

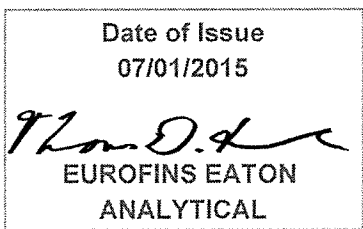
750 Royal Oaks Drive, Suite 100  
Monrovia, California 91016-3629  
Tel: (626) 386-1100  
Fax: (626) 386-1101  
1 800 566 LABS (1 800 566 5227)



## Laboratory Report

for

Aqua Pennsylvania, Inc.  
762 Lancaster Avenue  
Bryn Mawr, PA 19010-3489  
Attention: Chuck Hertz  
Fax: (610) 645-1164



TDF: Thomas.D.French  
Project Manager

Report: 532516  
Project: PFC  
Group: PFC Monitoring Horsham

- \* Accredited in accordance with TNI 2009 and ISO/IEC 17025:2005.
- \* Laboratory certifies that the test results meet all **TNI 2009 and ISO/IEC 17025:2005** requirements unless noted under the individual analysis.
- \* Following the cover page are State Certification List, ISO 17025 Accredited Method List, Acknowledgement of Samples Received, Comments, Hits Report, Data Report, QC Summary, QC Report and Regulatory Forms, as applicable.
- \* Test results relate only to the sample(s) tested.

**STATE CERTIFICATION LIST**

State	Certification Number	State	Certification Number
Alabama	41060	Mississippi	Certified
Alaska	CA00006	Montana	Cert 0035
Arizona	AZ0778	Nebraska	Certified
Arkansas	Certified	Nevada	CA00006-2015
California-Monrovia-ELAP	2813	New Hampshire *	2959
California-Colton- ELAP	2812	New Jersey *	CA 008
California-Folsom- ELAP	2820	New Mexico	Certified
California-Fresno- ELAP	2966	New York *	11320
Colorado	Certified	North Carolina	06701
Connecticut	PH-0107	North Dakota	R-009
Delaware	CA 006	Oregon (Primary AB) *	ORELAP 4034
Florida *	E871024	Pennsylvania *	68-565
Georgia	947	Rhode Island	LAO00326
Guam	15-003r	South Carolina	87016
Hawaii	Certified	South Dakota	Certified
Idaho	Certified	Tennessee	TN02839
Illinois *	200033	Texas *	T104704230-14-7
Indiana	C-CA-01	Utah *	CA000062015-8
Kansas *	E-10268	Vermont	VT0114
Kentucky	90107	Virginia *	460260
Louisiana *	LA150018	Washington	C838
Maine	CA0006	West Virginia	9943 C
Maryland	224	Wisconsin	998316660
Commonwealth of Northern Marianas Is.	MP0004	Wyoming	8TMS-L
Massachusetts	M-CA006	EPA Region 5	Certified
Michigan	9906	Los Angeles County Sanitation Districts	10264

\* NELAP/TNI Recognized Accreditation Bodies

ISO 17025 Accredited Method List

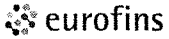
The tests listed below are accredited and meet the requirements of ISO 17025 as verified by the ANSI-ASQ National Accreditation Board/ACLASS.  
Refer to Certificate and scope of accreditation (AT 1807) found at: <http://www.eatonanalytical.com>

