

**The District of Lantzville
Annual Water Report
~ 2013 ~**



District of Lantzville
Water System Annual Report - 2013

Date of Report: April 10th, 2014

Period of Monitoring: January to December 2013

Water Supply Permit Number: 1310847

Location of Water System: Lantzville, BC

Name of Owner: District of Lantzville

Contact Person(s): Fred Spears
Director of Public Works
District of Lantzville
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District of Lantzville
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Water System Description

Source:

The District of Lantzville has four wells that produce a combined 1.2 cubic meters of water per minute, (260 imperial gallons per minute). Each of the four wells varies in depth from 70 feet to 120 feet. Within each well there are pumps that range in horsepower from 5hp to 20 hp. The District has a portable generator that can supply power to the pumps during a power outage on an intermittent basis.

The wells are located in a confined aquifer. A confined aquifer is a body of water that is underground and confined to an extent by non-penetrable soils. Studies have been done on the aquifer that state we have maximized the aquifer to its fullest potential.

The wells, while during the winter months artesian, the overall supply drops significantly during the dry season. In addition to the drop in supply, water demands double during the summer months, as people tend to irrigate their properties. Therefore, The District has necessary water restrictions to ensure conservation during these seasonal demands.

The criteria that sets water restrictions is based on an average hourly use of the well pumps for one week and are as follows:

Water Restriction 1: Regardless of well pump hours the latest is May

Water Restriction 2: When well pumps reach 15 hours per day

Water Restriction 3: When well pumps reach 18 hours per day

Water Restriction 4: When well pumps reach 21 hours per day

Treatment:

The water from the well field is pumped via isolated supply line to the existing 1854.8 cubic meter concrete reservoir on Ware Road. Prior to the water supply reaching the reservoir, chlorine is injected in very small doses to eliminate the possibility of bacteria growth.

A small pump that is attached to the supply line does in the injecting of chlorine. The “chlorine pump” is controlled by the Supervisory Control and Data Acquisitions Systems (SCADA) and is activated at the same time the well pumps start. Staff at the District is very aware of the amount of chlorine that is being placed in the system. Currently, staff maintains a chlorine residual of between 0.1 and 0.3 within the distribution system.

Reservoirs:

The District has two reservoirs: one at Ware Road and one at Aulds Road. The Ware Road reservoir consists of a two chamber concrete tank (927.4m³ each) that is partially buried in the ground. With the two chambers, staff has the ability to drain on chamber for cleaning/repairs, while keeping the second chamber in operation. Also, at the Ware Road reservoir, there are booster pumps which alternate in pumping water to a higher elevation, a permanent generator, the SCADA system that controls both the water and sewer systems in the District.

From the Ware Road reservoir, water is distributed in two directions. Firstly, the water is released from the reservoir via gravity to the lower pressure zone; this zone is mainly any part of the water distribution systems that is north of the Island Highway. The second direction has the water being pumped from the Ware Road reservoir to a second reservoir, which is at a higher elevation near Aulds Road.

The Aulds Road reservoir, a 262.76 cubic meter pre-cast concrete circular tank supplies the upper pressure zone. The upper pressure zone consists of any part of the water distribution system that is above (south) of the highway with the exception of a few properties on the North side of the highway.

Distribution System:

The Distribution System consists of 10,243 meters of PVC (plastic) pipe. In addition to the PVC there is 14,395m of AC (asbestos cement) pipe for a total of 24,638 meters.

The following table shows the different pipes and lengths of those pipes that are in the District's water distribution system:

200 Millimeter – PVC	7,505 Meters (M)
250 Millimeter – PVC	1,880 M
300 Millimeter – PVC	818 M
150 Millimeter – PVC	40 M
100 Millimeter – Asbestos Cement (AC)	5,398 M
150 Millimeter – AC	7,952 M
200 Millimeter – AC	985 M
250 Millimeter - AC	60 M

With two separate pressure zones within the District's water system there is a need for interconnection. A pressure-reducing valve (PRV) allows this interconnection. When the pressure on the lower side drops (only happens when a large main breaks or a when a fire requires an abundance of water), the PRV opens and water is supplied from the upper pressure zone to the lower pressure zone. When the pressure in the lower zone return to normal, the PRV then closes, separating the two zones once again.

