



DATE: September 12, 2019

WQ 0.10.14.4

TO: Oregon Health Authority, Drinking Water Services

**SUBJECT: Monthly Report for August 2019
Bilateral Compliance Agreement
Intake *Cryptosporidium* Results
PWS # 4100657**

To Whom It May Concern:

Enclosed are results of laboratory analyses for *Cryptosporidium* from the Bull Run raw water intake for August. Monitoring for *Cryptosporidium* at the Bull Run intake is done to comply with the interim measures of the Bilateral Compliance Agreement (Oregon Health Authority, December 18, 2017).

Analyses for *Cryptosporidium* and *Giardia* were performed by the PWB Laboratory (see attached report). Also attached are copies of the monthly turbidity and raw coliform reports previously submitted to OHA in compliance with the SWTR. Results for the reporting month are summarized below:

***Cryptosporidium*, *Giardia*, Turbidity and Fecal Coliforms Data Summary for the Reporting Month**

<i>Cryptosporidium</i> and <i>Giardia</i> Field Samples				<i>Cryptosporidium</i> Recoveries		Fecal Coliforms	Turbidity
No. of Samples	Total Volume (L)	Total No. <i>Cryptosporidium</i> Oocysts	Total No. <i>Giardia</i> Cysts	No. of Matrix Spikes	Average Matrix Spike Recovery (%)	Highest Count (CFU/100 mL)	Highest Reading (NTU)
8	400	0	1	1	51	6	0.56

If you have any questions regarding these results, please contact me at 503-823-6135.

Sincerely,



Ann Levy
Senior Environmental Program Manager

Transmitted: Four pages (including this transmittal memo) emailed to dwp.dmce@state.or.us on this date.



Portland Water Bureau Laboratory
2010 N Interstate Ave. Portland, OR 97227

Cryptosporidium and Giardia Laboratory Analysis Report

Water System Information PWS ID: OR4100657 PWS Name: Portland Water Bureau 1900 N Interstate Avenue Portland, Oregon 97227 Multnomah County:	Sample Information Collection Month & Year: Aug. 2019 Report Date: September 6, 2019 Monitoring Regime: Bilateral Compliance Agreement Source Water: Bull Run Intake - WTP-A
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PWB Sample ID	Loc ID	Sample Collection Date	Sample Type	Sample Volume Filtered (L)	Analysis Method	Cryptosporidium			Giardia		
						No. of Oocysts Spiked	No. of Oocysts Counted	Oocyst Matrix Spike Recovery (%)	No. of Cysts Spiked	No. of Cysts Counted	Cyst Matrix Spike Recovery (%)
BC26142	Intake 2PIS	8/4/2019	Field	50	1623.1	0	0		0.0	0	
BC26143	Intake 2PIS	8/6/2019	Field	50	1623.1	0	0		0.0	0	
BC26562	Intake 2PIS	8/11/2019	Field	50	1623.1	0	0		0.0	0	
BC26563	Intake 2PIS	8/13/2019	Field	50	1623.1	0	0		0.0	0	
BC26703	Intake 2PIS	8/13/2019	MS	50.75	1623.1	98	50	51.0	98	68	69.4
BC26921	Intake 2PIS	8/18/2019	Field	50	1623.1	0	0		0.0	0	
BC26922	Intake 2PIS	8/20/2019	Field	50	1623.1	0	0		0.0	0	
BC27153	Intake 2PIS	8/25/2019	Field	50	1623.1	0	0		0.0	0	
BC27154	Intake 2PIS	8/27/2019	Field	50	1623.1	0	0		0.0	1	

Reviewed by: *[Signature]*

Date Reviewed: *9/6/19*

Unless otherwise noted, all data were generated in accordance with EPA Method 1623.1 and 100% of the filtered volume was examined for each sample.

