8 August 2022

Mr. Scott Sokolowski
Remedial Project Manager
Naval Facilities Engineering Command, Mid Atlantic
9324 Virginia Avenue, Building N-26
Norfolk, VA 23511-3095

Subject: **July 2022 Sampling Report**
Full Scale Liquid-Phase Granular Activated Carbon Treatment System
Liberty New York Water, Seamans Neck Road Water Plant
NWIRP Bethpage, New York
Contract No. N40085-16-D-2288, Task Order 5125

Dear Mr. Sokolowski,

The Full Scale Liquid-Phase Granulated Activated Carbon (GAC) Treatment System is located at the Liberty New York Water (LNYW), formerly New York American Water (NYAW), Seamans Neck Road water treatment plant in Levittown, NY. The GAC System was installed at the effluent of the potable water treatment plant and consists of six GAC vessels operating in parallel to remove low levels of trichloroethene (TCE) from Well No. 3A and Well No. 4S. After GAC treatment, the water receives chemical injection of sodium hypochlorite and sodium tripolyphosphate before going to distribution. Startup of the Full Scale GAC Treatment System occurred on 8 January 2015 under CH2MHill. KOMAN Government Solutions, LLC (KGS) began routine operation and maintenance (O&M) activities in March 2015.

The purpose of this report is to document the sampling activities performed at the GAC Treatment System in July 2022 and present the associated analytical results.

Sampling Requirements

Nassau County Department of Health (NCDOH) and the approved Sampling Plan outline the following sampling requirements at the Full Scale GAC System:

- Monthly Sampling: Principal Organic Compound (POC) sampling will be performed once a month at the effluent from the GAC treatment system – one sample location, plus associated quality assurance / quality control (QA/QC) samples. POCs will be analyzed via EPA Method 542.2.
- Quarterly Sampling: POC sampling will be performed at the influent to the GAC treatment system on a quarterly basis at Well No. 3A and Well No. 4S raw water – two sample locations. The monthly POC sample collected at the effluent of the GAC Treatment System (described above) will also serve as the quarterly POC GAC effluent sample. Associated QA/QC samples will also be collected. In addition, microbiological (MIC) samples will be collected on a quarterly basis. Samples will be collected from the

system influent (Well No. 3A and Well No. 4S raw water) and from the effluent of each GAC vessel over a timed sequence. The sampling occurs after the wells and vessels are shut-down for a minimum of 12 hours. Samples will be analyzed via the Colilert method to determine if any *E. Coli* or Total Coliform bacteria are present.

- Annual Sampling: Annual sampling will be performed for Physical and Inorganic Constituents (IOCs) at the system influent (Well No. 3A and Well No. 4S raw water) and effluent – three sampling locations, plus associated QA/QC samples. IOCs include a specified list of metals analyzed via EPA Method 200.7.

July 2022 Sampling Summary

Monthly POC Sampling

On 6 July 2022 monthly POC samples were collected from the GAC system influent from Well No. 3A and Well No. 4S and the system effluent; a field duplicate and matrix spike / matrix spike duplicate (MS/MSD) from the system effluent were also collected. **Attachment 1** provides the analytical data report for POC samples collected in July 2022. **Table 1**, below, presents the trichloroethene (TCE) analytical results. TCE was not detected in the GAC effluent or GAC effluent duplicate samples. Results for TCE are in compliance with NCDOH requirements.

Table 1 - *TCE Analytical Results[(1)] – July 2022*

Date	Well 3A Raw [N-14347 (Seaman Neck 3A Well)]	Well 4S Raw [N-09338 (Seaman Neck 4S Well)]	Effluent from GAC System [GAC-3S/4S (Seaman Neck GAC Effluent)]	Effluent from GAC System (Duplicate) [GAC-3S/4S (Seaman Neck GAC Effluent)-D]
07/06/2022	12.9	2.2	ND	ND

Notes:
(1) All concentrations reported in ug/L (ppb).
ND – Not Detected above the reporting limit (0.50 ug/L)

Please contact me at 610-400-0636 or rgregory@komangs.com with any questions or concerns regarding this report.

Sincerely,
KOMAN Government Solutions, LLC

Robert Gregory, P.G.
Project Manager

Cc: W. Provoncha – Nassau County

M. Alarcon – Nassau County
C. Johnson – Nassau County
R. Castle – Nassau County
J. Pelton – NYSDEC
K. Granzen – NYSDEC
M. Travis - NYSDEC
C. Shukis – NAVFAC
V. Varricchio – NWIRP Bethpage Facilities Management
R. Kern – LNYW
N. Niola – LNYW
J. Palmer - LNYW
D. Brayack – Tetra Tech
R. Hoffmaster – KGS
P. Schauble – KGS

ATTACHMENT 1

POC ANALYTICAL RESULTS FOR JULY 2022

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

July 18, 2022

Robert G. Gregory
KOMAN Government Services, LLC
180 Gordon Dr.
Suite 110
Exton, PA 19341

RE: Project: 1,4 DIOX/POC 7/6
Pace Project No.: 70221011

Dear Robert Gregory:

Enclosed are the analytical results for sample(s) received by the laboratory on July 06, 2022. 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 - Melville

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

Sincerely,

Kimberley Mack

Kimberley M. Mack
kimberley.mack@pacelabs.com
(631)694-3040
Project Manager

Enclosures

cc: Ericka Seiler, KOMAN Government Services, LLC

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

CERTIFICATIONS

Project: 1,4 DIOX/POC 7/6
Pace Project No.: 70221011

Pace Analytical Services Long Island
575 Broad Hollow Rd, Melville, NY 11747
Connecticut Certification #: PH-0435
Delaware Certification # NY 10478
Maryland Certification #: 208
Massachusetts Certification #: M-NY026
New Hampshire Certification #: 2987
New Jersey Certification #: NY158
New York Certification #: 10478 Primary Accrediting Body
Pennsylvania Certification #: 68-00350
Rhode Island Certification #: LAO00340
Virginia Certification # 460302

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

SAMPLE SUMMARY

Project: 1,4 DIOX/POC 7/6
Pace Project No.: 70221011

Lab ID	Sample ID	Matrix	Date Collected	Date Received
70221011001	**GAC-3S/4S (SEAMAN NECK GAC EFF**	Drinking Water	07/06/22 07:30	07/06/22 09:45
70221011002	**GAC-3S/4S (SEAMAN NECK GAC -DU**	Drinking Water	07/06/22 07:45	07/06/22 09:45
70221011003	**WELL 3A N-14347 (INFLUENT)**	Drinking Water	07/06/22 08:00	07/06/22 09:45
70221011004	**WELL 4 N-09338 (INFLUENT)**	Drinking Water	07/06/22 08:15	07/06/22 09:45

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

SAMPLE ANALYTE COUNT

Project: 1,4 DIOX/POC 7/6
Pace Project No.: 70221011

Lab ID	Sample ID	Method	Analysts	Analytes Reported
70221011001	**GAC-3S/4S (SEAMAN NECK GAC EFF**	EPA 522	AI1	2
		EPA 524.2	KGG	62
70221011002	**GAC-3S/4S (SEAMAN NECK GAC -DU**	EPA 524.2	KGG	62
70221011003	**WELL 3A N-14347 (INFLUENT)**	EPA 522	AI1	2
		EPA 524.2	KGG	62
70221011004	**WELL 4 N-09338 (INFLUENT)**	EPA 522	AI1	2
		EPA 524.2	KGG	62

PACE-MV = Pace Analytical Services - Melville

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: 1,4 DIOX/POC 7/6
Pace Project No.: 70221011

