

Drinking Water System 2016 Annual Report



Public Works Department

Village of Pemberton

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Village of Pemberton

Drinking Water System

2016 Annual Report

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.

Feedback and comments are always appreciated and should be directed to Village staff or Vancouver Coastal Health Authority (Squamish) officials.

1. CONSUMPTION (CUBIC METERS/DAY):

Daily flow numbers are recorded at the Well house, which is located in Pioneer Park. The Village undertook significant upgrades to the SCADA (Supervisory, Control and Data Acquisition) system that monitors the water infrastructure. Due to the transition between operating systems some of the daily flow information has been estimated. The annual numbers are as follows:

Average Flow/day:	1,848
High Flow/day:	3,696 (July 29, 2016)
Low Flow/day:	1,017 (November 8, 2016)

For daily results, please refer to **Appendix I**.

2. CHLORINATION:

Upon commissioning of Well No. 3 in March 2009, chlorination of the water system was instituted. The goal is to have a positive residual chlorine reading throughout the system, with the Fire Hall chlorine analyzer serving as the central measuring point, where a minimum residual of 0.20 mg/L is desired.

The residual reading is monitored continuously by a dedicated computer (SCADA), located in the main Well house. In 2016, the Village carried out upgrades to the SCADA system as well as to the chlorination skid which delivers the Sodium Hypochlorite solution. Daily readings of the previous twenty-four (24) hours average residual are recorded. The annual numbers are as follows:

	Residual (mg/L)
Average:	0.31
High:	0.42
Low:	0.14

As a means to ensure that target chlorine residuals are achieved within the distribution system, the Village also carries out sampling at nine (9) sites spread throughout the distribution system each week.

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

3. CHEMISTRY TEST RESULTS:

The annual total metals sampling, was performed on March 22, 2016, from sampling stations located at active Wells No. 2 and No. 3, Oak St and the Industrial Park. The test results show that all of the items tested are within Maximum Acceptable Concentrations (MAC) established in the Health Canada guidelines. The exception is Well No. 2 which exceeds the Aesthetic Objectives for Manganese.

Aesthetic quality guidelines address parameters such as taste, odour and colour and are not considered a health concern. For results, please refer to Appendix II and IV.

4. PH TEST RESULTS:

pH testing was carried out on a weekly basis, in conjunction with the chlorine residual testing. Samples from six (6) to eight (8) water sampling stations in the distribution system are recorded and tabulated.

For results, please refer to **Appendix III**.

5. TRIHALOMETHANE (THM) TEST RESULTS:

THM testing commenced in January 2010, at the Oak St. sample station and has now been expanded to include production Wells No. 2 and No. 3 as well as the Industrial Park sample station. All readings were well below the Health Canada guidelines.

For results and corresponding guidelines, please refer to **Appendix IV**.

6. **BACTERIOLOGICAL TEST RESULTS:**

Water samples are collected weekly at the following locations:

Source:

- Well No. 2
- Well No. 3

Distribution:

Village of Pemberton

- Oak St
- Village Office
- Health Centre
- Treatment Plant
- Pemberton Plateau
- Industrial Park (Mount Currie water source)

Pemberton North Improvement District

- Collins Rd
- Pemberton Meadows Rd.
- Pemberton Farm Rd (West)
- Urdal Rd.

These samples are submitted for analysis to the laboratory at Vancouver Coastal Health Authority. All results were negative.

The individual results are on file at Vancouver Coastal Health Authority (Squamish) and the Village Office, where they can be reviewed. They can also be viewed at: www.healthspace.ca/Clients/VCHA/CoastGaribaldi/CoastGaribaldi_Website.nsf

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

7. **“FLUSH” MESSAGE FROM VANCOUVER COASTAL HEALTH AUTHORITY**

In 2015 Vancouver Coastal Health Authority revised its metals at the tap “Flush” message. The following message shall be included in the Annual Report:

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.

APPENDIX I- Daily Flows

	Flow (MG/day)	24 hr Avg Residual (mg/L)
Number of Samples	364	364
Minimum	1017.000	0.14
Maximum	3696.000	0.42
Average	1850.893	0.31
January 1, 2016	1377.000	0.30
January 2, 2016	1377.000	0.30
January 3, 2016	1377.000	0.30
January 4, 2016	1377.000	0.30
January 5, 2016	1377.000	0.30
January 6, 2016	1377.000	0.30
January 7, 2016	1377.000	0.30
January 8, 2016	1377.000	0.30
January 9, 2016	1377.000	0.30
January 10, 2016	1377.000	0.30
January 11, 2016	1377.000	0.30
January 12, 2016	1377.000	0.30
January 13, 2016	1377.000	0.30
January 14, 2016	1377.000	0.30
January 15, 2016	1377.000	0.30
January 16, 2016	1377.000	0.30
January 17, 2016	1377.000	0.30
January 18, 2016	1377.000	0.30
January 19, 2016	1377.000	0.30
January 20, 2016	1377.000	0.30
January 21, 2016	1377.000	0.30
January 22, 2016	1377.000	0.30
January 23, 2016	1377.000	0.30
January 24, 2016	1377.000	0.30
January 25, 2016	1377.000	0.30
January 26, 2016	1377.000	0.30
January 27, 2016	1377.000	0.30
January 28, 2016	1377.000	0.30
January 29, 2016	1377.000	0.30
January 30, 2016	1377.000	0.30
January 31, 2016	1377.000	0.30
February 1, 2016	1377.000	0.30
February 2, 2016	1377.000	0.30
February 3, 2016	1377.000	0.30
February 4, 2016	1377.000	0.30
February 5, 2016	1377.000	0.30
February 6, 2016	1377.000	0.30
February 7, 2016	1377.000	0.30
February 8, 2016	1377.000	0.30
February 9, 2016	1377.000	0.30
February 10, 2016	1377.000	0.30
February 11, 2016	1377.000	0.30

February 12, 2016	1377.000	0.30
February 13, 2016	1377.000	0.30
February 14, 2016	1377.000	0.30
February 15, 2016	1377.000	0.30
February 16, 2016	1377.000	0.30
February 17, 2016	1377.000	0.30
February 18, 2016	1377.000	0.30
February 19, 2016	1377.000	0.30
February 20, 2016	1377.000	0.30
February 21, 2016	1377.000	0.30
February 22, 2016	1377.000	0.30
February 23, 2016	1377.000	0.30
February 24, 2016	1377.000	0.30
February 25, 2016	1377.000	0.30
February 26, 2016	1377.000	0.30
February 27, 2016	1377.000	0.30
February 28, 2016	1377.000	0.30
February 29, 2016	1377.000	0.30
March 1, 2016	1377.000	0.30
March 2, 2016	1377.000	0.30
March 3, 2016	1377.000	0.30
March 4, 2016	1377.000	0.30
March 5, 2016	1377.000	0.30
March 6, 2016	1377.000	0.30
March 7, 2016	1377.000	0.30
March 8, 2016	1377.000	0.30
March 9, 2016	1377.000	0.30
March 10, 2016	1377.000	0.30
March 11, 2016	1377.000	0.30
March 12, 2016	1108.000	0.29
March 13, 2016	1472.000	0.30
March 14, 2016	1103.000	0.30
March 15, 2016	1103.000	0.30
March 16, 2016	1103.000	0.31
March 17, 2016	1103.000	0.30
March 18, 2016	1103.000	0.31
March 19, 2016	1103.000	0.30
March 20, 2016	1103.000	0.30
March 21, 2016	1103.000	0.31
March 22, 2016	1216.000	0.31
March 23, 2016	1255.000	0.31
March 24, 2016	1481.000	0.30
March 25, 2016	1481.000	0.30
March 26, 2016	1481.000	0.30
March 27, 2016	1481.000	0.30
March 28, 2016	1481.000	0.31
March 29, 2016	1515.000	0.31
March 30, 2016	1647.000	0.31
March 31, 2016	1531.000	0.34
April 1, 2016	1400.000	0.34
April 2, 2016	1400.000	0.33
April 3, 2016	1400.000	0.34