SPECIFIC TESTS	METHOD OR TECHNIQUE USED	Drinking Water	Food & Beverage	Waste Water
1,4-Dioxane	EPA 522	x	x	
2,3,7,8-TCDD	Modified EPA 1613B	x	x	
Acrylamide	In House Method	x	x	
Alkalinity	SM 2320B	x	x	x
Ammonia	EPA 350.1		x	x
Ammonia	SM 4500-NH3 H (18th)		x	x
Anions and DBPs by IC	EPA 300.0	x	x	x
Anions and DBPs by IC	EPA 300.1	x	x	
Asbestos	EPA 100.2	x		
Bicarbonate Alkalinity as HCO3	SM 2330B	x	x	x
BOD / CBOD	SM 5210B		x	x
Bromate	In House Method	x	x	
Carbamates	EPA 531.2	x	x	
Carbonate as CO3	SM 2330B	x	x	x
Carbonyls	EPA 556	x	x	
COD	EPA 410.4 / SM 5220D			x
Chloramines	SM 4500-CL G	x	x	x
Chlorinated Acids	EPA 515.4	x	x	
Chlorinated Acids	EPA 555	x	x	
Chlorine Dioxide	SM 4500-CLO2 D	x	x	
Chlorine -Total/Free/Combined Residual	SM 4500-Cl G	x	x	x
Conductivity	EPA 120.1			x
Conductivity	SM 2510B	x	x	x
Corrosivity (Langelier Index)	SM 2330B	x	x	
Cyanide, Amenable	SM 4500-CN G	x		x
Cyanide, Free	SM 4500CN F	x	x	x
Cyanide, Total	EPA 335.4	x	x	x
Cyanogen Chloride (screen)	In House Method	x	x	
Diquat and Paraquat	EPA 549.2	x	x	
DBP/HAA	SM 6251B	x	x	
Dissolved Oxygen	SM 4500-O G		x	x
E. Coli	(MTF/EC+MUG)	x		
E. Coli	CFR 141.21(f)(6)(i)		x	x
E. Coli	SM 9223			x
E. Coli (Enumeration)	SM 9221B.1/ SM 9221F	x	x	
E. Coli (Enumeration)	SM 9223B	x	x	
EDB/DCBP	EPA 504.1	x		
EDB/DBCP and DBP	EPA 551.1	x	x	
EDTA and NTA	In House Method	x	x	
Endothall	EPA 548.1	x	x	
Enterococci	SM 9230B	x		x
Fecal Coliform	SM 9221 E (MTF/EC)	x		
Fecal Coliform	SM 9221C, E (MTF/EC)			x
Fecal Coliform (Enumeration)	SM 9221E (MTF/EC)	x	x	
Fecal Coliform with Chlorine Present	SM 9221E			x
Fecal Streptococci	SM 9230B	x		x
Fluoride	SM 4500-F C	x	x	x
Glyphosate	EPA 547	x	x	
Gross Alpha/Beta	EPA 900.0	x	x	x
HAAs/ Dalapon	EPA 552.3	x	x	
Hardness	SM 2340B	x	x	x
Heterotrophic Bacteria	In House Method	x	x	
Heterotrophic Bacteria	SM 9215 B	x	x	
Hexavalent Chromium	EPA 218.6	x	x	x
Hexavalent Chromium	EPA 218.7	x	x	
Hexavalent Chromium	SM 3500-Cr B or C (20th)			x

SPECIFIC TESTS	METHOD OR TECHNIQUE USED	Drinking Water	Food & Beverage	Waste Water
Hormones	EPA 539	x	x	
Hydroxide as OH Calc.	SM 2330B	x	x	
Kjeldahl Nitrogen	EPA 351.2			x
Mercury	EPA 245.1	x	x	x
Metals	EPA 200.7 / 200.8	x	x	x
Microcystin LR	ELISA	x	x	
NDMA	EPA 521	x	x	
Nitrate/Nitrite Nitrogen	EPA 353.2	x	x	x
OCL, Pesticides/PCB	EPA 505	x	x	
Ortho Phosphate	EPA 365.1	x	x	
Ortho Phosphate and Total Phosphorous	EPA 365.1/SM 4500-P E			x
Ortho Phosphorous	SM 4500P E	x	x	
Oxyhalides Disinfection Byproducts	EPA 317.0	x	x	
Perchlorate	EPA 331.0	x	x	
Perchlorate	EPA 314.0	x	x	
Perfluorinated Alkyl Acids	EPA 537	x	x	
pH	EPA 150.1	x		
pH	SM 4500-H+B	x	x	x
Phenylurea Pesticides/Herbicides	In House Method	x	x	
Pseudomonas	IDEXX Pseudalert	x	x	
Radium-226	RA-226 GA	x	x	
Radium-228	RA-228 GA	x	x	
Radon-222	SM 7500RN	x	x	
Residue, Filterable	SM 2540C	x	x	x
Residue, Non-filterable	SM 2540D			x
Residue, Total	SM 2540B		x	x
Residue, Volatile	EPA 160.4			x
Semi-VOC	EPA 525.2	x	x	
Semi-VOC	EPA 625	x	x	x
Silica	SM 4500-Si D	x	x	x
Silica	SM 4500-SiO2 C	x		x
Sulfide	SM 4500-S <sup>2-</sup> D			x
Sulfite	SM 4500-SO <sup>3-</sup> B	x	x	x
Surfactants	SM 5540C	x	x	x
Taste and Odor Analytes	SM 6040E	x	x	
Total Coliform	SM 9221 A, B	x	x	
Total Coliform (Enumeration)	SM 9221 A, B, C	x	x	
Total Coliform / E. coli	Colisure	x	x	
Total Coliform	SM 9221B			x
Total Coliform with Chlorine Present	SM 9221B			x
Total Coliform / E.coli	SM 9223	x	x	
TOC	SM 5310C		x	x
TOC/DOC	SM 5310C	x	x	
TOX	SM 5320B			x
Total Phenols	EPA 420.1			x
Total Phenols	EPA 420.4	x	x	x
Total Phosphorous	SM 4500 P F			x
Turbidity	EPA 180.1	x	x	x
Turbidity	SM 2130B	x		x
Uranium by ICP/MS	EPA 200.8	x	x	
UV 254	SM 5910B	x		
VOC	EPA 524.2/EPA 524.3	x	x	
VOC	EPA 624	x	x	x
VOC	EPA SW 846 8260	x	x	
VOC	In House Method	x	x	
Yeast and Mold	SM 9610	x	x	

