

**APPENDIX 3D
GROUNDWATER
MONITORING DATA**

Summary of Groundwater Results 2022

Site	Water Level (mbgl)			pH			EC (uS/cm)		
	Min	Max	Ave	Min	Max	Ave	Min	Max	Ave
GWa1	-	-	-	-	-	-	-	-	-
GWa2	0.82	1.19	1.04	6.60	7.00	6.76	447	884	587
GWa3	2.22	3.91	3.18	6.70	7.40	6.97	567	1740	1175
GWa4	-	-	-	7.20	7.20	7.20	-	-	-
GWa5	0.76	2.49	1.71	7.20	7.60	7.35	1300	16000	9248
GWa6	0.44	1.28	0.80	7.20	7.50	7.37	2120	4520	3131
GWa7	3.01	3.90	3.43	7.20	7.50	7.30	12700	14300	13500
GWa8	0.78	1.45	1.15	6.90	7.10	7.02	876	2540	2308
GWa10	2.64	3.10	2.95	6.80	7.10	6.95	2180	4070	3440
GWa11	2.96	3.54	3.37	7.30	7.70	7.51	1030.00	1610.00	1328.18
GWa12	2.00	3.51	2.91	7.50	7.90	7.66	540.00	1360.00	941.43
GWa14	1.44	4.42	2.93	7.30	7.30	0.00	911.00	911.00	911.00
GWa15	1.97	2.66	2.43	7.10	7.70	7.47	579.00	1310.00	1087.14
GWa16	0.89	2.05	1.48	7.00	7.40	7.18	2090.00	22600.00	18298.33
GWa32	1.18	1.83	1.54	7.10	7.30	7.20	2980.00	3940.00	3490.00
GWa34	2.59	4.87	3.63	4.40	7.40	6.25	117.00	3197.06	3197.06
GWa36	3.48	4.87	4.02	7.10	7.40	7.32	4600.00	6460.00	5448.33
GWc1	8.77	10.21	9.70	6.90	7.10	7.03	2920.00	3390.00	3176.00
GWc2	1.75	8.93	5.08	7.00	7.50	7.17	1150.00	1320.00	1247.27
GWc3	2.57	5.88	4.41	7.40	7.60	7.46	2630.00	4640.00	3852.00
GWc4	12.73	14.76	13.89	6.40	6.80	6.61	2140.00	2530.00	2400.83
GWc5	3.54	5.90	4.83	6.30	6.60	6.53	5250.00	5620.00	5460.83
GWc10	1.30	4.92	3.45	6.70	7.20	6.88	3430.00	3920.00	3660.00
GWc11	5.57	9.68	7.65	6.30	6.70	6.44	1490.00	3150.00	2038.33
GWc12	7.52	12.38	10.09	7.40	7.60	7.49	2150.00	2420.00	2251.43
GWc14	4.10	9.16	6.87	7.40	7.60	7.48	2550.00	2870.00	2626.25
GWc15	6.04	10.09	8.48	7.00	7.30	7.20	1440.00	1580.00	1494.29
GWc16	25.10	31.18	28.56	7.10	7.30	7.20	2180.00	2540.00	2349.17
GWc17	-	-	-	-	-	-	-	-	-
GWc18	-	-	-	-	-	-	-	-	-
GWc19	-	-	-	-	-	-	-	-	-
GWc24	-	-	-	-	-	-	-	-	-
GWc25	4.66	7.52	6.09	6.60	6.80	6.69	330.00	602.00	424.45
GWc26	47.59	51.27	49.21	7.10	9.20	7.63	716.00	1360.00	1178.00
GWc27	15.38	16.60	15.90	3.40	4.70	3.64	15.38	16.60	15.90
GWc28	-	-	-	-	-	-	-	-	-
GWc29	-	-	-	-	-	-	-	-	-
GWc30	21.61	30.35	28.73	6.60	7.60	6.86	1260.00	3350.00	2784.44
GWc31	47.99	50.56	49.28	6.70	6.70	6.70	4960.00	4960.00	4960.00
GWc32	1.74	4.03	3.45	6.40	7.00	6.61	3150.00	6250.00	3678.33
GWc33	43.73	48.77	47.04	12.10	12.70	12.39	4080.00	4910.00	4628.00
GWc34	19.42	20.24	19.75	6.80	7.10	6.97	4230.00	4350.00	4276.67
GWc35	-	-	-	-	-	-	-	-	-
GWc36	7.12	11.65	9.51	6.50	6.90	6.65	2950.00	3830.00	3487.50
GWc37	25.10	25.38	25.24	6.20	6.40	6.25	2310.00	2510.00	2445.00
GWf1	-	-	-	-	-	-	-	-	-
GWf2	24.15	24.26	24.20	-	-	-	-	-	-
GWf3	17.36	19.10	18.12	6.70	6.80	6.73	3700.00	3980.00	3840.00
GWf4	12.79	13.01	12.90	-	-	-	-	-	-
GWf5	-	-	-	-	-	-	-	-	-
GWf6	9.79	9.79	9.79	-	-	-	-	-	-
GWf7	9.96	9.96	9.96	-	-	-	-	-	-

