

LABORATORY REPORT

If you have any questions concerning this report, please do not hesitate to call us at (800) 332-4345 or (574) 233-4777.

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STATE CERTIFICATION LIST

State	Certification	State	Certification
Alabama	40700	Missouri	880
Alaska	IN00035	Montana	CERT0026
Arizona	AZ0432	Nebraska	NE-OS-05-04
Arkansas	IN00035	Nevada	IN00035
California	2920	New Hampshire*	2124
Colorado	IN035	New Jersey*	IN598
Colorado Radiochemistry	IN035	New Mexico	IN00035
Connecticut	PH-0132	New York*	11398
Delaware	IN035	North Carolina	18700
Florida*	E87775	North Dakota	R-035
Georgia	929	Ohio	87775
Hawaii	IN035	Oklahoma	D9508
Idaho	IN00035	Oregon (Primary AB)*	4074-001
Illinois*	200001	Pennsylvania*	68-00466
Illinois Microbiology	17767	Puerto Rico	IN00035
Illinois Radiochemistry	IN00035	Rhode Island	LAO00343
Indiana Chemistry	C-71-01	South Carolina	95005
Indiana Microbiology	M-76-07	South Dakota	IN00035
Iowa	098	Tennessee	TN02973
Kansas*	E-10233	Texas*	T104704187-15-8
Kentucky	90056	Texas/TCEQ	TX207
Louisiana*	LA180008	Utah*	IN00035
Maine	IN00035	Vermont	VT-8775
Maryland	209	Virginia*	460275
Massachusetts	M-IN035	Washington	C837
Michigan	9926	West Virginia	9927 C
Minnesota*	018-999-338	Wisconsin	999766900
Mississippi	IN035	Wyoming	IN035
EPA	IN00035		

*NELAP/TNI Recognized Accreditation Bodies

110 South Hill Street
 South Bend, IN 46617
 Tel: (574) 233-4777
 Fax: (574) 233-8207
 1 800 332 4345

Laboratory Report

Client: Cary/Apex WTP
 Attn: Rachel Monschein
 1400 Wimberly Road
 Apex, NC 27523

Report: 443412
 Priority: Standard Written
 Status: Final
 PWS ID: NC0392020

Sample Information					
EEA ID #	Client ID	Method	Collected Date / Time	Collected By:	Received Date / Time
4197882	RawWaterIntake(Wet Well)	L402	02/12/19 03:00	Client	02/14/19 09:45
4197883	Filter Effluent	L402	02/12/19 08:30	Client	02/14/19 09:45

Report Summary

Detailed quantitative results are presented on the following pages. The results presented relate only to the samples provided for analysis.

We appreciate the opportunity to provide you with this analysis. If you have any questions concerning this report, please do not hesitate to call Pat Muff at (574) 233-4777.

Note: This report may not be reproduced, except in full, without written approval from EEA.




Authorized Signature

Title

03/18/2019

Date

Client Name: Cary/Apex WTP
 Report #: 443412

Sampling Point: RawWaterIntake(Wet Well)

