00	136.00	130.00	11.11	62,607	1.79
9/17/2013	13:32:26	5.38	0.00	279.00	138.00	132.00	10.25	62,756	1.83
9/17/2013	13:33:26	5.21	0.00	277.00	140.00	134.00	7.68	62,884	1.85
9/17/2013	13:34:26	5.16	0.00	276.00	141.00	135.00	8.80	62,990	1.87
9/17/2013	13:35:26	5.33	0.00	278.00	143.00	136.00	3.86	63,243	1.82
9/17/2013	13:36:26	5.17	0.00	276.00	144.00	137.00	5.71	64,526	1.76
9/17/2013	13:37:26	5.31	0.00	277.00	145.00	138.00	3.94	63,034	1.81
9/17/2013	13:38:26	5.34	0.00	276.00	146.00	139.00	31.75	63,245	1.82
9/17/2013	13:39:26	5.12	0.00	276.00	146.00	140.00	34.21	63,604	1.75
9/17/2013	13:40:26	5.24	0.00	276.00	147.00	141.00	17.65	63,287	1.88
9/17/2013	13:41:26	5.29	0.00	280.00	147.00	141.00	9.72	63,138	1.82
9/17/2013	13:42:26	5.16	0.00	283.00	148.00	142.00	3.76	64,070	1.85
9/17/2013	13:43:26	5.04	0.00	282.00	148.00	143.00	6.28	63,667	1.85
9/17/2013	13:44:26	5.38	0.00	276.00	148.00	143.00	3.67	63,412	1.82
9/17/2013	13:45:26	5.07	0.00	279.00	148.00	143.00	3.35	63,582	1.91
9/17/2013	13:46:26	5.42	0.00	286.00	145.00	143.00	4.62	65,260	1.83
9/17/2013	13:47:26	5.20	0.00	290.00	141.00	143.00	3.96	64,983	1.88
9/17/2013	13:48:26	5.27	0.00	293.00	137.00	141.00	3.45	64,641	1.82
9/17/2013	13:49:26	5.26	0.00	290.00	134.00	140.00	2.05	63,837	1.77
9/17/2013	13:50:26	5.33	0.00	293.00	131.00	138.00	1.94	64,149	1.85
9/17/2013	13:51:26	5.27	0.00	294.00	129.00	136.00	1.40	63,579	1.83
9/17/2013	13:52:26	5.20	0.00	296.00	127.00	134.00	1.21	63,826	1.84
9/17/2013	13:53:26	5.18	0.00	294.00	125.00	132.00	2.02	63,715	1.87
9/17/2013	13:54:26	5.24	0.00	295.00	123.00	131.00	3.42	63,877	1.75
9/17/2013	13:55:26	5.33	0.00	296.00	122.00	129.00	2.93	63,910	1.86
9/17/2013	13:56:26	5.25	0.00	296.00	121.00	128.00	2.01	63,035	1.83
9/17/2013	13:57:26	5.21	0.00	292.00	120.00	127.00	3.27	63,672	1.83
9/17/2013	13:58:26	5.19	0.00	295.00	120.00	126.00	2.53	63,564	1.84
9/17/2013	13:59:26	5.29	0.00	294.00	121.00	125.00	2.31	63,393	1.79
9/17/2013	14:00:26	5.38	0.00	294.00	121.00	125.00	1.62	63,579	1.81
9/17/2013	14:01:26	5.21	0.00	292.00	122.00	125.00	8.59	62,261	1.78
9/17/2013	14:02:26	5.25	0.00	294.00	123.00	125.00	4.52	62,981	1.89
9/17/2013	14:03:26	5.34	0.00	296.00	123.00	125.00	1.18	62,817	1.92
9/17/2013	14:04:26	5.29	0.00	298.00	123.00	126.00	2.23	63,316	1.83
9/17/2013	14:05:26	5.09	0.00	289.00	126.00	126.00	1.40	62,409	1.86
9/17/2013	14:06:26	5.28	0.00	288.00	129.00	127.00	1.85	62,349	1.85
9/17/2013	14:07:26	5.41	0.00	293.00	132.00	128.00	0.85	62,829	1.81
9/17/2013	14:08:26	5.28	0.00	285.00	135.00	130.00	1.27	62,211	1.83
9/17/2013	14:09:26	5.28	0.00	289.00	138.00	132.00	0.99	63,298	1.87
9/17/2013	14:10:26	5.19	0.00	290.00	140.00	134.00	1.31	62,780	1.82
9/17/2013	14:11:26	5.31	0.00	289.00	139.00	136.00	2.05	64,040	1.91
9/17/2013	14:12:26	5.14	0.00	288.00	139.00	136.00	6.00	63,138	1.88
9/17/2013	14:13:26	5.22	0.00	282.00	140.00	137.00	15.90	63,391	1.82
9/17/2013	14:14:26	5.38	0.00	278.00	141.00	137.00	2.94	63,307	1.89
9/17/2013	14:15:26	5.27	0.00	279.00	143.00	138.00	2.66	63,055	1.82
9/17/2013	14:16:26	5.31	0.00	277.00	144.00	139.00	2.68	62,571	1.82
9/17/2013	14:17:26	5.29	0.00	278.00	146.00	140.00	2.69	62,696	1.82
9/17/2013	14:18:26	5.00	0.00	281.00	147.00	141.00	2.44	63,351	1.87
9/17/2013	14:19:26	5.27	0.00	279.00	149.00	142.00	1.95	63,010	1.90
9/17/2013	14:20:26	5.20	0.00	273.00	150.00	143.00	2.39	62,755	1.84
9/17/2013	14:21:26	5.29	0.00	273.00	151.00	144.00	2.96	63,667	1.80
9/17/2013	14:22:26	5.20	0.00	275.00	151.00	145.00	1.95	63,687	1.84

ROTARY FURNACE 1									
Date	Time	DC3 DP In. H <sub>2</sub> O	DC4 DP In. H <sub>2</sub> O	FAN Amps	INLET TEMP Deg F.	OUTLET TEMP Deg F.	PARTICULATE Picoamps	STACK ACFM	NAF DP In. H <sub>2</sub> O
9/17/2013	14:23:26	5.46	0.00	276.00	152.00	146.00	2.27	63,920	1.87
9/17/2013	14:24:26	5.30	0.00	279.00	152.00	146.00	1.20	63,942	1.82
9/17/2013	14:25:26	5.32	0.00	275.00	153.00	146.00	2.68	63,835	1.81
9/17/2013	14:26:26	5.28	0.00	276.00	153.00	147.00	2.76	63,342	1.84
9/17/2013	14:27:26	5.20	0.00	280.00	153.00	147.00	2.73	63,855	1.87
9/17/2013	14:28:26	5.39	0.00	273.00	153.00	147.00	2.53	62,701	1.85
9/17/2013	14:29:26	5.40	0.00	277.00	154.00	148.00	3.25	63,276	1.81
9/17/2013	14:30:26	5.52	0.00	273.00	155.00	148.00	2.55	63,232	1.79
9/17/2013	14:31:26	5.63	0.00	276.00	156.00	149.00	3.59	64,279	1.88
9/17/2013	14:32:26	5.52	0.00	274.00	157.00	150.00	3.45	63,848	1.84
