Appendix A Sampling Plan

Appendix A
Table A.1
Sampling Plan for Fall 2024

Location Group	Location	Sampling Approach	Water Levels	Field parameters[1]	Appendix II RCRA Subtitle D Parameters													
					Appendix I				Additional Appendix II									
					VOCs			Total metals	SVOCs		O/C Pest[2]	O/P Pest	Chlor Herb	PCBs[2]	Dioxin/ Furan	Mercury	Cyanide	Total Sulfide
				water quality meter	8260D	8260D unpreserved	8011	6020B/ 6010C	8270E	8270E SIM	8081B	8141B	8321B	8082A	8290	7470A	SM4500-CN-E	SM 4500S-2
Cell 1	MP-1	Passive	X	X	X													
Cell 1	MP-2	Portable Pump	X	X	X													
Cell 1	MP-3	Passive	X	X	X													
Cell 1	MP-4	Passive	X	X	X													
Cell 1	MP-9	NA	X															
Cell 1	MW-1	NA	X															
Cell 1	MW-101S	Passive	X	X	X													
Cell 1	MW-102S	Dedicated Pump	X	X	X													
Cell 1	MW-104D	NA	X															
Cell 1	MW-104S	NA	X															
Cell 1	MW-105D	Dedicated	X	X		X												
Cell 1	MW-105S	Dedicated	X	X		X												
Cell 1	MW-109D	Passive	X	X	X													
Cell 1	MW-109S	Passive	X	X	X													
Cell 1	MW-110D	Passive	X	X	X													
Cell 1	MW-110S	Passive	X	X	X													
Cell 1	MW-111D	Dedicated	X	X		X												
Cell 1	MW-111S	Passive	X	X	X	X												
Cell 1	MW-112D	Dedicated Pump	X	X	X													
Cell 1	MW-112M	Passive	X	X	X													
Cell 1	MW-112S	Bail (If Not DRY)	X															
Cell 1	MW-113D	Passive	X	X	X													
Cell 1	MW-113S	Dedicated	X	X	X													
Cell 1	MW-117R	Passive	X	X	X													
Cell 1	MW-118D	Dedicated	X	X	X													
Cell 1	MW-119D	Dedicated	X	X	X													
Cell 1	MW-119S	Dedicated	X	X	X													
Cell 1	MW-120D	Dedicated	X	X	X													
Cell 1	MW-120S	Dedicated	X	X	X													
Cell 1	MW-121	Portable Pump	X	X	X			X										
Cell 1	MW-122	Bail (If Not DRY)	X	X	X													
Cell 1	MW-123	Passive	X	X	X													
Cell 1	MW-124	Portable Pump	X	X	X													
Cell 1	MW-125	Portable Pump	X	X	X													
Cell 1	RW-1	Passive	X	X	X													
Cell 1	RW-16	Passive	X															
Cell 1	RW-2	Portable Pump	X	X	X													
Cell 1	RW-3	Passive	X	X	X													
Cell 2	MW-12	Dedicated	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X
Cell 2	MW-13	Dedicated	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X
Cell 2	MW-7	NA	X															
Cell 2	MW-8	Dedicated	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X
Cell 2	MW-9	Dedicated	X	X	X		X	X	X	X	X	X	X	X	X	X	X	X
Cell 4	MW-3A	Dedicated	X	X	X		X	X										
Cell 4	MW-4	Dedicated	X	X	X		X	X										
Cell 4	MW-4A	Dedicated	X	X	X		X	X										
Cell 4	MW-5AR	Dedicated	X	X	X		X	X										
Cell 4	MW-6A	Dedicated	X	X	X		X	X										

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					Appendix I				Additional Appendix II									
					VOCs			Total metals	SVOCs		O/C Pest[2]	O/P Pest	Chlor Herb	PCBs[2]	Dioxin/ Furan	Mercury	Cyanide	Total Sulfide
				water quality meter	8260D	8260D unpreserved	8011	6020B/ 6010C	8270E	8270E SIM	8081B	8141B	8321B	8082A	8290	7470A	SM4500-CN-E	SM 4500S-2
Offsite	MW-103D	NA	X															
Offsite	MW-103S	Dedicated	X	X	X													
Offsite	MW-106D	NA	X															
Offsite	MW-106S	NA	X															
Offsite	MW-115D	NA	X															
Offsite	MW-115S	Passive	X	X	X													
Offsite	MW-116D	NA																
Offsite	MW-116S	Portable Pump		X	X													
RSE	RW-10	Tap		X	X													
RSE	RW-15	Tap		X	X													
RSE	RW-17	Tap		X	X													
RSE	RW-4	Tap		X	X													
RSE	RW-5	Tap		X	X													
RSE	RW-9R	Tap		X	X													
System Effluent*	INJ-1R	Tap			X		X	X	X	X	X	X	X	X	X	X	X	X

Notes

Parameters specified for analysis are for routine monitoring and may not include those analyzed for pilot or tracer study monitoring.

* INJ-1R will also be sampled for VOCs (8260B) in the winter and summer

[1] Field parameters include pH, oxidation reduction potential, turbidity, dissolved oxygen, specific conductivity, and temperature

[2] PCBs and O/C Pest are collected in the same bottle

[3] Anions include sulfate, chloride, and bromide

Acronyms and Abbreviations

Chlor Herb = chlorinated herbicides
Herb = herbicide
O/C = organochlorine
O/P = organophosphate
PCBs = polychlorinated biphenyls
Pest = pesticide
RCRA = Resource Conservation and Recovery Act
RSE = remediation system extraction
SVOCs = semivolatile organic compounds
VOCs = volatile organic compounds

Appendix B Field Documentation

Groundwater Remediation Extraction Well Tap Sampling Data Sheet

Site Name: Bannock County Date: 9/10/2024 FID ☐ PID ☐ In Casing (ppm) Initial: N/A Vented to: N/A

Well ID: INJ-1R Purging/Sampling Device: Remediation Tap Pump Depth (ft bgs): N/A

Initial Static Water Level (ft BTOC): N/A

Final Water Level (ft BTOC): N/A

Sample Time: 09:21 Sampler: LM, JM

Sample ID: INJ-1R-20240910

Analytical Parameters: Cyanide (SM4500-CN-E);Dioxin/Furan (8290);Herbicides (8321B);Mercury (7470A);O/C Pest (8081B);O/P Pest (8141B);PCBs (8082A);SVOC (8270E SIM);SVOC (8270E);Total Metals;Total Sulfide (SM 4500S-2);VOCs (8011);VOCs (8260D)

QC Samples Collected: None

Comments:

Time	Water Level (ft btoc)	Temperature (deg C)	pH	Specific Cond. (us/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
09:21	N/A	14.69	7.76	1200	10.39	98.2	0.59	N/A	

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Groundwater Monitoring Well Passive Sampling Data Sheet

Site Name: Bannock County | Date: 9/6/2024 | FID ☐ | PID ☑ | In Casing (ppm) Initial: N/A | Vented to: N/A

Well ID: MP-1 | Purging/Sampling Device: Hydrasleeve | Pump Depth (ft bgs): N/A

Initial Static Water Level (ft BTOC): 58.7 | Analytical Parameters: VOCs (8260D)

Final Water Level (ft BTOC): N/A | QC Samples Collected: None

Sample Time: 16:15 | Sampler: LM, CD | Comments: PID monitor running during sampling, values accidentally not recorded.

Sample ID: MP-1-20240906

Time	Water Level (ft btoc)	Temperature (deg C)	pH	Specific Cond. (us/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
16:15	N/A	17.76	6.36	1536	3.44	159.4	1	N/A	PID monitor running during sampling, values accidentally not recorded.

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Groundwater Monitoring Well Low-Flow Sampling Data Sheet

Site Name: Bannock County Date: 9/4/2024 FID ☐ PID ☑ In Casing (ppm) Initial: 0.3 Vented to: 0

Well ID: MP-2 Purging/Sampling Device: Portable Pump Pump Depth (ft bgs): N/A

Initial Static Water Level (ft BTOC): 66.93 Analytical Parameters: CSIA;Dissolved Gases;Ferrous Iron;TOC;VOCs (8260D)

Final Water Level (ft BTOC): 67.11 QC Samples Collected: None

Purge Start Time: 09:50 Ferrous Iron (mg/L): 0.18 Allowable Drawdown (ft): 0.1

Min. Purge (gal): 0.7 Final Purge (gal): 1.8 Final Controller Settings: Recharge: 15 secs Discharge: 5 secs Pressure: 45 psi

Sample Time: 11:30 Sampler: JM, CS Comments:

Sample ID: MP-2-20240904

Time	Water Level (ft btoc)	Temperature (deg C)	pH	Specific Cond. (us/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
10:10	67.02	14.5	6.51	1351	3.95	154.1	5.97	90	
10:15	67.05	14.34	6.51	1340	2.47	138.6	4.13	80	
10:20	67.06	14.61	6.53	1346	1.46	105.3	1.31	50	
10:25	67.07	14.85	6.53	1353	1.18	85.9	1.94	60	
10:30	67.08	14.93	6.53	1356	1.09	67.8	2.79	50	
10:35	67.09	15.04	6.54	1360	1.09	58.9	1.21	50	
10:40	67.11	15.25	6.53	1370	1.05	49.6	1.5	50	1040 min purge met. >0.7 gal.
10:45	67.11	15.31	6.54	1372	1.05	40.8	1.25	50	
10:50	67.08	15.56	6.54	1379	0.95	32.2	2.29	40	
10:55	67.07	15.75	6.54	1387	0.91	26.6	4.22	40	
11:00	67.12	15.89	6.54	1394	1.19	20.7	3.18	45	
11:05	67.13	15.98	6.54	1399	1.14	17.9	1.92	50	
11:10	67.13	16.06	6.54	1402	1.25	15.9	1.06	50	

Groundwater Monitoring Well Passive Sampling Data Sheet

Site Name: Bannock County Date: 9/6/2024 FID ☐ PID ☑ In Casing (ppm) Initial: N/A Vented to: N/A

Well ID: MP-3 Purging/Sampling Device: Hydrasleeve Pump Depth (ft bgs): N/A

Initial Static Water Level (ft BTOC): 62.84 Analytical Parameters: VOCs (8260D)

Final Water Level (ft BTOC): N/A QC Samples Collected: None

Sample Time: 16:45 Sampler: LM, CD Comments: PID monitor running during sampling, values accidentally not recorded.

Sample ID: MP-3-20240906

Time	Water Level (ft btoc)	Temperature (deg C)	pH	Specific Cond. (us/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
16:45	N/A	16.46	6.55	1046	6.25	165.1	8.56	N/A	PID monitor running during sampling, values accidentally not recorded.

Groundwater Monitoring Well Passive Sampling Data Sheet

Site Name: Bannock County | Date: 9/6/2024 | FID ☐ | PID ☑ | In Casing (ppm) Initial: N/A | Vented to: N/A

Well ID: MP-4 | Purging/Sampling Device: Hydrasleeve | Pump Depth (ft bgs): N/A

Initial Static Water Level (ft BTOC): 59.43 | Analytical Parameters: VOCs (8260D)

Final Water Level (ft BTOC): N/A | QC Samples Collected: None

Sample Time: 15:55 | Sampler: JM, CS | Comments: PID monitor running during sampling, values accidentally not recorded.

Sample ID: MP-4-20240906

Time	Water Level (ft btoc)	Temperature (deg C)	pH	Specific Cond. (us/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
15:55	N/A	19.14	6.64	1345	3.19	54.1	16.34	N/A	PID monitor running during sampling, values accidentally not recorded.

Groundwater Monitoring Well Passive Sampling Data Sheet

Site Name: Bannock County Date: 9/6/2024 FID ☐ PID ☑ In Casing (ppm) Initial: 0.4 Vented to: 0

Well ID: MW-101S Purging/Sampling Device: Hydrasleeve Pump Depth (ft bgs): N/A

Initial Static Water Level (ft BTOC): 58.02 Analytical Parameters: VOCs (8260D)

Final Water Level (ft BTOC): N/A QC Samples Collected: None

Sample Time: 17:20 Sampler: JM, CS Comments: clear

Sample ID: MW-101S-20240906

Time	Water Level (ft btoc)	Temperature (deg C)	pH	Specific Cond. (us/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
17:20	N/A	17.12	7.3	657	9.24	48.3	2.5	N/A	clear

Groundwater Monitoring Well Low-Flow Sampling Data Sheet

Site Name: Bannock County Date: 9/9/2024 FID ☐ PID ☑ In Casing (ppm) Initial: 0 Vented to: 0

Well ID: MW-102S Purging/Sampling Device: Dedicated Pump Depth (ft bgs): N/A

Initial Static Water Level (ft BTOC): 127.35 Analytical Parameters: VOCs (8260D)

Final Water Level (ft BTOC): 127.37 QC Samples Collected: MS/MSD

Purge Start Time: 15:09 Ferrous Iron (mg/L): Allowable Drawdown (ft): 0.1

Min. Purge (gal): 1.2 Final Purge (gal): 1.5 Final Controller Settings: Recharge: 15 secs Discharge: 15 secs Pressure: 90 psi

Sample Time: 16:55 Sampler: LM KI Comments:

Sample ID: MW-102S-20240909

Time	Water Level (ft btoc)	Temperature (deg C)	pH	Specific Cond. (us/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
16:40	127.36	21.47	7.24	788	5.11	110.3	3.75	60	
16:45	127.36	21.61	7.22	795	5.12	111.6	3.25	60	
16:48	127.37	21.23	7.21	795	5.3	112.8	0	60	

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Groundwater Monitoring Well Low-Flow Sampling Data Sheet

Site Name: Bannock County Date: 9/9/2024 FID ☐ PID ☑ In Casing (ppm) Initial: 0.3 Vented to: 0

Well ID: MW-103S Purging/Sampling Device: Dedicated Pump Depth (ft bgs): N/A

Initial Static Water Level (ft BTOC): 92.98 Analytical Parameters: VOCs (8260D)

Final Water Level (ft BTOC): 93.01 QC Samples Collected: None

Purge Start Time: 16:03 Ferrous Iron (mg/L): Allowable Drawdown (ft): 0.1

Min. Purge (gal): 0.9 Final Purge (gal): 2.7 Final Controller Settings: Recharge: 15 secs Discharge: 5 secs Pressure: 65 psi

Sample Time: 15:40 Sampler: JM, CS Comments:

Sample ID: MW-103S-20240909

Time	Water Level (ft btoc)	Temperature (deg C)	pH	Specific Cond. (us/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
15:20	93.01	13.09	7.27	495	7.89	62.1	2.18	220	
15:25	93.01	12.95	7.31	491	7.35	60.5	2.82	210	
15:30	93.01	12.93	7.31	499	6.93	59.2	1.22	210	
15:35	93.02	12.96	7.32	489	6.72	57.6		210	Turbidity value not recorded in field. ML 9/18/24

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Groundwater Monitoring Well Low-Flow Sampling Data Sheet

Site Name: Bannock County Date: 9/5/2024 FID ☐ PID ☑ In Casing (ppm) Initial: 0 Vented to: 0

Well ID: MW-105D Purging/Sampling Device: Dedicated Pump Depth (ft bgs): N/A

Initial Static Water Level (ft BTOC): 58.52 Analytical Parameters: VOCs Unpreserved (8260D)

Final Water Level (ft BTOC): 59.35 QC Samples Collected: None

Purge Start Time: 10:14 Ferrous Iron (mg/L): Allowable Drawdown (ft): 2

Min. Purge (gal): 1 Final Purge (gal): 1.4 Final Controller Settings: Recharge: 26 secs Discharge: 4 secs Pressure: 40 psi

Sample Time: 11:25 Sampler: JM, CS Comments:

Sample ID: MW-105D-20240905

Time	Water Level (ft btoc)	Temperature (deg C)	pH	Specific Cond. (us/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
10:25	59.79	15.55	6.75	1693	3.08	31.5	0.27	85	
10:30	59.66	15.52	6.72	1604	1.8	33.6	0.32	65	
10:35	59.59	16.1	6.7	1585	1.3	33.2	0	55	
10:40	59.51	16.37	6.69	1571	1.05	32	0	55	
10:45	59.49	16.43	6.69	1556	0.93	29.2	0.06	50	
10:50	59.46	16.56	6.69	1551	0.89	24.2	0.32	50	
10:55	59.44	16.77	6.86	1555	0.88	22.2	0.14	50	
11:00	59.42	16.5	6.69	1561	0.85	20	0.11	50	
11:05	59.39	17	6.66	1571	0.83	21.2	0.15	50	
11:10	59.39	16.98	6.66	1577	0.82	21.4	0.19	50	
11:15	59.39	16.95	6.66	1581	0.77	22.8	0	50	
11:20	59.38	17.18	6.66	1593	0.73	22.5	0.17	50	

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Groundwater Monitoring Well Low-Flow Sampling Data Sheet

Site Name: Bannock County Date: 9/5/2024 FID ☐ PID ☑ In Casing (ppm) Initial: 0.5 Vented to: 0

Well ID: MW-105S Purging/Sampling Device: Dedicated Pump Depth (ft bgs): N/A

Initial Static Water Level (ft BTOC): 56.18 Analytical Parameters: VOCs Unpreserved (8260D)

Final Water Level (ft BTOC): 56.21 QC Samples Collected: Duplicate

Purge Start Time: 08:39 Ferrous Iron (mg/L): Allowable Drawdown (ft): 0.1

Min. Purge (gal): 0.5 Final Purge (gal): 0.8 Final Controller Settings: Recharge: 27 secs Discharge: 3 secs Pressure: 45 psi

Sample Time: 09:45 Sampler: JM, CS Comments:

Sample ID: MW-105S-20240905

Time	Water Level (ft btoc)	Temperature (deg C)	pH	Specific Cond. (us/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
09:05	56.21	13.28	6.62	4400	2.06	185.5	0.13	35	
09:10	56.21	13.59	6.62	4524	1.63	182.5	0.13	35	
09:15	56.21	13.54	6.62	4544	1.15	179.9	0.1	35	
09:20	56.21	13.96	6.63	4604	1.03	175.5	0.13	35	
09:25	56.21	14.17	6.63	4650	0.83	171.6	0.21	35	
09:30	56.21	14.24	6.63	4663	0.8	169.3	0.05	35	
09:35	56.21	14.32	6.63	4680	0.74	167.5	0.11	35	
09:40	56.21	14.61	6.63	4697	0.73	165.5	0.07	35	

Groundwater Monitoring Well Passive Sampling Data Sheet

Site Name: Bannock County Date: 9/6/2024 FID ☐ PID ☑ In Casing (ppm) Initial: 0.4 Vented to: 0

Well ID: MW-109D Purging/Sampling Device: Hydrasleeve Pump Depth (ft bgs): N/A

Initial Static Water Level (ft BTOC): 61.08 Analytical Parameters: VOCs (8260D)

Final Water Level (ft BTOC): N/A QC Samples Collected: None

Sample Time: 17:00 Sampler: JM, CS Comments: clear

Sample ID: MW-109D-20240906

Time	Water Level (ft btoc)	Temperature (deg C)	pH	Specific Cond. (us/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
17:00	N/A	18.29	7.09	907	6.5	54.1	2.33	N/A	clear

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Groundwater Monitoring Well Passive Sampling Data Sheet

Site Name: Bannock County Date: 9/6/2024 FID ☐ PID ☑ In Casing (ppm) Initial: 4.9 Vented to: 0

Well ID: MW-109S Purging/Sampling Device: Hydrasleeve Pump Depth (ft bgs): N/A

Initial Static Water Level (ft BTOC): 49.35 Analytical Parameters: VOCs (8260D)

Final Water Level (ft BTOC): N/A QC Samples Collected: None

Sample Time: 16:40 Sampler: JM, CS Comments: clear

Sample ID: MW-109S-20240906

Time	Water Level (ft btoc)	Temperature (deg C)	pH	Specific Cond. (us/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
16:40	N/A	16.34	6.82	793	3.37	63.3	6.23	N/A	clear

Groundwater Monitoring Well Passive Sampling Data Sheet

Site Name: Bannock County Date: 9/6/2024 FID ☐ PID ☑ In Casing (ppm) Initial: N/A Vented to: N/A

Well ID: MW-110D Purging/Sampling Device: Hydrasleeve Pump Depth (ft bgs): N/A

Initial Static Water Level (ft BTOC): 124.85 Analytical Parameters: VOCs (8260D)

Final Water Level (ft BTOC): N/A QC Samples Collected: None

Sample Time: 17:20 Sampler: LM, CD Comments: PID monitor running during sampling, values accidentally not recorded.

Sample ID: MW-110D-20240906

Time	Water Level (ft btoc)	Temperature (deg C)	pH	Specific Cond. (us/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
17:20	N/A	17.98	7.03	933	2.55	-121	4.91	N/A	PID monitor running during sampling, values accidentally not recorded.

Groundwater Monitoring Well Passive Sampling Data Sheet

Site Name: Bannock County Date: 9/8/2024 FID ☐ PID ☑ In Casing (ppm) Initial: 11.8 Vented to: 0

Well ID: MW-110S Purging/Sampling Device: Hydrasleeve Pump Depth (ft bgs): N/A

Initial Static Water Level (ft BTOC): 120.69 Analytical Parameters: VOCs (8260D)

Final Water Level (ft BTOC): N/A QC Samples Collected: None

Sample Time: 09:10 Sampler: ML, JM, CS Comments: cloudy, sediment

Sample ID: MW-110S-20240908

Time	Water Level (ft btoc)	Temperature (deg C)	pH	Specific Cond. (us/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
09:10	N/A	14.62	6.27	1139	3.3	193.1	9.56	N/A	cloudy, sediment

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Groundwater Monitoring Well Low-Flow Sampling Data Sheet

Site Name: Bannock County Date: 9/5/2024 FID ☐ PID ☑ In Casing (ppm) Initial: 0 Vented to: 0

Well ID: MW-111D Purging/Sampling Device: Dedicated Pump Depth (ft bgs): N/A

Initial Static Water Level (ft BTOC): 63.07 Analytical Parameters: VOCs Unpreserved (8260D)

Final Water Level (ft BTOC): 65.3 QC Samples Collected: MS/MSD

Purge Start Time: 08:43 Ferrous Iron (mg/L): Allowable Drawdown (ft): 2

Min. Purge (gal): 1.2 Final Purge (gal): 2 Final Controller Settings: Recharge: 27 secs Discharge: 3 secs Pressure: 50 psi

Sample Time: 10:05 Sampler: LM ML Comments:

Sample ID: MW-111D-20240905

Time	Water Level (ft btoc)	Temperature (deg C)	pH	Specific Cond. (us/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
09:52	64.73	14.12	6.6	8803	0.24	-155.3	0.24	75	
09:57	64.72	14.17	6.61	8741	0.21	-156.2	0.4	75	
10:02	64.73	14.23	6.6	8685	0.2	-150.7	0.6	75	

Groundwater Monitoring Well Passive Sampling Data Sheet

Site Name: Bannock County Date: 9/8/2024 FID ☐ PID ☑ In Casing (ppm) Initial: 11.8 Vented to: 0

Well ID: MW-111S Purging/Sampling Device: Hydrasleeve Pump Depth (ft bgs): N/A

Initial Static Water Level (ft BTOC): 51.03 Analytical Parameters: VOCs Unpreserved (8260D)

Final Water Level (ft BTOC): N/A QC Samples Collected: None

Sample Time: 09:25 Sampler: JM, CS Comments: cloudy, yellow

Sample ID: MW-111S-20240908

Time	Water Level (ft btoc)	Temperature (deg C)	pH	Specific Cond. (us/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
09:25	N/A	13.46	6.58	6845	2.31	-129.1	8.47	N/A	cloudy, yellow

CDM Smith
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Groundwater Monitoring Well Low-Flow Sampling Data Sheet

Site Name: Bannock County Date: 9/5/2024 FID ☐ PID ☑ In Casing (ppm) Initial: 0 Vented to: 0

Well ID: MW-112D Purging/Sampling Device: Dedicated Pump Depth (ft bgs): N/A

Initial Static Water Level (ft BTOC): 65.85 Analytical Parameters: VOCs (8260D)

Final Water Level (ft BTOC): 67.75 QC Samples Collected: None

Purge Start Time: 14:11 Ferrous Iron (mg/L): Allowable Drawdown (ft): 2

Min. Purge (gal): 1.1 Final Purge (gal): 1.7 Final Controller Settings: Recharge: 27 secs Discharge: 3 secs Pressure: 65 psi

Sample Time: 15:15 Sampler: JM, CS Comments:

Sample ID: MW-112D-20240905

Time	Water Level (ft btoc)	Temperature (deg C)	pH	Specific Cond. (us/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
14:55	67.67	14.6	7.32	718	5.65	42.4	3.08	80	
15:00	67.7	14.68	7.32	719	5.46	39.4	2.6	80	
15:05	67.71	14.73	7.33	720	5.43	35.9	2.38	80	
15:10	67.7	14.74	7.32	721	5.4	35.5	1.97	80	

CDM Smith
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Groundwater Monitoring Well Passive Sampling Data Sheet

Site Name: Bannock County Date: 9/8/2024 FID ☐ PID ☑ In Casing (ppm) Initial: 0 Vented to: 0

Well ID: MW-112M Purging/Sampling Device: Hydrasleeve Pump Depth (ft bgs): N/A

Initial Static Water Level (ft BTOC): 64.92 Analytical Parameters: VOCs (8260D)

Final Water Level (ft BTOC): N/A QC Samples Collected: None

Sample Time: 09:50 Sampler: ML, JM, CS Comments: cloudy

Sample ID: MW-112M-20240908

Time	Water Level (ft btoc)	Temperature (deg C)	pH	Specific Cond. (us/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
09:50	N/A	13.9	6.83	710	9.42	-5.1	30.8	N/A	cloudy

Groundwater Monitoring Well Passive Sampling Data Sheet

Site Name: Bannock County | Date: 9/6/2024 | FID ☐ | PID ☑ | In Casing (ppm) Initial: N/A | Vented to: N/A

Well ID: MW-113D | Purging/Sampling Device: Hydrasleeve | Pump Depth (ft bgs): N/A

Initial Static Water Level (ft BTOC): 23.33 | Analytical Parameters: VOCs (8260D)

Final Water Level (ft BTOC): N/A | QC Samples Collected: None

Sample Time: 17:00 | Sampler: LM, CD | Comments: PID monitor running during sampling, values accidentally not recorded.

Sample ID: MW-113D-20240906

Time	Water Level (ft btoc)	Temperature (deg C)	pH	Specific Cond. (us/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
17:00	N/A	16.01	6.82	1081	2.95	167.4	16.23	N/A	PID monitor running during sampling, values accidentally not recorded.

CDM Smith
listen. think. deliver.

Groundwater Monitoring Well Low-Flow Sampling Data Sheet

Site Name: Bannock County Date: 9/4/2024 FID ☐ PID ☑ In Casing (ppm) Initial: 0.3 Vented to: 0

Well ID: MW-113S Purging/Sampling Device: Dedicated Pump Depth (ft bgs): N/A

Initial Static Water Level (ft BTOC): 24.81 Analytical Parameters: VOCs (8260D)

Final Water Level (ft BTOC): 26.15 QC Samples Collected: Duplicate

Purge Start Time: 11:43 Ferrous Iron (mg/L): Allowable Drawdown (ft): 3

Min. Purge (gal): 1.2 Final Purge (gal): 2.8 Final Controller Settings: Recharge: 12.5 secs Discharge: 2.5 secs Pressure: 60 psi

Sample Time: 14:35 Sampler: Joe miller Colin scheil Comments:

Sample ID: MW-113S-20240904

Time	Water Level (ft btoc)	Temperature (deg C)	pH	Specific Cond. (us/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
13:55	25.89	13.32	6.45	2287	1.14	-50.7	52.4	180	Sulfur odor from initial purge ; reduce flow rate
14:02	25.9	13.42	6.42	2310	0.8	-31.1	23.9	170	
14:05	25.93	13.41	6.42	2320	0.73	-25	19.54	160	
14:10	26	13.46	6.41	2331	0.69	-19.1	5.23	150	
14:15	26.01	13.48	6.4	2342	0.64	-13.7	6.5	150	
14:20	26.03	13.43	6.43	2351	0.63	-10.6	2.46	150	
14:25	26.06	13.5	6.43	2364	0.57	-8	0.52	150	
14:30	26.01	13.35	6.43	2360	0.55	-4.5	0.38	150	

Groundwater Monitoring Well Passive Sampling Data Sheet

Site Name: Bannock County Date: 9/8/2024 FID ☐ PID ☑ In Casing (ppm) Initial: 0 Vented to: 0

Well ID: MW-115S Purging/Sampling Device: Hydrasleeve Pump Depth (ft bgs): N/A

Initial Static Water Level (ft BTOC): 73.58 Analytical Parameters: VOCs (8260D)

Final Water Level (ft BTOC): N/A QC Samples Collected: None

Sample Time: 13:30 Sampler: LM, JM, CS Comments:

Sample ID: MW-115S-20240908

Time	Water Level (ft btoc)	Temperature (deg C)	pH	Specific Cond. (us/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
13:30	N/A	15.72	7.06	663	9.3	5.8	1.62	N/A	

Groundwater Monitoring Well Low-Flow Sampling Data Sheet

Site Name: Bannock County Date: 9/8/2024 FID ☐ PID ☑ In Casing (ppm) Initial: 0 Vented to: 0

Well ID: MW-116S Purging/Sampling Device: Portable Pump Pump Depth (ft bgs): N/A

Initial Static Water Level (ft BTOC): 69.62 Analytical Parameters: VOCs (8260D)

Final Water Level (ft BTOC): 69.64 QC Samples Collected: None

Purge Start Time: 11:48 Ferrous Iron (mg/L): Allowable Drawdown (ft): 0.1

Min. Purge (gal): 0.9 Final Purge (gal): 2 Final Controller Settings: Recharge: 16 secs Discharge: 4 secs Pressure: 60 psi

Sample Time: 12:30 Sampler: ML, CS, JM Comments:

Sample ID: MW-116S-20240908

Time	Water Level (ft btoc)	Temperature (deg C)	pH	Specific Cond. (us/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
12:10	69.64	12.36	6.97	746	7.83	24.6	2.91	180	
12:15	69.64	12.2	6.97	727	7.87	27.5	1.22	180	
12:20	69.64	12.25	6.98	723	7.95	29.8	0.79	180	
12:25	69.64	12.13	6.98	719	7.99	31.8	0.3	180	

Groundwater Monitoring Well Passive Sampling Data Sheet

Site Name: Bannock County Date: 9/10/2024 FID ☐ PID ☑ In Casing (ppm) Initial: 1.2 Vented to: 0

Well ID: MW-117R Purging/Sampling Device: Hydrasleeve Pump Depth (ft bgs): N/A

Initial Static Water Level (ft BTOC): 116.26 Analytical Parameters: VOCs (8260D)

Final Water Level (ft BTOC): N/A QC Samples Collected: None

Sample Time: 10:40 Sampler: ML, JM, CS Comments:

Sample ID: MW-117R-20240910

Time	Water Level (ft btoc)	Temperature (deg C)	pH	Specific Cond. (us/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
10:40	N/A	15.48	6.87	1450	8.87	87.9	4.74	N/A	

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Groundwater Monitoring Well Low-Flow Sampling Data Sheet

Site Name: Bannock County Date: 9/5/2024 FID ☐ PID ☑ In Casing (ppm) Initial: 0 Vented to: 0

Well ID: MW-118D Purging/Sampling Device: Dedicated Pump Depth (ft bgs): N/A

Initial Static Water Level (ft BTOC): 85.1 Analytical Parameters: CSIA;VOCs (8260D)

Final Water Level (ft BTOC): 85.14 QC Samples Collected: None

Purge Start Time: 15:23 Ferrous Iron (mg/L): Allowable Drawdown (ft): 0.1

Min. Purge (gal): 0.7 Final Purge (gal): 2.5 Final Controller Settings: Recharge: 15 secs Discharge: 5 secs Pressure: 55 psi

Sample Time: 16:05 Sampler: LM, ML Comments:

Sample ID: MW-118D-20240905

Time	Water Level (ft btoc)	Temperature (deg C)	pH	Specific Cond. (us/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
15:38	85.14	14.54	6.6	3694	0.53	13.6	1.99	225	
15:43	85.14	14.42	6.6	3786	0.44	9.1	1.04	225	
15:48	85.14	14.39	6.58	3881	0.33	8.4	0.34	225	
15:53	85.14	14.18	6.57	3924	0.3	8.5	0.66	225	
15:58	85.14	14.05	6.56	3968	0.28	6.1	0.42	225	

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Groundwater Monitoring Well Low-Flow Sampling Data Sheet

Site Name: Bannock County Date: 9/4/2024 FID ☐ PID ☑ In Casing (ppm) Initial: 0.2 Vented to: 0

Well ID: MW-119D Purging/Sampling Device: Dedicated Pump Depth (ft bgs): N/A

Initial Static Water Level (ft BTOC): 70.94 Analytical Parameters: CSIA;VOCs (8260D)

Final Water Level (ft BTOC): 71.93 QC Samples Collected: None

Purge Start Time: 10:25 Ferrous Iron (mg/L): Allowable Drawdown (ft): 1

Min. Purge (gal): 0.9 Final Purge (gal): 1.25 Final Controller Settings: Recharge: 55 secs Discharge: 5 secs Pressure: 80 psi

Sample Time: 11:40 Sampler: LM, ML Comments:

Sample ID: MW-119D-20240904

Time	Water Level (ft btoc)	Temperature (deg C)	pH	Specific Cond. (us/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
11:26	71.65	15.72	6.57	1170	2.43	234.8	0.33	80	
11:31	71.7	15.73	6.57	1170	2.42	234.8	0.18	80	
11:36	71.7	15.37	6.56	1173	2.35	235.3	0.14	100	

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Groundwater Monitoring Well Low-Flow Sampling Data Sheet

Site Name: Bannock County Date: 9/4/2024 FID ☐ PID ☑ In Casing (ppm) Initial: 0 Vented to: 0

Well ID: MW-119S Purging/Sampling Device: Dedicated Pump Depth (ft bgs): N/A

Initial Static Water Level (ft BTOC): 67.6 Analytical Parameters: CSIA;VOCs (8260D)

Final Water Level (ft BTOC): 67.6 QC Samples Collected: None

Purge Start Time: 12:01 Ferrous Iron (mg/L): Allowable Drawdown (ft): 0.3

Min. Purge (gal): 0.6 Final Purge (gal): 0.75 Final Controller Settings: Recharge: 18 secs Discharge: 2 secs Pressure: 60 psi

Sample Time: 12:40 Sampler: LM, ML Comments:

Sample ID: MW-119S-20240904

Time	Water Level (ft btoc)	Temperature (deg C)	pH	Specific Cond. (us/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
12:25	67.61	15.32	6.49	1226	2.25	244	0.53	90	
12:30	67.6	15.12	6.48	1223	2.36	240.3	0.45	120	
12:35	67.6	14.93	6.47	1218	2.27	237.7	0.32	150	

Groundwater Monitoring Well Low-Flow Sampling Data Sheet

Site Name: Bannock County Date: 9/4/2024 FID ☐ PID ☑ In Casing (ppm) Initial: 0 Vented to: 0

Well ID: MW-12 Purging/Sampling Device: Dedicated Pump Depth (ft bgs): N/A

Initial Static Water Level (ft BTOC): 162.6

Final Water Level (ft BTOC): 162.95

Purge Start Time: 13:32

Min. Purge (gal): 2.1 Final Purge (gal): 3

Sample Time: 15:15 Sampler: CD, KI

Sample ID: MW-12-20240904

Analytical Parameters: Cyanide (SM4500-CN-E);Dioxin/Furan (8290);Herbicides (8321B);Mercury (7470A);O/C Pest (8081B);O/P Pest (8141B);PCBs (8082A);SVOC (8270E SIM);SVOC (8270E);Total Metals;Total Sulfide (SM 4500S-2);VOCs (8011);VOCs (8260D)

QC Samples Collected: None

Ferrous Iron (mg/L): Allowable Drawdown (ft): 1

Final Controller Settings: Recharge: 27 secs Discharge: 3 secs Pressure: 165 psi

Comments: Herbicides (8321B): will not be reported by lab, due to lab error related to holding time.

Time	Water Level (ft btoc)	Temperature (deg C)	pH	Specific Cond. (us/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
15:00	162.86	12.87	7.24	599	9.43	37.6	0	80	
15:05	162.86	12.91	7.23	598	9.34	35.4	0.85	80	
15:10	162.86	12.81	7.35	598	9.34	35	0.38	80	

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Groundwater Monitoring Well Low-Flow Sampling Data Sheet

Site Name: Bannock County Date: 9/4/2024 FID ☐ PID ☑ In Casing (ppm) Initial: 0 Vented to: 0

Well ID: MW-120D Purging/Sampling Device: Dedicated Pump Depth (ft bgs): N/A

Initial Static Water Level (ft BTOC): 78.1 Analytical Parameters: CSIA;VOCs (8260D)

Final Water Level (ft BTOC): 80.77 QC Samples Collected: None

Purge Start Time: 13:40 Ferrous Iron (mg/L): Allowable Drawdown (ft): 0.3

Min. Purge (gal): 0.8 Final Purge (gal): 1.5 Final Controller Settings: Recharge: 56 secs Discharge: 4 secs Pressure: 60 psi

Sample Time: 16:25 Sampler: LM, ML Comments: Went past allowable drawdown. Final drawdown 2.3 ft. Adjusted minimum purge to 1.36 gallons with PTL approval.

Sample ID: MW-120D-20240904

Time	Water Level (ft btoc)	Temperature (deg C)	pH	Specific Cond. (us/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
16:01	80.38	18.5	6.72	1258	2.24	218.7	1.08	50	
16:06	80.38	18.57	6.73	1255	1.6	219.8	1.23	50	
16:11	80.38	18.37	6.81	1261	1.41	220.1	1.17	50	
16:16	80.4	18.27	6.72	1272	1.37	221.1	0.96	50	
16:21	80.45	18.21	6.7	1287	1.27	221.4	0.81	50	

Groundwater Monitoring Well Low-Flow Sampling Data Sheet

Site Name: Bannock County Date: 9/5/2024 FID ☐ PID ☑ In Casing (ppm) Initial: 0.5 Vented to: 0

Well ID: MW-120S Purging/Sampling Device: Dedicated Pump Depth (ft bgs): N/A

Initial Static Water Level (ft BTOC): 77.46 Analytical Parameters: CSIA;VOCs (8260D)

Final Water Level (ft BTOC): 77.61 QC Samples Collected: None

Purge Start Time: 12:08 Ferrous Iron (mg/L): Allowable Drawdown (ft): 0.1

Min. Purge (gal): 0.7 Final Purge (gal): 1.6 Final Controller Settings: Recharge: 26 secs Discharge: 4 secs Pressure: 60 psi

Sample Time: 13:00 Sampler: JM, CS Comments:

Sample ID: MW-120S-20240905

Time	Water Level (ft btoc)	Temperature (deg C)	pH	Specific Cond. (us/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
12:40	77.55	14.53	6.47	1388	0.96	25.5	0.08	100	
12:45	77.56	14.56	6.47	1391	0.75	25	0.24	100	
12:50	77.56	14.5	6.47	1391	0.69	25.1	0	100	
12:55	77.59	14.46	6.47	1396	0.61	24.3	0	100	

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Groundwater Monitoring Well Low-Flow Sampling Data Sheet

Site Name: Bannock County Date: 9/6/2024 FID ☐ PID ☑ In Casing (ppm) Initial: 0.1 Vented to: 0

Well ID: MW-121 Purging/Sampling Device: Portable Pump Pump Depth (ft bgs): N/A

Initial Static Water Level (ft BTOC): 58.87 Analytical Parameters: Total Metals;VOCs (8260D)

Final Water Level (ft BTOC): 62.75 QC Samples Collected: None

Purge Start Time: 09:05 Ferrous Iron (mg/L): Allowable Drawdown (ft): 0.1

Min. Purge (gal): 0.7 Final Purge (gal): 1.8 Final Controller Settings: Recharge: 27 secs Discharge: 3 secs Pressure: 50 psi

Sample Time: 11:15 Sampler: JM, CS Comments:

Sample ID: MW-121-20240906

Time	Water Level (ft btoc)	Temperature (deg C)	pH	Specific Cond. (us/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
10:45	62.42	16.98	6.66	2131	0.67	100.8	37.1	45	
10:50	62.46	17.02	6.66	2135	0.67	100.4	37.9	45	
10:55	62.49	17.06	6.67	2136	0.65	100.3	42.9	45	
11:00	62.54	17.05	6.66	2137	0.61	99.4	31.2	45	
11:05	62.57	17.06	6.67	2137	0.61	98.5	32.1	45	
11:10	62.6	17.14	6.66	2139	0.6	97.9	32.2	45	

Groundwater Monitoring Well Passive Sampling Data Sheet

Site Name: Bannock County Date: 9/8/2024 FID ☐ PID ☑ In Casing (ppm) Initial: 0 Vented to: 0

Well ID: MW-123 Purging/Sampling Device: Hydrasleeve Pump Depth (ft bgs): N/A

Initial Static Water Level (ft BTOC): 38.93 Analytical Parameters: VOCs (8260D)

Final Water Level (ft BTOC): N/A QC Samples Collected: None

Sample Time: 10:05 Sampler: ML, JM, CS Comments: cloudy

Sample ID: MW-123-20240908

Time	Water Level (ft btoc)	Temperature (deg C)	pH	Specific Cond. (us/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
10:05	N/A	12.29	6.94	763	8.86	12.6	39.1	N/A	cloudy

CDM Smith
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Groundwater Monitoring Well Low-Flow Sampling Data Sheet

Site Name: Bannock County Date: 9/9/2024 FID ☐ PID ☑ In Casing (ppm) Initial: 0.3 Vented to: 0

Well ID: MW-124 Purging/Sampling Device: Portable Pump Pump Depth (ft bgs): N/A

Initial Static Water Level (ft BTOC): 63.41 Analytical Parameters: CSIA;Dissolved Gases;Ferrous Iron;TOC;VOCs (8260D)

Final Water Level (ft BTOC): 63.83 QC Samples Collected: None

Purge Start Time: 08:46 Ferrous Iron (mg/L): 0.08 Allowable Drawdown (ft): 0.1

Min. Purge (gal): 0.8 Final Purge (gal): 2.9 Final Controller Settings: Recharge: 27 secs Discharge: 3 secs Pressure: 65 psi

Sample Time: 09:50 Sampler: JM, CS Comments: Orange flocculant observed during purge.

Sample ID: MW-124-20240909

Time	Water Level (ft btoc)	Temperature (deg C)	pH	Specific Cond. (us/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
09:10	63.64	15.19	6.52	1490	1.46	114.2	20.9	100	
09:15	63.65	15.2	6.54	1500	1.11	86.6	15.61	100	
09:20	63.67	15.44	6.55	1510	0.96	62.8	13.3	80	
09:25	63.68	15.59	6.55	1517	0.8	41.9	9.8	80	
09:30	63.69	15.71	6.56	1522	0.75	32.6	7.65	80	
09:35	63.71	15.72	6.56	1523	0.73	25.4	7.78	80	
09:40	63.72	15.78	6.56	1526	0.71	19.9	7.75	80	
09:45	63.73	15.94	6.56	1531	0.71	15.4	7.23	80	

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Groundwater Monitoring Well Low-Flow Sampling Data Sheet

Site Name: Bannock County Date: 9/9/2024 FID ☐ PID ☑ In Casing (ppm) Initial: 0 Vented to: 0

Well ID: MW-125 Purging/Sampling Device: Portable Pump Pump Depth (ft bgs): N/A

Initial Static Water Level (ft BTOC): 69.48 Analytical Parameters: CSIA;Dissolved Gases;Ferrous Iron;TOC;VOCs (8260D)

Final Water Level (ft BTOC): 69.99 QC Samples Collected: MS/MSD

Purge Start Time: 12:28 Ferrous Iron (mg/L): 0 Allowable Drawdown (ft): 0.1

Min. Purge (gal): 0.8 Final Purge (gal): 4 Final Controller Settings: Recharge: 27 secs Discharge: 3 secs Pressure: 60 psi

Sample Time: 13:05 Sampler: JM/cs Comments: Turbidity not stabilized but final 3 less than 10NTU. Tire truck running generator/compressor nearby while sampling

Sample ID: MW-125-20240909

Time	Water Level (ft btoc)	Temperature (deg C)	pH	Specific Cond. (us/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
	69.85	16.03	6.72	1728	1.39	81.7	16.57	120	
12:00	69.87	15.95	6.71	1727	0.99	80.8	14.78	120	
12:05	69.88	15.86	6.71	1726	0.79	78.9	5.86	120	
12:10	69.89	15.86	6.71	1728	0.65	75.5	8.17	120	
12:15	69.9	15.98	6.71	1732	0.62	73	8.88	110	
12:20	69.91	15.99	6.71	1735	0.56	70.2	6.61	110	
12:25	69.92	16.1	6.71	1743	0.54	68	7.15	110	
12:30	69.91	16.05	6.71	1744	0.5	66.6	3.06	120	
12:35	69.92	15.95	6.71	1738	0.47	64.5	1.86	120	
12:40	69.92	15.9	6.71	1737	0.47	62.7	11.94	120	
12:45	69.91	15.99	6.72	1739	0.44	60.7	8.19	120	
12:50	69.91	16.05	6.71	1741	0.45	58.8	1.11	120	
12:55	69.92	16.07	6.72	1741	0.43	57.7	0.85	120	Talked to ftl, due to turb jumps okay to sample 3 readings under 10ntu.

Groundwater Monitoring Well Low-Flow Sampling Data Sheet

Site Name: Bannock County Date: 9/8/2024 FID ☐ PID ☑ In Casing (ppm) Initial: 0 Vented to: 0

Well ID: MW-13 Purging/Sampling Device: Dedicated Pump Depth (ft bgs): N/A

Initial Static Water Level (ft BTOC): 74.24

Final Water Level (ft BTOC): 76.02

Purge Start Time: 08:40

Min. Purge (gal): 1.7 Final Purge (gal): 2

Sample Time: 10:30 Sampler: LM KI

Sample ID: MW-13-20240908

Analytical Parameters: Cyanide (SM4500-CN-E);Dioxin/Furan (8290);Herbicides (8321B);Mercury (7470A);O/C Pest (8081B);O/P Pest (8141B);PCBs (8082A);SVOC (8270E SIM);SVOC (8270E);Total Metals;Total Sulfide (SM 4500S-2);VOCs (8011);VOCs (8260D)

QC Samples Collected: Duplicate

Ferrous Iron (mg/L): Allowable Drawdown (ft): 2.5

Final Controller Settings: Recharge: 17 secs Discharge: 3 secs Pressure: 120 psi

Comments:

Time	Water Level (ft btoc)	Temperature (deg C)	pH	Specific Cond. (us/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
10:19	74.95	20.19	7.45	737	6.91	154.1	4.13	90	
10:22	74.95	20.25	7.45	738	6.91	155.3	4.24	90	
10:25	74.96	20.25	7.44	738	7.01	156.5	3.04	90	

CDM Smith
listen. think. deliver.

Groundwater Monitoring Well Low-Flow Sampling Data Sheet

Site Name: Bannock County Date: 9/6/2024 FID ☐ PID ☑ In Casing (ppm) Initial: 0 Vented to: 0

Well ID: MW-3A Purging/Sampling Device: Dedicated Pump Depth (ft bgs): N/A

Initial Static Water Level (ft BTOC): 282.66 Analytical Parameters: Total Metals;VOCs (8011);VOCs (8260D)

Final Water Level (ft BTOC): 286.52 QC Samples Collected: None

Purge Start Time: 16:30 Ferrous Iron (mg/L): Allowable Drawdown (ft): 4

Min. Purge (gal): 5.6 Final Purge (gal): 7 Final Controller Settings: Recharge: 18 secs Discharge: 12 secs Pressure: 215 psi

Sample Time: 19:40 Sampler: ML, KI

Sample ID: MW-3A-20240906 Comments: We had to sample due to nearly running out of nitrogen. Turbidity barely out of range for many readings, three readings under 10 NTU. Stabilizing around similar values just outside of range.

Time	Water Level (ft btoc)	Temperature (deg C)	pH	Specific Cond. (us/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
07:15	286.39	10.94	7.41	487	7.05	25.4	10.8	150	
19:20	286.45	11.12	7.41	665	6.69	30.2	10.83	150	
19:23	286.55	10.99	7.48	666	6.54	31.7	9.32	150	
19:26	286.53	11.6	7.58	662	6.34	14.6	8.62	150	ORP fail due to bubble on sensor, climbing rapidly back to stabilization after recording parameters.
19:29	286.44	13.58	7.38	666	6.2	22.8	6.7	150	
19:32	286.43	13.67	7.39	666	6.1	24.2	7.59	150	
19:36	286.4	14.08	7.39	665	6.07	28.8	8.32	150	

Groundwater Monitoring Well Low-Flow Sampling Data Sheet

Site Name: Bannock County Date: 9/5/2024 FID ☐ PID ☑ In Casing (ppm) Initial: 0 Vented to: 0

Well ID: MW-4 Purging/Sampling Device: Dedicated Pump Depth (ft bgs): N/A

Initial Static Water Level (ft BTOC): 129.74 Analytical Parameters: Total Metals;VOCs (8011);VOCs (8260D)

Final Water Level (ft BTOC): 130.14 QC Samples Collected: None

Purge Start Time: 10:12 Ferrous Iron (mg/L): Allowable Drawdown (ft): 1

Min. Purge (gal): 1.9 Final Purge (gal): 2.7 Final Controller Settings: Recharge: 15.5 secs Discharge: 4.5 secs Pressure: 130 psi

Sample Time: 11:40 Sampler: CD KI Comments:

Sample ID: MW-4-20240905

Time	Water Level (ft btoc)	Temperature (deg C)	pH	Specific Cond. (us/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
11:25	130.2	10.72	6.62	1466	0.62	-64.7	2.14	125	
11:30	130.2	10.73	6.62	1466	0.52	-65.5	2.86	125	
11:35	130.22	10.77	6.61	1464	0.47	-66.9	3.12	125	

Groundwater Monitoring Well Low-Flow Sampling Data Sheet

Site Name: Bannock County Date: 9/5/2024 FID ☐ PID ☑ In Casing (ppm) Initial: 0 Vented to: 0

Well ID: MW-4A Purging/Sampling Device: Dedicated Pump Depth (ft bgs): N/A

Initial Static Water Level (ft BTOC): 141.84 Analytical Parameters: Total Metals;VOCs (8011);VOCs (8260D)

Final Water Level (ft BTOC): 141.88 QC Samples Collected: None

Purge Start Time: 08:45 Ferrous Iron (mg/L): Allowable Drawdown (ft): 0.3

Min. Purge (gal): 1.7 Final Purge (gal): 2.3 Final Controller Settings: Recharge: 15 secs Discharge: 5 secs Pressure: 130 psi

Sample Time: 09:40 Sampler: CD KI Comments:

Sample ID: MW-4A-20240905

Time	Water Level (ft btoc)	Temperature (deg C)	pH	Specific Cond. (us/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
09:30	141.97	9.78	7.44	909	10.28	130.2	1.82	125	
09:34	141.96	9.74	7.34	909	9.86	124.3	2.18	125	
09:38	141.96	9.75	7.31	909	9.77	120.8	0.76	125	

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Groundwater Monitoring Well Low-Flow Sampling Data Sheet

Site Name: Bannock County Date: 9/5/2024 FID ☐ PID ☑ In Casing (ppm) Initial: 0.1 Vented to: 0

Well ID: MW-5AR Purging/Sampling Device: Dedicated Pump Depth (ft bgs): N/A

Initial Static Water Level (ft BTOC): 155.23 Analytical Parameters: Total Metals;VOCs (8011);VOCs (8260D)

Final Water Level (ft BTOC): 158.38 QC Samples Collected: None

Purge Start Time: 12:10 Ferrous Iron (mg/L): Allowable Drawdown (ft): 0.5

Min. Purge (gal): 1.9 Final Purge (gal): 3.8 Final Controller Settings: Recharge: 56 secs Discharge: 4 secs Pressure: 140 psi

Sample Time: 17:35 Sampler: CD KI Comments:

Sample ID: MW-5AR-20240905

Time	Water Level (ft btoc)	Temperature (deg C)	pH	Specific Cond. (us/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
17:05	158.03	13.58	7.44	1854	5.15	-8.5	16.71	50	
17:08	158.08	13.43	7.32	1856	5.08	3.7	10.54	50	
17:11	158.09	13.3	7.32	1861	5.11	12.1	9.09	50	
17:15	158.1	13.23	7.34	1856	4.99	11.7	5.6	50	
17:18	158.12	13.21	7.33	1857	5.03	14.4	3.64	50	
17:21	158.15	13.18	7.34	1856	5.4	17.2	4.72	50	
17:24	158.18	13.13	7.34	1855	5.21	17	6.62	50	
17:27	158.22	12.94	7.33	1858	5.21	19.1	4.81	50	Sampling regardless of turbidity and water level stabilization failing due to excessive purge time.

Groundwater Monitoring Well Low-Flow Sampling Data Sheet

Site Name: Bannock County Date: 9/4/2024 FID ☐ PID ☑ In Casing (ppm) Initial: 0.1 Vented to: 0

Well ID: MW-6A Purging/Sampling Device: Dedicated Pump Depth (ft bgs): N/A

Initial Static Water Level (ft BTOC): 89.85 Analytical Parameters: Total Metals;VOCs (8011);VOCs (8260D)

Final Water Level (ft BTOC): 92.14 QC Samples Collected: None

Purge Start Time: 09:30 Ferrous Iron (mg/L): Allowable Drawdown (ft): 2.5

Min. Purge (gal): 2.9 Final Purge (gal): 3.5 Final Controller Settings: Recharge: 26 secs Discharge: 4 secs Pressure: 105 psi

Sample Time: 13:00 Sampler: CD KI Comments:

Sample ID: MW-6A-20240904

Time	Water Level (ft btoc)	Temperature (deg C)	pH	Specific Cond. (us/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
12:46	91.85	13.99	7.37	960	8.08	54.6	0.36	80	
12:51	91.87	14	7.34	960	7.97	54.1	0.17	80	
12:56	91.93	13.88	7.35	963	8.16	53.8	0.55	80	

Groundwater Monitoring Well Low-Flow Sampling Data Sheet

Site Name: Bannock County Date: 9/6/2024 FID ☐ PID ☑ In Casing (ppm) Initial: 0.3 Vented to: 0

Well ID: MW-8 Purging/Sampling Device: Dedicated Pump Depth (ft bgs): N/A

Initial Static Water Level (ft BTOC): 193.98

Final Water Level (ft BTOC): 195.3

Purge Start Time: 09:00

Min. Purge (gal): 1.9 Final Purge (gal): 2.5

Sample Time: 11:40 Sampler: KI LM

Sample ID: MW-8-20240906

Analytical Parameters: Cyanide (SM4500-CN-E);Dioxin/Furan (8290);Herbicides (8321B);Mercury (7470A);O/C Pest (8081B);O/P Pest (8141B);PCBs (8082A);SVOC (8270E SIM);SVOC (8270E);Total Metals;Total Sulfide (SM 4500S-2);VOCs (8011);VOCs (8260D)

QC Samples Collected: None

Ferrous Iron (mg/L): Allowable Drawdown (ft): 0.4

Final Controller Settings: Recharge: 25 secs Discharge: 5 secs Pressure: 140 psi

Comments:

Time	Water Level (ft btoc)	Temperature (deg C)	pH	Specific Cond. (us/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
11:31	194.75	15.82	7.25	632	7.8	19.8	1.03	50	
11:36	194.75	15.81	7.21	633	7.76	24.6	0.14	50	
11:37	194.75	15.71	7.26	632	7.82	25	0.62	50	

Groundwater Monitoring Well Low-Flow Sampling Data Sheet

Site Name: Bannock County Date: 9/9/2024 FID ☐ PID ☑ In Casing (ppm) Initial: 0 Vented to: 0

Well ID: MW-9 Purging/Sampling Device: Dedicated Pump Depth (ft bgs): N/A

Initial Static Water Level (ft BTOC): 214.91

Final Water Level (ft BTOC): 216.66

Purge Start Time: 08:35

Min. Purge (gal): 3.3 Final Purge (gal): 3.8

Sample Time: 10:30 Sampler: LM KI

Sample ID: MW-9-20240909

Analytical Parameters: Cyanide (SM4500-CN-E);Dioxin/Furan (8290);Herbicides (8321B);Mercury (7470A);O/C Pest (8081B);O/P Pest (8141B);PCBs (8082A);SVOC (8270E SIM);SVOC (8270E);Total Metals;Total Sulfide (SM 4500S-2);VOCs (8011);VOCs (8260D)

QC Samples Collected: MS/MSD

Ferrous Iron (mg/L): Allowable Drawdown (ft): 2

Final Controller Settings: Recharge: 14.5 secs Discharge: 5.5 secs Pressure: 180 psi

Comments:

Time	Water Level (ft btoc)	Temperature (deg C)	pH	Specific Cond. (us/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
10:15	216.02	16.17	6.8	3941	1.07	-152	9.06	100	
10:18	216.11	16.25	6.79	3939	1.06	-152.3	6.95	100	
10:21	216.14	16.18	6.79	3942	1.1	-152.1	6.68	100	
10:24	216.16	16.11	6.79	3938	1.04	-149.9	6.62	100	

Groundwater Monitoring Well Passive Sampling Data Sheet

Site Name: Bannock County Date: 9/6/2024 FID ☐ PID ☑ In Casing (ppm) Initial: N/A Vented to: N/A

Well ID: RW-1 Purging/Sampling Device: Hydrasleeve Pump Depth (ft bgs): N/A

Initial Static Water Level (ft BTOC): 58.12 Analytical Parameters: VOCs (8260D)

Final Water Level (ft BTOC): N/A QC Samples Collected: None

Sample Time: 16:30 Sampler: LM, CD Comments: PID monitor running during sampling, values accidentally not recorded.

Sample ID: RW-1-20240906

Time	Water Level (ft btoc)	Temperature (deg C)	pH	Specific Cond. (us/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
16:30	N/A	16.14	6.39	1662	2.08	120.2	43.7	N/A	PID monitor running during sampling, values accidentally not recorded.

Groundwater Remediation Extraction Well Tap Sampling Data Sheet

Site Name: Bannock County Date: 9/10/2024 FID ☐ PID ☐ In Casing (ppm) Initial: N/A Vented to: N/A

Well ID: RW-10 Purging/Sampling Device: Remediation Tap Pump Depth (ft bgs): N/A

Initial Static Water Level (ft BTOC): N/A Analytical Parameters: VOCs (8260D)

Final Water Level (ft BTOC): N/A QC Samples Collected: None

Sample Time: 08:07 Sampler: LM JM Comments:

Sample ID: RW-10-20240910

Time	Water Level (ft btoc)	Temperature (deg C)	pH	Specific Cond. (us/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
08:07	N/A	12.29	6.66	1108	5.45	197.3	0.02	N/A	

Groundwater Remediation Extraction Well Tap Sampling Data Sheet

Site Name: Bannock County Date: 9/10/2024 FID ☐ PID ☐ In Casing (ppm) Initial: N/A Vented to: N/A

Well ID: RW-15 Purging/Sampling Device: Remediation Tap Pump Depth (ft bgs): N/A

Initial Static Water Level (ft BTOC): N/A Analytical Parameters: VOCs (8260D)

Final Water Level (ft BTOC): N/A QC Samples Collected: None

Sample Time: 09:02 Sampler: LM JM Comments:

Sample ID: RW-15-20240910

Time	Water Level (ft btoc)	Temperature (deg C)	pH	Specific Cond. (us/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
09:02	N/A	13.47	6.65	1381	3.05	69.7	0	N/A	

Groundwater Remediation Extraction Well Tap Sampling Data Sheet

Site Name: Bannock County Date: 9/10/2024 FID ☐ PID ☐ In Casing (ppm) Initial: N/A Vented to: N/A

Well ID: RW-17 Purging/Sampling Device: Remediation Tap Pump Depth (ft bgs): N/A

Initial Static Water Level (ft BTOC): N/A Analytical Parameters: VOCs (8260D)

Final Water Level (ft BTOC): N/A QC Samples Collected: None

Sample Time: 09:10 Sampler: LM JM Comments:

Sample ID: RW-17-20240910

Time	Water Level (ft btoc)	Temperature (deg C)	pH	Specific Cond. (us/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
09:10	N/A	13.11	6.65	1139	2.94	107.4	0	N/A	

Groundwater Monitoring Well Low-Flow Sampling Data Sheet

Site Name: Bannock County Date: 9/6/2024 FID ☐ PID ☑ In Casing (ppm) Initial: 0.4 Vented to: 0

Well ID: RW-2 Purging/Sampling Device: Portable Pump Pump Depth (ft bgs): N/A

Initial Static Water Level (ft BTOC): 62.48 Analytical Parameters: CSIA;Dissolved Gases;Ferrous Iron;TOC;VOCs (8260D)

Final Water Level (ft BTOC): 63.04 QC Samples Collected: Duplicate

Purge Start Time: 12:52 Ferrous Iron (mg/L): 0 Allowable Drawdown (ft): 0.1

Min. Purge (gal): 1.2 Final Purge (gal): 3.5 Final Controller Settings: Recharge: 26 secs Discharge: 4 secs Pressure: 65 psi

Sample Time: 13:40 Sampler: JM, CS Comments: Ferrous iron non detect

Sample ID: RW-2-20240906

Time	Water Level (ft btoc)	Temperature (deg C)	pH	Specific Cond. (us/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
13:20	62.83	16.4	6.56	1641	3.81	77.6	3.24	175	Needed extra purge due to drawdown
13:25	62.84	16.1	6.57	1635	3.88	74.9	3.54	175	
13:30	62.89	16.13	6.57	1631	4.16	71.3	3.27	175	

Groundwater Monitoring Well Low-Flow Sampling Data Sheet

Site Name: Bannock County Date: 9/8/2024 FID ☐ PID ☑ In Casing (ppm) Initial: N/A Vented to: N/A

Well ID: RW-2140H Purging/Sampling Device: Offsite Tap Pump Depth (ft bgs): N/A

Initial Static Water Level (ft BTOC): N/A Analytical Parameters: VOCs (8260D)

Final Water Level (ft BTOC): N/A QC Samples Collected: None

Purge Start Time: 11:14 Ferrous Iron (mg/L): Allowable Drawdown (ft):

Min. Purge (gal): 400 Final Purge (gal): 400 Comments: Off-site Tap well

Sample Time: 13:15 Sampler: ML, JM, CS

Sample ID: RW-2140H-20240908

Time	Water Level (ft btoc)	Temperature (deg C)	pH	Specific Cond. (us/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Flow Rate (gal/min)	Comments
12:50	N/A	13.34	7.22	838	8.77	33	0	6.7	
12:55	N/A	12.18	7.05	820	8.72	40.5	0.1	6.7	
13:00	N/A	12.3	6.99	798	8.61	45.3	0.31	6.7	
13:05	N/A	12.1	6.99	794	8.66	48.3	0.48	6.7	
13:10	N/A	12.08	6.92	791	8.65	46.8	0.34	6.7	

Groundwater Monitoring Well Passive Sampling Data Sheet

Site Name: Bannock County Date: 9/6/2024 FID ☐ PID ☑ In Casing (ppm) Initial: N/A Vented to: N/A

Well ID: RW-3 Purging/Sampling Device: Hydrasleeve Pump Depth (ft bgs): N/A

Initial Static Water Level (ft BTOC): 53.73 Analytical Parameters: VOCs (8260D)

Final Water Level (ft BTOC): N/A QC Samples Collected: None

Sample Time: 17:35 Sampler: LM, CD Comments: PID monitor running during sampling, values accidentally not recorded.

Sample ID: RW-3-20240906

Time	Water Level (ft btoc)	Temperature (deg C)	pH	Specific Cond. (us/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
17:35	N/A	17.34	6.62	2140	3.46	120.8	15.16	N/A	PID monitor running during sampling, values accidentally not recorded.

Groundwater Remediation Extraction Well Tap Sampling Data Sheet

Site Name: Bannock County Date: 9/10/2024 FID ☐ PID ☐ In Casing (ppm) Initial: N/A Vented to: N/A

Well ID: RW-4 Purging/Sampling Device: Remediation Tap Pump Depth (ft bgs): N/A

Initial Static Water Level (ft BTOC): N/A Analytical Parameters: VOCs (8260D)

Final Water Level (ft BTOC): N/A QC Samples Collected: None

Sample Time: 08:18 Sampler: LM JM Comments:

Sample ID: RW-4-20240910

Time	Water Level (ft btoc)	Temperature (deg C)	pH	Specific Cond. (us/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
08:18	N/A	14.82	6.48	1415	4.93	186.2	0.55	N/A	

Groundwater Remediation Extraction Well Tap Sampling Data Sheet

Site Name: Bannock County Date: 9/10/2024 FID ☐ PID ☐ In Casing (ppm) Initial: N/A Vented to: N/A

Well ID: RW-5 Purging/Sampling Device: Remediation Tap Pump Depth (ft bgs): N/A

Initial Static Water Level (ft BTOC): N/A Analytical Parameters: VOCs (8260D)

Final Water Level (ft BTOC): N/A QC Samples Collected: None

Sample Time: 08:12 Sampler: LM JM Comments:

Sample ID: RW-5-20240910

Time	Water Level (ft btoc)	Temperature (deg C)	pH	Specific Cond. (us/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
08:12	N/A	12.54	6.64	1075	6.57	192.8	0.02	N/A	

Groundwater Remediation Extraction Well Tap Sampling Data Sheet

Site Name: Bannock County Date: 9/10/2024 FID ☐ PID ☐ In Casing (ppm) Initial: N/A Vented to: N/A

Well ID: RW-9R Purging/Sampling Device: Remediation Tap Pump Depth (ft bgs): N/A

Initial Static Water Level (ft BTOC): N/A Analytical Parameters: VOCs (8260D)

Final Water Level (ft BTOC): N/A QC Samples Collected: None

Sample Time: 08:23 Sampler: LM JM Comments:

Sample ID: RW-9R-20240910

Time	Water Level (ft btoc)	Temperature (deg C)	pH	Specific Cond. (us/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Flow Rate (mL/min)	Comments
08:23	N/A	14.45	6.38	1781	1.43	102.7	0.14	N/A	

Fall 2024 Hydrasleeve Field Form

Well ID	Tether Deployment Depth (ft btoc)	Hydrasleeve Deployment Date/Time	Sample (Retrieval) Date/Time	Water Level (ft btoc)	DO (mg/L)	ORP (mV)	pH (su)	Temperature (°C)	Specific Conductance (µS/cm)	Turbidity (NTU)	Visual Observation	PID (retrieval)	Sample ID
MP-4	80.8	9/3/24 14:35	9/6/24 15:55	59.43	3.14	54.1	6.64	19.14	1345	16.34		not recorded	MP-4-20240906
MW-117R	118	9/8/24 10:40	9/10/24 10:40	116.26	8.87	87.9	6.87	15.48	1450	4.74		1.2->0	MW-117R-20240910
MW-111S	73.8	9/3/24 15:15	9/8/24 9:25	51.03	2.31	-129.1	6.58	13.46	6845	8.47	cloudy, yellow	0	MW-111S-20240908
MW-113D	128.4	9/3/24 15:50	9/6/24 17:00	23.33	2.95	167.4	6.82	16.01	1081	16.23		not recorded	MW-113D-20240906
RW-1	80	9/3/24 15:50	9/6/24 16:30	58.12	2.08	120.2	6.39	16.14	1662	43.7		not recorded	RW-1-20240906
RW-3	70	9/3/24 15:50	9/6/24 17:35	53.73	3.46	120.8	6.62	17.34	2140	15.16		not recorded	RW-3-20240906
MW-109S	58.8	9/3/24 16:05	9/6/24 16:40	49.35	3.37	63.3	6.82	16.34	793	6.23	clear	4.9->0.0	MW-109S-20240906
MP-1	83.5	9/3/24 16:10	9/6/24 16:15	58.7	3.44	159.4	6.36	17.76	1536	1		not recorded	MP-1-20240906
MW-109D	85	9/3/24 16:10	9/6/24 17:00	61.08	6.5	54.1	7.09	18.29	907	2.33	clear	0.4->0.0	MW-109D-20240906
MW-101S	66.6	9/3/24 16:48	9/6/24 17:20	58.02	9.24	48.3	7.3	17.12	657	2.5	clear	0.4->0.0	MW-101S-20240906
MP-3	80.8	9/3/24 17:02	9/6/24 16:45	62.84	6.25	165.1	6.55	16.46	1046	8.56		not recorded	MP-3-20240906
MW-112M	73.8	9/3/24 17:10	9/8/24 9:50	64.92	9.42	-5.1	6.83	13.9	710	30.8	cloudy	0	MW-112M-20240908
MW-123	73.9	9/3/24 17:22	9/8/24 10:05	38.93	8.86	12.6	6.94	12.29	763	39.1	cloudy	0	MW-123-20240908
MW-110D	156.5	9/3/24 17:55	9/6/24 17:20	124.85	2.55	-121	7.03	17.98	933	4.91		not recorded	MW-110D-20240906
MW-110S	129.2	9/3/24 18:00	9/8/24 9:10	120.69	3.3	193.1	6.27	14.62	1139	9.56	cloudy, sediment	11.8->0	MW-110S-20240908
MW-115S	91.8	9/3/24 18:20	9/8/24 13:30	73.58	9.3	5.8	7.06	15.72	663	1.62		0	MW-115S-20240908

Notes

Non-top weighted hydrasleeves to allowed to stabilize in well for 24-48 hours after deploying tether.

Top weighted hydrasleeves allowed to stabilize in well for ~72 hours after deploying tether.

btoc below top of casing
mg/L- milligrams per liter
mV- millivolts
su- standard units
°C- degrees Celsius
µS/cm- microsiemens per centimeter
NTU- nephelometric turbidity unit

EQUIPMENT CALIBRATION LOG

SITE NAME: Barnes County Landfill Fall 2024 GW

770.5

Instrument (Name/Model No./Serial No.): 14C101880

Manufacturer: YSI ~~556~~ 55C

Calibration Date	Initial Setting	Standard/ Gas Used (Concentration)	Lot Control No. Expiration Date	Adjustments Made	Final Reading	Comments Pass/Fail	Signature
09/06/24	7.08	Ph 7.0	440205G7 3/28/26	Y	7.0	P	Caleb
09/06/24	9.96	Ph 10.0	440901G7 4/4/26	Y	10.0	P	Caleb
09/06/24	3.92	Ph 4.0	440306G6 3/20/26	Y	3.99	P	Caleb
09/06/24	1430	1409 umhos/cm	8403134 3/30/26	Y	1409	P	Caleb
09/06/24	215.8	220mv	15043 03/18/25	Y	219.8	P	Caleb
09/06/24	105.6	770.6 100%	Sat air	Y	101.4	P	Caleb

769.4

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EQUIPMENT CALIBRATION LOG

SITE NAME: Barnwell County Landfill

Instrument (Name/Model No./Serial No.): 14C101880

Manufacturer: YSI ~~558~~ 556

Calibration Date	Initial Setting	Standard/ Gas Used (Concentration)	Lot Control No. Expiration Date	Adjustments Made	Final Reading	Comments Pass/Fail	Signature
09/04/24	6.97	ph7.0	44020567 ~~2/22/26~~	Y	7.00	P	
09/04/24	10.05	ph10.0	44040147 4/4/26	Y	10.00	P	
09/04/24	4.04	Ph 4.0	44030046 ~~3/20/26~~ ~~7/21/24~~	Y	4.00	P	
09/04/24		1409 umhos/cm	~~8403134~~ ~~3/30/24~~	(W)			
09/04/24	1228	1409 umhos/cm	8403134 3/30/26	Y	1409	P	
09/04/24	227.0	220mV	15043 03/18/25	Y	220.0	P	
09/04/24	92.1	769.4 ~~FAP%~~	Sat air	Y	101.2		
09/05/24	7.03	ph7.0	44020567 2/22/26	Y	7.00	P	
09/05/24	9.98	Ph 10.0	44040147 4/4/26	Y	10.00	P	
09/05/24	4.03	ph4.0	44030046 3/20/26	Y	4.00	P	
09/05/24	1399	Conductivity 1409 umhos/cm	8403134 3/30/26	Y	1409	P	
09/05/24	222.8	220mV	15043 03/18/25	Y	220.0	P	
09/05/24	97.4	773.4 100%	Sat air	Y	101.5	P	

EQUIPMENT CALIBRATION LOG

SITE NAME: FHML Fall 2024

Instrument (Name/Model No./Serial No.): Apera TN500 Turbidity Meter 1220445967

Manufacturer: Apera Instruments

Calibration Date	Initial Setting	Standard/ Gas Used (Concentration)	Lot Control No. Expiration Date	Adjustments Made	Final Reading	Comments Pass/Fail	Signature
9/4/2024	~~0.0 NTU~~	0.0 NTU	N/A	N/A	0.02 NTU	Pass	
"	—	20.0 NTU	24009178 07/2025	N/A	20 NTU	Pass	
"	—	100.0 NTU	24004532 07/2025	N/A	100 NTU	Pass	
"	—	400 NTU	24009180 07/2025	N/A	400 NTU	Pass	
"	—	800 NTU	24004535 07/2025	N/A	800 NTU	Pass	
9/5/2024	—	0.0 NTU	N/A	N/A	0.02 NTU	Pass	
"	—	20 NTU	24009178 07/2025	N/A	20 NTU	Pass	
"	—	100 NTU	24004532 07/2025	N/A	100 NTU	Pass	
"	—	400 NTU	24009180 07/2025	N/A	400 NTU	Pass	
"	—	800 NTU	24004535 07/2025	N/A	800 NTU	Pass	
9/6/2024	—	0.0 NTU	N/A	N/A	0.02 NTU	Pass	
"	—	20 NTU	24009178 07/2024	N/A	20 NTU	Pass	
"	—	100 NTU	24004532 07/2024	N/A	100 NTU	Pass	
"	—	400 NTU	24009180 07/2024	N/A	400 NTU	Pass	
"	—	800 NTU	24004535 07/2024	N/A	800 NTU	Pass	

EQUIPMENT CALIBRATION LOG

SITE NAME: FHML Fall 2024

Instrument (Name/Model No./Serial No.): Apera TN500 Turbidity Meter 1220345945

Manufacturer: Apera Instruments

Calibration Date	Initial Setting	Standard/ Gas Used (Concentration)	Lot Control No. Expiration Date	Adjustments Made	Final Reading	Comments Pass/Fail	Signature
9/4/2024	—	0.0 NTU	N/A	N/A	0.02 NTU	Pass	
11	—	20 NTU	24005531 07/2025	N/A	20 NTU	Pass	
11	—	100 NTU	24005532 07/2025	N/A	100 NTU	Pass	
11	—	400 NTU	24005533 07/2025	N/A	400 NTU	Pass	
11	—	800 NTU	24005534 07/2025	N/A	800 NTU	Pass	
9/5/2024	—	0.0 NTU	N/A	N/A	0.02 NTU	Pass	
11	—	20 NTU	24005531 07/2025	N/A	20 NTU	Pass	
11	—	100 NTU	24005532 07/2025	N/A	100 NTU	Pass	
11	—	400 NTU	24005533 07/2025	N/A	400 NTU	Pass	
11	—	800 NTU	24005534 07/2025	N/A	400 NTU	Pass	
9/6/2024	—	0.0 NTU	N/A	N/A	0.02 NTU	Pass	
11	—	20 NTU	24005531 07/2024	N/A	20 NTU	Pass	
11	—	100 NTU	24005532 07/2024	N/A	100 NTU	Pass	
11	—	400 NTU	24005533 07/2024	N/A	400 NTU	Pass	
11	—	800 NTU	24005534 07/2024	N/A	800 NTU	Pass	

EQUIPMENT CALIBRATION LOG

SITE NAME: FHML Fall 2024

Instrument (Name/Model No./Serial No.): Apera TN500 Turbidity Meter 1220445965

Manufacturer: Apera Instruments

Calibration Date	Initial Setting	Standard/ Gas Used (Concentration)	Lot Control No. Expiration Date	Adjustments Made	Final Reading	Comments Pass/Fail	Signature
9/4/2024	—	0.0 NTU	N/A	N/A	0.02 NTU	Pass	
11	—	20 NTU	24009178 07/2025	N/A	20 NTU	Pass	
11	—	100 NTU	24004532 07/2025	N/A	100 NTU	Pass	
11	—	400 NTU	24004140 07/2025	N/A	400 NTU	Pass	
11	—	800 NTU	24004534 07/2025	N/A	800 NTU	Pass	
9/5/2024	—	0.0 NTU	N/A	N/A	0.02 NTU	Pass	
11	—	20 NTU	24009178 07/2025	N/A	20 NTU	Pass	
11	—	100 NTU	24004532 07/2025	N/A	100 NTU	Pass	
11	—	400 NTU	24004140 07/2025	N/A	400 NTU	Pass	
11	—	800 NTU	24004534 07/2025	N/A	800 NTU	Pass	
9/6/2024	—	00 NTU	N/A	N/A	0.02 NTU	Pass	
11	—	20 NTU	24009178 07/2025	N/A	20 NTU	Pass	
11	—	100 NTU	24004532 07/2025	N/A	100 NTU	Pass	
11	—	400 NTU	24009140 07/2025	N/A	400 NTU	Pass	
11	—	800 NTU	24004534 07/2025	N/A	800 NTU	Pass	

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EQUIPMENT CALIBRATION LOG

SITE NAME: Bannock County Landfill

Instrument (Name/Model No./Serial No.): YSI 556 U113953x

Manufacturer: YSI

Calibration Date	Initial Setting	Standard/ Gas Used (Concentration)	Lot Control No. Expiration Date	Adjustments Made	Final Reading	Comments Pass/Fail	Signature
9/9/24	216.6	220 mV	15043 3/18/25	N	220.2	Pass	CalibSchaf
9/9/24	97.8%	763.8	Sat Air	N	100.8%	Pass	CalibSchaf

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EQUIPMENT CALIBRATION LOG

SITE NAME: FHML Bannock County

Instrument (Name/Model No./Serial No.): RKI GX-6000 415726X (Rental)

Manufacturer: RKI

Calibration Date	Initial Setting	Standard/ Gas Used (Concentration)	Lot Control No. Expiration Date	Adjustments Made	Final Reading	Comments Pass/Fail	Signature
9/4/24	0	Fresh air	—	N	0	Pass	
9/4/24	~~50%~~ 44%	50% LEL CH_4	24-1932 8/26/26	N	50%	Pass	
9/4/24	89.8 ppm	Isobutylene 100 ppm	24-2031 7/17/28	Y	100 ppm	Pass	
9/5/24	0	Fresh air	—	N	0	Pass	
9/5/24	47	50% LEL CH_4	24-1932 8/26/26	Y	50%	Pass	
9/5/24	90.8	Isobutylene 100 ppm	24-2031 7/17/28	Y	100 ppm	Pass	
9/6/24	0	Fresh air	—	N	0	Pass	
9/6/24	50	50% LEL CH_4	24-1932 8/26/26	N	50%	Pass	
9/6/24	90.8	Isobutylene 100 ppm	24-2031 7/17/28	Y	100 ppm	Pass	
9/8/24	0	Fresh air	—	N	0	Pass	
9/8/24	48	50% LEL CH_4	24-1932 8/26/26	N	50%	Pass	
9/8/24	90.7	Isobutylene	24-2031 ~~7/17/28~~	Y	100 ppm	Pass	
9/9/24	0	Fresh air	—	—	0	Pass	
9/9/24	50	50% LEL CH_4	24-1932 8/26/26	N	50%	Pass	
9/9/24	88.5	Isobutylene 100 ppm	24-2031 7/17/28	Y	100 ppm	Pass	

EQUIPMENT CALIBRATION LOG

SITE NAME: FHML Bannock County

Instrument (Name/Model No./Serial No.): RKI GX-6000 317040154RN

Manufacturer: RKI

Calibration Date	Initial Setting	Standard/ Gas Used (Concentration)	Lot Control No. Expiration Date	Adjustments Made	Final Reading	Comments Pass/Fail	Signature
9/9/24	0	Fresh air	—	—	0	Pass	
	53	LEL 50% CH_4	~~23~~ 24-1432 3/26/26	N	50	Pass	
	99.9	Isobutylene 100ppm	24-2031 7/17/25	N	100	Pass	
9/10/24	0	Fresh air	—	—	0	Pass	
	48	LEL 50% CH_4	24-1432 3/26/26	N	50	Pass	
	100.6	Isobutylene 100ppm	24-2031 7/17/25	N	100 ppm	Pass	

EQUIPMENT CALIBRATION LOG

SITE NAME: FHML Bannock County

Instrument (Name/Model No /Serial No.): RKI GX-6000 317040190RN

Manufacturer: RKI

Calibration Date	Initial Setting	Standard/ Gas Used (Concentration)	Lot Control No. Expiration Date	Adjustments Made	Final Reading	Comments Pass/Fail	Signature
9/9/24	0	Fresh air	—	—	0	Pass	
	48	LEL 50% CH_4	24-1432 8/26/26	N	50%	Pass	
	99.7	Isobutylene 100ppm	24-2038-1 8/17/28	N	100ppm	Pass	

EQUIPMENT CALIBRATION LOG

SITE NAME: FHML

Instrument (Name/Model No./Serial No.): RKI GX-6000 317040154RN

Manufacturer: RKI

Calibration Date	Initial Setting	Standard/ Gas Used (Concentration)	Lot Control No. Expiration Date	Adjustments Made	Final Reading	Comments Pass/Fail	Signature
9/3/24	0	Fresh Air	—	—	0	Pass	
↓	48	LEL 50% CH4	24-1932 8/26/26	—	50	Pass	
↓	96.7	100ppm Isobutylene	24-2031 7/17/28	—	99.9	Pass	
9/4/24	0	Fresh air	—	—	0	Pass	
↓	48	LEL 50% CH_4	24-1932 8/26/26	—	50	Pass	
↓	101.1	100ppm Isobutylene	24-2031 7/17/28		100	Pass	
9/5/24	0	Fresh Air	—	—	0	Pass	
↓	44	LEL 50% CH_4	24-1932 8/26/26	—	50	Pass	
↓	100.3	100ppm Isobutylene	24-2031 7/17/28	—	100	Pass	
9/6/24	0	Fresh air	—	—	0	Pass	
↓	48	LEL 50% CH_4	24-1932 8/26/26	—	50	Pass	
↓	96.2	100ppm Isobutylene	24-2031 7/17/28	—	100	Pass	
9/8/24	0	Fresh air	—	—	0	Pass	
↓	47	LEL 50% CH_4	24-1932 8/26/26	Y	50	Pass	
↓	99.6	Isobutylene	24-2301 7/17/28	N	100	Pass	

EQUIPMENT CALIBRATION LOG

SITE NAME: Bannock Landfill

Instrument (Name/Model No./Serial No.): ~~227040144RN~~ CO 09/03/24 317040190RN

Manufacturer: Rhi Gx 6000

Calibration Date	Initial Setting	Standard/ Gas Used (Concentration)	Lot Control No. Expiration Date	Adjustments Made	Final Reading	Comments Pass/Fail	Signature
09/03/24	4184.LEL	50% LeL CH_4	~~140-3500 CO~~ 24-1932 08/26/26	Y	50%	P	
09/03/24	99.5	Isobutylene 100 ppm	24-2031 07/17/28	Y	100ppm	P	
9/4/24	0	Fresh air	—	N	0	Pass	
9/4/24	48%	50% LEL CH_4	24-1932 8/26/26	Y	50%	Pass	
9/4/24	100.1	100ppm Isobutylene	24-2031 ~~7/17/28~~	N	100ppm	Pass	
9/5/24	0	Fresh air	—	N	0	Pass	
9/5/24	49%	50% LEL CH_4	24-1932 8/26/26	N	50%	Pass	
9/5/24	101.0	100ppm Isobutylene	24-2031 7/17/28	N	100ppm	Pass	
9/6/24	0	Fresh air	—	—	0	Pass	
9/6/24	50	50% LEL CH_4	24-1932 8/26/26	N	50%	Pass	
9/6/24	97.9	100ppm Isobutylene	24-2031 7/17/28	N	100ppm	Pass	
9/8/24	0	Fresh air	—	—	0	Pass	
↓	49	50% LEL CH_4	24-1932 8/26/26	N	50%	Pass	
↓	99.3	100ppm Isobutylene	24-2031 7/17/28	N	100ppm	Pass	

EQUIPMENT CALIBRATION LOG

SITE NAME: Bannock County Landfill

Instrument (Name/Model No./Serial No.): YSI 556 U13953x

Manufacturer: YSI

Calibration Date	Initial Setting	Standard/ Gas Used (Concentration)	Lot Control No. Expiration Date	Adjustments Made	Final Reading	Comments Pass/Fail	Signature
9/4/24	7.01	pH 7.0	44020567 2/22/26	N	7.0	Pass	CalwSal
9/4/24	4.01	pH 4.0	44630046 3/20/26	N	4.0	Pass	CalwSal
9/4/24	10.02	pH 10.0	44040147 4/4/26	N	10.01	Pass	CalwSal
9/4/24	1166	1409 umho/cm	8403134 3/30/26	Y	1228	Pass	CalwSal
9/4/24	290.5	220 mV	15043 3/18/25	N	220	Pass	CalwSal
9/4/24	84.5%	769.4	Sat air	N	101.1%	Pass	CalwSal
9/5/24	6.98	pH 7.0	44020567 2/22/26	N	7.00	Pass	CalwSal
9/5/24	9.99	pH 10.0	44040147 4/4/26	N	10.01	Pass	CalwSal
9/5/24	4.10	pH 4.0	44630046 3/20/26	N	4.03	Pass	CalwSal
9/5/24	1156	1409 umho/cm	8403134 3/30/26	Y	1233	Pass	CalwSal
9/5/24	223.6	220mV	15043 3/18/25	N	220.3	Pass	CalwSal
9/5/24	109%	773.4	Sat air	N	101.6%	Pass	CalwSal
9/6/24	6.99	pH 7.0	44020567 2/22/26	N	7.0	Pass	CalwSal
9/6/24	3.97	pH 4.0	44630046 3/20/26	N	4.0	Pass	CalwSal

EQUIPMENT CALIBRATION LOG

SITE NAME: Bonnell County Land Fill

Instrument (Name/Model No./Serial No.): YSI 556 01139533

Manufacturer: YSI

Calibration Date	Initial Setting	Standard/ Gas Used (Concentration)	Lot Control No. Expiration Date	Adjustments Made	Final Reading	Comments Pass/Fail	Signature
9/6/24	10.02	pH 10.0	44040147 4/4/26	N	10.01	Pass	CalibSol
9/6/24	1280	1409 umho/cm	8403134 3/30/26	Y	1228	Pass	CalibSol
9/6/24	211.6	220mV	15043 3/18/25	N	219.6	Pass	CalibSol
9/6/24	93.3%	770.6	Sat Air	N	101.5%	Pass	CalibSol
9/7/24	7.08	pH 7.0	44020567 2/22/26	N	7.00	Pass	CalibSol
9/8/24	9.98	pH 10.0	44040147 4/4/26	N	10.00	Pass	CalibSol
9/8/24	4.05	pH 4.0	44030046 3/20/26	N	4.00	Pass	CalibSol
9/8/24	1222	1409 umho/cm	8403134 3/30/26	Y	1212	Pass	CalibSol
9/8/24	226.6	220mV	15043 3/18/25	N	219.7	Pass	CalibSol
9/8/24	100.4%	763.8	Sat Air	N	100.5%	Pass	CalibSol
9/8/24	6.94	pH 7.0	44020567 2/22/26	N	7.00	Pass	CalibSol
9/9/24	10.06	pH 10.0	44040147 4/4/26	N	10.02	Pass	CalibSol
9/9/24	4.05	pH 4.0	44030046 3/20/26	N	4.01	Pass	CalibSol
9/9/24	1217	1409 umho/cm	8403134 3/30/26	N CS Y	1224	Pass	CalibSol

EQUIPMENT CALIBRATION LOG

SITE NAME: Bannock

Instrument (Name/Model No./Serial No.): YSI 556MPS 11136501X

Manufacturer: YSI Incorporated

Calibration Date	Initial Setting	Standard/ Gas Used (Concentration)	Lot Control No. Expiration Date	Adjustments Made	Final Reading	Comments Pass/Fail	Signature
9/8/24	1319	1409	8403134 3/20/26	yes	1409	Pass	LM
9/8/24	7.05	7.00	44020567 2/22/26	yes	7.00	Pass	LM
9/8/24	4.44	4.00	44030046 3/20/26	yes	4.00	Pass	LM
9/8/24	9.88	10.00	44046147 4/4/26	yes	10.00	Pass	LM
9/8/24	228	220mVolts	15043 3/18/25	yes	220	Pass	LM
9/8/24	9.11	air 763.8	N/A	yes	9.39	Pass	LM
9/9/24	1377	1409	8403134 3/20/26	yes	1409	Pass	LM
9/9/24	7.06	7.00	44020567 2/22/26	yes	7.00	Pass	LM
9/9/24	4.31	4.00	44030046 3/20/26	yes	4.00	Pass	LM
9/11/24	9.87	10.00	44046147 4/4/26	yes	10.00	Pass	LM
9/9/24	217.5	220mVolts	15043 3/18/25	yes	220	Pass	LM
9/9/24	9.10	air 763.8	N/A	yes	9.40	Pass	LM
9/10/24	1470	1409	8403134 3/20/26	yes	1409	Pass	LM
9/10/24	7.21	7.00	44020567 2/22/26	yes	7.00	Pass	LM
9/10/24	4.16	4.00	44030046 3/20/26	yes	4.00	Pass	LM
9/10/24	9.82	10.00	44046147 4/4/26	yes	10.00	Pass	LM
9/10/24	217.9	220mVolts	15043 3/18/25	yes	220	Pass	LM
9/10/24	9.16	air 762.7	N/A	yes	9.31	Pass	LM

EQUIPMENT CALIBRATION LOG

SITE NAME: Bannock

Instrument (Name/Model No /Serial No.): YSI 556MPS U113650X

Manufacturer: YSI incorporated

Calibration Date	Initial Setting	Standard/ Gas Used (Concentration)	Lot Control No. Expiration Date	Adjustments Made	Final Reading	Comments Pass/Fail	Signature
9/4/24	1409 umhos/cm	1409 umho/cm	3/20/26 8403134	yes	1.409 ms/cm	Pass	LM
9/4/24	7.16	7.00	44020567 2/22/26	yes	7.00	Pass	LM
9/4/24	3.96	4.00	44030046 3/20/26	yes	4.00	Pass	LM
9/4/24	8.97	10.00	44046147 4/4/26	yes	10.00	Pass	LM
9/4/24	280.3	220mVolts	15044 3/18/25	yes	220	Pass	LM
9/4/24	~~86.6%~~ LM 8.22mg/L	air (769.3)	N/A	yes	9.61 mg/L	Pass	LM
9/5/24	1409	1409	3/20/26 8403134	yes	1409	Pass	LM
9/5/24	7.08	7.00	44020567 2/22/26	yess	7.00	Pass	LM
9/5/24	3.94	4.00	44030046 3/20/26	yes	4.00	Pass	LM
9/5/24	9.84	10.00	44046147 4/4/26	yes	10.00	Pass	LM
9/5/24	217.5	220mVolts	15044 3/18/25	yes	220	Pass	LM
9/5/24	10.05 mg/L	air 773.4	N/A	yes	10.42 mg/L	Pass	LM
9/6/24	1489	1409	3/20/26 8403134	yes	1409	Pass	LM
9/6/24	7.14	7.00	44020567 2/22/26	yes	7.00	pass	LM
9/6/24	4.32	4.00	44030046 3/20/26	yes	4.00	Pass	LM
9/6/24	9.93	10.00	44046147 4/4/26	yes	10.00	Pass	LM
9/6/24	201.5	220mVolts	15044 3/18/25	yes	220	Pass	LM
9/6/24	9.17	air 770.6	N/A	yes	9.37	Pass	LM

EQUIPMENT CALIBRATION LOG

SITE NAME: FHML Fall 2024

Instrument (Name/Model No /Serial No.): Apera TN500 Turbidity Meter 1220445965

Manufacturer: Apera Instruments

Calibration Date	Initial Setting	Standard/ Gas Used (Concentration)	Lot Control No. Expiration Date	Adjustments Made	Final Reading	Comments Pass/Fail	Signature
9/4/2024	—	0.0 NTU	N/A	N/A	0.02 NTU	Pass	
11	—	20 NTU	24009175 07/2025	N/A	20 NTU	Pass	
11	—	100 NTU	24004532 07/2025	N/A	100 NTU	Pass	
11	—	400 NTU	24004140 07/2025	N/A	400 NTU	Pass	
11	—	800 NTU	24004534 07/2025	N/A	800 NTU	Pass	
9/5/2024	—	0.0 NTU	N/A	N/A	0.02 NTU	Pass	
11	—	20 NTU	24009175 07/2025	N/A	20 NTU	Pass	
11	—	100 NTU	24004532 07/2025	N/A	100 NTU	Pass	
11	—	400 NTU	24004140 07/2025	N/A	400 NTU	Pass	
11	—	800 NTU	24004534 07/2025	N/A	800 NTU	Pass	
9/6/2024	—	00 NTU	N/A	N/A	0.02 NTU	Pass	
11	—	20 NTU	24009175 07/2025	N/A	20 NTU	Pass	
11	—	100 NTU	24004532 07/2025	N/A	100 NTU	Pass	
11	—	400 NTU	24004140 07/2025	N/A	400 NTU	Pass	
11	—	800 NTU	24004534 07/2025	N/A	800 NTU	Pass	

Cal Date	Initial Setting	Standard/ gas used	Lot Control	Adjust made	Final Reading	Comments Pass/Fail	Signature
9/9/2024	———	0.0 NTU	N/A	N/A	0.02 NTU	Pass	
"	———	20 NTU	24009175 07/25	N/A	20 NTU	Pass	
"	———	100 NTU	24004532 07/25	N/A	100 NTU	Pass	
"	———	400 NTU	24004550 07/25	N/A	400 NTU	Pass	
"	———	800 NTU	24004534 07/25	N/A	800 NTU	Pass	
9/9/2024	———	0.0 NTU	N/A	N/A	0.02 NTU	Pass	
"	———	20 NTU	24009175 07/25	N/A	20 NTU	Pass	
"	———	100 NTU	24004532 07/25	N/A	100 NTU	Pass	
"	———	400 NTU	24009140 07/25	N/A	400 NTU	Pass	
"	———	800 NTU	24004534 07/25	N/A	800 NTU	Pass	

EQUIPMENT CALIBRATION LOG

SITE NAME: FHML Fall 2024

Instrument (Name/Model No./Serial No.): Apera TN500 Turbidity Meter 1220445967

Manufacturer: Apera instruments

Calibration Date	Initial Setting	Standard/ Gas Used (Concentration)	Lot Control No. Expiration Date	Adjustments Made	Final Reading	Comments Pass/Fail	Signature
9/4/2024	~~0.0 NTU~~	0.0 NTU	N/A	N/A	0.02 NTU	Pass	
"	—	20.0 NTU	24009175 07/2025	N/A	20 NTU	Pass	
"	—	100.0 NTU	24004532 07/2025	N/A	100 NTU	Pass	
"	—	400 NTU	24009180 07/2025	N/A	400 NTU	Pass	
"	—	800 NTU	24004535 07/2025	N/A	800 NTU	Pass	
9/5/2024	—	0.0 NTU	N/A	N/A	0.02 NTU	Pass	
"	—	20 NTU	24009179 07/2025	N/A	20 NTU	Pass	
"	—	100 NTU	24004532 07/2025	N/A	100 NTU	Pass	
"	—	400 NTU	24009180 07/2025	N/A	400 NTU	Pass	
"	—	800 NTU	24004535 07/2025	N/A	800 NTU	Pass	
9/6/2024	—	0.0 NTU	N/A	N/A	0.02 NTU	Pass	
"	—	20 NTU	24009178 07/2024	N/A	20 NTU	Pass	
"	—	100 NTU	24004532 07/2024	N/A	100 NTU	Pass	
"	—	400 NTU	24009180 07/2024	N/A	400 NTU	Pass	
"	—	800 NTU	24004535 07/2024	N/A	800 NTU	Pass	

Cal. Date	Initial setting	Standard/ gas used	Lot Control	Adjust Made	Final Reading	Comments Pass/ Fail	Signature
9/9/2024	———	0.0 NTU	N/A	N/A	0.02 NTU	Pass	
"	———	20 NTU	24009179 07/25	N/A	20 NTU	Pass	
"	———	100 NTU	24004532 07/25	N/A	100 NTU	Pass	
"	———	400 NTU	24004140 07/25	N/A	400 NTU	Pass	
"	———	800 NTU	24004534 07/25	N/A	800 NTU	Pass	
9/10/2024	———	0.0 NTU	N/A	N/A	0.02 NTU	Pass	
"	———	20 NTU	24009174 07/25	N/A	20 NTU	Pass	
"	———	100 NTU	24004532 07/25	N/A	100 NTU	Pass	
"	———	400 NTU	24004140 07/25	N/A	400 NTU	Pass	
"	———	800 NTU	24004534 07/25	N/A	800 NTU	Pass	

EQUIPMENT CALIBRATION LOG

SITE NAME: FHMI Fall 2024

Instrument (Name/Model No./Serial No.): Apera TN500 Turbidity Meter 1220345945

Manufacturer: Apera Instruments

Calibration Date	Initial Setting	Standard/ Gas Used (Concentration)	Lot Control No. Expiration Date	Adjustments Made	Final Reading	Comments Pass/Fail	Signature
9/4/2024	—	0.0 NTU	N/A	N/A	0.02 NTU	Pass	
11	—	20 NTU	24005531 07/2025	N/A	20 NTU	Pass	
11	—	100 NTU	24005532 07/2025	N/A	100 NTU	Pass	
11	—	400 NTU	24005533 07/2025	N/A	400 NTU	Pass	
11	—	800 NTU	24005534 07/2025	N/A	800 NTU	Pass	
9/5/2024	—	0.0 NTU	N/A	N/A	0.02 NTU	Pass	
11	—	20 NTU	24005531 07/2025	N/A	20 NTU	Pass	
11	—	100 NTU	24005532 07/2025	N/A	100 NTU	Pass	
11	—	400 NTU	24005533 07/2025	N/A	400 NTU	Pass	
11	—	800 NTU	24005534 07/2025	N/A	800 NTU	Pass	
9/6/2024	—	0.0 NTU	N/A	N/A	0.02 NTU	Pass	
11	—	20 NTU	24005531 07/2024	N/A	20 NTU	Pass	
11	—	100 NTU	24005532 07/2024	N/A	100 NTU	Pass	
11	—	400 NTU	24005533 07/2024	N/A	400 NTU	Pass	
11	—	800 NTU	24005534 07/2024	N/A	800 NTU	Pass	

Cal. Date	Initial Setting	Standard/ gas used	Lot control	Adjust Made	Final Reading	Comments Pass / Fail	Signature
9/5/2024	———	0.0 NTU	N/A	N/A	0.02 NTU	Pass	
"	———	20 NTU	24005531 07/25	N/A	20 NTU	Pass	
"	———	100 NTU	24005532 07/25	N/A	100 NTU	Pass	
"	———	400 NTU	24005533 07/25	N/A	400 NTU	Pass	
"	———	800 NTU	24005534 07/25	N/A	800 NTU	Pass	
9/6/2024	———	0.0 NTU	N/A	N/A	0.02 NTU	Pass	
"	———	20 NTU	24005531 07/25	N/A	20 NTU	Pass	
"	———	100 NTU	24005532 07/25	N/A	100 NTU	Pass	
"	———	400 NTU	24005533 07/25	N/A	400 NTU	Pass	
"	———	800 NTU	24005534 07/25	N/A	800 NTU	Pass	

Fort Hall Mine Landfill
Bannock County
Monitoring Well Transducer Data Download Field Form

Location	Date	Time	Dessicant Color	Transducer Serial No.	Cable Serial No.	Battery Available (%)	Memory Available	Log Running (Y/N)	Data Downloaded (Y/N)	Manual DTW (ft below TOC)	DTW Transducer (ft below TOC)	pressure Height of Water Column Above Transducer (psi)	DTW Transducer Corrected (Y/N)
MP-1	09/03/24	1554	blue	748604	750632	74	59	yes	yes	58.70	58.74	~~15~~ 5.70	no
MP-2	09/04/24	0925	pink	672131	673568	70	71	yes	yes	66.93	66.97	5.80	no
MW-125	09/06/24	1105	pink	671823	673565	69	84	yes	yes	69.44	69.62	7.72	no*
RW-16	09/06/24	1155	blue	672146	673567	70	84	yes	yes	61.18	61.18	12.80	yes
MW-124	09/09/24	0830	~~blue~~ pink	671820	673564	70	85	yes	yes	63.41	63.41	2.27	no
MW-125	09/09/24	1110	blue	671823	673565	69	84	yes	yes	69.49	69.62	7.72	no*
INJ-12	9/10/24	1005	blue	672074	673562	70	81	yes	yes	1.24'	1.23'	29.36	No

Notes:
MP-1 pulled @ 1600 to deploy hydrasleeve
MP-2 pulled @ 0928 to sample
MW-125 beads replaced
* will have to pull for bladder pump later, did not correct prior to redeployment
RW-16 log stopped to reset instrument clock, restarted. reference dtw: 61.18 btoc, scheduled start: 1300 09/06/24
See back for notes!

Default transducer locations include: MW-104D (87.1 ft), MW-104S (68.42 ft), RW-16 (89.44 ft), MP-1 (72.09 ft), MP-2 (80.04 ft), MW-101S (68.84 ft), MW-112M (72.5 ft).

1. Change dessicant if color is pink/white. Blue is ok.
2. Connect troll com to cable, turn on and connet to bluetooth. Open VuSitu mobile app and connect to the com/transducer. If instrument date/time differ from actual date/time, sync clock with device and make note.
3. Confirm the log is running. Confirm default log name correlates to correct location. If log name differs from location name, update and make note.
4. Download log and transfer all files immediately to the teams folder.
5. If using a device that is not the Blackview (i.e. personal/work phone), after downloading data there is an option to 'Save to' where you can choose to email or message the data.
6. All data files downloaded can be found in the upper left hand corner of the VuSitu app under the 'data files' tab.
7. The Transducer serial number can be seen on the main menu in the VuSitu app when connected to Troll Com.
8. If the manual and transducer DTW differ by more than 0.10 feet, use the existing transducer form for correction.

CDM Smith

MW-124 ~~pulled~~ at 0840 to Sample. Log stopped. Transducer was not pulled.

1040 MW-124 dessicant replaced. Log restarted, manual DTW 63.79', live reading: 63.79', 2.11 psi.
MW-124Log_20240909 Started at 11am.

MW-125 Log stopped and transducer pulled for Sampling at 1110. Transducer redeployed at 1430. See long deployment form.

Date: 09/06/2024	Author: C. Dotson
Project/Client: Bannock County	
Weather:	AM - Sunny 50°F
	PM - Sunny 95°F
Field Team:	C. Dotson, Madison Lucero
	CD 09/06/2024
Activity:	Fort Hall Creek infiltration tests.
Work Plan:	Astm D 3385
Equipment:	Infiltrometer Rings, driving caps Sledge Hamer, Shovs, buckets, poly tarp
H&S Issues:	Slips, trips, falls, wildlife, pinch/crush
PPE:	Lvl D
0730	Arrived onsite Preparing equipment for infiltrometer tests. Confirmed test locations with PTL.
0945	Setting up for Test location 6 near RW-9. Ground temperature was recorded within the inner ring at 52°F 3in bgs. Originally planned to use graduated 5gal buckets to measure infiltration

Date: 09/06/2024 Author: C. Dotson

Project/Client: Bannock County

cont)	but slow fill rate required switching to 1000 ml beakers. 1000 ml beakers will be more precise. Water temp was recorded within outer ring. Rocky ground limited insertion depth. 1 in or greater depth of bentonite chips were placed around the outside of the outer ring. Water depth in rings were marked at 0.5 in below Top of ring in similar orientations.
1100	Begin ring test at Test location 6. Depth to liquid in both rings @ 2.75 in. Ring was leveled. Water temp in rings was 63°F. Water temp in holding bucket was 72°F.
1230	Water infiltration rates seem to have increased after the intial 1 hr

Date: 09/06/24 Author: C. Dotson

Project/Client: Barrack County

Weather: AM -

PM -

Field Team:

Activity:

Work Plan:

Equipment:

H&S Issues:

PPE:

1500 Test 6 complete at 240min
Current air temp is 95°F
Water temp in rings is 80°F
Ground temp @ 4in is 72°F
Tests complete for the day
moving onto hydrosleeve retrieval.

@ 1810 offsite for the day

Caleb Dotson
09/06/24

Date: 09/08/2024 Author: C. Dotson

Project/Client: Barnock County

Weather:	AM - Sunny, 55°F
	PM - Sunny, 94°F
Field Team:	C. Dotson
	CD 09/08/24
Activity:	Double ring infiltration tests at test location 5.
Work Plan:	ASTM D3385
Equipment:	Double ring, 5gal buckets, poly tarp level, tape measure, shovel, sledge, clamps
H&S Issues:	Slips, trips, falls, wildlife
PPE:	Lvl D
0730	Arrived onsite
	Helped teams prep for GW sampling and loaded supplies for infiltration tests.
0800	Preping test location 5 for test. Location was selected 10ft upstream from previous Test 3 location. Creek has flow ranging from 12in wide to 41in. Depth ranges from 1in to 0.75in, respectively.
Thalweg	

Date 09/08/24 Author: C. Dotson

Project/Client Barnoch County

(cont) Ring was leveled to the best of my ability given the uneven surface and coarse rock.
Water & ground temp were recorded.
Stream surface within rings was manually impacted as much as possible to maintain realistic conditions. Small amount of fill was added with the ring on the ~~downstream~~ side to maintain consistant water level across the ring.
Fill was Compacted using 8lb sledge & 2x4. To represent undisturbed soil.
1000mL beaker and 5gal graduated bucket was used to measure the inner and outer ring flow, respectively.

0930 Test start / Initial fill of the inner and outer ring.
Inner IF = 4L Outer IF = 14L

Date: 09/08/24 Author: C. Dotson

Project/Client: Barnett County

Weather:	AM -
	PM -
Field Team:	
Activity:	
Work Plan:	
Equipment:	
H&S Issues:	
PPE:	
1200	Reading were recorded at 1200 instead of 1230 @ 180 min.
1330	Test 5 complete, infiltration rates seem to have stabalized. Water temp is 70°F in rings. Ground temp 5in deep is 58°F just outside ring Creek water temp is 70°F. Air temp is 94°F

Date: 09/08/24 Author: C. Dodson

Project/Client: Bannock County

1430	Preparing for test 4.
1500	Sorting samples for MW-13.
1530	COM Smith offsite.

Caleb Dodson
09/08/24

Date 09/09/24 Author C. Dotson

Project/Client Barnook County

Weather	AM	Clear, Sunny, 56°F
	PM	Clear, Sunny 80°F
Field Team	C. Dotson	
	CD 09/09/24	
Activity:	Double ring infiltration tests	
Work Plan:	ASTM D3385	
Equipment:	Double ring, 5 gal buckets, beakers tubing, sledge, shovel, level	
H&S Issues:	Slips, trips falls, Wildlife	
PPE:	Level D	

0730 Arrived onsite
Prep for test 4.
Tree down across road therefore will have to use creek water for test.

0800 Setting up for test location 4. Location was chosen next to flowing creek. Steady consistent flow in creek coming from

Date 09/09/24 Author: C. Dotson

Project/Client: Barnack County

(cont)	east drainage. Ground temp just outside rings was 51°F @ 5in. Ring and ground surface was leved and compacted where applicable. 1in+ ring of bentonite was applied around leved rings. Insertion depth ranged from 1.5" to 1.25" for both rings. Ground is saturated from adjacent flowing creek. Test location is likely in the same location as the previous years test 1.
0836	Start test 4 IF = 41 @ 142 Creek channel is entirely saturated from bank to bank Stream flow ~ 2.5ft, channel width ~ 6ft. Saturated

Date: 09/09/24 Author: C. Dotson

Project/Client: Barnock County

Weather: AM -

PM -

Field Team:

Activity:

Work Plan:

Equipment:

H&S Issues:

PPE:

1730	Test 4 complete, flow was been relatively stable through the duration. Ring removed and ground returned to pre-test conditions. Air temp 80°F, Sunny Creek temp = 63°F in sun. ground temp = 54°F
1750	Test 4 equipment packed up and unloaded. Now helping with GW Sampling.

Date: 09/09/24 Author: C. Dotson

Project/Client: Barnock County

(cont) and packing coolers/shipping.

1735 Offsite for the day

Colette Dotson

09/09/24

Location FHML Date 9110124

Project Client Bannock County

Monthly O&M

Author C Scheil
Personnel: C. Scheil
Weather: Sunny / Clear 65F
H&S: Heat, trips.

0720 Onsite with GW team
H&S tailgate
0750 Begin weekly / monthy O&M
0810 RW-17 Flowmeter appers to be malfunctioning again. Flowmeter is showing no flow. RW-17 has pressure and appears to be operating normally per pump Controller / Go Remote.
Reset batch totals.
0820 Begin manual WLs
0830 Deploy MP-1 transducer. Will wait at least an hour to let cable stretch.
0945 Replace INJ and FW-1 caps with new Penco caps, FW-1 Cap (metal pump Cap) placed in shed.
1000 Download INJ-1R transducer
1030 Finish redeploying MP-1
1040 Conduct up test
Test 1 INF 5 drops, FF1: 4

Rite in the Rain.

Location FHML Date 9/10/24

Project / Client Bannock County

Monthly O&M

Test 2 IWF 4 skops, EEF 4
Upped antiscalant dose from 1.25x to 2x.

1110 System offline to replace IW-17 flowmeter.

1145 IW-17 flowmeter replaced and system back online.
Some grit and one propeller pin potential chipped on replaced flowmeter.

1220 OPPSite

Cal Sal
9/10/24

09/03/24

Personal: Team A - C. Dotson & K. Ives

Weather: Partly cloudy, 79°F

PPE: Lvl D

1300 arrived onsite
H&S meeting and site overview
Hydrosleeve deployment demo

1500 arrived at 1110 for water level.

1511 Water levels at 1115.

1515 Hydrosleeve deployed at 1115.

1522 Arrived at 1130 & 1135.

1530 Hydrosleeve deployed 1130.

1545 Arrived at MW-121 and RW-3
Replaced J-plug at MW-121

1550 Hydrosleeve deployed at RW-3. New 6" plug installed.

1600 Arrived at MW-118D
Water level complete.

1610 Arrived at MW-13
Water levels complete

1620 Arrived at MW7
Water levels complete

1630 Arrived at MW-4
Water levels complete

1640 Arrived at MW-3A

CD

04/03/24 C. Dotson 2/2

1652 Arrive at 4a, MW-4A
1700 Arrive at MW-12
1710 Arrive at MW-5AR
1725 Arrive at MW-6A
1730 Arrive at MW-9
1737 Arrive at MW-8
Water levels complete
1746 Arrive at MW-110D & MW-110S
1755 Hydrosleeve deployed at MW-110D
1800 Hydrosleeve deployed at MW-110S
1900 Offsite for the day.

Caleb Dotson

Scale: 1 square = _____

09/04/24 C. Dotson

Personnel: Team A - C. Dotson, K. Ives
Weather: Cloudy/Hazy 50°F - 70°F
Event: GW Fall Sampling Event, Barnes & Cardy
PPE: Level D
Equipment: PID - 317040190RN,
Turbidity meter - 12204459 65
YSI - 14C101880 Controller - 456100X

0730 Arrived onsite
Calibrated YSI, turbidity meter PID
0900 H&S meeting and plan for the day.
0915 Arrived at 6A.
0930 Purge start at 6A.
YSI flowthru cell has cracks in clear plastic and leaks. Plastic was ducktaped to prevent leaking.
1245 Min purge volume met at 6a.
1300 Parameters pass for MW-6A.
Sampling at MW-6A for 6-VOCs, 1,4-D
1312 Sampling complete at MW-6A
1320 Arrived at MW-12
1332 Purge Start time at MW-12

Scale: 1 square = _____

Rite in the Rain

09/04/24 Barnacle C. Dotson

1500 Purge volume met for MW-12.

1515 Sample time

1620 Sampling complete at MW-12 All results recorded in QB & Samples on ice in cooler.

1700 Samples in Landfill refridgerator Prep for tomorrow and organize conference room.

1725 Team H offsite for the day.

Caleb Dotson
09/04/24

Scale: 1 square = _____

09/05/24 C. Dotson
Date: 09/05/24
Event: Barnack Fall GW Sampling
Weather: Sunny
PPE: Lvl D
Personel: Team A
Auther: C. Dotson
Equipment: Same as previos day.
0730 Arrived onside.
Calibrated YSI, PID, turbidity meter
H&S tailgate and plan for the day.
0830 Arrived at MW-4A.
0845 Purge start time
0930 Min purge volume met
0940 Sample time for MW-4A.
All parameters pass.
0955 Sampling complete at MW-4A
1005 Arrived at MW-4
1018 Purge start time for MW-4.
1125 Min purge volume met for MW-4
1140 All parameters pass
Sample time = 1140 for MW-4.

09/05/24

e: 1 square = _____

Rite in the Rain

04/05/24 Barnack C. Dotson

1152 Sampling completed at MW-4. Photo uploaded to Quickbase. Laura retrieved MW-4A Samples to ship/pack coolers.

1200 Arrived at MW-5AR

1210 Purge start time for MW-5AR

1300 MW-5AR has little to no re-charge at 0.4 L/min flow. At 50 mL/min well continues to drop. FTL was notified of the issue and advised to continue with a reasonable flowrate and re-calculate min purge flo volume.
Allowable draw down was exceeded with ~ 50 mL/min flow.
New purge volume
IWL = 195.23' Min purge = 1.9 @ 0.5 L/min DD

1500 CWL = 157.34 New min purge = Total DD x 0.65
2.11' x 0.65 = 1.3715 gal + 1.9 gal = 3.3 gal

1735 Sampling at MW-5AR Turbidity & Water Level parameters did not pass due to

Scale: 1 square =

09105124 Barnett C. Dotson

(Cont) continued drawdown and excessive bubbles. 50mL/min - 25mL/min flowrate was used the entire purge cycle. The okay to sample was given by FTL & PTL.

1757 Dumping purge water.

1818 Team A offsite for the day

Called Rita's

0910524

Date: 9/6/24
Event: Bannock Fall GW Monitoring
Weather: Sunny 80's to 90's
PPE: Level D
Personnel: L. Mulrooney (author) K. Ives
Equipment: same as previous day
0700 depart hotel
0715 arrive on site
Calibrated YSI, PID, turbidity meter
H+S tailgate + plan for the day
0845 arrive at MW-8
0900 Purge start time
1130 minimum purge met (2.25 gal) -adjusted for additional drawdown
1140 Sample MW-8
All parameters pass
1412 Sampling Complete at MW-8
Head down to office
1530 Personnel: L. Mulrooney + C. Dotten
1555 Pull MP-4 hydrasleeve with J. miller and C. Scheil
1800 J. miller and C. scheil leave to their wells
1615 Pull MP-1 hydrasleeve

Scale: 1 square = _____

9/06/24 Bannock L. Mulrooney

1630 Pull RW-1 hydrasleeve

1645 Pull MP-3 hydrasleeve

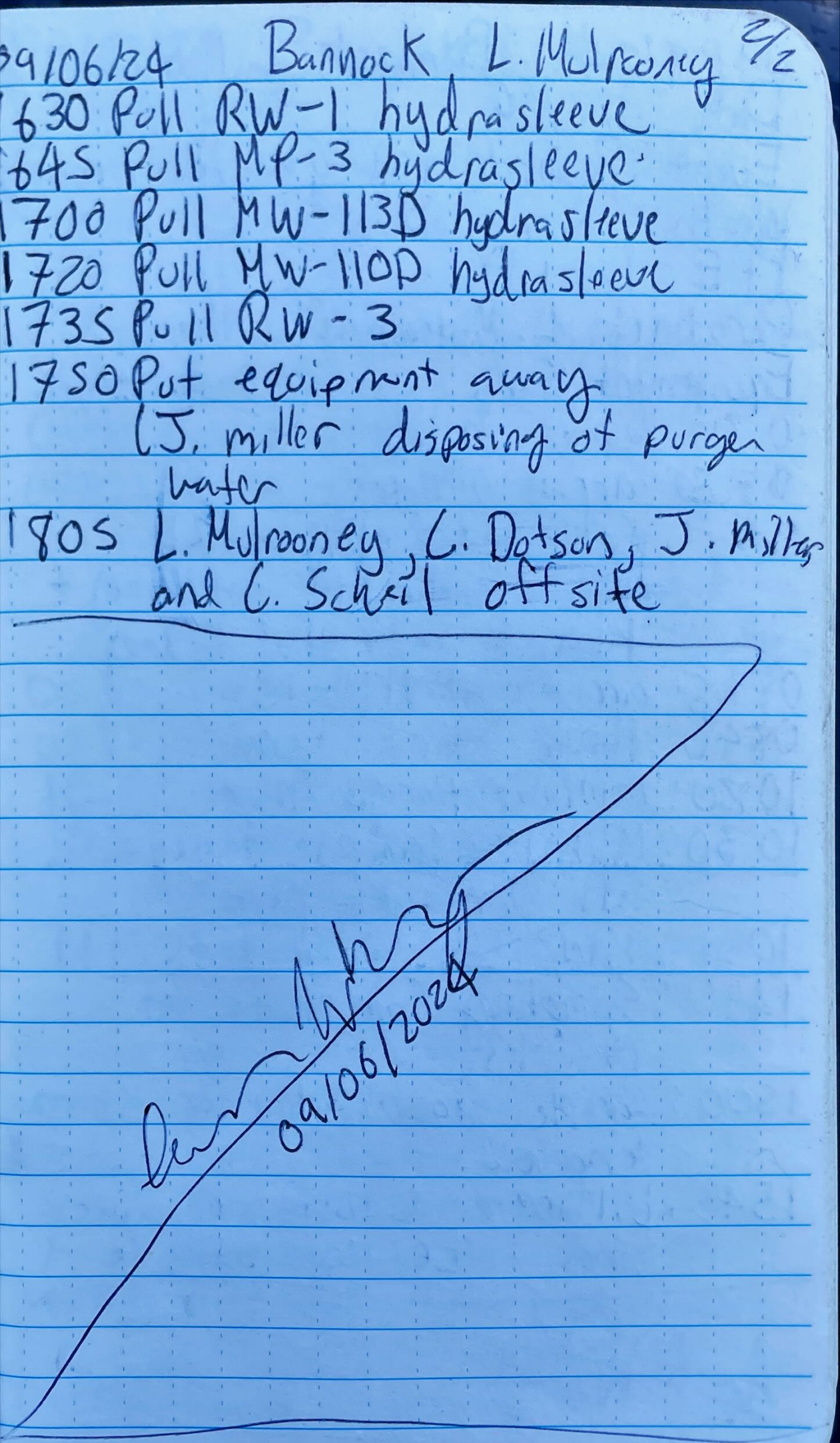
1700 Pull MW-113D hydrasleeve

1720 Pull MW-110D hydrasleeve

1735 Pull RW-3

1750 Put equipment away
(J. miller disposing of purge water

1805 L. Mulrooney, C. Dotson, J. Miller and C. Schell offsite



Scale: 1 square = _____

Rite in the Rain

09/08/24 Bannock L. Mulroney 1/1
Date: 9/8/24
Event: Bannock Fall GW Monitoring
Weather: Sunny 80's
PPE: level D
Personnel: L. Mulroney (author), K. Ives
Equipment: Same as previous day
0700: depart hotel
0720: arrive onsite
Calibrated equipment
H+S tailgate meeting +
Plan for the rest of the day
0835: arrive at MW-13
0840: Purge start time
1020: minimum purge met
1030: MW-13 Sample time
all parameters pass
1035: MW-13D Sample time
1445: Sampling Complete at MW-13
1500: Sample organization for shipping tomorrow
1545: L. Mulroney, C. Doston, K. Ives, and M. Lecargo offsite

9/8/24

Scale: 1 square = _____

09/09/24 Bannock L. Mulrooney 1/2
Date: 9/9/24
Event: Bannock Full GW Monitoring
Weather: Sunny 80's
PPE level: D
Personnel: L. Mulrooney (author), K. Ives
Equipement: Same as previous day
0700: depart hotel
0720: arrive onsite
Calibrated equipment
H+S tailgate meeting +
Plan for the rest of the day
0830: arrive at MW-9
0835: Purge start time
1015: minimum purge met
1030: MW-9 sample time
All Parameters pass
1115: finished first gas canister, worried that the second one alone wouldn't be enough to finish sampling, K. Ives off loaded the full cannister, and took the truck down to get another full gas canister
1132: K. Ives returns with gas cannister
1407: finish sampling MW-9

Scale: 1 square = _____

Rite in the Rain

4/9/24 Bannock L. Mulrooney

1415: empty purge water off load gas cylenders Put samples in fridge

1445: arrive at MW-102S

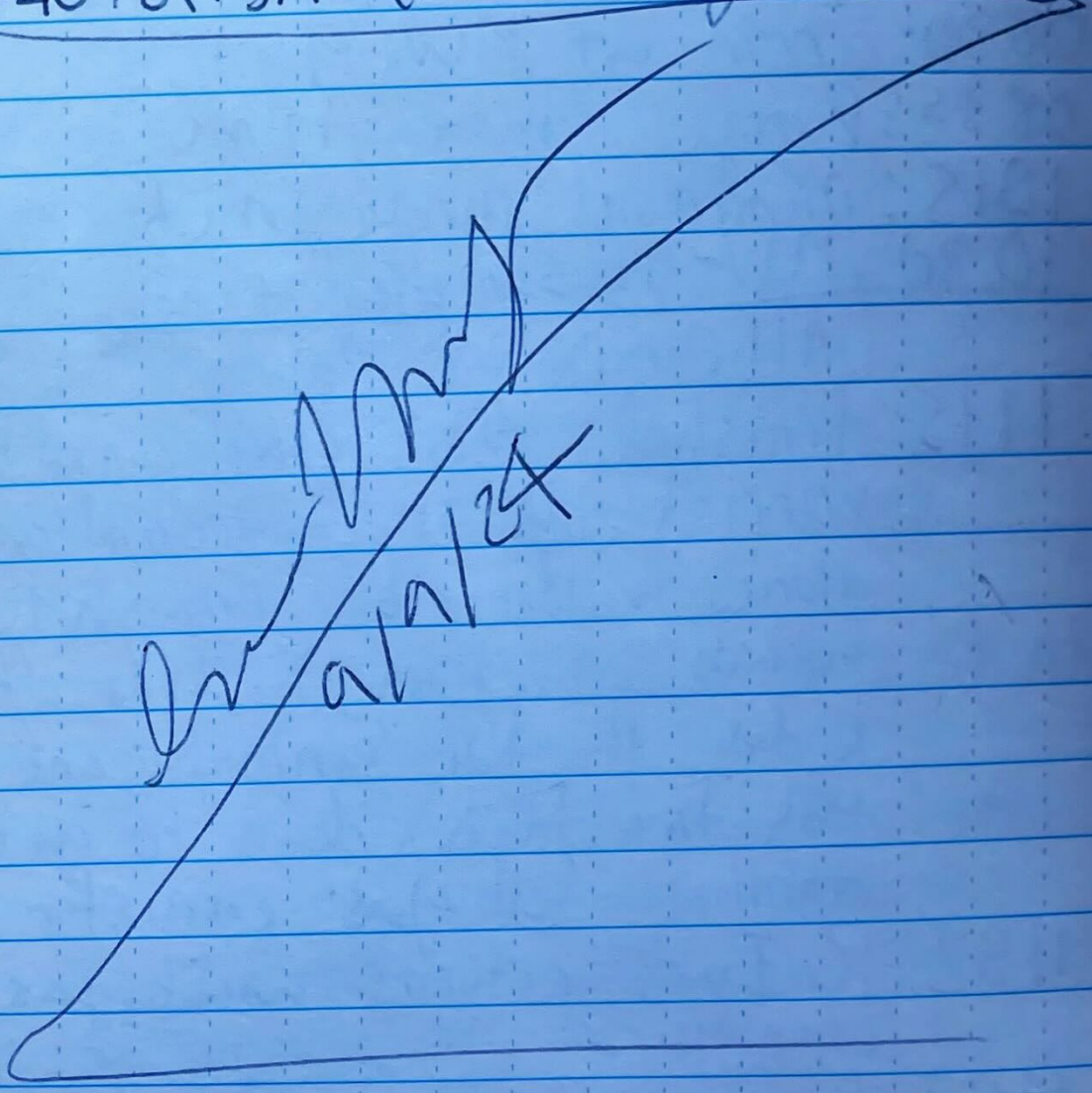
1510: Purge start time

1655: MW-102S Sample time all parameters Past

1705: finish Sampleing MW-102S

1710: heading up to put equipment away

1740: offsite (L. Mulrooney + K. Ives)



Scale: 1 square = _____

9/10/24 Bannock L. Mulroney 1/1

Date: 9/10/24

Event: Bannock Fall GW monitoring

Weather: Sunny 80's

PPE: level D

Personnel: L. Mulroney (author) J. miller

Equipement: Same as yesterday

0700: depart hotel

0715: arrive onsite
calibrated equipment
H+S tailgate meeting

0800: Set up at treatment building

0807: Sample RW-10

0812: Sample RW-5

0818: Sample RW-4

0823: Sample RW-9R

0830: meeting w/adria

0900: Resume sampling

0902: Sample RW-15

0910: Sample RW-12

0921: Sample INJ-1R

0950: Clean up

1040: Sample MW-1FR
Clean up

1145: L. Mulroney, C. Dotson offsite

9/10/24

Scale: 1 square = _____

Rite in the Rain

30

9/3/24 FHML GWS

Authors: Joe Miller - CDM Smith

Colin Scheil - CDM Smith

Task: Site Prep / WL Measurement

Weather: 75-85-Overcast

1300 H+S Tailgate in Office

Topics; Traffic, Biologicals, Heat

1330 Calibrate PID

1400 load Equipment / Hydrosleeves

1430 Hydrosleeve Demo

1443 Arrive MW 102S Wasps

1448 Spray w/ wasp spray wait to come Back

1450 Arrive MW-117R

1503 Deploy Hydrosleeve MW-117R

1520 Arrive MW-109S/D

1525 Lock stuck Head to ~~shed~~ Shed for Bolt cutters + lock JM

1555 Return to MW 109S/D

~~1605~~ ~~1610~~ 1605 Deploy Hydrosleeve @ MW-109S/D JM

1610 Deploy Hydrosleeve @ MW-109D

1619 Arrive MW-122

1624 Arrive MW-101S Wasps Spray Mac to MW-1

1630 Arrive MW-1

1635 Remove well cap from MW-101S

No wasp activity Changes Gloves Measure

9/3/24

JM

Joe Miller FHML GWS 9/3/24

1648 Deploy Hydrosleeve MW-101S

1654 Arrive MW-112S/M/D

1710 Deploy Hydrosleeve MW112M

1715 Arrive MW-123

1722 Deploy Hydrosleeve MW-123

1730 Arrive MW-102S Remove well lid
Wasps Gone

1740 Arrive MW-103D

1745 Arrive MW-103S

1805 Arrive MW-106S/D

1815 Arrive MW-115S/D MW-115D Hgs
wasps

1825 Maddie arrive w/ wasp Spray
Spray lid MW-115D

1834 Measure MW-115D

1838 Leave MW-115D Open to vent wasp
Spray

1845 Unload Equipment Meet in Conference
Room

1900 Offsite

Joe Miller
9/3/24

Rite in the Rain

32

9/4/24 FHML Author Joe Miller

0720 CDM Smith Onsite

Team C: Joe Miller

Colin Scheil

Task: GW Sampling / Bladder Pump

~~0800~~ JM

weather: 55-80°F Hazy

0800 Calibrate YSI & PID

Check Turbmeter

check Hach

0850 HTS tailgate

0905 Mob to MP-2

0910 Setup @ MP-2 Demo for team

Need to pull Transducer

0926 MP-2 DTW 66.93'

Sample Pro Bladder pump 144976

PID # 317040154RN

WL Meter 4114943 X

YSI 556 4113953 X

0948 Pump On

0950 Begin Purge

1040 Min Purge Met @ 70.7 gal

1122 Ferrous Fe 0.18 mg/L (No 2 Sml Cuvette)

1130 Sample MP-2-20240904

1150 Pump off Notify Maddie about cuvette

1210 Set Transducer

1215 Decon Pump

9/4/24

JM:HW AML 64S 9/4/24

1225	Collect Blank from Pump after Decon from MP-2 Sample EB-01-20240904
1310	Reset transducer
1325	Arrive MW-113S
1335	MW-113S 24.81 DTW
1342	Pump On
1343	Begin Discharge
1435	Sample MW-113S-202409
1440	Sample MW-113Q-202409
1448	2.8 Gal total Final Depth 26.15' BTOC
1500	Check in w/ Maddie
	Task Get Samples from teams organize fridge
1600	Joe-Colin Offsite to get supplies

9/4/24

Rite in the Rain

9/5/24 FHML GWS Author Joe Miller

0720 Joe Miller / Colin Scheil Onsite
Task: GW Sampling
weather: 55-85°F Hazy (smoke)
Level DPPE

0725 Load Equipment / Calibrate

0800 H&S Tailgate @ Shed

0820 Mob to MW-105S/D

0823 Arrive MW-105S/D JM 9/5

0831 MW-105S DTW ~~57.18~~ 56.18 PID 0.5

0838 Pump On

0839 Begin Discharge Min Purge 0.5 gal
0.1 allowable drawdown

0945 Sample MW-105S-20240905

0950 Sample MW-105SQ-20240905

0959 Final DTW 56.21
Total Purge 0.8 gal

1006 MW-105D DTW 58.52 PID 0.0
Min Purge 1 gal Drawdown ~~0~~ 2m 2'

1013 Pump On

1014 Begin discharge

1019 Initial Settings 2 cpm 2S Recharge 5 discharge
40 PSI Flow ~270 ml/min

1125 Sample MW-105D-20240905

1129 Final DTW 59.35' 1.4 gal total Purge

9/5/24
JM

Joe Miller FHML GWS 9/5/24

1140 Mob from MW-105S/D

1200 Setup MW-120S PID 0.5

1203 MW-120S DTW 77.46 BTOC

Min Purge 0.7gal 0.1 Drawdown

1208 Pump On - Begin Purge

1240 Min Purge Met Begin Readings

1300 Sample MW-120S-20240905

1308 Final DTW 77.61' Total purge 1.6gal

1320 Demob from MW-120S

1400 Arrive MW-112D

1405 MW-112D DTW ~~66~~ 65 ~~3/4~~ .85' PID 0.0

Drawdown 2' Min Purge 1.1gal

1410 Pump On

1411 Begin Purge

1455 Min Purge Met 1.1gal

1515 Sample MW-112D-20240905

1518 DTW 67.75 Final Purge 1.7gal

1530 Mob from MW-112D

1545 Dump Purge in leachate Pond

1600 Offload Samples / charge Equipment

1615 Close MW-115D wasps still present

Offsite

Joe Miller 9/5/24

Rite in the Rain

36

9/6/24 FHML GWS Author: C. Schell

0720 C. Schell / J. Miller onsite
Task: GW Sampling
Weather: 50 - 89F, Sunny
Level D PPE

0730 Load equipment/calibrate

0820 H:S Tailgate

0830 Mob to MW-121

0840 Arrive MW-121

0845 MW-121 ~~DTW 59.87~~ DTW 58.87 TOC; PID 0.1 CS 9/6/24
Drawdown: 0.1' Min purge: 0.7 gal
Initial DTW 58.87'
DTW with pump installed 58.81'

0903 Pump On

0905 Begin discharge

1040 Initial purge was 0.7 gal, due to drawdown added 0.5 gal. Begin purge readings at 1045.

1115 Sample MW-121-20240906

1133 Final DTW 62.75'. Total purge 1.8 gal

1200 Arrive at RW-2

1210 Begin decon of pump

1215 Collect blank from pump after decon from MW-121
Sample EB-02-20240906

1230 Begin setting up at RW-2

~~2 CS~~ 9/6/24

C. Schell FHML GWS 9/6/24

1235 RW-2 DTW: 62.48 BTOC; PID 0.4
Drawdown: 0.1' Min Purge 0.4 gal
1250 Pump on
1252 Begin discharge
1315 Min purge was 0.8, added 0.4 gal
purge for 0.3' drawdown in 6"
well. Begin purge readings.
1340 Ferrous Iron 0.
1340 Sample RW-2-20240906
1345 Sample RW-2D-20240906
1415 Pump OFF. Final DTW 63.04'
3.5 gal purged
1440 Begin decon OP pump
1450 Complete decon OP pump
1455 Mob from RW-2
1545 Mob to MP-4
1547 Arrive at MP-4
1555 Sample MP-4 with C. Dotson and L. Mulroy
MP-4-20240906
1610 Mob from MP-4
1630 Arrive at MW-109S/D
1640 Sample MW-109S20240906
1700 Sample MW-109D20240906
1710 Mob from MW-109S/D
1713 Arrive at MW-101S

CS 9/6/24

Rite in the Rain

38

9/6/24 — FHWL GWS — C. Schell

1720 Sample MW-101S-20240906

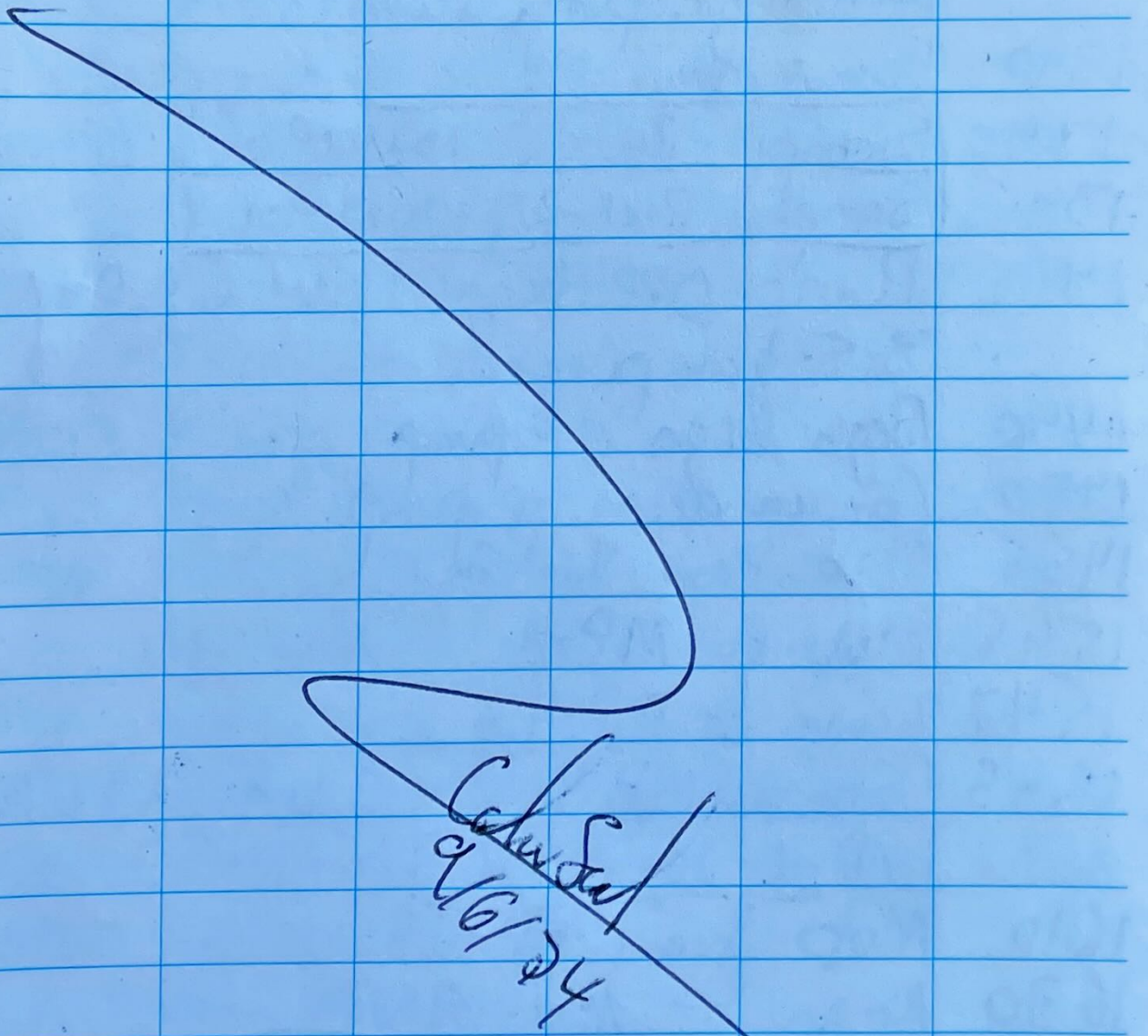
1730 Mob from MW-101S

1735 OPPload Supplies at Container room

1745 Dump purge water at ponds

1750 OPPload Supplies at Shed

1805 OPP Site



9/8/24 FHML GWS C. Schell

0720 C. Schell / J. Miller Onsite
Task GW: Sampling
Weather: 55-, Sunny
Level D PPE

0730 Load Equipment / Calibrate

0820 H&S Tailgate

0900 Mob to MW-110S

0905 Arrive at MW-110S

0910 Sample MW-110S-20240908

0920 Mob from MW-110S to MW-111S

0922 Arrive at MW-111S

0935 Sample MW-111S-20240908

0935 Mob from MW-111S to MW-112M

0943 Arrive at MW-112M

Sampling with Maddie Lecorno (including above two wells). See FTL Logbook

1420 ~~1410~~ CS Begin decon of pump from MW-116S

1430 Collect blank from pump after decon from MW-116S

Sample EB-03-20240908

1435 Offload equipment

1450 Offsite

Cole Schell
9/8/24

Rite in the Rain

40 9/9/24 FHML Author Joe Miller

0720 Onsite Calibrate/Load Equipment
Task: Gw Sampling
weather 55-90°F clear
level D PPE
Team C: Joe Miller/Colin Scheil
H+S Tailgate
Fatigue, Complacency, Work Safe Home Safe

0825 Setup MW-124

0833 DTW 63.41 VOC 0.0 0.3
Total Purge 0.8 Drawdown 0.1
Colin Download Transducer

0845 Pump On

0846 Begin Discharge

0905 Initial MW-124 Purge Parameters too high
had drawdown Reduced Rate.
0.2' Drawdown for 6" well increase
Purge by 0.3 gallon

0910 Begin Readings Min Purge Met

0950 Collect Sample MW-124-20240909

1015 Final DTW 63.83 Purge is 2.9 gal
Ferrous Iron
Pumpoff

1030 Colin Reset Transducer
Joe Decon Pump

9/9/24

J. Miller FTML Gw Sampling 9/9/24

1045 Collect Sample from ~~MW~~ Jon Pump
EB-04-20240909 after MW-124

1055 Arrive MW-125

1100 Colin Download + Pull transducer

1113 MW-125 DTW 69.48
PID 0.0

1127 Pump On

~~1130~~ Jon 1124 Begin Purge. Drawdown 0.1 ft
Min Purge 0.8 gal

1155 Min Purge Met 1.1 gal w/ added Volume for drawdown. Begin Readings

1255 Readings Stable except Turb.
Talked to Maddie 3 readings
Less than 10 NTU Okay to Sample

1305 Sample MW-125-20240909 MS/MSD *

1350 Ferrous Iron 0.0
*Note Tire track Replacing tire on water truck nearby during Sampling
Running Generator/Compressor
Final DTW 69.99 total Purge 4 gallon

1415 Colin Set transducer Joe Decon Pump

1435 Transducer deployed Run Samples to Fridge in office

1445 Send Team A to MW-102S

Rite in the Rain

42 9/9/24 FHML Jae Miller

1445 Continued- Team C to MW-103S
1500 Arrive MW-103S PID 0.3
WL 92.98 Min Purge 0.9, 0.1 drawdo
1503 Pump On - Begin discharge
1520 Min Purge Met begin Readings
1540 Parameters Stable Collect Sample
MW-103S-20240909
1545 Final DTW 93.01 2.7 gal total Purge
1600 Mob from MW-103S
1610 Dump Purge
1615 Unload Equipment
1645 Offsite

Jae Miller 9/10/24

Author Joe Miller FHML 9/10/24

0700 Mob to Store for Cooler (Samples)
0730 Onsite - Tasks GW Sampling / Site Wrapup
0735 Calibration / H+S Tailgate
0800 Arrive treatment Building for top Samples
Joe Miller / Laura Mahoney
Level D PPE including Hardhats
0807 Sample RW-10-20240910
0812 Sample RW-5-20240910
0818 Sample RW-4-20240910
0823 Sample RW-9R-20240910
0830 Break for Meeting w/ adria
0900 Resume Sampling
0902 Sample RW-15-20240910
0910 Sample RW-17-20240910
0921 Sample INJ-1R-20240910
0950 Clean up Mob from Shed
1040 Sample Hydrastone @ MW-117R-20240910
1100 Sampling Complete
Unload Equipment / Pack Coolers
1115 End logging in this book Refer to FTL Logbook for activities

Joe M 9/10/24

Rite in the Rain

FHML GW Sampling Fall 2024 09/03/24

Date: 09/03/2024

Author: Madison Lecarno

personnel: Madison Lecarno, Laura Mulrooney

activity: field prep, synoptics, hydro sleeve deployment.

weather: 80's °F, sunny

08:00 M. Lecarno & Joseph Miller arrive onsite to prepare bottle sets & sampling equipment

12:30 Laura Mulrooney, Caleb Potson & Colin Schiel arrive onsite.

1400: Keegan Ives arrives onsite.

1410: H&S meeting conducted w/ following topics: bio hazards, weather hazards, COCs, stop work, scope of work, muster point / hospital route, calibration, proper PPE, buddy system, landfill hazards.

1420: begin demonstration of hydrasleeve @ MP-4

1435: water level recorded, hydrasleeve deployed.

ML

FHML GW Sampling Fall 2024 09/03/24

1454: DTW recorded @ MW-124
1459: DTW recorded @ MW-125
1510: DTW recorded @ MW-119D, MW-119S
1520: DTW recorded @ MW-120S, MW-120D
1530: DTW recorded @ RW-16
1540: DTW recorded @ RW-1
1550: hydrasleeve deployed @ RW-1
1555: transducer download @ MP-1, dtw recorded
1600: transducer pulled @ ~~RW-1~~ MP-1 09/03
1610: hydrasleeve deployment @ MP-1
1625: DTW recorded @ MW-104S + D
1628: DTW recorded @ MP-9
1633: DTW recorded @ MW-105D + S
1640: DTW recorded @ MP-2
1646: DTW recorded @ RW-2
1702: DTW and hydrosleeve deployment @ MP-3
1710: wasps sprayed at MW-110D + S
1730: Maddie + Laura offsite to buy wasp spray
1800: Maddie + Laura back onsite.
1830: delivered wasp spray to team C @ MW-115
1850: All personell arrive back at office ——— MJ 09/03/24

Rite in the Rain

FHML GW Sampling Fall 2024 09/03/24

1900: data updates made in Teams, personnel leave site for evening, office door locked/alarm set.

Madison Lawson
09/03/24

FHML GW Sampling Fall 2024 09/04/24
Date: Sept. 04, 2024
Author: Madison Lecarno
personnel: Madison Lecarno, Laura Mulrooney, Joseph Miller, Caleb Dotson, Colin Schiel, Keagan Ives
0730: team arrives onsite after picking up ice
health and safety discussion held prior to samping activities including the following major topics: biohazards, heat hazards, traffic hazards, nitrogen hazards.
weather: 50's°F through 80°F, sunny
activity: ground water sampling using designated and bladder pumps
0800: team begins calibrating YSI's, turbidimeters and PIDs
0905: teams leave to sampling locations
0915: Laura Mulrooney, Maddie Lecarno, Joe Miller, Colin Schiel arrive at MP-2 to set up bladder pump.
0930: transducer data downloaded, log stopped and transducer

MJ

PHML GW Sampling Fall 2024 09/04/24

pulled. transducer bagged and labeled for later redeployment.

0950: bladder pump set up @ MP-2, purge begun.

1000: L. Mulrooney & M. Lecarno set up @ MW-119

1025: begin purge @ MW-119D
YSI serial no: V113650X
RKI serial no: 19603045 PN
turbidimeter serial no: 1220445967

1125: minimum purge met. begin purge parameters @ MW-119D

1140: Sample time for MW-119D MW-119D-20240904

1200: begin purge @ MW-119S

1225: Minimum purge met @ MW-119S

1240: sample time @ MW-119S MW-119S-20240904

1300: L. Mulrooney & M. Lecarno take short lunch break.

1335: set up @ MW-120

1340: begin purge on MW-120D

1600: minimum purge met @ MW-120D

1620: J. Miller & C. Schiel leave site per evening. MW-120D-20240904

1625: Sample time @ MW-120D

1700: dumped purge water

1725: personnel leave site for day — Madison Gate 09/04/24

22

FTML GW Sampling Fall 2024 09/05/24

Date: Sept. 5th, 2024

Author: Madison LeCarno

personnel: Madison LeCarno, Laura Mulrooney, Keagan Ives, Caleb Dotson, Colin Scheil, Joseph Miller

weather: 50's°F - 90's°F, sunny

activity: groundwater sampling using designated and bladder pumps

0730: personnel arrive onsite, begin calibration of YSI's, RKI's & PID's.

0800: loading of equipment in vehicles

0815: tailgate health and safety meeting including the following major talking points: biohazards, nitrogen tank safety, offsite protocols, heat hazards

0820: teams disperse to sampling locations

0830: L. mulrooney & M. LeCarno set up on MW-111D

0843: begin purge @ MW-111D

0950: min. purge met @ MW-111D

ML

23

Rite in the Rain

FHML GW sampling Fall 2024 09/05/24

1005: sample time MW-111D-20240905
MS/MSD collected.

1030: L. Mulrooney / M. Jecarno begin packing coolers for shipment.

1300: L. Mulrooney & M. Jecarno leave site to ship 2 cooler shipment to Eurofins lab.

1330: coolers dropped off at Pocatello FedEx ship center.

1350: L. Mulrooney & M. Jecarno arrive back on site and take brief lunch break.

1430: reevaluation of sample schedule, catch up on paperwork

1500: L. Mulrooney & M. Jecarno set up on MW-118D

1523: begin purge @ MW-118D

1535: minimum purge met @ MW-118D

1605: sample time MW-118D-20240905

1610: C. Scheil & J. Miller leave site for evening

1615: finish @ MW-118D, empty equipment from truck

1640: L. Malrooney leaves site for evening. — ML — (4)

FHML GW Sampling Fall 2024 09/05/24

1700: M. Lecarno stays on site to help C. Dotson + K. Dres finish sampling @ MW-5AR

1755: empty purge water tank into leachate pond.

1810: building alarm set off. Ambri contacted for code.

1820: samples placed in fridge, locked.

1825: all personnel leave site for the evening after locking up.

Madison Lecarno 09/05/2024

Rite in the Rain

FHWL GW Sampling Fall 2024 09/06/24
Date: September 6th, 2024
Author: Madison Lecarno
personnel: Madison Lecarno, Laura Mulrooney, Caleb Dotson, Colin Scheil, Joe Miller, Keagan Ives
weather: 50°F - 90's°F, sunny
activity: ground water sampling using designated and bladder pumps, ring infiltration testing.
0730: CDM Smith personnel show up on site and begin equipment calibrations.
0815: complete calibrations and sample kit distribution.
0820: tailgate health & safety meeting held including the following major talking points: scope of work, heat hazards, cross contamination, sunscreen use, traffic hazards.
0830: Maddie Lecarno & Caleb Dotson prepare for first infiltration test. J. Miller, C. Scheil, L. Mulrooney &

ML

FHML GW Sampling Fall 2024 09/06/24

Keegan Ives disperse to sample wells.

0920: accessed first infiltration test location through ~~BLM~~ BLM land, opened then re-locked gate.

0935: decided to access location from Landfill side opened and re-locked BLM gate

0945: begin set-up for first infiltration test.

1050: begin infiltration test @ Test 6 location.

1100: M. Lecarno leaves to download trasducer data, MW-125 opened for log download

1120: data downloaded @ MW-125

1202: data downloaded @ RW-16 transducer, Log stoped to reset clock, then started again, reference DTW: 61.18 ft btoc, scheduled start time: 1300 09/06/24.

1210: check in with sampling teams & C. Dotson

MJ

Rite in the Rain

FHML GW Sampling Fall 2024 09/06/24

1230: Sample Management / organization

1330: crew takes break to cool off, sample management

1430: C. Dotson concludes infiltration test @ Test 6 location. L. Mulrooney performs hydrasleeve retrieval demonstration

1500: loading of equipment for hydrasleeve retrievals

1530: L. mulrooney, J. Miller, C. Scheil, C. Dotson depart to sample hydrasleeves.

1545: K. Ives, M. Lecarno depart to MW-3A for sampling.

1600: set up @ MW-3A

1605: begin purge, after realizing the water was from the line, purge did not actually start here.

1630: switched controller mode to manual and 60s recharge, 60s discharge per operation manual guidance for pumps >300 ft bgs ——— ML

FHML GW Sampling Fall 2024 09/06/24

begin purge.

1905: minimum purge met

1940: sample time MW-3A-20240906

2000: purge dumped @ leachate pond

* L. Mulrooney, C. Scheil, C. Dotson, J. Miller left site @ 17:30

2020: K. Ires & M. Zearno leave site for evening

Medium Level
09/06/2024

Rite in the Rain.

FHML GW Sampling Fall 2024 09/08/24

Date: September 9th, 2024

Author: Madison Lecarno

personnel: Madison Lecarno, Laura Mulrooney, Joseph Miller, Colin Scheil, Keagan Ives, Caleb Dotson

weather: 50's °F - 80's° F, sunny

activity: ground water sampling using designated and bladder pumps, infiltration ring testing

0730: teams arrive onsite, begin calibration and equipment preperation

0745: health & safety meeting held w/ the following topics: heat hazards, offsite sampling, scope of work, O&M schedule

0800: Caleb begins infiltration test @ Test 5 location, M. Lecarno, C. Scheil, J. Miller depart to sample remaining hydrasleeves. MJL 09/08/24

0910: Sample time MW-110D-20240908 ~~090~~

0925: Sample time MW-111S-20240908

0950: sample time MW-112M-20240908

30 MJL

FTML GW Sampling Fall 2024 09/08/24

1005 : sample time MW-123-20240908

1015 : BLM gate dummy locked while C. Dotson completes infiltration test.

1020 : hydrasleeve pulled @ MW-117R, insufficient volume. 2 VOAs collected. will re-deploy at location to collect at later date

1040 : hydrasleeve redeployed @ MW-117R

1100 : arrive on site at MW-116. Spoke with Jody Bunker about possibly using hydrasleeves moving forward. He said he would consider it. Told him Emma F. would likely reach out to him in the future regarding hydrasleeves.

1114 : tap well purge start RW-2H0H

1148 : begin purge @ MW-116S

1200 : increased tap flow from 1.67 gal/min to 6.67 gal/min

1208 : minimum purge reached for MW-116S

1210 : begin taking parameters for MW-116S — MZ — (31)

FHML GW Sampling Fall 2024 09/08/24

1230: Sample time MW-116S-20240908
MW-116S labeled as MW-117, relabeled on well cap.

1235: well closed, equipment brought to tap location for sampling.

1248: Minimum purge met for RW-2140H, begin taking parameters after flow rate is reduced

1250: begin taking parameters @ RW-2140H

1315: Sample time RW-2140H-20240908

1320: leave Jody Bunker's property.

1330: sample time MW-115S-20240908

1345: bring extra bottles to K. Ives & L. Mulrooney @ MW-13

1400: Pump purgewater, C. Dotson completes infiltration test @ Test 5 area.

1415: brief lunch Break

1430: C. Dotson preps for infiltration test at Test 4 area on 9/9/24.

1500: K. Ives & L. Mulrooney finish sampling @ MW-13

MZ

PHML GW Sampling Fall 2024 9/8/24

1505: Sample management

1535: All CDM Smith personnel leave site for evening after locking building and arming alarm.

Madison Tecarro
09/08/24

Rite in the Rain

FHML GW Sampling Fall 2024 09/09/24

Date: September 9th, 2024

Author: Madison Lecarno

personnel: Madison Lecarno, Joseph Miller, Colin Scheil, Laura Mulrooney, Caleb Dotson, Keagan Ives

weather: 60's°F - 80's °F, sunny

Activity: groundwater sampling using designated and non designated pumps, sample shipping & test area 4 double ring infiltration testing

0730: Team arrives on site after picking up ice. begin calibration all teams have retained same instruments throughout event.

0800 health and safety meeting including scope of work, heat hazards, fatigue, getting home safely, QC processes, cooler shipping. C. Dotson departs to complete final infiltration test.

0815. K. Ives, L. Mulrooney depart to sample MW-9. J. Miller, C. Scheil depart to sample MW-125 & MW-124 —— MZ ——

FHML GW Sampling Fall 2024 09/09/24

M. Lecarno begins sample management & cooler packing.

1245: Caleb Dotson finishes infiltration test @ Test area 4.

1430: Cooler packing & Sample management complete. C. Dotson & M. Lecarno leave to Pocatello FedEx to ship 6 coolers to Eurofins, Denver.

1515: arrive back on site.

1600: begin preparing equipment for return shipment / sample management

1645: J. Miller & C. Scheil conclude sampling and leave site for evening.

1715: K. Ives & L. Mulrooney arrive back at site after sampling.

1720: continued equipment packing

1745: team leaves site for evening

Madison Lecarno
09/09/24

Rate in Dollars 375

FHML GW Sampling Fall 2024 09/10/2024

Date: September 10th, 2024

Author: Madison Lecarno

personnel: Madison Lecarno, Keagan Ives, Colin Scheil, Caleb Dotson, Laura Mulrooney, Joseph Miller

weather: 60's F - 80's °F, sun + clouds

activity: groundwater sampling using passive samplers + remediation shed tap, cooler shipment + equipment return.

0715: L. Mulrooney + M. Lecarno arrive on site

0730: C. Dotson + K. Ives arrive on site after picking up ice, C. Scheil + J. Miller arrive on site after picking up extra cooler.

0745: health + safety meeting including the following topics: proper ppe, bio hazards, tight quarters, driving home safe

0800: C. Scheil departs to complete monthly O+M activities, J. Miller + L. Mulrooney depart to sample remediation shed wells. — ML —

36

FHML GW Sampling Fall 2024 09/10/24

0805 : C. Dotson, K. Ives, M. Leamo begin sample management + cooler packing

0830 : Adria Mead arrives on site

0900 : adria mead brings breakfast for team then departs from site.

1000 : continued cooler packing, shed inventory recorded.

1100 : finished packing coolers + equipment, finished sampling. Colin replaces broken flow meter

1140 : C. Dotson + L. Mulrooney leave to drop off equipment at FedEx then depart to Helena. K. Ives departs to Spokane.

1150 : C. Schil finishes O+M tasks and installing new flow meter.

1155 : sample fridge/freezer locked for final time of event.

1210 : all supplies put back in shed and shed + trailer locked for final time of event

MF

Rite in the Rain

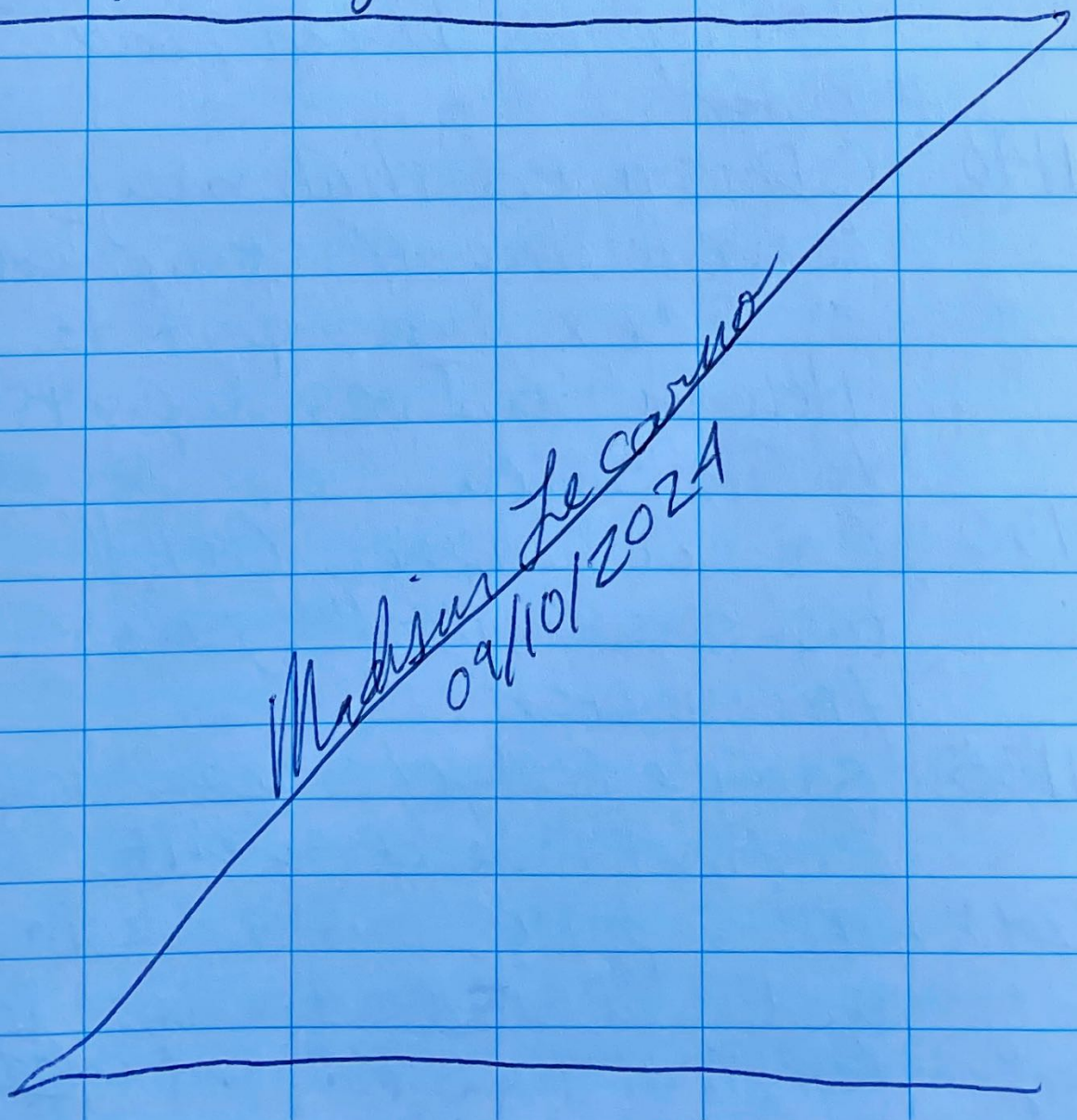
FHML GW Sampling Fall 2024 09/10/24

1215: coolers loaded in truck for later shipment.

1230: C. Scheil, J. Miller, M. Lecarno leave site.

1250: 5 remaing sample coolers shipped via Pocatello FedEx.

1315: C. Scheil & M. Lecarno depart for Helena. J. Miller to remain in Pocatello for the night, to depart in the morning. Event concluded.



Fall 2024 Synoptic Measurements

Location Group	Location	Water Levels	Date	Time	Depth to Water (ft	PID (ppm)	Comments
Cell 1	**MP-1***		9/3/2024	15:56	58.7	0.0	
Cell 1	MP-2		9/3/2024	16:43	66.84	0.0	
Cell 1	**MP-3***		9/3/2024	16:59	62.84	0.0	
Cell 1	**MP-4***		9/3/2024	14:29	59.43	0.0	
Cell 1	MP-9		9/3/2024	16:28	57.01	0.0	
Cell 1	MW-1		9/3/2024	16:31	62.24	0.0	
Cell 1	**MW-101S***		9/3/2024	16:41	58.02	3.1	wasps sprayed
Cell 1	MW-102S		9/3/2024	17:32	126.85	0.1	wasps sprayed
Cell 1	MW-104D		9/3/2024	16:24	57.18	1.2	
Cell 1	MW-104S		9/3/2024	16:26	54.16	0.0	
Cell 1	MW-105D		9/3/2024	16:32	58.35	0.0	
Cell 1	MW-105S		9/3/2024	16:34	56.1	0.0	
Cell 1	**MW-109D***		9/3/2024	15:59	61.08	1.8	
Cell 1	**MW-109S***		9/3/2024	15:56	49.35	0.5	
Cell 1	**MW-110D***		9/3/2024	17:55	124.85	1.6 -->0.3	wasp nest
Cell 1	**MW-110S***		9/3/2024	18:00	120.69	0.3	wasps sprayed
Cell 1	MW-111D		9/3/2024	15:03	82.81	0.0	
Cell 1	**MW-111S***		9/3/2024	15:11	51.03	0.0	
Cell 1	MW-112D		9/3/2024	17:01	65.78	0.4	no label but has dedicated pump
Cell 1	**MW-112M***		9/3/2024	17:04	64.92	0.6	
Cell 1	MW-112S		9/3/2024	16:47	62.04	0.7	
Cell 1	**MW-113D***		9/3/2024	15:25	23.33	0.0	
Cell 1	MW-113S		9/3/2024	15:25	24.51	0.0	
Cell 1	**MW-117R***		9/3/2024	14:52	115.86	0.0	
Cell 1	MW-118D		9/3/2024	17:00	85.00	0.0	
Cell 1	MW-119D		9/3/2024	15:10	70.94	0.0	
Cell 1	MW-119S		9/3/2024	15:12	67.53	0.0	
Cell 1	MW-120D		9/3/2024	15:17	78.08	0.0	
Cell 1	MW-120S		9/3/2024	15:19	77.52	0.0	
Cell 1	MW-121		9/3/2024	15:45	59.75	0.0	replaced J plug
Cell 1	MW-122		9/3/2024	16:22	51.00	0.3	
Cell 1	**MW-123***		9/3/2024	17:17	38.93	0.4	
Cell 1	MW-124		9/3/2024	14:54	63.36	0.0	
Cell 1	MW-125		9/3/2024	14:59	69.45	0.0	
Cell 1	**RW-1***		9/3/2024	15:40	58.12	0.0	
Cell 1	RW-16		9/3/2024	15:27	61.13	0.0	
Cell 1	RW-2		9/3/2024	16:46	62.46	0.0	
Cell 1	**RW-3***		9/3/2024	15:50	53.73	0.0	added 6" plug
Cell 2	MW-12		9/3/2024	16:00	162.12	0.0	
Cell 2	MW-13		9/3/2024	16:10	74.24	0.0	
Cell 2	MW-7		9/3/2024	16:20	136.49	0.1-->0.0	
Cell 2	MW-8		9/3/2024	17:40	193.77	0.0	
Cell 2	MW-9		9/3/2024	17:30	211.59	0.0	
Cell 4	MW-3A		9/3/2024	16:40	282.43	0.0	
Cell 4	MW-4		9/3/2024	16:30	129.29	0.0	
Cell 4	MW-4A		9/3/2024	16:52	141.53	0.0	
Cell 4	MW-5AR		9/3/2024	17:10	154.83	0.0	
Cell 4	MW-6A		9/3/2024	17:25	89.81	0.0	
Offsite	MW-103D		9/3/2024	17:42	89.43	0.3	
Offsite	MW-103S		9/3/2024	17:48	92.51	0.3	
Offsite	MW-106D		9/3/2024	18:09	51.11	0.4	
Offsite	MW-106S		9/3/2024	18:04	51.94	0.6	
Offsite	MW-115D		9/3/2024	18:33	73.65	2.2	
Offsite	**MW-115S***		9/3/2024	18:17	73.58	0.2	

Notes

TEAM A

TEAM B

TEAM C

*** hydrosleeve deployment required, record deployment time and depth to water in hydrosleeve log**

Appendix C Fall 2024 Groundwater Data

If you would like to see all the historical data for the site, please send a request through the "Contact Us" form on the bottom of the project website: https://www.bannockcounty.gov/landfill/remediation

Appendix D Data Usability Assessment Report

Appendix D Data Validation

This appendix presents the data validation results for the sampling event/samples collected during the on-site well sampling event in September 2024 and the treatment system sampling in September 2024.

The analytical data for the samples listed **Tables D.1 and D.2** were validated according to requirements in the analytical methods; National Functional Guidelines (NFGs) for Superfund Organic Methods Data Review (United States Environmental Protection Agency [EPA] 2020.

Eurofins TestAmerica Denver (TA-Denver) performed the volatile organic compounds (VOCs) by SW-846 method 8260D.

The samples were analyzed according to the following method:

- *Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods (SW-846). Third Edition, Final Update III*
    - 8260D - VOCs by Gas Chromatography/Mass Spectrometry (GC/MS)
    - 8011 – selected VOCs by microextraction and GC
    - 8270E – SVOCs by Gas Chromatography/Mass Spectrometry (GC/MS)
    - 8270E/SIM – SVOCs by GC/MS and SIM
    - 8081B – Organochlorine Pesticides by Gas Chromatography
    - 8082A – Polychlorinated Biphenyls (PCBs) by Gas Chromatography
    - 8141B – Organophosphorus Compounds by Gas Chromatography
    - 8321B – Pentachlorophenol and Select Organophosphorus Compounds
    - 8290A - Polychlorinated Dibenzodioxins (PCDDs) and Polychlorinated Dibenzofurans (PCDFs) by High Resolution Gas Chromatography/High Resolution Mass Spectroscopy for 2,3,7,8-TCDD only
    - 6020B – Inductively-Coupled Plasma – Mass Spectrometry
    - 7470A - Mercury in Liquid Waste (Manual Cold-Vapor Technique)
    - 9060 –Total Organic Carbon

- RSK-175 – Dissolved Gases

- *Standard Methods for the Examination of Water and Wastewater*
    - SM4500 CN E – Total Cyanide
    - SM 4500 S2 D – Total Sulfide

Level 2 and 4 data packages were provided as well as electronic data deliverables (EDDs). All data generated by TA-Denver were validated electronically to the Stage 2A level.

Cross references of laboratory sample delivery groups (SDGs) and sample identifications (IDs) are provided in **Table D.1 and D.2**. The complete laboratory data packages for each SDG are provided in **Appendix E.** All samples submitted were analyzed as requested. No data were rejected. All data generated are acceptable, with some qualification as noted in the discussion below.

Sampling Deviations

No sampling deviations occurred.

1.1 On-Site Groundwater Sampling September 2024

From September 4th to September 10th, 2024, 50 primary samples, 4 field duplicates, 4 equipment blanks and 9 trip blanks were collected for analysis of VOCs, SVOCs, organo-chlorine pesticides, PCBs, organophosphorous pesticides, pentachlorophenol and select organophosphorous compounds, 2,3,7,8-tetrachloro-dibenzo-dioxin, metals, dissolved gases, cyanide, sulfide, and TOC. Data were qualified as estimated (J, U, or UJ) based blank contamination, LCS/LCSD results, MS/MSD results, and sample duplicate results.

Results reported above the method detection limit (MDL) but below the reporting limit (RL) were qualified as estimated (J) by the laboratory.

1.1.1 Holding Times

Holding times for all analyses were met except for the 8321B herbicides analysis of sample MW-12-20240904 which occurred one day past the holding time, because an instrument software issue occurred before the analysis and was not resolved until after the holding time had expired. Per Environment Protection Agency National Functional Guidelines (EPA NFGs) non-detections obtained past the holding time would be rejected. No herbicides were detected in the preliminary report for the sample, but because validation guidance would result in rejecting the data, the analysis was not reported.

1.1.2 Blank Results

Equipment, trip, and laboratory method blanks were analyzed. Trip blanks were included with the VOC sample shipments.

When an analyte was detected in a blank below the RL and that analyte was detected in a sample at a concentration less than the RL the result was qualified as not detected at the RL (U). When the sample concentration was above the RL, but less than five times the RL, the analyte result was qualified as estimated with a potential high bias (J+). When associated sample detections were greater than 5 times the RL, the data were not qualified.

Heptachlor, kepone, and potassium results for selected samples were qualified non-detected at the reporting limit (U) because of blank contamination.

1.1.3 Laboratory Reporting Limits

The reporting levels (method detection limits [MDLs]) achieved by the laboratories either met the project goals or were appropriate for the concentrations and/or matrices of the samples.

1.1.4 Field Duplicate Results

Four field duplicates were collected for the fall on-site groundwater sampling, which meets the planned frequency. Relative percent differences (RPDs) were calculated when analytes were detected in both the primary sample and its duplicate. The project specific and groundwater RPD control limits for field duplicates is 30% when an analyte is reported in both the primary sample and its field duplicate at concentrations equal to or greater than five times the RL. When either the sample or duplicate concentration is less than five times the RL, the absolute difference between the two concentrations should be less than the RL. The results of the

field duplicate comparisons are included in **Table D.3** of this Appendix. All RPDs and absolute differences met the control limits and no data were qualified for field duplicate imprecision.

1.1.5 Laboratory Duplicate Results

A sample duplicate was performed for the dissolved gases analysis of sample MW-124-20240909. The RPDs for methane, ethene, ethene, and propane were above the control limit and the methane, ethene, ethene, and propane results for sample MW-124-202240909 were qualified J.

1.1.6 Laboratory Control Sample (LCS) and Laboratory Control Sample Duplicate (LCSD) Results

All LCS/LCSD % recoveries and RPDs for the groundwater samples met the quality control (QC) limits except for the following:

- Recovery of 3,3'-dimethylbenzidene in the LCS and LCSD associated with the analysis of sample MW-12-20240904 was below 10% in the LCS and recovered within the control limits in the LCSD. The 3,3'-dimethylbenzidene result for sample MW-12-20240904 was qualified UJ.

1.1.7 Matrix Spike (MS) and Matrix Spike Duplicate (MSD) Results

All MS/MSD % recoveries and RPDs met the quality control (QC) limits or did not require qualification of data except for the following:

- Recoveries of sulfide in the MS/MSD performed on sample MW-12-2040904 were below the control limits. The sulfide result for sample MW-12-20240904 was qualified estimated (J).

- Acetone and chlorobenzene were recovered below the control limits in the MS in the MS/MSD performed on sample MW-111D-20240905. The acetone and chlorobenzene results for sample MW-111D-20240905 were qualified UJ.

- Recovery of 1,1-dichloroethane, 1,2-dichlorobenzene, 1,2-dichloropropane, 1,4-dichlorobenzene, ethylbenzene, m,p-xylene, o-xylene, trichloroethylene, and xylenes were recovered above the control limits in the MS/MSD performed on sample MW-1111D-20240905. These compounds were detected in this sample and were qualified J.

- Recoveries of lead in the MS and cobalt, lead, manganese, and thallium in the MSD were below the control limits in the MS/MSD performed on sample MW-3A-20240906 in SDG 280-196414-1. The lead, cobalt, and thallium results for the samples MW-4A-20240905, MW-6A-20240904, MW-4A-20240905, MW-4-20240905, MW-3A-20240906, MW-121-20240906, MW-6A-20240904, MW-5AR-20240905, and MW-121-20240906 were qualified J if detected and UJ if not detected.

- Recoveries of sulfide in the MS/MSD performed on sample MW-9-20240909 were below the control limits. the sulfide result for sample MW-9-20240909 was qualified UJ.

1.1.8 Surrogate Recovery Results

All surrogate recoveries for the organic analyses met the control limits for all groundwater analyses, except for the labeled 2,3,7,8-TCDD compound associated with the 2,3,7,8-TCDD analysis of sample MW-8-20240906, which was below the control limits. The 2,3,7,8-TCDD result for sample MW-8-20240906 was qualified UJ.

1.1.9 Completeness

Completeness was evaluated by comparing the number of completed analyses yielding valid data to requested analyses with a criterion of 90%. All analyses requested were successfully performed, except for the 8321 herbicide analysis of sample MW-12-20240904. All other data are usable. A total of 5,208 organic results of the anticipated 5,212 organic results were obtained. This yields a completeness value of 99.99% for the organic analyses, which meets the QAPP goal of 90%.

1.1.10 Assessment of Data Usability

All the fall on-site groundwater data obtained are suitable for their intended use.

2.1 Fall 2024 Treatment System Sampling

The treatment system was sampled on September 10th, 2024.

Results reported above the method detection limit (MDL) but below the reporting limit (RL) were qualified as estimated (J) by the laboratory.

2.1.1 Holding Times

Holding times for all analyses were met.

2.1.2 Blank Results

A trip and laboratory method blanks were analyzed.

When an analyte was detected in a blank below the RL and that analyte was detected in a sample at a concentration less than the RL the result was qualified as not detected at the RL (U). When the sample concentration was above the RL, but less than five times the RL, the analyte result was qualified as estimated with a potential high bias (J+). When associated sample detections were greater than 5 times the RL, the data were not qualified.

No analytes were detected in the trip method blanks associated with the analysis of the INJ-1R-20240910 sample. No data were qualified.

2.1.3 Laboratory Reporting Limits

The reporting levels (method detection limits [MDLs]) achieved by the laboratories either met the project goals or were appropriate for the concentrations and/or matrices of the samples.

2.1.4 Field Duplicate Results

No field duplicate was submitted for the INJ-1R 20240910 sample.

2.1.5 Laboratory Duplicate Results

No laboratory duplicate was analyzed for the INJ-1R20240910 sample.

2.1.6 Laboratory Control Sample (LCS) and Laboratory Control Sample Duplicate (LCSD) Results

All LCS/LCSD % recoveries and RPDs for the groundwater samples met the quality control (QC) limits.

2.1.7 Matrix Spike Results

An MS/MSD was not performed on the INJ-1R-20240910 sample.

2.1.8 Surrogate Recovery Results

All surrogate recoveries for the organic analyses met the control limits for the INJ-1R-20240901 sample.

2.1.9 Completeness

Completeness was evaluated by comparing the number of completed analyses yielding valid data to requested analyses with a criterion of 90%. All analyses requested for the INJ-1R-20240910 sample were successfully performed, yielding a completeness value of 100%.

2.1.10 Assessment of Data Usability

All the fall INJ-1R-20240910 treatment system data are suitable for their intended use.

3.1 References

United States Environmental Protection Agency, Office of Solid Waste and Emergency Response. 2009. Guidance for Labeling Externally Validated Laboratory Analytical Data for Superfund Use. January 13.

United States Environmental Protection Agency, Office of Superfund Remediation and Technology Innovation. 2020. *National Functional Guidelines for Superfund Organics Methods Data Review*. November.

United States Environmental Protection Agency, Office of Superfund Remediation and Technology Innovation. 2020. *National Functional Guidelines for Superfund Inorganics Methods Data Review*. November.

Appendix D
Table D.1
Sample ID, Laboratory SDG Reference

Analytical Method	SW846_8260D	SW8011	SW846_8270E	SW846_8270ESIM	SW8081B	SW8082A	SW8141B
Sample ID	LAB SDG	LAB SDG	LAB SDG	LAB SDG	LAB SDG	LAB SDG	LAB SDG
EB-01-20240904	280-196324-1	--	--	--	--	--	--
EB-02-20240906	280-196416-1	--	--	--	--	--	--
EB-03-20240908	280-196435-1	--	--	--	--	--	--
EB-04-20240909	280-196512-1	--	--	--	--	--	--
MP-1-20240906	280-196416-1	--	--	--	--	--	--
MP-2-20240904	280-196324-1	--	--	--	--	--	--
MP-3-20240906	280-196416-1	--	--	--	--	--	--
MP-4-20240906	280-196416-1	--	--	--	--	--	--
MW-101S-20240906	280-196416-1	--	--	--	--	--	--
MW-102S-20240909	280-196512-1	--	--	--	--	--	--
MW-103S-20240909	280-196512-1	--	--	--	--	--	--
MW-105D-20240905	280-196324-1	--	--	--	--	--	--
MW-105S-20240905	280-196324-1	--	--	--	--	--	--
MW-105SQ-20240905	280-196324-1	--	--	--	--	--	--
MW-109D-20240906	280-196416-1	--	--	--	--	--	--
MW-109S-20240906	280-196416-1	--	--	--	--	--	--
MW-110D-20240906	280-196416-1	--	--	--	--	--	--
MW-110S-20240908	280-196435-1	--	--	--	--	--	--
MW-111D-20240905	280-196324-1	--	--	--	--	--	--
MW-111S-20240908	280-196435-1	--	--	--	--	--	--
MW-112D-20240905	280-196416-1	--	--	--	--	--	--
MW-112M-20240908	280-196512-1	--	--	--	--	--	--
MW-113D-20240906	280-196416-1	--	--	--	--	--	--
MW-113S-20240904	280-196324-1	--	--	--	--	--	--
MW-113SQ-20240904	280-196324-1	--	--	--	--	--	--
MW-115S-20240908	280-196512-1	--	--	--	--	--	--
MW-116S-20240908	280-196435-1	--	--	--	--	--	--
MW-117R-20240910	280-196512-1	--	--	--	--	--	--
MW-118D-20240905	280-196416-1	--	--	--	--	--	--
MW-119D-20240904	280-196324-1	--	--	--	--	--	--
MW-119S-20240904	280-196324-1	--	--	--	--	--	--
MW-120D-20240904	280-196324-1	--	--	--	--	--	--
MW-120S-20240905	280-196416-1	--	--	--	--	--	--
MW-121-20240906	280-196416-1	--	--	--	--	--	--
MW-12-20240904	280-196324-1	280-196324-1	280-196320-1	280-196320-1	280-196320-1	280-196320-1	280-196320-1
MW-123-20240908	280-196512-1	--	--	--	--	--	--
MW-124-20240909	280-196512-1	--	--	--	--	--	--
MW-125-20240909	280-196512-1	--	--	--	--	--	--
MW-13-20240908	280-196435-1	280-196435-1	280-196398-1	--	280-196398-1	280-196398-1	280-196398-1
MW-13Q-20240908	280-196435-1	280-196435-1	280-196411-1	280-196411-1	280-196411-1	280-196411-1	280-196411-1
MW-3A-20240906	280-196435-1	280-196435-1	--	--	--	--	--
MW-4-20240905	280-196416-1	280-196435-1	--	--	--	--	--
MW-4A-20240905	280-196324-1	280-196324-1	--	--	--	--	--
MW-5AR-20240905	280-196416-1	280-196435-1	--	--	--	--	--
MW-6A-20240904	280-196324-1	280-196324-1	--	--	--	--	--
MW-8-20240906	280-196435-1	280-196435-1	280-196397-1	280-196397-1	280-196397-1	280-196397-1	280-196397-1
MW-9-20240909	280-196512-1	280-196435-1	280-196518-1	280-196518-1	280-196518-1	280-196518-1	280-196518-1
RW-10-20240910	280-196512-1	--	--	--	--	--	--

Appendix D
Table D.1
Sample ID, Laboratory SDG Reference

Analytical Method	SW846_8260D	SW8011	SW846_8270E	SW846_8270ESIM	SW8081B	SW8082A	SW8141B
Sample ID	LAB SDG	LAB SDG	LAB SDG	LAB SDG	LAB SDG	LAB SDG	LAB SDG
RW-1-20240906	280-196416-1	--	--	--	--	--	--
RW-15-20240910	280-196512-1	--	--	--	--	--	--
RW-17-20240910	280-196512-1	--	--	--	--	--	--
RW-2140H-20240908	280-196512-1	--	--	--	--	--	--
RW-2-20240906	280-196435-1	--	--	--	--	--	--
RW-2Q-20240906	280-196435-1	--	--	--	--	--	--
RW-3-20240906	280-196416-1	--	--	--	--	--	--
RW-4-20240910	280-196512-1	--	--	--	--	--	--
RW-5-20240910	280-196512-1	--	--	--	--	--	--
RW-9R-20240910	280-196512-1	--	--	--	--	--	--
TB-01-20240905	280-196324-1	--	--	--	--	--	--
TB-02-20240905	280-196324-1	--	--	--	--	--	--
TB-03-8011-20240905	--	280-196324-1	--	--	--	--	--
TB-04-20240909	280-196416-1	--	--	--	--	--	--
TB-05-20240908	280-196435-1	--	--	--	--	--	--
TB-06-20240909	280-196435-1	--	--	--	--	--	--
TB-07-8011-20240909	--	280-196435-1	--	--	--	--	--
TB-08-20240910	280-196512-1	--	--	--	--	--	--
TB-09-20240910	--	280-196512-1	--	--	--	--	--

Notes:
ID = identification
SDG = sample delivery group

Appendix D
Table D.1
Sample ID, Laboratory SDG Reference

Analytical Method	SW8321B	SW8290A	SW6020B	SW7470A	RSK175	A4500_CN_E	SM4500-S2-D	SW9060
Sample ID	LAB SDG	LAB SDG	LAB SDG	LAB SDG	LAB SDG	LAB SDG	LAB SDG	LAB SDG
EB-01-20240904	--	--	--	--	--	--	--	--
EB-02-20240906	--	--	--	--	--	--	--	--
EB-03-20240908	--	--	--	--	--	--	--	--
EB-04-20240909	--	--	--	--	--	--	--	--
MP-1-20240906	--	--	--	--	--	--	--	--
MP-2-20240904	--	--	--	--	280-196414-1	--	--	280-196414-1
MP-3-20240906	--	--	--	--	--	--	--	--
MP-4-20240906	--	--	--	--	--	--	--	--
MW-101S-20240906	--	--	--	--	--	--	--	--
MW-102S-20240909	--	--	--	--	--	--	--	--
MW-103S-20240909	--	--	--	--	--	--	--	--
MW-105D-20240905	--	--	--	--	--	--	--	--
MW-105S-20240905	--	--	--	--	--	--	--	--
MW-105SQ-20240905	--	--	--	--	--	--	--	--
MW-109D-20240906	--	--	--	--	--	--	--	--
MW-109S-20240906	--	--	--	--	--	--	--	--
MW-110D-20240906	--	--	--	--	--	--	--	--
MW-110S-20240908	--	--	--	--	--	--	--	--
MW-111D-20240905	--	--	--	--	--	--	--	--
MW-111S-20240908	--	--	--	--	--	--	--	--
MW-112D-20240905	--	--	--	--	--	--	--	--
MW-112M-20240908	--	--	--	--	--	--	--	--
MW-113D-20240906	--	--	--	--	--	--	--	--
MW-113S-20240904	--	--	--	--	--	--	--	--
MW-113SQ-20240904	--	--	--	--	--	--	--	--
MW-115S-20240908	--	--	--	--	--	--	--	--
MW-116S-20240908	--	--	--	--	--	--	--	--
MW-117R-20240910	--	--	--	--	--	--	--	--
MW-118D-20240905	--	--	--	--	--	--	--	--
MW-119D-20240904	--	--	--	--	--	--	--	--
MW-119S-20240904	--	--	--	--	--	--	--	--
MW-120D-20240904	--	--	--	--	--	--	--	--
MW-120S-20240905	--	--	--	--	--	--	--	--
MW-121-20240906	--	--	280-196414-1	--	--	--	--	--
MW-12-20240904	--	280-196320-1	280-196320-1	280-196320-1	--	280-196320-1	280-196320-1	--
MW-123-20240908	--	--	--	--	--	--	--	--
MW-124-20240909	--	--	--	--	280-196519-1	--	--	280-196519-1
MW-125-20240909	--	--	--	--	280-196512-1	--	--	280-196512-1
MW-13-20240908	280-196398-1	280-196398-1	280-196398-1	280-196398-1	--	280-196398-1	280-196398-1	--
MW-13Q-20240908	280-196411-1	280-196411-1	280-196411-1	280-196411-1	--	280-196411-1	280-196411-1	--
MW-3A-20240906	--	--	280-196414-1	--	--	--	--	--
MW-4-20240905	--	--	280-196414-1	--	--	--	--	--
MW-4A-20240905	--	--	280-196414-1	--	--	--	--	--
MW-5AR-20240905	--	--	280-196414-1	--	--	--	--	--
MW-6A-20240904	--	--	280-196414-1	--	--	--	--	--
MW-8-20240906	280-196397-1	280-196397-1	280-196397-1	280-196397-1	--	280-196397-1	280-196397-1	--
MW-9-20240909	280-196518-1	280-196518-1	280-196518-1	280-196518-1	--	280-196518-1	280-196518-1	--
RW-10-20240910	--	--	--	--	--	--	--	--

Appendix D
Table D.1
Sample ID, Laboratory SDG Reference

Analytical Method	SW8321B	SW8290A	SW6020B	SW7470A	RSK175	A4500_CN_E	SM4500-S2-D	SW9060
Sample ID	LAB SDG	LAB SDG	LAB SDG	LAB SDG	LAB SDG	LAB SDG	LAB SDG	LAB SDG
RW-1-20240906	--	--	--	--	--	--	--	--
RW-15-20240910	--	--	--	--	--	--	--	--
RW-17-20240910	--	--	--	--	--	--	--	--
RW-2140H-20240908	--	--	--	--	--	--	--	--
RW-2-20240906	--	--	--	--	280-196414-1	--	--	280-196414-1
RW-2Q-20240906	--	--	--	--	280-196414-1	--	--	280-196414-1
RW-3-20240906	--	--	--	--	--	--	--	--
RW-4-20240910	--	--	--	--	--	--	--	--
RW-5-20240910	--	--	--	--	--	--	--	--
RW-9R-20240910	--	--	--	--	--	--	--	--
TB-01-20240905	--	--	--	--	--	--	--	--
TB-02-20240905	--	--	--	--	--	--	--	--
TB-03-8011-20240905	--	--	--	--	--	--	--	--
TB-04-20240909	--	--	--	--	--	--	--	--
TB-05-20240908	--	--	--	--	--	--	--	--
TB-06-20240909	--	--	--	--	--	--	--	--
TB-07-8011-20240909	--	--	--	--	--	--	--	--
TB-08-20240910	--	--	--	--	--	--	--	--
TB-09-20240910	--	--	--	--	--	--	--	--

Notes:
ID = identification
SDG = sample delivery grou

Appendix D
Table D.2
Sample ID, Laboratory SDG References

Analytical Method	SW846_8260D	SW8011	SW846_8270E	SW846_8270ESIM	SW8081B	SW8082	SW8141
Sample ID	LAB SDG	LAB SDG	LAB SDG	LAB SDG	LAB SDG	LAB SDG	LAB SDG
INJ-1R-20240910	280-196512-1	280-196512-1	280-196519-1	280-196519-1	280-196519-1	280-196519-1	280-196519-1

Analytical Method	SW8321B	SW8290A	SW6020B	SW7470A	A4500_CN_E	SM4500-S2-D
Sample ID	LAB SDG	LAB SDG	LAB SDG	LAB SDG	LAB SDG	LAB SDG
INJ-1R-20240910	280-196519-1	280-196519-1	280-196519-1	280-196519-1	280-196519-1	280-196519-1

Appendix D
Table D.3
Fall 2024 Groundwater Field Duplicate Comparisons

			Location ID	MW-105S		MW-105S				
			Sample Type	N		FD				
			Sample Date	9/5/2024		9/5/2024				
Method	Chemical Name	CAS No.	Unit	Result	Q	Result	Q	RDL	5x RL	RPD or Absolute Difference
SW846_8260D	1,1,1,2-Tetrachloroethane	630-20-6	ug/l	0.16	U	0.16	U	1	5	NC
	1,1,1-Trichloroethane	71-55-6	ug/l	0.39	U	0.39	U	1	5	NC
	1,1,2,2-Tetrachloroethane	79-34-5	ug/l	0.21	U	0.21	U	1	5	NC
	1,1,2-Trichloroethane	79-00-5	ug/l	0.27	U	0.27	U	1	5	NC
	1,1-Dichloroethane	75-34-3	ug/l	**0.52**	**J**	**0.59**	**J**	**1**	5	0.07
	1,1-Dichloroethene	75-35-4	ug/l	0.23	U	0.23	U	1	5	NC
	1,1-Dichloropropene	563-58-6	ug/l	0.19	U	0.19	U	1	5	NC
	1,2,3-Trichloropropane	96-18-4	ug/l	0.28	U	0.28	U	3	15	NC
	1,2,4-Trichlorobenzene	120-82-1	ug/l	0.58	U	0.58	U	1	5	NC
	1,2-Dibromo-3-Chloropropane	96-12-8	ug/l	0.42	U	0.42	U	5	25	NC
	1,2-Dibromoethane	106-93-4	ug/l	0.18	U	0.18	U	1	5	NC
	1,2-Dichlorobenzene	95-50-1	ug/l	**1.10**		**0.99**	**J**	**1**	**5**	0.11
	1,2-Dichloroethane	107-06-2	ug/l	0.28	U	0.28	U	1	5	NC
	1,2-Dichloropropane	78-87-5	ug/l	**1.30**		**1.30**		**1**	**5**	0.00
	1,3-Dichlorobenzene	541-73-1	ug/l	0.33	U	0.33	U	1	5	NC
	1,3-Dichloropropane	142-28-9	ug/l	0.17	U	0.17	U	1	5	NC
	1,4-Dichlorobenzene	106-46-7	ug/l	0.39	U	0.39	U	1	5	NC
	2,2-Dichloropropane	594-20-7	ug/l	0.17	U	0.17	U	1	5	NC
	2-Butanone (MEK)	78-93-3	ug/l	4.60	U	4.60	U	10	50	NC
	2-Hexanone	591-78-6	ug/l	0.81	U	0.81	U	5	25	NC
	4-Methyl-2-pentanone (MIBK)	108-10-1	ug/l	0.98	U	0.98	U	5	25	NC
	Acetone	67-64-1	ug/l	6.60	U	6.60	U	15	75	NC
	Acetonitrile; methyl cyanide	75-05-8	ug/l	14.00	U	14.00	U	30	150	NC
	Acrolein	107-02-8	ug/l	4.90	U	4.90	U	20	100	NC
	Acrylonitrile	107-13-1	ug/l	1.70	U	1.70	U	20	100	NC
	Allyl chloride	107-05-1	ug/l	0.46	U	0.46	U	2	10	NC
	Benzene	71-43-2	ug/l	0.14	U	0.14	U	1	5	NC
	Bromochloromethane	74-97-5	ug/l	0.40	U	0.40	U	1	5	NC
	Bromodichloromethane	75-27-4	ug/l	0.19	U	0.19	U	1	5	NC
	Bromoform	75-25-2	ug/l	0.25	U	0.25	U	2	10	NC
	Bromomethane	74-83-9	ug/l	2.4	U	2.40	U	5	25	NC
	Carbon disulfide	75-15-0	ug/l	0.26	U	0.26	U	2	10	NC
	Carbon tetrachloride	56-23-5	ug/l	0.23	U	0.23	U	1	5	NC
	Chlorobenzene	108-90-7	ug/l	0.092	U	0.09	U	1	5	NC
	Chlorodibromomethane	124-48-1	ug/l	0.28	U	0.28	U	1	5	NC
	Chloroethane	75-00-3	ug/l	0.64	U	0.64	U	2	10	NC
	Chloroform	67-66-3	ug/l	**0.98**	**J**	**0.99**	**J**	**1**	**5**	0.01
	Chloromethane	74-87-3	ug/l	0.23	U	0.23	U	2	`10	NC
	Chloroprene	126-99-8	ug/l	0.79	U	0.79	U	3	15	NC
	cis-1,2-Dichloroethene	156-59-2	ug/l	**1.7**		**1.7**		**1**	**5**	0.00
	cis-1,3-Dichloropropene	10061-01-5	ug/l	0.16	U	0.16	U	1	5	NC
	Dibromomethane	74-95-3	ug/l	0.34	U	0.34	U	1	5	NC
	Dichlorodifluoromethane	75-71-8	ug/l	0.3	U	0.3	U	2	10	NC
	Ethyl methacrylate	97-63-2	ug/l	0.19	U	0.19	U	3	15	NC
	Ethylbenzene	100-41-4	ug/l	0.14	U	0.14	U	1	5	NC
	Iodomethane	74-88-4	ug/l	2.6	U	2.6	U	5	25	NC
	Isobutanol; Isobutyl alcohol	78-83-1	ug/l	37	U	37	U	110	550	NC
	m,p-Xylene	179601-23-1	ug/l	0.36	U	0.36	U	2	10	NC
	Methacrylonitrile	126-98-7	ug/l	5.3	U	5.3	U	15	75	NC
	Methyl methacrylate	80-62-6	ug/l	1.1	U	1.1	U	4	20	NC
	Methylene Chloride	75-09-2	ug/l	0.94	U	0.94	U	2	10	NC
	o-xylene	95-47-6	ug/l	0.11	U	0.11	U	1	5	NC
	Propionitrile; ethyl cyanide	107-12-0	ug/l	3.7	U	3.7	U	20	100	NC
	Styrene	100-42-5	ug/l	0.13	U	0.13	U	1	5	NC
	Tetrachloroethene	127-18-4	ug/l	**5.5**		**5.5**		**1**	**5**	0
	Toluene	108-88-3	ug/l	0.32	U	0.32	U	1	5	NC
	trans-1,2-Dichloroethene	156-60-5	ug/l	0.37	U	0.37	U	1	5	NC
	trans-1,3-Dichloropropene	10061-02-6	ug/l	0.14	U	0.14	U	1	5	NC
	trans-1,4-Dichloro-2-butene	110-57-6	ug/l	0.51	U	0.51	U	3	15	NC
	Trichloroethene	79-01-6	ug/l	**12**		**12**		1	5	0
	Trichlorofluoromethane	75-69-4	ug/l	0.2	U	0.2	U	2	10	NC
	Vinyl acetate	108-05-4	ug/l	0.36	U	0.36	U	3	15	NC
	Vinyl chloride	75-01-4	ug/l	0.23	U	0.23	U	1	5	NC
	Xylenes, total	1330-20-7	ug/l	0.11	U	0.11	U	1	5	NC

Appendix D
Table D.3
Fall 2024 Groundwater Field Duplicate Comparisons

			Location ID	MW-105S		MW-105S				
			Sample Type	N		FD				
			Sample Date	9/5/2024		9/5/2024				
Method	Chemical Name	CAS No.	Unit	Result	Q	Result	Q	RDL	5x RL	RPD or Absolute Difference
SW8011	1,2,3-Trichloropropane	96-18-4	ug/l	--		--		--	--	--
	1,2-Dibromo-3-Chloropropane	96-12-8	ug/l	--		--		--	--	--
	1,2-Dibromoethane	106-93-4	ug/l	--		--		--	--	--
SW846_8270E	1,2,4,5-Tetrachlorobenzene	95-94-3	ug/l	--		--		--	--	--
	1,3,5-Trinitrobenzene	99-35-4	ug/l	--		--		--	--	--
	1,3-Dinitrobenzene	99-65-0	ug/l	--		--		--	--	--
	1,4-Naphthoquinone	130-15-4	ug/l	--		--		--	--	--
	1-Naphthylamine	134-32-7	ug/l	--		--		--	--	--
	2,3,4,6-Tetrachlorophenol	58-90-2	ug/l	--		--		--	--	--
	2,4,5-Trichlorophenol	95-95-4	ug/l	--		--		--	--	--
	2,4,6-Trichlorophenol	88-06-2	ug/l	--		--		--	--	--
	2,4-Dichlorophenol	120-83-2	ug/l	--		--		--	--	--
	2,4-Dimethylphenol; m-Xylenol	105-67-9	ug/l	--		--		--	--	--
	2,4-Dinitrophenol	51-28-5	ug/l	--		--		--	--	--
	2,4-Dinitrotoluene	121-14-2	ug/l	--		--		--	--	--
	2,6-Dichlorophenol	87-65-0	ug/l	--		--		--	--	--
	2,6-Dinitrotoluene	606-20-2	ug/l	--		--		--	--	--
	2-Acetylaminofluorene	53-96-3	ug/l	--		--		--	--	--
	2-Chloronaphthalene	91-58-7	ug/l	--		--		--	--	--
	2-Chlorophenol	95-57-8	ug/l	--		--		--	--	--
	2-Methylnaphthalene	91-57-6	ug/l	--		--		--	--	--
	2-Methylphenol; o-Cresol	95-48-7	ug/l	--		--		--	--	--
	2-Naphthylamine	91-59-8	ug/l	--		--		--	--	--
	2-Nitroaniline; o-Nitroaniline	88-74-4	ug/l	--		--		--	--	--
	2-Nitrophenol; o-Nitrophenol	88-75-5	ug/l	--		--		--	--	--
	3&4-Methylphenol	MEPH3MEPH4	ug/l	--		--		--	--	--
	3,3'-Dichlorobenzidine	91-94-1	ug/l	--		--		--	--	--
	3,3'-Dimethylbenzidine	119-93-7	ug/l	--		--		--	--	--
	3-Methylcholanthrene	56-49-5	ug/l	--		--		--	--	--
	3-Nitroaniline; m-Nitroaniline	99-09-2	ug/l	--		--		--	--	--
	4,6-Dinitro-2-methylphenol	534-52-1	ug/l	--		--		--	--	--
	4-Aminobiphenyl	92-67-1	ug/l	--		--		--	--	--
	4-Bromophenyl phenyl ether	101-55-3	ug/l	--		--		--	--	--
	4-Chloro-3-methylphenol	59-50-7	ug/l	--		--		--	--	--
	4-Chloroaniline; p-Chloroaniline	106-47-8	ug/l	--		--		--	--	--
	4-Chlorophenyl phenyl ether	7005-72-3	ug/l	--		--		--	--	--
	4-Nitroaniline; p-Nitroaniline	100-01-6	ug/l	--		--		--	--	--
	4-Nitrophenol; p-Nitrophenol	100-02-7	ug/l	--		--		--	--	--
	5-Nitro-o-toluidine	99-55-8	ug/l	--		--		--	--	--
	7,12-Dimethylbenz[a]anthracene	57-97-6	ug/l	--		--		--	--	--
	Acenaphthene	83-32-9	ug/l	--		--		--	--	--
	Acenaphthylene	208-96-8	ug/l	--		--		--	--	--
	Acetophenone	98-86-2	ug/l	--		--		--	--	--
	Anthracene	120-12-7	ug/l	--		--		--	--	--
	Benzo[a]anthracene	56-55-3	ug/l	--		--		--	--	--
	Beno(a)pyrene	50-32-8	ug/l	--		--		--	--	--
	Benzo[b]fluoranthene	205-99-2	ug/l	--		--		--	--	--
	Benzo[ghi]perylene	191-24-2	ug/l	--		--		--	--	--
	Benzo[k]fluoranthene	207-08-9	ug/l	--		--		--	--	--
	Benzyl alcohol	100-51-6	ug/l	--		--		--	--	--
	Bis(2-chloroethoxy)methane	111-91-1	ug/l	--		--		--	--	--
	Bis(2-chloroethyl)ether	111-44-4	ug/l	--		--		--	--	--
	Bis(2-chloroisopropyl)ether	108-60-1	ug/l	--		--		--	--	--
	Bis(2-ethylhexyl) phthalate	117-81-7	ug/l	--		--		--	--	--
	Butyl benzyl phthalate	85-68-7	ug/l	--		--		--	--	--
	Chlorobenzilate	510-15-6	ug/l	--		--		--	--	--
	Chrysene	218-01-9	ug/l	--		--		--	--	--
	Diallate	2303-16-4	ug/l	--		--		--	--	--
	Dibenz[a,h]anthracene	53-70-3	ug/l	--		--		--	--	--
	Dibenzofuran	132-64-9	ug/l	--		--		--	--	--
	Diethyl phthalate	84-66-2	ug/l	--		--		--	--	--
	Dimethyl phthalate	131-11-3	ug/l	--		--		--	--	--
	Di-n-butyl phthalate	84-74-2	ug/l	--		--		--	--	--
	Di-n-octyl phthalate	117-84-0	ug/l	--		--		--	--	--
	Diphenylamine	122-39-4	ug/l	--		--		--	--	--
	Ethyl methanesulfonate	62-50-0	ug/l	--		--		--	--	--
	Fluoranthene	206-44-0	ug/l	--		--		--	--	--

Appendix D
Table D.3
Fall 2024 Groundwater Field Duplicate Comparisons

			Location ID Sample Type Sample Date	MW-105S N 9/5/2024		MW-105S FD 9/5/2024				
Method	Chemical Name	CAS No.	Unit	Result	Q	Result	Q	RDL	5x RL	RPD or Absolute Difference
	Fluorene	86-73-7	ug/l	--		--		--	--	--
	Hexachloro-1,3-butadiene	87-68-3	ug/l	--		--		--	--	--
	Hexachlorobenzene	118-74-1	ug/l	--		--		--	--	--
	Hexachlorocyclopentadiene	77-47-4	ug/l	--		--		--	--	--
	Hexachloroethane	67-72-1	ug/l	--		--		--	--	--
	Hexachloropropene	1888-71-7	ug/l	--		--		--	--	--
	Indeno(1,2,3-cd)pyrene	193-39-5	ug/l	--		--		--	--	--
	Isophorone	78-59-1	ug/l	--		--		--	--	--
	Isosafrole	120-58-1	ug/l	--		--		--	--	--
	Methapyrilene	91-80-5	ug/l	--		--		--	--	--
	Methyl methanesulfonate	66-27-3	ug/l	--		--		--	--	--
	Naphthalene	91-20-3	ug/l	--		--		--	--	--
	Nitrobenzene	98-95-3	ug/l	--		--		--	--	--
	N-Nitrosodiethylamine	55-18-5	ug/l	--		--		--	--	--
	N-Nitrosodimethylamine	62-75-9	ug/l	--		--		--	--	--
	N-Nitrosodi-n-butylamine	924-16-3	ug/l	--		--		--	--	--
	N-Nitrosodi-n-propylamine	621-64-7	ug/l	--		--		--	--	--
	N-Nitrosodiphenylamine	86-30-6	ug/l	--		--		--	--	--
	N-Nitrosomethylethylamine	10595-95-6	ug/l	--		--		--	--	--
	N-Nitrosopiperidine	100-75-4	ug/l	--		--		--	--	--
	N-Nitrosopyrrolidine	930-55-2	ug/l	--		--		--	--	--
	O,O,O-Triethyl phosphorothioate	126-68-1	ug/l	--		--		--	--	--
	o-Toluidine	95-53-4	ug/l	--		--		--	--	--
	p-(Dimethylamino)azobenzene	60-11-7	ug/l	--		--		--	--	--
	Pentachlorobenzene	608-93-5	ug/l	--		--		--	--	--
	Pentachloronitrobenzene	82-68-8	ug/l	--		--		--	--	--
	Pentachlorophenol	87-86-5	ug/l	--		--		--	--	--
	Phenacetin	62-44-2	ug/l	--		--		--	--	--
	Phenanthrene	85-01-8	ug/l	--		--		--	--	--
	Phenol	108-95-2	ug/l	--		--		--	--	--
	Pronamide	23950-58-5	ug/l	--		--		--	--	--
	Pyrene	129-00-0	ug/l	--		--		--	--	--
	Safrole, Total	94-59-7	ug/l	--		--		--	--	--
	Thionazin	297-97-2	ug/l	--		--		--	--	--
SW846_8270ESIM	Benzo[a]pyrene	50-32-8	ug/l	--		--		--	--	--
RSK175	Acetylene	74-86-2	ug/l	--		--		--	--	--
	Ethane	74-84-0	ug/l	--		--		--	--	--
	Ethene	74-85-1	ug/l	--		--		--	--	--
	Methane	74-82-8	mg/l	--		--		--	--	--
	Propane	74-98-6	ug/l	--		--		--	--	--
SW8081B	4,4'-DDD	72-54-8	ug/l	--		--		--	--	--
	4,4'-DDE	72-55-9	ug/l	--		--		--	--	--
	4,4'-DDT	50-29-3	ug/l	--		--		--	--	--
	Aldrin	309-00-2	ug/l	--		--		--	--	--
	alpha-BHC	319-84-6	ug/l	--		--		--	--	--
	beta-BHC	319-85-7	ug/l	--		--		--	--	--
	Chlordane - constituents	12789-03-6	ug/l	--		--		--	--	--
	delta-BHC	319-86-8	ug/l	--		--		--	--	--
	Dieldrin	60-57-1	ug/l	--		--		--	--	--
	Endosulfan I	959-98-8	ug/l	--		--		--	--	--
	Endosulfan II	33213-65-9	ug/l	--		--		--	--	--
	Endosulfan sulfate	1031-07-8	ug/l	--		--		--	--	--
	Endrin	72-20-8	ug/l	--		--		--	--	--
	Endrin aldehyde	7421-93-4	ug/l	--		--		--	--	--
	gamma-BHC (lindane)	58-89-9	ug/l	--		--		--	--	--
	Heptachlor	76-44-8	ug/l	--		--		--	--	--
	Heptachlor epoxide	1024-57-3	ug/l	--		--		--	--	--
	Isodrin	465-73-6	ug/l	--		--		--	--	--
	Kepone	143-50-0	ug/l	--		--		--	--	--
	Methoxychlor	72-43-5	ug/l	--		--		--	--	--
	Toxaphene	8001-35-2	ug/l	--		--		--	--	--
SW8082	PCB 1016	12674-11-2	ug/l	--		--		--	--	--
	PCB 1221	11104-28-2	ug/l	--		--		--	--	--
	PCB 1232	11141-16-5	ug/l	--		--		--	--	--
	PCB 1242	53469-21-9	ug/l	--		--		--	--	--
	PCB 1248	12672-29-6	ug/l	--		--		--	--	--
	PCB 1254	11097-69-1	ug/l	--		--		--	--	--

Appendix D
Table D.3
Fall 2024 Groundwater Field Duplicate Comparisons

			Location ID Sample Type Sample Date	MW-105S N 9/5/2024		MW-105S FD 9/5/2024				
Method	Chemical Name	CAS No.	Unit	Result	Q	Result	Q	RDL	5x RL	RPD or Absolute Difference
	PCB 1260	11096-82-5	ug/l	--		--		--	--	--
	Polychlorinated Biphenyl (PCBs)	1336-36-3	ug/l	--		--		--	--	--
SW8141	Dimethoate	60-51-5	ug/l	--		--		--	--	--
	Disulfoton	298-04-4	ug/l	--		--		--	--	--
	Famphur	52-85-7	ug/l	--		--		--	--	--
	Methyl parathion	298-00-0	ug/l	--		--		--	--	--
	Parathion	56-38-2	ug/l	--		--		--	--	--
	Phorate	298-02-2	ug/l	--		--		--	--	--
SW8321B	2,4,5-TP (Silvex)	93-72-1	ug/l	--		--		--	--	--
	2,4,5-Trichlorophenoxyacetic acid	93-76-5	ug/l	--		--		--	--	--
	2,4-Dichlorophenoxyacetic acid	94-75-7	ug/l	--		--		--	--	--
	Dinoseb; 2-sec-Butyl-4,6-dinitrophenol	88-85-7	ug/l	--		--		--	--	--
	Pentachlorophenol	87-86-5	ug/l	--		--		--	--	--
SW8290A	2,3,7,8-TCDD	1746-01-6	pg/l	--		--		--	--	--
SW6020B	Antimony	7440-36-0	ug/l	--		--		--	--	--
	Arsenic	7440-38-2	ug/l	--		--		--	--	--
	Barium	7440-39-3	ug/l	--		--		--	--	--
	Beryllium	7440-41-7	ug/l	--		--		--	--	--
	Cadmium	7440-43-9	ug/l	--		--		--	--	--
	Calcium	7440-70-2	ug/l	--		--		--	--	--
	Chromium	7440-47-3	ug/l	--		--		--	--	--
	Cobalt	7440-48-4	ug/l	--		--		--	--	--
	Copper	7440-50-8	ug/l	--		--		--	--	--
	Iron	7439-89-6	ug/l	--		--		--	--	--
	Lead	7439-92-1	ug/l	--		--		--	--	--
	Magnesium	7439-95-4	ug/l	--		--		--	--	--
	Manganese	7439-96-5	mg/l	--		--		--	--	--
	Nickel	7440-02-0	ug/l	--		--		--	--	--
	Potassium	7440-09-7	ug/l	--		--		--	--	--
	Selenium	7782-49-2	ug/l	--		--		--	--	--
	Silver	7440-22-4	ug/l	--		--		--	--	--
	Sodium	7440-23-5	ug/l	--		--		--	--	--
	Thallium	7440-28-0	ug/l	--		--		--	--	--
	Tin	7440-31-5	ug/l	--		--		--	--	--
	Vanadium	7440-62-2	ug/l	--		--		--	--	--
	Zinc	7440-66-6	ug/l	--		--		--	--	--
SW7470A	Mercury	7439-97-6	ug/l	--		--		--	--	--
A4500_CN_E	Cyanide	57-12-5	mg/l	--		--		--	--	--
SM4500-S2-D	Sulfide	18496-25-8	mg/l	--		--		--	--	--
SW9060	Total Organic Carbon	TOC	mg/l	--		--		--	--	--

Notes:
Relative percent differences or absolute differences that are outside the control limits are highlighted yellow.
FD = field duplicate
N = normal field sample
NC = not calculated

Appendix D
Table D.3
Fall 2024 Groundwater Field Duplicate Comparisons

			Location ID	MW-113S		MW-113S				
			Sample Type	N		FD				
			Sample Date	9/4/2024		9/4/2024				
Method	Chemical Name	CAS No.	Unit	Result	Q	Result	Q	RDL	5x RL	RPD or Absolute Difference
SW846_8260D	1,1,1,2-Tetrachloroethane	630-20-6	ug/l	0.31	U	0.16	U	2	10	NC
	1,1,1-Trichloroethane	71-55-6	ug/l	0.78	U	0.39	U	2	10	NC
	1,1,2,2-Tetrachloroethane	79-34-5	ug/l	0.42	U	0.21	U	2	10	NC
	1,1,2-Trichloroethane	79-00-5	ug/l	0.54	U	0.27	U	2	10	NC
	1,1-Dichloroethane	75-34-3	ug/l	**21**		**21**		**2**	10	0.00
	1,1-Dichloroethene	75-35-4	ug/l	**0.65**	**J**	**0.54**	**J**	**2**	10	0.11
	1,1-Dichloropropene	563-58-6	ug/l	0.38	U	0.19	U	2	10	NC
	1,2,3-Trichloropropane	96-18-4	ug/l	0.55	U	0.28	U	5	25	NC
	1,2,4-Trichlorobenzene	120-82-1	ug/l	1.2	U	0.58	U	2	10	NC
	1,2-Dibromo-3-Chloropropane	96-12-8	ug/l	0.85	U	0.42	U	10	50	NC
	1,2-Dibromoethane	106-93-4	ug/l	0.37	U	0.18	U	2	10	NC
	1,2-Dichlorobenzene	95-50-1	ug/l	**10**		**11**		**2**	10	9.52
	1,2-Dichloroethane	107-06-2	ug/l	**4.3**		**4.4**		**2**	10	0.10
	1,2-Dichloropropane	78-87-5	ug/l	**4.4**		**4.6**		**2**	10	0.20
	1,3-Dichlorobenzene	541-73-1	ug/l	0.67	U	0.33	U	2	10	NC
	1,3-Dichloropropane	142-28-9	ug/l	0.35	U	0.17	U	2	10	NC
	1,4-Dichlorobenzene	106-46-7	ug/l	**5.6**		**6.2**		**2**	10	0.60
	2,2-Dichloropropane	594-20-7	ug/l	0.34	U	0.17	U	2	10	NC
	2-Butanone (MEK)	78-93-3	ug/l	9.2	U	4.6	U	20	100	NC
	2-Hexanone	591-78-6	ug/l	1.6	U	0.81	U	10	50	NC
	4-Methyl-2-pentanone (MIBK)	108-10-1	ug/l	2	U	0.98	U	10	50	NC
	Acetone	67-64-1	ug/l	13	U	6.6	U	30	150	NC
	Acetonitrile; methyl cyanide	75-05-8	ug/l	28	U	14	U	60	300	NC
	Acrolein	107-02-8	ug/l	9.7	U	4.9	U	40	200	NC
	Acrylonitrile	107-13-1	ug/l	3.4	U	1.7	U	40	200	NC
	Allyl chloride	107-05-1	ug/l	0.92	U	0.46	U	4	20	NC
	Benzene	71-43-2	ug/l	**6.1**		**6.2**		**2**	10	0.10
	Bromochloromethane	74-97-5	ug/l	0.81	U	0.4	U	2	10	NC
	Bromodichloromethane	75-27-4	ug/l	0.37	U	0.19	U	2	10	NC
	Bromoform	75-25-2	ug/l	0.49	U	0.25	U	4	20	NC
	Bromomethane	74-83-9	ug/l	4.7	U	2.4	U	10	50	NC
	Carbon disulfide	75-15-0	ug/l	0.51	U	0.26	U	4	20	NC
	Carbon tetrachloride	56-23-5	ug/l	0.45	U	0.23	U	2	10	NC
	Chlorobenzene	108-90-7	ug/l	**0.68**	**J**	**0.64**	**J**	**2**	10	0.04
	Chlorodibromomethane	124-48-1	ug/l	0.55	U	0.28	U	2	10	NC
	Chloroethane	75-00-3	ug/l	1.3	U	**0.99**	**J**	4	**20**	0.31
	Chloroform	67-66-3	ug/l	**0.98**	**J**	**1.1**		**2**	10	0.12
	Chloromethane	74-87-3	ug/l	0.45	U	0.23	U	4	20	NC
	Chloroprene	126-99-8	ug/l	1.6	U	0.79	U	6	30	NC
	cis-1,2-Dichloroethene	156-59-2	ug/l	**25**		**26**		**2**	10	3.92
	cis-1,3-Dichloropropene	10061-01-5	ug/l	0.31	U	0.16	U	2	10	NC
	Dibromomethane	74-95-3	ug/l	0.69	U	0.34	U	2	10	NC
	Dichlorodifluoromethane	75-71-8	ug/l	**13**		**14**		**4**	**20**	7.41
	Ethyl methacrylate	97-63-2	ug/l	0.38	U	0.19	U	6	30	NC
	Ethylbenzene	100-41-4	ug/l	0.29	U	0.14	U	2	10	NC
	Iodomethane	74-88-4	ug/l	5.2	U	2.6	U	10	50	NC
	Isobutanol; Isobutyl alcohol	78-83-1	ug/l	73	U	37	U	220	1100	NC
	m,p-Xylene	179601-23-1	ug/l	0.71	U	0.36	U	4	20	NC
	Methacrylonitrile	126-98-7	ug/l	11	U	5.3	U	30	150	NC
	Methyl methacrylate	80-62-6	ug/l	2.2	U	1.1	U	8	40	NC
	Methylene Chloride	75-09-2	ug/l	1.9	U	0.94	U	4	20	NC
	o-xylene	95-47-6	ug/l	**1**	**J**	**0.99**	**J**	**2**	10	0.01
	Propionitrile; ethyl cyanide	107-12-0	ug/l	7.4	U	3.7	U	40	200	NC
	Styrene	100-42-5	ug/l	0.25	U	0.13	U	2	10	NC
	Tetrachloroethene	127-18-4	ug/l	**17**		**17**		**2**	10	0.00
	Toluene	108-88-3	ug/l	0.64	U	0.32	U	2	10	NC
	trans-1,2-Dichloroethene	156-60-5	ug/l	**1.2**	**J**	**1.1**		**2**	10	0.10
	trans-1,3-Dichloropropene	10061-02-6	ug/l	0.29	U	0.14	U	2	10	NC
	trans-1,4-Dichloro-2-butene	110-57-6	ug/l	1	U	0.51	U	6	30	NC
	Trichloroethene	79-01-6	ug/l	**11**		**12**		**2**	10	8.70
	Trichlorofluoromethane	75-69-4	ug/l	0.4	U	**0.91**	**J**	4	**20**	ok
	Vinyl acetate	108-05-4	ug/l	0.72	U	0.36	U	6	30	NC
	Vinyl chloride	75-01-4	ug/l	**63**		**67**		**2**	10	6.15
	Xylenes, total	1330-20-7	ug/l	**1**	**J**	**0.99**	**J**	**2**	10	0.01

Appendix D
Table D.3
Fall 2024 Groundwater Field Duplicate Comparisons

			Location ID	MW-113S		MW-113S				
			Sample Type	N		FD				
			Sample Date	9/4/2024		9/4/2024				
Method	Chemical Name	CAS No.	Unit	Result	Q	Result	Q	RDL	5x RL	RPD or Absolute Difference
SW8011	1,2,3-Trichloropropane	96-18-4	ug/l	--		--		--	--	--
	1,2-Dibromo-3-Chloropropane	96-12-8	ug/l	--		--		--	--	--
	1,2-Dibromoethane	106-93-4	ug/l	--		--		--	--	--
SW846_8270E	1,2,4,5-Tetrachlorobenzene	95-94-3	ug/l	--		--		--	--	--
	1,3,5-Trinitrobenzene	99-35-4	ug/l	--		--		--	--	--
	1,3-Dinitrobenzene	99-65-0	ug/l	--		--		--	--	--
	1,4-Naphthoquinone	130-15-4	ug/l	--		--		--	--	--
	1-Naphthylamine	134-32-7	ug/l	--		--		--	--	--
	2,3,4,6-Tetrachlorophenol	58-90-2	ug/l	--		--		--	--	--
	2,4,5-Trichlorophenol	95-95-4	ug/l	--		--		--	--	--
	2,4,6-Trichlorophenol	88-06-2	ug/l	--		--		--	--	--
	2,4-Dichlorophenol	120-83-2	ug/l	--		--		--	--	--
	2,4-Dimethylphenol; m-Xylenol	105-67-9	ug/l	--		--		--	--	--
	2,4-Dinitrophenol	51-28-5	ug/l	--		--		--	--	--
	2,4-Dinitrotoluene	121-14-2	ug/l	--		--		--	--	--
	2,6-Dichlorophenol	87-65-0	ug/l	--		--		--	--	--
	2,6-Dinitrotoluene	606-20-2	ug/l	--		--		--	--	--
	2-Acetylaminofluorene	53-96-3	ug/l	--		--		--	--	--
	2-Chloronaphthalene	91-58-7	ug/l	--		--		--	--	--
	2-Chlorophenol	95-57-8	ug/l	--		--		--	--	--
	2-Methylnaphthalene	91-57-6	ug/l	--		--		--	--	--
	2-Methylphenol; o-Cresol	95-48-7	ug/l	--		--		--	--	--
	2-Naphthylamine	91-59-8	ug/l	--		--		--	--	--
	2-Nitroaniline; o-Nitroaniline	88-74-4	ug/l	--		--		--	--	--
	2-Nitrophenol; o-Nitrophenol	88-75-5	ug/l	--		--		--	--	--
	3&4-Methylphenol	MEPH3MEPH4	ug/l	--		--		--	--	--
	3,3'-Dichlorobenzidine	91-94-1	ug/l	--		--		--	--	--
	3,3'-Dimethylbenzidine	119-93-7	ug/l	--		--		--	--	--
	3-Methylcholanthrene	56-49-5	ug/l	--		--		--	--	--
	3-Nitroaniline; m-Nitroaniline	99-09-2	ug/l	--		--		--	--	--
	4,6-Dinitro-2-methylphenol	534-52-1	ug/l	--		--		--	--	--
	4-Aminobiphenyl	92-67-1	ug/l	--		--		--	--	--
	4-Bromophenyl phenyl ether	101-55-3	ug/l	--		--		--	--	--
	4-Chloro-3-methylphenol	59-50-7	ug/l	--		--		--	--	--
	4-Chloroaniline; p-Chloroaniline	106-47-8	ug/l	--		--		--	--	--
	4-Chlorophenyl phenyl ether	7005-72-3	ug/l	--		--		--	--	--
	4-Nitroaniline; p-Nitroaniline	100-01-6	ug/l	--		--		--	--	--
	4-Nitrophenol; p-Nitrophenol	100-02-7	ug/l	--		--		--	--	--
	5-Nitro-o-toluidine	99-55-8	ug/l	--		--		--	--	--
	7,12-Dimethylbenz[a]anthracene	57-97-6	ug/l	--		--		--	--	--
	Acenaphthene	83-32-9	ug/l	--		--		--	--	--
	Acenaphthylene	208-96-8	ug/l	--		--		--	--	--
	Acetophenone	98-86-2	ug/l	--		--		--	--	--
	Anthracene	120-12-7	ug/l	--		--		--	--	--
	Benzo[a]anthracene	56-55-3	ug/l	--		--		--	--	--
	Beno(a)pyrene	50-32-8	ug/l	--		--		--	--	--
	Benzo[b]fluoranthene	205-99-2	ug/l	--		--		--	--	--
	Benzo[ghi]perylene	191-24-2	ug/l	--		--		--	--	--
	Benzo[k]fluoranthene	207-08-9	ug/l	--		--		--	--	--
	Benzyl alcohol	100-51-6	ug/l	--		--		--	--	--
	Bis(2-chloroethoxy)methane	111-91-1	ug/l	--		--		--	--	--
	Bis(2-chloroethyl)ether	111-44-4	ug/l	--		--		--	--	--
	Bis(2-chloroisopropyl)ether	108-60-1	ug/l	--		--		--	--	--
	Bis(2-ethylhexyl) phthalate	117-81-7	ug/l	--		--		--	--	--
	Butyl benzyl phthalate	85-68-7	ug/l	--		--		--	--	--
	Chlorobenzilate	510-15-6	ug/l	--		--		--	--	--
	Chrysene	218-01-9	ug/l	--		--		--	--	--
	Diallate	2303-16-4	ug/l	--		--		--	--	--
	Dibenz[a,h]anthracene	53-70-3	ug/l	--		--		--	--	--
	Dibenzofuran	132-64-9	ug/l	--		--		--	--	--
	Diethyl phthalate	84-66-2	ug/l	--		--		--	--	--
	Dimethyl phthalate	131-11-3	ug/l	--		--		--	--	--
	Di-n-butyl phthalate	84-74-2	ug/l	--		--		--	--	--
	Di-n-octyl phthalate	117-84-0	ug/l	--		--		--	--	--
	Diphenylamine	122-39-4	ug/l	--		--		--	--	--
	Ethyl methanesulfonate	62-50-0	ug/l	--		--		--	--	--
	Fluoranthene	206-44-0	ug/l	--		--		--	--	--

Appendix D
Table D.3
Fall 2024 Groundwater Field Duplicate Comparisons

			Location ID	MW-113S		MW-113S				
			Sample Type	N		FD				
			Sample Date	9/4/2024		9/4/2024				
Method	Chemical Name	CAS No.	Unit	Result	Q	Result	Q	RDL	5x RL	RPD or Absolute Difference
	Fluorene	86-73-7	ug/l	--		--		--	--	--
	Hexachloro-1,3-butadiene	87-68-3	ug/l	--		--		--	--	--
	Hexachlorobenzene	118-74-1	ug/l	--		--		--	--	--
	Hexachlorocyclopentadiene	77-47-4	ug/l	--		--		--	--	--
	Hexachloroethane	67-72-1	ug/l	--		--		--	--	--
	Hexachloropropene	1888-71-7	ug/l	--		--		--	--	--
	Indeno(1,2,3-cd)pyrene	193-39-5	ug/l	--		--		--	--	--
	Isophorone	78-59-1	ug/l	--		--		--	--	--
	Isosafrole	120-58-1	ug/l	--		--		--	--	--
	Methapyrilene	91-80-5	ug/l	--		--		--	--	--
	Methyl methanesulfonate	66-27-3	ug/l	--		--		--	--	--
	Naphthalene	91-20-3	ug/l	--		--		--	--	--
	Nitrobenzene	98-95-3	ug/l	--		--		--	--	--
	N-Nitrosodiethylamine	55-18-5	ug/l	--		--		--	--	--
	N-Nitrosodimethylamine	62-75-9	ug/l	--		--		--	--	--
	N-Nitrosodi-n-butylamine	924-16-3	ug/l	--		--		--	--	--
	N-Nitrosodi-n-propylamine	621-64-7	ug/l	--		--		--	--	--
	N-Nitrosodiphenylamine	86-30-6	ug/l	--		--		--	--	--
	N-Nitrosomethylethylamine	10595-95-6	ug/l	--		--		--	--	--
	N-Nitrosopiperidine	100-75-4	ug/l	--		--		--	--	--
	N-Nitrosopyrrolidine	930-55-2	ug/l	--		--		--	--	--
	O,O,O-Triethyl phosphorothioate	126-68-1	ug/l	--		--		--	--	--
	o-Toluidine	95-53-4	ug/l	--		--		--	--	--
	p-(Dimethylamino)azobenzene	60-11-7	ug/l	--		--		--	--	--
	Pentachlorobenzene	608-93-5	ug/l	--		--		--	--	--
	Pentachloronitrobenzene	82-68-8	ug/l	--		--		--	--	--
	Pentachlorophenol	87-86-5	ug/l	--		--		--	--	--
	Phenacetin	62-44-2	ug/l	--		--		--	--	--
	Phenanthrene	85-01-8	ug/l	--		--		--	--	--
	Phenol	108-95-2	ug/l	--		--		--	--	--
	Pronamide	23950-58-5	ug/l	--		--		--	--	--
	Pyrene	129-00-0	ug/l	--		--		--	--	--
	Safrole, Total	94-59-7	ug/l	--		--		--	--	--
	Thionazin	297-97-2	ug/l	--		--		--	--	--
SW846_8270ESIM	Benzo[a]pyrene	50-32-8	ug/l	--		--		--	--	--
RSK175	Acetylene	74-86-2	ug/l	--		--		--	--	--
	Ethane	74-84-0	ug/l	--		--		--	--	--
	Ethene	74-85-1	ug/l	--		--		--	--	--
	Methane	74-82-8	mg/l	--		--		--	--	--
	Propane	74-98-6	ug/l	--		--		--	--	--
SW8081B	4,4'-DDD	72-54-8	ug/l	--		--		--	--	--
	4,4'-DDE	72-55-9	ug/l	--		--		--	--	--
	4,4'-DDT	50-29-3	ug/l	--		--		--	--	--
	Aldrin	309-00-2	ug/l	--		--		--	--	--
	alpha-BHC	319-84-6	ug/l	--		--		--	--	--
	beta-BHC	319-85-7	ug/l	--		--		--	--	--
	Chlordane - constituents	12789-03-6	ug/l	--		--		--	--	--
	delta-BHC	319-86-8	ug/l	--		--		--	--	--
	Dieldrin	60-57-1	ug/l	--		--		--	--	--
	Endosulfan I	959-98-8	ug/l	--		--		--	--	--
	Endosulfan II	33213-65-9	ug/l	--		--		--	--	--
	Endosulfan sulfate	1031-07-8	ug/l	--		--		--	--	--
	Endrin	72-20-8	ug/l	--		--		--	--	--
	Endrin aldehyde	7421-93-4	ug/l	--		--		--	--	--
	gamma-BHC (lindane)	58-89-9	ug/l	--		--		--	--	--
	Heptachlor	76-44-8	ug/l	--		--		--	--	--
	Heptachlor epoxide	1024-57-3	ug/l	--		--		--	--	--
	Isodrin	465-73-6	ug/l	--		--		--	--	--
	Kepone	143-50-0	ug/l	--		--		--	--	--
	Methoxychlor	72-43-5	ug/l	--		--		--	--	--
	Toxaphene	8001-35-2	ug/l	--		--		--	--	--
SW8082	PCB 1016	12674-11-2	ug/l	--		--		--	--	--
	PCB 1221	11104-28-2	ug/l	--		--		--	--	--
	PCB 1232	11141-16-5	ug/l	--		--		--	--	--
	PCB 1242	53469-21-9	ug/l	--		--		--	--	--
	PCB 1248	12672-29-6	ug/l	--		--		--	--	--
	PCB 1254	11097-69-1	ug/l	--		--		--	--	--

Appendix D
Table D.3
Fall 2024 Groundwater Field Duplicate Comparisons

			Location ID Sample Type Sample Date	MW-113S N 9/4/2024		MW-113S FD 9/4/2024				
Method	Chemical Name	CAS No.	Unit	Result	Q	Result	Q	RDL	5x RL	RPD or Absolute Difference
	PCB 1260	11096-82-5	ug/l	--		--		--	--	--
	Polychlorinated Biphenyl (PCBs)	1336-36-3	ug/l	--		--		--	--	--
SW8141	Dimethoate	60-51-5	ug/l	--		--		--	--	--
	Disulfoton	298-04-4	ug/l	--		--		--	--	--
	Famphur	52-85-7	ug/l	--		--		--	--	--
	Methyl parathion	298-00-0	ug/l	--		--		--	--	--
	Parathion	56-38-2	ug/l	--		--		--	--	--
	Phorate	298-02-2	ug/l	--		--		--	--	--
SW8321B	2,4,5-TP (Silvex)	93-72-1	ug/l	--		--		--	--	--
	2,4,5-Trichlorophenoxyacetic acid	93-76-5	ug/l	--		--		--	--	--
	2,4-Dichlorophenoxyacetic acid	94-75-7	ug/l	--		--		--	--	--
	Dinoseb; 2-sec-Butyl-4,6-dinitrophenol	88-85-7	ug/l	--		--		--	--	--
	Pentachlorophenol	87-86-5	ug/l	--		--		--	--	--
SW8290A	2,3,7,8-TCDD	1746-01-6	pg/l	--		--		--	--	--
SW6020B	Antimony	7440-36-0	ug/l	--		--		--	--	--
	Arsenic	7440-38-2	ug/l	--		--		--	--	--
	Barium	7440-39-3	ug/l	--		--		--	--	--
	Beryllium	7440-41-7	ug/l	--		--		--	--	--
	Cadmium	7440-43-9	ug/l	--		--		--	--	--
	Calcium	7440-70-2	ug/l	--		--		--	--	--
	Chromium	7440-47-3	ug/l	--		--		--	--	--
	Cobalt	7440-48-4	ug/l	--		--		--	--	--
	Copper	7440-50-8	ug/l	--		--		--	--	--
	Iron	7439-89-6	ug/l	--		--		--	--	--
	Lead	7439-92-1	ug/l	--		--		--	--	--
	Magnesium	7439-95-4	ug/l	--		--		--	--	--
	Manganese	7439-96-5	mg/l	--		--		--	--	--
	Nickel	7440-02-0	ug/l	--		--		--	--	--
	Potassium	7440-09-7	ug/l	--		--		--	--	--
	Selenium	7782-49-2	ug/l	--		--		--	--	--
	Silver	7440-22-4	ug/l	--		--		--	--	--
	Sodium	7440-23-5	ug/l	--		--		--	--	--
	Thallium	7440-28-0	ug/l	--		--		--	--	--
	Tin	7440-31-5	ug/l	--		--		--	--	--
	Vanadium	7440-62-2	ug/l	--		--		--	--	--
	Zinc	7440-66-6	ug/l	--		--		--	--	--
SW7470A	Mercury	7439-97-6	ug/l	--		--		--	--	--
A4500_CN_E	Cyanide	57-12-5	mg/l	--		--		--	--	--
SM4500-S2-D	Sulfide	18496-25-8	mg/l	--		--		--	--	--
SW9060	Total Organic Carbon	TOC	mg/l	--		--		--	--	--

Notes:
Relative percent differences or absolute differences that are outside the control limits are highlighted yellow.
FD = field duplicate
N = normal field sample
NC = not calculated

Appendix D
Table D.3
Fall 2024 Groundwater Field Duplicate Comparisons

			Location ID	MW-13		MW-13				
			Sample Type	N		FD				
			Sample Date	9/8/2024		9/8/2024				
Method	Chemical Name	CAS No.	Unit	Result	Q	Result	Q	RDL	5x RL	RPD or Absolute Difference
SW846_8260D	1,1,1,2-Tetrachloroethane	630-20-6	ug/l	0.16	U	0.16	U	1	5	NC
	1,1,1-Trichloroethane	71-55-6	ug/l	0.39	U	0.39	U	1	5	NC
	1,1,2,2-Tetrachloroethane	79-34-5	ug/l	0.21	U	0.21	U	1	5	NC
	1,1,2-Trichloroethane	79-00-5	ug/l	0.27	U	0.27	U	1	5	NC
	1,1-Dichloroethane	75-34-3	ug/l	0.22	U	**0.26**	**J**	1	**5**	**ok**
	1,1-Dichloroethene	75-35-4	ug/l	0.23	U	0.23	U	1	5	NC
	1,1-Dichloropropene	563-58-6	ug/l	0.19	U	0.19	U	1	5	NC
	1,2,3-Trichloropropane	96-18-4	ug/l	--		--		--	--	--
	1,2,4-Trichlorobenzene	120-82-1	ug/l	0.58	U	0.58	U	1	5	NC
	1,2-Dibromo-3-Chloropropane	96-12-8	ug/l	--		--		--	--	--
	1,2-Dibromoethane	106-93-4	ug/l	--		--		--	--	--
	1,2-Dichlorobenzene	95-50-1	ug/l	0.14	U	0.14	U	1	5	NC
	1,2-Dichloroethane	107-06-2	ug/l	0.28	U	0.28	U	1	5	NC
	1,2-Dichloropropane	78-87-5	ug/l	0.24	U	0.24	U	1	5	NC
	1,3-Dichlorobenzene	541-73-1	ug/l	0.33	U	0.33	U	1	5	NC
	1,3-Dichloropropane	142-28-9	ug/l	0.17	U	0.17	U	1	5	NC
	1,4-Dichlorobenzene	106-46-7	ug/l	0.39	U	0.39	U	1	5	NC
	2,2-Dichloropropane	594-20-7	ug/l	0.17	U	0.17	U	1	5	NC
	2-Butanone (MEK)	78-93-3	ug/l	4.6	U	4.6	U	10	50	NC
	2-Hexanone	591-78-6	ug/l	0.81	U	0.81	U	5	25	NC
	4-Methyl-2-pentanone (MIBK)	108-10-1	ug/l	0.98	U	0.98	U	5	25	NC
	Acetone	67-64-1	ug/l	6.6	U	6.6	U	15	75	NC
	Acetonitrile; methyl cyanide	75-05-8	ug/l	14	U	14	U	30	150	NC
	Acrolein	107-02-8	ug/l	4.9	U	4.9	U	20	100	NC
	Acrylonitrile	107-13-1	ug/l	1.7	U	1.7	U	20	100	NC
	Allyl chloride	107-05-1	ug/l	0.46	U	0.46	U	2	10	NC
	Benzene	71-43-2	ug/l	0.14	U	0.14	U	1	5	NC
	Bromochloromethane	74-97-5	ug/l	0.4	U	0.4	U	1	5	NC
	Bromodichloromethane	75-27-4	ug/l	0.19	U	0.19	U	1	5	NC
	Bromoform	75-25-2	ug/l	0.25	U	0.25	U	2	10	NC
	Bromomethane	74-83-9	ug/l	2.4	U	2.4	U	5	25	NC
	Carbon disulfide	75-15-0	ug/l	0.26	U	0.26	U	2	10	NC
	Carbon tetrachloride	56-23-5	ug/l	0.23	U	0.23	U	1	5	NC
	Chlorobenzene	108-90-7	ug/l	0.092	U	0.092	U	1	5	NC
	Chlorodibromomethane	124-48-1	ug/l	0.28	U	0.28	U	1	5	NC
	Chloroethane	75-00-3	ug/l	0.64	U	0.64	U	2	10	NC
	Chloroform	67-66-3	ug/l	0.36	U	0.36	U	1	5	NC
	Chloromethane	74-87-3	ug/l	0.23	U	0.23	U	2	10	NC
	Chloroprene	126-99-8	ug/l	0.79	U	0.79	U	3	15	NC
	cis-1,2-Dichloroethene	156-59-2	ug/l	**1.3**		**1.3**		**1**	**5**	**0.00**
	cis-1,3-Dichloropropene	10061-01-5	ug/l	0.16	U	0.16	U	1	5	NC
	Dibromomethane	74-95-3	ug/l	0.34	U	0.34	U	1	5	NC
	Dichlorodifluoromethane	75-71-8	ug/l	**0.96**	**J**	**0.97**	**J**	**2**	**10**	**0.01**
	Ethyl methacrylate	97-63-2	ug/l	0.19	U	0.19	U	3	15	NC
	Ethylbenzene	100-41-4	ug/l	0.14	U	0.14	U	1	5	NC
	Iodomethane	74-88-4	ug/l	2.6	U	2.6	U	5	25	NC
	Isobutanol; Isobutyl alcohol	78-83-1	ug/l	37	U	37	U	110	550	NC
	m,p-Xylene	179601-23-1	ug/l	0.36	U	0.36	U	2	10	NC
	Methacrylonitrile	126-98-7	ug/l	5.3	U	5.3	U	15	75	NC
	Methyl methacrylate	80-62-6	ug/l	1.1	U	1.1	U	4	20	NC
	Methylene Chloride	75-09-2	ug/l	0.94	U	0.94	U	2	10	NC
	o-xylene	95-47-6	ug/l	0.11	U	0.11	U	1	5	NC
	Propionitrile; ethyl cyanide	107-12-0	ug/l	3.7	U	3.7	U	20	100	NC
	Styrene	100-42-5	ug/l	0.13	U	0.13	U	1	5	NC
	Tetrachloroethene	127-18-4	ug/l	0.4	U	0.4	U	1	5	NC
	Toluene	108-88-3	ug/l	0.32	U	0.32	U	1	5	NC
	trans-1,2-Dichloroethene	156-60-5	ug/l	0.37	U	0.37	U	1	5	NC
	trans-1,3-Dichloropropene	10061-02-6	ug/l	0.14	U	0.14	U	1	5	NC
	trans-1,4-Dichloro-2-butene	110-57-6	ug/l	0.51	U	0.51	U	3	15	NC
	Trichloroethene	79-01-6	ug/l	0.3	U	**0.31**	**J**	1	**5**	**ok**
	Trichlorofluoromethane	75-69-4	ug/l	0.2	U	0.2	U	2	10	NC
	Vinyl acetate	108-05-4	ug/l	0.36	U	0.36	U	3	15	NC
	Vinyl chloride	75-01-4	ug/l	0.23	U	0.23	U	1	5	NC
	Xylenes, total	1330-20-7	ug/l	0.11	U	0.11	U	1	5	NC

Appendix D
Table D.3
Fall 2024 Groundwater Field Duplicate Comparisons

			Location ID	MW-13		MW-13				
			Sample Type	N		FD				
			Sample Date	9/8/2024		9/8/2024				
Method	Chemical Name	CAS No.	Unit	Result	Q	Result	Q	RDL	5x RL	RPD or Absolute Difference
SW8011	1,2,3-Trichloropropane	96-18-4	ug/l	0.005	U	0.0049	U	0.02	0.1	NC
	1,2-Dibromo-3-Chloropropane	96-12-8	ug/l	0.0068	U	0.0067	U	0.02	0.1	NC
	1,2-Dibromoethane	106-93-4	ug/l	0.0037	U	0.0036	U	0.02	0.1	NC
SW846_8270E	1,2,4,5-Tetrachlorobenzene	95-94-3	ug/l	1.7	U	1.7	U	9.7	48.5	NC
	1,3,5-Trinitrobenzene	99-35-4	ug/l	5	U	5	U	48	240	NC
	1,3-Dinitrobenzene	99-65-0	ug/l	5	U	5	U	9.7	48.5	NC
	1,4-Naphthoquinone	130-15-4	ug/l	5.3	U	5.2	U	48	240	NC
	1-Naphthylamine	134-32-7	ug/l	3.6	U	3.5	U	9.7	48.5	NC
	2,3,4,6-Tetrachlorophenol	58-90-2	ug/l	6.8	U	6.8	U	48	240	NC
	2,4,5-Trichlorophenol	95-95-4	ug/l	2.5	U	2.4	U	9.7	48.5	NC
	2,4,6-Trichlorophenol	88-06-2	ug/l	2.2	U	2.2	U	9.7	48.5	NC
	2,4-Dichlorophenol	120-83-2	ug/l	2.9	U	2.9	U	9.7	48.5	NC
	2,4-Dimethylphenol; m-Xylenol	105-67-9	ug/l	1.3	U	1.3	U	9.7	48.5	NC
	2,4-Dinitrophenol	51-28-5	ug/l	12	U	12	U	29	145	NC
	2,4-Dinitrotoluene	121-14-2	ug/l	1.4	U	1.4	U	9.7	48.5	NC
	2,6-Dichlorophenol	87-65-0	ug/l	2	U	2	U	9.7	48.5	NC
	2,6-Dinitrotoluene	606-20-2	ug/l	1.4	U	1.4	U	9.7	48.5	NC
	2-Acetylaminofluorene	53-96-3	ug/l	7.8	U	7.7	U	97	485	NC
	2-Chloronaphthalene	91-58-7	ug/l	1.2	U	1.2	U	3.9	19.5	NC
	2-Chlorophenol	95-57-8	ug/l	2.5	U	2.5	U	9.7	48.5	NC
	2-Methylnaphthalene	91-57-6	ug/l	1.2	U	1.2	U	3.9	48.5	NC
	2-Methylphenol; o-Cresol	95-48-7	ug/l	0.75	U	0.74	U	9.7	48.5	NC
	2-Naphthylamine	91-59-8	ug/l	1.3	U	1.3	U	9.7	48.5	NC
	2-Nitroaniline; o-Nitroaniline	88-74-4	ug/l	2.5	U	2.5	U	9.7	48.5	NC
	2-Nitrophenol; o-Nitrophenol	88-75-5	ug/l	3.4	U	3.3	U	9.7	48.5	NC
	3&4-Methylphenol	MEPH3MEPH4	ug/l	2.1	U	2.1	U	9.7	48.5	NC
	3,3'-Dichlorobenzidine	91-94-1	ug/l	3.3	U	3.2	U	48	240	NC
	3,3'-Dimethylbenzidine	119-93-7	ug/l	4.4	U	4.4	U	29	145	NC
	3-Methylcholanthrene	56-49-5	ug/l	3.7	U	3.7	U	19	95	NC
	3-Nitroaniline; m-Nitroaniline	99-09-2	ug/l	3.2	U	3.2	U	10	48.5	NC
	4,6-Dinitro-2-methylphenol	534-52-1	ug/l	3.9	U	3.9	U	48	240	NC
	4-Aminobiphenyl	92-67-1	ug/l	7.6	U	7.5	U	48	240	NC
	4-Bromophenyl phenyl ether	101-55-3	ug/l	0.98	U	0.97	U	10	48.5	NC
	4-Chloro-3-methylphenol	59-50-7	ug/l	1.6	U	1.6	U	10	48.5	NC
	4-Chloroaniline; p-Chloroaniline	106-47-8	ug/l	6.1	U	6	U	19	95	NC
	4-Chlorophenyl phenyl ether	7005-72-3	ug/l	1.2	U	1.2	U	10	48.5	NC
	4-Nitroaniline; p-Nitroaniline	100-01-6	ug/l	2.5	U	2.5	U	10	48.5	NC
	4-Nitrophenol; p-Nitrophenol	100-02-7	ug/l	8.8	U	8.7	U	24	120	NC
	5-Nitro-o-toluidine	99-55-8	ug/l	4.1	U	4	U	19	95	NC
	7,12-Dimethylbenz[a]anthracene	57-97-6	ug/l	3.1	U	3.1	U	19	95	NC
	Acenaphthene	83-32-9	ug/l	0.93	U	0.92	U	4	20	NC
	Acenaphthylene	208-96-8	ug/l	0.72	U	0.71	U	4	20	NC
	Acetophenone	98-86-2	ug/l	2.2	U	2.2	U	10	50	NC
	Anthracene	120-12-7	ug/l	0.56	U	0.55	U	4	20	NC
	Benzo[a]anthracene	56-55-3	ug/l	0.93	U	0.92	U	4	20	NC
	Beno(a)pyrene	50-32-8	ug/l	--		--		--	--	--
	Benzo[b]fluoranthene	205-99-2	ug/l	2.1	U	2.1	U	3.9	19.5	NC
	Benzo[ghi]perylene	191-24-2	ug/l	2.7	U	2.7	U	3.9	19.5	NC
	Benzo[k]fluoranthene	207-08-9	ug/l	1	U	1	U	3.9	19.5	NC
	Benzyl alcohol	100-51-6	ug/l	2.4	U	2.4	U	9.7	48.5	NC
	Bis(2-chloroethoxy)methane	111-91-1	ug/l	2.3	U	2.3	U	9.7	48.5	NC
	Bis(2-chloroethyl)ether	111-44-4	ug/l	2	U	1.9	U	9.7	48.5	NC
	Bis(2-chloroisopropyl)ether	108-60-1	ug/l	1.3	U	1.3	U	9.7	48.5	NC
	Bis(2-ethylhexyl) phthalate	117-81-7	ug/l	3.2	U	3.2	U	9.7	48.5	NC
	Butyl benzyl phthalate	85-68-7	ug/l	1.5	U	1.5	U	3.9	48.5	NC
	Chlorobenzilate	510-15-6	ug/l	4.4	U	4.4	U	9.7	48.5	NC
	Chrysene	218-01-9	ug/l	0.94	U	0.93	U	3.9	19.5	NC
	Diallate	2303-16-4	ug/l	3.8	U	3.8	U	19	95	NC
	Dibenz[a,h]anthracene	53-70-3	ug/l	4.6	U	4.6	U	9.7	48.5	NC
	Dibenzofuran	132-64-9	ug/l	0.92	U	0.91	U	3.9	19.5	NC
	Diethyl phthalate	84-66-2	ug/l	1.3	U	1.3	U	3.9	19.5	NC
	Dimethyl phthalate	131-11-3	ug/l	0.73	U	0.72	U	3.9	19.5	NC
	Di-n-butyl phthalate	84-74-2	ug/l	2	U	2	U	3.9	19.5	NC
	Di-n-octyl phthalate	117-84-0	ug/l	3.5	U	3.4	U	9.7	48.5	NC
	Diphenylamine	122-39-4	ug/l	1.5	U	1.5	U	9.7	48.5	NC
	Ethyl methanesulfonate	62-50-0	ug/l	1.9	U	1.9	U	9.7	48.5	NC
	Fluoranthene	206-44-0	ug/l	1.1	U	1.1	U	3.9	19.5	NC

Appendix D
Table D.3
Fall 2024 Groundwater Field Duplicate Comparisons

			Location ID	MW-13		MW-13				
			Sample Type	N		FD				
			Sample Date	9/8/2024		9/8/2024				
Method	Chemical Name	CAS No.	Unit	Result	Q	Result	Q	RDL	5x RL	RPD or Absolute Difference
	Fluorene	86-73-7	ug/l	0.76	U	0.75	U	3.9	19.5	NC
	Hexachloro-1,3-butadiene	87-68-3	ug/l	2.8	U	2.7	U	9.7	48.5	NC
	Hexachlorobenzene	118-74-1	ug/l	2.2	U	2.2	U	9.7	48.5	NC
	Hexachlorocyclopentadiene	77-47-4	ug/l	15	U	15	U	48	240	NC
	Hexachloroethane	67-72-1	ug/l	4.3	U	4.3	U	9.7	48.5	NC
	Hexachloropropene	1888-71-7	ug/l	8.6	U	8.5	U	97	485	NC
	Indeno(1,2,3-cd)pyrene	193-39-5	ug/l	3.3	U	3.3	U	9.7	48.5	NC
	Isophorone	78-59-1	ug/l	1.9	U	1.9	U	9.7	48.5	NC
	Isosafrole	120-58-1	ug/l	3.3	U	3.3	U	19	95	NC
	Methapyrilene	91-80-5	ug/l	9.2	U	9.1	U	48	240	NC
	Methyl methanesulfonate	66-27-3	ug/l	3.6	U	3.5	U	9.7	48.5	NC
	Naphthalene	91-20-3	ug/l	1.5	U	1.4	U	3.9	19.5	NC
	Nitrobenzene	98-95-3	ug/l	1.2	U	1.2	U	9.7	48.5	NC
	N-Nitrosodiethylamine	55-18-5	ug/l	3	U	2.9	U	9.7	48.5	NC
	N-Nitrosodimethylamine	62-75-9	ug/l	3.2	U	3.1	U	9.7	48.5	NC
	N-Nitrosodi-n-butylamine	924-16-3	ug/l	1.2	U	1.2	U	9.7	48.5	NC
	N-Nitrosodi-n-propylamine	621-64-7	ug/l	1.8	U	1.8	U	9.7	48.5	NC
	N-Nitrosodiphenylamine	86-30-6	ug/l	1.8	U	1.7	U	9.7	48.5	NC
	N-Nitrosomethylethylamine	10595-95-6	ug/l	5.6	U	5.5	U	9.7	48.5	NC
	N-Nitrosopiperidine	100-75-4	ug/l	5.1	U	5.1	U	19	95	NC
	N-Nitrosopyrrolidine	930-55-2	ug/l	4.7	U	4.7	U	9.7	48.5	NC
	O,O,O-Triethyl phosphorothioate	126-68-1	ug/l	4.7	U	4.6	U	48	240	NC
	o-Toluidine	95-53-4	ug/l	1.9	U	1.9	U	9.7	48.5	NC
	p-(Dimethylamino)azobenzene	60-11-7	ug/l	0.85	U	0.84	U	19	95	NC
	Pentachlorobenzene	608-93-5	ug/l	4.6	U	4.5	U	9.7	48.5	NC
	Pentachloronitrobenzene	82-68-8	ug/l	8	U	7.9	U	48	240	NC
	Pentachlorophenol	87-86-5	ug/l	19	U	19	U	48	240	NC
	Phenacetin	62-44-2	ug/l	4.4	U	4.3	U	19	95	NC
	Phenanthrene	85-01-8	ug/l	1.5	U	1.5	U	3.9	19.5	NC
	Phenol	108-95-2	ug/l	0.89	U	0.88	U	9.7	48.5	NC
	Pronamide	23950-58-5	ug/l	1.2	U	1.2	U	19	95	NC
	Pyrene	129-00-0	ug/l	2.3	U	2.3	U	9.7	48.5	NC
	Safrole, Total	94-59-7	ug/l	3.9	U	3.9	U	19	95	NC
	Thionazin	297-97-2	ug/l	4	U	4	U	48	240	NC
SW846_8270ESIM	Benzo[a]pyrene	50-32-8	ug/l	0.023	J	0.051	J	94	470	ok
RSK175	Acetylene	74-86-2	ug/l	--		--		--	--	--
	Ethane	74-84-0	ug/l	--		--		--	--	--
	Ethene	74-85-1	ug/l	--		--		--	--	--
	Methane	74-82-8	mg/l	--		--		--	--	--
	Propane	74-98-6	ug/l	--		--		--	--	
SW8081B	4,4'-DDD	72-54-8	ug/l	0.0041	U	0.004	U	0.049	0.245	NC
	4,4'-DDE	72-55-9	ug/l	0.0041	U	0.004	U	0.049	0.245	NC
	4,4'-DDT	50-29-3	ug/l	0.023	U	0.023	U	0.049	0.245	NC
	Aldrin	309-00-2	ug/l	0.006	U	0.0059	U	0.049	0.245	NC
	alpha-BHC	319-84-6	ug/l	0.0094	U	0.0091	U	0.049	0.245	NC
	beta-BHC	319-85-7	ug/l	0.0089	U	0.0086	U	0.049	0.245	NC
	Chlordane - constituents	12789-03-6	ug/l	0.12	U	0.11	U	0.49	2.45	NC
	delta-BHC	319-86-8	ug/l	0.0076	U	0.0074	U	0.049	0.245	NC
	Dieldrin	60-57-1	ug/l	0.0045	U	0.0043	U	0.049	0.245	NC
	Endosulfan I	959-98-8	ug/l	0.0057	U	0.0055	U	0.049	0.245	NC
	Endosulfan II	33213-65-9	ug/l	0.0064	U	0.0062	U	0.049	0.245	NC
	Endosulfan sulfate	1031-07-8	ug/l	0.0048	U	0.0046	U	0.049	0.245	NC
	Endrin	72-20-8	ug/l	0.0084	U	0.0081	U	0.049	0.245	NC
	Endrin aldehyde	7421-93-4	ug/l	0.0084	U	0.0082	U	0.049	0.245	NC
	gamma-BHC (lindane)	58-89-9	ug/l	0.01	U	0.0097	U	0.049	0.245	NC
	Heptachlor	76-44-8	ug/l	0.049	U	0.0095	U	0.049	0.245	NC
	Heptachlor epoxide	1024-57-3	ug/l	0.0031	U	0.003	U	0.049	0.245	NC
	Isodrin	465-73-6	ug/l	0.012	U	0.012	U	0.097	0.485	NC
	Kepone	143-50-0	ug/l	0.87	U	1.9	U	1.9	9.5	NC
	Methoxychlor	72-43-5	ug/l	0.014	U	0.013	U	0.097	0.0485	NC
	Toxaphene	8001-35-2	ug/l	1.5	U	1.4	U	2.9	14.5	NC
SW8082	PCB 1016	12674-11-2	ug/l	0.17	U	0.16	U	0.97	0.485	NC
	PCB 1221	11104-28-2	ug/l	0.18	U	0.17	U	0.97	0.485	NC
	PCB 1232	11141-16-5	ug/l	0.13	U	0.12	U	0.97	0.485	NC
	PCB 1242	53469-21-9	ug/l	0.1	U	0.098	U	0.97	0.485	NC
	PCB 1248	12672-29-6	ug/l	0.17	U	0.16	U	0.97	0.485	NC
	PCB 1254	11097-69-1	ug/l	0.14	U	0.13	U	0.97	0.485	NC

Appendix D
Table D.3
Fall 2024 Groundwater Field Duplicate Comparisons

			Location ID	MW-13		MW-13				
			Sample Type	N		FD				
			Sample Date	9/8/2024		9/8/2024				
Method	Chemical Name	CAS No.	Unit	Result	Q	Result	Q	RDL	5x RL	RPD or Absolute Difference
	PCB 1260	11096-82-5	ug/l	0.087	U	0.084	U	0.97	0.485	NC
	Polychlorinated Biphenyl (PCBs)	1336-36-3	ug/l	0.071	U	0.069	U	0.97	0.485	NC
SW8141	Dimethoate	60-51-5	ug/l	0.44	U	0.44	U	1.5	7.5	NC
	Disulfoton	298-04-4	ug/l	0.31	U	0.31	U	0.98	4.9	NC
	Famphur	52-85-7	ug/l	0.17	U	0.17	U	0.98	4.9	NC
	Methyl parathion	298-00-0	ug/l	0.14	U	0.14	U	3.9	19.5	NC
	Parathion	56-38-2	ug/l	0.14	U	0.14	U	0.98	4.9	NC
	Phorate	298-02-2	ug/l	0.15	U	0.15	U	1.2	6	NC
SW8321B	2,4,5-TP (Silvex)	93-72-1	ug/l	0.33	U	0.33	U	5	25	NC
	2,4,5-Trichlorophenoxyacetic acid	93-76-5	ug/l	0.33	U	0.33	U	5	25	NC
	2,4-Dichlorophenoxyacetic acid	94-75-7	ug/l	0.21	U	0.21	U	5	25	NC
	Dinoseb; 2-sec-Butyl-4,6-dinitrophenol	88-85-7	ug/l	0.23	U	0.23	U	5	25	NC
	Pentachlorophenol	87-86-5	ug/l	0.075	U	0.075	U	1	5	NC
SW8290A	2,3,7,8-TCDD	1746-01-6	pg/l	0.25	U	0.24	U	9.9	49.5	NC
SW6020B	Antimony	7440-36-0	ug/l	0.4	U	0.4	U	2	10	NC
	Arsenic	7440-38-2	ug/l	**3.7**	**J**	**3.7**	**J**	**5**	**50**	0.00
	Barium	7440-39-3	ug/l	**120**		**120**		**3**	**15**	0.00
	Beryllium	7440-41-7	ug/l	0.3	U	0.3	U	1	5	NC
	Cadmium	7440-43-9	ug/l	0.19	U	0.19	U	1	5	NC
	Calcium	7440-70-2	ug/l	**44000**		**44000**		**200**	**1000**	0.00
	Chromium	7440-47-3	ug/l	0.5	U	0.5	U	3	15	NC
	Cobalt	7440-48-4	ug/l	0.33	U	0.33	U	1	5	NC
	Copper	7440-50-8	ug/l	0.71	U	0.71	U	2	10	NC
	Iron	7439-89-6	ug/l	**27**	**J**	**39**	**J**	**200**	**1000**	12.00
	Lead	7439-92-1	ug/l	0.23	U	0.23	U	1	5	NC
	Magnesium	7439-95-4	ug/l	**40000**		**40000**		**200**	**1000**	0.00
	Manganese	7439-96-5	mg/l	0.00051	U	0.00068	J	3	15	ok
	Nickel	7440-02-0	ug/l	0.83	U	0.83	U	3	15	NC
	Potassium	7440-09-7	ug/l	**2800**		**2800**		**1000**	**5000**	0.00
	Selenium	7782-49-2	ug/l	1	U	1	U	5	25	NC
	Silver	7440-22-4	ug/l	0.045	U	0.045	U	1	5	NC
	Sodium	7440-23-5	ug/l	**37000**		**36000**		**1000**	**5000**	2.74
	Thallium	7440-28-0	ug/l	0.21	U	0.21	U	1	5	NC
	Tin	7440-31-5	ug/l	0.58	U	0.58	U	10	50	NC
	Vanadium	7440-62-2	ug/l	1.1	U	1.1	U	5	25	NC
	Zinc	7440-66-6	ug/l	2	U	2	U	10	50	NC
SW7470A	Mercury	7439-97-6	ug/l	0.061	U	0.061	U	0.2	1	NC
A4500_CN_E	Cyanide	57-12-5	mg/l	0.005	U	0.005	U	0.01	0.05	NC
SM4500-S2-D	Sulfide	18496-25-8	mg/l	0.022	U	0.025	J	0.05	0.25	NC
SW9060	Total Organic Carbon	TOC	mg/l	--		--		--	--	--

Notes:
Relative percent differences or absolute differences that are outside the control limits are highlighted yellow.
FD = field duplicate
N = normal field sample
NC = not calculated

Appendix D
Table D.3
Fall 2024 Groundwater Field Duplicate Comparisons

			Location ID	RW-2		RW-2				
			Sample Type	N		FD				
			Sample Date	9/6/2024		9/6/2024				
Method	Chemical Name	CAS No.	Unit	Result	Q	Result	Q	RDL	5x RL	RPD or Absolute Difference
SW846_8260D	1,1,1,2-Tetrachloroethane	630-20-6	ug/l	0.16	U	0.16	U	1	5	NC
	1,1,1-Trichloroethane	71-55-6	ug/l	0.39	U	0.39	U	1	5	NC
	1,1,2,2-Tetrachloroethane	79-34-5	ug/l	0.21	U	0.21	U	1	5	NC
	1,1,2-Trichloroethane	79-00-5	ug/l	0.27	U	0.27	U	1	5	NC
	1,1-Dichloroethane	75-34-3	ug/l	**0.85**	**J**	**0.85**	**J**	**1**	5	0.00
	1,1-Dichloroethene	75-35-4	ug/l	0.23	U	0.23	U	1	5	NC
	1,1-Dichloropropene	563-58-6	ug/l	0.19	U	0.19	U	1	5	NC
	1,2,3-Trichloropropane	96-18-4	ug/l	0.28	U	0.28	U	2.5	12.5	NC
	1,2,4-Trichlorobenzene	120-82-1	ug/l	0.58	U	0.58	U	1	5	NC
	1,2-Dibromo-3-Chloropropane	96-12-8	ug/l	0.42	U	0.42	U	5	25	NC
	1,2-Dibromoethane	106-93-4	ug/l	0.18	U	0.18	U	1	5	NC
	1,2-Dichlorobenzene	95-50-1	ug/l	**1.6**		**1.5**		**1**	5	0.10
	1,2-Dichloroethane	107-06-2	ug/l	0.28	U	0.28	U	1	5	NC
	1,2-Dichloropropane	78-87-5	ug/l	**0.42**	**J**	0.24	U	**1**	5	0.18
	1,3-Dichlorobenzene	541-73-1	ug/l	0.33	U	0.33	U	1	5	NC
	1,3-Dichloropropane	142-28-9	ug/l	0.17	U	0.17	U	1	5	NC
	1,4-Dichlorobenzene	106-46-7	ug/l	**0.45**	**J**	**0.5**	**J**	**1**	5	0.05
	2,2-Dichloropropane	594-20-7	ug/l	0.17	U	0.17	U	1	5	NC
	2-Butanone (MEK)	78-93-3	ug/l	4.6	U	4.6	U	10	50	NC
	2-Hexanone	591-78-6	ug/l	0.81	U	0.81	U	5	25	NC
	4-Methyl-2-pentanone (MIBK)	108-10-1	ug/l	0.98	U	0.98	U	5	25	NC
	Acetone	67-64-1	ug/l	6.6	U	6.6	U	15	75	NC
	Acetonitrile; methyl cyanide	75-05-8	ug/l	14	U	14	U	30	150	NC
	Acrolein	107-02-8	ug/l	4.9	U	4.9	U	20	100	NC
	Acrylonitrile	107-13-1	ug/l	1.7	U	1.7	U	20	100	NC
	Allyl chloride	107-05-1	ug/l	0.46	U	0.46	U	2	10	NC
	Benzene	71-43-2	ug/l	**0.25**	**J**	**0.25**	**J**	**1**	5	0.00
	Bromochloromethane	74-97-5	ug/l	0.4	U	0.4	U	1	5	NC
	Bromodichloromethane	75-27-4	ug/l	0.19	U	0.19	U	1	5	NC
	Bromoform	75-25-2	ug/l	0.25	U	0.25	U	2	10	NC
	Bromomethane	74-83-9	ug/l	2.4	U	2.4	U	5	25	NC
	Carbon disulfide	75-15-0	ug/l	0.26	U	0.26	U	2	10	NC
	Carbon tetrachloride	56-23-5	ug/l	0.23	U	0.23	U	1	5	NC
	Chlorobenzene	108-90-7	ug/l	**0.28**	**J**	**0.27**	**J**	**1**	5	0.01
	Chlorodibromomethane	124-48-1	ug/l	0.28	U	0.28	U	1	5	NC
	Chloroethane	75-00-3	ug/l	0.64	U	0.64	U	2	10	NC
	Chloroform	67-66-3	ug/l	**0.47**	**J**	**0.51**	**J**	**1**	5	0.04
	Chloromethane	74-87-3	ug/l	0.23	U	0.23	U	2	10	NC
	Chloroprene	126-99-8	ug/l	0.79	U	0.79	U	3	15	NC
	cis-1,2-Dichloroethene	156-59-2	ug/l	**20**		**21**		**1**	5	1.00
	cis-1,3-Dichloropropene	10061-01-5	ug/l	0.16	U	0.16	U	1	5	NC
	Dibromomethane	74-95-3	ug/l	0.34	U	0.34	U	1	5	NC
	Dichlorodifluoromethane	75-71-8	ug/l	0.3	U	0.3	U	2	10	NC
	Ethyl methacrylate	97-63-2	ug/l	0.19	U	0.19	U	3	15	NC
	Ethylbenzene	100-41-4	ug/l	0.14	U	0.14	U	1	5	NC
	Iodomethane	74-88-4	ug/l	2.6	U	2.6	U	5	25	NC
	Isobutanol; Isobutyl alcohol	78-83-1	ug/l	37	U	37	U	110	550	NC
	m,p-Xylene	179601-23-1	ug/l	0.36	U	0.36	U	2	10	NC
	Methacrylonitrile	126-98-7	ug/l	5.3	U	5.3	U	15	75	NC
	Methyl methacrylate	80-62-6	ug/l	1.1	U	1.1	U	4	20	NC
	Methylene Chloride	75-09-2	ug/l	0.94	U	0.94	U	2	10	NC
	o-xylene	95-47-6	ug/l	0.11	U	0.11	U	1	5	NC
	Propionitrile; ethyl cyanide	107-12-0	ug/l	3.7	U	3.7	U	20	100	NC
	Styrene	100-42-5	ug/l	0.13	U	0.13	U	1	5	NC
	Tetrachloroethene	127-18-4	ug/l	**5.3**		**5.1**		**1**	5	0.20
	Toluene	108-88-3	ug/l	0.32	U	0.32	U	1	5	NC
	trans-1,2-Dichloroethene	156-60-5	ug/l	0.37	U	0.37	U	1	5	NC
	trans-1,3-Dichloropropene	10061-02-6	ug/l	0.14	U	0.14	U	1	5	NC
	trans-1,4-Dichloro-2-butene	110-57-6	ug/l	0.51	U	0.51	U	3	15	NC
	Trichloroethene	79-01-6	ug/l	**79**		**77**		**1**	5	2.00
	Trichlorofluoromethane	75-69-4	ug/l	0.2	U	0.2	U	2	10	NC
	Vinyl acetate	108-05-4	ug/l	0.36	U	0.36	U	3	15	NC
	Vinyl chloride	75-01-4	ug/l	**3.8**		**3.9**		**1**	5	0.10
	Xylenes, total	1330-20-7	ug/l	0.11	U	0.11	U	1	5	NC

Appendix D
Table D.3
Fall 2024 Groundwater Field Duplicate Comparisons

			Location ID	RW-2		RW-2				
			Sample Type	N		FD				
			Sample Date	9/6/2024		9/6/2024				
Method	Chemical Name	CAS No.	Unit	Result	Q	Result	Q	RDL	5x RL	RPD or Absolute Difference
SW8011	1,2,3-Trichloropropane	96-18-4	ug/l	--		--		--	--	--
	1,2-Dibromo-3-Chloropropane	96-12-8	ug/l	--		--		--	--	--
	1,2-Dibromoethane	106-93-4	ug/l	--		--		--	--	--
SW846_8270E	1,2,4,5-Tetrachlorobenzene	95-94-3	ug/l	--		--		--	--	--
	1,3,5-Trinitrobenzene	99-35-4	ug/l	--		--		--	--	--
	1,3-Dinitrobenzene	99-65-0	ug/l	--		--		--	--	--
	1,4-Naphthoquinone	130-15-4	ug/l	--		--		--	--	--
	1-Naphthylamine	134-32-7	ug/l	--		--		--	--	--
	2,3,4,6-Tetrachlorophenol	58-90-2	ug/l	--		--		--	--	--
	2,4,5-Trichlorophenol	95-95-4	ug/l	--		--		--	--	--
	2,4,6-Trichlorophenol	88-06-2	ug/l	--		--		--	--	--
	2,4-Dichlorophenol	120-83-2	ug/l	--		--		--	--	--
	2,4-Dimethylphenol; m-Xylenol	105-67-9	ug/l	--		--		--	--	--
	2,4-Dinitrophenol	51-28-5	ug/l	--		--		--	--	--
	2,4-Dinitrotoluene	121-14-2	ug/l	--		--		--	--	--
	2,6-Dichlorophenol	87-65-0	ug/l	--		--		--	--	--
	2,6-Dinitrotoluene	606-20-2	ug/l	--		--		--	--	--
	2-Acetylaminofluorene	53-96-3	ug/l	--		--		--	--	--
	2-Chloronaphthalene	91-58-7	ug/l	--		--		--	--	--
	2-Chlorophenol	95-57-8	ug/l	--		--		--	--	--
	2-Methylnaphthalene	91-57-6	ug/l	--		--		--	--	--
	2-Methylphenol; o-Cresol	95-48-7	ug/l	--		--		--	--	--
	2-Naphthylamine	91-59-8	ug/l	--		--		--	--	--
	2-Nitroaniline; o-Nitroaniline	88-74-4	ug/l	--		--		--	--	--
	2-Nitrophenol; o-Nitrophenol	88-75-5	ug/l	--		--		--	--	--
	3&4-Methylphenol	MEPH3MEPH4	ug/l	--		--		--	--	--
	3,3'-Dichlorobenzidine	91-94-1	ug/l	--		--		--	--	--
	3,3'-Dimethylbenzidine	119-93-7	ug/l	--		--		--	--	--
	3-Methylcholanthrene	56-49-5	ug/l	--		--		--	--	--
	3-Nitroaniline; m-Nitroaniline	99-09-2	ug/l	--		--		--	--	--
	4,6-Dinitro-2-methylphenol	534-52-1	ug/l	--		--		--	--	--
	4-Aminobiphenyl	92-67-1	ug/l	--		--		--	--	--
	4-Bromophenyl phenyl ether	101-55-3	ug/l	--		--		--	--	--
	4-Chloro-3-methylphenol	59-50-7	ug/l	--		--		--	--	--
	4-Chloroaniline; p-Chloroaniline	106-47-8	ug/l	--		--		--	--	--
	4-Chlorophenyl phenyl ether	7005-72-3	ug/l	--		--		--	--	--
	4-Nitroaniline; p-Nitroaniline	100-01-6	ug/l	--		--		--	--	--
	4-Nitrophenol; p-Nitrophenol	100-02-7	ug/l	--		--		--	--	--
	5-Nitro-o-toluidine	99-55-8	ug/l	--		--		--	--	--
	7,12-Dimethylbenz[a]anthracene	57-97-6	ug/l	--		--		--	--	--
	Acenaphthene	83-32-9	ug/l	--		--		--	--	--
	Acenaphthylene	208-96-8	ug/l	--		--		--	--	--
	Acetophenone	98-86-2	ug/l	--		--		--	--	--
	Anthracene	120-12-7	ug/l	--		--		--	--	--
	Benzo[a]anthracene	56-55-3	ug/l	--		--		--	--	--
	Beno(a)pyrene	50-32-8	ug/l	--		--		--	--	--
	Benzo[b]fluoranthene	205-99-2	ug/l	--		--		--	--	--
	Benzo[ghi]perylene	191-24-2	ug/l	--		--		--	--	--
	Benzo[k]fluoranthene	207-08-9	ug/l	--		--		--	--	--
	Benzyl alcohol	100-51-6	ug/l	--		--		--	--	--
	Bis(2-chloroethoxy)methane	111-91-1	ug/l	--		--		--	--	--
	Bis(2-chloroethyl)ether	111-44-4	ug/l	--		--		--	--	--
	Bis(2-chloroisopropyl)ether	108-60-1	ug/l	--		--		--	--	--
	Bis(2-ethylhexyl) phthalate	117-81-7	ug/l	--		--		--	--	--
	Butyl benzyl phthalate	85-68-7	ug/l	--		--		--	--	--
	Chlorobenzilate	510-15-6	ug/l	--		--		--	--	--
	Chrysene	218-01-9	ug/l	--		--		--	--	--
	Diallate	2303-16-4	ug/l	--		--		--	--	--
	Dibenz[a,h]anthracene	53-70-3	ug/l	--		--		--	--	--
	Dibenzofuran	132-64-9	ug/l	--		--		--	--	--
	Diethyl phthalate	84-66-2	ug/l	--		--		--	--	--
	Dimethyl phthalate	131-11-3	ug/l	--		--		--	--	--
	Di-n-butyl phthalate	84-74-2	ug/l	--		--		--	--	--
	Di-n-octyl phthalate	117-84-0	ug/l	--		--		--	--	--
	Diphenylamine	122-39-4	ug/l	--		--		--	--	--
	Ethyl methanesulfonate	62-50-0	ug/l	--		--		--	--	--
	Fluoranthene	206-44-0	ug/l	--		--		--	--	--

Appendix D
Table D.3
Fall 2024 Groundwater Field Duplicate Comparisons

			Location ID	RW-2		RW-2				
			Sample Type	N		FD				
			Sample Date	9/6/2024		9/6/2024				
Method	Chemical Name	CAS No.	Unit	Result	Q	Result	Q	RDL	5x RL	RPD or Absolute Difference
	Fluorene	86-73-7	ug/l	--		--		--	--	--
	Hexachloro-1,3-butadiene	87-68-3	ug/l	--		--		--	--	--
	Hexachlorobenzene	118-74-1	ug/l	--		--		--	--	--
	Hexachlorocyclopentadiene	77-47-4	ug/l	--		--		--	--	--
	Hexachloroethane	67-72-1	ug/l	--		--		--	--	--
	Hexachloropropene	1888-71-7	ug/l	--		--		--	--	--
	Indeno(1,2,3-cd)pyrene	193-39-5	ug/l	--		--		--	--	--
	Isophorone	78-59-1	ug/l	--		--		--	--	--
	Isosafrole	120-58-1	ug/l	--		--		--	--	--
	Methapyrilene	91-80-5	ug/l	--		--		--	--	--
	Methyl methanesulfonate	66-27-3	ug/l	--		--		--	--	--
	Naphthalene	91-20-3	ug/l	--		--		--	--	--
	Nitrobenzene	98-95-3	ug/l	--		--		--	--	--
	N-Nitrosodiethylamine	55-18-5	ug/l	--		--		--	--	--
	N-Nitrosodimethylamine	62-75-9	ug/l	--		--		--	--	--
	N-Nitrosodi-n-butylamine	924-16-3	ug/l	--		--		--	--	--
	N-Nitrosodi-n-propylamine	621-64-7	ug/l	--		--		--	--	--
	N-Nitrosodiphenylamine	86-30-6	ug/l	--		--		--	--	--
	N-Nitrosomethylethylamine	10595-95-6	ug/l	--		--		--	--	--
	N-Nitrosopiperidine	100-75-4	ug/l	--		--		--	--	--
	N-Nitrosopyrrolidine	930-55-2	ug/l	--		--		--	--	--
	O,O,O-Triethyl phosphorothioate	126-68-1	ug/l	--		--		--	--	--
	o-Toluidine	95-53-4	ug/l	--		--		--	--	--
	p-(Dimethylamino)azobenzene	60-11-7	ug/l	--		--		--	--	--
	Pentachlorobenzene	608-93-5	ug/l	--		--		--	--	--
	Pentachloronitrobenzene	82-68-8	ug/l	--		--		--	--	--
	Pentachlorophenol	87-86-5	ug/l	--		--		--	--	--
	Phenacetin	62-44-2	ug/l	--		--		--	--	--
	Phenanthrene	85-01-8	ug/l	--		--		--	--	--
	Phenol	108-95-2	ug/l	--		--		--	--	--
	Pronamide	23950-58-5	ug/l	--		--		--	--	--
	Pyrene	129-00-0	ug/l	--		--		--	--	--
	Safrole, Total	94-59-7	ug/l	--		--		--	--	--
	Thionazin	297-97-2	ug/l	--		--		--	--	--
SW846_8270ESIM	Benzo[a]pyrene	50-32-8	ug/l	--		--		--	--	--
RSK175	Acetylene	74-86-2	ug/l	0.73	U	0.73	U	5	25	NC
	Ethane	74-84-0	ug/l	0.57	U	**0.6**	**J**	5	25	ok
	Ethene	74-85-1	ug/l	**1.1**	**J**	**1**	**J**	**5**	25	0.1
	Methane	74-82-8	mg/l	**0.69**		**0.68**		**5**	25	0.01
	Propane	74-98-6	ug/l	0.56	U	0.56	U	5	25	NC
SW8081B	4,4'-DDD	72-54-8	ug/l	--		--		--	--	--
	4,4'-DDE	72-55-9	ug/l	--		--		--	--	--
	4,4'-DDT	50-29-3	ug/l	--		--		--	--	--
	Aldrin	309-00-2	ug/l	--		--		--	--	--
	alpha-BHC	319-84-6	ug/l	--		--		--	--	--
	beta-BHC	319-85-7	ug/l	--		--		--	--	--
	Chlordane - constituents	12789-03-6	ug/l	--		--		--	--	--
	delta-BHC	319-86-8	ug/l	--		--		--	--	--
	Dieldrin	60-57-1	ug/l	--		--		--	--	--
	Endosulfan I	959-98-8	ug/l	--		--		--	--	--
	Endosulfan II	33213-65-9	ug/l	--		--		--	--	--
	Endosulfan sulfate	1031-07-8	ug/l	--		--		--	--	--
	Endrin	72-20-8	ug/l	--		--		--	--	--
	Endrin aldehyde	7421-93-4	ug/l	--		--		--	--	--
	gamma-BHC (lindane)	58-89-9	ug/l	--		--		--	--	--
	Heptachlor	76-44-8	ug/l	--		--		--	--	--
	Heptachlor epoxide	1024-57-3	ug/l	--		--		--	--	--
	Isodrin	465-73-6	ug/l	--		--		--	--	--
	Kepone	143-50-0	ug/l	--		--		--	--	--
	Methoxychlor	72-43-5	ug/l	--		--		--	--	--
	Toxaphene	8001-35-2	ug/l	--		--		--	--	--
SW8082	PCB 1016	12674-11-2	ug/l	--		--		--	--	--
	PCB 1221	11104-28-2	ug/l	--		--		--	--	--
	PCB 1232	11141-16-5	ug/l	--		--		--	--	--
	PCB 1242	53469-21-9	ug/l	--		--		--	--	--
	PCB 1248	12672-29-6	ug/l	--		--		--	--	--
	PCB 1254	11097-69-1	ug/l	--		--		--	--	--

Appendix D
Table D.3
Fall 2024 Groundwater Field Duplicate Comparisons

			Location ID Sample Type Sample Date	RW-2 N 9/6/2024		RW-2 FD 9/6/2024				
Method	Chemical Name	CAS No.	Unit	Result	Q	Result	Q	RDL	5x RL	RPD or Absolute Difference
	PCB 1260	11096-82-5	ug/l	--		--		--	--	--
	Polychlorinated Biphenyl (PCBs)	1336-36-3	ug/l	--		--		--	--	--
SW8141	Dimethoate	60-51-5	ug/l	--		--		--	--	--
	Disulfoton	298-04-4	ug/l	--		--		--	--	--
	Famphur	52-85-7	ug/l	--		--		--	--	--
	Methyl parathion	298-00-0	ug/l	--		--		--	--	--
	Parathion	56-38-2	ug/l	--		--		--	--	--
	Phorate	298-02-2	ug/l	--		--		--	--	--
SW8321B	2,4,5-TP (Silvex)	93-72-1	ug/l	--		--		--	--	--
	2,4,5-Trichlorophenoxyacetic acid	93-76-5	ug/l	--		--		--	--	--
	2,4-Dichlorophenoxyacetic acid	94-75-7	ug/l	--		--		--	--	--
	Dinoseb; 2-sec-Butyl-4,6-dinitrophenol	88-85-7	ug/l	--		--		--	--	--
	Pentachlorophenol	87-86-5	ug/l	--		--		--	--	--
SW8290A	2,3,7,8-TCDD	1746-01-6	pg/l	--		--		--	--	--
SW6020B	Antimony	7440-36-0	ug/l	--		--		--	--	--
	Arsenic	7440-38-2	ug/l	--		--		--	--	--
	Barium	7440-39-3	ug/l	--		--		--	--	--
	Beryllium	7440-41-7	ug/l	--		--		--	--	--
	Cadmium	7440-43-9	ug/l	--		--		--	--	--
	Calcium	7440-70-2	ug/l	--		--		--	--	--
	Chromium	7440-47-3	ug/l	--		--		--	--	--
	Cobalt	7440-48-4	ug/l	--		--		--	--	--
	Copper	7440-50-8	ug/l	--		--		--	--	--
	Iron	7439-89-6	ug/l	--		--		--	--	--
	Lead	7439-92-1	ug/l	--		--		--	--	--
	Magnesium	7439-95-4	ug/l	--		--		--	--	--
	Manganese	7439-96-5	mg/l	--		--		--	--	--
	Nickel	7440-02-0	ug/l	--		--		--	--	--
	Potassium	7440-09-7	ug/l	--		--		--	--	--
	Selenium	7782-49-2	ug/l	--		--		--	--	--
	Silver	7440-22-4	ug/l	--		--		--	--	--
	Sodium	7440-23-5	ug/l	--		--		--	--	--
	Thallium	7440-28-0	ug/l	--		--		--	--	--
	Tin	7440-31-5	ug/l	--		--		--	--	--
	Vanadium	7440-62-2	ug/l	--		--		--	--	--
	Zinc	7440-66-6	ug/l	--		--		--	--	--
SW7470A	Mercury	7439-97-6	ug/l	--		--		--	--	--
A4500_CN_E	Cyanide	57-12-5	mg/l	--		--		--	--	--
SM4500-S2-D	Sulfide	18496-25-8	mg/l	--		--		--	--	--
SW9060	Total Organic Carbon	TOC	mg/l	**5.9**		**6.2**		**1**	5	**4.96**

Notes:
Relative percent differences or absolute differences that are outside the control limits are highlighted yellow.
FD = field duplicate
N = normal field sample
NC = not calculated

Appendix E Laboratory Reports (Data Packages)

If you would like to see all the laboratory reports for the sampling event, please send a request through the "Contact Us" form on the bottom of the project website: https://www.bannockcounty.gov/landfill/remediation

Appendix F Time Series Charts

Inorganic Chemicals Time Series Plots

Data filters

This report is filtered to only include:

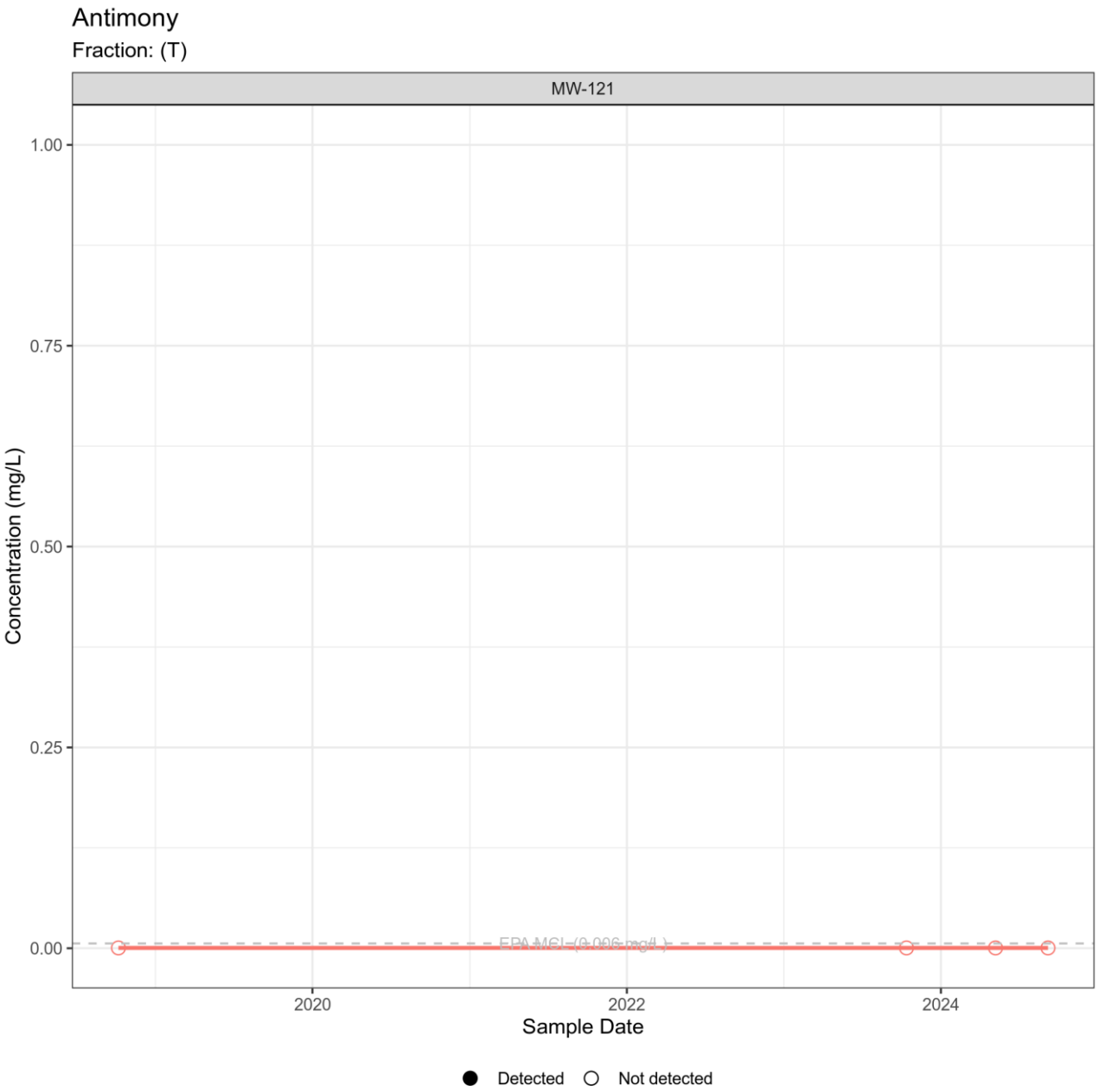
- **MW-121** from **Cell 1 Monitoring Well**
- Results from **01 January 1990** to **10 September 2024**
- Fraction: **T**
- Inorganic analytes: **All inorganics**

Graph notes

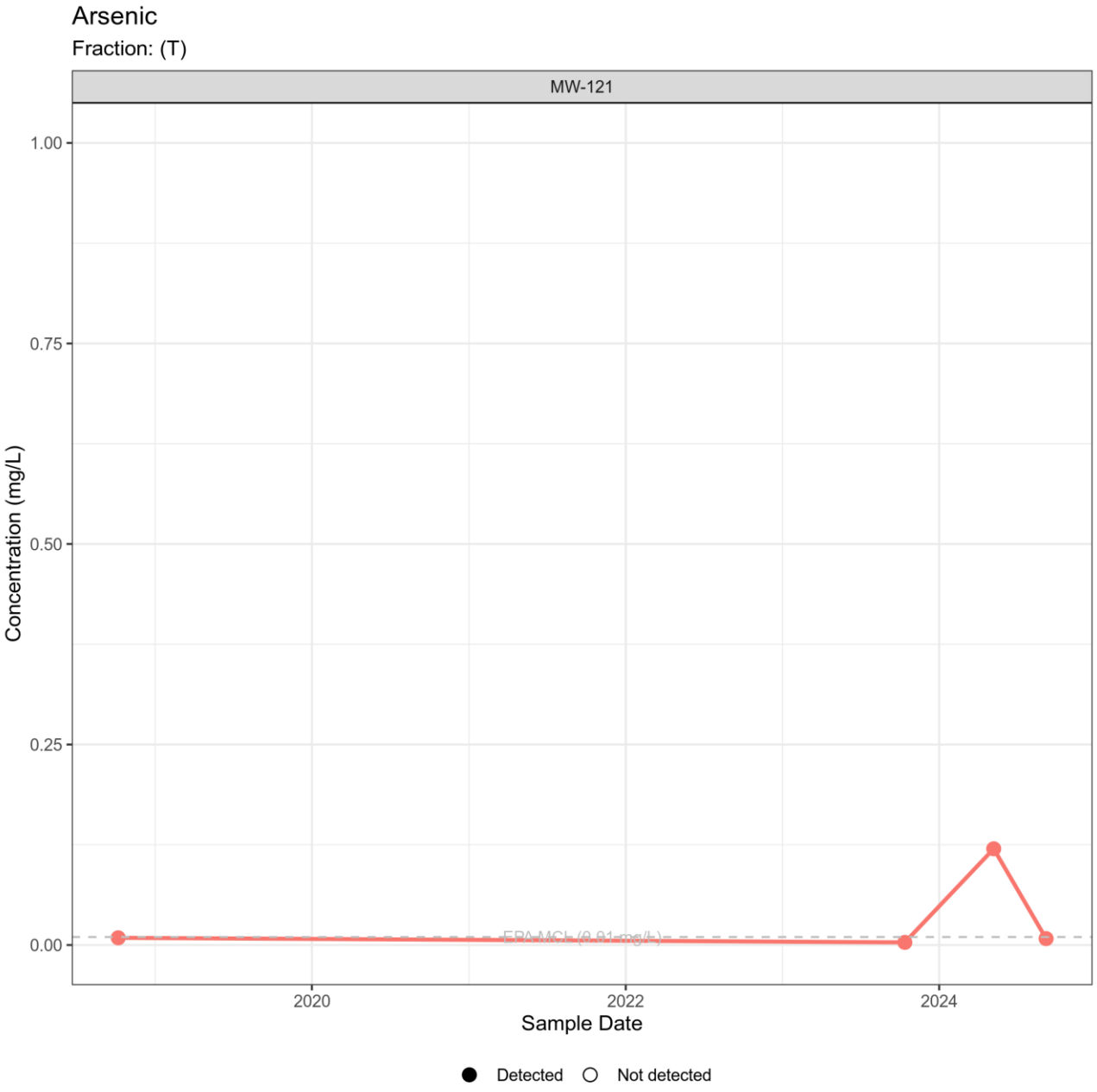
- When only the year is shown in the x-axis label, this represents the start of the year.

