The Chemours Company
500 West Jefferson Street
Suite 1600
Louisville, KY 40202

502-569-2301 t
chemours.com

February 1, 2017

Mr. Paul Bretting
Bretting Development Corporation
3401 Lake Park Road
Ashland, WI 54806

RE: Clubhouse Groundwater Sample Results and Carbon Cylinder Replacement
72315 State Highway 13
Town of Barksdale, Wisconsin

Dear Mr. Bretting:

On August 31, 2016 and November 30, 2016, a Chemours representative collected groundwater samples from the inflow port (i.e., preceding the granular activated carbon [GAC] cylinders) connected to the clubhouse well (see Figure 1). The samples were submitted to TestAmerica Laboratories for nitroaromatic and nitramine organic constituents (NNOCs) analysis. As has been the case historically (since 2002), NNOCs were not detected above laboratory detection limits (see Table 1).

In addition to groundwater sampling, Chemours representatives replaced the GAC cylinders on November 11, 2016. There was no water leakage observed within the system following the cylinder replacement; however, if you notice any water leakage or other issues with the system, please let me know.

I anticipate the next round of groundwater sampling (for NNOCs only) will be conducted sometime in the fourth quarter of 2017. If you have any questions or comments, please feel free to contact me by telephone at (812) 923-1136 or by email at Bradley.S.Nave@chemours.com.

Sincerely,

Bradley S. Nave
Chemours Corporate Remediation Group

Attachments: Table 1 - Historical Clubhouse Inflow Groundwater Sample Results
Figure 1 - Clubhouse Water System Flow Diagram
TestAmerica Laboratory Analytical Reports (2)

cc: Cary E. Pooler, AECOM
Nicholas F. Shorkey, AECOM
Christopher A. Saari, WDNR

Table 1
Historical Clubhouse Inflow Groundwater Sample Results

Table 1
Historic Clubhouse Inflow Ground Water Sample Results
Former DuPont Barksdale Works
Barksdale, Wisconsin

Location ID	CLUB HOUSE-INFLOW	CLUB HOUSE-INFLOW	CLUB HOUSE-INFLOW	CLUB HOUSE-INFLOW	CLUB HOUSE-INFLOW	CLUB HOUSE-INFLOW	CLUB HOUSE-INFLOW	CLUB HOUSE-INFLOW	CLUB HOUSE-INFLOW	CLUB HOUSE-INFLOW	CLUB HOUSE-INFLOW	CLUB HOUSE-INFLOW	CLUB HOUSE-INFLOW	CLUB HOUSE-INFLOW
Date Sampled	12/02/1998	12/04/1998	04/14/1999	07/12/1999	10/12/1999	12/14/1999	04/20/2000	07/11/2000	10/17/2000	12/12/2000	04/23/2001	10/16/2001	10/16/2001	05/15/2002
Parameter Name	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result
NNOCs Target Analytes (µg/L)														
1,3,5-Trinitrobenzene	<0.026	--	<0.019	<0.019	<0.019	<0.019	<0.030	<0.038	<0.033	<0.033	<0.017	<0.017	<0.017	<0.025
1,3-Dinitrobenzene	<0.011	--	<0.012	<0.012	<0.012	<0.012	<0.010	<0.069	<0.035	<0.035	<0.020	<0.020	<0.020	<0.023
1-Methyl-3-Nitrobenzene	<0.030	--	<0.18	<0.18	<0.18	<0.18	<0.080	<0.061	<0.017	<0.017	<0.019	<0.019	<0.019	<0.027
1-Methyl-4-Nitrobenzene	--	--	--	--	--	--	<0.50	--	--	--	<0.019	<0.019	<0.019	<0.025
2-Amino-4,6-Dinitrotoluene	<0.024	--	<0.034	<0.034	<0.034	<0.034	<0.020	<0.082	<0.039	<0.039	<0.013	<0.013	<0.013	<0.036
2-Nitrotoluene	--	--	--	--	--	--	<0.080	--	--	--	<0.019	<0.019	<0.019	<0.026
2- And 4-Nitrotoluene	<0.024	--	<0.16	<0.16	<0.16	<0.16	--	<0.063	**0.18 U**	<0.090	--	--	--	--
2,4,6-Trinitrotoluene	<0.018	--	<0.059	<0.059	<0.059	<0.059	<0.030	<0.058	<0.032	<0.032	<0.049	<0.049	<0.049	<0.021
2,4,6-Trinitroxylene	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4-Amino-2,6-Dinitrotoluene	<0.021	--	<0.011	<0.011	<0.011	<0.011	<0.040	<0.046	<0.037 UJ	<0.037	<0.017	<0.017	<0.017	<0.020
Nitrobenzene	<0.088	--	<0.088	<0.088	<0.088	<0.088	--	<0.088	**0.044 J**	<0.039	<0.049	<0.049	<0.049	<0.030
Nitroglycerin	<5.0	--	<5.0	<5.0	<5.0	<5.0	<5.0	--	<5.0	--	--	--	--	--
HMX	<0.047	--	<0.036	<0.036	<0.036	<0.036	<0.040	<0.036	<0.040 UJ	<0.040	<0.022	<0.022	<0.022	<0.040
PETN	<0.069	--	<0.069	<0.069	<0.069	<0.069	<0.20	<0.069	<0.033	<0.033	<0.020	<0.020	<0.020	<0.051
RDX	<0.043	--	<0.015	<0.015	<0.015	<0.015	<0.060	<0.075	<0.027 UJ	<0.027	<0.028	<0.028	<0.028	<0.020
Tetryl	<0.030	--	<0.043	<0.043	<0.043	<0.043	<0.020	<0.065	<0.037	<0.037	<0.019	<0.019	<0.019	<0.024
NNOCs DNT Isomers (µg/L)														
2,3-Dinitrotoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4-Dinitrotoluene	<0.025	--	<0.017	<0.017	<0.017	<0.017	<0.030	<0.115	**0.13 J**	<0.040	<0.016	<0.016	<0.016	<0.026
2,5-Dinitrotoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--
2,6-Dinitrotoluene	<0.020	--	<0.010	<0.010	<0.010	<0.010	<0.040	<0.054	**0.045 J**	<0.039	<0.012	<0.012	<0.012	<0.022
3,4-Dinitrotoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--
3,5-Dinitrotoluene	--	--	--	--	--	--	--	--	--	--	--	--	--	--
NNOCs DNX Isomers (µg/L)														
1,2-Dimethyl-3,4-Dinitrobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dimethyl-3,5-Dinitrobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dimethyl-3,6-Dinitrobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dimethyl-4,5-Dinitrobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dimethyl-2,4-Dinitrobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,3-Dimethyl-2,5-Dinitrobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dimethyl-2,3-Dinitrobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,4-Dimethyl-2,5-Dinitrobenzene	**73.0**	--	**76.0**	**78.0**	**80.0**	**76.0**	**100**	--	**86.0**	--	--	--	--	**57.0**
1,4-Dimethyl-2,6-Dinitrobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,5-Dimethyl-2,3-Dinitrobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,5-Dimethyl-2,4-Dinitrobenzene	--	--	--	--	--	--	--	--	--	--	--	--	--	--
SVOCs (µg/L)														
Naphthalene	--	--	--	--	--	--	--	--	<0.15	--	--	--	--	<0.78
Anions (µg/L)														
Perchlorate	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:
NNOC = Nitraromatic and Nitramine Organic Constituents
DNT = Dinitrotoluene
DNX = Dintroxylene
SVOC = Semi Volatile Organic Compound
< = not detected at the stated reporting limit.
-- = data not available
Bolded text indicates a laboratory reported detection.
J = analyte present; however, reported value may not be accurate or precise.
U: Analyte was analyzed for but not detected.
UJ: Not detected. Reporting limit may not be accurate or precise.
µg/l = micrograms per liter or parts per billion.
* DNX Isomer Inadvertently omitted by the analytical laboratory.
Note: No detections ever observed in effluent samples

Table 1
Historic Clubhouse Inflow Ground Water Sample Results
Former DuPont Barksdale Works
Barksdale, Wisconsin