Sample: GAC-3S/4S (SEAMAN NECK GAC EFF **Lab ID: 70221011001** Collected: 07/06/22 07:30 Received: 07/06/22 09:45 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
522 MSS 1,4 Dioxane (SIM)	Analytical Method: EPA 522 Preparation Method: EPA 522								
	Pace Analytical Services - Melville								
1,4-Dioxane (p-Dioxane)	**1.9**	ug/L	0.020		1	07/15/22 11:47	07/15/22 19:28	123-91-1	
Surrogates									
1,4-Dioxane-d8 (S)	92	%	70-130		1	07/15/22 11:47	07/15/22 19:28		
524.2 MSV	Analytical Method: EPA 524.2								
	Pace Analytical Services - Melville								
Benzene	**<0.50**	ug/L	0.50	5	1		07/14/22 19:13	71-43-2	
Bromobenzene	**<0.50**	ug/L	0.50		1		07/14/22 19:13	108-86-1	
Bromochloromethane	**<0.50**	ug/L	0.50		1		07/14/22 19:13	74-97-5	
Bromodichloromethane	**<0.50**	ug/L	0.50	80	1		07/14/22 19:13	75-27-4	
Bromoform	**<0.50**	ug/L	0.50	80	1		07/14/22 19:13	75-25-2	
Bromomethane	**<0.50**	ug/L	0.50		1		07/14/22 19:13	74-83-9	
n-Butylbenzene	**<0.50**	ug/L	0.50		1		07/14/22 19:13	104-51-8	
sec-Butylbenzene	**<0.50**	ug/L	0.50		1		07/14/22 19:13	135-98-8	
tert-Butylbenzene	**<0.50**	ug/L	0.50		1		07/14/22 19:13	98-06-6	
Carbon tetrachloride	**<0.50**	ug/L	0.50	5	1		07/14/22 19:13	56-23-5	
Chlorobenzene	**<0.50**	ug/L	0.50	100	1		07/14/22 19:13	108-90-7	
Chlorodifluoromethane	**<0.50**	ug/L	0.50		1		07/14/22 19:13	75-45-6	N3
Chloroethane	**<0.50**	ug/L	0.50		1		07/14/22 19:13	75-00-3	
Chloroform	**<0.50**	ug/L	0.50	80	1		07/14/22 19:13	67-66-3	
Chloromethane	**<0.50**	ug/L	0.50		1		07/14/22 19:13	74-87-3	
2-Chlorotoluene	**<0.50**	ug/L	0.50		1		07/14/22 19:13	95-49-8	
4-Chlorotoluene	**<0.50**	ug/L	0.50		1		07/14/22 19:13	106-43-4	
Dibromochloromethane	**<0.50**	ug/L	0.50	80	1		07/14/22 19:13	124-48-1	
Dibromomethane	**<0.50**	ug/L	0.50		1		07/14/22 19:13	74-95-3	
1,2-Dichlorobenzene	**<0.50**	ug/L	0.50	600	1		07/14/22 19:13	95-50-1	
1,3-Dichlorobenzene	**<0.50**	ug/L	0.50		1		07/14/22 19:13	541-73-1	
1,4-Dichlorobenzene	**<0.50**	ug/L	0.50	75	1		07/14/22 19:13	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	0.50		1		07/14/22 19:13	75-71-8	L2
1,1-Dichloroethane	**<0.50**	ug/L	0.50		1		07/14/22 19:13	75-34-3	
1,2-Dichloroethane	**<0.50**	ug/L	0.50	5	1		07/14/22 19:13	107-06-2	
1,1-Dichloroethene	**<0.50**	ug/L	0.50	7	1		07/14/22 19:13	75-35-4	
cis-1,2-Dichloroethene	**<0.50**	ug/L	0.50	70	1		07/14/22 19:13	156-59-2	
trans-1,2-Dichloroethene	**<0.50**	ug/L	0.50	100	1		07/14/22 19:13	156-60-5	
1,2-Dichloropropane	**<0.50**	ug/L	0.50	5	1		07/14/22 19:13	78-87-5	
1,3-Dichloropropane	**<0.50**	ug/L	0.50		1		07/14/22 19:13	142-28-9	
2,2-Dichloropropane	**<0.50**	ug/L	0.50		1		07/14/22 19:13	594-20-7	
1,1-Dichloropropene	**<0.50**	ug/L	0.50		1		07/14/22 19:13	563-58-6	
cis-1,3-Dichloropropene	**<0.50**	ug/L	0.50		1		07/14/22 19:13	10061-01-5	
trans-1,3-Dichloropropene	**<0.50**	ug/L	0.50		1		07/14/22 19:13	10061-02-6	
Ethylbenzene	**<0.50**	ug/L	0.50	700	1		07/14/22 19:13	100-41-4	
Hexachloro-1,3-butadiene	**<0.50**	ug/L	0.50		1		07/14/22 19:13	87-68-3	
Isopropylbenzene (Cumene)	**<0.50**	ug/L	0.50		1		07/14/22 19:13	98-82-8	
p-Isopropyltoluene	**<0.50**	ug/L	0.50		1		07/14/22 19:13	99-87-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: 1,4 DIOX/POC 7/6
Pace Project No.: 70221011

Sample: GAC-3S/4S (SEAMAN NECK GAC EFF **Lab ID: 70221011001** Collected: 07/06/22 07:30 Received: 07/06/22 09:45 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
524.2 MSV	Analytical Method: EPA 524.2 Pace Analytical Services - Melville								
Methylene Chloride	**<0.50**	ug/L	0.50	5	1		07/14/22 19:13	75-09-2	
Methyl-tert-butyl ether	**<0.50**	ug/L	0.50		1		07/14/22 19:13	1634-04-4	
n-Propylbenzene	**<0.50**	ug/L	0.50		1		07/14/22 19:13	103-65-1	
Styrene	**<0.50**	ug/L	0.50	100	1		07/14/22 19:13	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.50**	ug/L	0.50		1		07/14/22 19:13	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.50**	ug/L	0.50		1		07/14/22 19:13	79-34-5	
Tetrachloroethene	**<0.50**	ug/L	0.50	5	1		07/14/22 19:13	127-18-4	
Toluene	**<0.50**	ug/L	0.50	1000	1		07/14/22 19:13	108-88-3	
Total Trihalomethanes (Calc.)	**<0.50**	ug/L	0.50	80	1		07/14/22 19:13		
1,2,3-Trichlorobenzene	**<0.50**	ug/L	0.50		1		07/14/22 19:13	87-61-6	
1,2,4-Trichlorobenzene	**<0.50**	ug/L	0.50	70	1		07/14/22 19:13	120-82-1	
1,1,1-Trichloroethane	**<0.50**	ug/L	0.50	200	1		07/14/22 19:13	71-55-6	
1,1,2-Trichloroethane	**<0.50**	ug/L	0.50	5	1		07/14/22 19:13	79-00-5	
Trichloroethene	**<0.50**	ug/L	0.50	5	1		07/14/22 19:13	79-01-6	
Trichlorofluoromethane	**<0.50**	ug/L	0.50		1		07/14/22 19:13	75-69-4	
1,2,3-Trichloropropane	**<0.50**	ug/L	0.50		1		07/14/22 19:13	96-18-4	
1,1,2-Trichlorotrifluoroethane	**<0.50**	ug/L	0.50		1		07/14/22 19:13	76-13-1	N3
1,2,4-Trimethylbenzene	**<0.50**	ug/L	0.50		1		07/14/22 19:13	95-63-6	
1,3,5-Trimethylbenzene	**<0.50**	ug/L	0.50		1		07/14/22 19:13	108-67-8	
Vinyl chloride	**<0.50**	ug/L	0.50	2	1		07/14/22 19:13	75-01-4	
m&p-Xylene	**<0.50**	ug/L	0.50		1		07/14/22 19:13	179601-23-1	
o-Xylene	**<0.50**	ug/L	0.50		1		07/14/22 19:13	95-47-6	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	93	%	70-130		1		07/14/22 19:13	2199-69-1	
4-Bromofluorobenzene (S)	90	%	70-130		1		07/14/22 19:13	460-00-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: 1,4 DIOX/POC 7/6
Pace Project No.: 70221011

