



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

502-569-2301 t
chemours.com

January 30, 2017

Mr. Lance Burger
Roadway Maintenance Engineer
Wisconsin Department of Transportation
1701 North 4th Street
Superior, Wisconsin 54880

**Subject: Well Construction Summary and Sampling Results
Bono Creek Road
Town of Barksdale, Bayfield County, Wisconsin**

Dear Mr. Burger:

This letter documents the installation of the permitted monitoring well located within the right-of-way of Bono Creek Road in the Town of Barksdale, Bayfield County (Permit No. 806155).

The well, identified as monitoring well PZ-57D, was installed in July 2016 to assist in the characterization of chemical constituents in groundwater associated with historical manufacturing of explosives at the nearby Former DuPont Barksdale Works site. The well was installed at a depth of approximately 100 feet below ground surface and protected with a locked, above-ground steel shroud, concrete pad, and four steel protective posts. The location of the well is shown on the attached figure. Construction details are included on the attached well construction form. A photograph of the above ground portion of the well and protective posts is also attached.

Groundwater samples were collected from the well in October and November 2016, and submitted to an independent laboratory for analysis. None of the constituents quantified by the laboratory were detected in the groundwater samples collected from PZ-57D. Analytical results are included on Table 1 (see attached).

Additional groundwater samples may be collected over the next five years. That work will have no impact to traffic on Bono Creek Road.

I appreciate your time reviewing this information. Should you have any questions, please feel free to contact me at (812) 923-1136.

Sincerely,

Bradley S. Nave
Chemours Corporate Remediation Group

Attachments (5): Figure 1 – Monitoring Well PZ-57D Location
Monitoring Well Construction Form
Photograph of Well Location
Table 1 – Laboratory Analytical Results
Test America Laboratory Reports

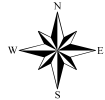
cc: Mr. C.E. "Cary" Pooler – AECOM
Mr. Christopher A. Saari – WDNR

ATTACHMENT 1

Figure 1 – Monitoring Well PZ-56D Location



Aerial Photo Date: July 2013
 Photo Source: NAIP



0 50 100 200

Feet
 1:2,400

MAP FORMATTED FOR "A" (8.5" X 11") SIZE SHEET.
 SCALE NOT VALID FOR DIFFERENT PAGE SIZE.

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

AECOM

AECOM
 500 West Jefferson Street
 Suite 1600
 Louisville, Kentucky 40202

Monitoring Well PZ-57D
 Location

Former DuPont Barksdale Works
 Barksdale, Wisconsin 54806

PROJECT NUMBER:	60505619
DATE:	January 2017
FIGURE NUMBER:	1

ATTACHMENT 2
Monitoring Well Construction Form

Facility/Project Name Former DuPont Barksdale Works	Local Grid Location of Well ft. <input type="checkbox"/> N. <input type="checkbox"/> S. <input type="checkbox"/> E. <input type="checkbox"/> W.	Well Name PZ-57D
Facility License, Permit or Monitoring No.	Local Grid Origin <input type="checkbox"/> (estimated: <input checked="" type="checkbox"/>) or Well Location <input type="checkbox"/> Lat. Estimated from GIS "Long. NAD 83 w/s " or	Wis. Unique Well No. DNR Well ID No.
Facility ID 02-04-00156	St. Plane 537104.418 ft. N. 1737035.640 ft. E. S/C/N	Date Well Installed 06/28/2016 m m d d y y y y
Type of Well Well Code 12 / PZ	Section Location of Waste/Source NE 1/4 of SW 1/4 of Sec. 18, T. 48 N, R. 04 <input type="checkbox"/> E <input type="checkbox"/> W	Well Installed By: Name (first, last) and Firm Keith Fehrman
Distance from Waste Source 2135 ft. NE	Location of Well Relative to Waste/Source u <input type="checkbox"/> Upgradient s <input type="checkbox"/> Sidegradient d <input checked="" type="checkbox"/> Downgradient n <input type="checkbox"/> Not Known	Gov. Lot Number 3
Enf. Stds. Apply <input type="checkbox"/>		Layne Christenson

Estimated surface elevation based on county GIS. To be surveyed at later date.

- A. Protective pipe, top elevation --- 618 --- ft. MSL
- B. Well casing, top elevation --- 617.5 --- ft. MSL
- C. Land surface elevation --- 615 --- ft. MSL
- D. Surface seal, bottom --- 610 --- ft. MSL or --- 610 --- ft.