9/17/2013	14:33:26	5.25	0.00	285.00	156.00	150.00	2.09	63,848	1.82
9/17/2013	14:34:26	5.08	0.00	287.00	152.00	150.00	2.60	65,587	1.88
9/17/2013	14:35:26	5.14	0.00	282.00	149.00	149.00	2.52	64,430	1.84
9/17/2013	14:36:26	5.21	0.00	281.00	146.00	148.00	2.40	63,917	1.78
9/17/2013	14:37:26	5.32	0.00	287.00	144.00	147.00	2.89	63,706	1.78
9/17/2013	14:38:26	5.43	0.00	289.00	142.00	145.00	2.22	64,177	1.84
9/17/2013	14:39:26	5.19	0.00	288.00	140.00	144.00	2.52	64,836	1.83
9/17/2013	14:40:26	5.29	0.00	288.00	138.00	142.00	2.75	64,367	1.90
9/17/2013	14:41:26	5.41	0.00	290.00	137.00	141.00	1.91	64,281	1.78
9/17/2013	14:42:26	5.07	0.00	289.00	135.00	140.00	1.13	64,892	1.83
9/17/2013	14:43:26	5.24	0.00	291.00	134.00	139.00	2.48	64,742	1.86
9/17/2013	14:44:26	5.00	0.00	287.00	134.00	137.00	2.60	63,350	1.85
9/17/2013	14:45:26	5.22	0.00	285.00	136.00	137.00	2.57	62,824	1.80
9/17/2013	14:46:26	5.34	0.00	286.00	139.00	137.00	1.76	63,454	1.86
9/17/2013	14:47:26	5.36	0.00	289.00	142.00	138.00	2.43	62,340	1.87
9/17/2013	14:48:26	5.30	0.00	285.00	145.00	140.00	2.53	63,140	1.90
9/17/2013	14:49:26	5.14	0.00	284.00	148.00	142.00	2.70	63,540	1.90
9/17/2013	14:50:26	5.22	0.00	283.00	151.00	143.00	3.04	63,095	1.82
9/17/2013	14:51:26	5.40	0.00	283.00	153.00	145.00	83.70	63,730	1.80
9/17/2013	14:52:26	5.16	0.00	282.00	154.00	146.00	80.78	63,259	1.75
9/17/2013	14:53:26	5.34	0.00	283.00	155.00	147.00	75.66	63,769	1.85
9/17/2013	14:54:26	5.16	0.00	285.00	155.00	148.00	71.41	63,596	1.89
9/17/2013	14:55:26	5.20	0.00	285.00	155.00	148.00	66.10	63,618	2.09
9/17/2013	14:56:26	5.36	0.00	284.00	155.00	149.00	64.07	63,186	1.87
9/17/2013	14:57:26	5.33	0.00	285.00	155.00	149.00	88.10	63,894	1.88
9/17/2013	14:58:26	5.15	0.00	284.00	154.00	149.00	6.86	64,301	1.84
9/17/2013	14:59:26	5.21	0.00	282.00	154.00	149.00	2.08	64,515	1.86
9/17/2013	15:00:26	5.32	0.00	284.00	153.00	148.00	0.89	64,517	1.94
9/17/2013	15:01:26	5.30	0.00	285.00	153.00	148.00	3.80	64,517	1.85
9/17/2013	15:02:26	5.38	0.00	284.00	152.00	148.00	1.32	64,324	1.85
9/17/2013	15:03:26	5.39	0.00	282.00	152.00	148.00	0.97	63,938	1.81
9/17/2013	15:04:26	5.43	0.00	281.00	152.00	148.00	1.96	63,938	1.85
9/17/2013	15:05:26	5.48	0.00	279.00	152.00	147.00	1.32	63,620	1.83
9/17/2013	15:06:26	5.47	0.00	281.00	151.00	147.00	3.16	64,132	1.80
9/17/2013	15:07:26	5.53	0.00	283.00	151.00	147.00	1.40	64,817	1.83
9/17/2013	15:08:26	5.73	0.00	278.00	151.00	147.00	9.03	63,150	1.86
9/17/2013	15:09:26	5.52	0.00	279.00	151.00	147.00	2.09	62,766	1.84
9/17/2013	15:10:26	5.67	0.00	283.00	150.00	147.00	3.78	64,004	1.78
9/17/2013	15:11:26	5.62	0.00	284.00	150.00	146.00	1.44	63,408	1.90
9/17/2013	15:12:26	6.02	0.00	281.00	150.00	146.00	0.81	63,835	1.95
9/17/2013	15:13:26	5.75	0.00	281.00	149.00	146.00	0.92	62,789	1.87
9/17/2013	15:14:26	5.75	0.00	283.00	149.00	146.00	11.15	63,088	1.88
9/17/2013	15:15:26	5.59	0.00	283.00	149.00	146.00	13.70	62,555	1.88
9/17/2013	15:16:26	5.77	0.00	286.00	149.00	145.00	11.83	64,049	1.78
9/17/2013	15:17:26	5.88	0.00	286.00	149.00	145.00	16.37	63,815	1.88
9/17/2013	15:18:26	5.80	0.00	282.00	148.00	145.00	9.62	62,771	1.81
9/17/2013	15:19:26	5.77	0.00	285.00	148.00	145.00	10.15	63,623	1.78
9/17/2013	15:20:26	5.79	0.00	282.00	148.00	145.00	0.86	63,112	1.86
9/17/2013	15:21:26	5.77	0.00	279.00	148.00	145.00	0.78	62,920	1.77
9/17/2013	15:22:26	5.88	0.00	289.00	148.00	145.00	0.82	63,048	1.92
9/17/2013	15:23:26	5.26	0.00	285.00	147.00	145.00	0.76	64,837	1.93
9/17/2013	15:24:26	5.25	0.00	287.00	143.00	144.00	0.70	64,071	D478

ROTARY FURNACE 1									
Date	Time	DC3 DP In. H <sub>2</sub> O	DC4 DP In. H <sub>2</sub> O	FAN Amps	INLET TEMP Deg F.	OUTLET TEMP Deg F.	PARTICULATE Picoamps	STACK ACFM	NAF DP In. H <sub>2</sub> O
9/17/2013	15:25:26	5.28	0.00	290.00	140.00	143.00	0.58	64,707	1.86
9/17/2013	15:26:26	5.27	0.00	289.00	137.00	141.00	0.59	63,604	1.81
9/17/2013	15:27:26	5.12	0.00	290.00	134.00	140.00	0.84	64,935	1.88
9/17/2013	15:28:26	5.30	0.00	292.00	132.00	138.00	0.77	64,044	1.91
9/17/2013	15:29:26	5.22	0.00	293.00	131.00	136.00	0.60	64,271	1.86
9/17/2013	15:30:26	5.30	0.00	289.00	129.00	135.00	1.08	63,597	1.86
9/17/2013	15:31:26	5.35	0.00	292.00	128.00	134.00	0.56	63,219	1.85
9/17/2013	15:32:26	5.32	0.00	296.00	126.00	132.00	1.31	63,797	1.90
9/17/2013	15:33:26	5.26	0.00	300.00	125.00	131.00	0.75	63,294	1.86
9/17/2013	15:34:26	5.21	0.00	297.00	123.00	130.00	1.56	64,122	1.79
