

Drinking Water System Annual Report

Reporting Period	January 1, 2013 – December 31, 2013
Water System Name	Village of Pemberton
Water System Owner	Village of Pemberton
Primary Contact Name (Operator or Manager)	Jeff Westlake
Phone Number (Operator or Manager)	604-894-6135
Email (Operator or Manager)	jwestlake@pemberton.ca

Describe Your Water Supply System

What is the source(s) of Raw Water?

Deep Well Shallow Well Surface Water Other (specify): _____

Does The Drinking Water System Have Primary Disinfection? Yes No

Chlorination Ultraviolet light Ozonation Other (specify): _____

Does The Drinking Water System Have Secondary Disinfection? Yes No

Chlorination Ultraviolet light Ozonation Other (specify): _____

Does The Drinking Water System Have Filtration? Yes No

Filter Type (check boxes that apply):

Cartridge Filter {1 micron, 5 micron, 10 micron} Carbon Filter Sand Filtration Reverse Osmosis

Other (specify): _____

Public Reporting

Emergency Response & Contingency Plan (ERCP)

Is your ERCP up to date? Yes No

How do you inform the users of the ERCP?

Hand Delivered Utility Bill Insert Bulletin Board Website (specify); _____

Other (specify): _____

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How do you inform system users of the Annual Report?

Hand Delivered Public Bulletin Board Newspaper Utility Bill Insert Website (specify); _____

Other method (specify): _____

Compliance with Operating Permit

List the conditions of your Operating Permit (Contact the DWO for a copy if needed):

Operating Permit attached

Are you in compliance with the Operating Permit? Yes No

Bacteriological Testing Completed During This Reporting Period

How many bacteriological samples did you collect? 239

Bacteriological summary attached to this report. Yes No; If no, how do the users view the results?

In order to meet the potability standard no more than 10% of samples can show the presence of total coliform bacteria and no samples can show the presence of E coli.

Did your water system meet this standard? Yes No

If No, complete the table below; Attach additional sheets if necessary.

Date	T. Coliform #	E. Coli #	Reason	Corrective Action

Chemical Sampling Completed During This Reporting Period

Did you conduct any chemical sampling: Yes No?

Did all treated water samples meet the Guidelines for Canadian Drinking Water Quality? Yes No

If no, record the parameters in the table below: Complete additional sheets if necessary.

Parameter	Result	Corrective Action/Treatment

Additional Testing

Did you complete any additional water testing in this reporting period? Yes No

If yes, complete the table below. Attach additional sheets if necessary.

Additional Testing & Reason for Sampling	Corrective Action Taken

Water Quality Complaints

Did you receive any water quality complaints in this reporting period? Yes No

If yes, complete the table below. Attach additional sheets if necessary.

Date	Water Quality Complaint (i.e. taste, odour, colour, etc)	Corrective Action Taken
Oct. 23/13	Discoloured water	Water main flushing and recommendations to strata to flush their water lines.

Operational Problems

Did you experience operational problems during this reporting period? Yes No

(Typical operational problems are; insufficient water supply, malfunction of disinfection equipment, line breaks, elevated turbidity, etc.).

If yes, complete the table below. Attach additional sheets if necessary.

Incident Date	Type of Operational Problem	Corrective Action Taken
Nov 20/13	Hypo pump pressure issues	Complete service to hypo pumps
Feb 02/13	Water main break Cedar Lane	Isolated, excavated and repaired split pipe
Dec 16/13	Water main break Pioneer St	Isolated, excavated and repaired split pipe
Oct 30/13	Water main break Cedar Lane	Isolated, excavated and repaired split pipe

Major Upgrades/Repairs & Expenses

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Did you complete any upgrades/repairs and incur major expenses in this reporting period? Yes No

If yes, complete the table below. Attach additional sheets if necessary.

Major Upgrades/Expenses	Details
Improvements required by DWO	
Additions/changes to system	
Purchase or installation of new equipment	
Equipment repair or replacement (existing)	Well #3 redevelopment and replacement of well pump and check valve
Annual maintenance of system: <i>(system flushing, replacement of carbon filters, etc)</i>	Water main flushing, Hypo pump servicing and improvements to chlorination system
Specialist report	Aquifer recharge study as per recommendations of the Groundwater Protection Plan
Other	

Future Improvements

Do you have plans for any future improvements? Yes No

If yes, complete the table below. Attach additional sheets if necessary.

Future Upgrades or Improvements	Est. date of completion
Construction of a new reservoir	2015
Installation of a second PRV chamber and water looping from the Benchlands reservoir.	2015
Extension of the water system to service McRae Road	2014

Date Completed; June 11, 2014

Completed by; _____
Print Name
Signature

Village of Pemberton Water System Annual Report - 2013

INTRODUCTION

This report is being 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 (Squamish) officials.

1. Consumption (Mega Gallons/day):

Daily flow numbers are recorded at the Wellhouse. The annual numbers are as follows:

Average Flow/day:	0.636
High Flow/day:	1.26
Low Flow/day:	0.465

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

2. Chlorination:

Upon commissioning of the new Well No. 3 in early 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 residual of 0.20 mg/L is desired. The residual reading is monitored continuously by a dedicated computer (SCADA), located in the main Wellhouse. Daily readings of the previous 24 hours average residual are recorded, as well as the chlorine dosing. The annual numbers are as follows:

a. Dosing (mg/L)	
Average:	0.59
High:	0.94
Low:	0.42
b. Residual (mg/L)	
Average:	0.20
High:	0.35
Low:	0.09

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

3. Chemistry Test Results:

The annual chemistry test was performed July 10, 2013 by Maxxam Analytics. The test results show that all of the items tested are well within the Health Canada guidelines. Since the test performed is a complete package (Maxxam Analytics' Drinking Water Package), there are some test results that do not have a guideline.

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

4. pH Test Results:

Starting in May 2009, pH testing was instituted on a weekly basis, in conjunction with the chlorine residual testing. Samples from six to eight 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 a central location (Oak St. sampling station). The annual samples were collected on July 09, 2013 and the 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. 1 (on standby only)
- 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.



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401 samples were submitted for analysis to the laboratory at Vancouver Coastal Health. The individual results are on file at Vancouver Coastal Health (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

Appendix I

	Flow (MG/day)	Avg Flow (G/hr)	Avg Flow (G/min)	Pump Flow (gpm)	Hypo Flow (L/hr)	Cl Dose (mg/L)	24 hr Avg Residual (mg/L)	Cl Demand (mg/L)	Well #2 Static Level (m)	Well #3 Static Level (m)
Number of Samples	362	364	364	122	122.00	122	364	119	152	102
Minimum	0.465	0	0	762	0.78	0.42	0.09	0.22	13.14	14.67
Maximum	1.260	52500	875	965	2.49	0.94	0.35	0.75	17.10	19.00
Average	0.636	26366	439	840	1.10	0.59	0.20	0.39	15.30	17.30
January 1, 3013	0.546	22750	379				0.19			
January 2, 3013	0.518	21583	360				0.18			
January 3, 3013	0.522	21750	363				0.17		16.11	17.99
January 4, 3013	0.523	21792	363	945	0.96	0.46	0.18	0.28		16.90
January 5, 3013	0.530	22083	368				0.18			
January 6, 3013	0.531	22125	369				0.19			
January 7, 3013	0.537	22375	373				0.21		16.32	18.19
January 8, 3013	0.545	22708	378				0.19			
January 9, 3013	0.527	21958	366	943	0.96	0.46	0.16	0.30		16.81
January 10, 3013	0.542	22583	376	948	0.96	0.46	0.17	0.29		17.12
January 11, 3013	0.551	22958	383	943	0.96	0.46	0.18	0.28		16.94
January 12, 3013	0.559	23292	388				0.17			
January 13, 3013	0.560	23333	389				0.19			
January 14, 3013	0.559	23292	388				0.19		15.75	17.59
January 15, 3013	0.561	23375	390				0.18			
January 16, 3013	0.548	22833	381	941	0.96	0.46	0.18	0.28		16.81
January 17, 3013	0.562	23417	390	965	0.98	0.46	0.18	0.28		17.83
January 18, 3013	0.585	24375	406				0.19		16.27	18.15
January 19, 3013	0.571	23792	397				0.18			
January 20, 3013	0.573	23875	398				0.18			
January 21, 3013	0.574	23917	399	783	0.80	0.46	0.20	0.26	15.12	
January 22, 3013	0.570	23750	396	800	0.81	0.46	0.21	0.25	14.82	
January 23, 3013	0.578	24083	401				0.24			
January 24, 3013	0.573	23875	398	785	0.80	0.46	0.21	0.25	14.92	
January 25, 3013	0.580	24167	403	773	0.78	0.46	0.21	0.25	15.23	
January 26, 3013	0.573	23875	398				0.21			
January 27, 3013	0.565	23542	392				0.21			
January 28, 3013	0.577	24042	401				0.22		15.15	17.02

January 29, 3013	0.563	23458	391	783	0.79	0.46	0.22	0.24	14.77	
January 30, 3013	0.546	22750	379				0.21		16.12	
January 31, 3013	0.539	22458	374				0.21		15.70	18.00
February 1, 3013	0.550	22917	382	788	0.80	0.46	0.22	0.24	14.92	17.53
February 2, 3013	0.531	22125	369				0.22			
February 3, 3013	0.541	22542	376				0.25			
February 4, 3013	0.526	21917	365				0.22		15.63	17.49
February 5, 3013	0.489	20375	340	762	0.80	0.48	0.24	0.24	15.08	
February 6, 3013	0.506	21083	351				0.22		15.46	17.27
February 7, 3013	0.465	19375	323	803	0.80	0.45	0.21	0.24	15.92	
February 8, 3013	0.481	20042	334				0.20			
February 9, 3013	0.504	21000	350				0.20			
February 10, 3013	0.491	20458	341				0.21			
February 11, 3013	0.514	21417	357				0.19			
February 12, 3013	0.495	20625	344	789	0.80	0.46	0.21	0.25	15.59	
February 13, 3013	0.504	21000	350				0.20		15.72	17.55
February 14, 3013	0.479	19958	333				0.19		16.44	18.32
February 15, 3013	0.478	19917	332	939	0.87	0.42	0.20	0.22		17.05
February 16, 3013	0.501	20875	348				0.20			
February 17, 3013	0.495	20625	344				0.19			
February 18, 3013	0.499	20792	347				0.20		16.20	18.07
February 19, 3013	0.491	20458	341				0.20			
February 20, 3013	0.506	21083	351				0.20		16.08	17.96
February 21, 3013	0.495	20625	344				0.20		16.42	18.32
February 22, 3013	0.507	21125	352	939	0.87	0.42	0.20	0.22		17.05
February 23, 3013	0.509	21208	353				0.21			
February 24, 3013	0.505	21042	351				0.20			
February 25, 3013	0.492	20500	342				0.20		16.50	18.38
February 26, 3013	0.493	20542	342				0.20		16.12	17.97
February 27, 3013	0.499	20792	347				0.21		16.19	18.03
February 28, 3013	0.497	20708	345	939	0.95	0.46	0.20	0.26		17.09
March 1, 3013	0.505	21042	351				0.20		16.41	18.28
March 2, 3013	0.506	21083	351				0.19			
March 3, 3013	0.508	21167	353				0.19			
March 4, 3013	0.499	20792	347				0.20		16.16	18.06
March 5, 3013	0.519	21625	360				0.21			
March 6, 3013	0.492	20500	342				0.20		16.72	18.59
March 7, 3013	0.502	20917	349				0.21		16.88	18.79
March 8, 3013	0.504	21000	350	945	0.95	0.46	0.21	0.25		17.70
March 9, 3013	0.518	21583	360				0.21			