750 Royal Oaks Dr., Ste 100, Monrovia, CA 91016 Tel (626) 386-1100 Fax (626) 386-1101 <http://www.EatonAnalytical.com>

Version 002. Issued: 06/03/2014



Eaton Analytical

### Acknowledgement of Samples Received

Addr: **Aqua Pennsylvania, Inc.**  
762 Lancaster Avenue  
Bryn Mawr, PA 19010-3489

Client ID: PHILLYSUB  
Folder #: 532516  
Project: PFC  
Sample Group: PFC Monitoring Horsham

Attn: Chuck Hertz  
Phone: (610) 645-1145

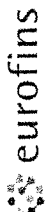
Project Manager: Thomas.D.French  
Phone: (480) 778-1558

The following samples were received from you on **June 19, 2015 at 1425**. They have been scheduled for the tests listed below each sample. If this information is incorrect, please contact your service representative. Thank you for using Eurofins Eaton Analytical.

Sample #	Sample ID	Sample Date
<u>201505020284</u>	Horsham Well # 17 @537	06/18/2015 1125
<u>201505020283</u>	Horsham Well # 10 @537	06/18/2015 0830
<u>201505020285</u>	Horsham Well # 21 @537	06/18/2015 1105

#### Test Description

@537 -- Perfluorinated Alkyl Acids



Eaton Analytical

# CHAIN OF CUSTODY RECORD

532516

EUROFINS EATON ANALYTICAL USE ONLY:

LOGIN COMMENTS: 464A

SAMPLES CHECKED AGAINST COC BY: WZEM

750 Royal Oaks Drive, Suite 100  
Monrovia, CA 91016-3629  
Phone: 626 386 1100  
Fax: 626 386 1101  
800 566 LABS (800 566 5227)

SAMPLE TEMP RECEIVED AT:  
 Colton / No. California / Arizona  
 Monrovia 3.7-0.3 °C (Compliance: 4 ± 2 °C)  
CONDITION OF BLUE ICE: Frozen  Partially Frozen  Thawed  Wet Ice  No Ice

SAMPLES LOGGED IN BY: WZEM  
SAMPLES REC'D DAY OF COLLECTION?  (check for yes)

METHOD OF SHIPMENT: Pick-Up / Walk-In / ~~FeedEX~~ / UPS / DHL / Area Fast / Top Line / Other: \_\_\_\_\_

TO BE COMPLETED BY SAMPLER:

COMPANY/AGENCY NAME: Aqua Pennsylvania, Inc.		PROJECT CODE:	COMPLIANCE SAMPLES - Requires state forms	NON-COMPLIANCE SAMPLES <input checked="" type="checkbox"/>	(check for yes)
EEA CLIENT CODE:	COC ID:	SAMPLE GROUP: Aqua Pennsylvania, Inc.	Type of samples (circle one): ROUTINE <input type="checkbox"/> SPECIAL <input type="checkbox"/> CONFIRMATION (eg. SDWA, Phase V, NPDES, FDA, ...)	SEE ATTACHED BOTTLE ORDER FOR ANALYSES (check for yes) <input type="checkbox"/> OR list ANALYSES REQUIRED (enter number of bottles sent for each test for each sample)	
TAT requested: rush by adv notice only	STD_X_ 1 wk ___ 3 day ___ 2 day ___ 1 day ___	CLIENT LAB ID	MATRIX	FIELD DATA	FIELD DATA
SAMPLE DATE	SAMPLE TIME	SAMPLE ID			SAMPLER COMMENTS
6/18/15	1125	Horsham Well #17	RGW		Raw Water
6/18/15	0830	Horsham Well #10	RGW		Raw Water
6/18/15	1105	Horsham Well #21	RGW		Raw Water
					Not for UCMR3

\* MATRIX TYPES: RSW = Raw Surface Water CFW = Chlor(am)inated Finished Water SEAW = Sea Water BW = Bottled Water SO = Soil  
RGW = Raw Ground Water FW = Other Finished Water WW = Waste Water SW = Storm Water SL = Sludge

SAMPLED BY:	SIGNATURE	PRINT NAME	COMPANY/TITLE	DATE	TIME
RELINQUISHED BY:		BP	Aqua Pennsylvania, Inc.	6/18/15	
RECEIVED BY:		Michael Senft	Aqua Pennsylvania, Inc.	6/18/15	1300
RECEIVED BY:		Michael Senft	Aqua Pennsylvania, Inc.	6/18/15	1600
RECEIVED BY:		Wesley Tansavala	EPA	6-19-15	1425

From: (610) 645-1176  
 Michael Senft  
 Aqua  
 762 West Lancaster Avenue  
 Bryn Mawr, PA 19010