Sample: GAC-3S/4S (SEAMAN NECK GAC -DU **Lab ID: 70221011002** Collected: 07/06/22 07:45 Received: 07/06/22 09:45 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
524.2 MSV	Analytical Method: EPA 524.2 Pace Analytical Services - Melville								
Benzene	**<0.50**	ug/L	0.50	5	1		07/14/22 19:39	71-43-2	
Bromobenzene	**<0.50**	ug/L	0.50		1		07/14/22 19:39	108-86-1	
Bromochloromethane	**<0.50**	ug/L	0.50		1		07/14/22 19:39	74-97-5	
Bromodichloromethane	**<0.50**	ug/L	0.50	80	1		07/14/22 19:39	75-27-4	
Bromoform	**<0.50**	ug/L	0.50	80	1		07/14/22 19:39	75-25-2	
Bromomethane	**<0.50**	ug/L	0.50		1		07/14/22 19:39	74-83-9	
n-Butylbenzene	**<0.50**	ug/L	0.50		1		07/14/22 19:39	104-51-8	
sec-Butylbenzene	**<0.50**	ug/L	0.50		1		07/14/22 19:39	135-98-8	
tert-Butylbenzene	**<0.50**	ug/L	0.50		1		07/14/22 19:39	98-06-6	
Carbon tetrachloride	**<0.50**	ug/L	0.50	5	1		07/14/22 19:39	56-23-5	
Chlorobenzene	**<0.50**	ug/L	0.50	100	1		07/14/22 19:39	108-90-7	
Chlorodifluoromethane	**<0.50**	ug/L	0.50		1		07/14/22 19:39	75-45-6	N3
Chloroethane	**<0.50**	ug/L	0.50		1		07/14/22 19:39	75-00-3	
Chloroform	**<0.50**	ug/L	0.50	80	1		07/14/22 19:39	67-66-3	
Chloromethane	**<0.50**	ug/L	0.50		1		07/14/22 19:39	74-87-3	
2-Chlorotoluene	**<0.50**	ug/L	0.50		1		07/14/22 19:39	95-49-8	
4-Chlorotoluene	**<0.50**	ug/L	0.50		1		07/14/22 19:39	106-43-4	
Dibromochloromethane	**<0.50**	ug/L	0.50	80	1		07/14/22 19:39	124-48-1	
Dibromomethane	**<0.50**	ug/L	0.50		1		07/14/22 19:39	74-95-3	
1,2-Dichlorobenzene	**<0.50**	ug/L	0.50	600	1		07/14/22 19:39	95-50-1	
1,3-Dichlorobenzene	**<0.50**	ug/L	0.50		1		07/14/22 19:39	541-73-1	
1,4-Dichlorobenzene	**<0.50**	ug/L	0.50	75	1		07/14/22 19:39	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	0.50		1		07/14/22 19:39	75-71-8	L2
1,1-Dichloroethane	**<0.50**	ug/L	0.50		1		07/14/22 19:39	75-34-3	
1,2-Dichloroethane	**<0.50**	ug/L	0.50	5	1		07/14/22 19:39	107-06-2	
1,1-Dichloroethene	**<0.50**	ug/L	0.50	7	1		07/14/22 19:39	75-35-4	
cis-1,2-Dichloroethene	**<0.50**	ug/L	0.50	70	1		07/14/22 19:39	156-59-2	
trans-1,2-Dichloroethene	**<0.50**	ug/L	0.50	100	1		07/14/22 19:39	156-60-5	
1,2-Dichloropropane	**<0.50**	ug/L	0.50	5	1		07/14/22 19:39	78-87-5	
1,3-Dichloropropane	**<0.50**	ug/L	0.50		1		07/14/22 19:39	142-28-9	
2,2-Dichloropropane	**<0.50**	ug/L	0.50		1		07/14/22 19:39	594-20-7	
1,1-Dichloropropene	**<0.50**	ug/L	0.50		1		07/14/22 19:39	563-58-6	
cis-1,3-Dichloropropene	**<0.50**	ug/L	0.50		1		07/14/22 19:39	10061-01-5	
trans-1,3-Dichloropropene	**<0.50**	ug/L	0.50		1		07/14/22 19:39	10061-02-6	
Ethylbenzene	**<0.50**	ug/L	0.50	700	1		07/14/22 19:39	100-41-4	
Hexachloro-1,3-butadiene	**<0.50**	ug/L	0.50		1		07/14/22 19:39	87-68-3	
Isopropylbenzene (Cumene)	**<0.50**	ug/L	0.50		1		07/14/22 19:39	98-82-8	
p-Isopropyltoluene	**<0.50**	ug/L	0.50		1		07/14/22 19:39	99-87-6	
Methylene Chloride	**<0.50**	ug/L	0.50	5	1		07/14/22 19:39	75-09-2	
Methyl-tert-butyl ether	**<0.50**	ug/L	0.50		1		07/14/22 19:39	1634-04-4	
n-Propylbenzene	**<0.50**	ug/L	0.50		1		07/14/22 19:39	103-65-1	
Styrene	**<0.50**	ug/L	0.50	100	1		07/14/22 19:39	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.50**	ug/L	0.50		1		07/14/22 19:39	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.50**	ug/L	0.50		1		07/14/22 19:39	79-34-5	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: 1,4 DIOX/POC 7/6
Pace Project No.: 70221011

Sample: GAC-3S/4S (SEAMAN NECK GAC -DU **Lab ID: 70221011002** Collected: 07/06/22 07:45 Received: 07/06/22 09:45 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
524.2 MSV	Analytical Method: EPA 524.2 Pace Analytical Services - Melville								
Tetrachloroethene	**<0.50**	ug/L	0.50	5	1		07/14/22 19:39	127-18-4	
Toluene	**<0.50**	ug/L	0.50	1000	1		07/14/22 19:39	108-88-3	
Total Trihalomethanes (Calc.)	**<0.50**	ug/L	0.50	80	1		07/14/22 19:39		
1,2,3-Trichlorobenzene	**<0.50**	ug/L	0.50		1		07/14/22 19:39	87-61-6	
1,2,4-Trichlorobenzene	**<0.50**	ug/L	0.50	70	1		07/14/22 19:39	120-82-1	
1,1,1-Trichloroethane	**<0.50**	ug/L	0.50	200	1		07/14/22 19:39	71-55-6	
1,1,2-Trichloroethane	**<0.50**	ug/L	0.50	5	1		07/14/22 19:39	79-00-5	
Trichloroethene	**<0.50**	ug/L	0.50	5	1		07/14/22 19:39	79-01-6	
Trichlorofluoromethane	**<0.50**	ug/L	0.50		1		07/14/22 19:39	75-69-4	
1,2,3-Trichloropropane	**<0.50**	ug/L	0.50		1		07/14/22 19:39	96-18-4	
1,1,2-Trichlorotrifluoroethane	**<0.50**	ug/L	0.50		1		07/14/22 19:39	76-13-1	N3
1,2,4-Trimethylbenzene	**<0.50**	ug/L	0.50		1		07/14/22 19:39	95-63-6	
1,3,5-Trimethylbenzene	**<0.50**	ug/L	0.50		1		07/14/22 19:39	108-67-8	
Vinyl chloride	**<0.50**	ug/L	0.50	2	1		07/14/22 19:39	75-01-4	
m&p-Xylene	**<0.50**	ug/L	0.50		1		07/14/22 19:39	179601-23-1	
o-Xylene	**<0.50**	ug/L	0.50		1		07/14/22 19:39	95-47-6	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	94	%	70-130		1		07/14/22 19:39	2199-69-1	
4-Bromofluorobenzene (S)	87	%	70-130		1		07/14/22 19:39	460-00-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: 1,4 DIOX/POC 7/6
Pace Project No.: 70221011