April 4, 2016	1456.000	0.32
April 5, 2016	1445.000	0.31
April 6, 2016	1909.000	0.34
April 7, 2016	1211.000	0.34
April 8, 2016	1576.000	0.34
April 9, 2016	1576.000	0.34
April 10, 2016	1576.000	0.34
April 11, 2016	1627.000	0.34
April 12, 2016	1414.000	0.33
April 13, 2016	1159.000	0.32
April 14, 2016	2116.000	0.31
April 15, 2016	1460.000	0.31
April 16, 2016	1460.000	0.31
April 17, 2016	1460.000	0.31
April 18, 2016	2662.000	0.36
April 19, 2016	1661.000	0.34
April 20, 2016	2101.000	0.34
April 21, 2016	2101.000	0.35
April 22, 2016	1742.000	0.34
April 23, 2016	1742.000	0.34
April 24, 2016	1742.000	0.34
April 25, 2016	2294.000	0.34
April 26, 2016	2224.000	0.35
April 27, 2016	2311.000	0.36
April 28, 2016	1493.000	0.35
April 29, 2016	2049.000	0.35
April 30, 2016	2049.000	0.35
May 1, 2016	2049.000	0.35
May 2, 2016	2049.000	0.35
May 3, 2016	2002.000	0.35
May 4, 2016	2636.000	0.35
May 5, 2016	2786.000	0.36
May 6, 2016	2400.000	0.36
May 7, 2016	2400.000	0.36
May 8, 2016	2400.000	0.35
May 9, 2016	2456.000	0.34
May 10, 2016	3025.000	0.34
May 11, 2016	2133.000	0.34
May 12, 2016	2190.000	0.39
May 13, 2016	2853.000	0.38
May 14, 2016	2853.000	0.38
May 15, 2016	2853.000	0.39
May 16, 2016	2583.000	0.40
May 17, 2016	3137.000	0.40
May 18, 2016	2162.000	0.34
May 19, 2016	2061.000	0.34
May 20, 2016	2673.000	0.34
May 21, 2016	2673.000	0.34
May 22, 2016	2673.000	0.34
May 23, 2016	2673.000	0.34
May 24, 2016	2673.000	0.33
May 25, 2016	2417.000	0.34

May 26, 2016	2233.000	0.35
May 27, 2016	2324.000	0.35
May 28, 2016	2324.000	0.35
May 29, 2016	2324.000	0.38
May 30, 2016	2662.000	0.36
May 31, 2016	2979.000	0.36
June 1, 2016	1910.000	0.36
June 2, 2016	2683.000	0.37
June 3, 2016	2400.000	0.36
June 4, 2016	2400.000	0.35
June 5, 2016	2400.000	0.35
June 6, 2016	2264.000	0.34
June 7, 2016	3240.000	0.35
June 8, 2016	2361.000	0.36
June 9, 2016	2525.000	0.35
June 10, 2016	2400.000	0.35
June 11, 2016	2400.000	0.34
June 12, 2016	2400.000	0.36
June 13, 2016	1989.000	0.17
June 14, 2016	2251.000	0.25
June 15, 2016	2641.000	0.34
June 16, 2016	2306.000	0.35
June 17, 2016	2514.000	0.35
June 18, 2016	2514.000	0.35
June 19, 2016	2514.000	0.35
June 20, 2016	2526.000	0.36
June 21, 2016	2627.000	0.35
June 22, 2016	2795.000	0.37
June 23, 2016	2497.000	0.36
June 24, 2016	2894.000	0.35
June 25, 2016	2894.000	0.35
June 26, 2016	2894.000	0.32
June 27, 2016	2081.000	0.32
June 28, 2016	3350.000	0.36
June 29, 2016	2984.000	0.23
June 30, 2016	2900.000	0.30
July 1, 2016	2900.000	0.30
July 2, 2016	2900.000	0.30
July 3, 2016	2396.000	0.36
July 4, 2016	2396.000	0.30
July 5, 2016	2396.000	0.33
July 6, 2016	2338.000	0.33
July 7, 2016	2600.000	0.32
July 8, 2016	2501.000	0.33
July 9, 2016	2710.000	0.33
July 10, 2016	2954.000	0.32
July 11, 2016	2954.000	0.32
July 12, 2016	2900.000	0.32
July 13, 2016	2439.000	0.32
July 14, 2016	2319.000	0.32
July 15, 2016	2400.000	0.32
July 16, 2016	2400.000	0.32

July 17, 2016	2400.000	0.32
July 18, 2016	2400.000	0.31
July 19, 2016	1524.000	0.28
July 20, 2016	2414.000	0.28
July 21, 2016	2164.000	0.26
July 22, 2016	2705.000	0.30
July 23, 2016	2705.000	0.29
July 24, 2016	2705.000	0.29
July 25, 2016	2881.000	0.28
July 26, 2016	2747.000	0.30
July 27, 2016	2751.000	0.30
July 28, 2016	3696.000	0.30
July 29, 2016	3142.000	0.30
July 30, 2016	3142.000	0.30
July 31, 2016	3142.000	0.30
August 1, 2016	3142.000	0.31
August 2, 2016	2160.000	0.28
August 3, 2016	2533.000	0.25
August 4, 2016	2428.000	0.26
August 5, 2016	2400.000	0.26
August 6, 2016	2400.000	0.26
August 7, 2016	2400.000	0.28
August 8, 2016	2422.000	0.27
August 9, 2016	2248.000	0.27
August 10, 2016	2549.000	0.29
August 11, 2016	3035.000	0.29
August 12, 2016	3087.000	0.29
August 13, 2016	3087.000	0.29
August 14, 2016	3087.000	0.25
August 15, 2016	2633.000	0.25
August 16, 2016	2990.000	0.28
August 17, 2016	3159.000	0.28
August 18, 2016	3159.000	0.26
August 19, 2016	2872.000	0.26
August 20, 2016	2872.000	0.26
August 21, 2016	2872.000	0.25
August 22, 2016	3412.000	0.25
August 23, 2016	2449.000	0.25
August 24, 2016	2575.000	0.29
August 25, 2016	3624.000	0.14
August 26, 2016	2736.000	0.20
August 27, 2016	2736.000	0.20
August 28, 2016	2736.000	0.29
August 29, 2016	2736.000	0.27
August 30, 2016	2595.000	0.27
August 31, 2016	2469.000	0.25
September 1, 2016	1789.000	0.25
September 2, 2016	1797.000	0.25
September 3, 2016	1797.000	0.25
September 4, 2016	1797.000	0.25
September 5, 2016	1797.000	0.25
September 6, 2016	1797.000	0.31