Origin ID: WAYA



J151215022303uv

Ship Date: 18JUN15  
 ActWgt: 10.0 LB  
 CAD: 100061330/INET3610

Dims: 24 X 13 X 14 IN

Delivery Address Bar Code



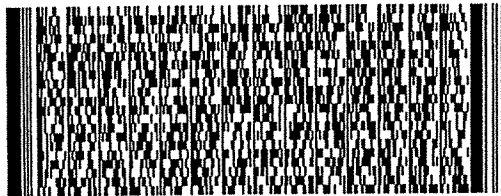
SHIP TO: (626) 386-1100  
**LOGIN**  
**MWH Americas,INC,**  
**750 Royal Oaks Drive**  
**Suite 100**  
**Monrovia, CA 91016**

BILL SENDER

Ref # UCMR3 3031 426930  
 Invoice # 15-3031  
 PO #  
 Dept # 15-3031

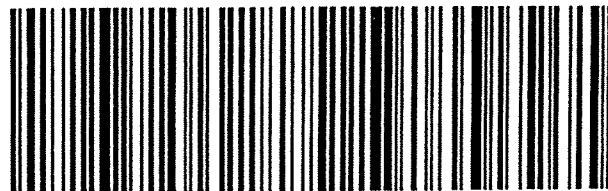
FRI - 19 JUN AA  
 STANDARD OVERNIGHT

TRK# 7738 6679 7116  
 0201



**NH WHPA**

**91016**  
 CA-US  
**BUR**



537J118A0E/EE4B

**After printing this label:**

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

**Warning:** Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.  
 Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$1,000, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.



Eaton Analytical

750 Royal Oaks Drive, Suite 100  
Monrovia, California 91016-3629  
Tel: (626) 386-1100  
Fax: (626) 386-1101  
1 800 566 LABS (1 800 566 5227)

Laboratory Comments  
Report: 532516

Aqua Pennsylvania, Inc.  
Chuck Hertz  
762 Lancaster Avenue  
Bryn Mawr, PA 19010-3489

---

The Comments Report may be blank if there are no comments for this report.



Eaton Analytical

750 Royal Oaks Drive, Suite 100  
Monrovia, California 91016-3629  
Tel: (626) 386-1100  
Fax: (626) 386-1101  
1 800 566 LABS (1 800 566 5227)

Laboratory Hits  
Report: 532516

Aqua Pennsylvania, Inc.  
Chuck Hertz  
762 Lancaster Avenue  
Bryn Mawr, PA 19010-3489

Samples Received on:  
06/19/2015 1425

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
	<b>201505020283</b>	<b><u>Horsham Well # 10</u></b>				
06/25/2015 00:53	Perfluorobutanesulfonic acid		0.0061		ug/L	0.003
06/25/2015 00:53	Perfluoroheptanoic acid		0.0041		ug/L	0.003
06/25/2015 00:53	Perfluorohexanesulfonic acid		0.026		ug/L	0.003
06/25/2015 00:53	Perfluorohexanoic acid		0.0087		ug/L	0.003
06/25/2015 00:53	Perfluorooctanesulfonic acid		0.040		ug/L	0.003
06/25/2015 00:53	Perfluorooctanoic acid		0.019		ug/L	0.003
	<b>201505020284</b>	<b><u>Horsham Well # 17</u></b>				
06/25/2015 01:18	Perfluorohexanesulfonic acid		0.036		ug/L	0.03
06/25/2015 13:54	Perfluorooctanesulfonic acid		0.080		ug/L	0.025
	<b>201505020285</b>	<b><u>Horsham Well # 21</u></b>				
06/25/2015 02:09	Perfluorobutanesulfonic acid		0.0034		ug/L	0.003
06/25/2015 02:09	Perfluoroheptanoic acid		0.0026		ug/L	0.003
06/25/2015 02:09	Perfluorohexanesulfonic acid		0.0042		ug/L	0.003
06/25/2015 02:09	Perfluorohexanoic acid		0.0039		ug/L	0.003
06/25/2015 02:09	Perfluorooctanesulfonic acid		0.0098		ug/L	0.003
06/25/2015 02:09	Perfluorooctanoic acid		0.0096		ug/L	0.003

SUMMARY OF POSITIVE DATA ONLY





Eaton Analytical

750 Royal Oaks Drive, Suite 100  
Monrovia, California 91016-3629  
Tel: (626) 386-1100  
Fax: (626) 386-1101  
1 800 566 LABS (1 800 566 5227)

Laboratory Data  
Report: 532516

Aqua Pennsylvania, Inc.  
Chuck Hertz  
762 Lancaster Avenue  
Bryn Mawr, PA 19010-3489