March 10, 3013	0.523	21792	363				0.21			
March 11, 3013	0.526	21917	365				0.22		16.72	18.62
March 12, 3013	0.514	21417	357				0.21		17.03	18.94
March 13, 3013	0.506	21083	351	798	0.81	0.46	0.22	0.24	16.21	
March 14, 3013	0.508	21167	353				0.21		17.07	18.98
March 15, 3013	0.506	21083	351	946	0.96	0.46	0.22	0.24		17.80
March 16, 3013	0.502	20917	349				0.22			
March 17, 3013	0.496	20667	344				0.21			
March 18, 3013	0.495	20625	344				0.23			
March 19, 3013	0.495	20625	344				0.23			
March 20, 3013	0.491	20458	341				0.27			
March 21, 3013	0.494	20583	343				0.25			
March 22, 3013	0.496	20667	344				0.23			
March 23, 3013	0.492	20500	342				0.22			
March 24, 3013	0.498	20750	346				0.22			
March 25, 3013	0.508	21167	353				0.17		17.10	19.00
March 26, 3013	0.498	20750	346	805	0.81	0.46	0.20	0.26	16.34	
March 27, 3013	0.489	20375	340				0.22		16.55	18.42
March 28, 3013	0.496	20667	344	798	0.81	0.46	0.18	0.28	16.08	
March 29, 3013	0.497	20708	345				0.18			
March 30, 3013	0.516	21500	358				0.20			
March 31, 3013	0.518	21583	360				0.20			
April 1, 3013	0.517	21542	359	788	0.81	0.47	0.21	0.26		
April 2, 3013	0.502	20917	349				0.21			
April 3, 3013	0.496	20667	344				0.21		16.67	
April 4, 3013	0.517	21542	359				0.20		16.93	18.83
April 5, 3013	0.491	20458	341	811	0.82	0.46	0.20	0.26	15.80	
April 6, 3013	0.507	21125	352				0.19			
April 7, 3013	0.506	21083	351	788	0.80	0.46	0.18	0.28		
April 8, 3013	0.496	20667	344	939	0.95	0.46	0.20	0.26		17.64
April 9, 3013	0.497	20708	345				0.20			
April 10, 3013	0.501	20875	348				0.19		16.64	18.01
April 11, 3013	0.499	20792	347				0.18		16.51	17.79
April 12, 3013	0.529	22042	367				0.19			
April 13, 3013	0.497	20708	345				0.20			
April 14, 3013	0.524	21833	364				0.20			
April 15, 3013	0.534	22250	371				0.20			
April 16, 3013	0.529	22042	367				0.20			
April 17, 3013	0.525	21875	365	803	0.88	0.50	0.21	0.29	15.76	
April 18, 3013	0.506	21083	351	784	0.87	0.50	0.18	0.32	15.58	

April 19, 3013	0.525	21875	365	790	0.87	0.50	0.19	0.31	15.93	
April 20, 3013	0.531	22125	369				0.18			
April 21, 3013	0.537	22375	373				0.19			
April 22, 3013	0.569	23708	395				0.19			
April 23, 3013	0.582	24250	404				0.18			
April 24, 3013	0.577	24042	401				0.18		16.34	18.24
April 25, 3013	0.509	21208	353	939	1.04	0.50	0.18	0.32		17.62
April 26, 3013	0.482	20083	335				0.19		16.20	18.03
April 27, 3013	0.508	21167	353				0.19			
April 28, 3013	0.503	20958	349				0.19			
April 29, 3013	0.481	20042	334				0.18		16.22	18.06
April 30, 3013	0.527	21958	366	790	0.88	0.51	0.18	0.33	15.51	
May 1, 3013	0.506	21083	351				0.18		15.77	17.58
May 2, 3013	0.531	22125	369	797	0.88	0.50	0.19	0.31	15.90	
May 3, 3013	0.658	27417	457				0.20		16.45	18.32
May 4, 3013	0.735	30625	510				0.20			
May 5, 3013	0.718	29917	499				0.20			
May 6, 3013	0.716	29833	497	777	0.86	0.50	0.20	0.30		
May 7, 3013	0.722	30083	501				0.21		15.46	17.32
May 8, 3013	0.777	32375	540	783	0.87	0.50	0.20	0.30	14.69	
May 9, 3013	0.786	32750	546				0.21		15.72	17.62
May 10, 3013	0.815	33958	566	781	0.86	0.50	0.21	0.29	14.63	
May 11, 3013	0.685	28542	476				0.21			
May 12, 3013	0.586	24417	407				0.22			
May 13, 3013	0.570	23750	396	793	0.88	0.50	0.20	0.30	15.40	
May 14, 3013	0.539	22458	374				0.17		16.21	18.07
May 15, 3013	0.561	23375	390				0.21		16.23	18.13
May 16, 3013	0.582	24250	404				0.20		16.30	18.62
May 17, 3013	0.603	25125	419	795	0.96	0.55	0.18	0.37	15.23	
May 18, 3013	0.611	25458	424				0.18			
May 19, 3013	0.645	26875	448				0.17			
May 20, 3013	0.655	27292	455				0.16			
May 21, 3013	0.648	27000	450				0.14		15.45	17.40
May 22, 3013	0.606	25250	421	803	0.90	0.51	0.19	0.32	15.81	
May 23, 3013	0.599	24958	416				0.19		16.45	18.33
May 24, 3013	0.594	24750	413	796	0.95	0.54	0.20	0.34	15.45	
May 25, 3013	0.622	25917	432				0.19			
May 26, 3013	0.612	25500	425				0.18			
May 27, 3013	0.638	26583	443				0.19		16.63	18.52
May 28, 3013	0.619	25792	430	802	0.96	0.54	0.20		16.07	

May 29, 3013	0.618	25750	429	929	1.11	0.54	0.20	0.34		17.32
May 30, 3013	0.630	26250	438				0.19		15.99	17.88
May 31, 3013	0.650	27083	451	936	1.12	0.54	0.21	0.33		17.70
June 1, 3013	0.653	27208	453				0.22			
June 2, 3013	0.724	30167	503				0.21			
June 3, 3013	0.761	31708	528				0.22		16.31	18.22
June 4, 3013	0.786	32750	546	798	0.96	0.55	0.21	0.34	15.57	
June 5, 3013	0.783	32625	544	799	0.96	0.55	0.20	0.35	14.77	
June 6, 3013	0.806	33583	560	792	0.95	0.54	0.20	0.34	14.70	
June 7, 3013	0.748	31167	519				0.20		16.12	
June 8, 3013	0.713	29708	495				0.20			
June 9, 3013	0.771	32125	535				0.20			
June 10, 3013	0.751	31292	522				0.20			
June 11, 3013	0.690	28750	479				0.20			
June 12, 3013	0.781	32542	542				0.20			
June 13, 3013	0.905	37708	628	797	0.96	0.55	0.21	0.34	14.54	
June 14, 3013	0.797	33208	553	790	0.95	0.55	0.20	0.35	14.63	
June 15, 3013	0.872	36333	606				0.19			
June 16, 3013	0.853	35542	592				0.18			
June 17, 3013	0.893	37208	620	793	0.96	0.55	0.19	0.36	14.55	
June 18, 3013	0.962	40083	668	790	0.96	0.55	0.18	0.37	14.38	
June 19, 3013	0.871	36292	605	910	1.09	0.54	0.19	0.35		
June 20, 3013	0.845	35208	587	784	0.94	0.54	0.18	0.36	14.46	
June 21, 3013	0.873	36375	606	789	0.95	0.55	0.18	0.37	14.68	
June 22, 3013	0.861	35875	598				0.19			
June 23, 3013	0.755	31458	524				0.19			
June 24, 3013	0.670	27917	465	925	1.11	0.54	0.18	0.36		16.76
June 25, 3013	0.663	27625	460	922	1.11	0.55	0.18	0.37		16.80
June 26, 3013	0.631	26292	438	790	0.95	0.55	0.20	0.35	14.85	
June 27, 3013	0.642	26750	446	791	1.02	0.58	0.19	0.39	14.93	
June 28, 3013	0.645	26875	448	791	0.95	0.54	0.18	0.36	14.85	
June 29, 3013	0.810	33750	563				0.18			
June 30, 3013	0.832	34667	578				0.17			
July 1, 3013	0.912	38000	633				0.17			
July 2, 3013	0.945	39375	656	790	1.02	0.59	0.16	0.43	14.56	
July 3, 3013	0.995	41458	691	789	1.02	0.59	0.14	0.45	14.40	
July 4, 3013	1.029	42875	715	790	1.02	0.59	0.16	0.43	14.37	
July 5, 3013	1.006	41917	699	787	1.02	0.59	0.22	0.37	14.29	
July 6, 3013	1.019	42458	708				0.20			
July 7, 3013	0.917	38208	637				0.21			

July 8, 3013	0.927	38625	644	791	1.02	0.58	0.19	0.39	14.30	
July 9, 3013	1.013	42208	703				0.17			
July 10, 3013	0.975	40625	677	786	1.02	0.59	0.18	0.41	14.05	
July 11, 3013	0.895	37292	622	785	1.02	0.59	0.18	0.41	14.03	
July 12, 3013	0.947	39458	658	787	1.02	0.59	0.20	0.39	14.11	
July 13, 3013	0.998	41583	693				0.20			
July 14, 3013	0.907	37792	630				0.19			
July 15, 3013	0.974	40583	676	786	1.01	0.58	0.19	0.39	13.95	
July 16, 3013	1.048	43667	728	782	1.01	0.59	0.19	0.40	13.82	
July 17, 3013	1.015	42292	705	784	1.01	0.58	0.19	0.39	13.73	
July 18, 3013	1.017	42375	706	783	1.01	0.59	0.21	0.38	13.72	
July 19, 3013	1.066	44417	740	782	1.01	0.59	0.17	0.42	13.66	14.99
July 20, 3013	1.121	46708	778	907	1.17	0.59	0.17	0.42		
July 21, 3013	1.260	52500	875				0.18			
July 22, 3013	1.179	49125	819				0.18			
July 23, 3013	1.124	46833	781	895	1.32	0.67	0.17	0.50		
July 24, 3013	1.161	48375	806				0.18			
July 25, 3013	1.204	50167	836	913	1.90	0.94	0.19	0.75		
July 26, 3013	1.050	43750	729	895	1.32	0.67	0.19	0.48	14.75	
July 27, 3013	1.004	41833	697				0.19			
July 28, 3013	1.021	42542	709				0.18			
July 29, 3013	1.010	42083	701				0.23			
July 30, 3013	1.053	43875	731	772	1.07	0.63	0.22	0.41	13.14	
July 31, 3013	1.030	42917	715	777	1.08	0.63	0.22	0.41	13.32	
August 1, 3013	0.965	40208	670	893	1.23	0.62	0.15	0.47	14.68	
August 2, 3013	0.886	36917	615	777	1.15	0.67	0.17	0.50	13.53	
August 3, 3013	0.940	39167	653				0.17			
August 4, 3013	0.888	37000	617				0.18			
August 5, 3013	1.021	42542	709				0.16			
August 6, 3013	1.022	42583	710	890	1.32	0.67	0.18	0.49		
August 7, 3013	1.066	44417	740	776	1.22	0.71	0.20		13.39	
August 8, 3013	1.062	44250	738	779	1.22	0.71	0.20	0.51	13.30	
August 9, 3013	1.087	45292	755	775	1.19	0.70	0.19	0.51	13.31	
August 10, 3013	1.062	44250	738				0.20			
August 11, 3013	1.010	42083	701				0.20			
August 12, 3013	1.016	42333	706	890	1.39	0.71	0.20	0.51	14.67	
August 13, 3013	1.065	44375	740				0.20			
August 14, 3013	1.026	42750	713				0.20			
August 15, 3013	0.909	37875	631				0.20			
August 16, 3013	0.877	36542	609	782	1.23	0.71	0.20	0.51	13.36	