12. USCS classification of soil near screen:
 GP GM GC GW SW SP
 SM SC ML MH CL CH
 Bedrock

13. Sieve analysis performed? Yes No

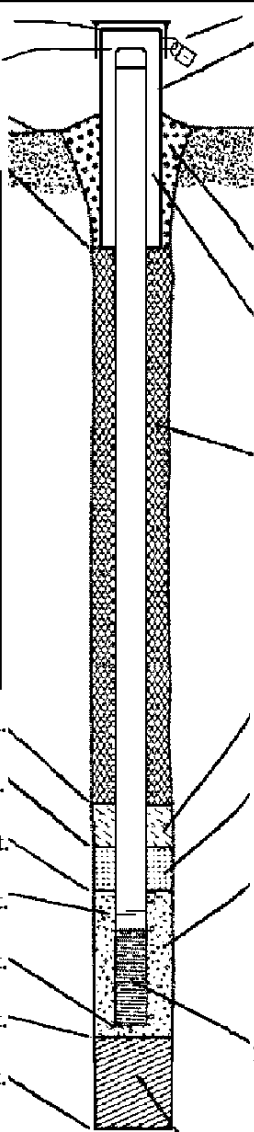
14. Drilling method used: Rotary 5 0
 Rotosonic Hollow Stem Auger 4 1
 Other

15. Drilling fluid used: Water 0 2 Air 0 1
 Drilling Mud 0 3 None 9 9

16. Drilling additives used? Yes No

Describe _____

17. Source of water (attach analysis, if required):
 Chemours Barksdale Field Office



- 1. Cap and lock? Yes No
- 2. Protective cover pipe:
 - a. Inside diameter: 4 in.
 - b. Length: 6 ft.
 - c. Material: Steel 0 4
Other
 - d. Additional protection? Yes No
If yes, describe: 4 bumpers (6" diameter)
- 3. Surface seal: Bentonite 3 0
 Concrete surrounding shroud to 3 ft below ground Concrete 0 1
 10 inch x 4 ft concrete pad Other
- 4. Material between well casing and protective pipe: Bentonite 3 0
Other
- 5. Annular space seal:
 - a. Granular/Chipped Bentonite 3 3
 - b. Lbs/gal mud weight ... Bentonite-sand slurry 3 5
 - c. Lbs/gal mud weight ... Bentonite slurry 3 1
 - d. 5 % Bentonite ... Bentonite-cement grout 5 0
 - e. 14.05 Ft³ volume added for any of the above
 - f. How installed: Tremie 0 1
Tremie pumped 0 2
Gravity 0 8
- 6. Bentonite seal:
 - a. Bentonite granules 3 3
 - b. 1/4 in. 3/8 in. 1/2 in. Bentonite chips 3 2
 - c. Halliburton Hole Plug Other
- 7. Fine sand material: Manufacturer, product name & mesh size
 Red Flint sand gravel #100
 a. Volume added 20 lbs ft³
- 8. Filter pack material: Manufacturer, product name & mesh size
 Red Flint sand #15
 a. Volume added 100 ft³
- 9. Well casing: Flush threaded PVC schedule 40 2 3
 Flush threaded PVC schedule 80 2 4
 Other
- 10. Screen material: PVC (schedule 80)
 - a. Screen type: Factory cut 1 1
Continuous slot 0 1
Other
 - b. Manufacturer Hole Products
 - c. Slot size: 0.100 in.
 - d. Slotted length: 5 ft.
- 11. Backfill material (below filter pack): None 1 4
Other

- E. Bentonite seal, top --- 80.5 --- ft. MSL or --- 80.5 --- ft.
- F. Fine sand, top --- 86 --- ft. MSL or --- 86 --- ft.
- G. Filter pack, top --- 89.5 --- ft. MSL or --- 89.5 --- ft.
- H. Screen joint, top --- 92.5 --- ft. MSL or --- 92.5 --- ft.
- I. Well bottom --- 97.5 --- ft. MSL or --- 97.5 --- ft.
- J. Filter pack, bottom --- 100 --- ft. MSL or --- 100 --- ft.
- K. Borehole, bottom --- 100 --- ft. MSL or --- 100 --- ft.
- L. Borehole, diameter --- 6 --- in.
- M. O.D. well casing --- 2.375 --- in.
- N. I.D. well casing --- 1.939 --- in.

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature *Neil Stuber* Firm AECOM

Please complete both Forms 4400-113A and 4400-113B and return them to the appropriate DNR office and bureau. Completion of these reports is required by chs. 160, 281, 283, 289, 291, 292, 293, 295, and 299, Wis. Stats., and ch. NR 141, Wis. Adm. Code. In accordance with chs. 281, 289, 291, 292, 293, 295, and 299, Wis. Stats., failure to file these forms may result in a forfeiture of between \$10 and \$25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on these forms is not intended to be used for any other purpose. NOTE: See the instructions for more information, including where the completed forms should be sent.

ATTACHMENT 3
Photograph of Well Location

Client Name: Chemours	Site Name: Former DuPont Barksdale Works	Field Event Name: Well Installation 2016	Proj. Number: 60505619.20161
			Proj. Name: Site Investigation 2016

Photo No.: 1	Date: 8/17/2016	Time: 9:00
Direction Photo Looking (if applicable): West-Southwest		
Site Area Name (if applicable): Bono Creak Rd		
Photograph Taken By: Nick Shorkey		
Description: Well PZ-57D		



ATTACHMENT 4

Table 1 – Laboratory Analytical Results

Table 1
Laboratory Analytical Results
Monitoring Well Construction Summary and Sampling Results Bono Creek Road
Barksdale, Wisconsin