PWS ID: NC0392020

EEA Methods									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
120226-60-0	10:2 Fluorotelomer sulfonic acid (10:2 FTS)	L402	---	2.0	< 2.0	ng/L	03/11/19 07:35	03/12/19 00:44	4197882
757124-22-4	4:2 Fluorotelomer sulfonic acid (4:2 FTS)	L402	---	2.0	< 2.0	ng/L	03/11/19 07:35	03/12/19 00:44	4197882
27619-97-2	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	L402	---	2.0	< 2.0	ng/L	03/11/19 07:35	03/12/19 00:44	4197882
39108-34-4	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	L402	---	2.0	< 2.0	ng/L	03/11/19 07:35	03/12/19 00:44	4197882
958445-44-8	ADONA	L402	---	2.0	< 2.0	ng/L	03/11/19 07:35	03/12/19 00:44	4197882
73606-19-6	F-53B Major	L402	---	2.0	< 2.0	ng/L	03/11/19 07:35	03/12/19 00:44	4197882
83329-89-9	F-53B Minor	L402	---	2.0	< 2.0	ng/L	03/11/19 07:35	03/12/19 00:44	4197882
13252-13-6	GenX	L402	---	5.0	< 5.0	ng/L	03/11/19 07:35	03/12/19 00:44	4197882
4151-50-2	N-ethylperfluorooctane sulfonamide (NEtFOSA)	L402	---	2.0	< 2.0	ng/L	03/11/19 07:35	03/12/19 00:44	4197882
1691-99-2	N-ethylperfluorooctane sulfonamidoethanol	L402	---	2.0	< 2.0	ng/L	03/11/19 07:35	03/12/19 00:44	4197882
31506-32-8	N-methylperfluorooctane sulfonamide (NMeFOSA)	L402	---	2.0	< 2.0	ng/L	03/11/19 07:35	03/12/19 00:44	4197882
24448-09-7	N-methylperfluorooctane sulfonamidoethanol	L402	---	2.0	< 2.0	ng/L	03/11/19 07:35	03/12/19 00:44	4197882
375-73-5	Perfluorobutanesulfonic acid (PFBS)	L402	---	2.0	2.5	ng/L	03/11/19 07:35	03/12/19 00:44	4197882
375-22-4	Perfluorobutanoic acid (PFBA)	L402	---	5.0	12	ng/L	03/11/19 07:35	03/12/19 00:44	4197882
335-76-2	Perfluorodecanoic acid (PFDA)	L402	---	2.0	< 2.0	ng/L	03/11/19 07:35	03/12/19 00:44	4197882
375-85-9	Perfluoroheptanoic acid (PFHpA)	L402	---	2.0	3.8	ng/L	03/11/19 07:35	03/12/19 00:44	4197882
355-46-4	Perfluorohexanesulfonic acid (PFHxS)	L402	---	2.0	< 2.0	ng/L	03/11/19 07:35	03/12/19 00:44	4197882
307-24-4	Perfluorohexanoic acid (PFHxA)	L402	---	2.0	5.8	ng/L	03/11/19 07:35	03/12/19 00:44	4197882
307-55-1	Perfluorododecanoic acid (PFDoA)	L402	---	2.0	< 2.0	ng/L	03/11/19 07:35	03/12/19 00:44	4197882
375-95-1	Perfluorononanoic acid (PFNA)	L402	---	2.0	< 2.0	ng/L	03/11/19 07:35	03/12/19 00:44	4197882
1763-23-1	Perfluorooctanesulfonic acid (PFOS)	L402	---	2.0	6.1	ng/L	03/11/19 07:35	03/12/19 00:44	4197882
2991-50-6	N-ethyl Perfluorooctanesulfonamidoacetic acid	L402	---	2.0	< 2.0	ng/L	03/11/19 07:35	03/12/19 00:44	4197882
2355-31-9	N-methyl Perfluorooctanesulfonamidoacetic acid	L402	---	2.0	< 2.0	ng/L	03/11/19 07:35	03/12/19 00:44	4197882
335-67-1	Perfluorooctanoic acid (PFOA)	L402	---	2.0	4.6	ng/L	03/11/19 07:35	03/12/19 00:44	4197882
72629-94-8	Perfluorotridecanoic acid (PFTrDA)	L402	---	2.0	< 2.0	ng/L	03/11/19 07:35	03/12/19 00:44	4197882
2058-94-8	Perfluoroundecanoic acid (PFUnA)	L402	---	2.0	< 2.0	ng/L	03/11/19 07:35	03/12/19 00:44	4197882
NA	Perfluorododecanesulfonic acid (PFDoS)	L402	---	2.0	< 2.0	ng/L	03/11/19 07:35	03/12/19 00:44	4197882
335-77-3	Perfluorodecanesulfonic acid (PFDS)	L402	---	2.0	< 2.0	ng/L	03/11/19 07:35	03/12/19 00:44	4197882
375-92-8	Perfluoroheptanesulfonic acid (PFHpS)	L402	---	2.0	< 2.0	ng/L	03/11/19 07:35	03/12/19 00:44	4197882
67905-19-5	Perfluorohexadecanoic acid (PFHxDA)	L402	---	2.0	< 2.0	ng/L	03/11/19 07:35	03/12/19 00:44	4197882
151772-58-6	Perfluoro-2-methoxyethoxyacetic acid	L402	---	5.0	< 5.0	ng/L	03/11/19 07:35	03/12/19 00:44	4197882
801212-59-9	Perfluoro-4-isopropoxybutanoic acid	L402	---	5.0	< 5.0	ng/L	03/11/19 07:35	03/12/19 00:44	4197882
863090-89-5	Perfluoro-4-methoxybutanoic acid (PFMOBA)	L402	---	5.0	< 5.0	ng/L	03/11/19 07:35	03/12/19 00:44	4197882
377-73-1	Perfluoro-3-methoxypropanoic acid (PFMOPrA)	L402	---	5.0	< 5.0	ng/L	03/11/19 07:35	03/12/19 00:44	4197882
68259-12-1	Perfluorononanesulfonic acid (PFNS)	L402	---	2.0	< 2.0	ng/L	03/11/19 07:35	03/12/19 00:44	4197882
754-91-6	Perfluorooctane sulfonamide (PFOSA)	L402	---	2.0	< 2.0	ng/L	03/11/19 07:35	03/12/19 00:44	4197882
2706-90-3	Perfluoropentanoic acid (PFPeA)	L402	---	2.0	5.3	ng/L	03/11/19 07:35	03/12/19 00:44	4197882
2706-91-4	Perfluoropentanesulfonic acid (PFPeS)	L402	---	2.0	< 2.0	ng/L	03/11/19 07:35	03/12/19 00:44	4197882
376-06-7	Perfluorotetradecanoic acid (PFTeDA)	L402	---	2.0	< 2.0	ng/L	03/11/19 07:35	03/12/19 00:44	4197882