Summary of Groundwater Results 2021

Site	Water Level (mbgl)			pH			EC (uS/cm)		
	Min	Max	Ave	Min	Max	Ave	Min	Max	Ave
GWa1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GWa2	0.99	1.61	1.26	6.60	6.90	6.73	533.00	931.00	639.75
GWa3	2.70	4.28	3.94	6.80	7.40	7.16	604.00	1660.00	1241.42
GWa4	3.67	4.22	3.95	7.20	7.20	7.20	3300.00	4390.00	3845.00
GWa5	2.62	3.68	3.23	7.40	7.60	7.48	13600.00	21200.00	17480.00
GWa6	0.93	1.96	1.35	7.40	8.10	7.80	1710.00	5760.00	3251.00
GWa7	3.96	4.39	4.08	7.20	7.50	7.30	12700.00	14300.00	13500.00
GWa8	0.94	1.61	1.39	7.00	7.20	7.08	2500.00	2710.00	2604.17
GWa10	1.35	3.80	2.70	6.80	8.00	7.40	380.00	22100.00	4958.21
GWa11	3.39	3.77	3.53	7.40	7.60	7.48	1200.00	1430.00	1295.00
GWa12	1.35	13.35	5.15	7.40	8.00	7.87	380.00	1350.00	546.83
GWa14	2.39	2.39	2.39	7.20	7.20	0.00	1100.00	1100.00	1100.00
GWa15	2.36	2.74	2.59	6.80	7.70	7.15	1300.00	1430.00	1350.83
GWa16	1.35	2.17	1.72	7.40	7.50	7.43	19800.00	22100.00	20808.33
GWa32	1.52	20.30	9.74	3.70	14.59	7.13	166.00	6830.00	3344.28
GWa34	4.17	5.89	4.49	3.70	7.50	4.73	166.00	5353.54	5353.54
GWa36	15.03	15.03	15.03	3.50	3.50	3.50	1800.00	1800.00	1800.00
GWc1	9.23	10.35	10.04	7.00	7.20	7.08	3270.00	3660.00	3444.17
GWc2	9.91	13.35	12.01	7.10	7.20	7.18	1130.00	1270.00	1201.67
GWc3	6.90	7.50	7.13	5.75	14.59	10.59	4610.00	6640.00	5599.17
GWc4	14.65	15.76	14.91	6.60	6.70	6.68	2310.00	2460.00	2393.64
GWc5	5.22	5.71	5.53	6.50	6.80	6.68	5400.00	5690.00	5549.17
GWc10	2.02	4.21	3.44	6.80	7.10	6.91	3490.00	3790.00	3607.50
GWc11	10.49	12.92	11.98	6.50	6.60	6.56	3310.00	3490.00	3390.83
GWc12	14.10	20.30	17.70	7.40	7.60	7.54	1750.00	2100.00	1920.00
GWc14	10.54	18.45	14.41	7.20	7.60	7.40	1970.00	2570.00	2245.00
GWc15	3.86	49.01	23.34	3.50	12.50	7.28	183.00	4850.00	2605.86
GWc16	28.72	31.43	30.64	7.20	7.30	7.25	2010.00	2200.00	2110.00
GWc17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GWc18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GWc19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GWc24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GWc25	8.28	28.75	23.53	3.50	12.50	7.31	183.00	4850.00	2813.89
GWc26	3.86	49.01	34.87	3.50	12.50	7.39	183.00	4850.00	3012.36
GWc27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GWc28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GWc29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GWc30	30.24	31.50	30.77	6.80	6.90	6.83	3050.00	3300.00	3163.33
GWc31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GWc32	3.86	4.12	4.01	6.50	6.80	6.72	183.00	3560.00	2922.67
GWc33	42.65	46.74	36.57	7.20	12.50	10.60	2250.00	4850.00	3925.00
GWc34	20.29	20.46	20.39	7.20	7.40	7.25	4350.00	4490.00	4436.67
GWc35	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GWc36	12.95	14.71	13.68	6.50	6.70	6.61	2830.00	3630.00	3079.17
GWc37	25.10	25.11	25.11	6.30	6.40	6.37	2460.00	2500.00	2473.33

Summary of Groundwater Results 2020

Site	Water Level (mbgl)			pH			EC (uS/cm)		
	Min	Max	Ave	Min	Max	Ave	Min	Max	Ave
GWa1	4.97	5.02	5.00	0.00	0.00	0.00	0.00	0.00	
GWa2	1.33	5.42	2.32	6.80	6.90	6.82	916.00	1620.00	1371.60
GWa3	4.17	5.60	4.99	7.30	7.30	7.30	821.00	1160.00	
GWa4	4.91	5.17	5.04	7.20	7.30	0.00	0.00	0.00	0.00
GWa5	3.28	3.80	3.64	7.20	7.40	7.28	14600.00	17800.00	16450.00
GWa6	1.29	2.90	1.88	7.70	7.90	7.83	3060.00	10800.00	6436.00
GWa7	4.29	5.19	4.77	7.20	7.30	7.25	13500.00	13800.00	13650.00
GWa8	1.41	2.61	1.75	7.00	7.10	7.01	2450.00	2760.00	2632.73
GWa10	3.00	5.33	3.72	6.30	7.30	7.02	586.00	3430.00	1545.91
GWa11	3.47	4.74	3.78	7.40	7.60	7.51	1300.00	1520.00	1408.57
GWa12	3.05	5.80	3.80	7.60	8.10	7.83	394.00	1990.00	783.14
GWa14	1.72	4.96	2.61	7.60	7.70	0.00	907.00	1040.00	984.25
GWa15	2.50	4.02	2.77	7.00	7.00	7.00	1290.00	1780.00	1532.50
GWa16	1.40	4.05	2.41	0.00	0.00		15800.00	19400.00	17500.00
GWa32	1.72	2.72	1.95	7.10	7.40	7.29	3090.00	4780.00	3775.83
GWa34	3.89	4.80	4.41	3.80	5.70	4.63	748.00	4783.80	4783.80
GWa36	5.94	5.97	5.96	0.00	0.00		0.00	0.00	#DIV/0!
GWc1	10.64	21.11	12.58	7.00	7.30	7.11	2300.00	3960.00	2835.00
GWc2	13.34	21.19	16.74	7.10	7.20	7.16	1230.00	1390.00	1281.82
GWc3	13.97	16.46	15.24	7.00	7.00	7.00	4890.00	6000.00	5505.00
GWc4	15.19	16.42	15.88	6.50	6.80	6.70	2150.00	2460.00	2389.17
GWc5	5.71	6.74	6.32	6.60	6.90	6.71	5410.00	5630.00	5531.54
GWc10	5.74	11.60	7.45	6.90	7.30	7.10	3750.00	3910.00	3810.00
GWc11	13.95	22.68	17.18	6.20	6.60	6.42	2430.00	4280.00	3184.55
GWc12	21.74	39.59	29.33	7.00	7.50	7.24	1240.00	4740.00	3012.50
GWc14	21.29	37.13	28.41	7.10	7.50	7.33	1280.00	2060.00	1663.64
GWc15	22.31	32.91	27.46	7.10	7.20	7.14	1290.00	1780.00	1532.50
GWc16	30.39	32.36	31.54	7.20	7.30	7.26	1910.00	1990.00	1941.82
GWc17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GWc18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GWc19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GWc24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GWc25	32.44	35.27	34.05	6.80	6.90	6.85	2170.00	2190.00	2180.00
GWc26	43.01	44.91	43.76	7.00	7.50	7.28	1220.00	1350.00	1298.18
GWc27	16.62	16.62	16.62	4.80	5.90	5.23	16.62	16.62	16.62
GWc28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GWc29	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GWc30	31.04	33.39	32.00	6.70	6.90	6.83	3070.00	3280.00	3126.67
GWc31	50.98	51.04	51.01	0.00	0.00		0.00	0.00	
GWc32	3.89	5.18	4.30	6.60	7.20	6.82	217.00	3590.00	2893.42
GWc33	40.54	49.57	42.60	12.10	12.40	12.28	2330.00	4450.00	3245.00
GWc34	20.26	20.51	20.35	7.20	7.20	7.20	4730.00	4730.00	4730.00
GWc35	49.95	49.95	49.95	0.00	0.00		0.00	0.00	
GWc36	15.31	18.67	16.49	6.00	6.50	6.34	3390.00	4160.00	3642.22