	Location ID	PZ-57D	PZ-57D
	Date Sampled	10/10/2016	11/09/2016
Parameter Name	Report Units	Result	Result
1,2-Dimethyl-3,4-Dinitrobenzene	UG/L	<0.23	--
1,2-Dimethyl-3,6-Dinitrobenzene	UG/L	<0.40	--
1,2-Dimethyl-4,5-Dinitrobenzene	UG/L	<0.38	--
1,3-Dimethyl-2,5-Dinitrobenzene	UG/L	<0.41	--
1,4-Dimethyl-2,3-Dinitrobenzene	UG/L	<0.37	--
1,4-Dimethyl-2,5-Dinitrobenzene	UG/L	<0.74	--
1,2-Dimethyl-3,5-Dinitrobenzene	UG/L	<0.32	--
1,3-Dimethyl-2,4-Dinitrobenzene	UG/L	<0.44	--
1,4-Dimethyl-2,6-Dinitrobenzene	UG/L	<0.21	--
1,5-Dimethyl-2,3-Dinitrobenzene	UG/L	<0.25	--
1,5-Dimethyl-2,4-Dinitrobenzene	UG/L	<0.26	--
2,4,6-Trinitroxylyene	UG/L	<0.012 UJ	<0.012

The "less than" symbol (<) indicates that the reading was below the method detection limit

UJ: Not detected. Reporting limit may not be accurate or precise

UG/L: Micrograms per Liter

ATTACHMENT 5
Test America Laboratory 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: 280-89530-2

Client Project/Site: BAR-Full Round Well Sampling 2016

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:
12/21/2016 8:12:25 AM

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

LINKS

Review your project
results through
TotalAccess

Have a Question?



Visit us at:
www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Chemours Company FC, LLC The
Project/Site: BAR-Full Round Well Sampling 2016

TestAmerica Job ID: 280-89530-2

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.

LCMS

Qualifier	Qualifier Description
H	Sample was prepped or analyzed beyond the specified holding time
U	Indicates the analyte was analyzed for but not detected.
X	Surrogate is outside control limits
F2	MS/MSD RPD exceeds control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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)

Case Narrative

Client: Chemours Company FC, LLC The
Project/Site: BAR-Full Round Well Sampling 2016

TestAmerica Job ID: 280-89530-2

Job ID: 280-89530-2

Laboratory: TestAmerica Denver

Narrative

CASE NARRATIVE

Client: The Chemours Company FC, LLC
Project: BAR-Full Round Well Sampling 2016
Report Number: 280-89530-2

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.

Revision - 12/20/2016

In accordance with the client's instructions provided on 12/14/2016 the deliverables were revised to report the samples in separate reports.

Sample Arrival and Receipt

The sample was received on 10/12/2016 9:55 AM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 2 coolers at receipt time were 3.9° C and 4.2° C.

Receipt Exceptions

One of two coolers was delayed by FedEx and received on 10/13/2016 one day after the first cooler was received on 10/12/2016. It can be noted that both coolers were received within temperature acceptance criteria of 0-6°C.

Additional samples/analyses requested on the chain-of-custody are reported under separate cover (280-89530-1).

No other anomalies were observed during sample receipt.

Semivolatiles - Method 8270C DNX

Sample GW1016-PZ-57D (280-89530-2) was analyzed for semivolatile organic compounds (GC-MS) in accordance with EPA SW-846 Method 8270C. The sample was prepared on 10/17/2016 and analyzed on 10/24/2016.

The method required MS/MSD could not be performed for prep batch 280-346875, due to insufficient sample volume. Method precision and accuracy have been verified by the acceptable LCS/LCSD analyses data.

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

Explosives - Method 8321A

Samples GW1016-PZ-57D (280-89530-2) was analyzed for explosives in accordance with EPA SW-846 Method 8321A. The sample was prepared on 10/20/2016 and analyzed on 11/01/2016.

The following sample was re-prepared outside of preparation holding time as the initial extraction used the wrong standards: GW1016-PZ-57D (280-89530-2).

Due to sample matrix effect on the HMX13C4 internal standard (ISTD), a dilution was required for the following samples: 280-89631-F-2-A MS and 280-89631-C-2-A MSD.

Case Narrative

Client: Chemours Company FC, LLC The
Project/Site: BAR-Full Round Well Sampling 2016

TestAmerica Job ID: 280-89530-2

Job ID: 280-89530-2 (Continued)

Laboratory: TestAmerica Denver (Continued)

The old and new column for du Pont explosives are unable to separate 2,3-Dinitrotoluene and 2,5-Dinitrotoluene; therefore, these compounds will be reported as a co-elution. Results may be biased low if only one of these compounds is actually in the sample.

Surrogate Nitrobenzene-d5 was recovered outside the QC control limits in sample GW1016-PZ-57D (280-89530-2). This anomaly is due to obvious matrix interference; therefore, corrective action is deemed unnecessary.

The MS/MSD associated with prep batch 280-347430 was performed on a sample from another job. The MS/MSD exhibited a surrogate recovery and RPD data outside the QC control limits for 2,4,6-Trinitro-3-xylene and Nitrobenzene-d5. The acceptable LCS analysis data indicated that the analytical system was operating within control; therefore, corrective action is deemed unnecessary.