Inorganic chemical summaries

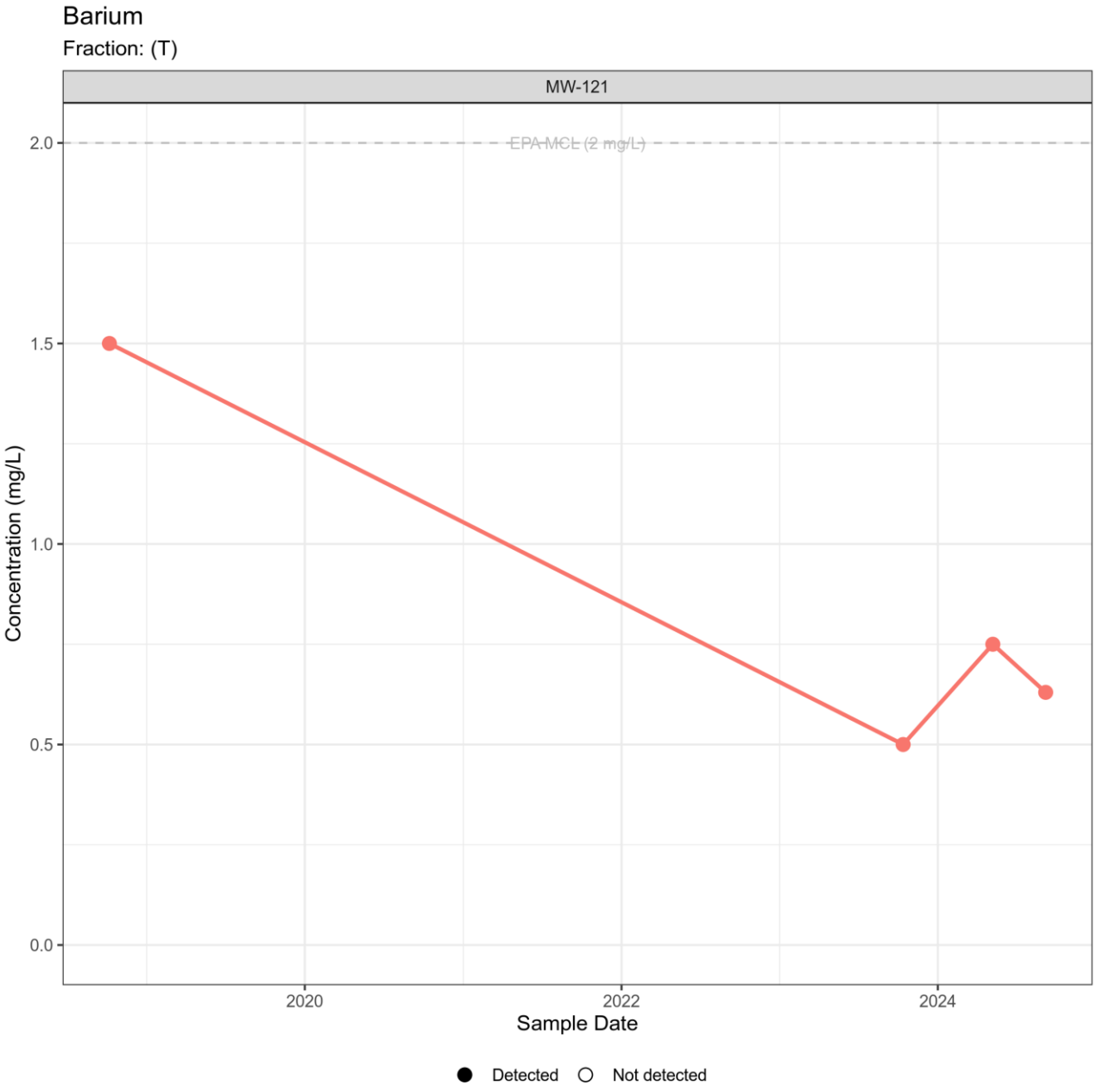
Antimony



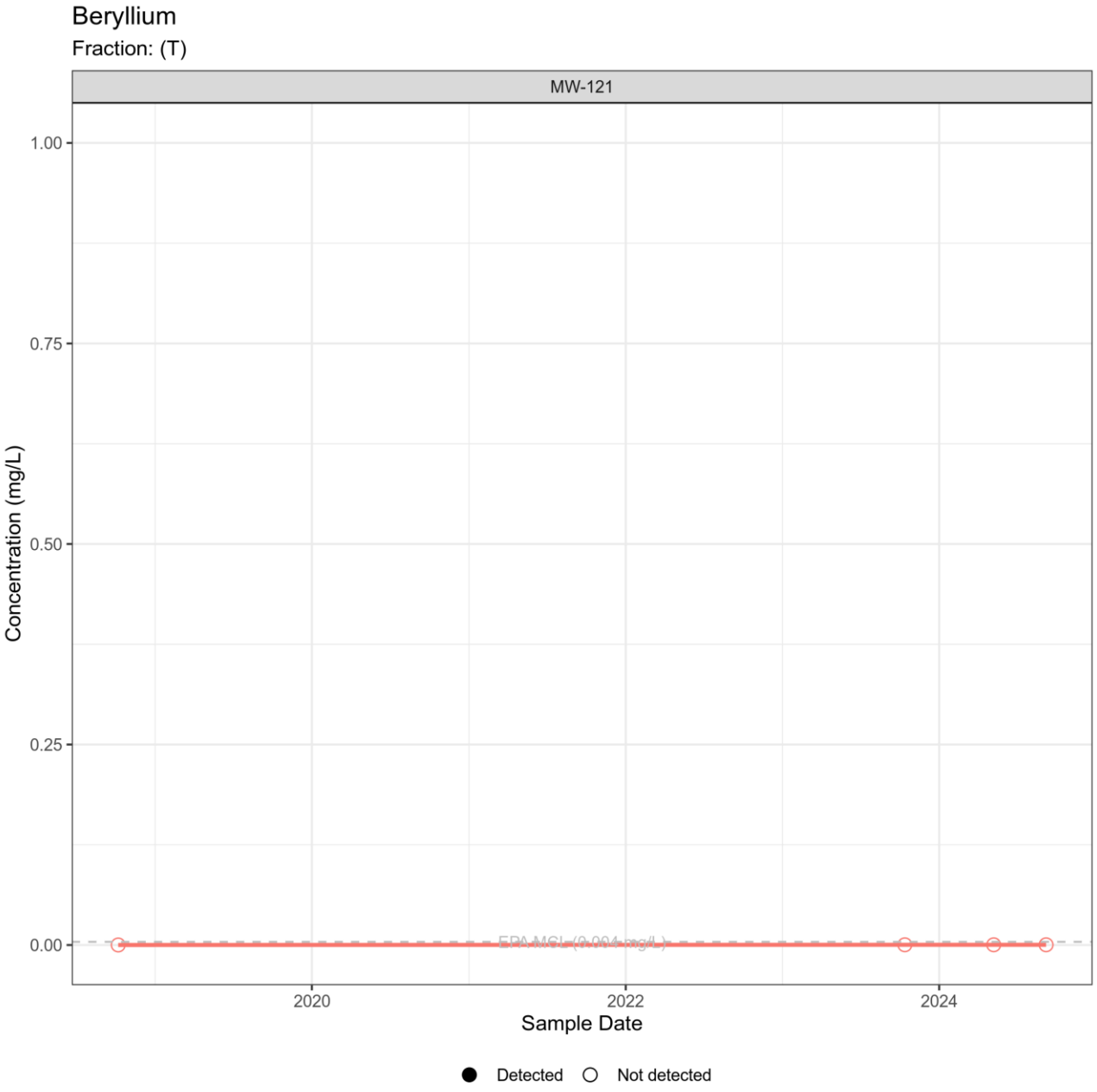
Arsenic


Arsenic
Fraction: (T)
MW-121
1.00
0.75
0.50
0.25
0.00
Concentration (mg/L)
EPA MCL (0.01 mg/L)
2020
2022
2024
Sample Date
Detected
Not detected

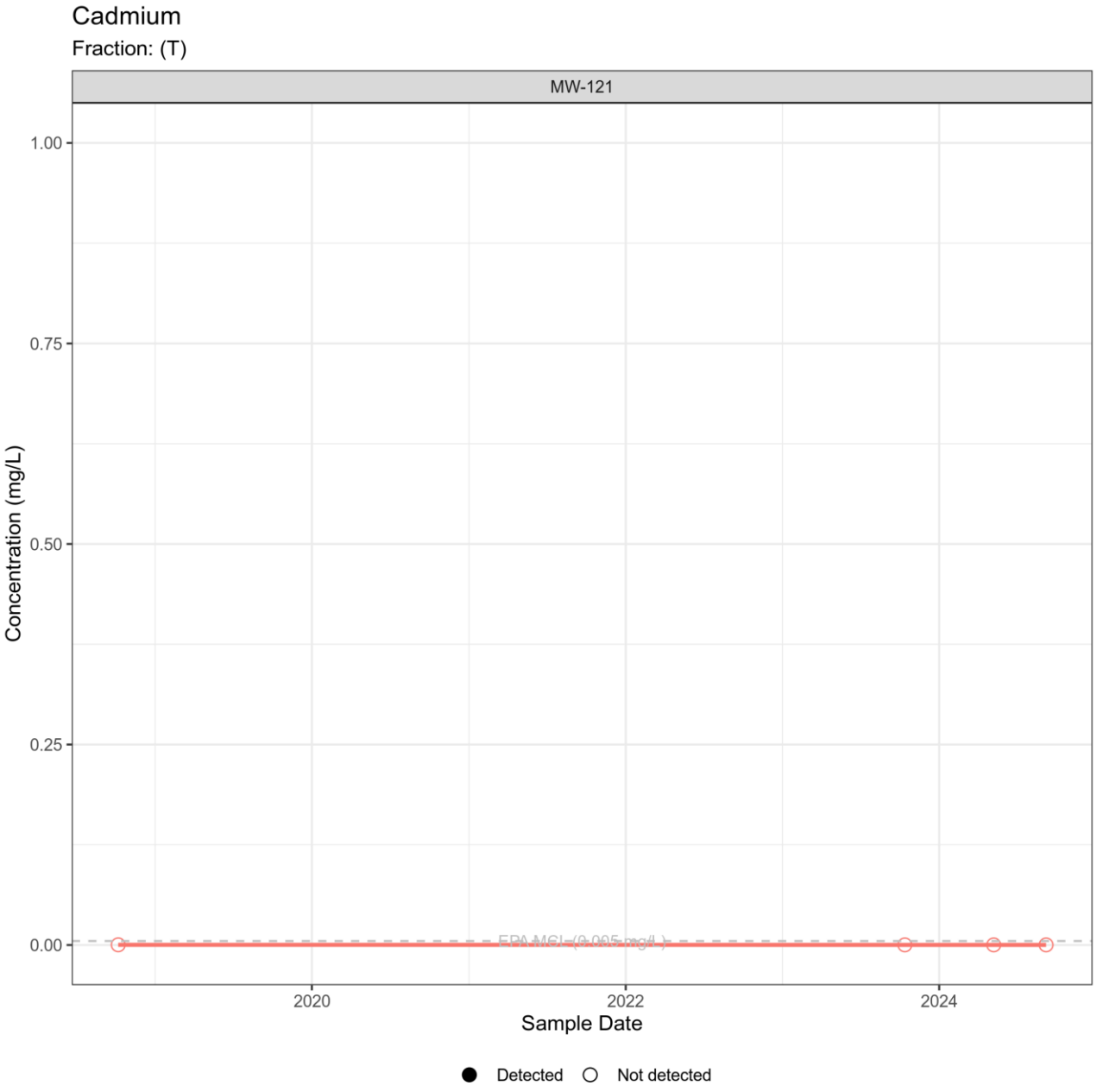
Barium


Barium
Fraction: (T)
MW-121
EPA MCL (2 mg/L)
2.0
1.5
1.0
0.5
0.0
Concentration (mg/L)
2020
2022
2024
Sample Date
Detected
Not detected

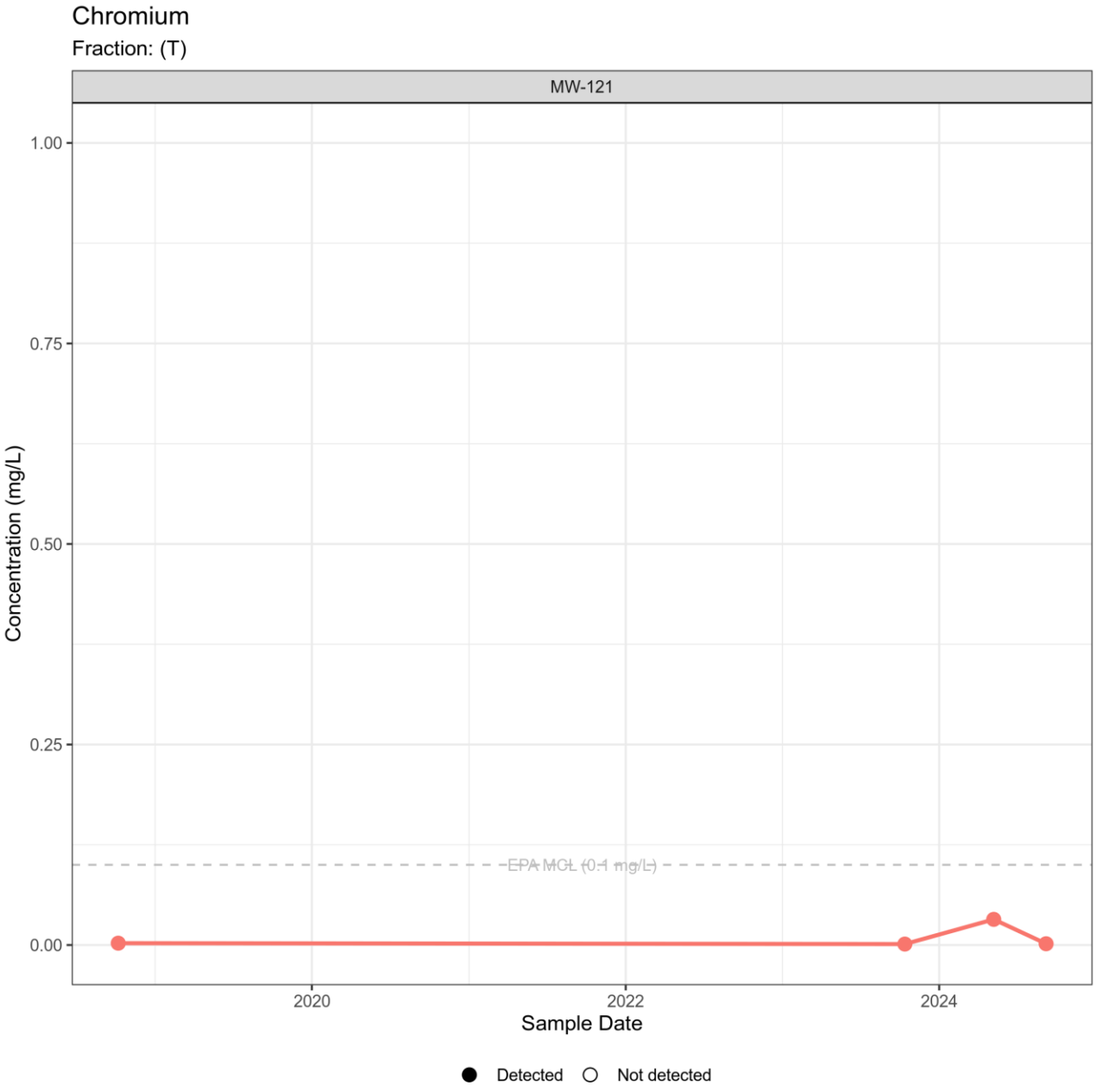
Beryllium


Beryllium
Fraction: (T)
MW-121
1.00
0.75
0.50
0.25
0.00
Concentration (mg/L)
EPA MCL (0.004 mg/L)
2020
2022
2024
Sample Date
Detected
Not detected

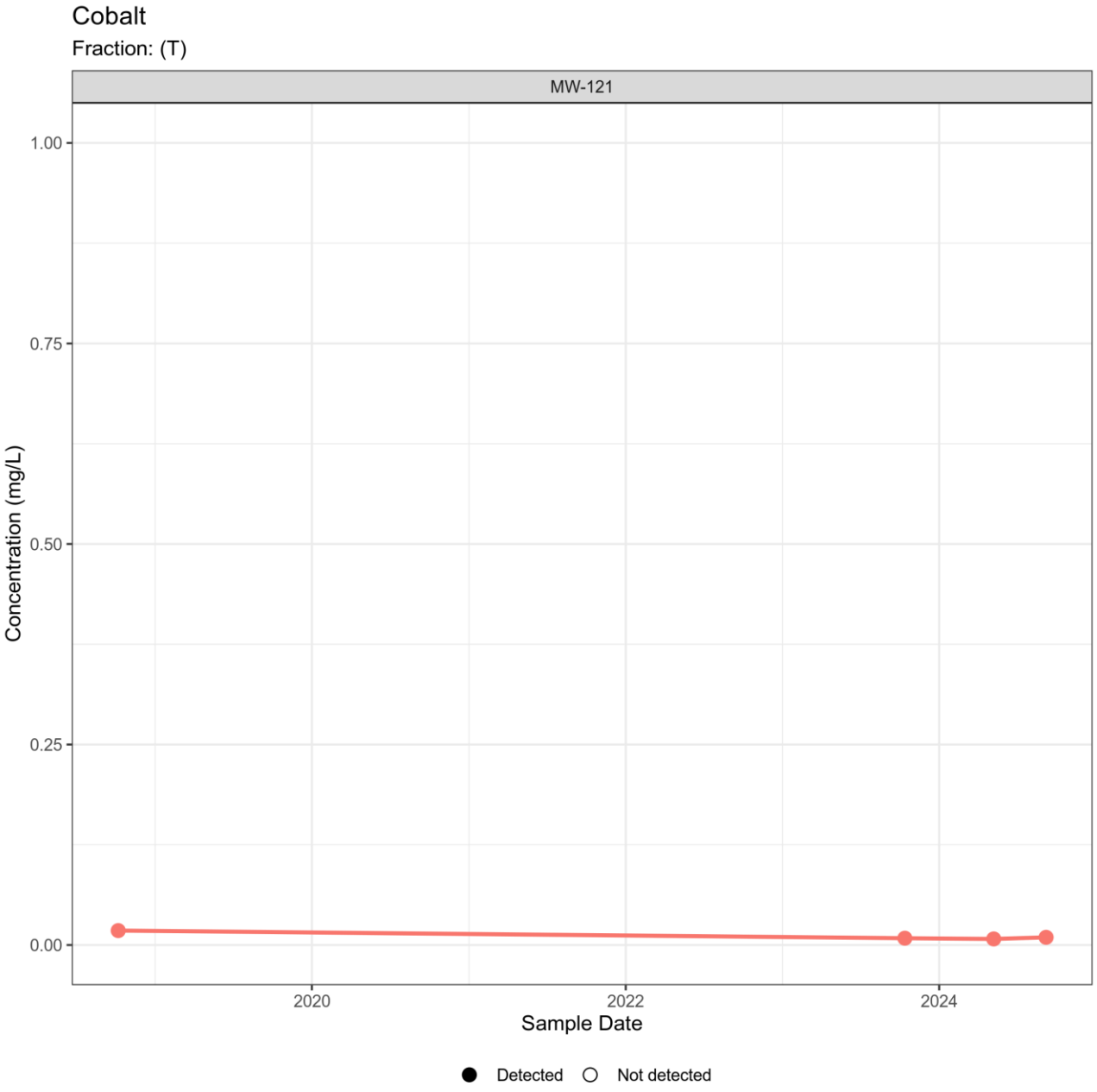
Cadmium


Cadmium
Fraction: (T)
MW-121
1.00
0.75
0.50
0.25
0.00
Concentration (mg/L)
EPA MCL (0.005 mg/L)
2020
2022
2024
Sample Date
Detected
Not detected

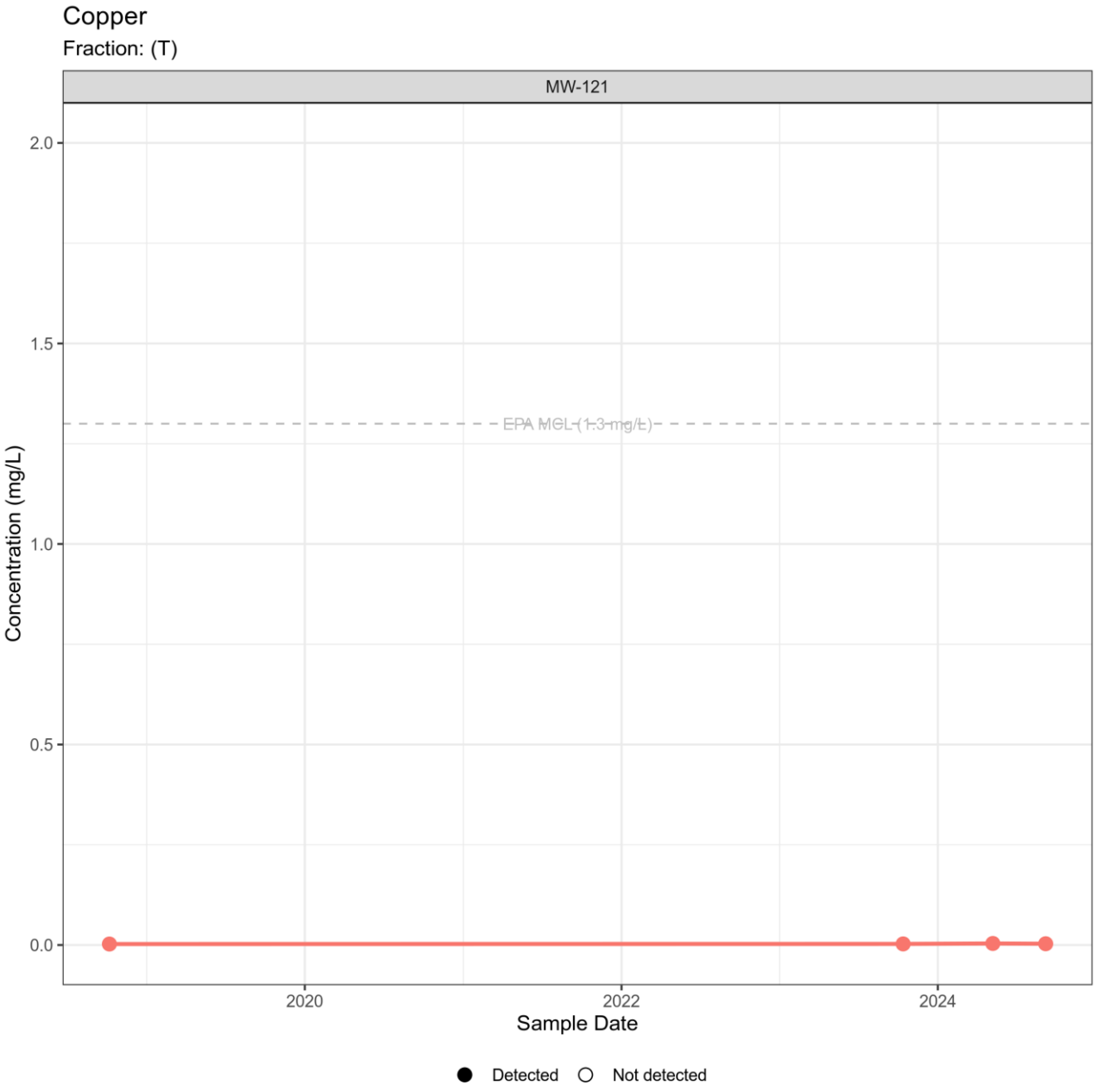
Chromium


Chromium
Fraction: (T)
MW-121
1.00
0.75
0.50
0.25
0.00
Concentration (mg/L)
EPA MCL (0.1 mg/L)
2020
2022
2024
Sample Date
Detected
Not detected

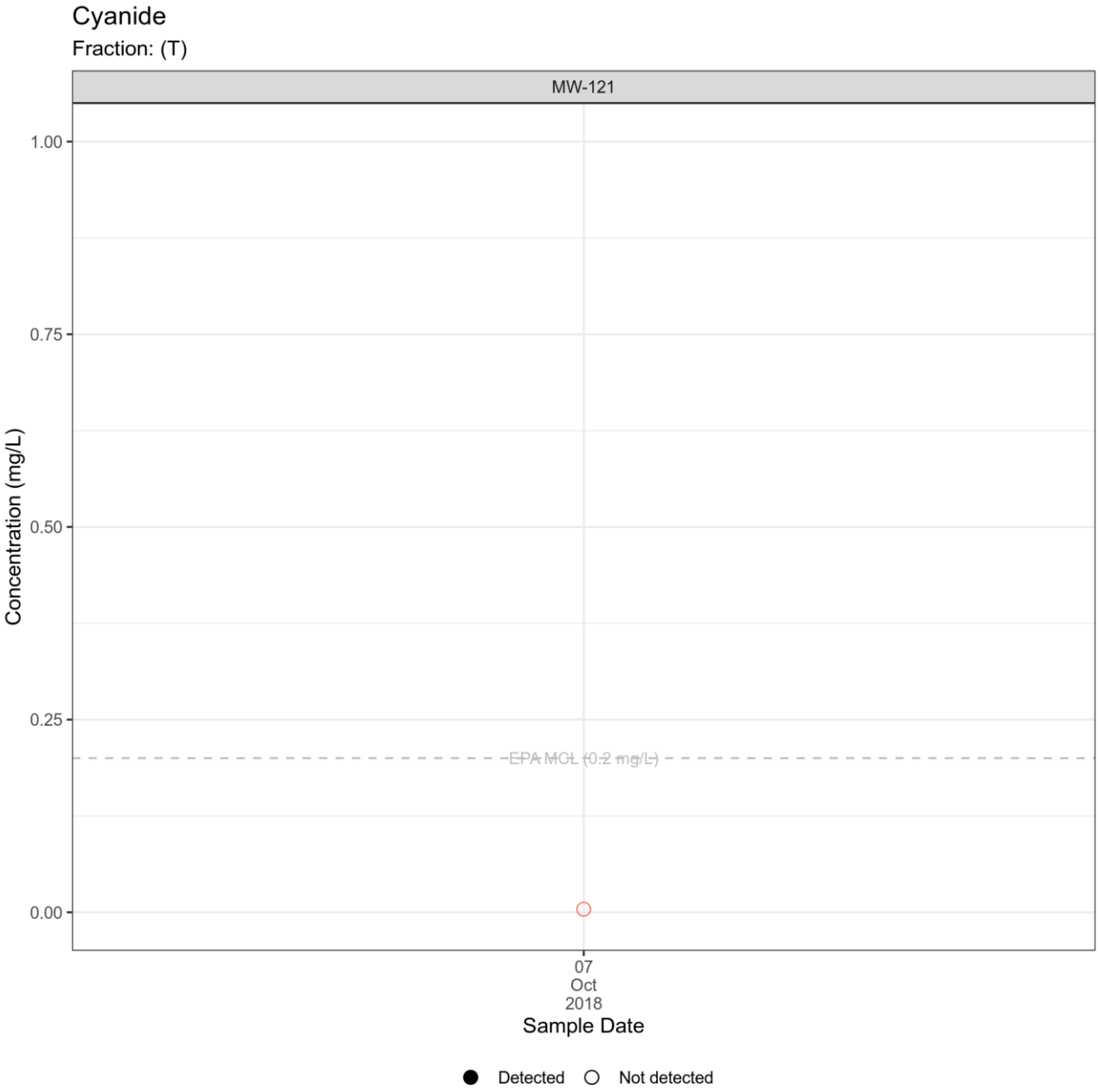
Cobalt


Cobalt
Fraction: (T)
MW-121
1.00
0.75
0.50
0.25
0.00
Concentration (mg/L)
2020
2022
2024
Sample Date
Detected
Not detected

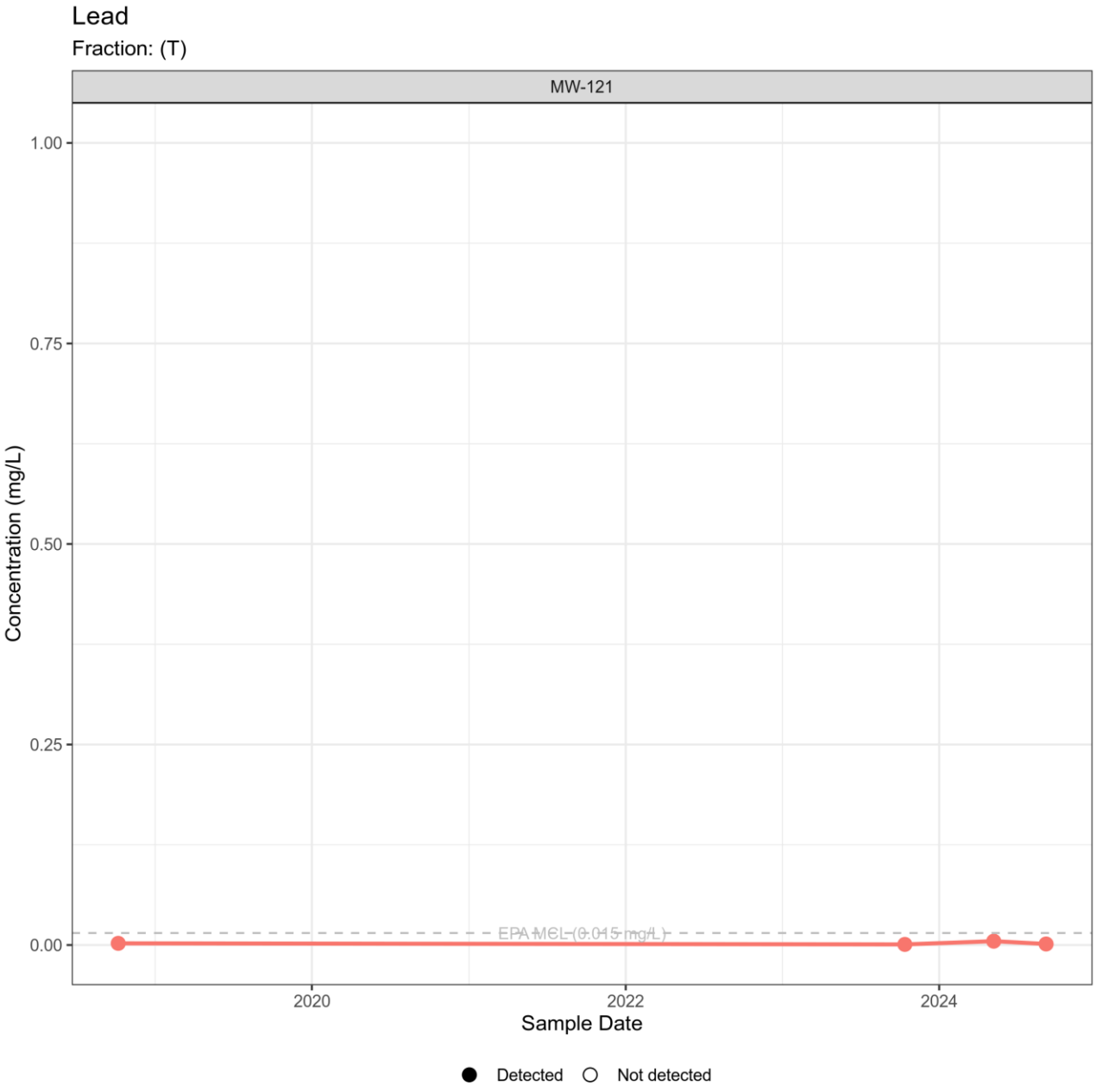
Copper


Copper
Fraction: (T)
MW-121
2.0
1.5
1.0
0.5
0.0
EPA MCL (1.3 mg/L)
Concentration (mg/L)
2020
2022
2024
Sample Date
Detected
Not detected

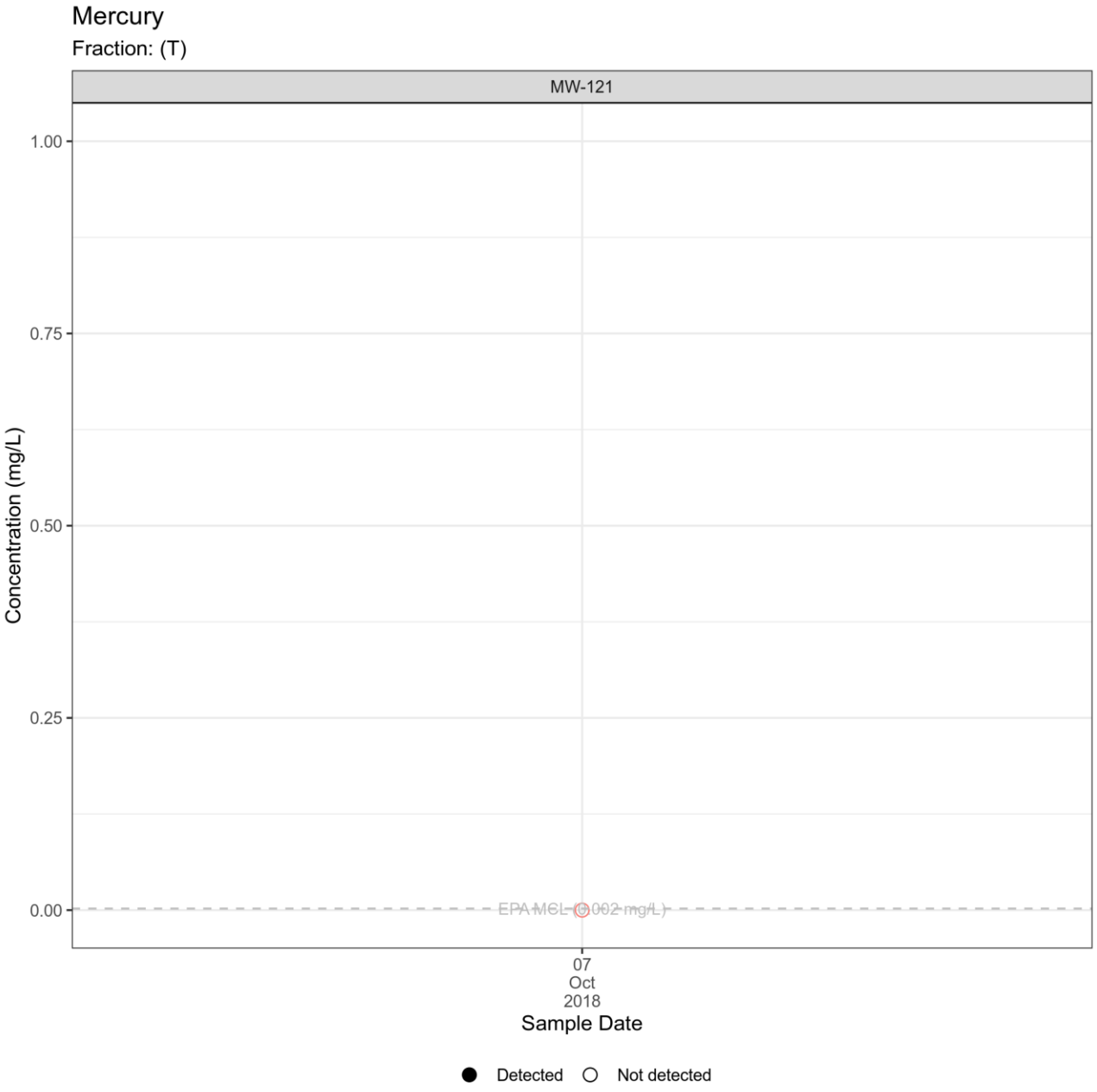
Cyanide


Cyanide
Fraction: (T)
MW-121
1.00
0.75
0.50
0.25
0.00
Concentration (mg/L)
EPA MCL (0.2 mg/L)
07
Oct
2018
Sample Date
Detected
Not detected

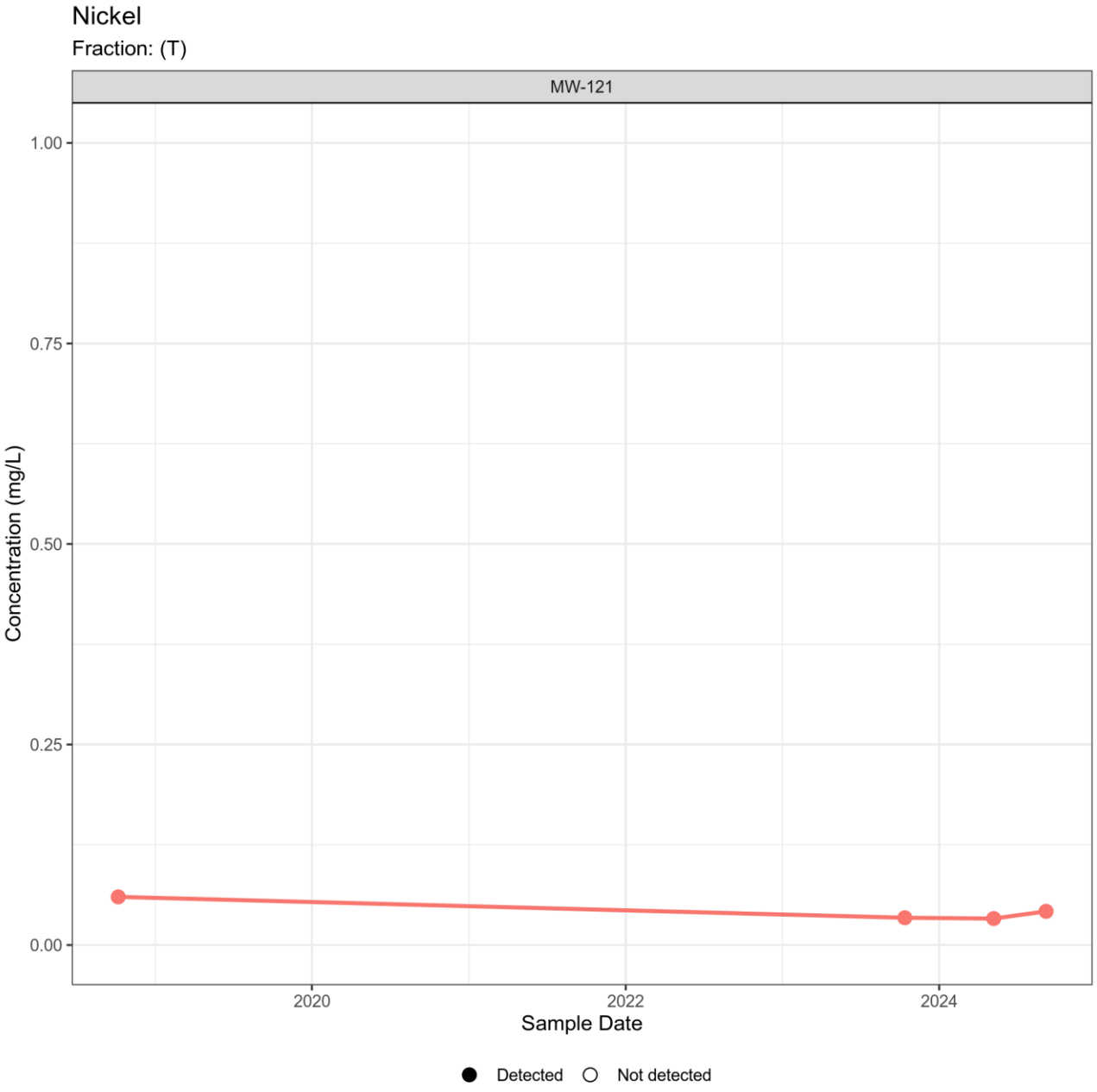
Lead


Lead
Fraction: (T)
MW-121
1.00
0.75
0.50
0.25
0.00
Concentration (mg/L)
EPA MCL (0.015 mg/L)
2020
2022
2024
Sample Date
Detected
Not detected

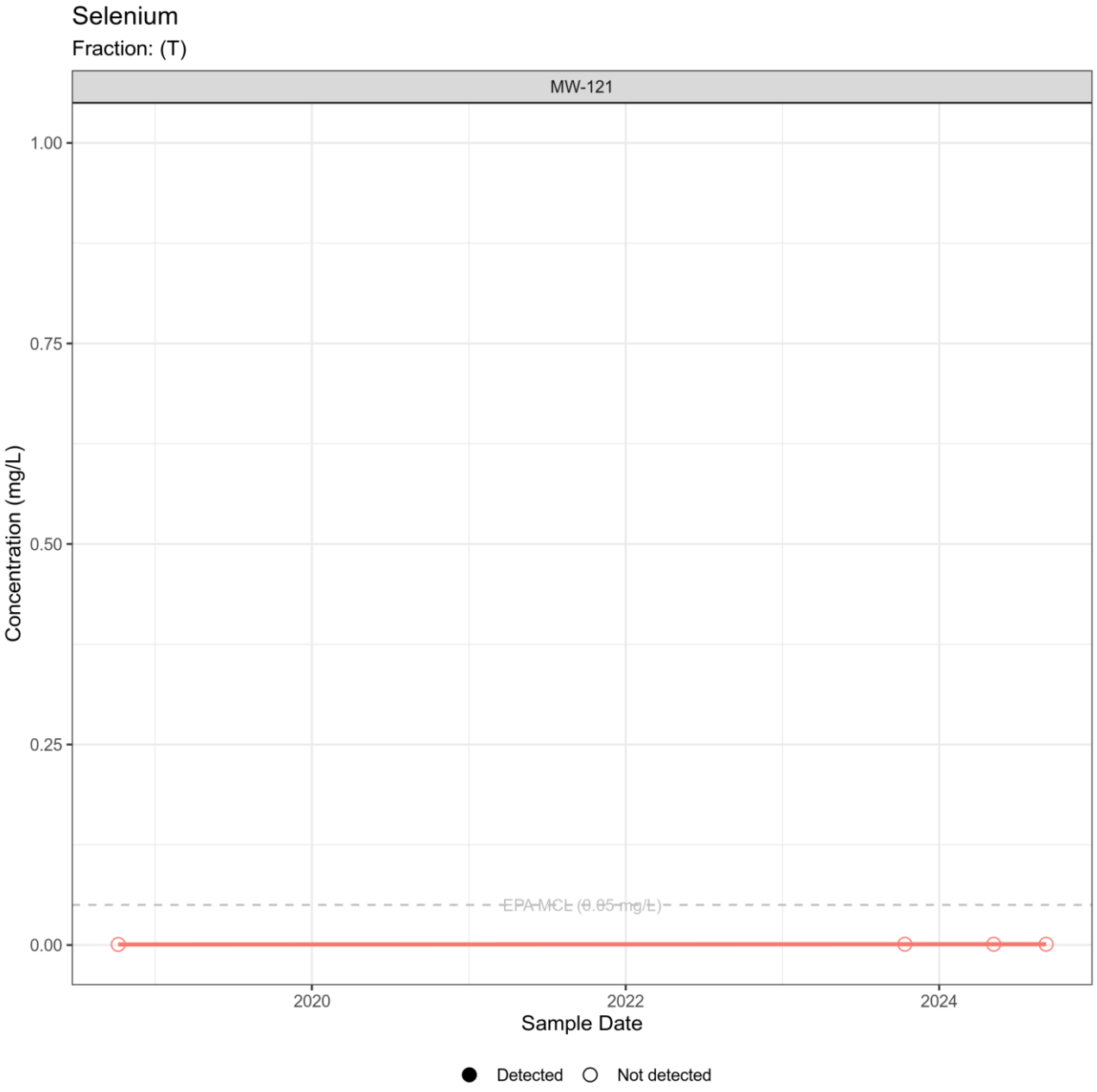
Mercury


Mercury
Fraction: (T)
MW-121
1.00
0.75
0.50
0.25
0.00
Concentration (mg/L)
EPA MCL (0.002 mg/L)
07
Oct
2018
Sample Date
Detected
Not detected

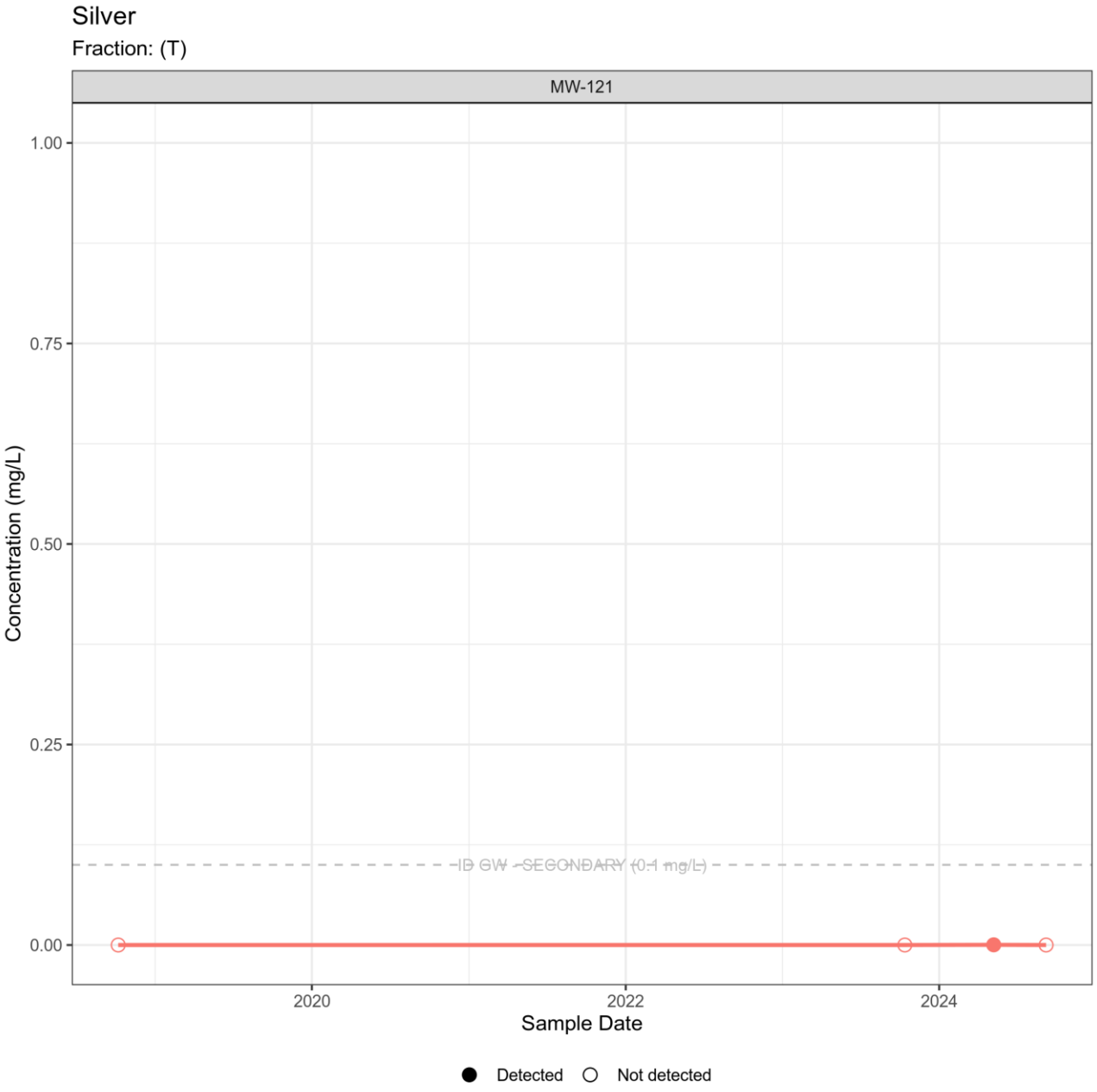
Nickel


Nickel
Fraction: (T)
MW-121
1.00
0.75
0.50
0.25
0.00
Concentration (mg/L)
2020
2022
2024
Sample Date
Detected
Not detected

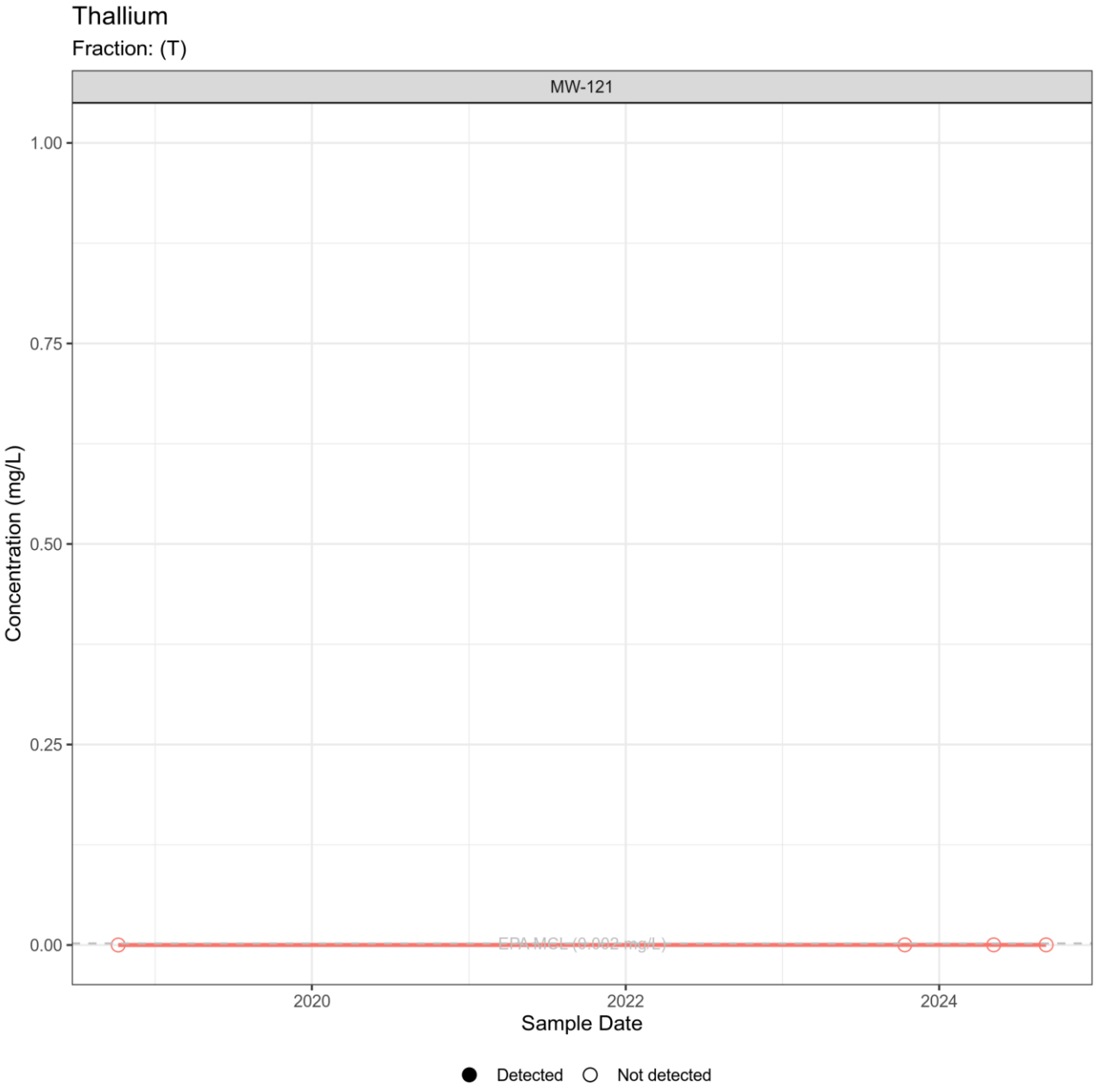
Selenium


Selenium
Fraction: (T)
MW-121
1.00
0.75
0.50
0.25
0.00
Concentration (mg/L)
EPA MCL (0.05 mg/L)
2020
2022
2024
Sample Date
Detected
Not detected

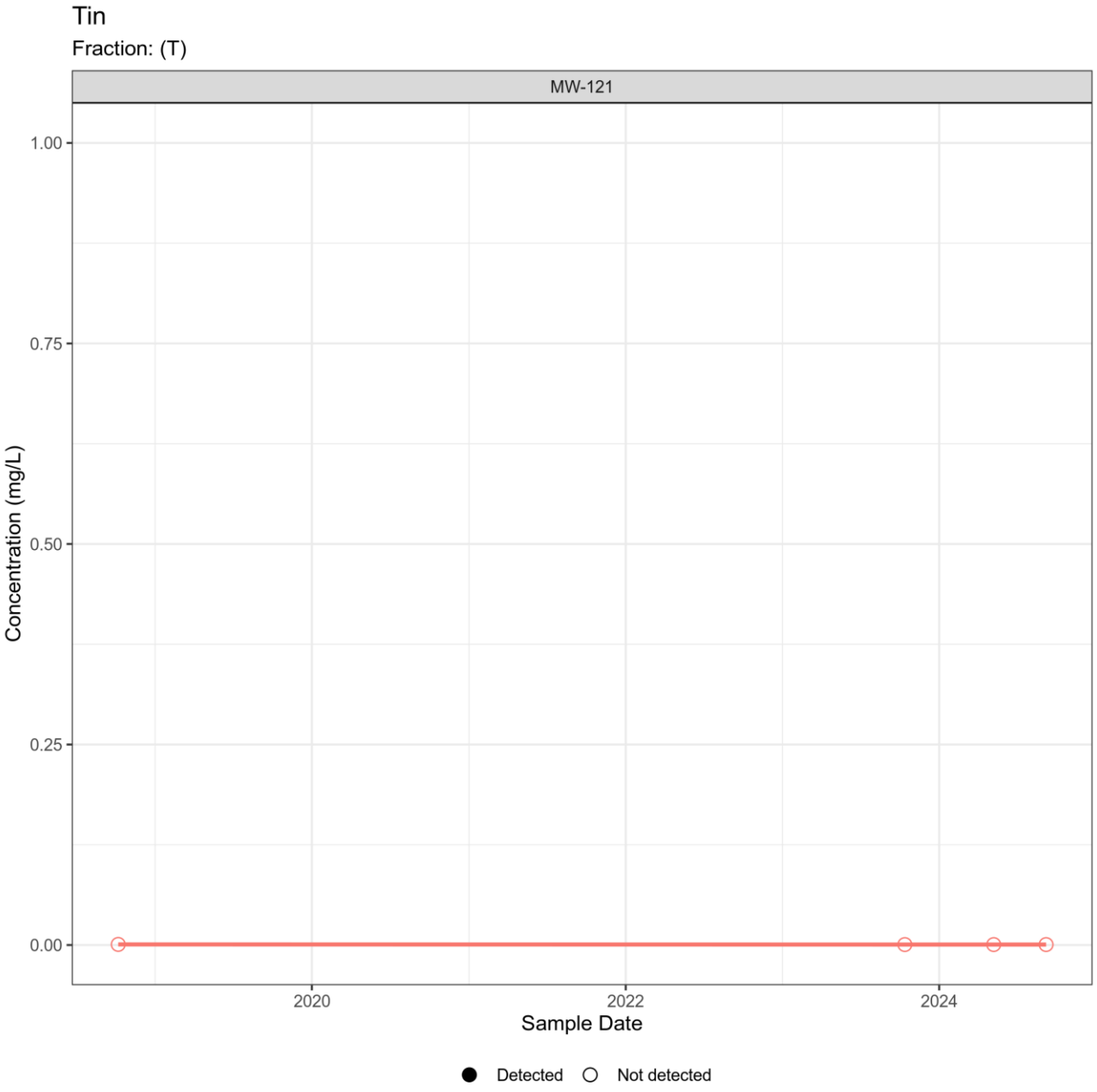
Silver


Silver
Fraction: (T)
MW-121
1.00
0.75
0.50
0.25
0.00
Concentration (mg/L)
ID GW - SECONDARY (0.1 mg/L)
2020
2022
2024
Sample Date
Detected
Not detected

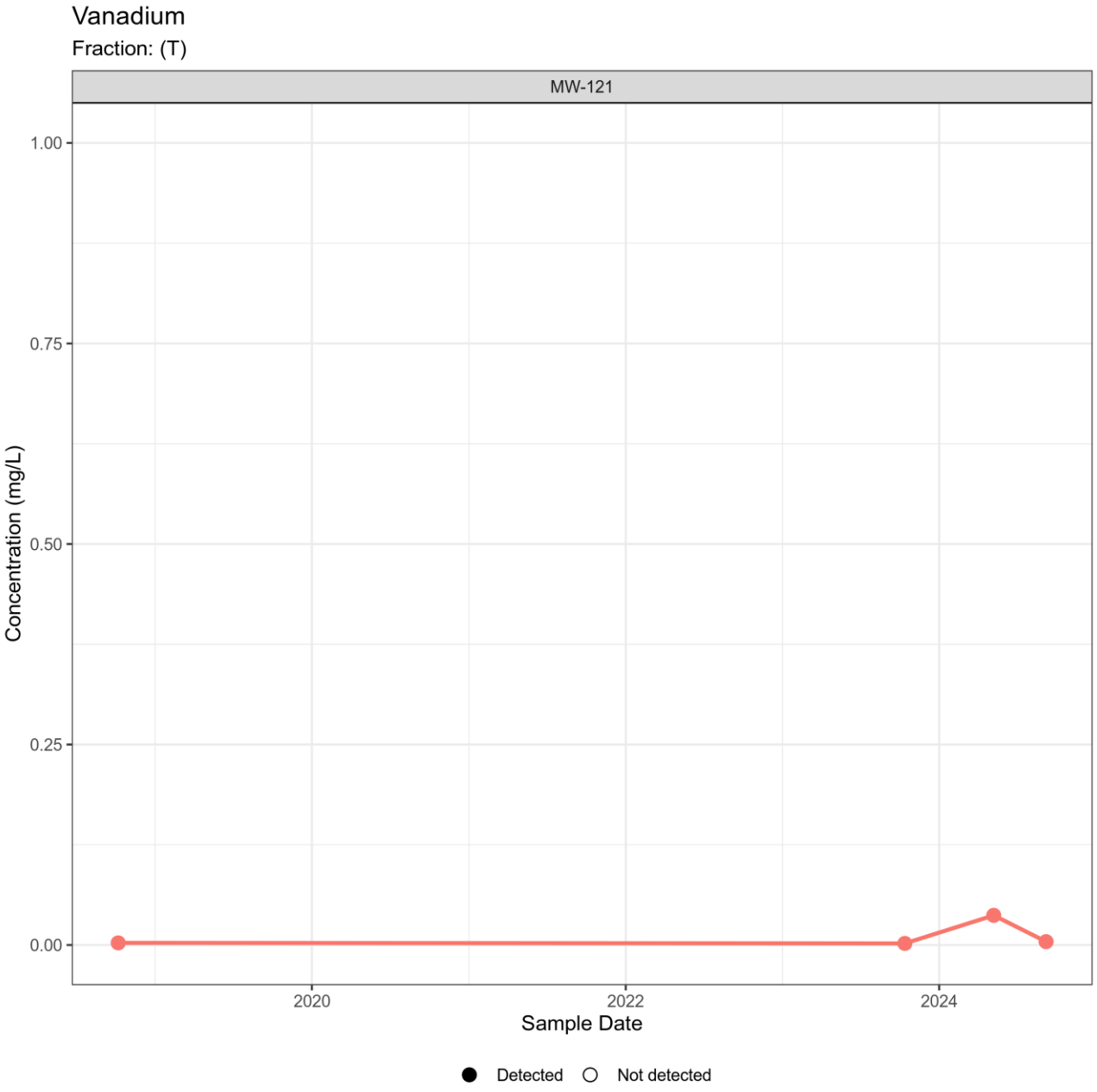
Thallium


Thallium
Fraction: (T)
MW-121
1.00
0.75
0.50
0.25
0.00
Concentration (mg/L)
EPA MCL (0.002 mg/L)
2020
2022
2024
Sample Date
Detected
Not detected

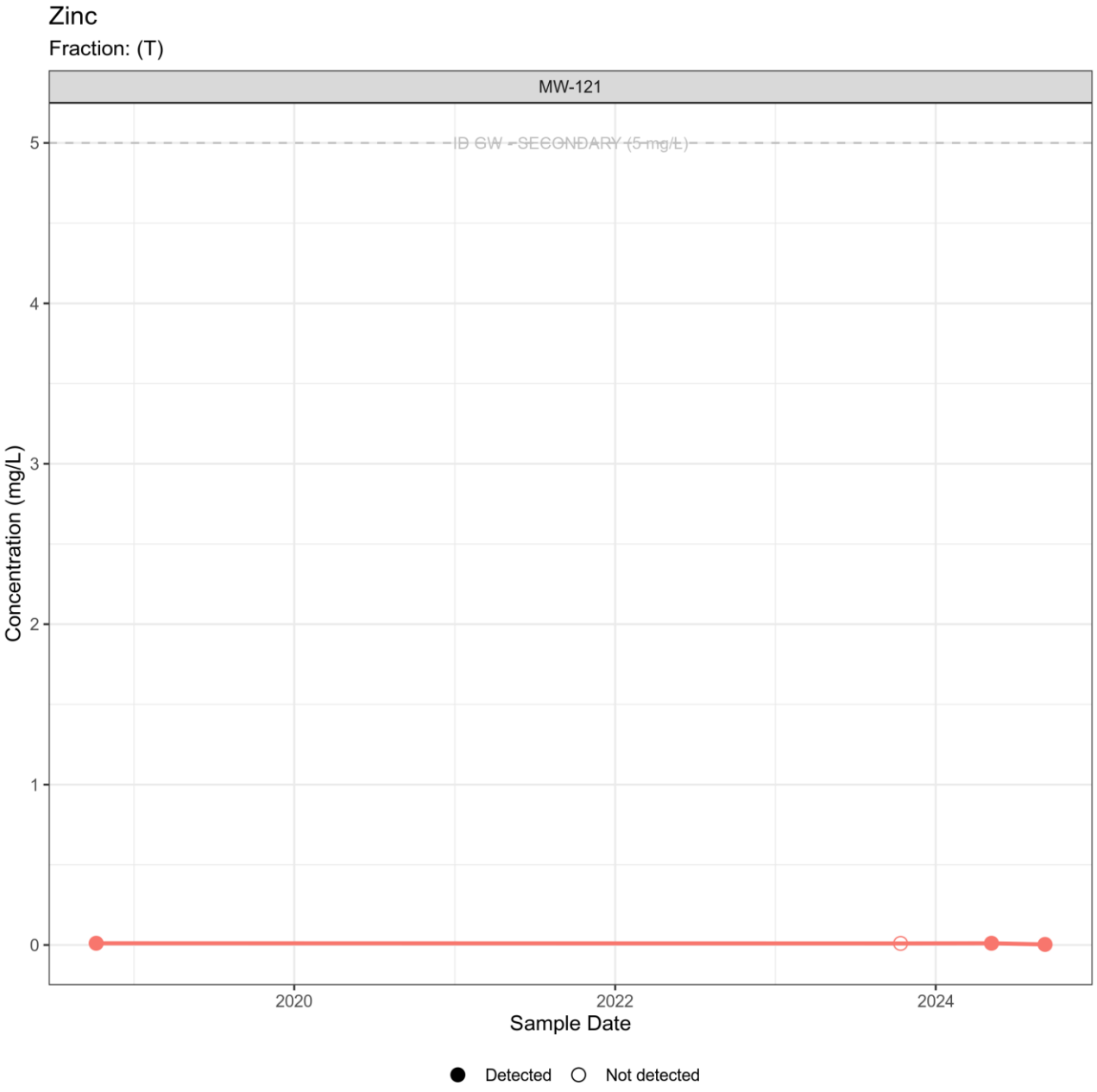
Tin


Tin
Fraction: (T)
MW-121
1.00
0.75
0.50
0.25
0.00
Concentration (mg/L)
2020
2022
2024
Sample Date
Detected
Not detected

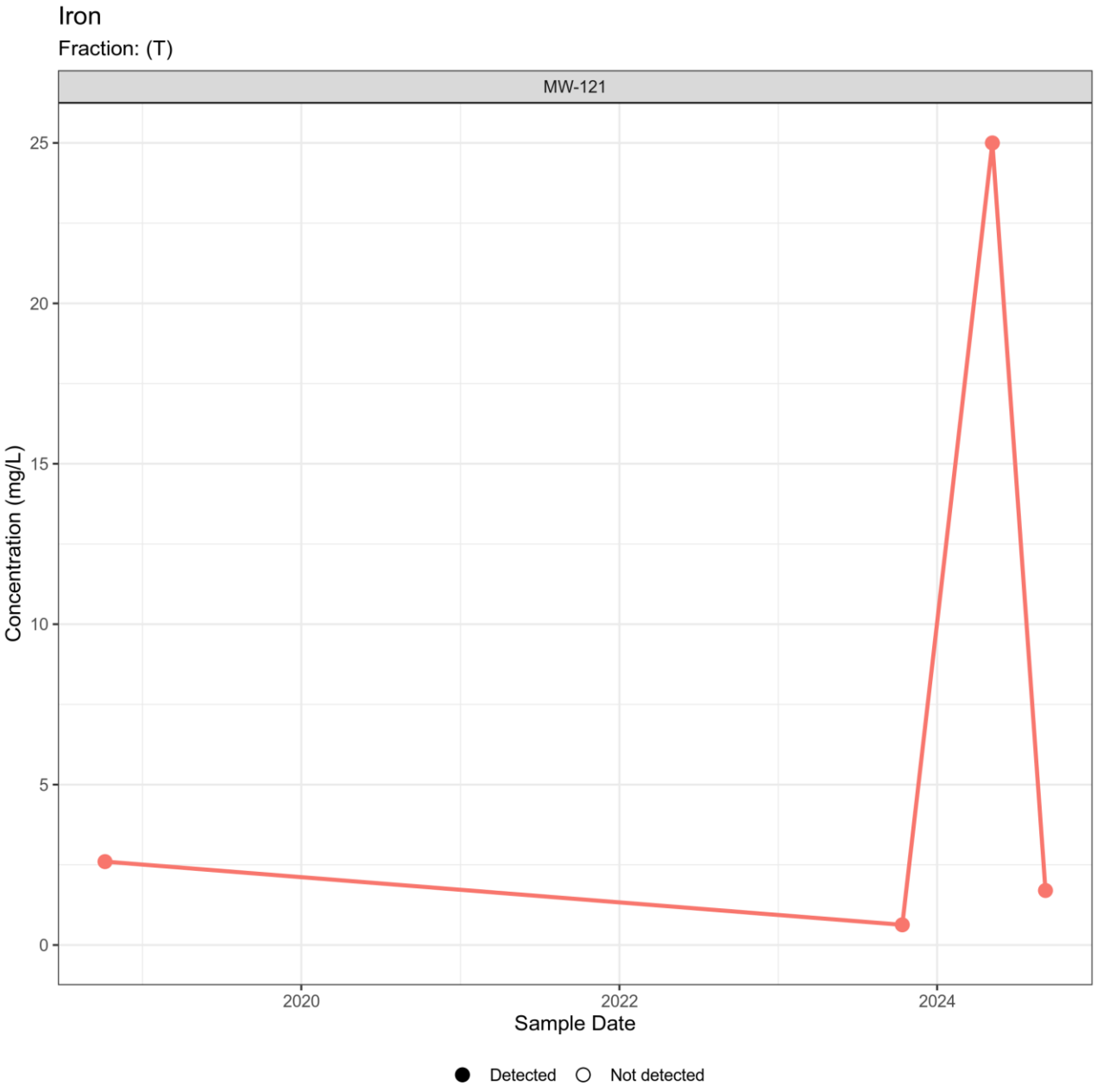
Vanadium


Vanadium
Fraction: (T)
MW-121
1.00
0.75
0.50
0.25
0.00
Concentration (mg/L)
2020
2022
2024
Sample Date
Detected
Not detected

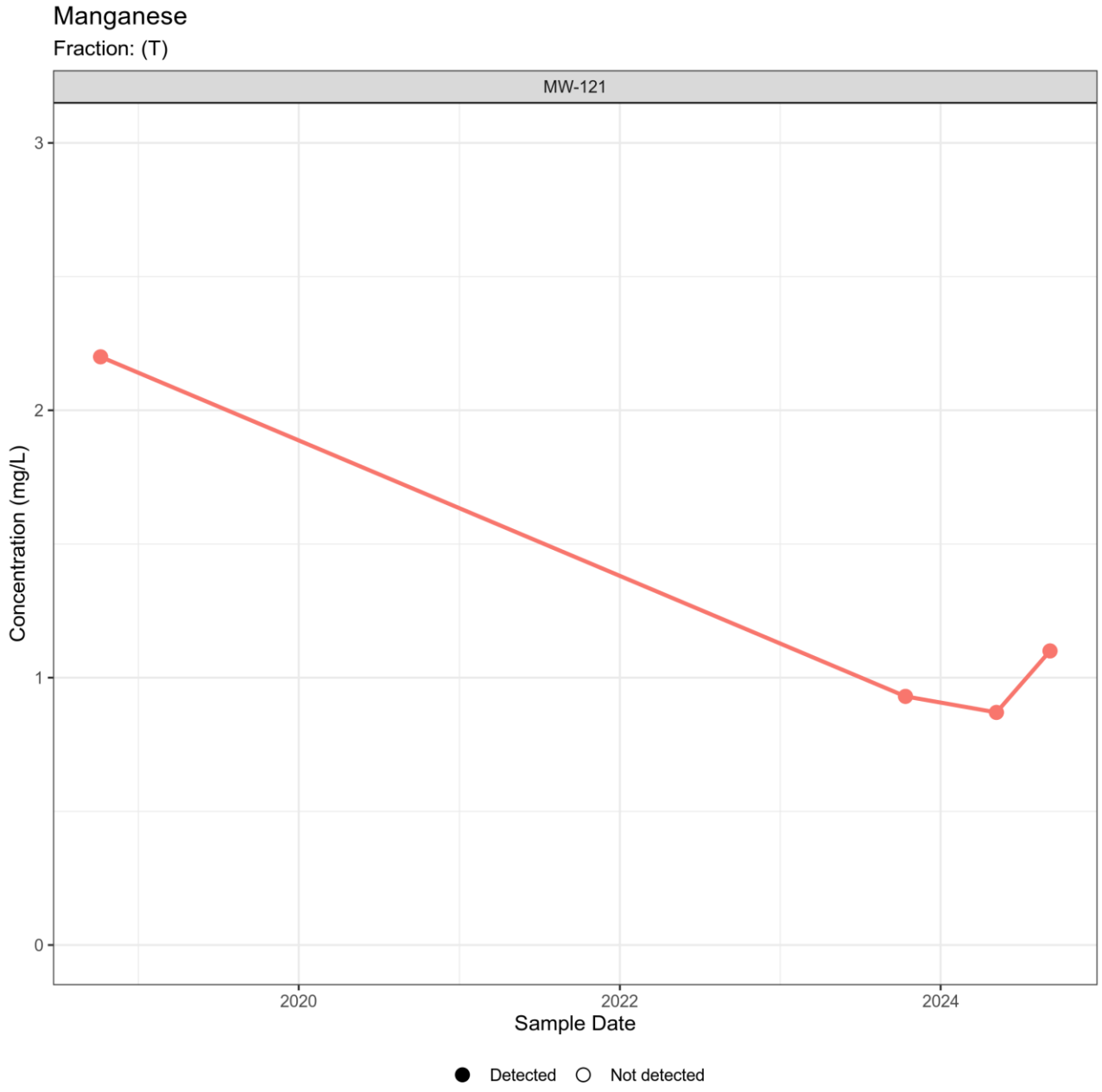
Zinc


Zinc
Fraction: (T)
MW-121
ID GW - SECONDARY (5 mg/L)
5
4
3
2
1
0
Concentration (mg/L)
2020
2022
2024
Sample Date
Detected
Not detected

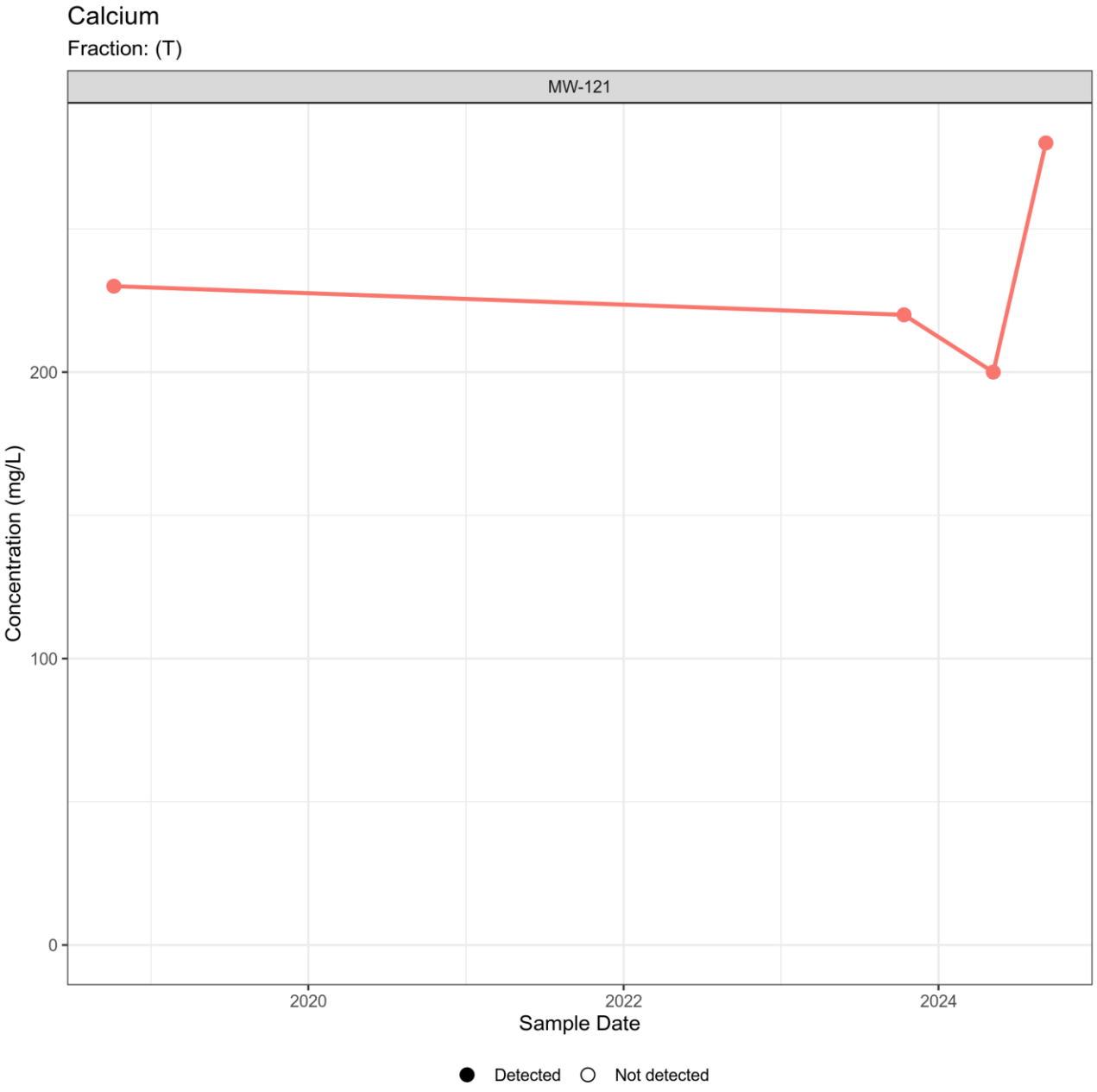
Iron


Iron
Fraction: (T)
MW-121
25
20
15
10
5
0
Concentration (mg/L)
2020
2022
2024
Sample Date
Detected
Not detected

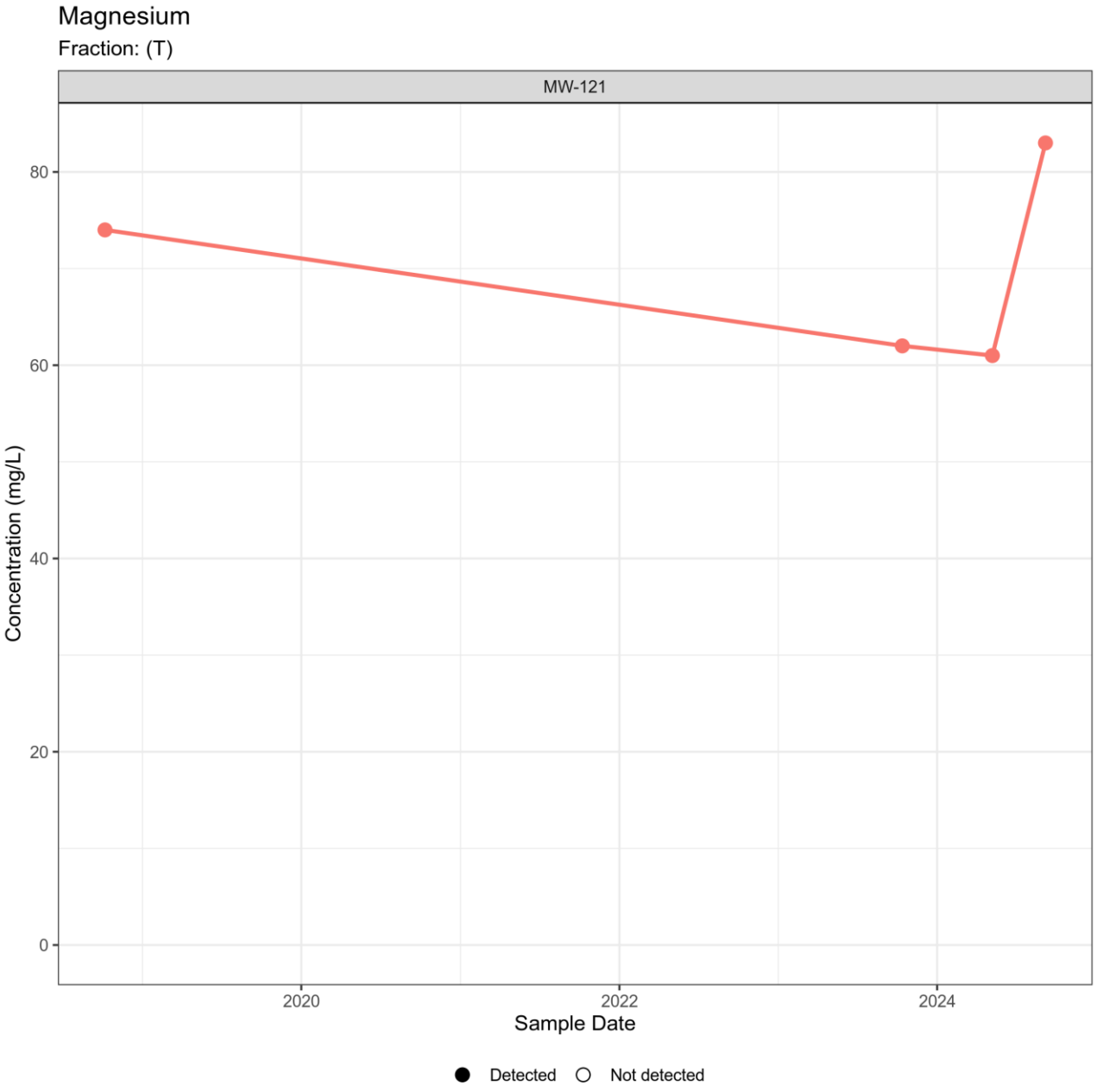
Manganese


Manganese
Fraction: (T)
MW-121
3
2
1
0
Concentration (mg/L)
2020
2022
2024
Sample Date
Detected
Not detected

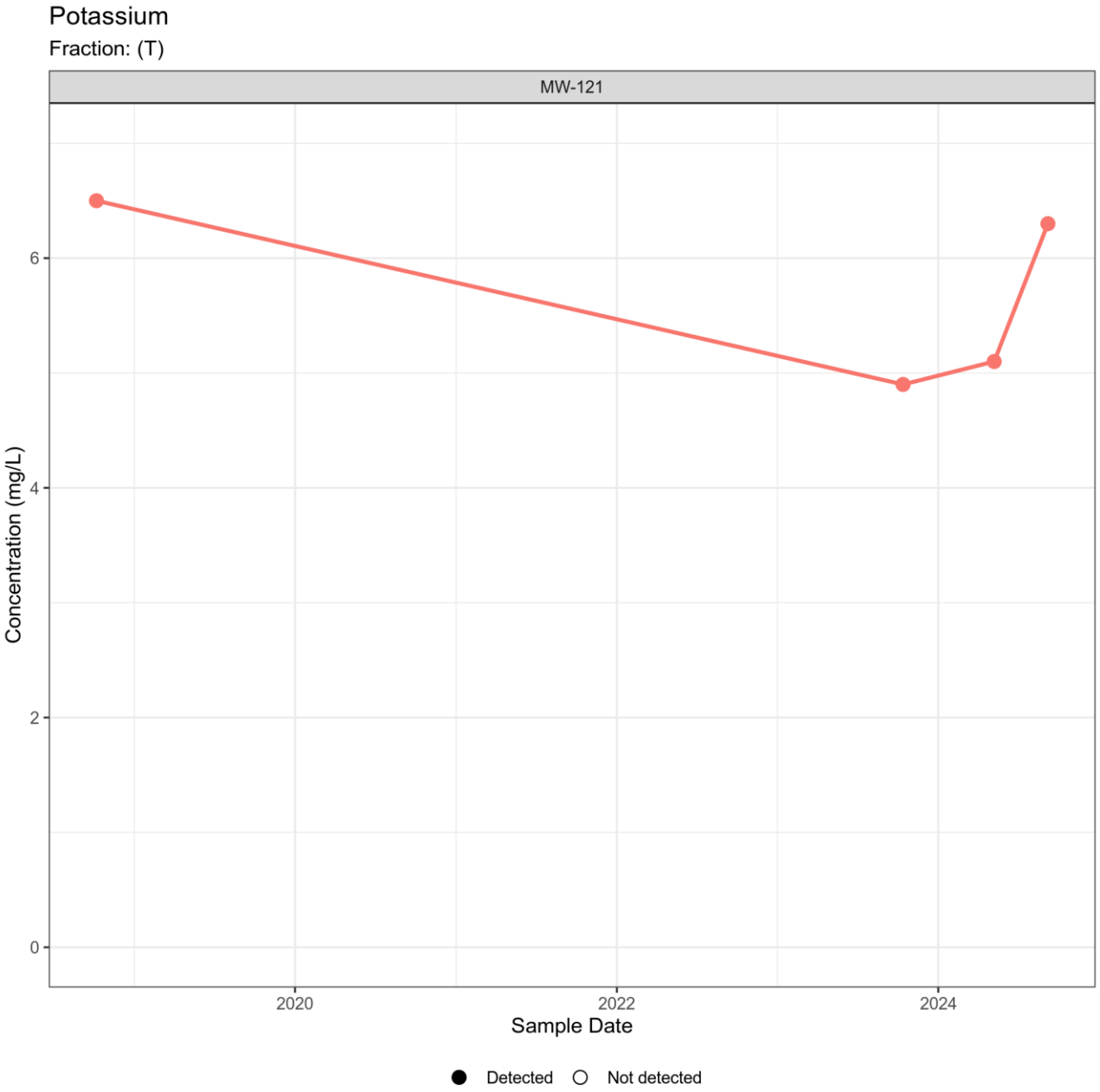
Calcium


Calcium
Fraction: (T)
MW-121
200
100
0
Concentration (mg/L)
2020
2022
2024
Sample Date
Detected
Not detected

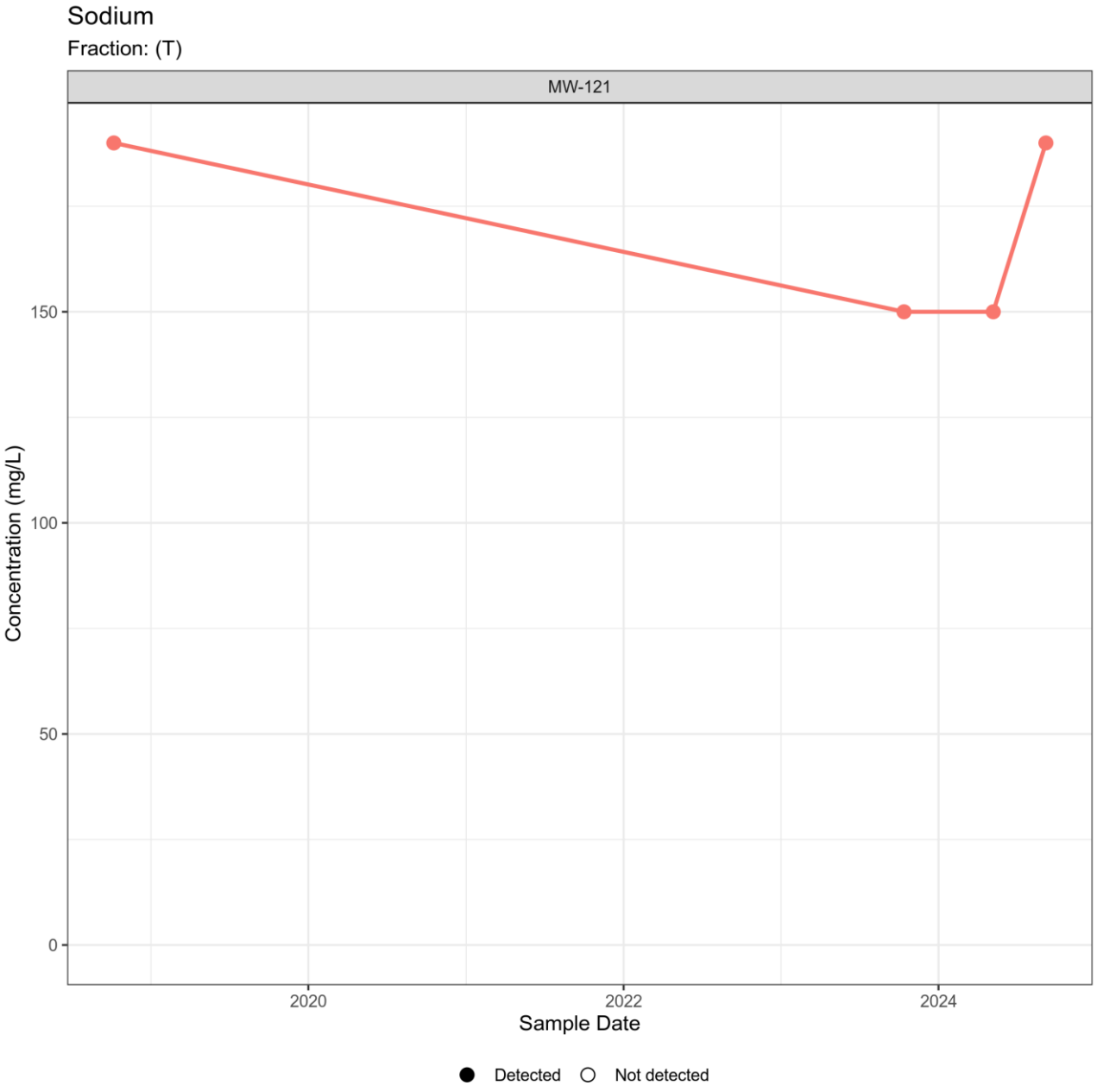
Magnesium


Magnesium
Fraction: (T)
MW-121
80
60
40
20
0
Concentration (mg/L)
2020
2022
2024
Sample Date
Detected
Not detected

Potassium


Potassium
Fraction: (T)
MW-121
Concentration (mg/L)
0
2
4
6
2020
2022
2024
Sample Date
Detected
Not detected

Sodium


Sodium
Fraction: (T)
MW-121
150
100
50
0
Concentration (mg/L)
2020
2022
2024
Sample Date
Detected
Not detected

Inorganic Chemicals Time Series Plots

Data filters

This report is filtered to only include:

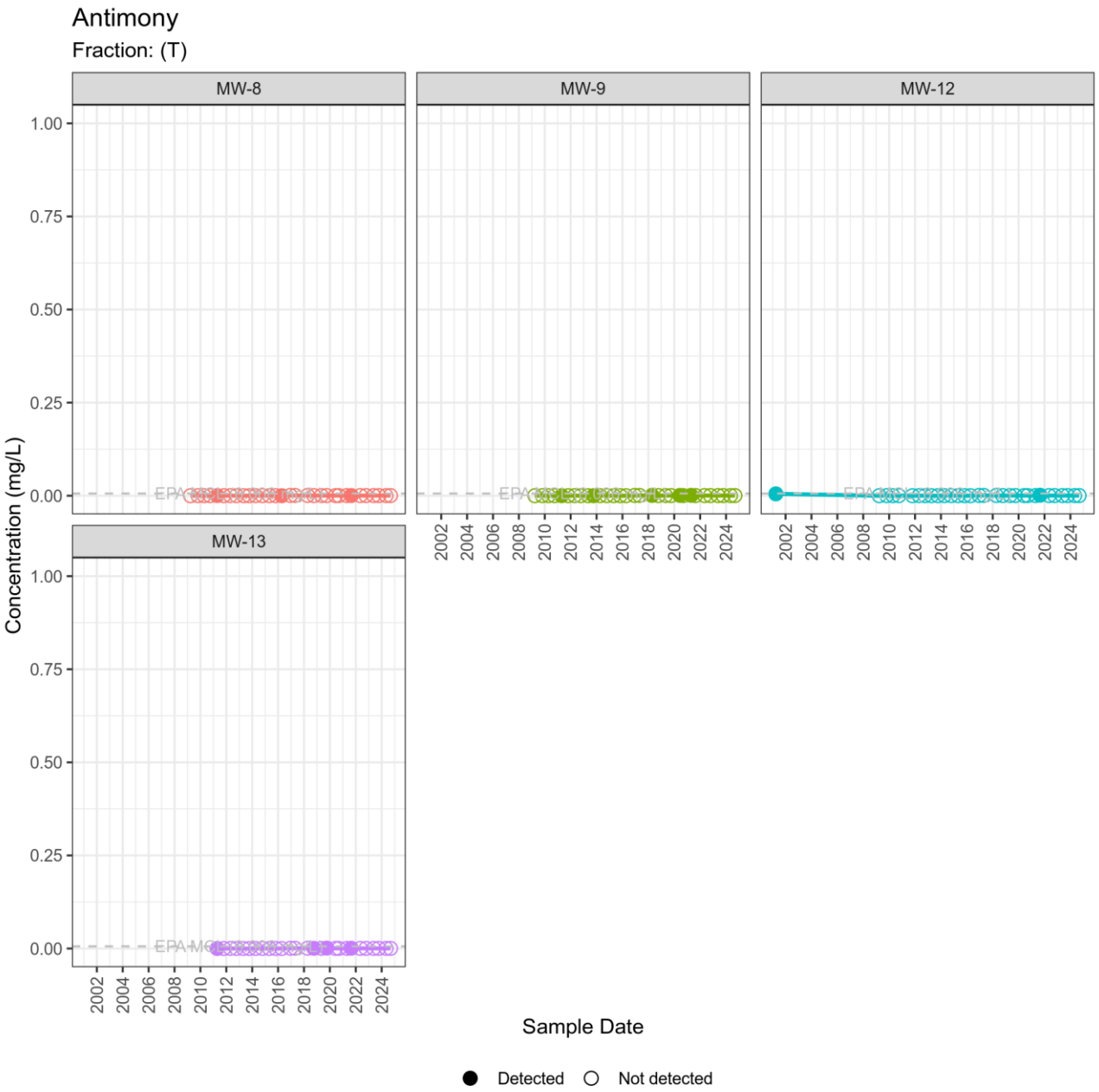
- **MW-8, MW-9, MW-12, and MW-13** from **Cell 2 Monitoring Well**
- Results from **01 January 1990** to **10 September 2024**
- Fraction: **T**
- Inorganic analytes: **All inorganics**

Graph notes

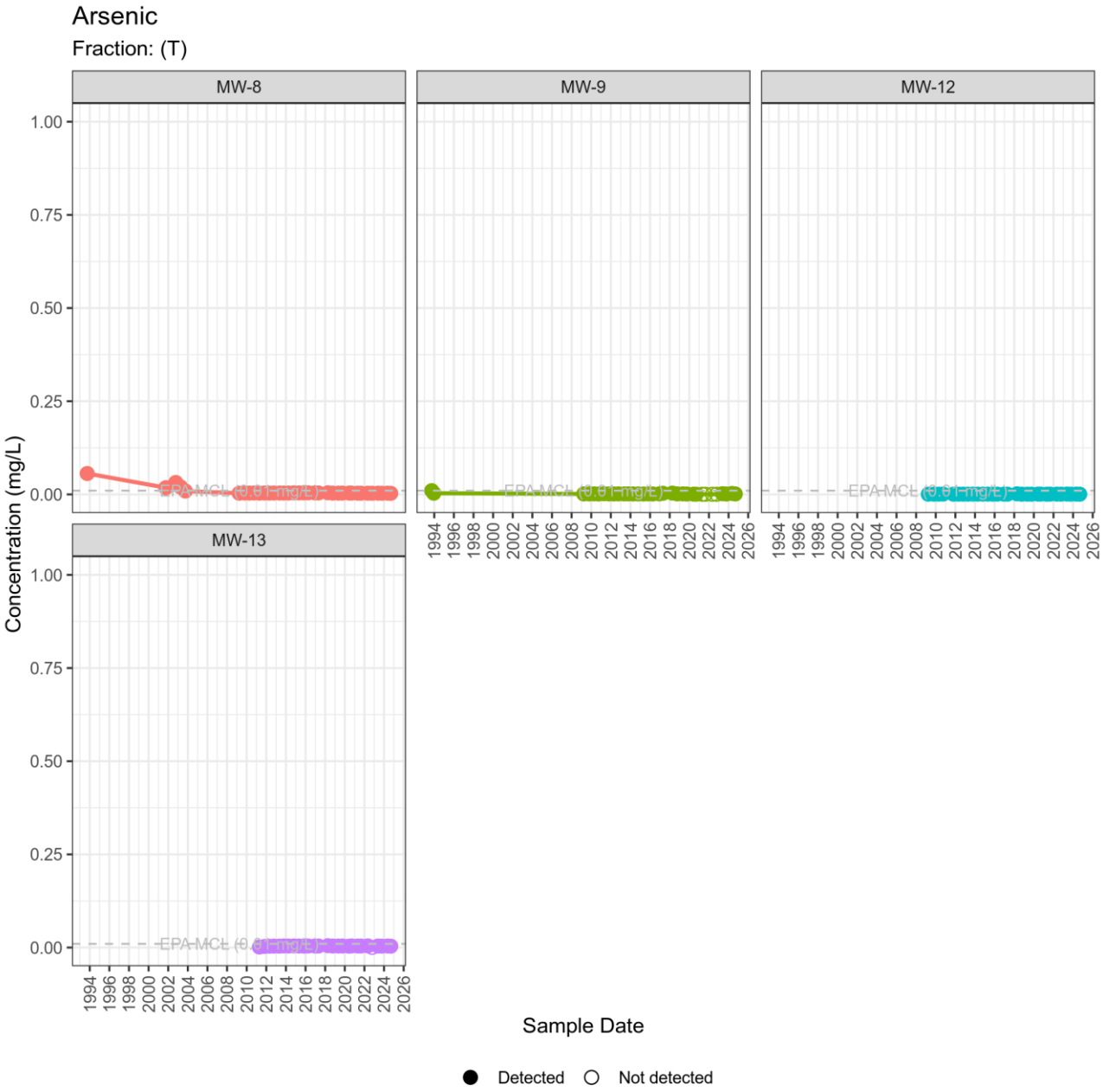
- When only the year is shown in the x-axis label, this represents the start of the year.

Inorganic chemical summaries

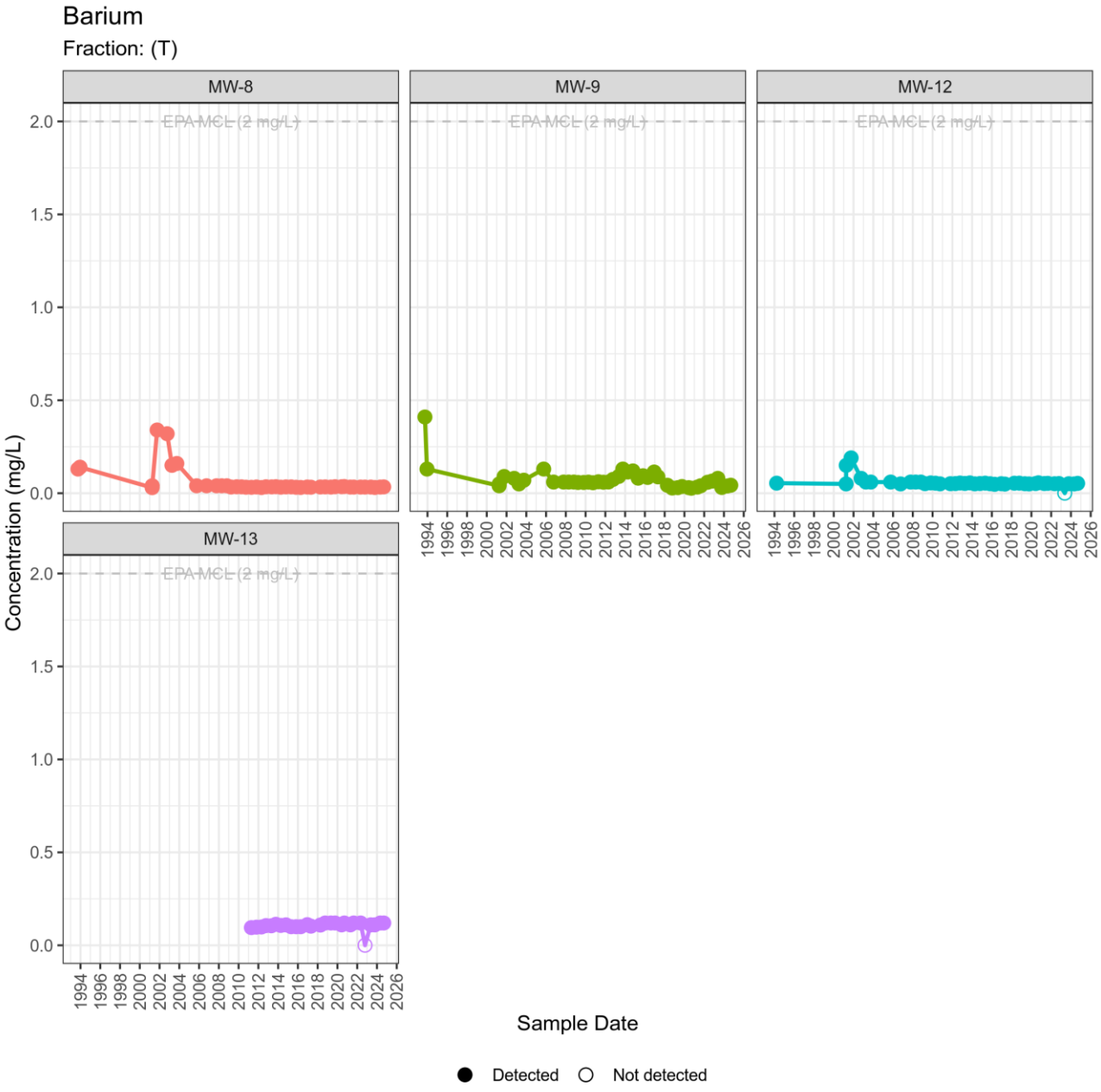
Antimony



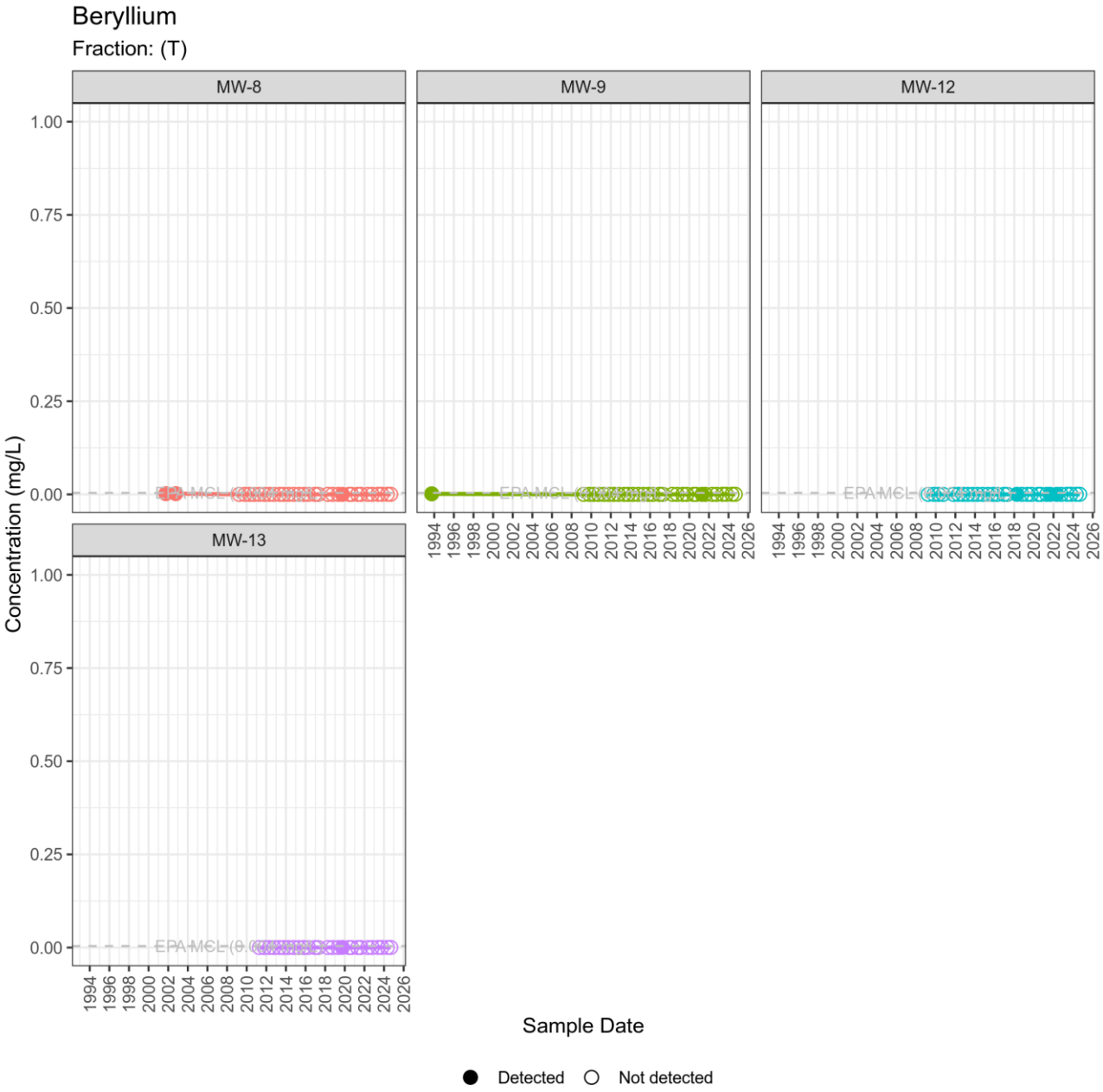
Arsenic


Arsenic
Fraction: (T)
MW-8
MW-9
MW-12
MW-13
Concentration (mg/L)
1.00
0.75
0.50
0.25
0.00
EPA MCL (0.01 mg/L)
1994
1996
1998
2000
2002
2004
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024
2026
Sample Date
Detected
Not detected

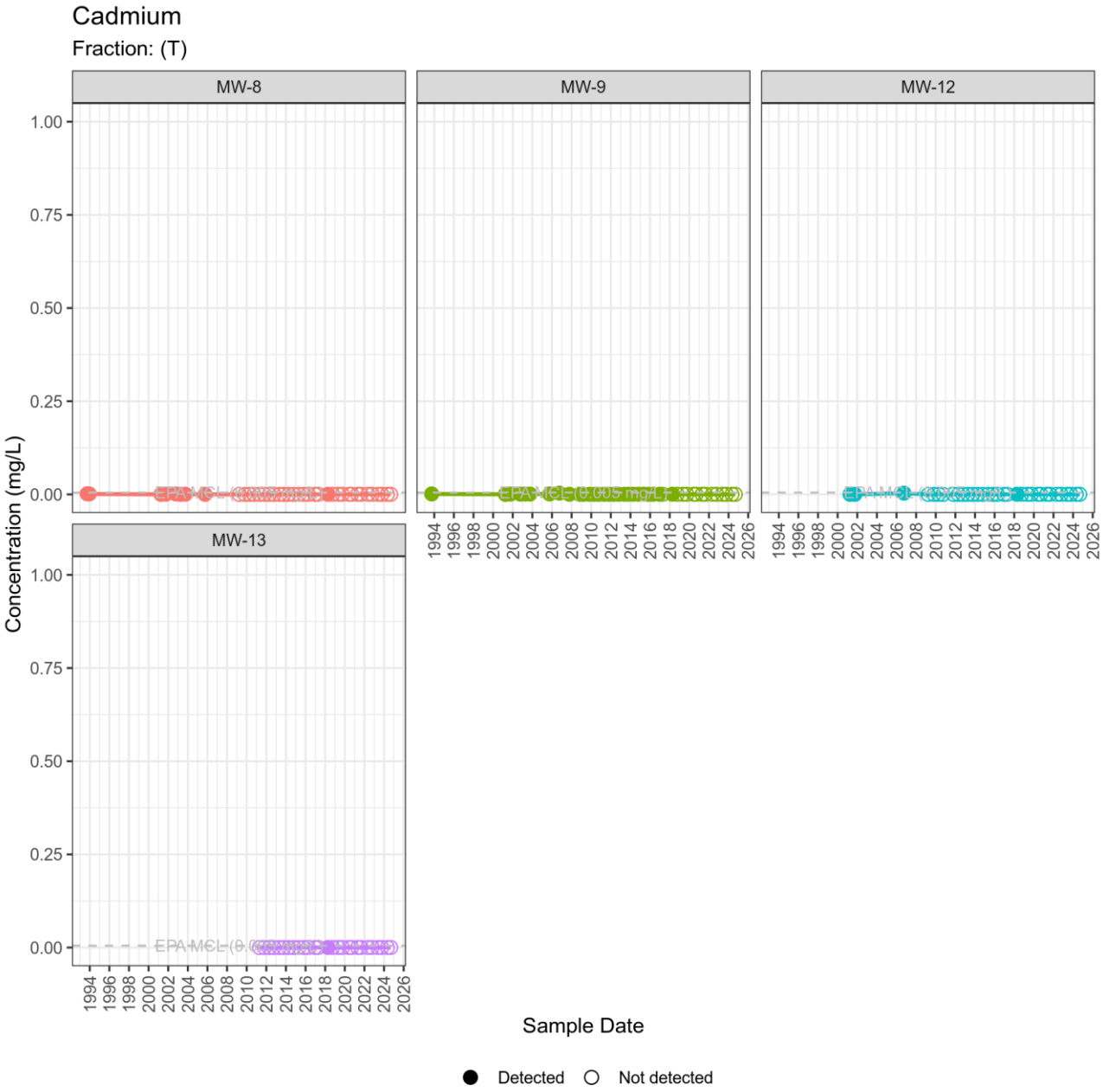
Barium


Barium
Fraction: (T)
MW-8
MW-9
MW-12
MW-13
EPA MCL (2 mg/L)
Concentration (mg/L)
Sample Date
Detected
Not detected

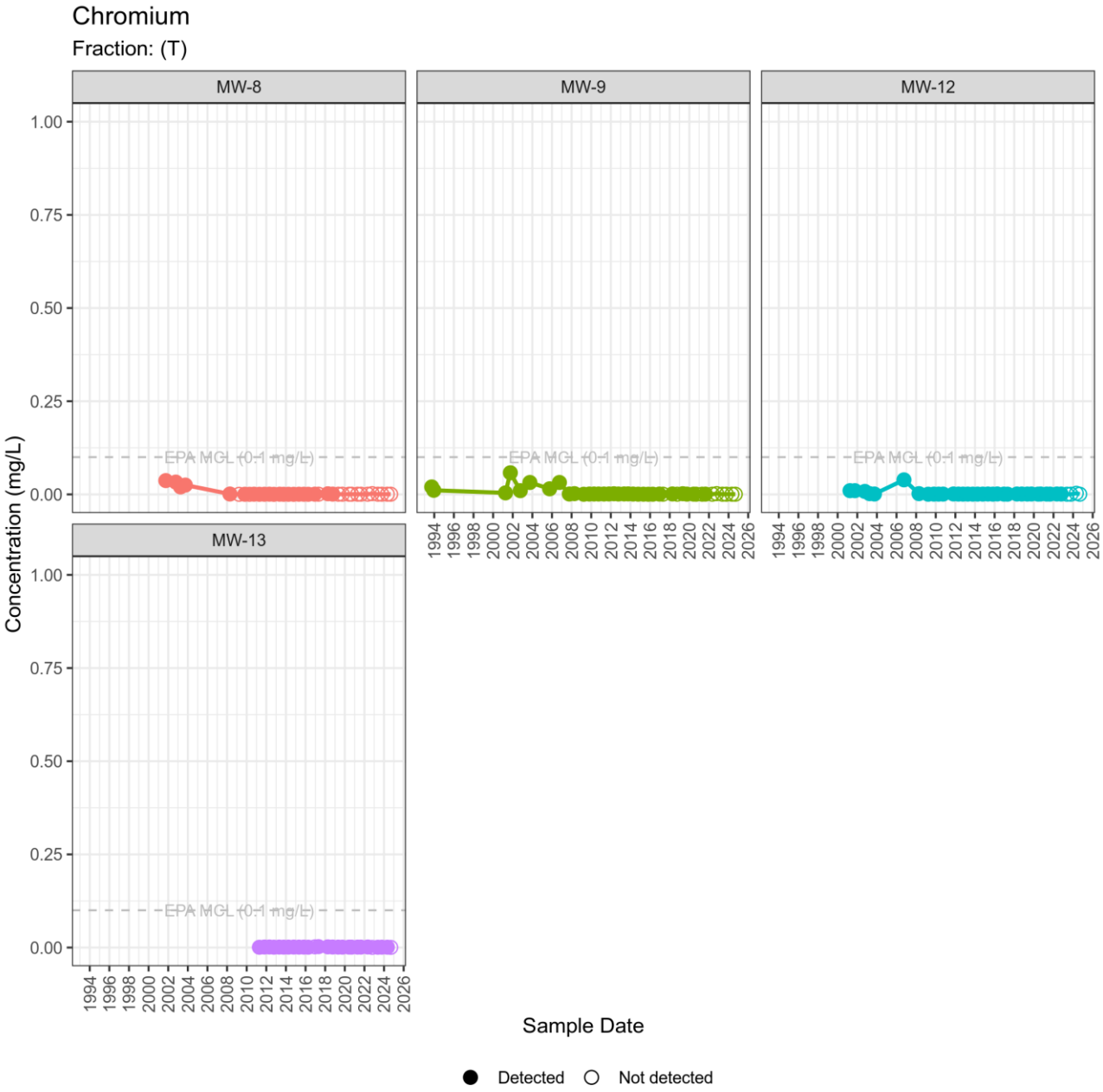
Beryllium


Beryllium
Fraction: (T)
MW-8
MW-9
MW-12
MW-13
Concentration (mg/L)
1.00
0.75
0.50
0.25
0.00
EPA MCL
1994
1996
1998
2000
2002
2004
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024
2026
Sample Date
Detected
Not detected

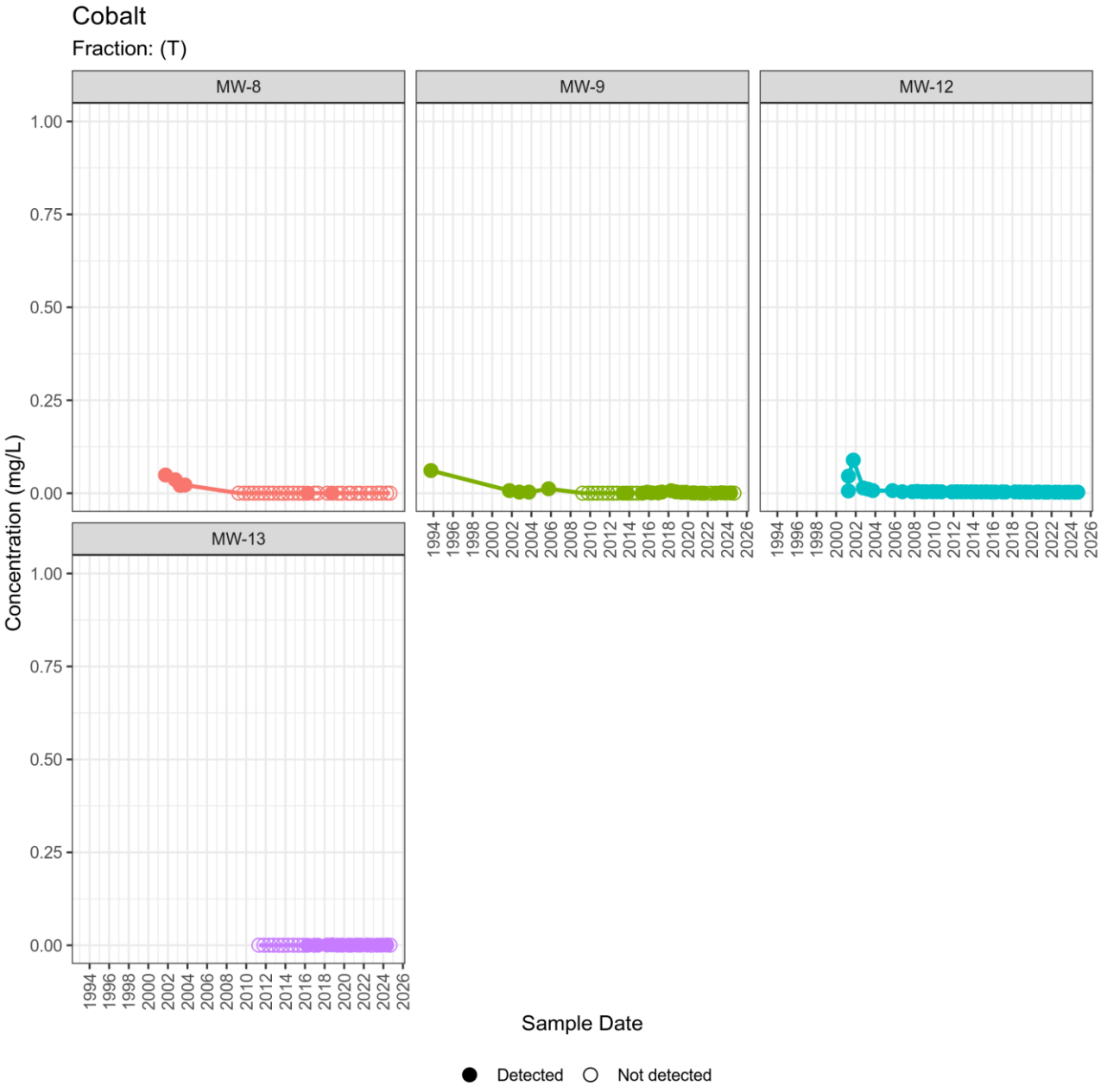
Cadmium


Cadmium
Fraction: (T)
MW-8
MW-9
MW-12
MW-13
Concentration (mg/L)
1.00
0.75
0.50
0.25
0.00
EPA MCL (0.005 mg/L)
1994
1996
1998
2000
2002
2004
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024
2026
Sample Date
Detected
Not detected

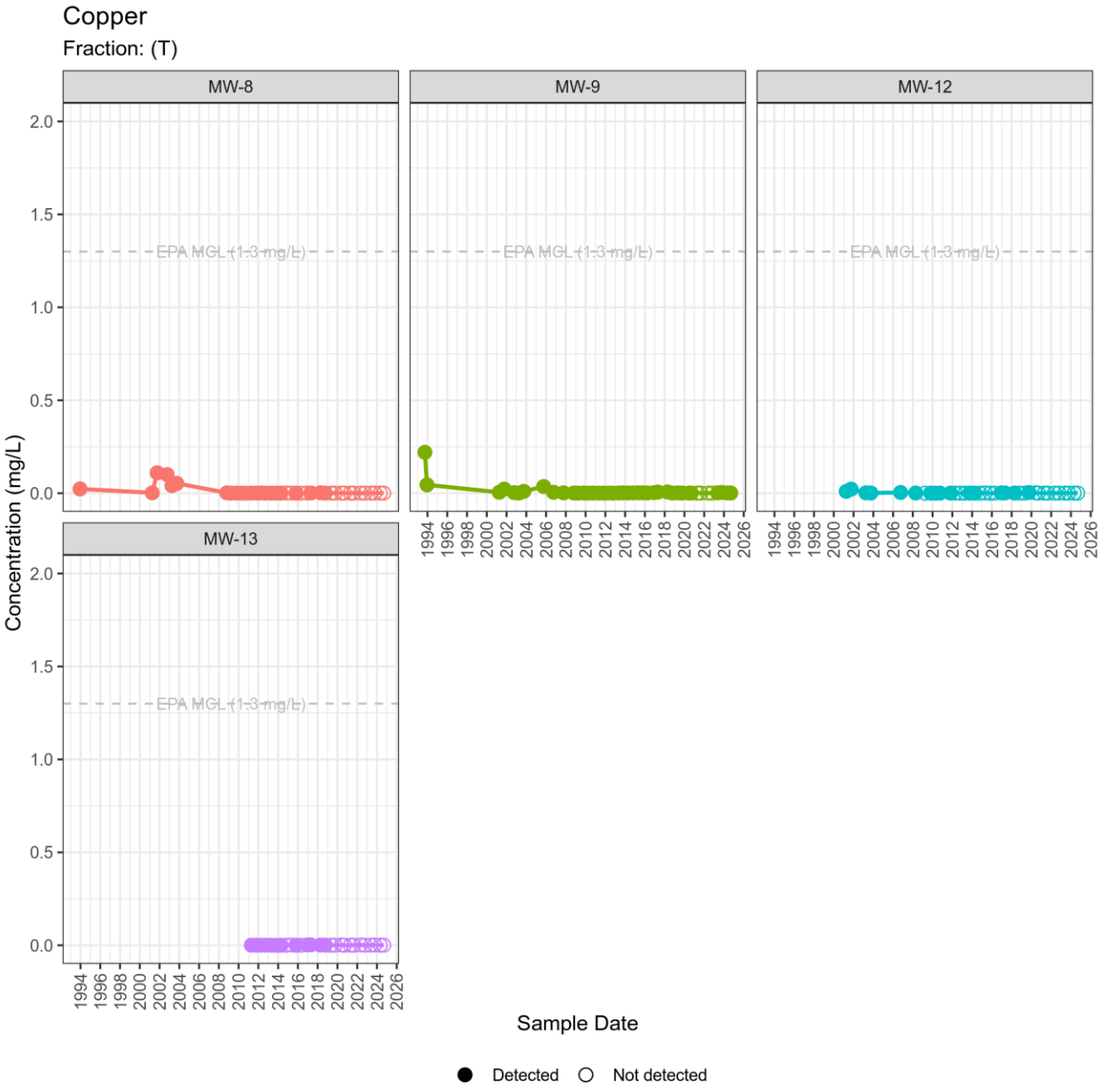
Chromium


Chromium
Fraction: (T)
MW-8
MW-9
MW-12
MW-13
EPA MCL (0.1 mg/L)
Concentration (mg/L)
1.00
0.75
0.50
0.25
0.00
1994
1996
1998
2000
2002
2004
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024
2026
Sample Date
Detected
Not detected

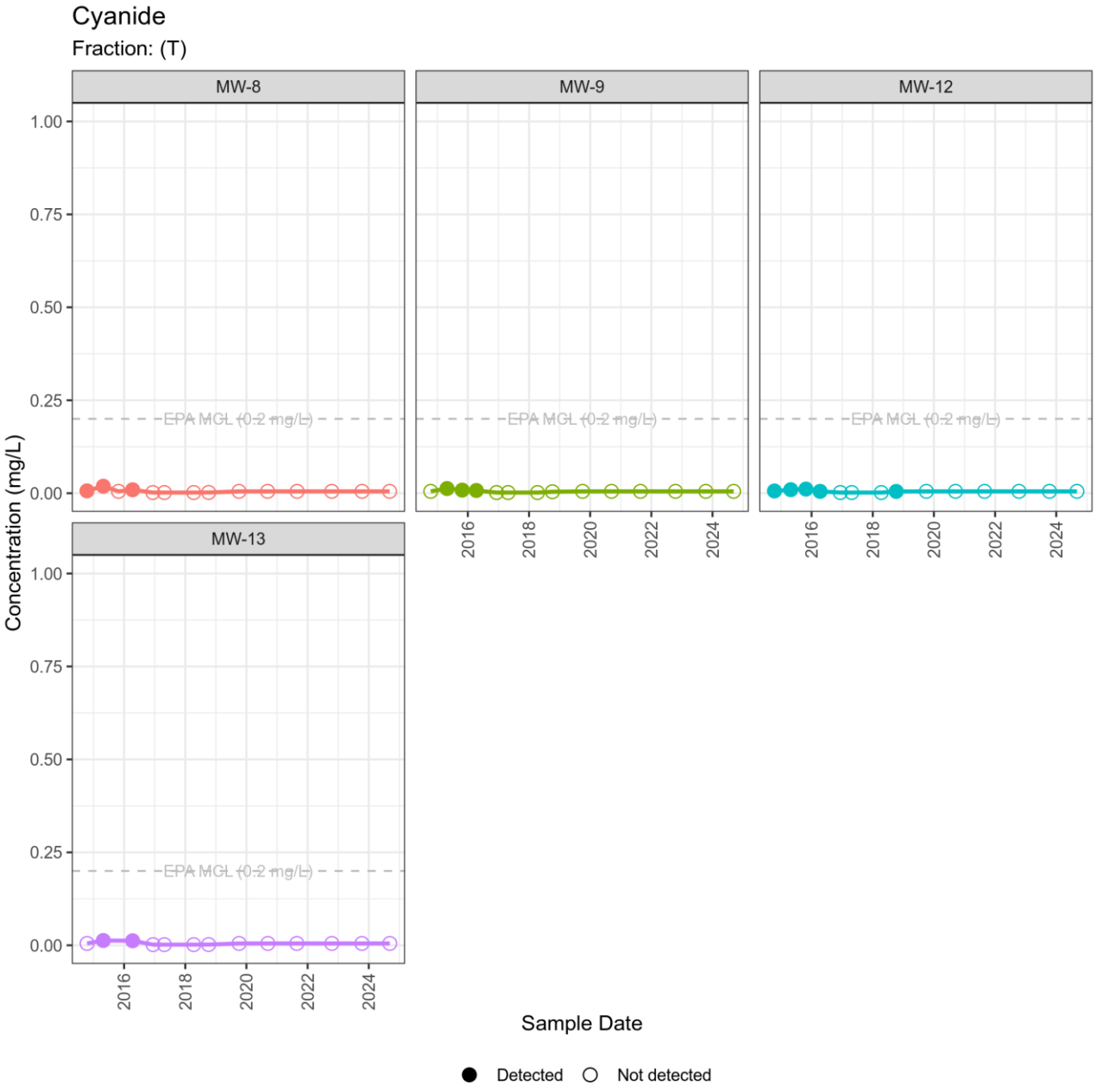
Cobalt


Cobalt
Fraction: (T)
MW-8
MW-9
MW-12
MW-13
Concentration (mg/L)
1.00
0.75
0.50
0.25
0.00
1994
1996
1998
2000
2002
2004
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024
2026
Sample Date
Detected
Not detected

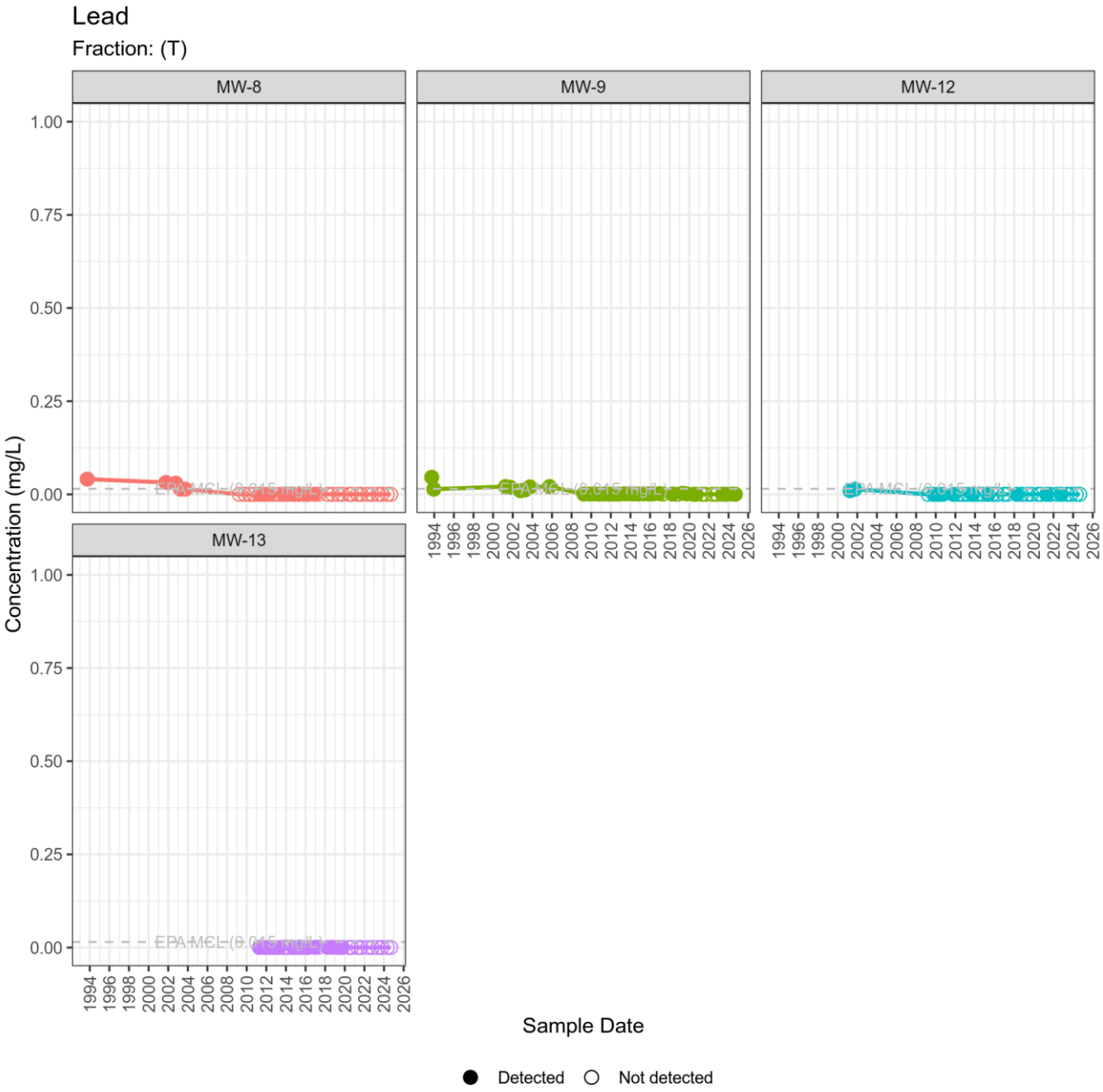
Copper


Copper
Fraction: (T)
MW-8
MW-9
MW-12
MW-13
EPA MCL (1.3 mg/L)
Concentration (mg/L)
0.0
0.5
1.0
1.5
2.0
1994
1996
1998
2000
2002
2004
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024
2026
Sample Date
Detected
Not detected

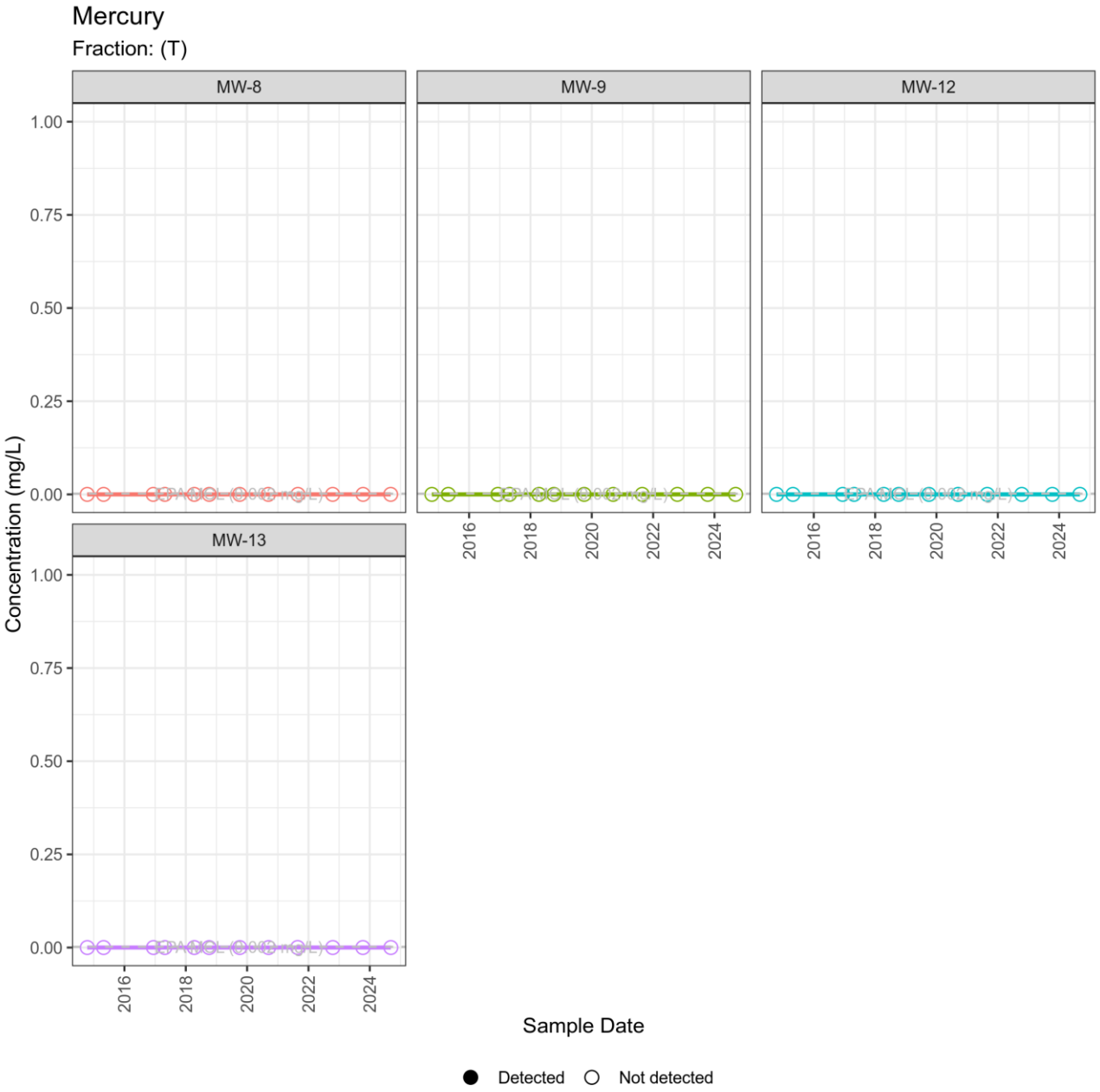
Cyanide


Cyanide
Fraction: (T)
MW-8
MW-9
MW-12
MW-13
EPA MCL (0.2 mg/L)
Concentration (mg/L)
1.00
0.75
0.50
0.25
0.00
2016
2018
2020
2022
2024
Sample Date
Detected
Not detected

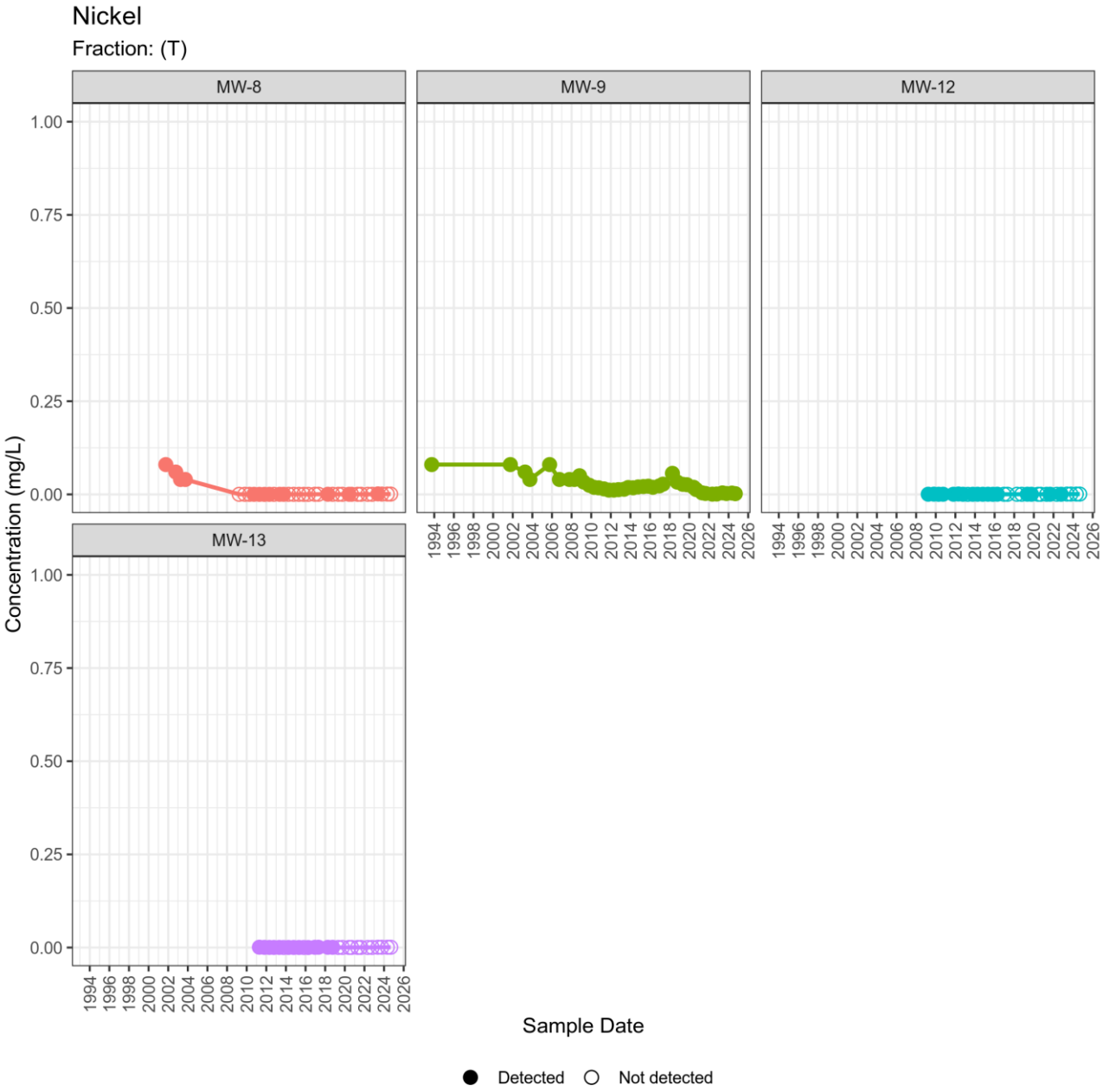
Lead


Lead
Fraction: (T)
MW-8
MW-9
MW-12
MW-13
Concentration (mg/L)
1.00
0.75
0.50
0.25
0.00
EPA MCL (0.015 mg/L)
1994
1996
1998
2000
2002
2004
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024
2026
Sample Date
Detected
Not detected

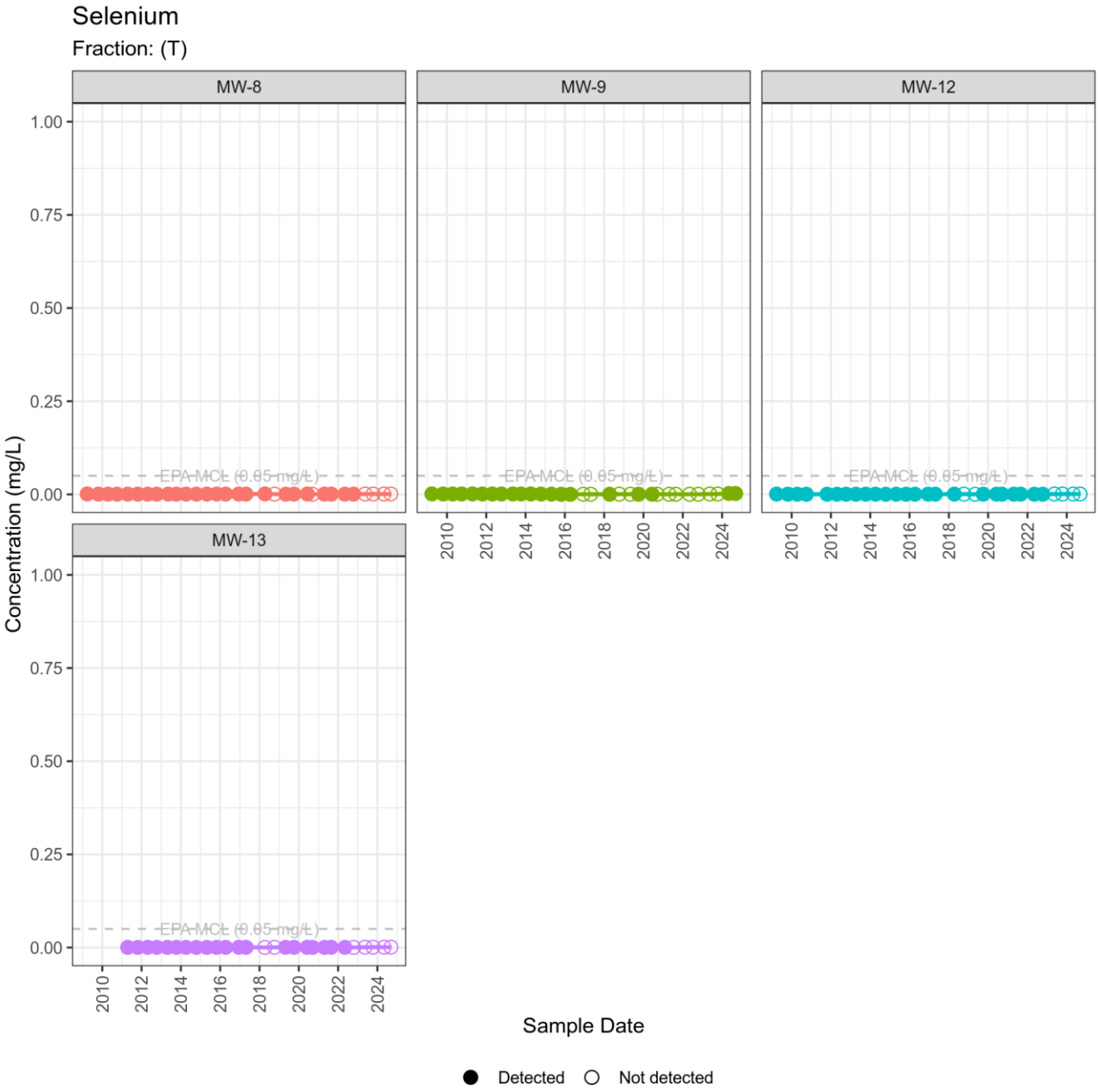
Mercury


Mercury
Fraction: (T)
MW-8
MW-9
MW-12
MW-13
1.00
0.75
0.50
0.25
0.00
Concentration (mg/L)
2016
2018
2020
2022
2024
Sample Date
Detected
Not detected

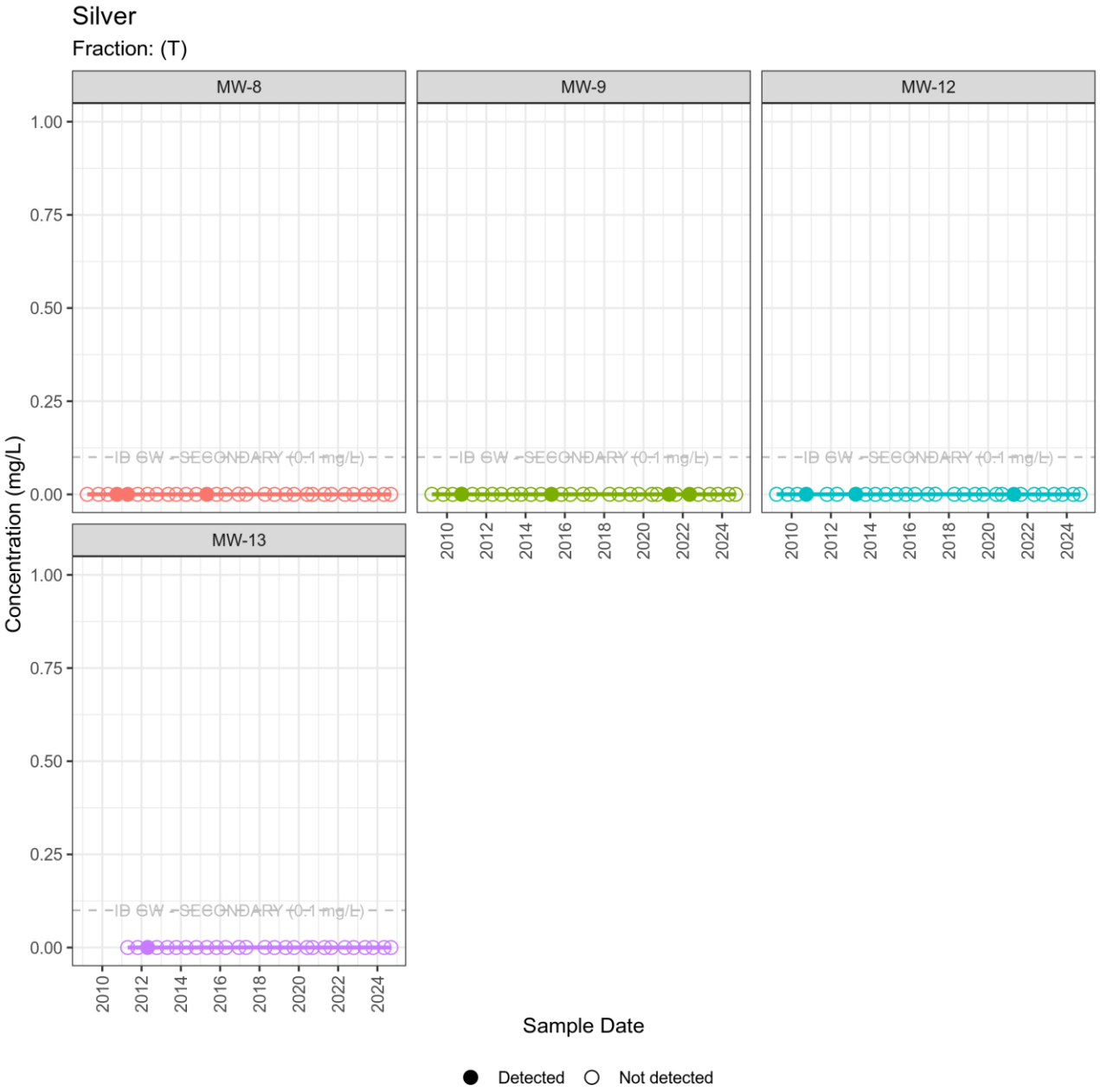
Nickel


Nickel
Fraction: (T)
MW-8
MW-9
MW-12
MW-13
Concentration (mg/L)
1.00
0.75
0.50
0.25
0.00
1994
1996
1998
2000
2002
2004
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024
2026
Sample Date
Detected
Not detected

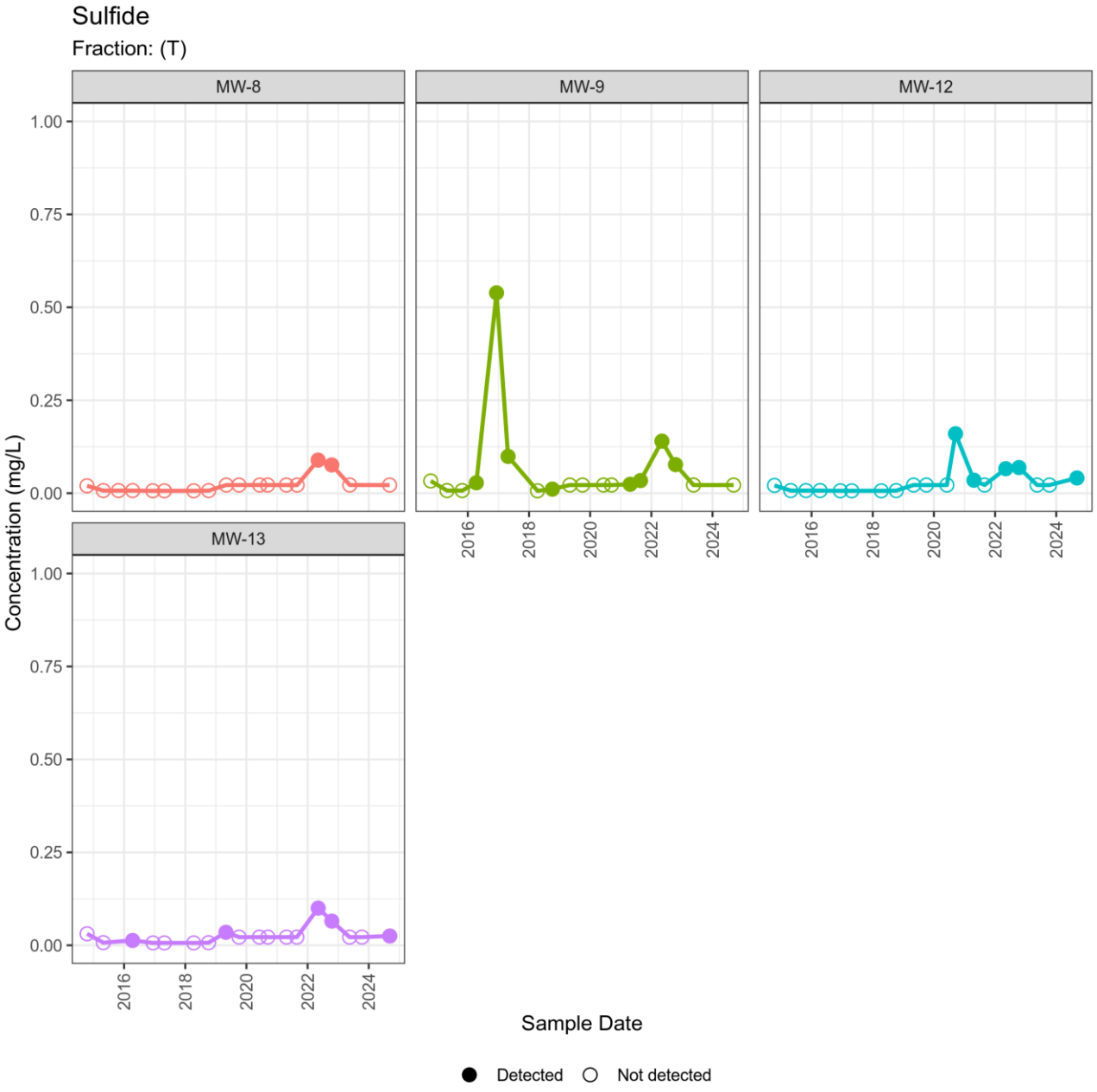
Selenium


Selenium
Fraction: (T)
MW-8
MW-9
MW-12
MW-13
EPA MCL (0.05 mg/L)
Concentration (mg/L)
1.00
0.75
0.50
0.25
0.00
2010
2012
2014
2016
2018
2020
2022
2024
Sample Date
Detected
Not detected

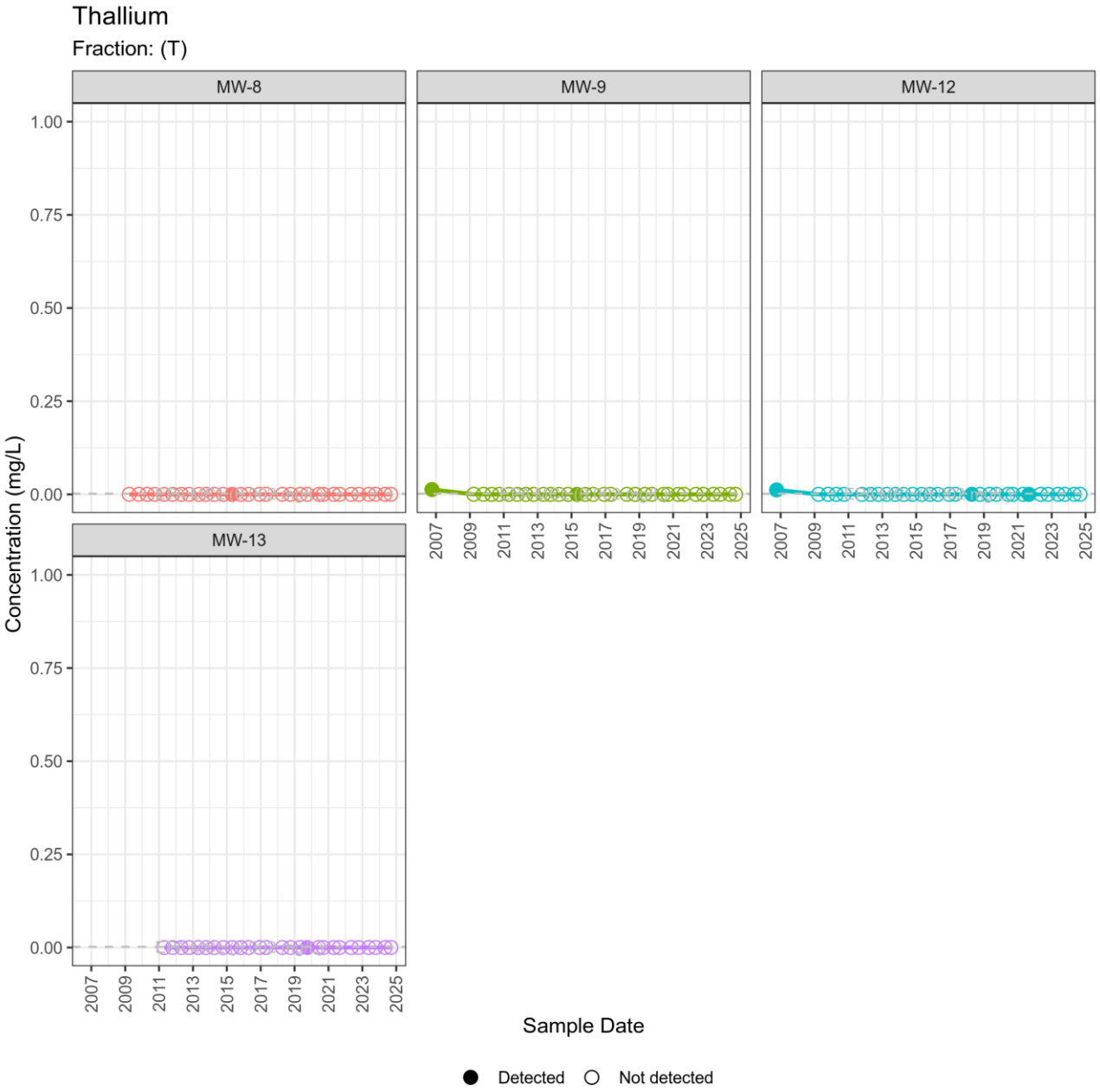
Silver


Silver
Fraction: (T)
MW-8
MW-9
MW-12
MW-13
ID GW - SECONDARY (0.1 mg/L)
Concentration (mg/L)
1.00
0.75
0.50
0.25
0.00
2010
2012
2014
2016
2018
2020
2022
2024
Sample Date
Detected
Not detected

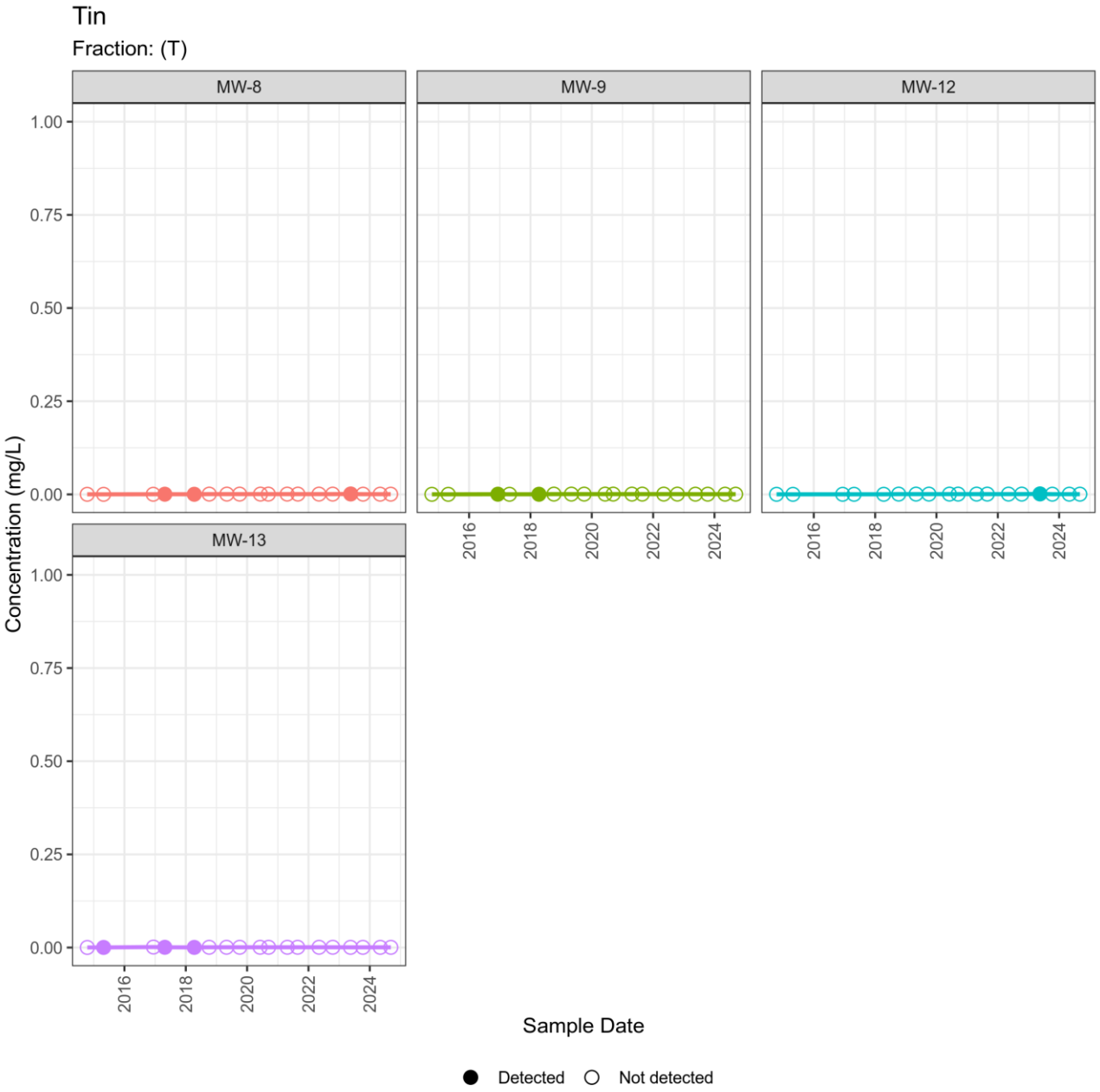
Sulfide


Sulfide
Fraction: (T)
MW-8
MW-9
MW-12
MW-13
Concentration (mg/L)
1.00
0.75
0.50
0.25
0.00
2016
2018
2020
2022
2024
Sample Date
Detected
Not detected

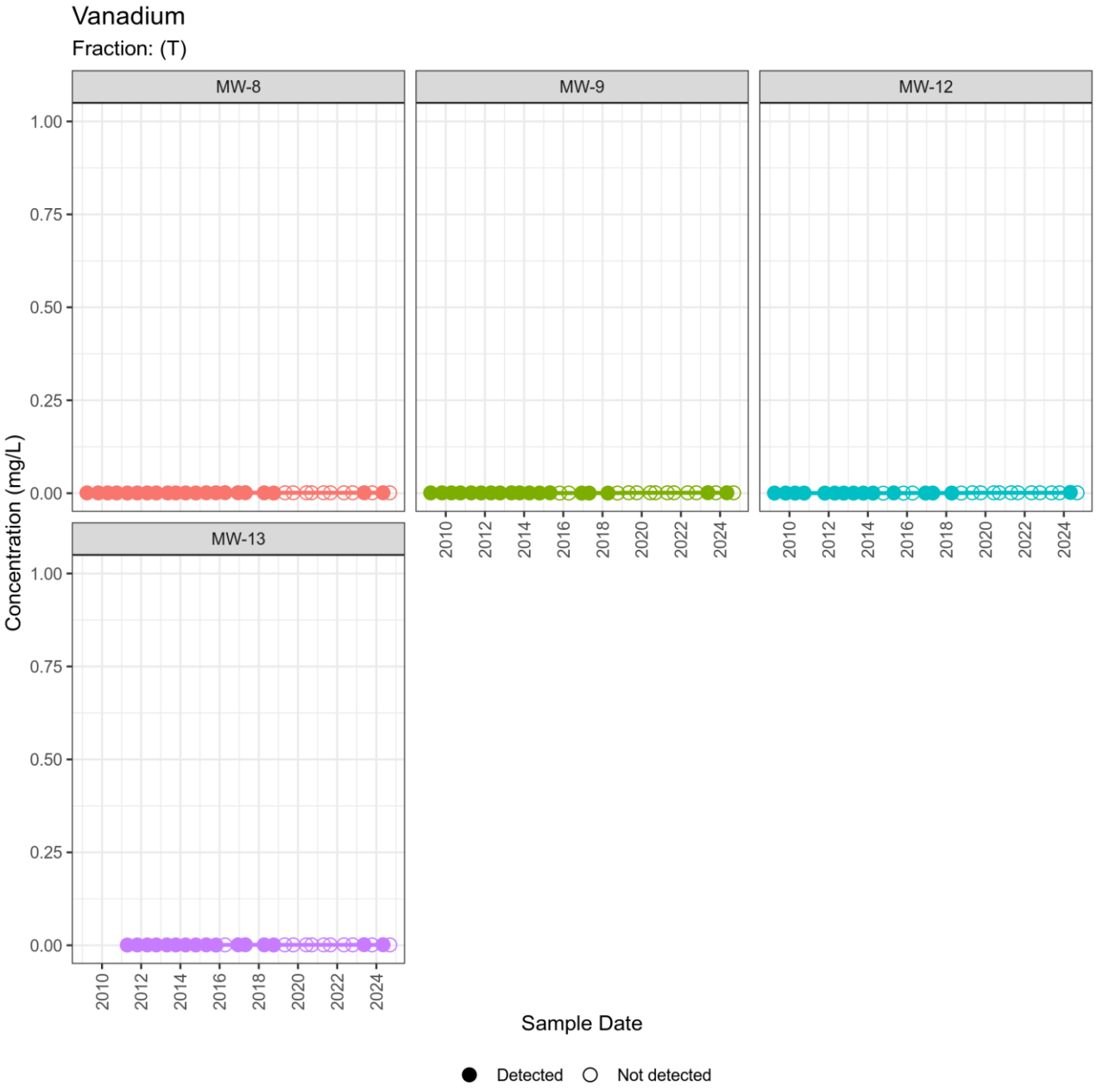
Thallium


Thallium
Fraction: (T)
MW-8
MW-9
MW-12
MW-13
Concentration (mg/L)
1.00
0.75
0.50
0.25
0.00
2007
2009
2011
2013
2015
2017
2019
2021
2023
2025
Sample Date
Detected
Not detected

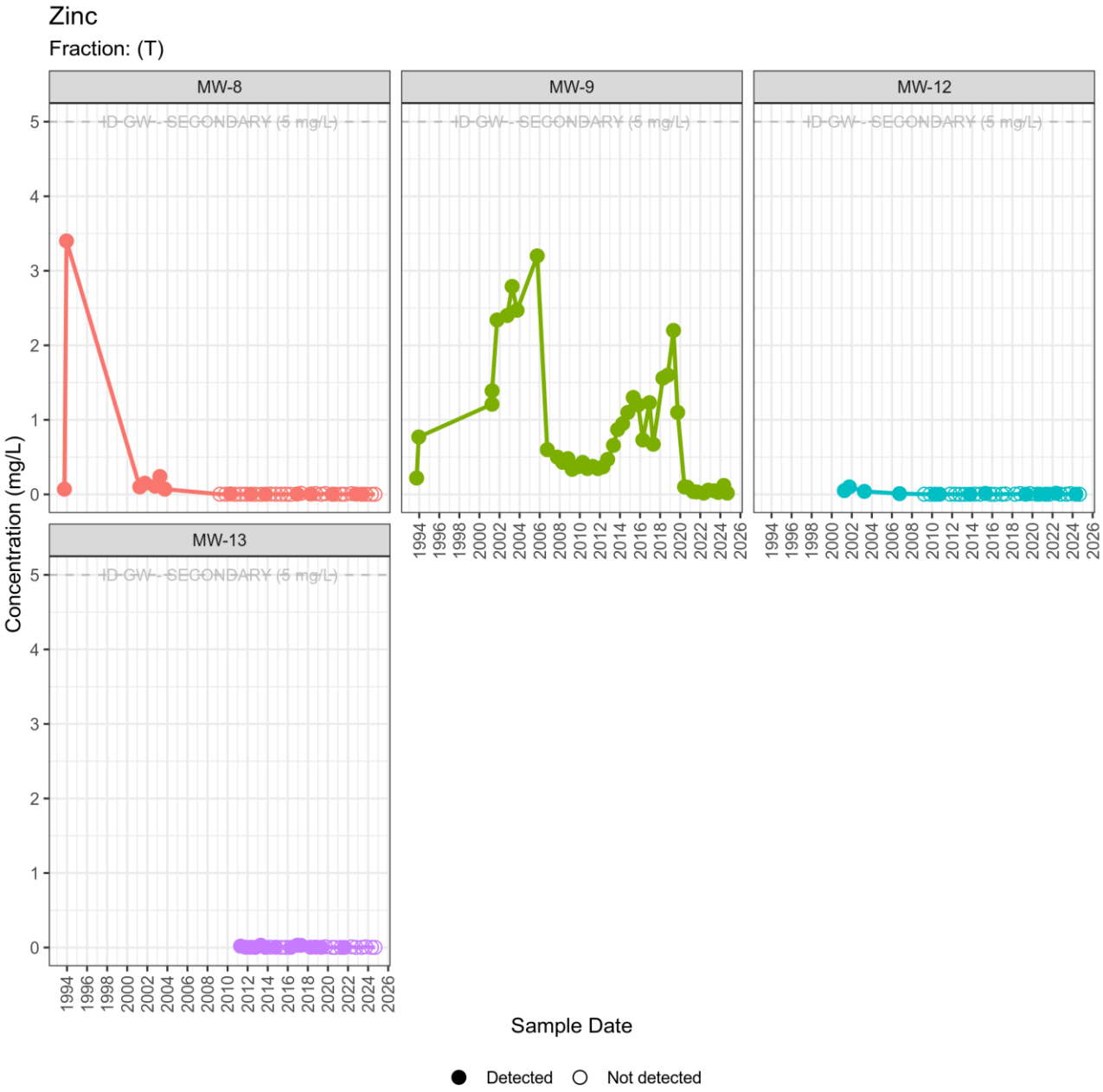
Tin


Tin
Fraction: (T)
MW-8
MW-9
MW-12
MW-13
Concentration (mg/L)
1.00
0.75
0.50
0.25
0.00
2016
2018
2020
2022
2024
Sample Date
Detected
Not detected

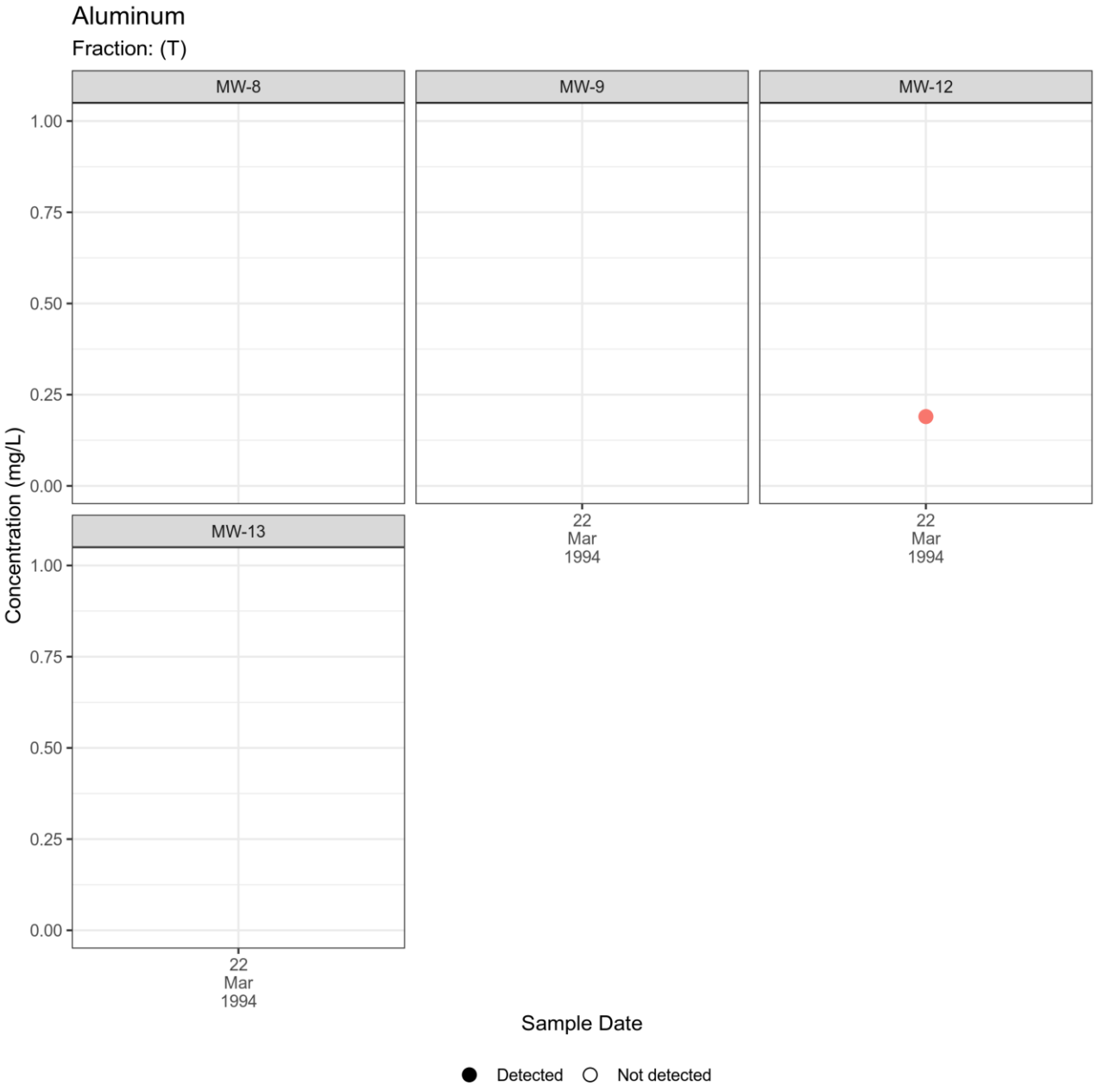
Vanadium


Vanadium
Fraction: (T)
MW-8
MW-9
MW-12
MW-13
Concentration (mg/L)
1.00
0.75
0.50
0.25
0.00
2010
2012
2014
2016
2018
2020
2022
2024
Sample Date
Detected
Not detected

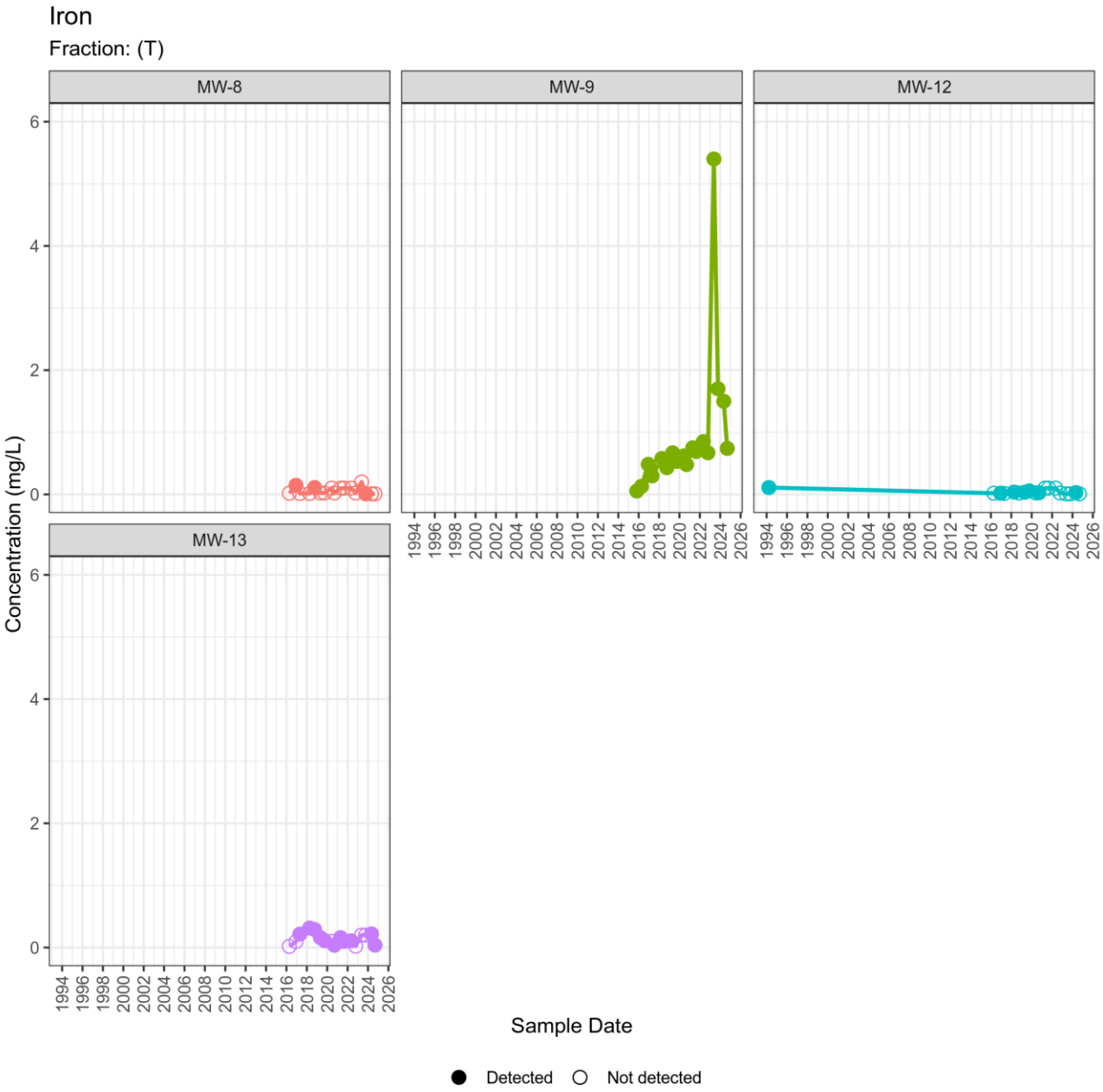
Zinc


Zinc
Fraction: (T)
MW-8
MW-9
MW-12
MW-13
ID-GW - SECONDARY (5 mg/L)
Concentration (mg/L)
Sample Date
Detected
Not detected

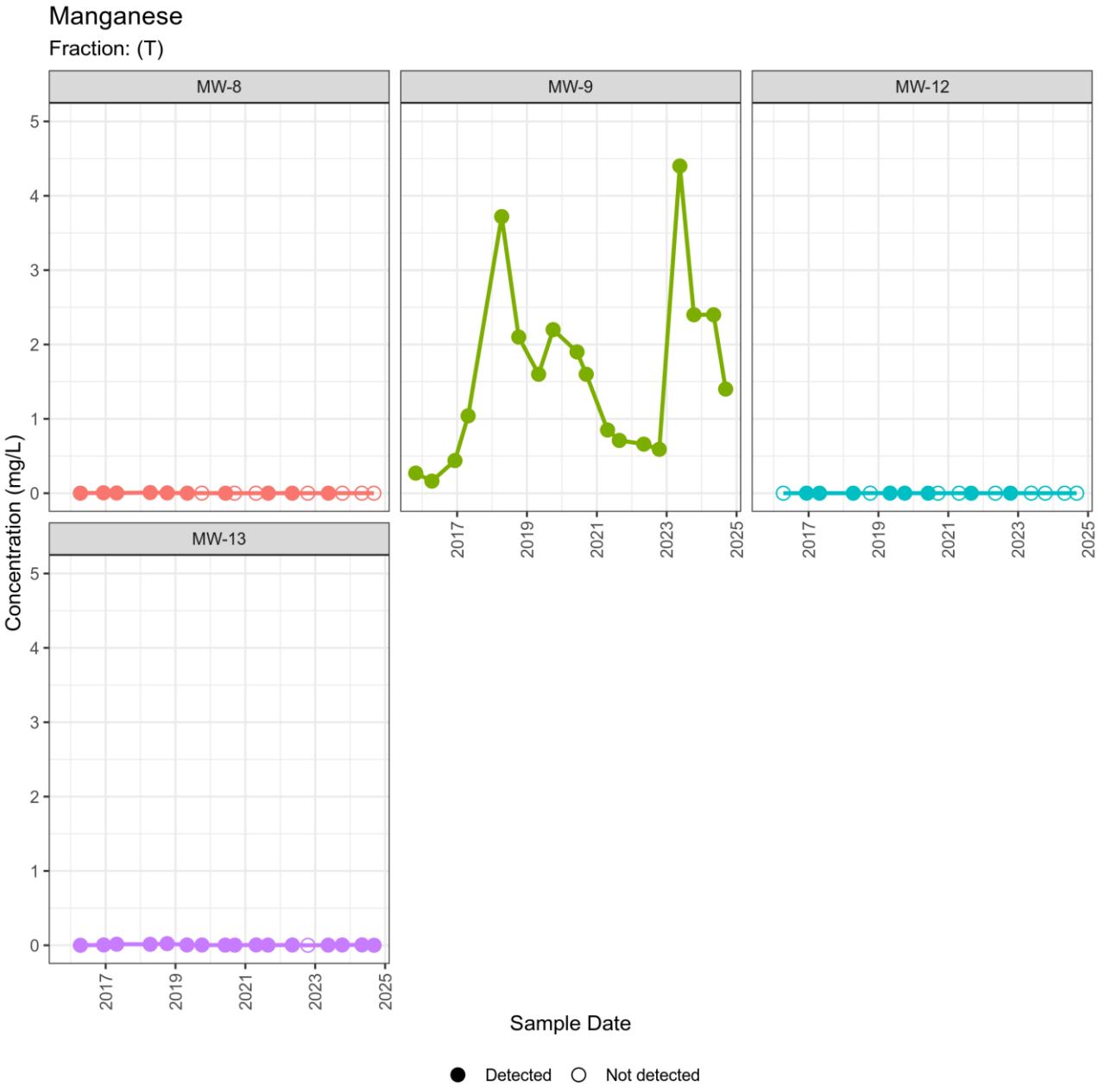
Aluminum


Aluminum
Fraction: (T)
MW-8
MW-9
MW-12
MW-13
1.00
0.75
0.50
0.25
0.00
Concentration (mg/L)
22
Mar
1994
Sample Date
Detected
Not detected

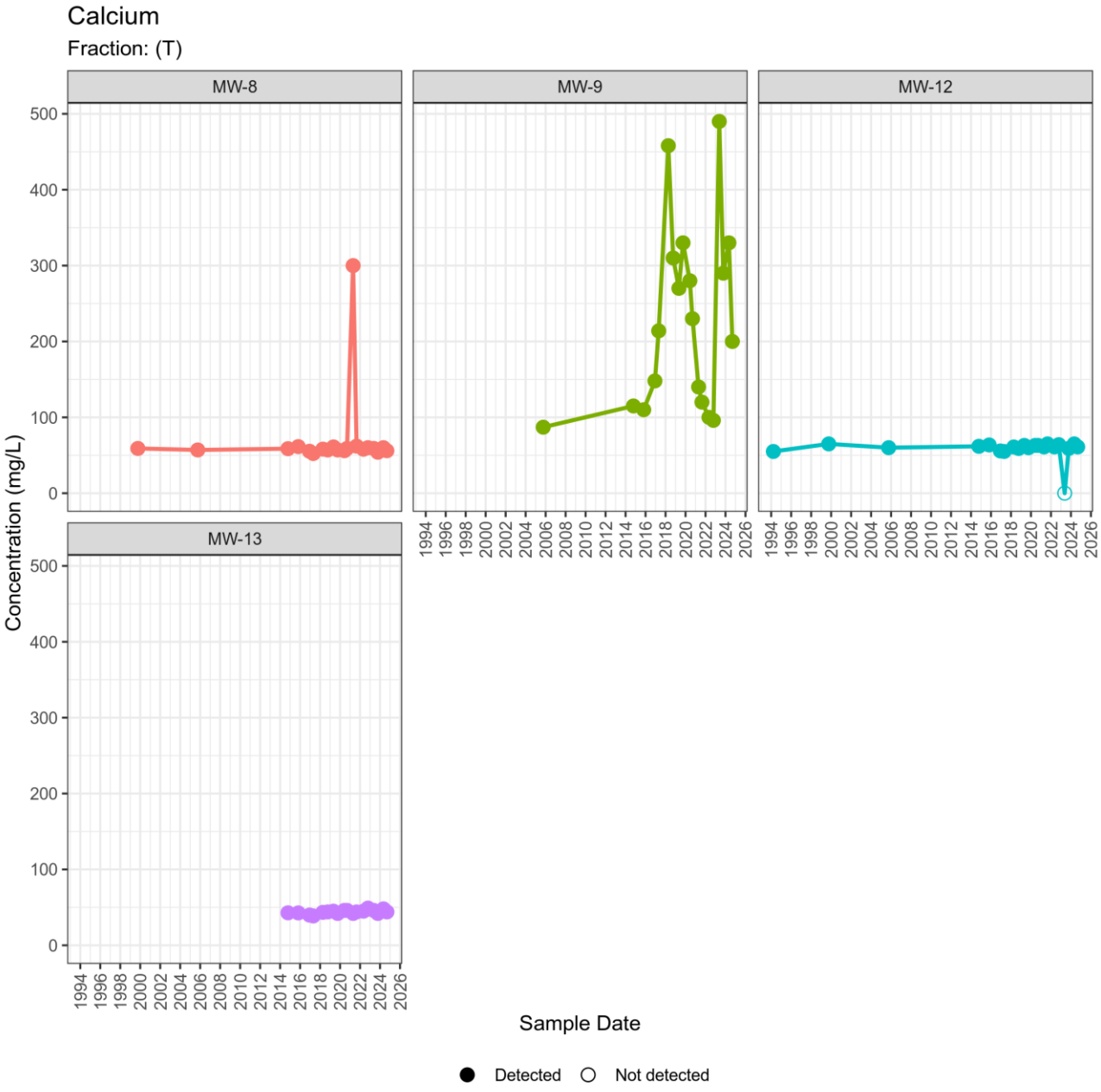
Iron


Iron
Fraction: (T)
MW-8
MW-9
MW-12
MW-13
Concentration (mg/L)
0
2
4
6
1994
1996
1998
2000
2002
2004
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024
2026
Sample Date
Detected
Not detected

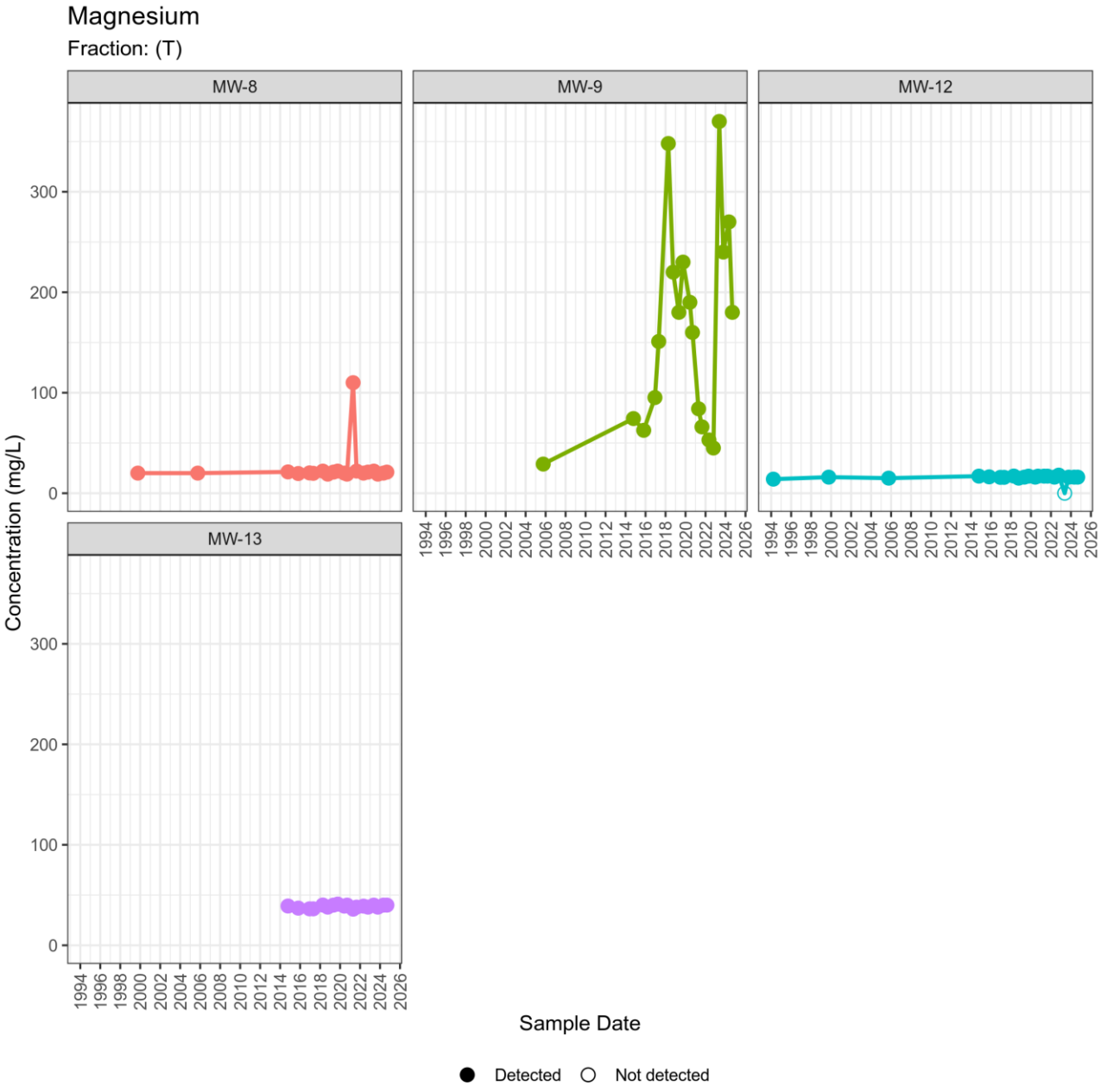
Manganese


Manganese
Fraction: (T)
MW-8
MW-9
MW-12
MW-13
Concentration (mg/L)
0
1
2
3
4
5
2017
2019
2021
2023
2025
Sample Date
Detected
Not detected

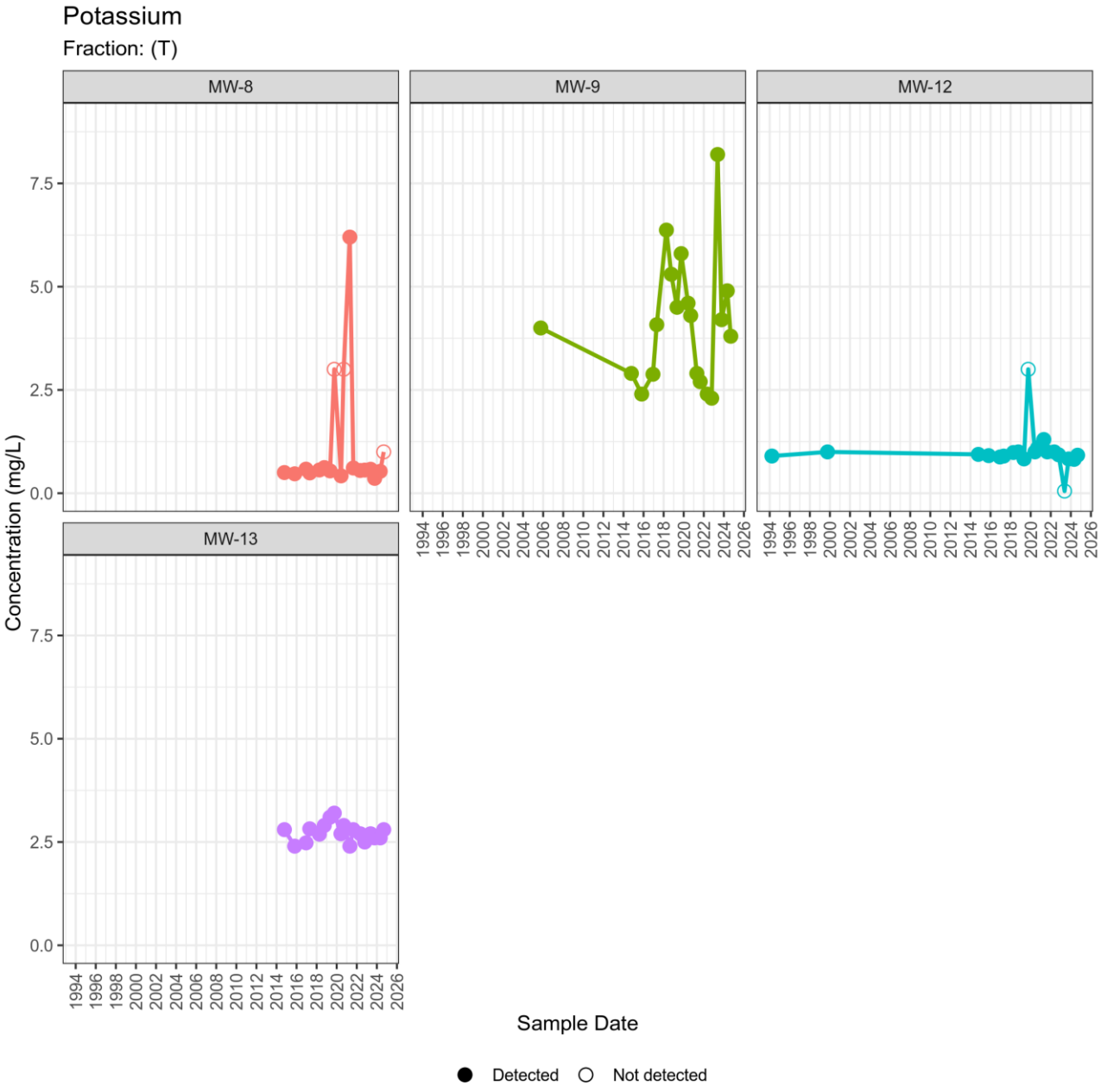
Calcium


Calcium
Fraction: (T)
MW-8
MW-9
MW-12
MW-13
Concentration (mg/L)
0
100
200
300
400
500
1994
1996
1998
2000
2002
2004
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024
2026
Sample Date
Detected
Not detected

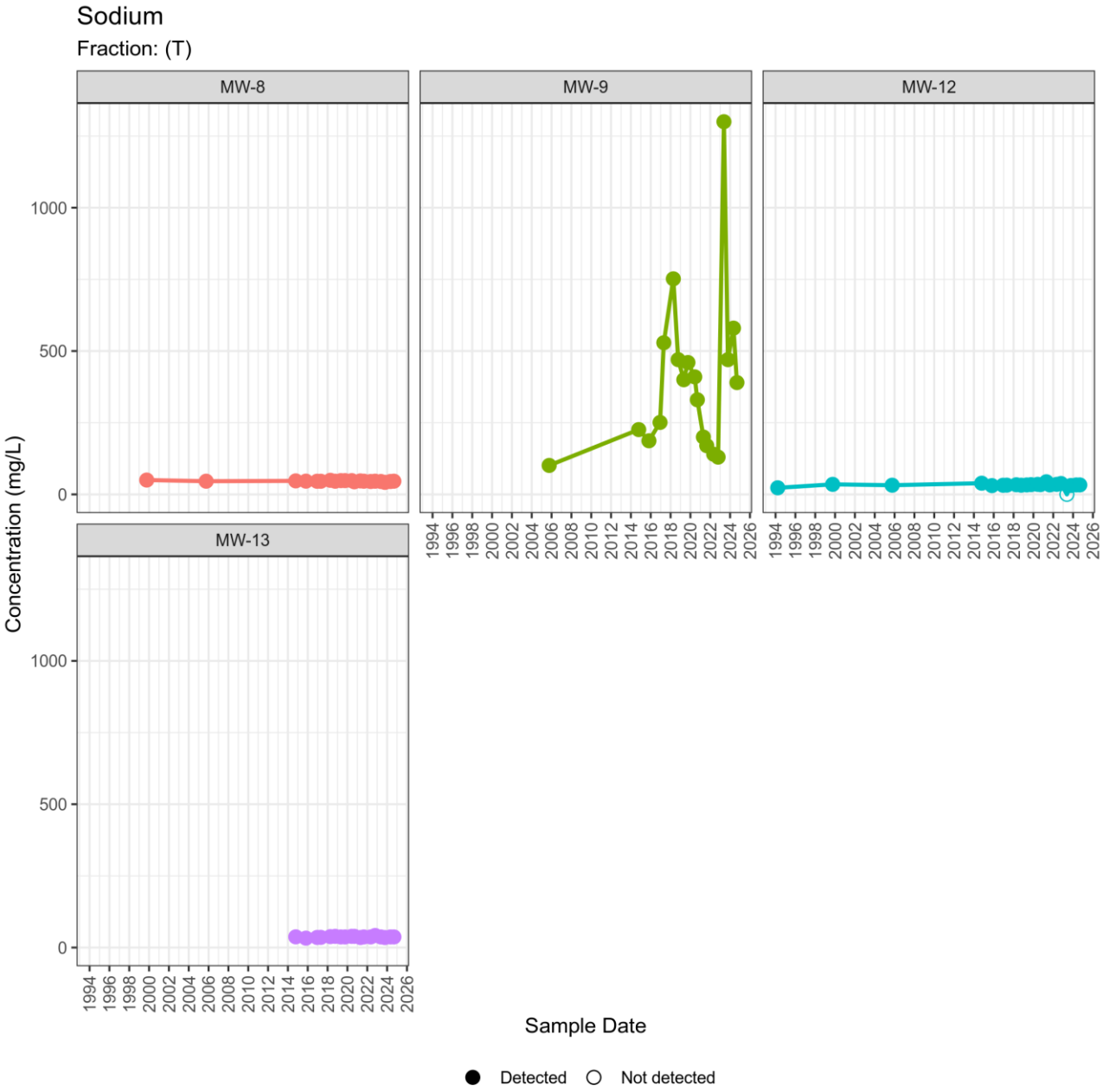
Magnesium


Magnesium
Fraction: (T)
MW-8
MW-9
MW-12
MW-13
Concentration (mg/L)
0
100
200
300
1994
1996
1998
2000
2002
2004
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024
2026
Sample Date
Detected
Not detected

Potassium


Potassium
Fraction: (T)
MW-8
MW-9
MW-12
MW-13
Concentration (mg/L)
0.0
2.5
5.0
7.5
1994
1996
1998
2000
2002
2004
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024
2026
Sample Date
Detected
Not detected

Sodium


Sodium
Fraction: (T)
MW-8
MW-9
MW-12
MW-13
Concentration (mg/L)
0
500
1000
1994
1996
1998
2000
2002
2004
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024
2026
Sample Date
Detected
Not detected

Inorganic Chemicals Time Series Plots

Data filters

This report is filtered to only include:

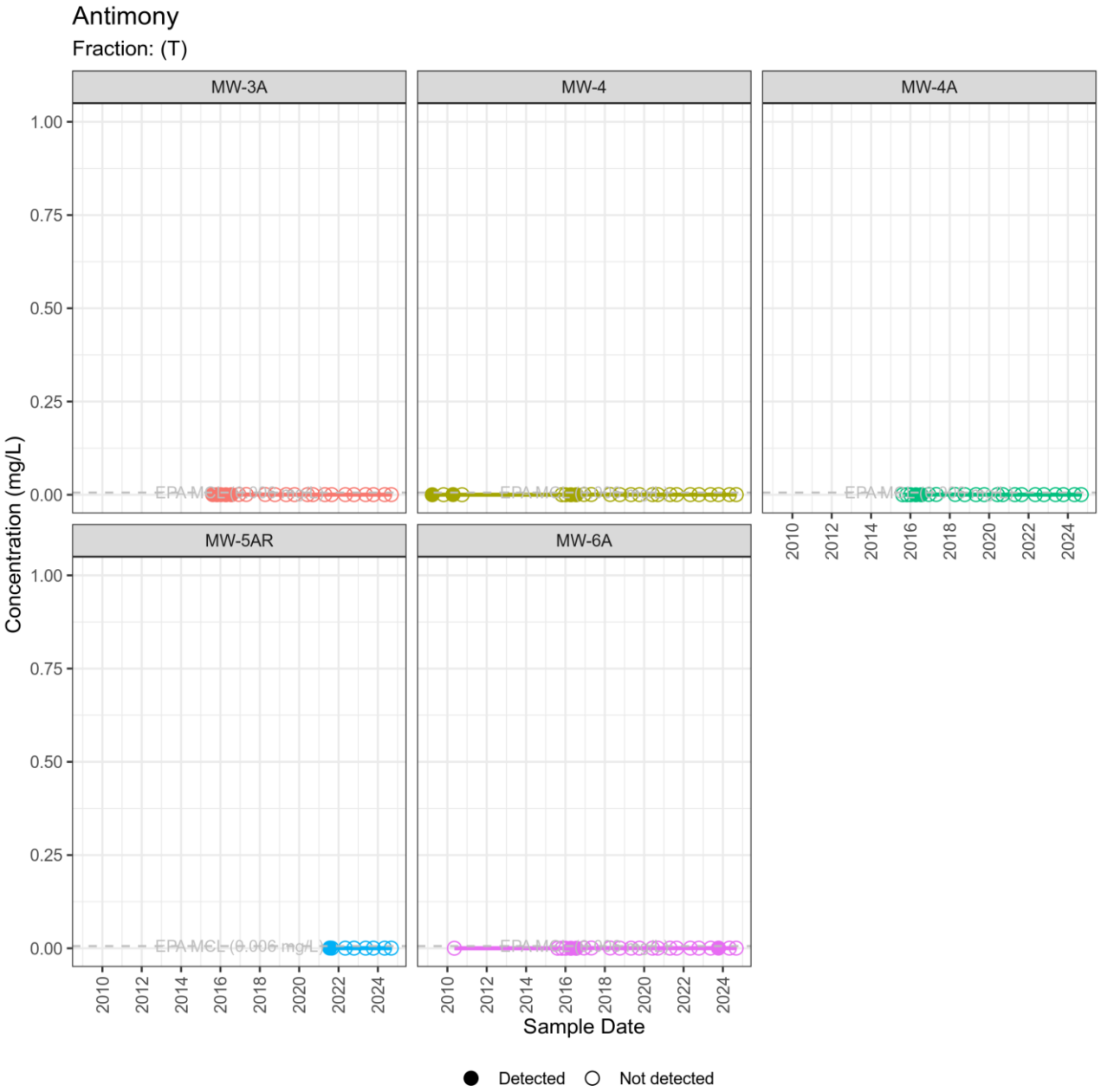
- **MW-3A, MW-4, MW-4A, MW-5AR, and MW-6A** from **Cell 4 Monitoring Well**
- Results from **01 January 1990** to **10 September 2024**
- Fraction: **T**
- Inorganic analytes: **All inorganics**

Graph notes

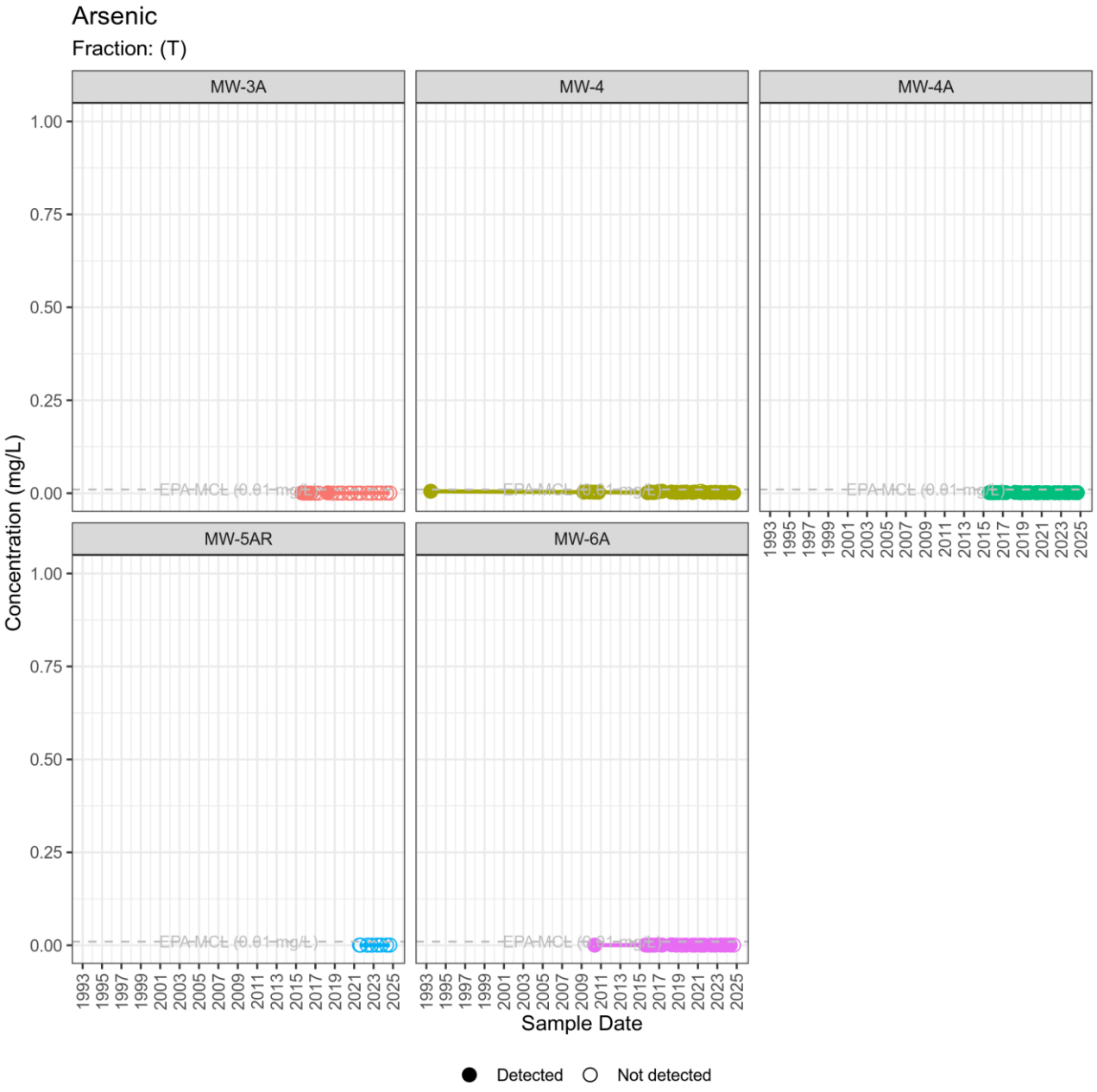
- When only the year is shown in the x-axis label, this represents the start of the year.

