



Mingus Mapps, Commissioner
Gabriel Solmer, Director



1120 SW Fifth Avenue, Room 405
Portland, Oregon 97204-1926
Information: 503-823-7404
Portland.gov/water

DATE: January 12, 2023 WQ 0.10.14.4
TO: Oregon Health Authority, Drinking Water Services

**SUBJECT: Monthly Report for December 2022
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)
16	800.25	30	6	1	77.8	5	2.15

If you have any questions regarding these results, please contact me at 503-545-8190.

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. 2022		
PWS Name:	Portland Water Bureau 1900 N Interstate Avenue Portland, Oregon 97227			Report Date:	January 6, 2023		
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 (%)
BC91400	Intake 2PIS	12/4/2022	Field	50	1623.1	0	3		0	0	
BC91401	Intake 2PIS	12/5/2022	Field	50	1623.1	0	2		0	1	
BC91402	Intake 2PIS	12/6/2022	Field	50	1623.1	0	1		0	0	
BC91403	Intake 2PIS	12/6/2022	MS	50	1623.1	99	78	77.8	98	75	76.5
BC91404	Intake 2PIS	12/7/2022	Field	50.25	1623.1	0	3		0	0	
BC91897	Intake 2PIS	12/11/2022	Field	50	1623.1	0	0		0	0	
BC91898	Intake 2PIS	12/12/2022	Field	50	1623.1	0	2		0	1	
BC91899	Intake 2PIS	12/13/2022	Field	50	1623.1	0	2		0	0	
BC91900	Intake 2PIS	12/14/2022	Field	50	1623.1	0	3		0	0	
BC92326	Intake 2PIS	12/18/2022	Field	50	1623.1	0	1		0	0	
BC92327	Intake 2PIS	12/19/2022	Field	50	1623.1	0	3		0	1	
BC92328	Intake 2PIS	12/20/2022	Field	50	1623.1	0	1		0	0	
BC92329	Intake 2PIS	12/21/2022	Field	50	1623.1	0	3		0	0	
BC92547	Intake 2PIS	12/25/2022	Field	50	1623.1	0	0		0	0	
BC92548	Intake 2PIS	12/26/2022	Field	50	1623.1	0	2		0	0	
BC92549	Intake 2PIS	12/27/2022	Field	50	1623.1	0	2		0	2	
BC92550	Intake 2PIS	12/28/2022	Field	50	1623.1	0	2		0	1	

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: 01/06/2023

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: 12/2022

DAY	12 AM (NTU)	4 AM (NTU)	8 AM (NTU)	NOON (NTU)	4 PM (NTU)	8 PM (NTU)	Highest Reading (NTU)
1	2.15	2.15	2.11	2.10	2.05	2.01	2.15
2	2.02	1.99	2.00	1.98	1.97	1.97	2.02
3	1.98	1.97	2.00	1.97	1.95	1.94	2.00
4	1.90	1.93	1.92	1.90	1.91	1.95	1.95
5	1.88	1.85	1.86	1.85	1.85	1.84	1.88
6	1.83	1.83	1.81	1.81	1.83	1.81	1.83
7	1.78	1.77	1.74	1.71	1.70	1.71	1.78
8	1.80	1.69	1.73	1.74	1.71	1.70	1.80
9	1.69	1.69	1.65	1.61	1.61	1.61	1.69
10	1.64	1.63	1.60	1.61	1.61	1.58	1.64
11	1.57	1.54	1.53	1.49	1.52	1.49	1.57
12	1.47	1.45	1.44	1.47	1.44	1.44	1.47
13	1.48	1.44	1.43	1.42	1.40	1.42	1.48
14	1.39	1.38	1.37	1.36	1.36	1.38	1.39
15	1.36	1.36	1.34	1.34	1.32	1.33	1.36
16	1.30	1.27	1.27	1.25	1.24	1.25	1.30
17	1.26	1.24	1.24	1.25	1.24	1.23	1.26
18	1.22	1.22	1.23	1.22	1.22	1.22	1.23
19	1.22	1.23	1.21	1.20	1.17	1.17	1.23
20	1.16	1.18	1.16	1.17	1.18	1.18	1.18
21	1.22	1.21	1.16	1.15	1.13	1.18	1.22
22	1.11	1.31	1.23	1.22	1.30	1.34	1.34
23	1.44	1.45	1.49	1.51	1.53	1.42	1.53
24	1.40	1.38	1.37	1.34	1.33	1.32	1.40
25	1.31	1.28	1.23	1.24	1.20	1.22	1.31
26	1.21	1.17	1.12	1.07	1.04	1.01	1.21
27	1.00	0.95	1.07	1.02	1.00	0.93	1.07
28	0.91	0.98	1.00	1.01	1.03	1.03	1.03
29	1.02	0.98	0.98	1.01	1.00	1.00	1.02
30	1.02	1.01	1.00	0.98	0.98	1.08	1.08
31	0.98	0.97	0.98	0.98	1.03	1.06	1.06

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: 1/6/23

OHA Drinking Water Services - Raw Coliform Data (Unfiltered)

Portland Water Bureau

ID#: OR 4100657

Month/Year: 12/2022

Date	Fecal Coliform (CFU/100mL)	Comments
12/1/2022	4	
12/2/2022	1	
12/3/2022	1	
12/4/2022	5	
12/5/2022	2	
12/6/2022	2	
12/7/2022	1	
12/8/2022	2	
12/9/2022	2	
12/10/2022	2	
12/11/2022	2	
12/12/2022	2	
12/13/2022	1	
12/14/2022	1	
12/15/2022		Analytical results did not meet Lab QA/QC
12/16/2022	<1	
12/17/2022	<1	
12/18/2022	1	
12/19/2022	<1	
12/20/2022	1	
12/21/2022	2	
12/22/2022	1	
12/23/2022	1	
12/24/2022	1	
12/25/2022	1	
12/26/2022	<1	
12/27/2022	2	
12/28/2022	1	
12/29/2022	2	
12/30/2022	2	
12/31/2022	2	

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

Six Month Summary:

# of Samples For Fecal Coliform:	168
# of Samples > 20 CFU/100mL:	1
Percent:	0.6%