



March 26, 2024

Via Electronic Mail

Patrick Lennberg
Colorado Division of Reclamation, Mining and Safety
1313 Sherman Street, Room 215,
Denver, CO 80203

**Subject: Loveland Ready-Mix Concrete, Inc. (LRM)
Knox Pit Permit No. M-2017-036 - Sampling Reduction Request –
Response to Preliminary Review**

Mr. Lennberg:

On behalf of Loveland Ready-Mix Concrete, Inc. (LRM), Telesto Solutions, Inc. (Telesto) is responding to your preliminary review for the Technical Revision 2 (TR-2) to reduce the sampling frequency for Knox Pit, Permit No. M2017-036. Please see the items below for the additional information you requested:

1. Please see Attachment 1 for the table showing the current sampling analytes, along with the proposed analyte list.
2. Please see Attachment 2 for the time series graphs of all the analytes, for all wells.
3. Please see Attachment 3 for the table summary of the statistical analysis of the analytes.

Thank you for your attention to this matter, and we look forward to your response. Please do not hesitate to contact us if you require any further information or clarification.

Sincerely,

A handwritten signature in dark ink that reads "Tim Gerken". The signature is written in a cursive, flowing style.

Telesto Solutions, Inc.
Tim Gerken
Staff Geologist

TJG:wln
Enclosure
cc: wln

To: S. Fancher-English
Date: 03/26/2026
Page 2

ATTACHMENT 1

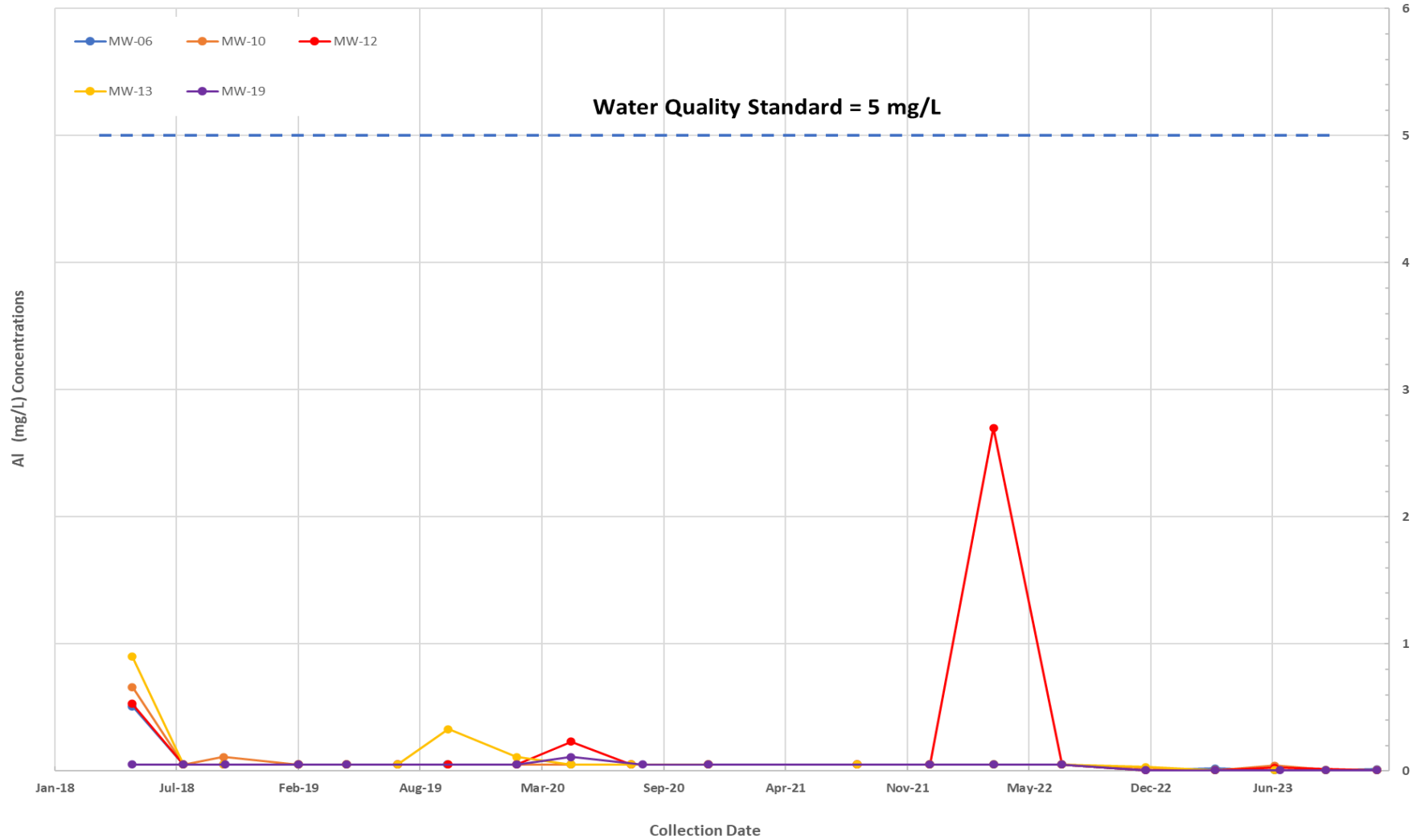
Current Sampling List for Knox Pit as of Q1 2024		
Analyte	Standard	Frequency
Total Alkalinity as CaCO ₃	---	Quarterly
Aluminum	5 mg/L	Quarterly
Antimony	0.006mg/L	Quarterly
Arsenic	0.01 mg/L	Quarterly
Barium	2 mg/L	Quarterly
Beryllium	0.004 mg/L	Quarterly
Bicarbonate as CaCO ₃	--	Quarterly
Boron	0.75 mg/L	Quarterly
Cadmium	0.005 mg/L	Quarterly
Calcium	--	Quarterly
Carbonate as CaCO ₃	--	Quarterly
Chloride	250 mg/L	Quarterly
Chromium	0.10 mg/L	Quarterly
Cobalt	0.05 mg/L	Quarterly
Copper	0.20 mg/L	Quarterly
Cyanide [Free]	0.20 mg/L	Quarterly
Fluoride	2 mg/L	Quarterly
Iron	0.3 mg/L	Quarterly
Lead	0.05 mg/L	Quarterly
Lithium	2.50 mg/L	Quarterly
Magnesium	--	Quarterly
Manganese	0.05 mg/L	Quarterly
Mercury (inorganic)	0.002 mg/L	Quarterly
Molybdenum	0.21 mg/L	Quarterly
Nickel	0.10 mg/L	Quarterly
Nitrate	10.0 mg/L as N	Quarterly
Nitrite	1.0 mg/L as N	Quarterly
Total Nitrate plus Nitrate as N	10 mg/L as N	Quarterly
pH	6.5 - 8.5	Quarterly
Potassium	---	Quarterly
Selenium	0.02 mg/L	Quarterly
Silver	0.05 mg/L	Quarterly
Sodium	--	Quarterly
Sulfate	250 mg/L	Quarterly
Thallium	0.002 mg/L	Quarterly
Total Dissolved Solids	1.25x background value	Quarterly
Uranium	0.03 mg/L	Quarterly
Vanadium	0.10 mg/L	Quarterly
Zinc	2 mg/L	Quarterly
Field Parameters	STABILITY CRITERION	
Conductivity	± 5%	Quarterly
pH	± 0.1 pH unit	Quarterly
Temperature	± 0.5° C	Quarterly

Proposed Reduced Sampling List for Knox Pit		
Analyte	Standard	Frequency
Bicarbonate as CaCO ₃	--	Annually
Chloride	--	Annually
Magnesium	--	Annually
Sodium	--	Annually
Sulfate	250 mg/L	Annually
Total Dissolved Solids	1.25x background value	Annually
Selenium	0.02 mg/L	Annually
Uranium	0.03 mg/L	Annually
Field Parameters	STABILITY CRITERION	
Conductivity	± 5%	Annually
pH	± 0.1 pH unit	Annually
Temperature	± 0.5° C	Annually

To: S. Fancher-English
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ATTACHMENT 2

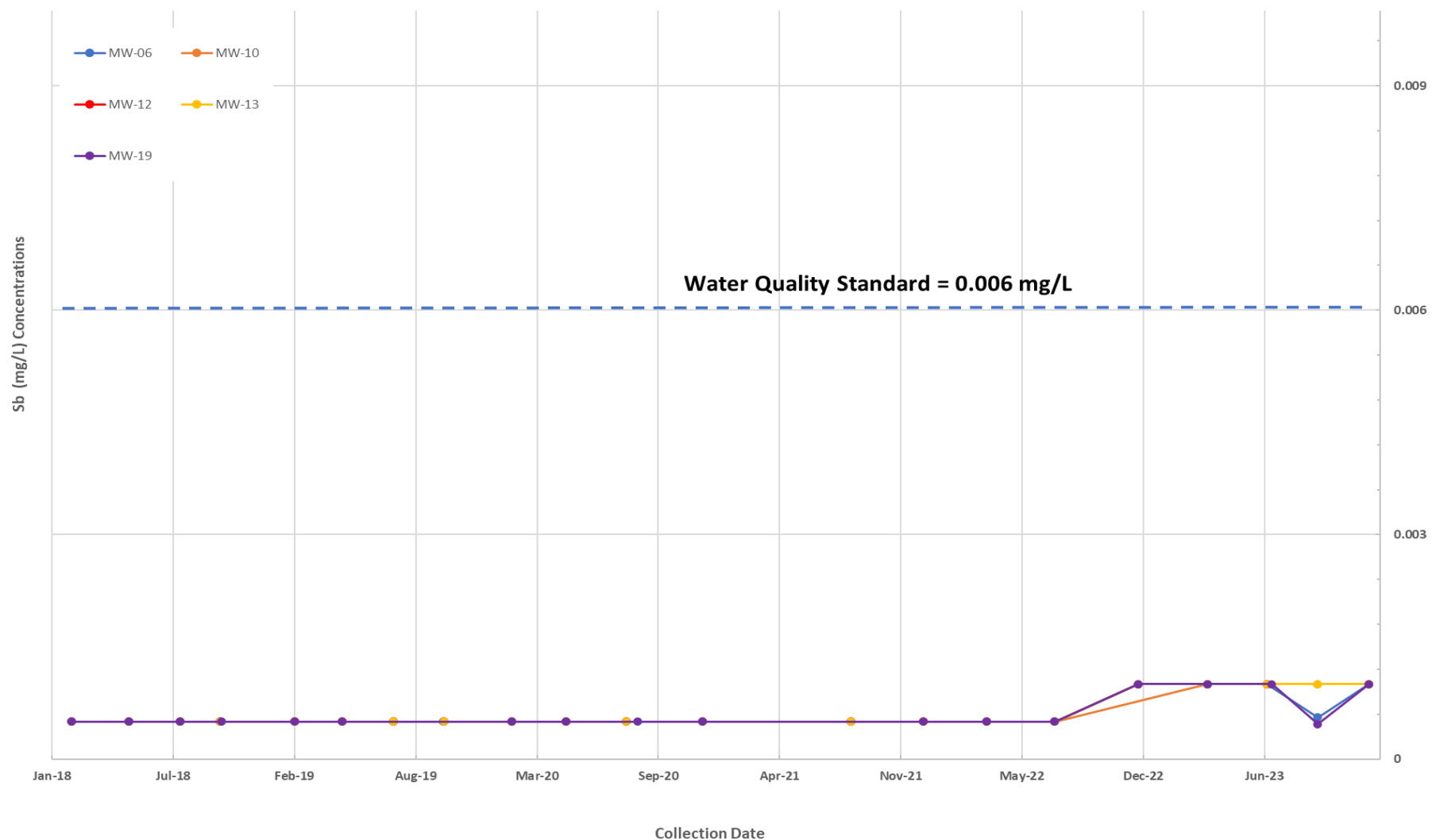
Aluminum (Dissolved)



NOTE: Non-detected concentrations graphed as half of method detection limit

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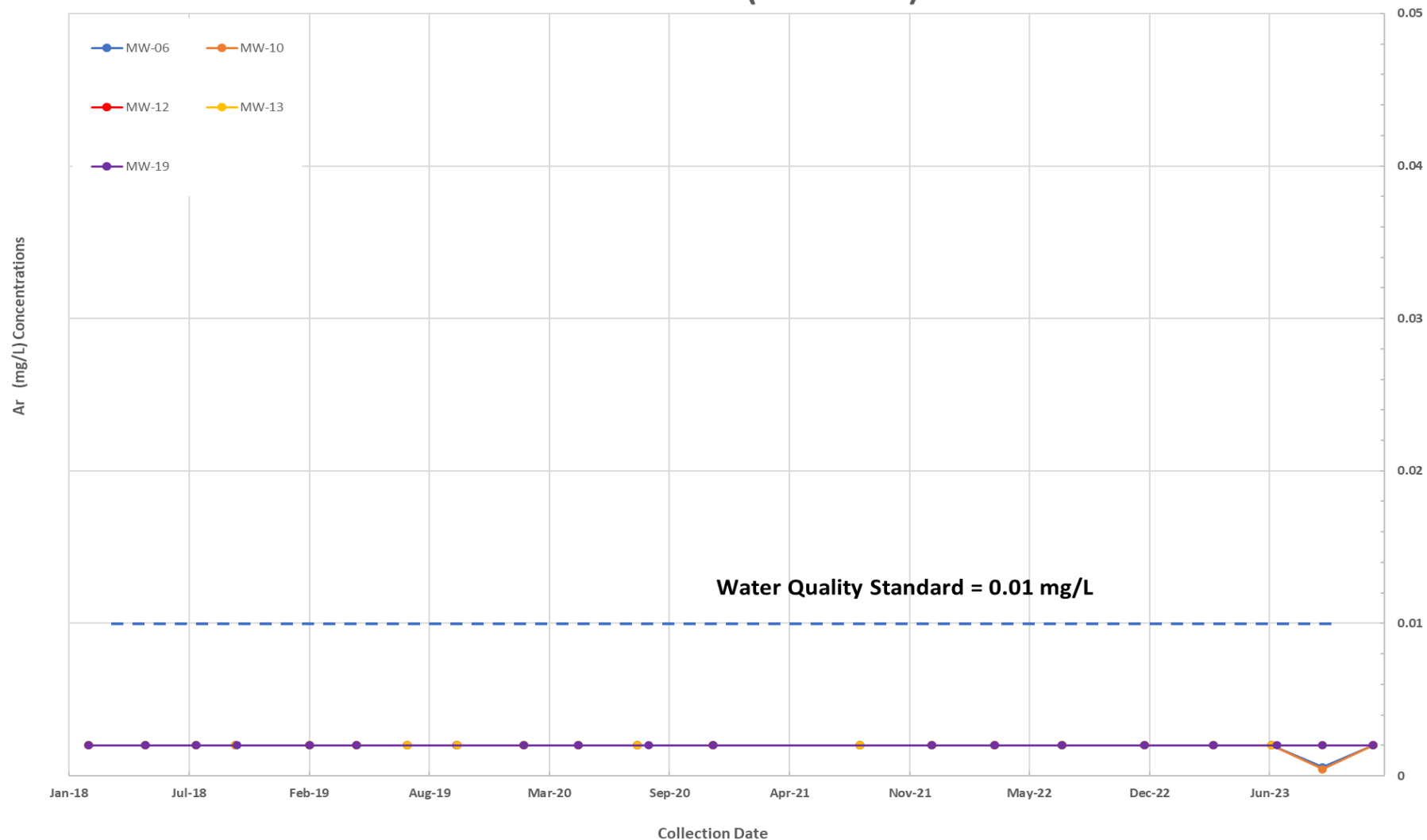
Antimony (Dissolved)



NOTE: Non-detected concentrations graphed as half of method detection limit

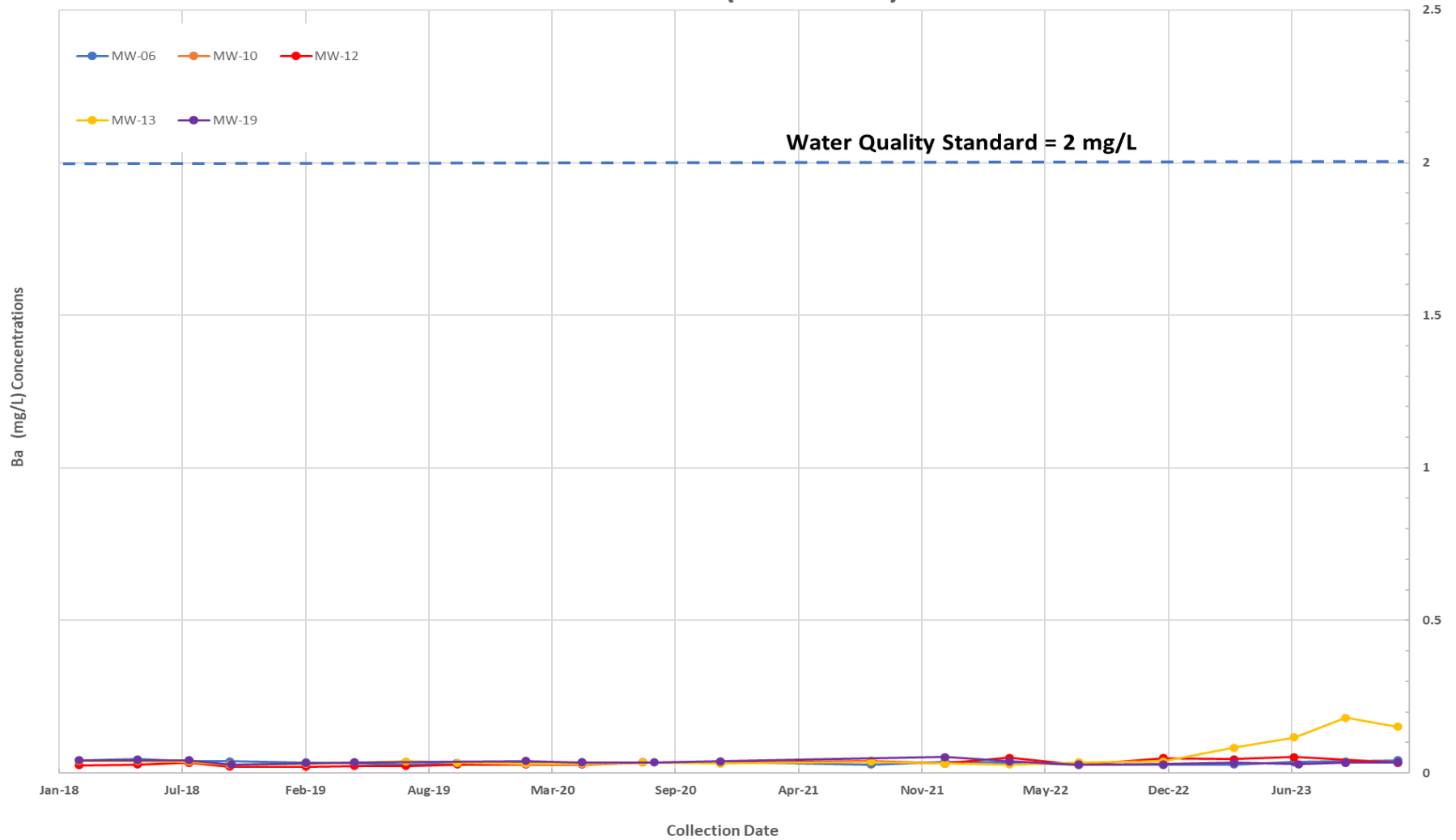
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Arsenic (Dissolved)



