

REPORTED TO PROJECT Grand Forks, City of
Drinking Water

WORK ORDER REPORTED 3020782
Feb-25-13

Analyte	Result / Recovery	Canadian DW Guideline	RDL / Limit	Units	Prepared	Analyzed	Notes
General Parameters							
Sample ID: Well #5 (3020782-01) [Water] Sampled: Feb-18-13 10:00							
Alkalinity, Total as CaCO ₃	177		1	mg/L	Feb-19-13	Feb-19-13	
Chloride	6.62	AO ≤ 250	0.10	mg/L	Feb-19-13	Feb-19-13	
Colour, True	< 5	AO ≤ 15	5	Color Unit	Feb-20-13	Feb-20-13	
Conductivity (EC)	417		2	uS/cm	Feb-19-13	Feb-19-13	
Cyanide, total	< 0.010	MAC = 0.2	0.010	mg/L	Feb-20-13	Feb-20-13	
Fluoride	0.30	MAC = 1.5	0.10	mg/L	Feb-19-13	Feb-19-13	
Nitrogen, Nitrate as N	0.409	MAC = 10	0.010	mg/L	Feb-19-13	Feb-19-13	
Nitrogen, Nitrite as N	< 0.010	MAC = 1	0.010	mg/L	Feb-19-13	Feb-19-13	
pH	8.04	AO = 6.5 - 8.5	0.01	pH units	Feb-19-13	Feb-19-13	
Sulfate	41.0	AO ≤ 500	1.0	mg/L	Feb-19-13	Feb-19-13	
Turbidity	< 0.1	See Guidelines	0.1	NTU	Feb-19-13	Feb-21-13	
UV Transmittance @ 254nm	98.2		0.1	%	Feb-19-13	Feb-21-13	

Calculated Parameters

Sample ID: Well #5 (3020782-01) [Water] Sampled: Feb-18-13 10:00

Hardness, Total (Total as CaCO ₃)	204		5.0	mg/L	N/A	N/A	
Solids, Total Dissolved	240		2.0	mg/L	N/A	N/A	

Total Recoverable Metals

Sample ID: Well #5 (3020782-01) [Water] Sampled: Feb-18-13 10:00

Aluminum, total	< 0.05	AO ≤ 0.1	0.05	mg/L	Feb-21-13	Feb-22-13	
Antimony, total	< 0.001	MAC = 0.006	0.001	mg/L	Feb-21-13	Feb-22-13	
Arsenic, total	0.012	MAC = 0.01	0.005	mg/L	Feb-21-13	Feb-22-13	
Barium, total	< 0.05	MAC = 1	0.05	mg/L	Feb-21-13	Feb-22-13	
Beryllium, total	< 0.001		0.001	mg/L	Feb-21-13	Feb-22-13	
Boron, total	< 0.04	MAC = 5	0.04	mg/L	Feb-21-13	Feb-22-13	
Cadmium, total	< 0.0001	MAC = 0.005	0.0001	mg/L	Feb-21-13	Feb-22-13	
Calcium, total	51		2	mg/L	Feb-21-13	Feb-22-13	
Chromium, total	< 0.005	MAC = 0.05	0.005	mg/L	Feb-21-13	Feb-22-13	
Cobalt, total	< 0.0005		0.0005	mg/L	Feb-21-13	Feb-22-13	
Copper, total	< 0.002	AO ≤ 1	0.002	mg/L	Feb-21-13	Feb-22-13	
Iron, total	< 0.1	AO ≤ 0.3	0.1	mg/L	Feb-21-13	Feb-22-13	
Lead, total	< 0.001	MAC = 0.01	0.001	mg/L	Feb-21-13	Feb-22-13	
Magnesium, total	18.5		0.1	mg/L	Feb-21-13	Feb-22-13	
Manganese, total	0.032	AO ≤ 0.05	0.002	mg/L	Feb-21-13	Feb-22-13	
Mercury, total	< 0.0002	MAC = 0.001	0.0002	mg/L	Feb-21-13	Feb-22-13	
Molybdenum, total	0.008		0.001	mg/L	Feb-21-13	Feb-22-13	
Nickel, total	< 0.002		0.002	mg/L	Feb-21-13	Feb-22-13	
Phosphorus, total	< 0.2		0.2	mg/L	Feb-21-13	Feb-22-13	
Potassium, total	2.5		0.2	mg/L	Feb-21-13	Feb-22-13	
Selenium, total	< 0.005	MAC = 0.01	0.005	mg/L	Feb-21-13	Feb-22-13	
Silicon, total	9		5	mg/L	Feb-21-13	Feb-22-13	
Silver, total	< 0.0005		0.0005	mg/L	Feb-21-13	Feb-22-13	

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Analyte	Result / Recovery	Canadian DW Guideline	RDL / Limit	Units	Prepared	Analyzed	Notes
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Total Recoverable Metals, Continued

Sample ID: Well #5 (3020782-01) [Water] Sampled: Feb-18-13 10:00, Continued

Sodium, total	10.1	AO ≤ 200	0.2	mg/L	Feb-21-13	Feb-22-13	
Uranium, total	0.0037	MAC = 0.02	0.0002	mg/L	Feb-21-13	Feb-22-13	
Vanadium, total	< 0.01		0.01	mg/L	Feb-21-13	Feb-22-13	
Zinc, total	< 0.04	AO ≤ 5	0.04	mg/L	Feb-21-13	Feb-22-13	

Microbiological Parameters

Sample ID: Well #5 (3020782-01) [Water] Sampled: Feb-18-13 10:00

Coliforms, Total	< 1	MAC < 1	1	CFU/100mL	Feb-19-13	Feb-20-13	
E. coli	< 1	MAC < 1	1	CFU/100mL	Feb-19-13	Feb-20-13	

REPORTED TO PROJECT Grand Forks, City of
Drinking Water

WORK ORDER REPORTED 3041529
May-03-13

Analyte	Result / Recovery	Canadian DW Guideline	MRL / Limit	Units	Prepared	Analyzed	Notes
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Anions

Sample ID: Well #4 (3041529-01) [Water] Sampled: Apr-29-13 10:30

Alkalinity, Total as CaCO ₃	154		1	mg/L	N/A	Apr-30-13	
Chloride	6.05	AO ≤ 250	0.10	mg/L	N/A	Apr-30-13	
Fluoride	0.40	MAC = 1.5	0.10	mg/L	N/A	Apr-30-13	
Nitrogen, Nitrate as N	0.401	MAC = 10	0.010	mg/L	N/A	Apr-30-13	
Nitrogen, Nitrite as N	< 0.010	MAC = 1	0.010	mg/L	N/A	Apr-30-13	
Sulfate	29.5	AO ≤ 500	1.0	mg/L	N/A	Apr-30-13	

General Parameters

Sample ID: Well #4 (3041529-01) [Water] Sampled: Apr-29-13 10:30

Colour, True	< 5	AO ≤ 15	5	Color Unit	N/A	Apr-30-13	
Conductivity (EC)	370		2	uS/cm	N/A	Apr-30-13	
Cyanide, total	< 0.010	MAC = 0.2	0.010	mg/L	May-02-13	May-03-13	
pH	8.03	AO = 6.5 - 8.5	0.01	pH units	N/A	Apr-30-13	
Turbidity	< 0.1	See Guidelines	0.1	NTU	N/A	May-02-13	
UV Transmittance @ 254nm	94.3		0.1	%	N/A	May-03-13	

Calculated Parameters

Sample ID: Well #4 (3041529-01) [Water] Sampled: Apr-29-13 10:30

Hardness, Total (Total as CaCO ₃)	173		5.0	mg/L	N/A	N/A	
Solids, Total Dissolved	201		2.0	mg/L	N/A	N/A	

Total Recoverable Metals

Sample ID: Well #4 (3041529-01) [Water] Sampled: Apr-29-13 10:30

Aluminum, total	< 0.05	AO ≤ 0.1	0.05	mg/L	May-01-13	May-02-13	
Antimony, total	< 0.001	MAC = 0.006	0.001	mg/L	May-01-13	May-02-13	
Arsenic, total	0.012	MAC = 0.01	0.005	mg/L	May-01-13	May-02-13	
Barium, total	< 0.05	MAC = 1	0.05	mg/L	May-01-13	May-02-13	
Beryllium, total	< 0.001		0.001	mg/L	May-01-13	May-02-13	
Boron, total	< 0.04	MAC = 5	0.04	mg/L	May-01-13	May-02-13	
Cadmium, total	< 0.0001	MAC = 0.005	0.0001	mg/L	May-01-13	May-02-13	
Calcium, total	46		2	mg/L	May-01-13	May-02-13	
Chromium, total	< 0.005	MAC = 0.05	0.005	mg/L	May-01-13	May-02-13	
Cobalt, total	< 0.0005		0.0005	mg/L	May-01-13	May-02-13	
Copper, total	0.002	AO ≤ 1	0.002	mg/L	May-01-13	May-02-13	
Iron, total	< 0.1	AO ≤ 0.3	0.1	mg/L	May-01-13	May-02-13	
Lead, total	< 0.001	MAC = 0.01	0.001	mg/L	May-01-13	May-02-13	
Magnesium, total	14.1		0.1	mg/L	May-01-13	May-02-13	
Manganese, total	0.013	AO ≤ 0.05	0.002	mg/L	May-01-13	May-02-13	
Mercury, total	< 0.0002	MAC = 0.001	0.0002	mg/L	May-01-13	May-02-13	
Molybdenum, total	0.005		0.001	mg/L	May-01-13	May-02-13	
Nickel, total	< 0.002		0.002	mg/L	May-01-13	May-02-13	
Phosphorus, total	0.3		0.2	mg/L	May-01-13	May-02-13	

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WORK ORDER REPORTED 3041529
May-03-13

Analyte	Result / Recovery	Canadian DW Guideline	MRL / Limit	Units	Prepared	Analyzed	Notes
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Total Recoverable Metals, Continued

Sample ID: Well #4 (3041529-01) [Water] Sampled: Apr-29-13 10:30, Continued

Potassium, total	1.5		0.2	mg/L	May-01-13	May-02-13	
Selenium, total	< 0.005	MAC = 0.01	0.005	mg/L	May-01-13	May-02-13	
Silicon, total	11		5	mg/L	May-01-13	May-02-13	
Silver, total	< 0.0005		0.0005	mg/L	May-01-13	May-02-13	
Sodium, total	8.3	AO ≤ 200	0.2	mg/L	May-01-13	May-02-13	
Uranium, total	0.0027	MAC = 0.02	0.0002	mg/L	May-01-13	May-02-13	
Vanadium, total	< 0.01		0.01	mg/L	May-01-13	May-02-13	
Zinc, total	< 0.04	AO ≤ 5	0.04	mg/L	May-01-13	May-02-13	

Microbiological Parameters

Sample ID: Well #4 (3041529-01) [Water] Sampled: Apr-29-13 10:30

Coliforms, Total	< 1	MAC < 1	1	CFU/100mL	Apr-30-13	May-01-13	
E. coli	< 1	MAC < 1	1	CFU/100mL	Apr-30-13	May-01-13	

REPORTED TO PROJECT Grand Forks, City of Comprehensive

WORK ORDER REPORTED 4111272 Dec-02-14

Analyte	Result / Recovery	Standard / Guideline	MRL / Limits	Units	Prepared	Analyzed	Notes
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Sample ID: Well #3A (4111272-01) [Water] Sampled: Nov-24-14 13:15

Anions

Chloride	1.56	AO ≤ 250	0.10	mg/L	N/A	Nov-25-14	
Fluoride	0.35	MAC = 1.5	0.10	mg/L	N/A	Nov-25-14	
Nitrogen, Nitrate as N	0.173	MAC = 10	0.010	mg/L	N/A	Nov-25-14	
Nitrogen, Nitrite as N	< 0.010	MAC = 1	0.010	mg/L	N/A	Nov-25-14	
Sulfate	17.7	AO ≤ 500	1.0	mg/L	N/A	Nov-25-14	

