

Pace Analytical Services, Inc. 1638 Roseytown Road - Suites 2,3,4 Greensburg, PA 15601 (724)850-5600

February 27, 2012

Mr. Art Hall Wheatland Tube Company PO Box 608 Wheatland, PA 16161

RE: Project: NPDES Sampling Pace Project No.: 3063621

Dear Mr. Hall:

Enclosed are the analytical results for sample(s) received by the laboratory on February 21, 2012. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Janil Prehetto

David A. Pichette

david.pichette@pacelabs.com Project Manager

Enclosures



# **REPORT OF LABORATORY ANALYSIS**



Pace Analytical Services, Inc. 1638 Roseytown Road - Suites 2,3,4 Greensburg, PA 15601 (724)850-5600

## CERTIFICATIONS

Project: NPDES Sampling Pace Project No.: 3063621

## Pennsylvania Certification IDs

1638 Roseytown Road Suites 2,3&4, Greensburg, PA 15601 Alabama Certification #: 41590 Arizona Certification #: AZ0734 Arkansas Certification California/NELAC Certification #: 04222CA Colorado Certification Connecticut Certification #: PH 0694 **Delaware Certification** Florida/NELAC Certification #: E87683 Guam/PADEP Certification Hawaii/PADEP Certification Idaho Certification Illinois/PADEP Certification Indiana/PADEP Certification Iowa Certification #: 391 Kansas/NELAC Certification #: E-10358 Kentucky Certification #: 90133 Louisiana/NELAC Certification #: LA080002 Louisiana/NELAC Certification #: 4086 Maine Certification #: PA0091 Maryland Certification #: 308 Massachusetts Certification #: M-PA1457 Michigan/PADEP Certification

#### **Ormond Beach Certification IDs**

8 East Tower Circle, Ormond Beach, FL 32174 Alabama Certification #: 41320 Arizona Certification #: AZ0735 Colorado Certification: FL NELAC Reciprocity Connecticut Certification #: PH 0216 Florida Certification #: E83079 Georgia Certification #: 955 Guam Certification: FL NELAC Reciprocity Hawaii Certification: FL NELAC Reciprocity Illinois Certification #: 200068 Indiana Certification: FL NELAC Reciprocity Kansas Certification #: E-10383 Kentucky Certification #: 90050 Louisiana Certification #: FL NELAC Reciprocity Louisiana Environmental Certificate #: 05007 Maine Certification #: FL01264 Massachusetts Certification #: M-FL1264 Michigan Certification #: 9911 Mississippi Certification: FL NELAC Reciprocity

Missouri Certification #: 235 Montana Certification #: Cert 0082 Nevada Certification New Hampshire/NELAC Certification #: 2976 New Jersey/NELAC Certification #: PA 051 New Mexico Certification New York/NELAC Certification #: 10888 North Carolina Certification #: 42706 Oregon/NELAC Certification #: PA200002 Pennsylvania/NELAC Certification #: 65-00282 Puerto Rico Certification #: PA01457 South Dakota Certification Tennessee Certification #: TN2867 Texas/NELAC Certification #: T104704188-09 TX Utah/NELAC Certification #: ANTE Virgin Island/PADEP Certification Virginia Certification #: 00112 Virginia VELAP (Cert # 460198) Washington Certification #: C1941 West Virginia Certification #: 143 Wisconsin/PADEP Certification Wyoming Certification #: 8TMS-Q

Missouri Certification #: 236 Montana Certification #: Cert 0074 Nevada Certification: FL NELAC Reciprocity New Hampshire Certification #: 2958 New Jersey Certification #: FL765 New York Certification #: 11608 North Carolina Environmental Certificate #: 667 North Carolina Certification #: 12710 Pennsylvania Certification #: 12710 Pennsylvania Certification #: FL01264 Tennessee Certification #: FL01264 Tennessee Certification #: TN02974 Texas Certification: FL NELAC Reciprocity U.S.Virgin Islands Certification: FL NELAC Reciprocity Virginia Environmental Certificate #: 460165 Washington Certification #: C955 Wyoming Certification: FL NELAC Reciprocity Wyoming (EPA Region 8): FL NELAC Reciprocity

