

DRINKING WATER SYSTEM ANNUAL REPORT

Reporting Period: January 1st to December 31st, (year)

Water System

Water System Owner

Primary Contact Name (Operator or Manager)

Phone Number (Operator or Manager)

E-mail (Operator or Manager)

DESCRIBE YOUR WATER SUPPLY SYSTEM

What is the Source(s) of Raw Water?

Deep Well Shallow Well Surface Water Other

If other, specify details:

Does the Drinking Water System have Primary Disinfection? Yes No

Chlorination Ultraviolet Light Ozone Other

If other, specify details:

Does the Drinking Water System have Secondary Disinfection? Yes No

Chlorination Other

If other, specify details:

Does the Drinking Water System have Filtration? Yes No

Check all boxes that apply

Cartridge Filter(s) Carbon Filter Sand Filtration Reverse Osmosis Other

If other, specify details:

PUBLIC REPORTING

Emergency Response & Contingency Plan (ERCP)

Is your ERCP up to Date? Yes No

How do you Inform the System Users of the ERCP?

Hand Delivered Bulletin Board Newspaper Utility Bill Insert Website

Other (specify details) CVRD Operation Department, 175 Ingram Street, Duncan, BC

Drinking Water System Annual Report

How do you Inform the System Users of the Annual Report?

Hand Delivered Bulletin Board Newspaper Utility Bill Insert Website

Other (specify details)

COMPLIANCE WITH OPERATING PERMIT

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

Are you in compliance with your Operating Permit? Yes No

BACTERIOLOGICAL TESTING AND DRINKING WATER PROTECTION REGULATION WATER QUALITY STANDARDS

How many bacteriological samples were collected during this reporting period? _____

What is the minimum required sampling frequency for this system? (#samples/month) _____

Additional sampling details:

Was the minimum required sampling frequency achieved? Yes No

Comments:

Bacteriological summary attached to this report? Yes No

If no, how do the users of the system view the results?

WATER QUALITY STANDARDS FOR POTABLE WATER

Parameter:	Standard:	Did this system meet standard?	
Escherichia coli (for all samples)	No detectable <i>Escherichia coli</i> per 100ml	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Total Coliform Bacteria (if only 1 sample collected in a 30 day period)	No detectable total coliform bacteria per 100ml	<input type="checkbox"/> Yes	<input type="checkbox"/> No
Total Coliform Bacteria (if more than 1 sample collected in a 30 day period)	No more than 10% of samples contain total coliform bacteria, and No sample has more than 10 total coliform bacteria per 100ml	<input type="checkbox"/> Yes	<input type="checkbox"/> No

If the system did not meet any of above Drinking Water Protection Regulation standards, record the results in the table below; attach additional sheets if necessary.

Date	TC/100ml	E.coli/100ml	Reason	Corrective Action

CHEMICAL SAMPLING COMPLETED DURING THIS REPORTING PERIOD

Was any chemical sampling conducted during reporting period? Yes No

If no, when were the last chemical samples conducted for this system? (date) Don't know

If yes, attach a list of the chemical results

If any water samples did not meet the Guidelines for Canadian Drinking Water Quality, record the results in the table below; attach additional sheets if necessary.

Next scheduled full chemical test (date)

Parameter	Result	Corrective Action / Treatment / Comments

ADDITIONAL TESTING

Does the system have analyzers for continuous monitoring? Yes No

If yes, check all boxes that apply:

Chlorine Turbidity Other (details)

Are the results available on request? UV Intensity Alarm

If any additional testing or sampling was conducted, record results in the table below; attach additional sheets if necessary.