There are currently 26 dead ends in the water system. There are no areas where the water goes stagnant within the water system. This is due to the Districts Annual Uni-Directional Flushing Program.

Currently there are no new water connections being provided within the District and this is due to the lack of supply. The District does not anticipate any growth in its water system over the next year.

Improvement Action and Plans:

The District of Lantzville continues to update and upgrade the water infrastructure.

Scheduled for the 2014 construction season is:

- Replacement of the AC water main that runs along Lancrest Terrace;
- Replace 75 Residential Meters;
- An update to the Well Field Management Plan.

Water System Maintenance

Source:

Maintenance on the Wells and Kiosks is as follows:

- Back flush every 7 to 10 years
- Remove brush every 1 to 2 years
- Wire brush and re-paint piping every 2 to 5 years
- Visual check daily
- Annual water sample testing
- Raw Water Sampling Quarterly (E. Coli and Total Coliform)

Treatment:

Maintenance on the Chlorinator is as follows:

- Equipment taken apart and cleaned twice per year
- Hypochlorite solution is added once a week
- Chlorine levels are adjusted as needed

Reservoirs:

Maintenance on the Reservoirs is as follows:

- Drained and cleaned every five years
- Daily/Weekly/Monthly inspections of hatches and venting
- Concrete integrity
- Landscape

Distribution System:

Maintenance of the Distribution System is as follows:

- Entire system flush twice per year
- Hydrant disassemble and re-assemble once per year
- Meter replacement
- Brush around hydrants as necessary
- Weekly water sample collecting
- Leak Detection Program

Water Sampling and Testing Program

As per the requirements of the Vancouver Island Health Authority, the District of Lantzville collects samples from the treated side of the water system on a weekly basis for testing. In addition, raw water samples are collected on a quarterly basis for testing. The following tables show the results from the testing completed in 2013 on a weekly and quarterly basis.

Monitoring for coliform/E-coli, as per Section 11 of the Act and Section 8 of the Water Regulations

District of Lantzville
Water System Annual Report - 2013

Water Sample Range Report for DISTRICT OF LANTZVILLE

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Water Sample Range Report

Vancouver Island Health Authority
Central Island

Facility Name: DISTRICT OF LANTZVILLE
Facility Type: DWT
Date Range: Jan 1 2013 to Dec 31 2013
Date Created: Feb 18 2014

Sampling Site	Date Collected	Total Coliform	E. Coli	Fecal Coliform
<u>Lantzville, 6966</u>				
<u>Seaside Terrace</u>				
<u>Lantzville, Dist. site,</u>				
<u>Monthly</u>				
	1/9/2013	L1	L1	
	2/13/2013	L1	L1	
	3/19/2013	L1	L1	
	4/3/2013	L1	L1	
	5/21/2013	L1	L1	
	6/17/2013	L1	L1	
	7/29/2013	L1	L1	
	8/6/2013	L1	L1	
	9/3/2013	L1	L1	
	9/23/2013	L1	L1	
	10/1/2013	L1	L1	
	11/12/2013	L1	L1	
	12/3/2013	<u>L1</u>	<u>L1</u>	
	Total Positive:	0	0	0
<u>7536 Superior Rd,</u>				
<u>Lantzville Bc, 7536</u>				
<u>Superior Rd, Dist.</u>				
<u>site, Monthly</u>				
	1/23/2013	L1	L1	
	2/27/2013	L1	L1	
	3/26/2013	L1	L1	
	4/16/2013	L1	L1	
	5/28/2013	L1	L1	
	7/29/2013	L1	L1	
	8/26/2013	L1	L1	
	9/23/2013	L1	L1	
	10/7/2013	L1	L1	
	11/12/2013	L1	L1	
	12/3/2013	<u>L1</u>	<u>L1</u>	
	Total Positive:	0	0	0
<u>8020 Lantzville</u>				
<u>Road, Lantzville Bc,</u>				
<u>8020 Lantzville Rd,</u>				
<u>Dist. site, Monthly</u>				
	2/18/2013	L1	L1	
	3/12/2013	L1	L1	
	4/8/2013	L1	L1	
	5/15/2013	L1	L1	
	6/24/2013	L1	L1	
	8/26/2013	L1	L1	
	9/23/2013	L1	L1	