September 7, 2016	1801.000	0.29
September 8, 2016	1993.000	0.29
September 9, 2016	2099.000	0.29
September 10, 2016	2099.000	0.29
September 11, 2016	2099.000	0.31
September 12, 2016	2003.000	0.32
September 13, 2016	2401.000	0.31
September 14, 2016	1963.000	0.31
September 15, 2016	1978.000	0.31
September 16, 2016	1965.000	0.31
September 17, 2016	1965.000	0.31
September 18, 2016	1965.000	0.32
September 19, 2016	1723.000	0.33
September 20, 2016	1420.000	0.33
September 21, 2016	1499.000	0.29
September 22, 2016	1742.000	0.25
September 23, 2016	1687.000	0.25
September 24, 2016	1687.000	0.25
September 25, 2016	1687.000	0.20
September 26, 2016	1566.000	0.22
September 27, 2016	1433.000	0.22
September 28, 2016	1433.000	0.20
September 29, 2016	1564.000	0.21
September 30, 2016	1500.000	0.21
October 1, 2016	1500.000	0.21
October 2, 2016	1500.000	0.23
October 3, 2016	1819.000	0.22
October 4, 2016	1190.000	0.22
October 5, 2016	1342.000	0.22
October 6, 2016	1342.000	0.30
October 7, 2016	1451.000	0.30
October 8, 2016	1451.000	0.30
October 9, 2016	1451.000	0.30
October 10, 2016	1451.000	0.30
October 11, 2016	1451.000	0.30
October 12, 2016	1451.000	0.42
October 13, 2016	1700.000	0.30
October 14, 2016	1328.000	0.30
October 15, 2016	1328.000	0.30
October 16, 2016	1328.000	0.24
October 17, 2016	1317.000	0.25
October 18, 2016	1624.000	0.27
October 19, 2016	1086.000	0.29
October 20, 2016	1196.000	0.28
October 21, 2016	1504.000	0.28
October 22, 2016	1504.000	0.28
October 23, 2016	1504.000	0.33
October 24, 2016	1161.000	0.34
October 25, 2016	1311.000	0.33
October 26, 2016	1266.000	0.33
October 27, 2016	1266.000	0.33
October 28, 2016	1348.000	0.33

October 29, 2016	1348.000	0.33
October 30, 2016	1348.000	0.33
October 31, 2016	1348.000	0.33
November 1, 2016	1348.000	0.33
November 2, 2016	1348.000	0.33
November 3, 2016	1348.000	0.28
November 4, 2016	1361.000	0.28
November 5, 2016	1361.000	0.28
November 6, 2016	1361.000	0.28
November 7, 2016	1017.000	0.28
November 8, 2016	1204.000	0.28
November 9, 2016	1204.000	0.26
November 10, 2016	1075.000	0.26
November 11, 2016	1075.000	0.26
November 12, 2016	1075.000	0.26
November 13, 2016	1075.000	0.26
November 14, 2016	2080.000	0.24
November 15, 2016	1102.000	0.25
November 16, 2016	1213.000	0.26
November 17, 2016	1281.000	0.28
November 18, 2016	1266.000	0.28
November 19, 2016	1266.000	0.28
November 20, 2016	1266.000	0.30
November 21, 2016	1654.000	0.28
November 22, 2016	1203.000	0.28
November 23, 2016	1632.000	0.17
November 24, 2016	1195.000	0.20
November 25, 2016	1161.000	0.20
November 26, 2016	1161.000	0.20
November 27, 2016	1161.000	0.24
November 28, 2016	1494.000	0.25
November 29, 2016	1143.000	0.28
November 30, 2016	2562.000	0.27
December 1, 2016	1264.000	0.27
December 2, 2016	1264.000	0.27
December 3, 2016	1264.000	0.27
December 4, 2016	1264.000	0.24
December 5, 2016	1192.000	0.24
December 6, 2016	1258.000	0.24
December 7, 2016	1294.000	0.28
December 8, 2016	1196.000	0.29
December 9, 2016	1412.000	0.29
December 10, 2016	1412.000	0.29
December 11, 2016	1412.000	0.31
December 12, 2016	1757.000	0.31
December 13, 2016	1757.000	0.34
December 14, 2016	1399.000	0.34
December 15, 2016	1387.000	0.37
December 16, 2016	1387.000	0.37
December 17, 2016	1387.000	0.37
December 18, 2016	1387.000	0.37
December 19, 2016	1103.000	0.37

December 20, 2016	1527.000	0.37
December 21, 2016	1527.000	0.38
December 22, 2016	1094.000	0.38
December 23, 2016	1247.000	0.38
December 24, 2016	1247.000	0.38
December 25, 2016	1247.000	0.38
December 26, 2016	1247.000	0.38
December 27, 2016	1247.000	0.42
December 28, 2016	1451.000	0.42
December 29, 2016	1328.000	0.40
December 30, 2016	1328.000	0.40

Total Cubic m 674,628.00

APPENDIX II- Chemistry Test Results

VILLAGE OF PEMBERTON

Maxxam Job Number: B620723

Report Date: 2016/03/22

CSR TOTAL METALS IN WATER (WATER)

Maxxam ID		OH7418	OH7419		
Sampling Date		2016/03/17 14:40	2016/03/17 14:20		
COC Number		489963-01-01	489963-01-01		
	UNITS	WELL #2 SAMPLEST	WELL #3 SAMPLEST	RDL	QC Batch
Calculated Parameters					
Total Hardness (CaCO3)	mg/L	39.9	15.0	0.50	8220087
Total Metals by ICPMS					
Total Aluminum (Al)	ug/L	9.5	11.3	3.0	8221821
Total Antimony (Sb)	ug/L	<0.50	<0.50	0.50	8221821
Total Arsenic (As)	ug/L	<0.10	<0.10	0.10	8221821
Total Barium (Ba)	ug/L	24.9	9.4	1.0	8221821
Total Beryllium (Be)	ug/L	<0.10	<0.10	0.10	8221821
Total Bismuth (Bi)	ug/L	<1.0	<1.0	1.0	8221821
Total Boron (B)	ug/L	<50	<50	50	8221821
Total Cadmium (Cd)	ug/L	0.019	0.014	0.010	8221821
Total Chromium (Cr)	ug/L	<1.0	<1.0	1.0	8221821
Total Cobalt (Co)	ug/L	<0.50	<0.50	0.50	8221821
Total Copper (Cu)	ug/L	5.52	17.0	0.50	8221821
Total Iron (Fe)	ug/L	123	20	10	8221821
Total Lead (Pb)	ug/L	0.56	1.36	0.20	8221821
Total Lithium (Li)	ug/L	<5.0	<5.0	5.0	8221821
Total Manganese (Mn)	ug/L	78.9	1.4	1.0	8221821
Total Molybdenum (Mo)	ug/L	<1.0	<1.0	1.0	8221821
Total Nickel (Ni)	ug/L	<1.0	<1.0	1.0	8221821
Total Selenium (Se)	ug/L	<0.10	<0.10	0.10	8221821
Total Silicon (Si)	ug/L	4510	3300	100	8221821
Total Silver (Ag)	ug/L	<0.020	<0.020	0.020	8221821
Total Strontium (Sr)	ug/L	83.3	28.8	1.0	8221821
Total Thallium (Tl)	ug/L	<0.050	<0.050	0.050	8221821
Total Tin (Sn)	ug/L	<5.0	<5.0	5.0	8221821
Total Titanium (Ti)	ug/L	<5.0	<5.0	5.0	8221821
Total Uranium (U)	ug/L	<0.10	<0.10	0.10	8221821
Total Vanadium (V)	ug/L	<5.0	<5.0	5.0	8221821
Total Zinc (Zn)	ug/L	9.6	<5.0	5.0	8221821
Total Zirconium (Zr)	ug/L	<0.50	<0.50	0.50	8221821

Total Calcium (Ca)	mg/L	14.5	5.51	0.050	8221590
Total Magnesium (Mg)	mg/L	0.883	0.290	0.050	8221590
Total Potassium (K)	mg/L	1.40	0.627	0.050	8221590
Total Sodium (Na)	mg/L	6.49	1.74	0.050	8221590
Total Sulphur (S)	mg/L	4.9	<3.0	3.0	8221590

RDL = Reportable Detection Limit

Results relate only to the items tested.