Inorganic chemical summaries

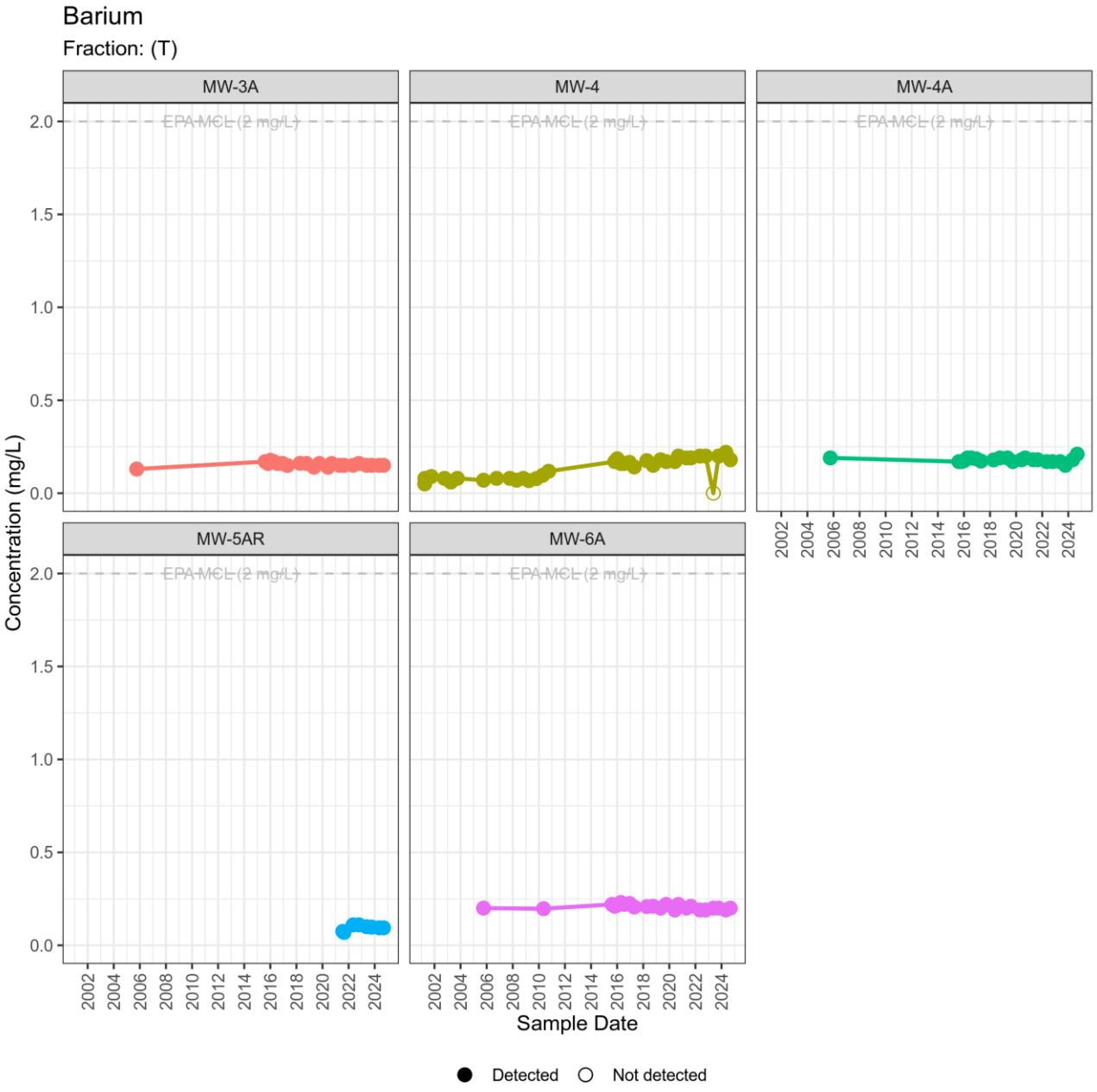
Antimony



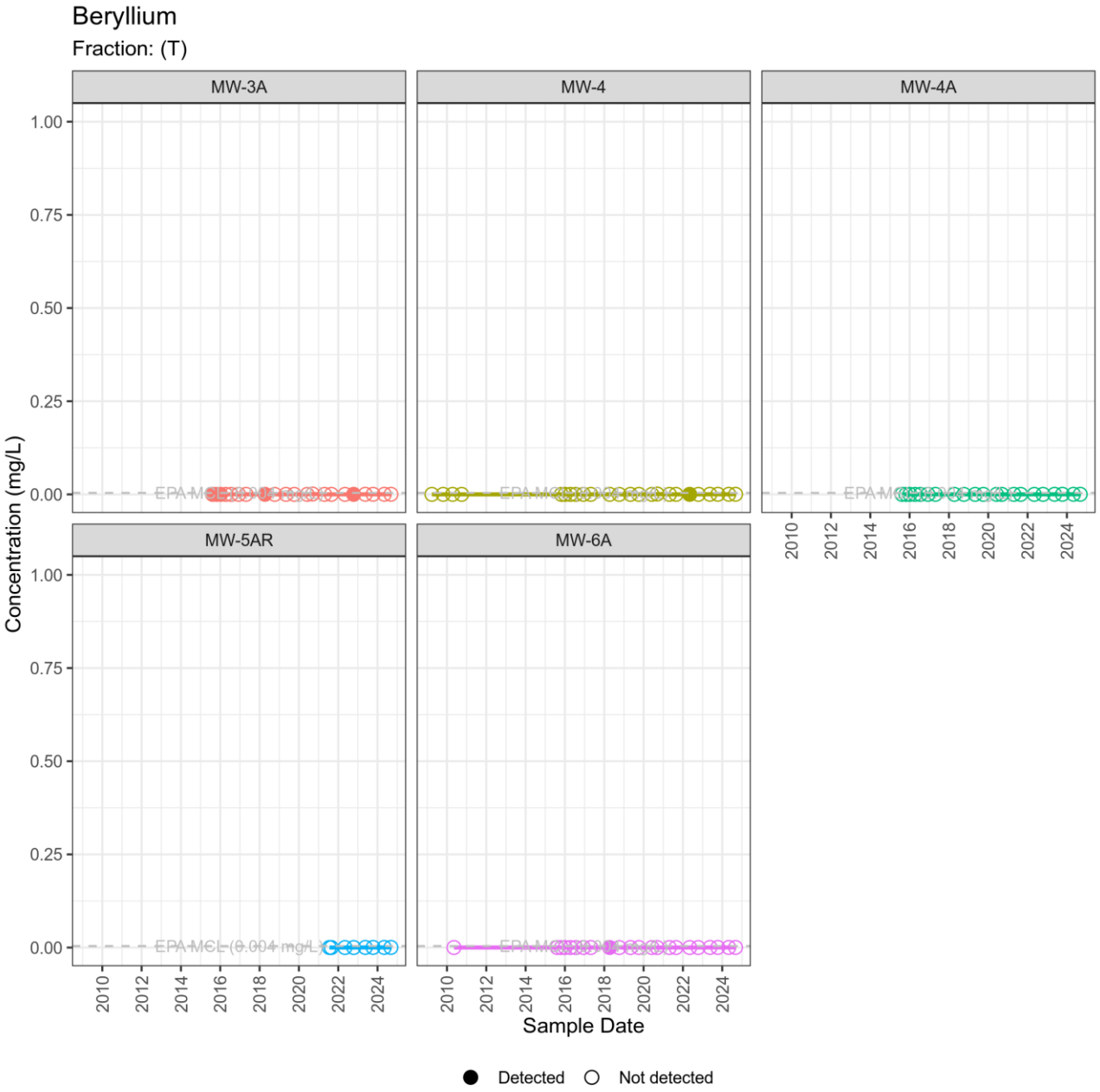
Arsenic


Arsenic
Fraction: (T)
MW-3A
MW-4
MW-4A
MW-5AR
MW-6A
Concentration (mg/L)
1.00
0.75
0.50
0.25
0.00
EPA MCL (0.01 mg/L)
1993
1995
1997
1999
2001
2003
2005
2007
2009
2011
2013
2015
2017
2019
2021
2023
2025
Sample Date
Detected
Not detected

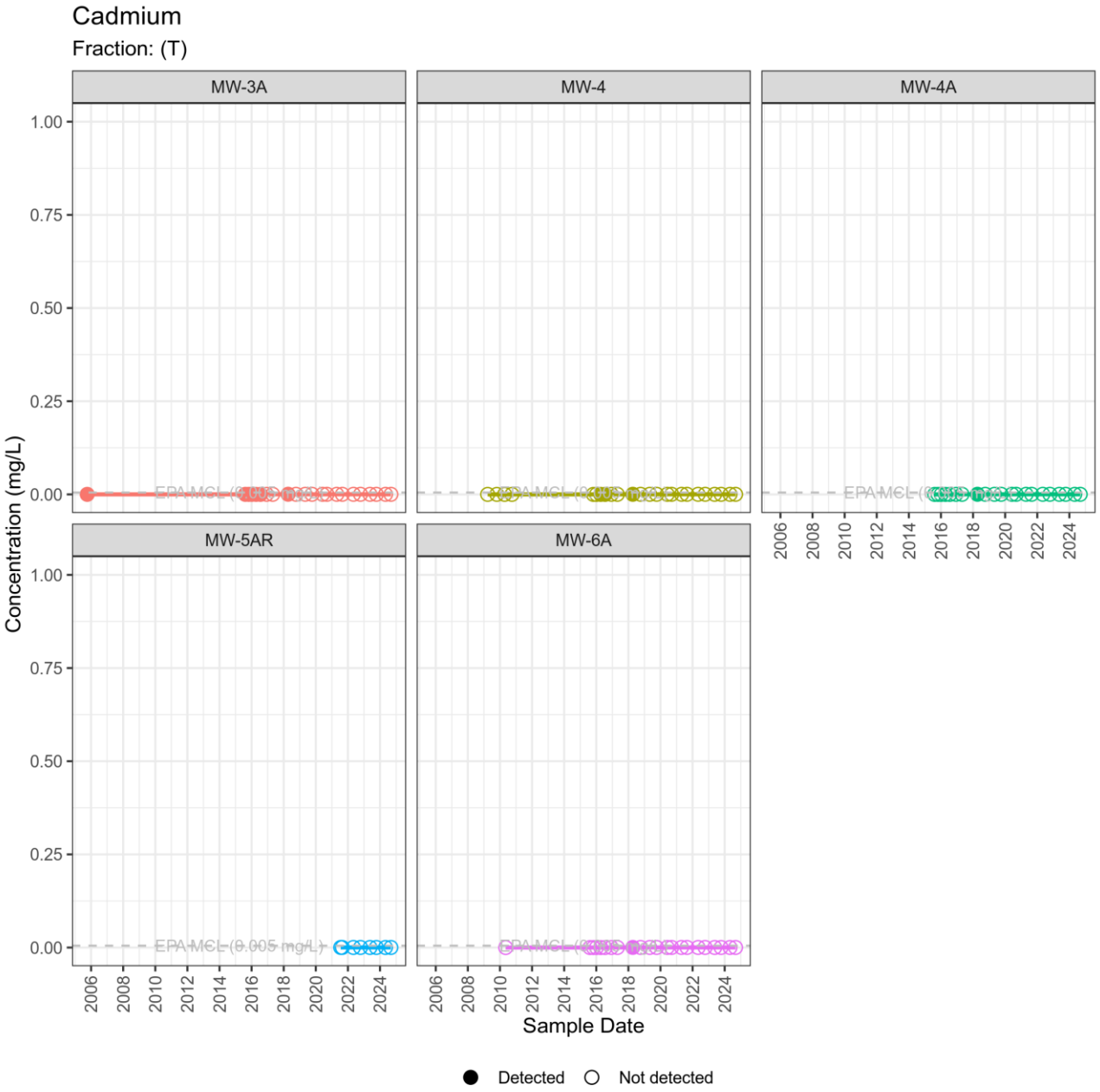
Barium


Barium
Fraction: (T)
MW-3A
MW-4
MW-4A
MW-5AR
MW-6A
EPA MCL (2 mg/L)
Concentration (mg/L)
2.0
1.5
1.0
0.5
0.0
2002
2004
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024
Sample Date
Detected
Not detected

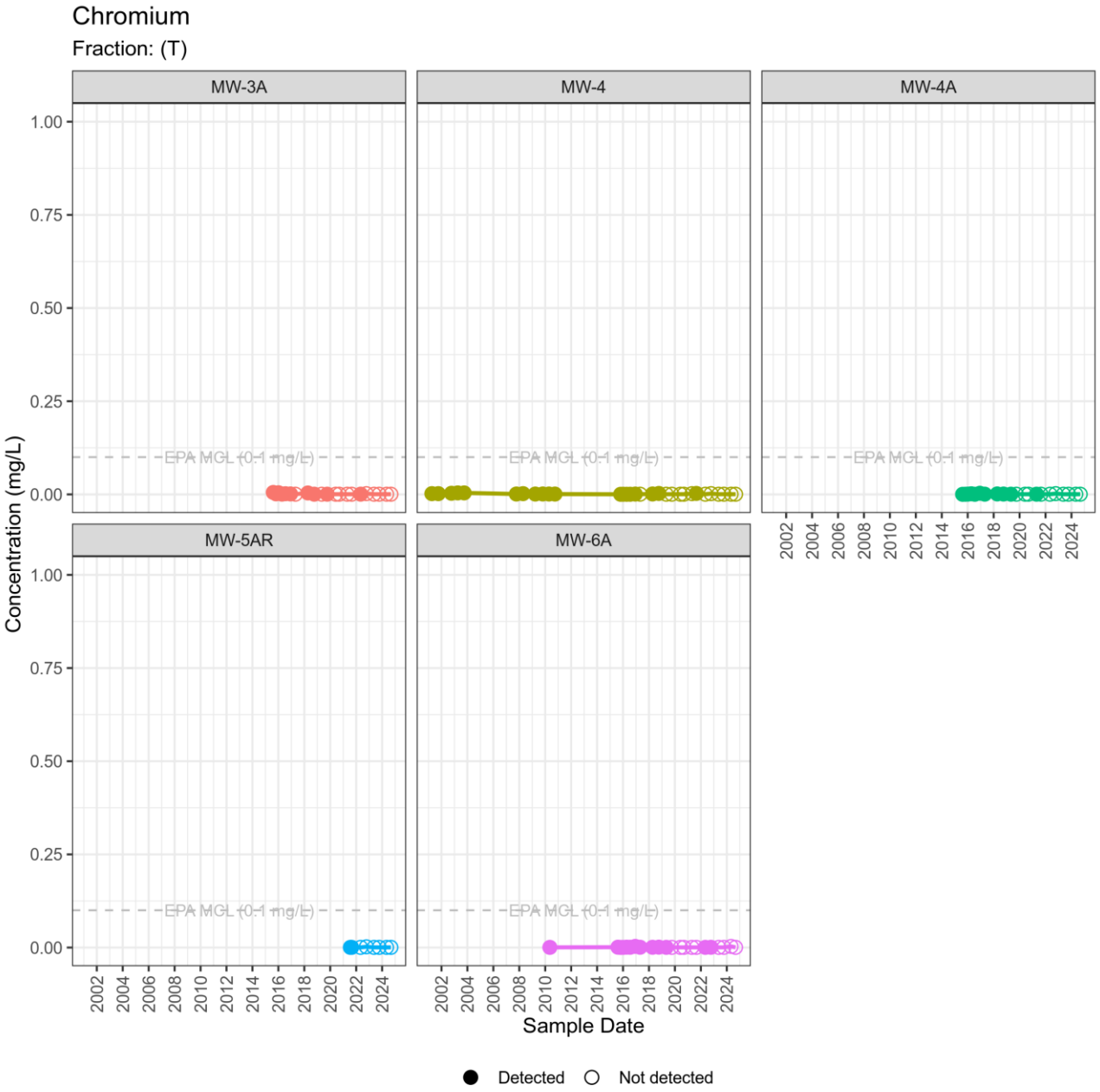
Beryllium


Beryllium
Fraction: (T)
MW-3A
MW-4
MW-4A
MW-5AR
MW-6A
Concentration (mg/L)
1.00
0.75
0.50
0.25
0.00
EPA MCL (0.004 mg/L)
2010
2012
2014
2016
2018
2020
2022
2024
Sample Date
Detected
Not detected

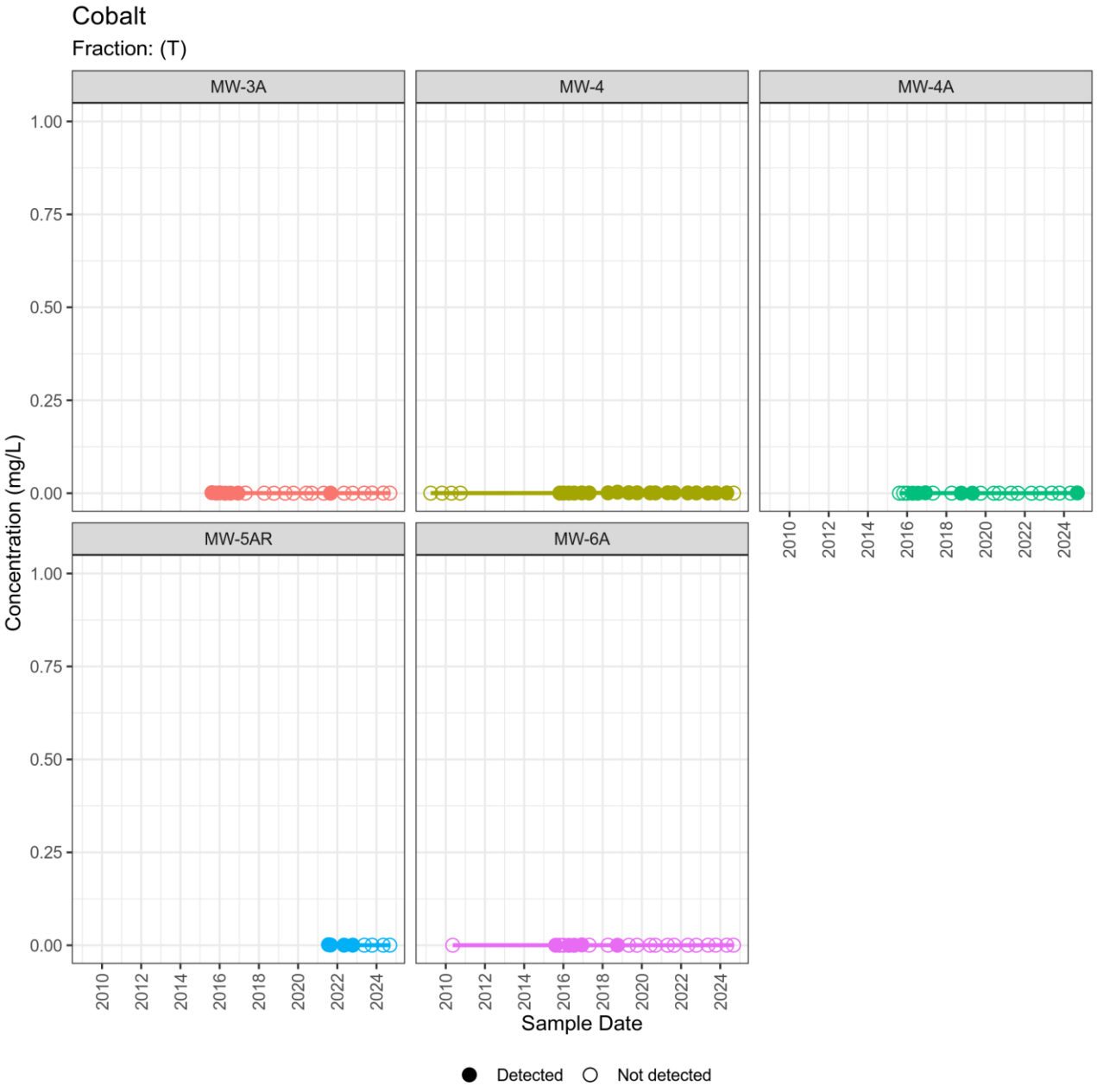
Cadmium


Cadmium
Fraction: (T)
MW-3A
MW-4
MW-4A
MW-5AR
MW-6A
Concentration (mg/L)
1.00
0.75
0.50
0.25
0.00
EPA MCL (0.005 mg/L)
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024
Sample Date
Detected
Not detected

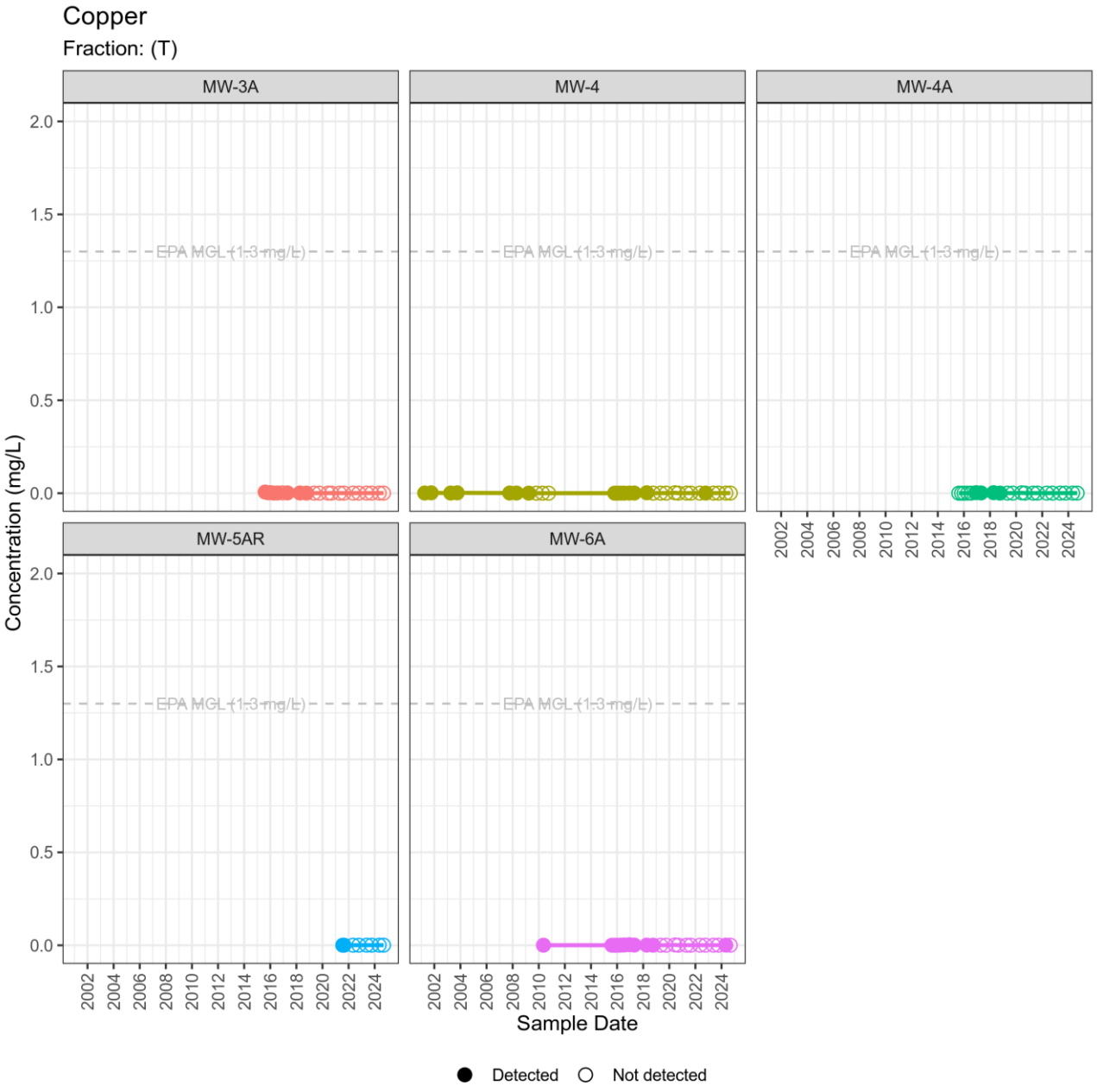
Chromium


Chromium
Fraction: (T)
MW-3A
MW-4
MW-4A
MW-5AR
MW-6A
EPA MCL (0.1 mg/L)
Concentration (mg/L)
1.00
0.75
0.50
0.25
0.00
2002
2004
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024
Sample Date
Detected
Not detected

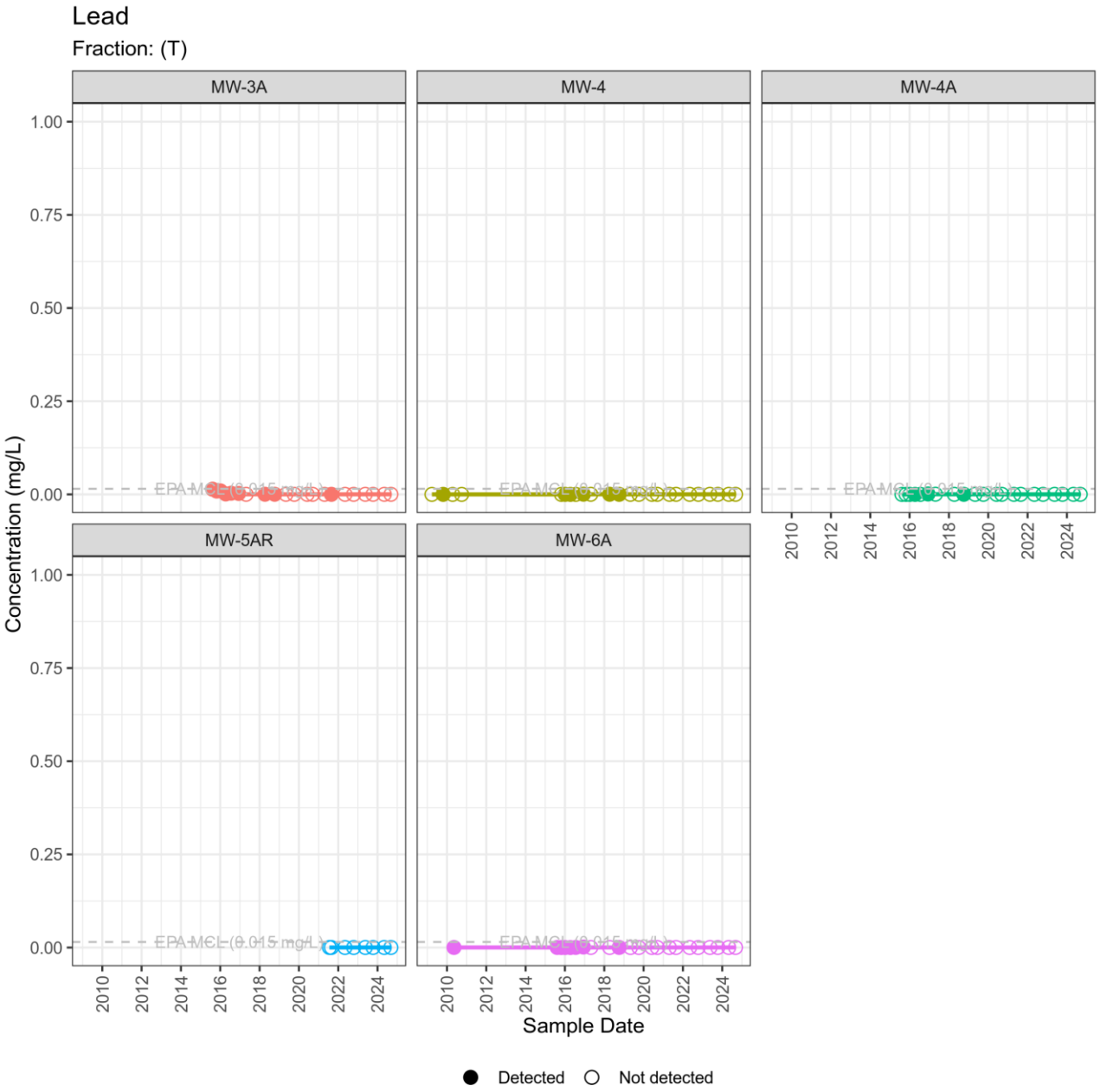
Cobalt


Cobalt
Fraction: (T)
MW-3A
MW-4
MW-4A
MW-5AR
MW-6A
Concentration (mg/L)
1.00
0.75
0.50
0.25
0.00
2010
2012
2014
2016
2018
2020
2022
2024
Sample Date
Detected
Not detected

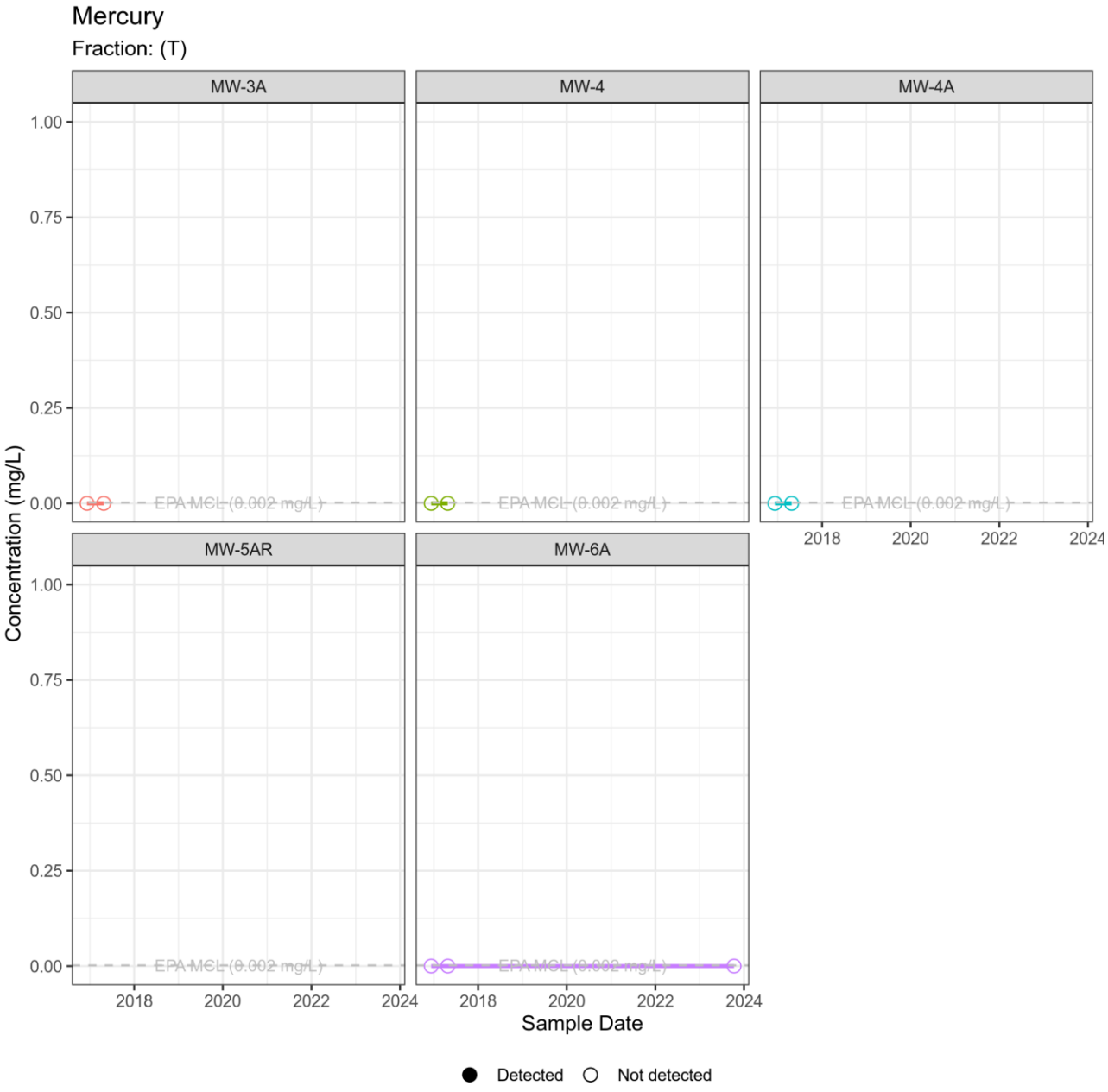
Copper


Copper
Fraction: (T)
MW-3A
MW-4
MW-4A
MW-5AR
MW-6A
EPA MCL (1.3 mg/L)
Concentration (mg/L)
0.0
0.5
1.0
1.5
2.0
2002
2004
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024
Sample Date
Detected
Not detected

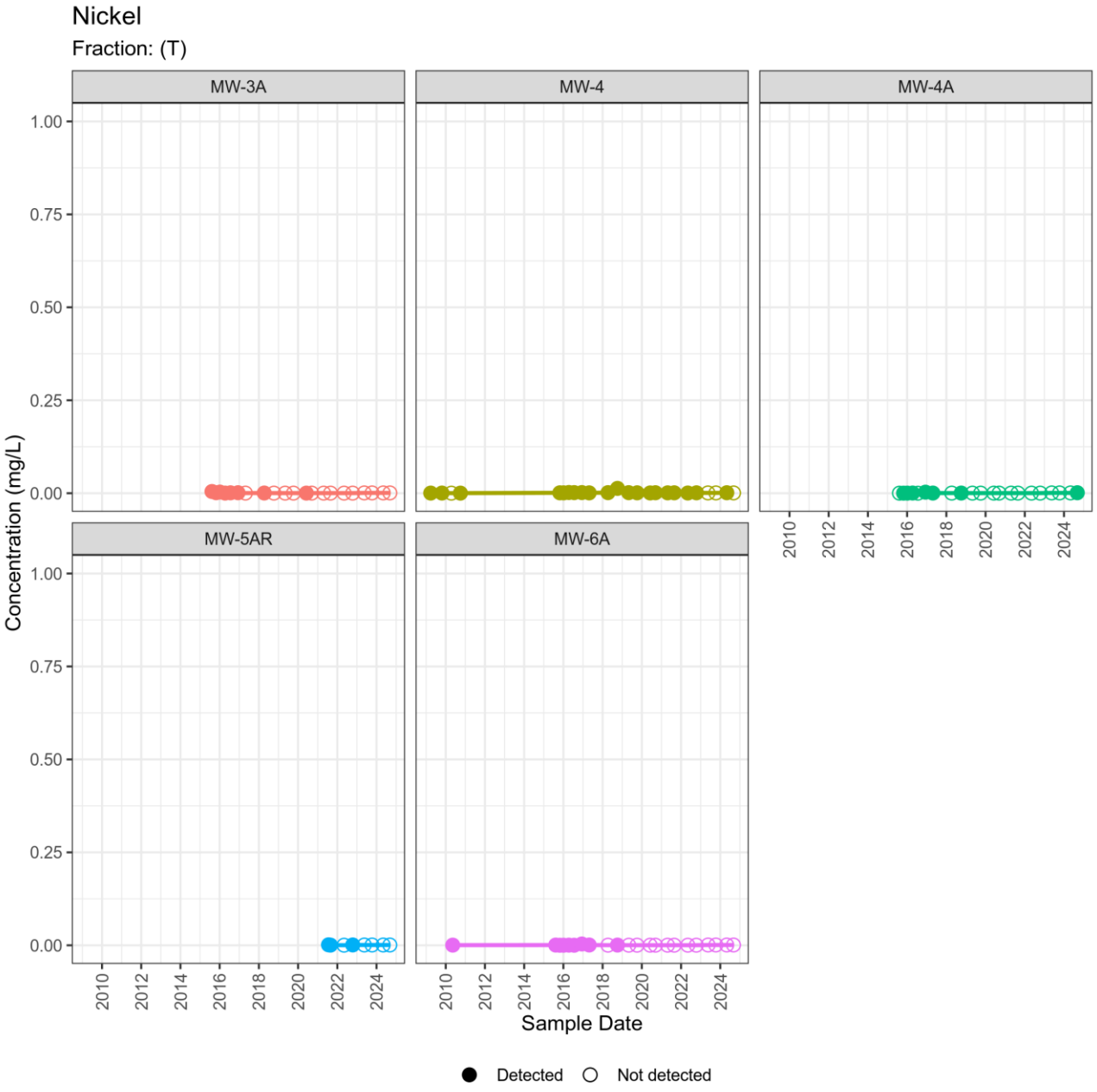
Lead


Lead
Fraction: (T)
MW-3A
MW-4
MW-4A
MW-5AR
MW-6A
Concentration (mg/L)
1.00
0.75
0.50
0.25
0.00
EPA MCL (0.015 mg/L)
2010
2012
2014
2016
2018
2020
2022
2024
Sample Date
Detected
Not detected

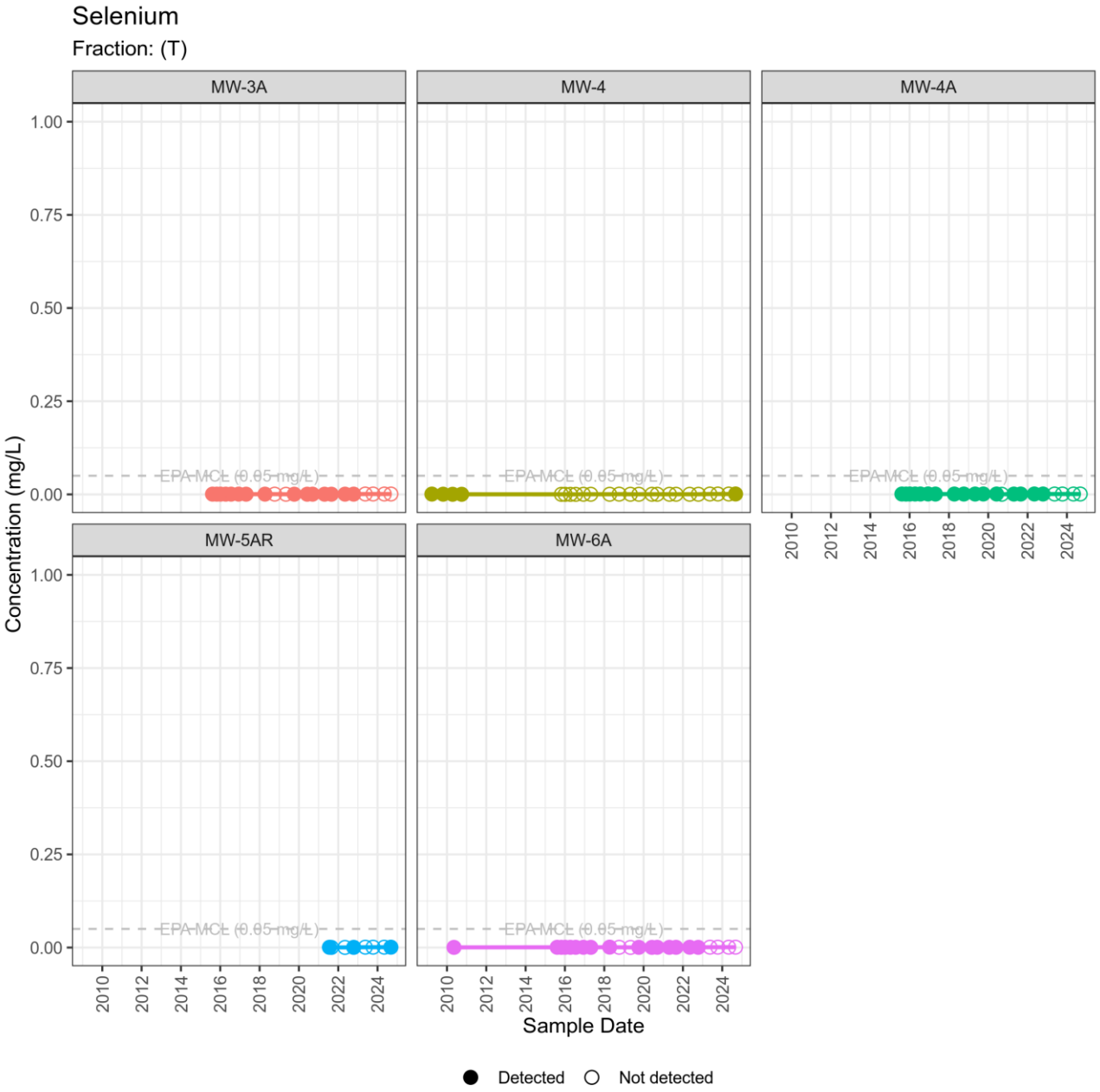
Mercury


Mercury
Fraction: (T)
MW-3A
MW-4
MW-4A
MW-5AR
MW-6A
Concentration (mg/L)
1.00
0.75
0.50
0.25
0.00
EPA MCL (0.002 mg/L)
2018
2020
2022
2024
Sample Date
Detected
Not detected

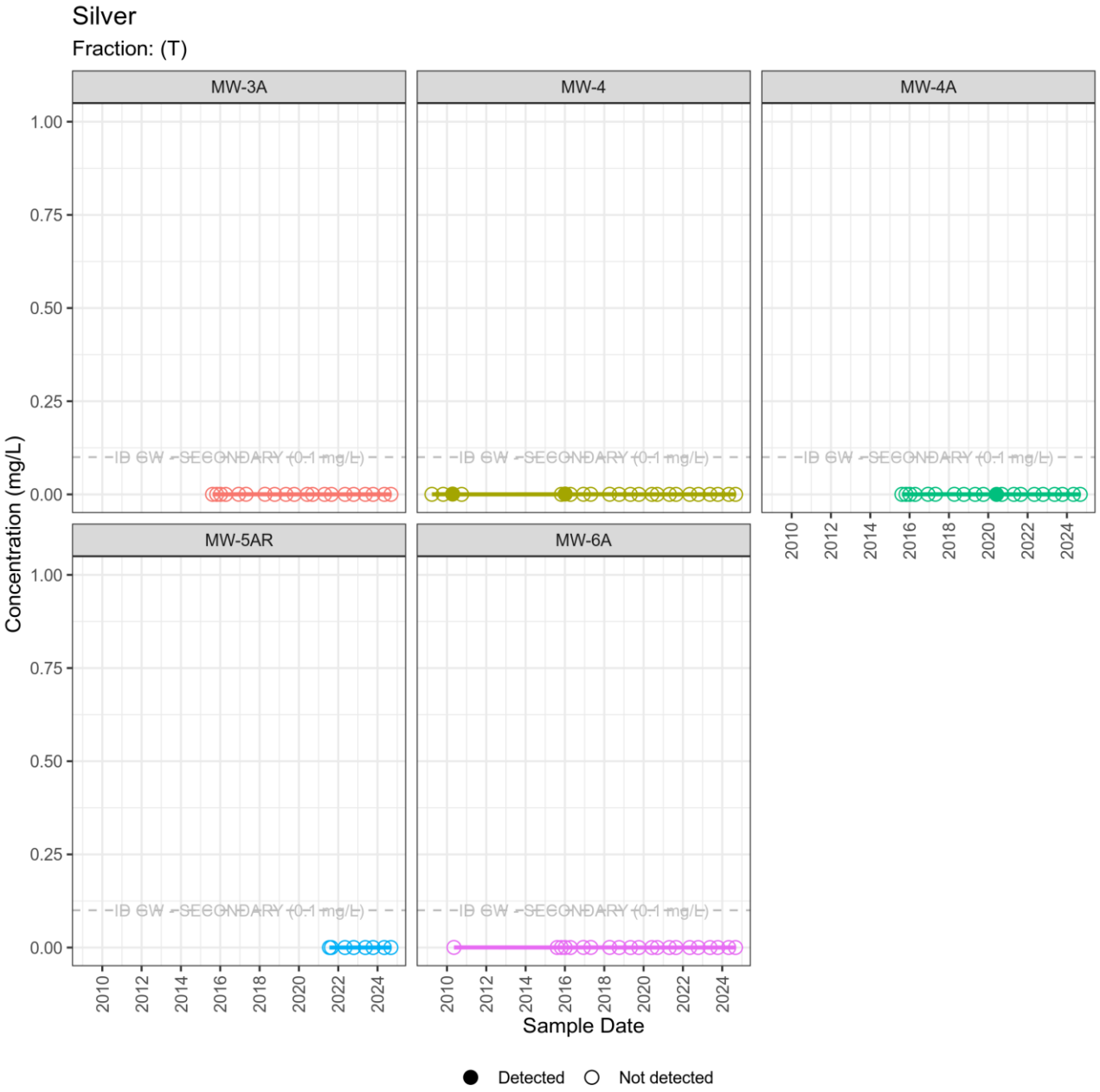
Nickel


Nickel
Fraction: (T)
MW-3A
MW-4
MW-4A
MW-5AR
MW-6A
Concentration (mg/L)
1.00
0.75
0.50
0.25
0.00
2010
2012
2014
2016
2018
2020
2022
2024
Sample Date
Detected
Not detected

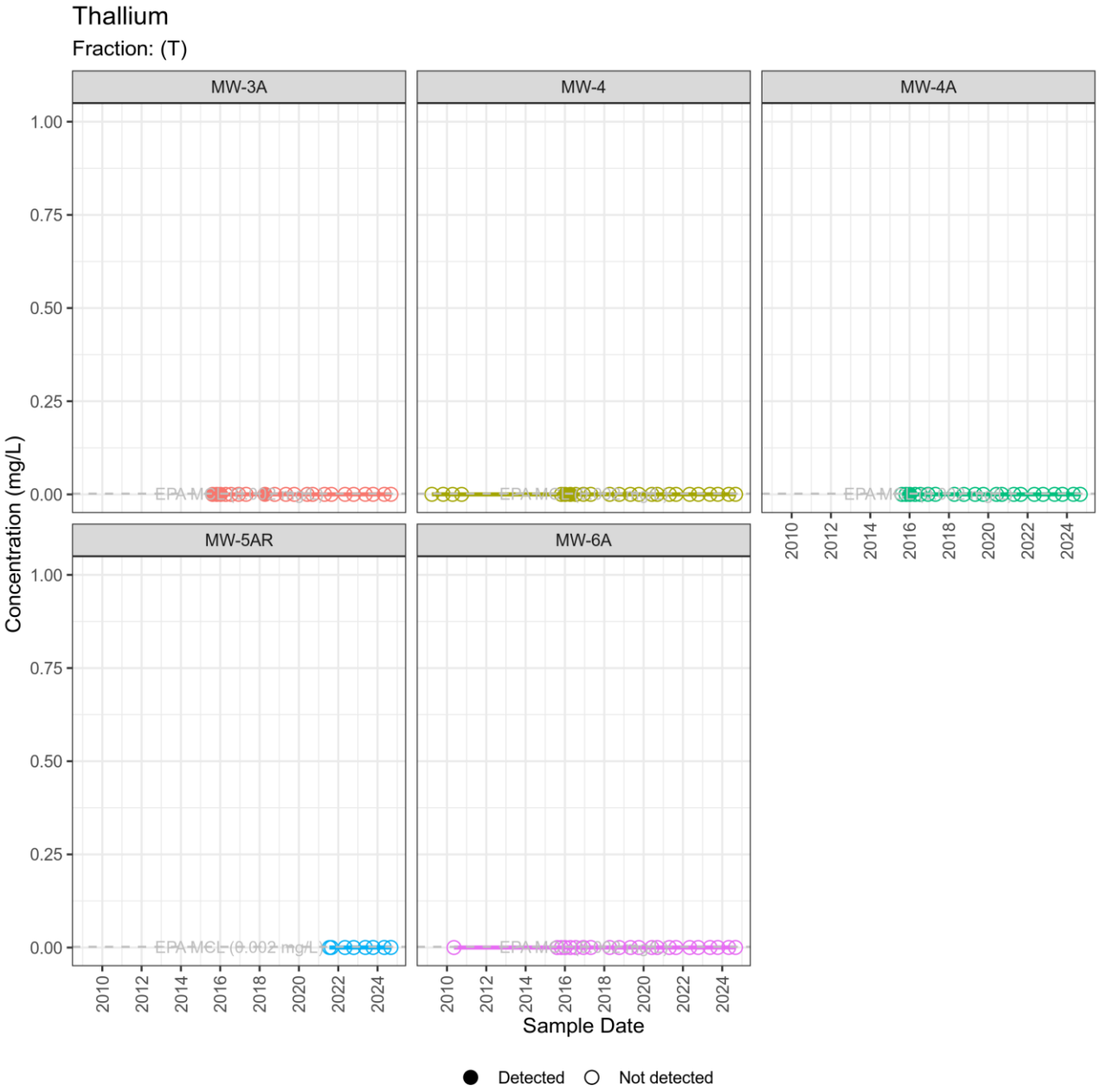
Selenium


Selenium
Fraction: (T)
MW-3A
MW-4
MW-4A
MW-5AR
MW-6A
EPA MCL (0.05 mg/L)
Concentration (mg/L)
1.00
0.75
0.50
0.25
0.00
2010
2012
2014
2016
2018
2020
2022
2024
Sample Date
Detected
Not detected

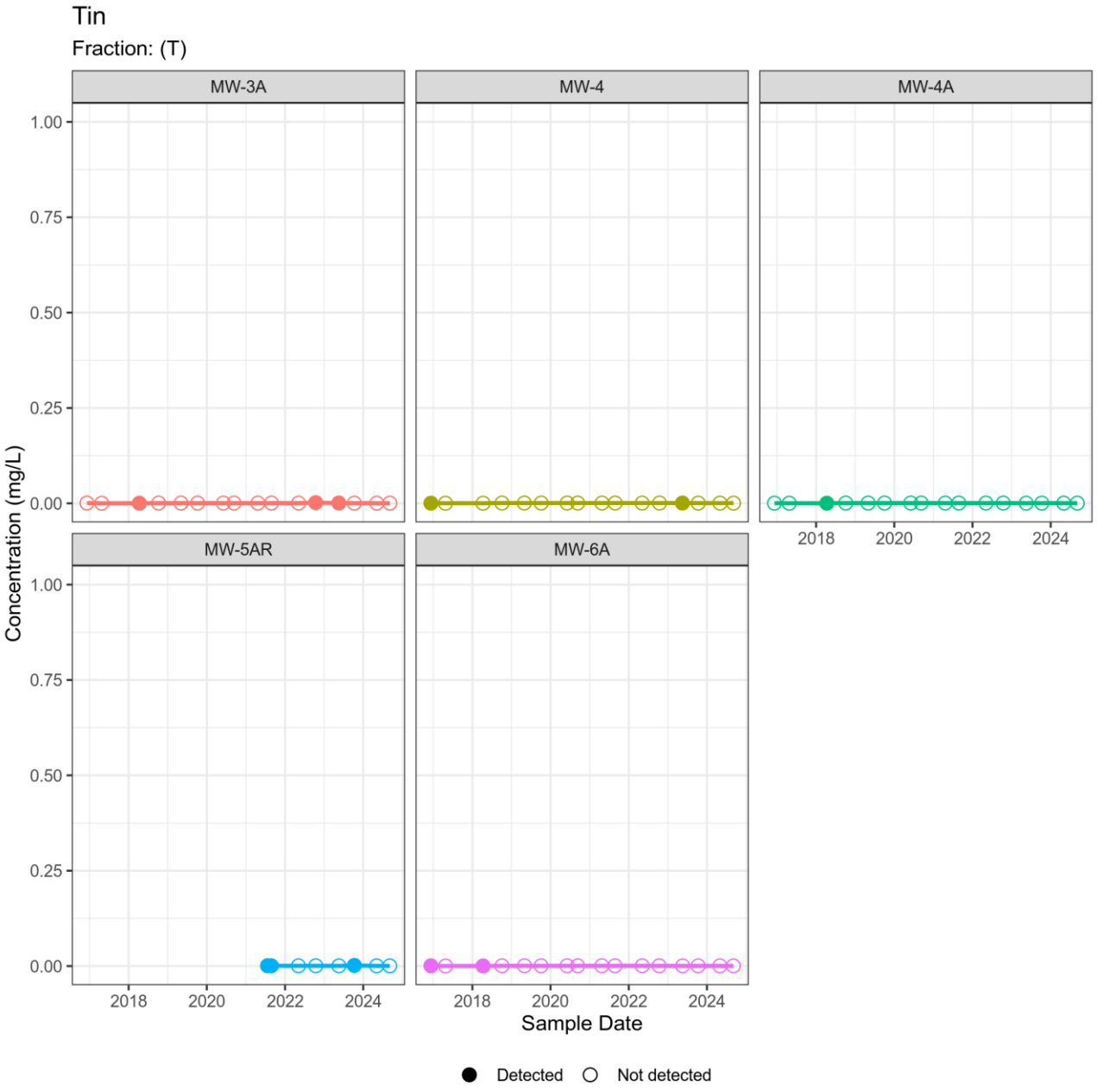
Silver


Silver
Fraction: (T)
MW-3A
MW-4
MW-4A
MW-5AR
MW-6A
ID GW - SECONDARY (0.1 mg/L)
Concentration (mg/L)
1.00
0.75
0.50
0.25
0.00
2010
2012
2014
2016
2018
2020
2022
2024
Sample Date
Detected
Not detected

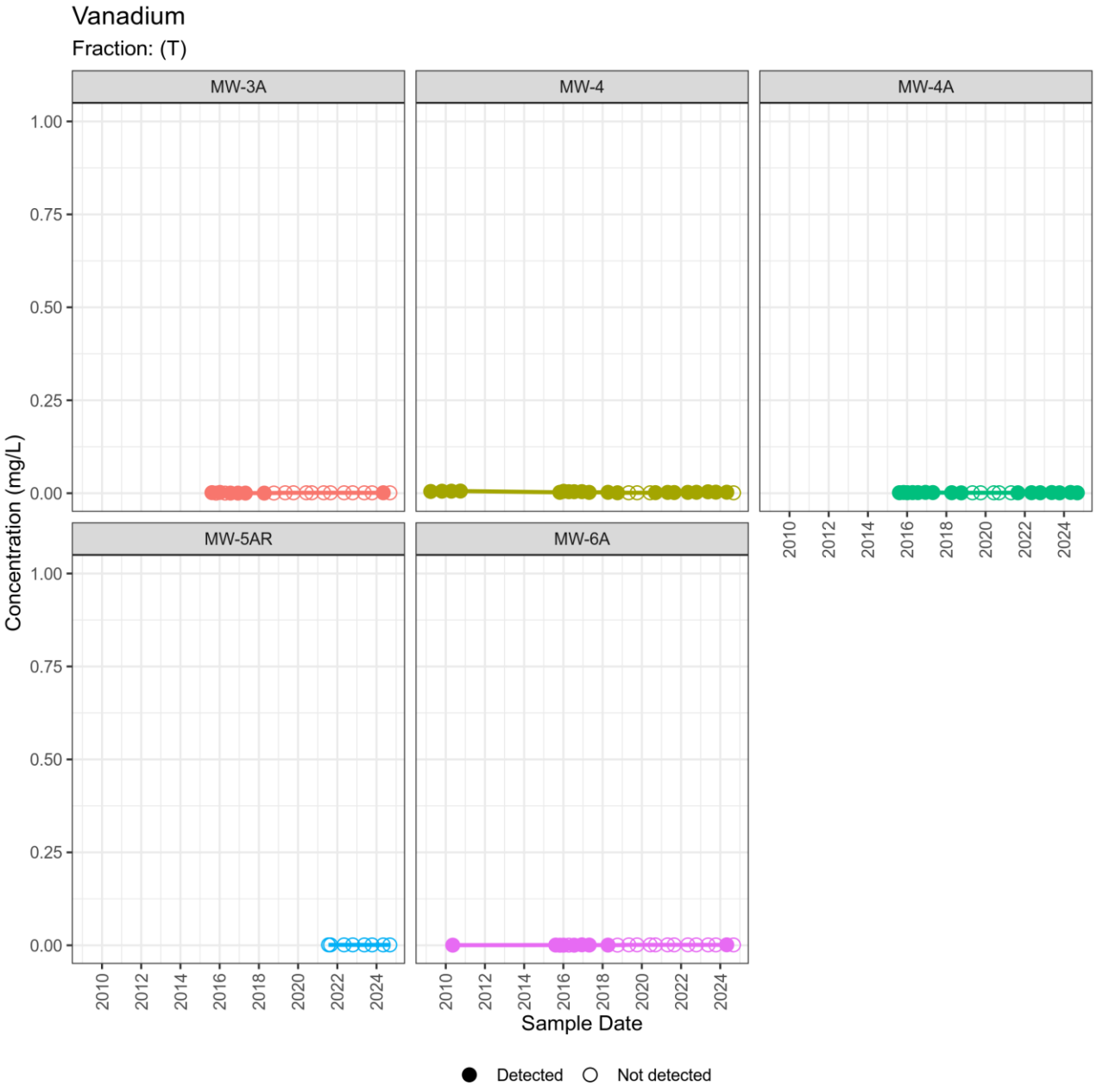
Thallium


Thallium
Fraction: (T)
MW-3A
MW-4
MW-4A
MW-5AR
MW-6A
Concentration (mg/L)
1.00
0.75
0.50
0.25
0.00
EPA MCL (0.002 mg/L)
2010
2012
2014
2016
2018
2020
2022
2024
Sample Date
Detected
Not detected

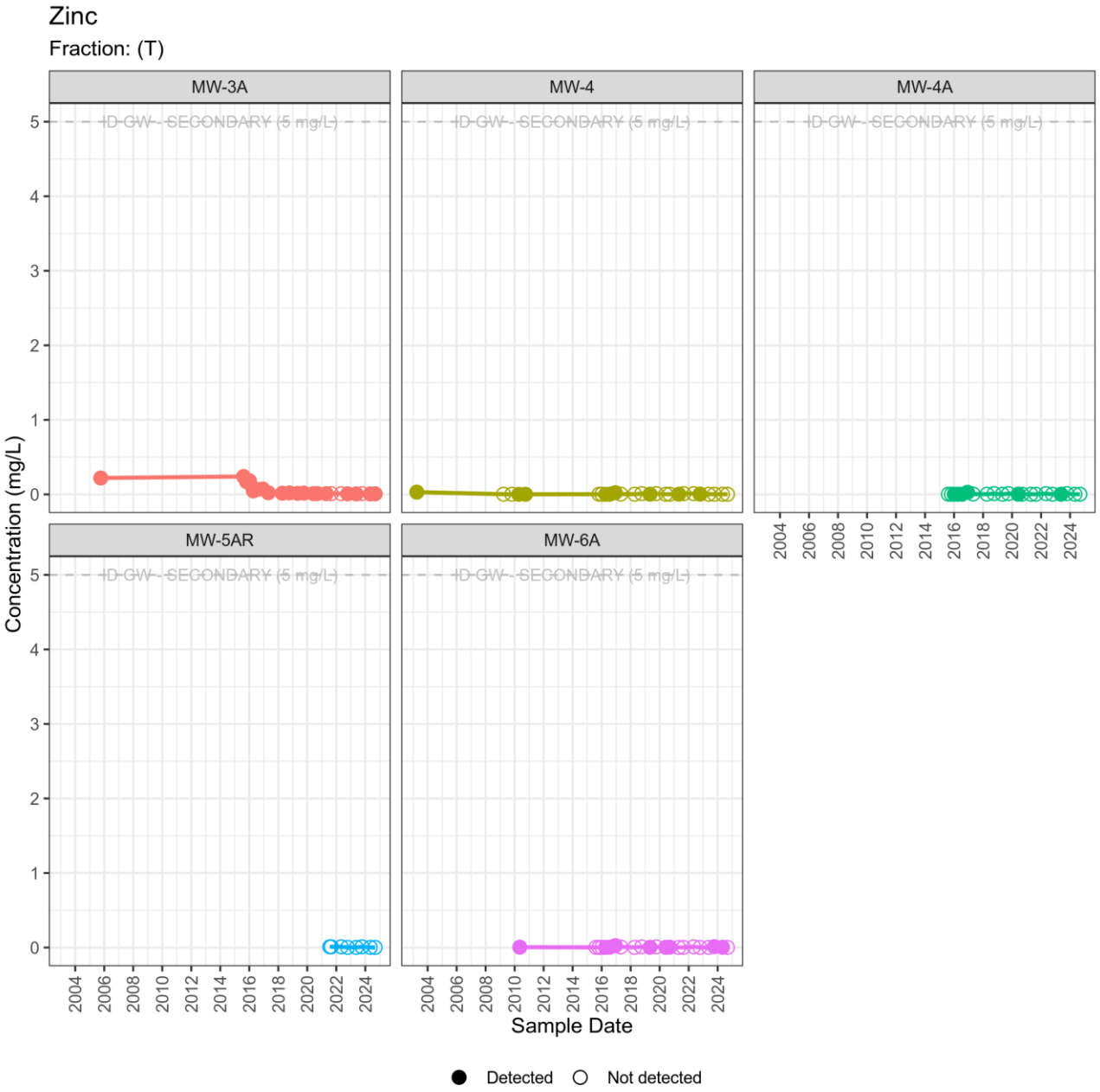
Tin


Tin
Fraction: (T)
MW-3A
MW-4
MW-4A
MW-5AR
MW-6A
Concentration (mg/L)
1.00
0.75
0.50
0.25
0.00
2018
2020
2022
2024
Sample Date
Detected
Not detected

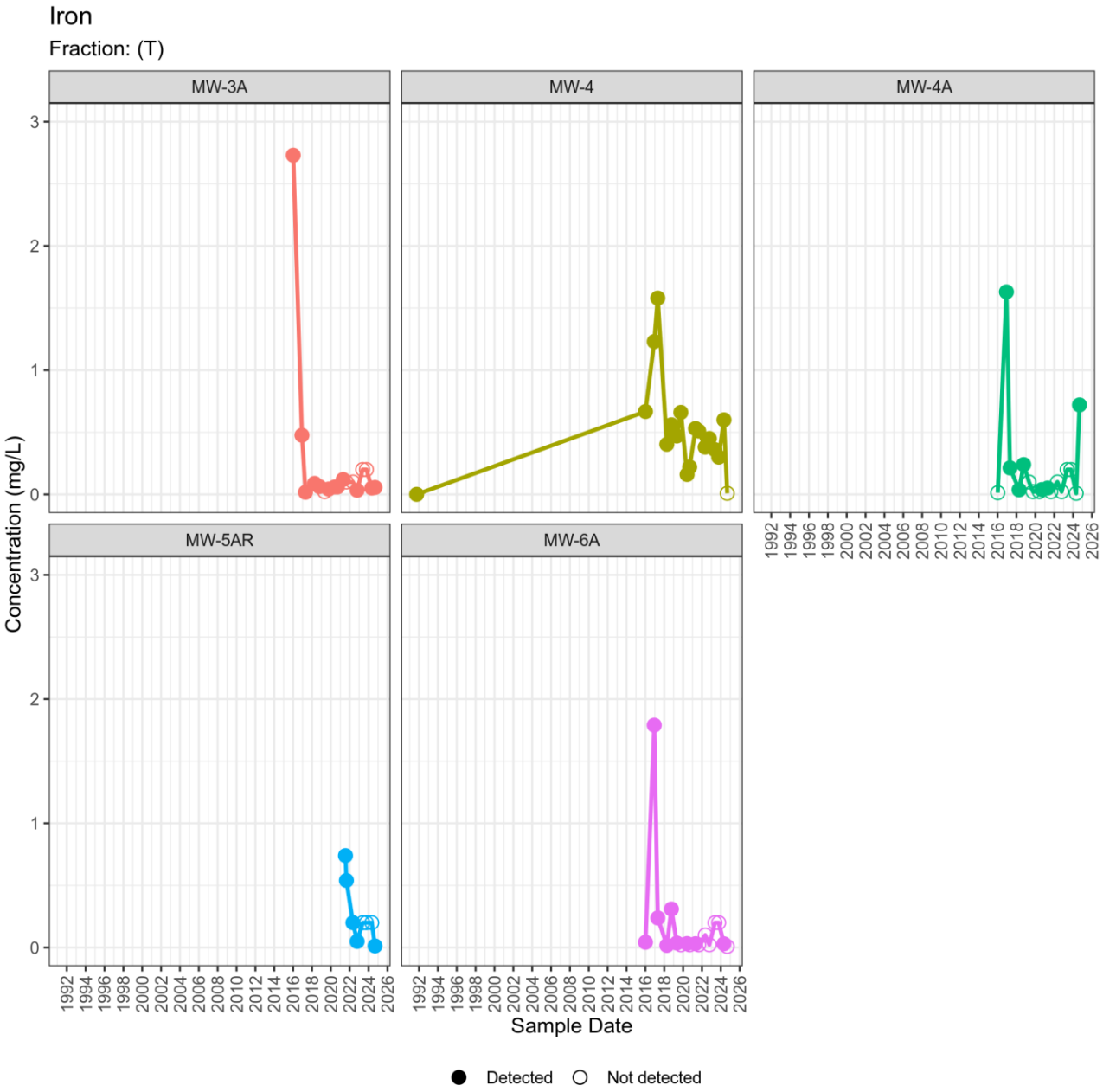
Vanadium


Vanadium
Fraction: (T)
MW-3A
MW-4
MW-4A
MW-5AR
MW-6A
Concentration (mg/L)
1.00
0.75
0.50
0.25
0.00
2010
2012
2014
2016
2018
2020
2022
2024
Sample Date
Detected
Not detected

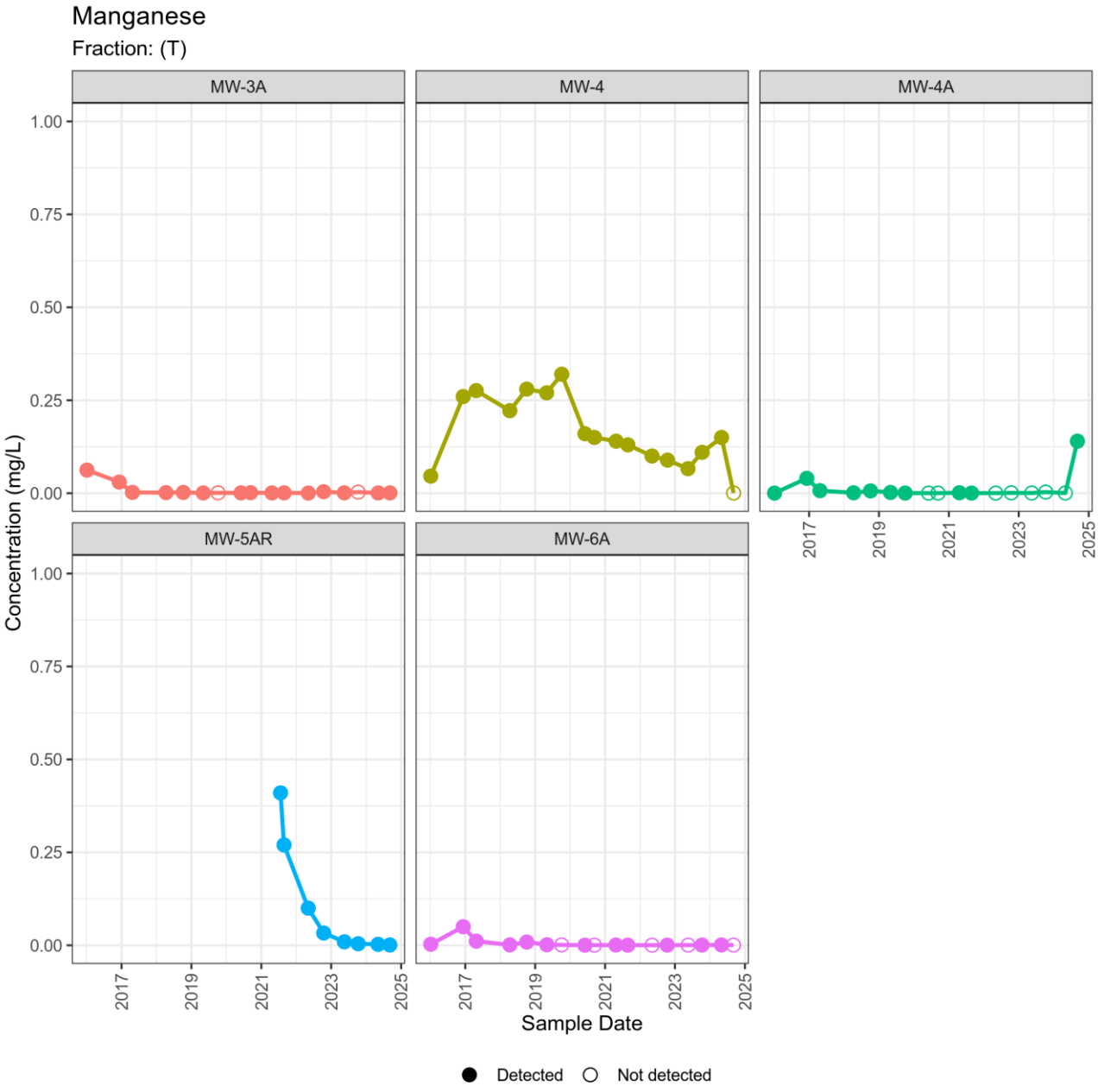
Zinc


Zinc
Fraction: (T)
MW-3A
MW-4
MW-4A
MW-5AR
MW-6A
ID-GW - SECONDARY (5 mg/L)
Concentration (mg/L)
Sample Date
Detected
Not detected

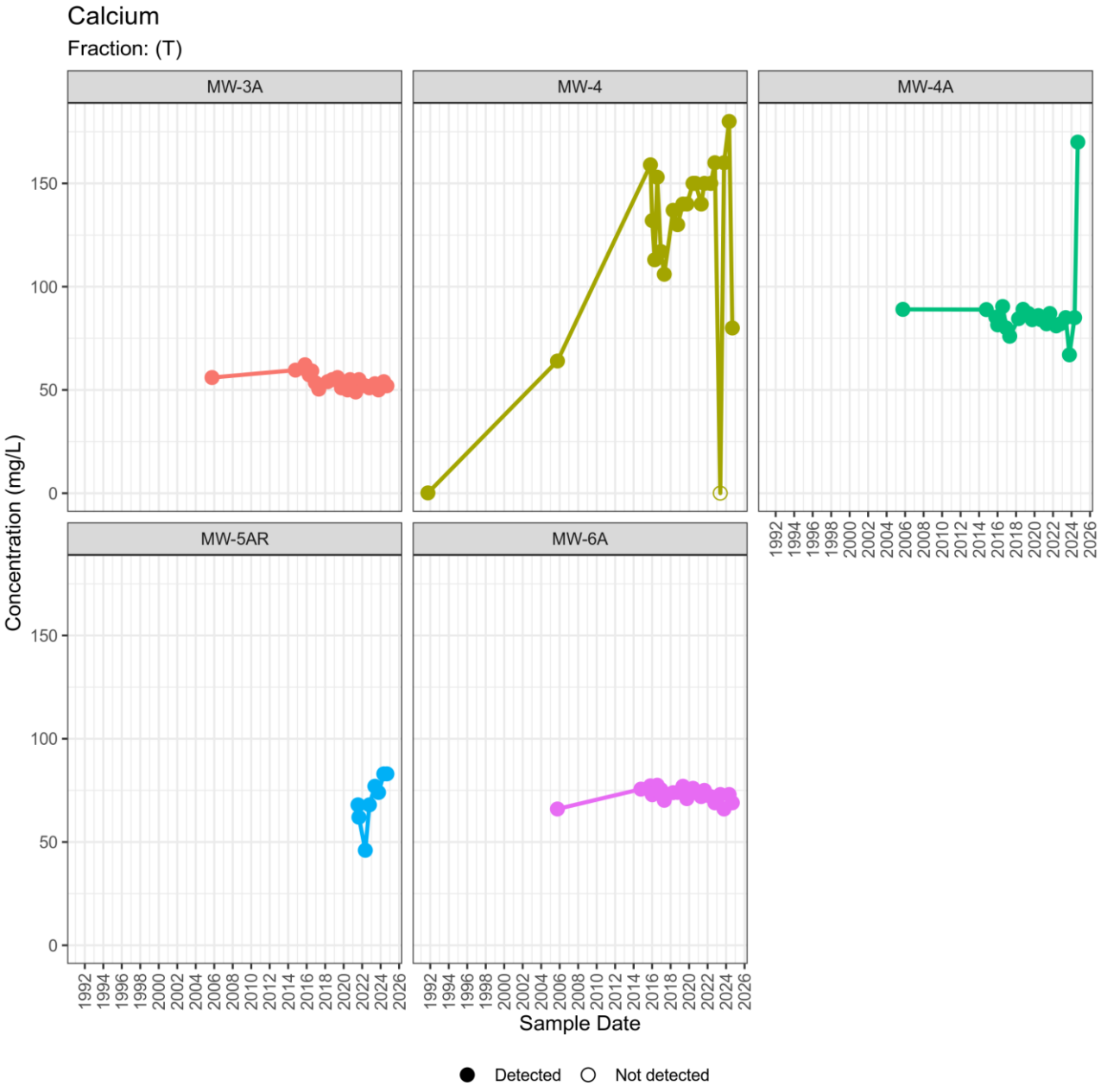
Iron


Iron
Fraction: (T)
MW-3A
MW-4
MW-4A
MW-5AR
MW-6A
Concentration (mg/L)
Sample Date
Detected
Not detected

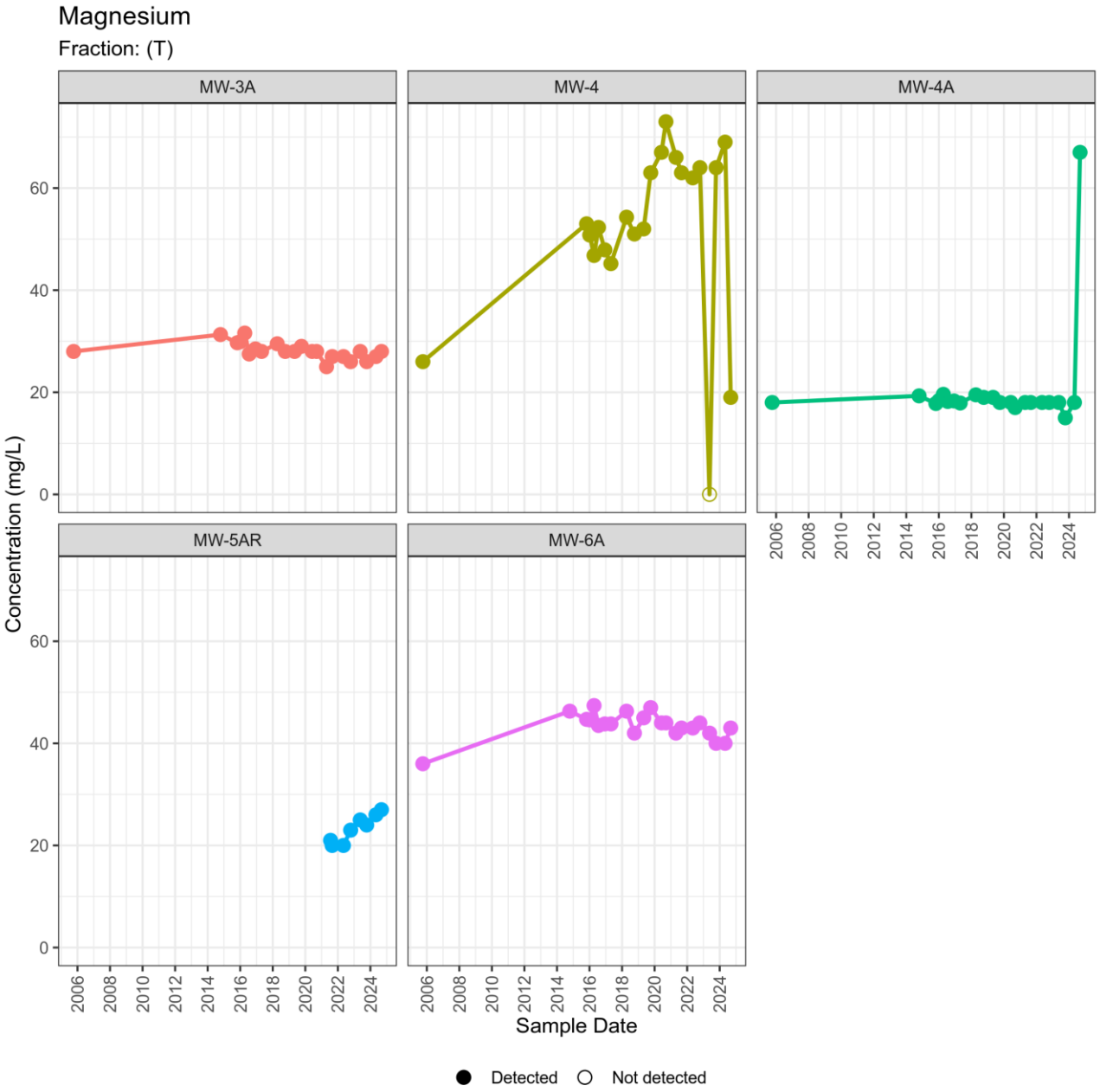
Manganese


Manganese
Fraction: (T)
MW-3A
MW-4
MW-4A
MW-5AR
MW-6A
Concentration (mg/L)
1.00
0.75
0.50
0.25
0.00
2017
2019
2021
2023
2025
Sample Date
Detected
Not detected

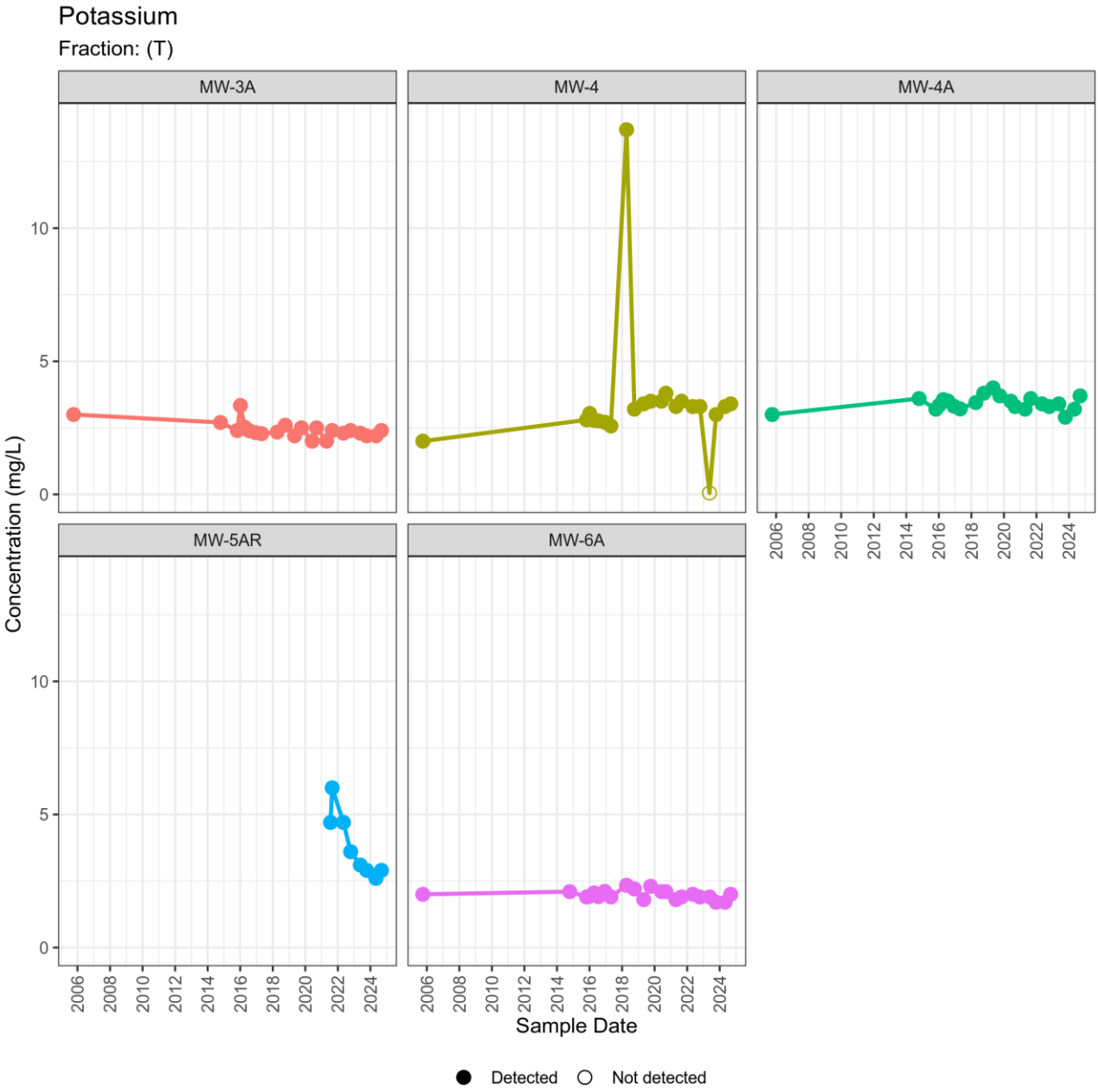
Calcium


Calcium
Fraction: (T)
MW-3A
MW-4
MW-4A
MW-5AR
MW-6A
Concentration (mg/L)
0
50
100
150
1992
1994
1996
1998
2000
2002
2004
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024
2026
Sample Date
Detected
Not detected

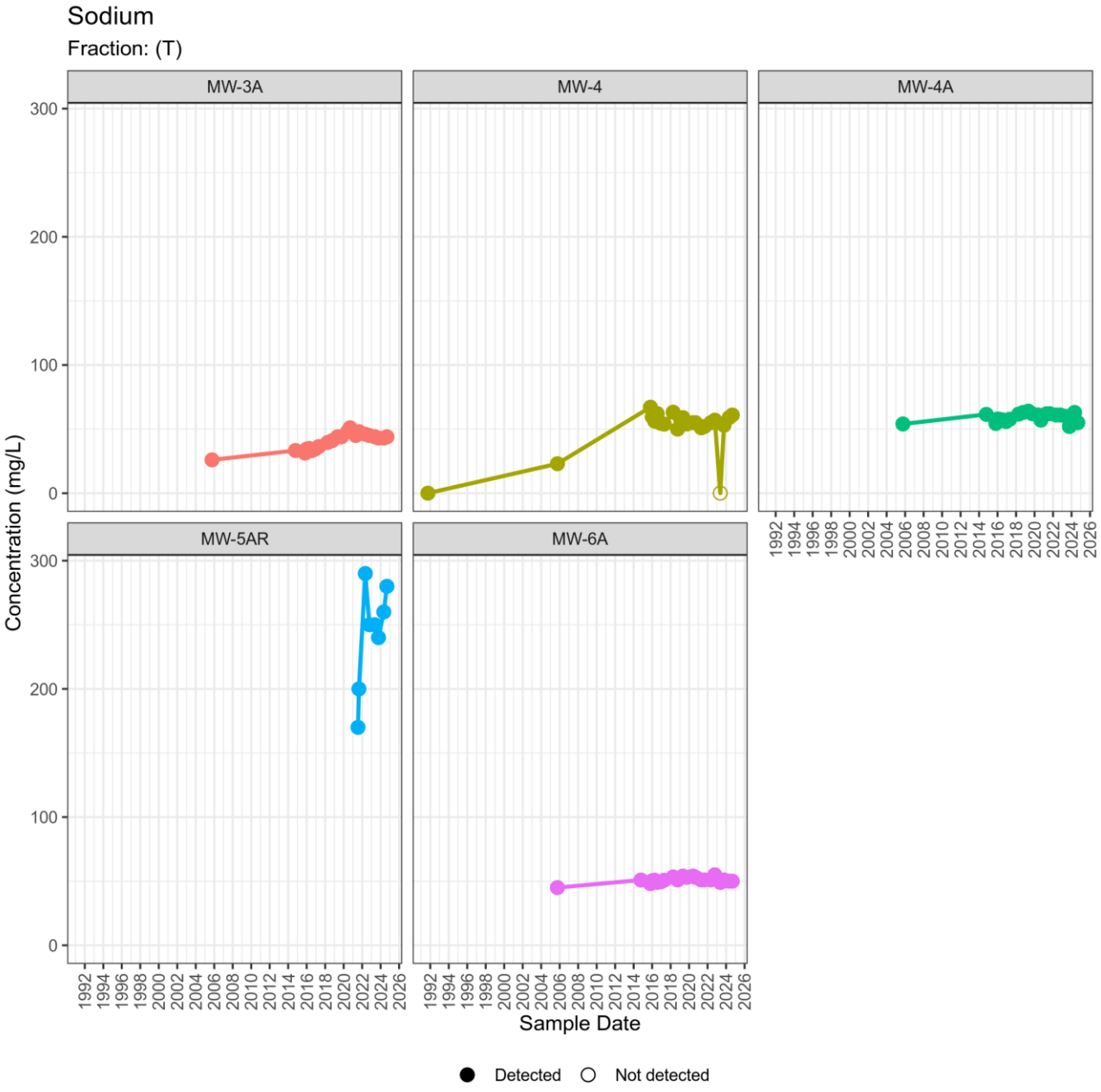
Magnesium


Magnesium
Fraction: (T)
MW-3A
MW-4
MW-4A
MW-5AR
MW-6A
Concentration (mg/L)
0
20
40
60
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024
Sample Date
Detected
Not detected

Potassium


Potassium
Fraction: (T)
MW-3A
MW-4
MW-4A
MW-5AR
MW-6A
Concentration (mg/L)
0
5
10
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024
Sample Date
Detected
Not detected

Sodium


Sodium
Fraction: (T)
MW-3A
MW-4
MW-4A
MW-5AR
MW-6A
Concentration (mg/L)
0
100
200
300
1992
1994
1996
1998
2000
2002
2004
2006
2008
2010
2012
2014
2016
2018
2020
2022
2024
2026
Sample Date
Detected
Not detected

Inorganic Chemicals Time Series Plots

Data filters

This report is filtered to only include:

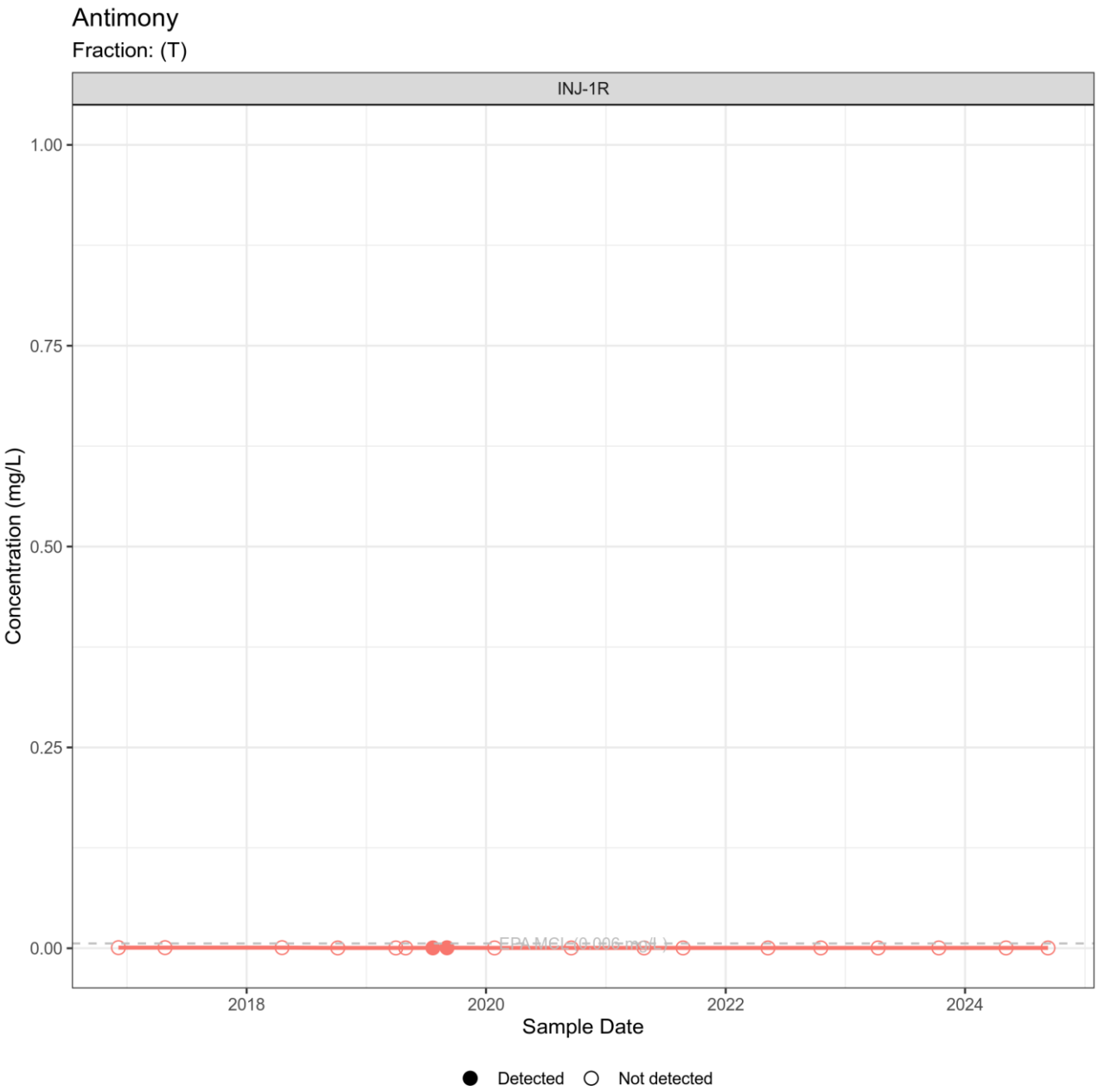
- **INJ-1R** from **Remediation System**
- Results from **01 January 1990** to **10 September 2024**
- Fraction: **T**
- Inorganic analytes: **All inorganics**

Graph notes

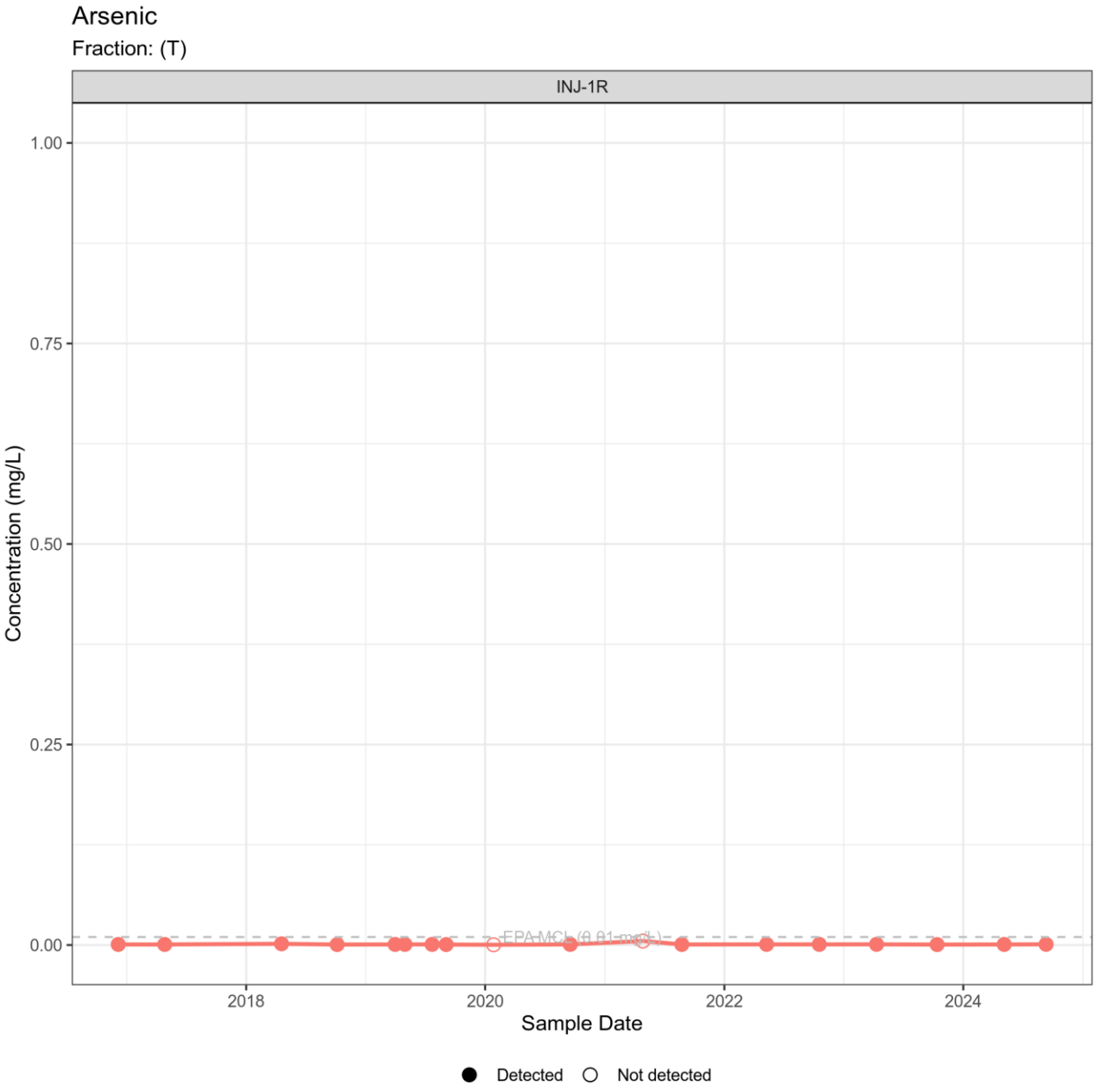
- When only the year is shown in the x-axis label, this represents the start of the year.

Inorganic chemical summaries

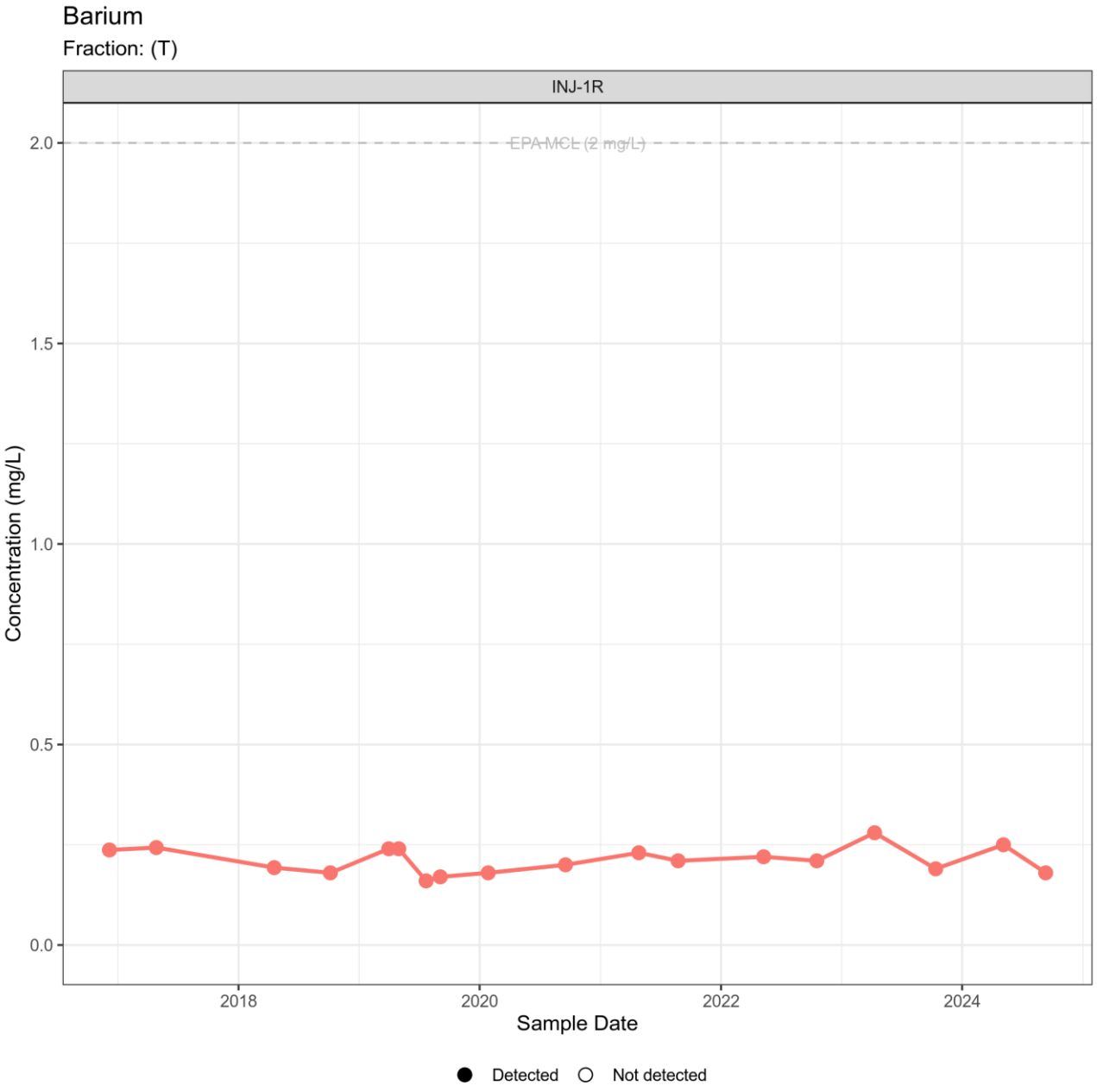
Antimony



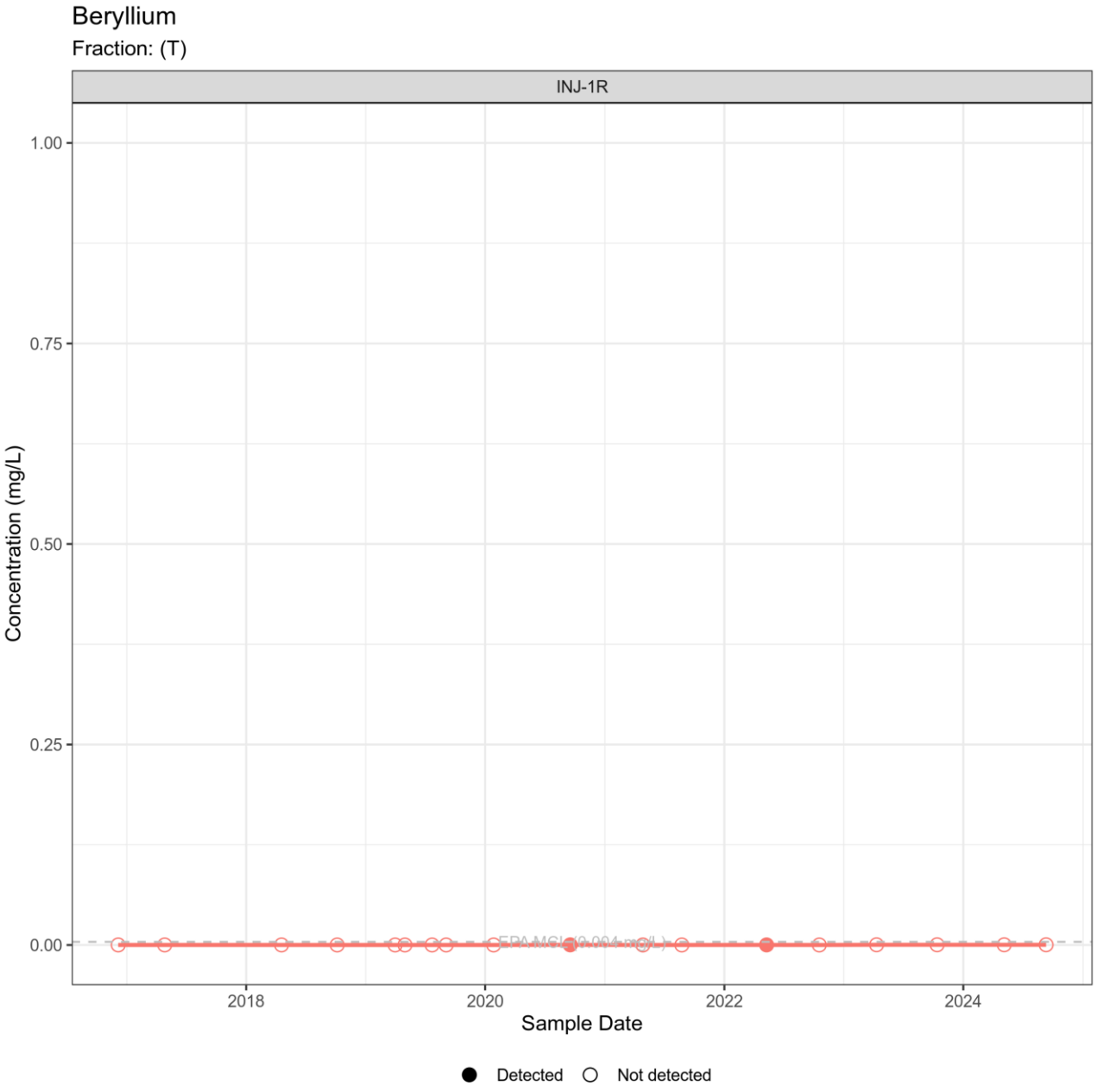
Arsenic


Arsenic
Fraction: (T)
INJ-1R
1.00
0.75
0.50
0.25
0.00
Concentration (mg/L)
EPA MCL (0.01 mg/L)
2018
2020
2022
2024
Sample Date
Detected
Not detected

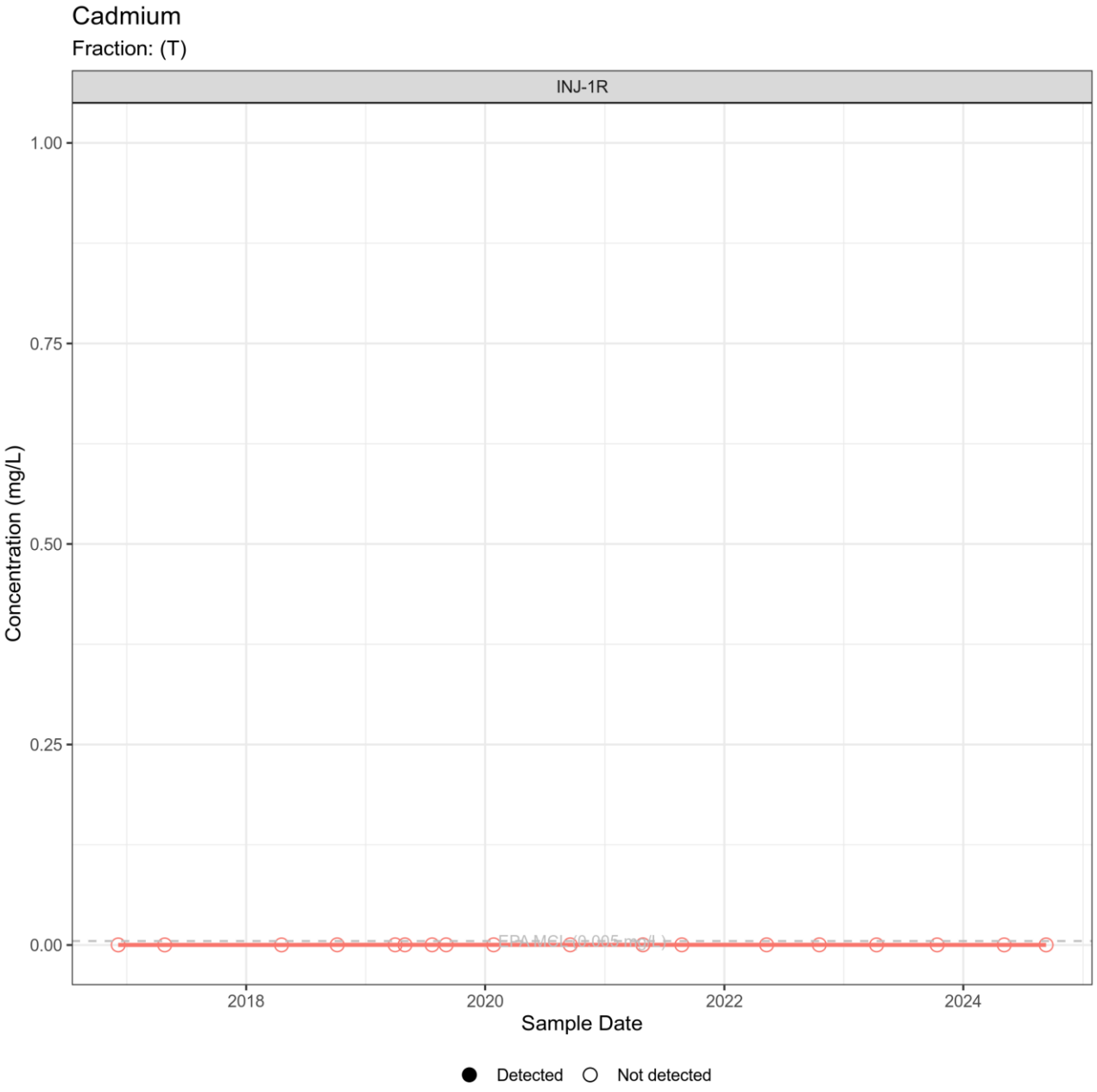
Barium


Barium
Fraction: (T)
INJ-1R
EPA MCL (2 mg/L)
2.0
1.5
1.0
0.5
0.0
Concentration (mg/L)
2018
2020
2022
2024
Sample Date
Detected
Not detected

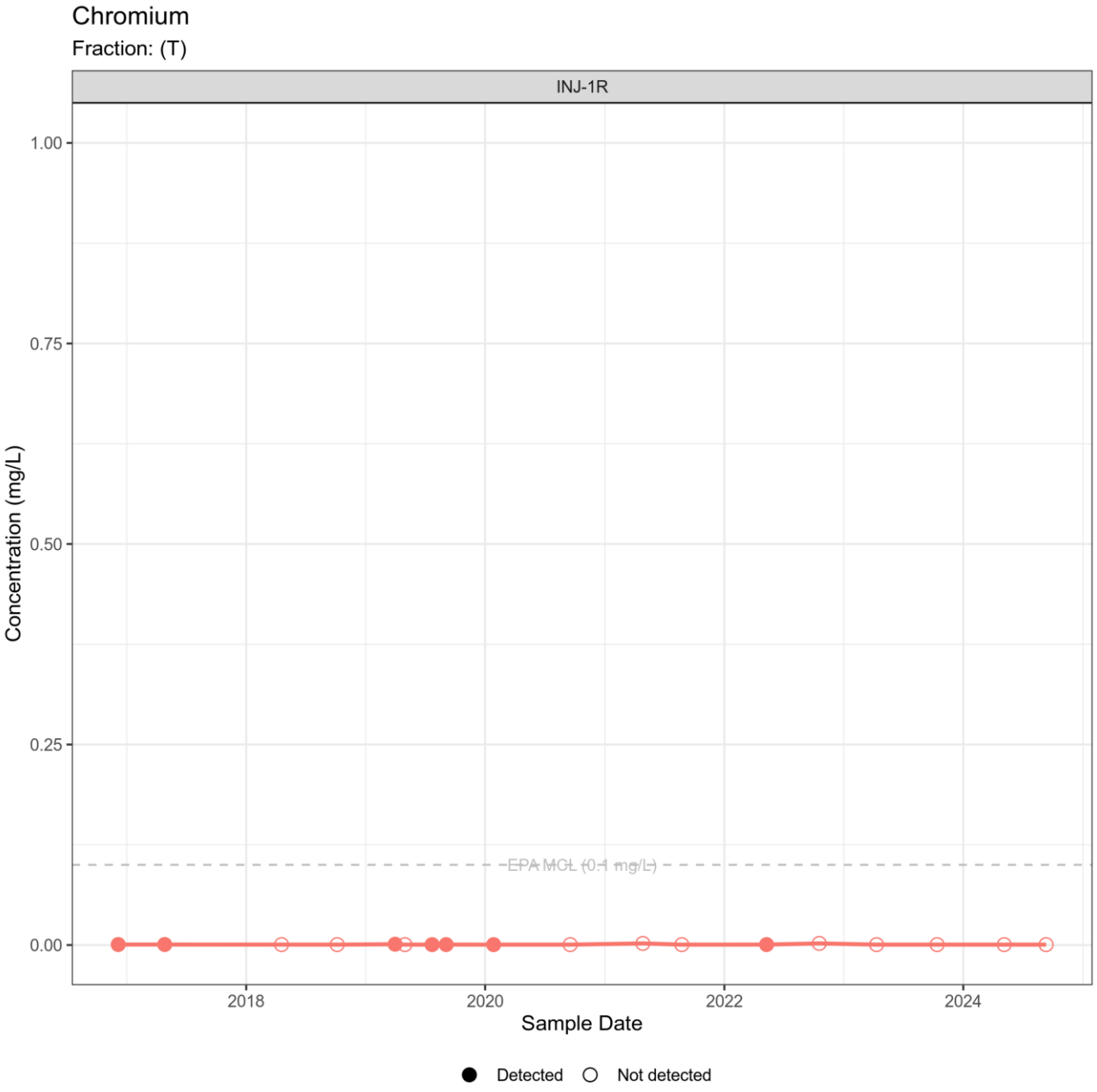
Beryllium


Beryllium
Fraction: (T)
INJ-1R
1.00
0.75
0.50
0.25
0.00
Concentration (mg/L)
2018
2020
2022
2024
Sample Date
Detected
Not detected

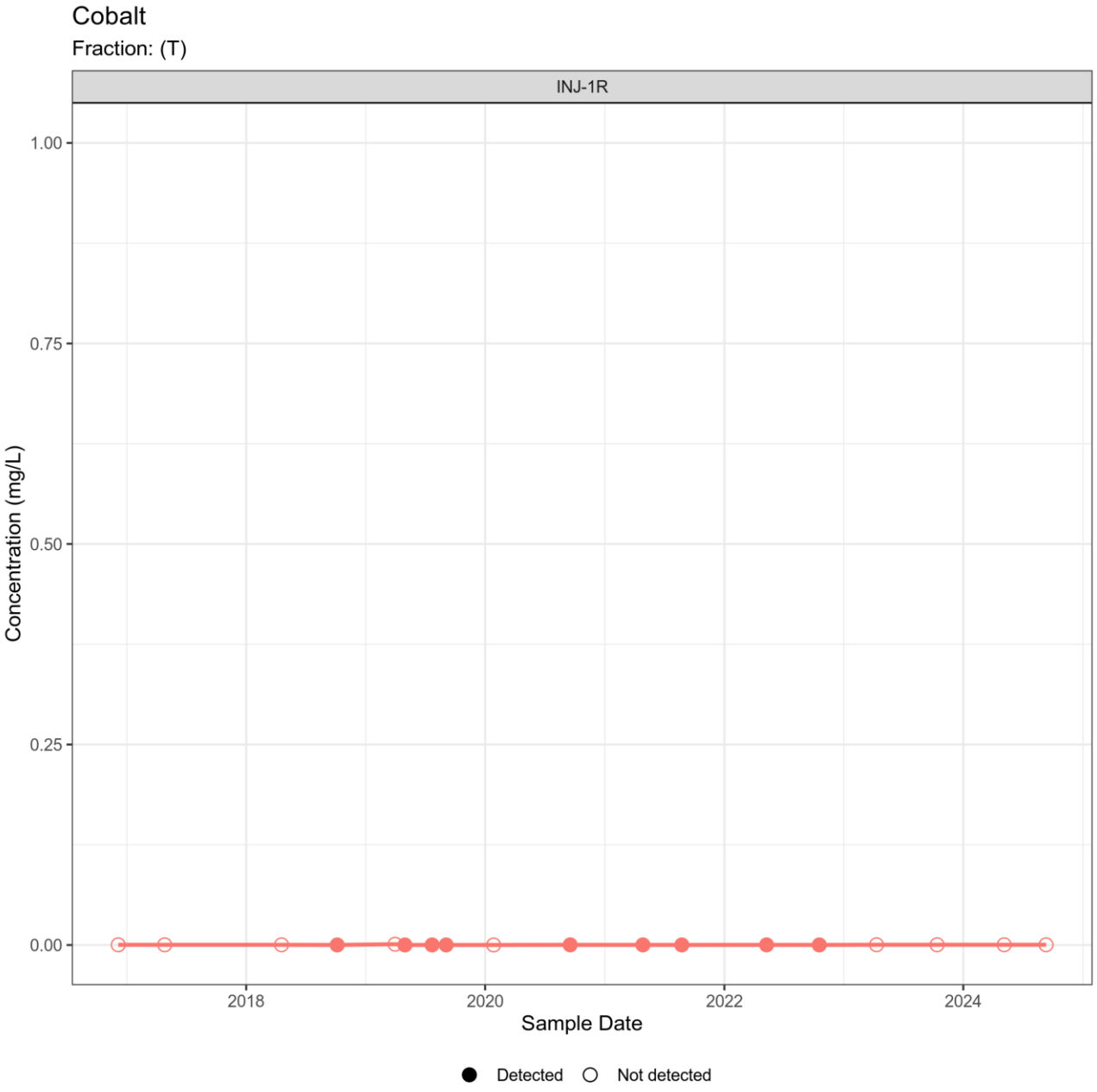
Cadmium


Cadmium
Fraction: (T)
INJ-1R
1.00
0.75
0.50
0.25
0.00
Concentration (mg/L)
EPA MCL 0.005 mg/L
2018
2020
2022
2024
Sample Date
Detected
Not detected

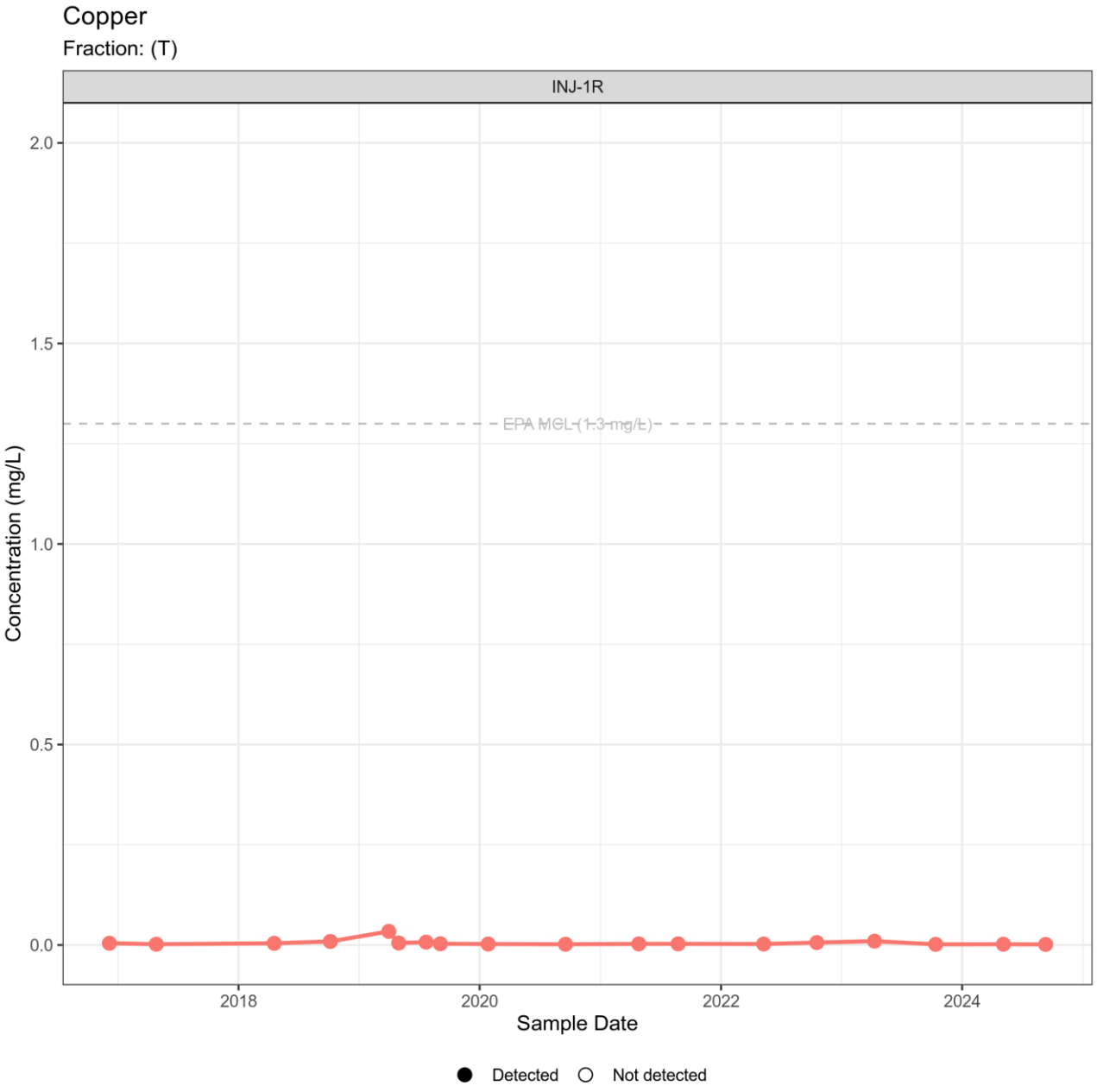
Chromium


Chromium
Fraction: (T)
INJ-1R
1.00
0.75
0.50
0.25
0.00
Concentration (mg/L)
EPA MCL (0.1 mg/L)
2018
2020
2022
2024
Sample Date
Detected
Not detected

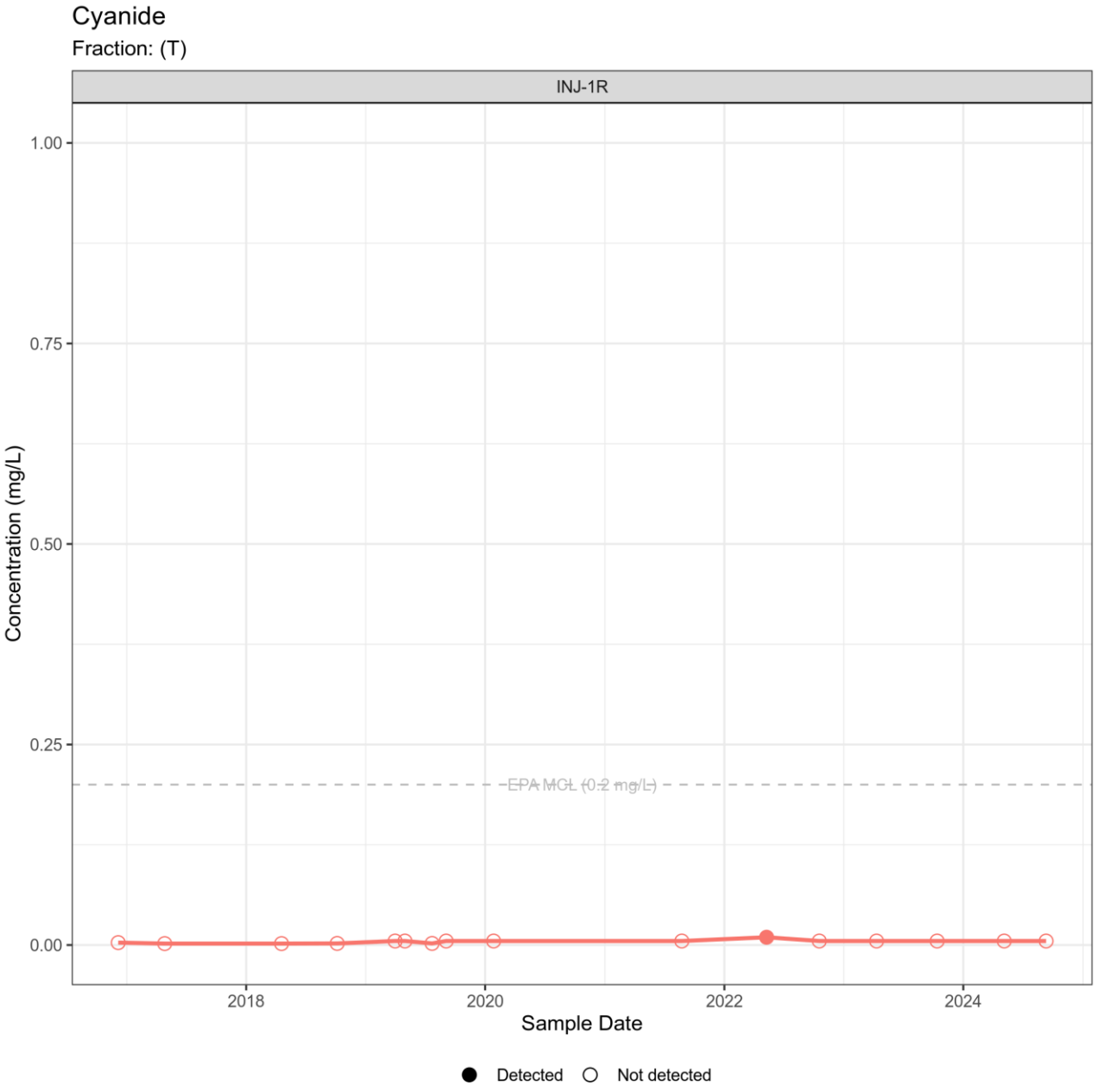
Cobalt


Cobalt
Fraction: (T)
INJ-1R
1.00
0.75
0.50
0.25
0.00
Concentration (mg/L)
2018
2020
2022
2024
Sample Date
Detected
Not detected

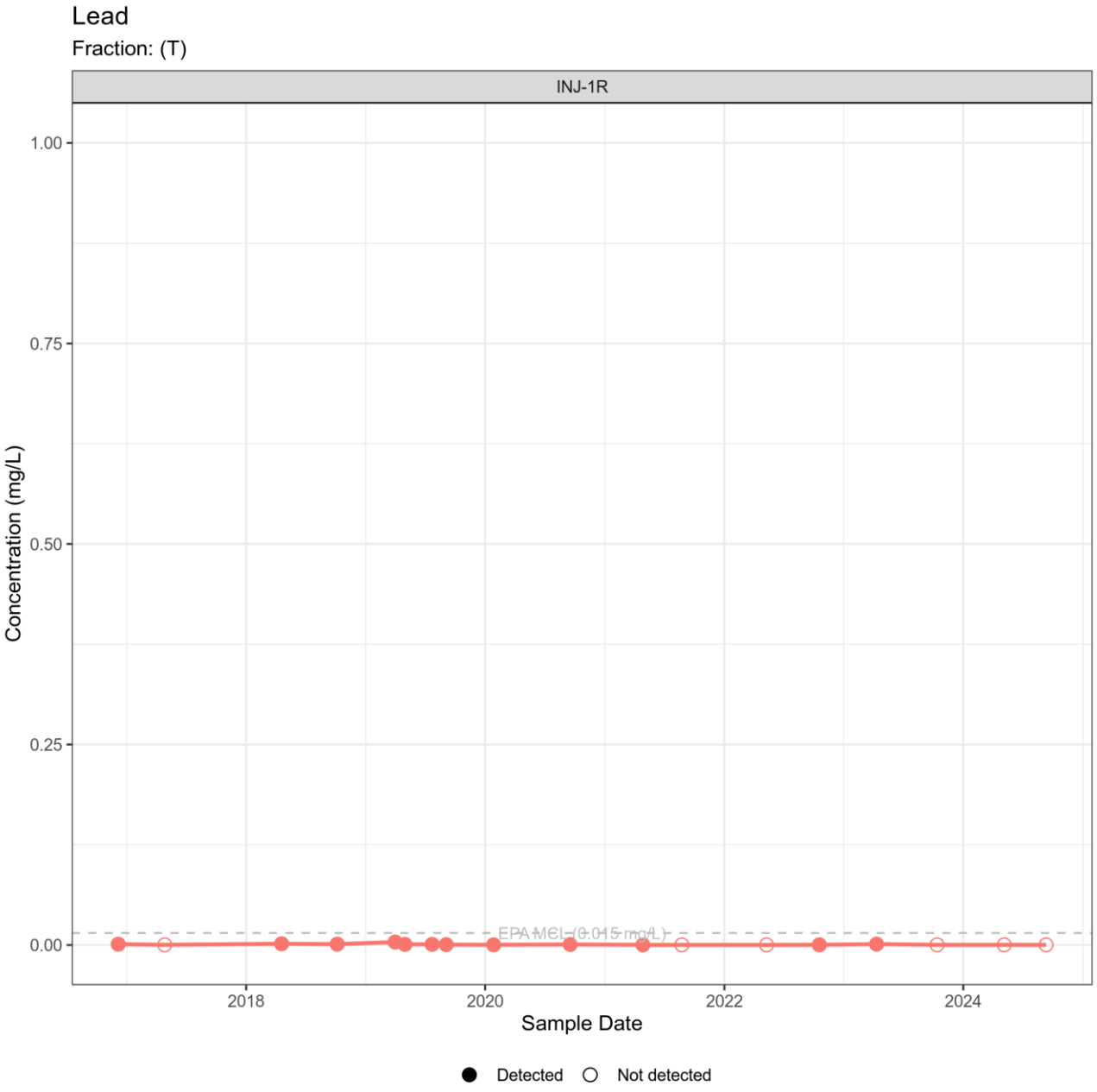
Copper


Copper
Fraction: (T)
INJ-1R
2.0
1.5
1.0
0.5
0.0
EPA MCL (1.3 mg/L)
Concentration (mg/L)
2018
2020
2022
2024
Sample Date
Detected
Not detected

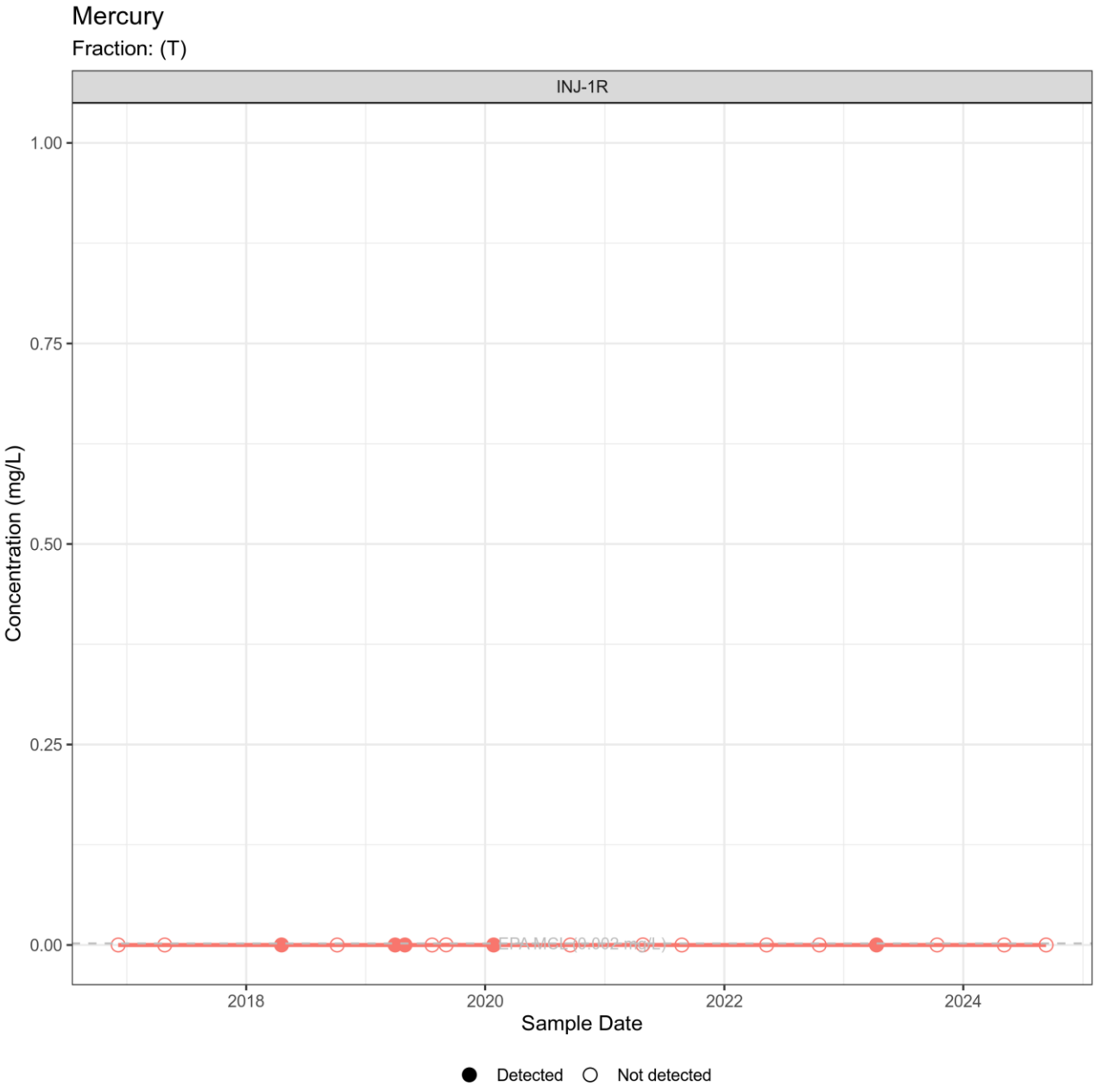
Cyanide


Cyanide
Fraction: (T)
INJ-1R
1.00
0.75
0.50
0.25
0.00
Concentration (mg/L)
EPA MCL (0.2 mg/L)
2018
2020
2022
2024
Sample Date
Detected
Not detected

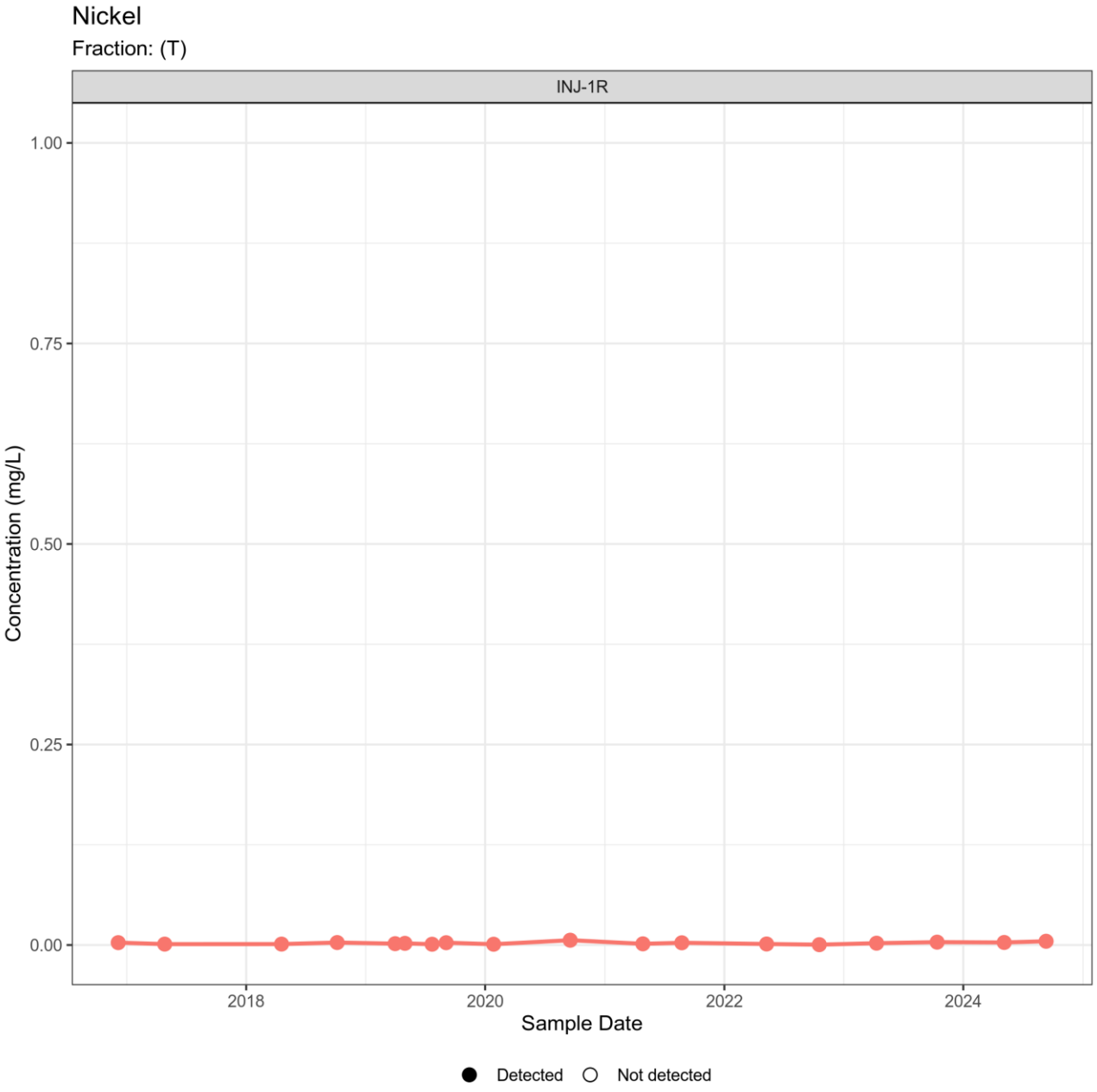
Lead


Lead
Fraction: (T)
INJ-1R
1.00
0.75
0.50
0.25
0.00
Concentration (mg/L)
EPA MCL (0.015 mg/L)
2018
2020
2022
2024
Sample Date
Detected
Not detected

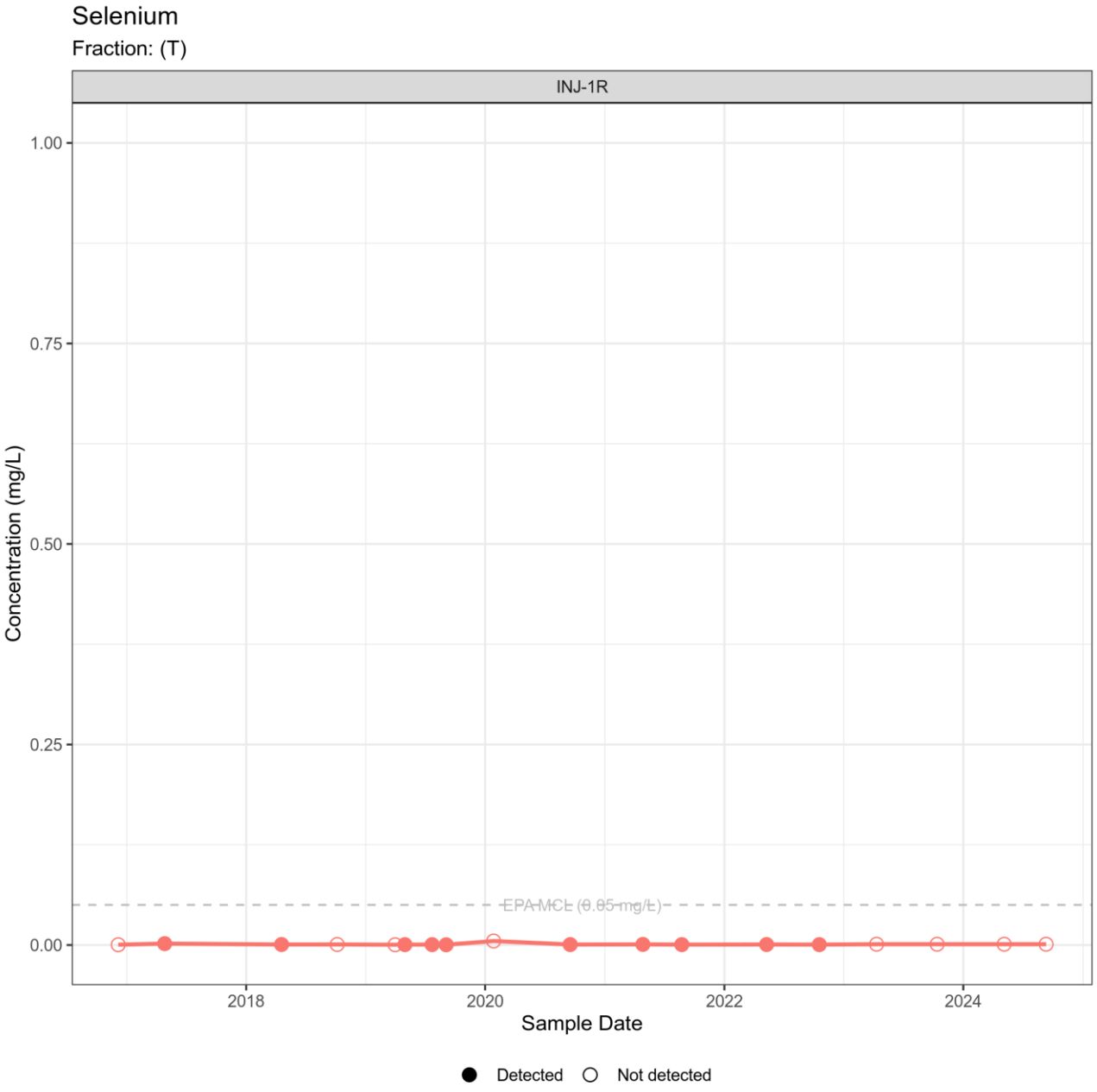
Mercury


Mercury
Fraction: (T)
INJ-1R
1.00
0.75
0.50
0.25
0.00
Concentration (mg/L)
EPA MCL 0.002 mg/L
2018
2020
2022
2024
Sample Date
Detected
Not detected

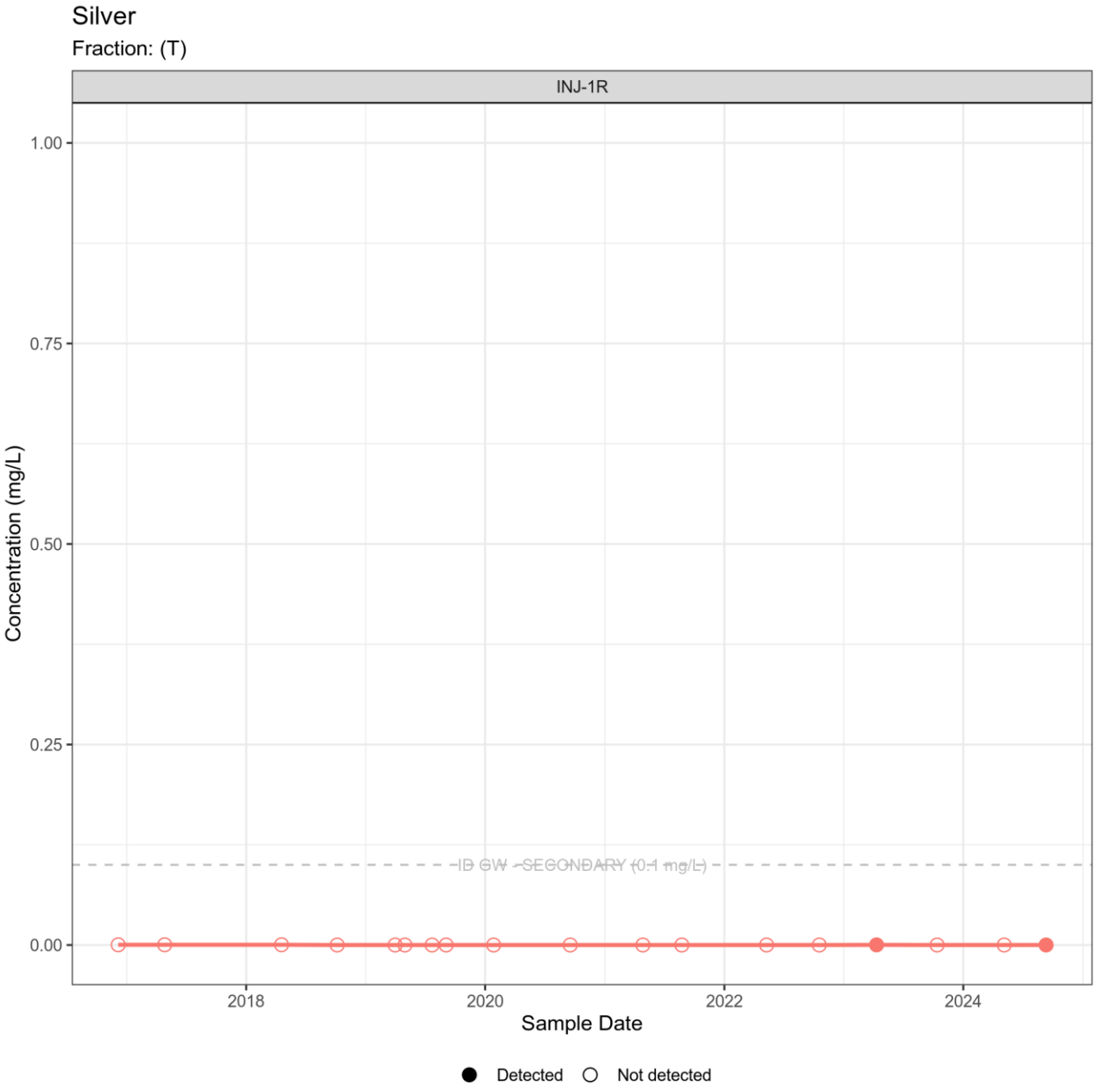
Nickel


Nickel
Fraction: (T)
INJ-1R
1.00
0.75
0.50
0.25
0.00
Concentration (mg/L)
2018
2020
2022
2024
Sample Date
Detected
Not detected

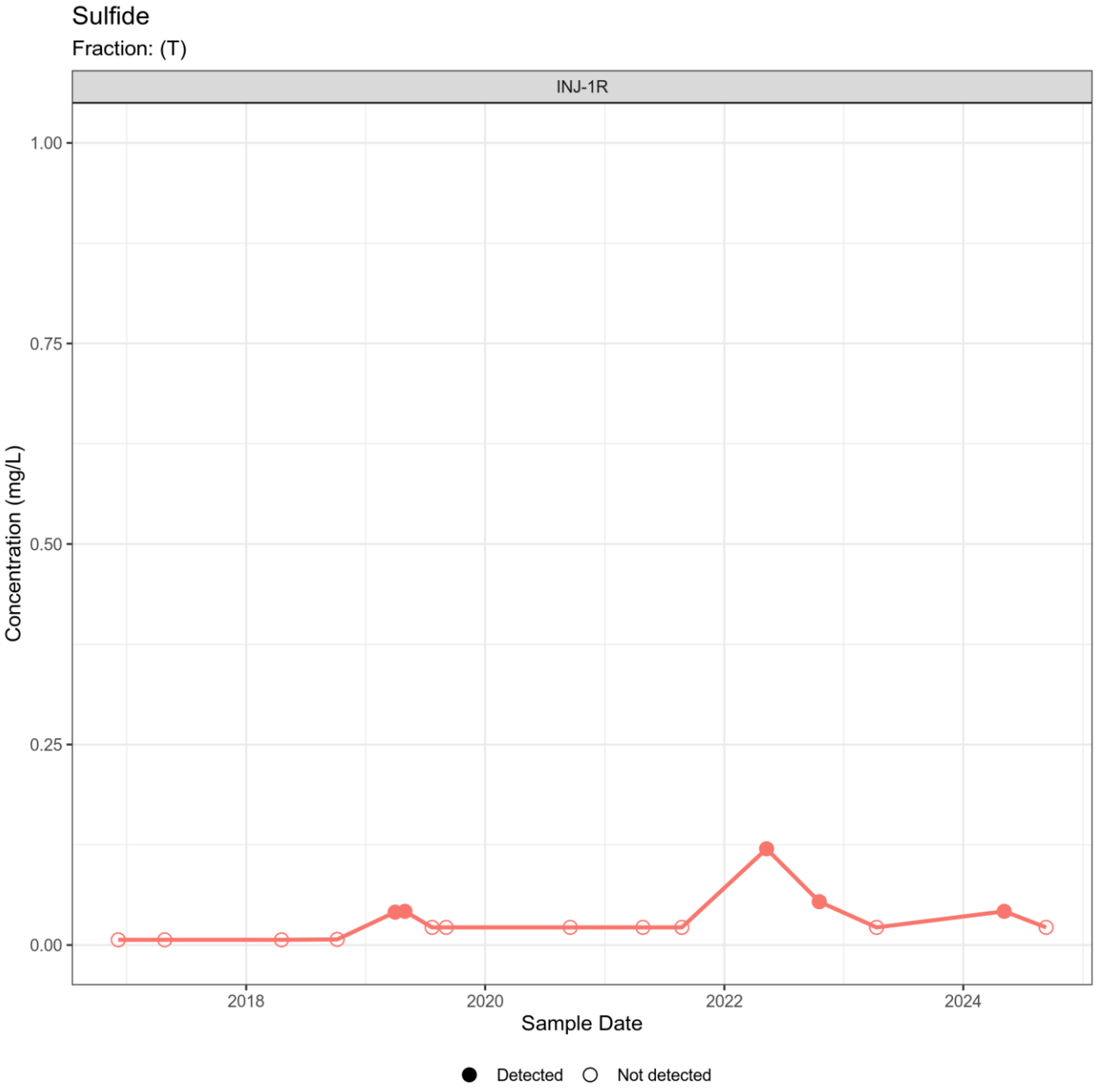
Selenium


Selenium
Fraction: (T)
INJ-1R
1.00
0.75
0.50
0.25
0.00
Concentration (mg/L)
EPA MCL (0.05 mg/L)
2018
2020
2022
2024
Sample Date
Detected
Not detected

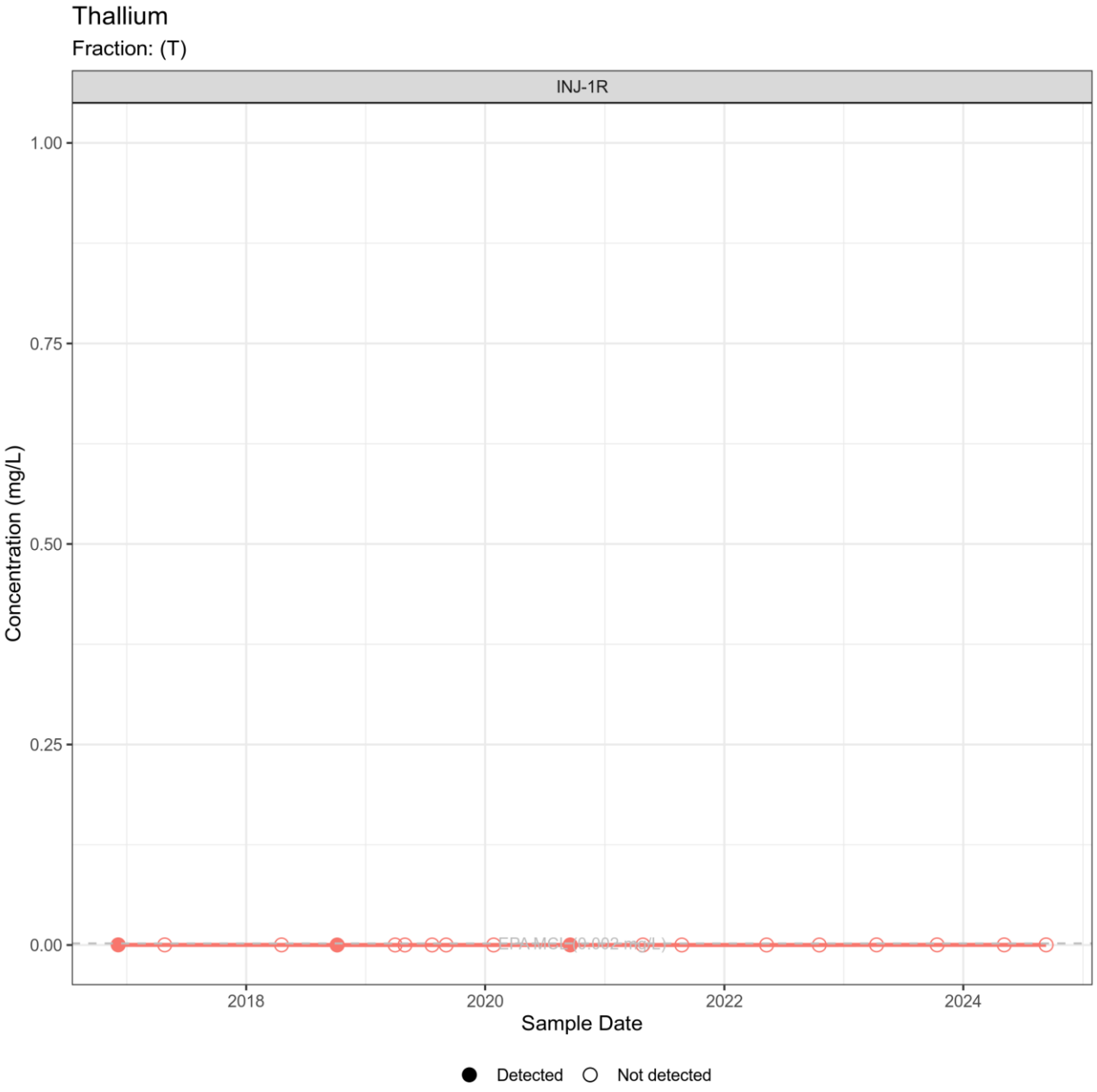
Silver


Silver
Fraction: (T)
INJ-1R
1.00
0.75
0.50
0.25
0.00
Concentration (mg/L)
ID GW - SECONDARY (0.1 mg/L)
2018
2020
2022
2024
Sample Date
Detected
Not detected

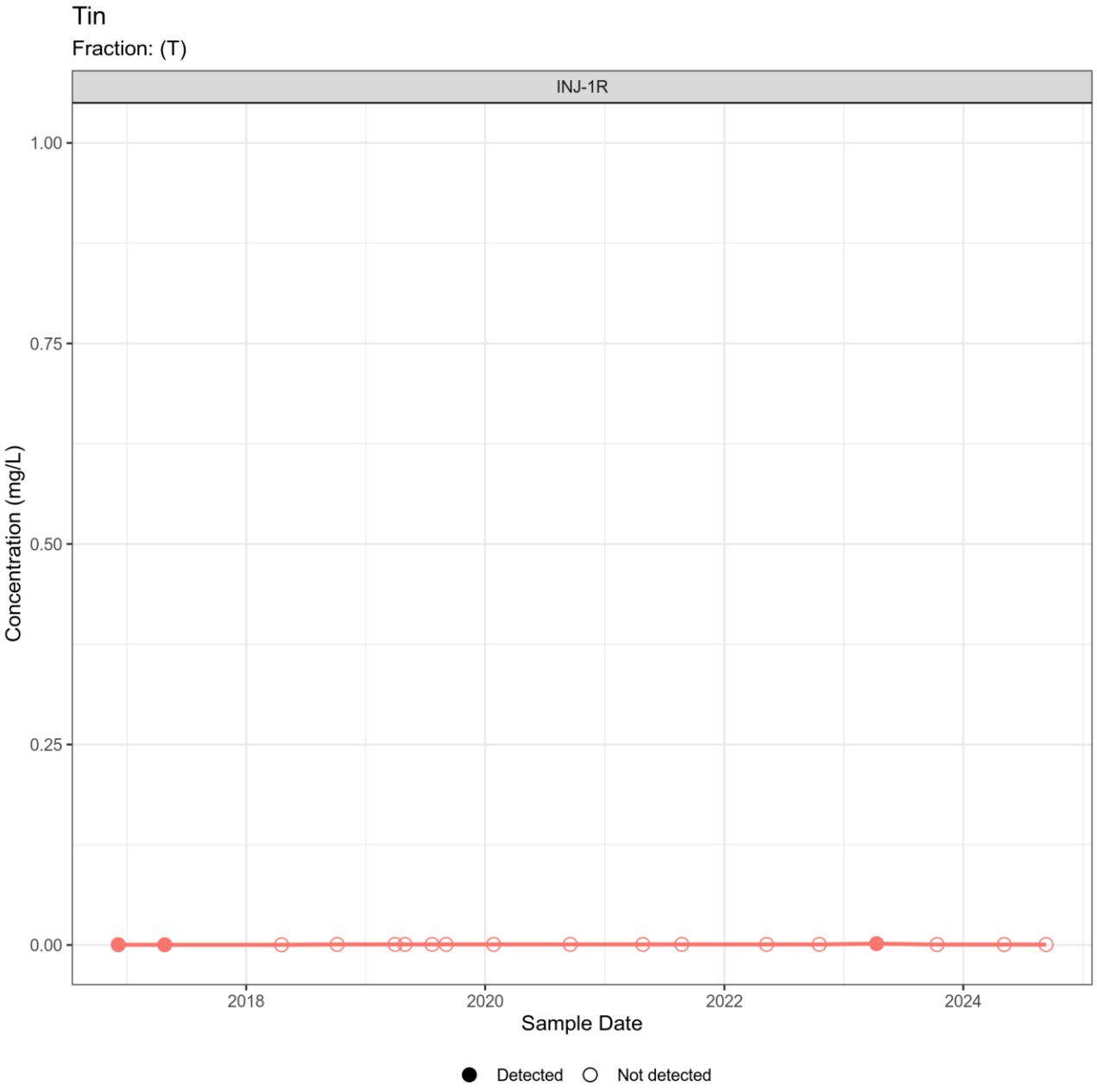
Sulfide


Sulfide
Fraction: (T)
INJ-1R
1.00
0.75
0.50
0.25
0.00
Concentration (mg/L)
2018
2020
2022
2024
Sample Date
Detected
Not detected

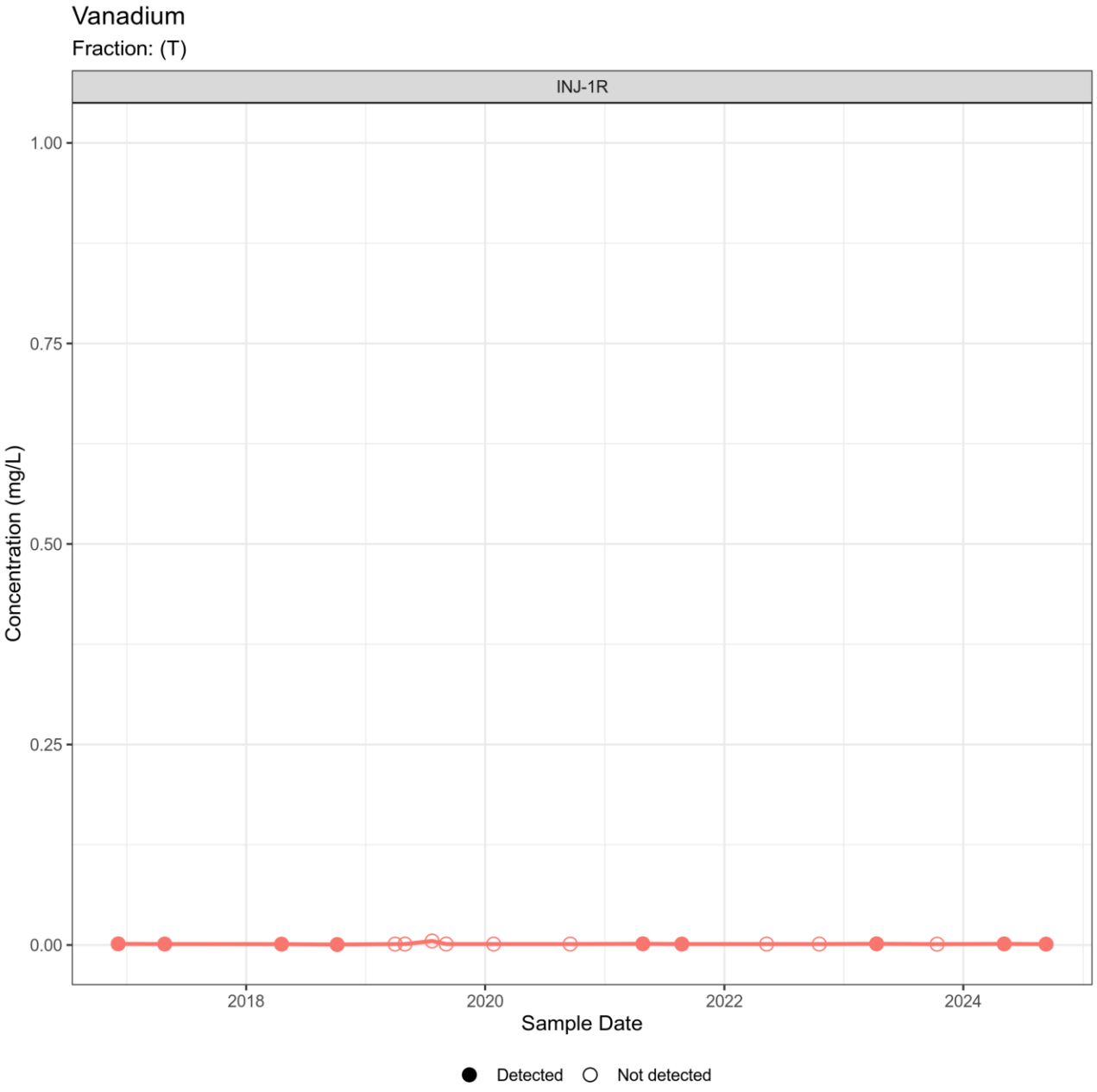
Thallium


Thallium
Fraction: (T)
INJ-1R
1.00
0.75
0.50
0.25
0.00
Concentration (mg/L)
2018
2020
2022
2024
Sample Date
Detected
Not detected

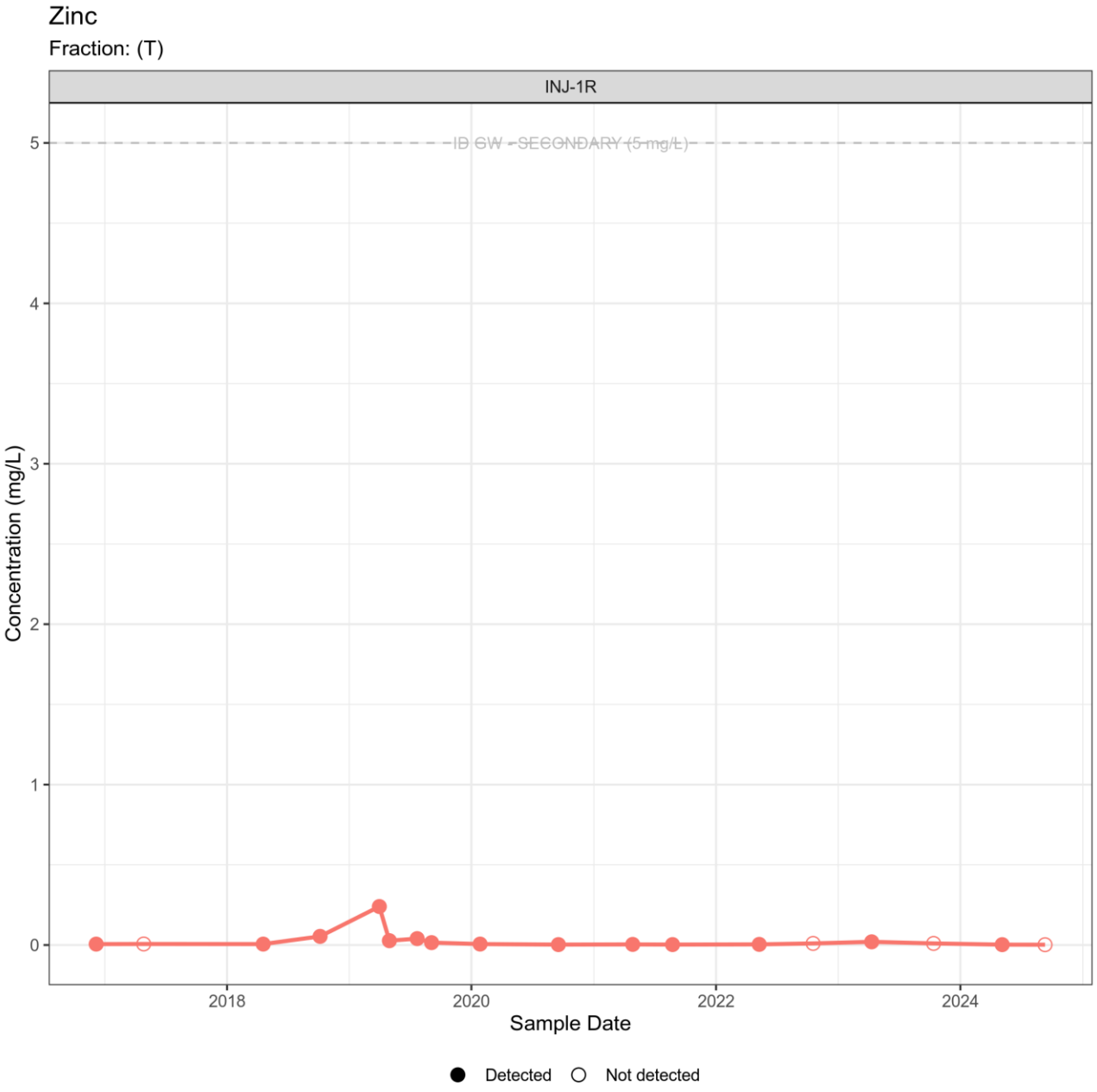
Tin


Tin
Fraction: (T)
INJ-1R
1.00
0.75
0.50
0.25
0.00
Concentration (mg/L)
2018
2020
2022
2024
Sample Date
Detected
Not detected

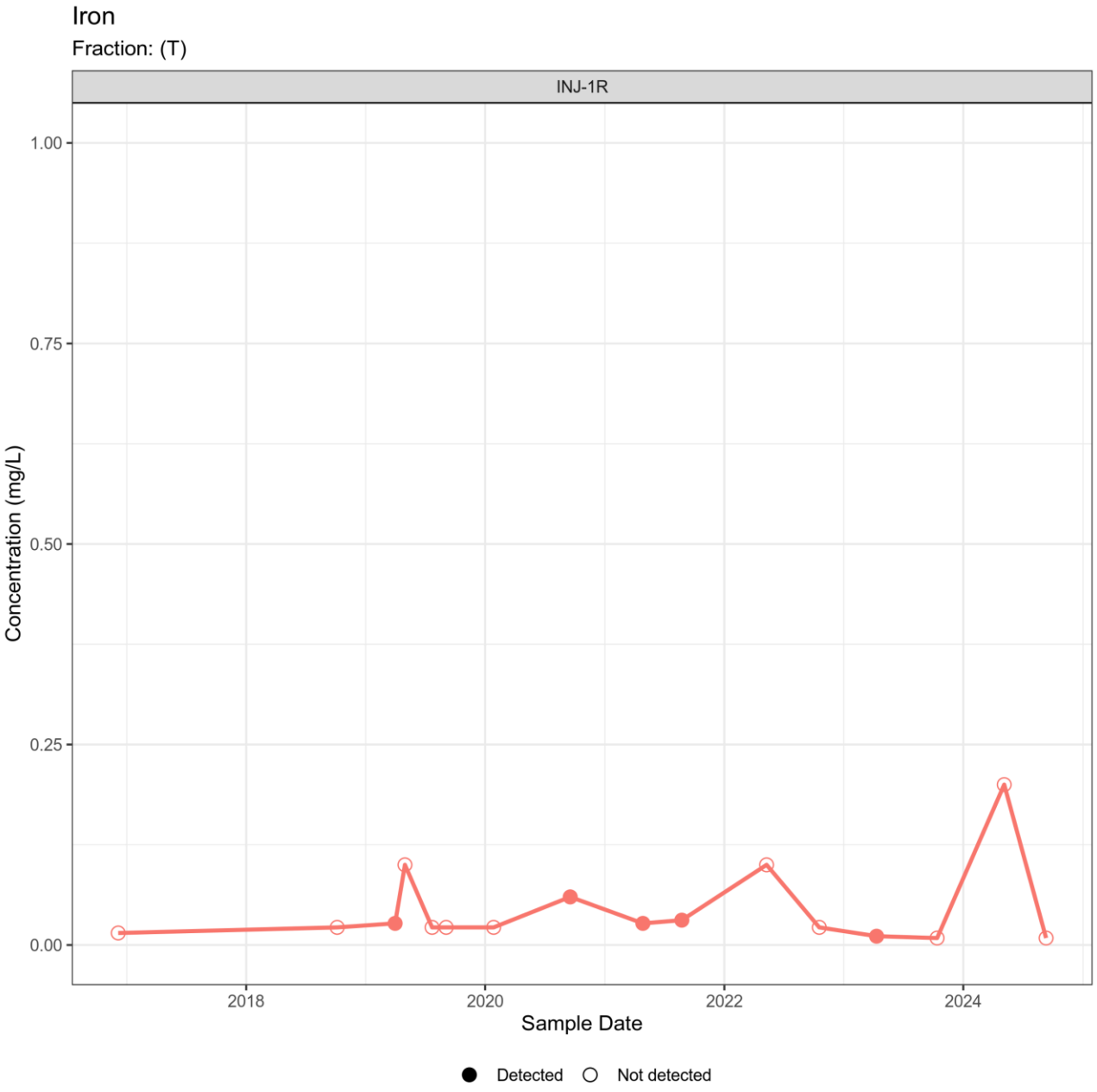
Vanadium


Vanadium
Fraction: (T)
INJ-1R
1.00
0.75
0.50
0.25
0.00
Concentration (mg/L)
2018
2020
2022
2024
Sample Date
Detected
Not detected

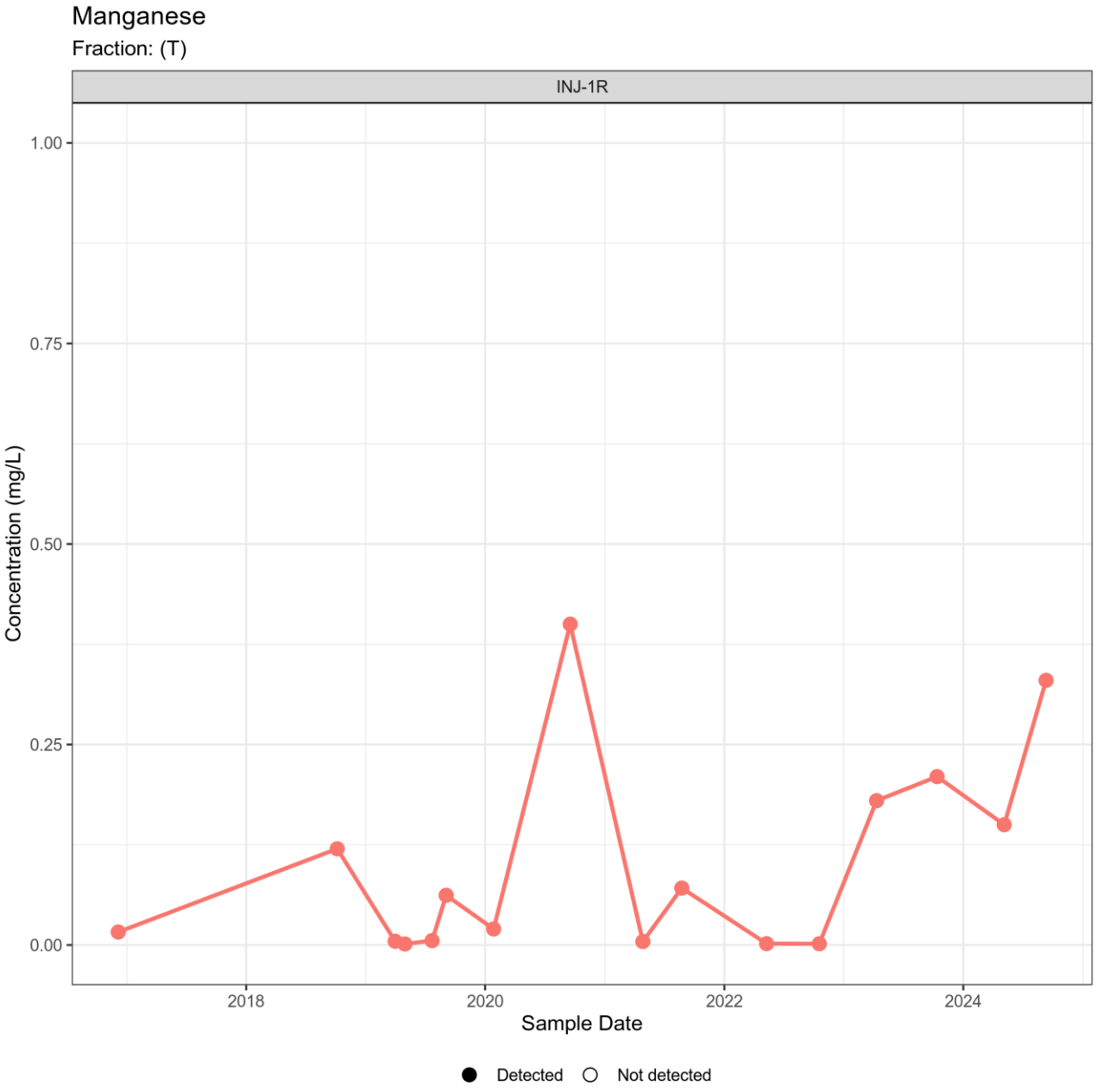
Zinc


Zinc
Fraction: (T)
INJ-1R
ID GW - SECONDARY (5 mg/L)
5
4
3
2
1
0
Concentration (mg/L)
2018
2020
2022
2024
Sample Date
Detected
Not detected

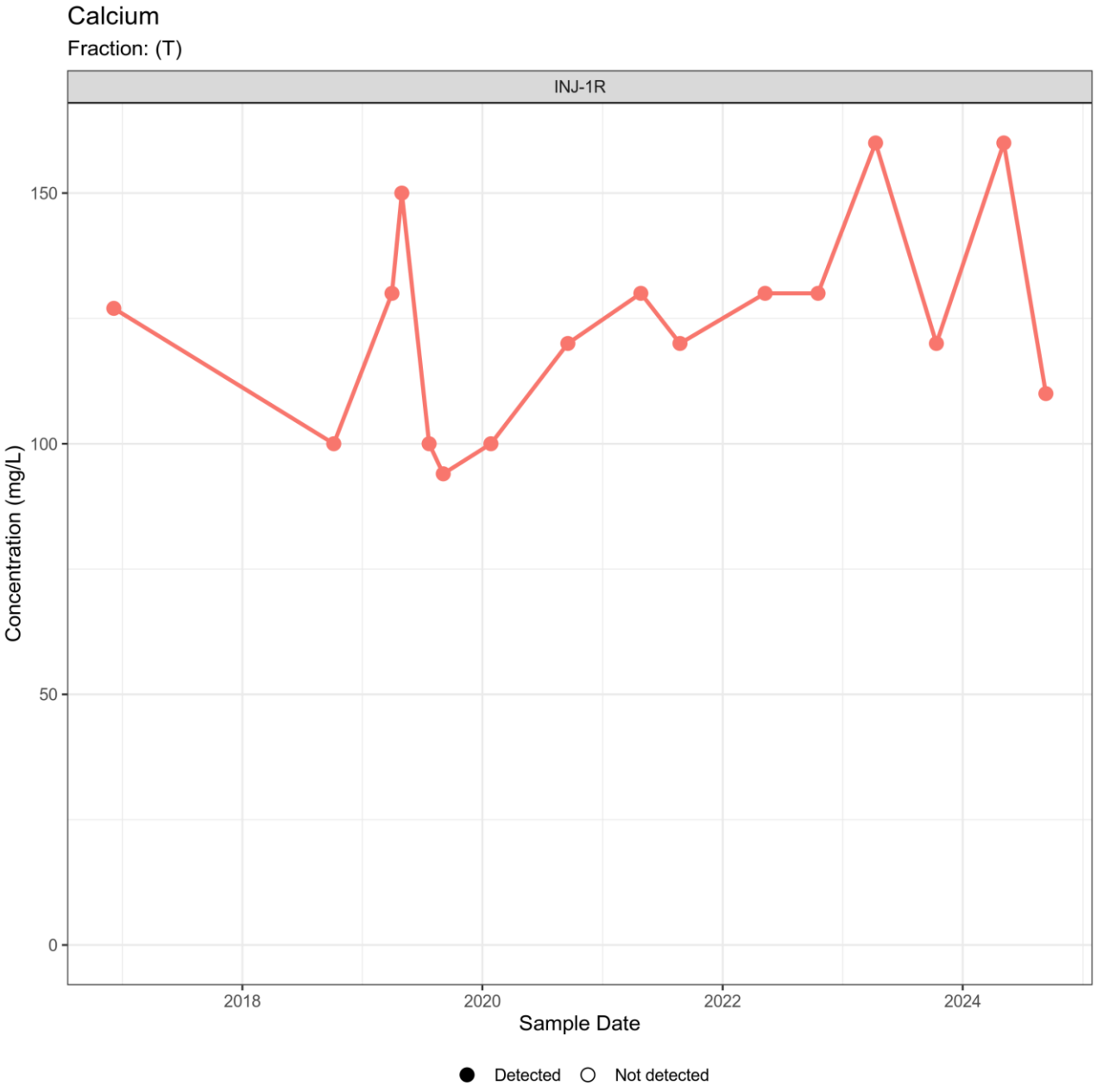
Iron


Iron
Fraction: (T)
INJ-1R
1.00
0.75
0.50
0.25
0.00
Concentration (mg/L)
2018
2020
2022
2024
Sample Date
Detected
Not detected

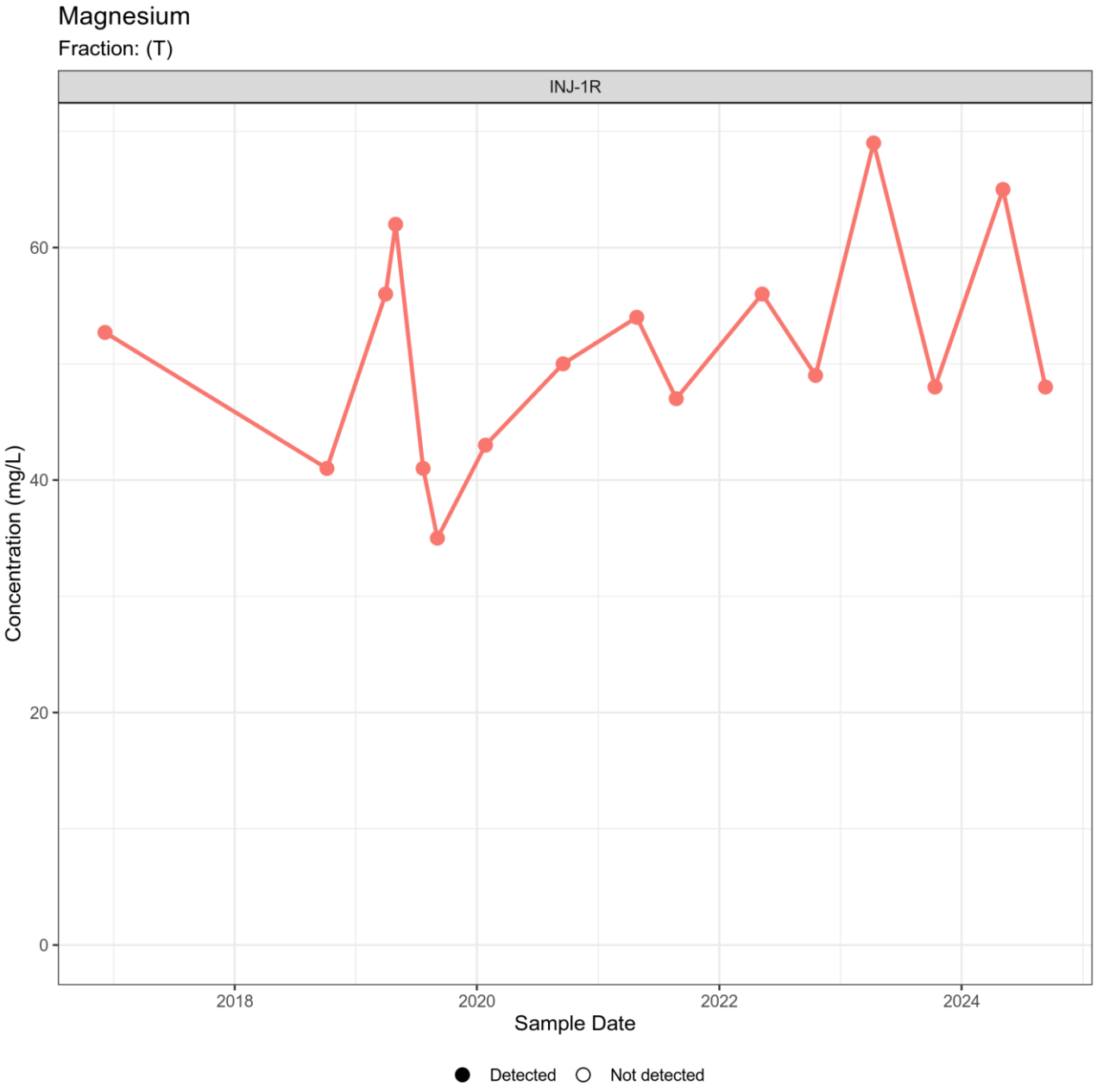
Manganese


Manganese
Fraction: (T)
INJ-1R
1.00
0.75
0.50
0.25
0.00
Concentration (mg/L)
2018
2020
2022
2024
Sample Date
Detected
Not detected

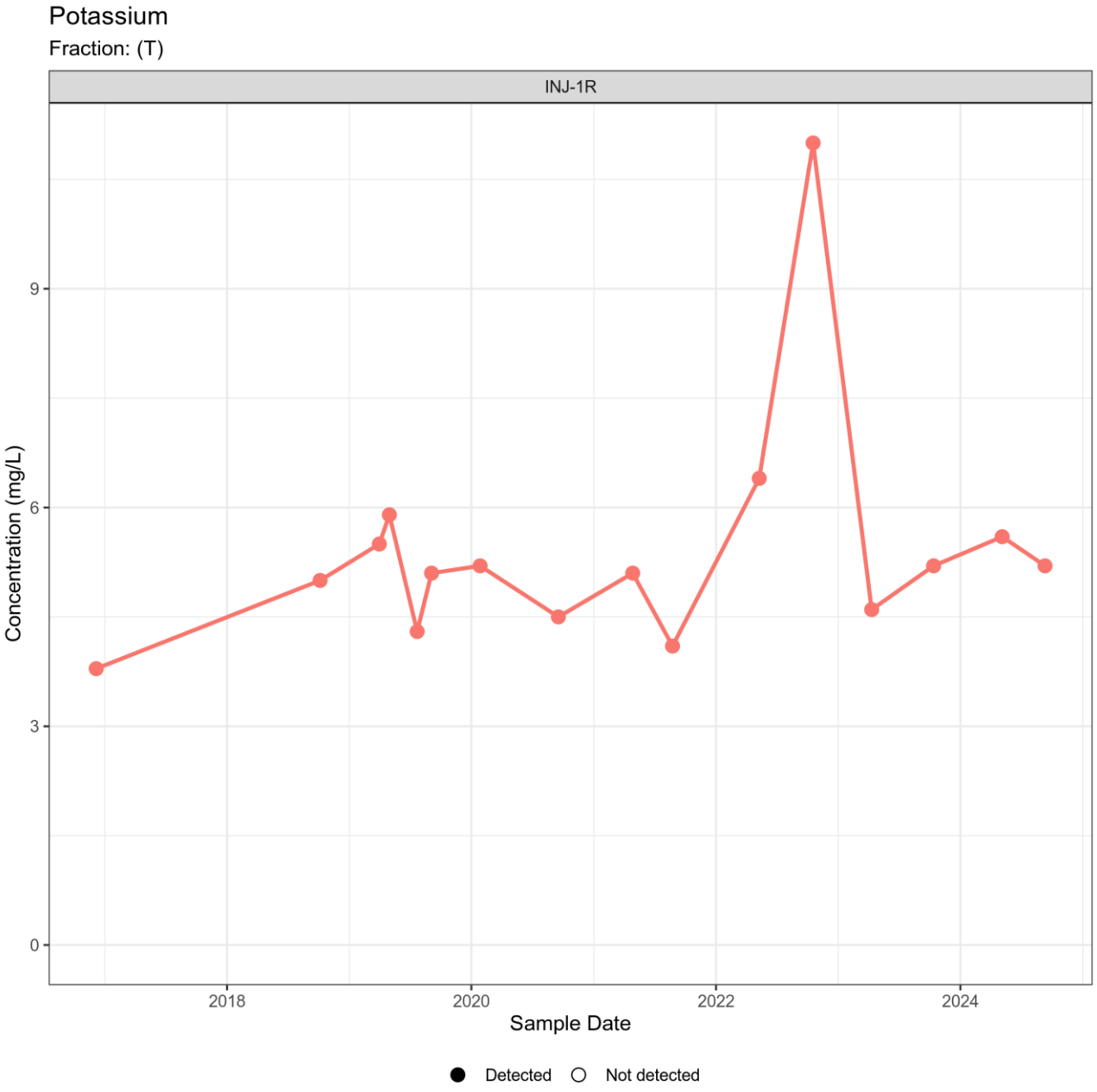
Calcium


Calcium
Fraction: (T)
INJ-1R
150
100
50
0
Concentration (mg/L)
2018
2020
2022
2024
Sample Date
Detected
Not detected

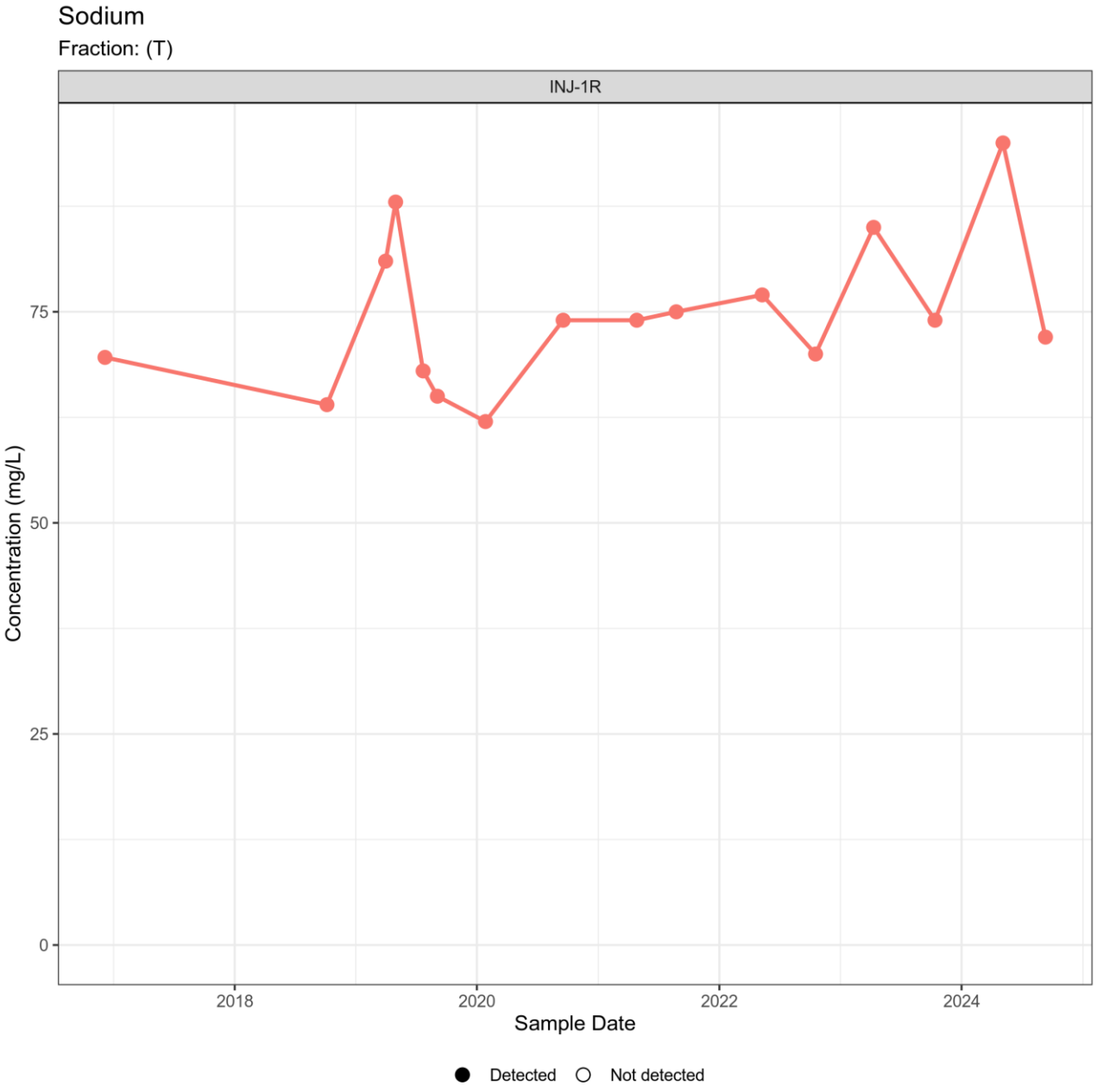
Magnesium


Magnesium
Fraction: (T)
INJ-1R
60
40
20
0
Concentration (mg/L)
2018
2020
2022
2024
Sample Date
Detected
Not detected

Potassium


Potassium
Fraction: (T)
INJ-1R
Concentration (mg/L)
0
3
6
9
2018
2020
2022
2024
Sample Date
Detected
Not detected

Sodium


Sodium
Fraction: (T)
INJ-1R
Concentration (mg/L)
75
50
25
0
2018
2020
2022
2024
Sample Date
Detected
Not detected

Chlorinated Ethenes and Geochemistry Time Series Plots - Cell 1 Monitoring Well

Data filters

This report is filtered to only include:

- **MP-1, MP-2, MP-3, MP-4, MW-101S, MW-102S, MW-105D, MW-105S, MW-109D, MW-109S, MW-110D, MW-110S, MW-111D, MW-111S, MW-112D, MW-112M, MW-113D, MW-113S, MW-117R, MW-118D, MW-119D, MW-119S, MW-120D, MW-120S, MW-121, MW-123, MW-124, MW-125, RW-1, RW-2, and RW-3** from **Cell 1 Monitoring Well**
- Results from **02 January 2001** to **10 September 2024**

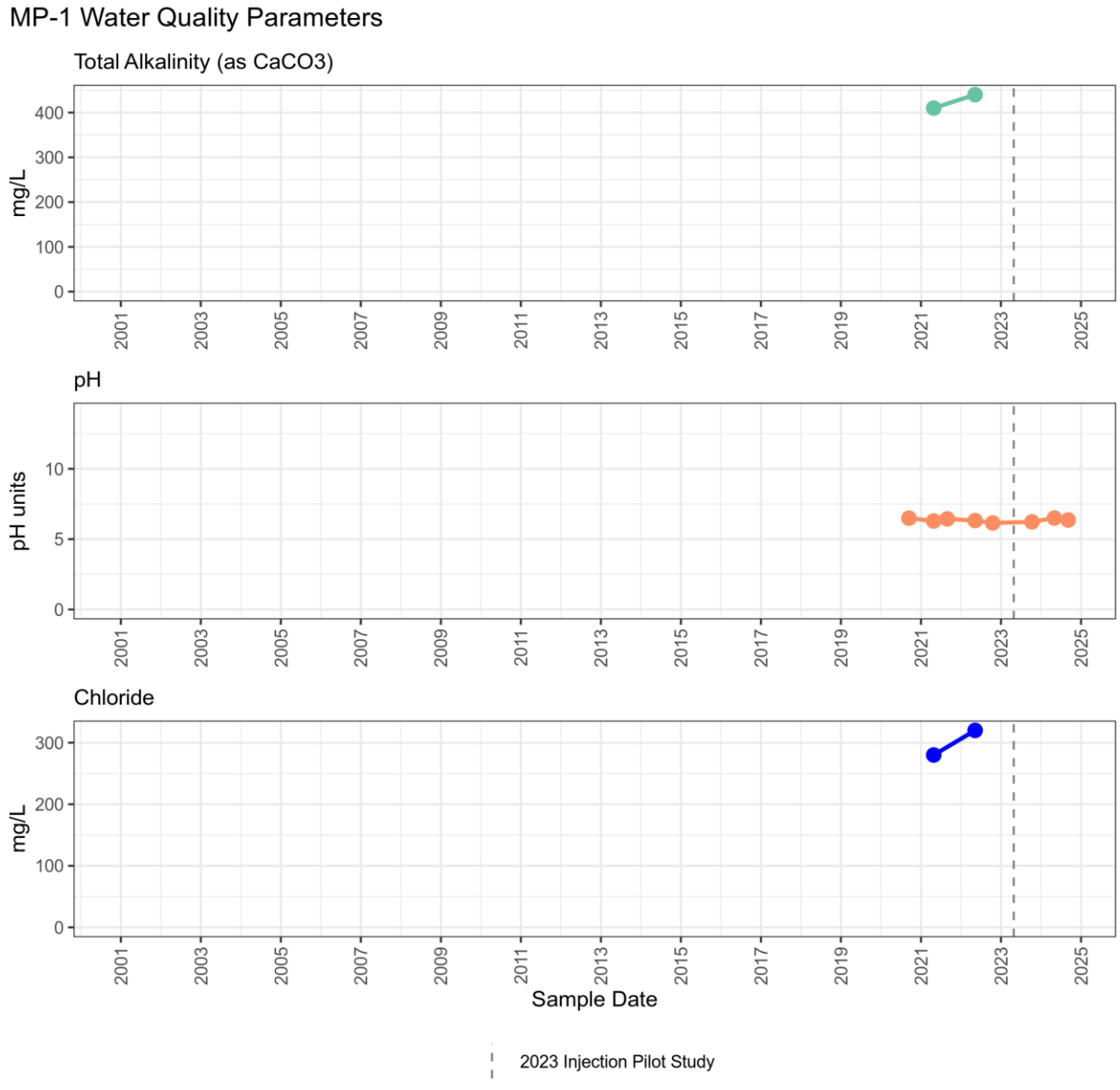
Graph notes

- When only the year is shown in the x-axis label, this represents the start of the year
- The molar concentration graphs only plot detected data
- ORP values that are negative cannot be put in to a log10 scale graph and will not show.

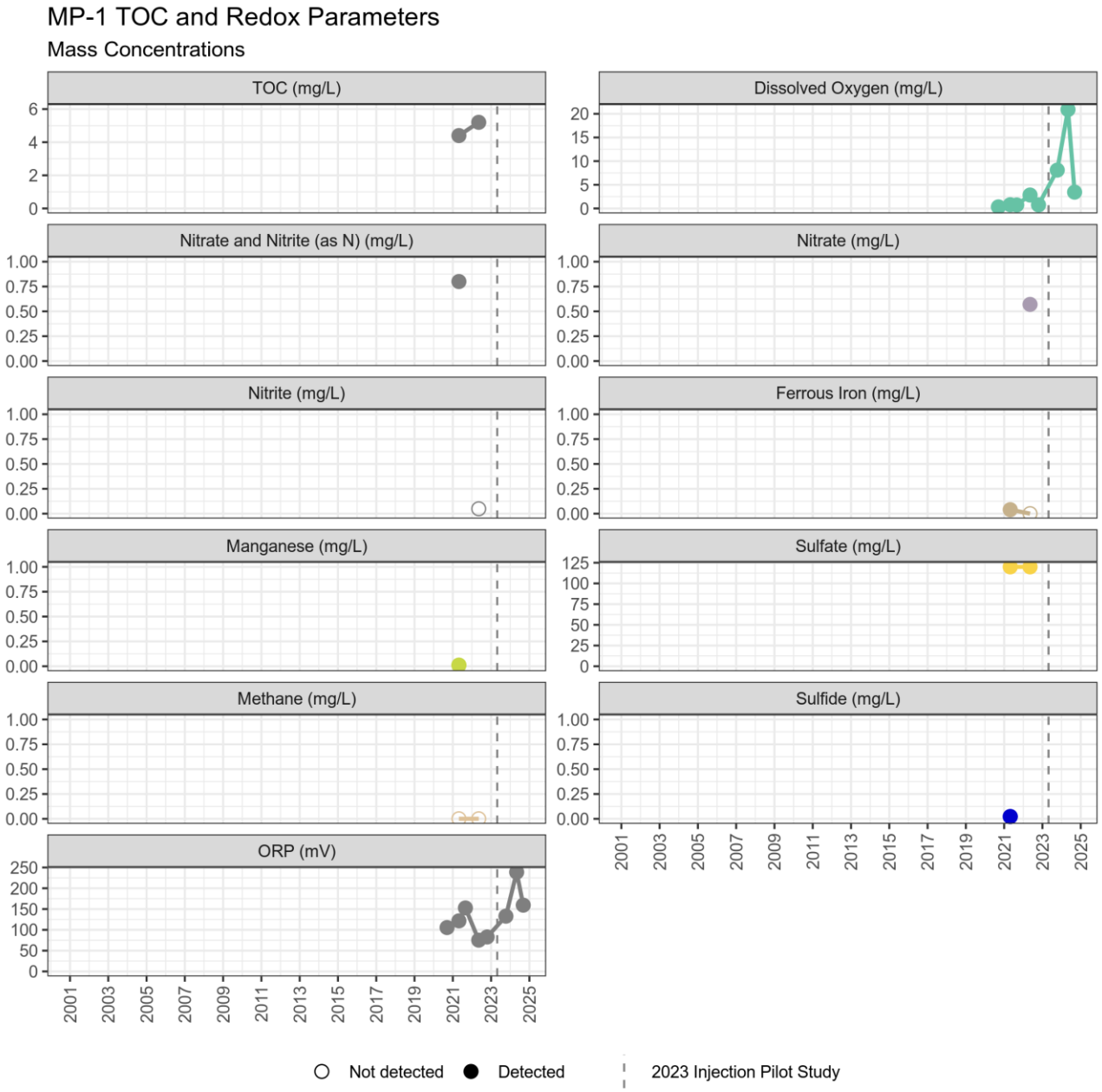
Well summaries

MP-1

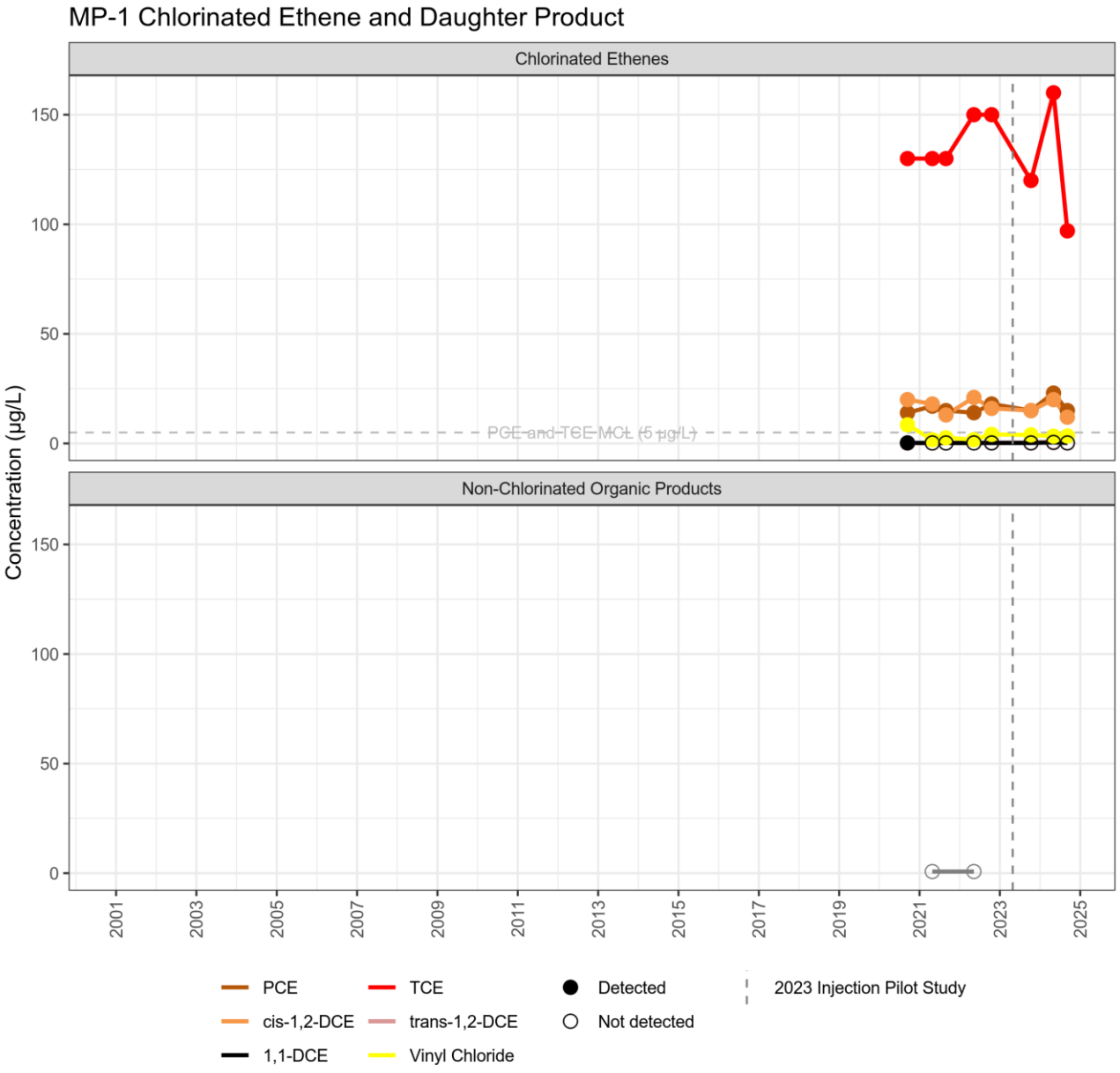
Water Quality



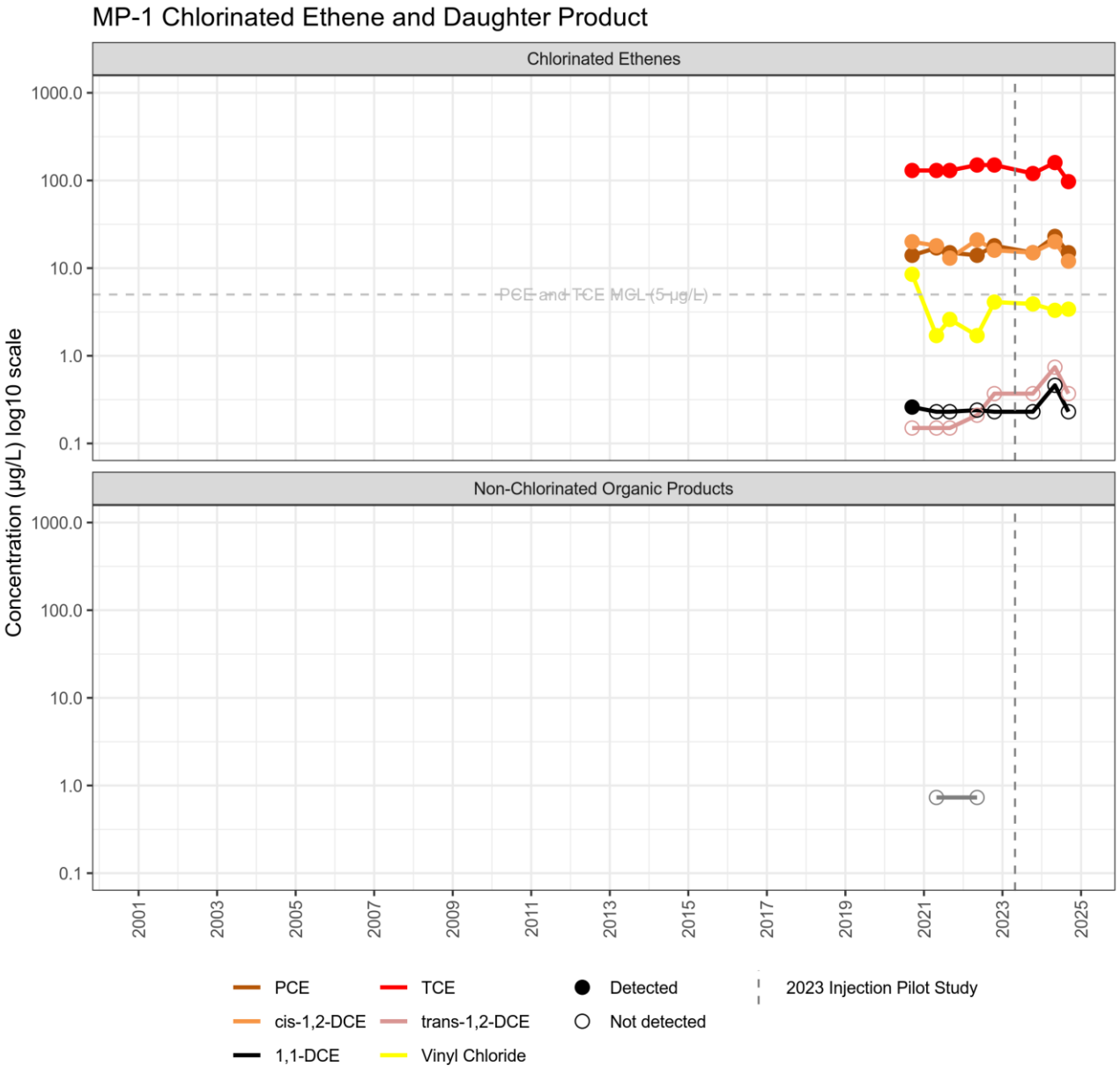
TOC and Redox Parameters



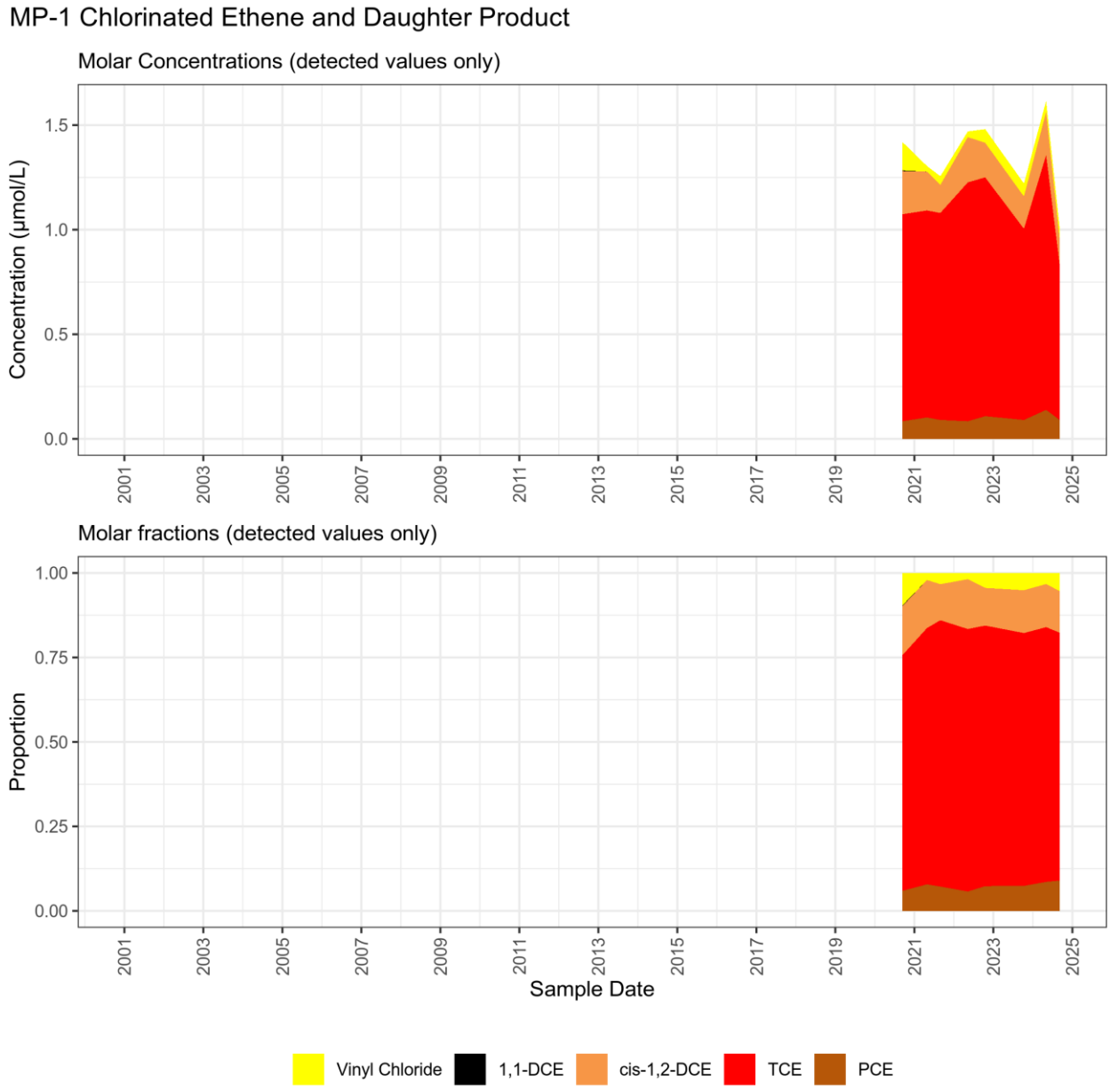
Chlorinated Ethene and Daughter Product Mass



Chlorinated Ethene and Daughter Product Mass (log10)

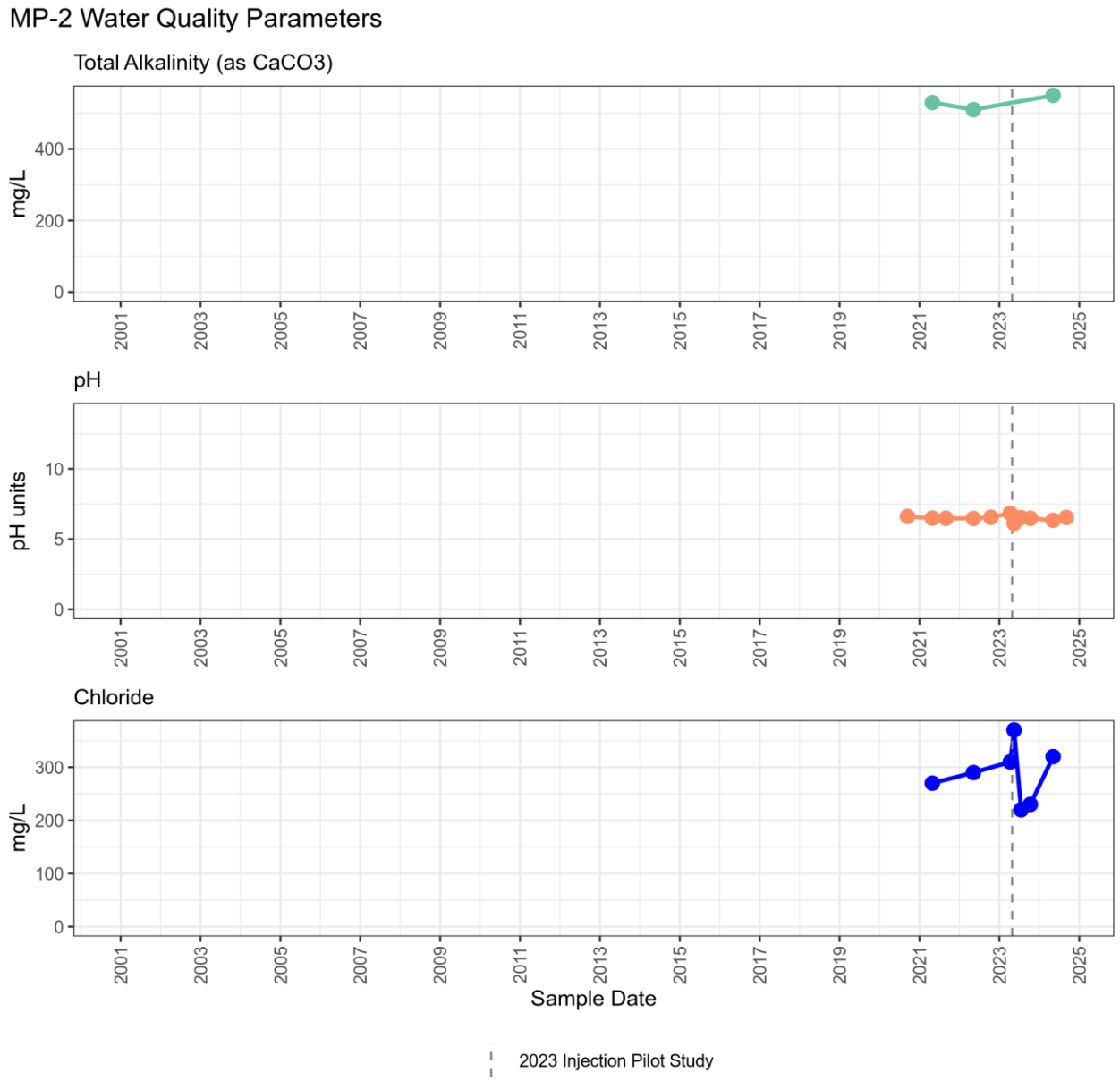


Chlorinated Ethene and Daughter Product Concentration

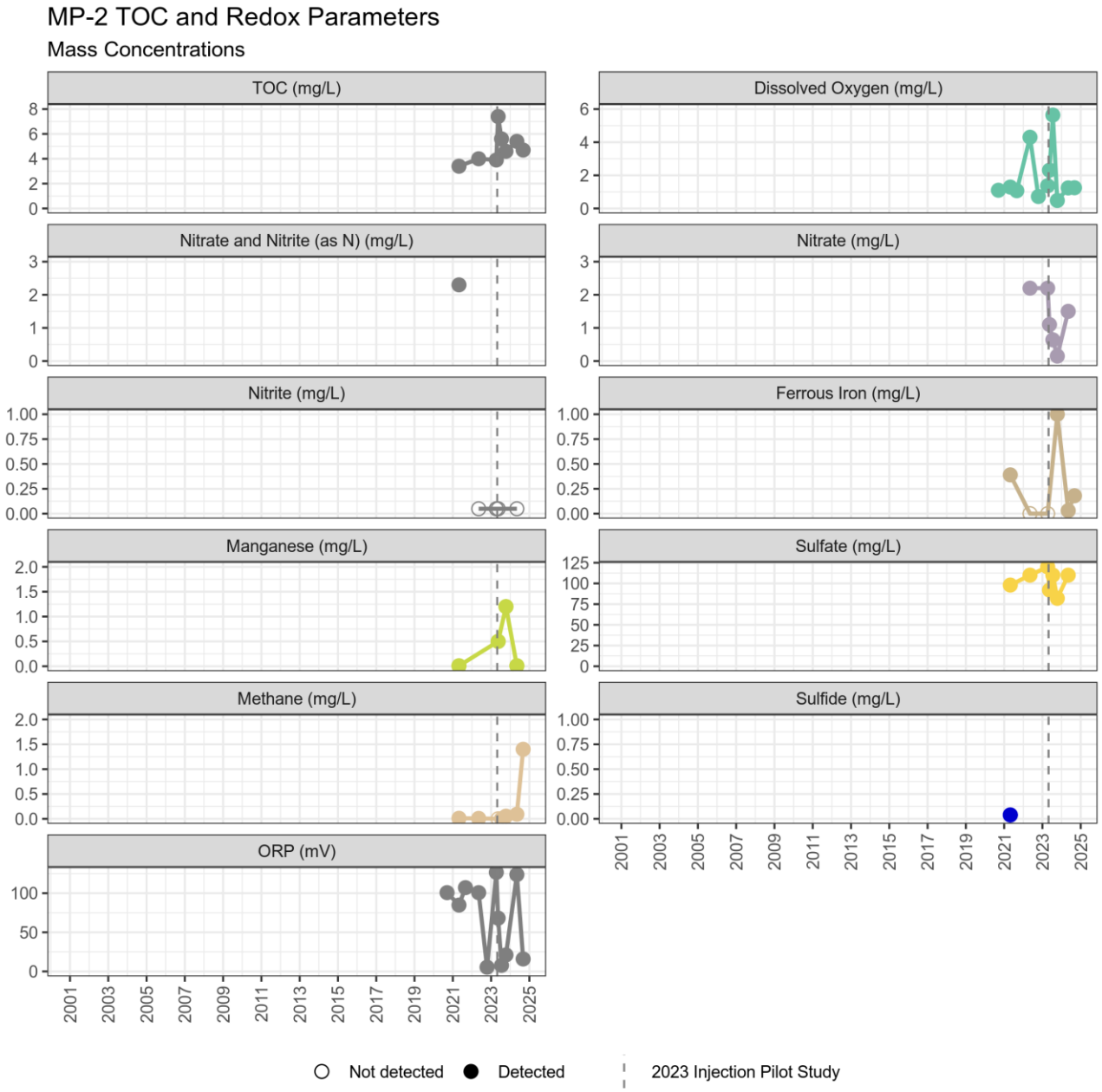


MP-2

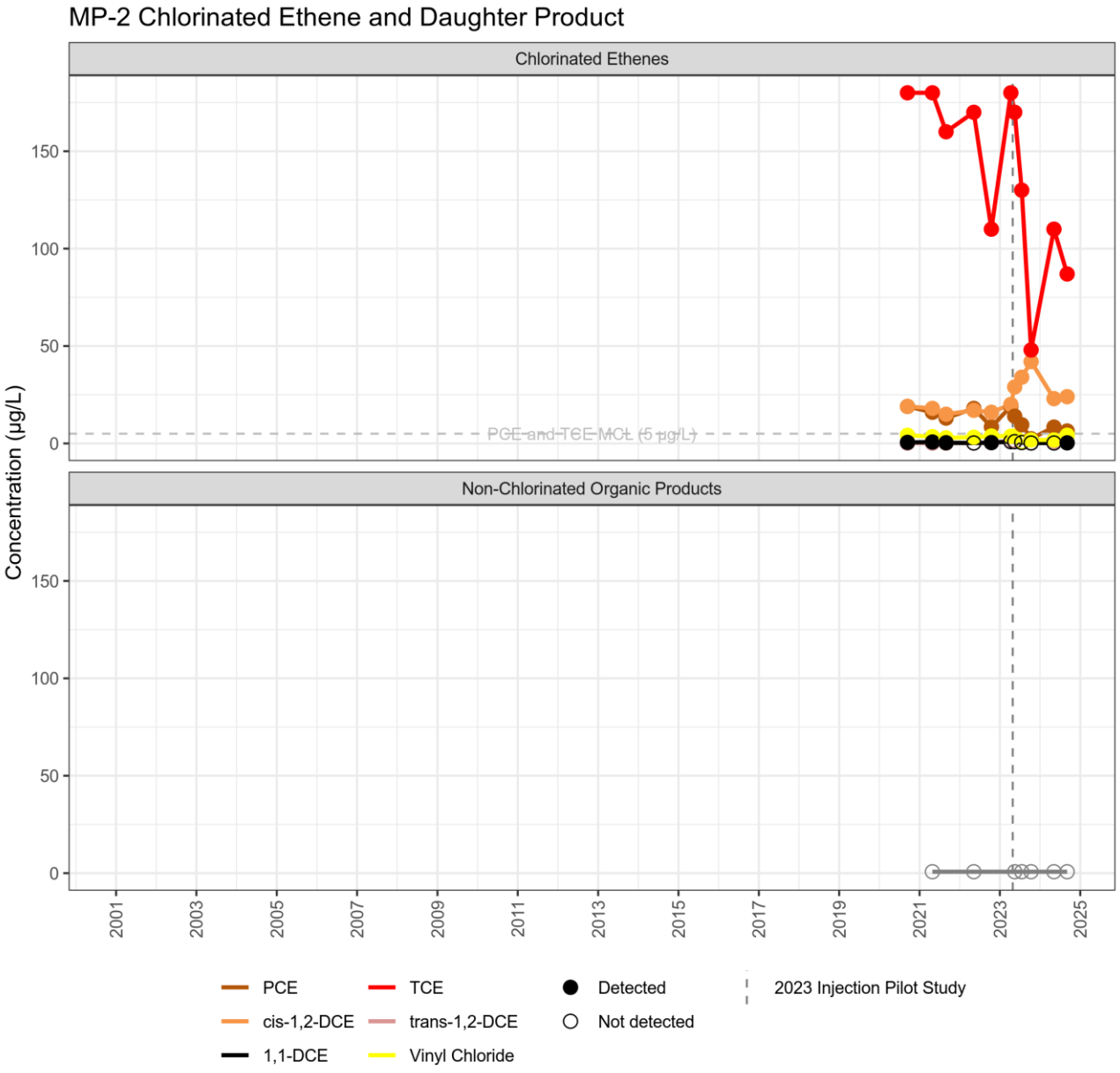
Water Quality



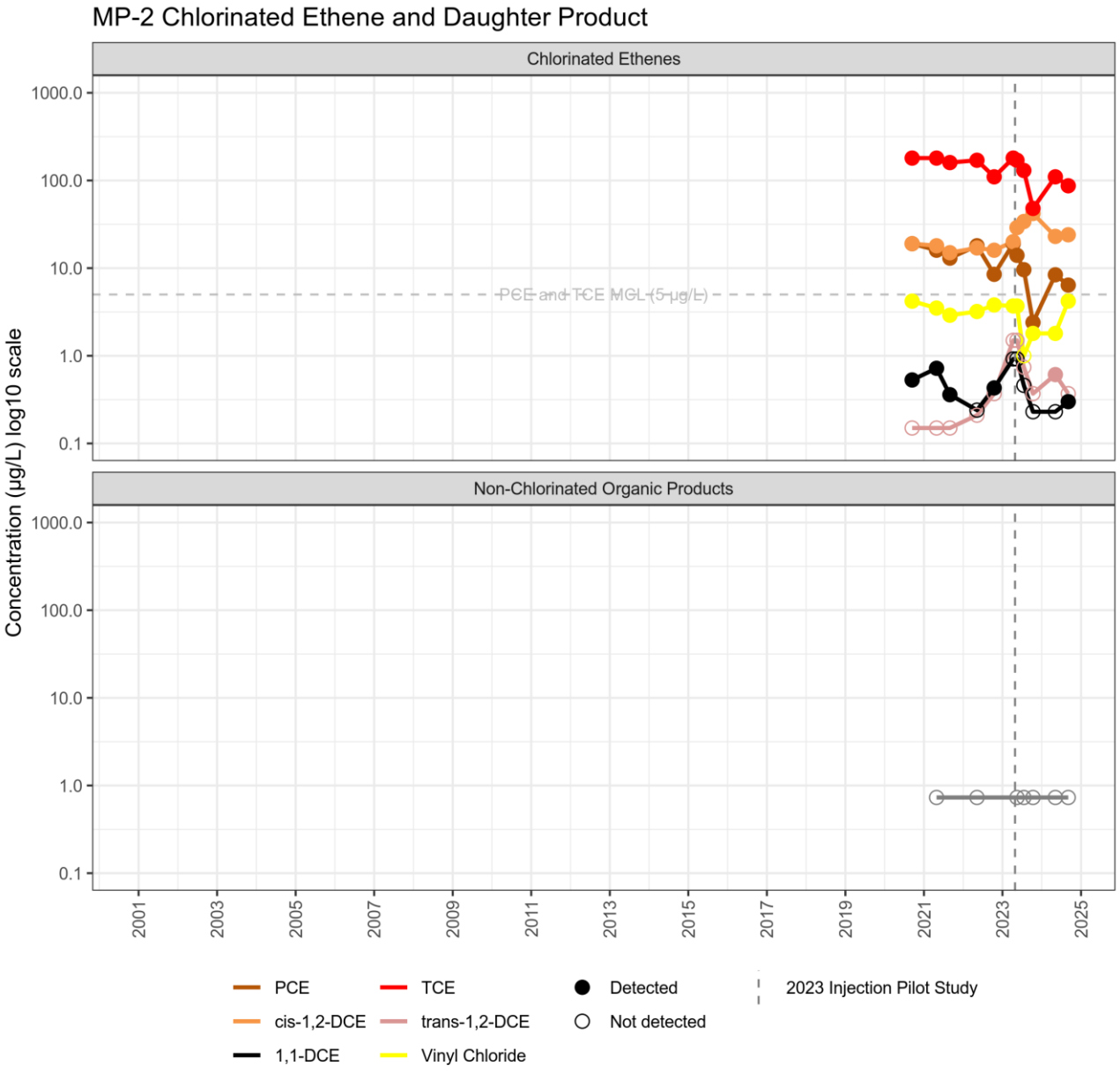
TOC and Redox Parameters



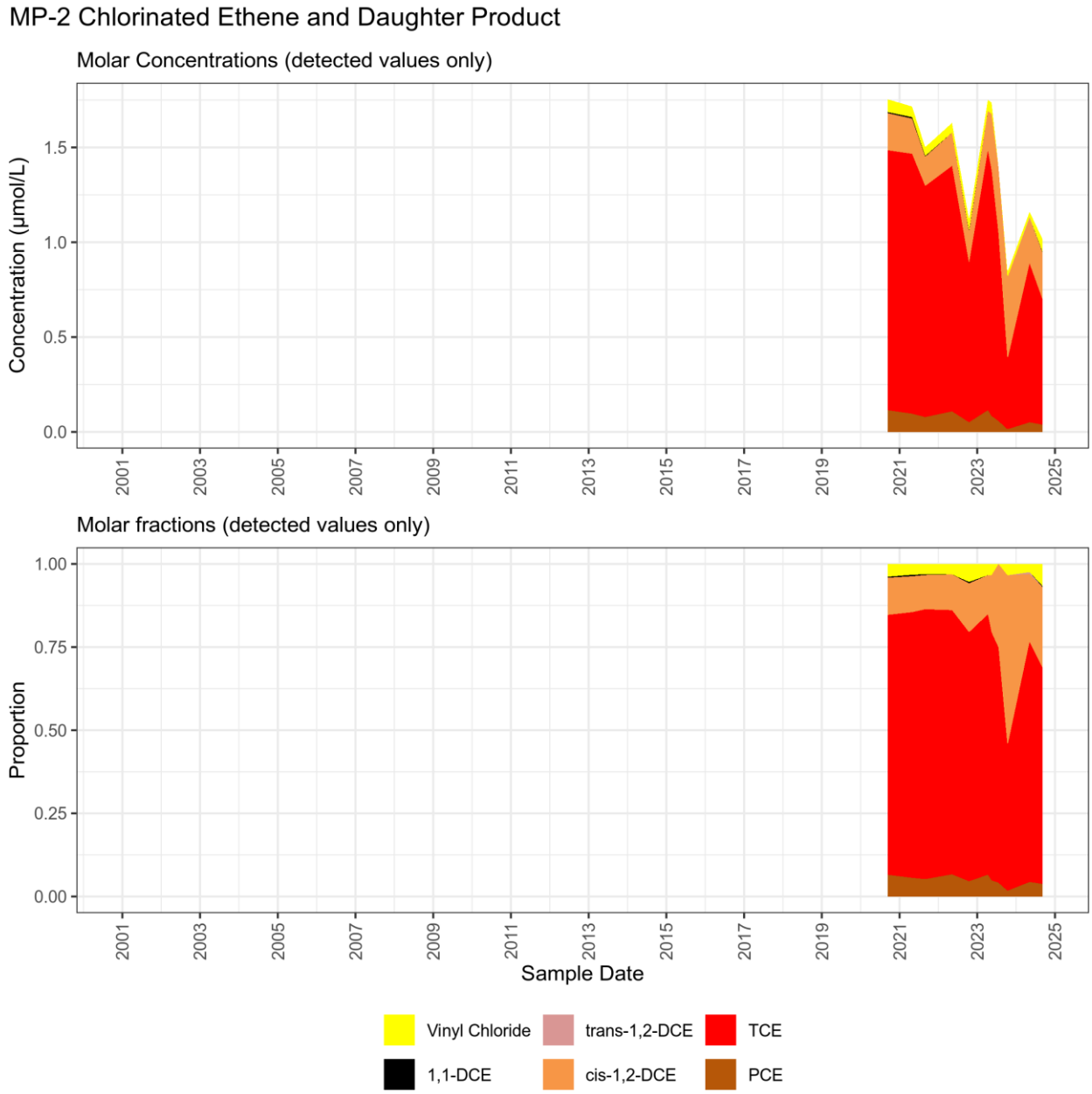
Chlorinated Ethene and Daughter Product Mass



Chlorinated Ethene and Daughter Product Mass (log10)

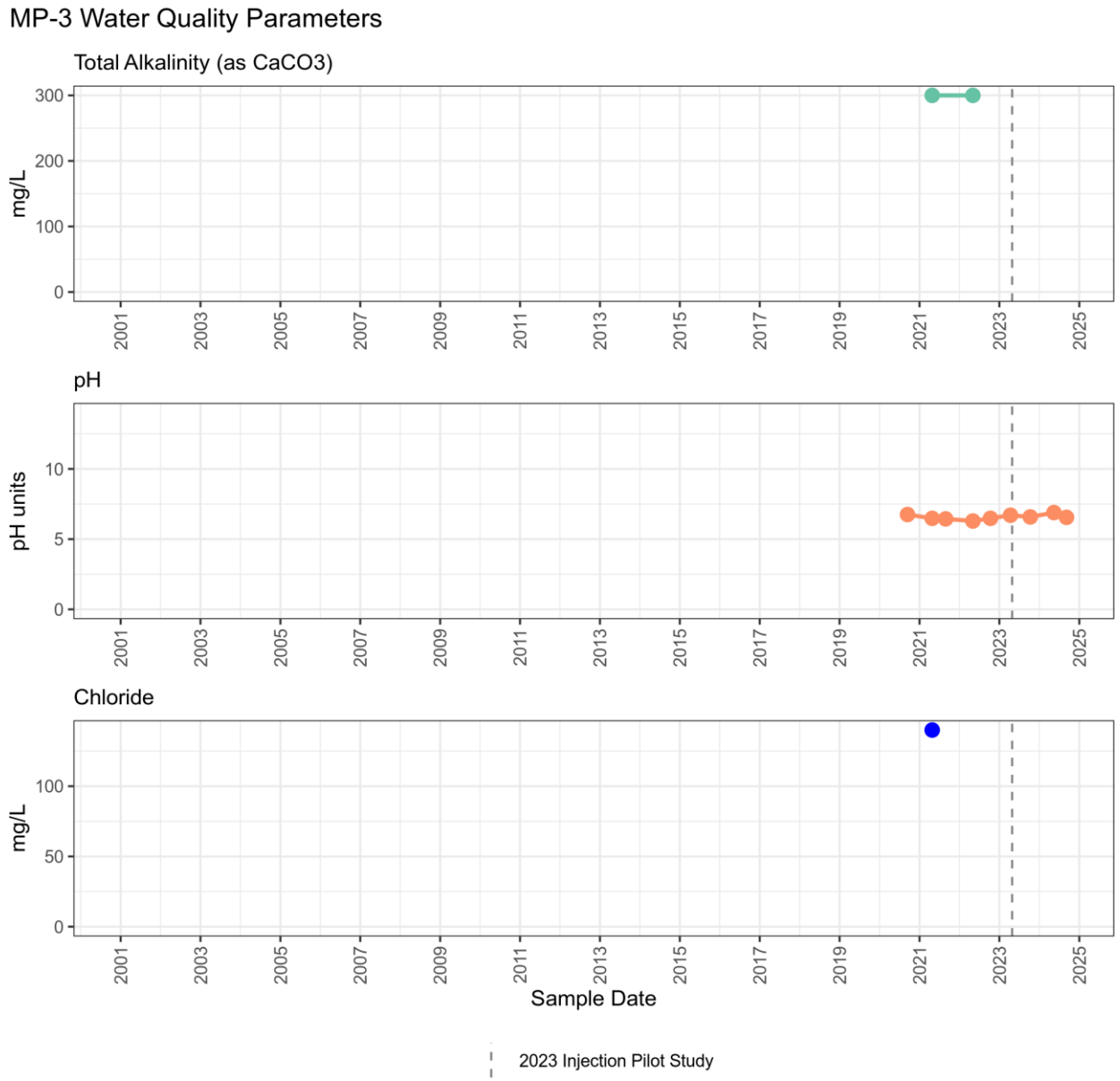


Chlorinated Ethene and Daughter Product Concentration

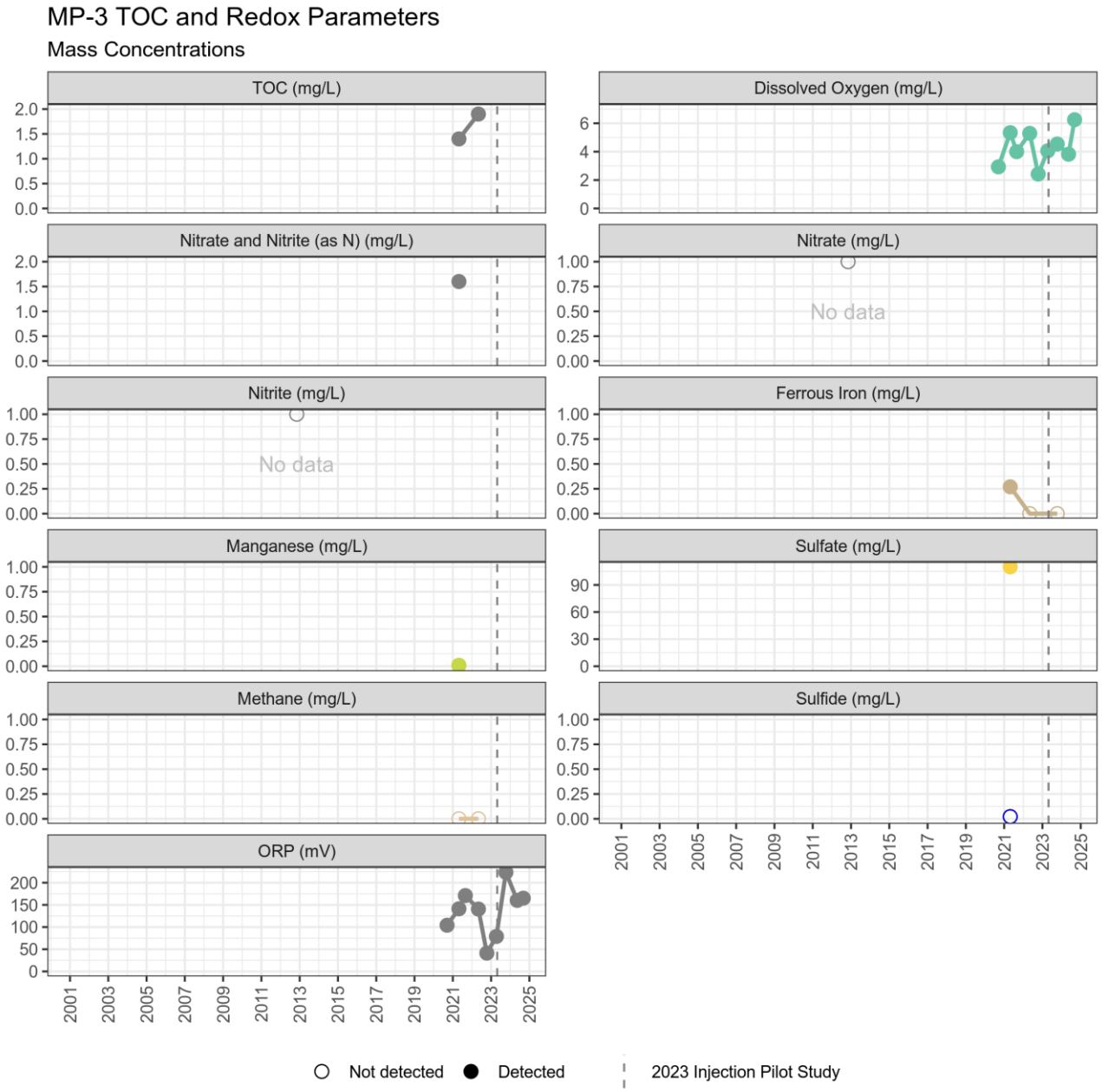


MP-3

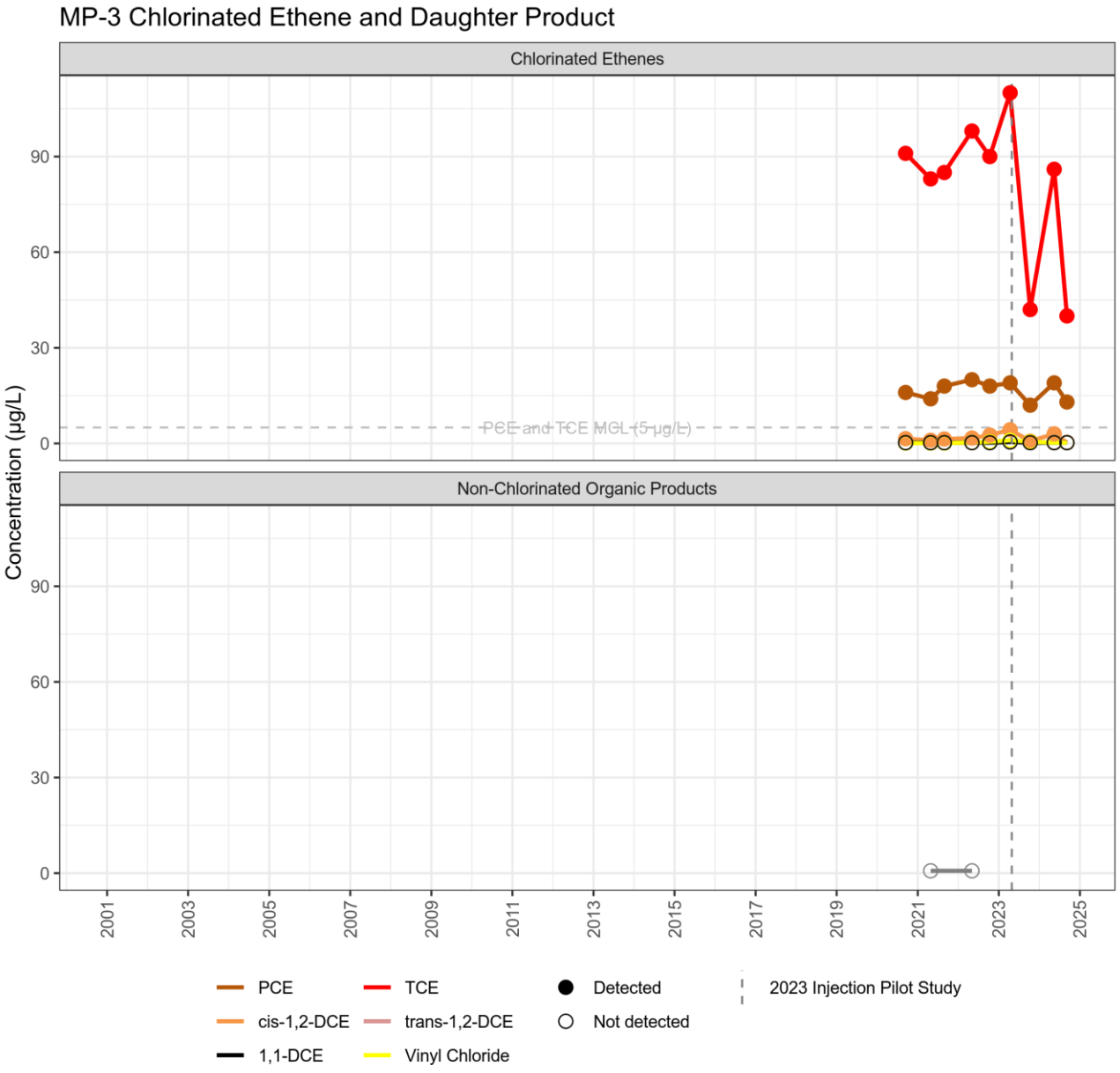
Water Quality



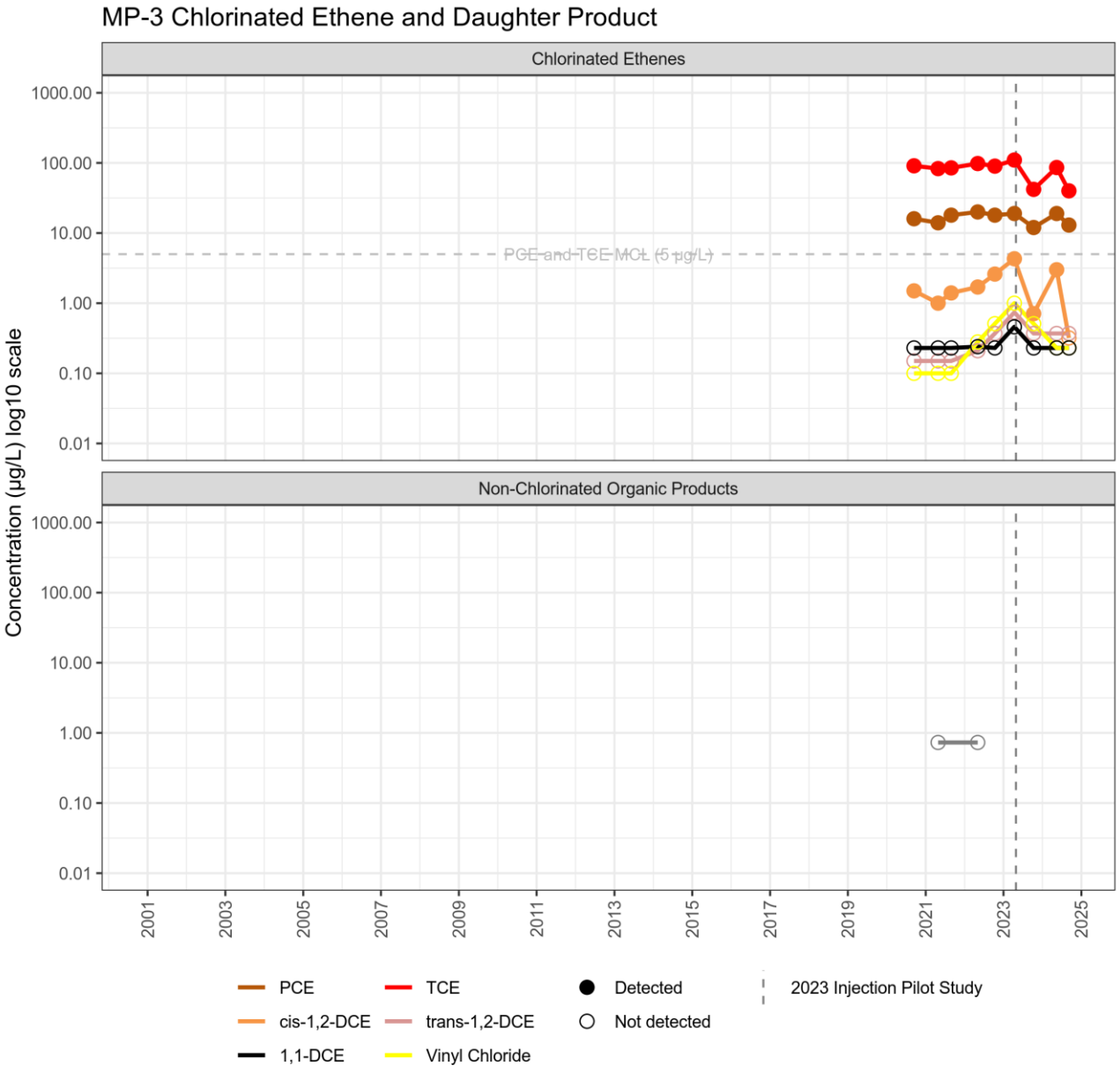
TOC and Redox Parameters



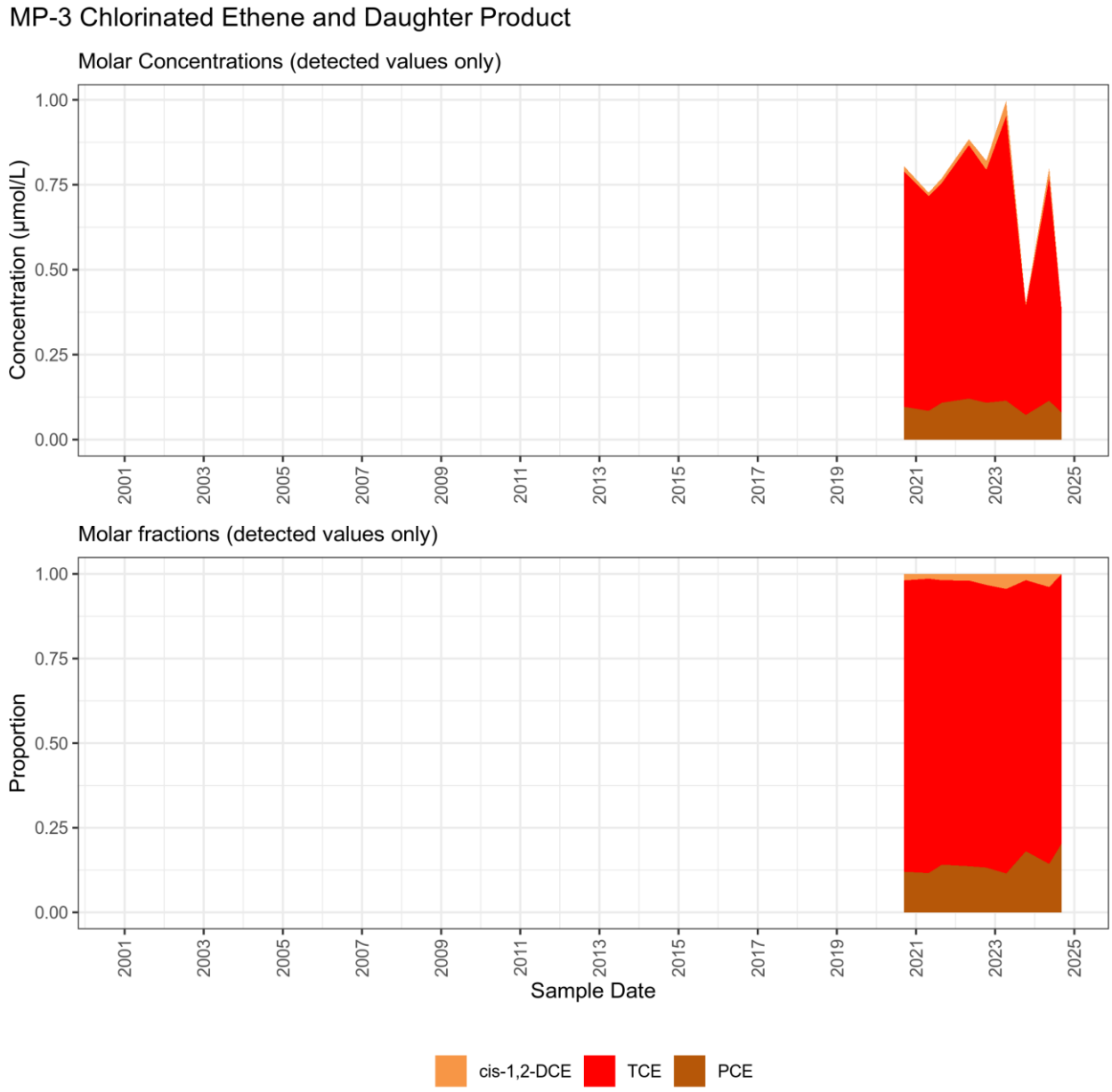
Chlorinated Ethene and Daughter Product Mass



Chlorinated Ethene and Daughter Product Mass (log10)

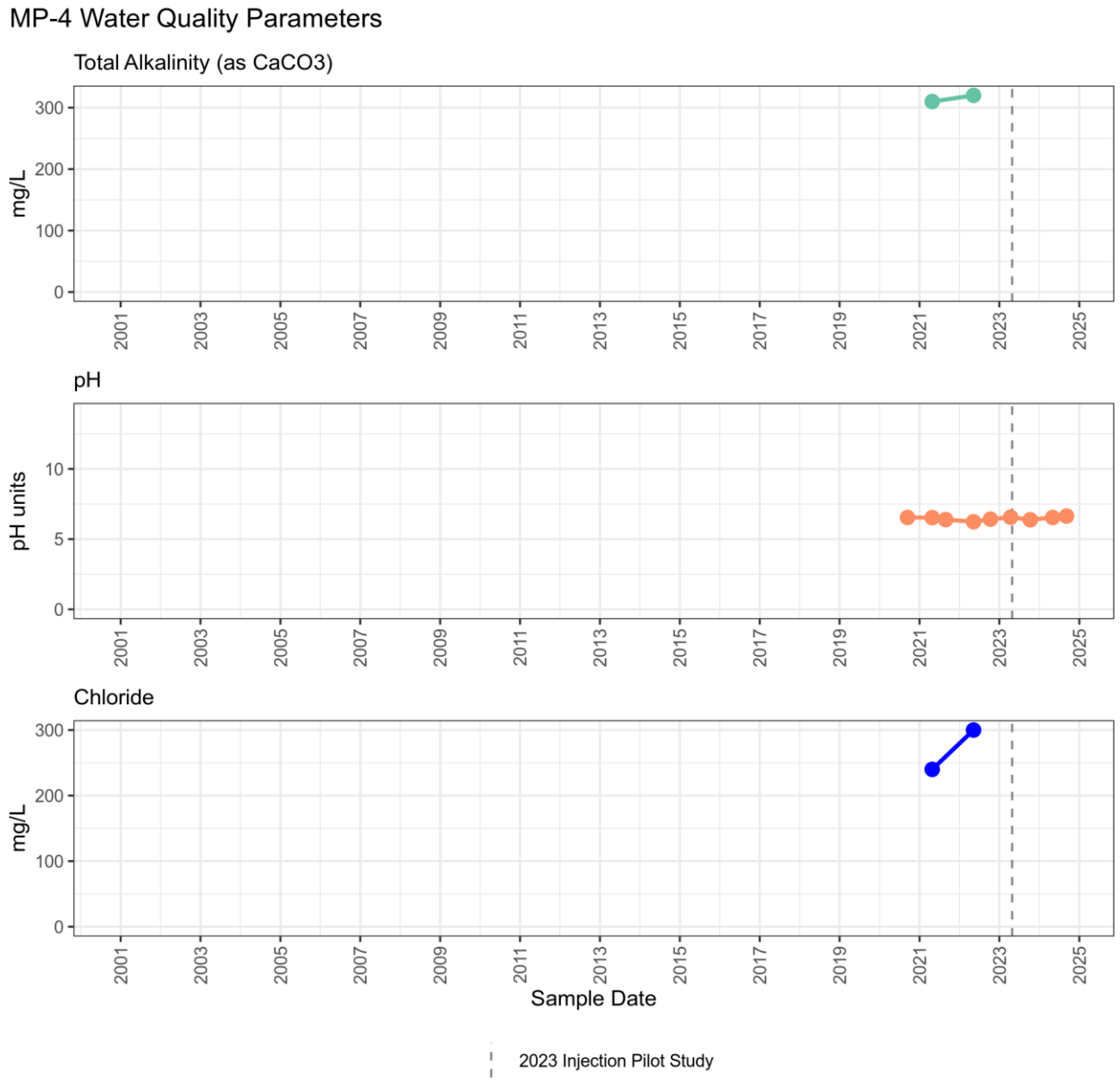


Chlorinated Ethene and Daughter Product Concentration

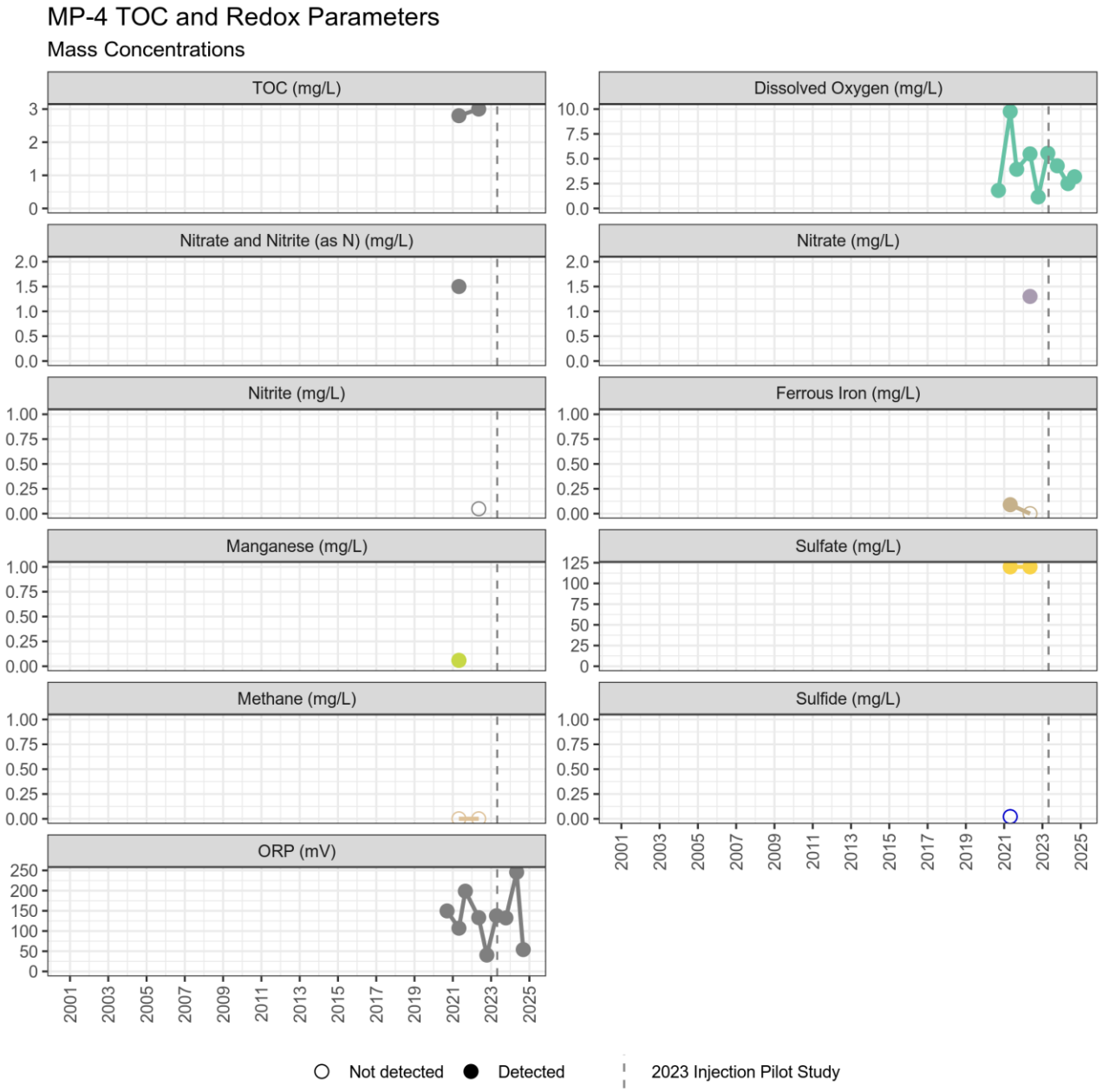


MP-4

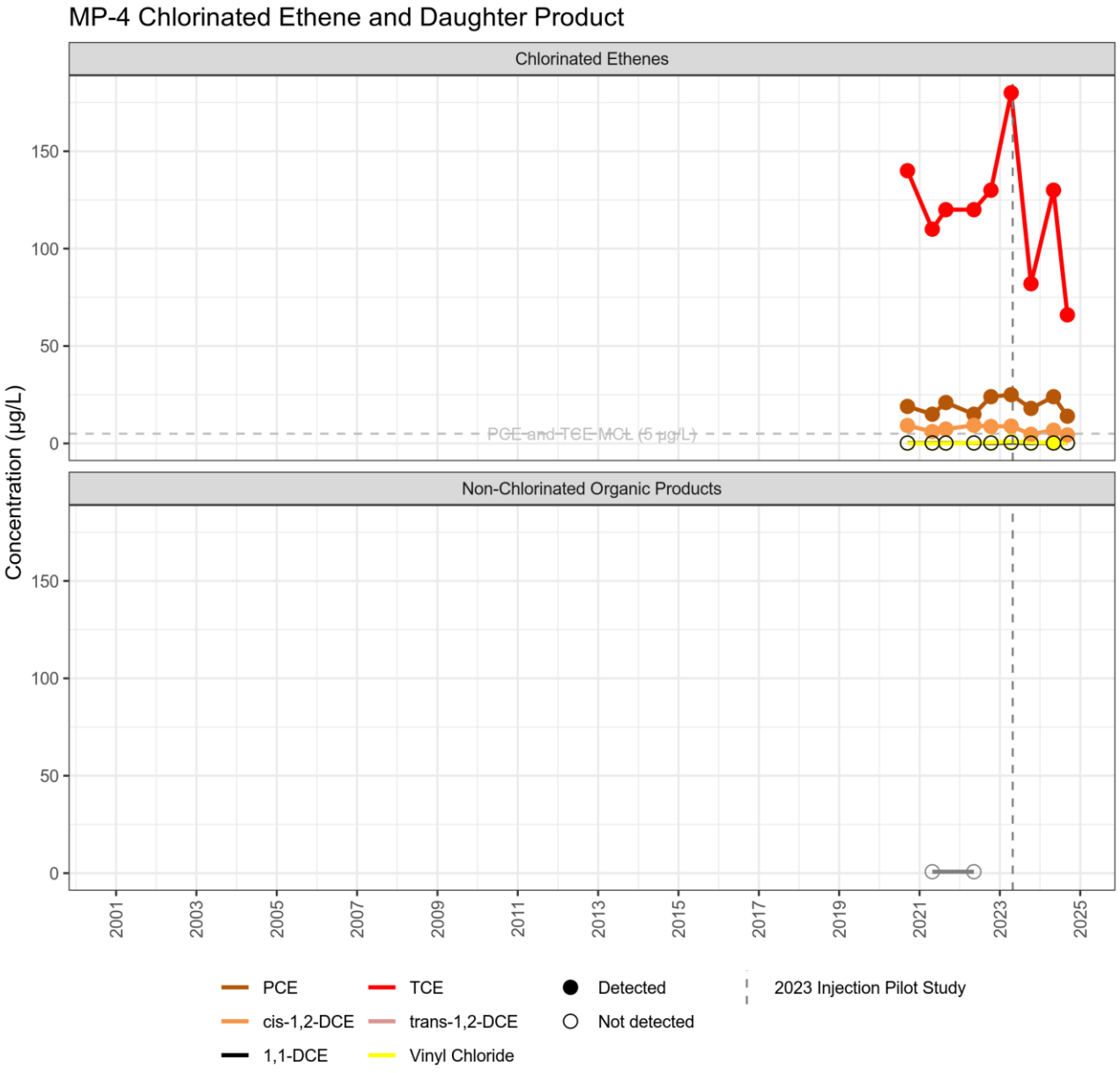
Water Quality



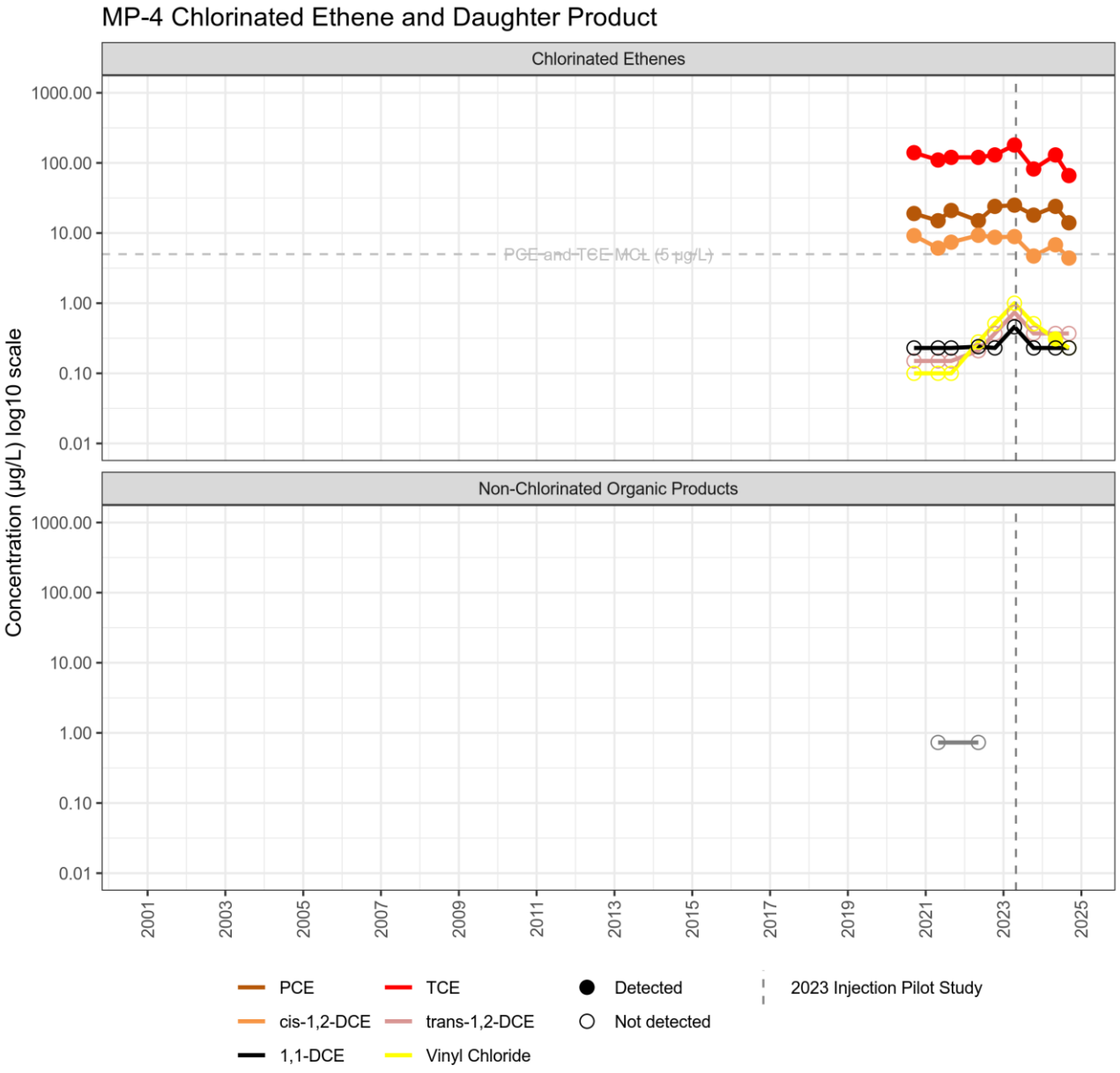
TOC and Redox Parameters



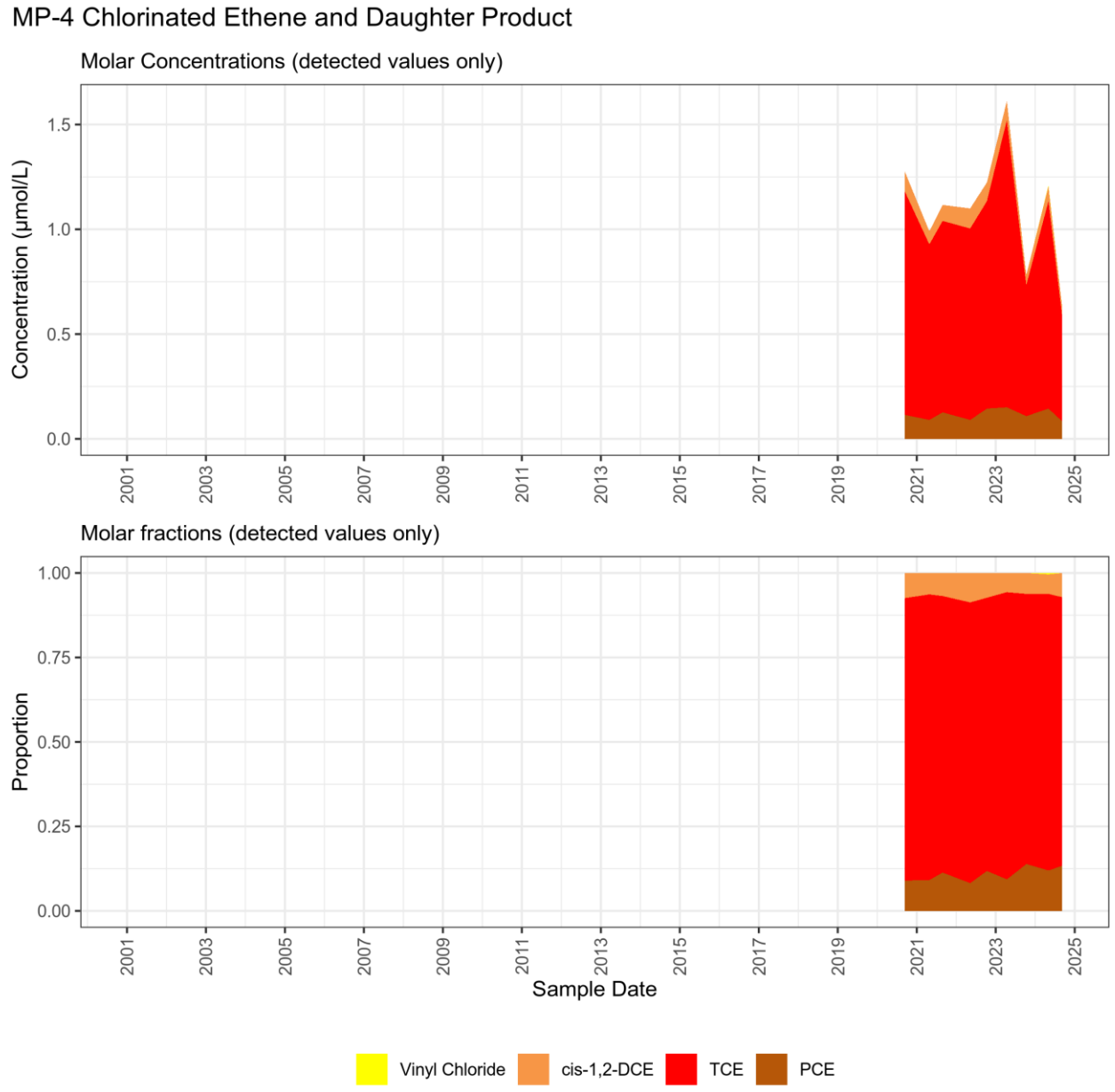
Chlorinated Ethene and Daughter Product Mass



Chlorinated Ethene and Daughter Product Mass (log10)