Location ID	CLUB HOUSE-INFLOW	CLUB HOUSE-INFLOW	CLUB HOUSE-INFLOW	CLUB HOUSE-INFLOW	CLUB HOUSE-INFLOW	CLUB HOUSE-INFLOW	CLUB HOUSE-INFLOW	CLUB HOUSE-INFLOW	CLUB HOUSE-INFLOW	CLUB HOUSE-INFLOW	CLUB HOUSE-INFLOW	CLUB HOUSE-INFLOW	CLUB HOUSE-INFLOW
Date Sampled	05/15/2002	12/10/2002	09/09/2003	08/25/2004	11/15/2005	08/01/2007	07/27/2011	12/04/2013	09/16/2014	09/03/2015	10/09/2015	08/04/2016	11/30/2016
Parameter Name	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result	Report Result
NNOCs Target Analytes (µg/L)													
1,3,5-Trinitrobenzene	<0.025	<0.025	<0.015	<0.018	--	<0.010	<0.016	<0.016	<0.016	<0.017	<0.017	<0.017	--
1,3-Dinitrobenzene	<0.023	<0.023	<0.014	<0.019	--	<0.011	<0.014	<0.013	<0.014	<0.014	<0.014	<0.014	--
1-Methyl-3-Nitrobenzene	<0.027	<0.027	<0.019	<0.064	--	<0.025	<0.024	<0.024	<0.024	<0.025	<0.025	<0.025	--
1-Methyl-4-Nitrobenzene	<0.025	<0.025	<0.018	<0.061	--	<0.026	<0.025	<0.025	<0.025	<0.026	<0.026	<0.026	--
2-Amino-4,6-Dinitrotoluene	<0.036	<0.036	<0.012	<0.017	--	<0.021	<0.020	<0.020	<0.020	<0.021	<0.021	<0.021	--
2-Nitrotoluene	<0.026	<0.026	<0.023	<0.057	--	<0.022	<0.021	<0.021	<0.021	<0.022	<0.022	<0.022	--
2- And 4-Nitrotoluene	--	--	--	--	--	--	--	--	--	--	--	--	--
2,4,6-Trinitrotoluene	<0.021	<0.021	<0.015	<0.026	--	<0.022	<0.021	<0.021	<0.021	<0.022	<0.022	<0.022	--
2,4,6-Trinitroxylene	--	--	--	--	--	--	--	<0.011	<0.012	--	<0.012	<0.012	--
4-Amino-2,6-Dinitrotoluene	<0.020	<0.020	<0.015	<0.022	--	<0.019	<0.018	<0.018	<0.018	<0.019	<0.019	<0.019	--
Nitrobenzene	<0.030	<0.030	<0.039	<0.042	--	<0.045	<0.044	<0.043	<0.032	<0.033	<0.033	<0.033	--
Nitroglycerin	--	--	--	--	--	--	--	--	<0.043	<0.045	<0.045	<0.044	--
HMX	<0.040	<0.040	<0.016	<0.017	--	<0.019	<0.018	<0.018	<0.018	<0.019	<0.019	<0.019	--
PETN	<0.051	<0.051	<0.031	<0.038	--	<0.015	<0.017	<0.017	<0.017	<0.018	<0.018	<0.018	--
RDX	<0.020	<0.020	<0.012	<0.013	--	<0.021	<0.020	<0.020	<0.020	<0.021	<0.021	<0.021	--
Tetryl	<0.024	<0.024	<0.012	<0.017	--	<0.021	<0.020	<0.020	<0.020	<0.021	<0.021	<0.021	--
NNOCs DNT Isomers (µg/L)													
2,3-Dinitrotoluene	--	--	--	--	--	--	<0.015	<0.014	<0.014	--	<0.015	<0.015	--
2,4-Dinitrotoluene	<0.026	<0.026	<0.019	<0.038	--	<0.019	<0.018	<0.018	<0.018	--	<0.019	<0.019	--
2,5-Dinitrotoluene	--	--	--	--	--	--	--	<0.013	<0.014	--	<0.014	<0.014	--
2,6-Dinitrotoluene	<0.022	<0.022	<0.015	<0.037	--	<0.022	<0.021	<0.021	<0.021	--	<0.022	<0.022	--
3,4-Dinitrotoluene	--	--	--	--	--	--	<0.019	<0.019	<0.019	--	<0.020	<0.020	--
3,5-Dinitrotoluene	--	--	--	--	--	--	<0.033	<0.032	<0.033	--	<0.034	<0.034	--
NNOCs DNX Isomers (µg/L)													
1,2-Dimethyl-3,4-Dinitrobenzene	--	--	--	--	--	--	--	--	<0.24	<0.23	--	--	<0.23
1,2-Dimethyl-3,5-Dinitrobenzene	--	--	--	--	--	--	--	<0.33	<0.33	<0.31	--	--	<0.32
1,2-Dimethyl-3,6-Dinitrobenzene	--	--	--	--	--	--	--	--	<0.41	<0.39	--	--	<0.40
1,2-Dimethyl-4,5-Dinitrobenzene	--	--	--	--	--	--	--	--	<0.39	<0.37	--	--	<0.38
1,3-Dimethyl-2,4-Dinitrobenzene	--	--	--	--	--	--	--	<0.45	<0.45	<0.42	--	--	<0.44
1,3-Dimethyl-2,5-Dinitrobenzene	--	--	--	--	--	--	--	<0.42	<0.42	<0.40	--	--	<0.41
1,4-Dimethyl-2,3-Dinitrobenzene	--	--	--	--	--	--	--	<0.38	<0.38	<0.36	--	--	<0.37
1,4-Dimethyl-2,5-Dinitrobenzene	**77.0**	--	--	--	--	--	--	--	<0.76	<0.72	--	--	<0.74
1,4-Dimethyl-2,6-Dinitrobenzene	--	--	--	--	--	--	--	<0.22	<0.22	<0.21	--	--	<0.22
1,5-Dimethyl-2,3-Dinitrobenzene	--	--	--	--	--	--	--	<0.26	<0.26	<0.25	--	--	<0.25
1,5-Dimethyl-2,4-Dinitrobenzene	--	--	--	--	--	--	--	<0.27	<0.27	<0.25	--	--	<0.26
SVOCs (µg/L)													
Naphthalene	<0.78	--	--	--	--	--	--	--	--	--	--	--	--
Anions (µg/L)													
Perchlorate	--	--	--	--	<0.0022	--	--	--	--	--	--	--	--

Notes:
NNOC = Nitraromatic and Nitrramine Organic Constituents
DNT = Dinitrotoluene
DNX = Dintroxylene
SVOC = Semi Volatile Organic Compound
< = not detected at the stated reporting limit.
-- = data not available
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U: Analyte was analyzed for but not detected.
UJ: Not detected. Reporting limit may not be accurate or precise.
µg/l = micrograms per liter or parts per billion.
* DNX Isomer Inadvertently omitted by the analytical laboratory.
Note: No detections ever observed in effluent samples

Figure 1

Figure 1 - Clubhouse Water System Flow Diagram

Area Map (Optional)

FILE NUMBER:	
DESIGNED BY:	NS
DRAWN BY:	KJB
DATA QUALITY CHECK BY:	NS

Chemours™

The Chemours Company
500 West Jefferson Street
Suite 1600
Louisville, Kentucky 40202

Clubhouse
Water System Flow Diagram

Former DuPont Barksdale Works
Barksdale, Wisconsin 54806

PROJECT NUMBER:	60390152
DATE:	December 2016
FIGURE NUMBER:	1

O:\GIS\BAR_GIS\Map_Files\BrettingClubhouseLtr2016\Fig01_SystemDiagram.mxd

TestAmerica Laboratory Analytical Reports

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Tel: (303)736-0100

TestAmerica Job ID: 280-86655-1
Client Project/Site: BAR-Clubhouse Well Sampling 8-16

For:
Chemours Company FC, LLC The
c/o AECOM
Sabre Building, Suite 300
4051 Ogletown Road
Newark, Delaware 19713

Attn: Sharon Nordstrom

Authorized for release by:
8/30/2016 2:56:22 PM

Michelle Johnston, Project Manager II
(303)736-0110
michelle.johnston@testamericainc.com

Table of Contents

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
U	Indicates the analyte was analyzed for but not detected.

LCMS

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 280-86655-1

Laboratory: TestAmerica Denver

Narrative

CASE NARRATIVE
Client: The Chemours Company FC, LLC
Project: BAR-Clubhouse Well Sampling 8-16
Report Number: 280-86655-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Throughout this report the MDL is equivalent to the LOD and the RL is equivalent to the LOQ.

Sample Arrival and Receipt

The samples were received on 8/5/2016 10:15 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 4.4° C and 5.2° C.

Receipt Exceptions

Per client request, results for the requested analyses for sample GW0816-PZ-16-POTINFLOW (280-86655-2) are reported under separate cover (280-86655-2)

No other anomalies were observed during sample receipt.

Semivolatiles - Method 8270C DNX

Sample GW0816-CLUBHOUSEINFLOW (280-86655-1) was analyzed for semivolatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8270C. The sample was prepared on 08/15/2016 and analyzed on 08/25/2016.

