

Pace Analytical Services, Inc. 8 East Tower Circle Ormond Beach, FL 32174 (386)672-5668

February 07, 2014

Terri Page Pace Analytical Charlotte 9800 Kincey Ave. Suite 100 Huntersville, NC 28078

RE: Project: 92188445 Water Treatment Plant Pace Project No.: 35124962

Dear Terri Page:

Enclosed are the analytical results for sample(s) received by the laboratory on February 05, 2014. 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,

2 ABO tu Al.

Ken Overstreet ken.overstreet@pacelabs.com Project Manager

Enclosures

cc: Client Services, Pace Analytical Charlotte





Pace Analytical Services, Inc. 8 East Tower Circle Ormond Beach, FL 32174 (386)672-5668

CERTIFICATIONS

Project: 92188445 Water Treatment Plant

Pace Project No.: 35124962

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 Delaware Certification: FL NELAC Reciprocity 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 Maryland Certification: #346 Massachusetts Certification #: M-FL1264 Michigan Certification #: 9911

Mississippi Certification: FL NELAC Reciprocity Montana Certification #: Cert 0074 Nebraska Certification: NE-OS-28-14 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 #: 68-00547 Puerto Rico Certification #: FL01264 South Carolina Certification: #96042001 Tennessee Certification #: TN02974 Texas Certification: FL NELAC Reciprocity US Virgin Islands Certification: FL NELAC Reciprocity Virginia Environmental Certification #: 460165 Washington Certification #: C955 West Virginia Certification #: 9962C Wisconsin Certification #: 399079670 Wyoming (EPA Region 8): FL NELAC Reciprocity



SAMPLE ANALYTE COUNT

Project:92188445 Water Treatment PlantPace Project No.:35124962

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
92188445002	Balloo Pk Ct	EPA 200.8	HEA	14	PASI-O
		EPA 245.1	HEA	1	PASI-O



ANALYTICAL RESULTS

Project: 92188445 Water Treatment Plant

Pace Project No.: 35124962

Sample: Balloo Pk Ct	Lab ID: 921884450	002 Collected: 02/04/	14 09:20	Received: 02	2/05/14 11:30 N	latrix: Water	
Parameters	Results Ur	its Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
200.8 MET ICPMS	Analytical Method: Ef	PA 200.8 Preparation Me	ethod: EF	PA 200.8			
Aluminum	25.2 ug/L	10.0	1	02/06/14 16:49	02/07/14 12:05	7429-90-5	
Antimony	ND ug/L	1.0	1	02/06/14 16:49	02/07/14 12:05	7440-36-0	
Arsenic	ND ug/L	1.0	1	02/06/14 16:49	02/07/14 12:05	7440-38-2	
Barium	33.0 ug/L	1.0	1	02/06/14 16:49	02/07/14 12:05	7440-39-3	
Beryllium	ND ug/L	0.10	1	02/06/14 16:49	02/07/14 12:05	7440-41-7	
Cadmium	ND ug/L	0.10	1	02/06/14 16:49	02/07/14 12:05	7440-43-9	
Chromium	ND ug/L	1.0	1	02/06/14 16:49	02/07/14 12:05	7440-47-3	
Copper	3.1 ug/L	1.0	1	02/06/14 16:49	02/07/14 12:05	7440-50-8	
Lead	ND ug/L	1.0	1	02/06/14 16:49	02/07/14 12:05	7439-92-1	
Manganese	4.2 ug/L	1.0	1	02/06/14 16:49	02/07/14 12:05	7439-96-5	
Nickel	ND ug/L	1.0	1	02/06/14 16:49	02/07/14 12:05	7440-02-0	
Selenium	ND ug/L	1.0	1	02/06/14 16:49	02/07/14 12:05	7782-49-2	
Thallium	ND ug/L	1.0	1	02/06/14 16:49	02/07/14 12:05	7440-28-0	
Zinc	6.7 ug/L	5.0	1	02/06/14 16:49	02/07/14 12:05	7440-66-6	
245.1 Mercury	Analytical Method: Ef	PA 245.1 Preparation Me	ethod: EF	PA 245.1			
Mercury	ND ug/L	0.20	1	02/06/14 13:19	02/07/14 11:12	7439-97-6	



