Village of PEMBERTON

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Village of Pemberton Water System

Annual Report - 2024

Introduction

This report has been prepared for the consumers of the Drinking Water System of the Village of Pemberton to provide basic information on water quality and compliance with health standards. Public feedback and comments are always welcomed and should be directed to Village staff or Vancouver Coastal Health (Squamish) officials.

Consumption (cubic meters/day)

Daily water flow is recorded at the Wellhouse in Pioneer Park. Table 1 provides a comparison of the maximum, minimum, average, and total water flows for 2024 alongside data from the previous two years. Water consumption in 2024 was lower than in previous years, primarily due to cooler temperatures and the early implementation of water restrictions. Additional factors influencing water usage include climate variations, conservation efforts, and proactive leak detection and repairs. For detailed daily flow data, please refer to Appendix I.

Table 1 - Overall Water Consumption Summary

	2022 Consumption	2023 Consumption	2024 Consumption
Average Flow/day:	2,055 m^3	2,052 m^3	1,810 m^3
High Flow/day:	4,295 m^3 *(July 28, 2022)*	4,034 m^3 *(July 22, 2023)*	*4054* m^3 *(July 18, 2024)*
Low Flow/day:	1129 m^3 *(December 9, 2022)*	977 m^3 *(November 28, 2023)*	672 m^3 *(December 17, 2024)*
Total Annual	750,002 m^3	749,115 m^3	663,798 m^3

Chlorination

Chlorination is a condition of the Village of Pemberton's operating permit and has been in effect since March 2009. The objective is to have a positive residual chlorine reading throughout the water distribution system. The Fire Hall chlorine analyzer serves as the central measuring point, where a minimum residual of 0.20 mg/L is desired.

The chlorine residual is monitored continuously by a dedicated computer and alarm set points ensure consistent dosing. Daily readings of the previous 24-hour minimum residuals are recorded. The annual numbers are shown in Table 2.

Table 2 - 2023 Chlorine Residual Summary

	Residual (mg/L)
Average:	0.25
High:	0.36
Low:	0.18

To ensure that target chlorine residuals are achieved within the distribution system, the Village also carries out manual sampling at 7 sites throughout the distribution system each week.

For daily results, please refer to **Appendix I** and for weekly sample results **Appendix III.**

Water Chemistry:

The annual sampling for Total Metals, Volatile Organic Compounds, and Trihalomethanes was conducted on April 25, 2024. Samples were collected from several key locations, including Production Wells #2 and #3, the Pemberton Farm Rd. Sample Station, the Ridge Booster Pump and Re-chlorination Station, and the Industrial Park Sample Station. The test results confirm that all parameters are within the Health Canada Maximum Acceptable Concentration (MAC) limits. A gradual increase from previous years in manganese levels has been observed in both Wells #2 and #3 through regular operational testing. While manganese levels have exceeded the aesthetic objective (AO) of 0.02 mg/L (20 µg/L), they remain below the MAC limit of 120 µg/L. The average manganese concentrations for Well #2 and Well #3 are 86.5 µg/L and 53.9 µg/L, respectively, based on the 9 samples collected in 2024.

In 2024, well redevelopment was completed for both Well #2 and Well #3, with the goal of reducing manganese and iron concentrations in the short term. This redevelopment also contributed to improved pump capacity and the overall health of the wells and aquifer. Following a preliminary water treatment investigation performed in 2021, the Village has successfully been awarded grant funding to design and construct a Water filtration plant to help alleviate these elevated manganese levels. The engineering design is underway, with construction expected to take place in 2026. The Village will also be adding Iron and Manganese testing into our routine weekly water sample package to best monitor the levels going forward. For the full water quality test results from 2024, please refer to Appendix II.

Corrosion Control:
In 2017 the Village constructed a water conditioning plant to adjust the pH of potable water prior to distribution, and therefore reduce risk of corrosion in household plumbing resulting from acidic drinking water. The plant utilizes Sodium Carbonate (Soda Ash) to increase the pH and Alkalinity of Pemberton's well water, prior to distribution. The target pH throughout the distribution system is 7 and an alkalinity between 40 and 80mg/L as measured as CaCO3 (Calcium Carbonate). This is controlled automatically, but weekly samples are also taken for verification and calibration purposes. For results of these weekly samples, please refer to **Appendix III**.

Flush Message

In 2015 Vancouver Coastal Health Authority requested that the following message be communicated to residents:

Anytime the water in a particular faucet has not been used for six hours or longer, "flush" your cold-water pipes by running the water until cold and you notice a change in temperature. (This could take as little as five to thirty seconds if there has been recent heavy water use such as showering or toilet flushing. Otherwise, it could take two minutes or longer.) The more time water has been sitting in your home's pipes, the more lead it may contain. Use only water from the cold-tap for drinking, cooking, and especially making baby formula. Hot water is likely to contain higher levels of lead. The two actions recommended above are very important to the health of your family. They will probably be effective in reducing lead levels because most of the lead in household water usually comes from the plumbing in your house, not from the local water supply. Conserving water is still important. Rather than just running the water down the drain you could use the water for things such as watering your plants (Zubel,2014). If residents have any questions, they are encouraged to contact the Vancouver Coastal Health Authorities Drinking Water Officer at 604-892-2293.

Cross Connection Control:

To maintain safe drinking water and remain in compliance with the Vancouver Coastal Health Authority (VCH), the Village of Pemberton has begun a utility-wide Cross Connection Control / Backflow Prevention Program. A cross connection is any actual or potential connection between drinking water and a non-potable substance (contaminant). Backflow is the reverse flow from normal within a piping system. When a cross connection and backflow are combined, often the result is a contaminant entering our drinking water.

In 2018, the Cross Connection Control Bylaw was passed by council and an initial assessment and database was completed for Village infrastructure. The Cross Connection Control program is ongoing.

Bacteriological Analysis:

Water samples are collected and submitted weekly to the laboratory at Vancouver Coastal Health for Bacteriological analysis. These samples are taken directly from both active sources (Well #2 and #3), as well as the following locations:

- Oak St
- Village Office
- Health Centre
- Treatment Plant
- Ridge Pump Station
- Industrial Park (Mount Currie water source)
- Pemberton Meadows Rd.
- Pemberton Farm Rd (West)

All results for the 2024 period were negative for Escherichia coli.

The individual results are on file at Vancouver Coastal Health (Squamish) and the Village Office, and are posted regularly online at:
www.healthspace.ca/Clients/VCHA/CoastGaribaldi/CoastGaribaldi_Website.nsf

For Sample Range Reports, please refer to **Appendix IV**.

Appendix I

2024 Daily Total Consumption
and Chlorine Residual

APPENDIX I - 2024 Daily Total Consumption and Chlorine Residual

Daily Total Consumption and Chlorine Residual

	2021		2022		2023		2024	
Date	Daily	Daily Cl2	Daily	Daily Cl2	Daily	Daily Cl2	Daily	Daily Cl2
	Cubic metre	Residual (ppm)	Cubic metre	Residual (ppm)	Cubic metre	Residual (ppm)	Cubic metre	Residual (ppm)
January								
1	1317	0.14	1303	0.30	1576	0.28	1204	0.19
2	1286	0.13	1285	0.30	1571	0.31	1358	0.19
3	1266	0.15	1199	0.31	1556	0.31	1280	0.21
4	1433	0.16	1230	0.30	1515	0.30	1170	0.23
5	2470	0.18	1149	0.31	1522	0.30	1428	0.22
6	1198	0.16	1281	0.30	1493	0.34	1246	0.23
7	2497	0.22	1174	0.30	1537	0.29	1318	0.22
8	1698	0.24	1346	0.30	1537	0.25	1324	0.21
9	1276	0.25	1286	0.24	1393	0.23	1369	0.21
10	1300	0.27	1310	0.18	1449	0.21	1276	0.22
11	1087	0.26	1180	0.20	1340	0.22	1181	0.22
12	1265	0.26	1192	0.24	1547	0.27	1423	0.22
13	1245	0.26	1243	0.28	1406	0.29	1450	0.21
14	1264	0.28	1087	0.34	1571	0.27	1504	0.20
15	1194	0.28	1435	0.35	1365	0.26	1460	0.21
16	1172	0.29	1664	0.34	1580	0.26	1443	0.22
17	1238	0.27	1697	0.34	1422	0.32	1407	0.22
18	1221	0.26	1629	0.33	1385	0.29	1445	0.22
19	1067	0.29	1637	0.35	1532	0.31	1513	0.22
20	1245	0.29	1607	0.34	1382	0.29	1337	0.22
21	1251	0.27	1573	0.36	1445	0.26	1292	0.21
22	1121	0.27	1640	0.34	1422	0.26	1182	0.21
23	1143	0.25	1657	0.35	1464	0.25	1415	0.23
24	1150	0.24	1706	0.36	1359	0.25	1286	0.23
25	1231	0.24	1670	0.36	1381	0.23	1103	0.23
26	1250	0.25	1673	0.31	1573	0.22	1255	0.23
27	1239	0.24	1725	0.33	1454	0.24	1264	0.21
28	1195	0.22	1662	0.33	1540	0.25	1157	0.19
29	1211	0.27	1644	0.34	1397	0.28	1140	0.19
30	1263	0.22	1626	0.33	1411	0.29	1193	0.25
31	1181	0.22	1661	0.34	1567	0.31	1144	0.33
Monthly Total	40,974	0.24	45,172	0.31	45,694	0.27	40,567	0.22

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	2021		2022		2023		2024	
Date	Daily	Daily Cl2	Daily	Daily Cl2	Daily	Daily Cl2	Daily	Daily Cl2
	Cubic metre	Residual (ppm)	Cubic metre	Residual (ppm)	Cubic metre	Residual (ppm)	Cubic metre	Residual (ppm)
February								
1	1091	0.22	1651	0.33	1368	0.33	1215	0.32
2	1149	0.21	1608	0.29	1533	0.32	1065	0.31
3	1093	0.19	1584	0.31	1402	0.33	1219	0.31
4	1050	0.19	1597	0.33	1377	0.33	1183	0.31
5	1280	0.20	1701	0.32	1542	0.33	1128	0.27
6	1208	0.21	1670	0.31	1429	0.32	1148	0.26
7	1354	0.22	1697	0.31	1492	0.32	1161	0.25
8	1310	0.24	1603	0.31	1382	0.31	1153	0.26
9	1290	0.24	1673	0.30	1577	0.32	1145	0.27
10	1225	0.23	1589	0.33	1503	0.32	1197	0.26
11	1372	0.26	1653	0.31	1552	0.32	1246	0.26
12	1547	0.24	1677	0.32	1483	0.32	1075	0.25
13	1511	0.28	1650	0.32	1585	0.32	1206	0.26
14	1704	0.27	1568	0.31	1410	0.31	1090	0.26
15	1468	0.27	1744	0.30	1457	0.30	1158	0.25
16	1619	0.29	1516	0.30	1591	0.27	1258	0.25
17	1592	0.29	1690	0.29	1543	0.27	1277	0.27
18	1410	0.29	1542	0.29	1560	0.28	1108	0.28
19	1336	0.32	1626	0.30	1420	0.26	1307	0.27
20	1436	0.30	1700	0.31	1606	0.26	1105	0.27
21	1436	0.30	1678	0.31	1521	0.25	1266	0.27
22	1502	0.29	1809	0.31	1640	0.24	1180	0.27
23	1458	0.27	1678	0.28	1645	0.22	1239	0.27
24	1685	0.30	1681	0.29	1508	0.22	1220	0.23
25	1378	0.33	1667	0.29	1571	0.23	1180	0.22
26	1889	0.34	1782	0.29	1583	0.23	1225	0.22
27	1450	0.35	1656	0.30	1425	0.32	1200	0.23
28	1309	0.33	1652	0.31	1415	0.35	1132	0.20
29							1113	0.20
Monthly Total	39,153	0.27	46,343	0.31	42,118	0.29	34,199	0.26

APPENDIX I - 2024 Daily Total Consumption and Chlorine Residual

Daily Total Consumption and Chlorine Residual

	2021		2022		2023		2024	
Date	Daily	Daily Cl2	Daily	Daily Cl2	Daily	Daily Cl2	Daily	Daily Cl2
	Cubic metre	Residual (ppm)	Cubic metre	Residual (ppm)	Cubic metre	Residual (ppm)	Cubic metre	Residual (ppm)
March								
1	965	0.32	1730	0.32	1388	0.40	1169	0.21
2	1373	0.34	1712	0.26	1442	0.38	1196	0.22
3	1730	0.35	1632	0.37	1384	0.37	1281	0.22
4	1483	0.32	1668	0.33	1414	0.42	1086	0.22
5	1384	0.33	1673	0.37	1460	0.43	1177	0.24
6	1259	0.27	1698	0.47	1432	0.40	1110	0.23
7	1172	0.28	1609	0.48	1345	0.39	1161	0.26
8	1284	0.27	1629	0.29	1489	0.38	1229	0.26
9	1285	0.27	1132	0.28	1387	0.35	1179	0.26
10	1136	0.26	1611	0.27	1325	0.37	1060	0.25
11	1278	0.27	1615	0.33	1540	0.40	1209	0.23
12	1212	0.31	1597	0.33	1339	0.38	1092	0.24
13	1233	0.32	1941	0.32	1449	0.38	1220	0.25
14	1262	0.35	1330	0.30	1363	0.38	1000	0.27
15	1327	0.33	1579	0.35	1291	0.34	1138	0.26
16	1180	0.37	1677	0.36	1299	0.31	1119	0.25
17	1387	0.37	1554	0.36	1419	0.29	1098	0.24
18	1368	0.38	1492	0.36	1038	0.27	982	0.25
19	1336	0.33	1648	0.37	1817	0.19	1043	0.24
20	1284	0.35	1451	0.40	1344	0.23	1102	0.24
21	1177	0.35	1655	0.39	1378	0.29	1054	0.22
22	1255	0.34	2075	0.33	1341	0.31	985	0.20
23	1300	0.35	1522	0.32	1412	0.30	1095	0.20
24	1274	0.33	1653	0.33	1395	0.32	968	0.19
25	1340	0.33	1652	0.34	1331	0.33	1023	0.19
26	1482	0.33	1469	0.32	1378	0.31	1081	0.22
27	1302	0.31	1629	0.34	1496	0.30	1044	0.20
28	1227	0.25	1761	0.35	1283	0.35	1079	0.22
29	1317	0.31	1651	0.33	1420	0.37	1157	0.25
30	1235	0.31	1921	0.34	1341	0.34	1130	0.27
31	1232	0.29	1581	0.35	1287	0.33	1068	0.26
Monthly Total	40,078	0.32	50,547	0.34	43,028	0.34	34,337	0.23

APPENDIX I - 2024 Daily Total Consumption and Chlorine Residual

Daily Total Consumption and Chlorine Residual

	2021		2022		2023		2024	
Date	Daily	Daily Cl2	Daily	Daily Cl2	Daily	Daily Cl2	Daily	Daily Cl2
	Cubic metre	Residual (ppm)	Cubic metre	Residual (ppm)	Cubic metre	Residual (ppm)	Cubic metre	Residual (ppm)
April								
1	1202	0.32	1962	0.36	1301	0.35	1130	0.23
2	1338	0.32	1761	0.36	1425	0.34	1157	0.22
3	1342	0.31	1672	0.36	1425	0.34	1236	0.23
4	1318	0.30	1687	0.37	1526	0.34	1071	0.24
5	1320	0.29	1680	0.37	1728	0.34	1258	0.24
6	1374	0.32	1693	0.36	1539	0.35	1094	0.25
7	1280	0.29	1929	0.36	1419	0.35	1070	0.23
8	1311	0.28	1905	0.36	1364	0.35	1184	0.22
9	1275	0.28	1976	0.35	1339	0.35	1167	0.23
10	1502	0.24	1612	0.34	1353	0.36	1092	0.23
11	1342	0.28	1507	0.34	1388	0.36	1202	0.25
12	1384	0.26	2159	0.33	1474	0.35	1249	0.26
13	1249	0.23	1811	0.32	1348	0.35	1175	0.25
14	1477	0.25	1688	0.31	1234	0.35	1196	0.24
15	1340	0.22	1595	0.32	1317	0.37	1205	0.21
16	1483	0.36	1616	0.31	1454	0.35	1422	0.23
17	1508	0.33	1631	0.31	1268	0.35	1614	0.22
18	1416	0.32	1616	0.30	1253	0.36	1757	0.24
19	1742	0.31	1664	0.31	1322	0.36	1712	0.25
20	1598	0.31	1701	0.30	1157	0.36	1316	0.26
21	1569	0.31	1799	0.33	1269	0.35	1467	0.26
22	1674	0.30	1768	0.33	1340	0.35	1924	0.24
23	1671	0.31	1782	0.33	1158	0.35	2111	0.26
24	1588	0.31	1674	0.35	1344	0.35	1819	0.27
25	1602	0.31	1891	0.33	1222	0.35	1802	0.26
26	1677	0.32	1692	0.34	1406	0.35	1609	0.25
27	1731	0.32	1790	0.33	1554	0.36	1456	0.24
28	1822	0.33	1872	0.33	1601	0.38	1514	0.20
29	1589	0.32	1976	0.35	1716	0.39	1542	0.20
30	1648	0.33	1888	0.35	1830	0.37	1541	0.20
Monthly Total	44,374	0.30	52,994	0.34	42,074	0.35	42,091	0.24

APPENDIX I - 2024 Daily Total Consumption and Chlorine Residual

Daily Total Consumption and Chlorine Residual

	2021		2022		2023		2024	
Date	Daily	Daily Cl2	Daily	Daily Cl2	Daily	Daily Cl2	Daily	Daily Cl2
	Cubic metre	Residual (ppm)	Cubic metre	Residual (ppm)	Cubic metre	Residual (ppm)	Cubic metre	Residual (ppm)
May								
1	1764	0.32	1944	0.37	1949	0.36	1579	0.21
2	2008	0.33	2108	0.38	1742	0.37	1850	0.21
3	1922	0.32	2068	0.33	1964	0.35	1931	0.20
4	1907	0.34	1931	0.33	1955	0.35	1892	0.21
5	2191	0.35	1969	0.32	2340	0.35	2015	0.25
6	1976	0.34	1769	0.33	2151	0.35	1797	0.26
7	1991	0.27	2360	0.33	1791	0.35	2005	0.27
8	2269	0.26	2098	0.32	1942	0.36	2047	0.30
9	1959	0.25	2037	0.33	1995	0.32	2338	0.28
10	2370	0.26	1748	0.33	2221	0.33	2609	0.29
11	2237	0.27	2031	0.31	2576	0.34	2811	0.28
12	2398	0.28	2013	0.31	2184	0.34	2735	0.29
13	2078	0.28	1884	0.32	2467	0.34	2559	0.29
14	2444	0.29	1772	0.31	2505	0.33	2699	0.30
15	2406	0.30	1683	0.31	2984	0.33	2883	0.29
16	2540	0.29	1961	0.32	2870	0.34	2264	0.27
17	2778	0.29	1594	0.31	3012	0.35	2496	0.26
18	2102	0.30	1583	0.31	3243	0.35	2358	0.27
19	2087	0.29	1615	0.31	3019	0.34	2579	0.26
20	2005	0.28	1573	0.33	3241	0.37	2693	0.25
21	2270	0.28	1719	0.32	3387	0.34	2474	0.24
22	2610	0.28	1750	0.32	3249	0.35	2275	0.25
23	2682	0.29	2006	0.32	2830	0.36	2467	0.21
24	2547	0.30	2136	0.34	2531	0.38	2150	0.21
25	2579	0.29	1900	0.34	2721	0.34	2186	0.25
26	2588	0.31	1868	0.32	3072	0.34	2131	0.25
27	2819	0.25	1855	0.32	3309	0.37	2191	0.22
28	2291	0.26	1722	0.31	3126	0.30	1899	0.23
29	2162	0.26	1881	0.31	3509	0.28	1959	0.25
30	2644	0.27	2190	0.31	3349	0.31	1953	0.25
31	2711	0.29	2018	0.31	2987	0.31	2233	0.24
Monthly Total	71,333	0.29	58,787	0.32	82,221	0.34	70,059	0.25

APPENDIX I - 2024 Daily Total Consumption and Chlorine Residual

Daily Total Consumption and Chlorine Residual

	2021		2022		2023		2024	
Date	Daily	Daily Cl2	Daily	Daily Cl2	Daily	Daily Cl2	Daily	Daily Cl2
	Cubic metre	Residual (ppm)	Cubic metre	Residual (ppm)	Cubic metre	Residual (ppm)	Cubic metre	Residual (ppm)
June								
1	1743	0.29	1944	0.30	2185	0.33	1962	0.25
2	3183	0.29	2135	0.31	2350	0.34	2082	0.28
3	3963	0.14	2229	0.33	3212	0.36	1894	0.30
4	3043	0.26	2008	0.33	3291	0.38	1839	0.31
5	2602	0.27	2000	0.32	3466	0.40	1909	0.28
6	2628	0.28	2191	0.31	3370	0.40	2372	0.30
7	2444	0.27	2019	0.31	3581	0.25	2525	0.31
8	2474	0.27	2233	0.32	3661	0.40	2594	0.33
9	2483	0.28	2084	0.33	3759	0.39	2901	0.33
10	2464	0.29	2166	0.32	3319	0.39	2642	0.32
11	2463	0.30	1988	0.30	2889	0.36	2104	0.34
12	2603	0.32	2103	0.32	3277	0.33	2509	0.32
13	2589	0.33	2636	0.33	3449	0.32	2615	0.31
14	2284	0.32	2314	0.33	3166	0.30	2460	0.36
15	2036	0.32	2344	0.32	2627	0.30	2333	0.34
16	2135	0.33	2300	0.31	2921	0.30	2432	0.32
17	2237	0.31	2319	0.30	2754	0.32	2180	0.32
18	2979	0.33	2271	0.29	2827	0.30	2234	0.31
19	2803	0.33	2149	0.27	2805	0.30	2612	0.34
20	2741	0.34	2314	0.27	2605	0.30	2771	0.36
21	3006	0.32	2401	0.35	2319	0.27	2996	0.34
22	3464	0.29	2132	0.37	2436	0.30	2694	0.35
23	3441	0.33	2098	0.34	2446	0.31	2781	0.35
24	3825	0.33	2673	0.37	3100	0.26	2729	0.35
25	3543	0.31	2868	0.37	2671	0.26	2606	0.36
26	3603	0.32	2898	0.36	2890	0.31	2851	0.34
27	3633	0.34	3393	0.37	3177	0.34	2271	0.31
28	3846	0.28	3094	0.37	3610	0.35	2314	0.34
29	4246	0.28	2655	0.35	4018	0.34	2398	0.35
30	3911	0.26	2679	0.33	3840	0.28	2621	0.34
Monthly Total	88,414	0.30	70,638	0.33	92,021	0.33	73,232	0.33

APPENDIX I - 2024 Daily Total Consumption and Chlorine Residual

Daily Total Consumption and Chlorine Residual

	2021		2022		2023		2024	
Date	Daily	Daily Cl2	Daily	Daily Cl2	Daily	Daily Cl2	Daily	Daily Cl2
	Cubic metre	Residual (ppm)	Cubic metre	Residual (ppm)	Cubic metre	Residual (ppm)	Cubic metre	Residual (ppm)
July								
1	4253	0.40	3066	0.35	3736	0.36	2505	0.34
2	4208	0.40	3135	0.34	3592	0.35	2633	0.35
3	3611	0.37	3007	0.30	3705	0.24	2994	0.36
4	3629	0.39	2794	0.31	3736	0.27	3109	0.34
5	3768	0.41	2121	0.19	3817	0.36	3090	0.32
6	3954	0.41	2185	0.20	3913	0.34	3535	0.32
7	3991	0.41	2620	0.24	3957	0.28	3685	0.31
8	3747	0.41	2377	0.28	3679	0.31	3725	0.32
9	3708	0.41	2428	0.28	3644	0.32	3511	0.31
10	3822	0.40	2455	0.29	3996	0.34	3796	0.33
11	3757	0.42	2886	0.29	4018	0.35	3972	0.34
12	3948	0.44	2717	0.30	3738	0.33	3650	0.36
13	3866	0.37	2755	0.30	3786	0.29	3428	0.34
14	4111	0.37	3010	0.29	3416	0.29	3697	0.34
15	4070	0.35	3265	0.30	3809	0.32	3719	0.36
16	4255	0.35	2732	0.31	3762	0.31	3754	0.35
17	3920	0.34	2607	0.32	3745	0.27	3949	0.34
18	3570	0.30	2727	0.31	3349	0.30	4054	0.31
19	3522	0.33	2846	0.30	3375	0.28	3889	0.30
20	3748	0.30	2900	0.31	3873	0.32	3579	0.30
21	3724	0.34	3277	0.31	4008	0.29	3648	0.31
22	3827	0.33	3460	0.38	4034	0.26	3516	0.30
23	3797	0.35	3322	0.37	3806	0.24	3576	0.34
24	1814	0.31	3181	0.34	3819	0.24	3612	0.32
25	3566	0.32	3346	0.34	3079	0.25	3516	0.26
26	3509	0.32	3298	0.33	2732	0.28	3398	0.28
27	3717	0.34	4111	0.35	2917	0.32	3215	0.27
28	3778	0.33	4295	0.37	3460	0.23	3382	0.26
29	4127	0.34	4064	0.34	3506	0.29	2901	0.24
30	3984	0.34	3952	0.34	3536	0.20	2726	0.26
31	3872	0.34	3811	0.35	3767	0.26	3387	0.25
Monthly Total	117,172	0.36	94,751	0.31	113,310	0.29	107,154	0.31

APPENDIX I - 2024 Daily Total Consumption and Chlorine Residual

Daily Total Consumption and Chlorine Residual

	2021		2022		2023		2024	
Date	Daily	Daily Cl2	Daily	Daily Cl2	Daily	Daily Cl2	Daily	Daily Cl2
	Cubic metre	Residual (ppm)	Cubic metre	Residual (ppm)	Cubic metre	Residual (ppm)	Cubic metre	Residual (ppm)
August								
1	3359	0.34	3871	0.35	3405	0.31	3848	0.26
2	3087	0.32	3602	0.34	3227	0.31	3323	0.28
3	3403	0.33	3643	0.33	3410	0.28	3231	0.27
4	3653	0.36	3085	0.33	3411	0.30	3311	0.25
5	3917	0.35	2348	0.34	3537	0.34	3073	0.24
6	3994	0.36	2621	0.33	3541	0.30	3053	0.24
7	3314	0.30	3102	0.33	3549	0.29	3251	0.23
8	2785	0.33	3427	0.33	3357	0.30	3362	0.24
9	2629	0.35	3477	0.34	2764	0.26	3140	0.24
10	2931	0.36	3032	0.34	2639	0.25	2385	0.22
11	3125	0.36	3241	0.33	2814	0.30	2658	0.21
12	3862	0.37	3350	0.35	3112	0.28	3449	0.21
13	4264	0.37	3524	0.34	3591	0.27	3207	0.24
14	3753	0.37	3207	0.32	3583	0.26	3239	0.26
15	3523	0.37	3723	0.32	3586	0.30	3677	0.27
16	3101	0.37	3257	0.31	3496	0.30	3182	0.27
17	3061	0.37	3415	0.30	3831	0.29	3105	0.26
18	2599	0.35	3538	0.28	3846	0.28	2863	0.22
19	2858	0.35	3425	0.33	3571	0.31	2635	0.20
20	3460	0.35	3313	0.30	3348	0.30	2653	0.20
21	2574	0.35	3325	0.32	3222	0.29	2615	0.20
22	2131	0.34	3567	0.35	3052	0.29	2701	0.24
23	2455	0.34	3374	0.34	3003	0.29	2510	0.26
24	2196	0.32	3287	0.34	2866	0.28	1956	0.25
25	2525	0.31	3455	0.32	3140	0.27	2399	0.19
26	2741	0.35	3371	0.34	2889	0.25	2246	0.20
27	2748	0.34	3377	0.29	2813	0.26	1962	0.20
28	2497	0.35	3020	0.28	3053	0.25	2202	0.19
29	2644	0.35	3331	0.29	2872	0.28	2404	0.20
30	2788	0.34	3125	0.27	2385	0.26	2701	0.21
31	2595	0.34	3000	0.27	2543	0.26	2540	0.22
Monthly Total	94,573	0.35	102,434	0.32	99,459	0.28	88,881	0.23

APPENDIX I - 2024 Daily Total Consumption and Chlorine Residual

Daily Total Consumption and Chlorine Residual

	2021		2022		2023		2024	
Date	Daily	Daily Cl2	Daily	Daily Cl2	Daily	Daily Cl2	Daily	Daily Cl2
	Cubic metre	Residual (ppm)	Cubic metre	Residual (ppm)	Cubic metre	Residual (ppm)	Cubic metre	Residual (ppm)
September								
1	2420	0.33	3393	0.27	2434	0.26	2824	0.21
2	2502	0.33	3353	0.25	2254	0.23	2805	0.18
3	2682	0.33	3505	0.26	2448	0.22	2609	0.21
4	2686	0.34	3155	0.24	2692	0.22	2881	0.23
5	2317	0.33	3001	0.25	2466	0.28	2935	0.19
6	2227	0.33	2657	0.24	2422	0.28	2954	0.22
7	2479	0.33	2281	0.28	2509	0.28	2613	0.23
8	2499	0.34	3629	0.32	2739	0.26	2936	0.21
9	2253	0.34	3358	0.33	2478	0.24	2707	0.20
10	2418	0.40	2869	0.32	2618	0.21	2533	0.22
11	2302	0.34	3121	0.32	2568	0.22	2429	0.22
12	2133	0.33	3011	0.30	2324	0.20	2613	0.23
13	2317	0.32	3049	0.32	2149	0.24	2427	0.23
14	2222	0.33	2806	0.32	2363	0.29	2348	0.22
15	2079	0.32	2826	0.29	2966	0.30	2203	0.20
16	1893	0.30	2826	0.30	3256	0.30	2357	0.18
17	1863	0.30	2601	0.30	2930	0.26	2017	0.21
18	1764	0.30	2387	0.28	3085	0.26	2631	0.21
19	1622	0.30	2649	0.29	2636	0.23	2448	0.22
20	1474	0.28	2461	0.28	2361	0.19	2789	0.25
21	1462	0.28	2614	0.28	2250	0.24	2149	0.25
22	1543	0.28	2590	0.30	2925	0.27	2212	0.22
23	1589	0.28	2453	0.32	2365	0.23	1914	0.21
24	1630	0.27	2362	0.33	2188	0.22	1894	0.24
25	1474	0.27	2443	0.33	2177	0.23	1857	0.26
26	1600	0.27	2403	0.33	1885	0.25	1893	0.29
27	1444	0.26	2380	0.34	2094	0.23	1789	0.29
28	1202	0.26	2310	0.33	1686	0.22	1500	0.28
29	1324	0.26	2532	0.35	1634	0.21	1290	0.25
30	1590	0.27	2083	0.32	1675	0.20	1512	0.25
Monthly Total	59,010	0.31	83,111	0.30	72,577	0.24	70,069	0.23

APPENDIX I - 2024 Daily Total Consumption and Chlorine Residual

Daily Total Consumption and Chlorine Residual

	2021		2022		2023		2024	
Date	Daily	Daily Cl2	Daily	Daily Cl2	Daily	Daily Cl2	Daily	Daily Cl2
	Cubic metre	Residual (ppm)	Cubic metre	Residual (ppm)	Cubic metre	Residual (ppm)	Cubic metre	Residual (ppm)
October								
1	2301	0.29	2279	0.33	1620	0.19	1309	0.24
2	1356	0.29	2086	0.32	1644	0.19	1436	0.25
3	1320	0.28	2390	0.32	1592	0.18	1725	0.28
4	1356	0.27	2160	0.30	1519	0.21	2108	0.29
5	1265	0.27	2244	0.30	1400	0.20	1981	0.29
6	1301	0.27	2162	0.33	1664	0.31	2021	0.28
7	1301	0.26	2171	0.31	1827	0.30	1550	0.26
8	1230	0.26	2122	0.31	1521	0.25	1388	0.29
9	1382	0.25	2160	0.31	1523	0.23	1318	0.31
10	1244	0.26	2133	0.31	2475	0.24	1138	0.28
11	1228	0.26	2011	0.32	1372	0.26	1288	0.26
12	1279	0.25	2050	0.32	1343	0.29	1335	0.24
13	1354	0.33	2093	0.31	1435	0.24	1200	0.24
14	1235	0.40	1843	0.31	1469	0.25	1288	0.23
15	1163	0.39	1928	0.30	1476	0.19	1096	0.22
16	1165	0.37	2135	0.30	1468	0.19	1196	0.25
17	1178	0.34	2479	0.29	1466	0.24	1127	0.23
18	1170	0.31	1764	0.29	1283	0.23	1225	0.19
19	1201	0.31	1677	0.29	1349	0.22	1239	0.26
20	1270	0.31	1734	0.29	1503	0.21	1182	0.24
21	1226	0.32	1539	0.28	1432	0.25	1111	0.24
22	1278	0.31	1541	0.27	1246	0.23	1122	0.22
23	1223	0.34	1446	0.22	1256	0.29	1283	0.33
24	1130	0.32	1559	0.24	1396	0.29	1005	0.32
25	1100	0.32	1507	0.24	1346	0.31	1209	0.30
26	1156	0.31	1488	0.27	1354	0.26	1025	0.29
27	1434	0.33	1368	0.28	1306	0.23	1111	0.26
28	1370	0.31	1338	0.29	1334	0.24	1077	0.25
29	1152	0.29	1301	0.30	1380	0.23	1198	0.26
30	1231	0.31	1372	0.29	1369	0.33	1048	0.27
31	1197	0.27	1258	0.30	1305	0.27	1086	0.25
Monthly Total	39,798	0.30	57,333	0.30	45,671	0.24	40,423	0.26

APPENDIX I - 2024 Daily Total Consumption and Chlorine Residual

Daily Total Consumption and Chlorine Residual

	2021		2022		2023		2024	
Date	Daily	Daily Cl2	Daily	Daily Cl2	Daily	Daily Cl2	Daily	Daily Cl2
	Cubic metre	Residual (ppm)	Cubic metre	Residual (ppm)	Cubic metre	Residual (ppm)	Cubic metre	Residual (ppm)
November								
1	1195	0.28	1354	0.29	1211	0.24	1216	0.27
2	1381	0.28	1452	0.30	1282	0.25	1106	0.26
3	1437	0.28	1339	0.30	1205	0.23	1209	0.24
4	1498	0.29	1366	0.30	1109	0.24	1103	0.25
5	1085	0.28	1310	0.30	1195	0.23	973	0.24
6	1049	0.27	1195	0.30	1157	0.24	1045	0.23
7	1195	0.27	1358	0.29	1231	0.30	1051	0.23
8	1084	0.26	1195	0.29	1227	0.28	1081	0.22
9	1212	0.27	1310	0.29	1172	0.24	1110	0.29
10	1031	0.34	1666	0.29	1124	0.28	1042	0.29
11	1288	0.35	1461	0.29	1225	0.23	1030	0.27
12	1090	0.34	1282	0.31	1143	0.24	1098	0.27
13	1048	0.35	1352	0.32	1164	0.20	1053	0.28
14	1069	0.35	1331	0.32	1267	0.22	1049	0.27
15	1109	0.34	1461	0.33	1143	0.21	1184	0.25
16	1016	0.32	1370	0.34	1209	0.22	1038	0.22
17	1193	0.33	1524	0.34	1163	0.21	1024	0.19
18	1072	0.35	1499	0.31	1152	0.19	1013	0.19
19	1121	0.33	1338	0.31	1205	0.18	1072	0.22
20	1021	0.34	1517	0.31	1200	0.21	1041	0.23
21	1051	0.34	1397	0.29	1121	0.28	1058	0.24
22	1186	0.32	1415	0.29	1039	0.29	1070	0.25
23	1039	0.30	1334	0.38	1193	0.28	1039	0.24
24	1084	0.32	1402	0.36	1139	0.32	1080	0.23
25	1043	0.31	1436	0.35	1225	0.32	1045	0.22
26	963	0.31	1402	0.33	1272	0.26	1015	0.26
27	1068	0.31	1571	0.34	1406	0.32	1035	0.26
28	995	0.31	1391	0.33	977	0.29	1055	0.28
29	1173	0.32	1439	0.34	1137	0.34	1131	0.24
30	1078	0.32	1402	0.33	1176	0.24	1030	0.25
Monthly Total	33,875	0.31	41,868	0.32	35,469	0.25	32,096	0.25

APPENDIX I - 2024 Daily Total Consumption and Chlorine Residual

Daily Total Consumption and Chlorine Residual

	2021		2022		2023		2024	
Date	Daily	Daily Cl2	Daily	Daily Cl2	Daily	Daily Cl2	Daily	Daily Cl2
	Cubic metre	Residual (ppm)	Cubic metre	Residual (ppm)	Cubic metre	Residual (ppm)	Cubic metre	Residual (ppm)
December								
1	920	0.33	1449	0.34	1142	0.25	1074	0.21
2	1051	0.35	1414	0.32	1243	0.28	1025	0.24
3	1054	0.34	1402	0.33	1620	0.29	964	0.23
4	843	0.35	1364	0.31	1239	0.33	1186	0.23
5	972	0.33	1311	0.29	1190	0.27	1046	0.22
6	1032	0.33	1544	0.27	986	0.23	1161	0.24
7	995	0.37	1411	0.29	1176	0.28	1043	0.21
8	1148	0.38	1443	0.32	1053	0.31	1039	0.20
9	969	0.43	1129	0.31	1174	0.25	1063	0.22
10	1042	0.34	1511	0.29	1098	0.25	1067	0.22
11	1050	0.35	1394	0.28	1102	0.26	1156	0.22
12	1022	0.35	1452	0.29	1010	0.30	1051	0.23
13	1015	0.34	1360	0.32	1149	0.25	858	0.22
14	1163	0.39	1539	0.32	1117	0.20	722	0.20
15	1015	0.32	1292	0.31	1100	0.25	734	0.18
16	1046	0.35	1431	0.29	1099	0.22	823	0.19
17	1134	0.34	1462	0.28	1069	0.23	672	0.23
18	1063	0.33	1410	0.27	1155	0.25	809	0.23
19	1054	0.32	1586	0.26	1113	0.24	1023	0.21
20	1200	0.32	1435	0.26	1049	0.20	1014	0.21
21	1140	0.33	1616	0.27	1120	0.24	969	0.21
22	1145	0.34	1478	0.26	1045	0.22	970	0.18
23	1137	0.35	1505	0.29	1144	0.26	1102	0.21
24	1086	0.34	1594	0.29	1126	0.24	997	0.20
25	1287	0.34	1639	0.31	1019	0.24	1036	0.21
26	1189	0.32	1526	0.31	1053	0.27	988	0.25
27	1192	0.31	1718	0.31	1094	0.23	994	0.24
28	1250	0.30	1773	0.30	1223	0.22	1004	0.26
29	1253	0.30	1572	0.30	1186	0.21	1038	0.29
30	1271	0.29	1641	0.31	1376	0.20	1020	0.27
31	1235	0.30	1624	0.29	1203	0.21	1043	0.23
Monthly Total	33,972	0.34	46,024	0.30	35,473	0.25	30,691	0.22
2020 Total m3	702,727		750,002		749,115		663,798	
Daily Average	1,920	0.31	2057	0.32	2052	0.29	1814	0.25
Max Day	4,264	0.44	4295	0.48	4034	0.43	4054	0.36
Min Day	843	0.13	1129	0.18	977	0.18	672	0.18

Appendix II

2024 Annual Chemical Analysis
of Drinking Water

Your C.O.C. #: C#716107-01-01

Attention: Reece Clark

VILLAGE OF PEMBERTON
Box 100
7400 Prospect St
Pemberton, BC
CANADA V0N 2L0

Report Date: 2024/02/06
Report #: R3459693
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C407253
Received: 2024/02/02, 08:35

Sample Matrix: Drinking Water
Samples Received: 4

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Alkalinity @25C (pp, total), CO3,HCO3,OH	4	N/A	2024/02/02	BBY6SOP-00026	SM 24 2320 B m
Chloride/Sulphate by Auto Colourimetry	4	N/A	2024/02/02	BBY6SOP-00011 / BBY6SOP-00017	SM24-4500-Cl/SO4-E m
Color (True) by Automated Analyzer	4	N/A	2024/02/02	BBY6SOP-00057	SM 24 2120 C m
Conductivity @25C	4	N/A	2024/02/02	BBY6SOP-00026	SM 24 2510 B m
Fluoride	4	N/A	2024/02/02	BBY6SOP-00037	SM 24 4500-F C m
Hardness Total (calculated as CaCO3) (1)	4	N/A	2024/02/05	BBY WI-00033	Auto Calc
Mercury (Total) by CV	4	2024/02/02	2024/02/02	AB SOP-00084	BCMOE BCLM Oct2013 m
Na, K, Ca, Mg, S by CRC ICPMS (total)	4	N/A	2024/02/05	BBY WI-00033	Auto Calc
Elements by CRC ICPMS (total)	4	N/A	2024/02/02	BBY7SOP-00003 / BBY7SOP-00002	EPA 6020b R2 m
Nitrate + Nitrite (N)	4	N/A	2024/02/02	BBY6SOP-00010	SM 24 4500-NO3- H m
Nitrite (N) Regular Level Water	4	N/A	2024/02/02	BBY6SOP-00010	SM 24 4500-NO2- m
Nitrogen - Nitrate (as N)	4	N/A	2024/02/02	BBY WI-00033	Auto Calc
pH @25°C (2)	4	N/A	2024/02/02	BBY6SOP-00026	SM 24 4500-H+ B m
Total Dissolved Solids (Filt. Residue)	4	2024/02/05	2024/02/06	BBY6SOP-00033	SM 24 2540 C m
Turbidity	4	N/A	2024/02/02	BBY6SOP-00027	SM 24 2130 B m

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, EPA, APHA or the Quebec Ministry of Environment.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Your C.O.C. #: C#716107-01-01

Attention: Reece Clark

VILLAGE OF PEMBERTON
Box 100
7400 Prospect St
Pemberton, BC
CANADA V0N 2L0

Report Date: 2024/02/06
Report #: R3459693
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C407253
Received: 2024/02/02, 08:35

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).
(2) The CCME method requires pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the CCME holding time. Bureau Veritas endeavours to analyze samples as soon as possible after receipt.

Encryption Key

AUTHORIZED REPORT
RAPPORT AUTORISÉ

Bureau Veritas
06 Feb 2024 11:22:16

Please direct all questions regarding this Certificate of Analysis to:
Customer Solutions, Western Canada Customer Experience Team
Email: customersolutionswest@bureauveritas.com
Phone# (604) 734 7276

==========

This report has been generated and distributed using a secure automated process.
Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Raphael Kwan, Senior Manager, BC and Yukon Regions responsible for British Columbia Environmental laboratory operations.

Bureau Veritas Job #: C407253
Report Date: 2024/02/06

VILLAGE OF PEMBERTON

RESULTS OF CHEMICAL ANALYSES OF DRINKING WATER

Bureau Veritas ID					CIM489	CIM490	CIM491		
Sampling Date					2024/01/31 08:30	2024/01/31 08:45	2024/01/31 09:00		
COC Number					C#716107-01-01	C#716107-01-01	C#716107-01-01		
	UNITS	MAC	AO	OG	WELL#2	WELL#3	RIDGE	RDL	QC Batch
ANIONS									
Nitrite (N)	mg/L	1	-	-	<0.0050	<0.0050	<0.0050	0.0050	B272507
Calculated Parameters									
Total Hardness (CaCO3)	mg/L	-	-	-	74.9	32.9	34.4	0.50	B272120
Nitrate (N)	mg/L	10	-	-	0.287	0.164	0.167	0.020	B272117
Misc. Inorganics									
Conductivity	uS/cm	-	-	-	270	110	200	2.0	B272535
pH	pH	-	-	7.0:10.5	**6.75**	**6.22**	**6.89**	N/A	B272528
Total Dissolved Solids	mg/L	-	500	-	170	70	120	10	B274436
Anions									
Alkalinity (PP as CaCO3)	mg/L	-	-	-	<1.0	<1.0	<1.0	1.0	B272532
Alkalinity (Total as CaCO3)	mg/L	-	-	-	36	20	60	1.0	B272532
Bicarbonate (HCO3)	mg/L	-	-	-	44	25	74	1.0	B272532
Carbonate (CO3)	mg/L	-	-	-	<1.0	<1.0	<1.0	1.0	B272532
Dissolved Fluoride (F)	mg/L	1.5	-	-	<0.050	<0.050	<0.050	0.050	B272584
Hydroxide (OH)	mg/L	-	-	-	<1.0	<1.0	<1.0	1.0	B272532
Chloride (Cl)	mg/L	-	250	-	41	11	13	1.0	B272740
Sulphate (SO4)	mg/L	-	500	-	21	10	11	1.0	B272740
MISCELLANEOUS									
True Colour	Col. Unit	-	15	-	<2.0	2.3	<2.0	2.0	B272503
Nutrients									
Nitrate plus Nitrite (N)	mg/L	-	-	-	0.287	0.164	0.167	0.020	B272505
Physical Properties									
Turbidity	NTU	see remark	see remark	see remark	0.40	<0.10	<0.10	0.10	B272560

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
N/A = Not Applicable

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Bureau Veritas Job #: C407253
Report Date: 2024/02/06

VILLAGE OF PEMBERTON

RESULTS OF CHEMICAL ANALYSES OF DRINKING WATER

Bureau Veritas ID					CIM492		
Sampling Date					2024/01/31 09:15		
COC Number					C#716107-01-01		
	UNITS	MAC	AO	OG	FORM RD	RDL	QC Batch
ANIONS							
Nitrite (N)	mg/L	1	-	-	<0.0050	0.0050	B272507
Calculated Parameters							
Total Hardness (CaCO3)	mg/L	-	-	-	34.6	0.50	B272120
Nitrate (N)	mg/L	10	-	-	0.380	0.020	B272117
Misc. Inorganics							
Conductivity	uS/cm	-	-	-	200	2.0	B272535
pH	pH	-	-	7.0:10.5	7.03	N/A	B272528
Total Dissolved Solids	mg/L	-	500	-	100	10	B274436
Anions							
Alkalinity (PP as CaCO3)	mg/L	-	-	-	<1.0	1.0	B272532
Alkalinity (Total as CaCO3)	mg/L	-	-	-	61	1.0	B272532
Bicarbonate (HCO3)	mg/L	-	-	-	74	1.0	B272532
Carbonate (CO3)	mg/L	-	-	-	<1.0	1.0	B272532
Dissolved Fluoride (F)	mg/L	1.5	-	-	<0.050	0.050	B272584
Hydroxide (OH)	mg/L	-	-	-	<1.0	1.0	B272532
Chloride (Cl)	mg/L	-	250	-	13	1.0	B272740
Sulphate (SO4)	mg/L	-	500	-	11	1.0	B272740
MISCELLANEOUS							
True Colour	Col. Unit	-	15	-	<2.0	2.0	B272503
Nutrients							
Nitrate plus Nitrite (N)	mg/L	-	-	-	0.380	0.020	B272505
Physical Properties							
Turbidity	NTU	see remark	see remark	see remark	0.20	0.10	B272560

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
N/A = Not Applicable

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Bureau Veritas Job #: C407253
Report Date: 2024/02/06

VILLAGE OF PEMBERTON

MERCURY BY COLD VAPOR (DRINKING WATER)

Bureau Veritas ID			CIM489	CIM490	CIM491	CIM492		
Sampling Date			2024/01/31 08:30	2024/01/31 08:45	2024/01/31 09:00	2024/01/31 09:15		
COC Number			C#716107-01-01	C#716107-01-01	C#716107-01-01	C#716107-01-01		
	UNITS	MAC	WELL#2	WELL#3	RIDGE	FORM RD	RDL	QC Batch
Elements								
Total Mercury (Hg)	ug/L	1	0.0186	0.0176	0.0213	0.0193	0.0019	B272153

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Bureau Veritas Job #: C407253
Report Date: 2024/02/06

VILLAGE OF PEMBERTON

ELEMENTS BY ATOMIC SPECTROSCOPY (DRINKING WATER)

Bureau Veritas ID					CIM489	CIM490	CIM491	CIM492		
Sampling Date					2024/01/31 08:30	2024/01/31 08:45	2024/01/31 09:00	2024/01/31 09:15		
COC Number					C#716107-01-01	C#716107-01-01	C#716107-01-01	C#716107-01-01		
	UNITS	MAC	AO	OG	WELL#2	WELL#3	RIDGE	FORM RD	RDL	QC Batch
Total Metals by ICPMS										
Total Aluminum (Al)	ug/L	2900	-	100	6.4	8.2	4.2	24.2	3.0	B272413
Total Antimony (Sb)	ug/L	6	-	-	<0.50	<0.50	<0.50	<0.50	0.50	B272413
Total Arsenic (As)	ug/L	10	-	-	<0.10	<0.10	<0.10	<0.10	0.10	B272413
Total Barium (Ba)	ug/L	2000	-	-	48.5	21.2	20.9	22.4	1.0	B272413
Total Boron (B)	ug/L	5000	-	-	126	<50	<50	<50	50	B272413
Total Cadmium (Cd)	ug/L	7	-	-	0.018	0.028	<0.010	0.098	0.010	B272413
Total Chromium (Cr)	ug/L	50	-	-	<1.0	<1.0	<1.0	<1.0	1.0	B272413
Total Cobalt (Co)	ug/L	-	-	-	0.20	0.22	<0.20	<0.20	0.20	B272413
Total Copper (Cu)	ug/L	2000	1000	-	1.73	3.36	4.24	7.55	0.20	B272413
Total Iron (Fe)	ug/L	-	300	-	183	32.3	30.7	38.9	5.0	B272413
Total Lead (Pb)	ug/L	5	-	-	<0.20	0.77	0.21	<0.20	0.20	B272413
Total Manganese (Mn)	ug/L	120	20	-	**82.7**	**65.9**	7.6	18.9	1.0	B272413
Total Molybdenum (Mo)	ug/L	-	-	-	2.4	<1.0	<1.0	<1.0	1.0	B272413
Total Nickel (Ni)	ug/L	-	-	-	<1.0	<1.0	<1.0	<1.0	1.0	B272413
Total Selenium (Se)	ug/L	50	-	-	<0.10	<0.10	<0.10	<0.10	0.10	B272413
Total Silver (Ag)	ug/L	-	-	-	<0.020	<0.020	<0.020	<0.020	0.020	B272413
Total Strontium (Sr)	ug/L	7000	-	-	174	68.0	69.6	70.9	1.0	B272413
Total Uranium (U)	ug/L	20	-	-	<0.10	<0.10	<0.10	<0.10	0.10	B272413
Total Vanadium (V)	ug/L	-	-	-	<5.0	<5.0	<5.0	<5.0	5.0	B272413
Total Zinc (Zn)	ug/L	-	5000	-	26.4	6.3	6.1	<5.0	5.0	B272413
Total Calcium (Ca)	mg/L	-	-	-	27.3	12.0	12.5	12.6	0.050	B272118
Total Magnesium (Mg)	mg/L	-	-	-	1.63	0.711	0.755	0.760	0.050	B272118
Total Potassium (K)	mg/L	-	-	-	2.64	1.06	1.11	1.11	0.050	B272118
Total Sodium (Na)	mg/L	-	200	-	15.8	5.08	24.8	25.0	0.050	B272118
Total Sulphur (S)	mg/L	-	-	-	6.8	3.4	3.5	3.6	3.0	B272118

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Bureau Veritas Job #: C407253
Report Date: 2024/02/06

VILLAGE OF PEMBERTON

GENERAL COMMENTS

MAC,AO,OG: The guidelines that have been included in this report have been taken from the Canadian Drinking Water Quality Summary Table, September 2022.