Appendix III - Weekly Chlorine and pH levels

Chlorine in mg/L

Sample Station

Date	5-Jan-16	11-Jan-16	19-Jan-16	26-Jan-16		
Firehall	0.31					
Industrial Park	0.04			0.16		
Collins Rd				0.16		
Pem. Meadows Rd				0.34		
Pem. Farm Rd			0.32	0.33		
Urdal Rd						
Oak St	0.41	0.39	0.38	0.37		
Village Office	0.15	0.07	0.34	0.14		
Plateau	0.32	0.33	0.32	0.36		
Treatment Plant	0.07	0.05	0.10	0.13		
Health Centre	0.37	0.32	0.33	0.37		

pH

Sample Station

Date	5-Jan-16	11-Jan-16	19-Jan-16	26-Jan-16		
Firehall	6.18 / 14.3					
Industrial Park	5.92 / 14.6			6.95 / 12.1		
Collins Rd				6.18 / 11.9		
Pem. Meadows Rd				5.96 / 12.2		
Pem. Farm Rd			5.98 / 15.0	5.94 / 12.1		
Urdal Rd						
Oak St	5.87 / 14.8	6.32 / 14.6	6.15 / 15.8	6.25 / 12.6		
Village Office	5.88 / 15.0	6.30 / 14.4	6.37 / 15.4	6.18 / 12.8		
Plateau	5.91 / 14.6	6.28 / 13.8	6.51 / 15.9	6.24 / 12.6		
Treatment Plant	5.84 / 15.1	6.23 / 17.1	6.50 / 16.7	6.29 / 14.5		
Health Centre	5.90 / 14.6	6.35 / 14.7	6.57 / 17.3	6.14 / 12.5		

Chlorine in mg/L

Sample Station

Date	1-Feb-16	9-Feb-16	15-Feb-16	22-Feb-16
Firehall	0.11			
Industrial Park	0.28	0.14	0.12	0.13
Collins Rd	0.06		0.05	0.09
Pem. Meadows Rd	0.28	0.04	0.36	0.33
Pem. Farm Rd	0.29	0.31	0.33	0.32
Urdal Rd	0.32	0.36	0.38	0.38
Oak St	0.34	0.37	0.40	0.37
Village Office	0.08	0.33	0.35	0.08
Plateau	0.33	0.32	0.33	0.31
Treatment Plant	0.06	0.05	0.11	0.09
Health Centre	0.31	0.33	0.38	0.34

pH

Sample Station

Date	1-Feb-16	9-Feb-16	15-Feb-16	22-Feb-16
Firehall	6.62 / 12.8			
Industrial Park	7.04 / 13.3	6.45 / 10.4	6.52 / 9.8	6.10 / 10.9
Collins Rd	6.61 / 12.2	6.28 / 11.0	6.11 / 9.6	5.84 / 10.4
Pem. Meadows Rd	6.63 / 12.7		6.19 / 9.8	5.79 / 10.8
Pem. Farm Rd	6.67 / 12.0	6.29 / 11.2	6.19 / 9.6	5.86 / 10.5
Urdal Rd	6.69 / 12.1	6.22 / 10.7	6.30 / 9.2	5.93 / 10.8
Oak St	6.64 / 12.5	6.37 / 10.8	6.18 / 9.1	5.90 / 11.2
Village Office	6.60 / 12.4	6.33 / 10.8	6.47 / 9.8	5.91 / 10.9
Plateau	6.66 / 12.3	6.30 / 11.0	6.35 / 9.6	5.94 / 10.8
Treatment Plant	6.64 / 13.6	6.23 / 12.1	6.28 / 19.5	5.95 / 12.5
Health Centre	6.64 / 12.8	6.40 / 11.	6.22 / 9.8	5.92 / 10.9

Chlorine in mg/L

Sample Station

Date	1-Mar-16	9-Mar-16	14-Mar-16	23-Mar-16	30-Mar-16
Firehall	0.22				
Industrial Park	0.11	0.01	0.13	0.04	0.00
Collins Rd	0.05	0.03	0.06	0.04	0.00
Pem. Meadows Rd	0.32	0.08	0.21	0.19	0.13
Pem. Farm Rd	0.32	0.10	0.21	0.21	0.13
Urdal Rd	0.39	0.21	0.22	0.25	0.20
Oak St	0.38		0.28	0.26	0.22
Village Office	0.28	0.12	0.17	0.12	0.13
Plateau	0.38	0.02	0.20	0.22	0.14
Treatment Plant	0.08	0.04	0.09	0.03	0.04
Health Centre	0.06	0.23	1.65	0.24	0.16

pH

Sample Station

Date	1-Mar-16	9-Mar-16	14-Mar-16	23-Mar-16	30-Mar-16
Firehall	5.52 / 9.8				
Industrial Park	5.64 / 9.8	6.60 / 8.6	6.49 / 13.9	6.51 / 10.3	6.62 / 11.5
Collins Rd	5.53 / 9.8	6.57 / 8.8	6.26 / 12.6	6.04 / 9.1	6.43 / 11.1
Pem. Meadows Rd	5.66 / 9.8	6.43 / 8.1	6.28 / 13.1	6.15 / 10.2	6.46 / 10.9
Pem. Farm Rd	5.52 / 10.2	6.47 / 7.8	6.40 / 13.1	6.08 / 9.8	6.45 / 11.1
Urdal Rd	5.48 / 9.7	6.48 / 8.9	6.24 / 13.6	6.30 / 10.1	6.45 / 11.2
Oak St	5.60 / 9.9		6.26 / 12.8	6.30 / 10.0	6.43 / 11.7
Village Office	5.58 / 10.8	6.46 / 8.1	6.33 / 13.2	6.18 / 9.0	6.42 / 11.9
Plateau	5.59 / 9.9	6.48 / 8.1	6.32 / 13.8	6.05 / 9.2	6.46 / 10.6
Treatment Plant	5.41 / 14.7	6.45 / 12.1	6.36 / 14.5	6.13 / 16.9	6.39 / 15.8
Health Centre	5.43 / 9.9	6.50 / 8.8	6.24 / 14.6	6.31 / 12.9	6.43 / 13.0

Chlorine in mg/L

Sample Station

Date	4-Apr-16	11-Apr-16	20-Apr-16	26-Apr-16
Firehall				
Industrial Park	0.06	0.18	0.04	0.12
Collins Rd	0.05	0.03	0.22	0.28
Pem. Meadows Rd	0.28	0.24	0.25	0.23
Pem. Farm Rd	0.22	0.23	0.22	0.26
Urdal Rd	0.28	0.27	0.33	0.29
Oak St	0.31	0.27	0.35	0.22
Village Office	0.22	0.22	0.21	0.25
Plateau	0.26	0.23	0.23	0.21
Treatment Plant	0.06	0.05	0.07	0.09
Health Centre	0.28	0.23	0.27	0.26

pH

Sample Station

Date	4-Apr-16	11-Apr-16	20-Apr-16	26-Apr-16
Firehall				
Industrial Park	6.66 / 12.7	6.64 / 14.3	6.91 / 15.4	6.57 / 16.6
Collins Rd	6.42 / 12.1	6.41 / 13.9	6.36 / 13.3	6.36 / 15.6
Pem. Meadows Rd	6.41 / 12.1	6.43 / 13.1	6.36 / 14.3	6.34 / 16.7
Pem. Farm Rd	6.43 / 11.1	6.47 / 12.9	6.35 / 13.9	6.33 / 16.0
Urdal Rd	6.40 / 13.1	6.44 / 13.5	6.39 / 14.4	6.36 / 16.9
Oak St	6.42 / 13.1	6.46 / 12.6	6.35 / 13.5	6.39 / 16.1
Village Office	6.44 / 12.1	6.46 / 13.3	6.36 / 15.1	6.39 / 17.4
Plateau	6.39 / 12.9	6.39 / 13.5	6.35 / 15.1	6.40 / 16.6
Treatment Plant	6.37 / 15.2	6.44 / 17.5	6.30 / 15.8	6.29 / 17.6
Health Centre	6.39 / 13.4	6.48 / 14.0	6.35 / 15.7	6.38 / 17.5