OHA - Drinking Water Services - Turbidity Monitoring Report Form

County: **Multnomah**

Slow Sand, Membrane, Diatomaceous Earth Filtration, or Unfiltered Systems

Portland Water Bureau

ID #: OR 4100657

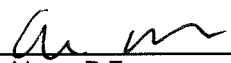
WTP-A

Month/Year: 08/2019

DAY	12 AM (NTU)	4 AM (NTU)	8 AM (NTU)	NOON (NTU)	4 PM (NTU)	8 PM (NTU)	Highest Reading (NTU)
1	0.24	0.25	0.24	0.23	0.24	0.25	0.25
2	0.25	0.26	0.25	0.25	0.25	0.28	0.28
3	0.28	0.28	0.27	0.25	0.25	0.28	0.28
4	0.28	0.25	0.27	0.24	0.24	0.25	0.28
5	0.26	0.25	0.25	0.25	0.24	0.26	0.26
6	0.25	0.25	0.25	0.26	0.25	0.26	0.26
7	0.27	0.28	0.28	0.25	0.25	0.25	0.28
8	0.28	0.28	0.28	0.25	0.25	0.25	0.28
9	0.27	0.27	0.27	0.25	0.26	0.27	0.27
10	0.27	0.28	0.27	0.25	0.24	0.25	0.28
11	0.25	0.25	0.28	0.25	0.24	0.25	0.28
12	0.26	0.25	0.25	0.25	0.27	0.28	0.28
13	0.29	0.30	0.30	0.28	0.29	0.30	0.30
14	0.30	0.28	0.30	0.28	0.29	0.29	0.30
15	0.30	0.29	0.31	0.29	0.30	0.30	0.31
16	0.33	0.30	0.31	0.32	0.33	0.32	0.33
17	0.33	0.32	0.33	0.33	0.33	0.32	0.33
18	0.34	0.33	0.32	0.33	0.32	0.34	0.34
19	0.34	0.34	0.34	0.33	0.34	0.33	0.34
20	0.34	0.34	0.34	0.33	0.35	0.34	0.35
21	0.36	0.36	0.35	0.35	0.34	0.34	0.36
22	0.35	0.34	0.35	0.33	0.33	0.35	0.35
23	0.35	0.34	0.34	0.32	0.34	0.35	0.35
24	0.35	0.34	0.35	0.34	0.34	0.36	0.36
25	0.35	0.36	0.34	0.34	0.34	0.34	0.36
26	0.36	0.37	0.36	0.34	0.34	0.35	0.37
27	0.38	0.38	0.36	0.37	0.39	0.39	0.39
28	0.39	0.39	0.37	0.56	0.38	0.38	0.56
29	0.38	0.38	0.39	0.39	0.38	0.37	0.39
30	0.35	0.34	0.36	0.35	0.34	0.34	0.36
31	0.35	0.36	0.36	0.34	0.35	0.34	0.36

Slow Sand/Membrane/DE Filtration/Unfiltered			Monthly summary	
95% of daily turbidity readings ≤ 1 NTU? ¹	N/A	CT's met everyday?	Chlorine residual at entry point always ≥ 0.2 mg/L?	Chlorine residual measured in 95% of distribution samples?
All daily turbidity readings ≤ 5 NTU?	Yes	Yes	Yes	Yes

¹Filtered systems only

Signature: 
 Anna Vosa, P.E.

Date: 9/5/19

OHA Drinking Water Services - Raw Coliform Data (Unfiltered)

Portland Water Bureau

ID#: OR 4100657

Month/Year: 08/2019

Date	Fecal Coliform (CFU/100mL)	Comments
8/1/2019	4	
8/2/2019	1	
8/3/2019	6	
8/4/2019	1	
8/5/2019	1	
8/6/2019	<1	
8/7/2019	<1	
8/8/2019	<1	
8/9/2019	<1	
8/10/2019	<1	
8/11/2019	1	
8/12/2019	1	
8/13/2019	2	
8/14/2019	2	
8/15/2019	2	
8/16/2019	1	
8/17/2019	3	
8/18/2019	2	
8/19/2019	2	
8/20/2019	3	
8/21/2019	2	
8/22/2019	1	
8/23/2019	1	
8/24/2019	1	
8/25/2019	1	
8/26/2019	1	
8/27/2019	1	
8/28/2019	1	
8/29/2019	1	
8/30/2019	1	
8/31/2019	<1	

Note: Fecal Coliform sampled at active Headworks Raw Water Intake (either 2P or 2PIS)

Six Month Summary:

# of Samples For Fecal Coliform:	183
# of Samples > 20 CFU/100mL:	0
Percent:	0.0%