Criteria A = Maximum Acceptable Concentration (MAC) / Criteria B = Aesthetic Objectives (AO) / Criteria C = Operational Guidance Values (OG)
It is recommended to consult these guidelines when interpreting your data since there are non-numerical guidelines that are not included on this report.

Turbidity Guidelines:
1. Chemically assisted filtration: less than or equal to 0.3 NTU in 95% of the measurements or 95% of the time each month. Shall not exceed 1.0 NTU at any time.
2. Slow sand / diatomaceous earth filtration: less than or equal to 1.0 NTU in 95% of the measurements or 95% of the time each month. Shall not exceed 3.0 NTU at any time.
3. Membrane filtration: less than or equal to 0.1 NTU in 99% of the measurements made or at least 99% of the time each calendar month. Shall not exceed 0.3 NTU at any time.
4. To ensure effectiveness of disinfection and for good operation of the distribution system, it is recommended that water entering the distribution system have turbidity levels of 1.0 NTU or less.
Measurement of Uncertainty has not been accounted for when stating conformity to the selected criteria, where applicable.

Results relate only to the items tested.

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
B272153	Total Mercury (Hg)	2024/02/02	84	80 - 120	99	80 - 120	<0.0019	ug/L	0.58	20
B272413	Total Aluminum (Al)	2024/02/02	98	80 - 120	100	80 - 120	<3.0	ug/L	NC	20
B272413	Total Antimony (Sb)	2024/02/02	98	80 - 120	97	80 - 120	<0.50	ug/L	NC	20
B272413	Total Arsenic (As)	2024/02/02	102	80 - 120	102	80 - 120	<0.10	ug/L	NC	20
B272413	Total Barium (Ba)	2024/02/02	100	80 - 120	100	80 - 120	<1.0	ug/L	NC	20
B272413	Total Boron (B)	2024/02/02	97	80 - 120	96	80 - 120	<50	ug/L	NC	20
B272413	Total Cadmium (Cd)	2024/02/02	98	80 - 120	98	80 - 120	<0.010	ug/L	NC	20
B272413	Total Chromium (Cr)	2024/02/02	96	80 - 120	98	80 - 120	<1.0	ug/L	NC	20
B272413	Total Cobalt (Co)	2024/02/02	93	80 - 120	95	80 - 120	<0.20	ug/L	2.1	20
B272413	Total Copper (Cu)	2024/02/02	91	80 - 120	92	80 - 120	<0.20	ug/L	2.8	20
B272413	Total Iron (Fe)	2024/02/02	100	80 - 120	97	80 - 120	<5.0	ug/L	NC	20
B272413	Total Lead (Pb)	2024/02/02	97	80 - 120	96	80 - 120	<0.20	ug/L	NC	20
B272413	Total Manganese (Mn)	2024/02/02	97	80 - 120	99	80 - 120	<1.0	ug/L	NC	20
B272413	Total Molybdenum (Mo)	2024/02/02	101	80 - 120	100	80 - 120	<1.0	ug/L	NC	20
B272413	Total Nickel (Ni)	2024/02/02	95	80 - 120	97	80 - 120	<1.0	ug/L	0.25	20
B272413	Total Selenium (Se)	2024/02/02	100	80 - 120	99	80 - 120	<0.10	ug/L	3.9	20
B272413	Total Silver (Ag)	2024/02/02	97	80 - 120	98	80 - 120	<0.020	ug/L	NC	20
B272413	Total Strontium (Sr)	2024/02/02	101	80 - 120	102	80 - 120	<1.0	ug/L	0.19	20
B272413	Total Uranium (U)	2024/02/02	99	80 - 120	100	80 - 120	<0.10	ug/L	NC	20
B272413	Total Vanadium (V)	2024/02/02	97	80 - 120	99	80 - 120	<5.0	ug/L	NC	20
B272413	Total Zinc (Zn)	2024/02/02	97	80 - 120	99	80 - 120	<5.0	ug/L	NC	20
B272503	True Colour	2024/02/02			101	80 - 120	<2.0	Col. Unit	NC	20
B272505	Nitrate plus Nitrite (N)	2024/02/02	113	80 - 120	108	80 - 120	<0.020	mg/L	1.4	25
B272507	Nitrite (N)	2024/02/02	79 (1)	80 - 120	105	80 - 120	<0.0050	mg/L	NC	20
B272528	pH	2024/02/02			100	97 - 103			0.093	N/A
B272532	Alkalinity (PP as CaCO3)	2024/02/02					<1.0	mg/L	NC	20
B272532	Alkalinity (Total as CaCO3)	2024/02/02			89	80 - 120	<1.0	mg/L	0.54	20
B272532	Bicarbonate (HCO3)	2024/02/02					<1.0	mg/L	0.54	20
B272532	Carbonate (CO3)	2024/02/02					<1.0	mg/L	NC	20
B272532	Hydroxide (OH)	2024/02/02					<1.0	mg/L	NC	20
B272535	Conductivity	2024/02/02			101	90 - 110	<2.0	uS/cm	0.15	10
B272560	Turbidity	2024/02/02			97	80 - 120	<0.10	NTU	NC	20
B272584	Dissolved Fluoride (F)	2024/02/02	107	80 - 120	105	80 - 120	<0.050	mg/L	NC	20
B272740	Chloride (Cl)	2024/02/02	107	80 - 120	95	80 - 120	<1.0	mg/L	NC	20

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
B272740	Sulphate (SO4)	2024/02/02	99	80 - 120	97	80 - 120	<1.0	mg/L	NC	20
B274436	Total Dissolved Solids	2024/02/06	102	80 - 120	99	80 - 120	<10	mg/L	5.7	20

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Bureau Veritas
4606 Canada Way, Burnaby, British Columbia Canada V5G 1K5 Tel:(604) 734 7276 Toll-free:800-563-6266 Fax:(604) 731 2386 www.bvna.com

Page of

Chain Of Custody Record

INVOICE TO:		Report Information		Project Information		Laboratory Use Only	
Company Name	#99020 VILLAGE OF PEMBERTON	Company Name		Quotation #	C31790	Bureau Veritas Job #	Bottle Order #:
Contact Name	Accounts Payable	Contact Name	Reece Clark	P.O #			716107
Address	Box 100 7400 Prospect St Pemberton BC V0N 2L0	Address		Project #		Chain Of Custody Record	Project Manager
Phone	(604) 894-6811 Fax: (604) 894-6855	Phone	604 358 5845 Fax:	Project Name		C#716107-01-01	Customer Solutions
Email	accountspayable@pemberton.ca	Email	RClark@pemberton.ca	Site #			
				Sampled By			

Regulatory Criteria:
- [ ] CSR
- [ ] CCME
- [x] BC Water Quality
- [ ] Other

Special Instructions: Please Plot against AO & MAC

SAMPLES MUST BE KEPT COOL (< 10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BUREAU VERITAS

ANALYSIS REQUESTED (PLEASE BE SPECIFIC)

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Metals Field Filtered ? (Y / N)	Drinking Water Package w/o Microbiology	# of Bottles	Comments
1		Well #2	24/01/31	8:30 AM			✓		
2		Well #3	24/01/31	8:45 AM			✓		
3		RIDGE	24/01/31	9:00 AM			✓		
4		Farm Rd.	24/01/31	9:15 AM			✓		
5									
6									
7									
8									
9									
10									

Turnaround Time (TAT) Required:

Please provide advance notice for rush projects

Regular (Standard) TAT:
(will be applied if Rush TAT is not specified):
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
1 DAY [ ] 2 Day [ ] 3 Day [ ] Date Required: [ ]
Rush Confirmation Number: (call lab for #)

C407253_COC

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted	Lab Use Only: Time Sensitive	Temperature (°C) on Receipt	Custody Seal Intact on Cooler?
[redacted] Reece Clark	24/01/31	9:20AM	[redacted] Roland Vaoili	24/02/02	0835		[ ]	15, 15, 16	[ ] Yes [x] No

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BUREAU VERITAS'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVNA.COM/ENVIRONMENTAL-LABORATORIES/RESOURCES/COC-TERMS-AND-CONDITIONS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

White: Bureau Veritas Yellow: Client

ice packs: good, melted

Bureau Veritas Canada (2019) Inc.

Your Project #: DW kits without Micro
Your C.O.C. #: 718396-01-01

Attention: Reece Clark

VILLAGE OF PEMBERTON
Box 100
7400 Prospect St
Pemberton, BC
CANADA V0N 2L0

Report Date: 2024/03/07
Report #: R3472291
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C414646
Received: 2024/03/01, 10:25

Sample Matrix: Drinking Water
Samples Received: 4

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Alkalinity @25C (pp, total), CO3,HCO3,OH	3	N/A	2024/03/01	BBY6SOP-00026	SM 24 2320 B m
Alkalinity @25C (pp, total), CO3,HCO3,OH	1	N/A	2024/03/02	BBY6SOP-00026	SM 24 2320 B m
Chloride/Sulphate by Auto Colourimetry	4	N/A	2024/03/05	BBY6SOP-00011 / BBY6SOP-00017	SM24-4500-Cl/SO4-E m
Color (True) by Automated Analyzer	4	N/A	2024/03/01	BBY6SOP-00057	SM 24 2120 C m
Conductivity @25C	3	N/A	2024/03/01	BBY6SOP-00026	SM 24 2510 B m
Conductivity @25C	1	N/A	2024/03/02	BBY6SOP-00026	SM 24 2510 B m
Fluoride	4	N/A	2024/03/04	BBY6SOP-00037	SM 24 4500-F C m
Hardness Total (calculated as CaCO3) (1)	4	N/A	2024/03/06	BBY WI-00033	Auto Calc
Mercury (Total) by CV	4	2024/03/04	2024/03/04	AB SOP-00084	BCMOE BCLM Oct2013 m
Na, K, Ca, Mg, S by CRC ICPMS (total)	4	N/A	2024/03/06	BBY WI-00033	Auto Calc
Elements by CRC ICPMS (total)	4	N/A	2024/03/05	BBY7SOP-00003 / BBY7SOP-00002	EPA 6020b R2 m
Nitrate + Nitrite (N)	4	N/A	2024/03/01	BBY6SOP-00010	SM 24 4500-NO3- H m
Nitrite (N) Regular Level Water	4	N/A	2024/03/01	BBY6SOP-00010	SM 24 4500-NO2- m
Nitrogen - Nitrate (as N)	4	N/A	2024/03/01	BBY WI-00033	Auto Calc
pH @25°C (2)	3	N/A	2024/03/01	BBY6SOP-00026	SM 24 4500-H+ B m
pH @25°C (2)	1	N/A	2024/03/02	BBY6SOP-00026	SM 24 4500-H+ B m
Total Dissolved Solids (Filt. Residue)	4	2024/03/05	2024/03/06	BBY6SOP-00033	SM 24 2540 C m
Turbidity	4	N/A	2024/03/01	BBY6SOP-00027	SM 24 2130 B m

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, EPA, APHA or the Quebec Ministry of Environment.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report.

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Your Project #: DW kits without Micro
Your C.O.C. #: 718396-01-01

Attention: Reece Clark

VILLAGE OF PEMBERTON
Box 100
7400 Prospect St
Pemberton, BC
CANADA V0N 2L0

Report Date: 2024/03/07
Report #: R3472291
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C414646
Received: 2024/03/01, 10:25

Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.
This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).
(2) The CCME method requires pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the CCME holding time. Bureau Veritas endeavours to analyze samples as soon as possible after receipt.

Encryption Key

Bureau Veritas
07 Mar 2024 14:55:49

Please direct all questions regarding this Certificate of Analysis to:
Customer Solutions, Western Canada Customer Experience Team
Email: customersolutionswest@bureauveritas.com
Phone# (604) 734 7276
==========
This report has been generated and distributed using a secure automated process.
Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Raphael Kwan, Senior Manager, BC and Yukon Regions responsible for British Columbia Environmental laboratory operations.

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Bureau Veritas Job #: C414646
Report Date: 2024/03/07

VILLAGE OF PEMBERTON
Client Project #: DW kits without Micro

RESULTS OF CHEMICAL ANALYSES OF DRINKING WATER

Bureau Veritas ID					CKC155	CKC156	CKC157		
Sampling Date					2024/02/09 09:00	2024/02/09 09:30	2024/02/09 10:00		
COC Number					718396-01-01	718396-01-01	718396-01-01		
	UNITS	MAC	AO	OG	RIDGE	FARM RD	WELL#2	RDL	QC Batch
ANIONS									
Nitrite (N)	mg/L	1	-	-	<0.0050	<0.0050 (1)	<0.0050	0.0050	B301068
Calculated Parameters									
Total Hardness (CaCO3)	mg/L	-	-	-	34.7	33.6	71.3	0.50	B300337
Nitrate (N)	mg/L	10	-	-	0.209	0.211	0.244	0.020	B300299
Misc. Inorganics									
Conductivity	uS/cm	-	-	-	200	190	270	2.0	B301079
pH	pH	-	-	7.0:10.5	7.23	7.26	**6.65**	N/A	B301077
Total Dissolved Solids	mg/L	-	500	-	100	110	160	10	B303874
Anions									
Alkalinity (PP as CaCO3)	mg/L	-	-	-	<1.0	<1.0	<1.0	1.0	B301078
Alkalinity (Total as CaCO3)	mg/L	-	-	-	62	60	35	1.0	B301078
Bicarbonate (HCO3)	mg/L	-	-	-	75	74	43	1.0	B301078
Carbonate (CO3)	mg/L	-	-	-	<1.0	<1.0	<1.0	1.0	B301078
Dissolved Fluoride (F)	mg/L	1.5	-	-	<0.050	<0.050	<0.050	0.050	B302589
Hydroxide (OH)	mg/L	-	-	-	<1.0	<1.0	<1.0	1.0	B301078
Chloride (Cl)	mg/L	-	250	-	16	15	43	1.0	B302510
Sulphate (SO4)	mg/L	-	500	-	10	10	19	1.0	B302510
MISCELLANEOUS									
True Colour	Col. Unit	-	15	-	<2.0	<2.0	<2.0	2.0	B300457
Nutrients									
Nitrate plus Nitrite (N)	mg/L	-	-	-	0.209	0.211 (1)	0.244	0.020	B301067
Physical Properties									
Turbidity	NTU	see remark	see remark	see remark	0.11	0.30	0.21	0.10	B301008

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
N/A = Not Applicable
(1) Matrix spike exceeds acceptance limits due to matrix interference.

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Bureau Veritas Job #: C414646
Report Date: 2024/03/07

VILLAGE OF PEMBERTON
Client Project #: DW kits without Micro

RESULTS OF CHEMICAL ANALYSES OF DRINKING WATER

Bureau Veritas ID					CKC158		
Sampling Date					2024/02/09 10:15		
COC Number					718396-01-01		
	UNITS	MAC	AO	OG	WELL#3	RDL	QC Batch
ANIONS							
Nitrite (N)	mg/L	1	-	-	<0.0050	0.0050	B301068
Calculated Parameters							
Total Hardness (CaCO3)	mg/L	-	-	-	27.1	0.50	B300337
Nitrate (N)	mg/L	10	-	-	0.203	0.020	B300299
Misc. Inorganics							
Conductivity	uS/cm	-	-	-	93	2.0	B301002
pH	pH	-	-	7.0:10.5	**6.44**	N/A	B300957
Total Dissolved Solids	mg/L	-	500	-	54	10	B303874
Anions							
Alkalinity (PP as CaCO3)	mg/L	-	-	-	<1.0	1.0	B301001
Alkalinity (Total as CaCO3)	mg/L	-	-	-	17	1.0	B301001
Bicarbonate (HCO3)	mg/L	-	-	-	21	1.0	B301001
Carbonate (CO3)	mg/L	-	-	-	<1.0	1.0	B301001
Dissolved Fluoride (F)	mg/L	1.5	-	-	<0.050	0.050	B302589
Hydroxide (OH)	mg/L	-	-	-	<1.0	1.0	B301001
Chloride (Cl)	mg/L	-	250	-	8.6	1.0	B302510
Sulphate (SO4)	mg/L	-	500	-	8.7	1.0	B302510
MISCELLANEOUS							
True Colour	Col. Unit	-	15	-	<2.0	2.0	B300457
Nutrients							
Nitrate plus Nitrite (N)	mg/L	-	-	-	0.203	0.020	B301067
Physical Properties							
Turbidity	NTU	see remark	see remark	see remark	0.24	0.10	B301008

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
N/A = Not Applicable

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Report Date: 2024/03/07

VILLAGE OF PEMBERTON
Client Project #: DW kits without Micro

MERCURY BY COLD VAPOR (DRINKING WATER)

Bureau Veritas ID			CKC155	CKC156	CKC157	CKC158		
Sampling Date			2024/02/09 09:00	2024/02/09 09:30	2024/02/09 10:00	2024/02/09 10:15		
COC Number			718396-01-01	718396-01-01	718396-01-01	718396-01-01		
	UNITS	MAC	RIDGE	FARM RD	WELL#2	WELL#3	RDL	QC Batch
Elements								
Total Mercury (Hg)	ug/L	1	0.0234	0.0222	0.0235	0.0210	0.0019	B302854

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit

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Bureau Veritas Job #: C414646
Report Date: 2024/03/07

VILLAGE OF PEMBERTON
Client Project #: DW kits without Micro

ELEMENTS BY ATOMIC SPECTROSCOPY (DRINKING WATER)

Bureau Veritas ID					CKC155	CKC156	CKC157	CKC158		
Sampling Date					2024/02/09 09:00	2024/02/09 09:30	2024/02/09 10:00	2024/02/09 10:15		
COC Number					718396-01-01	718396-01-01	718396-01-01	718396-01-01		
	UNITS	MAC	AO	OG	RIDGE	FARM RD	WELL#2	WELL#3	RDL	QC Batch
Total Metals by ICPMS										
Total Aluminum (Al)	ug/L	2900	-	100	5.5	9.1	10.3	8.0	3.0	B302748
Total Antimony (Sb)	ug/L	6	-	-	<0.50	<0.50	<0.50	<0.50	0.50	B302748
Total Arsenic (As)	ug/L	10	-	-	<0.10	<0.10	<0.10	<0.10	0.10	B302748
Total Barium (Ba)	ug/L	2000	-	-	22.2	22.4	47.9	18.4	1.0	B302748
Total Boron (B)	ug/L	5000	-	-	86	78	179	57	50	B302748
Total Cadmium (Cd)	ug/L	7	-	-	<0.010	0.032	<0.010	0.033	0.010	B302748
Total Chromium (Cr)	ug/L	50	-	-	<1.0	<1.0	<1.0	<1.0	1.0	B302748
Total Cobalt (Co)	ug/L	-	-	-	<0.20	<0.20	0.22	<0.20	0.20	B302748
Total Copper (Cu)	ug/L	2000	1000	-	3.03	4.67	2.11	2.79	0.20	B302748
Total Iron (Fe)	ug/L	-	300	-	26.5	32.0	71.6	18.1	5.0	B302748
Total Lead (Pb)	ug/L	5	-	-	0.57	<0.20	0.25	0.63	0.20	B302748
Total Manganese (Mn)	ug/L	120	20	-	8.1	**28.1**	**93.8**	**39.0**	1.0	B302748
Total Molybdenum (Mo)	ug/L	-	-	-	<1.0	<1.0	2.4	<1.0	1.0	B302748
Total Nickel (Ni)	ug/L	-	-	-	<1.0	<1.0	<1.0	<1.0	1.0	B302748
Total Selenium (Se)	ug/L	50	-	-	<0.10	<0.10	<0.10	<0.10	0.10	B302748
Total Silver (Ag)	ug/L	-	-	-	<0.020	<0.020	<0.020	<0.020	0.020	B302748
Total Strontium (Sr)	ug/L	7000	-	-	74.8	72.6	177	56.2	1.0	B302748
Total Uranium (U)	ug/L	20	-	-	<0.10	<0.10	<0.10	<0.10	0.10	B302748
Total Vanadium (V)	ug/L	-	-	-	<5.0	<5.0	<5.0	<5.0	5.0	B302748
Total Zinc (Zn)	ug/L	-	5000	-	6.2	<5.0	14.3	<5.0	5.0	B302748
Total Calcium (Ca)	mg/L	-	-	-	12.7	12.3	25.9	9.92	0.050	B300473
Total Magnesium (Mg)	mg/L	-	-	-	0.735	0.710	1.62	0.553	0.050	B300473
Total Potassium (K)	mg/L	-	-	-	1.31	1.26	2.64	1.01	0.050	B300473
Total Sodium (Na)	mg/L	-	200	-	23.1	23.2	14.4	4.11	0.050	B300473
Total Sulphur (S)	mg/L	-	-	-	3.6	3.3	6.5	<3.0	3.0	B300473

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Bureau Veritas Job #: C414646
Report Date: 2024/03/07

VILLAGE OF PEMBERTON
Client Project #: DW kits without Micro

GENERAL COMMENTS

Sample CKC155 [RIDGE] : Sample was analyzed past method specified hold time for Nitrate + Nitrite (N). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample received past method specified hold time for Nitrate + Nitrite (N). Sample was analyzed past method specified hold time for Nitrite (N) Regular Level Water. Sample received past method specified hold time for Nitrite (N) Regular Level Water. Sample was analyzed past method specified hold time for Turbidity. Sample was analyzed past method specified hold time for Color (True) by Automated Analyzer. Sample received past method specified hold time for Color (True) by Automated Analyzer. Sample was analyzed past method specified hold time for Alkalinity @25C (pp, total), CO3,HCO3,OH. Sample was analyzed past method specified hold time for Total Dissolved Solids (Filt. Residue).

Sample CKC156 [FARM RD] : Sample was analyzed past method specified hold time for Nitrate + Nitrite (N). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample received past method specified hold time for Nitrate + Nitrite (N). Sample was analyzed past method specified hold time for Nitrite (N) Regular Level Water. Sample received past method specified hold time for Nitrite (N) Regular Level Water. Sample was analyzed past method specified hold time for Turbidity. Sample was analyzed past method specified hold time for Color (True) by Automated Analyzer. Sample received past method specified hold time for Color (True) by Automated Analyzer. Sample was analyzed past method specified hold time for Alkalinity @25C (pp, total), CO3,HCO3,OH. Sample was analyzed past method specified hold time for Total Dissolved Solids (Filt. Residue).

Sample CKC157 [WELL#2] : Sample was analyzed past method specified hold time for Nitrate + Nitrite (N). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample received past method specified hold time for Nitrate + Nitrite (N). Sample was analyzed past method specified hold time for Nitrite (N) Regular Level Water. Sample received past method specified hold time for Nitrite (N) Regular Level Water. Sample was analyzed past method specified hold time for Turbidity. Sample was analyzed past method specified hold time for Color (True) by Automated Analyzer. Sample received past method specified hold time for Color (True) by Automated Analyzer. Sample was analyzed past method specified hold time for Alkalinity @25C (pp, total), CO3,HCO3,OH. Sample was analyzed past method specified hold time for Total Dissolved Solids (Filt. Residue).

Sample CKC158 [WELL#3] : Sample was analyzed past method specified hold time for Nitrate + Nitrite (N). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample received past method specified hold time for Nitrate + Nitrite (N). Sample was analyzed past method specified hold time for Nitrite (N) Regular Level Water. Sample received past method specified hold time for Nitrite (N) Regular Level Water. Sample was analyzed past method specified hold time for Turbidity. Sample was analyzed past method specified hold time for Color (True) by Automated Analyzer. Sample received past method specified hold time for Color (True) by Automated Analyzer. Sample was analyzed past method specified hold time for Alkalinity @25C (pp, total), CO3,HCO3,OH. Sample was analyzed past method specified hold time for Total Dissolved Solids (Filt. Residue).
MAC,AO,OG: The guidelines that have been included in this report have been taken from the Canadian Drinking Water Quality Summary Table, September 2022.

Criteria A = Maximum Acceptable Concentration (MAC) / Criteria B = Aesthetic Objectives (AO) / Criteria C = Operational Guidance Values (OG)
It is recommended to consult these guidelines when interpreting your data since there are non-numerical guidelines that are not included on this report.

Turbidity Guidelines:
1. Chemically assisted filtration: less than or equal to 0.3 NTU in 95% of the measurements or 95% of the time each month. Shall not exceed 1.0 NTU at any time.
2. Slow sand / diatomaceous earth filtration: less than or equal to 1.0 NTU in 95% of the measurements or 95% of the time each month. Shall not exceed 3.0 NTU at any time.
3. Membrane filtration: less than or equal to 0.1 NTU in 99% of the measurements made or at least 99% of the time each calendar month. Shall not exceed 0.3 NTU at any time.
4. To ensure effectiveness of disinfection and for good operation of the distribution system, it is recommended that water entering the distribution system have turbidity levels of 1.0 NTU or less.
Measurement of Uncertainty has not been accounted for when stating conformity to the selected criteria, where applicable.

Results relate only to the items tested.

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
B300457	True Colour	2024/03/01			99	80 - 120	<2.0	Col. Unit	NC	20
B300957	pH	2024/03/01			100	97 - 103			0.030	N/A
B301001	Alkalinity (PP as CaCO3)	2024/03/01					<1.0	mg/L	NC	20
B301001	Alkalinity (Total as CaCO3)	2024/03/01			103	80 - 120	<1.0	mg/L	0.039	20
B301001	Bicarbonate (HCO3)	2024/03/01					<1.0	mg/L	0.039	20
B301001	Carbonate (CO3)	2024/03/01					<1.0	mg/L	NC	20
B301001	Hydroxide (OH)	2024/03/01					<1.0	mg/L	NC	20
B301002	Conductivity	2024/03/01			98	90 - 110	<2.0	uS/cm	0	10
B301008	Turbidity	2024/03/01			104	80 - 120	<0.10	NTU	7.5	20
B301067	Nitrate plus Nitrite (N)	2024/03/01	40	N/A	103	80 - 120	<0.020	mg/L	0.033	25
B301068	Nitrite (N)	2024/03/01	79 (1)	80 - 120	104	80 - 120	<0.0050	mg/L	NC	20
B301077	pH	2024/03/02			100	97 - 103			0.038	N/A
B301078	Alkalinity (PP as CaCO3)	2024/03/02					<1.0	mg/L	NC	20
B301078	Alkalinity (Total as CaCO3)	2024/03/02			105	80 - 120	<1.0	mg/L	2.5	20
B301078	Bicarbonate (HCO3)	2024/03/02					<1.0	mg/L	2.5	20
B301078	Carbonate (CO3)	2024/03/02					<1.0	mg/L	NC	20
B301078	Hydroxide (OH)	2024/03/02					<1.0	mg/L	NC	20
B301079	Conductivity	2024/03/02			99	90 - 110	<2.0	uS/cm	0	10
B302510	Chloride (Cl)	2024/03/05	NC	80 - 120	105	80 - 120	<1.0	mg/L	0.18	20
B302510	Sulphate (SO4)	2024/03/05	94	80 - 120	97	80 - 120	<1.0	mg/L	0.47	20
B302589	Dissolved Fluoride (F)	2024/03/04	101	80 - 120	104	80 - 120	<0.050	mg/L	NC	20
B302748	Total Aluminum (Al)	2024/03/05	105	80 - 120	96	80 - 120	<3.0	ug/L	1.4	20
B302748	Total Antimony (Sb)	2024/03/05	109	80 - 120	101	80 - 120	<0.50	ug/L	NC	20
B302748	Total Arsenic (As)	2024/03/05	117	80 - 120	107	80 - 120	<0.10	ug/L	1.6	20
B302748	Total Barium (Ba)	2024/03/05	112	80 - 120	102	80 - 120	<1.0	ug/L	0.24	20
B302748	Total Boron (B)	2024/03/05	113	80 - 120	105	80 - 120	<50	ug/L	NC	20
B302748	Total Cadmium (Cd)	2024/03/05	109	80 - 120	102	80 - 120	<0.010	ug/L	11	20
B302748	Total Chromium (Cr)	2024/03/05	107	80 - 120	99	80 - 120	<1.0	ug/L	NC	20
B302748	Total Cobalt (Co)	2024/03/05	104	80 - 120	96	80 - 120	<0.20	ug/L	NC	20
B302748	Total Copper (Cu)	2024/03/05	107	80 - 120	95	80 - 120	<0.20	ug/L	1.5	20
B302748	Total Iron (Fe)	2024/03/05	112	80 - 120	103	80 - 120	<5.0	ug/L	1.9	20
B302748	Total Lead (Pb)	2024/03/05	110	80 - 120	101	80 - 120	<0.20	ug/L	2.3	20
B302748	Total Manganese (Mn)	2024/03/05	107	80 - 120	99	80 - 120	<1.0	ug/L	0.0091	20

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			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
B302748	Total Molybdenum (Mo)	2024/03/05	112	80 - 120	103	80 - 120	<1.0	ug/L	NC	20
B302748	Total Nickel (Ni)	2024/03/05	106	80 - 120	99	80 - 120	<1.0	ug/L	NC	20
B302748	Total Selenium (Se)	2024/03/05	111	80 - 120	102	80 - 120	<0.10	ug/L	NC	20
B302748	Total Silver (Ag)	2024/03/05	109	80 - 120	102	80 - 120	<0.020	ug/L	NC	20
B302748	Total Strontium (Sr)	2024/03/05	NC	80 - 120	103	80 - 120	<1.0	ug/L	1.0	20
B302748	Total Uranium (U)	2024/03/05	113	80 - 120	103	80 - 120	<0.10	ug/L	NC	20
B302748	Total Vanadium (V)	2024/03/05	110	80 - 120	100	80 - 120	<5.0	ug/L	NC	20
B302748	Total Zinc (Zn)	2024/03/05	103	80 - 120	100	80 - 120	<5.0	ug/L	0.72	20
B302854	Total Mercury (Hg)	2024/03/04	97	80 - 120	106	80 - 120	<0.0019	ug/L	3.5	20
B303874	Total Dissolved Solids	2024/03/06	NC	80 - 120	96	80 - 120	<10	mg/L	3.4	20

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

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Bureau Veritas
4606 Canada Way, Burnaby, British Columbia Canada V5G 1K5 Tel:(604) 734 7276 Toll-free:800-563-6266 Fax:(604) 731 2386 www.bvna.com

Page of

MVAN-2024-03-062

Bottle Order #: 716396

INVOICE TO:		Report Information		Project Information	
Company Name	#99020 VILLAGE OF PEMBERTON	Company Name		Quotation #	C31790
Contact Name	Accounts Payable	Contact Name	Reece Clark	P.O. #	
Address	Box 100 7400 Prospect St Pemberton BC V0N 2L0	Address		Project #	DW kits without Micro
Phone	(604) 894-6811 Fax (604) 894-6855	Phone	604 353 5845 Fax:	Project Name	
Email	accountspayable@pemberton.ca	Email	R.clark@pemberton.ca	Site #	
				Sampled By	

Chain Of Custody Record: C#716396-01-01

Project Manager: Customer Solutions

Regulatory Criteria:
- [ ] CSR
- [ ] CCME
- [x] BC Water Quality
- [ ] Other

Special Instructions: Please Plot Against AO & MAC

ANALYSIS REQUESTED (PLEASE BE SPECIFIC)

Turnaround Time (TAT) Required:

Please provide advance notice for rush projects

Regular (Standard) TAT:
(will be applied if Rush TAT is not specified):
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
1 DAY [ ] 2 Day [ ] 3 Day [ ] Date Required: [ ]
Rush Confirmation Number: (call lab for #)

SAMPLES MUST BE KEPT COOL (< 10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BUREAU VERITAS

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Metals Field Filtered ? (Y / N)	Drinking Water Package w/o Microbiology	# of Bottles	Comments
1		RIDGE	24/02/29	9:00AM			✓		
2		Farm Rd	24/02/29	9:30AM			✓		
3		Well #2	24/02/29	10:00AM			✓		
4		Well #3	24/02/29	10:15AM			✓		
5									
6									
7									
8									
9									
10									

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted	Lab Use Only: Time Sensitive	Temperature (°C) on Receipt	Custody Seal Intact on Cooler?
[redacted] / Reece Clark	24/02/29	10:30AM	[redacted] ALFRED NGAI	2024/03/01	10:25		[ ]	8.1, 6	Yes [x] No [ ] N/A CS

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BUREAU VERITAS'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVNA.COM/ENVIRONMENTAL-LABORATORIES/RESOURCES/COC-TERMS-AND-CONDITIONS.
* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

White: Bureau Veritas Yellow: Client

Bureau Veritas Canada (2019) Inc.

Your C.O.C. #: C#720627-01-01

Attention: Reece Clark

VILLAGE OF PEMBERTON
Box 100
7400 Prospect St
Pemberton, BC
CANADA V0N 2L0

Report Date: 2024/04/05
Report #: R3484442
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

BUREAU VERITAS JOB #: C422339
Received: 2024/04/01, 09:02

Sample Matrix: Water
Samples Received: 4

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Alkalinity @25C (pp, total), CO3,HCO3,OH	4	N/A	2024/04/02	BBY6SOP-00026	SM 24 2320 B m
Chloride/Sulphate by Auto Colourimetry	4	N/A	2024/04/01	BBY6SOP-00011 / BBY6SOP-00017	SM24-4500-Cl/SO4-E m
Color (True) by Automated Analyzer	4	N/A	2024/04/02	BBY6SOP-00057	SM 24 2120 C m
Conductivity @25C	4	N/A	2024/04/02	BBY6SOP-00026	SM 24 2510 B m
Fluoride	4	N/A	2024/04/02	BBY6SOP-00037	SM 24 4500-F C m
Hardness Total (calculated as CaCO3) (1)	4	N/A	2024/04/03	BBY WI-00033	Auto Calc
Mercury (Total) by CV	4	2024/04/03	2024/04/03	BBY7SOP-00032	BCMOE LM 2023 C1.1.3
Na, K, Ca, Mg, S by CRC ICPMS (total)	4	N/A	2024/04/03	BBY WI-00033	Auto Calc
Elements by CRC ICPMS (total)	4	N/A	2024/04/02	BBY7SOP-00003 / BBY7SOP-00002	EPA 6020b R2 m
Nitrate + Nitrite (N)	4	N/A	2024/04/02	BBY6SOP-00010	SM 24 4500-NO3- H m
Nitrite (N) Regular Level Water	4	N/A	2024/04/02	BBY6SOP-00010	SM 24 4500-NO2- m
Nitrogen - Nitrate (as N)	4	N/A	2024/04/02	BBY WI-00033	Auto Calc
pH @25°C (2)	4	N/A	2024/04/02	BBY6SOP-00026	SM 24 4500-H+ B m
Total Dissolved Solids (Filt. Residue)	4	2024/04/03	2024/04/04	BBY6SOP-00033	SM 24 2540 C m
Turbidity	4	N/A	2024/04/01	BBY6SOP-00027	SM 24 2130 B m

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, EPA, APHA or the Quebec Ministry of Environment.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Your C.O.C. #: C#720627-01-01

Attention: Reece Clark

VILLAGE OF PEMBERTON
Box 100
7400 Prospect St
Pemberton, BC
CANADA V0N 2L0

Report Date: 2024/04/05
Report #: R3484442
Version: 2 - Revision

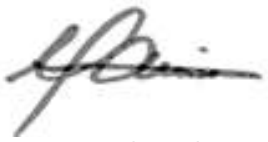
CERTIFICATE OF ANALYSIS – REVISED REPORT

BUREAU VERITAS JOB #: C422339
Received: 2024/04/01, 09:02

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).
(2) The CCME method requires pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the CCME holding time. Bureau Veritas endeavours to analyze samples as soon as possible after receipt.

Encryption Key



Aldean Alicando
Customer Solutions Representative
05 Apr 2024 15:43:17

Please direct all questions regarding this Certificate of Analysis to:
Customer Solutions, Western Canada Customer Experience Team
Email: customersolutionswest@bureauveritas.com
Phone# (604) 734 7276

==========

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Raphael Kwan, Senior Manager, BC and Yukon Regions responsible for British Columbia Environmental laboratory operations.

Bureau Veritas Job #: C422339
Report Date: 2024/04/05

VILLAGE OF PEMBERTON

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID					CLN059	CLN060	CLN061		
Sampling Date					2024/03/28 08:30	2024/03/28 08:45	2024/03/28 09:00		
COC Number					C#720627-01-01	C#720627-01-01	C#720627-01-01		
	UNITS	MAC	AO	OG	WELL #2	WELL #3	RIDGE	RDL	QC Batch
ANIONS									
Nitrite (N)	mg/L	1	-	-	<0.0050	<0.0050	<0.0050	0.0050	B328650
Calculated Parameters									
Total Hardness (CaCO3)	mg/L	-	-	-	72.8	26.2	27.8	0.50	B327375
Nitrate (N)	mg/L	10	-	-	0.282	0.213	0.219	0.020	B327379
Misc. Inorganics									
Conductivity	uS/cm	-	-	-	270	89	170	2.0	B328738
pH	pH	-	-	7.0:10.5	**6.84**	**6.54**	7.66	N/A	B328725
Total Dissolved Solids	mg/L	-	500	-	120	44	82	10	B329629
Anions									
Alkalinity (PP as CaCO3)	mg/L	-	-	-	<1.0	<1.0	<1.0	1.0	B328737
Alkalinity (Total as CaCO3)	mg/L	-	-	-	36	16	57	1.0	B328737
Bicarbonate (HCO3)	mg/L	-	-	-	44	20	69	1.0	B328737
Carbonate (CO3)	mg/L	-	-	-	<1.0	<1.0	<1.0	1.0	B328737
Dissolved Fluoride (F)	mg/L	1.5	-	-	<0.050	<0.050	<0.050	0.050	B328801
Hydroxide (OH)	mg/L	-	-	-	<1.0	<1.0	<1.0	1.0	B328737
Chloride (Cl)	mg/L	-	250	-	42	6.8	8.3	1.0	B327725
Sulphate (SO4)	mg/L	-	500	-	19	8.2	8.3	1.0	B327725
MISCELLANEOUS									
True Colour	Col. Unit	-	15	-	<2.0	<2.0	<2.0	2.0	B328639
Nutrients									
Nitrate plus Nitrite (N)	mg/L	-	-	-	0.282	0.213	0.219	0.020	B328646
Physical Properties									
Turbidity	NTU	see remark	see remark	see remark	0.44	<0.10	0.18	0.10	B327544

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
N/A = Not Applicable

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Bureau Veritas Job #: C422339
Report Date: 2024/04/05

VILLAGE OF PEMBERTON

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID					CLN062		
Sampling Date					2024/03/28 09:15		
COC Number					C#720627-01-01		
	UNITS	MAC	AO	OG	FARM RD	RDL	QC Batch
ANIONS							
Nitrite (N)	mg/L	1	-	-	<0.0050	0.0050	B328650
Calculated Parameters							
Total Hardness (CaCO3)	mg/L	-	-	-	26.7	0.50	B327375
Nitrate (N)	mg/L	10	-	-	0.219	0.020	B327379
Misc. Inorganics							
Conductivity	uS/cm	-	-	-	160	2.0	B328738
pH	pH	-	-	7.0:10.5	7.65	N/A	B328725
Total Dissolved Solids	mg/L	-	500	-	90	10	B329629
Anions							
Alkalinity (PP as CaCO3)	mg/L	-	-	-	<1.0	1.0	B328737
Alkalinity (Total as CaCO3)	mg/L	-	-	-	54	1.0	B328737
Bicarbonate (HCO3)	mg/L	-	-	-	66	1.0	B328737
Carbonate (CO3)	mg/L	-	-	-	<1.0	1.0	B328737
Dissolved Fluoride (F)	mg/L	1.5	-	-	<0.050	0.050	B328801
Hydroxide (OH)	mg/L	-	-	-	<1.0	1.0	B328737
Chloride (Cl)	mg/L	-	250	-	8.2	1.0	B327725
Sulphate (SO4)	mg/L	-	500	-	8.3	1.0	B327725
MISCELLANEOUS							
True Colour	Col. Unit	-	15	-	2.0	2.0	B328639
Nutrients							
Nitrate plus Nitrite (N)	mg/L	-	-	-	0.219	0.020	B328646
Physical Properties							
Turbidity	NTU	see remark	see remark	see remark	0.31	0.10	B327544

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
N/A = Not Applicable

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Bureau Veritas Job #: C422339
Report Date: 2024/04/05

VILLAGE OF PEMBERTON

MERCURY BY COLD VAPOR (WATER)

Bureau Veritas ID			CLN059	CLN060	CLN061	CLN062		
Sampling Date			2024/03/28 08:30	2024/03/28 08:45	2024/03/28 09:00	2024/03/28 09:15		
COC Number			C#720627-01-01	C#720627-01-01	C#720627-01-01	C#720627-01-01		
	UNITS	MAC	WELL #2	WELL #3	RIDGE	FARM RD	RDL	QC Batch
Elements								
Total Mercury (Hg)	ug/L	1	<0.0019	<0.0019	<0.0019	<0.0019	0.0019	B329663

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Bureau Veritas Job #: C422339
Report Date: 2024/04/05

VILLAGE OF PEMBERTON

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID					CLN059	CLN060	CLN061	CLN062		
Sampling Date					2024/03/28 08:30	2024/03/28 08:45	2024/03/28 09:00	2024/03/28 09:15		
COC Number					C#720627-01-01	C#720627-01-01	C#720627-01-01	C#720627-01-01		
	UNITS	MAC	AO	OG	WELL #2	WELL #3	RIDGE	FARM RD	RDL	QC Batch
Total Metals by ICPMS										
Total Aluminum (Al)	ug/L	2900	-	100	4.0	7.9	<3.0	47.3	3.0	B328658
Total Antimony (Sb)	ug/L	6	-	-	<0.50	<0.50	<0.50	<0.50	0.50	B328658
Total Arsenic (As)	ug/L	10	-	-	<0.10	<0.10	<0.10	<0.10	0.10	B328658
Total Barium (Ba)	ug/L	2000	-	-	45.6	17.0	17.2	20.1	1.0	B328658
Total Boron (B)	ug/L	5000	-	-	152	<50	<50	<50	50	B328658
Total Cadmium (Cd)	ug/L	7	-	-	<0.010	0.024	<0.010	0.201	0.010	B328658
Total Chromium (Cr)	ug/L	50	-	-	<1.0	<1.0	<1.0	<1.0	1.0	B328658
Total Cobalt (Co)	ug/L	-	-	-	0.21	<0.20	<0.20	<0.20	0.20	B328658
Total Copper (Cu)	ug/L	2000	1000	-	1.91	3.04	2.46	10.1	0.20	B328658
Total Iron (Fe)	ug/L	-	300	-	83.3	14.1	13.9	45.5	5.0	B328658
Total Lead (Pb)	ug/L	5	-	-	<0.20	0.48	<0.20	<0.20	0.20	B328658
Total Manganese (Mn)	ug/L	120	20	-	**84.5**	**34.3**	3.5	**41.5**	1.0	B328658
Total Molybdenum (Mo)	ug/L	-	-	-	2.4	<1.0	<1.0	<1.0	1.0	B328658
Total Nickel (Ni)	ug/L	-	-	-	<1.0	<1.0	<1.0	<1.0	1.0	B328658
Total Selenium (Se)	ug/L	50	-	-	<0.10	<0.10	<0.10	<0.10	0.10	B328658
Total Silver (Ag)	ug/L	-	-	-	<0.020	<0.020	<0.020	<0.020	0.020	B328658
Total Strontium (Sr)	ug/L	7000	-	-	157	47.7	51.8	52.9	1.0	B328658
Total Uranium (U)	ug/L	20	-	-	<0.10	<0.10	<0.10	<0.10	0.10	B328658
Total Vanadium (V)	ug/L	-	-	-	<5.0	<5.0	<5.0	<5.0	5.0	B328658
Total Zinc (Zn)	ug/L	-	5000	-	26.5	<5.0	8.3	<5.0	5.0	B328658
Total Calcium (Ca)	mg/L	-	-	-	26.5	9.58	10.1	9.74	0.050	B327377
Total Magnesium (Mg)	mg/L	-	-	-	1.60	0.562	0.601	0.577	0.050	B327377
Total Potassium (K)	mg/L	-	-	-	2.58	0.980	0.995	0.990	0.050	B327377
Total Sodium (Na)	mg/L	-	200	-	15.4	4.07	22.3	21.1	0.050	B327377
Total Sulphur (S)	mg/L	-	-	-	7.0	3.2	3.2	3.1	3.0	B327377

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Bureau Veritas Job #: C422339
Report Date: 2024/04/05

VILLAGE OF PEMBERTON

GENERAL COMMENTS

Version #2: Report reissued to amend client sampling time on samples Well #3, Ridge and Farm Rd as per the original Chain of Custody.