General Parameters

Alkalinity, Total as CaCO3	131	N/A	1	mg/L	N/A	Nov-25-14	
Colour, True	< 5	AO ≤ 15	5	CU	N/A	Nov-25-14	
Conductivity (EC)	298	N/A	2	µS/cm	N/A	Nov-25-14	
Cyanide, total	< 0.010	MAC = 0.2	0.010	mg/L	Nov-26-14	Nov-26-14	
pH	8.19	6.5-8.5	0.01	pH units	N/A	Nov-25-14	
Turbidity	< 0.1	OG < 0.1	0.1	NTU	N/A	Nov-26-14	
UV Transmittance @ 254nm	99.8	N/A	0.1	% T	N/A	Nov-25-14	

Calculated Parameters

Hardness, Total (Total as CaCO3)	137	N/A	5.0	mg/L	N/A	N/A	
Solids, Total Dissolved	157	AO ≤ 500	2.0	mg/L	N/A	N/A	

Total Recoverable Metals

Aluminum, total	< 0.05	OG < 0.1	0.05	mg/L	Nov-26-14	Nov-27-14	
Antimony, total	< 0.001	MAC = 0.006	0.001	mg/L	Nov-26-14	Nov-27-14	
Arsenic, total	< 0.005	MAC = 0.01	0.005	mg/L	Nov-26-14	Nov-27-14	
Barium, total	< 0.05	MAC = 1	0.05	mg/L	Nov-26-14	Nov-27-14	
Beryllium, total	< 0.001	N/A	0.001	mg/L	Nov-26-14	Nov-27-14	
Boron, total	< 0.04	MAC = 5	0.04	mg/L	Nov-26-14	Nov-27-14	
Cadmium, total	< 0.0001	MAC = 0.005	0.0001	mg/L	Nov-26-14	Nov-27-14	
Calcium, total	40.0	N/A	2.0	mg/L	Nov-26-14	Nov-27-14	
Chromium, total	< 0.005	MAC = 0.05	0.005	mg/L	Nov-26-14	Nov-27-14	
Cobalt, total	< 0.0005	N/A	0.0005	mg/L	Nov-26-14	Nov-27-14	
Copper, total	< 0.002	AO ≤ 1	0.002	mg/L	Nov-26-14	Nov-27-14	
Iron, total	< 0.10	AO ≤ 0.3	0.10	mg/L	Nov-26-14	Nov-27-14	
Lead, total	< 0.001	MAC = 0.01	0.001	mg/L	Nov-26-14	Nov-27-14	
Magnesium, total	8.9	N/A	0.1	mg/L	Nov-26-14	Nov-27-14	
Manganese, total	0.006	AO ≤ 0.05	0.002	mg/L	Nov-26-14	Nov-27-14	
Molybdenum, total	0.003	N/A	0.001	mg/L	Nov-26-14	Nov-27-14	
Nickel, total	< 0.002	N/A	0.002	mg/L	Nov-26-14	Nov-27-14	
Phosphorus, total	< 0.2	N/A	0.2	mg/L	Nov-26-14	Nov-27-14	
Potassium, total	1.5	N/A	0.2	mg/L	Nov-26-14	Nov-27-14	
Selenium, total	< 0.005	MAC = 0.05	0.005	mg/L	Nov-26-14	Nov-27-14	
Silicon, total	8	N/A	5	mg/L	Nov-26-14	Nov-27-14	
Silver, total	< 0.0005	N/A	0.0005	mg/L	Nov-26-14	Nov-27-14	
Sodium, total	6.7	AO ≤ 200	0.2	mg/L	Nov-26-14	Nov-27-14	
Uranium, total	0.0022	MAC = 0.02	0.0002	mg/L	Nov-26-14	Nov-27-14	
Vanadium, total	< 0.01	N/A	0.01	mg/L	Nov-26-14	Nov-27-14	
Zinc, total	< 0.04	AO ≤ 5	0.04	mg/L	Nov-26-14	Nov-27-14	

REPORTED TO PROJECT Grand Forks, City of Comprehensive

WORK ORDER REPORTED 4111272 Dec-02-14

Analyte	Result / Recovery	Standard / Guideline	MRL / Limits	Units	Prepared	Analyzed	Notes
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Sample ID: Well #3A (4111272-01) [Water] Sampled: Nov-24-14 13:15, Continued

Microbiological Parameters

Coliforms, Total	< 1	MAC = None Detected	1	CFU/100 mL	Nov-25-14	Nov-26-14	
E. coli	< 1	MAC = None Detected	1	CFU/100 mL	Nov-25-14	Nov-26-14	

REPORTED TO PROJECT Grand Forks, City of Comprehensive

WORK ORDER REPORTED 4120497 Dec-16-14

Analyte	Result / Recovery	Standard / Guideline	MRL / Limits	Units	Prepared	Analyzed	Notes
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Sample ID: Well #4 (4120497-01) [Water] Sampled: Dec-08-14 13:15

Anions

Chloride	6.69	AO ≤ 250	0.10	mg/L	N/A	Dec-10-14	
Fluoride	0.46	MAC = 1.5	0.10	mg/L	N/A	Dec-10-14	
Nitrate as N	0.505	N/A	0.010	mg/L	N/A	Dec-10-14	
Nitrite as N	< 0.010	N/A	0.010	mg/L	N/A	Dec-10-14	
Sulfate	38.7	AO ≤ 500	1.0	mg/L	N/A	Dec-10-14	

General Parameters

Alkalinity, Total as CaCO3	166	N/A	1	mg/L	N/A	Dec-10-14	
Colour, True	< 5	AO ≤ 15	5	CU	N/A	Dec-10-14	
Conductivity (EC)	413	N/A	2	µS/cm	N/A	Dec-10-14	
Cyanide, Total	< 0.010	MAC = 0.2	0.010	mg/L	Dec-10-14	Dec-11-14	
pH	8.24	6.5-8.5	0.01	pH units	N/A	Dec-10-14	
Turbidity	< 0.1	OG < 0.1	0.1	NTU	N/A	Dec-11-14	
UV Transmittance @ 254nm	98.6	N/A	0.1	% T	N/A	Dec-11-14	

Calculated Parameters

Hardness, Total (Total as CaCO3)	211	N/A	5.0	mg/L	N/A	N/A	
Solids, Total Dissolved	235	AO ≤ 500	2.0	mg/L	N/A	N/A	

Total Recoverable Metals

Aluminum, total	< 0.05	OG < 0.1	0.05	mg/L	Dec-12-14	Dec-15-14	
Antimony, total	0.002	MAC = 0.006	0.001	mg/L	Dec-12-14	Dec-15-14	
Arsenic, total	0.011	MAC = 0.01	0.005	mg/L	Dec-12-14	Dec-15-14	
Barium, total	< 0.05	MAC = 1	0.05	mg/L	Dec-12-14	Dec-15-14	
Beryllium, total	< 0.001	N/A	0.001	mg/L	Dec-12-14	Dec-15-14	
Boron, total	< 0.04	MAC = 5	0.04	mg/L	Dec-12-14	Dec-15-14	
Cadmium, total	< 0.0001	MAC = 0.005	0.0001	mg/L	Dec-12-14	Dec-15-14	
Calcium, total	54.5	N/A	2.0	mg/L	Dec-12-14	Dec-15-14	
Chromium, total	< 0.005	MAC = 0.05	0.005	mg/L	Dec-12-14	Dec-15-14	
Cobalt, total	< 0.0005	N/A	0.0005	mg/L	Dec-12-14	Dec-15-14	
Copper, total	< 0.002	AO ≤ 1	0.002	mg/L	Dec-12-14	Dec-15-14	
Iron, total	< 0.10	AO ≤ 0.3	0.10	mg/L	Dec-12-14	Dec-15-14	
Lead, total	< 0.001	MAC = 0.01	0.001	mg/L	Dec-12-14	Dec-15-14	
Magnesium, total	18.1	N/A	0.1	mg/L	Dec-12-14	Dec-15-14	
Manganese, total	0.035	AO ≤ 0.05	0.002	mg/L	Dec-12-14	Dec-15-14	
Mercury, total	< 0.0002	MAC = 0.001	0.0002	mg/L	Dec-12-14	Dec-15-14	
Molybdenum, total	0.007	N/A	0.001	mg/L	Dec-12-14	Dec-15-14	
Nickel, total	< 0.002	N/A	0.002	mg/L	Dec-12-14	Dec-15-14	
Phosphorus, total	< 0.2	N/A	0.2	mg/L	Dec-12-14	Dec-15-14	
Potassium, total	2.4	N/A	0.2	mg/L	Dec-12-14	Dec-15-14	
Selenium, total	< 0.005	MAC = 0.05	0.005	mg/L	Dec-12-14	Dec-15-14	
Silicon, total	11	N/A	5	mg/L	Dec-12-14	Dec-15-14	
Silver, total	< 0.0005	N/A	0.0005	mg/L	Dec-12-14	Dec-15-14	
Sodium, total	10.4	AO ≤ 200	0.2	mg/L	Dec-12-14	Dec-15-14	
Uranium, total	0.0033	MAC = 0.02	0.0002	mg/L	Dec-12-14	Dec-15-14	
Vanadium, total	< 0.01	N/A	0.01	mg/L	Dec-12-14	Dec-15-14	
Zinc, total	< 0.04	AO ≤ 5	0.04	mg/L	Dec-12-14	Dec-15-14	

REPORTED TO PROJECT Grand Forks, City of Comprehensive

WORK ORDER REPORTED 4120497 Dec-16-14

Analyte	Result / Recovery	Standard / Guideline	MRL / Limits	Units	Prepared	Analyzed	Notes
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Sample ID: Well #4 (4120497-01) [Water] Sampled: Dec-08-14 13:15, Continued

Microbiological Parameters

Coliforms, Total	< 1	MAC = None Detected	1	CFU/100 mL	Dec-09-14	Dec-10-14	
E. coli	< 1	MAC = None Detected	1	CFU/100 mL	Dec-09-14	Dec-10-14	

REPORTED TO PROJECT Grand Forks, City of Comprehensive

WORK ORDER REPORTED 5091312 Sep-24-15

Analyte	Result / Recovery	Standard / Guideline	MRL / Units / Limits	Prepared	Analyzed	Notes
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Sample ID: Well #2 (5091312-01) [Water] Sampled: Sep-16-15 08:45

Anions

Chloride	12.3	AO ≤ 250	0.10 mg/L	N/A	Sep-18-15	
Fluoride	0.37	MAC = 1.5	0.10 mg/L	N/A	Sep-18-15	
Nitrate as N	1.49	MAC = 10	0.010 mg/L	N/A	Sep-18-15	
Nitrite as N	< 0.010	MAC = 1	0.010 mg/L	N/A	Sep-18-15	
Sulfate	41.2	AO ≤ 500	1.0 mg/L	N/A	Sep-18-15	

General Parameters

Alkalinity, Total as CaCO3	182	N/A	1 mg/L	N/A	Sep-18-15	
Colour, True	< 5	AO ≤ 15	5 CU	N/A	Sep-17-15	
Conductivity (EC)	426	N/A	2 µS/cm	N/A	Sep-18-15	
Cyanide, Total	< 0.010	MAC = 0.2	0.010 mg/L	Sep-23-15	Sep-23-15	
pH	7.95	6.5-8.5	0.01 pH units	N/A	Sep-18-15	HT2
Turbidity	0.1	OG < 0.1	0.1 NTU	N/A	Sep-17-15	
UV Transmittance @ 254nm	97.6	N/A	0.1 % T	N/A	Sep-18-15	

Calculated Parameters

Hardness, Total (Total as CaCO3)	238	N/A	5.0 mg/L	N/A	N/A	
Solids, Total Dissolved	265	AO ≤ 500	2.0 mg/L	N/A	N/A	