Summary of Groundwater Results 2019

Site	Water Level (mbgl)			pH			EC (uS/cm)		
	Min	Max	Ave	Min	Max	Ave	Min	Max	Ave
GWa1	4.97	4.97	4.97	0.00	0.00	0.00	0.00	0.00	0.00
GWa2	4.80	5.16	5.04	6.80	6.90	6.84	1390.00	1540.00	1482.73
GWa3	5.61	5.61	5.61	0.00	0.00	0.00	0.00	0.00	0.00
GWa4	5.12	5.17	5.15	0.00	0.00	0.00	0.00	0.00	0.00
GWa5	3.87	4.07	3.98	7.50	7.50	7.50	10900.00	11800.00	11225.00
GWa6	2.89	2.89	2.89	0.00	0.00	0.00	0.00	0.00	0.00
GWa7	5.19	5.19	5.19	0.00	0.00	0.00	0.00	0.00	0.00
GWa8	1.59	2.26	1.85	7.00	7.10	7.03	2220.00	2440.00	2355.00
GWa10	4.80	5.19	5.00	7.00	7.10	7.05	3260.00	3370.00	3340.83
GWa11	4.72	4.74	4.73	0.00	0.00	0.00	0.00	0.00	0.00
GWa12	5.80	5.80	5.80	0.00	0.00	0.00	0.00	0.00	0.00
GWa14	4.95	4.95	4.95	0.00	0.00	0.00	0.00	0.00	0.00
GWa15	3.80	3.88	3.84	0.00	0.00	0.00	0.00	0.00	0.00
GWa16	4.08	4.08	4.08	0.00	0.00	0.00	0.00	0.00	0.00
GWa32	1.92	2.54	2.13	7.20	7.50	7.29	3040.00	4070.00	3315.00
GWa34	4.51	4.73	4.63	4.30	4.90	4.60	6140.00	6298.33	6298.33
GWa36	5.94	5.94	5.94	0.00	0.00	0.00	0.00	0.00	#DIV/0!
GWc1	11.23	12.52	11.88	7.00	7.20	7.11	2740.00	3410.00	3010.00
GWc2	16.42	20.38	18.68	7.10	7.20	7.12	1190.00	1280.00	1249.17
GWc3	15.27	16.26	15.62	6.90	6.90	6.90	4380.00	4430.00	4413.33
GWc4	15.52	16.15	15.84	6.60	6.70	6.65	2340.00	2410.00	2374.17
GWc5	5.91	6.82	6.27	6.60	6.70	6.68	5310.00	5560.00	5447.50
GWc10	6.26	9.48	7.60	7.00	7.40	7.13	3750.00	3900.00	3835.00
GWc11	16.65	21.86	19.35	6.40	6.60	6.43	3760.00	4300.00	4160.00
GWc12	33.49	39.06	37.32	7.10	7.40	7.18	2040.00	4510.00	3645.00
GWc14	29.80	36.80	34.50	7.20	7.40	7.34	1110.00	1260.00	1180.00
GWc15	26.17	32.92	30.63	7.00	7.30	7.17	1570.00	1800.00	1702.50
GWc16	30.76	32.70	31.97	7.20	7.30	7.21	1870.00	2110.00	1935.83
GWc17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GWc18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GWc19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GWc24	23.62	26.28	24.91	4.60	4.80	4.73	3470.00	3620.00	3523.33
GWc25	29.66	48.31	32.94	6.80	7.00	6.87	1690.00	2140.00	1991.67
GWc26	40.81	42.52	41.85	7.10	7.30	7.15	1200.00	1270.00	1235.83
GWc27	16.14	16.57	16.44	4.90	5.80	5.34	16.14	16.57	16.44
GWc28	43.21	44.61	43.80	6.70	6.80	6.78	3210.00	3310.00	3280.00
GWc29	44.00	45.21	44.54	6.80	7.00	6.86	2250.00	2440.00	2360.00
GWc30	31.90	33.02	32.48	6.70	6.90	6.80	2920.00	3150.00	3033.33
GWc31	51.14	51.34	51.26	0.00	0.00	0.00	0.00	0.00	0.00
GWc32	4.43	4.89	4.59	6.60	6.80	6.69	3400.00	3550.00	3470.00
GWc33	40.45	42.75	41.42	12.30	12.50	12.41	4470.00	5010.00	4668.33
GWc34	20.26	20.50	20.36	7.10	7.20	7.15	4610.00	4760.00	4682.50
GWc35	47.73	48.17	47.90	7.00	7.20	7.08	1180.00	1220.00	1202.00
GWc36	16.37	17.77	17.26	6.10	6.30	6.23	4010.00	4350.00	4215.56

Summary of Groundwater Results 2018

Site	Water Level (mbgl)			pH			EC (uS/cm)		
	Min	Max	Ave	Min	Max	Ave	Min	Max	Ave
GWa1	4.95	4.97	4.96	0.00	0.00	0.00	0.00	0.00	0.00
GWa2	3.96	4.66	4.40	6.70	7.00	6.91	1310.00	1440.00	1395.00
GWa3	5.61	5.61	5.61	0.00	0.00	0.00	0.00	0.00	0.00
GWa4	4.87	5.17	4.97	0.00	0.00	0.00	0.00	0.00	0.00
GWa5	3.87	4.21	3.99	7.40	7.70	7.52	11700.00	14800.00	13360.00
GWa6	2.89	2.89	2.89	0.00	0.00	0.00	0.00	0.00	0.00
GWa7	4.61	5.20	4.97	7.10	7.10	7.10	10800.00	11000.00	10900.00
GWa8	1.56	2.34	1.87	6.90	7.10	7.03	2000.00	2580.00	2156.67
GWa10	4.39	4.64	4.55	6.90	7.20	7.07	3220.00	3400.00	3285.00
GWa11	3.42	4.20	3.68	7.50	7.80	7.69	1560.00	3570.00	2062.22
GWa12	5.39	5.80	5.70	0.00	0.00	0.00	0.00	0.00	0.00
GWa14	4.96	4.97	4.97	0.00	0.00	0.00	0.00	0.00	0.00
GWa15	3.57	3.66	3.62	0.00	0.00	0.00	0.00	0.00	0.00
GWa16	3.95	4.07	4.04	0.00	0.00	0.00	0.00	0.00	0.00
GWa32	1.91	3.16	2.40	7.10	7.40	7.24	3250.00	3800.00	3385.83
GWa34	4.49	4.55	4.53	4.30	4.90	4.57	5970.00	6060.83	6060.83
GWa36	5.84	5.94	5.92	0.00	0.00	0.00	0.00	0.00	0.00
GWc1	10.59	11.31	10.93	6.90	7.20	7.10	3410.00	3660.00	3535.83
GWc2	14.50	15.87	15.26	7.00	7.20	7.12	1210.00	1290.00	1249.17
GWc3	13.10	15.32	14.35	6.70	6.90	6.82	3840.00	4500.00	4133.33
GWc4	14.98	15.43	15.17	6.60	6.70	6.64	2300.00	2580.00	2385.00
GWc5	5.56	6.02	5.83	6.50	6.70	6.63	3570.00	5740.00	5221.67
GWc10	4.60	5.63	5.10	6.70	7.40	7.11	3660.00	3800.00	3726.36
GWc11	15.15	16.02	15.64	6.50	6.70	6.54	3300.00	3850.00	3615.00
GWc12	32.02	36.57	34.92	7.20	7.60	7.43	1270.00	1660.00	1425.00
GWc14	22.89	33.27	30.42	7.30	7.70	7.39	940.00	1160.00	1083.64
GWc15	22.60	29.37	26.91	6.60	7.10	6.88	1600.00	3260.00	2286.67
GWc16	25.61	29.79	27.73	7.10	7.40	7.20	1940.00	2520.00	2179.17
GWc17	42.76	43.81	43.37	6.90	7.10	6.97	1920.00	2800.00	2171.11
GWc18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GWc19	31.06	35.47	33.27	6.50	6.50	6.50	1860.00	1930.00	1895.00
GWc24	22.19	23.16	22.57	3.70	6.00	5.20	3450.00	3580.00	3530.00
GWc25	27.94	29.53	28.67	6.90	7.60	7.33	1550.00	1710.00	1653.33
GWc26	39.47	40.79	40.00	7.10	7.40	7.25	1240.00	1480.00	1333.33
GWc27	15.62	16.16	15.87	4.30	5.70	4.98	15.62	16.16	15.87
GWc28	39.16	44.77	41.81	6.70	6.80	6.78	3000.00	3540.00	3243.33
GWc29	39.91	45.01	42.21	6.80	7.10	6.93	2170.00	2580.00	2258.33
GWc30	31.09	33.25	32.21	6.70	7.00	6.80	2930.00	3100.00	3004.17
GWc31	50.61	51.29	51.03	6.80	6.80	6.80	4190.00	4190.00	4190.00
GWc32	4.06	4.36	4.24	6.50	6.80	6.68	3380.00	3650.00	3448.33
GWc33	39.39	42.22	40.62	12.40	12.60	12.48	5220.00	6950.00	6004.17
GWc34	20.31	20.70	20.48	7.00	7.10	7.08	4330.00	4700.00	4536.00
GWc35	42.06	47.37	44.13	6.90	7.40	7.10	538.00	1240.00	764.25
GWc36	15.13	15.89	15.67	6.30	6.50	6.41	3350.00	4150.00	3843.33