District of Lantzville
 Water System Annual Report - 2013

Water Sample Range Report for DISTRICT OF LANTZVILLE		L1	Page 2 of 5
11/4/2013	L1	L1	
12/3/2013	<u>L1</u>	<u>L1</u>	
Total Positive:	0	0	0

7345 Venture Rd.
Lantzville Bc, 7345
Venture Rd. Dist.
site. Monthly

2/5/2013	L1	L1	
3/4/2013	L1	L1	
5/28/2013	L1	L1	
7/16/2013	L1	L1	
8/26/2013	L1	L1	
9/9/2013	L1	L1	
10/7/2013	L1	L1	
11/25/2013	L1	L1	
12/9/2013	<u>L1</u>	<u>L1</u>	
Total Positive:	0	0	0

7192 Lantzville Rd -
Office, Lantzville.
B.C., 7192 Lantzville
Rd/Village Off. Dist.
site. Monthly

1/2/2013	L1	L1	
1/30/2013	A		
2/27/2013	L1	L1	
3/12/2013	L1	L1	
4/22/2013	L1	L1	
5/21/2013	L1	L1	
6/4/2013	L1	L1	
7/16/2013	L1	L1	
8/6/2013	L1	L1	
9/3/2013	L1	L1	
10/1/2013	L1	L1	
11/4/2013	L1	L1	
12/3/2013	<u>L1</u>	<u>L1</u>	
Total Positive:	0	0	0

7430 Aulds Road.
Lantzville, 7430
Aulds Road. Dist.
site. Monthly

1/2/2013	L1	L1	
1/9/2013	L1	L1	
2/18/2013	L1	L1	
3/19/2013	L1	L1	
4/3/2013	L1	L1	
5/6/2013	L1	L1	
6/4/2013	L1	L1	
6/11/2013	L1	L1	
7/16/2013	L1	L1	
8/12/2013	L1	L1	
9/3/2013	L1	L1	
10/21/2013	L1	L1	
11/25/2013	L1	L1	
12/9/2013	<u>L1</u>	<u>L1</u>	
Total Positive:	0	0	0

District of Lantzville
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7052 Caillet Rd. Report for DISTRICT OF LANTZVILLE
Lantzville, 7052
Caillet Rd, Dist. site.
Monthly

1/16/2013	L1	L1	
2/18/2013	L1	L1	
3/4/2013	L1	L1	
4/16/2013	L1	L1	
5/6/2013	L1	L1	
6/11/2013	L1	L1	
7/2/2013	L1	L1	
8/12/2013	L1	L1	
9/9/2013	L1	L1	
10/28/2013	L1	L1	
11/18/2013	L1	L1	
12/9/2013	<u>L1</u>	<u>L1</u>	
Total Positive:	0	0	0

6898 Harwood Dr.
Lantzville, 6898
Harwood Dr, Dist.
site, Monthly

1/16/2013	L1	L1	
2/13/2013	L1	L1	
3/4/2013	L1	L1	
4/8/2013	L1	L1	
5/1/2013	L1	L1	
7/2/2013	L1	L1	
7/9/2013	L1	L1	
8/19/2013	L1	L1	
9/23/2013	L1	L1	
10/15/2013	L1	L1	
11/4/2013	L1	L1	
12/9/2013	<u>L1</u>	<u>L1</u>	
Total Positive:	0	0	0

7329 Millard Drive.
Lantzville, 7329
Millard Dr, Dist. site.
Monthly

1/9/2013	L1	L1	
2/27/2013	L1	L1	
3/25/2013	L1	L1	
4/3/2013	L1	L1	
5/15/2013	L1	L1	
6/17/2013	L1	L1	
7/9/2013	L1	L1	
8/19/2013	L1	L1	
9/23/2013	L1	L1	
10/15/2013	L1	L1	
11/18/2013	L1	L1	
12/9/2013	<u>L1</u>	<u>L1</u>	
Total Positive:	0	0	0