Due to a laboratory error, the holding time for samples GW0816-CLUBHOUSEINFLOW (280-86655-1), GW0816-CLUBHOUSEINFLOW (280-86655-1[MS]) and GW0816-CLUBHOUSEINFLOW (280-86655-1[MSD]) expired prior to analysis. The client was notified and instructed the laboratory to report the out of hold data. Please note that the sample results should be considered estimated.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Explosives - Method 8321A

Sample GW0816-CLUBHOUSEINFLOW (280-86655-1) was analyzed for explosives in accordance with EPA SW-846 Method 8321A. The sample was prepared on 08/11/2016 and analyzed on 08/19/2016.

The continuing calibration verification (CCV) associated with batch 280-338584 recovered above the upper control limit for 3-Nitrotoluene. The samples associated with this CCV were non-detects for the affected analytes; therefore, corrective action was deemed unnecessary.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Chemours Company FC, LLC The
Project/Site: BAR-Clubhouse Well Sampling 8-16

TestAmerica Job ID: 280-86655-1

Client Sample ID: GW0816-CLUBHOUSEINFLOW **Lab Sample ID: 280-86655-1**

No Detections.

This Detection Summary does not include radiochemical test results.

Method Summary

Client: Chemours Company FC, LLC The
Project/Site: BAR-Clubhouse Well Sampling 8-16

TestAmerica Job ID: 280-86655-1

Method	Method Description	Protocol	Laboratory
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL DEN
8321A	Nitroaromatic and Nitramine Compounds (Explosives) (LC/MS)	SW846	TAL DEN

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL DEN = TestAmerica Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Sample Summary

Client: Chemours Company FC, LLC The
Project/Site: BAR-Clubhouse Well Sampling 8-16

TestAmerica Job ID: 280-86655-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-86655-1	GW0816-CLUBHOUSEINFLOW	Water	08/04/16 11:00	08/05/16 10:15

Client Sample ID: GW0816-CLUBHOUSEINFLOW

Date Collected: 08/04/16 11:00
Date Received: 08/05/16 10:15

Lab Sample ID: 280-86655-1
Matrix: Water

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dimethyl-3,4-Dinitrobenzene	0.23	U H	4.7	0.23	ug/L		08/15/16 14:00	08/25/16 21:41	1
1,2-Dimethyl-3,5-Dinitrobenzene	0.31	U H	4.7	0.31	ug/L		08/15/16 14:00	08/25/16 21:41	1
1,2-Dimethyl-3,6-Dinitrobenzene	0.39	U H	4.7	0.39	ug/L		08/15/16 14:00	08/25/16 21:41	1
1,2-Dimethyl-4,5-Dinitrobenzene	0.37	U H	4.7	0.37	ug/L		08/15/16 14:00	08/25/16 21:41	1
1,3-Dimethyl-2,4-Dinitrobenzene	0.43	U H	4.7	0.43	ug/L		08/15/16 14:00	08/25/16 21:41	1
1,3-Dimethyl-2,5-Dinitrobenzene	0.40	U H	4.7	0.40	ug/L		08/15/16 14:00	08/25/16 21:41	1
1,4-Dimethyl-2,3-Dinitrobenzene	0.36	U H	4.7	0.36	ug/L		08/15/16 14:00	08/25/16 21:41	1
1,4-Dimethyl-2,5-Dinitrobenzene	0.72	U H	4.7	0.72	ug/L		08/15/16 14:00	08/25/16 21:41	1
1,4-Dimethyl-2,6-Dinitrobenzene	0.21	U H	4.7	0.21	ug/L		08/15/16 14:00	08/25/16 21:41	1
1,5-Dimethyl-2,3-Dinitrobenzene	0.25	U H	4.7	0.25	ug/L		08/15/16 14:00	08/25/16 21:41	1
1,5-Dimethyl-2,4-Dinitrobenzene	0.26	U H	4.7	0.26	ug/L		08/15/16 14:00	08/25/16 21:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*70*		*48 - 135*	*08/15/16 14:00*	*08/25/16 21:41*	*1*
2-Fluorobiphenyl	*65*		*48 - 135*	*08/15/16 14:00*	*08/25/16 21:41*	*1*
2-Fluorophenol	*65*		*41 - 135*	*08/15/16 14:00*	*08/25/16 21:41*	*1*
Nitrobenzene-d5	*63*		*42 - 135*	*08/15/16 14:00*	*08/25/16 21:41*	*1*
Phenol-d5	*66*		*46 - 135*	*08/15/16 14:00*	*08/25/16 21:41*	*1*
Terphenyl-d14	*89*		*20 - 135*	*08/15/16 14:00*	*08/25/16 21:41*	*1*

Method: 8321A - Nitroaromatic and Nitramine Compounds (Explosives) (LC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.017	U	0.099	0.017	ug/L		08/11/16 13:35	08/19/16 01:26	1
1,3-Dinitrobenzene	0.014	U	0.099	0.014	ug/L		08/11/16 13:35	08/19/16 01:26	1
2,3-Dinitrotoluene	0.015	U	0.099	0.015	ug/L		08/11/16 13:35	08/19/16 01:26	1
2,4,6-Trinitro-3-xylene	0.012	U	0.099	0.012	ug/L		08/11/16 13:35	08/19/16 01:26	1
2,4,6-Trinitrotoluene	0.022	U	0.099	0.022	ug/L		08/11/16 13:35	08/19/16 01:26	1
2,4-Dinitrotoluene	0.019	U	0.099	0.019	ug/L		08/11/16 13:35	08/19/16 01:26	1
2,5-Dinitrotoluene	0.014	U	0.099	0.014	ug/L		08/11/16 13:35	08/19/16 01:26	1
2,6-Dinitrotoluene	0.022	U	0.099	0.022	ug/L		08/11/16 13:35	08/19/16 01:26	1
2-Amino-4,6-dinitrotoluene	0.021	U	0.099	0.021	ug/L		08/11/16 13:35	08/19/16 01:26	1
2-Nitrotoluene	0.022	U	0.099	0.022	ug/L		08/11/16 13:35	08/19/16 01:26	1
3,4-Dinitrotoluene	0.020	U	0.099	0.020	ug/L		08/11/16 13:35	08/19/16 01:26	1
3,5-Dinitrotoluene	0.034	U	0.099	0.034	ug/L		08/11/16 13:35	08/19/16 01:26	1
3-Nitrotoluene	0.025	U	0.099	0.025	ug/L		08/11/16 13:35	08/19/16 01:26	1
4-Amino-2,6-dinitrotoluene	0.019	U	0.099	0.019	ug/L		08/11/16 13:35	08/19/16 01:26	1
4-Nitrotoluene	0.026	U	0.099	0.026	ug/L		08/11/16 13:35	08/19/16 01:26	1
HMX	0.019	U	0.099	0.019	ug/L		08/11/16 13:35	08/19/16 01:26	1
Nitrobenzene	0.033	U	0.099	0.033	ug/L		08/11/16 13:35	08/19/16 01:26	1
Nitroglycerin	0.044	U	0.14	0.044	ug/L		08/11/16 13:35	08/19/16 01:26	1
PETN	0.018	U	0.099	0.018	ug/L		08/11/16 13:35	08/19/16 01:26	1
RDX	0.021	U	0.099	0.021	ug/L		08/11/16 13:35	08/19/16 01:26	1
Tetryl	0.021	U	0.099	0.021	ug/L		08/11/16 13:35	08/19/16 01:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*88*		*48 - 130*	*08/11/16 13:35*	*08/19/16 01:26*	*1*

Surrogate Summary

Client: Chemours Company FC, LLC The
Project/Site: BAR-Clubhouse Well Sampling 8-16

TestAmerica Job ID: 280-86655-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	PHL	TPH
Lab Sample ID	Client Sample ID	(48-135)	(48-135)	(41-135)	(42-135)	(46-135)	(20-135)
280-86655-1	GW0816-CLUBHOUSEINFLOW	70	65	65	63	66	89
280-86655-1 MS	GW0816-CLUBHOUSEINFLOW	81	71	65	63	66	94
280-86655-1 MSD	GW0816-CLUBHOUSEINFLOW	82	74	70	68	71	92
LCS 280-337947/2-A	Lab Control Sample	80	71	73	71	72	95
MB 280-337947/1-A	Method Blank	78	78	76	76	77	93

Surrogate Legend

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPH = Terphenyl-d14

Method: 8321A - Nitroaromatic and Nitramine Compounds (Explosives) (LC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)
		NBZ
Lab Sample ID	Client Sample ID	(48-130)
280-86655-1	GW0816-CLUBHOUSEINFLOW	88
280-86655-1 MS	GW0816-CLUBHOUSEINFLOW	76
280-86655-1 MSD	GW0816-CLUBHOUSEINFLOW	84
LCS 280-337509/2-A	Lab Control Sample	102
MB 280-337509/1-A	Method Blank	84