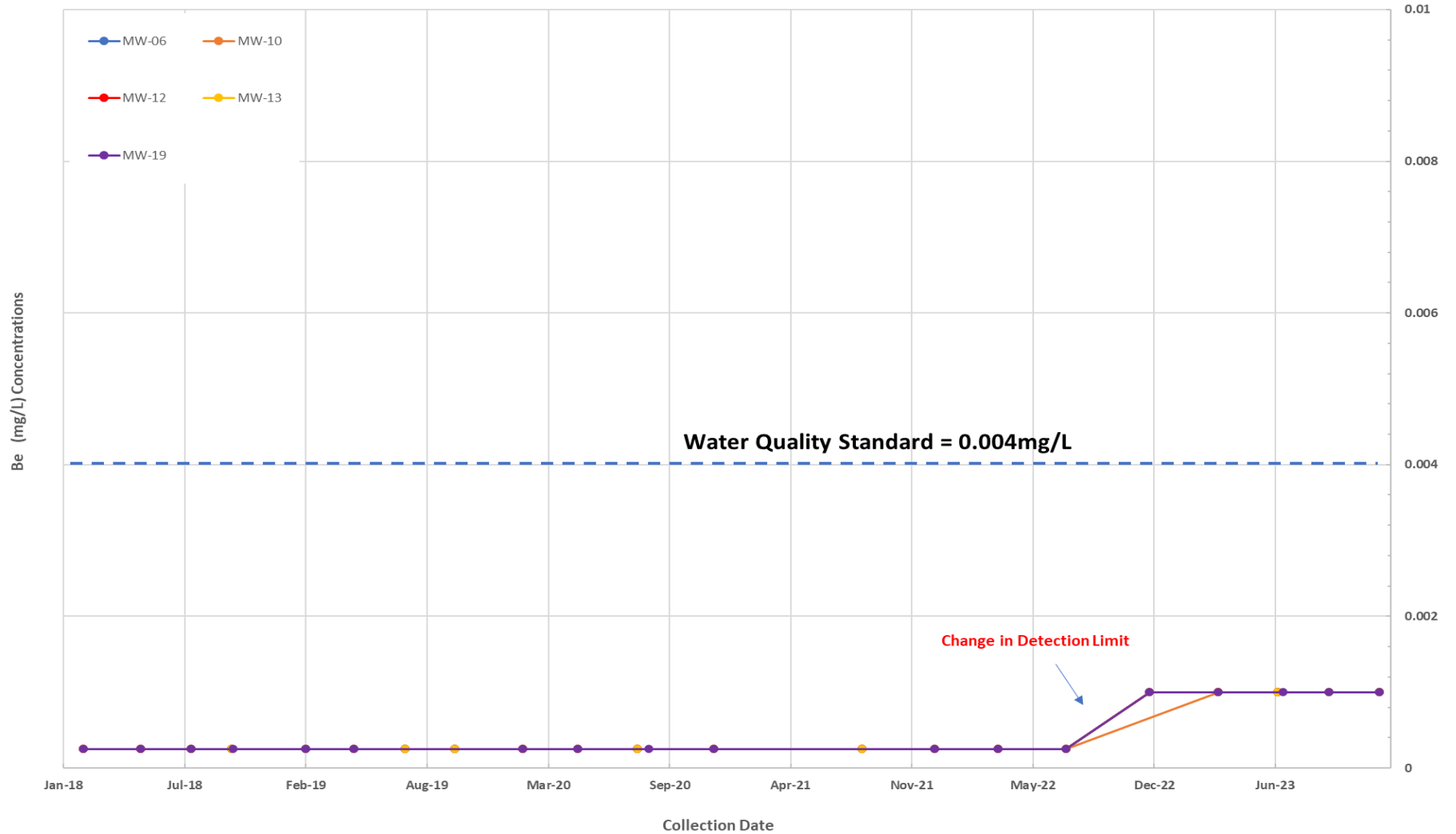
NOTE: Non-detected concentrations graphed as half of method detection limit

Barium (Dissolved)



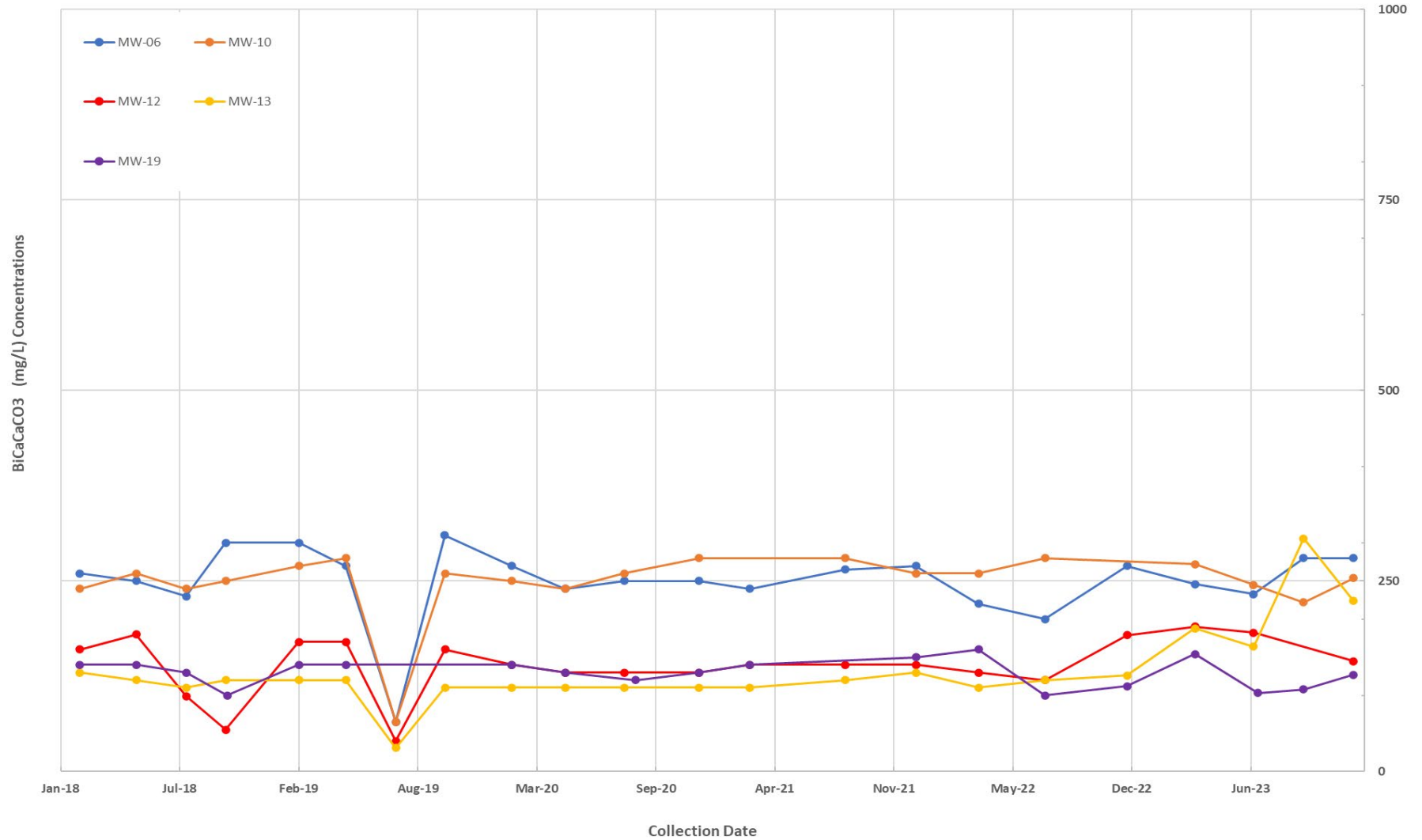
NOTE: Non-detected concentrations graphed as half of method detection limit

Beryllium (Dissolved)



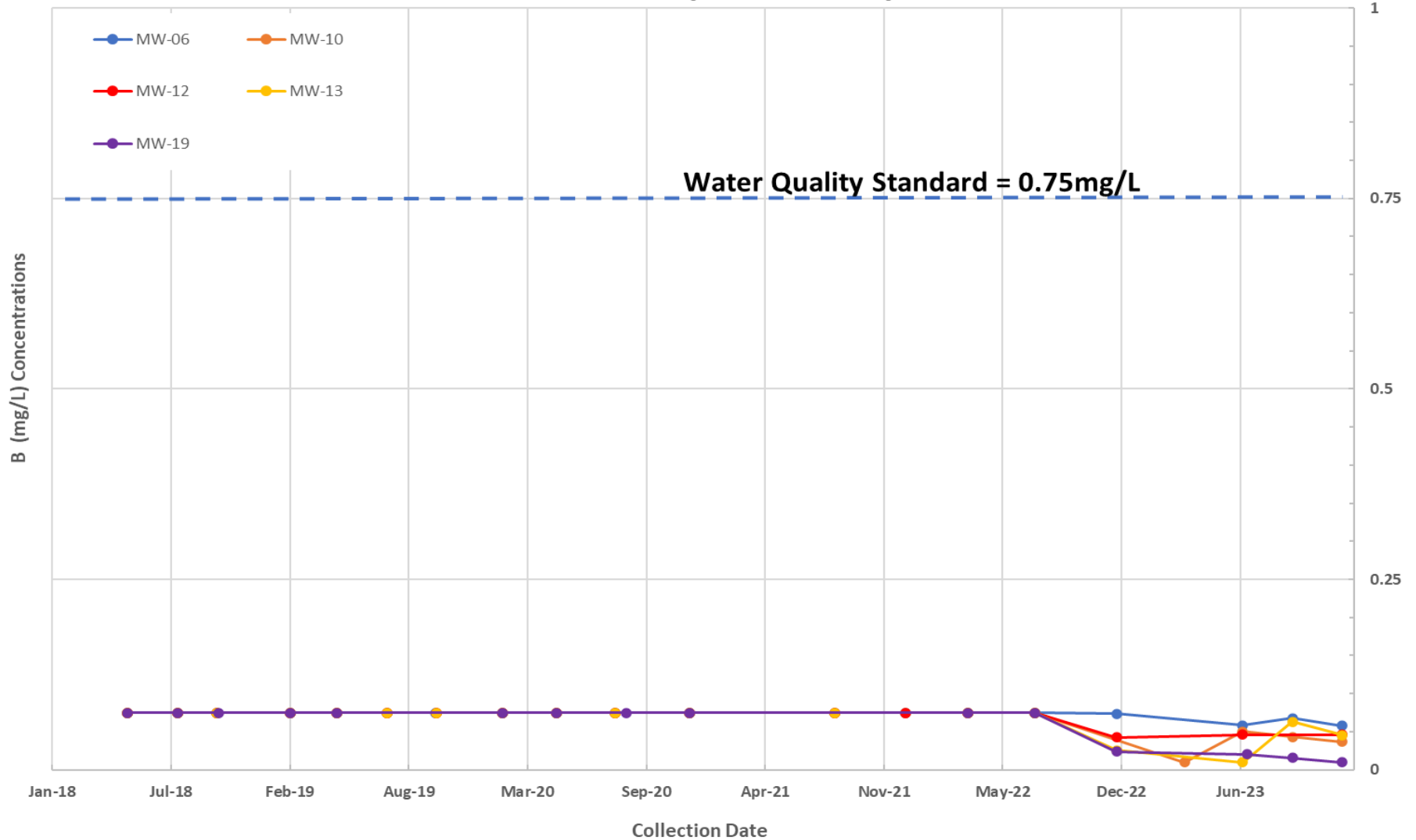
NOTE: Non-detected concentrations graphed as half of method detection limit

BiCarbonate as CaCO3



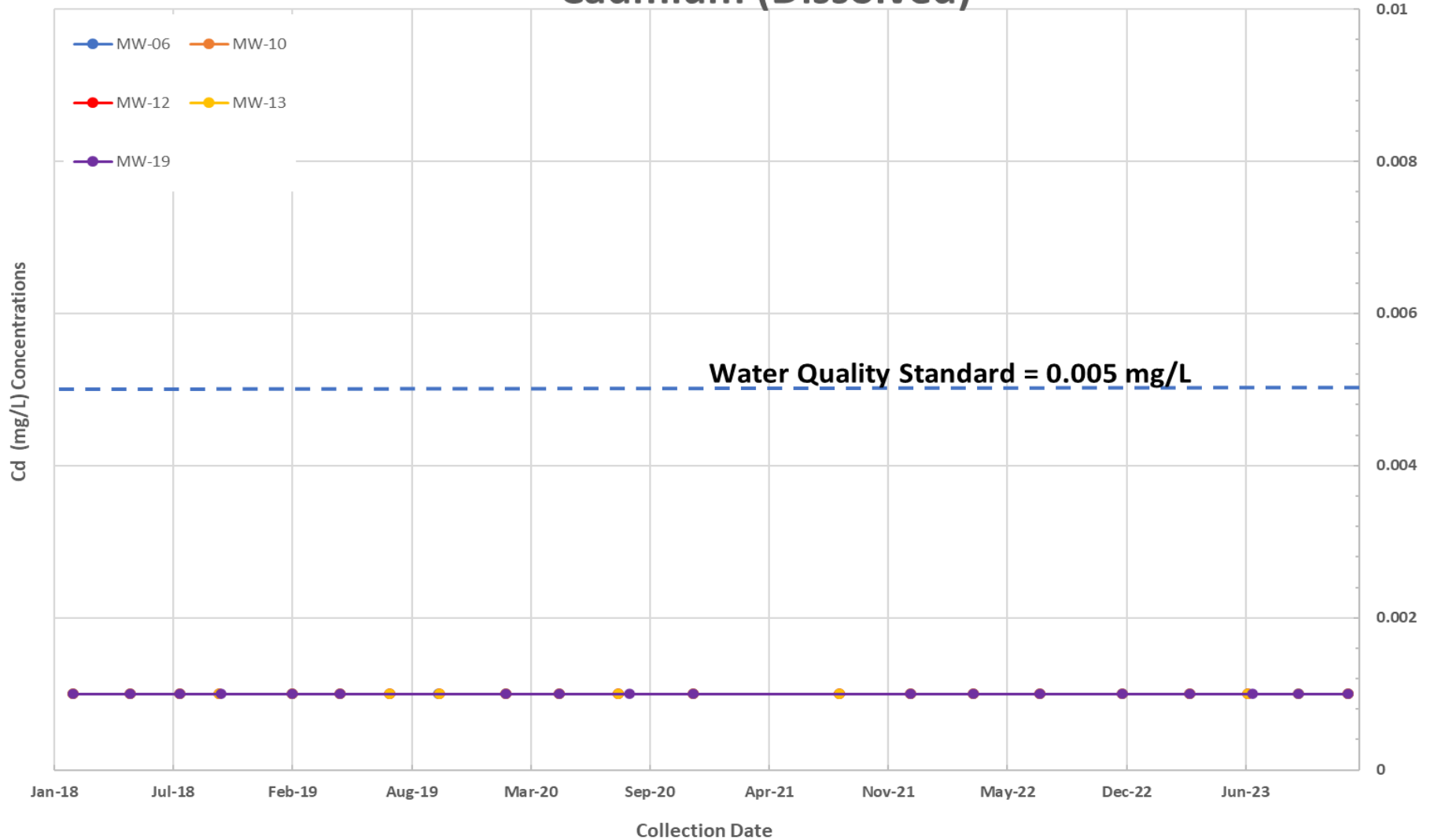
NOTE: Non-detected concentrations graphed as half of method detection limit

Boron (Dissolved)



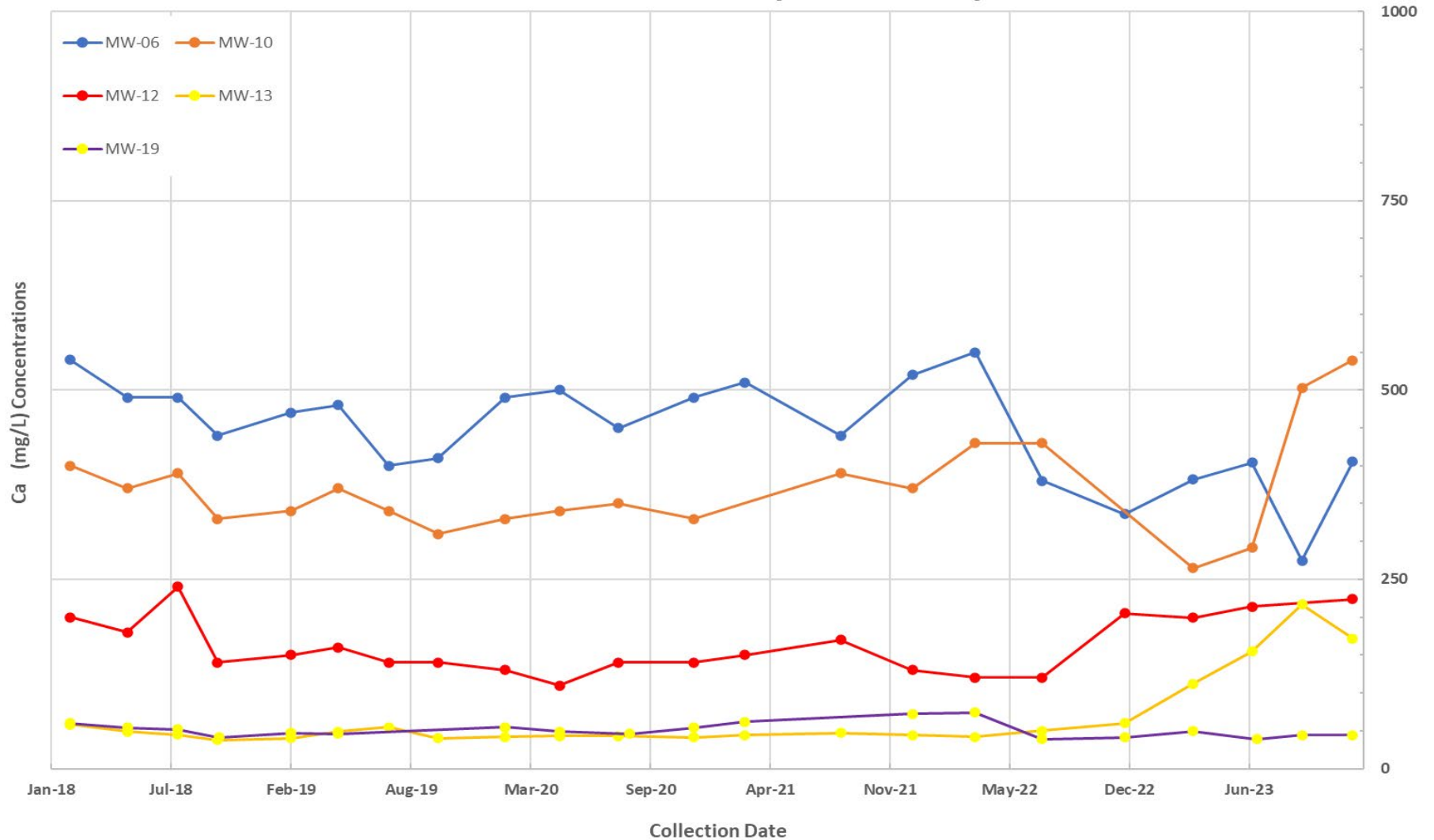
NOTE: Non-detected concentrations graphed as half of method detection limit

Cadmium (Dissolved)