Additional Testing & Reason for Sampling	Corrective Action Taken

WATER QUALITY COMPLAINTS

Were there any water quality complaints in this reporting period? (e.g. taste, odour, colour etc.) Yes No

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

Date	Water Quality Complaint	Corrective Action / Treatment

OPERATIONAL PROBLEMS

Were there any operational problems during this reporting period? (e.g. insufficient water supply, malfunction of disinfection equipment, line breaks, elevated turbidity etc.). Yes No

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

Incident Date	Type of Operational Problem	Corrective Action Taken

MAJOR UPGRADES/REPAIRS & EXPENSES

Were there any major upgrades/repairs or any major costs incurred during 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 install new equipment	
Equipment repair or replacement	
Annual maintenance of system	
Specialist report	
Other	

FUTURE IMPROVEMENTS

Are there any plans for future improvements? Yes No

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

Future Upgrades or Improvements	Estimated Date of Completion

<p>Click here to enter a date. DATE COMPLETED:</p>	<p>COMPLETED BY:</p>
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APPENDIX A

WATER SYSTEM OPERATING CONDITIONS FOR

YUBOU WATER SYSTEM
Youbou Community Lane
Youbou, BC, V0R 3E1

Drinking Water Treatment


The water supplier is required to treat the source water supply in adherence with VIHA's Policy No. 3.3 "*Drinking Water Treatment for Surface Water Supplies*".

Summarize monthly and annual records of turbidity monitoring and include in annual report.

Sampling and Monitoring

The water supplier must monitor Trihalomethanes (THMs) of the treated surface water on a running annual average based on quarterly samples to ensure the Maximum Acceptable Concentration (MAC) of 0.100 mg/L outlined in the *Guidelines for Canadian Drinking Water Quality (GCDWQ)* is not exceeded. These results are to be summarized and submitted to the District Environmental Health Officer (EHO).

Date: December 1, 2010



Environmental Health Officer

Youbou Water System

Facility Information

Location 175 Ingram Street Duncan

Type 301 - 10,000 Connections

Facility Sampling History

Location	Date	Total Coliform	E. Coli/Enterococci
S14 9314 Creekside Drive	17-Dec-2024	LT1	LT1
S3 Intersection of Coon Creek and Willow Road	17-Dec-2024	LT1	LT1
S5 8131 SaSeenOs Road	17-Dec-2024	LT1	LT1
S1 10705 Youbou Road	10-Dec-2024	LT1	LT1
S12 9696 Creekside Road	10-Dec-2024	LT1	LT1
S15 Youbou Reservoir	10-Dec-2024	LT1	LT1
S14 9314 Creekside Drive	02-Dec-2024	LT1	LT1
S7 Arnold Road PRV/Booster Station	02-Dec-2024	LT1	LT1
S12 9696 Creekside Road	25-Nov-2024	LT1	LT1
S3 Intersection of Coon Creek and Willow Road	25-Nov-2024	LT1	LT1
S5 8131 SaSeenOs Road	25-Nov-2024	LT1	LT1
S1 10705 Youbou Road	18-Nov-2024	LT1	LT1
S14 9314 Creekside Drive	18-Nov-2024	LT1	LT1
S15 Youbou Reservoir	18-Nov-2024	LT1	LT1
S1 10705 Youbou Road	13-Nov-2024	LT1	LT1
S12 9696 Creekside Road	13-Nov-2024	LT1	LT1
S15 Youbou Reservoir	13-Nov-2024	LT1	LT1
S14 9314 Creekside Drive	04-Nov-2024	LT1	LT1
S7 Arnold Road PRV/Booster Station	04-Nov-2024	LT1	LT1
S12 9696 Creekside Road	29-Oct-2024	LT1	LT1
S14 9314 Creekside Drive	23-Oct-2024	LT1	LT1
S3 Intersection of Coon Creek and Willow Road	23-Oct-2024	LT1	LT1
S5 8131 SaSeenOs Road	23-Oct-2024	LT1	LT1
S12 9696 Creekside Road	15-Oct-2024	LT1	LT1
S1 10705 Youbou Road	07-Oct-2024	LT1	LT1
S14 9314 Creekside Drive	07-Oct-2024	LT1	LT1
S15 Youbou Reservoir	07-Oct-2024	LT1	LT1
S12 9696 Creekside Road	01-Oct-2024	LT1	LT1
S7 Arnold Road PRV/Booster Station	01-Oct-2024	LT1	LT1
S14 9314 Creekside Drive	24-Sep-2024	LT1	LT1
S3 Intersection of Coon Creek and Willow Road	24-Sep-2024	LT1	LT1
S5 8131 SaSeenOs Road	24-Sep-2024	LT1	LT1
S12 9696 Creekside Road	16-Sep-2024	LT1	LT1
S1 10705 Youbou Road	10-Sep-2024	LT1	LT1
S14 9314 Creekside Drive	10-Sep-2024	LT1	LT1
S15 Youbou Reservoir	10-Sep-2024	LT1	LT1
Well 3 Creekside	10-Sep-2024	LT1	LT1
S12 9696 Creekside Road	04-Sep-2024	LT1	LT1
S7 Arnold Road PRV/Booster Station	04-Sep-2024	LT1	LT1
S14 9314 Creekside Drive	27-Aug-2024	LT1	LT1
S3 Intersection of Coon Creek and Willow Road	27-Aug-2024	LT1	LT1
S5 8131 SaSeenOs Road	27-Aug-2024	LT1	LT1