Total Recoverable Metals

Aluminum, total	< 0.05	OG < 0.1	0.05 mg/L	Sep-23-15	Sep-23-15	
Antimony, total	< 0.001	MAC = 0.006	0.001 mg/L	Sep-23-15	Sep-23-15	
Arsenic, total	0.006	MAC = 0.01	0.005 mg/L	Sep-23-15	Sep-23-15	
Barium, total	< 0.05	MAC = 1	0.05 mg/L	Sep-23-15	Sep-23-15	
Beryllium, total	< 0.001	N/A	0.001 mg/L	Sep-23-15	Sep-23-15	
Boron, total	< 0.04	MAC = 5	0.04 mg/L	Sep-23-15	Sep-23-15	
Cadmium, total	< 0.0001	MAC = 0.005	0.0001 mg/L	Sep-23-15	Sep-23-15	
Calcium, total	60.2	N/A	2.0 mg/L	Sep-23-15	Sep-23-15	
Chromium, total	< 0.005	MAC = 0.05	0.005 mg/L	Sep-23-15	Sep-23-15	
Cobalt, total	< 0.0005	N/A	0.0005 mg/L	Sep-23-15	Sep-23-15	
Copper, total	< 0.002	AO ≤ 1	0.002 mg/L	Sep-23-15	Sep-23-15	
Iron, total	< 0.10	AO ≤ 0.3	0.10 mg/L	Sep-23-15	Sep-23-15	
Lead, total	< 0.001	MAC = 0.01	0.001 mg/L	Sep-23-15	Sep-23-15	
Magnesium, total	21.2	N/A	0.1 mg/L	Sep-23-15	Sep-23-15	
Manganese, total	0.027	AO ≤ 0.05	0.002 mg/L	Sep-23-15	Sep-23-15	
Mercury, total	< 0.00002	MAC = 0.001	0.00002 mg/L	Sep-22-15	Sep-22-15	
Molybdenum, total	0.008	N/A	0.001 mg/L	Sep-23-15	Sep-23-15	
Nickel, total	< 0.002	N/A	0.002 mg/L	Sep-23-15	Sep-23-15	
Phosphorus, total	< 0.2	N/A	0.2 mg/L	Sep-23-15	Sep-23-15	
Potassium, total	2.3	N/A	0.2 mg/L	Sep-23-15	Sep-23-15	
Selenium, total	< 0.005	MAC = 0.05	0.005 mg/L	Sep-23-15	Sep-23-15	
Silicon, total	11	N/A	5 mg/L	Sep-23-15	Sep-23-15	
Silver, total	< 0.0005	N/A	0.0005 mg/L	Sep-23-15	Sep-23-15	
Sodium, total	10.9	AO ≤ 200	0.2 mg/L	Sep-23-15	Sep-23-15	
Uranium, total	0.0032	MAC = 0.02	0.0002 mg/L	Sep-23-15	Sep-23-15	
Vanadium, total	< 0.01	N/A	0.01 mg/L	Sep-23-15	Sep-23-15	
Zinc, total	< 0.04	AO ≤ 5	0.04 mg/L	Sep-23-15	Sep-23-15	

REPORTED TO PROJECT Grand Forks, City of Comprehensive

WORK ORDER REPORTED 5091312 Sep-24-15

Analyte	Result / Recovery	Standard / Guideline	MRL / Limits	Units	Prepared	Analyzed	Notes
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Sample ID: Well #2 (5091312-01) [Water] Sampled: Sep-16-15 08:45, Continued

Microbiological Parameters

Coliforms, Total	< 1	MAC = None Detected	1	CFU/100 mL	Sep-17-15	Sep-18-15	
E. coli	< 1	MAC = None Detected	1	CFU/100 mL	Sep-17-15	Sep-18-15	

Sample / Analysis Qualifiers:

HT2 The 15 minute recommended holding time (from sampling to analysis) has been exceeded - field analysis is recommended.

REPORTED TO PROJECT Grand Forks, City of
General Potability

WORK ORDER REPORTED 6111514
2016-11-29

Analyte	Result / Recovery	Standard / Guideline	MRL / Limits	Units	Prepared	Analyzed	Notes
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Sample ID: Well # 2 (6111514-01) [Water] Sampled: 2016-11-21 00:00

Anions

Chloride	7.71	AO ≤ 250	0.10	mg/L	N/A	2016-11-24	
Fluoride	0.36	MAC = 1.5	0.10	mg/L	N/A	2016-11-24	
Nitrate (as N)	0.816	MAC = 10	0.010	mg/L	N/A	2016-11-24	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	N/A	2016-11-24	
Sulfate	47.0	AO ≤ 500	1.0	mg/L	N/A	2016-11-24	

General Parameters

Alkalinity, Total (as CaCO3)	170	N/A	2	mg/L	N/A	2016-11-24	
Alkalinity, Phenolphthalein (as CaCO3)	< 1	N/A	2	mg/L	N/A	2016-11-24	
Alkalinity, Bicarbonate (as CaCO3)	170	N/A	2	mg/L	N/A	2016-11-24	
Alkalinity, Carbonate (as CaCO3)	< 1	N/A	2	mg/L	N/A	2016-11-24	
Alkalinity, Hydroxide (as CaCO3)	< 1	N/A	2	mg/L	N/A	2016-11-24	
Colour, True	< 5	AO ≤ 15	5	CU	N/A	2016-11-23	
Conductivity (EC)	441	N/A	2	µS/cm	N/A	2016-11-24	
Cyanide, Total	< 0.0020	MAC = 0.2	0.0020	mg/L	N/A	2016-11-22	
pH	8.01	6.5-8.5	0.01	pH units	N/A	2016-11-24	HT2
Temperature	23	N/A		°C	N/A	2016-11-24	HT2
Turbidity	0.11	OG < 0.1	0.10	NTU	N/A	2016-11-22	

Calculated Parameters

Hardness, Total (as CaCO3)	230	N/A	0.50	mg/L	N/A	N/A	
Langelier Index	0.6	N/A	-5.0	-	N/A	2016-11-29	
Solids, Total Dissolved (calc)	253	N/A	1.00	mg/L	N/A	N/A	

Total Metals

Aluminum, total	< 0.005	OG < 0.1	0.005	mg/L	2016-11-24	2016-11-25	
Antimony, total	0.0001	MAC = 0.006	0.0001	mg/L	2016-11-24	2016-11-25	
Arsenic, total	0.0064	MAC = 0.01	0.0005	mg/L	2016-11-24	2016-11-25	
Barium, total	0.031	MAC = 1	0.005	mg/L	2016-11-24	2016-11-25	
Boron, total	0.031	MAC = 5	0.004	mg/L	2016-11-24	2016-11-25	
Cadmium, total	< 0.00001	MAC = 0.005	0.00001	mg/L	2016-11-24	2016-11-25	
Calcium, total	57.5	N/A	0.2	mg/L	2016-11-24	2016-11-25	
Chromium, total	< 0.0005	MAC = 0.05	0.0005	mg/L	2016-11-24	2016-11-25	
Cobalt, total	< 0.00005	N/A	0.00005	mg/L	2016-11-24	2016-11-25	
Copper, total	< 0.0002	AO ≤ 1	0.0002	mg/L	2016-11-24	2016-11-25	
Iron, total	< 0.01	AO ≤ 0.3	0.01	mg/L	2016-11-24	2016-11-25	
Lead, total	0.0002	MAC = 0.01	0.0001	mg/L	2016-11-24	2016-11-25	
Magnesium, total	20.9	N/A	0.01	mg/L	2016-11-24	2016-11-25	
Manganese, total	0.0357	AO ≤ 0.05	0.0002	mg/L	2016-11-24	2016-11-25	
Mercury, total	< 0.00002	MAC = 0.001	0.00002	mg/L	2016-11-24	2016-11-27	
Molybdenum, total	0.0096	N/A	0.0001	mg/L	2016-11-24	2016-11-25	
Nickel, total	< 0.0002	N/A	0.0002	mg/L	2016-11-24	2016-11-25	
Potassium, total	2.16	N/A	0.02	mg/L	2016-11-24	2016-11-25	
Selenium, total	0.0013	MAC = 0.05	0.0005	mg/L	2016-11-24	2016-11-25	
Sodium, total	9.86	AO ≤ 200	0.02	mg/L	2016-11-24	2016-11-25	
Uranium, total	0.00322	MAC = 0.02	0.00002	mg/L	2016-11-24	2016-11-25	
Zinc, total	< 0.004	AO ≤ 5	0.004	mg/L	2016-11-24	2016-11-25	

REPORTED TO PROJECT Grand Forks, City of
General Potability

WORK ORDER REPORTED 6111514
2016-11-29

Analyte	Result / Recovery	Standard / Guideline	MRL / Limits	Units	Prepared	Analyzed	Notes
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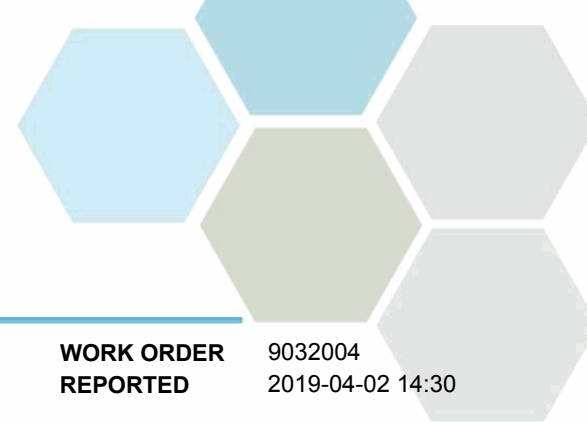
Sample ID: Well # 2 (6111514-01) [Water] Sampled: 2016-11-21 00:00, Continued

Microbiological Parameters

Coliforms, Total	< 1	MAC = None Detected	1	CFU/100 mL	N/A	2016-11-22	
E. coli	< 1	MAC = None Detected	1	CFU/100 mL	N/A	2016-11-22	

Sample / Analysis Qualifiers:

HT2 The 15 minute recommended holding time (from sampling to analysis) has been exceeded - field analysis is recommended.

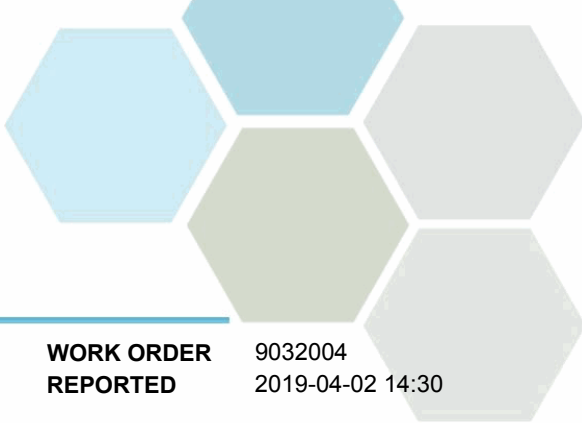


TEST RESULTS

REPORTED TO PROJECT Grand Forks, City of
Drinking Water

WORK ORDER REPORTED 9032004
2019-04-02 14:30

Analyte	Result	Guideline	RL Units	Analyzed	Qualifier
City Hall (9032004-01) Matrix: Water Sampled: 2019-03-25 09:10					
Anions					
Chloride	2.56	AO ≤ 250	0.10 mg/L	2019-03-26	
Fluoride	0.61	MAC = 1.5	0.10 mg/L	2019-03-26	
Nitrate (as N)	0.274	MAC = 10	0.010 mg/L	2019-03-26	
Nitrite (as N)	< 0.010	MAC = 1	0.010 mg/L	2019-03-26	
Sulfate	19.7	AO ≤ 500	1.0 mg/L	2019-03-26	
Calculated Parameters					
Hardness, Total (as CaCO ₃)	133	None Required	0.500 mg/L	N/A	
Langelier Index	0.4	N/A	-5.0	2019-04-02	
Solids, Total Dissolved	163	AO ≤ 500	1.00 mg/L	N/A	
General Parameters					
Alkalinity, Total (as CaCO ₃)	139	N/A	1.0 mg/L	2019-03-27	
Alkalinity, Phenolphthalein (as CaCO ₃)	< 1.0	N/A	1.0 mg/L	2019-03-27	
Alkalinity, Bicarbonate (as CaCO ₃)	139	N/A	1.0 mg/L	2019-03-27	
Alkalinity, Carbonate (as CaCO ₃)	< 1.0	N/A	1.0 mg/L	2019-03-27	
Alkalinity, Hydroxide (as CaCO ₃)	< 1.0	N/A	1.0 mg/L	2019-03-27	
Colour, True	< 5.0	AO ≤ 15	5.0 CU	2019-03-26	
Conductivity (EC)	292	N/A	2.0 µS/cm	2019-03-27	
Cyanide, Total	< 0.0020	MAC = 0.2	0.0020 mg/L	2019-03-27	
pH	8.15	7.0-10.5	0.10 pH units	2019-03-27	HT2
Temperature, at pH	22.0	N/A	°C	2019-03-27	HT2
Turbidity	< 0.10	OG < 1	0.10 NTU	2019-03-26	
Microbiological Parameters					
Coliforms, Total	< 1	MAC = 0	1 CFU/100 mL	2019-03-26	
E. coli	< 1	MAC = 0	1 CFU/100 mL	2019-03-26	
Total Metals					
Aluminum, total	< 0.0050	OG < 0.1	0.0050 mg/L	2019-03-29	
Antimony, total	< 0.00020	MAC = 0.006	0.00020 mg/L	2019-03-29	
Arsenic, total	0.00522	MAC = 0.01	0.00050 mg/L	2019-03-29	
Barium, total	0.0209	MAC = 1	0.0050 mg/L	2019-03-29	
Boron, total	0.0097	MAC = 5	0.0050 mg/L	2019-03-29	
Cadmium, total	< 0.000010	MAC = 0.005	0.000010 mg/L	2019-03-29	
Calcium, total	37.3	None Required	0.20 mg/L	2019-03-29	
Chromium, total	< 0.00050	MAC = 0.05	0.00050 mg/L	2019-03-29	
Cobalt, total	< 0.00010	N/A	0.00010 mg/L	2019-03-29	
Copper, total	0.0422	AO ≤ 1	0.00040 mg/L	2019-03-29	
Iron, total	< 0.010	AO ≤ 0.3	0.010 mg/L	2019-03-29	
Lead, total	< 0.00020	MAC = 0.01	0.00020 mg/L	2019-03-29	
Magnesium, total	9.79	None Required	0.010 mg/L	2019-03-29	
Manganese, total	0.00201	AO ≤ 0.05	0.00020 mg/L	2019-03-29	
Mercury, total	< 0.000010	MAC = 0.001	0.000010 mg/L	2019-03-29	