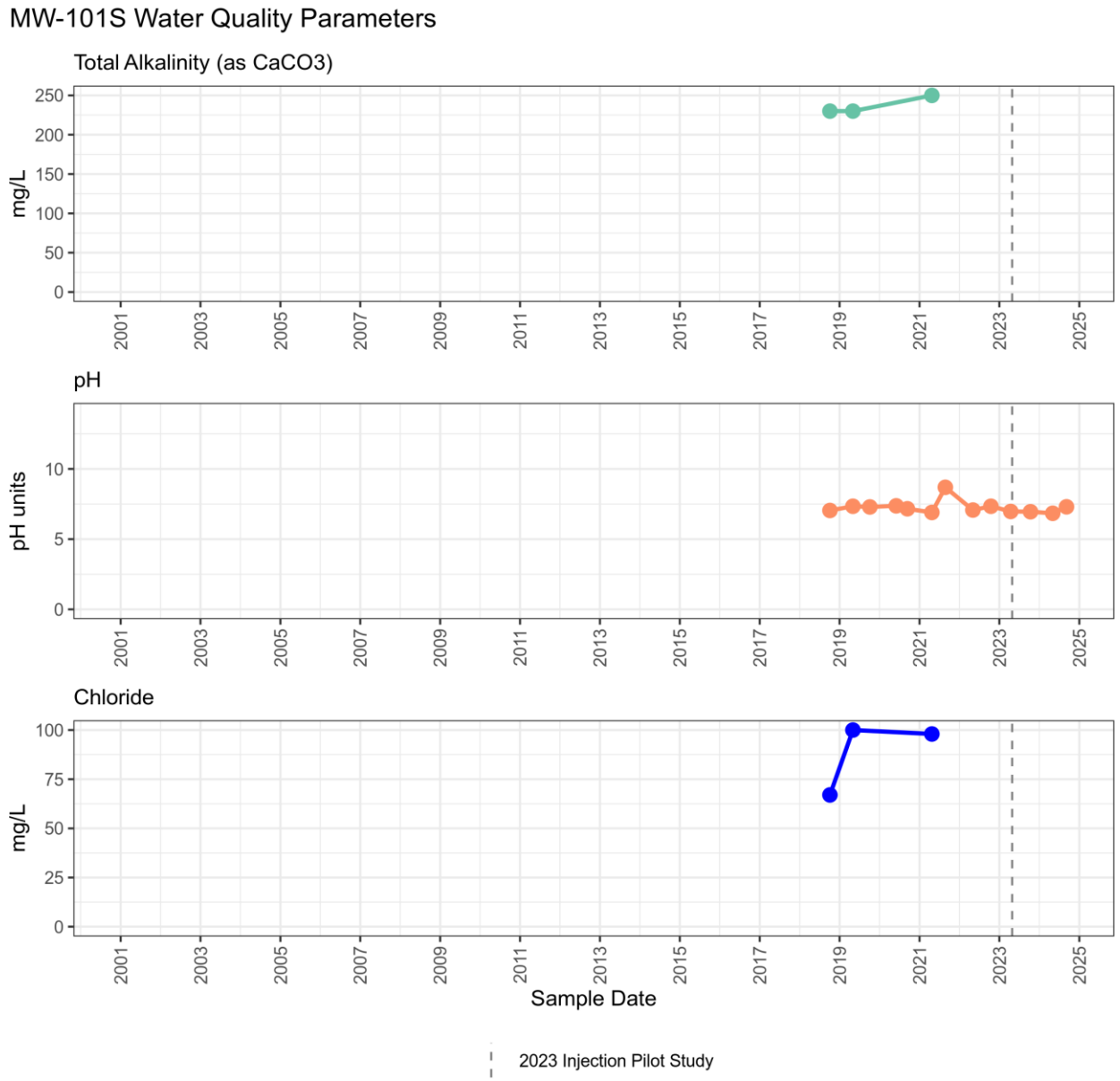


Chlorinated Ethene and Daughter Product Concentration

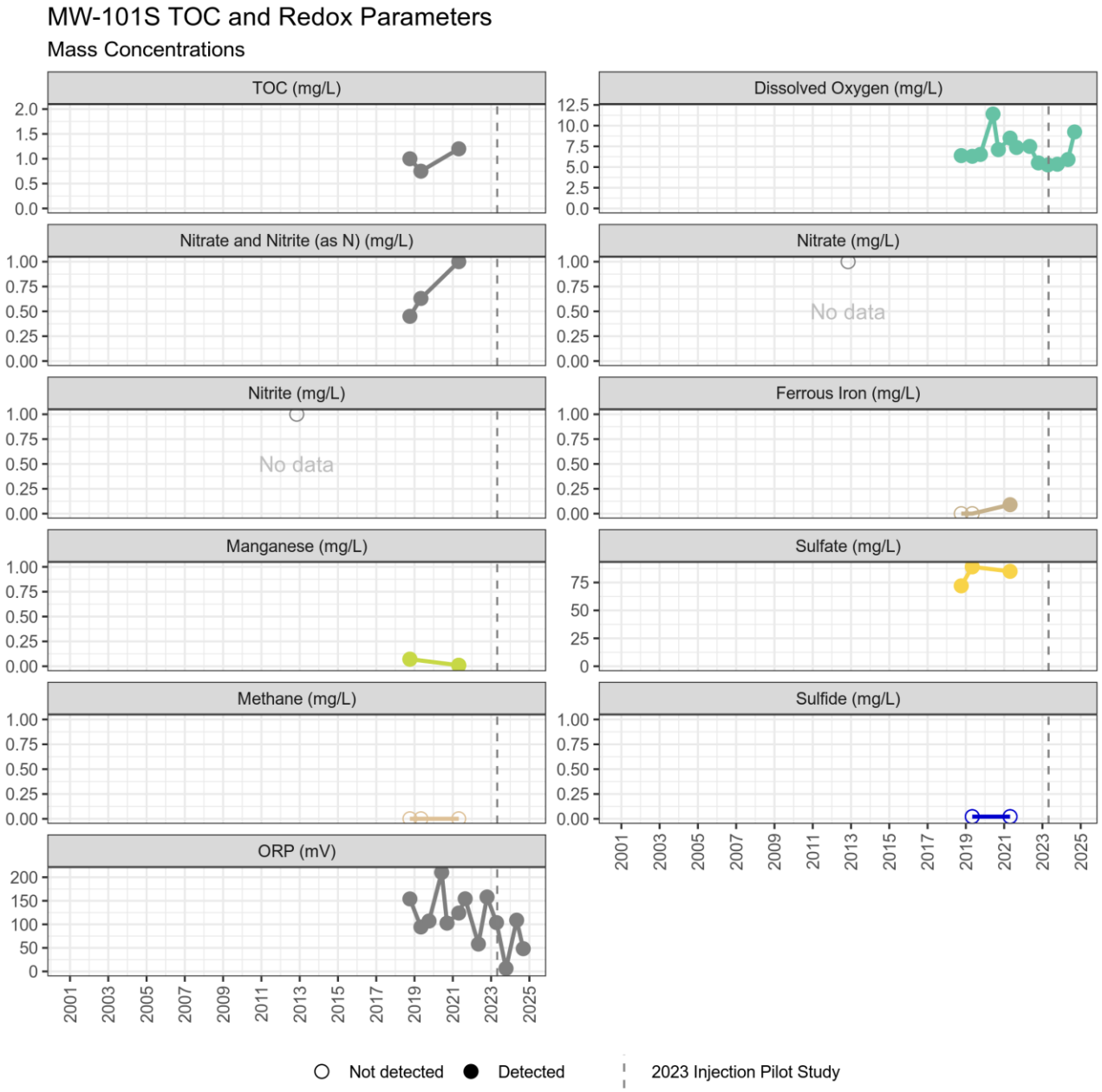


MW-101S

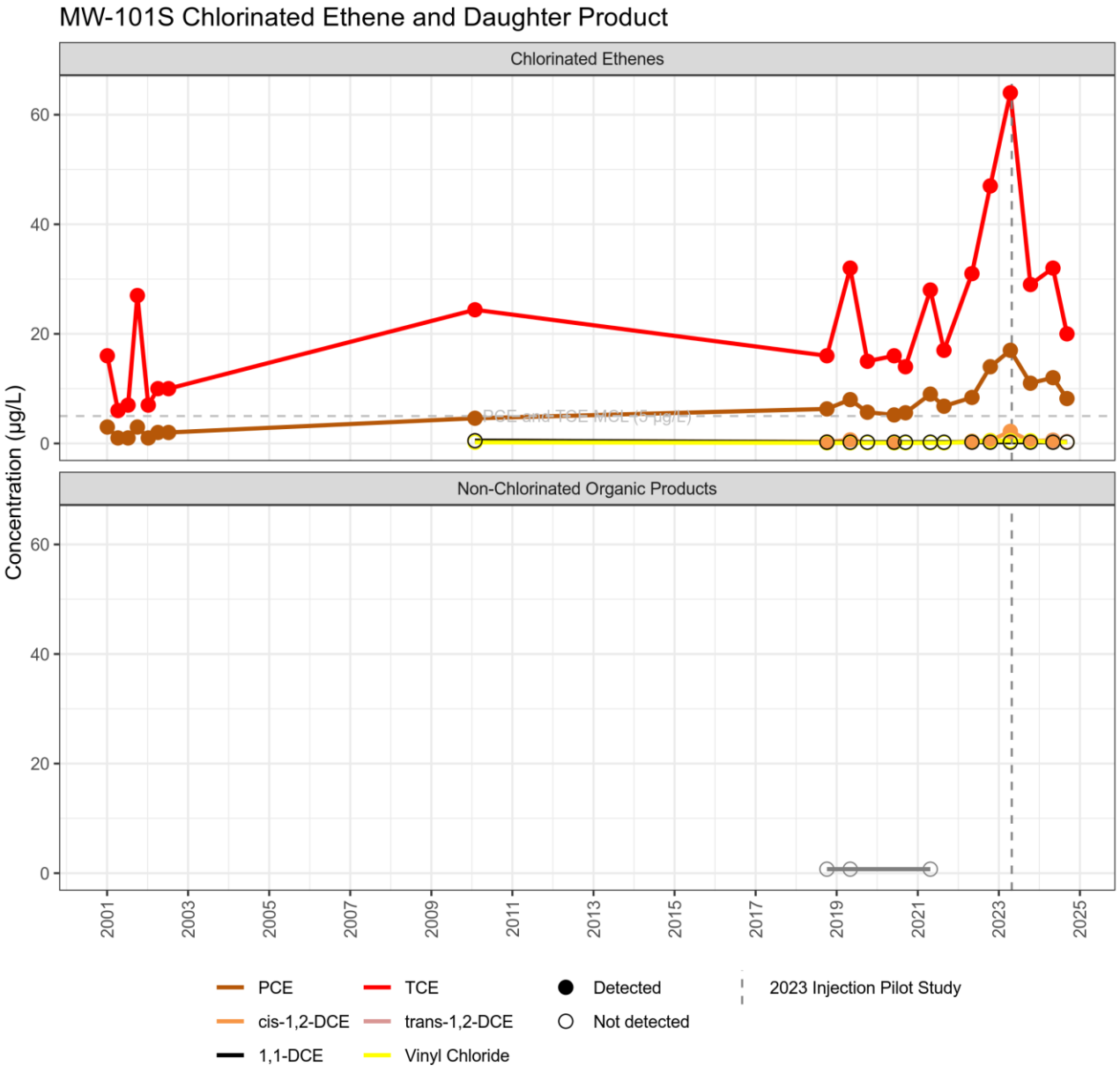
Water Quality



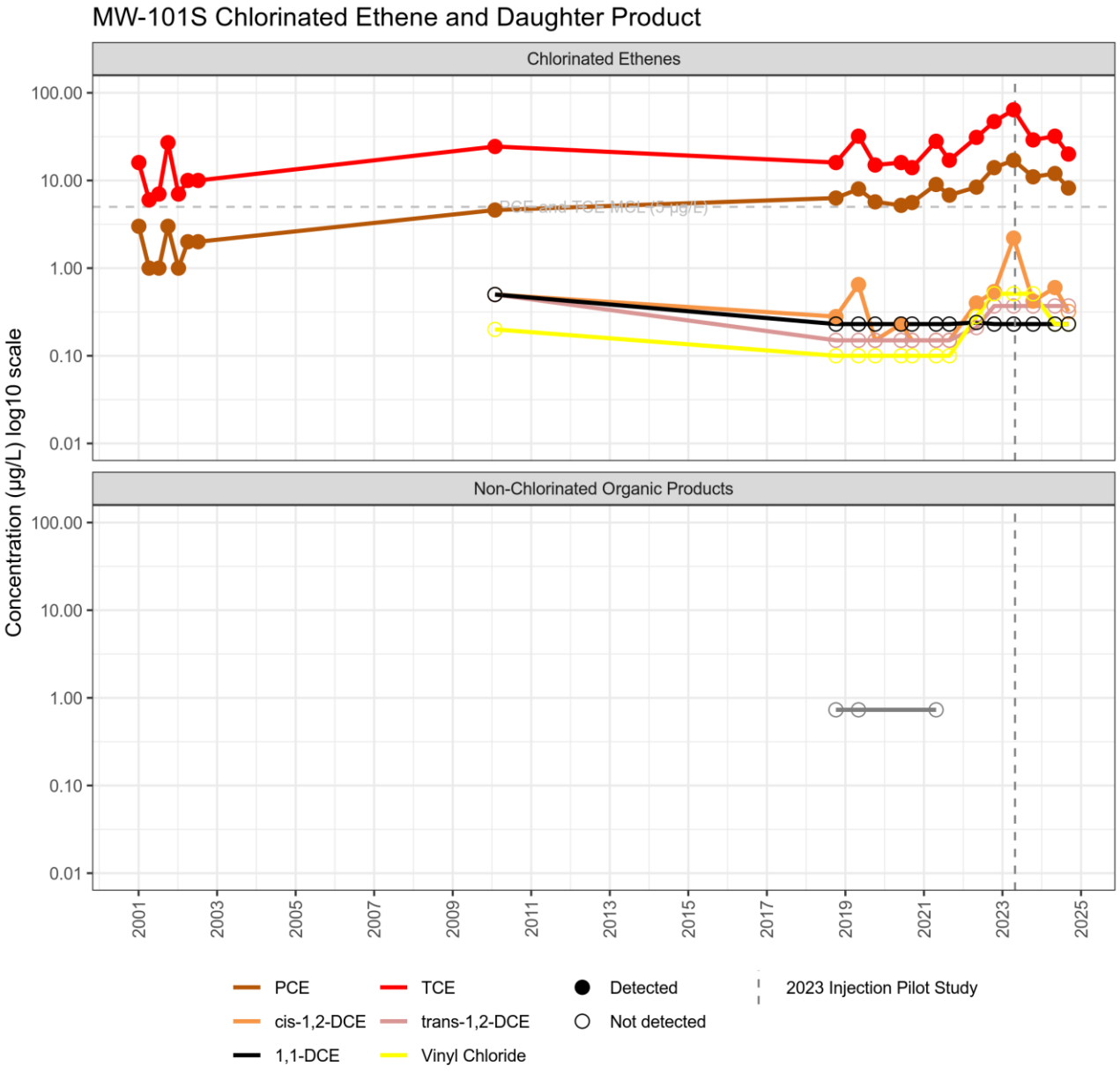
TOC and Redox Parameters



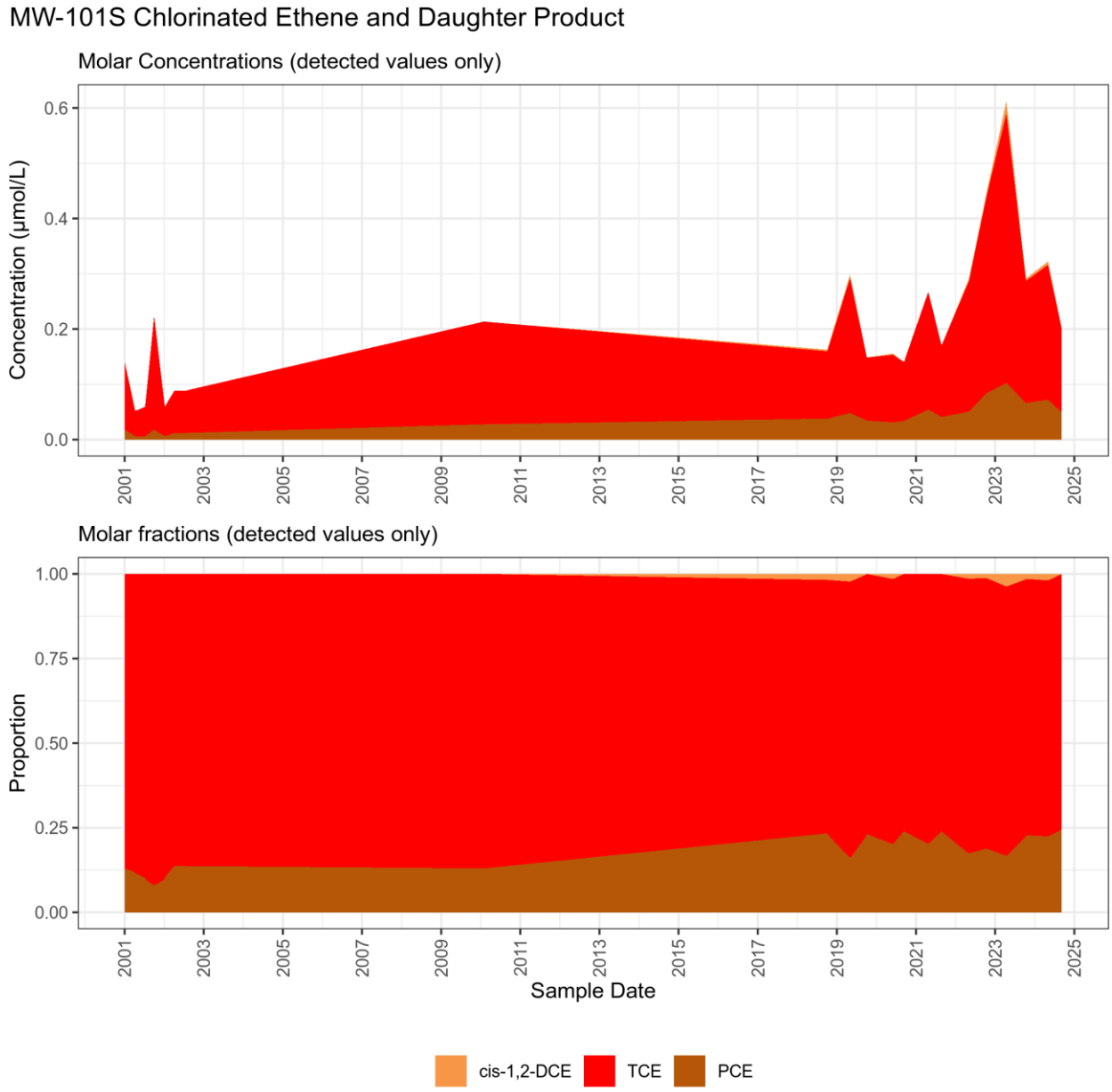
Chlorinated Ethene and Daughter Product Mass



Chlorinated Ethene and Daughter Product Mass (log10)

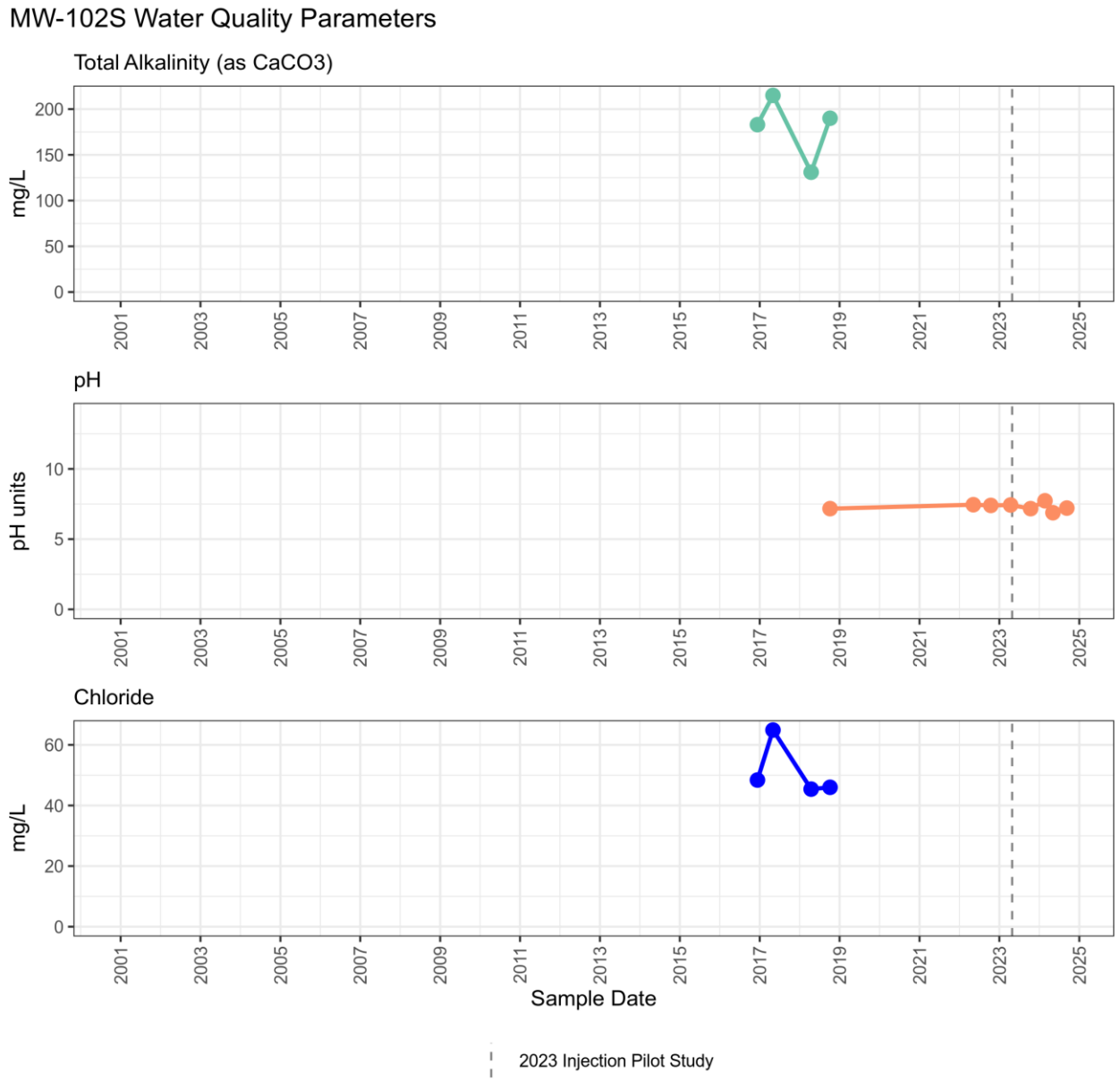


Chlorinated Ethene and Daughter Product Concentration

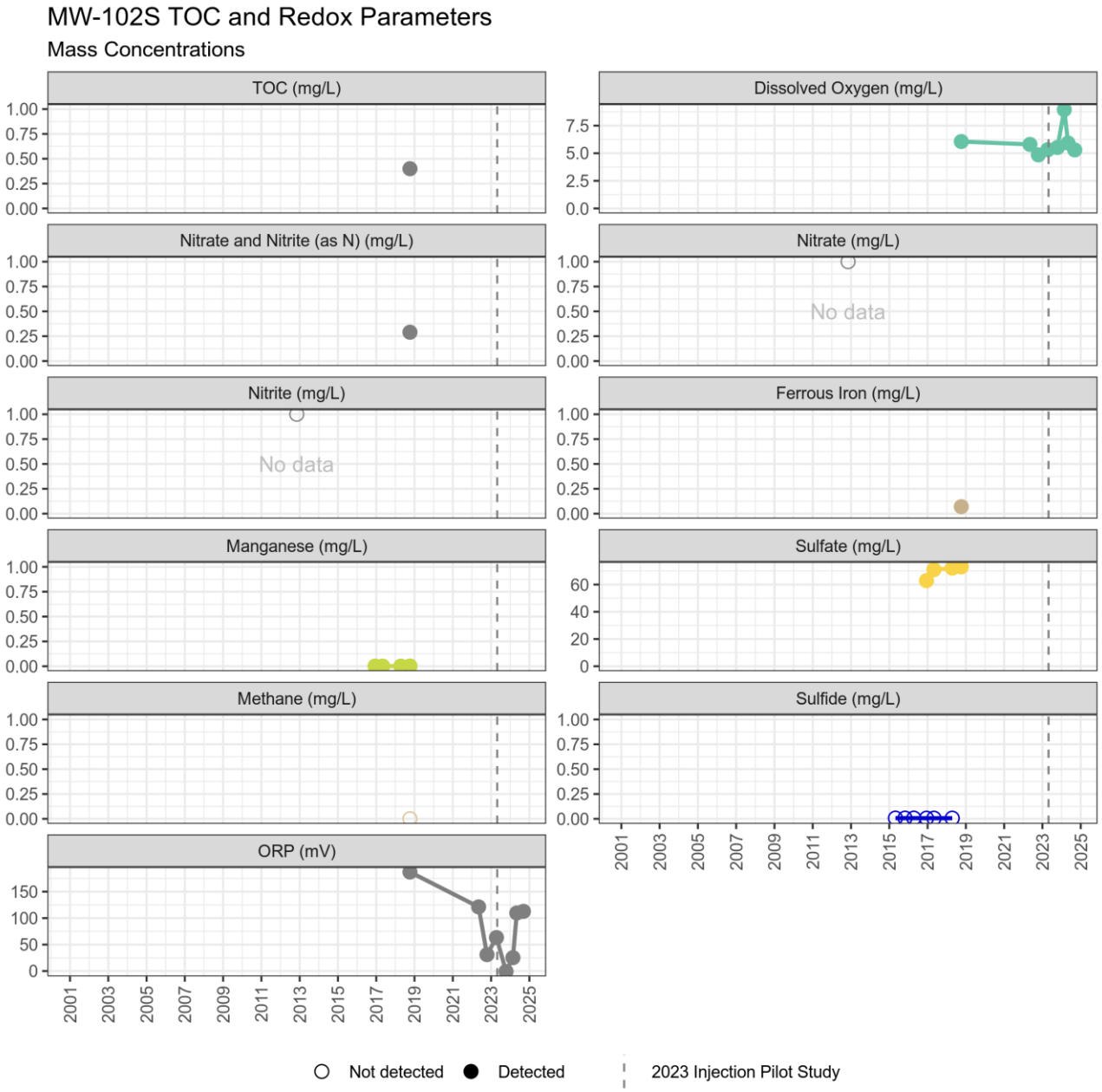


MW-102S

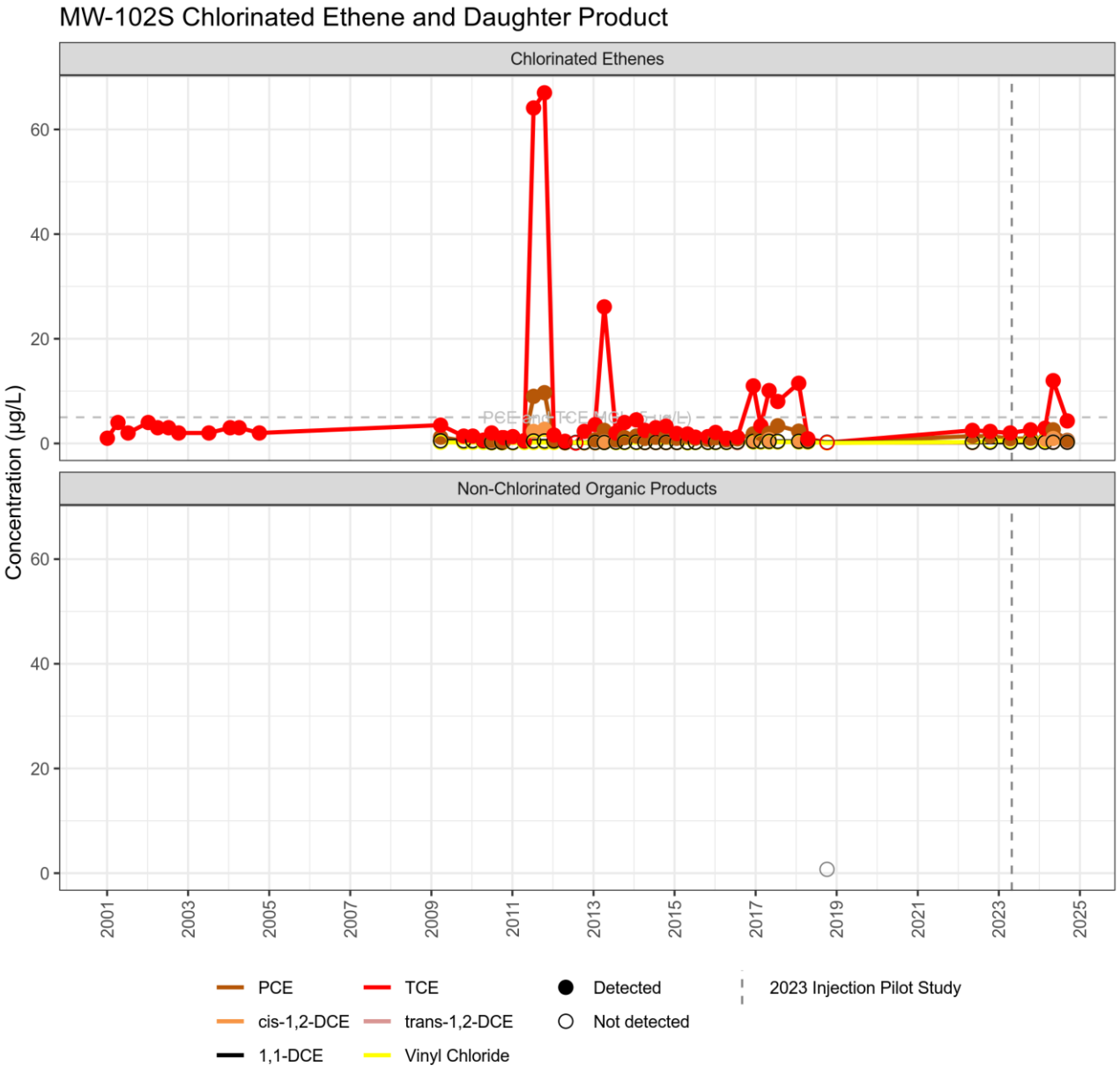
Water Quality



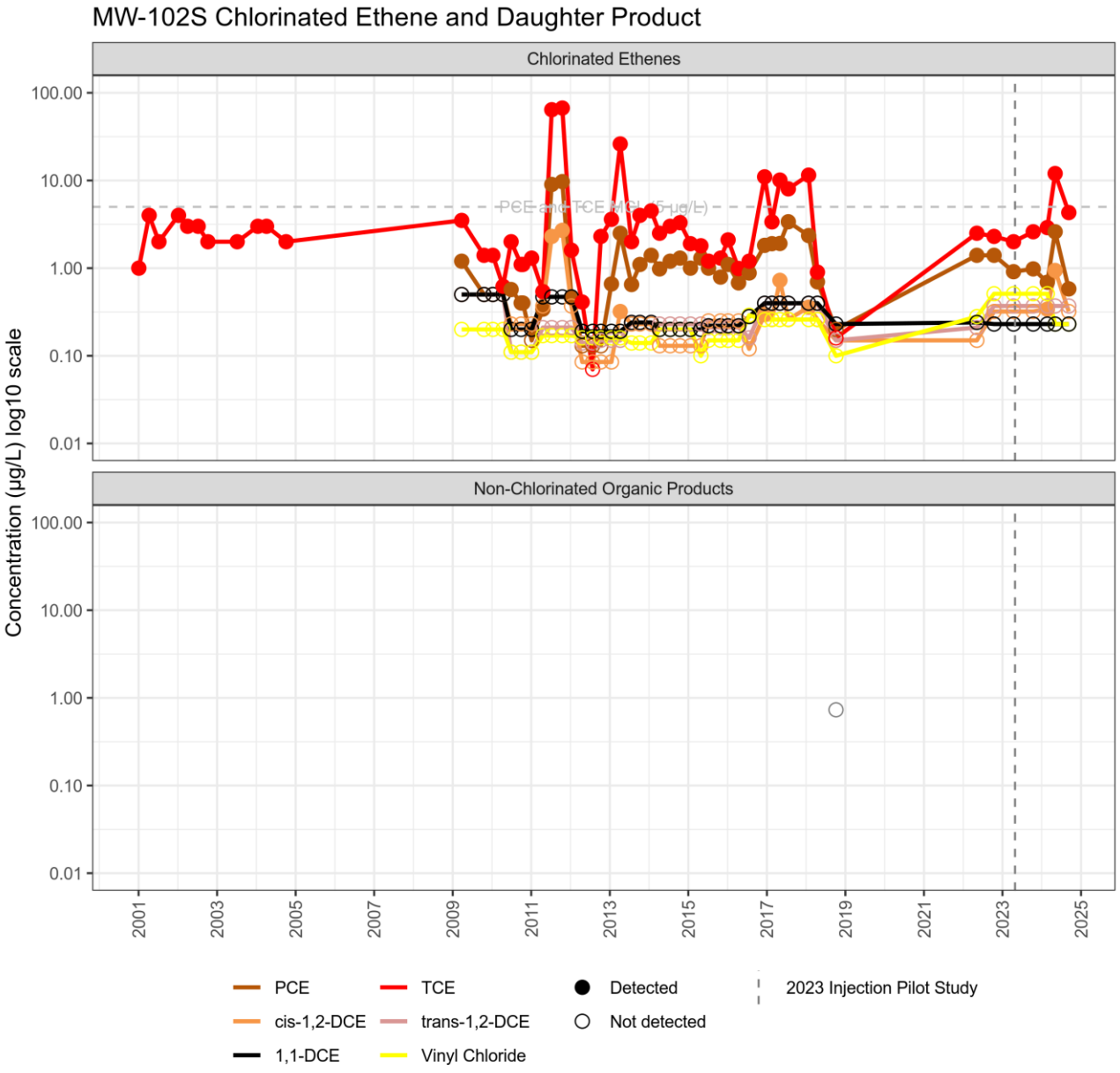
TOC and Redox Parameters



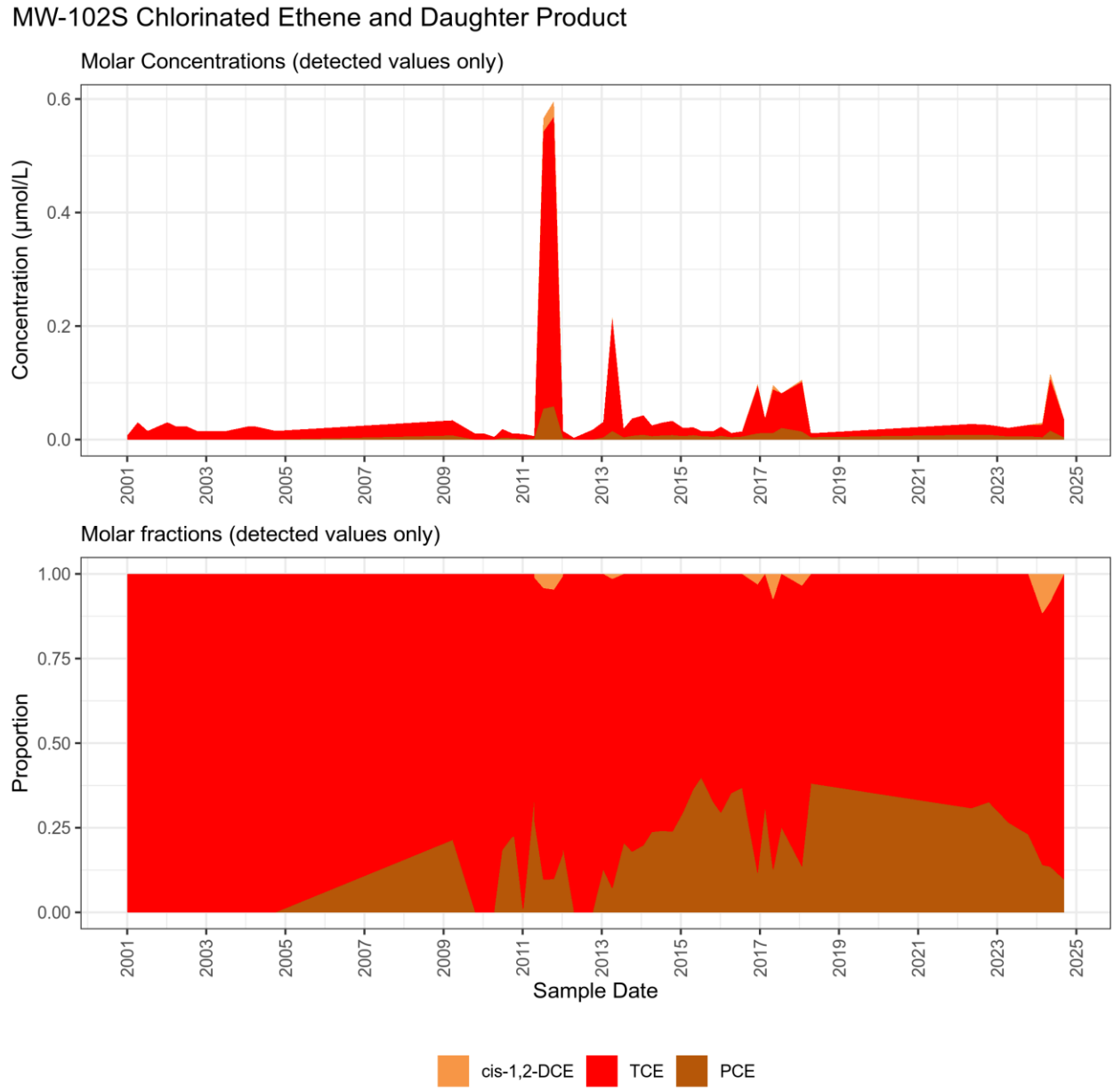
Chlorinated Ethene and Daughter Product Mass



Chlorinated Ethene and Daughter Product Mass (log10)

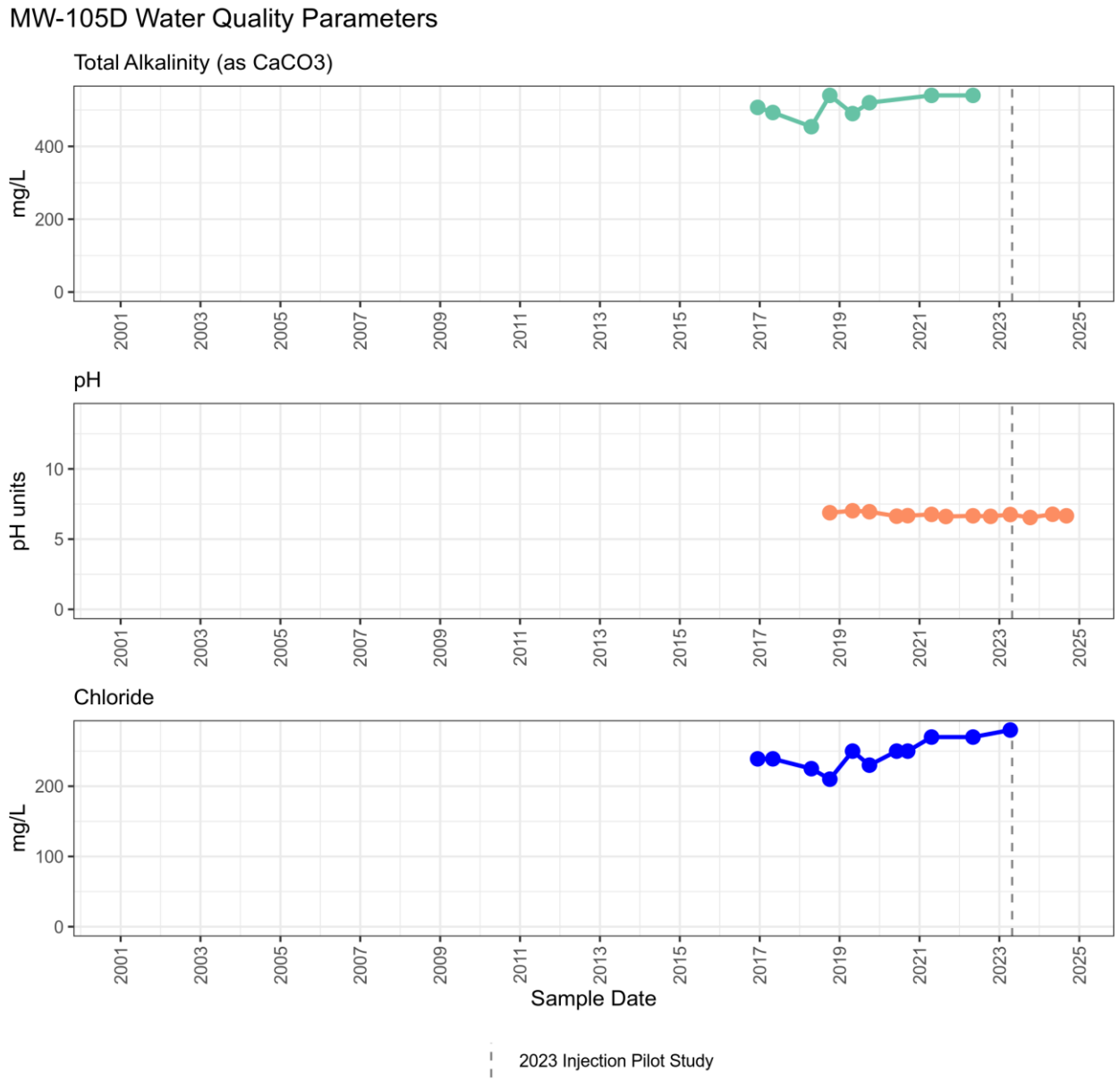


Chlorinated Ethene and Daughter Product Concentration

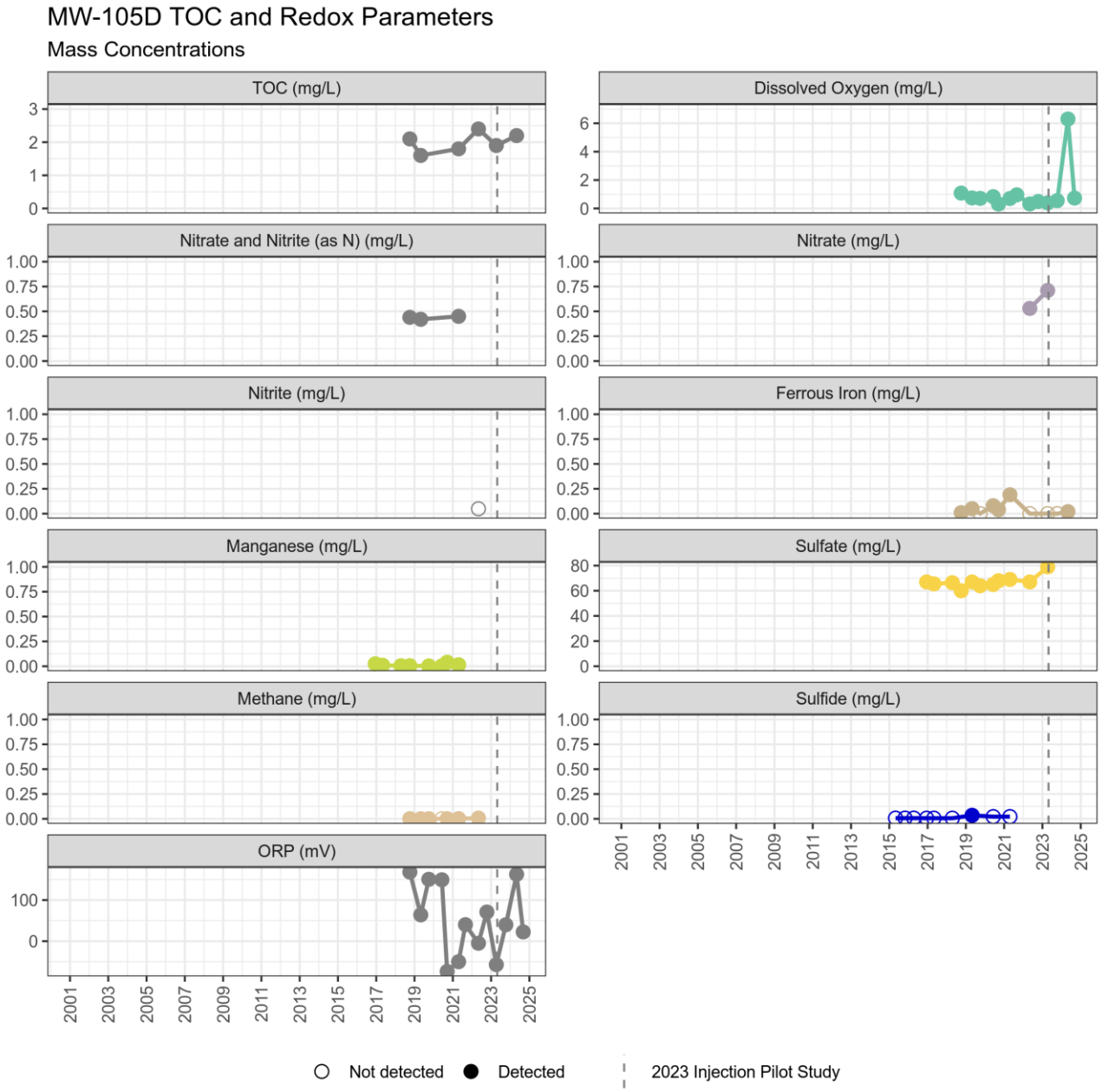


MW-105D

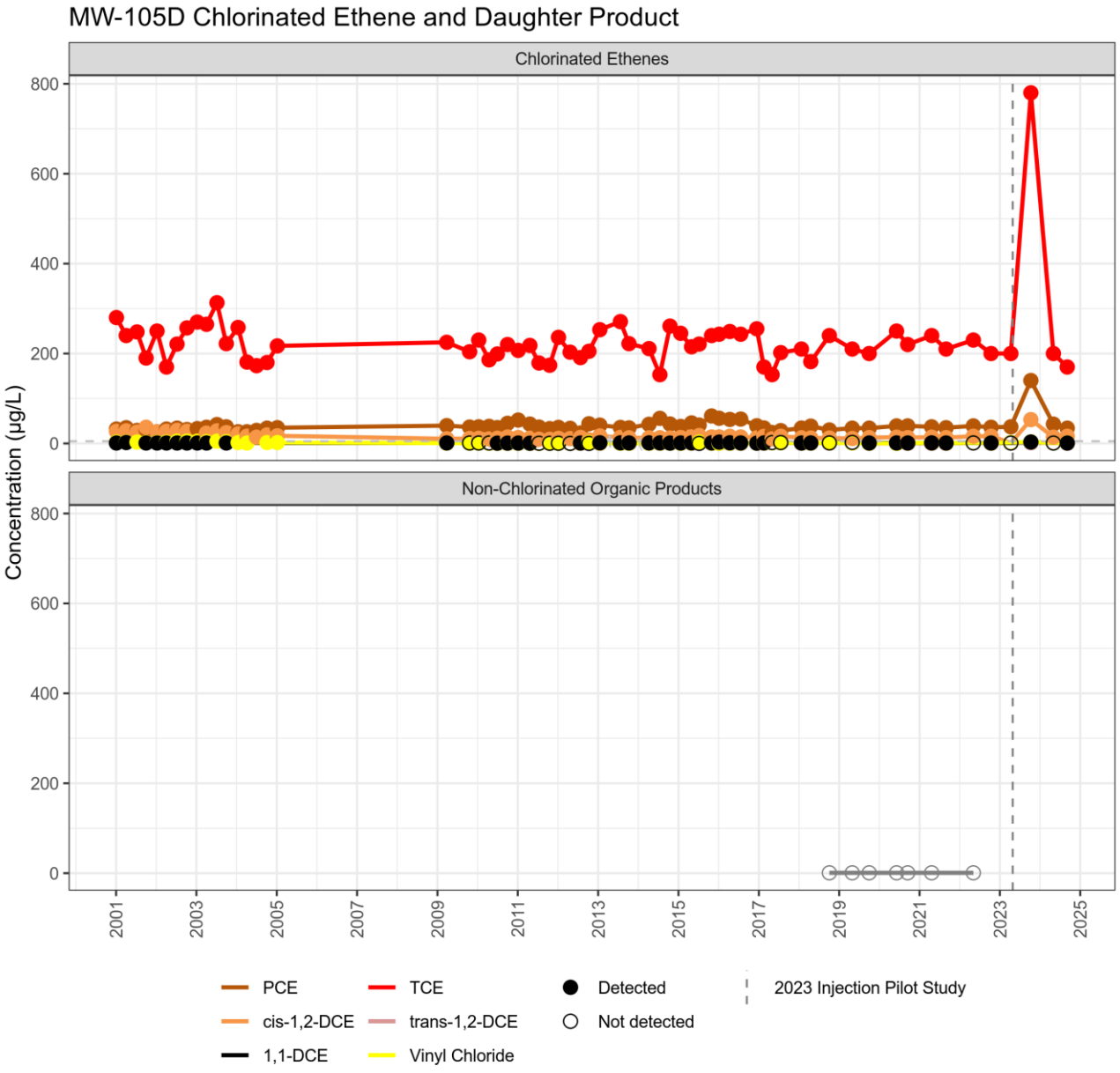
Water Quality



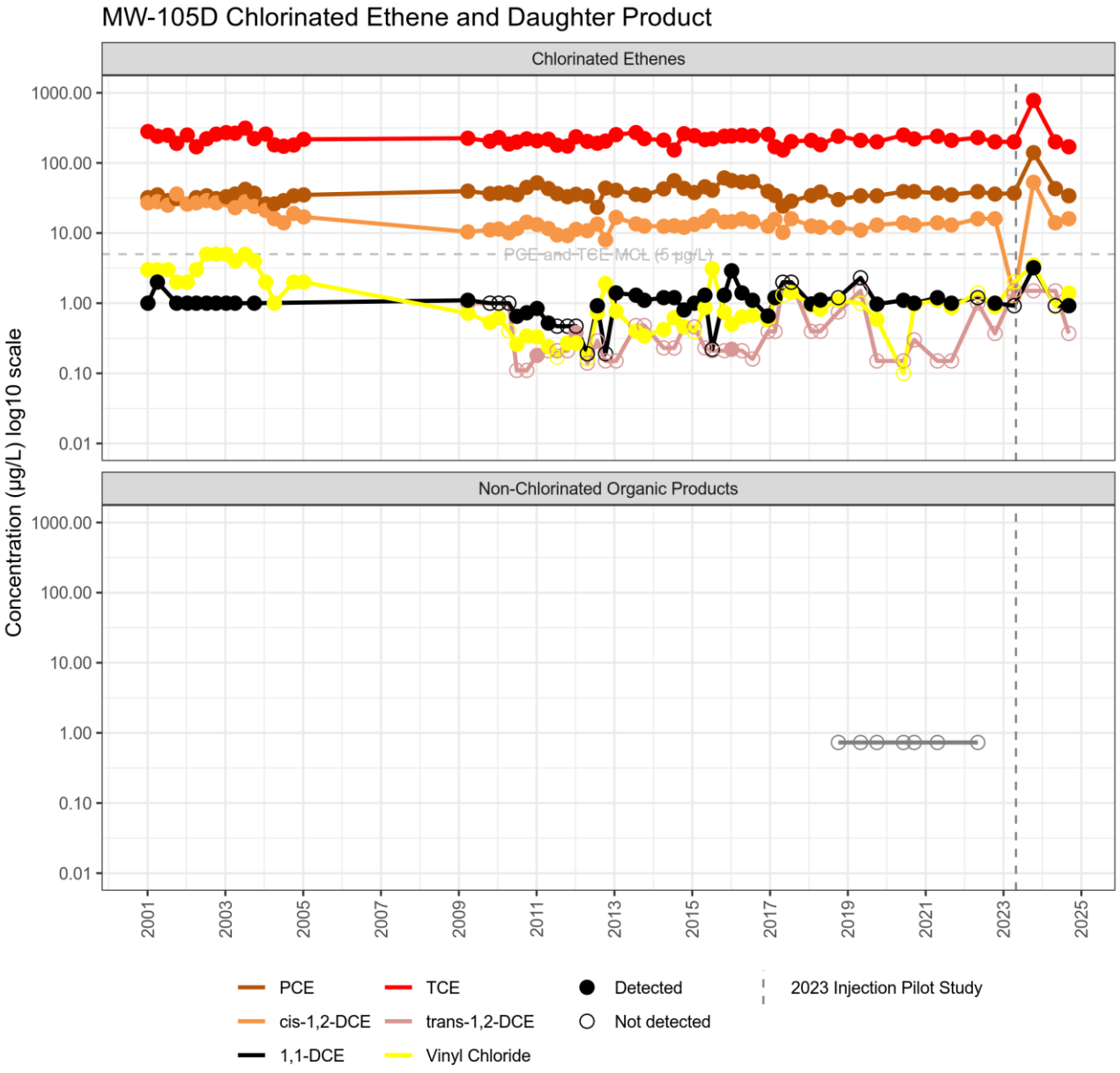
TOC and Redox Parameters



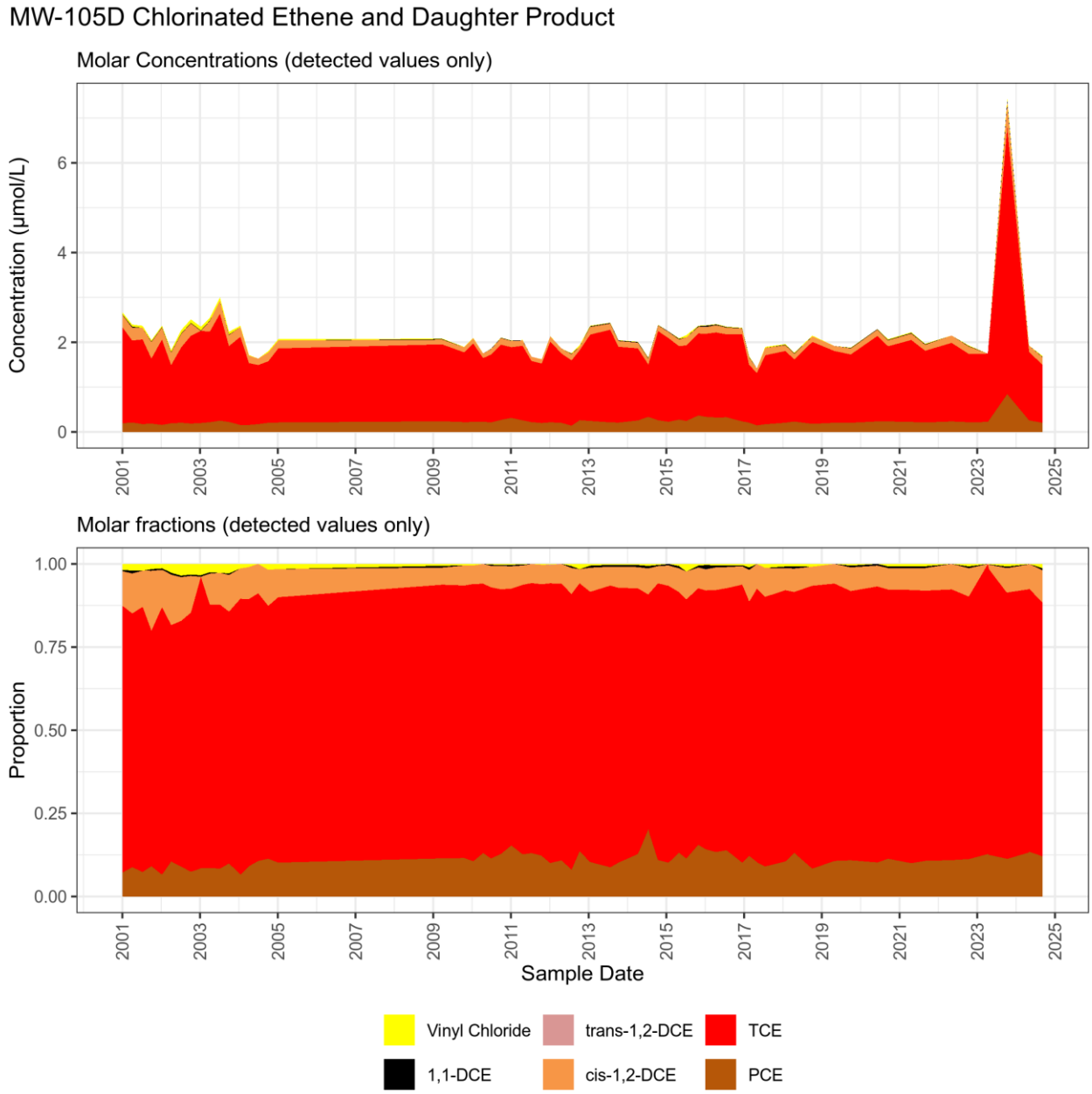
Chlorinated Ethene and Daughter Product Mass



Chlorinated Ethene and Daughter Product Mass (log10)

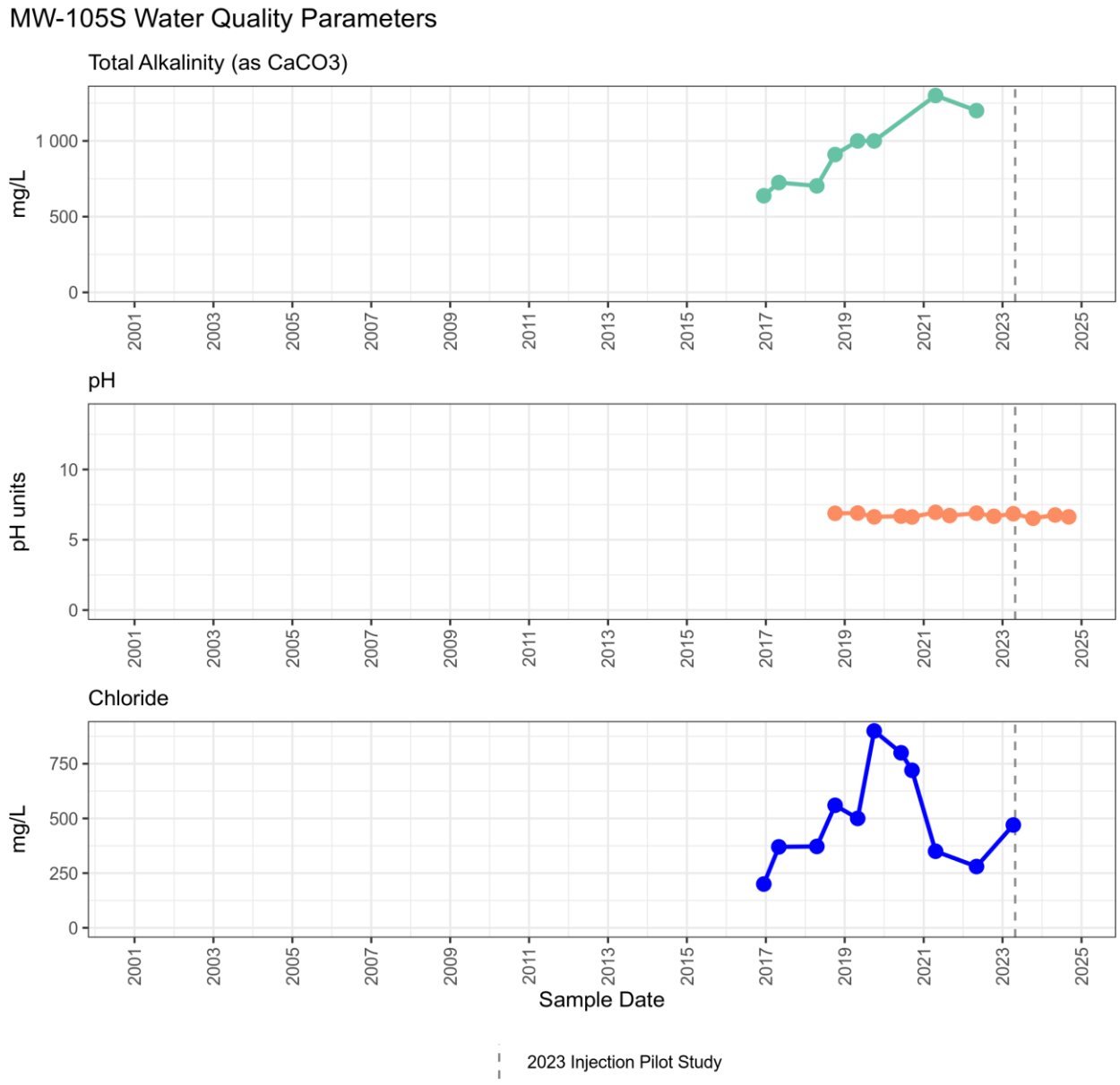


Chlorinated Ethene and Daughter Product Concentration

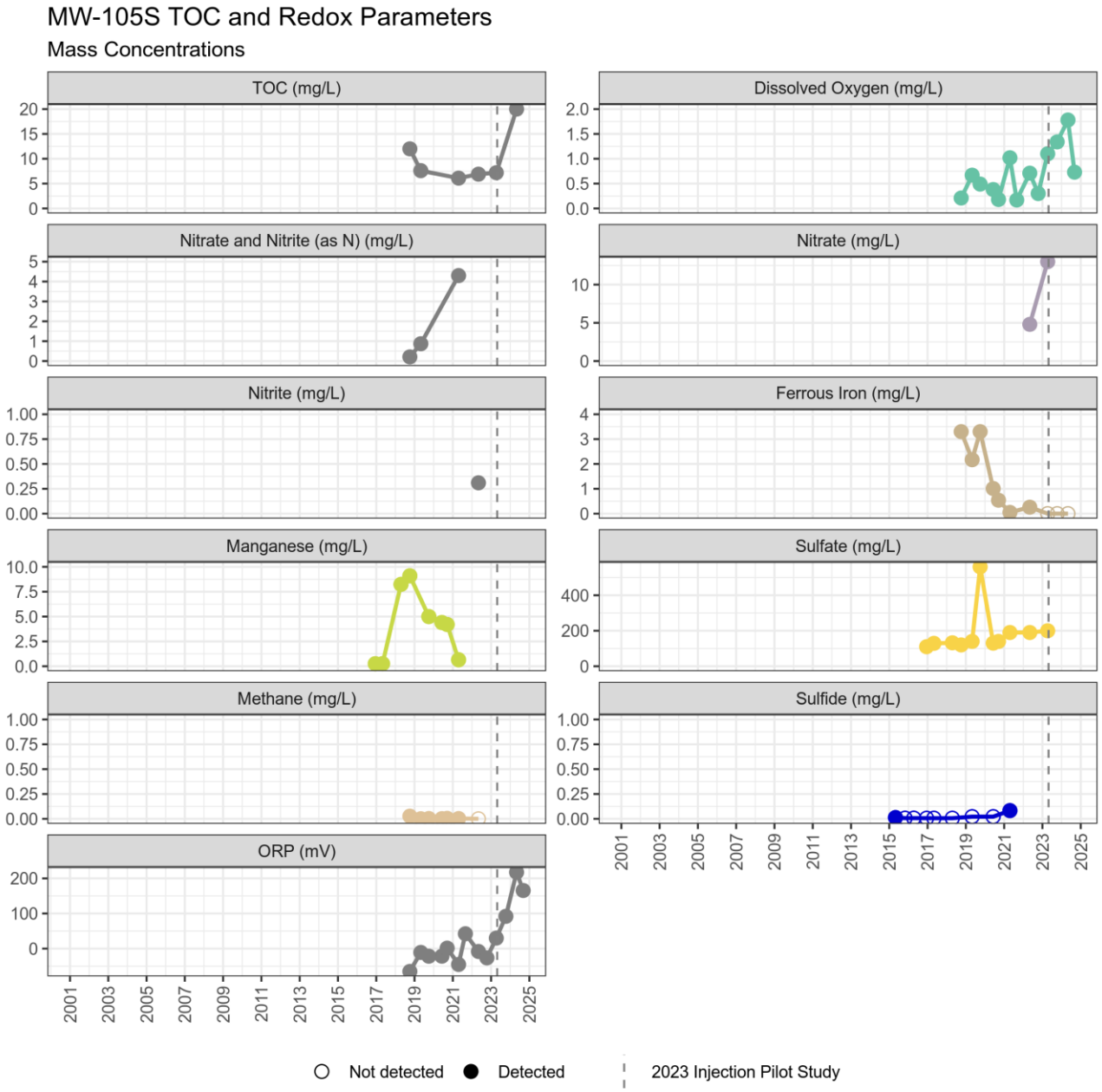


MW-105S

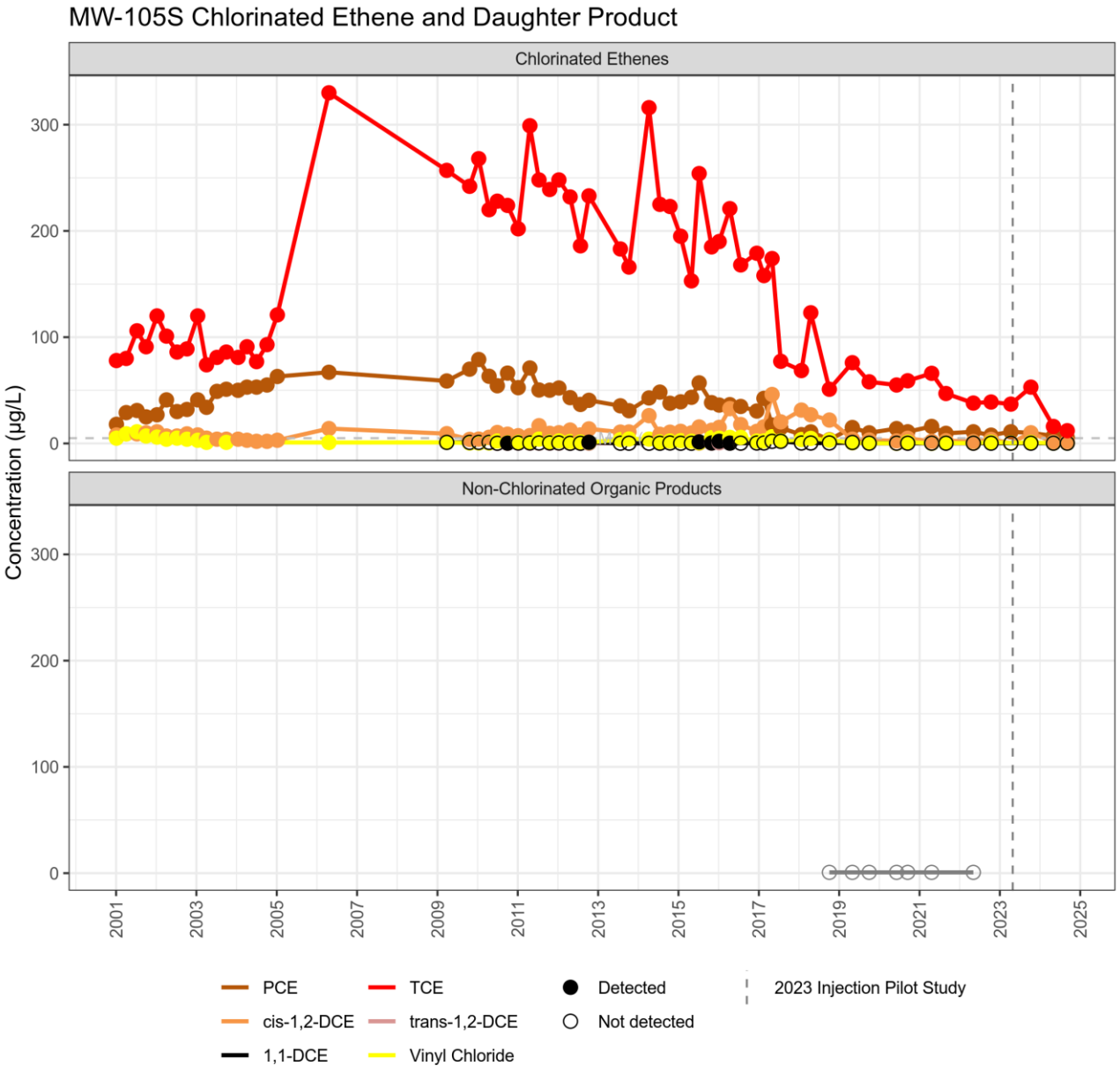
Water Quality



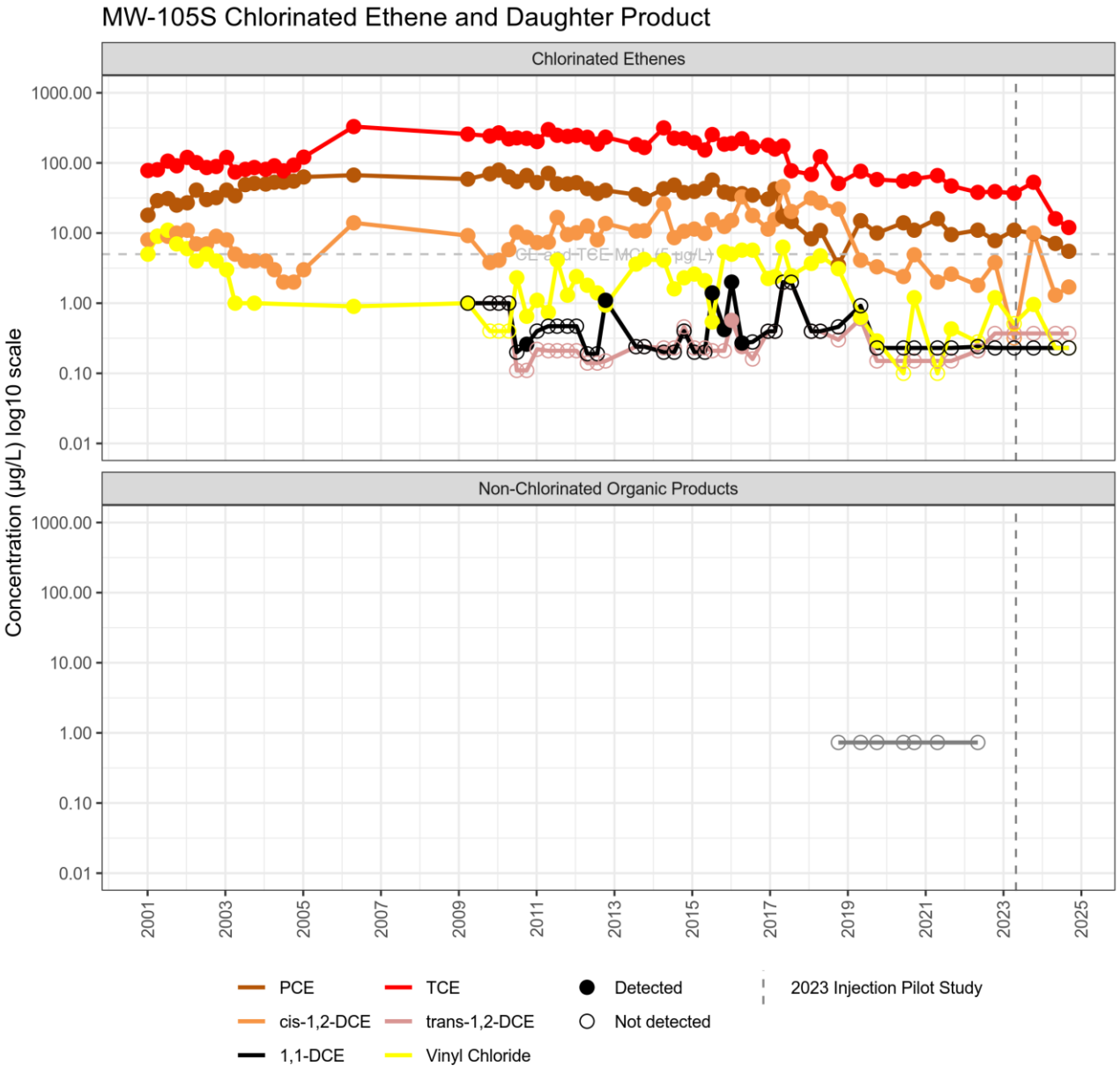
TOC and Redox Parameters



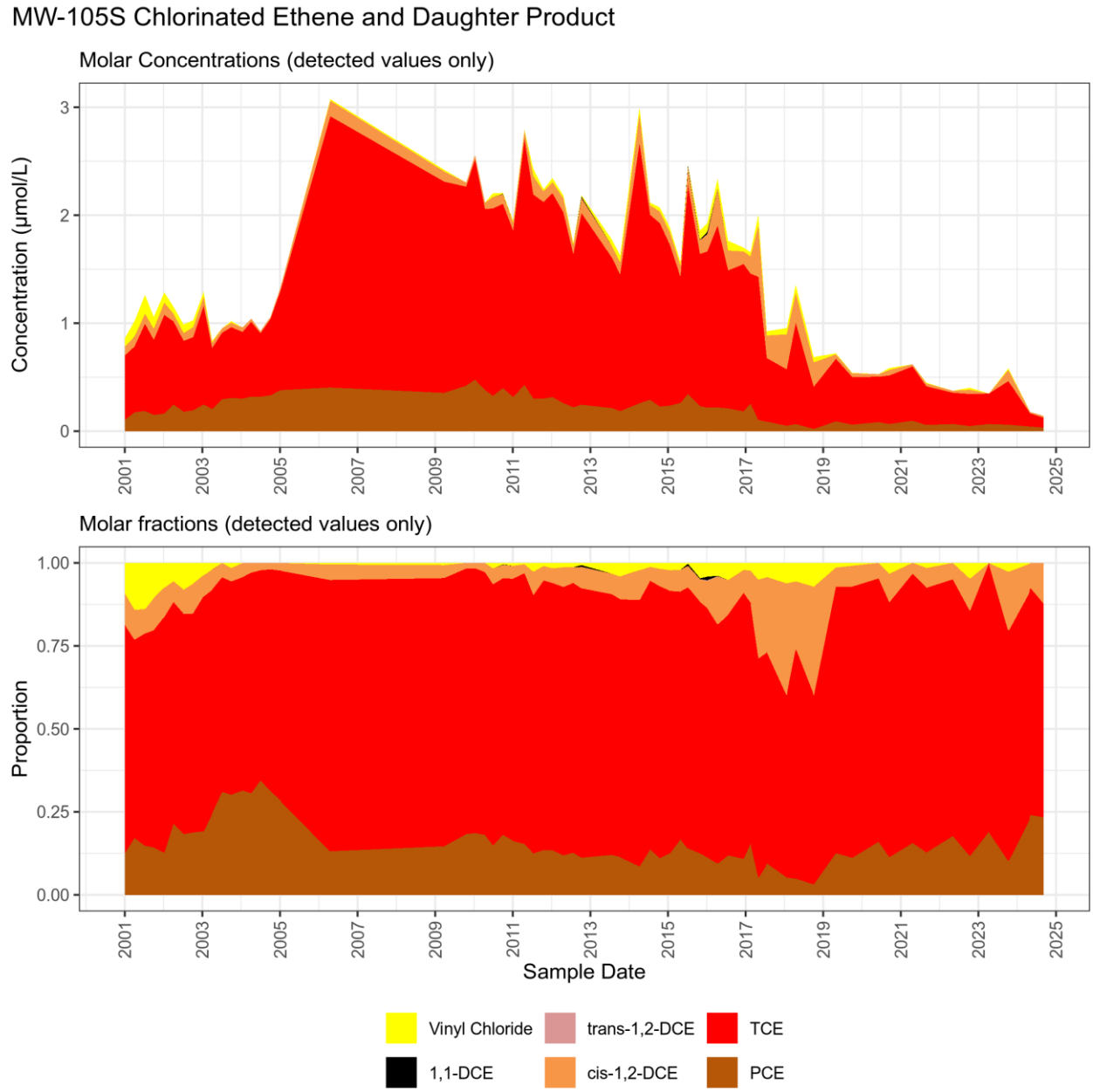
Chlorinated Ethene and Daughter Product Mass



Chlorinated Ethene and Daughter Product Mass (log10)

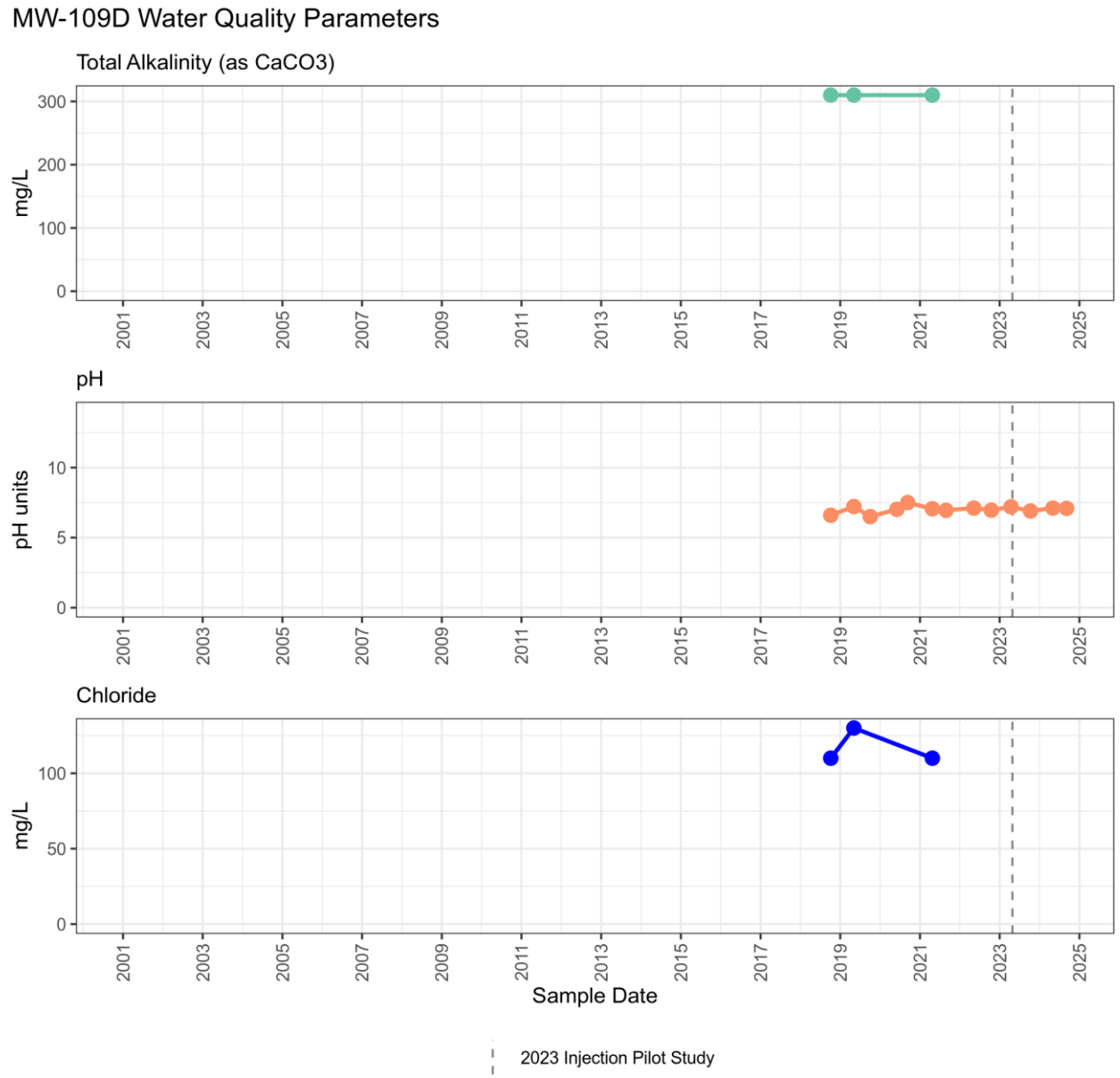


Chlorinated Ethene and Daughter Product Concentration

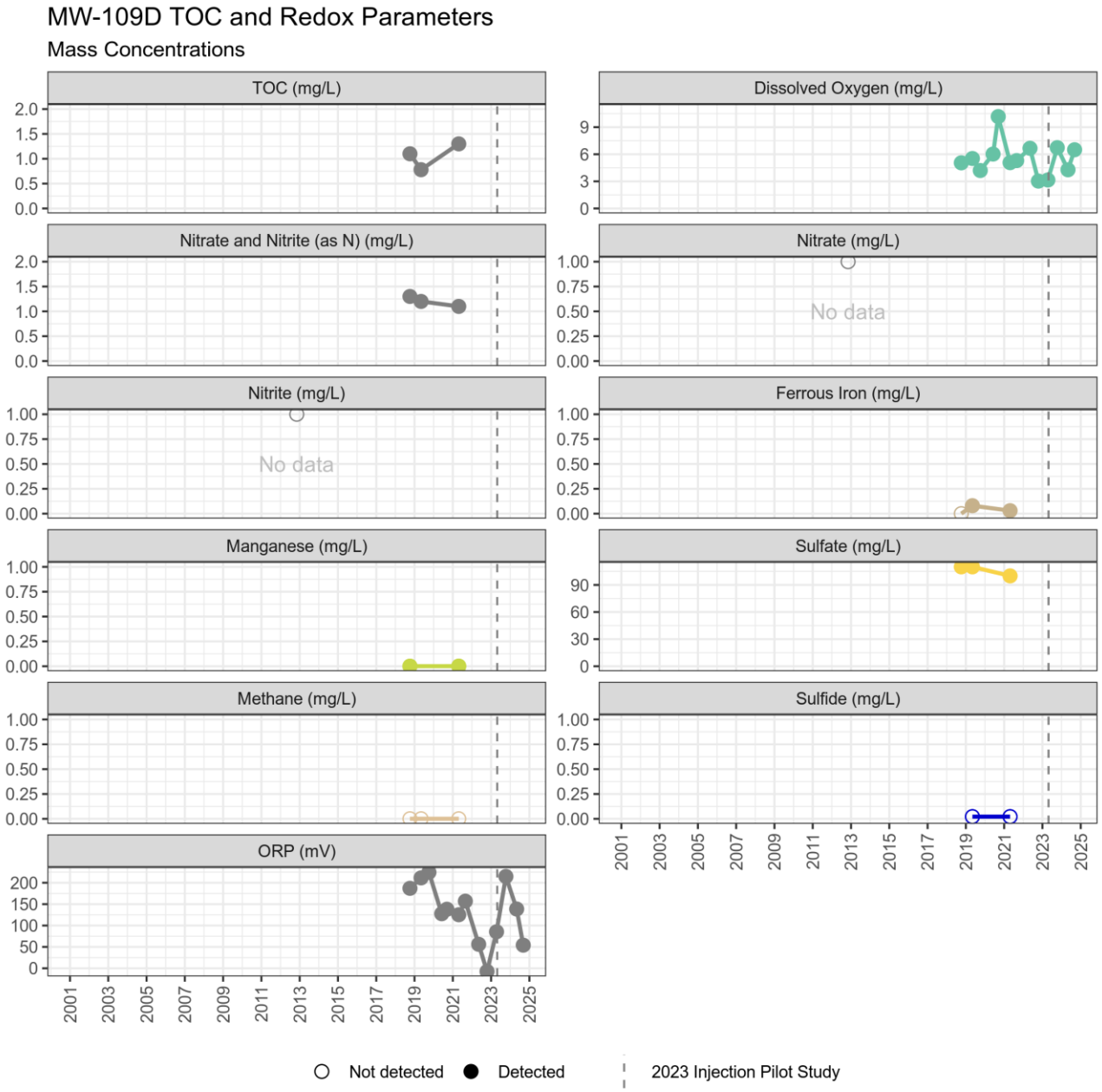


MW-109D

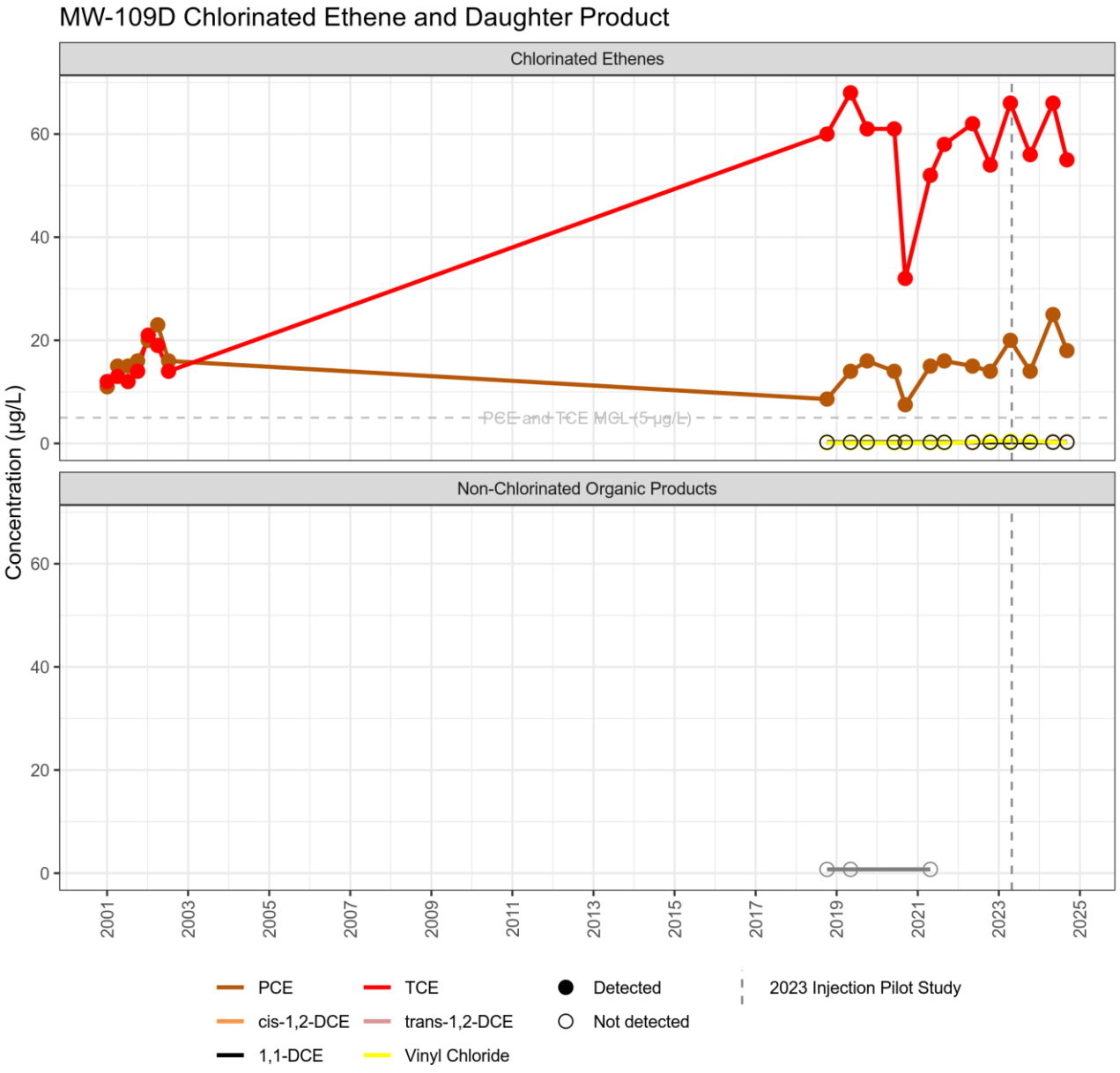
Water Quality



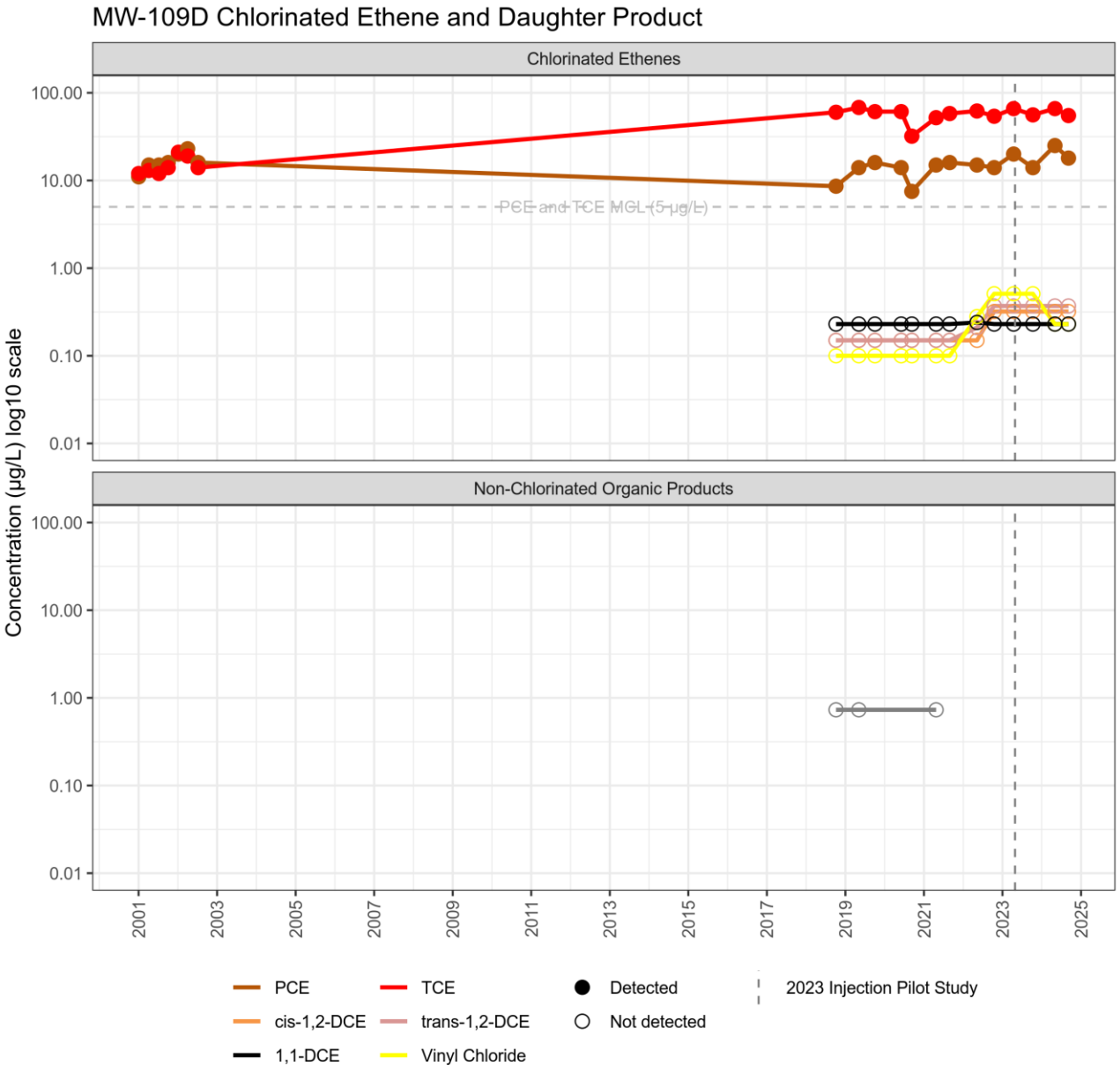
TOC and Redox Parameters



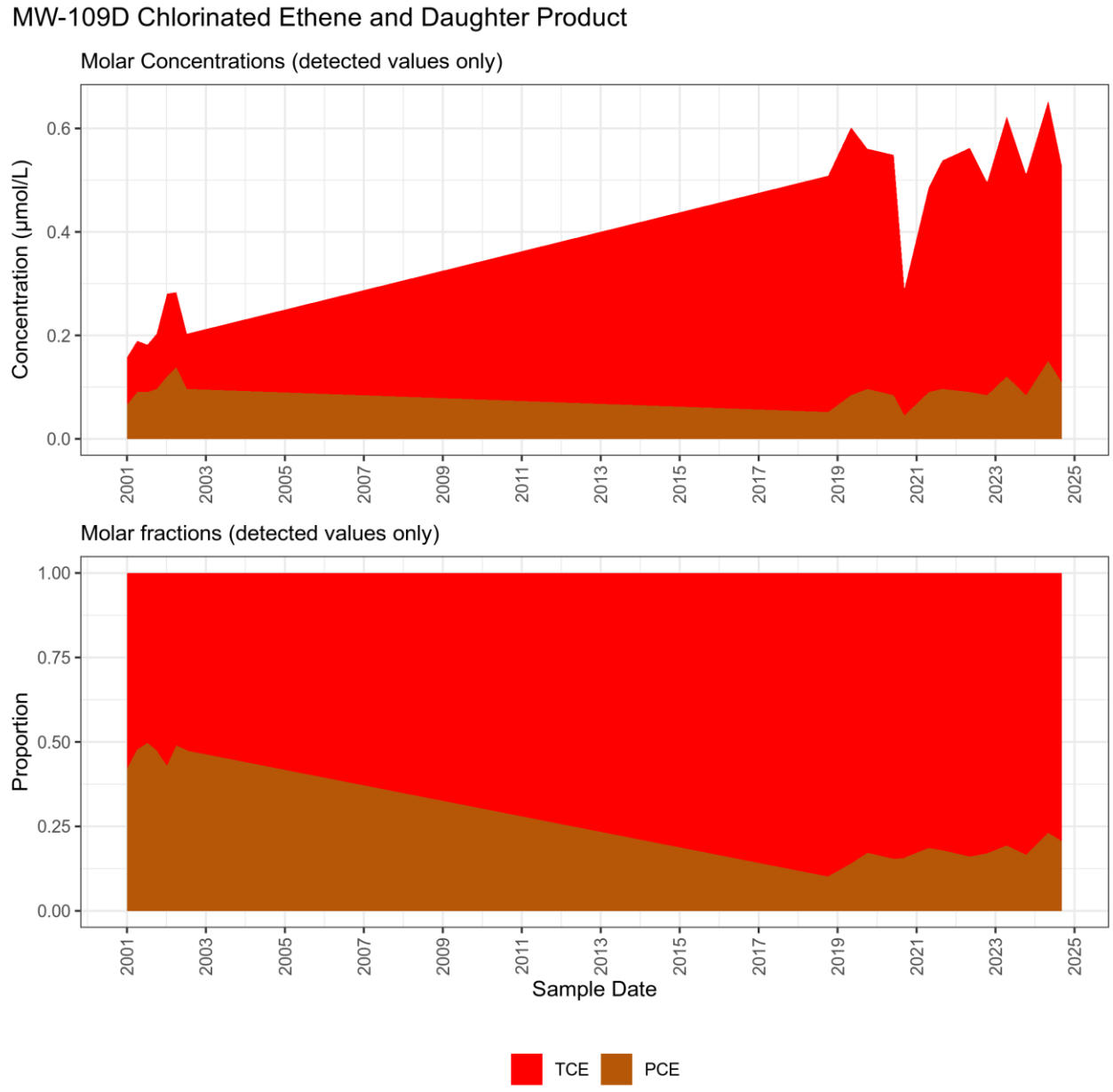
Chlorinated Ethene and Daughter Product Mass



Chlorinated Ethene and Daughter Product Mass (log10)

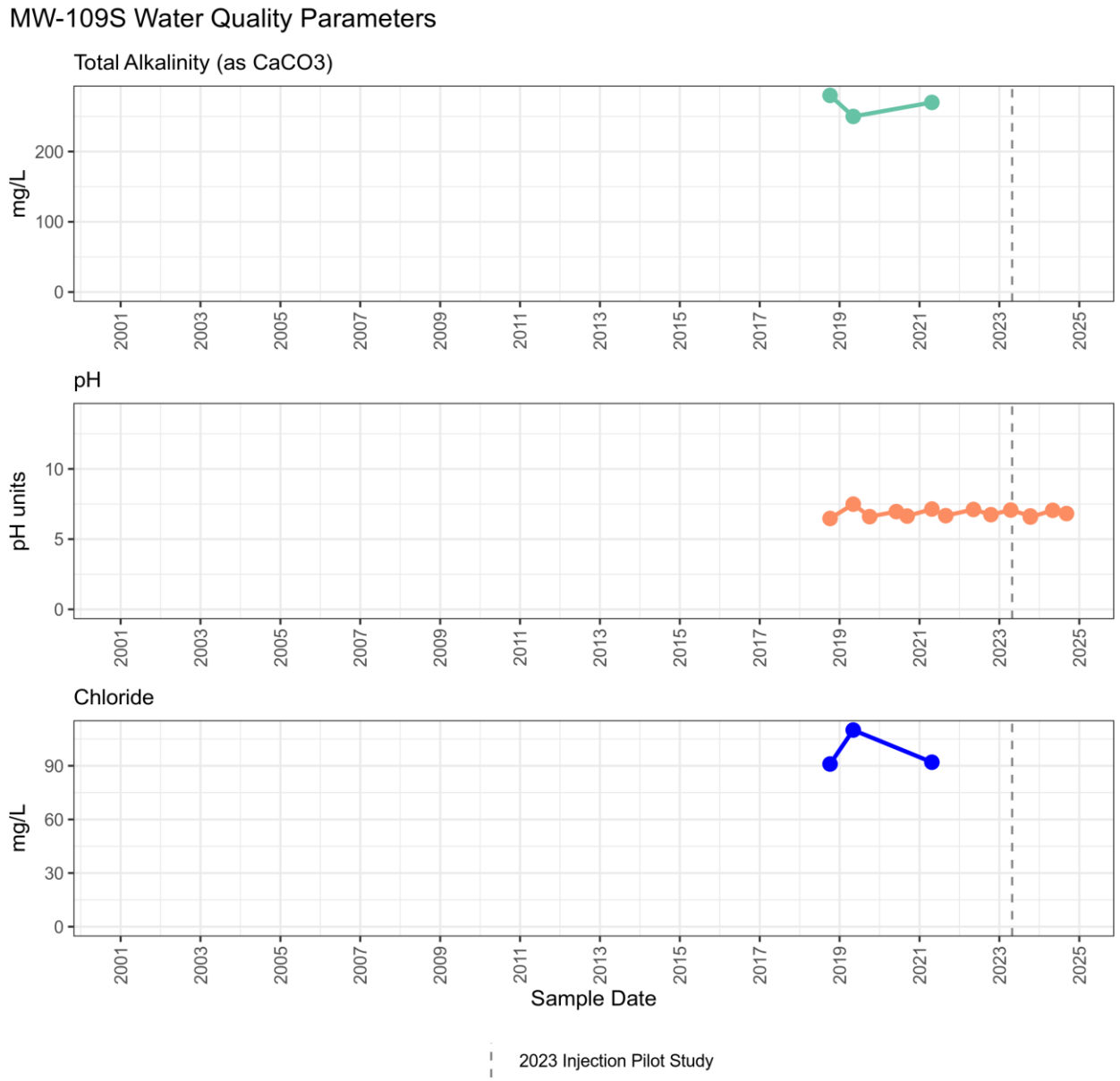


Chlorinated Ethene and Daughter Product Concentration

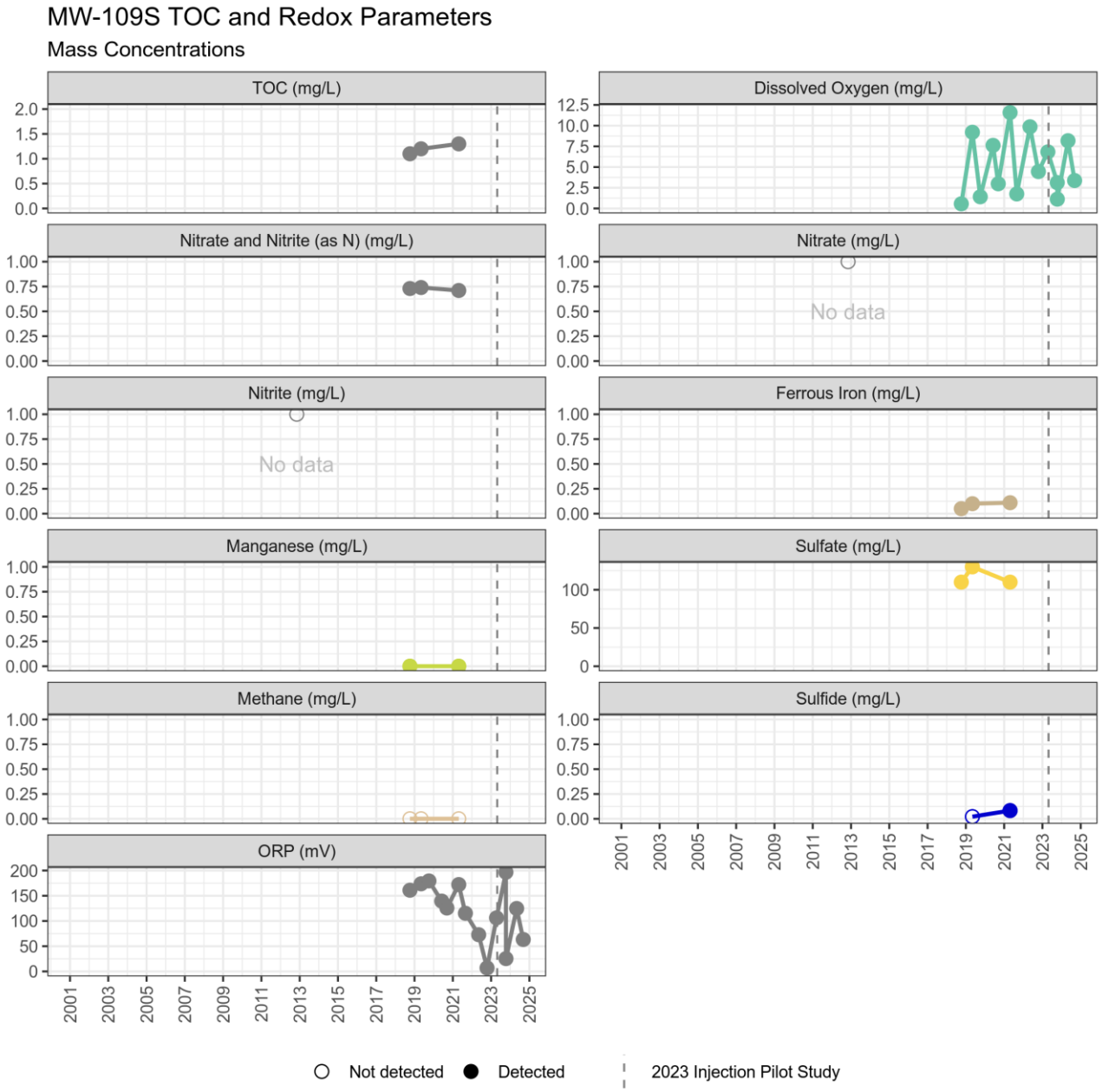


MW-109S

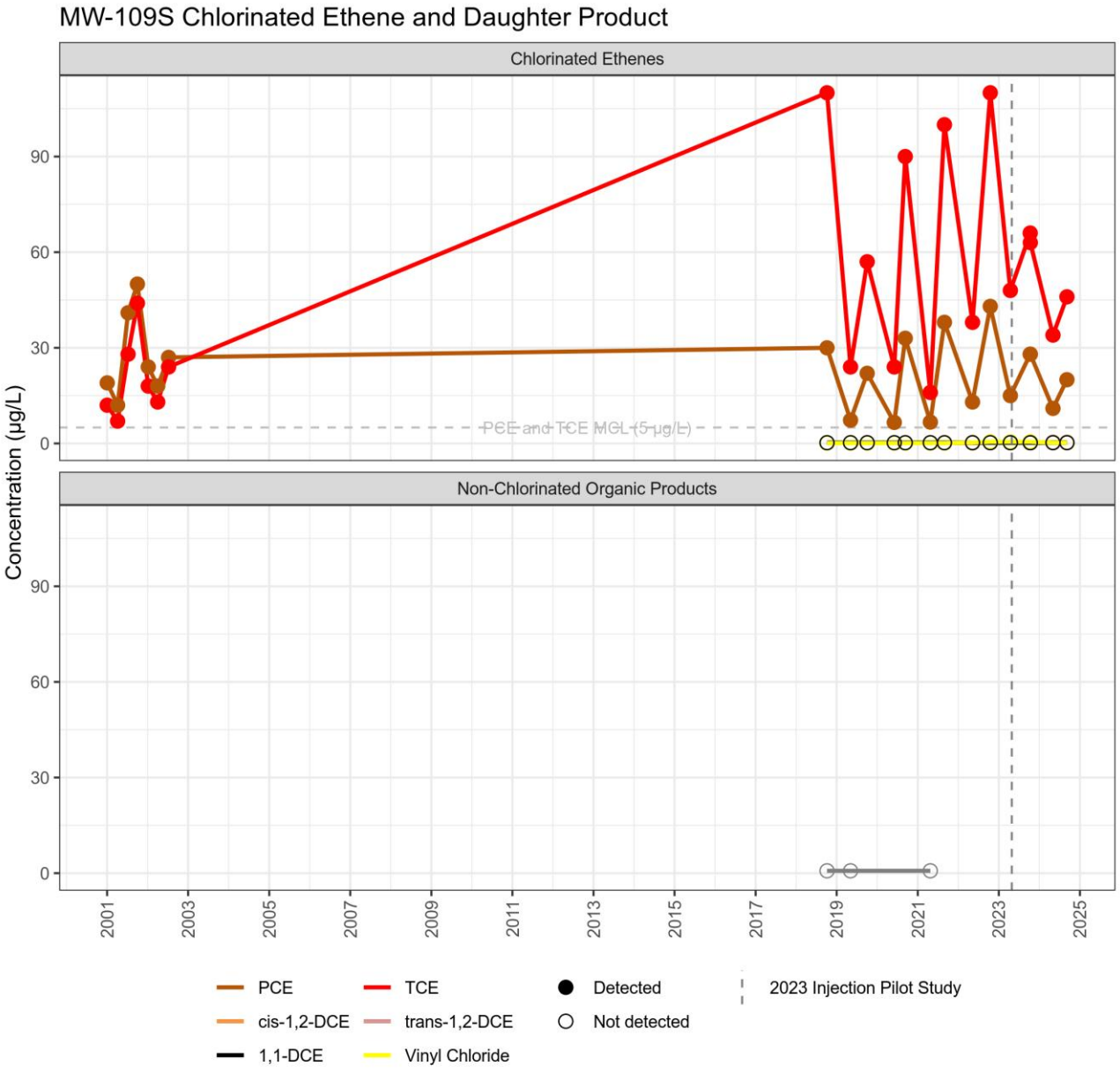
Water Quality



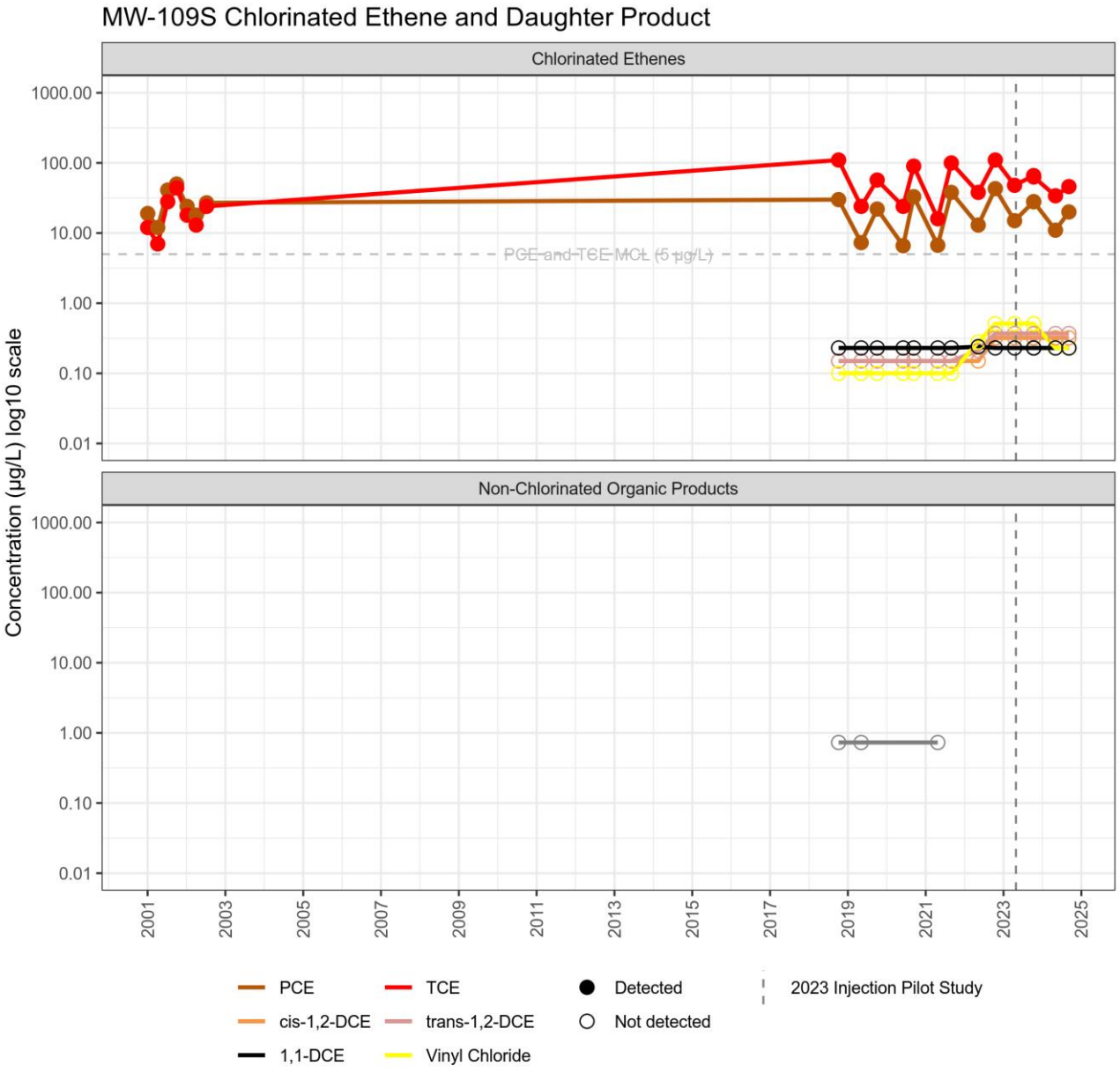
TOC and Redox Parameters



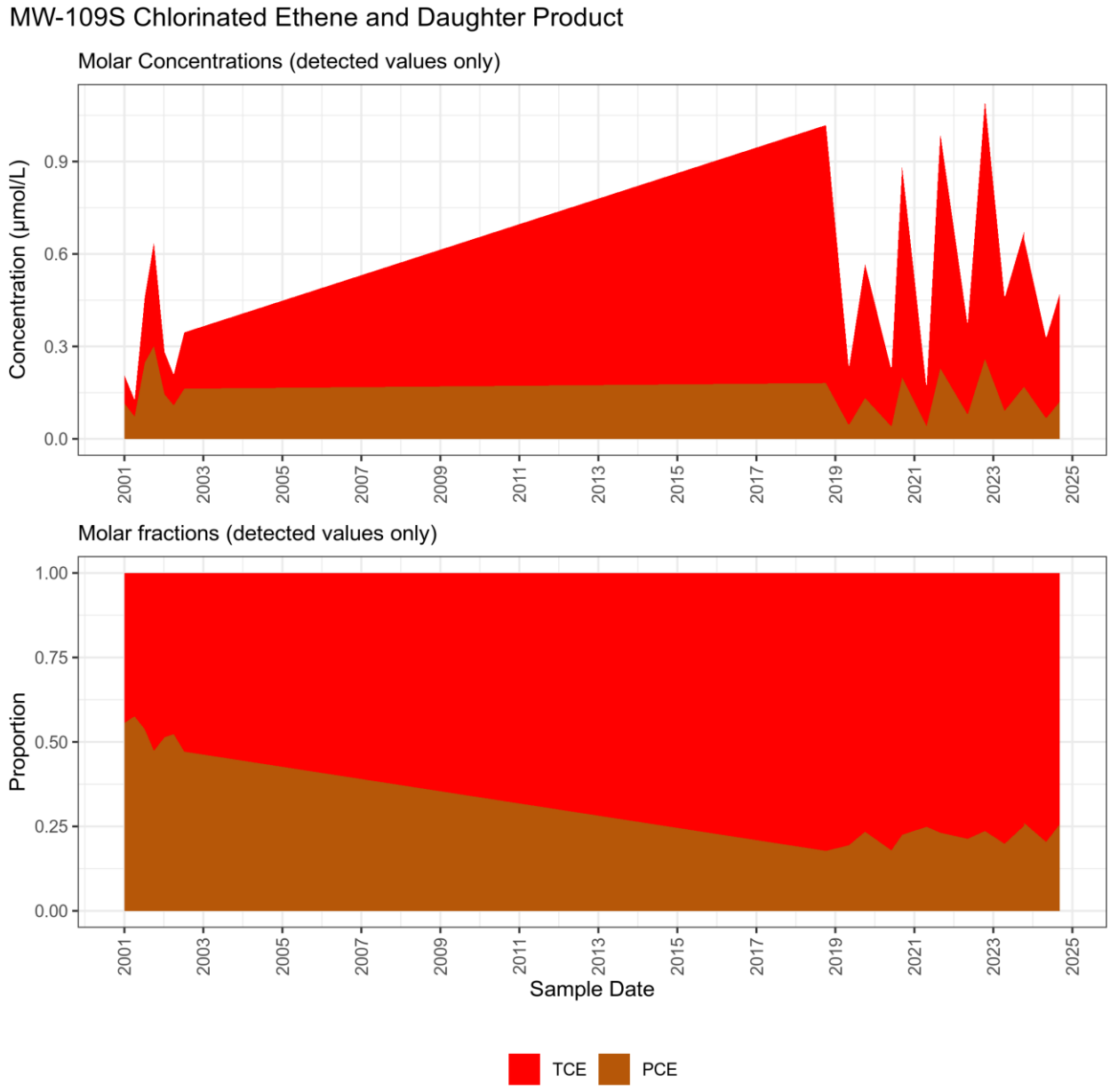
Chlorinated Ethene and Daughter Product Mass



Chlorinated Ethene and Daughter Product Mass (log10)

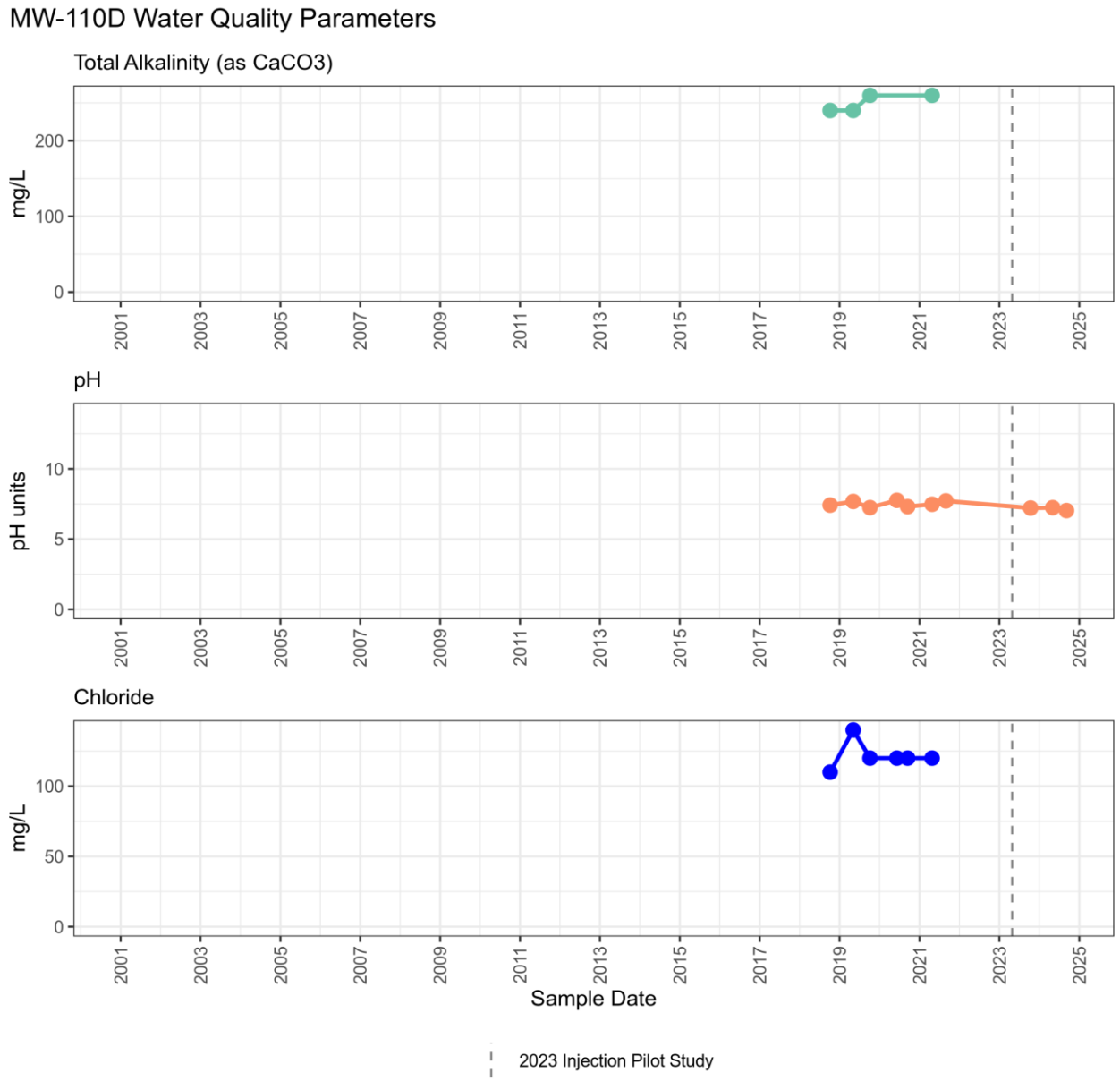


Chlorinated Ethene and Daughter Product Concentration

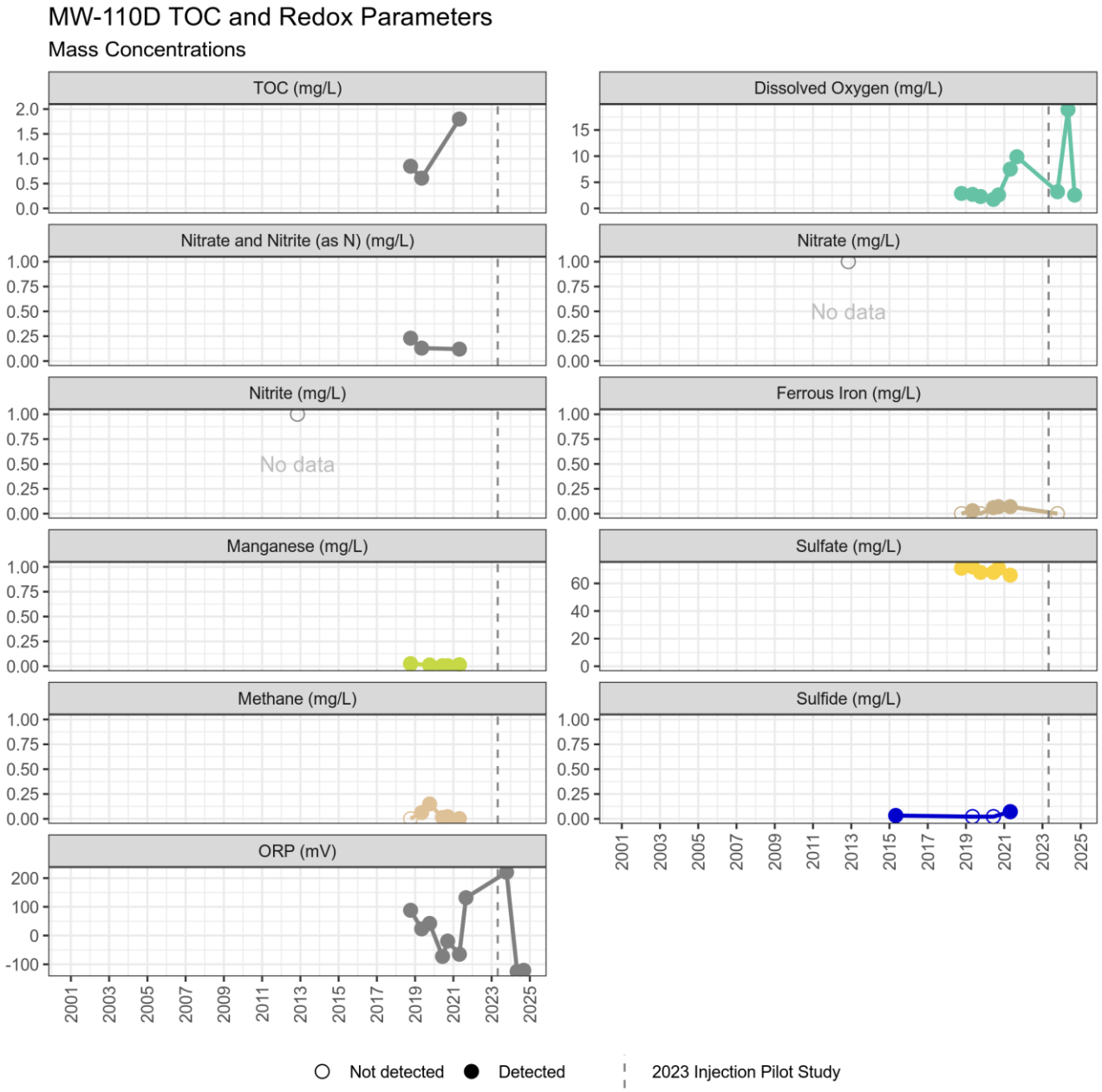


MW-110D

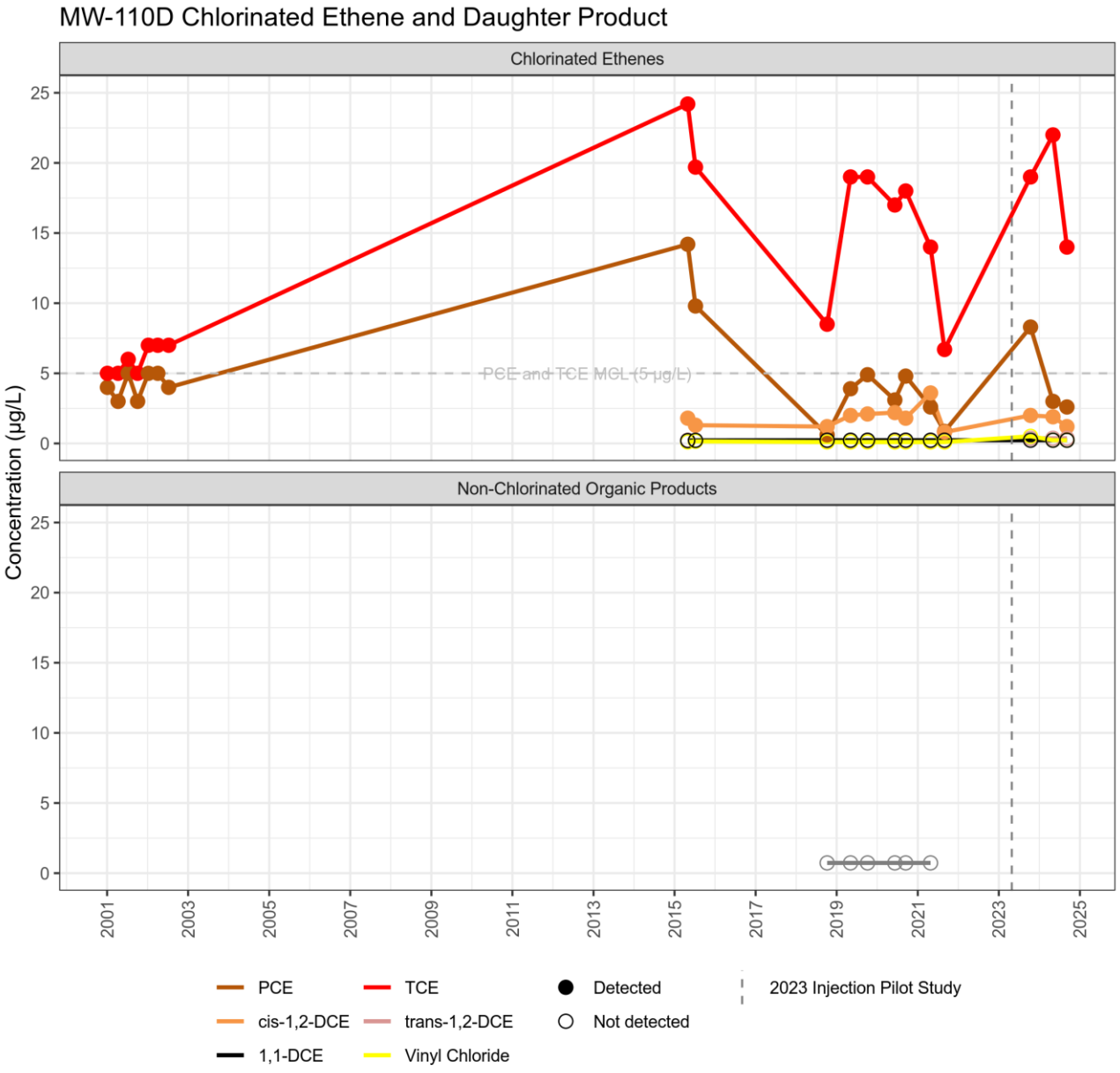
Water Quality



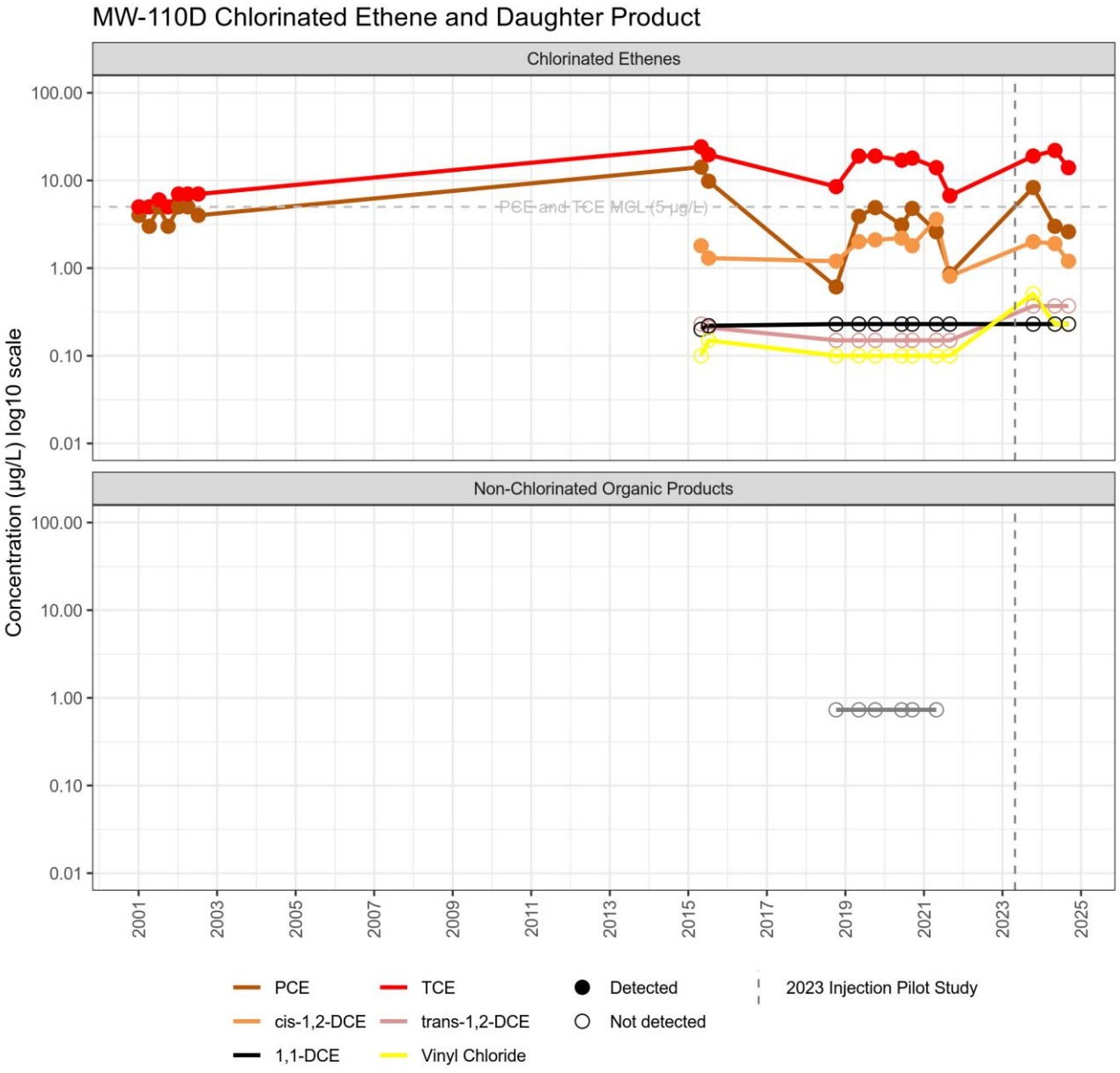
TOC and Redox Parameters



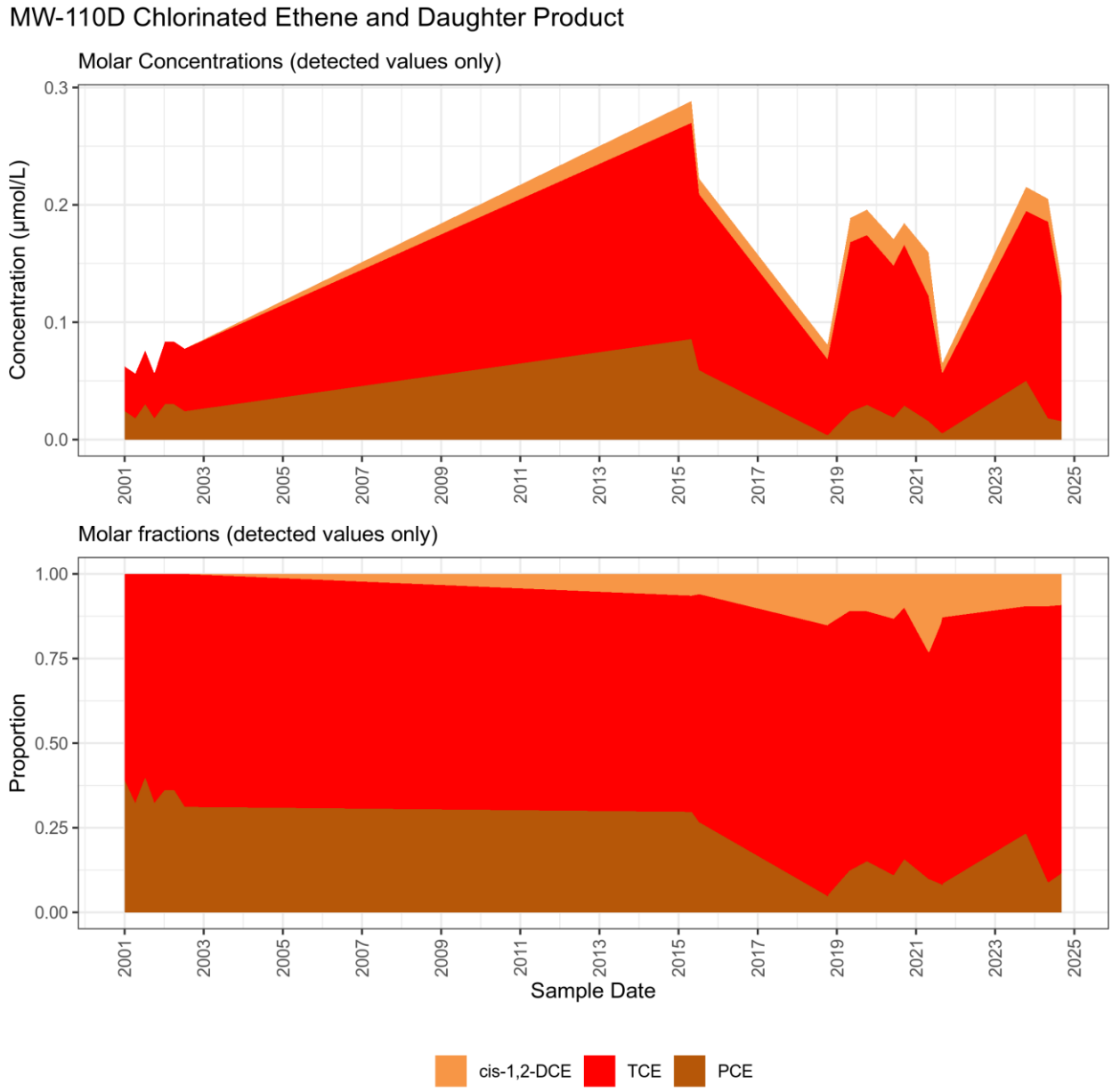
Chlorinated Ethene and Daughter Product Mass



Chlorinated Ethene and Daughter Product Mass (log10)

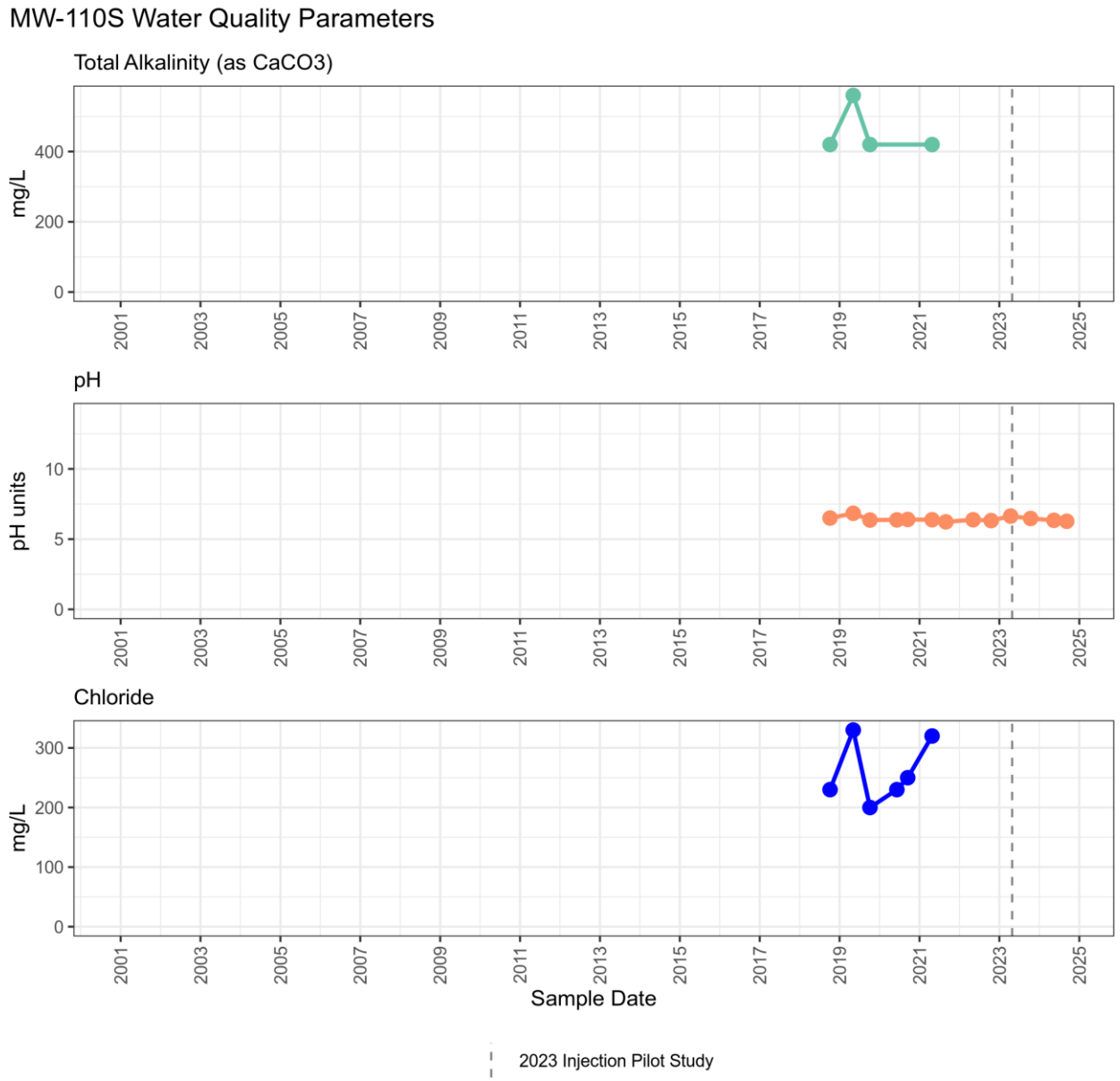


Chlorinated Ethene and Daughter Product Concentration

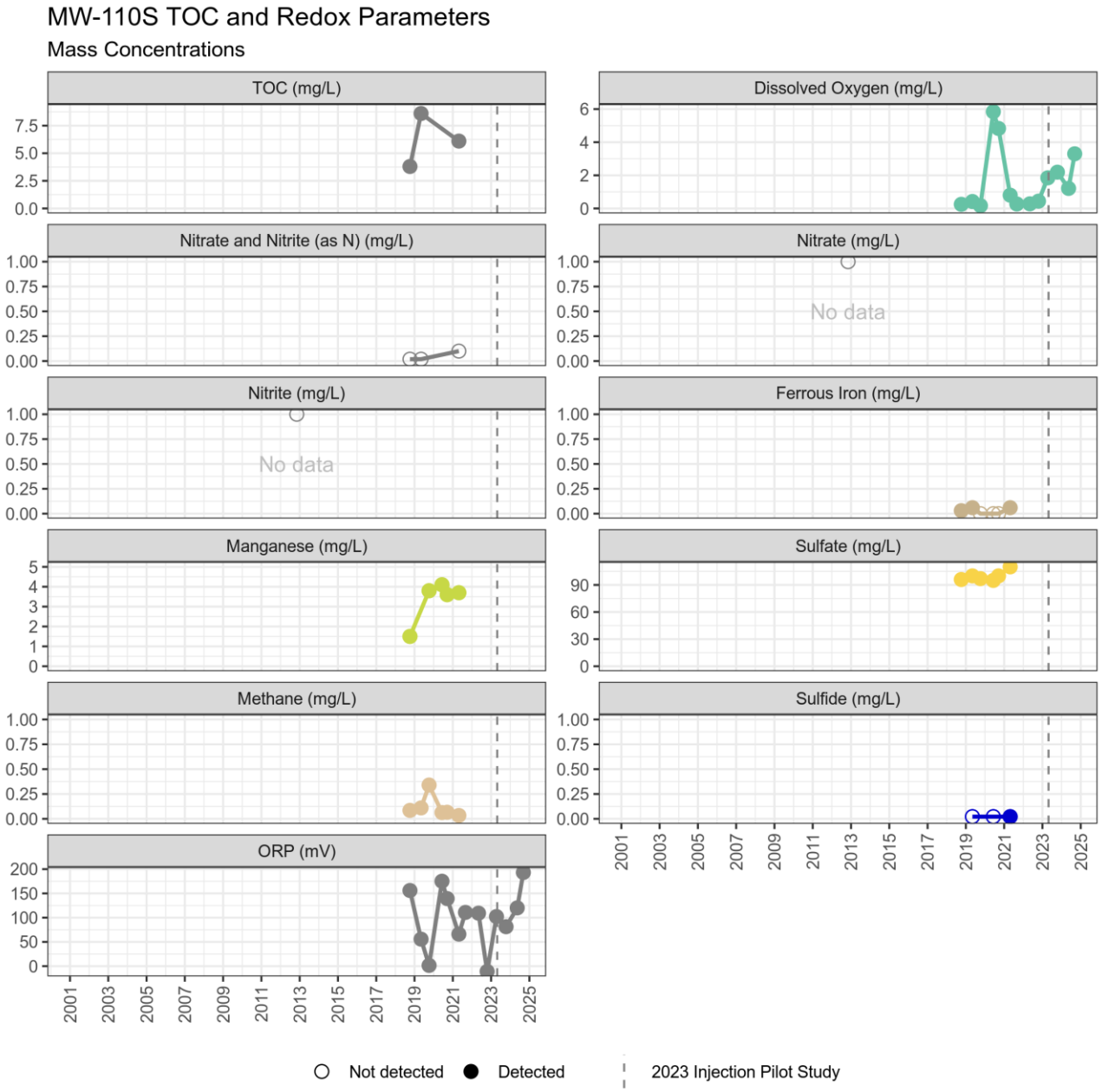


MW-110S

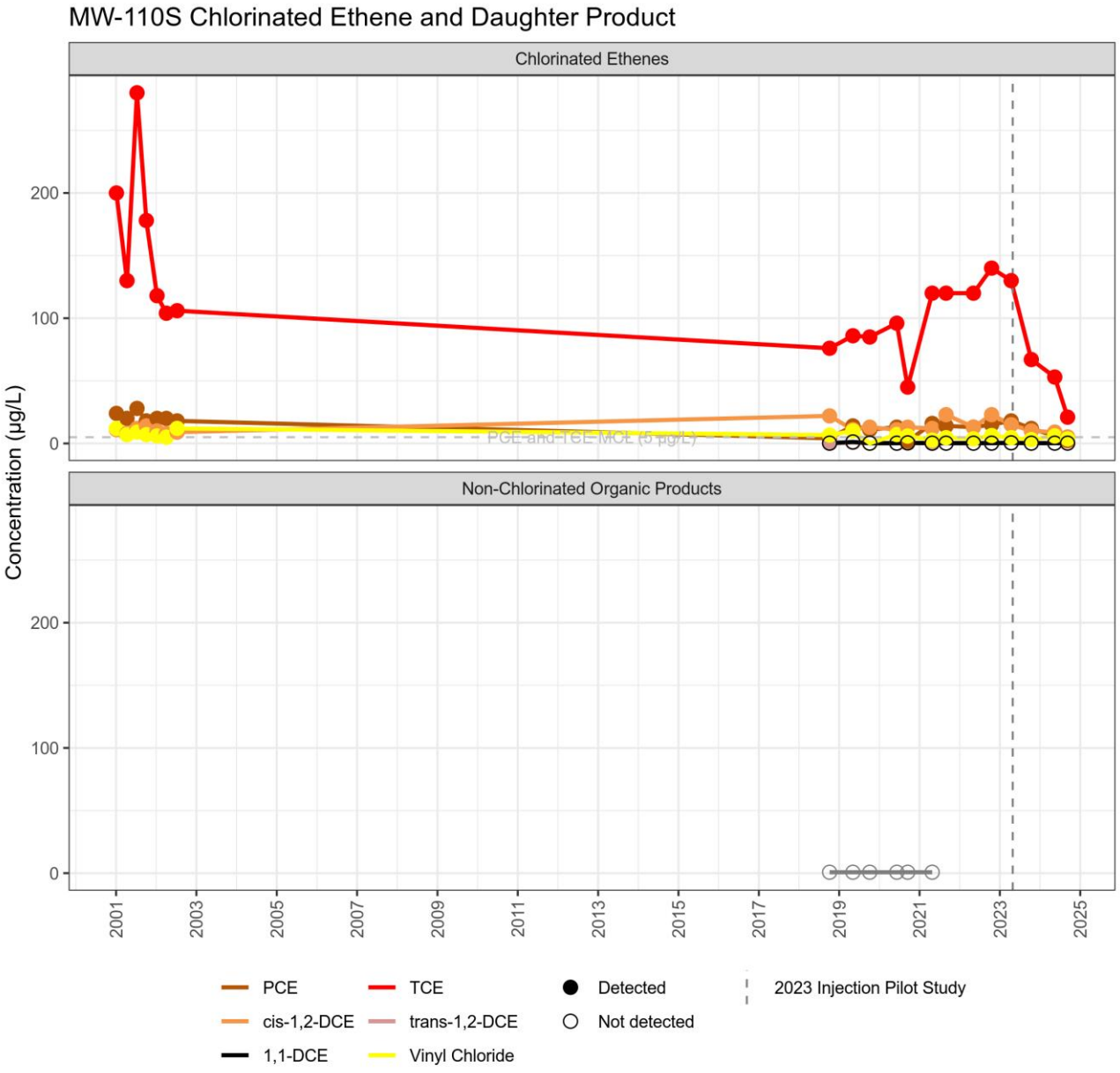
Water Quality



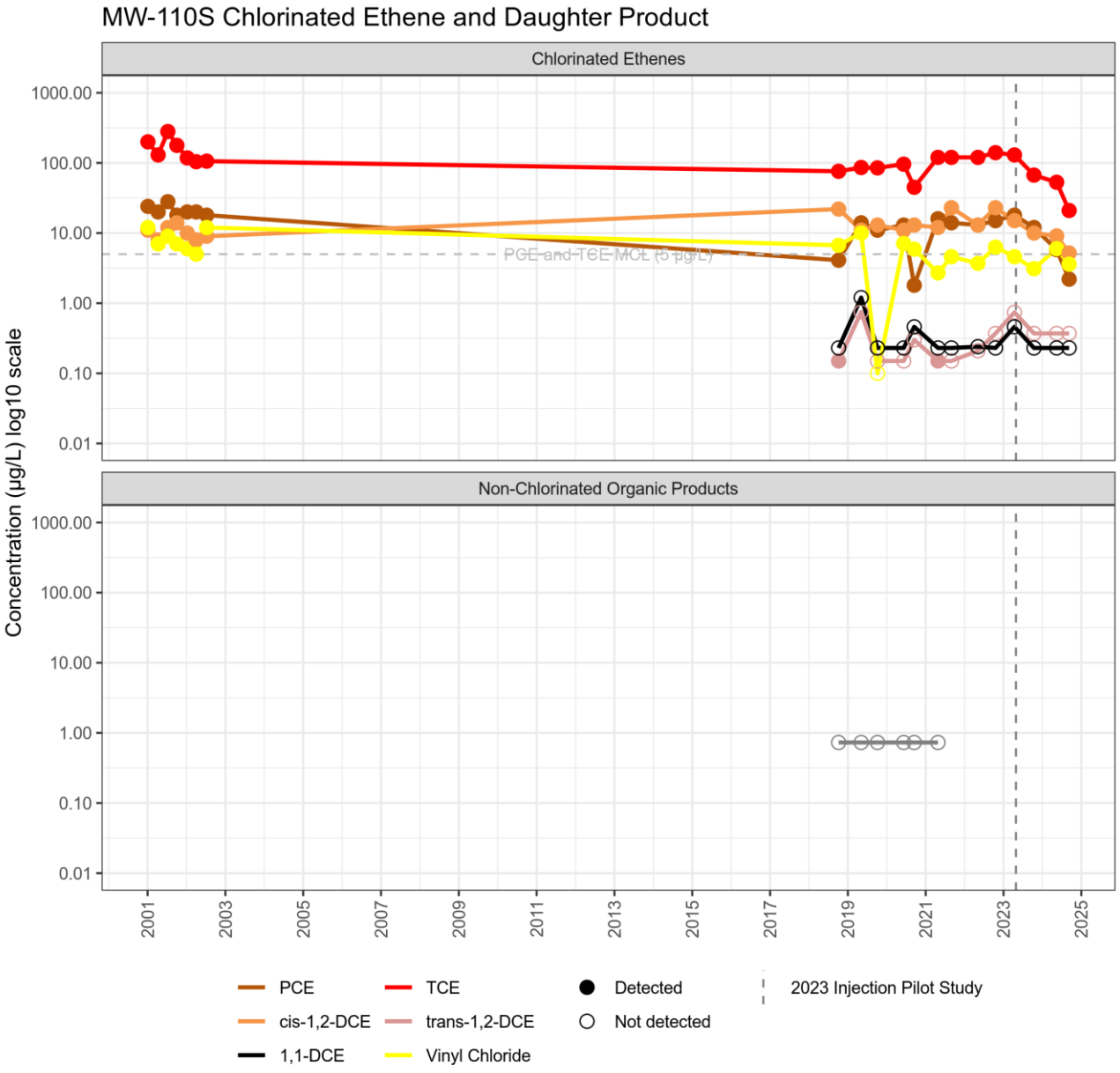
TOC and Redox Parameters



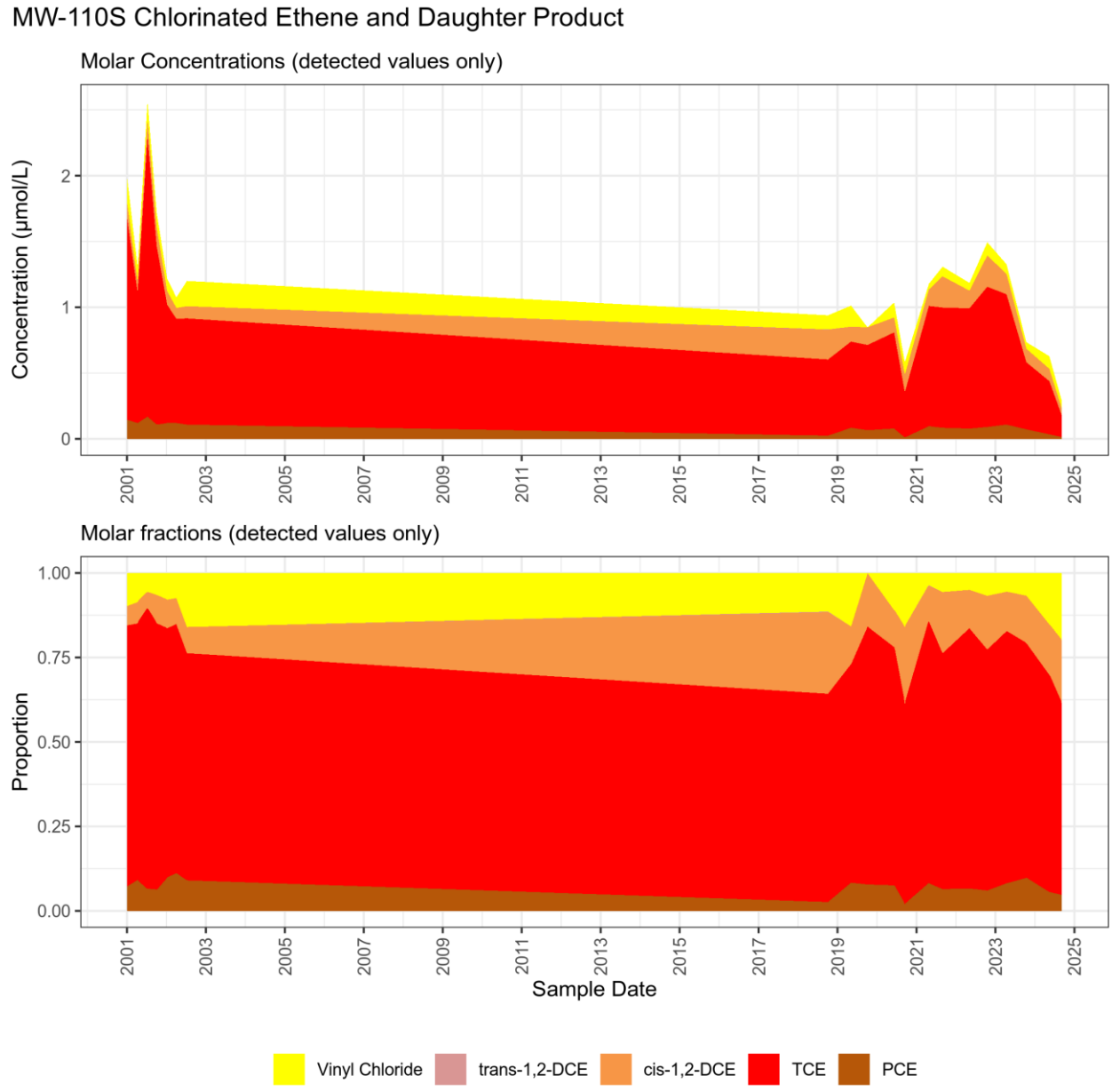
Chlorinated Ethene and Daughter Product Mass



Chlorinated Ethene and Daughter Product Mass (log10)

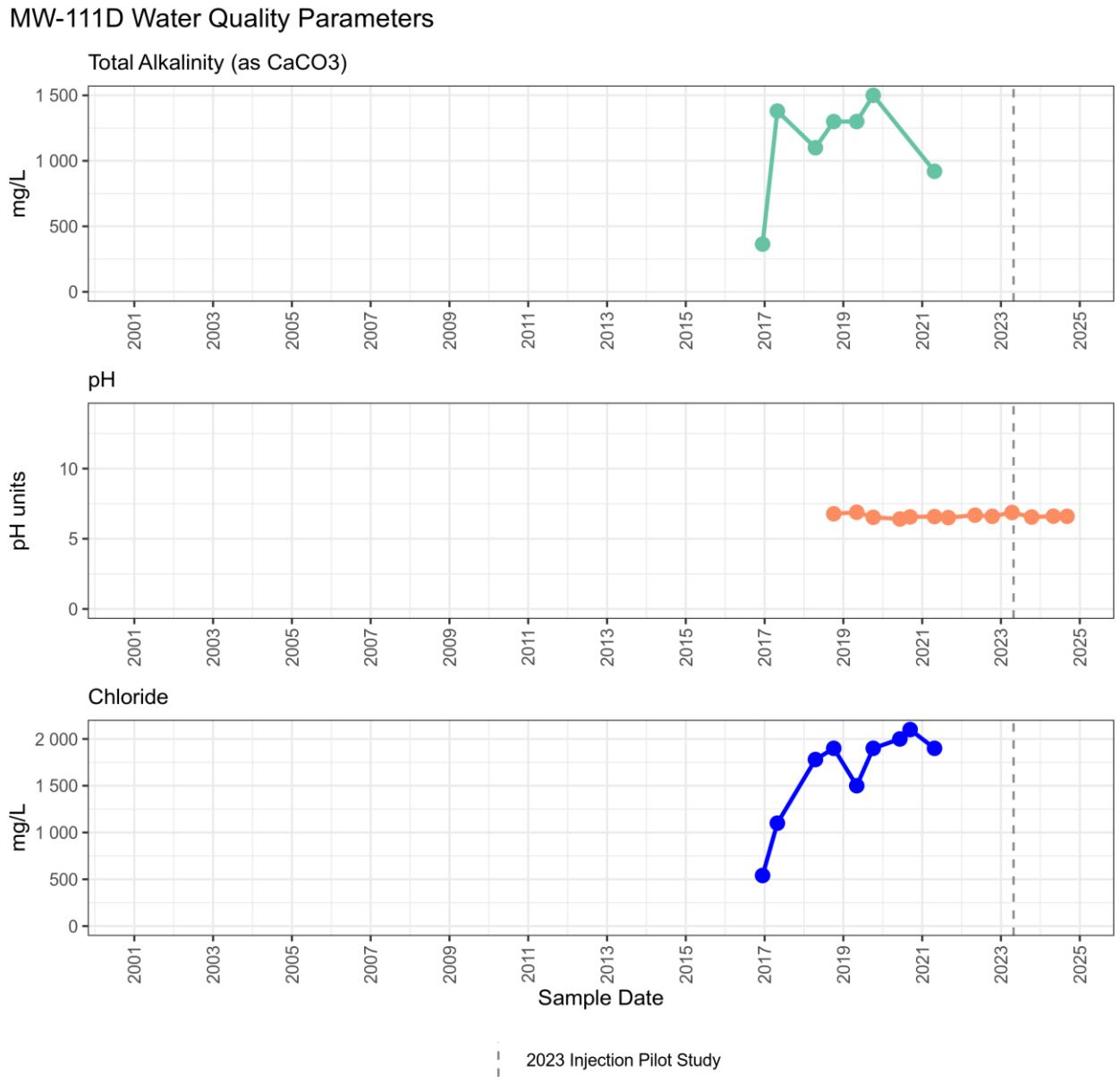


Chlorinated Ethene and Daughter Product Concentration

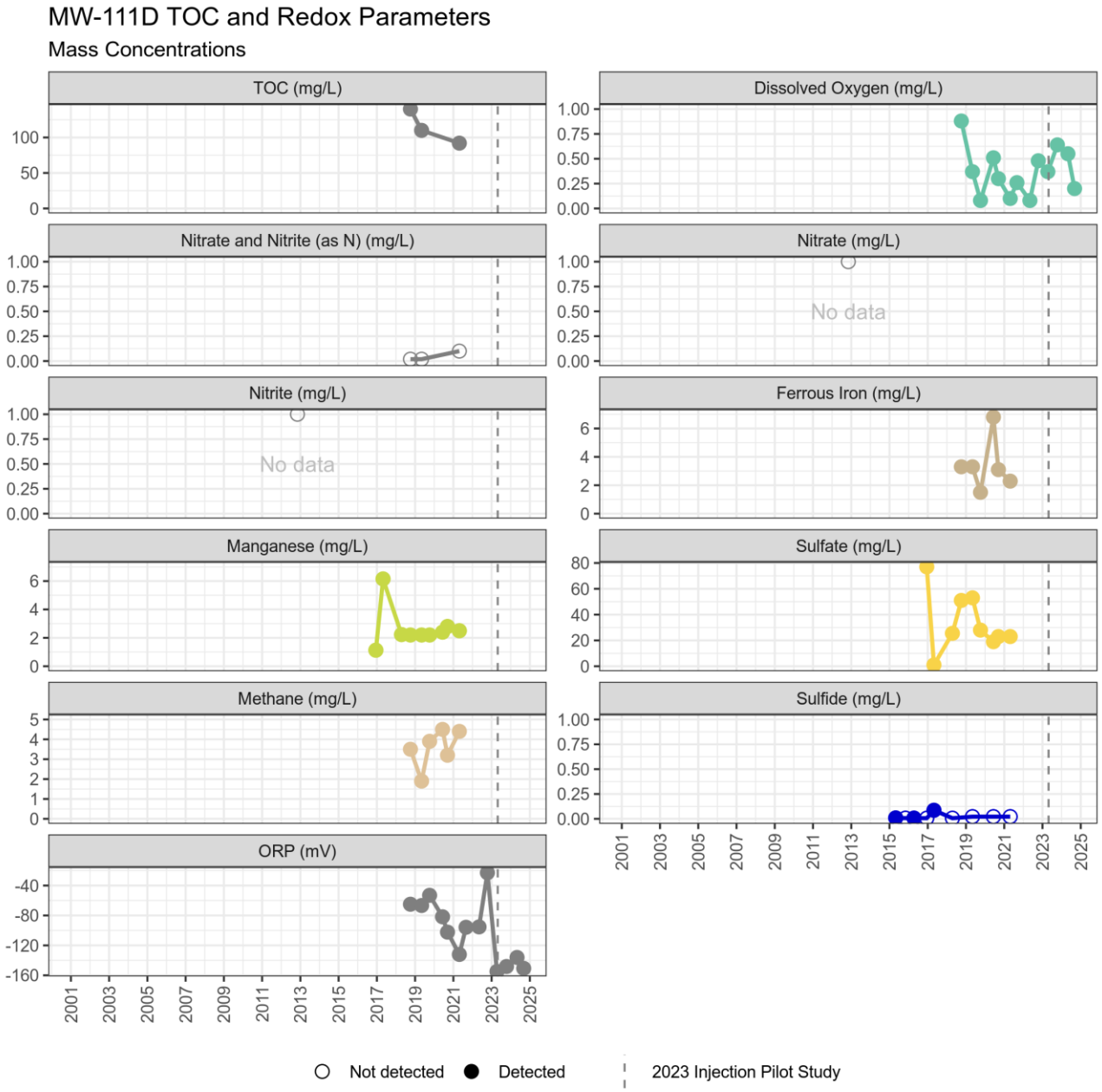


MW-111D

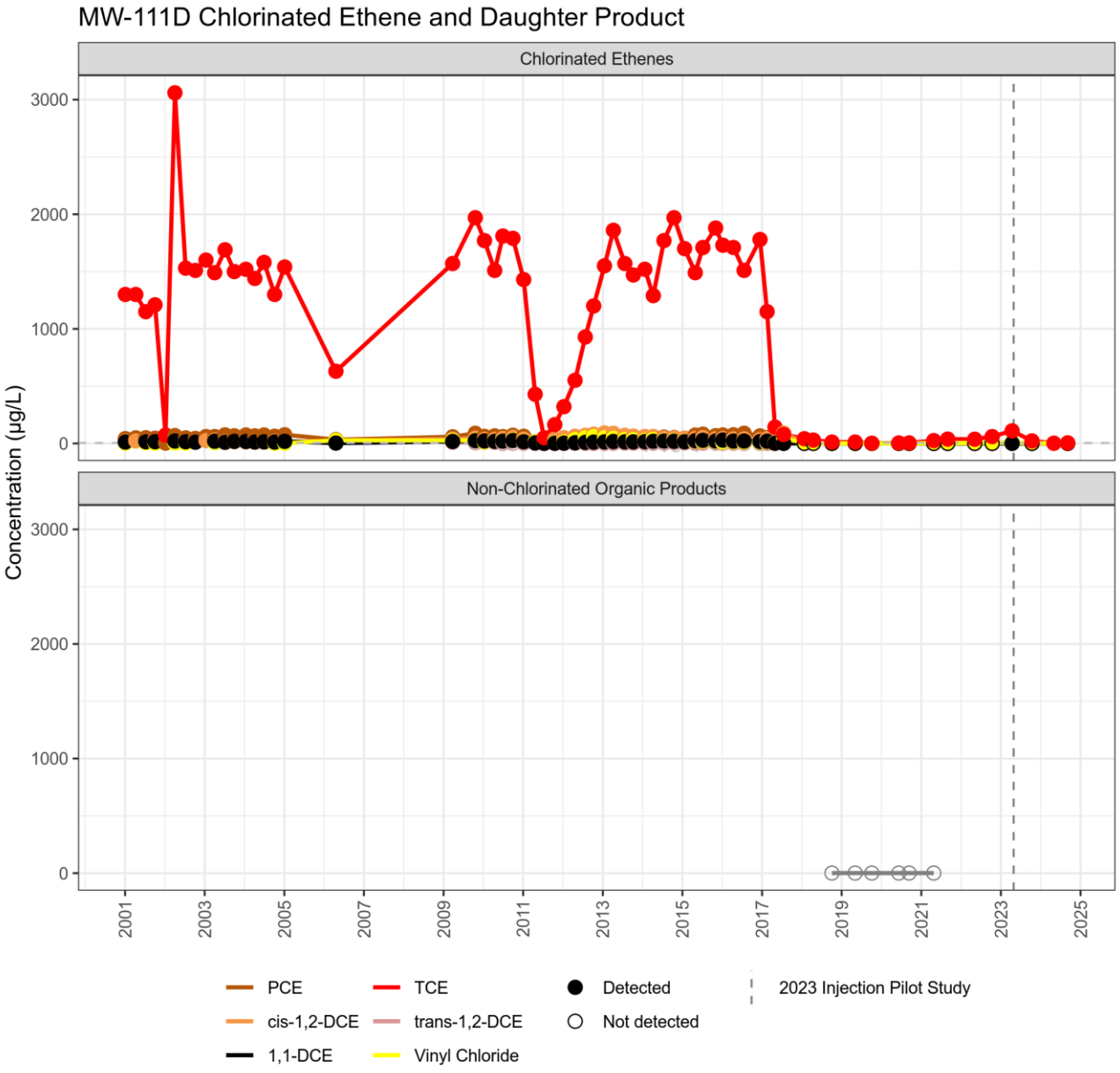
Water Quality



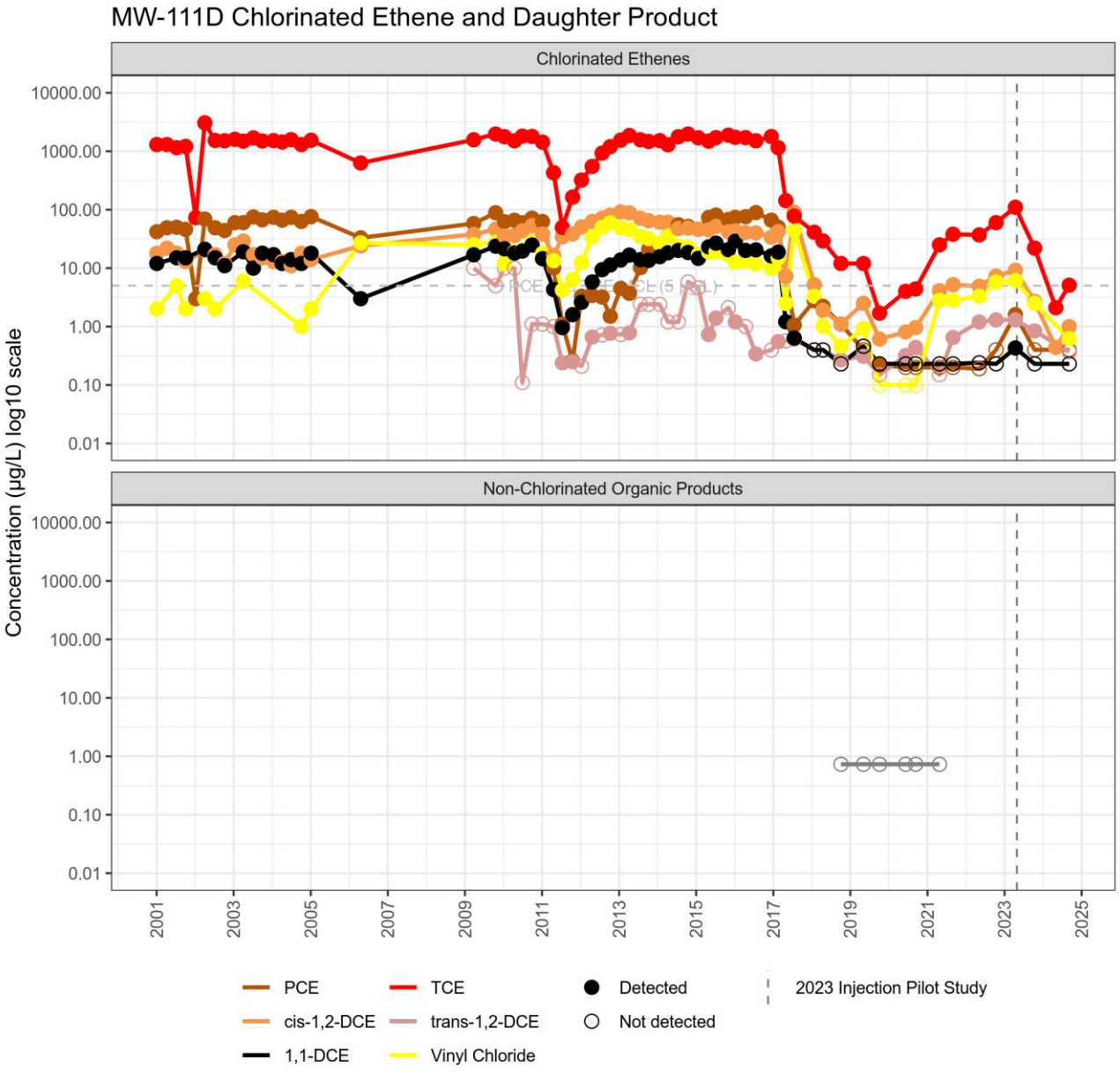
TOC and Redox Parameters



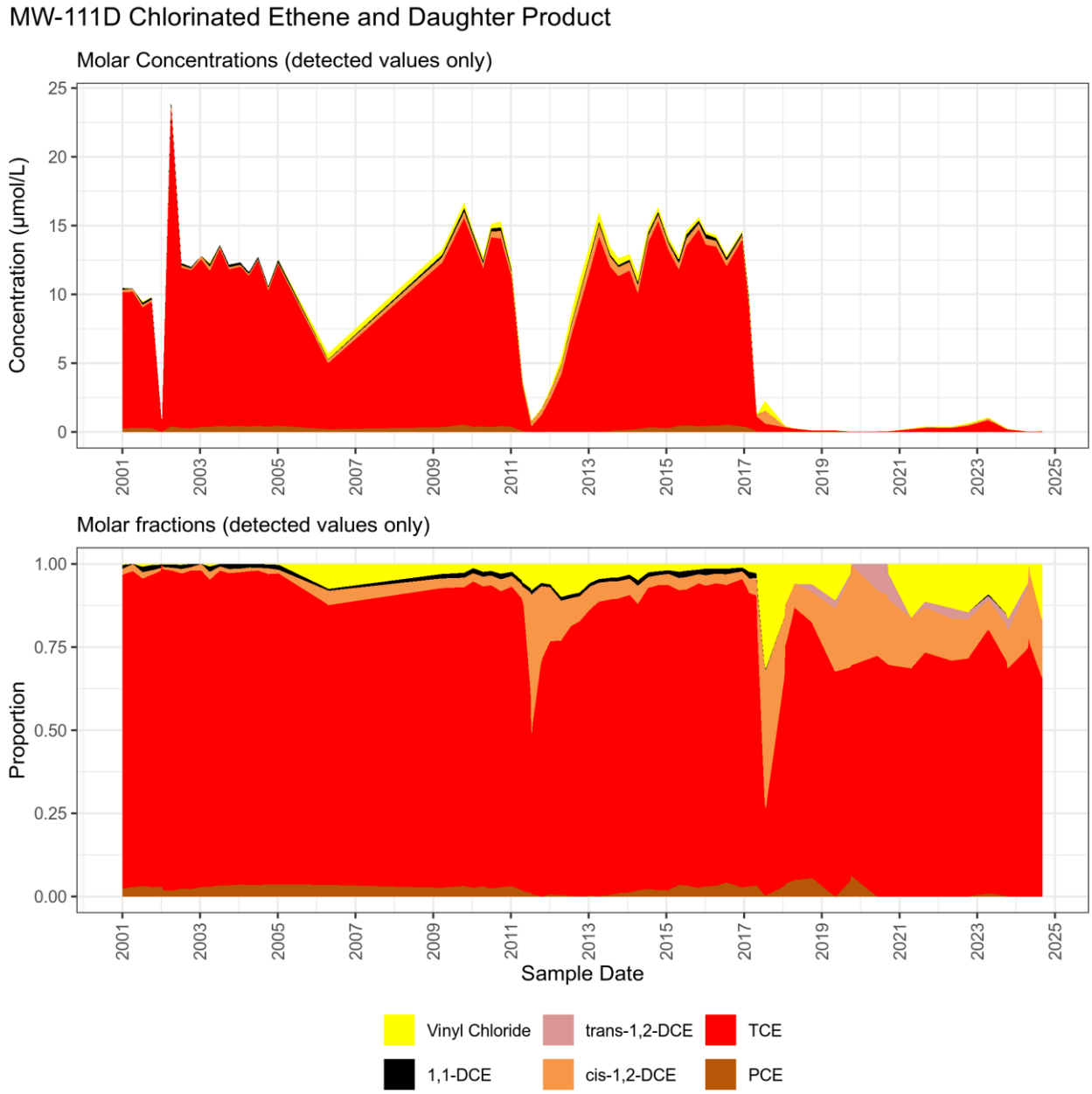
Chlorinated Ethene and Daughter Product Mass



Chlorinated Ethene and Daughter Product Mass (log10)

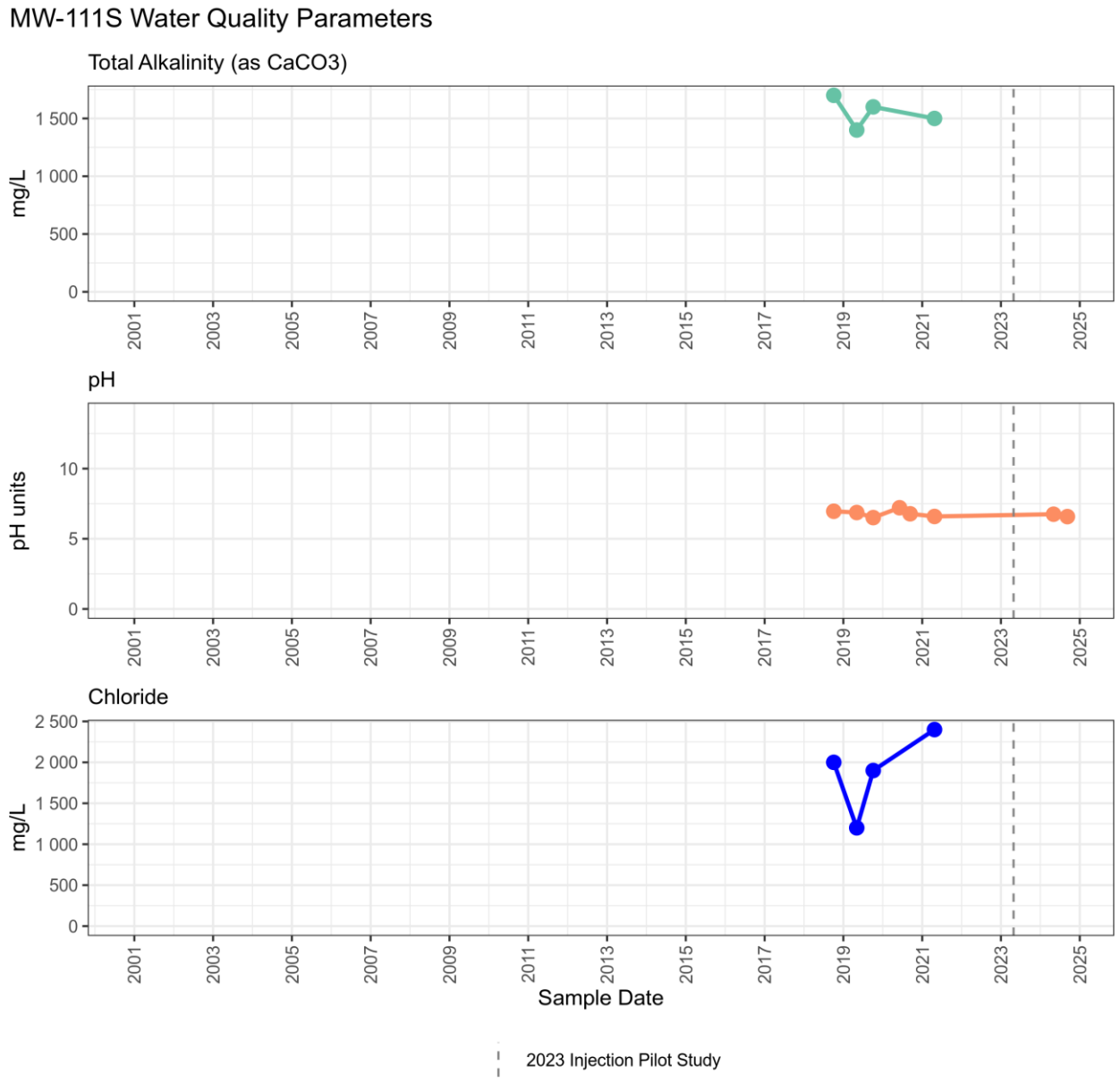


Chlorinated Ethene and Daughter Product Concentration

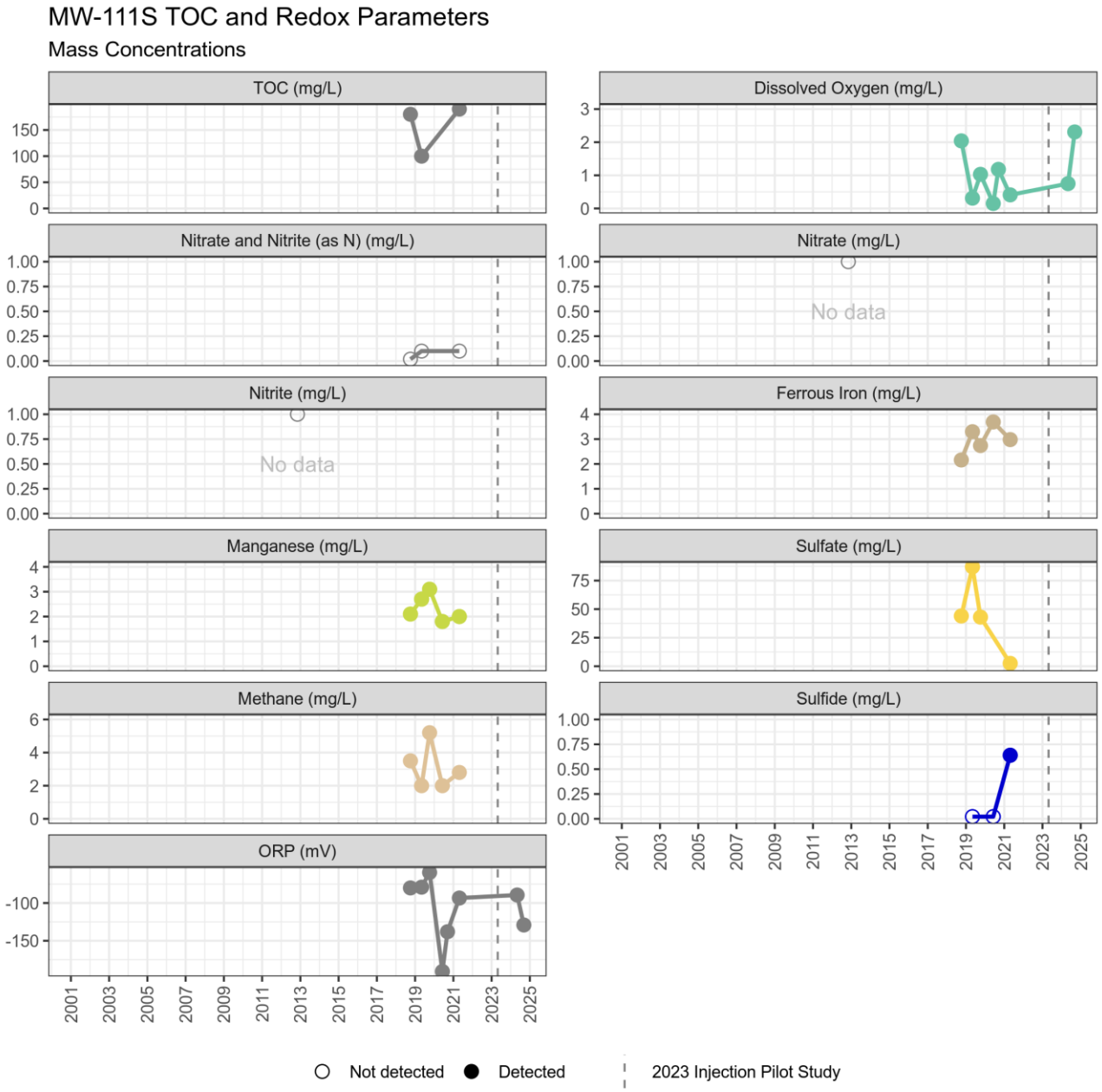


MW-111S

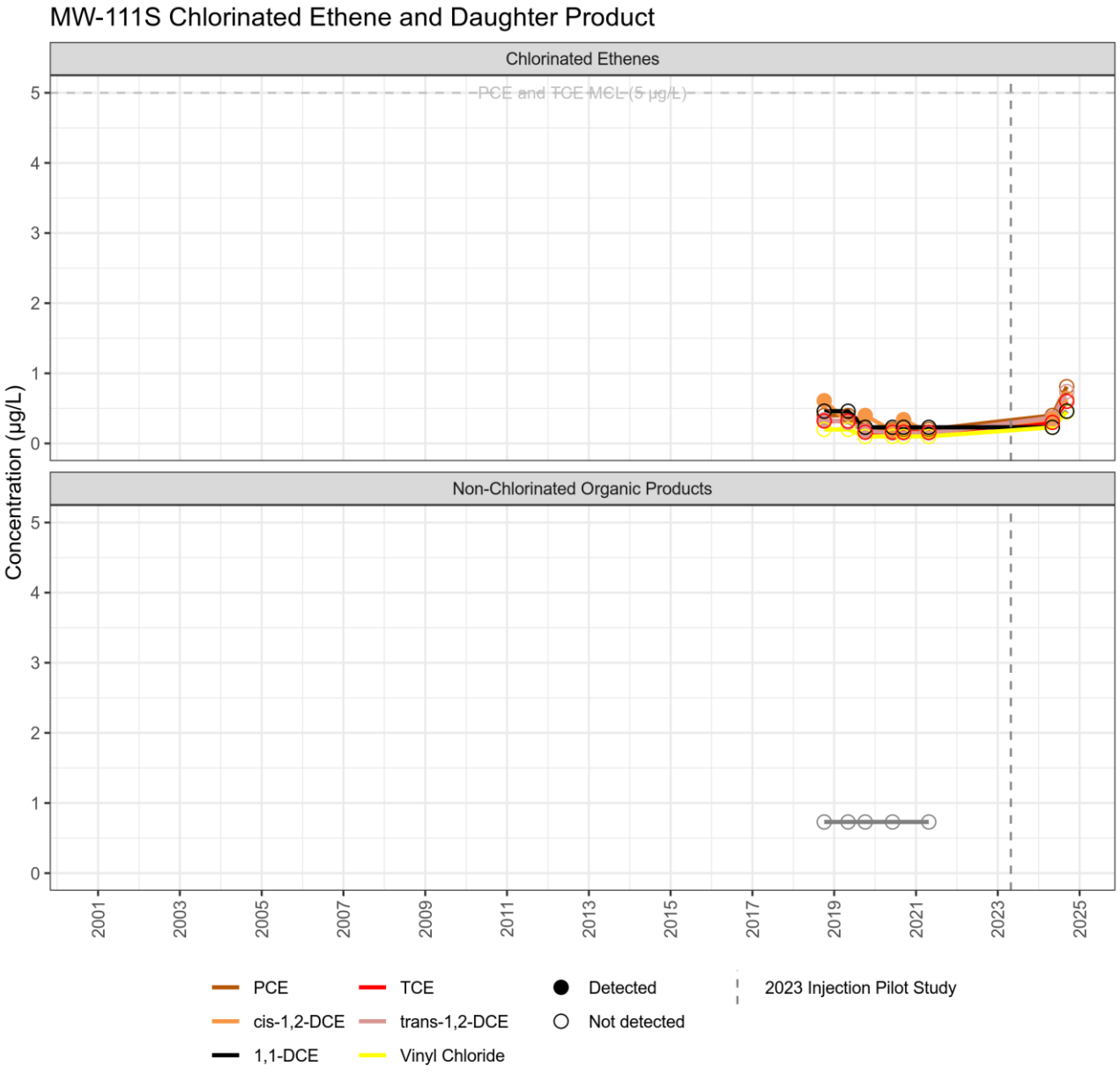
Water Quality



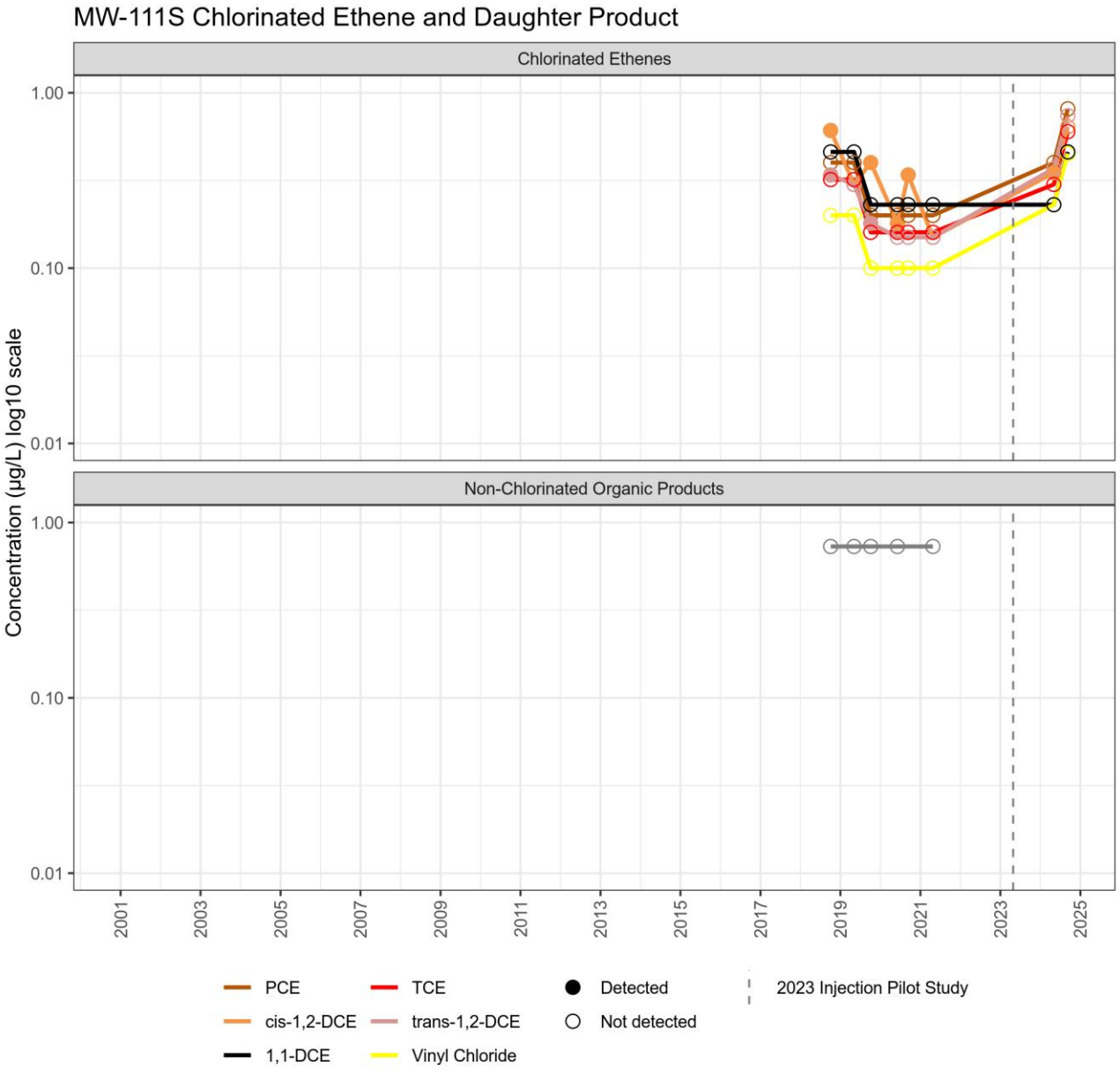
TOC and Redox Parameters



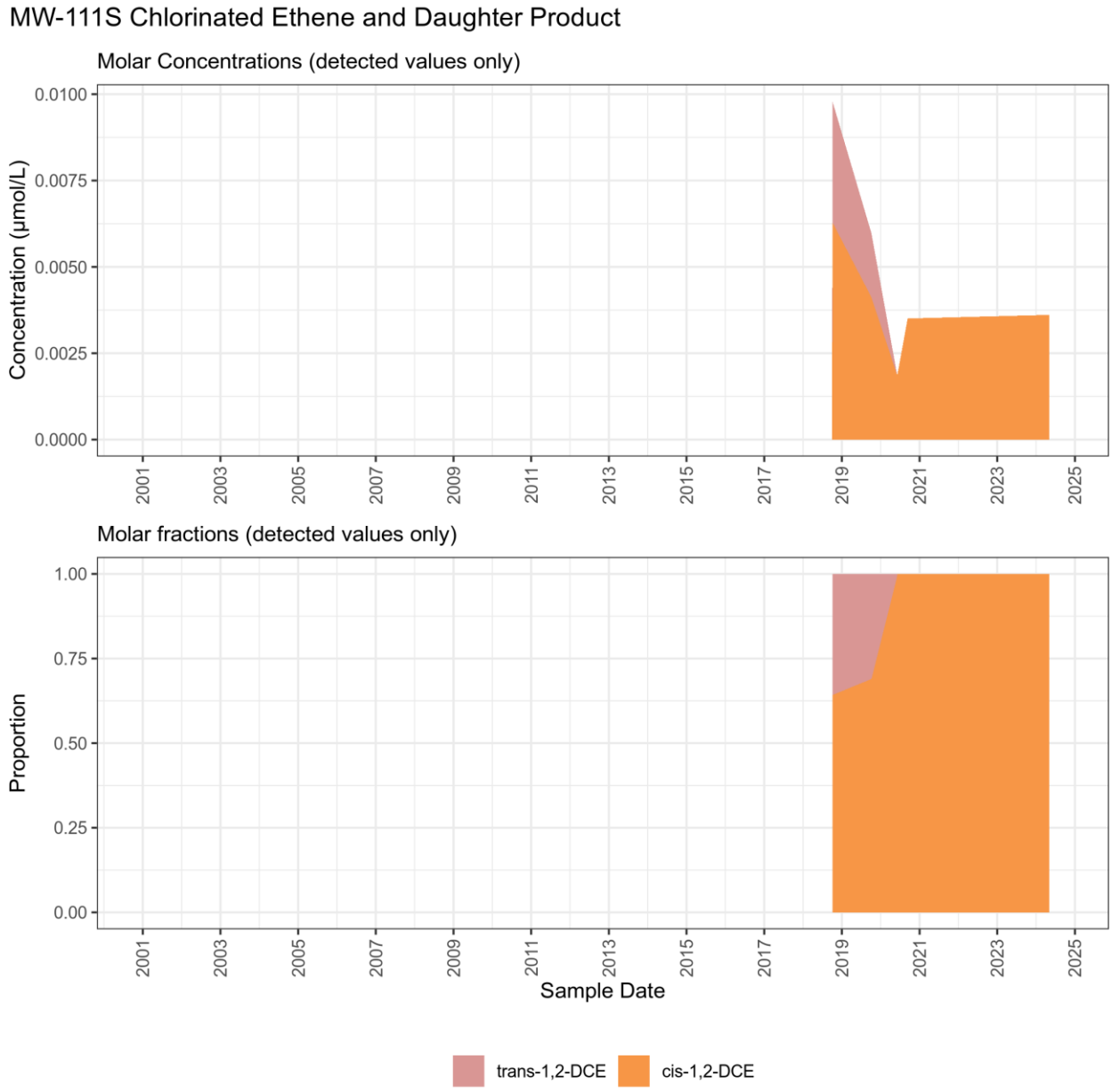
Chlorinated Ethene and Daughter Product Mass



Chlorinated Ethene and Daughter Product Mass (log10)

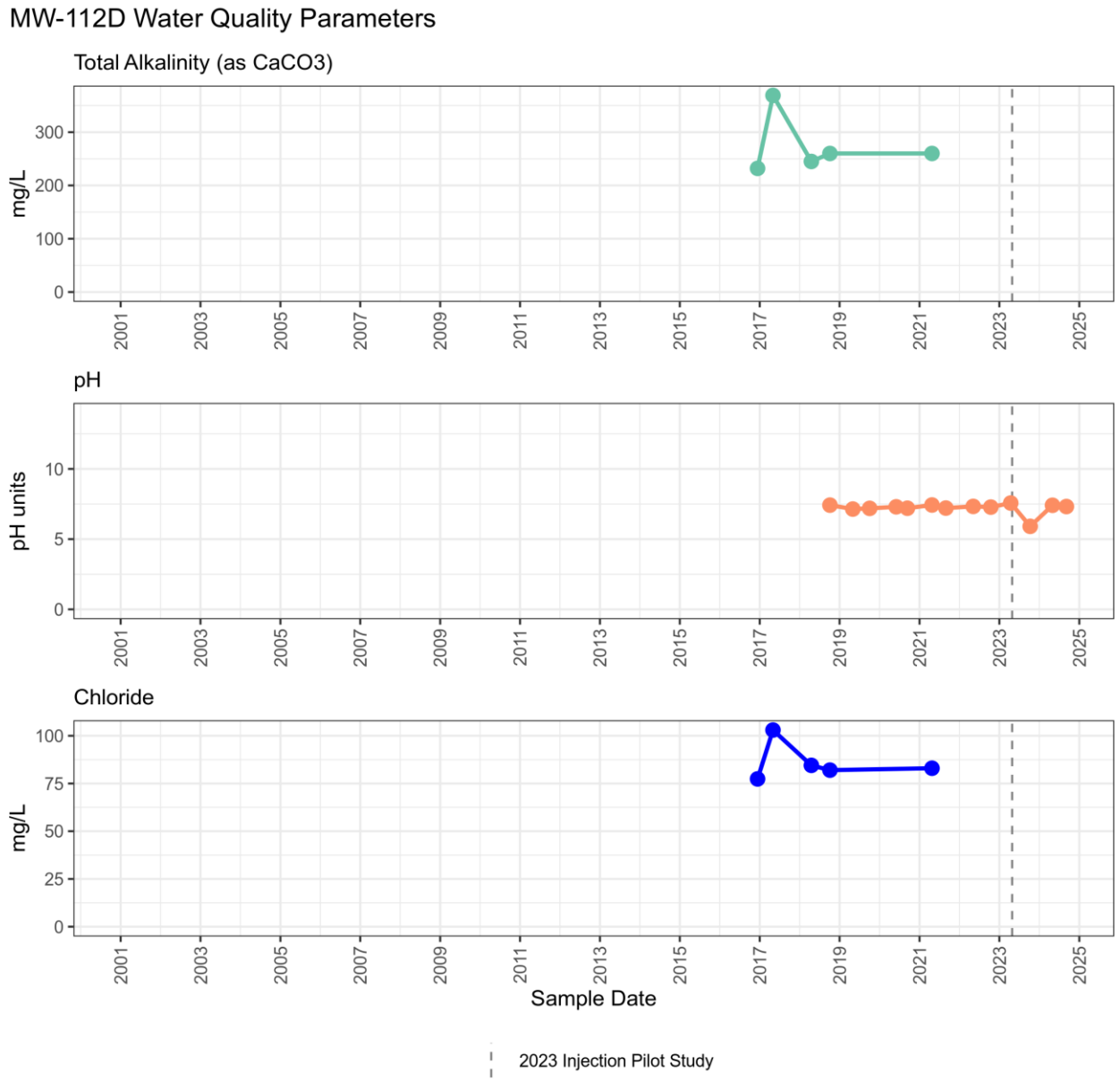


Chlorinated Ethene and Daughter Product Concentration

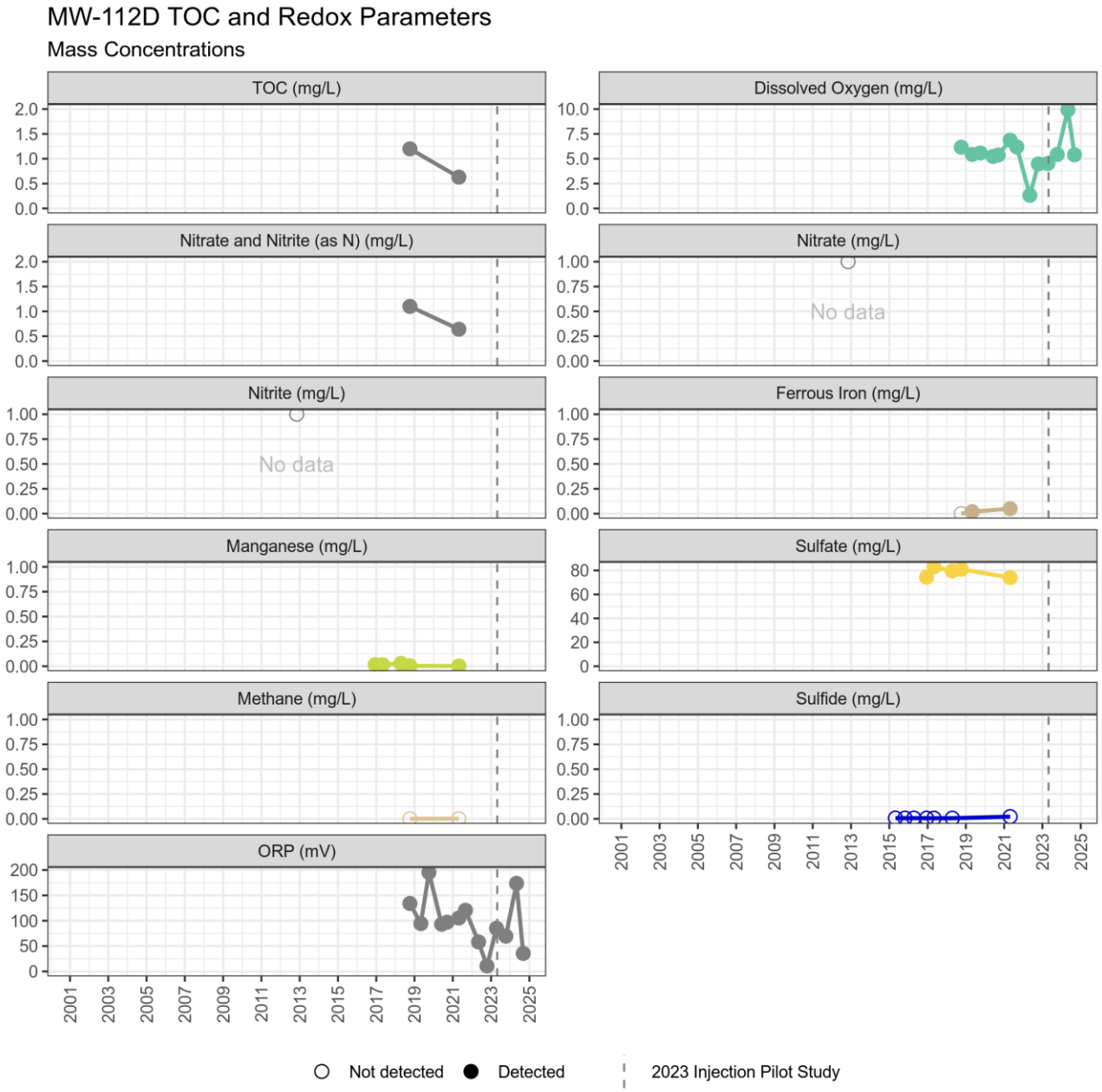


MW-112D

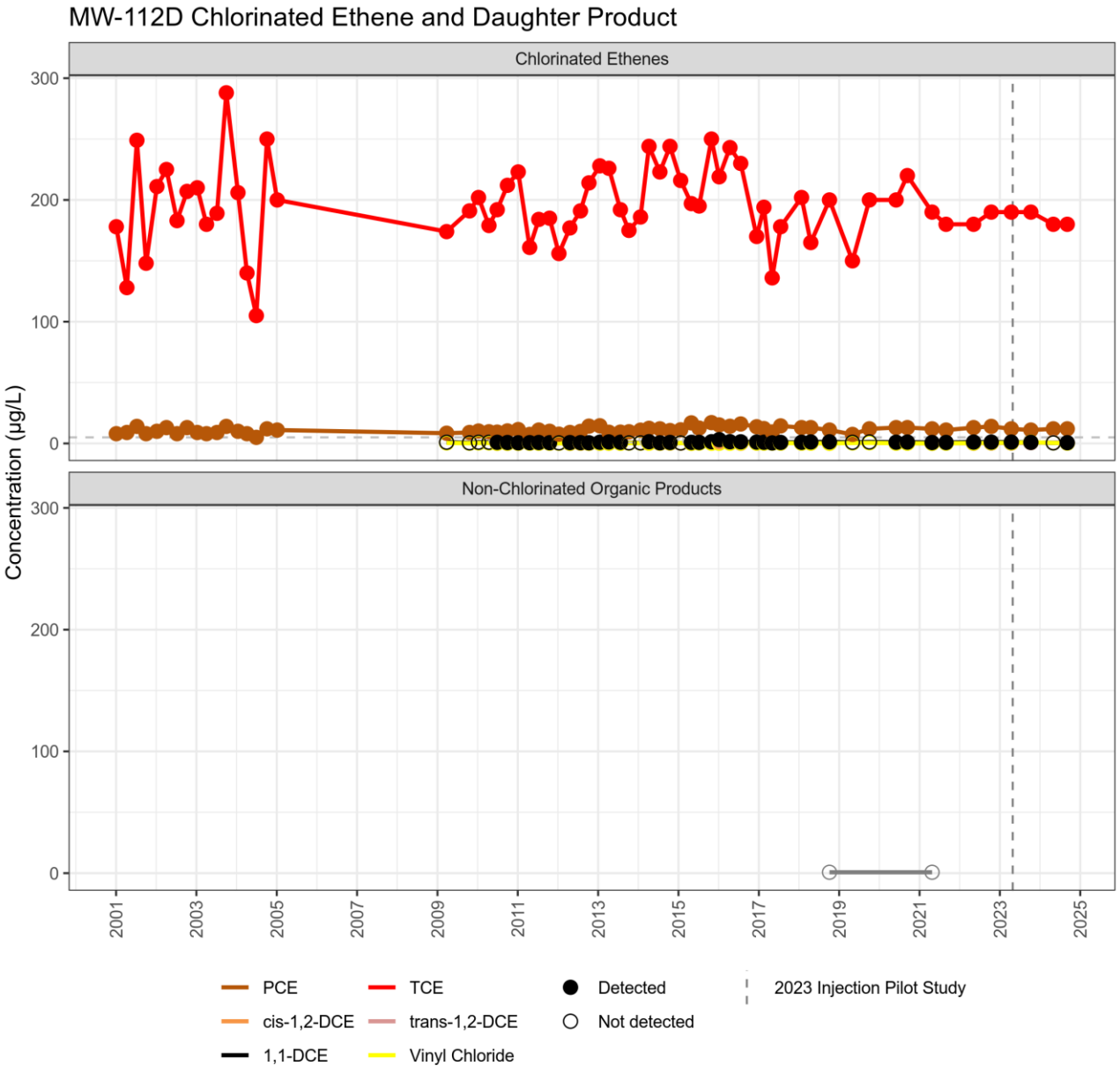
Water Quality



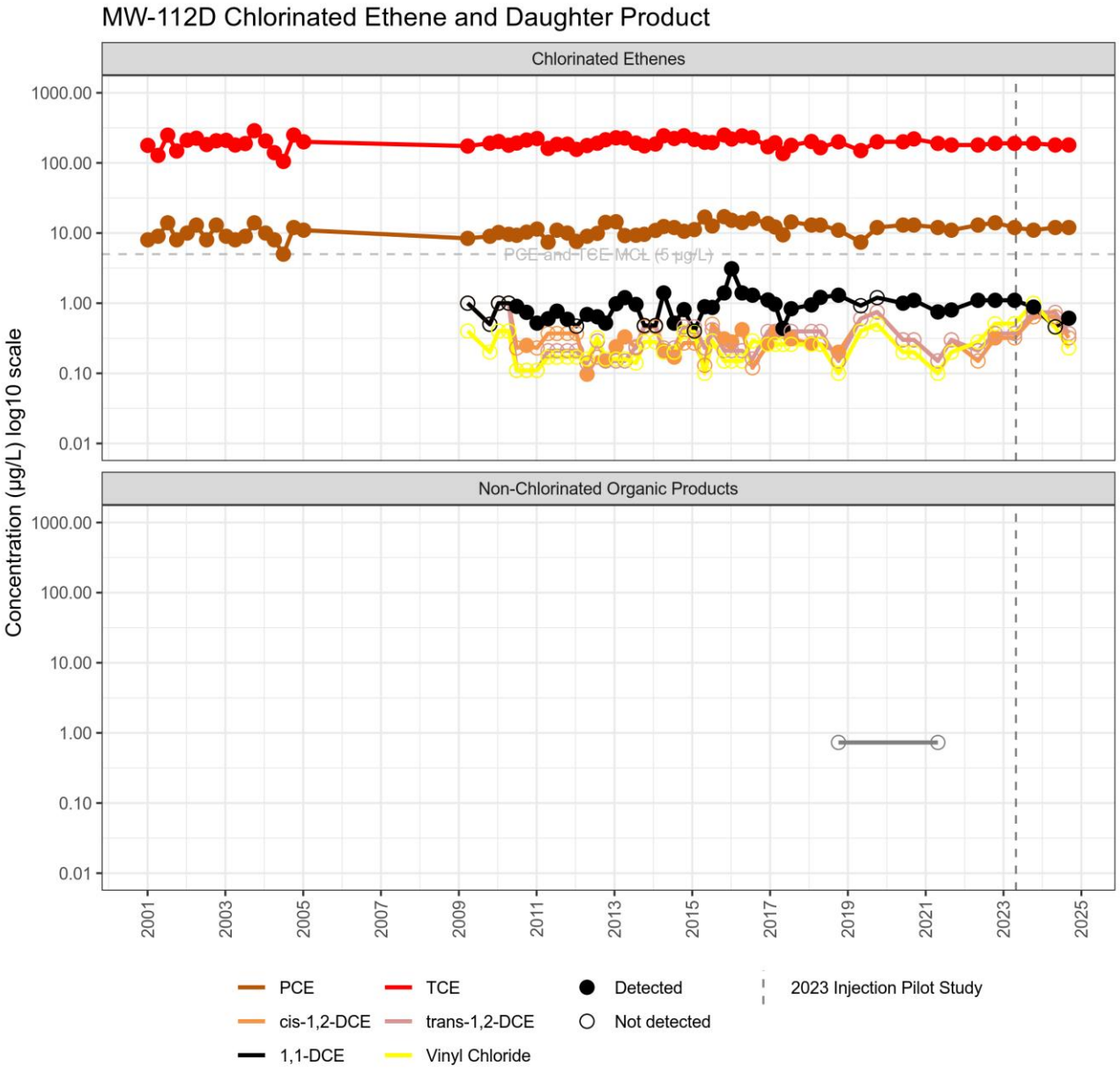
TOC and Redox Parameters



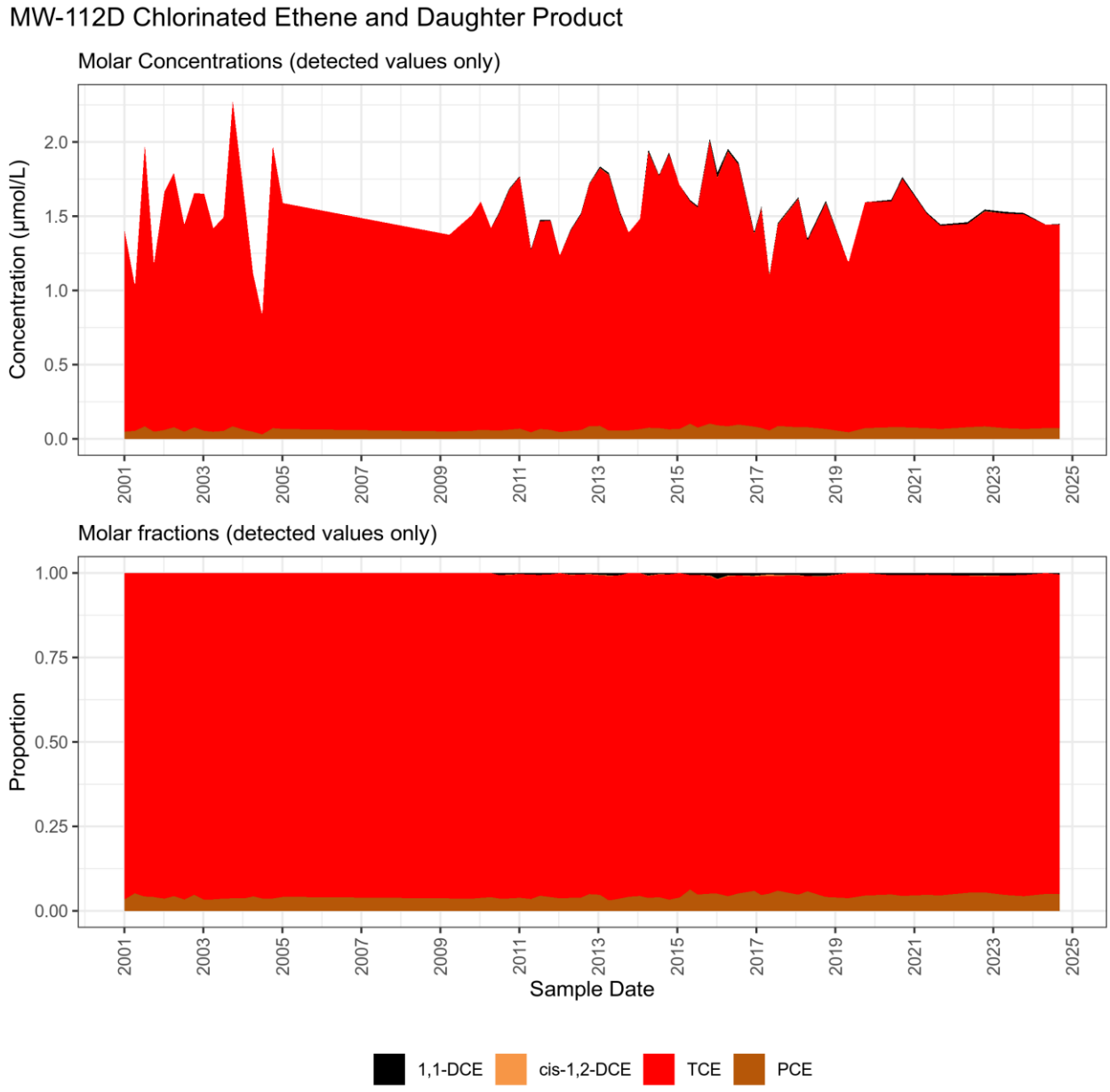
Chlorinated Ethene and Daughter Product Mass



Chlorinated Ethene and Daughter Product Mass (log10)

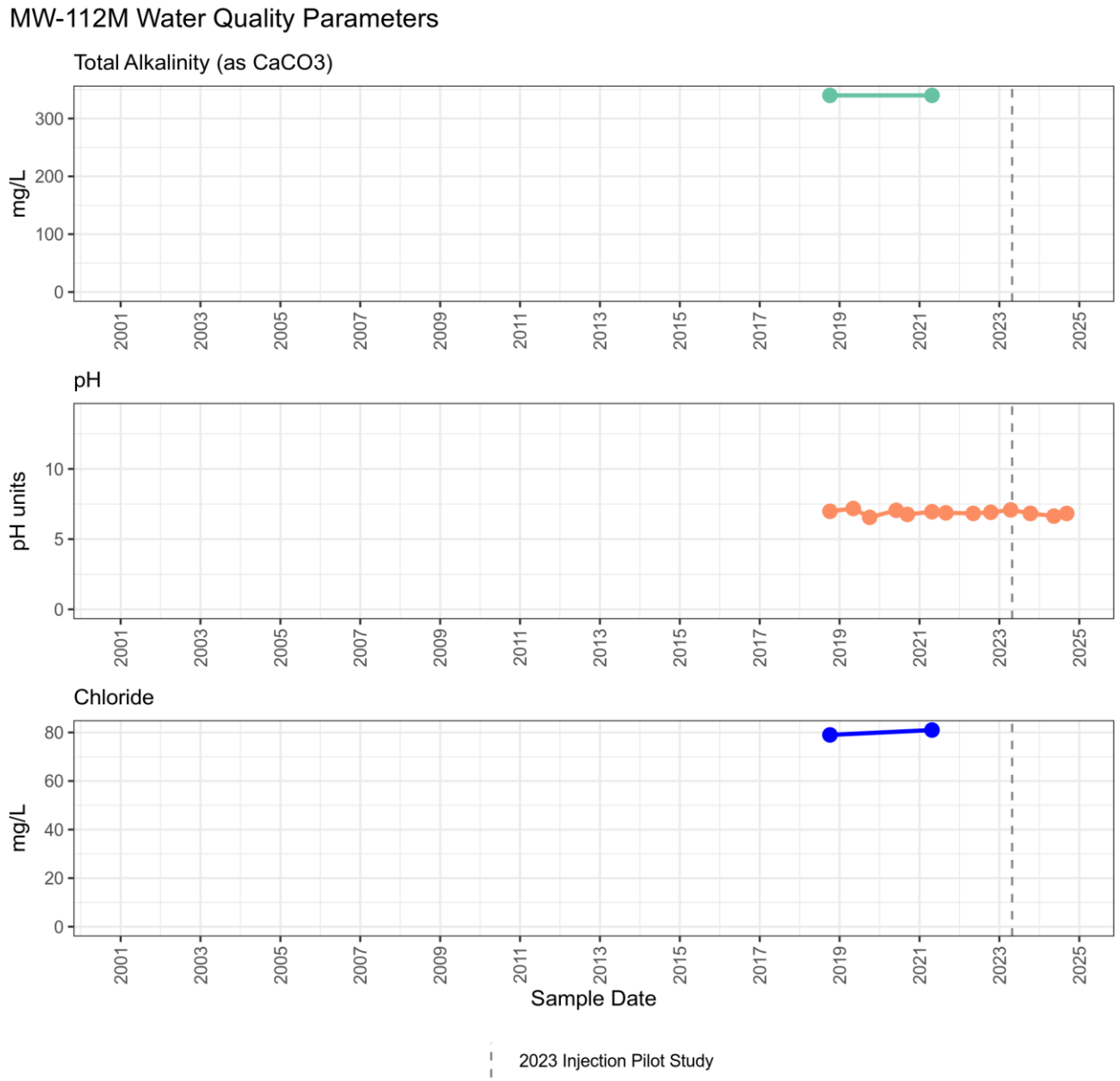


Chlorinated Ethene and Daughter Product Concentration

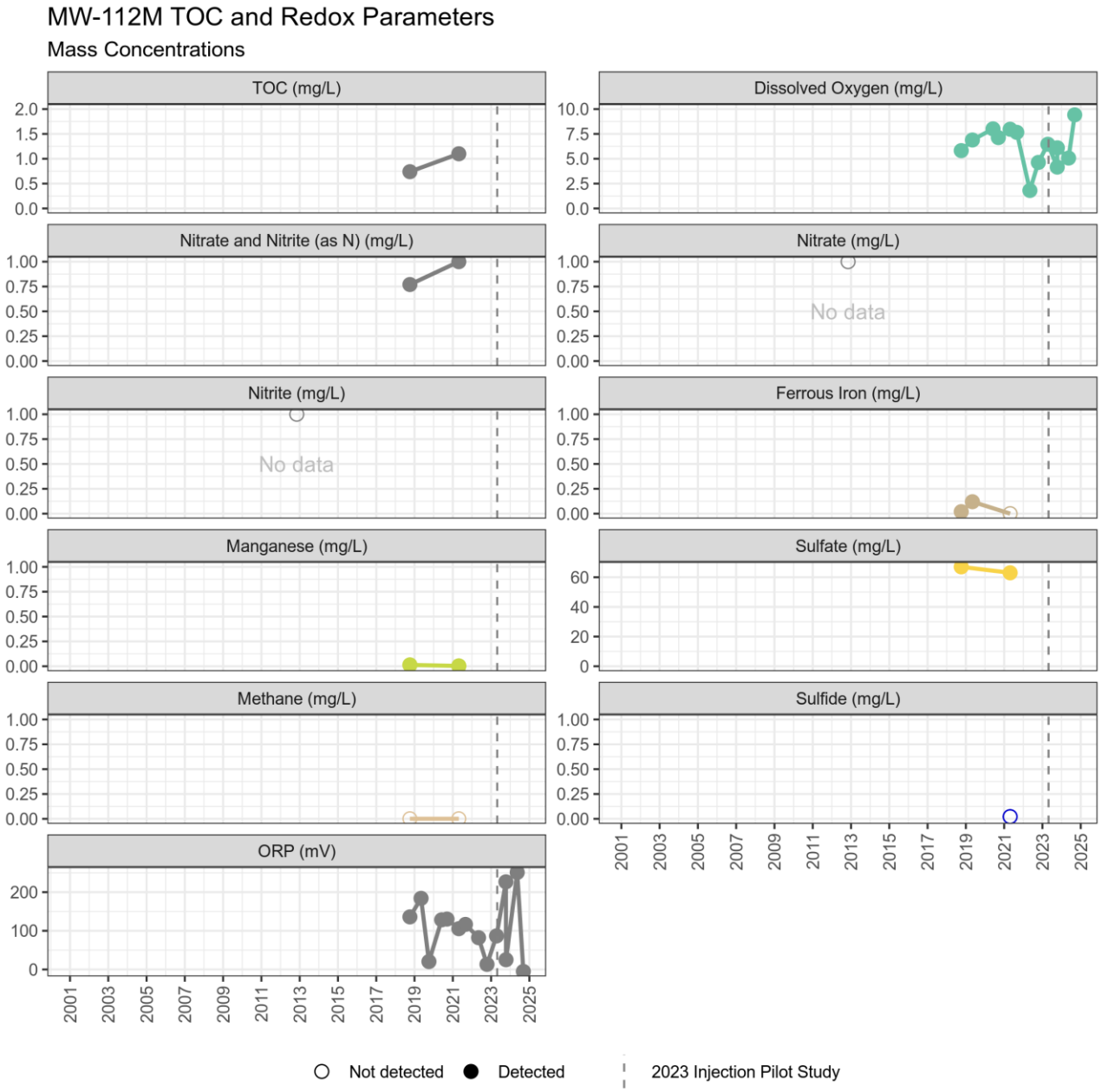


MW-112M

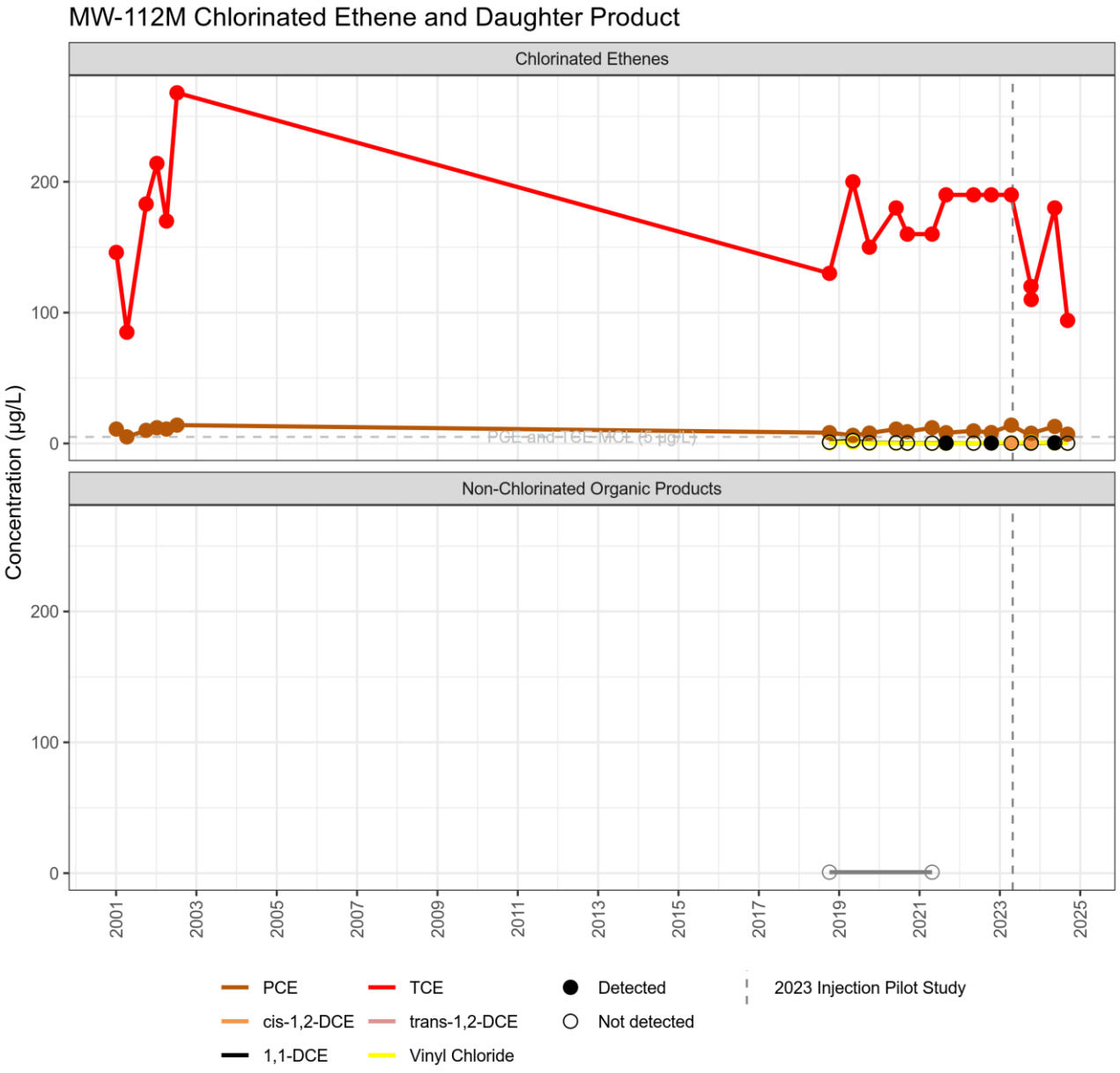
Water Quality



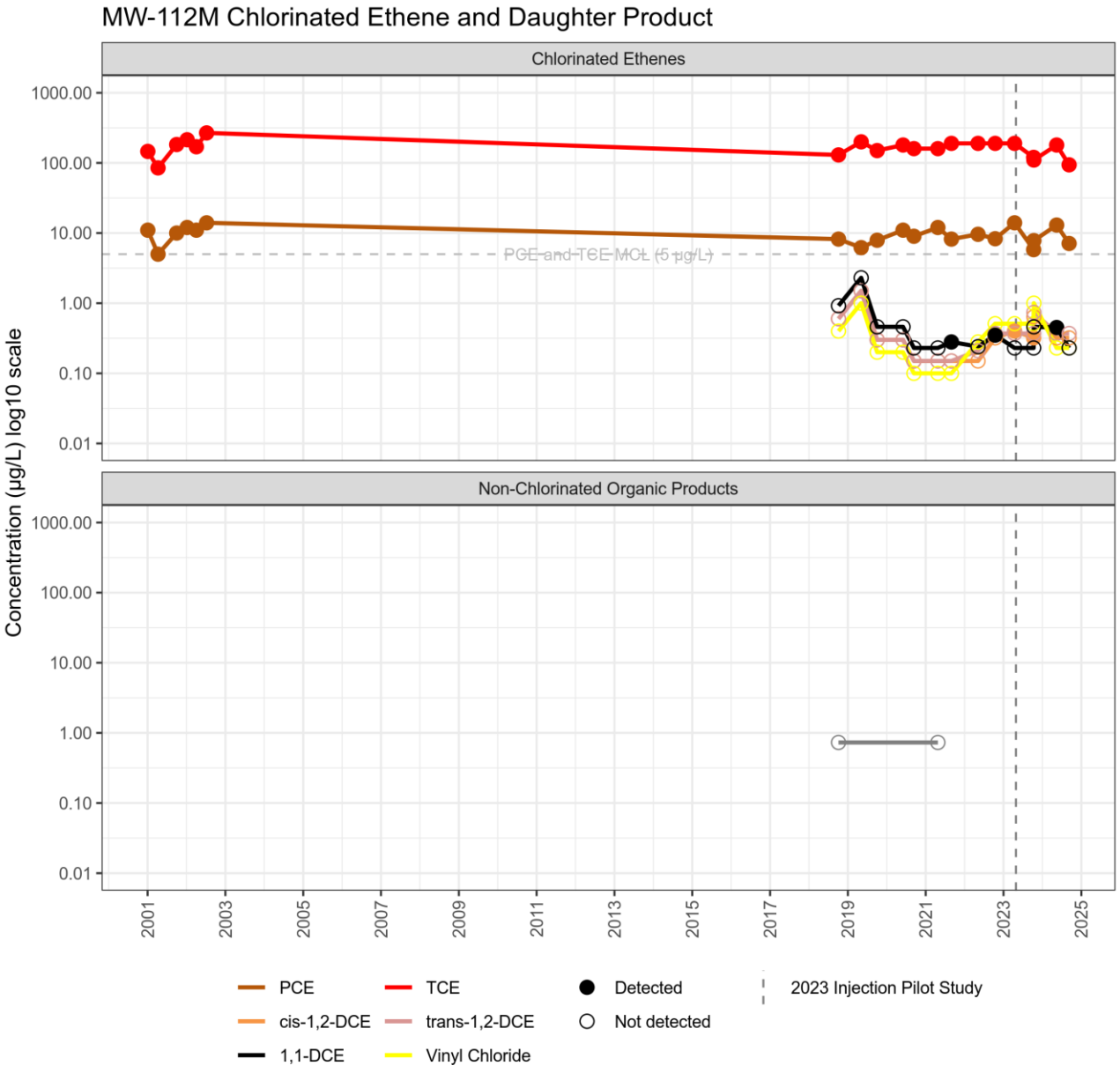
TOC and Redox Parameters



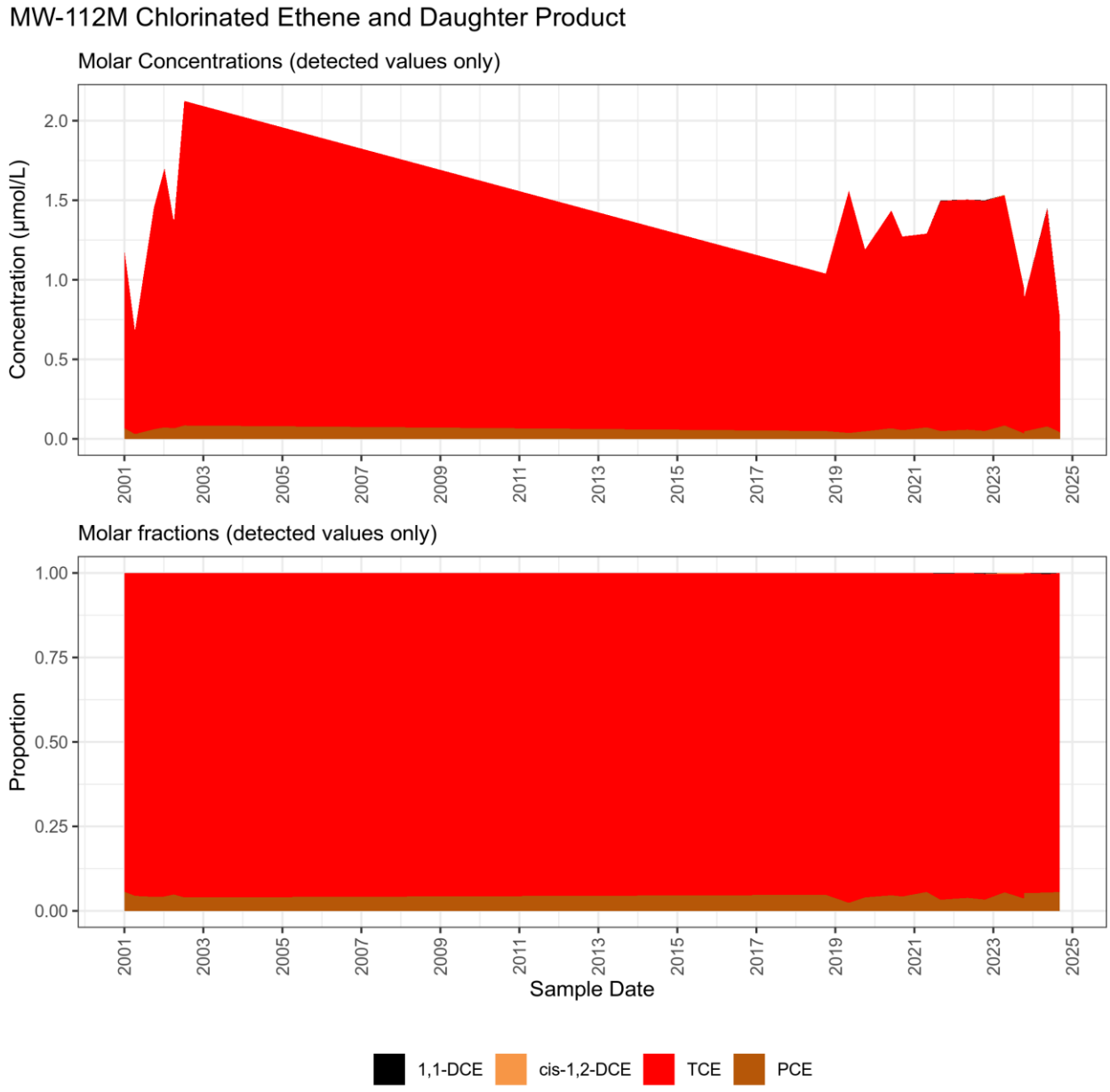
Chlorinated Ethene and Daughter Product Mass



Chlorinated Ethene and Daughter Product Mass (log10)

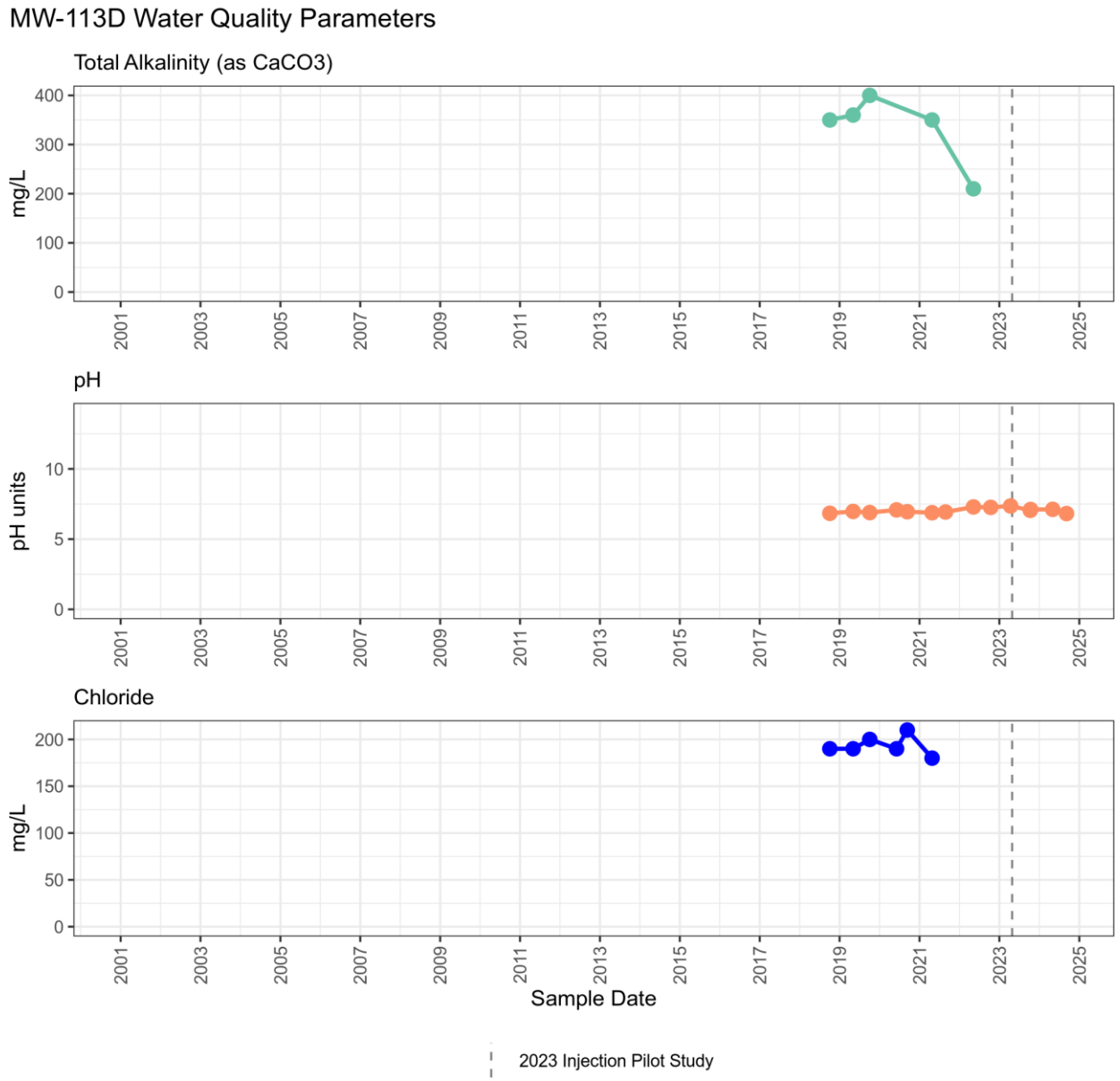


Chlorinated Ethene and Daughter Product Concentration

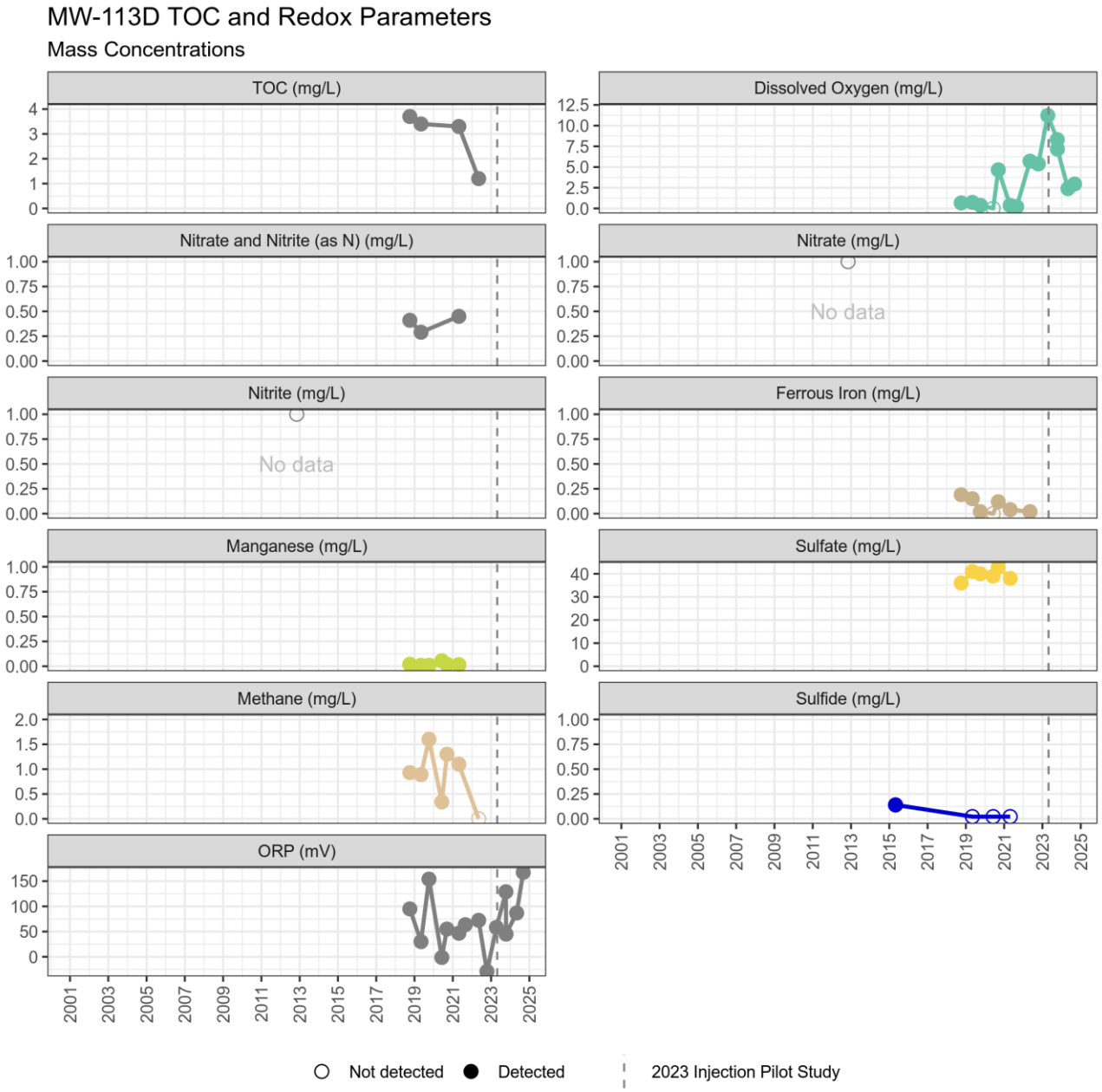


MW-113D

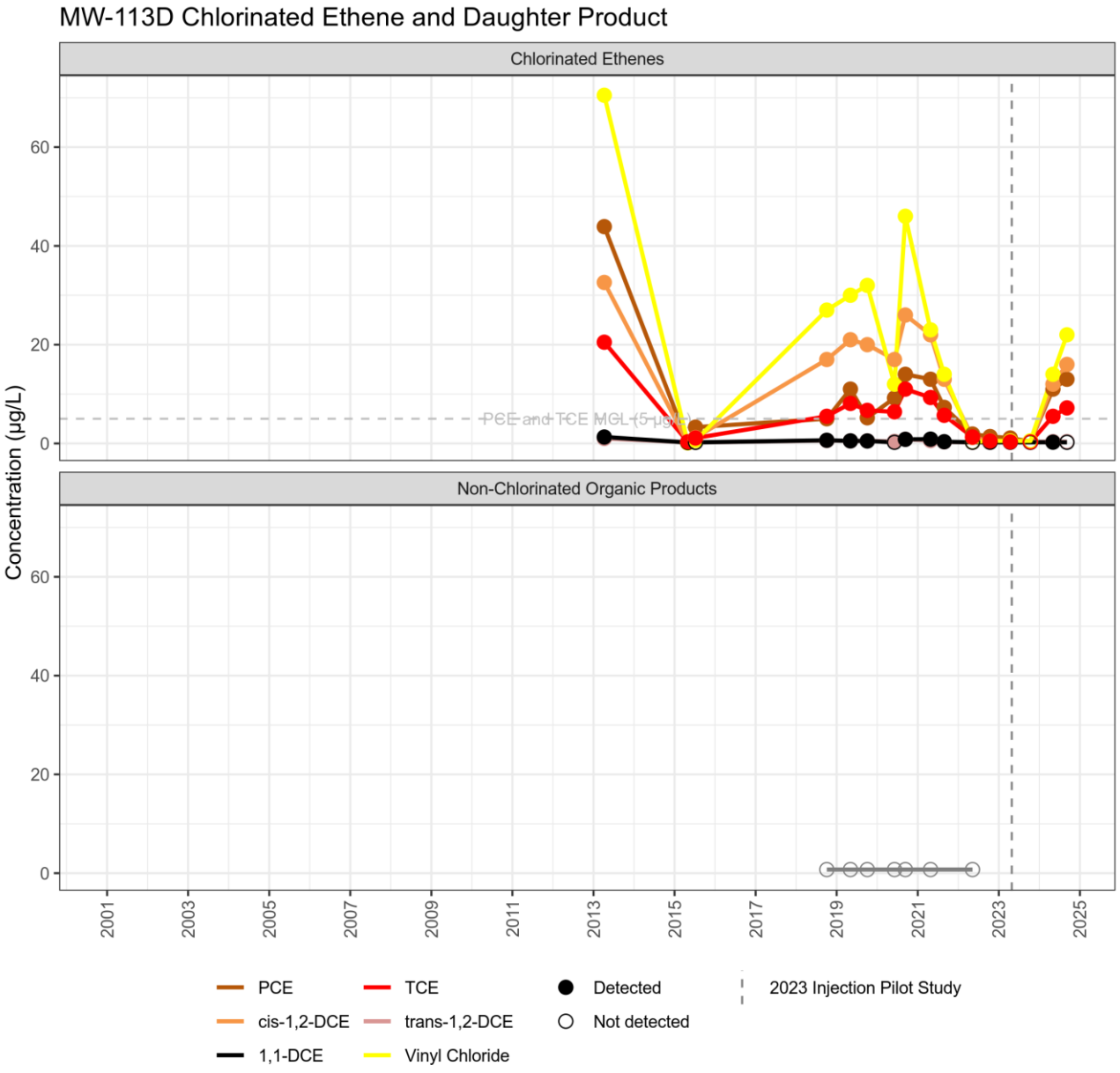
Water Quality



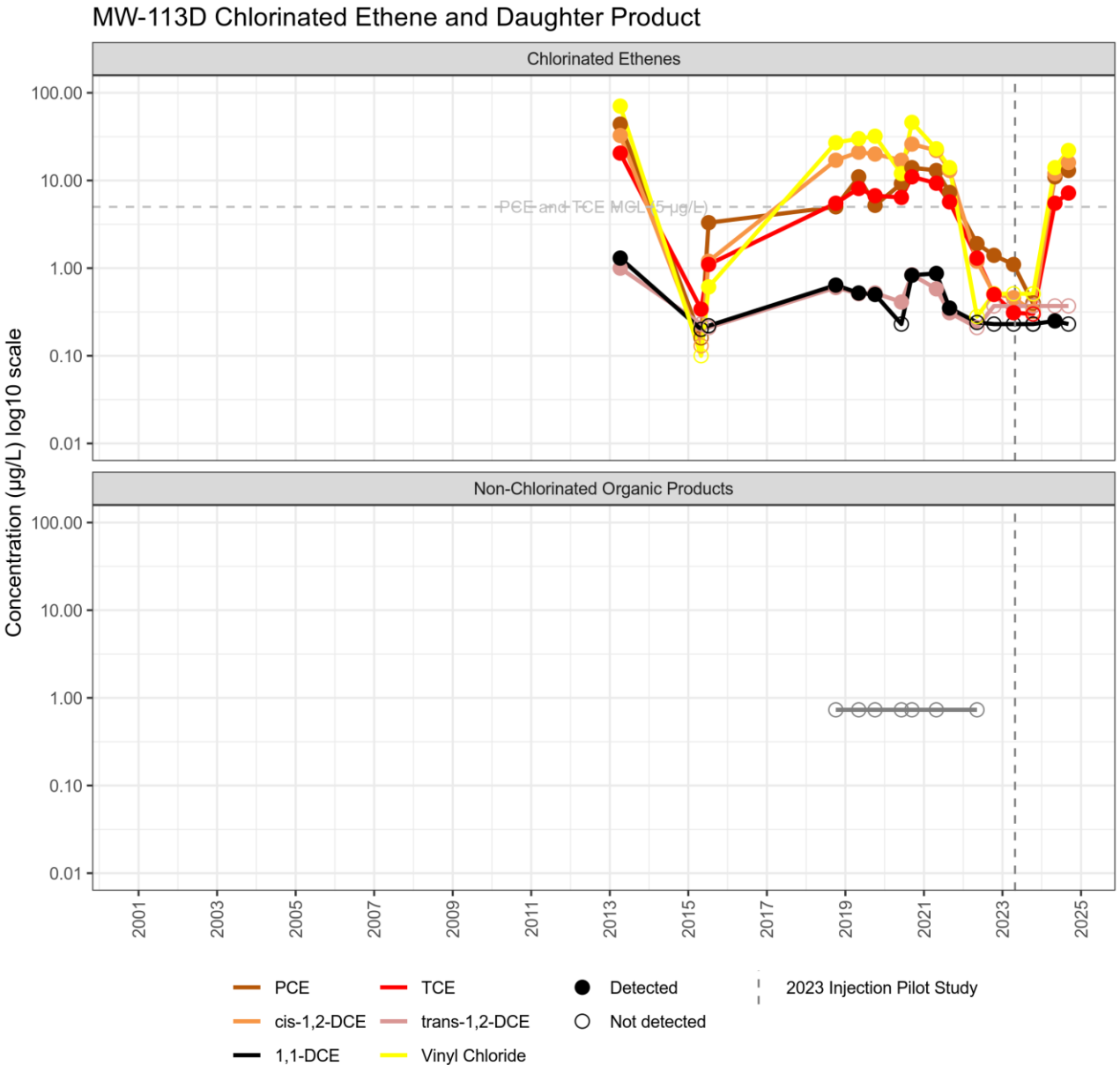
TOC and Redox Parameters



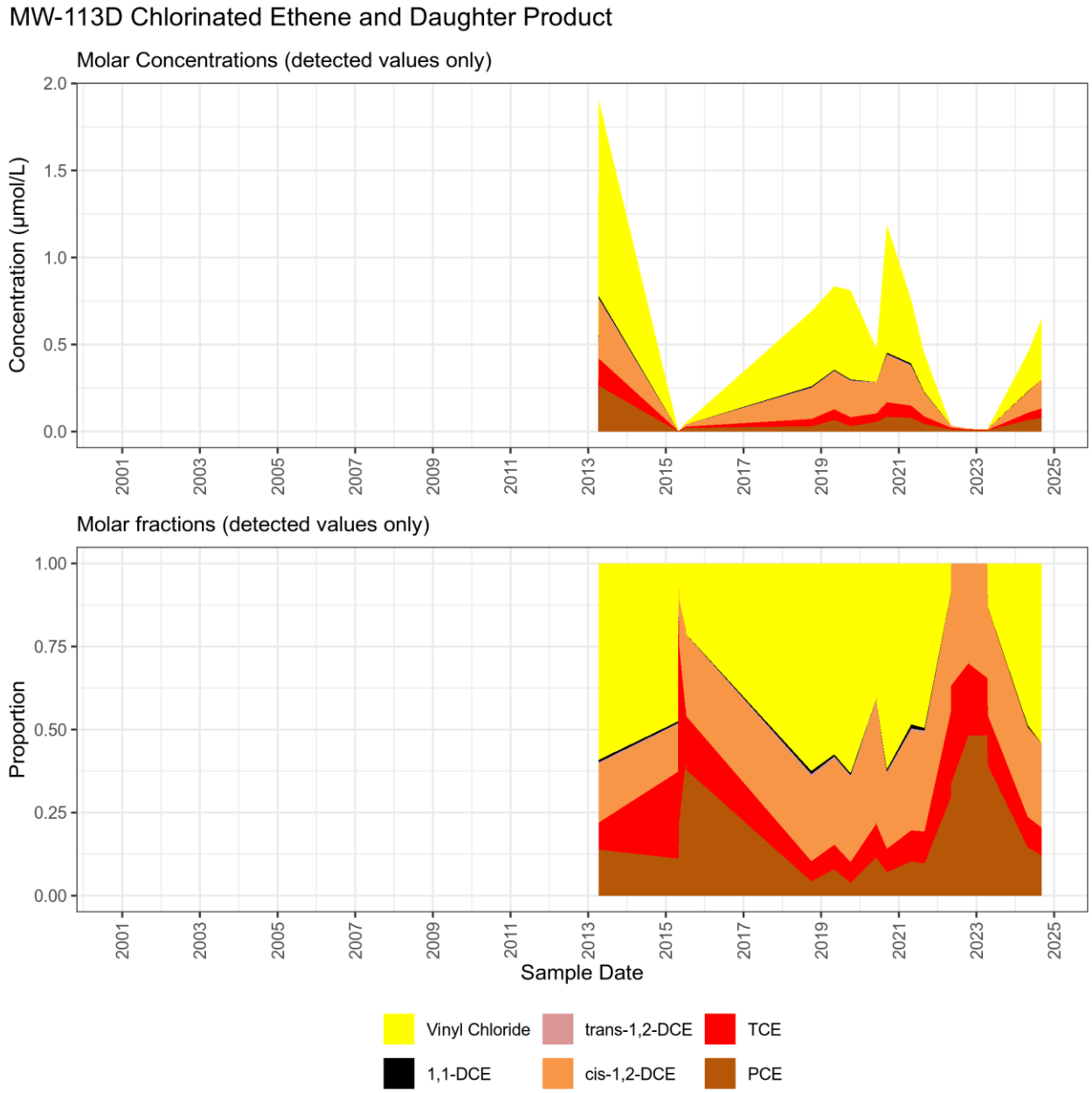
Chlorinated Ethene and Daughter Product Mass



Chlorinated Ethene and Daughter Product Mass (log10)