Surrogate Legend

NBZ = Nitrobenzene-d5

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 280-337947/1-A
Matrix: Water
Analysis Batch: 339557

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 337947

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dimethyl-3,4-Dinitrobenzene	0.24	U	5.0	0.24	ug/L		08/15/16 14:00	08/25/16 17:11	1
1,2-Dimethyl-3,5-Dinitrobenzene	0.33	U	5.0	0.33	ug/L		08/15/16 14:00	08/25/16 17:11	1
1,2-Dimethyl-3,6-Dinitrobenzene	0.41	U	5.0	0.41	ug/L		08/15/16 14:00	08/25/16 17:11	1
1,2-Dimethyl-4,5-Dinitrobenzene	0.39	U	5.0	0.39	ug/L		08/15/16 14:00	08/25/16 17:11	1
1,3-Dimethyl-2,4-Dinitrobenzene	0.45	U	5.0	0.45	ug/L		08/15/16 14:00	08/25/16 17:11	1
1,3-Dimethyl-2,5-Dinitrobenzene	0.42	U	5.0	0.42	ug/L		08/15/16 14:00	08/25/16 17:11	1
1,4-Dimethyl-2,3-Dinitrobenzene	0.38	U	5.0	0.38	ug/L		08/15/16 14:00	08/25/16 17:11	1
1,4-Dimethyl-2,5-Dinitrobenzene	0.76	U	5.0	0.76	ug/L		08/15/16 14:00	08/25/16 17:11	1
1,4-Dimethyl-2,6-Dinitrobenzene	0.22	U	5.0	0.22	ug/L		08/15/16 14:00	08/25/16 17:11	1
1,5-Dimethyl-2,3-Dinitrobenzene	0.26	U	5.0	0.26	ug/L		08/15/16 14:00	08/25/16 17:11	1
1,5-Dimethyl-2,4-Dinitrobenzene	0.27	U	5.0	0.27	ug/L		08/15/16 14:00	08/25/16 17:11	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*78*		*48 - 135*	*08/15/16 14:00*	*08/25/16 17:11*	*1*
2-Fluorobiphenyl	*78*		*48 - 135*	*08/15/16 14:00*	*08/25/16 17:11*	*1*
2-Fluorophenol	*76*		*41 - 135*	*08/15/16 14:00*	*08/25/16 17:11*	*1*
Nitrobenzene-d5	*76*		*42 - 135*	*08/15/16 14:00*	*08/25/16 17:11*	*1*
Phenol-d5	*77*		*46 - 135*	*08/15/16 14:00*	*08/25/16 17:11*	*1*
Terphenyl-d14	*93*		*20 - 135*	*08/15/16 14:00*	*08/25/16 17:11*	*1*

Lab Sample ID: LCS 280-337947/2-A
Matrix: Water
Analysis Batch: 339557

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 337947

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dimethyl-3,4-Dinitrobenzene	50.0	51.0		ug/L		102	50 - 135
1,2-Dimethyl-3,5-Dinitrobenzene	51.3	53.0		ug/L		103	50 - 135
1,2-Dimethyl-3,6-Dinitrobenzene	50.0	51.0		ug/L		102	50 - 135
1,2-Dimethyl-4,5-Dinitrobenzene	50.0	46.2		ug/L		92	50 - 135
1,3-Dimethyl-2,4-Dinitrobenzene	50.0	46.8		ug/L		94	50 - 135
1,3-Dimethyl-2,5-Dinitrobenzene	50.0	50.7		ug/L		101	50 - 135
1,4-Dimethyl-2,3-Dinitrobenzene	50.0	45.3		ug/L		91	50 - 135
1,4-Dimethyl-2,5-Dinitrobenzene	50.0	49.3		ug/L		99	50 - 135
1,4-Dimethyl-2,6-Dinitrobenzene	50.0	51.2		ug/L		102	50 - 135
1,5-Dimethyl-2,3-Dinitrobenzene	50.0	50.2		ug/L		100	50 - 135
1,5-Dimethyl-2,4-Dinitrobenzene	50.0	52.0		ug/L		104	50 - 135

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*80*		*48 - 135*
2-Fluorobiphenyl	*71*		*48 - 135*
2-Fluorophenol	*73*		*41 - 135*
Nitrobenzene-d5	*71*		*42 - 135*
Phenol-d5	*72*		*46 - 135*
Terphenyl-d14	*95*		*20 - 135*

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: 280-86655-1 MS
Matrix: Water
Analysis Batch: 339557

Client Sample ID: GW0816-CLUBHOUSEINFLOW
Prep Type: Total/NA
Prep Batch: 337947

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dimethyl-3,4-Dinitrobenzene	0.23	U H	47.3	48.2	H	ug/L		102	50 - 135
1,2-Dimethyl-3,5-Dinitrobenzene	0.31	U H	48.5	50.2	H	ug/L		103	50 - 135
1,2-Dimethyl-3,6-Dinitrobenzene	0.39	U H	47.3	48.0	H	ug/L		101	50 - 135
1,2-Dimethyl-4,5-Dinitrobenzene	0.37	U H	47.3	44.0	H	ug/L		93	50 - 135
1,3-Dimethyl-2,4-Dinitrobenzene	0.43	U H	47.3	44.0	H	ug/L		93	50 - 135
1,3-Dimethyl-2,5-Dinitrobenzene	0.40	U H	47.3	47.6	H	ug/L		101	50 - 135
1,4-Dimethyl-2,3-Dinitrobenzene	0.36	U H	47.3	42.8	H	ug/L		90	50 - 135
1,4-Dimethyl-2,5-Dinitrobenzene	0.72	U H	47.3	46.8	H	ug/L		99	50 - 135
1,4-Dimethyl-2,6-Dinitrobenzene	0.21	U H	47.3	48.4	H	ug/L		102	50 - 135
1,5-Dimethyl-2,3-Dinitrobenzene	0.25	U H	47.3	48.7	H	ug/L		103	50 - 135
1,5-Dimethyl-2,4-Dinitrobenzene	0.26	U H	47.3	49.8	H	ug/L		105	50 - 135

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2,4,6-Tribromophenol	*81*		*48 - 135*
2-Fluorobiphenyl	*71*		*48 - 135*
2-Fluorophenol	*65*		*41 - 135*
Nitrobenzene-d5	*63*		*42 - 135*
Phenol-d5	*66*		*46 - 135*
Terphenyl-d14	*94*		*20 - 135*

Lab Sample ID: 280-86655-1 MSD
Matrix: Water
Analysis Batch: 339557

Client Sample ID: GW0816-CLUBHOUSEINFLOW
Prep Type: Total/NA
Prep Batch: 337947

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dimethyl-3,4-Dinitrobenzene	0.23	U H	47.3	48.5	H	ug/L		103	50 - 135	1	30
1,2-Dimethyl-3,5-Dinitrobenzene	0.31	U H	48.5	51.2	H	ug/L		106	50 - 135	2	30
1,2-Dimethyl-3,6-Dinitrobenzene	0.39	U H	47.3	48.6	H	ug/L		103	50 - 135	1	30
1,2-Dimethyl-4,5-Dinitrobenzene	0.37	U H	47.3	45.1	H	ug/L		95	50 - 135	2	30
1,3-Dimethyl-2,4-Dinitrobenzene	0.43	U H	47.3	44.1	H	ug/L		93	50 - 135	0	30
1,3-Dimethyl-2,5-Dinitrobenzene	0.40	U H	47.3	49.1	H	ug/L		104	50 - 135	3	30
1,4-Dimethyl-2,3-Dinitrobenzene	0.36	U H	47.3	43.7	H	ug/L		92	50 - 135	2	30
1,4-Dimethyl-2,5-Dinitrobenzene	0.72	U H	47.3	46.4	H	ug/L		98	50 - 135	1	30
1,4-Dimethyl-2,6-Dinitrobenzene	0.21	U H	47.3	48.8	H	ug/L		103	50 - 135	1	30
1,5-Dimethyl-2,3-Dinitrobenzene	0.25	U H	47.3	49.3	H	ug/L		104	50 - 135	1	30
1,5-Dimethyl-2,4-Dinitrobenzene	0.26	U H	47.3	50.0	H	ug/L		106	50 - 135	0	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*82*		*48 - 135*
2-Fluorobiphenyl	*74*		*48 - 135*
2-Fluorophenol	*70*		*41 - 135*
Nitrobenzene-d5	*68*		*42 - 135*
Phenol-d5	*71*		*46 - 135*
Terphenyl-d14	*92*		*20 - 135*