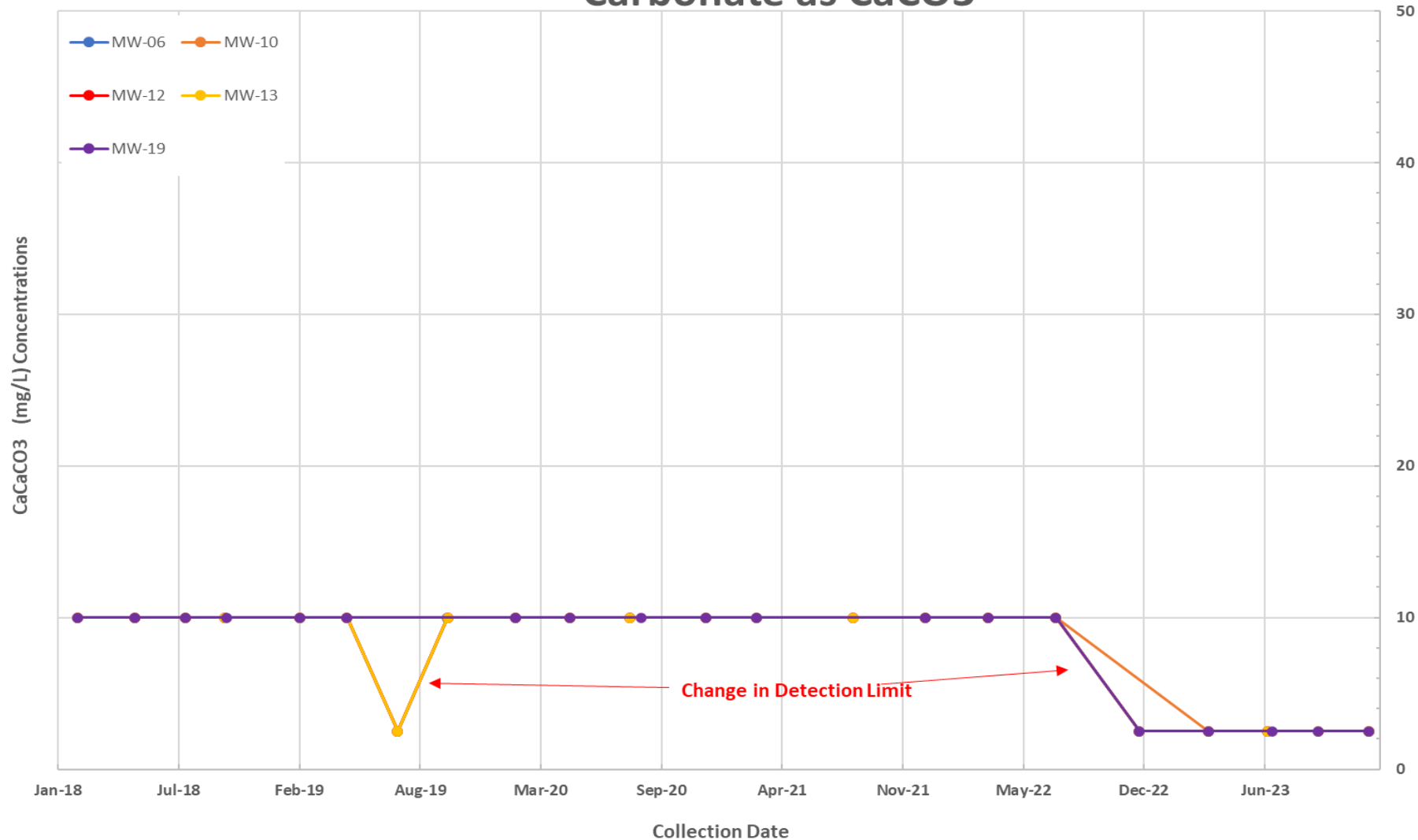
NOTE: Non-detected concentrations graphed as half of method detection limit

Calcium (Dissolved)



NOTE: Non-detected concentrations graphed as half of method detection limit

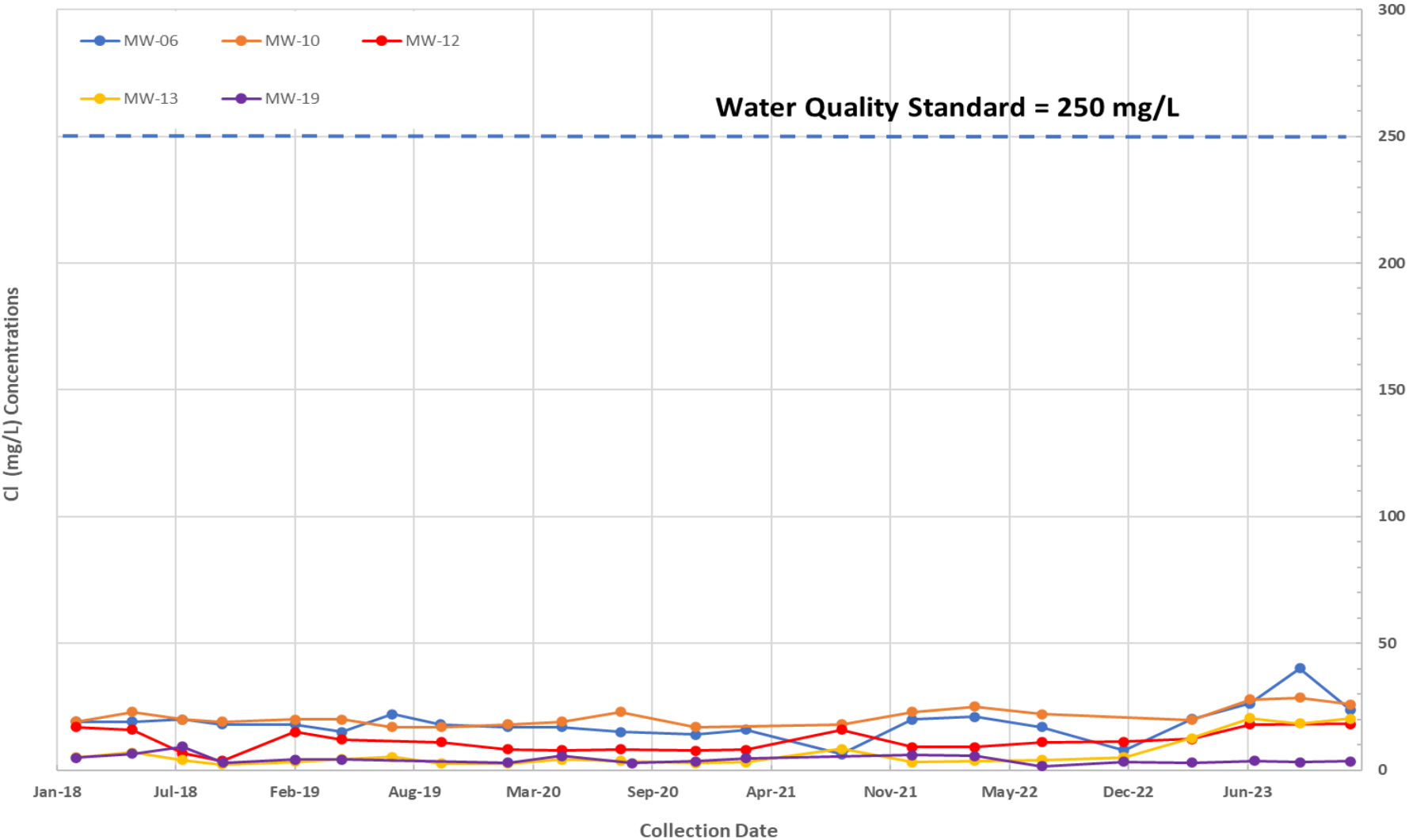
Carbonate as CaCO₃



NOTE: Non-detected concentrations graphed as half of method detection limit

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Chloride



NOTE: Non-detected concentrations graphed as half of method detection limit

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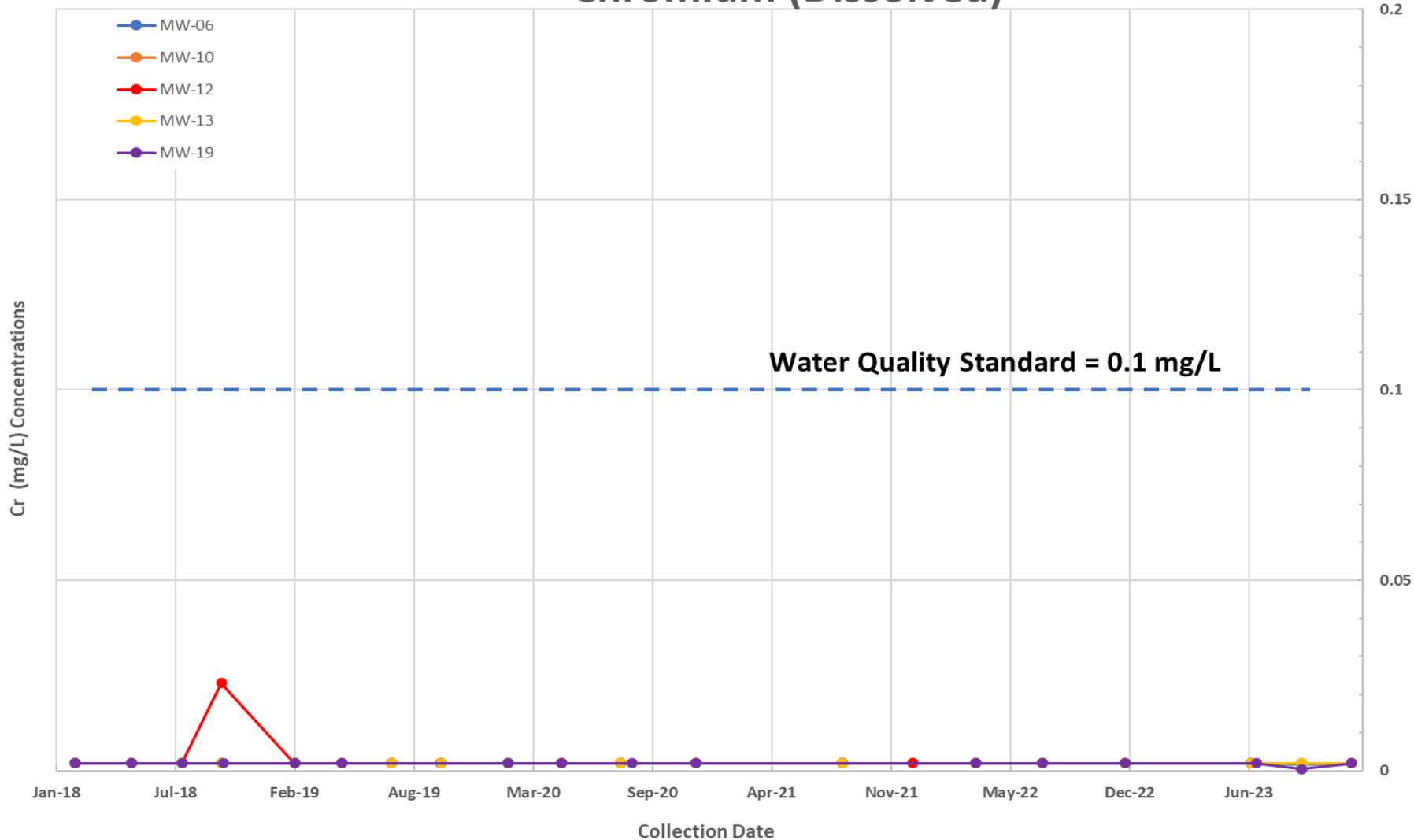
PREPARED BY:
TELESTO
SOLUTIONS INCORPORATED

KNOX PIT (M2017-036) – GROUNDWATER WATER QUALITY TIME SERIES GRAPHS

PREPARED FOR:

**LOVELAND
READY MIX
CONCRETE**

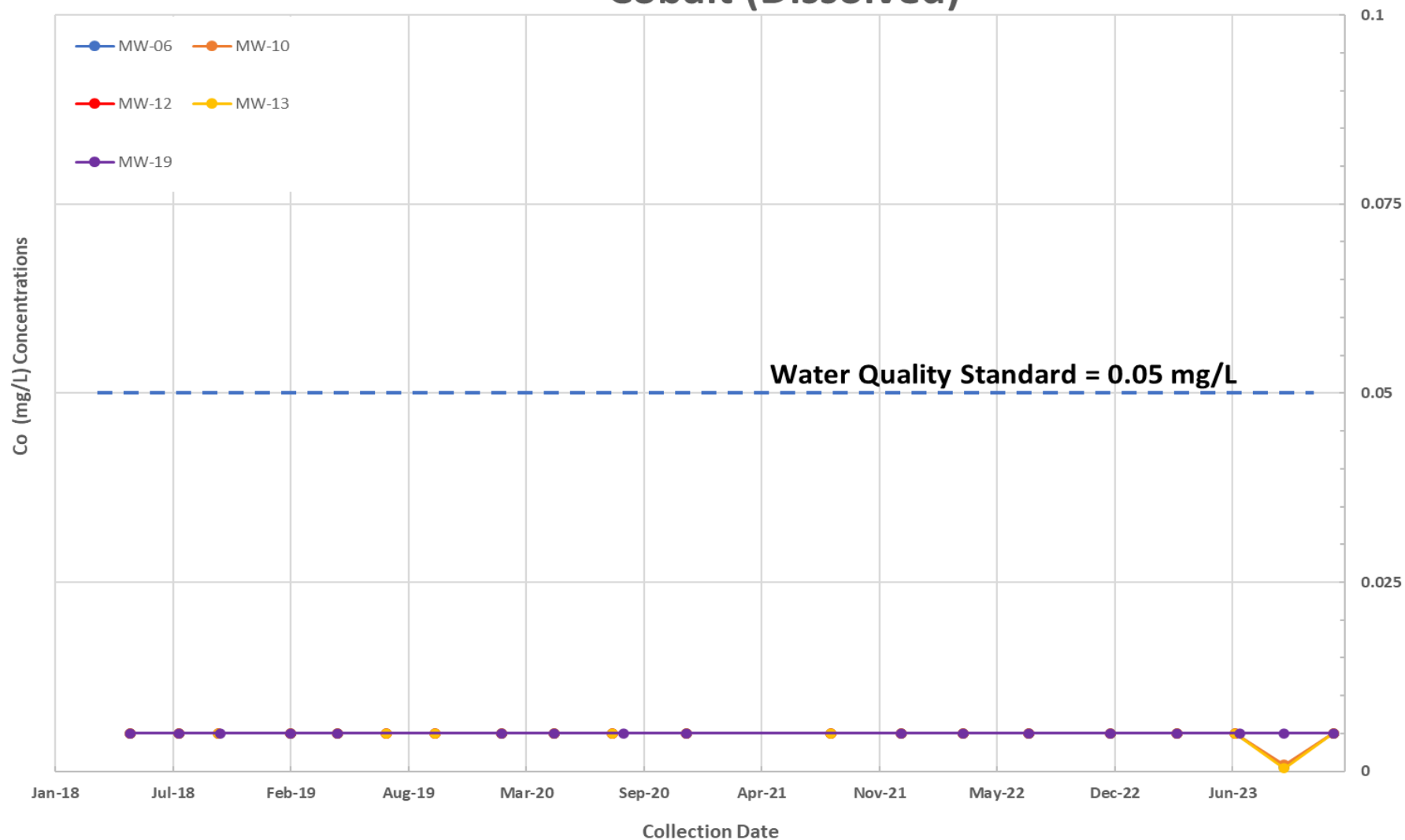
Chromium (Dissolved)



NOTE: Non-detected concentrations graphed as half of method detection limit

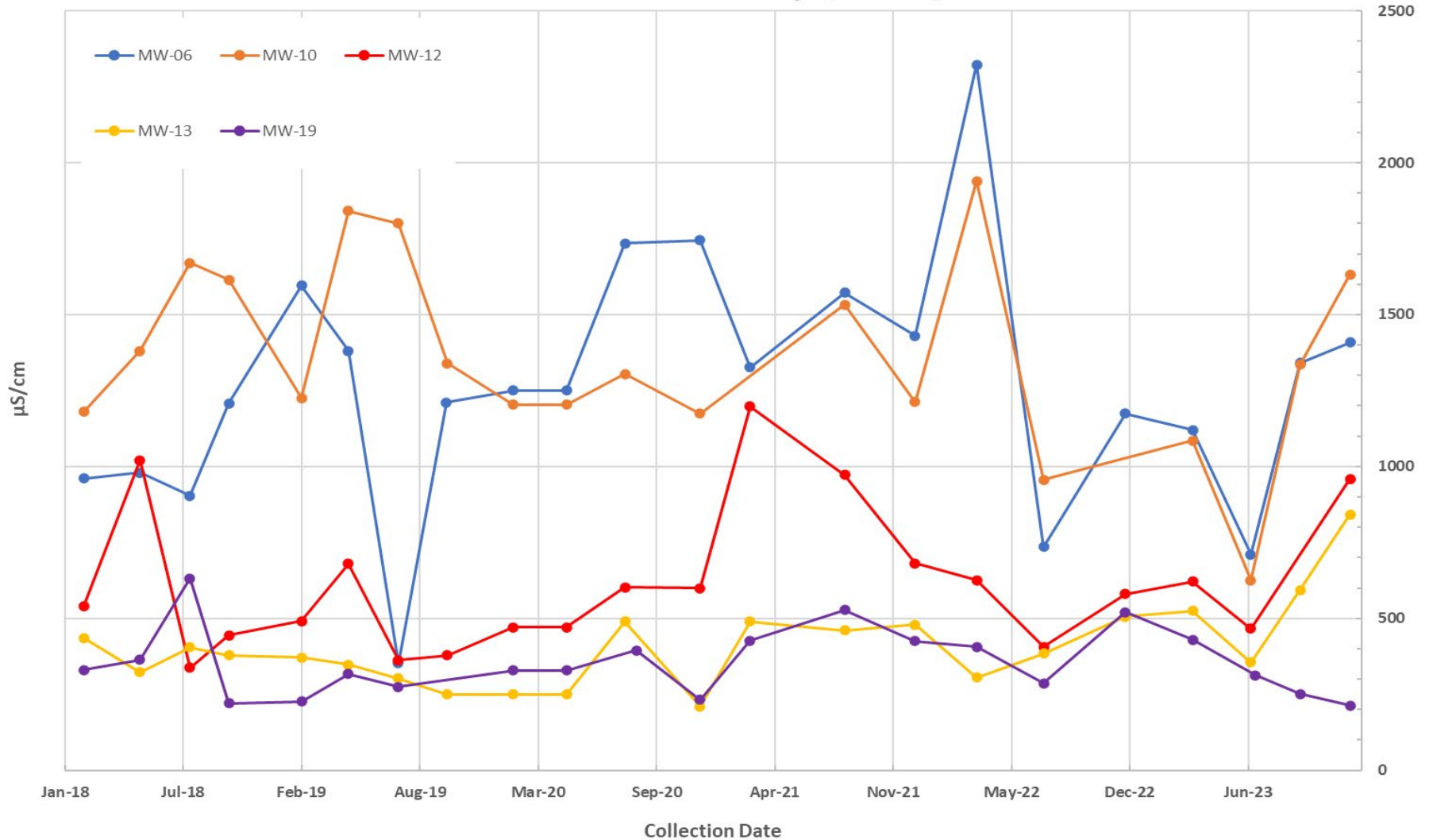
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Cobalt (Dissolved)