Sampling Point: Filter Effluent

PWS ID: NC0392020

EEA Methods									
Analyte ID #	Analyte	Method	Reg Limit	MRL†	Result	Units	Preparation Date	Analyzed Date	EEA ID #
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27619-97-2	6:2 Fluorotelomer sulfonic acid (6:2 FTS)	L402	---	2.0	< 2.0	ng/L	03/11/19 07:35	03/12/19 01:10	4197883
39108-34-4	8:2 Fluorotelomer sulfonic acid (8:2 FTS)	L402	---	2.0	< 2.0	ng/L	03/11/19 07:35	03/12/19 01:10	4197883
958445-44-8	ADONA	L402	---	2.0	< 2.0	ng/L	03/11/19 07:35	03/12/19 01:10	4197883
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13252-13-6	GenX	L402	---	5.0	< 5.0	ng/L	03/11/19 07:35	03/12/19 01:10	4197883
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335-76-2	Perfluorodecanoic acid (PFDA)	L402	---	2.0	< 2.0	ng/L	03/11/19 07:35	03/12/19 01:10	4197883
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801212-59-9	Perfluoro-4-isopropoxybutanoic acid	L402	---	5.0	< 5.0	ng/L	03/11/19 07:35	03/12/19 01:10	4197883
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2706-90-3	Perfluoropentanoic acid (PFPeA)	L402	---	2.0	3.9	ng/L	03/11/19 07:35	03/12/19 01:10	4197883
2706-91-4	Perfluoropentanesulfonic acid (PFPeS)	L402	---	2.0	< 2.0	ng/L	03/11/19 07:35	03/12/19 01:10	4197883
376-06-7	Perfluorotetradecanoic acid (PFTeDA)	L402	---	2.0	< 2.0	ng/L	03/11/19 07:35	03/12/19 01:10	4197883

† EEA has demonstrated it can achieve these report limits in reagent water, but can not document them in all sample matrices.

Reg Limit Type:	MCL	SMCL	AL
Symbol:	*	^	!

Lab Definitions

Continuing Calibration Check Standard (CCC) / Continuing Calibration Verification (CCV) / Initial Calibration Verification Standard (ICV) / Initial Performance Check (IPC) - is a standard containing one or more of the target analytes that is prepared from the same standards used to calibrate the instrument. This standard is used to verify the calibration curve at the beginning of each analytical sequence, and may also be analyzed throughout and at the end of the sequence. The concentration of continuing standards may be varied, when prescribed by the reference method, so that the range of the calibration curve is verified on a regular basis. CCL, CCM, and CCH are the CCC standards at low, mid, and high concentration levels, respectively.

Internal Standards (IS) - are pure compounds with properties similar to the analytes of interest, which are added to field samples or extracts, calibration standards, and quality control standards at a known concentration. They are used to measure the relative responses of the analytes of interest and surrogates in the sample, calibration standard or quality control standard.

Laboratory Duplicate (LD) - is a field sample aliquot taken from the same sample container in the laboratory and analyzed separately using identical procedures. Analysis of laboratory duplicates provides a measure of the precision of the laboratory procedures.

Laboratory Fortified Blank (LFB) / Laboratory Control Sample (LCS) - is an aliquot of reagent water to which known concentrations of the analytes of interest are added. The LFB is analyzed exactly the same as the field samples. LFBs are used to determine whether the method is in control. FBL, FBM, and FBH are the LFB samples at low, mid, and high concentration levels, respectively.

Laboratory Method Blank (LMB) / Laboratory Reagent Blank (LRB) - is a sample of reagent water included in the sample batch analyzed in the same way as the associated field samples. The LMB is used to determine if method analytes or other background contamination have been introduced during the preparation or analytical procedure. The LMB is analyzed exactly the same as the field samples.

Laboratory Trip Blank (LTB) / Field Reagent Blank (FRB) - is a sample of laboratory reagent water placed in a sample container in the laboratory and treated as a field sample, including storage, preservation, and all analytical procedures. The FRB/LTB container follows the collection bottles to and from the collection site, but the FRB/LTB is not opened at any time during the trip. The FRB/LTB is primarily a travel blank used to verify that the samples were not contaminated during shipment.

Matrix Spike Duplicate Sample (MSD) / Laboratory Fortified Sample Matrix Duplicate (LFSMD) - is a sample aliquot taken from the same field sample source as the Matrix Spike Sample to which known quantities of the analytes of interest are added in the laboratory. The MSD is analyzed exactly the same as the field samples. Analysis of the MSD provides a measure of the precision of the laboratory procedures in a specific matrix. SDL, SDM, and SDH / LFSMDL, LFSMDM, and LFSMDH are the MSD or LFSMD at low, mid, and high concentration levels, respectively.