9/17/2013	15:35:26	5.33	0.00	287.00	123.00	129.00	1.01	62,936	1.84
9/17/2013	15:36:26	5.07	0.00	299.00	123.00	128.00	1.26	64,401	1.83
9/17/2013	15:37:26	5.34	0.00	290.00	122.00	127.00	1.59	63,424	1.88
9/17/2013	15:38:26	5.10	0.00	297.00	122.00	126.00	1.64	64,223	1.86
9/17/2013	15:39:26	5.30	0.00	293.00	122.00	126.00	1.60	63,934	1.91
9/17/2013	15:40:26	5.17	0.00	291.00	122.00	126.00	1.42	62,388	1.87
9/17/2013	15:41:26	5.25	0.00	290.00	122.00	125.00	3.34	63,331	1.83
9/17/2013	15:42:26	5.24	0.00	299.00	122.00	125.00	2.17	63,784	1.85
Run 2 Average		5.31	0.00	285.73	136.81	136.81	16.08	63,588	1.84



R007149

C123 (81-3-7-9)

ROTARY FURNACE 1

Date	Time	DC3 DP In. H <sub>2</sub> O	DC4 DP In. H <sub>2</sub> O	FAN Amps	INLET TEMP Deg F.	OUTLET TEMP Deg F.	PARTICULATE Picoamps	STACK ACFM	NAF DP In. H <sub>2</sub> O
Begin Run 3 North Baghouse									
9/18/2013	7:40:26	5.26	0.00	286.00	120.00	123.00	4.53	61,946	1.80
9/18/2013	7:41:26	5.16	0.00	279.00	123.00	123.00	4.04	61,802	1.78
9/18/2013	7:42:26	5.37	0.00	282.00	126.00	124.00	3.76	62,031	1.79
9/18/2013	7:43:26	5.20	0.00	280.00	131.00	126.00	3.19	61,419	1.71
9/18/2013	7:44:26	5.00	0.00	275.00	136.00	129.00	2.81	61,589	1.84
9/18/2013	7:45:26	5.38	0.00	277.00	141.00	132.00	2.34	61,881	1.79
9/18/2013	7:46:26	5.28	0.00	275.00	146.00	135.00	2.56	61,525	1.82
9/18/2013	7:47:26	5.42	0.00	276.00	150.00	138.00	2.06	63,139	1.91
9/18/2013	7:48:26	4.98	0.00	274.00	154.00	141.00	2.22	62,631	1.84
9/18/2013	7:49:26	5.17	0.00	272.00	157.00	143.00	1.99	62,288	1.88
9/18/2013	7:50:26	5.27	0.00	270.00	161.00	146.00	1.96	61,788	1.89
9/18/2013	7:51:26	5.23	0.00	271.00	163.00	148.00	2.69	62,419	1.88
9/18/2013	7:52:26	5.31	0.00	272.00	166.00	151.00	2.45	62,555	1.89
9/18/2013	7:53:26	5.26	0.00	273.00	168.00	153.00	2.31	62,652	1.84
9/18/2013	7:54:26	5.31	0.00	269.00	169.00	154.00	2.45	63,792	1.92
9/18/2013	7:55:26	5.35	0.00	271.00	171.00	156.00	2.27	63,067	1.88
9/18/2013	7:56:26	5.32	0.00	271.00	172.00	157.00	2.79	63,539	1.89
9/18/2013	7:57:26	5.39	0.00	268.00	173.00	159.00	2.63	64,355	1.88
9/18/2013	7:58:26	5.41	0.00	270.00	174.00	160.00	2.24	64,459	1.90
9/18/2013	7:59:26	5.24	0.00	268.00	175.00	161.00	2.83	63,317	1.87
9/18/2013	8:00:26	5.26	0.00	270.00	176.00	161.00	3.22	63,776	1.83
9/18/2013	8:01:26	5.17	0.00	270.00	176.00	162.00	3.33	63,440	1.90
9/18/2013	8:02:26	5.20	0.00	269.00	176.00	163.00	12.97	64,200	1.91
9/18/2013	8:03:26	5.19	0.00	274.00	174.00	163.00	2.99	64,420	1.86
9/18/2013	8:04:26	5.17	0.00	270.00	173.00	163.00	3.36	64,792	1.91
9/18/2013	8:05:26	5.16	0.00	270.00	171.00	163.00	3.03	64,683	1.79
9/18/2013	8:06:26	5.45	0.00	274.00	169.00	162.00	3.15	65,126	1.86
9/18/2013	8:07:26	5.26	0.00	273.00	168.00	161.00	2.90	64,082	1.94
9/18/2013	8:08:26	5.18	0.00	272.00	167.00	160.00	3.72	64,437	1.83
9/18/2013	8:09:26	5.39	0.00	276.00	165.00	159.00	2.82	63,505	1.88
9/18/2013	8:10:26	5.41	0.00	272.00	164.00	159.00	3.14	65,029	1.90
9/18/2013	8:11:26	5.42	0.00	272.00	162.00	158.00	2.98	64,359	1.86
9/18/2013	8:12:26	5.27	0.00	271.00	157.00	156.00	3.65	64,845	1.81
9/18/2013	8:13:26	5.35	0.00	277.00	153.00	155.00	3.27	64,112	1.87
9/18/2013	8:14:26	5.27	0.00	279.00	148.00	152.00	3.01	64,079	1.85
9/18/2013	8:15:26	5.04	0.00	280.00	144.00	150.00	3.04	64,814	1.87
9/18/2013	8:16:26	5.43	0.00	278.00	140.00	147.00	2.86	64,132	1.76
9/18/2013	8:17:26	5.23	0.00	282.00	136.00	144.00	3.43	64,241	1.86
9/18/2013	8:18:26	5.22	0.00	285.00	133.00	141.00	2.82	64,556	1.85
9/18/2013	8:19:26	5.28	0.00	285.00	130.00	139.00	2.83	64,700	1.78
9/18/2013	8:20:26	5.35	0.00	285.00	128.00	136.00	2.87	63,264	1.84
9/18/2013	8:21:26	5.22	0.00	282.00	126.00	134.00	3.03	64,640	1.73
9/18/2013	8:22:26	5.37	0.00	285.00	124.00	132.00	2.32	63,923	1.78
9/18/2013	8:23:26	5.21	0.00	284.00	123.00	131.00	2.97	63,836	1.88
9/18/2013	8:24:26	5.38	0.00	290.00	122.00	129.00	2.96	63,910	1.91
9/18/2013	8:25:26	5.24	0.00	290.00	120.00	127.00	2.41	63,528	1.84
9/18/2013	8:26:26	5.07	0.00	293.00	119.00	126.00	2.45	63,543	1.74
9/18/2013	8:27:26	5.36	0.00	295.00	118.00	125.00	3.32	63,250	1.82
9/18/2013	8:28:26	5.14	0.00	293.00	118.00	124.00	3.89	62,566	1.78
9/18/2013	8:29:26	5.29	0.00	294.00	117.00	123.00	3.53	62,602	1.85
9/18/2013	8:30:26	5.30	0.00	293.00	116.00	122.00	4.79	63,007	1.83
9/18/2013	8:31:26	5.51	0.00	293.00	116.00	121.00	4.37	64,248	1.82
9/18/2013	8:32:26	5.24	0.00	296.00	115.00	121.00	2.59	63,758	1.83