Sample CLN059 [WELL #2] : Sample was analyzed past method specified hold time for Turbidity. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample received past method specified hold time for Nitrate + Nitrite (N). Sample received past method specified hold time for Nitrite (N) Regular Level Water. Sample received past method specified hold time for Color (True) by Automated Analyzer. Sample was analyzed past method specified hold time for Nitrate + Nitrite (N). Sample was analyzed past method specified hold time for Nitrite (N) Regular Level Water. Sample was analyzed past method specified hold time for Color (True) by Automated Analyzer.

Sample CLN060 [WELL #3] : Sample was analyzed past method specified hold time for Turbidity. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample received past method specified hold time for Nitrate + Nitrite (N). Sample received past method specified hold time for Nitrite (N) Regular Level Water. Sample received past method specified hold time for Color (True) by Automated Analyzer. Sample was analyzed past method specified hold time for Nitrate + Nitrite (N). Sample was analyzed past method specified hold time for Nitrite (N) Regular Level Water. Sample was analyzed past method specified hold time for Color (True) by Automated Analyzer.

Sample CLN061 [RIDGE] : Sample was analyzed past method specified hold time for Turbidity. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample received past method specified hold time for Nitrate + Nitrite (N). Sample received past method specified hold time for Nitrite (N) Regular Level Water. Sample received past method specified hold time for Color (True) by Automated Analyzer. Sample was analyzed past method specified hold time for Nitrate + Nitrite (N). Sample was analyzed past method specified hold time for Nitrite (N) Regular Level Water. Sample was analyzed past method specified hold time for Color (True) by Automated Analyzer.

Sample CLN062 [FARM RD] : Sample was analyzed past method specified hold time for Turbidity. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample received past method specified hold time for Nitrate + Nitrite (N). Sample received past method specified hold time for Nitrite (N) Regular Level Water. Sample received past method specified hold time for Color (True) by Automated Analyzer. Sample was analyzed past method specified hold time for Nitrate + Nitrite (N). Sample was analyzed past method specified hold time for Nitrite (N) Regular Level Water. Sample was analyzed past method specified hold time for Color (True) by Automated Analyzer.
MAC,AO,OG: The guidelines that have been included in this report have been taken from the Canadian Drinking Water Quality Summary Table, September 2022.

Criteria A = Maximum Acceptable Concentration (MAC) / Criteria B = Aesthetic Objectives (AO) / Criteria C = Operational Guidance Values (OG)
It is recommended to consult these guidelines when interpreting your data since there are non-numerical guidelines that are not included on this report.

Turbidity Guidelines:
1. Chemically assisted filtration: less than or equal to 0.3 NTU in 95% of the measurements or 95% of the time each month. Shall not exceed 1.0 NTU at any time.
2. Slow sand / diatomaceous earth filtration: less than or equal to 1.0 NTU in 95% of the measurements or 95% of the time each month. Shall not exceed 3.0 NTU at any time.
3. Membrane filtration: less than or equal to 0.1 NTU in 99% of the measurements made or at least 99% of the time each calendar month. Shall not exceed 0.3 NTU at any time.
4. To ensure effectiveness of disinfection and for good operation of the distribution system, it is recommended that water entering the distribution system have turbidity levels of 1.0 NTU or less.
Measurement of Uncertainty has not been accounted for when stating conformity to the selected criteria, where applicable.

Results relate only to the items tested.

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

QUALITY ASSURANCE REPORT

VILLAGE OF PEMBERTON

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
B327544	Turbidity	2024/04/01			103	80 - 120	<0.10	NTU	14	20
B327725	Chloride (Cl)	2024/04/01	114	80 - 120	103	80 - 120	<1.0	mg/L	0.96	20
B327725	Sulphate (SO4)	2024/04/01	100	80 - 120	97	80 - 120	<1.0	mg/L	0.96	20
B328639	True Colour	2024/04/02			100	80 - 120	<2.0	Col. Unit	NC	20
B328646	Nitrate plus Nitrite (N)	2024/04/02	115	80 - 120	106	80 - 120	<0.020	mg/L	2.1	25
B328650	Nitrite (N)	2024/04/02	111	80 - 120	106	80 - 120	<0.0050	mg/L	NC	20
B328658	Total Aluminum (Al)	2024/04/02	98	80 - 120	104	80 - 120	<3.0	ug/L	NC	20
B328658	Total Antimony (Sb)	2024/04/02	99	80 - 120	104	80 - 120	<0.50	ug/L	NC	20
B328658	Total Arsenic (As)	2024/04/02	104	80 - 120	108	80 - 120	<0.10	ug/L	NC	20
B328658	Total Barium (Ba)	2024/04/02	99	80 - 120	104	80 - 120	<1.0	ug/L	NC	20
B328658	Total Boron (B)	2024/04/02	100	80 - 120	106	80 - 120	<50	ug/L	NC	20
B328658	Total Cadmium (Cd)	2024/04/02	100	80 - 120	104	80 - 120	<0.010	ug/L	NC	20
B328658	Total Chromium (Cr)	2024/04/02	97	80 - 120	102	80 - 120	<1.0	ug/L	NC	20
B328658	Total Cobalt (Co)	2024/04/02	98	80 - 120	103	80 - 120	<0.20	ug/L	NC	20
B328658	Total Copper (Cu)	2024/04/02	91	80 - 120	98	80 - 120	<0.20	ug/L	NC	20
B328658	Total Iron (Fe)	2024/04/02	98	80 - 120	102	80 - 120	<5.0	ug/L	NC	20
B328658	Total Lead (Pb)	2024/04/02	95	80 - 120	101	80 - 120	<0.20	ug/L	NC	20
B328658	Total Manganese (Mn)	2024/04/02	91	80 - 120	97	80 - 120	<1.0	ug/L	NC	20
B328658	Total Molybdenum (Mo)	2024/04/02	99	80 - 120	108	80 - 120	<1.0	ug/L	NC	20
B328658	Total Nickel (Ni)	2024/04/02	95	80 - 120	101	80 - 120	<1.0	ug/L	NC	20
B328658	Total Selenium (Se)	2024/04/02	99	80 - 120	101	80 - 120	<0.10	ug/L	NC	20
B328658	Total Silver (Ag)	2024/04/02	96	80 - 120	103	80 - 120	<0.020	ug/L	NC	20
B328658	Total Strontium (Sr)	2024/04/02	91	80 - 120	97	80 - 120	<1.0	ug/L	NC	20
B328658	Total Uranium (U)	2024/04/02	93	80 - 120	100	80 - 120	<0.10	ug/L	NC	20
B328658	Total Vanadium (V)	2024/04/02	93	80 - 120	99	80 - 120	<5.0	ug/L	NC	20
B328658	Total Zinc (Zn)	2024/04/02	101	80 - 120	103	80 - 120	<5.0	ug/L	NC	20
B328725	pH	2024/04/02			100	97 - 103			0.13	N/A
B328737	Alkalinity (PP as CaCO3)	2024/04/02					<1.0	mg/L	NC	20
B328737	Alkalinity (Total as CaCO3)	2024/04/02			100	80 - 120	<1.0	mg/L	3.3	20
B328737	Bicarbonate (HCO3)	2024/04/02					<1.0	mg/L	3.3	20
B328737	Carbonate (CO3)	2024/04/02					<1.0	mg/L	NC	20
B328737	Hydroxide (OH)	2024/04/02					<1.0	mg/L	NC	20
B328738	Conductivity	2024/04/02			102	90 - 110	<2.0	uS/cm	0.43	10
B328801	Dissolved Fluoride (F)	2024/04/02	102	80 - 120	96	80 - 120	<0.050	mg/L	NC	20

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
B329629	Total Dissolved Solids	2024/04/04	100	80 - 120	100	80 - 120	<10	mg/L	2.4	20
B329663	Total Mercury (Hg)	2024/04/03	99	80 - 120	100	80 - 120	<0.0019	ug/L	NC (1)	20

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Mercury RDL raised due to background interference

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Bureau Veritas
4606 Canada Way, Burnaby, British Columbia Canada V5G 1K5 Tel:(604) 734 7276 Toll-free:800-563-6266 Fax:(604) 731 2386 www.bvna.com

Page of

Chain Of Custody Record

INVOICE TO:		Report Information		Project Information		Laboratory Use Only	
Company Name	#99020 VILLAGE OF PEMBERTON	Company Name	Village of Pemberton	Quotation #	C31790	Bureau Veritas Job #	Bottle Order #:
Contact Name	Accounts Payable	Contact Name	Reece Clark	P.O. #			720627
Address	Box 100 7400 Prospect St Pemberton BC V0N 2L0	Address		Project #		Chain Of Custody Record	Project Manager
Phone	(604) 894-6811 Fax (604) 894-6855	Phone	(604) 353-5845 Fax	Project Name		C#720627-01-01	Customer Solutions
Email	accountspayable@pemberton.ca	Email	rclark@pemberton.ca	Site #			
				Sampled By			

Regulatory Criteria:
- [ ] CSR
- [ ] CCME
- [x] BC Water Quality
- [ ] Other

Special Instructions: Please plot against AO & MAC

SAMPLES MUST BE KEPT COOL (< 10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BUREAU VERITAS

ANALYSIS REQUESTED (PLEASE BE SPECIFIC)

Turnaround Time (TAT) Required:

Please provide advance notice for rush projects

Regular (Standard) TAT:
(will be applied if Rush TAT is not specified)
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
1 DAY ☐ 2 Day ☐ 3 Day ☐ Date Required: _____

Rush Confirmation Number: _____ *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Metals Field Filtered ? (Y / N)	Drinking Water Package w/o Microbiology	# of Bottles	Comments
1		Well # 2	24/03/28	8:30 AM			✓		
2		Well # 3	24/03/28	8:45 AM			✓		
3		RIDGE	24/03/28	9:00 AM			✓		
4		FARM Rd	24/03/28	9:15 AM			✓		
5									
6									
7									
8									
9									
10									

C422339_COC

[redacted]: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	#Jars used and not submitted	Lab Use Only: Time Sensitive	Temperature (°C) on Receipt	Custody Seal Intact on Cooler?
Reece Clark	24/03/28	9:30 AM	[redacted] Maria Zamora	2024/04/01	09:02		☐	9 / 12 / 11	☐ Yes ☒ No

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BUREAU VERITAS'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVNA.COM/ENVIRONMENTAL-LABORATORIES/RESOURCES/COC-TERMS-AND-CONDITIONS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

White: Bureau Veritas Yellow: Client

ICE Pack frozen

Bureau Veritas Canada (2019) Inc.

Your Project #: ANNUAL WATER SAMPLE
Your C.O.C. #: C#722604-02-01

Attention: Reece Clark

VILLAGE OF PEMBERTON
Box 100
7400 Prospect St
Pemberton, BC
CANADA V0N 2L0

Report Date: 2024/04/30
Report #: R3494160
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C429048
Received: 2024/04/26, 08:44

Sample Matrix: Water
Samples Received: 5

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Alkalinity @25C (pp, total), CO3,HCO3,OH	2	N/A	2024/04/26	BBY6SOP-00026	SM 24 2320 B m
Alkalinity @25C (pp, total), CO3,HCO3,OH	2	N/A	2024/04/27	BBY6SOP-00026	SM 24 2320 B m
Alkalinity @25C (pp, total), CO3,HCO3,OH	1	N/A	2024/04/29	BBY6SOP-00026	SM 24 2320 B m
Chloride/Sulphate by Auto Colourimetry	5	N/A	2024/04/26	BBY6SOP-00011 / BBY6SOP-00017	SM24-4500-Cl/SO4-E m
Color (True) by Automated Analyzer	5	N/A	2024/04/26	BBY6SOP-00057	SM 24 2120 C m
Conductivity @25C	2	N/A	2024/04/26	BBY6SOP-00026	SM 24 2510 B m
Conductivity @25C	2	N/A	2024/04/27	BBY6SOP-00026	SM 24 2510 B m
Conductivity @25C	1	N/A	2024/04/29	BBY6SOP-00026	SM 24 2510 B m
Fluoride	5	N/A	2024/04/29	BBY6SOP-00037	SM 24 4500-F C m
Hardness Total (calculated as CaCO3) (1)	5	N/A	2024/04/29	BBY WI-00033	Auto Calc
Mercury (Total) by CV	5	2024/04/26	2024/04/26	BBY7SOP-00032	BCMOE LM 2023 C1.1.3
Na, K, Ca, Mg, S by CRC ICPMS (total)	5	N/A	2024/04/29	BBY WI-00033	Auto Calc
Elements by CRC ICPMS (total)	5	N/A	2024/04/26	BBY7SOP-00003 / BBY7SOP-00002	EPA 6020b R2 m
Nitrate + Nitrite (N)	5	N/A	2024/04/26	BBY6SOP-00010	SM 24 4500-NO3- H m
Nitrite (N) Regular Level Water	5	N/A	2024/04/26	BBY6SOP-00010	SM 24 4500-NO2- m
Nitrogen - Nitrate (as N)	5	N/A	2024/04/26	BBY WI-00033	Auto Calc
pH @25°C (2)	2	N/A	2024/04/26	BBY6SOP-00026	SM 24 4500-H+ B m
pH @25°C (2)	2	N/A	2024/04/27	BBY6SOP-00026	SM 24 4500-H+ B m
pH @25°C (2)	1	N/A	2024/04/29	BBY6SOP-00026	SM 24 4500-H+ B m
Total Dissolved Solids (Filt. Residue)	4	2024/04/26	2024/04/27	BBY6SOP-00033	SM 24 2540 C m
Total Dissolved Solids (Filt. Residue)	1	2024/04/29	2024/04/30	BBY6SOP-00033	SM 24 2540 C m
Total Trihalomethanes Calculation	3	N/A	2024/04/30	BBY WI-00033	Auto Calc
Turbidity	5	N/A	2024/04/26	BBY6SOP-00027	SM 24 2130 B m
VOCs, VH, F1, LH in Water by HS GC/MS	5	N/A	2024/04/30	BBY8SOP-00009 / BBY8SOP-00011 / BBY8SOP-00012	BCMOE BCLM Jul2017 m
Volatile HC-BTEX (3)	3	N/A	2024/04/30	BBY WI-00033	Auto Calc

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Your Project #: ANNUAL WATER SAMPLE
Your C.O.C. #: C#722604-02-01

Attention: Reece Clark

VILLAGE OF PEMBERTON
Box 100
7400 Prospect St
Pemberton, BC
CANADA V0N 2L0

Report Date: 2024/04/30
Report #: R3494160
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C429048
Received: 2024/04/26, 08:44

Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, EPA, APHA or the Quebec Ministry of Environment.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.
This Certificate shall not be reproduced except in full, without the written approval of the laboratory.

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.

* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.

(1) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).

(2) The CCME method requires pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the CCME holding time. Bureau Veritas endeavours to analyze samples as soon as possible after receipt.

(3) VPH = VH - (Benzene + Toluene + Ethylbenzene + m & p-Xylene + o-Xylene + Styrene)

Encryption Key

Bureau Veritas
30 Apr 2024 16:15:32

Please direct all questions regarding this Certificate of Analysis to:
Aldean Alicando, Customer Solutions Representative
Email: Aldean.ALICANDO@bureauveritas.com
Phone# (604)734-7272 Ext:7062605

==========

This report has been generated and distributed using a secure automated process.
Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports.
For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Raphael Kwan, Senior Manager, BC and Yukon Regions responsible for British Columbia Environmental laboratory operations.

Bureau Veritas Job #: C429048
Report Date: 2024/04/30

VILLAGE OF PEMBERTON
Client Project #: ANNUAL WATER SAMPLE

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID					CMP806		CMP807		
Sampling Date					2024/04/25 08:30		2024/04/25 08:40		
COC Number					C#722604-02-01		C#722604-02-01		
	UNITS	MAC	AO	OG	WELL #2	QC Batch	WELL #3	RDL	QC Batch
ANIONS									
Nitrite (N)	mg/L	1	-	-	<0.0050	B351883	<0.0050	0.0050	B351883
Calculated Parameters									
Total Hardness (CaCO3)	mg/L	-	-	-	65.6	B351631	27.1	0.50	B351631
Nitrate (N)	mg/L	10	-	-	0.395	B351538	0.191	0.020	B351538
Misc. Inorganics									
Conductivity	uS/cm	-	-	-	230	B352264	92	2.0	B352189
pH	pH	-	-	7.0:10.5	**6.27**	B352261	**6.26**	N/A	B352188
Total Dissolved Solids	mg/L	-	500	-	130	B351752	46	10	B351752
Anions									
Alkalinity (PP as CaCO3)	mg/L	-	-	-	<1.0	B352266	<1.0	1.0	B352181
Alkalinity (Total as CaCO3)	mg/L	-	-	-	39	B352266	16	1.0	B352181
Bicarbonate (HCO3)	mg/L	-	-	-	47	B352266	20	1.0	B352181
Carbonate (CO3)	mg/L	-	-	-	<1.0	B352266	<1.0	1.0	B352181
Dissolved Fluoride (F)	mg/L	1.5	-	-	<0.050	B353644	<0.050	0.050	B353644
Hydroxide (OH)	mg/L	-	-	-	<1.0	B352266	<1.0	1.0	B352181
Chloride (Cl)	mg/L	-	250	-	37	B352108	7.8	1.0	B352108
Sulphate (SO4)	mg/L	-	500	-	19	B352108	8.9	1.0	B352108
MISCELLANEOUS									
True Colour	Col. Unit	-	15	-	2.2	B351917	<2.0	2.0	B351917
Nutrients									
Nitrate plus Nitrite (N)	mg/L	-	-	-	0.395	B351869	0.191	0.020	B351869
Physical Properties									
Turbidity	NTU	see remark	see remark	see remark	0.23	B352184	<0.10	0.10	B352184

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
N/A = Not Applicable

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Bureau Veritas Job #: C429048
Report Date: 2024/04/30

VILLAGE OF PEMBERTON
Client Project #: ANNUAL WATER SAMPLE

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID					CMP808		CMP809		
Sampling Date					2024/04/25 09:00		2024/04/25 09:30		
COC Number					C#722604-02-01		C#722604-02-01		
	UNITS	MAC	AO	OG	FARM RD	QC Batch	RIDGE P/S	RDL	QC Batch
ANIONS									
Nitrite (N)	mg/L	1	-	-	<0.0050	B351883	<0.0050	0.0050	B351883
Calculated Parameters									
Total Hardness (CaCO3)	mg/L	-	-	-	27.6	B351631	27.8	0.50	B351631
Nitrate (N)	mg/L	10	-	-	0.199	B351538	0.201	0.020	B351538
Misc. Inorganics									
Conductivity	uS/cm	-	-	-	170	B352189	170	2.0	B352278
pH	pH	-	-	7.0:10.5	7.01	B352188	7.32	N/A	B352271
Total Dissolved Solids	mg/L	-	500	-	86	B351752	84	10	B351752
Anions									
Alkalinity (PP as CaCO3)	mg/L	-	-	-	<1.0	B352181	<1.0	1.0	B352279
Alkalinity (Total as CaCO3)	mg/L	-	-	-	58	B352181	58	1.0	B352279
Bicarbonate (HCO3)	mg/L	-	-	-	71	B352181	71	1.0	B352279
Carbonate (CO3)	mg/L	-	-	-	<1.0	B352181	<1.0	1.0	B352279
Dissolved Fluoride (F)	mg/L	1.5	-	-	<0.050	B353644	<0.050	0.050	B353644
Hydroxide (OH)	mg/L	-	-	-	<1.0	B352181	<1.0	1.0	B352279
Chloride (Cl)	mg/L	-	250	-	8.8	B352108	8.7	1.0	B352108
Sulphate (SO4)	mg/L	-	500	-	8.9	B352108	8.9	1.0	B352108
MISCELLANEOUS									
True Colour	Col. Unit	-	15	-	<2.0	B351917	<2.0	2.0	B351917
Nutrients									
Nitrate plus Nitrite (N)	mg/L	-	-	-	0.199	B351869	0.201	0.020	B351869
Physical Properties									
Turbidity	NTU	see remark	see remark	see remark	0.13	B352184	0.14	0.10	B352184

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
N/A = Not Applicable

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Bureau Veritas Job #: C429048
Report Date: 2024/04/30

VILLAGE OF PEMBERTON
Client Project #: ANNUAL WATER SAMPLE

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID					CMP810		
Sampling Date					2024/04/25 10:00		
COC Number					C#722604-02-01		
	UNITS	MAC	AO	OG	INDUSTRIAL PARK	RDL	QC Batch
ANIONS							
Nitrite (N)	mg/L	1	-	-	<0.0050	0.0050	B351883
Calculated Parameters							
Total Hardness (CaCO3)	mg/L	-	-	-	29.3	0.50	B351631
Nitrate (N)	mg/L	10	-	-	0.090	0.020	B351538
Misc. Inorganics							
Conductivity	uS/cm	-	-	-	74	2.0	B352278
pH	pH	-	-	7.0:10.5	**6.67**	N/A	B352271
Total Dissolved Solids	mg/L	-	500	-	40	10	B353829
Anions							
Alkalinity (PP as CaCO3)	mg/L	-	-	-	<1.0	1.0	B352279
Alkalinity (Total as CaCO3)	mg/L	-	-	-	24	1.0	B352279
Bicarbonate (HCO3)	mg/L	-	-	-	29	1.0	B352279
Carbonate (CO3)	mg/L	-	-	-	<1.0	1.0	B352279
Dissolved Fluoride (F)	mg/L	1.5	-	-	<0.050	0.050	B353644
Hydroxide (OH)	mg/L	-	-	-	<1.0	1.0	B352279
Chloride (Cl)	mg/L	-	250	-	<1.0	1.0	B352108
Sulphate (SO4)	mg/L	-	500	-	8.2	1.0	B352108
MISCELLANEOUS							
True Colour	Col. Unit	-	15	-	<2.0	2.0	B351917
Nutrients							
Nitrate plus Nitrite (N)	mg/L	-	-	-	0.090	0.020	B351869
Physical Properties							
Turbidity	NTU	see remark	see remark	see remark	<0.10	0.10	B352184

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
N/A = Not Applicable

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Bureau Veritas Job #: C429048
Report Date: 2024/04/30

VILLAGE OF PEMBERTON
Client Project #: ANNUAL WATER SAMPLE

MERCURY BY COLD VAPOR (WATER)

Bureau Veritas ID			CMP806	CMP807	CMP808	CMP809		
Sampling Date			2024/04/25 08:30	2024/04/25 08:40	2024/04/25 09:00	2024/04/25 09:30		
COC Number			C#722604-02-01	C#722604-02-01	C#722604-02-01	C#722604-02-01		
	UNITS	MAC	WELL #2	WELL #3	FARM RD	RIDGE P/S	RDL	QC Batch
Elements								
Total Mercury (Hg)	ug/L	1	<0.0019	<0.0019	<0.0019	<0.0019	0.0019	B352160

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit

Bureau Veritas ID			CMP810		
Sampling Date			2024/04/25 10:00		
COC Number			C#722604-02-01		
	UNITS	MAC	INDUSTRIAL PARK	RDL	QC Batch
Elements					
Total Mercury (Hg)	ug/L	1	<0.0019	0.0019	B352160

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Bureau Veritas Job #: C429048
Report Date: 2024/04/30

VILLAGE OF PEMBERTON
Client Project #: ANNUAL WATER SAMPLE

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID					CMP806	CMP807	CMP808	CMP809		
Sampling Date					2024/04/25 08:30	2024/04/25 08:40	2024/04/25 09:00	2024/04/25 09:30		
COC Number					C#722604-02-01	C#722604-02-01	C#722604-02-01	C#722604-02-01		
	UNITS	MAC	AO	OG	WELL #2	WELL #3	FARM RD	RIDGE P/S	RDL	QC Batch
Total Metals by ICPMS										
Total Aluminum (Al)	ug/L	2900	-	100	3.7	7.6	6.5	6.8	3.0	B351791
Total Antimony (Sb)	ug/L	6	-	-	<0.50	<0.50	<0.50	<0.50	0.50	B351791
Total Arsenic (As)	ug/L	10	-	-	<0.10	<0.10	<0.10	<0.10	0.10	B351791
Total Barium (Ba)	ug/L	2000	-	-	41.2	17.4	17.5	17.8	1.0	B351791
Total Boron (B)	ug/L	5000	-	-	124	<50	<50	<50	50	B351791
Total Cadmium (Cd)	ug/L	7	-	-	<0.010	0.027	0.024	0.023	0.010	B351791
Total Chromium (Cr)	ug/L	50	-	-	<1.0	<1.0	<1.0	<1.0	1.0	B351791
Total Cobalt (Co)	ug/L	-	-	-	<0.20	<0.20	<0.20	<0.20	0.20	B351791
Total Copper (Cu)	ug/L	2000	1000	-	1.82	2.38	6.52	4.65	0.20	B351791
Total Iron (Fe)	ug/L	-	300	-	68.7	16.8	15.4	20.0	5.0	B351791
Total Lead (Pb)	ug/L	5	-	-	<0.20	0.37	<0.20	0.23	0.20	B351791
Total Manganese (Mn)	ug/L	120	20	-	**56.8**	**56.2**	6.6	7.2	1.0	B351791
Total Molybdenum (Mo)	ug/L	-	-	-	1.9	<1.0	<1.0	<1.0	1.0	B351791
Total Nickel (Ni)	ug/L	-	-	-	<1.0	<1.0	<1.0	<1.0	1.0	B351791
Total Selenium (Se)	ug/L	50	-	-	<0.10	<0.10	<0.10	<0.10	0.10	B351791
Total Silver (Ag)	ug/L	-	-	-	<0.020	<0.020	<0.020	<0.020	0.020	B351791
Total Strontium (Sr)	ug/L	7000	-	-	142	50.3	51.2	50.1	1.0	B351791
Total Uranium (U)	ug/L	20	-	-	<0.10	<0.10	<0.10	<0.10	0.10	B351791
Total Vanadium (V)	ug/L	-	-	-	<5.0	<5.0	<5.0	<5.0	5.0	B351791
Total Zinc (Zn)	ug/L	-	5000	-	26.2	<5.0	<5.0	8.1	5.0	B351791
Total Calcium (Ca)	mg/L	-	-	-	23.9	9.87	10.1	10.2	0.050	B351636
Total Magnesium (Mg)	mg/L	-	-	-	1.45	0.591	0.590	0.595	0.050	B351636
Total Potassium (K)	mg/L	-	-	-	2.38	0.997	1.01	0.994	0.050	B351636
Total Sodium (Na)	mg/L	-	200	-	14.5	4.19	22.4	22.1	0.050	B351636
Total Sulphur (S)	mg/L	-	-	-	6.6	3.2	3.4	3.3	3.0	B351636

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Bureau Veritas Job #: C429048
Report Date: 2024/04/30

VILLAGE OF PEMBERTON
Client Project #: ANNUAL WATER SAMPLE

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID					CMP810		
Sampling Date					2024/04/25 10:00		
COC Number					C#722604-02-01		
	UNITS	MAC	AO	OG	INDUSTRIAL PARK	RDL	QC Batch
Total Metals by ICPMS							
Total Aluminum (Al)	ug/L	2900	-	100	<3.0	3.0	B351791
Total Antimony (Sb)	ug/L	6	-	-	<0.50	0.50	B351791
Total Arsenic (As)	ug/L	10	-	-	0.12	0.10	B351791
Total Barium (Ba)	ug/L	2000	-	-	6.1	1.0	B351791
Total Boron (B)	ug/L	5000	-	-	<50	50	B351791
Total Cadmium (Cd)	ug/L	7	-	-	<0.010	0.010	B351791
Total Chromium (Cr)	ug/L	50	-	-	<1.0	1.0	B351791
Total Cobalt (Co)	ug/L	-	-	-	<0.20	0.20	B351791
Total Copper (Cu)	ug/L	2000	1000	-	4.40	0.20	B351791
Total Iron (Fe)	ug/L	-	300	-	6.5	5.0	B351791
Total Lead (Pb)	ug/L	5	-	-	0.33	0.20	B351791
Total Manganese (Mn)	ug/L	120	20	-	<1.0	1.0	B351791
Total Molybdenum (Mo)	ug/L	-	-	-	<1.0	1.0	B351791
Total Nickel (Ni)	ug/L	-	-	-	<1.0	1.0	B351791
Total Selenium (Se)	ug/L	50	-	-	<0.10	0.10	B351791
Total Silver (Ag)	ug/L	-	-	-	<0.020	0.020	B351791
Total Strontium (Sr)	ug/L	7000	-	-	28.7	1.0	B351791
Total Uranium (U)	ug/L	20	-	-	<0.10	0.10	B351791
Total Vanadium (V)	ug/L	-	-	-	<5.0	5.0	B351791
Total Zinc (Zn)	ug/L	-	5000	-	<5.0	5.0	B351791
Total Calcium (Ca)	mg/L	-	-	-	10.3	0.050	B351636
Total Magnesium (Mg)	mg/L	-	-	-	0.879	0.050	B351636
Total Potassium (K)	mg/L	-	-	-	0.488	0.050	B351636
Total Sodium (Na)	mg/L	-	200	-	1.49	0.050	B351636
Total Sulphur (S)	mg/L	-	-	-	3.1	3.0	B351636

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Bureau Veritas Job #: C429048
Report Date: 2024/04/30

VILLAGE OF PEMBERTON
Client Project #: ANNUAL WATER SAMPLE

TRIHALOMETHANES (THM) IN WATER

Bureau Veritas ID			CMP808	CMP809			CMP810		
Sampling Date			2024/04/25 09:00	2024/04/25 09:30			2024/04/25 10:00		
COC Number			C#722604-02-01	C#722604-02-01			C#722604-02-01		
	UNITS	MAC	FARM RD	RIDGE P/S	RDL	QC Batch	INDUSTRIAL PARK	RDL	QC Batch
Volatiles									
Total Trihalomethanes	ug/L	100	3.3	2.8	1.0	B351639	2.4	1.0	B351639
Bromodichloromethane	ug/L	-	1.4	1.2	1.0	B353643			
Bromoform	ug/L	-	<1.0	<1.0	1.0	B353643			
Dibromochloromethane	ug/L	-	2.0	1.7	1.0	B353643			
Chloroform	ug/L	-	<1.0	<1.0	1.0	B353643			
Surrogate Recovery (%)									
1,4-Difluorobenzene (sur.)	%	-	99	102		B353643			
4-Bromofluorobenzene (sur.)	%	-	82	86		B353643			
D4-1,2-Dichloroethane (sur.)	%	-	76	85		B353643			

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Bureau Veritas Job #: C429048
Report Date: 2024/04/30

VILLAGE OF PEMBERTON
Client Project #: ANNUAL WATER SAMPLE

CSR VOC + VPH IN WATER (WATER)

Bureau Veritas ID				CMP806	CMP807	CMP810		
Sampling Date				2024/04/25 08:30	2024/04/25 08:40	2024/04/25 10:00		
COC Number				C#722604-02-01	C#722604-02-01	C#722604-02-01		
	UNITS	MAC	AO	WELL #2	WELL #3	INDUSTRIAL PARK	RDL	QC Batch
Calculated Parameters								
VPH (VH6 to 10 - BTEX)	ug/L	-	-	<300	<300	<300	300	B351641
Volatiles								
VH C6-C10	ug/L	-	-	<300	<300	<300	300	B353643
1,1,1,2-tetrachloroethane	ug/L	-	-	<0.50	<0.50	<0.50	0.50	B353643
1,1,1-trichloroethane	ug/L	-	-	<0.50	<0.50	<0.50	0.50	B353643
1,1,2,2-tetrachloroethane	ug/L	-	-	<0.50	<0.50	<0.50	0.50	B353643
1,1,2Trichloro-1,2,2Trifluoroethane	ug/L	-	-	<2.0	<2.0	<2.0	2.0	B353643
1,1,2-trichloroethane	ug/L	-	-	<0.50	<0.50	<0.50	0.50	B353643
1,1-dichloroethane	ug/L	-	-	<0.50	<0.50	<0.50	0.50	B353643
1,1-dichloroethene	ug/L	14	-	<0.50	<0.50	<0.50	0.50	B353643
1,2,3-trichlorobenzene	ug/L	-	-	<2.0	<2.0	<2.0	2.0	B353643
1,2,4-trichlorobenzene	ug/L	-	-	<2.0	<2.0	<2.0	2.0	B353643
1,2-dibromoethane	ug/L	-	-	<0.20	<0.20	<0.20	0.20	B353643
1,2-dichlorobenzene	ug/L	200	3	<0.50	<0.50	<0.50	0.50	B353643
1,2-dichloroethane	ug/L	5	-	<0.50	<0.50	<0.50	0.50	B353643
1,2-dichloropropane	ug/L	-	-	<0.50	<0.50	<0.50	0.50	B353643
1,3,5-trimethylbenzene	ug/L	-	-	<2.0	<2.0	<2.0	2.0	B353643
1,3-Butadiene	ug/L	-	-	<0.50	<0.50	<0.50	0.50	B353643
1,3-dichlorobenzene	ug/L	-	-	<0.50	<0.50	<0.50	0.50	B353643
1,3-dichloropropane	ug/L	-	-	<1.0	<1.0	<1.0	1.0	B353643
1,4-dichlorobenzene	ug/L	5	1	<0.50	<0.50	<0.50	0.50	B353643
Benzene	ug/L	5	-	<0.40	<0.40	<0.40	0.40	B353643
Bromobenzene	ug/L	-	-	<2.0	<2.0	<2.0	2.0	B353643
Bromodichloromethane	ug/L	-	-	<1.0	<1.0	<1.0	1.0	B353643
Bromoform	ug/L	-	-	<1.0	<1.0	<1.0	1.0	B353643
Bromomethane	ug/L	-	-	<1.0	<1.0	<1.0	1.0	B353643
Carbon tetrachloride	ug/L	2	-	<0.50	<0.50	<0.50	0.50	B353643
Chlorobenzene	ug/L	80	30	<0.50	<0.50	<0.50	0.50	B353643
Dibromochloromethane	ug/L	-	-	<1.0	<1.0	<1.0	1.0	B353643
Chloroethane	ug/L	-	-	<1.0	<1.0	<1.0	1.0	B353643
Chloroform	ug/L	-	-	<1.0	<1.0	2.4	1.0	B353643
Chloromethane	ug/L	-	-	<1.0	<1.0	<1.0	1.0	B353643
cis-1,2-dichloroethene	ug/L	-	-	<1.0	<1.0	<1.0	1.0	B353643

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Bureau Veritas Job #: C429048
Report Date: 2024/04/30

VILLAGE OF PEMBERTON
Client Project #: ANNUAL WATER SAMPLE

CSR VOC + VPH IN WATER (WATER)

Bureau Veritas ID				CMP806	CMP807	CMP810		
Sampling Date				2024/04/25 08:30	2024/04/25 08:40	2024/04/25 10:00		
COC Number				C#722604-02-01	C#722604-02-01	C#722604-02-01		
	UNITS	MAC	AO	WELL #2	WELL #3	INDUSTRIAL PARK	RDL	QC Batch
cis-1,3-dichloropropene	ug/L	-	-	<1.0 (1)	<1.0	<1.0	1.0	B353643
Dichlorodifluoromethane	ug/L	-	-	<2.0	<2.0	<2.0	2.0	B353643
Dichloromethane	ug/L	50	-	<2.0	<2.0	<2.0	2.0	B353643
Ethylbenzene	ug/L	140	1.6	<0.40	<0.40	<0.40	0.40	B353643
Hexachlorobutadiene	ug/L	-	-	<0.50	<0.50	<0.50	0.50	B353643
Isopropylbenzene	ug/L	-	-	<2.0	<2.0	<2.0	2.0	B353643
Methyl-tert-butylether (MTBE)	ug/L	-	15	<4.0	<4.0	<4.0	4.0	B353643
Styrene	ug/L	-	-	<0.50	<0.50	<0.50	0.50	B353643
Tetrachloroethene	ug/L	10	-	<0.50	<0.50	<0.50	0.50	B353643
Toluene	ug/L	60	24	<0.40	<0.40	<0.40	0.40	B353643
trans-1,2-dichloroethene	ug/L	-	-	<1.0	<1.0	<1.0	1.0	B353643
trans-1,3-dichloropropene	ug/L	-	-	<1.0 (1)	<1.0	<1.0	1.0	B353643
Trichloroethene	ug/L	5	-	<0.50	<0.50	<0.50	0.50	B353643
Trichlorofluoromethane	ug/L	-	-	<4.0	<4.0	<4.0	4.0	B353643
Vinyl chloride	ug/L	2	-	<0.50	<0.50	<0.50	0.50	B353643
m & p-Xylene	ug/L	-	-	<0.40	<0.40	<0.40	0.40	B353643
o-Xylene	ug/L	-	-	<0.40	<0.40	<0.40	0.40	B353643
Xylenes (Total)	ug/L	90	20	<0.40	<0.40	<0.40	0.40	B353643
Surrogate Recovery (%)								
1,4-Difluorobenzene (sur.)	%	-	-	102	102	103		B353643
4-Bromofluorobenzene (sur.)	%	-	-	86	87	85		B353643
D4-1,2-Dichloroethane (sur.)	%	-	-	88	92	93		B353643

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit

(1) Matrix Spike recovery below acceptance criteria. Sensitivity is not an issue, As results are non-detect, there is no impact on data quality.

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Bureau Veritas Job #: C429048
Report Date: 2024/04/30

VILLAGE OF PEMBERTON
Client Project #: ANNUAL WATER SAMPLE

GENERAL COMMENTS

MAC,AO,OG: The guidelines that have been included in this report have been taken from the Canadian Drinking Water Quality Summary Table, September 2022.

Criteria A = Maximum Acceptable Concentration (MAC) / Criteria B = Aesthetic Objectives (AO) / Criteria C = Operational Guidance Values (OG)
It is recommended to consult these guidelines when interpreting your data since there are non-numerical guidelines that are not included on this report.

Turbidity Guidelines:
1. Chemically assisted filtration: less than or equal to 0.3 NTU in 95% of the measurements or 95% of the time each month. Shall not exceed 1.0 NTU at any time.
2. Slow sand / diatomaceous earth filtration: less than or equal to 1.0 NTU in 95% of the measurements or 95% of the time each month. Shall not exceed 3.0 NTU at any time.
3. Membrane filtration: less than or equal to 0.1 NTU in 99% of the measurements made or at least 99% of the time each calendar month. Shall not exceed 0.3 NTU at any time.
4. To ensure effectiveness of disinfection and for good operation of the distribution system, it is recommended that water entering the distribution system have turbidity levels of 1.0 NTU or less.
Measurement of Uncertainty has not been accounted for when stating conformity to the selected criteria, where applicable.

Results relate only to the items tested.

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
B353643	1,4-Difluorobenzene (sur.)	2024/04/29	97	50 - 140	97	50 - 140	101	%		
B353643	4-Bromofluorobenzene (sur.)	2024/04/29	101	50 - 140	106	50 - 140	85	%		
B353643	D4-1,2-Dichloroethane (sur.)	2024/04/29	94	50 - 140	92	50 - 140	88	%		
B351752	Total Dissolved Solids	2024/04/27	100	80 - 120	100	80 - 120	<10	mg/L	0	20
B351791	Total Aluminum (Al)	2024/04/26	96	80 - 120	101	80 - 120	<3.0	ug/L	5.5	20
B351791	Total Antimony (Sb)	2024/04/26	98	80 - 120	102	80 - 120	<0.50	ug/L	NC	20
B351791	Total Arsenic (As)	2024/04/26	100	80 - 120	101	80 - 120	<0.10	ug/L	NC	20
B351791	Total Barium (Ba)	2024/04/26	95	80 - 120	101	80 - 120	<1.0	ug/L	1.3	20
B351791	Total Boron (B)	2024/04/26	113	80 - 120	107	80 - 120	<50	ug/L	NC	20
B351791	Total Cadmium (Cd)	2024/04/26	97	80 - 120	102	80 - 120	<0.010	ug/L	13	20
B351791	Total Chromium (Cr)	2024/04/26	90	80 - 120	94	80 - 120	<1.0	ug/L	NC	20
B351791	Total Cobalt (Co)	2024/04/26	90	80 - 120	94	80 - 120	<0.20	ug/L	NC	20
B351791	Total Copper (Cu)	2024/04/26	89	80 - 120	95	80 - 120	<0.20	ug/L	0.84	20
B351791	Total Iron (Fe)	2024/04/26	93	80 - 120	100	80 - 120	<5.0	ug/L	NC	20
B351791	Total Lead (Pb)	2024/04/26	96	80 - 120	101	80 - 120	<0.20	ug/L	2.1	20
B351791	Total Manganese (Mn)	2024/04/26	96	80 - 120	100	80 - 120	<1.0	ug/L	1.7	20
B351791	Total Molybdenum (Mo)	2024/04/26	99	80 - 120	102	80 - 120	<1.0	ug/L	NC	20
B351791	Total Nickel (Ni)	2024/04/26	94	80 - 120	99	80 - 120	<1.0	ug/L	NC	20
B351791	Total Selenium (Se)	2024/04/26	94	80 - 120	100	80 - 120	<0.10	ug/L	NC	20
B351791	Total Silver (Ag)	2024/04/26	96	80 - 120	101	80 - 120	<0.020	ug/L	NC	20
B351791	Total Strontium (Sr)	2024/04/26	NC	80 - 120	95	80 - 120	<1.0	ug/L	1.0	20
B351791	Total Uranium (U)	2024/04/26	102	80 - 120	107	80 - 120	<0.10	ug/L	NC	20
B351791	Total Vanadium (V)	2024/04/26	93	80 - 120	96	80 - 120	<5.0	ug/L	NC	20
B351791	Total Zinc (Zn)	2024/04/26	97	80 - 120	101	80 - 120	<5.0	ug/L	3.8	20
B351869	Nitrate plus Nitrite (N)	2024/04/26	111	80 - 120	111	80 - 120	<0.020	mg/L	1.0	25
B351883	Nitrite (N)	2024/04/26	109	80 - 120	107	80 - 120	<0.0050	mg/L	NC	20
B351917	True Colour	2024/04/26			98	80 - 120	<2.0	Col. Unit	14	20
B352108	Chloride (Cl)	2024/04/26	99	80 - 120	101	80 - 120	<1.0	mg/L	2.0	20
B352108	Sulphate (SO4)	2024/04/26	98	80 - 120	98	80 - 120	<1.0	mg/L		
B352160	Total Mercury (Hg)	2024/04/26	83	80 - 120	98	80 - 120	<0.0019	ug/L	NC	20
B352181	Alkalinity (PP as CaCO3)	2024/04/26					<1.0	mg/L	NC	20
B352181	Alkalinity (Total as CaCO3)	2024/04/26			97	80 - 120	<1.0	mg/L	3.4	20
B352181	Bicarbonate (HCO3)	2024/04/26					<1.0	mg/L	3.4	20

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
B352181	Carbonate (CO3)	2024/04/26					<1.0	mg/L	NC	20
B352181	Hydroxide (OH)	2024/04/26					<1.0	mg/L	NC	20
B352184	Turbidity	2024/04/26			97	80 - 120	<0.10	NTU	5.4	20
B352188	pH	2024/04/26			100	97 - 103			1.0	N/A
B352189	Conductivity	2024/04/26			100	90 - 110	<2.0	uS/cm	0	10
B352261	pH	2024/04/29			100	97 - 103			0.80	N/A
B352264	Conductivity	2024/04/29			100	90 - 110	<2.0	uS/cm	2.9	10
B352266	Alkalinity (PP as CaCO3)	2024/04/29					<1.0	mg/L	NC	20
B352266	Alkalinity (Total as CaCO3)	2024/04/29			96	80 - 120	<1.0	mg/L	1.3	20
B352266	Bicarbonate (HCO3)	2024/04/29					<1.0	mg/L	1.3	20
B352266	Carbonate (CO3)	2024/04/29					<1.0	mg/L	NC	20
B352266	Hydroxide (OH)	2024/04/29					<1.0	mg/L	NC	20
B352271	pH	2024/04/29			100	97 - 103			0.32	N/A
B352278	Conductivity	2024/04/29			100	90 - 110	<2.0	uS/cm	1.0	10
B352279	Alkalinity (PP as CaCO3)	2024/04/29					<1.0	mg/L	NC	20
B352279	Alkalinity (Total as CaCO3)	2024/04/29			101	80 - 120	<1.0	mg/L	16	20
B352279	Bicarbonate (HCO3)	2024/04/29					<1.0	mg/L	16	20
B352279	Carbonate (CO3)	2024/04/29					<1.0	mg/L	NC	20
B352279	Hydroxide (OH)	2024/04/29					<1.0	mg/L	NC	20
B353643	1,1,1,2-tetrachloroethane	2024/04/30	94	70 - 130	97	60 - 130	<0.50	ug/L	NC	30
B353643	1,1,1-trichloroethane	2024/04/30	106	70 - 130	107	60 - 130	<0.50	ug/L	NC	30
B353643	1,1,2,2-tetrachloroethane	2024/04/30	93	70 - 130	92	60 - 130	<0.50	ug/L	NC	30
B353643	1,1,2Trichloro-1,2,2Trifluoroethane	2024/04/30	104	N/A	107	60 - 130	<2.0	ug/L	NC	30
B353643	1,1,2-trichloroethane	2024/04/30	91	70 - 130	94	60 - 130	<0.50	ug/L	NC	30
B353643	1,1-dichloroethane	2024/04/30	100	70 - 130	102	60 - 130	<0.50	ug/L	NC	30
B353643	1,1-dichloroethene	2024/04/30	112	70 - 130	103	60 - 130	<0.50	ug/L	NC	30
B353643	1,2,3-trichlorobenzene	2024/04/30	104	N/A	104	60 - 130	<2.0	ug/L	NC	30
B353643	1,2,4-trichlorobenzene	2024/04/30	101	N/A	101	60 - 130	<2.0	ug/L	NC	30
B353643	1,2-dibromoethane	2024/04/30	94	70 - 130	96	60 - 130	<0.20	ug/L	NC	30
B353643	1,2-dichlorobenzene	2024/04/30	105	70 - 130	105	60 - 130	<0.50	ug/L	NC	30
B353643	1,2-dichloroethane	2024/04/30	97	70 - 130	99	60 - 130	<0.50	ug/L	NC	30
B353643	1,2-dichloropropane	2024/04/30	98	70 - 130	100	60 - 130	<0.50	ug/L	NC	30
B353643	1,3,5-trimethylbenzene	2024/04/30	101	N/A	102	60 - 130	<2.0	ug/L	NC	30

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
B353643	1,3-Butadiene	2024/04/30	111	N/A	114	50 - 140	<0.50	ug/L	NC	30
B353643	1,3-dichlorobenzene	2024/04/30	108	70 - 130	109	60 - 130	<0.50	ug/L	NC	30
B353643	1,3-dichloropropane	2024/04/30	86	30 - 130	87	60 - 130	<1.0	ug/L	NC	30
B353643	1,4-dichlorobenzene	2024/04/30	95	70 - 130	95	60 - 130	<0.50	ug/L	NC	30
B353643	Benzene	2024/04/30	99	70 - 130	101	60 - 130	<0.40	ug/L	NC	30
B353643	Bromobenzene	2024/04/30	100	N/A	99	60 - 130	<2.0	ug/L	NC	30
B353643	Bromodichloromethane	2024/04/30	95	70 - 130	96	60 - 130	<1.0	ug/L	NC	30
B353643	Bromoform	2024/04/30	96	70 - 130	101	60 - 130	<1.0	ug/L	NC	30
B353643	Bromomethane	2024/04/30	117	60 - 140	109	50 - 140	<1.0	ug/L	NC	30
B353643	Carbon tetrachloride	2024/04/30	88	70 - 130	89	60 - 130	<0.50	ug/L	NC	30
B353643	Chlorobenzene	2024/04/30	94	70 - 130	97	60 - 130	<0.50	ug/L	NC	30
B353643	Chloroethane	2024/04/30	73	60 - 140	79	50 - 140	<1.0	ug/L	NC	30
B353643	Chloroform	2024/04/30	99	70 - 130	101	60 - 130	<1.0	ug/L	NC	30
B353643	Chloromethane	2024/04/30	127	60 - 140	128	50 - 140	<1.0	ug/L	NC	30
B353643	cis-1,2-dichloroethene	2024/04/30	97	70 - 130	99	60 - 130	<1.0	ug/L	NC	30
B353643	cis-1,3-dichloropropene	2024/04/30	66 (1)	70 - 130	65	50 - 140	<1.0	ug/L	NC	30
B353643	Dibromochloromethane	2024/04/30	96	70 - 130	97	60 - 130	<1.0	ug/L	NC	30
B353643	Dichlorodifluoromethane	2024/04/30	110	N/A	113	50 - 140	<2.0	ug/L	NC	30
B353643	Dichloromethane	2024/04/30	95	70 - 130	98	60 - 130	<2.0	ug/L	NC	30
B353643	Ethylbenzene	2024/04/30	89	70 - 130	91	60 - 130	<0.40	ug/L	NC	30
B353643	Hexachlorobutadiene	2024/04/30	101	N/A	103	60 - 130	<0.50	ug/L	NC	30
B353643	Isopropylbenzene	2024/04/30	89	N/A	88	60 - 130	<2.0	ug/L	NC	30
B353643	m & p-Xylene	2024/04/30	92	70 - 130	94	60 - 130	<0.40	ug/L	NC	30
B353643	Methyl-tert-butylether (MTBE)	2024/04/30	92	70 - 130	95	60 - 130	<4.0	ug/L	NC	30
B353643	o-Xylene	2024/04/30	88	70 - 130	90	60 - 130	<0.40	ug/L	NC	30
B353643	Styrene	2024/04/30	92	70 - 130	94	60 - 130	<0.50	ug/L	NC	30
B353643	Tetrachloroethene	2024/04/30	100	70 - 130	104	60 - 130	<0.50	ug/L	NC	30
B353643	Toluene	2024/04/30	85	70 - 130	87	60 - 130	<0.40	ug/L	NC	30
B353643	trans-1,2-dichloroethene	2024/04/30	101	70 - 130	103	60 - 130	<1.0	ug/L	NC	30
B353643	trans-1,3-dichloropropene	2024/04/30	68 (1)	70 - 130	66	50 - 140	<1.0	ug/L	NC	30
B353643	Trichloroethene	2024/04/30	102	70 - 130	96	60 - 130	<0.50	ug/L	NC	30
B353643	Trichlorofluoromethane	2024/04/30	114	60 - 140	117	60 - 130	<4.0	ug/L	NC	30
B353643	VH C6-C10	2024/04/30			78	70 - 130	<300	ug/L	NC	30

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
B353643	Vinyl chloride	2024/04/30	102	60 - 140	104	50 - 140	<0.50	ug/L	NC	30
B353643	Xylenes (Total)	2024/04/30					<0.40	ug/L	NC	30
B353644	Dissolved Fluoride (F)	2024/04/29	105	80 - 120	101	80 - 120	<0.050	mg/L	NC	20
B353829	Total Dissolved Solids	2024/04/30	102	80 - 120	97	80 - 120	<10	mg/L	0.51	20

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

Surrogate: A pure or isotopically labeled compound whose behavior mirrors the analytes of interest. Used to evaluate extraction efficiency.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

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Bureau Veritas
4606 Canada Way, Burnaby, British Columbia Canada V5G 1K5 Tel:(604) 734 7276 Toll-free:800-563-6266 Fax:(604) 731 2386 www.bvna.com

Page of

Chain Of Custody Record

INVOICE TO:		Report Information		Project Information		Laboratory Use Only	
Company Name	#99020 VILLAGE OF PEMBERTON	Company Name		Quotation #	C31790	Bureau Veritas Job #	Bottle Order #:
Contact Name	Accounts Payable	Contact Name	Reece Clark	P.O. #			722604
Address	Box 100 7400 Prospect St Pemberton BC V0N 2L0	Address		Project #	Annual Water Sample	Chain Of Custody Record	Project Manager
Phone	(604) 894-6811 Fax: (604) 894-6855	Phone	(604) 353-5845 Fax:	Project Name		C#722604-02-01	Customer Solutions
Email	accountspayable@pemberton.ca	Email	rclark@pemberton.ca	Site #			
				Sampled By			

Regulatory Criteria:
- ☐ CSR
- ☐ CCME
- ☑ BC Water Quality
- ☐ Other ____

Special Instructions

SAMPLES MUST BE KEPT COOL (< 10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BUREAU VERITAS

ANALYSIS REQUESTED (PLEASE BE SPECIFIC)

Turnaround Time (TAT) Required:

Please provide advance notice for rush projects

Regular (Standard) TAT:

(will be applied if Rush TAT is not specified): ☐

Standard TAT = 5-7 Working days for most tests.

Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)

1 DAY ☐ 2 Day ☐ 3 Day ☐ Date Required: ____ ☐

Rush Confirmation Number: ____ *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Metals Field Filtered ? (Y / N)	Drinking Water Package w/o Microbiology	CSR VOC + VPH in Water	Trihalomethanes (THM) in Water	# of Bottles	Comments
1		Well #2	24/04/25	8:30am			✓	✓			
2		Well #3	24/04/25	8:40am			✓	✓			
3		Farm Rd	24/04/25	9:00AM			✓		✓		
4		Ridge P/S	24/04/25	9:30AM			✓		✓		
5		Industrial Park	24/04/25	10:00AM			✓	✓	✓		
6											
7											
8											
9											
10											

MVAN-2024-04-1274

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted	Lab Use Only: Time Sensitive	Temperature (°C) on Receipt	Custody Seal Intact on Cooler?
[redacted] Reece Clark	24/04/25	10:15AM	[redacted] Maria Zamora	2024/04/26	08:44		☐	1/2/3	☐ Yes ☒ No

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BUREAU VERITAS'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVNA.COM/ENVIRONMENTAL-LABORATORIES/RESOURCES/COC-TERMS-AND-CONDITIONS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

White: Bureau Veritas Yellow: Client

LCE Rack frozen

Bureau Veritas Canada (2019) Inc.

Your C.O.C. #: C#716107-01-01

Attention: Reece Clark

VILLAGE OF PEMBERTON
Box 100
7400 Prospect St
Pemberton, BC
CANADA V0N 2L0

Report Date: 2024/05/06
Report #: R3496211
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

BUREAU VERITAS JOB #: C407253
Received: 2024/02/02, 08:35

Sample Matrix: Drinking Water
Samples Received: 4

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Alkalinity @25C (pp, total), CO3,HCO3,OH	4	N/A	2024/02/02	BBY6SOP-00026	SM 24 2320 B m
Chloride/Sulphate by Auto Colourimetry	4	N/A	2024/02/02	BBY6SOP-00011 / BBY6SOP-00017	SM24-4500-Cl/SO4-E m
Color (True) by Automated Analyzer	4	N/A	2024/02/02	BBY6SOP-00057	SM 24 2120 C m
Conductivity @25C	4	N/A	2024/02/02	BBY6SOP-00026	SM 24 2510 B m
Fluoride	4	N/A	2024/02/02	BBY6SOP-00037	SM 24 4500-F C m
Hardness Total (calculated as CaCO3) (1)	4	N/A	2024/02/05	BBY WI-00033	Auto Calc
Mercury (Total) by CV	4	2024/02/02	2024/02/02	AB SOP-00084	BCMOE BCLM Oct2013 m
Na, K, Ca, Mg, S by CRC ICPMS (total)	4	N/A	2024/02/05	BBY WI-00033	Auto Calc
Elements by CRC ICPMS (total)	4	N/A	2024/02/02	BBY7SOP-00003 / BBY7SOP-00002	EPA 6020b R2 m
Nitrate + Nitrite (N)	4	N/A	2024/02/02	BBY6SOP-00010	SM 24 4500-NO3- H m
Nitrite (N) Regular Level Water	4	N/A	2024/02/02	BBY6SOP-00010	SM 24 4500-NO2- m
Nitrogen - Nitrate (as N)	4	N/A	2024/02/02	BBY WI-00033	Auto Calc
pH @25°C (2)	4	N/A	2024/02/02	BBY6SOP-00026	SM 24 4500-H+ B m
Total Dissolved Solids (Filt. Residue)	4	2024/02/05	2024/02/06	BBY6SOP-00033	SM 24 2540 C m
Turbidity	4	N/A	2024/02/02	BBY6SOP-00027	SM 24 2130 B m

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, EPA, APHA or the Quebec Ministry of Environment.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Your C.O.C. #: C#716107-01-01

Attention: Reece Clark

VILLAGE OF PEMBERTON
Box 100
7400 Prospect St
Pemberton, BC
CANADA V0N 2L0

Report Date: 2024/05/06
Report #: R3496211
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

BUREAU VERITAS JOB #: C407253
Received: 2024/02/02, 08:35

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).
(2) The CCME method requires pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the CCME holding time. Bureau Veritas endeavours to analyze samples as soon as possible after receipt.

Encryption Key [redacted]

Morgan Melnychuk
Customer Solutions Representative
06 May 2024 10:27:44

Please direct all questions regarding this Certificate of Analysis to:
Customer Solutions, Western Canada Customer Experience Team
Email: customersolutionswest@bureauveritas.com
Phone# (604) 734 7276

==========

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Raphael Kwan, Senior Manager, BC and Yukon Regions responsible for British Columbia Environmental laboratory operations.

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Bureau Veritas Job #: C407253
Report Date: 2024/05/06

VILLAGE OF PEMBERTON

RESULTS OF CHEMICAL ANALYSES OF DRINKING WATER

Bureau Veritas ID					CIM489	CIM490	CIM491		
Sampling Date					2024/01/31 08:30	2024/01/31 08:45	2024/01/31 09:00		
COC Number					C#716107-01-01	C#716107-01-01	C#716107-01-01		
	UNITS	MAC	AO	OG	WELL#2	WELL#3	RIDGE	RDL	QC Batch
ANIONS									
Nitrite (N)	mg/L	1	-	-	<0.0050	<0.0050	<0.0050	0.0050	B272507
Calculated Parameters									
Total Hardness (CaCO3)	mg/L	-	-	-	74.9	32.9	34.4	0.50	B272120
Nitrate (N)	mg/L	10	-	-	0.287	0.164	0.167	0.020	B272117
Misc. Inorganics									
Conductivity	uS/cm	-	-	-	270	110	200	2.0	B272535
pH	pH	-	-	7.0:10.5	**6.75**	**6.22**	**6.89**	N/A	B272528
Total Dissolved Solids	mg/L	-	500	-	170	70	120	10	B274436
Anions									
Alkalinity (PP as CaCO3)	mg/L	-	-	-	<1.0	<1.0	<1.0	1.0	B272532
Alkalinity (Total as CaCO3)	mg/L	-	-	-	36	20	60	1.0	B272532
Bicarbonate (HCO3)	mg/L	-	-	-	44	25	74	1.0	B272532
Carbonate (CO3)	mg/L	-	-	-	<1.0	<1.0	<1.0	1.0	B272532
Dissolved Fluoride (F)	mg/L	1.5	-	-	<0.050	<0.050	<0.050	0.050	B272584
Hydroxide (OH)	mg/L	-	-	-	<1.0	<1.0	<1.0	1.0	B272532
Chloride (Cl)	mg/L	-	250	-	41	11	13	1.0	B272740
Sulphate (SO4)	mg/L	-	500	-	21	10	11	1.0	B272740
MISCELLANEOUS									
True Colour	Col. Unit	-	15	-	<2.0	2.3	<2.0	2.0	B272503
Nutrients									
Nitrate plus Nitrite (N)	mg/L	-	-	-	0.287	0.164	0.167	0.020	B272505
Physical Properties									
Turbidity	NTU	see remark	see remark	see remark	0.40	<0.10	<0.10	0.10	B272560

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
N/A = Not Applicable

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Bureau Veritas Job #: C407253
Report Date: 2024/05/06

VILLAGE OF PEMBERTON

RESULTS OF CHEMICAL ANALYSES OF DRINKING WATER

Bureau Veritas ID					CIM492		
Sampling Date					2024/01/31 09:15		
COC Number					C#716107-01-01		
	UNITS	MAC	AO	OG	FORM RD	RDL	QC Batch
ANIONS							
Nitrite (N)	mg/L	1	-	-	<0.0050	0.0050	B272507
Calculated Parameters							
Total Hardness (CaCO3)	mg/L	-	-	-	34.6	0.50	B272120
Nitrate (N)	mg/L	10	-	-	0.380	0.020	B272117
Misc. Inorganics							
Conductivity	uS/cm	-	-	-	200	2.0	B272535
pH	pH	-	-	7.0:10.5	7.03	N/A	B272528
Total Dissolved Solids	mg/L	-	500	-	100	10	B274436
Anions							
Alkalinity (PP as CaCO3)	mg/L	-	-	-	<1.0	1.0	B272532
Alkalinity (Total as CaCO3)	mg/L	-	-	-	61	1.0	B272532
Bicarbonate (HCO3)	mg/L	-	-	-	74	1.0	B272532
Carbonate (CO3)	mg/L	-	-	-	<1.0	1.0	B272532
Dissolved Fluoride (F)	mg/L	1.5	-	-	<0.050	0.050	B272584
Hydroxide (OH)	mg/L	-	-	-	<1.0	1.0	B272532
Chloride (Cl)	mg/L	-	250	-	13	1.0	B272740
Sulphate (SO4)	mg/L	-	500	-	11	1.0	B272740
MISCELLANEOUS							
True Colour	Col. Unit	-	15	-	<2.0	2.0	B272503
Nutrients							
Nitrate plus Nitrite (N)	mg/L	-	-	-	0.380	0.020	B272505
Physical Properties							
Turbidity	NTU	see remark	see remark	see remark	0.20	0.10	B272560

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
N/A = Not Applicable

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Bureau Veritas Job #: C407253
Report Date: 2024/05/06

VILLAGE OF PEMBERTON

MERCURY BY COLD VAPOR (DRINKING WATER)

Bureau Veritas ID			CIM489	CIM490	CIM491	CIM492		
Sampling Date			2024/01/31 08:30	2024/01/31 08:45	2024/01/31 09:00	2024/01/31 09:15		
COC Number			C#716107-01-01	C#716107-01-01	C#716107-01-01	C#716107-01-01		
	UNITS	MAC	WELL#2	WELL#3	RIDGE	FORM RD	RDL	QC Batch
Elements								
Total Mercury (Hg)	ug/L	1	<0.030 (1)	<0.030 (1)	<0.030 (1)	<0.030 (1)	0.030	B272153

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
(1) Mercury RDL raised due to background interference.

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Bureau Veritas Job #: C407253
Report Date: 2024/05/06

VILLAGE OF PEMBERTON

ELEMENTS BY ATOMIC SPECTROSCOPY (DRINKING WATER)

Bureau Veritas ID					CIM489	CIM490	CIM491	CIM492		
Sampling Date					2024/01/31 08:30	2024/01/31 08:45	2024/01/31 09:00	2024/01/31 09:15		
COC Number					C#716107-01-01	C#716107-01-01	C#716107-01-01	C#716107-01-01		
	UNITS	MAC	AO	OG	WELL#2	WELL#3	RIDGE	FORM RD	RDL	QC Batch
Total Metals by ICPMS										
Total Aluminum (Al)	ug/L	2900	-	100	6.4	8.2	4.2	24.2	3.0	B272413
Total Antimony (Sb)	ug/L	6	-	-	<0.50	<0.50	<0.50	<0.50	0.50	B272413
Total Arsenic (As)	ug/L	10	-	-	<0.10	<0.10	<0.10	<0.10	0.10	B272413
Total Barium (Ba)	ug/L	2000	-	-	48.5	21.2	20.9	22.4	1.0	B272413
Total Boron (B)	ug/L	5000	-	-	126	<50	<50	<50	50	B272413
Total Cadmium (Cd)	ug/L	7	-	-	0.018	0.028	<0.010	0.098	0.010	B272413
Total Chromium (Cr)	ug/L	50	-	-	<1.0	<1.0	<1.0	<1.0	1.0	B272413
Total Cobalt (Co)	ug/L	-	-	-	0.20	0.22	<0.20	<0.20	0.20	B272413
Total Copper (Cu)	ug/L	2000	1000	-	1.73	3.36	4.24	7.55	0.20	B272413
Total Iron (Fe)	ug/L	-	300	-	183	32.3	30.7	38.9	5.0	B272413
Total Lead (Pb)	ug/L	5	-	-	<0.20	0.77	0.21	<0.20	0.20	B272413
Total Manganese (Mn)	ug/L	120	20	-	**82.7**	**65.9**	7.6	18.9	1.0	B272413
Total Molybdenum (Mo)	ug/L	-	-	-	2.4	<1.0	<1.0	<1.0	1.0	B272413
Total Nickel (Ni)	ug/L	-	-	-	<1.0	<1.0	<1.0	<1.0	1.0	B272413
Total Selenium (Se)	ug/L	50	-	-	<0.10	<0.10	<0.10	<0.10	0.10	B272413
Total Silver (Ag)	ug/L	-	-	-	<0.020	<0.020	<0.020	<0.020	0.020	B272413
Total Strontium (Sr)	ug/L	7000	-	-	174	68.0	69.6	70.9	1.0	B272413
Total Uranium (U)	ug/L	20	-	-	<0.10	<0.10	<0.10	<0.10	0.10	B272413
Total Vanadium (V)	ug/L	-	-	-	<5.0	<5.0	<5.0	<5.0	5.0	B272413
Total Zinc (Zn)	ug/L	-	5000	-	26.4	6.3	6.1	<5.0	5.0	B272413
Total Calcium (Ca)	mg/L	-	-	-	27.3	12.0	12.5	12.6	0.050	B272118
Total Magnesium (Mg)	mg/L	-	-	-	1.63	0.711	0.755	0.760	0.050	B272118
Total Potassium (K)	mg/L	-	-	-	2.64	1.06	1.11	1.11	0.050	B272118
Total Sodium (Na)	mg/L	-	200	-	15.8	5.08	24.8	25.0	0.050	B272118
Total Sulphur (S)	mg/L	-	-	-	6.8	3.4	3.5	3.6	3.0	B272118

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Bureau Veritas Job #: C407253
Report Date: 2024/05/06

VILLAGE OF PEMBERTON

GENERAL COMMENTS

Version #2: Mercury RDL raised due to background interference.
MAC,AO,OG: The guidelines that have been included in this report have been taken from the Canadian Drinking Water Quality Summary Table, September 2022.

Criteria A = Maximum Acceptable Concentration (MAC) / Criteria B = Aesthetic Objectives (AO) / Criteria C = Operational Guidance Values (OG)
It is recommended to consult these guidelines when interpreting your data since there are non-numerical guidelines that are not included on this report.

Turbidity Guidelines:
1. Chemically assisted filtration: less than or equal to 0.3 NTU in 95% of the measurements or 95% of the time each month. Shall not exceed 1.0 NTU at any time.
2. Slow sand / diatomaceous earth filtration: less than or equal to 1.0 NTU in 95% of the measurements or 95% of the time each month. Shall not exceed 3.0 NTU at any time.
3. Membrane filtration: less than or equal to 0.1 NTU in 99% of the measurements made or at least 99% of the time each calendar month. Shall not exceed 0.3 NTU at any time.
4. To ensure effectiveness of disinfection and for good operation of the distribution system, it is recommended that water entering the distribution system have turbidity levels of 1.0 NTU or less.
Measurement of Uncertainty has not been accounted for when stating conformity to the selected criteria, where applicable.

Results relate only to the items tested.

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

QUALITY ASSURANCE REPORT

VILLAGE OF PEMBERTON

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
B272153	Total Mercury (Hg)	2024/02/02	84	80 - 120	99	80 - 120	<0.0019	ug/L	NC	20
B272413	Total Aluminum (Al)	2024/02/02	98	80 - 120	100	80 - 120	<3.0	ug/L	NC	20
B272413	Total Antimony (Sb)	2024/02/02	98	80 - 120	97	80 - 120	<0.50	ug/L	NC	20
B272413	Total Arsenic (As)	2024/02/02	102	80 - 120	102	80 - 120	<0.10	ug/L	NC	20
B272413	Total Barium (Ba)	2024/02/02	100	80 - 120	100	80 - 120	<1.0	ug/L	NC	20
B272413	Total Boron (B)	2024/02/02	97	80 - 120	96	80 - 120	<50	ug/L	NC	20
B272413	Total Cadmium (Cd)	2024/02/02	98	80 - 120	98	80 - 120	<0.010	ug/L	NC	20
B272413	Total Chromium (Cr)	2024/02/02	96	80 - 120	98	80 - 120	<1.0	ug/L	NC	20
B272413	Total Cobalt (Co)	2024/02/02	93	80 - 120	95	80 - 120	<0.20	ug/L	2.1	20
B272413	Total Copper (Cu)	2024/02/02	91	80 - 120	92	80 - 120	<0.20	ug/L	2.8	20
B272413	Total Iron (Fe)	2024/02/02	100	80 - 120	97	80 - 120	<5.0	ug/L	NC	20
B272413	Total Lead (Pb)	2024/02/02	97	80 - 120	96	80 - 120	<0.20	ug/L	NC	20
B272413	Total Manganese (Mn)	2024/02/02	97	80 - 120	99	80 - 120	<1.0	ug/L	NC	20
B272413	Total Molybdenum (Mo)	2024/02/02	101	80 - 120	100	80 - 120	<1.0	ug/L	NC	20
B272413	Total Nickel (Ni)	2024/02/02	95	80 - 120	97	80 - 120	<1.0	ug/L	0.25	20
B272413	Total Selenium (Se)	2024/02/02	100	80 - 120	99	80 - 120	<0.10	ug/L	3.9	20
B272413	Total Silver (Ag)	2024/02/02	97	80 - 120	98	80 - 120	<0.020	ug/L	NC	20
B272413	Total Strontium (Sr)	2024/02/02	101	80 - 120	102	80 - 120	<1.0	ug/L	0.19	20
B272413	Total Uranium (U)	2024/02/02	99	80 - 120	100	80 - 120	<0.10	ug/L	NC	20
B272413	Total Vanadium (V)	2024/02/02	97	80 - 120	99	80 - 120	<5.0	ug/L	NC	20
B272413	Total Zinc (Zn)	2024/02/02	97	80 - 120	99	80 - 120	<5.0	ug/L	NC	20
B272503	True Colour	2024/02/02			101	80 - 120	<2.0	Col. Unit	NC	20
B272505	Nitrate plus Nitrite (N)	2024/02/02	113	80 - 120	108	80 - 120	<0.020	mg/L	1.4	25
B272507	Nitrite (N)	2024/02/02	79 (1)	80 - 120	105	80 - 120	<0.0050	mg/L	NC	20
B272528	pH	2024/02/02			100	97 - 103			0.093	N/A
B272532	Alkalinity (PP as CaCO3)	2024/02/02					<1.0	mg/L	NC	20
B272532	Alkalinity (Total as CaCO3)	2024/02/02			89	80 - 120	<1.0	mg/L	0.54	20
B272532	Bicarbonate (HCO3)	2024/02/02					<1.0	mg/L	0.54	20
B272532	Carbonate (CO3)	2024/02/02					<1.0	mg/L	NC	20
B272532	Hydroxide (OH)	2024/02/02					<1.0	mg/L	NC	20
B272535	Conductivity	2024/02/02			101	90 - 110	<2.0	uS/cm	0.15	10
B272560	Turbidity	2024/02/02			97	80 - 120	<0.10	NTU	NC	20
B272584	Dissolved Fluoride (F)	2024/02/02	107	80 - 120	105	80 - 120	<0.050	mg/L	NC	20
B272740	Chloride (Cl)	2024/02/02	107	80 - 120	95	80 - 120	<1.0	mg/L	NC	20

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
B272740	Sulphate (SO4)	2024/02/02	99	80 - 120	97	80 - 120	<1.0	mg/L	NC	20
B274436	Total Dissolved Solids	2024/02/06	102	80 - 120	99	80 - 120	<10	mg/L	5.7	20

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

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Bureau Veritas
4606 Canada Way, Burnaby, British Columbia Canada V5G 1K5 Tel:(604) 734 7276 Toll-free:800-563-6266 Fax:(604) 731 2386 www.bvna.com

Page of

Chain Of Custody Record

INVOICE TO:		Report Information		Project Information		Laboratory Use Only	
Company Name	#99020 VILLAGE OF PEMBERTON	Company Name		Quotation #	C31790	Bureau Veritas Job #	Bottle Order #:
Contact Name	Accounts Payable	Contact Name	Reece Clark	P.O #			716107
Address	Box 100 7400 Prospect St Pemberton BC V0N 2L0	Address		Project #		Chain Of Custody Record	Project Manager
Phone	(604) 894-6811 Fax: (604) 894-6855	Phone	604 353 5845 Fax:	Project Name		C#716107-01-01	Customer Solutions
Email	accountspayable@pemberton.ca	Email	RClark@pemberton.ca	Site #			
				Sampled By			

Regulatory Criteria:
- [ ] CSR
- [ ] CCME
- [x] BC Water Quality
- [ ] Other

Special Instructions: Please Plot against AO & MAC

SAMPLES MUST BE KEPT COOL (< 10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BUREAU VERITAS

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Metals Field Filtered ? (Y / N)	Drinking Water Package w/o Microbiology	# of Bottles	Comments
1		Well #2	24/01/31	8:30 AM			✓		
2		Well #3	24/01/31	8:45 AM			✓		
3		RIDGE	24/01/31	9:00 AM			✓		
4		Farm Rd.	24/01/31	9:15 AM			✓		
5									
6									
7									
8									
9									
10									

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects
Regular (Standard) TAT:
(will be applied if Rush TAT is not specified):
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.
Job Specific Rush TAT (if applies to entire submission)
1 DAY [ ] 2 Day [ ] 3 Day [ ] Date Required: [ ]
Rush Confirmation Number: (call lab for #)

C407253_COC

RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted	Lab Use Only: Time Sensitive	Temperature (°C) on Receipt	Custody Seal Intact on Cooler?
[redacted] Reece Clark	24/01/31	9:20AM	[redacted] Roland Vaoi	24/02/02	0835		[ ]	15.15.16	[ ] Yes [x] No

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BUREAU VERITAS'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVNA.COM/ENVIRONMENTAL-LABORATORIES/RESOURCES/COC-TERMS-AND-CONDITIONS.
* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

White: Bureau Veritas Yellow: Client

ice packs: gel, melted

Bureau Veritas Canada (2019) Inc.

Your Project #: DW kits without Micro
Your C.O.C. #: 718396-01-01

Attention: Reece Clark

VILLAGE OF PEMBERTON
Box 100
7400 Prospect St
Pemberton, BC
CANADA V0N 2L0

Report Date: 2024/05/06
Report #: R3496210
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

BUREAU VERITAS JOB #: C414646
Received: 2024/03/01, 10:25

Sample Matrix: Drinking Water
Samples Received: 4

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Alkalinity @25C (pp, total), CO3,HCO3,OH	3	N/A	2024/03/01	BBY6SOP-00026	SM 24 2320 B m
Alkalinity @25C (pp, total), CO3,HCO3,OH	1	N/A	2024/03/02	BBY6SOP-00026	SM 24 2320 B m
Chloride/Sulphate by Auto Colourimetry	4	N/A	2024/03/05	BBY6SOP-00011 / BBY6SOP-00017	SM24-4500-Cl/SO4-E m
Color (True) by Automated Analyzer	4	N/A	2024/03/01	BBY6SOP-00057	SM 24 2120 C m
Conductivity @25C	3	N/A	2024/03/01	BBY6SOP-00026	SM 24 2510 B m
Conductivity @25C	1	N/A	2024/03/02	BBY6SOP-00026	SM 24 2510 B m
Fluoride	4	N/A	2024/03/04	BBY6SOP-00037	SM 24 4500-F C m
Hardness Total (calculated as CaCO3) (1)	4	N/A	2024/03/06	BBY WI-00033	Auto Calc
Mercury (Total) by CV	4	2024/03/04	2024/03/04	AB SOP-00084	BCMOE BCLM Oct2013 m
Na, K, Ca, Mg, S by CRC ICPMS (total)	4	N/A	2024/03/06	BBY WI-00033	Auto Calc
Elements by CRC ICPMS (total)	4	N/A	2024/03/05	BBY7SOP-00003 / BBY7SOP-00002	EPA 6020b R2 m
Nitrate + Nitrite (N)	4	N/A	2024/03/01	BBY6SOP-00010	SM 24 4500-NO3- H m
Nitrite (N) Regular Level Water	4	N/A	2024/03/01	BBY6SOP-00010	SM 24 4500-NO2- m
Nitrogen - Nitrate (as N)	4	N/A	2024/03/01	BBY WI-00033	Auto Calc
pH @25°C (2)	3	N/A	2024/03/01	BBY6SOP-00026	SM 24 4500-H+ B m
pH @25°C (2)	1	N/A	2024/03/02	BBY6SOP-00026	SM 24 4500-H+ B m
Total Dissolved Solids (Filt. Residue)	4	2024/03/05	2024/03/06	BBY6SOP-00033	SM 24 2540 C m
Turbidity	4	N/A	2024/03/01	BBY6SOP-00027	SM 24 2130 B m

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, EPA, APHA or the Quebec Ministry of Environment.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report.

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Your Project #: DW kits without Micro
Your C.O.C. #: 718396-01-01

Attention: Reece Clark

VILLAGE OF PEMBERTON
Box 100
7400 Prospect St
Pemberton, BC
CANADA V0N 2L0

Report Date: 2024/05/06
Report #: R3496210
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

BUREAU VERITAS JOB #: C414646
Received: 2024/03/01, 10:25

Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.
This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).
(2) The CCME method requires pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the CCME holding time. Bureau Veritas endeavours to analyze samples as soon as possible after receipt.

Encryption Key

[redacted]

Morgan Melnychuk
Customer Solutions Representative
06 May 2024 10:27:38

Please direct all questions regarding this Certificate of Analysis to:
Customer Solutions, Western Canada Customer Experience Team
Email: customersolutionswest@bureauveritas.com
Phone# (604) 734 7276

==========

Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Raphael Kwan, Senior Manager, BC and Yukon Regions responsible for British Columbia Environmental laboratory operations.

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Bureau Veritas Job #: C414646
Report Date: 2024/05/06

VILLAGE OF PEMBERTON
Client Project #: DW kits without Micro

RESULTS OF CHEMICAL ANALYSES OF DRINKING WATER

Bureau Veritas ID					CKC155	CKC156	CKC157		
Sampling Date					2024/02/09 09:00	2024/02/09 09:30	2024/02/09 10:00		
COC Number					718396-01-01	718396-01-01	718396-01-01		
	UNITS	MAC	AO	OG	RIDGE	FARM RD	WELL#2	RDL	QC Batch
ANIONS									
Nitrite (N)	mg/L	1	-	-	<0.0050	<0.0050 (1)	<0.0050	0.0050	B301068
Calculated Parameters									
Total Hardness (CaCO3)	mg/L	-	-	-	34.7	33.6	71.3	0.50	B300337
Nitrate (N)	mg/L	10	-	-	0.209	0.211	0.244	0.020	B300299
Misc. Inorganics									
Conductivity	uS/cm	-	-	-	200	190	270	2.0	B301079
pH	pH	-	-	7.0:10.5	7.23	7.26	**6.65**	N/A	B301077
Total Dissolved Solids	mg/L	-	500	-	100	110	160	10	B303874
Anions									
Alkalinity (PP as CaCO3)	mg/L	-	-	-	<1.0	<1.0	<1.0	1.0	B301078
Alkalinity (Total as CaCO3)	mg/L	-	-	-	62	60	35	1.0	B301078
Bicarbonate (HCO3)	mg/L	-	-	-	75	74	43	1.0	B301078
Carbonate (CO3)	mg/L	-	-	-	<1.0	<1.0	<1.0	1.0	B301078
Dissolved Fluoride (F)	mg/L	1.5	-	-	<0.050	<0.050	<0.050	0.050	B302589
Hydroxide (OH)	mg/L	-	-	-	<1.0	<1.0	<1.0	1.0	B301078
Chloride (Cl)	mg/L	-	250	-	16	15	43	1.0	B302510
Sulphate (SO4)	mg/L	-	500	-	10	10	19	1.0	B302510
MISCELLANEOUS									
True Colour	Col. Unit	-	15	-	<2.0	<2.0	<2.0	2.0	B300457
Nutrients									
Nitrate plus Nitrite (N)	mg/L	-	-	-	0.209	0.211 (1)	0.244	0.020	B301067
Physical Properties									
Turbidity	NTU	see remark	see remark	see remark	0.11	0.30	0.21	0.10	B301008

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
N/A = Not Applicable
(1) Matrix spike exceeds acceptance limits due to matrix interference.

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Bureau Veritas Job #: C414646
Report Date: 2024/05/06

VILLAGE OF PEMBERTON
Client Project #: DW kits without Micro

RESULTS OF CHEMICAL ANALYSES OF DRINKING WATER

Bureau Veritas ID					CKC158		
Sampling Date					2024/02/09 10:15		
COC Number					718396-01-01		
	UNITS	MAC	AO	OG	WELL#3	RDL	QC Batch
ANIONS							
Nitrite (N)	mg/L	1	-	-	<0.0050	0.0050	B301068
Calculated Parameters							
Total Hardness (CaCO3)	mg/L	-	-	-	27.1	0.50	B300337
Nitrate (N)	mg/L	10	-	-	0.203	0.020	B300299
Misc. Inorganics							
Conductivity	uS/cm	-	-	-	93	2.0	B301002
pH	pH	-	-	7.0:10.5	**6.44**	N/A	B300957
Total Dissolved Solids	mg/L	-	500	-	54	10	B303874
Anions							
Alkalinity (PP as CaCO3)	mg/L	-	-	-	<1.0	1.0	B301001
Alkalinity (Total as CaCO3)	mg/L	-	-	-	17	1.0	B301001
Bicarbonate (HCO3)	mg/L	-	-	-	21	1.0	B301001
Carbonate (CO3)	mg/L	-	-	-	<1.0	1.0	B301001
Dissolved Fluoride (F)	mg/L	1.5	-	-	<0.050	0.050	B302589
Hydroxide (OH)	mg/L	-	-	-	<1.0	1.0	B301001
Chloride (Cl)	mg/L	-	250	-	8.6	1.0	B302510
Sulphate (SO4)	mg/L	-	500	-	8.7	1.0	B302510
MISCELLANEOUS							
True Colour	Col. Unit	-	15	-	<2.0	2.0	B300457
Nutrients							
Nitrate plus Nitrite (N)	mg/L	-	-	-	0.203	0.020	B301067
Physical Properties							
Turbidity	NTU	see remark	see remark	see remark	0.24	0.10	B301008

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
N/A = Not Applicable

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Bureau Veritas Job #: C414646
Report Date: 2024/05/06

VILLAGE OF PEMBERTON
Client Project #: DW kits without Micro

MERCURY BY COLD VAPOR (DRINKING WATER)

Bureau Veritas ID			CKC155	CKC156	CKC157	CKC158		
Sampling Date			2024/02/09 09:00	2024/02/09 09:30	2024/02/09 10:00	2024/02/09 10:15		
COC Number			718396-01-01	718396-01-01	718396-01-01	718396-01-01		
	UNITS	MAC	RIDGE	FARM RD	WELL#2	WELL#3	RDL	QC Batch
Elements								
Total Mercury (Hg)	ug/L	1	<0.030 (1)	<0.030 (1)	<0.030 (1)	<0.030 (1)	0.030	B302854

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
(1) Mercury RDL raised due to background interference.

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Bureau Veritas Job #: C414646
Report Date: 2024/05/06

VILLAGE OF PEMBERTON
Client Project #: DW kits without Micro

ELEMENTS BY ATOMIC SPECTROSCOPY (DRINKING WATER)

Bureau Veritas ID					CKC155	CKC156	CKC157	CKC158		
Sampling Date					2024/02/09 09:00	2024/02/09 09:30	2024/02/09 10:00	2024/02/09 10:15		
COC Number					718396-01-01	718396-01-01	718396-01-01	718396-01-01		
	UNITS	MAC	AO	OG	RIDGE	FARM RD	WELL#2	WELL#3	RDL	QC Batch
Total Metals by ICPMS										
Total Aluminum (Al)	ug/L	2900	-	100	5.5	9.1	10.3	8.0	3.0	B302748
Total Antimony (Sb)	ug/L	6	-	-	<0.50	<0.50	<0.50	<0.50	0.50	B302748
Total Arsenic (As)	ug/L	10	-	-	<0.10	<0.10	<0.10	<0.10	0.10	B302748
Total Barium (Ba)	ug/L	2000	-	-	22.2	22.4	47.9	18.4	1.0	B302748
Total Boron (B)	ug/L	5000	-	-	86	78	179	57	50	B302748
Total Cadmium (Cd)	ug/L	7	-	-	<0.010	0.032	<0.010	0.033	0.010	B302748
Total Chromium (Cr)	ug/L	50	-	-	<1.0	<1.0	<1.0	<1.0	1.0	B302748
Total Cobalt (Co)	ug/L	-	-	-	<0.20	<0.20	0.22	<0.20	0.20	B302748
Total Copper (Cu)	ug/L	2000	1000	-	3.03	4.67	2.11	2.79	0.20	B302748
Total Iron (Fe)	ug/L	-	300	-	26.5	32.0	71.6	18.1	5.0	B302748
Total Lead (Pb)	ug/L	5	-	-	0.57	<0.20	0.25	0.63	0.20	B302748
Total Manganese (Mn)	ug/L	120	20	-	8.1	**28.1**	**93.8**	**39.0**	1.0	B302748
Total Molybdenum (Mo)	ug/L	-	-	-	<1.0	<1.0	2.4	<1.0	1.0	B302748
Total Nickel (Ni)	ug/L	-	-	-	<1.0	<1.0	<1.0	<1.0	1.0	B302748
Total Selenium (Se)	ug/L	50	-	-	<0.10	<0.10	<0.10	<0.10	0.10	B302748
Total Silver (Ag)	ug/L	-	-	-	<0.020	<0.020	<0.020	<0.020	0.020	B302748
Total Strontium (Sr)	ug/L	7000	-	-	74.8	72.6	177	56.2	1.0	B302748
Total Uranium (U)	ug/L	20	-	-	<0.10	<0.10	<0.10	<0.10	0.10	B302748
Total Vanadium (V)	ug/L	-	-	-	<5.0	<5.0	<5.0	<5.0	5.0	B302748
Total Zinc (Zn)	ug/L	-	5000	-	6.2	<5.0	14.3	<5.0	5.0	B302748
Total Calcium (Ca)	mg/L	-	-	-	12.7	12.3	25.9	9.92	0.050	B300473
Total Magnesium (Mg)	mg/L	-	-	-	0.735	0.710	1.62	0.553	0.050	B300473
Total Potassium (K)	mg/L	-	-	-	1.31	1.26	2.64	1.01	0.050	B300473
Total Sodium (Na)	mg/L	-	200	-	23.1	23.2	14.4	4.11	0.050	B300473
Total Sulphur (S)	mg/L	-	-	-	3.6	3.3	6.5	<3.0	3.0	B300473

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit

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Bureau Veritas Job #: C414646
Report Date: 2024/05/06

VILLAGE OF PEMBERTON
Client Project #: DW kits without Micro

GENERAL COMMENTS

Version #2: Mercury RDL raised due to background interference.

Sample CKC155 [RIDGE] : Sample was analyzed past method specified hold time for Nitrate + Nitrite (N). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample received past method specified hold time for Nitrate + Nitrite (N). Sample was analyzed past method specified hold time for Nitrite (N) Regular Level Water. Sample received past method specified hold time for Nitrite (N) Regular Level Water. Sample was analyzed past method specified hold time for Turbidity. Sample was analyzed past method specified hold time for Color (True) by Automated Analyzer. Sample received past method specified hold time for Color (True) by Automated Analyzer. Sample was analyzed past method specified hold time for Alkalinity @25C (pp, total), CO3,HCO3,OH. Sample was analyzed past method specified hold time for Total Dissolved Solids (Filt. Residue).

Sample CKC156 [FARM RD] : Sample was analyzed past method specified hold time for Nitrate + Nitrite (N). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample received past method specified hold time for Nitrate + Nitrite (N). Sample was analyzed past method specified hold time for Nitrite (N) Regular Level Water. Sample received past method specified hold time for Nitrite (N) Regular Level Water. Sample was analyzed past method specified hold time for Turbidity. Sample was analyzed past method specified hold time for Color (True) by Automated Analyzer. Sample received past method specified hold time for Color (True) by Automated Analyzer. Sample was analyzed past method specified hold time for Alkalinity @25C (pp, total), CO3,HCO3,OH. Sample was analyzed past method specified hold time for Total Dissolved Solids (Filt. Residue).

Sample CKC157 [WELL#2] : Sample was analyzed past method specified hold time for Nitrate + Nitrite (N). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample received past method specified hold time for Nitrate + Nitrite (N). Sample was analyzed past method specified hold time for Nitrite (N) Regular Level Water. Sample received past method specified hold time for Nitrite (N) Regular Level Water. Sample was analyzed past method specified hold time for Turbidity. Sample was analyzed past method specified hold time for Color (True) by Automated Analyzer. Sample received past method specified hold time for Color (True) by Automated Analyzer. Sample was analyzed past method specified hold time for Alkalinity @25C (pp, total), CO3,HCO3,OH. Sample was analyzed past method specified hold time for Total Dissolved Solids (Filt. Residue).

Sample CKC158 [WELL#3] : Sample was analyzed past method specified hold time for Nitrate + Nitrite (N). Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample received past method specified hold time for Nitrate + Nitrite (N). Sample was analyzed past method specified hold time for Nitrite (N) Regular Level Water. Sample received past method specified hold time for Nitrite (N) Regular Level Water. Sample was analyzed past method specified hold time for Turbidity. Sample was analyzed past method specified hold time for Color (True) by Automated Analyzer. Sample received past method specified hold time for Color (True) by Automated Analyzer. Sample was analyzed past method specified hold time for Alkalinity @25C (pp, total), CO3,HCO3,OH. Sample was analyzed past method specified hold time for Total Dissolved Solids (Filt. Residue).
MAC,AO,OG: The guidelines that have been included in this report have been taken from the Canadian Drinking Water Quality Summary Table, September 2022.

Criteria A = Maximum Acceptable Concentration (MAC) / Criteria B = Aesthetic Objectives (AO) / Criteria C = Operational Guidance Values (OG)
It is recommended to consult these guidelines when interpreting your data since there are non-numerical guidelines that are not included on this report.

Turbidity Guidelines:
1. Chemically assisted filtration: less than or equal to 0.3 NTU in 95% of the measurements or 95% of the time each month. Shall not exceed 1.0 NTU at any time.
2. Slow sand / diatomaceous earth filtration: less than or equal to 1.0 NTU in 95% of the measurements or 95% of the time each month. Shall not exceed 3.0 NTU at any time.
3. Membrane filtration: less than or equal to 0.1 NTU in 99% of the measurements made or at least 99% of the time each calendar month. Shall not exceed 0.3 NTU at any time.
4. To ensure effectiveness of disinfection and for good operation of the distribution system, it is recommended that water entering the distribution system have turbidity levels of 1.0 NTU or less.
Measurement of Uncertainty has not been accounted for when stating conformity to the selected criteria, where applicable.

Results relate only to the items tested.

