

October 01, 2021

Keith Gadway  
Quantum Environmental  
4111 Jackson Road  
Ann Arbor, MI 48103

RE: Project: 14-Dx  
Pace Project No.: 35665618

Dear Keith Gadway:

Enclosed are the analytical results for sample(s) received by the laboratory on September 24, 2021. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Ormond Beach

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

Sincerely,



Bill White  
bill.white@pacelabs.com  
(386) 672-5668  
Project Manager

Enclosures



## REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,  
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## CERTIFICATIONS

Project: 14-Dx  
Pace Project No.: 35665618

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### Pace Analytical Services Ormond Beach

8 East Tower Circle, Ormond Beach, FL 32174

Alaska DEC- CS/UST/LUST

Alabama Certification #: 41320

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

Michigan Certification #: 9911

Mississippi Certification: FL NELAC Reciprocity

Missouri Certification #: 236

Montana Certification #: Cert 0074

Nebraska Certification: NE-OS-28-14

New Hampshire Certification #: 2958

New Jersey Certification #: FL022

New York Certification #: 11608

North Carolina Environmental Certificate #: 667

North Carolina Certification #: 12710

North Dakota Certification #: R-216

Ohio DEP 87780

Oklahoma Certification #: D9947

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

West Virginia Certification #: 9962C

Wisconsin Certification #: 399079670

Wyoming (EPA Region 8): FL NELAC Reciprocity

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## SAMPLE SUMMARY

Project: 14-Dx  
Pace Project No.: 35665618

Lab ID	Sample ID	Matrix	Date Collected	Date Received
35665618001	1054 N. WAGNER	Water	09/23/21 10:41	09/24/21 11:13
35665618002	3965 DEXTER	Water	09/23/21 11:00	09/24/21 11:13

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## SAMPLE ANALYTE COUNT

Project: 14-Dx  
Pace Project No.: 35665618

Lab ID	Sample ID	Method	Analysts	Analytes Reported
35665618001	1054 N. WAGNER	EPA 522	CTB	2
35665618002	3965 DEXTER	EPA 522	CTB	2

PASI-O = Pace Analytical Services - Ormond Beach

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## ANALYTICAL RESULTS

Project: 14-Dx  
Pace Project No.: 35665618

**Sample: 1054 N. WAGNER**      **Lab ID: 35665618001**      Collected: 09/23/21 10:41      Received: 09/24/21 11:13      Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>522 MSS 1,4 Dioxane</b> Analytical Method: EPA 522    Preparation Method: EPA 522 Pace Analytical Services - Ormond Beach									
1,4-Dioxane (p-Dioxane)	<b>0.79</b>	ug/L	0.20	0.12	1	09/29/21 14:58	09/30/21 13:53	123-91-1	P4
<b>Surrogates</b>									
1,4-Dioxane-d8 (S)	79	%	70-130		1	09/29/21 14:58	09/30/21 13:53		

**Sample: 3965 DEXTER**      **Lab ID: 35665618002**      Collected: 09/23/21 11:00      Received: 09/24/21 11:13      Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
<b>522 MSS 1,4 Dioxane</b> Analytical Method: EPA 522    Preparation Method: EPA 522 Pace Analytical Services - Ormond Beach									
1,4-Dioxane (p-Dioxane)	<b>0.73</b>	ug/L	0.20	0.12	1	09/29/21 14:58	09/30/21 14:09	123-91-1	P4
<b>Surrogates</b>									
1,4-Dioxane-d8 (S)	71	%	70-130		1	09/29/21 14:58	09/30/21 14:09		

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## QUALITY CONTROL DATA

Project: 14-Dx  
Pace Project No.: 35665618

QC Batch: 765782 Analysis Method: EPA 522  
QC Batch Method: EPA 522 Analysis Description: 522 MSS 1,4 Dioxane  
Laboratory: Pace Analytical Services - Ormond Beach

Associated Lab Samples: 35665618001, 35665618002

METHOD BLANK: 4185860 Matrix: Water

Associated Lab Samples: 35665618001, 35665618002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	<0.12	0.20	0.12	09/30/21 12:01	
1,4-Dioxane-d8 (S)	%	95	70-130		09/30/21 12:01	

LABORATORY CONTROL SAMPLE & LCSD: 4185861

4185864

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	2	1.7	1.6	83	81	70-130	3	20	
1,4-Dioxane-d8 (S)	%				84	76	70-130			

LABORATORY CONTROL SAMPLE: 4185862

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	0.2	0.19J	93	50-150	
1,4-Dioxane-d8 (S)	%			85	70-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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## QUALIFIERS

Project: 14-Dx  
Pace Project No.: 35665618

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### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.  
ND - Not Detected at or above adjusted reporting limit.  
TNTC - Too Numerous To Count  
J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.  
MDL - Adjusted Method Detection Limit.  
PQL - Practical Quantitation Limit.  
RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.  
S - Surrogate  
1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.  
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.  
Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.  
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.  
TNI - The NELAC Institute.

### BATCH QUALIFIERS

Batch: 766026

[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

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### ANALYTE QUALIFIERS

P4 Sample field preservation does not meet EPA or method recommendations for this analysis.

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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 14-Dx  
Pace Project No.: 35665618

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
35665618001	1054 N. WAGNER	EPA 522	765782	EPA 522	766026
35665618002	3965 DEXTER	EPA 522	765782	EPA 522	766026

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