Method: 8321A - Nitroaromatic and Nitramine Compounds (Explosives) (LC/MS)

Lab Sample ID: MB 280-337509/1-A
Matrix: Water
Analysis Batch: 338584

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 337509

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3,5-Trinitrobenzene	0.017	U	0.10	0.017	ug/L		08/11/16 13:35	08/19/16 00:21	1
1,3-Dinitrobenzene	0.014	U	0.10	0.014	ug/L		08/11/16 13:35	08/19/16 00:21	1
2,3-Dinitrotoluene	0.015	U	0.10	0.015	ug/L		08/11/16 13:35	08/19/16 00:21	1
2,4,6-Trinitro-3-xylene	0.012	U	0.10	0.012	ug/L		08/11/16 13:35	08/19/16 00:21	1
2,4,6-Trinitrotoluene	0.022	U	0.10	0.022	ug/L		08/11/16 13:35	08/19/16 00:21	1
2,4-Dinitrotoluene	0.019	U	0.10	0.019	ug/L		08/11/16 13:35	08/19/16 00:21	1
2,5-Dinitrotoluene	0.014	U	0.10	0.014	ug/L		08/11/16 13:35	08/19/16 00:21	1
2,6-Dinitrotoluene	0.022	U	0.10	0.022	ug/L		08/11/16 13:35	08/19/16 00:21	1
2-Amino-4,6-dinitrotoluene	0.021	U	0.10	0.021	ug/L		08/11/16 13:35	08/19/16 00:21	1
2-Nitrotoluene	0.022	U	0.10	0.022	ug/L		08/11/16 13:35	08/19/16 00:21	1
3,4-Dinitrotoluene	0.020	U	0.10	0.020	ug/L		08/11/16 13:35	08/19/16 00:21	1
3,5-Dinitrotoluene	0.034	U	0.10	0.034	ug/L		08/11/16 13:35	08/19/16 00:21	1
3-Nitrotoluene	0.025	U	0.10	0.025	ug/L		08/11/16 13:35	08/19/16 00:21	1
4-Amino-2,6-dinitrotoluene	0.019	U	0.10	0.019	ug/L		08/11/16 13:35	08/19/16 00:21	1
4-Nitrotoluene	0.026	U	0.10	0.026	ug/L		08/11/16 13:35	08/19/16 00:21	1
HMX	0.019	U	0.10	0.019	ug/L		08/11/16 13:35	08/19/16 00:21	1
Nitrobenzene	0.033	U	0.10	0.033	ug/L		08/11/16 13:35	08/19/16 00:21	1
Nitroglycerin	0.045	U	0.14	0.045	ug/L		08/11/16 13:35	08/19/16 00:21	1
PETN	0.018	U	0.10	0.018	ug/L		08/11/16 13:35	08/19/16 00:21	1
RDX	0.021	U	0.10	0.021	ug/L		08/11/16 13:35	08/19/16 00:21	1
Tetryl	0.021	U	0.10	0.021	ug/L		08/11/16 13:35	08/19/16 00:21	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Nitrobenzene-d5	*84*		*48 - 130*	*08/11/16 13:35*	*08/19/16 00:21*	*1*

Lab Sample ID: LCS 280-337509/2-A
Matrix: Water
Analysis Batch: 338584

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 337509

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,3,5-Trinitrobenzene	0.500	0.535		ug/L		107	54 - 145
1,3-Dinitrobenzene	0.500	0.511		ug/L		102	68 - 131
2,3-Dinitrotoluene	0.502	0.432		ug/L		86	50 - 150
2,4,6-Trinitro-3-xylene	0.500	0.494		ug/L		99	50 - 150
2,4,6-Trinitrotoluene	0.500	0.465		ug/L		93	20 - 147
2,4-Dinitrotoluene	0.500	0.369		ug/L		74	66 - 130
2,5-Dinitrotoluene	0.501	0.452		ug/L		90	50 - 150
2,6-Dinitrotoluene	0.500	0.470		ug/L		94	64 - 133
2-Amino-4,6-dinitrotoluene	0.500	0.546		ug/L		109	64 - 138
2-Nitrotoluene	0.500	0.478		ug/L		96	34 - 131
3,4-Dinitrotoluene	0.501	0.406		ug/L		81	50 - 150
3,5-Dinitrotoluene	0.500	0.494		ug/L		99	50 - 150
3-Nitrotoluene	0.500	0.431		ug/L		86	36 - 133
4-Amino-2,6-dinitrotoluene	0.500	0.469		ug/L		94	65 - 131
4-Nitrotoluene	0.500	0.511		ug/L		102	40 - 137
HMX	0.500	0.436		ug/L		87	56 - 134
Nitrobenzene	0.500	0.565		ug/L		113	42 - 141
Nitroglycerin	0.500	0.393		ug/L		79	37 - 147

Method: 8321A - Nitroaromatic and Nitramine Compounds (Explosives) (LC/MS) (Continued)

Lab Sample ID: LCS 280-337509/2-A
Matrix: Water
Analysis Batch: 338584

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 337509

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
PETN			0.500	0.414		ug/L		83	10 - 198		
RDX			0.500	0.551		ug/L		110	72 - 130		
Tetryl			0.500	0.570		ug/L		114	15 - 134		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Nitrobenzene-d5	*102*		*48 - 130*

Lab Sample ID: 280-86655-1 MS
Matrix: Water
Analysis Batch: 338584

Client Sample ID: GW0816-CLUBHOUSEINFLOW
Prep Type: Total/NA
Prep Batch: 337509

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,3,5-Trinitrobenzene	0.017	U	0.490	0.483		ug/L		99	41 - 138		
1,3-Dinitrobenzene	0.014	U	0.490	0.517		ug/L		106	71 - 130		
2,3-Dinitrotoluene	0.015	U	0.492	0.363		ug/L		74	50 - 150		
2,4,6-Trinitro-3-xylene	0.012	U	0.490	0.544		ug/L		111	50 - 150		
2,4,6-Trinitrotoluene	0.022	U	0.490	0.415		ug/L		85	24 - 139		
2,4-Dinitrotoluene	0.019	U	0.490	0.442		ug/L		90	68 - 130		
2,5-Dinitrotoluene	0.014	U	0.490	0.394		ug/L		80	50 - 150		
2,6-Dinitrotoluene	0.022	U	0.490	0.448		ug/L		91	67 - 132		
2-Amino-4,6-dinitrotoluene	0.021	U	0.490	0.465		ug/L		95	62 - 137		
2-Nitrotoluene	0.022	U	0.490	0.456		ug/L		93	29 - 130		
3,4-Dinitrotoluene	0.020	U	0.490	0.395		ug/L		80	50 - 150		
3,5-Dinitrotoluene	0.034	U	0.490	0.477		ug/L		97	50 - 150		
3-Nitrotoluene	0.025	U	0.490	0.456		ug/L		93	31 - 132		
4-Amino-2,6-dinitrotoluene	0.019	U	0.490	0.419		ug/L		86	63 - 139		
4-Nitrotoluene	0.026	U	0.490	0.471		ug/L		96	35 - 136		
HMX	0.019	U	0.490	0.383		ug/L		78	33 - 130		
Nitrobenzene	0.033	U	0.490	0.482		ug/L		98	43 - 130		
Nitroglycerin	0.044	U	0.490	0.405		ug/L		83	31 - 130		
PETN	0.018	U	0.490	0.312		ug/L		64	19 - 191		
RDX	0.021	U	0.490	0.513		ug/L		105	72 - 130		
Tetryl	0.021	U	0.490	0.491		ug/L		100	10 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Nitrobenzene-d5	*76*		*48 - 130*

Lab Sample ID: 280-86655-1 MSD
Matrix: Water
Analysis Batch: 338584

Client Sample ID: GW0816-CLUBHOUSEINFLOW
Prep Type: Total/NA
Prep Batch: 337509

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,3,5-Trinitrobenzene	0.017	U	0.493	0.489		ug/L		99	41 - 138	1	52
1,3-Dinitrobenzene	0.014	U	0.493	0.579		ug/L		117	71 - 130	11	30
2,3-Dinitrotoluene	0.015	U	0.496	0.452		ug/L		91	50 - 150	22	30
2,4,6-Trinitro-3-xylene	0.012	U	0.493	0.564		ug/L		114	50 - 150	4	30
2,4,6-Trinitrotoluene	0.022	U	0.493	0.564		ug/L		114	24 - 139	30	70
2,4-Dinitrotoluene	0.019	U	0.493	0.435		ug/L		88	68 - 130	2	27

Method: 8321A - Nitroaromatic and Nitramine Compounds (Explosives) (LC/MS) (Continued)

