



Mingus Mapps, Commissioner
 Gabriel Solmer, Director



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 Information: 503-823-7404
 www.portlandoregon.gov/water

DATE: January 13, 2022 WQ 0.10.14.4
TO: Oregon Health Authority, Drinking Water Services

**SUBJECT: Monthly Report for December 2021
 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 December. 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)
15	750	1	2	1	50.5	2	0.80

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

Sincerely,

Ann Levy
 Environmental 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**

<u>Water System Information</u>				<u>Sample Information</u>			
PWS ID:	OR4100657			Collection Month & Year:	Dec. 2021		
PWS Name:	Portland Water Bureau 1900 N Interstate Avenue Portland, Oregon 97227			Report Date:	January 6, 2022		
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	<i>Cryptosporidium</i>			<i>Giardia</i>		
						No. of Oocysts Spiked	No. of Oocysts Counted	Oocyst Matrix Spike Recovery (%)	No. of Cysts Spiked	No. of Cysts Counted	Cyst Matrix Spike Recovery (%)
BC65794	Intake 2PIS	12/1/2021	Field	50	1623.1	0	0		0	1	
BC66011	Intake 2PIS	12/5/2021	Field	50	1623.1	0	0		0	0	
BC66012	Intake 2PIS	12/6/2021	Field	50	1623.1	0	0		0	0	
BC66013	Intake 2PIS	12/6/2021	MS	50.75	1623.1	99	50	50.5	100	84	84.0
BC66014	Intake 2PIS	12/7/2021	Field	50	1623.1	0	0		0	0	
BC66015	Intake 2PIS	12/8/2021	Field	50	1623.1	0	0		0	0	
BC66344	Intake 2PIS	12/12/2021	Field	50	1623.1	0	0		0	0	
BC66345	Intake 2PIS	12/13/2021	Field	50	1623.1	0	0		0	0	
BC66346	Intake 2PIS	12/14/2021	Field	50	1623.1	0	0		0	0	
BC66347	Intake 2PIS	12/15/2021	Field	50	1623.1	0	0		0	0	
BC66679	Intake 2PIS	12/19/2021	Field	50	1623.1	0	0		0	0	
BC66680	Intake 2PIS	12/20/2021	Field	50	1623.1	0	0		0	1	
BC66681	Intake 2PIS	12/21/2021	Field	50	1623.1	0	0		0	0	
BC66682	Intake 2PIS	12/22/2021	Field	50	1623.1	0	0		0	0	
BC67022	Intake 2PIS	12/26/2021	Field	50	1623.1	0	0		0	0	
BC67023	Intake 2PIS	12/27/2021	Field	50	1623.1	0	1		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 Marsha Farooqui

Date Reviewed: 01/06/2022

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: 12/2021

DAY	12 AM (NTU)	4 AM (NTU)	8 AM (NTU)	NOON (NTU)	4 PM (NTU)	8 PM (NTU)	Highest Reading (NTU)
1	0.76	0.75	0.74	0.74	0.75	0.79	0.79
2	0.80	0.75	0.72	0.72	0.74	0.72	0.80
3	0.72	0.74	0.72	0.71	0.75	0.71	0.75
4	0.71	0.70	0.70	0.70	0.68	0.69	0.71
5	0.68	0.69	0.68	0.66	0.66	0.66	0.69
6	0.64	0.66	0.65	0.75	0.64	0.64	0.75
7	0.61	0.61	0.62	0.60	0.59	0.59	0.62
8	0.56	0.55	0.55	0.53	0.57	0.56	0.57
9	0.57	0.58	0.56	0.62	0.61	0.56	0.62
10	0.66	0.54	0.54	0.53	0.52	0.53	0.66
11	0.51	0.51	0.49	0.49	0.50	0.50	0.51
12	0.65	0.56	0.62	0.54	0.60	0.59	0.65
13	0.58	0.56	0.59	0.55	0.55	0.54	0.59
14	0.50	0.49	0.54	0.51	0.50	0.47	0.54
15	0.49	0.48	0.47	0.48	0.56	0.56	0.56
16	0.55	0.50	0.45	0.43	0.42	0.45	0.55
17	0.42	0.43	0.44	0.44	0.43	0.43	0.44
18	0.41	0.40	0.40	0.40	0.41	0.43	0.43
19	0.51	0.60	0.42	0.39	0.39	0.40	0.60
20	0.40	0.40	0.39	0.40	0.40	0.40	0.40
21	0.41	0.40	0.40	0.38	0.39	0.42	0.42
22	0.42	0.42	0.41	0.43	0.47	0.71	0.71
23	0.41	0.47	0.42	0.43	0.41	0.42	0.47
24	0.43	0.41	0.39	0.38	0.39	0.39	0.43
25	0.39	0.38	0.37	0.37	0.35	0.35	0.39
26	0.34	0.35	0.35	0.35	0.34	0.35	0.35
27	0.34	0.34	0.35	0.34	0.34	0.34	0.35
28	0.33	0.33	0.34	0.34	0.33	0.33	0.34
29	0.33	0.33	0.32	0.33	0.35	0.35	0.35
30	0.35	0.33	0.32	0.32	0.33	0.30	0.35
31	0.33	0.35	0.29	0.31	0.29	0.29	0.35

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: 1/6/22

OHA Drinking Water Services - Raw Coliform Data (Unfiltered)

Portland Water Bureau

ID#: OR 4100657

Month/Year: 12/2021

Date	Fecal Coliform (CFU/100mL)	Comments
12/1/2021	1	
12/2/2021	1	
12/3/2021	<1	
12/4/2021	1	
12/5/2021	1	
12/6/2021	1	
12/7/2021	1	
12/8/2021	1	
12/9/2021	1	
12/10/2021	<1	
12/11/2021	2	
12/12/2021	1	
12/13/2021	1	
12/14/2021	1	
12/15/2021	1	
12/16/2021	1	
12/17/2021	1	
12/18/2021	1	
12/19/2021	<1	
12/20/2021	<1	
12/21/2021	1	
12/22/2021	1	
12/23/2021	1	
12/24/2021	<1	
12/25/2021	1	
12/26/2021	<1	
12/27/2021	1	
12/28/2021	1	
12/29/2021	<1	
12/30/2021	1	
12/31/2021	<1	

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%