Youbou Water System

Facility Information

Location 175 Ingram Street Duncan

Type 301 - 10,0000 Connections

Facility Sampling History

Location	Date	Total Coliform	E. Coli/Enterococci
S12 9696 Creekside Road	20-Aug-2024	LT1	LT1
S1 10705 Youbou Road	12-Aug-2024	LT1	LT1
S14 9314 Creekside Drive	12-Aug-2024	LT1	LT1
S15 Youbou Reservoir	12-Aug-2024	LT1	LT1
S12 9696 Creekside Road	06-Aug-2024	LT1	LT1
S7 Arnold Road PRV/Booster Station	06-Aug-2024	LT1	LT1
S14 9314 Creekside Drive	29-Jul-2024	LT1	LT1
S12 9696 Creekside Road	22-Jul-2024	LT1	LT1
S3 Intersection of Coon Creek and Willow Road	22-Jul-2024	LT1	LT1
S5 8131 SaSeenOs Road	22-Jul-2024	LT1	LT1
S14 9314 Creekside Drive	16-Jul-2024	LT1	LT1
S1 10705 Youbou Road	09-Jul-2024	LT1	LT1
S12 9696 Creekside Road	09-Jul-2024	LT1	LT1
S15 Youbou Reservoir	09-Jul-2024	LT1	LT1
S14 9314 Creekside Drive	02-Jul-2024	LT1	LT1
S7 Arnold Road PRV/Booster Station	02-Jul-2024	LT1	LT1
S12 9696 Creekside Road	25-Jun-2024	LT1	LT1
S3 Intersection of Coon Creek and Willow Road	25-Jun-2024	LT1	LT1
S5 8131 SaSeenOs Road	25-Jun-2024	LT1	LT1
S14 9314 Creekside Drive	18-Jun-2024	LT1	LT1
S1 10705 Youbou Road	10-Jun-2024	LT1	LT1
S12 9696 Creekside Road	10-Jun-2024	LT1	LT1
S15 Youbou Reservoir	10-Jun-2024	LT1	LT1
S14 9314 Creekside Drive	04-Jun-2024	LT1	LT1
S7 Arnold Road PRV/Booster Station	04-Jun-2024	LT1	LT1
S12 9696 Creekside Road	28-May-2024	LT1	LT1
S3 Intersection of Coon Creek and Willow Road	28-May-2024	LT1	LT1
S5 8131 SaSeenOs Road	28-May-2024	LT1	LT1
S14 9314 Creekside Drive	21-May-2024	LT1	LT1
Well 4 Youbou	21-May-2024	LT1	LT1
S1 10705 Youbou Road	14-May-2024	LT1	LT1
S12 9696 Creekside Road	14-May-2024	LT1	LT1
S15 Youbou Reservoir	14-May-2024	LT1	LT1
S14 9314 Creekside Drive	07-May-2024	LT1	LT1
S7 Arnold Road PRV/Booster Station	07-May-2024	LT1	LT1
S12 9696 Creekside Road	29-Apr-2024	LT1	LT1
S14 9314 Creekside Drive	23-Apr-2024	LT1	LT1
S3 Intersection of Coon Creek and Willow Road	23-Apr-2024	LT1	LT1
S5 8131 SaSeenOs Road	23-Apr-2024	LT1	LT1
S12 9696 Creekside Road	15-Apr-2024	LT1	LT1
S1 10705 Youbou Road	09-Apr-2024	LT1	LT1
S14 9314 Creekside Drive	09-Apr-2024	LT1	LT1
S15 Youbou Reservoir	09-Apr-2024	LT1	LT1