August 17, 3013	0.739	30792	513				0.20			
August 18, 3013	0.684	28500	475				0.20			
August 19, 3013	0.759	31625	527	798	1.25	0.71	0.20	0.51	13.93	
August 20, 3013	0.812	33833	564				0.20		14.81	16.55
August 21, 3013	0.845	35208	587				0.20		14.12	
August 22, 3013	0.875	36458	608				0.20		14.20	
August 23, 3013	0.855	35625	594	884	1.39	0.71	0.20	0.51		15.93
August 24, 3013	0.839	34958	583				0.20			14.82
August 25, 3013	0.775	32292	538				0.20			
August 26, 3013	0.809	33708	562	792	1.24	0.71	0.20	0.51	13.39	
August 27, 3013	0.734	30583	510	801	1.25	0.71	0.20	0.51	13.90	
August 28, 3013	0.704	29333	489	797	1.25	0.71	0.20	0.51	13.95	
August 29, 3013	0.660	27500	458	901	1.42	0.71	0.20	0.51		16.02
August 30, 3013	0.669	27875	465	913	1.43	0.71	0.20	0.51		16.46
August 31, 3013	0.672	28000	467				0.20			
September 1, 3013	0.622	25917	432				0.20			
September 2, 3013	0.710	29583	493				0.20			
September 3, 3013	0.664	27667	461	897	1.41	0.71	0.20	0.51	15.15	16.85
September 4, 3013	0.627	26125	435				0.20		15.27	16.99
September 5, 3013	0.641	26708	445				0.20			
September 6, 3013	0.698	29083	485				0.20			
September 7, 3013	0.683	28458	474				0.20			
September 8, 3013	0.625	26042	434				0.20			
September 9, 3013	0.708	29500	492				0.20		14.27	
September 10, 3013	0.821	34208	570	797	1.26	0.72	0.20	0.52	13.75	
September 11, 3013	0.838	34917	582				0.20		14.60	16.31
September 12, 3013	0.761	31708	528	795	1.25	0.71	0.20	0.51	13.53	
September 13, 3013	0.740	30833	514	891	1.40	0.71	0.20	0.51		15.63
September 14, 3013	0.665	27708	462				0.20			
September 15, 3013	0.672	28000	467				0.20			
September 16, 3013	0.677	28208	470				0.20		15.45	17.15
September 17, 3013	0.666	27750	463	918	1.44	0.71	0.20	0.51		16.66
September 18, 3013	0.793	33042	551	901	1.41	0.71	0.20	0.51		16.07
September 19, 3013	0.751	31292	522	895	1.40	0.71	0.20	0.51		15.69
September 20, 3013	0.762	31750	529	890	1.40	0.71	0.20	0.51		15.53
September 21, 3013	0.551	22958	383				0.20			
September 22, 3013	0.571	23792	397				0.20			
September 23, 3013	0.670	27917	465	906	1.42	0.71	0.20	0.51		16.46
September 24, 3013	0.660	27500	458	797	1.25	0.71	0.20		14.18	
September 25, 3013	0.642	26750	446	802	1.26	0.71	0.20	0.51	14.66	

September 26, 3013	0.685	28542	476	805	1.26	0.71	0.20	0.51	14.15	
September 27, 3013	0.601	25042	417	895	1.40	0.71	0.20	0.51		15.73
September 28, 3013	0.564	23500	392				0.20			
September 29, 3013	0.539	22458	374				0.20			
September 30, 3013	0.540	22500	375	905	1.26	0.63	0.20	0.43		
October 1, 3013	0.538	22417	374				0.20			
October 2, 3013	0.530	22083	368				0.20			
October 3, 3013	0.524	21833	364				0.20			
October 4, 3013	0.523	21792	363				0.20			
October 5, 3013	0.533	22208	370				0.20			
October 6, 3013	0.531	22125	369				0.20			
October 7, 3013	0.525	21875	365				0.20			
October 8, 3013	0.507	21125	352	809	1.27	0.71	0.20	0.51	14.88	
October 9, 3013	0.516	21500	358	803	1.26	0.71	0.20	0.51	14.92	
October 10, 3013	0.515	21458	358	807	1.27	0.71	0.20	0.51	15.13	
October 11, 3013	0.522	21750	363				0.20		15.81	17.53
October 12, 3013	0.521	21708	362				0.20			
October 13, 3013	0.503	20958	349				0.20			
October 14, 3013	0.517	21542	359				0.20			
October 15, 3013	0.526	21917	365	902	1.42	0.71	0.20	0.51	14.51	16.36
October 16, 3013	0.502	20917	349				0.20		15.20	16.89
October 17, 3013	0.507	21125	352				0.20		15.73	17.45
October 18, 3013	0.510	21250	354				0.20		15.67	17.40
October 19, 3013	0.505	21042	351				0.20			
October 20, 3013	0.510	21250	354				0.20			
October 21, 3013	0.504	21000	350				0.20		14.51	16.06
October 22, 3013	0.492	20500	342				0.20			
October 23, 3013	0.490	20417	340				0.20			
October 24, 3013	0.500	20833	347				0.20			
October 25, 3013	0.500	20833	347				0.20		15.70	17.41
October 26, 3013	0.494	20583	343				0.20			
October 27, 3013	0.487	20292	338				0.20			
October 28, 3013	0.502	20917	349				0.20		15.63	17.36
October 29, 3013	0.512	21333	356				0.20		15.60	17.20
October 30, 3013	0.505	21042	351				0.20		15.49	17.22
October 31, 3013	0.496	20667	344				0.20		15.50	17.10
November 1, 3013	0.512	21333	356				0.20		15.41	
November 2, 3013	0.513	21375	356				0.20			
November 3, 3013	0.495	20625	344				0.20			
November 4, 3013	0.488	20333	339	903	1.33	0.67	0.10	0.57		16.36

November 5, 3013	0.482	20083	335	802	1.48	0.84	0.14	0.70	14.43	
November 6, 3013	0.491	20458	341				0.13		15.79	17.51
November 7, 3013	0.466	19417	324				0.35		15.77	15.79
November 8, 3013	0.471	19625	327				0.20		15.66	17.58
November 9, 3013	0.473	19708	328				0.20			
November 10, 3013	0.478	19917	332				0.20			
November 11, 3013	0.484	20167	336				0.28			
November 12, 3013	0.480	20000	333				0.28		15.49	17.20
November 13, 3013	0.475	19792	330				0.20			
November 14, 3013	0.499	20792	347				0.20			
November 15, 3013	0.506	21083	351				0.20		14.70	16.47
November 16, 3013	0.485	20208	337				0.20			
November 17, 3013	0.492	20500	342				0.20			
November 18, 3013	0.483	20125	335	912	1.35	0.67	0.22	0.45		16.84
November 19, 3013	0.465	19375	323				0.14		15.92	17.64
November 20, 3013	0.466	19417	324				0.10		15.64	17.36
November 21, 3013	0.472	19667	328				0.10		15.10	16.77
November 22, 3013	0.485	20208	337				0.10		15.70	
November 23, 3013	0.503	20958	349				0.15			
November 24, 3013	0.506	21083	351				0.15			
November 25, 3013	0.533	22208	370				0.10		15.81	
November 26, 3013	0.504	21000	350	899	2.07	0.70	0.11	0.59		
November 27, 3013	0.516	21500	358	899	2.49	0.70	0.09	0.61		
November 28, 3013	0.508	21167	353	901	1.24	0.62	0.27	0.35		
November 29, 3013		0	0	905	1.17	0.59	0.18	0.41		
November 30, 3013		0	0				0.18			
December 1, 3013	0.538	22417	374				0.18			
December 2, 3013	0.506	21083	351				0.18			
December 3, 3013	0.500	20833	347	905	1.20	0.60	0.20	0.40	15.94	
December 4, 3013	0.516	21500	358				0.20		15.72	
December 5, 3013	0.511	21292	355				0.23			
December 6, 3013	0.502	20917	349				0.21		15.94	
December 7, 3013	0.527	21958	366				0.20		15.72	
December 8, 3013	0.526	21917	365				0.20		15.82	
December 9, 3013	0.517	21542	359				0.21		15.81	
December 10, 3013	0.532	22167	369	900	1.16	0.58	0.22	0.36		
December 11, 3013	0.522	21750	363				0.25			
December 12, 3013	0.533	22208	370				0.24			
December 13, 3013	0.527	21958	366				0.24			
December 14, 3013	0.525	21875	365				0.23			

December 15, 3013	0.526	21917	365				0.22	
December 16, 3013	0.554	23083	385	900	1.17	0.59	0.23	0.36
December 17, 3013	0.526	21917	365	900	1.16	0.58	0.23	0.35
December 18, 3013	0.579	24125	402				0.24	
December 19, 3013	0.579	24125	402				0.21	
December 20, 3013	0.519	21625	360	896	1.07	0.54	0.19	0.35
December 21, 3013	0.518	21583	360				0.19	
December 22, 3013	0.525	21875	365				0.20	
December 23, 3013	0.523	21792	363				0.21	
December 24, 3013	0.530	22083	368				0.21	
December 25, 3013	0.517	21542	359				0.20	
December 26, 3013	0.516	21500	358				0.19	
December 27, 3013	0.512	21333	356				0.19	
December 28, 3013	0.532	22167	369				0.20	
December 29, 3013	0.549	22875	381				0.20	
December 30, 3013	0.535	22292	372				0.21	
December 31, 3013	0.530	22083	368				0.20	