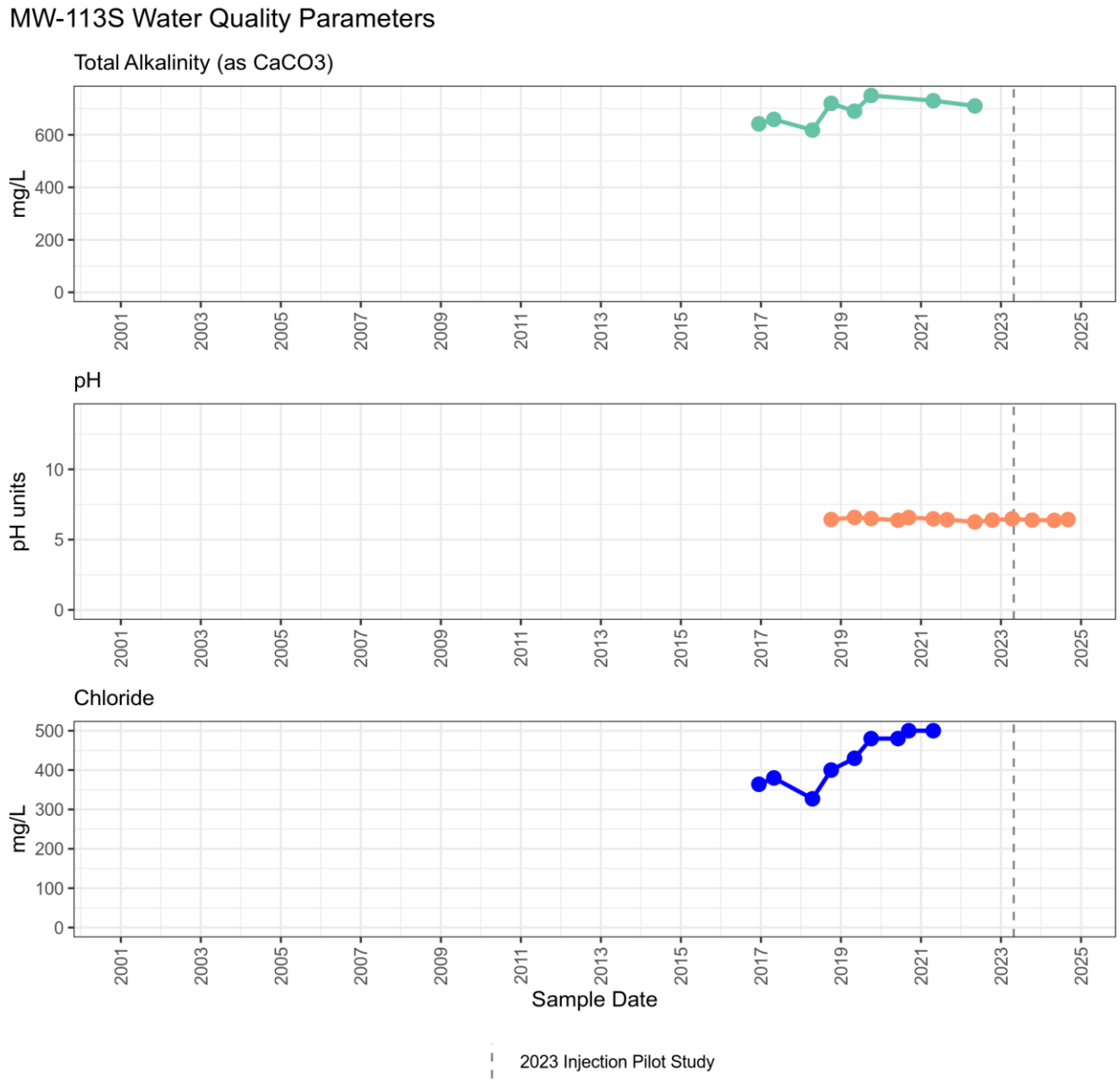


Chlorinated Ethene and Daughter Product Concentration

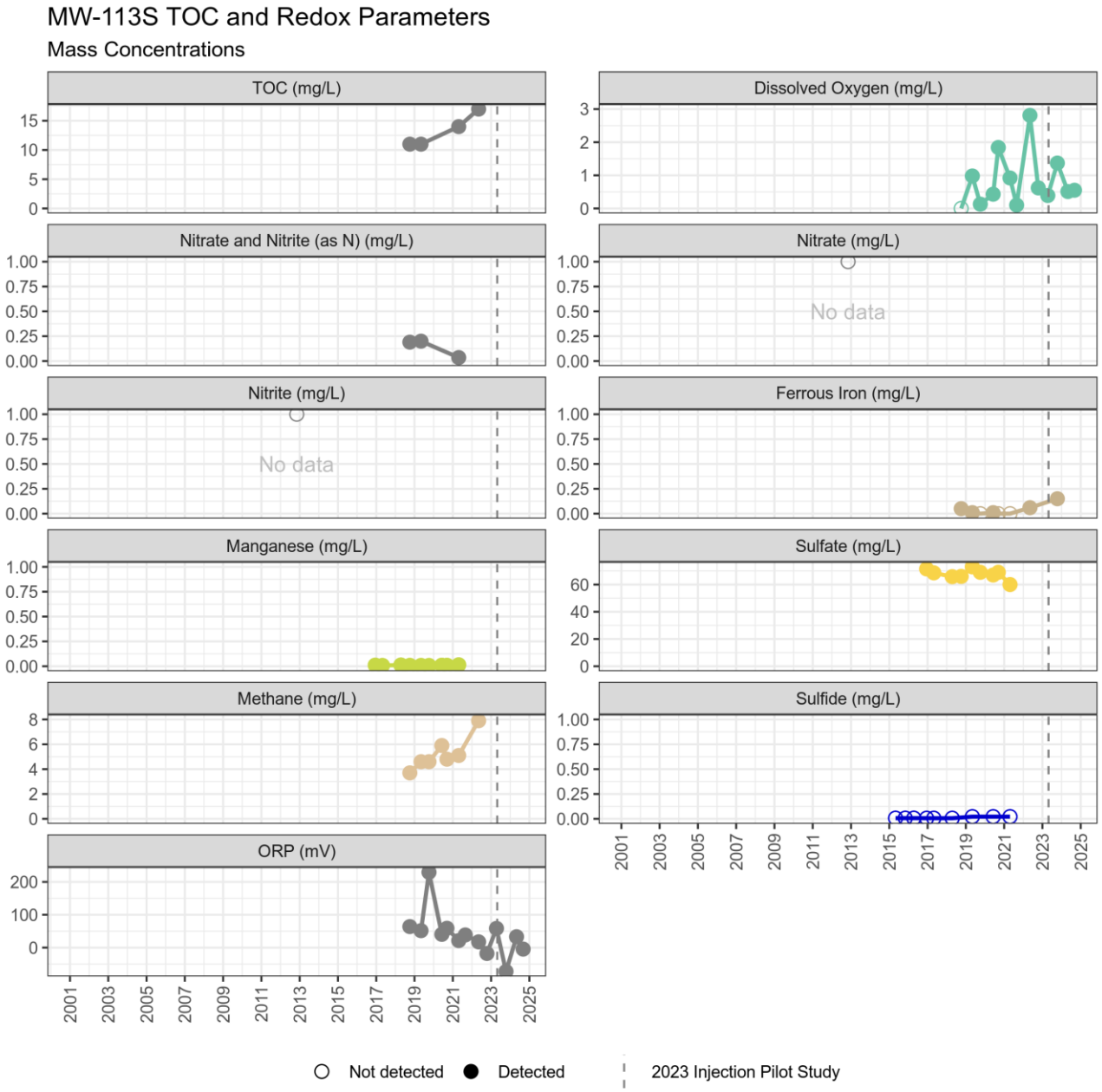


MW-113S

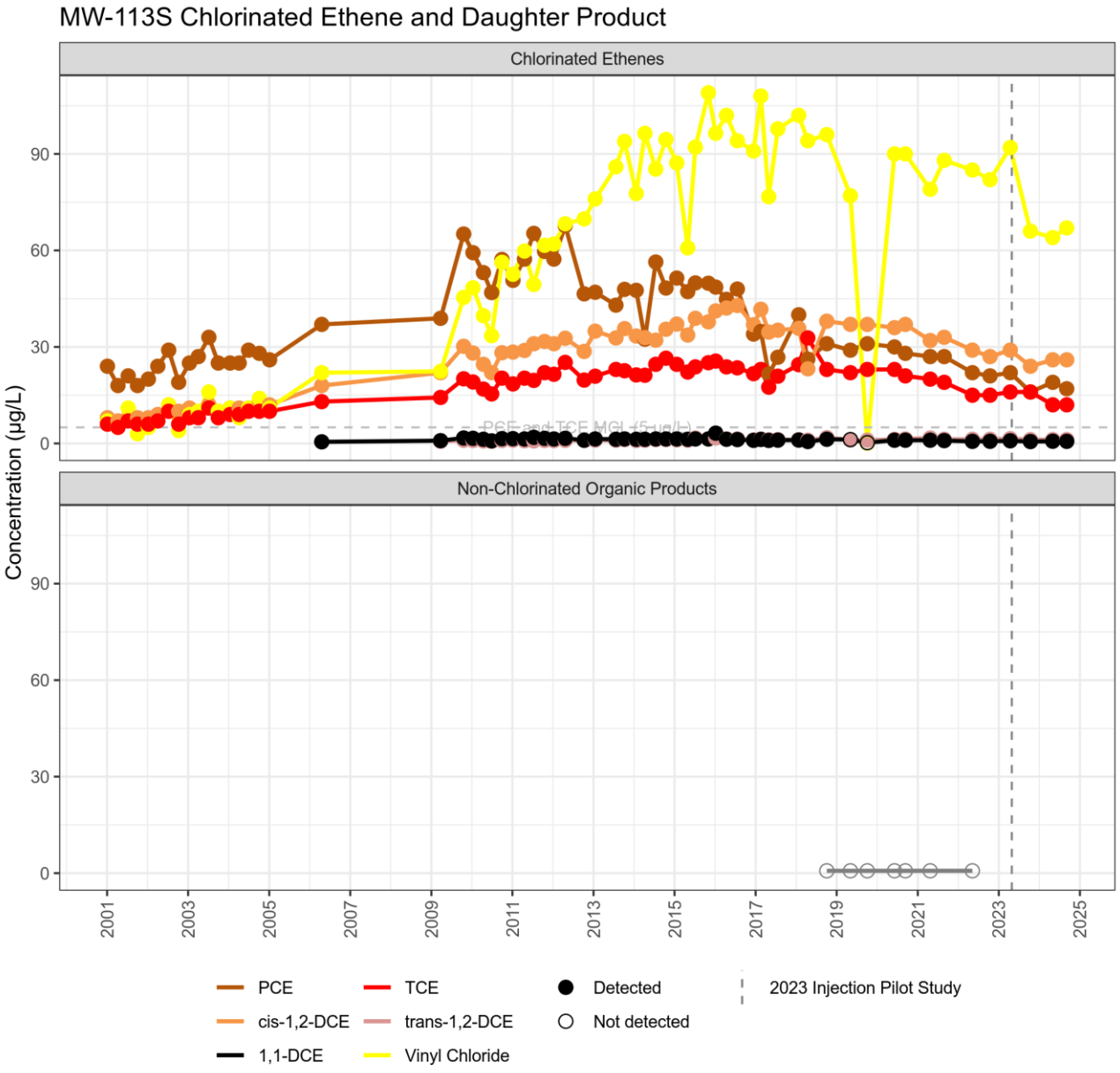
Water Quality



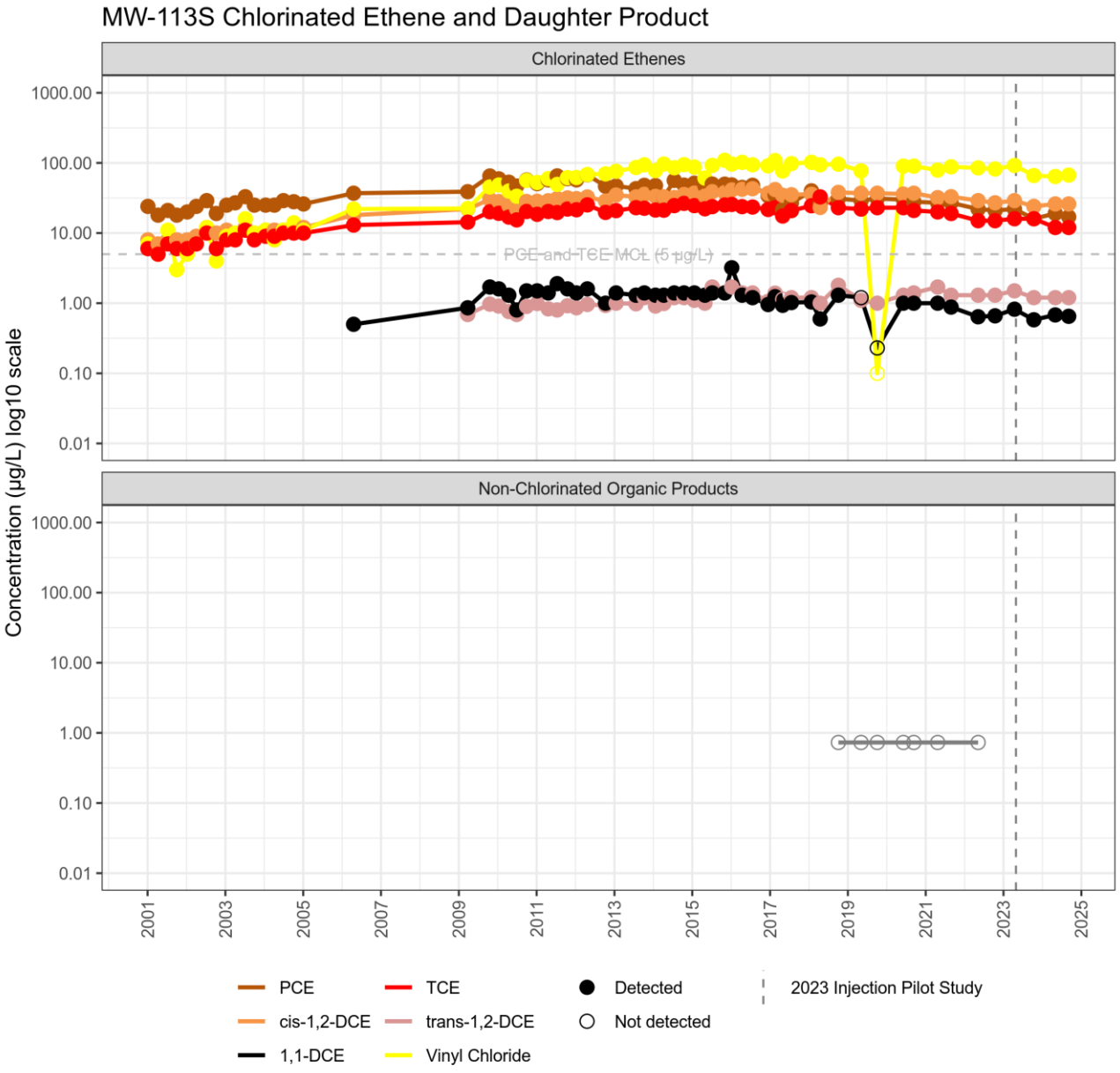
TOC and Redox Parameters



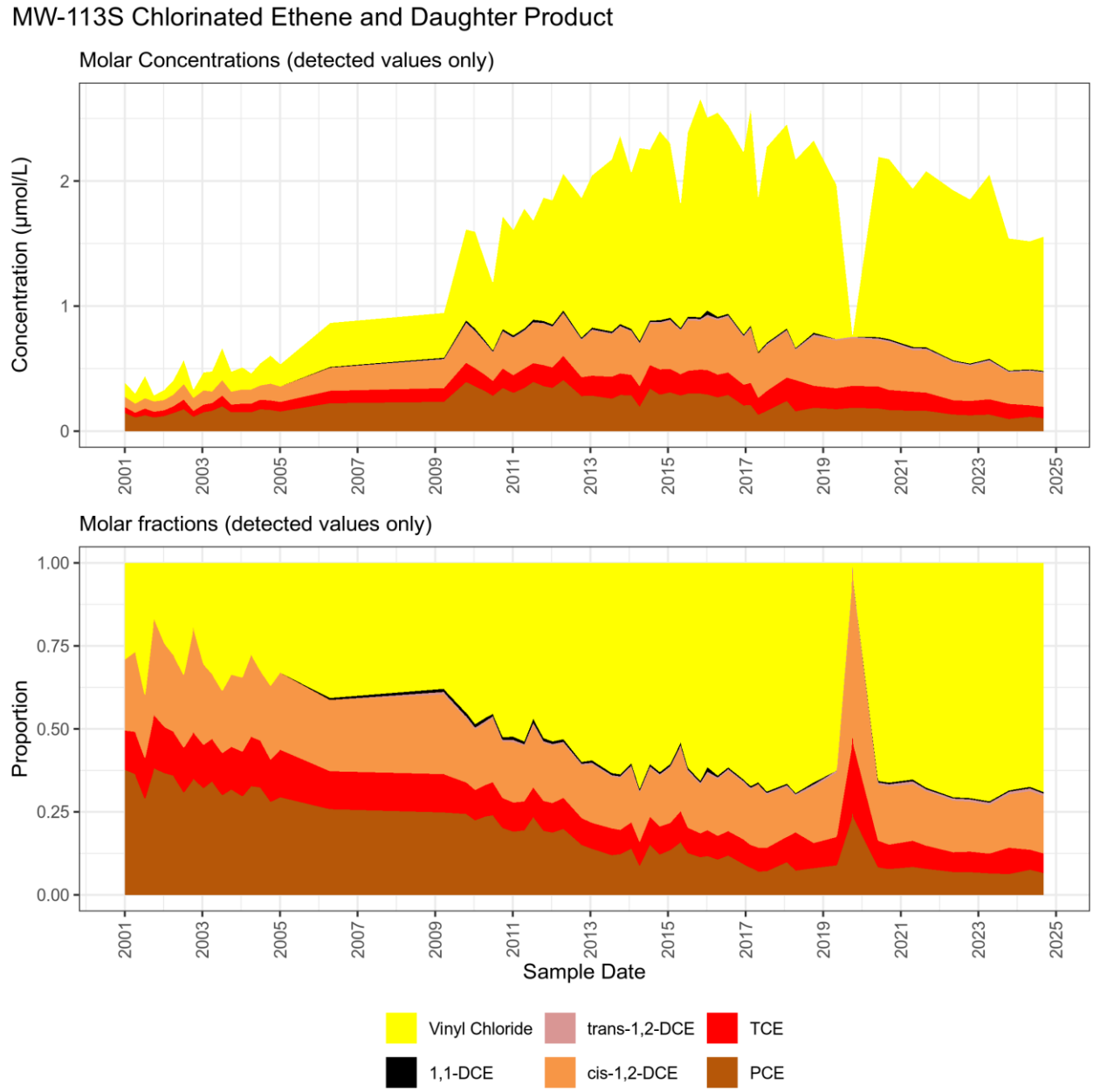
Chlorinated Ethene and Daughter Product Mass



Chlorinated Ethene and Daughter Product Mass (log10)

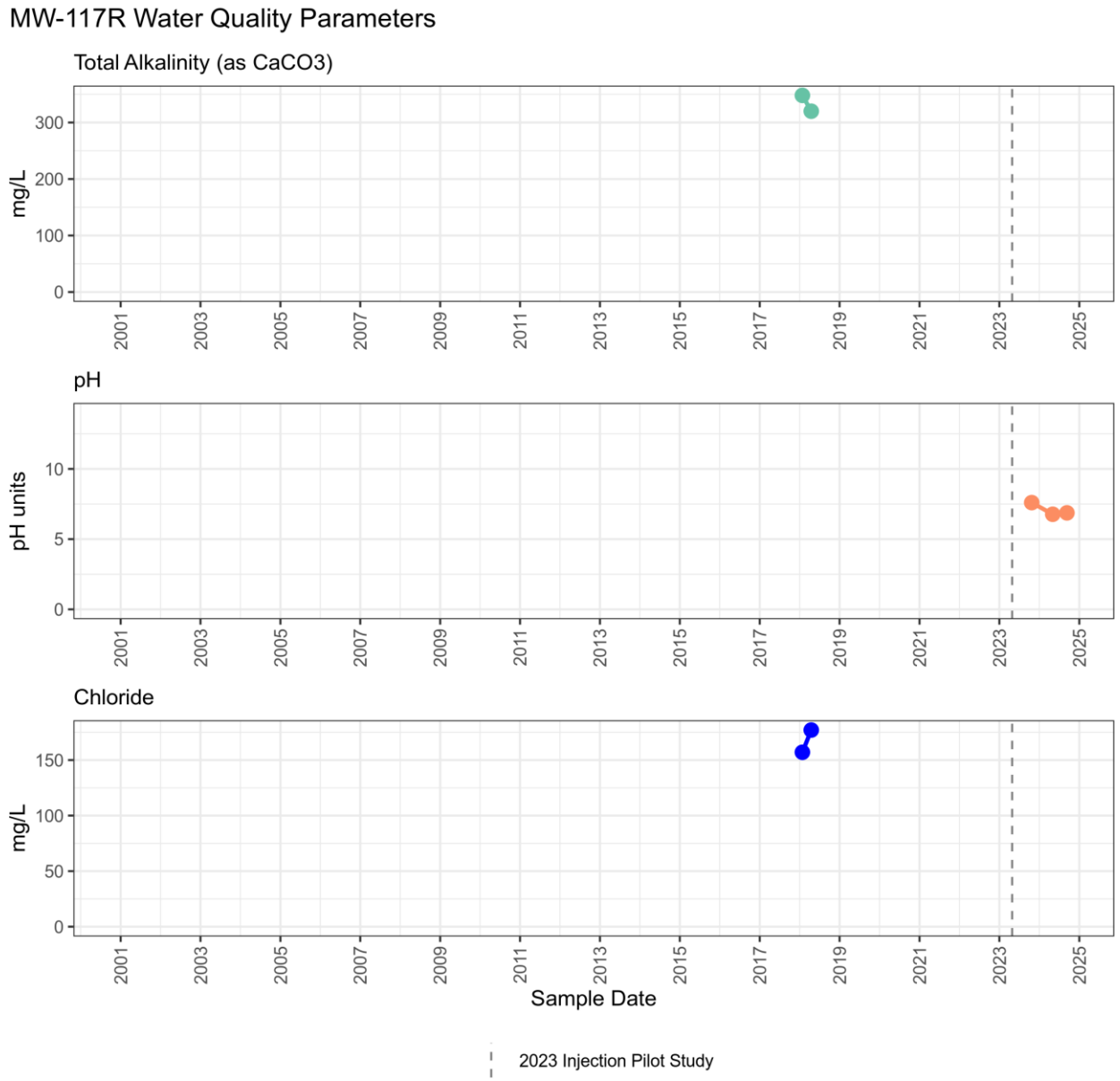


Chlorinated Ethene and Daughter Product Concentration

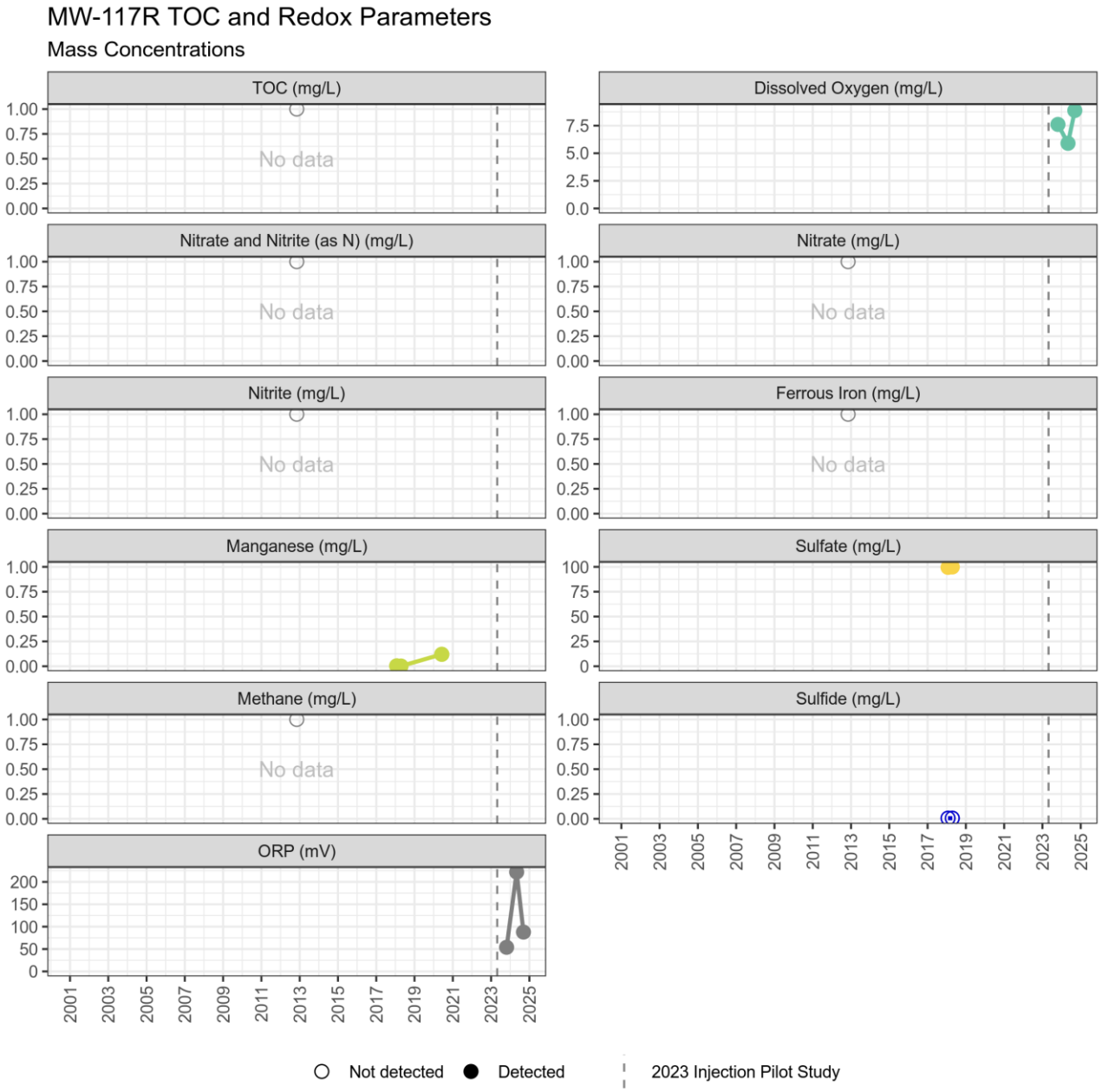


MW-117R

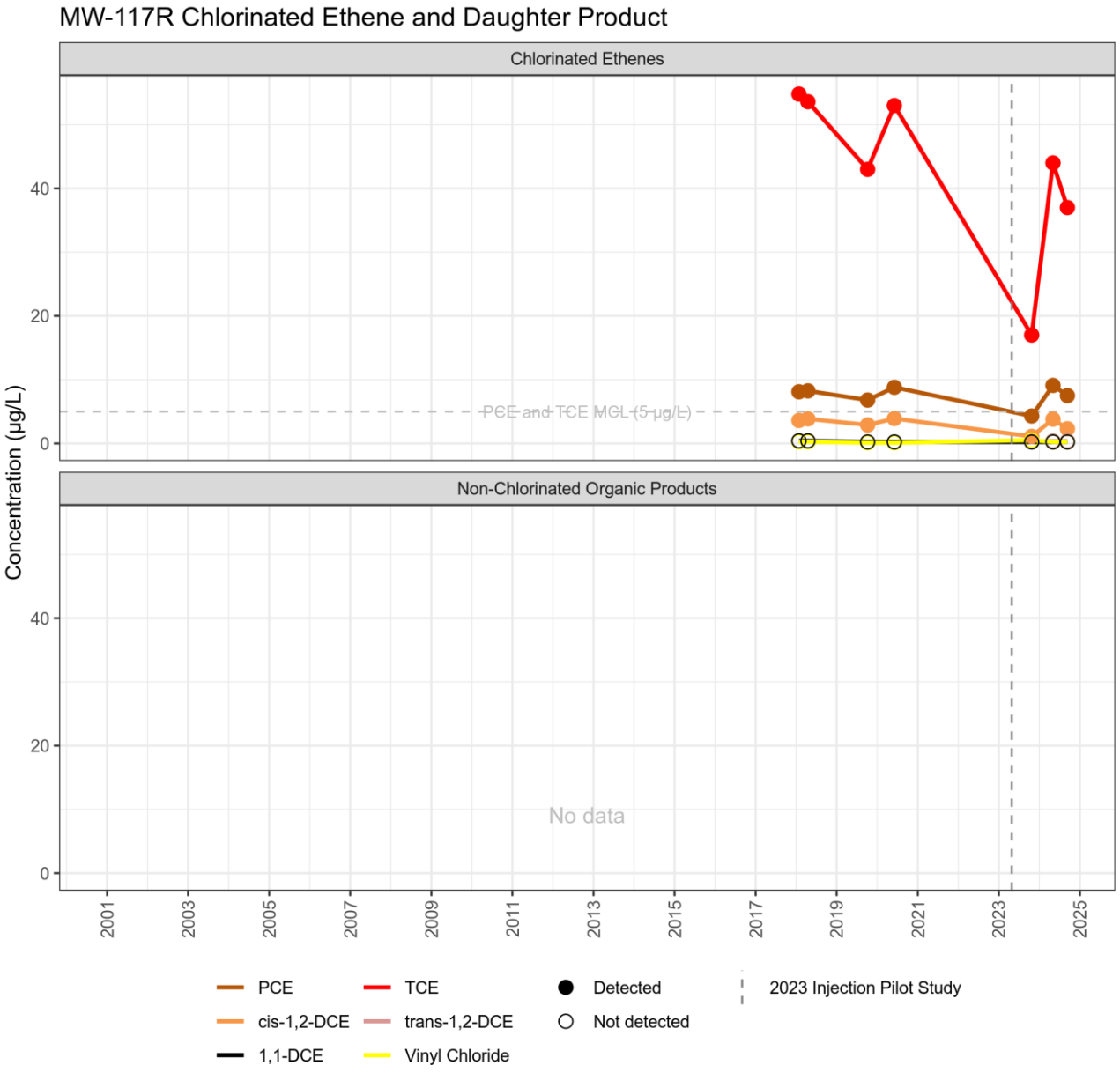
Water Quality



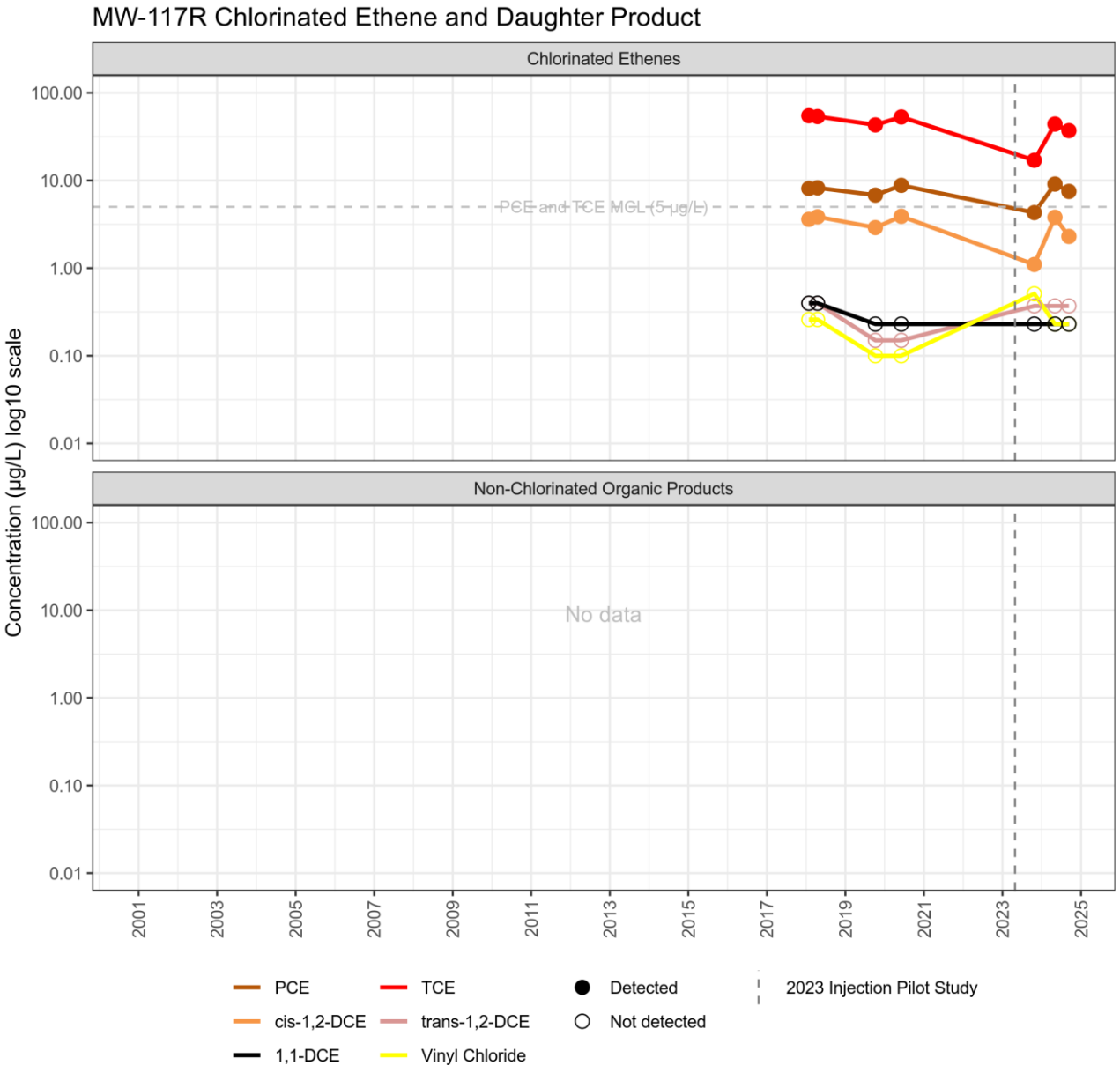
TOC and Redox Parameters



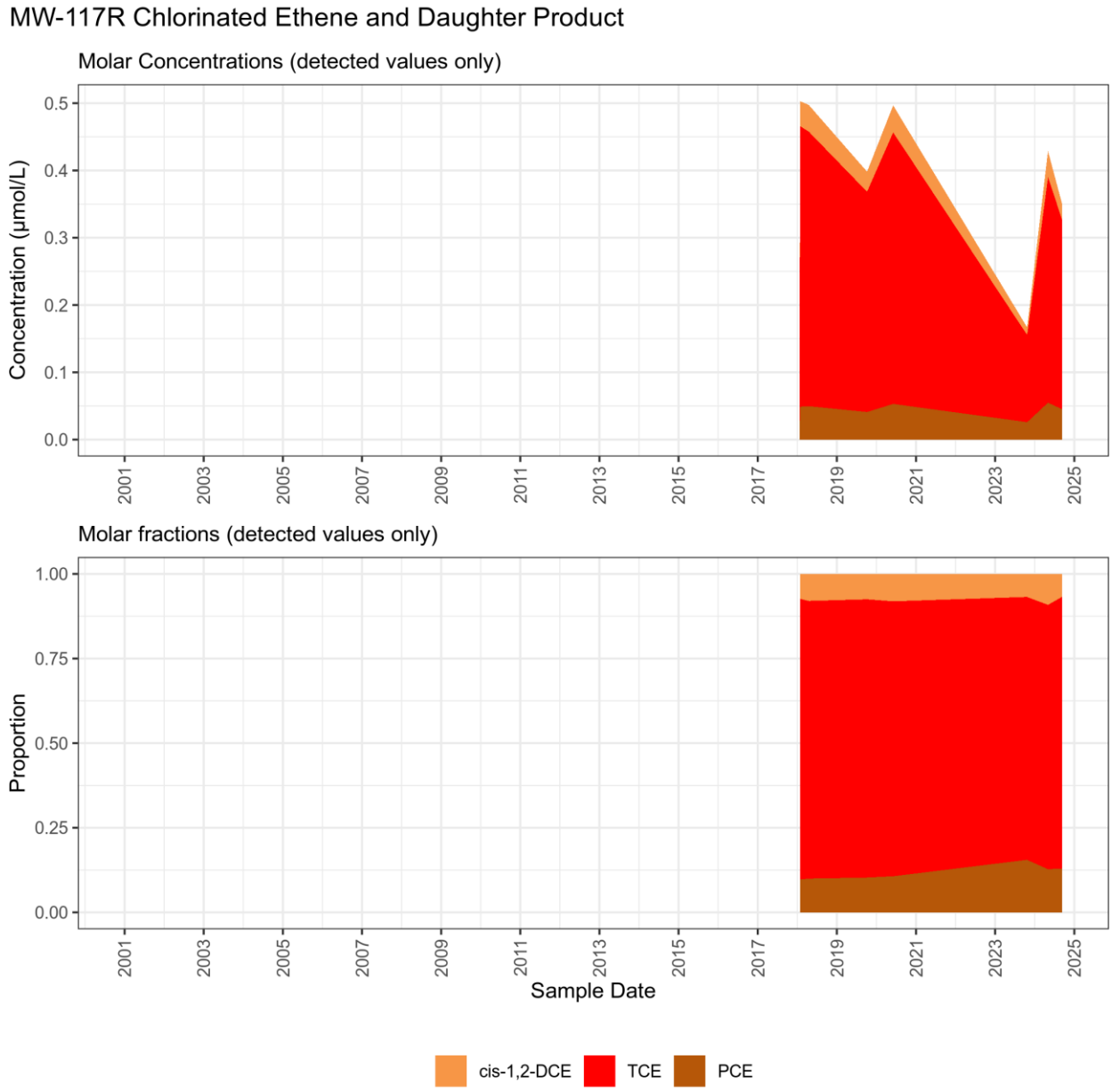
Chlorinated Ethene and Daughter Product Mass



Chlorinated Ethene and Daughter Product Mass (log10)

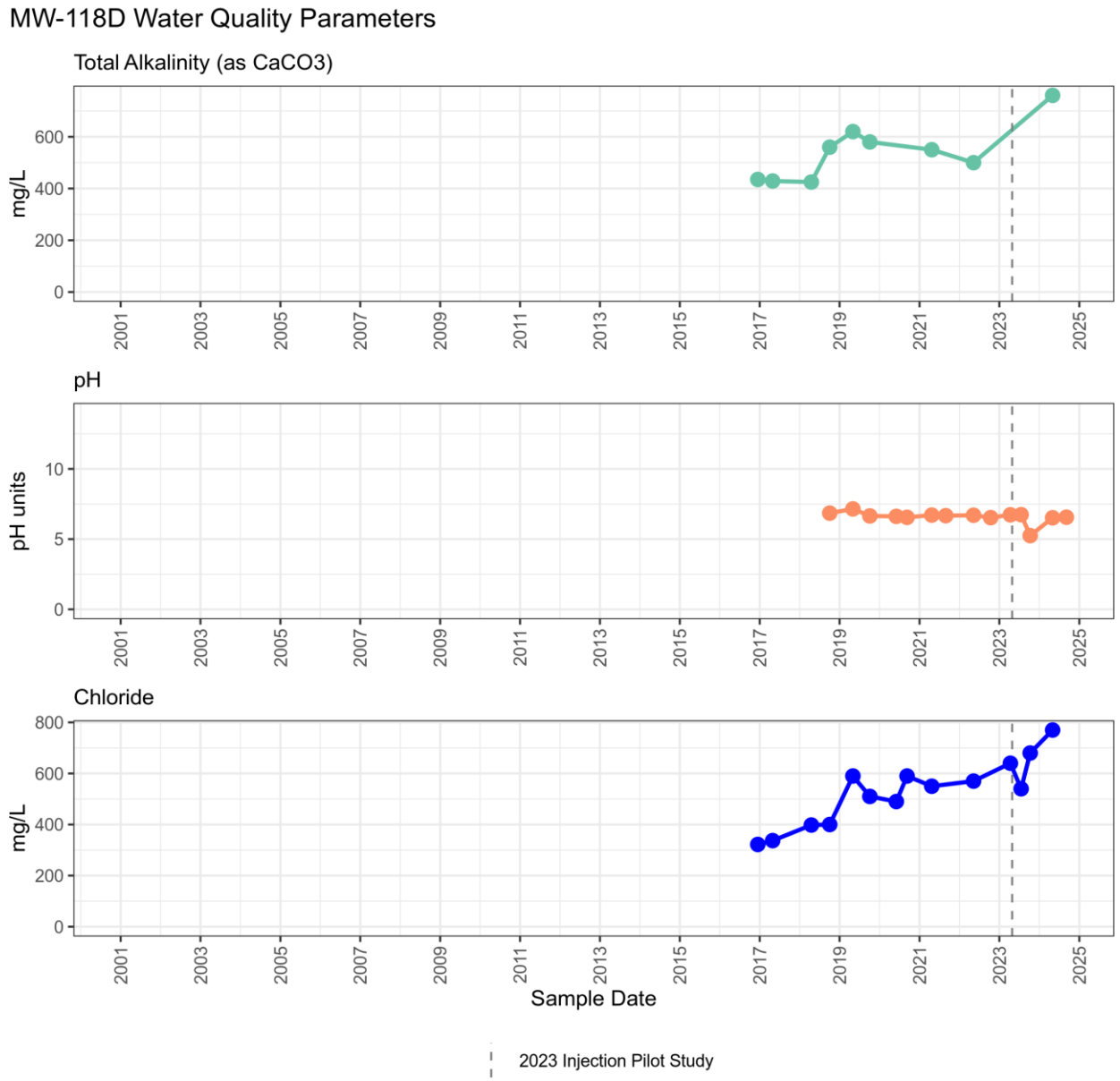


Chlorinated Ethene and Daughter Product Concentration

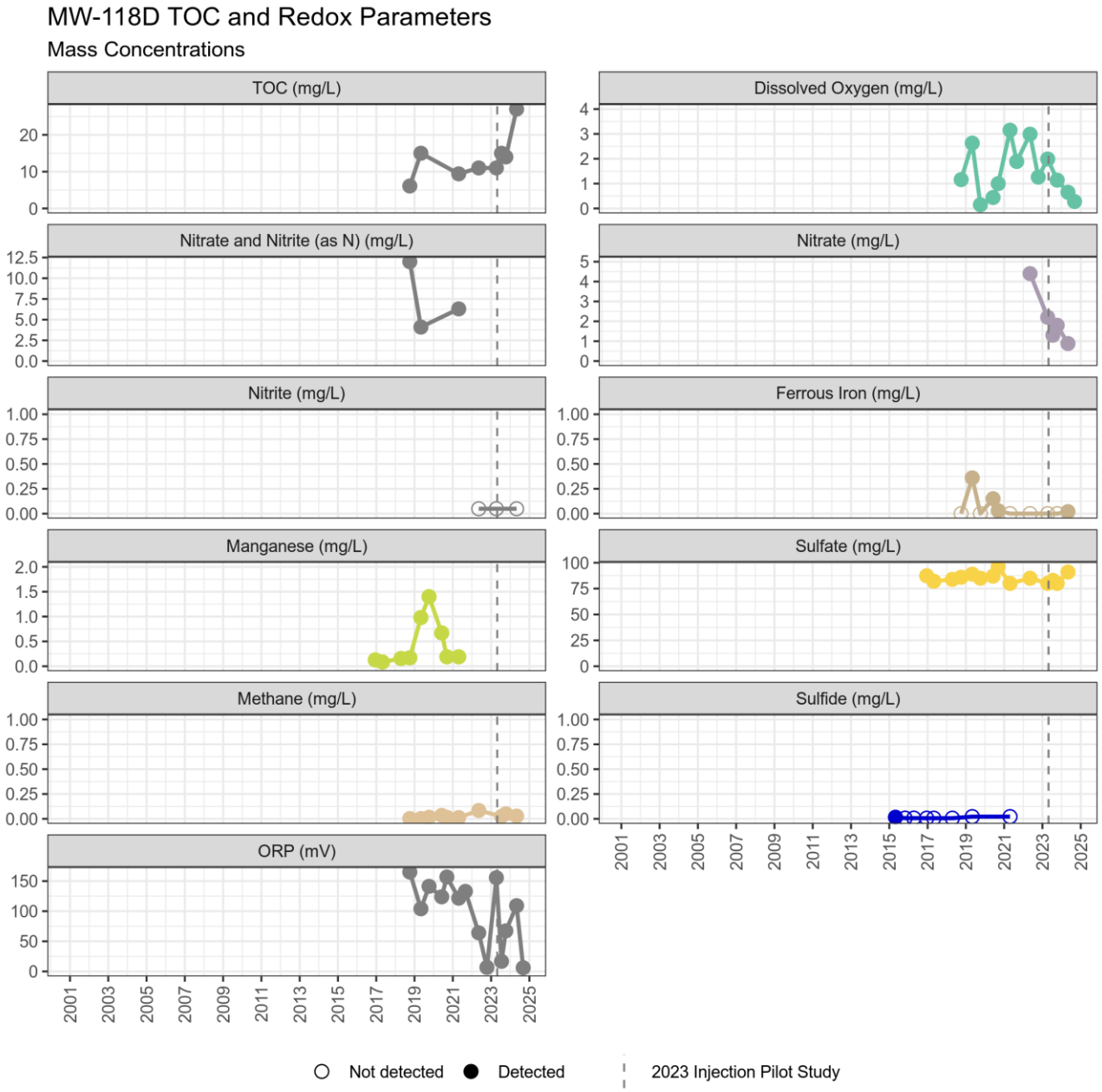


MW-118D

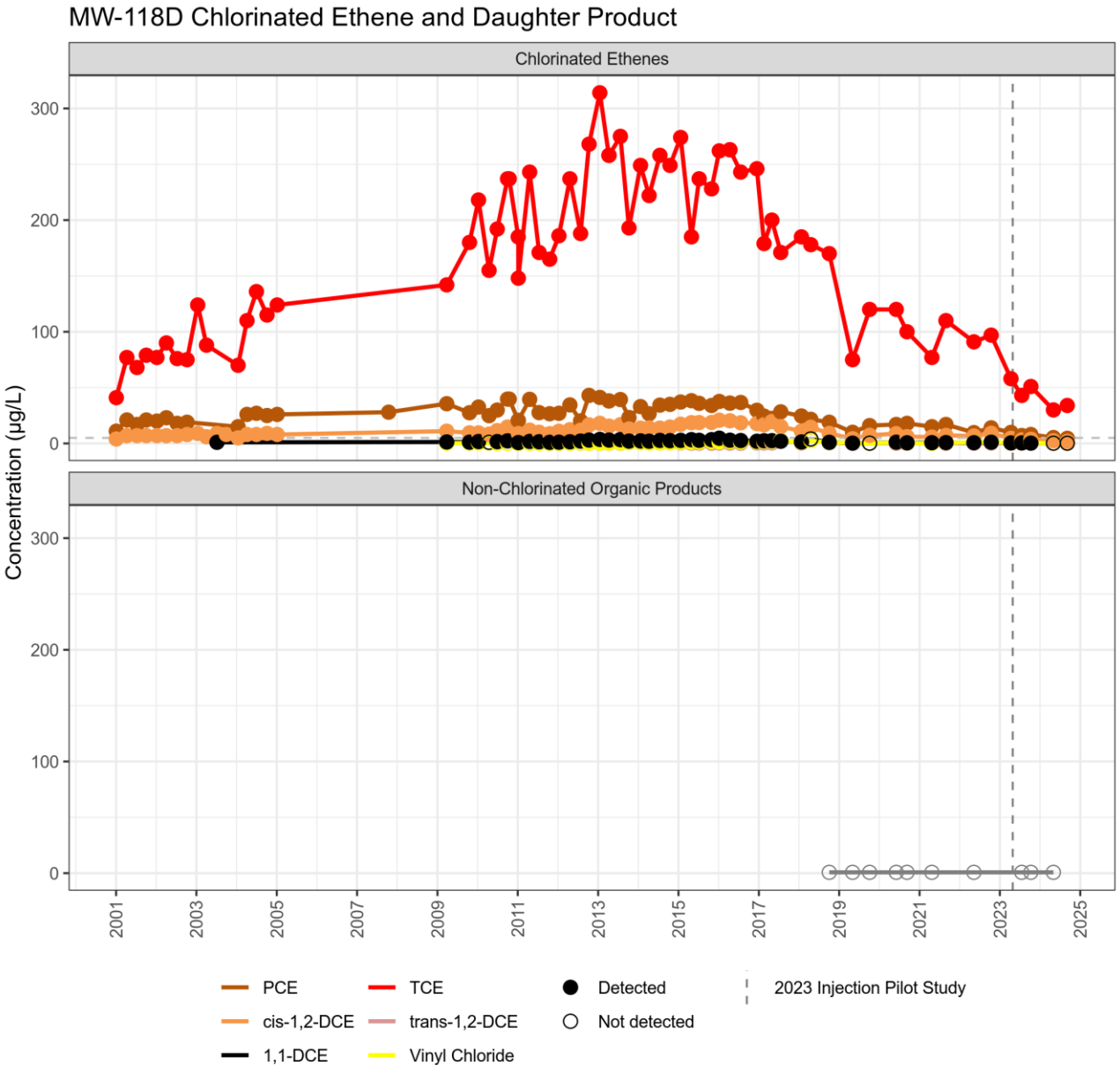
Water Quality



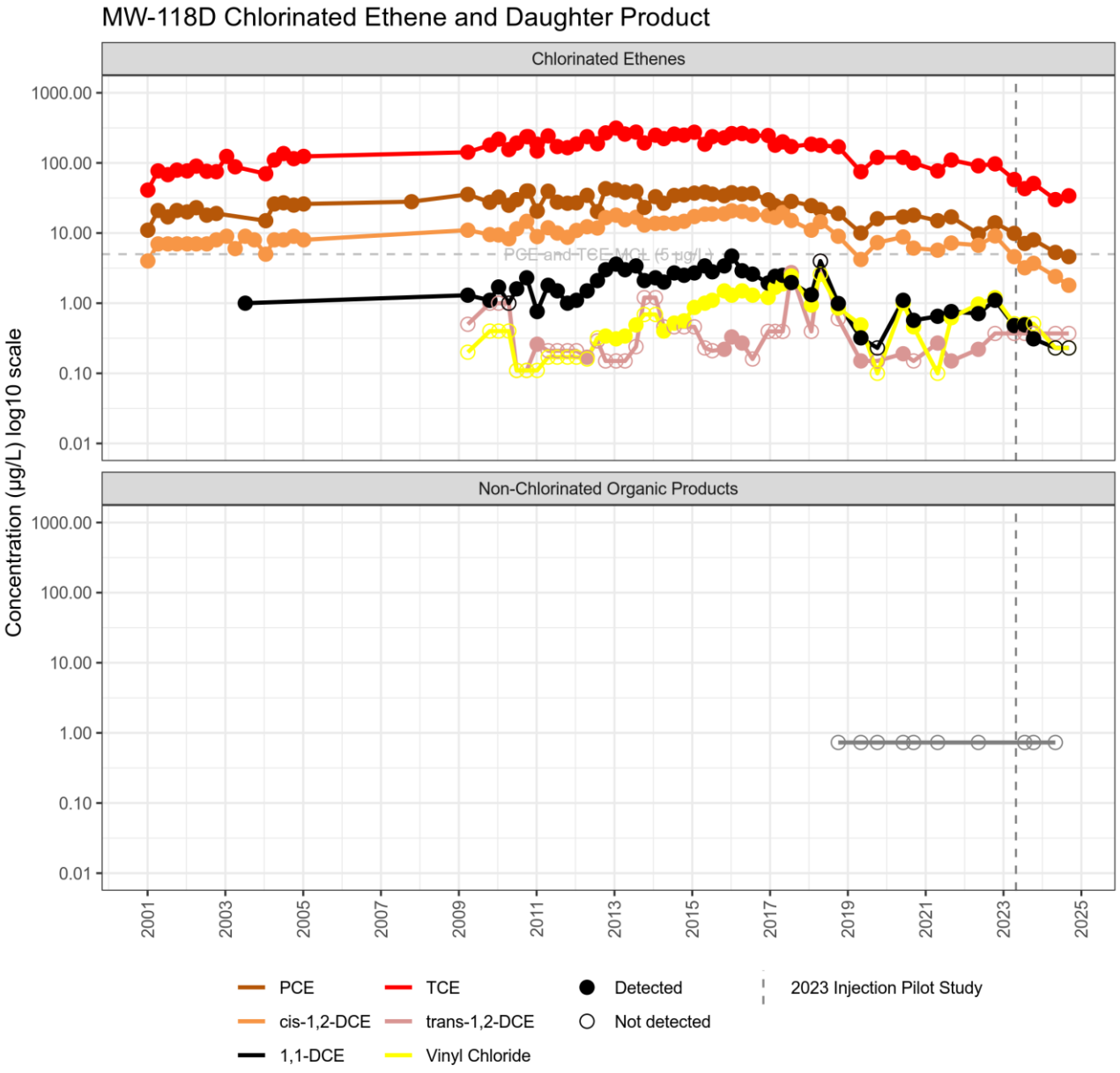
TOC and Redox Parameters



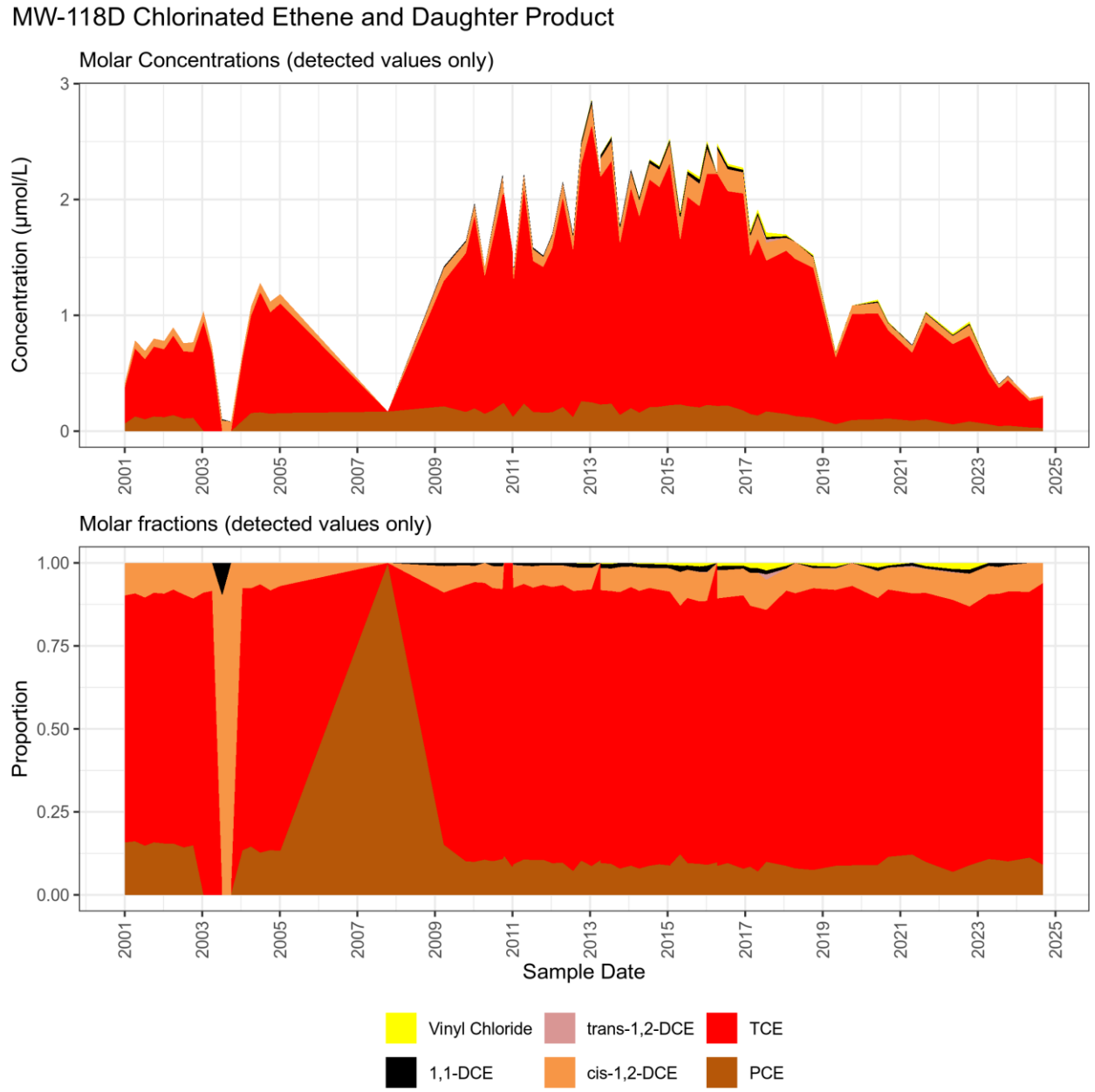
Chlorinated Ethene and Daughter Product Mass



Chlorinated Ethene and Daughter Product Mass (log10)

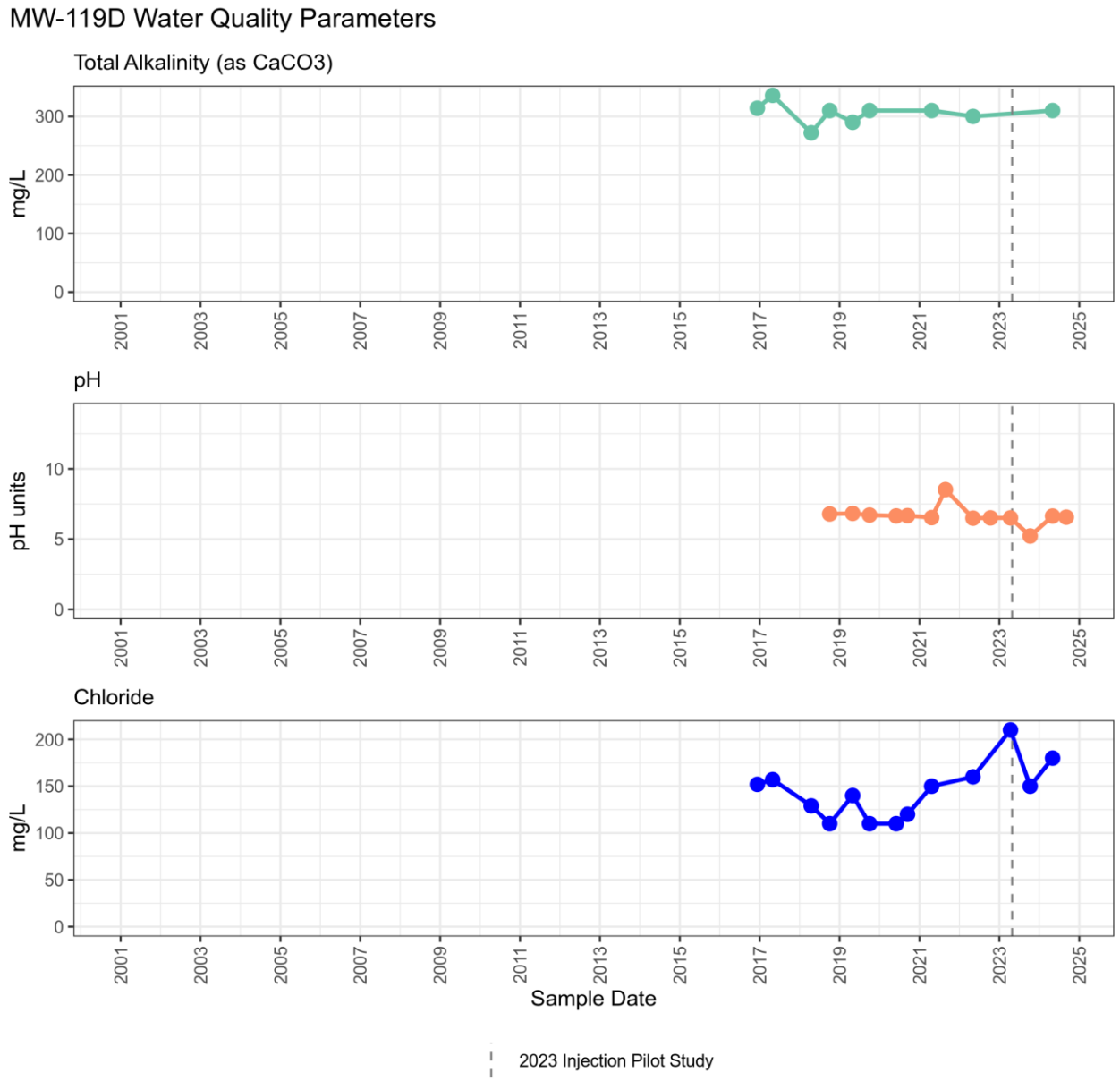


Chlorinated Ethene and Daughter Product Concentration

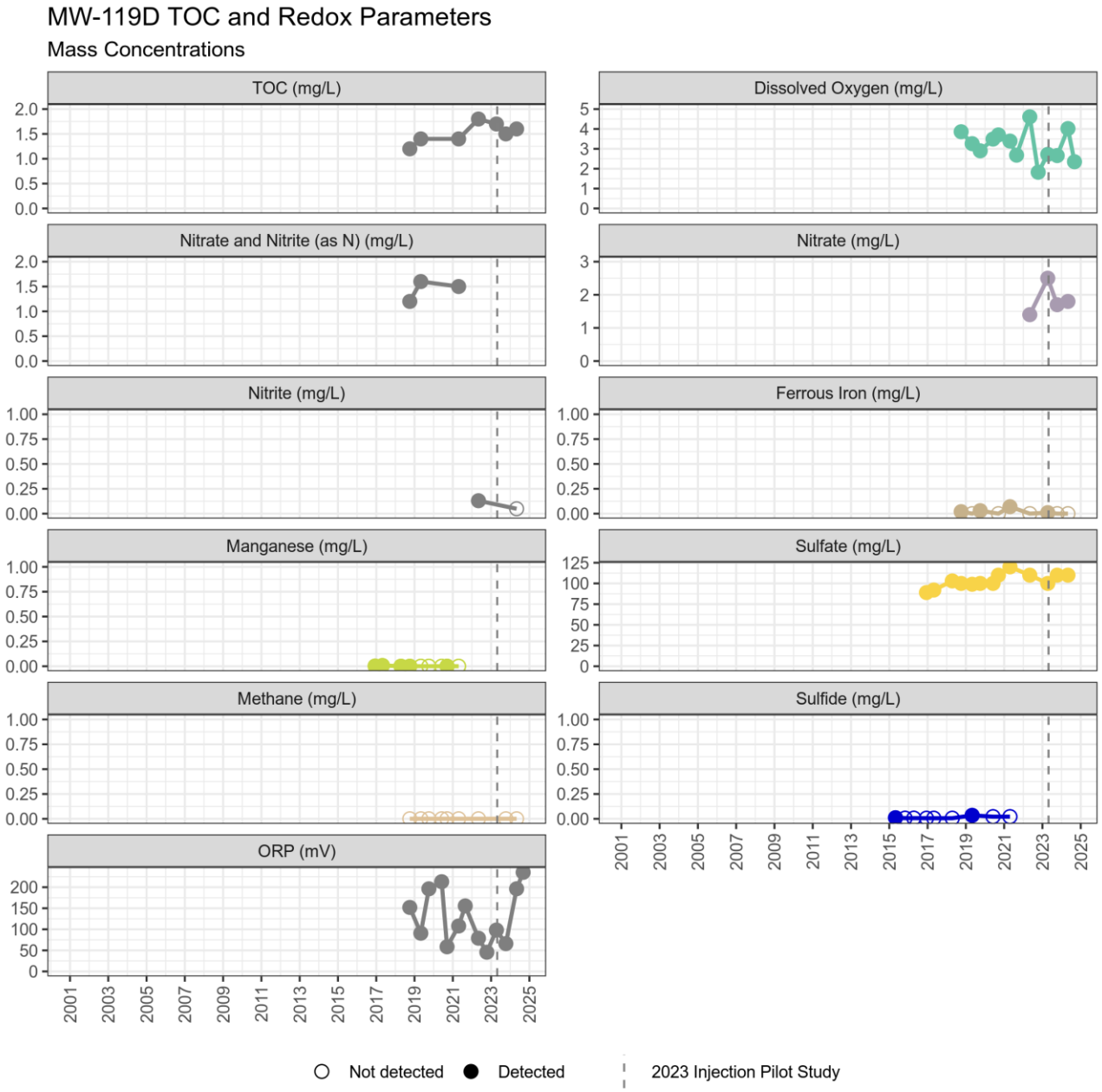


MW-119D

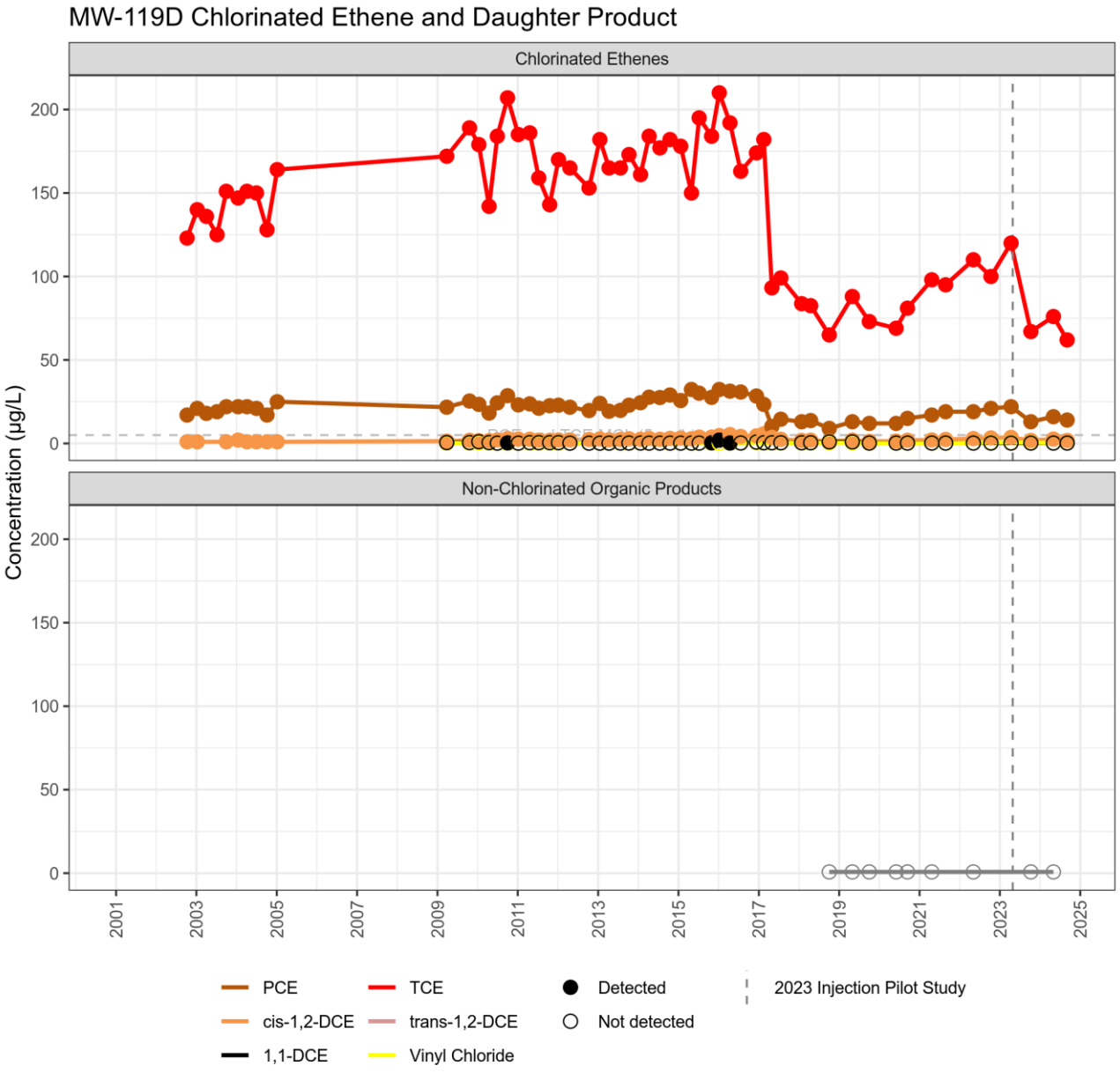
Water Quality



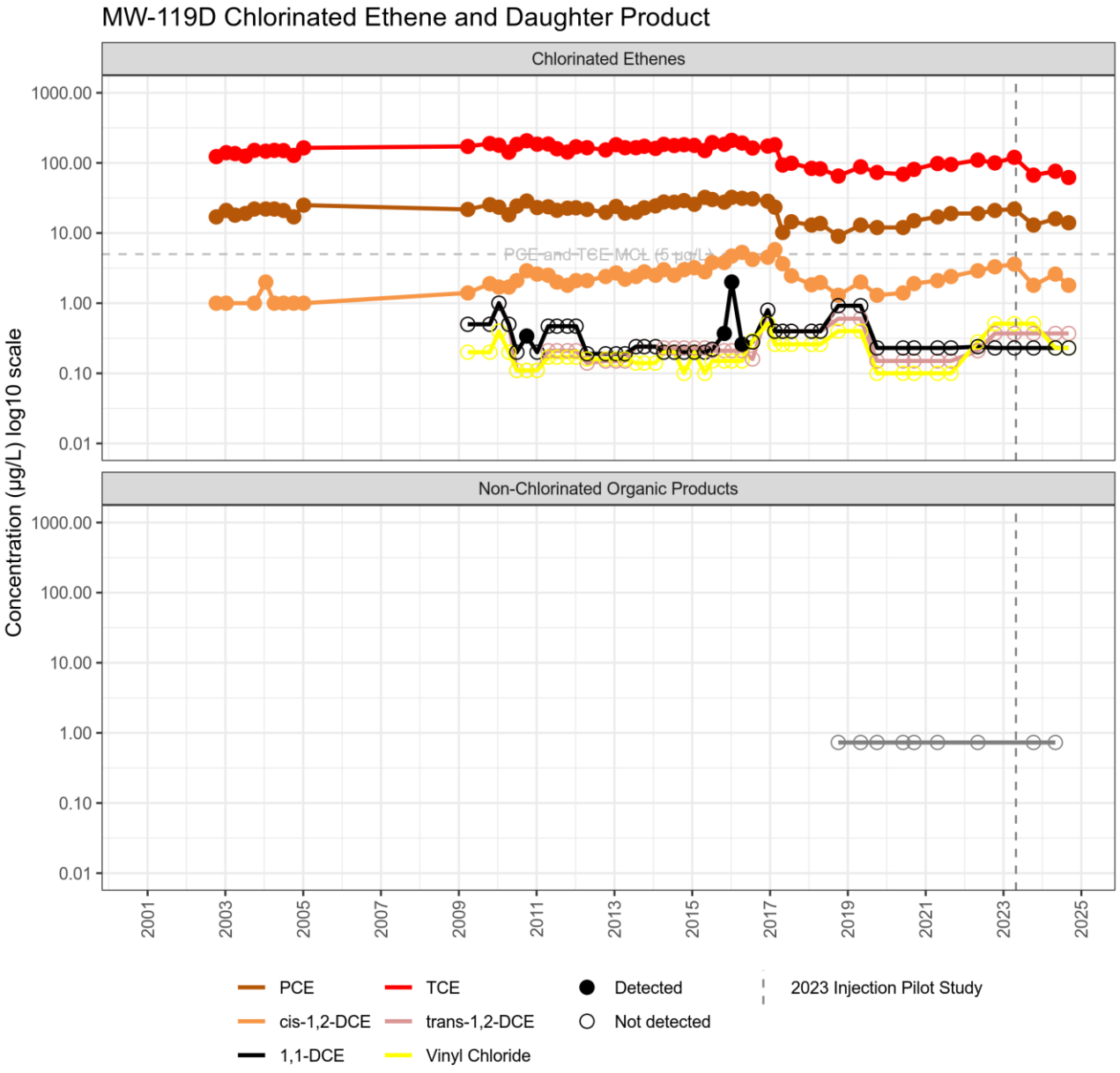
TOC and Redox Parameters



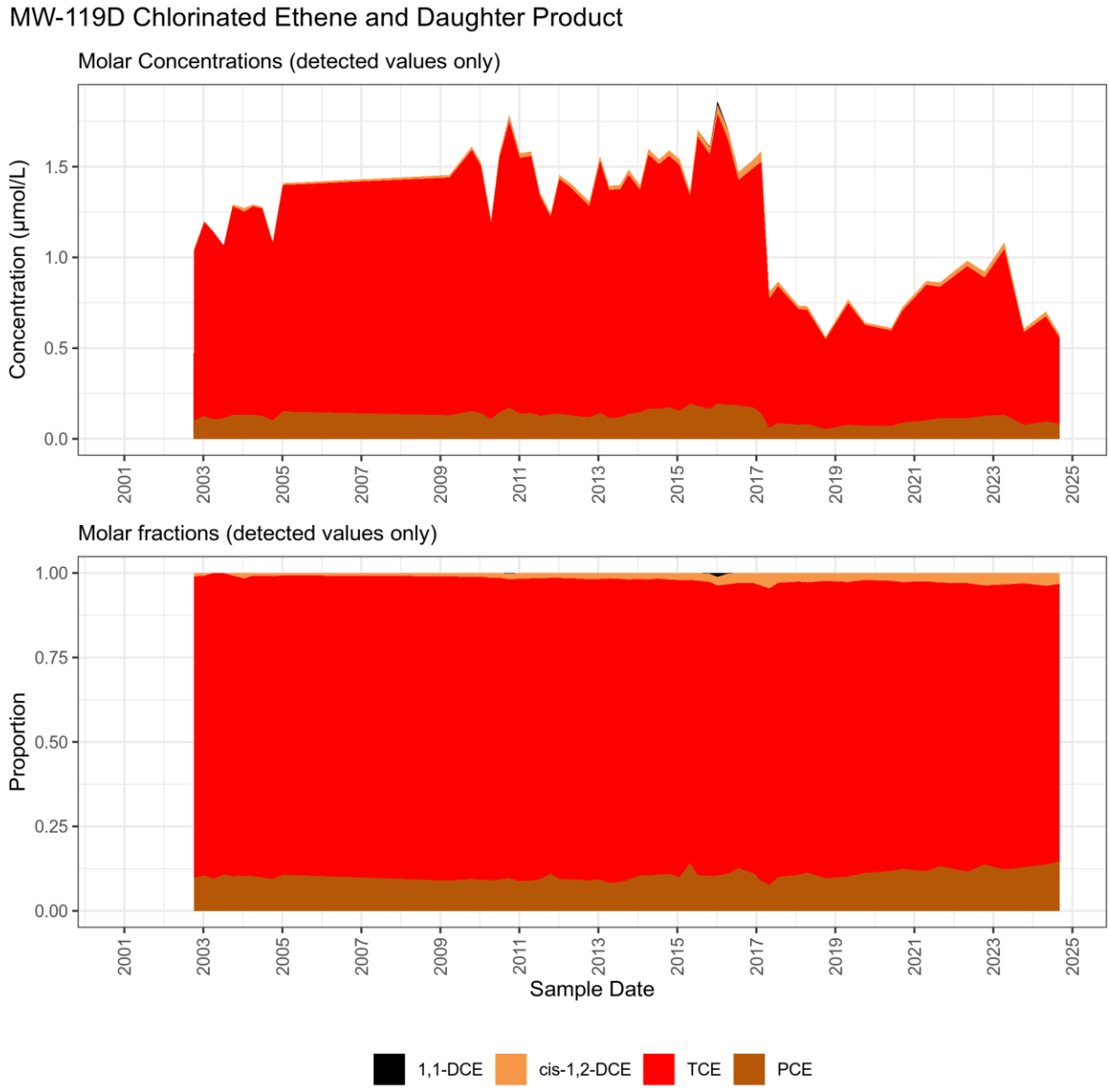
Chlorinated Ethene and Daughter Product Mass



Chlorinated Ethene and Daughter Product Mass (log10)

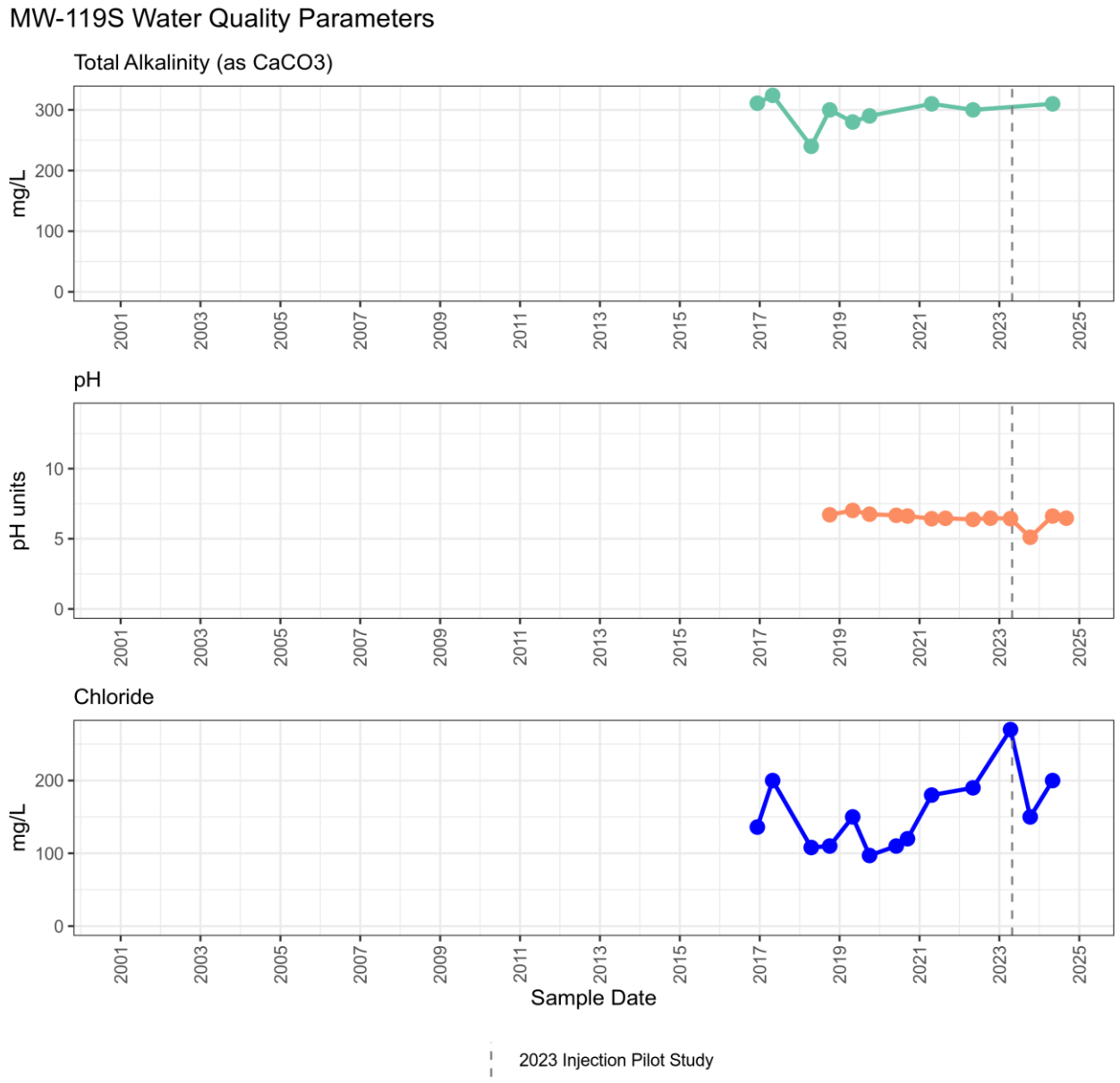


Chlorinated Ethene and Daughter Product Concentration

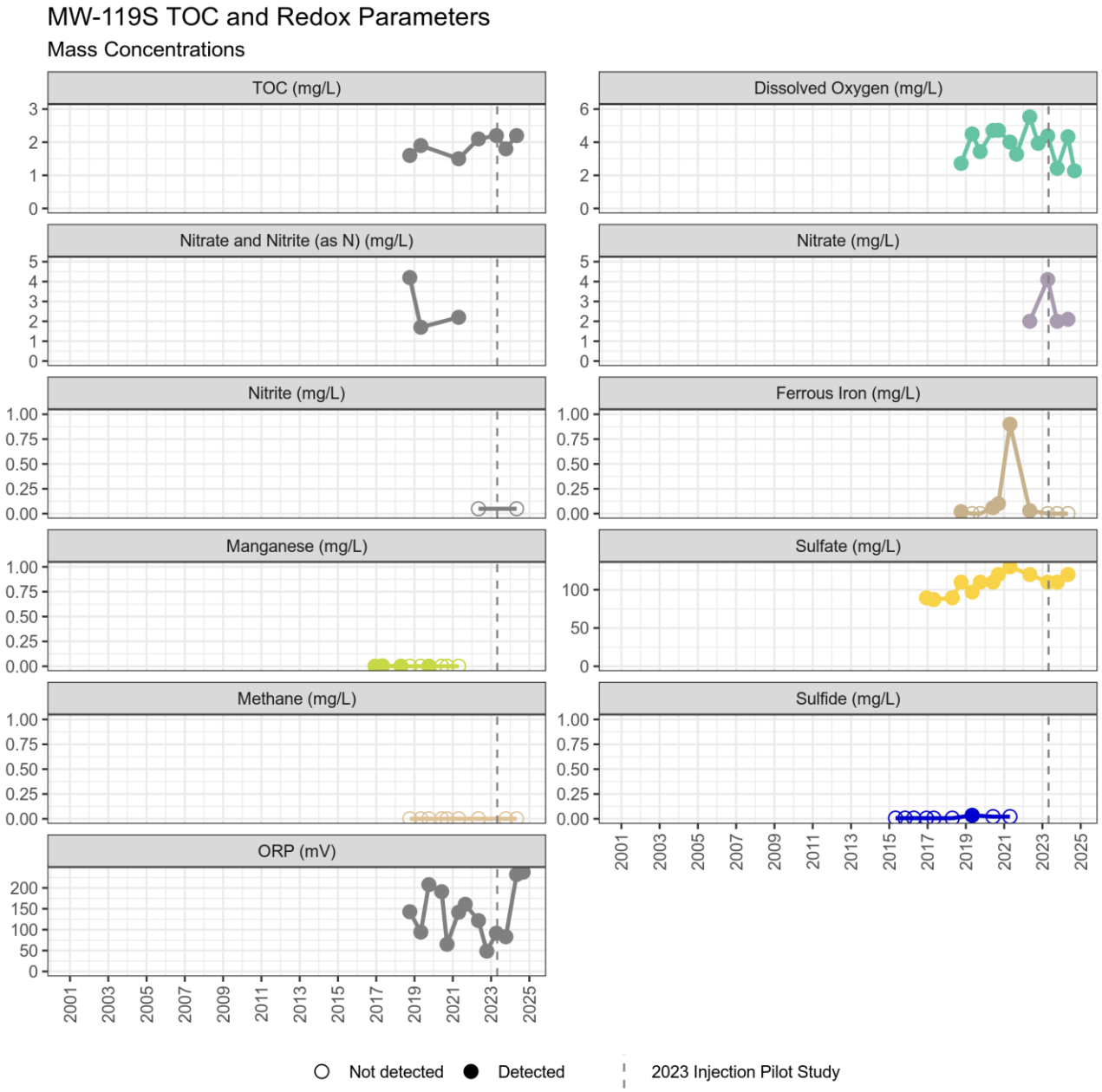


MW-119S

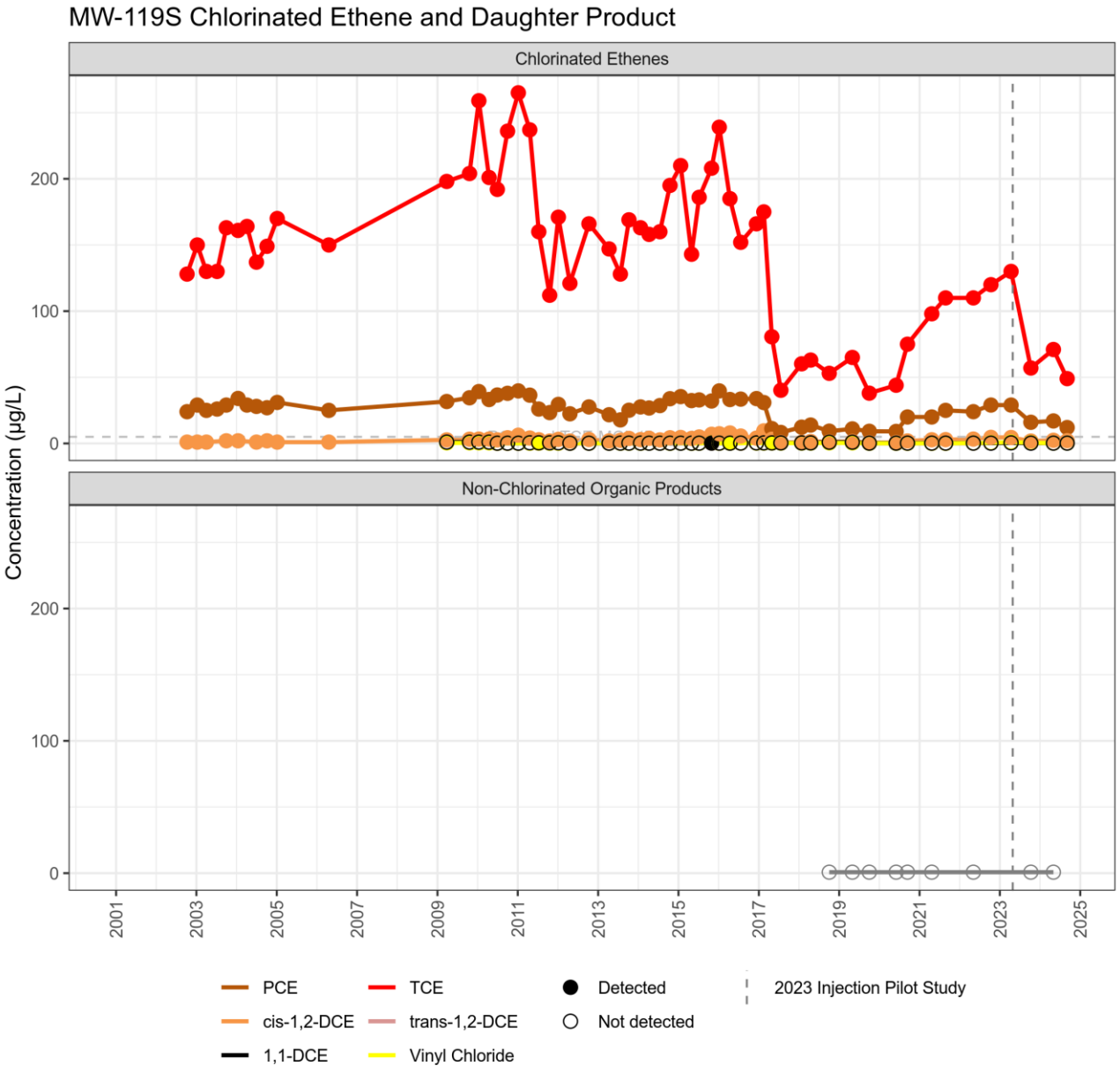
Water Quality



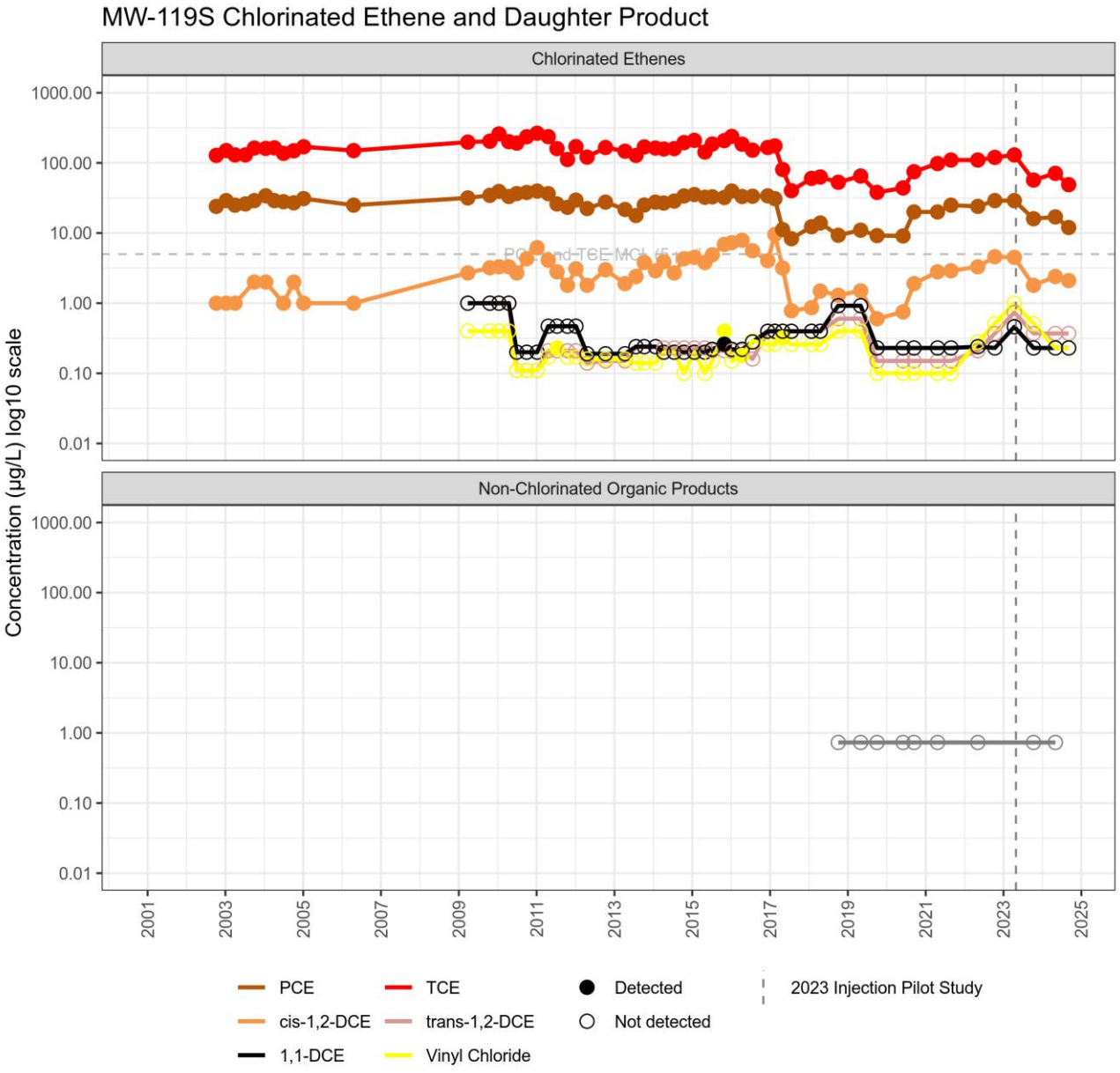
TOC and Redox Parameters



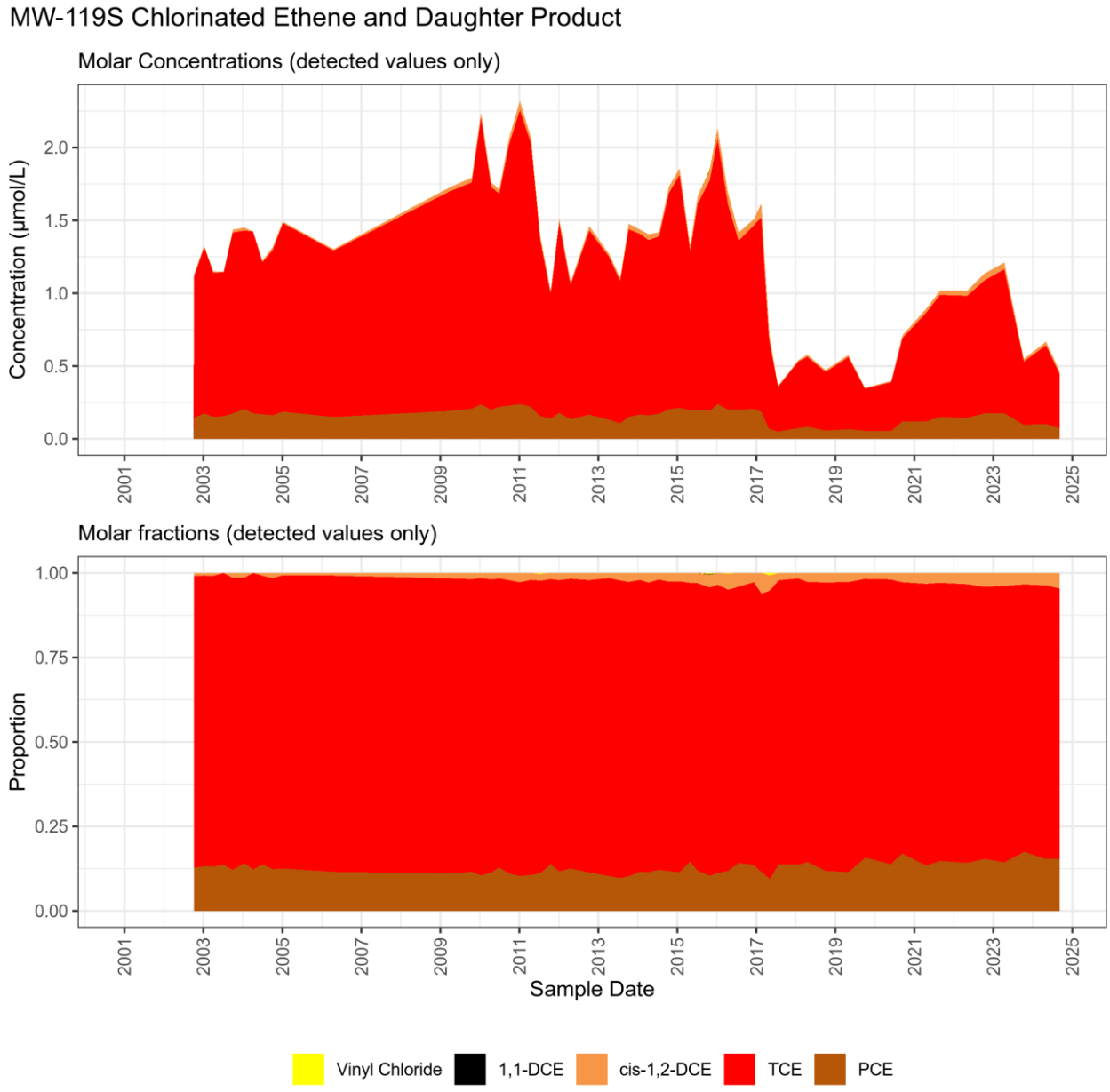
Chlorinated Ethene and Daughter Product Mass



Chlorinated Ethene and Daughter Product Mass (log10)

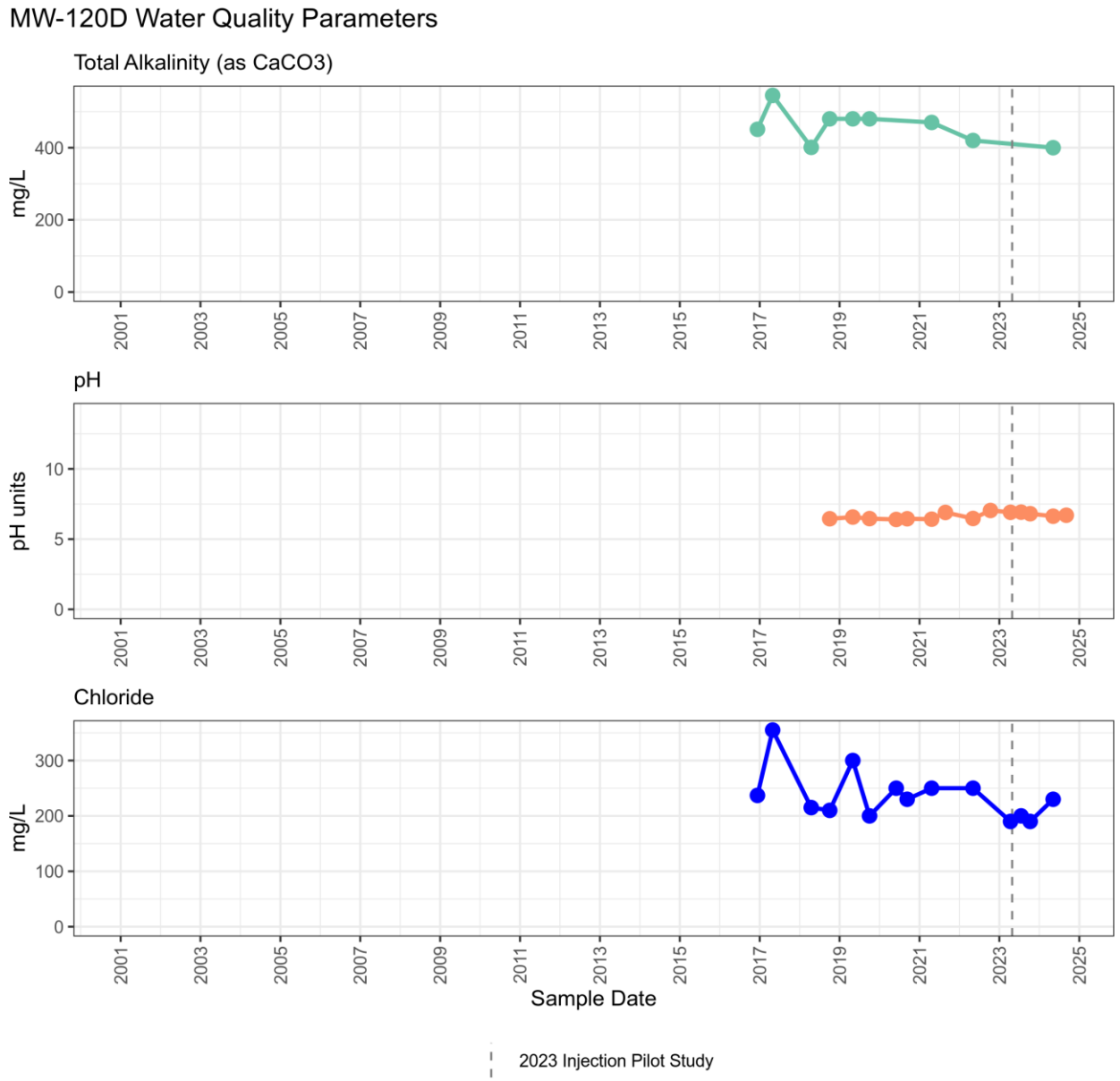


Chlorinated Ethene and Daughter Product Concentration

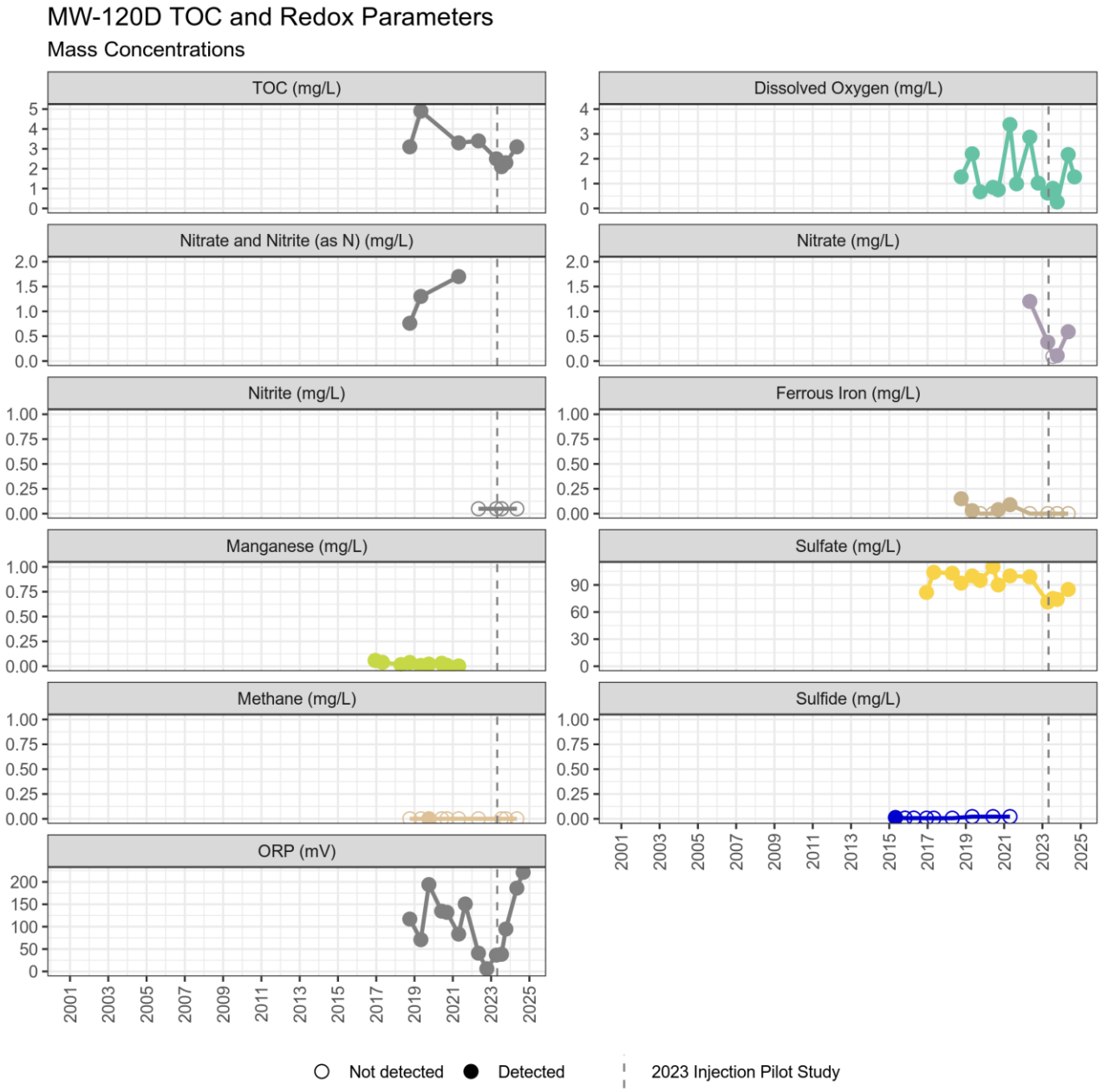


MW-120D

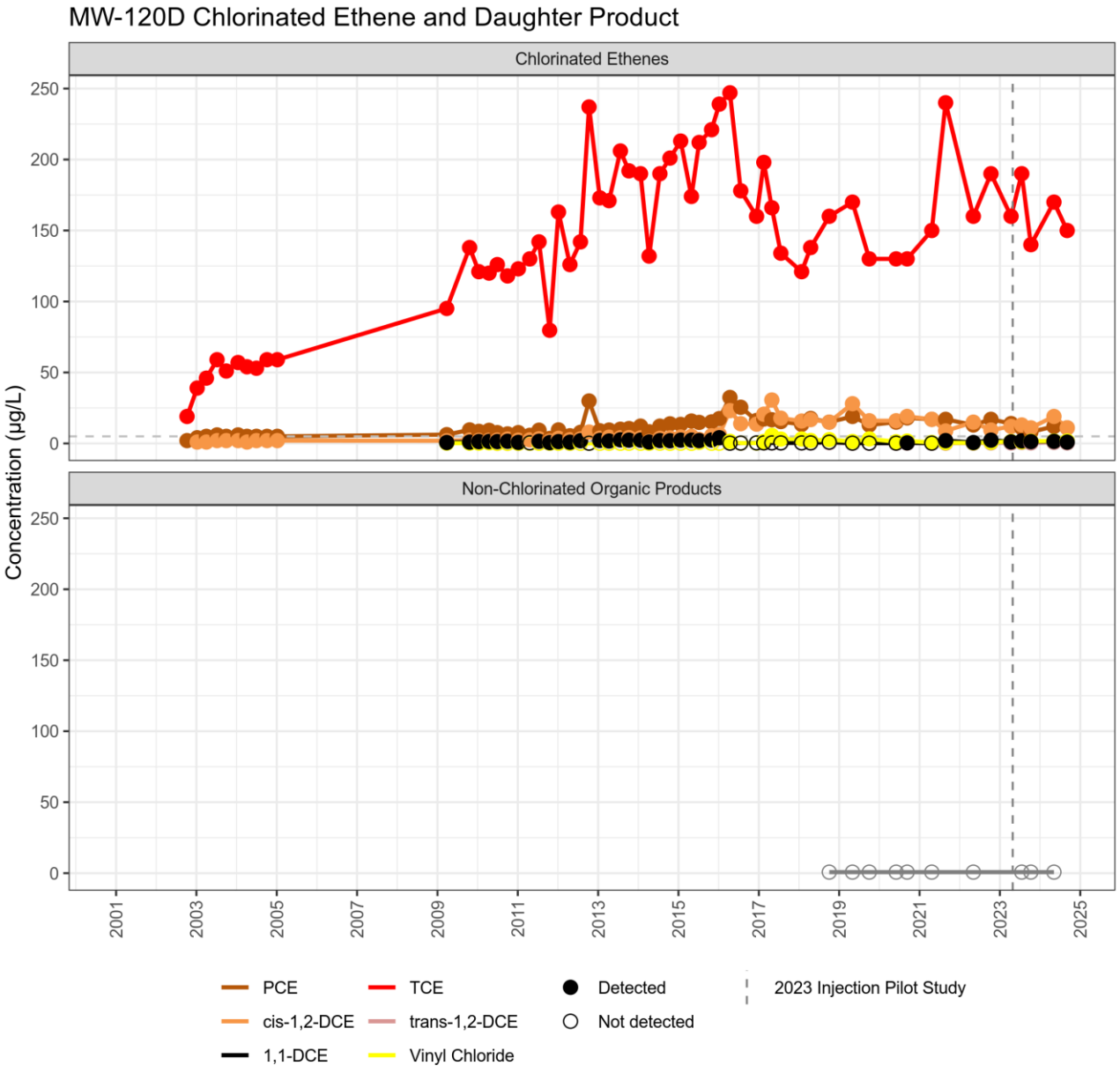
Water Quality



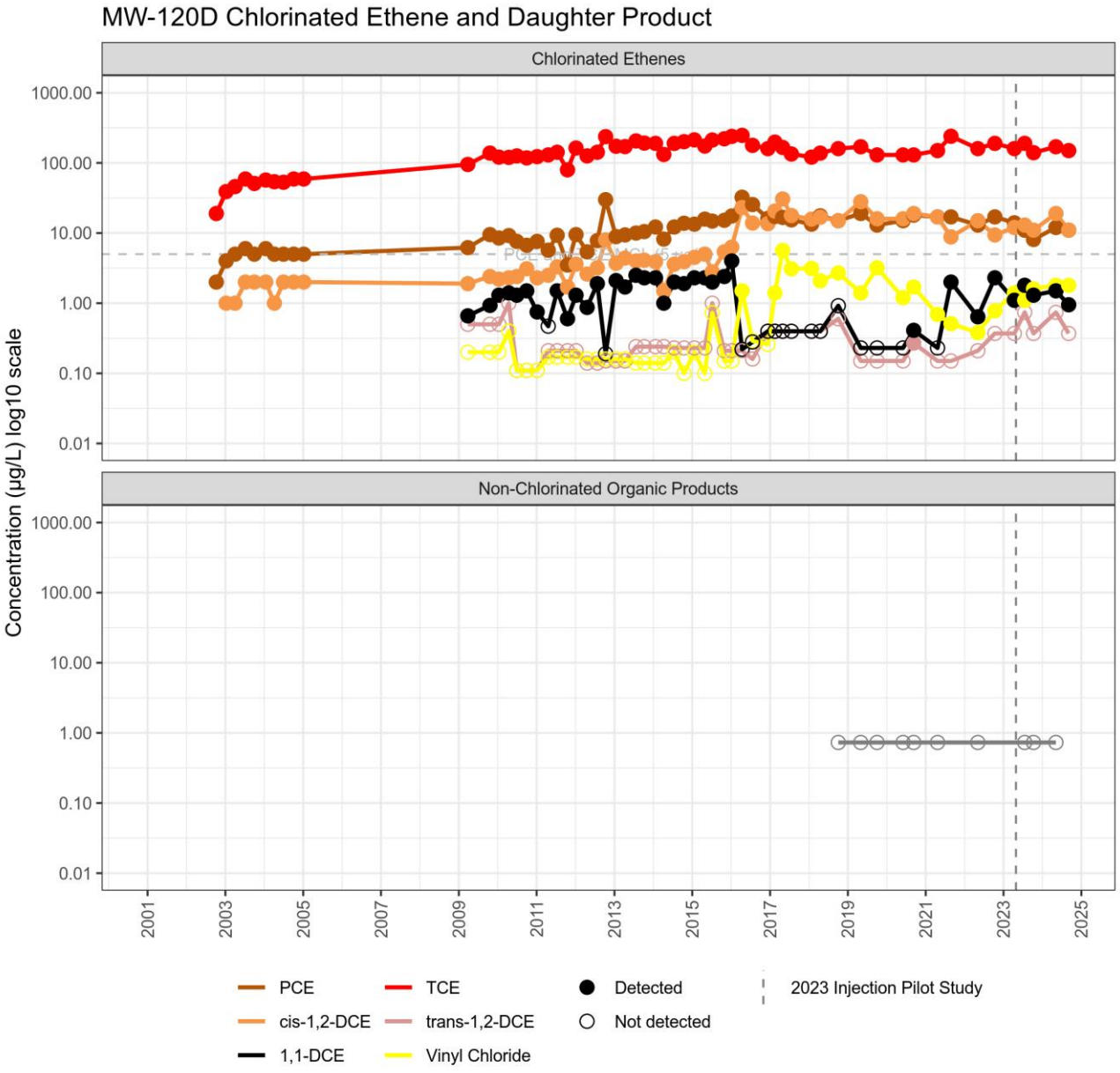
TOC and Redox Parameters



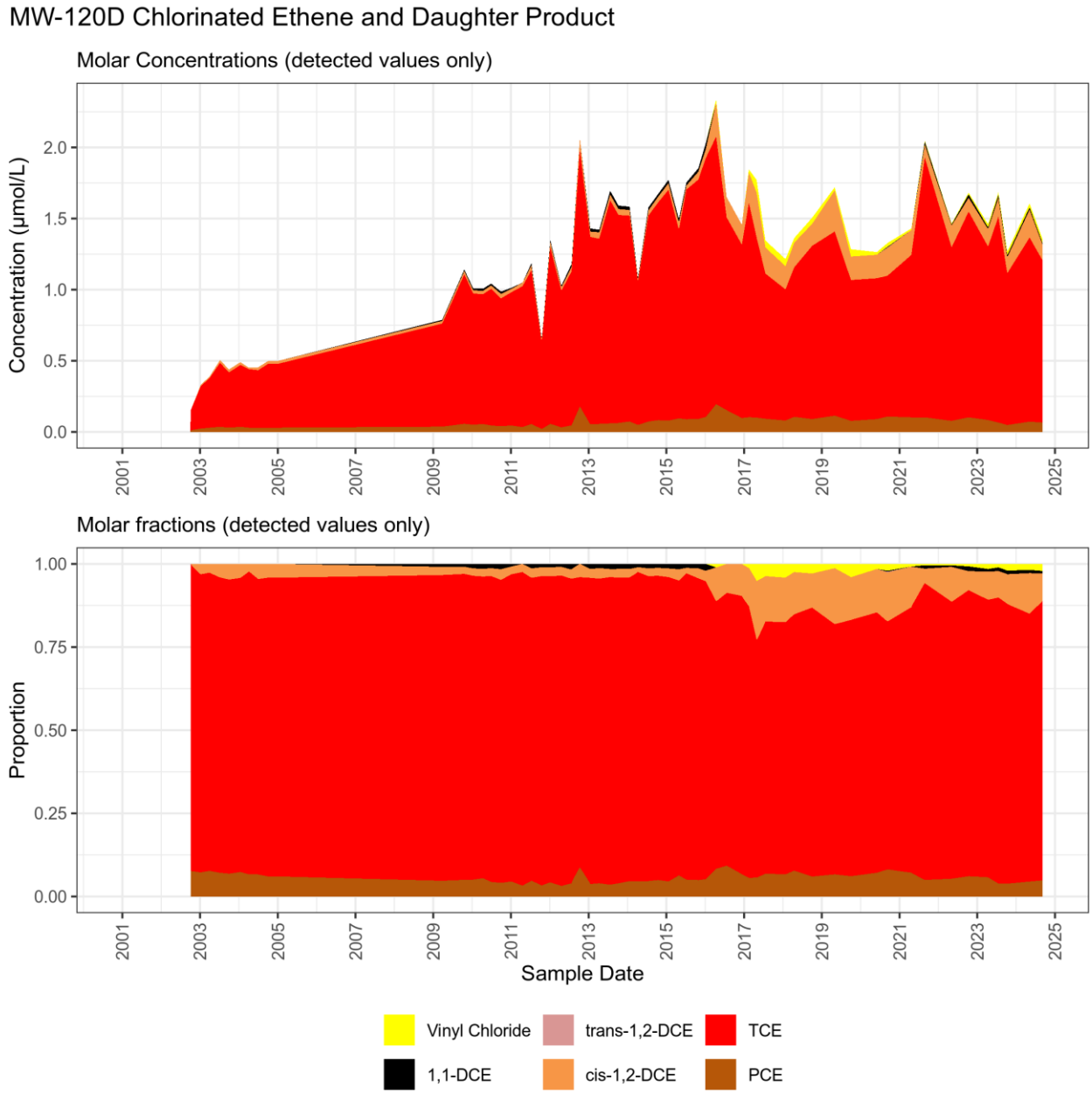
Chlorinated Ethene and Daughter Product Mass



Chlorinated Ethene and Daughter Product Mass (log10)

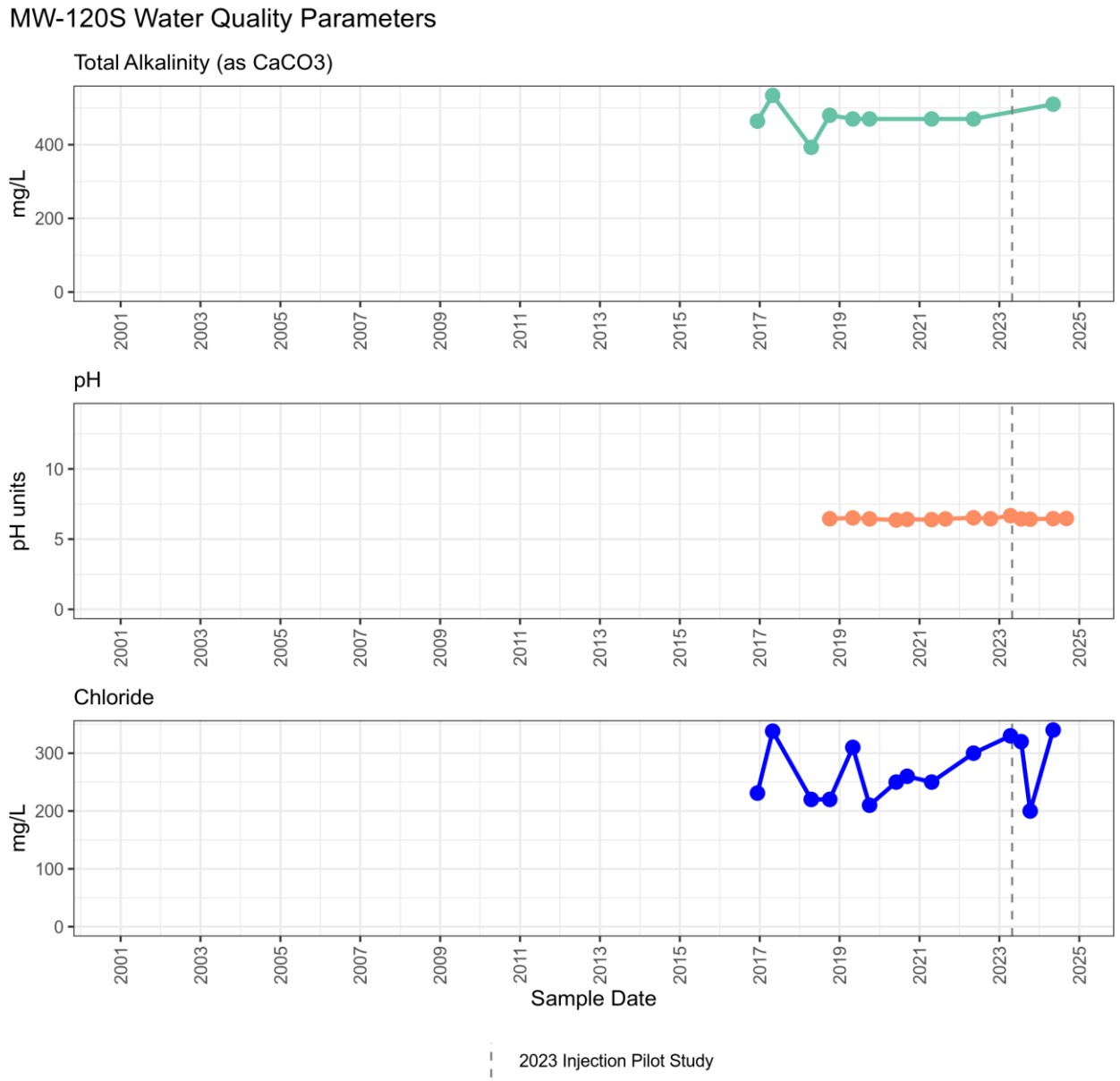


Chlorinated Ethene and Daughter Product Concentration

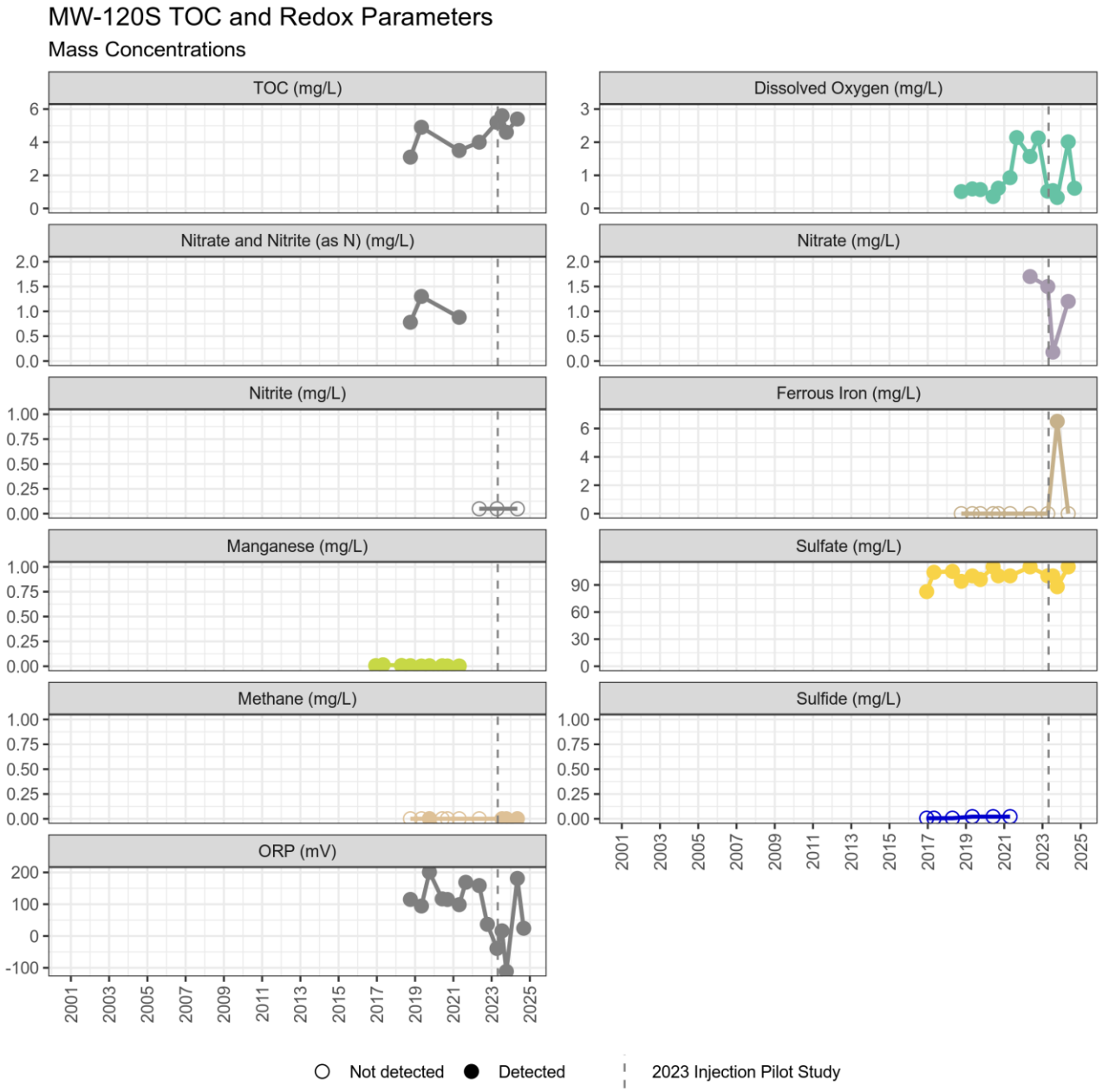


MW-120S

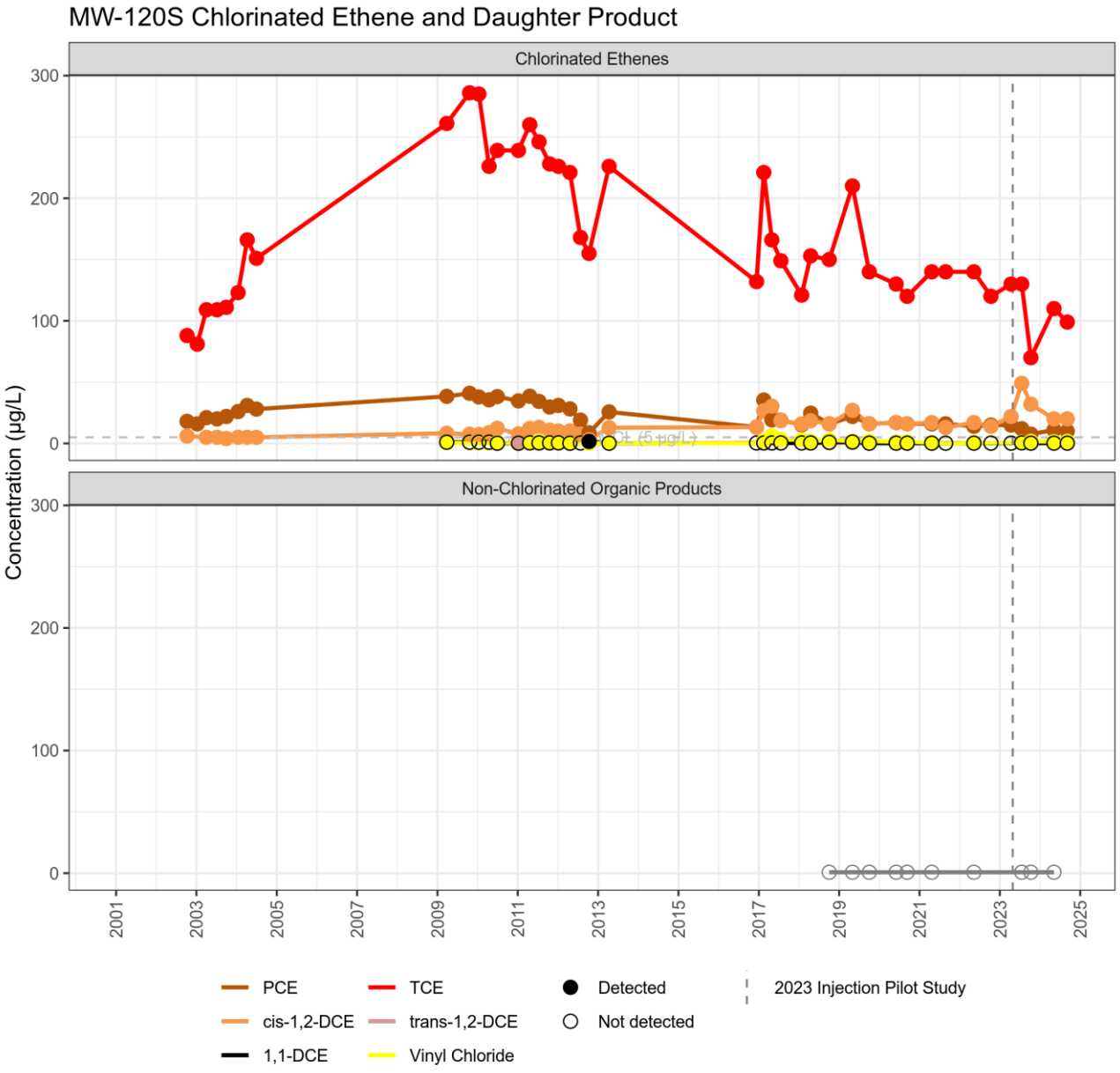
Water Quality



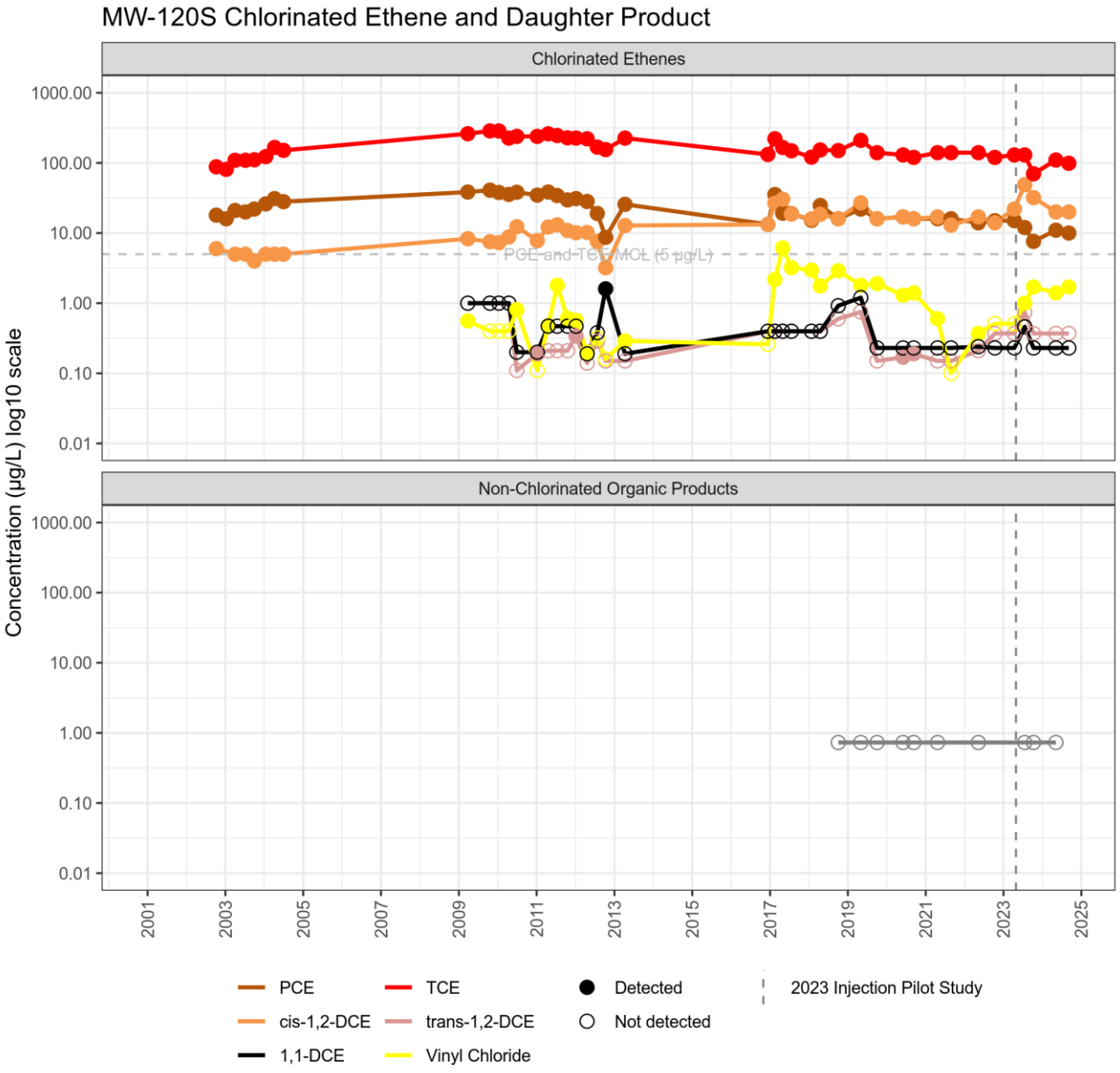
TOC and Redox Parameters



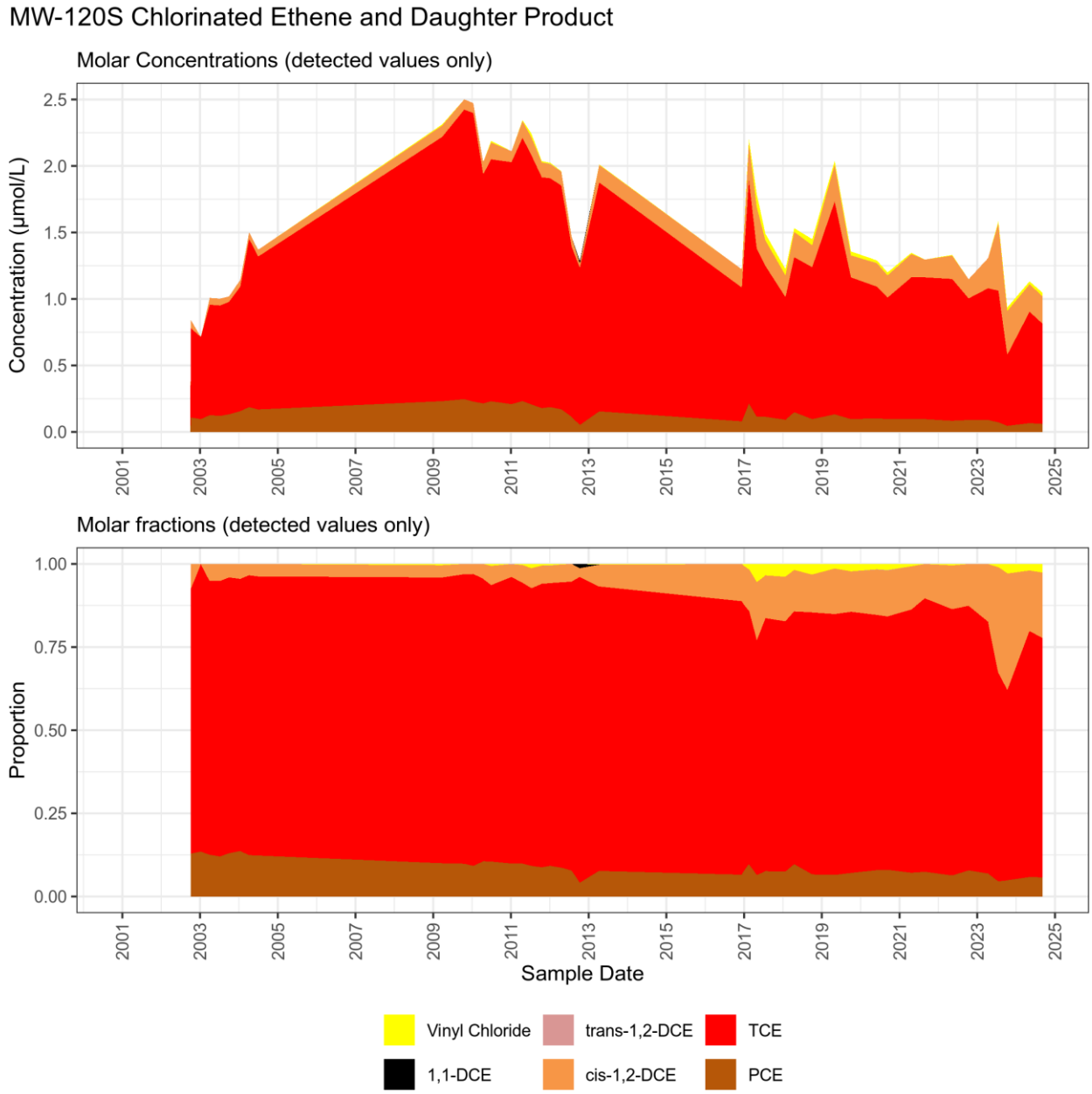
Chlorinated Ethene and Daughter Product Mass



Chlorinated Ethene and Daughter Product Mass (log10)

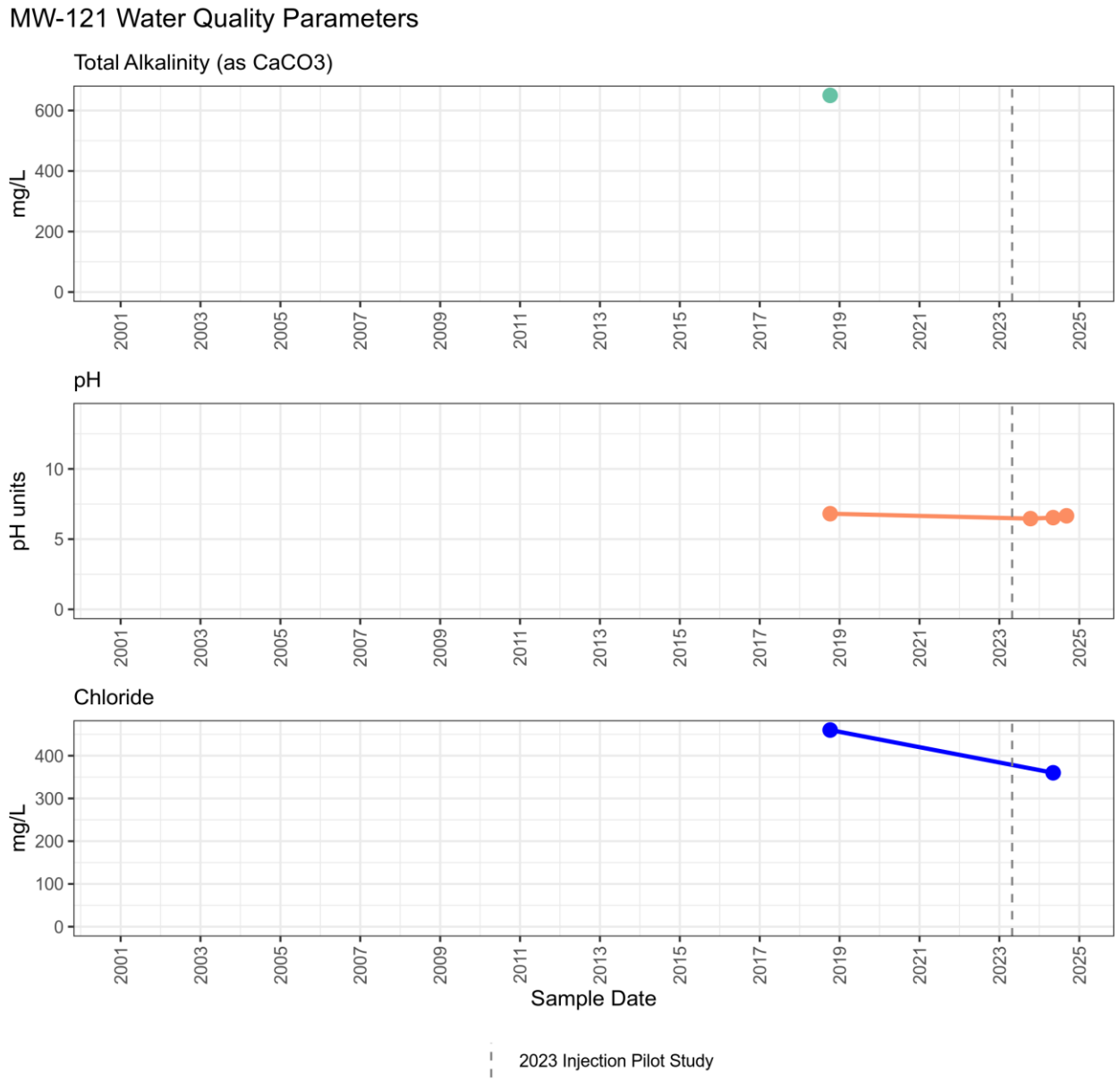


Chlorinated Ethene and Daughter Product Concentration

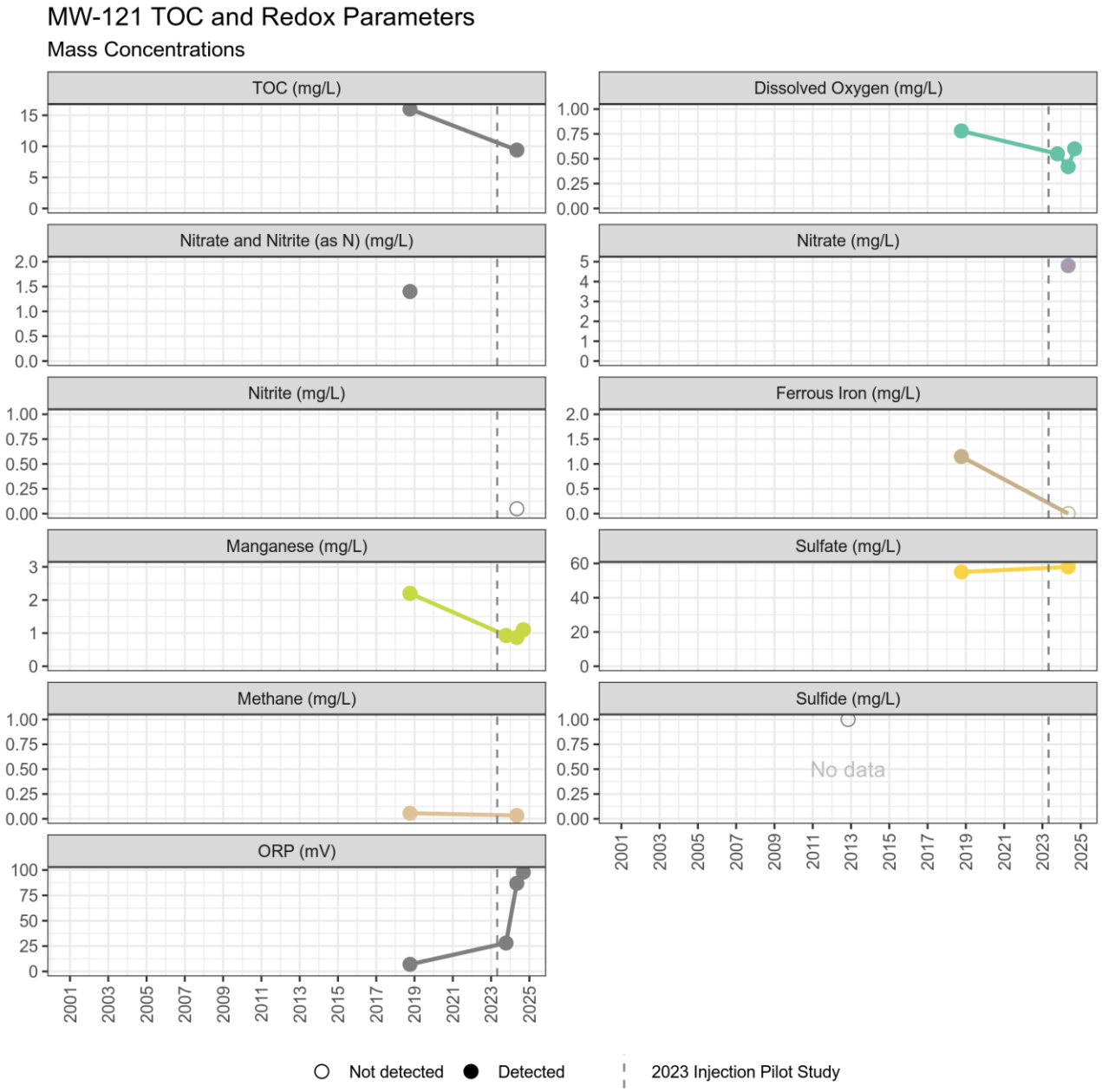


MW-121

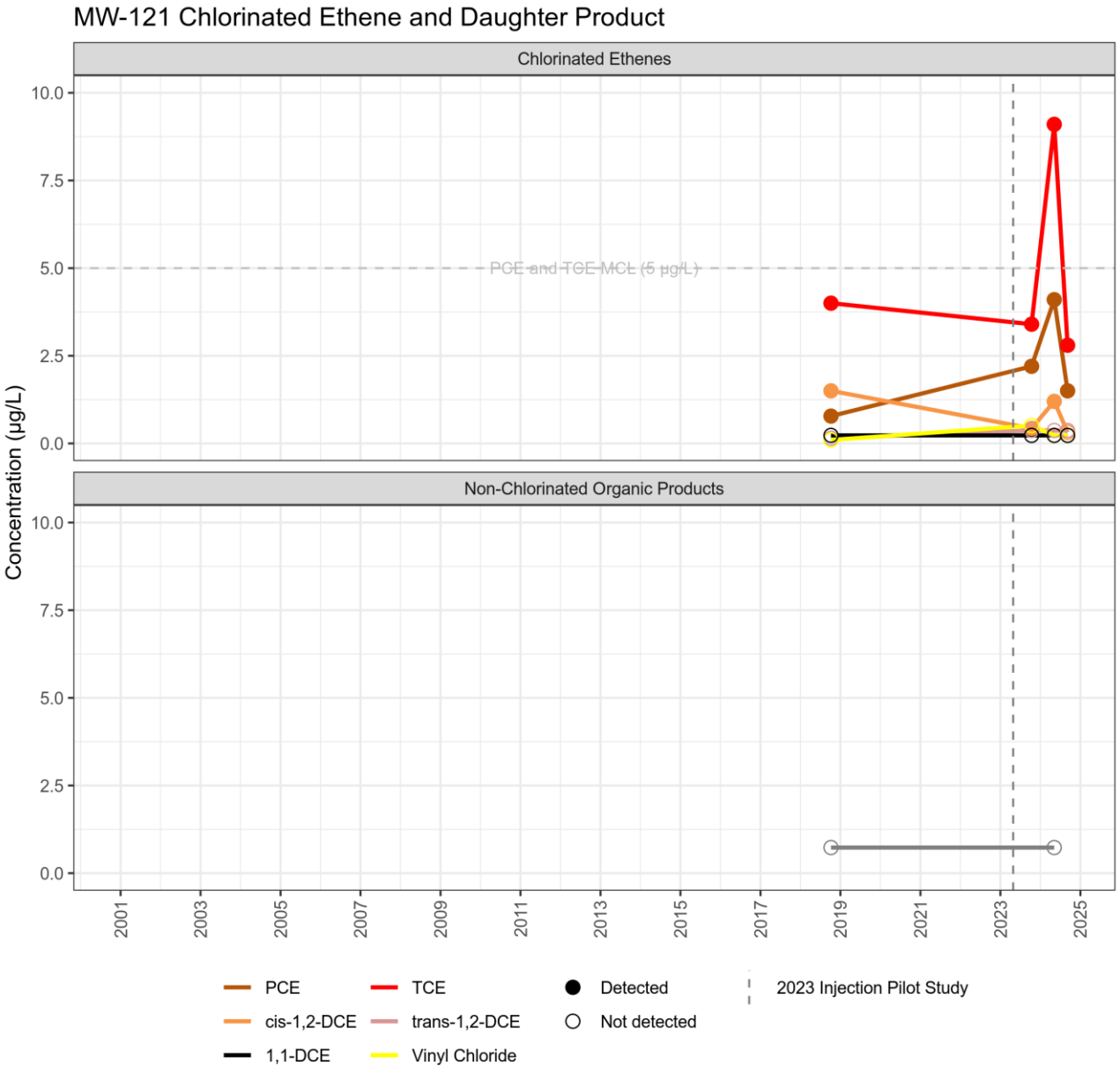
Water Quality



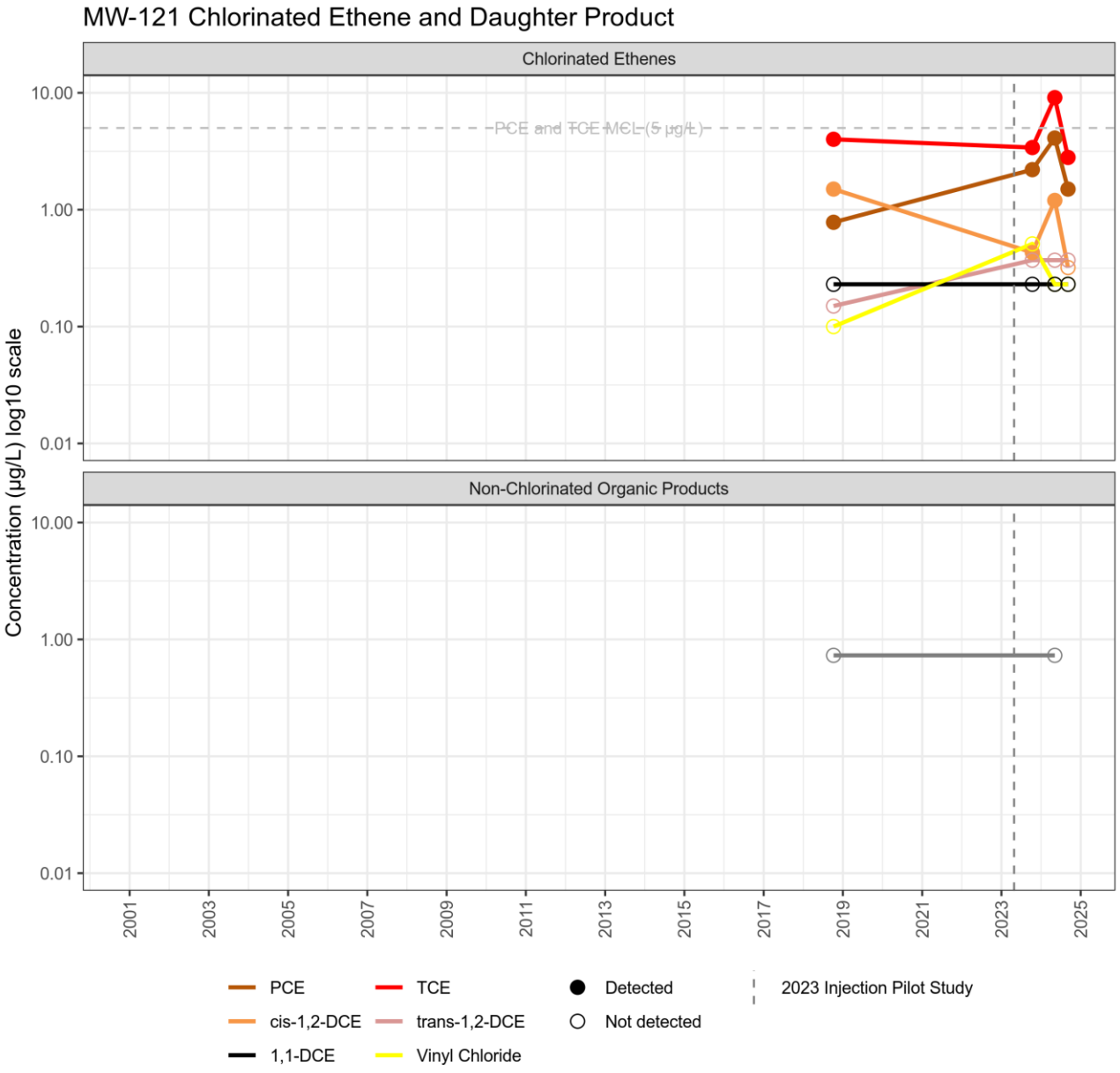
TOC and Redox Parameters



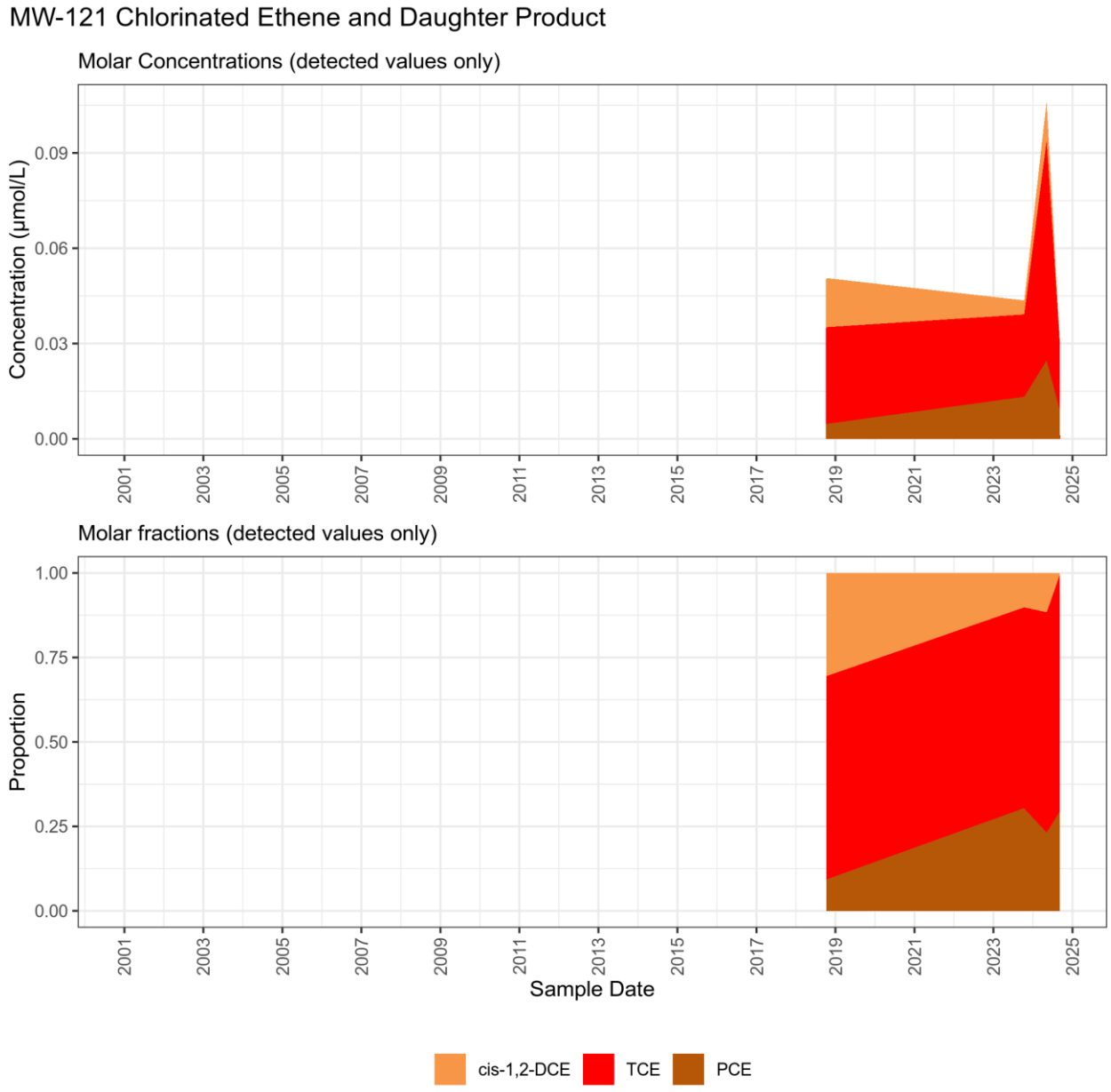
Chlorinated Ethene and Daughter Product Mass



Chlorinated Ethene and Daughter Product Mass (log10)

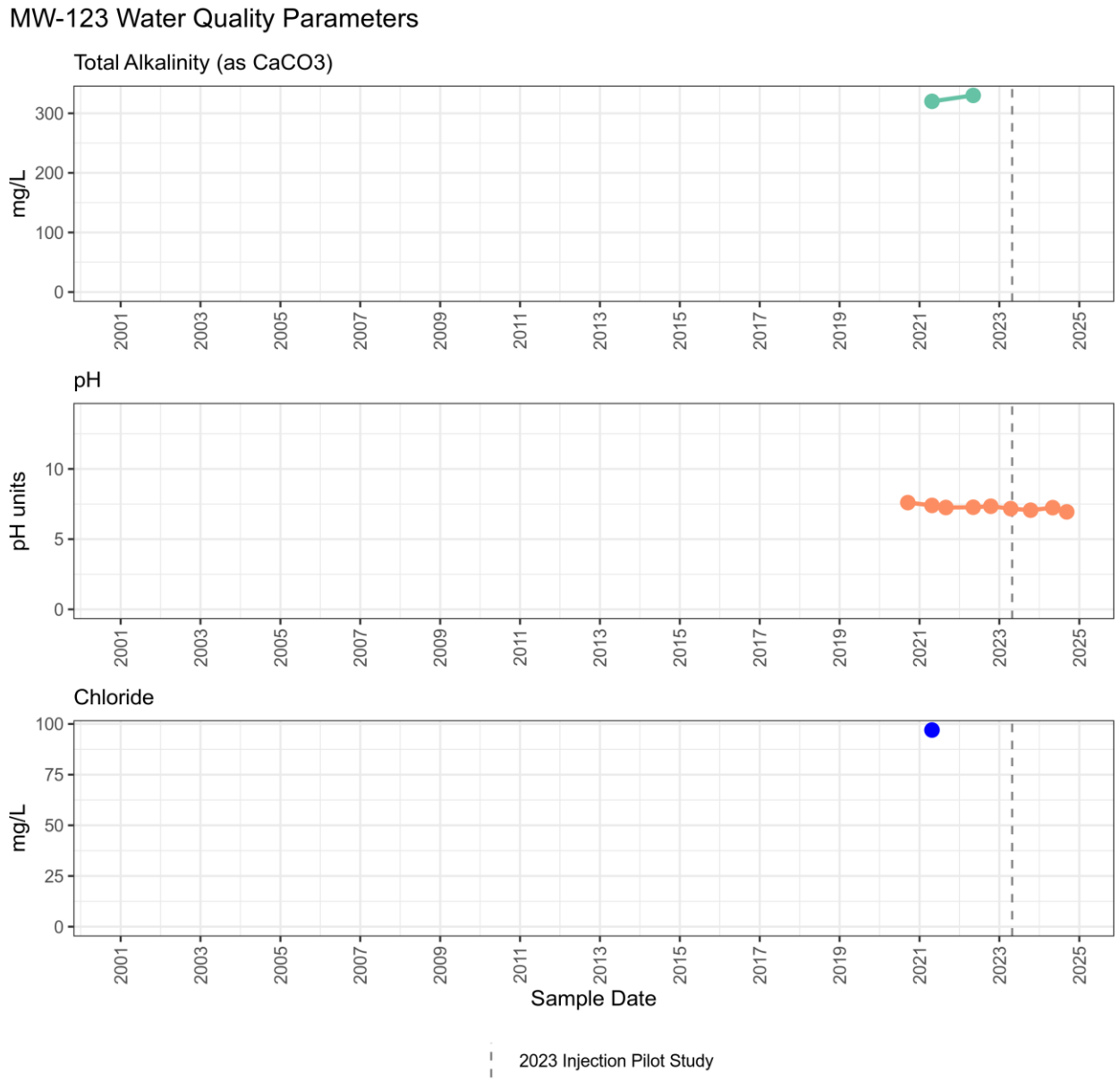


Chlorinated Ethene and Daughter Product Concentration

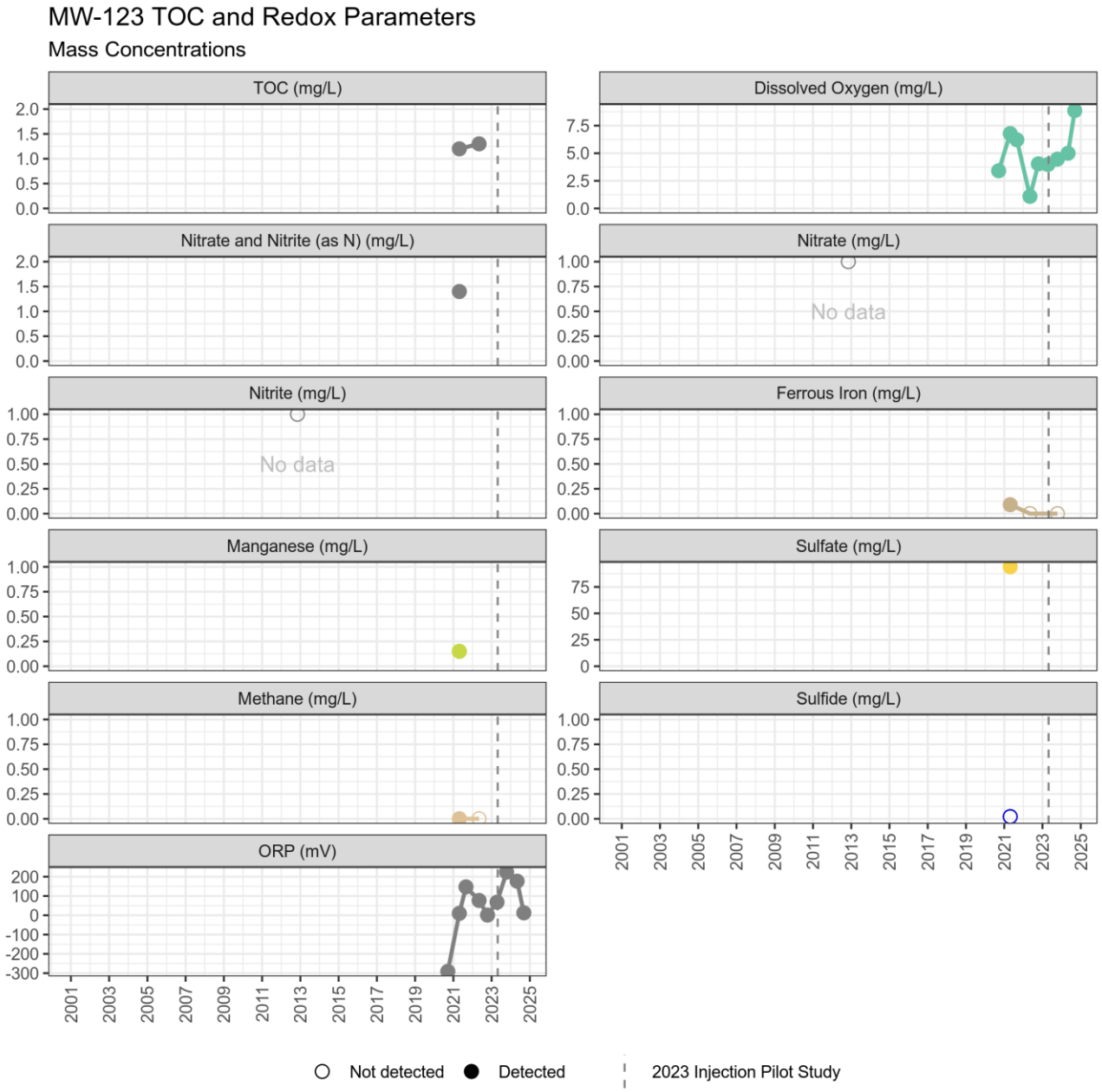


MW-123

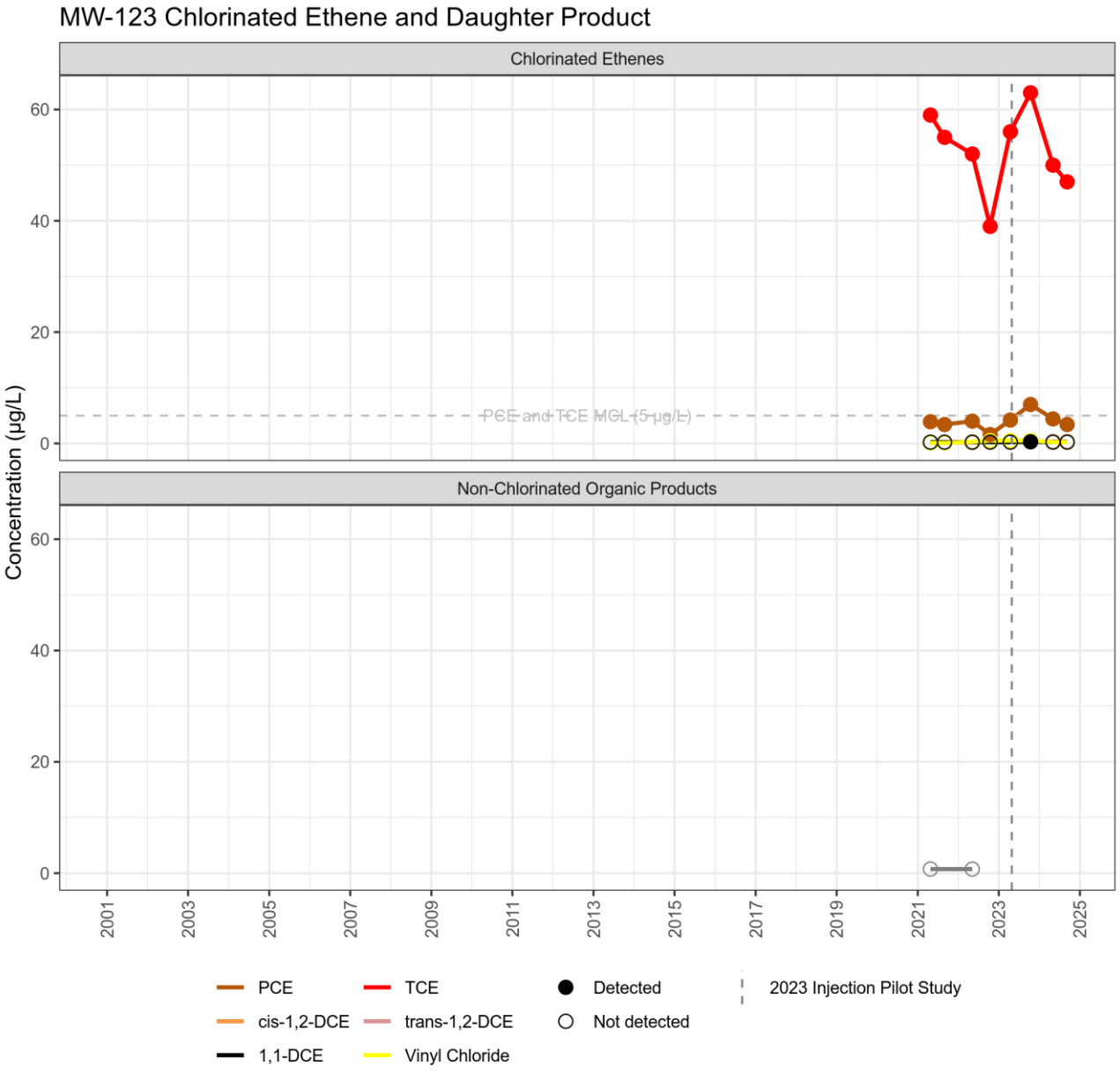
Water Quality



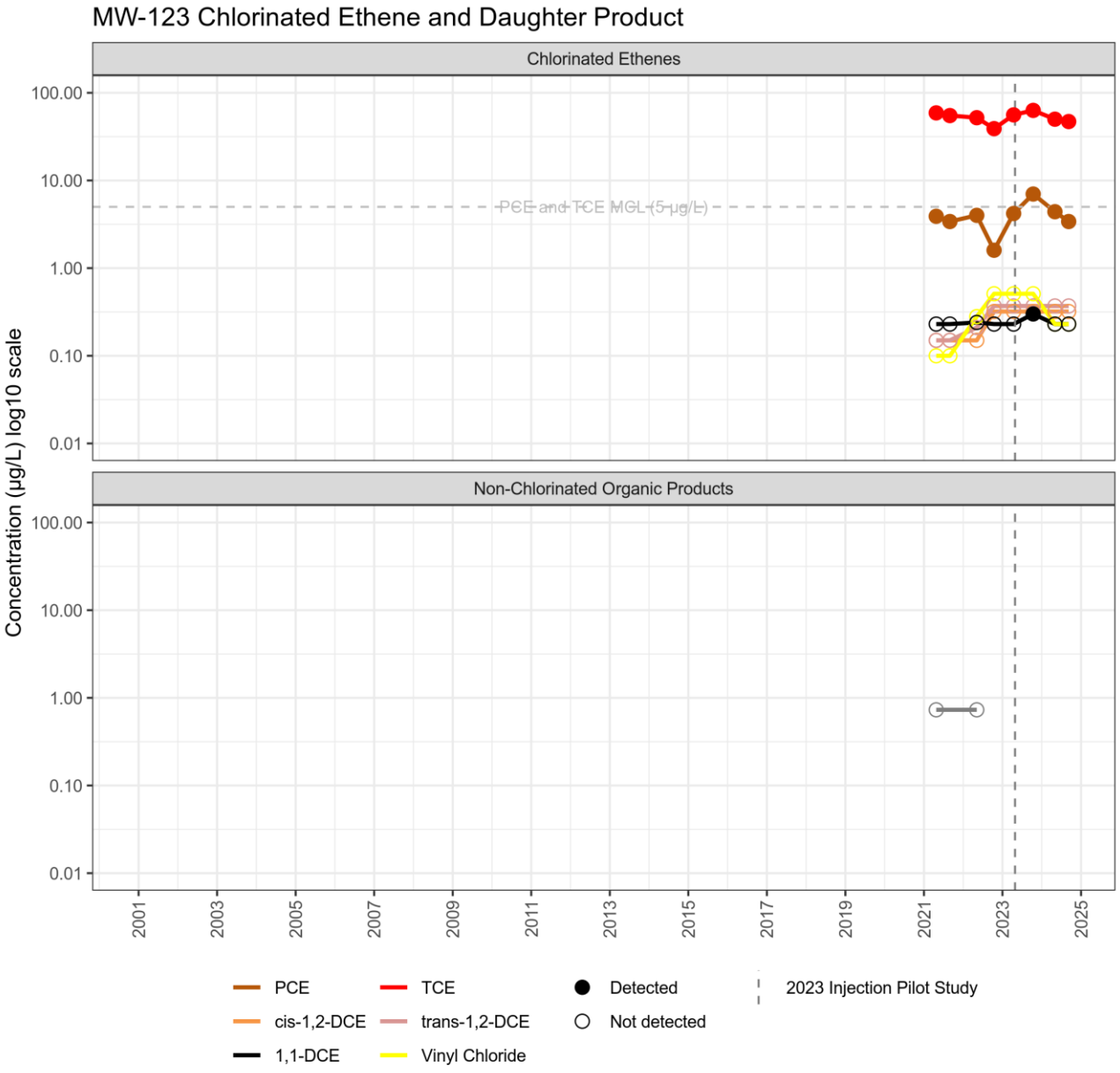
TOC and Redox Parameters



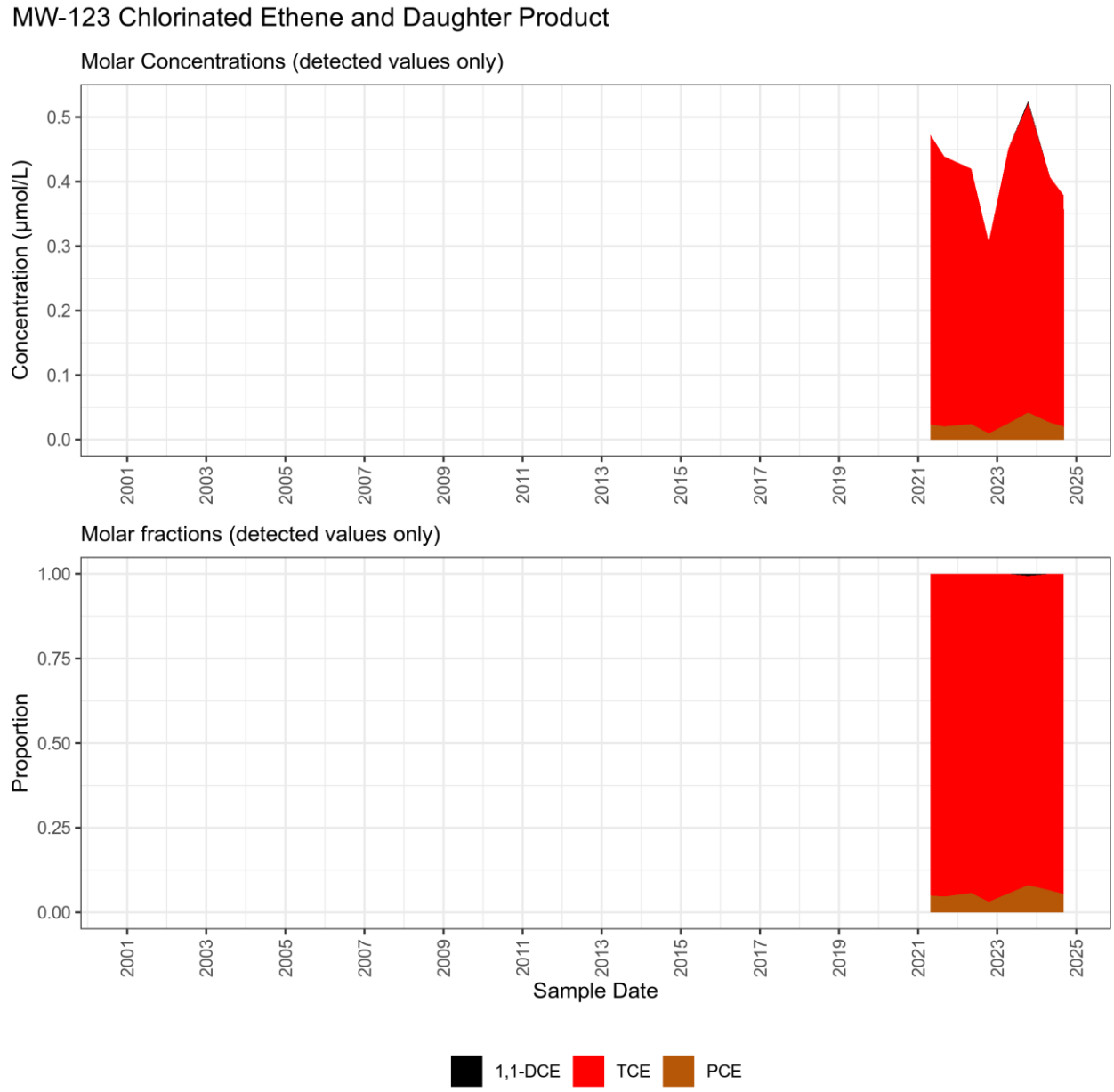
Chlorinated Ethene and Daughter Product Mass



Chlorinated Ethene and Daughter Product Mass (log10)

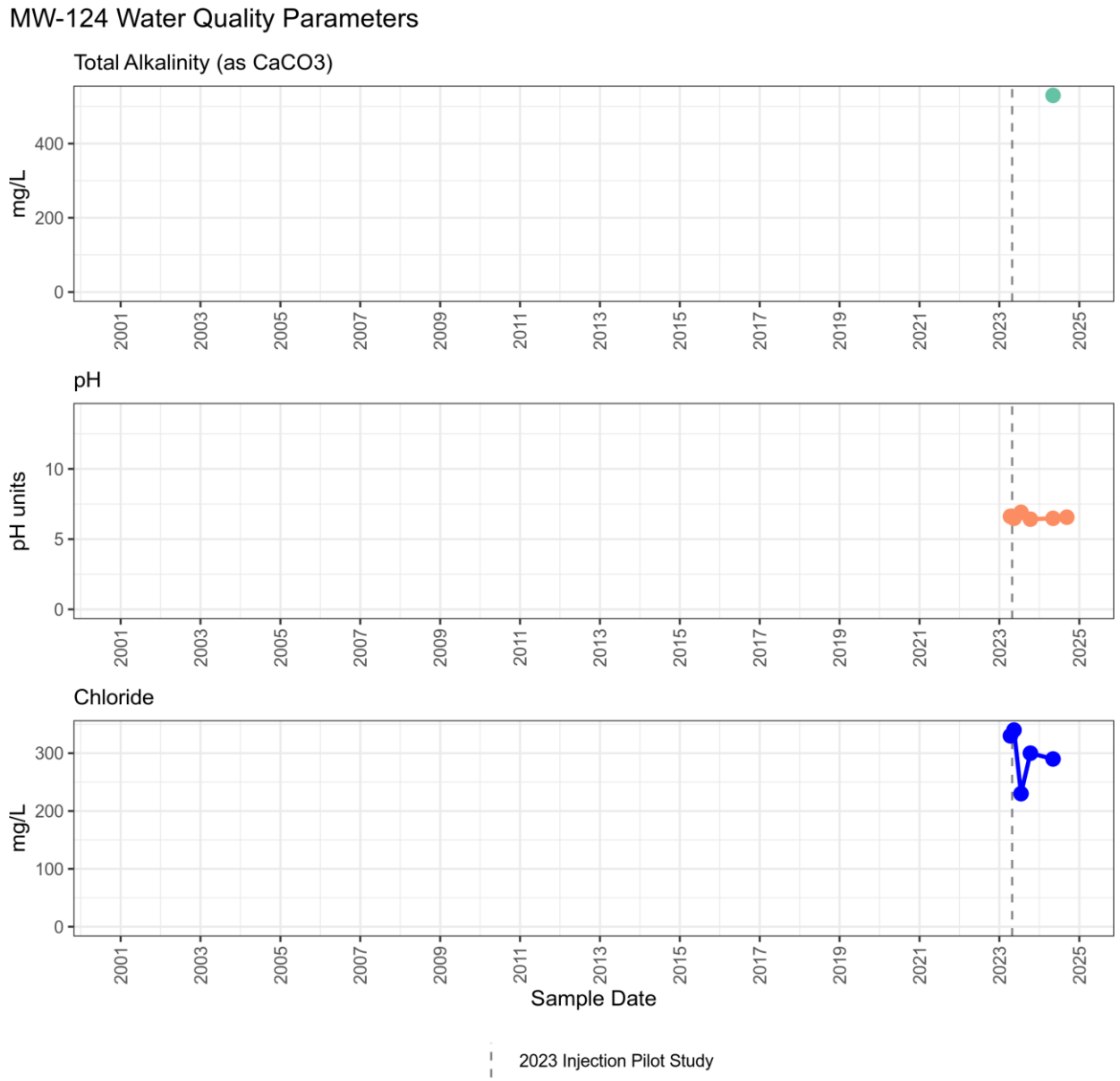


Chlorinated Ethene and Daughter Product Concentration

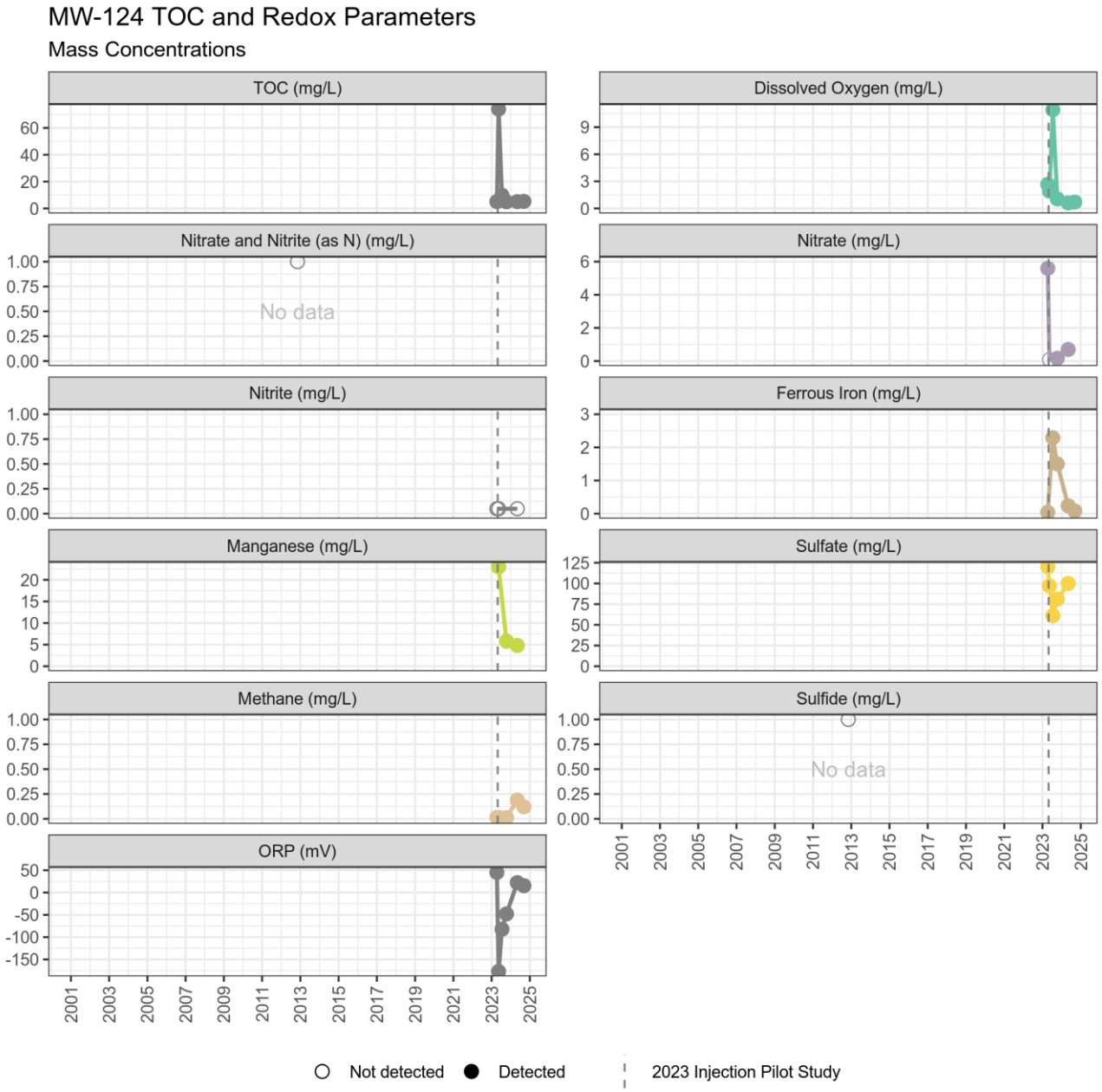


MW-124

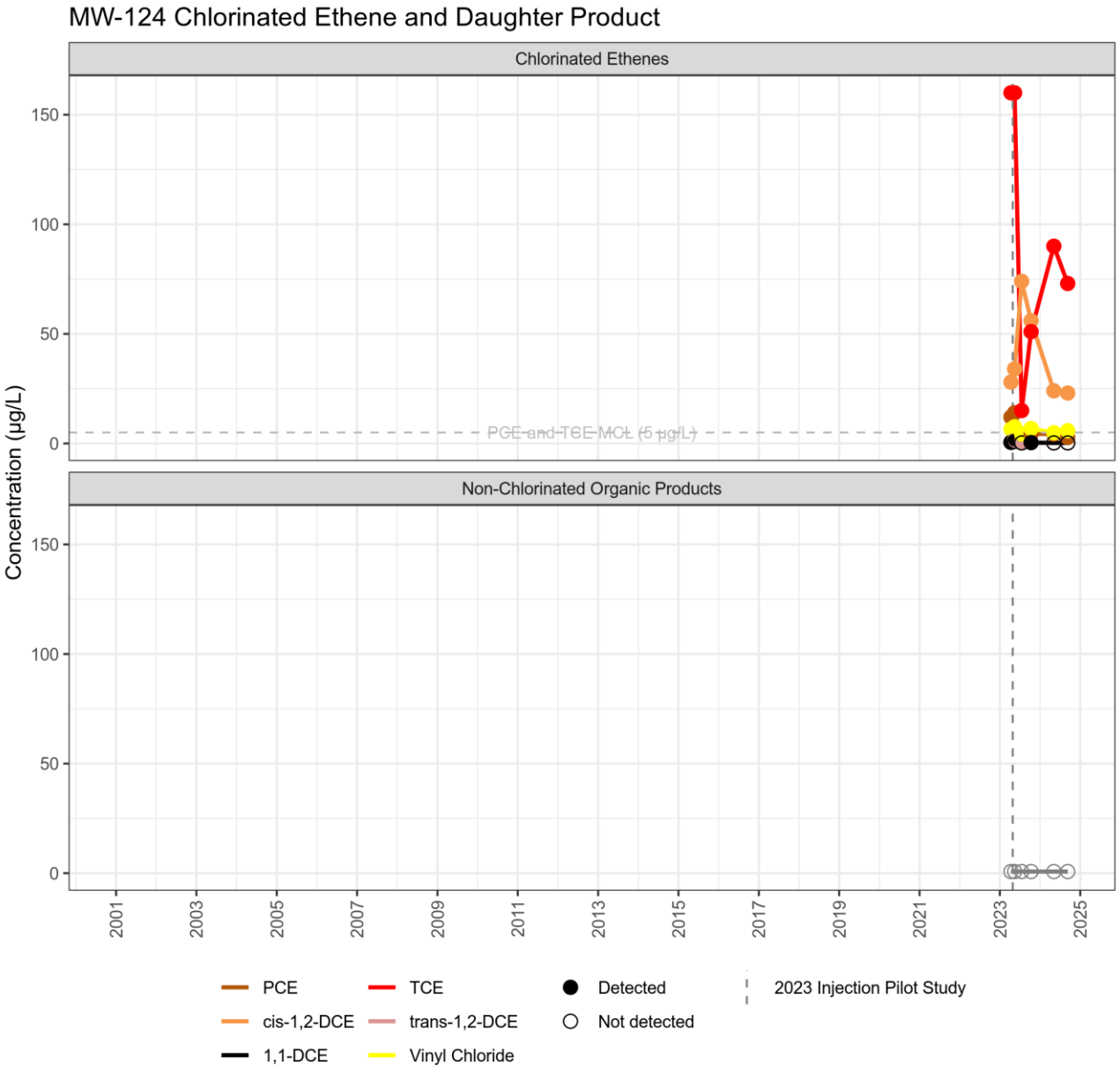
Water Quality



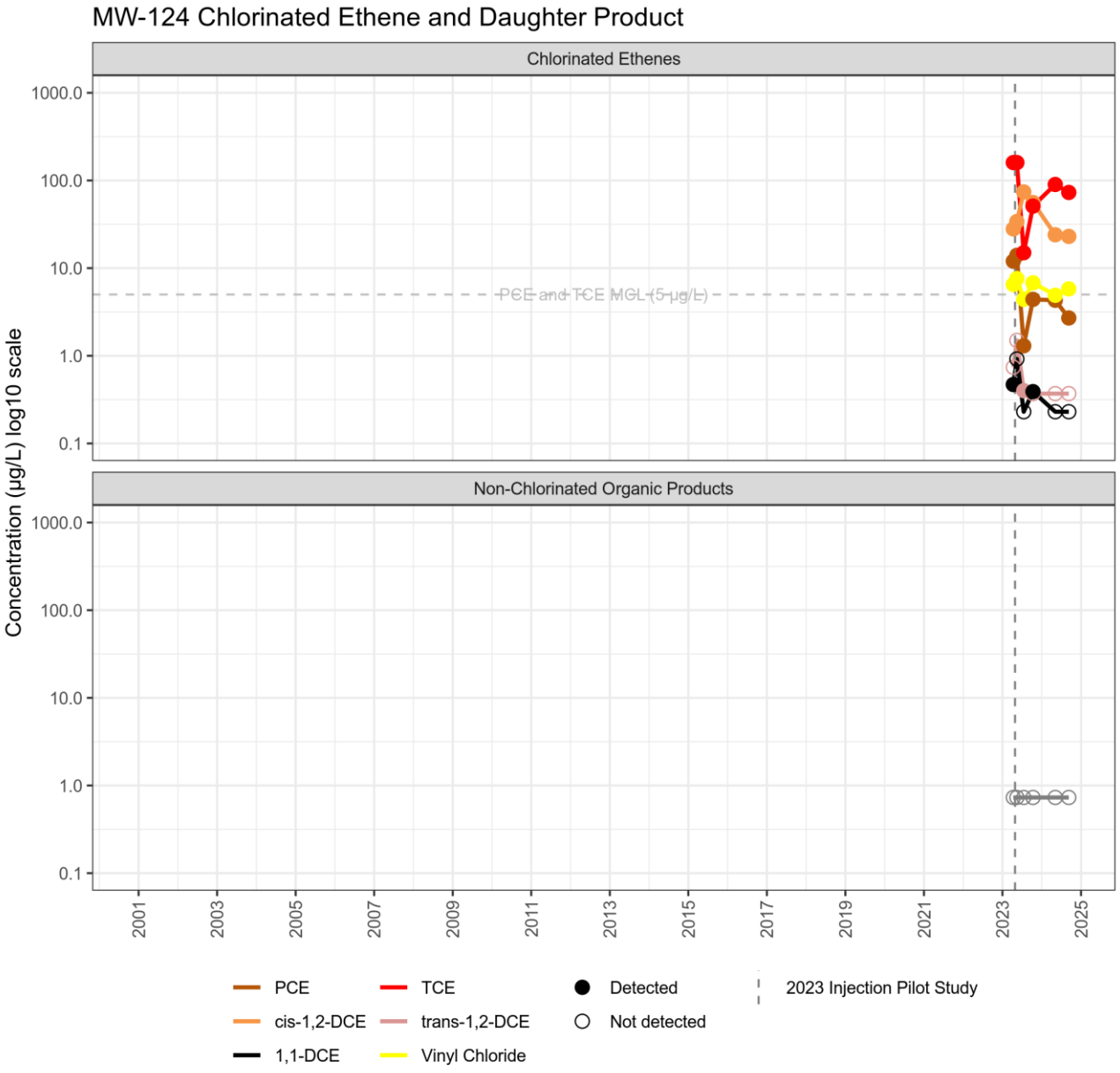
TOC and Redox Parameters



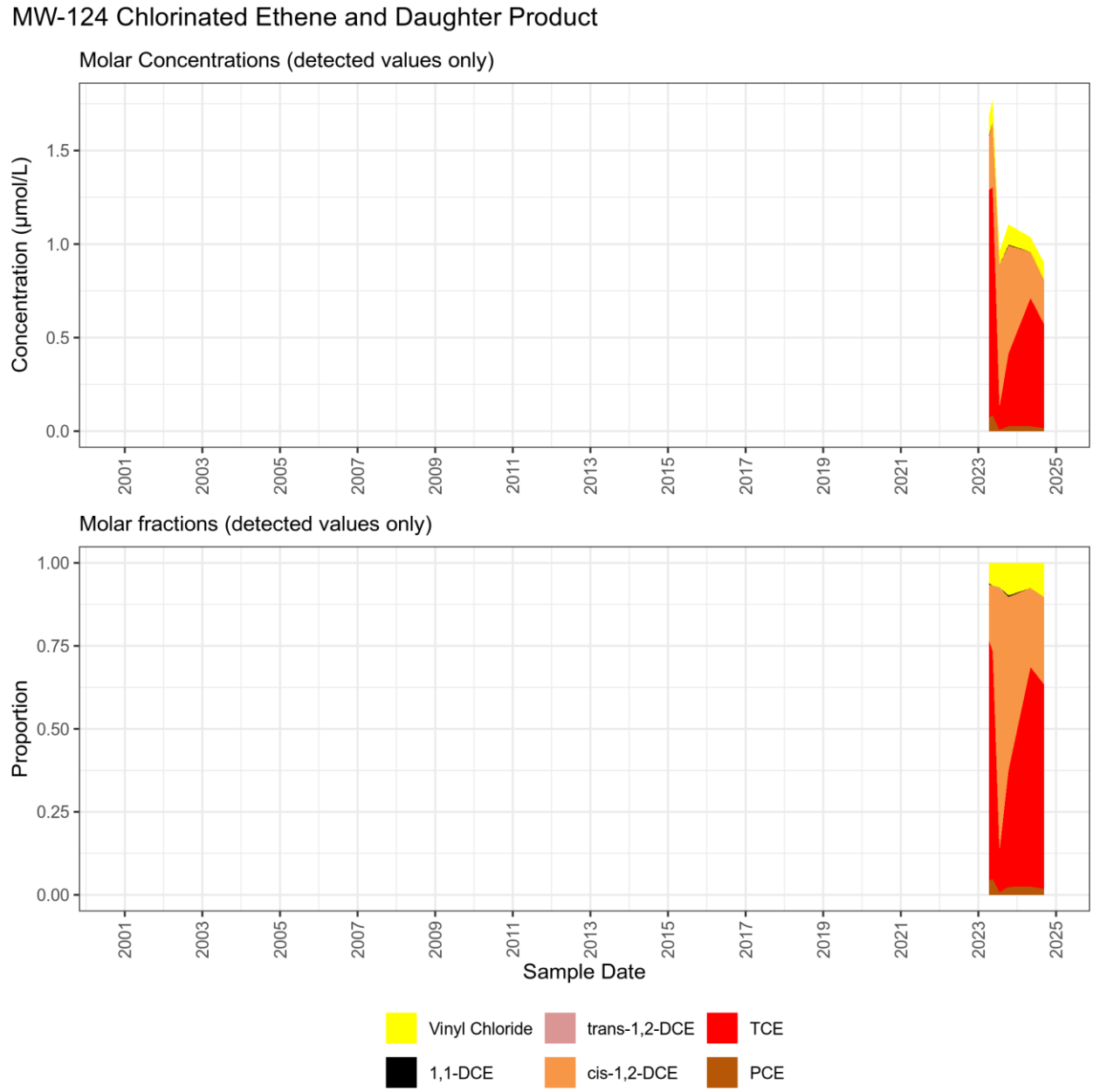
Chlorinated Ethene and Daughter Product Mass



Chlorinated Ethene and Daughter Product Mass (log10)

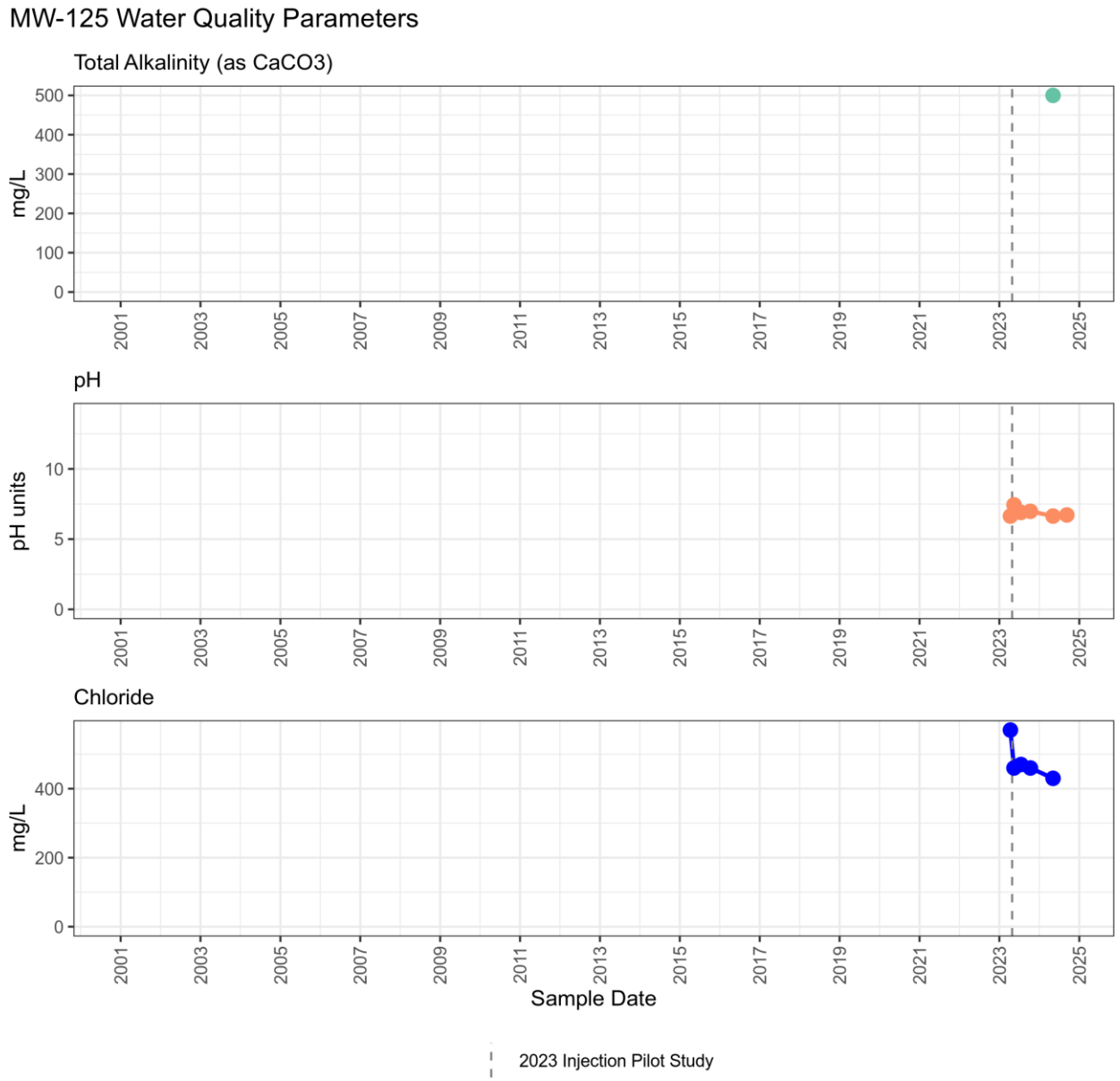


Chlorinated Ethene and Daughter Product Concentration

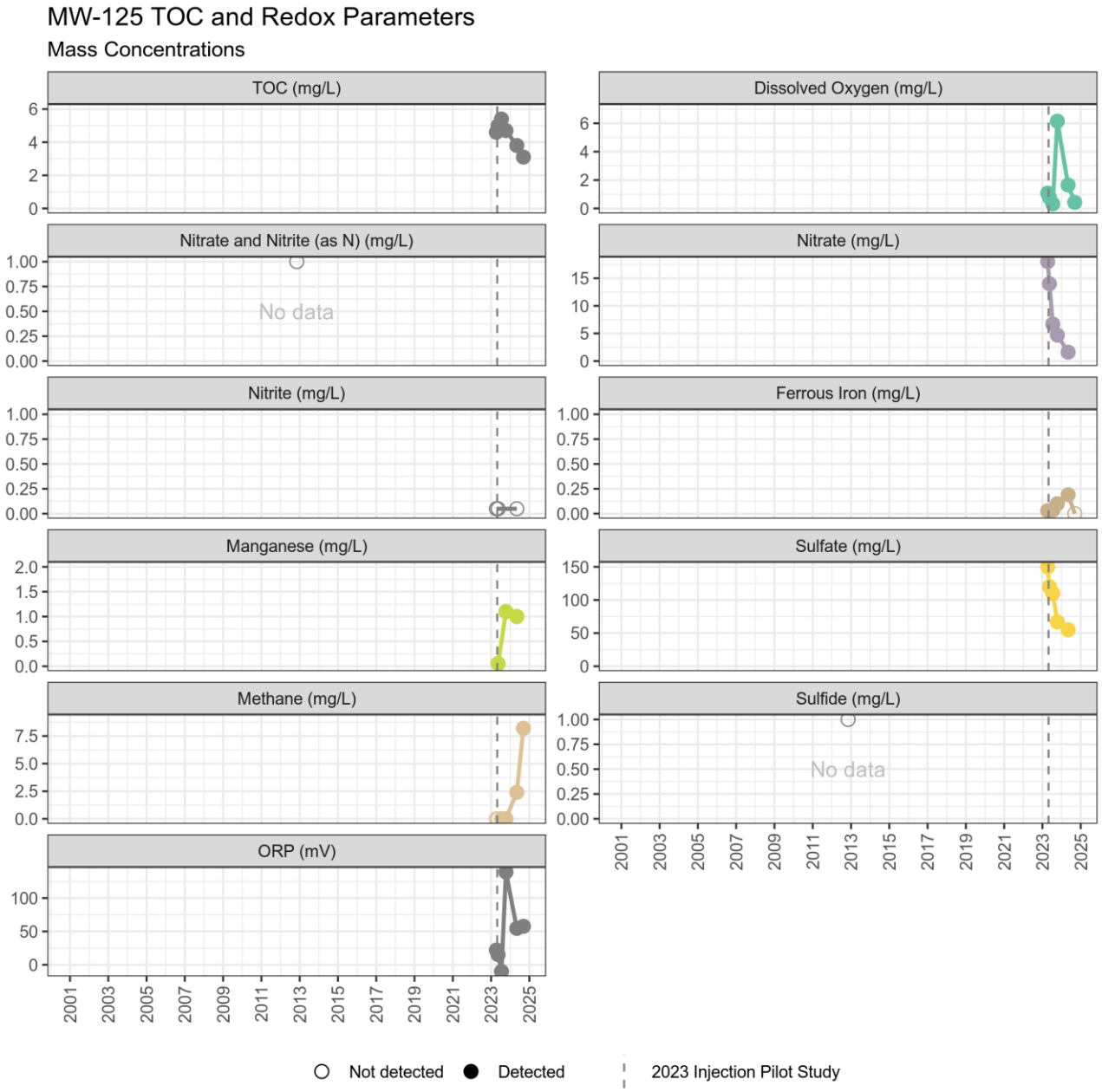


MW-125

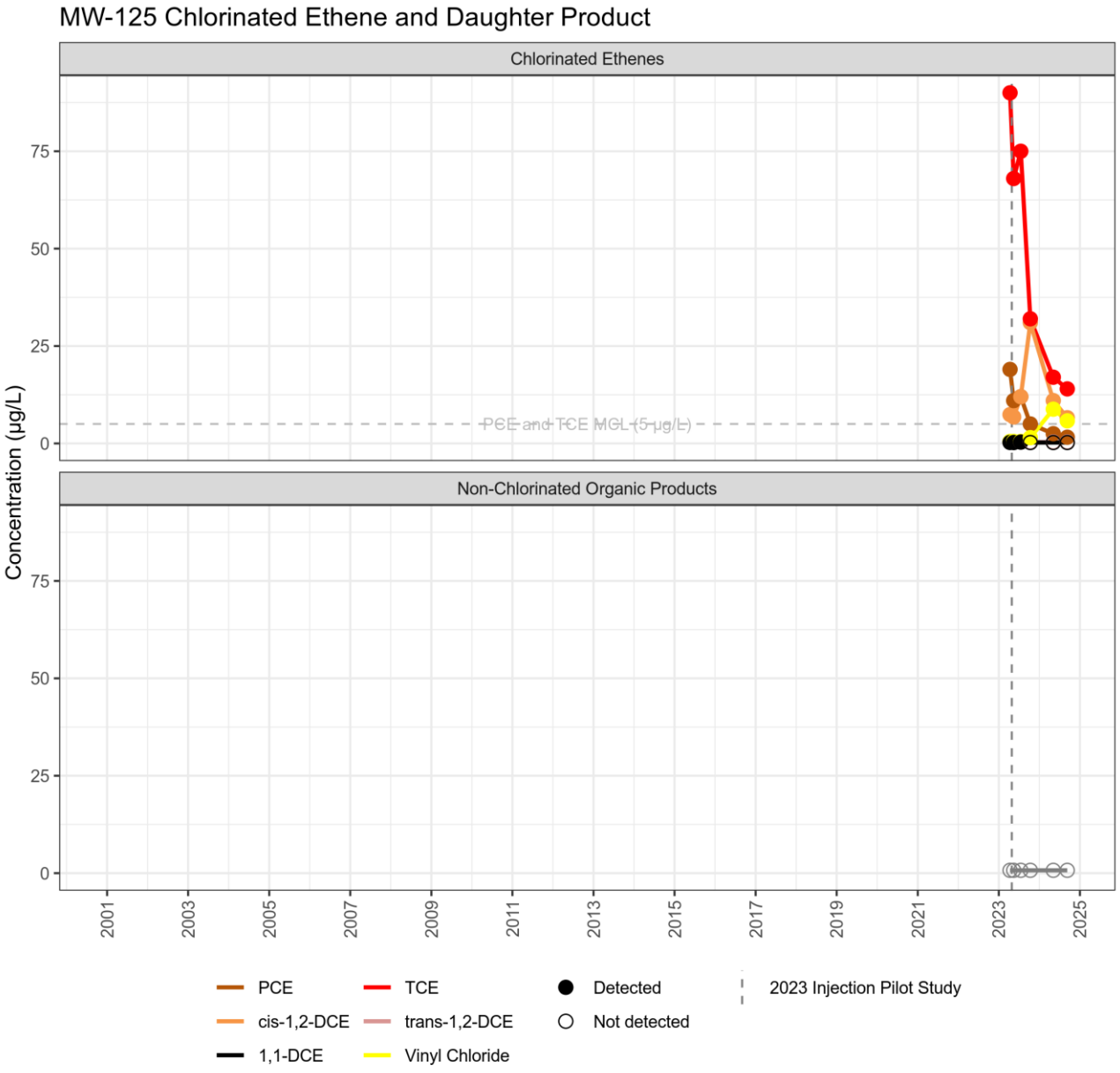
Water Quality



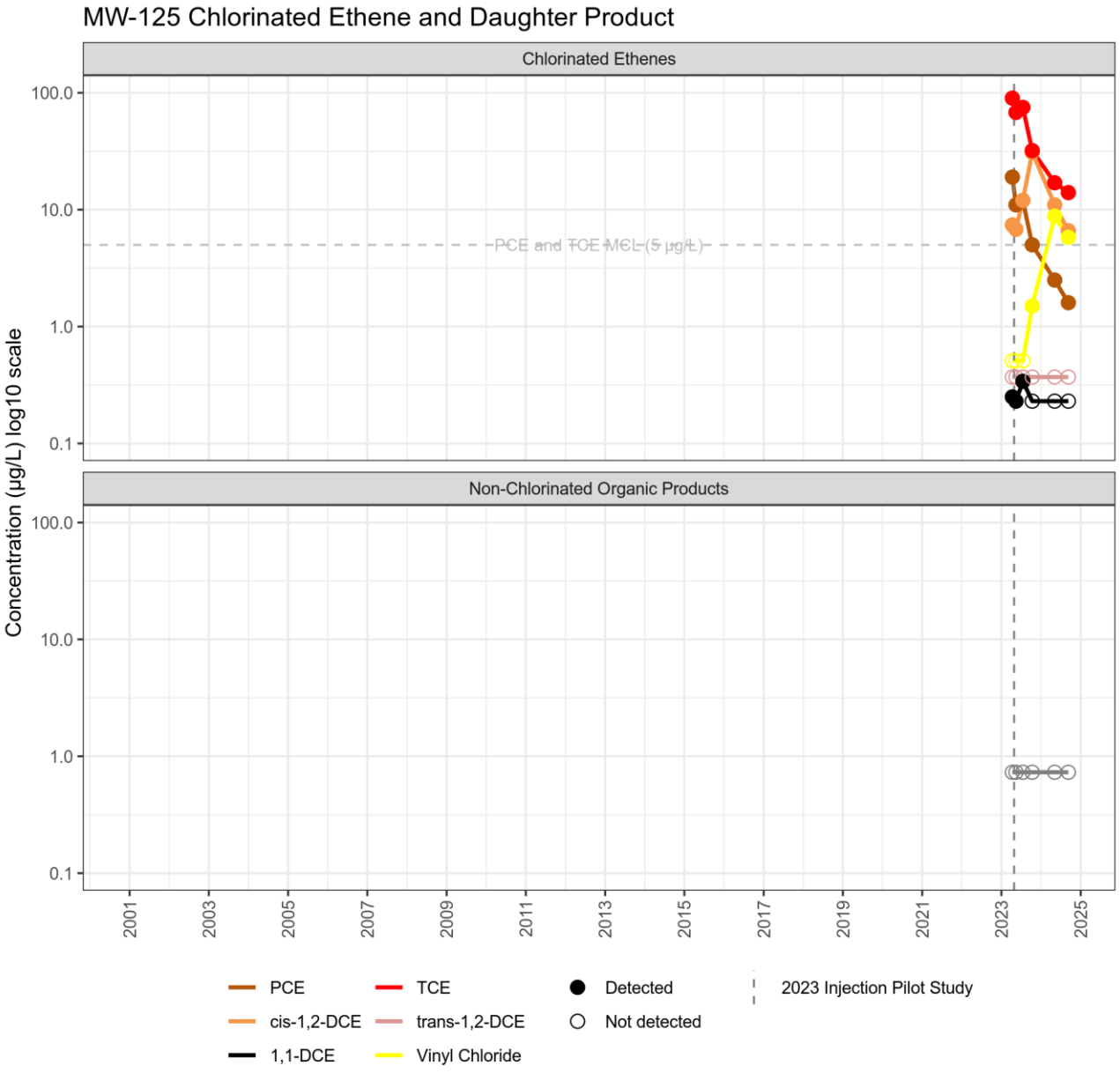
TOC and Redox Parameters



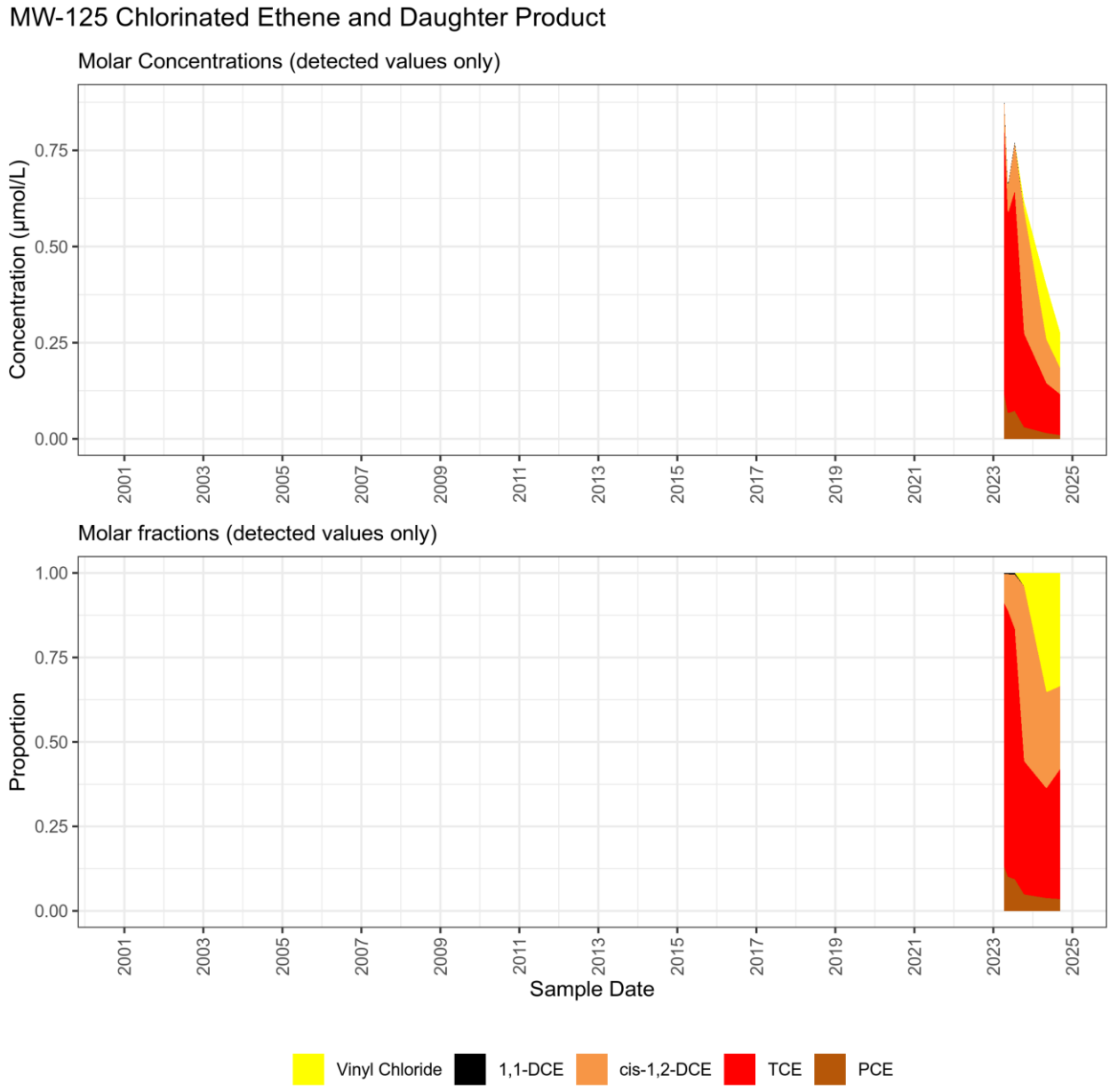
Chlorinated Ethene and Daughter Product Mass



Chlorinated Ethene and Daughter Product Mass (log10)

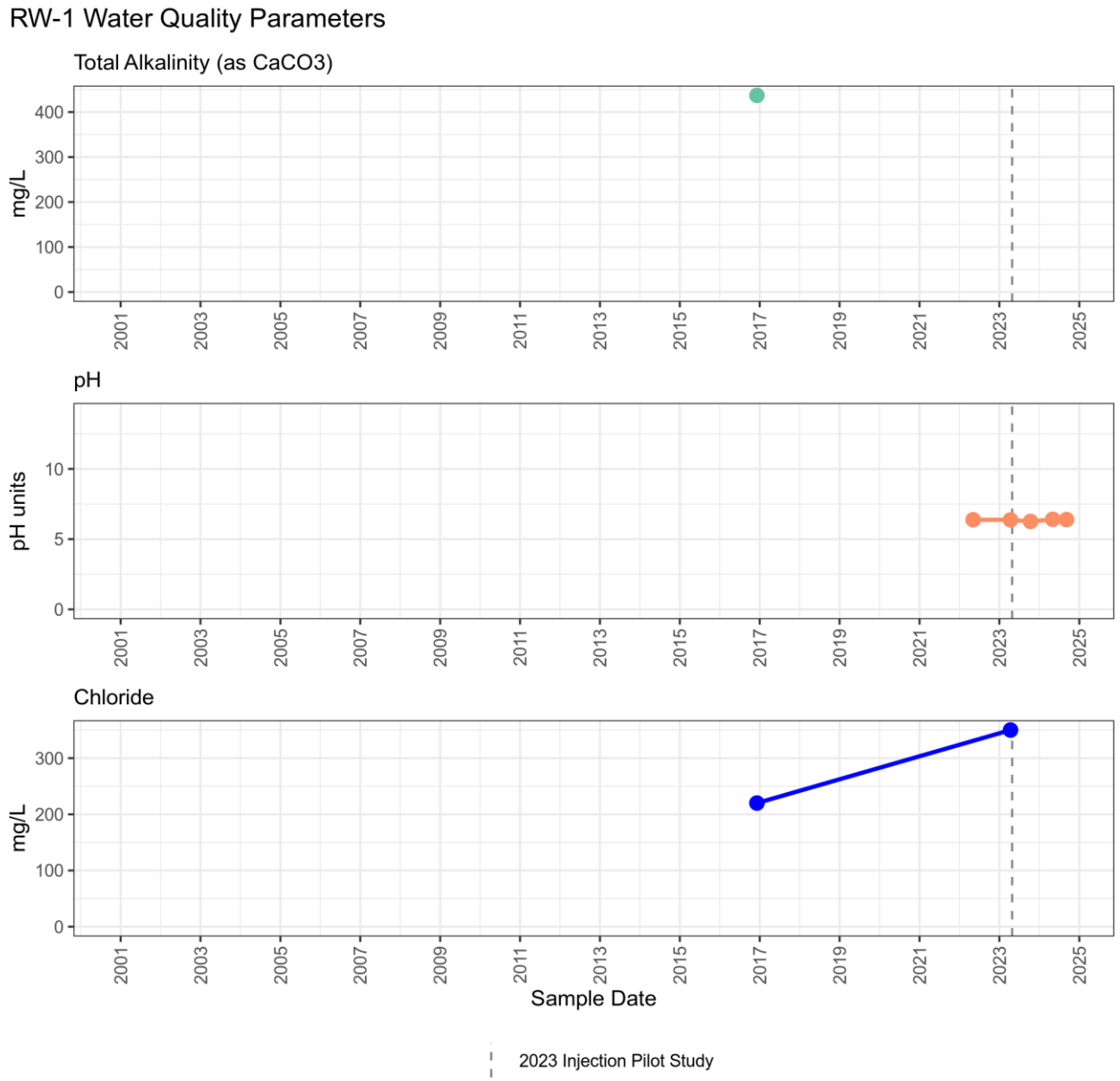


Chlorinated Ethene and Daughter Product Concentration

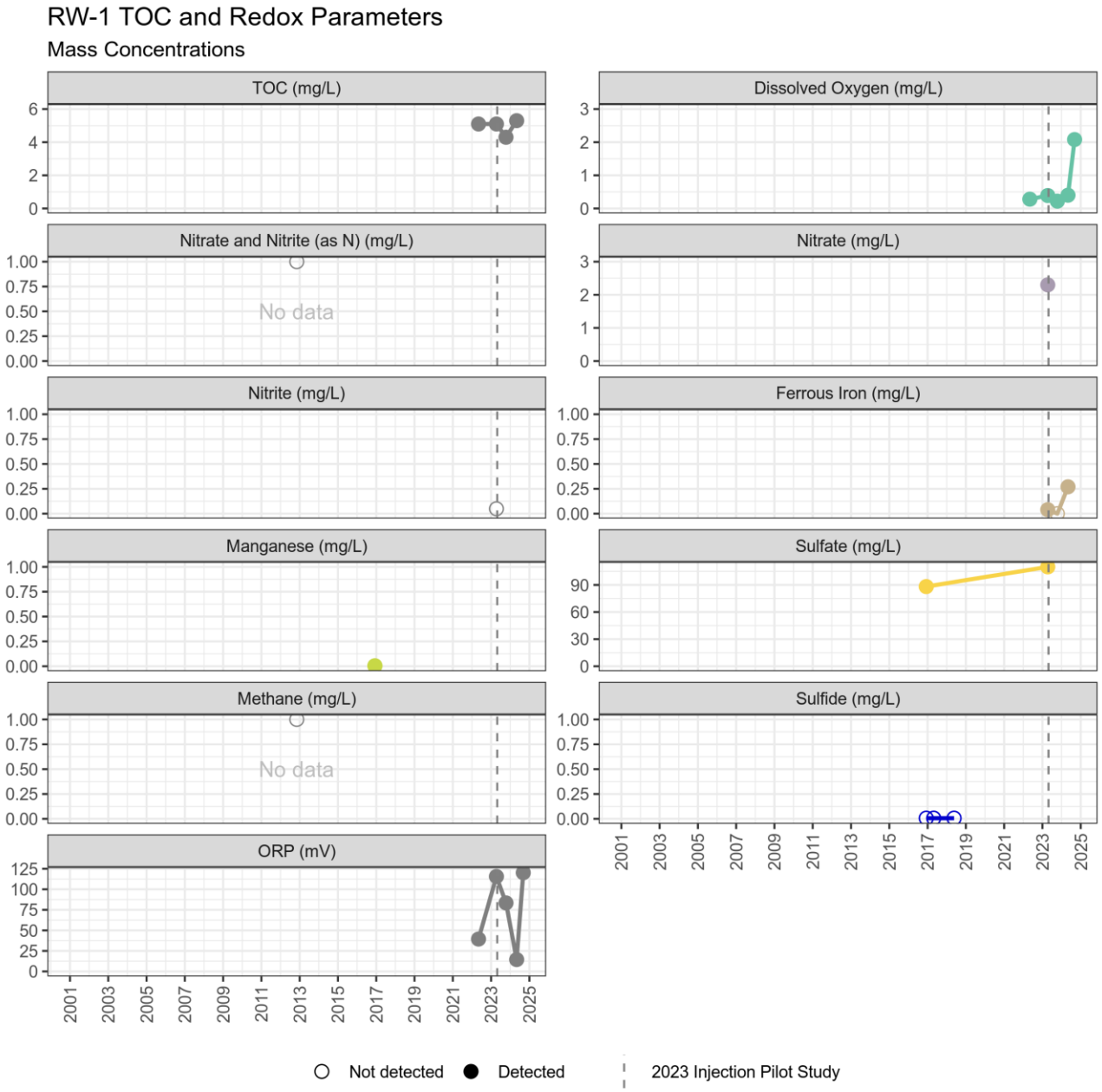


RW-1

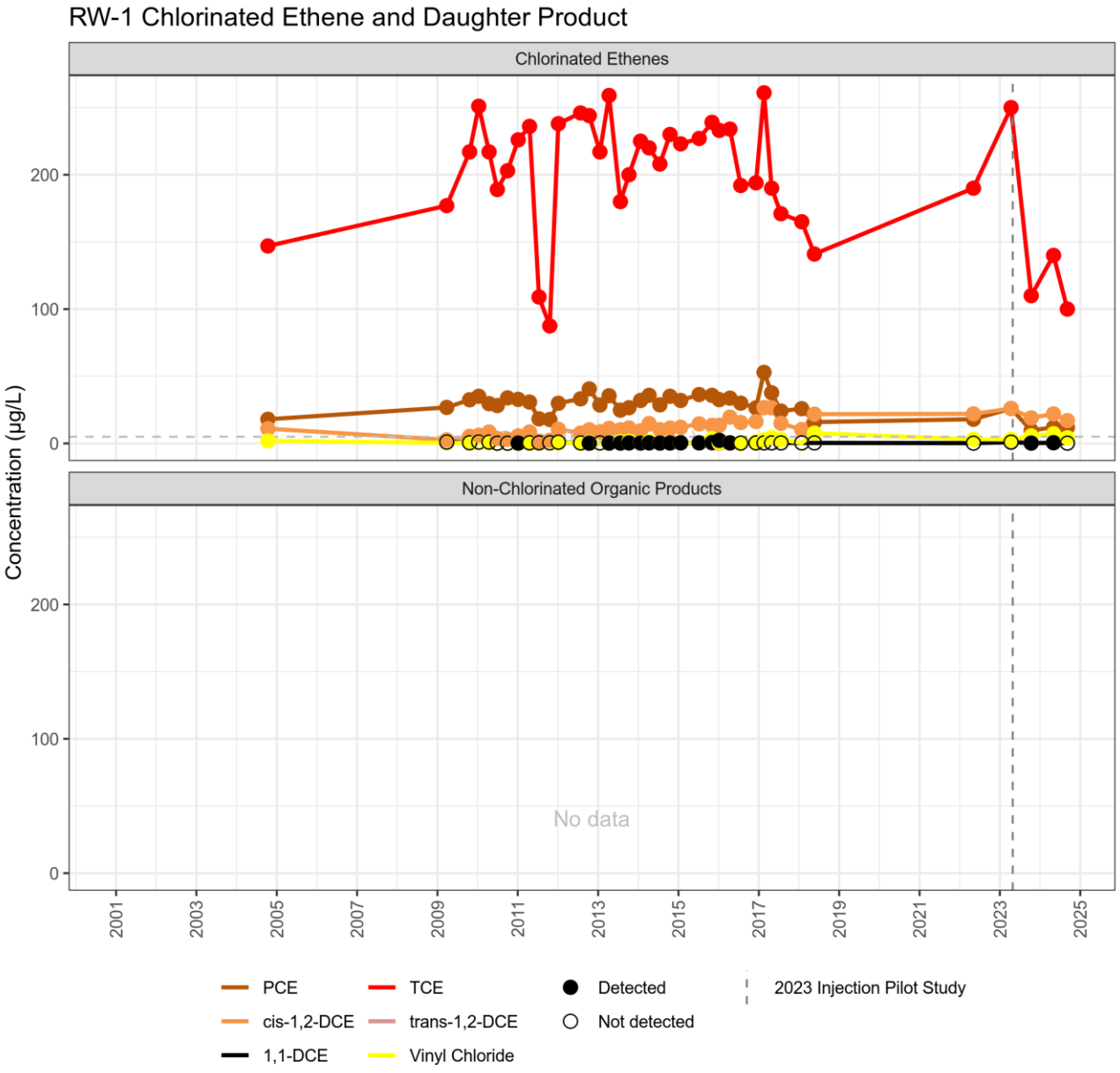
Water Quality



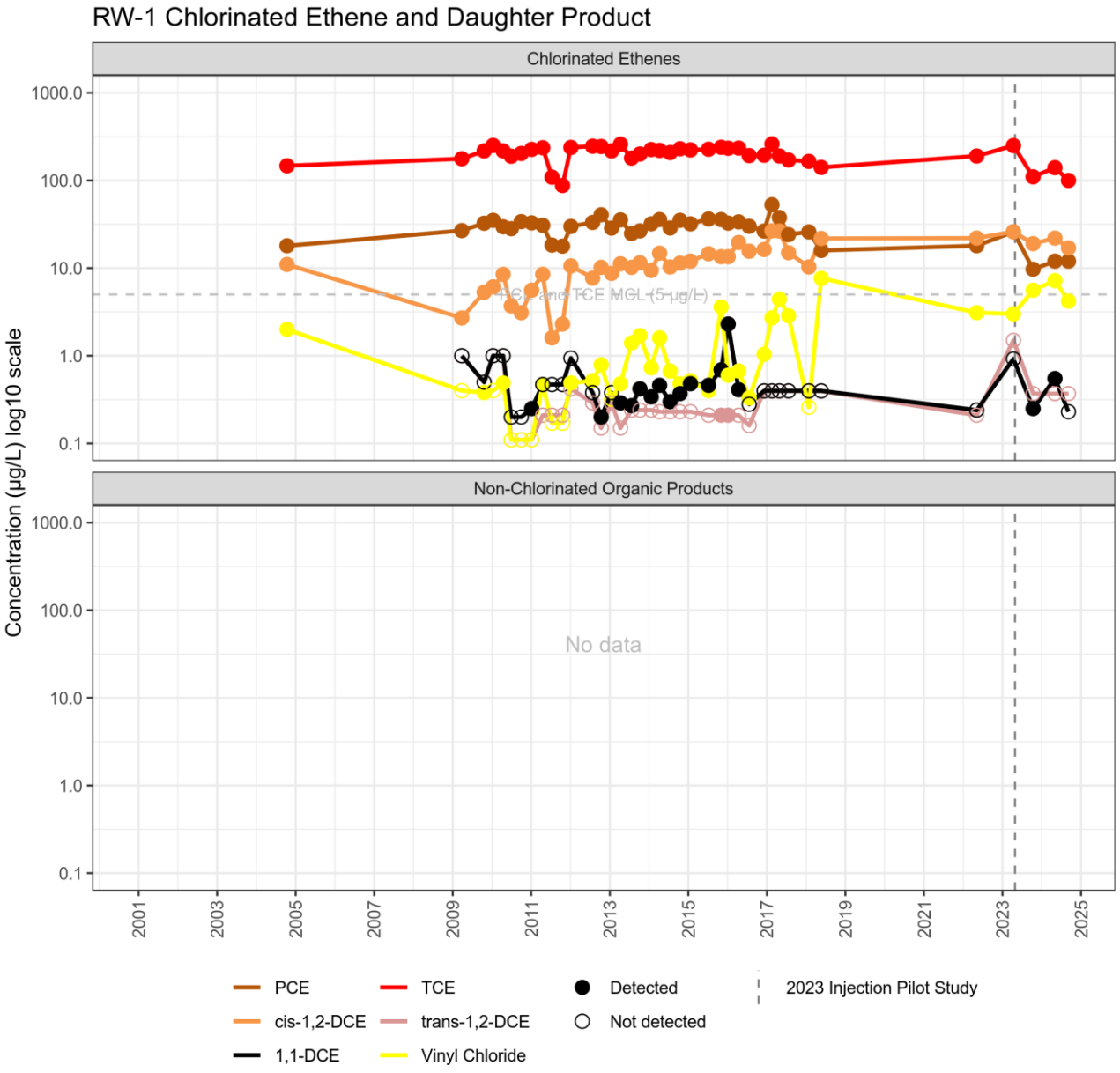
TOC and Redox Parameters



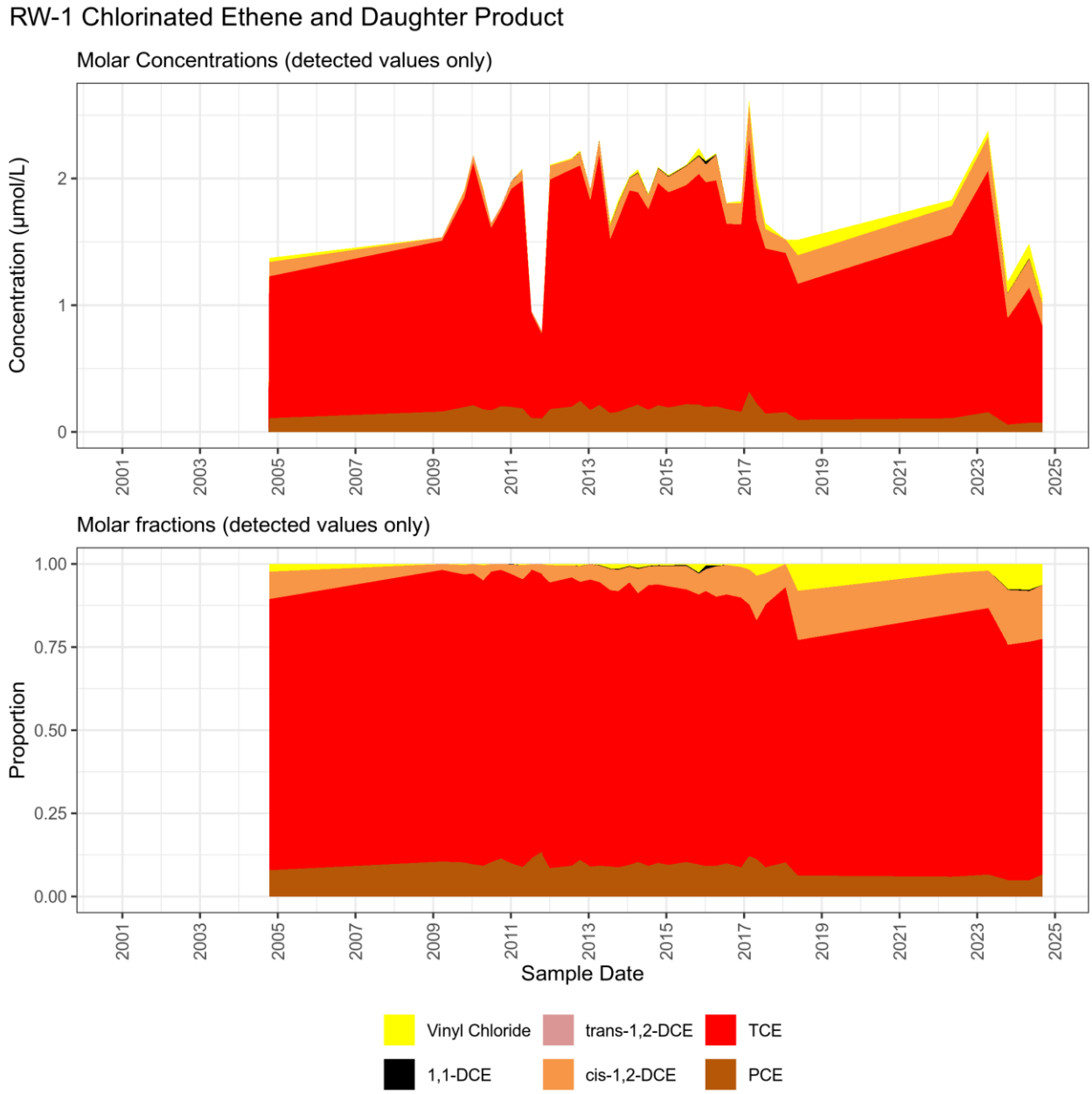
Chlorinated Ethene and Daughter Product Mass



Chlorinated Ethene and Daughter Product Mass (log10)

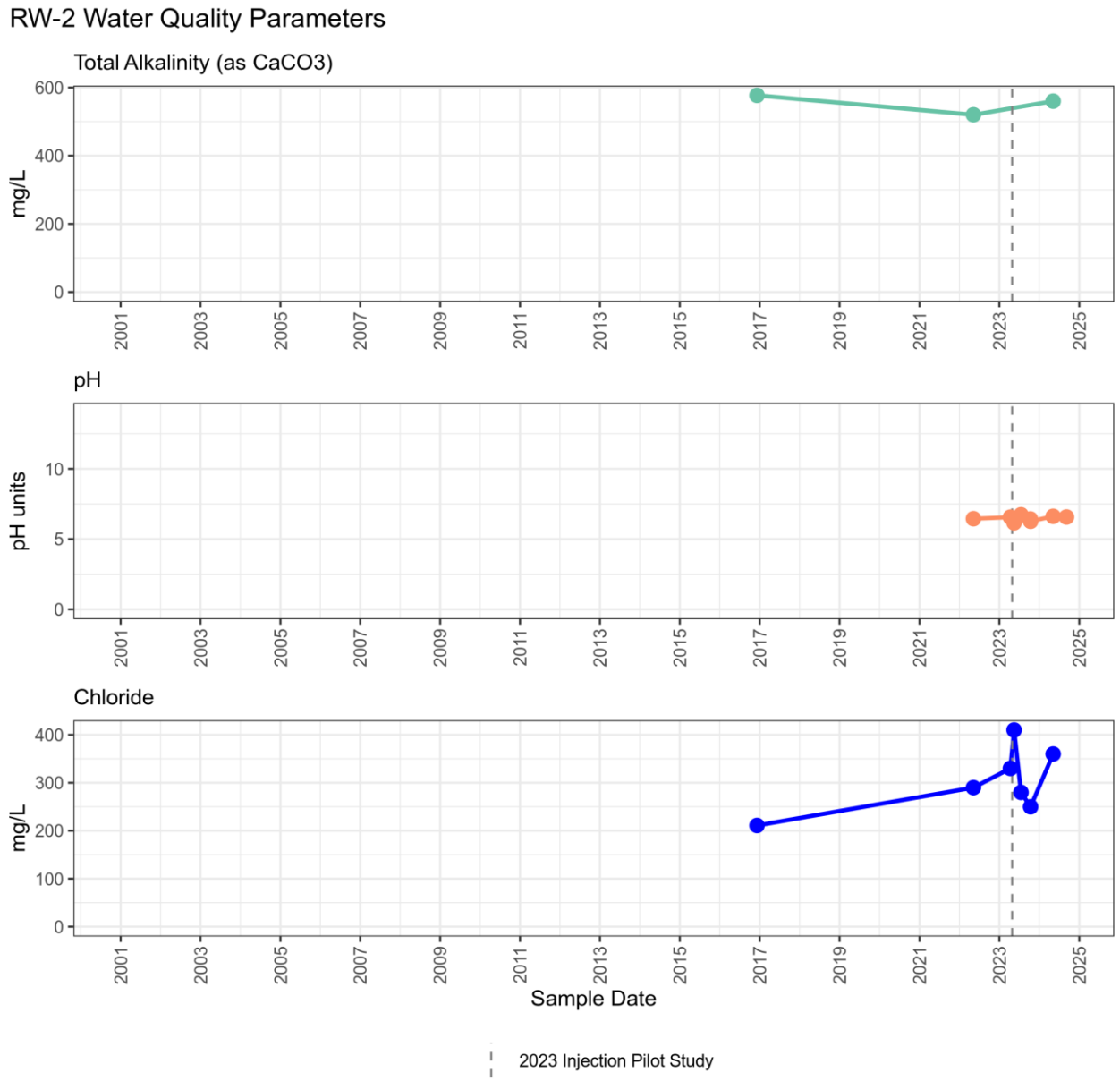


Chlorinated Ethene and Daughter Product Concentration

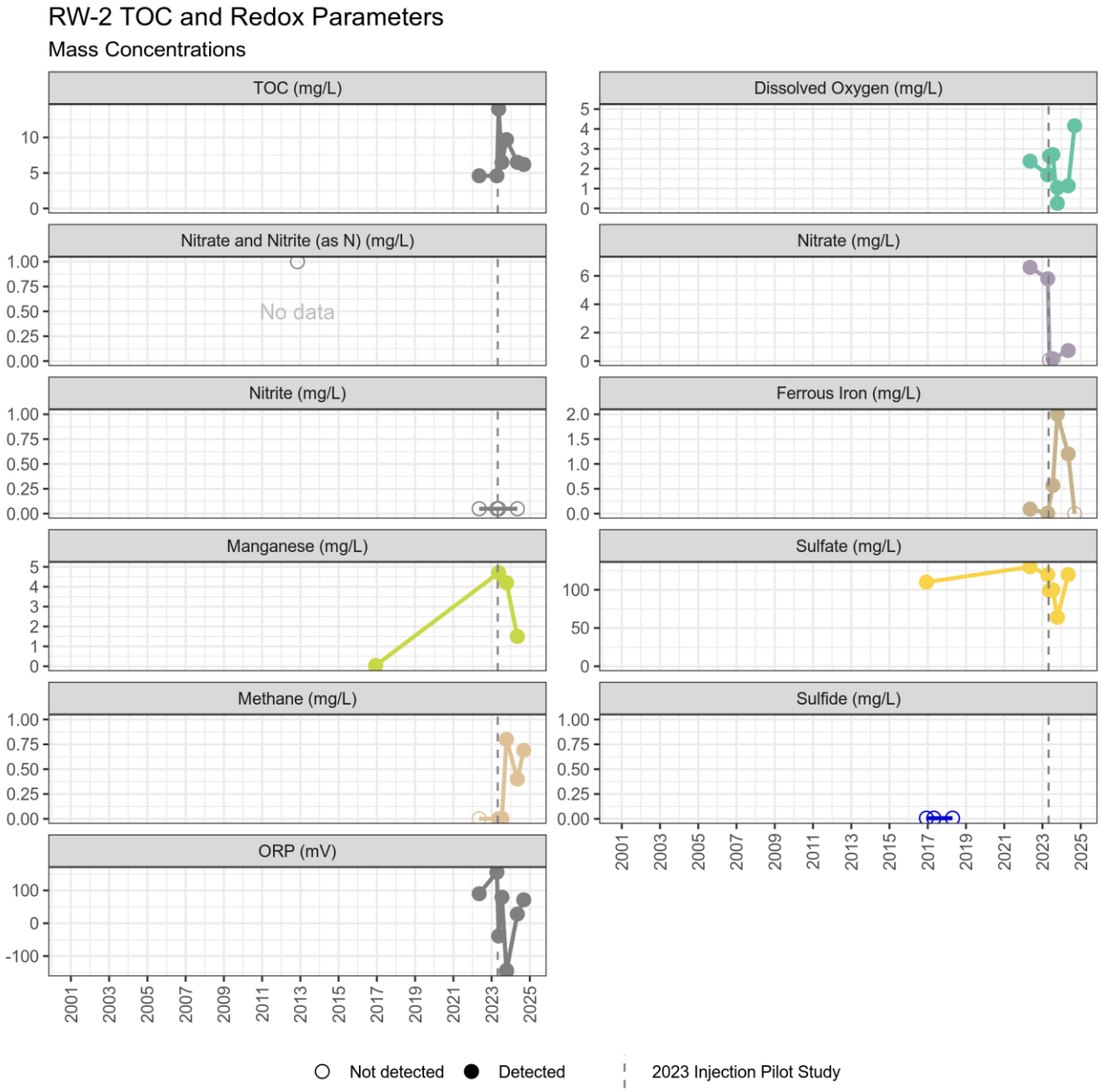


RW-2

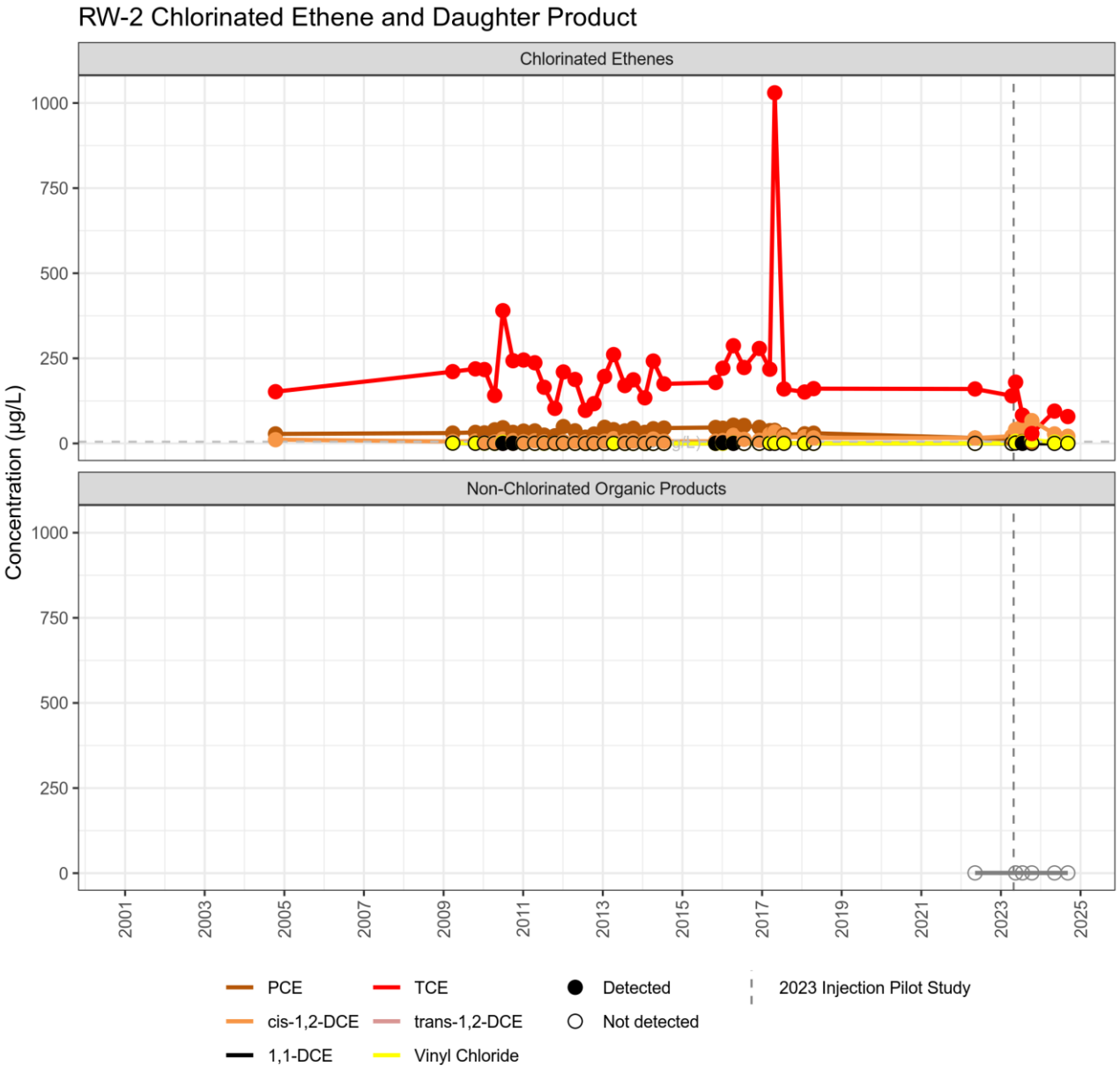
Water Quality



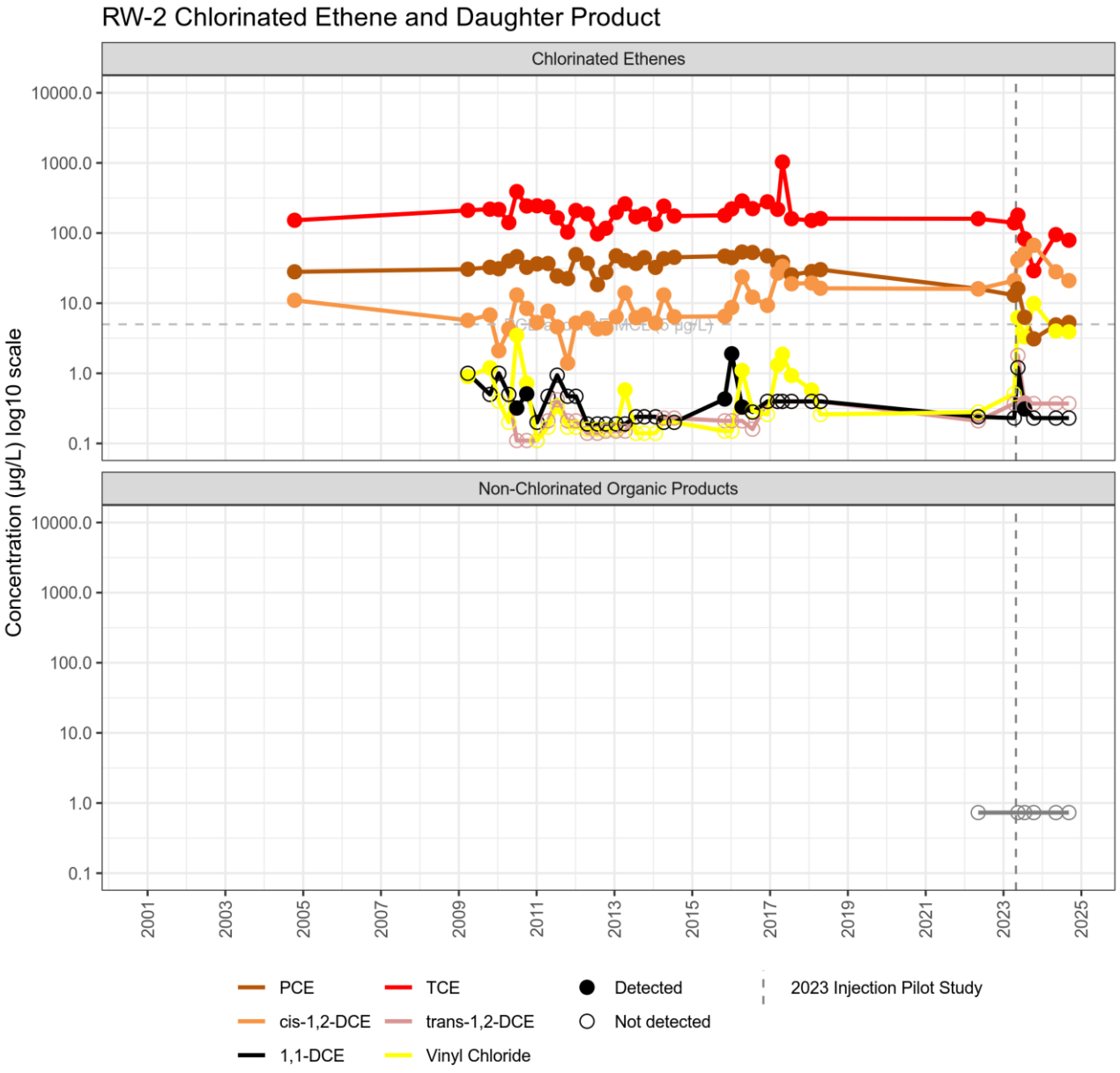
TOC and Redox Parameters



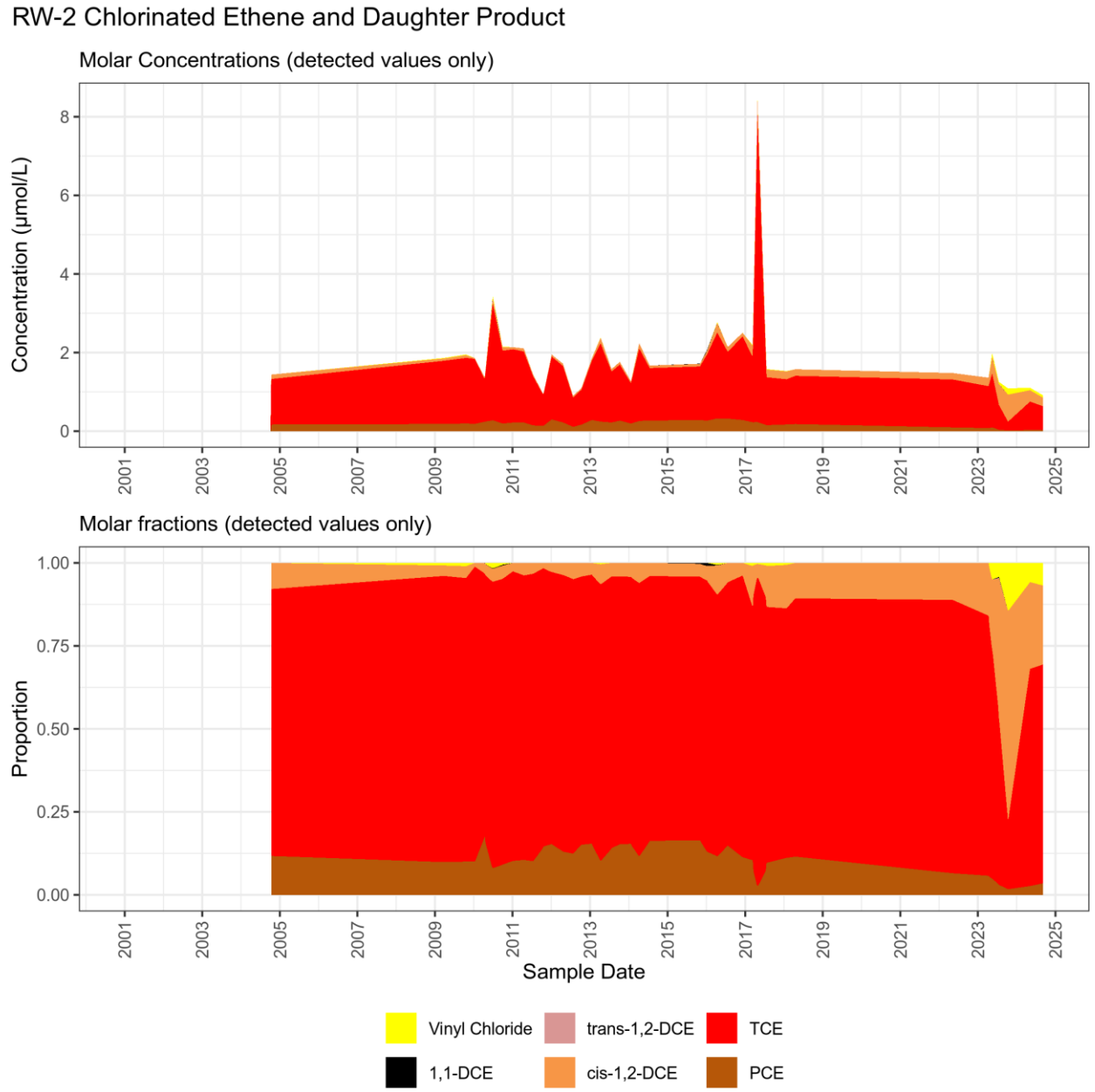
Chlorinated Ethene and Daughter Product Mass



Chlorinated Ethene and Daughter Product Mass (log10)

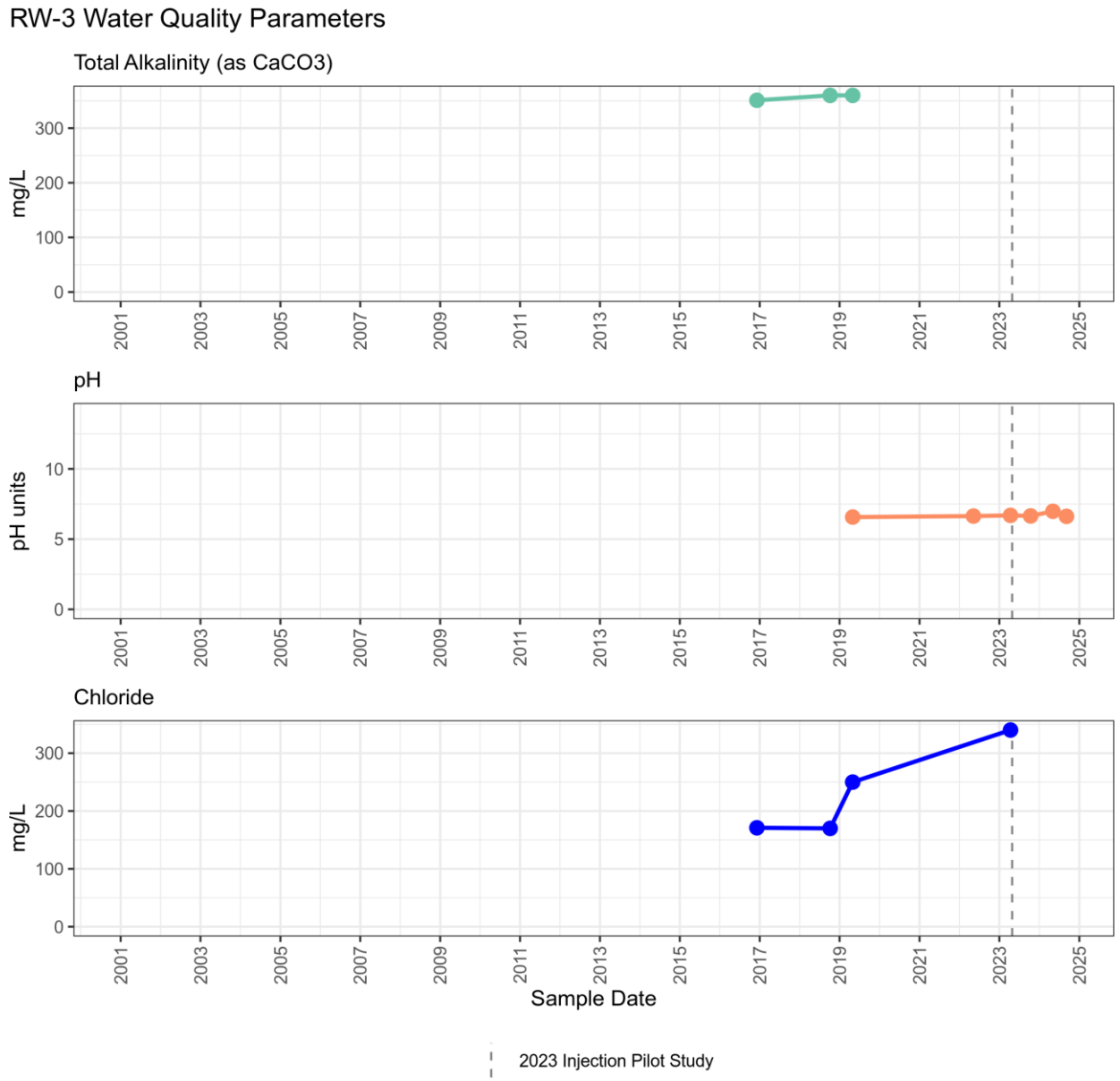


Chlorinated Ethene and Daughter Product Concentration

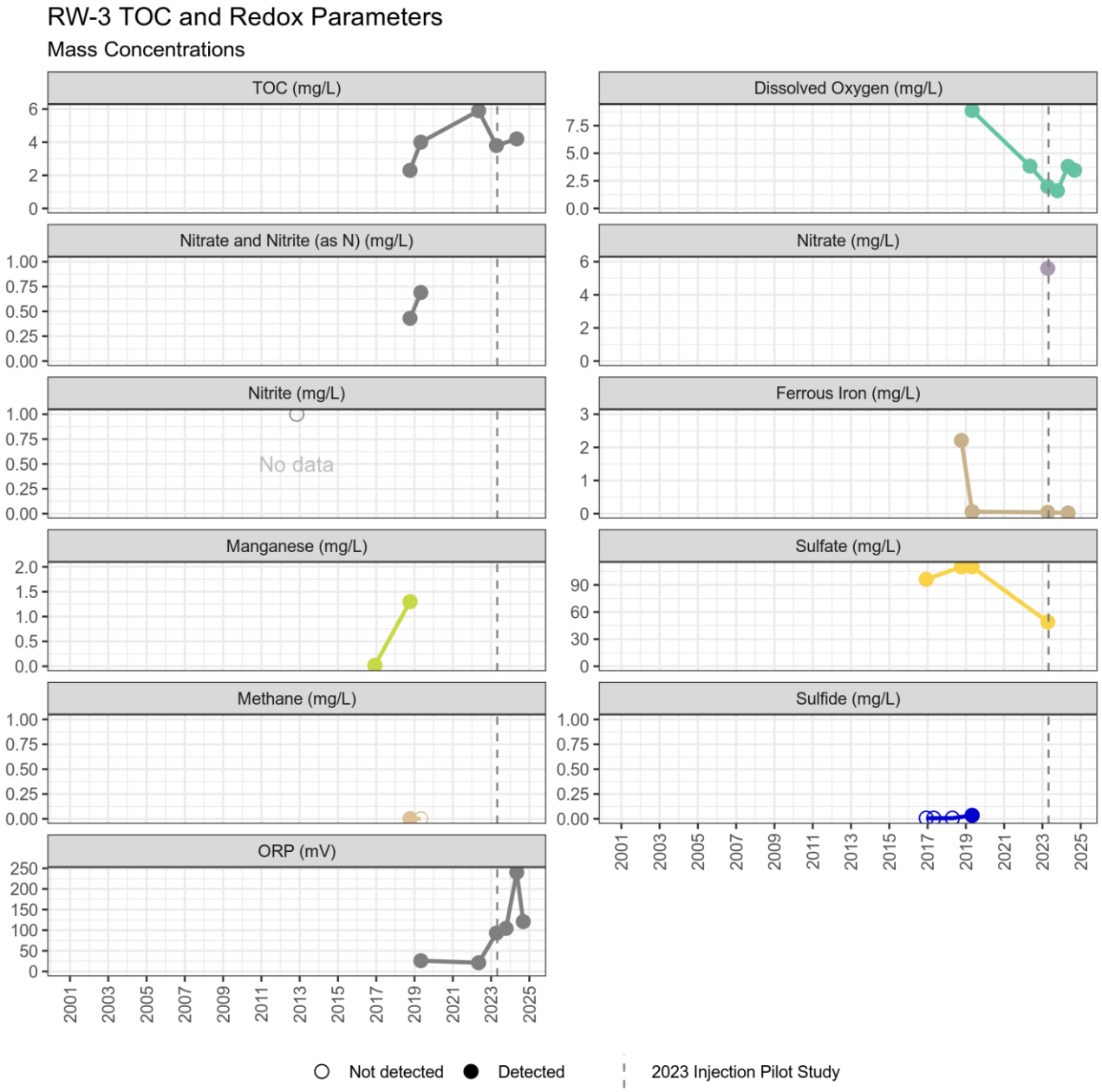


RW-3

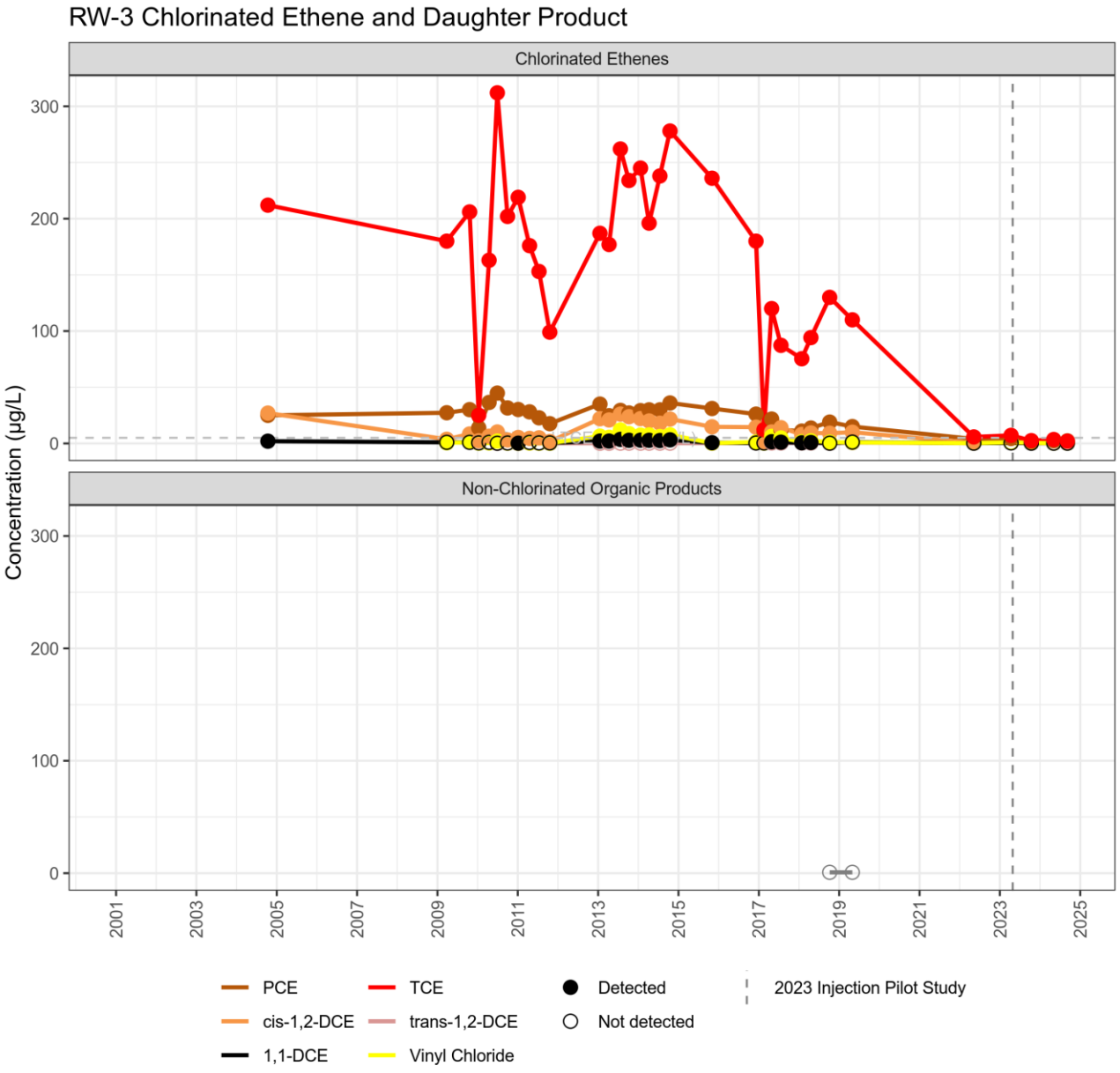
Water Quality



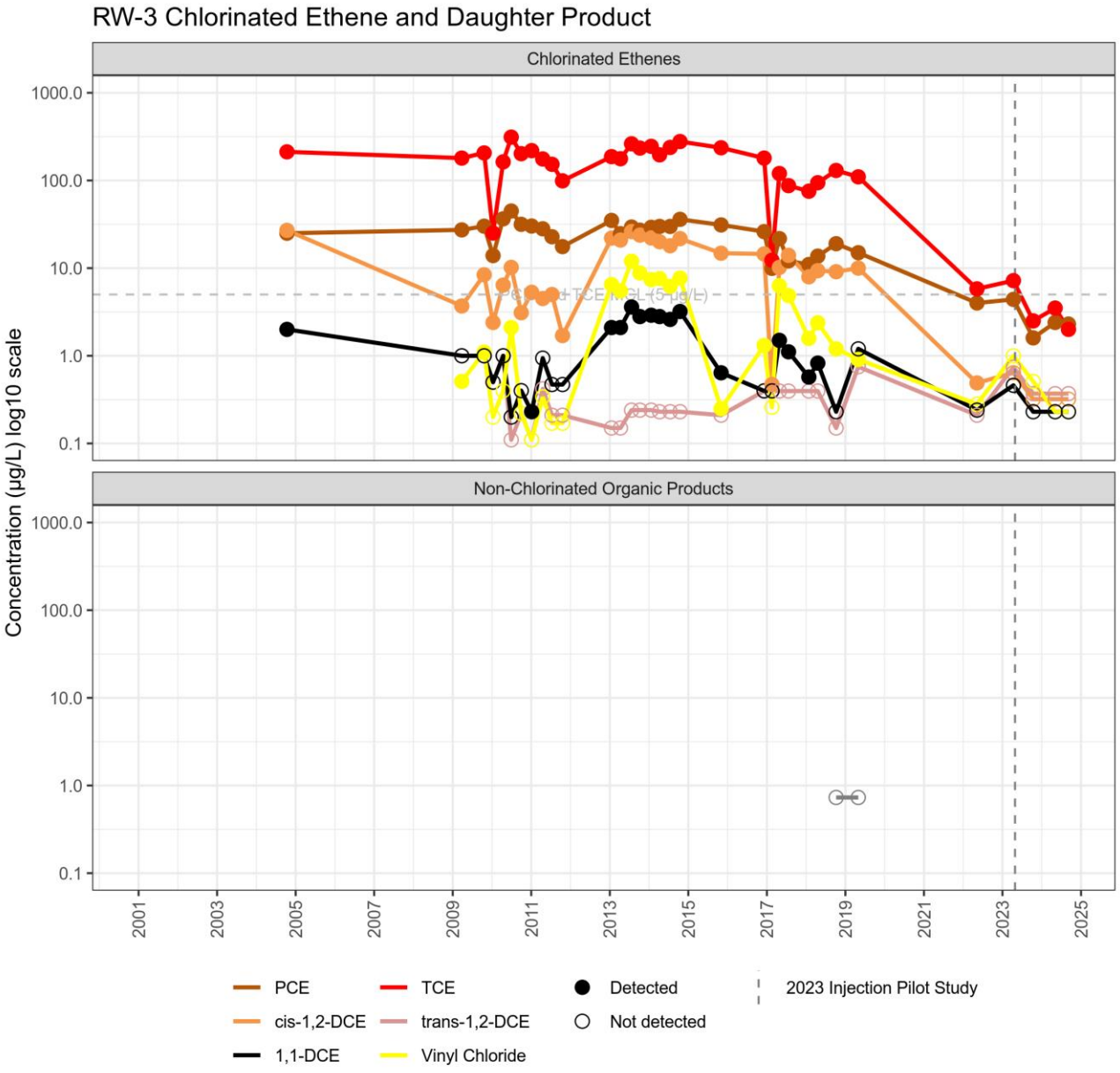
TOC and Redox Parameters



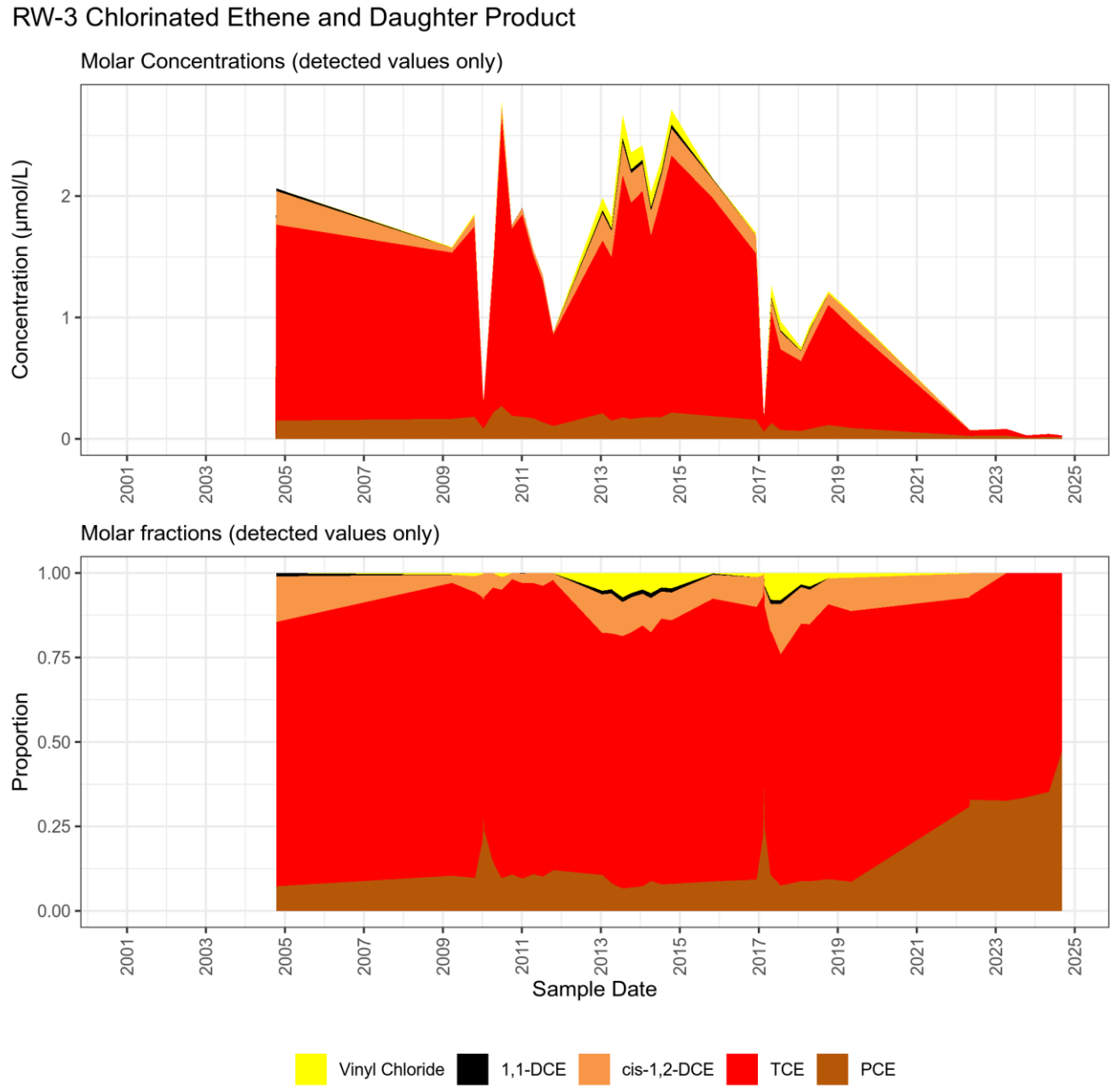
Chlorinated Ethene and Daughter Product Mass



Chlorinated Ethene and Daughter Product Mass (log10)



Chlorinated Ethene and Daughter Product Concentration



Chlorinated Ethenes and Geochemistry Time Series Plots - Cell 2 Monitoring Well

Data filters

This report is filtered to only include:

- **MW-8, MW-9, MW-12, and MW-13** from **Cell 2 Monitoring Well**
- Results from **02 January 2001** to **10 September 2024**

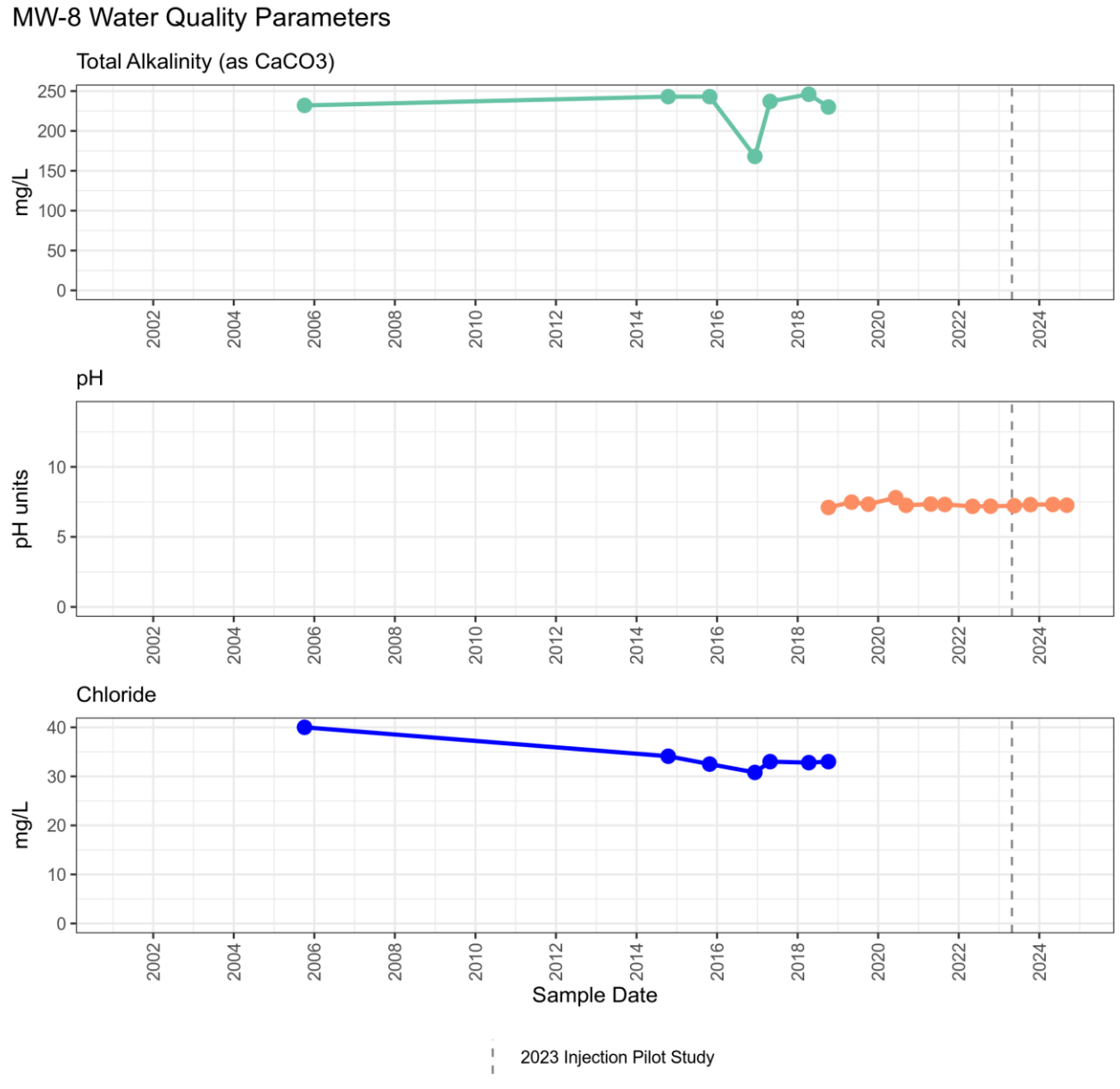
Graph notes

- When only the year is shown in the x-axis label, this represents the start of the year
- The molar concentration graphs only plot detected data
- ORP values that are negative cannot be put in to a log10 scale graph and will not show.