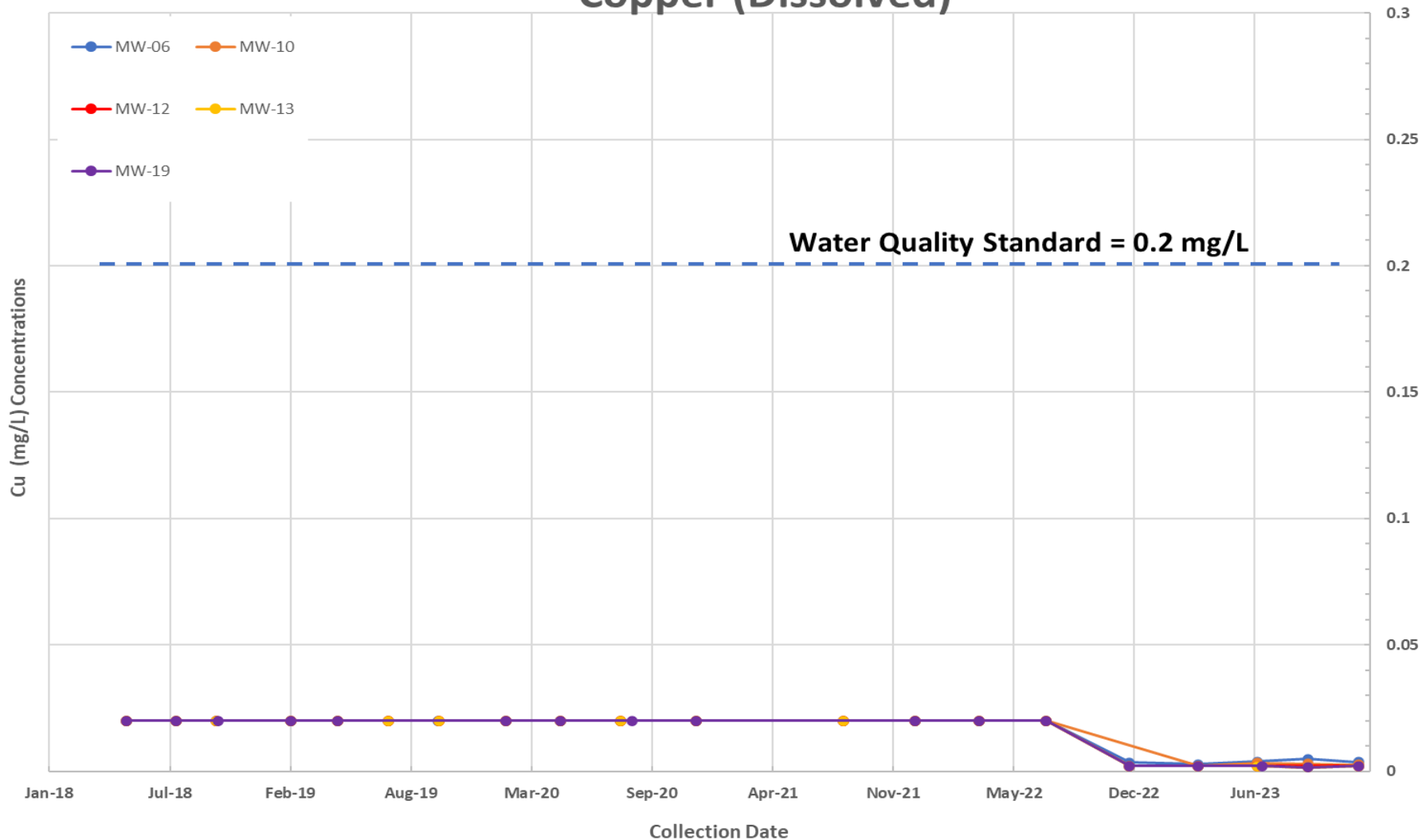
NOTE: Non-detected concentrations graphed as half of method detection limit

Conductivity (Field)



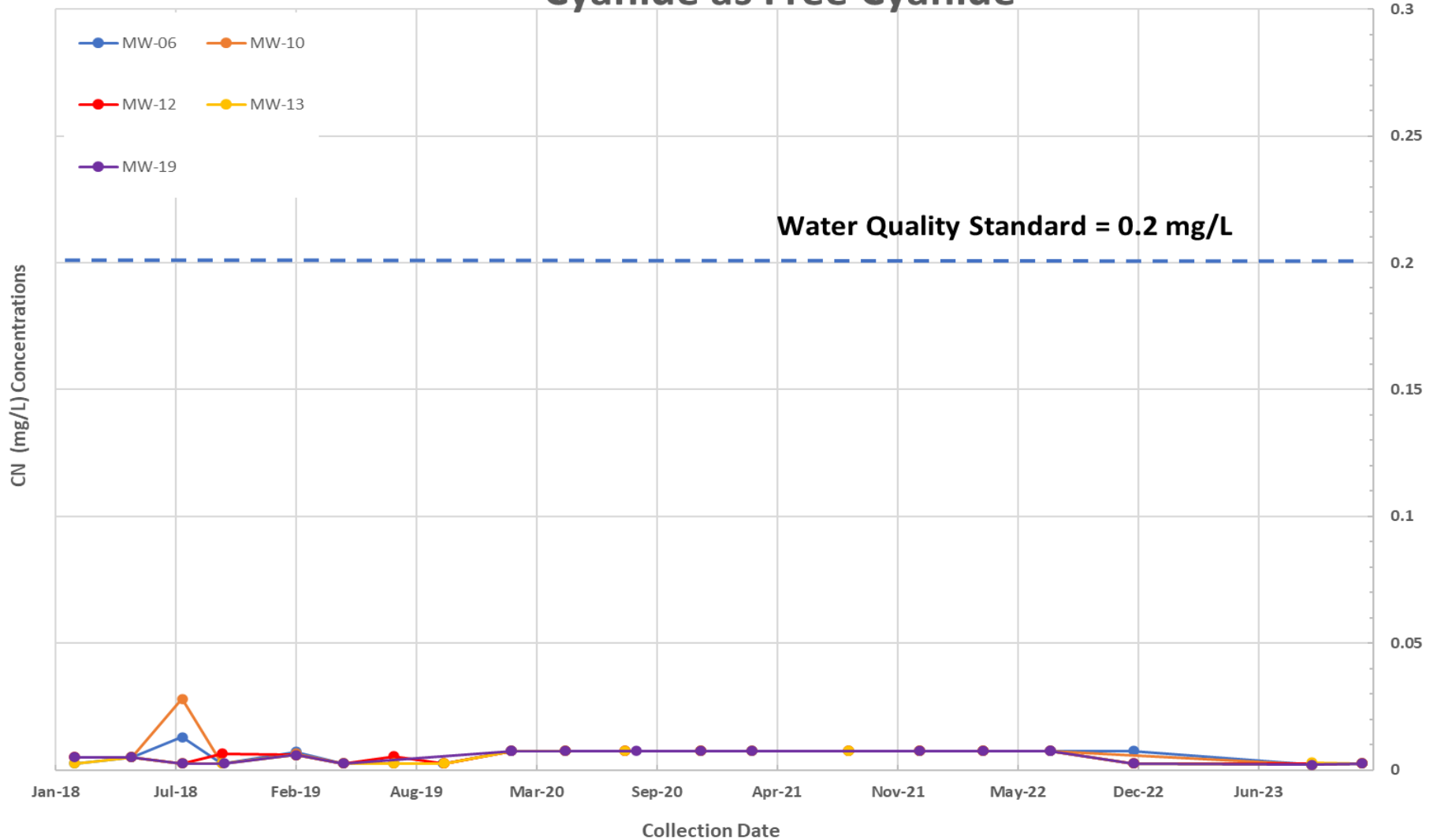
NOTE: Non-detected concentrations graphed as half of method detection limit

Copper (Dissolved)



NOTE: Non-detected concentrations graphed as half of method detection limit

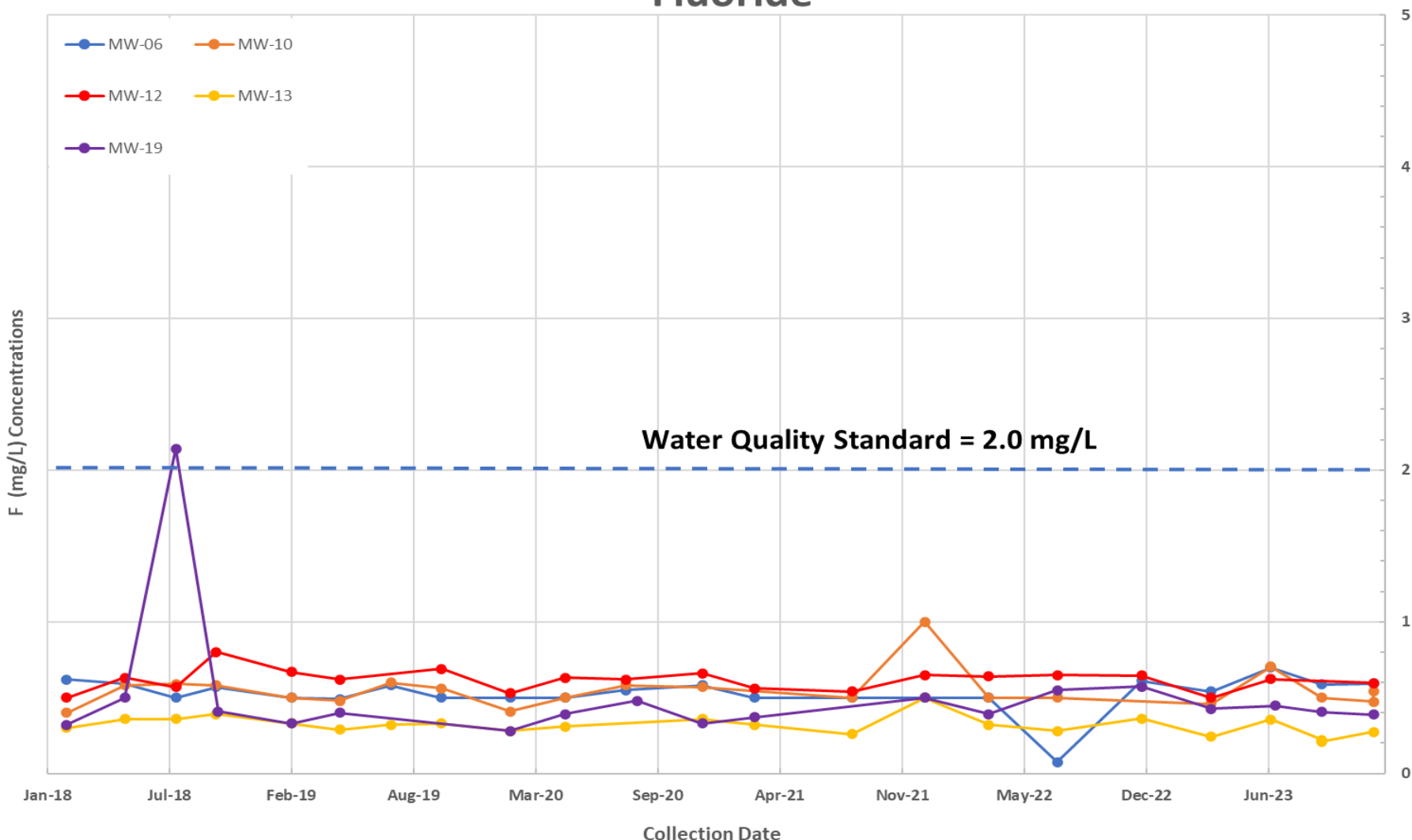
Cyanide as Free Cyanide



NOTE: Non-detected concentrations graphed as half of method detection limit

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Fluoride



NOTE: Non-detected concentrations graphed as half of method detection limit

PROJECT:
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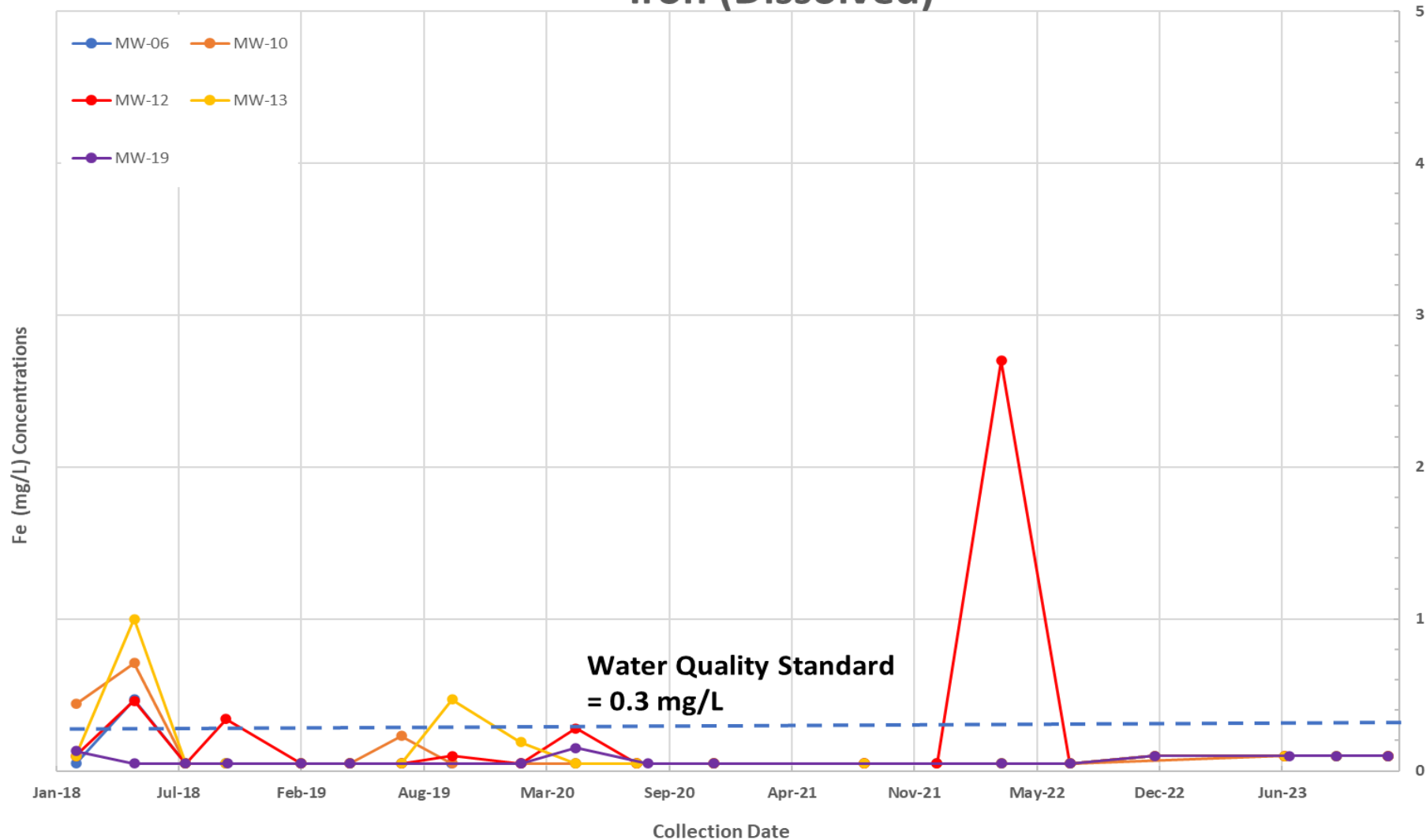
KNOX PIT (M2017-036) – GROUNDWATER WATER QUALITY TIME SERIES GRAPHS

PREPARED FOR:

**LOVELAND
READY-MIX
CONCRETE**

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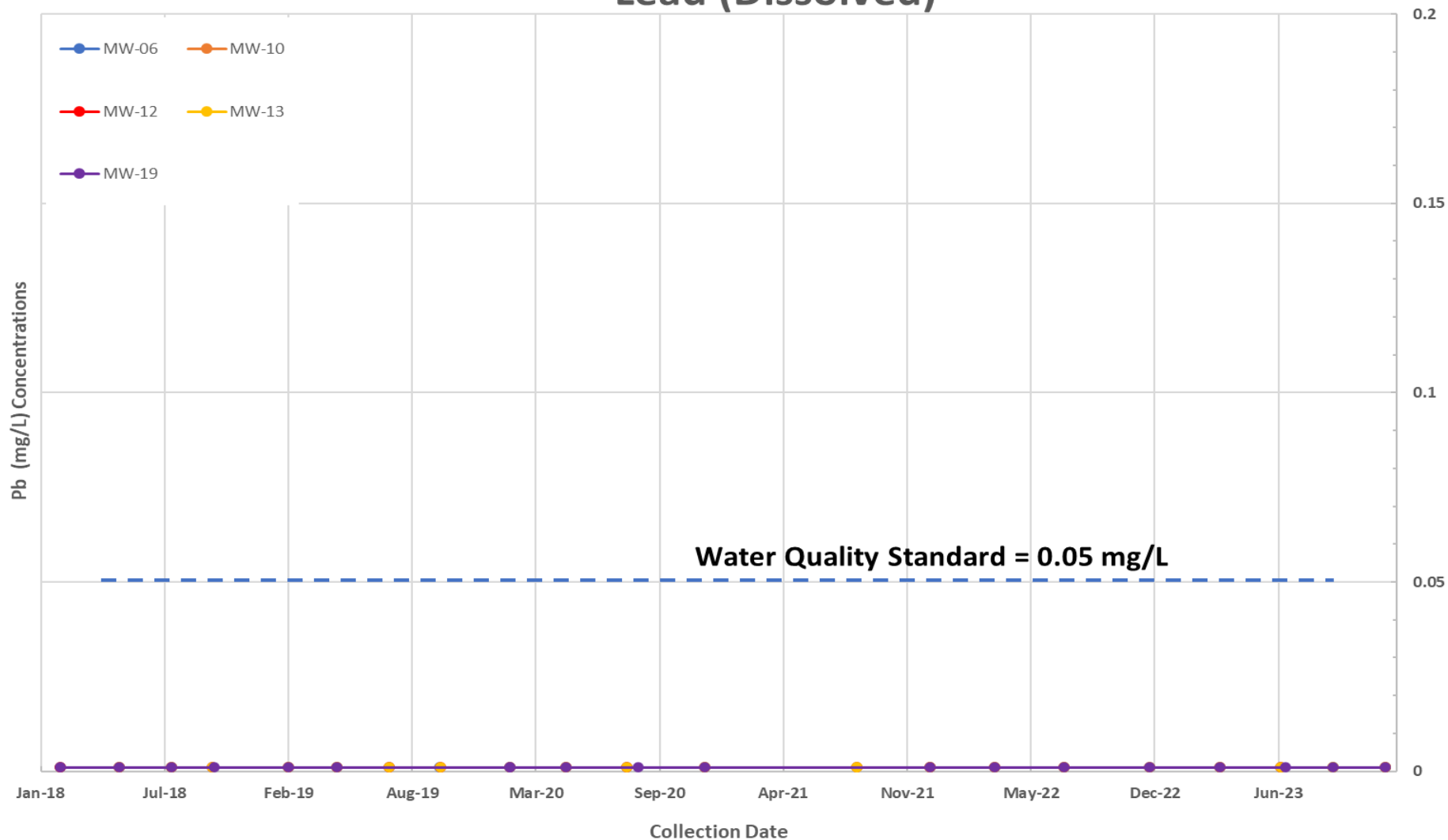
Iron (Dissolved)