Lantzville.
Winchelsea - 7493
Clark Dr, Dist. site.
No Regular
Sampling

District of Lantzville
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Water Sample Report for DISTRICT OF LANTZVILLE
OF LANTZVILLE
WATER SYSTEM.
Dist. site, Annually

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7/22/2013 L1 L1
Total Positive: 0 0 0

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

Interpreting Sample Reports

In VIHA, the results of drinking water sampling are reported using the following coding system:

L1 Less than 1 (no detectable bacteria) - Meaning: No bacteria present

OG Overgrown - Meaning: Too many background bacteria to give an accurate count

EST Estimated Count

and

A Sample not tested; Too long in transit

C Sample leaked/broken in transit

D Sample not tested; No collection date given

T Sample submitted unsatisfactory. Exceeded 30 hours holding time, please resample.

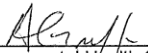
NS No sample received with requisition

Water Sample Range Report for DISTRICT OF LANTZVILLE

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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 positive samples in last 30 days:	0/9	
Total number of samples:	107	

Comments:


Environmental Health Officer
Feb 18 2014

FOR FURTHER INFORMATION PLEASE CALL: Griffin, Anthony (250) 755-6215 Nanaimo

Operator

District of Lantzville
PO BOX 100
Lantzville, BC
V0R 2H0

District of Lantzville
Water System Annual Report - 2013

Water Sample Range Report for DISTRICT OF LANTZVILLE

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Water Sample Range Report

Vancouver Island Health Authority
Central Island

Facility Name: DISTRICT OF LANTZVILLE
Facility Type: DWT
Date Range: Jan 1 2013 to Dec 31 2013
Date Created: Feb 18 2014

Sampling Site	Date Collected	Total Coliform	E. Coli	Fecal Coliform
<u>Lantzville, Well #4</u>				
<u>Harby Road RAW</u>				
<u>WATER, Source</u>				
<u>site, Quarterly</u>				
	1/30/2013	A		
	4/30/2013	L1	L1	
	7/22/2013	L1	L1	
	10/28/2013	<u>L1</u>	<u>L1</u>	
	Total Positive:	0	0	0

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

Interpreting Sample Reports

In VIHA, the results of drinking water sampling are reported using the following coding system:

L1 Less than 1 (no detectable bacteria) - Meaning: No bacteria present

OG Overgrown - Meaning: Too many background bacteria to give an accurate count

EST Estimated Count

and

A Sample not tested; Too long in transit

C Sample leaked/broken in transit

D Sample not tested; No collection date given

T Sample submitted unsatisfactory. Exceeded 30 hours holding time, please resample.

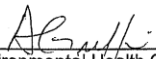
NS No sample received with requisition

Water Sample Range Report for DISTRICT OF LANTZVILLE

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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 positive samples in last 30 days:	0/0	
Total number of samples:	4	

Comments:


Environmental Health Officer
Feb 18 2014

FOR FURTHER INFORMATION PLEASE CALL: Griffin, Anthony (250) 755-6215 Nanaimo

Operator

District of Lantzville
PO BOX 100
Lantzville, BC
V0R 2H0

District of Lantzville
Water System Annual Report - 2013

Water Sample Range Report for DISTRICT OF LANTZVILLE

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Water Sample Range Report

Vancouver Island Health Authority
Central Island

Facility Name: DISTRICT OF LANTZVILLE
Facility Type: DWT
Date Range: Jan 1 2013 to Dec 31 2013
Date Created: Feb 18 2014

Sampling Site	Date Collected	Total Coliform	E. Coli	Fecal Coliform
<u>Lantzville, Well #9</u>				
<u>RAW WATER,</u>				
<u>Source site,</u>				
<u>Quarterly</u>				
	1/30/2013	A		
	4/22/2013	L1	L1	
	7/22/2013	L1	L1	
	10/7/2013	<u>L1</u>	<u>L1</u>	
	Total Positive:	0	0	0