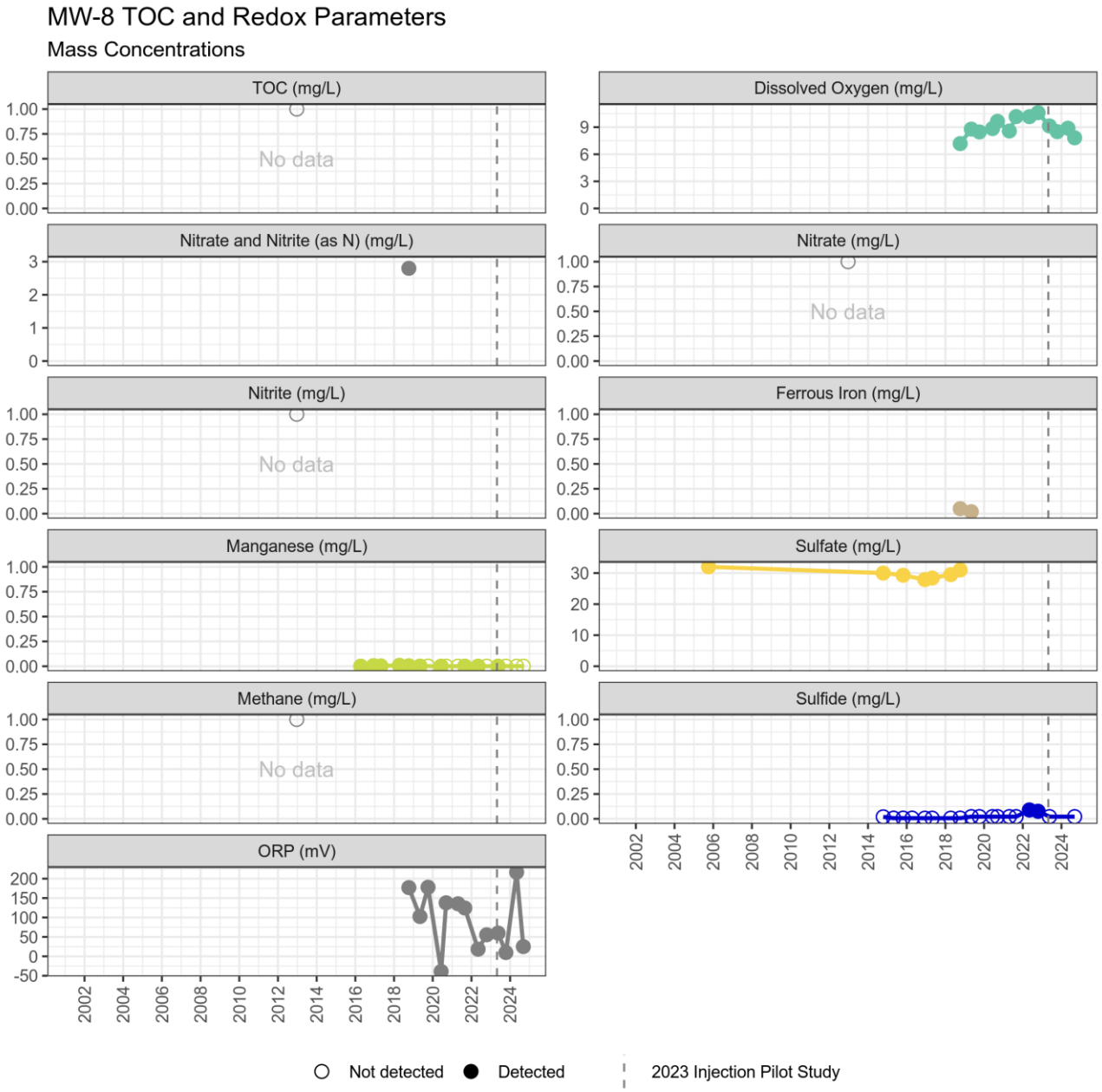
Well summaries

MW-8

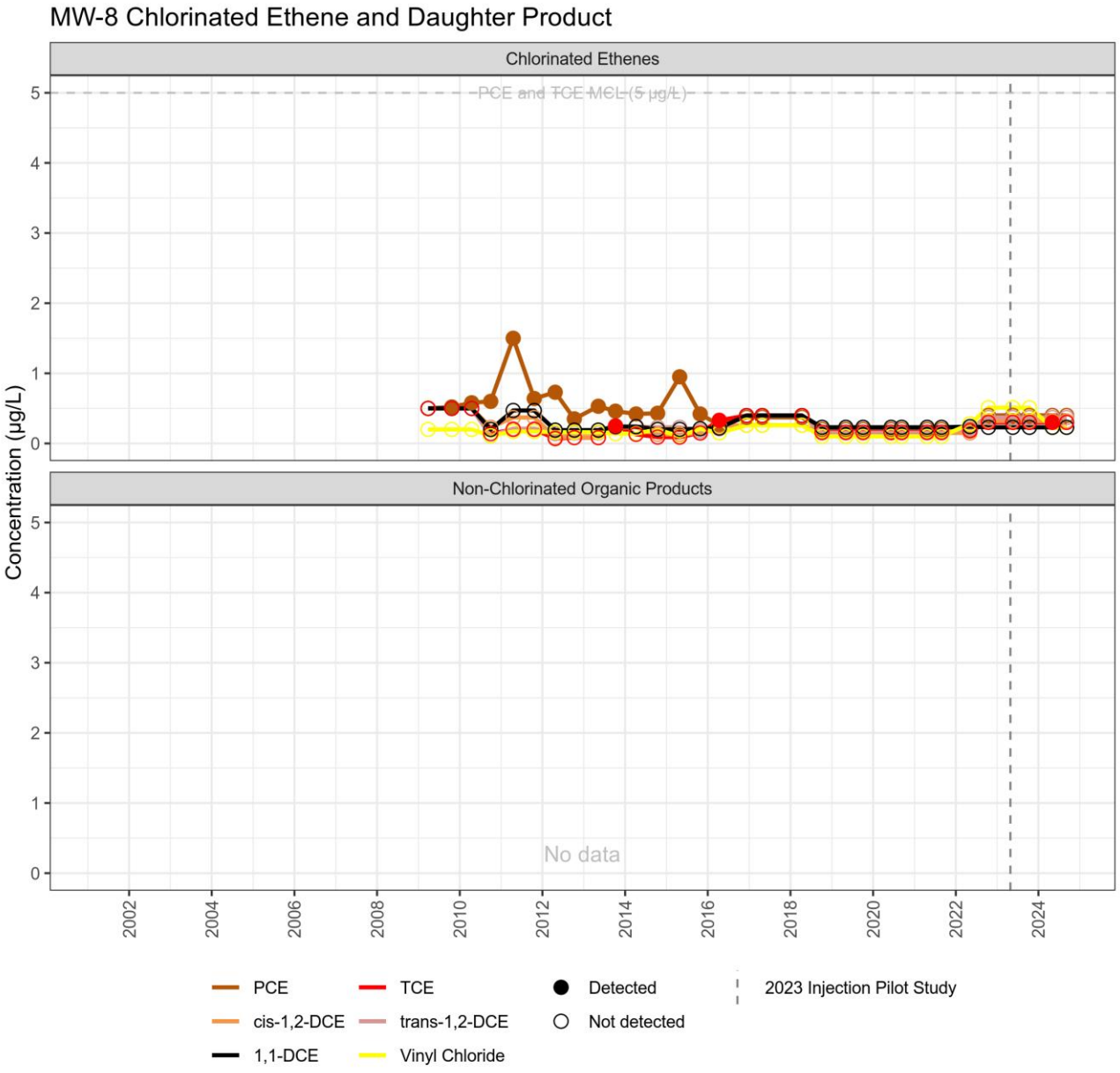
Water Quality



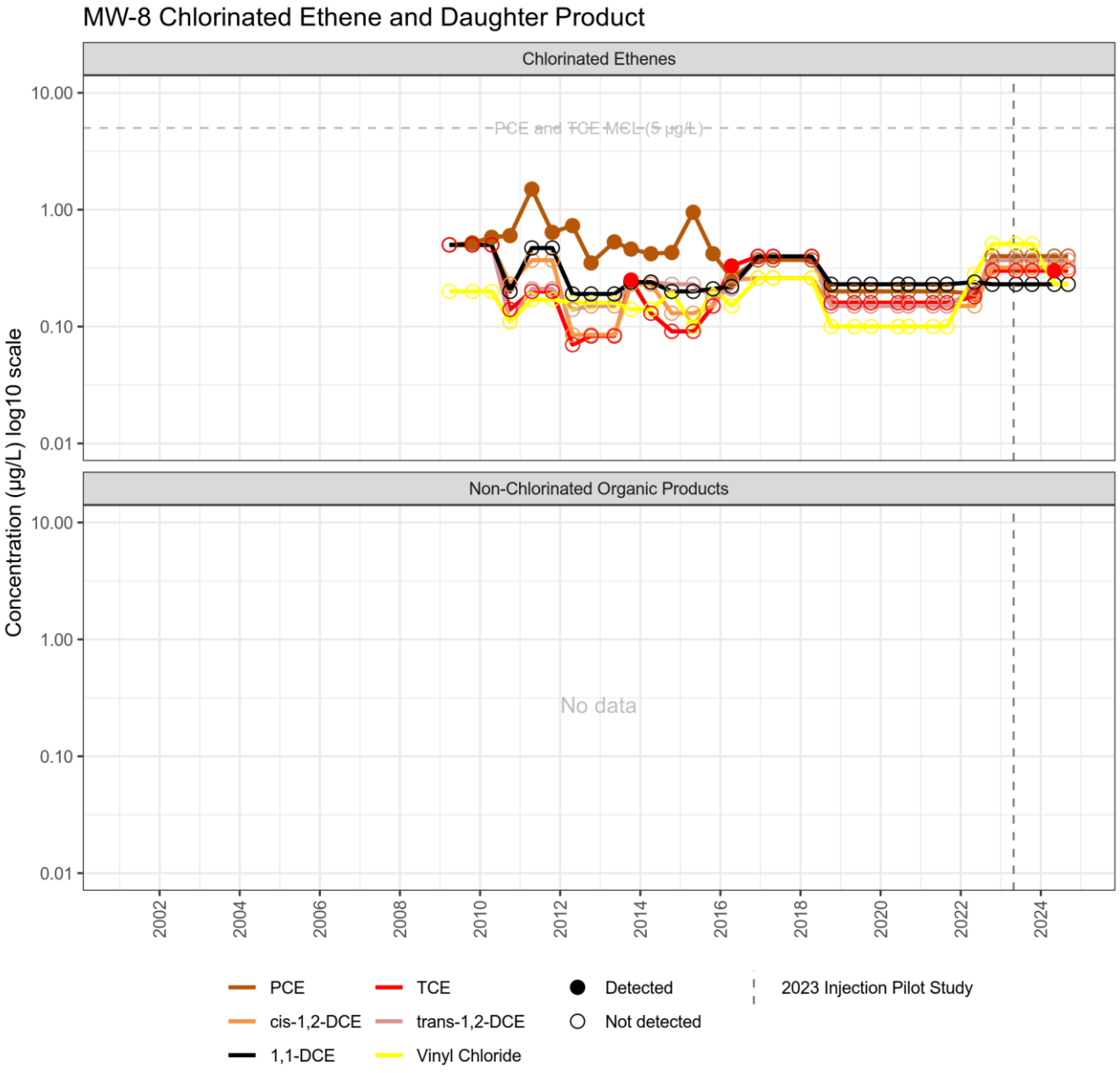
TOC and Redox Parameters



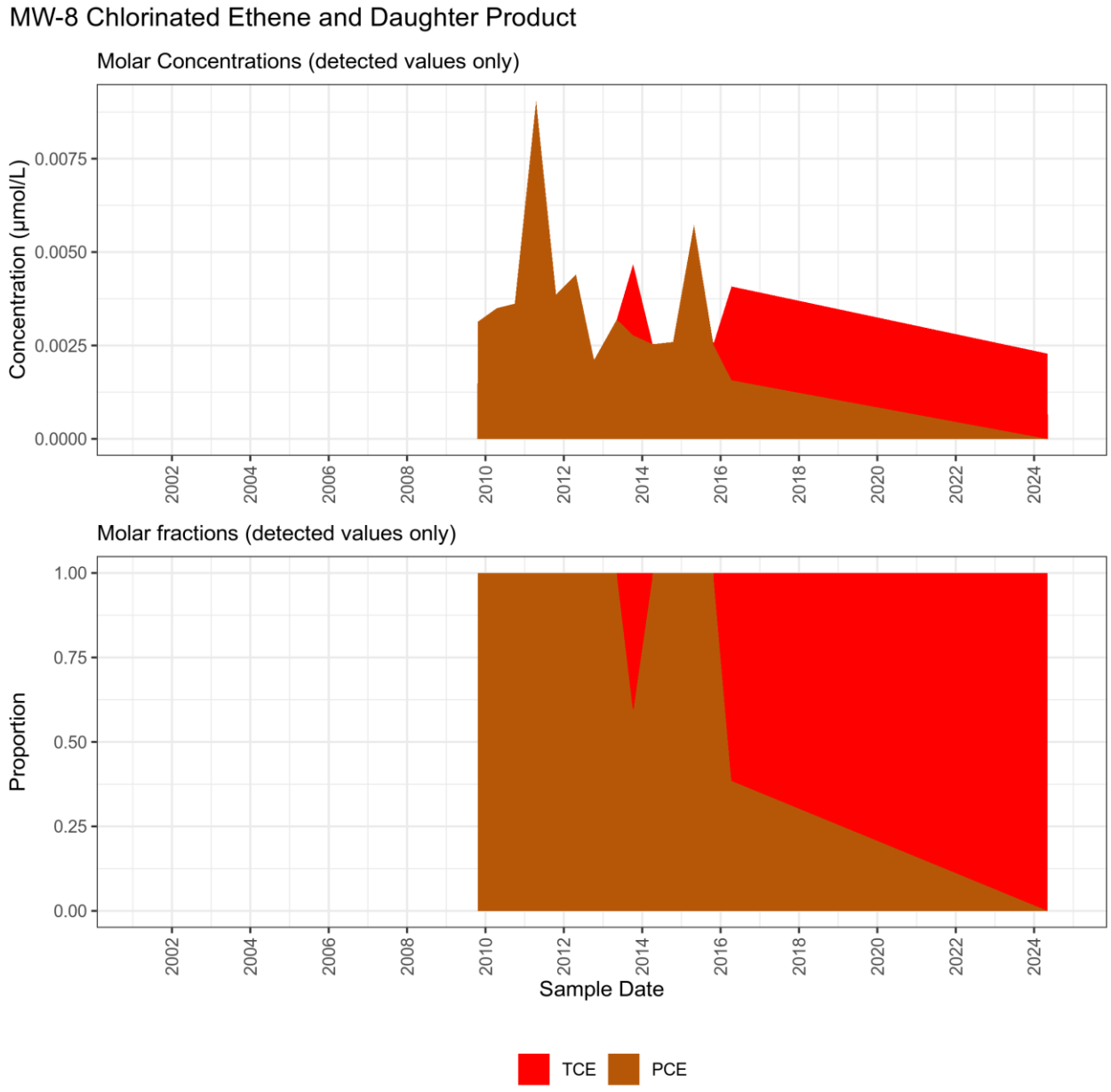
Chlorinated Ethene and Daughter Product Mass



Chlorinated Ethene and Daughter Product Mass (log10)

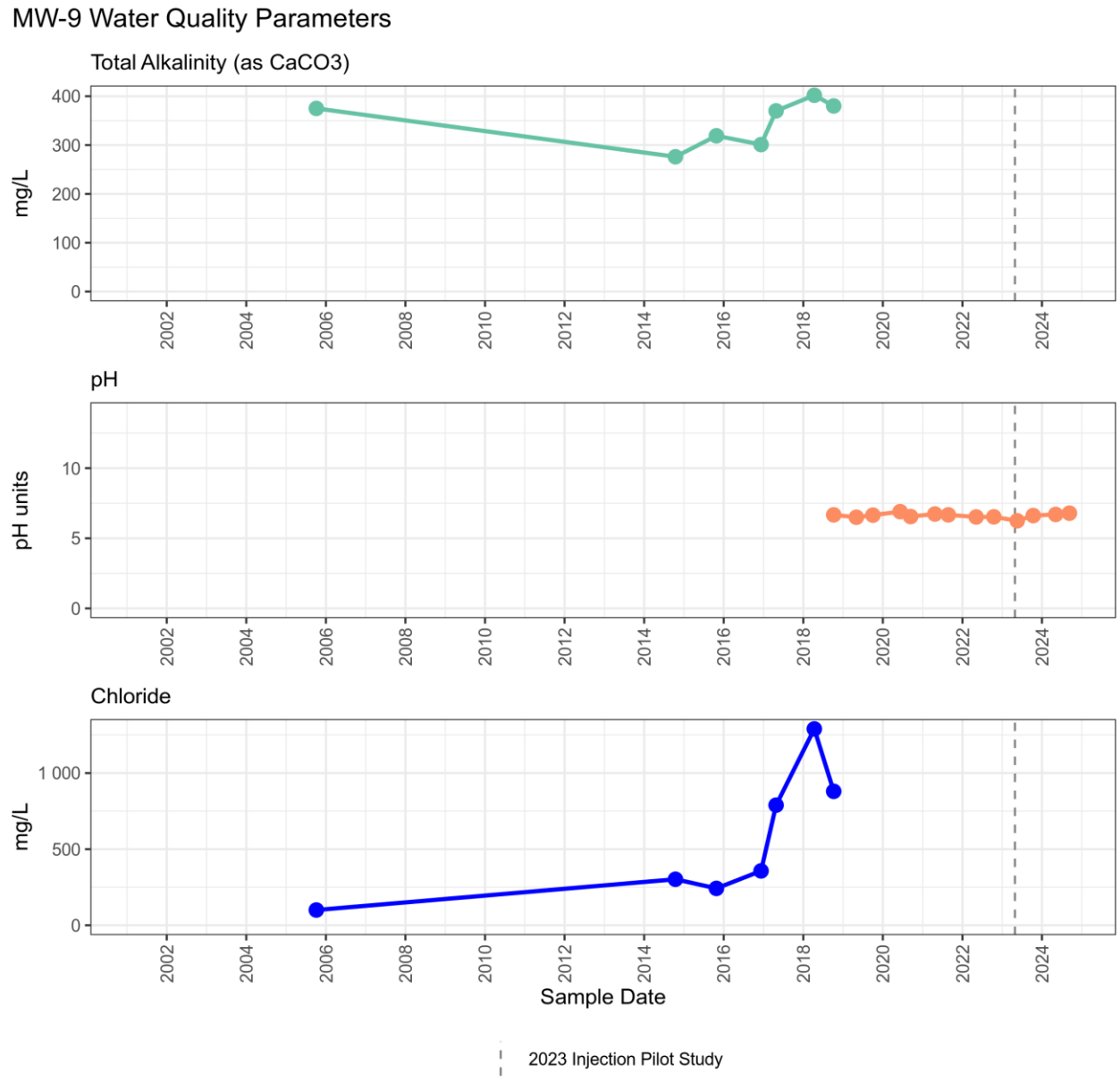


Chlorinated Ethene and Daughter Product Concentration

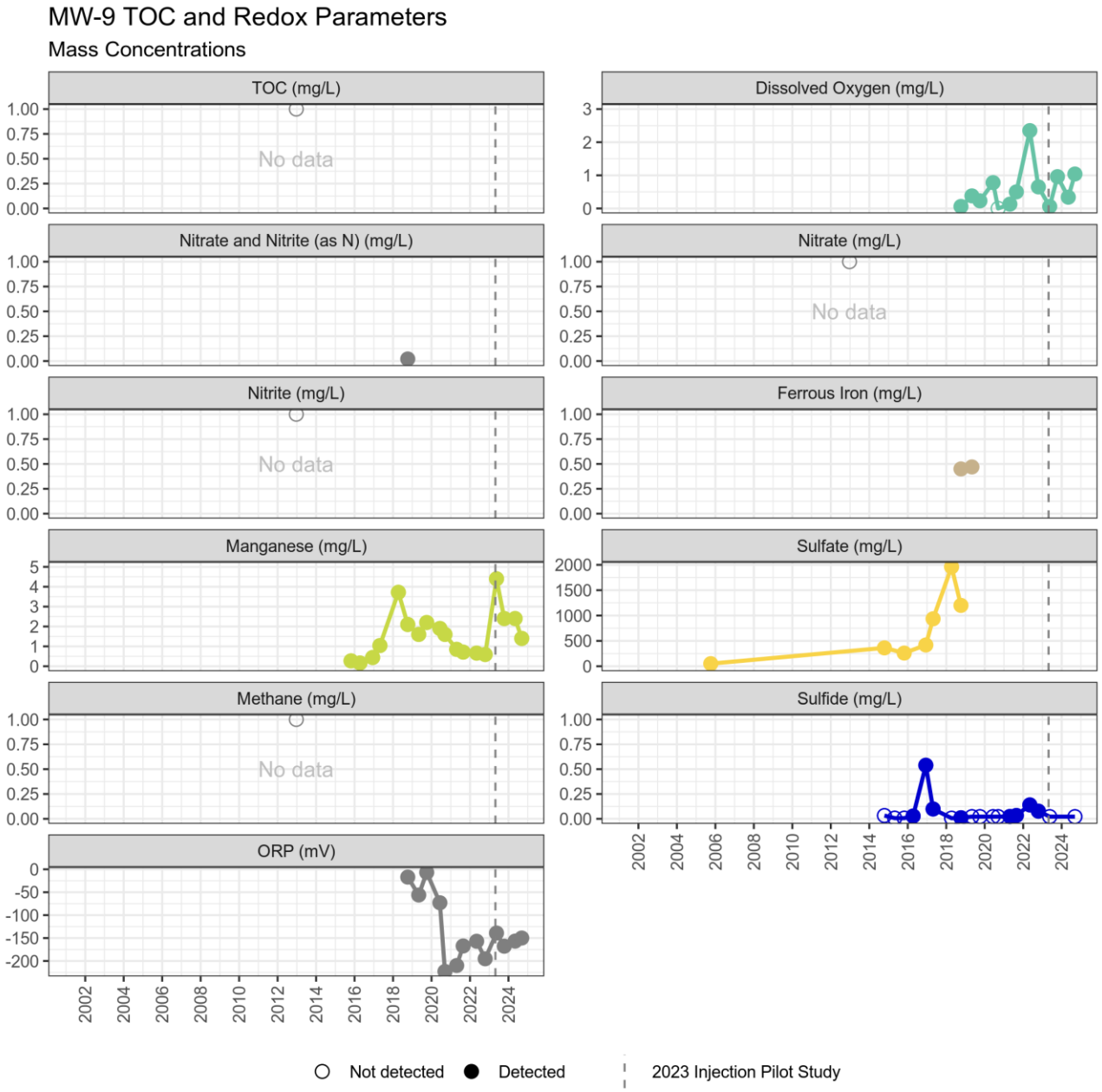


MW-9

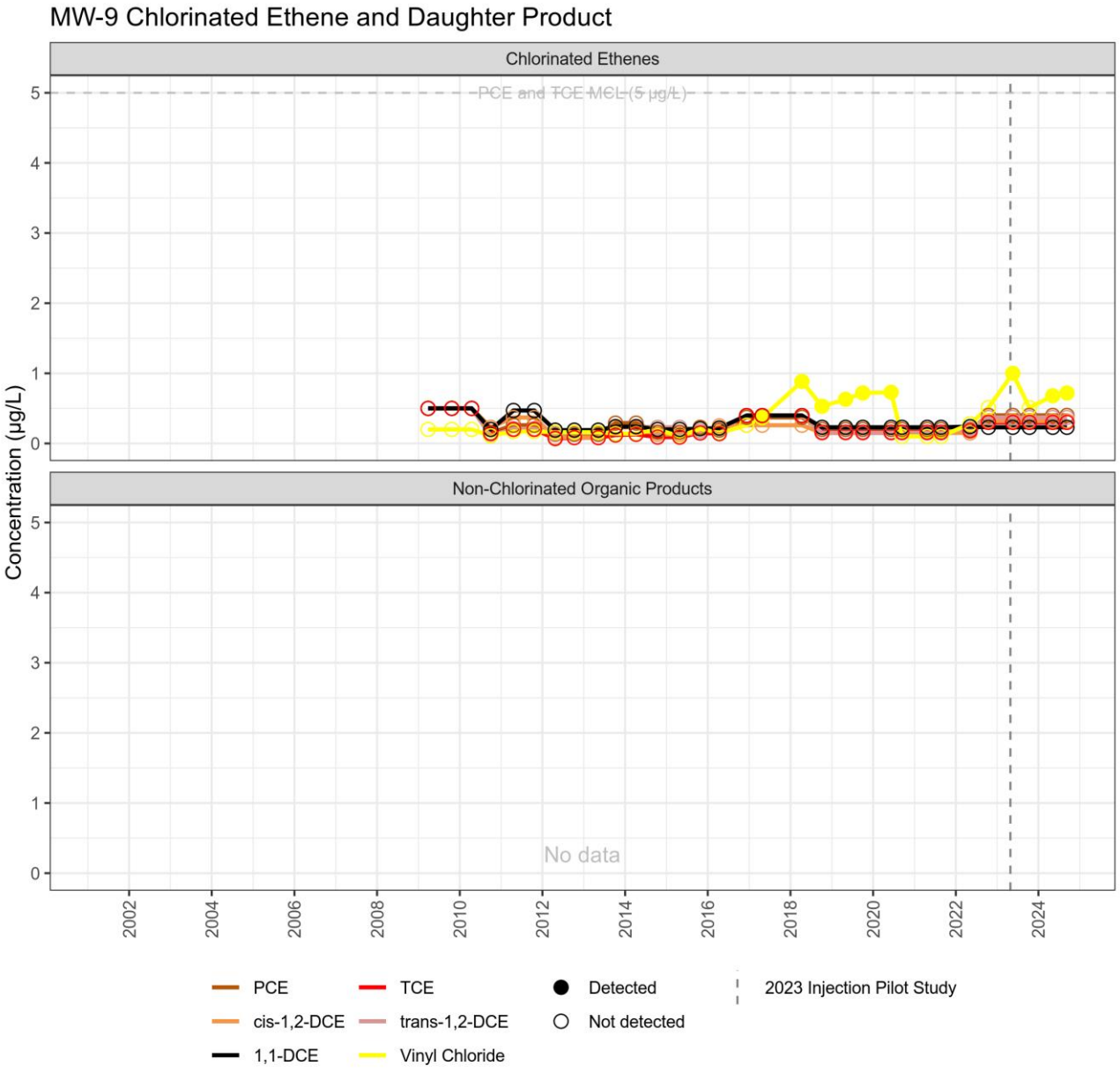
Water Quality



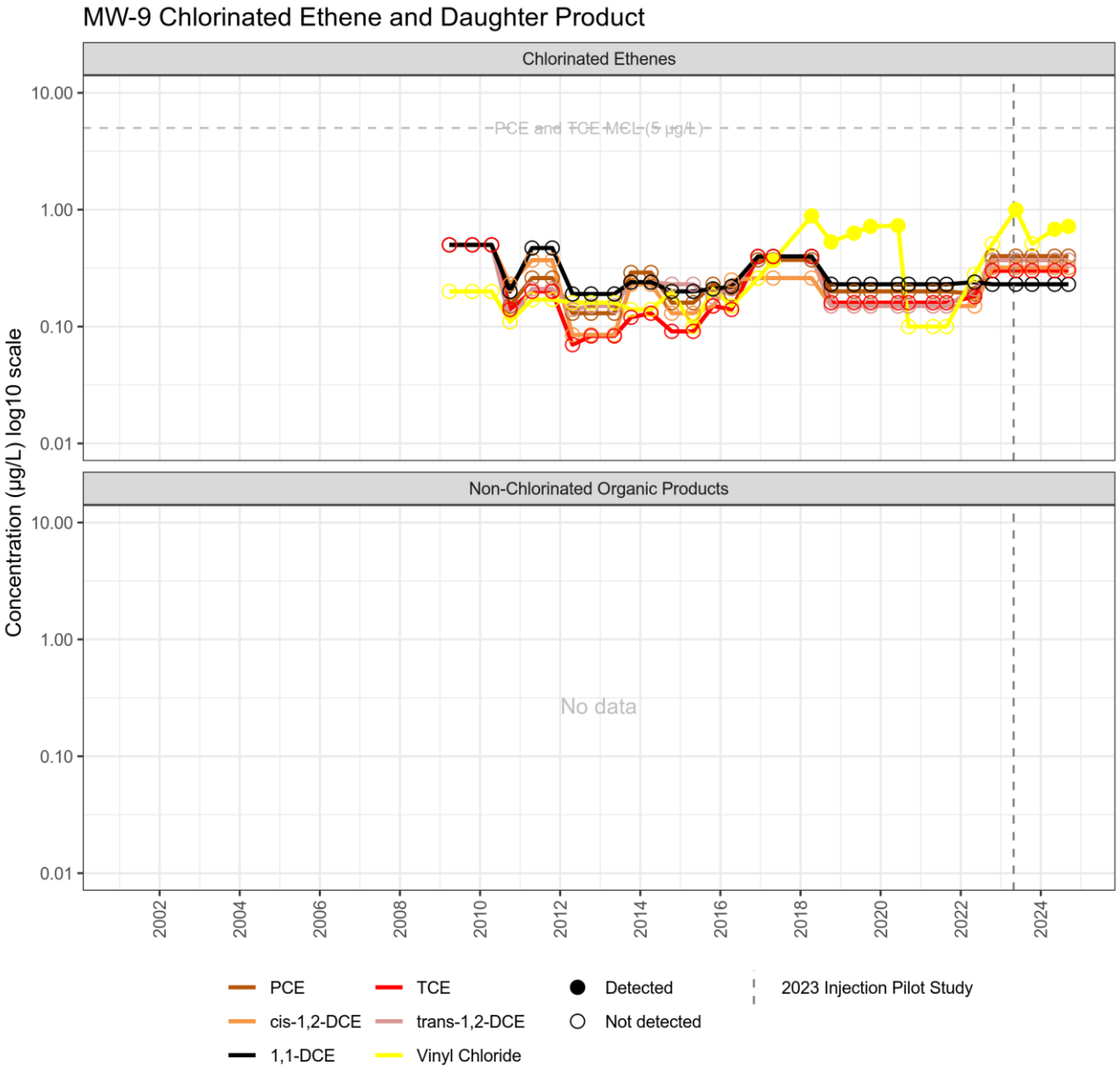
TOC and Redox Parameters



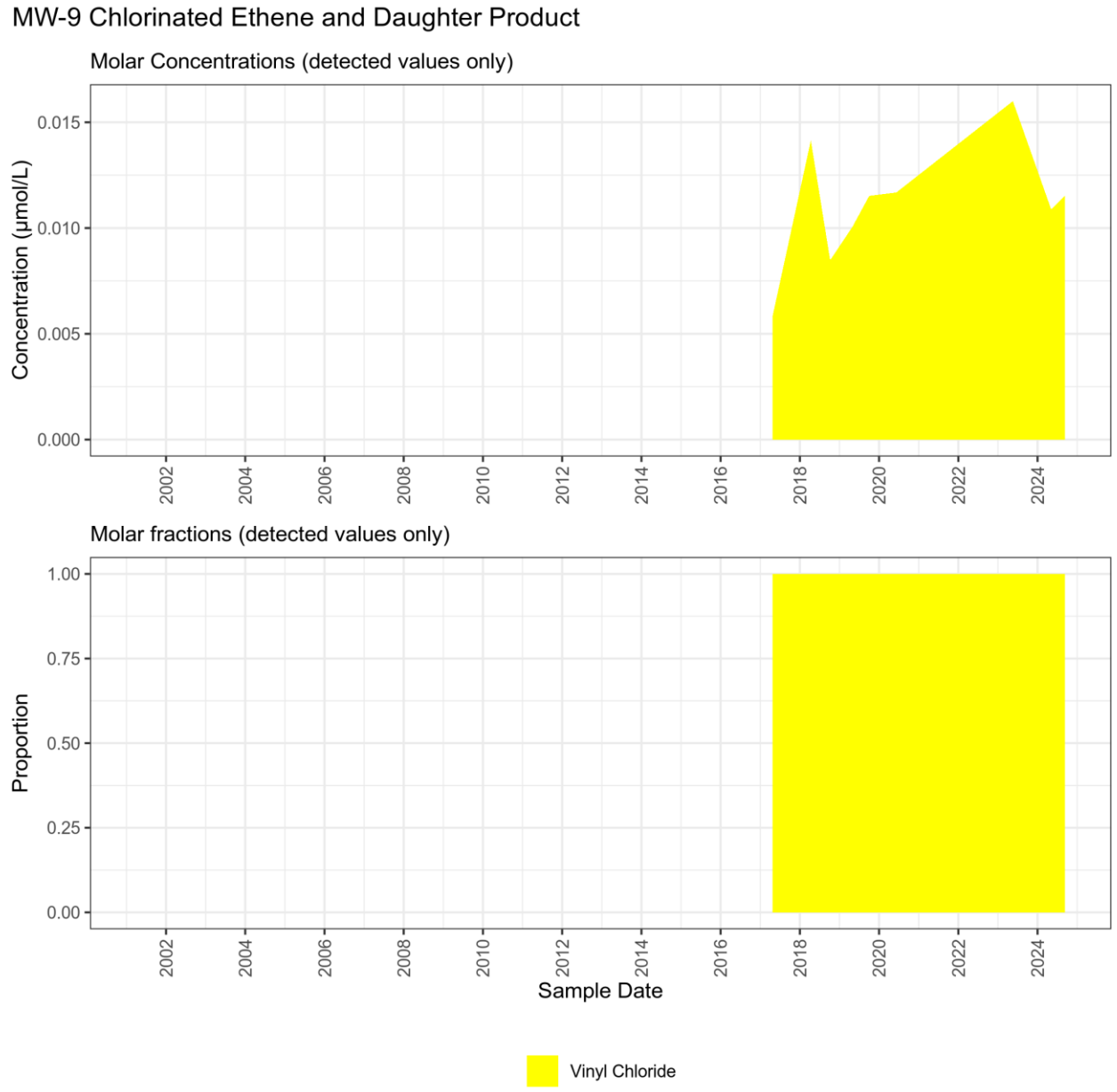
Chlorinated Ethene and Daughter Product Mass



Chlorinated Ethene and Daughter Product Mass (log10)

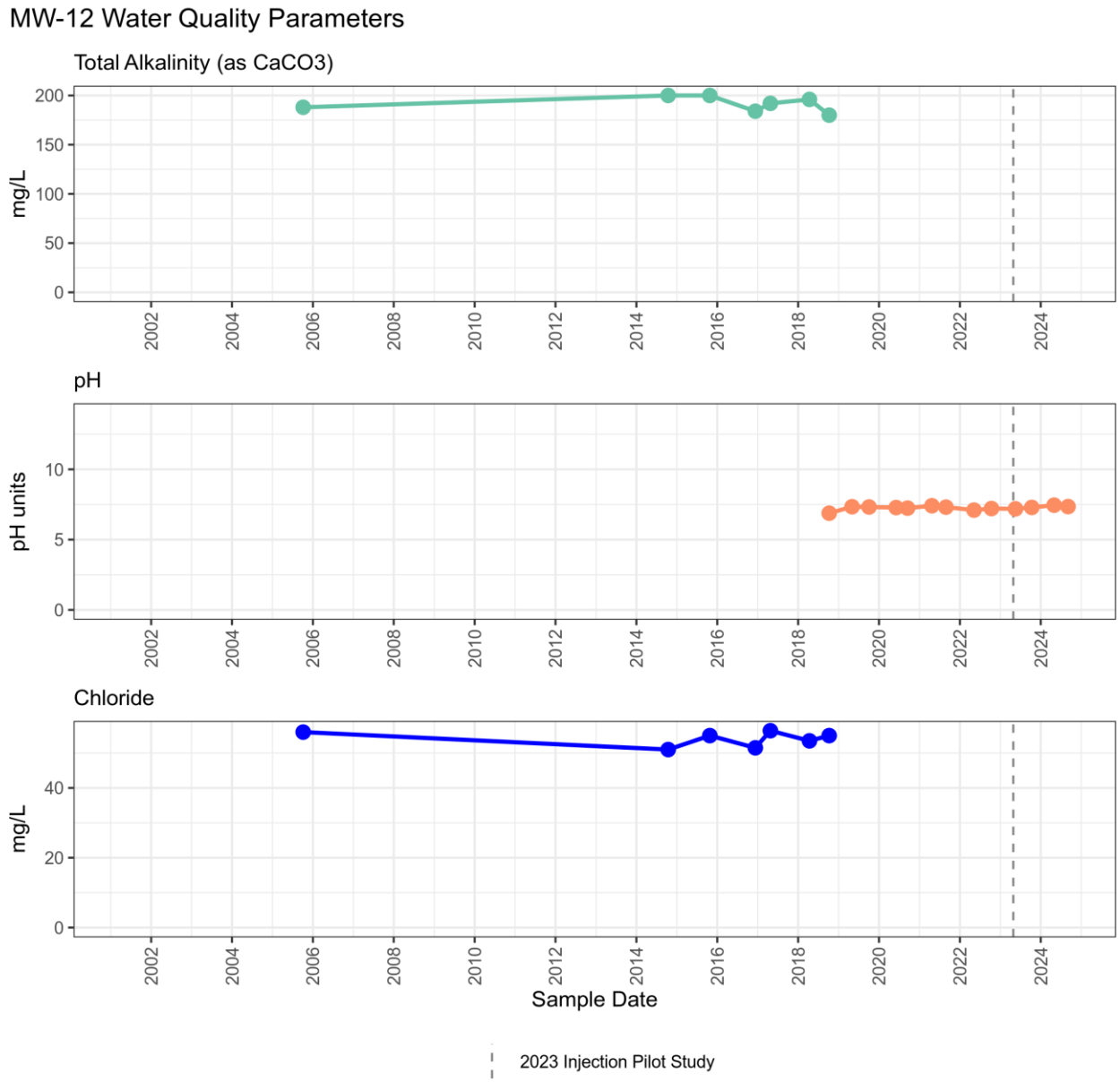


Chlorinated Ethene and Daughter Product Concentration

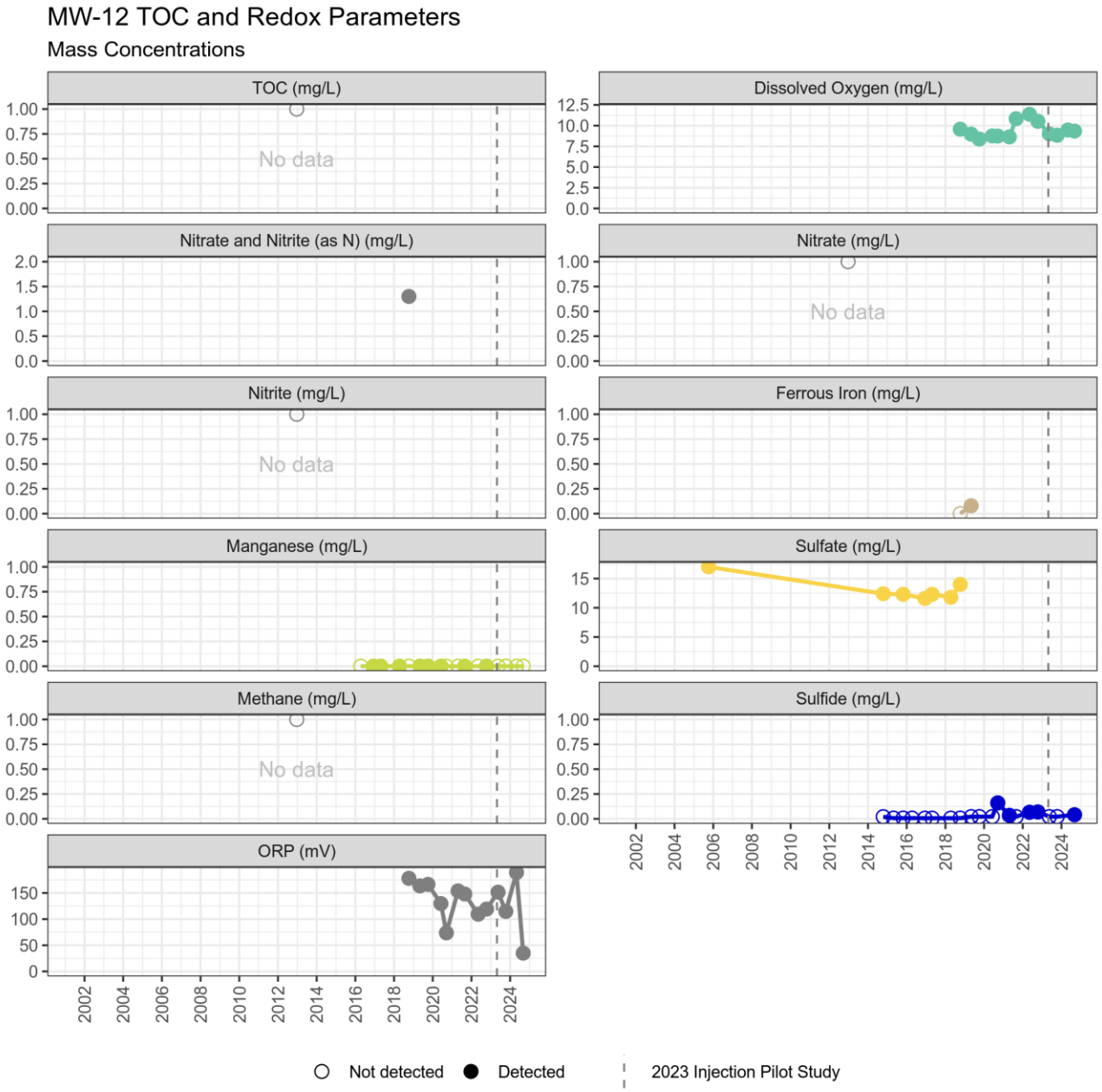


MW-12

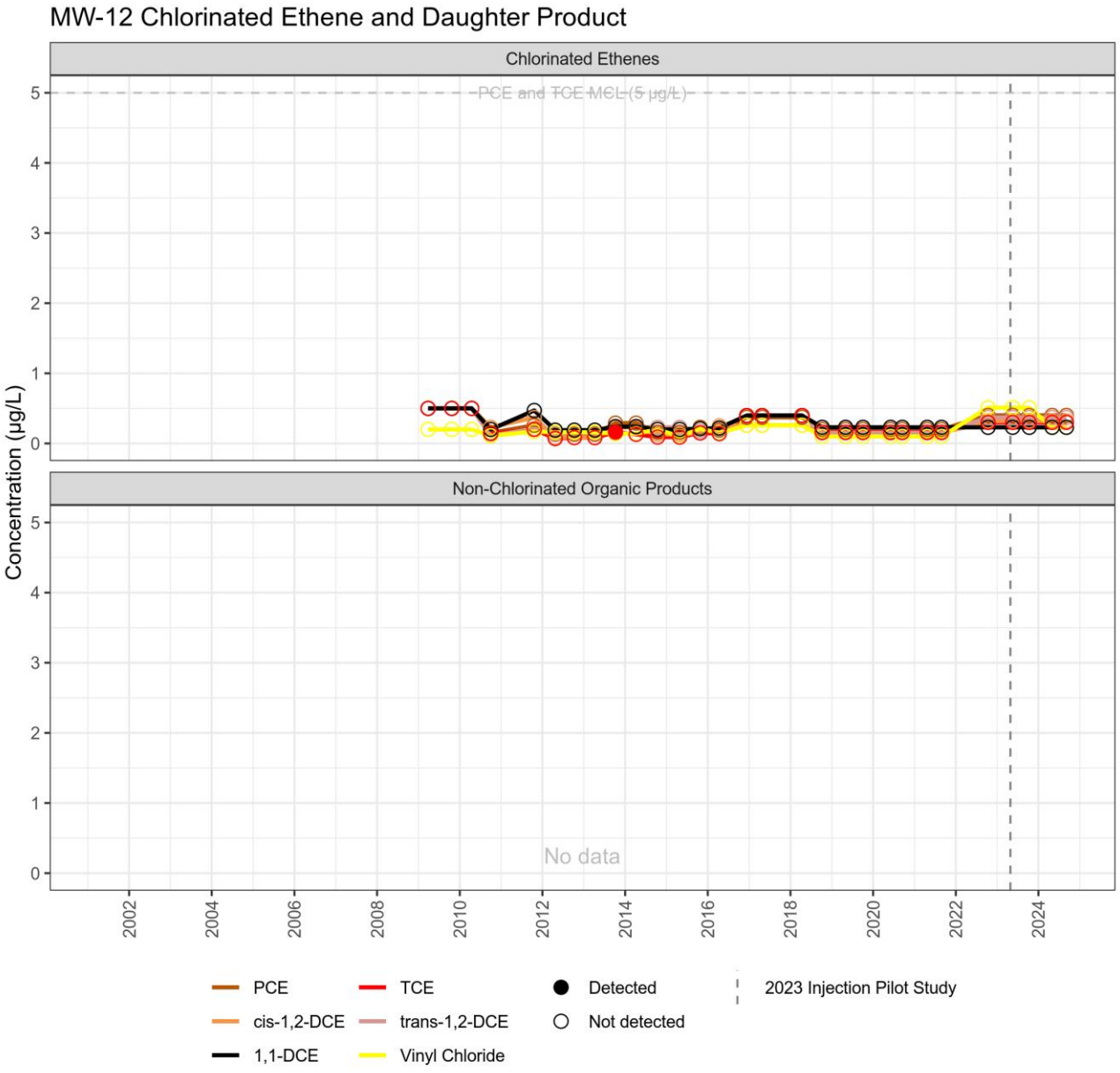
Water Quality



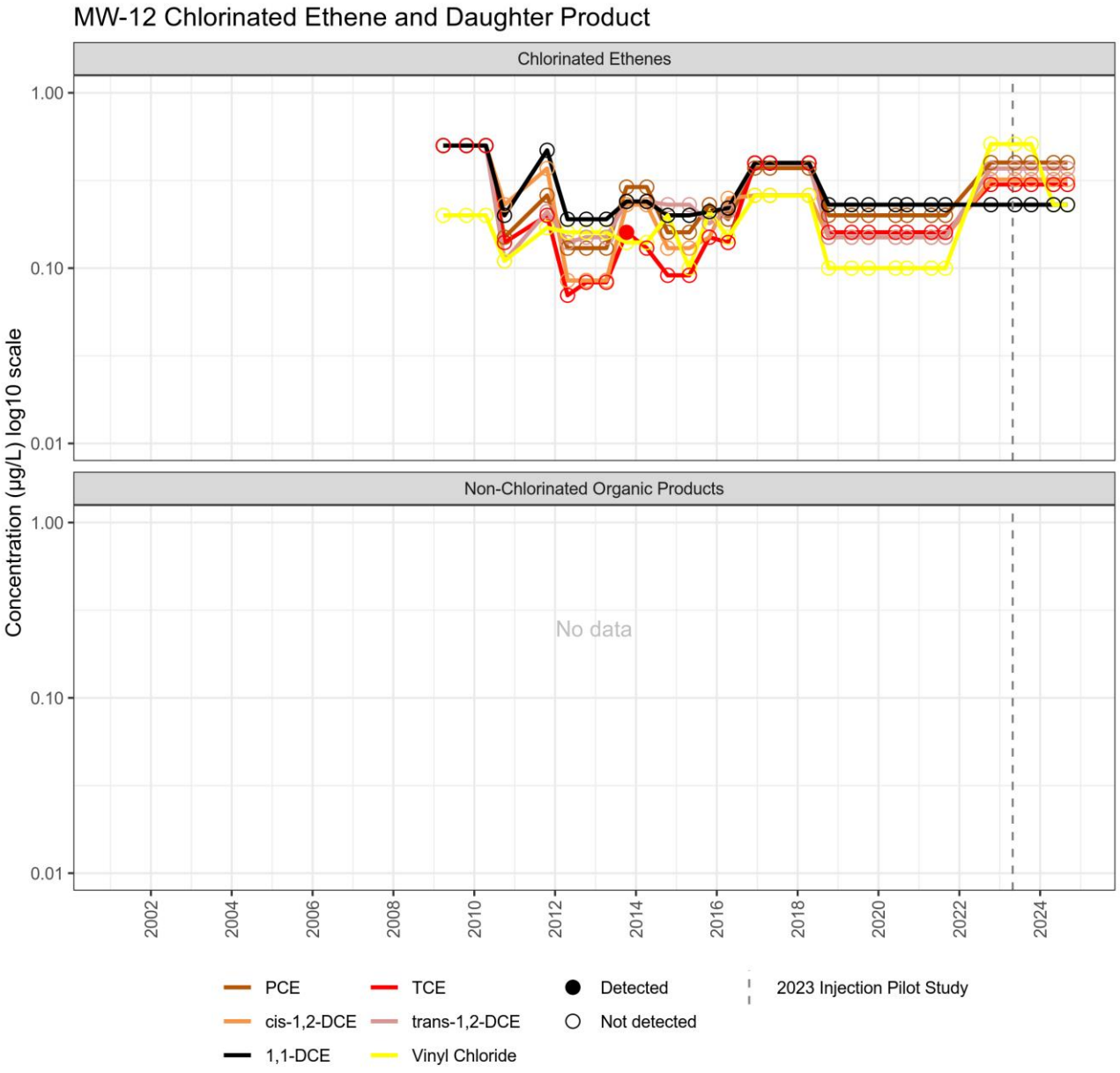
TOC and Redox Parameters



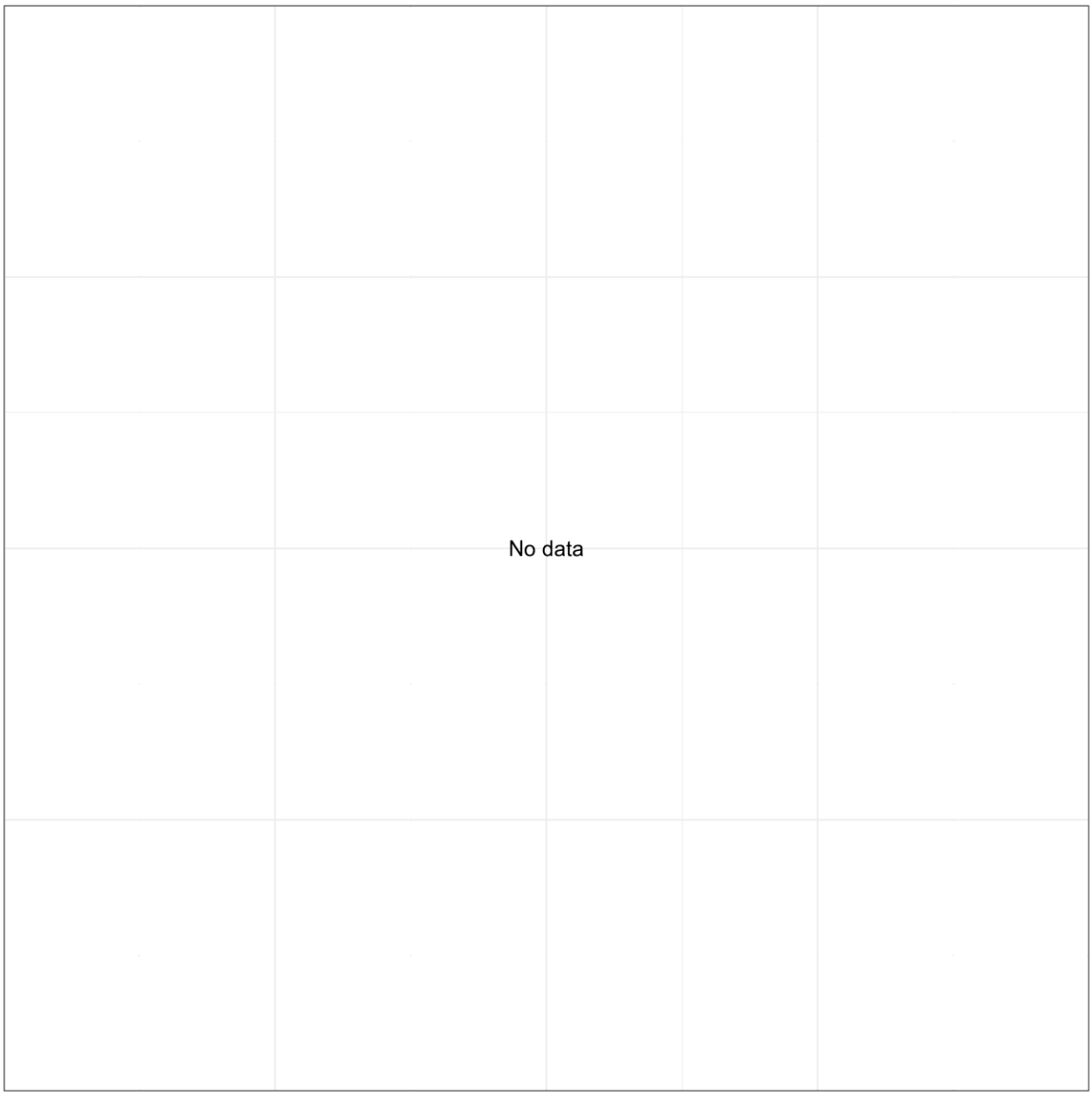
Chlorinated Ethene and Daughter Product Mass



Chlorinated Ethene and Daughter Product Mass (log10)

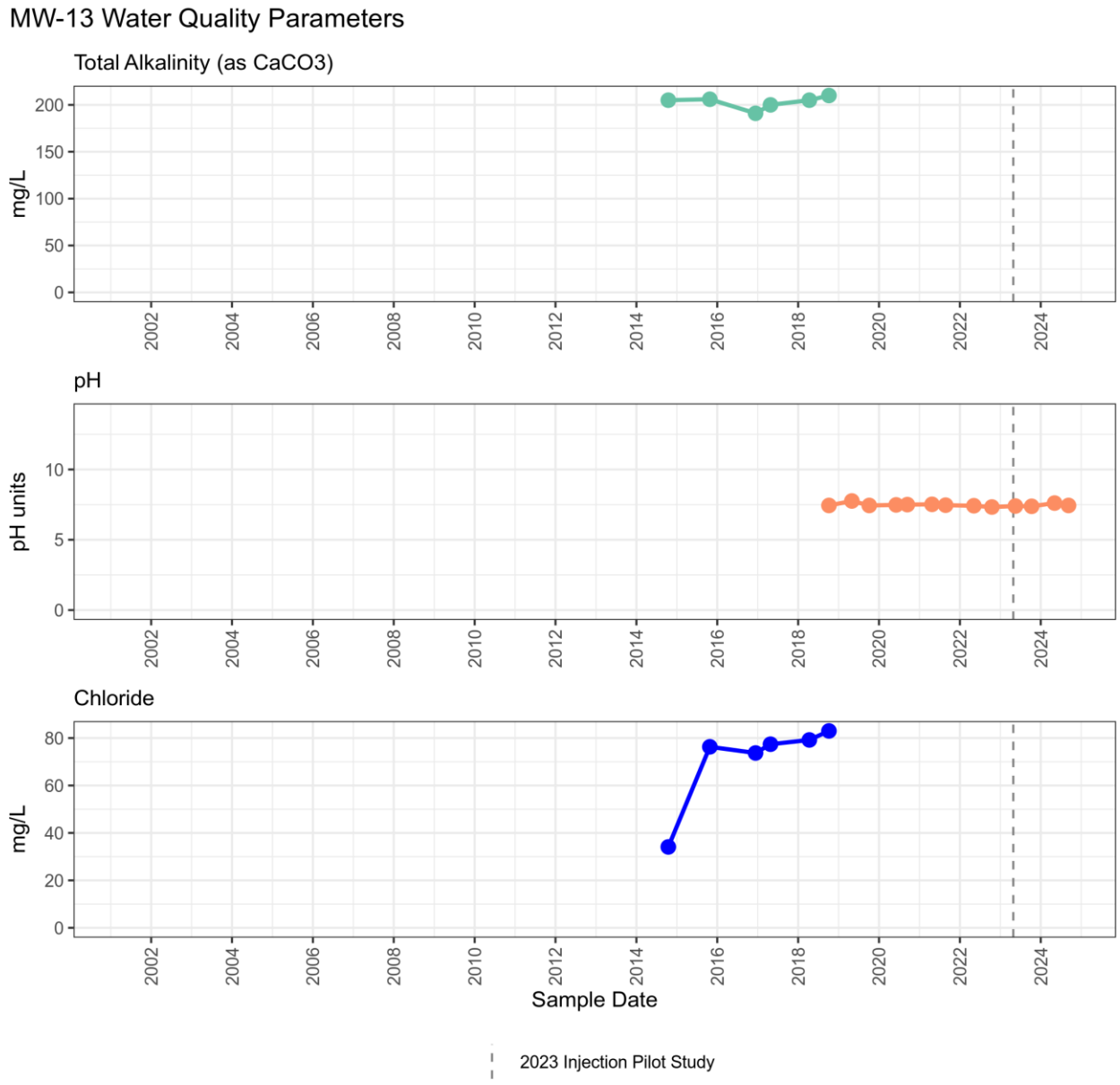


Chlorinated Ethene and Daughter Product Concentration

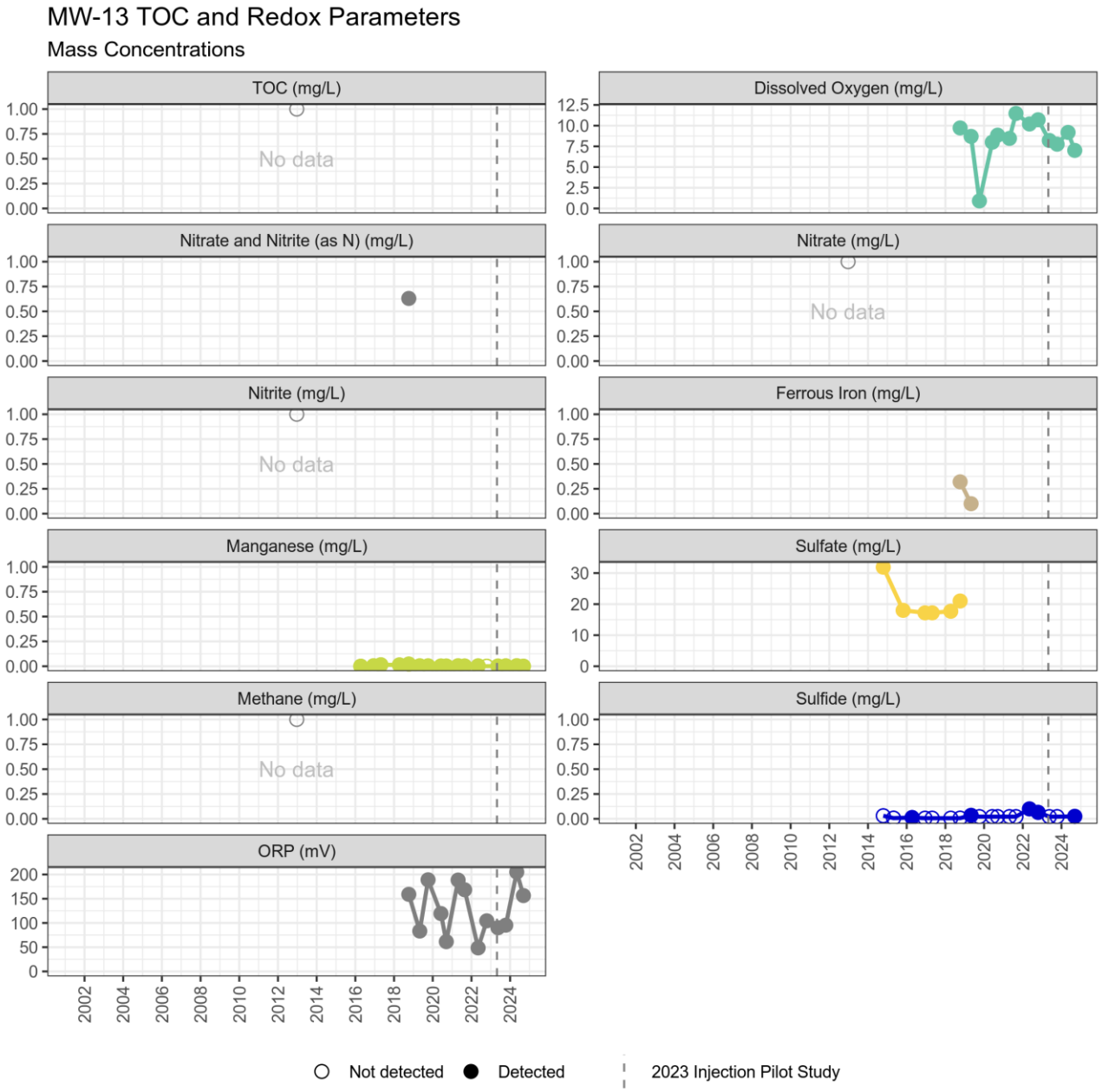


MW-13

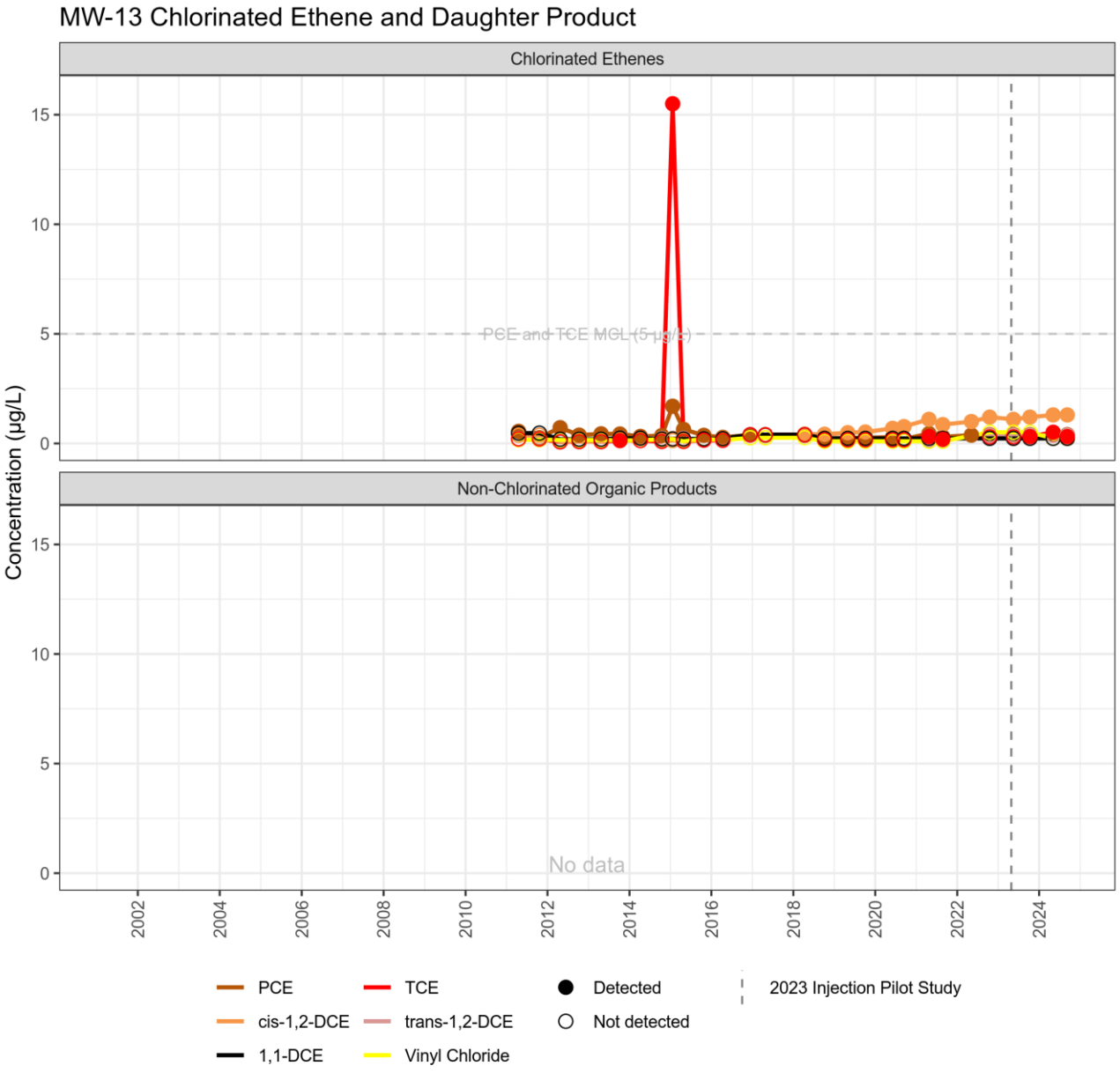
Water Quality



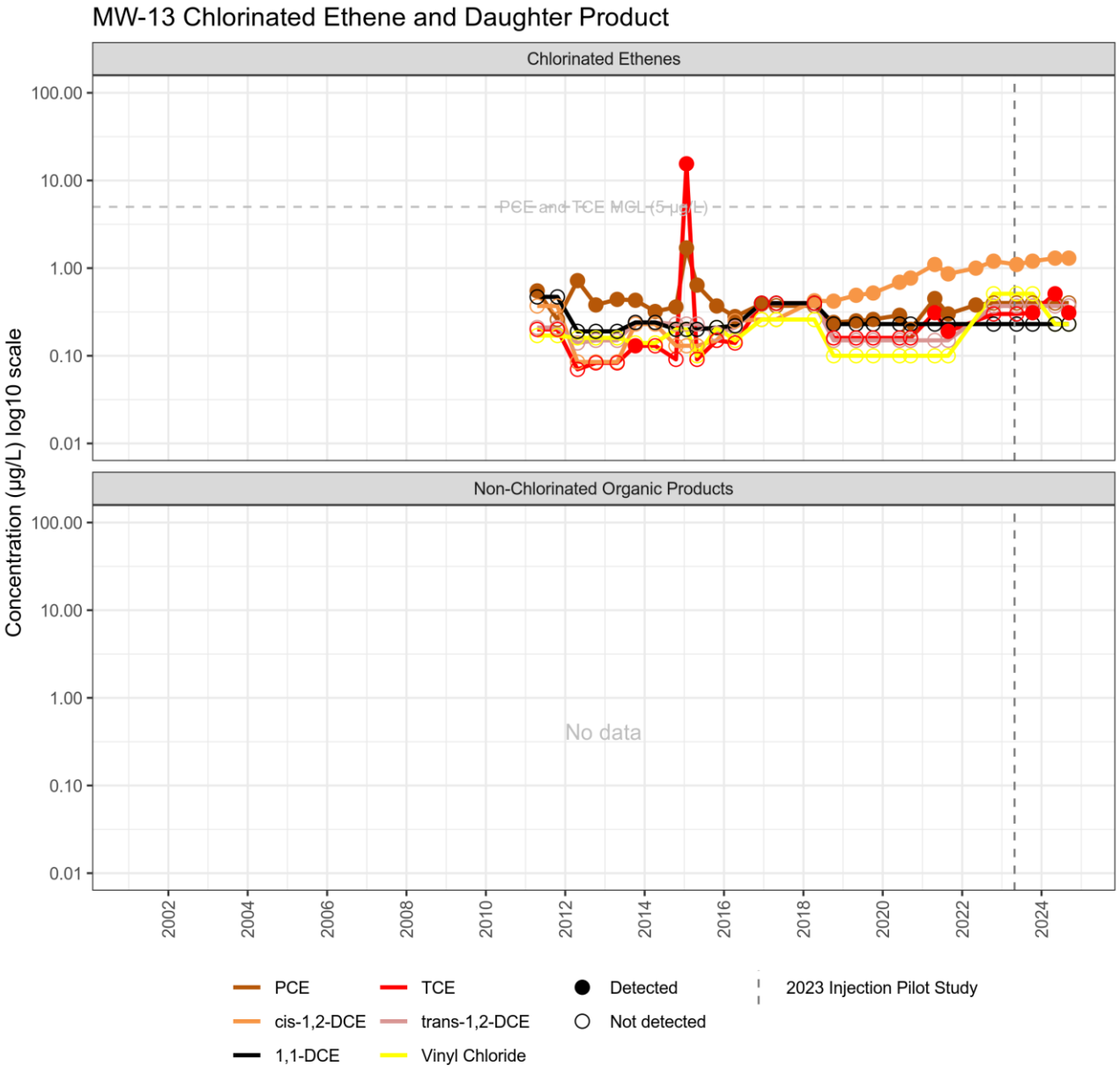
TOC and Redox Parameters



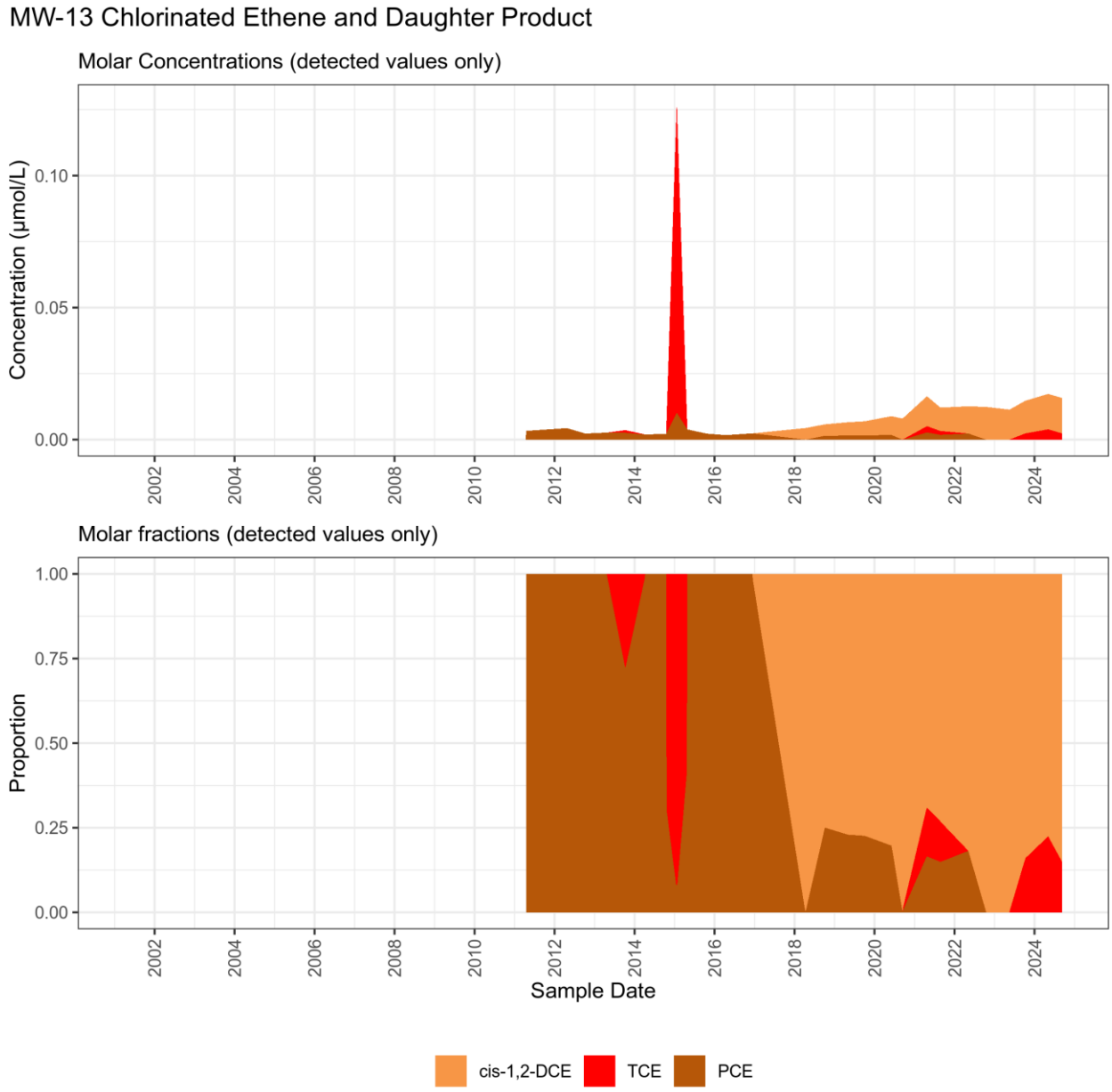
Chlorinated Ethene and Daughter Product Mass



Chlorinated Ethene and Daughter Product Mass (log10)



Chlorinated Ethene and Daughter Product Concentration



Chlorinated Ethenes and Geochemistry Time Series Plots - Cell 4 Monitoring Well

Data filters

This report is filtered to only include:

- **MW-3A, MW-4, MW-4A, MW-5AR, and MW-6A** from **Cell 4 Monitoring Well**
- Results from **02 January 2001** to **10 September 2024**

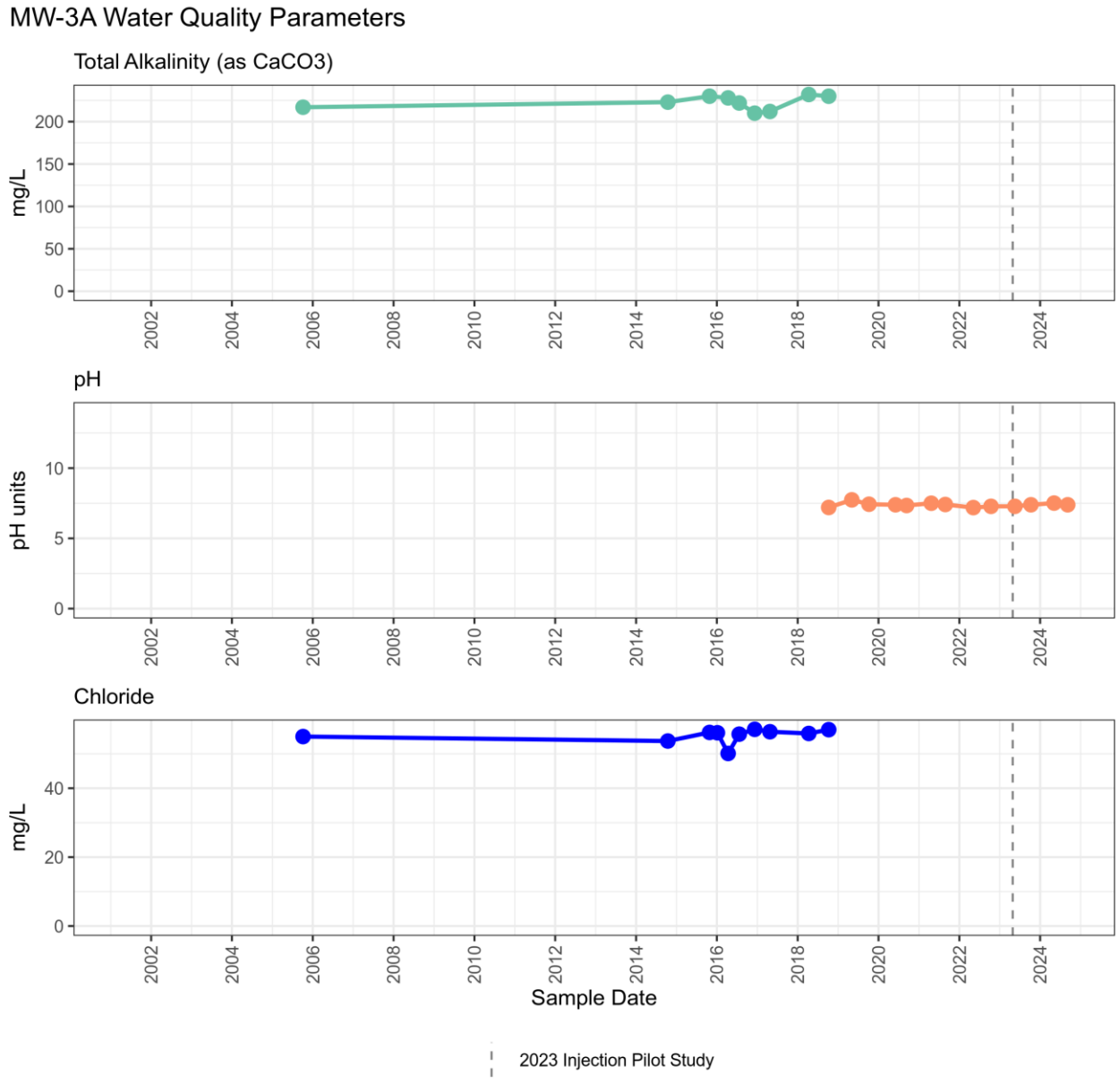
Graph notes

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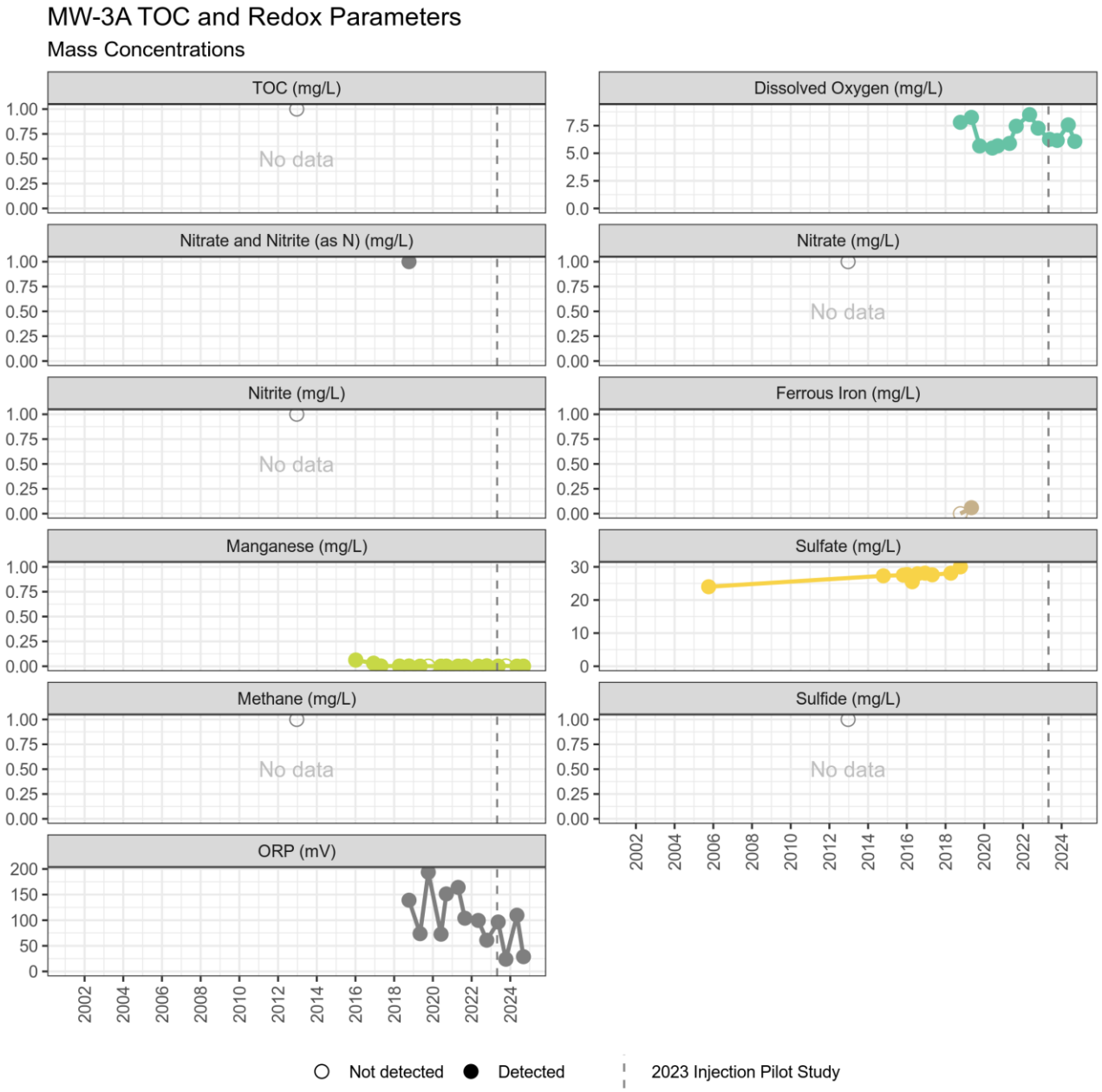
Well summaries

MW-3A

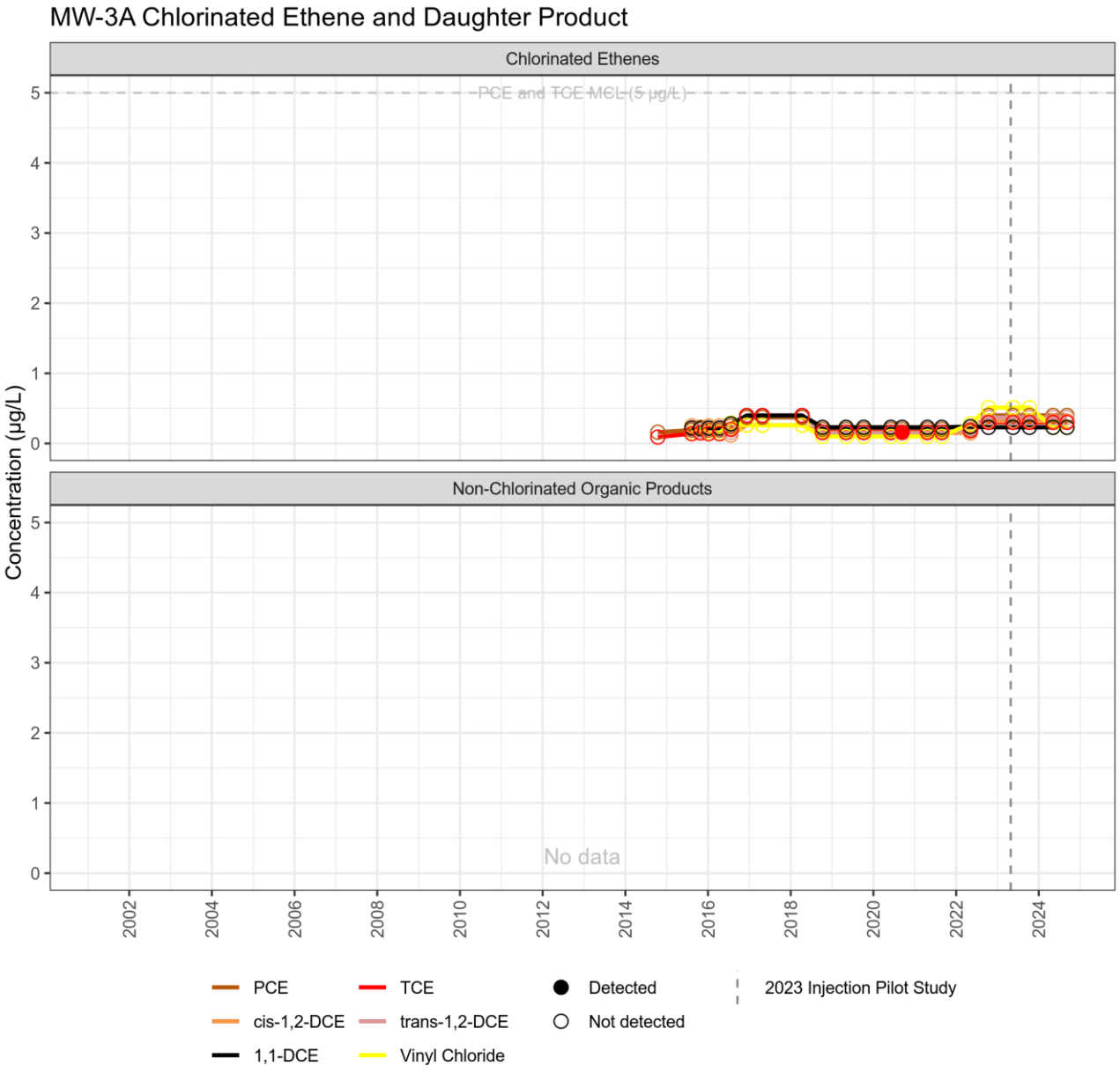
Water Quality



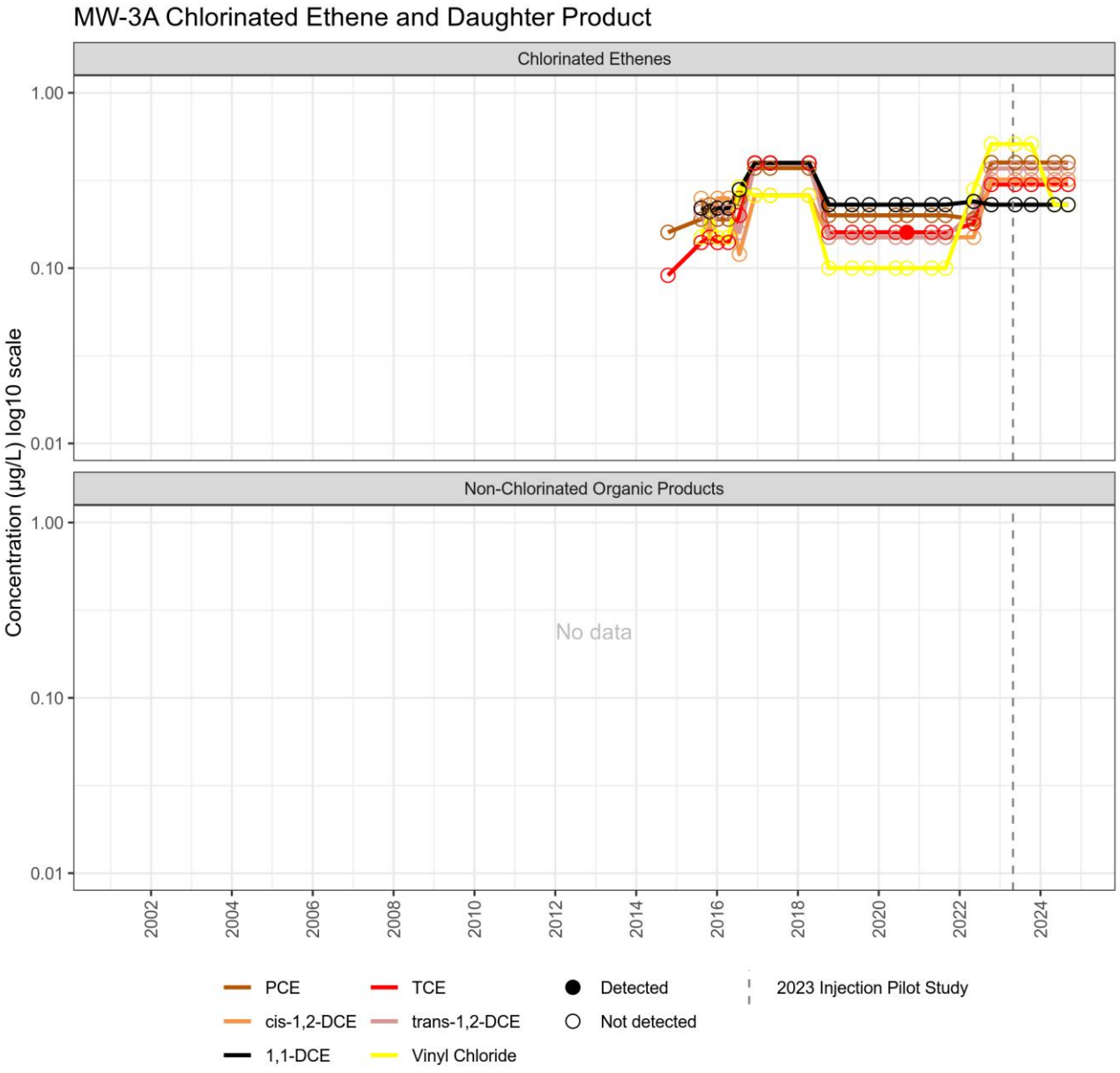
TOC and Redox Parameters



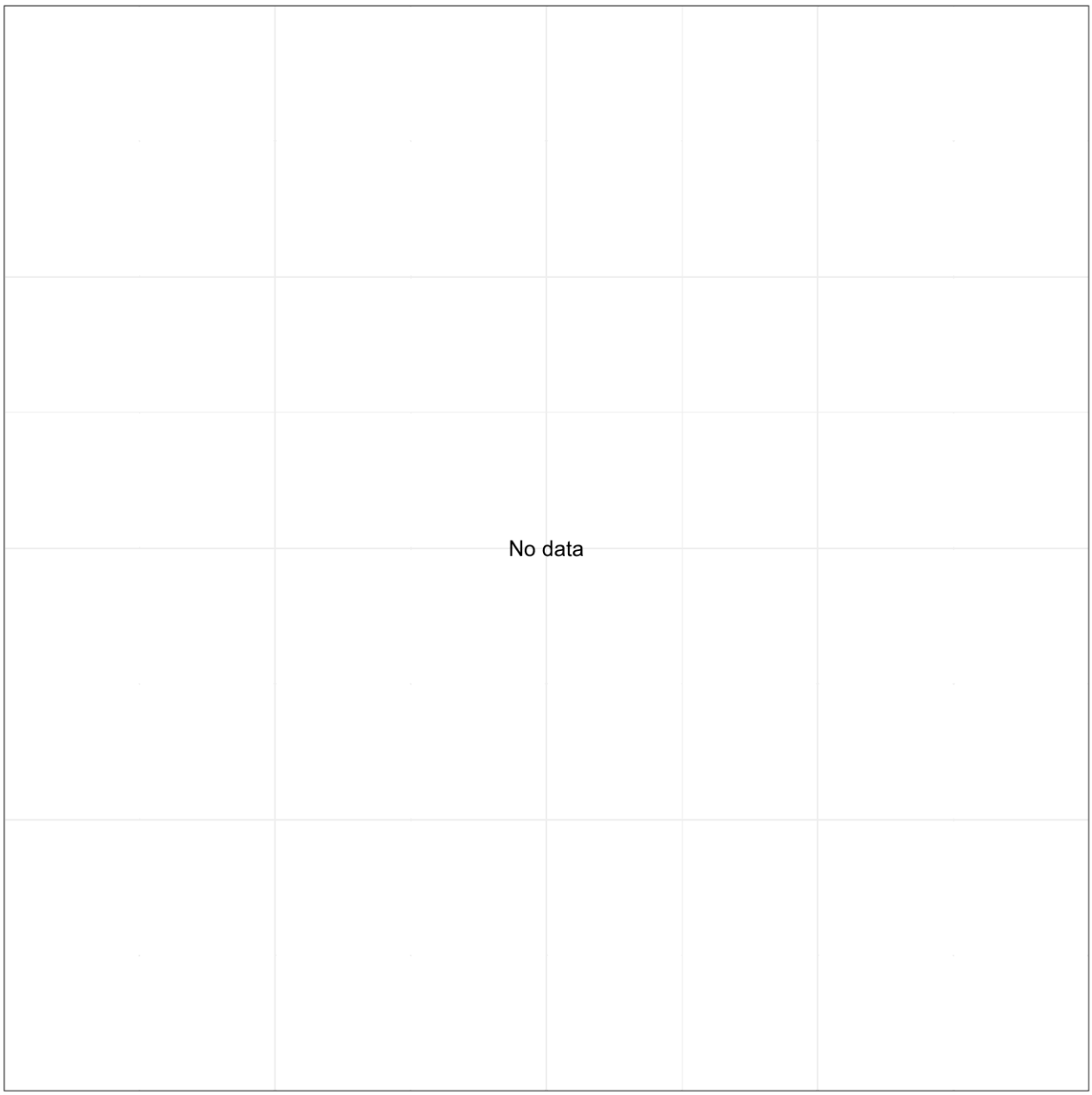
Chlorinated Ethene and Daughter Product Mass



Chlorinated Ethene and Daughter Product Mass (log10)

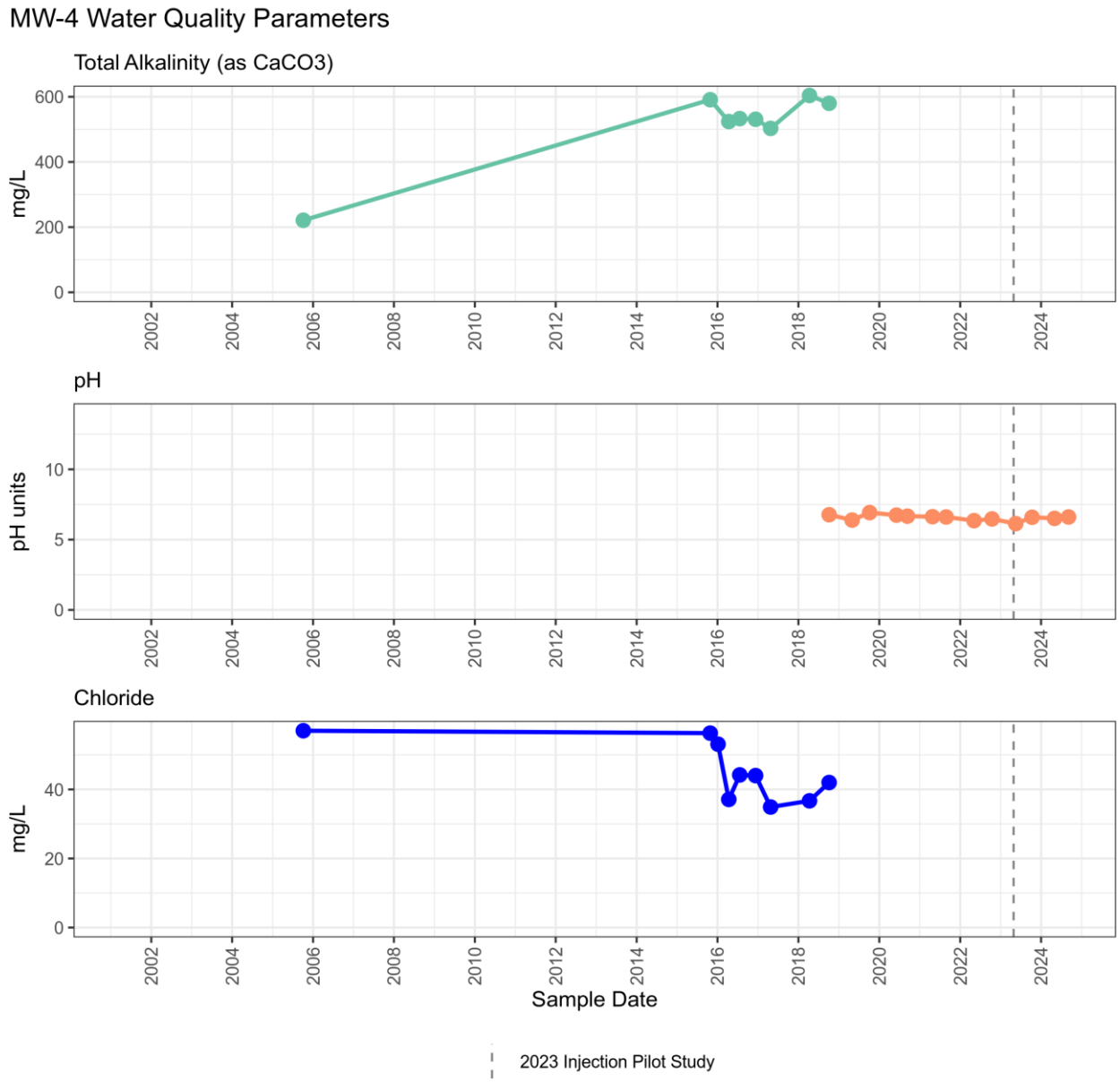


Chlorinated Ethene and Daughter Product Concentration

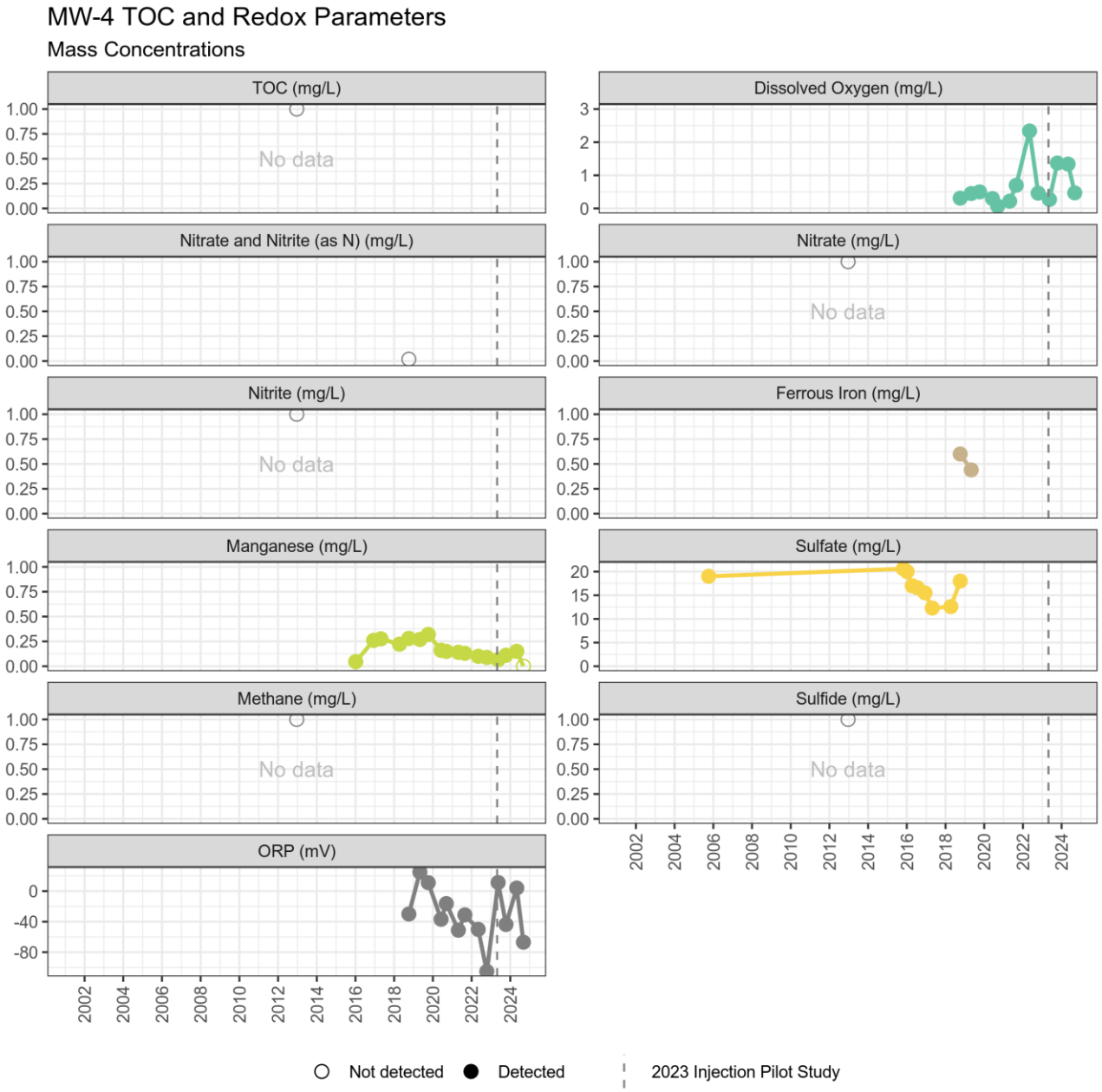


MW-4

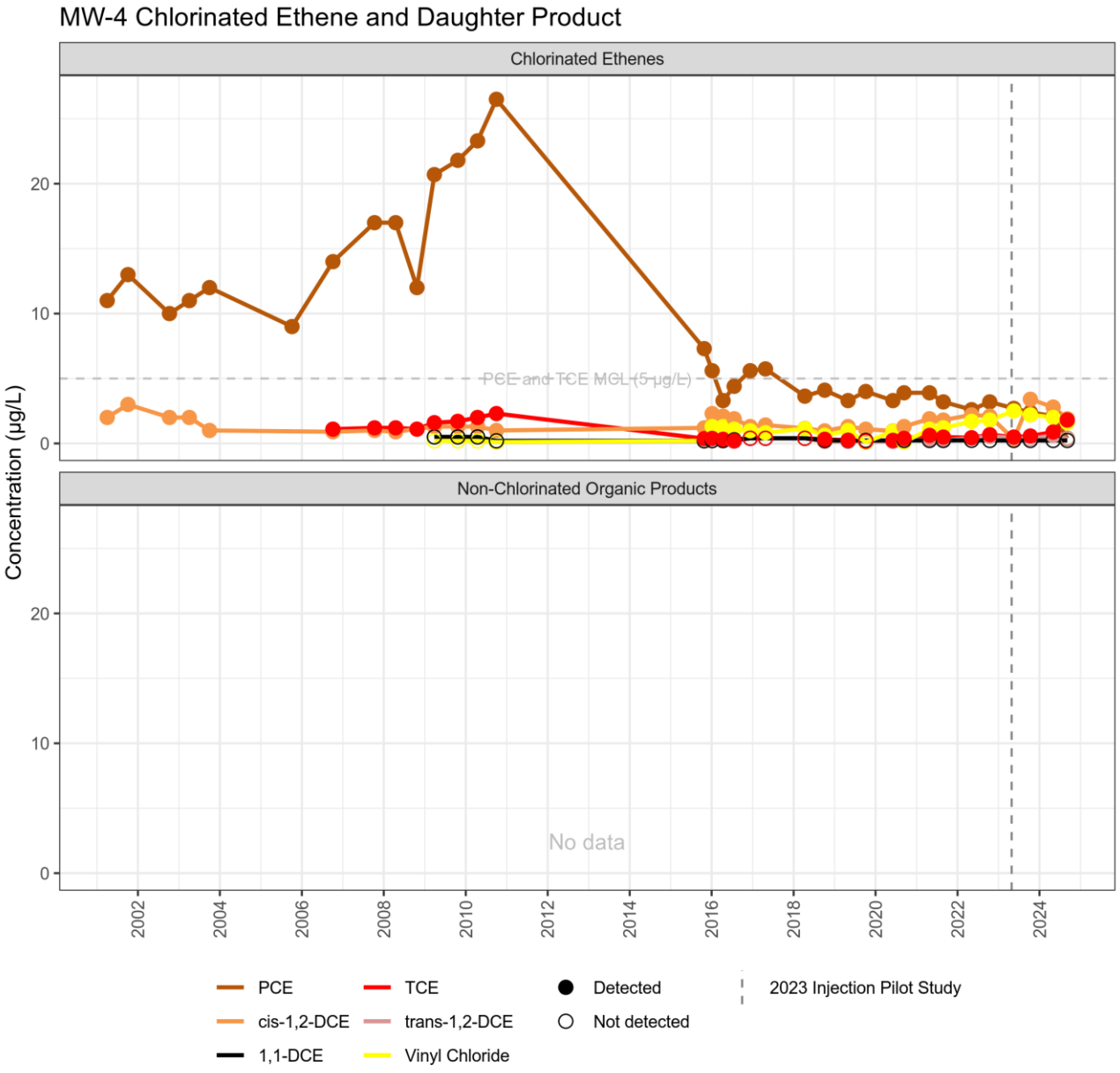
Water Quality



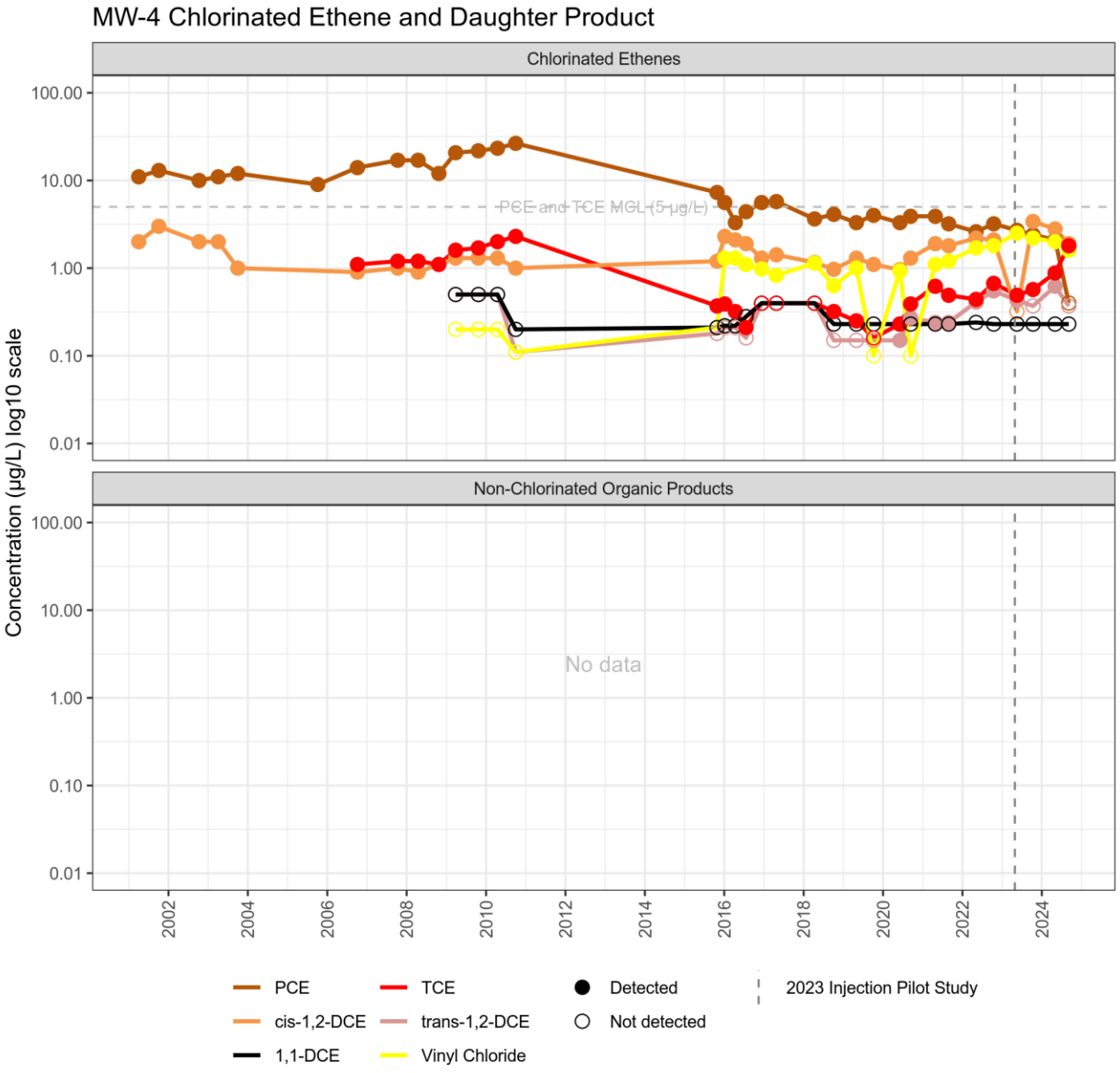
TOC and Redox Parameters



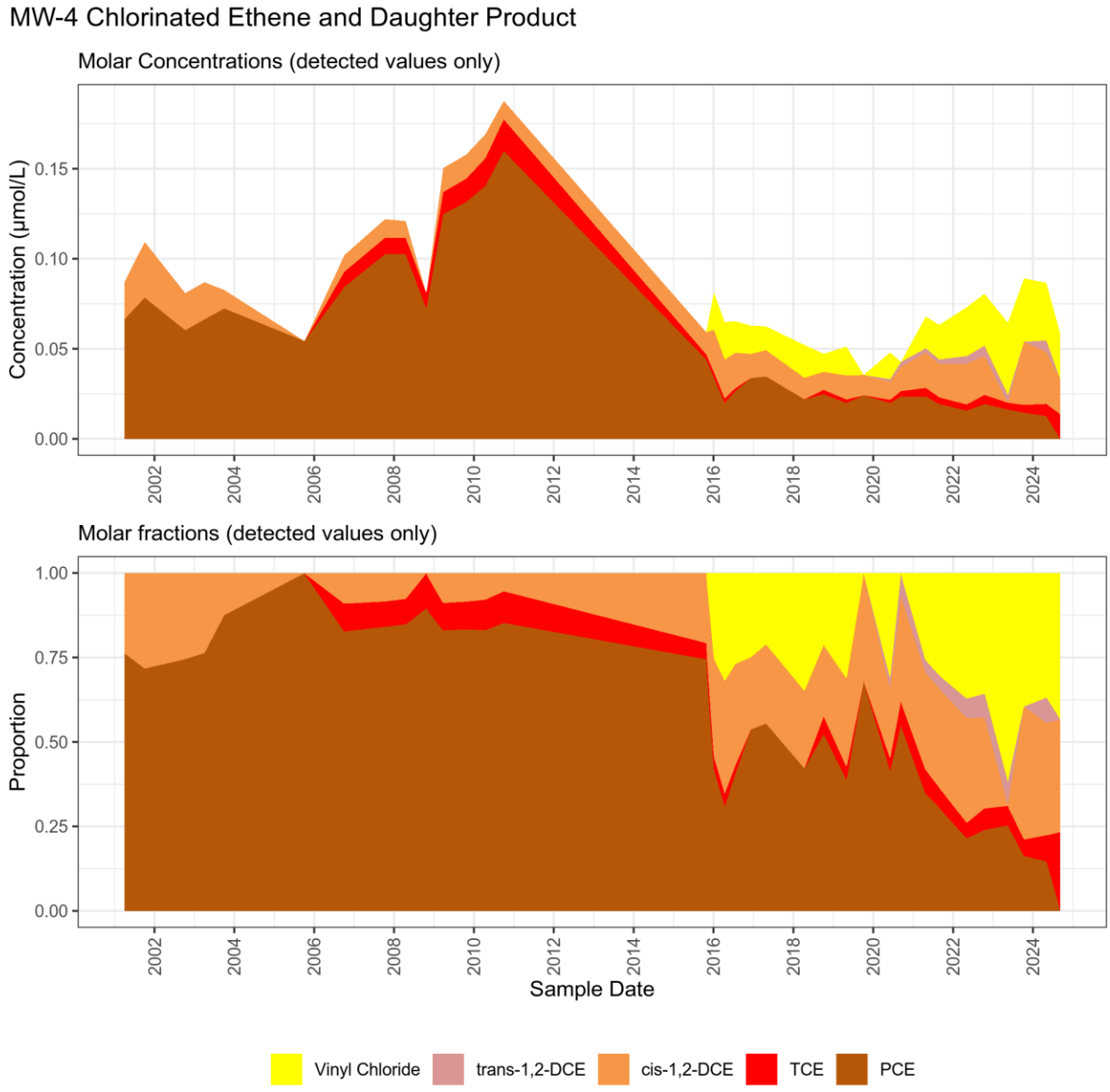
Chlorinated Ethene and Daughter Product Mass



Chlorinated Ethene and Daughter Product Mass (log10)

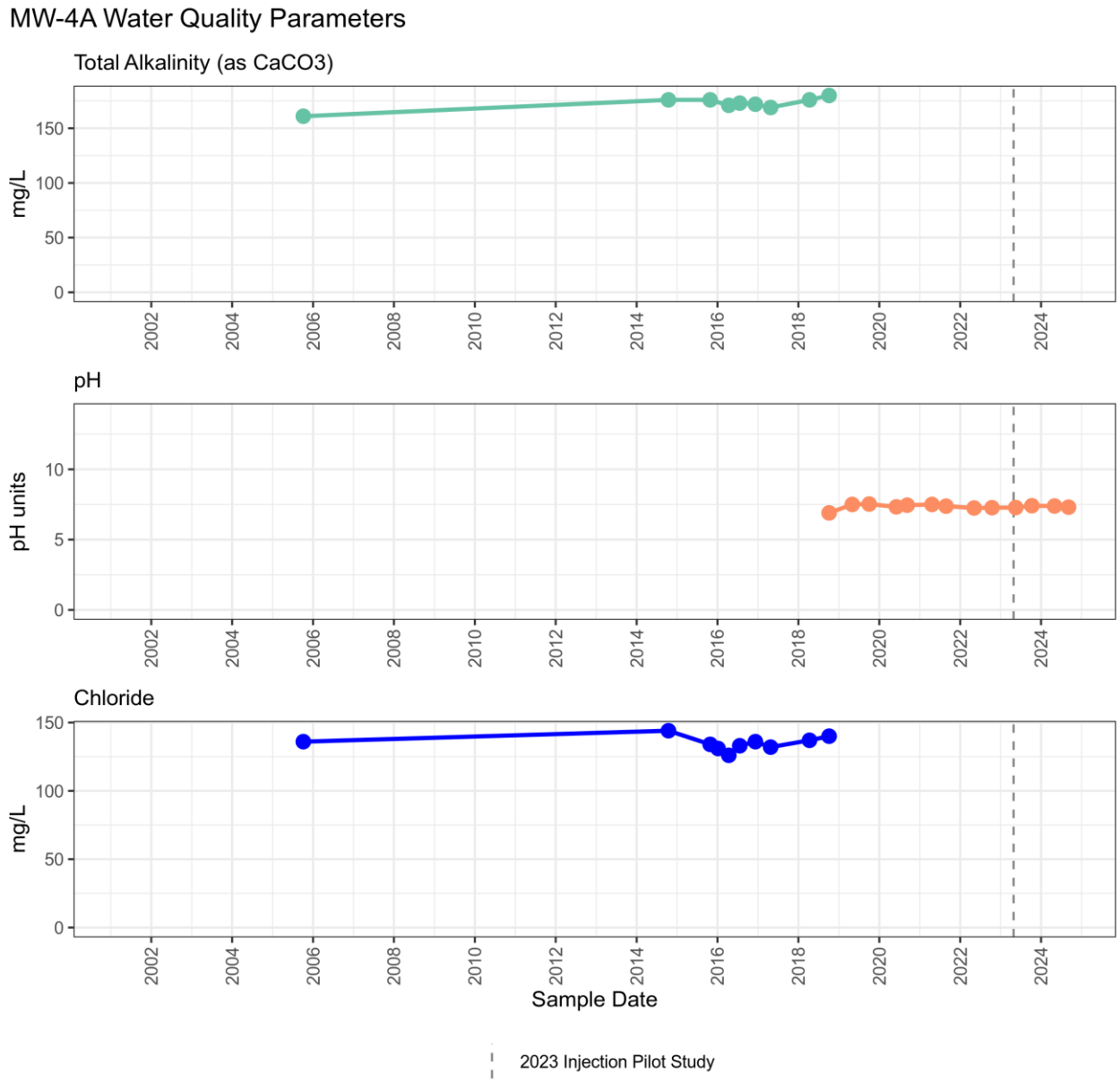


Chlorinated Ethene and Daughter Product Concentration

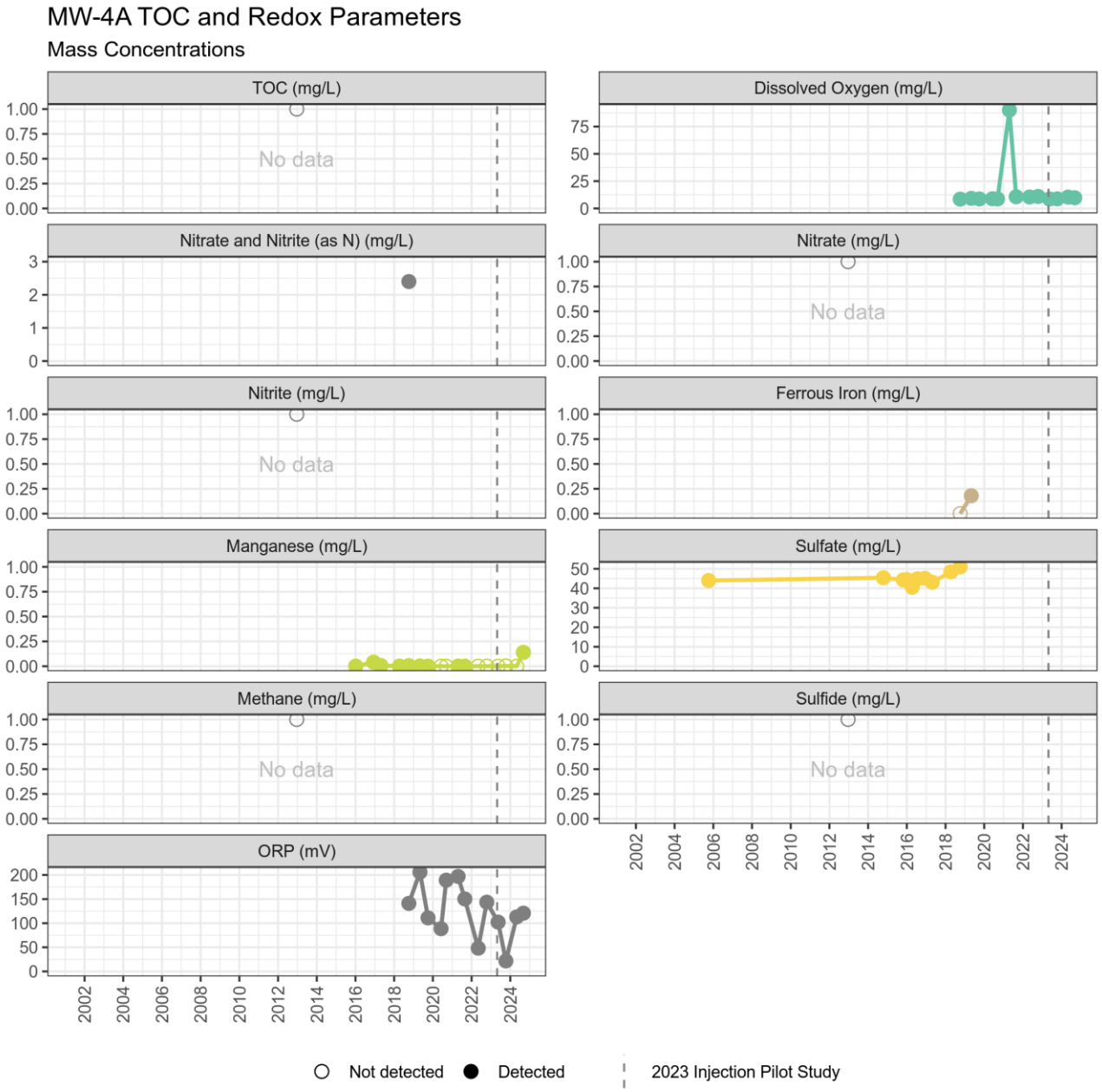


MW-4A

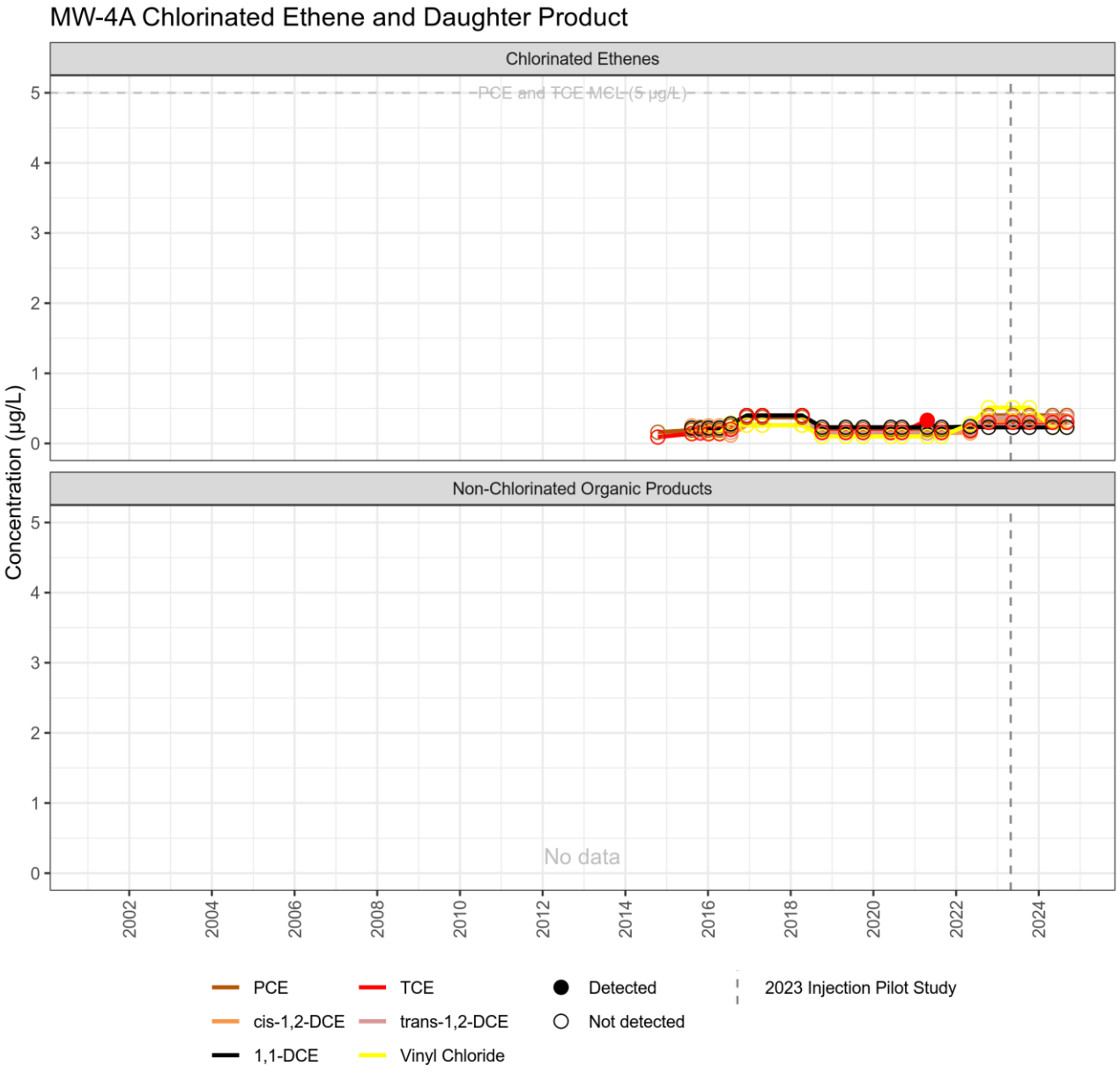
Water Quality



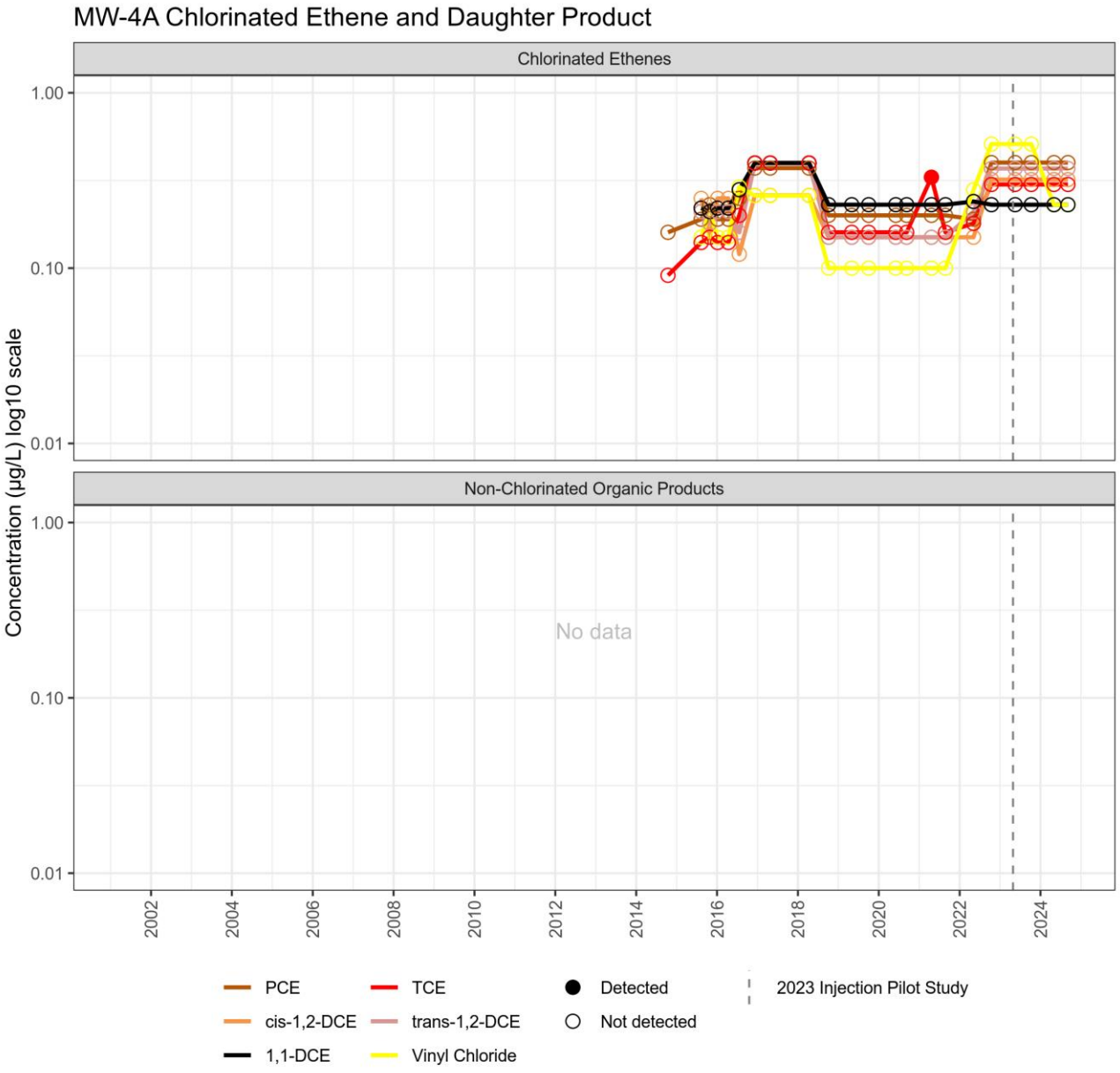
TOC and Redox Parameters



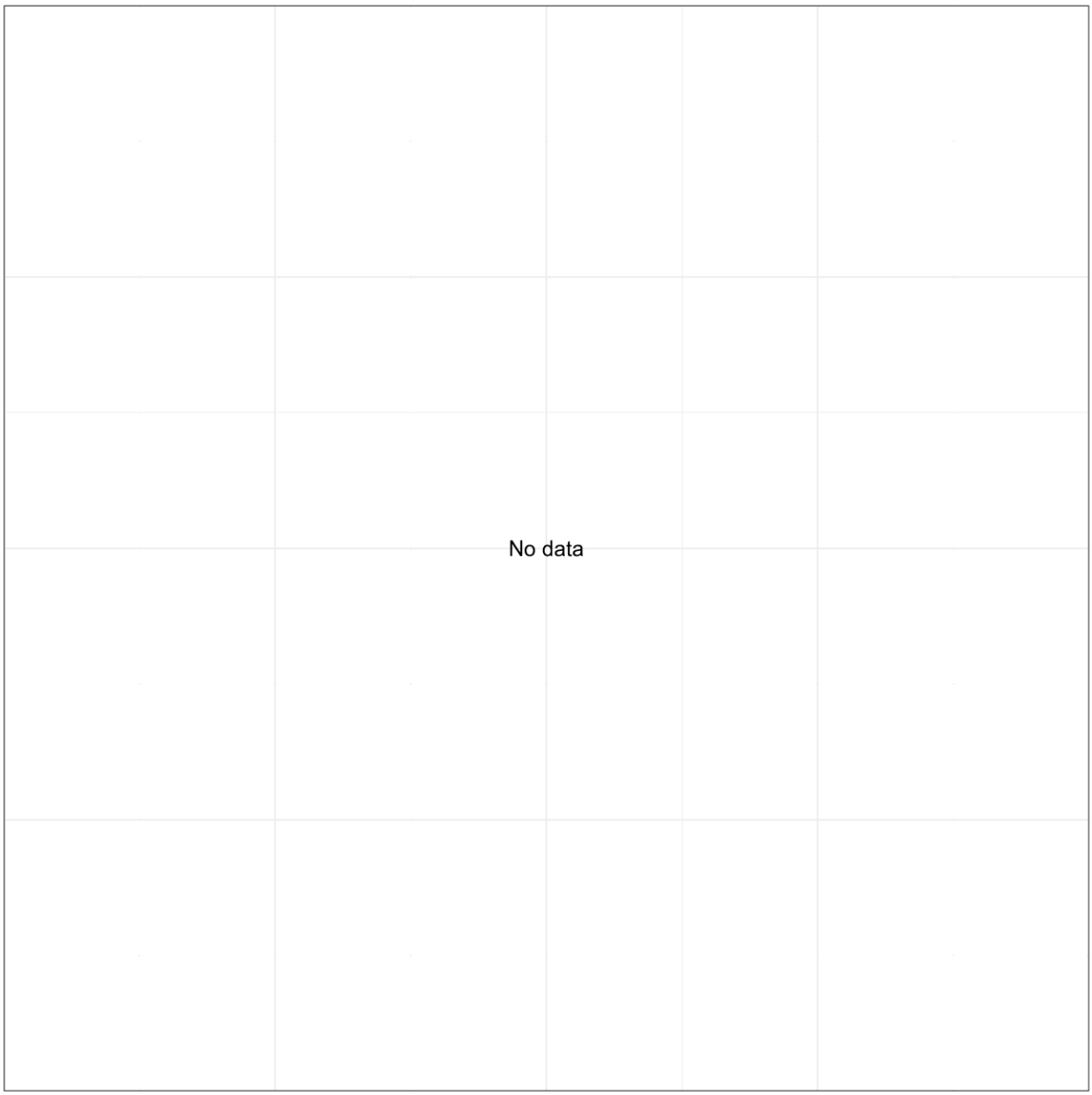
Chlorinated Ethene and Daughter Product Mass



Chlorinated Ethene and Daughter Product Mass (log10)

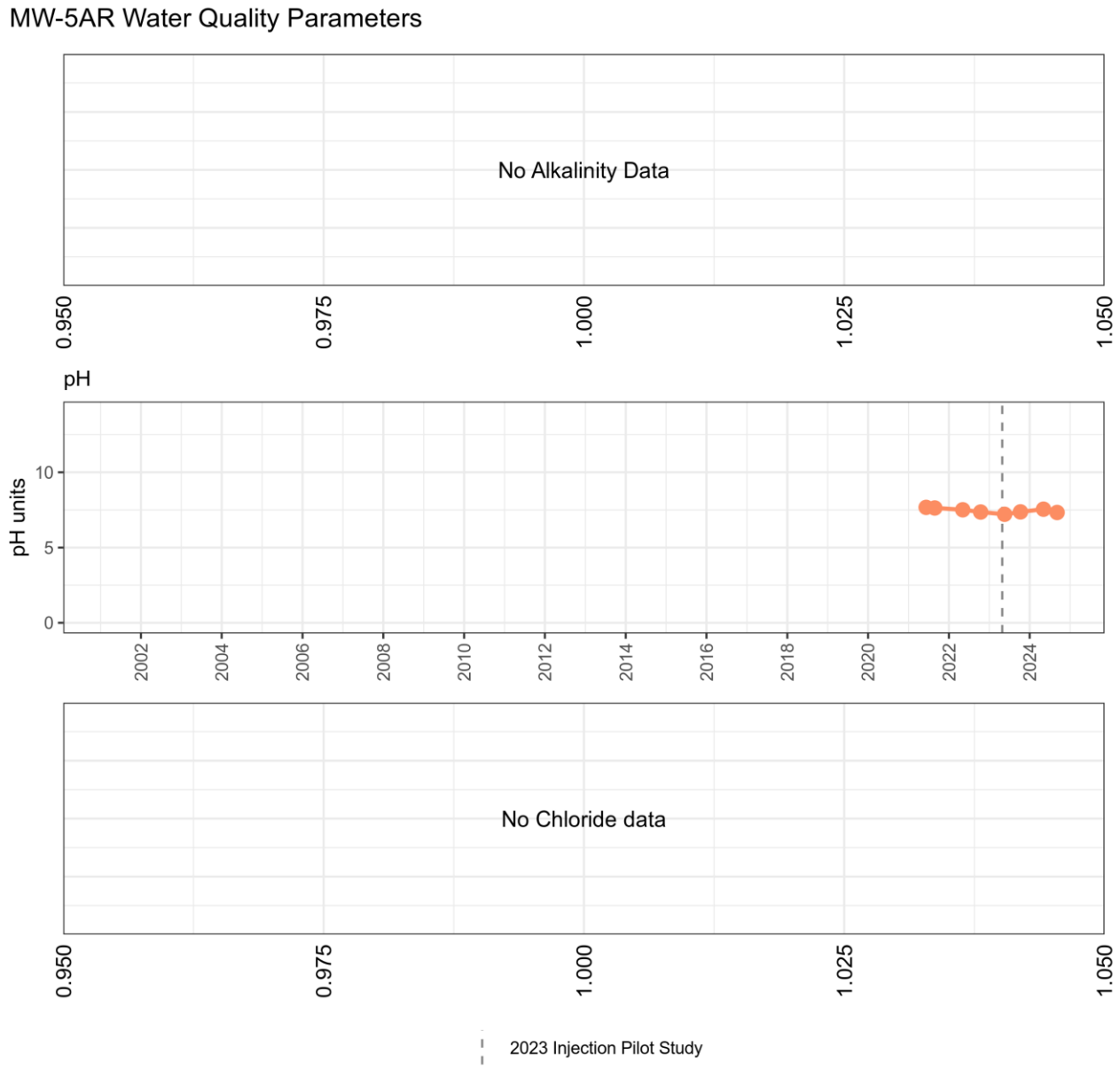


Chlorinated Ethene and Daughter Product Concentration

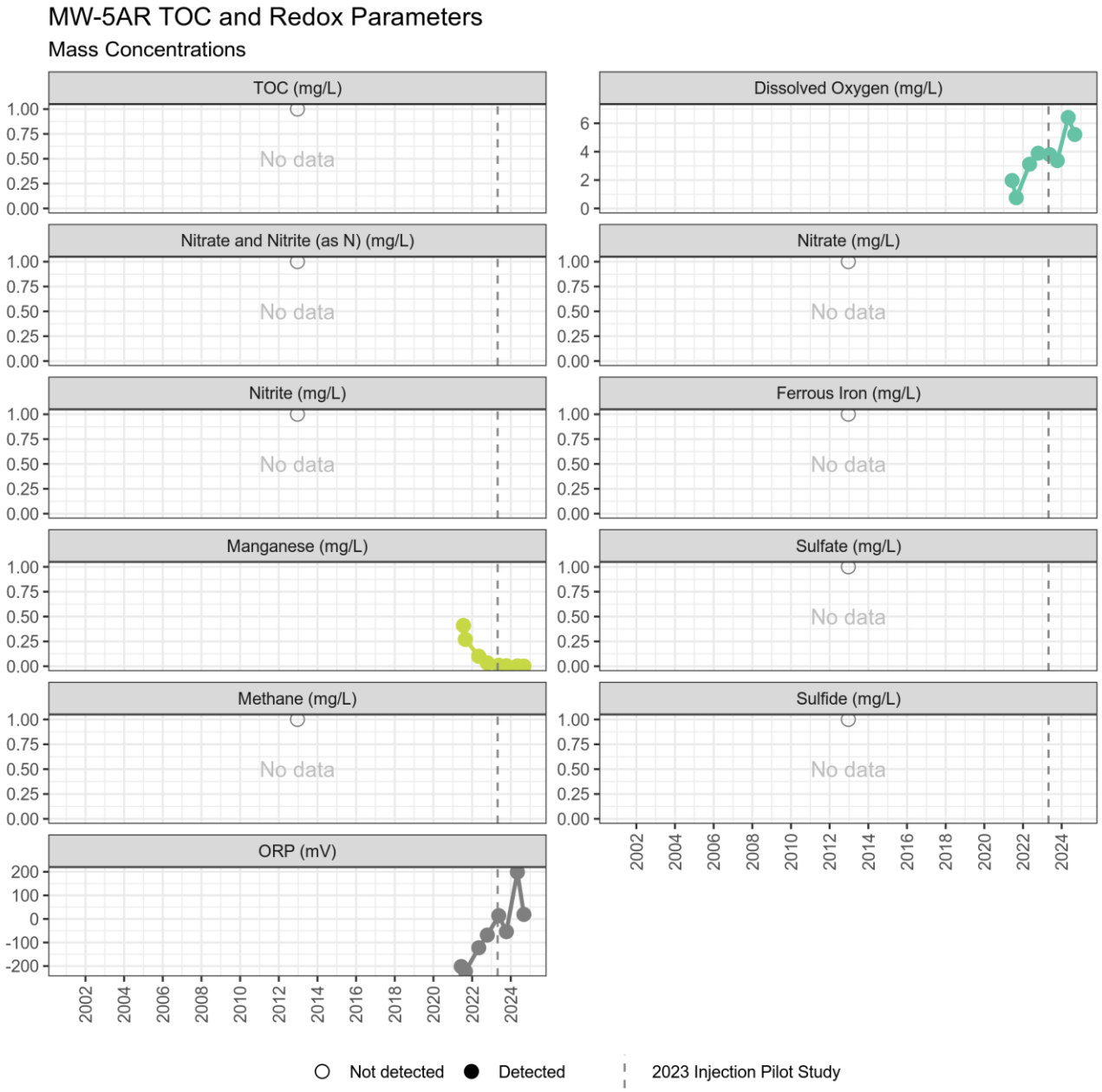


MW-5AR

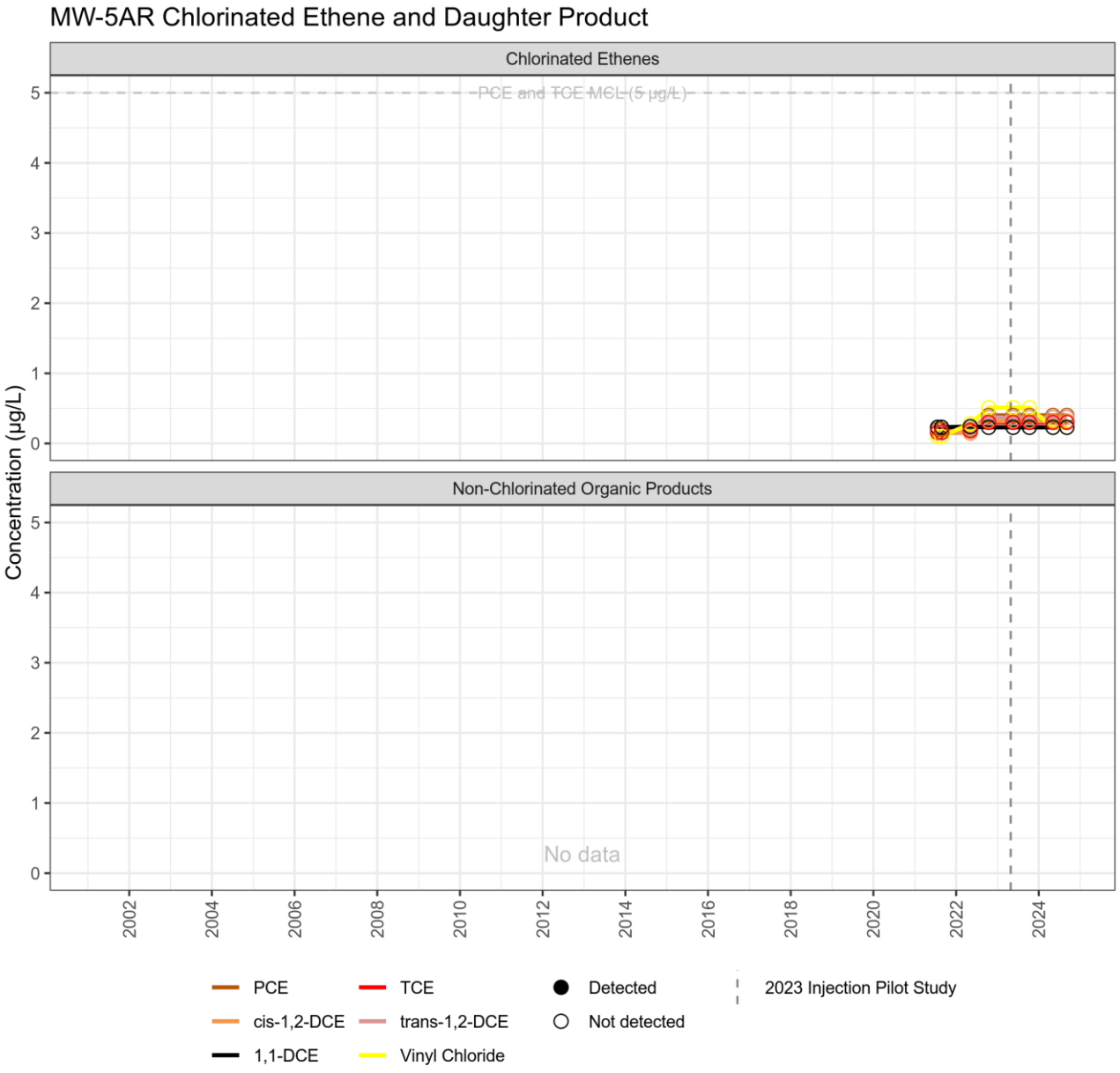
Water Quality



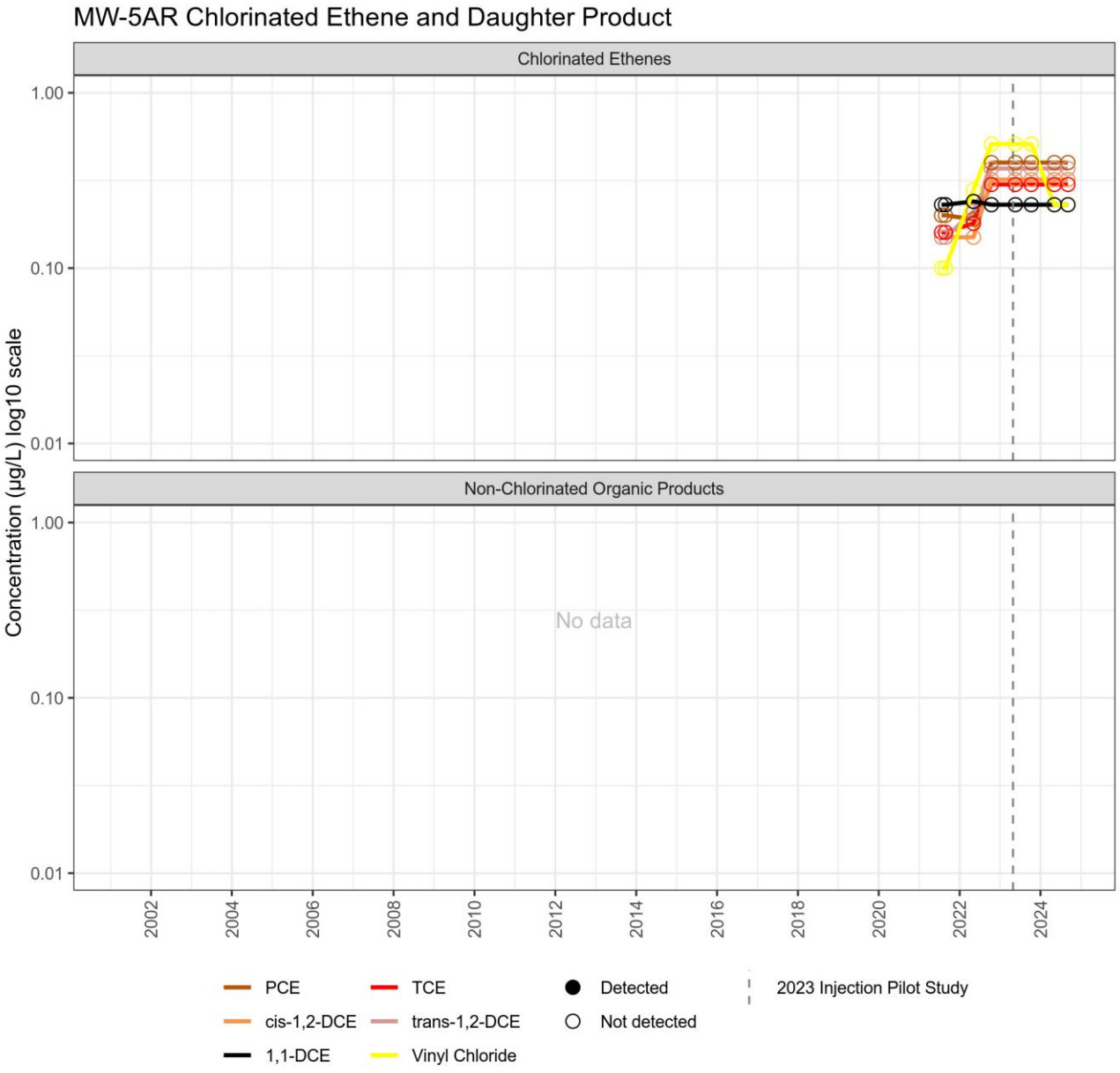
TOC and Redox Parameters



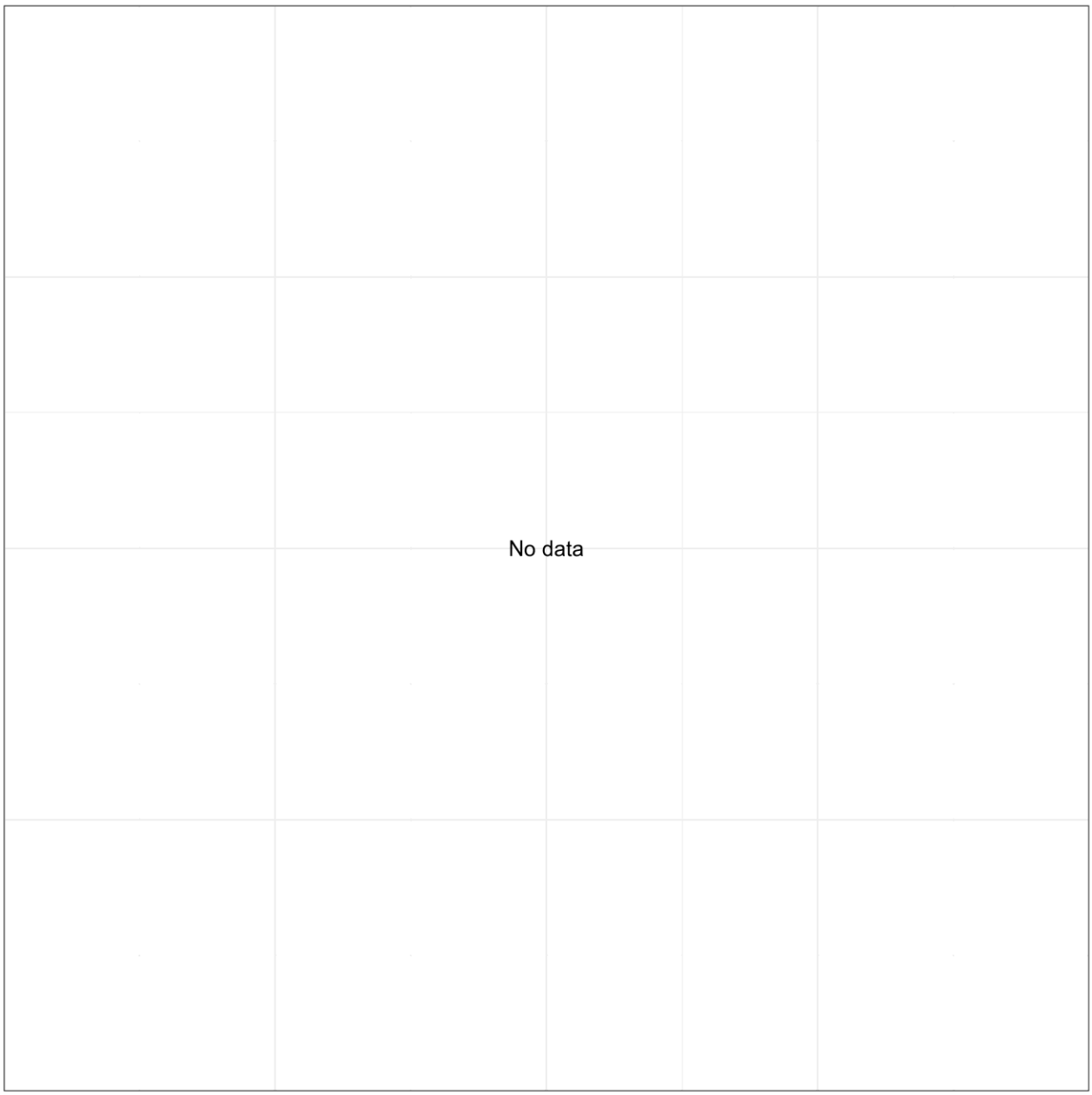
Chlorinated Ethene and Daughter Product Mass



Chlorinated Ethene and Daughter Product Mass (log10)

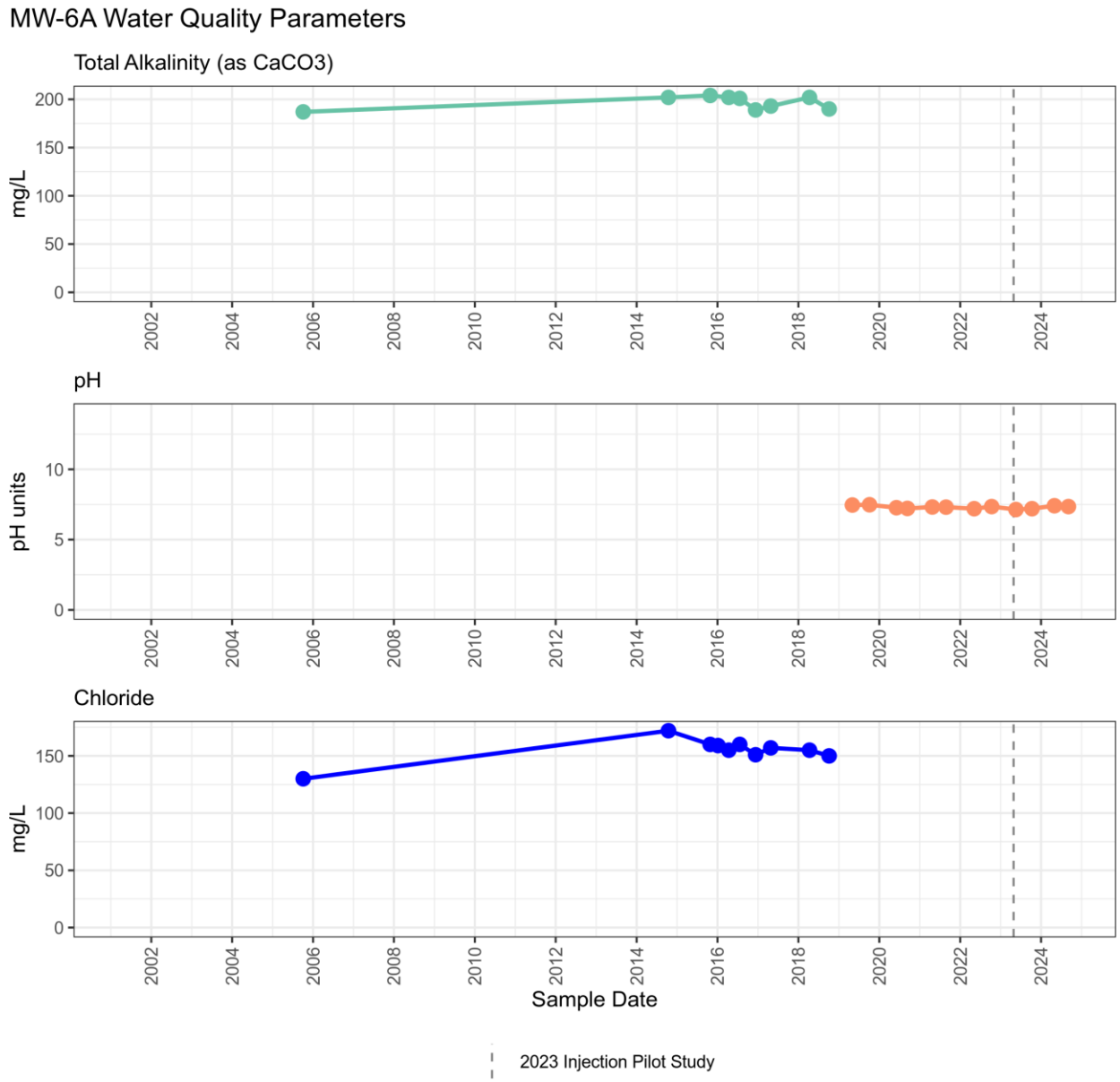


Chlorinated Ethene and Daughter Product Concentration

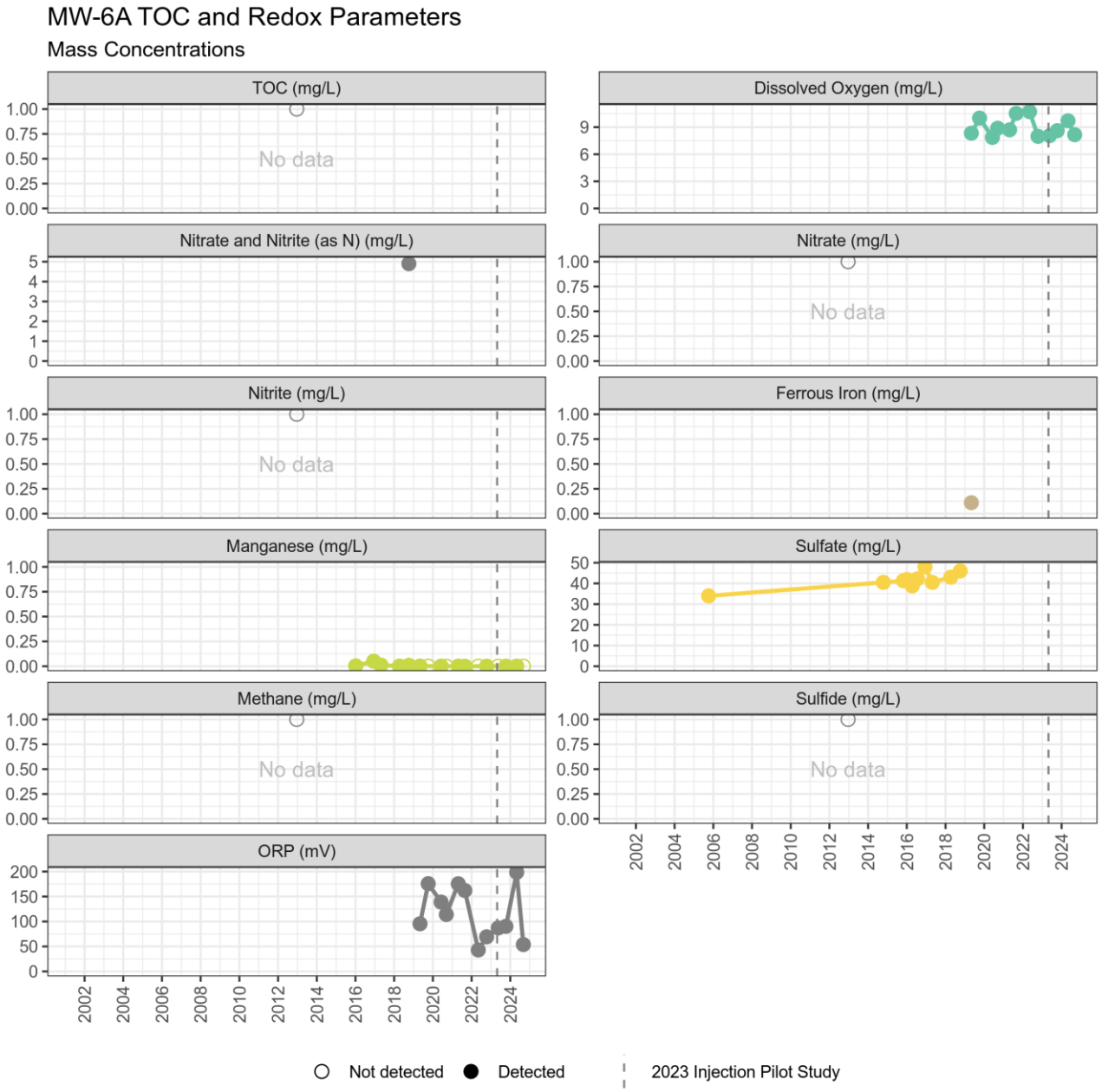


MW-6A

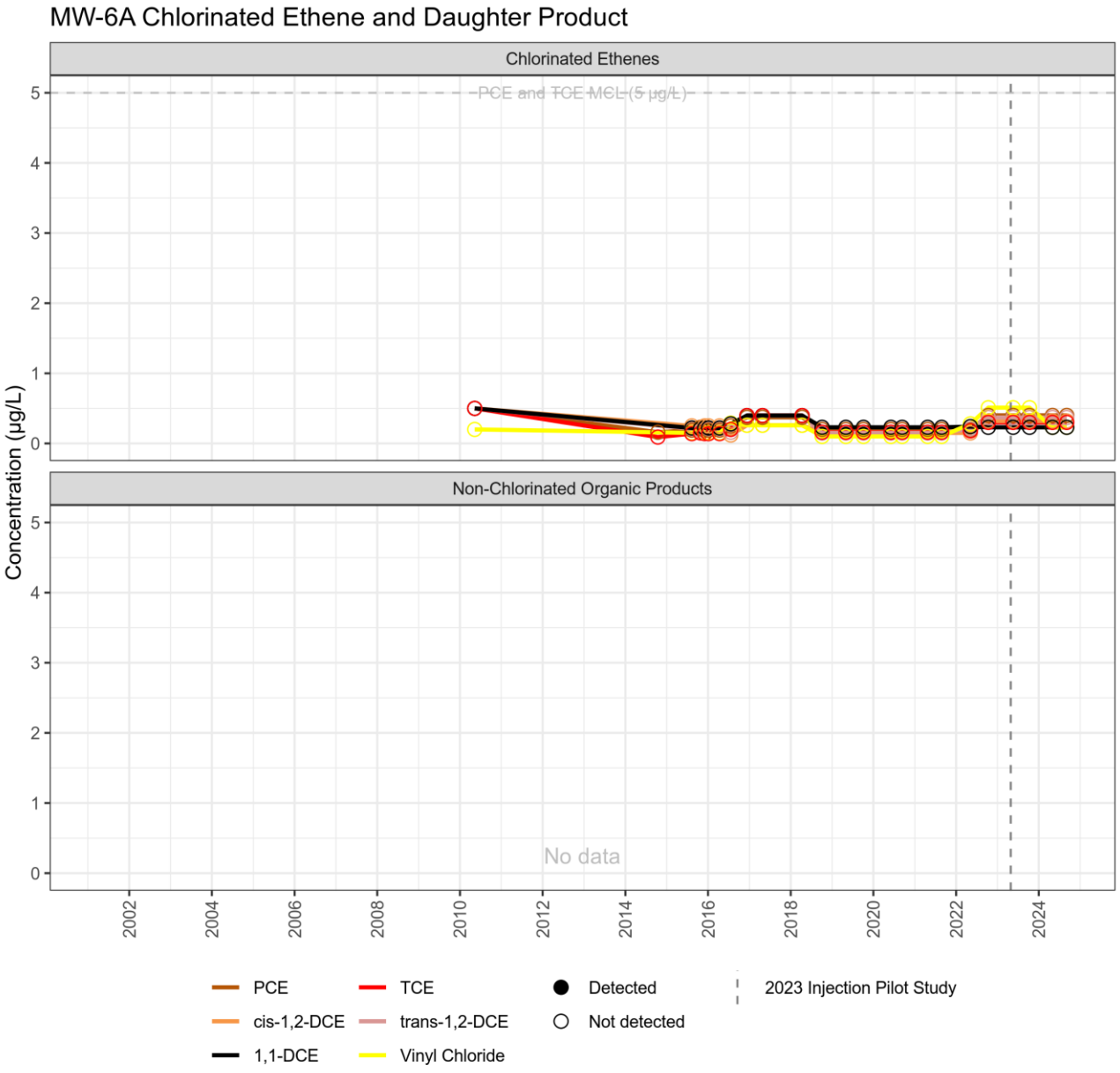
Water Quality



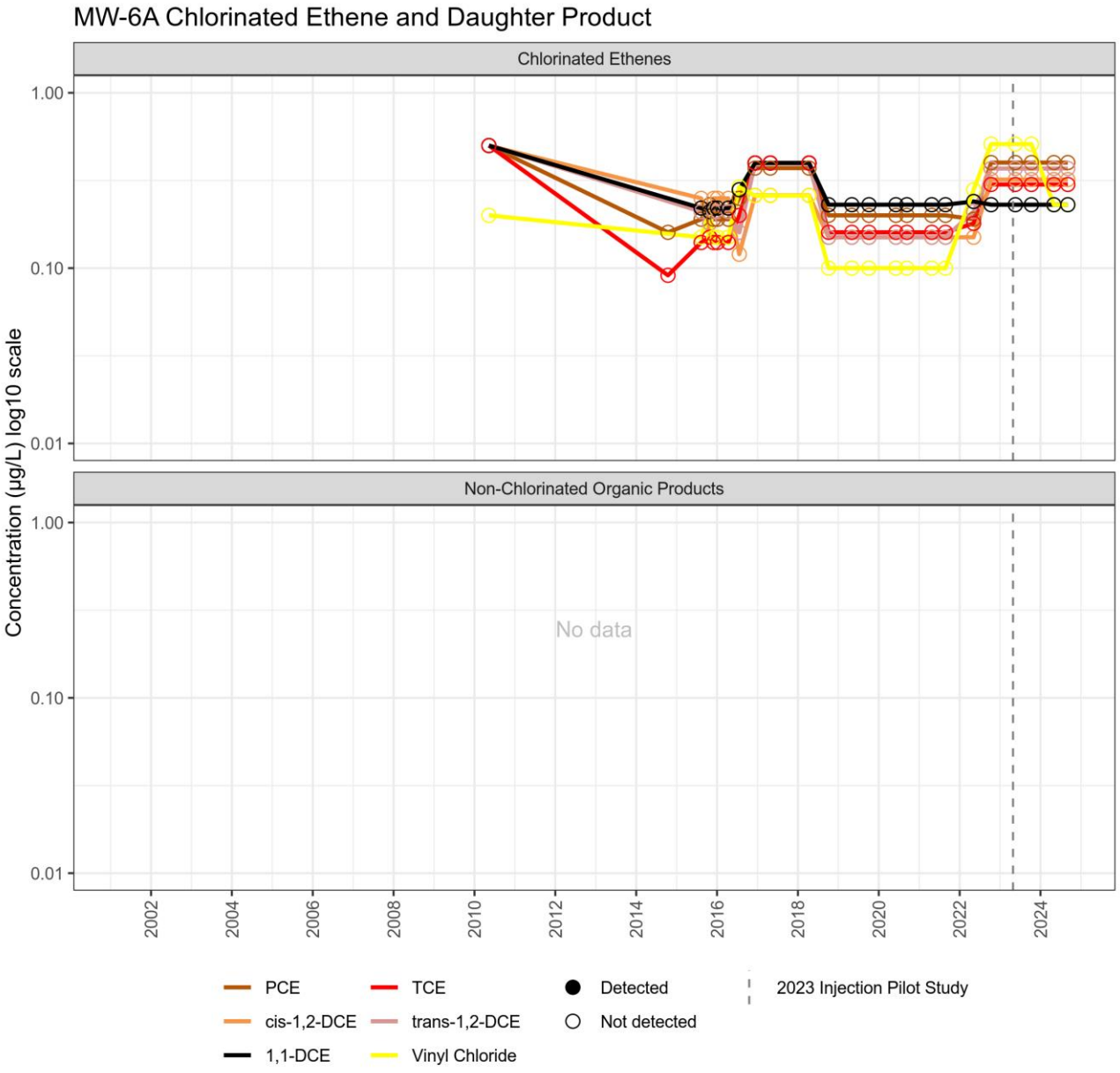
TOC and Redox Parameters



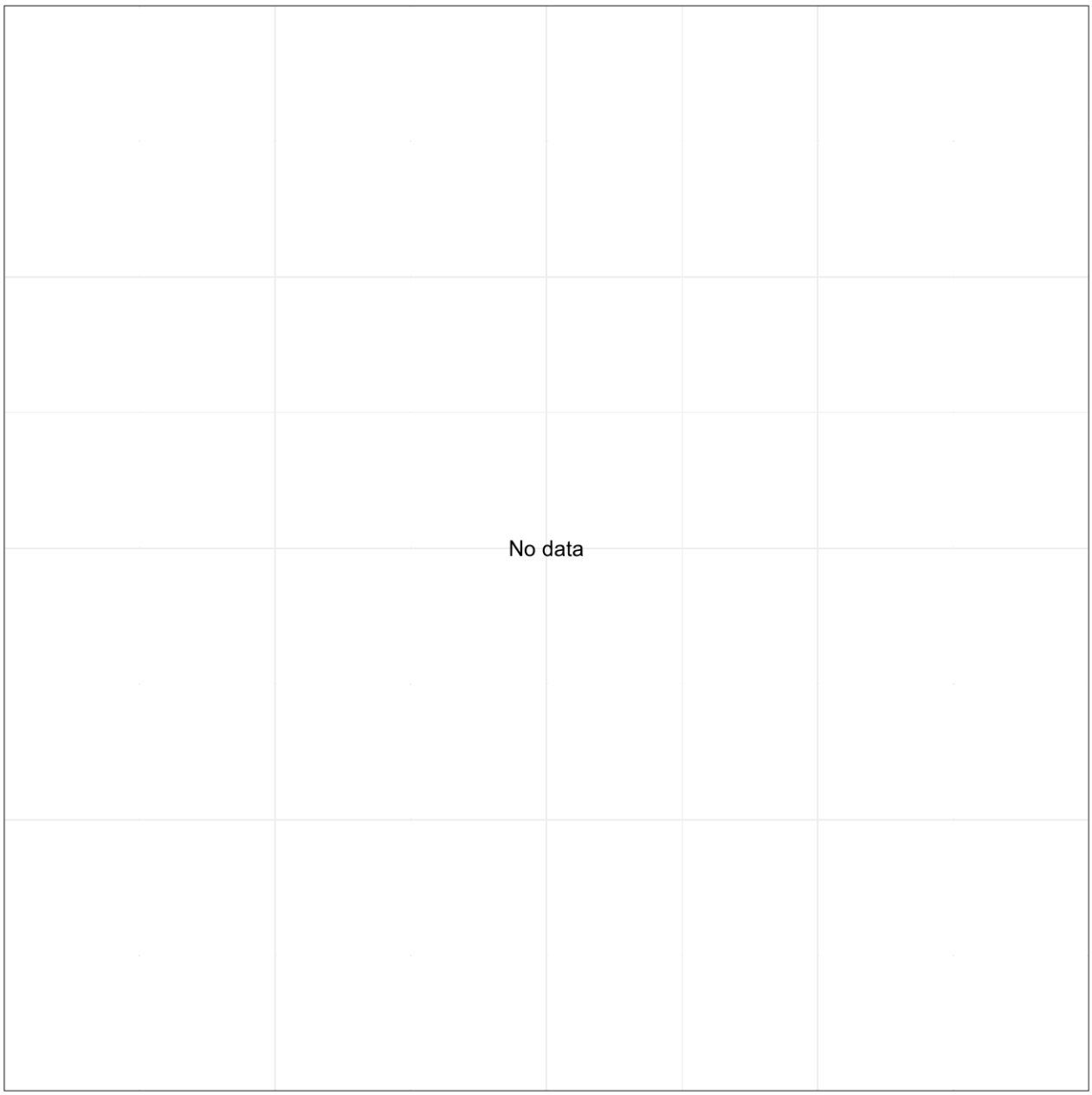
Chlorinated Ethene and Daughter Product Mass



Chlorinated Ethene and Daughter Product Mass (log10)



Chlorinated Ethene and Daughter Product Concentration



Chlorinated Ethenes and Geochemistry Time Series Plots - Remediation System Extraction Well

Data filters

This report is filtered to only include:

- **RW-4, RW-5, RW-9R, RW-10, RW-15, and RW-17** from **Remediation System Extraction Well**
- Results from **02 January 2001** to **10 September 2024**

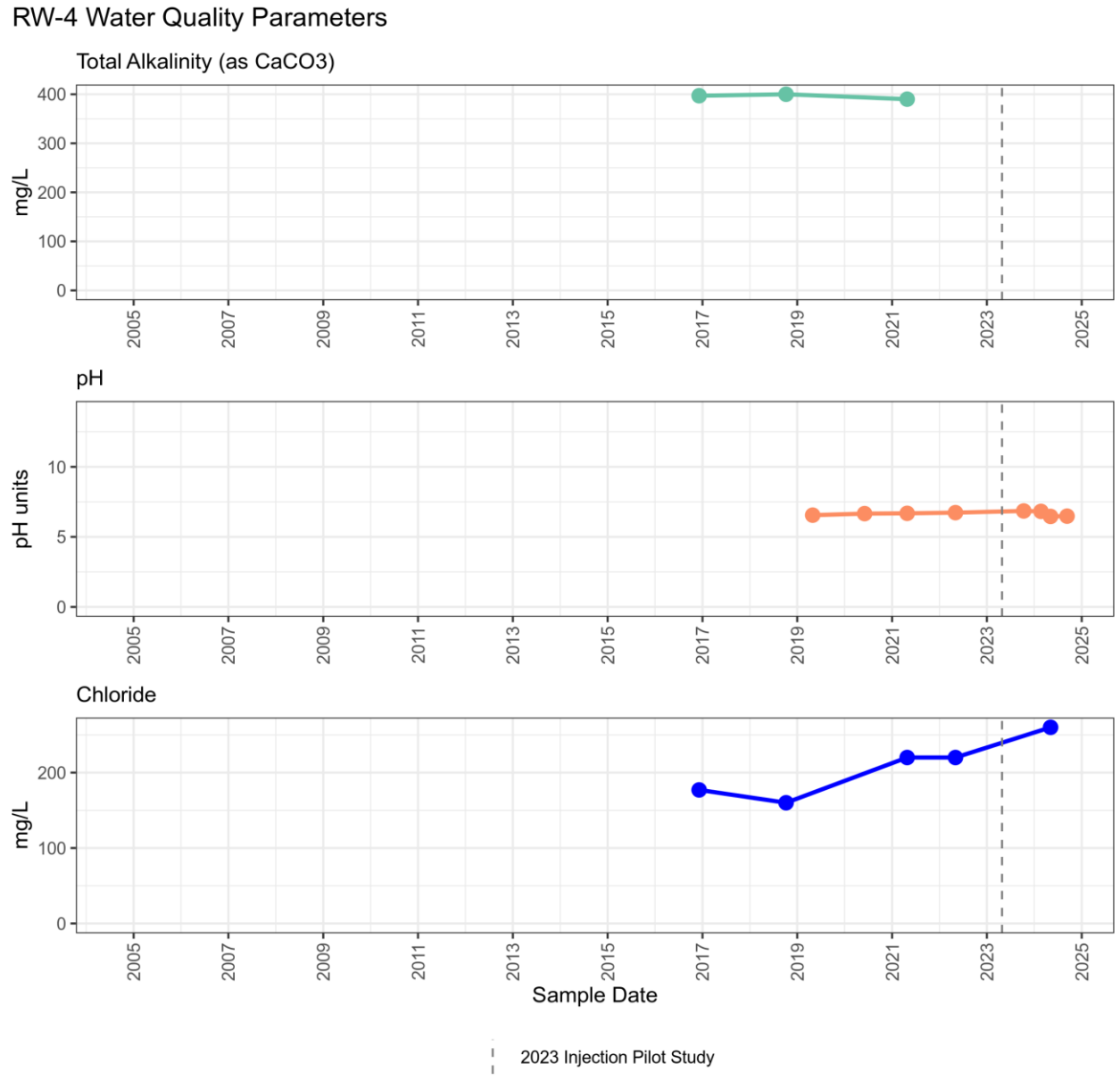
Graph notes

- When only the year is shown in the x-axis label, this represents the start of the year
- The molar concentration graphs only plot detected data
- ORP values that are negative cannot be put in to a log10 scale graph and will not show.

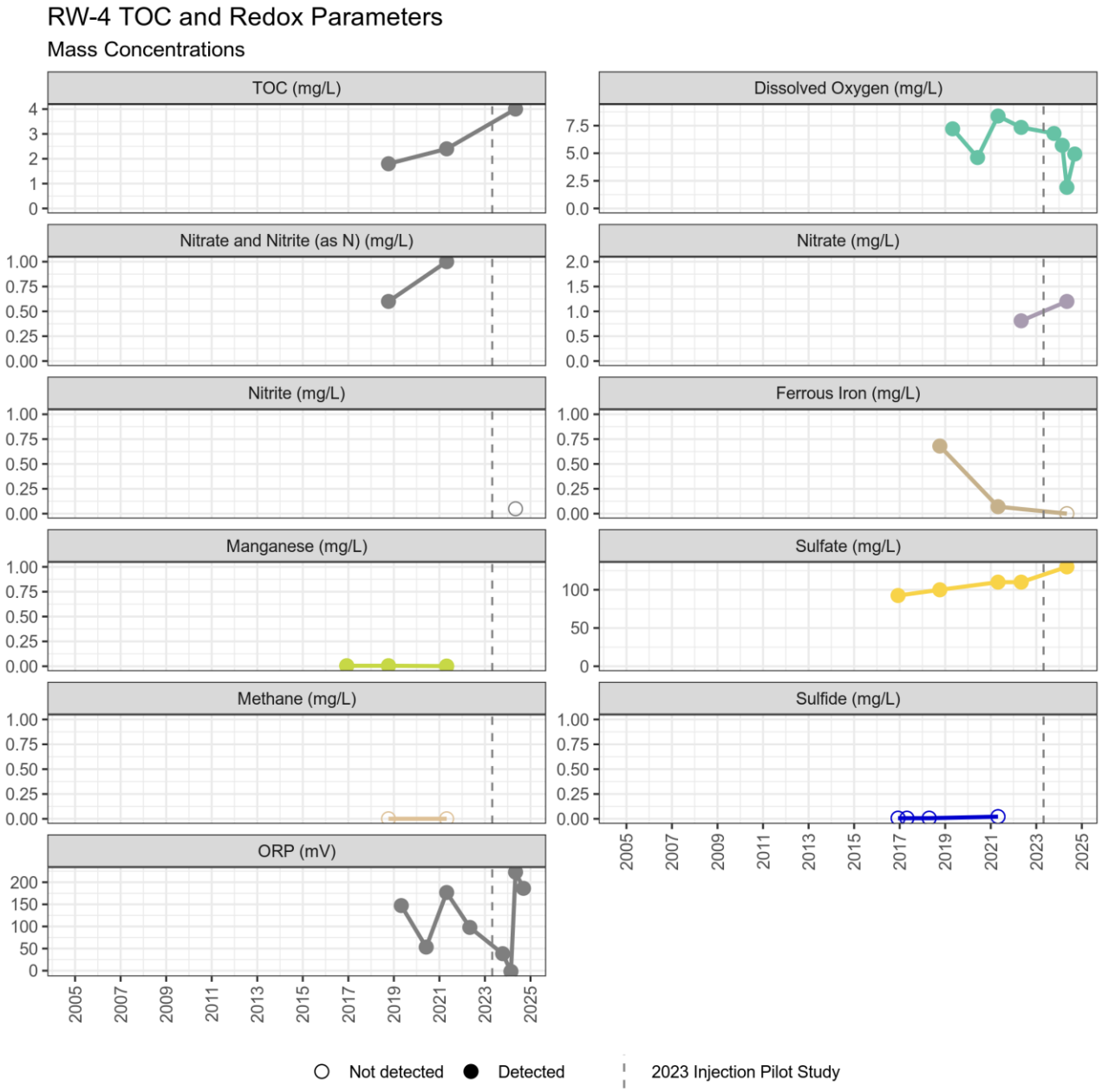
Well summaries

RW-4

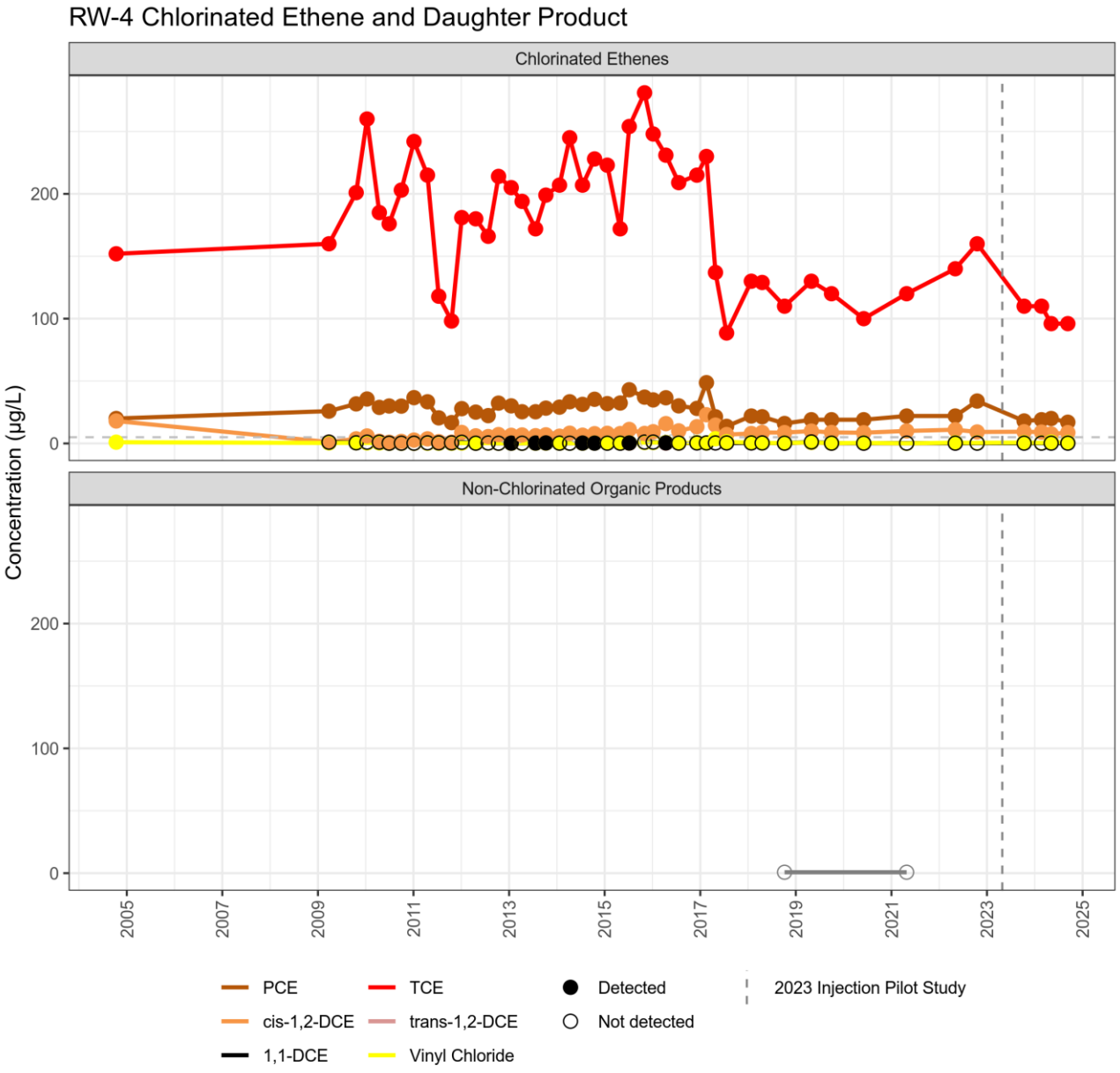
Water Quality



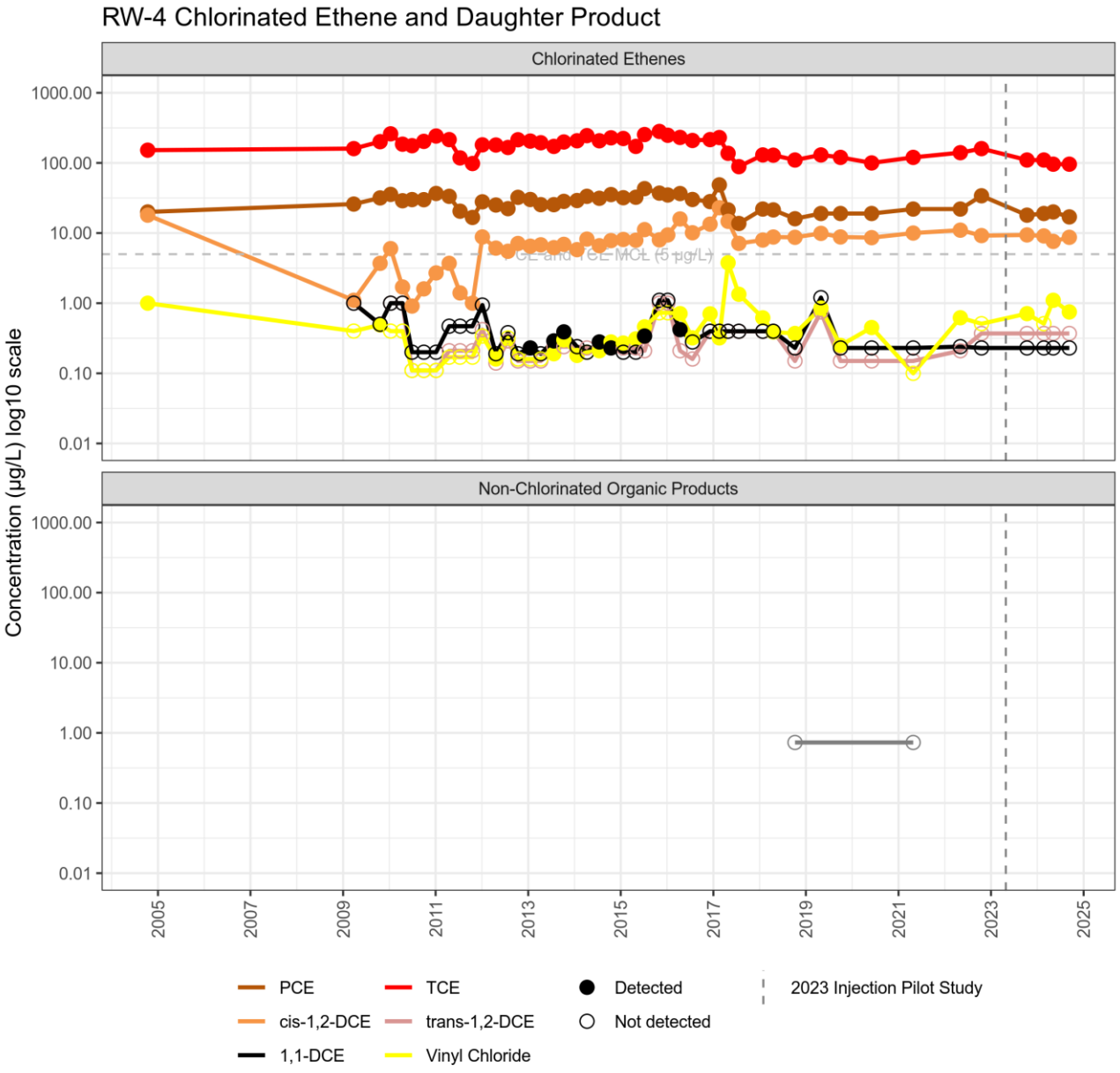
TOC and Redox Parameters



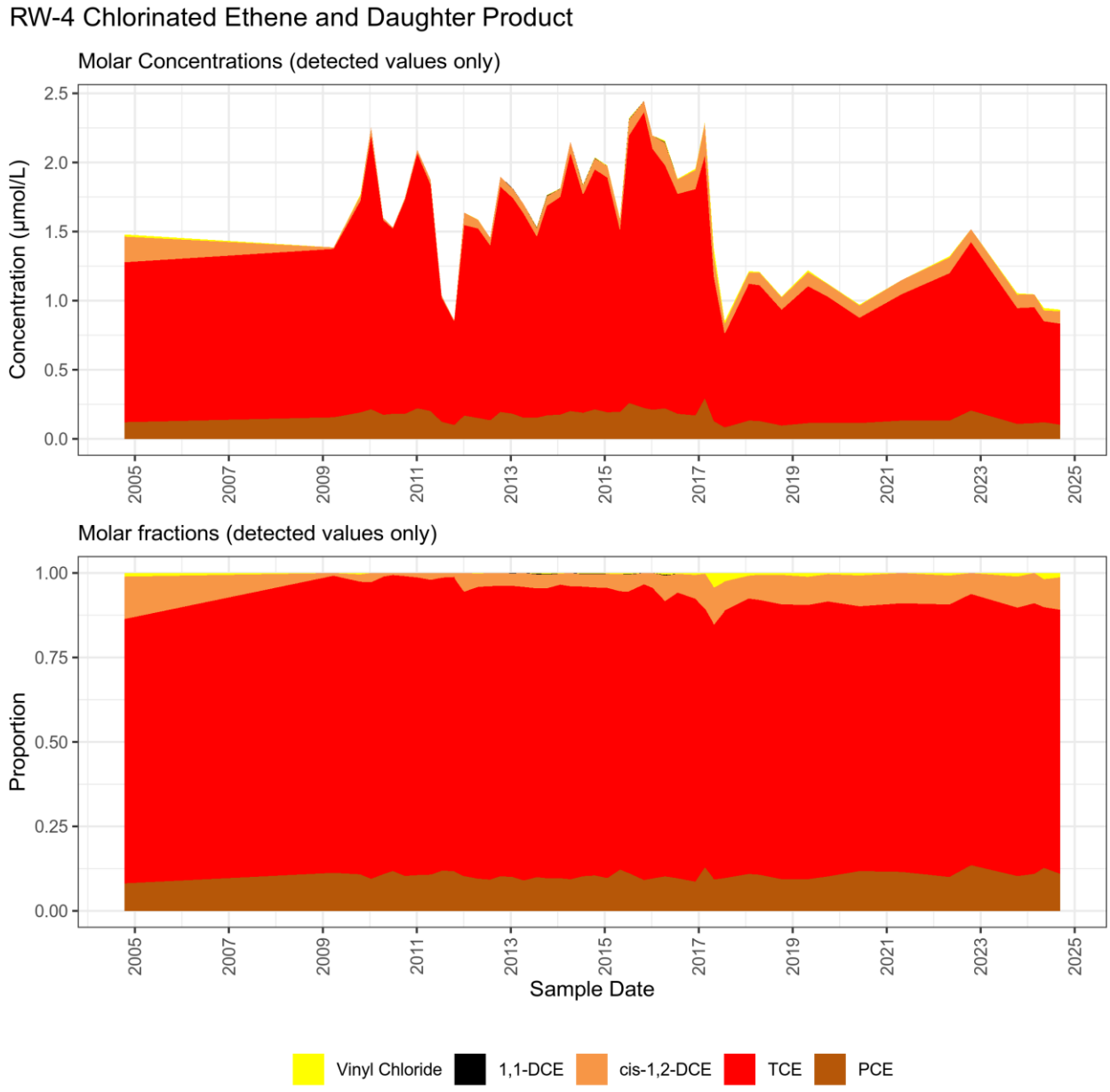
Chlorinated Ethene and Daughter Product Mass



Chlorinated Ethene and Daughter Product Mass (log10)

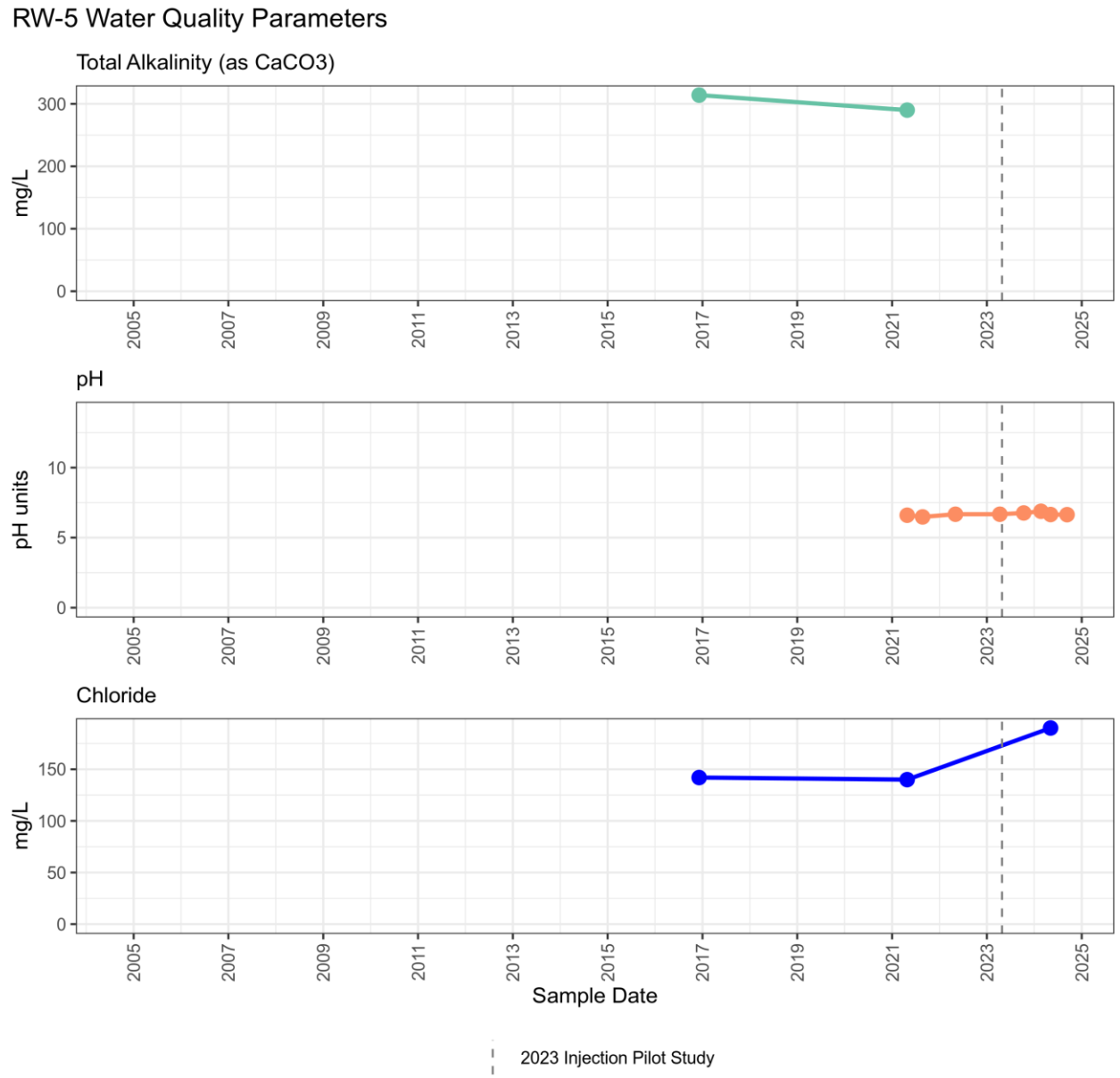


Chlorinated Ethene and Daughter Product Concentration

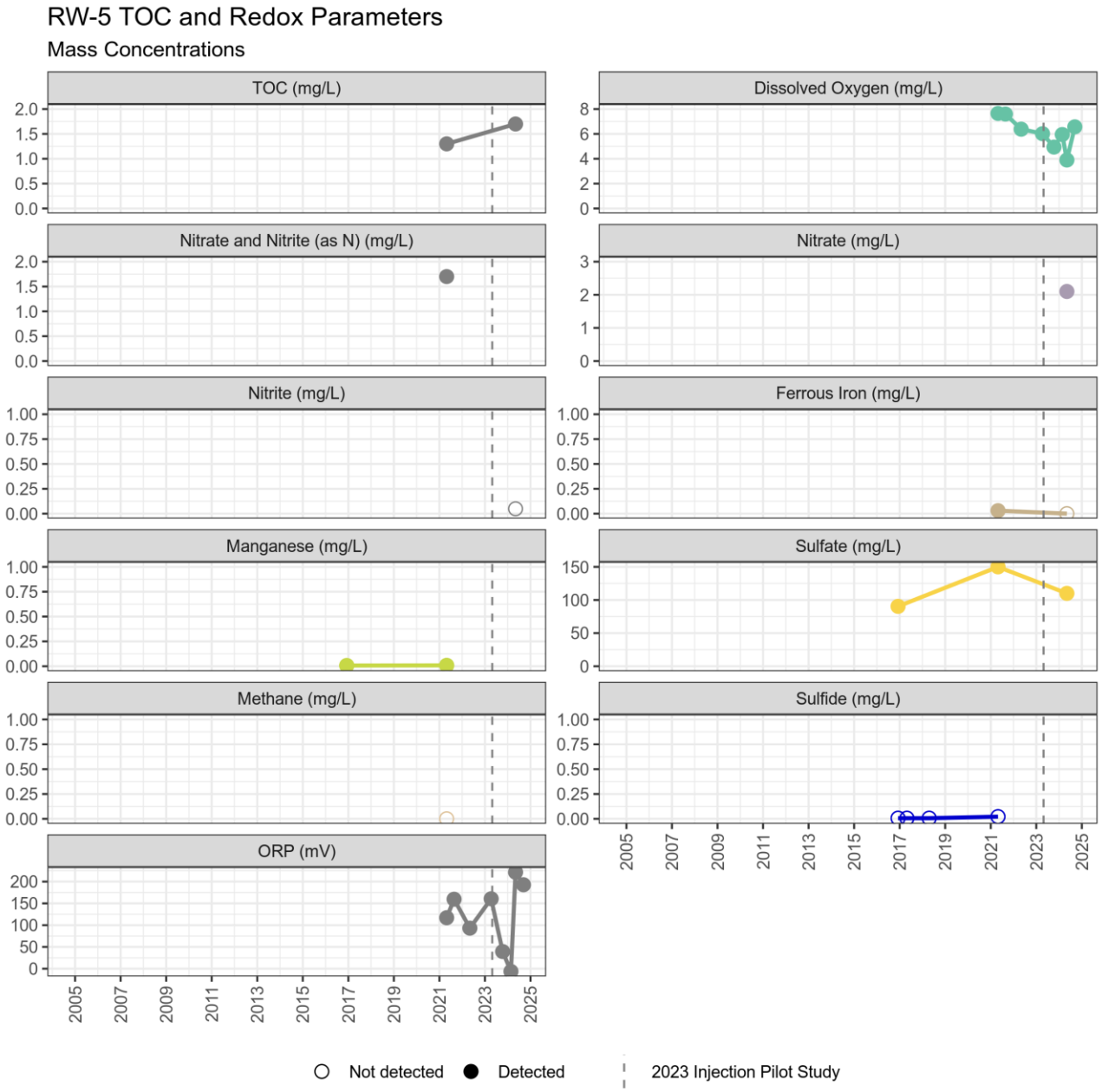


RW-5

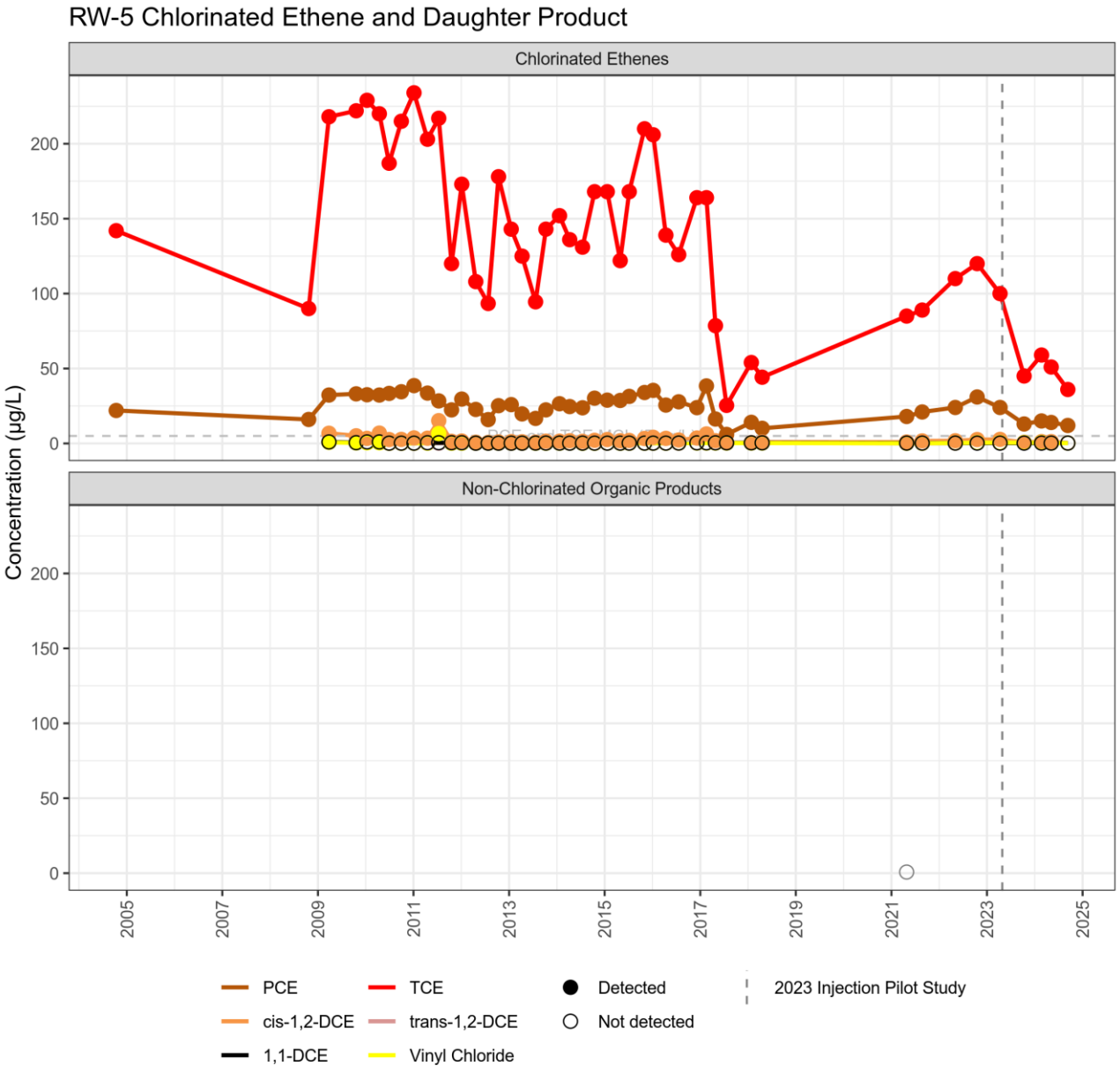
Water Quality



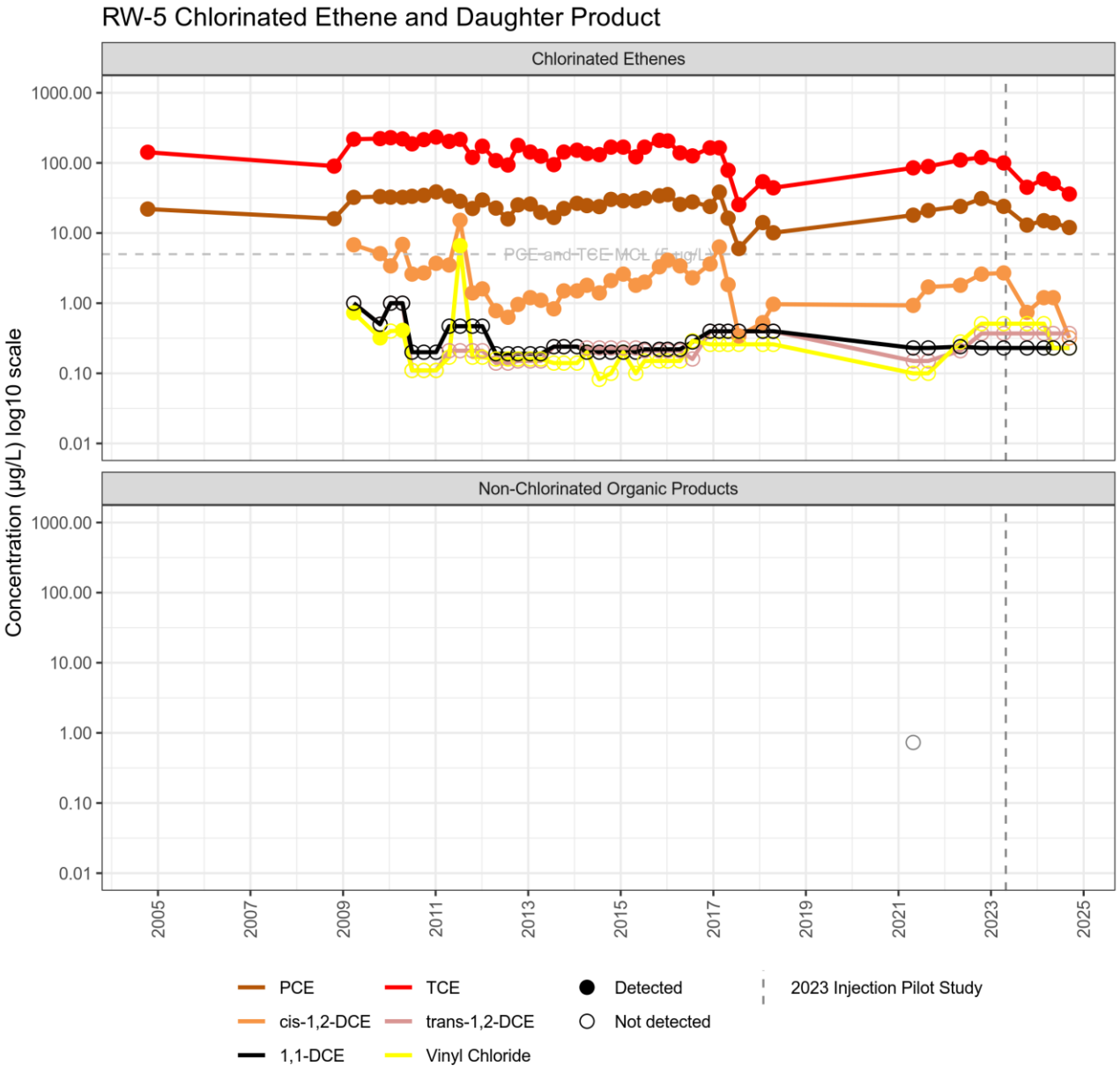
TOC and Redox Parameters



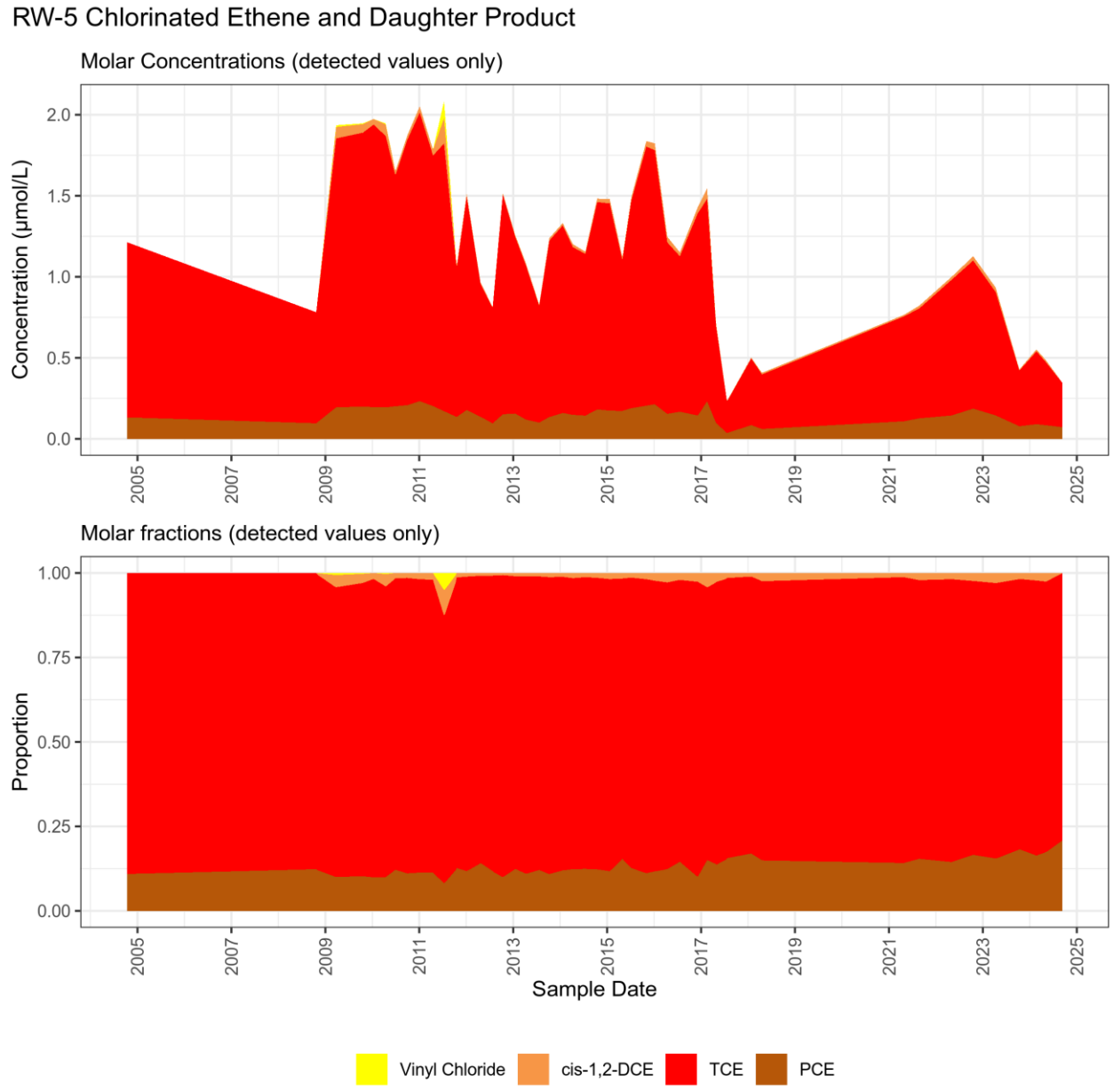
Chlorinated Ethene and Daughter Product Mass



Chlorinated Ethene and Daughter Product Mass (log10)

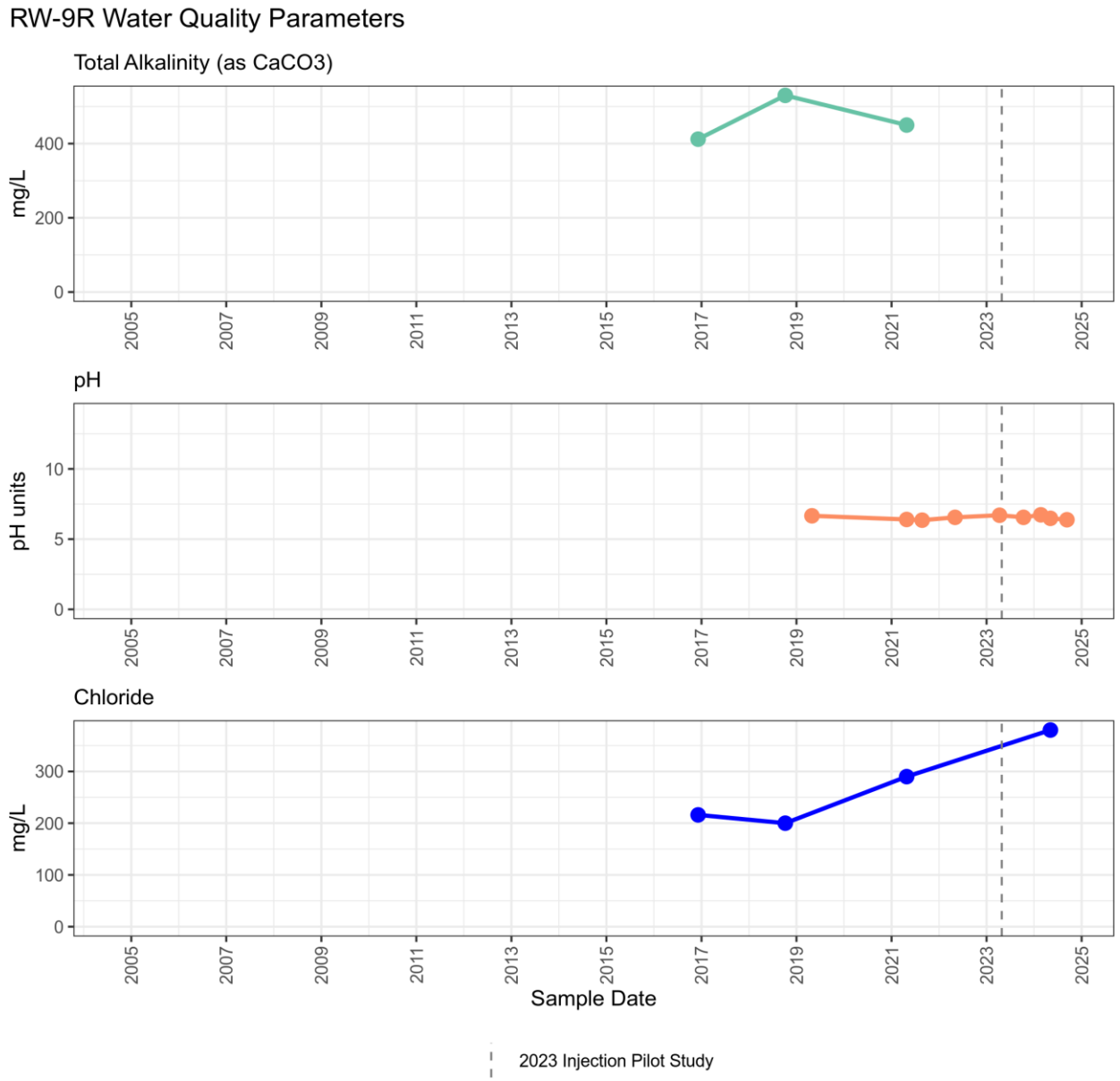


Chlorinated Ethene and Daughter Product Concentration

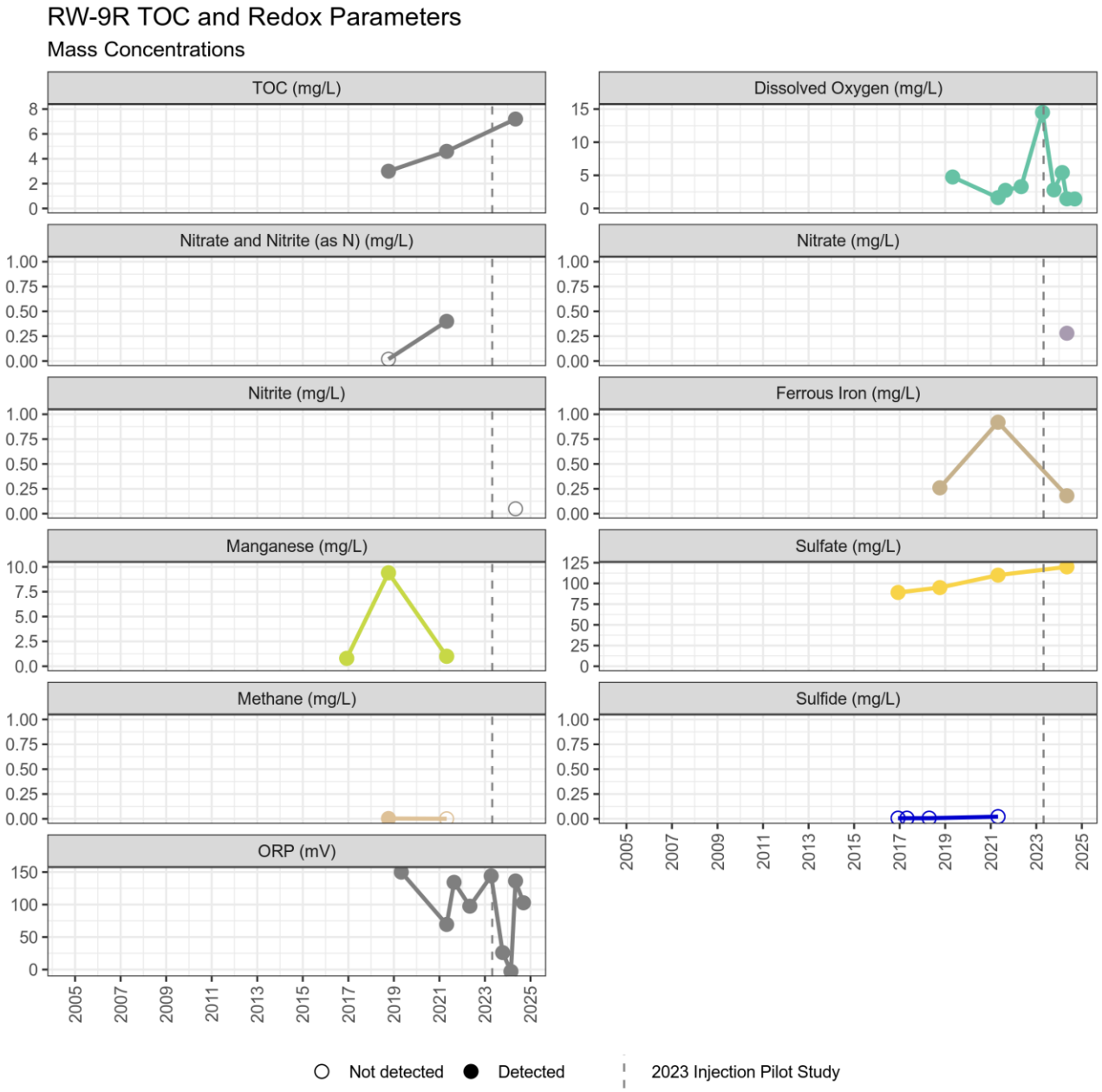


RW-9R

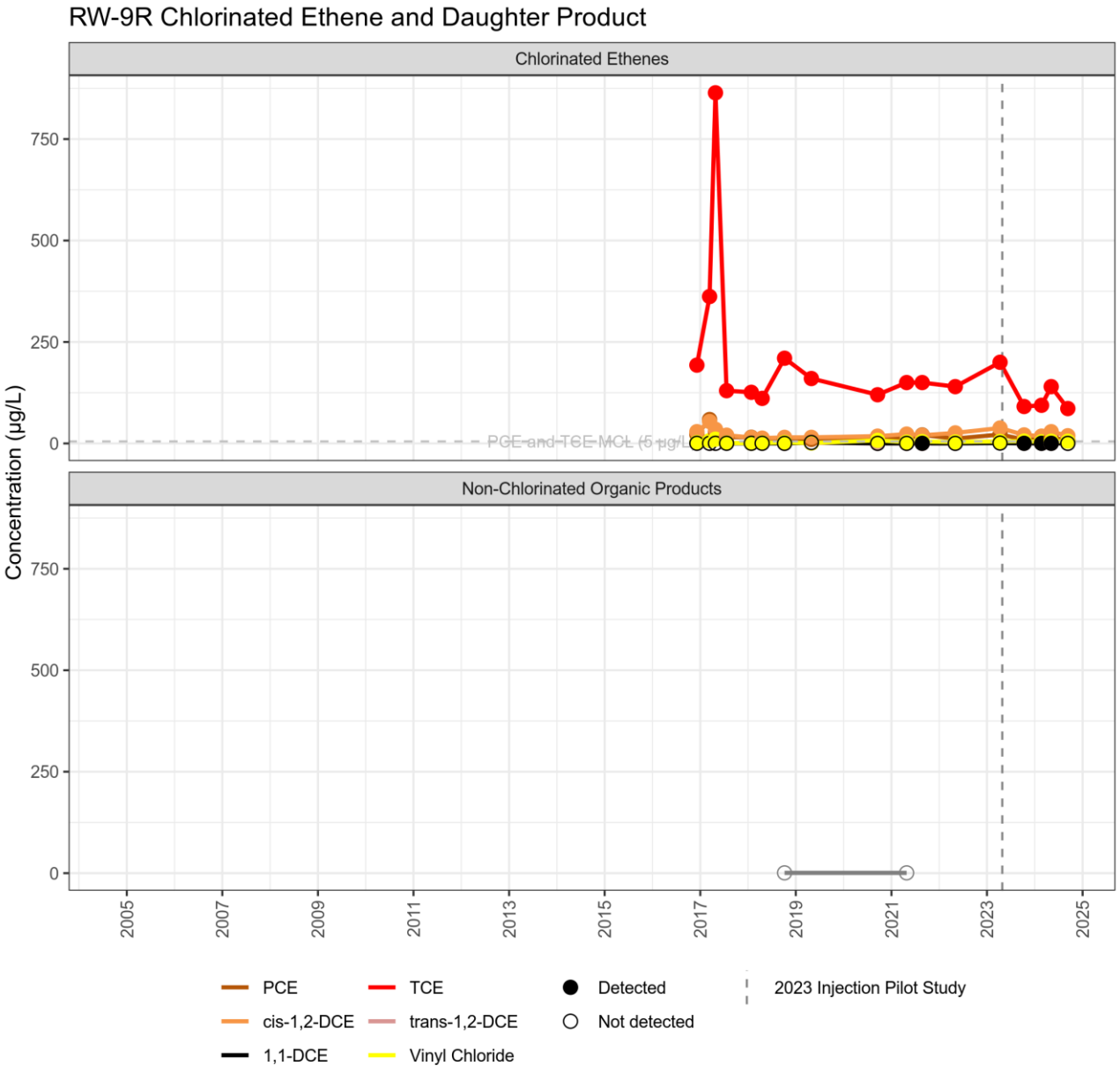
Water Quality



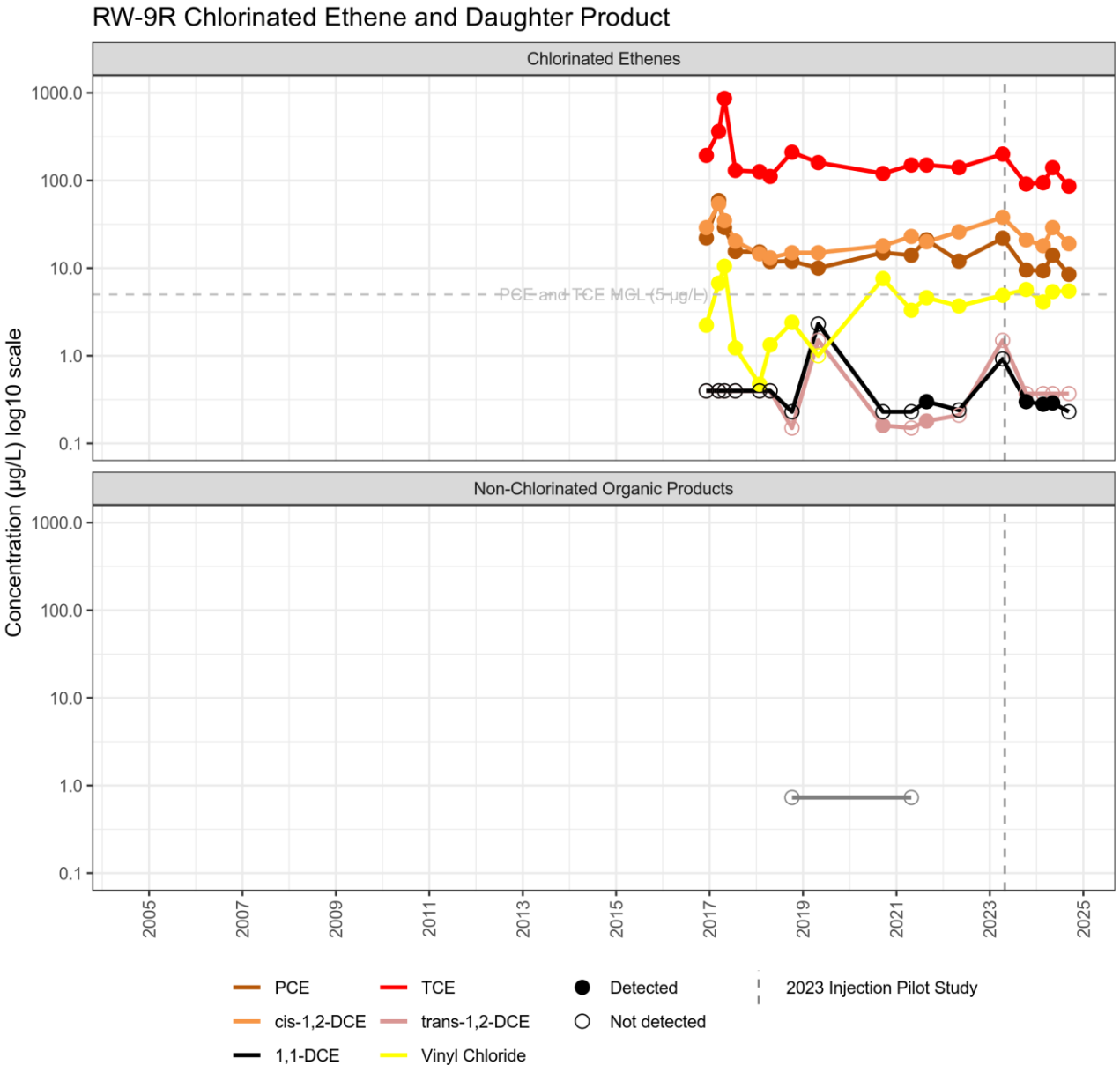
TOC and Redox Parameters



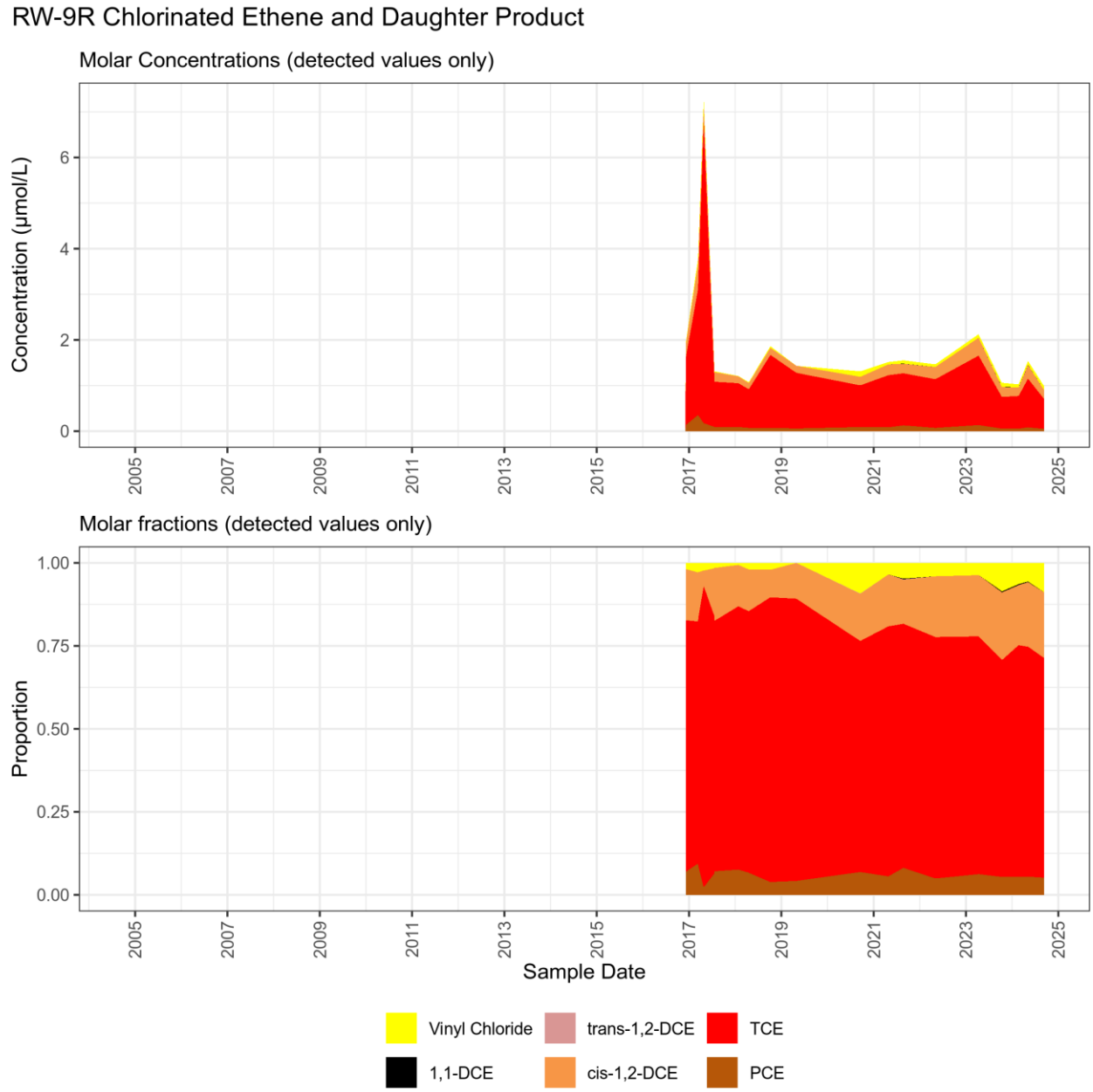
Chlorinated Ethene and Daughter Product Mass



Chlorinated Ethene and Daughter Product Mass (log10)

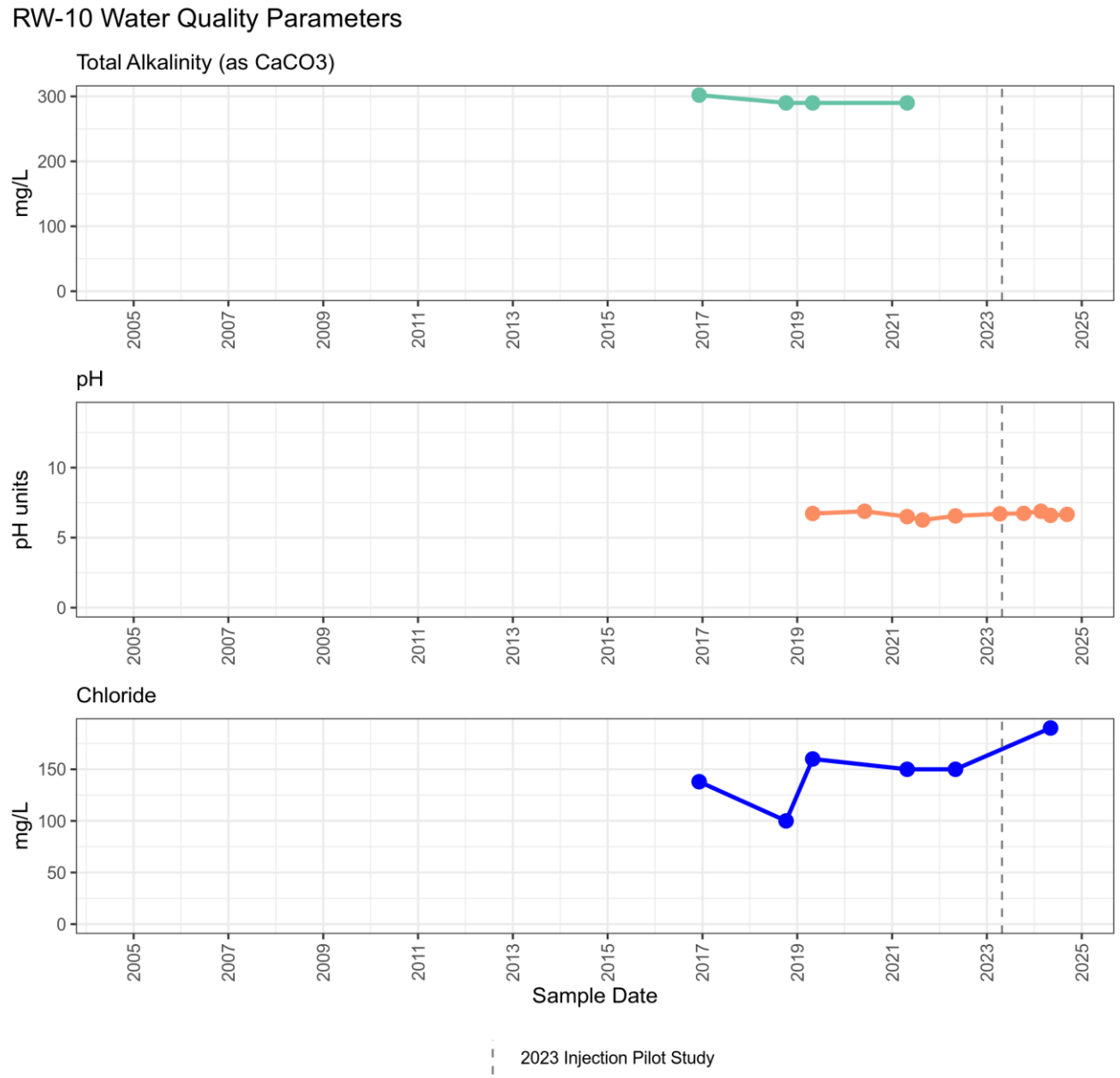


Chlorinated Ethene and Daughter Product Concentration

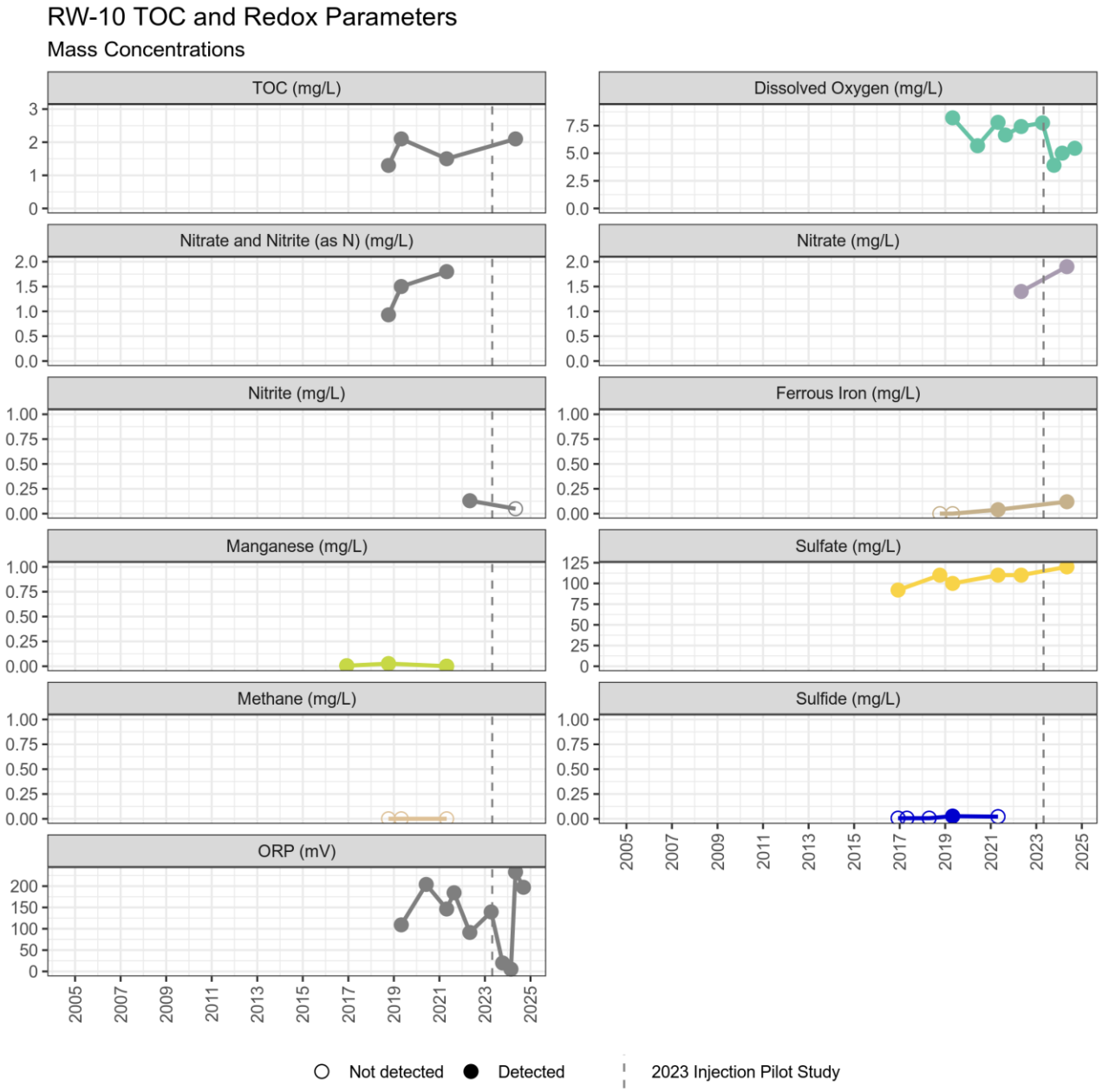


RW-10

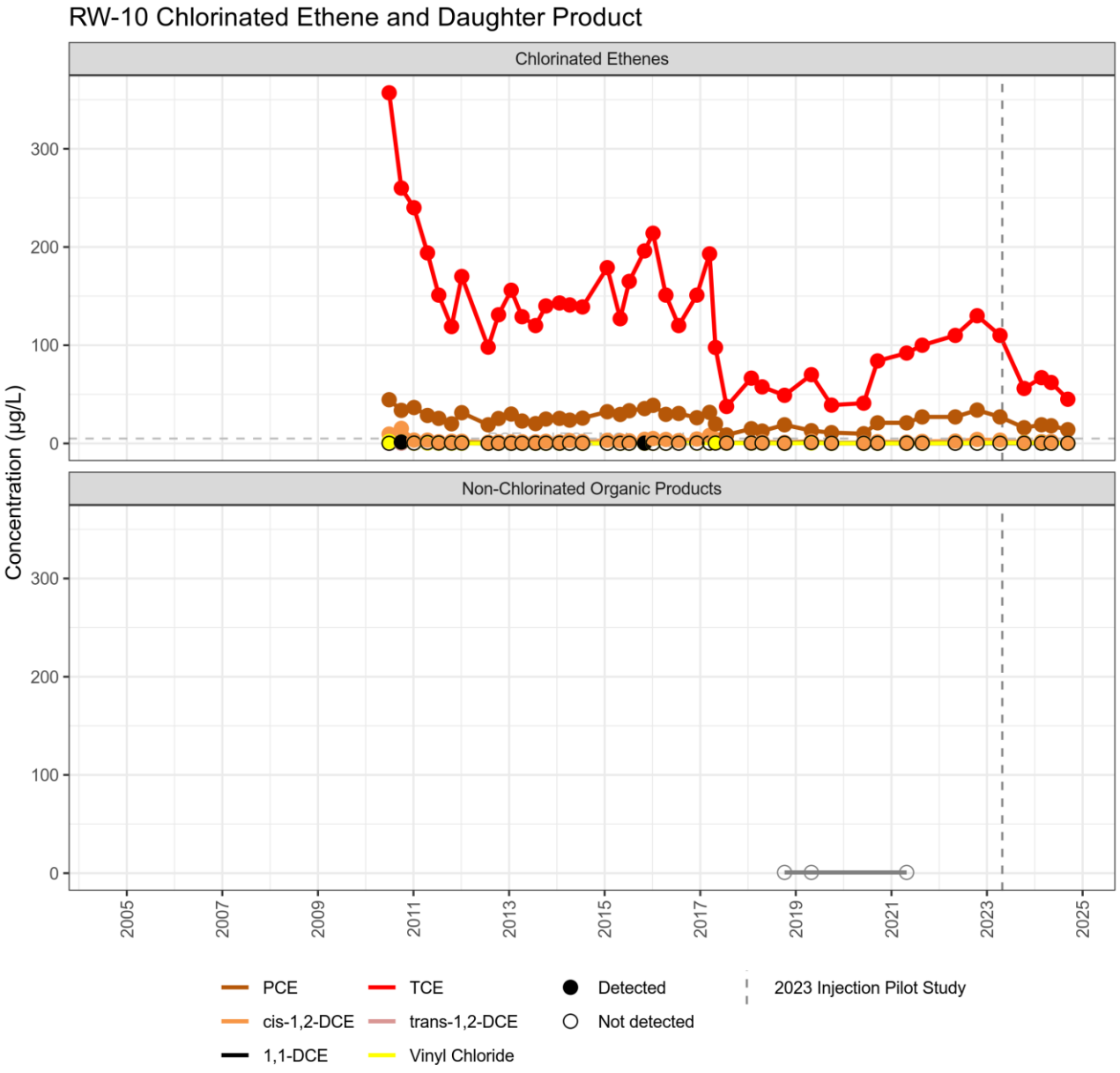
Water Quality



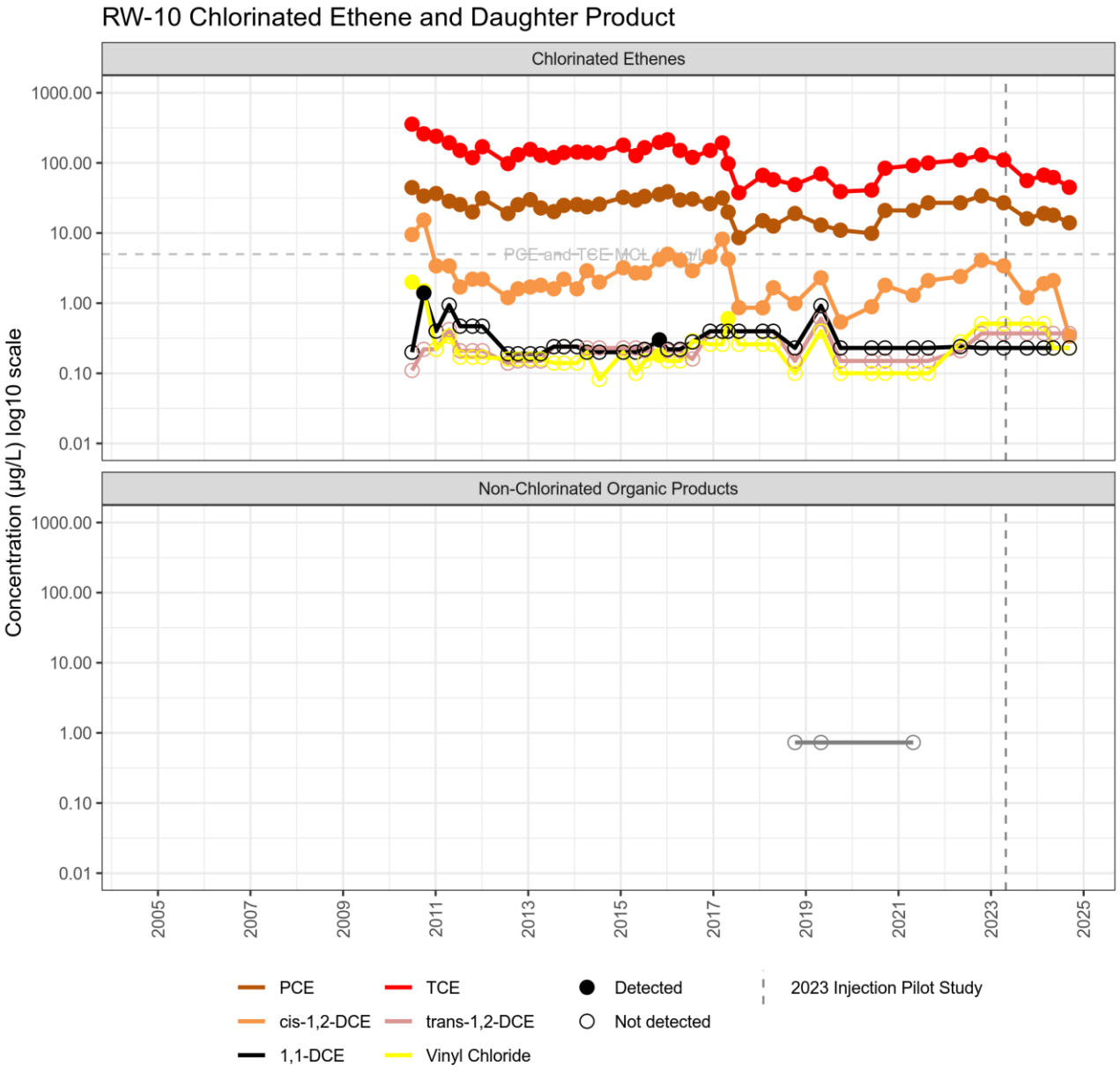
TOC and Redox Parameters



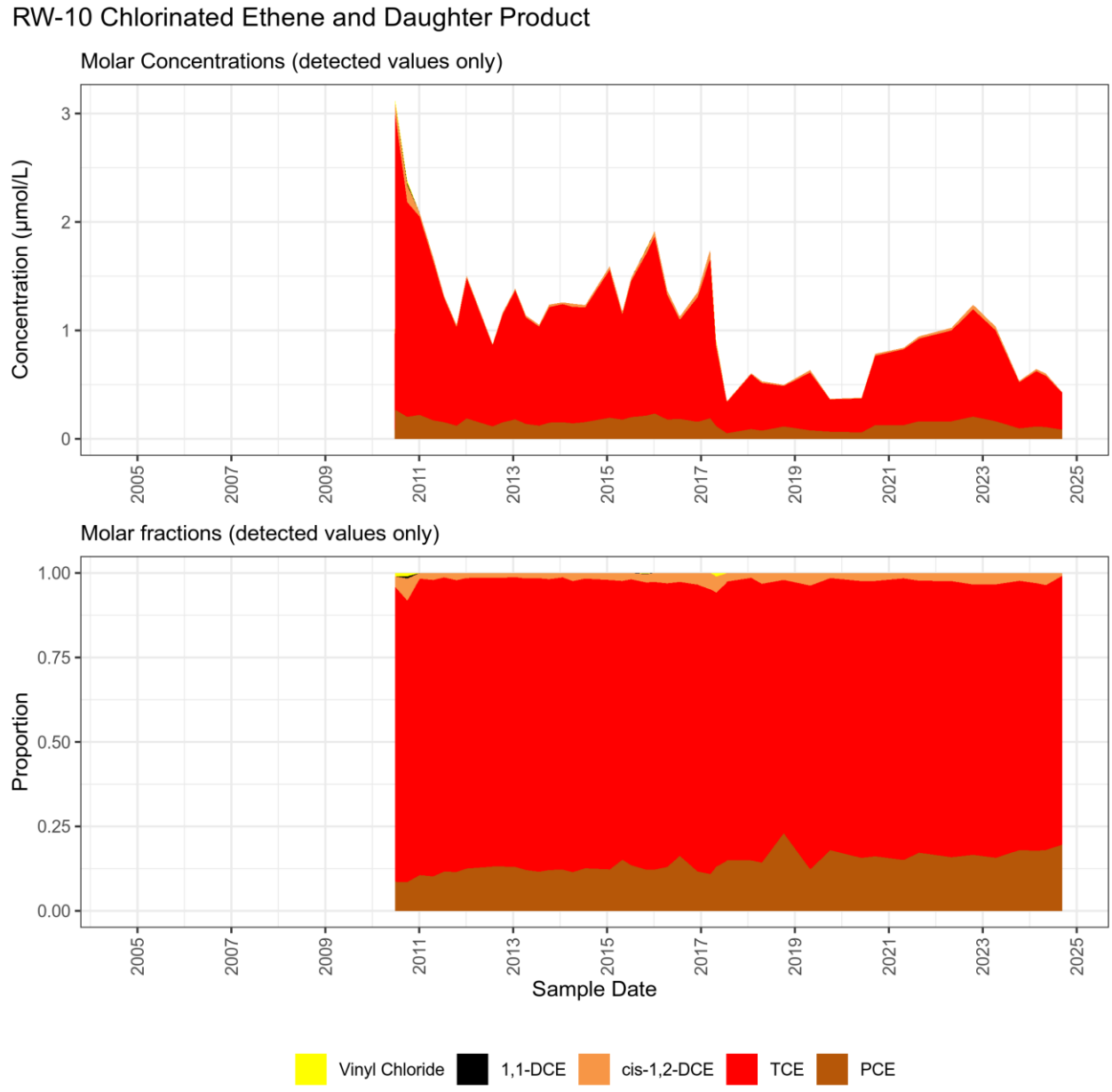
Chlorinated Ethene and Daughter Product Mass