Chlorine in mg/L

Sample Station

Date	2-May-16	9-May-16	16-May-16	24-May-16	30-May-16
Firehall	0.23		0.33		0.21
Industrial Park	0.01	0.12	0.05	0.06	0.00
Collins Rd	0.18	0.31	0.29	0.27	0.27
Pem. Meadows Rd	0.19	0.30	0.28	0.20	0.20
Pem. Farm Rd	0.36	0.25	0.30	0.21	0.23
Urdal Rd	0.26	0.32	0.32	0.27	0.26
Oak St	0.28	0.31	0.34	0.26	0.29
Village Office	0.17	0.27	0.15	0.16	0.15
Plateau	0.22	0.30	0.29	0.18	0.22
Treatment Plant	0.13	0.03	0.17	0.02	0.00
Health Centre	0.23	0.26	0.27	0.18	0.23

pH

Sample Station

Date	2-May-16	9-May-16	16-May-16	24-May-16	30-May-16
Firehall	6.79 / 11.3		6.37 / 20.1	6.71 / 16.6	6.38 / 15.7
Industrial Park	6.80 / 12.7	6.56 / 20.3	6.57 / 20.2		6.65 / 16.1
Collins Rd	6.59 / 11.4	6.33 / 20.6	6.33 / 20.0	6.33 / 14.5	6.39 / 15.7
Pem. Meadows Rd	6.40 / 11.0	6.34 / 20.2	6.36 / 20.6	6.38 / 15.6	6.41 / 15.5
Pem. Farm Rd	6.59 / 11.3	6.37 / 20.7	6.36 / 20.6	6.41 / 15.3	6.44 / 15.4
Urdal Rd	6.61 / 11.6	6.31 / 20.6	6.36 / 20.1	6.33 / 14.2	6.39 / 15.3
Oak St	6.63 / 11.3	6.43 / 19.1	6.33 / 20.4	6.35 / 16.0	6.41 / 15.8
Village Office	6.58 / 13.4	6.44 / 20.1	6.36 / 20.7	6.36 / 16.4	6.42 / 15.5
Plateau	6.58 / 12.0	6.30 / 20.8	6.35 / 20.8	6.30 / 15.0	6.37 / 15.7
Treatment Plant	6.59 / 11.0	6.31 / 20.2	6.34 / 18.3	6.38 / 18.6	6.29 / 17.2
Health Centre	6.53 / 12.5	6.39 / 20.3	6.34 / 20.8	6.34 / 16.4	6.44 / 15.3

Chlorine in mg/L

Sample Station

Date	6-Jun-16	13-Jun-16	20-Jun-16	27-Jun-16
Firehall	0.26			
Industrial Park	0.09	0.02	0.00	0.00
Collins Rd	0.28	0.38	0.30	0.18
Pem. Meadows Rd	0.24	0.25	0.26	0.19
Pem. Farm Rd	0.26	0.29	0.25	0.20
Urdal Rd	0.30	0.31	0.28	0.14
Oak St	0.23	0.31	0.28	0.16
Village Office	0.12	0.19	0.22	0.19
Plateau	0.23	0.26	0.16	0.13
Treatment Plant	0.04	0.08	0.04	0.03
Health Centre	0.17	0.14	0.16	0.11

pH

Sample Station

Date	6-Jun-16	13-Jun-16	20-Jun-16	27-Jun-16
Firehall	6.33 / 17.0			6.52 / 15.7
Industrial Park	6.62 / 17.0	6.59 / 17.6	6.56 / 16.8	6.80 / 17.4
Collins Rd	6.37 / 16.7	6.27 / 17.2	6.47 / 17.3	6.51 / 15.6
Pem. Meadows Rd	6.41 / 16.9	6.28 / 17.4	6.32 / 15.4	6.45 / 15.2
Pem. Farm Rd	6.44 / 17.2	6.30 / 17.2	6.50 / 17.9	6.49 / 15.7
Urdal Rd	6.45 / 16.5	6.35 / 17.8	6.21 / 14.9	6.56 / 15.9
Oak St	6.38 / 17.0	6.34 / 17.5	6.36 / 16.0	6.48 / 16.4
Village Office	6.39 / 17.7	6.30 / 17.3	6.23 / 16.2	6.52 / 16.2
Plateau	6.38 / 16.8	6.34 / 17.4	6.31 / 15.5	6.50 / 16.4
Treatment Plant	6.32 / 18.7	6.26 / 18.0	6.32 / 20.1	6.45 / 17.3
Health Centre	6.34 / 17.1	6.32 / 18.4	6.26 / 16.3	6.46 / 16.3

Chlorine in mg/L

Sample Station

Date	4-Jul-16	11-Jul-16	19-Jul-16	26-Jul-16
Firehall				0.39
Industrial Park	0.08	0.03	0.15	0.17
Collins Rd	0.22	0.37	0.42	0.30
Pem. Meadows Rd	0.17	0.17	0.37	0.32
Pem. Farm Rd	0.16	0.35	0.37	0.28
Urdal Rd	0.19	0.27	0.47	0.31
Oak St	0.21	0.34	0.33	0.30
Village Office	0.13	0.11	0.14	0.06
Plateau	0.15	0.31	0.36	0.25
Treatment Plant	0.12	0.00	0.33	0.28
Health Centre	0.08	0.29	0.29	0.24

pH

Sample Station

Date	4-Jul-16	11-Jul-16	19-Jul-16	26-Jul-16
Firehall				6.64 / 20.9
Industrial Park	6.52 / 17.0	6.70 / 18.5	6.65 / 18.6	6.73 / 19.9
Collins Rd	6.31 / 15.4	6.32 / 18.2	6.16 / 18.4	6.57 / 20.2
Pem. Meadows Rd	6.27 / 15.6	6.23 / 16.6	6.18 / 17.8	6.55 / 19.4
Pem. Farm Rd	6.24 / 16.1	6.37 / 16.8	6.21 / 18.0	6.48 / 19.6
Urdal Rd	6.33 / 16.7	6.23 / 17.0	6.23 / 18.8	6.42 / 19.2
Oak St	6.31 / 15.9	6.37 / 16.9	6.24 / 18.1	6.39 / 20.7
Village Office	6.30 / 16.8	6.34 / 18.6	6.14 / 18.9	6.32 / 19.0
Plateau	6.32 / 15.4	6.23 / 18.0	6.23 / 18.4	6.38 / 19.8
Treatment Plant	6.27 / 18.8	6.22 / 20.0	6.63 / 20.7	6.36 / 21.9
Health Centre	6.33 / 16.0	6.23 / 18.0	6.21 / 18.7	6.49 / 20.0

Chlorine in mg/L

Sample Station

Date	2-Aug-16	9-Aug-16	15-Aug-16	23-Aug-16	30-Aug-16
Firehall	0.27				
Industrial Park	0.16	0.05	0.03	0.13	0.12
Collins Rd	0.34	0.31	0.24	0.25	0.32
Pem. Meadows Rd	0.28	0.24	0.25	0.23	0.28
Pem. Farm Rd	0.29	0.29	0.22	0.21	0.17
Urdal Rd	0.25	0.31	0.20	0.19	0.32
Oak St	0.30	0.34	0.23	0.22	0.33
Village Office	0.22	0.18	0.20	0.17	0.18
Plateau	0.30	0.22	0.25	0.18	0.26
Treatment Plant	0.22	0.14	0.02	0.24	0.28
Health Centre	0.21	0.16	0.13	0.12	0.23

pH

Sample Station

Date	2-Aug-16	9-Aug-16	15-Aug-16	23-Aug-16	30-Aug-16
Firehall	6.33 / 19.4	6.51 / 16.5			
Industrial Park	6.53 / 18.5		6.89 / 14.5	6.69 / 15.0	6.56 / 17.1
Collins Rd	6.45 / 19.0	6.28 / 17.1	6.33 / 14.2	6.32 / 13.8	6.06 / 15.0
Pem. Meadows Rd	6.46 / 19.2	6.24 / 16.9	6.35 / 13.4	6.32 / 13.9	6.11 / 15.8
Pem. Farm Rd	6.36 / 19.3	6.29 / 16.5	6.34 / 14.5	6.31 / 14.6	6.17 / 14.2
Urdal Rd	6.35 / 19.0	6.32 / 16.4	6.37 / 13.9	6.36 / 13.1	6.30 / 13.9
Oak St	6.47 / 19.2	6.34 / 15.9	6.39 / 12.8	6.34 / 14.8	6.24 / 14.9
Village Office	6.41 / 19.4	6.31 / 16.5	6.34 / 13.8	6.32 / 14.6	6.27 / 16.5
Plateau	6.50 / 19.7	6.28 / 17.8	6.28 / 14.2	6.35 / 14.2	6.34 / 13.5
Treatment Plant	6.28 / 18.9	6.28 / 17.6	6.29 / 16.0	6.29 / 15.	6.30 / 17.1
Health Centre	6.43 / 19.4	6.26 / 17.9	6.34 / 13.9	6.31 / 14.5	6.13 / 15.5