Summary of Groundwater Results 2017

Site	Water Level (mbgl)			pH			EC (uS/cm)		
	Min	Max	Ave	Min	Max	Max	Min	Max	Ave
GWa1	0.00	0.00	0.00	0.00	0.00	0.00	4.89	5.02	4.93
GWa2	2.58	3.70	3.33	6.50	6.60	6.53	1420.00	1690.00	1518.57
GWa3	4.10	4.51	4.31	7.20	7.30	7.22	1550.00	2000.00	1816.67
GWa4	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GWa5	3.60	4.01	3.83	7.40	7.60	7.49	10400.00	15800.00	13296.36
GWa6	1.16	2.15	1.75	7.60	7.60	7.60	8210.00	13600.00	12101.67
GWa7	4.52	4.60	4.56	7.00	7.00	7.00	10400.00	10500.00	10450.00
GWa8	1.42	1.98	1.59	6.90	7.10	7.02	2330.00	2520.00	2430.00
GWa10	3.82	4.17	3.96	6.90	7.10	6.98	3320.00	3470.00	3399.17
GWa11	3.34	3.75	3.49	7.20	7.80	7.65	1450.00	1960.00	1707.50
GWa12	3.86	4.97	4.48	7.70	7.80	7.74	820.00	870.00	843.00
GWa14	4.97	31.45	18.21	0.00	0.00	0.00	0.00	0.00	0.00
GWa15	2.81	3.21	3.07	7.10	7.10	7.10	710.00	710.00	710.00
GWa16	3.47	3.52	3.50	7.30	7.40	7.35	18300.00	18500.00	18400.00
GWa22	-	-	-	-	-	-	-	-	-
GWa32	1.81	3.93	2.19	7.10	7.30	7.21	3480.00	4430.00	4062.50
GWa34	2.43	4.49	4.246818182	4.30	4.90	4.51	5190.00	6210.00	5843.333333
GWc1	9.51	10.20	9.77	7.00	7.30	7.15	2080.00	3540.00	2913.33
GWc2	12.85	14.43	13.80	7.00	7.20	7.11	1240.00	1300.00	1271.67
GWc3	9.27	11.46	10.21	6.80	6.90	6.81	3920.00	4410.00	4037.50
GWc4	14.55	14.85	14.69	6.60	6.70	6.65	2370.00	3110.00	2467.50
GWc5	5.71	6.33	6.00	6.50	6.70	6.61	5340.00	5620.00	5515.00
GWc10	1.84	3.93	2.44	6.50	7.00	6.79	3530.00	3710.00	3605.00
GWc11	14.19	14.59	14.37	6.50	6.60	6.55	3510.00	3710.00	3649.17
GWc12	30.04	34.60	32.61	7.10	7.50	7.28	1160.00	3580.00	1975.00
GWc14	26.33	31.45	29.27	7.30	7.40	7.34	1090.00	1120.00	1104.17
GWc15	2.81	3.21	3.07	7.10	7.10	7.10	710.00	710.00	710.00