Sample: WELL 3A N-14347 (INFLUENT) **Lab ID: 70221011003** Collected: 07/06/22 08:00 Received: 07/06/22 09:45 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
522 MSS 1,4 Dioxane (SIM)	Analytical Method: EPA 522 Preparation Method: EPA 522								
	Pace Analytical Services - Melville								
1,4-Dioxane (p-Dioxane)	**2.4**	ug/L	0.020		1	07/15/22 11:47	07/15/22 19:45	123-91-1	
Surrogates									
1,4-Dioxane-d8 (S)	102	%	70-130		1	07/15/22 11:47	07/15/22 19:45		
524.2 MSV	Analytical Method: EPA 524.2								
	Pace Analytical Services - Melville								
Benzene	**<0.50**	ug/L	0.50	5	1		07/14/22 20:06	71-43-2	
Bromobenzene	**<0.50**	ug/L	0.50		1		07/14/22 20:06	108-86-1	
Bromochloromethane	**<0.50**	ug/L	0.50		1		07/14/22 20:06	74-97-5	
Bromodichloromethane	**<0.50**	ug/L	0.50	80	1		07/14/22 20:06	75-27-4	
Bromoform	**<0.50**	ug/L	0.50	80	1		07/14/22 20:06	75-25-2	
Bromomethane	**<0.50**	ug/L	0.50		1		07/14/22 20:06	74-83-9	
n-Butylbenzene	**<0.50**	ug/L	0.50		1		07/14/22 20:06	104-51-8	
sec-Butylbenzene	**<0.50**	ug/L	0.50		1		07/14/22 20:06	135-98-8	
tert-Butylbenzene	**<0.50**	ug/L	0.50		1		07/14/22 20:06	98-06-6	
Carbon tetrachloride	**<0.50**	ug/L	0.50	5	1		07/14/22 20:06	56-23-5	
Chlorobenzene	**<0.50**	ug/L	0.50	100	1		07/14/22 20:06	108-90-7	
Chlorodifluoromethane	**<0.50**	ug/L	0.50		1		07/14/22 20:06	75-45-6	N3
Chloroethane	**<0.50**	ug/L	0.50		1		07/14/22 20:06	75-00-3	
Chloroform	**<0.50**	ug/L	0.50	80	1		07/14/22 20:06	67-66-3	
Chloromethane	**<0.50**	ug/L	0.50		1		07/14/22 20:06	74-87-3	
2-Chlorotoluene	**<0.50**	ug/L	0.50		1		07/14/22 20:06	95-49-8	
4-Chlorotoluene	**<0.50**	ug/L	0.50		1		07/14/22 20:06	106-43-4	
Dibromochloromethane	**<0.50**	ug/L	0.50	80	1		07/14/22 20:06	124-48-1	
Dibromomethane	**<0.50**	ug/L	0.50		1		07/14/22 20:06	74-95-3	
1,2-Dichlorobenzene	**<0.50**	ug/L	0.50	600	1		07/14/22 20:06	95-50-1	
1,3-Dichlorobenzene	**<0.50**	ug/L	0.50		1		07/14/22 20:06	541-73-1	
1,4-Dichlorobenzene	**<0.50**	ug/L	0.50	75	1		07/14/22 20:06	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	0.50		1		07/14/22 20:06	75-71-8	L2
1,1-Dichloroethane	**<0.50**	ug/L	0.50		1		07/14/22 20:06	75-34-3	
1,2-Dichloroethane	**<0.50**	ug/L	0.50	5	1		07/14/22 20:06	107-06-2	
1,1-Dichloroethene	**<0.50**	ug/L	0.50	7	1		07/14/22 20:06	75-35-4	
cis-1,2-Dichloroethene	**<0.50**	ug/L	0.50	70	1		07/14/22 20:06	156-59-2	
trans-1,2-Dichloroethene	**<0.50**	ug/L	0.50	100	1		07/14/22 20:06	156-60-5	
1,2-Dichloropropane	**<0.50**	ug/L	0.50	5	1		07/14/22 20:06	78-87-5	
1,3-Dichloropropane	**<0.50**	ug/L	0.50		1		07/14/22 20:06	142-28-9	
2,2-Dichloropropane	**<0.50**	ug/L	0.50		1		07/14/22 20:06	594-20-7	
1,1-Dichloropropene	**<0.50**	ug/L	0.50		1		07/14/22 20:06	563-58-6	
cis-1,3-Dichloropropene	**<0.50**	ug/L	0.50		1		07/14/22 20:06	10061-01-5	
trans-1,3-Dichloropropene	**<0.50**	ug/L	0.50		1		07/14/22 20:06	10061-02-6	
Ethylbenzene	**<0.50**	ug/L	0.50	700	1		07/14/22 20:06	100-41-4	
Hexachloro-1,3-butadiene	**<0.50**	ug/L	0.50		1		07/14/22 20:06	87-68-3	
Isopropylbenzene (Cumene)	**<0.50**	ug/L	0.50		1		07/14/22 20:06	98-82-8	
p-Isopropyltoluene	**<0.50**	ug/L	0.50		1		07/14/22 20:06	99-87-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: 1,4 DIOX/POC 7/6
Pace Project No.: 70221011

Sample: WELL 3A N-14347 (INFLUENT) **Lab ID: 70221011003** Collected: 07/06/22 08:00 Received: 07/06/22 09:45 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
524.2 MSV	Analytical Method: EPA 524.2 Pace Analytical Services - Melville								
Methylene Chloride	**<0.50**	ug/L	0.50	5	1		07/14/22 20:06	75-09-2	
Methyl-tert-butyl ether	**<0.50**	ug/L	0.50		1		07/14/22 20:06	1634-04-4	
n-Propylbenzene	**<0.50**	ug/L	0.50		1		07/14/22 20:06	103-65-1	
Styrene	**<0.50**	ug/L	0.50	100	1		07/14/22 20:06	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.50**	ug/L	0.50		1		07/14/22 20:06	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.50**	ug/L	0.50		1		07/14/22 20:06	79-34-5	
Tetrachloroethene	**<0.50**	ug/L	0.50	5	1		07/14/22 20:06	127-18-4	
Toluene	**<0.50**	ug/L	0.50	1000	1		07/14/22 20:06	108-88-3	
Total Trihalomethanes (Calc.)	**<0.50**	ug/L	0.50	80	1		07/14/22 20:06		
1,2,3-Trichlorobenzene	**<0.50**	ug/L	0.50		1		07/14/22 20:06	87-61-6	
1,2,4-Trichlorobenzene	**<0.50**	ug/L	0.50	70	1		07/14/22 20:06	120-82-1	
1,1,1-Trichloroethane	**<0.50**	ug/L	0.50	200	1		07/14/22 20:06	71-55-6	
1,1,2-Trichloroethane	**<0.50**	ug/L	0.50	5	1		07/14/22 20:06	79-00-5	
Trichloroethene	**12.9**	ug/L	0.50	5	1		07/14/22 20:06	79-01-6	
Trichlorofluoromethane	**<0.50**	ug/L	0.50		1		07/14/22 20:06	75-69-4	
1,2,3-Trichloropropane	**<0.50**	ug/L	0.50		1		07/14/22 20:06	96-18-4	
1,1,2-Trichlorotrifluoroethane	**<0.50**	ug/L	0.50		1		07/14/22 20:06	76-13-1	N3
1,2,4-Trimethylbenzene	**<0.50**	ug/L	0.50		1		07/14/22 20:06	95-63-6	
1,3,5-Trimethylbenzene	**<0.50**	ug/L	0.50		1		07/14/22 20:06	108-67-8	
Vinyl chloride	**<0.50**	ug/L	0.50	2	1		07/14/22 20:06	75-01-4	
m&p-Xylene	**<0.50**	ug/L	0.50		1		07/14/22 20:06	179601-23-1	
o-Xylene	**<0.50**	ug/L	0.50		1		07/14/22 20:06	95-47-6	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	93	%	70-130		1		07/14/22 20:06	2199-69-1	
4-Bromofluorobenzene (S)	97	%	70-130		1		07/14/22 20:06	460-00-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: 1,4 DIOX/POC 7/6
Pace Project No.: 70221011