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Bureau Veritas Job #: C414646
Report Date: 2024/05/06

VILLAGE OF PEMBERTON
Client Project #: DW kits without Micro

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
B300457	True Colour	2024/03/01			99	80 - 120	<2.0	Col. Unit	NC	20
B300957	pH	2024/03/01			100	97 - 103			0.030	N/A
B301001	Alkalinity (PP as CaCO3)	2024/03/01					<1.0	mg/L	NC	20
B301001	Alkalinity (Total as CaCO3)	2024/03/01			103	80 - 120	<1.0	mg/L	0.039	20
B301001	Bicarbonate (HCO3)	2024/03/01					<1.0	mg/L	0.039	20
B301001	Carbonate (CO3)	2024/03/01					<1.0	mg/L	NC	20
B301001	Hydroxide (OH)	2024/03/01					<1.0	mg/L	NC	20
B301002	Conductivity	2024/03/01			98	90 - 110	<2.0	uS/cm	0	10
B301008	Turbidity	2024/03/01			104	80 - 120	<0.10	NTU	7.5	20
B301067	Nitrate plus Nitrite (N)	2024/03/01	40	N/A	103	80 - 120	<0.020	mg/L	0.033	25
B301068	Nitrite (N)	2024/03/01	79 (1)	80 - 120	104	80 - 120	<0.0050	mg/L	NC	20
B301077	pH	2024/03/02			100	97 - 103			0.038	N/A
B301078	Alkalinity (PP as CaCO3)	2024/03/02					<1.0	mg/L	NC	20
B301078	Alkalinity (Total as CaCO3)	2024/03/02			105	80 - 120	<1.0	mg/L	2.5	20
B301078	Bicarbonate (HCO3)	2024/03/02					<1.0	mg/L	2.5	20
B301078	Carbonate (CO3)	2024/03/02					<1.0	mg/L	NC	20
B301078	Hydroxide (OH)	2024/03/02					<1.0	mg/L	NC	20
B301079	Conductivity	2024/03/02			99	90 - 110	<2.0	uS/cm	0	10
B302510	Chloride (Cl)	2024/03/05	NC	80 - 120	105	80 - 120	<1.0	mg/L	0.18	20
B302510	Sulphate (SO4)	2024/03/05	94	80 - 120	97	80 - 120	<1.0	mg/L	0.47	20
B302589	Dissolved Fluoride (F)	2024/03/04	101	80 - 120	104	80 - 120	<0.050	mg/L	NC	20
B302748	Total Aluminum (Al)	2024/03/05	105	80 - 120	96	80 - 120	<3.0	ug/L	1.4	20
B302748	Total Antimony (Sb)	2024/03/05	109	80 - 120	101	80 - 120	<0.50	ug/L	NC	20
B302748	Total Arsenic (As)	2024/03/05	117	80 - 120	107	80 - 120	<0.10	ug/L	1.6	20
B302748	Total Barium (Ba)	2024/03/05	112	80 - 120	102	80 - 120	<1.0	ug/L	0.24	20
B302748	Total Boron (B)	2024/03/05	113	80 - 120	105	80 - 120	<50	ug/L	NC	20
B302748	Total Cadmium (Cd)	2024/03/05	109	80 - 120	102	80 - 120	<0.010	ug/L	11	20
B302748	Total Chromium (Cr)	2024/03/05	107	80 - 120	99	80 - 120	<1.0	ug/L	NC	20
B302748	Total Cobalt (Co)	2024/03/05	104	80 - 120	96	80 - 120	<0.20	ug/L	NC	20
B302748	Total Copper (Cu)	2024/03/05	107	80 - 120	95	80 - 120	<0.20	ug/L	1.5	20
B302748	Total Iron (Fe)	2024/03/05	112	80 - 120	103	80 - 120	<5.0	ug/L	1.9	20
B302748	Total Lead (Pb)	2024/03/05	110	80 - 120	101	80 - 120	<0.20	ug/L	2.3	20
B302748	Total Manganese (Mn)	2024/03/05	107	80 - 120	99	80 - 120	<1.0	ug/L	0.0091	20

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
B302748	Total Molybdenum (Mo)	2024/03/05	112	80 - 120	103	80 - 120	<1.0	ug/L	NC	20
B302748	Total Nickel (Ni)	2024/03/05	106	80 - 120	99	80 - 120	<1.0	ug/L	NC	20
B302748	Total Selenium (Se)	2024/03/05	111	80 - 120	102	80 - 120	<0.10	ug/L	NC	20
B302748	Total Silver (Ag)	2024/03/05	109	80 - 120	102	80 - 120	<0.020	ug/L	NC	20
B302748	Total Strontium (Sr)	2024/03/05	NC	80 - 120	103	80 - 120	<1.0	ug/L	1.0	20
B302748	Total Uranium (U)	2024/03/05	113	80 - 120	103	80 - 120	<0.10	ug/L	NC	20
B302748	Total Vanadium (V)	2024/03/05	110	80 - 120	100	80 - 120	<5.0	ug/L	NC	20
B302748	Total Zinc (Zn)	2024/03/05	103	80 - 120	100	80 - 120	<5.0	ug/L	0.72	20
B302854	Total Mercury (Hg)	2024/03/04	97	80 - 120	106	80 - 120	<0.0019	ug/L	3.5	20
B303874	Total Dissolved Solids	2024/03/06	NC	80 - 120	96	80 - 120	<10	mg/L	3.4	20

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

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BUREAU VERITAS

Bureau Veritas
4606 Canada Way, Burnaby, British Columbia Canada V5G 1K5 Tel:(604) 734 7276 Toll-free:800-563-6266 Fax:(604) 731 2386 www.bvna.com

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MVAN-2024-03-062

INVOICE TO:		Report Information		Project Information	
Company Name	#99020 VILLAGE OF PEMBERTON	Company Name		Quotation #	C31790
Contact Name	Accounts Payable	Contact Name	Reece Clark	P.O. #	
Address	Box 100 7400 Prospect St Pemberton BC V0N 2L0	Address		Project #	DW kits without Micro
Phone	(604) 894-6811 Fax (604) 894-6855	Phone	604 353 5845 Fax:	Project Name	
Email	accountspayable@pemberton.ca	Email	R.clark@pemberton.ca	Site #	
				Sampled By	

Bottle Order #: 716396

Chain Of Custody Record: C#716396-01-01

Project Manager: Customer Solutions

Regulatory Criteria:
- [ ] CSR
- [ ] CCME
- [x] BC Water Quality
- [ ] Other

Special Instructions: Please Plot Against AO & MAC

SAMPLES MUST BE KEPT COOL (< 10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BUREAU VERITAS

ANALYSIS REQUESTED (PLEASE BE SPECIFIC)

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Metals Field Filtered ? (Y / N)	Drinking Water Package w/o Microbiology	# of Bottles	Comments
1		RIDGE	24/02/29	9:00AM			✓		
2		Farm Rd	24/02/29	9:30AM			✓		
3		Well #2	24/02/29	10:00AM			✓		
4		Well #3	24/02/29	10:15AM			✓		
5									
6									
7									
8									
9									
10									

Turnaround Time (TAT) Required:

Please provide advance notice for rush projects

Regular (Standard) TAT:
(will be applied if Rush TAT is not specified):
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
1 DAY ☐ 2 Day ☐ 3 Day ☐ Date Required: ☐
Rush Confirmation Number: (call lab for #)

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
[redacted] Reece Clark	24/02/29	10:30AM	[redacted] ALFRED NGAI	2024/03/01	10:25	

Lab Use Only
Time Sensitive ☐ | Temperature (°C) on Receipt: 8.1, 6 | Custody Seal Intact on Cooler? Yes ☐ No ☐ N/A CS

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BUREAU VERITAS'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVNA.COM/ENVIRONMENTAL-LABORATORIES/RESOURCES/COC-TERMS-AND-CONDITIONS.
* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

White: Bureau Veritas Yellow: Client

Bureau Veritas Canada (2019) Inc.

Your Project #: DRINKING WATER WITHOUT MICRO
Your C.O.C. #: C#724783-01-01

Attention: Reece Clark

VILLAGE OF PEMBERTON
Box 100
7400 Prospect St
Pemberton, BC
CANADA V0N 2L0

Report Date: 2024/05/30
Report #: R3506572
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C436894
Received: 2024/05/24, 08:30

Sample Matrix: Drinking Water
Samples Received: 4

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Alkalinity @25C (pp, total), CO3,HCO3,OH	4	N/A	2024/05/24	BBY6SOP-00026	SM 24 2320 B m
Chloride/Sulphate by Auto Colourimetry	4	N/A	2024/05/24	BBY6SOP-00011 / BBY6SOP-00017	SM24-4500-Cl/SO4-E m
Color (True) by Automated Analyzer	4	N/A	2024/05/24	BBY6SOP-00057	SM 24 2120 C m
Conductivity @25C	4	N/A	2024/05/24	BBY6SOP-00026	SM 24 2510 B m
Fluoride	4	N/A	2024/05/24	BBY6SOP-00037	SM 24 4500-F C m
Hardness Total (calculated as CaCO3) (1)	4	N/A	2024/05/25	BBY WI-00033	Auto Calc
Mercury (Total) by CV	4	2024/05/28	2024/05/28	BBY7SOP-00032	BCMOE LM 2023 C1.1.3
Na, K, Ca, Mg, S by CRC ICPMS (total)	4	N/A	2024/05/25	BBY WI-00033	Auto Calc
Elements by CRC ICPMS (total)	4	N/A	2024/05/25	BBY7SOP-00003 / BBY7SOP-00002	EPA 6020b R2 m
Nitrate + Nitrite (N)	4	N/A	2024/05/24	BBY6SOP-00010	SM 24 4500-NO3- H m
Nitrite (N) Regular Level Water	4	N/A	2024/05/24	BBY6SOP-00010	SM 24 4500-NO2- m
Nitrogen - Nitrate (as N)	4	N/A	2024/05/24	BBY WI-00033	Auto Calc
pH @25°C (2)	4	N/A	2024/05/24	BBY6SOP-00026	SM 24 4500-H+ B m
Total Dissolved Solids (Filt. Residue)	3	2024/05/24	2024/05/25	BBY6SOP-00033	SM 24 2540 C m
Total Dissolved Solids (Filt. Residue)	1	2024/05/27	2024/05/28	BBY6SOP-00033	SM 24 2540 C m
Turbidity	4	N/A	2024/05/24	BBY6SOP-00027	SM 24 2130 B m

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, EPA, APHA or the Quebec Ministry of Environment.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the

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Your Project #: DRINKING WATER WITHOUT MICRO
Your C.O.C. #: C#724783-01-01

Attention: Reece Clark

VILLAGE OF PEMBERTON
Box 100
7400 Prospect St
Pemberton, BC
CANADA V0N 2L0

Report Date: 2024/05/30
Report #: R3506572
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C436894
Received: 2024/05/24, 08:30
customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).
(2) The CCME method requires pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the CCME holding time. Bureau Veritas endeavours to analyze samples as soon as possible after receipt.

Encryption Key

AUTHORIZED REPORT
RAPPORT AUTORISÉ

Bureau Veritas
30 May 2024 13:09:25

Please direct all questions regarding this Certificate of Analysis to:
Aldean Alicando, Customer Solutions Representative
Email: Aldean.ALICANDO@bureauveritas.com
Phone# (604)734-7272 Ext:7062605

==========

This report has been generated and distributed using a secure automated process.
Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Raphael Kwan, Senior Manager, BC and Yukon Regions responsible for British Columbia Environmental laboratory operations.

Bureau Veritas Job #: C436894
Report Date: 2024/05/30

VILLAGE OF PEMBERTON
Client Project #: DRINKING WATER WITHOUT MICRO

RESULTS OF CHEMICAL ANALYSES OF DRINKING WATER

Bureau Veritas ID					CNZ684	CNZ685	CNZ686		
Sampling Date					2024/05/23 08:00	2024/05/23 08:15	2024/05/23 08:30		
COC Number					C#724783-01-01	C#724783-01-01	C#724783-01-01		
	UNITS	MAC	AO	OG	WELL #2	WELL #3	RIDGE	RDL	QC Batch
ANIONS									
Nitrite (N)	mg/L	1	-	-	<0.0050	<0.0050	<0.0050	0.0050	B378671
Calculated Parameters									
Total Hardness (CaCO3)	mg/L	-	-	-	67.9	30.9	30.2	0.50	B378407
Nitrate (N)	mg/L	10	-	-	0.400	0.160	0.160	0.020	B378375
Misc. Inorganics									
Conductivity	uS/cm	-	-	-	240	100	200	2.0	B378701
pH	pH	-	-	7.0:10.5	**6.42**	**6.30**	7.18	N/A	B378700
Total Dissolved Solids	mg/L	-	500	-	150	52	110	10	B378562
Anions									
Alkalinity (PP as CaCO3)	mg/L	-	-	-	<1.0	<1.0	<1.0	1.0	B378695
Alkalinity (Total as CaCO3)	mg/L	-	-	-	33	17	68	1.0	B378695
Bicarbonate (HCO3)	mg/L	-	-	-	40	21	83	1.0	B378695
Carbonate (CO3)	mg/L	-	-	-	<1.0	<1.0	<1.0	1.0	B378695
Dissolved Fluoride (F)	mg/L	1.5	-	-	<0.050	<0.050	<0.050	0.050	B378693
Hydroxide (OH)	mg/L	-	-	-	<1.0	<1.0	<1.0	1.0	B378695
Chloride (Cl)	mg/L	-	250	-	38	9.6	11	1.0	B378674
Sulphate (SO4)	mg/L	-	500	-	19	10	9.9	1.0	B378674
MISCELLANEOUS									
True Colour	Col. Unit	-	15	-	7.3	<2.0	<2.0	2.0	B378716
Nutrients									
Nitrate plus Nitrite (N)	mg/L	-	-	-	0.400	0.160	0.160	0.020	B378660
Physical Properties									
Turbidity	NTU	see remark	see remark	see remark	0.32	0.14	0.21	0.10	B378668

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
N/A = Not Applicable

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Bureau Veritas Job #: C436894
Report Date: 2024/05/30

VILLAGE OF PEMBERTON
Client Project #: DRINKING WATER WITHOUT MICRO

RESULTS OF CHEMICAL ANALYSES OF DRINKING WATER

Bureau Veritas ID					CNZ687		
Sampling Date					2024/05/23 08:45		
COC Number					C#724783-01-01		
	UNITS	MAC	AO	OG	FARM RD	RDL	QC Batch
ANIONS							
Nitrite (N)	mg/L	1	-	-	<0.0050	0.0050	B378671
Calculated Parameters							
Total Hardness (CaCO3)	mg/L	-	-	-	29.9	0.50	B378407
Nitrate (N)	mg/L	10	-	-	0.160	0.020	B378375
Misc. Inorganics							
Conductivity	uS/cm	-	-	-	200	2.0	B378701
pH	pH	-	-	7.0:10.5	7.20	N/A	B378700
Total Dissolved Solids	mg/L	-	500	-	110	10	B380828
Anions							
Alkalinity (PP as CaCO3)	mg/L	-	-	-	<1.0	1.0	B378695
Alkalinity (Total as CaCO3)	mg/L	-	-	-	68	1.0	B378695
Bicarbonate (HCO3)	mg/L	-	-	-	83	1.0	B378695
Carbonate (CO3)	mg/L	-	-	-	<1.0	1.0	B378695
Dissolved Fluoride (F)	mg/L	1.5	-	-	<0.050	0.050	B378693
Hydroxide (OH)	mg/L	-	-	-	<1.0	1.0	B378695
Chloride (Cl)	mg/L	-	250	-	10	1.0	B378674
Sulphate (SO4)	mg/L	-	500	-	9.8	1.0	B378674
MISCELLANEOUS							
True Colour	Col. Unit	-	15	-	<2.0	2.0	B378716
Nutrients							
Nitrate plus Nitrite (N)	mg/L	-	-	-	0.160	0.020	B378660
Physical Properties							
Turbidity	NTU	see remark	see remark	see remark	0.19	0.10	B378668

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
N/A = Not Applicable

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Bureau Veritas Job #: C436894
Report Date: 2024/05/30

VILLAGE OF PEMBERTON
Client Project #: DRINKING WATER WITHOUT MICRO

MERCURY BY COLD VAPOR (DRINKING WATER)

Bureau Veritas ID			CNZ684	CNZ685	CNZ686	CNZ687		
Sampling Date			2024/05/23 08:00	2024/05/23 08:15	2024/05/23 08:30	2024/05/23 08:45		
COC Number			C#724783-01-01	C#724783-01-01	C#724783-01-01	C#724783-01-01		
	UNITS	MAC	WELL #2	WELL #3	RIDGE	FARM RD	RDL	QC Batch
Elements								
Total Mercury (Hg)	ug/L	1	<0.0019	<0.0019	<0.0019	<0.0019	0.0019	B381992

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit

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Bureau Veritas Job #: C436894
Report Date: 2024/05/30

VILLAGE OF PEMBERTON
Client Project #: DRINKING WATER WITHOUT MICRO

ELEMENTS BY ATOMIC SPECTROSCOPY (DRINKING WATER)

Bureau Veritas ID					CNZ684	CNZ685	CNZ686	CNZ687		
Sampling Date					2024/05/23 08:00	2024/05/23 08:15	2024/05/23 08:30	2024/05/23 08:45		
COC Number					C#724783-01-01	C#724783-01-01	C#724783-01-01	C#724783-01-01		
	UNITS	MAC	AO	OG	WELL #2	WELL #3	RIDGE	FARM RD	RDL	QC Batch
Total Metals by ICPMS										
Total Aluminum (Al)	ug/L	2900	-	100	3.6	6.7	<3.0	3.7	3.0	B379392
Total Antimony (Sb)	ug/L	6	-	-	<0.50	<0.50	<0.50	<0.50	0.50	B379392
Total Arsenic (As)	ug/L	10	-	-	<0.10	<0.10	<0.10	<0.10	0.10	B379392
Total Barium (Ba)	ug/L	2000	-	-	39.9	17.0	16.6	16.0	1.0	B379392
Total Boron (B)	ug/L	5000	-	-	132	<50	<50	<50	50	B379392
Total Cadmium (Cd)	ug/L	7	-	-	0.010	0.028	<0.010	<0.010	0.010	B379392
Total Chromium (Cr)	ug/L	50	-	-	<1.0	<1.0	<1.0	<1.0	1.0	B379392
Total Cobalt (Co)	ug/L	-	-	-	<0.20	<0.20	<0.20	<0.20	0.20	B379392
Total Copper (Cu)	ug/L	2000	1000	-	1.99	3.34	4.07	6.43	0.20	B379392
Total Iron (Fe)	ug/L	-	300	-	68.4	25.3	18.3	18.7	5.0	B379392
Total Lead (Pb)	ug/L	5	-	-	<0.20	0.39	<0.20	<0.20	0.20	B379392
Total Manganese (Mn)	ug/L	120	20	-	**56.9**	**58.3**	4.8	12.9	1.0	B379392
Total Molybdenum (Mo)	ug/L	-	-	-	2.1	<1.0	<1.0	<1.0	1.0	B379392
Total Nickel (Ni)	ug/L	-	-	-	<1.0	<1.0	<1.0	<1.0	1.0	B379392
Total Selenium (Se)	ug/L	50	-	-	<0.10	<0.10	<0.10	<0.10	0.10	B379392
Total Silver (Ag)	ug/L	-	-	-	<0.020	<0.020	<0.020	<0.020	0.020	B379392
Total Strontium (Sr)	ug/L	7000	-	-	128	53.0	53.7	54.4	1.0	B379392
Total Uranium (U)	ug/L	20	-	-	<0.10	<0.10	<0.10	<0.10	0.10	B379392
Total Vanadium (V)	ug/L	-	-	-	<5.0	<5.0	<5.0	<5.0	5.0	B379392
Total Zinc (Zn)	ug/L	-	5000	-	24.0	<5.0	<5.0	<5.0	5.0	B379392
Total Calcium (Ca)	mg/L	-	-	-	24.6	11.2	10.9	10.8	0.050	B378371
Total Magnesium (Mg)	mg/L	-	-	-	1.55	0.701	0.723	0.713	0.050	B378371
Total Potassium (K)	mg/L	-	-	-	2.36	0.937	0.968	0.941	0.050	B378371
Total Sodium (Na)	mg/L	-	200	-	16.3	4.94	29.6	28.8	0.050	B378371
Total Sulphur (S)	mg/L	-	-	-	7.4	3.3	4.4	<3.0	3.0	B378371

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit

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Bureau Veritas Job #: C436894
Report Date: 2024/05/30

VILLAGE OF PEMBERTON
Client Project #: DRINKING WATER WITHOUT MICRO

GENERAL COMMENTS

MAC,AO,OG: The guidelines that have been included in this report have been taken from the Canadian Drinking Water Quality Summary Table, September 2022.

Criteria A = Maximum Acceptable Concentration (MAC) / Criteria B = Aesthetic Objectives (AO) / Criteria C = Operational Guidance Values (OG)
It is recommended to consult these guidelines when interpreting your data since there are non-numerical guidelines that are not included on this report.

Turbidity Guidelines:
1. Chemically assisted filtration: less than or equal to 0.3 NTU in 95% of the measurements or 95% of the time each month. Shall not exceed 1.0 NTU at any time.
2. Slow sand / diatomaceous earth filtration: less than or equal to 1.0 NTU in 95% of the measurements or 95% of the time each month. Shall not exceed 3.0 NTU at any time.
3. Membrane filtration: less than or equal to 0.1 NTU in 99% of the measurements made or at least 99% of the time each calendar month. Shall not exceed 0.3 NTU at any time.
4. To ensure effectiveness of disinfection and for good operation of the distribution system, it is recommended that water entering the distribution system have turbidity levels of 1.0 NTU or less.
Measurement of Uncertainty has not been accounted for when stating conformity to the selected criteria, where applicable.

Results relate only to the items tested.

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QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
B378562	Total Dissolved Solids	2024/05/25	103	80 - 120	99	80 - 120	<10	mg/L	1.3	20
B378660	Nitrate plus Nitrite (N)	2024/05/24	NC	80 - 120	110	80 - 120	<0.020	mg/L	1.9	25
B378668	Turbidity	2024/05/24			103	80 - 120	<0.10	NTU	2.8	20
B378671	Nitrite (N)	2024/05/24	NC	80 - 120	108	80 - 120	<0.0050	mg/L	0.13	20
B378674	Chloride (Cl)	2024/05/24	NC	80 - 120	98	80 - 120	<1.0	mg/L	0.20	20
B378674	Sulphate (SO4)	2024/05/24	NC	80 - 120	97	80 - 120	<1.0	mg/L	3.4	20
B378693	Dissolved Fluoride (F)	2024/05/24	108	80 - 120	101	80 - 120	<0.050	mg/L	0.30	20
B378695	Alkalinity (PP as CaCO3)	2024/05/24					<1.0	mg/L	NC	20
B378695	Alkalinity (Total as CaCO3)	2024/05/24			96	80 - 120	<1.0	mg/L	0.92	20
B378695	Bicarbonate (HCO3)	2024/05/24					<1.0	mg/L	0.92	20
B378695	Carbonate (CO3)	2024/05/24					<1.0	mg/L	NC	20
B378695	Hydroxide (OH)	2024/05/24					<1.0	mg/L	NC	20
B378700	pH	2024/05/24			100	97 - 103			0.66	N/A
B378701	Conductivity	2024/05/24			99	90 - 110	<2.0	uS/cm		
B378716	True Colour	2024/05/24			100	80 - 120	<2.0	Col. Unit	0.82	20
B379392	Total Aluminum (Al)	2024/05/25	98	80 - 120	101	80 - 120	<3.0	ug/L	1.1	20
B379392	Total Antimony (Sb)	2024/05/25	97	80 - 120	97	80 - 120	<0.50	ug/L	NC	20
B379392	Total Arsenic (As)	2024/05/25	101	80 - 120	102	80 - 120	<0.10	ug/L	0.32	20
B379392	Total Barium (Ba)	2024/05/25	95	80 - 120	95	80 - 120	<1.0	ug/L	0.73	20
B379392	Total Boron (B)	2024/05/25	119	80 - 120	121 (1)	80 - 120	<50	ug/L	3.3	20
B379392	Total Cadmium (Cd)	2024/05/25	97	80 - 120	98	80 - 120	<0.010	ug/L	NC	20
B379392	Total Chromium (Cr)	2024/05/25	100	80 - 120	104	80 - 120	<1.0	ug/L	4.9	20
B379392	Total Cobalt (Co)	2024/05/25	100	80 - 120	105	80 - 120	<0.20	ug/L	NC	20
B379392	Total Copper (Cu)	2024/05/25	99	80 - 120	104	80 - 120	<0.20	ug/L	0.97	20
B379392	Total Iron (Fe)	2024/05/25	99	80 - 120	106	80 - 120	<5.0	ug/L	NC	20
B379392	Total Lead (Pb)	2024/05/25	93	80 - 120	96	80 - 120	<0.20	ug/L	NC	20
B379392	Total Manganese (Mn)	2024/05/25	97	80 - 120	101	80 - 120	<1.0	ug/L	1.4	20
B379392	Total Molybdenum (Mo)	2024/05/25	100	80 - 120	103	80 - 120	<1.0	ug/L	NC	20
B379392	Total Nickel (Ni)	2024/05/25	100	80 - 120	106	80 - 120	<1.0	ug/L	NC	20
B379392	Total Selenium (Se)	2024/05/25	106	80 - 120	108	80 - 120	<0.10	ug/L	NC	20
B379392	Total Silver (Ag)	2024/05/25	98	80 - 120	100	80 - 120	<0.020	ug/L	NC	20
B379392	Total Strontium (Sr)	2024/05/25	NC	80 - 120	93	80 - 120	<1.0	ug/L	1.1	20
B379392	Total Uranium (U)	2024/05/25	98	80 - 120	100	80 - 120	<0.10	ug/L	NC	20

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
B379392	Total Vanadium (V)	2024/05/25	100	80 - 120	102	80 - 120	<5.0	ug/L	NC	20
B379392	Total Zinc (Zn)	2024/05/25	98	80 - 120	100	80 - 120	<5.0	ug/L	NC	20
B380828	Total Dissolved Solids	2024/05/28	100	80 - 120	95	80 - 120	<10	mg/L	6.9	20
B381992	Total Mercury (Hg)	2024/05/28	104	80 - 120	97	80 - 120	<0.0019	ug/L	NC	20

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Blank Spike outside acceptance criteria (10% of analytes failure allowed).

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Page of

Chain Of Custody Record

INVOICE TO:		Report Information		Project Information		Laboratory Use Only	
Company Name	#99020 VILLAGE OF PEMBERTON	Company Name		Quotation #	C31790	Bureau Veritas Job #	Bottle Order #:
Contact Name	Accounts Payable	Contact Name	Reece Clark	P.O. #			724783
Address	Box 100 7400 Prospect St	Address		Project #	Drinking Water without Micro	Chain Of Custody Record	Project Manager
	Pemberton BC V0N 2L0			Project Name		C#724783-01-01	Aldean Allicando
Phone	(604) 894-6811 Fax: (604) 894-6855	Phone	(604) 353-5845 Fax:	Site #			
Email	accountspayable@pemberton.ca	Email	rclark@pemberton.ca	Samoled By			

Regulatory Criteria:
- ☐ CSR
- ☐ CCME
- ☑ BC Water Quality
- ☐ Other

Special Instructions: Please plot Against AO & MAC

SAMPLES MUST BE KEPT COOL (< 10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BUREAU VERITAS

ANALYSIS REQUESTED (PLEASE BE SPECIFIC)

Turnaround Time (TAT) Required:

Please provide advance notice for rush projects

Regular (Standard) TAT:
(will be applied if Rush TAT is not specified):
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
1 DAY ☐ 2 Day ☐ 3 Day ☐ Date Required: ☐
Rush Confirmation Number: (call lab for #)

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Metals Field Filtered ? (Y / N)	Drinking Water Package w/o Microbiology	# of Bottles	Comments
1		Well #2	24/05/23	8:00AM			✓		
2		Well #3	24/05/23	8:15AM			✓		
3		RIDGE	24/05/23	8:30AM			✓		
4		Farm Rd.	24/05/23	8:45AM			✓		
5									
6									
7									
8									
9									
10									

MVAN-2024-05-1185

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted	Lab Use Only: Time Sensitive	Temperature (°C) on Receipt	Custody Seal Intact on Cooler?
[redacted] Reece Clark	24/05/23	9:00AM	[redacted] Dana Zamora	2024/05/24	08:30		☐	6/6/7	☐ Yes ☒ No

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BUREAU VERITAS'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVNA.COM/ENVIRONMENTAL-LABORATORIES/RESOURCES/COC-TERMS-AND-CONDITIONS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

White: Bureau Veritas Yellow: Client

Bureau Veritas Canada (2019) Inc.

ICE Pack Frozen

Your C.O.C. #: C#727535-01-01

Attention: Reece Clark

VILLAGE OF PEMBERTON
Box 100
7400 Prospect St
Pemberton, BC
CANADA V0N 2L0

Report Date: 2024/07/18
Report #: R3529312
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C452452
Received: 2024/07/12, 11:33

Sample Matrix: Drinking Water
Samples Received: 4

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Alkalinity @25C (pp, total), CO3,HCO3,OH	4	N/A	2024/07/12	BBY6SOP-00026	SM 24 2320 B m
Chloride/Sulphate by Auto Colourimetry	4	N/A	2024/07/15	BBY6SOP-00011 / BBY6SOP-00017	SM24-4500-Cl/SO4-E m
Color (True) by Automated Analyzer	4	N/A	2024/07/13	BBY6SOP-00057	SM 24 2120 C m
Conductivity @25C	4	N/A	2024/07/12	BBY6SOP-00026	SM 24 2510 B m
Fluoride	4	N/A	2024/07/15	BBY6SOP-00037	SM 24 4500-F C m
Hardness Total (calculated as CaCO3) (1)	4	N/A	2024/07/16	BBY WI-00033	Auto Calc
Mercury (Total) by CV	4	2024/07/17	2024/07/17	BBY7SOP-00032	BCMOE LM 2023 C1.1.3
Na, K, Ca, Mg, S by CRC ICPMS (total)	4	N/A	2024/07/16	BBY WI-00033	Auto Calc
Elements by CRC ICPMS (total)	4	N/A	2024/07/16	BBY7SOP-00003 / BBY7SOP-00002	EPA 6020b R2 m
Nitrate + Nitrite (N)	4	N/A	2024/07/12	BBY6SOP-00010	SM 24 4500-NO3- H m
Nitrite (N) Regular Level Water	4	N/A	2024/07/12	BBY6SOP-00010	SM 24 4500-NO2- m
Nitrogen - Nitrate (as N)	4	N/A	2024/07/15	BBY WI-00033	Auto Calc
pH @25°C (2)	4	N/A	2024/07/12	BBY6SOP-00026	SM 24 4500-H+ B m
Total Dissolved Solids (Filt. Residue)	4	2024/07/17	2024/07/18	BBY6SOP-00033	SM 24 2540 C m
Turbidity	4	N/A	2024/07/12	BBY6SOP-00027	SM 24 2130 B m

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, EPA, APHA or the Quebec Ministry of Environment.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Your C.O.C. #: C#727535-01-01

Attention: Reece Clark

VILLAGE OF PEMBERTON
Box 100
7400 Prospect St
Pemberton, BC
CANADA V0N 2L0

Report Date: 2024/07/18
Report #: R3529312
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C452452
Received: 2024/07/12, 11:33

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).
(2) The CCME method requires pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the CCME holding time. Bureau Veritas endeavours to analyze samples as soon as possible after receipt.

Encryption Key

AUTHORIZED REPORT
RAPPORT AUTORISÉ

Bureau Veritas
18 Jul 2024 17:03:26

Please direct all questions regarding this Certificate of Analysis to:
Aldean Alicando, Customer Solutions Representative
Email: Aldean.ALICANDO@bureauveritas.com
Phone# (604)734-7276 Ext:7062605

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This report has been generated and distributed using a secure automated process.
Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Raphael Kwan, Senior Manager, BC and Yukon Regions responsible for British Columbia Environmental laboratory operations.

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Bureau Veritas Job #: C452452
Report Date: 2024/07/18

VILLAGE OF PEMBERTON

RESULTS OF CHEMICAL ANALYSES OF DRINKING WATER

Bureau Veritas ID					CRC709	CRC710	CRC711		
Sampling Date					2024/07/11 08:00	2024/07/11 08:15	2024/07/11 08:30		
COC Number					C#727535-01-01	C#727535-01-01	C#727535-01-01		
	UNITS	MAC	AO	OG	WELL#2	WELL #3	FARM RD	RDL	QC Batch
ANIONS									
Nitrite (N)	mg/L	1	-	-	<0.0050	<0.0050	<0.0050	0.0050	B437331
Calculated Parameters									
Total Hardness (CaCO3)	mg/L	-	-	-	68.6	24.2	25.5	0.50	B436370
Nitrate (N)	mg/L	10	-	-	0.316	0.133	0.140	0.020	B436496
Misc. Inorganics									
Conductivity	uS/cm	-	-	-	250	83	180	2.0	B437278
pH	pH	-	-	7.0:10.5	**6.51**	**6.35**	7.27	N/A	B437273
Total Dissolved Solids	mg/L	-	500	-	140	50	92	10	B442200
Anions									
Alkalinity (PP as CaCO3)	mg/L	-	-	-	<1.0	<1.0	<1.0	1.0	B437276
Alkalinity (Total as CaCO3)	mg/L	-	-	-	35	18	60	1.0	B437276
Bicarbonate (HCO3)	mg/L	-	-	-	43	22	73	1.0	B437276
Carbonate (CO3)	mg/L	-	-	-	<1.0	<1.0	<1.0	1.0	B437276
Dissolved Fluoride (F)	mg/L	1.5	-	-	<0.050	<0.050	<0.050	0.050	B439215
Hydroxide (OH)	mg/L	-	-	-	<1.0	<1.0	<1.0	1.0	B437276
Chloride (Cl)	mg/L	-	250	-	37	14	7.8	1.0	B437234
Sulphate (SO4)	mg/L	-	500	-	20	8.6	9.0	1.0	B437234
MISCELLANEOUS									
True Colour	Col. Unit	-	15	-	<2.0	<2.0	<2.0	2.0	B437791
Nutrients									
Nitrate plus Nitrite (N)	mg/L	-	-	-	0.316	0.133	0.140	0.020	B437231
Physical Properties									
Turbidity	NTU	see remark	see remark	see remark	0.20	0.12	1.7	0.10	B436429

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
N/A = Not Applicable

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Bureau Veritas Job #: C452452
Report Date: 2024/07/18

VILLAGE OF PEMBERTON

RESULTS OF CHEMICAL ANALYSES OF DRINKING WATER

Bureau Veritas ID					CRC712		
Sampling Date					2024/07/11 08:45		
COC Number					C#727535-01-01		
	UNITS	MAC	AO	OG	RIDGE	RDL	QC Batch
ANIONS							
Nitrite (N)	mg/L	1	-	-	<0.0050	0.0050	B437331
Calculated Parameters							
Total Hardness (CaCO3)	mg/L	-	-	-	25.5	0.50	B436370
Nitrate (N)	mg/L	10	-	-	0.147	0.020	B436496
Misc. Inorganics							
Conductivity	uS/cm	-	-	-	180	2.0	B437271
pH	pH	-	-	7.0:10.5	7.11	N/A	B437270
Total Dissolved Solids	mg/L	-	500	-	86	10	B442200
Anions							
Alkalinity (PP as CaCO3)	mg/L	-	-	-	<1.0	1.0	B437266
Alkalinity (Total as CaCO3)	mg/L	-	-	-	61	1.0	B437266
Bicarbonate (HCO3)	mg/L	-	-	-	75	1.0	B437266
Carbonate (CO3)	mg/L	-	-	-	<1.0	1.0	B437266
Dissolved Fluoride (F)	mg/L	1.5	-	-	<0.050	0.050	B439215
Hydroxide (OH)	mg/L	-	-	-	<1.0	1.0	B437266
Chloride (Cl)	mg/L	-	250	-	8.3	1.0	B437234
Sulphate (SO4)	mg/L	-	500	-	9.0	1.0	B437234
MISCELLANEOUS							
True Colour	Col. Unit	-	15	-	2.4	2.0	B437791
Nutrients							
Nitrate plus Nitrite (N)	mg/L	-	-	-	0.147	0.020	B437231
Physical Properties							
Turbidity	NTU	see remark	see remark	see remark	0.28	0.10	B436429

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
N/A = Not Applicable

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Bureau Veritas Job #: C452452
Report Date: 2024/07/18

VILLAGE OF PEMBERTON

MERCURY BY COLD VAPOR (DRINKING WATER)

Bureau Veritas ID			CRC709	CRC710	CRC711		CRC712		
Sampling Date			2024/07/11 08:00	2024/07/11 08:15	2024/07/11 08:30		2024/07/11 08:45		
COC Number			C#727535-01-01	C#727535-01-01	C#727535-01-01		C#727535-01-01		
	UNITS	MAC	WELL#2	WELL #3	FARM RD	QC Batch	RIDGE	RDL	QC Batch
Elements									
Total Mercury (Hg)	ug/L	1	<0.0019	<0.0019	<0.0019	B442184	<0.0019	0.0019	B442468

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Bureau Veritas Job #: C452452
Report Date: 2024/07/18

VILLAGE OF PEMBERTON

ELEMENTS BY ATOMIC SPECTROSCOPY (DRINKING WATER)

Bureau Veritas ID					CRC709	CRC710	CRC711	CRC712		
Sampling Date					2024/07/11 08:00	2024/07/11 08:15	2024/07/11 08:30	2024/07/11 08:45		
COC Number					C#727535-01-01	C#727535-01-01	C#727535-01-01	C#727535-01-01		
	UNITS	MAC	AO	OG	WELL#2	WELL #3	FARM RD	RIDGE	RDL	QC Batch
Total Metals by ICPMS										
Total Aluminum (Al)	ug/L	2900	-	100	3.2	7.4	**113**	5.1	3.0	B438786
Total Antimony (Sb)	ug/L	6	-	-	<0.50	<0.50	<0.50	<0.50	0.50	B438786
Total Arsenic (As)	ug/L	10	-	-	<0.10	<0.10	<0.10	<0.10	0.10	B438786
Total Barium (Ba)	ug/L	2000	-	-	45.2	15.6	25.6	16.0	1.0	B438786
Total Boron (B)	ug/L	5000	-	-	118	<50	<50	<50	50	B438786
Total Cadmium (Cd)	ug/L	7	-	-	0.012	0.038	0.546	0.020	0.010	B438786
Total Chromium (Cr)	ug/L	50	-	-	<1.0	<1.0	<1.0	<1.0	1.0	B438786
Total Cobalt (Co)	ug/L	-	-	-	0.23	<0.20	0.34	<0.20	0.20	B438786
Total Copper (Cu)	ug/L	2000	1000	-	2.77	1.78	13.5	3.39	0.20	B438786
Total Iron (Fe)	ug/L	-	300	-	67.7	10.3	144	22.0	5.0	B438786
Total Lead (Pb)	ug/L	5	-	-	0.23	0.46	<0.20	<0.20	0.20	B438786
Total Manganese (Mn)	ug/L	120	20	-	**96.8**	**26.0**	**188**	16.6	1.0	B438786
Total Molybdenum (Mo)	ug/L	-	-	-	2.3	<1.0	<1.0	<1.0	1.0	B438786
Total Nickel (Ni)	ug/L	-	-	-	<1.0	<1.0	<1.0	<1.0	1.0	B438786
Total Selenium (Se)	ug/L	50	-	-	<0.10	<0.10	<0.10	<0.10	0.10	B438786
Total Silver (Ag)	ug/L	-	-	-	<0.020	<0.020	<0.020	<0.020	0.020	B438786
Total Strontium (Sr)	ug/L	7000	-	-	144	47.8	52.6	51.2	1.0	B438786
Total Uranium (U)	ug/L	20	-	-	<0.10	<0.10	<0.10	<0.10	0.10	B438786
Total Vanadium (V)	ug/L	-	-	-	<5.0	<5.0	<5.0	<5.0	5.0	B438786
Total Zinc (Zn)	ug/L	-	5000	-	26.5	<5.0	<5.0	6.8	5.0	B438786
Total Calcium (Ca)	mg/L	-	-	-	24.8	8.85	9.33	9.27	0.050	B436495
Total Magnesium (Mg)	mg/L	-	-	-	1.62	0.506	0.546	0.565	0.050	B436495
Total Potassium (K)	mg/L	-	-	-	2.51	0.871	0.931	0.921	0.050	B436495
Total Sodium (Na)	mg/L	-	200	-	14.2	3.86	25.1	25.0	0.050	B436495
Total Sulphur (S)	mg/L	-	-	-	6.3	<3.0	3.1	3.1	3.0	B436495

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Bureau Veritas Job #: C452452
Report Date: 2024/07/18

VILLAGE OF PEMBERTON

GENERAL COMMENTS

MAC,AO,OG: The guidelines that have been included in this report have been taken from the Canadian Drinking Water Quality Summary Table, September 2022.

Criteria A = Maximum Acceptable Concentration (MAC) / Criteria B = Aesthetic Objectives (AO) / Criteria C = Operational Guidance Values (OG)
It is recommended to consult these guidelines when interpreting your data since there are non-numerical guidelines that are not included on this report.

Turbidity Guidelines:
1. Chemically assisted filtration: less than or equal to 0.3 NTU in 95% of the measurements or 95% of the time each month. Shall not exceed 1.0 NTU at any time.
2. Slow sand / diatomaceous earth filtration: less than or equal to 1.0 NTU in 95% of the measurements or 95% of the time each month. Shall not exceed 3.0 NTU at any time.
3. Membrane filtration: less than or equal to 0.1 NTU in 99% of the measurements made or at least 99% of the time each calendar month. Shall not exceed 0.3 NTU at any time.
4. To ensure effectiveness of disinfection and for good operation of the distribution system, it is recommended that water entering the distribution system have turbidity levels of 1.0 NTU or less.
Measurement of Uncertainty has not been accounted for when stating conformity to the selected criteria, where applicable.

Results relate only to the items tested.

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QUALITY ASSURANCE REPORT

VILLAGE OF PEMBERTON

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
B436429	Turbidity	2024/07/12			101	80 - 120	<0.10	NTU	9.9	20
B437231	Nitrate plus Nitrite (N)	2024/07/12	114	80 - 120	107	80 - 120	<0.020	mg/L	1.8	25
B437234	Chloride (Cl)	2024/07/15	NC	80 - 120	100	80 - 120	<1.0	mg/L	2.1	20
B437234	Sulphate (SO4)	2024/07/15	NC	80 - 120	105	80 - 120	<1.0	mg/L	3.1	20
B437266	Alkalinity (PP as CaCO3)	2024/07/12					<1.0	mg/L	NC	20
B437266	Alkalinity (Total as CaCO3)	2024/07/12			106	80 - 120	<1.0	mg/L	0.30	20
B437266	Bicarbonate (HCO3)	2024/07/12					<1.0	mg/L	0.30	20
B437266	Carbonate (CO3)	2024/07/12					<1.0	mg/L	NC	20
B437266	Hydroxide (OH)	2024/07/12					<1.0	mg/L	NC	20
B437270	pH	2024/07/12			100	97 - 103			0.095	N/A
B437271	Conductivity	2024/07/12			100	90 - 110	<2.0	uS/cm	0.28	10
B437273	pH	2024/07/12			100	97 - 103			0.65	N/A
B437276	Alkalinity (PP as CaCO3)	2024/07/12					<1.0	mg/L	NC	20
B437276	Alkalinity (Total as CaCO3)	2024/07/12			103	80 - 120	<1.0	mg/L	0.33	20
B437276	Bicarbonate (HCO3)	2024/07/12					<1.0	mg/L	0.33	20
B437276	Carbonate (CO3)	2024/07/12					<1.0	mg/L	NC	20
B437276	Hydroxide (OH)	2024/07/12					<1.0	mg/L	NC	20
B437278	Conductivity	2024/07/12			100	90 - 110	<2.0	uS/cm	0.42	10
B437331	Nitrite (N)	2024/07/12	112	80 - 120	105	80 - 120	<0.0050	mg/L	NC	20
B437791	True Colour	2024/07/13			97	80 - 120	<2.0	Col. Unit	10	20
B438786	Total Aluminum (Al)	2024/07/16	98	80 - 120	99	80 - 120	<3.0	ug/L	3.2	20
B438786	Total Antimony (Sb)	2024/07/16	101	80 - 120	102	80 - 120	<0.50	ug/L	NC	20
B438786	Total Arsenic (As)	2024/07/16	102	80 - 120	101	80 - 120	<0.10	ug/L	NC	20
B438786	Total Barium (Ba)	2024/07/16	NC	80 - 120	100	80 - 120	<1.0	ug/L	1.1	20
B438786	Total Boron (B)	2024/07/16	111	80 - 120	108	80 - 120	<50	ug/L	3.7	20
B438786	Total Cadmium (Cd)	2024/07/16	98	80 - 120	102	80 - 120	<0.010	ug/L	NC	20
B438786	Total Chromium (Cr)	2024/07/16	96	80 - 120	99	80 - 120	<1.0	ug/L	NC	20
B438786	Total Cobalt (Co)	2024/07/16	92	80 - 120	95	80 - 120	<0.20	ug/L	2.0	20
B438786	Total Copper (Cu)	2024/07/16	93	80 - 120	98	80 - 120	<0.20	ug/L	0.95	20
B438786	Total Iron (Fe)	2024/07/16	97	80 - 120	101	80 - 120	<5.0	ug/L	7.4	20
B438786	Total Lead (Pb)	2024/07/16	97	80 - 120	100	80 - 120	<0.20	ug/L	3.8	20
B438786	Total Manganese (Mn)	2024/07/16	96	80 - 120	100	80 - 120	<1.0	ug/L	0.25	20
B438786	Total Molybdenum (Mo)	2024/07/16	108	80 - 120	105	80 - 120	<1.0	ug/L	NC	20
B438786	Total Nickel (Ni)	2024/07/16	94	80 - 120	98	80 - 120	<1.0	ug/L	NC	20

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
B438786	Total Selenium (Se)	2024/07/16	98	80 - 120	102	80 - 120	<0.10	ug/L	NC	20
B438786	Total Silver (Ag)	2024/07/16	99	80 - 120	103	80 - 120	<0.020	ug/L	NC	20
B438786	Total Strontium (Sr)	2024/07/16	NC	80 - 120	101	80 - 120	<1.0	ug/L	0.29	20
B438786	Total Uranium (U)	2024/07/16	105	80 - 120	103	80 - 120	<0.10	ug/L	NC	20
B438786	Total Vanadium (V)	2024/07/16	100	80 - 120	100	80 - 120	<5.0	ug/L	NC	20
B438786	Total Zinc (Zn)	2024/07/16	94	80 - 120	101	80 - 120	<5.0	ug/L	1.1	20
B439215	Dissolved Fluoride (F)	2024/07/15	95	80 - 120	100	80 - 120	<0.050	mg/L	NC	20
B442184	Total Mercury (Hg)	2024/07/17	100	80 - 120	97	80 - 120	<0.0019	ug/L	3.0	20
B442200	Total Dissolved Solids	2024/07/18	100	80 - 120	94	80 - 120	<10	mg/L	0.90	20
B442468	Total Mercury (Hg)	2024/07/17	97	80 - 120	97	80 - 120	<0.0019	ug/L	NC	20

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

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Bureau Veritas
4606 Canada Way, Burnaby, British Columbia Canada V5G 1K5 Tel:(604) 734 7276 Toll-free:800-563-6266 Fax:(604) 731 2386 www.bvna.com

Page of

Chain Of Custody Record

INVOICE TO:		Report Information		Project Information		Laboratory Use Only	
Company Name	#99020 VILLAGE OF PEMBERTON	Company Name		Quotation #	C31790	Bureau Veritas Job #	Bottle Order #:
Contact Name	Accounts Payable	Contact Name	Reece Clark, Clare Sim	P.O. #			727535
Address	Box 100 7400 Prospect St Pemberton BC V0N 2L0	Address		Project #		Chain Of Custody Record	Project Manager
Phone	(604) 894-6811 Fax: (604) 894-6855	Phone	(604) 894-6135 Ext: 246 Fax:	Project Name		C#727535-01-01	Aldean Alicando
Email	accountspayable@pemberton.ca	Email	rclark@pemberton.ca; csim@pemberton.ca	Site #			
				Sampled By			

Regulatory Criteria:
- [ ] CSR
- [ ] CCME
- [x] BC Water Quality
- [ ] Other

Special Instructions: Please plot against AO & MAC

Turnaround Time (TAT) Required:

Please provide advance notice for rush projects

Regular (Standard) TAT:
(will be applied if Rush TAT is not specified):
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
1 DAY [ ] 2 Day [ ] 3 Day [ ] Date Required: _____
Rush Confirmation Number: _____ *(call lab for #)*

SAMPLES MUST BE KEPT COOL (< 10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BUREAU VERITAS

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Metals Field Filtered ? (Y / N)	Drinking Water Package w/o Microbiology	# of Bottles	Comments
1		Well #2	24/07/11	8:00AM			✓		
2		Well #3	24/07/11	8:15 AM			✓		
3		Farm Rd	24/07/11	8:30AM			✓		
4		RIDGE	24/07/11	8:45.AM			✓		
5									
6									
7									
8									
9									
10									

MVAN-2024-07-732

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted	Lab Use Only: Time Sensitive	Temperature (°C) on Receipt	Custody Seal Intact on Cooler?
[redacted] Reece Clark	24/07/11	9:00AM	[redacted] Maria Zamora	2024/07/12	11:33		[ ]	6/6/4	[ ] Yes [X] No

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BUREAU VERITAS'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVNA.COM/ENVIRONMENTAL-LABORATORIES/RESOURCES/COC-TERMS-AND-CONDITIONS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

White: Bureau Veritas Yellow: Client

Bureau Veritas Canada (2019) Inc.

LCE Reach 470287,

Your C.O.C. #: C#731934-01-01

Attention: Reece Clark

VILLAGE OF PEMBERTON
Box 100
7400 Prospect St
Pemberton, BC
CANADA V0N 2L0

Report Date: 2024/08/08
Report #: R3538897
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C459178
Received: 2024/08/02, 12:20

Sample Matrix: Drinking Water
Samples Received: 4

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Alkalinity @25C (pp, total), CO3,HCO3,OH	4	N/A	2024/08/02	BBY6SOP-00026	SM 24 2320 B m
Chloride/Sulphate by Auto Colourimetry	4	N/A	2024/08/06	BBY6SOP-00011 / BBY6SOP-00017	SM24-4500-Cl/SO4-E m
Color (True) by Automated Analyzer	4	N/A	2024/08/02	BBY6SOP-00057	SM 24 2120 C m
Conductivity @25C	4	N/A	2024/08/02	BBY6SOP-00026	SM 24 2510 B m
Fluoride	4	N/A	2024/08/06	BBY6SOP-00037	SM 24 4500-F C m
Hardness Total (calculated as CaCO3) (1)	4	N/A	2024/08/07	BBY WI-00033	Auto Calc
Mercury (Total) by CV	4	2024/08/06	2024/08/06	BBY7SOP-00032	BCMOE LM 2023 C1.1.3
Na, K, Ca, Mg, S by CRC ICPMS (total)	4	N/A	2024/08/07	BBY WI-00033	Auto Calc
Elements by CRC ICPMS (total)	4	N/A	2024/08/06	BBY7SOP-00003 / BBY7SOP-00002	EPA 6020b R2 m
Nitrate + Nitrite (N)	4	N/A	2024/08/03	BBY6SOP-00010	SM 24 4500-NO3- H m
Nitrite (N) Regular Level Water	4	N/A	2024/08/03	BBY6SOP-00010	SM 24 4500-NO2- m
Nitrogen - Nitrate (as N)	4	N/A	2024/08/03	BBY WI-00033	Auto Calc
pH @25°C (2)	4	N/A	2024/08/02	BBY6SOP-00026	SM 24 4500-H+ B m
Total Dissolved Solids (Filt. Residue)	4	2024/08/06	2024/08/07	BBY6SOP-00033	SM 24 2540 C m
Turbidity	4	N/A	2024/08/03	BBY6SOP-00027	SM 24 2130 B m

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, EPA, APHA or the Quebec Ministry of Environment.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Your C.O.C. #: C#731934-01-01

Attention: Reece Clark

VILLAGE OF PEMBERTON
Box 100
7400 Prospect St
Pemberton, BC
CANADA V0N 2L0

Report Date: 2024/08/08
Report #: R3538897
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C459178
Received: 2024/08/02, 12:20

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.
This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).
(2) The CCME method requires pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the CCME holding time. Bureau Veritas endeavours to analyze samples as soon as possible after receipt.