Samples Received on:  
06/19/2015 1425

Prepared	Analyzed	QC Ref #	Method	Analyte	Result	Units	MRL	Dilution	
<b>Horsham Well # 10 (201505020283)</b>					<b>Sampled on 06/18/2015 0830</b>				
<b>EPA 537 - Perfluorinated Alkyl Acids</b>									
6/22/2015	06/25/2015	00:53 846947	(EPA 537)	Perfluorobutanesulfonic acid	0.0061	ug/L	0.003	1	
6/22/2015	06/25/2015	00:53 846947	(EPA 537)	Perfluorodecanoic acid	ND	ug/L	0.003	1	
6/22/2015	06/25/2015	00:53 846947	(EPA 537)	Perfluorododecanoic acid	ND	ug/L	0.003	1	
6/22/2015	06/25/2015	00:53 846947	(EPA 537)	Perfluoroheptanoic acid	0.0041	ug/L	0.003	1	
6/22/2015	06/25/2015	00:53 846947	(EPA 537)	Perfluorohexanesulfonic acid	0.026	ug/L	0.003	1	
6/22/2015	06/25/2015	00:53 846947	(EPA 537)	Perfluorohexanoic acid	0.0087	ug/L	0.003	1	
6/22/2015	06/25/2015	00:53 846947	(EPA 537)	Perfluorononanoic acid	ND	ug/L	0.003	1	
6/22/2015	06/25/2015	00:53 846947	(EPA 537)	Perfluorooctanesulfonic acid	0.040	ug/L	0.003	1	
6/22/2015	06/25/2015	00:53 846947	(EPA 537)	Perfluorooctanoic acid	0.019	ug/L	0.003	1	
6/22/2015	06/25/2015	00:53 846947	(EPA 537)	Perfluorotetradecanoic acid	ND	ug/L	0.003	1	
6/22/2015	06/25/2015	00:53 846947	(EPA 537)	Perfluorotridecanoic acid	ND	ug/L	0.003	1	
6/22/2015	06/25/2015	00:53 846947	(EPA 537)	Perfluoroundecanoic acid	ND	ug/L	0.003	1	
6/22/2015	06/25/2015	00:53 846947	(EPA 537)	13C-PFDA	95	%		1	
6/22/2015	06/25/2015	00:53 846947	(EPA 537)	13C-PFHxA	98	%		1	
6/22/2015	06/25/2015	00:53 846947	(EPA 537)	13C-PFOA	79	%		1	
6/22/2015	06/25/2015	00:53 846947	(EPA 537)	13C-PFOS	98	%		1	
<b>Horsham Well # 17 (201505020284)</b>					<b>Sampled on 06/18/2015 1125</b>				
<b>EPA 537 - Perfluorinated Alkyl Acids</b>									
6/22/2015	06/25/2015	01:18 846947	(EPA 537)	Perfluorobutanesulfonic acid	ND	ug/L	0.03	10	
6/22/2015	06/25/2015	01:18 846947	(EPA 537)	Perfluorodecanoic acid	ND	ug/L	0.03	10	
6/22/2015	06/25/2015	01:18 846947	(EPA 537)	Perfluorododecanoic acid	ND	ug/L	0.03	10	
6/22/2015	06/25/2015	01:18 846947	(EPA 537)	Perfluoroheptanoic acid	ND	ug/L	0.03	10	
6/22/2015	06/25/2015	01:18 846947	(EPA 537)	Perfluorohexanesulfonic acid	0.036	ug/L	0.03	10	
6/22/2015	06/25/2015	01:18 846947	(EPA 537)	Perfluorohexanoic acid	ND	ug/L	0.03	10	
6/22/2015	06/25/2015	01:18 846947	(EPA 537)	Perfluorononanoic acid	ND	ug/L	0.03	10	
6/22/2015	06/25/2015	13:54 846947	(EPA 537)	Perfluorooctanesulfonic acid	0.080	ug/L	0.025	10	
6/22/2015	06/25/2015	01:18 846947	(EPA 537)	Perfluorooctanoic acid	ND	ug/L	0.03	10	
6/22/2015	06/25/2015	01:18 846947	(EPA 537)	Perfluorotetradecanoic acid	ND	ug/L	0.03	10	
6/22/2015	06/25/2015	01:18 846947	(EPA 537)	Perfluorotridecanoic acid	ND	ug/L	0.03	10	
6/22/2015	06/25/2015	01:18 846947	(EPA 537)	Perfluoroundecanoic acid	ND	ug/L	0.03	10	
6/22/2015	06/25/2015	01:18 846947	(EPA 537)	13C-PFDA	96	%		10	
6/22/2015	06/25/2015	01:18 846947	(EPA 537)	13C-PFHxA	99	%		10	
6/22/2015	06/25/2015	01:18 846947	(EPA 537)	13C-PFOA	80	%		1	

Rounding on totals after summation.  
(c) - indicates calculated results



Eaton Analytical

750 Royal Oaks Drive, Suite 100  
Monrovia, California 91016-3629  
Tel: (626) 386-1100  
Fax: (626) 386-1101  
1 800 566 LABS (1 800 566 5227)

Laboratory Data  
Report: 532516

Aqua Pennsylvania, Inc.  
Chuck Hertz  
762 Lancaster Avenue  
Bryn Mawr, PA 19010-3489

Samples Received on:  
06/19/2015 1425

Prepared	Analyzed	QC Ref #	Method	Analyte	Result	Units	MRL	Dilution
6/22/2015	06/25/2015	01:18 846947	(EPA 537)	13C-PFOS	101	%		1