Your C.O.C. #: G085347

Attention: Martin Kluftinger

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

Report Date: 2013/07/16

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B357887

Received: 2013/07/10, 08:50

Sample Matrix: DRINKING WATER
 # Samples Received: 4

Analyses	Quantity	Date		Laboratory Method	Analytical Method
		Extracted	Analyzed		
Alkalinity - Water	4	2013/07/12	2013/07/12	BBY6SOP-00026	SM2320B
Chloride by Automated Colourimetry	4	N/A	2013/07/12	BBY6SOP-00011	SM-4500-Cl-
Colour (True)	4	N/A	2013/07/11	BBY6SOP-00021	SM-2120B
Conductance - water	4	N/A	2013/07/12	BBY6SOP-00026	SM-2510B
Fluoride	4	N/A	2013/07/12	BBY6SOP-00012	SM - 4500 F C
Hardness Total (calculated as CaCO3)	4	N/A	2013/07/16	BBY7SOP-00002	EPA 6020A
Na, K, Ca, Mg, S by CRC ICPMS (total)	4	N/A	2013/07/16	BBY7SOP-00002	EPA 6020A
Elements by CRC ICPMS (total)	2	N/A	2013/07/15	BBY7SOP-00002	EPA 6020A
Elements by CRC ICPMS (total)	2	N/A	2013/07/16	BBY7SOP-00002	EPA 6020A
Nitrate + Nitrite (N)	4	N/A	2013/07/13	BBY6SOP-00010	SM 4500NO3-I
Nitrite (N) by CFA	4	N/A	2013/07/13	BBY6SOP-00010	EPA 353.2
Nitrogen - Nitrate (as N)	4	N/A	2013/07/16	BBY6SOP-00010	SM 4500NO3-I
pH Water	4	N/A	2013/07/12	BBY6SOP-00026	SM-4500H+B
Sulphate by Automated Colourimetry	4	N/A	2013/07/12	BBY6SOP-00017	SM4500-SO42- E
Total Dissolved Solids (Filt. Residue)	4	2013/07/12	2013/07/16	BBY6SOP-00033	SM 2540C
Turbidity	4	N/A	2013/07/11	BBY6SOP-00027	SM - 2130B

* Results relate only to the items tested.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Jasmeen Jatana, Project Manager
 Email: JJatana@maxxam.ca
 Phone# (604) 734 7276

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 This report has been generated and distributed using a secure automated process. Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Total cover pages: 1

Maxxam Job #: B357887
 Report Date: 2013/07/16

VILLAGE OF PEMBERTON

DRINKING WATER PACKAGE (DRINKING WATER)

Maxxam ID		GW0467	GW0468	GW0469	GW0470		
Sampling Date		2013/07/09 10:00	2013/07/09 10:00	2013/07/09 10:00	2013/07/09 10:00		
	UNITS	WELL #1	WELL #2	WELL #3	INDUSTRIAL PARK	RDL	QC Batch
ANIONS							
Nitrite (N)	mg/L	<0.0050 ⁽¹⁾	<0.0050 ⁽¹⁾	<0.0050 ⁽¹⁾	<0.0050 ⁽¹⁾	0.0050	6981005
Calculated Parameters							
Total Hardness (CaCO ₃)	mg/L	31.6	45.0	17.7	16.6	0.50	6972513
Nitrate (N)	mg/L	<0.020	0.050	0.188	0.038	0.020	6973079
Misc. Inorganics							
Fluoride (F)	mg/L	0.013	0.018	0.014	0.026	0.010	6978241
Alkalinity (Total as CaCO ₃)	mg/L	48.4	29.8	15.5	20.7	0.50	6979996
Alkalinity (PP as CaCO ₃)	mg/L	<0.50	<0.50	<0.50	<0.50	0.50	6979996
Bicarbonate (HCO ₃)	mg/L	59.0	36.3	18.9	25.2	0.50	6979996
Carbonate (CO ₃)	mg/L	<0.50	<0.50	<0.50	<0.50	0.50	6979996
Hydroxide (OH)	mg/L	<0.50	<0.50	<0.50	<0.50	0.50	6979996
Anions							
Dissolved Sulphate (SO ₄)	mg/L	6.03	15.8	8.90	4.27	0.50	6982455
Dissolved Chloride (Cl)	mg/L	8.4	25	4.6	0.66	0.50	6982314
MISCELLANEOUS							
True Colour	Col. Unit	10.0	5.0	<5.0	<5.0	5.0	6974514
Nutrients							
Nitrate plus Nitrite (N)	mg/L	<0.020 ⁽¹⁾	0.050 ⁽¹⁾	0.188 ⁽¹⁾	0.038 ⁽¹⁾	0.020	6981004
Physical Properties							
Conductivity	uS/cm	136	184	71.0	48.1	1.0	6980022
pH	pH Units	6.73	6.94	7.05	7.12		6980056
Physical Properties							
Total Dissolved Solids	mg/L	88	120	48	40	10	6977679
Turbidity	NTU	4.04	3.36	0.16	0.33	0.10	6974158

RDL = Reportable Detection Limit

(1) - Sample analysed past recommended hold time.



Maxxam Job #: B357887
 Report Date: 2013/07/16

DRINKING WATER PACKAGE (DRINKING WATER)

Maxxam ID		GW0467	GW0468	GW0469	GW0470		
Sampling Date		2013/07/09 10:00	2013/07/09 10:00	2013/07/09 10:00	2013/07/09 10:00		
	UNITS	WELL #1	WELL #2	WELL #3	INDUSTRIAL PARK	RDL	QC Batch
Total Metals by ICPMS							
Total Aluminum (Al)	ug/L	3.7	5.2	9.7	6.5	3.0	6983813
Total Antimony (Sb)	ug/L	<0.50	<0.50	<0.50	<0.50	0.50	6983813
Total Arsenic (As)	ug/L	<0.10	<0.10	<0.10	0.19	0.10	6983813
Total Barium (Ba)	ug/L	31.8	30.4	12.1	3.8	1.0	6983813
Total Boron (B)	ug/L	<50	52	<50	<50	50	6983813
Total Cadmium (Cd)	ug/L	0.018	0.015	0.066	<0.010	0.010	6983813
Total Chromium (Cr)	ug/L	<1.0	<1.0	<1.0	<1.0	1.0	6983813
Total Cobalt (Co)	ug/L	0.82	<0.50	<0.50	<0.50	0.50	6983813
Total Copper (Cu)	ug/L	10.4	4.90	2.21	12.3	0.20	6983813
Total Iron (Fe)	ug/L	16700	873	5.7	5.4	5.0	6983813
Total Lead (Pb)	ug/L	2.06	2.77	0.61	0.31	0.20	6983813
Total Manganese (Mn)	ug/L	310	82.9	2.1	<1.0	1.0	6983813
Total Mercury (Hg)	ug/L	<0.050	<0.050	<0.050	<0.050	0.050	6983813
Total Molybdenum (Mo)	ug/L	<1.0	<1.0	<1.0	<1.0	1.0	6983813
Total Nickel (Ni)	ug/L	<1.0	<1.0	<1.0	<1.0	1.0	6983813
Total Selenium (Se)	ug/L	<0.10	<0.10	<0.10	<0.10	0.10	6983813
Total Silver (Ag)	ug/L	<0.020	<0.020	<0.020	<0.020	0.020	6983813
Total Uranium (U)	ug/L	<0.10	<0.10	<0.10	<0.10	0.10	6983813
Total Vanadium (V)	ug/L	<5.0	<5.0	<5.0	<5.0	5.0	6983813
Total Zinc (Zn)	ug/L	7.6	<5.0	<5.0	<5.0	5.0	6983813
Total Calcium (Ca)	mg/L	11.7	16.5	6.56	5.84	0.050	6974523
Total Magnesium (Mg)	mg/L	0.609	0.922	0.329	0.489	0.050	6974523
Total Potassium (K)	mg/L	1.31	1.40	0.622	0.385	0.050	6974523
Total Sodium (Na)	mg/L	4.87	6.82	2.17	0.999	0.050	6974523
Total Sulphur (S)	mg/L	<3.0	7.3	4.5	<3.0	3.0	6974523

RDL = Reportable Detection Limit

General Comments

Sample GW0467-01: The BC-MOE and APHA Standard Method require 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 BC-MOE/APHA Standard Method holding time.

Sample GW0468-01: The BC-MOE and APHA Standard Method require 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 BC-MOE/APHA Standard Method holding time.

Sample GW0469-01: The BC-MOE and APHA Standard Method require 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 BC-MOE/APHA Standard Method holding time.

Sample GW0470-01: The BC-MOE and APHA Standard Method require 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 BC-MOE/APHA Standard Method holding time.

QUALITY ASSURANCE REPORT

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
6974158	Turbidity	2013/07/11			101	80 - 120	<0.10	NTU	NC ⁽¹⁾	20
6974514	True Colour	2013/07/11					<5.0	Col. Unit	NC	20
6977679	Total Dissolved Solids	2013/07/16	NC	80 - 120	100	80 - 120	<10	mg/L	5.6	20
6978241	Fluoride (F)	2013/07/12	88	80 - 120	96	80 - 120	<0.010	mg/L	NC	20
6979996	Alkalinity (Total as CaCO ₃)	2013/07/12	NC	80 - 120	93	80 - 120	<0.50	mg/L	0.9	20
6979996	Alkalinity (PP as CaCO ₃)	2013/07/12					<0.50	mg/L	NC	20
6979996	Bicarbonate (HCO ₃)	2013/07/12					<0.50	mg/L	0.9	20
6979996	Carbonate (CO ₃)	2013/07/12					<0.50	mg/L	NC	20
6979996	Hydroxide (OH)	2013/07/12					<0.50	mg/L	NC	20
6980022	Conductivity	2013/07/12			98	80 - 120	1.2, RDL=1.0	uS/cm	0.2	20
6981004	Nitrate plus Nitrite (N)	2013/07/13	105	80 - 120	98	80 - 120	<0.020	mg/L	2.3	25
6981005	Nitrite (N)	2013/07/13	99	80 - 120	95	80 - 120	<0.0050	mg/L	0.1	20
6982314	Dissolved Chloride (Cl)	2013/07/12	98	80 - 120	98	80 - 120	<0.50	mg/L	5.9	20
6982455	Dissolved Sulphate (SO ₄)	2013/07/12	NC	80 - 120	96	80 - 120	<0.50	mg/L	0.4	20
6983813	Total Aluminum (Al)	2013/07/15	106	80 - 120	106	80 - 120	<3.0	ug/L	NC	20
6983813	Total Antimony (Sb)	2013/07/15	102	80 - 120	99	80 - 120	<0.50	ug/L	NC	20
6983813	Total Arsenic (As)	2013/07/15	100	80 - 120	99	80 - 120	<0.10	ug/L	NC	20
6983813	Total Barium (Ba)	2013/07/15	97	80 - 120	100	80 - 120	<1.0	ug/L	NC	20
6983813	Total Cadmium (Cd)	2013/07/15	105	80 - 120	101	80 - 120	<0.010	ug/L	NC	20
6983813	Total Chromium (Cr)	2013/07/15	99	80 - 120	99	80 - 120	<1.0	ug/L	NC	20
6983813	Total Cobalt (Co)	2013/07/15	100	80 - 120	98	80 - 120	<0.50	ug/L	NC	20
6983813	Total Copper (Cu)	2013/07/15	NC	80 - 120	98	80 - 120	<0.20	ug/L	0.3	20
6983813	Total Iron (Fe)	2013/07/15	101	80 - 120	107	80 - 120	<5.0	ug/L	1.6	20
6983813	Total Lead (Pb)	2013/07/15	98	80 - 120	98	80 - 120	<0.20	ug/L	NC	20
6983813	Total Manganese (Mn)	2013/07/15	97	80 - 120	96	80 - 120	<1.0	ug/L	NC	20
6983813	Total Mercury (Hg)	2013/07/15	98	80 - 120	97	80 - 120	<0.050	ug/L	NC	20
6983813	Total Molybdenum (Mo)	2013/07/15	102	80 - 120	93	80 - 120	<1.0	ug/L	NC	20
6983813	Total Nickel (Ni)	2013/07/15	102	80 - 120	99	80 - 120	<1.0	ug/L	NC	20
6983813	Total Selenium (Se)	2013/07/15	110	80 - 120	108	80 - 120	<0.10	ug/L	NC	20
6983813	Total Silver (Ag)	2013/07/15	103	80 - 120	103	80 - 120	<0.020	ug/L	NC	20
6983813	Total Uranium (U)	2013/07/15	99	80 - 120	97	80 - 120	<0.10	ug/L	NC	20
6983813	Total Vanadium (V)	2013/07/15	102	80 - 120	95	80 - 120	<5.0	ug/L	NC	20

Maxxam Job #: B357887
 Report Date: 2013/07/16

QUALITY ASSURANCE REPORT

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
6983813	Total Zinc (Zn)	2013/07/15	107	80 - 120	103	80 - 120	<5.0	ug/L	NC	20
6983813	Total Boron (B)	2013/07/15					<50	ug/L	NC	20

N/A = Not Applicable

RDL = Reportable Detection Limit

RPD = Relative Percent Difference

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 spiked amount was not sufficiently significant to permit a reliable recovery calculation.