### **REPORT OF LABORATORY ANALYSIS**



# SAMPLE SUMMARY

Project: Pace Project No	NPDES Sampling b.: 3063621			
Lab ID	Sample ID	Matrix	Date Collected	Date Received
3063621001	Infiltration Pond Soil	Solid	02/20/12 08:54	02/21/12 09:30

# **REPORT OF LABORATORY ANALYSIS**



# SAMPLE ANALYTE COUNT

Project: NPDES Sampling Pace Project No.: 3063621

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
3063621001	Infiltration Pond Soil	EPA 6010B	CTS	9	PASI-PA
		ASTM D2974-87	AJC	1	PASI-PA
		EPA 9056	LAJ	2	PASI-O
		EPA 9056	LAJ	2	PASI-O

# **REPORT OF LABORATORY ANALYSIS**



Project: NPDES Sampling

Pace Project No.: 3063621

### Method: EPA 6010B

Description:6010 MET ICPClient:Wheatland Tube CompanyDate:February 27, 2012

### General Information:

1 sample was analyzed for EPA 6010B. All samples were received in acceptable condition with any exceptions noted below.

### Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

### Sample Preparation:

The samples were prepared in accordance with EPA 3050 with any exceptions noted below.

### Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

### Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

### Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

#### Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

#### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

### QC Batch: MPRP/7719

A matrix spike and matrix spike duplicate (MS/MSD) were performed on the following sample(s): 3063640001

- M1: Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
  - MS (Lab ID: 408347)
    - Barium
    - Iron
    - Potassium
    - Silicon

### **Duplicate Sample:**

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

### QC Batch: MPRP/7719

D6: The relative percent difference (RPD) between the sample and sample duplicate exceeded laboratory control limits.

- DUP (Lab ID: 408346)
  - Barium
  - Copper
  - Potassium
  - Silicon

# **REPORT OF LABORATORY ANALYSIS**



Project: NPDES Sampling

Pace Project No.: 3063621

## Method: EPA 6010B

Description:6010 MET ICPClient:Wheatland Tube CompanyDate:February 27, 2012

## Additional Comments:

Workorder Comments:

The sample arrived at 13.0 degrees Centigrade. No ice present.

The calculated Silica value is 1465 mg/Kg.

## Analyte Comments:

## QC Batch: MPRP/7719

N2: The lab does not hold TNI accreditation for this parameter.

- BLANK (Lab ID: 408344)
  - Silicon
- DUP (Lab ID: 408346)
- Silicon
- Infiltration Pond Soil (Lab ID: 3063621001)
  - Silicon
- LCS (Lab ID: 408345)
  - Silicon
- MS (Lab ID: 408347)
  - Silicon

# **REPORT OF LABORATORY ANALYSIS**



Project: NPDES Sampling

Pace Project No.: 3063621

#### Method: EPA 9056

Description:9056 IC AnionsClient:Wheatland Tube CompanyDate:February 27, 2012

### General Information:

1 sample was analyzed for EPA 9056. All samples were received in acceptable condition with any exceptions noted below.

#### Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

### **Initial Calibrations (including MS Tune as applicable):** All criteria were within method requirements with any exceptions noted below.

#### Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

### Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

#### Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

#### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

#### **Duplicate Sample:**

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

## Additional Comments:

Workorder Comments:

The sample arrived at 13.0 degrees Centigrade. No ice present.

The calculated Silica value is 1465 mg/Kg.



Project: NPDES Sampling

Pace Project No.: 3063621

#### Method: EPA 9056

Description:9056 IC Anions 48hrClient:Wheatland Tube CompanyDate:February 27, 2012

### **General Information:**

1 sample was analyzed for EPA 9056. All samples were received in acceptable condition with any exceptions noted below.

### Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

H3: Analysis conducted within the hour.