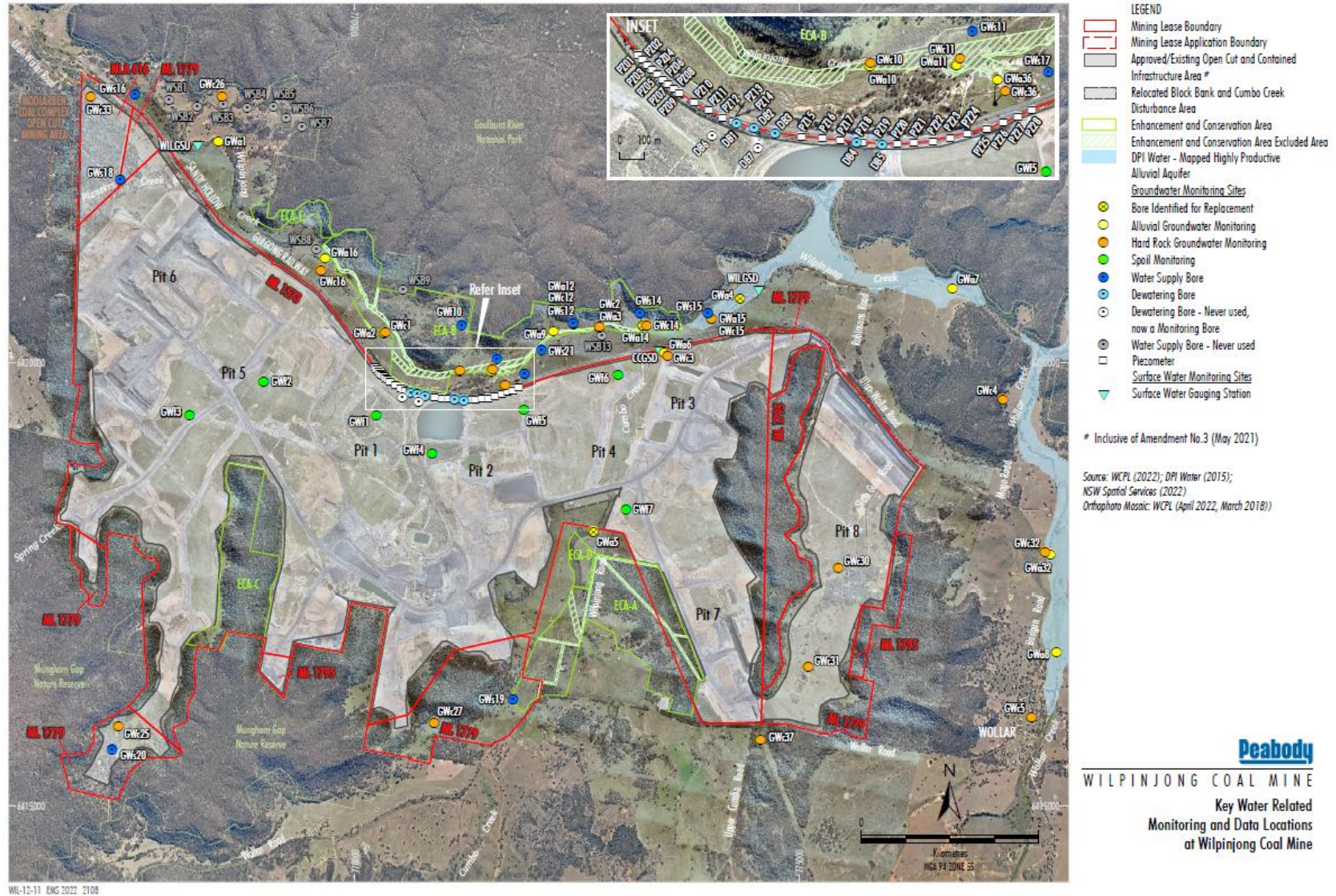
Summary of Groundwater Results 2016

Site	Water Level (mbgl)			pH			EC (uS/cm)		
	Min	Max	Ave	Min	Max	Ave	Min	Max	Ave
GWa1	4.85	5.20	4.94	0.00	0.00	0.00	0.00	0.00	0.00
GWa2	1.37	4.27	3.09	6.60	7.00	6.76	1480.00	1910.00	1621.82
GWa3	3.62	5.12	4.22	7.00	7.40	7.17	500.00	2580.00	1281.43
GWa4	4.02	4.89	4.56	7.00	7.20	7.10	3040.00	3850.00	3546.67
GWa5	2.54	4.33	3.68	7.20	7.60	7.40	8920.00	14200.00	11310.91
GWa6	1.04	2.44	1.62	7.50	7.80	7.63	6640.00	13600.00	9832.00
GWa7	3.25	4.87	4.12	7.00	7.80	7.26	12.83	10800.00	5788.21
GWa8	1.10	2.28	1.59	6.80	7.20	7.03	2080.00	2520.00	2234.55
GWa10	3.03	3.99	3.62	6.80	7.30	6.98	2660.00	3590.00	3350.83
GWa11	3.16	3.62	3.40	7.40	7.70	7.53	1700.00	3070.00	2289.17
GWa12	3.28	5.54	3.93	7.60	7.70	7.63	890.00	1250.00	1030.00
GWa14	1.53	1.53	1.53	7.80	7.80	7.80	790.00	790.00	790.00
GWa15	2.48	3.73	3.41	7.20	7.60	7.38	290.00	2910.00	2354.00
GWa16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
GWa22	3.87	3.92	3.90	6.90	7.10	7.00	5340.00	5470.00	5405.00
GWa32	1.56	2.85	2.11	7.00	7.30	7.16	3740.00	5550.00	4255.00
GWa34	2.80	4.71	4.2275	4.10	6.50	5.25	190.00	6640.00	4740
GWc1	8.62	9.61	9.19	6.90	7.20	7.05	2050.00	3370.00	2762.73
GWc2	12.23	14.62	13.83	7.00	7.20	7.06	1240.00	1290.00	1260.91
GWc3	8.93	14.23	10.77	6.70	7.00	6.82	3810.00	4250.00	4044.55
GWc4	14.26	14.57	14.45	6.70	7.00	6.82	1980.00	2470.00	2348.00
GWc5	5.91	6.56	6.18	6.40	6.80	6.58	5480.00	5700.00	5582.73
GWc10	1.40	2.37	1.97	6.50	7.30	6.94	3580.00	4020.00	3847.50
GWc11	13.34	14.32	13.79	6.20	6.50	6.34	3470.00	3710.00	3573.33
GWc12	26.52	32.29	29.51	6.90	7.30	7.11	1180.00	4130.00	1842.73
GWc14	22.97	30.37	27.10	7.20	7.30	7.25	1080.00	1170.00	1107.27
GWc15	19.37	25.55	22.56	6.50	6.70	6.55	3180.00	3370.00	3266.36

Summary of Groundwater Results 2015

Site	Water Level (mgl)			pH			EC (uS/cm)		
	Min	Max	Ave	Min	Max	Ave	Min	Max	Ave
GWa1	4.94	5.21	5.05	0.00	0.00	-	0.00	0.00	-
GWa2	3.78	4.20	4.01	6.70	6.90	6.81	1400.00	1510.00	1431.67
GWa3	4.88	5.45	5.22	6.90	7.20	7.03	2120.00	2640.00	2396.67
GWa4	3.80	13.67	5.08	6.50	7.20	6.92	2350.00	5260.00	4381.11
GWa5	3.24	4.19	3.67	7.00	7.50	7.23	9950.00	11070.00	10511.67
GWa6	2.47	2.79	2.72	7.50	7.60	7.55	8370.00	8830.00	8600.00
GWa7	4.66	5.21	4.95	7.00	7.30	7.05	12330.00	15270.00	13656.00
GWa8	1.42	2.25	1.72	6.80	7.10	6.95	2060.00	2290.00	2174.17
GWa10	3.43	4.18	3.87	6.80	7.00	6.90	3470.00	3840.00	3575.83
GWa11	3.16	4.07	3.57	7.40	7.70	7.53	2060.00	3920.00	2789.17
GWa12	5.04	5.85	5.62	0.00	0.00	-	0.00	0.00	0.00
GWa14	4.54	5.01	4.85	0.00	0.00	-	0.00	0.00	-
GWa15	3.54	3.69	3.62	7.20	7.40	7.30	2860.00	2960.00	2934.00
GWc1	9.62	10.12	9.85	6.90	7.10	7.03	2200.00	3320.00	2682.50
GWc2	12.47	14.51	13.61	7.00	7.30	7.13	1180.00	1300.00	1240.83
GWc3	9.88	10.73	10.27	6.70	6.80	6.74	4190.00	4630.00	4511.67
GWc4	13.23	14.09	13.83	6.40	6.70	6.56	2240.00	2480.00	2380.83
GWc5	5.81	6.47	6.08	6.40	6.70	6.56	5520.00	5770.00	5659.17
GWc10	2.66	5.04	3.98	6.90	7.50	7.22	3730.00	4020.00	3910.83
GWc11	13.49	14.80	14.20	6.10	6.40	6.23	3670.00	3820.00	3761.67
GWc12	24.28	32.33	27.79	7.10	7.60	7.24	1400.00	1700.00	1568.33
GWc14	19.64	29.58	24.56	7.20	7.40	7.26	1120.00	1170.00	1148.33
GWc15	15.32	23.11	19.53	6.50	6.70	6.55	3270.00	3370.00	3321.67