Chlorinated Ethene and Daughter Product Mass (log10)

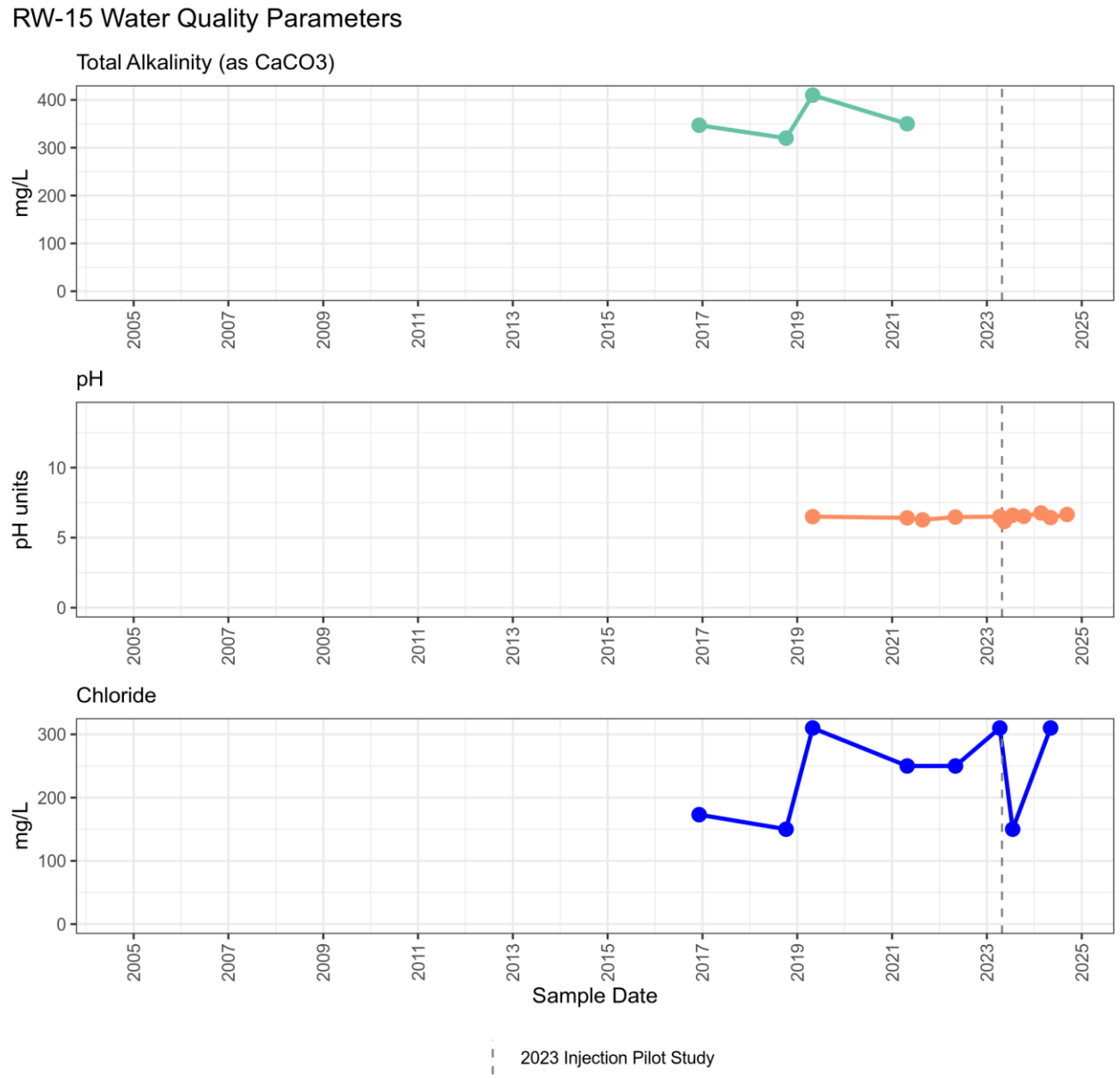


Chlorinated Ethene and Daughter Product Concentration

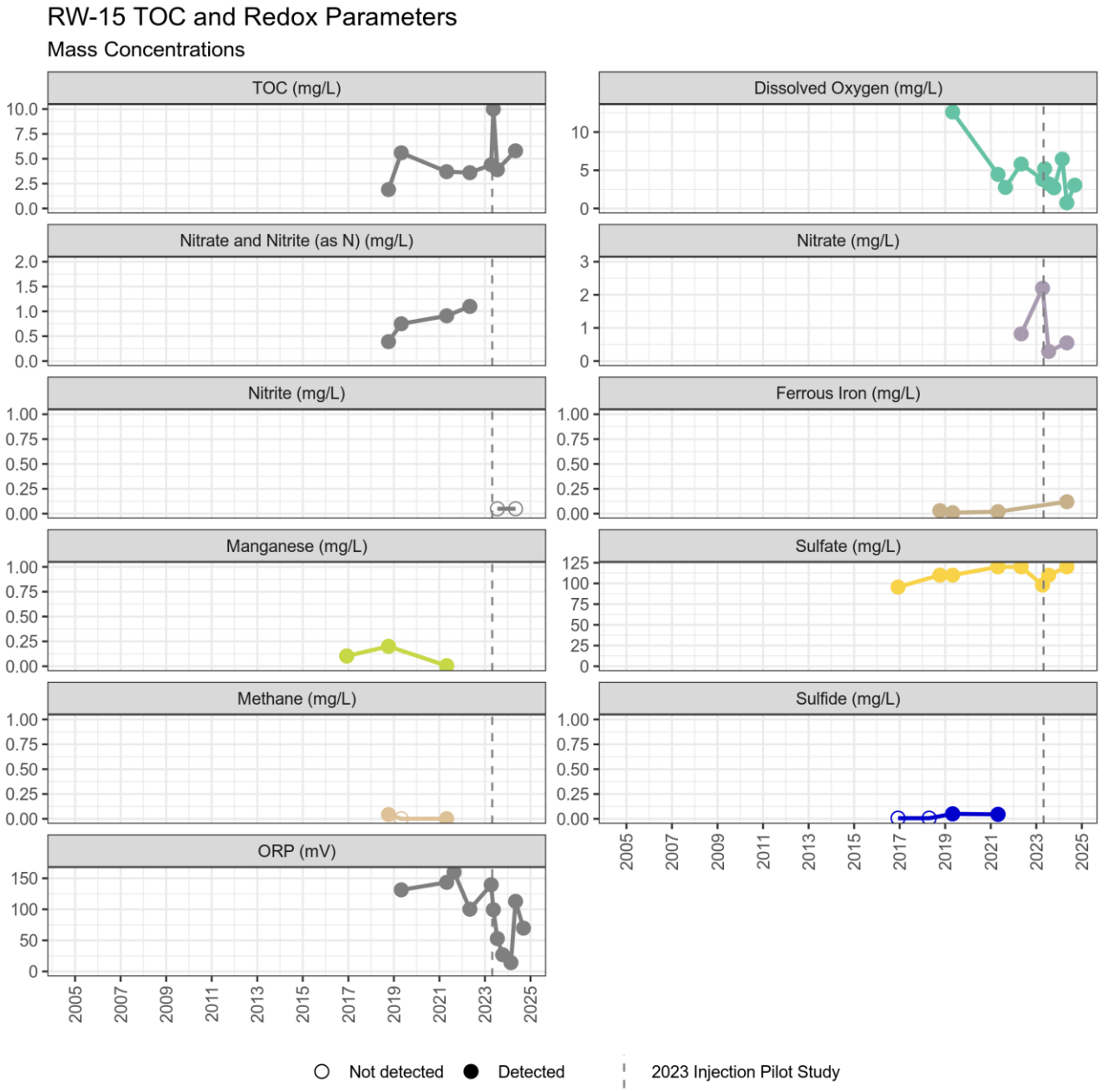


RW-15

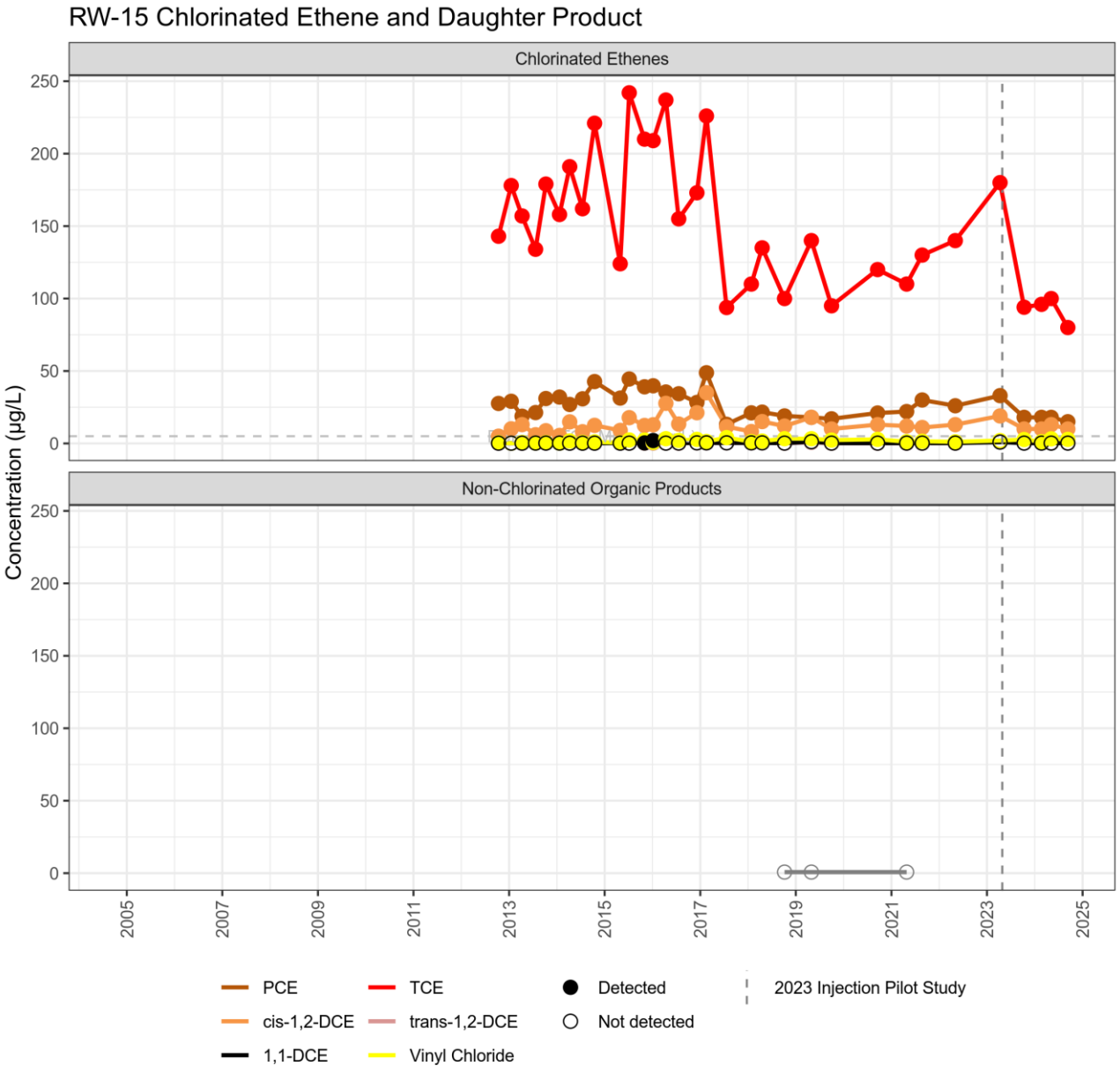
Water Quality



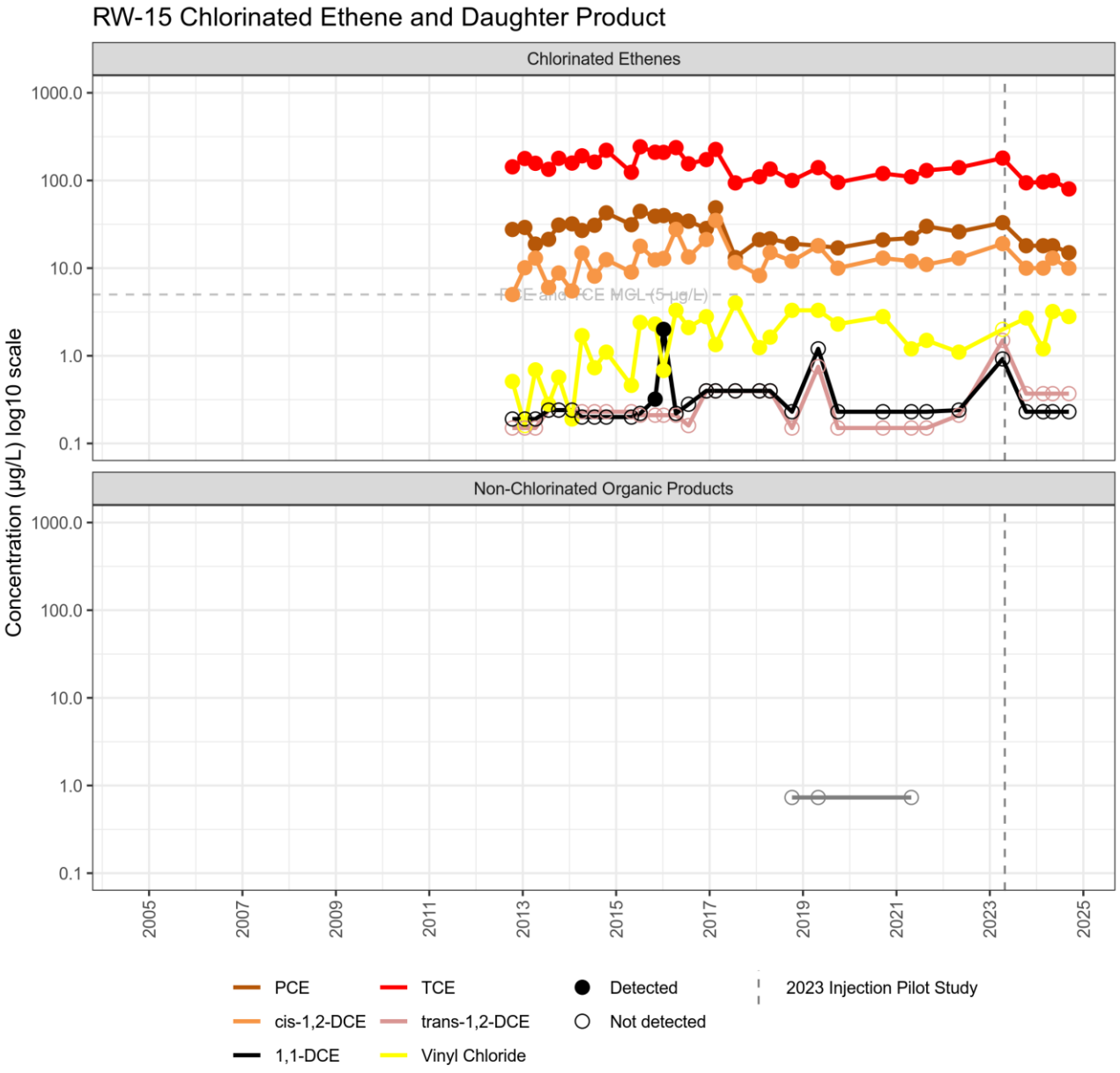
TOC and Redox Parameters



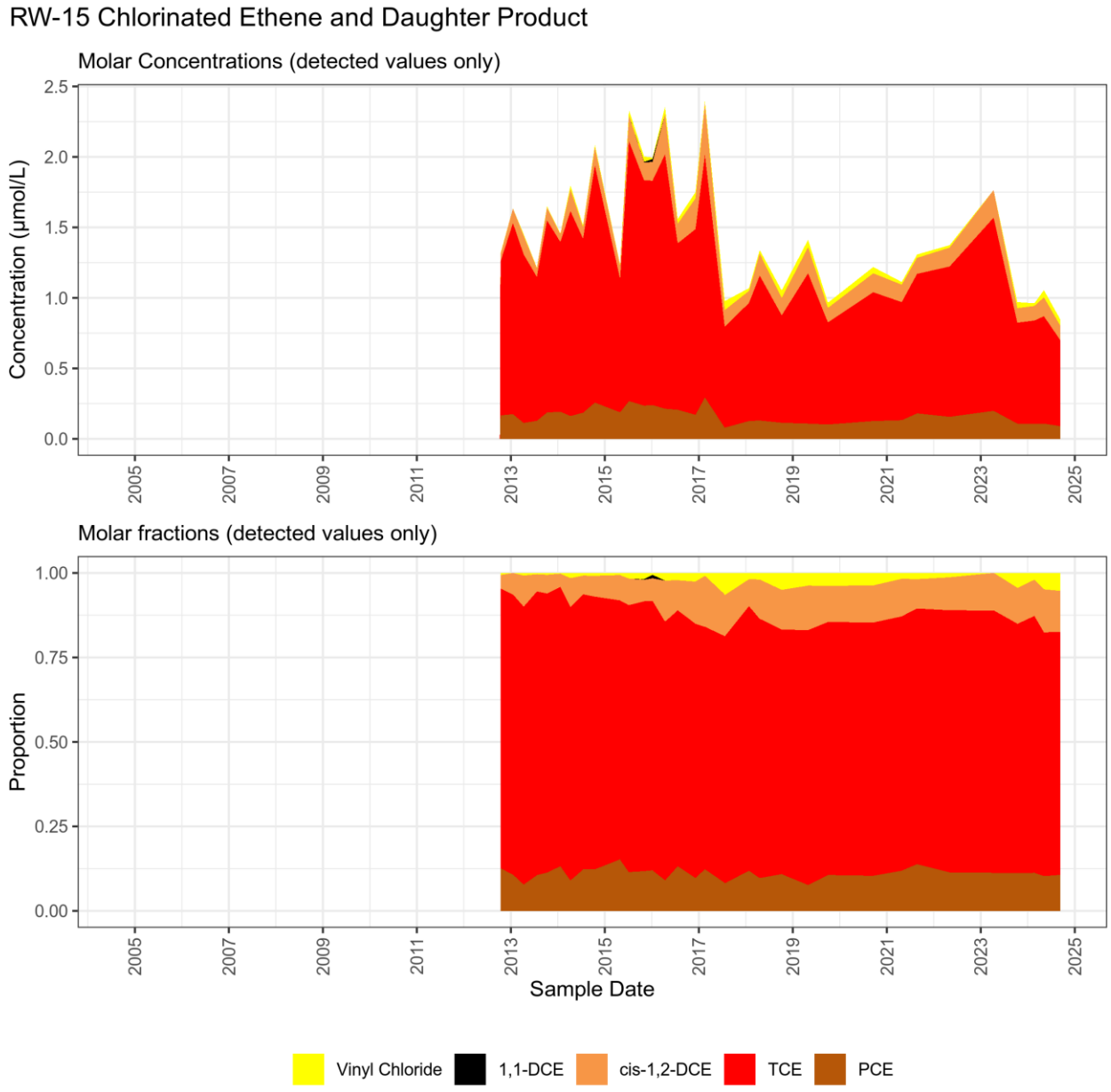
Chlorinated Ethene and Daughter Product Mass



Chlorinated Ethene and Daughter Product Mass (log10)

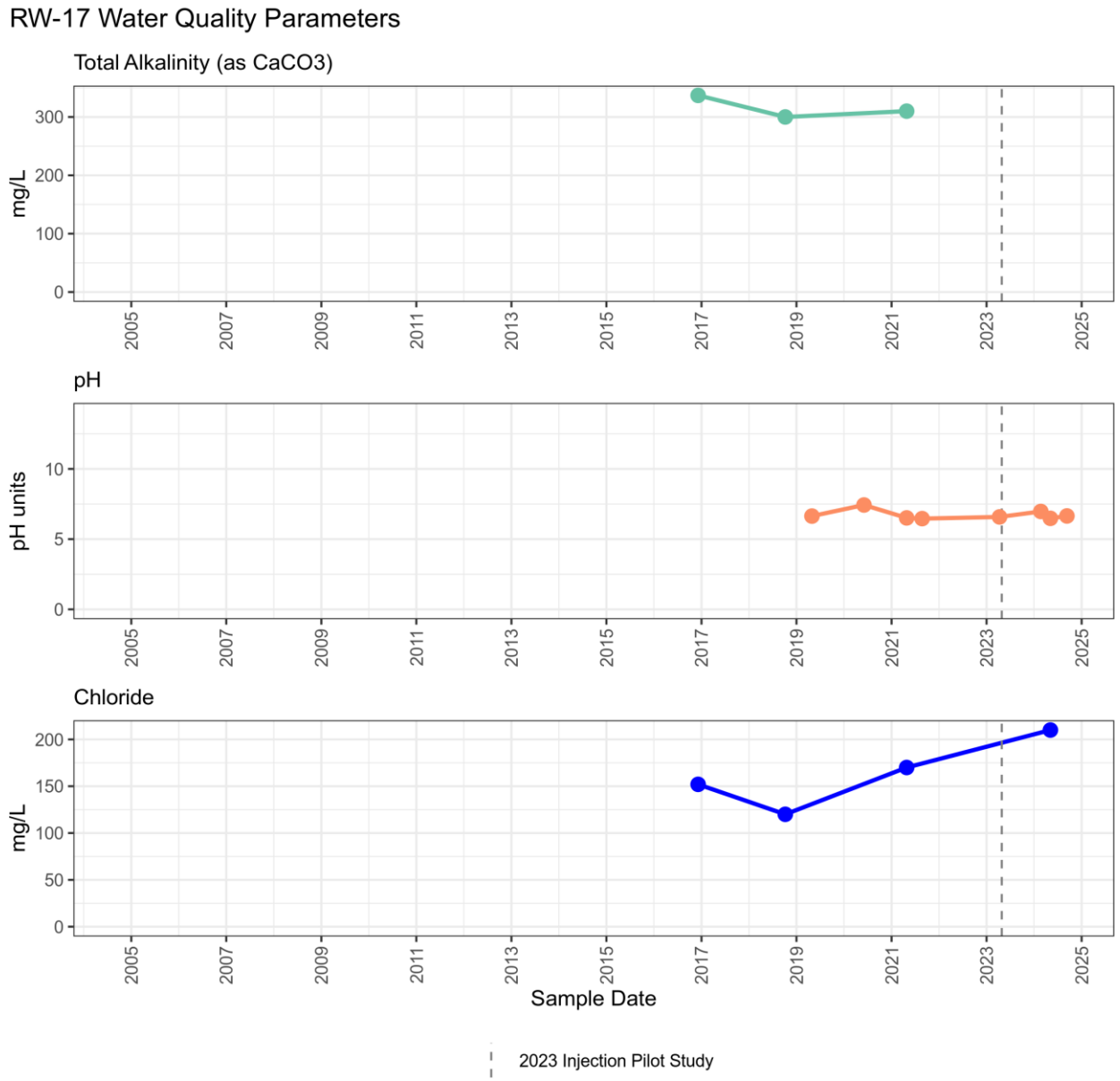


Chlorinated Ethene and Daughter Product Concentration

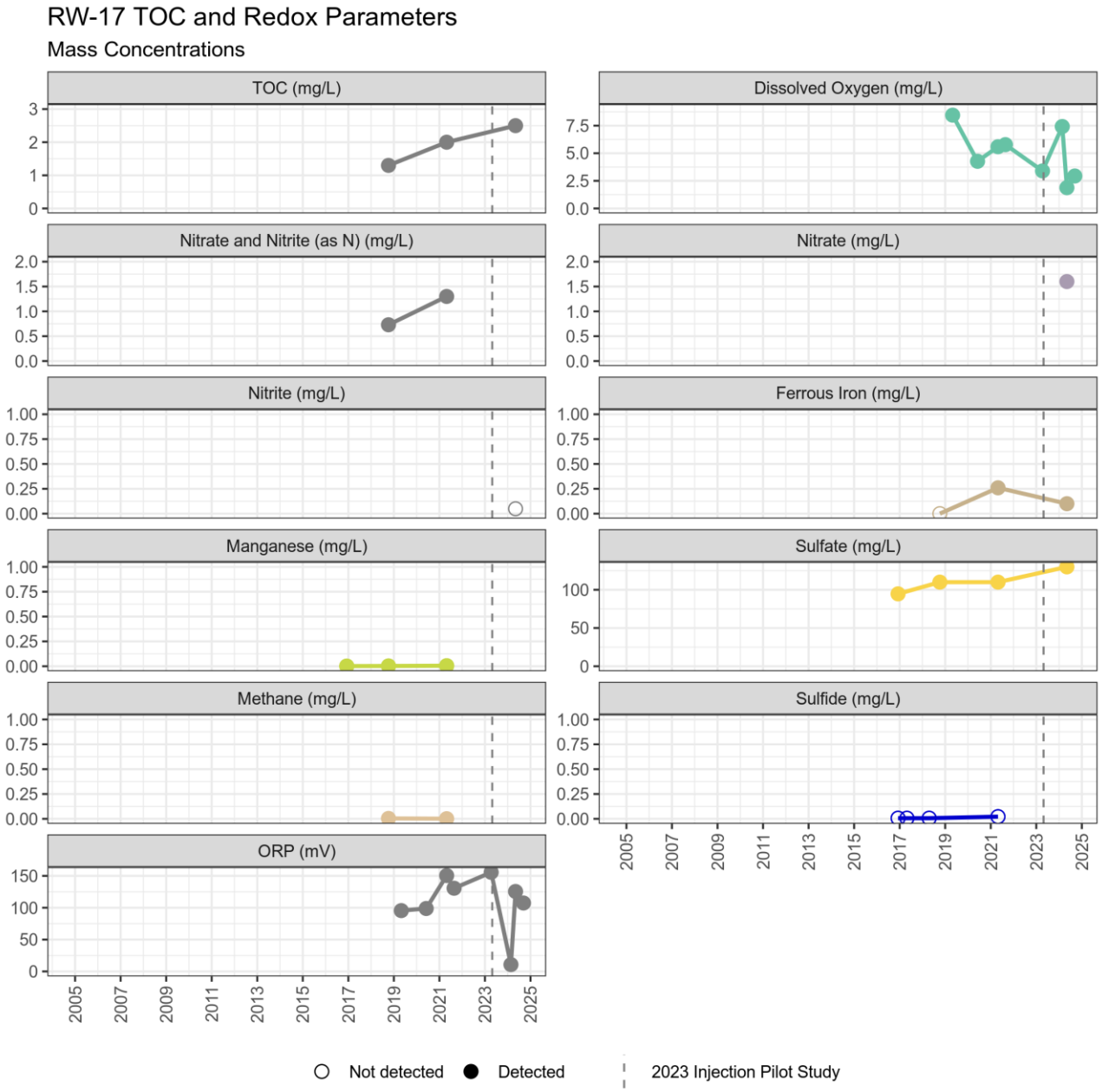


RW-17

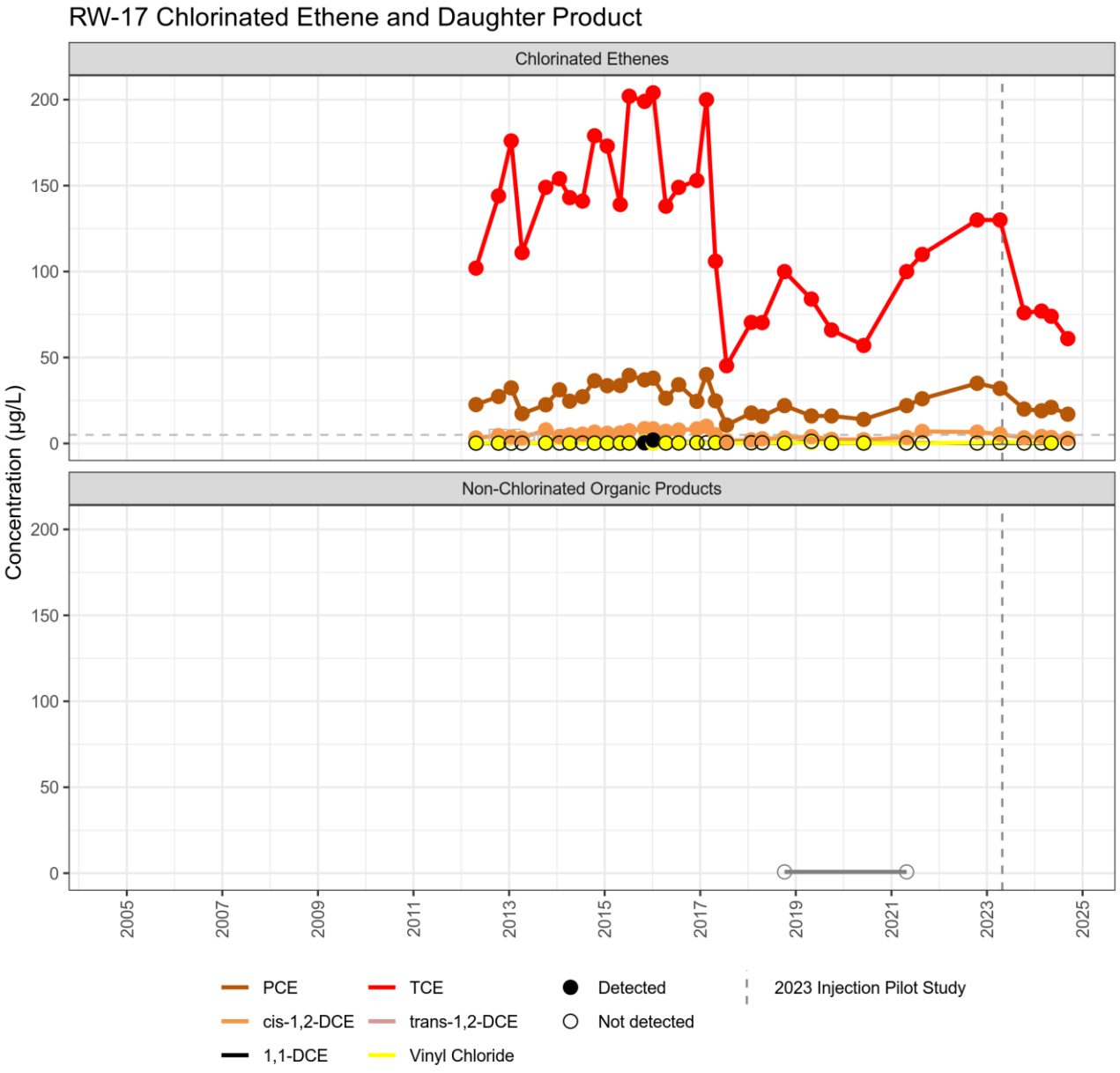
Water Quality



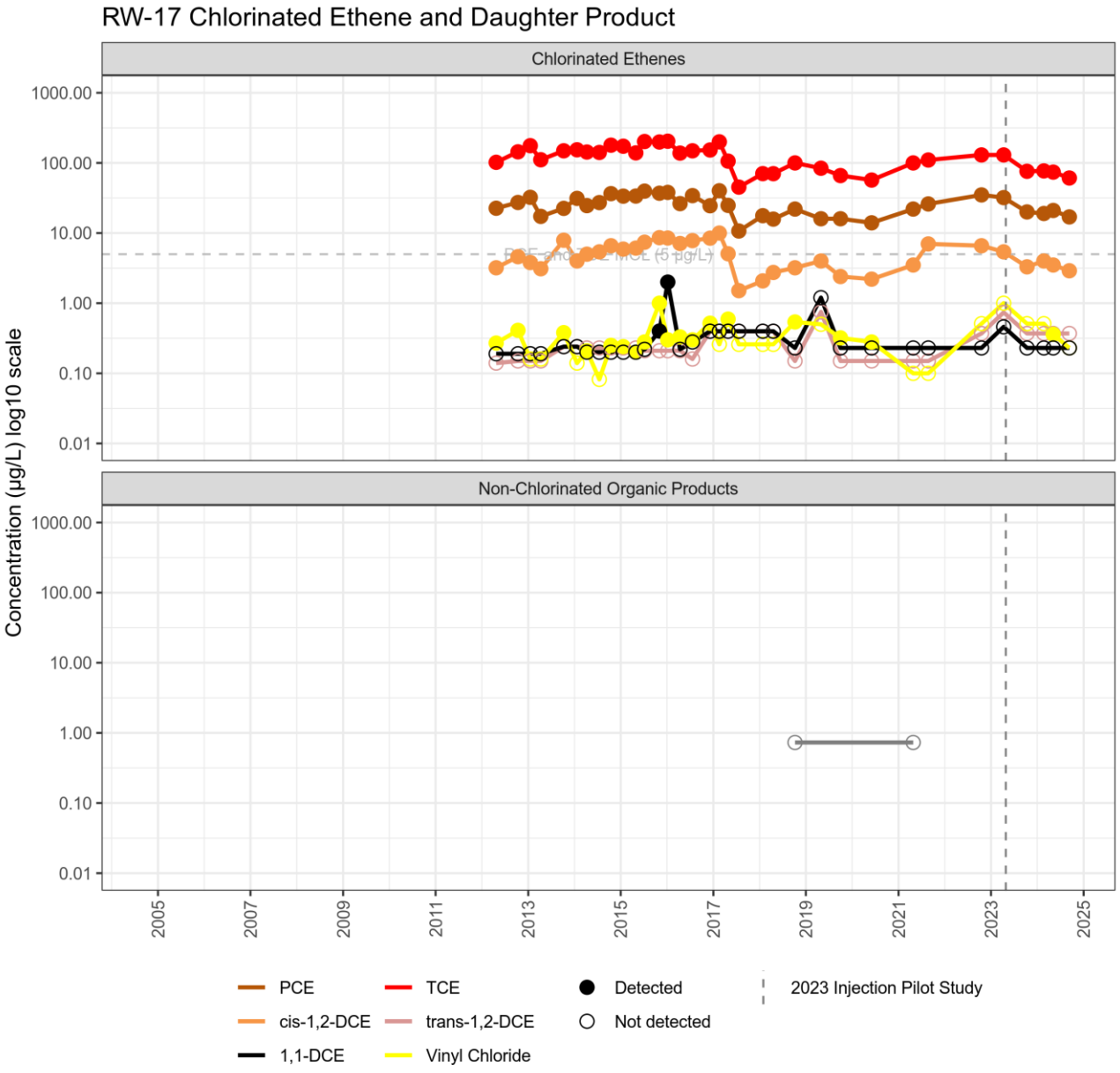
TOC and Redox Parameters



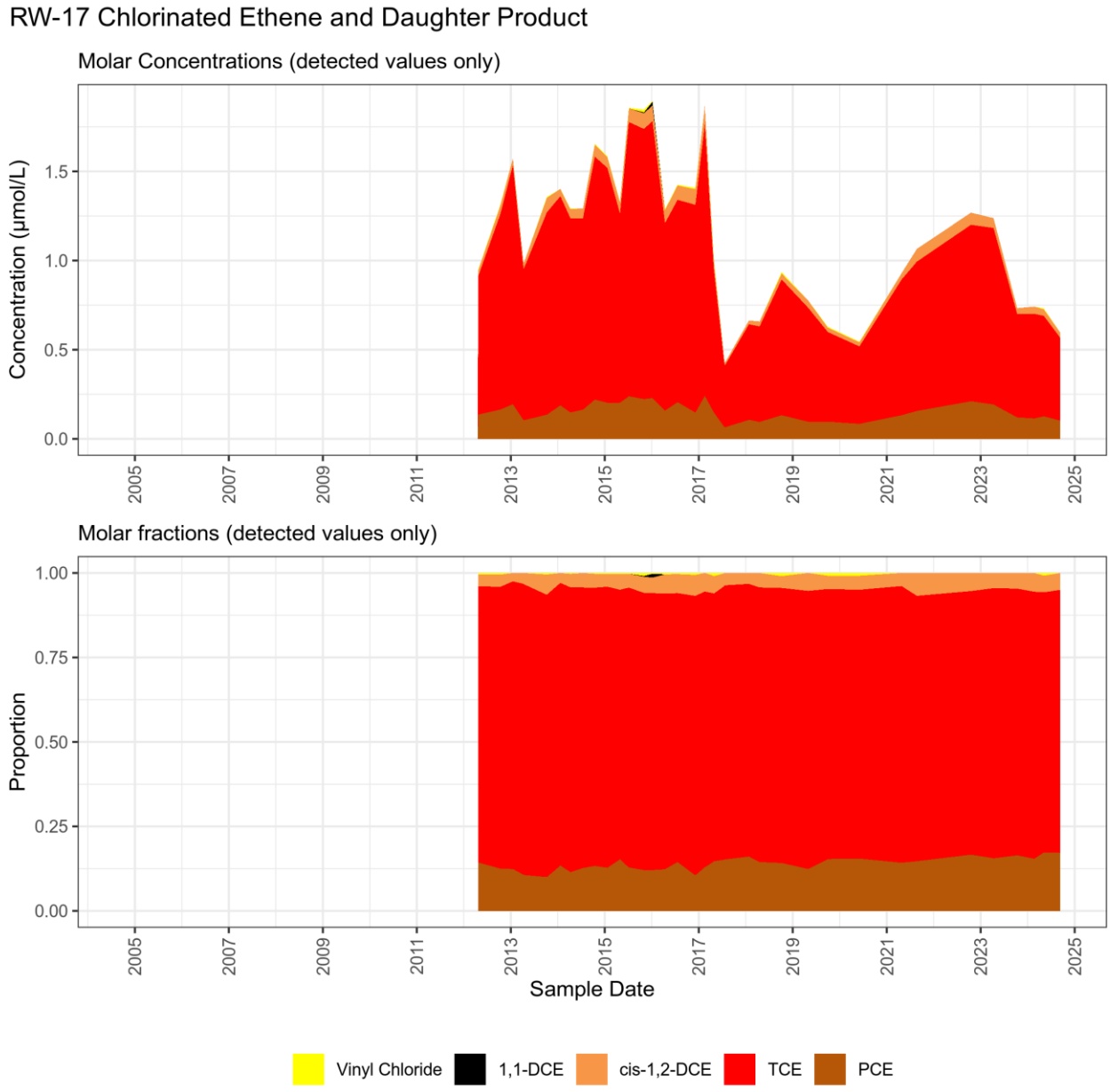
Chlorinated Ethene and Daughter Product Mass



Chlorinated Ethene and Daughter Product Mass (log10)



Chlorinated Ethene and Daughter Product Concentration



Chlorinated Ethenes and Geochemistry Time Series Plots - Remediation System

Data filters

This report is filtered to only include:

- **INJ-1R** from **Remediation System**
- Results from **02 January 2001** to **10 September 2024**

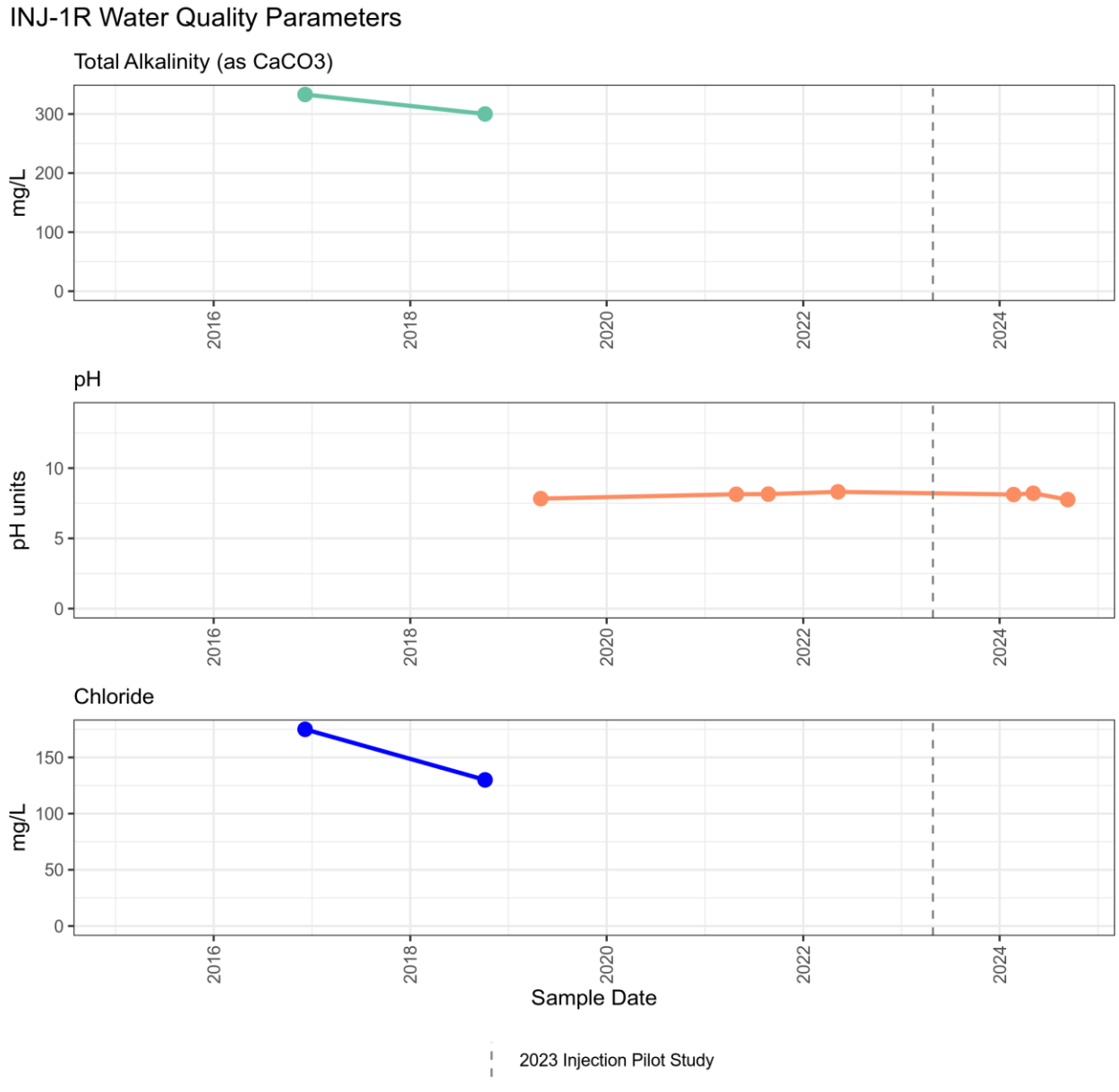
Graph notes

- When only the year is shown in the x-axis label, this represents the start of the year
- The molar concentration graphs only plot detected data
- ORP values that are negative cannot be put in to a log10 scale graph and will not show.

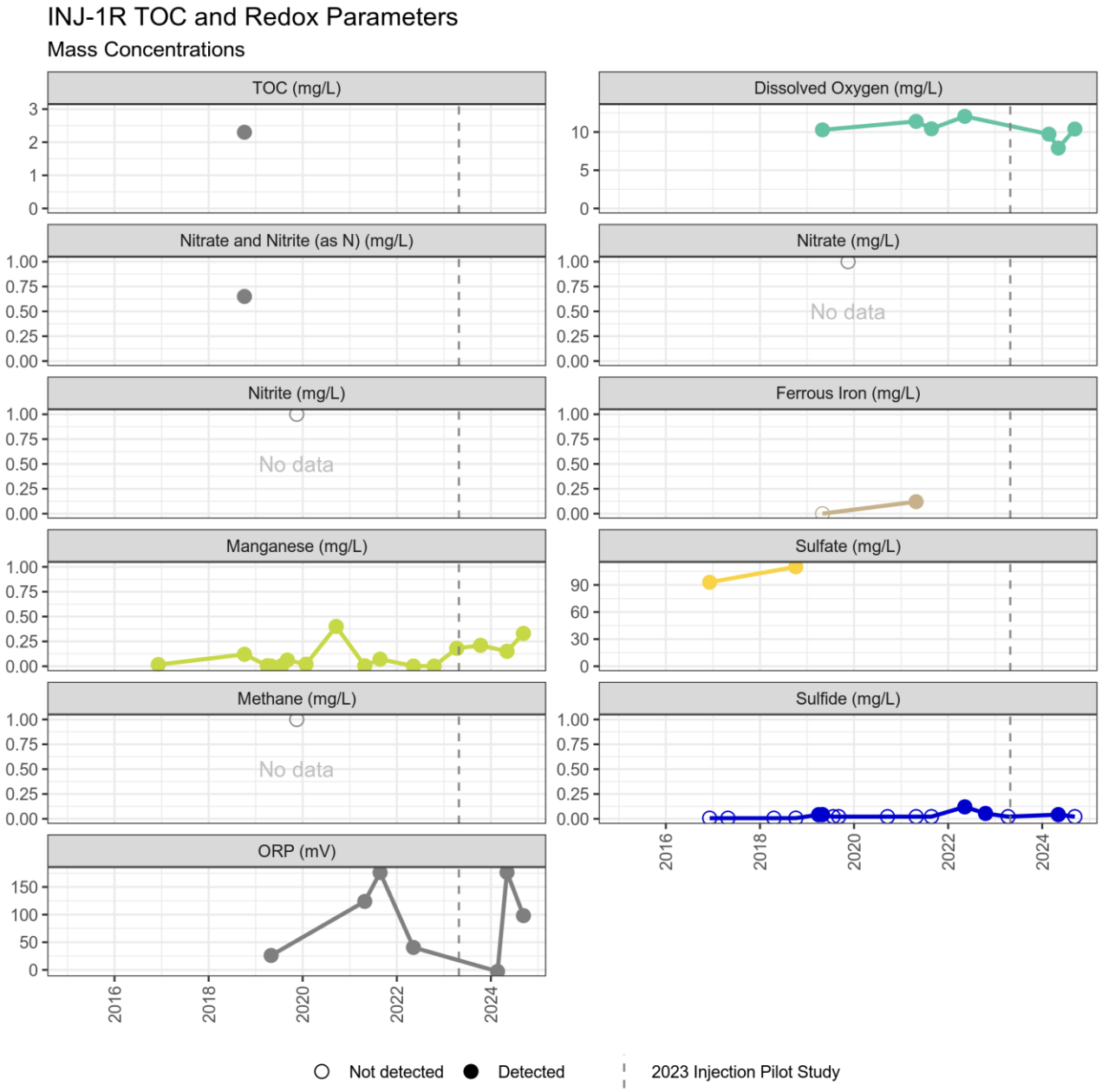
Well summaries

INJ-1R

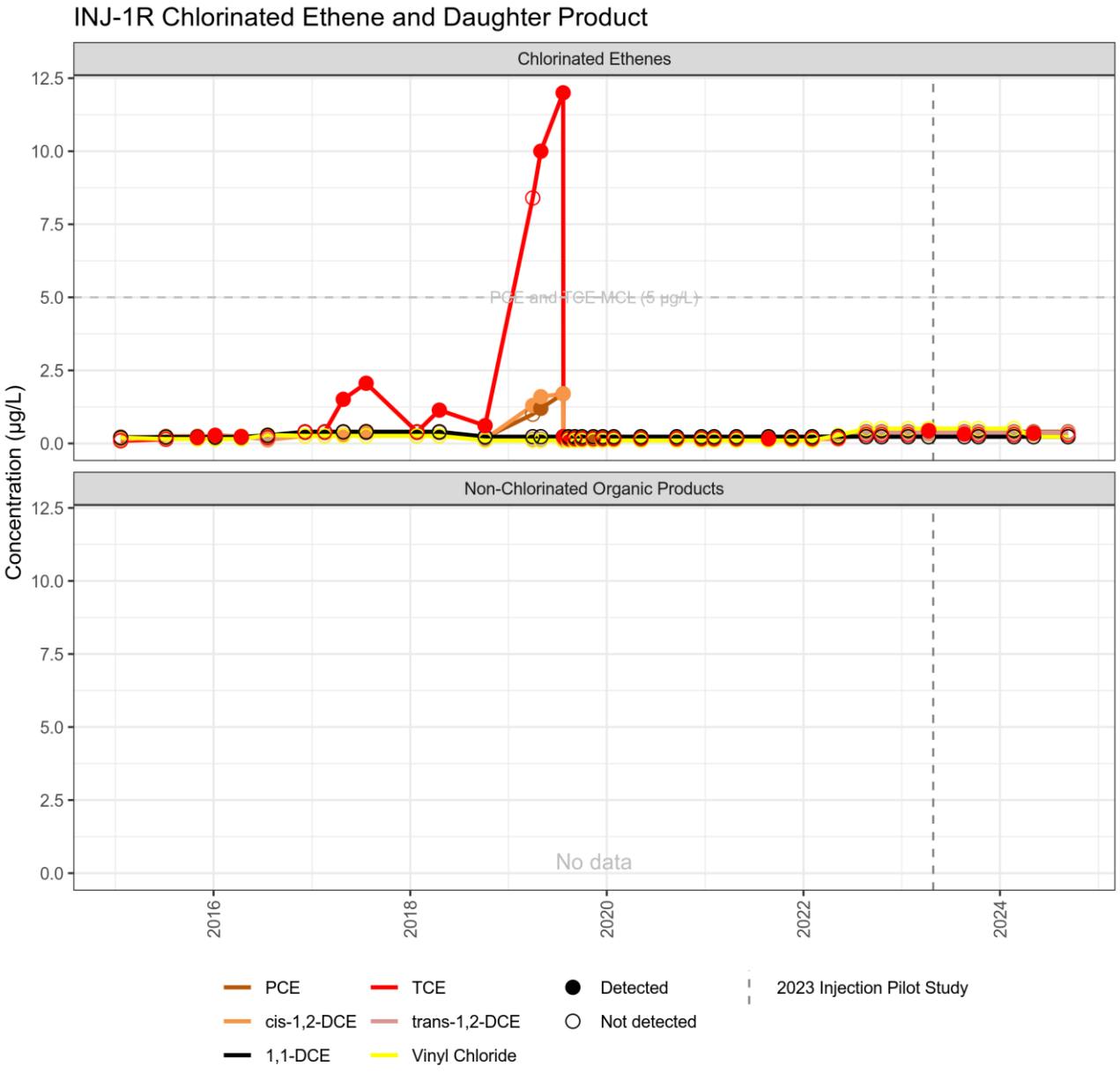
Water Quality



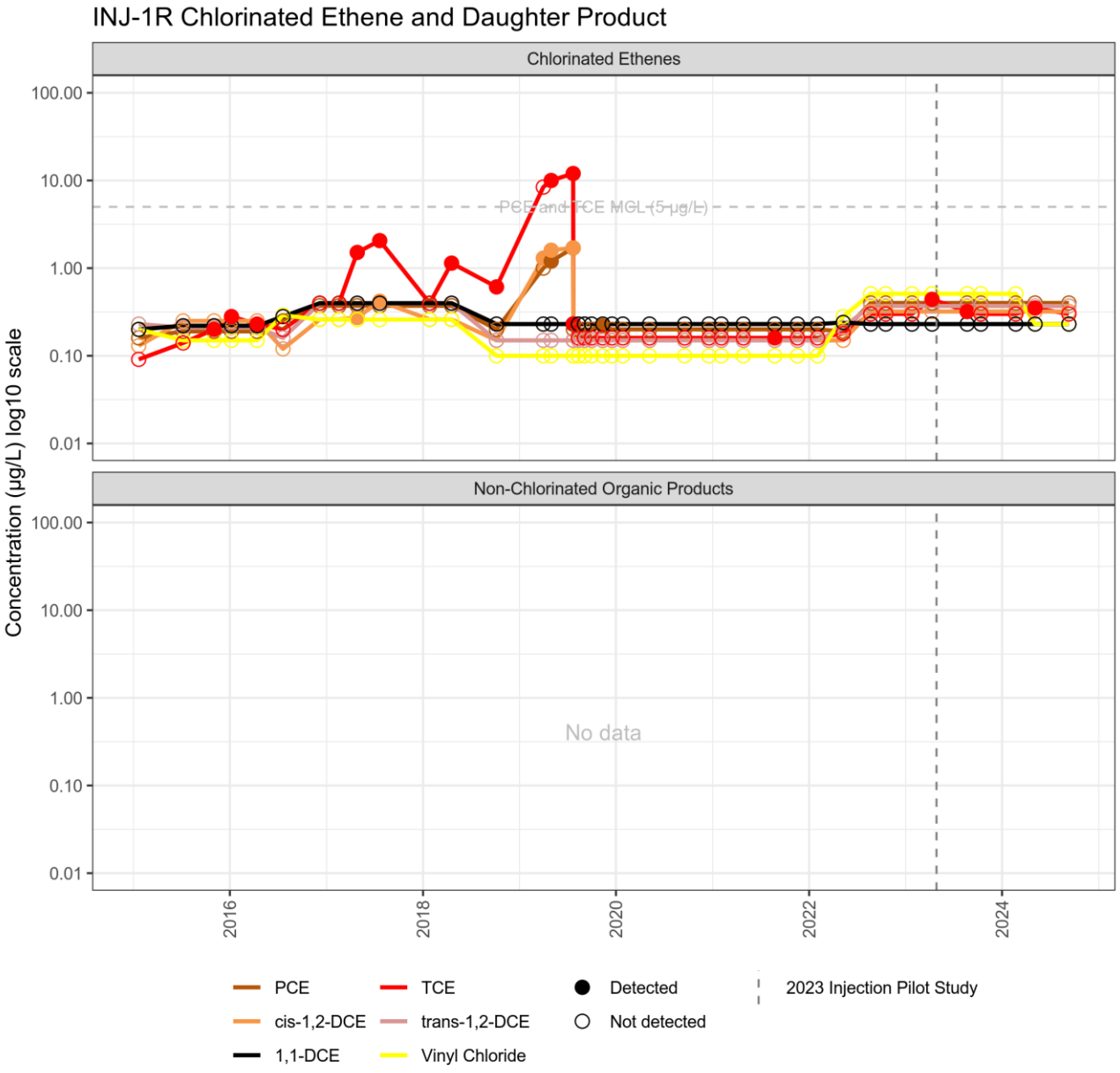
TOC and Redox Parameters



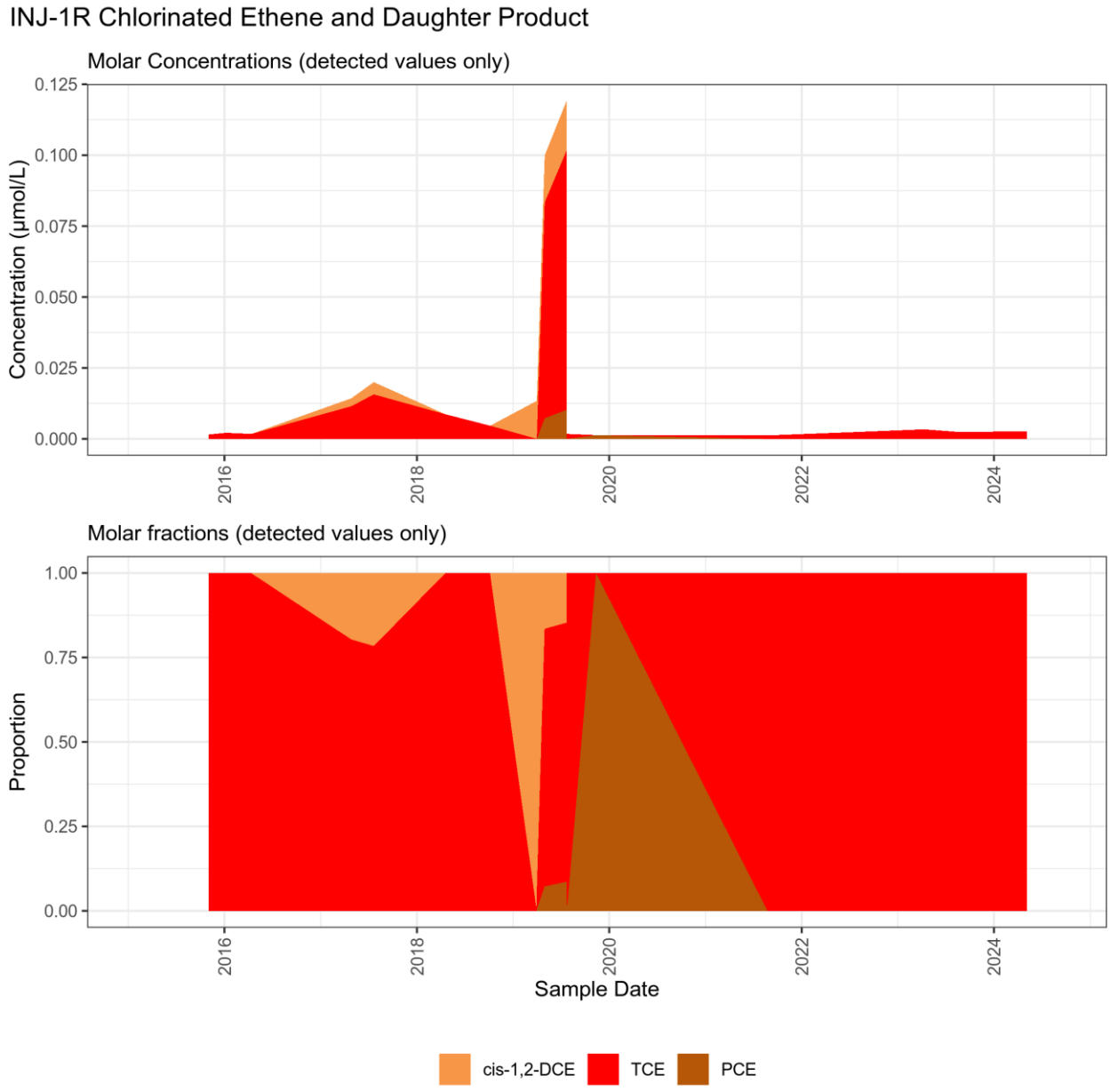
Chlorinated Ethene and Daughter Product Mass



Chlorinated Ethene and Daughter Product Mass (log10)



Chlorinated Ethene and Daughter Product Concentration



Chlorinated Ethenes and Geochemistry Time Series Plots - Offsite Monitoring Well

Data filters

This report is filtered to only include:

- **MW-103S, MW-115S, and MW-116S** from **Offsite Monitoring Well**
- Results from **02 January 2001** to **10 September 2024**

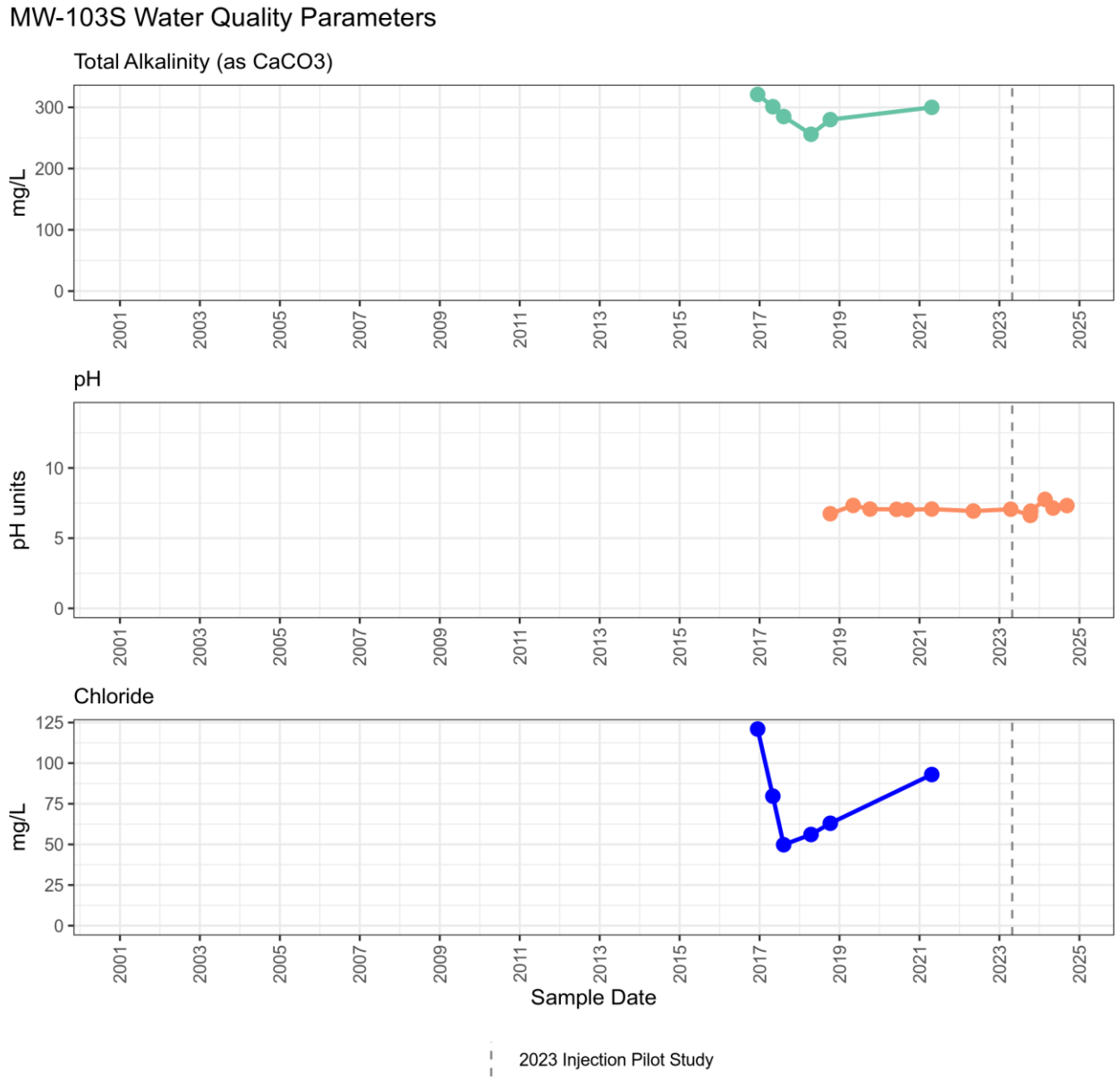
Graph notes

- When only the year is shown in the x-axis label, this represents the start of the year
- The molar concentration graphs only plot detected data
- ORP values that are negative cannot be put in to a log10 scale graph and will not show.

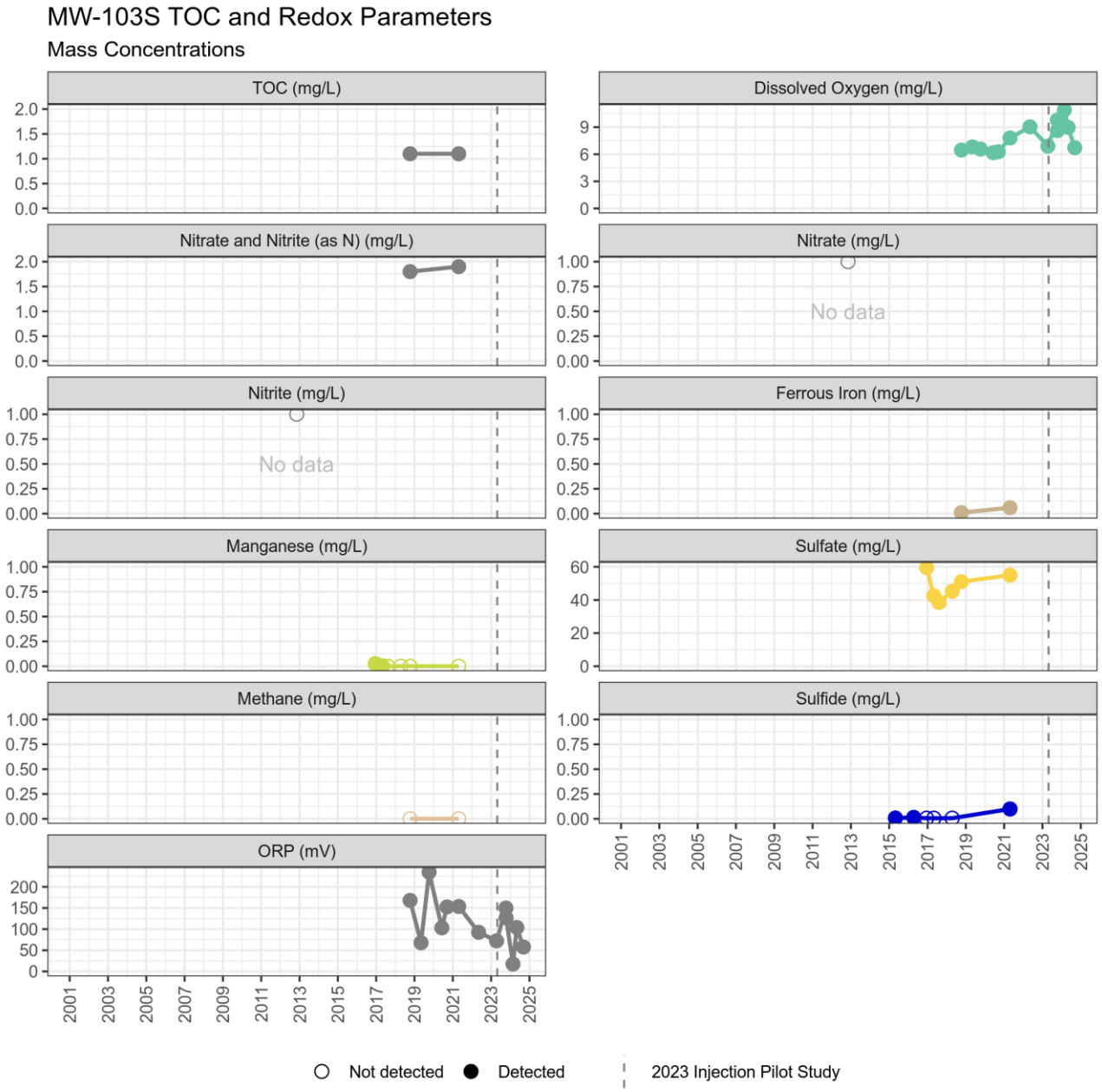
Well summaries

MW-103S

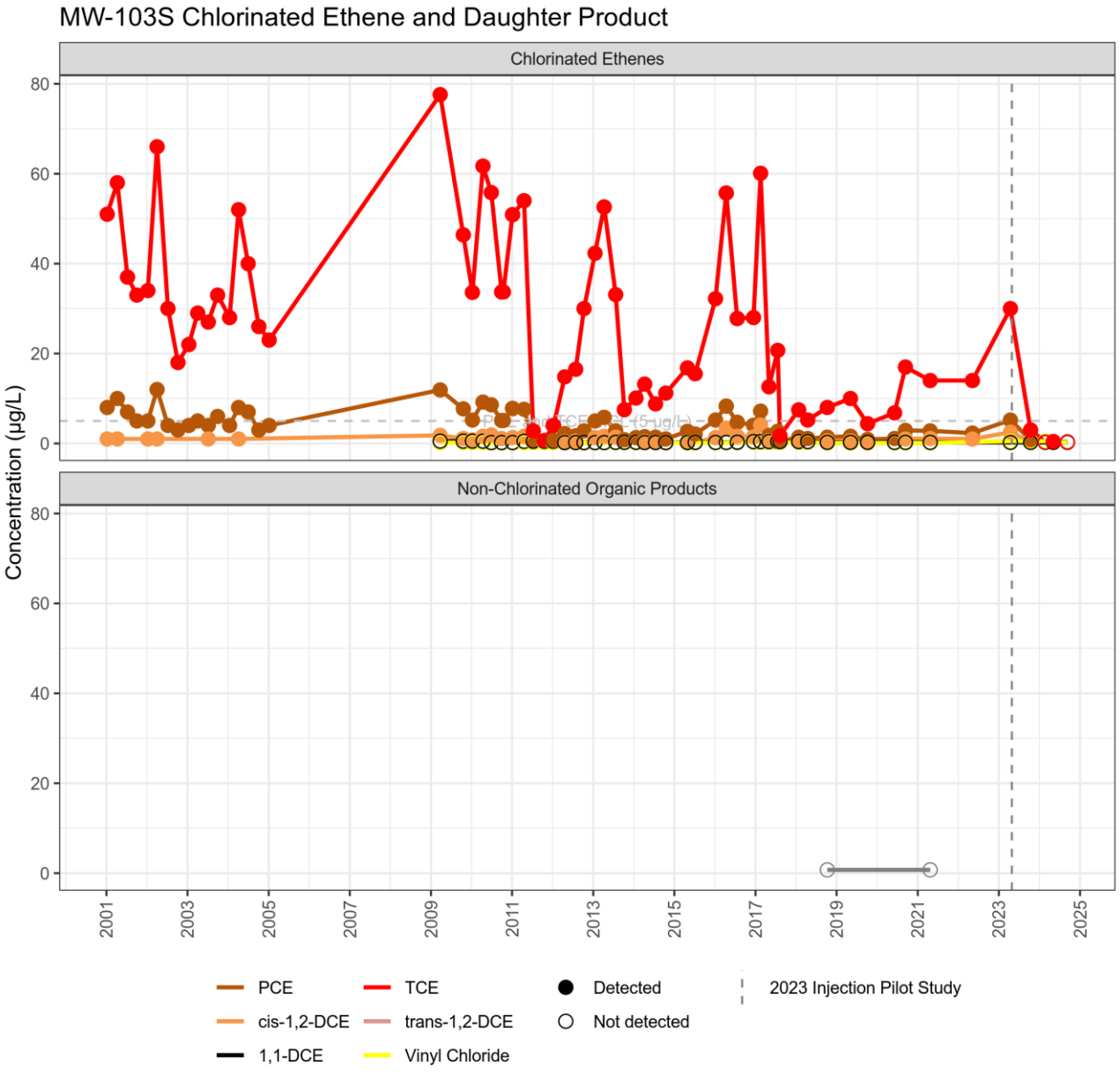
Water Quality



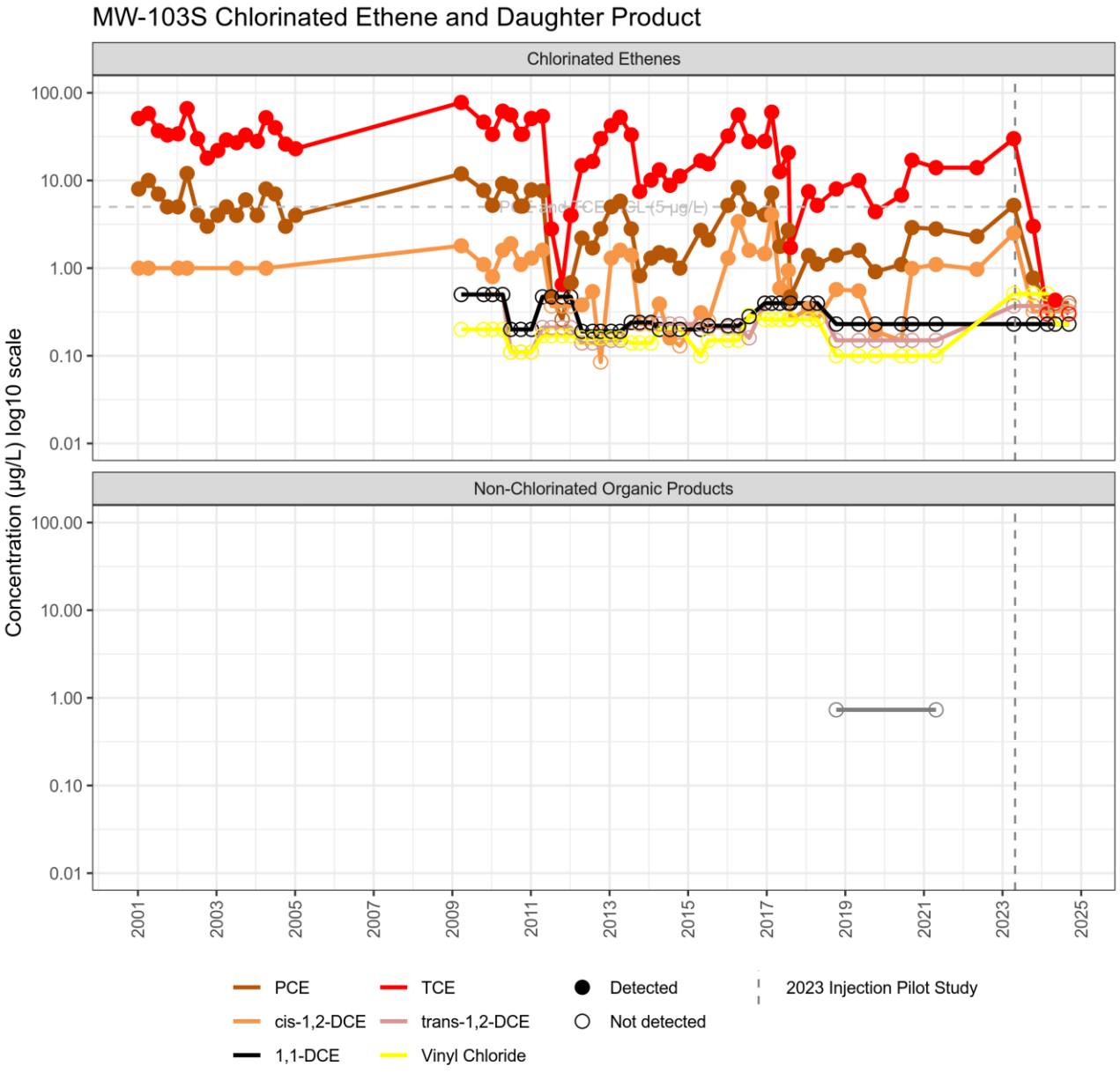
TOC and Redox Parameters



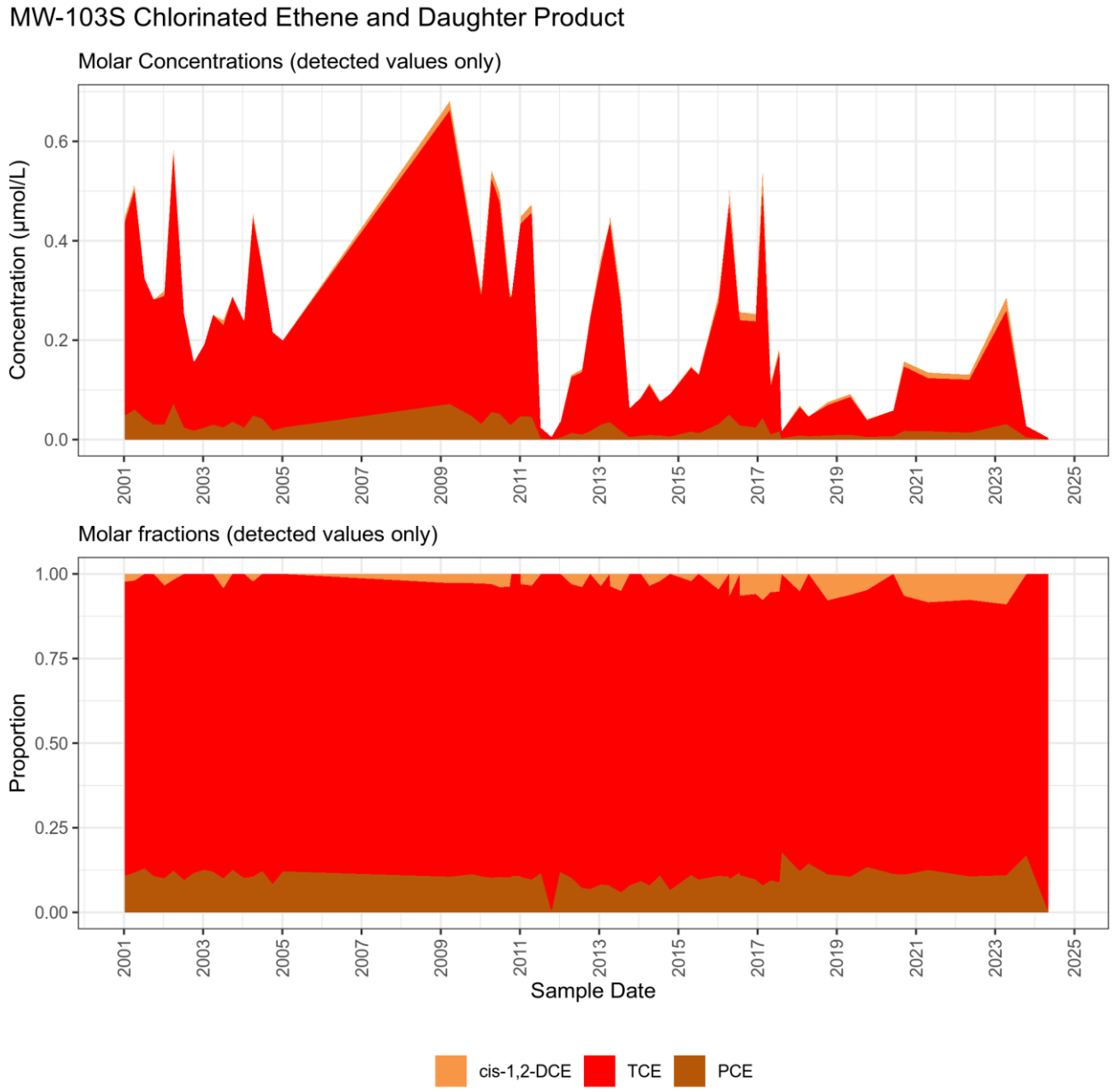
Chlorinated Ethene and Daughter Product Mass



Chlorinated Ethene and Daughter Product Mass (log10)

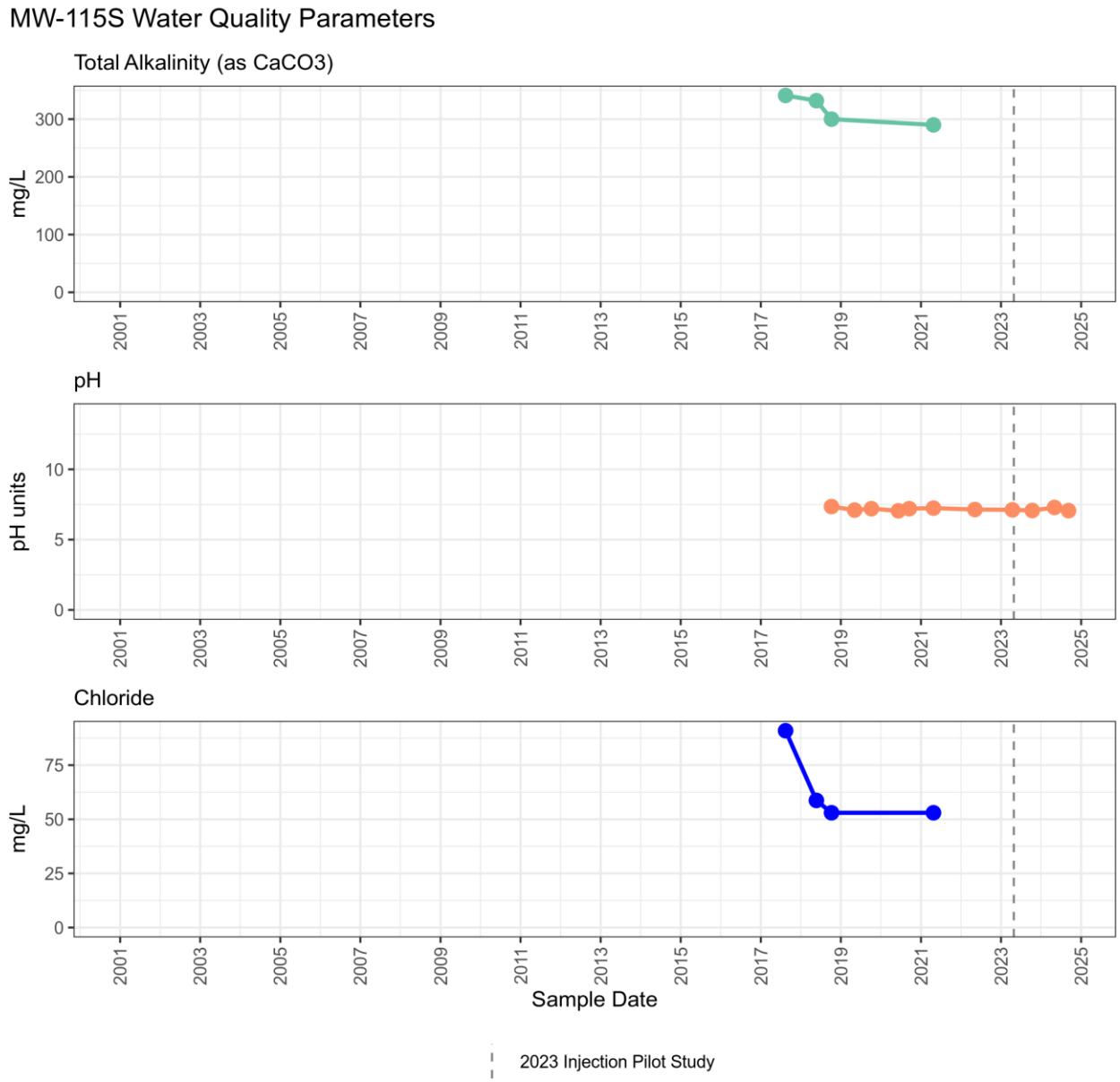


Chlorinated Ethene and Daughter Product Concentration

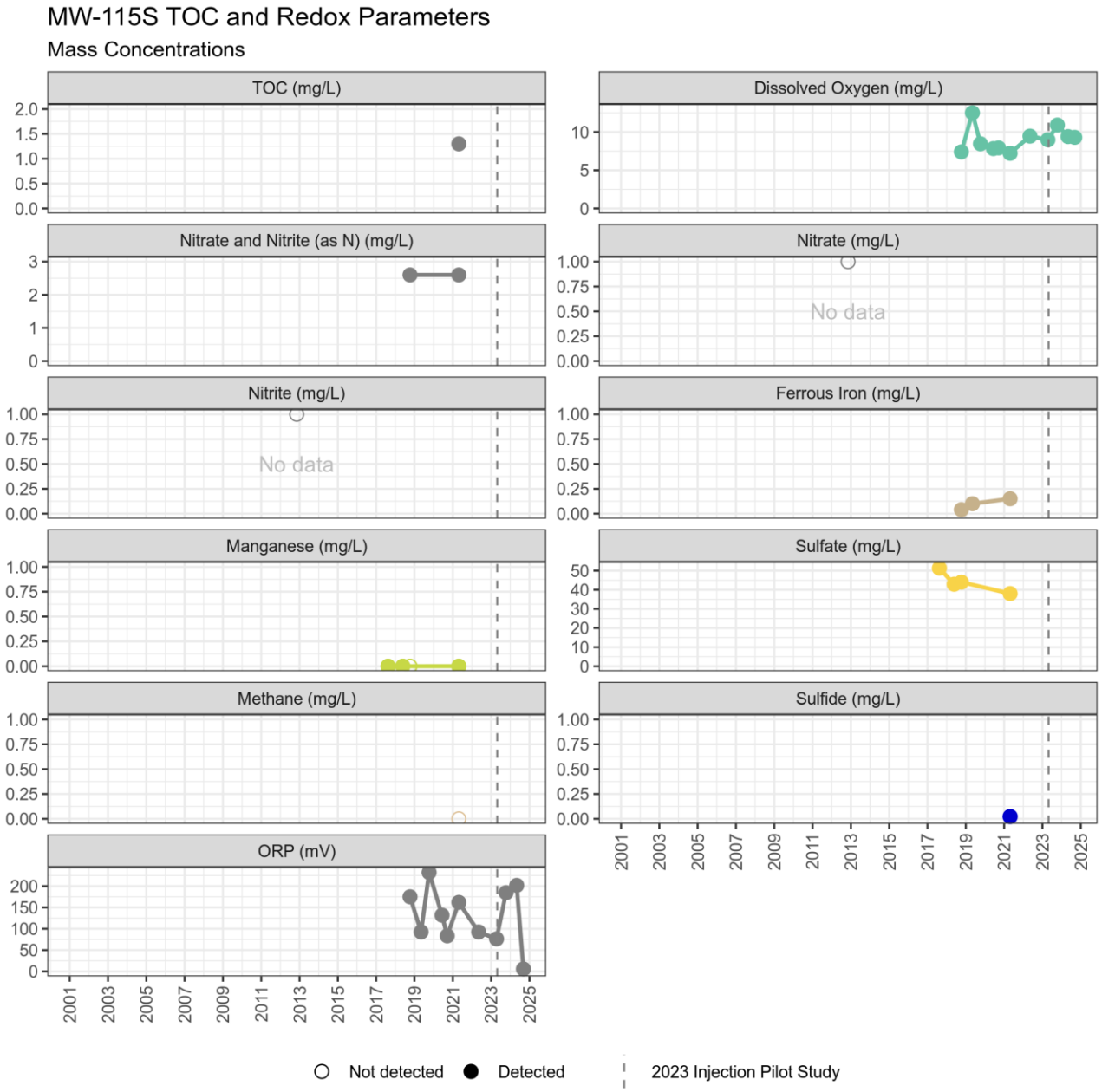


MW-115S

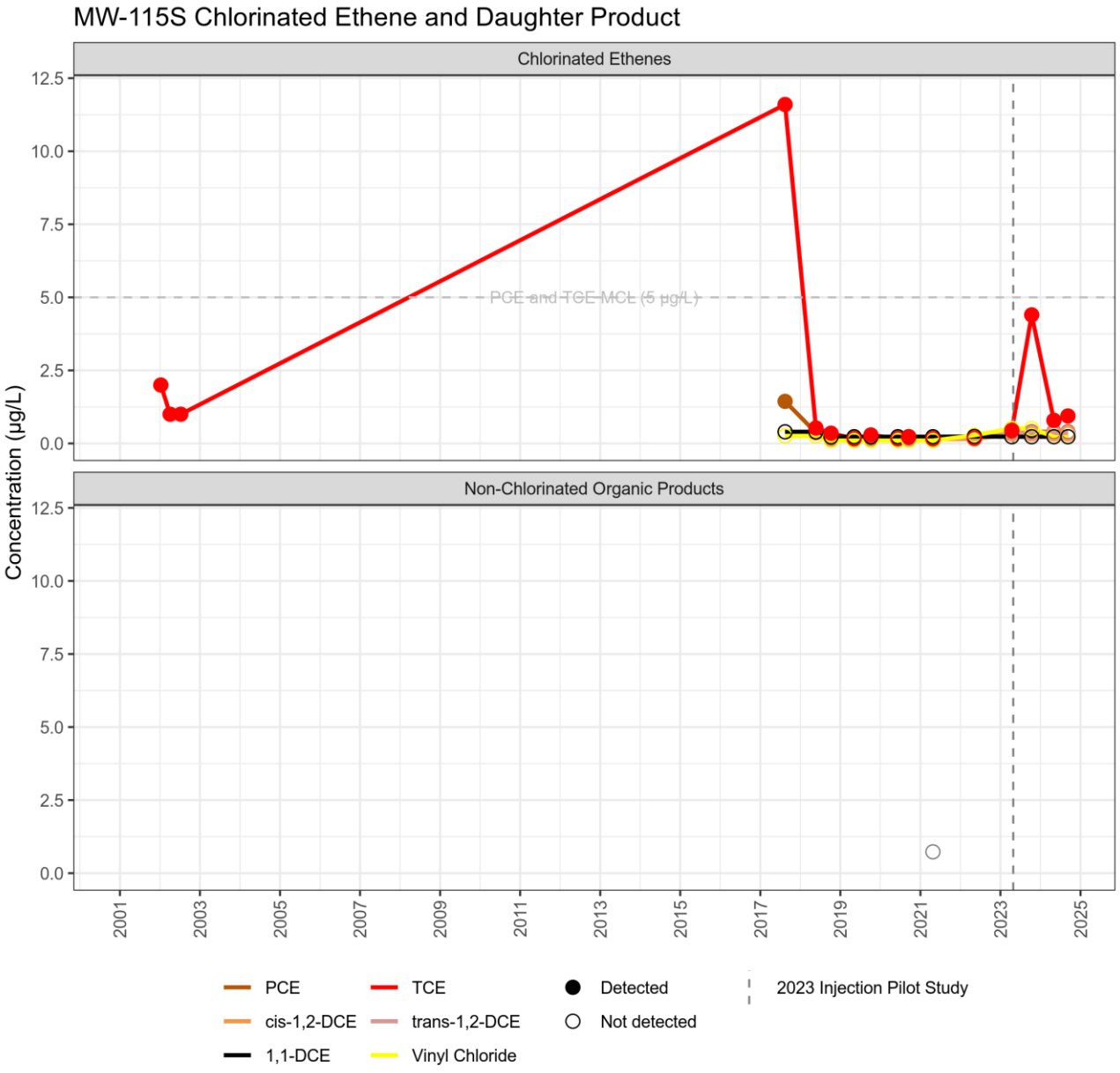
Water Quality



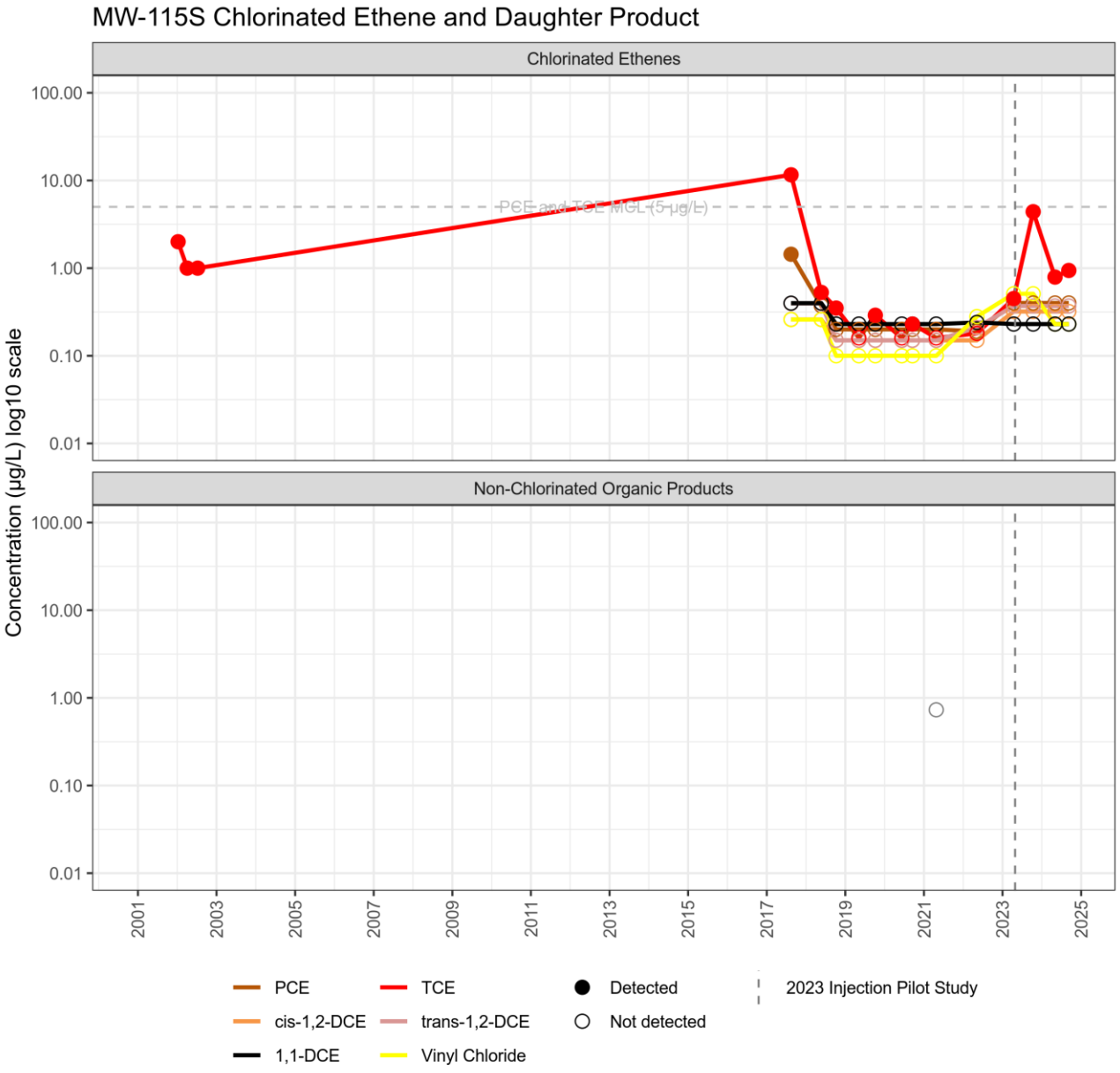
TOC and Redox Parameters



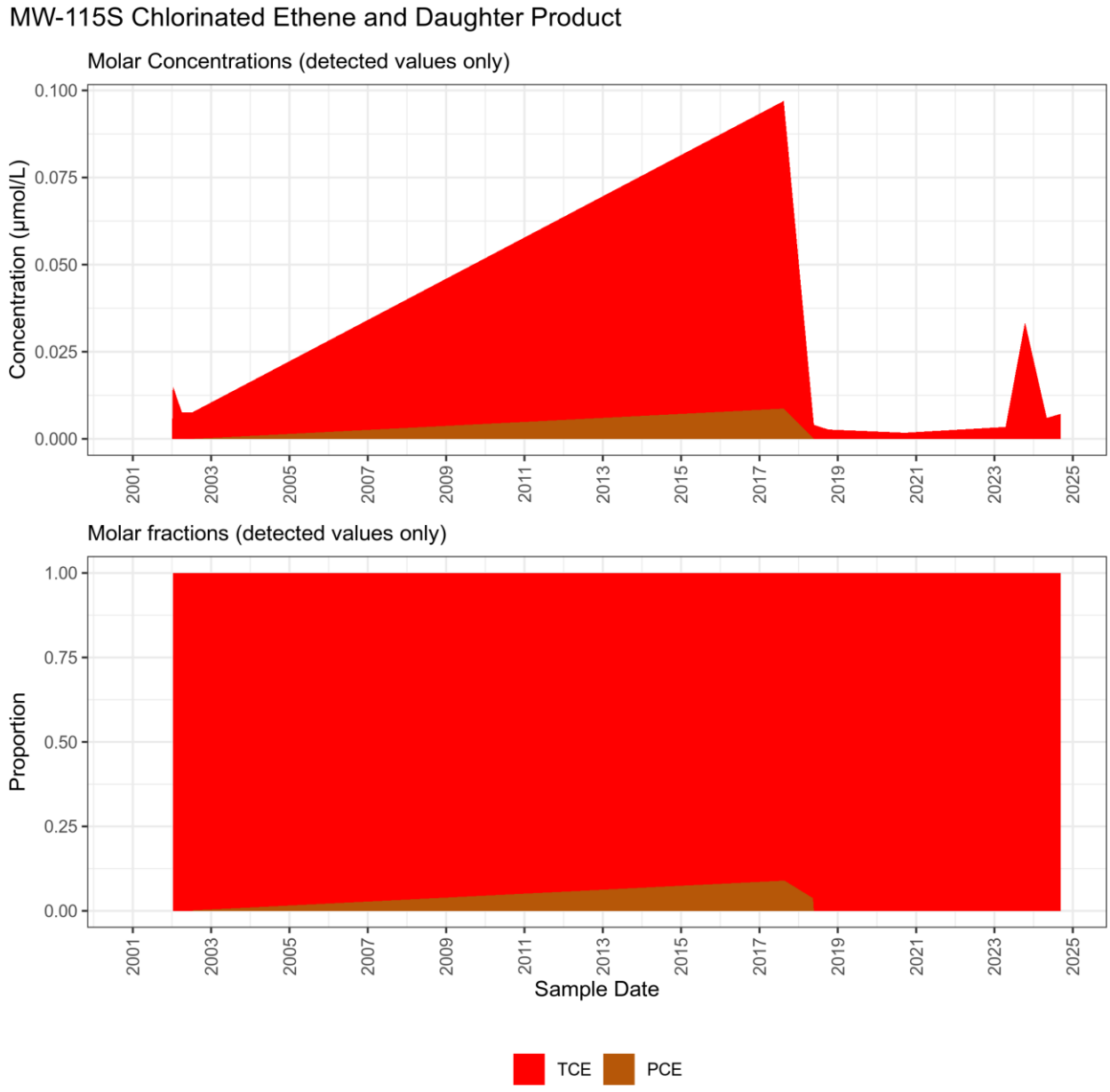
Chlorinated Ethene and Daughter Product Mass



Chlorinated Ethene and Daughter Product Mass (log10)

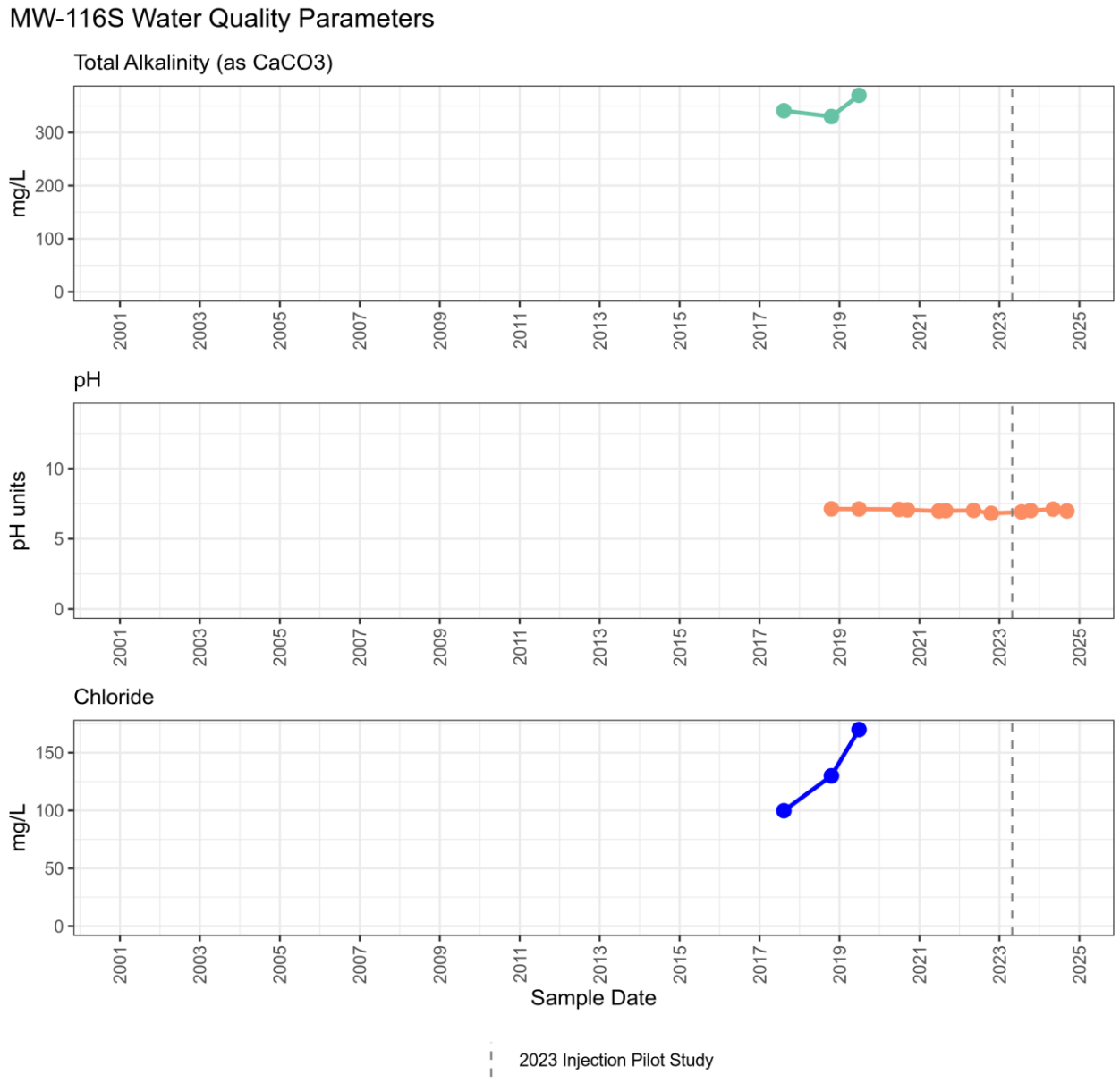


Chlorinated Ethene and Daughter Product Concentration

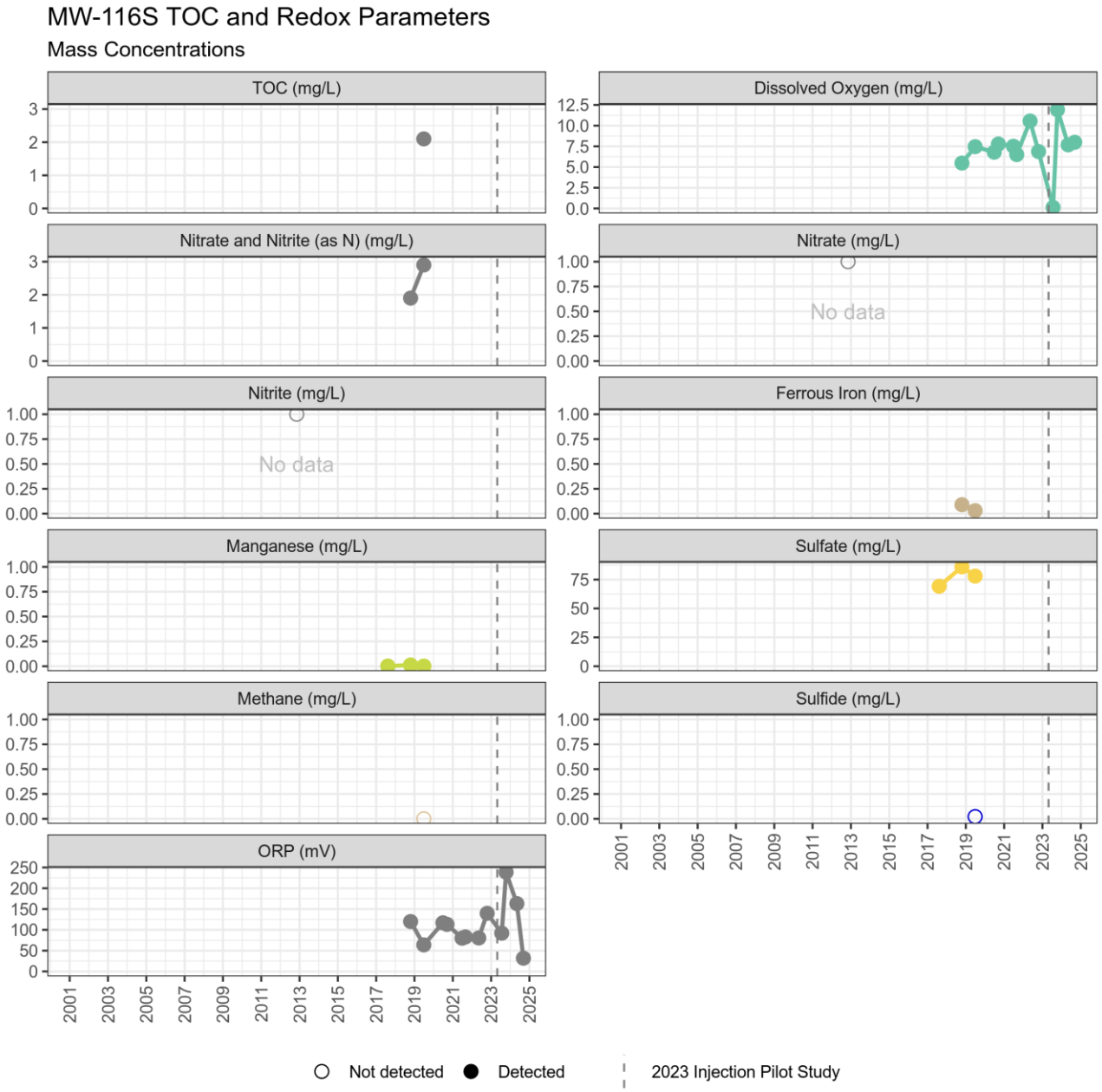


MW-116S

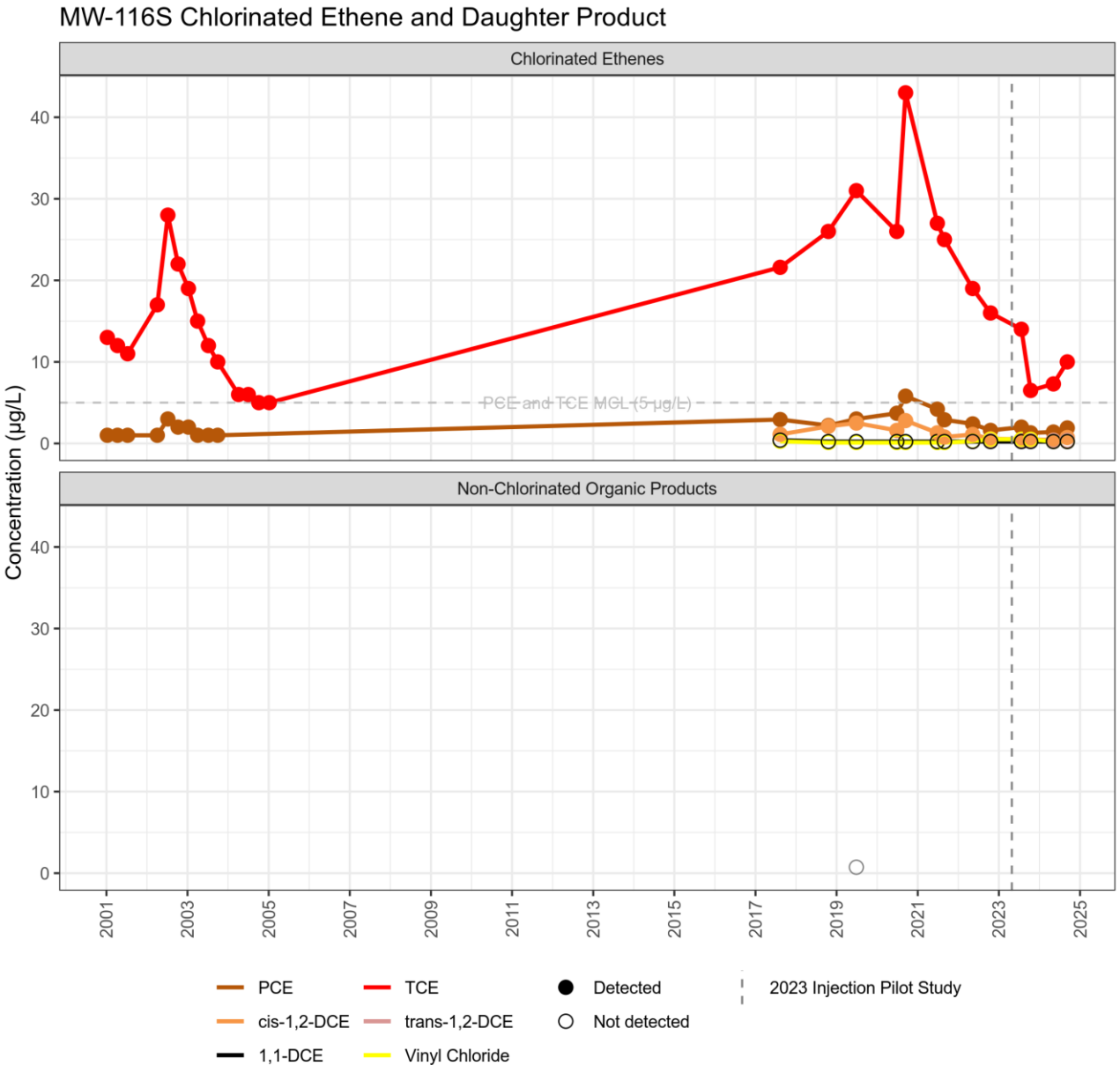
Water Quality



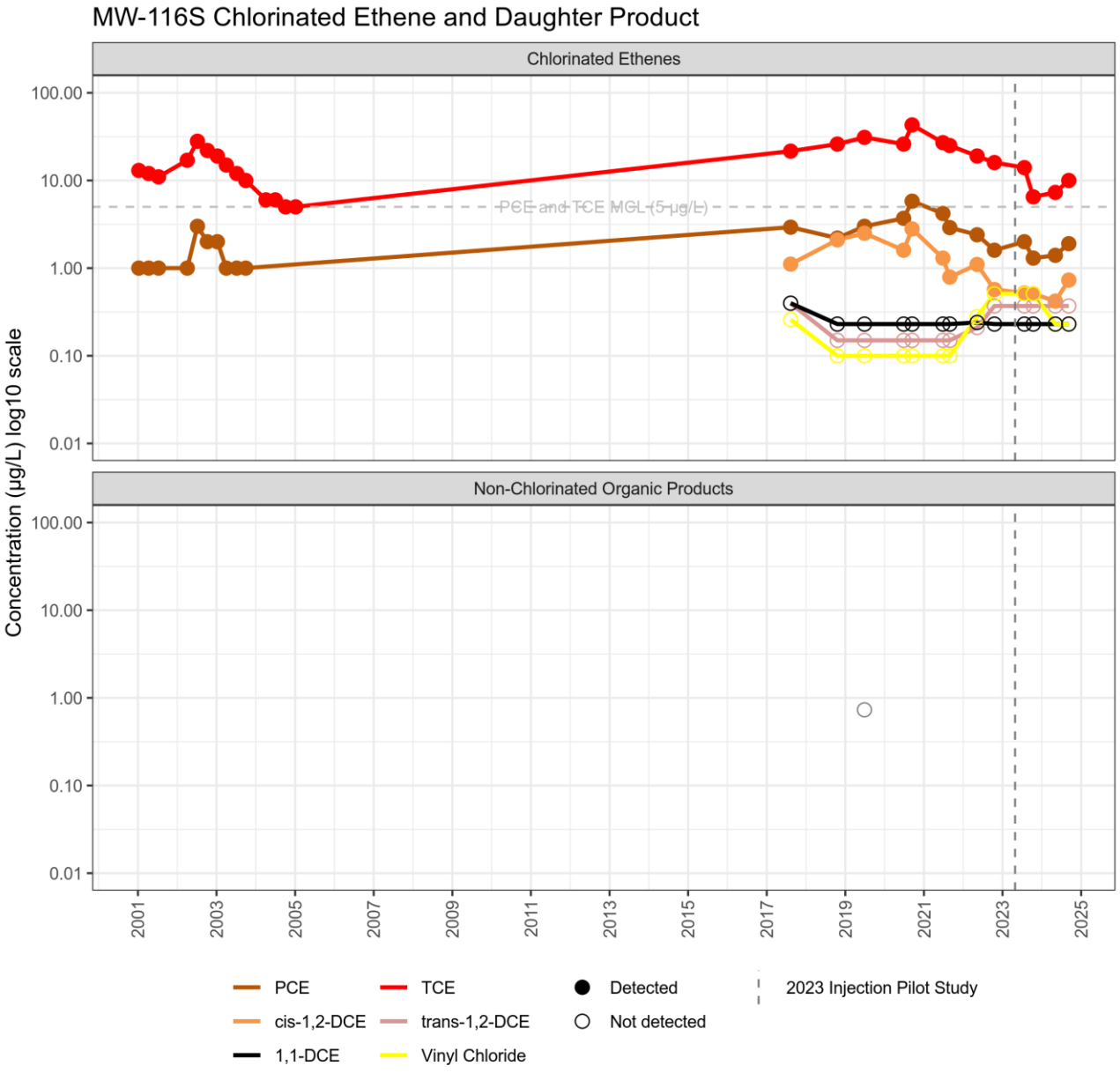
TOC and Redox Parameters



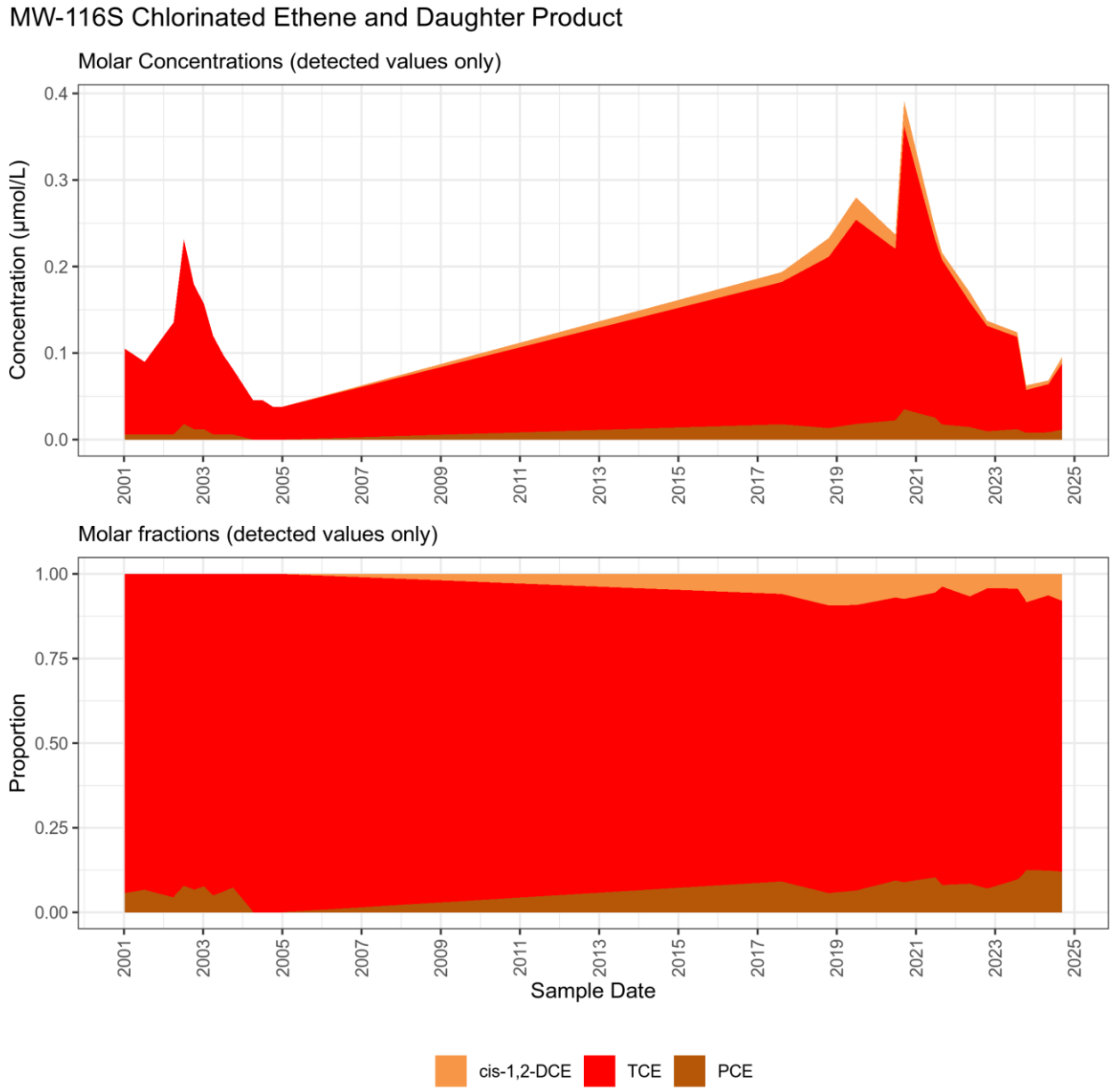
Chlorinated Ethene and Daughter Product Mass



Chlorinated Ethene and Daughter Product Mass (log10)



Chlorinated Ethene and Daughter Product Concentration



Appendix G Statistical Methods, Approach, and Analysis

Appendix G

This appendix contains descriptions of statistical methods used to assess datasets from Fort Hall Mine Landfill (FHML) monitoring wells, descriptions of the statistical approaches established for each monitoring well group, comprehensive statistical results tables with corresponding definitions and acronyms, and time series plots for select individual datasets for parameters that exceed criteria. Statistical methods and approaches are consistent with relevant U.S. Environmental Protection Agency (EPA) and Idaho Department of Environmental Quality (IDEQ) guidance as well as EPA ProUCL documentation (EPA 2009, IDEQ 2014, EPA 2022). The statistical calculations are performed using the EnvStats R package (Millard 2013).

G.1 Statistical Methods

This section presents a general description of statistical methods, or tests, used in the analysis of Cell 1, Cell 2, Cell 4, and offsite monitoring wells data sets. **Section G.2** explains how these tests are used in combination as an overall approach for each well group based on the monitoring tier requirements.

G.1.1 Comparison of a Value to a Standard

Comparison of a value to a standard is the simplest analysis performed on analytical data from all wells sampled. Standards include maximum contaminant levels (MCLs), where available, and IDGW rule primary and secondary standards.

G.1.2 Comparison of Confidence Limits to a Standard

Computation of confidence intervals is the recommended statistical strategy for assessment or corrective action monitoring (EPA 2009) because it defines accepted variability in the data and prevents single outliers from driving decision-making. A confidence interval of the mean accounts for variability in sample data and estimates the true arithmetic average of the population of data. Confidence intervals are calculated for a data set to allow the comparison of the entire data set, rather than a single result, to a fixed value such as an MCL. Confidence intervals may be calculated for different parameters of a population of potential measurements, such as the mean and variance. Additionally, confidence intervals can be obtained via parametric or nonparametric estimation methods. Some parametric methods require as few as two data points to calculate a confidence interval; however, using at least eight data points is generally considered best practice (EPA 2006). Nonparametric methods can be advantageous for sparse environmental data sets, for which it can be difficult to estimate parameters of the underlying probability distribution.

Testing a data set involves calculation of the confidence limit for the data set at a determined confidence level, followed by comparison of the confidence limit to the standard. Assessment-monitoring-level criteria, or success during corrective action, is statistically indicated when the entire confidence interval lies to one side of the standard. The lower confidence limit (LCL) and upper confidence limit (UCL) are used as the lower and upper bounds, respectively, of the confidence interval of the data set. The confidence interval, calculated using a particular data set and estimation method, will contain the true value of the population parameter (e.g., the mean)

with a probability equal to the confidence level, provided that all statistical assumptions of the parametric or nonparametric estimation method have been met.

The LCL of the parameter (e.g., mean) is compared to the standard in assessment monitoring. If the LCL exceeds the standard, there is statistically significant evidence that the standard may not be met. If results greater than the LCL during assessment monitoring are observed, additional evaluation is necessary to determine if a sampling, analytical, or statistical error occurred or if the results are due to an alternate contaminant source, as discussed in the Quality Assurance Project Plan (QAPP) (CDM Smith 2021).

Conversely, the UCL of the data set mean is appropriate when comparing data to the standard in corrective action monitoring. To achieve statistically significant evidence for compliance (and, therefore, successful corrective action), the UCL must fall below the standard.

For calculating confidence limits (i.e., LCLs and UCLs) for groundwater chemicals of concern (COCs), the following approach was used:

- Confidence limits were calculated with a 95 percent (%) confidence interval for data sets that contain at least two distinct detected results. If two distinct detected results were not present in a data set, the confidence limits were not calculated, indicated by "NC" in the tables.
- Bootstrapping was performed for most data sets. For each data set, 2,500 bootstrap samples (i.e., recreations of the original data set, for each of which an equal number of measurement values are generated by sampling with replacement from the original set of measured values) were taken, and parameters were calculated based on the average of the calculated statistics across the bootstrap samples. For data sets with only detected values (i.e., above the method detection limit [MDL]), ordinary nonparametric bootstrapping was performed to estimate the mean, standard deviation, and confidence limits. For data sets with nondetect, or censored, results, the nonparametric Kaplan-Meier method was used. For data sets with too few unique detected values to compute the confidence limits, the data set mean and standard deviation were calculated without bootstrapping.

G.1.3 Comparison of a Result to a Background Threshold Values

Comparing results to background threshold values (referred to herein as background) is appropriate when evaluating COCs that do not have a promulgated standard, or if COCs occur at the site above standards due to natural background (e.g., metals) of the aquifer. The background threshold may be one of several values. For this analysis and consistent with available guidance (EPA 2009, IDEQ 2014), the upper prediction limit (UPL) was calculated and used as the representative background value. The UPL is a more conservative background threshold level than other options, such as the mean of background. A result from a compliance well that exceeds the UPL of background is considered to exceed background.

To establish background, one of two methods may be used, both of which rely on establishing a UPL for background concentrations. For the interwell method, a background (e.g., upgradient) well is used to compute a background UPL for each COC parameter. Then, the most recent sampling result from each compliance well is compared to this UPL. If results greater than the UPL of background are observed, additional evaluation is necessary to determine if a sampling, analytical, or statistical

error occurred or if the results are because of an alternate contaminant source, as discussed in the QAPP (CDM Smith 2021).

In contrast, for the intrawell method, historical baseline data are used as a comparison for later test data from the same well. This baseline data must have been collected prior to the potential COC impacts in the well. The same comparison of the background UPL from the baseline time period is compared to the period of potential impact.

The following approach and associated assumptions were used in the statistical comparison to background:

- The UPL is calculated for designated background well (i.e., interwell method) data sets with at least two distinct detected results.
- The UPL is calculated using a nonparametric prediction interval for Cells 2 and 4. A one-sided upper prediction interval is calculated. The UPL represents the predicted value above which the next (single) value will not exceed with its corresponding confidence level.

G.1.4 Trend Analysis

Concentration data is analyzed for statistical trends using the Mann–Kendall trend test with a Theil–Sen trend line. The Mann–Kendall test is commonly used to identify temporal trends of COCs in groundwater wells. The Theil–Sen regression line, which identifies a corresponding slope to the trend of data, often accompanies the Mann–Kendall test.

The Mann–Kendall test is a nonparametric analysis that compares each data point to later data points in the same data set to develop a summation statistic S based on the comparisons (EPA 2009). The magnitude of S illustrates the consistency (i.e., lack of variation) of this trend over time, and the sign of S corresponds to the trend's direction. The probability (p-value) of the test statistic is used to determine whether the trend is statistically significant at the significance level (alpha) chosen. The confidence level, which differs from confidence limits (**Section G.1.2**), is the p-value subtracted from one, as a percentage. The coefficient of variation is the dataset standard deviation divided by the mean.

The Theil–Sen trend line is a nonparametric alternative to linear regression, which takes a median slope of pairwise measurements in a data set and applies it to the entire data set using the median concentration and median sample date (EPA 2009). Theil–Sen trend line calculations produce a trend line through the data set, as well as the associated slope.

The following approach was used for trend analysis, unless otherwise noted:

- For the Mann–Kendall test, the alpha is defined to be 0.05. Therefore, a statistically significant trend is present if the confidence level is greater than 95% for increasing and decreasing results, with a direction corresponding to the sign of S. No trend is statistically significant for confidence levels below 95%.
- Mann–Kendall and Theil–Sen evaluations are only performed on data sets with more than 50% detected results, at least 6 results, and no more than 40 results.

- Nondetect results are included in both evaluations as the value of the MDL.

G.2 Statistical Approach by Well Group

The following sections present the statistical approach by well group, based on the Resource Conservation and Recovery Act (RCRA) or corrective action monitoring requirements for each cell, including the calculations and assumptions.

G.2.1 Cell 1 – Corrective Action Monitoring

Cell 1 is in corrective action but is not regulated under RCRA requirements. Under corrective action, cleanup measures must be undertaken at the site. The groundwater treatment system has been in operation since 2002; incomplete capture of contamination and remedial strategy improvements are currently being assessed. To monitor contamination in Cell 1 and offsite monitoring wells in the interim, semiannual groundwater sampling is conducted, and analytical results are analyzed and reported in semiannual monitoring reports. Concentration results are screened against EPA MCLs and IDGW standards. Data from recent and relevant timeframes (i.e., the last 5 years at least) are statistically analyzed. Previous CDM Smith monitoring reports have evaluated longer time frames of historical data.

Cell 1 is in corrective action but is not regulated under RCRA requirements. The appropriate statistic of interest for corrective action is the UCL (EPA 2009). There are several parameters in which the UCL may be applied. In this analysis, the mean of test data is used. If the UCL of the mean is below the standard, there is statistically significant evidence that concentration levels meet regulatory criteria for that location. The exceedance criteria for corrective action pertain to the effectiveness of the remediation system. Additionally, concentrations trends are used to determine remedy performance with respect to treatment objectives (e.g., capturing the COC plume with the extraction system).

The Cell 1 and offsite monitoring well statistical approach is, therefore, as follows (also presented in the main text **Section 4.3.1**):

- **Statistical Tests**
  - Comparison of UCL of the mean to the standard if the standard is available.
  - Mann–Kendall trend analysis and Theil–Sen regression for data sets meeting the exceedance criterion (below). Mann-Kendall test results for Cell 1 wells uses a range for alpha to define probably significant trends where the confidence level is between 90% and 95%. Additionally, the COV is used to distinguish between no trend and stable trend results for datasets with confidence levels below 90% for which no statistically significant trend has been identified (Connor et al. 2012). The designation of "no trend" and "no trend – stable" both occur where the presence of a trend is not statistically identified in the given dataset.
  - Parameters with data sets consisting entirely of MDL values are not analyzed or shown.
- **Chemicals Analyzed**

  - Volatile organic compounds (VOCs).
  - Select inorganics.
  - Cell 1 is not regulated under RCRA requirements; however, the organic and inorganic parameter lists match the RCRA Appendix I list.

- **Statistical Exceedance Criterion:** A 95% UCL of the mean of a COC exceeds the standard in Cell 1 or offsite monitoring wells.

Remediation system extraction wells (online and offline) are also sampled semiannually. These wells are not analyzed with all the Cell 1 statistical tests; rather, Mann–Kendall trends are evaluated for tetrachloroethene (PCE) and trichloroethene (TCE) and shown on report figures to support the Cell 1 analysis.

The Cell 1 statistical approach does not include a comparison to background. There is no appropriate upgradient well for Cell 1 with which to evaluate background inorganics concentrations. Cell 2 and Cell 4 background wells completed in overburden, primarily composed of loess, would be inappropriate background wells for Cell 1 monitoring wells completed in alluvium or bedrock because of significant differences in COC fate and transport in differing geologic formations. Additionally, Cell 1 monitoring wells were not installed until the early 1990s or later, after an extensive COC plume was already established (IDEQ 2016a, b), so early data in each well cannot be accurately used as a baseline for the intrawell method. Therefore, inorganic parameters were not compared to background in Cell 1 monitoring wells using either background method.

G.2.2 Cell 2 – RCRA Assessment Monitoring

Cell 2 is currently managed under RCRA assessment monitoring. Assessment monitoring requirements include sampling of background and compliance wells for RCRA Appendix II parameters list, which include all RCRA Appendix I VOC and inorganic parameters, as well as semivolatile organic compounds, mercury, tin, cyanide, sulfide, pesticides, herbicides, polychlorinated biphenyls (PCBs), and 2,3,7,8-tetrachloro-p-dibenzodioxin (2,3,7,8-TCDD). The monitoring is conducted semiannually; during one event (i.e., fall), all Appendix II parameters are analyzed, and during the other event (i.e., spring), all Appendix I parameters are analyzed, along with any additional Appendix II parameters detected during the prior event.

Analytical results from Cell 2 wells are reviewed after each semiannual groundwater sampling event for detections and exceedances of promulgated standards and background concentrations. Data from recent and relevant timeframes (i.e., the last 5 years at least) are statistically analyzed. Previous CDM Smith monitoring reports have evaluated longer time frames of historical data.

According to EPA guidance (EPA 2009), the appropriate statistic for assessment monitoring is the LCL. While there are several parameters for which this statistic may be calculated, the approach used for Cell 2 monitoring calculates the LCL of the data set mean. Therefore, the statistical evaluation to determine whether there is a statistically significant increase in a parameter above its standard is a comparison of the LCL of the mean to the standard. If the LCL of the mean is greater than the standard, the result may warrant corrective action. If the LCL of the mean is less than the standard, the parameter is compliant with the criteria for the assessment monitoring level of

management. For inorganic parameters without a promulgated standard or with background levels that exceed the MCL, the background level can be substituted for the standard in assessment monitoring.

Therefore, background threshold values are developed for any detected Appendix II parameter. Detectable background concentrations of metals are expected, whereas background concentrations of anthropogenic organic compounds are typically considered to be the MDL. Groundwater protection standards (GPS) are also established for any detected parameters; these are typically federal MCLs or state-specific standards. For the FHML, background levels for organic parameters are considered to be MDLs because no background levels are expected for these chemicals. Background levels for inorganic parameters are site-specific, but they are generally above MDLs because of the natural minerology of the aquifer.

If concentrations of all Appendix II parameters are at or below background for two consecutive sampling events, then the groundwater monitoring program for the area can revert back to semiannual detection monitoring. However, if concentrations of any of the Appendix II parameters are significantly greater than background but less than the GPS, then assessment monitoring continues. If any parameter exceeds a GPS and the exceedance cannot be explained as a statistical anomaly, alternate sources, or natural background, then corrective measures must be initiated.

Finally, trend results can identify parameters that may exceed standards or background in the future. To understand if trends are significant, an evaluation of background well trends must be performed for chemicals that are present naturally in the environment (i.e., certain metals) to understand the uniformity of the data to which test results are compared. Therefore, this analysis was also conducted for background well inorganic parameter data sets to establish if trends may be the result of other factors, such as decreased detection limits of the analytical method, intrinsic variance in sampling, or natural variance.

According to EPA guidance (EPA 2009), the appropriate statistic for assessment monitoring is the LCL. While there are several parameters for which this statistic may be calculated, the approach used for Cell 2 monitoring calculates the LCL of the data set mean, where the data set includes all analytical data from 2016 through the latest result for a given chemical. Therefore, the statistical evaluation to determine whether there is a statistically significant increase in a parameter above its standard is a comparison of the LCL of the mean to the standard. If the LCL of the mean is greater than the standard, the result may warrant corrective action. If the LCL of the mean is less than the standard, the parameter is compliant with the criteria for the assessment monitoring level of management. For inorganic parameters without a promulgated standard or with background levels that exceed the MCL, the background level can be substituted for the standard in assessment monitoring.

For the FHML, background levels for organic parameters are considered to be MDLs because no background levels are expected for these chemicals. Background levels for inorganic parameters are site-specific, but they are generally above MDLs because of the natural minerology of the aquifer.

- **Statistical Tests**
  - Comparison of latest value to standard if available.

- Comparison of LCL of the mean to standard if available.
- Comparison of latest value to UPL of the mean of the background data set (defined as background level) for inorganics if the standard is not available.
- Mann–Kendall trend analysis and Theil–Sen regression for data sets meeting the exceedance criteria (below).
- Parameters with data sets consisting entirely of MDL values were not statistically analyzed and are not shown. The only data sets presented with 100% MDL values are those for inorganic parameters in background well MW-12, which are shown for comparison to downgradient compliance wells.

- **Chemicals Analyzed:** RCRA Appendix II parameters.
- **Statistical Exceedance Criteria**
  - A 95% LCL of the mean that exceeds the promulgated standard may trigger corrective action.
  - Either an inorganic result that exceeds the 95% UPL of background or a detection of an organic (i.e., exceedance of background) requires continuation of the assessment monitoring management tier.
- **Source of Background Data**
  - Organic parameters: Not applicable. All detections of organic Appendix I or Appendix II parameters (40 CFR §258, Subpart E) are considered exceedances of background.
  - Inorganic parameters: Background compliance well MW-12, interwell method.

G.2.3 Cell 4 – RCRA Detection Monitoring

Cell 4 is currently managed under RCRA detection monitoring. Detection monitoring requirements include semiannual sampling of background and compliance wells for RCRA Appendix I parameters list, which includes VOCs and metals. Analytical results from Cell 4 wells are reviewed after each semiannual groundwater sampling event for detections and exceedances of promulgated standards and background concentrations. Data from recent and relevant timeframes (i.e., the last 5 years at least) are statistically analyzed. Previous CDM Smith monitoring reports have evaluated longer time frames of historical data.

Under detection monitoring, analytical results that exceed the parameter's background concentration may trigger assessment monitoring. Background levels can be established for (a) the well from where test data are being analyzed (intrawell method), if sufficient data are available for the time period prior to the well's contamination, or (b) an upgradient-designated background well that is determined to be unaffected by the source of contamination (interwell method) (EPA 2009). Therefore, background threshold values are developed for the parameters and periodically updated with ongoing data collection as appropriate. For FHML, background levels for organic parameters are considered to be the MDL for that parameter because no background levels are expected for

these chemicals. Background levels for inorganic parameters are site-specific, but they are generally above MDLs because of the natural minerology of the aquifer. If a statistically significant increase over background for an inorganic chemical or a statistically significant detection of an organic chemical is observed that cannot be attributed to sampling or analytical error, natural variation, or a source outside of the landfill cell, then assessment monitoring is initiated within 90 days.

Additionally, trend results can identify parameters that may exceed standards or background in the future. To understand if trends are significant, an evaluation of background well trends must be performed for chemicals that are present naturally in the environment (i.e., certain metals) to understand the uniformity of the data to which test results are compared. Therefore, this analysis was also conducted for background well inorganic parameter data sets to establish if trends may be the result of other factors, such as decreased detection limits of the analytical method, intrinsic variance in sampling, or natural variance.

The Cell 4 monitoring well statistical approach is, therefore, as follows (also presented in the main text **Section 4.5.1**):

- **Statistical Tests**
  - Comparison of latest value to standard if the standard is available.
    - *If the latest value exceeds the standard, then comparison of LCL to standard.*
  - Comparison of latest value to MDL for organics.
  - Comparison of latest value to UPL of the mean of the background data set (defined as background level) for inorganics.
  - Mann–Kendall trend analysis and Theil–Sen regression for data sets meeting the exceedance criteria (below).
  - Parameters with data sets consisting entirely of MDL values were not statistically analyzed and are not shown. The only data sets presented with 100% MDL values are those for inorganic parameters in background well MW-4A, which are shown for comparison to downgradient compliance wells.
- **Chemicals Analyzed:** RCRA Appendix I parameters.
- **Statistical Exceedance Criteria**
  - Result or 95% LCL of the mean exceeds the promulgated standard (may trigger corrective action).
  - Result exceeds the 95% UPL of background (inorganic) or MDL of the parameter (organic) (may trigger assessment monitoring).
- **Source of Background Data**

- Organic parameters: Not applicable. All detections of organic Appendix I parameters (40 CFR §258, Subpart E) are considered exceedances of background.
- Inorganic parameters: Background compliance well MW-4A, interwell method.

G.2.4 City of Pocatello and Domestic Wells

Select offsite City of Pocatello monitoring wells and privately owned domestic wells are sampled annually to assess overall plume trends. City of Pocatello wells include municipal supply wells and monitoring wells. Domestic wells are supply wells located on private properties.

These wells are analyzed for VOCs, and concentration results are screened against promulgated standards. For wells with sufficient data, Mann–Kendall and Theil–Sen analyses of PCE and TCE are performed consistent with the Cell 1 approach to identify probable and stable trends, where present. Most data sets start in 2002, if data is available, because that is when the groundwater treatment system began operation. For wells that do not have at least six data points since 2002, all data are included in the analysis. Select wells (e.g., RW-2076F and RW-8030P) with extensive sampling histories are often evaluated with more recent time frames.

G.3 Statistical Analysis

See attached tables for comprehensive statistical results and attached graphs for select datasets with exceedances.

G.4 References

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Appendix G
Statistical Definitions and Acronyms
Fort Hall Mine Landfill

Field Name or Abbreviation	Definition
%	percent
µg/L	microgram per liter
BCa bootstrap	bootstrapping method to estimate confidence limits that corrects for bias and skewness in the distribution of bootstrap estimates,
Bootstrap	method for estimating uncertainty of a statistic where many recreations of the data set are generated by sampling the measured v
CAS_RN	chemical CAS RN
CHEMICAL_NAME	chemical/analyte/parameter
CL	confidence limit
CL conf	confidence level of the confidence limits
Confidence Level	confidence level of the Mann-Kendall Trend Test
COV	coefficient of variation, calculated as the dataset standard deviation divided by the mean
Dataset mean	mean of the records in the dataset
Dataset n	number of records between the Min Date and the Max Date
Direction	Mann-Kendall trend result
EPA	United States Environmental Protection Agency
GSI Toolkit Trend	trend result from the GSI Environmental, Inc. Mann-Kendall Toolkit (Connor et al. 2012)
ID GW	Idaho Groundwater Rule (Primary or Secondary Standard)
J	estimated result
Kaplan-Meier	statistical method to estimate the distribution of censored data (i.e., containing nondetect values)
Last Q	laboratory qualifier for the most recent result (if any)
Latest Result	most recent result
Latest Result > mean	Determination whether the Latest Result exceeds the dataset mean
Latest Result > Standard	Determination whether the Latest Result exceeds the Standard
Latest Result > UPL of background	Determination wheter the Latest Result exceeds the UPL of the background well
LCL	lower confidence limit of the data set mean
LCL > Standard	Determination whether the LCL exceeds the standard
LCL of the mean	lower confidence limit of the data set mean
Mann Kendall Trend	the output of the Mann-Kendall Trend Test, which is a nonparametric statistical test used to determine whether a time series has a
Max Date	most recent date in the analyzed dataset
MCL	maximum contaminant level
mg/L	milligram per liter
Min Date	earliest date in the analyzed dataset
n	number of data results in the dataset
N (background)	number of records for this analyte in the background well (Cell 2 and Cell 4 Monitoring Well only)
NA	not applicable
NC	not calculated
ND	nondetect
ND %	percentage of nondetect results in the dataset
ND (background)	number of nondetect results in the background well (Cell 2 and Cell 4 Monitoring Well only)
NP	nonparametric
ordinary nonparametric bootstrap	method for estimating uncertainty of a statistic where many recreations of the data set are generated by sampling the measured v
Parameter est. method	method used to estimate the mean and standard deviation, which depends on the number of unique detected values in the datase
p-value	probability of the Mann Kendall Trend Test that S would occur without a significant trend
Q	qualifier
RCRA	Resource Conservation and Recovery Act
RCRA regulated chemical	Whether the chemical is RCRA regulated
S	Kendall's S
sd	standard deviation of the dataset
sd(S)	standard deviation of Kendall's S
Standard	value of the standard (if any)
Standard source	source of the environmental standard (if any)
TS	Theil-Sen, nonparametric method to estimate dataset trend line
TS Intercept	Theil-Sen intercept
TS Slope	Theil-Sen slope
U	nondetect result
UCL	upper confidence limit of the data set mean
UCL > Standard	Determination whether the UCL of the mean exceeds the standard
UCL of the mean	upper confidence limit of the mean measurement
UJ	result estimated to be nondetect
Unit	unit of measurement of chemical concentrations

Appendix G
Statistical Definitions and Acronyms
Fort Hall Mine Landfill

Field Name or Abbreviation	Definition
UPL	upper prediction limit
UPL conf	confidence level for the UPL (for the background well)
UPL method	method of calculation for the Upper Prediction Limit of the background measurement
UPL of background	UPL of the background well (Cell 2 and Cell 4 Monitoring Well only)
Well ID	SYS_LOC_CODE of the well
Z	approximated value of Kendall's S, for datasets with n > 10

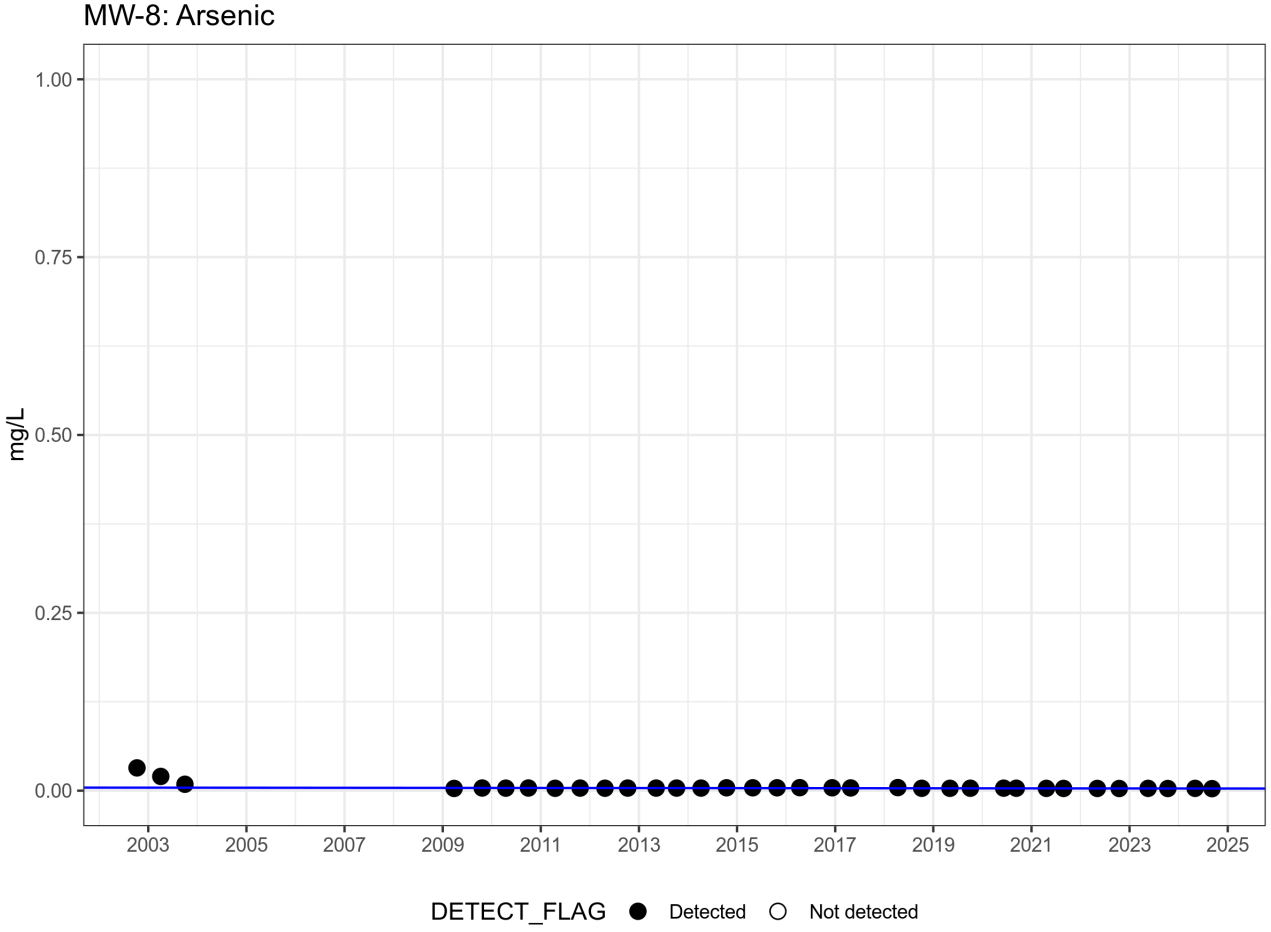
Arsenic: MW-8

This report is filtered to only include:

- Results from **Jan 01, 2002** to **Sep 10, 2024**
- LOC_GROUP_CODE - **Cell 2 Monitoring Well**
- METHOD_ANALYTE_GROUP - **Bannock_Inorganics**
- SYS_LOC_CODE - **MW-8**
- CAS_RN - **7440-38-2**
- CHEMICAL_NAME - **Arsenic**
- REPORT_RESULT_UNIT - **mg/L**
- FRACTION: **T**

Time series graph

- When only the year is shown in the x-axis label, this represents the start of the year
- ORP values that are negative cannot be put in to a log10 scale graph and will not show.



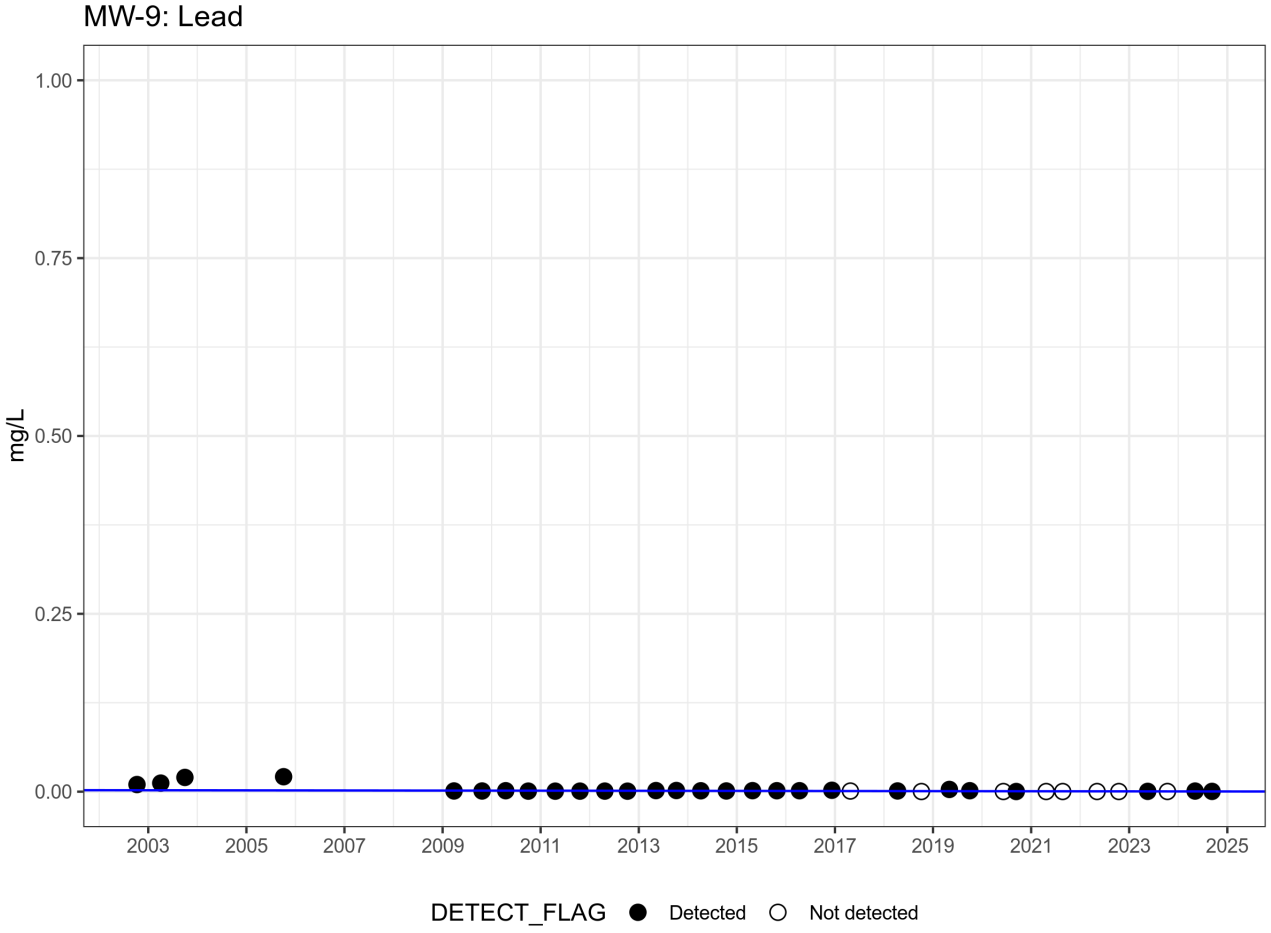
Lead: MW-9

This report is filtered to only include:

- Results from **Jan 01, 2002** to **Sep 10, 2024**
- LOC_GROUP_CODE - **Cell 2 Monitoring Well**
- METHOD_ANALYTE_GROUP - **Bannock_Inorganics**
- SYS_LOC_CODE - **MW-9**
- CAS_RN - **7439-92-1**
- CHEMICAL_NAME - **Lead**
- REPORT_RESULT_UNIT - **mg/L**
- FRACTION: **T**

Time series graph

- When only the year is shown in the x-axis label, this represents the start of the year
- ORP values that are negative cannot be put in to a log10 scale graph and will not show.



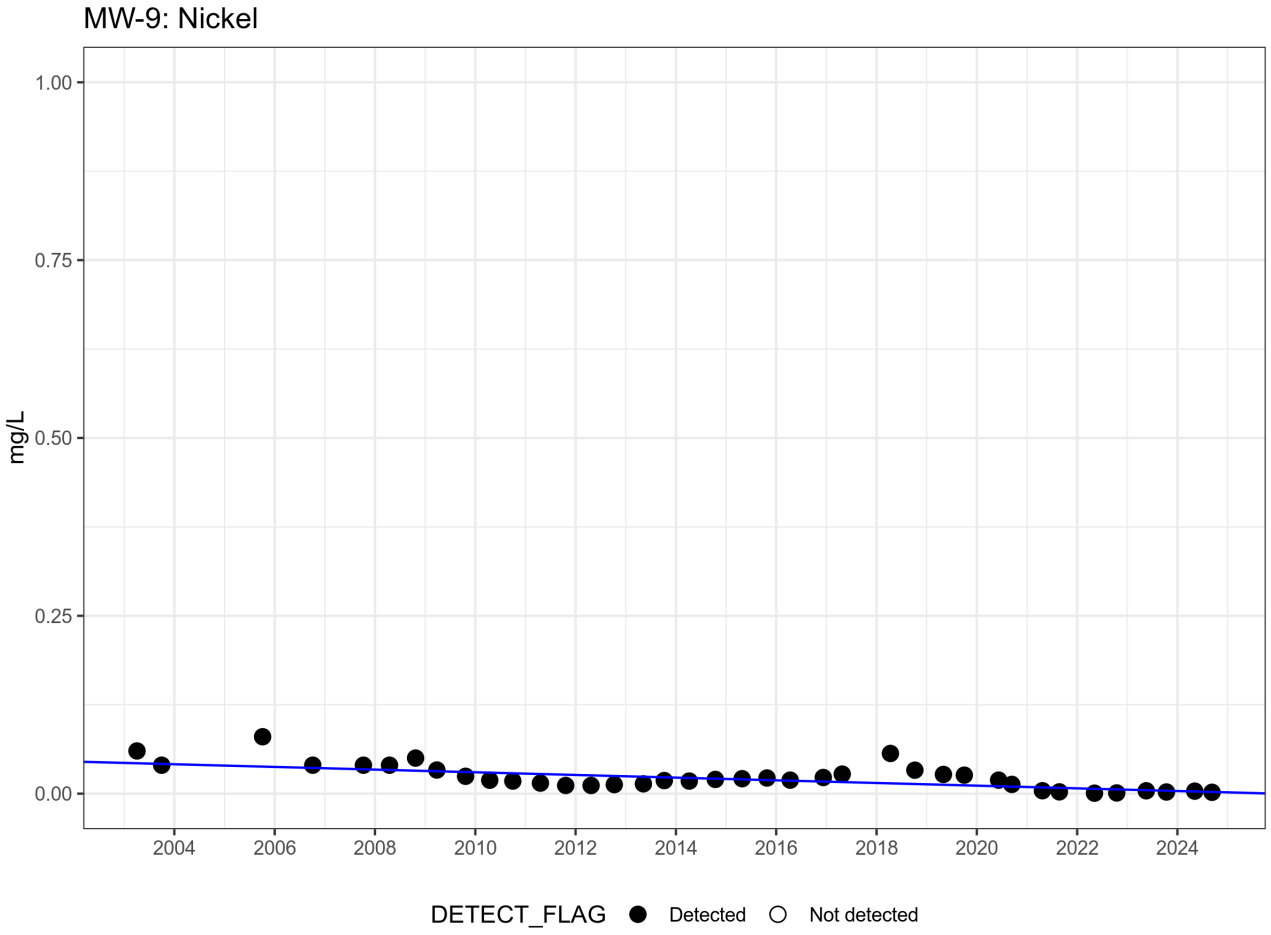
Nickel: MW-9

This report is filtered to only include:

- Results from **Jan 01, 2002** to **Sep 10, 2024**
- LOC_GROUP_CODE - **Cell 2 Monitoring Well**
- METHOD_ANALYTE_GROUP - **Bannock_Inorganics**
- SYS_LOC_CODE - **MW-9**
- CAS_RN - **7440-02-0**
- CHEMICAL_NAME - **Nickel**
- REPORT_RESULT_UNIT - **mg/L**
- FRACTION: **T**

Time series graph

- When only the year is shown in the x-axis label, this represents the start of the year
- ORP values that are negative cannot be put in to a log10 scale graph and will not show.



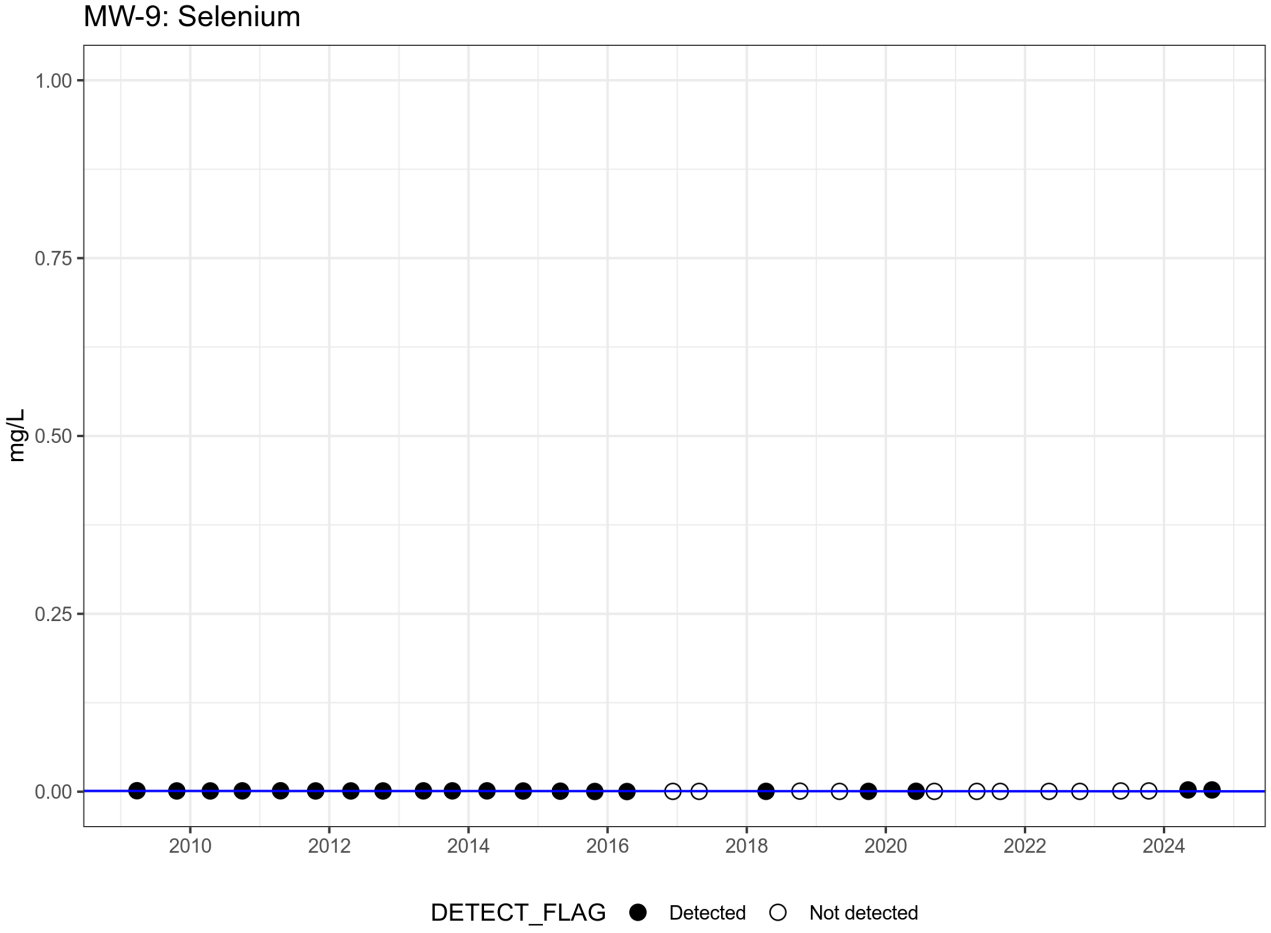
Selenium: MW-9

This report is filtered to only include:

- Results from **Jan 01, 2002** to **Sep 10, 2024**
- LOC_GROUP_CODE - **Cell 2 Monitoring Well**
- METHOD_ANALYTE_GROUP - **Bannock_Inorganics**
- SYS_LOC_CODE - **MW-9**
- CAS_RN - **7782-49-2**
- CHEMICAL_NAME - **Selenium**
- REPORT_RESULT_UNIT - **mg/L**
- FRACTION: **T**

Time series graph

- When only the year is shown in the x-axis label, this represents the start of the year
- ORP values that are negative cannot be put in to a log10 scale graph and will not show.



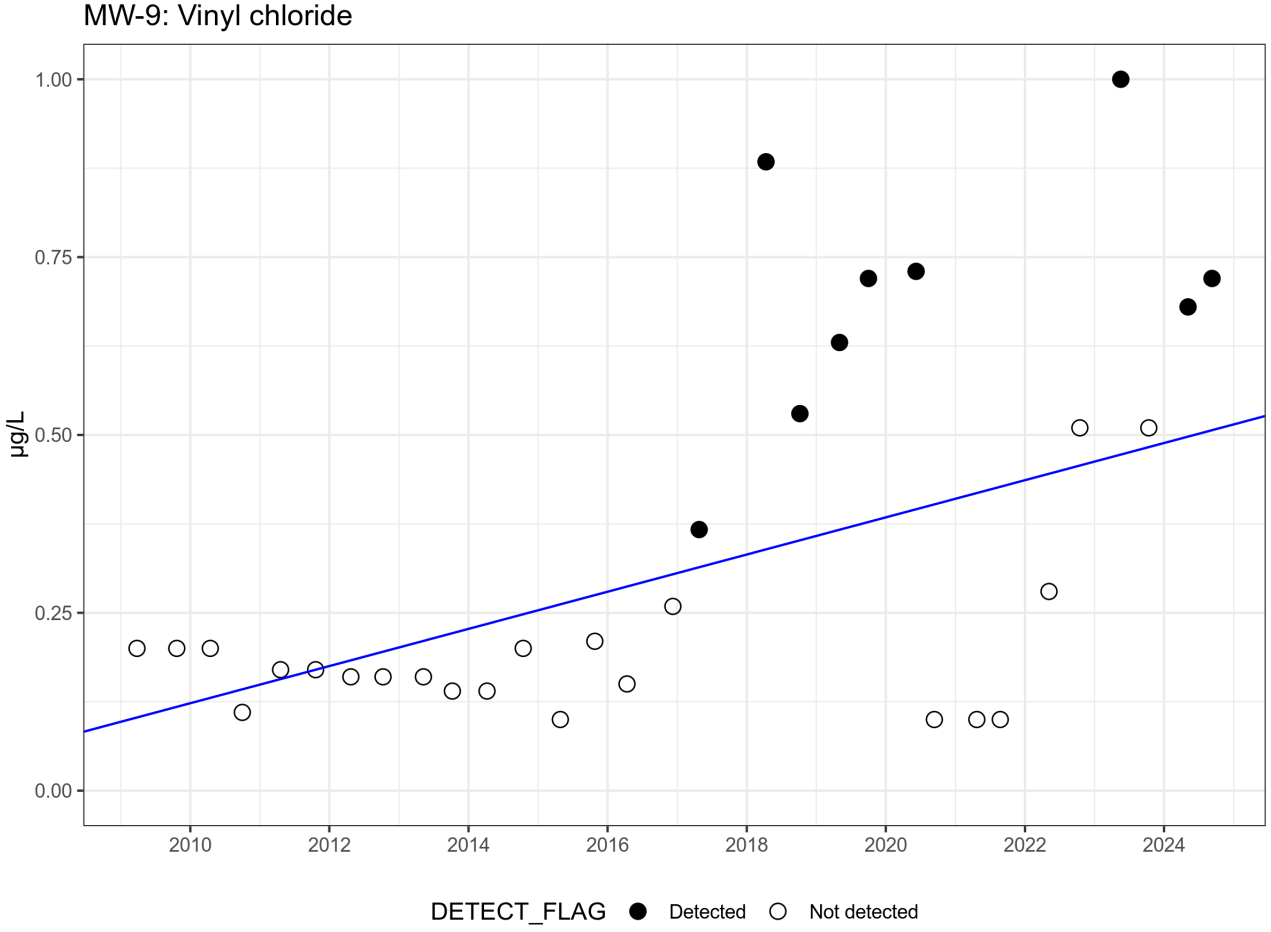
Vinyl chloride: MW-9

This report is filtered to only include:

- Results from **Jan 01, 2002** to **Sep 10, 2024**
- LOC_GROUP_CODE - **Cell 2 Monitoring Well**
- METHOD_ANALYTE_GROUP - **Bannock_VOCs**
- SYS_LOC_CODE - **MW-9**
- CAS_RN - **75-01-4**
- CHEMICAL_NAME - **Vinyl chloride**
- REPORT_RESULT_UNIT - **µg/L**
- FRACTION: **T**

Time series graph

- When only the year is shown in the x-axis label, this represents the start of the year
- ORP values that are negative cannot be put in to a log10 scale graph and will not show.



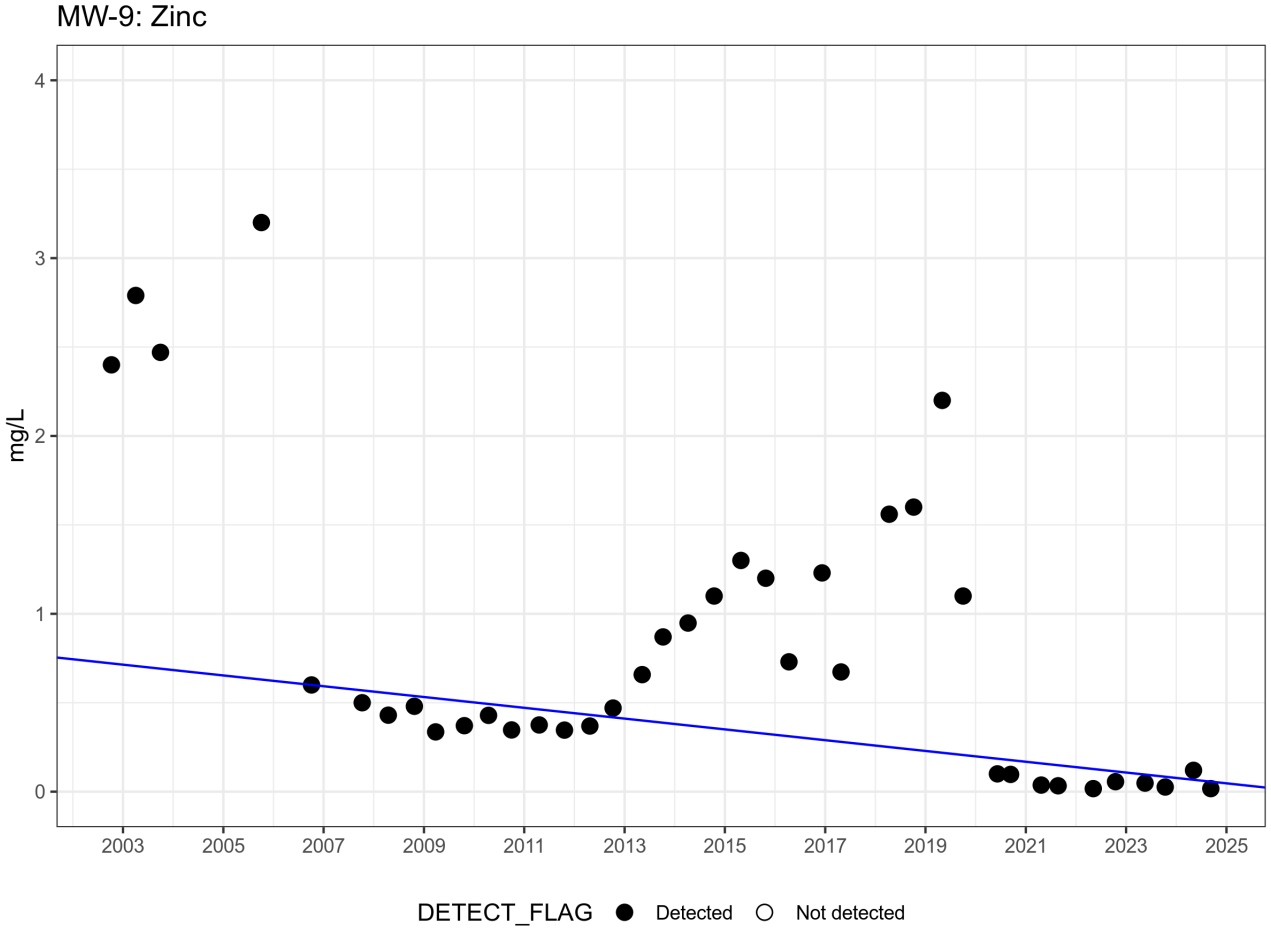
Zinc: MW-9

This report is filtered to only include:

- Results from **Jan 01, 2002** to **Sep 10, 2024**
- LOC_GROUP_CODE - **Cell 2 Monitoring Well**
- METHOD_ANALYTE_GROUP - **Bannock_Inorganics**
- SYS_LOC_CODE - **MW-9**
- CAS_RN - **7440-66-6**
- CHEMICAL_NAME - **Zinc**
- REPORT_RESULT_UNIT - **mg/L**
- FRACTION: **T**

Time series graph

- When only the year is shown in the x-axis label, this represents the start of the year
- ORP values that are negative cannot be put in to a log10 scale graph and will not show.



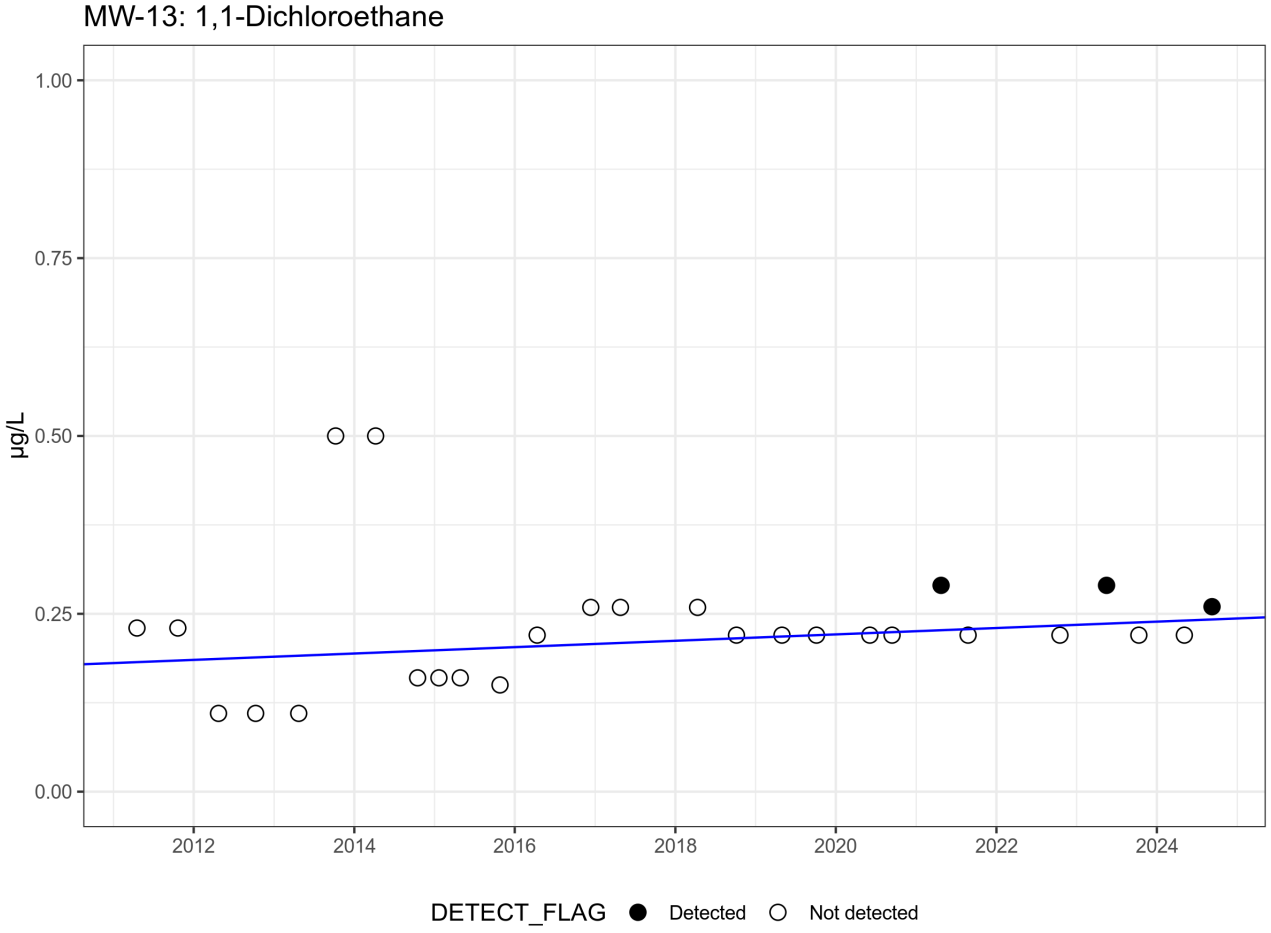
1,1-Dichloroethane: MW-13

This report is filtered to only include:

- Results from **Jan 01, 2002** to **Sep 10, 2024**
- LOC_GROUP_CODE - **Cell 2 Monitoring Well**
- METHOD_ANALYTE_GROUP - **Bannock_VOCs**
- SYS_LOC_CODE - **MW-13**
- CAS_RN - **75-34-3**
- CHEMICAL_NAME - **1,1-Dichloroethane**
- REPORT_RESULT_UNIT - **µg/L**
- FRACTION: **T**

Time series graph

- When only the year is shown in the x-axis label, this represents the start of the year
- ORP values that are negative cannot be put in to a log10 scale graph and will not show.



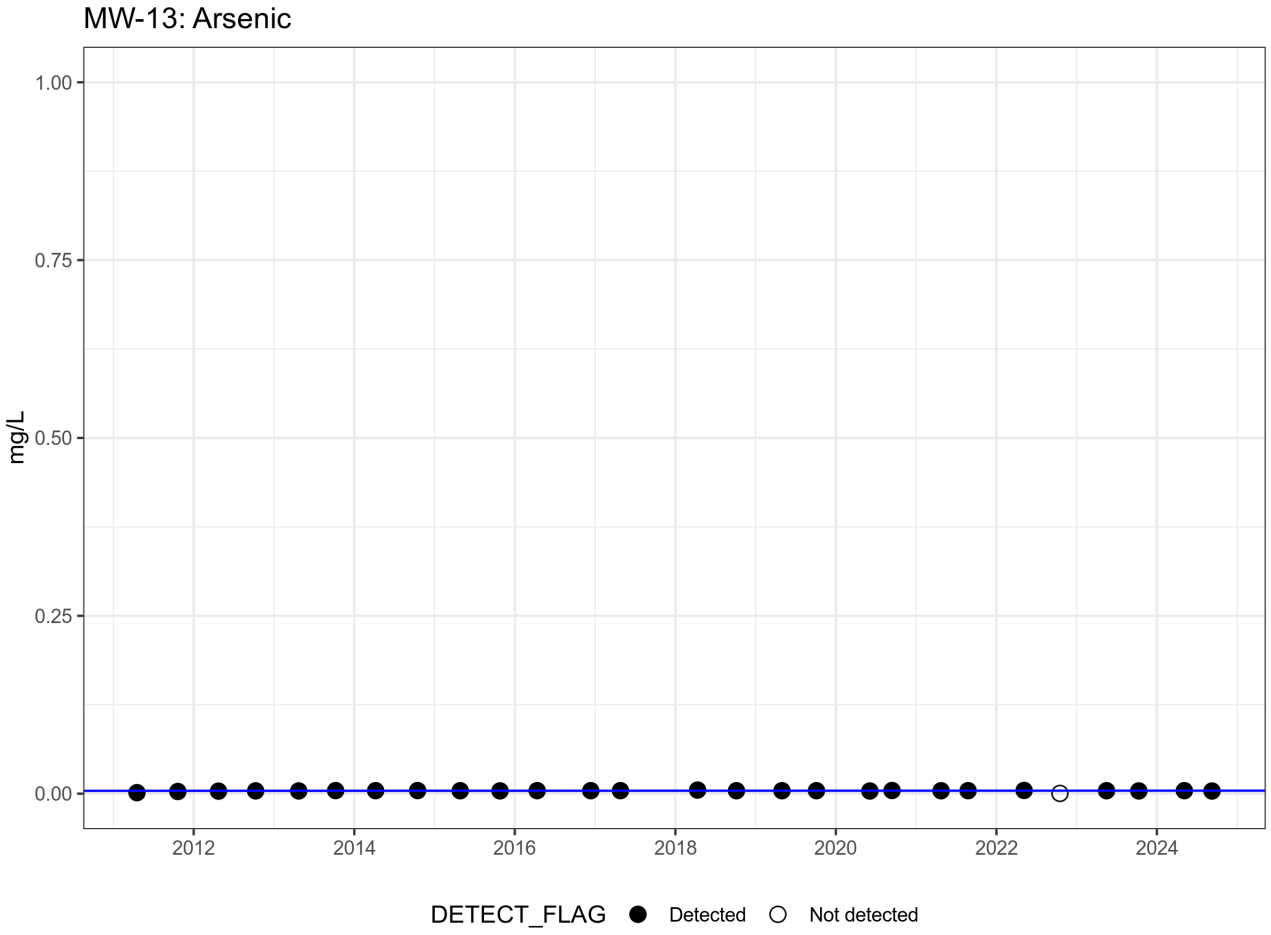
Arsenic: MW-13

This report is filtered to only include:

- Results from **Jan 01, 2002** to **Sep 10, 2024**
- LOC_GROUP_CODE - **Cell 2 Monitoring Well**
- METHOD_ANALYTE_GROUP - **Bannock_Inorganics**
- SYS_LOC_CODE - **MW-13**
- CAS_RN - **7440-38-2**
- CHEMICAL_NAME - **Arsenic**
- REPORT_RESULT_UNIT - **mg/L**
- FRACTION: **T**

Time series graph

- When only the year is shown in the x-axis label, this represents the start of the year
- ORP values that are negative cannot be put in to a log10 scale graph and will not show.



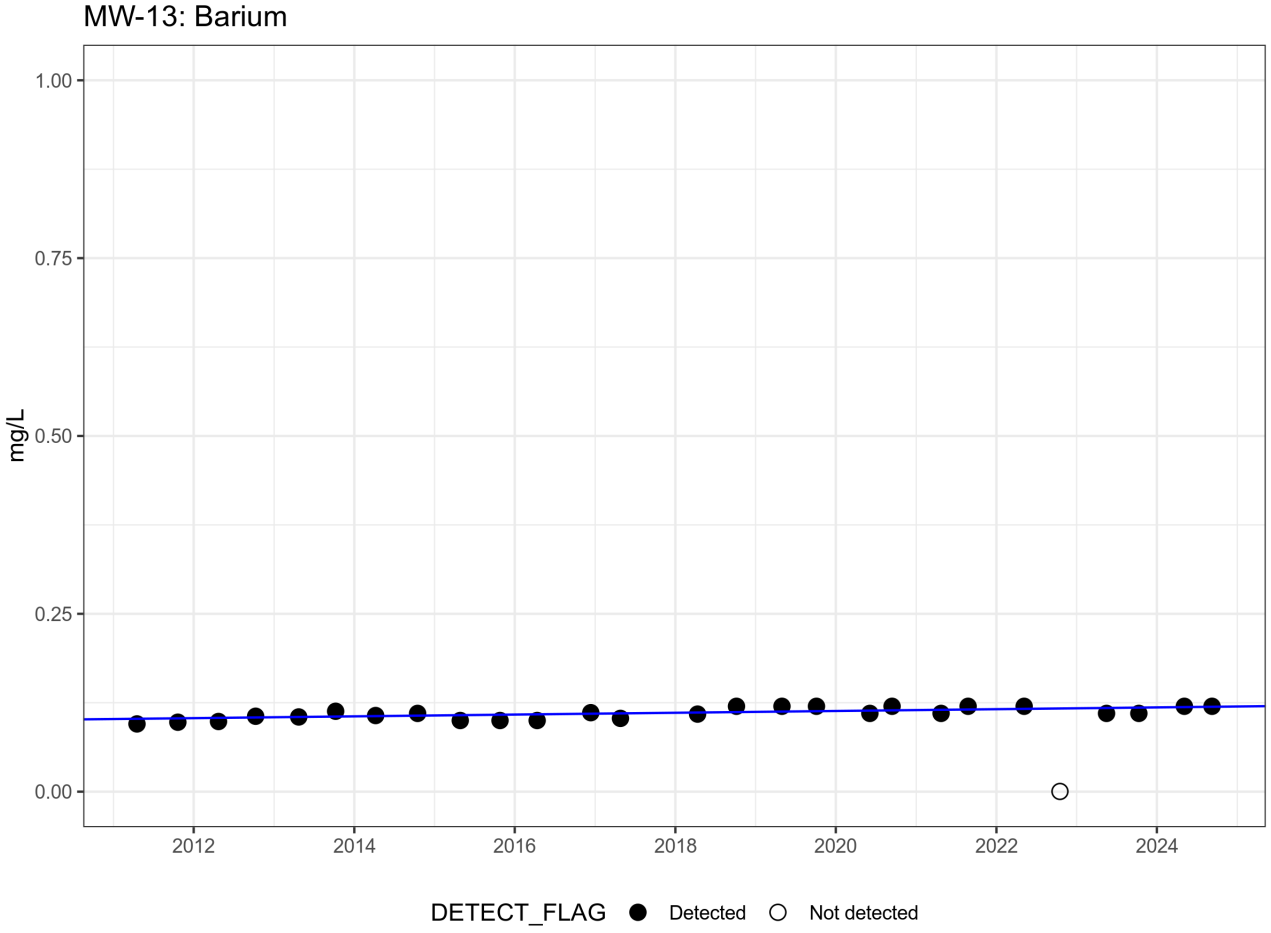
Barium: MW-13

This report is filtered to only include:

- Results from **Jan 01, 2002** to **Sep 10, 2024**
- LOC_GROUP_CODE - **Cell 2 Monitoring Well**
- METHOD_ANALYTE_GROUP - **Bannock_Inorganics**
- SYS_LOC_CODE - **MW-13**
- CAS_RN - **7440-39-3**
- CHEMICAL_NAME - **Barium**
- REPORT_RESULT_UNIT - **mg/L**
- FRACTION: **T**

Time series graph

- When only the year is shown in the x-axis label, this represents the start of the year
- ORP values that are negative cannot be put in to a log10 scale graph and will not show.



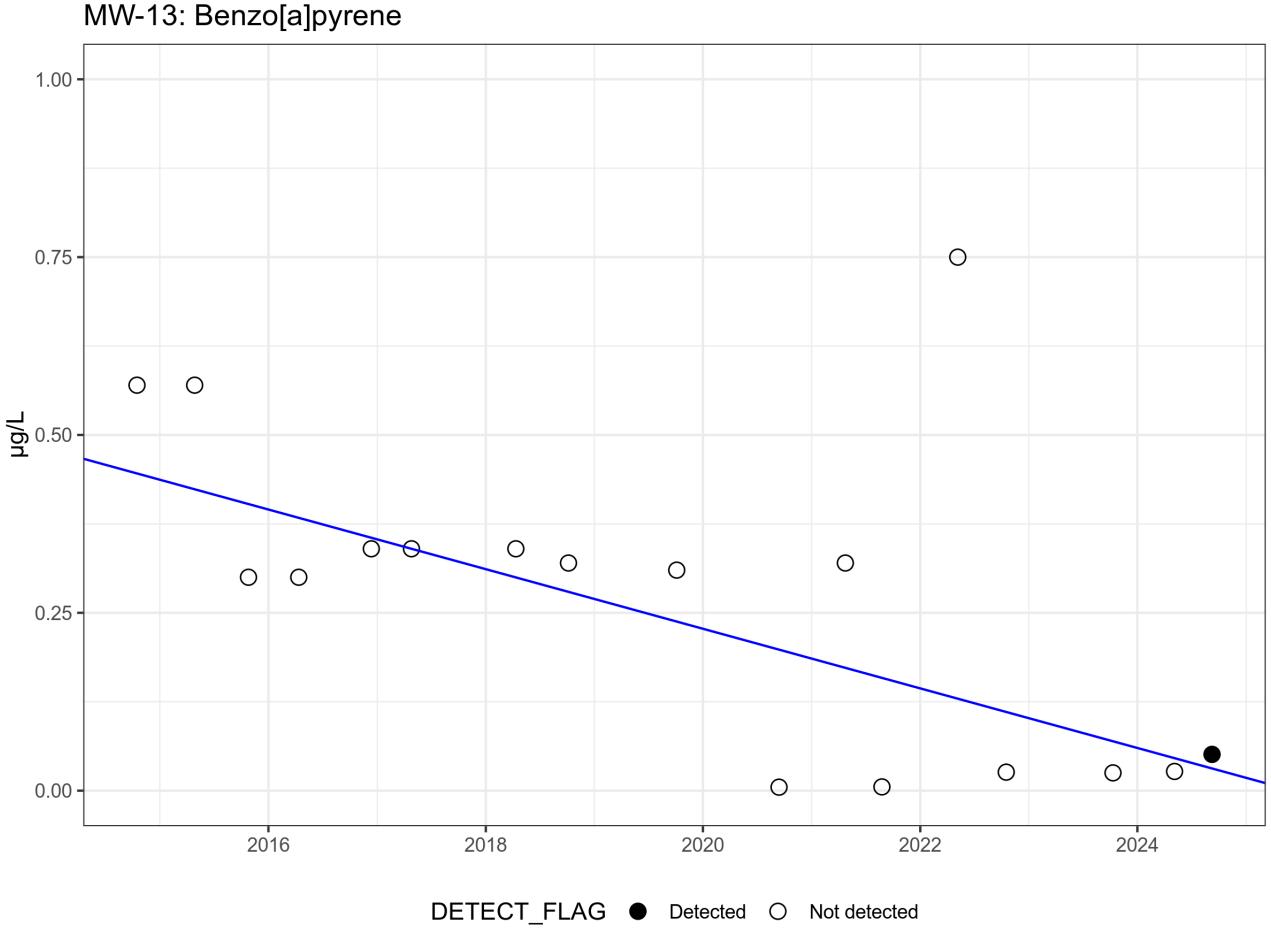
Benzo[a]pyrene: MW-13

This report is filtered to only include:

- Results from **Jan 01, 2002** to **Sep 10, 2024**
- LOC_GROUP_CODE - **Cell 2 Monitoring Well**
- METHOD_ANALYTE_GROUP - **Bannock_SVOCs**
- SYS_LOC_CODE - **MW-13**
- CAS_RN - **50-32-8**
- CHEMICAL_NAME - **Benzo[a]pyrene**
- REPORT_RESULT_UNIT - **µg/L**
- FRACTION: **T**

Time series graph

- When only the year is shown in the x-axis label, this represents the start of the year
- ORP values that are negative cannot be put in to a log10 scale graph and will not show.



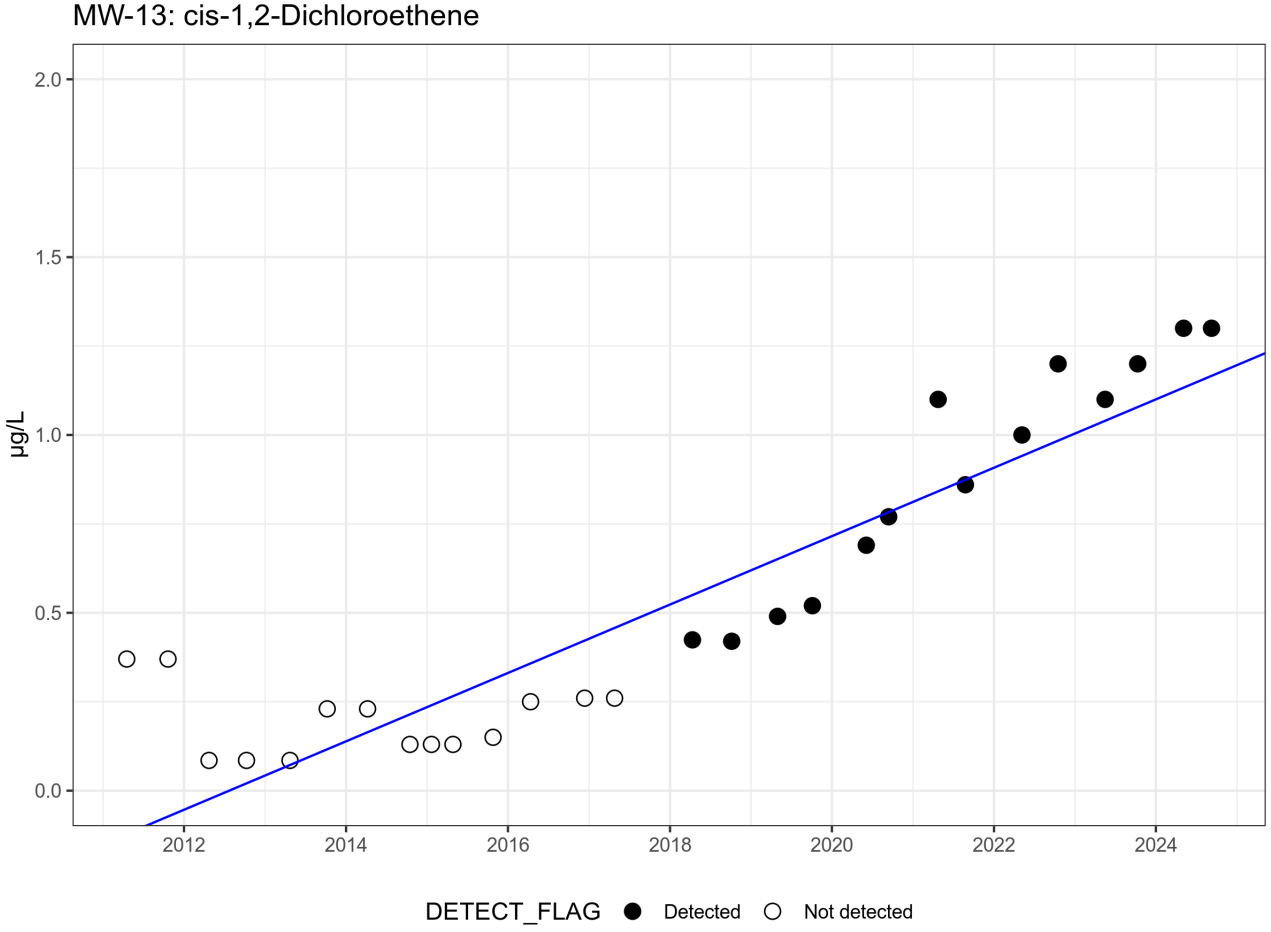
cis-1,2-Dichloroethene: MW-13

This report is filtered to only include:

- Results from **Jan 01, 2002** to **Sep 10, 2024**
- LOC_GROUP_CODE - **Cell 2 Monitoring Well**
- METHOD_ANALYTE_GROUP - **Bannock_VOCs**
- SYS_LOC_CODE - **MW-13**
- CAS_RN - **156-59-2**
- CHEMICAL_NAME - **cis-1,2-Dichloroethene**
- REPORT_RESULT_UNIT - **µg/L**
- FRACTION: **T**

Time series graph

- When only the year is shown in the x-axis label, this represents the start of the year
- ORP values that are negative cannot be put in to a log10 scale graph and will not show.



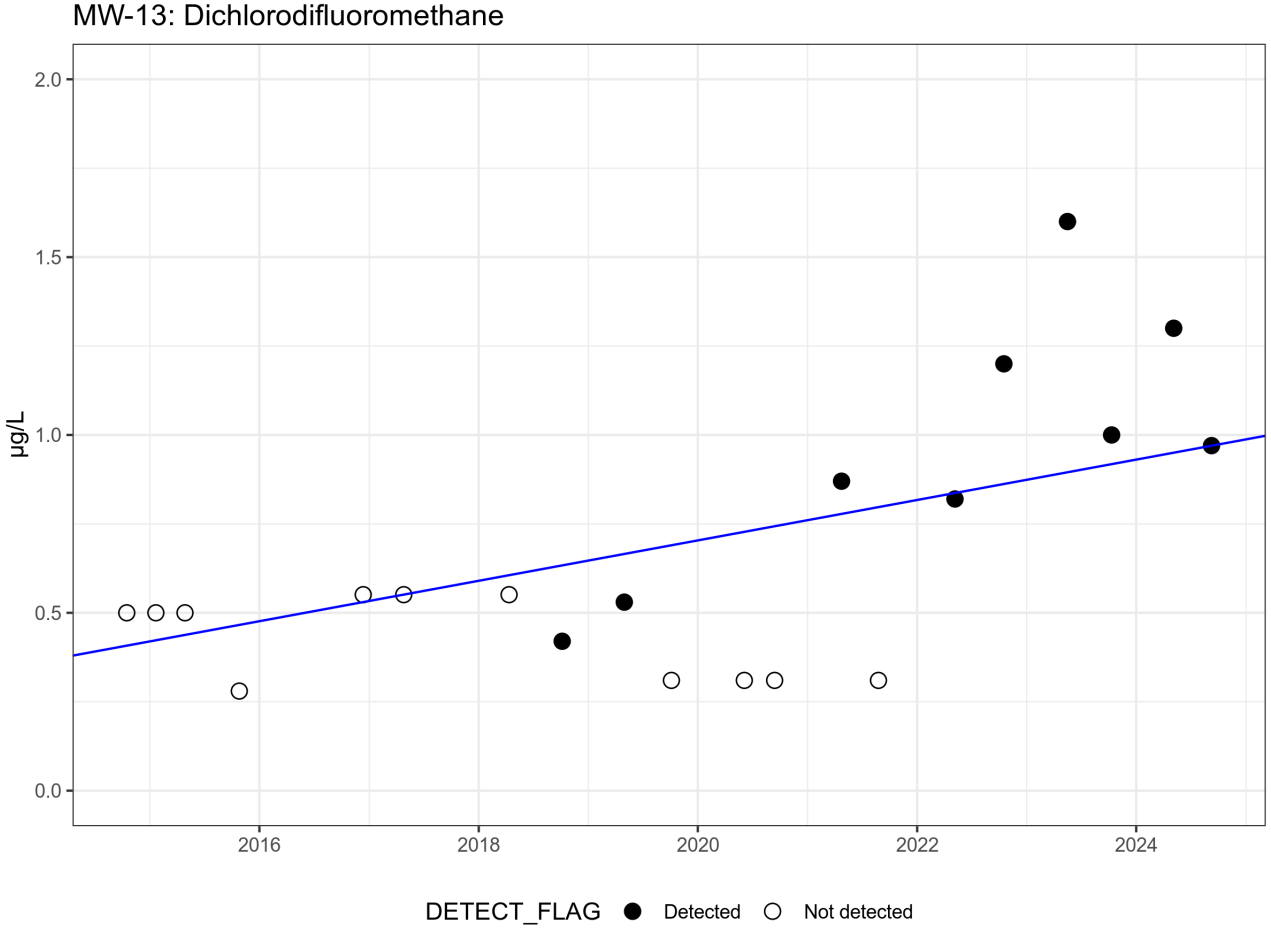
Dichlorodifluoromethane: MW-13

This report is filtered to only include:

- Results from **Jan 01, 2002** to **Sep 10, 2024**
- LOC_GROUP_CODE - **Cell 2 Monitoring Well**
- METHOD_ANALYTE_GROUP - **Bannock_VOCs**
- SYS_LOC_CODE - **MW-13**
- CAS_RN - **75-71-8**
- CHEMICAL_NAME - **Dichlorodifluoromethane**
- REPORT_RESULT_UNIT - **µg/L**
- FRACTION: **T**

Time series graph

- When only the year is shown in the x-axis label, this represents the start of the year
- ORP values that are negative cannot be put in to a log10 scale graph and will not show.



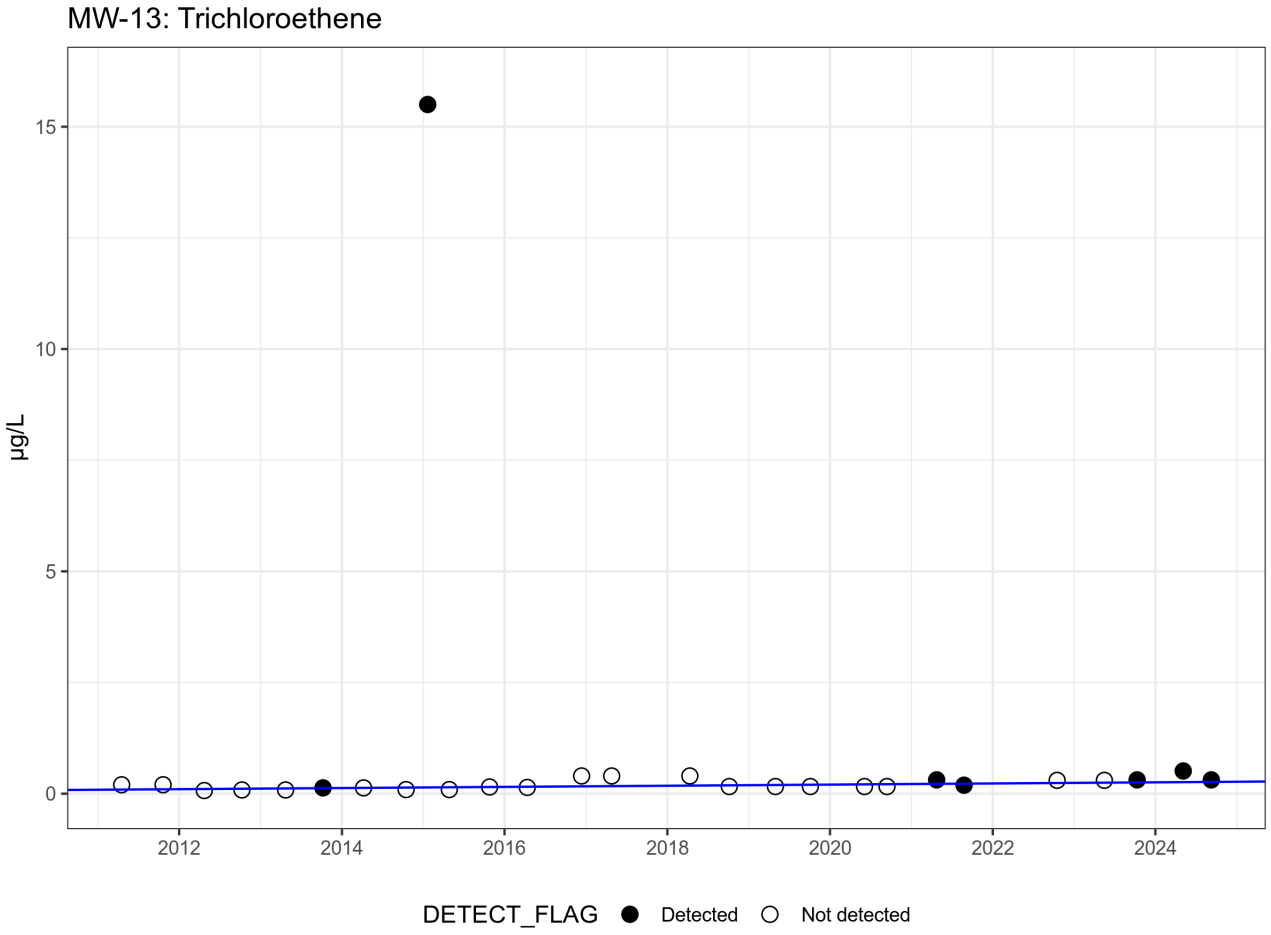
Trichloroethene: MW-13

This report is filtered to only include:

- Results from **Jan 01, 2002** to **Sep 10, 2024**
- LOC_GROUP_CODE - **Cell 2 Monitoring Well**
- METHOD_ANALYTE_GROUP - **Bannock_VOCs**
- SYS_LOC_CODE - **MW-13**
- CAS_RN - **79-01-6**
- CHEMICAL_NAME - **Trichloroethene**
- REPORT_RESULT_UNIT - **µg/L**
- FRACTION: **T**

Time series graph

- When only the year is shown in the x-axis label, this represents the start of the year
- ORP values that are negative cannot be put in to a log10 scale graph and will not show.



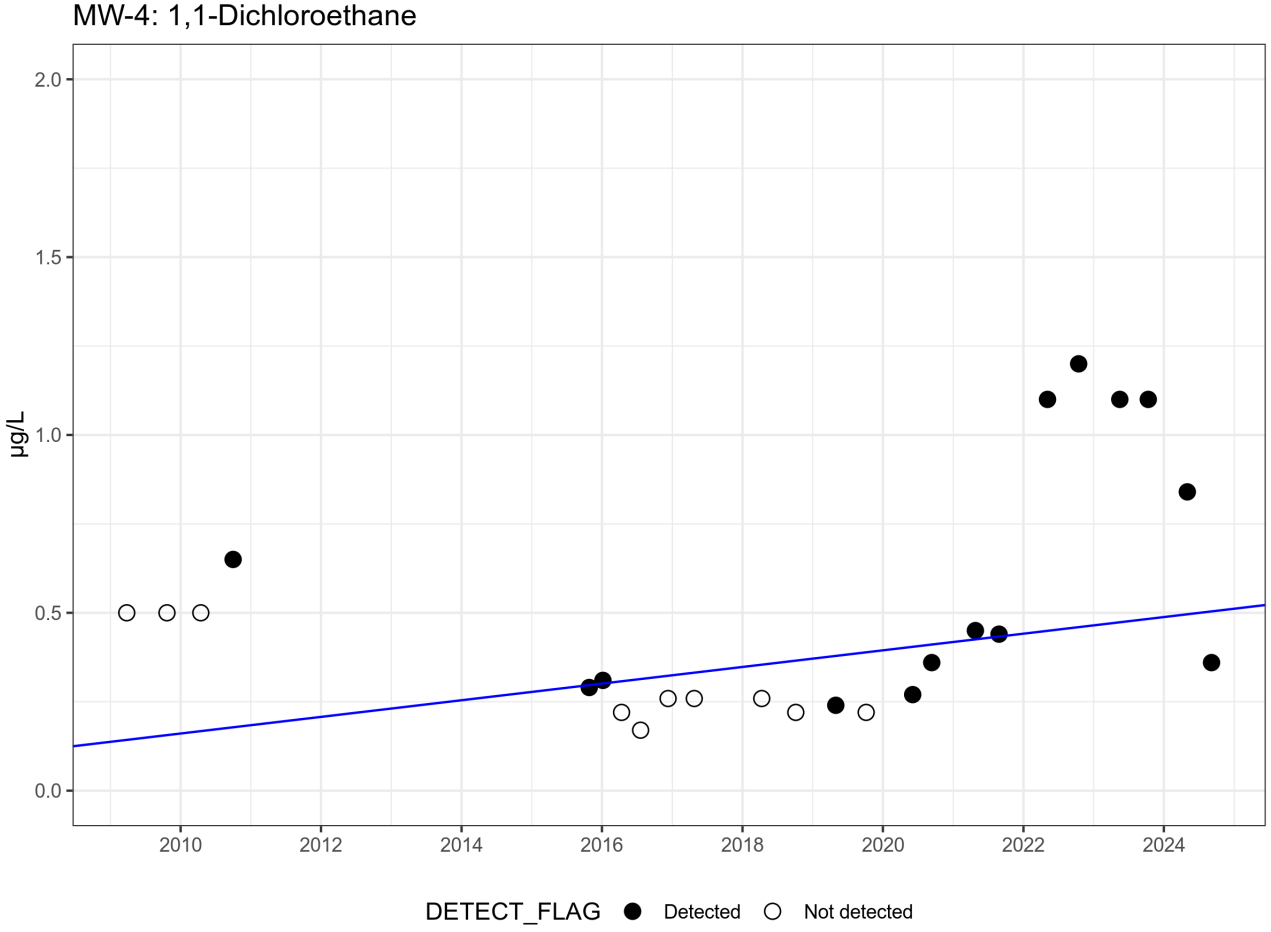
1,1-Dichloroethane: MW-4

This report is filtered to only include:

- Results from **Jan 01, 2002** to **Sep 10, 2024**
- LOC_GROUP_CODE - **Cell 4 Monitoring Well**
- METHOD_ANALYTE_GROUP - **Bannock_VOCs**
- SYS_LOC_CODE - **MW-4**
- CAS_RN - **75-34-3**
- CHEMICAL_NAME - **1,1-Dichloroethane**
- REPORT_RESULT_UNIT - **µg/L**
- FRACTION: **T**

Time series graph

- When only the year is shown in the x-axis label, this represents the start of the year
- ORP values that are negative cannot be put in to a log10 scale graph and will not show.



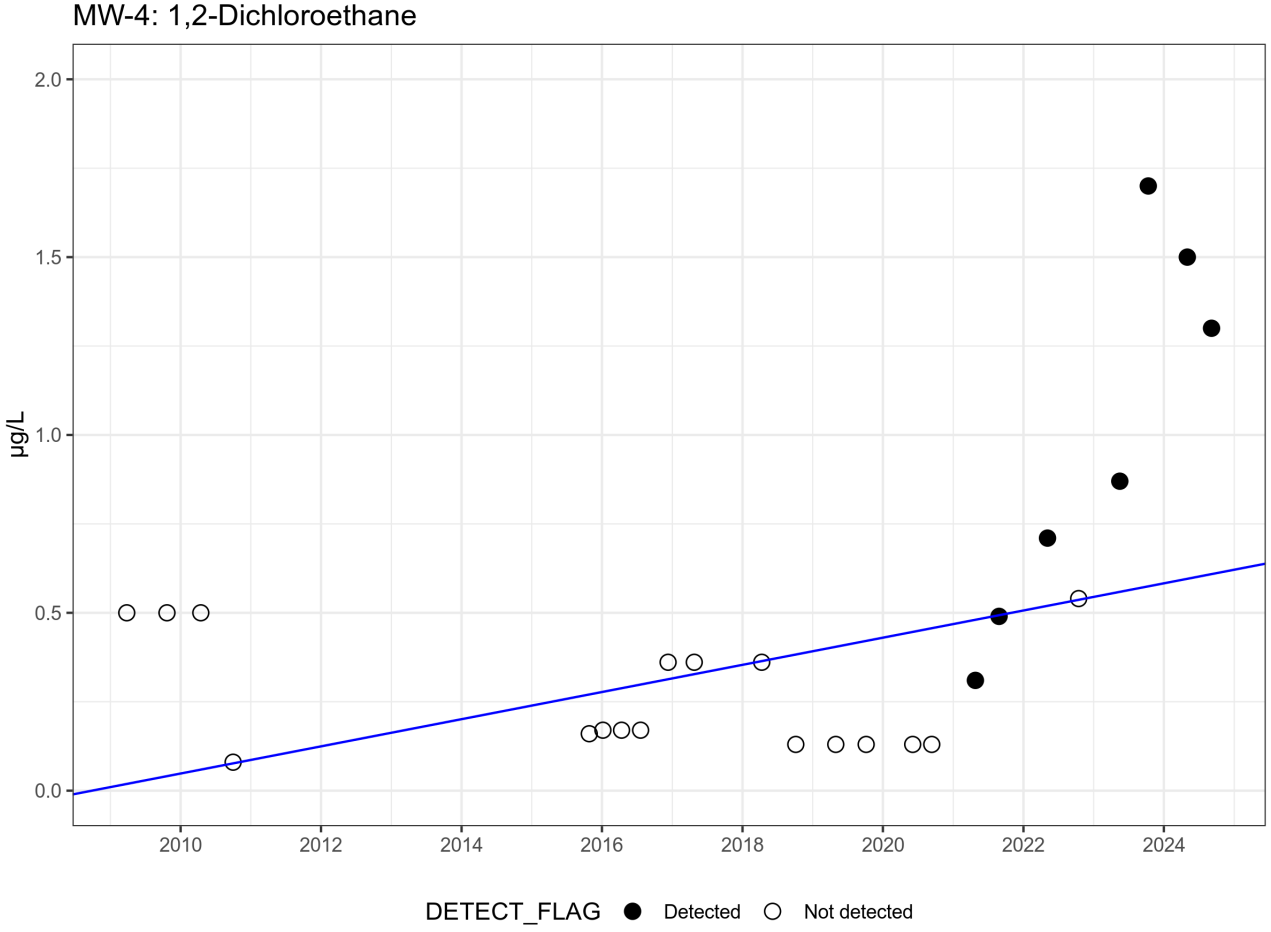
1,2-Dichloroethane: MW-4

This report is filtered to only include:

- Results from **Jan 01, 2002** to **Sep 10, 2024**
- LOC_GROUP_CODE - **Cell 4 Monitoring Well**
- METHOD_ANALYTE_GROUP - **Bannock_VOCs**
- SYS_LOC_CODE - **MW-4**
- CAS_RN - **107-06-2**
- CHEMICAL_NAME - **1,2-Dichloroethane**
- REPORT_RESULT_UNIT - **µg/L**
- FRACTION: **T**

Time series graph

- When only the year is shown in the x-axis label, this represents the start of the year
- ORP values that are negative cannot be put in to a log10 scale graph and will not show.



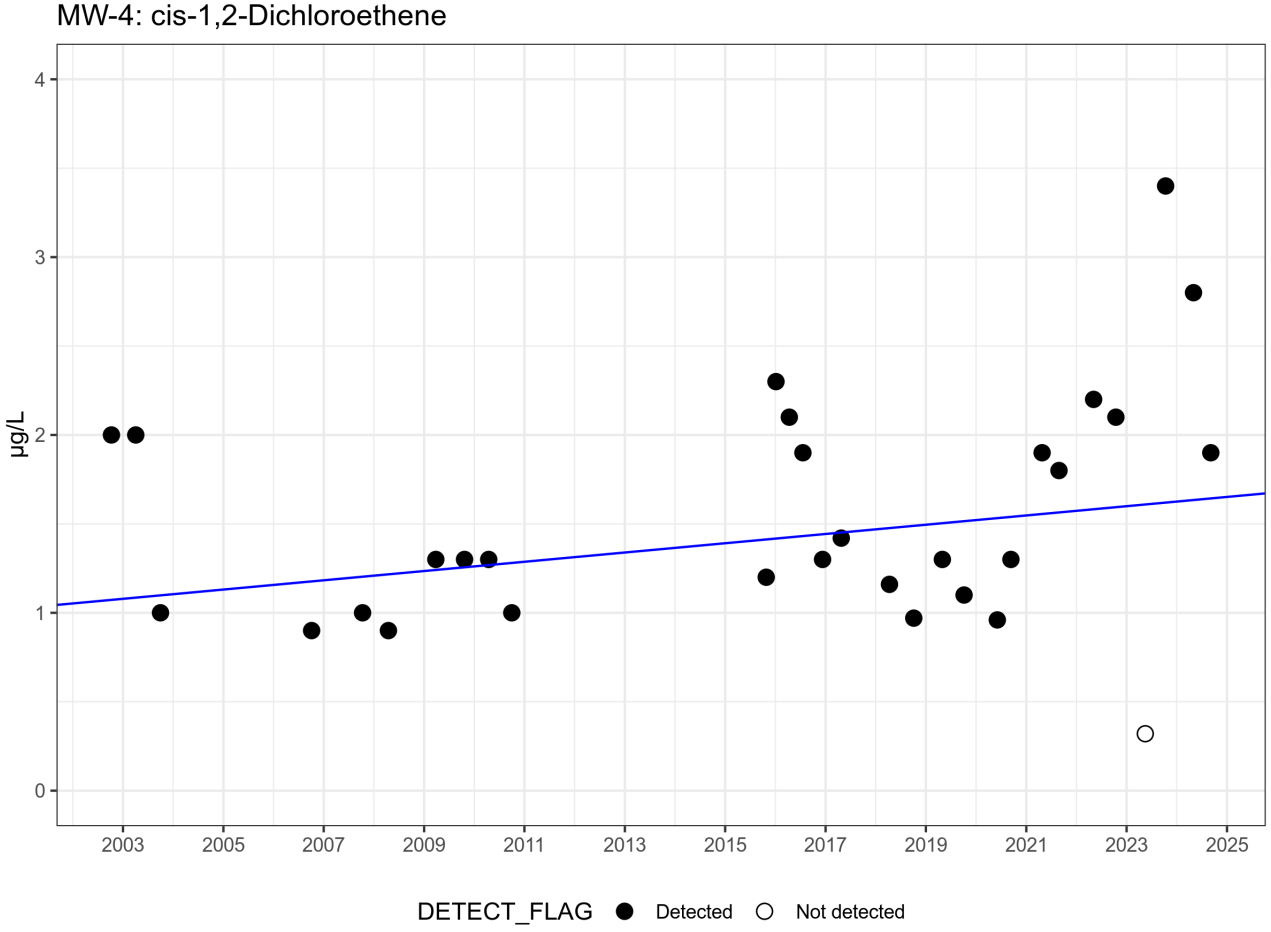
cis-1,2-Dichloroethene: MW-4

This report is filtered to only include:

- Results from **Jan 01, 2002** to **Sep 10, 2024**
- LOC_GROUP_CODE - **Cell 4 Monitoring Well**
- METHOD_ANALYTE_GROUP - **Bannock_VOCs**
- SYS_LOC_CODE - **MW-4**
- CAS_RN - **156-59-2**
- CHEMICAL_NAME - **cis-1,2-Dichloroethene**
- REPORT_RESULT_UNIT - **µg/L**
- FRACTION: **T**

Time series graph

- When only the year is shown in the x-axis label, this represents the start of the year
- ORP values that are negative cannot be put in to a log10 scale graph and will not show.



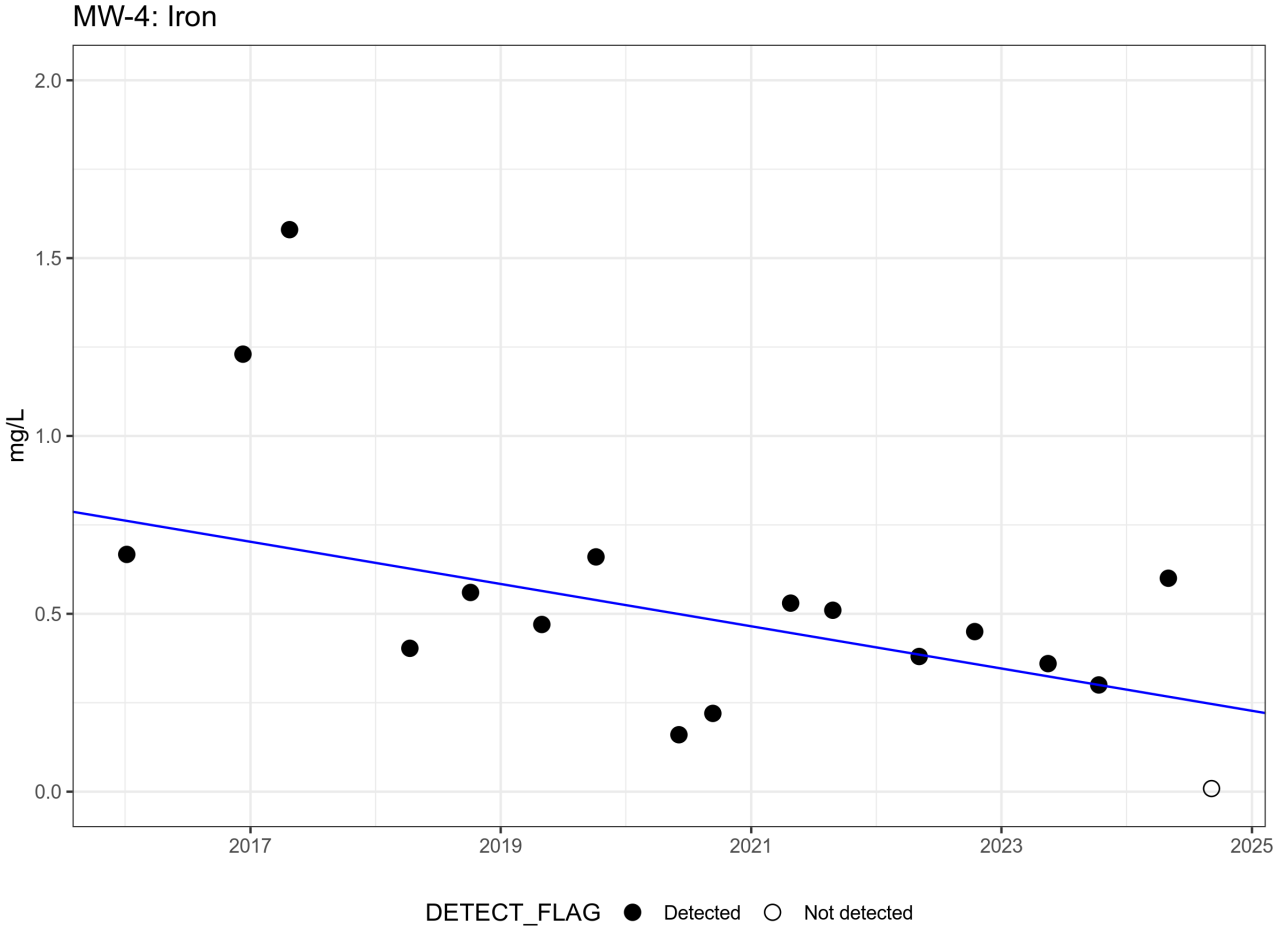
Iron: MW-4

This report is filtered to only include:

- Results from **Jan 01, 2002** to **Sep 10, 2024**
- LOC_GROUP_CODE - **Cell 4 Monitoring Well**
- METHOD_ANALYTE_GROUP - **Bannock_Inorganics**
- SYS_LOC_CODE - **MW-4**
- CAS_RN - **7439-89-6**
- CHEMICAL_NAME - **Iron**
- REPORT_RESULT_UNIT - **mg/L**
- FRACTION: **T**

Time series graph

- When only the year is shown in the x-axis label, this represents the start of the year
- ORP values that are negative cannot be put in to a log10 scale graph and will not show.



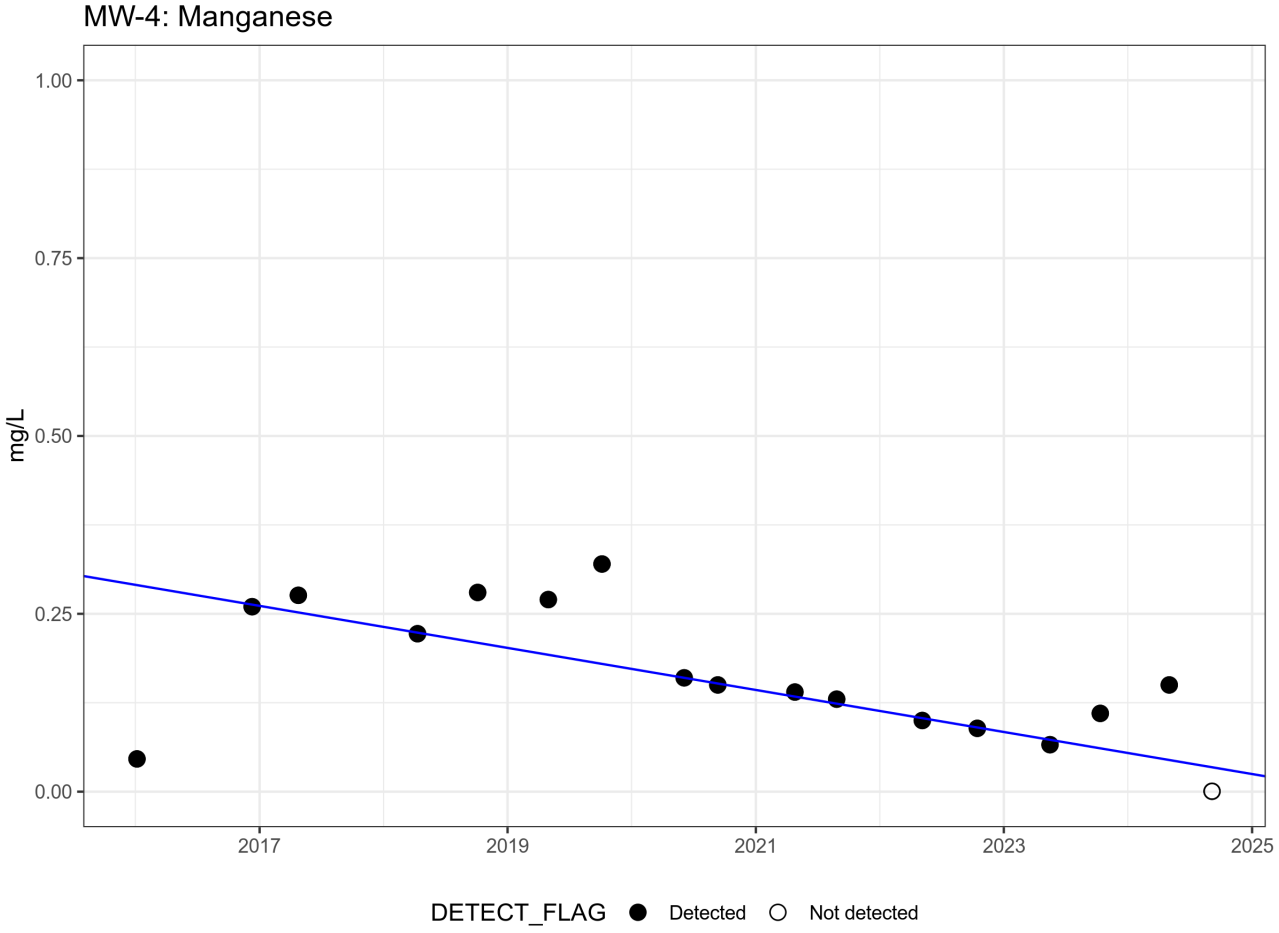
Manganese: MW-4

This report is filtered to only include:

- Results from **Jan 01, 2002** to **Sep 10, 2024**
- LOC_GROUP_CODE - **Cell 4 Monitoring Well**
- METHOD_ANALYTE_GROUP - **Bannock_Field_Redox_Params, Bannock_Inorganics**
- SYS_LOC_CODE - **MW-4**
- CAS_RN - **7439-96-5**
- CHEMICAL_NAME - **Manganese**
- REPORT_RESULT_UNIT - **mg/L**
- FRACTION: **T**

Time series graph

- When only the year is shown in the x-axis label, this represents the start of the year
- ORP values that are negative cannot be put in to a log10 scale graph and will not show.



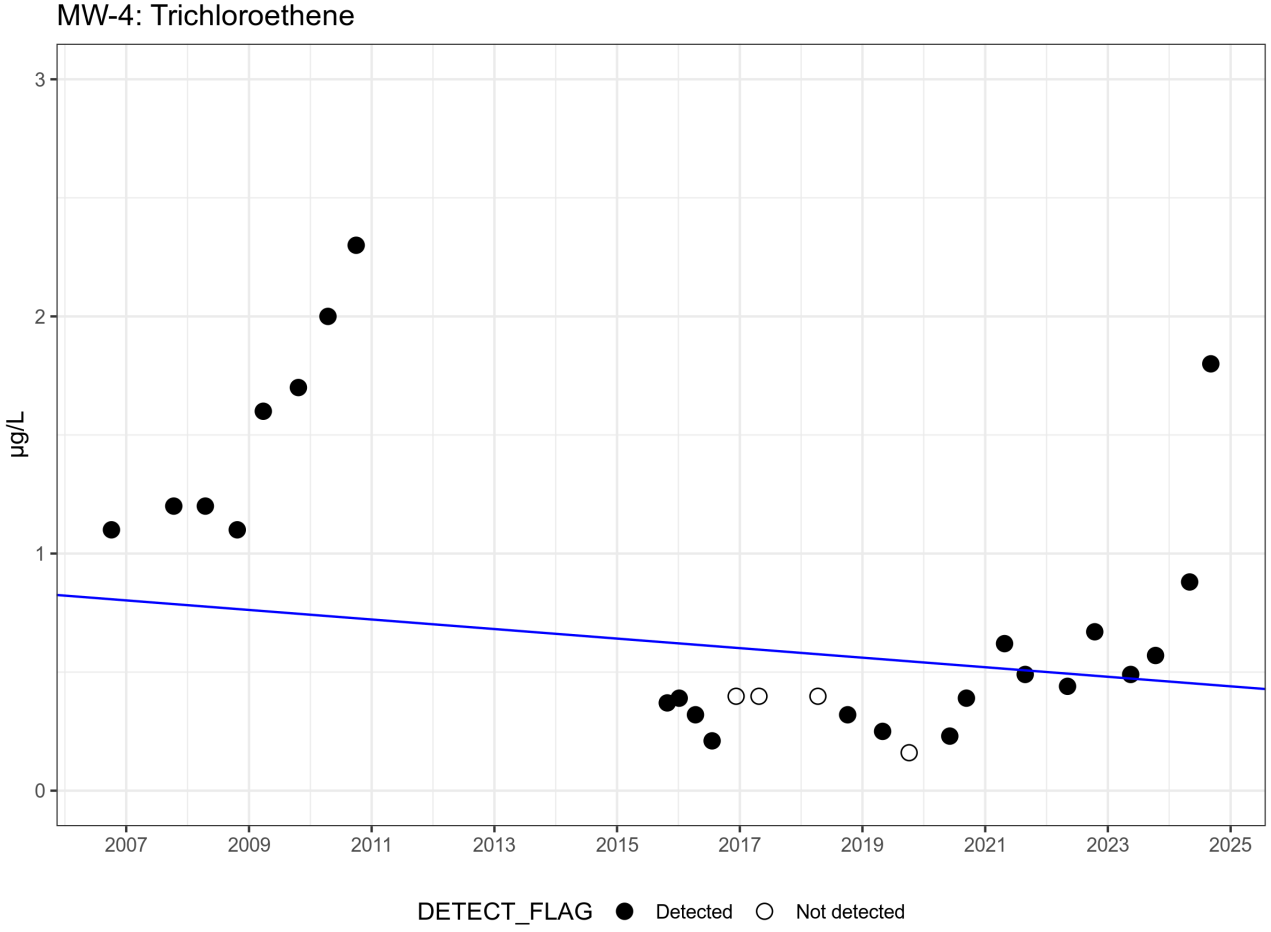
Trichloroethene: MW-4

This report is filtered to only include:

- Results from **Jan 01, 2002** to **Sep 10, 2024**
- LOC_GROUP_CODE - **Cell 4 Monitoring Well**
- METHOD_ANALYTE_GROUP - **Bannock_VOCs**
- SYS_LOC_CODE - **MW-4**
- CAS_RN - **79-01-6**
- CHEMICAL_NAME - **Trichloroethene**
- REPORT_RESULT_UNIT - **µg/L**
- FRACTION: **T**

Time series graph

- When only the year is shown in the x-axis label, this represents the start of the year
- ORP values that are negative cannot be put in to a log10 scale graph and will not show.



Vinyl chloride: MW-4

This report is filtered to only include:

- Results from **Jan 01, 2002** to **Sep 10, 2024**
- LOC_GROUP_CODE - **Cell 4 Monitoring Well**
- METHOD_ANALYTE_GROUP - **Bannock_VOCs**
- SYS_LOC_CODE - **MW-4**
- CAS_RN - **75-01-4**
- CHEMICAL_NAME - **Vinyl chloride**
- REPORT_RESULT_UNIT - **µg/L**
- FRACTION: **T**

Time series graph

- When only the year is shown in the x-axis label, this represents the start of the year
- ORP values that are negative cannot be put in to a log10 scale graph and will not show.