Youbou Water System

Facility Information

Location 175 Ingram Street Duncan

Type 301 - 10,0000 Connections

Facility Sampling History

Location	Date	Total Coliform	E. Coli/Enterococci
S12 9696 Creekside Road	02-Apr-2024	LT1	LT1
S7 Arnold Road PRV/Booster Station	02-Apr-2024	LT1	LT1
S14 9314 Creekside Drive	26-Mar-2024	LT1	LT1
S3 Intersection of Coon Creek and Willow Road	26-Mar-2024	LT1	LT1
S5 8131 SaSeenOs Road	26-Mar-2024	LT1	LT1
S12 9696 Creekside Road	19-Mar-2024	LT1	LT1
S12 9696 Creekside Road	12-Mar-2024	LT1	LT1
S7 Arnold Road PRV/Booster Station	12-Mar-2024	LT1	LT1
S14 9314 Creekside Drive	27-Feb-2024	LT1	LT1
S3 Intersection of Coon Creek and Willow Road	27-Feb-2024	LT1	LT1
S5 8131 SaSeenOs Road	27-Feb-2024	LT1	LT1
S12 9696 Creekside Road	20-Feb-2024	LT1	LT1
S1 10705 Youbou Road	12-Feb-2024	LT1	LT1
S14 9314 Creekside Drive	12-Feb-2024	LT1	LT1
S15 Youbou Reservoir	12-Feb-2024	LT1	LT1
Well 3 Creekside	12-Feb-2024	LT1	LT1
S12 9696 Creekside Road	06-Feb-2024	LT1	LT1
S7 Arnold Road PRV/Booster Station	06-Feb-2024	LT1	LT1
S14 9314 Creekside Drive	29-Jan-2024	LT1	LT1
S12 9696 Creekside Road	22-Jan-2024	LT1	LT1
S3 Intersection of Coon Creek and Willow Road	22-Jan-2024	LT1	LT1
S5 8131 SaSeenOs Road	22-Jan-2024	LT1	LT1
S14 9314 Creekside Drive	16-Jan-2024	LT1	LT1
Well 4 Youbou	16-Jan-2024	LT1	LT1
S1 10705 Youbou Road	09-Jan-2024	LT1	LT1
S12 9696 Creekside Road	09-Jan-2024	LT1	LT1
S15 Youbou Reservoir	09-Jan-2024	LT1	LT1
S14 9314 Creekside Drive	02-Jan-2024	LT1	LT1
S7 Arnold Road PRV/Booster Station	02-Jan-2024	LT1	LT1