Chlorine in mg/L

Sample Station

Date	6-Sep-16	14-Sep-16	20-Sep-16	27-Sep-16
Firehall	0.19	0.22	0.28	
Industrial Park	0.00	0.16	0.10	0.15
Collins Rd	0.28	0.32	0.35	0.20
Pem. Meadows Rd	0.23	0.21	0.27	0.14
Pem. Farm Rd	0.27	0.24	0.30	0.17
Urdal Rd	0.21	0.31	0.34	0.19
Oak St	0.27	0.30	0.35	0.14
Village Office	0.13	0.21	0.16	0.00
Plateau	0.22	0.27	0.26	0.15
Treatment Plant	0.06	0.13	0.04	0.09
Health Centre		0.23	0.26	0.12

pH

Sample Station

Date	6-Sep-16	14-Sep-16	20-Sep-16	27-Sep-16
Firehall	6.44 / 16.7	6.39 / 14.8	6.14 / 14.9	
Industrial Park	6.52 / 16.2	6.67 / 15.9	6.58 / 15.4	6.33 / 14.5
Collins Rd	6.47 / 17.9	6.38 / 13.7	6.19 / 14.4	6.06 / 14.9
Pem. Meadows Rd	6.38 / 17.2	6.40 / 14.7	6.23 / 13.6	6.08 / 13.9
Pem. Farm Rd	6.51 / 16.7	6.44 / 14.8	6.22 / 14.6	6.03 / 15.2
Urdal Rd	6.22 / 15.4	6.47 / 13.1	6.19 / 14.0	5.99 / 15.1
Oak St	6.34 / 15.9	6.45 / 15.1	6.26 / 15.2	5.98 / 15.7
Village Office	6.50 / 17.0	6.41 / 15.0	6.24 / 16.3	5.99 / 15.9
Plateau	6.24 / 17.3	6.43 / 14.3	6.14 / 14.4	5.98 / 15.7
Treatment Plant	6.36 / 19.8	6.33 / 16.9	6.11 / 19.1	5.69 / 22.1
Health Centre		6.45 / 15.1	5.84 / 14.7	5.98 / 16.1

Chlorine in mg/L

Sample Station

Date	3-Oct-16	10-Oct-16	18-Oct-16	24-Oct-16
Firehall		0.30		0.29
Industrial Park	0.16	0.00	0.17	0.07
Collins Rd	0.23	0.34	0.19	0.32
Pem. Meadows Rd	0.16		0.16	0.23
Pem. Farm Rd	0.17	0.29	0.11	0.25
Urdal Rd	0.21	0.35	0.25	0.34
Oak St	0.23	0.26	0.19	0.30
Village Office	0.08	0.23	0.18	0.15
Plateau	0.16	0.28	0.18	0.21
Treatment Plant	0.01	0.00	0.02	0.00
Health Centre	0.16	0.24	0.22	0.27

pH

	3-Oct-16	10-Oct-16	18-Oct-16	24-Oct-16
Firehall		6.38 / 19.1	6.72 / 12.6	5.77 / 13.6
Industrial Park	6.85 / 15.7	6.70 / 19.4		6.06 / 13.9
Collins Rd	6.22 / 15.1	6.43 / 18.6	5.78 / 11.1	5.76 / 13.9
Pem. Meadows Rd	6.36 / 14.8		5.74 / 10.0	5.75 / 13.9
Pem. Farm Rd	6.44 / 14.6	6.39 / 19.2	5.79 / 10.5	5.76 / 14.4
Urdal Rd	6.22 / 13.8	6.41 / 18.4	5.77 / 9.6	5.77 / 13.8
Oak St	6.24 / 14.2	6.37 / 18.5	5.70 / 11.8	5.94 / 14.4
Village Office	6.36 / 15.9	6.40 / 19.3	5.82 / 10.0	5.88 / 14.0
Plateau	6.21 / 14.6	6.41 / 18.8	5.76 / 11.9	5.73 / 13.9
Treatment Plant	6.38 / 17.4	6.35 / 17.4	5.59 / 15.2	5.73 / 16.5
Health Centre	6.29 / 15.8	6.69 / 18.9	5.72 / 12.2	5.79 / 14.2

Chlorine in mg/L

Sample Station

Date	2-Nov-16	7-Nov-16	14-Nov-16	22-Nov-16	28-Nov-16
Firehall				0.25	
Industrial Park	0.04	0.04	0.04	0.01	0.16
Collins Rd	0.26	0.18	0.19	0.29	0.26
Pem. Meadows Rd	0.22	0.18	0.20	0.31	0.18
Pem. Farm Rd	0.22	0.17	0.20	0.27	0.19
Urdal Rd	0.28	0.17		0.33	0.27
Oak St	0.31	0.24	0.26	0.32	0.28
Village Office	0.13	0.11	0.14	0.09	0.10
Plateau	0.25	0.18	0.19	0.23	0.17
Treatment Plant	0.02	0.06	0.03	0.07	0.01
Health Centre	0.26	0.18	0.25	0.31	0.18

pH

Sample Station

Date	2-Nov-16	7-Nov-16	14-Nov-16	22-Nov-16	28-Nov-16
Firehall				6.01 / 14.6	
Industrial Park	6.59 / 11.9	6.37 / 8.9	6.49 / 13.4	6.16 / 15.3	6.23 / 11.3
Collins Rd	6.27 / 11.8	6.06 / 6.1	5.77 / 10.3	6.02 / 14.5	6.01 / 11.0
Pem. Meadows Rd	6.40 / 12.8	6.10 / 8.2	5.87 / 11.1	5.97 / 14.9	6.04 / 10.7
Pem. Farm Rd	6.45 / 12.6	6.06 / 8.6	5.87 / 12.2	6.03 / 14.7	6.03 / 11.0
Urdal Rd	6.26 / 11.7	6.06 / 8.4		6.01 / 14.5	6.01 / 11.0
Oak St	6.42 / 13.2	6.09 / 7.8	5.93 / 12.2	6.01 / 14.2	6.03 / 10.9
Village Office	6.25 / 11.0	6.11 / 7.8	5.93 / 11.6	5.99 / 14.6	6.01 / 10.8
Plateau	6.34 / 12.9	6.07 / 8.0	5.88 / 12.5	6.02 / 14.8	5.94 / 10.7
Treatment Plant	6.29 / 15.9	5.72 / 13.6	5.99 / 15.0	6.03 / 16.8	6.05 / 12.9
Health Centre	6.39 / 12.4	6.12 / 8.0	5.92 / 13.0	6.09 / 14.6	6.04 / 11.1