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

Interpreting Sample Reports

In VIHA, the results of drinking water sampling are reported using the following coding system:

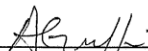
- L1 Less than 1 (no detectable bacteria) - Meaning: No bacteria present
- OG Overgrown - Meaning: Too many background bacteria to give an accurate count
- EST Estimated Count
- and
- A Sample not tested; Too long in transit
- C Sample leaked/broken in transit
- D Sample not tested; No collection date given
- T Sample submitted unsatisfactory. Exceeded 30 hours holding time, please resample.
- NS No sample received with requisition

Water Sample Range Report for DISTRICT OF LANTZVILLE

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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 positive samples in last 30 days:	0/0	
Total number of samples:	4	

Comments:


Environmental Health Officer
Feb 18 2014

FOR FURTHER INFORMATION PLEASE CALL: Griffin, Anthony (250) 755-6215 Nanaimo

Operator

District of Lantzville
PO BOX 100
Lantzville, BC
V0R 2H0

District of Lantzville
Water System Annual Report - 2013

Water Sample Range Report for DISTRICT OF LANTZVILLE

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Water Sample Range Report

Vancouver Island Health Authority
Central Island

Facility Name: DISTRICT OF LANTZVILLE
Facility Type: DWT
Date Range: Jan 1 2013 to Dec 31 2013
Date Created: Feb 18 2014

Sampling Site	Date Collected	Total Coliform	E. Coli	Fecal Coliform
<u>Lantzville, WELL # 6</u>				
<u>RAW WATER,</u>				
<u>Source site,</u>				
<u>Quarterly</u>				
	4/30/2013	L1	L1	
	7/29/2013	L1	L1	
	10/1/2013	L1	L1	
	Total Positive:	0	0	0

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

Interpreting Sample Reports

In VIHA, the results of drinking water sampling are reported using the following coding system:

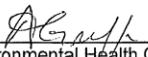
- L1 Less than 1 (no detectable bacteria) - Meaning: No bacteria present
- OG Overgrown - Meaning: Too many background bacteria to give an accurate count
- EST Estimated Count
- and
- A Sample not tested; Too long in transit
- C Sample leaked/broken in transit
- D Sample not tested; No collection date given
- T Sample submitted unsatisfactory. Exceeded 30 hours holding time, please resample.
- NS No sample received with requisition

Water Sample Range Report for DISTRICT OF LANTZVILLE

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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 positive samples in last 30 days:	0/0	
Total number of samples:	3	

Comments:


Environmental Health Officer
Feb 18 2014

FOR FURTHER INFORMATION PLEASE CALL: Griffin, Anthony (250) 755-6215 Nanaimo

Operator

District of Lantzville
PO BOX 100
Lantzville, BC
V0R 2H0

District of Lantzville
Water System Annual Report - 2013

Water Sample Range Report for DISTRICT OF LANTZVILLE

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Water Sample Range Report

Vancouver Island Health Authority
Central Island

Facility Name: DISTRICT OF LANTZVILLE
Facility Type: DWT
Date Range: Jan 1 2013 to Dec 31 2013
Date Created: Feb 18 2014

Sampling Site	Date Collected	Total Coliform	E. Coli	Fecal Coliform
<u>Lantzville, Well #12</u>				
<u>RAW WATER</u>				
<u>Source site</u>				
<u>Quarterly</u>				
	1/30/2013	A		
	4/30/2013	L1	L1	
	7/22/2013	L1	L1	
	10/21/2013	L1	L1	
	Total Positive:	0	0	0

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

Interpreting Sample Reports

In VIHA, the results of drinking water sampling are reported using the following coding system:

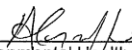
- L1 Less than 1 (no detectable bacteria) - Meaning: No bacteria present
- OG Overgrown - Meaning: Too many background bacteria to give an accurate count
- EST Estimated Count
and
- A Sample not tested; Too long in transit
- C Sample leaked/broken in transit
- D Sample not tested; No collection date given
- T Sample submitted unsatisfactory. Exceeded 30 hours holding time, please resample.
- NS No sample received with requisition

Water Sample Range Report for DISTRICT OF LANTZVILLE

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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 positive samples in last 30 days:	0/0	
Total number of samples:	4	

Comments:


Environmental Health Officer
Feb 18 2014

FOR FURTHER INFORMATION PLEASE CALL: Griffin, Anthony (250) 755-6215 Nanaimo

Operator

District of Lantzville
PO BOX 100
Lantzville, BC
V0R 2H0

Annual Untreated Water Testing

The District, on a yearly basis, carries out a broader range of testing than is required on a weekly or quarterly basis.