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

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Detection Summary

Client: Chemours Company FC, LLC The
Project/Site: BAR-Full Round Well Sampling 2016

TestAmerica Job ID: 280-89530-2

Client Sample ID: GW1016-PZ-57D

Lab Sample ID: 280-89530-2

No Detections.

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This Detection Summary does not include radiochemical test results.

TestAmerica Denver

Method Summary

Client: Chemours Company FC, LLC The
Project/Site: BAR-Full Round Well Sampling 2016

TestAmerica Job ID: 280-89530-2

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-Full Round Well Sampling 2016

TestAmerica Job ID: 280-89530-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-89530-2	GW1016-PZ-57D	Water	10/10/16 12:40	10/12/16 09:55

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Client Sample Results

Client: Chemours Company FC, LLC The
 Project/Site: BAR-Full Round Well Sampling 2016

TestAmerica Job ID: 280-89530-2

Client Sample ID: GW1016-PZ-57D

Lab Sample ID: 280-89530-2

Date Collected: 10/10/16 12:40

Matrix: Water

Date Received: 10/12/16 09:55

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		10/17/16 14:50	10/24/16 20:41	1
1,2-Dimethyl-3,5-Dinitrobenzene	0.32	U	4.9	0.32	ug/L		10/17/16 14:50	10/24/16 20:41	1
1,2-Dimethyl-3,6-Dinitrobenzene	0.40	U	4.9	0.40	ug/L		10/17/16 14:50	10/24/16 20:41	1
1,2-Dimethyl-4,5-Dinitrobenzene	0.38	U	4.9	0.38	ug/L		10/17/16 14:50	10/24/16 20:41	1
1,3-Dimethyl-2,4-Dinitrobenzene	0.44	U	4.9	0.44	ug/L		10/17/16 14:50	10/24/16 20:41	1
1,3-Dimethyl-2,5-Dinitrobenzene	0.41	U	4.9	0.41	ug/L		10/17/16 14:50	10/24/16 20:41	1
1,4-Dimethyl-2,3-Dinitrobenzene	0.37	U	4.9	0.37	ug/L		10/17/16 14:50	10/24/16 20:41	1
1,4-Dimethyl-2,5-Dinitrobenzene	0.74	U	9700	0.74	ug/L		10/17/16 14:50	10/24/16 20:41	1
1,4-Dimethyl-2,6-Dinitrobenzene	0.21	U	4.9	0.21	ug/L		10/17/16 14:50	10/24/16 20:41	1
1,5-Dimethyl-2,3-Dinitrobenzene	0.25	U	4.9	0.25	ug/L		10/17/16 14:50	10/24/16 20:41	1
1,5-Dimethyl-2,4-Dinitrobenzene	0.26	U	4.9	0.26	ug/L		10/17/16 14:50	10/24/16 20:41	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	76		48 - 135	10/17/16 14:50	10/24/16 20:41	1
2-Fluorobiphenyl	80		48 - 135	10/17/16 14:50	10/24/16 20:41	1
2-Fluorophenol	79		41 - 135	10/17/16 14:50	10/24/16 20:41	1
Nitrobenzene-d5	79		42 - 135	10/17/16 14:50	10/24/16 20:41	1
Phenol-d5	81		46 - 135	10/17/16 14:50	10/24/16 20:41	1
Terphenyl-d14	53		20 - 135	10/17/16 14:50	10/24/16 20:41	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,6-Trinitro-3-xylene	0.012	U H	0.096	0.012	ug/L		10/20/16 17:35	11/01/16 19:49	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	36	X	48 - 130	10/20/16 17:35	11/01/16 19:49	1

Surrogate Summary

Client: Chemours Company FC, LLC The
 Project/Site: BAR-Full Round Well Sampling 2016

TestAmerica Job ID: 280-89530-2

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

Matrix: Water

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		TBP (48-135)	FBP (48-135)	2FP (41-135)	NBZ (42-135)	PHL (46-135)	TPH (20-135)
280-89530-2	GW1016-PZ-57D	76	80	79	79	81	53
LCS 280-346875/2-A	Lab Control Sample	75	82	68	80	59	88
LCSD 280-346875/3-A	Lab Control Sample Dup	72	80	73	78	72	65
MB 280-346875/1-A	Method Blank	74	80	81	81	83	86

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

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)
		NBZ (48-130)
280-89530-2	GW1016-PZ-57D	36 X
280-89631-C-2-A MSD	Matrix Spike Duplicate	55
280-89631-F-2-A MS	Matrix Spike	47 X
LCS 280-347430/2-A	Lab Control Sample	57
MB 280-347430/1-A	Method Blank	68

Surrogate Legend

NBZ = Nitrobenzene-d5

QC Sample Results

Client: Chemours Company FC, LLC The
Project/Site: BAR-Full Round Well Sampling 2016