Chlorine in mg/L

Sample Station

Date	5-Dec-16
Firehall	0.08
Industrial Park	
Collins Rd	
Pem. Meadows Rd	
Pem. Farm Rd	
Urdal Rd	
Oak St	0.27
Village Office	0.20
Plateau	0.27
Treatment Plant	0.00
Health Centre	0.25

pH

Sample Station

Date	5-Dec-16
Firehall	
Industrial Park	6.49 / 13.5
Collins Rd	
Pem. Meadows Rd	
Pem. Farm Rd	
Urdal Rd	
Oak St	6.30 / 13.3
Village Office	6.28 / 13.5
Plateau	6.22 / 14.4
Treatment Plant	6.02 / 15.5
Health Centre	6.21 / 14.3

Appendix IV - THM Test Results

VILLAGE OF PEMBERTON

Maxxam Job Number: B719010

Report Date: 2017/03/22

CSR VOC + VPH IN WATER (DRINKING WATER)

Maxxam ID				QS4113	QS4114	QS4115	QS4116		
Sampling Date				2017/03/14 10:00	2017/03/14 10:15	2017/03/14 09:45	2017/03/14 09:30		
COC Number				518243-01-01	518243-01-01	518243-01-01	518243-01-01		
	UNITS	MAC	AO	WELL #2	WELL #3	OAK ST	INDUSTRIAL PARK	RDL	QC Batch
Volatiles									
VPH (VH6 to 10 - BTEX)	ug/L	-	-	<300	<300	<300	<300	300	8577600
Chloromethane	ug/L	-	-	<1.0	<1.0	<1.0	<1.0	1.0	8579605
Vinyl chloride	ug/L	2	-	<0.50	<0.50	<0.50	<0.50	0.50	8579605
Chloroethane	ug/L	-	-	<1.0	<1.0	<1.0	<1.0	1.0	8579605
Trichlorofluoromethane	ug/L	-	-	<4.0	<4.0	<4.0	<4.0	4.0	8579605
1,1-dichloroethene	ug/L	14	-	<0.50	<0.50	<0.50	<0.50	0.50	8579605
Dichloromethane	ug/L	50	-	<2.0	<2.0	<2.0	<2.0	2.0	8579605
trans-1,2-dichloroethene	ug/L	-	-	<1.0	<1.0	<1.0	<1.0	1.0	8579605
1,1-dichloroethane	ug/L	-	-	<0.50	<0.50	<0.50	<0.50	0.50	8579605
cis-1,2-dichloroethene	ug/L	-	-	<1.0	<1.0	<1.0	<1.0	1.0	8579605
Chloroform	ug/L	-	-	<1.0	<1.0	1.2	<1.0	1.0	8579605
1,1,1-trichloroethane	ug/L	-	-	<0.50	<0.50	<0.50	<0.50	0.50	8579605
1,2-dichloroethane	ug/L	5	-	<0.50	<0.50	<0.50	<0.50	0.50	8579605
Carbon tetrachloride	ug/L	2	-	<0.50	<0.50	<0.50	<0.50	0.50	8579605
Benzene	ug/L	5	-	<0.40	<0.40	<0.40	<0.40	0.40	8579605
Methyl-tert-butylether (MTBE)	ug/L	-	15	<4.0	<4.0	<4.0	<4.0	4.0	8579605
1,2-dichloropropane	ug/L	-	-	<0.50	<0.50	<0.50	<0.50	0.50	8579605
cis-1,3-dichloropropene	ug/L	-	-	<1.0	<1.0	<1.0	<1.0	1.0	8579605
trans-1,3-dichloropropene	ug/L	-	-	<1.0	<1.0	<1.0	<1.0	1.0	8579605
Bromomethane	ug/L	-	-	<1.0	<1.0	<1.0	<1.0	1.0	8579605
1,1,2-trichloroethane	ug/L	-	-	<0.50	<0.50	<0.50	<0.50	0.50	8579605
Trichloroethene	ug/L	5	-	<0.50	<0.50	<0.50	<0.50	0.50	8579605

Appendix V - Sample Range Report

Sample Range Report

Vancouver Coastal Health

Facility Name: Pemberton Industrial Park Water System
Date Range: Jan 1 2016 to Dec 31 2016

Operator: Jeff Westlake
Attn: Jeff Westlake Box 100
Pemberton, BC V0N 2L0

Sampling Site	Date Collected	Total Coliform	E. Coli	Fecal Coliform
<u>Yard Hydrant, Pemberton Industrial Park</u>	26/01/2016	L1	L1	
	01/02/2016	L1	L1	
	09/02/2016	L1	L1	
	15/02/2016	L1	L1	
	22/02/2016	L1	L1	
	09/03/2016	L1	L1	
	14/03/2016	L1	L1	
	23/03/2016	L1	L1	
	30/03/2016	L1	L1	
	04/04/2016	L1	L1	
	11/04/2016	L1	L1	
	20/04/2016	L1	L1	
	26/04/2016	L1	L1	
	02/05/2016	L1	L1	
	09/05/2016	L1	L1	
	24/05/2016	L1	L1	
	06/06/2016	L1	L1	
	13/06/2016	L1	L1	
	20/06/2016	L1	L1	
	27/06/2016	L1	L1	
	04/07/2016	L1	L1	
	11/07/2016	L1	L1	
	19/07/2016	L1	L1	
	26/07/2016	T		
	02/08/2016	L1	L1	
	09/08/2016	L1	L1	
	15/08/2016	L1	L1	
	23/08/2016	L1	L1	
	30/08/2016	L1	L1	
	06/09/2016	L1	L1	
	14/09/2016	L1	L1	
	20/09/2016	L1	L1	
	28/11/2016	L1	L1	
	13/12/2016	<u>L1</u>	<u>L1</u>	
	Total Positive:	0	0	

Meter Chamber,
Pemberton Industrial
Park

05/01/2016	L1	L1
01/03/2016	L1	L1
16/05/2016	L1	L1
30/05/2016	L1	L1
27/09/2016	L1	L1
03/10/2016	EST 2	L1
11/10/2016	L1	L1
18/10/2016	L1	L1
24/10/2016	L1	L1
02/11/2016	L1	L1
07/11/2016	L1	L1
14/11/2016	L1	L1
22/11/2016	L1	L1
05/12/2016	<u>L1</u>	<u>L1</u>
Total Positive:	1	0

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

Samples that contain total coliform:	1	2.08% 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:	48	

Comments:

Environmental Health Officer
Aug 25 2017

FOR FURTHER INFORMATION PLEASE CALL: Cindy Watson (604) 892-2293

Sample Range Report

Vancouver Coastal Health

Facility Name: Village of Pemberton
Date Range: Jan 1 2016 to Dec 31 2016

Operator Jeff Westlake
 P.O. Box 100
 Pemberton, BC V0N 2L0

Sampling Site	Date Collected	Total Coliform	E. Coli	Fecal Coliform
<u>1403 Portage Road -</u>				
<u>audit site - PHN</u>				
<u>office tap.</u>				
<u>Pemberton Health</u>				
<u>Centre</u>				
	01/02/2016	L1	L1	
	09/02/2016	L1	L1	
	09/05/2016	L1	L1	
	24/05/2016	L1	L1	
	30/05/2016	L1	L1	
	06/06/2016	L1	L1	
	13/06/2016	L1	L1	
	20/06/2016	L1	L1	
	27/06/2016	L1	L1	
	11/07/2016	L1	L1	
	19/07/2016	L1	L1	
	26/07/2016	T		
	02/08/2016	L1	L1	
	09/08/2016	L1	L1	
	15/08/2016	L1	L1	
	23/08/2016	L1	L1	
	30/08/2016	<u>L1</u>	<u>L1</u>	
	Total Positive:	0	0	
<u>Reservoir South.</u>				
<u>Pemberton</u>				
	29/02/2016	<u>L1</u>	<u>L1</u>	
	Total Positive:	0	0	
<u>Treatment</u>				
<u>Plant/Airport Rd.</u>				
<u>Pemberton</u>				
	05/01/2016	L1	L1	
	11/01/2016	L1	L1	
	19/01/2016	L1	L1	
	26/01/2016	L1	L1	
	01/02/2016	L1	L1	
	09/02/2016	L1	L1	
	15/02/2016	L1	L1	