TEST RESULTS

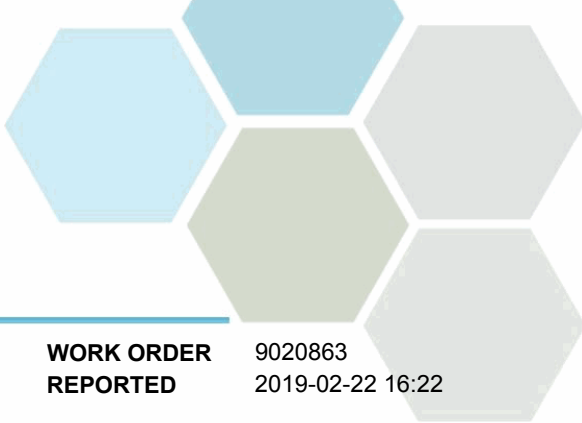
REPORTED TO PROJECT Grand Forks, City of
Drinking Water

WORK ORDER REPORTED 9032004
2019-04-02 14:30

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
City Hall (9032004-01) Matrix: Water Sampled: 2019-03-25 09:10, Continued						
<i>Total Metals, Continued</i>						
Molybdenum, total	0.00277	N/A	0.00010	mg/L	2019-03-29	
Nickel, total	< 0.00040	N/A	0.00040	mg/L	2019-03-29	
Potassium, total	1.38	N/A	0.10	mg/L	2019-03-29	
Selenium, total	< 0.00050	MAC = 0.05	0.00050	mg/L	2019-03-29	
Sodium, total	6.51	AO ≤ 200	0.10	mg/L	2019-03-29	
Strontium, total	0.358	N/A	0.0010	mg/L	2019-03-29	
Uranium, total	0.00234	MAC = 0.02	0.000020	mg/L	2019-03-29	
Zinc, total	< 0.0040	AO ≤ 5	0.0040	mg/L	2019-03-29	

Sample Qualifiers:

HT2 The 15 minute recommended holding time (from sampling to analysis) has been exceeded - field analysis is recommended.



TEST RESULTS

REPORTED TO PROJECT Grand Forks, City of Drinking Water

WORK ORDER REPORTED 9020863
2019-02-22 16:22

Analyte	Result	Guideline	RL Units	Analyzed	Qualifier
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Well #3 (9020863-01) | Matrix: Water | Sampled: 2019-02-13 08:10

Anions

Chloride	1.87	AO ≤ 250	0.10 mg/L	2019-02-15	
Fluoride	0.38	MAC = 1.5	0.10 mg/L	2019-02-15	
Nitrate (as N)	0.219	MAC = 10	0.010 mg/L	2019-02-15	
Nitrite (as N)	< 0.010	MAC = 1	0.010 mg/L	2019-02-15	
Sulfate	16.6	AO ≤ 500	1.0 mg/L	2019-02-15	

Calculated Parameters

Hardness, Total (as CaCO3)	134	None Required	0.500 mg/L	N/A	
Langelier Index	0.4	N/A	-5.0	2019-02-22	
Solids, Total Dissolved	155	AO ≤ 500	1.00 mg/L	N/A	

General Parameters

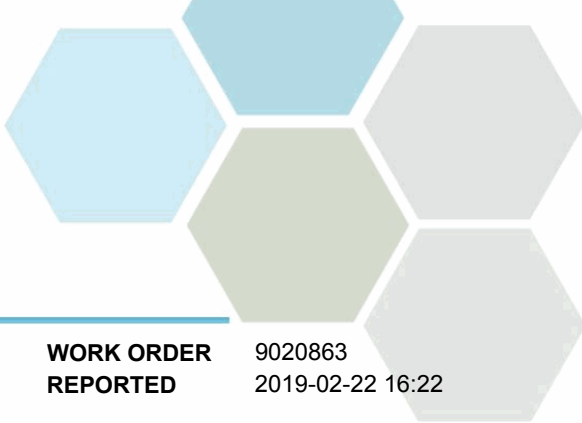
Alkalinity, Total (as CaCO3)	130	N/A	1.0 mg/L	2019-02-14	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	N/A	1.0 mg/L	2019-02-14	
Alkalinity, Bicarbonate (as CaCO3)	130	N/A	1.0 mg/L	2019-02-14	
Alkalinity, Carbonate (as CaCO3)	< 1.0	N/A	1.0 mg/L	2019-02-14	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	N/A	1.0 mg/L	2019-02-14	
Colour, True	< 5.0	AO ≤ 15	5.0 CU	2019-02-14	
Conductivity (EC)	273	N/A	2.0 µS/cm	2019-02-14	
Cyanide, Total	< 0.0020	MAC = 0.2	0.0020 mg/L	2019-02-14	
pH	8.12	7.0-10.5	0.10 pH units	2019-02-14	HT2
Temperature, at pH	22.0	N/A	°C	2019-02-14	HT2
Turbidity	0.10	OG < 1	0.10 NTU	2019-02-14	

Microbiological Parameters

Coliforms, Total	< 1	MAC = 0	1 CFU/100 mL	2019-02-14	
E. coli	< 1	MAC = 0	1 CFU/100 mL	2019-02-14	

Total Metals

Aluminum, total	0.0053	OG < 0.1	0.0050 mg/L	2019-02-19	
Antimony, total	< 0.00020	MAC = 0.006	0.00020 mg/L	2019-02-19	
Arsenic, total	0.00428	MAC = 0.01	0.00050 mg/L	2019-02-19	
Barium, total	0.0232	MAC = 1	0.0050 mg/L	2019-02-19	
Boron, total	0.0087	MAC = 5	0.0050 mg/L	2019-02-19	
Cadmium, total	< 0.000010	MAC = 0.005	0.000010 mg/L	2019-02-19	
Calcium, total	38.9	None Required	0.20 mg/L	2019-02-19	
Chromium, total	< 0.00050	MAC = 0.05	0.00050 mg/L	2019-02-19	
Cobalt, total	< 0.00010	N/A	0.00010 mg/L	2019-02-19	
Copper, total	< 0.00040	AO ≤ 1	0.00040 mg/L	2019-02-19	
Iron, total	< 0.010	AO ≤ 0.3	0.010 mg/L	2019-02-19	
Lead, total	< 0.00020	MAC = 0.01	0.00020 mg/L	2019-02-19	
Magnesium, total	9.03	None Required	0.010 mg/L	2019-02-19	
Manganese, total	0.0141	AO ≤ 0.05	0.00020 mg/L	2019-02-19	
Mercury, total	< 0.000010	MAC = 0.001	0.000010 mg/L	2019-02-19	



TEST RESULTS

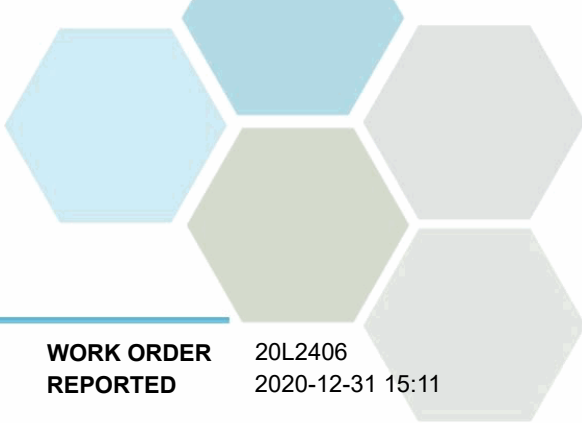
REPORTED TO PROJECT Grand Forks, City of
Drinking Water

WORK ORDER REPORTED 9020863
2019-02-22 16:22

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
Well #3 (9020863-01) Matrix: Water Sampled: 2019-02-13 08:10, Continued						
<i>Total Metals, Continued</i>						
Molybdenum, total	0.00212	N/A	0.00010	mg/L	2019-02-19	
Nickel, total	< 0.00040	N/A	0.00040	mg/L	2019-02-19	
Potassium, total	1.49	N/A	0.10	mg/L	2019-02-19	
Selenium, total	< 0.00050	MAC = 0.05	0.00050	mg/L	2019-02-19	
Sodium, total	6.68	AO ≤ 200	0.10	mg/L	2019-02-19	
Strontium, total	0.369	N/A	0.0010	mg/L	2019-02-19	
Uranium, total	0.00231	MAC = 0.02	0.000020	mg/L	2019-02-19	
Zinc, total	< 0.0040	AO ≤ 5	0.0040	mg/L	2019-02-19	

Sample Qualifiers:

HT2 The 15 minute recommended holding time (from sampling to analysis) has been exceeded - field analysis is recommended.



TEST RESULTS

REPORTED TO PROJECT Grand Forks, City of Drinking Water

WORK ORDER REPORTED 20L2406
2020-12-31 15:11

Analyte	Result	Guideline	RL Units	Analyzed	Qualifier
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Well #3a (20L2406-01) | Matrix: Water | Sampled: 2020-12-21 10:30

Anions

Chloride	2.23	AO ≤ 250	0.10 mg/L	2020-12-23	
Fluoride	0.70	MAC = 1.5	0.10 mg/L	2020-12-23	
Nitrate (as N)	0.233	MAC = 10	0.010 mg/L	2020-12-23	
Nitrite (as N)	< 0.010	MAC = 1	0.010 mg/L	2020-12-23	
Sulfate	18.2	AO ≤ 500	1.0 mg/L	2020-12-23	

Calculated Parameters

Hardness, Total (as CaCO3)	146	None Required	0.500 mg/L	N/A	
Langelier Index	0.3	N/A	-5.0	2020-12-31	
Solids, Total Dissolved	169	AO ≤ 500	1.00 mg/L	N/A	