TestAmerica Job ID: 280-89530-2

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

Lab Sample ID: MB 280-346875/1-A

Matrix: Water

Analysis Batch: 347868

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 346875

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		10/17/16 14:50	10/24/16 15:29	1
1,2-Dimethyl-3,5-Dinitrobenzene	0.33	U	5.0	0.33	ug/L		10/17/16 14:50	10/24/16 15:29	1
1,2-Dimethyl-3,6-Dinitrobenzene	0.41	U	5.0	0.41	ug/L		10/17/16 14:50	10/24/16 15:29	1
1,2-Dimethyl-4,5-Dinitrobenzene	0.39	U	5.0	0.39	ug/L		10/17/16 14:50	10/24/16 15:29	1
1,3-Dimethyl-2,4-Dinitrobenzene	0.45	U	5.0	0.45	ug/L		10/17/16 14:50	10/24/16 15:29	1
1,3-Dimethyl-2,5-Dinitrobenzene	0.42	U	5.0	0.42	ug/L		10/17/16 14:50	10/24/16 15:29	1
1,4-Dimethyl-2,3-Dinitrobenzene	0.38	U	5.0	0.38	ug/L		10/17/16 14:50	10/24/16 15:29	1
1,4-Dimethyl-2,5-Dinitrobenzene	0.76	U	10000	0.76	ug/L		10/17/16 14:50	10/24/16 15:29	1
1,4-Dimethyl-2,6-Dinitrobenzene	0.22	U	5.0	0.22	ug/L		10/17/16 14:50	10/24/16 15:29	1
1,5-Dimethyl-2,3-Dinitrobenzene	0.26	U	5.0	0.26	ug/L		10/17/16 14:50	10/24/16 15:29	1
1,5-Dimethyl-2,4-Dinitrobenzene	0.27	U	5.0	0.27	ug/L		10/17/16 14:50	10/24/16 15:29	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	74		48 - 135	10/17/16 14:50	10/24/16 15:29	1
2-Fluorobiphenyl	80		48 - 135	10/17/16 14:50	10/24/16 15:29	1
2-Fluorophenol	81		41 - 135	10/17/16 14:50	10/24/16 15:29	1
Nitrobenzene-d5	81		42 - 135	10/17/16 14:50	10/24/16 15:29	1
Phenol-d5	83		46 - 135	10/17/16 14:50	10/24/16 15:29	1
Terphenyl-d14	86		20 - 135	10/17/16 14:50	10/24/16 15:29	1

Lab Sample ID: LCS 280-346875/2-A

Matrix: Water

Analysis Batch: 347868

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 346875

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
1,2-Dimethyl-3,4-Dinitrobenzene	50.0	46.9		ug/L		94	50 - 135
1,2-Dimethyl-3,5-Dinitrobenzene	51.3	49.2		ug/L		96	50 - 135
1,2-Dimethyl-3,6-Dinitrobenzene	50.0	46.9		ug/L		94	50 - 135
1,2-Dimethyl-4,5-Dinitrobenzene	50.0	45.7		ug/L		91	50 - 135
1,3-Dimethyl-2,4-Dinitrobenzene	50.0	47.1		ug/L		94	50 - 135
1,3-Dimethyl-2,5-Dinitrobenzene	50.0	47.5		ug/L		95	50 - 135
1,4-Dimethyl-2,3-Dinitrobenzene	50.0	45.7		ug/L		91	50 - 135
1,4-Dimethyl-2,5-Dinitrobenzene	50.0	46.5	J	ug/L		93	50 - 135
1,4-Dimethyl-2,6-Dinitrobenzene	50.0	46.4		ug/L		93	50 - 135
1,5-Dimethyl-2,3-Dinitrobenzene	50.0	46.3		ug/L		93	50 - 135
1,5-Dimethyl-2,4-Dinitrobenzene	50.0	46.5		ug/L		93	50 - 135

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol	75		48 - 135
2-Fluorobiphenyl	82		48 - 135
2-Fluorophenol	68		41 - 135
Nitrobenzene-d5	80		42 - 135
Phenol-d5	59		46 - 135
Terphenyl-d14	88		20 - 135

TestAmerica Denver

QC Sample Results

Client: Chemours Company FC, LLC The
Project/Site: BAR-Full Round Well Sampling 2016

TestAmerica Job ID: 280-89530-2

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

Lab Sample ID: LCSD 280-346875/3-A

Matrix: Water

Analysis Batch: 347868

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 346875

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.		RPD	Limit
							Limits	RPD		
1,2-Dimethyl-3,4-Dinitrobenzene	50.0	43.6		ug/L		87	50 - 135	7	30	
1,2-Dimethyl-3,5-Dinitrobenzene	51.3	46.7		ug/L		91	50 - 135	5	30	
1,2-Dimethyl-3,6-Dinitrobenzene	50.0	43.9		ug/L		88	50 - 135	7	30	
1,2-Dimethyl-4,5-Dinitrobenzene	50.0	43.0		ug/L		86	50 - 135	6	30	
1,3-Dimethyl-2,4-Dinitrobenzene	50.0	45.8		ug/L		92	50 - 135	3	30	
1,3-Dimethyl-2,5-Dinitrobenzene	50.0	45.3		ug/L		91	50 - 135	5	30	
1,4-Dimethyl-2,3-Dinitrobenzene	50.0	43.6		ug/L		87	50 - 135	5	30	
1,4-Dimethyl-2,5-Dinitrobenzene	50.0	44.0	J	ug/L		88	50 - 135	6	30	
1,4-Dimethyl-2,6-Dinitrobenzene	50.0	44.3		ug/L		89	50 - 135	5	30	
1,5-Dimethyl-2,3-Dinitrobenzene	50.0	43.2		ug/L		86	50 - 135	7	30	
1,5-Dimethyl-2,4-Dinitrobenzene	50.0	44.7		ug/L		89	50 - 135	4	30	