**Horsham Well # 21 (201505020285)**

Sampled on 06/18/2015 1105

**EPA 537 - Perfluorinated Alkyl Acids**

6/22/2015	06/25/2015	02:09 846947	(EPA 537)	Perfluorobutanesulfonic acid	0.0034	ug/L	0.003	1
6/22/2015	06/25/2015	02:09 846947	(EPA 537)	Perfluorodecanoic acid	ND	ug/L	0.003	1
6/22/2015	06/25/2015	02:09 846947	(EPA 537)	Perfluorododecanoic acid	ND	ug/L	0.003	1
6/22/2015	06/25/2015	02:09 846947	(EPA 537)	Perfluoroheptanoic acid	0.0026	ug/L	0.003	1
6/22/2015	06/25/2015	02:09 846947	(EPA 537)	Perfluorohexanesulfonic acid	0.0042	ug/L	0.003	1
6/22/2015	06/25/2015	02:09 846947	(EPA 537)	Perfluorohexanoic acid	0.0039	ug/L	0.003	1
6/22/2015	06/25/2015	02:09 846947	(EPA 537)	Perfluorononanoic acid	ND	ug/L	0.003	1
6/22/2015	06/25/2015	02:09 846947	(EPA 537)	Perfluorooctanesulfonic acid	0.0098	ug/L	0.003	1
6/22/2015	06/25/2015	02:09 846947	(EPA 537)	Perfluorooctanoic acid	0.0096	ug/L	0.003	1
6/22/2015	06/25/2015	02:09 846947	(EPA 537)	Perfluorotetradecanoic acid	ND	ug/L	0.003	1
6/22/2015	06/25/2015	02:09 846947	(EPA 537)	Perfluorotridecanoic acid	ND	ug/L	0.003	1
6/22/2015	06/25/2015	02:09 846947	(EPA 537)	Perfluoroundecanoic acid	ND	ug/L	0.003	1
6/22/2015	06/25/2015	02:09 846947	(EPA 537)	13C-PFDA	93	%		1
6/22/2015	06/25/2015	02:09 846947	(EPA 537)	13C-PFHxA	95	%		1
6/22/2015	06/25/2015	02:09 846947	(EPA 537)	13C-PFOA	78	%		1
6/22/2015	06/25/2015	02:09 846947	(EPA 537)	13C-PFOS	99	%		1

Rounding on totals after summation.  
(c) - indicates calculated results



Eaton Analytical

Laboratory  
QC Summary: 532516

750 Royal Oaks Drive, Suite 100  
Monrovia, California 91016-3629  
Tel: (626) 386-1100  
Fax: (626) 386-1101  
1 800 566 LABS (1 800 566 5227)

Aqua Pennsylvania, Inc.

---

**QC Ref # 846947 - Perfluorinated Alkyl Acids**

**Analysis Date: 06/25/2015**

201505020283	Horsham Well # 10
201505020284	Horsham Well # 17
201505020284	Horsham Well # 17
201505020285	Horsham Well # 21

Analyzed by: LHZ
Analyzed by: LHZ
Analyzed by: LHZ
Analyzed by: LHZ



Eaton Analytical

Laboratory QC  
Report: 532516

750 Royal Oaks Drive, Suite 100  
Monrovia, California 91016-3629  
Tel: (626) 386-1100  
Fax: (626) 386-1101  
1 800 566 LABS (1 800 566 5227)

Aqua Pennsylvania, Inc.