Groundwater Monitoring Locations



2022 Groundwater Monitoring Data

Sample Number	a Sample Location	Sampling Date	Sampling Time	Aluminium mg/L	Arsenic mg/L	Barium mg/L	Bicarbonate Alkalinity as	Calcium - Dissolved mg/L	Carbonate Alkalinity as	Chloride mg/L	Conductivity @ 25oc µS/cm	Copper mg/L	Data Download	Depth to Standpipe m	Dissolved Oxygen -	Free Carbon Dioxide as CO2	Hydroxide Alkalinity as	Ionic Balance %	Iron mg/L	Lead mg/L	Magnesium - Dissolved mg/L	Manganese mg/L	Molybdenum mg/L	Nickel mg/L	pH pH Unit	Potassium - Dissolved mg/L	Selenium mg/L	Sodium - Dissolved mg/L	Strontium mg/L	Sulfate as SO4 - Turbidimetric	Temperature °C	Total Alkalinity as CaCO3 mg/L	Total Anions meq/L	Total Cations meq/L	Total Dissolved Solids @180°C - Dissolved mg/L	Zinc mg/L	
ME2200036001	GWA1	11-Jan-2022	1352											Dry																							
ME2200036002	GWA2	11-Jan-2022	1327	1.71	<0.001	0.021	132	15	<1	108	634	0.001		1.09	6.4	8	<1	1.84	2.94	<0.001	21	0.641	<0.001	0.003	6.7	5	<0.01	103	0.146	55	19.5	132	6.83	7.08	395	<0.005	
ME2200036003	GWA3	11-Jan-2022	1214	1.58	0.001	0.058	207	32	<1	160	1040	0.014		3.27	7.8	9	<1	6.02	0.59	0.008	31	0.265	<0.001	0.016	6.7	2	<0.01	185	0.297	106	20.5	207	10.8	12.2	914	0.01	
ME2200036004	GWA4	17-Jan-2022	1216											Dry																							
ME2200036005	GWA5	20-Jan-2022	1419	1.07	0.004	0.214	884	554	<1	2760	15100	0.004		2.43	9.3	13	<1	5.98	1.55	<0.001	934	0.213	0.002	0.015	7.3	40	<0.01	1980	6.66	5790	20.5	884	216	192	13100	0.044	
ME2200036006	GWA6	14-Jan-2022	1336	0.13	0.008	0.129	407	140	<1	185	2410	<0.001		0.81	7.3	14	<1	9.98	2.61	<0.001	117	3.24	0.003	0.008	7.2	26	<0.01	280	1.08	517	22	407	24.1	29.4	1630	<0.005	
ME2200036007	GWA7	20-Jan-2022	1232																																		
ME2200036008	GWA8	14-Jan-2022	1407	0.29	<0.001	0.033	272	126	<1	406	2540	<0.001		1.08	6.7	14	<1	0.84	0.44	0.001	119	13.8	<0.001	0.006	7	14	<0.01	254	1.31	487	20.5	272	27	27.5	1570	<0.005	
ME2200036009	GWC1	11-Jan-2022	1303	0.03	<0.001	0.055	510	164	<1	567	3280	0.001		9.86	5.7	8	<1	3.62	0.23	<0.001	108	0.557	<0.001	0.003	7	29	<0.01	497	1.42	504	20	510	36.7	39.4	2170	0.007	
ME2200036010	GWC2	11-Jan-2022	1134	0.03	<0.001	0.245	471	73	<1	106	1150	0.001		8.93	6.2	10	<1	4.24	0.06	<0.001	29	0.023	<0.001	0.002	7	27	<0.01	172	0.526	31	21	471	13	14.2	715	0.009	
ME2200036011	GWC3	14-Jan-2022	1313	0.29	0.001	0.031	517	139	<1	673	4630	0.003		5.6	8.1	10	<1	4.16	3.31	0.003	147	0.081	<0.001	0.003	7.4	39	0.01	736	1.57	892	20.5	517	47.9	52	2750	0.006	
ME2200036012	GWC4	17-Jan-2022	1313	0.41	<0.001	0.132	678	165	<1	364	2450	0.008		14.76	6.6	94	<1	4.97	2.57	0.007	84	0.06	<0.001	0.004	6.6	60	<0.01	220	1.79	249	23	678	29	26.2	1390	0.036	
ME2200036013	GWC5	14-Jan-2022	1432	<0.01	<0.001	0.191	2020	263	<1	547	5520	<0.001		5.28	6.4	443	<1	4.48	0.14	0.001	153	1.19	<0.001	0.027	6.5	97	<0.01	917	8.25	310	19	2020	62.2	68.1	3460	0.032	
ME2200036014	GWA10	14-Jan-2022	1013	2.57	0.003	0.065	318	127	<1	686	3370	0.026		3.08	8.4	16	<1	1.94	2.6	0.006	125	1.52	<0.001	0.014	7	2	<0.01	440	1.07	420	19	318	34.4	35.8	2500	0.014	
ME2200036015	GWC10	14-Jan-2022	1045	0.02	<0.001	0.032	312	174	<1	361	3550	0.024	14/01/2022	3.56	6.9	20	<1	4.27	0.42	<0.001	131	0.252	0.002	0.05	6.8	34	<0.01	465	1.74	1000	19	312	37.2	40.6	2490	0.009	
ME2200036016	GWA11	14-Jan-2022	1158	2.17	<0.001	0.047	449	42	<1	108	1370	0.004		3.43	5.7	9	<1	7.32	2.89	0.004	43	0.335	<0.001	0.005	7.4	15	<0.01	222	0.569	73	18.5	449	13.5	15.7	767	0.007	
ME2200036017	GWC11	14-Jan-2022	1117	0.06	<0.001	0.02	286	117	<1	318	3150	0.004	14/01/2022	9.68	6.2	43	<1	4.61	9.71	0.001	122	1.5	<0.001	0.006	6.4	32	<0.01	421	1.09	828	18.5	286	31.9	35	2110	0.022	