9/18/2013	8:33:26	5.12	0.00	297.00	115.00	120.00	5.67	62,280	1.79
9/18/2013	8:34:26	5.38	0.00	293.00	114.00	119.00	3.60	62,295	1.77

ROTARY FURNACE 1									
Date	Time	DC3 DP In. H <sub>2</sub> O	DC4 DP In. H <sub>2</sub> O	FAN Amps	INLET TEMP Deg F.	OUTLET TEMP Deg F.	PARTICULATE Picoamps	STACK ACFM	NAF DP In. H <sub>2</sub> O
9/18/2013	8:35:26	5.33	0.00	292.00	114.00	119.00	5.27	62,254	1.77
9/18/2013	8:36:26	5.10	0.00	296.00	114.00	119.00	4.08	63,069	1.86
9/18/2013	8:37:26	5.41	0.00	298.00	114.00	118.00	4.48	62,757	1.86
9/18/2013	8:38:26	5.19	0.00	298.00	113.00	118.00	5.12	62,655	1.81
9/18/2013	8:39:26	5.35	0.00	294.00	113.00	118.00	5.46	61,902	1.83
9/18/2013	8:40:26	5.26	0.00	297.00	113.00	117.00	7.15	62,263	1.84
9/18/2013	8:41:26	5.22	0.00	295.00	113.00	117.00	4.61	62,181	1.80
9/18/2013	8:42:26	5.31	0.00	296.00	113.00	117.00	5.06	62,141	1.82
9/18/2013	8:43:26	5.03	0.00	296.00	113.00	117.00	4.54	62,952	1.78
9/18/2013	8:44:26	5.37	0.00	295.00	113.00	117.00	6.11	62,039	1.76
9/18/2013	8:45:26	5.06	0.00	297.00	112.00	116.00	6.43	62,337	1.81
9/18/2013	8:46:26	5.42	0.00	302.00	112.00	116.00	5.82	62,641	1.88
9/18/2013	8:47:26	5.33	0.00	299.00	112.00	116.00	11.32	62,337	1.84
9/18/2013	8:48:26	5.31	0.00	293.00	112.00	116.00	11.94	62,337	1.83
9/18/2013	8:49:26	5.42	0.00	300.00	112.00	116.00	7.64	62,277	1.80
9/18/2013	8:50:26	5.30	0.00	298.00	112.00	116.00	6.75	62,519	1.80
9/18/2013	8:51:26	5.43	0.00	292.00	112.00	116.00	8.07	62,195	1.79
9/18/2013	8:52:26	5.26	0.00	291.00	112.00	115.00	7.17	62,694	1.85
9/18/2013	8:53:26	5.42	0.00	285.00	112.00	115.00	3.11	62,452	1.82
9/18/2013	8:54:26	5.29	0.00	290.00	112.00	115.00	5.25	62,209	1.79
9/18/2013	8:55:26	5.35	0.00	295.00	111.00	115.00	5.03	62,007	1.84
9/18/2013	8:56:26	5.31	0.00	284.00	111.00	115.00	6.52	62,734	1.83
9/18/2013	8:57:26	5.13	0.00	288.00	111.00	115.00	6.84	61,763	1.80
9/18/2013	8:58:26	5.40	0.00	291.00	111.00	115.00	4.60	63,038	1.80
9/18/2013	8:59:26	5.17	0.00	288.00	111.00	115.00	4.97	61,804	1.77
9/18/2013	9:00:26	5.38	0.00	291.00	111.00	115.00	5.06	62,836	1.77
9/18/2013	9:01:26	5.33	0.00	291.00	111.00	115.00	5.11	62,572	1.86
9/18/2013	9:02:26	5.39	0.00	296.00	111.00	115.00	5.50	62,937	1.82
9/18/2013	9:03:26	5.33	0.00	291.00	111.00	115.00	6.36	62,067	1.79
9/18/2013	9:04:26	4.95	0.00	288.00	111.00	115.00	6.45	62,087	1.80
9/18/2013	9:05:26	5.32	0.00	289.00	111.00	115.00	5.82	61,845	1.74
9/18/2013	9:06:26	5.11	0.00	291.00	111.00	115.00	7.49	62,188	1.80
9/18/2013	9:07:26	5.42	0.00	291.00	111.00	115.00	6.22	63,544	1.85
9/18/2013	9:08:26	5.08	0.00	288.00	111.00	115.00	4.38	62,168	1.85
9/18/2013	9:09:26	5.35	0.00	287.00	111.00	115.00	4.14	62,715	1.81
9/18/2013	9:10:26	5.23	0.00	286.00	111.00	115.00	6.08	62,047	1.79
9/18/2013	9:11:26	5.33	0.00	288.00	111.00	115.00	5.49	61,662	1.75
9/18/2013	9:12:26	5.29	0.00	290.00	111.00	115.00	5.73	62,856	1.80
9/18/2013	9:13:26	5.06	0.00	292.00	111.00	115.00	4.18	62,047	1.75
9/18/2013	9:14:26	5.20	0.00	290.00	111.00	115.00	8.19	61,864	1.81
9/18/2013	9:15:26	5.21	0.00	286.00	111.00	115.00	7.81	62,492	1.80
9/18/2013	9:16:26	5.41	0.00	287.00	111.00	115.00	5.79	62,067	1.77
9/18/2013	9:17:26	5.29	0.00	289.00	111.00	115.00	9.81	62,694	1.80
9/18/2013	9:18:26	5.46	0.00	291.00	111.00	115.00	6.68	62,775	1.76
9/18/2013	9:19:26	5.24	0.00	289.00	111.00	115.00	9.68	62,209	1.77
9/18/2013	9:20:26	5.15	0.00	288.00	111.00	115.00	6.99	62,411	1.80
9/18/2013	9:21:26	5.39	0.00	289.00	112.00	115.00	12.52	62,310	1.86
9/18/2013	9:22:26	5.24	0.00	288.00	111.00	115.00	24.87	62,633	1.74
9/18/2013	9:23:26	5.30	0.00	285.00	112.00	115.00	18.24	62,431	1.82
9/18/2013	9:24:26	5.32	0.00	297.00	112.00	115.00	12.21	62,513	1.81
9/18/2013	9:25:26	5.30	0.00	294.00	112.00	115.00	6.04	62,553	1.84
9/18/2013	9:26:26	5.40	0.00	296.00	112.00	115.00	4.72	63,301	1.72
9/18/2013	9:27:26	5.16	0.00	296.00	112.00	115.00	9.59	63,139	1.81
9/18/2013	9:28:26	5.41	0.00	295.00	112.00	115.00	5.50	62,795	1.76
9/18/2013	9:29:26	5.15	0.00	295.00	112.00	115.00	6.89	62,108	1.81
9/18/2013	9:30:26	5.33	0.00	294.00	112.00	115.00	5.74	62,755	1.81
9/18/2013	9:31:26	5.11	0.00	294.00	112.00	115.00	10.95	62,269	1.82
9/18/2013	9:32:26	5.27	0.00	293.00	112.00	115.00	6.15	61,217	1.79

## ROTARY FURNACE 1

Date	Time	DC3 DP In. H <sub>2</sub> O	DC4 DP In. H <sub>2</sub> O	FAN Amps	INLET TEMP Deg F.	OUTLET TEMP Deg F.	PARTICULATE Picoamps	STACK ACFM	NAF DP In. H <sub>2</sub> O