Sample: WELL 4 N-09338 (INFLUENT) **Lab ID: 70221011004** Collected: 07/06/22 08:15 Received: 07/06/22 09:45 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
522 MSS 1,4 Dioxane (SIM)	Analytical Method: EPA 522 Preparation Method: EPA 522								
	Pace Analytical Services - Melville								
1,4-Dioxane (p-Dioxane)	**1.7**	ug/L	0.020		1	07/15/22 11:47	07/15/22 20:02	123-91-1	
Surrogates									
1,4-Dioxane-d8 (S)	88	%	70-130		1	07/15/22 11:47	07/15/22 20:02		
524.2 MSV	Analytical Method: EPA 524.2								
	Pace Analytical Services - Melville								
Benzene	**<0.50**	ug/L	0.50	5	1		07/14/22 20:33	71-43-2	
Bromobenzene	**<0.50**	ug/L	0.50		1		07/14/22 20:33	108-86-1	
Bromochloromethane	**<0.50**	ug/L	0.50		1		07/14/22 20:33	74-97-5	
Bromodichloromethane	**<0.50**	ug/L	0.50	80	1		07/14/22 20:33	75-27-4	
Bromoform	**<0.50**	ug/L	0.50	80	1		07/14/22 20:33	75-25-2	
Bromomethane	**<0.50**	ug/L	0.50		1		07/14/22 20:33	74-83-9	
n-Butylbenzene	**<0.50**	ug/L	0.50		1		07/14/22 20:33	104-51-8	
sec-Butylbenzene	**<0.50**	ug/L	0.50		1		07/14/22 20:33	135-98-8	
tert-Butylbenzene	**<0.50**	ug/L	0.50		1		07/14/22 20:33	98-06-6	
Carbon tetrachloride	**<0.50**	ug/L	0.50	5	1		07/14/22 20:33	56-23-5	
Chlorobenzene	**<0.50**	ug/L	0.50	100	1		07/14/22 20:33	108-90-7	
Chlorodifluoromethane	**<0.50**	ug/L	0.50		1		07/14/22 20:33	75-45-6	N3
Chloroethane	**<0.50**	ug/L	0.50		1		07/14/22 20:33	75-00-3	
Chloroform	**<0.50**	ug/L	0.50	80	1		07/14/22 20:33	67-66-3	
Chloromethane	**<0.50**	ug/L	0.50		1		07/14/22 20:33	74-87-3	
2-Chlorotoluene	**<0.50**	ug/L	0.50		1		07/14/22 20:33	95-49-8	
4-Chlorotoluene	**<0.50**	ug/L	0.50		1		07/14/22 20:33	106-43-4	
Dibromochloromethane	**<0.50**	ug/L	0.50	80	1		07/14/22 20:33	124-48-1	
Dibromomethane	**<0.50**	ug/L	0.50		1		07/14/22 20:33	74-95-3	
1,2-Dichlorobenzene	**<0.50**	ug/L	0.50	600	1		07/14/22 20:33	95-50-1	
1,3-Dichlorobenzene	**<0.50**	ug/L	0.50		1		07/14/22 20:33	541-73-1	
1,4-Dichlorobenzene	**<0.50**	ug/L	0.50	75	1		07/14/22 20:33	106-46-7	
Dichlorodifluoromethane	**<0.50**	ug/L	0.50		1		07/14/22 20:33	75-71-8	L2
1,1-Dichloroethane	**<0.50**	ug/L	0.50		1		07/14/22 20:33	75-34-3	
1,2-Dichloroethane	**<0.50**	ug/L	0.50	5	1		07/14/22 20:33	107-06-2	
1,1-Dichloroethene	**<0.50**	ug/L	0.50	7	1		07/14/22 20:33	75-35-4	
cis-1,2-Dichloroethene	**<0.50**	ug/L	0.50	70	1		07/14/22 20:33	156-59-2	
trans-1,2-Dichloroethene	**<0.50**	ug/L	0.50	100	1		07/14/22 20:33	156-60-5	
1,2-Dichloropropane	**<0.50**	ug/L	0.50	5	1		07/14/22 20:33	78-87-5	
1,3-Dichloropropane	**<0.50**	ug/L	0.50		1		07/14/22 20:33	142-28-9	
2,2-Dichloropropane	**<0.50**	ug/L	0.50		1		07/14/22 20:33	594-20-7	
1,1-Dichloropropene	**<0.50**	ug/L	0.50		1		07/14/22 20:33	563-58-6	
cis-1,3-Dichloropropene	**<0.50**	ug/L	0.50		1		07/14/22 20:33	10061-01-5	
trans-1,3-Dichloropropene	**<0.50**	ug/L	0.50		1		07/14/22 20:33	10061-02-6	
Ethylbenzene	**<0.50**	ug/L	0.50	700	1		07/14/22 20:33	100-41-4	
Hexachloro-1,3-butadiene	**<0.50**	ug/L	0.50		1		07/14/22 20:33	87-68-3	
Isopropylbenzene (Cumene)	**<0.50**	ug/L	0.50		1		07/14/22 20:33	98-82-8	
p-Isopropyltoluene	**<0.50**	ug/L	0.50		1		07/14/22 20:33	99-87-6	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

ANALYTICAL RESULTS

Project: 1,4 DIOX/POC 7/6
Pace Project No.: 70221011

Sample: WELL 4 N-09338 (INFLUENT) **Lab ID: 70221011004** Collected: 07/06/22 08:15 Received: 07/06/22 09:45 Matrix: Drinking Water

Parameters	Results	Units	Report Limit	Reg. Limit	DF	Prepared	Analyzed	CAS No.	Qual
524.2 MSV	Analytical Method: EPA 524.2 Pace Analytical Services - Melville								
Methylene Chloride	**<0.50**	ug/L	0.50	5	1		07/14/22 20:33	75-09-2	
Methyl-tert-butyl ether	**<0.50**	ug/L	0.50		1		07/14/22 20:33	1634-04-4	
n-Propylbenzene	**<0.50**	ug/L	0.50		1		07/14/22 20:33	103-65-1	
Styrene	**<0.50**	ug/L	0.50	100	1		07/14/22 20:33	100-42-5	
1,1,1,2-Tetrachloroethane	**<0.50**	ug/L	0.50		1		07/14/22 20:33	630-20-6	
1,1,2,2-Tetrachloroethane	**<0.50**	ug/L	0.50		1		07/14/22 20:33	79-34-5	
Tetrachloroethene	**<0.50**	ug/L	0.50	5	1		07/14/22 20:33	127-18-4	
Toluene	**<0.50**	ug/L	0.50	1000	1		07/14/22 20:33	108-88-3	
Total Trihalomethanes (Calc.)	**<0.50**	ug/L	0.50	80	1		07/14/22 20:33		
1,2,3-Trichlorobenzene	**<0.50**	ug/L	0.50		1		07/14/22 20:33	87-61-6	
1,2,4-Trichlorobenzene	**<0.50**	ug/L	0.50	70	1		07/14/22 20:33	120-82-1	
1,1,1-Trichloroethane	**<0.50**	ug/L	0.50	200	1		07/14/22 20:33	71-55-6	
1,1,2-Trichloroethane	**<0.50**	ug/L	0.50	5	1		07/14/22 20:33	79-00-5	
Trichloroethene	**2.2**	ug/L	0.50	5	1		07/14/22 20:33	79-01-6	
Trichlorofluoromethane	**<0.50**	ug/L	0.50		1		07/14/22 20:33	75-69-4	
1,2,3-Trichloropropane	**<0.50**	ug/L	0.50		1		07/14/22 20:33	96-18-4	
1,1,2-Trichlorotrifluoroethane	**<0.50**	ug/L	0.50		1		07/14/22 20:33	76-13-1	N3
1,2,4-Trimethylbenzene	**<0.50**	ug/L	0.50		1		07/14/22 20:33	95-63-6	
1,3,5-Trimethylbenzene	**<0.50**	ug/L	0.50		1		07/14/22 20:33	108-67-8	
Vinyl chloride	**<0.50**	ug/L	0.50	2	1		07/14/22 20:33	75-01-4	
m&p-Xylene	**<0.50**	ug/L	0.50		1		07/14/22 20:33	179601-23-1	
o-Xylene	**<0.50**	ug/L	0.50		1		07/14/22 20:33	95-47-6	
Surrogates									
1,2-Dichlorobenzene-d4 (S)	93	%	70-130		1		07/14/22 20:33	2199-69-1	
4-Bromofluorobenzene (S)	94	%	70-130		1		07/14/22 20:33	460-00-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: 1,4 DIOX/POC 7/6
Pace Project No.: 70221011