Matrix Spike Sample (MS) / Laboratory Fortified Sample Matrix (LFSM) - is a sample aliquot taken from field sample source to which known quantities of the analytes of interest are added in the laboratory. The MS is analyzed exactly the same as the field samples. The purpose is to demonstrate recovery of the analytes from a sample matrix to determine if the specific matrix contributes bias to the analytical results. MSL, MSM, and MSH / LFSML, LFSMM, and LFSMH are the MS or LFSM at low, mid, and high concentration levels, respectively.

Quality Control Standard (QCS) / Second Source Calibration Verification (SSCV) - is a solution containing known concentrations of the analytes of interest prepared from a source different from the source of the calibration standards. The solution is obtained from a second manufacturer or lot if the lot can be demonstrated by the manufacturer as prepared independently from other lots. The QCS sample is analyzed using the same procedures as field samples. The QCS is used as a check on the calibration standards used in the method on a routine basis.

Reporting Limit Check (RLC) / Initial Calibration Check Standard (ICCS) - is a procedural standard that is analyzed each day to evaluate instrument performance at or below the minimum reporting limit (MRL).

Surrogate Standard (SS) / Surrogate Analyte (SUR) - is a pure compound with properties similar to the analytes of interest, which is highly unlikely to be found in any field sample, that is added to the field samples, calibration standards, blanks and quality control standards before sample preparation. The SS is used to evaluate the efficiency of the sample preparation process.



Eaton Analytical

110 S. Hill Street
South Bend, IN 46617
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F: 1.574.233.8207

365556
Order # 351224
Batch # 44342

www.eatonanalytical.com

CHAIN OF CUSTODY RECORD

Page 1 of 1

Shaded area for EEA use only				SAMPLER (Signature)	PWS ID #	STATE (sample origin)	PROJECT NAME	PO#	# OF CONTAINERS	MATRIX CODE	TURNAROUND TIME	
REPORT TO:				COMPLIANCE MONITORING	POPULATION SERVED	SOURCE WATER	PFAS'S	CHLORINATED				
TOWN OF CARY FINANCE: A.P P.O. BOX 8005 CARY, NC 27512-8005									Yes	No	JORDAN LAKE	YES
LAB Number	COLLECTION			SAMPLING SITE	TEST NAME	SAMPLE REMARKS	CHLORINATED		# OF CONTAINERS	MATRIX CODE	TURNAROUND TIME	
	DATE	TIME	AM PM				YES	NO				
1	4197882	2/12/19	0300	X	RAW WATER INTAKE (WET WELL)	L402	pH = acceptable		X	2	DW	SW
2	883	2/12/19	0830	X	FILTER EFFLUENT		pH =	X		2	DW	SW
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												

RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)	DATE	TIME	LAB RESERVES THE RIGHT TO RETURN UNUSED PORTIONS OF NON-AQUEOUS SAMPLES TO CLIENT
<i>[Signature]</i>	2/12/19	8:32 AM	<i>[Signature]</i>	2/13/19	2:00 PM	
RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED BY: (Signature)	DATE	TIME	
<i>[Signature]</i>	2/13/19	2:00 AM				LAB COMMENTS
RELINQUISHED BY: (Signature)	DATE	TIME	RECEIVED FOR LABORATORY BY:	DATE	TIME	CONDITIONS UPON RECEIPT (check one):
			<i>[Signature]</i>	2/14/19	0945	<input checked="" type="checkbox"/> Iced: Wet/Blue <input type="checkbox"/> Ambient <input type="checkbox"/> °C Upon Receipt <input type="checkbox"/> N/A

MATRIX CODES: DW-DRINKING WATER RW-REAGENT WATER GW-GROUND WATER EW-EXPOSURE WATER SW-SURFACE WATER PW-POOL WATER WW-WASTE WATER	TURN-AROUND TIME (TAT) - SURCHARGES SW = Standard Written: (15 working days) 0% RV* = Rush Verbal: (5 working days) 50% RW* = Rush Written: (5 working days) 75%	IV* = Immediate Verbal: (3 working days) 100% IW* = Immediate Written: (3 working days) 125% SP* = Weekend, Holiday CALL STAT* = Less than 48 hours CALL	* Please call, expedited service not available for all testing	Samples received unannounced with less than 48 hours holding time remaining may be subject to additional charges.
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06-LO-F0435 Issue 4.0 Effective Date: 2014-05-01

Sample analysis will be provided according to the standard EEA/Water Services Terms, which are available upon request. Any other terms proposed by Customer are deemed material alterations and are rejected unless expressly agree to in writing by EEA.