9/18/2013	9:33:26	5.07	0.00	292.00	112.00	115.00	30.51	61,864	1.80
9/18/2013	9:34:26	5.42	0.00	295.00	112.00	115.00	28.37	62,937	1.75
9/18/2013	9:35:26	5.24	0.00	292.00	112.00	115.00	9.62	62,148	1.86
9/18/2013	9:36:26	5.12	0.00	292.00	113.00	115.00	25.74	61,986	1.86
9/18/2013	9:37:26	5.13	0.00	294.00	116.00	115.00	6.60	61,804	1.79
9/18/2013	9:38:26	5.34	0.00	291.00	119.00	116.00	7.57	61,303	1.80
9/18/2013	9:39:26	5.29	0.00	289.00	122.00	118.00	4.45	61,821	1.80
9/18/2013	9:40:26	5.12	0.00	292.00	125.00	120.00	8.63	60,932	1.85
9/18/2013	9:41:26	5.33	0.00	290.00	128.00	122.00	6.70	61,409	1.83
9/18/2013	9:42:26	5.29	0.00	286.00	130.00	124.00	5.63	62,442	1.90
9/18/2013	9:43:26	5.31	0.00	285.00	133.00	125.00	6.05	62,034	1.87
9/18/2013	9:44:26	5.43	0.00	284.00	135.00	127.00	4.26	62,061	1.85
9/18/2013	9:45:26	5.38	0.00	284.00	137.00	129.00	4.58	62,023	1.85
9/18/2013	9:46:26	5.17	0.00	283.00	138.00	131.00	4.26	62,193	1.84
9/18/2013	9:47:26	5.40	0.00	283.00	140.00	132.00	5.11	62,527	1.96
9/18/2013	9:48:26	5.32	0.00	281.00	141.00	133.00	3.04	61,735	1.80
9/18/2013	9:49:26	5.41	0.00	282.00	142.00	135.00	6.51	62,634	1.81
9/18/2013	9:50:26	5.28	0.00	281.00	143.00	136.00	45.14	62,950	1.87
9/18/2013	9:51:26	5.22	0.00	283.00	144.00	137.00	4.83	63,433	1.79
9/18/2013	9:52:26	5.31	0.00	280.00	145.00	138.00	5.44	63,139	1.86
9/18/2013	9:53:26	5.26	0.00	277.00	146.00	138.00	4.32	61,456	1.81
9/18/2013	9:54:26	5.21	0.00	277.00	146.00	139.00	4.93	63,098	1.82
9/18/2013	9:55:26	5.20	0.00	277.00	146.00	140.00	3.42	61,766	1.61
9/18/2013	9:56:26	5.39	0.00	277.00	147.00	140.00	22.54	62,506	1.82
9/18/2013	9:57:26	5.32	0.00	278.00	147.00	141.00	15.29	63,371	1.80
9/18/2013	9:58:26	5.12	0.00	277.00	147.00	141.00	20.48	63,498	1.86
9/18/2013	9:59:26	5.43	0.00	276.00	147.00	142.00	9.80	62,905	1.72
9/18/2013	10:00:26	5.34	0.00	277.00	147.00	142.00	20.06	63,244	1.76
9/18/2013	10:01:26	5.17	0.00	280.00	147.00	142.00	19.95	63,498	1.92
9/18/2013	10:02:26	5.07	0.00	275.00	148.00	142.00	8.25	62,841	1.79
9/18/2013	10:03:26	5.23	0.00	280.00	148.00	143.00	1.83	63,200	1.93
9/18/2013	10:04:26	5.28	0.00	278.00	148.00	143.00	1.35	63,031	1.93
9/18/2013	10:05:26	5.25	0.00	280.00	148.00	143.00	2.51	63,434	1.86
9/18/2013	10:06:26	5.05	0.00	283.00	148.00	143.00	4.48	63,158	1.81
9/18/2013	10:07:26	5.16	0.00	278.00	148.00	143.00	2.67	63,179	1.82
9/18/2013	10:08:26	5.29	0.00	280.00	148.00	143.00	2.14	63,498	1.89
9/18/2013	10:09:26	5.25	0.00	274.00	148.00	144.00	3.23	63,263	1.75
9/18/2013	10:10:26	5.25	0.00	280.00	148.00	144.00	4.90	63,305	1.88
9/18/2013	10:11:26	5.46	0.00	277.00	148.00	144.00	2.84	62,965	1.81
9/18/2013	10:12:26	5.28	0.00	277.00	148.00	144.00	5.22	63,475	1.87
9/18/2013	10:13:26	5.24	0.00	280.00	148.00	144.00	2.56	63,625	1.85
9/18/2013	10:14:26	5.24	0.00	279.00	148.00	144.00	1.99	63,305	1.88
9/18/2013	10:15:26	5.28	0.00	277.00	148.00	144.00	7.09	63,305	1.86
9/18/2013	10:16:26	5.28	0.00	281.00	148.00	144.00	1.56	63,815	1.83
9/18/2013	10:17:26	5.22	0.00	279.00	148.00	144.00	3.19	63,114	1.85
9/18/2013	10:18:26	5.23	0.00	277.00	148.00	144.00	1.52	62,987	1.83
9/18/2013	10:19:26	5.38	0.00	282.00	148.00	144.00	1.50	63,391	1.85
9/18/2013	10:20:26	5.23	0.00	279.00	148.00	144.00	1.89	63,411	1.86
9/18/2013	10:21:26	5.43	0.00	273.00	148.00	144.00	1.29	62,519	1.84
9/18/2013	10:22:26	5.24	0.00	280.00	148.00	144.00	1.87	63,539	1.86
9/18/2013	10:23:26	5.34	0.00	281.00	148.00	145.00	1.27	63,262	1.90
9/18/2013	10:24:26	5.20	0.00	278.00	149.00	145.00	1.32	63,368	1.88
9/18/2013	10:25:26	5.43	0.00	279.00	149.00	145.00	1.92	63,410	1.89
9/18/2013	10:26:26	5.03	0.00	274.00	149.00	145.00	2.84	63,006	1.84
9/18/2013	10:27:26	5.29	0.00	273.00	149.00	145.00	1.41	63,388	1.83
9/18/2013	10:28:26	5.38	0.00	277.00	149.00	145.00	1.55	62,899	1.84
9/18/2013	10:29:26	5.37	0.00	276.00	149.00	146.00	1.37	63,408	1.85
9/18/2013	10:30:26	5.27	0.00	278.00	149.00	146.00	1.69	63,898	1.80

ROTARY FURNACE 1									
Date	Time	DC3 DP In. H <sub>2</sub> O	DC4 DP In. H <sub>2</sub> O	FAN Amps	INLET TEMP Deg F.	OUTLET TEMP Deg F.	PARTICULATE Picoamps	STACK ACFM	NAF DP In. H <sub>2</sub> O
9/18/2013	10:31:26	5.36	0.00	278.00	149.00	146.00	1.21	64,112	1.87
9/18/2013	10:32:26	5.22	0.00	273.00	150.00	146.00	1.51	63,110	1.85
9/18/2013	10:33:26	5.26	0.00	275.00	150.00	146.00	1.44	63,259	1.82
9/18/2013	10:34:26	5.43	0.00	279.00	150.00	146.00	1.18	63,601	1.82
9/18/2013	10:35:26	5.29	0.00	279.00	150.00	146.00	1.21	63,685	1.85