QC Batch: 264951
QC Batch Method: EPA 524.2
Analysis Method: EPA 524.2
Analysis Description: 524.2 MSV
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70221011001, 70221011002, 70221011003, 70221011004

METHOD BLANK: 1338912 Matrix: Water
Associated Lab Samples: 70221011001, 70221011002, 70221011003, 70221011004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.50	0.50	07/14/22 16:27	
1,1,1-Trichloroethane	ug/L	<0.50	0.50	07/14/22 16:27	
1,1,2,2-Tetrachloroethane	ug/L	<0.50	0.50	07/14/22 16:27	
1,1,2-Trichloroethane	ug/L	<0.50	0.50	07/14/22 16:27	
1,1,2-Trichlorotrifluoroethane	ug/L	<0.50	0.50	07/14/22 16:27	N3
1,1-Dichloroethane	ug/L	<0.50	0.50	07/14/22 16:27	
1,1-Dichloroethene	ug/L	<0.50	0.50	07/14/22 16:27	
1,1-Dichloropropene	ug/L	<0.50	0.50	07/14/22 16:27	
1,2,3-Trichlorobenzene	ug/L	<0.50	0.50	07/14/22 16:27	
1,2,3-Trichloropropane	ug/L	<0.50	0.50	07/14/22 16:27	
1,2,4-Trichlorobenzene	ug/L	<0.50	0.50	07/14/22 16:27	
1,2,4-Trimethylbenzene	ug/L	<0.50	0.50	07/14/22 16:27	
1,2-Dichlorobenzene	ug/L	<0.50	0.50	07/14/22 16:27	
1,2-Dichloroethane	ug/L	<0.50	0.50	07/14/22 16:27	
1,2-Dichloropropane	ug/L	<0.50	0.50	07/14/22 16:27	
1,3,5-Trimethylbenzene	ug/L	<0.50	0.50	07/14/22 16:27	
1,3-Dichlorobenzene	ug/L	<0.50	0.50	07/14/22 16:27	
1,3-Dichloropropane	ug/L	<0.50	0.50	07/14/22 16:27	
1,4-Dichlorobenzene	ug/L	<0.50	0.50	07/14/22 16:27	
2,2-Dichloropropane	ug/L	<0.50	0.50	07/14/22 16:27	
2-Chlorotoluene	ug/L	<0.50	0.50	07/14/22 16:27	
4-Chlorotoluene	ug/L	<0.50	0.50	07/14/22 16:27	
Benzene	ug/L	<0.50	0.50	07/14/22 16:27	
Bromobenzene	ug/L	<0.50	0.50	07/14/22 16:27	
Bromochloromethane	ug/L	<0.50	0.50	07/14/22 16:27	
Bromodichloromethane	ug/L	<0.50	0.50	07/14/22 16:27	
Bromoform	ug/L	<0.50	0.50	07/14/22 16:27	
Bromomethane	ug/L	<0.50	0.50	07/14/22 16:27	
Carbon tetrachloride	ug/L	<0.50	0.50	07/14/22 16:27	
Chlorobenzene	ug/L	<0.50	0.50	07/14/22 16:27	
Chlorodifluoromethane	ug/L	<0.50	0.50	07/14/22 16:27	N3
Chloroethane	ug/L	<0.50	0.50	07/14/22 16:27	
Chloroform	ug/L	<0.50	0.50	07/14/22 16:27	
Chloromethane	ug/L	<0.50	0.50	07/14/22 16:27	
cis-1,2-Dichloroethene	ug/L	<0.50	0.50	07/14/22 16:27	
cis-1,3-Dichloropropene	ug/L	<0.50	0.50	07/14/22 16:27	
Dibromochloromethane	ug/L	<0.50	0.50	07/14/22 16:27	
Dibromomethane	ug/L	<0.50	0.50	07/14/22 16:27	
Dichlorodifluoromethane	ug/L	<0.50	0.50	07/14/22 16:27	
Ethylbenzene	ug/L	<0.50	0.50	07/14/22 16:27	

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.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: 1,4 DIOX/POC 7/6
Pace Project No.: 70221011

METHOD BLANK: 1338912 Matrix: Water
Associated Lab Samples: 70221011001, 70221011002, 70221011003, 70221011004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Hexachloro-1,3-butadiene	ug/L	<0.50	0.50	07/14/22 16:27	
Isopropylbenzene (Cumene)	ug/L	<0.50	0.50	07/14/22 16:27	
m&p-Xylene	ug/L	<0.50	0.50	07/14/22 16:27	
Methyl-tert-butyl ether	ug/L	<0.50	0.50	07/14/22 16:27	
Methylene Chloride	ug/L	<0.50	0.50	07/14/22 16:27	
n-Butylbenzene	ug/L	<0.50	0.50	07/14/22 16:27	
n-Propylbenzene	ug/L	<0.50	0.50	07/14/22 16:27	
o-Xylene	ug/L	<0.50	0.50	07/14/22 16:27	
p-Isopropyltoluene	ug/L	<0.50	0.50	07/14/22 16:27	
sec-Butylbenzene	ug/L	<0.50	0.50	07/14/22 16:27	
Styrene	ug/L	<0.50	0.50	07/14/22 16:27	
tert-Butylbenzene	ug/L	<0.50	0.50	07/14/22 16:27	
Tetrachloroethene	ug/L	<0.50	0.50	07/14/22 16:27	
Toluene	ug/L	<0.50	0.50	07/14/22 16:27	
Total Trihalomethanes (Calc.)	ug/L	<0.50	0.50	07/14/22 16:27	
trans-1,2-Dichloroethene	ug/L	<0.50	0.50	07/14/22 16:27	
trans-1,3-Dichloropropene	ug/L	<0.50	0.50	07/14/22 16:27	
Trichloroethene	ug/L	<0.50	0.50	07/14/22 16:27	
Trichlorofluoromethane	ug/L	<0.50	0.50	07/14/22 16:27	
Vinyl chloride	ug/L	<0.50	0.50	07/14/22 16:27	
1,2-Dichlorobenzene-d4 (S)	%	96	70-130	07/14/22 16:27	
4-Bromofluorobenzene (S)	%	90	70-130	07/14/22 16:27	

LABORATORY CONTROL SAMPLE: 1338913

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	10	10.1	101	70-130	
1,1,1-Trichloroethane	ug/L	10	9.8	98	70-130	
1,1,2,2-Tetrachloroethane	ug/L	10	10.0	100	70-130	
1,1,2-Trichloroethane	ug/L	10	10.4	104	70-130	
1,1,2-Trichlorotrifluoroethane	ug/L	10	8.5	85	70-130	N3
1,1-Dichloroethane	ug/L	10	10	100	70-130	
1,1-Dichloroethene	ug/L	10	8.1	81	70-130	
1,1-Dichloropropene	ug/L	10	10.1	101	70-130	
1,2,3-Trichlorobenzene	ug/L	10	10.7	107	70-130	
1,2,3-Trichloropropane	ug/L	10	10.5	105	70-130	
1,2,4-Trichlorobenzene	ug/L	10	10.3	103	70-130	
1,2,4-Trimethylbenzene	ug/L	10	10.7	107	70-130	
1,2-Dichlorobenzene	ug/L	10	11.3	113	70-130	
1,2-Dichloroethane	ug/L	10	9.9	99	70-130	
1,2-Dichloropropane	ug/L	10	9.7	97	70-130	
1,3,5-Trimethylbenzene	ug/L	10	10.3	103	70-130	
1,3-Dichlorobenzene	ug/L	10	11.3	113	70-130	
1,3-Dichloropropane	ug/L	10	10.4	104	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.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: 1,4 DIOX/POC 7/6
Pace Project No.: 70221011