ME2200036018	GWA12	17-Jan-2022	1032	2.37	<0.001	0.058	328	37	<1	150	1290	0.004		2.64	8.4	7	<1	2.43	1.55	0.003	25	0.107	0.002	0.006	7.6	3	<0.01	219	0.367	163	20.5	328	14.2	13.5	780	0.012	
ME2200036019	GWC12	17-Jan-2022	1052	0.1	<0.001	0.284	839	67	<1	190	2150	0.011	17/01/2022	12.38	6.5	14	<1	1.1	0.67	0.001	36	0.147	<0.001	0.006	7.5	26	<0.01	385	0.755	102	20	839	24.2	23.7	1270	0.006	
ME2200036020	GWA14	17-Jan-2022	1151	38.8	0.003	0.168	511	21	<1	11	911	0.055		1.44	7.4	15	<1	0.21	12.3	0.01	10	0.254	<0.001	0.072	7.3	12	<0.01	196	0.277	11	23	511	10.7	10.7	1510	0.072	
ME2200036021	GWC14	17-Jan-2022	1134	0.12	<0.001	1.13	439	148	<1	204	2620	0.019	17/01/2022	9.16	8.6	8	<1	1.77	0.69	0.003	70	0.106	0.006	0.277	7.4	32	<0.01	339	1.24	731	20.1	439	29.7	28.7	1730	0.017	
ME2200036022	GWA15	28-Jan-2022	1500																																		
ME2200036023	GWC15	28-Jan-2022	1501																																		
ME2200036024	GWC33	11-Jan-2022	1440	0.6	<0.001	0.294	<1	469	24	115	4840	0.012	11/01/2022	46.74	8.4	<1	869	9.56	0.1	<0.001	<1	0.007	<0.001	0.002	12.5	21	<0.01	52	0.252	26	22.5	893	21.6	26.2	1430	0.012	
ME2200036025	GWC26	28-Jan-2022	1435	0.04	<0.001	0.172	481	42	<1	136	1350	0.009		49.74	5.3	6	<1	2.01	0.72	<0.001	22	0.029	<0.001	0.008	7.1	20	<0.01	211	0.426	34	23.5	481	14.2	13.6	715	0.016	
ME2200036026	GWA16	07-Jan-2022	1438	0.14	<0.001	0.135	593	413	<1	7580	22100	<0.001		1.83	9.2	13	<1	5.75	0.5	<0.001	632	0.309	0.001	0.004	7.2	18	<0.01	3460	5	1210	23.5	593	251	224	16800	0.009	
ME2200036027	GWC16	07-Jan-2022	1414	0.06	<0.001	0.08	653	69	<1	353	2290	0.001		28.31	9	9	<1	5.67	1.95	<0.001	31	0.159	0.001	0.002	7.1	21	<0.01	363	0.658	96	22.5	653	25	22.3	1440	0.009	
ME2200036028	GWC30	07-Jan-2022	1228	0.06	<0.001	0.041	610	284	<1	647	3310	0.008	07/01/2022	30.14	9	14	<1	3.14	1.52	<0.001	159	0.117	<0.001	0.016	6.7	45	<0.01	174	2.44	378	21.5	610	38.3	36	2730	0.01	
ME2200036029	GWC31	07-Jan-2022	1254											Dry																							
ME2200036030	GWC37	07-Jan-2022	1126	5.48	0.061	0.133	228	112	<1	190	2450	0.038		25.23	8.4	14	<1	3.92	11	0.021	98	1.05	0.007	0.023	6.2	47	<0.01	225	1.2	804	22	228	26.6	24.6	2030	0.12	
ME2200036031	GWC27	07-Jan-2022	1044	0.83	0.004	0.047	<1	11	<1	377	1820	0.014	07/01/2022	15.38	7.2	<1	<1	7.39	3.32	0.009	29	1.5	<0.001	0.028	3.4	35	<0.01	247	0.072	301	20.5	<1	16.9	14.6	1300	0.276	
ME2200036032	GWA32	06-Jan-2022	1231	<0.01	<0.001	0.029	392	115	<1	606	3230	0.002	06/01/2022	1.83	9.4	8	<1	7.7	<0.05	<0.001	132	0.023	0.002	0.002	7.2	18	<0.01	315	1.52	527	21.5	392	35.9	30.8	2380	<0.005	
ME2200036033	GWC32	06-Jan-2022	1301	0.01	<0.001	0.029	1370	142	<1	359	3510	0.026	06/01/2022	4.03	8.3	40	<1	4.66	0.74	<0.001	107	0.047	0.002	0.031	6.6	41	<0.01	508	3.64	257	20	1370	42.8	39	2330	0.011	
ME2200036034	GWA34	06-Jan-2022	1358	2.56	<0.001	0.022	113	101	<1	167	1990	0.018	06/01/2022	3.96	8.8	24	<1	4.05	2.29	0.001	128	0.247	<0.001	0.05	6	3	<0.01	134	0.566	784	21.5	113	23.3	21.5	1720	0.073	
ME2200036035	GWC34	06-Jan-2022	1416											Dry																							
ME2200036036	GWA36	14-Jan-2022	1239											Dry																							
ME2200036037	GWC36	14-Jan-2022	1226	0.06	<0.001	0.027	303	107	<1	282	3010	0.001		11.65	7.3	31	<1	5.29	0.46	<0.001	117	0.782	<0.001	0.003	6.5	30	<0.01	422	1.21	800	20	303	30.7	34.1	2000	0.029	
ME2200036038	GWC25	28-Jan-2022	1051	0.03	<0.001	0.141	139	34	<1	52	453	0.001		7.52	7.8	42	<1	0.8	0.05	<0.001	17	0.007	<0.001	0.008	6.7	12	<0.01	39	0.325	45	21	139	5.18	5.1	284	0.01	
ME2200036039	PZ13																																				