NC (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

(1) - Sample arrived to laboratory past recommended hold time.



Maxxam Job#: B357887

Page: of
G 085347

Invoice To: Require Report? Yes No
 Company Name: VILLAGE OF PEMBERTON
 Contact Name:
 Address: 1850 AIRPORT RD
PEMBERTON BC
 Phone / Fax#: Ph: 604 894 6811 Fax:
 E-mail: water@pemberton.ca

Report To:

 PC:
 Fax:

PO #:	
Quotation #:	
Project #:	
Proj. Name:	
Location:	
Sampled By:	

REGULATORY REQUIREMENTS SERVICE REQUESTED:

CSR Regular Turn Around Time (TAT)
 (5 days for most tests)
 CCME RUSH (Please contact the lab)
 BC Water Quality 1 Day 2 Day 3 Day
 Other 1 Day 2 Day 3 Day
 DRINKING WATER Date Required:

Special Instructions:
 Return Cooler Ship Sample Bottles (please specify)
MICRO BIOLOGY NOT NEEDED

ANALYSIS REQUESTED		Municipal Drinking Water Package	
Sample ID	Lab ID	Sample Type	Date/Time Sampled
1	GW0467	Well	13/07/09 10:00
2			
3	GW0468	Well	13/07/09 10:00
4			
5	GW0469	Well	13/07/09 10:00
6			
7	GW0470	Industrial Park	13/07/09 10:15
8			
9			
10			
11			
12			



*Relinquished by:	Date (YY/MM/DD):	Time:	Received by:	Date (YY/MM/DD):	Time:	Time Sensitive	Temperature on Receipt (°C)	Custody Seal Intact on Cooler?
M. KLOFFINGER	13/07/09	18:30	P. BLOTTNER	20/03/10	08:50	<input type="checkbox"/>	15, 14, 13	NA
							Yes <input type="checkbox"/> No <input type="checkbox"/>	

APPENDIX III

Pemberton Weekly Chlorine and pH Levels

Chlorine in mg/L

Sample Station

Date	9-Jan-13	16-Jan-13	22-Jan-13	29-Jan-13
SCADA	0.21	0.18	0.20	0.21
Firehall	0.20	0.19	0.21	0.22
Collins Rd	n/a	n/a	n/a	n/a
Pem. Meadows Rd	n/a	n/a	n/a	n/a
Pem. Farm Rd	n/a	n/a	n/a	0.20
Urdal	n/a	n/a	n/a	0.20
Oak St	0.21	0.21	0.22	0.22
Village Office	0.06	0.09	0.00	0.04
Health Centre	0.19	0.19	0.29	0.21
Treatment Plant	0.00	0.00	0.04	0.00
Plateau	0.19	0.20	0.15	0.15

pH

Sample Station

Date	9-Jan-13	16-Jan	22-Jan	29-Jan
Collins Rd	n/a	n/a	n/a	n/a
Pem. Meadows Rd	n/a	n/a	n/a	n/a
Pem. Farm Rd	n/a	n/a	n/a	5.83 / 12.2
Urdal	n/a	n/a	n/a	5.77 / 12.2
Oak St	5.97 / 15.0	6.17 / 13.5	6.39 / 12.7	5.71 / 12.2
Village Office	5.99 / 15.1	6.25 / 13.4	6.60 / 12.5	5.77 / 12.1
Health Centre	6.09 / 15.2	6.13 / 13.6	6.41 / 15.7	5.75 / 12.9
Treatment Plant	6.19 / 16.6	6.11 / 16.3	6.38 / 13.4	5.86 / 18.9
Plateau	6.02 / 15.5	6.38 / 13.5	6.39 / 12.9	5.81 / 12.0

Chlorine in mg/L

Sample Station

Date	5-Feb-13	13-Feb-13	20-Feb-13	26-Feb-13
SCADA	0.22	0.21	0.20	0.20
Firehall	0.22	0.20	0.20	0.20
Collins Rd	n/a	0.03	n/a	0.10
Pem. Meadows Rd	n/a	n/a	n/a	0.15
Pem. Farm Rd	0.14	0.10	n/a	0.22
Urdal	n/a	0.20	n/a	0.16
Oak St	0.16	0.20	0.17	0.16

Village Office	0.25	0.00	0.09	0.05
Health Centre	0.20	0.19	0.18	0.16
Treatment Plant	0.02	0.00	0.09	0.06
Plateau	0.18	0.13	0.20	0.14

pH

Sample Station

Date	5-Feb-13	13-Feb-13	20-Feb-13	26-Feb-13
Collins Rd	n/a	6.28 / 13.0	n/a	5.9 / 12.4
Pem. Meadows Rd	n/a	n/a	n/a	5.97 / 11.6
Pem. Farm Rd	6.33 / 10.6	6.22 / 12.4	n/a	5.65 / 11.5
Urdal	n/a	6.26 / 12.6	n/a	5.59 / 12.2
Oak St	6.35 / 10.6	6.19 / 12.6	6.38 / 16.1	5.72 / 12.3
Village Office	6.36 / 11.2	6.24 / 12.4	6.17 / 16.1	5.89 / 12.4
Health Centre	6.38 / 12.0	6.27 / 13.1	5.99 / 16.9	5.68 / 12.8
Treatment Plant	6.45 / 17.5	6.28 / 12.8	6.09 / 17.7	6.18 / 13.7
Plateau	6.34 / 10.2	6.26 / 13.3	6.04 / 15.9	6.01 / 12.2

Chlorine in mg/L

Sample Station

Date	6-Mar-13	12-Mar-13
SCADA	0.20	0.23
Firehall	0.18	0.24
Collins Rd	0.05	0.11
Pem. Meadows Rd	0.09	0.24
Pem. Farm Rd	0.10	0.21
Urdal Rd	n/a	n/a
Oak St	0.15	0.24
Village Office	0.02	0.08
Health Centre	0.13	0.25
Treatment Plant	0.03	0.09
Plateau	0.09	0.22

pH

Sample Station

Date	6-Mar-13	12-Mar-13
Collins Rd	5.08 / 10.6	6.21 / 9.4
Pem. Meadows Rd	6.16 / 11.8	6.18 / 9.3
Pem. Farm Rd	5.90 / 10.8	6.53 / 10.3
Urdal Rd	n/a	n/a
Oak St	5.83 / 10.7	5.96 / 9.5
Village Office	6.31 / 11.2	6.44 / 9.8
Health Centre	5.83 / 12.7	6.52 / 11.3

Treatment Plant
Plateau

5.55 / 17.3	6.01 / 12.9
6.17 / 11.5	5.94 / 9.5

Chlorine in mg/L

Sample Station

Date

SCADA
Firehall
Collins Rd
Pem. Meadows Rd
Pem. Farm Rd
Urdal
Oak St
Village Office
Health Centre
Treatment Plant
Plateau

3-Apr-13	10-Apr-13	17-Apr-13	24-Apr-13	30-Apr-13
0.21	0.15	0.15	0.15	0.18
0.20	0.15	0.15	0.15	0.18
0.04	0.10	0.10	0.11	0.11
0.18	0.13	0.25	0.18	0.17
0.18	0.14	0.23	0.17	0.17
0.21	0.15	0.25	n/a	0.14
0.21	0.12	0.27	0.22	0.08
0.07	0.04	0.07	0.03	0.06
0.20	0.11	0.28	0.19	0.22
0.07	0.05	0.07	0.00	0.06
0.16	0.16	0.26	0.18	0.20

Notes:

pH/Temp in C

Sample Station

Date

Collins Rd
Pem. Meadows Rd
Pem. Farm Rd
Urdal
Oak St
Village Office
Health Centre
Treatment Plant
Plateau

3-Apr-13	10-Apr-13	17-Apr-13	24-Apr-13	30-Apr-13
6.07 / 13.5	6.26 / 12.4	5.59 / 12.9	6.62 / 16.8	6.35 / 14.5
6.05 / 13.6	6.40 / 11.1	5.66 / 13.1	6.64 / 15.7	6.36 / 14.4
5.98 / 13.3	6.26 / 12.9	5.63 / 13.2	6.60 / 15.6	6.29 / 14.4
5.97 / 13.4	6.25 / 12.1	5.6 / 12.2	n/a	6.39 / 14.6
6.07 / 13.4	6.39 / 11.3	5.64 / 12.6	6.63 / 16.3	6.32 / 14.8
6.06 / 14	6.28 / 13.5	5.63 / 13.8	6.64 / 15.9	6.39 / 15.1
6.05 / 14.1	6.25 / 14.8	5.61 / 13.0	6.67 / 15.5	6.39 / 14.1
6.00 / 15.2	5.83 / 9.3	5.95 / 19.3	6.60 / 12.9	6.54 / 17.3
5.98 / 13.5	6.29 / 13.6	5.64 / 13.1	6.60 / 16.5	6.39 / 14.4

Chlorine in mg/L

Sample Station

Date

SCADA
Firehall
Collins Rd
Pem. Meadows Rd
Pem. Farm Rd
Urdal Rd
Oak St
Village Office

4-Jun-13	11-Jun-13	18-Jun-13	25-Jun-13
0.20	0.19	0.15	0.17
0.20	0.23	0.16	0.17
0.18	0.23	0.20	n/a
0.25	0.20	0.14	0.02
0.24	0.20	0.15	0.13
0.20	0.23	0.20	0.16
0.25	0.25	0.22	0.16
0.01	0.09	0.02	0.00

