



Amanda Fritz, Commissioner
Michael Stuhr, P.E., Administrator

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DATE: December 13, 2019

WQ 0.10.14.4

TO: Oregon Health Authority, Drinking Water Services

**SUBJECT: Monthly Report for November 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 November. 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)
17	850	4	7	1	72.4	6	0.97

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				Sample Information			
PWS ID:	OR4100657			Collection Month & Year:	Nov. 2019		
PWS Name:	Portland Water Bureau 1900 N Interstate Avenue Portland, Oregon 97227			Report Date:	December 5, 2019		
County:	Multnomah			Monitoring Regime:	Bilateral Compliance Agreement		
				Source Water:	Bull Run Intake - WTP-A		

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 (%)
BC30393	Intake 2PIS	11/1/2019	Field	50	1623.1	0	1		0.0	2	
BC30512	Intake 2PIS	11/3/2019	Field	50	1623.1	0	0		0.0	0	
BC30513	Intake 2PIS	11/4/2019	Field	50	1623.1	0	0		0.0	0	
BC30514	Intake 2PIS	11/5/2019	Field	50	1623.1	0	0		0.0	0	
BC30515	Intake 2PIS	11/6/2019	Field	50	1623.1	0	0		0.0	1	
BC30776	Intake 2PIS	11/10/2019	Field	50	1623.1	0	1		0.0	0	
BC30777	Intake 2PIS	11/11/2019	Field	50	1623.1	0	0		0.0	1	
BC30778	Intake 2PIS	11/12/2019	Field	50	1623.1	0	0		0.0	1	
BC30779	Intake 2PIS	11/13/2019	Field	50	1623.1	0	0		0.0	1	
BC31116	Intake 2PIS	11/17/2019	Field	50	1623.1	0	1		0.0	0	
BC31117	Intake 2PIS	11/18/2019	Field	50	1623.1	0	0		0.0	1	
BC31118	Intake 2PIS	11/18/2019	MS	50.5	1623.1	98	71	72.4	99	80	79.8
BC31119	Intake 2PIS	11/19/2019	Field	50	1623.1	0	1		0.0	0	
BC31120	Intake 2PIS	11/20/2019	Field	50	1623.1	0	0		0.0	0	
BC31427	Intake 2PIS	11/24/2019	Field	50	1623.1	0	0		0.0	0	
BC31428	Intake 2PIS	11/25/2019	Field	50	1623.1	0	0		0.0	0	
BC31429	Intake 2PIS	11/26/2019	Field	50	1623.1	0	0		0.0	0	
BC31430	Intake 2PIS	11/27/2019	Field	50	1623.1	0	0		0.0	0	

Unless otherwise noted, all data were generated in accordance with EPA Method 1623/1623.1 and 100% of the filtered volume was examined for each sample.

Reviewed by Marla Lang

Date Reviewed: 12/05/19

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: 11/2019

DAY	12 AM (NTU)	4 AM (NTU)	8 AM (NTU)	NOON (NTU)	4 PM (NTU)	8 PM (NTU)	Highest Reading (NTU)
1	0.39	0.37	0.37	0.38	0.39	0.38	0.39
2	0.38	0.37	0.38	0.37	0.38	0.37	0.38
3	0.37	0.37	0.36	0.36	0.37	0.35	0.37
4	0.34	0.34	0.34	0.34	0.35	0.34	0.35
5	0.33	0.34	0.32	0.34	0.33	0.33	0.34
6	0.33	0.32	0.32	0.33	0.31	0.32	0.33
7	0.33	0.30	0.30	0.31	0.30	0.31	0.33
8	0.30	0.30	0.30	0.32	0.33	0.34	0.34
9	0.32	0.32	0.33	0.31	0.32	0.32	0.33
10	0.33	0.32	0.31	0.31	0.30	0.30	0.33
11	0.30	0.29	0.29	0.28	0.29	0.29	0.30
12	0.30	0.29	0.31	0.27	0.27	0.28	0.31
13	0.28	0.28	0.27	0.28	0.28	0.25	0.28
14	0.24	0.25	0.26	0.25	0.25	0.25	0.26
15	0.25	0.26	0.25	0.26	0.27	0.27	0.27
16	0.27	0.26	0.25	0.25	0.25	0.25	0.27
17	0.25	0.25	0.26	0.25	0.25	0.25	0.26
18	0.25	0.24	0.24	0.25	0.24	0.25	0.25
19	0.25	0.24	0.29	0.25	0.25	0.25	0.29
20	0.24	0.24	0.24	0.97	0.25	0.25	0.97
21	0.25	0.24	0.25	0.25	0.24	0.25	0.25
22	0.25	0.24	0.24	0.24	0.25	0.25	0.25
23	0.25	0.25	0.24	0.24	0.24	0.24	0.25
24	0.25	0.25	0.26	0.24	0.24	0.24	0.26
25	0.24	0.25	0.24	0.24	0.24	0.25	0.25
26	0.25	0.24	0.24	0.24	0.24	0.27	0.27
27	0.28	0.28	0.29	0.30	0.29	0.29	0.30
28	0.29	0.28	0.28	0.29	0.29	0.28	0.29
29	0.28	0.28	0.29	0.27	0.28	0.29	0.29
30	0.27	0.27	0.27	0.27	0.27	0.29	0.29

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: 12/6/19

OHA Drinking Water Services - Raw Coliform Data (Unfiltered)

Portland Water Bureau

ID#: OR 4100657

Month/Year: 11/2019

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

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

Six Month Summary:

# of Samples For Fecal Coliform:	182
# of Samples > 20 CFU/100mL:	0
Percent:	0.0%