QUALITY CONTROL DATA

Project: Pace Project No.:	92188445 Wa 35124962	ater Treatme	nt Plant									
QC Batch:	MERP/4403	3		Analys	sis Method:	E	PA 245.1					
QC Batch Method:	EPA 245.1			Analys	sis Descript	ion: 2	45.1 Mercur	у				
Associated Lab Sam	nples: 9218	8445002										
METHOD BLANK:	823913			٦	Matrix: Wa	ter						
Associated Lab Sam	nples: 9218	8445002										
				Blank	k R	eporting						
Param	neter		Units	Resu	lt	Limit	Analyz	zed	Qualifiers			
Mercury		ug/L			ND	0.20	02/07/14	11:01				
LABORATORY CON	ITROL SAMP	LE: 82391	4									
				Spike	LCS		LCS	% Red				
Param	neter		Units	Conc.	Resu	lt	% Rec	Limits	s Qi	ualifiers	-	
Mercury		ug/L		2	2	1.9	95	85	5-115			
MATRIX SPIKE & M	ATRIX SPIKE	DUPLICATE	E: 82391	7		823918						
				MS	MSD							
			24732001	Spike	Spike	MS	MSD	MS	MSD	% Rec		<u> </u>
Paramet	er	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	Qual
Mercury		ug/L	ND	2	2	2.0	2.0	98	97	70-130	2	
MATRIX SPIKE & M	ATRIX SPIKE	DUPLICATE	E: 82430	5		824306						
				MS	MSD							
_			24631001	Spike	Spike	MS	MSD	MS	MSD	% Rec		. .
Paramet	er	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	Qual
Mercury		ug/L	<0.10	2	2	1.9	1.9	94	94	70-130	1	



QUALITY CONTROL DATA

Project: 92188445 Water Treatment Plant

Pace Project No.: 35124962

QC Batch:	MPRP/16932	Analysis Method:	EPA 200.8
QC Batch Method:	EPA 200.8	Analysis Description:	200.8 MET
Associated Lab Sam	nples: 92188445002		
METHOD BLANK:	824399	Matrix: Water	

Associated Lab Samples: 92188445002

		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
Aluminum	ug/L	ND	10.0	02/07/14 11:58	
Antimony	ug/L	ND	1.0	02/07/14 11:58	
Arsenic	ug/L	ND	1.0	02/07/14 11:58	
Barium	ug/L	ND	1.0	02/07/14 11:58	
Beryllium	ug/L	ND	0.10	02/07/14 11:58	
Cadmium	ug/L	ND	0.10	02/07/14 11:58	
Chromium	ug/L	ND	1.0	02/07/14 11:58	
Copper	ug/L	ND	1.0	02/07/14 11:58	
Lead	ug/L	ND	1.0	02/07/14 11:58	
Manganese	ug/L	ND	1.0	02/07/14 11:58	
Nickel	ug/L	ND	1.0	02/07/14 11:58	
Selenium	ug/L	ND	1.0	02/07/14 11:58	
Thallium	ug/L	ND	1.0	02/07/14 11:58	
Zinc	ug/L	ND	5.0	02/07/14 11:58	

LABORATORY CONTROL SAMPLE: 824400

		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Aluminum	ug/L	500	493	99	85-115	
Antimony	ug/L	50	47.1	94	85-115	
Arsenic	ug/L	50	50.2	100	85-115	
Barium	ug/L	50	47.3	95	85-115	
Beryllium	ug/L	5	5.0	101	85-115	
Cadmium	ug/L	5	4.8	96	85-115	
Chromium	ug/L	50	49.0	98	85-115	
Copper	ug/L	50	51.0	102	85-115	
Lead	ug/L	50	49.5	99	85-115	
Manganese	ug/L	50	49.1	98	85-115	
Nickel	ug/L	50	50.4	101	85-115	
Selenium	ug/L	50	51.1	102	85-115	
Thallium	ug/L	50	48.0	96	85-115	
Zinc	ug/L	250	251	100	85-115	