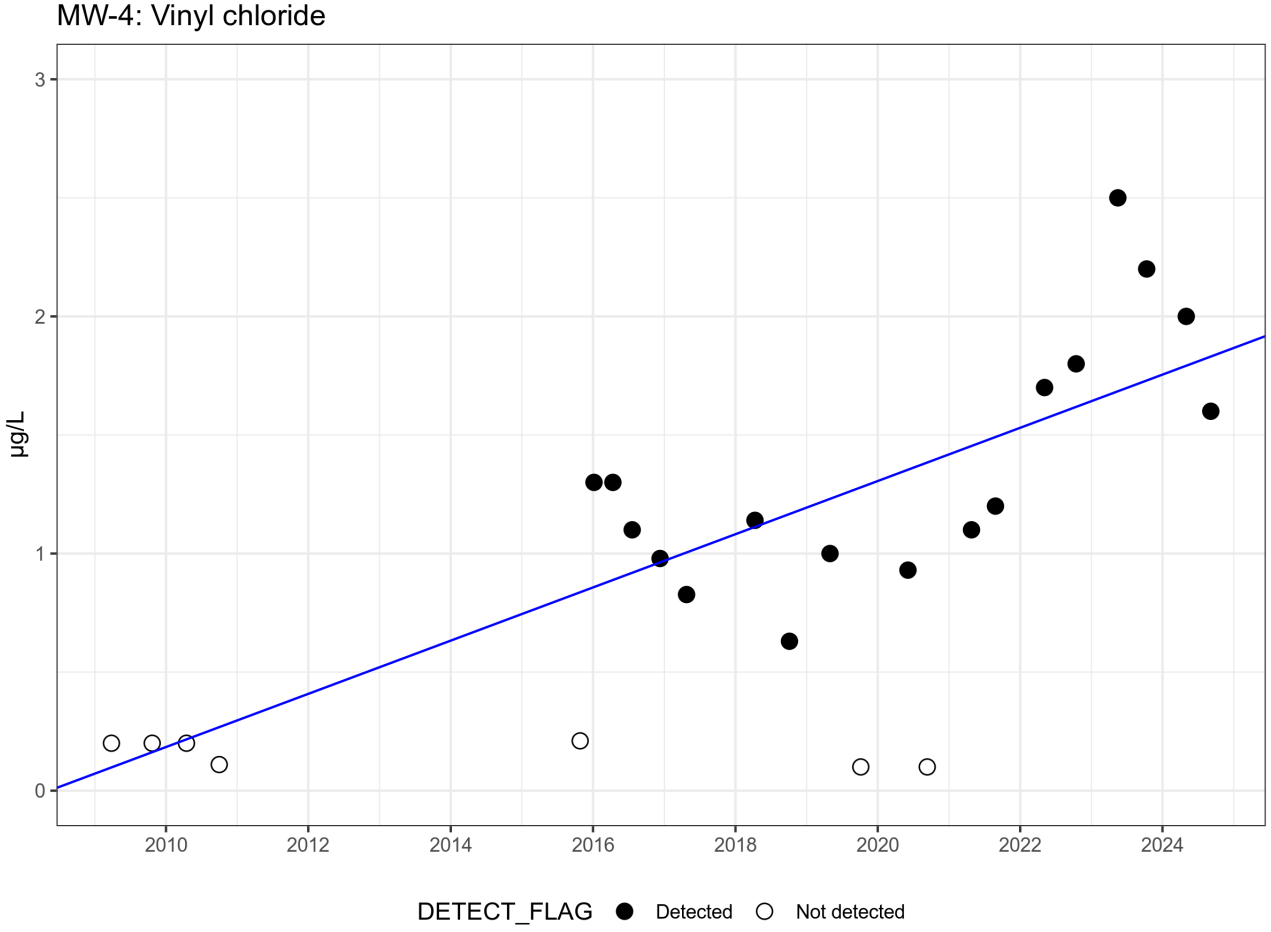


Table G.1
Cell 1 Statistical Results - VOCs

Dataset				General											
Well ID	RCRA regulated chemical	Analyte	Unit	Min Date	Max Date	Standard source	Standard	Latest Result	Last Q	Latest Result > Standard	Dataset n	ND %	Parameter est. method	Dataset mean	sd
MP-1	Yes	1,1-Dichloroethane	µg/L	09/13/2020	09/06/2024	NA	NA	0.22	J	NC	8	0	Ordinary nonparametric bootstrap	0.908	0.31
MP-1	Yes	1,1-Dichloroethene	µg/L	09/13/2020	09/06/2024	EPA MCL	7	0.23	U	No	8	87.5	Does not take in to account ND status	0.264	0.08
MP-1	Yes	1,2-Dichlorobenzene	µg/L	09/13/2020	09/06/2024	EPA MCL	600	1.6		No	8	0	Ordinary nonparametric bootstrap	1.9	0.818
MP-1	Yes	1,2-Dichloroethane	µg/L	09/13/2020	09/06/2024	EPA MCL	5	0.28	U	No	8	87.5	Does not take in to account ND status	0.332	0.194
MP-1	Yes	1,2-Dichloropropane	µg/L	09/13/2020	09/06/2024	EPA MCL	5	0.24	U	No	8	87.5	Does not take in to account ND status	0.351	0.244
MP-1	Yes	1,4-Dichlorobenzene	µg/L	09/13/2020	09/06/2024	EPA MCL	75	0.39	U	No	8	37.5	NP Kaplan-Meier	0.524	0.349
MP-1	Yes	Benzene	µg/L	09/13/2020	09/06/2024	EPA MCL	5	0.14	U	No	8	62.5	NP Kaplan-Meier	0.191	0.0576
MP-1	Yes	Carbon disulfide	µg/L	09/13/2020	09/06/2024	NA	NA	0.26	U	NC	8	87.5	Does not take in to account ND status	0.369	0.215
MP-1	Yes	Chlorobenzene	µg/L	09/13/2020	09/06/2024	EPA MCL	100	0.092	U	No	8	62.5	NP Kaplan-Meier	0.249	0.291
MP-1	Yes	Chloroform	µg/L	09/13/2020	09/06/2024	ID GW - PRIMARY	2	0.36	U	No	8	12.5	NP Kaplan-Meier	0.659	0.186
MP-1	Yes	Dichlorodifluoromethane	µg/L	09/13/2020	09/06/2024	NA	NA	0.3	U	NC	8	87.5	Does not take in to account ND status	0.53	0.284
MP-1	Yes	Tetrachloroethene	µg/L	09/13/2020	09/06/2024	EPA MCL	5	15		Yes	8	0	Ordinary nonparametric bootstrap	16.4	3.02
MP-1	Yes	Trichloroethene	µg/L	09/13/2020	09/06/2024	EPA MCL	5	97		Yes	8	0	Ordinary nonparametric bootstrap	133	20
MP-1	Yes	Vinyl chloride	µg/L	09/13/2020	09/06/2024	EPA MCL	2	3.4		Yes	8	0	Ordinary nonparametric bootstrap	3.65	2.16
MP-1	Yes	cis-1,2-Dichloroethene	µg/L	09/13/2020	09/06/2024	EPA MCL	70	12		No	8	0	Ordinary nonparametric bootstrap	16.9	3.4
MP-2	Yes	1,1,1-Trichloroethane	µg/L	09/13/2020	09/04/2024	EPA MCL	200	0.39	U	No	11	81.8	NP Kaplan-Meier	0.2	0.049
MP-2	Yes	1,1-Dichloroethane	µg/L	09/13/2020	09/04/2024	NA	NA	1.1		NC	11	0	Ordinary nonparametric bootstrap	1.42	0.352
MP-2	Yes	1,1-Dichloroethene	µg/L	09/13/2020	09/04/2024	EPA MCL	7	0.3	J	No	11	54.5	NP Kaplan-Meier	0.37	0.159
MP-2	Yes	1,2-Dichlorobenzene	µg/L	09/13/2020	09/04/2024	EPA MCL	600	1.4		No	11	18.2	NP Kaplan-Meier	0.914	0.55
MP-2	Yes	1,2-Dichloropropane	µg/L	09/13/2020	09/04/2024	EPA MCL	5	0.52	J	No	11	72.7	NP Kaplan-Meier	0.361	0.25
MP-2	Yes	1,4-Dichlorobenzene	µg/L	09/13/2020	09/04/2024	EPA MCL	75	0.39	U	No	11	90.9	Does not take in to account ND status	0.565	0.543
MP-2	Yes	Benzene	µg/L	09/13/2020	09/04/2024	EPA MCL	5	0.25	J	No	11	63.6	NP Kaplan-Meier	0.207	0.0544
MP-2	Yes	Chlorobenzene	µg/L	09/13/2020	09/04/2024	EPA MCL	100	0.28	J	No	11	81.8	NP Kaplan-Meier	0.217	0.0682
MP-2	Yes	Chloroform	µg/L	09/13/2020	09/04/2024	ID GW - PRIMARY	2	0.56	J	No	11	9.1	NP Kaplan-Meier	1.03	0.329
MP-2	Yes	Dichlorodifluoromethane	µg/L	09/13/2020	09/04/2024	NA	NA	0.46	J	NC	11	54.5	NP Kaplan-Meier	0.839	0.505
MP-2	Yes	Tetrachloroethene	µg/L	09/13/2020	09/04/2024	EPA MCL	5	6.4		Yes	11	0	Ordinary nonparametric bootstrap	12.2	5.56
MP-2	Yes	Trichloroethene	µg/L	09/13/2020	09/04/2024	EPA MCL	5	87		Yes	11	0	Ordinary nonparametric bootstrap	139	44.9
MP-2	Yes	Vinyl chloride	µg/L	09/13/2020	09/04/2024	EPA MCL	2	4.2		Yes	11	9.1	NP Kaplan-Meier	3.07	1.03
MP-2	Yes	cis-1,2-Dichloroethene	µg/L	09/13/2020	09/04/2024	EPA MCL	70	24		No	11	0	Ordinary nonparametric bootstrap	23.4	8.46
MP-2	Yes	trans-1,2-Dichloroethene	µg/L	09/13/2020	09/04/2024	EPA MCL	100	0.37	U	No	11	90.9	Does not take in to account ND status	0.556	0.504
MP-3	Yes	1,1-Dichloroethane	µg/L	09/13/2020	09/06/2024	NA	NA	0.22	U	NC	9	88.9	Does not take in to account ND status	0.253	0.0781
MP-3	Yes	Chloroform	µg/L	09/13/2020	09/06/2024	ID GW - PRIMARY	2	0.36	U	No	9	11.1	NP Kaplan-Meier	1.03	0.461
MP-3	Yes	Tetrachloroethene	µg/L	09/13/2020	09/06/2024	EPA MCL	5	13		Yes	9	0	Ordinary nonparametric bootstrap	16.6	2.92
MP-3	Yes	Trichloroethene	µg/L	09/13/2020	09/06/2024	EPA MCL	5	40		Yes	9	0	Ordinary nonparametric bootstrap	80.6	23.9
MP-3	Yes	cis-1,2-Dichloroethene	µg/L	09/13/2020	09/06/2024	EPA MCL	70	0.32	U	No	9	11.1	NP Kaplan-Meier	1.84	1.18
MP-4	Yes	1,1-Dichloroethane	µg/L	09/13/2020	09/06/2024	NA	NA	0.22	U	NC	9	44.4	NP Kaplan-Meier	0.444	0.216
MP-4	Yes	1,2-Dichlorobenzene	µg/L	09/13/2020	09/06/2024	EPA MCL	600	0.25	J	No	9	11.1	NP Kaplan-Meier	0.446	0.109
MP-4	Yes	Chloroform	µg/L	09/13/2020	09/06/2024	ID GW - PRIMARY	2	0.36	U	No	9	22.2	NP Kaplan-Meier	0.809	0.253
MP-4	Yes	Tetrachloroethene	µg/L	09/13/2020	09/06/2024	EPA MCL	5	14		Yes	9	0	Ordinary nonparametric bootstrap	19.4	4.28
MP-4	Yes	Trichloroethene	µg/L	09/13/2020	09/06/2024	EPA MCL	5	66		Yes	9	0	Ordinary nonparametric bootstrap	120	32.9
MP-4	Yes	Vinyl chloride	µg/L	09/13/2020	09/06/2024	EPA MCL	2	0.23	U	No	9	88.9	Does not take in to account ND status	0.349	0.292
MP-4	Yes	cis-1,2-Dichloroethene	µg/L	09/13/2020	09/06/2024	EPA MCL	70	4.4		No	9	0	Ordinary nonparametric bootstrap	7.28	1.9
MW-101S	Yes	1,2-Dichlorobenzene	µg/L	10/05/2018	09/06/2024	EPA MCL	600	0.14	U	No	13	92.3	Does not take in to account ND status	0.201	0.0967
MW-101S	Yes	1,2-Dichloroethane	µg/L	10/05/2018	09/06/2024	EPA MCL	5	0.28	U	No	13	84.6	NP Kaplan-Meier	0.139	0.0196
MW-101S	Yes	Chloroform	µg/L	10/05/2018	09/06/2024	ID GW - PRIMARY	2	0.36	U	No	13	61.5	NP Kaplan-Meier	0.252	0.212
MW-101S	Yes	Dichlorodifluoromethane	µg/L	10/05/2018	09/06/2024	NA	NA	0.3	U	NC	13	84.6	NP Kaplan-Meier	0.349	0.137
MW-101S	Yes	Tetrachloroethene	µg/L	10/05/2018	09/06/2024	EPA MCL	5	8.2		Yes	13	0	Ordinary nonparametric bootstrap	9.02	3.57
MW-101S	Yes	Trichloroethene	µg/L	10/05/2018	09/06/2024	EPA MCL	5	20		Yes	13	0	Ordinary nonparametric bootstrap	27.8	14.5
MW-101S	Yes	cis-1,2-Dichloroethene	µg/L	10/05/2018	09/06/2024	EPA MCL	70	0.32	U	No	13	38.5	NP Kaplan-Meier	0.47	0.529

Table G.1
Cell 1 Statistical Results - VOCs

Dataset				Confidence limits				Trend analysis								
Well ID	RCRA regulated chemical	Analyte	Unit	CL method	CL conf	UCL of the mean	UCL > Standard	TS Slope	TS Intercept	p-value	Confidence Level %	S	sd(S)	Z	GSI COV	GSI Toolkit Trend
MP-1	Yes	1,1-Dichloroethane	µg/L	BCa bootstrap	0.95	1.08	NC	-0.000194	4.68	0.106	89.4	-11	8.02	-1.25	0.341	Stable
MP-1	Yes	1,1-Dichloroethene	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.303	NC
MP-1	Yes	1,2-Dichlorobenzene	µg/L	BCa bootstrap	0.95	2.49	No	0.00052	-8.17	0.159	84.1	9	8.02	0.998	0.43	No trend
MP-1	Yes	1,2-Dichloroethane	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.584	NC
MP-1	Yes	1,2-Dichloropropane	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.694	NC
MP-1	Yes	1,4-Dichlorobenzene	µg/L	Bootstrap	0.95	0.778	No	0.000283	-4.94	0.0673	93.3	13	8.02	1.5	0.618	Probably Increasing
MP-1	Yes	Benzene	µg/L	Bootstrap	0.95	0.239	No	NC	NC	NC	NC	NC	NC	NC	0.302	NC
MP-1	Yes	Carbon disulfide	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.582	NC
MP-1	Yes	Chlorobenzene	µg/L	Bootstrap	0.95	0.485	No	NC	NC	NC	NC	NC	NC	NC	0.869	NC
MP-1	Yes	Chloroform	µg/L	Bootstrap	0.95	0.782	No	0.000258	-4.24	0.0673	93.3	13	8.02	1.5	0.301	Probably Increasing
MP-1	Yes	Dichlorodifluoromethane	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.535	NC
MP-1	Yes	Tetrachloroethene	µg/L	BCa bootstrap	0.95	18.6	Yes	0.00103	-4.82	0.184	81.6	8	7.79	0.898	0.184	No trend
MP-1	Yes	Trichloroethene	µg/L	BCa bootstrap	0.95	146	Yes	0	130	0.5	50	0	7.79	0	0.15	Stable
MP-1	Yes	Vinyl chloride	µg/L	BCa bootstrap	0.95	5.15	Yes	0.000358	-3.77	0.5	50	1	8.02	0	0.592	No trend
MP-1	Yes	cis-1,2-Dichloroethene	µg/L	BCa bootstrap	0.95	19	No	-0.00353	84.2	0.159	84.1	-9	8.02	-0.998	0.201	Stable
MP-2	Yes	1,1,1-Trichloroethane	µg/L	Normal Approximation	0.95	0.209	No	NC	NC	NC	NC	NC	NC	NC	0.916	NC
MP-2	Yes	1,1-Dichloroethane	µg/L	BCa bootstrap	0.95	1.62	NC	-0.000625	13.6	0.00499	99.5	-34	12.8	-2.58	0.248	Decreasing
MP-2	Yes	1,1-Dichloroethene	µg/L	Bootstrap	0.95	0.49	No	NC	NC	NC	NC	NC	NC	NC	0.537	NC
MP-2	Yes	1,2-Dichlorobenzene	µg/L	Bootstrap	0.95	1.28	No	0.000742	-13.3	0.069	93.1	20	12.8	1.48	0.558	Probably Increasing
MP-2	Yes	1,2-Dichloropropane	µg/L	Bootstrap	0.95	0.585	No	NC	NC	NC	NC	NC	NC	NC	0.873	NC
MP-2	Yes	1,4-Dichlorobenzene	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.961	NC
MP-2	Yes	Benzene	µg/L	Bootstrap	0.95	0.25	No	NC	NC	NC	NC	NC	NC	NC	0.885	NC
MP-2	Yes	Chlorobenzene	µg/L	Bootstrap	0.95	0.274	No	NC	NC	NC	NC	NC	NC	NC	1.01	NC
MP-2	Yes	Chloroform	µg/L	Bootstrap	0.95	1.23	No	-0.000441	9.36	0.0571	94.3	-21	12.6	-1.58	0.315	Probably Decreasing
MP-2	Yes	Dichlorodifluoromethane	µg/L	Bootstrap	0.95	1.24	NC	NC	NC	NC	NC	NC	NC	NC	0.806	NC
MP-2	Yes	Tetrachloroethene	µg/L	BCa bootstrap	0.95	15.3	Yes	-0.00905	187	0.00775	99.2	-32	12.8	-2.42	0.455	Decreasing
MP-2	Yes	Trichloroethene	µg/L	BCa bootstrap	0.95	162	Yes	-0.0663	1420	0.00703	99.3	-32	12.6	-2.46	0.324	Decreasing
MP-2	Yes	Vinyl chloride	µg/L	Bootstrap	0.95	3.65	Yes	-0.000532	13.5	0.24	76	-10	12.7	-0.707	0.351	Stable
MP-2	Yes	cis-1,2-Dichloroethene	µg/L	BCa bootstrap	0.95	28.5	No	0.00824	-140	0.0215	97.9	27	12.8	2.02	0.362	Increasing
MP-2	Yes	trans-1,2-Dichloroethene	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.905	NC
MP-3	Yes	1,1-Dichloroethane	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.308	NC
MP-3	Yes	Chloroform	µg/L	Bootstrap	0.95	1.35	No	-0.0000287	1.39	0.5	50	-1	9.54	0	0.474	Stable
MP-3	Yes	Tetrachloroethene	µg/L	BCa bootstrap	0.95	18.3	Yes	0	18	0.5	50	0	9.49	0	0.176	Stable
MP-3	Yes	Trichloroethene	µg/L	BCa bootstrap	0.95	93.9	Yes	-0.0115	305	0.233	76.7	-8	9.59	-0.73	0.296	Stable
MP-3	Yes	cis-1,2-Dichloroethene	µg/L	Bootstrap	0.95	2.66	No	0.000512	-8.09	0.458	54.2	2	9.59	0.104	0.683	No trend
MP-4	Yes	1,1-Dichloroethane	µg/L	Bootstrap	0.95	0.582	NC	-0.0000673	1.79	0.222	77.8	-8	9.13	-0.767	0.516	Stable
MP-4	Yes	1,2-Dichlorobenzene	µg/L	Bootstrap	0.95	0.523	No	0.0000789	-1.06	0.377	62.3	4	9.59	0.313	0.306	No trend
MP-4	Yes	Chloroform	µg/L	Bootstrap	0.95	0.974	No	-0.0000995	2.66	0.144	85.6	-11	9.4	-1.06	0.293	Stable
MP-4	Yes	Tetrachloroethene	µg/L	BCa bootstrap	0.95	22	Yes	0.00153	-9.37	0.458	54.2	2	9.49	0.105	0.22	No trend
MP-4	Yes	Trichloroethene	µg/L	BCa bootstrap	0.95	140	Yes	-0.0222	544	0.299	70.1	-6	9.49	-0.527	0.275	Stable
MP-4	Yes	Vinyl chloride	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.837	NC
MP-4	Yes	cis-1,2-Dichloroethene	µg/L	BCa bootstrap	0.95	8.42	No	-0.00168	40.2	0.0877	91.2	-14	9.59	-1.36	0.262	Probably Decreasing
MW-101S	Yes	1,2-Dichlorobenzene	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.482	NC
MW-101S	Yes	1,2-Dichloroethane	µg/L	Bootstrap	0.95	0.154	No	NC	NC	NC	NC	NC	NC	NC	0.665	NC
MW-101S	Yes	Chloroform	µg/L	Bootstrap	0.95	0.385	No	NC	NC	NC	NC	NC	NC	NC	0.72	NC
MW-101S	Yes	Dichlorodifluoromethane	µg/L	Bootstrap	0.95	0.456	NC	NC	NC	NC	NC	NC	NC	NC	0.584	NC
MW-101S	Yes	Tetrachloroethene	µg/L	BCa bootstrap	0.95	11	Yes	0.00288	-45.6	0.0164	98.4	36	16.4	2.13	0.396	Increasing
MW-101S	Yes	Trichloroethene	µg/L	BCa bootstrap	0.95	36.3	Yes	0.00747	-117	0.0491	95.1	28	16.3	1.65	0.524	Increasing
MW-101S	Yes	cis-1,2-Dichloroethene	µg/L	Bootstrap	0.95	0.804	No	0.000112	-1.77	0.119	88.1	20	16.1	1.18	1.14	No trend

Table G.1
Cell 1 Statistical Results - VOCs

Dataset				General											
Well ID	RCRA regulated chemical	Analyte	Unit	Min Date	Max Date	Standard source	Standard	Latest Result	Last Q	Latest Result > Standard	Dataset n	ND %	Parameter est. method	Dataset mean	sd
MW-102S	Yes	Tetrachloroethene	µg/L	01/24/2018	09/09/2024	EPA MCL	5	0.58	J	No	10	10	NP Kaplan-Meier	1.18	0.734
MW-102S	Yes	Trichloroethene	µg/L	01/24/2018	09/09/2024	EPA MCL	5	4.3		No	10	10	NP Kaplan-Meier	4.12	3.96
MW-102S	Yes	cis-1,2-Dichloroethene	µg/L	01/24/2018	09/09/2024	EPA MCL	70	0.32	U	No	10	70	NP Kaplan-Meier	0.269	0.237
MW-105D	Yes	1,1,1-Trichloroethane	µg/L	01/23/2018	09/05/2024	EPA MCL	200	0.39	U	No	15	73.3	NP Kaplan-Meier	0.288	0.128
MW-105D	Yes	1,1-Dichloroethane	µg/L	01/23/2018	09/05/2024	NA	NA	3.8		NC	15	6.7	NP Kaplan-Meier	3.94	2.51
MW-105D	Yes	1,1-Dichloroethene	µg/L	01/23/2018	09/05/2024	EPA MCL	7	0.92	J	No	15	33.3	NP Kaplan-Meier	1.15	0.553
MW-105D	Yes	1,2-Dichlorobenzene	µg/L	01/23/2018	09/05/2024	EPA MCL	600	0.48	J	No	15	66.7	NP Kaplan-Meier	0.361	0.37
MW-105D	Yes	1,2-Dichloroethane	µg/L	01/23/2018	09/05/2024	EPA MCL	5	0.28	U	No	15	93.3	Does not take in to account ND status	0.714	0.701
MW-105D	Yes	1,2-Dichloropropane	µg/L	01/23/2018	09/05/2024	EPA MCL	5	0.24	U	No	15	80	NP Kaplan-Meier	0.274	0.122
MW-105D	Yes	1,4-Dichlorobenzene	µg/L	01/23/2018	09/05/2024	EPA MCL	75	0.39	U	No	15	73.3	NP Kaplan-Meier	0.245	0.0855
MW-105D	Yes	Benzene	µg/L	01/23/2018	09/05/2024	EPA MCL	5	0.21	J	No	15	73.3	NP Kaplan-Meier	0.19	0.0228
MW-105D	Yes	Chloroform	µg/L	01/23/2018	09/05/2024	ID GW - PRIMARY	2	2		No	15	20	NP Kaplan-Meier	1.89	1.52
MW-105D	Yes	Dichlorodifluoromethane	µg/L	01/23/2018	09/05/2024	NA	NA	3.3		NC	15	13.3	NP Kaplan-Meier	3.92	2.03
MW-105D	Yes	Methylene Chloride	µg/L	01/23/2018	09/05/2024	EPA MCL	5	0.94	U	No	15	93.3	Does not take in to account ND status	2.25	2.3
MW-105D	Yes	Tetrachloroethene	µg/L	01/23/2018	09/05/2024	EPA MCL	5	34		Yes	15	0	Ordinary nonparametric bootstrap	43.3	26.9
MW-105D	Yes	Trichloroethene	µg/L	01/23/2018	09/05/2024	EPA MCL	5	170		Yes	15	0	Ordinary nonparametric bootstrap	249	148
MW-105D	Yes	Trichlorofluoromethane	µg/L	01/23/2018	09/05/2024	NA	NA	0.96	J	NC	15	40	NP Kaplan-Meier	1.08	0.491
MW-105D	Yes	Vinyl chloride	µg/L	01/23/2018	09/05/2024	EPA MCL	2	1.4		No	15	33.3	NP Kaplan-Meier	1.02	0.735
MW-105D	Yes	cis-1,2-Dichloroethene	µg/L	01/23/2018	09/05/2024	EPA MCL	70	16		No	15	6.7	NP Kaplan-Meier	15.4	10.6
MW-105S	Yes	1,1-Dichloroethane	µg/L	01/23/2018	09/05/2024	NA	NA	0.59	J	NC	15	26.7	NP Kaplan-Meier	0.601	0.265
MW-105S	Yes	1,2-Dichlorobenzene	µg/L	01/23/2018	09/05/2024	EPA MCL	600	1.1		No	15	53.3	NP Kaplan-Meier	0.37	0.3
MW-105S	Yes	1,2-Dichloroethane	µg/L	01/23/2018	09/05/2024	EPA MCL	5	0.28	U	No	15	93.3	Does not take in to account ND status	0.301	0.167
MW-105S	Yes	1,2-Dichloropropane	µg/L	01/23/2018	09/05/2024	EPA MCL	5	1.3		No	15	73.3	NP Kaplan-Meier	0.322	0.283
MW-105S	Yes	1,4-Dichlorobenzene	µg/L	01/23/2018	09/05/2024	EPA MCL	75	0.39	U	No	15	80	NP Kaplan-Meier	0.198	0.0761
MW-105S	Yes	Carbon disulfide	µg/L	01/23/2018	09/05/2024	NA	NA	0.26	U	NC	15	93.3	Does not take in to account ND status	0.385	0.238
MW-105S	Yes	Chloroform	µg/L	01/23/2018	09/05/2024	ID GW - PRIMARY	2	0.99	J	No	15	0	Ordinary nonparametric bootstrap	1.31	0.453
MW-105S	Yes	Dichlorodifluoromethane	µg/L	01/23/2018	09/05/2024	NA	NA	0.3	U	NC	15	80	NP Kaplan-Meier	0.414	0.28
MW-105S	Yes	Methylene Chloride	µg/L	01/23/2018	09/05/2024	EPA MCL	5	0.94	U	No	15	93.3	Does not take in to account ND status	1.07	0.782
MW-105S	Yes	Tetrachloroethene	µg/L	01/23/2018	09/05/2024	EPA MCL	5	5.5		Yes	15	0	Ordinary nonparametric bootstrap	10	3.38
MW-105S	Yes	Trichloroethene	µg/L	01/23/2018	09/05/2024	EPA MCL	5	12		Yes	15	0	Ordinary nonparametric bootstrap	53.2	26.3
MW-105S	Yes	Vinyl chloride	µg/L	01/23/2018	09/05/2024	EPA MCL	2	0.23	U	No	15	40	NP Kaplan-Meier	1.13	1.44
MW-105S	Yes	cis-1,2-Dichloroethene	µg/L	01/23/2018	09/05/2024	EPA MCL	70	1.7		No	15	6.7	NP Kaplan-Meier	7.91	9.84
MW-109D	Yes	Acetone	µg/L	10/06/2018	09/06/2024	NA	NA	6.6	U	NC	13	92.3	Does not take in to account ND status	4.28	2.52
MW-109D	Yes	Chloroform	µg/L	10/06/2018	09/06/2024	ID GW - PRIMARY	2	0.36	U	No	13	7.7	NP Kaplan-Meier	0.448	0.0793
MW-109D	Yes	Tetrachloroethene	µg/L	10/06/2018	09/06/2024	EPA MCL	5	18		Yes	13	0	Ordinary nonparametric bootstrap	15.2	4.44
MW-109D	Yes	Trichloroethene	µg/L	10/06/2018	09/06/2024	EPA MCL	5	55		Yes	13	0	Ordinary nonparametric bootstrap	57.8	9.16
MW-109S	Yes	Carbon tetrachloride	µg/L	10/06/2018	09/06/2024	EPA MCL	5	0.23	U	No	14	92.9	Does not take in to account ND status	0.309	0.172
MW-109S	Yes	Chloroform	µg/L	10/06/2018	09/06/2024	ID GW - PRIMARY	2	0.36	U	No	14	14.3	NP Kaplan-Meier	0.555	0.252
MW-109S	Yes	Tetrachloroethene	µg/L	10/06/2018	09/06/2024	EPA MCL	5	20		Yes	14	0	Ordinary nonparametric bootstrap	21.5	12.1
MW-109S	Yes	Trichloroethene	µg/L	10/06/2018	09/06/2024	EPA MCL	5	46		Yes	14	0	Ordinary nonparametric bootstrap	59	32.3
MW-110D	Yes	1,1-Dichloroethane	µg/L	10/07/2018	09/06/2024	NA	NA	0.22	U	NC	10	60	NP Kaplan-Meier	0.237	0.0253
MW-110D	Yes	Dichlorodifluoromethane	µg/L	10/07/2018	09/06/2024	NA	NA	1	J	NC	10	30	NP Kaplan-Meier	1.41	0.886
MW-110D	Yes	Tetrachloroethene	µg/L	10/07/2018	09/06/2024	EPA MCL	5	2.6		No	10	0	Ordinary nonparametric bootstrap	3.47	2.22
MW-110D	Yes	Toluene	µg/L	10/07/2018	09/06/2024	EPA MCL	1000	0.32	U	No	10	90	Does not take in to account ND status	0.221	0.0708
MW-110D	Yes	Trichloroethene	µg/L	10/07/2018	09/06/2024	EPA MCL	5	14		Yes	10	0	Ordinary nonparametric bootstrap	15.7	4.92
MW-110D	Yes	Trichlorofluoromethane	µg/L	10/07/2018	09/06/2024	NA	NA	0.2	U	NC	10	80	NP Kaplan-Meier	0.229	0.0543
MW-110D	Yes	cis-1,2-Dichloroethene	µg/L	10/07/2018	09/06/2024	EPA MCL	70	1.2		No	10	0	Ordinary nonparametric bootstrap	1.88	0.761
MW-110S	Yes	1,1-Dichloroethane	µg/L	10/06/2018	09/08/2024	NA	NA	0.41	J	NC	13	7.7	NP Kaplan-Meier	0.847	0.185
MW-110S	Yes	1,2-Dichlorobenzene	µg/L	10/06/2018	09/08/2024	EPA MCL	600	1.3		No	13	0	Ordinary nonparametric bootstrap	1.61	0.653

Table G.1
Cell 1 Statistical Results - VOCs

Dataset				Confidence limits				Trend analysis								
Well ID	RCRA regulated chemical	Analyte	Unit	CL method	CL conf	UCL of the mean	UCL > Standard	TS Slope	TS Intercept	p-value	Confidence Level %	S	sd(S)	Z	GSI COV	GSI Toolkit Trend
MW-102S	Yes	Tetrachloroethene	µg/L	Bootstrap	0.95	1.67	No	-0.00055	11.7	0.327	67.3	-6	11.1	-0.449	0.655	Stable
MW-102S	Yes	Trichloroethene	µg/L	Bootstrap	0.95	6.87	Yes	0.00111	-19	0.0537	94.6	19	11.2	1.61	1.01	Probably Increasing
MW-102S	Yes	cis-1,2-Dichloroethene	µg/L	Bootstrap	0.95	0.454	No	NC	NC	NC	NC	NC	NC	NC	0.636	NC
MW-105D	Yes	1,1,1-Trichloroethane	µg/L	Bootstrap	0.95	0.383	No	NC	NC	NC	NC	NC	NC	NC	0.785	NC
MW-105D	Yes	1,1-Dichloroethane	µg/L	Bootstrap	0.95	5.36	NC	0.000204	-0.334	0.0558	94.4	33	20.1	1.59	0.66	Probably Increasing
MW-105D	Yes	1,1-Dichloroethene	µg/L	Bootstrap	0.95	1.46	No	-0.0000299	1.58	0.146	85.4	-22	19.9	-1.05	0.5	Stable
MW-105D	Yes	1,2-Dichlorobenzene	µg/L	Bootstrap	0.95	0.592	No	NC	NC	NC	NC	NC	NC	NC	0.789	NC
MW-105D	Yes	1,2-Dichloroethane	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.981	NC
MW-105D	Yes	1,2-Dichloropropane	µg/L	Bootstrap	0.95	0.371	No	NC	NC	NC	NC	NC	NC	NC	0.876	NC
MW-105D	Yes	1,4-Dichlorobenzene	µg/L	Bootstrap	0.95	0.312	No	NC	NC	NC	NC	NC	NC	NC	0.841	NC
MW-105D	Yes	Benzene	µg/L	Normal Approximation	0.95	0.195	No	NC	NC	NC	NC	NC	NC	NC	0.813	NC
MW-105D	Yes	Chloroform	µg/L	Bootstrap	0.95	2.76	Yes	0.000205	-2.29	0.0362	96.4	37	20	1.8	0.816	Increasing
MW-105D	Yes	Dichlorodifluoromethane	µg/L	Bootstrap	0.95	5.1	NC	0	3.5	0.5	50	0	20.1	0	0.526	Stable
MW-105D	Yes	Methylene Chloride	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	1.02	NC
MW-105D	Yes	Tetrachloroethene	µg/L	BCa bootstrap	0.95	57.7	Yes	0.00204	-1.61	0.0735	92.7	30	20	1.45	0.622	Probably Increasing
MW-105D	Yes	Trichloroethene	µg/L	BCa bootstrap	0.95	329	Yes	-0.00515	303	0.273	72.7	-13	19.9	-0.604	0.595	Stable
MW-105D	Yes	Trichlorofluoromethane	µg/L	Bootstrap	0.95	1.37	NC	-0.000126	3.43	0.107	89.3	-26	20.1	-1.24	0.524	Stable
MW-105D	Yes	Vinyl chloride	µg/L	Bootstrap	0.95	1.44	No	0.000243	-3.46	0.0458	95.4	35	20.1	1.69	0.653	Increasing
MW-105D	Yes	cis-1,2-Dichloroethene	µg/L	Bootstrap	0.95	21.5	No	0.00167	-17.3	0.00919	99.1	48	19.9	2.36	0.713	Increasing
MW-105S	Yes	1,1-Dichloroethane	µg/L	Bootstrap	0.95	0.736	NC	-0.000227	4.89	0.00494	99.5	-53	20.1	-2.58	0.435	Decreasing
MW-105S	Yes	1,2-Dichlorobenzene	µg/L	Bootstrap	0.95	0.541	No	NC	NC	NC	NC	NC	NC	NC	0.72	NC
MW-105S	Yes	1,2-Dichloroethane	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.554	NC
MW-105S	Yes	1,2-Dichloropropane	µg/L	Bootstrap	0.95	0.488	No	NC	NC	NC	NC	NC	NC	NC	0.735	NC
MW-105S	Yes	1,4-Dichlorobenzene	µg/L	Bootstrap	0.95	0.254	No	NC	NC	NC	NC	NC	NC	NC	0.461	NC
MW-105S	Yes	Carbon disulfide	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.618	NC
MW-105S	Yes	Chloroform	µg/L	BCa bootstrap	0.95	1.53	No	-0.000229	5.65	0.117	88.3	-25	20.1	-1.19	0.345	Stable
MW-105S	Yes	Dichlorodifluoromethane	µg/L	Bootstrap	0.95	0.577	NC	NC	NC	NC	NC	NC	NC	NC	0.563	NC
MW-105S	Yes	Methylene Chloride	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.73	NC
MW-105S	Yes	Tetrachloroethene	µg/L	BCa bootstrap	0.95	11.6	Yes	-0.00123	32.8	0.172	82.8	-20	20.1	-0.944	0.337	Stable
MW-105S	Yes	Trichloroethene	µg/L	BCa bootstrap	0.95	67.1	Yes	-0.0234	489	0.000383	100	-69	20.2	-3.37	0.494	Decreasing
MW-105S	Yes	Vinyl chloride	µg/L	Bootstrap	0.95	1.96	No	-0.000724	14.6	0.0264	97.4	-40	20.1	-1.94	1.24	Decreasing
MW-105S	Yes	cis-1,2-Dichloroethene	µg/L	Bootstrap	0.95	13.6	No	-0.00321	64.4	0.00149	99.9	-61	20.2	-2.97	1.29	Decreasing
MW-109D	Yes	Acetone	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.588	NC
MW-109D	Yes	Chloroform	µg/L	Bootstrap	0.95	0.489	No	0.0000301	-0.0903	0.163	83.7	17	16.3	0.981	0.162	No trend
MW-109D	Yes	Tetrachloroethene	µg/L	BCa bootstrap	0.95	17.6	Yes	0.00331	-47.1	0.0268	97.3	32	16.1	1.93	0.293	Increasing
MW-109D	Yes	Trichloroethene	µg/L	BCa bootstrap	0.95	62	Yes	-0.000548	69.8	0.476	52.4	-2	16.3	-0.0612	0.159	Stable
MW-109S	Yes	Carbon tetrachloride	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.559	NC
MW-109S	Yes	Chloroform	µg/L	Bootstrap	0.95	0.69	No	0.0000179	0.248	0.435	56.5	4	18.2	0.164	0.443	No trend
MW-109S	Yes	Tetrachloroethene	µg/L	BCa bootstrap	0.95	27.5	Yes	0.00308	-37.7	0.392	60.8	6	18.2	0.274	0.56	No trend
MW-109S	Yes	Trichloroethene	µg/L	BCa bootstrap	0.95	76	Yes	-0.00392	126	0.456	54.4	-3	18.2	-0.11	0.548	Stable
MW-110D	Yes	1,1-Dichloroethane	µg/L	Bootstrap	0.95	0.254	NC	NC	NC	NC	NC	NC	NC	NC	0.113	NC
MW-110D	Yes	Dichlorodifluoromethane	µg/L	Bootstrap	0.95	1.96	NC	0	1.5	0.392	60.8	-4	10.9	-0.275	0.661	Stable
MW-110D	Yes	Tetrachloroethene	µg/L	BCa bootstrap	0.95	4.88	No	-0.0000702	4.39	0.464	53.6	-2	11.1	-0.0898	0.639	Stable
MW-110D	Yes	Toluene	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.32	NC
MW-110D	Yes	Trichloroethene	µg/L	BCa bootstrap	0.95	18.4	Yes	0	17.5	0.5	50	1	11	0	0.313	No trend
MW-110D	Yes	Trichlorofluoromethane	µg/L	Bootstrap	0.95	0.306	NC	NC	NC	NC	NC	NC	NC	NC	0.333	NC
MW-110D	Yes	cis-1,2-Dichloroethene	µg/L	BCa bootstrap	0.95	2.35	No	-0.0000681	3.24	0.359	64.1	-5	11.1	-0.361	0.405	Stable
MW-110S	Yes	1,1-Dichloroethane	µg/L	Bootstrap	0.95	0.948	NC	-0.000168	4.02	0.0704	93	-25	16.3	-1.47	0.229	Probably Decreasing
MW-110S	Yes	1,2-Dichlorobenzene	µg/L	BCa bootstrap	0.95	1.95	No	0.000434	-6.58	0.0712	92.9	25	16.4	1.47	0.407	Probably Increasing

Table G.1
Cell 1 Statistical Results - VOCs

Dataset				General											
Well ID	RCRA regulated chemical	Analyte	Unit	Min Date	Max Date	Standard source	Standard	Latest Result	Last Q	Latest Result > Standard	Dataset n	ND %	Parameter est. method	Dataset mean	sd
MW-110S	Yes	1,2-Dichloroethane	µg/L	10/06/2018	09/08/2024	EPA MCL	5	0.28	U	No	13	84.6	NP Kaplan-Meier	0.202	0.126
MW-110S	Yes	1,2-Dichloropropane	µg/L	10/06/2018	09/08/2024	EPA MCL	5	0.4	J	No	13	15.4	NP Kaplan-Meier	0.688	0.278
MW-110S	Yes	1,4-Dichlorobenzene	µg/L	10/06/2018	09/08/2024	EPA MCL	75	0.56	J	No	13	38.5	NP Kaplan-Meier	0.468	0.258
MW-110S	Yes	Benzene	µg/L	10/06/2018	09/08/2024	EPA MCL	5	0.29	J	No	13	15.4	NP Kaplan-Meier	0.415	0.124
MW-110S	Yes	Chlorobenzene	µg/L	10/06/2018	09/08/2024	EPA MCL	100	0.33	J	No	13	46.2	NP Kaplan-Meier	0.344	0.124
MW-110S	Yes	Chloroform	µg/L	10/06/2018	09/08/2024	ID GW - PRIMARY	2	0.36	U	No	13	84.6	NP Kaplan-Meier	0.183	0.0335
MW-110S	Yes	Dichlorodifluoromethane	µg/L	10/06/2018	09/08/2024	NA	NA	0.3	U	NC	13	84.6	Does not take in to account ND status	0.668	0.538
MW-110S	Yes	Styrene	µg/L	10/06/2018	09/08/2024	EPA MCL	100	0.13	U	No	13	92.3	Does not take in to account ND status	0.485	0.433
MW-110S	Yes	Tetrachloroethene	µg/L	10/06/2018	09/08/2024	EPA MCL	5	2.2		No	13	0	Ordinary nonparametric bootstrap	10.8	5.42
MW-110S	Yes	Toluene	µg/L	10/06/2018	09/08/2024	EPA MCL	1000	0.32	U	No	13	92.3	Does not take in to account ND status	0.324	0.204
MW-110S	Yes	Trichloroethene	µg/L	10/06/2018	09/08/2024	EPA MCL	5	21		Yes	13	0	Ordinary nonparametric bootstrap	89.2	36.2
MW-110S	Yes	Vinyl chloride	µg/L	10/06/2018	09/08/2024	EPA MCL	2	3.6		Yes	13	7.7	NP Kaplan-Meier	4.95	2.36
MW-110S	Yes	Xylenes, total	µg/L	10/06/2018	09/08/2024	EPA MCL	10000	0.11	U	No	13	84.6	NP Kaplan-Meier	0.293	0.581
MW-110S	Yes	cis-1,2-Dichloroethene	µg/L	10/06/2018	09/08/2024	EPA MCL	70	5.2		No	13	0	Ordinary nonparametric bootstrap	13.9	5.55
MW-110S	No	m,p-Xylene	µg/L	05/06/2019	09/08/2024	EPA MCL	10000	0.36	U	No	12	91.7	Does not take in to account ND status	0.463	0.6
MW-110S	No	o-xylene	µg/L	05/06/2019	09/08/2024	EPA MCL	10000	0.11	U	No	12	91.7	Does not take in to account ND status	0.324	0.247
MW-110S	Yes	trans-1,2-Dichloroethene	µg/L	10/06/2018	09/08/2024	EPA MCL	100	0.37	U	No	13	84.6	Does not take in to account ND status	0.325	0.21
MW-111D	Yes	1,1-Dichloroethane	µg/L	01/24/2018	09/05/2024	NA	NA	4	J	NC	15	0	Ordinary nonparametric bootstrap	8.63	8.93
MW-111D	Yes	1,1-Dichloroethene	µg/L	01/24/2018	09/05/2024	EPA MCL	7	0.23	U	No	14	92.9	Does not take in to account ND status	0.285	0.0905
MW-111D	Yes	1,2-Dichlorobenzene	µg/L	01/24/2018	09/05/2024	EPA MCL	600	15	J	No	15	0	Ordinary nonparametric bootstrap	13.4	5.42
MW-111D	Yes	1,2-Dichloroethane	µg/L	01/24/2018	09/05/2024	EPA MCL	5	0.28	U	No	14	92.9	Does not take in to account ND status	0.299	0.17
MW-111D	Yes	1,2-Dichloropropane	µg/L	01/24/2018	09/05/2024	EPA MCL	5	1.8	J	No	15	6.7	NP Kaplan-Meier	1.72	0.606
MW-111D	Yes	1,3-Dichlorobenzene	µg/L	01/24/2018	09/05/2024	ID GW - PRIMARY	600	0.33	U	No	15	60	NP Kaplan-Meier	0.199	0.0768
MW-111D	Yes	1,4-Dichlorobenzene	µg/L	01/24/2018	09/05/2024	EPA MCL	75	10	J	No	15	0	Ordinary nonparametric bootstrap	5.73	2.29
MW-111D	Yes	2-Butanone (MEK)	µg/L	01/24/2018	09/05/2024	NA	NA	4.6	U	NC	14	92.9	Does not take in to account ND status	3.58	1.67
MW-111D	Yes	Acetone	µg/L	01/24/2018	09/05/2024	NA	NA	6.6	UJ	NC	14	64.3	NP Kaplan-Meier	5.12	4.33
MW-111D	Yes	Benzene	µg/L	01/24/2018	09/05/2024	EPA MCL	5	13	J	Yes	15	0	Ordinary nonparametric bootstrap	13.4	5.2
MW-111D	Yes	Chlorobenzene	µg/L	01/24/2018	09/05/2024	EPA MCL	100	67	J	No	15	13.3	NP Kaplan-Meier	18.1	22.3
MW-111D	Yes	Chloroethane	µg/L	01/24/2018	09/05/2024	NA	NA	0.64	U	NC	14	71.4	NP Kaplan-Meier	0.594	0.371
MW-111D	Yes	Chloroform	µg/L	01/24/2018	09/05/2024	ID GW - PRIMARY	2	0.36	U	No	14	92.9	Does not take in to account ND status	0.265	0.108
MW-111D	Yes	Dichlorodifluoromethane	µg/L	01/24/2018	09/05/2024	NA	NA	1.3	J	NC	14	35.7	NP Kaplan-Meier	2.23	2.43
MW-111D	Yes	Ethylbenzene	µg/L	01/24/2018	09/05/2024	ID GW - PRIMARY	700	1.4	J	No	15	20	NP Kaplan-Meier	4.13	4.47
MW-111D	Yes	Tetrachloroethene	µg/L	01/24/2018	09/05/2024	EPA MCL	5	0.4	U	No	14	64.3	NP Kaplan-Meier	0.688	0.848
MW-111D	Yes	Toluene	µg/L	01/24/2018	09/05/2024	EPA MCL	1000	0.32	U	No	14	64.3	NP Kaplan-Meier	0.258	0.188
MW-111D	Yes	Trichloroethene	µg/L	01/24/2018	09/05/2024	EPA MCL	5	5.1	J	Yes	15	0	Ordinary nonparametric bootstrap	26.9	28.9
MW-111D	Yes	Vinyl chloride	µg/L	01/24/2018	09/05/2024	EPA MCL	2	0.62	J	No	14	21.4	NP Kaplan-Meier	2.14	1.95
MW-111D	Yes	Xylenes, total	µg/L	01/24/2018	09/05/2024	EPA MCL	10000	1.2	J	No	15	6.7	NP Kaplan-Meier	2.73	3.22
MW-111D	Yes	cis-1,2-Dichloroethene	µg/L	01/24/2018	09/05/2024	EPA MCL	70	1	J	No	15	0	Ordinary nonparametric bootstrap	3.2	2.69
MW-111D	No	m,p-Xylene	µg/L	05/05/2019	09/05/2024	EPA MCL	10000	0.45	J	No	10	70	NP Kaplan-Meier	0.374	0.355
MW-111D	No	o-xylene	µg/L	05/05/2019	09/05/2024	EPA MCL	10000	0.73	J	No	10	10	NP Kaplan-Meier	1.71	1.96
MW-111D	Yes	trans-1,2-Dichloroethene	µg/L	01/24/2018	09/05/2024	EPA MCL	100	0.37	U	No	14	35.7	NP Kaplan-Meier	0.546	0.42
MW-111S	Yes	1,1-Dichloroethane	µg/L	10/04/2018	09/08/2024	NA	NA	1.3	J	NC	8	0	Ordinary nonparametric bootstrap	0.875	0.338
MW-111S	Yes	1,2-Dichlorobenzene	µg/L	10/04/2018	09/08/2024	EPA MCL	600	15		No	8	0	Ordinary nonparametric bootstrap	15.5	7.24
MW-111S	Yes	1,2-Dichloropropane	µg/L	10/04/2018	09/08/2024	EPA MCL	5	1.5	J	No	8	0	Ordinary nonparametric bootstrap	1.71	0.426
MW-111S	Yes	1,3-Dichlorobenzene	µg/L	10/04/2018	09/08/2024	ID GW - PRIMARY	600	0.67	U	No	8	75	NP Kaplan-Meier	0.197	0.118
MW-111S	Yes	1,4-Dichlorobenzene	µg/L	10/04/2018	09/08/2024	EPA MCL	75	13		No	8	0	Ordinary nonparametric bootstrap	7.39	5.24
MW-111S	Yes	2-Butanone (MEK)	µg/L	10/04/2018	09/08/2024	NA	NA	9.2	U	NC	8	75	NP Kaplan-Meier	3.41	2.24
MW-111S	Yes	4-Methyl-2-pentanone (MIBK)	µg/L	10/04/2018	09/08/2024	NA	NA	2	U	NC	8	87.5	Does not take in to account ND status	1.52	0.576
MW-111S	Yes	Acetone	µg/L	10/04/2018	09/08/2024	NA	NA	13	U	NC	8	50	NP Kaplan-Meier	10.5	7.89

Table G.1
Cell 1 Statistical Results - VOCs

Dataset				Confidence limits				Trend analysis								
Well ID	RCRA regulated chemical	Analyte	Unit	CL method	CL conf	UCL of the mean	UCL > Standard	TS Slope	TS Intercept	p-value	Confidence Level %	S	sd(S)	Z	GSI COV	GSI Toolkit Trend
MW-110S	Yes	1,2-Dichloroethane	µg/L	Bootstrap	0.95	0.31	No	NC	NC	NC	NC	NC	NC	NC	0.723	NC
MW-110S	Yes	1,2-Dichloropropane	µg/L	Bootstrap	0.95	0.838	No	0.0000631	-0.455	0.312	68.8	9	16.4	0.489	0.379	No trend
MW-110S	Yes	1,4-Dichlorobenzene	µg/L	Bootstrap	0.95	0.627	No	0.000156	-2.42	0.164	83.6	17	16.4	0.977	0.481	No trend
MW-110S	Yes	Benzene	µg/L	Bootstrap	0.95	0.487	No	0.0000195	0.0496	0.476	52.4	2	16.4	0.061	0.367	No trend
MW-110S	Yes	Chlorobenzene	µg/L	Bootstrap	0.95	0.42	No	0.000164	-2.69	0.0483	95.2	28	16.2	1.66	0.486	Increasing
MW-110S	Yes	Chloroform	µg/L	Bootstrap	0.95	0.22	No	NC	NC	NC	NC	NC	NC	NC	0.594	NC
MW-110S	Yes	Dichlorodifluoromethane	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.806	NC
MW-110S	Yes	Styrene	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.893	NC
MW-110S	Yes	Tetrachloroethene	µg/L	BCa bootstrap	0.95	13.3	Yes	0	13	0.5	50	0	16.3	0	0.504	Stable
MW-110S	Yes	Toluene	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.63	NC
MW-110S	Yes	Trichloroethene	µg/L	BCa bootstrap	0.95	108	Yes	0	86	0.5	50	1	16.3	0	0.406	No trend
MW-110S	Yes	Vinyl chloride	µg/L	Bootstrap	0.95	6.29	Yes	-0.00121	28.1	0.136	86.4	-19	16.4	-1.1	0.497	Stable
MW-110S	Yes	Xylenes, total	µg/L	Bootstrap	0.95	0.677	No	NC	NC	NC	NC	NC	NC	NC	1.4	NC
MW-110S	Yes	cis-1,2-Dichloroethene	µg/L	BCa bootstrap	0.95	16.9	No	-0.00227	54.6	0.134	86.6	-19	16.2	-1.11	0.4	Stable
MW-110S	No	m,p-Xylene	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	1.3	NC
MW-110S	No	o-xylene	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.763	NC
MW-110S	Yes	trans-1,2-Dichloroethene	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.645	NC
MW-111D	Yes	1,1-Dichloroethane	µg/L	BCa bootstrap	0.95	13.4	NC	0.00577	-100	0.00667	99.3	51	20.2	2.48	1.03	Increasing
MW-111D	Yes	1,1-Dichloroethene	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.317	NC
MW-111D	Yes	1,2-Dichlorobenzene	µg/L	BCa bootstrap	0.95	16.3	No	-0.00137	38.8	0.161	83.9	-21	20.1	-0.993	0.404	Stable
MW-111D	Yes	1,2-Dichloroethane	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.569	NC
MW-111D	Yes	1,2-Dichloropropane	µg/L	Bootstrap	0.95	2	No	0.000305	-3.9	0.0986	90.1	27	20.1	1.29	0.365	Probably Increasing
MW-111D	Yes	1,3-Dichlorobenzene	µg/L	Bootstrap	0.95	0.245	No	NC	NC	NC	NC	NC	NC	NC	0.333	NC
MW-111D	Yes	1,4-Dichlorobenzene	µg/L	BCa bootstrap	0.95	6.85	No	0.00096	-12.1	0.2	80	18	20.2	0.843	0.4	No trend
MW-111D	Yes	2-Butanone (MEK)	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.467	NC
MW-111D	Yes	Acetone	µg/L	Bootstrap	0.95	7.87	NC	NC	NC	NC	NC	NC	NC	NC	0.56	NC
MW-111D	Yes	Benzene	µg/L	BCa bootstrap	0.95	15.9	Yes	-0.00424	93	0.00575	99.4	-52	20.2	-2.53	0.387	Decreasing
MW-111D	Yes	Chlorobenzene	µg/L	Bootstrap	0.95	30.1	No	0.0127	-224	0.00315	99.7	56	20.1	2.73	1.27	Increasing
MW-111D	Yes	Chloroethane	µg/L	Bootstrap	0.95	0.84	NC	NC	NC	NC	NC	NC	NC	NC	0.531	NC
MW-111D	Yes	Chloroform	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.408	NC
MW-111D	Yes	Dichlorodifluoromethane	µg/L	Bootstrap	0.95	3.54	NC	0.00155	-27	0.0229	97.7	37	18	2	1.11	Increasing
MW-111D	Yes	Ethylbenzene	µg/L	Bootstrap	0.95	6.55	No	-0.00211	41.3	0.0211	97.9	-42	20.2	-2.03	1.11	Decreasing
MW-111D	Yes	Tetrachloroethene	µg/L	Bootstrap	0.95	1.18	No	NC	NC	NC	NC	NC	NC	NC	1.13	NC
MW-111D	Yes	Toluene	µg/L	Bootstrap	0.95	0.369	No	NC	NC	NC	NC	NC	NC	NC	0.59	NC
MW-111D	Yes	Trichloroethene	µg/L	BCa bootstrap	0.95	42.1	Yes	0.00024	17.3	0.48	52	2	20.2	0.0496	1.07	No trend
MW-111D	Yes	Vinyl chloride	µg/L	Bootstrap	0.95	3.27	Yes	0.00111	-18.9	0.189	81.1	17	18.1	0.882	0.946	No trend
MW-111D	Yes	Xylenes, total	µg/L	Bootstrap	0.95	4.37	No	0.0000462	-0.0213	0.364	63.6	8	20.2	0.347	1.22	No trend
MW-111D	Yes	cis-1,2-Dichloroethene	µg/L	BCa bootstrap	0.95	4.52	No	0.000217	-1.56	0.383	61.7	7	20.2	0.297	0.842	No trend
MW-111D	No	m,p-Xylene	µg/L	Bootstrap	0.95	0.638	No	NC	NC	NC	NC	NC	NC	NC	1.5	NC
MW-111D	No	o-xylene	µg/L	Bootstrap	0.95	3.02	No	0.000239	-3.81	0.0762	92.4	17	11.2	1.43	1.2	Probably Increasing
MW-111D	Yes	trans-1,2-Dichloroethene	µg/L	Bootstrap	0.95	0.786	No	0.000246	-4.05	0.0348	96.5	34	18.2	1.81	0.717	Increasing
MW-111S	Yes	1,1-Dichloroethane	µg/L	BCa bootstrap	0.95	1.09	NC	0.0000637	-0.303	0.402	59.8	3	8.02	0.249	0.387	No trend
MW-111S	Yes	1,2-Dichlorobenzene	µg/L	BCa bootstrap	0.95	20.1	No	0	15	0.5	50	1	7.85	0	0.468	No trend
MW-111S	Yes	1,2-Dichloropropane	µg/L	BCa bootstrap	0.95	1.98	No	-0.000301	7.52	0.0835	91.6	-12	7.96	-1.38	0.249	Probably Decreasing
MW-111S	Yes	1,3-Dichlorobenzene	µg/L	Bootstrap	0.95	0.295	No	NC	NC	NC	NC	NC	NC	NC	0.727	NC
MW-111S	Yes	1,4-Dichlorobenzene	µg/L	BCa bootstrap	0.95	11	No	0.00359	-58.9	0.268	73.2	6	8.08	0.619	0.71	No trend
MW-111S	Yes	2-Butanone (MEK)	µg/L	Bootstrap	0.95	5.38	NC	NC	NC	NC	NC	NC	NC	NC	0.595	NC
MW-111S	Yes	4-Methyl-2-pentanone (MIBK)	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.38	NC
MW-111S	Yes	Acetone	µg/L	Bootstrap	0.95	16.5	NC	0.000274	7.05	0.45	55	2	7.96	0.126	0.632	No trend

Table G.1
Cell 1 Statistical Results - VOCs

Dataset				General											
Well ID	RCRA regulated chemical	Analyte	Unit	Min Date	Max Date	Standard source	Standard	Latest Result	Last Q	Latest Result > Standard	Dataset n	ND %	Parameter est. method	Dataset mean	sd
MW-111S	Yes	Benzene	µg/L	10/04/2018	09/08/2024	EPA MCL	5	9.8		Yes	8	0	Ordinary nonparametric bootstrap	18.6	6.5
MW-111S	Yes	Chlorobenzene	µg/L	10/04/2018	09/08/2024	EPA MCL	100	63		No	8	0	Ordinary nonparametric bootstrap	33	39.9
MW-111S	Yes	Chloroethane	µg/L	10/04/2018	09/08/2024	NA	NA	1.3	U	NC	8	75	NP Kaplan-Meier	0.607	0.316
MW-111S	Yes	Dichlorodifluoromethane	µg/L	10/04/2018	09/08/2024	NA	NA	0.6	U	NC	8	87.5	Does not take in to account ND status	0.428	0.166
MW-111S	Yes	Ethylbenzene	µg/L	10/04/2018	09/08/2024	ID GW - PRIMARY	700	1.7	J	No	8	0	Ordinary nonparametric bootstrap	8.39	7.07
MW-111S	Yes	Toluene	µg/L	10/04/2018	09/08/2024	EPA MCL	1000	0.64	U	No	8	62.5	NP Kaplan-Meier	0.257	0.191
MW-111S	Yes	Xylenes, total	µg/L	10/04/2018	09/08/2024	EPA MCL	10000	6.4		No	8	0	Ordinary nonparametric bootstrap	7.32	11.9
MW-111S	Yes	cis-1,2-Dichloroethene	µg/L	10/04/2018	09/08/2024	EPA MCL	70	0.64	U	No	8	37.5	NP Kaplan-Meier	0.314	0.153
MW-111S	No	m,p-Xylene	µg/L	05/05/2019	09/08/2024	EPA MCL	10000	5		No	5	40	NP Kaplan-Meier	4.96	5.07
MW-111S	No	o-xylene	µg/L	05/05/2019	09/08/2024	EPA MCL	10000	1.4	J	No	5	20	NP Kaplan-Meier	5.94	7.81
MW-111S	Yes	trans-1,2-Dichloroethene	µg/L	10/04/2018	09/08/2024	EPA MCL	100	0.74	U	No	8	75	NP Kaplan-Meier	0.188	0.069
MW-112D	Yes	1,1,1-Trichloroethane	µg/L	01/24/2018	09/05/2024	EPA MCL	200	0.39	U	No	15	33.3	NP Kaplan-Meier	0.668	0.168
MW-112D	Yes	1,1-Dichloroethane	µg/L	01/24/2018	09/05/2024	NA	NA	0.22	U	NC	15	66.7	NP Kaplan-Meier	0.331	0.115
MW-112D	Yes	1,1-Dichloroethene	µg/L	01/24/2018	09/05/2024	EPA MCL	7	0.61	J	No	15	20	NP Kaplan-Meier	0.929	0.236
MW-112D	Yes	Chloroform	µg/L	01/24/2018	09/05/2024	ID GW - PRIMARY	2	0.36	U	No	15	73.3	NP Kaplan-Meier	0.275	0.145
MW-112D	Yes	Dichlorodifluoromethane	µg/L	01/24/2018	09/05/2024	NA	NA	1.5	J	NC	15	20	NP Kaplan-Meier	1.8	0.68
MW-112D	Yes	Tetrachloroethene	µg/L	01/24/2018	09/05/2024	EPA MCL	5	12		Yes	15	0	Ordinary nonparametric bootstrap	12	1.54
MW-112D	Yes	Trichloroethene	µg/L	01/24/2018	09/05/2024	EPA MCL	5	180		Yes	15	0	Ordinary nonparametric bootstrap	188	16.7
MW-112D	Yes	Trichlorofluoromethane	µg/L	01/24/2018	09/05/2024	NA	NA	0.72	J	NC	15	33.3	NP Kaplan-Meier	0.887	0.314
MW-112D	Yes	cis-1,2-Dichloroethene	µg/L	01/24/2018	09/05/2024	EPA MCL	70	0.32	U	No	15	80	NP Kaplan-Meier	0.198	0.0571
MW-112M	Yes	1,1,1-Trichloroethane	µg/L	10/05/2018	09/08/2024	EPA MCL	200	0.39	U	No	14	57.1	NP Kaplan-Meier	0.359	0.206
MW-112M	Yes	1,1-Dichloroethane	µg/L	10/05/2018	09/08/2024	NA	NA	0.22	U	NC	14	50	NP Kaplan-Meier	0.418	0.209
MW-112M	Yes	1,1-Dichloroethene	µg/L	10/05/2018	09/08/2024	EPA MCL	7	0.23	U	No	14	78.6	NP Kaplan-Meier	0.273	0.0733
MW-112M	Yes	1,2-Dichlorobenzene	µg/L	10/05/2018	09/08/2024	EPA MCL	600	0.14	U	No	14	71.4	NP Kaplan-Meier	0.292	0.283
MW-112M	Yes	1,2-Dichloroethane	µg/L	10/05/2018	09/08/2024	EPA MCL	5	0.28	U	No	14	92.9	Does not take in to account ND status	0.445	0.357
MW-112M	Yes	1,3-Dichlorobenzene	µg/L	10/05/2018	09/08/2024	ID GW - PRIMARY	600	0.33	U	No	14	92.9	Does not take in to account ND status	0.403	0.324
MW-112M	Yes	1,4-Dichlorobenzene	µg/L	10/05/2018	09/08/2024	EPA MCL	75	0.39	U	No	14	71.4	NP Kaplan-Meier	0.27	0.151
MW-112M	Yes	Chlorobenzene	µg/L	10/05/2018	09/08/2024	EPA MCL	100	0.092	U	No	14	92.9	Does not take in to account ND status	0.431	0.426
MW-112M	Yes	Chloroform	µg/L	10/05/2018	09/08/2024	ID GW - PRIMARY	2	0.36	U	No	14	21.4	NP Kaplan-Meier	0.709	0.222
MW-112M	Yes	Dichlorodifluoromethane	µg/L	10/05/2018	09/08/2024	NA	NA	0.3	U	NC	14	78.6	NP Kaplan-Meier	0.701	0.906
MW-112M	Yes	Tetrachloroethene	µg/L	10/05/2018	09/08/2024	EPA MCL	5	7.1		Yes	14	0	Ordinary nonparametric bootstrap	9.15	2.48
MW-112M	Yes	Trichloroethene	µg/L	10/05/2018	09/08/2024	EPA MCL	5	94		Yes	14	0	Ordinary nonparametric bootstrap	160	34.5
MW-112M	Yes	Trichlorofluoromethane	µg/L	10/05/2018	09/08/2024	NA	NA	0.2	U	NC	14	92.9	Does not take in to account ND status	0.709	0.699
MW-112M	Yes	cis-1,2-Dichloroethene	µg/L	10/05/2018	09/08/2024	EPA MCL	70	0.32	U	No	14	85.7	NP Kaplan-Meier	0.188	0.0828
MW-113D	Yes	1,1-Dichloroethane	µg/L	10/04/2018	09/06/2024	NA	NA	11		NC	14	7.1	NP Kaplan-Meier	7.5	5.57
MW-113D	Yes	1,1-Dichloroethene	µg/L	10/04/2018	09/06/2024	EPA MCL	7	0.23	U	No	14	50	NP Kaplan-Meier	0.398	0.226
MW-113D	Yes	1,2-Dibromo-3-Chloropropane	µg/L	10/04/2018	09/06/2024	EPA MCL	0.2	0.92	J	Yes	14	92.9	Does not take in to account ND status	0.906	0.611
MW-113D	Yes	1,2-Dichlorobenzene	µg/L	10/04/2018	09/06/2024	EPA MCL	600	0.14	U	No	14	92.9	Does not take in to account ND status	0.229	0.102
MW-113D	Yes	1,2-Dichloroethane	µg/L	10/04/2018	09/06/2024	EPA MCL	5	2		No	14	35.7	NP Kaplan-Meier	1.8	1.33
MW-113D	Yes	1,2-Dichloropropane	µg/L	10/04/2018	09/06/2024	EPA MCL	5	1.6		No	14	35.7	NP Kaplan-Meier	1.33	0.901
MW-113D	Yes	1,4-Dichlorobenzene	µg/L	10/04/2018	09/06/2024	EPA MCL	75	0.39	U	No	14	64.3	NP Kaplan-Meier	0.315	0.197
MW-113D	Yes	Benzene	µg/L	10/04/2018	09/06/2024	EPA MCL	5	1.5		No	14	35.7	NP Kaplan-Meier	1.44	1.15
MW-113D	Yes	Carbon disulfide	µg/L	10/04/2018	09/06/2024	NA	NA	0.26	U	NC	14	92.9	Does not take in to account ND status	0.377	0.251
MW-113D	Yes	Chloroform	µg/L	10/04/2018	09/06/2024	ID GW - PRIMARY	2	0.75	J	No	14	35.7	NP Kaplan-Meier	1.06	0.735
MW-113D	Yes	Dichlorodifluoromethane	µg/L	10/04/2018	09/06/2024	NA	NA	17		NC	14	7.1	NP Kaplan-Meier	14.2	10.7
MW-113D	Yes	Iodomethane	µg/L	10/04/2018	09/06/2024	NA	NA	2.6	U	NC	14	92.9	Does not take in to account ND status	1.36	1.14
MW-113D	Yes	Methylene Chloride	µg/L	10/04/2018	09/06/2024	EPA MCL	5	0.94	U	No	14	50	NP Kaplan-Meier	1.61	1.62
MW-113D	Yes	Tetrachloroethene	µg/L	10/04/2018	09/06/2024	EPA MCL	5	13		Yes	14	14.3	NP Kaplan-Meier	6.71	4.95
MW-113D	Yes	Trichloroethene	µg/L	10/04/2018	09/06/2024	EPA MCL	5	7.2		Yes	14	14.3	NP Kaplan-Meier	4.86	3.53

Table G.1
Cell 1 Statistical Results - VOCs

Dataset				Confidence limits				Trend analysis								
Well ID	RCRA regulated chemical	Analyte	Unit	CL method	CL conf	UCL of the mean	UCL > Standard	TS Slope	TS Intercept	p-value	Confidence Level %	S	sd(S)	Z	GSI COV	GSI Toolkit Trend
MW-111S	Yes	Benzene	µg/L	BCa bootstrap	0.95	22.8	Yes	-0.0059	128	0.023	97.7	-17	8.02	-2	0.349	Decreasing
MW-111S	Yes	Chlorobenzene	µg/L	BCa bootstrap	0.95	61.2	No	0.0288	-511	0.00138	99.9	25	8.02	2.99	1.21	Increasing
MW-111S	Yes	Chloroethane	µg/L	Bootstrap	0.95	0.86	NC	NC	NC	NC	NC	NC	NC	NC	0.516	NC
MW-111S	Yes	Dichlorodifluoromethane	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.388	NC
MW-111S	Yes	Ethylbenzene	µg/L	BCa bootstrap	0.95	13	No	-0.00542	110	0.227	77.3	-7	8.02	-0.748	0.843	Stable
MW-111S	Yes	Toluene	µg/L	Bootstrap	0.95	0.407	No	NC	NC	NC	NC	NC	NC	NC	0.646	NC
MW-111S	Yes	Xylenes, total	µg/L	BCa bootstrap	0.95	15.8	No	0.00154	-26.3	0.451	54.9	2	8.08	0.124	1.62	No trend
MW-111S	Yes	cis-1,2-Dichloroethene	µg/L	Bootstrap	0.95	0.443	No	-0.0000112	0.56	0.5	50	0	8.08	0	0.48	Stable
MW-111S	No	m,p-Xylene	µg/L	Bootstrap	0.95	9.53	No	NC	NC	NC	NC	NC	NC	NC	1.14	NC
MW-111S	No	o-xylene	µg/L	Bootstrap	0.95	13.9	No	NC	NC	NC	NC	NC	NC	NC	1.47	NC
MW-111S	Yes	trans-1,2-Dichloroethene	µg/L	Bootstrap	0.95	0.257	No	NC	NC	NC	NC	NC	NC	NC	0.675	NC
MW-112D	Yes	1,1,1-Trichloroethane	µg/L	Bootstrap	0.95	0.756	No	-0.000158	3.68	0.00369	99.6	-55	20.1	-2.68	0.22	Decreasing
MW-112D	Yes	1,1-Dichloroethane	µg/L	Bootstrap	0.95	0.421	NC	NC	NC	NC	NC	NC	NC	NC	0.506	NC
MW-112D	Yes	1,1-Dichloroethene	µg/L	Bootstrap	0.95	1.05	No	-0.000141	3.65	0.0227	97.7	-41	20	-2	0.242	Decreasing
MW-112D	Yes	Chloroform	µg/L	Bootstrap	0.95	0.391	No	NC	NC	NC	NC	NC	NC	NC	0.466	NC
MW-112D	Yes	Dichlorodifluoromethane	µg/L	Bootstrap	0.95	2.17	NC	-0.000025	2.38	0.421	57.9	-5	20.1	-0.199	0.355	Stable
MW-112D	Yes	Tetrachloroethene	µg/L	BCa bootstrap	0.95	12.7	Yes	0	12	0.398	60.2	-6	19.3	-0.26	0.129	Stable
MW-112D	Yes	Trichloroethene	µg/L	BCa bootstrap	0.95	196	Yes	-0.00605	307	0.121	87.9	-24	19.7	-1.17	0.0888	Stable
MW-112D	Yes	Trichlorofluoromethane	µg/L	Bootstrap	0.95	1.08	NC	-0.000163	3.97	0.0232	97.7	-41	20.1	-1.99	0.347	Decreasing
MW-112D	Yes	cis-1,2-Dichloroethene	µg/L	Bootstrap	0.95	0.252	No	NC	NC	NC	NC	NC	NC	NC	0.521	NC
MW-112M	Yes	1,1,1-Trichloroethane	µg/L	Bootstrap	0.95	0.504	No	NC	NC	NC	NC	NC	NC	NC	0.646	NC
MW-112M	Yes	1,1-Dichloroethane	µg/L	Bootstrap	0.95	0.56	NC	-0.000122	2.84	0.146	85.4	-20	18	-1.06	0.812	Stable
MW-112M	Yes	1,1-Dichloroethene	µg/L	Bootstrap	0.95	0.33	No	NC	NC	NC	NC	NC	NC	NC	1.09	NC
MW-112M	Yes	1,2-Dichlorobenzene	µg/L	Bootstrap	0.95	0.473	No	NC	NC	NC	NC	NC	NC	NC	0.847	NC
MW-112M	Yes	1,2-Dichloroethane	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.803	NC
MW-112M	Yes	1,3-Dichlorobenzene	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.803	NC
MW-112M	Yes	1,4-Dichlorobenzene	µg/L	Bootstrap	0.95	0.38	No	NC	NC	NC	NC	NC	NC	NC	0.77	NC
MW-112M	Yes	Chlorobenzene	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.987	NC
MW-112M	Yes	Chloroform	µg/L	Bootstrap	0.95	0.838	No	-0.000101	2.65	0.205	79.5	-16	18.2	-0.822	0.405	Stable
MW-112M	Yes	Dichlorodifluoromethane	µg/L	Bootstrap	0.95	1.26	NC	NC	NC	NC	NC	NC	NC	NC	0.86	NC
MW-112M	Yes	Tetrachloroethene	µg/L	BCa bootstrap	0.95	10.4	Yes	0.000243	3.74	0.435	56.5	4	18.2	0.164	0.271	No trend
MW-112M	Yes	Trichloroethene	µg/L	BCa bootstrap	0.95	177	Yes	-0.00912	339	0.218	78.2	-15	18	-0.779	0.215	Stable
MW-112M	Yes	Trichlorofluoromethane	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.985	NC
MW-112M	Yes	cis-1,2-Dichloroethene	µg/L	Bootstrap	0.95	0.248	No	NC	NC	NC	NC	NC	NC	NC	0.875	NC
MW-113D	Yes	1,1-Dichloroethane	µg/L	Bootstrap	0.95	10.4	NC	-0.00354	75.7	0.0123	98.8	-42	18.2	-2.25	0.771	Decreasing
MW-113D	Yes	1,1-Dichloroethene	µg/L	Bootstrap	0.95	0.516	No	-0.000155	3.29	0.00948	99.1	-42	17.5	-2.35	0.587	Decreasing
MW-113D	Yes	1,2-Dibromo-3-Chloropropane	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.675	NC
MW-113D	Yes	1,2-Dichlorobenzene	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.446	NC
MW-113D	Yes	1,2-Dichloroethane	µg/L	Bootstrap	0.95	2.51	No	-0.00123	25.3	0.00733	99.3	-45	18	-2.44	0.655	Decreasing
MW-113D	Yes	1,2-Dichloropropane	µg/L	Bootstrap	0.95	1.82	No	-0.000656	14	0.013	98.7	-41	18	-2.23	0.569	Decreasing
MW-113D	Yes	1,4-Dichlorobenzene	µg/L	Bootstrap	0.95	0.443	No	NC	NC	NC	NC	NC	NC	NC	0.423	NC
MW-113D	Yes	Benzene	µg/L	Bootstrap	0.95	2.06	No	-0.00114	23.1	0.0536	94.6	-30	18	-1.61	0.783	Probably Decreasing
MW-113D	Yes	Carbon disulfide	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.665	NC
MW-113D	Yes	Chloroform	µg/L	Bootstrap	0.95	1.46	No	-0.000839	16.9	0.00822	99.2	-44	17.9	-2.4	0.653	Decreasing
MW-113D	Yes	Dichlorodifluoromethane	µg/L	Bootstrap	0.95	19.8	NC	-0.00588	129	0.0185	98.2	-39	18.2	-2.09	0.785	Decreasing
MW-113D	Yes	Iodomethane	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.832	NC
MW-113D	Yes	Methylene Chloride	µg/L	Bootstrap	0.95	2.62	No	-0.00158	32	0.000553	99.9	-58	17.5	-3.26	0.722	Decreasing
MW-113D	Yes	Tetrachloroethene	µg/L	Bootstrap	0.95	9.19	Yes	-0.00251	52.6	0.148	85.2	-20	18.2	-1.04	0.766	Stable
MW-113D	Yes	Trichloroethene	µg/L	Bootstrap	0.95	6.83	Yes	-0.00261	54.3	0.031	96.9	-35	18.2	-1.87	0.753	Decreasing

Table G.1
Cell 1 Statistical Results - VOCs

Dataset				General											
Well ID	RCRA regulated chemical	Analyte	Unit	Min Date	Max Date	Standard source	Standard	Latest Result	Last Q	Latest Result > Standard	Dataset n	ND %	Parameter est. method	Dataset mean	sd
MW-113D	Yes	Trichlorofluoromethane	µg/L	10/04/2018	09/06/2024	NA	NA	1.4	J	NC	14	28.6	NP Kaplan-Meier	1.59	1.09
MW-113D	Yes	Vinyl chloride	µg/L	10/04/2018	09/06/2024	EPA MCL	2	22		Yes	14	35.7	NP Kaplan-Meier	15.8	14.2
MW-113D	Yes	Xylenes, total	µg/L	10/04/2018	09/06/2024	EPA MCL	10000	0.11	U	No	14	64.3	NP Kaplan-Meier	0.23	0.151
MW-113D	Yes	cis-1,2-Dichloroethene	µg/L	10/04/2018	09/06/2024	EPA MCL	70	16		No	14	14.3	NP Kaplan-Meier	11.9	9.11
MW-113D	No	o-xylene	µg/L	05/05/2019	09/06/2024	EPA MCL	10000	0.11	U	No	13	69.2	NP Kaplan-Meier	0.21	0.158
MW-113D	Yes	trans-1,2-Dichloroethene	µg/L	10/04/2018	09/06/2024	EPA MCL	100	0.37	U	No	14	50	NP Kaplan-Meier	0.396	0.183
MW-113S	Yes	1,1-Dichloroethane	µg/L	01/24/2018	09/04/2024	NA	NA	21		NC	15	0	Ordinary nonparametric bootstrap	24.3	2.36
MW-113S	Yes	1,1-Dichloroethene	µg/L	01/24/2018	09/04/2024	EPA MCL	7	0.65	J	No	15	13.3	NP Kaplan-Meier	0.789	0.256
MW-113S	Yes	1,2-Dichlorobenzene	µg/L	01/24/2018	09/04/2024	EPA MCL	600	11		No	15	0	Ordinary nonparametric bootstrap	9.01	1.87
MW-113S	Yes	1,2-Dichloroethane	µg/L	01/24/2018	09/04/2024	EPA MCL	5	4.4		No	15	0	Ordinary nonparametric bootstrap	3.86	0.528
MW-113S	Yes	1,2-Dichloropropane	µg/L	01/24/2018	09/04/2024	EPA MCL	5	4.6		No	15	0	Ordinary nonparametric bootstrap	4.34	0.592
MW-113S	Yes	1,3-Dichlorobenzene	µg/L	01/24/2018	09/04/2024	ID GW - PRIMARY	600	0.67	U	No	15	86.7	NP Kaplan-Meier	0.142	0.0261
MW-113S	Yes	1,4-Dichlorobenzene	µg/L	01/24/2018	09/04/2024	EPA MCL	75	6.2		No	15	0	Ordinary nonparametric bootstrap	5.01	0.916
MW-113S	Yes	Acetone	µg/L	01/24/2018	09/04/2024	NA	NA	13	U	NC	15	93.3	Does not take in to account ND status	6.29	3.6
MW-113S	Yes	Benzene	µg/L	01/24/2018	09/04/2024	EPA MCL	5	6.2		Yes	15	0	Ordinary nonparametric bootstrap	7.16	0.653
MW-113S	Yes	Chlorobenzene	µg/L	01/24/2018	09/04/2024	EPA MCL	100	0.68	J	No	15	60	NP Kaplan-Meier	0.309	0.166
MW-113S	Yes	Chloroethane	µg/L	01/24/2018	09/04/2024	NA	NA	0.99	J	NC	15	66.7	NP Kaplan-Meier	0.592	0.281
MW-113S	Yes	Chloroform	µg/L	01/24/2018	09/04/2024	ID GW - PRIMARY	2	1.1		No	15	0	Ordinary nonparametric bootstrap	2.04	0.722
MW-113S	Yes	Dichlorodifluoromethane	µg/L	01/24/2018	09/04/2024	NA	NA	14		NC	15	0	Ordinary nonparametric bootstrap	27.5	8.32
MW-113S	Yes	Iodomethane	µg/L	01/24/2018	09/04/2024	NA	NA	5.2	U	NC	15	86.7	NP Kaplan-Meier	0.564	0.693
MW-113S	Yes	Methylene Chloride	µg/L	01/24/2018	09/04/2024	EPA MCL	5	1.9	U	No	15	40	NP Kaplan-Meier	1.94	1.11
MW-113S	Yes	Tetrachloroethene	µg/L	01/24/2018	09/04/2024	EPA MCL	5	17		Yes	15	0	Ordinary nonparametric bootstrap	25.7	6.34
MW-113S	Yes	Toluene	µg/L	01/24/2018	09/04/2024	EPA MCL	1000	0.64	U	No	15	93.3	Does not take in to account ND status	0.358	0.212
MW-113S	Yes	Trichloroethene	µg/L	01/24/2018	09/04/2024	EPA MCL	5	12		Yes	15	0	Ordinary nonparametric bootstrap	19.6	5.51
MW-113S	Yes	Trichlorofluoromethane	µg/L	01/24/2018	09/04/2024	NA	NA	0.91	J	NC	15	6.7	NP Kaplan-Meier	2.3	1.01
MW-113S	Yes	Vinyl chloride	µg/L	01/24/2018	09/04/2024	EPA MCL	2	67		Yes	15	6.7	NP Kaplan-Meier	78.1	23.6
MW-113S	Yes	Xylenes, total	µg/L	01/24/2018	09/04/2024	EPA MCL	10000	1	J	No	15	13.3	NP Kaplan-Meier	1.1	0.181
MW-113S	Yes	cis-1,2-Dichloroethene	µg/L	01/24/2018	09/04/2024	EPA MCL	70	26		No	15	0	Ordinary nonparametric bootstrap	31.3	5.29
MW-113S	No	o-xylene	µg/L	05/05/2019	09/04/2024	EPA MCL	10000	1	J	No	12	8.3	NP Kaplan-Meier	1.09	0.394
MW-113S	Yes	trans-1,2-Dichloroethene	µg/L	01/24/2018	09/04/2024	EPA MCL	100	1.2	J	No	15	0	Ordinary nonparametric bootstrap	1.3	0.227
MW-117R	Yes	1,1-Dichloroethane	µg/L	01/26/2018	09/10/2024	NA	NA	0.22	U	NC	7	42.9	NP Kaplan-Meier	0.286	0.0604
MW-117R	Yes	Chloroform	µg/L	01/26/2018	09/10/2024	ID GW - PRIMARY	2	0.36	U	No	7	42.9	NP Kaplan-Meier	0.346	0.11
MW-117R	Yes	Tetrachloroethene	µg/L	01/26/2018	09/10/2024	EPA MCL	5	7.5		Yes	7	0	Ordinary nonparametric bootstrap	7.55	1.63
MW-117R	Yes	Trichloroethene	µg/L	01/26/2018	09/10/2024	EPA MCL	5	37		Yes	7	0	Ordinary nonparametric bootstrap	43.2	13.3
MW-117R	Yes	cis-1,2-Dichloroethene	µg/L	01/26/2018	09/10/2024	EPA MCL	70	2.3		No	7	0	Ordinary nonparametric bootstrap	3.06	1.05
MW-118D	Yes	1,1,1-Trichloroethane	µg/L	01/23/2018	09/05/2024	EPA MCL	200	0.39	U	No	16	56.2	NP Kaplan-Meier	0.282	0.118
MW-118D	Yes	1,1-Dichloroethane	µg/L	01/23/2018	09/05/2024	NA	NA	5.3		NC	16	0	Ordinary nonparametric bootstrap	6.69	0.94
MW-118D	Yes	1,1-Dichloroethene	µg/L	01/23/2018	09/05/2024	EPA MCL	7	0.23	U	No	16	25	NP Kaplan-Meier	0.633	0.346
MW-118D	Yes	1,2-Dichlorobenzene	µg/L	01/23/2018	09/05/2024	EPA MCL	600	3.5		No	16	18.8	NP Kaplan-Meier	1.16	0.868
MW-118D	Yes	1,2-Dichloropropane	µg/L	01/23/2018	09/05/2024	EPA MCL	5	0.78	J	No	16	18.8	NP Kaplan-Meier	0.7	0.201
MW-118D	Yes	1,4-Dichlorobenzene	µg/L	01/23/2018	09/05/2024	EPA MCL	75	1.8		No	16	25	NP Kaplan-Meier	0.714	0.505
MW-118D	Yes	Benzene	µg/L	01/23/2018	09/05/2024	EPA MCL	5	1.5		No	16	25	NP Kaplan-Meier	0.537	0.413
MW-118D	Yes	Chlorobenzene	µg/L	01/23/2018	09/05/2024	EPA MCL	100	10		No	16	62.5	NP Kaplan-Meier	1.44	2.95
MW-118D	Yes	Chloroethane	µg/L	01/23/2018	09/05/2024	NA	NA	0.64	U	NC	16	93.8	Does not take in to account ND status	1.02	1.05
MW-118D	Yes	Chloroform	µg/L	01/23/2018	09/05/2024	ID GW - PRIMARY	2	0.36	U	No	16	31.2	NP Kaplan-Meier	0.592	0.217
MW-118D	Yes	Dichlorodifluoromethane	µg/L	01/23/2018	09/05/2024	NA	NA	1.6	J	NC	16	6.2	NP Kaplan-Meier	3.27	1.28
MW-118D	Yes	Methylene Chloride	µg/L	01/23/2018	09/05/2024	EPA MCL	5	0.94	U	No	16	93.8	Does not take in to account ND status	1.52	2.28
MW-118D	Yes	Tetrachloroethene	µg/L	01/23/2018	09/05/2024	EPA MCL	5	4.6		No	16	0	Ordinary nonparametric bootstrap	13.6	5.94
MW-118D	Yes	Trichloroethene	µg/L	01/23/2018	09/05/2024	EPA MCL	5	34		Yes	16	0	Ordinary nonparametric bootstrap	96.2	49.5

Table G.1
Cell 1 Statistical Results - VOCs

Dataset				Confidence limits				Trend analysis								
Well ID	RCRA regulated chemical	Analyte	Unit	CL method	CL conf	UCL of the mean	UCL > Standard	TS Slope	TS Intercept	p-value	Confidence Level %	S	sd(S)	Z	GSI COV	GSI Toolkit Trend
MW-113D	Yes	Trichlorofluoromethane	µg/L	Bootstrap	0.95	2.17	NC	-0.000831	17.6	0.0133	98.7	-41	18	-2.22	0.642	Decreasing
MW-113D	Yes	Vinyl chloride	µg/L	Bootstrap	0.95	23.3	Yes	-0.0108	218	0.0536	94.6	-30	18	-1.61	0.922	Probably Decreasing
MW-113D	Yes	Xylenes, total	µg/L	Bootstrap	0.95	0.33	No	NC	NC	NC	NC	NC	NC	NC	0.409	NC
MW-113D	Yes	cis-1,2-Dichloroethene	µg/L	Bootstrap	0.95	16.4	No	-0.00687	143	0.00785	99.2	-45	18.2	-2.41	0.794	Decreasing
MW-113D	No	o-xylene	µg/L	Bootstrap	0.95	0.313	No	NC	NC	NC	NC	NC	NC	NC	0.448	NC
MW-113D	Yes	trans-1,2-Dichloroethene	µg/L	Bootstrap	0.95	0.515	No	-0.0000863	2.06	0.0226	97.7	-36	17.5	-2	0.352	Decreasing
MW-113S	Yes	1,1-Dichloroethane	µg/L	BCa bootstrap	0.95	25.5	NC	-0.000704	37	0.227	77.3	-16	20	-0.75	0.0972	Stable
MW-113S	Yes	1,1-Dichloroethene	µg/L	Bootstrap	0.95	0.913	No	-0.000224	5.13	0.0263	97.4	-40	20.1	-1.94	0.34	Decreasing
MW-113S	Yes	1,2-Dichlorobenzene	µg/L	BCa bootstrap	0.95	9.85	No	0.0018	-24.8	0.0002	100	71	19.8	3.54	0.208	Increasing
MW-113S	Yes	1,2-Dichloroethane	µg/L	BCa bootstrap	0.95	4.1	No	0.000247	-0.942	0.127	87.3	24	20.1	1.14	0.137	No trend
MW-113S	Yes	1,2-Dichloropropane	µg/L	BCa bootstrap	0.95	4.63	No	0.000513	-5.21	0.00747	99.3	50	20.1	2.43	0.136	Increasing
MW-113S	Yes	1,3-Dichlorobenzene	µg/L	Bootstrap	0.95	0.165	No	NC	NC	NC	NC	NC	NC	NC	0.613	NC
MW-113S	Yes	1,4-Dichlorobenzene	µg/L	BCa bootstrap	0.95	5.43	No	0.000959	-13	0.000115	100	75	20.1	3.68	0.183	Increasing
MW-113S	Yes	Acetone	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.573	NC
MW-113S	Yes	Benzene	µg/L	BCa bootstrap	0.95	7.46	Yes	-0.00057	17.9	0.00849	99.2	-49	20.1	-2.39	0.0913	Decreasing
MW-113S	Yes	Chlorobenzene	µg/L	Bootstrap	0.95	0.41	No	NC	NC	NC	NC	NC	NC	NC	0.517	NC
MW-113S	Yes	Chloroethane	µg/L	Bootstrap	0.95	0.799	NC	NC	NC	NC	NC	NC	NC	NC	0.57	NC
MW-113S	Yes	Chloroform	µg/L	BCa bootstrap	0.95	2.39	Yes	-0.000824	17.6	0.000177	100	-73	20.1	-3.57	0.355	Decreasing
MW-113S	Yes	Dichlorodifluoromethane	µg/L	BCa bootstrap	0.95	31.5	NC	-0.00742	167	0.00315	99.7	-56	20.1	-2.73	0.302	Decreasing
MW-113S	Yes	Iodomethane	µg/L	Bootstrap	0.95	1.17	NC	NC	NC	NC	NC	NC	NC	NC	0.761	NC
MW-113S	Yes	Methylene Chloride	µg/L	Bootstrap	0.95	2.54	No	-0.00108	22.4	0.00706	99.3	-50	20	-2.45	0.596	Decreasing
MW-113S	Yes	Tetrachloroethene	µg/L	BCa bootstrap	0.95	29	Yes	-0.00705	159	6.55E-05	100	-78	20.1	-3.83	0.246	Decreasing
MW-113S	Yes	Toluene	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.592	NC
MW-113S	Yes	Trichloroethene	µg/L	BCa bootstrap	0.95	22.4	Yes	-0.00551	123	1.39E-05	100	-85	20	-4.19	0.281	Decreasing
MW-113S	Yes	Trichlorofluoromethane	µg/L	Bootstrap	0.95	2.78	NC	-0.000644	14.4	0.0414	95.9	-36	20.2	-1.73	0.455	Decreasing
MW-113S	Yes	Vinyl chloride	µg/L	Bootstrap	0.95	88.3	Yes	-0.00995	273	0.0129	98.7	-46	20.2	-2.23	0.312	Decreasing
MW-113S	Yes	Xylenes, total	µg/L	Bootstrap	0.95	1.2	No	-0.000129	3.57	0.0383	96.2	-36	19.8	-1.77	1.35	Decreasing
MW-113S	Yes	cis-1,2-Dichloroethene	µg/L	BCa bootstrap	0.95	33.8	No	-0.00556	137	0.00413	99.6	-54	20.1	-2.64	0.169	Decreasing
MW-113S	No	o-xylene	µg/L	Bootstrap	0.95	1.32	No	-0.000152	3.97	0.112	88.8	-18	14	-1.21	0.376	Stable
MW-113S	Yes	trans-1,2-Dichloroethene	µg/L	BCa bootstrap	0.95	1.41	No	0	1.3	0.42	58	5	19.8	0.202	0.175	No trend
MW-117R	Yes	1,1-Dichloroethane	µg/L	Bootstrap	0.95	0.331	NC	-0.0000402	1.02	0.136	86.4	-8	6.38	-1.1	0.228	Stable
MW-117R	Yes	Chloroform	µg/L	Bootstrap	0.95	0.452	No	0.0000154	0.0574	0.324	67.6	4	6.58	0.456	0.264	No trend
MW-117R	Yes	Tetrachloroethene	µg/L	BCa bootstrap	0.95	8.53	Yes	0.00021	4.41	0.5	50	1	6.66	0	0.215	No trend
MW-117R	Yes	Trichloroethene	µg/L	BCa bootstrap	0.95	51	Yes	-0.0071	179	0.0358	96.4	-13	6.66	-1.8	0.308	Decreasing
MW-117R	Yes	cis-1,2-Dichloroethene	µg/L	BCa bootstrap	0.95	3.7	No	-0.000333	9.45	0.274	72.6	-5	6.66	-0.601	0.343	Stable
MW-118D	Yes	1,1,1-Trichloroethane	µg/L	Bootstrap	0.95	0.354	No	NC	NC	NC	NC	NC	NC	NC	1.34	NC
MW-118D	Yes	1,1-Dichloroethane	µg/L	BCa bootstrap	0.95	7.15	NC	-0.000152	9.66	0.428	57.2	-5	22.2	-0.18	0.14	Stable
MW-118D	Yes	1,1-Dichloroethene	µg/L	Bootstrap	0.95	0.807	No	-0.00039	8.04	0.00642	99.4	-56	22.1	-2.49	1.08	Decreasing
MW-118D	Yes	1,2-Dichlorobenzene	µg/L	Bootstrap	0.95	1.64	No	0.000402	-6.62	0.00955	99	53	22.2	2.34	0.782	Increasing
MW-118D	Yes	1,2-Dichloropropane	µg/L	Bootstrap	0.95	0.797	No	0.0000368	0.0738	0.249	75.1	16	22.2	0.677	0.711	No trend
MW-118D	Yes	1,4-Dichlorobenzene	µg/L	Bootstrap	0.95	1	No	0.0000891	-0.991	0.172	82.8	22	22.2	0.946	0.809	No trend
MW-118D	Yes	Benzene	µg/L	Bootstrap	0.95	0.775	No	0.000222	-3.77	0.0153	98.5	49	22.2	2.16	1.08	Increasing
MW-118D	Yes	Chlorobenzene	µg/L	Bootstrap	0.95	3.1	No	NC	NC	NC	NC	NC	NC	NC	1.78	NC
MW-118D	Yes	Chloroethane	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	1.03	NC
MW-118D	Yes	Chloroform	µg/L	Bootstrap	0.95	0.705	No	-0.000272	5.76	0.000138	100	-81	22	-3.64	0.92	Decreasing
MW-118D	Yes	Dichlorodifluoromethane	µg/L	Bootstrap	0.95	3.92	NC	-0.000956	20.9	0.0212	97.9	-46	22.2	-2.03	0.41	Decreasing
MW-118D	Yes	Methylene Chloride	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	1.51	NC
MW-118D	Yes	Tetrachloroethene	µg/L	BCa bootstrap	0.95	16.4	Yes	-0.0068	142	2.49E-05	100	-91	22.2	-4.06	0.439	Decreasing
MW-118D	Yes	Trichloroethene	µg/L	BCa bootstrap	0.95	122	Yes	-0.0591	1210	2.49E-05	100	-91	22.2	-4.06	0.515	Decreasing

Table G.1
Cell 1 Statistical Results - VOCs

Dataset				General											
Well ID	RCRA regulated chemical	Analyte	Unit	Min Date	Max Date	Standard source	Standard	Latest Result	Last Q	Latest Result > Standard	Dataset n	ND %	Parameter est. method	Dataset mean	sd
MW-118D	Yes	Trichlorofluoromethane	µg/L	01/23/2018	09/05/2024	NA	NA	0.2	U	NC	16	62.5	NP Kaplan-Meier	0.4	0.195
MW-118D	Yes	Vinyl chloride	µg/L	01/23/2018	09/05/2024	EPA MCL	2	0.23	U	No	16	50	NP Kaplan-Meier	0.507	0.388
MW-118D	Yes	Xylenes, total	µg/L	01/23/2018	09/05/2024	EPA MCL	10000	0.11	U	No	16	93.8	Does not take in to account ND status	0.977	2.58
MW-118D	Yes	cis-1,2-Dichloroethene	µg/L	01/23/2018	09/05/2024	EPA MCL	70	1.8		No	16	0	Ordinary nonparametric bootstrap	6.58	3.38
MW-118D	No	o-xylene	µg/L	05/03/2019	09/05/2024	EPA MCL	10000	0.11	U	No	13	92.3	Does not take in to account ND status	0.248	0.0933
MW-118D	Yes	trans-1,2-Dichloroethene	µg/L	01/23/2018	09/05/2024	EPA MCL	100	0.37	U	No	16	68.8	NP Kaplan-Meier	0.183	0.0437
MW-119D	Yes	1,1-Dichloroethane	µg/L	01/25/2018	09/04/2024	NA	NA	0.24	J	NC	15	60	NP Kaplan-Meier	0.243	0.0387
MW-119D	Yes	1,2-Dichlorobenzene	µg/L	01/25/2018	09/04/2024	EPA MCL	600	0.21	J	No	15	86.7	NP Kaplan-Meier	0.165	0.0458
MW-119D	Yes	1,3-Dichlorobenzene	µg/L	01/25/2018	09/04/2024	ID GW - PRIMARY	600	0.33	U	No	15	93.3	Does not take in to account ND status	0.274	0.131
MW-119D	Yes	1,4-Dichlorobenzene	µg/L	01/25/2018	09/04/2024	EPA MCL	75	0.39	U	No	15	93.3	Does not take in to account ND status	0.329	0.161
MW-119D	Yes	Chloroform	µg/L	01/25/2018	09/04/2024	ID GW - PRIMARY	2	0.71	J	No	15	6.7	NP Kaplan-Meier	0.792	0.175
MW-119D	Yes	Chloromethane	µg/L	01/25/2018	09/04/2024	NA	NA	0.23	U	NC	15	93.3	Does not take in to account ND status	0.531	0.331
MW-119D	Yes	Tetrachloroethene	µg/L	01/25/2018	09/04/2024	EPA MCL	5	14		Yes	15	0	Ordinary nonparametric bootstrap	15.2	3.68
MW-119D	Yes	Trichloroethene	µg/L	01/25/2018	09/04/2024	EPA MCL	5	62		Yes	15	0	Ordinary nonparametric bootstrap	84.7	17.1
MW-119D	Yes	cis-1,2-Dichloroethene	µg/L	01/25/2018	09/04/2024	EPA MCL	70	1.8		No	15	0	Ordinary nonparametric bootstrap	2.15	0.693
MW-119S	Yes	1,1-Dichloroethane	µg/L	01/25/2018	09/04/2024	NA	NA	0.22	U	NC	15	86.7	NP Kaplan-Meier	0.229	0.0206
MW-119S	Yes	1,2-Dichlorobenzene	µg/L	01/25/2018	09/04/2024	EPA MCL	600	0.18	J	No	15	86.7	NP Kaplan-Meier	0.155	0.01
MW-119S	Yes	Chloroform	µg/L	01/25/2018	09/04/2024	ID GW - PRIMARY	2	0.52	J	No	15	6.7	NP Kaplan-Meier	0.835	0.337
MW-119S	Yes	Methylene Chloride	µg/L	01/25/2018	09/04/2024	EPA MCL	5	0.94	U	No	15	93.3	Does not take in to account ND status	1.18	0.803
MW-119S	Yes	Tetrachloroethene	µg/L	01/25/2018	09/04/2024	EPA MCL	5	12		Yes	15	0	Ordinary nonparametric bootstrap	17.1	7.05
MW-119S	Yes	Trichloroethene	µg/L	01/25/2018	09/04/2024	EPA MCL	5	49		Yes	15	0	Ordinary nonparametric bootstrap	76.2	29.6
MW-119S	Yes	cis-1,2-Dichloroethene	µg/L	01/25/2018	09/04/2024	EPA MCL	70	2.1		No	15	0	Ordinary nonparametric bootstrap	2.19	1.24
MW-120D	Yes	1,1,1-Trichloroethane	µg/L	01/25/2018	09/04/2024	EPA MCL	200	0.39	U	No	16	87.5	NP Kaplan-Meier	0.17	0.0245
MW-120D	Yes	1,1-Dichloroethane	µg/L	01/25/2018	09/04/2024	NA	NA	1.1		NC	16	0	Ordinary nonparametric bootstrap	1.24	0.237
MW-120D	Yes	1,1-Dichloroethene	µg/L	01/25/2018	09/04/2024	EPA MCL	7	0.95	J	No	16	43.8	NP Kaplan-Meier	0.855	0.702
MW-120D	Yes	1,2-Dichlorobenzene	µg/L	01/25/2018	09/04/2024	EPA MCL	600	0.4	J	No	16	18.8	NP Kaplan-Meier	0.805	0.442
MW-120D	Yes	1,2-Dichloroethane	µg/L	01/25/2018	09/04/2024	EPA MCL	5	0.28	U	No	16	87.5	NP Kaplan-Meier	0.159	0.0464
MW-120D	Yes	1,2-Dichloropropane	µg/L	01/25/2018	09/04/2024	EPA MCL	5	0.24	U	No	16	56.2	NP Kaplan-Meier	0.42	0.226
MW-120D	Yes	1,4-Dichlorobenzene	µg/L	01/25/2018	09/04/2024	EPA MCL	75	0.39	U	No	16	68.8	NP Kaplan-Meier	0.274	0.117
MW-120D	Yes	Chlorobenzene	µg/L	01/25/2018	09/04/2024	EPA MCL	100	0.092	U	No	16	93.8	Does not take in to account ND status	0.311	0.208
MW-120D	Yes	Chloroform	µg/L	01/25/2018	09/04/2024	ID GW - PRIMARY	2	0.36	U	No	16	25	NP Kaplan-Meier	0.512	0.177
MW-120D	Yes	Dichlorodifluoromethane	µg/L	01/25/2018	09/04/2024	NA	NA	1.6	J	NC	16	37.5	NP Kaplan-Meier	1.84	1.72
MW-120D	Yes	Methylene Chloride	µg/L	01/25/2018	09/04/2024	EPA MCL	5	0.94	U	No	16	93.8	Does not take in to account ND status	1.07	0.429
MW-120D	Yes	Tetrachloroethene	µg/L	01/25/2018	09/04/2024	EPA MCL	5	11		Yes	16	0	Ordinary nonparametric bootstrap	14.4	3.04
MW-120D	Yes	Trichloroethene	µg/L	01/25/2018	09/04/2024	EPA MCL	5	150		Yes	16	0	Ordinary nonparametric bootstrap	158	30.2
MW-120D	Yes	Trichlorofluoromethane	µg/L	01/25/2018	09/04/2024	NA	NA	0.54	J	NC	16	56.2	NP Kaplan-Meier	0.653	0.495
MW-120D	Yes	Vinyl chloride	µg/L	01/25/2018	09/04/2024	EPA MCL	2	1.8		No	16	0	Ordinary nonparametric bootstrap	1.59	0.861
MW-120D	Yes	cis-1,2-Dichloroethene	µg/L	01/25/2018	09/04/2024	EPA MCL	70	11		No	16	0	Ordinary nonparametric bootstrap	15.2	4.66
MW-120D	Yes	trans-1,2-Dichloroethene	µg/L	01/25/2018	09/04/2024	EPA MCL	100	0.37	U	No	16	93.8	Does not take in to account ND status	0.349	0.2
MW-120S	Yes	1,1,1-Trichloroethane	µg/L	01/25/2018	09/05/2024	EPA MCL	200	0.39	U	No	16	93.8	Does not take in to account ND status	0.364	0.212
MW-120S	Yes	1,1-Dichloroethane	µg/L	01/25/2018	09/05/2024	NA	NA	0.48	J	NC	16	0	Ordinary nonparametric bootstrap	1.07	0.243
MW-120S	Yes	1,2-Dichlorobenzene	µg/L	01/25/2018	09/05/2024	EPA MCL	600	1.5		No	16	0	Ordinary nonparametric bootstrap	1.51	0.761
MW-120S	Yes	1,2-Dichloroethane	µg/L	01/25/2018	09/05/2024	EPA MCL	5	0.28	U	No	16	93.8	Does not take in to account ND status	0.381	0.261
MW-120S	Yes	1,2-Dichloropropane	µg/L	01/25/2018	09/05/2024	EPA MCL	5	0.24	U	No	16	50	NP Kaplan-Meier	0.464	0.239
MW-120S	Yes	1,4-Dichlorobenzene	µg/L	01/25/2018	09/05/2024	EPA MCL	75	0.39	U	No	16	56.2	NP Kaplan-Meier	0.345	0.204
MW-120S	Yes	Chlorobenzene	µg/L	01/25/2018	09/05/2024	EPA MCL	100	0.092	U	No	16	81.2	NP Kaplan-Meier	0.132	0.0544
MW-120S	Yes	Chloroform	µg/L	01/25/2018	09/05/2024	ID GW - PRIMARY	2	0.36	U	No	16	25	NP Kaplan-Meier	0.548	0.125
MW-120S	Yes	Dichlorodifluoromethane	µg/L	01/25/2018	09/05/2024	NA	NA	0.3	U	NC	16	75	NP Kaplan-Meier	0.445	0.194
MW-120S	Yes	Methylene Chloride	µg/L	01/25/2018	09/05/2024	EPA MCL	5	0.94	U	No	16	93.8	Does not take in to account ND status	1.24	0.993

Table G.1
Cell 1 Statistical Results - VOCs

Dataset				Confidence limits				Trend analysis								
Well ID	RCRA regulated chemical	Analyte	Unit	CL method	CL conf	UCL of the mean	UCL > Standard	TS Slope	TS Intercept	p-value	Confidence Level %	S	sd(S)	Z	GSI COV	GSI Toolkit Trend
MW-118D	Yes	Trichlorofluoromethane	µg/L	Bootstrap	0.95	0.522	NC	NC	NC	NC	NC	NC	NC	NC	2.24	NC
MW-118D	Yes	Vinyl chloride	µg/L	Bootstrap	0.95	0.727	No	-0.000212	4.63	0.0872	91.3	-31	22.1	-1.36	0.852	Probably Decreasing
MW-118D	Yes	Xylenes, total	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	2.64	NC
MW-118D	Yes	cis-1,2-Dichloroethene	µg/L	BCa bootstrap	0.95	8.35	No	-0.00332	68.6	0.000367	100	-76	22.2	-3.38	0.513	Decreasing
MW-118D	No	o-xylene	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.377	NC
MW-118D	Yes	trans-1,2-Dichloroethene	µg/L	Bootstrap	0.95	0.222	No	NC	NC	NC	NC	NC	NC	NC	1.75	NC
MW-119D	Yes	1,1-Dichloroethane	µg/L	Bootstrap	0.95	0.265	NC	NC	NC	NC	NC	NC	NC	NC	0.694	NC
MW-119D	Yes	1,2-Dichlorobenzene	µg/L	Bootstrap	0.95	0.203	No	NC	NC	NC	NC	NC	NC	NC	0.532	NC
MW-119D	Yes	1,3-Dichlorobenzene	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.477	NC
MW-119D	Yes	1,4-Dichlorobenzene	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.489	NC
MW-119D	Yes	Chloroform	µg/L	Bootstrap	0.95	0.882	No	0.0000816	-0.741	0.0458	95.4	35	20.1	1.69	0.226	Increasing
MW-119D	Yes	Chloromethane	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.623	NC
MW-119D	Yes	Tetrachloroethene	µg/L	BCa bootstrap	0.95	17.2	Yes	0.00338	-47.6	0.0161	98.4	44	20.1	2.14	0.241	Increasing
MW-119D	Yes	Trichloroethene	µg/L	BCa bootstrap	0.95	93.3	Yes	0.0049	-3.84	0.383	61.7	7	20.2	0.297	0.202	No trend
MW-119D	Yes	cis-1,2-Dichloroethene	µg/L	BCa bootstrap	0.95	2.49	No	0.00041	-5.53	0.0297	97	39	20.1	1.89	0.323	Increasing
MW-119S	Yes	1,1-Dichloroethane	µg/L	Bootstrap	0.95	0.242	NC	NC	NC	NC	NC	NC	NC	NC	0.681	NC
MW-119S	Yes	1,2-Dichlorobenzene	µg/L	Bootstrap	0.95	0.163	No	NC	NC	NC	NC	NC	NC	NC	0.641	NC
MW-119S	Yes	Chloroform	µg/L	Bootstrap	0.95	1.01	No	0.000171	-2.34	0.0817	91.8	29	20.1	1.39	0.403	Probably Increasing
MW-119S	Yes	Methylene Chloride	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.68	NC
MW-119S	Yes	Tetrachloroethene	µg/L	BCa bootstrap	0.95	20.6	Yes	0.00488	-73.3	0.0683	93.2	31	20.1	1.49	0.412	Probably Increasing
MW-119S	Yes	Trichloroethene	µg/L	BCa bootstrap	0.95	90.7	Yes	0.0197	-290	0.0754	92.5	30	20.2	1.44	0.389	Probably Increasing
MW-119S	Yes	cis-1,2-Dichloroethene	µg/L	BCa bootstrap	0.95	2.82	No	0.000952	-15.7	0.00667	99.3	51	20.2	2.48	0.569	Increasing
MW-120D	Yes	1,1,1-Trichloroethane	µg/L	Bootstrap	0.95	0.19	No	NC	NC	NC	NC	NC	NC	NC	0.605	NC
MW-120D	Yes	1,1-Dichloroethane	µg/L	BCa bootstrap	0.95	1.37	NC	0	1.2	0.444	55.6	4	21.4	0.14	0.19	No trend
MW-120D	Yes	1,1-Dichloroethene	µg/L	Bootstrap	0.95	1.21	No	0.000442	-7.45	0.0145	98.6	49	22	2.18	0.755	Increasing
MW-120D	Yes	1,2-Dichlorobenzene	µg/L	Bootstrap	0.95	1.03	No	-0.000251	5.56	0.0212	97.9	-46	22.2	-2.03	0.488	Decreasing
MW-120D	Yes	1,2-Dichloroethane	µg/L	Bootstrap	0.95	0.202	No	NC	NC	NC	NC	NC	NC	NC	0.693	NC
MW-120D	Yes	1,2-Dichloropropane	µg/L	Bootstrap	0.95	0.552	No	NC	NC	NC	NC	NC	NC	NC	0.433	NC
MW-120D	Yes	1,4-Dichlorobenzene	µg/L	Bootstrap	0.95	0.349	No	NC	NC	NC	NC	NC	NC	NC	0.501	NC
MW-120D	Yes	Chlorobenzene	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.668	NC
MW-120D	Yes	Chloroform	µg/L	Bootstrap	0.95	0.604	No	-0.0000611	1.69	0.221	77.9	-18	22.1	-0.769	0.314	Stable
MW-120D	Yes	Dichlorodifluoromethane	µg/L	Bootstrap	0.95	2.71	NC	0.0011	-18.8	0.0572	94.3	36	22.2	1.58	0.907	Probably Increasing
MW-120D	Yes	Methylene Chloride	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.402	NC
MW-120D	Yes	Tetrachloroethene	µg/L	BCa bootstrap	0.95	15.9	Yes	-0.00232	57.8	0.0104	99	-52	22.1	-2.31	0.211	Decreasing
MW-120D	Yes	Trichloroethene	µg/L	BCa bootstrap	0.95	174	Yes	0.0129	-90.8	0.0507	94.9	37	22	1.64	0.191	Probably Increasing
MW-120D	Yes	Trichlorofluoromethane	µg/L	Bootstrap	0.95	0.926	NC	NC	NC	NC	NC	NC	NC	NC	0.652	NC
MW-120D	Yes	Vinyl chloride	µg/L	BCa bootstrap	0.95	2.03	Yes	-0.000466	10.3	0.15	85	-24	22.2	-1.04	0.54	Stable
MW-120D	Yes	cis-1,2-Dichloroethene	µg/L	BCa bootstrap	0.95	17.6	No	-0.00217	55.3	0.0679	93.2	-34	22.1	-1.49	0.307	Probably Decreasing
MW-120D	Yes	trans-1,2-Dichloroethene	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.573	NC
MW-120S	Yes	1,1,1-Trichloroethane	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.582	NC
MW-120S	Yes	1,1-Dichloroethane	µg/L	BCa bootstrap	0.95	1.18	NC	-0.000167	4.18	0.0723	92.8	-33	21.9	-1.46	0.227	Probably Decreasing
MW-120S	Yes	1,2-Dichlorobenzene	µg/L	BCa bootstrap	0.95	1.92	No	0.00022	-2.8	0.0668	93.3	34	22	1.5	0.503	Probably Increasing
MW-120S	Yes	1,2-Dichloroethane	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.684	NC
MW-120S	Yes	1,2-Dichloropropane	µg/L	Bootstrap	0.95	0.598	No	-0.0000114	0.831	0.428	57.2	-5	22.1	-0.181	0.425	Stable
MW-120S	Yes	1,4-Dichlorobenzene	µg/L	Bootstrap	0.95	0.463	No	NC	NC	NC	NC	NC	NC	NC	0.517	NC
MW-120S	Yes	Chlorobenzene	µg/L	Bootstrap	0.95	0.192	No	NC	NC	NC	NC	NC	NC	NC	0.703	NC
MW-120S	Yes	Chloroform	µg/L	Bootstrap	0.95	0.614	No	-8.87E-06	0.774	0.446	55.4	-4	22.2	-0.135	0.235	Stable
MW-120S	Yes	Dichlorodifluoromethane	µg/L	Bootstrap	0.95	0.577	NC	NC	NC	NC	NC	NC	NC	NC	0.614	NC
MW-120S	Yes	Methylene Chloride	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.799	NC

Table G.1
Cell 1 Statistical Results - VOCs

Dataset				General											
Well ID	RCRA regulated chemical	Analyte	Unit	Min Date	Max Date	Standard source	Standard	Latest Result	Last Q	Latest Result > Standard	Dataset n	ND %	Parameter est. method	Dataset mean	sd
MW-120S	Yes	Tetrachloroethene	µg/L	01/25/2018	09/05/2024	EPA MCL	5	10		Yes	16	0	Ordinary nonparametric bootstrap	15.2	4.14
MW-120S	Yes	Trichloroethene	µg/L	01/25/2018	09/05/2024	EPA MCL	5	99		Yes	16	0	Ordinary nonparametric bootstrap	131	29.4
MW-120S	Yes	Vinyl chloride	µg/L	01/25/2018	09/05/2024	EPA MCL	2	1.7		No	16	18.8	NP Kaplan-Meier	1.34	0.853
MW-120S	Yes	cis-1,2-Dichloroethene	µg/L	01/25/2018	09/05/2024	EPA MCL	70	20		No	16	0	Ordinary nonparametric bootstrap	20.6	8.98
MW-120S	Yes	trans-1,2-Dichloroethene	µg/L	01/25/2018	09/05/2024	EPA MCL	100	0.37	U	No	16	87.5	NP Kaplan-Meier	0.162	0.016
MW-121	Yes	1,1-Dichloroethane	µg/L	10/07/2018	09/06/2024	NA	NA	0.22	U	NC	4	25	NP Kaplan-Meier	0.52	0.212
MW-121	Yes	1,2-Dichlorobenzene	µg/L	10/07/2018	09/06/2024	EPA MCL	600	0.24	J	No	4	0	Ordinary nonparametric bootstrap	0.55	0.254
MW-121	Yes	1,4-Dichlorobenzene	µg/L	10/07/2018	09/06/2024	EPA MCL	75	0.39	U	No	4	50	NP Kaplan-Meier	0.27	0.104
MW-121	Yes	Benzene	µg/L	10/07/2018	09/06/2024	EPA MCL	5	0.14	U	No	4	50	NP Kaplan-Meier	0.332	0.202
MW-121	Yes	Chlorobenzene	µg/L	10/07/2018	09/06/2024	EPA MCL	100	2.3		No	4	25	NP Kaplan-Meier	1.49	0.833
MW-121	Yes	Dichlorodifluoromethane	µg/L	10/07/2018	09/06/2024	NA	NA	0.96	J	NC	4	25	NP Kaplan-Meier	0.935	0.351
MW-121	Yes	Tetrachloroethene	µg/L	10/07/2018	09/06/2024	EPA MCL	5	1.5		No	4	0	Ordinary nonparametric bootstrap	2.14	1.43
MW-121	Yes	Trichloroethene	µg/L	10/07/2018	09/06/2024	EPA MCL	5	2.8		No	4	0	Ordinary nonparametric bootstrap	4.82	2.89
MW-121	Yes	cis-1,2-Dichloroethene	µg/L	10/07/2018	09/06/2024	EPA MCL	70	0.32	U	No	4	25	NP Kaplan-Meier	0.862	0.5
MW-123	Yes	1,1,1-Trichloroethane	µg/L	04/25/2021	09/08/2024	EPA MCL	200	0.39	U	No	8	87.5	Does not take in to account ND status	0.315	0.104
MW-123	Yes	1,1-Dichloroethene	µg/L	04/25/2021	09/08/2024	EPA MCL	7	0.23	U	No	8	87.5	Does not take in to account ND status	0.24	0.0245
MW-123	Yes	Dichlorodifluoromethane	µg/L	04/25/2021	09/08/2024	NA	NA	0.3	U	NC	8	87.5	Does not take in to account ND status	0.559	0.333
MW-123	Yes	Tetrachloroethene	µg/L	04/25/2021	09/08/2024	EPA MCL	5	3.4		No	8	0	Ordinary nonparametric bootstrap	3.99	1.5
MW-123	Yes	Trichloroethene	µg/L	04/25/2021	09/08/2024	EPA MCL	5	47		Yes	8	0	Ordinary nonparametric bootstrap	52.6	7.46
MW-124	Yes	1,1-Dichloroethane	µg/L	04/12/2023	09/09/2024	NA	NA	0.68	J	NC	6	0	Ordinary nonparametric bootstrap	1.26	0.34
MW-124	Yes	1,1-Dichloroethene	µg/L	04/12/2023	09/09/2024	EPA MCL	7	0.23	U	No	6	66.7	NP Kaplan-Meier	0.31	0.101
MW-124	Yes	1,2-Dichlorobenzene	µg/L	04/12/2023	09/09/2024	EPA MCL	600	1.2		No	6	0	Ordinary nonparametric bootstrap	2.15	0.609
MW-124	Yes	1,2-Dichloroethane	µg/L	04/12/2023	09/09/2024	EPA MCL	5	0.28	U	No	6	83.3	Does not take in to account ND status	0.832	0.731
MW-124	Yes	1,2-Dichloropropane	µg/L	04/12/2023	09/09/2024	EPA MCL	5	0.24	U	No	6	50	NP Kaplan-Meier	0.598	0.209
MW-124	Yes	1,4-Dichlorobenzene	µg/L	04/12/2023	09/09/2024	EPA MCL	75	0.39	U	No	6	50	NP Kaplan-Meier	0.554	0.149
MW-124	Yes	Benzene	µg/L	04/12/2023	09/09/2024	EPA MCL	5	0.14	U	No	6	66.7	NP Kaplan-Meier	0.242	0.103
MW-124	Yes	Chloroform	µg/L	04/12/2023	09/09/2024	ID GW - PRIMARY	2	0.36	U	No	6	66.7	NP Kaplan-Meier	0.488	0.251
MW-124	Yes	Dichlorodifluoromethane	µg/L	04/12/2023	09/09/2024	NA	NA	0.34	J	NC	6	83.3	Does not take in to account ND status	1.38	1.32
MW-124	Yes	Tetrachloroethene	µg/L	04/12/2023	09/09/2024	EPA MCL	5	2.7		No	6	0	Ordinary nonparametric bootstrap	6.45	5.24
MW-124	Yes	Trichloroethene	µg/L	04/12/2023	09/09/2024	EPA MCL	5	73		Yes	6	0	Ordinary nonparametric bootstrap	91.5	58.7
MW-124	Yes	Vinyl chloride	µg/L	04/12/2023	09/09/2024	EPA MCL	2	5.8		Yes	6	0	Ordinary nonparametric bootstrap	6	1.2
MW-124	Yes	cis-1,2-Dichloroethene	µg/L	04/12/2023	09/09/2024	EPA MCL	70	23		No	6	0	Ordinary nonparametric bootstrap	39.8	20.7
MW-124	Yes	trans-1,2-Dichloroethene	µg/L	04/12/2023	09/09/2024	EPA MCL	100	0.37	U	No	6	83.3	Does not take in to account ND status	0.625	0.453
MW-125	Yes	1,1-Dichloroethane	µg/L	04/12/2023	09/09/2024	NA	NA	0.35	J	NC	6	0	Ordinary nonparametric bootstrap	0.825	0.261
MW-125	Yes	1,1-Dichloroethene	µg/L	04/12/2023	09/09/2024	EPA MCL	7	0.23	U	No	6	50	NP Kaplan-Meier	0.252	0.0402
MW-125	Yes	1,2-Dichlorobenzene	µg/L	04/12/2023	09/09/2024	EPA MCL	600	0.47	J	No	6	33.3	NP Kaplan-Meier	0.465	0.0778
MW-125	Yes	Benzene	µg/L	04/12/2023	09/09/2024	EPA MCL	5	0.14	U	No	6	83.3	Does not take in to account ND status	0.26	0.0785
MW-125	Yes	Chloroform	µg/L	04/12/2023	09/09/2024	ID GW - PRIMARY	2	0.36	U	No	6	33.3	NP Kaplan-Meier	0.91	0.523
MW-125	Yes	Dichlorodifluoromethane	µg/L	04/12/2023	09/09/2024	NA	NA	0.76	J	NC	6	16.7	NP Kaplan-Meier	1.59	0.747
MW-125	Yes	Tetrachloroethene	µg/L	04/12/2023	09/09/2024	EPA MCL	5	1.6		No	6	0	Ordinary nonparametric bootstrap	8.52	6.7
MW-125	Yes	Trichloroethene	µg/L	04/12/2023	09/09/2024	EPA MCL	5	14		Yes	6	0	Ordinary nonparametric bootstrap	49.3	32.4
MW-125	Yes	Trichlorofluoromethane	µg/L	04/12/2023	09/09/2024	NA	NA	0.2	U	NC	6	83.3	Does not take in to account ND status	0.515	0.291
MW-125	Yes	Vinyl chloride	µg/L	04/12/2023	09/09/2024	EPA MCL	2	5.8		Yes	6	50	NP Kaplan-Meier	2.94	3.22
MW-125	Yes	cis-1,2-Dichloroethene	µg/L	04/12/2023	09/09/2024	EPA MCL	70	6.6		No	6	0	Ordinary nonparametric bootstrap	12.5	9.36
RW-1	Yes	1,1,1-Trichloroethane	µg/L	01/26/2018	09/06/2024	EPA MCL	200	0.39	U	No	7	85.7	Does not take in to account ND status	0.53	0.478
RW-1	Yes	1,1-Dichloroethane	µg/L	01/26/2018	09/06/2024	NA	NA	0.44	J	NC	7	0	Ordinary nonparametric bootstrap	1.24	0.472
RW-1	Yes	1,1-Dichloroethene	µg/L	01/26/2018	09/06/2024	EPA MCL	7	0.23	U	No	7	71.4	NP Kaplan-Meier	0.289	0.117
RW-1	Yes	1,2-Dichlorobenzene	µg/L	01/26/2018	09/06/2024	EPA MCL	600	2.3		No	7	0	Ordinary nonparametric bootstrap	1.98	0.818
RW-1	Yes	1,2-Dichloroethane	µg/L	01/26/2018	09/06/2024	EPA MCL	5	0.28	U	No	7	85.7	Does not take in to account ND status	0.617	0.707

Table G.1
Cell 1 Statistical Results - VOCs

Dataset				Confidence limits				Trend analysis								
Well ID	RCRA regulated chemical	Analyte	Unit	CL method	CL conf	UCL of the mean	UCL > Standard	TS Slope	TS Intercept	p-value	Confidence Level %	S	sd(S)	Z	GSI COV	GSI Toolkit Trend
MW-120S	Yes	Tetrachloroethene	µg/L	BCa bootstrap	0.95	17.3	Yes	-0.00412	92.8	0.000174	100	-79	21.8	-3.58	0.272	Decreasing
MW-120S	Yes	Trichloroethene	µg/L	BCa bootstrap	0.95	146	Yes	-0.0178	465	0.00268	99.7	-62	21.9	-2.78	0.223	Decreasing
MW-120S	Yes	Vinyl chloride	µg/L	Bootstrap	0.95	1.76	No	-0.000538	11.4	0.0431	95.7	-39	22.1	-1.72	0.612	Decreasing
MW-120S	Yes	cis-1,2-Dichloroethene	µg/L	BCa bootstrap	0.95	25.2	No	0.00173	-14.7	0.0613	93.9	35	22	1.54	0.435	Probably Increasing
MW-120S	Yes	trans-1,2-Dichloroethene	µg/L	Bootstrap	0.95	0.178	No	NC	NC	NC	NC	NC	NC	NC	0.546	NC
MW-121	Yes	1,1-Dichloroethane	µg/L	Bootstrap	0.95	0.725	NC	NC	NC	NC	NC	NC	NC	NC	0.471	NC
MW-121	Yes	1,2-Dichlorobenzene	µg/L	BCa bootstrap	0.95	0.755	No	NC	NC	NC	NC	NC	NC	NC	0.463	NC
MW-121	Yes	1,4-Dichlorobenzene	µg/L	Bootstrap	0.95	0.435	No	NC	NC	NC	NC	NC	NC	NC	0.289	NC
MW-121	Yes	Benzene	µg/L	Bootstrap	0.95	0.525	No	NC	NC	NC	NC	NC	NC	NC	0.7	NC
MW-121	Yes	Chlorobenzene	µg/L	Bootstrap	0.95	2.2	No	NC	NC	NC	NC	NC	NC	NC	0.645	NC
MW-121	Yes	Dichlorodifluoromethane	µg/L	Bootstrap	0.95	1.36	NC	NC	NC	NC	NC	NC	NC	NC	0.352	NC
MW-121	Yes	Tetrachloroethene	µg/L	BCa bootstrap	0.95	3.45	No	NC	NC	NC	NC	NC	NC	NC	0.665	NC
MW-121	Yes	Trichloroethene	µg/L	BCa bootstrap	0.95	7.68	Yes	NC	NC	NC	NC	NC	NC	NC	0.599	NC
MW-121	Yes	cis-1,2-Dichloroethene	µg/L	Bootstrap	0.95	1.35	No	NC	NC	NC	NC	NC	NC	NC	0.67	NC
MW-123	Yes	1,1,1-Trichloroethane	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.332	NC
MW-123	Yes	1,1-Dichloroethene	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.102	NC
MW-123	Yes	Dichlorodifluoromethane	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.595	NC
MW-123	Yes	Tetrachloroethene	µg/L	BCa bootstrap	0.95	5.04	Yes	0.000487	-5.29	0.227	77.3	7	8.02	0.748	0.375	No trend
MW-123	Yes	Trichloroethene	µg/L	BCa bootstrap	0.95	57.4	Yes	-0.00654	179	0.193	80.7	-8	8.08	-0.866	0.142	Stable
MW-124	Yes	1,1-Dichloroethane	µg/L	BCa bootstrap	0.95	1.5	NC	-0.00149	30.6	0.0257	97.4	-11	5.13	-1.95	0.269	Decreasing
MW-124	Yes	1,1-Dichloroethene	µg/L	Bootstrap	0.95	0.406	No	NC	NC	NC	NC	NC	NC	NC	0.653	NC
MW-124	Yes	1,2-Dichlorobenzene	µg/L	BCa bootstrap	0.95	2.62	No	-0.00233	47.8	0.0301	97	-11	5.32	-1.88	0.283	Decreasing
MW-124	Yes	1,2-Dichloroethane	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.879	NC
MW-124	Yes	1,2-Dichloropropane	µg/L	Bootstrap	0.95	0.747	No	-0.00147	29.7	0.0664	93.4	-9	5.32	-1.5	0.689	Probably Decreasing
MW-124	Yes	1,4-Dichlorobenzene	µg/L	Bootstrap	0.95	0.682	No	-0.000918	18.6	0.0177	98.2	-12	5.22	-2.11	0.621	Decreasing
MW-124	Yes	Benzene	µg/L	Bootstrap	0.95	0.35	No	NC	NC	NC	NC	NC	NC	NC	0.768	NC
MW-124	Yes	Chloroform	µg/L	Bootstrap	0.95	0.74	No	NC	NC	NC	NC	NC	NC	NC	0.702	NC
MW-124	Yes	Dichlorodifluoromethane	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.96	NC
MW-124	Yes	Tetrachloroethene	µg/L	BCa bootstrap	0.95	10.2	Yes	-0.018	362	0.13	87	-7	5.32	-1.13	0.812	Stable
MW-124	Yes	Trichloroethene	µg/L	BCa bootstrap	0.95	134	Yes	-0.169	3440	0.283	71.7	-4	5.22	-0.574	0.641	Stable
MW-124	Yes	Vinyl chloride	µg/L	BCa bootstrap	0.95	6.85	Yes	-0.003	65.4	0.354	64.6	-3	5.32	-0.376	0.201	Stable
MW-124	Yes	cis-1,2-Dichloroethene	µg/L	BCa bootstrap	0.95	55.8	No	-0.0103	231	0.226	77.4	-5	5.32	-0.752	0.519	Stable
MW-124	Yes	trans-1,2-Dichloroethene	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.724	NC
MW-125	Yes	1,1-Dichloroethane	µg/L	BCa bootstrap	0.95	0.992	NC	-0.00114	23.2	0.0301	97	-11	5.32	-1.88	0.316	Decreasing
MW-125	Yes	1,1-Dichloroethene	µg/L	Bootstrap	0.95	0.288	No	0	0.23	0.184	81.6	-5	4.44	-0.901	0.175	Stable
MW-125	Yes	1,2-Dichlorobenzene	µg/L	Bootstrap	0.95	0.527	No	0.000207	-3.65	0.169	83.1	6	5.22	0.957	0.183	No trend
MW-125	Yes	Benzene	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.302	NC
MW-125	Yes	Chloroform	µg/L	Bootstrap	0.95	1.35	No	-0.00291	58.2	0.00645	99.4	-14	5.22	-2.49	0.63	Decreasing
MW-125	Yes	Dichlorodifluoromethane	µg/L	Bootstrap	0.95	2.21	NC	-0.0032	64.6	0.0664	93.4	-9	5.32	-1.5	0.482	Probably Decreasing
MW-125	Yes	Tetrachloroethene	µg/L	BCa bootstrap	0.95	13.7	Yes	-0.0324	646	0.0121	98.8	-13	5.32	-2.26	0.787	Decreasing
MW-125	Yes	Trichloroethene	µg/L	BCa bootstrap	0.95	72.8	Yes	-0.147	2950	0.0121	98.8	-13	5.32	-2.26	0.657	Decreasing
MW-125	Yes	Trichlorofluoromethane	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.565	NC
MW-125	Yes	Vinyl chloride	µg/L	Bootstrap	0.95	5.7	Yes	0.011	-213	0.035	96.5	10	4.97	1.81	1.2	Increasing
MW-125	Yes	cis-1,2-Dichloroethene	µg/L	BCa bootstrap	0.95	20.5	No	-0.000414	17.3	0.5	50	-1	5.32	0	0.751	Stable
RW-1	Yes	1,1,1-Trichloroethane	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.9	NC
RW-1	Yes	1,1-Dichloroethane	µg/L	BCa bootstrap	0.95	1.55	NC	-0.000193	5.09	0.274	72.6	-5	6.66	-0.601	0.381	Stable
RW-1	Yes	1,1-Dichloroethene	µg/L	Bootstrap	0.95	0.4	No	NC	NC	NC	NC	NC	NC	NC	0.578	NC
RW-1	Yes	1,2-Dichlorobenzene	µg/L	BCa bootstrap	0.95	2.54	No	0.000732	-12.1	0.0049	99.5	18	6.58	2.58	0.414	Increasing
RW-1	Yes	1,2-Dichloroethane	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	1.15	NC

Table G.1
Cell 1 Statistical Results - VOCs

Dataset				General											
Well ID	RCRA regulated chemical	Analyte	Unit	Min Date	Max Date	Standard source	Standard	Latest Result	Last Q	Latest Result > Standard	Dataset n	ND %	Parameter est. method	Dataset mean	sd
RW-1	Yes	1,2-Dichloropropane	µg/L	01/26/2018	09/06/2024	EPA MCL	5	0.24	U	No	7	42.9	NP Kaplan-Meier	0.474	0.197
RW-1	Yes	1,4-Dichlorobenzene	µg/L	01/26/2018	09/06/2024	EPA MCL	75	0.39	U	No	7	42.9	NP Kaplan-Meier	0.567	0.214
RW-1	Yes	Benzene	µg/L	01/26/2018	09/06/2024	EPA MCL	5	0.14	U	No	7	57.1	NP Kaplan-Meier	0.265	0.105
RW-1	Yes	Chlorobenzene	µg/L	01/26/2018	09/06/2024	EPA MCL	100	0.092	U	No	7	85.7	Does not take in to account ND status	0.5	0.543
RW-1	Yes	Chloroform	µg/L	01/26/2018	09/06/2024	ID GW - PRIMARY	2	0.36	U	No	7	14.3	NP Kaplan-Meier	0.884	0.721
RW-1	Yes	Dichlorodifluoromethane	µg/L	01/26/2018	09/06/2024	NA	NA	0.3	U	NC	7	71.4	NP Kaplan-Meier	0.413	0.0939
RW-1	Yes	Tetrachloroethene	µg/L	01/26/2018	09/06/2024	EPA MCL	5	12		Yes	7	0	Ordinary nonparametric bootstrap	17.1	6.65
RW-1	Yes	Trichloroethene	µg/L	01/26/2018	09/06/2024	EPA MCL	5	100		Yes	7	0	Ordinary nonparametric bootstrap	157	51.3
RW-1	Yes	Vinyl chloride	µg/L	01/26/2018	09/06/2024	EPA MCL	2	4.2		Yes	7	14.3	NP Kaplan-Meier	4.43	2.41
RW-1	Yes	cis-1,2-Dichloroethene	µg/L	01/26/2018	09/06/2024	EPA MCL	70	17		No	7	0	Ordinary nonparametric bootstrap	19.7	5.01
RW-2	Yes	1,1,1-Trichloroethane	µg/L	01/26/2018	09/06/2024	EPA MCL	200	0.39	U	No	9	88.9	Does not take in to account ND status	0.537	0.552
RW-2	Yes	1,1-Dichloroethane	µg/L	01/26/2018	09/06/2024	NA	NA	0.85	J	NC	9	0	Ordinary nonparametric bootstrap	1.19	0.15
RW-2	Yes	1,1-Dichloroethene	µg/L	01/26/2018	09/06/2024	EPA MCL	7	0.23	U	No	9	88.9	Does not take in to account ND status	0.385	0.314
RW-2	Yes	1,2-Dichlorobenzene	µg/L	01/26/2018	09/06/2024	EPA MCL	600	1.6		No	9	0	Ordinary nonparametric bootstrap	1.57	0.582
RW-2	Yes	1,2-Dichloropropane	µg/L	01/26/2018	09/06/2024	EPA MCL	5	0.42	J	No	9	22.2	NP Kaplan-Meier	0.553	0.167
RW-2	Yes	1,4-Dichlorobenzene	µg/L	01/26/2018	09/06/2024	EPA MCL	75	0.5	J	No	9	66.7	NP Kaplan-Meier	0.324	0.218
RW-2	Yes	2-Butanone (MEK)	µg/L	01/26/2018	09/06/2024	NA	NA	4.6	U	NC	9	88.9	Does not take in to account ND status	8.94	9.54
RW-2	Yes	Benzene	µg/L	01/26/2018	09/06/2024	EPA MCL	5	0.25	J	No	9	55.6	NP Kaplan-Meier	0.274	0.0729
RW-2	Yes	Chlorobenzene	µg/L	01/26/2018	09/06/2024	EPA MCL	100	0.28	J	No	9	77.8	NP Kaplan-Meier	0.191	0.077
RW-2	Yes	Chloroform	µg/L	01/26/2018	09/06/2024	ID GW - PRIMARY	2	0.51	J	No	9	11.1	NP Kaplan-Meier	0.856	0.314
RW-2	Yes	Dichlorodifluoromethane	µg/L	01/26/2018	09/06/2024	NA	NA	0.3	U	NC	9	66.7	NP Kaplan-Meier	0.566	0.243
RW-2	Yes	Tetrachloroethene	µg/L	01/26/2018	09/06/2024	EPA MCL	5	5.3		Yes	9	0	Ordinary nonparametric bootstrap	13.7	10.1
RW-2	Yes	Trichloroethene	µg/L	01/26/2018	09/06/2024	EPA MCL	5	79		Yes	9	0	Ordinary nonparametric bootstrap	120	50.2
RW-2	Yes	Vinyl chloride	µg/L	01/26/2018	09/06/2024	EPA MCL	2	3.9		Yes	9	33.3	NP Kaplan-Meier	3.18	3.12
RW-2	Yes	cis-1,2-Dichloroethene	µg/L	01/26/2018	09/06/2024	EPA MCL	70	21		No	9	0	Ordinary nonparametric bootstrap	31.2	18
RW-2	Yes	trans-1,2-Dichloroethene	µg/L	01/26/2018	09/06/2024	EPA MCL	100	0.37	U	No	9	88.9	Does not take in to account ND status	0.518	0.484
RW-3	Yes	1,1,1-Trichloroethane	µg/L	01/26/2018	09/06/2024	EPA MCL	200	0.39	U	No	9	77.8	NP Kaplan-Meier	0.265	0.125
RW-3	Yes	1,1-Dichloroethane	µg/L	01/26/2018	09/06/2024	NA	NA	0.22	U	NC	9	44.4	NP Kaplan-Meier	1.53	2.09
RW-3	Yes	1,1-Dichloroethene	µg/L	01/26/2018	09/06/2024	EPA MCL	7	0.23	U	No	9	77.8	NP Kaplan-Meier	0.347	0.212
RW-3	Yes	1,2-Dichlorobenzene	µg/L	01/26/2018	09/06/2024	EPA MCL	600	0.14	U	No	9	55.6	NP Kaplan-Meier	0.355	0.281
RW-3	Yes	1,2-Dichloropropane	µg/L	01/26/2018	09/06/2024	EPA MCL	5	0.24	U	No	9	66.7	NP Kaplan-Meier	0.384	0.328
RW-3	Yes	1,4-Dichlorobenzene	µg/L	01/26/2018	09/06/2024	EPA MCL	75	0.39	U	No	9	77.8	NP Kaplan-Meier	0.306	0.31
RW-3	Yes	Benzene	µg/L	01/26/2018	09/06/2024	EPA MCL	5	0.14	U	No	9	77.8	NP Kaplan-Meier	0.31	0.319
RW-3	Yes	Chlorobenzene	µg/L	01/26/2018	09/06/2024	EPA MCL	100	0.45	J	No	9	66.7	NP Kaplan-Meier	0.326	0.245
RW-3	Yes	Chloroform	µg/L	01/26/2018	09/06/2024	ID GW - PRIMARY	2	0.36	U	No	9	44.4	NP Kaplan-Meier	0.466	0.228
RW-3	Yes	Dichlorodifluoromethane	µg/L	01/26/2018	09/06/2024	NA	NA	0.43	J	NC	9	33.3	NP Kaplan-Meier	1.26	1.16
RW-3	Yes	Tetrachloroethene	µg/L	01/26/2018	09/06/2024	EPA MCL	5	2.3		No	9	0	Ordinary nonparametric bootstrap	8.16	6.57
RW-3	Yes	Trichloroethene	µg/L	01/26/2018	09/06/2024	EPA MCL	5	2		No	9	0	Ordinary nonparametric bootstrap	47.8	53.7
RW-3	Yes	Vinyl chloride	µg/L	01/26/2018	09/06/2024	EPA MCL	2	0.23	U	No	9	55.6	NP Kaplan-Meier	0.817	0.733
RW-3	Yes	cis-1,2-Dichloroethene	µg/L	01/26/2018	09/06/2024	EPA MCL	70	0.32	U	No	9	44.4	NP Kaplan-Meier	4.25	4.37

See Appendix G Table Notes

Table G.1
Cell 1 Statistical Results - VOCs

Dataset				Confidence limits				Trend analysis								
Well ID	RCRA regulated chemical	Analyte	Unit	CL method	CL conf	UCL of the mean	UCL > Standard	TS Slope	TS Intercept	p-value	Confidence Level %	S	sd(S)	Z	GSI COV	GSI Toolkit Trend
RW-1	Yes	1,2-Dichloropropane	µg/L	Bootstrap	0.95	0.632	No	-0.0000287	1.19	0.44	56	-2	6.58	-0.152	0.89	Stable
RW-1	Yes	1,4-Dichlorobenzene	µg/L	Bootstrap	0.95	0.732	No	0.000048	-0.198	0.382	61.8	3	6.66	0.3	0.585	No trend
RW-1	Yes	Benzene	µg/L	Bootstrap	0.95	0.372	No	NC	NC	NC	NC	NC	NC	NC	0.799	NC
RW-1	Yes	Chlorobenzene	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	1.09	NC
RW-1	Yes	Chloroform	µg/L	Bootstrap	0.95	1.49	No	-0.000152	3.43	0.184	81.6	-7	6.66	-0.901	0.881	Stable
RW-1	Yes	Dichlorodifluoromethane	µg/L	Bootstrap	0.95	0.53	NC	NC	NC	NC	NC	NC	NC	NC	1.23	NC
RW-1	Yes	Tetrachloroethene	µg/L	BCa bootstrap	0.95	21.9	Yes	-0.00506	113	0.144	85.6	-8	6.58	-1.06	0.39	Stable
RW-1	Yes	Trichloroethene	µg/L	BCa bootstrap	0.95	194	Yes	-0.0264	628	0.115	88.5	-9	6.66	-1.2	0.328	Stable
RW-1	Yes	Vinyl chloride	µg/L	Bootstrap	0.95	6.17	Yes	0.00163	-28.1	0.274	72.6	5	6.66	0.601	0.588	No trend
RW-1	Yes	cis-1,2-Dichloroethene	µg/L	BCa bootstrap	0.95	23	No	0.000092	20.2	0.44	56	2	6.58	0.152	0.254	No trend
RW-2	Yes	1,1,1-Trichloroethane	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	1.03	NC
RW-2	Yes	1,1-Dichloroethane	µg/L	BCa bootstrap	0.95	1.27	NC	-0.0000537	2.24	0.0187	98.1	-20	9.13	-2.08	0.127	Decreasing
RW-2	Yes	1,1-Dichloroethene	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.815	NC
RW-2	Yes	1,2-Dichlorobenzene	µg/L	BCa bootstrap	0.95	1.93	No	0.000365	-5.52	0.0853	91.5	14	9.49	1.37	0.37	Probably Increasing
RW-2	Yes	1,2-Dichloropropane	µg/L	Bootstrap	0.95	0.681	No	0.000103	-1.4	0.174	82.6	10	9.59	0.938	0.878	No trend
RW-2	Yes	1,4-Dichlorobenzene	µg/L	Bootstrap	0.95	0.516	No	NC	NC	NC	NC	NC	NC	NC	0.912	NC
RW-2	Yes	2-Butanone (MEK)	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	1.07	NC
RW-2	Yes	Benzene	µg/L	Bootstrap	0.95	0.341	No	NC	NC	NC	NC	NC	NC	NC	0.913	NC
RW-2	Yes	Chlorobenzene	µg/L	Bootstrap	0.95	0.28	No	NC	NC	NC	NC	NC	NC	NC	1.18	NC
RW-2	Yes	Chloroform	µg/L	Bootstrap	0.95	1.08	No	-0.000242	5.36	0.147	85.3	-11	9.54	-1.05	0.463	Stable
RW-2	Yes	Dichlorodifluoromethane	µg/L	Bootstrap	0.95	0.785	NC	NC	NC	NC	NC	NC	NC	NC	1.19	NC
RW-2	Yes	Tetrachloroethene	µg/L	BCa bootstrap	0.95	20.4	Yes	-0.0108	221	0.00594	99.4	-25	9.54	-2.52	0.735	Decreasing
RW-2	Yes	Trichloroethene	µg/L	BCa bootstrap	0.95	148	Yes	-0.0379	837	0.0382	96.2	-18	9.59	-1.77	0.419	Decreasing
RW-2	Yes	Vinyl chloride	µg/L	Bootstrap	0.95	5.45	Yes	0.00164	-28.7	0.0382	96.2	18	9.59	1.77	1.02	Increasing
RW-2	Yes	cis-1,2-Dichloroethene	µg/L	BCa bootstrap	0.95	43	No	0.00852	-134	0.0711	92.9	15	9.54	1.47	0.576	Probably Increasing
RW-2	Yes	trans-1,2-Dichloroethene	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.935	NC
RW-3	Yes	1,1,1-Trichloroethane	µg/L	Bootstrap	0.95	0.405	No	NC	NC	NC	NC	NC	NC	NC	0.506	NC
RW-3	Yes	1,1-Dichloroethane	µg/L	Bootstrap	0.95	3.06	NC	-0.000614	12.4	0.000831	99.9	-31	9.54	-3.14	1.33	Decreasing
RW-3	Yes	1,1-Dichloroethene	µg/L	Bootstrap	0.95	0.507	No	NC	NC	NC	NC	NC	NC	NC	0.737	NC
RW-3	Yes	1,2-Dichlorobenzene	µg/L	Bootstrap	0.95	0.587	No	NC	NC	NC	NC	NC	NC	NC	0.628	NC
RW-3	Yes	1,2-Dichloropropane	µg/L	Bootstrap	0.95	0.637	No	NC	NC	NC	NC	NC	NC	NC	0.629	NC
RW-3	Yes	1,4-Dichlorobenzene	µg/L	Bootstrap	0.95	0.587	No	NC	NC	NC	NC	NC	NC	NC	0.6	NC
RW-3	Yes	Benzene	µg/L	Bootstrap	0.95	0.565	No	NC	NC	NC	NC	NC	NC	NC	0.74	NC
RW-3	Yes	Chlorobenzene	µg/L	Bootstrap	0.95	0.53	No	NC	NC	NC	NC	NC	NC	NC	0.601	NC
RW-3	Yes	Chloroform	µg/L	Bootstrap	0.95	0.641	No	-0.000101	2.37	0.168	83.2	-10	9.34	-0.963	0.393	Stable
RW-3	Yes	Dichlorodifluoromethane	µg/L	Bootstrap	0.95	2.08	NC	-0.000875	18	0.0143	98.6	-22	9.59	-2.19	0.742	Decreasing
RW-3	Yes	Tetrachloroethene	µg/L	BCa bootstrap	0.95	12.5	Yes	-0.00474	96.6	0.0238	97.6	-20	9.59	-1.98	0.805	Decreasing
RW-3	Yes	Trichloroethene	µg/L	BCa bootstrap	0.95	81.1	Yes	-0.0354	706	0.0143	98.6	-22	9.59	-2.19	1.12	Decreasing
RW-3	Yes	Vinyl chloride	µg/L	Bootstrap	0.95	1.34	No	NC	NC	NC	NC	NC	NC	NC	0.782	NC
RW-3	Yes	cis-1,2-Dichloroethene	µg/L	Bootstrap	0.95	7.2	No	-0.0035	69.7	0.0167	98.3	-21	9.4	-2.13	1.08	Decreasing

See Appendix G Table Notes

Table G.2
Offsite Statistical Results - VOCs

Dataset				General											
Well ID	RCRA regulated chemical	Analyte	Unit	Min Date	Max Date	Standard source	Standard	Latest Result	Last Q	Latest Result > Standard	Dataset n	ND %	Parameter est. method	Dataset mean	sd
MW-103S	Yes	1,2-Dichloroethane	µg/L	08/09/2017	09/09/2024	EPA MCL	5	0.28	U	No	14	85.7	NP Kaplan-Meier	0.147	0.0243
MW-103S	Yes	Chloroform	µg/L	08/09/2017	09/09/2024	ID GW - PRIMARY	2	0.36	U	No	14	92.9	Does not take in to account ND status	0.267	0.0967
MW-103S	Yes	Tetrachloroethene	µg/L	08/09/2017	09/09/2024	EPA MCL	5	0.4	U	No	15	20	NP Kaplan-Meier	1.54	1.26
MW-103S	Yes	Trichloroethene	µg/L	08/09/2017	09/09/2024	EPA MCL	5	0.3	U	No	15	13.3	NP Kaplan-Meier	8.17	7.76
MW-103S	Yes	cis-1,2-Dichloroethene	µg/L	08/09/2017	09/09/2024	EPA MCL	70	0.32	U	No	15	46.7	NP Kaplan-Meier	0.559	0.615
MW-115S	Yes	Tetrachloroethene	µg/L	08/15/2017	09/08/2024	EPA MCL	5	0.4	U	No	13	92.3	Does not take in to account ND status	0.369	0.336
MW-115S	Yes	Trichloroethene	µg/L	08/15/2017	09/08/2024	EPA MCL	5	0.94	J	No	13	30.8	NP Kaplan-Meier	1.56	3.1
MW-116S	Yes	1,1,1-Trichloroethane	µg/L	08/11/2017	09/08/2024	EPA MCL	200	0.39	U	No	13	92.3	Does not take in to account ND status	0.272	0.108
MW-116S	Yes	1,1-Dichloroethane	µg/L	08/11/2017	09/08/2024	NA	NA	0.22	U	NC	13	84.6	NP Kaplan-Meier	0.213	0.0329
MW-116S	Yes	1,2-Dichloroethane	µg/L	08/11/2017	09/08/2024	EPA MCL	5	0.28	U	No	13	84.6	NP Kaplan-Meier	0.147	0.0276
MW-116S	Yes	1,2-Dichloropropane	µg/L	08/11/2017	09/08/2024	EPA MCL	5	0.24	U	No	13	92.3	Does not take in to account ND status	0.286	0.14
MW-116S	Yes	Allyl chloride	µg/L	08/11/2017	09/08/2024	NA	NA	0.46	U	NC	13	92.3	Does not take in to account ND status	0.385	0.434
MW-116S	Yes	Chloroform	µg/L	08/11/2017	09/08/2024	ID GW - PRIMARY	2	0.36	U	No	13	69.2	NP Kaplan-Meier	0.218	0.062
MW-116S	Yes	Tetrachloroethene	µg/L	08/11/2017	09/08/2024	EPA MCL	5	1.9		No	13	0	Ordinary nonparametric bootstrap	2.72	1.27
MW-116S	Yes	Trichloroethene	µg/L	08/11/2017	09/08/2024	EPA MCL	5	10		Yes	13	0	Ordinary nonparametric bootstrap	21	10.3
MW-116S	Yes	Vinyl acetate	µg/L	08/11/2017	09/08/2024	NA	NA	0.36	U	NC	13	92.3	Does not take in to account ND status	0.908	0.308
MW-116S	Yes	Xylenes, total	µg/L	08/11/2017	09/08/2024	EPA MCL	10000	0.11	U	No	13	92.3	Does not take in to account ND status	0.278	0.246
MW-116S	Yes	cis-1,2-Dichloroethene	µg/L	08/11/2017	09/08/2024	EPA MCL	70	0.73	J	No	13	0	Ordinary nonparametric bootstrap	1.23	0.794
MW-116S	No	m,p-Xylene	µg/L	06/28/2019	09/08/2024	EPA MCL	10000	0.36	U	No	11	90.9	Does not take in to account ND status	0.255	0.103

See Appendix G Table Notes

Table G.2
Offsite Statistical Results - VOCs

Dataset				Confidence limits				Trend analysis								
Well ID	RCRA regulated chemical	Analyte	Unit	CL method	CL conf	UCL of the mean	UCL > Standard	TS Slope	TS Intercept	p-value	Confidence Level %	S	sd(S)	Z	GSI COV	GSI Toolkit Trend
MW-103S	Yes	1,2-Dichloroethane	µg/L	Bootstrap	0.95	0.17	No	NC	NC	NC	NC	NC	NC	NC	0.538	NC
MW-103S	Yes	Chloroform	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.363	NC
MW-103S	Yes	Tetrachloroethene	µg/L	Bootstrap	0.95	2.25	No	-0.000169	4.22	0.259	74.1	-14	20.1	-0.646	0.846	Stable
MW-103S	Yes	Trichloroethene	µg/L	Bootstrap	0.95	12.4	Yes	-0.000954	24.2	0.31	69	-11	20.1	-0.496	0.983	Stable
MW-103S	Yes	cis-1,2-Dichloroethene	µg/L	Bootstrap	0.95	0.916	No	0.0000251	-0.174	0.291	70.9	12	20	0.551	0.991	No trend
MW-115S	Yes	Tetrachloroethene	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.909	NC
MW-115S	Yes	Trichloroethene	µg/L	Bootstrap	0.95	3.4	No	0.0000408	-0.376	0.356	64.4	7	16.3	0.369	2.07	No trend
MW-116S	Yes	1,1,1-Trichloroethane	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.396	NC
MW-116S	Yes	1,1-Dichloroethane	µg/L	Bootstrap	0.95	0.243	NC	NC	NC	NC	NC	NC	NC	NC	0.13	NC
MW-116S	Yes	1,2-Dichloroethane	µg/L	Bootstrap	0.95	0.17	No	NC	NC	NC	NC	NC	NC	NC	0.595	NC
MW-116S	Yes	1,2-Dichloropropane	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.491	NC
MW-116S	Yes	Allyl chloride	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	1.13	NC
MW-116S	Yes	Chloroform	µg/L	Bootstrap	0.95	0.27	No	NC	NC	NC	NC	NC	NC	NC	0.287	NC
MW-116S	Yes	Tetrachloroethene	µg/L	BCa bootstrap	0.95	3.44	No	-0.000777	17.2	0.012	98.8	-38	16.4	-2.26	0.467	Decreasing
MW-116S	Yes	Trichloroethene	µg/L	BCa bootstrap	0.95	26.4	Yes	-0.0109	227	0.00246	99.8	-47	16.4	-2.81	0.494	Decreasing
MW-116S	Yes	Vinyl acetate	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.339	NC
MW-116S	Yes	Xylenes, total	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.884	NC
MW-116S	Yes	cis-1,2-Dichloroethene	µg/L	BCa bootstrap	0.95	1.7	No	-0.000791	16.2	0.0014	99.9	-50	16.4	-2.99	0.643	Decreasing
MW-116S	No	m,p-Xylene	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	0.403	NC

See Appendix G Table Notes

Table G.3
Remediation System Extraction Well Statistical Results - PCE and TCE

Dataset				General											
Well ID	RCRA regulated chemical	Analyte	Unit	Min Date	Max Date	Standard source	Standard	Latest Result	Last Q	Latest Result > Standard	Dataset n	ND %	Parameter est. method	Dataset mean	sd
RW-10	Yes	Tetrachloroethene	µg/L	01/26/2018	09/10/2024	EPA MCL	5	14		Yes	16	0	Ordinary nonparametric bootstrap	19	6.83
RW-10	Yes	Trichloroethene	µg/L	01/26/2018	09/10/2024	EPA MCL	5	45		Yes	16	0	Ordinary nonparametric bootstrap	73.7	27.6
RW-15	Yes	Tetrachloroethene	µg/L	01/26/2018	09/10/2024	EPA MCL	5	15		Yes	14	0	Ordinary nonparametric bootstrap	21.3	5.13
RW-15	Yes	Trichloroethene	µg/L	01/26/2018	09/10/2024	EPA MCL	5	80		Yes	14	0	Ordinary nonparametric bootstrap	116	26.3
RW-17	Yes	Tetrachloroethene	µg/L	01/26/2018	09/10/2024	EPA MCL	5	17		Yes	14	0	Ordinary nonparametric bootstrap	21	6.21
RW-17	Yes	Trichloroethene	µg/L	01/26/2018	09/10/2024	EPA MCL	5	61		Yes	14	0	Ordinary nonparametric bootstrap	86.1	24.1
RW-4	Yes	Tetrachloroethene	µg/L	01/26/2018	09/10/2024	EPA MCL	5	17		Yes	13	0	Ordinary nonparametric bootstrap	20.6	4.45
RW-4	Yes	Trichloroethene	µg/L	01/26/2018	09/10/2024	EPA MCL	5	96		Yes	13	0	Ordinary nonparametric bootstrap	119	18.5
RW-5	Yes	Tetrachloroethene	µg/L	01/26/2018	09/10/2024	EPA MCL	5	12		Yes	11	0	Ordinary nonparametric bootstrap	17.8	6.43
RW-5	Yes	Trichloroethene	µg/L	01/26/2018	09/10/2024	EPA MCL	5	36		Yes	11	0	Ordinary nonparametric bootstrap	72.1	29.5
RW-9R	Yes	Tetrachloroethene	µg/L	01/26/2018	09/10/2024	EPA MCL	5	8.5		Yes	13	0	Ordinary nonparametric bootstrap	13.4	4.21
RW-9R	Yes	Trichloroethene	µg/L	01/26/2018	09/10/2024	EPA MCL	5	86		Yes	13	0	Ordinary nonparametric bootstrap	137	38.6

See Appendix G Table Notes

Table G.3
Remediation System Extraction Well Statistical Results - PCE and TCE

Dataset				Confidence limits				Trend analysis								
Well ID	RCRA regulated chemical	Analyte	Unit	CL method	CL conf	UCL of the mean	UCL > Standard	TS Slope	TS Intercept	p-value	Confidence Level %	S	sd(S)	Z	GSI COV	GSI Toolkit Trend
RW-10	Yes	Tetrachloroethene	µg/L	BCa bootstrap	0.95	22.6	Yes	0.00229	-25.8	0.139	86.1	25	22.1	1.09	0.359	No trend
RW-10	Yes	Trichloroethene	µg/L	BCa bootstrap	0.95	87.3	Yes	0.00865	-90.4	0.209	79.1	19	22.2	0.812	0.375	No trend
RW-15	Yes	Tetrachloroethene	µg/L	BCa bootstrap	0.95	24	Yes	-0.000546	29.8	0.253	74.7	-13	18	-0.666	0.241	Stable
RW-15	Yes	Trichloroethene	µg/L	BCa bootstrap	0.95	130	Yes	-0.00831	265	0.175	82.5	-18	18.2	-0.934	0.226	Stable
RW-17	Yes	Tetrachloroethene	µg/L	BCa bootstrap	0.95	24.3	Yes	0.00144	-7.93	0.19	81	17	18.2	0.878	0.296	No trend
RW-17	Yes	Trichloroethene	µg/L	BCa bootstrap	0.95	98.8	Yes	0.00157	45.5	0.456	54.4	3	18.2	0.11	0.279	No trend
RW-4	Yes	Tetrachloroethene	µg/L	BCa bootstrap	0.95	23.3	Yes	0	19	0.354	64.6	-7	16	-0.375	0.215	Stable
RW-4	Yes	Trichloroethene	µg/L	BCa bootstrap	0.95	129	Yes	-0.00954	297	0.0477	95.2	-28	16.2	-1.67	0.155	**Decreasing**
RW-5	Yes	Tetrachloroethene	µg/L	BCa bootstrap	0.95	21.6	Yes	-0.000528	25.4	0.407	59.3	-4	12.8	-0.234	0.36	Stable
RW-5	Yes	Trichloroethene	µg/L	BCa bootstrap	0.95	89.2	Yes	-0.00744	206	0.32	68	-7	12.8	-0.467	0.41	Stable
RW-9R	Yes	Tetrachloroethene	µg/L	BCa bootstrap	0.95	15.7	Yes	-0.00121	35.1	0.149	85.1	-18	16.3	-1.04	0.313	Stable
RW-9R	Yes	Trichloroethene	µg/L	BCa bootstrap	0.95	157	Yes	-0.0141	409	0.0992	90.1	-22	16.3	-1.29	0.282	**Probably Decreasing**

See Appendix G Table Notes

Table G.4
Cell 1 Statistical Results - Inorganics

Dataset				General												Confidence limits				
Well ID	RCRA regulated chemical	Analyte	Unit	Min Date	Max Date	Standard source	Standard	Latest Result	Last Q	Latest Result > Standard	Dataset n	ND %	Parameter est. method	Dataset mean	sd	CL method	CL conf	UCL of the mean	UCL > Standard	LCL > Standard
MW-121	Yes	Arsenic	µg/L	10/07/2018	09/06/2024	EPA MCL	10	8		No	4	0	Ordinary nonparametric bootstrap	35.1	56.7	BCa bootstrap	0.95	92	Yes	No
MW-121	Yes	Barium	µg/L	10/07/2018	09/06/2024	EPA MCL	2000	630		No	4	0	Ordinary nonparametric bootstrap	845	448	BCa bootstrap	0.95	1280	No	No
MW-121	No	Calcium	µg/L	10/07/2018	09/06/2024	NA	NA	280000		NC	4	0	Ordinary nonparametric bootstrap	232000	34000	BCa bootstrap	0.95	265000	NC	NC
MW-121	Yes	Chromium	µg/L	10/07/2018	09/06/2024	EPA MCL	100	1.6	J	No	4	0	Ordinary nonparametric bootstrap	9.28	15.2	BCa bootstrap	0.95	24.4	No	No
MW-121	Yes	Cobalt	µg/L	10/07/2018	09/06/2024	NA	NA	9.6	J	NC	4	0	Ordinary nonparametric bootstrap	10.9	4.79	BCa bootstrap	0.95	15.6	NC	NC
MW-121	Yes	Copper	µg/L	10/07/2018	09/06/2024	EPA MCL	1300	3.2		No	4	0	Ordinary nonparametric bootstrap	3.1	0.606	BCa bootstrap	0.95	3.62	No	No
MW-121	No	Iron	µg/L	10/07/2018	09/06/2024	ID GW - SECONDARY	300	1700		Yes	4	0	Ordinary nonparametric bootstrap	7480	11700	BCa bootstrap	0.95	19200	Yes	Yes
MW-121	Yes	Lead	µg/L	10/07/2018	09/06/2024	ID GW - PRIMARY	15	1.3	J	No	4	0	Ordinary nonparametric bootstrap	2.24	1.79	BCa bootstrap	0.95	3.92	No	No
MW-121	No	Magnesium	µg/L	10/07/2018	09/06/2024	NA	NA	83000		NC	4	0	Ordinary nonparametric bootstrap	70000	10500	BCa bootstrap	0.95	78500	NC	NC
MW-121	No	Manganese	mg/L	10/07/2018	09/06/2024	ID GW - SECONDARY	0.05	1.1	J	Yes	4	0	Ordinary nonparametric bootstrap	1.27	0.624	BCa bootstrap	0.95	1.88	Yes	Yes
MW-121	Yes	Nickel	µg/L	10/07/2018	09/06/2024	NA	NA	42		NC	4	0	Ordinary nonparametric bootstrap	42.2	12.5	BCa bootstrap	0.95	53.5	NC	NC
MW-121	No	Potassium	µg/L	10/07/2018	09/06/2024	NA	NA	6300		NC	4	0	Ordinary nonparametric bootstrap	5700	816	BCa bootstrap	0.95	6400	NC	NC
MW-121	Yes	Silver	µg/L	10/07/2018	09/06/2024	ID GW - SECONDARY	100	0.045	U	No	4	75	Does not take in to account ND status	0.0958	0.11	stinct detected v	NC	NC	NC	NC
MW-121	No	Sodium	µg/L	10/07/2018	09/06/2024	NA	NA	190000		NC	4	0	Ordinary nonparametric bootstrap	170000	23100	BCa bootstrap	0.95	190000	NC	NC
MW-121	Yes	Vanadium	µg/L	10/07/2018	09/06/2024	NA	NA	4.2	J	NC	4	0	Ordinary nonparametric bootstrap	11.5	17	BCa bootstrap	0.95	28.4	NC	NC
MW-121	Yes	Zinc	µg/L	10/07/2018	09/06/2024	ID GW - SECONDARY	5000	3.7	J	No	4	25	NP Kaplan-Meier	7.35	3.65	Bootstrap	0.95	11	No	No

See Appendix G Table Notes

Table G.5
Cell 2 Statistical Results - VOCs

Dataset				General										
Well ID	RCRA regulated chemical	Analyte	Unit	Min Date	Max Date	Standard source	Standard	Latest Result	Last Q	Latest Result > Standard	Dataset n	ND %	Parameter est. method	Dataset mean	sd
MW-8	Yes	Acetone	µg/L	04/12/2018	09/06/2024	NA	NA	6.6	U	NC	14	92.9	Does not take in to account ND status	4.62	2.91
MW-8	Yes	Trichloroethene	µg/L	04/12/2018	09/06/2024	EPA MCL	5	0.3	U	No	14	92.9	Does not take in to account ND status	0.228	0.083
MW-9	Yes	1,2-Dichloroethane	µg/L	04/12/2018	09/09/2024	EPA MCL	5	0.28	U	No	14	85.7	NP Kaplan-Meier	0.155	0.0625
MW-9	Yes	Acetone	µg/L	04/12/2018	09/09/2024	NA	NA	6.6	U	NC	14	57.1	NP Kaplan-Meier	9.83	21.8
MW-9	Yes	Benzene	µg/L	04/12/2018	09/09/2024	EPA MCL	5	0.14	U	No	14	85.7	NP Kaplan-Meier	0.241	0.265
MW-9	Yes	Dichlorodifluoromethane	µg/L	04/12/2018	09/09/2024	NA	NA	0.3	U	NC	14	85.7	NP Kaplan-Meier	0.357	0.166
MW-9	Yes	Vinyl chloride	µg/L	04/12/2018	09/09/2024	EPA MCL	2	0.72	J	No	14	42.9	NP Kaplan-Meier	0.464	0.332
MW-12	Yes	1,2,4-Trichlorobenzene	µg/L	04/13/2018	09/04/2024	EPA MCL	70	0.58	U	No	13	92.3	Does not take in to account ND status	0.368	0.179
MW-12	Yes	1,2-Dichloroethane	µg/L	04/13/2018	09/04/2024	EPA MCL	5	0.28	U	No	13	92.3	Does not take in to account ND status	0.271	0.171
MW-12	Yes	Iodomethane	µg/L	04/13/2018	09/04/2024	NA	NA	2.6	U	NC	13	92.3	Does not take in to account ND status	1.36	1.28
MW-13	Yes	1,1-Dichloroethane	µg/L	04/12/2018	09/08/2024	NA	NA	0.26	J	NC	13	76.9	NP Kaplan-Meier	0.234	0.0262
MW-13	Yes	1,2-Dichloroethane	µg/L	04/12/2018	09/08/2024	EPA MCL	5	0.28	U	No	13	92.3	Does not take in to account ND status	0.268	0.172
MW-13	Yes	Dichlorodifluoromethane	µg/L	04/12/2018	09/08/2024	NA	NA	0.97	J	NC	14	35.7	NP Kaplan-Meier	0.737	0.418
MW-13	Yes	Iodomethane	µg/L	04/12/2018	09/08/2024	NA	NA	2.6	U	NC	13	92.3	Does not take in to account ND status	1.37	1.29
MW-13	Yes	Tetrachloroethene	µg/L	04/12/2018	09/08/2024	EPA MCL	5	0.4	U	No	14	50	NP Kaplan-Meier	0.285	0.0673
MW-13	Yes	Trichloroethene	µg/L	04/12/2018	09/08/2024	EPA MCL	5	0.31	J	No	13	61.5	NP Kaplan-Meier	0.228	0.103
MW-13	Yes	Trichlorofluoromethane	µg/L	04/12/2018	09/08/2024	NA	NA	0.2	U	NC	13	92.3	Does not take in to account ND status	0.417	0.277
MW-13	Yes	cis-1,2-Dichloroethene	µg/L	04/12/2018	09/08/2024	EPA MCL	70	1.3		No	14	0	Ordinary nonparametric bootstrap	0.884	0.33

See Appendix G Table Notes

Table G.5
Cell 2 Statistical Results - VOCs

Dataset				Confidence limits				Trend analysis							
Well ID	RCRA regulated chemical	Analyte	Unit	CL method	CL conf	LCL of the mean	LCL > Standard	TS Slope	TS Intercept	p-value	Confidence Level %	S	sd(S)	Z	Direction
MW-8	Yes	Acetone	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-8	Yes	Trichloroethene	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-9	Yes	1,2-Dichloroethane	µg/L	Bootstrap	0.95	0	No	NC	NC	NC	NC	NC	NC	NC	NC
MW-9	Yes	Acetone	µg/L	Bootstrap	0.95	2.78	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-9	Yes	Benzene	µg/L	Bootstrap	0.95	0	No	NC	NC	NC	NC	NC	NC	NC	NC
MW-9	Yes	Dichlorodifluoromethane	µg/L	Bootstrap	0.95	0	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-9	Yes	Vinyl chloride	µg/L	Bootstrap	0.95	0.299	No	0	0.58	0.478	52.2	2	18.1	0.0552	No Trend
MW-12	Yes	1,2,4-Trichlorobenzene	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-12	Yes	1,2-Dichloroethane	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-12	Yes	Iodomethane	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-13	Yes	1,1-Dichloroethane	µg/L	Bootstrap	0.95	0	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-13	Yes	1,2-Dichloroethane	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-13	Yes	Dichlorodifluoromethane	µg/L	Bootstrap	0.95	0.535	NC	0.000367	-6.15	0.0175	98.2	39	18	2.11	Increasing
MW-13	Yes	Iodomethane	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-13	Yes	Tetrachloroethene	µg/L	Bootstrap	0.95	0.244	No	0.0000706	-1.01	0.00489	99.5	47	17.8	2.58	Increasing
MW-13	Yes	Trichloroethene	µg/L	Bootstrap	0.95	0.175	No	NC	NC	NC	NC	NC	NC	NC	NC
MW-13	Yes	Trichlorofluoromethane	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-13	Yes	cis-1,2-Dichloroethene	µg/L	BCa bootstrap	0.95	0.712	No	0.000414	-6.93	6.98E-06	100	80	18.2	4.34	Increasing

See Appendix G Table Notes

Table G.6
Cell 2 Statistical Results - Other Organics

Dataset				General											Confidence limits			
Well ID	RCRA regulated chemical	Analyte	Unit	Min Date	Max Date	Standard source	Standard	Latest Result	Last Q	Latest Result > Standard	Dataset n	ND %	Parameter est. method	Dataset mean	sd	CL method	CL conf	LCL of the mean	LCL > Standard
MW-8	Yes	N-Nitrosodiphenylamine	µg/L	10/07/2018	09/06/2024	NA	NA	1.8	U	NC	9	88.9	Does not take in to account ND status	0.761	0.618	Not enough distinct detected values to assess	NC	NC	NC
MW-8	Yes	Methoxychlor	µg/L	10/07/2018	09/06/2024	EPA MCL	40	0.013	U	No	7	85.7	Does not take in to account ND status	0.0144	0.00264	Not enough distinct detected values to assess	NC	NC	NC
MW-8	Yes	Bis(2-ethylhexyl) phthalate	µg/L	10/07/2018	09/06/2024	EPA MCL	6	3.2	U	No	9	88.9	Does not take in to account ND status	1.93	1.33	Not enough distinct detected values to assess	NC	NC	NC
MW-9	Yes	Benzo[a]pyrene	µg/L	04/12/2018	09/09/2024	EPA MCL	0.2	0.024	U	No	11	81.8	NP Kaplan-Meier	0.0137	0.00988	Bootstrap	0.95	0	No
MW-9	Yes	2,3,7,8-TCDD	pg/L	10/07/2018	09/09/2024	EPA MCL	30	0.51	U	No	7	85.7	Does not take in to account ND status	0.593	0.551	Not enough distinct detected values to assess	NC	NC	NC
MW-12	Yes	Isodrin	µg/L	10/08/2018	09/04/2024	NA	NA	0.012	U	NC	8	87.5	Does not take in to account ND status	0.0108	0.00929	Not enough distinct detected values to assess	NC	NC	NC
MW-12	Yes	Bis(2-ethylhexyl) phthalate	µg/L	10/08/2018	09/04/2024	EPA MCL	6	3.2	U	No	10	90	Does not take in to account ND status	2.1	1.34	Not enough distinct detected values to assess	NC	NC	NC
MW-12	Yes	4,4'-DDE	µg/L	10/08/2018	09/04/2024	NA	NA	0.0041	U	NC	8	87.5	Does not take in to account ND status	0.00732	0.0032	Not enough distinct detected values to assess	NC	NC	NC
MW-13	Yes	Methoxychlor	µg/L	10/06/2018	09/08/2024	EPA MCL	40	0.014	U	No	8	87.5	Does not take in to account ND status	0.0136	0.00092	Not enough distinct detected values to assess	NC	NC	NC
MW-13	Yes	Heptachlor epoxide	µg/L	10/06/2018	09/08/2024	EPA MCL	0.2	0.0031	U	No	8	87.5	Does not take in to account ND status	0.0068	0.00368	Not enough distinct detected values to assess	NC	NC	NC
MW-13	Yes	Heptachlor	µg/L	10/06/2018	09/08/2024	EPA MCL	0.4	0.049	U	No	8	87.5	Does not take in to account ND status	0.014	0.0142	Not enough distinct detected values to assess	NC	NC	NC
MW-13	Yes	Endrin	µg/L	10/06/2018	09/08/2024	EPA MCL	2	0.0084	U	No	8	87.5	Does not take in to account ND status	0.0089	0.00172	Not enough distinct detected values to assess	NC	NC	NC
MW-13	Yes	Endosulfan sulfate	µg/L	10/06/2018	09/08/2024	NA	NA	0.0048	U	NC	8	87.5	Does not take in to account ND status	0.00716	0.00366	Not enough distinct detected values to assess	NC	NC	NC
MW-13	Yes	Endosulfan II	µg/L	10/06/2018	09/08/2024	NA	NA	0.0064	U	NC	8	87.5	Does not take in to account ND status	0.0101	0.00463	Not enough distinct detected values to assess	NC	NC	NC
MW-13	Yes	Endosulfan I	µg/L	10/06/2018	09/08/2024	NA	NA	0.0057	U	NC	8	87.5	Does not take in to account ND status	0.00654	0.00183	Not enough distinct detected values to assess	NC	NC	NC
MW-13	Yes	Di-n-butyl phthalate	µg/L	10/06/2018	09/08/2024	NA	NA	2	U	NC	10	90	Does not take in to account ND status	3.15	5.58	Not enough distinct detected values to assess	NC	NC	NC
MW-13	Yes	Dieldrin	µg/L	10/06/2018	09/08/2024	NA	NA	0.0045	U	NC	8	87.5	Does not take in to account ND status	0.00646	0.00243	Not enough distinct detected values to assess	NC	NC	NC
MW-13	Yes	delta-BHC	µg/L	10/06/2018	09/08/2024	NA	NA	0.0076	U	NC	8	87.5	Does not take in to account ND status	0.0074	0.00211	Not enough distinct detected values to assess	NC	NC	NC
MW-13	Yes	beta-BHC	µg/L	10/06/2018	09/08/2024	NA	NA	0.0089	U	NC	8	87.5	Does not take in to account ND status	0.00914	0.00057	Not enough distinct detected values to assess	NC	NC	NC
MW-13	Yes	Benzo[a]pyrene	µg/L	04/12/2018	09/08/2024	EPA MCL	0.2	0.051	J	No	11	90.9	Does not take in to account ND status	0.198	0.235	Not enough distinct detected values to assess	NC	NC	NC
MW-13	Yes	alpha-BHC	µg/L	10/06/2018	09/08/2024	NA	NA	0.0094	U	NC	8	87.5	Does not take in to account ND status	0.0106	0.00474	Not enough distinct detected values to assess	NC	NC	NC
MW-13	Yes	Aldrin	µg/L	10/06/2018	09/08/2024	NA	NA	0.006	U	NC	8	87.5	Does not take in to account ND status	0.00671	0.00176	Not enough distinct detected values to assess	NC	NC	NC
MW-13	Yes	4,4'-DDT	µg/L	10/06/2018	09/08/2024	NA	NA	0.023	U	NC	8	87.5	Does not take in to account ND status	0.0314	0.0361	Not enough distinct detected values to assess	NC	NC	NC
MW-13	Yes	4,4'-DDE	µg/L	10/06/2018	09/08/2024	NA	NA	0.0041	U	NC	8	87.5	Does not take in to account ND status	0.0192	0.0367	Not enough distinct detected values to assess	NC	NC	NC
MW-13	Yes	4,4'-DDD	µg/L	10/06/2018	09/08/2024	NA	NA	0.0041	U	NC	8	87.5	Does not take in to account ND status	0.00752	0.00389	Not enough distinct detected values to assess	NC	NC	NC

See Appendix G Table Notes

Table G.7
Cell 2 Statistical Results - Inorganics

Dataset				General												Confidence limits	
Well ID	RCRA regulated chemical	Analyte	Unit	Min Date	Max Date	Standard source	Standard	Latest Result	Last Q	Latest Result > Standard	Dataset n	ND %	Parameter est. method	Dataset mean	sd	CL method	CL conf
MW-12	Yes	Antimony	µg/L	04/13/2018	09/04/2024	EPA MCL	6	0.4	U	No	14	92.9	Does not take in to account ND status	0.49	0.252	Not enough distinct detected values to assess	NC
MW-12	Yes	Arsenic	µg/L	04/13/2018	09/04/2024	EPA MCL	10	0.5	J	No	14	7.1	NP Kaplan-Meier	0.649	0.254	Bootstrap	0.95
MW-12	Yes	Barium	µg/L	04/13/2018	09/04/2024	EPA MCL	2000	53		No	14	7.1	NP Kaplan-Meier	48.5	13.4	Bootstrap	0.95
MW-12	Yes	Beryllium	µg/L	04/13/2018	09/04/2024	EPA MCL	4	0.3	U	No	14	78.6	NP Kaplan-Meier	0.0974	0.0369	Bootstrap	0.95
MW-12	Yes	Cadmium	µg/L	04/13/2018	09/04/2024	EPA MCL	5	0.19	U	No	14	92.9	Does not take in to account ND status	0.256	0.0529	Not enough distinct detected values to assess	NC
MW-12	No	Calcium	µg/L	04/13/2018	09/04/2024	NA	NA	61000		NC	14	7.1	NP Kaplan-Meier	57500	16100	Bootstrap	0.95
MW-12	Yes	Chromium	µg/L	04/13/2018	09/04/2024	EPA MCL	100	0.5	U	No	14	28.6	NP Kaplan-Meier	0.793	0.185	Bootstrap	0.95
MW-12	Yes	Cobalt	µg/L	04/13/2018	09/04/2024	NA	NA	2.8		NC	14	0	Ordinary nonparametric bootstrap	2.96	0.288	BCa bootstrap	0.95
MW-12	Yes	Copper	µg/L	04/13/2018	09/04/2024	EPA MCL	1300	0.71	U	No	14	85.7	NP Kaplan-Meier	0.823	0.883	Bootstrap	0.95
MW-12	Yes	Cyanide	mg/L	04/13/2018	09/04/2024	EPA MCL	0.2	0.005	U	No	8	87.5	Does not take in to account ND status	0.00458	0.00112	Not enough distinct detected values to assess	NC
MW-12	No	Iron	µg/L	04/13/2018	09/04/2024	ID GW - SECONDARY	300	8.7	U	No	14	64.3	NP Kaplan-Meier	21.6	15.9	Bootstrap	0.95
MW-12	Yes	Lead	µg/L	04/13/2018	09/04/2024	ID GW - PRIMARY	15	0.23	U	No	14	78.6	NP Kaplan-Meier	0.195	0.0332	Bootstrap	0.95
MW-12	No	Magnesium	µg/L	04/13/2018	09/04/2024	NA	NA	16000		NC	14	7.1	NP Kaplan-Meier	15300	4300	Bootstrap	0.95
MW-12	No	Manganese	mg/L	04/13/2018	09/04/2024	ID GW - SECONDARY	0.05	0.00051	U	No	14	57.1	NP Kaplan-Meier	0.00047	0.000237	Bootstrap	0.95
MW-12	Yes	Mercury	µg/L	04/13/2018	09/04/2024	EPA MCL	2	0.061	U	No	8	100	Does not take in to account ND status	0.0425	0.017	Not enough distinct detected values to assess	NC
MW-12	Yes	Nickel	µg/L	04/13/2018	09/04/2024	NA	NA	0.83	U	NC	14	71.4	NP Kaplan-Meier	0.338	0.0531	Bootstrap	0.95
MW-12	No	Potassium	µg/L	04/13/2018	09/04/2024	NA	NA	920	J	NC	14	14.3	NP Kaplan-Meier	905	275	Bootstrap	0.95
MW-12	Yes	Selenium	µg/L	04/13/2018	09/04/2024	EPA MCL	50	1	U	No	14	42.9	NP Kaplan-Meier	0.53	0.104	Bootstrap	0.95
MW-12	Yes	Silver	µg/L	04/13/2018	09/04/2024	ID GW - SECONDARY	100	0.045	U	No	14	92.9	Does not take in to account ND status	0.0564	0.0732	Not enough distinct detected values to assess	NC
MW-12	No	Sodium	µg/L	04/13/2018	09/04/2024	NA	NA	33000		NC	14	7.1	NP Kaplan-Meier	32000	9380	Bootstrap	0.95
MW-12	Yes	Sulfide	mg/L	04/13/2018	09/04/2024	NA	NA	0.041	J	NC	13	61.5	NP Kaplan-Meier	0.0325	0.0431	Bootstrap	0.95
MW-12	Yes	Thallium	µg/L	04/13/2018	09/04/2024	EPA MCL	2	0.21	U	No	14	85.7	NP Kaplan-Meier	0.0663	0.0443	Bootstrap	0.95
MW-12	Yes	Tin	µg/L	04/13/2018	09/04/2024	NA	NA	0.58	U	NC	14	92.9	Does not take in to account ND status	0.734	0.213	Not enough distinct detected values to assess	NC
MW-12	Yes	Vanadium	µg/L	04/13/2018	09/04/2024	NA	NA	1.1	U	NC	14	85.7	NP Kaplan-Meier	0.56	0.427	Bootstrap	0.95
MW-12	Yes	Zinc	µg/L	04/13/2018	09/04/2024	ID GW - SECONDARY	5000	2	U	No	14	64.3	NP Kaplan-Meier	3.09	3.31	Bootstrap	0.95
MW-13	Yes	Antimony	µg/L	04/12/2018	09/08/2024	EPA MCL	6	0.4	U	No	14	78.6	NP Kaplan-Meier	0.498	0.22	Bootstrap	0.95
MW-13	Yes	Arsenic	µg/L	04/12/2018	09/08/2024	EPA MCL	10	3.7	J	No	14	7.1	NP Kaplan-Meier	3.89	1.04	Bootstrap	0.95
MW-13	Yes	Barium	µg/L	04/12/2018	09/08/2024	EPA MCL	2000	120		No	14	7.1	NP Kaplan-Meier	108	30.2	Bootstrap	0.95
MW-13	Yes	Beryllium	µg/L	04/12/2018	09/08/2024	EPA MCL	4	0.3	U	No	14	92.9	Does not take in to account ND status	0.166	0.115	Not enough distinct detected values to assess	NC
MW-13	Yes	Cadmium	µg/L	04/12/2018	09/08/2024	EPA MCL	5	0.19	U	No	14	92.9	Does not take in to account ND status	0.246	0.0371	Not enough distinct detected values to assess	NC
MW-13	No	Calcium	µg/L	04/12/2018	09/08/2024	NA	NA	44000		NC	14	0	Ordinary nonparametric bootstrap	44700	2140	BCa bootstrap	0.95
MW-13	Yes	Chromium	µg/L	04/12/2018	09/08/2024	EPA MCL	100	0.5	U	No	14	14.3	NP Kaplan-Meier	1.11	0.348	Bootstrap	0.95
MW-13	Yes	Cobalt	µg/L	04/12/2018	09/08/2024	NA	NA	0.33	U	NC	14	14.3	NP Kaplan-Meier	0.486	0.276	Bootstrap	0.95
MW-13	Yes	Copper	µg/L	04/12/2018	09/08/2024	EPA MCL	1300	0.71	U	No	14	85.7	NP Kaplan-Meier	0.648	0.208	Bootstrap	0.95
MW-13	No	Iron	µg/L	04/12/2018	09/08/2024	ID GW - SECONDARY	300	39	J	No	14	28.6	NP Kaplan-Meier	127	91.1	Bootstrap	0.95
MW-13	Yes	Lead	µg/L	04/12/2018	09/08/2024	ID GW - PRIMARY	15	0.23	U	No	14	78.6	NP Kaplan-Meier	0.23	0.12	Bootstrap	0.95
MW-13	No	Magnesium	µg/L	04/12/2018	09/08/2024	NA	NA	40000		NC	14	0	Ordinary nonparametric bootstrap	39100	1330	BCa bootstrap	0.95
MW-13	No	Manganese	mg/L	04/12/2018	09/08/2024	ID GW - SECONDARY	0.05	0.00068	J	No	14	7.1	NP Kaplan-Meier	0.00513	0.00557	Bootstrap	0.95
MW-13	Yes	Nickel	µg/L	04/12/2018	09/08/2024	NA	NA	0.83	U	NC	14	85.7	NP Kaplan-Meier	0.368	0.136	Bootstrap	0.95
MW-13	No	Potassium	µg/L	04/12/2018	09/08/2024	NA	NA	2800		NC	14	0	Ordinary nonparametric bootstrap	2760	218	BCa bootstrap	0.95
MW-13	Yes	Selenium	µg/L	04/12/2018	09/08/2024	EPA MCL	50	1	U	No	14	50	NP Kaplan-Meier	0.541	0.131	Bootstrap	0.95
MW-13	No	Sodium	µg/L	04/12/2018	09/08/2024	NA	NA	37000		NC	14	0	Ordinary nonparametric bootstrap	37600	1790	BCa bootstrap	0.95
MW-13	Yes	Sulfide	mg/L	04/12/2018	09/08/2024	NA	NA	0.025	J	NC	13	69.2	NP Kaplan-Meier	0.0218	0.0281	Bootstrap	0.95
MW-13	Yes	Thallium	µg/L	04/12/2018	09/08/2024	EPA MCL	2	0.21	U	No	14	92.9	Does not take in to account ND status	0.129	0.0609	Not enough distinct detected values to assess	NC
MW-13	Yes	Tin	µg/L	04/12/2018	09/08/2024	NA	NA	0.58	U	NC	14	92.9	Does not take in to account ND status	0.69	0.119	Not enough distinct detected values to assess	NC
MW-13	Yes	Vanadium	µg/L	04/12/2018	09/08/2024	NA	NA	1.1	U	NC	14	71.4	NP Kaplan-Meier	1.04	0.222	Bootstrap	0.95
MW-13	Yes	Zinc	µg/L	04/12/2018	09/08/2024	ID GW - SECONDARY	5000	2	U	No	14	71.4	NP Kaplan-Meier	2.66	1.29	Bootstrap	0.95
MW-8	Yes	Antimony	µg/L	04/12/2018	09/06/2024	EPA MCL	6	0.4	U	No	14	92.9	Does not take in to account ND status	0.43	0.0947	Not enough distinct detected values to assess	NC
MW-8	Yes	Arsenic	µg/L	04/12/2018	09/06/2024	EPA MCL	10	2.8	J	No	14	0	Ordinary nonparametric bootstrap	3.27	0.345	BCa bootstrap	0.95

Table G.7
Cell 2 Statistical Results - Inorganics

Dataset						Prediction limit						Trend analysis							
Well ID	RCRA regulated chemical	Analyte	Unit	LCL of the mean	LCL > Standard	N (background)	ND (background)	UPL method	UPL conf	UPL of background	Latest Result > UPL of background	TS Slope	TS Intercept	p-value	Confidence Level %	S	sd(S)	Z	Direction
MW-12	Yes	Antimony	µg/L	NC	NC	14	13	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-12	Yes	Arsenic	µg/L	0.542	No	14	1	NP prediction limit for next result	0.933	1.48	No	0	0.6	0.5	50	0	18.2	0	No Trend
MW-12	Yes	Barium	µg/L	40.8	No	14	1	NP prediction limit for next result	0.933	56	No	-0.00111	72.8	0.111	88.9	-23	18	-1.22	No Trend
MW-12	Yes	Beryllium	µg/L	0	No	14	11	NP prediction limit for next result	0.933	0.3	No	NC	NC	NC	NC	NC	NC	NC	NC
MW-12	Yes	Cadmium	µg/L	NC	NC	14	13	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-12	No	Calcium	µg/L	48100	NC	14	1	NP prediction limit for next result	0.933	65000	No	0.0673	59700	0.289	71.1	11	18	0.556	No Trend
MW-12	Yes	Chromium	µg/L	0.683	No	14	4	NP prediction limit for next result	0.933	3	No	-0.000155	3.69	0.0844	91.6	-26	18.2	-1.38	No Trend
MW-12	Yes	Cobalt	µg/L	2.82	NC	14	0	NP prediction limit for next result	0.933	3.59	No	-0.000338	9.32	0.000146	100	-66	17.9	-3.62	Decreasing
MW-12	Yes	Copper	µg/L	0	No	14	12	NP prediction limit for next result	0.933	4	No	NC	NC	NC	NC	NC	NC	NC	NC
MW-12	Yes	Cyanide	mg/L	NC	NC	8	7	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-12	No	Iron	µg/L	12.2	No	14	9	NP prediction limit for next result	0.933	100	No	NC	NC	NC	NC	NC	NC	NC	NC
MW-12	Yes	Lead	µg/L	0	No	14	11	NP prediction limit for next result	0.933	0.281	No	NC	NC	NC	NC	NC	NC	NC	NC
MW-12	No	Magnesium	µg/L	12800	NC	14	1	NP prediction limit for next result	0.933	18000	No	0	16000	0.262	73.8	-12	17.2	-0.638	No Trend
MW-12	No	Manganese	mg/L	0.000353	No	14	8	NP prediction limit for next result	0.933	0.0011	No	NC	NC	NC	NC	NC	NC	NC	NC
MW-12	Yes	Mercury	µg/L	NC	NC	8	8	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-12	Yes	Nickel	µg/L	0	NC	14	10	NP prediction limit for next result	0.933	0.83	No	NC	NC	NC	NC	NC	NC	NC	NC
MW-12	No	Potassium	µg/L	726	NC	14	2	NP prediction limit for next result	0.933	3000	No	-0.0886	2630	0.0425	95.8	-32	18	-1.72	Decreasing
MW-12	Yes	Selenium	µg/L	0.466	No	14	6	NP prediction limit for next result	0.933	1	No	0.000139	-2	0.0824	91.8	26	18	1.39	No Trend
MW-12	Yes	Silver	µg/L	NC	NC	14	13	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-12	No	Sodium	µg/L	26400	NC	14	1	NP prediction limit for next result	0.933	44000	No	0	33300	0.412	58.8	-5	18	-0.223	No Trend
MW-12	Yes	Sulfide	mg/L	0.0118	NC	13	8	NP prediction limit for next result	0.929	0.16	No	NC	NC	NC	NC	NC	NC	NC	NC
MW-12	Yes	Thallium	µg/L	0	No	14	12	NP prediction limit for next result	0.933	0.22	No	NC	NC	NC	NC	NC	NC	NC	NC
MW-12	Yes	Tin	µg/L	NC	NC	14	13	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-12	Yes	Vanadium	µg/L	0	NC	14	12	NP prediction limit for next result	0.933	2.1	No	NC	NC	NC	NC	NC	NC	NC	NC
MW-12	Yes	Zinc	µg/L	2.04	No	14	9	NP prediction limit for next result	0.933	15	No	NC	NC	NC	NC	NC	NC	NC	NC
MW-13	Yes	Antimony	µg/L	0	No	14	13	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-13	Yes	Arsenic	µg/L	3.26	No	14	1	NP prediction limit for next result on MW-12	0.933	1.48	Yes	-0.000185	7.56	0.132	86.8	-21	17.9	-1.12	No Trend
MW-13	Yes	Barium	µg/L	90	No	14	1	NP prediction limit for next result on MW-12	0.933	56	Yes	0	120	0.5	50	1	16.1	0	No Trend
MW-13	Yes	Beryllium	µg/L	NC	NC	14	11	NP prediction limit for next result on MW-12	0.933	0.3	No	NC	NC	NC	NC	NC	NC	NC	NC
MW-13	Yes	Cadmium	µg/L	NC	NC	14	13	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-13	No	Calcium	µg/L	43700	NC	14	1	NP prediction limit for next result on MW-12	0.933	65000	No	1.08	24600	0.158	84.2	19	17.9	1	No Trend
MW-13	Yes	Chromium	µg/L	0.931	No	14	4	NP prediction limit for next result on MW-12	0.933	3	No	-0.000277	6.31	0.00378	99.6	-49	18	-2.67	Decreasing
MW-13	Yes	Cobalt	µg/L	0.349	NC	14	0	NP prediction limit for next result on MW-12	0.933	3.59	No	-0.0000361	1.06	0.256	74.4	-13	18.3	-0.657	No Trend
MW-13	Yes	Copper	µg/L	0	No	14	12	NP prediction limit for next result on MW-12	0.933	4	No	NC	NC	NC	NC	NC	NC	NC	NC
MW-13	No	Iron	µg/L	80.7	No	14	9	NP prediction limit for next result on MW-12	0.933	100	No	-0.0429	931	0.175	82.5	-18	18.2	-0.934	No Trend
MW-13	Yes	Lead	µg/L	0	No	14	11	NP prediction limit for next result on MW-12	0.933	0.281	No	NC	NC	NC	NC	NC	NC	NC	NC
MW-13	No	Magnesium	µg/L	38400	NC	14	1	NP prediction limit for next result on MW-12	0.933	18000	Yes	0	39500	0.345	65.5	-8	17.5	-0.4	No Trend
MW-13	No	Manganese	mg/L	0.00269	No	14	8	NP prediction limit for next result on MW-12	0.933	0.0011	No	-2.01E-06	0.041	0.0497	95	-31	18.2	-1.65	Decreasing
MW-13	Yes	Nickel	µg/L	0	NC	14	10	NP prediction limit for next result on MW-12	0.933	0.83	No	NC	NC	NC	NC	NC	NC	NC	NC
MW-13	No	Potassium	µg/L	2650	NC	14	2	NP prediction limit for next result on MW-12	0.933	3000	No	-0.137	5330	0.0922	90.8	-25	18.1	-1.33	No Trend
MW-13	Yes	Selenium	µg/L	0.455	No	14	6	NP prediction limit for next result on MW-12	0.933	1	No	0.000197	-3	0.0293	97.1	35	18	1.89	Increasing
MW-13	No	Sodium	µg/L	36700	NC	14	1	NP prediction limit for next result on MW-12	0.933	44000	No	0	37000	0.13	87	-20	16.9	-1.13	No Trend
MW-13	Yes	Sulfide	mg/L	0	NC	13	8	NP prediction limit for next result on MW-12	0.929	0.16	No	NC	NC	NC	NC	NC	NC	NC	NC
MW-13	Yes	Thallium	µg/L	NC	NC	14	12	NP prediction limit for next result on MW-12	0.933	0.22	No	NC	NC	NC	NC	NC	NC	NC	NC
MW-13	Yes	Tin	µg/L	NC	NC	14	13	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-13	Yes	Vanadium	µg/L	0	NC	14	12	NP prediction limit for next result on MW-12	0.933	2.1	No	NC	NC	NC	NC	NC	NC	NC	NC
MW-13	Yes	Zinc	µg/L	0	No	14	9	NP prediction limit for next result on MW-12	0.933	15	No	NC	NC	NC	NC	NC	NC	NC	NC
MW-8	Yes	Antimony	µg/L	NC	NC	14	13	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-8	Yes	Arsenic	µg/L	3.11	No	14	1	NP prediction limit for next result on MW-12	0.933	1.48	Yes	-0.000256	8.02	0.00116	99.9	-56	18.1	-3.05	Decreasing

Table G.7
Cell 2 Statistical Results - Inorganics

Dataset				General												Confidence limits	
Well ID	RCRA regulated chemical	Analyte	Unit	Min Date	Max Date	Standard source	Standard	Latest Result	Last Q	Latest Result > Standard	Dataset n	ND %	Parameter est. method	Dataset mean	sd	CL method	CL conf
MW-8	Yes	Barium	µg/L	04/12/2018	09/06/2024	EPA MCL	2000	34		No	14	0	Ordinary nonparametric bootstrap	33.5	1.22	BCa bootstrap	0.95
MW-8	Yes	Beryllium	µg/L	04/12/2018	09/06/2024	EPA MCL	4	0.3	U	No	14	92.9	Does not take in to account ND status	0.146	0.102	Not enough distinct detected values to assess	NC
MW-8	Yes	Cadmium	µg/L	04/12/2018	09/06/2024	EPA MCL	5	0.19	U	No	14	92.9	Does not take in to account ND status	0.247	0.0374	Not enough distinct detected values to assess	NC
MW-8	No	Calcium	µg/L	04/12/2018	09/06/2024	NA	NA	56000		NC	14	0	Ordinary nonparametric bootstrap	75500	64600	BCa bootstrap	0.95
MW-8	Yes	Chromium	µg/L	04/12/2018	09/06/2024	EPA MCL	100	0.5	U	No	14	85.7	NP Kaplan-Meier	0.608	0.308	Bootstrap	0.95
MW-8	Yes	Cobalt	µg/L	04/12/2018	09/06/2024	NA	NA	0.33	U	NC	14	92.9	Does not take in to account ND status	0.173	0.113	Not enough distinct detected values to assess	NC
MW-8	Yes	Copper	µg/L	04/12/2018	09/06/2024	EPA MCL	1300	0.71	U	No	14	85.7	NP Kaplan-Meier	0.695	0.478	Bootstrap	0.95
MW-8	No	Iron	µg/L	04/12/2018	09/06/2024	ID GW - SECONDARY	300	8.7	U	No	14	85.7	NP Kaplan-Meier	16.5	27	Bootstrap	0.95
MW-8	No	Magnesium	µg/L	04/12/2018	09/06/2024	NA	NA	21000		NC	14	0	Ordinary nonparametric bootstrap	27000	23900	BCa bootstrap	0.95
MW-8	No	Manganese	mg/L	04/12/2018	09/06/2024	ID GW - SECONDARY	0.05	0.00051	U	No	14	50	NP Kaplan-Meier	0.0013	0.00225	Bootstrap	0.95
MW-8	Yes	Nickel	µg/L	04/12/2018	09/06/2024	NA	NA	0.83	U	NC	14	78.6	NP Kaplan-Meier	0.382	0.256	Bootstrap	0.95
MW-8	No	Potassium	µg/L	04/12/2018	09/06/2024	NA	NA	1000	U	NC	14	21.4	NP Kaplan-Meier	938	1460	Bootstrap	0.95
MW-8	Yes	Selenium	µg/L	04/12/2018	09/06/2024	EPA MCL	50	1	U	No	14	42.9	NP Kaplan-Meier	0.699	0.234	Bootstrap	0.95
MW-8	No	Sodium	µg/L	04/12/2018	09/06/2024	NA	NA	46000		NC	14	0	Ordinary nonparametric bootstrap	46100	1870	BCa bootstrap	0.95
MW-8	Yes	Sulfide	mg/L	04/12/2018	09/06/2024	NA	NA	0.022	U	NC	12	83.3	NP Kaplan-Meier	0.0192	0.0284	Bootstrap	0.95
MW-8	Yes	Tin	µg/L	04/12/2018	09/06/2024	NA	NA	0.58	U	NC	14	85.7	NP Kaplan-Meier	0.361	0.205	Bootstrap	0.95
MW-8	Yes	Vanadium	µg/L	04/12/2018	09/06/2024	NA	NA	1.1	U	NC	14	71.4	NP Kaplan-Meier	0.825	0.256	Bootstrap	0.95
MW-8	Yes	Zinc	µg/L	04/12/2018	09/06/2024	ID GW - SECONDARY	5000	2	U	No	14	71.4	NP Kaplan-Meier	2.43	0.876	Bootstrap	0.95
MW-9	Yes	Antimony	µg/L	04/12/2018	09/09/2024	EPA MCL	6	0.4	U	No	14	78.6	NP Kaplan-Meier	0.506	0.207	Bootstrap	0.95
MW-9	Yes	Arsenic	µg/L	04/12/2018	09/09/2024	EPA MCL	10	1.2	J	No	14	28.6	NP Kaplan-Meier	1.12	0.878	Bootstrap	0.95
MW-9	Yes	Barium	µg/L	04/12/2018	09/09/2024	EPA MCL	2000	43		No	14	0	Ordinary nonparametric bootstrap	41.7	15.7	BCa bootstrap	0.95
MW-9	Yes	Beryllium	µg/L	04/12/2018	09/09/2024	EPA MCL	4	0.3	U	No	14	92.9	Does not take in to account ND status	0.146	0.101	Not enough distinct detected values to assess	NC
MW-9	Yes	Cadmium	µg/L	04/12/2018	09/09/2024	EPA MCL	5	0.19	U	No	14	92.9	Does not take in to account ND status	0.259	0.064	Not enough distinct detected values to assess	NC
MW-9	No	Calcium	µg/L	04/12/2018	09/09/2024	NA	NA	200000		NC	14	0	Ordinary nonparametric bootstrap	260000	123000	BCa bootstrap	0.95
MW-9	Yes	Chromium	µg/L	04/12/2018	09/09/2024	EPA MCL	100	0.5	U	No	14	64.3	NP Kaplan-Meier	0.69	0.364	Bootstrap	0.95
MW-9	Yes	Cobalt	µg/L	04/12/2018	09/09/2024	NA	NA	0.33	U	NC	14	14.3	NP Kaplan-Meier	1.47	1.83	Bootstrap	0.95
MW-9	Yes	Copper	µg/L	04/12/2018	09/09/2024	EPA MCL	1300	1.3	J	No	14	28.6	NP Kaplan-Meier	1.64	1.66	Bootstrap	0.95
MW-9	No	Iron	µg/L	04/12/2018	09/09/2024	ID GW - SECONDARY	300	740		Yes	14	0	Ordinary nonparametric bootstrap	1110	1290	BCa bootstrap	0.95
MW-9	Yes	Lead	µg/L	04/12/2018	09/09/2024	ID GW - PRIMARY	15	0.37	J	No	14	50	NP Kaplan-Meier	0.601	0.776	Bootstrap	0.95
MW-9	No	Magnesium	µg/L	04/12/2018	09/09/2024	NA	NA	180000		NC	14	0	Ordinary nonparametric bootstrap	188000	102000	BCa bootstrap	0.95
MW-9	No	Manganese	mg/L	04/12/2018	09/09/2024	ID GW - SECONDARY	0.05	1.4		Yes	14	0	Ordinary nonparametric bootstrap	1.9	1.12	BCa bootstrap	0.95
MW-9	Yes	Nickel	µg/L	04/12/2018	09/09/2024	NA	NA	1.9	J	NC	14	0	Ordinary nonparametric bootstrap	13.9	16.6	BCa bootstrap	0.95
MW-9	No	Potassium	µg/L	04/12/2018	09/09/2024	NA	NA	3800		NC	14	0	Ordinary nonparametric bootstrap	4450	1650	BCa bootstrap	0.95
MW-9	Yes	Selenium	µg/L	04/12/2018	09/09/2024	EPA MCL	50	2.4	J	No	14	64.3	NP Kaplan-Meier	0.68	0.703	Bootstrap	0.95
MW-9	Yes	Silver	µg/L	04/12/2018	09/09/2024	ID GW - SECONDARY	100	0.045	U	No	14	85.7	NP Kaplan-Meier	0.0367	0.00888	Bootstrap	0.95
MW-9	No	Sodium	µg/L	04/12/2018	09/09/2024	NA	NA	390000		NC	14	0	Ordinary nonparametric bootstrap	443000	303000	BCa bootstrap	0.95
MW-9	Yes	Sulfide	mg/L	04/12/2018	09/09/2024	NA	NA	0.022	UJ	NC	12	58.3	NP Kaplan-Meier	0.0288	0.0387	Bootstrap	0.95
MW-9	Yes	Tin	µg/L	04/12/2018	09/09/2024	NA	NA	0.58	U	NC	14	92.9	Does not take in to account ND status	0.685	0.132	Not enough distinct detected values to assess	NC
MW-9	Yes	Vanadium	µg/L	04/12/2018	09/09/2024	NA	NA	1.1	U	NC	14	78.6	NP Kaplan-Meier	0.517	0.322	Bootstrap	0.95
MW-9	Yes	Zinc	µg/L	04/12/2018	09/09/2024	ID GW - SECONDARY	5000	17		No	14	0	Ordinary nonparametric bootstrap	501	763	BCa bootstrap	0.95

See Appendix G Table Notes

Table G.7
Cell 2 Statistical Results - Inorganics

Dataset						Prediction limit						Trend analysis							
Well ID	RCRA regulated chemical	Analyte	Unit	LCL of the mean	LCL > Standard	N (background)	ND (background)	UPL method	UPL conf	UPL of background	Latest Result > UPL of background	TS Slope	TS Intercept	p-value	Confidence Level %	S	sd(S)	Z	Direction
MW-8	Yes	Barium	µg/L	32.9	No	14	1	NP prediction limit for next result on MW-12	0.933	56	No	-0.000226	37.4	0.0874	91.3	-24	16.9	-1.36	No Trend
MW-8	Yes	Beryllium	µg/L	NC	NC	14	11	NP prediction limit for next result on MW-12	0.933	0.3	No	NC	NC	NC	NC	NC	NC	NC	NC
MW-8	Yes	Cadmium	µg/L	NC	NC	14	13	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-8	No	Calcium	µg/L	57400	NC	14	1	NP prediction limit for next result on MW-12	0.933	65000	No	-0.0673	59800	0.413	58.7	-5	18.2	-0.22	No Trend
MW-8	Yes	Chromium	µg/L	0	No	14	4	NP prediction limit for next result on MW-12	0.933	3	No	NC	NC	NC	NC	NC	NC	NC	NC
MW-8	Yes	Cobalt	µg/L	NC	NC	14	0	NP prediction limit for next result on MW-12	0.933	3.59	No	NC	NC	NC	NC	NC	NC	NC	NC
MW-8	Yes	Copper	µg/L	0	No	14	12	NP prediction limit for next result on MW-12	0.933	4	No	NC	NC	NC	NC	NC	NC	NC	NC
MW-8	No	Iron	µg/L	0	No	14	9	NP prediction limit for next result on MW-12	0.933	100	No	NC	NC	NC	NC	NC	NC	NC	NC
MW-8	No	Magnesium	µg/L	20100	NC	14	1	NP prediction limit for next result on MW-12	0.933	18000	Yes	0	21000	0.389	61.1	-6	17.7	-0.282	No Trend
MW-8	No	Manganese	mg/L	0.000408	No	14	8	NP prediction limit for next result on MW-12	0.933	0.0011	No	-2.6E-07	0.00562	0.0484	95.2	-31	18.1	-1.66	Decreasing
MW-8	Yes	Nickel	µg/L	0	NC	14	10	NP prediction limit for next result on MW-12	0.933	0.83	No	NC	NC	NC	NC	NC	NC	NC	NC
MW-8	No	Potassium	µg/L	496	NC	14	2	NP prediction limit for next result on MW-12	0.933	3000	No	-0.0237	1030	0.273	72.7	-12	18.2	-0.603	No Trend
MW-8	Yes	Selenium	µg/L	0.568	No	14	6	NP prediction limit for next result on MW-12	0.933	1	No	0.0000862	-0.835	0.187	81.3	17	18	0.89	No Trend
MW-8	No	Sodium	µg/L	45100	NC	14	1	NP prediction limit for next result on MW-12	0.933	44000	Yes	-1.77	80100	0.00678	99.3	-45	17.8	-2.47	Decreasing
MW-8	Yes	Sulfide	mg/L	0	NC	13	8	NP prediction limit for next result on MW-12	0.929	0.16	No	NC	NC	NC	NC	NC	NC	NC	NC
MW-8	Yes	Tin	µg/L	0	NC	14	13	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-8	Yes	Vanadium	µg/L	0	NC	14	12	NP prediction limit for next result on MW-12	0.933	2.1	No	NC	NC	NC	NC	NC	NC	NC	NC
MW-8	Yes	Zinc	µg/L	0	No	14	9	NP prediction limit for next result on MW-12	0.933	15	No	NC	NC	NC	NC	NC	NC	NC	NC
MW-9	Yes	Antimony	µg/L	0	No	14	13	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-9	Yes	Arsenic	µg/L	0.69	No	14	1	NP prediction limit for next result on MW-12	0.933	1.48	No	-0.000164	4.08	0.235	76.5	-14	18	-0.722	No Trend
MW-9	Yes	Barium	µg/L	34.7	No	14	1	NP prediction limit for next result on MW-12	0.933	56	No	0.00665	-89.8	0.0352	96.5	34	18.2	1.81	Increasing
MW-9	Yes	Beryllium	µg/L	NC	NC	14	11	NP prediction limit for next result on MW-12	0.933	0.3	No	NC	NC	NC	NC	NC	NC	NC	NC
MW-9	Yes	Cadmium	µg/L	NC	NC	14	13	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-9	No	Calcium	µg/L	201000	NC	14	1	NP prediction limit for next result on MW-12	0.933	65000	Yes	-78.1	1710000	0.104	89.6	-24	18.2	-1.26	No Trend
MW-9	Yes	Chromium	µg/L	0.524	No	14	4	NP prediction limit for next result on MW-12	0.933	3	No	NC	NC	NC	NC	NC	NC	NC	NC
MW-9	Yes	Cobalt	µg/L	0.618	NC	14	0	NP prediction limit for next result on MW-12	0.933	3.59	No	-0.00128	25.7	0.0059	99.4	-47	18.3	-2.52	Decreasing
MW-9	Yes	Copper	µg/L	0.929	No	14	12	NP prediction limit for next result on MW-12	0.933	4	No	-0.000167	3.92	0.253	74.7	-13	18	-0.666	No Trend
MW-9	No	Iron	µg/L	651	Yes	14	9	NP prediction limit for next result on MW-12	0.933	100	Yes	0.249	-3940	0.00361	99.6	50	18.2	2.69	Increasing
MW-9	Yes	Lead	µg/L	0.272	No	14	11	NP prediction limit for next result on MW-12	0.933	0.281	Yes	0	0.21	0.477	52.3	-2	17.5	-0.0573	No Trend
MW-9	No	Magnesium	µg/L	139000	NC	14	1	NP prediction limit for next result on MW-12	0.933	18000	Yes	-50.2	1120000	0.205	79.5	-16	18.2	-0.822	No Trend
MW-9	No	Manganese	mg/L	1.36	Yes	14	8	NP prediction limit for next result on MW-12	0.933	0.0011	Yes	-0.000443	10	0.161	83.9	-19	18.2	-0.988	No Trend
MW-9	Yes	Nickel	µg/L	6.37	NC	14	10	NP prediction limit for next result on MW-12	0.933	0.83	Yes	-0.0157	311	0.000151	100	-67	18.3	-3.61	Decreasing
MW-9	No	Potassium	µg/L	3660	NC	14	2	NP prediction limit for next result on MW-12	0.933	3000	Yes	-1.09	24600	0.0399	96	-33	18.3	-1.75	Decreasing
MW-9	Yes	Selenium	µg/L	0.374	No	14	6	NP prediction limit for next result on MW-12	0.933	1	Yes	NC	NC	NC	NC	NC	NC	NC	NC
MW-9	Yes	Silver	µg/L	0	No	14	13	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-9	No	Sodium	µg/L	309000	NC	14	1	NP prediction limit for next result on MW-12	0.933	44000	Yes	-117	2560000	0.149	85.1	-20	18.2	-1.04	No Trend
MW-9	Yes	Sulfide	mg/L	0.0107	NC	13	8	NP prediction limit for next result on MW-12	0.929	0.16	No	NC	NC	NC	NC	NC	NC	NC	NC
MW-9	Yes	Tin	µg/L	NC	NC	14	13	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-9	Yes	Vanadium	µg/L	0	NC	14	12	NP prediction limit for next result on MW-12	0.933	2.1	No	NC	NC	NC	NC	NC	NC	NC	NC
MW-9	Yes	Zinc	µg/L	139	No	14	9	NP prediction limit for next result on MW-12	0.933	15	Yes	-0.197	3900	0.00183	99.8	-54	18.2	-2.9	Decreasing

See Appendix G Table Notes

Table G.8
Cell 4 Statistical Results - VOCs

Dataset				General											
Well ID	RCRA regulated chemical	Analyte	Unit	Min Date	Max Date	Standard source	Standard	Latest Result	Last Q	Latest Result > Standard	Dataset n	ND %	Parameter est. method	Dataset mean	sd
MW-3A	Yes	1,2,4-Trichlorobenzene	µg/L	10/08/2018	09/06/2024	EPA MCL	70	0.58	U	No	13	92.3	Does not take in to account ND status	0.394	0.214
MW-3A	Yes	1,4-Dichlorobenzene	µg/L	04/11/2018	09/06/2024	EPA MCL	75	0.39	U	No	14	92.9	Does not take in to account ND status	0.255	0.11
MW-3A	Yes	Acrylonitrile	µg/L	04/11/2018	09/06/2024	NA	NA	1.7	U	NC	14	92.9	Does not take in to account ND status	2.26	1.32
MW-3A	Yes	Iodomethane	µg/L	04/11/2018	09/06/2024	NA	NA	2.6	U	NC	14	92.9	Does not take in to account ND status	1.3	1.1
MW-3A	Yes	Trichloroethene	µg/L	04/11/2018	09/06/2024	EPA MCL	5	0.3	U	No	14	92.9	Does not take in to account ND status	0.228	0.083
MW-4	Yes	1,1,1-Trichloroethane	µg/L	04/11/2018	09/05/2024	EPA MCL	200	0.39	U	No	14	71.4	NP Kaplan-Meier	0.19	0.0312
MW-4	Yes	1,1-Dichloroethane	µg/L	04/11/2018	09/05/2024	NA	NA	0.36	J	NC	14	21.4	NP Kaplan-Meier	0.58	0.377
MW-4	Yes	1,2-Dichloroethane	µg/L	04/11/2018	09/05/2024	EPA MCL	5	1.3		No	14	50	NP Kaplan-Meier	0.564	0.544
MW-4	Yes	Benzene	µg/L	04/11/2018	09/05/2024	EPA MCL	5	0.14	U	No	14	28.6	NP Kaplan-Meier	0.446	0.278
MW-4	Yes	Chlorobenzene	µg/L	04/11/2018	09/05/2024	EPA MCL	100	0.092	U	No	14	92.9	Does not take in to account ND status	0.326	0.426
MW-4	Yes	Dichlorodifluoromethane	µg/L	10/05/2018	09/05/2024	NA	NA	0.3	U	NC	13	53.8	NP Kaplan-Meier	0.567	0.298
MW-4	Yes	Iodomethane	µg/L	04/11/2018	09/05/2024	NA	NA	2.6	U	NC	14	92.9	Does not take in to account ND status	1.33	1.24
MW-4	Yes	Tetrachloroethene	µg/L	04/11/2018	09/05/2024	EPA MCL	5	0.4	U	No	14	7.1	NP Kaplan-Meier	3.05	0.95
MW-4	Yes	Trichloroethene	µg/L	04/11/2018	09/05/2024	EPA MCL	5	1.8		No	14	14.3	NP Kaplan-Meier	0.541	0.398
MW-4	Yes	Vinyl chloride	µg/L	04/11/2018	09/05/2024	EPA MCL	2	1.6		No	14	14.3	NP Kaplan-Meier	1.29	0.7
MW-4	Yes	Xylenes, total	µg/L	04/11/2018	09/05/2024	EPA MCL	10000	0.11	U	No	14	85.7	NP Kaplan-Meier	0.15	0.107
MW-4	Yes	cis-1,2-Dichloroethene	µg/L	04/11/2018	09/05/2024	EPA MCL	70	1.9		No	14	7.1	NP Kaplan-Meier	1.66	0.781
MW-4	No	o-xylene	µg/L	05/01/2019	09/05/2024	EPA MCL	10000	0.11	U	No	12	91.7	Does not take in to account ND status	0.214	0.0769
MW-4	Yes	trans-1,2-Dichloroethene	µg/L	04/11/2018	09/05/2024	EPA MCL	100	0.37	U	No	14	42.9	NP Kaplan-Meier	0.281	0.153
MW-4A	Yes	1,1,1,2-Tetrachloroethane	µg/L	04/11/2018	09/05/2024	NA	NA	0.16	U	NC	14	100	Does not take in to account ND status	0.294	0.164
MW-4A	Yes	1,1,1-Trichloroethane	µg/L	04/11/2018	09/05/2024	EPA MCL	200	0.39	U	No	14	100	Does not take in to account ND status	0.256	0.111
MW-4A	Yes	1,1,2,2-Tetrachloroethane	µg/L	04/11/2018	09/05/2024	NA	NA	0.21	U	NC	14	100	Does not take in to account ND status	0.198	0.0309
MW-4A	Yes	1,1,2-Trichloroethane	µg/L	04/11/2018	09/05/2024	EPA MCL	5	0.27	U	No	14	100	Does not take in to account ND status	0.275	0.0328
MW-4A	Yes	1,1-Dichloroethane	µg/L	04/11/2018	09/05/2024	NA	NA	0.22	U	NC	14	100	Does not take in to account ND status	0.221	0.0121
MW-4A	Yes	1,1-Dichloroethene	µg/L	04/11/2018	09/05/2024	EPA MCL	7	0.23	U	No	14	100	Does not take in to account ND status	0.243	0.0448
MW-4A	Yes	1,1-Dichloropropene	µg/L	10/05/2018	09/05/2024	NA	NA	0.19	U	NC	13	100	Does not take in to account ND status	0.244	0.1
MW-4A	Yes	1,2,3-Trichloropropane	µg/L	04/11/2018	09/05/2024	NA	NA	0.005	U	NC	14	100	Does not take in to account ND status	0.109	0.233
MW-4A	Yes	1,2,4-Trichlorobenzene	µg/L	10/05/2018	09/05/2024	EPA MCL	70	0.58	U	No	13	100	Does not take in to account ND status	0.352	0.188
MW-4A	Yes	1,2-Dibromo-3-Chloropropane	µg/L	04/11/2018	09/05/2024	EPA MCL	0.2	0.0068	U	No	14	100	Does not take in to account ND status	0.0728	0.168
MW-4A	Yes	1,2-Dibromoethane	µg/L	04/11/2018	09/05/2024	EPA MCL	0.05	0.0037	U	No	14	100	Does not take in to account ND status	0.0288	0.0641
MW-4A	Yes	1,2-Dichlorobenzene	µg/L	04/11/2018	09/05/2024	EPA MCL	600	0.14	U	No	14	100	Does not take in to account ND status	0.211	0.101
MW-4A	Yes	1,2-Dichloroethane	µg/L	04/11/2018	09/05/2024	EPA MCL	5	0.28	U	No	14	100	Does not take in to account ND status	0.259	0.169
MW-4A	Yes	1,2-Dichloropropane	µg/L	04/11/2018	09/05/2024	EPA MCL	5	0.24	U	No	14	100	Does not take in to account ND status	0.27	0.14
MW-4A	Yes	1,3-Dichlorobenzene	µg/L	10/05/2018	09/05/2024	ID GW - PRIMARY	600	0.33	U	No	13	100	Does not take in to account ND status	0.209	0.0997
MW-4A	Yes	1,3-Dichloropropane	µg/L	10/05/2018	09/05/2024	NA	NA	0.17	U	NC	13	100	Does not take in to account ND status	0.182	0.12
MW-4A	Yes	1,4-Dichlorobenzene	µg/L	04/11/2018	09/05/2024	EPA MCL	75	0.39	U	No	14	100	Does not take in to account ND status	0.25	0.112
MW-4A	Yes	2,2-Dichloropropane	µg/L	10/05/2018	09/05/2024	NA	NA	0.17	U	NC	13	100	Does not take in to account ND status	0.355	0.132
MW-4A	Yes	2-Butanone (MEK)	µg/L	04/11/2018	09/05/2024	NA	NA	4.6	U	NC	14	100	Does not take in to account ND status	3.32	1.77
MW-4A	Yes	2-Hexanone	µg/L	04/11/2018	09/05/2024	NA	NA	0.81	U	NC	14	100	Does not take in to account ND status	1.63	0.767
MW-4A	Yes	4-Methyl-2-pentanone (MIBK)	µg/L	04/11/2018	09/05/2024	NA	NA	0.98	U	NC	14	100	Does not take in to account ND status	1.03	0.349
MW-4A	Yes	Acetone	µg/L	04/11/2018	09/05/2024	NA	NA	6.6	U	NC	14	100	Does not take in to account ND status	4.59	2.93
MW-4A	Yes	Acetonitrile; methyl cyanide	µg/L	10/05/2018	09/05/2024	NA	NA	14	U	NC	13	100	Does not take in to account ND status	9.71	2.79
MW-4A	Yes	Acrolein	µg/L	10/05/2018	09/05/2024	NA	NA	4.9	U	NC	13	100	Does not take in to account ND status	3.53	1.16
MW-4A	Yes	Acrylonitrile	µg/L	04/11/2018	09/05/2024	NA	NA	1.7	U	NC	14	100	Does not take in to account ND status	2.12	1.3
MW-4A	Yes	Allyl chloride	µg/L	10/05/2018	09/05/2024	NA	NA	0.46	U	NC	13	100	Does not take in to account ND status	0.222	0.109

Table G.8
Cell 4 Statistical Results - VOCs

Dataset				Confidence limits				Trend analysis							
Well ID	RCRA regulated chemical	Analyte	Unit	CL method	CL conf	LCL of the mean	LCL > Standard	TS Slope	TS Intercept	p-value	Confidence Level %	S	sd(S)	Z	Direction
MW-3A	Yes	1,2,4-Trichlorobenzene	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-3A	Yes	1,4-Dichlorobenzene	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-3A	Yes	Acrylonitrile	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-3A	Yes	Iodomethane	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-3A	Yes	Trichloroethene	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4	Yes	1,1,1-Trichloroethane	µg/L	Bootstrap	0.95	0	No	NC	NC	NC	NC	NC	NC	NC	NC
MW-4	Yes	1,1-Dichloroethane	µg/L	Bootstrap	0.95	0.385	NC	0.000318	-5.49	0.00341	99.7	50	18.1	2.71	Increasing
MW-4	Yes	1,2-Dichloroethane	µg/L	Bootstrap	0.95	0.296	No	0.000552	-9.87	0.000376	100	61	17.8	3.37	Increasing
MW-4	Yes	Benzene	µg/L	Bootstrap	0.95	0.31	No	0.0003	-5.17	0.0162	98.4	40	18.2	2.14	Increasing
MW-4	Yes	Chlorobenzene	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4	Yes	Dichlorodifluoromethane	µg/L	Bootstrap	0.95	0.408	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4	Yes	Iodomethane	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4	Yes	Tetrachloroethene	µg/L	Bootstrap	0.95	2.52	No	-0.000916	20.4	0.000175	100	-66	18.2	-3.57	Decreasing
MW-4	Yes	Trichloroethene	µg/L	Bootstrap	0.95	0.363	No	0.000278	-4.75	0.00128	99.9	56	18.2	3.01	Increasing
MW-4	Yes	Vinyl chloride	µg/L	Bootstrap	0.95	0.916	No	0.000673	-11.4	0.00361	99.6	50	18.2	2.69	Increasing
MW-4	Yes	Xylenes, total	µg/L	Bootstrap	0.95	0	No	NC	NC	NC	NC	NC	NC	NC	NC
MW-4	Yes	cis-1,2-Dichloroethene	µg/L	Bootstrap	0.95	1.26	No	0.000725	-11.9	0.014	98.6	41	18.2	2.2	Increasing
MW-4	No	o-xylene	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4	Yes	trans-1,2-Dichloroethene	µg/L	Bootstrap	0.95	0.208	No	0.00013	-2.18	0.00718	99.3	45	18	2.45	Increasing
MW-4A	Yes	1,1,1,2-Tetrachloroethane	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	1,1,1-Trichloroethane	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	1,1,2,2-Tetrachloroethane	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	1,1,2-Trichloroethane	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	1,1-Dichloroethane	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	1,1-Dichloroethene	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	1,1-Dichloropropene	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	1,2,3-Trichloropropane	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	1,2,4-Trichlorobenzene	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	1,2-Dibromo-3-Chloropropane	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	1,2-Dibromoethane	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	1,2-Dichlorobenzene	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	1,2-Dichloroethane	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	1,2-Dichloropropane	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	1,3-Dichlorobenzene	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	1,3-Dichloropropane	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	1,4-Dichlorobenzene	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	2,2-Dichloropropane	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	2-Butanone (MEK)	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	2-Hexanone	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	4-Methyl-2-pentanone (MIBK)	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	Acetone	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	Acetonitrile; methyl cyanide	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	Acrolein	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	Acrylonitrile	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	Allyl chloride	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC

Table G.8
Cell 4 Statistical Results - VOCs

Dataset				General											
Well ID	RCRA regulated chemical	Analyte	Unit	Min Date	Max Date	Standard source	Standard	Latest Result	Last Q	Latest Result > Standard	Dataset n	ND %	Parameter est. method	Dataset mean	sd
MW-4A	Yes	Benzene	µg/L	04/11/2018	09/05/2024	EPA MCL	5	0.14	U	No	14	100	Does not take in to account ND status	0.203	0.0745
MW-4A	Yes	Bromochloromethane	µg/L	04/11/2018	09/05/2024	NA	NA	0.4	U	NC	14	100	Does not take in to account ND status	0.244	0.163
MW-4A	Yes	Bromodichloromethane	µg/L	04/11/2018	09/05/2024	EPA MCL	80	0.19	U	No	14	100	Does not take in to account ND status	0.234	0.101
MW-4A	Yes	Bromoform	µg/L	04/11/2018	09/05/2024	EPA MCL	80	0.25	U	No	14	100	Does not take in to account ND status	0.585	0.354
MW-4A	Yes	Bromomethane	µg/L	04/11/2018	09/05/2024	NA	NA	2.4	U	NC	14	100	Does not take in to account ND status	1.38	1.47
MW-4A	Yes	Carbon disulfide	µg/L	04/11/2018	09/05/2024	NA	NA	0.26	U	NC	14	100	Does not take in to account ND status	0.32	0.186
MW-4A	Yes	Carbon tetrachloride	µg/L	04/11/2018	09/05/2024	EPA MCL	5	0.23	U	No	14	100	Does not take in to account ND status	0.294	0.158
MW-4A	Yes	Chlorobenzene	µg/L	04/11/2018	09/05/2024	EPA MCL	100	0.092	U	No	14	100	Does not take in to account ND status	0.226	0.12
MW-4A	Yes	Chlorodibromomethane	µg/L	04/11/2018	09/05/2024	EPA MCL	80	0.28	U	No	14	100	Does not take in to account ND status	0.296	0.183
MW-4A	Yes	Chloroethane	µg/L	04/11/2018	09/05/2024	NA	NA	0.64	U	NC	14	100	Does not take in to account ND status	0.654	0.413
MW-4A	Yes	Chloroform	µg/L	04/11/2018	09/05/2024	ID GW - PRIMARY	2	0.36	U	No	14	100	Does not take in to account ND status	0.247	0.0975
MW-4A	Yes	Chloromethane	µg/L	04/11/2018	09/05/2024	NA	NA	0.23	U	NC	14	100	Does not take in to account ND status	0.404	0.204
MW-4A	Yes	Chloroprene	µg/L	10/05/2018	09/05/2024	NA	NA	0.79	U	NC	13	100	Does not take in to account ND status	0.523	0.442
MW-4A	Yes	Dibromomethane	µg/L	04/11/2018	09/05/2024	NA	NA	0.34	U	NC	14	100	Does not take in to account ND status	0.24	0.092
MW-4A	Yes	Dichlorodifluoromethane	µg/L	10/05/2018	09/05/2024	NA	NA	0.3	U	NC	13	100	Does not take in to account ND status	0.462	0.284
MW-4A	Yes	Ethyl methacrylate	µg/L	10/05/2018	09/05/2024	NA	NA	0.19	U	NC	13	100	Does not take in to account ND status	0.709	0.287
MW-4A	Yes	Ethylbenzene	µg/L	04/11/2018	09/05/2024	ID GW - PRIMARY	700	0.14	U	No	14	100	Does not take in to account ND status	0.205	0.0796
MW-4A	Yes	Iodomethane	µg/L	04/11/2018	09/05/2024	NA	NA	2.6	U	NC	14	100	Does not take in to account ND status	1.23	1.13
MW-4A	Yes	Isobutanol; Isobutyl alcohol	µg/L	10/05/2018	09/05/2024	NA	NA	37	U	NC	13	100	Does not take in to account ND status	35	7.21
MW-4A	Yes	Methacrylonitrile	µg/L	10/05/2018	09/05/2024	NA	NA	5.3	U	NC	13	100	Does not take in to account ND status	3.03	1.87
MW-4A	Yes	Methyl methacrylate	µg/L	10/05/2018	09/05/2024	NA	NA	1.1	U	NC	13	100	Does not take in to account ND status	1.05	0.194
MW-4A	Yes	Methylene Chloride	µg/L	04/11/2018	09/05/2024	EPA MCL	5	0.94	U	No	14	100	Does not take in to account ND status	0.845	0.256
MW-4A	Yes	Propionitrile; ethyl cyanide	µg/L	10/05/2018	09/05/2024	NA	NA	3.7	U	NC	13	100	Does not take in to account ND status	3.55	0.555
MW-4A	Yes	Styrene	µg/L	04/11/2018	09/05/2024	EPA MCL	100	0.13	U	No	14	100	Does not take in to account ND status	0.3	0.0935
MW-4A	Yes	Tetrachloroethene	µg/L	04/11/2018	09/05/2024	EPA MCL	5	0.4	U	No	14	100	Does not take in to account ND status	0.283	0.101
MW-4A	Yes	Toluene	µg/L	04/11/2018	09/05/2024	EPA MCL	1000	0.32	U	No	14	100	Does not take in to account ND status	0.246	0.0857
MW-4A	Yes	Trichloroethene	µg/L	04/11/2018	09/05/2024	EPA MCL	5	0.3	U	No	14	92.9	Does not take in to account ND status	0.241	0.0846
MW-4A	Yes	Trichlorofluoromethane	µg/L	04/11/2018	09/05/2024	NA	NA	0.2	U	NC	14	100	Does not take in to account ND status	0.396	0.268
MW-4A	Yes	Vinyl acetate	µg/L	04/11/2018	09/05/2024	NA	NA	0.36	U	NC	14	100	Does not take in to account ND status	0.906	0.295
MW-4A	Yes	Vinyl chloride	µg/L	04/11/2018	09/05/2024	EPA MCL	2	0.23	U	No	14	100	Does not take in to account ND status	0.231	0.166
MW-4A	Yes	Xylenes, total	µg/L	04/11/2018	09/05/2024	EPA MCL	10000	0.11	U	No	14	100	Does not take in to account ND status	0.271	0.238
MW-4A	Yes	cis-1,2-Dichloroethene	µg/L	04/11/2018	09/05/2024	EPA MCL	70	0.32	U	No	14	100	Does not take in to account ND status	0.219	0.0836
MW-4A	Yes	cis-1,3-Dichloropropene	µg/L	04/11/2018	09/05/2024	NA	NA	0.16	U	NC	14	100	Does not take in to account ND status	0.278	0.203
MW-4A	No	m,p-Xylene	µg/L	05/02/2019	09/05/2024	EPA MCL	10000	0.36	U	No	12	100	Does not take in to account ND status	0.242	0.105
MW-4A	No	o-xylene	µg/L	05/02/2019	09/05/2024	EPA MCL	10000	0.11	U	No	12	100	Does not take in to account ND status	0.213	0.0771
MW-4A	Yes	trans-1,2-Dichloroethene	µg/L	04/11/2018	09/05/2024	EPA MCL	100	0.37	U	No	14	100	Does not take in to account ND status	0.25	0.113
MW-4A	Yes	trans-1,3-Dichloropropene	µg/L	04/11/2018	09/05/2024	NA	NA	0.14	U	NC	14	100	Does not take in to account ND status	0.297	0.202
MW-4A	Yes	trans-1,4-Dichloro-2-butene	µg/L	04/11/2018	09/05/2024	NA	NA	0.51	U	NC	14	100	Does not take in to account ND status	0.855	0.338
MW-5AR	Yes	Carbon disulfide	µg/L	07/21/2021	09/05/2024	NA	NA	0.26	U	NC	8	75	NP Kaplan-Meier	0.415	0.442
MW-5AR	Yes	Toluene	µg/L	07/21/2021	09/05/2024	EPA MCL	1000	0.32	U	No	8	75	NP Kaplan-Meier	0.378	0.24

See Appendix G Table Notes

Table G.8
Cell 4 Statistical Results - VOCs

Dataset				Confidence limits				Trend analysis							
Well ID	RCRA regulated chemical	Analyte	Unit	CL method	CL conf	LCL of the mean	LCL > Standard	TS Slope	TS Intercept	p-value	Confidence Level %	S	sd(S)	Z	Direction
MW-4A	Yes	Benzene	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	Bromochloromethane	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	Bromodichloromethane	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	Bromoform	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	Bromomethane	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	Carbon disulfide	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	Carbon tetrachloride	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	Chlorobenzene	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	Chlorodibromomethane	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	Chloroethane	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	Chloroform	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	Chloromethane	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	Chloroprene	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	Dibromomethane	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	Dichlorodifluoromethane	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	Ethyl methacrylate	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	Ethylbenzene	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	Iodomethane	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	Isobutanol; Isobutyl alcohol	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	Methacrylonitrile	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	Methyl methacrylate	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	Methylene Chloride	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	Propionitrile; ethyl cyanide	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	Styrene	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	Tetrachloroethene	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	Toluene	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	Trichloroethene	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	Trichlorofluoromethane	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	Vinyl acetate	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	Vinyl chloride	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	Xylenes, total	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	cis-1,2-Dichloroethene	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	cis-1,3-Dichloropropene	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	No	m,p-Xylene	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	No	o-xylene	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	trans-1,2-Dichloroethene	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	trans-1,3-Dichloropropene	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	trans-1,4-Dichloro-2-butene	µg/L	Not enough distinct detected values to assess	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-5AR	Yes	Carbon disulfide	µg/L	Bootstrap	0.95	0	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-5AR	Yes	Toluene	µg/L	Bootstrap	0.95	0	No	NC	NC	NC	NC	NC	NC	NC	NC

See Appendix G Table Notes

Table G.9
Cell 4 Statistical Results - Inorganics

Dataset				General											Confidence limits		
Well ID	RCRA regulated chemical	Analyte	Unit	Min Date	Max Date	Standard source	Standard	Latest Result	Last Q	Latest Result > Standard	Dataset n	ND %	Parameter est. method	Dataset mean	sd	CL method	CL conf	LCL of the mean
MW-4A	Yes	Antimony	µg/L	04/11/2018	09/05/2024	EPA MCL	6	0.4	U	No	14	100	Does not take in to account ND status	0.425	0.0946	Not enough distinct detected values to assess	NC	NC
MW-3A	Yes	Barium	µg/L	04/11/2018	09/06/2024	EPA MCL	2000	150		No	14	0	Ordinary nonparametric bootstrap	152	7.08	BCa bootstrap	0.95	149
MW-5AR	Yes	Antimony	µg/L	07/21/2021	09/05/2024	EPA MCL	6	0.4	U	No	8	87.5	Does not take in to account ND status	0.431	0.0884	Not enough distinct detected values to assess	NC	NC
MW-6A	Yes	Antimony	µg/L	04/11/2018	09/04/2024	EPA MCL	6	0.4	U	No	14	92.9	Does not take in to account ND status	0.432	0.0958	Not enough distinct detected values to assess	NC	NC
MW-3A	No	Calcium	µg/L	04/11/2018	09/06/2024	NA	NA	52000		NC	14	0	Ordinary nonparametric bootstrap	52600	2240	BCa bootstrap	0.95	51500
MW-3A	Yes	Beryllium	µg/L	04/11/2018	09/06/2024	EPA MCL	4	0.3	U	No	14	85.7	NP Kaplan-Meier	0.0982	0.0394	Bootstrap	0.95	0
MW-3A	Yes	Arsenic	µg/L	04/11/2018	09/06/2024	EPA MCL	10	0.5	U	No	14	92.9	Does not take in to account ND status	0.424	0.176	Not enough distinct detected values to assess	NC	NC
MW-3A	No	Iron	µg/L	04/11/2018	09/06/2024	ID GW - SECONDARY	300	56	J	No	14	35.7	NP Kaplan-Meier	58.5	25.4	Bootstrap	0.95	43.8
MW-4	Yes	Beryllium	µg/L	04/11/2018	09/05/2024	EPA MCL	4	0.3	U	No	14	92.9	Does not take in to account ND status	0.216	0.246	Not enough distinct detected values to assess	NC	NC
MW-3A	No	Magnesium	µg/L	04/11/2018	09/06/2024	NA	NA	28000		NC	14	0	Ordinary nonparametric bootstrap	27500	1220	BCa bootstrap	0.95	26900
MW-3A	No	Manganese	mg/L	04/11/2018	09/06/2024	ID GW - SECONDARY	0.05	0.0008	J	No	14	14.3	NP Kaplan-Meier	0.00121	0.000893	Bootstrap	0.95	0.000803
MW-4A	Yes	Beryllium	µg/L	04/11/2018	09/05/2024	EPA MCL	4	0.3	U	No	14	100	Does not take in to account ND status	0.146	0.102	Not enough distinct detected values to assess	NC	NC
MW-3A	No	Potassium	µg/L	04/11/2018	09/06/2024	NA	NA	2400		NC	14	0	Ordinary nonparametric bootstrap	2310	178	BCa bootstrap	0.95	2220
MW-3A	Yes	Selenium	µg/L	04/11/2018	09/06/2024	EPA MCL	50	1	U	No	14	42.9	NP Kaplan-Meier	0.542	0.0948	Bootstrap	0.95	0.474
MW-3A	No	Sodium	µg/L	04/11/2018	09/06/2024	NA	NA	44000		NC	14	0	Ordinary nonparametric bootstrap	44700	2920	BCa bootstrap	0.95	43200
MW-6A	Yes	Beryllium	µg/L	04/11/2018	09/04/2024	EPA MCL	4	0.3	U	No	14	92.9	Does not take in to account ND status	0.148	0.102	Not enough distinct detected values to assess	NC	NC
MW-3A	Yes	Cadmium	µg/L	04/11/2018	09/06/2024	EPA MCL	5	0.19	U	No	14	92.9	Does not take in to account ND status	0.258	0.0593	Not enough distinct detected values to assess	NC	NC
MW-3A	Yes	Zinc	µg/L	04/11/2018	09/06/2024	ID GW - SECONDARY	5000	7.3	J	No	14	21.4	NP Kaplan-Meier	10.5	4.32	Bootstrap	0.95	8.26
MW-4	Yes	Arsenic	µg/L	04/11/2018	09/05/2024	EPA MCL	10	1.1	J	No	14	7.1	NP Kaplan-Meier	2.37	0.535	Bootstrap	0.95	2.06
MW-4	Yes	Barium	µg/L	04/11/2018	09/05/2024	EPA MCL	2000	180		No	14	7.1	NP Kaplan-Meier	173	50.8	Bootstrap	0.95	143
MW-4	Yes	Cadmium	µg/L	04/11/2018	09/05/2024	EPA MCL	5	0.19	U	No	14	92.9	Does not take in to account ND status	0.249	0.0389	Not enough distinct detected values to assess	NC	NC
MW-3A	Yes	Chromium	µg/L	04/11/2018	09/06/2024	EPA MCL	100	0.5	U	No	14	71.4	NP Kaplan-Meier	0.752	0.849	Bootstrap	0.95	0
MW-4	No	Calcium	µg/L	04/11/2018	09/05/2024	NA	NA	80000		NC	14	7.1	NP Kaplan-Meier	133000	42700	Bootstrap	0.95	108000
MW-4	Yes	Chromium	µg/L	04/11/2018	09/05/2024	EPA MCL	100	0.5	U	No	14	78.6	NP Kaplan-Meier	0.845	0.717	Bootstrap	0.95	0
MW-4	Yes	Cobalt	µg/L	04/11/2018	09/05/2024	NA	NA	0.33	UJ	NC	14	7.1	NP Kaplan-Meier	1.02	0.556	Bootstrap	0.95	0.777
MW-4A	Yes	Chromium	µg/L	04/11/2018	09/05/2024	EPA MCL	100	0.5	U	No	14	71.4	NP Kaplan-Meier	0.588	0.21	Bootstrap	0.95	0
MW-4	No	Iron	µg/L	04/11/2018	09/05/2024	ID GW - SECONDARY	300	8.7	U	No	14	7.1	NP Kaplan-Meier	401	174	Bootstrap	0.95	307
MW-4A	Yes	Cadmium	µg/L	04/11/2018	09/05/2024	EPA MCL	5	0.19	U	No	14	92.9	Does not take in to account ND status	0.25	0.0411	Not enough distinct detected values to assess	NC	NC
MW-4	No	Magnesium	µg/L	04/11/2018	09/05/2024	NA	NA	19000		NC	14	7.1	NP Kaplan-Meier	54800	19800	Bootstrap	0.95	42700
MW-4	No	Manganese	mg/L	04/11/2018	09/05/2024	ID GW - SECONDARY	0.05	0.0005	UJ	No	14	7.1	NP Kaplan-Meier	0.156	0.0856	Bootstrap	0.95	0.112
MW-4	Yes	Nickel	µg/L	04/11/2018	09/05/2024	NA	NA	0.83	U	NC	14	21.4	NP Kaplan-Meier	1.87	3.1	Bootstrap	0.95	0.891
MW-4	No	Potassium	µg/L	04/11/2018	09/05/2024	NA	NA	3400		NC	14	7.1	NP Kaplan-Meier	3880	2860	Bootstrap	0.95	2680
MW-6A	Yes	Chromium	µg/L	04/11/2018	09/04/2024	EPA MCL	100	0.5	U	No	14	64.3	NP Kaplan-Meier	0.584	0.17	Bootstrap	0.95	0.5
MW-4	No	Sodium	µg/L	04/11/2018	09/05/2024	NA	NA	61000		NC	14	7.1	NP Kaplan-Meier	51700	14800	Bootstrap	0.95	43000
MW-6A	Yes	Cadmium	µg/L	04/11/2018	09/04/2024	EPA MCL	5	0.19	U	No	14	92.9	Does not take in to account ND status	0.254	0.0494	Not enough distinct detected values to assess	NC	NC
MW-4	Yes	Vanadium	µg/L	04/11/2018	09/05/2024	NA	NA	1.1	U	NC	14	28.6	NP Kaplan-Meier	1.98	0.807	Bootstrap	0.95	1.58
MW-4A	Yes	Cobalt	µg/L	04/11/2018	09/05/2024	NA	NA	0.82	J	NC	14	78.6	NP Kaplan-Meier	0.122	0.197	Bootstrap	0.95	0
MW-4A	Yes	Arsenic	µg/L	04/11/2018	09/05/2024	EPA MCL	10	1.4	J	No	14	0	Ordinary nonparametric bootstrap	1.49	0.235	BCa bootstrap	0.95	1.39
MW-4A	Yes	Barium	µg/L	04/11/2018	09/05/2024	EPA MCL	2000	210		No	14	0	Ordinary nonparametric bootstrap	179	13.8	BCa bootstrap	0.95	172
MW-3A	Yes	Copper	µg/L	04/11/2018	09/06/2024	EPA MCL	1300	0.71	U	No	14	85.7	NP Kaplan-Meier	0.616	0.165	Bootstrap	0.95	0
MW-4	Yes	Copper	µg/L	04/11/2018	09/05/2024	EPA MCL	1300	0.71	U	No	14	85.7	NP Kaplan-Meier	0.711	0.473	Bootstrap	0.95	0
MW-4A	No	Calcium	µg/L	04/11/2018	09/05/2024	NA	NA	170000		NC	14	0	Ordinary nonparametric bootstrap	89500	23700	BCa bootstrap	0.95	81000
MW-4A	Yes	Copper	µg/L	04/11/2018	09/05/2024	EPA MCL	1300	0.71	U	No	14	85.7	NP Kaplan-Meier	0.723	0.584	Bootstrap	0.95	0
MW-5AR	Yes	Chromium	µg/L	07/21/2021	09/05/2024	EPA MCL	100	0.5	U	No	8	87.5	Does not take in to account ND status	0.688	0.53	Not enough distinct detected values to assess	NC	NC
MW-6A	Yes	Copper	µg/L	04/11/2018	09/04/2024	EPA MCL	1300	0.71	U	No	14	78.6	NP Kaplan-Meier	0.628	0.129	Bootstrap	0.95	0
MW-4A	No	Iron	µg/L	04/11/2018	09/05/2024	ID GW - SECONDARY	300	720		Yes	14	64.3	NP Kaplan-Meier	86.8	185	Bootstrap	0.95	17.1
MW-6A	No	Iron	µg/L	04/11/2018	09/04/2024	ID GW - SECONDARY	300	8.7	U	No	14	57.1	NP Kaplan-Meier	41.3	75.2	Bootstrap	0.95	14.9
MW-4A	No	Magnesium	µg/L	04/11/2018	09/05/2024	NA	NA	67000		NC	14	0	Ordinary nonparametric bootstrap	21500	13100	BCa bootstrap	0.95	17500
MW-4A	No	Manganese	mg/L	04/11/2018	09/05/2024	ID GW - SECONDARY	0.05	0.14	J	Yes	14	50	NP Kaplan-Meier	0.011	0.0358	Bootstrap	0.95	0.000517

Table G.9
Cell 4 Statistical Results - Inorganics

Dataset					Prediction limit						Trend analysis							
Well ID	RCRA regulated chemical	Analyte	Unit	LCL > Standard	N (background)	ND (background)	UPL method	UPL conf	UPL of background	Latest Result > UPL of background	TS Slope	TS Intercept	p-value	Confidence Level %	S	sd(S)	Z	Direction
MW-4A	Yes	Antimony	µg/L	NC	14	14	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-3A	Yes	Barium	µg/L	No	14	0	NP prediction limit for next result on MW-4A	0.933	210	No	0	150	0.141	85.9	-19	16.7	-1.08	No Trend
MW-5AR	Yes	Antimony	µg/L	NC	14	14	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-6A	Yes	Antimony	µg/L	NC	14	14	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-3A	No	Calcium	µg/L	NC	14	0	NP prediction limit for next result on MW-4A	0.933	170000	No	-1.02	72100	0.173	82.7	-18	18.1	-0.942	No Trend
MW-3A	Yes	Beryllium	µg/L	No	14	14	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-3A	Yes	Arsenic	µg/L	NC	14	0	NP prediction limit for next result on MW-4A	0.933	2.24	No	NC	NC	NC	NC	NC	NC	NC	NC
MW-3A	No	Iron	µg/L	No	14	9	NP prediction limit for next result on MW-4A	0.933	720	No	0.0159	-226	0.237	76.3	14	18.2	0.715	No Trend
MW-4	Yes	Beryllium	µg/L	NC	14	14	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-3A	No	Magnesium	µg/L	NC	14	0	NP prediction limit for next result on MW-4A	0.933	67000	No	-0.765	41900	0.0285	97.2	-34	17.3	-1.9	Decreasing
MW-3A	No	Manganese	mg/L	No	14	7	NP prediction limit for next result on MW-4A	0.933	0.14	No	-1.16E-07	0.00312	0.331	66.9	-9	18.3	-0.438	No Trend
MW-4A	Yes	Beryllium	µg/L	NC	14	14	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-3A	No	Potassium	µg/L	NC	14	0	NP prediction limit for next result on MW-4A	0.933	4000	No	-0.0631	3520	0.202	79.8	-16	18	-0.835	No Trend
MW-3A	Yes	Selenium	µg/L	No	14	5	NP prediction limit for next result on MW-4A	0.933	1.1	No	0.000181	-2.77	0.0175	98.2	39	18	2.11	Increasing
MW-3A	No	Sodium	µg/L	NC	14	0	NP prediction limit for next result on MW-4A	0.933	64000	No	0	44000	0.478	52.2	2	17.9	0.0557	No Trend
MW-6A	Yes	Beryllium	µg/L	NC	14	14	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-3A	Yes	Cadmium	µg/L	NC	14	13	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-3A	Yes	Zinc	µg/L	No	14	12	NP prediction limit for next result on MW-4A	0.933	10	No	-0.00449	94.8	0.000581	99.9	-60	18.2	-3.25	Decreasing
MW-4	Yes	Arsenic	µg/L	No	14	0	NP prediction limit for next result on MW-4A	0.933	2.24	No	-0.000408	10.1	0.0231	97.7	-37	18.1	-1.99	Decreasing
MW-4	Yes	Barium	µg/L	No	14	0	NP prediction limit for next result on MW-4A	0.933	210	No	0.0139	-70.9	0.033	96.7	34	17.9	1.84	Increasing
MW-4	Yes	Cadmium	µg/L	NC	14	13	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-3A	Yes	Chromium	µg/L	No	14	10	NP prediction limit for next result on MW-4A	0.933	2	No	NC	NC	NC	NC	NC	NC	NC	NC
MW-4	No	Calcium	µg/L	NC	14	0	NP prediction limit for next result on MW-4A	0.933	170000	No	11.4	-66000	0.0469	95.3	31	17.9	1.68	Increasing
MW-4	Yes	Chromium	µg/L	No	14	10	NP prediction limit for next result on MW-4A	0.933	2	No	NC	NC	NC	NC	NC	NC	NC	NC
MW-4	Yes	Cobalt	µg/L	NC	14	11	NP prediction limit for next result on MW-4A	0.933	0.82	No	-0.000345	7.4	0.000889	99.9	-58	18.2	-3.12	Decreasing
MW-4A	Yes	Chromium	µg/L	No	14	10	NP prediction limit for next result	0.933	2	No	NC	NC	NC	NC	NC	NC	NC	NC
MW-4	No	Iron	µg/L	Yes	14	9	NP prediction limit for next result on MW-4A	0.933	720	No	-0.0817	1950	0.137	86.3	-21	18.3	-1.09	No Trend
MW-4A	Yes	Cadmium	µg/L	NC	14	13	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4	No	Magnesium	µg/L	NC	14	0	NP prediction limit for next result on MW-4A	0.933	67000	No	1.29	38700	0.371	62.9	7	18.2	0.329	No Trend
MW-4	No	Manganese	mg/L	Yes	14	7	NP prediction limit for next result on MW-4A	0.933	0.14	No	-0.0000927	1.88	0.000412	100	-62	18.2	-3.34	Decreasing
MW-4	Yes	Nickel	µg/L	NC	14	12	NP prediction limit for next result on MW-4A	0.933	1.3	No	-0.000299	6.78	0.0201	98	-38	18	-2.05	Decreasing
MW-4	No	Potassium	µg/L	NC	14	0	NP prediction limit for next result on MW-4A	0.933	4000	No	-0.14	6020	0.0589	94.1	-29	17.9	-1.57	No Trend
MW-6A	Yes	Chromium	µg/L	No	14	10	NP prediction limit for next result on MW-4A	0.933	2	No	NC	NC	NC	NC	NC	NC	NC	NC
MW-4	No	Sodium	µg/L	NC	14	0	NP prediction limit for next result on MW-4A	0.933	64000	No	1.02	35700	0.413	58.7	5	18.1	0.221	No Trend
MW-6A	Yes	Cadmium	µg/L	NC	14	13	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4	Yes	Vanadium	µg/L	NC	14	5	NP prediction limit for next result on MW-4A	0.933	2	No	0.000737	-11.9	0.0296	97	35	18	1.89	Increasing
MW-4A	Yes	Cobalt	µg/L	NC	14	11	NP prediction limit for next result	0.933	0.82	No	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	Arsenic	µg/L	No	14	0	NP prediction limit for next result	0.933	2.24	No	0	1.4	0.361	63.9	-7	16.9	-0.355	No Trend
MW-4A	Yes	Barium	µg/L	No	14	0	NP prediction limit for next result	0.933	210	No	-0.00483	270	0.198	80.2	-16	17.7	-0.848	No Trend
MW-3A	Yes	Copper	µg/L	No	14	12	NP prediction limit for next result on MW-4A	0.933	2.83	No	NC	NC	NC	NC	NC	NC	NC	NC
MW-4	Yes	Copper	µg/L	No	14	12	NP prediction limit for next result on MW-4A	0.933	2.83	No	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	No	Calcium	µg/L	NC	14	0	NP prediction limit for next result	0.933	170000	No	-1.36	110000	0.22	78	-15	18.2	-0.771	No Trend
MW-4A	Yes	Copper	µg/L	No	14	12	NP prediction limit for next result	0.933	2.83	No	NC	NC	NC	NC	NC	NC	NC	NC
MW-5AR	Yes	Chromium	µg/L	NC	14	10	NP prediction limit for next result on MW-4A	0.933	2	No	NC	NC	NC	NC	NC	NC	NC	NC
MW-6A	Yes	Copper	µg/L	No	14	12	NP prediction limit for next result on MW-4A	0.933	2.83	No	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	No	Iron	µg/L	No	14	9	NP prediction limit for next result	0.933	720	No	NC	NC	NC	NC	NC	NC	NC	NC
MW-6A	No	Iron	µg/L	No	14	9	NP prediction limit for next result on MW-4A	0.933	720	No	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	No	Magnesium	µg/L	NC	14	0	NP prediction limit for next result	0.933	67000	No	0	18000	0.0995	90	-22	16.3	-1.29	No Trend
MW-4A	No	Manganese	mg/L	No	14	7	NP prediction limit for next result	0.933	0.14	No	6.57E-08	-0.000519	0.413	58.7	5	18.1	0.221	No Trend

Table G.9
Cell 4 Statistical Results - Inorganics

Dataset				General											Confidence limits		
Well ID	RCRA regulated chemical	Analyte	Unit	Min Date	Max Date	Standard source	Standard	Latest Result	Last Q	Latest Result > Standard	Dataset n	ND %	Parameter est. method	Dataset mean	sd	CL method	CL conf	LCL of the mean
MW-3A	Yes	Lead	µg/L	04/11/2018	09/06/2024	ID GW - PRIMARY	15	0.23	UJ	No	14	78.6	NP Kaplan-Meier	0.209	0.0718	Bootstrap	0.95	0
MW-4A	No	Potassium	µg/L	04/11/2018	09/05/2024	NA	NA	3700		NC	14	0	Ordinary nonparametric bootstrap	3460	284	BCa bootstrap	0.95	3310
MW-4A	Yes	Selenium	µg/L	04/11/2018	09/05/2024	EPA MCL	50	1	U	No	14	35.7	NP Kaplan-Meier	0.897	0.201	Bootstrap	0.95	0.748
MW-4	Yes	Lead	µg/L	04/11/2018	09/05/2024	ID GW - PRIMARY	15	0.23	UJ	No	14	85.7	NP Kaplan-Meier	0.196	0.0508	Bootstrap	0.95	0
MW-4A	No	Sodium	µg/L	04/11/2018	09/05/2024	NA	NA	55000		NC	14	0	Ordinary nonparametric bootstrap	60300	3380	BCa bootstrap	0.95	58500
MW-3A	Yes	Cobalt	µg/L	04/11/2018	09/06/2024	NA	NA	0.33	UJ	NC	14	92.9	Does not take in to account ND status	0.17	0.116	Not enough distinct detected values to assess	NC	NC
MW-6A	Yes	Cobalt	µg/L	04/11/2018	09/04/2024	NA	NA	0.33	UJ	NC	14	92.9	Does not take in to account ND status	0.173	0.113	Not enough distinct detected values to assess	NC	NC
MW-4A	Yes	Vanadium	µg/L	04/11/2018	09/05/2024	NA	NA	1.1	J	NC	14	35.7	NP Kaplan-Meier	1.26	0.291	Bootstrap	0.95	1.12
MW-3A	Yes	Nickel	µg/L	04/11/2018	09/06/2024	NA	NA	0.83	U	NC	14	85.7	NP Kaplan-Meier	0.326	0.0707	Bootstrap	0.95	0
MW-5AR	Yes	Copper	µg/L	07/21/2021	09/05/2024	EPA MCL	1300	0.71	U	No	8	87.5	Does not take in to account ND status	0.638	0.0778	Not enough distinct detected values to assess	NC	NC
MW-4A	Yes	Lead	µg/L	04/11/2018	09/05/2024	ID GW - PRIMARY	15	0.23	UJ	No	14	92.9	Does not take in to account ND status	0.203	0.0276	Not enough distinct detected values to assess	NC	NC
MW-6A	Yes	Lead	µg/L	04/11/2018	09/04/2024	ID GW - PRIMARY	15	0.23	UJ	No	14	92.9	Does not take in to account ND status	0.206	0.035	Not enough distinct detected values to assess	NC	NC
MW-6A	Yes	Nickel	µg/L	04/11/2018	09/04/2024	NA	NA	0.83	U	NC	14	92.9	Does not take in to account ND status	0.478	0.246	Not enough distinct detected values to assess	NC	NC
MW-4	Yes	Selenium	µg/L	04/11/2018	09/05/2024	EPA MCL	50	1.1	J	No	14	92.9	Does not take in to account ND status	0.581	0.305	Not enough distinct detected values to assess	NC	NC
MW-4A	Yes	Nickel	µg/L	04/11/2018	09/05/2024	NA	NA	1.3	J	NC	14	85.7	NP Kaplan-Meier	0.385	0.257	Bootstrap	0.95	0
MW-5AR	Yes	Barium	µg/L	07/21/2021	09/05/2024	EPA MCL	2000	94		No	8	0	Ordinary nonparametric bootstrap	93.8	14.9	BCa bootstrap	0.95	83.5
MW-5AR	No	Calcium	µg/L	07/21/2021	09/05/2024	NA	NA	83000		NC	8	0	Ordinary nonparametric bootstrap	70100	12300	BCa bootstrap	0.95	61900
MW-5AR	Yes	Nickel	µg/L	07/21/2021	09/05/2024	NA	NA	0.83	U	NC	8	62.5	NP Kaplan-Meier	0.58	0.341	Bootstrap	0.95	0
MW-5AR	Yes	Cobalt	µg/L	07/21/2021	09/05/2024	NA	NA	0.33	UJ	NC	8	50	NP Kaplan-Meier	0.565	0.417	Bootstrap	0.95	0
MW-5AR	No	Iron	µg/L	07/21/2021	09/05/2024	ID GW - SECONDARY	300	13	J	No	8	37.5	NP Kaplan-Meier	204	263	Bootstrap	0.95	36.4
MW-5AR	No	Magnesium	µg/L	07/21/2021	09/05/2024	NA	NA	27000		NC	8	0	Ordinary nonparametric bootstrap	23200	2710	BCa bootstrap	0.95	21500
MW-5AR	No	Manganese	mg/L	07/21/2021	09/05/2024	ID GW - SECONDARY	0.05	0.0009	J	No	8	0	Ordinary nonparametric bootstrap	0.104	0.154	BCa bootstrap	0.95	0.015
MW-4A	Yes	Silver	µg/L	04/11/2018	09/05/2024	ID GW - SECONDARY	100	0.045	U	No	14	92.9	Does not take in to account ND status	0.0563	0.0732	Not enough distinct detected values to assess	NC	NC
MW-5AR	No	Potassium	µg/L	07/21/2021	09/05/2024	NA	NA	2900		NC	8	0	Ordinary nonparametric bootstrap	3810	1200	BCa bootstrap	0.95	3100
MW-5AR	Yes	Selenium	µg/L	07/21/2021	09/05/2024	EPA MCL	50	1	J	No	8	62.5	NP Kaplan-Meier	0.565	0.214	Bootstrap	0.95	0
MW-5AR	No	Sodium	µg/L	07/21/2021	09/05/2024	NA	NA	280000		NC	8	0	Ordinary nonparametric bootstrap	242000	39900	BCa bootstrap	0.95	214000
MW-3A	Yes	Thallium	µg/L	04/11/2018	09/06/2024	EPA MCL	2	0.21	UJ	No	14	92.9	Does not take in to account ND status	0.128	0.0618	Not enough distinct detected values to assess	NC	NC
MW-6A	Yes	Arsenic	µg/L	04/11/2018	09/04/2024	EPA MCL	10	0.5	U	No	14	14.3	NP Kaplan-Meier	0.522	0.236	Bootstrap	0.95	0.427
MW-6A	Yes	Barium	µg/L	04/11/2018	09/04/2024	EPA MCL	2000	200		No	14	0	Ordinary nonparametric bootstrap	202	10.4	BCa bootstrap	0.95	197
MW-4A	Yes	Thallium	µg/L	04/11/2018	09/05/2024	EPA MCL	2	0.21	UJ	No	14	100	Does not take in to account ND status	0.128	0.0614	Not enough distinct detected values to assess	NC	NC
MW-3A	Yes	Tin	µg/L	04/11/2018	09/06/2024	NA	NA	0.58	U	NC	14	78.6	NP Kaplan-Meier	0.575	0.396	Bootstrap	0.95	0
MW-6A	No	Calcium	µg/L	04/11/2018	09/04/2024	NA	NA	69000		NC	14	0	Ordinary nonparametric bootstrap	72500	2980	BCa bootstrap	0.95	70900
MW-4	Yes	Tin	µg/L	04/11/2018	09/05/2024	NA	NA	0.58	U	NC	14	92.9	Does not take in to account ND status	0.696	0.139	Not enough distinct detected values to assess	NC	NC
MW-5AR	Yes	Tin	µg/L	07/21/2021	09/05/2024	NA	NA	0.58	U	NC	8	62.5	NP Kaplan-Meier	0.801	0.369	Bootstrap	0.95	0
MW-4A	Yes	Tin	µg/L	04/11/2018	09/05/2024	NA	NA	0.58	U	NC	14	92.9	Does not take in to account ND status	0.684	0.136	Not enough distinct detected values to assess	NC	NC
MW-3A	Yes	Vanadium	µg/L	04/11/2018	09/06/2024	NA	NA	1.1	U	NC	14	85.7	NP Kaplan-Meier	0.352	0.235	Bootstrap	0.95	0
MW-6A	No	Magnesium	µg/L	04/11/2018	09/04/2024	NA	NA	43000		NC	14	0	Ordinary nonparametric bootstrap	43200	2040	BCa bootstrap	0.95	42200
MW-6A	No	Manganese	mg/L	04/11/2018	09/04/2024	ID GW - SECONDARY	0.05	0.0005	UJ	No	14	35.7	NP Kaplan-Meier	0.00116	0.00212	Bootstrap	0.95	0.000454
MW-6A	Yes	Tin	µg/L	04/11/2018	09/04/2024	NA	NA	0.58	U	NC	14	92.9	Does not take in to account ND status	0.688	0.125	Not enough distinct detected values to assess	NC	NC
MW-6A	Yes	Vanadium	µg/L	04/11/2018	09/04/2024	NA	NA	1.1	U	NC	14	85.7	NP Kaplan-Meier	0.582	0.201	Bootstrap	0.95	0
MW-6A	No	Potassium	µg/L	04/11/2018	09/04/2024	NA	NA	2000		NC	14	0	Ordinary nonparametric bootstrap	1980	206	BCa bootstrap	0.95	1880
MW-6A	Yes	Selenium	µg/L	04/11/2018	09/04/2024	EPA MCL	50	1	U	No	14	42.9	NP Kaplan-Meier	0.631	0.188	Bootstrap	0.95	0.525
MW-6A	No	Sodium	µg/L	04/11/2018	09/04/2024	NA	NA	50000		NC	14	0	Ordinary nonparametric bootstrap	51900	1810	BCa bootstrap	0.95	51000
MW-4	Yes	Zinc	µg/L	04/11/2018	09/05/2024	ID GW - SECONDARY	5000	2	U	No	14	78.6	NP Kaplan-Meier	2.26	0.441	Bootstrap	0.95	0
MW-4A	Yes	Zinc	µg/L	04/11/2018	09/05/2024	ID GW - SECONDARY	5000	2	U	No	14	85.7	NP Kaplan-Meier	2.12	0.299	Bootstrap	0.95	0
MW-6A	Yes	Zinc	µg/L	04/11/2018	09/04/2024	ID GW - SECONDARY	5000	2	U	No	14	64.3	NP Kaplan-Meier	3.37	2.58	Bootstrap	0.95	2.21

See Appendix G Table Notes

Table G.9
Cell 4 Statistical Results - Inorganics

Dataset					Prediction limit						Trend analysis							
Well ID	RCRA regulated chemical	Analyte	Unit	LCL > Standard	N (background)	ND (background)	UPL method	UPL conf	UPL of background	Latest Result > UPL of background	TS Slope	TS Intercept	p-value	Confidence Level %	S	sd(S)	Z	Direction
MW-3A	Yes	Lead	µg/L	No	14	13	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	No	Potassium	µg/L	NC	14	0	NP prediction limit for next result	0.933	4000	No	-0.227	7720	0.0306	96.9	-35	18.2	-1.87	Decreasing
MW-4A	Yes	Selenium	µg/L	No	14	5	NP prediction limit for next result	0.933	1.1	No	0.0000189	0.626	0.0715	92.8	27	17.7	1.46	No Trend
MW-4	Yes	Lead	µg/L	No	14	13	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	No	Sodium	µg/L	NC	14	0	NP prediction limit for next result	0.933	64000	No	-1.78	94700	0.0262	97.4	-36	18	-1.94	Decreasing
MW-3A	Yes	Cobalt	µg/L	NC	14	11	NP prediction limit for next result on MW-4A	0.933	0.82	No	NC	NC	NC	NC	NC	NC	NC	NC
MW-6A	Yes	Cobalt	µg/L	NC	14	11	NP prediction limit for next result on MW-4A	0.933	0.82	No	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	Vanadium	µg/L	NC	14	5	NP prediction limit for next result	0.933	2	No	0	1.2	0.211	78.9	15	17.4	0.803	No Trend
MW-3A	Yes	Nickel	µg/L	NC	14	12	NP prediction limit for next result on MW-4A	0.933	1.3	No	NC	NC	NC	NC	NC	NC	NC	NC
MW-5AR	Yes	Copper	µg/L	NC	14	12	NP prediction limit for next result on MW-4A	0.933	2.83	No	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	Lead	µg/L	NC	14	13	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-6A	Yes	Lead	µg/L	NC	14	13	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-6A	Yes	Nickel	µg/L	NC	14	12	NP prediction limit for next result on MW-4A	0.933	1.3	No	NC	NC	NC	NC	NC	NC	NC	NC
MW-4	Yes	Selenium	µg/L	NC	14	5	NP prediction limit for next result on MW-4A	0.933	1.1	No	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	Nickel	µg/L	NC	14	12	NP prediction limit for next result	0.933	1.3	No	NC	NC	NC	NC	NC	NC	NC	NC
MW-5AR	Yes	Barium	µg/L	No	14	0	NP prediction limit for next result on MW-4A	0.933	210	No	-0.00604	216	0.45	55	-2	7.96	-0.126	No Trend
MW-5AR	No	Calcium	µg/L	NC	14	0	NP prediction limit for next result on MW-4A	0.933	170000	No	16.9	-255000	0.0163	98.4	18	7.96	2.14	Increasing
MW-5AR	Yes	Nickel	µg/L	NC	14	12	NP prediction limit for next result on MW-4A	0.933	1.3	No	NC	NC	NC	NC	NC	NC	NC	NC
MW-5AR	Yes	Cobalt	µg/L	NC	14	11	NP prediction limit for next result on MW-4A	0.933	0.82	No	-0.000268	5.62	0.00264	99.7	-22	7.53	-2.79	Decreasing
MW-5AR	No	Iron	µg/L	No	14	9	NP prediction limit for next result on MW-4A	0.933	720	No	-0.458	9160	0.0232	97.7	-16	7.53	-1.99	Decreasing
MW-5AR	No	Magnesium	µg/L	NC	14	0	NP prediction limit for next result on MW-4A	0.933	67000	No	5.89	-90800	0.00632	99.4	21	8.02	2.49	Increasing
MW-5AR	No	Manganese	mg/L	No	14	7	NP prediction limit for next result on MW-4A	0.933	0.14	No	-0.000242	4.77	0.000418	100	-28	8.08	-3.34	Decreasing
MW-4A	Yes	Silver	µg/L	NC	14	13	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-5AR	No	Potassium	µg/L	NC	14	0	NP prediction limit for next result on MW-4A	0.933	4000	No	-2.16	45500	0.00416	99.6	-22	7.96	-2.64	Decreasing
MW-5AR	Yes	Selenium	µg/L	No	14	5	NP prediction limit for next result on MW-4A	0.933	1.1	No	NC	NC	NC	NC	NC	NC	NC	NC
MW-5AR	No	Sodium	µg/L	NC	14	0	NP prediction limit for next result on MW-4A	0.933	64000	Yes	67.7	-1080000	0.0673	93.3	13	8.02	1.5	No Trend
MW-3A	Yes	Thallium	µg/L	NC	14	14	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-6A	Yes	Arsenic	µg/L	No	14	0	NP prediction limit for next result on MW-4A	0.933	2.24	No	0.0000585	-0.623	0.222	77.8	15	18.3	0.766	No Trend
MW-6A	Yes	Barium	µg/L	No	14	0	NP prediction limit for next result on MW-4A	0.933	210	No	-0.00546	305	0.0687	93.1	-27	17.5	-1.49	No Trend
MW-4A	Yes	Thallium	µg/L	NC	14	14	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-3A	Yes	Tin	µg/L	NC	14	13	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-6A	No	Calcium	µg/L	NC	14	0	NP prediction limit for next result on MW-4A	0.933	170000	No	-2.23	114000	0.0237	97.6	-37	18.2	-1.98	Decreasing
MW-4	Yes	Tin	µg/L	NC	14	13	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-5AR	Yes	Tin	µg/L	NC	14	13	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	Tin	µg/L	NC	14	13	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-3A	Yes	Vanadium	µg/L	NC	14	5	NP prediction limit for next result on MW-4A	0.933	2	No	NC	NC	NC	NC	NC	NC	NC	NC
MW-6A	No	Magnesium	µg/L	NC	14	0	NP prediction limit for next result on MW-4A	0.933	67000	No	-2.03	81600	0.0096	99	-43	17.9	-2.34	Decreasing
MW-6A	No	Manganese	mg/L	No	14	7	NP prediction limit for next result on MW-4A	0.933	0.14	No	-2.25E-07	0.00495	0.148	85.2	-20	18.2	-1.04	No Trend
MW-6A	Yes	Tin	µg/L	NC	14	13	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC	NC
MW-6A	Yes	Vanadium	µg/L	NC	14	5	NP prediction limit for next result on MW-4A	0.933	2	No	NC	NC	NC	NC	NC	NC	NC	NC
MW-6A	No	Potassium	µg/L	NC	14	0	NP prediction limit for next result on MW-4A	0.933	4000	No	-0.204	5850	0.00862	99.1	-44	18.1	-2.38	Decreasing
MW-6A	Yes	Selenium	µg/L	No	14	5	NP prediction limit for next result on MW-4A	0.933	1.1	No	0.000234	-3.67	0.0536	94.6	30	18	1.61	No Trend
MW-6A	No	Sodium	µg/L	NC	14	0	NP prediction limit for next result on MW-4A	0.933	64000	No	-1.41	78200	0.0139	98.6	-40	17.7	-2.2	Decreasing
MW-4	Yes	Zinc	µg/L	No	14	12	NP prediction limit for next result on MW-4A	0.933	10	No	NC	NC	NC	NC	NC	NC	NC	NC
MW-4A	Yes	Zinc	µg/L	No	14	12	NP prediction limit for next result	0.933	10	No	NC	NC	NC	NC	NC	NC	NC	NC
MW-6A	Yes	Zinc	µg/L	No	14	12	NP prediction limit for next result on MW-4A	0.933	10	No	NC	NC	NC	NC	NC	NC	NC	NC

See Appendix G Table Notes