Health Centre	n/a	0.25	0.20	0.13
Treatment Plant	0.06	0.01	0.00	0.11
Plateau	0.21	0.20	0.16	0.08

pH/Temp in C

Sample Station

Date	4-Jun-13	11-Jun-13	18-Jun-13	25-Jun-13
Collins Rd	6.55 / 17.7	6.29 / 15.9	5.59 / 16.9	n/a
Pem. Meadows Rd	6.23 / 18.4	6.32 / 15.8	5.57 / 17	6.52 / 17.2
Pem. Farm Rd	6.68 / 18.3	6.29 / 15.8	5.52 / 17.5	6.54 / 16.5
Urdal Rd	6.73 / 18.1	6.55 / 14.3	5.57 / 17.2	6.58 / 16.6
Oak St	6.14 / 17.7	6.32 / 15.4	5.55 / 16.9	6.49 / 15.9
Village Office	6.65 / 18.8	6.33 / 17.5	5.53 / 17.7	6.58 / 16.4
Health Centre	n/a	6.42 / 15.8	5.58 / 17.1	6.58 / 16.8
Treatment Plant	6.69 / 18.4	6.48 / 16.2	5.91 / 19.1	6.51 / 17.2
Plateau	6.66 / 18.1	6.40 / 15.6	5.54 / 17.3	6.56 / 17.3

Chlorine in mg/L

Sample Station

Date	9-Jul-13	16-Jul-13	23-Jul-13
SCADA		0.19	0.09
Firehall		0.17	0.09
Collins Rd	0.12	0.24	0.06
Pem. Meadows Rd	0.13	0.06	0.00
Pem. Farm Rd	0.14	0.19	0.03
Urdal Rd	0.06	0.16	0.05
Oak St	0.09	0.27	0.06
Village Office	0.00	0.08	0.00
Health Centre	0.08	0.21	0.05
Treatment Plant	0.00	0.16	0.07
Plateau	0.21	0.12	0.01

pH/Temp in C

Sample Station

Date	2-Jul-13	9-Jul-13	16-Jul-13	23-Jul-13	30-Jul-13
Collins Rd	6.13 / 16.2	5.78 / 15.8	6.93 / 16.9	5.80 / 15.3	6.32 / 21.4
Pem. Meadows Rd	6.15 / 16.2	5.80 / 16.0	6.92 / 17.1	5.96 / 15.3	6.29 / 21.1
Pem. Farm Rd	6.33 / 16.4	5.86 / 15.8	6.78 / 16.7	5.89 / 16.2	6.08 / 21.3
Urdal Rd	6.20 / 16.3	6.02 / 17.1	6.89 / 15.7	5.99 / 16.1	6.23 / 21.4
Oak St	6.31 / 16.5	5.85 / 16.1	6.90 / 16.7	5.92 / 16.4	6.29 / 21
Village Office	6.18 / 16.6	5.90 / 17.4	6.83 / 17.3	5.94 / 15.4	6.23 / 21.2
Health Centre	6.15 / 16.4	5.73 / 15.9	6.92 / 17.0	5.95 / 17.3	6.26 / 21
Treatment Plant	6.01 / 17.2	5.74 / 18.6	6.51 / 13.2	5.95 / 15.5	5.24 / 15.7

Plateau

6.24 / 16.3	5.78 / 16.1	6.89 / 17.4	5.93 / 14.9	6.18 / 21.1
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Chlorine in mg/L

Sample Station

Date

SCADA

Firehall

Collins Rd

Pem. Meadows Rd

Pem. Farm Rd

Urdal Rd.

Oak St

Village Office

Health Centre

Treatment Plant

Plateau

	7-Aug-13	14-Aug-13	27-Aug-13
SCADA			
Firehall	0.19	0.21	
Collins Rd	0.14	0.22	0.03
Pem. Meadows Rd	0.10	0.12	0.06
Pem. Farm Rd	0.22	0.20	0.14
Urdal Rd.	0.24	0.09	0.17
Oak St	0.24	0.26	0.19
Village Office	0.00	0.07	0.00
Health Centre	0.19	0.00	0.19
Treatment Plant	0.11	0.08	0.05
Plateau	0.22	0.11	0.16

pH/Temp in C

Sample Station

Date

Collins Rd

Pem. Meadows Rd

Pem. Farm Rd

Urdal Rd.

Oak St

Village Office

Health Centre

Treatment Plant

Plateau

	7-Aug-13	14-Aug-13	20-Aug-13	27-Aug-13
Collins Rd	6.42 / 16.0	6.26 / 18.4	6.15 / 22.4	6.26 / 15.5
Pem. Meadows Rd	6.55 / 15.2	6.32 / 18.4	6.13 / 22.4	6.30 / 15.7
Pem. Farm Rd	6.46 / 14.9	6.31 / 18.5	6.14 / 22.5	6.21 / 15.9
Urdal Rd.	6.79 / 14.9	6.22 / 18.4	n/a	6.40 / 15.5
Oak St	6.45 / 15.1	6.24 / 18.3	6.16 / 22.4	6.42 / 15.1
Village Office	6.27 / 14.8	6.37 / 19.2	6.18 / 22.5	6.18 / 16.9
Health Centre	6.53 / 17.1	6.26 / 17.5	6.15 / 22.5	6.25 / 15.3
Treatment Plant	6.26 / 17.8	6.23 / 21	5.75 / 23.6	6.64 / 18.1
Plateau	6.53 / 16.4	6.26 / 18.5	6.26 / 22.0	6.55 / 15.4

Chlorine in mg/L

Sample Station

Date

SCADA

Firehall

Collins Rd

Pem. Meadows Rd

Pem. Farm Rd

Urdal Rd

Oak St

Village Office

Health Centre

Treatment Plant

	3-Sep-13	10-Sep-13	17-Sep-13	24-Sep-13
SCADA				
Firehall	0.22	0.23	0.21	
Collins Rd	0.24	0.11	0.08	0.14
Pem. Meadows Rd	0.09	0.21	0.14	0.08
Pem. Farm Rd	0.23	0.18	0.16	0.13
Urdal Rd			0.24	
Oak St	0.23	0.21	0.24	0.25
Village Office	0.12	0.11	0.05	0.00
Health Centre	0.15		0.23	
Treatment Plant	0.15	0.08	0.02	0.02

Plateau

	0.23	0.08	0.11
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Notes:

pH/Temp in C

Sample Station

Date

Collins Rd
 Pem. Meadows Rd
 Urdal Rd
 Pem. Farm Rd
 Oak St
 Village Office
 Health Centre
 Treatment Plant
 Plateau

10-Sep-13	17-Sep-13	24-Sep-13
6.39 / 13.3	6.72 / 17.2	6.31 / 18.2
6.65 / 11.9	5.81 / 17.6	6.30 / 17.4
6.54 / 11.2	6.36 / 17.4	
6.42 / 12.0	6.53 / 17.6	6.21 / 17.8
6.45 / 12.0	5.85 / 16.9	6.32 / 18.8
	6.56 / 17.6	6.24 / 18.3
	6.78 / 17.6	
6.9 / 23.5	6.56 / 18.1	6.47 / 18.6
6.74 / 10.8	6.37 / 17.2	6.25 / 16.8

Chlorine in mg/L

Sample Station

Date

SCADA
 Firehall
 Collins Rd
 Pem. Meadows Rd
 Pem. Farm Rd
 Urdal Rd
 Oak St
 Village Office
 Health Centre
 Treatment Plant
 Plateau

1-Oct-13	8-Oct-13	15-Oct-13	22-Oct-13	29-Oct-13
0.07	0.12	0.19		0.19
0.00	0.01	0.11	0.10	0.18
0.04	0.17	0.18	0.19	0.18
0.04	0.12	0.13	0.18	0.18
0.02	0.22	0.16	0.21	0.28
0.01	0.18	0.24	0.21	
0.00	0.00	0.01	0.00	0.00
0.06	0.13			
0.00	0.00	0.05	0.00	0.03
0.05	0.15	0.18	0.22	0.17

pH/Temp in C

Sample Station

Date

Collins Rd
 Pem. Meadows Rd
 Pem. Farm Rd
 Urdal Rd
 Oak St
 Village Office
 Health Centre
 Treatment Plant
 Plateau

8-Oct-13	15-Oct-13	22-Oct-13	29-Oct-13
6.58 / 15.6	6.27 / 19.8		6.63 / 9.4
6.56 / 16.3	6.19 / 19.4	6.74 / 9.5	6.69 / 10.2
6.59 / 16.3	6.14 / 19.7	6.71 / 9.4	6.67 / 10.1
6.59 / 15.4	6.25 / 19.4	6.80 / 9.8	6.55 / 9.9
6.41 / 15.3	6.34 / 19.5	6.73 / 10.0	6.62 / 10.0
6.58 / 17.3	6.32 / 19.6	6.70 / 9.8	6.54 / 10.6
6.57 / 16.4			
6.47 / 19.0	6.39 / 21.0	6.62 / 17.8	6.67 / 19.5
6.55 / 16.6	6.24 / 19.1	6.76 / 10.0	6.55 / 9.8

Chlorine in mg/L

Sample Station

Date	5-Nov-13	12-Nov-13	19-Nov-13	26-Nov-13
SCADA	0.13	0.25	0.16	0.05
Firehall	0.13	0.25	0.16	0.05
Collins Rd	0.07	0.11	0.16	0.04
Pem. Meadows Rd	0.07	0.28	0.21	0.14
Pem. Farm Rd	0.09	0.22	0.21	0.07
Urdal Rd	0.13	0.33	0.17	0.19
Oak St	0.21	0.31	0.21	0.23
Village Office	0.04	0.05	0.00	0.04
Health Centre	0.18	0.27	0.22	0.14
Treatment Plant	0.00	0.00	0.00	0.00
Plateau	0.04	0.22	0.27	0.06

pH/Temp in C

Sample Station

Date	5-Nov-13	12-Nov-13	19-Nov-13	26-Nov-13
Collins Rd	6.50 / 13.5	6.54 / 18.9	6.52 / 13.1	6.36 / 14.9
Pem. Meadows Rd	6.56 / 13.1	6.53 / 19.4	6.40 / 13.3	6.43 / 14.8
Pem. Farm Rd	6.55 / 13.3	6.44 / 19.6	6.46 / 13.4	6.40 / 15.0
Urdal Rd	6.52 / 13.0	6.52 / 18.8	6.40 / 12.6	6.42 / 15.1
Oak St	6.39 / 12.7	6.49 / 19.1	6.44 / 12.9	6.39 / 14.9
Village Office	6.46 / 13.4	6.44 / 19.7	6.41 / 12.8	6.44 / 16.1
Health Centre	6.58 / 13.2	6.56 / 19.3	6.53 / 13.2	6.51 / 15.2
Treatment Plant	6.47 / 14.6	6.32 / 17.3	6.20 / 14.0	6.24 / 17.6
Plateau	6.55 / 13.0	6.54 / 19.1	6.39 / 13.3	6.66 / 13.9

Chlorine in mg/L

Sample Station

Date	3-Dec-13	10-Dec-13	17-Dec-13
SCADA	0.21	0.20	
Firehall	0.21	0.20	0.06
Collins Rd			0.22
Pem. Meadows Rd			0.23
Pem. Farm Rd	0.17		0.21
Urdal Rd	0.22		0.30
Oak St	0.24	0.31	0.31
Village Office	0.02	0.01	0.15
Health Centre	0.34	0.18	0.26
Treatment Plant	0.00	0.02	0.17
Plateau	0.25	0.17	0.29

pH/Temp in C

Sample Station

Date	3-Dec-13	10-Dec-13	17-Dec-13
Collins Rd			6.89 / 13.2
Pem. Meadows Rd			6.89 / 13.7
Pem. Farm Rd	6.80 / 7.4		6.86 / 13.5
Urdal Rd	7.02 / 6.7		6.96 / 13.5
Oak St	7.15 / 8.0	7.11 / 9.0	6.92 / 13.3
Village Office	6.82 / 6.2	7.35 / 7.2	6.84 / 13.4
Health Centre	7.17 / 11.4	6.66 / 5.1	6.83 / 14.5
Treatment Plant	6.37 / 12.9	6.59 / 17.4	6.83 / 14.5
Plateau	6.96 / 6.2	6.64 / 6.0	7.01 / 13.7

Your C.O.C. #: G085348

Attention: Martin Kluftinger

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

Report Date: 2013/07/15

CERTIFICATE OF ANALYSIS

MAXXAM JOB #: B357889**Received: 2013/07/10, 08:50**

Sample Matrix: Water
Samples Received: 1

Analyses	Quantity	Date	Date	Laboratory Method	Analytical Method
		Extracted	Analyzed		
VOCs in Water by HS GC/MS	1	2013/07/14	2013/07/14	BBY8-SOP-0009	EPA 8260C

* Results relate only to the items tested.