YUBOU WATER SYSTEM

SOURCE - Well 3 & Well 4

DISTRIBUTION

			<i>Sample ID</i>	S5-8131 SA-SEEN-OS RD (WTX 27AF3)	WELL 3 (LAKESIDE) (WTX 27AF0)	WELL 4 (WTX 40CC7)
			<i>Sampling Date</i>	03/15/24	09/26/24	09/26/24
			<i>Sampling Time</i>	8:23 AM	11:35 AM	12:20 PM
<i>Parameter Name</i>	<i>MAC</i>	<i>AO</i>	<i>Units</i>	<i>Result</i>	<i>Result2</i>	<i>Result3</i>
Non-Coliform (Background)			CFU/100mL	<1	<1	<1
Fecal Coliforms			CFU/100mL	0	<1	<1
Heterotrophic Plate Count			CFU/mL	<1.0	3	<1
Total Coliforms	0		CFU/100mL	0	0	0
E. coli	0		CFU/100mL	0	0	0
Iron Bacteria			CFU/mL	<25	<25	<25
Sulphate reducing bacteria			CFU/mL	<75	<75	<75
Nitrite (N)	1		mg/L	<0.0050	<0.0050	<0.0050
Nitrate (N)	10		mg/L	<0.020	0.087	0.064
Conductivity			uS/cm	71	83	78
pH			pH	6.96	7.63	6.69
Total Dissolved Solids		500	mg/L	58	58	38
Alkalinity (PP as CaCO3)			mg/L	<1.0	<1.0	<1.0
Alkalinity (Total as CaCO3)			mg/L	29	39	35
Bicarbonate (HCO3)			mg/L	35	47	43
Carbonate (CO3)			mg/L	<1.0	<1.0	<1.0
Hydroxide (OH)			mg/L	<1.0	<1.0	<1.0
Chloride (Cl)		250	mg/L	1.3	<1.0	<1.0
Sulphate (SO4)		500	mg/L	1.9	1.7	1.8
True Colour		15	Col. Unit	<2.0	2.3	<2.0
Nitrate plus Nitrite (N)			mg/L	<0.020	0.087	0.064
Langelier Index (@ 20C)			N/A	-1.87	-0.969	-2.01
Langelier Index (@ 4C)			N/A	-2.12	-1.22	-2.27
Saturation pH (@ 20C)			N/A	8.82	8.6	8.71
Saturation pH (@ 4C)			N/A	9.08	8.85	8.96

YOUNG WATER SYSTEM

SOURCE - Well 3 & Well 4

DISTRIBUTION

<i>Parameter Name</i>	<i>MAC</i>	<i>AO</i>	<i>Units</i>	<i>Sample ID</i>	<i>Result</i>	<i>Result2</i>	<i>Result3</i>
				S5-8131 SA-SEEN-OS RD (WTX 27AF3)	WELL 3 (LAKESIDE) (WTX 27AF0)	WELL 4 (WTX 40CC7)	
				<i>Sampling Date</i>	03/15/24	09/26/24	09/26/24
				<i>Sampling Time</i>	8:23 AM	11:35 AM	12:20 PM
Dissolved Fluoride (F)	1.5		mg/L		<0.050	<0.050	<0.050
Turbidity	see remark	see remark	NTU		<0.10	0.2	0.33
Tannins and Lignins			mg/L		<0.2	<0.2	<0.2
Total Hardness (CaCO3)			mg/L		30.1	37.1	30.4
Total Aluminum (Al)	2900		ug/L		4.4	<3.0	3.1
Total Antimony (Sb)	6		ug/L		<0.50	<0.50	<0.50
Total Arsenic (As)	10		ug/L		0.2	0.17	0.27
Total Barium (Ba)	2000		ug/L		12.8	16.4	15.9
Total Beryllium (Be)			ug/L		<0.10	<0.10	<0.10
Total Bismuth (Bi)			ug/L		<1.0	<1.0	<1.0
Total Boron (B)	5000		ug/L		51	<50	<50
Total Cadmium (Cd)	7		ug/L		<0.010	<0.010	<0.010
Total Chromium (Cr)	50		ug/L		<1.0	<1.0	<1.0
Total Cobalt (Co)			ug/L		<0.20	<0.20	<0.20
Total Copper (Cu)	2000	1000	ug/L		12.5	0.92	0.87
Total Iron (Fe)		300	ug/L		5.3	<5.0	7.5
Total Lead (Pb)	5		ug/L		0.8	<0.20	<0.20
Total Manganese (Mn)	120	20	ug/L		<1.0	<1.0	1.5
Total Molybdenum (Mo)			ug/L		<1.0	<1.0	<1.0
Total Nickel (Ni)			ug/L		<1.0	<1.0	<1.0
Total Selenium (Se)	50		ug/L		<0.10	<0.10	<0.10
Total Silicon (Si)			ug/L		2160	2270	2650
Total Silver (Ag)			ug/L		<0.020	<0.020	<0.020
Total Strontium (Sr)	7000		ug/L		23.6	28.4	24.2
Total Thallium (Tl)			ug/L		<0.010	<0.010	<0.010