NOTE: Non-detected concentrations graphed as half of method detection limit

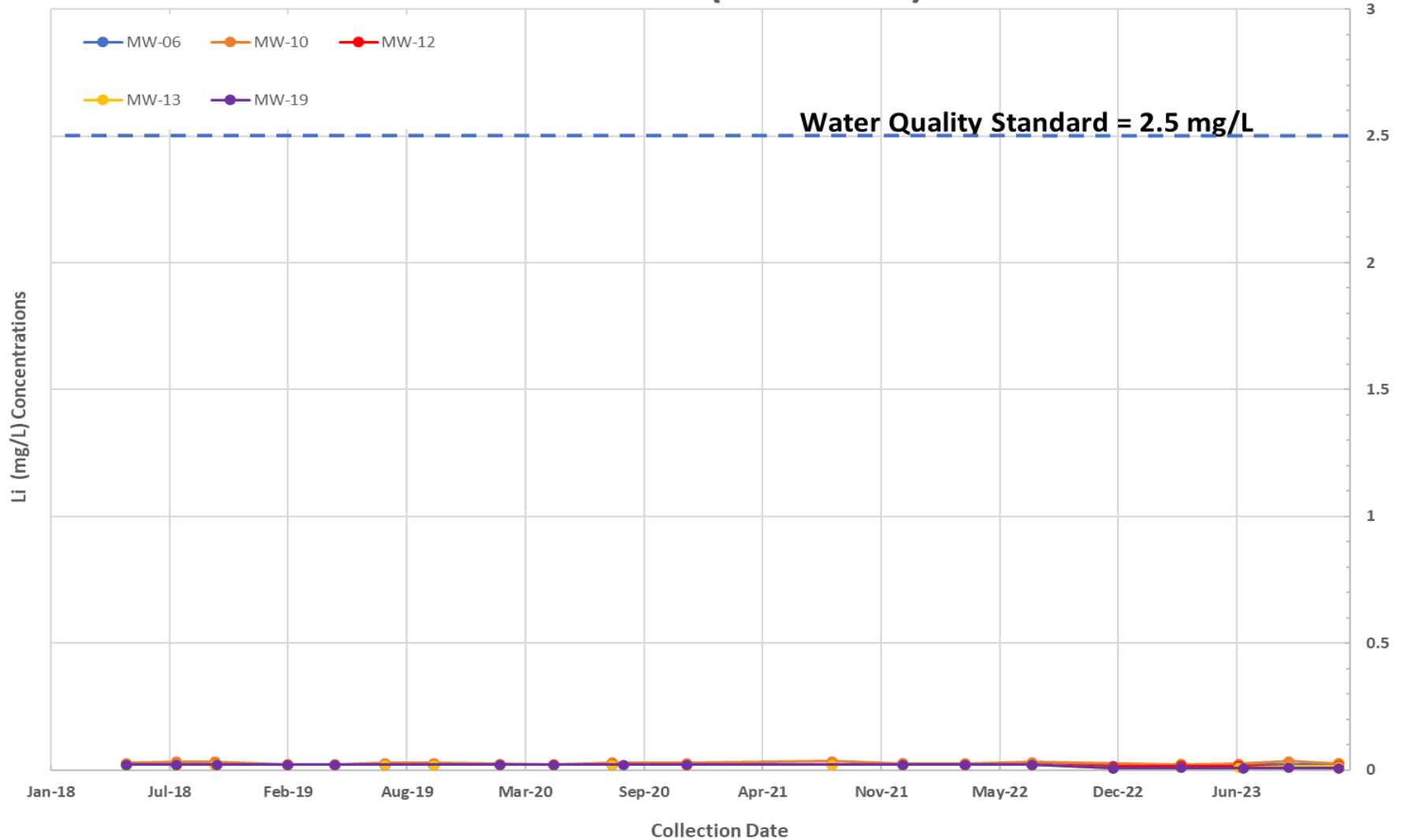
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Lead (Dissolved)



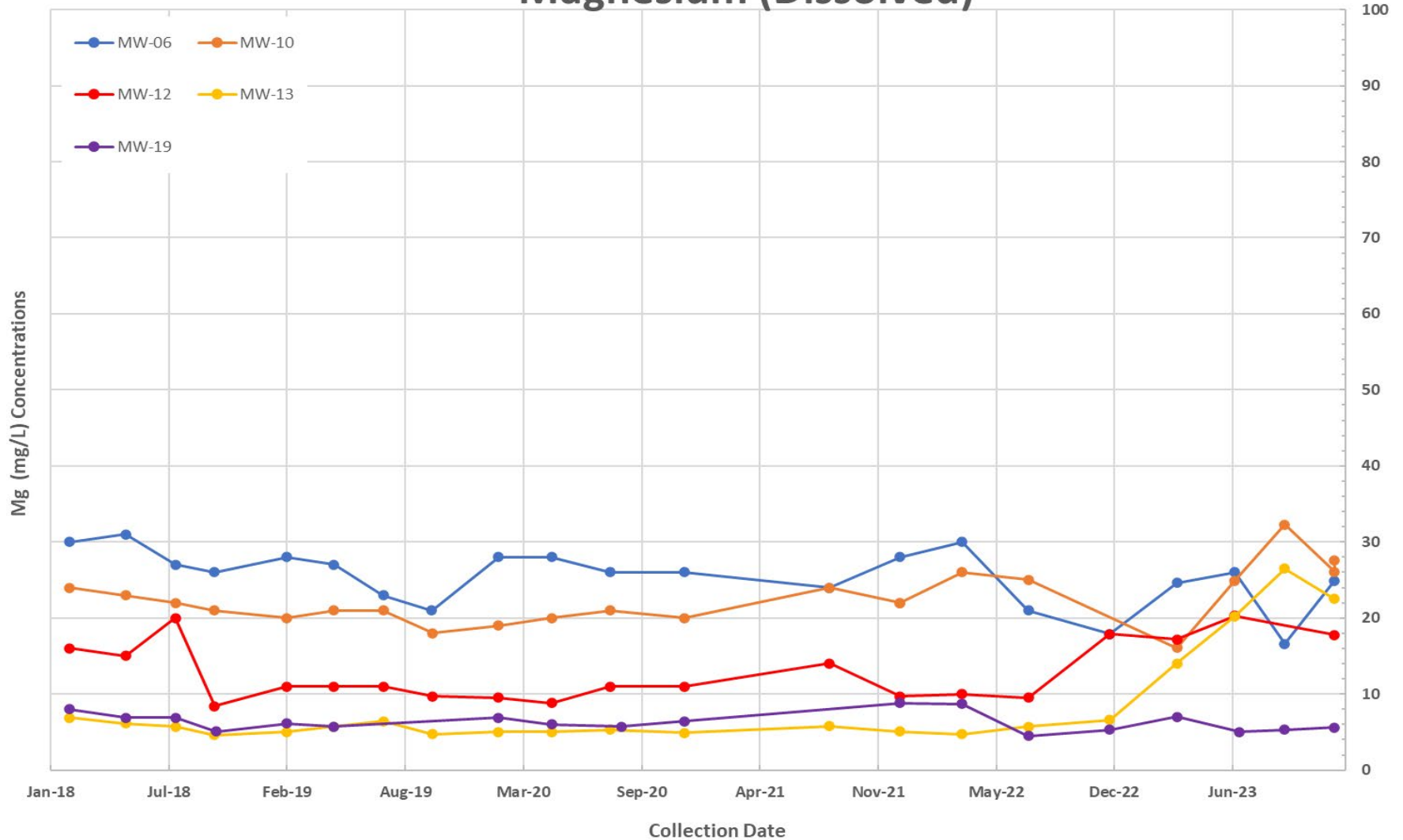
NOTE: Non-detected concentrations graphed as half of method detection limit

Lithium (Dissolved)



NOTE: Non-detected concentrations graphed as half of method detection limit

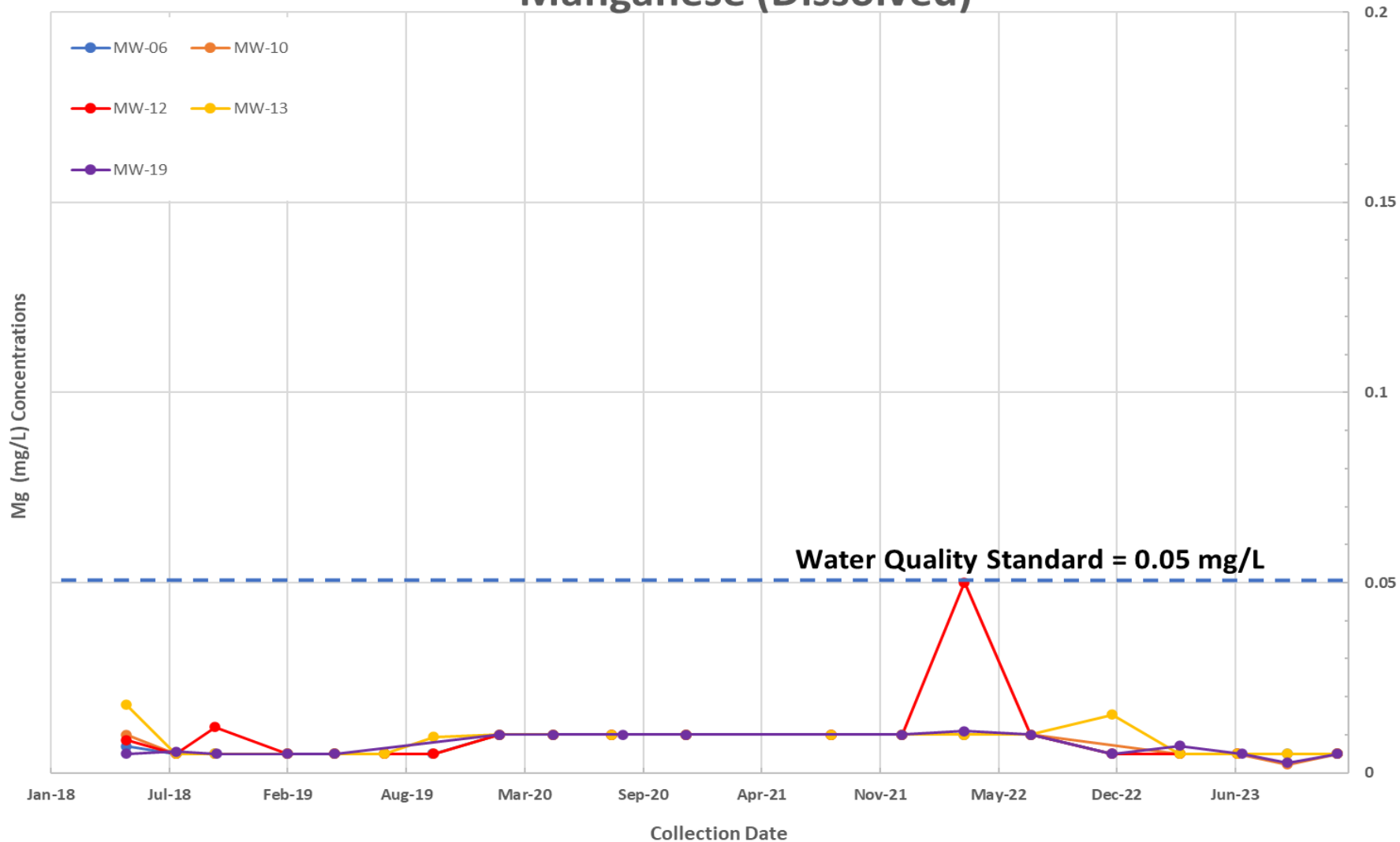
Magnesium (Dissolved)



NOTE: Non-detected concentrations graphed as half of method detection limit

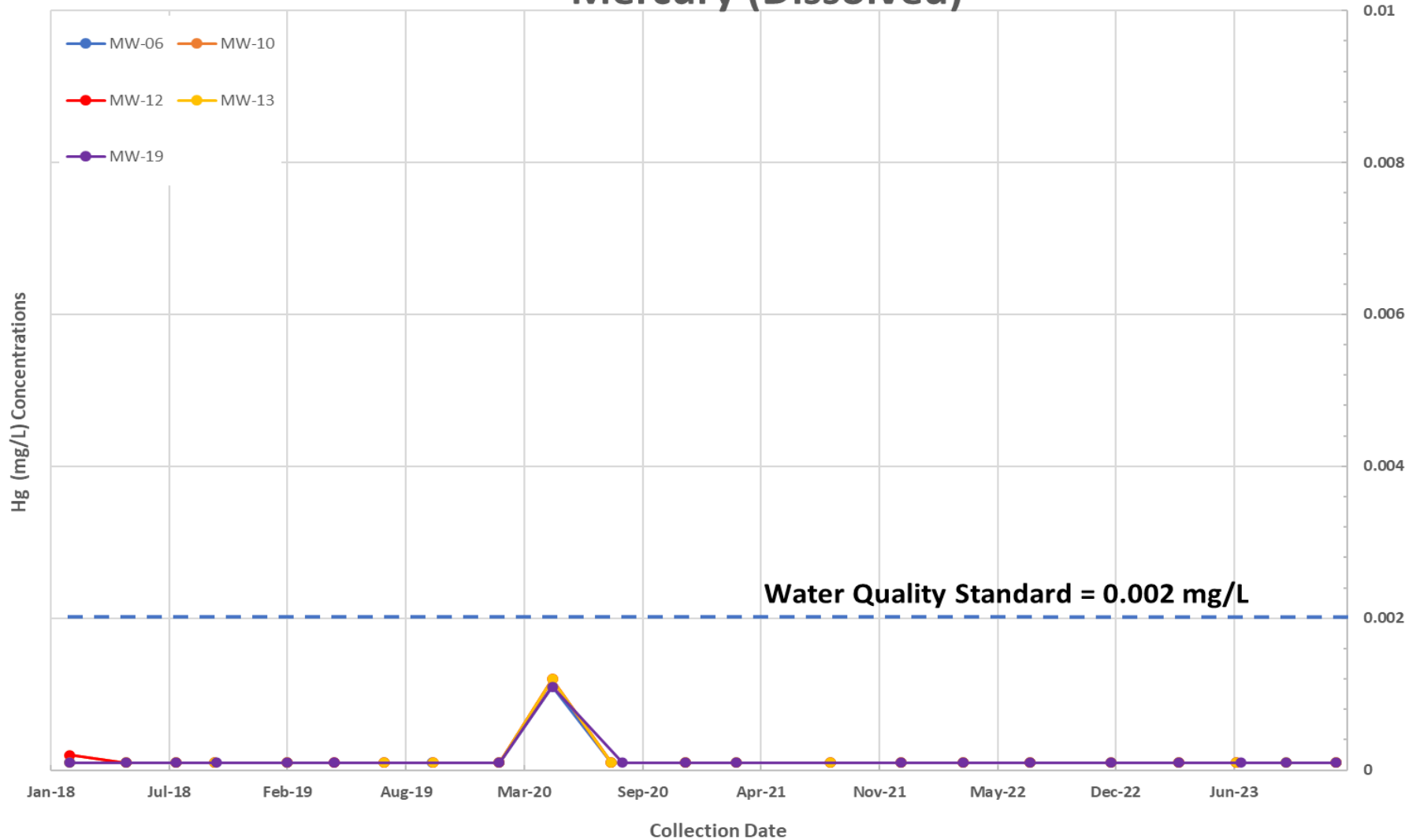
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Manganese (Dissolved)



NOTE: Non-detected concentrations graphed as half of method detection limit

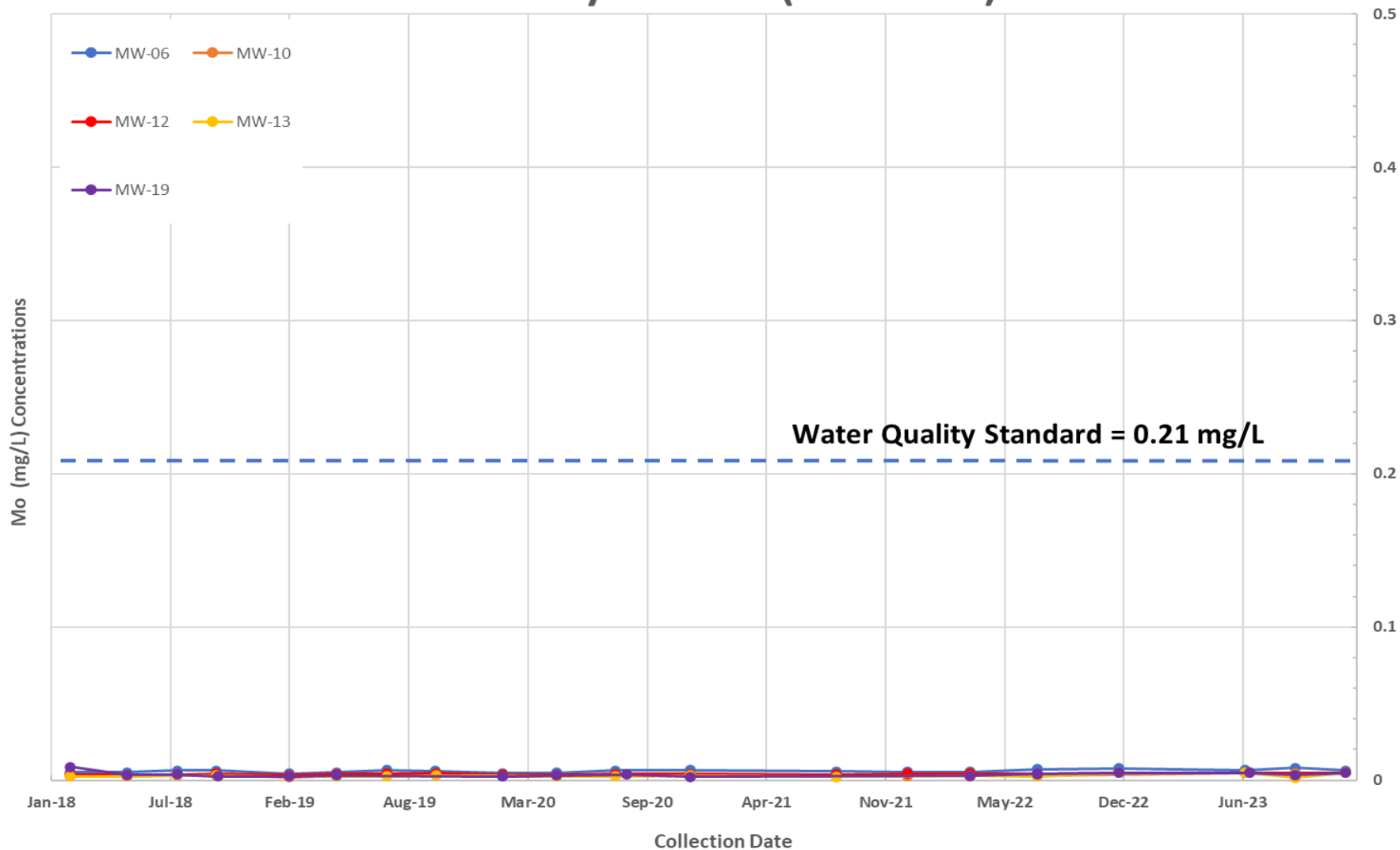
Mercury (Dissolved)