Encryption Key

AUTHORIZED REPORT
RAPPORT AUTORISÉ

Bureau Veritas
08 Aug 2024 11:32:07

Please direct all questions regarding this Certificate of Analysis to:
Aldean Alicando, Customer Solutions Representative
Email: Aldean.ALICANDO@bureauveritas.com
Phone# (604)734-7276 Ext:7062605

==========

This report has been generated and distributed using a secure automated process.
Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Raphael Kwan, Senior Manager, BC and Yukon Regions responsible for British Columbia Environmental laboratory operations.

Bureau Veritas Job #: C459178
Report Date: 2024/08/08

VILLAGE OF PEMBERTON

RESULTS OF CHEMICAL ANALYSES OF DRINKING WATER

Bureau Veritas ID					CSQ334	CSQ335	CSQ336		
Sampling Date					2024/08/01 08:00	2024/08/01 08:15	2024/08/01 08:30		
COC Number					C#731934-01-01	C#731934-01-01	C#731934-01-01		
	UNITS	MAC	AO	OG	WELL #2	WELL #3	RIDGE	RDL	QC Batch
ANIONS									
Nitrite (N)	mg/L	1	-	-	<0.0050	<0.0050	<0.0050	0.0050	B465715
Calculated Parameters									
Total Hardness (CaCO3)	mg/L	-	-	-	69.7	33.4	37.8	0.50	B463815
Nitrate (N)	mg/L	10	-	-	0.262	0.180	0.193	0.020	B464536
Misc. Inorganics									
Conductivity	uS/cm	-	-	-	250	110	210	2.0	B465335
pH	pH	-	-	7.0:10.5	**6.97**	**6.25**	**6.74**	N/A	B465332
Total Dissolved Solids	mg/L	-	500	-	160	66	120	10	B467010
Anions									
Alkalinity (PP as CaCO3)	mg/L	-	-	-	<1.0	<1.0	<1.0	1.0	B465336
Alkalinity (Total as CaCO3)	mg/L	-	-	-	36	21	65	1.0	B465336
Bicarbonate (HCO3)	mg/L	-	-	-	44	26	79	1.0	B465336
Carbonate (CO3)	mg/L	-	-	-	<1.0	<1.0	<1.0	1.0	B465336
Dissolved Fluoride (F)	mg/L	1.5	-	-	<0.050	<0.050	<0.050	0.050	B467184
Hydroxide (OH)	mg/L	-	-	-	<1.0	<1.0	<1.0	1.0	B465336
Chloride (Cl)	mg/L	-	250	-	38	12	17	1.0	B467190
Sulphate (SO4)	mg/L	-	500	-	19	9.7	11	1.0	B467190
MISCELLANEOUS									
True Colour	Col. Unit	-	15	-	<2.0	<2.0	<2.0	2.0	B465275
Nutrients									
Nitrate plus Nitrite (N)	mg/L	-	-	-	0.262	0.180	0.193	0.020	B465711
Physical Properties									
Turbidity	NTU	see remark	see remark	see remark	0.15	0.11	0.21	0.10	B465712

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
N/A = Not Applicable

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Bureau Veritas Job #: C459178
Report Date: 2024/08/08

VILLAGE OF PEMBERTON

RESULTS OF CHEMICAL ANALYSES OF DRINKING WATER

Bureau Veritas ID					CSQ337		
Sampling Date					2024/08/01 08:45		
COC Number					C#731934-01-01		
	UNITS	MAC	AO	OG	FARM RD	RDL	QC Batch
ANIONS							
Nitrite (N)	mg/L	1	-	-	<0.0050	0.0050	B465715
Calculated Parameters							
Total Hardness (CaCO3)	mg/L	-	-	-	38.6	0.50	B463815
Nitrate (N)	mg/L	10	-	-	0.189	0.020	B464536
Misc. Inorganics							
Conductivity	uS/cm	-	-	-	210	2.0	B465335
pH	pH	-	-	7.0:10.5	**6.79**	N/A	B465332
Total Dissolved Solids	mg/L	-	500	-	110	10	B467010
Anions							
Alkalinity (PP as CaCO3)	mg/L	-	-	-	<1.0	1.0	B465336
Alkalinity (Total as CaCO3)	mg/L	-	-	-	66	1.0	B465336
Bicarbonate (HCO3)	mg/L	-	-	-	81	1.0	B465336
Carbonate (CO3)	mg/L	-	-	-	<1.0	1.0	B465336
Dissolved Fluoride (F)	mg/L	1.5	-	-	<0.050	0.050	B467184
Hydroxide (OH)	mg/L	-	-	-	<1.0	1.0	B465336
Chloride (Cl)	mg/L	-	250	-	17	1.0	B467190
Sulphate (SO4)	mg/L	-	500	-	11	1.0	B467190
MISCELLANEOUS							
True Colour	Col. Unit	-	15	-	<2.0	2.0	B465275
Nutrients							
Nitrate plus Nitrite (N)	mg/L	-	-	-	0.189	0.020	B465711
Physical Properties							
Turbidity	NTU	see remark	see remark	see remark	0.12	0.10	B465712

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
N/A = Not Applicable

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Bureau Veritas Job #: C459178
Report Date: 2024/08/08

VILLAGE OF PEMBERTON

MERCURY BY COLD VAPOR (DRINKING WATER)

Bureau Veritas ID			CSQ334	CSQ335	CSQ336	CSQ337		
Sampling Date			2024/08/01 08:00	2024/08/01 08:15	2024/08/01 08:30	2024/08/01 08:45		
COC Number			C#731934-01-01	C#731934-01-01	C#731934-01-01	C#731934-01-01		
	UNITS	MAC	WELL #2	WELL #3	RIDGE	FARM RD	RDL	QC Batch
Elements								
Total Mercury (Hg)	ug/L	1	<0.0019	<0.0019	<0.0019	<0.0019	0.0019	B467319

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit

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Bureau Veritas Job #: C459178
Report Date: 2024/08/08

VILLAGE OF PEMBERTON

ELEMENTS BY ATOMIC SPECTROSCOPY (DRINKING WATER)

Bureau Veritas ID					CSQ334	CSQ335	CSQ336	CSQ337		
Sampling Date					2024/08/01 08:00	2024/08/01 08:15	2024/08/01 08:30	2024/08/01 08:45		
COC Number					C#731934-01-01	C#731934-01-01	C#731934-01-01	C#731934-01-01		
	UNITS	MAC	AO	OG	WELL #2	WELL #3	RIDGE	FARM RD	RDL	QC Batch
Total Metals by ICPMS										
Total Aluminum (Al)	ug/L	2900	-	100	3.7	11.4	8.6	5.5	3.0	B466857
Total Antimony (Sb)	ug/L	6	-	-	<0.50	<0.50	<0.50	<0.50	0.50	B466857
Total Arsenic (As)	ug/L	10	-	-	<0.10	<0.10	<0.10	<0.10	0.10	B466857
Total Barium (Ba)	ug/L	2000	-	-	46.1	20.9	23.8	24.4	1.0	B466857
Total Boron (B)	ug/L	5000	-	-	139	<50	51	50	50	B466857
Total Cadmium (Cd)	ug/L	7	-	-	0.014	0.031	0.033	0.016	0.010	B466857
Total Chromium (Cr)	ug/L	50	-	-	<1.0	<1.0	<1.0	<1.0	1.0	B466857
Total Cobalt (Co)	ug/L	-	-	-	0.21	<0.20	<0.20	<0.20	0.20	B466857
Total Copper (Cu)	ug/L	2000	1000	-	2.32	1.83	3.57	9.57	0.20	B466857
Total Iron (Fe)	ug/L	-	300	-	52.0	26.2	33.6	27.2	5.0	B466857
Total Lead (Pb)	ug/L	5	-	-	0.28	0.34	<0.20	<0.20	0.20	B466857
Total Manganese (Mn)	ug/L	120	20	-	**81.3**	**55.8**	**22.2**	**20.4**	1.0	B466857
Total Molybdenum (Mo)	ug/L	-	-	-	2.4	<1.0	<1.0	<1.0	1.0	B466857
Total Nickel (Ni)	ug/L	-	-	-	<1.0	<1.0	<1.0	<1.0	1.0	B466857
Total Selenium (Se)	ug/L	50	-	-	<0.10	<0.10	<0.10	<0.10	0.10	B466857
Total Silver (Ag)	ug/L	-	-	-	<0.020	<0.020	<0.020	<0.020	0.020	B466857
Total Strontium (Sr)	ug/L	7000	-	-	154	62.2	71.8	73.8	1.0	B466857
Total Uranium (U)	ug/L	20	-	-	<0.10	<0.10	<0.10	<0.10	0.10	B466857
Total Vanadium (V)	ug/L	-	-	-	<5.0	<5.0	<5.0	<5.0	5.0	B466857
Total Zinc (Zn)	ug/L	-	5000	-	37.5	5.4	6.8	<5.0	5.0	B466857
Total Calcium (Ca)	mg/L	-	-	-	25.2	12.1	13.7	14.0	0.050	B464803
Total Magnesium (Mg)	mg/L	-	-	-	1.66	0.758	0.852	0.871	0.050	B464803
Total Potassium (K)	mg/L	-	-	-	2.56	1.12	1.28	1.32	0.050	B464803
Total Sodium (Na)	mg/L	-	200	-	14.9	5.27	26.3	26.1	0.050	B464803
Total Sulphur (S)	mg/L	-	-	-	6.2	3.4	3.5	3.7	3.0	B464803

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Bureau Veritas Job #: C459178
Report Date: 2024/08/08

VILLAGE OF PEMBERTON

GENERAL COMMENTS

MAC,AO,OG: The guidelines that have been included in this report have been taken from the Canadian Drinking Water Quality Summary Table, September 2022.

Criteria A = Maximum Acceptable Concentration (MAC) / Criteria B = Aesthetic Objectives (AO) / Criteria C = Operational Guidance Values (OG)
It is recommended to consult these guidelines when interpreting your data since there are non-numerical guidelines that are not included on this report.

Turbidity Guidelines:
1. Chemically assisted filtration: less than or equal to 0.3 NTU in 95% of the measurements or 95% of the time each month. Shall not exceed 1.0 NTU at any time.
2. Slow sand / diatomaceous earth filtration: less than or equal to 1.0 NTU in 95% of the measurements or 95% of the time each month. Shall not exceed 3.0 NTU at any time.
3. Membrane filtration: less than or equal to 0.1 NTU in 99% of the measurements made or at least 99% of the time each calendar month. Shall not exceed 0.3 NTU at any time.
4. To ensure effectiveness of disinfection and for good operation of the distribution system, it is recommended that water entering the distribution system have turbidity levels of 1.0 NTU or less.
Measurement of Uncertainty has not been accounted for when stating conformity to the selected criteria, where applicable.

Results relate only to the items tested.

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

QUALITY ASSURANCE REPORT

VILLAGE OF PEMBERTON

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
B465275	True Colour	2024/08/02			104	80 - 120	<2.0	Col. Unit	NC	20
B465332	pH	2024/08/02			100	97 - 103			1.2	N/A
B465335	Conductivity	2024/08/02			102	90 - 110	<2.0	uS/cm	0.35	10
B465336	Alkalinity (PP as CaCO3)	2024/08/02					<1.0	mg/L	NC	20
B465336	Alkalinity (Total as CaCO3)	2024/08/02			95	80 - 120	<1.0	mg/L	2.1	20
B465336	Bicarbonate (HCO3)	2024/08/02					<1.0	mg/L		
B465336	Carbonate (CO3)	2024/08/02					<1.0	mg/L		
B465336	Hydroxide (OH)	2024/08/02					<1.0	mg/L		
B465711	Nitrate plus Nitrite (N)	2024/08/03	116	80 - 120	110	80 - 120	<0.020	mg/L	20	25
B465712	Turbidity	2024/08/03			102	80 - 120	<0.10	NTU	3.6	20
B465715	Nitrite (N)	2024/08/03	105	80 - 120	104	80 - 120	<0.0050	mg/L	NC	20
B466857	Total Aluminum (Al)	2024/08/06	100	80 - 120	103	80 - 120	<3.0	ug/L	NC	20
B466857	Total Antimony (Sb)	2024/08/06	104	80 - 120	102	80 - 120	<0.50	ug/L	NC	20
B466857	Total Arsenic (As)	2024/08/06	107	80 - 120	103	80 - 120	<0.10	ug/L	0.38	20
B466857	Total Barium (Ba)	2024/08/06	99	80 - 120	97	80 - 120	<1.0	ug/L	0.82	20
B466857	Total Boron (B)	2024/08/06	100	80 - 120	102	80 - 120	<50	ug/L	0.11	20
B466857	Total Cadmium (Cd)	2024/08/06	101	80 - 120	101	80 - 120	<0.010	ug/L	NC	20
B466857	Total Chromium (Cr)	2024/08/06	98	80 - 120	98	80 - 120	<1.0	ug/L	NC	20
B466857	Total Cobalt (Co)	2024/08/06	98	80 - 120	101	80 - 120	<0.20	ug/L	NC	20
B466857	Total Copper (Cu)	2024/08/06	92	80 - 120	96	80 - 120	<0.20	ug/L	2.7	20
B466857	Total Iron (Fe)	2024/08/06	102	80 - 120	99	80 - 120	<5.0	ug/L	NC	20
B466857	Total Lead (Pb)	2024/08/06	99	80 - 120	98	80 - 120	<0.20	ug/L	1.5	20
B466857	Total Manganese (Mn)	2024/08/06	95	80 - 120	98	80 - 120	<1.0	ug/L	0.50	20
B466857	Total Molybdenum (Mo)	2024/08/06	111	80 - 120	105	80 - 120	<1.0	ug/L	0.82	20
B466857	Total Nickel (Ni)	2024/08/06	96	80 - 120	99	80 - 120	<1.0	ug/L	NC	20
B466857	Total Selenium (Se)	2024/08/06	102	80 - 120	98	80 - 120	<0.10	ug/L	NC	20
B466857	Total Silver (Ag)	2024/08/06	100	80 - 120	99	80 - 120	<0.020	ug/L	NC	20
B466857	Total Strontium (Sr)	2024/08/06	NC	80 - 120	94	80 - 120	<1.0	ug/L	0.43	20
B466857	Total Uranium (U)	2024/08/06	102	80 - 120	100	80 - 120	<0.10	ug/L	0.10	20
B466857	Total Vanadium (V)	2024/08/06	99	80 - 120	97	80 - 120	<5.0	ug/L	NC	20
B466857	Total Zinc (Zn)	2024/08/06	98	80 - 120	102	80 - 120	<5.0	ug/L	0.89	20
B467010	Total Dissolved Solids	2024/08/07	99	80 - 120	99	80 - 120	<10	mg/L	3.9	20
B467184	Dissolved Fluoride (F)	2024/08/06	95	80 - 120	100	80 - 120	<0.050	mg/L	NC	20
B467190	Chloride (Cl)	2024/08/06	103	80 - 120	101	80 - 120	<1.0	mg/L	7.3	20

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
B467190	Sulphate (SO4)	2024/08/06	100	80 - 120	100	80 - 120	<1.0	mg/L		
B467319	Total Mercury (Hg)	2024/08/06	99	80 - 120	104	80 - 120	<0.0019	ug/L	NC	20

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

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C459178
2024/08/02 12:20

Bureau Veritas
4606 Canada Way, Burnaby, British Columbia Canada V5G 1K5 Tel:(604) 734 7276 Toll-free:800-563-6266 Fax:(604) 731 2386 www.bvna.com

Page of

Chain Of Custody Record

INVOICE TO:		Report Information		Project Information		Laboratory Use Only	
Company Name	#99020 VILLAGE OF PEMBERTON	Company Name		Quotation #	C31790	Bureau Veritas Job #	Bottle Order #:
Contact Name	Accounts Payable	Contact Name	Reece Clark	P.O. #			731934
Address	Box 100 7400 Prospect St	Address		Project #		Chain Of Custody Record	Project Manager
	Pemberton BC V0N 2L0			Project Name		C#731934-01-01	Aldean Alicando
Phone	(604) 894-6811 Fax (604) 894-6855	Phone	(604) 353-5845 Fax	Site #			
Email	accountspayable@pemberton.ca	Email	rclark@pemberton.ca, CSim@Pemberton.ca	Sampled By			

Regulatory Criteria
- ☐ CSR
- ☐ CCME
- ☑ BC Water Quality
- ☐ Other _____

Special Instructions
Please Plot Against AO & MAC

SAMPLES MUST BE KEPT COOL (< 10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BUREAU VERITAS

ANALYSIS REQUESTED (PLEASE BE SPECIFIC)

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Metals Field Filtered ? (Y / N)	Drinking Water Package w/o Microbiology	# of Bottles	Comments
1		Well #2	24/08/01	8:00AM			✓		
2		Well #3	24/08/01	8:15AM			✓		
3		RIDGE	24/08/01	8:30AM			✓		
4		Farm Rd	24/08/01	8:45AM			✓		
5									
6									
7									
8									
9									
10									

Turnaround Time (TAT) Required:

Please provide advance notice for rush projects

Regular (Standard) TAT: ☐
(will be applied if Rush TAT is not specified):
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
1 DAY ☐ 2 Day ☐ 3 Day ☐ Date Required: _____ ☐
Rush Confirmation Number: _____ (call lab for #)

MVAN-2024-08-128

RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted	Lab Use Only: Time Sensitive	Temperature (°C) on Receipt	Custody Seal Intact on Cooler?
[redacted] Reece Clark	24/08/01	9:00AM	BRIAN [redacted]	2024/08/02	12:20		☐	12/12/10	☐ Yes ☑ No

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BUREAU VERITAS'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVNA.COM/ENVIRONMENTAL-LABORATORIES/RESOURCES/COC-TERMS-AND-CONDITIONS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

White: Bureau Veritas Yellow: Client

ICP PROTON

Bureau Veritas Canada (2019) Inc.

Your C.O.C. #: C#736102-01-01

Attention: Reece Clark

VILLAGE OF PEMBERTON
Box 100
7400 Prospect St
Pemberton, BC
CANADA V0N 2L0

Report Date: 2024/10/22
Report #: R3575704
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C482688
Received: 2024/10/15, 08:43

Sample Matrix: Drinking Water
Samples Received: 4

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Alkalinity @25C (pp, total), CO3,HCO3,OH	4	N/A	2024/10/17	BBY6SOP-00026	SM 24 2320 B m
Chloride/Sulphate by Auto Colourimetry	4	N/A	2024/10/17	BBY6SOP-00011 / BBY6SOP-00017	SM24-4500-Cl/SO4-E m
Color (True) by Automated Analyzer	4	N/A	2024/10/16	BBY6SOP-00057	SM 24 2120 C m
Conductivity @25C	4	N/A	2024/10/17	BBY6SOP-00026	SM 24 2510 B m
Fluoride	4	N/A	2024/10/17	BBY6SOP-00037	SM 24 4500-F C m
Hardness Total (calculated as CaCO3) (1)	4	N/A	2024/10/22	BBY WI-00033	Auto Calc
Mercury (Total) by CV	4	2024/10/18	2024/10/18	BBY7SOP-00032	BCMOE LM 2023 C1.1.3
Na, K, Ca, Mg, S by CRC ICPMS (total)	4	N/A	2024/10/22	BBY WI-00033	Auto Calc
Elements by CRC ICPMS (total)	4	N/A	2024/10/21	BBY7SOP-00003 / BBY7SOP-00002	EPA 6020b R2 m
Nitrate + Nitrite (N)	4	N/A	2024/10/17	BBY6SOP-00010	SM 24 4500-NO3- H m
Nitrite (N) Regular Level Water	4	N/A	2024/10/17	BBY6SOP-00010	SM 24 4500-NO2- m
Nitrogen - Nitrate (as N)	4	N/A	2024/10/18	BBY WI-00033	Auto Calc
pH @25°C (2)	4	N/A	2024/10/17	BBY6SOP-00026	SM 24 4500-H+ B m
Total Dissolved Solids (Filt. Residue)	4	2024/10/16	2024/10/17	BBY6SOP-00033	SM 24 2540 C m
Turbidity	4	N/A	2024/10/15	BBY6SOP-00027	SM 24 2130 B m

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, EPA, APHA or the Quebec Ministry of Environment.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Your C.O.C. #: C#736102-01-01

Attention: Reece Clark

VILLAGE OF PEMBERTON
Box 100
7400 Prospect St
Pemberton, BC
CANADA V0N 2L0

Report Date: 2024/10/22
Report #: R3575704
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C482688
Received: 2024/10/15, 08:43

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).
(2) The CCME method requires pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the CCME holding time. Bureau Veritas endeavours to analyze samples as soon as possible after receipt.

Encryption Key

AUTHORIZED REPORT
RAPPORT AUTORISÉ

Bureau Veritas
22 Oct 2024 15:09:02

Please direct all questions regarding this Certificate of Analysis to:
Aldean Alicando, Customer Solutions Representative
Email: Aldean.ALICANDO@bureauveritas.com
Phone# (604)734-7276 Ext:7062605

==========

This report has been generated and distributed using a secure automated process.
Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Raphael Kwan, General Manager, BC and Yukon Regions responsible for British Columbia Environmental laboratory operations.

Bureau Veritas Job #: C482688
Report Date: 2024/10/22

VILLAGE OF PEMBERTON

RESULTS OF CHEMICAL ANALYSES OF DRINKING WATER

Bureau Veritas ID					CXV923		CXV924		
Sampling Date					2024/10/10 08:00		2024/10/10 08:15		
COC Number					C#736102-01-01		C#736102-01-01		
	UNITS	MAC	AO	OG	WELL#2	QC Batch	WELL#3	RDL	QC Batch
ANIONS									
Nitrite (N)	mg/L	1	-	-	<0.0050	B568601	<0.0050	0.0050	B568601
Calculated Parameters									
Total Hardness (CaCO3)	mg/L	-	-	-	70.7	B564712	40.2	0.50	B564712
Nitrate (N)	mg/L	10	-	-	0.067	B564721	0.133	0.020	B564721
Misc. Inorganics									
Conductivity	uS/cm	-	-	-	260	B567215	140	2.0	B567215
pH	pH	-	-	7.0:10.5	**6.89**	B567214	**6.59**	N/A	B567214
Total Dissolved Solids	mg/L	-	500	-	160	B566428	90	10	B566520
Anions									
Alkalinity (PP as CaCO3)	mg/L	-	-	-	<1.0	B567208	<1.0	1.0	B567208
Alkalinity (Total as CaCO3)	mg/L	-	-	-	39	B567208	24	1.0	B567208
Bicarbonate (HCO3)	mg/L	-	-	-	48	B567208	29	1.0	B567208
Carbonate (CO3)	mg/L	-	-	-	<1.0	B567208	<1.0	1.0	B567208
Dissolved Fluoride (F)	mg/L	1.5	-	-	0.050	B568464	<0.050	0.050	B568464
Hydroxide (OH)	mg/L	-	-	-	<1.0	B567208	<1.0	1.0	B567208
Chloride (Cl)	mg/L	-	250	-	40	B568156	17	1.0	B568156
Sulphate (SO4)	mg/L	-	500	-	19	B568156	11	1.0	B568156
MISCELLANEOUS									
True Colour	Col. Unit	-	15	-	<2.0	B567306	<2.0	2.0	B567306
Nutrients									
Nitrate plus Nitrite (N)	mg/L	-	-	-	0.067	B568597	0.133	0.020	B568597
Physical Properties									
Turbidity	NTU	see remark	see remark	see remark	0.60	B565266	0.23	0.10	B565266

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
N/A = Not Applicable

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Bureau Veritas Job #: C482688
Report Date: 2024/10/22

VILLAGE OF PEMBERTON

RESULTS OF CHEMICAL ANALYSES OF DRINKING WATER

Bureau Veritas ID					CXV925		CXV926		
Sampling Date					2024/10/10 08:30		2024/10/10 08:45		
COC Number					C#736102-01-01		C#736102-01-01		
	UNITS	MAC	AO	OG	RIDGE	QC Batch	FARM RD	RDL	QC Batch
ANIONS									
Nitrite (N)	mg/L	1	-	-	<0.0050	B568601	<0.0050	0.0050	B568601
Calculated Parameters									
Total Hardness (CaCO3)	mg/L	-	-	-	40.0	B564712	40.3	0.50	B564712
Nitrate (N)	mg/L	10	-	-	0.151	B564721	0.137	0.020	B564721
Misc. Inorganics									
Conductivity	uS/cm	-	-	-	220	B567215	220	2.0	B567215
pH	pH	-	-	7.0:10.5	7.61	B567214	7.56	N/A	B567214
Total Dissolved Solids	mg/L	-	500	-	120	B566520	130	10	B566428
Anions									
Alkalinity (PP as CaCO3)	mg/L	-	-	-	<1.0	B567208	<1.0	1.0	B567208
Alkalinity (Total as CaCO3)	mg/L	-	-	-	66	B567208	66	1.0	B567208
Bicarbonate (HCO3)	mg/L	-	-	-	81	B567208	80	1.0	B567208
Carbonate (CO3)	mg/L	-	-	-	<1.0	B567208	<1.0	1.0	B567208
Dissolved Fluoride (F)	mg/L	1.5	-	-	<0.050	B568464	<0.050	0.050	B568464
Hydroxide (OH)	mg/L	-	-	-	<1.0	B567208	<1.0	1.0	B567208
Chloride (Cl)	mg/L	-	250	-	18	B568156	18	1.0	B568156
Sulphate (SO4)	mg/L	-	500	-	11	B568156	12	1.0	B568156
MISCELLANEOUS									
True Colour	Col. Unit	-	15	-	<2.0	B567306	<2.0	2.0	B567306
Nutrients									
Nitrate plus Nitrite (N)	mg/L	-	-	-	0.151	B568597	0.137	0.020	B568597
Physical Properties									
Turbidity	NTU	see remark	see remark	see remark	0.18	B565266	0.23	0.10	B565266

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
N/A = Not Applicable

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Bureau Veritas Job #: C482688
Report Date: 2024/10/22

VILLAGE OF PEMBERTON

MERCURY BY COLD VAPOR (DRINKING WATER)

Bureau Veritas ID			CXV923	CXV924	CXV925	CXV926		
Sampling Date			2024/10/10 08:00	2024/10/10 08:15	2024/10/10 08:30	2024/10/10 08:45		
COC Number			C#736102-01-01	C#736102-01-01	C#736102-01-01	C#736102-01-01		
	UNITS	MAC	WELL#2	WELL#3	RIDGE	FARM RD	RDL	QC Batch
Elements								
Total Mercury (Hg)	ug/L	1	<0.0019	<0.0019	0.0024	<0.0019	0.0019	B570192

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Bureau Veritas Job #: C482688
Report Date: 2024/10/22

VILLAGE OF PEMBERTON

ELEMENTS BY ATOMIC SPECTROSCOPY (DRINKING WATER)

Bureau Veritas ID					CXV923	CXV924	CXV925	CXV926		
Sampling Date					2024/10/10 08:00	2024/10/10 08:15	2024/10/10 08:30	2024/10/10 08:45		
COC Number					C#736102-01-01	C#736102-01-01	C#736102-01-01	C#736102-01-01		
	UNITS	MAC	AO	OG	WELL#2	WELL#3	RIDGE	FARM RD	RDL	QC Batch
Total Metals by ICPMS										
Total Aluminum (Al)	ug/L	2900	-	100	3.8	8.8	5.4	5.3	3.0	B571509
Total Antimony (Sb)	ug/L	6	-	-	<0.50	<0.50	<0.50	<0.50	0.50	B571509
Total Arsenic (As)	ug/L	10	-	-	<0.10	<0.10	<0.10	<0.10	0.10	B571509
Total Barium (Ba)	ug/L	2000	-	-	47.5	25.8	25.7	25.9	1.0	B571509
Total Boron (B)	ug/L	5000	-	-	123	<50	<50	<50	50	B571509
Total Cadmium (Cd)	ug/L	7	-	-	0.019	0.030	<0.010	<0.010	0.010	B571509
Total Chromium (Cr)	ug/L	50	-	-	<1.0	<1.0	<1.0	<1.0	1.0	B571509
Total Cobalt (Co)	ug/L	-	-	-	0.27	0.36	<0.20	<0.20	0.20	B571509
Total Copper (Cu)	ug/L	2000	1000	-	1.41	2.42	4.26	8.90	0.20	B571509
Total Iron (Fe)	ug/L	-	300	-	127	81.5	54.0	81.2	5.0	B571509
Total Lead (Pb)	ug/L	5	-	-	<0.20	0.44	<0.20	<0.20	0.20	B571509
Total Manganese (Mn)	ug/L	120	20	-	**126**	**89.2**	14.8	12.1	1.0	B571509
Total Molybdenum (Mo)	ug/L	-	-	-	2.6	<1.0	<1.0	<1.0	1.0	B571509
Total Nickel (Ni)	ug/L	-	-	-	<1.0	<1.0	<1.0	<1.0	1.0	B571509
Total Selenium (Se)	ug/L	50	-	-	<0.10	<0.10	<0.10	<0.10	0.10	B571509
Total Silver (Ag)	ug/L	-	-	-	<0.020	<0.020	<0.020	<0.020	0.020	B571509
Total Strontium (Sr)	ug/L	7000	-	-	159	78.2	77.4	78.7	1.0	B571509
Total Uranium (U)	ug/L	20	-	-	<0.10	<0.10	<0.10	<0.10	0.10	B571509
Total Vanadium (V)	ug/L	-	-	-	<5.0	<5.0	<5.0	<5.0	5.0	B571509
Total Zinc (Zn)	ug/L	-	5000	-	24.3	7.1	10.3	<5.0	5.0	B571509
Total Calcium (Ca)	mg/L	-	-	-	25.5	14.6	14.5	14.6	0.050	B564720
Total Magnesium (Mg)	mg/L	-	-	-	1.71	0.917	0.916	0.926	0.050	B564720
Total Potassium (K)	mg/L	-	-	-	2.59	1.33	1.32	1.33	0.050	B564720
Total Sodium (Na)	mg/L	-	200	-	14.4	6.67	24.9	25.4	0.050	B564720
Total Sulphur (S)	mg/L	-	-	-	6.2	4.2	4.0	3.9	3.0	B564720

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Bureau Veritas Job #: C482688
Report Date: 2024/10/22

VILLAGE OF PEMBERTON

GENERAL COMMENTS

Sample CXV923 [WELL#2] : Sample was analyzed past method specified hold time for Turbidity. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Color (True) by Automated Analyzer. Sample received past method specified hold time for Color (True) by Automated Analyzer. Sample received past method specified hold time for Nitrate + Nitrite (N). Sample received past method specified hold time for Nitrite (N) Regular Level Water. Sample was analyzed past method specified hold time for Nitrate + Nitrite (N). Sample was analyzed past method specified hold time for Nitrite (N) Regular Level Water.

Sample CXV924 [WELL#3] : Sample was analyzed past method specified hold time for Turbidity. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Color (True) by Automated Analyzer. Sample received past method specified hold time for Color (True) by Automated Analyzer. Sample received past method specified hold time for Nitrate + Nitrite (N). Sample received past method specified hold time for Nitrite (N) Regular Level Water. Sample was analyzed past method specified hold time for Nitrate + Nitrite (N). Sample was analyzed past method specified hold time for Nitrite (N) Regular Level Water.

Sample CXV925 [RIDGE] : Sample was analyzed past method specified hold time for Turbidity. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Color (True) by Automated Analyzer. Sample received past method specified hold time for Color (True) by Automated Analyzer. Sample received past method specified hold time for Nitrate + Nitrite (N). Sample received past method specified hold time for Nitrite (N) Regular Level Water. Sample was analyzed past method specified hold time for Nitrate + Nitrite (N). Sample was analyzed past method specified hold time for Nitrite (N) Regular Level Water.

Sample CXV926 [FARM RD] : Sample was analyzed past method specified hold time for Turbidity. Exceedance of hold time increases the uncertainty of test results but does not necessarily imply that results are compromised. Sample was analyzed past method specified hold time for Color (True) by Automated Analyzer. Sample received past method specified hold time for Color (True) by Automated Analyzer. Sample received past method specified hold time for Nitrate + Nitrite (N). Sample received past method specified hold time for Nitrite (N) Regular Level Water. Sample was analyzed past method specified hold time for Nitrate + Nitrite (N). Sample was analyzed past method specified hold time for Nitrite (N) Regular Level Water.
MAC,AO,OG: The guidelines that have been included in this report have been taken from the Canadian Drinking Water Quality Summary Table, August 2024.

Criteria A = Maximum Acceptable Concentration (MAC) / Criteria B = Aesthetic Objectives (AO) / Criteria C = Operational Guidance Values (OG)
It is recommended to consult these guidelines when interpreting your data since there are non-numerical guidelines that are not included on this report.

Turbidity Guidelines:
1. Chemically assisted filtration: less than or equal to 0.3 NTU in 95% of the measurements or 95% of the time each month. Shall not exceed 1.0 NTU at any time.
2. Slow sand / diatomaceous earth filtration: less than or equal to 1.0 NTU in 95% of the measurements or 95% of the time each month. Shall not exceed 3.0 NTU at any time.
3. Membrane filtration: less than or equal to 0.1 NTU in 99% of the measurements made or at least 99% of the time each calendar month. Shall not exceed 0.3 NTU at any time.
4. To ensure effectiveness of disinfection and for good operation of the distribution system, it is recommended that water entering the distribution system have turbidity levels of 1.0 NTU or less.
Measurement of Uncertainty has not been accounted for when stating conformity to the selected criteria, where applicable.

Results relate only to the items tested.

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

QUALITY ASSURANCE REPORT

VILLAGE OF PEMBERTON

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
B565266	Turbidity	2024/10/15			104	80 - 120	<0.10	NTU	16	20
B566428	Total Dissolved Solids	2024/10/17	105	80 - 120	104	80 - 120	<10	mg/L	13	20
B566520	Total Dissolved Solids	2024/10/17	102	80 - 120	103	80 - 120	<10	mg/L	2.2	20
B567208	Alkalinity (PP as CaCO3)	2024/10/17					<1.0	mg/L	NC	20
B567208	Alkalinity (Total as CaCO3)	2024/10/17			95	80 - 120	<1.0	mg/L	1.1	20
B567208	Bicarbonate (HCO3)	2024/10/17					<1.0	mg/L	1.1	20
B567208	Carbonate (CO3)	2024/10/17					<1.0	mg/L	NC	20
B567208	Hydroxide (OH)	2024/10/17					<1.0	mg/L	NC	20
B567214	pH	2024/10/17			100	97 - 103			0.65	N/A
B567215	Conductivity	2024/10/17			101	90 - 110	<2.0	uS/cm		
B567306	True Colour	2024/10/16			103	80 - 120	<2.0	Col. Unit	NC	20
B568156	Chloride (Cl)	2024/10/17	NC	80 - 120	100	80 - 120	<1.0	mg/L	0.38	20
B568156	Sulphate (SO4)	2024/10/17	NC	80 - 120	96	80 - 120	<1.0	mg/L		
B568464	Dissolved Fluoride (F)	2024/10/17	103	80 - 120	101	80 - 120	<0.050	mg/L	NC	20
B568597	Nitrate plus Nitrite (N)	2024/10/17	114	80 - 120	109	80 - 120	<0.020	mg/L	NC	25
B568601	Nitrite (N)	2024/10/17	87	80 - 120	107	80 - 120	<0.0050	mg/L	NC	20
B570192	Total Mercury (Hg)	2024/10/18	91	80 - 120	89	80 - 120	<0.0019	ug/L	NC	20
B571509	Total Aluminum (Al)	2024/10/21	91	80 - 120	95	80 - 120	<3.0	ug/L	NC	20
B571509	Total Antimony (Sb)	2024/10/21	95	80 - 120	105	80 - 120	<0.50	ug/L	NC	20
B571509	Total Arsenic (As)	2024/10/21	96	80 - 120	100	80 - 120	<0.10	ug/L	NC	20
B571509	Total Barium (Ba)	2024/10/21	89	80 - 120	102	80 - 120	<1.0	ug/L	0.65	20
B571509	Total Boron (B)	2024/10/21	84	80 - 120	104	80 - 120	<50	ug/L	2.2	20
B571509	Total Cadmium (Cd)	2024/10/21	95	80 - 120	102	80 - 120	<0.010	ug/L	13	20
B571509	Total Chromium (Cr)	2024/10/21	88	80 - 120	95	80 - 120	<1.0	ug/L	NC	20
B571509	Total Cobalt (Co)	2024/10/21	88	80 - 120	95	80 - 120	<0.20	ug/L	3.7	20
B571509	Total Copper (Cu)	2024/10/21	86	80 - 120	94	80 - 120	<0.20	ug/L	2.5	20
B571509	Total Iron (Fe)	2024/10/21	96	80 - 120	102	80 - 120	<5.0	ug/L	1.1	20
B571509	Total Lead (Pb)	2024/10/21	90	80 - 120	100	80 - 120	<0.20	ug/L	NC	20
B571509	Total Manganese (Mn)	2024/10/21	NC	80 - 120	102	80 - 120	<1.0	ug/L	1.9	20
B571509	Total Molybdenum (Mo)	2024/10/21	103	80 - 120	102	80 - 120	<1.0	ug/L	0.10	20
B571509	Total Nickel (Ni)	2024/10/21	91	80 - 120	98	80 - 120	<1.0	ug/L	NC	20
B571509	Total Selenium (Se)	2024/10/21	91	80 - 120	104	80 - 120	<0.10	ug/L	NC	20
B571509	Total Silver (Ag)	2024/10/21	93	80 - 120	102	80 - 120	<0.020	ug/L	NC	20
B571509	Total Strontium (Sr)	2024/10/21	NC	80 - 120	95	80 - 120	<1.0	ug/L	0.066	20

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QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
B571509	Total Uranium (U)	2024/10/21	98	80 - 120	104	80 - 120	<0.10	ug/L	NC	20
B571509	Total Vanadium (V)	2024/10/21	92	80 - 120	95	80 - 120	<5.0	ug/L	NC	20
B571509	Total Zinc (Zn)	2024/10/21	93	80 - 120	101	80 - 120	<5.0	ug/L	1.7	20

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

C482688
2024/10/15 08:43

Bureau Veritas
4606 Canada Way, Burnaby, British Columbia Canada V5G 1K5 Tel:(604) 734 7276 Toll-free:800-563-5266 Fax:(604) 731 2386 www.bvna.com

Page of

Chain Of Custody Record

INVOICE TO:		Report Information		Project Information		Laboratory Use Only	
Company Name	#99020 VILLAGE OF PEMBERTON	Company Name		Quotation #	C31790	Bureau Veritas Job #	Bottle Order #:
Contact Name	Accounts Payable	Contact Name	Reece Clark	P.O. #			736102
Address	Box 100 7400 Prospect St	Address		Project #		Chain Of Custody Record	Project Manager
	Pemberton BC V0N 2L0			Project Name		C#736102-01-01	Alde an Allcando
Phone	(604) 894-6811 Fax: (604) 894-6855	Phone	(604) 353-6845 Fax:	Site #			
Email	accountspayable@pemberton.ca	Email	rclark@pemberton.ca CSIM @Pemberton.ca	Sampled By			

Regulatory Criteria:
- [ ] CSR
- [ ] CCME
- [x] BC Water Quality
- [ ] Other

Special Instructions: Please plot Against AO & MAC

SAMPLES MUST BE KEPT COOL (< 10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BUREAU VERITAS

ANALYSIS REQUESTED (PLEASE BE SPECIFIC)

Turnaround Time (TAT) Required:

Please provide advance notice for rush projects

Regular (Standard) TAT:
(will be applied if Rush TAT is not specified):
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
1 DAY ☐ 2 Day ☐ 3 Day ☐ Date Required: _____
Rush Confirmation Number: _____ *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Metals Field Filtered ? (Y / N)	Drinking Water Package w/o Microbiology	# of Bottles	Comments
1		Well #2	24/10/10	8:00 AM			✓		
2		Well #3	24/10/10	8:15 AM			✓		
3		RIDGE	24/10/10	8:30 AM			✓		
4		Farm Rd	24/10/10	8:45 AM			✓		
5									
6									
7									
8									
9									
10									

MVAN-2024-10-768

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted	Lab Use Only: Time Sensitive	Temperature (°C) on Receipt	Custody Seal Intact on Cooler?
[redacted] Reece Clark	24/10/10	9:00 AM	[redacted] Maria Zamora	2024/10/15	08:43		☐	15 / 16 / 16	☐ Yes ☒ No

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BUREAU VERITAS'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVNA.COM/ENVIRONMENTAL-LABORATORIES/RESOURCES/COC-TERMS-AND-CONDITIONS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

White: Bureau Veritas Yellow: Client

Bureau Veritas Canada (2019) Inc.

ICE Pack melted

Your C.O.C. #: C#741779-04-01

Attention: Reece Clark

VILLAGE OF PEMBERTON
Box 100
7400 Prospect St
Pemberton, BC
CANADA V0N 2L0

Report Date: 2024/11/27
Report #: R3593522
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C494769
Received: 2024/11/21, 08:26

Sample Matrix: Water
Samples Received: 4

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Alkalinity @25C (pp, total), CO3,HCO3,OH	3	N/A	2024/11/21	BBY6SOP-00026	SM 24 2320 B m
Alkalinity @25C (pp, total), CO3,HCO3,OH	1	N/A	2024/11/26	BBY6SOP-00026	SM 24 2320 B m
Chloride/Sulphate by Auto Colourimetry	1	N/A	2024/11/22	BBY6SOP-00011 / BBY6SOP-00017	SM24-4500-Cl/SO4-E m
Chloride/Sulphate by Auto Colourimetry	2	N/A	2024/11/25	BBY6SOP-00011 / BBY6SOP-00017	SM24-4500-Cl/SO4-E m
Chloride/Sulphate by Auto Colourimetry	1	N/A	2024/11/27	BBY6SOP-00011 / BBY6SOP-00017	SM24-4500-Cl/SO4-E m
Color (True) by Automated Analyzer	4	N/A	2024/11/21	BBY6SOP-00057	SM 24 2120 C m
Conductivity @25C	3	N/A	2024/11/21	BBY6SOP-00026	SM 24 2510 B m
Conductivity @25C	1	N/A	2024/11/26	BBY6SOP-00026	SM 24 2510 B m
Fluoride	4	N/A	2024/11/21	BBY6SOP-00037	SM 24 4500-F C m
Hardness Total (calculated as CaCO3) (1)	3	N/A	2024/11/22	BBY WI-00033	Auto Calc
Hardness Total (calculated as CaCO3) (1)	1	N/A	2024/11/27	BBY WI-00033	Auto Calc
Mercury (Total) by CV	4	2024/11/22	2024/11/22	BBY7SOP-00032	BCMOE LM 2023 C1.1.3
Na, K, Ca, Mg, S by CRC ICPMS (total)	3	N/A	2024/11/22	BBY WI-00033	Auto Calc
Na, K, Ca, Mg, S by CRC ICPMS (total)	1	N/A	2024/11/27	BBY WI-00033	Auto Calc
Elements by CRC ICPMS (total)	3	N/A	2024/11/21	BBY7SOP-00003 / BBY7SOP-00002	EPA 6020b R2 m
Elements by CRC ICPMS (total)	1	N/A	2024/11/27	BBY7SOP-00003 / BBY7SOP-00002	EPA 6020b R2 m
Nitrate + Nitrite (N)	4	N/A	2024/11/21	BBY6SOP-00010	SM 24 4500-NO3- H m
Nitrite (N) Regular Level Water	4	N/A	2024/11/21	BBY6SOP-00010	SM 24 4500-NO2- m
Nitrogen - Nitrate (as N)	4	N/A	2024/11/22	BBY WI-00033	Auto Calc
pH @25°C (2)	3	N/A	2024/11/21	BBY6SOP-00026	SM 24 4500-H+ B m
pH @25°C (2)	1	N/A	2024/11/26	BBY6SOP-00026	SM 24 4500-H+ B m
Total Dissolved Solids (Filt. Residue)	4	2024/11/21	2024/11/22	BBY6SOP-00033	SM 24 2540 C m
Turbidity	4	N/A	2024/11/21	BBY6SOP-00027	SM 24 2130 B m

Remarks:

Bureau Veritas is accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by Bureau Veritas are based upon recognized Provincial, Federal or US method compendia such as CCME, EPA, APHA or the Quebec Ministry of Environment.

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Your C.O.C. #: C#741779-04-01

Attention: Reece Clark

VILLAGE OF PEMBERTON
Box 100
7400 Prospect St
Pemberton, BC
CANADA V0N 2L0

Report Date: 2024/11/27
Report #: R3593522
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BUREAU VERITAS JOB #: C494769
Received: 2024/11/21, 08:26

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in Bureau Veritas' profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and Bureau Veritas in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

Bureau Veritas liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. Bureau Veritas has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by Bureau Veritas, unless otherwise agreed in writing. Bureau Veritas is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by Bureau Veritas, results relate to the supplied samples tested.

Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
* RPDs calculated using raw data. The rounding of final results may result in the apparent difference.
(1) "Total Hardness" was calculated from Total Ca and Mg concentrations and may be biased high (Hardness, or Dissolved Hardness, calculated from Dissolved Ca and Mg, should be used for compliance if available).
(2) The CCME method requires pH to be analysed within 15 minutes of sampling and therefore field analysis is required for compliance. All Laboratory pH analyses in this report are reported past the CCME holding time. Bureau Veritas endeavours to analyze samples as soon as possible after receipt.

Encryption Key

Bureau Veritas
27 Nov 2024 15:18:35

Please direct all questions regarding this Certificate of Analysis to:
Aldean Alicando, Customer Solutions Representative
Email: Aldean.ALICANDO@bureauveritas.com
Phone# (604)734-7276 Ext:7062605

==========

This report has been generated and distributed using a secure automated process.
Bureau Veritas has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation, please refer to the Validation Signatures page if included, otherwise available by request. For Department specific Analyst/Supervisor validation names, please refer to the Test Summary section if included, otherwise available by request. This report is authorized by Raphael Kwan, General Manager, BC and Yukon Regions responsible for British Columbia Environmental laboratory operations.