Lab Sample ID: 280-86655-1 MSD
Matrix: Water
Analysis Batch: 338584

Client Sample ID: GW0816-CLUBHOUSEINFLOW
Prep Type: Total/NA
Prep Batch: 337509

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2,5-Dinitrotoluene	0.014	U	0.494	0.406		ug/L		82	50 - 150	3	50
2,6-Dinitrotoluene	0.022	U	0.493	0.494		ug/L		100	67 - 132	10	46
2-Amino-4,6-dinitrotoluene	0.021	U	0.493	0.505		ug/L		102	62 - 137	8	52
2-Nitrotoluene	0.022	U	0.493	0.528		ug/L		107	29 - 130	15	67
3,4-Dinitrotoluene	0.020	U	0.494	0.530		ug/L		107	50 - 150	29	30
3,5-Dinitrotoluene	0.034	U	0.493	0.403		ug/L		82	50 - 150	17	30
3-Nitrotoluene	0.025	U	0.493	0.474		ug/L		96	31 - 132	4	75
4-Amino-2,6-dinitrotoluene	0.019	U	0.493	0.502		ug/L		102	63 - 139	18	68
4-Nitrotoluene	0.026	U	0.493	0.544		ug/L		110	35 - 136	14	70
HMX	0.019	U	0.493	0.476		ug/L		97	33 - 130	22	48
Nitrobenzene	0.033	U	0.493	0.510		ug/L		103	43 - 130	6	55
Nitroglycerin	0.044	U	0.493	0.462		ug/L		94	31 - 130	13	62
PETN	0.018	U	0.493	0.402		ug/L		81	19 - 191	25	79
RDX	0.021	U	0.493	0.550		ug/L		111	72 - 130	7	26
Tetryl	0.021	U	0.493	0.504		ug/L		102	10 - 130	3	58

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Nitrobenzene-d5	*84*		*48 - 130*

QC Association Summary

Client: Chemours Company FC, LLC The
Project/Site: BAR-Clubhouse Well Sampling 8-16

TestAmerica Job ID: 280-86655-1

GC/MS Semi VOA

Prep Batch: 337947

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-86655-1	GW0816-CLUBHOUSEINFLOW	Total/NA	Water	3520C	
MB 280-337947/1-A	Method Blank	Total/NA	Water	3520C	
LCS 280-337947/2-A	Lab Control Sample	Total/NA	Water	3520C	
280-86655-1 MS	GW0816-CLUBHOUSEINFLOW	Total/NA	Water	3520C	
280-86655-1 MSD	GW0816-CLUBHOUSEINFLOW	Total/NA	Water	3520C	

Analysis Batch: 339557

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-86655-1	GW0816-CLUBHOUSEINFLOW	Total/NA	Water	8270C	337947
MB 280-337947/1-A	Method Blank	Total/NA	Water	8270C	337947
LCS 280-337947/2-A	Lab Control Sample	Total/NA	Water	8270C	337947
280-86655-1 MS	GW0816-CLUBHOUSEINFLOW	Total/NA	Water	8270C	337947
280-86655-1 MSD	GW0816-CLUBHOUSEINFLOW	Total/NA	Water	8270C	337947

LCMS

Prep Batch: 337509

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-86655-1	GW0816-CLUBHOUSEINFLOW	Total/NA	Water	3535	
MB 280-337509/1-A	Method Blank	Total/NA	Water	3535	
LCS 280-337509/2-A	Lab Control Sample	Total/NA	Water	3535	
280-86655-1 MS	GW0816-CLUBHOUSEINFLOW	Total/NA	Water	3535	
280-86655-1 MSD	GW0816-CLUBHOUSEINFLOW	Total/NA	Water	3535	

Analysis Batch: 338584

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-86655-1	GW0816-CLUBHOUSEINFLOW	Total/NA	Water	8321A	337509
MB 280-337509/1-A	Method Blank	Total/NA	Water	8321A	337509
LCS 280-337509/2-A	Lab Control Sample	Total/NA	Water	8321A	337509
280-86655-1 MS	GW0816-CLUBHOUSEINFLOW	Total/NA	Water	8321A	337509
280-86655-1 MSD	GW0816-CLUBHOUSEINFLOW	Total/NA	Water	8321A	337509

Lab Chronicle

Client: Chemours Company FC, LLC The
Project/Site: BAR-Clubhouse Well Sampling 8-16

TestAmerica Job ID: 280-86655-1

Client Sample ID: GW0816-CLUBHOUSEINFLOW

Date Collected: 08/04/16 11:00
Date Received: 08/05/16 10:15

Lab Sample ID: 280-86655-1

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			1057.6 mL	1 mL	337947	08/15/16 14:00	DFB1	TAL DEN
Total/NA	Analysis	8270C		1			339557	08/25/16 21:41	DCK	TAL DEN
Total/NA	Prep	3535			1011.8 mL	5 mL	337509	08/11/16 13:35	YJC	TAL DEN
Total/NA	Analysis	8321A		1			338584	08/19/16 01:26	AGCM	TAL DEN

Laboratory References:

TAL DEN = TestAmerica Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Certification Summary

Client: Chemours Company FC, LLC The
Project/Site: BAR-Clubhouse Well Sampling 8-16

TestAmerica Job ID: 280-86655-1

Laboratory: TestAmerica Denver

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Wisconsin	State Program	5	999615430	08-31-16 *

* Certification renewal pending - certification considered valid.

TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Phone (303) 736-0100 Fax (303) 431-7171

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler	Lab PM	Carrier Tracking No(s)	COC No
Client Contact: Sharon Nordstrom	Phone: 920-621-3878	E-Mail: michelle.johnston@testamericainc.com	FedEx 805891089961 805891089972	280-36563-14837.1
Company: E I du Pont de Nemours and Company ADQM				Page: Page 1 of 1
Address: c/o AECOM Sabre Building, Suite 300 4051 Ogletown Road	Due Date Requested:			Job #
City: Newark	TAT Requested (days): 15 Business Days			
State, Zip: DE, 19713				
Phone: 302-781-5936	PO #: LBIO-67048/77201000-WH06-507975			
Email: sharon.nordstrom@aecom.com	WO #			
Project Name: BAR-Clubhouse Well Sampling 8-16	Project #: 28003388			
Site	SSOW#			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - ph 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8321A Nitro organics (Full list + DNT + TNX)	8270 DNX isomers: Full list	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N		
GW0816-CLUBHOUSEEFF INFLOW	8/4/16	1100	G	Water	N	Y	X	X		(CLUBBOUSEEFF TO BE REPORTED SEPARATELY FROM PZ-16)
GW0816-CLUBHOUSEEFF-MS INFLOW	↓	↓	↓	Water	N	Y	X	X		- SPLIT INTO 2 COOLERS
GW0816-CLUBHOUSEEFF-MSD INFLOW	↓	↓	↓	Water	N	Y	X	X		- SAMPLE PORT HAD EQUIPMENT STORED ON IT

280-86655 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements

Empty Kit Relinquished by	Date	Time	Method of Shipment
	7/29/16	1345	

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
	8/4/16 1300	AECOM		8/5/16 1015	TAD
Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact	Custody Seal No	Cooler Temperature(s) °C and Other Remarks
△ Yes △ No		4.4, 5.2 +0.0 IR#5 DW 8/5/16

mer env
4955 Yarrow Street
Arvada, CO 80002
Phone (303) 736-0100 Fax (303) 431-7171

Chain of Custody Record

testAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler	Lab PM	Carrier Tracking No(s)	COC No
Client Contact: Sharon Nordstrom	Phone: 920-621-3878	E-Mail: michelle.johnston@testamericainc.com	FEDEX 809589108961	280-36563-14837.1
Company: E I du Pont de Nemours and Company ADQM				Page: Page 1 of 1
Address: c/o AECOM Sabre Building, Suite 300 4051 Ogletown Road	Due Date Requested:			Job #
City: Newark	TAT Requested (days): 15 Business Days			
State, Zip: DE, 19713				
Phone: 302-781-5936	PO #: LBIO-67048/77201000-WH06-507975			
Email: sharon.nordstrom@aecom.com	WO #			
Project Name: BAR-Clubhouse Well Sampling 8-16	Project #: 28003388			
Site	SSOW#			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2SO3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8321A Nitro organics (Full list + DNT + TNX)	8270 DNX isomers - Full list	Total Number of containers	Special Instructions/Note:
			Preservation Code				N	N		
GW0816-PZ-16-POTEFF INFLOW	8/4/16	0940	G	Water	N	N	X	X		(PZ-16 TO BE REPORTED SEPARATELY FROM CLUBHOUSEEFF) . FULL DUPLICATE, IF ENOUGH SAMPLE VOLUME