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
<b>QC Ref# 846947 - Perfluorinated Alkyl Acids by EPA 537</b>						<b>Analysis Date: 06/24/2015</b>			
LCS1	13C-PFDA (S)			95.5	%	96	(70-130)		
LCS2	13C-PFDA (S)			93.6	%	94	(70-130)		
MBLK	13C-PFDA (S)			95.9	%	96	(70-130)		
MRL_CHK	13C-PFDA (S)			87.6	%	88	(70-130)		
MS1_201506110517	13C-PFDA (S)			69.4	%	<u>69</u>	(70-130)		
MSD1_201506110517	13C-PFDA (S)			82.4	%	82	(70-130)		
LCS1	13C-PFHxA (S)			99.6	%	100	(70-130)		
LCS2	13C-PFHxA (S)			100	%	100	(70-130)		
MBLK	13C-PFHxA (S)			99.6	%	100	(70-130)		
MRL_CHK	13C-PFHxA (S)			91.8	%	92	(70-130)		
MS1_201506110517	13C-PFHxA (S)			99.9	%	100	(70-130)		
MSD1_201506110517	13C-PFHxA (S)			96.4	%	96	(70-130)		
LCS1	13C-PFOA (I)			93.6	%	94	(50-150)		
LCS2	13C-PFOA (I)			88.6	%	89	(50-150)		
MBLK	13C-PFOA (I)			93.1	%	93	(50-150)		
MRL_CHK	13C-PFOA (I)			101	%	101	(50-150)		
MS1_201506110517	13C-PFOA (I)			86.4	%	86	(50-150)		
MSD1_201506110517	13C-PFOA (I)			85.8	%	86	(50-150)		
LCS1	13C-PFOS (I)			98.0	%	98	(50-150)		
LCS2	13C-PFOS (I)			100	%	100	(50-150)		
MBLK	13C-PFOS (I)			101	%	101	(50-150)		
MRL_CHK	13C-PFOS (I)			108	%	108	(50-150)		
MS1_201506110517	13C-PFOS (I)			100	%	100	(50-150)		
MSD1_201506110517	13C-PFOS (I)			101	%	101	(50-150)		
LCS1	Perfluorobutanesulfonic acid		0.022	0.0214	ug/L	97	(70-130)		
LCS2	Perfluorobutanesulfonic acid		0.022	0.0213	ug/L	96	(70-130)	30	0.47
MBLK	Perfluorobutanesulfonic acid			<0.00074	ug/L				
MRL_CHK	Perfluorobutanesulfonic acid		0.0022	0.00179	ug/L	81	(50-150)		
MS1_201506110517	Perfluorobutanesulfonic acid	ND	0.022	0.0221	ug/L	97	(70-130)		
MSD1_201506110517	Perfluorobutanesulfonic acid	ND	0.022	0.0222	ug/L	97	(70-130)	30	0.45
LCS1	Perfluorodecanoic acid		0.025	0.0248	ug/L	99	(70-130)		
LCS2	Perfluorodecanoic acid		0.025	0.0265	ug/L	106	(70-130)	30	6.6
MBLK	Perfluorodecanoic acid			<0.00083	ug/L				
MRL_CHK	Perfluorodecanoic acid		0.0025	0.00213	ug/L	85	(50-150)		
MS1_201506110517	Perfluorodecanoic acid	ND	0.025	0.0266	ug/L	98	(70-130)		
MSD1_201506110517	Perfluorodecanoic acid	ND	0.025	0.0273	ug/L	101	(70-130)	30	2.6

Spike recovery is already corrected for native results.

Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

(I) - Indicates internal standard compound.

750 Royal Oaks Drive, Suite 100  
 Monrovia, California 91016-3629  
 Tel: (626) 386-1100  
 Fax: (626) 386-1101  
 1 800 566 LABS (1 800 566 5227)

Laboratory QC  
 Report: 532516

Aqua Pennsylvania, Inc.

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
LCS1	Perfluorododecanoic acid		0.025	0.0222	ug/L	89	(70-130)		
LCS2	Perfluorododecanoic acid		0.025	0.0238	ug/L	95	(70-130)	30	7.0
MBLK	Perfluorododecanoic acid			<0.00083	ug/L				
MRL_CHK	Perfluorododecanoic acid		0.0025	0.00198	ug/L	79	(50-150)		
MS1_201506110517	Perfluorododecanoic acid	ND	0.025	0.0225	ug/L	90	(70-130)		
MSD1_201506110517	Perfluorododecanoic acid	ND	0.025	0.0233	ug/L	93	(70-130)	30	3.5
LCS1	Perfluoroheptanoic acid		0.025	0.0248	ug/L	99	(70-130)		
LCS2	Perfluoroheptanoic acid		0.025	0.0263	ug/L	105	(70-130)	30	5.5
MBLK	Perfluoroheptanoic acid			<0.00083	ug/L				
MRL_CHK	Perfluoroheptanoic acid		0.0025	0.00216	ug/L	86	(50-150)		
MS1_201506110517	Perfluoroheptanoic acid	0.0044	0.025	0.0290	ug/L	99	(70-130)		
MSD1_201506110517	Perfluoroheptanoic acid	0.0044	0.025	0.0289	ug/L	98	(70-130)	30	0.35
LCS1	Perfluorohexanesulfonic acid		0.024	0.0237	ug/L	100	(70-130)		
LCS2	Perfluorohexanesulfonic acid		0.024	0.0242	ug/L	102	(70-130)	30	2.1
MBLK	Perfluorohexanesulfonic acid			<0.00079	ug/L				
MRL_CHK	Perfluorohexanesulfonic acid		0.0024	0.00189	ug/L	80	(50-150)		
MS1_201506110517	Perfluorohexanesulfonic acid	ND	0.024	0.0250	ug/L	98	(70-130)		
MSD1_201506110517	Perfluorohexanesulfonic acid	ND	0.024	0.0259	ug/L	101	(70-130)	30	3.5
LCS1	Perfluorohexanoic acid		0.025	0.0235	ug/L	94	(70-130)		
LCS2	Perfluorohexanoic acid		0.025	0.0255	ug/L	102	(70-130)	30	8.2
MBLK	Perfluorohexanoic acid			<0.00083	ug/L				
MRL_CHK	Perfluorohexanoic acid		0.0025	0.00225	ug/L	90	(50-150)		
MS1_201506110517	Perfluorohexanoic acid	0.0059	0.025	0.0304	ug/L	98	(70-130)		
MSD1_201506110517	Perfluorohexanoic acid	0.0059	0.025	0.0312	ug/L	101	(70-130)	30	2.6
LCS1	Perfluorononanoic acid		0.025	0.0252	ug/L	101	(70-130)		
LCS2	Perfluorononanoic acid		0.025	0.0276	ug/L	110	(70-130)	30	8.7
MBLK	Perfluorononanoic acid			<0.00083	ug/L				
MRL_CHK	Perfluorononanoic acid		0.0025	0.00241	ug/L	97	(50-150)		
MS1_201506110517	Perfluorononanoic acid	0.043	0.025	0.0666	ug/L	95	(70-130)		
MSD1_201506110517	Perfluorononanoic acid	0.043	0.025	0.0686	ug/L	103	(70-130)	30	3.0
LCS1	Perfluorooctanesulfonic acid		0.024	0.0241	ug/L	100	(70-130)		
LCS2	Perfluorooctanesulfonic acid		0.024	0.0238	ug/L	100	(70-130)	30	0.83
MBLK	Perfluorooctanesulfonic acid			<0.0008	ug/L				
MRL_CHK	Perfluorooctanesulfonic acid		0.0024	0.00196	ug/L	82	(50-150)		
MS1_201506110517	Perfluorooctanesulfonic acid	0.0082	0.024	0.0300	ug/L	91	(70-130)		
MSD1_201506110517	Perfluorooctanesulfonic acid	0.0082	0.024	0.0303	ug/L	92	(70-130)	30	1
LCS1	Perfluorooctanoic acid		0.025	0.0251	ug/L	100	(70-130)		
LCS2	Perfluorooctanoic acid		0.025	0.0267	ug/L	107	(70-130)	30	6.2