Bureau Veritas Job #: C494769
Report Date: 2024/11/27

VILLAGE OF PEMBERTON

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID					DAU040		DAU041		
Sampling Date					2024/11/20 08:00		2024/11/20 08:15		
COC Number					C#741779-04-01		C#741779-04-01		
	UNITS	MAC	AO	OG	WELL #2	QC Batch	WELL #3	RDL	QC Batch
ANIONS									
Nitrite (N)	mg/L	1	-	-	<0.0050	B615787	<0.0050	0.0050	B615787
Calculated Parameters									
Total Hardness (CaCO3)	mg/L	-	-	-	69.9	B619766	30.3	0.50	B615078
Nitrate (N)	mg/L	10	-	-	0.172	B615083	0.148	0.020	B615083
Misc. Inorganics									
Conductivity	uS/cm	-	-	-	270	B619950	99	2.0	B615625
pH	pH	-	-	7.0:10.5	**6.89**	B619943	**6.49**	N/A	B615623
Total Dissolved Solids	mg/L	-	500	-	140	B615720	48	10	B615720
Anions									
Alkalinity (PP as CaCO3)	mg/L	-	-	-	<1.0	B619934	<1.0	1.0	B615624
Alkalinity (Total as CaCO3)	mg/L	-	-	-	39	B619934	21	1.0	B615624
Bicarbonate (HCO3)	mg/L	-	-	-	48	B619934	25	1.0	B615624
Carbonate (CO3)	mg/L	-	-	-	<1.0	B619934	<1.0	1.0	B615624
Dissolved Fluoride (F)	mg/L	1.5	-	-	<0.050	B615921	<0.050	0.050	B615921
Hydroxide (OH)	mg/L	-	-	-	<1.0	B619934	<1.0	1.0	B615624
Chloride (Cl)	mg/L	-	250	-	38	B621571	9.0	1.0	B615863
Sulphate (SO4)	mg/L	-	500	-	20	B621571	10	1.0	B615863
MISCELLANEOUS									
True Colour	Col. Unit	-	15	-	3.8	B615347	<2.0	2.0	B615347
Nutrients									
Nitrate plus Nitrite (N)	mg/L	-	-	-	0.172	B615782	0.148	0.020	B615782
Physical Properties									
Turbidity	NTU	see remark	see remark	see remark	0.77	B615706	<0.10	0.10	B615706

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
N/A = Not Applicable

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Bureau Veritas Job #: C494769
Report Date: 2024/11/27

VILLAGE OF PEMBERTON

RESULTS OF CHEMICAL ANALYSES OF WATER

Bureau Veritas ID					DAU042	DAU043		
Sampling Date					2024/11/20 08:30	2024/11/20 08:45		
COC Number					C#741779-04-01	C#741779-04-01		
	UNITS	MAC	AO	OG	RIDGE	FARM RD.	RDL	QC Batch
ANIONS								
Nitrite (N)	mg/L	1	-	-	<0.0050	<0.0050	0.0050	B615787
Calculated Parameters								
Total Hardness (CaCO3)	mg/L	-	-	-	32.0	31.8	0.50	B615078
Nitrate (N)	mg/L	10	-	-	0.149	0.157	0.020	B615083
Misc. Inorganics								
Conductivity	uS/cm	-	-	-	200	210	2.0	B615625
pH	pH	-	-	7.0:10.5	7.54	7.59	N/A	B615623
Total Dissolved Solids	mg/L	-	500	-	96	96	10	B615720
Anions								
Alkalinity (PP as CaCO3)	mg/L	-	-	-	<1.0	<1.0	1.0	B615624
Alkalinity (Total as CaCO3)	mg/L	-	-	-	73	75	1.0	B615624
Bicarbonate (HCO3)	mg/L	-	-	-	89	91	1.0	B615624
Carbonate (CO3)	mg/L	-	-	-	<1.0	<1.0	1.0	B615624
Dissolved Fluoride (F)	mg/L	1.5	-	-	<0.050	<0.050	0.050	B615921
Hydroxide (OH)	mg/L	-	-	-	<1.0	<1.0	1.0	B615624
Chloride (Cl)	mg/L	-	250	-	11	11	1.0	B616970
Sulphate (SO4)	mg/L	-	500	-	11	11	1.0	B616970
MISCELLANEOUS								
True Colour	Col. Unit	-	15	-	<2.0	3.7	2.0	B615347
Nutrients								
Nitrate plus Nitrite (N)	mg/L	-	-	-	0.149	0.157	0.020	B615782
Physical Properties								
Turbidity	NTU	see remark	see remark	see remark	0.85	0.13	0.10	B615706

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit
N/A = Not Applicable

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Bureau Veritas Job #: C494769
Report Date: 2024/11/27

VILLAGE OF PEMBERTON

MERCURY BY COLD VAPOR (WATER)

Bureau Veritas ID			DAU040	DAU041	DAU042	DAU043		
Sampling Date			2024/11/20 08:00	2024/11/20 08:15	2024/11/20 08:30	2024/11/20 08:45		
COC Number			C#741779-04-01	C#741779-04-01	C#741779-04-01	C#741779-04-01		
	UNITS	MAC	WELL #2	WELL #3	RIDGE	FARM RD.	RDL	QC Batch
Elements								
Total Mercury (Hg)	ug/L	1	0.0020	<0.0019	<0.0019	<0.0019	0.0019	B616444

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Bureau Veritas Job #: C494769
Report Date: 2024/11/27

VILLAGE OF PEMBERTON

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID					DAU040		DAU041	DAU042		
Sampling Date					2024/11/20 08:00		2024/11/20 08:15	2024/11/20 08:30		
COC Number					C#741779-04-01		C#741779-04-01	C#741779-04-01		
	UNITS	MAC	AO	OG	WELL #2	QC Batch	WELL #3	RIDGE	RDL	QC Batch
Total Metals by ICPMS										
Total Aluminum (Al)	ug/L	2900	-	100	5.8	B620515	8.9	8.1	3.0	B615792
Total Antimony (Sb)	ug/L	6	-	-	<0.50	B620515	<0.50	<0.50	0.50	B615792
Total Arsenic (As)	ug/L	10	-	-	<0.10	B620515	<0.10	<0.10	0.10	B615792
Total Barium (Ba)	ug/L	2000	-	-	44.8	B620515	18.9	18.0	1.0	B615792
Total Boron (B)	ug/L	5000	-	-	145	B620515	<50	<50	50	B615792
Total Cadmium (Cd)	ug/L	7	-	-	<0.010	B620515	0.023	0.011	0.010	B615792
Total Chromium (Cr)	ug/L	50	-	-	<1.0	B620515	<1.0	<1.0	1.0	B615792
Total Cobalt (Co)	ug/L	-	-	-	0.24	B620515	0.28	<0.20	0.20	B615792
Total Copper (Cu)	ug/L	2000	1000	-	1.51	B620515	3.50	6.92	0.20	B615792
Total Iron (Fe)	ug/L	-	300	-	154	B620515	70.6	115	5.0	B615792
Total Lead (Pb)	ug/L	5	-	-	<0.20	B620515	0.27	<0.20	0.20	B615792
Total Manganese (Mn)	ug/L	120	20	-	**100**	B620515	**60.3**	14.6	1.0	B615792
Total Molybdenum (Mo)	ug/L	-	-	-	2.9	B620515	<1.0	<1.0	1.0	B615792
Total Nickel (Ni)	ug/L	-	-	-	<1.0	B620515	<1.0	<1.0	1.0	B615792
Total Selenium (Se)	ug/L	50	-	-	<0.10	B620515	<0.10	<0.10	0.10	B615792
Total Silver (Ag)	ug/L	-	-	-	<0.020	B620515	<0.020	<0.020	0.020	B615792
Total Strontium (Sr)	ug/L	7000	-	-	151	B620515	59.1	61.5	1.0	B615792
Total Uranium (U)	ug/L	20	-	-	<0.10	B620515	<0.10	<0.10	0.10	B615792
Total Vanadium (V)	ug/L	-	-	-	<5.0	B620515	<5.0	<5.0	5.0	B615792
Total Zinc (Zn)	ug/L	-	5000	-	17.4	B620515	5.2	7.5	5.0	B615792
Total Calcium (Ca)	mg/L	-	-	-	25.4	B620065	11.0	11.6	0.050	B615213
Total Magnesium (Mg)	mg/L	-	-	-	1.60	B620065	0.715	0.747	0.050	B615213
Total Potassium (K)	mg/L	-	-	-	2.62	B620065	1.09	1.12	0.050	B615213
Total Sodium (Na)	mg/L	-	200	-	15.2	B620065	4.78	31.1	0.050	B615213
Total Sulphur (S)	mg/L	-	-	-	6.4	B620065	3.1	<3.0	3.0	B615213

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Bureau Veritas Job #: C494769
Report Date: 2024/11/27

VILLAGE OF PEMBERTON

ELEMENTS BY ATOMIC SPECTROSCOPY (WATER)

Bureau Veritas ID					DAU043		
Sampling Date					2024/11/20 08:45		
COC Number					C#741779-04-01		
	UNITS	MAC	AO	OG	FARM RD.	RDL	QC Batch
Total Metals by ICPMS							
Total Aluminum (Al)	ug/L	2900	-	100	4.6	3.0	B615792
Total Antimony (Sb)	ug/L	6	-	-	<0.50	0.50	B615792
Total Arsenic (As)	ug/L	10	-	-	<0.10	0.10	B615792
Total Barium (Ba)	ug/L	2000	-	-	17.9	1.0	B615792
Total Boron (B)	ug/L	5000	-	-	<50	50	B615792
Total Cadmium (Cd)	ug/L	7	-	-	<0.010	0.010	B615792
Total Chromium (Cr)	ug/L	50	-	-	<1.0	1.0	B615792
Total Cobalt (Co)	ug/L	-	-	-	<0.20	0.20	B615792
Total Copper (Cu)	ug/L	2000	1000	-	6.98	0.20	B615792
Total Iron (Fe)	ug/L	-	300	-	50.1	5.0	B615792
Total Lead (Pb)	ug/L	5	-	-	<0.20	0.20	B615792
Total Manganese (Mn)	ug/L	120	20	-	6.0	1.0	B615792
Total Molybdenum (Mo)	ug/L	-	-	-	<1.0	1.0	B615792
Total Nickel (Ni)	ug/L	-	-	-	<1.0	1.0	B615792
Total Selenium (Se)	ug/L	50	-	-	<0.10	0.10	B615792
Total Silver (Ag)	ug/L	-	-	-	<0.020	0.020	B615792
Total Strontium (Sr)	ug/L	7000	-	-	62.7	1.0	B615792
Total Uranium (U)	ug/L	20	-	-	<0.10	0.10	B615792
Total Vanadium (V)	ug/L	-	-	-	<5.0	5.0	B615792
Total Zinc (Zn)	ug/L	-	5000	-	<5.0	5.0	B615792
Total Calcium (Ca)	mg/L	-	-	-	11.5	0.050	B615213
Total Magnesium (Mg)	mg/L	-	-	-	0.731	0.050	B615213
Total Potassium (K)	mg/L	-	-	-	1.10	0.050	B615213
Total Sodium (Na)	mg/L	-	200	-	30.6	0.050	B615213
Total Sulphur (S)	mg/L	-	-	-	3.2	3.0	B615213

No Fill	No Exceedance
Grey	Exceeds 1 criteria policy/level
Black	Exceeds both criteria/levels

RDL = Reportable Detection Limit

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

Bureau Veritas Job #: C494769
Report Date: 2024/11/27

VILLAGE OF PEMBERTON

GENERAL COMMENTS

MAC,AO,OG: The guidelines that have been included in this report have been taken from the Canadian Drinking Water Quality Summary Table, August 2024.

Criteria A = Maximum Acceptable Concentration (MAC) / Criteria B = Aesthetic Objectives (AO) / Criteria C = Operational Guidance Values (OG)
It is recommended to consult these guidelines when interpreting your data since there are non-numerical guidelines that are not included on this report.

Turbidity Guidelines:
1. Chemically assisted filtration: less than or equal to 0.3 NTU in 95% of the measurements or 95% of the time each month. Shall not exceed 1.0 NTU at any time.
2. Slow sand / diatomaceous earth filtration: less than or equal to 1.0 NTU in 95% of the measurements or 95% of the time each month. Shall not exceed 3.0 NTU at any time.
3. Membrane filtration: less than or equal to 0.1 NTU in 99% of the measurements made or at least 99% of the time each calendar month. Shall not exceed 0.3 NTU at any time.
4. To ensure effectiveness of disinfection and for good operation of the distribution system, it is recommended that water entering the distribution system have turbidity levels of 1.0 NTU or less.
Measurement of Uncertainty has not been accounted for when stating conformity to the selected criteria, where applicable.

Results relate only to the items tested.

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

QUALITY ASSURANCE REPORT

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
B615347	True Colour	2024/11/21			101	80 - 120	<2.0	Col. Unit	NC	20
B615623	pH	2024/11/21			100	97 - 103				
B615624	Alkalinity (PP as CaCO3)	2024/11/21					<1.0	mg/L		
B615624	Alkalinity (Total as CaCO3)	2024/11/21			92	80 - 120	<1.0	mg/L		
B615624	Bicarbonate (HCO3)	2024/11/21					<1.0	mg/L		
B615624	Carbonate (CO3)	2024/11/21					<1.0	mg/L		
B615624	Hydroxide (OH)	2024/11/21					<1.0	mg/L		
B615625	Conductivity	2024/11/21			98	90 - 110	<2.0	uS/cm		
B615706	Turbidity	2024/11/21			102	80 - 120	<0.10	NTU	5.4	20
B615720	Total Dissolved Solids	2024/11/22	101	80 - 120	97	80 - 120	<10	mg/L	5.4	20
B615782	Nitrate plus Nitrite (N)	2024/11/21			111	80 - 120	<0.020	mg/L		
B615787	Nitrite (N)	2024/11/21			105	80 - 120	<0.0050	mg/L		
B615792	Total Aluminum (Al)	2024/11/21	102	80 - 120	102	80 - 120	<3.0	ug/L	1.1	20
B615792	Total Antimony (Sb)	2024/11/21	100	80 - 120	97	80 - 120	<0.50	ug/L	NC	20
B615792	Total Arsenic (As)	2024/11/21	101	80 - 120	102	80 - 120	<0.10	ug/L	2.9	20
B615792	Total Barium (Ba)	2024/11/21	98	80 - 120	100	80 - 120	<1.0	ug/L	5.8	20
B615792	Total Boron (B)	2024/11/21	94	80 - 120	94	80 - 120	<50	ug/L	NC	20
B615792	Total Cadmium (Cd)	2024/11/21	102	80 - 120	103	80 - 120	<0.010	ug/L	NC	20
B615792	Total Chromium (Cr)	2024/11/21	101	80 - 120	100	80 - 120	<1.0	ug/L	NC	20
B615792	Total Cobalt (Co)	2024/11/21	100	80 - 120	100	80 - 120	<0.20	ug/L	NC	20
B615792	Total Copper (Cu)	2024/11/21	99	80 - 120	100	80 - 120	<0.20	ug/L	2.1	20
B615792	Total Iron (Fe)	2024/11/21	99	80 - 120	103	80 - 120	<5.0	ug/L	4.3	20
B615792	Total Lead (Pb)	2024/11/21	95	80 - 120	97	80 - 120	<0.20	ug/L	NC	20
B615792	Total Manganese (Mn)	2024/11/21	100	80 - 120	98	80 - 120	<1.0	ug/L	1.4	20
B615792	Total Molybdenum (Mo)	2024/11/21	103	80 - 120	105	80 - 120	<1.0	ug/L	NC	20
B615792	Total Nickel (Ni)	2024/11/21	99	80 - 120	100	80 - 120	<1.0	ug/L	NC	20
B615792	Total Selenium (Se)	2024/11/21	103	80 - 120	104	80 - 120	<0.10	ug/L	NC	20
B615792	Total Silver (Ag)	2024/11/21	99	80 - 120	100	80 - 120	<0.020	ug/L	NC	20
B615792	Total Strontium (Sr)	2024/11/21	97	80 - 120	99	80 - 120	<1.0	ug/L	2.4	20
B615792	Total Uranium (U)	2024/11/21	96	80 - 120	101	80 - 120	<0.10	ug/L	NC	20
B615792	Total Vanadium (V)	2024/11/21	101	80 - 120	99	80 - 120	<5.0	ug/L	NC	20
B615792	Total Zinc (Zn)	2024/11/21	104	80 - 120	104	80 - 120	<5.0	ug/L	NC	20
B615863	Chloride (Cl)	2024/11/22	106	80 - 120	101	80 - 120	<1.0	mg/L		
B615863	Sulphate (SO4)	2024/11/22	149 (1)	80 - 120	98	80 - 120	<1.0	mg/L	3.6	20

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
B615921	Dissolved Fluoride (F)	2024/11/21	88	80 - 120	92	80 - 120	<0.050	mg/L	NC	20
B616444	Total Mercury (Hg)	2024/11/22	80	80 - 120	93	80 - 120	<0.0019	ug/L	NC	20
B616970	Chloride (Cl)	2024/11/25	112	80 - 120	101	80 - 120	<1.0	mg/L	0.15	20
B616970	Sulphate (SO4)	2024/11/25	NC	80 - 120	102	80 - 120	<1.0	mg/L	0.82	20
B619934	Alkalinity (PP as CaCO3)	2024/11/26					<1.0	mg/L	NC	20
B619934	Alkalinity (Total as CaCO3)	2024/11/26			97	80 - 120	<1.0	mg/L	0.27	20
B619934	Bicarbonate (HCO3)	2024/11/26					<1.0	mg/L		
B619934	Carbonate (CO3)	2024/11/26					<1.0	mg/L		
B619934	Hydroxide (OH)	2024/11/26					<1.0	mg/L		
B619943	pH	2024/11/26			100	97 - 103			0.40	N/A
B619950	Conductivity	2024/11/26			99	90 - 110	<2.0	uS/cm	0	10
B620515	Total Aluminum (Al)	2024/11/27	93	80 - 120	100	80 - 120	<3.0	ug/L	1.2	20
B620515	Total Antimony (Sb)	2024/11/27	98	80 - 120	101	80 - 120	<0.50	ug/L	NC	20
B620515	Total Arsenic (As)	2024/11/27	97	80 - 120	100	80 - 120	<0.10	ug/L	3.0	20
B620515	Total Barium (Ba)	2024/11/27	103	80 - 120	98	80 - 120	<1.0	ug/L	NC	20
B620515	Total Boron (B)	2024/11/27	88	80 - 120	102	80 - 120	<50	ug/L	0.22	20
B620515	Total Cadmium (Cd)	2024/11/27	97	80 - 120	99	80 - 120	<0.010	ug/L	8.9	20
B620515	Total Chromium (Cr)	2024/11/27	92	80 - 120	91	80 - 120	<1.0	ug/L	NC	20
B620515	Total Cobalt (Co)	2024/11/27	95	80 - 120	95	80 - 120	<0.20	ug/L	NC	20
B620515	Total Copper (Cu)	2024/11/27	NC	80 - 120	92	80 - 120	<0.20	ug/L	1.6	20
B620515	Total Iron (Fe)	2024/11/27	102	80 - 120	98	80 - 120	<5.0	ug/L	5.0	20
B620515	Total Lead (Pb)	2024/11/27	85	80 - 120	100	80 - 120	<0.20	ug/L	1.3	20
B620515	Total Manganese (Mn)	2024/11/27	100	80 - 120	92	80 - 120	<1.0	ug/L	0.87	20
B620515	Total Molybdenum (Mo)	2024/11/27	101	80 - 120	100	80 - 120	<1.0	ug/L	NC	20
B620515	Total Nickel (Ni)	2024/11/27	92	80 - 120	94	80 - 120	<1.0	ug/L	NC	20
B620515	Total Selenium (Se)	2024/11/27	95	80 - 120	97	80 - 120	<0.10	ug/L	4.6	20
B620515	Total Silver (Ag)	2024/11/27	94	80 - 120	97	80 - 120	<0.020	ug/L	NC	20
B620515	Total Strontium (Sr)	2024/11/27	67 (1)	80 - 120	93	80 - 120	<1.0	ug/L	3.0	20
B620515	Total Uranium (U)	2024/11/27	98	80 - 120	102	80 - 120	<0.10	ug/L	NC	20
B620515	Total Vanadium (V)	2024/11/27	90	80 - 120	92	80 - 120	<5.0	ug/L	NC	20
B620515	Total Zinc (Zn)	2024/11/27	NC	80 - 120	98	80 - 120	<5.0	ug/L	0.37	20
B621571	Chloride (Cl)	2024/11/27			95	80 - 120	<1.0	mg/L		

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

QUALITY ASSURANCE REPORT(CONT'D)

			Matrix Spike		Spiked Blank		Method Blank		RPD	
QC Batch	Parameter	Date	% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
B621571	Sulphate (SO4)	2024/11/27			94	80 - 120	<1.0	mg/L		

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Matrix Spike: A sample to which a known amount of the analyte of interest has been added. Used to evaluate sample matrix interference.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Matrix Spike): The recovery in the matrix spike was not calculated. The relative difference between the concentration in the parent sample and the spike amount was too small to permit a reliable recovery calculation (matrix spike concentration was less than the native sample concentration)

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

Bureau Veritas Burnaby: 4606 Canada Way V5G 1K5 Telephone(604) 734-7276 Fax(604) 731-2386

C494769
2024/11/21 08:26

Bureau Veritas
4606 Canada Way, Burnaby, British Columbia Canada V5G 1K5 Tel:(604) 7347276 Toll-free:800-563-6236 Fax:(604) 731 2386 www.bvna.com

Page of

Chain Of Custody Record

INVOICE TO:		Report Information		Project Information		Laboratory Use Only	
Company Name	#99020 VILLAGE OF PEMBERTON	Company Name		Quotation #	C31790	Bureau Veritas' Job #	Bottle Order #:
Contact Name	Accounts Payable	Contact Name	Reece Clark	P.O. #			741779
Address	Box 1007400 Prospect St Pemberton BC V0N 2L0	Address		Project #		Chain Of Custody Record	Project Manager
Phone	(604) 894-6811 Fax: (604) 894-6855	Phone	(604) 353-5845 Fax:	Project Name		C#741779-04-01	Aldean Alicando
Email	accountspayable@pemberton.ca	Email	rclark@pemberton.ca, CSIM@pemberton.ca	Site #			
				Sampled By			

Regulatory Criteria:
- [ ] CDR
- [ ] CCME
- [x] BC Water Quality
- [ ] Other

Special Instructions: Please plot Against AO & MAC

SAMPLES MUST BE KEPT COOL (< 10°C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BUREAU VERITAS

ANALYSIS REQUESTED (PLEASE BE SPECIFIC)

Turnaround Time (TAT) Required:

Please provide advance notice for rush projects

Regular (Standard) TAT:
(will be applied if Rush TAT is not specified):
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
1 DAY [ ] 2 Day [ ] 3 Day [ ] Date Required: _____
Rush Confirmation Number: _____ *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Metals Field Filtered ? (Y / N)	Drinking Water Package w/o Microbiology	# of Bottles	Comments
1		Well #2	24/11/20	8:00AM			✓		
2		Well #3	24/11/20	8:15AM			✓		
3		RIDGE	24/11/20	8:30AM			✓		
4		Farm Rd.	24/11/20	8:45AM			✓		
5									
6									
7									
8									
9									
10									

MVAN-2024-11-1042

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted	Lab Use Only: Time Sensitive	Temperature (°C) on Receipt	Custody Seal Intact on Cooler?
Reece Clark [redacted]	24/11/20	9:20AM	[redacted] Nadia Zamora	2024/11/21	08:26		[ ]	3/1/3	[ ] Yes [x] No

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BUREAU VERITAS'S STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVNA.COM/ENVIRONMENTAL-LABORATORIES/RESOURCES/COC-TERMS-AND-CONDITIONS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

White: Bureau Veritas Yellow: Client

ICE Pack frozen

Bureau Veritas Canada (2019) Inc.

Appendix III

2024 Weekly Water Quality Sampling Results

APPENDIX III - 2024 Weekly Water Quality Sampling Results

Source	Chlorine Residual	pH	Temperature (C)	Sum of Alkalinity
3-Jan-24				
Pemberton				
Health Centre	0.34	7.07	8.90	71
Oak St	0.35	7.01	7.50	68
Plateau/Ridge	0.27	7.03	6.80	68
Village Office	0.36	6.99	7.80	72
WWTP	0.11	7.08	9.20	67
PNWS - Meadows Rd *	0.31	6.99	7.60	72
PNWS - Farm Rd *	0.28	6.99	7.40	71
Pemberton Total	**0.29**	**7.02**	**7.89**	**489**
Industrial Park **	0.23	6.96	7.30	21
10-Jan-24				
Pemberton				
Health Centre	0.33	7.08	9.30	73
Oak St	0.32	7.02	8.00	70
Plateau/Ridge	0.30	7.05	8.70	67
Village Office	0.31	7.07	8.00	73
WWTP	0.29	7.07	8.30	76
PNWS - Meadows Rd *				
PNWS - Farm Rd *	0.26	7.03	7.60	69
Pemberton Total	**0.30**	**7.05**	**8.32**	**428**
Industrial Park **	0.24	6.93	7.70	16
15-Jan-24				
Pemberton				
Health Centre	0.37	7.05	8.00	79
Oak St	0.37	6.98	8.20	74
Plateau/Ridge	0.30	7.01	6.90	77
Village Office	0.33	6.98	7.50	78
WWTP	0.05	7.11	10.20	74
PNWS - Meadows Rd *				
PNWS - Farm Rd *				
Pemberton Total	**0.28**	**7.03**	**8.16**	**382**
Industrial Park **	0.24	6.93	7.20	17
Well #2		6.32	8.60	34
Well #3		6.17	5.80	12
24-Jan-24				
Pemberton				
Health Centre	0.35	6.97	7.70	56
Oak St	0.35	6.91	8.50	75
Plateau/Ridge	0.33	6.97	8.30	77
Village Office	0.34	6.95	8.20	67
WWTP	0.28	7.06	8.60	77

* Pemberton North Water Service is a continuation of the Pemberton Water distribution system within Squamish Lilloeet Regional District Area C

** Pemberton Industrial Park is supplied by Lil'wat Nation through a water use agreement

APPENDIX III - 2024 Weekly Water Quality Sampling Results

Source	Chlorine Residual	pH	Temperature (C)	Sum of Alkalinity
PNWS - Meadows Rd *	0.31	6.98	8.90	71
PNWS - Farm Rd *	0.29	6.97	8.90	81
Pemberton Total	**0.32**	**6.97**	**8.44**	**504**
Industrial Park **	0.20	7.02	6.30	22
Well #2		6.38	7.90	37
Well #3		6.17	9.00	34
29-Jan-24				
Pemberton				
Health Centre	0.33	7.04	7.50	69
Oak St	0.33	6.99	7.20	68
Plateau/Ridge	0.30	7.00	7.10	67
Village Office	0.31	6.99	6.40	68
WWTP	0.20	6.99	7.00	63
PNWS - Meadows Rd *	0.27	6.99	5.90	67
PNWS - Farm Rd *	0.25	6.99	6.00	67
Pemberton Total	**0.28**	**7.00**	**6.73**	**469**
Industrial Park **	0.07	7.03	6.60	19
Well #2		6.37	7.90	51
Well #3		6.19	6.90	32
6-Feb-24				
Pemberton				
Health Centre	0.33	7.00	7.90	72
Oak St	0.36	7.00	8.00	66
Plateau/Ridge	0.34	7.05	6.80	71
Village Office	0.32	7.02	7.40	64
WWTP	0.30	7.01	9.70	68
PNWS - Meadows Rd *	0.33	7.01	6.50	72
PNWS - Farm Rd *	0.34	7.00	7.80	68
Pemberton Total	**0.33**	**7.01**	**7.73**	**481**
Industrial Park **	0.06	6.96	8.30	16
Well#2		6.38	7.60	34
Well#3		6.19	8.10	12
12-Feb-24				
Pemberton				
Health Centre	0.33	7.07	7.90	68
Oak St	0.37	7.01	6.00	66
Plateau/Ridge	0.35	6.99	6.60	68
Village Office	0.35	7.02	6.40	65
WWTP	0.25	6.97	8.60	61
PNWS - Meadows Rd *	0.32	6.98	7.20	60
PNWS - Farm Rd *	0.34	7.00	6.50	65
Pemberton Total	**0.33**	**7.01**	**7.03**	**453**
Industrial Park **	0.20	6.97	7.70	22
Well #2		6.30	7.70	37

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APPENDIX III - 2024 Weekly Water Quality Sampling Results

Source	Chlorine Residual	pH	Temperature (C)	Sum of Alkalinity
Well #3		6.13	6.70	16
21-Feb-24	0.30	6.92	7.46	539
27-Feb-24	0.27	6.77	7.64	476
5-Mar-24				
Pemberton				
Health Centre	0.32	7.00	8.50	58
Oak St	0.30	6.96	6.50	68
Plateau/Ridge	0.27	6.94	7.20	65
Village Office	0.31	6.95	7.10	72
WWTP	0.12	6.89	10.10	68
PNWS - Meadows Rd *				
PNWS - Farm Rd *				
Pemberton Total	**0.26**	**6.95**	**7.88**	**331**
Industrial Park **	0.05	6.94	5.70	13
Well #2		6.25	8.50	32
Well #3		6.07	8.20	9
11-Mar-24				
Pemberton				
Health Centre	0.32	7.08	10.50	75
Oak St	0.40	7.08	9.20	64
Plateau/Ridge	0.35	7.06	7.90	72
Village Office	0.40	7.08	7.90	71
WWTP	0.25	7.08	7.90	70
PNWS - Meadows Rd *	0.37	7.05	8.40	67
PNWS - Farm Rd *	0.32	7.04	8.10	70
Pemberton Total	**0.34**	**7.07**	**8.56**	**489**
Industrial Park **	0.35	7.09	8.10	19
Well #2		6.29	8.20	36
Well #3		6.51	8.20	9
19-Mar-24				
Pemberton				
Health Centre	0.31	7.10	8.40	63
Oak St	0.33	7.06	6.90	58
Plateau/Ridge	0.31	7.09	7.90	62
Village Office	0.33	7.06	8.20	60
WWTP	0.17	7.07	8.50	71
PNWS - Meadows Rd *	0.32	7.02	7.60	65
PNWS - Farm Rd *	0.31	7.06	6.50	61
Pemberton Total	**0.30**	**7.07**	**7.71**	**440**
Industrial Park **	0.18	7.03	6.80	14
Well #2		6.26	9.00	34
Well #3		6.09	8.50	15
25-Mar-24				
Pemberton				

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Source	Chlorine Residual	pH	Temperature (C)	Sum of Alkalinity
Health Centre	0.28	7.12	8.60	66
Oak St	0.30	7.07	7.90	57
Plateau/Ridge	0.30	7.09	7.40	62
Village Office	0.26	7.11	7.50	59
WWTP	0.19	7.06	7.30	61
PNWS - Meadows Rd *	0.29	7.07	7.40	60
PNWS - Farm Rd *	0.29	7.06	7.80	60
Pemberton Total	**0.27**	**7.08**	**7.70**	**425**
Industrial Park **	0.18	7.03	8.30	18
Well #2	0.00	6.24	8.40	29
Well #3	0.00	6.12	9.10	13
3-Apr-24				
Pemberton				
Health Centre	0.29	7.05	9.40	62
Oak St	0.32	7.00	6.60	68
Plateau/Ridge	0.28	6.99	5.80	65
Village Office	0.31	6.92	8.40	67
WWTP	0.22	6.96	11.20	50
PNWS - Meadows Rd *	0.30	7.00	6.50	62
PNWS - Farm Rd *	0.29	6.98	6.20	64
Pemberton Total	**0.29**	**6.99**	**7.73**	**438**
Industrial Park **	0.01	6.95	7.60	22
Well #2		6.28	8.30	36
Well #3		6.08	7.50	13
8-Apr-24				
Pemberton				
Health Centre	0.33	7.04	9.40	57
Oak St	0.29	6.98	8.00	56
Plateau/Ridge	0.29	7.00	9.30	61
Village Office	0.30	6.98	9.50	62
WWTP	0.25	7.01	9.30	66
PNWS - Meadows Rd *	0.27	6.94	7.80	60
PNWS - Farm Rd *	0.32	6.96	6.90	58
Pemberton Total	**0.29**	**6.99**	**8.60**	**420**
Industrial Park **	0.09	6.91	8.50	14
Well #2		6.28	8.40	37
Well #3		6.07	7.90	14
16-Apr-24				
Pemberton				
Health Centre	0.32	7.06	9.10	73
Oak St	0.30	7.01	8.40	67
Plateau/Ridge	0.32	7.02	7.30	71
Village Office	0.33	7.02	6.90	65
WWTP	0.26	6.97	8.80	64

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APPENDIX III - 2024 Weekly Water Quality Sampling Results

Source	Chlorine Residual	pH	Temperature (C)	Sum of Alkalinity
PNWS - Meadows Rd *	0.31	7.00	7.80	63
PNWS - Farm Rd *	0.29	7.01	7.30	66
Pemberton Total	**0.30**	**7.01**	**7.94**	**469**
Industrial Park **	0.23	6.94	6.10	20
Well #2		6.34	8.00	34
Well #3		6.14	8.00	20
22-Apr-24				
Pemberton				
Health Centre	0.34	7.04	10.00	69
Oak St	0.34	7.07	8.10	71
Plateau/Ridge	0.22	7.23	8.30	71
Village Office	0.32	6.98	9.50	64
WWTP	0.23	6.98	9.70	67
PNWS - Meadows Rd *	0.33	7.03	7.30	71
PNWS - Farm Rd *	0.31	7.03	7.30	65
Pemberton Total	**0.30**	**7.05**	**8.60**	**478**
Industrial Park **	0.24	6.92	9.00	19
Well #2		6.35	8.40	33
Well #3		6.19	8.20	13
1-May-24				
Pemberton				
Health Centre	0.29	6.97	9.90	63
Oak St	0.32	7.02	7.60	71
Plateau/Ridge	0.28	7.01	8.90	73
Village Office				
WWTP	0.24	6.96	9.40	65
PNWS - Meadows Rd *	0.29	7.00	7.90	75
PNWS - Farm Rd *	0.27	6.98	10.20	67
Pemberton Total	**0.28**	**6.99**	**8.98**	**414**
Industrial Park **	0.25	6.95	9.60	27
Well #2		6.34	9.60	34
Well #3		6.19	8.20	22
6-May-24				
Pemberton				
Health Centre	0.35	7.06	9.20	66
Oak St	0.39	7.02	8.20	62
Plateau/Ridge	0.37	7.04	7.60	63
Village Office	0.26	7.07	8.30	67
WWTP	0.20	6.99	8.40	67
PNWS - Meadows Rd *	0.37	7.02	8.00	58
PNWS - Farm Rd *	0.35	7.03	8.70	67
Pemberton Total	**0.33**	**7.03**	**8.34**	**450**
Industrial Park **	0.26	6.97	7.80	14
Well #2		6.28	7.70	33

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APPENDIX III - 2024 Weekly Water Quality Sampling Results

Source	Chlorine Residual	pH	Temperature (C)	Sum of Alkalinity
Well #3		6.13	6.90	5
14-May-24				
Pemberton				
Health Centre	0.28	7.13	9.70	67
Oak St	0.36	7.07	8.90	67
Plateau/Ridge	0.35	7.02	10.70	71
Village Office	0.23	7.09	8.90	69
WWTP	0.20	7.06	10.60	65
PNWS - Meadows Rd *	0.31	7.01	7.20	64
PNWS - Farm Rd *	0.34	6.99	8.90	61
Pemberton Total	**0.30**	**7.05**	**9.27**	**464**
Industrial Park **	0.30	6.97	7.20	16
Well #2		6.28	11.10	36
Well #3		6.17	10.20	15
22-May-24				
Pemberton				
Health Centre	0.25	7.21	11.40	73
Oak St	0.31	7.20	10.00	79
Plateau/Ridge	0.26	7.31	9.10	75
Village Office	0.21	7.18	10.20	75
WWTP	0.24	7.20	10.00	72
PNWS - Meadows Rd *	0.29	7.22	8.80	75
PNWS - Farm Rd *	0.29	7.20	9.90	78
Pemberton Total	**0.26**	**7.22**	**9.91**	**527**
Industrial Park **	0.18	7.02	10.30	15
Well #2		6.26	11.20	33
Well #3		6.15	9.50	11
28-May-24				
Pemberton				
Health Centre	0.21	7.26	12.40	75
Oak St	0.34	7.29	8.60	75
Plateau/Ridge	0.31	7.30	8.80	79
Village Office	0.20	7.27	10.30	75
WWTP	0.25	7.15	12.10	66
PNWS - Meadows Rd *	0.34	7.25	9.60	80
PNWS - Farm Rd *	0.31	7.23	10.10	75
Pemberton Total	**0.28**	**7.25**	**10.27**	**525**
Industrial Park **	0.24	7.04	9.00	16
Well #2		6.23	6.90	29
Well #3		6.10	7.80	15
4-Jun-24				
Pemberton				
Health Centre	0.26	7.21	11.10	82
Oak St	0.35	7.21	10.00	73

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Source	Chlorine Residual	pH	Temperature (C)	Sum of Alkalinity
Plateau/Ridge	0.35	7.21	7.50	76
Village Office	0.22	7.22	10.00	77
WWTP	0.22	7.22	9.20	79
PNWS - Meadows Rd *	0.34	7.18	9.40	76
PNWS - Farm Rd *	0.32	7.18	8.90	74
Pemberton Total	**0.29**	**7.20**	**9.44**	**537**
Industrial Park **	0.23	7.11	8.40	14
Well #2		6.32	10.20	33
Well #3		6.09	8.40	15
10-Jun-24				
Pemberton				
Health Centre	0.25	7.16	12.00	75
Oak St	0.37	7.18	9.10	73
Plateau/Ridge	0.33	7.18	10.10	77
Village Office	0.29	7.18	11.00	72
WWTP	0.20	7.19	10.20	79
PNWS - Meadows Rd *	0.31	7.17	8.50	76
PNWS - Farm Rd *	0.35	7.18	8.20	73
Pemberton Total	**0.30**	**7.18**	**9.87**	**525**
Industrial Park **	0.22	6.97	10.10	18
Well #2		6.28	11.20	31
Well #3		6.18	9.90	15
17-Jun-24				
Pemberton				
Health Centre	0.33	7.11	12.50	70
Oak St	0.39	7.16	7.90	75
Plateau/Ridge	0.35	7.16	9.30	84
Village Office	0.34	7.16	10.00	76
WWTP	0.16	7.07	9.90	74
PNWS - Meadows Rd *	0.34	7.12	8.50	76
PNWS - Farm Rd *	0.36	7.12	9.50	83
Pemberton Total	**0.32**	**7.13**	**9.66**	**538**
Industrial Park **	0.24	6.96	9.30	20
Well #2		6.24	10.70	33
Well #3		6.12	10.30	17
25-Jun-24				
Pemberton				
Health Centre	0.25	7.00	13.10	86
Oak St	0.30	6.96	9.30	98
Plateau/Ridge	0.27	6.97	9.40	93
Village Office	0.25	6.98	10.10	92
WWTP	0.18	7.04	11.00	96
PNWS - Meadows Rd *	0.30	6.91	11.20	95
PNWS - Farm Rd *	0.32	6.92	10.10	95

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APPENDIX III - 2024 Weekly Water Quality Sampling Results

Source	Chlorine Residual	pH	Temperature (C)	Sum of Alkalinity
Pemberton Total	**0.27**	**6.97**	**10.60**	**655**
Industrial Park **	0.07	7.05	10.70	15
Well #2		6.35	11.20	33
Well #3				
3-Jul-24				
Pemberton				
Health Centre	0.21	6.82	12.70	89
Oak St	0.25	6.74	10.30	95
Plateau/Ridge	0.23	6.80	10.00	93
Village Office	0.22	6.84	10.40	90
WWTP	0.19	6.83	12.60	96
PNWS - Meadows Rd *	0.22	6.74	10.20	98
PNWS - Farm Rd *	0.22	6.71	12.30	90
Pemberton Total	**0.22**	**6.78**	**11.21**	**651**
Industrial Park **	0.02	6.92	10.00	15
Well #2		6.19	11.90	41
Well #3				
8-Jul-24				
Pemberton				
Health Centre	0.20	7.08	14.20	64
Oak St	0.28	7.09	10.00	69
Plateau/Ridge	0.36	7.17	10.40	70
Village Office	0.24	7.12	10.90	61
WWTP	0.33	6.85	12.40	89
PNWS - Meadows Rd *	0.35	7.14	9.70	69
PNWS - Farm Rd *	0.35	7.14	10.60	61
Pemberton Total	**0.30**	**7.08**	**11.17**	**483**
Industrial Park **	0.02	6.96	10.10	15
Well #2		6.20	11.20	36
Well #3		6.14	9.40	13
16-Jul-24				
Pemberton				
Health Centre	0.32	6.87	11.90	64
Oak St	0.38	6.97	9.00	65
Plateau/Ridge	0.44	6.94	7.30	65
Village Office	0.31	6.93	11.80	74
WWTP	0.29	6.83	9.40	63
PNWS - Meadows Rd *	0.36	6.97	11.50	66
PNWS - Farm Rd *	0.37	6.98	10.30	67
Pemberton Total	**0.35**	**6.93**	**10.17**	**464**
Industrial Park **	0.25	6.99	9.60	14
Well #2		6.26	10.80	27
Well #3		6.15	10.00	15
23-Jul-24				

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Source	Chlorine Residual	pH	Temperature (C)	Sum of Alkalinity
Pemberton				
Health Centre	0.30	6.96	1.60	64
Oak St	0.34	6.96	9.40	68
Plateau/Ridge	0.36	6.94	11.90	65
Village Office	0.32	7.00	10.50	66
WWTP	0.06	6.96	13.10	65
PNWS - Meadows Rd *	0.30	6.74	13.50	59
PNWS - Farm Rd *	0.31	6.82	11.40	67
Pemberton Total	**0.28**	**6.91**	**10.20**	**454**
Industrial Park **	0.04	6.82	13.10	17
Well #2		6.18	10.80	30
Well #3		6.06	10.30	18
29-Jul-24				
Pemberton				
Health Centre	0.32	7.01	13.70	69
Oak St	0.37	6.96	10.40	70
Plateau/Ridge	0.35	6.99	10.30	74
Village Office	0.33	6.99	11.50	75
WWTP	0.11	7.00	12.60	76
PNWS - Meadows Rd *	0.35	6.93	11.70	73
PNWS - Farm Rd *	0.36	6.93	10.70	70
Pemberton Total	**0.31**	**6.97**	**11.56**	**507**
Industrial Park **	0.05	6.93	12.20	17
Well #2		6.17	9.00	35
Well #3		6.10	9.90	18
8-Aug-24				
Pemberton				
Oak St	0.34	7.05	10.00	58
Plateau/Ridge	0.35	7.04	12.00	65
Village Office	0.30	7.09	13.50	54
WWTP	0.44	7.06	10.30	61
PNWS - Meadows Rd *	0.33	7.00	12.80	57
PNWS - Farm Rd *	0.34	7.05	12.00	55
Pemberton Total	**0.35**	**7.05**	**11.77**	**350**
Industrial Park **	0.13	7.05	11.00	17
Well #2		6.19	10.70	30
Well #3		6.11	9.60	22
13-Aug-24				
Pemberton				
Health Centre	0.30	6.88	14.70	67
Oak St	0.35	6.80	10.40	71
Plateau/Ridge	0.33	6.86	11.90	73
Village Office	0.33	6.78	11.00	70
WWTP	0.18	6.85	11.10	66

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APPENDIX III - 2024 Weekly Water Quality Sampling Results

Source	Chlorine Residual	pH	Temperature (C)	Sum of Alkalinity
PNWS - Meadows Rd *	0.34	6.85	10.60	76
PNWS - Farm Rd *	0.33	6.86	10.00	79
Pemberton Total	**0.31**	**6.84**	**11.39**	**502**
Industrial Park **	0.13	6.80	12.30	23
Well #2		6.11	11.70	31
Well #3		6.06	11.50	18
20-Aug-24				
Pemberton				
Health Centre	0.25	7.00	14.90	75
Oak St	0.33	7.04	9.90	67
Plateau/Ridge	0.31	7.02	11.70	72
Village Office	0.28	7.01	13.20	76
WWTP	0.20	7.03	11.70	73
PNWS - Meadows Rd *	0.30	7.01	10.00	72
PNWS - Farm Rd *	0.32	6.98	11.80	71
Pemberton Total	**0.28**	**7.01**	**11.89**	**506**
Industrial Park **	0.07	6.99	11.10	16
Well #2		6.28	11.90	33
Well #3		6.11	12.30	21
26-Aug-24				
Pemberton				
Health Centre	0.29	6.90	12.70	75
Oak St	0.32	6.96	11.20	81
Plateau/Ridge	0.32	6.95	10.30	75
Village Office	0.31	6.96	11.50	75
WWTP	0.22	7.03	11.30	73
PNWS - Meadows Rd *	0.37	6.81	12.70	72
PNWS - Farm Rd *	0.33	6.92	13.10	74
Pemberton Total	**0.31**	**6.93**	**11.83**	**525**
Industrial Park **	0.22	6.81	13.00	19
Well #2		6.23	12.10	32
Well #3		6.09	11.30	20
4-Sep-24				
Pemberton				
Health Centre	0.28	6.99	14.00	66
Oak St	0.39	6.93	11.90	66
Plateau/Ridge	0.34	6.94	10.40	68
Village Office	0.30	6.97	12.70	62
WWTP	0.11	7.02	12.60	76
PNWS - Meadows Rd *	0.35	6.90	11.40	67
PNWS - Farm Rd *	0.33	6.90	11.70	68
Pemberton Total	**0.30**	**6.95**	**12.10**	**473**
Industrial Park **	0.53	6.94	10.10	15
Well #2		6.36	11.40	30

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Source	Chlorine Residual	pH	Temperature (C)	Sum of Alkalinity
Well #3		6.23	11.40	21
9-Sep-24				
Pemberton				
Health Centre	0.30	7.06	13.20	82
Oak St	0.37	6.97	10.90	81
Plateau/Ridge	0.32	7.01	10.50	79
Village Office	0.28	7.02	11.50	90
WWTP	0.19	6.96	14.10	82
PNWS - Meadows Rd *	0.31	6.93	12.60	84
PNWS - Farm Rd *	0.33	6.94	11.00	83
Pemberton Total	**0.30**	**6.98**	**11.97**	**581**
Industrial Park **	0.19	6.92	12.60	23
Well #2		6.37	10.70	33
Well #3		6.24	11.60	26
17-Sep-24				
Pemberton				
Health Centre	0.24	7.03	10.70	84
Oak St	0.32	6.94	11.90	81
Plateau/Ridge	0.29	6.98	11.00	82
Village Office	0.20	6.99	12.60	84
WWTP	0.10	7.05	10.60	89
PNWS - Meadows Rd *	0.28	6.93	10.30	82
PNWS - Farm Rd *	0.21	6.93	11.50	83
Pemberton Total	**0.23**	**6.98**	**11.23**	**585**
Industrial Park **	0.01	6.95	10.80	26
Well #2		6.41	10.70	43
Well #3		6.23	11.00	22
23-Sep-24				
Pemberton				
Health Centre	0.18	7.03	13.90	66
Plateau/Ridge	0.26	7.01	12.50	77
Village Office	0.16	7.03	12.20	71
WWTP	0.03	6.98	10.70	72
Pemberton Total	**0.16**	**7.01**	**12.33**	**286**
Farm Rd	0.20	6.90	12.70	74
Well#2		6.36	11.10	36
Well#3		6.19	10.60	31
Oak	0.32	6.97	10.10	76
Medows				
Medows	0.30	6.95	10.60	71
(blank)	0.30	6.95	10.60	71
Medows Total	**0.30**	**6.95**	**10.60**	**71**
I.P	0.21	6.91	11.30	26
2-Oct-24				

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** Pemberton Industrial Park is supplied by Lil'wat Nation through a water use agreement