LABORATORY CONTROL SAMPLE: 1338913

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dichlorobenzene	ug/L	10	11.5	115	70-130	
2,2-Dichloropropane	ug/L	10	9.7	97	70-130	
2-Chlorotoluene	ug/L	10	10.4	104	70-130	
4-Chlorotoluene	ug/L	10	10.7	107	70-130	
Benzene	ug/L	10	10.2	102	70-130	
Bromobenzene	ug/L	10	11.0	110	70-130	
Bromochloromethane	ug/L	10	10.7	107	70-130	
Bromodichloromethane	ug/L	10	9.1	91	70-130	
Bromoform	ug/L	10	8.5	85	70-130	
Bromomethane	ug/L	10	10.0	100	70-130	
Carbon tetrachloride	ug/L	10	9.4	94	70-130	
Chlorobenzene	ug/L	10	10.7	107	70-130	
Chlorodifluoromethane	ug/L	10	8.8	88	70-130	N3
Chloroethane	ug/L	10	9.8	98	70-130	
Chloroform	ug/L	10	10.0	100	70-130	
Chloromethane	ug/L	10	7.7	77	70-130	
cis-1,2-Dichloroethene	ug/L	10	9.5	95	70-130	
cis-1,3-Dichloropropene	ug/L	10	9.2	92	70-130	
Dibromochloromethane	ug/L	10	8.7	87	70-130	
Dibromomethane	ug/L	10	10.5	105	70-130	
Dichlorodifluoromethane	ug/L	10	5.2	52	70-130	L2
Ethylbenzene	ug/L	10	11.0	110	70-130	
Hexachloro-1,3-butadiene	ug/L	10	9.7	97	70-130	
Isopropylbenzene (Cumene)	ug/L	10	10.6	106	70-130	
m&p-Xylene	ug/L	20	21.5	107	70-130	
Methyl-tert-butyl ether	ug/L	10	7.6	76	70-130	
Methylene Chloride	ug/L	10	11.3	113	70-130	
n-Butylbenzene	ug/L	10	11.4	114	70-130	
n-Propylbenzene	ug/L	10	11.0	110	70-130	
o-Xylene	ug/L	10	10.7	107	70-130	
p-Isopropyltoluene	ug/L	10	10.7	107	70-130	
sec-Butylbenzene	ug/L	10	10.7	107	70-130	
Styrene	ug/L	10	10.6	106	70-130	
tert-Butylbenzene	ug/L	10	10.9	109	70-130	
Tetrachloroethene	ug/L	10	10.3	103	70-130	
Toluene	ug/L	10	10.4	104	70-130	
Total Trihalomethanes (Calc.)	ug/L		36.2			
trans-1,2-Dichloroethene	ug/L	10	9.8	98	70-130	
trans-1,3-Dichloropropene	ug/L	10	8.9	89	70-130	
Trichloroethene	ug/L	10	10.3	103	70-130	
Trichlorofluoromethane	ug/L	10	10.9	109	70-130	
Vinyl chloride	ug/L	10	7.9	79	70-130	
1,2-Dichlorobenzene-d4 (S)	%			108	70-130	
4-Bromofluorobenzene (S)	%			102	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.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: 1,4 DIOX/POC 7/6
Pace Project No.: 70221011

SAMPLE DUPLICATE: 1339450

Parameter	Units	70221011004 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	<0.50	<0.50		20	
1,1,1-Trichloroethane	ug/L	<0.50	<0.50		20	
1,1,2,2-Tetrachloroethane	ug/L	<0.50	<0.50		20	
1,1,2-Trichloroethane	ug/L	<0.50	<0.50		20	
1,1,2-Trichlorotrifluoroethane	ug/L	<0.50	<0.50		20	N3
1,1-Dichloroethane	ug/L	<0.50	<0.50		20	
1,1-Dichloroethene	ug/L	<0.50	<0.50		20	
1,1-Dichloropropene	ug/L	<0.50	<0.50		20	
1,2,3-Trichlorobenzene	ug/L	<0.50	<0.50		20	
1,2,3-Trichloropropane	ug/L	<0.50	<0.50		20	
1,2,4-Trichlorobenzene	ug/L	<0.50	<0.50		20	
1,2,4-Trimethylbenzene	ug/L	<0.50	<0.50		20	
1,2-Dichlorobenzene	ug/L	<0.50	<0.50		20	
1,2-Dichloroethane	ug/L	<0.50	<0.50		20	
1,2-Dichloropropane	ug/L	<0.50	<0.50		20	
1,3,5-Trimethylbenzene	ug/L	<0.50	<0.50		20	
1,3-Dichlorobenzene	ug/L	<0.50	<0.50		20	
1,3-Dichloropropane	ug/L	<0.50	<0.50		20	
1,4-Dichlorobenzene	ug/L	<0.50	<0.50		20	
2,2-Dichloropropane	ug/L	<0.50	<0.50		20	
2-Chlorotoluene	ug/L	<0.50	<0.50		20	
4-Chlorotoluene	ug/L	<0.50	<0.50		20	
Benzene	ug/L	<0.50	<0.50		20	
Bromobenzene	ug/L	<0.50	<0.50		20	
Bromochloromethane	ug/L	<0.50	<0.50		20	
Bromodichloromethane	ug/L	<0.50	<0.50		20	
Bromoform	ug/L	<0.50	<0.50		20	
Bromomethane	ug/L	<0.50	<0.50		20	
Carbon tetrachloride	ug/L	<0.50	<0.50		20	
Chlorobenzene	ug/L	<0.50	<0.50		20	
Chlorodifluoromethane	ug/L	<0.50	<0.50		20	N3
Chloroethane	ug/L	<0.50	<0.50		20	
Chloroform	ug/L	<0.50	<0.50		20	
Chloromethane	ug/L	<0.50	<0.50		20	
cis-1,2-Dichloroethene	ug/L	<0.50	<0.50		20	
cis-1,3-Dichloropropene	ug/L	<0.50	<0.50		20	
Dibromochloromethane	ug/L	<0.50	<0.50		20	
Dibromomethane	ug/L	<0.50	<0.50		20	
Dichlorodifluoromethane	ug/L	<0.50	<0.50		20	
Ethylbenzene	ug/L	<0.50	<0.50		20	
Hexachloro-1,3-butadiene	ug/L	<0.50	<0.50		20	
Isopropylbenzene (Cumene)	ug/L	<0.50	<0.50		20	
m&p-Xylene	ug/L	<0.50	<0.50		20	
Methyl-tert-butyl ether	ug/L	<0.50	<0.50		20	
Methylene Chloride	ug/L	<0.50	<0.50		20	
n-Butylbenzene	ug/L	<0.50	<0.50		20	
n-Propylbenzene	ug/L	<0.50	<0.50		20	

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.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: 1,4 DIOX/POC 7/6
Pace Project No.: 70221011

SAMPLE DUPLICATE: 1339450

Parameter	Units	70221011004 Result	Dup Result	RPD	Max RPD	Qualifiers
o-Xylene	ug/L	<0.50	<0.50		20	
p-Isopropyltoluene	ug/L	<0.50	<0.50		20	
sec-Butylbenzene	ug/L	<0.50	<0.50		20	
Styrene	ug/L	<0.50	<0.50		20	
tert-Butylbenzene	ug/L	<0.50	<0.50		20	
Tetrachloroethene	ug/L	<0.50	<0.50		20	
Toluene	ug/L	<0.50	<0.50		20	
Total Trihalomethanes (Calc.)	ug/L	<0.50	<0.50		20	
trans-1,2-Dichloroethene	ug/L	<0.50	<0.50		20	
trans-1,3-Dichloropropene	ug/L	<0.50	<0.50		20	
Trichloroethene	ug/L	2.2	2.0	12	20	
Trichlorofluoromethane	ug/L	<0.50	<0.50		20	
Vinyl chloride	ug/L	<0.50	<0.50		20	
1,2-Dichlorobenzene-d4 (S)	%	93	89		20	
4-Bromofluorobenzene (S)	%	94	90		20	

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.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA

Project: 1,4 DIOX/POC 7/6
Pace Project No.: 70221011

QC Batch: 264744
QC Batch Method: EPA 522
Analysis Method: EPA 522
Analysis Description: 522 MSS 1,4 Dioxane
Laboratory: Pace Analytical Services - Melville
Associated Lab Samples: 70221011001, 70221011003, 70221011004

METHOD BLANK: 1337843 Matrix: Drinking Water
Associated Lab Samples: 70221011001, 70221011003, 70221011004

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	<0.020	0.020	07/15/22 17:29	
1,4-Dioxane-d8 (S)	%	88	70-130	07/15/22 17:29	

LABORATORY CONTROL SAMPLE: 1337844

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	0.02	0.022	109	70-130	
1,4-Dioxane-d8 (S)	%			97	70-130	

MATRIX SPIKE SAMPLE: 1337845

Parameter	Units	70220982001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	<0.020	0.02	0.031	97	70-130	
1,4-Dioxane-d8 (S)	%				93	70-130	

SAMPLE DUPLICATE: 1337846

Parameter	Units	70221005001 Result	Dup Result	RPD	Max RPD	Qualifiers
1,4-Dioxane (p-Dioxane)	ug/L	<0.020	<0.020		30	
1,4-Dioxane-d8 (S)	%	87	98		30	

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.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALIFIERS

Project: 1,4 DIOX/POC 7/6
Pace Project No.: 70221011

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.