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements

Empty Kit Relinquished by	Date	Time	Method of Shipment
	7/29/16	1345	

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
	8/4/16 1300	Aecom		8/5/16 1015	TAL
Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Relinquished by	Date/Time	Company	Received by	Date/Time	Company

Custody Seals Intact: ☐ Yes ☐ No | Custody Seal No | Cooler Temperature(s) °C and Other Remarks

Login Sample Receipt Checklist

Client: Chemours Company FC, LLC The

Job Number: 280-86655-1

Login Number: 86655
List Number: 1
Creator: White, Denise E

List Source: TestAmerica Denver

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Denver
4955 Yarrow Street
Arvada, CO 80002
Tel: (303)736-0100

TestAmerica Job ID: 280-91648-1
Client Project/Site: BAR-Clubhouse Well Sampling 12-16

For:
Chemours Company FC, LLC The
c/o AECOM
Sabre Building, Suite 300
4051 Ogletown Road
Newark, Delaware 19713

Attn: Sharon Nordstrom

Authorized for release by:
12/19/2016 10:59:33 AM

Michelle Johnston, Project Manager II
(303)736-0110
michelle.johnston@testamericainc.com

Table of Contents

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Job ID: 280-91648-1

Laboratory: TestAmerica Denver

Narrative

CASE NARRATIVE
Client: The Chemours Company FC, LLC
Project: BAR-Clubhouse Well Sampling 12-16
Report Number: 280-91648-1

With the exceptions noted as flags or footnotes, standard analytical protocols were followed in the analysis of the samples and no problems were encountered or anomalies observed. In addition all laboratory quality control samples were within established control limits, with any exceptions noted below. Each sample was analyzed to achieve the lowest possible reporting limit within the constraints of the method. In some cases, due to interference or analytes present at high concentrations, samples were diluted. For diluted samples, the reporting limits are adjusted relative to the dilution required.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

Throughout this report the MDL is equivalent to the LOD and the RL is equivalent to the LOQ.

Sample Arrival and Receipt

The sample was received on 12/1/2016 9:50 AM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.9° C. No anomalies were observed during sample receipt.

Semivolatiles - Method 8270C DNX

Sample GW113016-CLUBHOUSE INFLOW (280-91648-1) was analyzed for semivolatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8270C. The samples were prepared on 12/06/2016 and analyzed on 12/15/2016.

The method required MS/MSD could not be performed for prep batch 280-354421, due to insufficient sample volume. Method precision and accuracy have been verified by the acceptable LCS/LCSD analyses data.

The continuing calibration verification (CCV) associated with batch 280-355825 recovered above the upper control limit for 1,3-Dimethyl-2,4-Dinitrobenzene, 1,2-Dimethyl-3,6-Dinitrobenzene and 1,4-Dimethyl-2,3-Dinitrobenzene. The samples associated with this CCV were non-detect for the affected analytes; therefore, the data have been reported.

No other analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: Chemours Company FC, LLC The
Project/Site: BAR-Clubhouse Well Sampling 12-16

TestAmerica Job ID: 280-91648-1

Client Sample ID: GW113016-CLUBHOUSE INFLOW **Lab Sample ID: 280-91648-1**

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Denver

Method Summary

Client: Chemours Company FC, LLC The
Project/Site: BAR-Clubhouse Well Sampling 12-16

TestAmerica Job ID: 280-91648-1

Method	Method Description	Protocol	Laboratory
8270C	Semivolatile Organic Compounds (GC/MS)	SW846	TAL DEN

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL DEN = TestAmerica Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Sample Summary

Client: Chemours Company FC, LLC The
Project/Site: BAR-Clubhouse Well Sampling 12-16

TestAmerica Job ID: 280-91648-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-91648-1	GW113016-CLUBHOUSE INFLOW	Water	11/30/16 13:10	12/01/16 09:50

Client Sample ID: GW113016-CLUBHOUSE INFLOW
Date Collected: 11/30/16 13:10
Date Received: 12/01/16 09:50

Lab Sample ID: 280-91648-1
Matrix: Water

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dimethyl-3,4-Dinitrobenzene	0.23	U	4.9	0.23	ug/L		12/06/16 12:35	12/15/16 17:03	1
1,2-Dimethyl-3,5-Dinitrobenzene	0.32	U	4.9	0.32	ug/L		12/06/16 12:35	12/15/16 17:03	1
1,2-Dimethyl-3,6-Dinitrobenzene	0.40	U	4.9	0.40	ug/L		12/06/16 12:35	12/15/16 17:03	1
1,2-Dimethyl-4,5-Dinitrobenzene	0.38	U	4.9	0.38	ug/L		12/06/16 12:35	12/15/16 17:03	1
1,3-Dimethyl-2,4-Dinitrobenzene	0.44	U	4.9	0.44	ug/L		12/06/16 12:35	12/15/16 17:03	1
1,3-Dimethyl-2,5-Dinitrobenzene	0.41	U	4.9	0.41	ug/L		12/06/16 12:35	12/15/16 17:03	1
1,4-Dimethyl-2,3-Dinitrobenzene	0.37	U	4.9	0.37	ug/L		12/06/16 12:35	12/15/16 17:03	1
1,4-Dimethyl-2,5-Dinitrobenzene	0.74	U	9800	0.74	ug/L		12/06/16 12:35	12/15/16 17:03	1
1,4-Dimethyl-2,6-Dinitrobenzene	0.22	U	4.9	0.22	ug/L		12/06/16 12:35	12/15/16 17:03	1
1,5-Dimethyl-2,3-Dinitrobenzene	0.25	U	4.9	0.25	ug/L		12/06/16 12:35	12/15/16 17:03	1
1,5-Dimethyl-2,4-Dinitrobenzene	0.26	U	4.9	0.26	ug/L		12/06/16 12:35	12/15/16 17:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*83*		*48 - 135*	*12/06/16 12:35*	*12/15/16 17:03*	*1*
2-Fluorobiphenyl	*89*		*48 - 135*	*12/06/16 12:35*	*12/15/16 17:03*	*1*
2-Fluorophenol	*89*		*41 - 135*	*12/06/16 12:35*	*12/15/16 17:03*	*1*
Nitrobenzene-d5	*84*		*42 - 135*	*12/06/16 12:35*	*12/15/16 17:03*	*1*
Phenol-d5	*88*		*46 - 135*	*12/06/16 12:35*	*12/15/16 17:03*	*1*
Terphenyl-d14	*93*		*20 - 135*	*12/06/16 12:35*	*12/15/16 17:03*	*1*

Surrogate Summary

Client: Chemours Company FC, LLC The
Project/Site: BAR-Clubhouse Well Sampling 12-16

TestAmerica Job ID: 280-91648-1

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)					
		TBP	FBP	2FP	NBZ	PHL	TPH
Lab Sample ID	Client Sample ID	(48-135)	(48-135)	(41-135)	(42-135)	(46-135)	(20-135)
280-91648-1	GW113016-CLUBHOUSE INFL(	83	89	89	84	88	93
LCS 280-354421/2-A	Lab Control Sample	84	93	90	87	91	97
LCSD 280-354421/3-A	Lab Control Sample Dup	85	94	90	89	88	96
MB 280-354421/1-A	Method Blank	78	92	88	91	91	99

Surrogate Legend

TBP = 2,4,6-Tribromophenol
FBP = 2-Fluorobiphenyl
2FP = 2-Fluorophenol
NBZ = Nitrobenzene-d5
PHL = Phenol-d5
TPH = Terphenyl-d14

Method: 8270C - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 280-354421/1-A
Matrix: Water
Analysis Batch: 355825