APPENDIX III - 2024 Weekly Water Quality Sampling Results

Source	Chlorine Residual	pH	Temperature (C)	Sum of Alkalinity
Pemberton				
Health Centre	0.31	6.96	13.40	79
Plateau/Ridge	0.27	6.94	10.80	80
Village Office	0.24	7.02	10.90	74
WWTP	0.19	6.93	9.90	78
Pemberton Total	**0.25**	**6.96**	**11.25**	**311**
Farm Rd	0.25	6.88	11.70	79
Well#2		6.40	10.40	34
Well#3		6.31	10.60	24
Oak	0.40	6.95	10.20	73
I.P	0.01	6.95	10.50	25
Meadows	0.30	6.93	11.80	70
9-Oct-24				
Pemberton				
Health Centre	0.29	6.84	12.80	75
Plateau/Ridge	0.28	6.88	10.50	79
Village Office	0.27	6.93	10.30	78
WWTP	0.20	6.97	8.80	82
Pemberton Total	**0.26**	**6.91**	**10.60**	**314**
Farm Rd	0.27	6.80	8.90	73
Well#2		6.37	10.80	39
Well#3		6.25	9.60	22
Oak	0.36	6.87	10.50	76
I.P	0.19	6.88	10.40	21
Meadows	0.32	6.84	9.50	75
15-Oct-24				
Pemberton				
Health Centre	0.27	6.89	13.40	81
Plateau/Ridge	0.25	6.97	9.90	82
Village Office	0.21	6.98	10.90	83
WWTP	0.14	6.95	10.00	78
Pemberton Total	**0.22**	**6.95**	**11.05**	**324**
Farm Rd	0.26	6.88	13.10	90
Well#2		6.42	11.30	43
Well#3		6.24	9.30	29
Oak	0.33	6.95	9.30	80
I.P	0.23	6.82	12.30	29
Meadows	0.29	6.89	11.10	79
22-Oct-24				
Pemberton				
Health Centre	0.33	6.72	11.80	60
Plateau/Ridge	0.32	6.77	10.30	71
Village Office	0.18	6.89	8.80	64
WWTP	0.07	6.86	9.80	82

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APPENDIX III - 2024 Weekly Water Quality Sampling Results

Source	Chlorine Residual	pH	Temperature (C)	Sum of Alkalinity
Pemberton Total	**0.23**	**6.81**	**10.18**	**277**
Farm Rd	0.33	6.63	10.80	58
Well#2		6.38	11.10	46
Well#3		6.25	9.20	27
Oak	0.43	6.66	9.40	57
I.P	0.19	6.81	9.90	21
Meadows	0.41	6.65	10.60	56
28-Oct-24				
Pemberton				
Health Centre	0.37	7.00	12.20	87
Plateau/Ridge	0.33	6.90	11.70	82
Village Office	0.23	7.01	9.50	87
WWTP	0.17	6.62	10.90	56
Pemberton Total	**0.28**	**6.88**	**11.08**	**312**
Farm Rd	0.29	6.87	12.00	86
Well#2		6.38	10.00	45
Well#3		6.21	9.60	28
Oak	0.40	6.96	10.30	86
I.P	0.22	6.86	9.70	21
Meadows	0.31	6.92	9.60	84
5-Nov-24				
Pemberton				
Health Centre	0.30	7.14	12.50	92
Plateau/Ridge	0.37	7.10	10.50	96
Village Office	0.26	7.14	8.80	104
WWTP	0.22	7.07	10.90	91
Pemberton Total	**0.29**	**7.11**	**10.68**	**383**
Farm Rd	0.33	7.09	11.30	97
Well#2		6.39	9.50	46
Well#3		6.20	10.30	23
Oak	0.38	7.13	8.50	97
I.P	0.20	6.90	9.30	27
Meadows	0.32	7.10	10.70	87
12-Nov-24				
Pemberton				
Health Centre	0.27	7.18	11.90	92
Plateau/Ridge	0.30	7.13	10.90	95
Village Office	0.30	7.16	10.20	98
WWTP	0.13	7.16	12.40	94
Pemberton Total	**0.25**	**7.16**	**11.35**	**379**
Farm Rd	0.29	7.10	10.80	97
Well#2		6.35	9.30	38
Well#3		6.22	8.70	21
Oak	0.36	7.11	9.20	100

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APPENDIX III - 2024 Weekly Water Quality Sampling Results

Source	Chlorine Residual	pH	Temperature (C)	Sum of Alkalinity
I.P	0.21	6.89	9.80	28
Meadows	0.32	7.07	11.80	99
19-Nov-24				
Pemberton				
Health Centre	0.35	7.23	12.10	89
Plateau/Ridge	0.37	7.25	9.60	93
Village Office	0.32	7.24	9.90	93
WWTP	0.10	7.23	8.40	100
Pemberton Total	**0.29**	**7.24**	**10.00**	**375**
Farm Rd	0.37	7.22	9.50	83
Well#2		6.54	9.10	38
Well#3		6.34	8.50	24
Oak	0.41	7.26	8.90	91
I.P	0.17	7.06	9.80	26
Meadows	0.37	7.22	9.60	93
25-Nov-24				
Pemberton				
Health Centre	0.39	7.19	9.30	80
Plateau/Ridge	0.37	7.17	9.60	81
Village Office	0.29	7.20	8.70	83
WWTP	0.11	7.23	8.80	96
Pemberton Total	**0.29**	**7.20**	**9.10**	**340**
Farm Rd				
Well#2		6.50	9.60	43
Well#3		6.35	9.00	26
Oak	0.41	7.17	7.70	85
I.P	0.19	7.00	10.10	25
Meadows				
2-Dec-24				
Pemberton				
Health Centre	0.35	7.19	11.20	79
Plateau/Ridge	0.37	7.19	8.70	79
Village Office	0.25	7.22	7.80	83
WWTP	0.18	7.18	10.90	81
Pemberton Total	**0.29**	**7.20**	**9.65**	**322**
Farm Rd	0.32	7.16	7.90	75
Well#2		6.57	9.10	42
Well#3		6.34	10.90	27
Oak	0.38	7.18	7.90	81
I.P	0.23	7.04	8.40	22
Meadows	0.32	7.15	8.90	77
10-Dec-24				
Pemberton				
Health Centre	0.40	7.18	10.20	91

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APPENDIX III - 2024 Weekly Water Quality Sampling Results

Source	Chlorine Residual	pH	Temperature (C)	Sum of Alkalinity
Plateau/Ridge	0.36	7.20	9.20	93
Village Office	0.31	7.21	8.00	83
WWTP	0.26	7.12	8.30	90
Pemberton Total	**0.33**	**7.18**	**8.93**	**357**
Farm Rd	0.34	7.21	9.20	83
Well#2				
Well#3		6.28	9.90	17
Oak	0.41	7.19	10.20	85
I.P	0.18	7.03	9.60	22
Meadows				
17-Dec-24				
Pemberton				
Health Centre	0.39	7.18	8.30	89
Plateau/Ridge	0.41	7.15	7.70	71
Village Office	0.31	7.17	7.40	94
WWTP	0.05	7.17	10.30	96
Pemberton Total	**0.29**	**7.17**	**8.43**	**350**
Farm Rd				
Well#2		6.43	9.30	29
Well#3		6.24	9.60	22
Oak	0.44	7.11	8.30	78
I.P	0.24	6.92	9.80	22
Meadows				

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Appendix IV

2024 Weekly VCH Bacteriological Results

Sample Range Report

Vancouver Coastal Health

Facility Name: Pemberton Industrial Park Water System
Date Range: Jan 1 2024 to Dec 31 2024

Operator Reece Clark
Box 100
Pemberton, BC V0N 2L0

Sampling Site	Date Collected	Total Coliform	E. Coli	Fecal Coliform
Yard Hydrant, Pemberton Industrial Park	1/3/2024 7:40:00 AM	LT1	LT1	
	1/10/2024 7:40:00 AM	LT1	LT1	
	1/15/2024 7:40:00 AM	LT1	LT1	
	1/24/2024 7:40:00 AM	LT1	LT1	
	1/29/2024 7:40:00 AM	LT1	LT1	
	2/6/2024 7:40:00 AM	LT1	LT1	
	2/12/2024 7:40:00 AM	LT1	LT1	
	2/21/2024 7:40:00 AM	LT1	LT1	
	2/27/2024 7:40:00 AM	LT1	LT1	
	3/5/2024 7:30:00 AM	LT1	LT1	
	3/11/2024 8:40:00 AM	LT1	LT1	
	3/19/2024 7:40:00 AM	LT1	LT1	
	3/25/2024 7:40:00 AM	LT1	LT1	
	4/3/2024 7:40:00 AM	LT1	LT1	
	4/8/2024 7:40:00 AM	LT1	LT1	
	4/16/2024 7:40:00 AM	LT1	LT1	
	4/22/2024 7:40:00 AM	LT1	LT1	
	5/1/2024 7:40:00 AM	LT1	LT1	
	5/6/2024 7:40:00 AM	LT1	LT1	
	5/14/2024 7:40:00 AM	LT1	LT1	
	5/22/2024 7:40:00 AM	LT1	LT1	
	5/28/2024 7:40:00 AM	LT1	LT1	
	6/4/2024 7:40:00 AM	LT1	LT1	

6/10/2024 7:40:00 AM	LT1	LT1
6/17/2024 7:40:00 AM	LT1	LT1
6/25/2024 7:40:00 AM	LT1	LT1
7/3/2024 7:40:00 AM	LT1	LT1
7/8/2024 7:40:00 AM	LT1	LT1
7/16/2024 8:00:00 AM	LT1	LT1
7/23/2024 7:40:00 AM	LT1	LT1
7/29/2024 7:40:00 AM	LT1	LT1
8/13/2024 7:40:00 AM	LT1	LT1
8/20/2024 7:40:00 AM	LT1	LT1
8/26/2024 7:40:00 AM	LT1	LT1
9/4/2024 7:40:00 AM	LT1	LT1
9/9/2024 7:40:00 AM	LT1	LT1
9/17/2024 7:40:00 AM	LT1	LT1
9/23/2024 7:40:00 AM	LT1	LT1
10/2/2024 7:40:00 AM	LT1	LT1
10/9/2024 7:40:00 AM	LT1	LT1
10/15/2024 7:40:00 AM	LT1	LT1
10/22/2024 7:40:00 AM	LT1	LT1
10/28/2024 7:40:00 AM	LT1	LT1
11/5/2024 7:40:00 AM	LT1	LT1
11/12/2024 7:40:00 AM	LT1	LT1
11/19/2024 7:40:00 AM	LT1	LT1
11/25/2024 7:40:00 AM	LT1	LT1
12/2/2024 7:40:00 AM	LT1	LT1
12/10/2024 7:40:00 AM	LT1	LT1
12/17/2024 7:40:00 AM	LT1	LT1
Total Positive:	**0**	**0**

Result Values: **E - estimated** **L - less than** **G - greater than**

Samples that contain total coliform:	0	0.00% of total

Samples that contain e. coli:	0	0.00% of total
Samples that contain fecal coliform:	0	0.00% of total
Number of consecutive samples that contain total coliform:	0	
Number of samples that contain total coliform in last 30 days:	0/0	
Total number of samples:	50	

Comments:

_____
Environmental Health Officer
Feb 5 2025

FOR FURTHER INFORMATION PLEASE CALL: Dan Glover (604) 892-2293

Sample Range Report

Vancouver Coastal Health

Facility Name: Pemberton North Water System
Date Range: Jan 1 2024 to Dec 31 2024

Operator Utilities Department-SLRD
P.O. Box 219
Pemberton, BC V0N 2L0

Sampling Site	Date Collected	Total Coliform	E. Coli	Fecal Coliform
1428 Pemberton Farm Road, Adjacent to 1428 Pemberton Farm Road	1/3/2024 8:10:00 AM	LT1	LT1	
	1/10/2024 8:00:00 AM	LT1	LT1	
	1/24/2024 8:20:00 AM	LT1	LT1	
	1/29/2024 8:10:00 AM	LT1	LT1	
	2/6/2024 8:30:00 AM	LT1	LT1	
	2/12/2024 8:10:00 AM	LT1	LT1	
	2/21/2024 8:40:00 AM	LT1	LT1	
	2/27/2024 8:00:00 AM	LT1	LT1	
	3/11/2024 7:40:00 AM	LT1	LT1	
	3/19/2024 8:10:00 AM	LT1	LT1	
	3/25/2024 8:40:00 AM	LT1	LT1	
	4/3/2024 8:10:00 AM	LT1	LT1	
	4/8/2024 8:40:00 AM	LT1	LT1	
	4/16/2024 8:10:00 AM	LT1	LT1	
	4/22/2024 8:40:00 AM	LT1	LT1	
	5/1/2024 8:31:00 AM	LT1	LT1	
	5/6/2024 8:40:00 AM	LT1	LT1	
	5/14/2024 8:10:00 AM	LT1	LT1	
	5/22/2024 8:10:00 AM	LT1	LT1	
	5/28/2024 8:40:00 AM	LT1	LT1	
	6/4/2024 8:40:00 AM	LT1	LT1	
	6/10/2024 8:10:00	LT1	LT1	

AM		
6/17/2024 8:31:00 AM	LT1	LT1
6/25/2024 8:31:00 AM	LT1	LT1
7/3/2024 8:29:00 AM	LT1	LT1
7/8/2024 8:10:00 AM	LT1	LT1
7/16/2024 8:50:00 AM	LT1	LT1
7/23/2024 8:40:00 AM	LT1	LT1
7/29/2024 8:40:00 AM	LT1	LT1
8/13/2024 8:10:00 AM	LT1	LT1
8/20/2024 8:10:00 AM	LT1	LT1
8/26/2024 8:40:00 AM	LT1	LT1
9/4/2024 8:10:00 AM	LT1	LT1
9/9/2024 8:10:00 AM	LT1	LT1
9/17/2024 8:40:00 AM	LT1	LT1
9/23/2024 8:10:00 AM	LT1	LT1
10/2/2024 8:40:00 AM	LT1	LT1
10/9/2024 8:10:00 AM	LT1	LT1
10/22/2024 8:40:00 AM	LT1	LT1
10/28/2024 8:40:00 AM	LT1	LT1
11/5/2024 8:40:00 AM	LT1	LT1
11/12/2024 8:10:00 AM	LT1	LT1
11/19/2024 8:40:00 AM	LT1	LT1
12/2/2024 8:10:00 AM	LT1	LT1
12/10/2024 8:20:00 AM	LT1	LT1
Total Positive:	**0**	**0**

7620 Pemberton Meadows Rd, Opposite 7620 Pemberton Meadows Rd		
1/3/2024 8:00:00 AM	LT1	LT1
1/24/2024 8:10:00 AM	LT1	LT1
1/29/2024 8:00:00	LT1	LT1

AM		
2/6/2024 8:50:00 AM	LT1	LT1
2/12/2024 8:00:00 AM	LT1	LT1
2/21/2024 8:30:00 AM	LT1	LT1
3/11/2024 9:30:00 AM	LT1	LT1
3/19/2024 8:00:00 AM	LT1	LT1
3/25/2024 8:30:00 AM	LT1	LT1
4/3/2024 8:00:00 AM	LT1	LT1
4/8/2024 8:29:00 AM	LT1	LT1
4/16/2024 8:00:00 AM	LT1	LT1
4/22/2024 8:30:00 AM	LT1	LT1
5/1/2024 8:20:00 AM	LT1	LT1
5/6/2024 8:31:00 AM	LT1	LT1
5/14/2024 8:10:00 AM	LT1	LT1
5/22/2024 8:00:00 AM	LT1	LT1
5/28/2024 8:30:00 AM	LT1	LT1
6/4/2024 8:29:00 AM	LT1	LT1
6/10/2024 8:00:00 AM	LT1	LT1
6/17/2024 8:20:00 AM	LT1	LT1
6/25/2024 8:20:00 AM	LT1	LT1
7/3/2024 8:20:00 AM	LT1	LT1
7/8/2024 8:00:00 AM	LT1	LT1
7/16/2024 8:40:00 AM	LT1	LT1
7/23/2024 8:30:00 AM	LT1	LT1
7/29/2024 8:31:00 AM	LT1	LT1
8/13/2024 8:00:00 AM	LT1	LT1
8/20/2024 8:00:00 AM	LT1	LT1
8/26/2024 8:31:00 AM	LT1	LT1
9/4/2024 8:00:00 AM	LT1	LT1
9/9/2024 8:00:00 AM	LT1	LT1
9/17/2024 8:31:00 AM	LT1	LT1
9/23/2024 8:00:00 AM	LT1	LT1
10/2/2024 8:30:00 AM	LT1	LT1

10/9/2024 8:00:00 AM	LT1	LT1
10/15/2024 8:00:00 AM	LT1	LT1
10/22/2024 8:30:00 AM	LT1	LT1
10/28/2024 8:30:00 AM	LT1	LT1
11/5/2024 8:30:00 AM	LT1	LT1
11/12/2024 8:00:00 AM	LT1	LT1
11/19/2024 8:31:00 AM	LT1	LT1
12/2/2024 8:00:00 AM	LT1	LT1
Total Positive:	**0**	**0**

Result Values: **E - estimated** **L - less than** **G - greater than**

Samples that contain total coliform:	0	0.00% of total
Samples that contain e. coli:	0	0.00% of total
Samples that contain fecal coliform:	0	0.00% of total
Number of consecutive samples that contain total coliform:	0	
Number of samples that contain total coliform in last 30 days:	0/0	
Total number of samples:	88	

Comments:

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Environmental Health Officer
Feb 5 2025

FOR FURTHER INFORMATION PLEASE CALL: Dan Glover (604) 892-2293

Sample Range Report

Vancouver Coastal Health

Facility Name: Village of Pemberton
Date Range: Jan 1 2024 to Dec 31 2024

Operator Reece Clark
P.O. Box 100
Pemberton, BC V0N 2L0

Sampling Site	Date Collected	Total Coliform	E. Coli	Fecal Coliform
Treatment Plant/Airport Rd., Pemberton	1/3/2024 7:30:00 AM	LT1	LT1	
	1/10/2024 7:30:00 AM	LT1	LT1	
	1/15/2024 7:30:00 AM	LT1	LT1	
	1/24/2024 7:30:00 AM	LT1	LT1	
	1/29/2024 7:30:00 AM	LT1	LT1	
	2/6/2024 7:30:00 AM	LT1	LT1	
	2/12/2024 7:30:00 AM	LT1	LT1	
	2/21/2024 7:30:00 AM	LT1	LT1	
	2/27/2024 7:30:00 AM	LT1	LT1	
	3/5/2024 7:30:00 AM	LT1	LT1	
	3/11/2024 8:30:00 AM	LT1	LT1	
	3/19/2024 7:30:00 AM	LT1	LT1	
	3/25/2024 7:30:00 AM	LT1	LT1	
	4/3/2024 7:30:00 AM	LT1	LT1	
	4/8/2024 7:30:00 AM	LT1	LT1	
	4/16/2024 7:30:00 AM	LT1	LT1	
	4/22/2024 7:30:00 AM	LT1	LT1	
	5/1/2024 7:30:00 AM	LT1	LT1	
	5/6/2024 7:30:00 AM	LT1	LT1	
	5/14/2024 7:30:00 AM	LT1	LT1	
	5/22/2024 7:30:00 AM	LT1	LT1	
	5/28/2024 7:30:00 AM	LT1	LT1	
	6/4/2024 7:30:00 AM	LT1	LT1	

6/10/2024 7:30:00 AM	LT1	LT1
6/17/2024 9:30:00 AM	LT1	LT1
6/25/2024 7:30:00 AM	LT1	LT1
7/3/2024 7:30:00 AM	LT1	LT1
7/8/2024 7:30:00 AM	LT1	LT1
7/16/2024 7:30:00 AM	LT1	LT1
7/23/2024 7:30:00 AM	LT1	LT1
7/29/2024 7:30:00 AM	LT1	LT1
8/14/2024 7:30:00 AM	LT1	LT1
8/20/2024 7:30:00 AM	LT1	LT1
8/26/2024 7:30:00 AM	LT1	LT1
9/4/2024 7:30:00 AM	LT1	LT1
9/9/2024 7:30:00 AM	LT1	LT1
9/17/2024 7:30:00 AM	LT1	LT1
9/23/2024 7:30:00 AM	LT1	LT1
10/2/2024 7:30:00 AM	LT1	LT1
10/9/2024 7:30:00 AM	LT1	LT1
10/15/2024 7:30:00 AM	LT1	LT1
10/22/2024 7:30:00 AM	LT1	LT1
10/26/2024 7:30:00 AM	LT1	LT1
10/28/2024 7:30:00 AM	LT1	LT1
11/12/2024 7:30:00 AM	LT1	LT1
11/19/2024 7:30:00 AM	LT1	LT1
11/25/2024 7:30:00 AM	LT1	LT1
12/2/2024 7:30:00 AM	LT1	LT1
12/10/2024 7:30:00 AM	LT1	LT1
12/17/2024 7:30:00 AM	LT1	LT1
Total Positive:	**0**	**0**

Oak Street At High School, Pemberton

1/3/2024 8:20:00 AM	LT1	LT1
1/10/2024 8:10:00 AM	LT1	LT1
1/15/2024 8:00:00 AM	LT1	LT1
1/24/2024 8:00:00 AM	LT1	LT1
1/29/2024 8:20:00 AM	LT1	LT1
2/6/2024 8:40:00 AM	LT1	LT1
2/12/2024 8:20:00 AM	LT1	LT1
2/21/2024 8:50:00 AM	LT1	LT1
2/27/2024 8:10:00 AM	LT1	LT1
3/5/2024 8:00:00 AM	LT1	LT1
3/11/2024 9:50:00 AM	LT1	LT1
3/19/2024 8:20:00 AM	LT1	LT1
3/25/2024 8:50:00 AM	LT1	LT1
4/3/2024 8:20:00 AM	LT1	LT1
4/8/2024 8:50:00 AM	LT1	LT1
4/16/2024 8:20:00 AM	LT1	LT1
4/22/2024 8:50:00 AM	LT1	LT1
5/1/2024 8:40:00 AM	LT1	LT1
5/6/2024 8:50:00 AM	LT1	LT1
5/14/2024 8:20:00 AM	LT1	LT1
5/22/2024 8:20:00 AM	LT1	LT1
5/28/2024 8:50:00 AM	LT1	LT1
6/4/2024 8:50:00 AM	LT1	LT1
6/10/2024 8:20:00 AM	LT1	LT1
6/17/2024 8:40:00 AM	LT1	LT1
6/25/2024 8:40:00 AM	LT1	LT1
7/3/2024 8:40:00 AM	LT1	LT1
7/8/2024 8:20:00 AM	LT1	LT1
7/16/2024 8:31:00 AM	LT1	LT1
7/23/2024 8:50:00 AM	LT1	LT1
7/29/2024 8:50:00 AM	LT1	LT1
8/13/2024 8:20:00 AM	LT1	LT1
8/20/2024 8:20:00	LT1	LT1

AM		
8/26/2024 8:50:00 AM	LT1	LT1
9/4/2024 8:20:00 AM	LT1	LT1
9/9/2024 8:20:00 AM	LT1	LT1
9/17/2024 8:50:00 AM	LT1	LT1
9/23/2024 8:20:00 AM	LT1	LT1
10/2/2024 8:50:00 AM	LT1	LT1
10/9/2024 8:20:00 AM	LT1	LT1
10/15/2024 8:20:00 AM	LT1	LT1
10/22/2024 8:50:00 AM	LT1	LT1
10/28/2024 8:50:00 AM	LT1	LT1
11/5/2024 8:50:00 AM	LT1	LT1
11/12/2024 8:20:00 AM	LT1	LT1
11/19/2024 8:50:00 AM	LT1	LT1
11/25/2024 8:00:00 AM	LT1	LT1
12/2/2024 8:20:00 AM	LT1	LT1
12/10/2024 8:31:00 AM	LT1	LT1
12/17/2024 8:10:00 AM	LT1	LT1
Total Positive:	**0**	**0**

Pemberton Ridge Pumphouse, Pemberton		
1/3/2024 7:50:00 AM	LT1	LT1
1/10/2024 7:50:00 AM	LT1	LT1
1/15/2024 7:50:00 AM	LT1	LT1
1/24/2024 7:50:00 AM	LT1	LT1
1/29/2024 7:50:00 AM	LT1	LT1
2/6/2024 7:50:00 AM	LT1	LT1
2/12/2024 7:50:00 AM	LT1	LT1
2/21/2024 7:50:00 AM	LT1	LT1
2/27/2024 7:50:00 AM	LT1	LT1

3/5/2024 7:50:00 AM	LT1	LT1
3/11/2024 8:30:00 AM	LT1	LT1
3/19/2024 7:50:00 AM	LT1	LT1
3/25/2024 7:50:00 AM	LT1	LT1
4/3/2024 7:50:00 AM	LT1	LT1
4/8/2024 7:50:00 AM	LT1	LT1
4/16/2024 7:50:00 AM	LT1	LT1
4/22/2024 7:50:00 AM	LT1	LT1
5/1/2024 7:50:00 AM	LT1	LT1
5/6/2024 7:50:00 AM	LT1	LT1
5/14/2024 7:50:00 AM	LT1	LT1
5/22/2024 7:50:00 AM	LT1	LT1
5/28/2024 7:50:00 AM	LT1	LT1
6/4/2024 7:30:00 AM	LT1	LT1
6/10/2024 7:50:00 AM	LT1	LT1
6/17/2024 7:50:00 AM	LT1	LT1
6/25/2024 7:50:00 AM	LT1	LT1
7/3/2024 7:50:00 AM	LT1	LT1
7/8/2024 7:50:00 AM	LT1	LT1
7/16/2024 8:10:00 AM	LT1	LT1
7/23/2024 7:50:00 AM	LT1	LT1
7/29/2024 7:50:00 AM	LT1	LT1
8/13/2024 7:50:00 AM	LT1	LT1
8/20/2024 7:50:00 AM	LT1	LT1
8/26/2024 7:50:00 AM	LT1	LT1
9/4/2024 7:50:00 AM	LT1	LT1
9/9/2024 7:50:00 AM	LT1	LT1
9/17/2024 7:50:00 AM	LT1	LT1
9/23/2024 7:50:00 AM	LT1	LT1
10/2/2024 7:50:00 AM	LT1	LT1
10/9/2024 7:50:00 AM	LT1	LT1
10/15/2024 7:50:00 AM	LT1	LT1
10/22/2024 7:30:00	LT1	LT1

AM		
10/28/2024 7:50:00 AM	LT1	LT1
11/5/2024 7:50:00 AM	LT1	LT1
11/12/2024 7:50:00 AM	LT1	LT1
11/19/2024 7:50:00 AM	LT1	LT1
11/25/2024 7:30:00 AM	LT1	LT1
12/2/2024 7:50:00 AM	LT1	LT1
12/10/2024 7:50:00 AM	LT1	LT1
12/17/2024 7:50:00 AM	LT1	LT1
Total Positive:	**0**	**0**

Pemberton Health Center, 1403 Portage Road, Pemberton, B.C.

1/3/2024 9:00:00 AM	LT1	LT1
1/10/2024 8:50:00 AM	LT1	LT1
1/15/2024 8:40:00 AM	LT1	LT1
1/24/2024 9:00:00 AM	LT1	LT1
1/29/2024 9:00:00 AM	LT1	LT1
2/6/2024 9:00:00 AM	LT1	LT1
2/12/2024 9:00:00 AM	LT1	LT1
2/21/2024 8:00:00 AM	LT1	LT1
2/27/2024 8:50:00 AM	LT1	LT1
3/5/2024 8:40:00 AM	LT1	LT1
3/11/2024 10:00:00 AM	LT1	LT1
3/19/2024 9:00:00 AM	LT1	LT1
3/25/2024 9:00:00 AM	LT1	LT1
4/3/2024 9:00:00 AM	LT1	LT1
4/8/2024 9:00:00 AM	LT1	LT1
4/16/2024 9:00:00 AM	LT1	LT1
4/22/2024 9:00:00 AM	LT1	LT1
5/1/2024 8:50:00 AM	LT1	LT1
5/6/2024 9:00:00 AM	LT1	LT1

5/14/2024 9:10:00 AM	LT1	LT1
5/22/2024 9:10:00 AM	LT1	LT1
5/28/2024 9:10:00 AM	LT1	LT1
6/4/2024 9:10:00 AM	LT1	LT1
6/10/2024 9:10:00 AM	LT1	LT1
6/17/2024 9:10:00 AM	LT1	LT1
6/25/2024 9:00:00 AM	LT1	LT1
7/3/2024 9:00:00 AM	LT1	LT1
7/8/2024 9:10:00 AM	LT1	LT1
7/16/2024 9:10:00 AM	LT1	LT1
7/23/2024 9:10:00 AM	LT1	LT1
7/29/2024 9:10:00 AM	LT1	LT1
8/13/2024 9:10:00 AM	LT1	LT1
8/20/2024 9:10:00 AM	LT1	LT1
8/26/2024 9:10:00 AM	LT1	LT1
9/4/2024 9:10:00 AM	LT1	LT1
9/9/2024 9:10:00 AM	LT1	LT1
9/17/2024 9:10:00 AM	LT1	LT1
9/23/2024 9:10:00 AM	LT1	LT1
10/2/2024 9:10:00 AM	LT1	LT1
10/9/2024 9:00:00 AM	LT1	LT1
10/15/2024 9:00:00 AM	LT1	LT1
10/22/2024 9:00:00 AM	LT1	LT1
10/28/2024 9:00:00 AM	LT1	LT1
11/5/2024 9:00:00 AM	LT1	LT1
11/12/2024 9:00:00 AM	LT1	LT1
11/19/2024 9:00:00 AM	LT1	LT1
11/25/2024 8:40:00 AM	LT1	LT1
12/2/2024 9:00:00 AM	LT1	LT1
12/10/2024 8:40:00 AM	LT1	LT1

12/17/2024 8:30:00 AM	LT1	LT1
Total Positive:	**0**	**0**

Village Office, 7410 Prospect

1/3/2024 8:30:00 AM	LT1	LT1
1/10/2024 8:20:00 AM	LT1	LT1
1/15/2024 8:10:00 AM	LT1	LT1
1/24/2024 8:30:00 AM	LT1	LT1
1/29/2024 8:30:00 AM	LT1	LT1
2/6/2024 8:20:00 AM	LT1	LT1
2/12/2024 8:30:00 AM	LT1	LT1
2/21/2024 8:20:00 AM	LT1	LT1
2/27/2024 8:20:00 AM	LT1	LT1
3/5/2024 8:30:00 AM	LT1	LT1
3/11/2024 9:00:00 AM	LT1	LT1
3/19/2024 8:30:00 AM	LT1	LT1
3/25/2024 8:00:00 AM	LT1	LT1
4/3/2024 8:29:00 AM	LT1	LT1
4/8/2024 8:20:00 AM	LT1	LT1
4/16/2024 8:30:00 AM	LT1	LT1
4/22/2024 8:20:00 AM	LT1	LT1
5/6/2024 8:20:00 AM	LT1	LT1
5/14/2024 8:30:00 AM	LT1	LT1
5/22/2024 8:31:00 AM	LT1	LT1
5/28/2024 8:00:00 AM	LT1	LT1
6/4/2024 8:20:00 AM	LT1	LT1
6/10/2024 8:29:00 AM	LT1	LT1
6/17/2024 8:50:00 AM	LT1	LT1
6/25/2024 8:10:00 AM	LT1	LT1
7/3/2024 8:10:00 AM	LT1	LT1
7/8/2024 8:50:00 AM	LT1	LT1
7/16/2024 9:00:00 AM	LT1	LT1
7/23/2024 8:20:00	LT1	LT1

AM		
7/29/2024 8:20:00 AM	LT1	LT1
8/13/2024 8:30:00 AM	LT1	LT1
8/20/2024 8:50:00 AM	LT1	LT1
8/26/2024 8:20:00 AM	LT1	LT1
9/4/2024 8:50:00 AM	LT1	LT1
9/9/2024 8:30:00 AM	LT1	LT1
9/17/2024 8:20:00 AM	LT1	LT1
9/23/2024 8:29:00 AM	LT1	LT1
10/2/2024 8:20:00 AM	LT1	LT1
10/9/2024 8:30:00 AM	LT1	LT1
10/15/2024 8:50:00 AM	LT1	LT1
10/22/2024 8:00:00 AM	LT1	LT1
10/28/2024 8:00:00 AM	LT1	LT1
11/5/2024 8:20:00 AM	LT1	LT1
11/12/2024 8:31:00 AM	LT1	LT1
11/19/2024 8:00:00 AM	LT1	LT1
11/25/2024 8:10:00 AM	LT1	LT1
12/2/2024 8:30:00 AM	LT1	LT1
12/10/2024 8:10:00 AM	LT1	LT1
12/17/2024 8:10:00 AM	LT1	LT1
Total Positive:	**0**	**0**

Result Values: **E - estimated** **L - less than** **G - greater than**

Samples that contain total coliform:	0	0.00% of total
Samples that contain e. coli:	0	0.00% of total
Samples that contain fecal coliform:	0	0.00% of total
Number of consecutive samples that contain total coliform:	0	
Number of samples that contain total coliform in last 30 days:	0/0	
Total number of samples:	249	

Comments:

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Environmental Health Officer
Feb 5 2025

FOR FURTHER INFORMATION PLEASE CALL: Dan Glover (604) 892-2293

Sample Range Report

Vancouver Coastal Health

Facility Name: Well # 2
Date Range: Jan 1 2024 to Dec 31 2024

Operator

,

Sampling Site	Date Collected	Total Coliform	E. Coli	Fecal Coliform
Well Site #2, Pemberton Village Water Works, Pemberton	1/3/2024 8:40:00 AM	LT1	LT1	
	1/10/2024 8:30:00 AM	LT1	LT1	
	1/15/2024 8:20:00 AM	LT1	LT1	
	1/24/2024 8:40:00 AM	LT1	LT1	
	1/29/2024 8:40:00 AM	LT1	LT1	
	2/6/2024 8:00:00 AM	LT1	LT1	
	2/12/2024 8:40:00 AM	LT1	LT1	
	2/21/2024 8:00:00 AM	LT1	LT1	
	2/27/2024 8:30:00 AM	LT1	LT1	
	3/5/2024 8:10:00 AM	LT1	LT1	
	3/11/2024 9:10:00 AM	LT1	LT1	
	3/19/2024 8:40:00 AM	LT1	LT1	
	3/25/2024 8:10:00 AM	LT1	LT1	
	4/3/2024 8:40:00 AM	LT1	LT1	
	4/8/2024 8:00:00 AM	LT1	LT1	
	4/16/2024 8:40:00 AM	LT1	LT1	
	4/22/2024 8:00:00 AM	LT1	LT1	
	5/1/2024 8:00:00 AM	LT1	LT1	
	5/6/2024 8:10:00 AM	LT1	LT1	
	5/14/2024 8:40:00 AM	LT1	LT1	
	5/22/2024 8:40:00 AM	LT1	LT1	
	5/28/2024 8:10:00 AM	LT1	LT1	

6/4/2024 8:00:00 AM	LT1	LT1
6/10/2024 8:40:00 AM	LT1	LT1
6/17/2024 8:00:00 AM	LT1	LT1
6/25/2024 8:00:00 AM	LT1	LT1
7/3/2024 8:00:00 AM	LT1	LT1
7/8/2024 8:30:00 AM	LT1	LT1
7/16/2024 7:40:00 AM	LT1	LT1
7/23/2024 8:00:00 AM	LT1	LT1
7/29/2024 8:00:00 AM	LT1	LT1
8/13/2024 8:40:00 AM	LT1	LT1
8/20/2024 8:29:00 AM	LT1	LT1
8/26/2024 8:00:00 AM	LT1	LT1
9/4/2024 8:29:00 AM	LT1	LT1
9/9/2024 8:40:00 AM	LT1	LT1
9/13/2024 8:40:00 AM	LT1	LT1
9/17/2024 8:00:00 AM	LT1	LT1
10/2/2024 8:00:00 AM	LT1	LT1
10/9/2024 8:40:00 AM	LT1	LT1
10/15/2024 8:31:00 AM	LT1	LT1
10/22/2024 8:10:00 AM	LT1	LT1
10/28/2024 8:10:00 AM	LT1	LT1
11/5/2024 8:00:00 AM	LT1	LT1
11/12/2024 8:40:00 AM	LT1	LT1
11/19/2024 8:10:00 AM	LT1	LT1
11/25/2024 8:20:00 AM	LT1	LT1
12/2/2024 8:29:00 AM	LT1	LT1
12/17/2024 8:40:00 AM	LT1	LT1
Total Positive:	**0**	**0**

Result Values: **E - estimated** **L - less than** **G - greater than**

Samples that contain total coliform:	0	0.00% of total
Samples that contain e. coli:	0	0.00% of total

Samples that contain fecal coliform:	0	0.00% of total
Number of consecutive samples that contain total coliform:	0	
Number of samples that contain total coliform in last 30 days:	0/0	
Total number of samples:	49	

Comments:

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Environmental Health Officer
Feb 5 2025

FOR FURTHER INFORMATION PLEASE CALL: Dan Glover (604) 892-2293

Sample Range Report

Vancouver Coastal Health

Facility Name: Well #3
Date Range: Jan 1 2024 to Dec 31 2024

Operator

,

Sampling Site	Date Collected	Total Coliform	E. Coli	Fecal Coliform
Well Site #3, Pemberton				
	1/3/2024 8:50:00 AM	LT1	LT1	
	1/10/2024 8:40:00 AM	LT1	LT1	
	1/15/2024 8:30:00 AM	LT1	LT1	
	1/24/2024 8:50:00 AM	LT1	LT1	
	1/29/2024 8:50:00 AM	LT1	LT1	
	2/6/2024 8:10:00 AM	LT1	LT1	
	2/12/2024 8:50:00 AM	LT1	LT1	
	2/21/2024 8:10:00 AM	LT1	LT1	
	2/27/2024 8:40:00 AM	LT1	LT1	
	3/5/2024 8:20:00 AM	LT1	LT1	
	3/11/2024 9:20:00 AM	LT1	LT1	
	3/19/2024 8:50:00 AM	LT1	LT1	
	3/25/2024 8:20:00 AM	LT1	LT1	
	4/3/2024 8:50:00 AM	LT1	LT1	
	4/8/2024 8:10:00 AM	LT1	LT1	
	4/16/2024 8:50:00 AM	LT1	LT1	
	4/22/2024 8:10:00 AM	LT1	LT1	
	5/1/2024 8:10:00 AM	LT1	LT1	
	5/6/2024 8:30:00 AM	LT1	LT1	
	5/14/2024 8:50:00 AM	LT1	LT1	
	5/22/2024 8:50:00 AM	LT1	LT1	
	5/28/2024 8:20:00 AM	LT1	LT1	
	6/4/2024 8:10:00 AM	LT1	LT1	
	6/10/2024 8:50:00	LT1	LT1	

AM		
6/17/2024 8:10:00 AM	LT1	LT1
7/2/2024 10:30:00 AM	LT1	LT1
7/8/2024 8:40:00 AM	LT1	LT1
7/16/2024 7:50:00 AM	LT1	LT1
7/23/2024 8:10:00 AM	LT1	LT1
7/29/2024 8:10:00 AM	LT1	LT1
8/13/2024 8:50:00 AM	LT1	LT1
8/20/2024 8:40:00 AM	LT1	LT1
8/26/2024 8:00:00 AM	LT1	LT1
9/4/2024 8:40:00 AM	LT1	LT1
9/9/2024 8:50:00 AM	LT1	LT1
9/17/2024 8:10:00 AM	LT1	LT1
9/23/2024 8:50:00 AM	LT1	LT1
10/2/2024 8:10:00 AM	LT1	LT1
10/9/2024 8:30:00 AM	LT1	LT1
10/15/2024 8:40:00 AM	LT1	LT1
10/22/2024 8:20:00 AM	1.0	LT1
10/28/2024 8:20:00 AM	LT1	LT1
11/5/2024 8:10:00 AM	LT1	LT1
11/12/2024 8:50:00 AM	LT1	LT1
11/19/2024 8:20:00 AM	LT1	LT1
11/25/2024 8:31:00 AM	LT1	LT1
12/2/2024 8:40:00 AM	LT1	LT1
12/10/2024 8:00:00 AM	LT1	LT1
12/17/2024 8:00:00 AM	LT1	LT1
Total Positive:	**1**	**0**

Result Values: **E - estimated** **L - less than** **G - greater than**

Samples that contain total coliform:	1	2.04% of total
Samples that contain e. coli:	0	0.00% of total
Samples that contain fecal coliform:	0	0.00% of total

Number of consecutive samples that contain total coliform:	0	
Number of samples that contain total coliform in last 30 days:	0/0	
Total number of samples:	49	

Comments:

_____
Environmental Health Officer
Feb 5 2025

FOR FURTHER INFORMATION PLEASE CALL: Dan Glover (604) 892-2293

Appendix V

2024 Water System Evaluation Reports

WATER FACILITY EVALUATION REPORT
Health Protection

Premises Name **Pemberton Industrial Park Water System**	Tel: (604) 894-6135 Fax: (604) 894-5708	
Premises Address Attn: Reece Clark Box 100 Pemberton, BC V0N 2L0	Inspection Date March 04, 2025	Time Spent 0.5 hours
Operator (Person in Charge) Reece Clark		
Inspection Type Evaluation		

Observed Violations
There are no observed violations.

Section Details

Comments

This is an annual evaluation of the water supply within the Pemberton Industrial Park.

The water is supplied from a ground water source located in Mount Currie on Lil'wat lands.
A total of 50 bacteriological samples were submitted in 2024 which meets the minimum frequency standard. No samples were positive for total coliforms or e. coli.
Regular monitoring of free chlorine residuals were done in the supplied water in 2024 to ensure delivered water contained a minimum Free Available Chlorine level of 0.2 ppm.

A full water analysis for this water was completed in 2024 with no exceedances in the GCDWQ with the exception of a low pH as has historically been the case. This characteristic along with low alkalinity can cause the water to be aggressive in relation to some plumbing components.
General advice for all water systems is for water users to run the water until cold before consumption.

A water system Annual Report for 2023 was submitted in 2024 as part of the Village of Pemberton Annual Report submission. Thank you. VCH looks forward to receiving the Annual Report for 2024 by June 30, 2024.
Please review and update your Emergency Response and Contingency Plan as needed to ensure the contacts remain accurate.

Action Taken
☒ Information Exchanged

Hazard Rating For Your Facility: ☐ High ☐ Moderate ☒ Low

DWO
DWO Printed Name **James Whalen**

WATER FACILITY EVALUATION REPORT
Health Protection

vancouver coastalHealth

Premises Name **Pemberton North Water System**	Tel: (604) 894- 227 Fax: (604) 894-6526	
Premises Address (Pemberton North) Box 100 Pemberton, BC V0N 2L0	Inspection Date March 04, 2025	Time Spent 0.5 hours
Operator (Person in Charge) Utilities Department-SLRD		
Inspection Type Evaluation		

Observed Violations
There are no observed violations.

Section Details

Comments

This is an evaluation of the Pemberton North Water System as of March 04, 2025.

A total of 88 treated water samples were submitted for bacteriological analysis in 2024 with none showing presence of coliform bacteria or E. Coli. Excellent sampling frequency throughout each month of the year. The excellent water quality is likely attributable to good operation and maintenance of the water system including consistent chlorine residual in the distribution system and regular water main flushing. Water distribution system improvements made should also positively affect water quality over the long term.

As water is supplied by the Village of Pemberton (VoP) water system the following comments from the 2024 VoP inspection report apply:

Both source wells in use were redeveloped in 2024 with the hope of restoring yield and possibly improving physical water quality as a result of cleaning the screens.

A series of full chemical drinking water analyses were undertaken for both wells and the treated water throughout 2024. Results indicate frequent fluctuations in pH, manganese and iron levels. Generally speaking, manganese levels routinely exceeded the Aesthetic Objective (AO) levels in the source water, and periodically exceeded the Maximum Acceptable Concentration (MAC) levels in well #2. Manganese levels in the treated water also exceeded the AO of 0.020 mg/L in some samples and exceeded the MAC at least once. We understand planning is well underway on an upgraded water treatment plant which will be designed to address these parameters and allow for more consistent chemical water quality and increased water treatment capacity. VCH looks forward to reviewing the design drawings once completed as a part of the Construction Permit Application process.

Increasing water demand overall as development within the service delivery area expands. Options for additional water sources should continue to be investigated; also water conservation planning to help ensure water demands are met into the future.

Implementation of the cross connection control bylaw within the Village of Pemberton continues to provide an increased level of protection as part of the multi-barrier approach in place.

Operation of the soda ash plant is generally successful at delivering chemically stable water on an ongoing basis. VCH is comfortable with the approach taken by the VOP in continuing to advise the public to flush taps before water consumption to further minimize lead levels in drinking water.

Administration

A water system Emergency Response and Contingency Plan (ERCP) is in place; please review periodically to ensure the contact information is accurate.

The Annual Report requirement is being met as part of the Village of Pemberton Annual Report submission which was received for the 2023 year ahead of the deadline. We look forward to receiving the Annual Report for the 2024 year before June 30, 2025.

Action Taken
☒ Information Exchanged

Hazard Rating For Your Facility:	☐ High	☐ Moderate	☒ Low

DWO
DWO Printed Name
James Whalen

WATER FACILITY EVALUATION REPORT
Health Protection

vancouver coastalHealth

Premises Name **Village of Pemberton**	Tel: (604) 894-6246 Fax: (604) 894-0000	
Premises Address Attn: Reece Clark Box 100 Pemberton, BC V0N 2L0	Inspection Date March 04, 2025	Time Spent 2 hours
Operator (Person in Charge) Reece Clark		
Inspection Type Evaluation		

Observed Violations
There are no observed violations.

Section Details

Comments

Annual assessment of the Village of Pemberton waterworks system conducted with operations team March 04, 2025.

Water Quality and Quantity

Excellent bacteriological water sampling frequency and water quality in 2024 with 249 treated water samples submitted and 0 with presence of coliform bacteria. Good ongoing operation and maintenance of the water system including regular monitoring of free chlorine residual in the distribution system and regular water main flushing.

An additional 49 raw (untreated) water samples were collected from each of well #2 and well #3 as a means of monitoring source water quality. Both wells were redeveloped in 2024 with the hope of restoring yield and possibly improving physical water quality as a result of cleaning the screens.

A series of full chemical drinking water analyses were undertaken for both wells and the treated water throughout 2024. Results indicate frequent fluctuations in pH, manganese and iron levels. Generally speaking, manganese levels routinely exceeded the Aesthetic Objective (AO) levels in the source water, and periodically exceeded the Maximum Acceptable Concentration (MAC) levels in well #2. Manganese levels in the treated water also exceeded the AO of 0.020 mg/L in some samples and exceeded the MAC at least once. We understand planning is well underway on an upgraded water treatment plant which will be designed to address these parameters and allow for more consistent chemical water quality and increased water treatment capacity. VCH looks forward to reviewing the completed design drawings once completed as a part of the Construction Permit Application process.

Increasing water demand overall as development within the service delivery area expands. Options for additional water sources should continue to be investigated; also water conservation planning to help ensure water demands are met into the future.

Infrastructure

Very good overall system operation and maintenance procedures in place.

Regular exercising of the back-up generator is being undertaken.

Implementation of the cross connection control bylaw continues to provide an increased level of protection as part of the multi-barrier approach in place.

Operation of the soda ash plant is generally successful at delivering chemically stable water on an ongoing basis. VCH is comfortable with the approach taken by the VOP in continuing to advise the public to flush taps before water consumption to further minimize lead levels in drinking water.

Administration

A water system Emergency Response and Contingency Plan (ERCP) is in place; please review periodically to ensure the contact information is accurate.

Thank you for submitting your Annual Report for the 2023 year ahead of the deadline. We look forward to receiving the Annual Report for the 2024 year before June 30, 2025.

Action Taken
☒ Information Exchanged

Hazard Rating For Your Facility:	☐ High	☐ Moderate	☒ Low

DWO
DWO Printed Name **James Whalen**