General Parameters

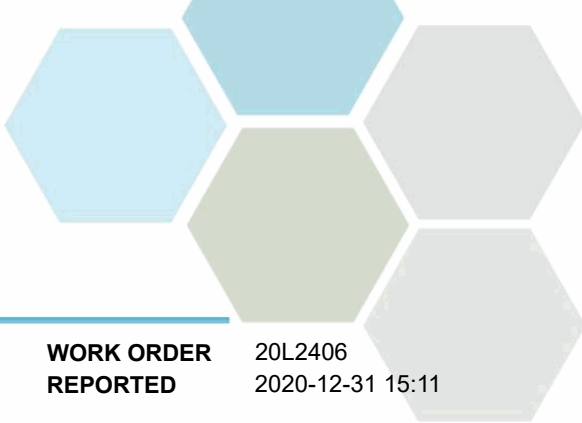
Alkalinity, Total (as CaCO3)	142	N/A	1.0 mg/L	2020-12-31	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	N/A	1.0 mg/L	2020-12-31	
Alkalinity, Bicarbonate (as CaCO3)	142	N/A	1.0 mg/L	2020-12-31	
Alkalinity, Carbonate (as CaCO3)	< 1.0	N/A	1.0 mg/L	2020-12-31	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	N/A	1.0 mg/L	2020-12-31	
Colour, True	< 5.0	AO ≤ 15	5.0 CU	2020-12-24	
Conductivity (EC)	274	N/A	2.0 µS/cm	2020-12-31	
Cyanide, Total	< 0.0020	MAC = 0.2	0.0020 mg/L	2020-12-30	
pH	8.00	7.0-10.5	0.10 pH units	2020-12-31	HT2
Temperature, at pH	19.8	N/A	°C	2020-12-31	HT2
Turbidity	< 0.10	OG < 1	0.10 NTU	2020-12-23	

Microbiological Parameters

Coliforms, Total	< 1	MAC = 0	1 CFU/100 mL	2020-12-22	
E. coli	< 1	MAC = 0	1 CFU/100 mL	2020-12-22	

Total Metals

Aluminum, total	< 0.0050	OG < 0.1	0.0050 mg/L	2020-12-29	
Antimony, total	< 0.00020	MAC = 0.006	0.00020 mg/L	2020-12-29	
Arsenic, total	0.00501	MAC = 0.01	0.00050 mg/L	2020-12-29	
Barium, total	0.0299	MAC = 2	0.0050 mg/L	2020-12-29	
Boron, total	< 0.0500	MAC = 5	0.0500 mg/L	2020-12-29	
Cadmium, total	< 0.000010	MAC = 0.005	0.000010 mg/L	2020-12-29	
Calcium, total	41.0	None Required	0.20 mg/L	2020-12-29	
Chromium, total	< 0.00050	MAC = 0.05	0.00050 mg/L	2020-12-29	
Cobalt, total	< 0.00010	N/A	0.00010 mg/L	2020-12-29	
Copper, total	0.00058	MAC = 2	0.00040 mg/L	2020-12-29	
Iron, total	< 0.010	AO ≤ 0.3	0.010 mg/L	2020-12-29	
Lead, total	< 0.00020	MAC = 0.005	0.00020 mg/L	2020-12-29	
Magnesium, total	10.5	None Required	0.010 mg/L	2020-12-29	
Manganese, total	0.00559	MAC = 0.12	0.00020 mg/L	2020-12-29	
Mercury, total	< 0.000014	MAC = 0.001	0.000010 mg/L	2020-12-29	



TEST RESULTS

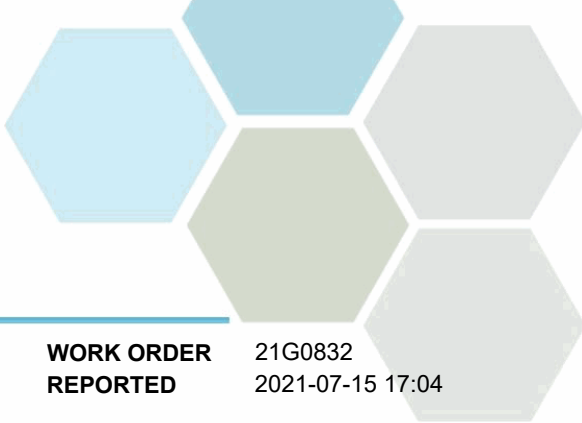
REPORTED TO PROJECT Grand Forks, City of
Drinking Water

WORK ORDER REPORTED 20L2406
2020-12-31 15:11

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
Well #3a (20L2406-01) Matrix: Water Sampled: 2020-12-21 10:30, Continued						
<i>Total Metals, Continued</i>						
Molybdenum, total	0.00271	N/A	0.00010	mg/L	2020-12-29	
Nickel, total	< 0.00040	N/A	0.00040	mg/L	2020-12-29	
Potassium, total	1.71	N/A	0.10	mg/L	2020-12-29	
Selenium, total	< 0.00050	MAC = 0.05	0.00050	mg/L	2020-12-29	
Sodium, total	7.47	AO ≤ 200	0.10	mg/L	2020-12-29	
Strontium, total	0.427	7	0.0010	mg/L	2020-12-29	
Uranium, total	0.00237	MAC = 0.02	0.000020	mg/L	2020-12-29	
Zinc, total	< 0.0040	AO ≤ 5	0.0040	mg/L	2020-12-29	

Sample Qualifiers:

HT2 The 15 minute recommended holding time (from sampling to analysis) has been exceeded - field analysis is recommended.



TEST RESULTS

REPORTED TO PROJECT Grand Forks, City of Drinking Water

WORK ORDER REPORTED 21G0832
2021-07-15 17:04

Analyte	Result	Guideline	RL Units	Analyzed	Qualifier
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Well # 2 (21G0832-01) | Matrix: Water | Sampled: 2021-07-07 10:00

Anions

Chloride	9.16	AO ≤ 250	0.10 mg/L	2021-07-10	
Fluoride	0.40	MAC = 1.5	0.10 mg/L	2021-07-10	
Nitrate (as N)	1.39	MAC = 10	0.010 mg/L	2021-07-10	
Nitrite (as N)	< 0.010	MAC = 1	0.010 mg/L	2021-07-10	
Phosphate (as P)	< 0.0050	N/A	0.0050 mg/L	2021-07-10	
Sulfate	40.8	AO ≤ 500	1.0 mg/L	2021-07-10	

Calculated Parameters

Hardness, Total (as CaCO3)	224	None Required	0.500 mg/L	N/A	
Langelier Index	0.8	N/A	-5.0	2021-07-15	
Solids, Total Dissolved	271	AO ≤ 500	1.00 mg/L	N/A	

General Parameters

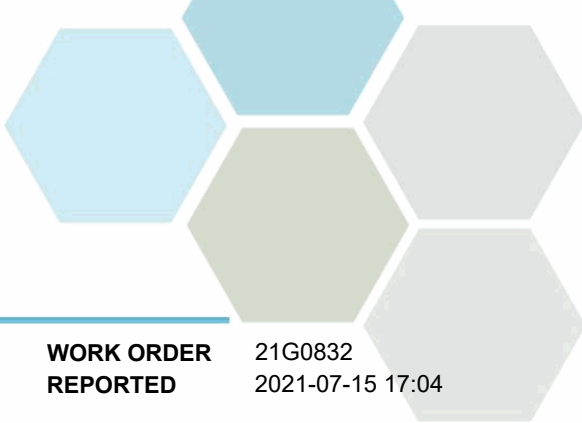
Alkalinity, Total (as CaCO3)	205	N/A	1.0 mg/L	2021-07-13	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	N/A	1.0 mg/L	2021-07-13	
Alkalinity, Bicarbonate (as CaCO3)	205	N/A	1.0 mg/L	2021-07-13	
Alkalinity, Carbonate (as CaCO3)	< 1.0	N/A	1.0 mg/L	2021-07-13	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	N/A	1.0 mg/L	2021-07-13	
Ammonia, Total (as N)	< 0.050	None Required	0.050 mg/L	2021-07-09	
Carbon, Total Organic	1.53	N/A	0.50 mg/L	2021-07-13	
Colour, True	< 5.0	AO ≤ 15	5.0 CU	2021-07-12	HT1
Conductivity (EC)	425	N/A	2.0 µS/cm	2021-07-13	
Cyanide, Total	< 0.0020	MAC = 0.2	0.0020 mg/L	2021-07-09	
pH	8.18	7.0-10.5	0.10 pH units	2021-07-13	HT2
Phosphorus, Total (as P)	0.0226	N/A	0.0050 mg/L	2021-07-14	
Silica, Reactive (as SiO2)	21.4	N/A	0.40 mg/L	2021-07-13	
Solids, Total Suspended	< 11.9	N/A	2.0 mg/L	2021-07-11	RS2
Sulfide, Total	< 0.020	AO ≤ 0.05	0.020 mg/L	2021-07-12	
Temperature, at pH	21.3	N/A	°C	2021-07-13	HT2
Turbidity	0.12	OG < 1	0.10 NTU	2021-07-09	

Microbiological Parameters

Coliforms, Total	< 1	MAC = 0	1 CFU/100 mL	2021-07-08	
E. coli	< 1	MAC = 0	1 CFU/100 mL	2021-07-08	

Total Metals

Aluminum, total	< 0.0050	OG < 0.1	0.0050 mg/L	2021-07-15	
Antimony, total	< 0.00020	MAC = 0.006	0.00020 mg/L	2021-07-15	
Arsenic, total	0.00625	MAC = 0.01	0.00050 mg/L	2021-07-15	
Barium, total	0.0318	MAC = 2	0.0050 mg/L	2021-07-15	
Boron, total	< 0.0500	MAC = 5	0.0500 mg/L	2021-07-15	
Cadmium, total	< 0.000010	MAC = 0.005	0.000010 mg/L	2021-07-15	
Calcium, total	54.3	None Required	0.20 mg/L	2021-07-15	
Chromium, total	0.00058	MAC = 0.05	0.00050 mg/L	2021-07-15	



TEST RESULTS

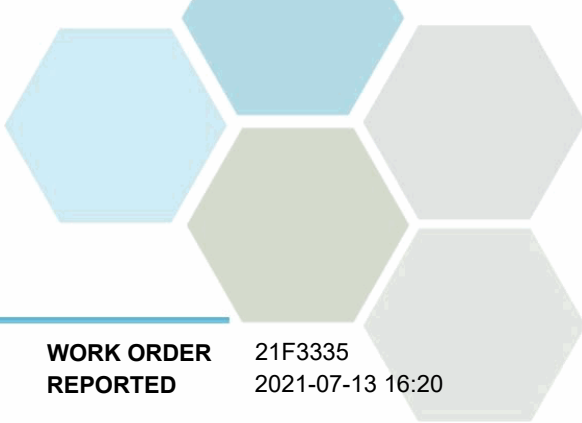
REPORTED TO PROJECT Grand Forks, City of Drinking Water

WORK ORDER REPORTED 21G0832
2021-07-15 17:04

Analyte	Result	Guideline	RL Units	Analyzed	Qualifier
Well # 2 (21G0832-01) Matrix: Water Sampled: 2021-07-07 10:00, Continued					
<i>Total Metals, Continued</i>					
Cobalt, total	< 0.00010	N/A	0.00010 mg/L	2021-07-15	
Copper, total	0.00082	MAC = 2	0.00040 mg/L	2021-07-15	
Iron, total	< 0.010	AO ≤ 0.3	0.010 mg/L	2021-07-15	
Lead, total	< 0.00020	MAC = 0.005	0.00020 mg/L	2021-07-15	
Magnesium, total	21.3	None Required	0.010 mg/L	2021-07-15	
Manganese, total	0.0281	MAC = 0.12	0.00020 mg/L	2021-07-15	
Mercury, total	< 0.000010	MAC = 0.001	0.000010 mg/L	2021-07-14	
Molybdenum, total	0.00947	N/A	0.00010 mg/L	2021-07-15	
Nickel, total	< 0.00040	N/A	0.00040 mg/L	2021-07-15	
Potassium, total	2.17	N/A	0.10 mg/L	2021-07-15	
Selenium, total	0.00150	MAC = 0.05	0.00050 mg/L	2021-07-15	
Sodium, total	11.7	AO ≤ 200	0.10 mg/L	2021-07-15	
Strontium, total	0.682	7	0.0010 mg/L	2021-07-15	
Uranium, total	0.00326	MAC = 0.02	0.000020 mg/L	2021-07-15	
Vanadium, total	0.0021	N/A	0.0010 mg/L	2021-07-15	
Zinc, total	< 0.0040	AO ≤ 5	0.0040 mg/L	2021-07-15	

Sample Qualifiers:

- HT1 The sample was prepared and/or analyzed past the recommended holding time.
- HT2 The 15 minute recommended holding time (from sampling to analysis) has been exceeded - field analysis is recommended.
- RS2 The Reporting Limits for this sample have been raised due to limited sample volume.