During the annual sampling, water is collected directly from the well prior to any treatment. These samples are then sent off to a lab that has the capability to carry out the full range of testing required.

The following report from North Island Labs is for the untreated water testing the District does on an annual basis. In 2013 Wells 12 and 4 were sampled and tested and the results are as follows:



North Island Laboratories

• 2755 B Moray Avenue, Courtenay, B.C. V9N 8M9 Tel: (250) 338-7786 Fax: (250) 338-7553

Certificate of Analysis

Report To: District of Lantzville
Fred Spears
PO Box 100
Lantzville, BC
V0R 2H0

Lab Number: 105590
Date Reported: 18 Sep 13
Date Completed: 18 Sep 13
Date Received: 9 Sep 13 9:43

105590-01 Well 12 Raw Water
Sampled By: Jason Gosling
Sampling Date: 9 Sep 13 9:00

Test	Result	Units	Drinking Water Guideline
Alkalinity	52	mg/L (CaCO ₃)	
Ammonia - N	<0.02	mg/L	
Chloride	20.3	mg/L	250 AO
Fluoride	0.06	mg/L	1.5 MAC
Nitrate (N)	0.66	mg/L	10 MAC
Nitrite (N)	<0.05	mg/L	1 MAC
Sulphate	7.5	mg/L	500 AO
Colour - True	<5	Colour Units	15
Total Cyanide	<0.002	mg/L	
d-Aluminium	<0.005	mg/L	
d-Antimony	<0.0002	mg/L	
d-Arsenic	<0.0002	mg/L	
d-Barium	0.008	mg/L	
d-Beryllium	<0.00004	mg/L	
d-Boron	0.049	mg/L	
d-Cadmium	<0.00001	mg/L	
d-Calcium	18.9	mg/L	
d-Chromium	0.0005	mg/L	
d-Cobalt	0.00003	mg/L	
d-Copper	0.001	mg/L	
d-Iron	<0.005	mg/L	
d-Lead	<0.0001	mg/L	
d-Lithium	0.002	mg/L	
d-Magnesium	6	mg/L	
d-Manganese	<0.001	mg/L	
d-Molybdenum	<0.00010	mg/L	

AO = Aesthetic Objective; MAC = Max. Allowable Concentration; IMAC = Interim MAC
> = Greater than; < = Less than
Results relate only to samples as submitted. This certificate must not be reproduced, except in its entirety, without written consent from the laboratory.
Canadian Drinking Water Guidelines as listed on Dec. 5th, 2005 and are subject to change. Method uncertainties for specified analyses are available upon request.

9/18/2013 11:37

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District of Lantzville
Water System Annual Report - 2013



North Island Laboratories

• 2755 B Moray Avenue, Courtenay, B.C. V9N 8M9 Tel: (250) 338-7786 Fax: (250) 338-7553

105590-01 Well 12 Raw Water

Sampled By: Jason Gosling
Sampling Date: 9 Sep 13 9:00

Test	Result	Units	Drinking Water Guideline
d-Nickel	<0.001	mg/L	
d-Potassium	0.3	mg/L	
d-Selenium	<0.0006	mg/L	
d-Silicon	11.5	mg/L	
d-Silver	<0.00001	mg/L	
d-Sodium	7.3	mg/L	
d-Strontium	0.065	mg/L	
d-Thallium	<0.00001	mg/L	
d-Tin	<0.0001	mg/L	
d-Titanium	<0.010	mg/L	
d-Uranium	<0.0004	mg/L	
d-Vanadium	0.0015	mg/L	
d-Zinc	0.004	mg/L	
Hardness (CaCO ₃)	72	mg/L	
pH at 25 C	6.7	pH Units	6.5-8.5
Total Coliforms (DES)	<1.0	MPN/100mL	<1
E. coli (DES)	<1.0	MPN/100mL	<1
Total Dissolved Solids	106	mg/L	500 AO
Total Plate Count	<3	CFU/ml	