YUBOU WATER SYSTEM

SOURCE - Well 3 & Well 4

DISTRIBUTION

			<i>Sample ID</i>	S5-8131 SA-SEEN-OS RD (WTX 27AF3)	WELL 3 (LAKESIDE) (WTX 27AF0)	WELL 4 (WTX 40CC7)
			<i>Sampling Date</i>	03/15/24	09/26/24	09/26/24
			<i>Sampling Time</i>	8:23 AM	11:35 AM	12:20 PM
<i>Parameter Name</i>	<i>MAC</i>	<i>AO</i>	<i>Units</i>	<i>Result</i>	<i>Result2</i>	<i>Result3</i>
Total Tin (Sn)			ug/L	<5.0	<5.0	<5.0
Total Titanium (Ti)			ug/L	<5.0	<5.0	<5.0
Total Uranium (U)	20		ug/L	<0.10	<0.10	<0.10
Total Vanadium (V)			ug/L	<5.0	<5.0	<5.0
Total Zinc (Zn)		5000	ug/L	6.9	<5.0	<5.0
Total Zirconium (Zr)			ug/L	<0.10	<0.10	<0.10
Total Calcium (Ca)			mg/L	10.9	13.4	11
Total Magnesium (Mg)			mg/L	0.706	0.866	0.693
Total Potassium (K)			mg/L	0.151	0.17	0.227
Total Sodium (Na)		200	mg/L	2.02	1.37	1.54
Total Sulphur (S)			mg/L	<3.0	<3.0	<3.0
Total Mercury (Hg)	1		ug/L	<0.030	<0.0019	<0.0019
Sulphide (as H2S)		0.05	mg/L	<0.0020	<0.0020	<0.0020
Total Sulphide		0.05	mg/L	<0.0018	<0.0018	<0.0018
Total Total Kjeldahl Nitrogen (Calc)			mg/L	<0.020	0.043	<0.020
Total Organic Carbon (C)			mg/L	0.51	<0.50	<0.50
Total Nitrogen (N)			mg/L	<0.020	0.131	0.077
Total Ammonia (N)			mg/L	<0.015	<0.015	<0.015
Total Trihalomethanes	100		ug/L	10		
Bromodichloromethane			ug/L	1.5		
Bromoform			ug/L	<1.0		
Dibromochloromethane			ug/L	<1.0		
Chloroform			ug/L	8.6		
Dalapon			ug/L	<5.0		
Monochloroacetic Acid			ug/L	<5.0		

YUBOU WATER SYSTEM

SOURCE - Well 3 & Well 4

DISTRIBUTION

			<i>Sample ID</i>	S5-8131 SA- SEEN-OS RD (WTX 27AF3)	WELL 3 (LAKESIDE) (WTX 27AF0)	WELL 4 (WTX 40CC7)
			<i>Sampling Date</i>	03/15/24	09/26/24	09/26/24
			<i>Sampling Time</i>	8:23 AM	11:35 AM	12:20 PM
<i>Parameter Name</i>	<i>MAC</i>	<i>AO</i>	<i>Units</i>	<i>Result</i>	<i>Result2</i>	<i>Result3</i>
Monobromoacetic Acid			ug/L	<5.0		
Dichloroacetic Acid			ug/L	<5.0		
Trichloroacetic Acid			ug/L	<5.0		
Bromochloroacetic Acid			ug/L	<5.0		
Dibromoacetic Acid			ug/L	<5.0		
Total Haloacetic Acids	80		ug/L	<5.0		