- Infiltration Pond Soil (Lab ID: 3063621001)
- Infiltration Pond Soil (Lab ID: 3063621001)

### Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

#### Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

### Method Blank:

All analytes were below the report limit in the method blank with any exceptions noted below.

#### Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

#### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

### **Duplicate Sample:**

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

### Additional Comments:

### Workorder Comments:

The sample arrived at 13.0 degrees Centigrade. No ice present.

The calculated Silica value is 1465 mg/Kg.

This data package has been reviewed for quality and completeness and is approved for release.

# **REPORT OF LABORATORY ANALYSIS**



# ANALYTICAL RESULTS

Project: NPDES Sampling

Pace Project No.: 3063621

Sample: Infiltration Pond Soil	Lab ID: 3	3063621001	Collected	d: 02/20/12	2 08:54	Received: 02/	21/12 09:30 Ma	atrix: Solid	
Results reported on a "dry-weigh	nt" basis								
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010 MET ICP	Analytical M	Method: EPA 6	6010B Prep	aration Met	hod: El	PA 3050			
Barium	<b>129</b> mg	g/kg	2.1	0.087	1	02/23/12 09:35	02/24/12 10:17	7440-39-3	
Copper	<b>13.4</b> mg	g/kg	1.0	0.20	1	02/23/12 09:35	02/24/12 10:17	7440-50-8	
Iron	<b>17500</b> mg	g/kg	10.5	4.6	1	02/23/12 09:35	02/24/12 10:17	7439-89-6	
Lead	<b>12.0</b> mg	g/kg	0.52	0.37	1	02/23/12 09:35	02/24/12 10:17	7439-92-1	
Potassium	<b>1790</b> mg	g/kg	52.4	4.8	1	02/23/12 09:35	02/24/12 10:17	7440-09-7	
Silicon	<b>685</b> mg	g/kg	10.5	1.4	1	02/23/12 09:35	02/24/12 10:17	7440-21-3	N2
Sodium	<b>69.4J</b> mg	g/kg	524	29.6	1	02/23/12 09:35	02/24/12 10:17	7440-23-5	
Strontium	<b>29.4</b> mg	g/kg	1.0	0.10	1	02/23/12 09:35	02/24/12 10:17	7440-24-6	
Zinc	<b>58.3</b> mg	g/kg	1.0	0.20	1	02/23/12 09:35	02/24/12 10:17	7440-66-6	
Percent Moisture	Analytical M	Method: ASTM	1 D2974-87						
Percent Moisture	<b>29.8</b> %		0.10	0.10	1		02/22/12 16:31		
9056 IC Anions	Analytical M	Method: EPA 9	9056						
Chloride	<b>178U</b> mg	g/kg	356	178	5		02/24/12 02:33	16887-00-6	
Sulfate	<b>178U</b> mg	g/kg	356	178	5		02/24/12 02:33	14808-79-8	
9056 IC Anions 48hr	Analytical M	Method: EPA 9	9056						
Nitrate as N	<b>17.8U</b> mg	g/kg	35.7	17.8	5		02/24/12 02:33	14797-55-8	H3
Orthophosphate as P	35.7U mg	g/kg	71.4	35.7	5		02/24/12 02:33		H3



Project: NPDES Sampling

Pace Project No.: 3063621

QC Batch: MPRP/77	19	Analysis Metl	hod: EF	PA 6010B	
QC Batch Method: EPA 3050		Analysis Des	cription: 60	10 MET	
Associated Lab Samples: 306	3621001				
METHOD BLANK: 408344		Matrix:	Solid		
Associated Lab Samples: 306	3621001				
		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
Barium	mg/kg	0.083U	2.0	02/24/12 08:47	
Copper	mg/kg	0.19U	1.0	02/24/12 08:47	
Iron	mg/kg	4.4U	10.0	02/24/12 08:47	
Lead	mg/kg	0.35U	0.50	02/24/12 08:47	
Potassium	mg/kg	9.6J	50.0	02/24/12 08:47	
Silicon	mg/kg	7.1J	10.0	02/24/12 08:47	N2
Sodium	mg/kg	28.3U	500	02/24/12 08:47	
Strontium	mg/kg	0.10U	1.0	02/24/12 08:47	