ANALYTE QUALIFIERS

L2	Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results for this analyte in associated samples may be biased low.
N3	Accreditation is not offered by the relevant laboratory accrediting body for this parameter.

Pace Analytical Services, LLC
575 Broad Hollow Road
Melville, NY 11747
(631)694-3040

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 1,4 DIOX/POC 7/6
Pace Project No.: 70221011

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
70221011001	**GAC-3S/4S (SEAMAN NECK GAC EFF**	EPA 522	264744	EPA 522	265177
70221011003	**WELL 3A N-14347 (INFLUENT)**	EPA 522	264744	EPA 522	265177
70221011004	**WELL 4 N-09338 (INFLUENT)**	EPA 522	264744	EPA 522	265177
70221011001	**GAC-3S/4S (SEAMAN NECK GAC EFF**	EPA 524.2	264951		
70221011002	**GAC-3S/4S (SEAMAN NECK GAC -DU**	EPA 524.2	264951		
70221011003	**WELL 3A N-14347 (INFLUENT)**	EPA 524.2	264951		
70221011004	**WELL 4 N-09338 (INFLUENT)**	EPA 524.2	264951		

WO# : 70221011

70221011

CHAIN-OF-CUSTODY / Analytic

The Chain-of-Custody is a LEGAL DOCUMENT. A

Page : 1 Of 1

Section A — Required Client Information:

Company:	KOMAN Government Solutions, LLC
Address:	180 Gordon Dr., Suite 110
	Exton, PA
Email:	RGregory@komangs.com
Phone: (610) 400-0636	Fax:
Requested Due Date:	

Section B — Required Project Information:

Report To:	Robert Gregory
Copy To:	NCDOH
Purchase Order #:	02607-005
Project Name:	NYAW-MERRICK OPS FACILITY
Project #:	02607-005

Section C — Invoice Information:

Attention:	Accounts Payable
Company Name:	KOMAN Government Solutions, LLC
Address:	accountspayable@komangs.com
Pace Quote:	
Pace Project Manager:	Kimberley.Mack@Pacelabs.com
Pace Profile #:	

Regulatory Agency:

State / Location: NY

MATRIX / CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	POC (VOCs by 524.2)	1,4-dioxane (522)	Residual Chlorine (Y/N)
1	GAC-3S/4S (Seaman Neck GAC Effluent)	DW	G			7622	7:30		4				X		X				X	X	
2	GAC-3S/4S (Seaman Neck GAC Effluent)-D	DW	G			7622	7:45		2				X						X		
3	Well 3A N-14347 (Influent)	DW	G			7622	8:00		4				X		X				X	X	
4	Well 4 N-09338 (Influent)	DW	G			7622	8:15		4				X		X				X	X	
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
	Randy Hoffmaster	7-6-2022		Syed	7/6/22	9:45 AM	4.6	Y	N	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Randy Hoffmaster

SIGNATURE of SAMPLER: Randy Hoffmaster

DATE Signed: 7-6-2022

TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

Pace Analytical®

Sample Condition Upon Receipt

WO#: 70221011
PM: KMM Due Date: 07/15/22
CLIENT: KGS

Client Name: KGS Proje

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☑ Client ☐ Commercial ☐ Pace ☐ Other

Tracking #:

Custody Seal on Cooler/Box Present: ☐ Yes ☒ No Seals intact: ☐ Yes ☐ No ☒ N/A

Temperature Blank Present: ☐ Yes ☒ No

Packing Material: ☐ Bubble Wrap ☒ Bubble Bags ☒ Ziplocs ☐ None ☐ Other

Type of Ice: ☑ Wet Blue None

Thermometer Used: ~~TH091~~ TH148 Correction Factor: + 0.1

☐ Samples on ice, cooling process has begun

Cooler Temperature(°C): 4.6 Cooler Temperature Corrected(°C): 4.7

Date/Time 5035A kits placed in freezer

Temp should be above freezing to 6.0°C

USDA Regulated Soil (☒ N/A, water sample)

Date and Initials of person examining contents: KW 7/6/22

Did samples originate in a quarantine zone within the United States: AL, AR, CA, FL, GA, ID, LA, MS, NC, NM, NY, OK, OR, SC, TN, TX, or VA (check map)? ☐ Yes ☐ No

Did samples orignate from a foreign source including Hawaii and Puerto Rico)? ☐ Yes ☒ No

If Yes to either question, fill out a Regulated Soil Checklist (F-LI-C-010) and include with SCUR/COC paperwork.

				COMMENTS:
Chain of Custody Present:	☑ Yes	☐ No		1.
Chain of Custody Filled Out:	☑ Yes	☐ No		2.
Chain of Custody Relinquished:	☑ Yes	☐ No		3.
Sampler Name & Signature on COC:	☑ Yes	☐ No	☐ N/A	4.
Samples Arrived within Hold Time:	☑ Yes	☐ No		5.
Short Hold Time Analysis (<72hr):	☐ Yes	☑ No		6.
Rush Turn Around Time Requested:	☐ Yes	☑ No		7.
Sufficient Volume: (Triple volume provided for I	☑ Yes	☐ No		8.
Correct Containers Used:	☑ Yes	☐ No		9.
-Pace Containers Used:	☑ Yes	☐ No		
Containers Intact:	☑ Yes	☐ No		10.
Filtered volume received for Dissolved tests	☐ Yes	☐ No	☑ N/A	11. Note if sediment is visible in the dissolved container.
Sample Labels match COC:	☑ Yes	☐ No		12.
-Includes date/time/ID/ Matrix: SL WT OIL				
All containers needing preservation have been checked?	☐ Yes	☐ No	☑ N/A	13. ☐ HNO_3 ☐ H_2SO_4 ☐ NaOH ☐ HCl
pH paper Lot #				
All containers needing preservation are found to be in compliance with method recommendation? (HNO_3, H_2SO_4, HCl, NaOH>9 Sulfide, NAOH>12 Cyanide)	☐ Yes	☐ No	☑ N/A	Sample #
Exceptions: VOA, Coliform, TOC/DOC, Oil and Grease, DRO/8015 (water). Per Method, VOA pH is checked after analysis				Initial when completed: / Lot # of added preservative: / Date/Time preservative added:
Samples checked for dechlorination:	☐ Yes	☐ No	☑ N/A	14.
KI starch test strips Lot #				
Residual chlorine strips Lot #				Positive for Res. Chlorine? Y N
SM 4500 CN samples checked for sulfide?	☐ Yes	☐ No	☑ N/A	15.
Lead Acetate Strips Lot #				Positive for Sulfide? Y N
Headspace in VOA Vials (>6mm):	☐ Yes	☑ No	☐ N/A	16.
Trip Blank Present:	☐ Yes	☑ No	☐ N/A	17.
Trip Blank Custody Seals Present	☐ Yes	☐ No	☑ N/A	
Pace Trip Blank Lot # (if applicable):				

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: Date/Time:

Comments/ Resolution:

* PM (Project Manager) review is documented electronically in LIMS.