NOTE: Non-detected concentrations graphed as half of method detection limit

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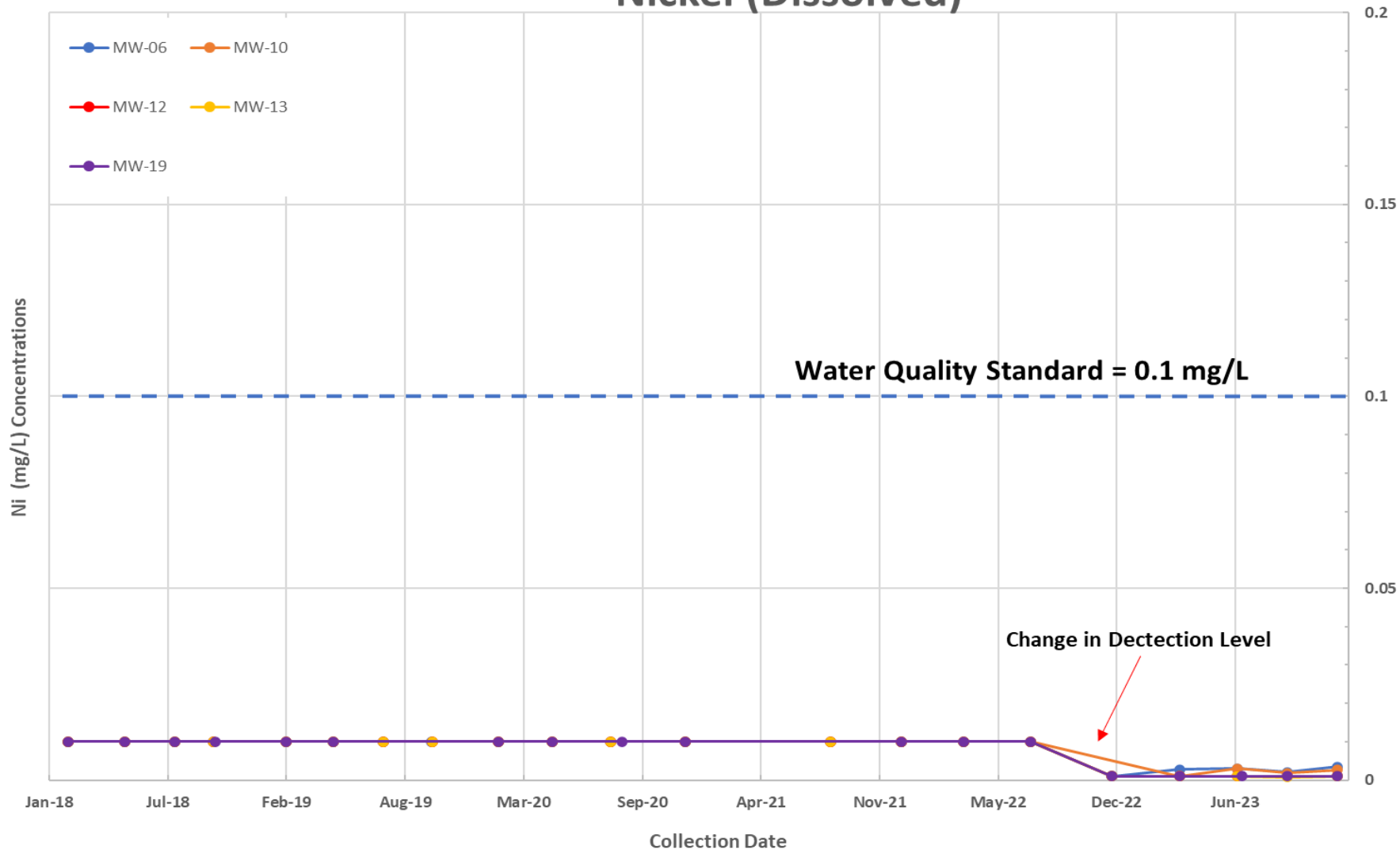
Molybdenum (Dissolved)



NOTE: Non-detected concentrations graphed as half of method detection limit

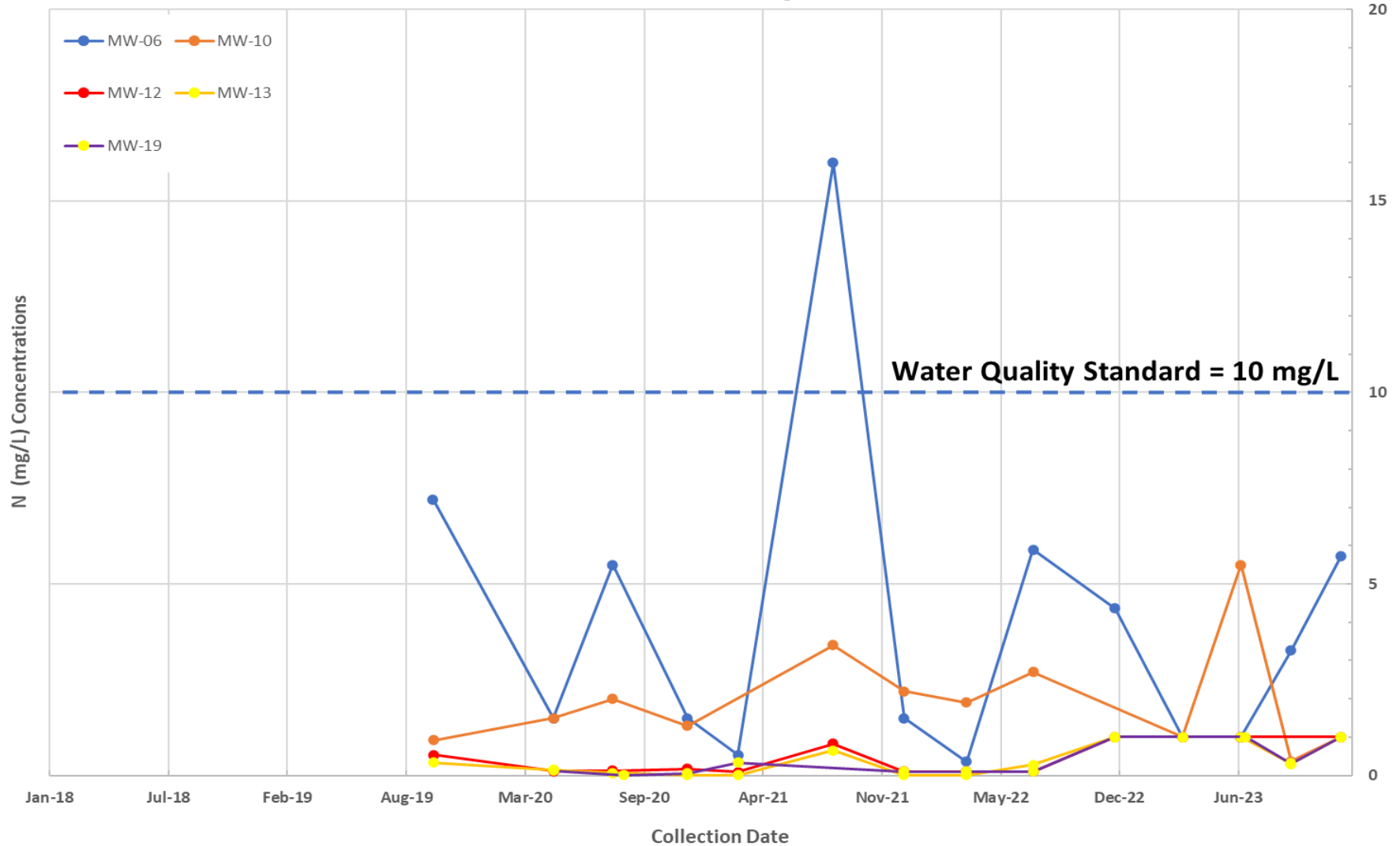
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Nickel (Dissolved)



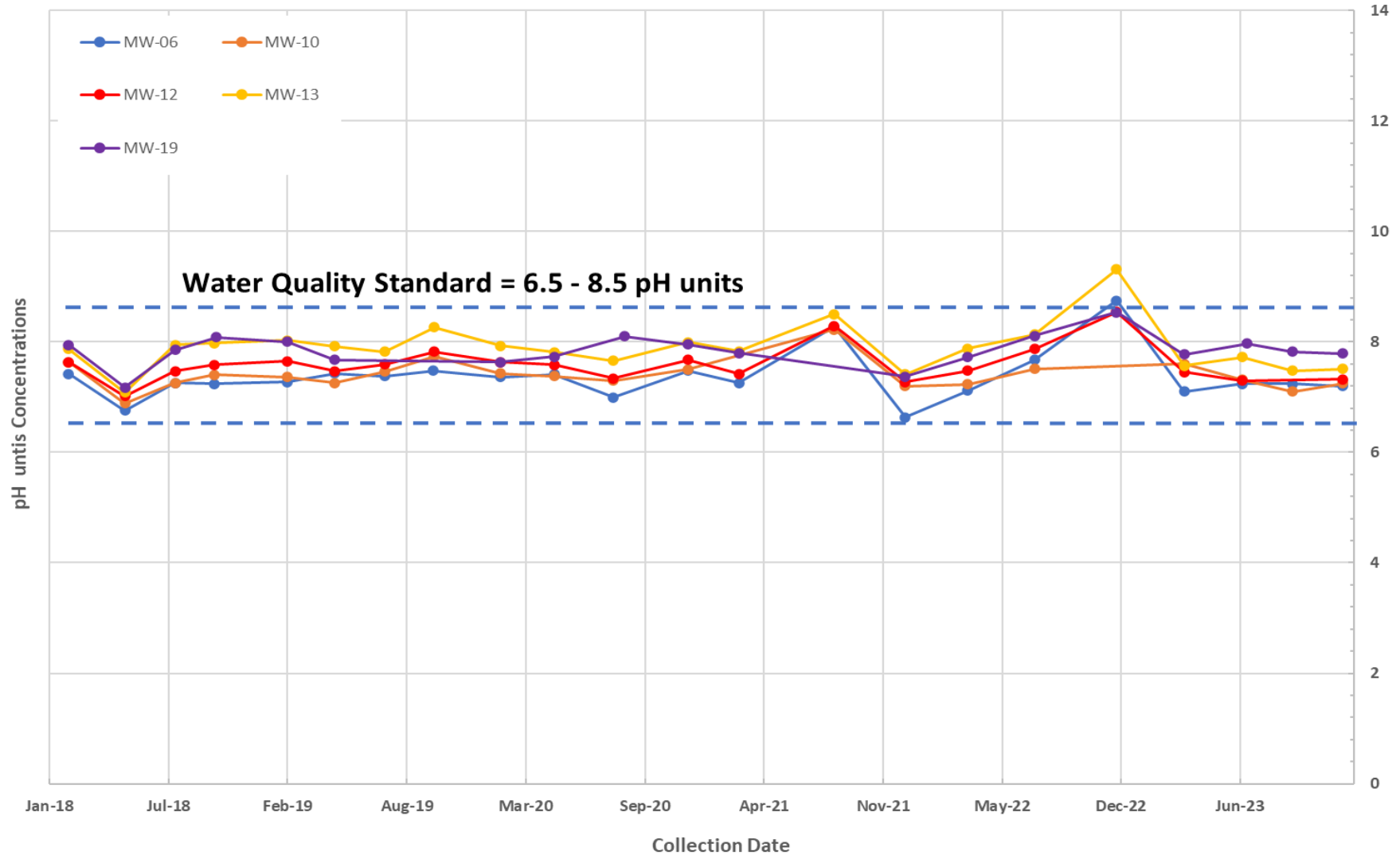
NOTE: Non-detected concentrations graphed as half of method detection limit

Total Nitrate/Nitrite as N



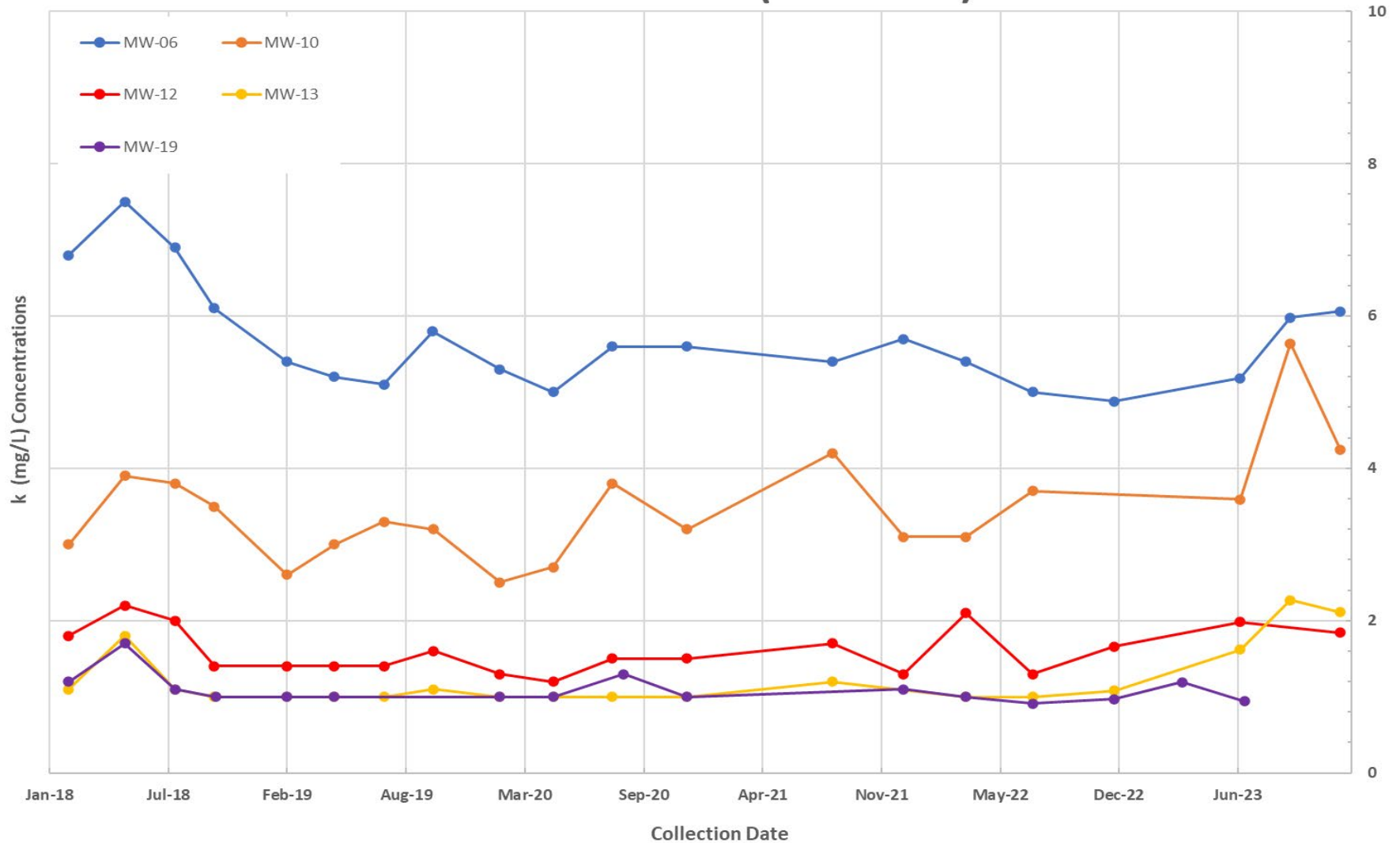
NOTE: Non-detected concentrations graphed as half of method detection limit

pH



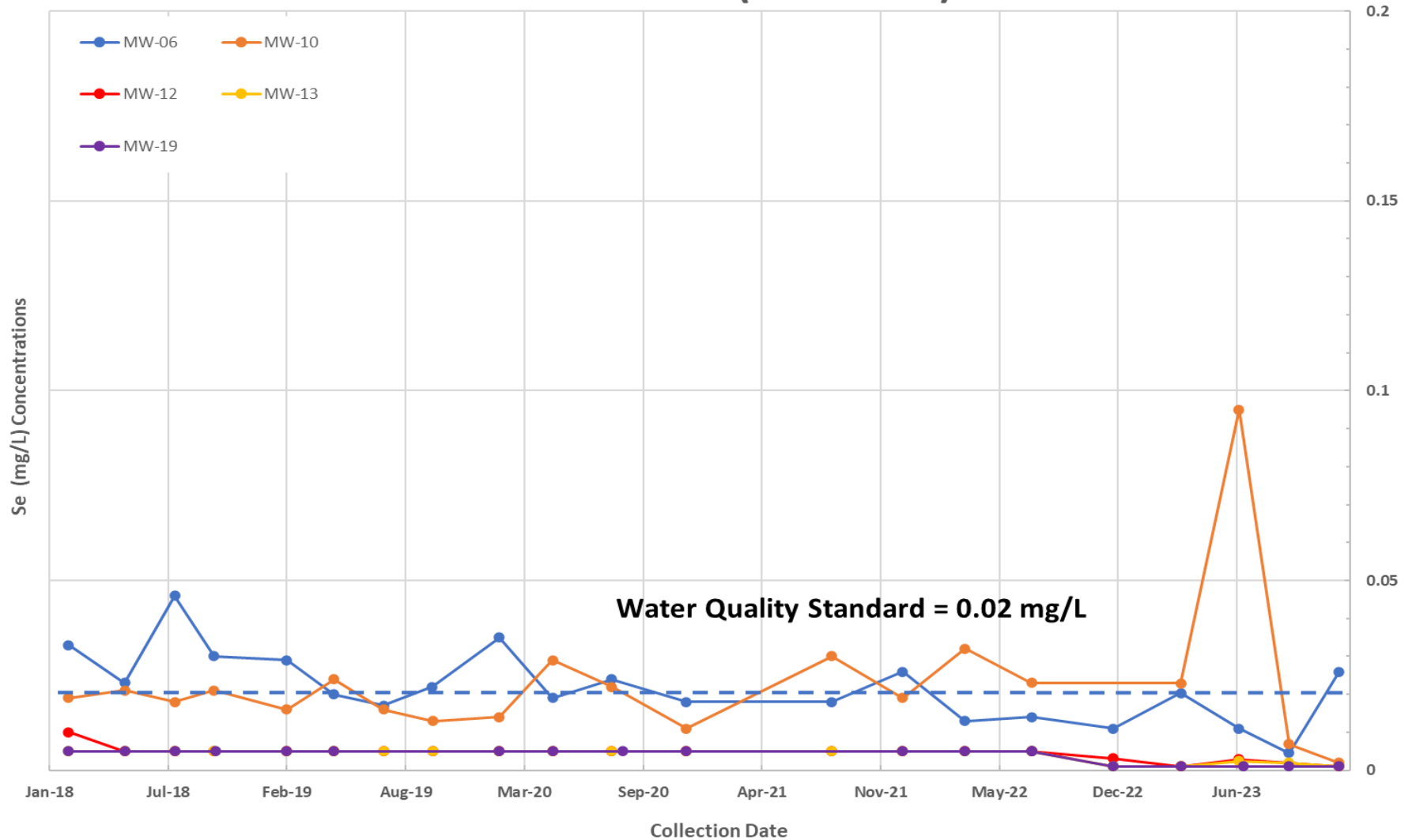
NOTE: Non-detected concentrations graphed as half of method detection limit

Potassium (Dissolved)