TEST RESULTS

REPORTED TO PROJECT Grand Forks, City of Drinking Water

WORK ORDER REPORTED 21F3335
2021-07-13 16:20

Analyte	Result	Guideline	RL Units	Analyzed	Qualifier
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Well #4 (21F3335-01) | Matrix: Water | Sampled: 2021-06-23 10:35

Anions

Chloride	4.49	AO ≤ 250	0.10 mg/L	2021-06-26	
Fluoride	0.40	MAC = 1.5	0.10 mg/L	2021-06-26	
Nitrate (as N)	0.145	MAC = 10	0.010 mg/L	2021-06-26	
Nitrite (as N)	0.015	MAC = 1	0.010 mg/L	2021-06-26	
Phosphate (as P)	0.0168	N/A	0.0050 mg/L	2021-06-26	
Sulfate	42.1	AO ≤ 500	1.0 mg/L	2021-06-26	

Calculated Parameters

Hardness, Total (as CaCO3)	194	None Required	0.500 mg/L	N/A	
Langelier Index	< -5.0	N/A	-5.0	2021-06-25	
Solids, Total Dissolved	242	AO ≤ 500	1.00 mg/L	N/A	

General Parameters

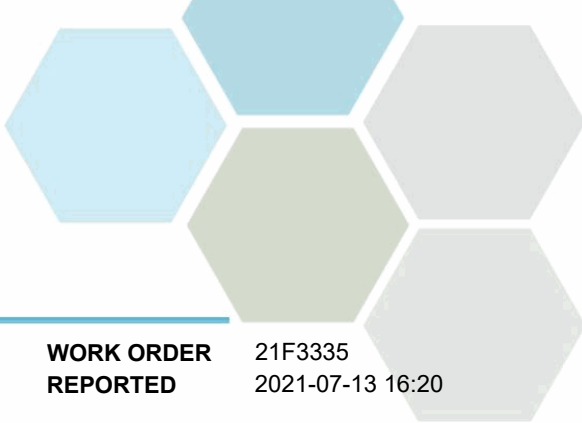
Alkalinity, Total (as CaCO3)	190	N/A	1.0 mg/L	2021-06-28	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	N/A	1.0 mg/L	2021-06-28	
Alkalinity, Bicarbonate (as CaCO3)	190	N/A	1.0 mg/L	2021-06-28	
Alkalinity, Carbonate (as CaCO3)	< 1.0	N/A	1.0 mg/L	2021-06-28	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	N/A	1.0 mg/L	2021-06-28	
Ammonia, Total (as N)	< 0.050	None Required	0.050 mg/L	2021-06-25	
Carbon, Total Organic	< 0.50	N/A	0.50 mg/L	2021-06-28	
Colour, True	< 5.0	AO ≤ 15	5.0 CU	2021-06-24	
Conductivity (EC)	351	N/A	2.0 µS/cm	2021-06-28	
Cyanide, Total	< 0.0020	MAC = 0.2	0.0020 mg/L	2021-06-26	
pH	8.18	7.0-10.5	0.10 pH units	2021-06-28	HT2
Phosphorus, Total (as P)	0.0103	N/A	0.0050 mg/L	2021-07-09	
Silica, Reactive (as SiO2)	22.6	N/A	0.40 mg/L	2021-06-30	
Temperature, at pH	22.0	N/A	°C	2021-06-28	HT2
Turbidity	0.12	OG < 1	0.10 NTU	2021-06-25	

Microbiological Parameters

Coliforms, Total	< 1	MAC = 0	1 CFU/100 mL	2021-06-24	
E. coli	< 1	MAC = 0	1 CFU/100 mL	2021-06-24	

Total Metals

Aluminum, total	< 0.0050	OG < 0.1	0.0050 mg/L	2021-07-01	
Antimony, total	< 0.00020	MAC = 0.006	0.00020 mg/L	2021-07-01	
Arsenic, total	0.0129	MAC = 0.01	0.00050 mg/L	2021-07-01	
Barium, total	0.0314	MAC = 2	0.0050 mg/L	2021-07-01	
Boron, total	0.0210	MAC = 5	0.0500 mg/L	2021-07-01	
Cadmium, total	< 0.000010	MAC = 0.005	0.000010 mg/L	2021-07-01	
Calcium, total	53.5	None Required	0.20 mg/L	2021-07-01	
Chromium, total	< 0.00050	MAC = 0.05	0.00050 mg/L	2021-07-01	
Cobalt, total	< 0.00005	N/A	0.00010 mg/L	2021-07-01	
Copper, total	< 0.00040	MAC = 2	0.00040 mg/L	2021-07-01	



TEST RESULTS

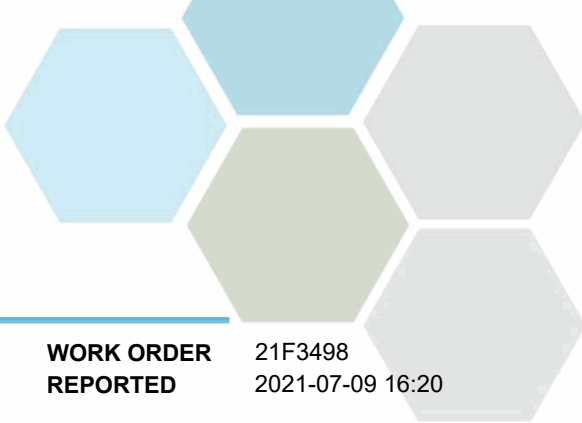
REPORTED TO PROJECT Grand Forks, City of
Drinking Water

WORK ORDER REPORTED 21F3335
2021-07-13 16:20

Analyte	Result	Guideline	RL Units	Analyzed	Qualifier
Well #4 (21F3335-01) Matrix: Water Sampled: 2021-06-23 10:35, Continued					
<i>Total Metals, Continued</i>					
Iron, total	< 0.010	AO ≤ 0.3	0.010 mg/L	2021-07-01	
Lead, total	< 0.00020	MAC = 0.005	0.00020 mg/L	2021-07-01	
Magnesium, total	14.7	None Required	0.010 mg/L	2021-07-01	
Manganese, total	0.0421	MAC = 0.12	0.00020 mg/L	2021-07-01	
Mercury, total	< 0.000010	MAC = 0.001	0.000010 mg/L	2021-06-29	
Molybdenum, total	0.00600	N/A	0.00010 mg/L	2021-07-01	
Nickel, total	< 0.00040	N/A	0.00040 mg/L	2021-07-01	
Potassium, total	2.10	N/A	0.10 mg/L	2021-07-01	
Selenium, total	0.00378	MAC = 0.05	0.00050 mg/L	2021-07-01	
Sodium, total	8.84	AO ≤ 200	0.10 mg/L	2021-07-01	
Strontium, total	0.594	7	0.0010 mg/L	2021-07-01	
Uranium, total	0.00403	MAC = 0.02	0.000020 mg/L	2021-07-01	
Vanadium, total	0.0020	N/A	0.0010 mg/L	2021-07-01	
Zinc, total	< 0.0040	AO ≤ 5	0.0040 mg/L	2021-07-01	

Sample Qualifiers:

HT2 The 15 minute recommended holding time (from sampling to analysis) has been exceeded - field analysis is recommended.



TEST RESULTS

REPORTED TO PROJECT Grand Forks, City of Drinking Water

WORK ORDER REPORTED 21F3498
2021-07-09 16:20

Analyte	Result	Guideline	RL Units	Analyzed	Qualifier
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Well #5 (21F3498-01) | Matrix: Water | Sampled: 2021-06-24 10:30

Anions

Chloride	5.15	AO ≤ 250	0.10 mg/L	2021-06-26	
Fluoride	0.34	MAC = 1.5	0.10 mg/L	2021-06-26	
Nitrate (as N)	0.608	MAC = 10	0.010 mg/L	2021-06-26	
Nitrite (as N)	< 0.010	MAC = 1	0.010 mg/L	2021-06-26	
Phosphate (as P)	< 0.0050	N/A	0.0050 mg/L	2021-06-26	
Sulfate	29.9	AO ≤ 500	1.0 mg/L	2021-06-26	

Calculated Parameters

Hardness, Total (as CaCO3)	194	None Required	0.500 mg/L	N/A	
Langelier Index	< -5.0	N/A	-5.0	2021-06-25	
Solids, Total Dissolved	217	AO ≤ 500	1.00 mg/L	N/A	

General Parameters

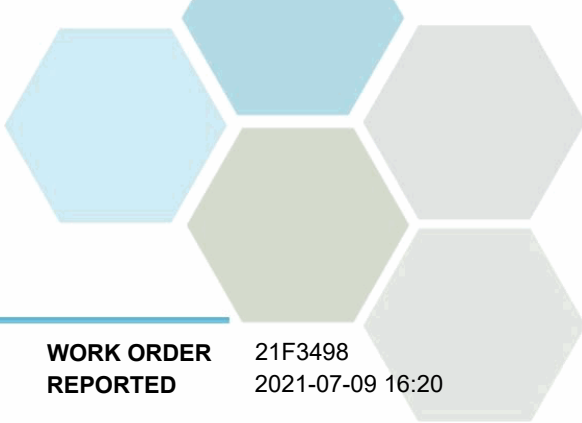
Alkalinity, Total (as CaCO3)	164	N/A	1.0 mg/L	2021-06-29	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	N/A	1.0 mg/L	2021-06-29	
Alkalinity, Bicarbonate (as CaCO3)	164	N/A	1.0 mg/L	2021-06-29	
Alkalinity, Carbonate (as CaCO3)	< 1.0	N/A	1.0 mg/L	2021-06-29	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	N/A	1.0 mg/L	2021-06-29	
Ammonia, Total (as N)	< 0.050	None Required	0.050 mg/L	2021-06-29	
Carbon, Total Organic	< 0.50	N/A	0.50 mg/L	2021-06-28	
Colour, True	< 5.0	AO ≤ 15	5.0 CU	2021-06-26	
Conductivity (EC)	312	N/A	2.0 µS/cm	2021-06-29	
Cyanide, Total	< 0.0020	MAC = 0.2	0.0020 mg/L	2021-06-26	
pH	8.09	7.0-10.5	0.10 pH units	2021-06-29	HT2
Phosphorus, Total (as P)	0.0179	N/A	0.0050 mg/L	2021-07-09	
Silica, Reactive (as SiO2)	20.1	N/A	0.40 mg/L	2021-07-07	
Temperature, at pH	22.3	N/A	°C	2021-06-29	HT2
Turbidity	0.14	OG < 1	0.10 NTU	2021-06-26	

Microbiological Parameters

Coliforms, Total	< 1	MAC = 0	1 CFU/100 mL	2021-06-25	HT3
E. coli	< 1	MAC = 0	1 CFU/100 mL	2021-06-25	HT3

Total Metals

Aluminum, total	< 0.0050	OG < 0.1	0.0050 mg/L	2021-07-04	
Antimony, total	< 0.00020	MAC = 0.006	0.00020 mg/L	2021-07-04	
Arsenic, total	0.00492	MAC = 0.01	0.00050 mg/L	2021-07-04	
Barium, total	0.0296	MAC = 2	0.0050 mg/L	2021-07-04	
Boron, total	< 0.0500	MAC = 5	0.0500 mg/L	2021-07-04	
Cadmium, total	< 0.000010	MAC = 0.005	0.000010 mg/L	2021-07-04	
Calcium, total	53.3	None Required	0.20 mg/L	2021-07-04	
Chromium, total	< 0.00050	MAC = 0.05	0.00050 mg/L	2021-07-04	
Cobalt, total	< 0.00010	N/A	0.00010 mg/L	2021-07-04	
Copper, total	0.00225	MAC = 2	0.00040 mg/L	2021-07-04	



TEST RESULTS

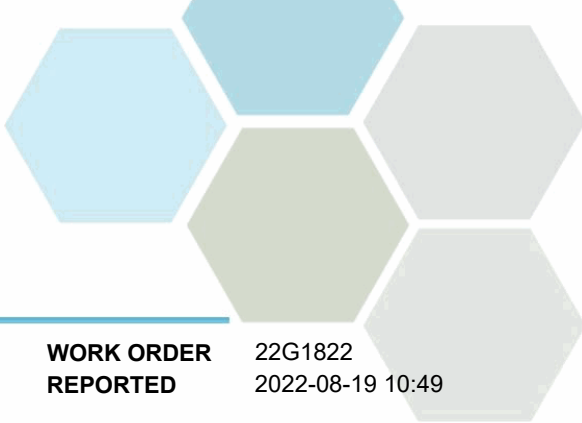
REPORTED TO PROJECT Grand Forks, City of
Drinking Water