9/18/2013	10:36:26	5.09	0.00	282.00	150.00	146.00	1.48	64,112	1.88
9/18/2013	10:37:26	5.38	0.00	278.00	150.00	147.00	1.38	63,641	1.82
9/18/2013	10:38:26	5.27	0.00	275.00	150.00	147.00	0.84	63,385	1.87
9/18/2013	10:39:26	5.15	0.00	279.00	150.00	147.00	1.28	63,065	1.88
9/18/2013	10:40:26	5.44	0.00	276.00	151.00	147.00	1.00	64,047	1.79
9/18/2013	10:41:26	5.29	0.00	270.00	151.00	147.00	0.98	62,509	1.84
9/18/2013	10:42:26	5.15	0.00	275.00	151.00	147.00	0.87	63,406	1.88
9/18/2013	10:43:26	5.40	0.00	276.00	151.00	147.00	0.76	63,769	1.85
9/18/2013	10:44:26	5.31	0.00	275.00	151.00	148.00	0.91	62,869	1.83
9/18/2013	10:45:26	5.14	0.00	272.00	152.00	148.00	1.18	63,276	1.83
9/18/2013	10:46:26	5.38	0.00	273.00	152.00	148.00	2.71	63,340	1.83
9/18/2013	10:47:26	5.30	0.00	273.00	152.00	148.00	1.17	62,933	1.80
Run 3 Average		5.27	0.00	283.37	134.56	133.03	5.48	62,934	1.83

K004032									
C123 (81-3-7-9)									
ROTARY FURNACE 2									
Date	Time	DC1 DP In. H <sub>2</sub> O	DC2 DP In. H <sub>2</sub> O	FAN Amps	INLET TEMP Deg F.	OUTLET TEMP Deg F.	PARTICULATE Picoamps	STACK ACFM	NAF DP In. H <sub>2</sub> O
Begin Run 1 South Baghouse									
9/19/2013	8:07:26	0.00	6.13	270.00	142.00	143.00	12.21	63,582	0.99
9/19/2013	8:08:26	0.00	6.12	267.00	142.00	143.00	7.91	62,478	0.78
9/19/2013	8:09:26	0.00	5.99	270.00	142.00	142.00	12.61	63,731	0.62
9/19/2013	8:10:26	0.00	5.94	271.00	142.00	142.00	21.45	63,159	0.90
9/19/2013	8:11:26	0.00	6.35	267.00	142.00	142.00	22.05	63,117	1.09
9/19/2013	8:12:26	0.00	5.89	269.00	142.00	142.00	13.50	62,185	0.91
9/19/2013	8:13:26	0.00	5.94	270.00	142.00	142.00	11.31	63,731	1.04
9/19/2013	8:14:26	0.00	5.68	270.00	141.00	142.00	17.73	63,032	0.91
9/19/2013	8:15:26	0.00	5.12	267.00	141.00	142.00	17.60	63,731	1.15
9/19/2013	8:16:26	0.00	5.04	279.00	141.00	142.00	12.99	63,625	1.07
9/19/2013	8:17:26	0.00	5.42	278.00	140.00	141.00	15.64	64,514	0.87
9/19/2013	8:18:26	0.00	5.35	283.00	139.00	141.00	12.41	64,069	1.28
9/19/2013	8:19:26	0.00	5.14	280.00	138.00	140.00	12.43	64,216	0.80
9/19/2013	8:20:26	0.00	5.30	280.00	137.00	139.00	17.68	64,131	1.01
9/19/2013	8:21:26	0.00	5.40	287.00	136.00	138.00	13.04	63,666	0.78
9/19/2013	8:22:26	0.00	5.21	281.00	134.00	137.00	11.34	63,601	1.08
9/19/2013	8:23:26	0.00	5.60	286.00	133.00	136.00	28.84	63,096	0.93
9/19/2013	8:24:26	0.00	5.34	286.00	132.00	135.00	14.78	63,577	0.97
9/19/2013	8:25:26	0.00	5.15	281.00	131.00	134.00	17.03	63,323	1.02
9/19/2013	8:26:26	0.00	5.27	285.00	130.00	133.00	25.47	63,509	1.19
9/19/2013	8:27:26	0.00	5.27	288.00	129.00	132.00	22.38	64,193	0.88
9/19/2013	8:28:26	0.00	5.48	283.00	128.00	131.00	18.93	63,669	1.23
9/19/2013	8:29:26	0.00	5.28	287.00	127.00	131.00	17.61	64,730	0.83
9/19/2013	8:30:26	0.00	5.04	283.00	127.00	130.00	18.72	63,312	1.20
9/19/2013	8:31:26	0.00	5.36	287.00	126.00	130.00	13.95	63,582	1.06
9/19/2013	8:32:26	0.00	5.12	290.00	125.00	129.00	14.95	63,412	1.13
9/19/2013	8:33:26	0.00	5.40	287.00	124.00	128.00	14.54	63,677	1.05
9/19/2013	8:34:26	0.00	5.31	291.00	124.00	127.00	17.85	63,817	1.05
9/19/2013	8:35:26	0.00	5.31	287.00	123.00	126.00	18.43	63,399	1.17
9/19/2013	8:36:26	0.00	5.24	283.00	122.00	125.00	15.76	63,620	0.90
9/19/2013	8:37:26	0.00	5.47	288.00	121.00	124.00	43.18	63,716	0.80
9/19/2013	8:38:26	0.00	5.18	291.00	120.00	123.00	19.50	63,936	1.16
9/19/2013	8:39:26	0.00	5.38	290.00	119.00	123.00	24.66	63,341	1.02
9/19/2013	8:40:26	0.00	5.12	292.00	119.00	122.00	29.41	63,519	1.13
9/19/2013	8:41:26	0.00	5.33	284.00	118.00	121.00	18.79	63,675	1.05
9/19/2013	8:42:26	0.00	5.06	289.00	118.00	121.00	24.89	62,510	0.95
9/19/2013	8:43:26	0.00	5.27	286.00	120.00	121.00	13.46	62,531	0.99
9/19/2013	8:44:26	0.00	5.36	285.00	122.00	123.00	28.29	62,212	0.77
9/19/2013	8:45:26	0.00	5.42	283.00	124.00	124.00	10.87	62,751	0.99
9/19/2013	8:46:26	0.00	5.13	287.00	126.00	126.00	19.62	62,842	1.17
9/19/2013	8:47:26	0.00	5.29	282.00	128.00	127.00	20.99	62,474	1.00
9/19/2013	8:48:26	0.00	5.37	283.00	130.00	129.00	30.91	62,790	1.06
9/19/2013	8:49:26	0.00	5.40	283.00	132.00	131.00	13.42	63,128	1.19
9/19/2013	8:50:26	0.00	5.10	281.00	134.00	132.00	14.19	63,381	1.08
9/19/2013	8:51:26	0.00	5.16	284.00	135.00	133.00	16.24	63,509	0.84
9/19/2013	8:52:26	0.00	5.24	284.00	137.00	135.00	14.30	63,179	1.07
9/19/2013	8:53:26	0.00	5.29	281.00	138.00	136.00	17.30	63,138	0.92
