



**DATE:** November 15, 2021

WQ 0.10.14.4

**TO:** Oregon Health Authority, Drinking Water Services

**SUBJECT: Monthly Report for October 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 October. 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)
22	550	1	0	1	80.8	2	1.03

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](mailto: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>		
<b>PWS ID:</b>	OR4100657		<b>Collection Month &amp; Year:</b>	Oct. 2021	
<b>PWS Name:</b>	Portland Water Bureau 1900 N Interstate Avenue Portland, Oregon 97227		<b>Report Date:</b>	November 10, 2021	
<b>County:</b>	Multnomah		<b>Monitoring Regime:</b>	Bilateral Compliance Agreement	
			<b>Source Water:</b>	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 (%)
BC63248	Intake 2PIS	10/3/2021	Field	25	DAMM PWBL-SOP-61 3	0	0		0	0	
BC63249	Intake 2PIS	10/3/2021	Field	25	DAMM PWBL-SOP-61 3	0	0		0	0	
BC63250	Intake 2PIS	10/5/2021	Field	25	DAMM PWBL-SOP-61 3	0	0		0	0	
BC63251	Intake 2PIS	10/5/2021	Field	25	DAMM PWBL-SOP-61 3	0	0		0	0	
BC63252	Intake 2PIS	10/5/2021	MS	25	DAMM PWBL-SOP-61 3	99	80	80.8	99	81	81.8
BC63492	Intake 2PIS	10/10/2021	Field	25	DAMM PWBL-SOP-61 3	0	0		0	0	
BC63493	Intake 2PIS	10/10/2021	Field	25	DAMM PWBL-SOP-61 3	0	0		0	0	
BC63494	Intake 2PIS	10/12/2021	Field	25	DAMM PWBL-SOP-61 3	0	0		0	0	
BC63495	Intake 2PIS	10/12/2021	Field	25	DAMM PWBL-SOP-61 3	0	0		0	0	
BC63818	Intake 2PIS	10/17/2021	Field	25	DAMM PWBL-SOP-61 3	0	1		0	0	
BC63819	Intake 2PIS	10/17/2021	Field	25	DAMM PWBL-SOP-61 3	0	0		0	0	
BC63820	Intake 2PIS	10/19/2021	Field	25	DAMM PWBL-SOP-61 3	0	0		0	0	
BC63821	Intake 2PIS	10/19/2021	Field	25	DAMM PWBL-SOP-61 3	0	0		0	0	
BC64148	Intake 2PIS	10/24/2021	Field	25	DAMM PWBL-SOP-61 3	0	0		0	0	
BC64149	Intake 2PIS	10/24/2021	Field	25	DAMM PWBL-SOP-61 3	0	0		0	0	
BC64150	Intake 2PIS	10/25/2021	Field	25	DAMM PWBL-SOP-61 3	0	0		0	0	
BC64151	Intake 2PIS	10/25/2021	Field	25	DAMM PWBL-SOP-61 3	0	0		0	0	
BC64152	Intake 2PIS	10/26/2021	Field	25	DAMM PWBL-SOP-61 3	0	0		0	0	
BC64153	Intake 2PIS	10/26/2021	Field	25	DAMM PWBL-SOP-61 3	0	0		0	0	
BC64154	Intake 2PIS	10/27/2021	Field	25	DAMM PWBL-SOP-61 3	0	0		0	0	
BC64155	Intake 2PIS	10/27/2021	Field	25	DAMM PWBL-SOP-61 3	0	0		0	0	
BC64516	Intake 2PIS	10/31/2021	Field	25	DAMM PWBL-SOP-61 3	0	0		0	0	
BC64517	Intake 2PIS	10/31/2021	Field	25	DAMM PWBL-SOP-61 3	0	0		0	0	

Unless otherwise noted, all data were generated in accordance with EPA Method 1623-modified (PWBL-SOP-61 3)/1623.1 and 100% of the filtered volume was examined for each sample.

Reviewed by *Marsha Farooqui*

Date Reviewed: 11/10/2021

# 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: 10/2021**

DAY	12 AM (NTU)	4 AM (NTU)	8 AM (NTU)	NOON (NTU)	4 PM (NTU)	8 PM (NTU)	Highest Reading (NTU)
1	0.66	0.66	0.65	0.61	0.61	0.66	<b>0.66</b>
2	0.64	0.63	0.62	0.61	0.59	0.61	<b>0.64</b>
3	0.61	0.61	0.61	0.59	0.59	0.61	<b>0.61</b>
4	0.71	0.61	0.61	0.61	0.62	0.63	<b>0.71</b>
5	0.64	0.62	0.61	0.60	0.61	0.61	<b>0.64</b>
6	0.61	0.62	0.61	0.59	0.63	0.65	<b>0.65</b>
7	0.66	0.64	0.64	0.61	0.65	0.67	<b>0.67</b>
8	0.65	0.64	0.60	0.60	0.60	0.65	<b>0.65</b>
9	0.65	0.61	0.61	0.60	0.61	0.65	<b>0.65</b>
10	0.66	0.65	0.67	0.67	0.70	0.69	<b>0.70</b>
11	0.71	0.72	0.75	0.71	0.71	0.72	<b>0.75</b>
12	0.74	0.70	0.68	0.67	0.63	0.70	<b>0.74</b>
13	0.71	0.74	0.74	1.03	0.82	0.81	<b>1.03</b>
14	0.79	0.76	0.75	0.74	0.74	0.76	<b>0.79</b>
15	0.79	0.77	0.74	0.71	0.71	0.71	<b>0.79</b>
16	0.71	0.69	0.67	0.65	0.67	0.68	<b>0.71</b>
17	0.67	0.67	0.66	0.66	0.66	0.69	<b>0.69</b>
18	0.69	0.72	0.72	0.71	0.71	0.69	<b>0.72</b>
19	0.66	0.67	0.65	0.63	0.64	0.65	<b>0.67</b>
20	0.64	0.64	0.64	0.67	0.68	0.67	<b>0.68</b>
21	0.66	0.62	0.71	0.60	0.57	0.61	<b>0.71</b>
22	0.65	0.64	0.64	0.64	0.67	0.67	<b>0.67</b>
23	0.64	0.65	0.67	0.61	0.64	0.63	<b>0.67</b>
24	0.65	0.64	0.59	0.58	0.62	0.95	<b>0.95</b>
25	0.65	0.62	0.66	0.66	0.67	0.69	<b>0.69</b>
26	0.70	0.70	0.70	0.66	0.67	0.72	<b>0.72</b>
27	0.75	0.75	0.74	0.74	0.79	0.77	<b>0.79</b>
28	0.71	0.65	0.67	0.67	0.70	0.71	<b>0.71</b>
29	0.71	0.74	0.79	0.75	0.71	0.70	<b>0.79</b>
30	0.67	0.66	0.64	0.62	0.62	0.64	<b>0.67</b>
31	0.64	0.69	0.66	0.66	0.67	0.67	<b>0.69</b>

Slow Sand/Membrane/DE Filtration/Unfiltered			Monthly summary	
95% of daily turbidity readings ≤ 1 NTU? <sup>1</sup>	<b>N/A</b>	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?	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>

<sup>1</sup>Filtered systems only

Signature: Anna Vosa  
Anna Vosa, P.E.

Date: 11/5/21

## OHA Drinking Water Services - Raw Coliform Data (Unfiltered)

Portland Water Bureau

ID#: OR 4100657

Month/Year: 10/2021

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

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%