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 354421

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2-Dimethyl-3,4-Dinitrobenzene	0.24	U	5.0	0.24	ug/L		12/06/16 12:35	12/15/16 15:03	1
1,2-Dimethyl-3,5-Dinitrobenzene	0.33	U	5.0	0.33	ug/L		12/06/16 12:35	12/15/16 15:03	1
1,2-Dimethyl-3,6-Dinitrobenzene	0.41	U	5.0	0.41	ug/L		12/06/16 12:35	12/15/16 15:03	1
1,2-Dimethyl-4,5-Dinitrobenzene	0.39	U	5.0	0.39	ug/L		12/06/16 12:35	12/15/16 15:03	1
1,3-Dimethyl-2,4-Dinitrobenzene	0.45	U	5.0	0.45	ug/L		12/06/16 12:35	12/15/16 15:03	1
1,3-Dimethyl-2,5-Dinitrobenzene	0.42	U	5.0	0.42	ug/L		12/06/16 12:35	12/15/16 15:03	1
1,4-Dimethyl-2,3-Dinitrobenzene	0.38	U	5.0	0.38	ug/L		12/06/16 12:35	12/15/16 15:03	1
1,4-Dimethyl-2,5-Dinitrobenzene	0.76	U	10000	0.76	ug/L		12/06/16 12:35	12/15/16 15:03	1
1,4-Dimethyl-2,6-Dinitrobenzene	0.22	U	5.0	0.22	ug/L		12/06/16 12:35	12/15/16 15:03	1
1,5-Dimethyl-2,3-Dinitrobenzene	0.26	U	5.0	0.26	ug/L		12/06/16 12:35	12/15/16 15:03	1
1,5-Dimethyl-2,4-Dinitrobenzene	0.27	U	5.0	0.27	ug/L		12/06/16 12:35	12/15/16 15:03	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*78*		*48 - 135*	*12/06/16 12:35*	*12/15/16 15:03*	*1*
2-Fluorobiphenyl	*92*		*48 - 135*	*12/06/16 12:35*	*12/15/16 15:03*	*1*
2-Fluorophenol	*88*		*41 - 135*	*12/06/16 12:35*	*12/15/16 15:03*	*1*
Nitrobenzene-d5	*91*		*42 - 135*	*12/06/16 12:35*	*12/15/16 15:03*	*1*
Phenol-d5	*91*		*46 - 135*	*12/06/16 12:35*	*12/15/16 15:03*	*1*
Terphenyl-d14	*99*		*20 - 135*	*12/06/16 12:35*	*12/15/16 15:03*	*1*

Lab Sample ID: LCS 280-354421/2-A
Matrix: Water
Analysis Batch: 355825

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 354421

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-Dimethyl-3,4-Dinitrobenzene	50.0	54.5		ug/L		109	50 - 135
1,2-Dimethyl-3,5-Dinitrobenzene	51.3	59.0		ug/L		115	50 - 135
1,2-Dimethyl-3,6-Dinitrobenzene	50.0	59.6		ug/L		119	50 - 135
1,2-Dimethyl-4,5-Dinitrobenzene	50.0	57.6		ug/L		115	50 - 135
1,3-Dimethyl-2,4-Dinitrobenzene	50.0	62.3		ug/L		125	50 - 135
1,3-Dimethyl-2,5-Dinitrobenzene	50.0	58.1		ug/L		116	50 - 135
1,4-Dimethyl-2,3-Dinitrobenzene	50.0	64.7		ug/L		129	50 - 135
1,4-Dimethyl-2,5-Dinitrobenzene	50.0	55.8	J	ug/L		112	50 - 135
1,4-Dimethyl-2,6-Dinitrobenzene	50.0	58.9		ug/L		118	50 - 135
1,5-Dimethyl-2,3-Dinitrobenzene	50.0	55.7		ug/L		111	50 - 135
1,5-Dimethyl-2,4-Dinitrobenzene	50.0	57.9		ug/L		116	50 - 135

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*84*		*48 - 135*
2-Fluorobiphenyl	*93*		*48 - 135*
2-Fluorophenol	*90*		*41 - 135*
Nitrobenzene-d5	*87*		*42 - 135*
Phenol-d5	*91*		*46 - 135*
Terphenyl-d14	*97*		*20 - 135*

Method: 8270C - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 280-354421/3-A
Matrix: Water
Analysis Batch: 355825

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 354421

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2-Dimethyl-3,4-Dinitrobenzene			50.0	55.0		ug/L		110	50 - 135	1	30
1,2-Dimethyl-3,5-Dinitrobenzene			51.3	58.7		ug/L		115	50 - 135	0	30
1,2-Dimethyl-3,6-Dinitrobenzene			50.0	59.3		ug/L		119	50 - 135	1	30
1,2-Dimethyl-4,5-Dinitrobenzene			50.0	58.9		ug/L		118	50 - 135	2	30
1,3-Dimethyl-2,4-Dinitrobenzene			50.0	64.4		ug/L		129	50 - 135	3	30
1,3-Dimethyl-2,5-Dinitrobenzene			50.0	59.7		ug/L		119	50 - 135	3	30
1,4-Dimethyl-2,3-Dinitrobenzene			50.0	65.4		ug/L		131	50 - 135	1	30
1,4-Dimethyl-2,5-Dinitrobenzene			50.0	53.5	J	ug/L		107	50 - 135	4	30
1,4-Dimethyl-2,6-Dinitrobenzene			50.0	57.7		ug/L		115	50 - 135	2	30
1,5-Dimethyl-2,3-Dinitrobenzene			50.0	54.5		ug/L		109	50 - 135	2	30
1,5-Dimethyl-2,4-Dinitrobenzene			50.0	59.8		ug/L		120	50 - 135	3	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*85*		*48 - 135*
2-Fluorobiphenyl	*94*		*48 - 135*
2-Fluorophenol	*90*		*41 - 135*
Nitrobenzene-d5	*89*		*42 - 135*
Phenol-d5	*88*		*46 - 135*
Terphenyl-d14	*96*		*20 - 135*

QC Association Summary

Client: Chemours Company FC, LLC The
Project/Site: BAR-Clubhouse Well Sampling 12-16

TestAmerica Job ID: 280-91648-1

GC/MS Semi VOA

Prep Batch: 354421

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-91648-1	GW113016-CLUBHOUSE INFLOW	Total/NA	Water	3520C	
MB 280-354421/1-A	Method Blank	Total/NA	Water	3520C	
LCS 280-354421/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCSD 280-354421/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 355825

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-91648-1	GW113016-CLUBHOUSE INFLOW	Total/NA	Water	8270C	354421
MB 280-354421/1-A	Method Blank	Total/NA	Water	8270C	354421
LCS 280-354421/2-A	Lab Control Sample	Total/NA	Water	8270C	354421
LCSD 280-354421/3-A	Lab Control Sample Dup	Total/NA	Water	8270C	354421

Lab Chronicle

Client: Chemours Company FC, LLC The
Project/Site: BAR-Clubhouse Well Sampling 12-16

TestAmerica Job ID: 280-91648-1

Client Sample ID: GW113016-CLUBHOUSE INFLOW

Lab Sample ID: 280-91648-1

Date Collected: 11/30/16 13:10

Matrix: Water

Date Received: 12/01/16 09:50

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			1021.5 mL	1 mL	354421	12/06/16 12:35	JRA	TAL DEN
Total/NA	Analysis	8270C		1			355825	12/15/16 17:03	DCK	TAL DEN

Laboratory References:

TAL DEN = TestAmerica Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

Certification Summary

Client: Chemours Company FC, LLC The
Project/Site: BAR-Clubhouse Well Sampling 12-16

TestAmerica Job ID: 280-91648-1

Laboratory: TestAmerica Denver

The certifications listed below are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
Wisconsin	State Program	5	999615430	08-31-17

Te[redacted]ric[redacted]ver
4955 Yarrow Street
Arvada, CO 80002
Phone (303) 736-0100 Fax (303) 431-7171

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Eric Schmidt - AECOM	Lab PM: Johnston, Michelle A	Carrier Tracking No(s): FEDEX 810481528438	COC No: 280-36563-14837.1
Client Contact: Sharon Nordstrom	Phone: 920-621-3978	E-Mail: michelle.johnston@testamericainc.com		Page: Page 1 of 1
Company: The Chemours Company FC, LLC				Job #:
Address: c/o AECOM Sabre Building, Suite 300 4051 Ogletown Road	Due Date Requested:			
City: Newark	TAT Requested (days): 15 Business Days			
State, Zip: DE, 19713				
Phone: 302-892-8947(Tel)	PO #: LBIO-67048/77201000-WH06-507975			
Email: sharon.nordstrom@aecom.com	WO #:			
Project Name: BAR-Clubhouse Well Sampling 12-16	Project #: 28003388			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2SO3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - ph 4-5
L - EDA	Z - other (specify)

Other:

GAS POWERED EQUIPMENT STORED NEAR SAMPLE PIPE

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8270 DNX isomers- Full list	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N		
GW113016-CLUBHOUSE INFLOW	11/30/16	1310	G	W	N	N	X	2	GAS POWERED

280-91648 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by: _____ Date: 11-29-16 Time: 11:[illegible] Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
E C Schmidt	11/30/16 17:00	AECOM	[illegible]	12-1-16 950	THD
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 4.1 IR #3 -0.2 Transfer RP 12-1-16

Login Sample Receipt Checklist

Client: Chemours Company FC, LLC The

Job Number: 280-91648-1

Login Number: 91648
List Number: 1
Creator: Pottruff, Reed W

List Source: TestAmerica Denver

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	