WORK ORDER REPORTED 21F3498
2021-07-09 16:20

Analyte	Result	Guideline	RL Units	Analyzed	Qualifier
Well #5 (21F3498-01) Matrix: Water Sampled: 2021-06-24 10:30, Continued					
<i>Total Metals, Continued</i>					
Iron, total	0.012	AO ≤ 0.3	0.010 mg/L	2021-07-04	
Lead, total	< 0.00020	MAC = 0.005	0.00020 mg/L	2021-07-04	
Magnesium, total	14.7	None Required	0.010 mg/L	2021-07-04	
Manganese, total	0.00954	MAC = 0.12	0.00020 mg/L	2021-07-04	
Mercury, total	< 0.000010	MAC = 0.001	0.000010 mg/L	2021-07-02	
Molybdenum, total	0.00486	N/A	0.00010 mg/L	2021-07-04	
Nickel, total	< 0.00040	N/A	0.00040 mg/L	2021-07-04	
Potassium, total	1.96	N/A	0.10 mg/L	2021-07-04	
Selenium, total	0.00082	MAC = 0.05	0.00050 mg/L	2021-07-04	
Sodium, total	9.14	AO ≤ 200	0.10 mg/L	2021-07-04	
Strontium, total	0.511	7	0.0010 mg/L	2021-07-04	
Uranium, total	0.00290	MAC = 0.02	0.000020 mg/L	2021-07-04	
Vanadium, total	< 0.0010	N/A	0.0010 mg/L	2021-07-04	
Zinc, total	0.0052	AO ≤ 5	0.0040 mg/L	2021-07-04	

Sample Qualifiers:

- HT2 The 15 minute recommended holding time (from sampling to analysis) has been exceeded - field analysis is recommended.
- HT3 Microbiological analysis was initiated beyond the maximum holding time of 30 hours. Results may not be valid.



TEST RESULTS

REPORTED TO PROJECT Grand Forks, City of Drinking Water

WORK ORDER REPORTED 22G1822
2022-08-19 10:49

Analyte	Result	Guideline	RL Units	Analyzed	Qualifier
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Well #4 (22G1822-01) | Matrix: Water | Sampled: 2022-07-13 09:56

Anions

Chloride	3.50	AO ≤ 250	0.10 mg/L	2022-07-15	
Fluoride	0.43	MAC = 1.5	0.10 mg/L	2022-07-15	
Nitrate (as N)	0.110	MAC = 10	0.010 mg/L	2022-07-15	
Nitrite (as N)	0.018	MAC = 1	0.010 mg/L	2022-07-15	
Sulfate	44.1	AO ≤ 500	1.0 mg/L	2022-07-15	

Calculated Parameters

Hardness, Total (as CaCO3)	207	None Required	0.500 mg/L	N/A	
Langelier Index	0.8	N/A	-5.0	2022-07-21	
Solids, Total Dissolved	258	AO ≤ 500	1.00 mg/L	N/A	

General Parameters

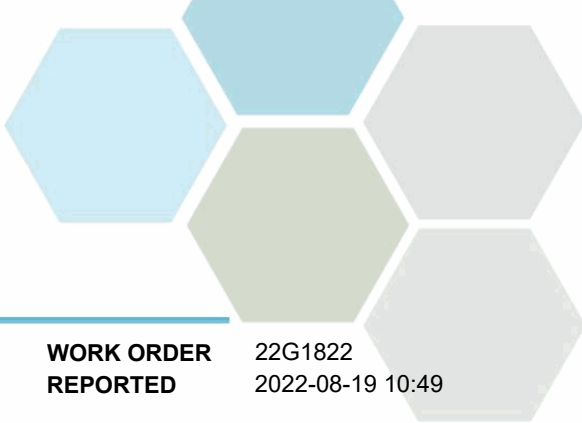
Alkalinity, Total (as CaCO3)	206	N/A	1.0 mg/L	2022-07-16	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	N/A	1.0 mg/L	2022-07-16	
Alkalinity, Bicarbonate (as CaCO3)	206	N/A	1.0 mg/L	2022-07-16	
Alkalinity, Carbonate (as CaCO3)	< 1.0	N/A	1.0 mg/L	2022-07-16	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	N/A	1.0 mg/L	2022-07-16	
Colour, True	< 5.0	AO ≤ 15	5.0 CU	2022-07-17	HT1
Conductivity (EC)	420	N/A	2.0 µS/cm	2022-07-16	
Cyanide, Total	< 0.0020	MAC = 0.2	0.0020 mg/L	2022-07-15	
pH	8.19	7.0-10.5	0.10 pH units	2022-07-16	HT2
Temperature, at pH	22.4	N/A	°C	2022-07-16	HT2
Turbidity	0.11	OG < 1	0.10 NTU	2022-07-16	

Microbiological Parameters

Coliforms, Total	< 1	MAC = 0	1 CFU/100 mL	2022-07-14	
E. coli	< 1	MAC = 0	1 CFU/100 mL	2022-07-14	

Total Metals

Aluminum, total	< 0.0050	OG < 0.1	0.0050 mg/L	2022-07-19	
Antimony, total	< 0.00020	MAC = 0.006	0.00020 mg/L	2022-07-19	
Arsenic, total	0.0123	MAC = 0.01	0.00050 mg/L	2022-07-19	
Barium, total	0.0344	MAC = 2	0.0050 mg/L	2022-07-19	
Boron, total	< 0.0500	MAC = 5	0.0500 mg/L	2022-07-19	
Cadmium, total	< 0.000010	MAC = 0.005	0.000010 mg/L	2022-07-19	
Calcium, total	56.3	None Required	0.20 mg/L	2022-07-19	
Chromium, total	< 0.00050	MAC = 0.05	0.00050 mg/L	2022-07-19	
Cobalt, total	< 0.00010	N/A	0.00010 mg/L	2022-07-19	
Copper, total	0.00045	MAC = 2	0.00040 mg/L	2022-07-19	
Iron, total	< 0.010	AO ≤ 0.3	0.010 mg/L	2022-07-19	
Lead, total	< 0.00020	MAC = 0.005	0.00020 mg/L	2022-07-19	
Magnesium, total	16.2	None Required	0.010 mg/L	2022-07-19	
Manganese, total	0.0677	MAC = 0.12	0.00020 mg/L	2022-07-19	
Mercury, total	< 0.000010	MAC = 0.001	0.000010 mg/L	2022-07-19	



TEST RESULTS

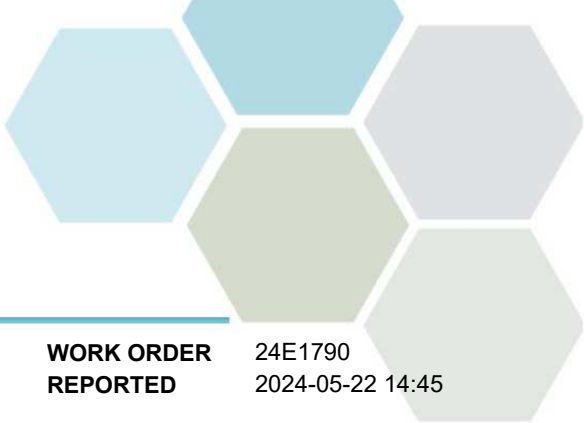
REPORTED TO PROJECT Grand Forks, City of
Drinking Water

WORK ORDER REPORTED 22G1822
2022-08-19 10:49

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
Well #4 (22G1822-01) Matrix: Water Sampled: 2022-07-13 09:56, Continued						
<i>Total Metals, Continued</i>						
Molybdenum, total	0.00597	N/A	0.00010	mg/L	2022-07-19	
Nickel, total	< 0.00040	N/A	0.00040	mg/L	2022-07-19	
Potassium, total	2.16	N/A	0.10	mg/L	2022-07-19	
Selenium, total	0.00202	MAC = 0.05	0.00050	mg/L	2022-07-19	
Sodium, total	9.57	AO ≤ 200	0.10	mg/L	2022-07-19	
Strontium, total	0.681	MAC = 7	0.0010	mg/L	2022-07-19	
Uranium, total	0.00433	MAC = 0.02	0.000020	mg/L	2022-07-19	
Zinc, total	< 0.0040	AO ≤ 5	0.0040	mg/L	2022-07-19	

Sample Qualifiers:

- HT1 The sample was prepared and/or analyzed past the recommended holding time.
- HT2 The 15 minute recommended holding time (from sampling to analysis) has been exceeded - field analysis is recommended.



TEST RESULTS

REPORTED TO PROJECT Grand Forks, City of Drinking Water

WORK ORDER REPORTED 24E1790
2024-05-22 14:45

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
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Well # 3 (24E1790-01) | Matrix: Water | Sampled: 2024-05-13 12:30

Anions

Chloride	2.20	AO ≤ 250	0.10	mg/L	2024-05-15	
Fluoride	0.40	MAC = 1.5	0.10	mg/L	2024-05-15	
Nitrate (as N)	0.178	MAC = 10	0.010	mg/L	2024-05-15	
Nitrite (as N)	< 0.010	MAC = 1	0.010	mg/L	2024-05-15	
Sulfate	17.0	AO ≤ 500	1.0	mg/L	2024-05-15	

BCMOE Aggregate Hydrocarbons

VHw (6-10)	< 100	N/A	100	µg/L	2024-05-17	
VPHw	< 100	N/A	100	µg/L	N/A	

Calculated Parameters

Hardness, Total (as CaCO3)	138	None Required	0.500	mg/L	N/A	
Langelier Index	-0.5	N/A	-5.0		2024-05-22	CT6
Solids, Total Dissolved	158	AO ≤ 500	1.00	mg/L	N/A	

General Parameters

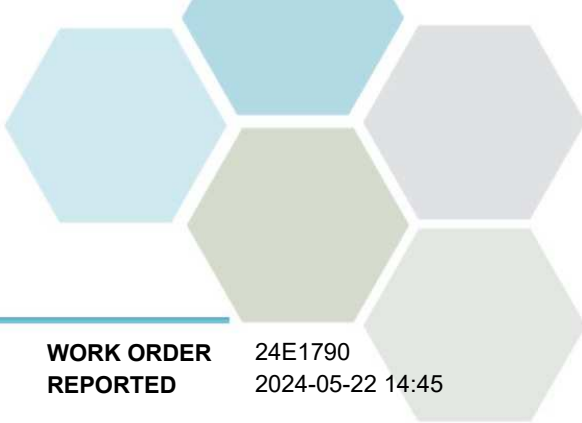
Alkalinity, Total (as CaCO3)	131	N/A	1.0	mg/L	2024-05-21	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	N/A	1.0	mg/L	2024-05-21	
Alkalinity, Bicarbonate (as CaCO3)	131	N/A	1.0	mg/L	2024-05-21	
Alkalinity, Carbonate (as CaCO3)	< 1.0	N/A	1.0	mg/L	2024-05-21	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	N/A	1.0	mg/L	2024-05-21	
Ammonia, Total (as N)	0.410	None Required	0.050	mg/L	2024-05-15	
Colour, True	< 5.0	AO ≤ 15	5.0	CU	2024-05-15	
Conductivity (EC)	293	N/A	2.0	µS/cm	2024-05-21	
Cyanide, Total	< 0.0020	MAC = 0.2	0.0020	mg/L	2024-05-16	
pH	7.39	7.0-10.5	0.10	pH units	2024-05-21	HT2
Temperature, at pH	20.0	N/A		°C	2024-05-21	HT2
Turbidity	< 0.10	OG < 1	0.10	NTU	2024-05-16	

Microbiological Parameters

Coliforms, Total	< 1	MAC = 0	1	CFU/100 mL	2024-05-14	
E. coli	< 1	MAC = 0	1	CFU/100 mL	2024-05-14	