Surrogate	LCSD LCSD		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol	72		48 - 135
2-Fluorobiphenyl	80		48 - 135
2-Fluorophenol	73		41 - 135
Nitrobenzene-d5	78		42 - 135
Phenol-d5	72		46 - 135
Terphenyl-d14	65		20 - 135

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

Lab Sample ID: MB 280-347430/1-A

Matrix: Water

Analysis Batch: 349337

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 347430

Analyte	MB MB		RL	MDL	Unit	D	Prepared		Analyzed		Dil Fac
	Result	Qualifier									
2,4,6-Trinitro-3-xylene	0.012	U	0.10	0.012	ug/L		10/20/16 17:35	11/01/16 16:03		1	

Surrogate	MB MB		Limits	Prepared		Analyzed		Dil Fac
	%Recovery	Qualifier						
Nitrobenzene-d5	68		48 - 130	10/20/16 17:35	11/01/16 16:03		1	

Lab Sample ID: LCS 280-347430/2-A

Matrix: Water

Analysis Batch: 349337

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 347430

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	
							Limits	RPD
2,4,6-Trinitro-3-xylene	0.500	0.412		ug/L		82	50 - 150	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Nitrobenzene-d5	57		48 - 130

TestAmerica Denver

QC Sample Results

Client: Chemours Company FC, LLC The
 Project/Site: BAR-Full Round Well Sampling 2016

TestAmerica Job ID: 280-89530-2

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

Lab Sample ID: 280-89631-C-2-A MSD

Matrix: Water

Analysis Batch: 349337

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total/NA

Prep Batch: 347430

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
2,4,6-Trinitro-3-xylene	0.011	U F2	0.480	0.416	F2	ug/L		87	50 - 150	31	30
Surrogate	%Recovery	MSD Qualifier	Limits								
Nitrobenzene-d5	55		48 - 130								

Lab Sample ID: 280-89631-F-2-A MS

Matrix: Water

Analysis Batch: 349337

Client Sample ID: Matrix Spike

Prep Type: Total/NA

Prep Batch: 347430

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
2,4,6-Trinitro-3-xylene	0.011	U F2	0.480	0.304		ug/L		63	50 - 150		
Surrogate	%Recovery	MS Qualifier	Limits								
Nitrobenzene-d5	47	X	48 - 130								

QC Association Summary

Client: Chemours Company FC, LLC The
Project/Site: BAR-Full Round Well Sampling 2016

TestAmerica Job ID: 280-89530-2

GC/MS Semi VOA

Prep Batch: 346875

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-89530-2	GW1016-PZ-57D	Total/NA	Water	3520C	
MB 280-346875/1-A	Method Blank	Total/NA	Water	3520C	
LCS 280-346875/2-A	Lab Control Sample	Total/NA	Water	3520C	
LCS 280-346875/3-A	Lab Control Sample Dup	Total/NA	Water	3520C	

Analysis Batch: 347868

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-89530-2	GW1016-PZ-57D	Total/NA	Water	8270C	346875
MB 280-346875/1-A	Method Blank	Total/NA	Water	8270C	346875
LCS 280-346875/2-A	Lab Control Sample	Total/NA	Water	8270C	346875
LCS 280-346875/3-A	Lab Control Sample Dup	Total/NA	Water	8270C	346875

LCMS

Prep Batch: 347430

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-89530-2	GW1016-PZ-57D	Total/NA	Water	3535	
MB 280-347430/1-A	Method Blank	Total/NA	Water	3535	
LCS 280-347430/2-A	Lab Control Sample	Total/NA	Water	3535	
280-89631-C-2-A MSD	Matrix Spike Duplicate	Total/NA	Water	3535	
280-89631-F-2-A MS	Matrix Spike	Total/NA	Water	3535	

Analysis Batch: 349337

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-89530-2	GW1016-PZ-57D	Total/NA	Water	8321A	347430
MB 280-347430/1-A	Method Blank	Total/NA	Water	8321A	347430
LCS 280-347430/2-A	Lab Control Sample	Total/NA	Water	8321A	347430
280-89631-C-2-A MSD	Matrix Spike Duplicate	Total/NA	Water	8321A	347430
280-89631-F-2-A MS	Matrix Spike	Total/NA	Water	8321A	347430

Lab Chronicle

Client: Chemours Company FC, LLC The
Project/Site: BAR-Full Round Well Sampling 2016

TestAmerica Job ID: 280-89530-2

Client Sample ID: GW1016-PZ-57D

Lab Sample ID: 280-89530-2

Date Collected: 10/10/16 12:40

Matrix: Water

Date Received: 10/12/16 09:55

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3520C			1028.1 mL	1 mL	346875	10/17/16 14:50	GLK	TAL DEN
Total/NA	Analysis	8270C		1			347868	10/24/16 20:41	DCK	TAL DEN
Total/NA	Prep	3535			1039.2 mL	5 mL	347430	10/20/16 17:35	DLW	TAL DEN
Total/NA	Analysis	8321A		1			349337	11/01/16 19:49	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-Full Round Well Sampling 2016