NOTE: Non-detected concentrations graphed as half of method detection limit

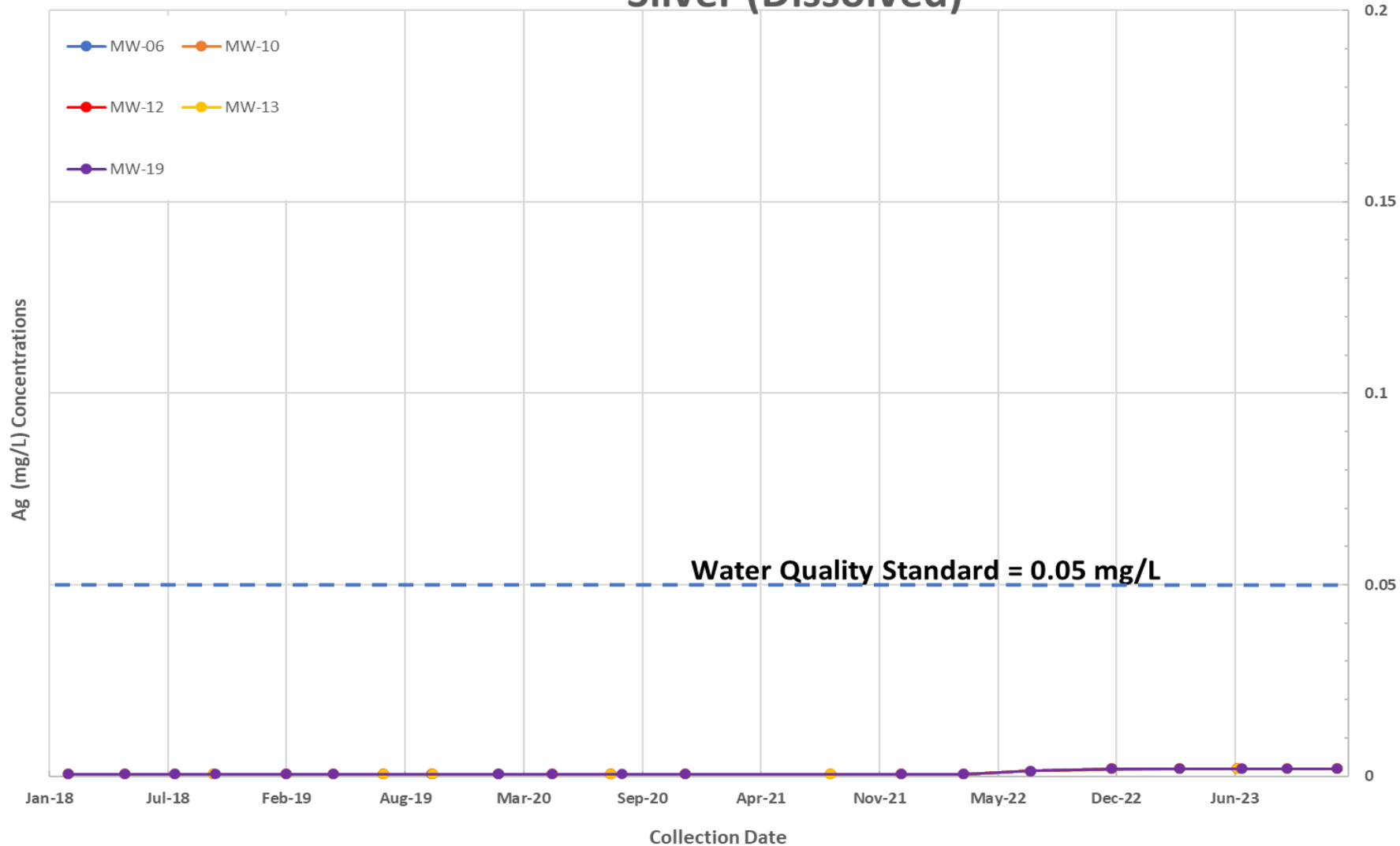
Selenium (Dissolved)



NOTE: Non-detected concentrations graphed as half of method detection limit

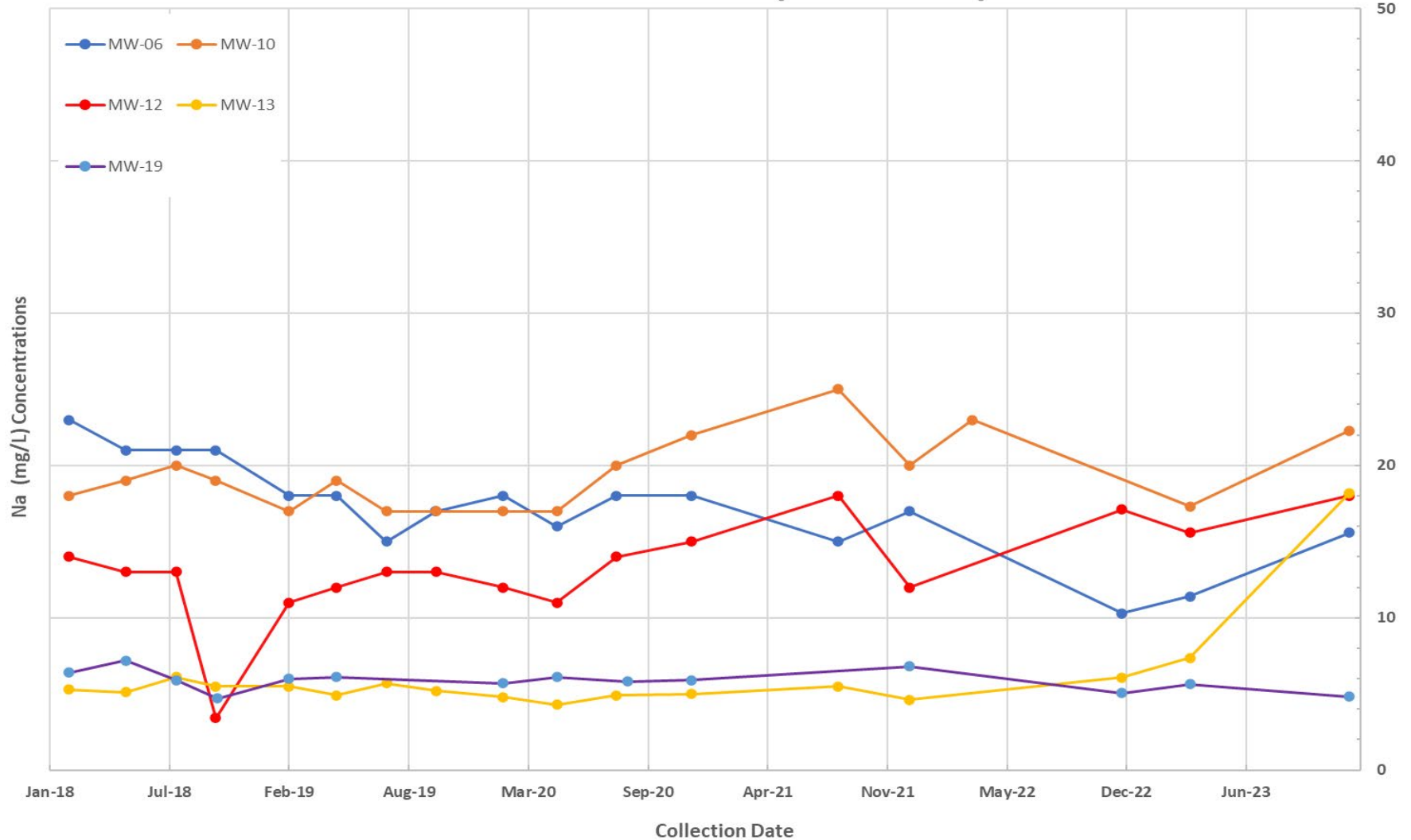
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Silver (Dissolved)



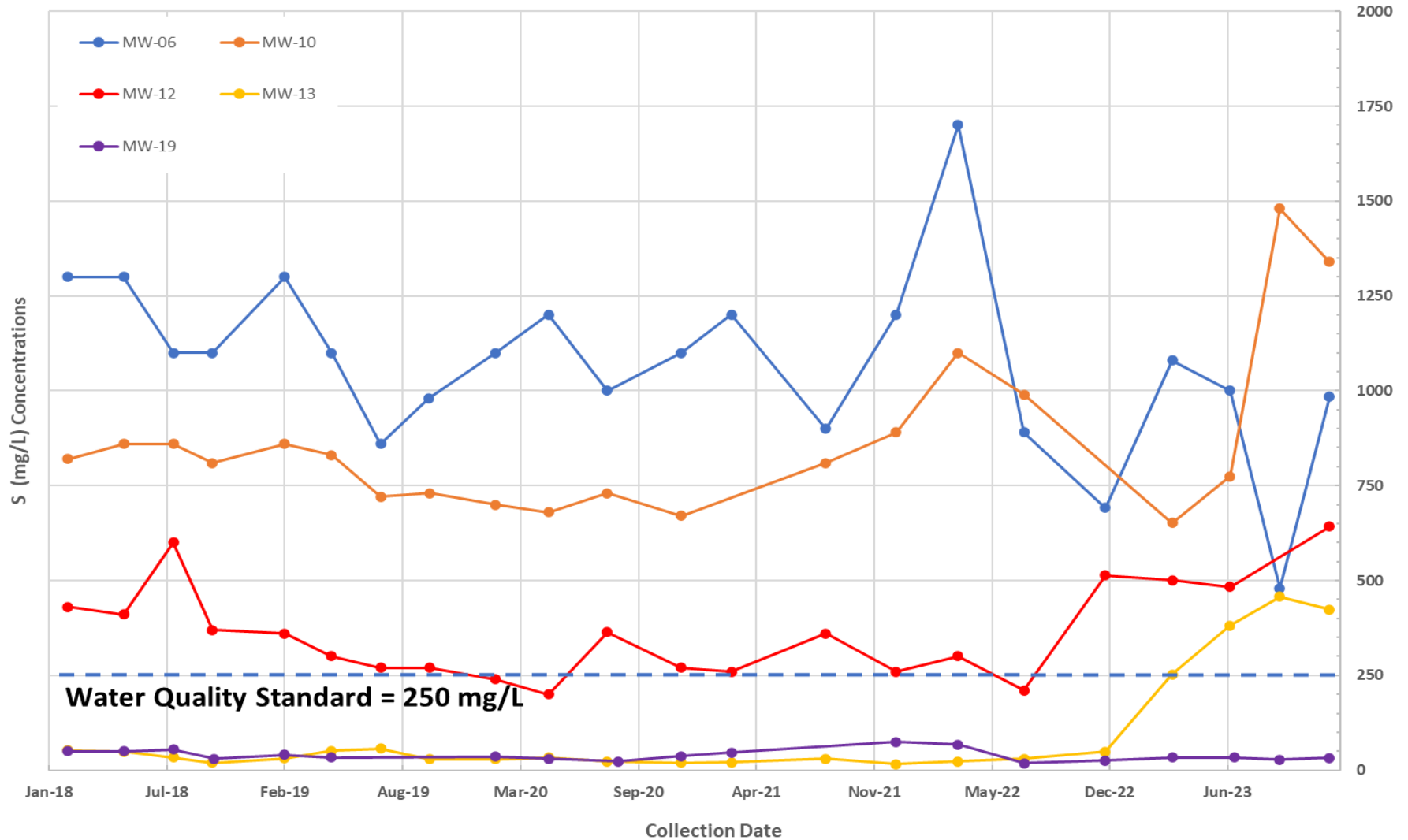
NOTE: Non-detected concentrations graphed as half of method detection limit

Sodium (Dissolved)



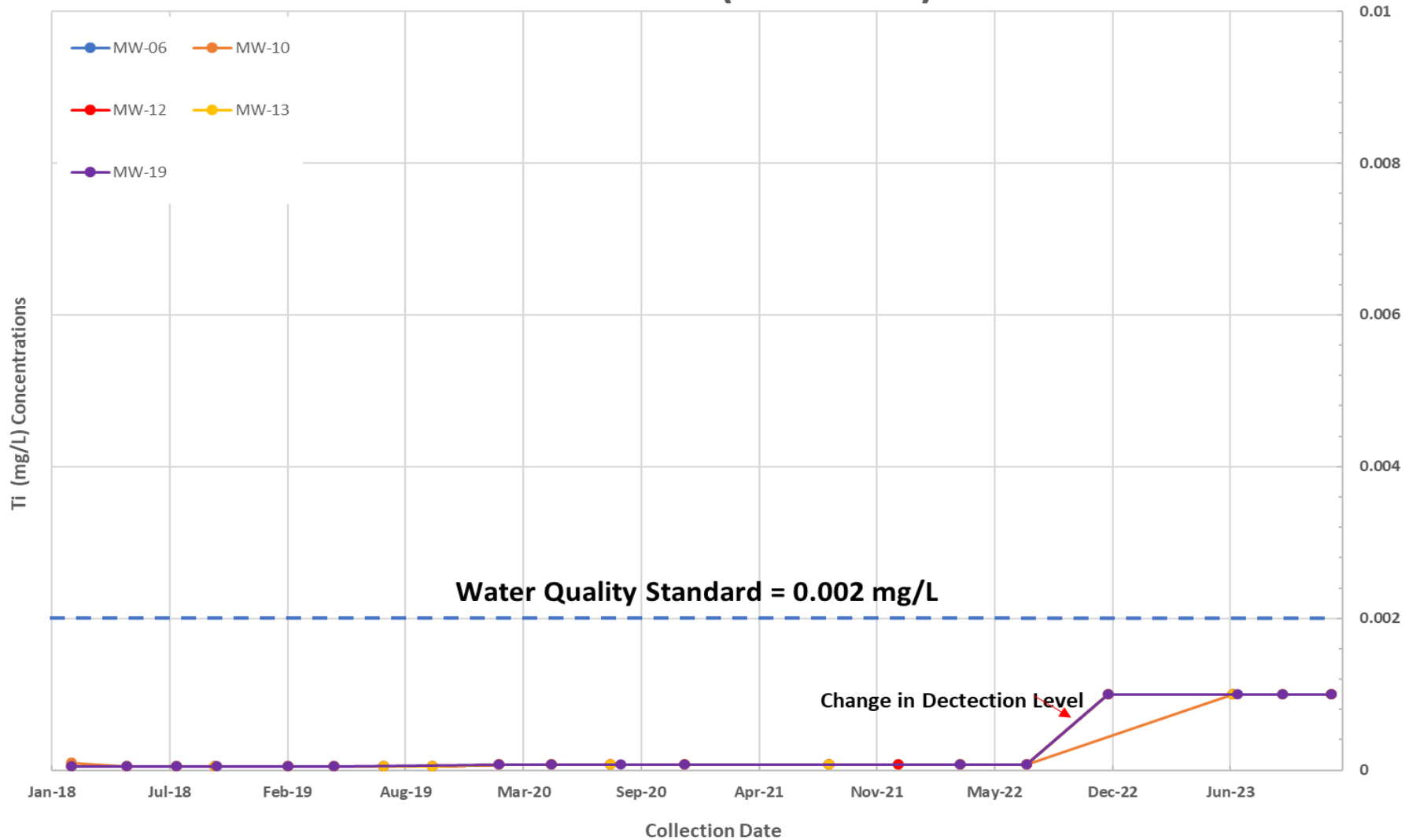
NOTE: Non-detected concentrations graphed as half of method detection limit

Sulfate



NOTE: Non-detected concentrations graphed as half of method detection limit

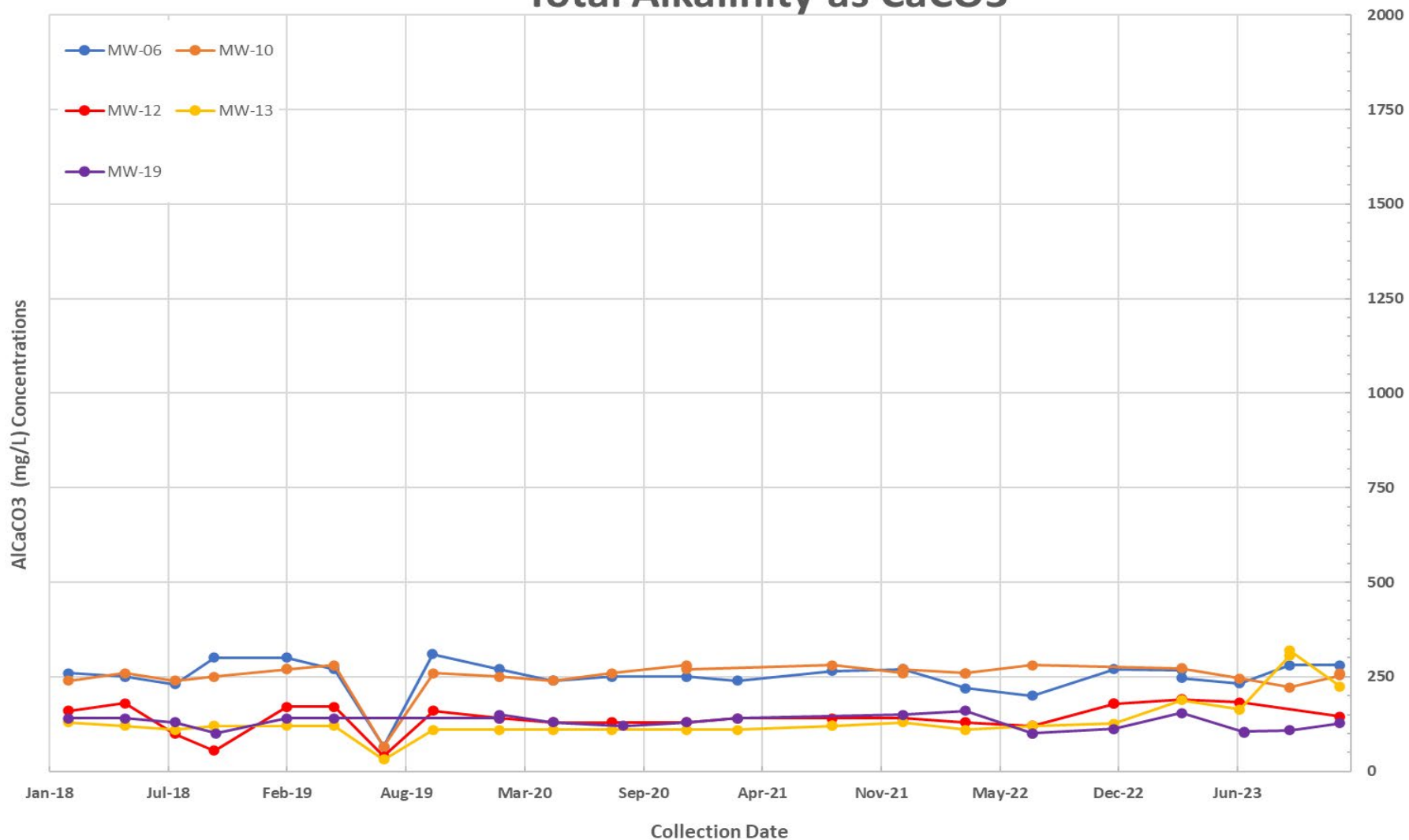
Thallium (Dissolved)