MATRIX SPIKE & MATRIX SP	PIKE DUPLICAT	E: 82440	1		824402						
	35^	124930001	MS Spike	MSD Spike	MS	MSD	MS	MSD	% Rec		
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	Qual
Aluminum	ug/L	42.6	500	500	501	515	92	94	70-130	3	
Antimony	ug/L	0.50U	50	50	46.8	46.8	93	93	70-130	.06	
Arsenic	ug/L	1.4	50	50	48.9	49.3	95	96	70-130	.9	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 92188445 Water Treatment Plant

Pace Project No.: 35124962

MATRIX SPIKE & MATRIX S	SPIKE DUPLICAT	E: 82440	1 MS	MSD	824402						
Parameter	35 Units	124930001 Result	Spike Conc.	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Qual
Barium	ug/L	31.9	50	50	80.0	81.4	96	99	70-130	2	
Beryllium	ug/L	0.050U	5	5	5.5	5.7	110	113	70-130	3	
Cadmium	ug/L	0.050U	5	5	4.6	4.6	93	91	70-130	2	
Chromium	ug/L	1.2	50	50	47.9	48.9	93	96	70-130	2	
Copper	ug/L	0.50U	50	50	44.5	44.7	89	89	70-130	.4	
Lead	ug/L	0.50U	50	50	45.7	46.1	91	92	70-130	.8	
Vanganese	ug/L	73.1	50	50	120	123	95	101	70-130	2	
Nickel	ug/L	1.2	50	50	46.5	47.7	91	93	70-130	2	
Selenium	ug/L	0.50U	50	50	47.0	47.5	93	94	70-130	1	
Thallium	ug/L	0.50U	50	50	51.2	51.1	102	102	70-130	.3	
Zinc	ug/L	9.8	250	250	226	226	86	87	70-130	.3	



QUALIFIERS

Project: 92188445 Water Treatment Plant

Pace Project No.: 35124962

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.

PRL - Pace Reporting Limit.

RL - Reporting 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.

TNI - The NELAC Institute.

LABORATORIES

PASI-O Pace Analytical Services - Ormond Beach



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project:92188445 Water Treatment PlantPace Project No.:35124962

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
92188445002	Balloo Pk Ct	EPA 200.8	MPRP/16932	EPA 200.8	ICPM/6845
92188445002	Balloo Pk Ct	EPA 245.1	MERP/4403	EPA 245.1	MERC/4401

Tuesday, February 04, 2014 3:08:04 PM

FMT-ALL-C-002rev.00 24March2009

Page 1 of 1

Face Analytical	Document Nam Sample Condition Upon R Document No. F-FL-C-007 rev.	eceipt Form	October 9, 2013 Issuing Authorities: Pace Florida Quality Office	j
Saw	ple Condition Upon Rece			
-		_	Project # 35 124962	
. /	Client Name: PACCI	<u>+ #1</u>	Project#R	
Courier: D Fed Ex D UPS[USPS 🖸 Client 🔯 Commerci	iat 🗌 Pace	Other	
Tracking #]9] & 1(190 2331	•		
Custody Seal on Cooler/Box Pi	resent: 🛛 yes 🖉 no Se	als intact: Oyes [Ino Date and Initials of person examining	
Packing Material: 🔲 Bubble V	Vrap 🔲 Bubble Bags 🔲 None	Other	contents: <u>PASIY</u>	
Thermometer Used	Type of Ice: (W	let Blue None	(Temp should be above treating to 5°C). If belo	w O'C, then was
Cooler Temperature COT	(Visual) 0.5 (Correction	on Factor) 0, c	Actual) sample trozen?	
				1
Receipt of samples satisfact			Rush TAT requested on COC:	arv):
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Ifficient Volume				
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	· · · ·	No Labels:	No Time/Date on Labels:	
containers needing preservation are npliance with EPA recommendation	e found to be in			
Headspace In VOA Vials (>6m	im):			
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Person Contacted:	and the second	le/Time:		
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Sample ID:				
· •			x 2.5 Gal x 1 Gal	
uction Code:			x 1 Gal x 1 Liter	
iction Code:			x 1 Gai	