TestAmerica Job ID: 280-89530-2

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

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Login Sample Receipt Checklist

Client: Chemours Company FC, LLC The

Job Number: 280-89530-2

Login Number: 89530
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: 280-90923-3

Client Project/Site: BAR-GW Resampling

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:
12/20/2016 3:16:45 PM

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

LINKS

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www.testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Definitions/Glossary

Client: Chemours Company FC, LLC The
Project/Site: BAR-GW Resampling

TestAmerica Job ID: 280-90923-3

Qualifiers

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)

Case Narrative

Client: Chemours Company FC, LLC The
Project/Site: BAR-GW Resampling

TestAmerica Job ID: 280-90923-3

Job ID: 280-90923-3

Laboratory: TestAmerica Denver

Narrative

CASE NARRATIVE

Client: The Chemours Company FC, LLC
Project: BAR-GW Resampling
Report Number: 280-90923-3

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.

Revision - 12/20/2016

In accordance with the client's instructions provided on 12/14/2016 the deliverables were revised to report the samples in separate reports.

Sample Arrival and Receipt

The sample was received on 11/11/2016 9:30 AM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperatures of the 3 coolers at receipt time were 0.1° C, 2.1° C and 4.3° C. No anomalies were observed during sample receipt.

Explosives - Method 8321A

Sample GW1116-PZ-57D (280-90923-4) was analyzed for explosives in accordance with EPA SW-846 Method 8321A. The sample was prepared on 11/15/2016 and analyzed on 11/28/2016 and 11/29/2016.

The old and new column for du Pont explosives are unable to separate 2,3-Dinitrotoluene and 2,5-Dinitrotoluene; therefore, these compounds will be reported as a co-elution. Results may be biased low if only one of these compounds is actually in the sample.

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-GW Resampling

TestAmerica Job ID: 280-90923-3

Client Sample ID: GW1116-PZ-57D

Lab Sample ID: 280-90923-4

No Detections.

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This Detection Summary does not include radiochemical test results.

TestAmerica Denver

Method Summary

Client: Chemours Company FC, LLC The
Project/Site: BAR-GW Resampling

TestAmerica Job ID: 280-90923-3

Method	Method Description	Protocol	Laboratory
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-GW Resampling

TestAmerica Job ID: 280-90923-3

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
280-90923-4	GW1116-PZ-57D	Water	11/09/16 11:35	11/11/16 09:30

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Client Sample Results

Client: Chemours Company FC, LLC The
Project/Site: BAR-GW Resampling

TestAmerica Job ID: 280-90923-3

Client Sample ID: GW1116-PZ-57D

Lab Sample ID: 280-90923-4

Date Collected: 11/09/16 11:35

Matrix: Water

Date Received: 11/11/16 09:30

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,6-Trinitro-3-xylene	0.012	U	0.097	0.012	ug/L		11/15/16 18:34	11/28/16 21:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	68		48 - 130				11/15/16 18:34	11/28/16 21:58	1

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- 2
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Surrogate Summary

Client: Chemours Company FC, LLC The
Project/Site: BAR-GW Resampling

TestAmerica Job ID: 280-90923-3

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

Matrix: Water

Prep Type: Total/NA

Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	NBZ (48-130)
280-90923-4	GW1116-PZ-57D	68
280-90923-F-2-A MS	Matrix Spike	70
280-90923-G-2-A MSD	Matrix Spike Duplicate	66
LCS 280-351640/2-A	Lab Control Sample	59
MB 280-351640/1-A	Method Blank	60

Surrogate Legend

NBZ = Nitrobenzene-d5

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QC Sample Results

Client: Chemours Company FC, LLC The
Project/Site: BAR-GW Resampling

TestAmerica Job ID: 280-90923-3

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

Lab Sample ID: MB 280-351640/1-A
Matrix: Water
Analysis Batch: 353464

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 351640

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,6-Trinitro-3-xylene	0.012	U	0.10	0.012	ug/L		11/15/16 18:34	11/28/16 18:12	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
Nitrobenzene-d5	60		48 - 130				11/15/16 18:34	11/28/16 18:12	1

Lab Sample ID: LCS 280-351640/2-A
Matrix: Water
Analysis Batch: 353464

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 351640

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
2,4,6-Trinitro-3-xylene	0.511	0.557		ug/L		109	50 - 150
Surrogate	LCS %Recovery	LCS Qualifier	Limits				%Rec.
Nitrobenzene-d5	59		48 - 130				

Lab Sample ID: 280-90923-F-2-A MS
Matrix: Water
Analysis Batch: 353464

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 351640

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
2,4,6-Trinitro-3-xylene	0.012	U	0.498	0.503		ug/L		101	50 - 150
Surrogate	MS %Recovery	MS Qualifier	Limits					%Rec.	
Nitrobenzene-d5	70		48 - 130						