NOTE: Non-detected concentrations graphed as half of method detection limit

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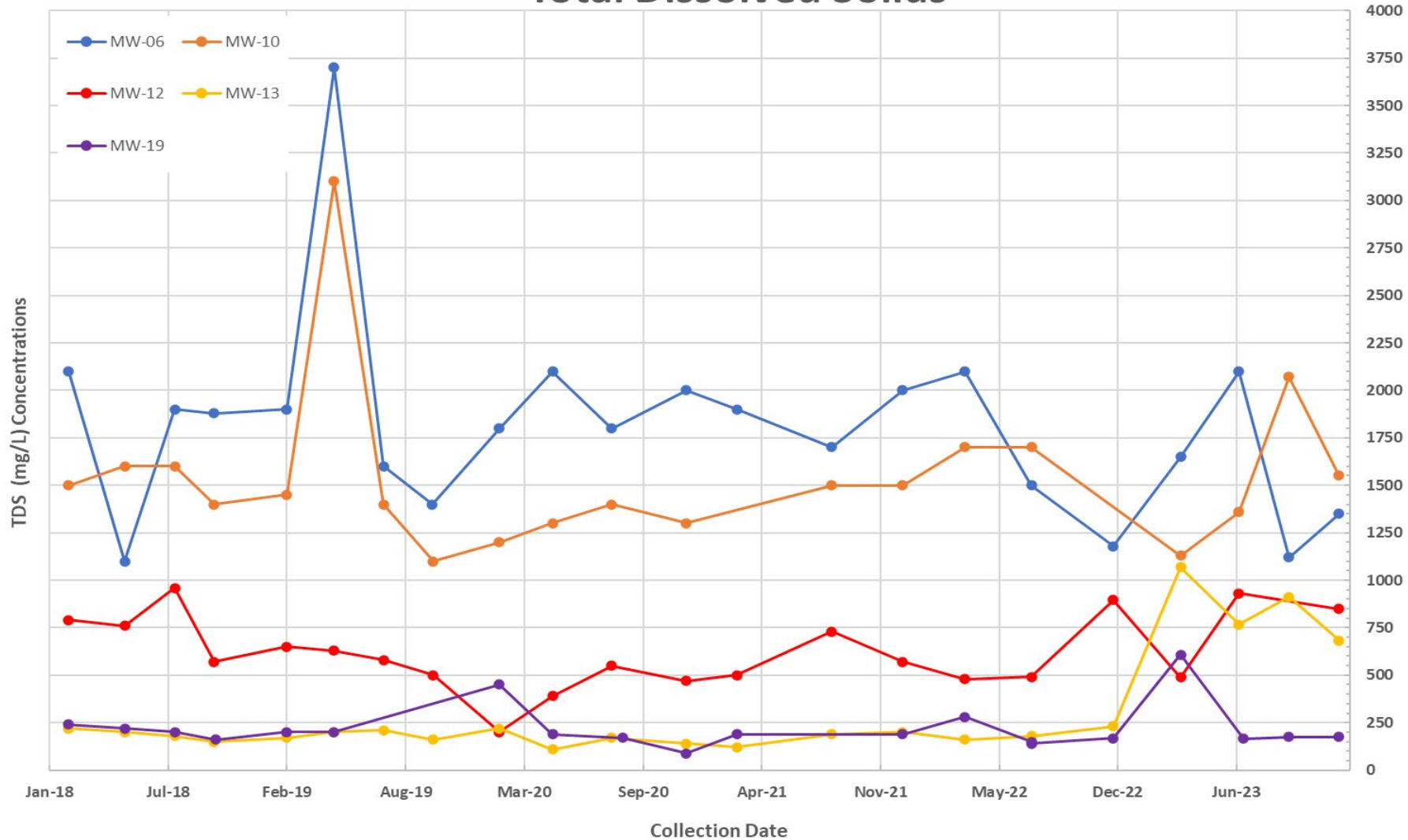
Total Alkalinity as CaCO3



NOTE: Non-detected concentrations graphed as half of method detection limit

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Total Dissolved Solids



NOTE: Non-detected concentrations graphed as half of method detection limit

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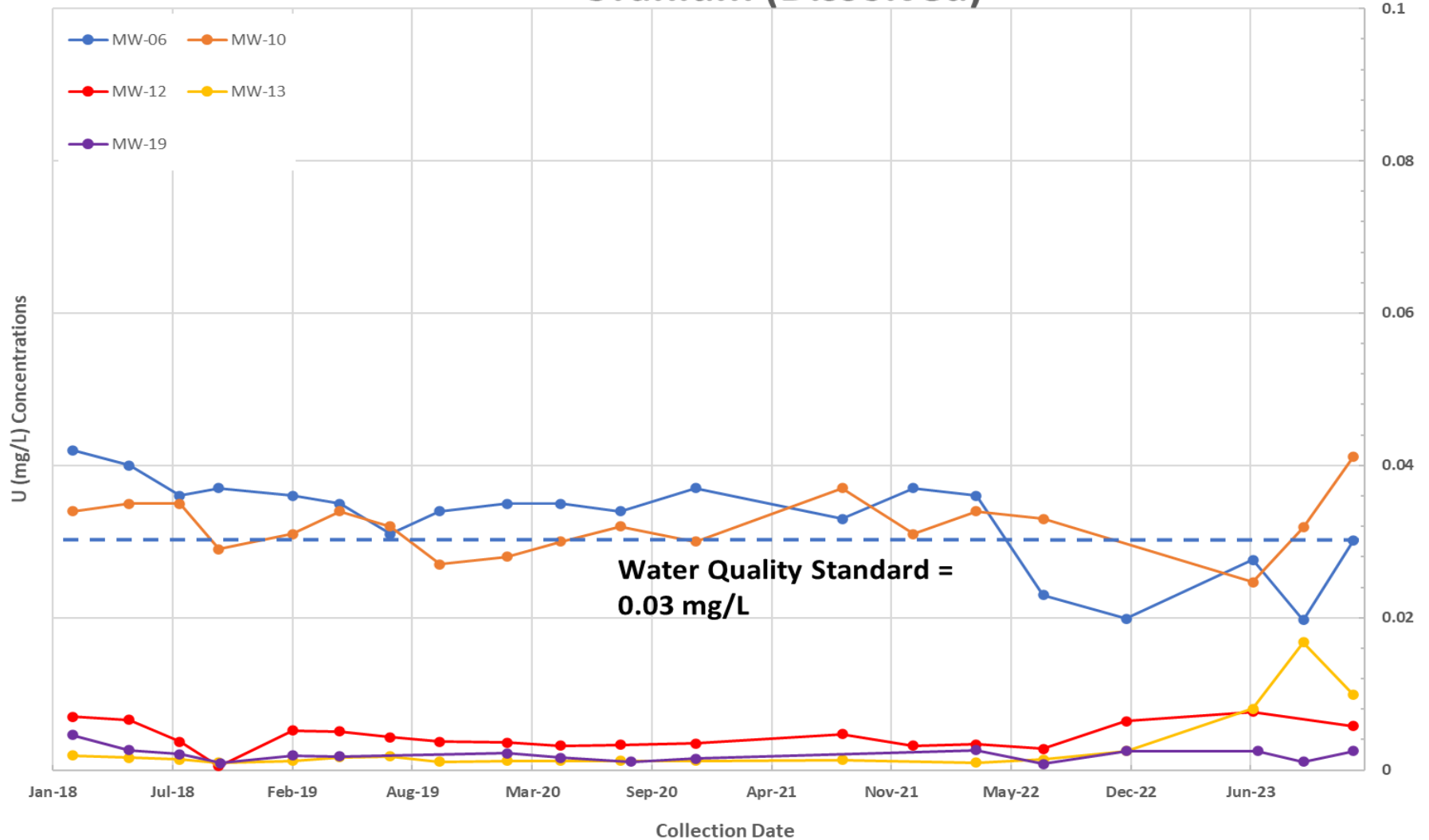
PREPARED BY:
TELESTO
SOLUTIONS INCORPORATED

KNOX PIT (M2017-036) – GROUNDWATER WATER QUALITY TIME SERIES GRAPHS

PREPARED FOR:

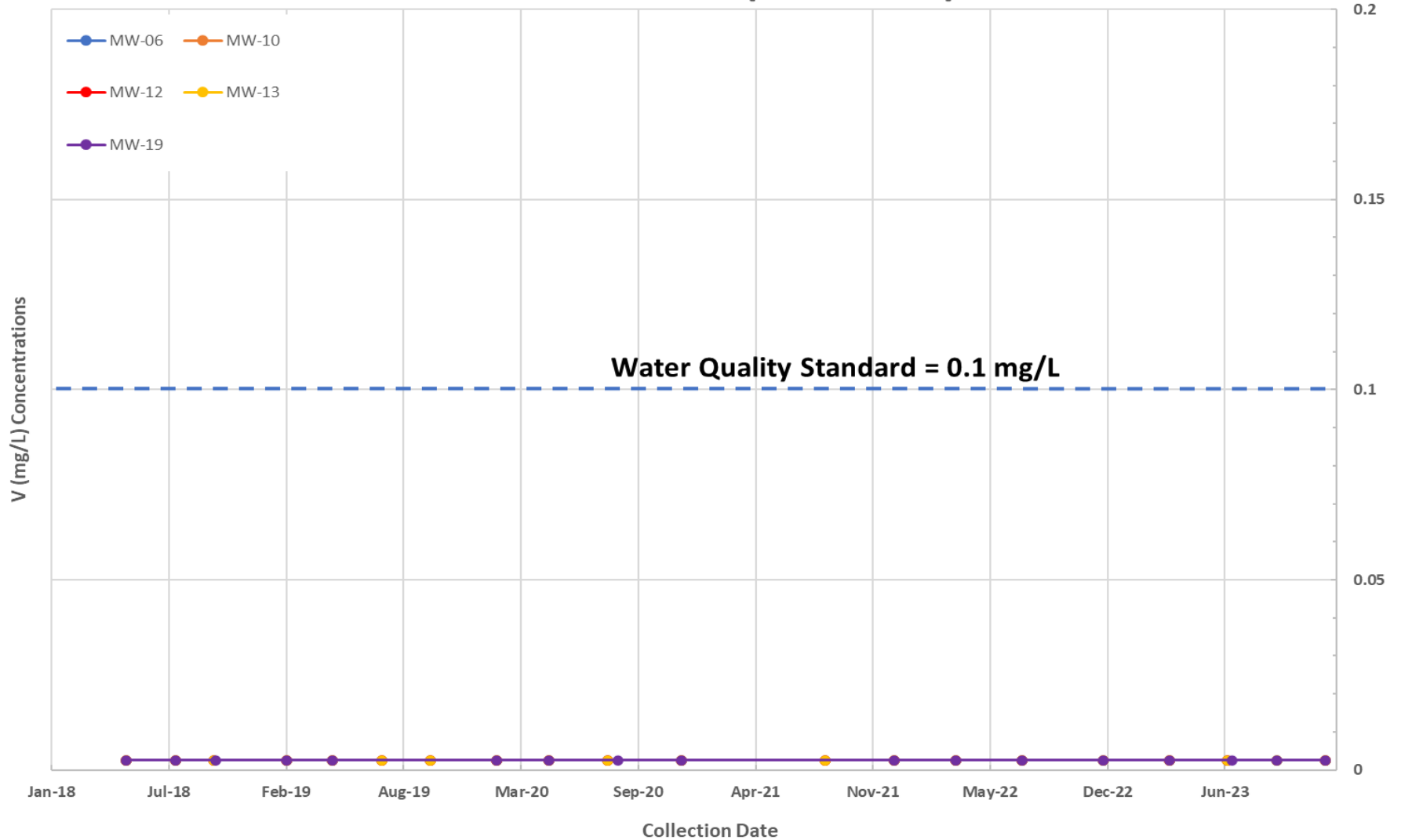
**LOVELAND
READY-MIX
CONCRETE**

Uranium (Dissolved)



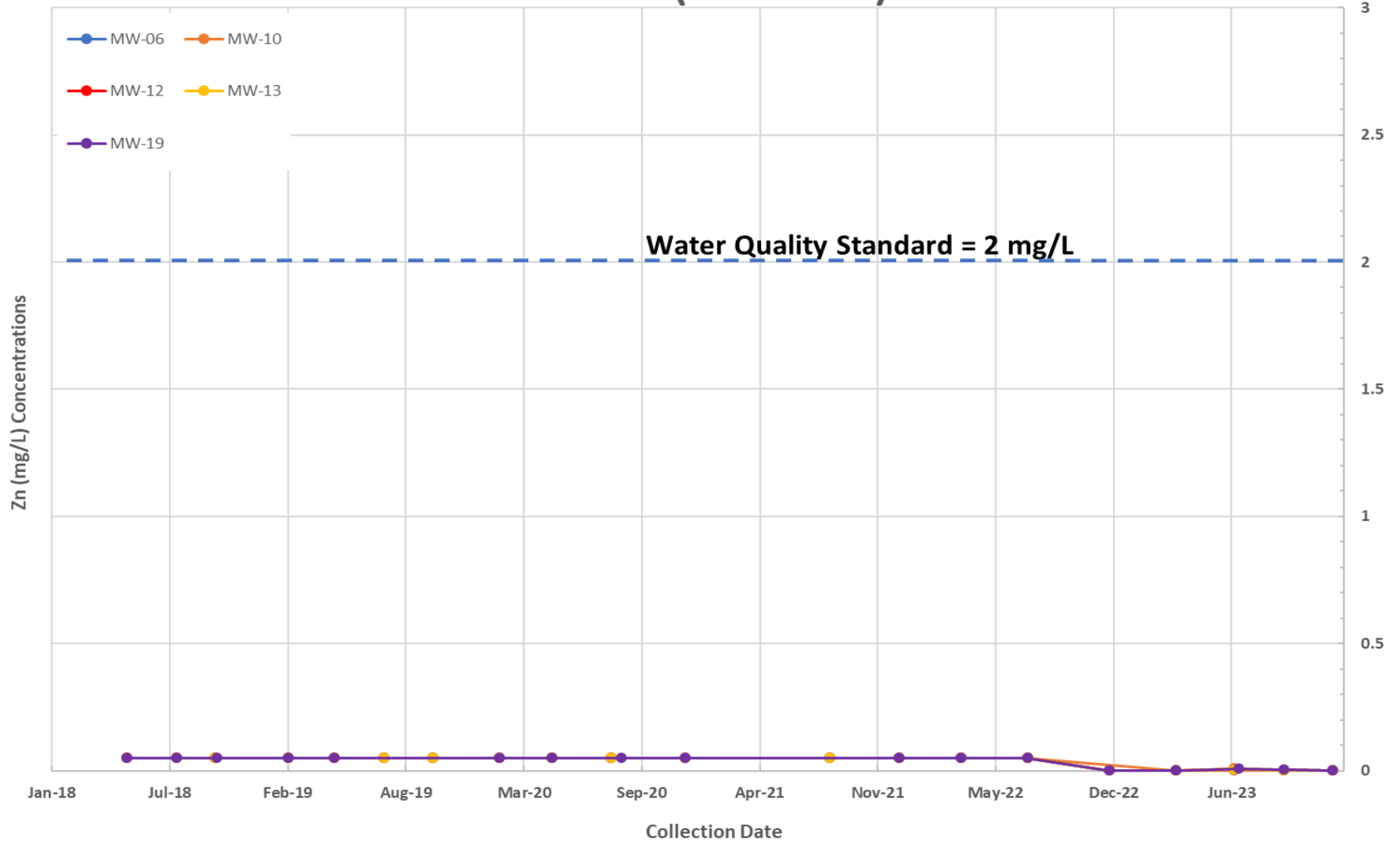
NOTE: Non-detected concentrations graphed as half of method detection limit

Vanadium (Dissolved)



NOTE: Non-detected concentrations graphed as half of method detection limit

Zinc (Dissolved)



NOTE: Non-detected concentrations graphed as half of method detection limit

To: S. Fancher-English
Date: 03/26/2026
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ATTACHMENT 3

Knox Pit (M-2017-036) - Summary of statistical analysis of data for selected properties and constituents obtained from Knox Pit, 2018-2023

Constituent	Units	Observations	Number of observations less than detection limit	Percent less than detection limit	Number of detection limits	Maximum detection limit	Mean	Standard deviation	Median	Interquartile range	25th quartile	75th quartile
Total Alkalinity as CaCO ₃	mg/L	122	0	--	2	20	183.8	71.5	162.0	131.5	121.5	253.0
Aluminum	mg/L	107	4	3.7%	2	0.1	0.81	0.62	0.10	0.36	0.02	0.38
Antimony	mg/L	112	2	1.8%	2	--	0.001	0.0003	0.0008	0.0005	0.001	0.001
Arsenic	mg/L	112	2	1.8%	--	--	0.001	0.001	0.001	0.0015	0.0005	0.0020
Barium	mg/L	112	0	--	3	0.018	0.036	0.026	0.033	0.012	0.026	0.038
Beryllium	mg/L	112	0	--	2	0.002	0.001	0.00	0.001	0.00	0.001	0.001
Bicarbonate as CaCO ₃	mg/L	116	0	--	2	20	183.9	72.1	162.0	138.5	120.0	258.5
Boron	mg/L	106	1	0.9%	2	0.15	0.04	0.016	0.045	0.023	0.035	0.058
Cadmium	mg/L	117	0	--	--	--	0.002	0.00	0.002	0.00	0.002	0.002
Calcium	mg/L	91	0	--	5	50	219.4	172.6	150.0	332.0	49.0	381.0
Carbonate as CaCO ₃	mg/L	122	0	--	2	20	20.0	0.0	20.0	0.0	20.0	20.0
Chloride	mg/L	120	0	--	5	2	12.6	8.1	12.1	14.7	4.4	19.0
Chromium	mg/L	109	2	1.8%	2	0.01	0.009	0.009	0.010	0.008	0.002	0.010
Cobalt	mg/L	112	4	3.6%	--	--	0.0006	0.0002	0.0005	0.0002	0.0004	0.0006
Conductivity (Field)	µS/cm	108	0	--	--	--	797	500	601	826	378	1204
Copper	mg/L	112	2	1.8%	2	0.02	0.003	0.001	0.003	0.001	0.003	0.004
Cyanide [Free]	mg/L	110	5	4.5%	3	0.010	0.006	0.006	0.006	0.003	0.004	0.006
Fluoride	mg/L	121	0	--	7	1.3	0.53	0.33	0.50	0.23	0.36	0.59
Iron	mg/L	109	0	--	3	0.23	0.49	0.64	0.31	0.33	0.15	0.47
Lead	mg/L	117	0	--	--	--	0.002	0.00	0.002	0.00	0.002	0.002
Lithium	mg/L	112	0	--	3	0.03	0.021	0.008	0.023	0.011	0.015	0.026
Magnesium	mg/L	117	0	--	2	0.1	15.6	8.7	16.6	16.8	6.4	23.2
Manganese	mg/L	112	2	1.8%	2	0.01	0.012	0.012	0.009	0.005	0.007	0.012
Mercury (inorganic)	mg/L	98	0	--	--	--	0.0009	0.0004	0.0011	0.0003	0.0009	0.0012
Molybdenum	mg/L	109	4	3.7%	3	0.005	0.004	0.002	0.003	0.002	0.003	0.004
Nickel	mg/L	117	2	1.7%	--	--	0.005	0.007	0.003	0.001	0.002	0.003
Nitrate as N	mg/L	77	0	--	4	1.0	2.86	3.17	1.60	2.89	0.71	3.60
Nitrite as N	mg/L	77	0	--	5	0.75	1.13	1.00	0.94	1.00	0.42	1.41
Total Nitrate + Nitrite as N	mg/L	78	4	5.1%	7	2.0	1.93	2.84	0.92	1.90	0.30	2.20
pH	pH Units	127	0	--	--	--	7.60	0.43	7.51	0.55	7.31	7.86
Potassium	mg/L	109	0	--	2	1.0	2.98	1.83	2.50	3.10	1.40	4.50
Selenium	mg/L	117	0	--	3	0.016	0.021	0.014	0.020	0.010	0.014	0.024
Silver	mg/L	117	0	--	3	0.002	0.001	0.00	0.001	0.00	0.001	0.001
Sodium	mg/L	112	0	--	2	1	12.9	6.4	13.5	12.1	5.9	18.0
Sulfate	mg/L	122	0	--	12	50	508	454	417	828	47	875
Thallium	mg/L	109	0	--	3	0.002	0.0001	0.0000	0.0001	0.0000	0.0001	0.0001
Total Dissolved Solids	mg/L	122	0	--	3	40	921	735	764	1300	200	1500
Uranium	mg/L	112	1	0.9%	2	0.005	0.017	0.015	0.007	0.031	0.002	0.033
Vanadium	mg/L	112	0	--	--	--	--	--	--	--	--	--
Zinc	mg/L	112	3	2.7%	2	0.1	0.005	0.002	0.005	0.004	0.003	0.007

All data for dissolved constituents unless otherwise indicated; mg/L, milligrams per liter; µS/cm, microsiemens per centimeter