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.

Jasmeen Jatana, Project Manager
Email: JJatana@maxxam.ca
Phone# (604) 734 7276

=====
This report has been generated and distributed using a secure automated process.
Maxxam has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per section 5.10.2 of ISO/IEC 17025:2005(E), signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

Total cover pages: 1

Maxxam Job #: B357889
 Report Date: 2013/07/15

VILLAGE OF PEMBERTON

TRIHALOMETHANES (THM) IN WATER

Maxxam ID		GW0475		
Sampling Date		2013/07/09 09:30		
	UNITS	OAK ST	RDL	QC Batch
Volatiles				
Chloroform	ug/L	<1.0	1.0	6975100
Chlorodibromomethane	ug/L	<1.0	1.0	6975100
Bromodichloromethane	ug/L	<1.0	1.0	6975100
Bromoform	ug/L	<1.0	1.0	6975100
Surrogate Recovery (%)				
1,4-Difluorobenzene (sur.)	%	101		6975100
4-BROMOFLUOROBENZENE (sur.)	%	90		6975100
D4-1,2-DICHLOROETHANE (sur.)	%	99		6975100

RDL = Reportable Detection Limit

Maxxam Job #: B357889
 Report Date: 2013/07/15

QUALITY ASSURANCE REPORT

QC Batch	Parameter	Date	Matrix Spike		Spiked Blank		Method Blank		RPD	
			% Recovery	QC Limits	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits
6975100	1,4-Difluorobenzene (sur.)	2013/07/14	97	70 - 130	99	70 - 130	99	%		
6975100	4-BROMOFLUOROBENZENE (sur.)	2013/07/14	111	70 - 130	97	70 - 130	88	%		
6975100	D4-1,2-DICHLOROETHANE (sur.)	2013/07/14	101	70 - 130	103	70 - 130	96	%		
6975100	Chloroform	2013/07/14	81	70 - 130	83	70 - 130	<1.0	ug/L	NC	30
6975100	Chlorodibromomethane	2013/07/14	81	70 - 130	84	70 - 130	<1.0	ug/L	NC	30
6975100	Bromodichloromethane	2013/07/14	87	70 - 130	88	70 - 130	<1.0	ug/L	NC	30
6975100	Bromoform	2013/07/14	77	70 - 130	80	70 - 130	<1.0	ug/L	NC	30

N/A = Not Applicable

RPD = Relative Percent Difference

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 (RPD): The RPD was not calculated. The level of analyte detected in the parent sample and its duplicate was not sufficiently significant to permit a reliable calculation.

APPENDIX V

Sample Range Report

Vancouver Coastal Health

Facility Name: Village of Pemberton
Date Range: Jan 1 2013 to Dec 31 2013

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

<u>Sampling Site</u>	<u>Date Collected</u>	<u>Total Coliform</u>	<u>E. Coli</u>	<u>Fecal Coliform</u>
<u>Oak Street At High School, Pemberton</u>	02/01/2013	L1	L1	
	09/01/2013	L1	L1	
	16/01/2013	L1	L1	
	22/01/2013	L1	L1	
	29/01/2013	L1	L1	
	05/02/2013	L1	L1	
	13/02/2013	L1	L1	
	20/02/2013	L1	L1	
	26/02/2013	L1	L1	
	06/03/2013	L1	L1	
	12/03/2013	L1	L1	
	19/03/2013	L1	L1	
	26/03/2013	L1	L1	
	03/04/2013	L1	L1	
	10/04/2013	L1	L1	
	17/04/2013	L1	L1	
	24/04/2013	L1	L1	
	30/04/2013	L1	L1	
	07/05/2013	L1	L1	
	14/05/2013	L1	L1	
	22/05/2013	L1	L1	
	28/05/2013	L1	L1	
	04/06/2013	L1	L1	
	11/06/2013	L1	L1	
	18/06/2013	L1	L1	
	25/06/2013	L1	L1	
	02/07/2013	L1	L1	
	09/07/2013	L1	L1	
	16/07/2013	L1	L1	
	23/07/2013	L1	L1	
	30/07/2013	L1	L1	
	07/08/2013	L1	L1	
	14/08/2013	L1	L1	
	20/08/2013	L1	L1	
	27/08/2013	L1	L1	
	03/09/2013	L1	L1	
	10/09/2013	L1	L1	
	17/09/2013	L1	L1	
	24/09/2013	L1	L1	

01/10/2013	L1	L1
08/10/2013	L1	L1
15/10/2013	L1	L1
22/10/2013	L1	L1
29/10/2013	L1	L1
05/11/2013	L1	L1
12/11/2013	L1	L1
19/11/2013	L1	L1
26/11/2013	L1	L1
03/12/2013	L1	L1
10/12/2013	L1	L1
17/12/2013	<u>L1</u>	<u>L1</u>
Total Positive:	0	00

Pemberton Plateau,
Pemberton

02/01/2013	L1	L1
09/01/2013	L1	L1
16/01/2013	L1	L1
22/01/2013	L1	L1
29/01/2013	L1	L1
05/02/2013	L1	L1
13/02/2013	L1	L1
20/02/2013	L1	L1
26/02/2013	L1	L1
06/03/2013	L1	L1
12/03/2013	L1	L1
19/03/2013	L1	L1
26/03/2013	L1	L1
03/04/2013	L1	L1
10/04/2013	L1	L1
17/04/2013	L1	L1
24/04/2013	L1	L1
30/04/2013	L1	L1
07/05/2013	L1	L1
14/05/2013	L1	L1
22/05/2013	L1	L1
28/05/2013	L1	L1
04/06/2013	L1	L1
11/06/2013	L1	L1
18/06/2013	L1	L1
25/06/2013	L1	L1
02/07/2013	L1	L1
09/07/2013	L1	L1
16/07/2013	L1	L1
23/07/2013	L1	L1
30/07/2013	L1	L1
07/08/2013	L1	L1
14/08/2013	L1	L1
20/08/2013	L1	L1
27/08/2013	L1	L1
03/09/2013	L1	L1
10/09/2013	L1	L1
17/09/2013	L1	L1
24/09/2013	L1	L1

01/10/2013	L1	L1
08/10/2013	L1	L1
15/10/2013	L1	L1
22/10/2013	L1	L1
29/10/2013	L1	L1
05/11/2013	L1	L1
12/11/2013	L1	L1
19/11/2013	L1	L1
26/11/2013	L1	L1
03/12/2013	L1	L1
10/12/2013	L1	L1
17/12/2013	<u>L1</u>	<u>L1</u>
Total Positive:	0	00

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

02/01/2013	L1	L1
09/01/2013	L1	L1
16/01/2013	L1	L1
22/01/2013	L1	L1
29/01/2013	L1	L1
05/02/2013	L1	L1
13/02/2013	L1	L1
20/02/2013	L1	L1
26/02/2013	<u>L1</u>	<u>L1</u>
Total Positive:	0	00

Village Office, 7410
Prospect

02/01/2013	L1	L1
09/01/2013	L1	L1
16/01/2013	L1	L1
22/01/2013	L1	L1
29/01/2013	L1	L1
05/02/2013	L1	L1
13/02/2013	L1	L1
20/02/2013	L1	L1
26/02/2013	L1	L1
06/03/2013	L1	L1
12/03/2013	L1	L1
19/03/2013	L1	L1
26/03/2013	L1	L1
03/04/2013	L1	L1
10/04/2013	L1	L1
17/04/2013	L1	L1
24/04/2013	L1	L1
30/04/2013	L1	L1
07/05/2013	L1	L1
14/05/2013	L1	L1
22/05/2013	L1	L1
28/05/2013	L1	L1
04/06/2013	L1	L1

11/06/2013	L1	L1
18/06/2013	L1	L1
25/06/2013	L1	L1
02/07/2013	L1	L1
09/07/2013	L1	L1
16/07/2013	L1	L1
23/07/2013	L1	L1
30/07/2013	L1	L1
07/08/2013	L1	L1
14/08/2013	L1	L1
20/08/2013	L1	L1
27/08/2013	L1	L1
03/09/2013	L1	L1
10/09/2013	L1	L1
17/09/2013	L1	L1
24/09/2013	L1	L1
01/10/2013	L1	L1
08/10/2013	L1	L1
15/10/2013	L1	L1
22/10/2013	L1	L1
29/10/2013	L1	L1
05/11/2013	L1	L1
12/11/2013	L1	L1
19/11/2013	L1	L1
26/11/2013	L1	L1
03/12/2013	L1	L1
10/12/2013	L1	L1
17/12/2013	<u>L1</u>	<u>L1</u>
Total Positive:	0	00

Treatment
Plant/Airport Rd.,
Pemberton

02/01/2013	L1	L1
09/01/2013	L1	L1
16/01/2013	L1	L1
22/01/2013	L1	L1
29/01/2013	L1	L1
05/02/2013	L1	L1
13/02/2013	L1	L1
20/02/2013	L1	L1
26/02/2013	L1	L1
06/03/2013	L1	L1
12/03/2013	L1	L1
19/03/2013	L1	L1
26/03/2013	L1	L1
03/04/2013	L1	L1
10/04/2013	L1	L1
17/04/2013	L1	L1
24/04/2013	L1	L1
30/04/2013	L1	L1
07/05/2013	L1	L1
14/05/2013	L1	L1
22/05/2013	L1	L1
28/05/2013	L1	L1

04/06/2013	L1	L1
11/06/2013	L1	L1
18/06/2013	L1	L1
25/06/2013	L1	L1
02/07/2013	L1	L1
09/07/2013	L1	L1
16/07/2013	L1	L1
23/07/2013	L1	L1
30/07/2013	L1	L1
07/08/2013	L1	L1
14/08/2013	L1	L1
20/08/2013	L1	L1
27/08/2013	L1	L1
03/09/2013	L1	L1
10/09/2013	L1	L1
17/09/2013	L1	L1
24/09/2013	L1	L1
01/10/2013	L1	L1
08/10/2013	L1	L1
15/10/2013	L1	L1
22/10/2013	L1	L1
29/10/2013	L1	L1
05/11/2013	L1	L1
12/11/2013	L1	L1
19/11/2013	L1	L1
26/11/2013	L1	L1
03/12/2013	L1	L1
10/12/2013	L1	L1
17/12/2013	<u>L1</u>	<u>L1</u>
Total Positive:	0	00

1403 Portage Road -
audit site - PHN
office tap,
Pemberton Health
Centre

06/03/2013	L1	L1
12/03/2013	L1	L1
19/03/2013	L1	L1
26/03/2013	L1	L1
03/04/2013	L1	L1
07/05/2013	L1	L1
14/05/2013	L1	L1
22/05/2013	L1	L1
28/05/2013	L1	L1
04/06/2013	L1	L1
25/06/2013	L1	L1
02/07/2013	L1	L1
09/07/2013	L1	L1
16/07/2013	L1	L1
23/07/2013	L1	L1
30/07/2013	L1	L1
07/08/2013	L1	L1
14/08/2013	L1	L1
17/09/2013	L1	L1

01/10/2013	L1	L1
05/11/2013	L1	L1
19/11/2013	L1	L1
26/11/2013	L1	L1
03/12/2013	L1	L1
10/12/2013	L1	L1
17/12/2013	<u>L1</u>	<u>L1</u>
Total Positive:	0	00

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:	0/15	
Total number of samples:	239	

Comments:

Environmental Health Officer

Apr 7 2014

FOR FURTHER INFORMATION PLEASE CALL: Len Clarkson (604) 892-2293

Sample Range Report

Vancouver Coastal Health

Facility Name: Pemberton North Improvement Dist.