9/19/2013	8:54:26	0.00	5.34	280.00	139.00	137.00	17.28	63,202	1.17
9/19/2013	8:55:26	0.00	5.40	279.00	140.00	137.00	16.07	62,866	0.88
9/19/2013	8:56:26	0.00	5.41	284.00	140.00	138.00	14.62	63,876	1.04
9/19/2013	8:57:26	0.00	5.13	278.00	141.00	139.00	13.65	63,435	1.09
9/19/2013	8:58:26	0.00	5.17	283.00	142.00	139.00	17.02	63,414	1.29
9/19/2013	8:59:26	0.00	5.27	285.00	142.00	140.00	19.88	62,717	1.26
9/19/2013	9:00:26	0.00	5.32	283.00	143.00	140.00	32.59	63,730	0.94
9/19/2013	9:01:26	0.00	5.35	279.00	143.00	141.00	10.23	63,414	1.00

ROTARY FURNACE 2									
Date	Time	DC1 DP In. H <sub>2</sub> O	DC2 DP In. H <sub>2</sub> O	FAN Amps	INLET TEMP Deg F.	OUTLET TEMP Deg F.	PARTICULATE Picoamps	STACK ACFM	NAF DP In. H <sub>2</sub> O
9/19/2013	9:02:26	0.00	5.38	277.00	144.00	141.00	8.45	63,118	0.87
9/19/2013	9:03:26	0.00	5.45	279.00	144.00	142.00	34.02	62,799	1.06
9/19/2013	9:04:26	0.00	5.09	269.00	145.00	142.00	11.88	63,583	1.24
9/19/2013	9:05:26	0.00	5.28	269.00	145.00	142.00	14.63	63,625	1.00
9/19/2013	9:06:26	0.00	5.30	270.00	145.00	143.00	26.27	63,264	1.05
9/19/2013	9:07:26	0.00	5.33	275.00	145.00	143.00	11.60	63,710	1.02
9/19/2013	9:08:26	0.00	5.35	268.00	146.00	143.00	15.34	63,837	1.04
9/19/2013	9:09:26	0.00	5.42	270.00	146.00	143.00	8.21	63,731	0.84
9/19/2013	9:10:26	0.00	5.07	273.00	146.00	143.00	20.17	64,282	1.07
9/19/2013	9:11:26	0.00	5.21	273.00	146.00	143.00	23.69	63,689	1.09
9/19/2013	9:12:26	0.00	5.23	268.00	146.00	144.00	10.13	64,241	1.15
9/19/2013	9:13:26	0.00	5.29	268.00	146.00	144.00	16.92	64,602	1.10
9/19/2013	9:14:26	0.00	5.33	269.00	146.00	144.00	13.77	63,241	1.21
9/19/2013	9:15:26	0.00	5.37	273.00	146.00	144.00	16.00	62,668	0.83
9/19/2013	9:16:26	0.00	5.38	259.00	146.00	144.00	15.52	63,921	0.96
9/19/2013	9:17:26	0.00	5.40	263.00	146.00	144.00	10.69	63,305	1.01
9/19/2013	9:18:26	0.00	5.04	263.00	146.00	144.00	14.93	64,475	1.04
9/19/2013	9:19:26	0.00	5.11	260.00	146.00	144.00	10.69	63,433	0.78
9/19/2013	9:20:26	0.00	5.14	258.00	146.00	144.00	13.48	63,837	0.81
9/19/2013	9:21:26	0.00	5.21	261.00	146.00	144.00	9.79	64,262	0.88
9/19/2013	9:22:26	0.00	5.26	261.00	146.00	144.00	10.90	63,475	1.07
9/19/2013	9:23:26	0.00	5.30	264.00	145.00	144.00	13.47	63,561	1.03
9/19/2013	9:24:26	0.00	5.29	257.00	145.00	144.00	19.62	63,561	1.14
9/19/2013	9:25:26	0.00	5.34	263.00	145.00	144.00	16.33	63,241	1.01
9/19/2013	9:26:26	0.00	5.40	265.00	145.00	144.00	13.60	63,561	1.12
9/19/2013	9:27:26	0.00	5.37	263.00	145.00	144.00	10.08	63,709	0.92
9/19/2013	9:28:26	0.00	5.06	259.00	145.00	144.00	16.38	63,943	0.84
9/19/2013	9:29:26	0.00	5.08	262.00	145.00	144.00	18.95	64,029	1.07
9/19/2013	9:30:26	0.00	5.22	259.00	145.00	144.00	12.01	63,879	1.01
9/19/2013	9:31:26	0.00	5.28	262.00	145.00	144.00	21.76	63,369	1.43
9/19/2013	9:32:26	0.00	5.33	261.00	145.00	144.00	13.53	63,943	0.95
9/19/2013	9:33:26	0.00	5.37	257.00	145.00	144.00	9.21	63,603	1.17
9/19/2013	9:34:26	0.00	5.39	272.00	145.00	144.00	14.04	63,391	0.89
9/19/2013	9:35:26	0.00	5.13	273.00	145.00	144.00	10.03	64,453	0.85
9/19/2013	9:36:26	0.00	5.25	272.00	146.00	144.00	7.56	63,391	1.14
9/19/2013	9:37:26	0.00	5.33	271.00	146.00	144.00	14.60	63,879	0.93
9/19/2013	9:38:26	0.00	5.42	269.00	146.00	144.00	15.86	64,326	1.11
9/19/2013	9:39:26	0.00	5.18	271.00	146.00	144.00	14.06	63,859	1.21
9/19/2013	9:40:26	0.00	5.32	271.00	146.00	144.00	10.43	63,901	0.99
9/19/2013	9:41:26	0.00	5.40	270.00	146.00	145.00	12.90	63,879	1.05
9/19/2013	9:42:26	0.00	5.13	272.00	146.00	145.00	13.01	63,644	1.17
9/19/2013	9:43:26	0.00	5.26	272.00	146.00	145.00	11.88	64,709	1.06
9/19/2013	9:44:26	0.00	5.40	270.00	146.00	145.00	11.72	64,325	1.02
9/19/2013	9:45:26	0.00	5.24	270.00	146.00	145.00	15.03	64,049	0.80
9/19/2013	9:46:26	0.00	5.25	271.00	146.00	145.00	13.06	64,049	1.09
9/19/2013	9:47:26	0.00	5.44	271.00	146.00	145.00	16.06	64,433	0.95
9/19/2013	9:48:26	0.00	5.07	273.00	147.00	145.00	14.97	64,049	1.35
9/19/2013	9:49:26	0.00	5.28	271.00	147.00	145.00	20.96	64,453	0.94
9/19/2013	9:50:26	0.00	5.35	269.00	147.00	145.00	13.51	63,538	0.89
9/19/2013	9:51:26	0.00	5.11	269.00	146.00	145.00	14.11	65,050	1.02
9/19/2013	9:52:26	0.00	5.25	270.00	146.00	145.00	8.95	63,262	0.89
9/19/2013	9:53:26	0.00	5.41	271.00	146.00	145.00	17.03	63,452	0.84
9/19/2013	9:54:26	0.00	5.09	268.00	146.00	145.00	12.75	64,858	0.90
9/19/2013	9:55:26	0.00	5.27	271.00	146.00	145.00	11.65	63,623	0.67
9/19/2013	9:56:26	0.00	5.37	271.00	146.00	145.00	14.59	64,389	1.07