105590-02 Well 4 Raw Water

Sampled By: Jason Gosling
Sampling Date: 9 Sep 13 9:00

Test	Result	Units	Drinking Water Guideline
Alkalinity	58	mg/L (CaCO ₃)	
Ammonia - N	<0.02	mg/L	
Chloride	27.4	mg/L	250 AO
Fluoride	<0.05	mg/L	1.5 MAC
Nitrate (N)	1.53	mg/L	10 MAC
Nitrite (N)	<0.05	mg/L	1 MAC
Sulphate	8.9	mg/L	500 AO
Colour - True	<5	Colour Units	15
Total Cyanide	<0.002	mg/L	

AO = Aesthetic Objective; MAC = Max. Allowable Concentration; IMAC = Interim MAC
> = Greater than; < = Less than
Results relate only to samples as submitted. This certificate must not be reproduced, except in its entirety, without written consent from the laboratory.
Canadian Drinking Water Guidelines as listed on Dec. 5th, 2005 and are subject to change. Method uncertainties for specified analyses are available upon request.

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District of Lantzville
Water System Annual Report - 2013



North Island Laboratories

• 2755 B Moray Avenue, Courtenay, B.C. V9N 8M9 Tel: (250) 338-7786 Fax: (250) 338-7553

105590-02 Well 4 Raw Water

Sampled By: Jason Gosling

Sampling Date: 9 Sep 13 9:00

Test	Result	Units	Drinking Water Guideline
d-Aluminium	<0.005	mg/L	
d-Antimony	<0.0002	mg/L	
d-Arsenic	<0.0002	mg/L	
d-Barium	0.009	mg/L	
d-Beryllium	<0.00004	mg/L	
d-Boron	0.127	mg/L	
d-Cadmium	<0.00001	mg/L	
d-Calcium	24.8	mg/L	
d-Chromium	0.0011	mg/L	
d-Cobalt	0.00005	mg/L	
d-Copper	0.002	mg/L	
d-Iron	<0.005	mg/L	
d-Lead	0.0003	mg/L	
d-Lithium	0.002	mg/L	
d-Magnesium	7.77	mg/L	
d-Manganese	<0.001	mg/L	
d-Molybdenum	<0.00010	mg/L	
d-Nickel	<0.001	mg/L	
d-Potassium	0.4	mg/L	
d-Selenium	<0.0006	mg/L	
d-Silicon	11.6	mg/L	
d-Silver	<0.00001	mg/L	
d-Sodium	11.4	mg/L	
d-Strontium	0.093	mg/L	
d-Thallium	<0.00001	mg/L	
d-Tin	<0.0001	mg/L	
d-Titanium	<0.010	mg/L	
d-Uranium	<0.0004	mg/L	
d-Vanadium	0.00171	mg/L	
d-Zinc	0.005	mg/L	
Hardness (CaCO3)	94	mg/L	
pH at 25 C	6.6	pH Units	6.5-8.5
Total Coliforms (DES)	<1.0	MPN/100mL	<1
E. coli (DES)	<1.0	MPN/100mL	<1

AO = Aesthetic Objective; MAC = Max. Allowable Concentration; IMAC = Interim MAC

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North Island Laboratories

• 2755 B Moray Avenue, Courtenay, B.C. V9N 8M9 Tel: (250) 338-7786 Fax: (250) 338-7553

105590-02 Well 4

Raw Water

Sampled By: Jason Gosling

Sampling Date: 9 Sep 13 9:00

Test	Result	Units	Drinking Water Guideline
Total Dissolved Solids	142	mg/L	500 AO
Total Plate Count	<3	CFU/ml	

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