1.0 02/24/12 08:47

## LABORATORY CONTROL SAMPLE: 408345

mg/kg

408347

		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Barium	mg/kg	50	51.1	102	80-120	
Copper	mg/kg	50	51.8	104	80-120	
Iron	mg/kg	500	517	103	80-120	
Lead	mg/kg	50	48.1	96	80-120	
Potassium	mg/kg	500	520	104	80-120	
Silicon	mg/kg	250	234	94	80-120 N2	2
Sodium	mg/kg	500	501	100	80-120	
Strontium	mg/kg	50	52.7	105	80-120	
Zinc	mg/kg	50	48.9	98	80-120	

0.19U

## MATRIX SPIKE SAMPLE:

Zinc

		3063640001	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
Barium	mg/kg	150	33.8	197	140	80-120	M1
Copper	mg/kg	28.1	33.8	58.2	89	80-120	
Iron	mg/kg	23200	338	25300	619	80-120	M1
Lead	mg/kg	17.9	33.8	51.9	101	80-120	
Potassium	mg/kg	1590	338	2490	268	80-120	M1
Silicon	mg/kg	321	169	387	39	80-120	M1,N2
Sodium	mg/kg	ND	338	395	90	80-120	
Strontium	mg/kg	22.1	33.8	59.4	110	80-120	
Zinc	mg/kg	67.0	33.8	101	101	80-120	

Date: 02/27/2012 01:35 PM

# **REPORT OF LABORATORY ANALYSIS**



Project: NPDES Sampling Pace Project No.: 3063621

## SAMPLE DUPLICATE: 408346

		3063640001	Dup		Max	
Parameter	Units	Result	Result	RPD	RPD	Qualifiers
Barium	mg/kg	150	112	28	20 D	6
Copper	mg/kg	28.1	35.0	22	20 D	6
Iron	mg/kg	23200	23700	2	20	
Lead	mg/kg	17.9	19.4	8	20	
Potassium	mg/kg	1590	1050	41	20 D	6
Silicon	mg/kg	321	241	29	20 D	6,N2
Sodium	mg/kg	ND	79.9J		20	
Strontium	mg/kg	22.1	22.0	.2	20	
Zinc	mg/kg	67.0	56.5	17	20	

# **REPORT OF LABORATORY ANALYSIS**



Project:	NPDES Sampling							
Pace Project No.:	3063621							
QC Batch:	PMST/3004		Analysis Meth	od:	ASTM D2974-87			
QC Batch Method:	ASTM D2974-87		Analysis Desc	ription:	Dry Weight/Percer	nt Moisture		
Associated Lab San	nples: 306362100	1						
SAMPLE DUPLICA	TE: 407762							
			3061643001	Dup		Max		
Paran	neter	Units	Result	Result	RPD	RPD	Qualifiers	
Percent Moisture	9	6	38.5	38.	7 .6		20	
SAMPLE DUPLICA	TE: 407763							
			3063009041	Dup		Max		
Paran	neter	Units	Result	Result	RPD	RPD	Qualifiers	
Percent Moisture	0,	6	6.3	6.	5 3		20	