Total Metals

Aluminum, total	< 0.0050	OG < 0.1	0.0050	mg/L	2024-05-21	
Antimony, total	< 0.00020	MAC = 0.006	0.00020	mg/L	2024-05-21	
Arsenic, total	0.00439	MAC = 0.01	0.00050	mg/L	2024-05-21	
Barium, total	0.0241	MAC = 2	0.0050	mg/L	2024-05-21	
Boron, total	< 0.0500	MAC = 5	0.0500	mg/L	2024-05-21	
Cadmium, total	< 0.000010	MAC = 0.007	0.000010	mg/L	2024-05-21	
Calcium, total	40.7	None Required	0.20	mg/L	2024-05-21	
Chromium, total	0.00050	MAC = 0.05	0.00050	mg/L	2024-05-21	
Cobalt, total	< 0.00010	N/A	0.00010	mg/L	2024-05-21	
Copper, total	0.00040	MAC = 2	0.00040	mg/L	2024-05-21	
Iron, total	< 0.010	AO ≤ 0.3	0.010	mg/L	2024-05-21	



TEST RESULTS

REPORTED TO PROJECT Grand Forks, City of Drinking Water

WORK ORDER REPORTED 24E1790
2024-05-22 14:45

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
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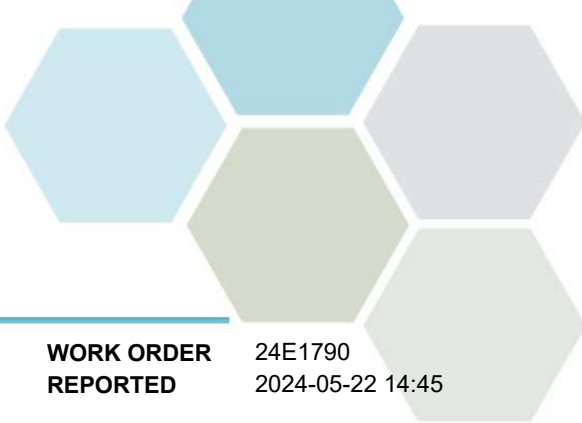
Well # 3 (24E1790-01) | Matrix: Water | Sampled: 2024-05-13 12:30, Continued

Total Metals, Continued

Lead, total	< 0.00020	MAC = 0.005	0.00020	mg/L	2024-05-21	
Magnesium, total	8.90	None Required	0.010	mg/L	2024-05-21	
Manganese, total	0.0196	MAC = 0.12	0.00020	mg/L	2024-05-21	
Mercury, total	< 0.000010	MAC = 0.001	0.000010	mg/L	2024-05-17	
Molybdenum, total	0.00233	N/A	0.00010	mg/L	2024-05-21	
Nickel, total	< 0.00040	N/A	0.00040	mg/L	2024-05-21	
Potassium, total	1.58	N/A	0.10	mg/L	2024-05-21	
Selenium, total	< 0.00050	MAC = 0.05	0.00050	mg/L	2024-05-21	
Sodium, total	6.60	AO ≤ 200	0.10	mg/L	2024-05-21	
Strontium, total	0.408	MAC = 7	0.0010	mg/L	2024-05-21	
Uranium, total	0.00212	MAC = 0.02	0.000020	mg/L	2024-05-21	
Zinc, total	< 0.0040	AO ≤ 5	0.0040	mg/L	2024-05-21	

Volatile Organic Compounds (VOC)

Benzene	< 0.5	MAC = 5	0.5	µg/L	2024-05-17	
Bromodichloromethane	< 1.0	N/A	1.0	µg/L	2024-05-17	
Bromoform	< 1.0	N/A	1.0	µg/L	2024-05-17	
Carbon tetrachloride	< 0.5	MAC = 2	0.5	µg/L	2024-05-17	
Chlorobenzene	< 1.0	AO ≤ 30	1.0	µg/L	2024-05-17	
Chloroethane	< 2.0	N/A	2.0	µg/L	2024-05-17	
Chloroform	< 1.0	N/A	1.0	µg/L	2024-05-17	
Dibromochloromethane	< 1.0	N/A	1.0	µg/L	2024-05-17	
1,2-Dibromoethane	< 0.3	N/A	0.3	µg/L	2024-05-17	
Dibromomethane	< 1.0	N/A	1.0	µg/L	2024-05-17	
1,2-Dichlorobenzene	< 0.5	AO ≤ 3	0.5	µg/L	2024-05-17	
1,3-Dichlorobenzene	< 1.0	N/A	1.0	µg/L	2024-05-17	
1,4-Dichlorobenzene	< 1.0	AO ≤ 1	1.0	µg/L	2024-05-17	
1,1-Dichloroethane	< 1.0	N/A	1.0	µg/L	2024-05-17	
1,2-Dichloroethane	< 1.0	MAC = 5	1.0	µg/L	2024-05-17	
1,1-Dichloroethylene	< 1.0	MAC = 14	1.0	µg/L	2024-05-17	
cis-1,2-Dichloroethylene	< 1.0	N/A	1.0	µg/L	2024-05-17	
trans-1,2-Dichloroethylene	< 1.0	N/A	1.0	µg/L	2024-05-17	
Dichloromethane	< 3.0	MAC = 50	3.0	µg/L	2024-05-17	
1,2-Dichloropropane	< 1.0	N/A	1.0	µg/L	2024-05-17	
1,3-Dichloropropene (cis + trans)	< 1.0	N/A	1.0	µg/L	2024-05-17	
Ethylbenzene	< 1.0	AO ≤ 1.6	1.0	µg/L	2024-05-17	
Methyl tert-butyl ether	< 1.0	AO ≤ 15	1.0	µg/L	2024-05-17	
Styrene	< 1.0	N/A	1.0	µg/L	2024-05-17	
1,1,2,2-Tetrachloroethane	< 0.5	N/A	0.5	µg/L	2024-05-17	
Tetrachloroethylene	< 1.0	MAC = 10	1.0	µg/L	2024-05-17	
Toluene	< 1.0	MAC = 60	1.0	µg/L	2024-05-17	
1,1,1-Trichloroethane	< 1.0	N/A	1.0	µg/L	2024-05-17	
1,1,2-Trichloroethane	< 1.0	N/A	1.0	µg/L	2024-05-17	



TEST RESULTS

REPORTED TO PROJECT Grand Forks, City of
Drinking Water

WORK ORDER REPORTED 24E1790
2024-05-22 14:45

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
Well # 3 (24E1790-01) Matrix: Water Sampled: 2024-05-13 12:30, Continued						
<i>Volatile Organic Compounds (VOC), Continued</i>						
Trichloroethylene	< 1.0	MAC = 5	1.0	µg/L	2024-05-17	
Trichlorofluoromethane	< 1.0	N/A	1.0	µg/L	2024-05-17	
Vinyl chloride	< 1.0	MAC = 2	1.0	µg/L	2024-05-17	
Xylenes (total)	< 2.0	AO ≤ 20	2.0	µg/L	2024-05-17	
<i>Surrogate: Toluene-d8</i>	85		70-130	%	2024-05-17	
<i>Surrogate: 4-Bromofluorobenzene</i>	77		70-130	%	2024-05-17	
<i>Surrogate: 1,4-Dichlorobenzene-d4</i>	94		70-130	%	2024-05-17	

Sample Qualifiers:

- CT6 Results were based on lab temperature & lab pH.
- HT2 The 15 minute recommended holding time (from sampling to analysis) has been exceeded - field analysis is recommended.



TEST RESULTS

REPORTED TO PROJECT Interior Health Authority - Penticton
Comprehensive 2024 for Ivor Norlin

WORK ORDER REPORTED 25C0008
2025-03-05 14:33

Analyte	Result	Guideline	RL Units	Analyzed	Qualifier
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680; Well #3 (25C0008-01) | Matrix: Water | Sampled: 2025-02-26 10:45

Anions

Chloride	2.07	AO ≤ 250	0.10 mg/L	2025-03-01	
Fluoride	0.31	MAC = 1.5	0.10 mg/L	2025-03-01	
Nitrate (as N)	0.171	MAC = 10	0.010 mg/L	2025-03-01	
Nitrite (as N)	< 0.010	MAC = 1	0.010 mg/L	2025-03-01	
Sulfate	17.0	AO ≤ 500	1.0 mg/L	2025-03-01	

Calculated Parameters

Hardness, Total (as CaCO3)	133	None Required	0.500 mg/L	N/A	
Langelier Index	0.2	N/A	-5.0	2025-03-05	CT6
Solids, Total Dissolved	153	AO ≤ 500	1.00 mg/L	N/A	

General Parameters

Alkalinity, Total (as CaCO3)	127	N/A	1.0 mg/L	2025-03-01	
Alkalinity, Phenolphthalein (as CaCO3)	< 1.0	N/A	1.0 mg/L	2025-03-01	
Alkalinity, Bicarbonate (as CaCO3)	127	N/A	1.0 mg/L	2025-03-01	
Alkalinity, Carbonate (as CaCO3)	< 1.0	N/A	1.0 mg/L	2025-03-01	
Alkalinity, Hydroxide (as CaCO3)	< 1.0	N/A	1.0 mg/L	2025-03-01	
Colour, True	< 5.0	AO ≤ 15	5.0 CU	2025-03-01	
Conductivity (EC)	299	N/A	2.0 µS/cm	2025-03-01	
Cyanide, Total	< 0.0020	MAC = 0.2	0.0020 mg/L	2025-03-04	
pH	8.01	7.0-10.5	0.10 pH units	2025-03-01	HT2
Temperature, at pH	22.6	N/A	°C	2025-03-01	HT2
Turbidity	< 0.10	OG < 1	0.10 NTU	2025-03-01	

Total Metals

Aluminum, total	< 0.0050	OG < 0.1	0.0050 mg/L	2025-03-04	
Antimony, total	< 0.00020	MAC = 0.006	0.00020 mg/L	2025-03-04	
Arsenic, total	0.00417	MAC = 0.01	0.00050 mg/L	2025-03-04	
Barium, total	0.0225	MAC = 2	0.0050 mg/L	2025-03-04	
Boron, total	< 0.0500	MAC = 5	0.0500 mg/L	2025-03-04	
Cadmium, total	< 0.000010	MAC = 0.007	0.000010 mg/L	2025-03-04	
Calcium, total	40.0	None Required	0.20 mg/L	2025-03-04	
Chromium, total	< 0.00050	MAC = 0.05	0.00050 mg/L	2025-03-04	
Cobalt, total	< 0.00010	N/A	0.00010 mg/L	2025-03-04	
Copper, total	< 0.00040	MAC = 2	0.00040 mg/L	2025-03-04	
Iron, total	< 0.010	AO ≤ 0.3	0.010 mg/L	2025-03-04	
Lead, total	< 0.00020	MAC = 0.005	0.00020 mg/L	2025-03-04	
Magnesium, total	8.12	None Required	0.010 mg/L	2025-03-04	
Manganese, total	0.0160	MAC = 0.12	0.00020 mg/L	2025-03-04	
Mercury, total	< 0.000010	MAC = 0.001	0.000010 mg/L	2025-03-05	
Molybdenum, total	0.00230	N/A	0.00010 mg/L	2025-03-04	
Nickel, total	< 0.00040	N/A	0.00040 mg/L	2025-03-04	
Potassium, total	1.48	N/A	0.10 mg/L	2025-03-04	
Selenium, total	< 0.00050	MAC = 0.05	0.00050 mg/L	2025-03-04	



TEST RESULTS

REPORTED TO PROJECT Interior Health Authority - Penticton
Comprehensive 2024 for Ivor Norlin

WORK ORDER REPORTED 25C0008
2025-03-05 14:33

Analyte	Result	Guideline	RL	Units	Analyzed	Qualifier
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680; Well #3 (25C0008-01) | Matrix: Water | Sampled: 2025-02-26 10:45, Continued

Total Metals, Continued

Sodium, total	6.02	AO ≤ 200	0.10	mg/L	2025-03-04	
Strontium, total	0.389	MAC = 7	0.0010	mg/L	2025-03-04	
Uranium, total	0.00213	MAC = 0.02	0.000020	mg/L	2025-03-04	
Zinc, total	< 0.0040	AO ≤ 5	0.0040	mg/L	2025-03-04	

Sample Qualifiers:

CT6 Results were based on lab temperature & lab pH.
HT2 The 15 minute recommended holding time (from sampling to analysis) has been exceeded - field analysis is recommended.