Lab Sample ID: 280-90923-G-2-A MSD
Matrix: Water
Analysis Batch: 353464

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total/NA
Prep Batch: 351640

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
2,4,6-Trinitro-3-xylene	0.012	U	0.491	0.525		ug/L		107	50 - 150	4	30
Surrogate	MSD %Recovery	MSD Qualifier	Limits					%Rec			
Nitrobenzene-d5	66		48 - 130								

QC Association Summary

Client: Chemours Company FC, LLC The
Project/Site: BAR-GW Resampling

TestAmerica Job ID: 280-90923-3

LCMS

Prep Batch: 351640

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-90923-4	GW1116-PZ-57D	Total/NA	Water	3535	
MB 280-351640/1-A	Method Blank	Total/NA	Water	3535	
LCS 280-351640/2-A	Lab Control Sample	Total/NA	Water	3535	
280-90923-F-2-A MS	Matrix Spike	Total/NA	Water	3535	
280-90923-G-2-A MSD	Matrix Spike Duplicate	Total/NA	Water	3535	

Analysis Batch: 353464

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
280-90923-4	GW1116-PZ-57D	Total/NA	Water	8321A	351640
MB 280-351640/1-A	Method Blank	Total/NA	Water	8321A	351640
LCS 280-351640/2-A	Lab Control Sample	Total/NA	Water	8321A	351640
280-90923-F-2-A MS	Matrix Spike	Total/NA	Water	8321A	351640
280-90923-G-2-A MSD	Matrix Spike Duplicate	Total/NA	Water	8321A	351640

Lab Chronicle

Client: Chemours Company FC, LLC The
Project/Site: BAR-GW Resampling

TestAmerica Job ID: 280-90923-3

Client Sample ID: GW1116-PZ-57D

Lab Sample ID: 280-90923-4

Date Collected: 11/09/16 11:35

Matrix: Water

Date Received: 11/11/16 09:30

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3535			1029.9 mL	5 mL	351640	11/15/16 18:34	CDC	TAL DEN
Total/NA	Analysis	8321A		1			353464	11/28/16 21:58	AGCM	TAL DEN

Laboratory References:

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

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Certification Summary

Client: Chemours Company FC, LLC The
Project/Site: BAR-GW Resampling

TestAmerica Job ID: 280-90923-3

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

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Chain of Custody Record

Client Information		Sampler: ERIC SCHMIDT		Lab PM: Johnston, Michelle A		Carrier Tracking No(s): FedEx		COC No: 280-59107-20714.1			
Client Contact: Sharon Nordstrom		Phone: 920-621-3878		E-Mail: michelle.johnston@testamericainc.com		808774784278 808774784289 808774784290		Page: Page 1 of 1			
Company: Chemours Company FC, LLC The		Due Date Requested:		Analysis Requested Field Filtered Sample (Yes or No) Perform MS/MSD (Yes or No) 8321A_Explosive - (MOD) Explosives + DNT Isomers + TNX 8321A_Explosive - (MOD) TNX Only		Total Number of containers		Job #:			
Address: c/o AECOM Sabre Building, Suite 300 4051 Ogletown Road		TAT Requested (days): 15 business days						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 - Na2S2O3 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:	
City: Newark		PO #: LBIO-67048/77201000-WH06-507975								Special Instructions/Note:	
State, Zip: DE, 19713		WO #:									
Phone: 302-781-5936(Tel)		Project #: 28003388									
Email: sharon.nordstrom@aecom.com		SSOW#:		Preservation Codes: N N X N Y X N N X N N X N Y X N Y X N N X		Special Instructions/Note:					
Project Name: BAR-GW Resampling		Site: BARKSDALE, WI									
Sample Identification		Sample Date		Sample Time		Sample Type (C=comp, G=grab)		Matrix (W=water, S=solid, O=soil, T=Tablet, A=Air)			
GW1016-MW-05		11/09/16		14:10		G		Water			
GW1016-PZ-280				14:50				Water			
GW1016-PZ-56D				12:30				Water			
GW1016-PZ-57D				11:35				Water			
GW1016-PZ-280 -MS				14:50				Water			
GW1016-PZ-280 -MSD				14:50				Water			
GW1016-EB - 110916		↓		16:00		↓		Water			
GW1016-EB -								Water			
GW1016-EB -								Water			
Possible Hazard Identification		<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological		Sample Dispc		<input type="checkbox"/> Return To <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For		longer than 1 month) Months			
Deliverable Requested: I, II, III, IV, Other (specify)		Special Instructions/QC Requirements:		280-90923 Chain of Custody 		280-90923 Chain of Custody longer than 1 month)					
Empty Kit Relinquished by: ash 9-2		Date: 11/4/16						Time: 0545		Method of Shipment:	
Relinquished by: ES		Date/Time: 11/10/16 10:00		Company: AECOM		Received by: ash		Date/Time: 11/11/16 0930			
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:			
Relinquished by:		Date/Time:		Company:		Received by:		Date/Time:			
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 2.14, 3.0, 1.4, 0.14, 0.14, 0.14 transferred by JS 11/11/16							

Login Sample Receipt Checklist

Client: Chemours Company FC, LLC The

Job Number: 280-90923-3

Login Number: 90923
List Number: 1
Creator: True, Joshua A

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	