Spike recovery is already corrected for native results.

Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

(I) - Indicates internal standard compound.



Eaton Analytical

Laboratory QC  
Report: 532516

750 Royal Oaks Drive, Suite 100  
Monrovia, California 91016-3629  
Tel: (626) 386-1100  
Fax: (626) 386-1101  
1 800 566 LABS (1 800 566 5227)

Aqua Pennsylvania, Inc.

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield (%)	Limits (%)	RPDLimit (%)	RPD%
MBLK	Perfluorooctanoic acid			<0.00083	ug/L				
MRL_CHK	Perfluorooctanoic acid		0.0025	0.00249	ug/L	100	(50-150)		
MS1_201506110517	Perfluorooctanoic acid	0.013	0.025	0.0372	ug/L	95	(70-130)		
MSD1_201506110517	Perfluorooctanoic acid	0.013	0.025	0.0389	ug/L	102	(70-130)	30	4.5
LCS1	Perfluorotetradecanoic acid		0.025	0.0243	ug/L	97	(70-130)		
LCS2	Perfluorotetradecanoic acid		0.025	0.0257	ug/L	103	(70-130)	30	5.6
MBLK	Perfluorotetradecanoic acid			<0.00083	ug/L				
MRL_CHK	Perfluorotetradecanoic acid		0.0025	0.00205	ug/L	82	(50-150)		
MS1_201506110517	Perfluorotetradecanoic acid	ND	0.025	0.0232	ug/L	93	(70-130)		
MSD1_201506110517	Perfluorotetradecanoic acid	ND	0.025	0.0247	ug/L	99	(70-130)	30	6.3
LCS1	Perfluorotridecanoic acid		0.025	0.0225	ug/L	90	(70-130)		
LCS2	Perfluorotridecanoic acid		0.025	0.0240	ug/L	96	(70-130)	30	6.5
MBLK	Perfluorotridecanoic acid			<0.00083	ug/L				
MRL_CHK	Perfluorotridecanoic acid		0.0025	0.00203	ug/L	81	(50-150)		
MS1_201506110517	Perfluorotridecanoic acid	ND	0.025	0.0225	ug/L	90	(70-130)		
MSD1_201506110517	Perfluorotridecanoic acid	ND	0.025	0.0237	ug/L	95	(70-130)	30	5.2
LCS1	Perfluoroundecanoic acid		0.025	0.0243	ug/L	97	(70-130)		
LCS2	Perfluoroundecanoic acid		0.025	0.0252	ug/L	101	(70-130)	30	3.6
MBLK	Perfluoroundecanoic acid			<0.00083	ug/L				
MRL_CHK	Perfluoroundecanoic acid		0.0025	0.00205	ug/L	82	(50-150)		
MS1_201506110517	Perfluoroundecanoic acid	0.0093	0.025	0.0323	ug/L	92	(70-130)		
MSD1_201506110517	Perfluoroundecanoic acid	0.0093	0.025	0.0341	ug/L	99	(70-130)	30	5.4

Spike recovery is already corrected for native results.

Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

(I) - Indicates internal standard compound.