9/19/2013	9:57:26	0.00	4.99	272.00	145.00	144.00	9.45	64,368	1.02
9/19/2013	9:58:26	0.00	5.19	269.00	145.00	144.00	20.13	64,155	1.03
9/19/2013	9:59:26	0.00	5.27	274.00	144.00	143.00	24.88	63,837	0.94

ROTARY FURNACE 2									
Date	Time	DC1 DP In. H <sub>2</sub> O	DC2 DP In. H <sub>2</sub> O	FAN Amps	INLET TEMP Deg F.	OUTLET TEMP Deg F.	PARTICULATE Picoamps	STACK ACFM	NAF DP In. H <sub>2</sub> O
9/19/2013	10:00:26	0.00	5.36	273.00	143.00	142.00	16.93	64,367	1.07
9/19/2013	10:01:26	0.00	5.10	273.00	142.00	141.00	14.31	64,345	1.31
9/19/2013	10:02:26	0.00	5.34	273.00	141.00	140.00	15.36	63,773	1.06
9/19/2013	10:03:26	0.00	5.03	276.00	140.00	139.00	10.95	64,405	1.12
9/19/2013	10:04:26	0.00	5.29	279.00	139.00	138.00	12.74	63,350	1.05
9/19/2013	10:05:26	0.00	5.38	274.00	137.00	137.00	14.82	63,790	0.95
9/19/2013	10:06:26	0.00	5.35	273.00	136.00	136.00	16.67	62,907	0.87
9/19/2013	10:07:26	0.00	5.22	273.00	136.00	135.00	15.32	63,137	1.27
9/19/2013	10:08:26	0.00	5.40	270.00	137.00	136.00	10.73	62,382	1.17
9/19/2013	10:09:26	0.00	5.28	275.00	138.00	136.00	14.46	63,431	1.06
9/19/2013	10:10:26	0.00	5.46	271.00	139.00	137.00	10.13	62,866	0.92
9/19/2013	10:11:26	0.00	5.66	270.00	141.00	138.00	14.66	61,750	1.07
9/19/2013	10:12:26	0.00	6.11	275.00	142.00	139.00	8.90	61,706	1.04
9/19/2013	10:13:26	0.00	6.22	270.00	143.00	140.00	8.93	62,527	0.93
9/19/2013	10:14:26	0.00	5.90	273.00	143.00	141.00	17.56	63,880	0.97
9/19/2013	10:15:26	0.00	6.56	272.00	143.00	141.00	21.08	61,849	1.06
9/19/2013	10:16:26	0.00	6.67	268.00	145.00	141.00	10.87	61,658	1.04
9/19/2013	10:17:26	0.00	6.80	268.00	148.00	143.00	18.55	60,590	1.21
9/19/2013	10:18:26	0.00	6.99	263.00	152.00	145.00	13.91	60,599	0.88
9/19/2013	10:19:26	0.00	6.81	262.00	156.00	148.00	10.38	60,129	1.08
9/19/2013	10:20:26	0.00	6.85	260.00	160.00	151.00	9.70	60,555	1.22
9/19/2013	10:21:26	0.00	6.81	262.00	164.00	153.00	12.62	61,443	1.20
9/19/2013	10:22:26	0.00	6.94	264.00	167.00	155.00	11.85	61,774	1.10
9/19/2013	10:23:26	0.00	6.84	260.00	169.00	157.00	15.39	60,325	0.88
9/19/2013	10:24:26	0.00	6.94	266.00	172.00	158.00	9.10	60,858	1.07
9/19/2013	10:25:26	0.00	6.99	264.00	174.00	160.00	7.93	61,360	1.01
9/19/2013	10:26:26	0.00	6.94	265.00	176.00	161.00	16.51	61,459	0.99
9/19/2013	10:27:26	0.00	7.27	263.00	178.00	163.00	11.10	62,029	0.91
9/19/2013	10:28:26	0.00	6.93	261.00	180.00	165.00	7.92	62,536	0.96
9/19/2013	10:29:26	0.00	7.00	262.00	182.00	166.00	13.06	61,557	1.00
9/19/2013	10:30:26	0.00	6.90	260.00	184.00	168.00	8.09	62,130	0.91
9/19/2013	10:31:26	0.00	6.99	262.00	186.00	169.00	8.83	61,475	1.11
9/19/2013	10:32:26	0.00	7.02	260.00	188.00	171.00	10.96	62,360	1.07
9/19/2013	10:33:26	0.00	7.00	259.00	190.00	172.00	14.77	61,214	1.02
9/19/2013	10:34:26	0.00	7.43	260.00	192.00	174.00	12.87	61,318	1.19
9/19/2013	10:35:26	0.00	7.03	257.00	193.00	175.00	23.11	62,934	1.14
9/19/2013	10:36:26	0.00	7.06	243.00	195.00	177.00	15.61	62,124	1.11
9/19/2013	10:37:26	0.00	6.89	245.00	196.00	178.00	14.31	61,166	1.08
9/19/2013	10:38:26	0.00	7.09	245.00	198.00	179.00	7.34	60,924	0.99
9/19/2013	10:39:26	0.00	7.05	246.00	199.00	180.00	10.96	61,515	1.25
9/19/2013	10:40:26	0.00	7.07	245.00	200.00	181.00	9.97	62,175	1.01
9/19/2013	10:41:26	0.00	7.13	245.00	200.00	182.00	16.26	62,497	0.88
9/19/2013	10:42:26	0.00	7.05	245.00	201.00	182.00	27.12	62,611	1.06
9/19/2013	10:43:26	0.00	7.03	247.00	201.00	182.00	11.83	62,159	0.98
9/19/2013	10:44:26	0.00	6.99	244.00	201.00	182.00	20.02	63,041	0.87
9/19/2013	10:45:26	0.00	7.03	246.00	200.00	182.00	9.28	62,792	1.02
9/19/2013	10:46:26	0.00	6.94	249.00	200.00	181.00	21.68	62,311	1.19
9/19/2013	10:47:26	0.00	7.02	248.00	200.00	181.00	9.00	62,220	0.94
9/19/2013	10:48:26	0.00	7.02	249.00	199.00	181.00	7.97	62,039	1.26
9/19/2013	10:49:26	0.00	7.03	248.00	199.00	181.00	12.57	62,266	1.20
9/19/2013	10:50:26	0.00	7.13	244.00	199.00	181.00	15.30	61,927	1.10
9/19/2013	10:51:26	0.00	7.05	250.00	200.00	181.00	17.36	62,311	1.14
9/19/2013	10:52:26	0.00	7.16	243.00	201.00	182.00	15.37	61,074	1.03
9/19/2013	10:53:26	0.00	7.07	243.00	202.00	183.00	17.92	61,509	1.24
9/19/2013	10:54:26	0.00	6.95	253.00	202.00	184.00	10.20	61,877	1.23
9/19/2013	10:55:26	0.00	6.96	256.00	202.00	184.00	13.83	61,038	1.16
9/19/2013	10:56:26	0.00	7.19	255.00	201.00	183.00	11.62	61,554	0.99
9/19/2013	10:57:26	0.00	7.09	254.00	201.00	183.00	16.28	61,441	1.26