# **REPORT OF LABORATORY ANALYSIS**



Project: NPDES Sampl	ing						
Pace Project No.: 3063621							
QC Batch: WETA/15410		Analysis Meth	nod: E	PA 9056			
QC Batch Method: EPA 9056		Analysis Desc	cription: 9	056 IC Anions			
Associated Lab Samples: 30636	21001						
METHOD BLANK: 346223		Matrix:	Solid				
Associated Lab Samples: 306362	21001						
		Blank	Reporting				
Parameter	Units	Result	Limit	Analyzed	Qualifi	ers	
Chloride	mg/kg	24.9U	49.8	8 02/24/12 12:	40		
Sulfate	mg/kg	24.9U	49.8	3 02/24/12 12:	40		
LABORATORY CONTROL SAMPLE	E: 346224						
		Spike L	LCS	LCS	% Rec		
Parameter	Units	Conc. R	esult	% Rec	Limits	Qualifiers	
Chloride	mg/kg	498	548	110	80-120		
Sulfate	mg/kg	498	527	106	80-120		
MATRIX SPIKE SAMPLE:	346226						
		3063621001	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
Chloride	mg/kg	178	J 3560	3520	98	8 80-120	
Sulfate	mg/kg	1780	J 3560	3390	94	4 80-120	
SAMPLE DUPLICATE: 346225							
		3063621001	Dup		Max		
Parameter	Units	Result	Result	RPD	RPD	Qualifiers	_
Chloride	mg/kg	178U	178U			20	
Sulfate	mg/kg	178U	178U	I		20	



Project: NPDE	S Sampling						
Pace Project No.: 30636	621						
QC Batch: WE	ΓΑ/15409	Analysis Metho	od: E	PA 9056			
QC Batch Method: EPA	9056	Analysis Desci	ription: 9	056 IC Anions			
Associated Lab Samples:	3063621001						
METHOD BLANK: 34620	)4	Matrix: S	Solid				
Associated Lab Samples:	3063621001						
		Blank	Reporting				
Parameter	Units	Result	Limit	Analyzed	Qualifie	ers	
Nitrate as N	mg/kg	2.5U	5.0	0 02/24/12 12:	40		
Orthophosphate as P	mg/kg	5.0U	10	0 02/24/12 12:	40		
LABORATORY CONTROL	.SAMPLE: 346205						
		Spike L	CS	LCS	% Rec		
Parameter	Units	Conc. Re	esult	% Rec	Limits	Qualifiers	
Nitrate as N	mg/kg	49.8	49.4	99	80-120		
Orthophosphate as P	mg/kg	99.6	105	105	80-120		
MATRIX SPIKE SAMPLE:	346207						
		3063621001	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
Nitrate as N	mg/kg	17.8U	358	321	90	80-12	0 H3
Orthophosphate as P	mg/kg	35.70	714	679	95	80-12	0 H3
SAMPLE DUPLICATE: 3	46206						
		3063621001	Dup		Max		
Parameter	Units	Result	Result	RPD	RPD	Qualifiers	5
Nitrate as N	mg/kg	17.8U	17.8L	J		20 H3	
Orthophosphate as P	mg/kg	35.7U	35.7L	J	:	20 H3	



## QUALIFIERS

## Project: NPDES Sampling

Pace Project No.: 3063621

### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

**RPD** - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

### LABORATORIES

PASI-O Pace Analytical Services - Ormond Beach PASI-PA Pace Analytical Services - Greensburg

#### WORKORDER QUALIFIERS

WO: 3063621

- [1] The sample arrived at 13.0 degrees Centigrade. No ice present.
- [2] The calculated Silica value is 1465 mg/Kg.

#### ANALYTE QUALIFIERS

- D6 The relative percent difference (RPD) between the sample and sample duplicate exceeded laboratory control limits.
- H3 Analysis conducted within the hour.
- H3 Sample was received outside EPA method holding time.
- M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
- N2 The lab does not hold TNI accreditation for this parameter.



# QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: NPDES Sampling Pace Project No.: 3063621

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
3063621001	Infiltration Pond Soil	EPA 3050	MPRP/7719	EPA 6010B	ICP/7155
3063621001	Infiltration Pond Soil	ASTM D2974-87	PMST/3004		
3063621001	Infiltration Pond Soil	EPA 9056	WETA/15410		
3063621001	Infiltration Pond Soil	EPA 9056	WETA/15409		

Date: 02/27/2012 01:35 PM

# **REPORT OF LABORATORY ANALYSIS**