22/02/2016	L1	L1
01/03/2016	L1	L1
09/03/2016	L1	L1
14/03/2016	L1	L1
23/03/2016	L1	L1
30/03/2016	L1	L1
04/04/2016	L1	L1
11/04/2016	L1	L1
20/04/2016	L1	L1
26/04/2016	L1	L1
02/05/2016	L1	L1
09/05/2016	L1	L1
16/05/2016	L1	L1
24/05/2016	L1	L1
30/05/2016	L1	L1
06/06/2016	L1	L1
13/06/2016	L1	L1
20/06/2016	L1	L1
27/06/2016	L1	L1
04/07/2016	L1	L1
11/07/2016	L1	L1
19/07/2016	L1	L1
26/07/2016	T	
02/08/2016	L1	L1
09/08/2016	L1	L1
15/08/2016	L1	L1
23/08/2016	L1	L1
30/08/2016	L1	L1
06/09/2016	L1	L1
14/09/2016	L1	L1
20/09/2016	L1	L1
27/09/2016	L1	L1
03/10/2016	L1	L1
11/10/2016	L1	L1
18/10/2016	L1	L1
24/10/2016	L1	L1
02/11/2016	L1	L1
07/11/2016	L1	L1
14/11/2016	L1	L1
28/11/2016	L1	L1
05/12/2016	L1	L1
13/12/2016	<u>L1</u>	<u>L1</u>
Total Positive:	0	0

Oak Street At High
School, Pemberton

05/01/2016	L1	L1
11/01/2016	L1	L1
19/01/2016	L1	L1
26/01/2016	L1	L1
01/02/2016	L1	L1
09/02/2016	L1	L1
15/02/2016	L1	L1
22/02/2016	L1	L1
01/03/2016	L1	L1

Pemberton Plateau,
Pemberton

05/01/2016	L1	L1
11/01/2016	L1	L1
19/01/2016	L1	L1
26/01/2016	L1	L1
01/02/2016	L1	L1
09/02/2016	L1	L1
15/02/2016	L1	L1
22/02/2016	L1	L1
01/03/2016	L1	L1
09/03/2016	L1	L1

09/03/2016	L1	L1
14/03/2016	L1	L1
23/03/2016	L1	L1
30/03/2016	L1	L1
04/04/2016	L1	L1
11/04/2016	L1	L1
20/04/2016	L1	L1
26/04/2016	L1	L1
02/05/2016	L1	L1
09/05/2016	L1	L1
16/05/2016	L1	L1
24/05/2016	L1	L1
30/05/2016	L1	L1
06/06/2016	L1	L1
13/06/2016	L1	L1
20/06/2016	L1	L1
27/06/2016	L1	L1
04/07/2016	L1	L1
11/07/2016	L1	L1
19/07/2016	L1	L1
26/07/2016	T	
02/08/2016	L1	L1
09/08/2016	L1	L1
15/08/2016	L1	L1
23/08/2016	L1	L1
30/08/2016	L1	L1
06/09/2016	L1	L1
14/09/2016	L1	L1
20/09/2016	L1	L1
27/09/2016	L1	L1
03/10/2016	L1	L1
11/10/2016	L1	L1
18/10/2016	L1	L1
24/10/2016	L1	L1
02/11/2016	L1	L1
07/11/2016	L1	L1
14/11/2016	L1	L1
22/11/2016	L1	L1
28/11/2016	L1	L1
05/12/2016	L1	L1
13/12/2016	<u>L1</u>	<u>L1</u>
Total Positive:	0	0

14/03/2016	L1	L1
23/03/2016	L1	L1
30/03/2016	L1	L1
04/04/2016	L1	L1
11/04/2016	L1	L1
20/04/2016	L1	L1
26/04/2016	L1	L1
02/05/2016	L1	L1
09/05/2016	L1	L1
16/05/2016	L1	L1
24/05/2016	L1	L1
30/05/2016	L1	L1
06/06/2016	L1	L1
13/06/2016	L1	L1
20/06/2016	L1	L1
27/06/2016	L1	L1
04/07/2016	L1	L1
11/07/2016	L1	L1
19/07/2016	L1	L1
26/07/2016	T	
02/08/2016	L1	L1
09/08/2016	L1	L1
15/08/2016	L1	L1
23/08/2016	L1	L1
30/08/2016	L1	L1
06/09/2016	L1	L1
14/09/2016	L1	L1
20/09/2016	L1	L1
27/09/2016	L1	L1
03/10/2016	L1	L1
11/10/2016	L1	L1
18/10/2016	L1	L1
24/10/2016	L1	L1
02/11/2016	L1	L1
07/11/2016	L1	L1
14/11/2016	L1	L1
22/11/2016	L1	L1
28/11/2016	L1	L1
05/12/2016	L1	L1
13/12/2016	<u>L1</u>	<u>L1</u>
Total Positive:	0	0

Ad hoc /
miscellaneous site,
Pemberton

03/10/2016	<u>L1</u>	<u>L1</u>
Total Positive:	0	0

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

05/01/2016	L1	L1
11/01/2016	L1	L1

19/01/2016	L1	L1
26/01/2016	L1	L1
15/02/2016	L1	L1
22/02/2016	L1	L1
01/03/2016	L1	L1
09/03/2016	L1	L1
14/03/2016	L1	L1
23/03/2016	L1	L1
30/03/2016	L1	L1
04/04/2016	L1	L1
11/04/2016	L1	L1
20/04/2016	L1	L1
26/04/2016	L1	L1
02/05/2016	L1	L1
16/05/2016	L1	L1
04/07/2016	L1	L1
24/10/2016	L1	L1
02/11/2016	L1	L1
07/11/2016	L1	L1
14/11/2016	L1	L1
28/11/2016	L1	L1
05/12/2016	L1	L1
13/12/2016	<u>L1</u>	<u>L1</u>
Total Positive:	0	0

Village Office, 7410
Prospect

05/01/2016	L1	L1
11/01/2016	L1	L1
19/01/2016	L1	L1
26/01/2016	L1	L1
01/02/2016	L1	L1
09/02/2016	L1	L1
15/02/2016	L1	L1
22/02/2016	L1	L1
01/03/2016	L1	L1
09/03/2016	L1	L1
14/03/2016	L1	L1
23/03/2016	L1	L1
30/03/2016	L1	L1
04/04/2016	L1	L1
11/04/2016	L1	L1
20/04/2016	L1	L1
26/04/2016	L1	L1
02/05/2016	L1	L1
09/05/2016	L1	L1
16/05/2016	L1	L1
24/05/2016	L1	L1
30/05/2016	L1	L1
06/06/2016	L1	L1
13/06/2016	L1	L1
20/06/2016	L1	L1
27/06/2016	L1	L1
04/07/2016	L1	L1
11/07/2016	L1	L1

19/07/2016	L1	L1
26/07/2016	T	
02/08/2016	L1	L1
09/08/2016	L1	L1
15/08/2016	L1	L1
23/08/2016	L1	L1
30/08/2016	L1	L1
06/09/2016	L1	L1
14/09/2016	L1	L1
20/09/2016	L1	L1
27/09/2016	L1	L1
03/10/2016	L1	L1
11/10/2016	L1	L1
18/10/2016	L1	L1
24/10/2016	L1	L1
02/11/2016	L1	L1
07/11/2016	L1	L1
14/11/2016	L1	L1
22/11/2016	L1	L1
28/11/2016	L1	L1
05/12/2016	L1	L1
13/12/2016	<u>L1</u>	<u>L1</u>
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:	243		

Comments:

Environmental Health Officer
Aug 25 2017

FOR FURTHER INFORMATION PLEASE CALL: Cindy Watson (604) 892-2293