Date Range: Jan 1 2013 to Dec 31 2013

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

<u>Sampling Site</u>	<u>Date Collected</u>	<u>Total Coliform</u>	<u>E. Coli</u>	<u>Fecal Coliform</u>
<u>1428 Pemberton</u>				
<u>Farm Road,</u>				
<u>Adjacent to 1428</u>				
<u>Pemberton Farm</u>				
<u>Road</u>				
	29/01/2013	L1	L1	
	05/02/2013	L1	L1	
	13/02/2013	L1	L1	
	26/02/2013	L1	L1	
	06/03/2013	L1	L1	
	12/03/2013	L1	L1	
	19/03/2013	L1	L1	
	26/03/2013	L1	L1	
	03/04/2013	L1	L1	
	10/04/2013	L1	L1	
	17/04/2013	L1	L1	
	24/04/2013	L1	L1	
	30/04/2013	L1	L1	
	07/05/2013	L1	L1	
	14/05/2013	L1	L1	
	22/05/2013	L1	L1	
	28/05/2013	L1	L1	
	04/06/2013	L1	L1	
	11/06/2013	L1	L1	
	18/06/2013	L1	L1	
	25/06/2013	L1	L1	
	02/07/2013	L1	L1	
	09/07/2013	L1	L1	
	16/07/2013	L1	L1	
	23/07/2013	L1	L1	
	30/07/2013	L1	L1	
	07/08/2013	L1	L1	
	14/08/2013	L1	L1	
	20/08/2013	L1	L1	
	27/08/2013	L1	L1	
	03/09/2013	L1	L1	
	10/09/2013	L1	L1	
	17/09/2013	L1	L1	
	24/09/2013	L1	L1	
	01/10/2013	L1	L1	
	08/10/2013	L1	L1	

15/10/2013	L1	L1
22/10/2013	L1	L1
29/10/2013	L1	L1
05/11/2013	L1	L1
12/11/2013	L1	L1
26/11/2013	L1	L1
03/12/2013	L1	L1
17/12/2013	<u>L1</u>	<u>L1</u>
Total Positive:	0	00

7493 Urdal Road.
Adjacent to 7493
Urdal Road

29/01/2013	L1	L1
05/02/2013	L1	L1
13/02/2013	L1	L1
26/02/2013	L1	L1
03/04/2013	L1	L1
10/04/2013	L1	L1
17/04/2013	L1	L1
30/04/2013	L1	L1
07/05/2013	L1	L1
14/05/2013	L1	L1
22/05/2013	L1	L1
28/05/2013	L1	L1
04/06/2013	L1	L1
11/06/2013	L1	L1
18/06/2013	L1	L1
25/06/2013	L1	L1
02/07/2013	L1	L1
09/07/2013	L1	L1
16/07/2013	L1	L1
23/07/2013	L1	L1
30/07/2013	L1	L1
07/08/2013	L1	L1
14/08/2013	L1	L1
27/08/2013	L1	L1
03/09/2013	L1	L1
10/09/2013	L1	L1
17/09/2013	L1	L1
01/10/2013	L1	L1
08/10/2013	L1	L1
15/10/2013	L1	L1
22/10/2013	L1	L1
29/10/2013	L1	L1
05/11/2013	L1	L1
12/11/2013	L1	L1
19/11/2013	L1	L1
26/11/2013	L1	L1
03/12/2013	L1	L1
17/12/2013	<u>L1</u>	<u>L1</u>
Total Positive:	0	00

7620 Pemberton

Meadows Rd.
Opposite 7620
Pemberton
Meadows Rd

26/02/2013	L1	L1
06/03/2013	L1	L1
12/03/2013	L1	L1
19/03/2013	L1	L1
26/03/2013	L1	L1
03/04/2013	L1	L1
10/04/2013	L1	L1
17/04/2013	L1	L1
24/04/2013	L1	L1
30/04/2013	L1	L1
07/05/2013	L1	L1
14/05/2013	L1	L1
22/05/2013	L1	L1
28/05/2013	L1	L1
04/06/2013	L1	L1
11/06/2013	L1	L1
18/06/2013	L1	L1
25/06/2013	L1	L1
02/07/2013	L1	L1
09/07/2013	L1	L1
16/07/2013	L1	L1
23/07/2013	L1	L1
30/07/2013	1	L1
07/08/2013	L1	L1
14/08/2013	L1	L1
20/08/2013	L1	L1
27/08/2013	L1	L1
03/09/2013	L1	L1
10/09/2013	L1	L1
17/09/2013	L1	L1
24/09/2013	L1	L1
01/10/2013	L1	L1
08/10/2013	L1	L1
15/10/2013	L1	L1
22/10/2013	L1	L1
29/10/2013	L1	L1
05/11/2013	L1	L1
12/11/2013	L1	L1
26/11/2013	L1	L1
17/12/2013	<u>L1</u>	<u>L1</u>
Total Positive:	1	00

400-m South of
Collins Road, 400-m
South of Collins
Road

13/02/2013	L1	L1
26/02/2013	L1	L1
06/03/2013	L1	L1
12/03/2013	L1	L1
19/03/2013	L1	L1

26/03/2013	L1	L1
03/04/2013	L1	L1
10/04/2013	L1	L1
17/04/2013	L1	L1
24/04/2013	L1	L1
30/04/2013	L1	L1
07/05/2013	L1	L1
14/05/2013	L1	L1
22/05/2013	L1	L1
28/05/2013	L1	L1
04/06/2013	L1	L1
11/06/2013	L1	L1
18/06/2013	L1	L1
02/07/2013	L1	L1
09/07/2013	L1	L1
16/07/2013	L1	L1
23/07/2013	L1	L1
30/07/2013	L1	L1
07/08/2013	L1	L1
14/08/2013	L1	L1
20/08/2013	L1	L1
27/08/2013	L1	L1
03/09/2013	L1	L1
10/09/2013	L1	L1
17/09/2013	L1	L1
24/09/2013	L1	L1
01/10/2013	L1	L1
08/10/2013	L1	L1
15/10/2013	L1	L1
22/10/2013	L1	L1
29/10/2013	L1	L1
05/11/2013	L1	L1
12/11/2013	L1	L1
26/11/2013	L1	L1
17/12/2013	<u>L1</u>	<u>L1</u>
Total Positive:	0	00

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

Samples that contain total coliform:	1	0.62% 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:	0/6	
Total number of samples:	162	

Comments:

Environmental Health Officer

Jun 4 2014

FOR FURTHER INFORMATION PLEASE CALL: Len Clarkson (604) 892-2293

Sample Range Report

Vancouver Coastal Health

Facility Name: Pemberton Industrial Park Water System

Date Range: Jan 1 2013 to Dec 31 2013

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

<u>Sampling Site</u>	<u>Date Collected</u>	<u>Total Coliform</u>	<u>E. Coli</u>	<u>Fecal Coliform</u>
<u>Sample Station at</u>				
<u>Meter Chamber,</u>				
<u>Pemberton Industrial</u>				
<u>Park</u>				
	02/01/2013	L1	L1	
	09/01/2013	L1	L1	
	16/01/2013	L1	L1	
	22/01/2013	L1	L1	
	29/01/2013	L1	L1	
	05/02/2013	L1	L1	
	13/02/2013	L1	L1	
	20/02/2013	L1	L1	
	26/02/2013	L1	L1	
	06/03/2013	L1	L1	
	12/03/2013	L1	L1	
	26/03/2013	L1	L1	
	03/04/2013	L1	L1	
	10/04/2013	L1	L1	
	17/04/2013	L1	L1	
	24/04/2013	L1	L1	
	30/04/2013	L1	L1	
	07/05/2013	L1	L1	
	14/05/2013	L1	L1	
	22/05/2013	L1	L1	
	28/05/2013	L1	L1	
	04/06/2013	L1	L1	
	11/06/2013	L1	L1	
	18/06/2013	L1	L1	
	25/06/2013	L1	L1	
	02/07/2013	L1	L1	
	09/07/2013	L1	L1	
	16/07/2013	L1	L1	
	23/07/2013	L1	L1	
	30/07/2013	L1	L1	
	07/08/2013	L1	L1	
	14/08/2013	L1	L1	
	20/08/2013	L1	L1	
	27/08/2013	L1	L1	
	03/09/2013	L1	L1	
	10/09/2013	L1	L1	
	17/09/2013	L1	L1	

24/09/2013	L1	L1
01/10/2013	L1	L1
08/10/2013	L1	L1
15/10/2013	L1	L1
22/10/2013	L1	L1
29/10/2013	L1	L1
05/11/2013	L1	L1
12/11/2013	L1	L1
19/11/2013	L1	L1
26/11/2013	L1	L1
03/12/2013	L1	L1
17/12/2013	<u>L1</u>	<u>L1</u>
Total Positive:	0	00

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:	0/2	
Total number of samples:	49	

Comments:

Environmental Health Officer

Jun 4 2014

FOR FURTHER INFORMATION PLEASE CALL: Len Clarkson (604) 892-2293



HEALTH PROTECTION

PERMIT TO OPERATE

A Water Supply System

Purveyor: Village Of Pemberton

Facility Name: Village of Pemberton

Conditions of Permit

Provide a Cross-Connection Control Plan - Due Dec. 31, 2014.

Minimum bacteriological sampling frequency is 20 samples / month.

Maintain continuous on-line monitoring of the water disinfection process.

Review and update the Emergency Response Plan annually.

July 1, 1992

Effective Date

March 25, 2014

Revised Date

Drinking Water Officer

**This permit must be displayed
in a conspicuous place and is not transferable**