ME2200415003	GWA3	09-Mar-2022	1346	19	0.002	0.076	142	17	<1	113	785	0.021		3.67	7.6	18	<1	2.55	18.2	0.018	20	0.317	<0.001	0.036	6.8	2	<0.01	121	0.204	67	21	142	7.42	7.81	812	0.038	
ME2200415004	GWA4	23-Mar-2022	1432											Dry																							
ME2200415005	GWA5	21-Mar-2022	1254	0.72	0.005	0.133	953	569	<1	2120	13900	0.004		2.03	7.2	24	<1	1.36	1.27	<0.001	1010	0.129	0.002	0.012	7.3	39	<0.01	2020	6.7	5580	21.5	953	195	200	10600	0.037	
ME2200415006	GWA6	17-Mar-2022	1504	2.11	0.006	0.139	510	168	<1	261	3550	0.003		1.11	8.4	8	<1	2.88	3.32	0.003	141	1.65	0.003	0.01	7.3	23	<0.01	497	1.28	1070	21	510	39.8	42.2	2780	0.013	
ME2200415007	GWA7	17-Mar-2022	1353	0.38	<0.001	0.077	1280	468	<1	2470	12000	0.009		3.9	7.7	25	<1	0.36	4.12	<0.001	592	0.933	0.002	0.008	6.8	34	<0.01	1830	7.5	2700	22.5	1280	151	152	9400	0.025	
ME2200415008	GWA8	17-Mar-2022	1018	0.33	<0.001	0.039	302	118	<1	378	2500	0.001		1.4	7.1	6	<1	2.18	0.66	0.002	114	16.4	<0.001	0.009	6.9	12	<0.01	244	1.24	512	21	302	27.4	26.2	1700	0.009	
ME2200415009	GWC1	09-Mar-2022	1420	0.04	<0.001	0.047	435	126	<1	509	2920	<0.001		10.21	6.5	15	<1	0.71	0.33	<0.001	88	0.636	<0.001	0.003	7	23	<0.01	388	1.15	403	19	435	31.4	31	1900	0.019	
ME2200415010	GWC2	09-Mar-2022	1313	0.02	<0.001	0.264	430	63	<1	104	1170	<0.001		6.38	6.4	8	<1	2.49	<0.05	<0.001	26	0.004	<0.001	<0.001	7.3	24	<0.01	160	0.503	34	20	430	12.2	12.8	687	<0.005	
ME2200415011	GWC3	17-Mar-2022	1436	5.06	0.006	0.069	570	110	<1	474	3970	0.02		5.56	8.7	6	<1	1.13	18.5	0.018	121	0.516	0.001	0.017	7.4	34	<0.01	635	1.28	874	21	570	43	43.9	2740	0.032	
ME2200415012	GWC4	17-Mar-2022	1200	0.05	<0.001	0.036	593	166	<1	325	2410	<0.001		14.5	7.7	16	<1	0.02	3.14	0.003	83	0.032	<0.001	<0.001	6.5	50	<0.01	218	1.77	233	21	593	25.9	25.9	1430	0.008	
ME2200415013	GWC5	17-Mar-2022	946	0.02	<0.001	0.184	2350	256	<1	497	5460	<0.001		5.21	6.8	836	<1	0.61	0.42	0.002	153	1.15	<0.001	0.025	6.5	88	<0.01	910	7.91	339	18	2350	68	67.2	3620	0.03	
ME2200415014	GWA10	11-Mar-2022	1254	1.67	0.002	0.038	368	78	<1	359	2180	0.009		2.99	6.5	4	<1	0.87	1.24	0.004	71	0.933	<0.001	0.008	7.1	1	<0.01	290	0.657	254	20.5	368	22.8	22.4	1420	0.009	
ME2200415015	GWC10	11-Mar-2022	1348	0.01	<0.001	0.034	387	190	<1	320	3550	0.023		4.26	6.4	5	<1	1.1	0.98	<0.001	127	0.31	0.002	0.039	6.8	32	<0.01	455	1.84	1100	20	387	39.7	40.5	2850	0.005	
ME2200415016	GWA11	11-Mar-2022	1441	6.45	0.001	0.052	489	37	69	83	1270	0.008		3.37	6.2	2	<1	1.27	4.48	0.005	34	0.295	<0.001	0.008	7.5	14	<0.01	213	0.522	55	19.5	558	14.6	14.3	840	0.017	
ME2200415017	GWC11	11-Mar-2022	1417	0.1	<0.001	0.019	252	68	<1	208	1960	0.004	11/03/2022	8.82	6.8	4	<1	0.58	7.64	0.002	63	1	<0.001	0.005	6.3	22	<0.01	268	0.622	487	19.5	252	21	20.8	1340	0.034	
ME2200415018	GWA12	21-Mar-2022	1414	4.82	0.001	0.036	243	22	<1	80	835	0.008		3.17	5.5	4	<1	4.14	3.73	0.004	12	0.084	0.002	0.007	7.6	2	0.01	130	0.211	65	20.5	243	8.46	7.79	607	0.012	
ME2200415019	GWC12	21-Mar-2022	1434	0.03	<0.001	0.239	796	78	<1	167	2160	0.004		10.28	3.9	12	<1	3.61	0.57	<0.001	31	0.151	<0.001	0.003	7.4	22	<0.01	348	0.818	153	19.5	796	23.8	22.1	1370	<0.005	
ME2200415020	GWA14	21-Mar-2022	1518											Dry																							
ME2200415021	GWC14	21-Mar-2022	1513	0.04	<0.001	1.26	455	142	<1	176	2550	0.011		7.27	5.4	15	<1	2.8	0.68	<0.001	63	0.11	0.013	0.264	7.4	29	<0.01	320	1.26	693	19	455	28.5	26.9	1760	0.009	
ME2200415022	GWA15	23-Mar-2022	1511	2.82	<0.001	0.028	293	30	<1	185	1240	0.029		2.56	4	4	<1	4.93	1.88	0.008	10	0.157	0.003	0.008	7.5	2	<0.01	216	0.235	92	22	293	13	11.8	771	0.033	
ME2200415023	GWC15	23-Mar-2022	1445	0.13	<0.001	0.208	600	47	<1	116	1470	0.091	23/03/2022	9.64	3.8	52	<1	3.36	7.6	0.004	24	0.122	0.012	0.007	7.1	23	<0.01	242	0.572	60	19	600	16.5	15.4	704	0.02	
ME2200415024	GWC33	11-Mar-2022	1017	0.52	<0.001	0.309	<1	416	31	102	4710	0.013	11/03/2022	46.72	8.5	<1	865	4.32	0.25	0.002	<1	0.014	<0.001	0.002	12.6	19	<0.01	45	0.279	24	20.5	896	21.3	23.2	1390	0.018	
ME2200415025	GWC26	21-Mar-2022	1040	0.51	<0.001	0.27	467	44	<1	138	1340	0.018	21/03/2022	48.43	5.7	11	<1	3.26	2.07	0.005	18	0.056	<0.001	0.004	7.2	17	<0.01	206	0.473	35	20	467	14	13.1	718	0.033	
ME2200415026	GWA16	11-Mar-2022	1137	0.2	<0.001	0.152	548	440	<1	6140	22300	0.002		1.7	7.2	14	<1	3.94	0.42	<0.001	627	0.175	0.002	0.003	7.1	20	<0.01	3500	6.46	1200	22	548	209	226	16200	0.013	
ME2200415027	GWC16	11-Mar-2022	1111	0.08	<0.001	0.101	514	81	<1	366	2390	0.076		29.22	8.2	6	<1	4.36	1.25	0.002	42	0.039	0.002	0.008	7.2	24	<0.01	386	0.928	107	20	514	22.8	24.9	1480	0.009	
ME2200415028	GWC30	10-Mar-2022	1249	0.03	<0.001	0.044	546	267	<1	586	3350	0.017		29.06	6.5	10	<1	2.37	2.63	<0.001	163	0.14	<0.001	0.143	6.6	50	<0.01	184	2.88	332	21	546	34.4	36	2660	0.007	
ME2200415029	GWC31	10-Mar-2022	1318											Dry																							
ME2200415030	GWC37	09-Mar-2022	1117	1.52	0.056	0.05	196	130	<1	181	2400	0.013		25.2	5	33	<1	1.13	12.8	0.008	104	1.02	0.004	0.012	6.3	51	<0.01	247	1.23	839	21	196	26.5	27.1	1850	0.049	
ME2200415031	GWC27	10-Mar-2022	1126	0.66	0.002	0.061	<1	19	<1	336	1790	0.126	10/03/2022	15.95	6.1	<1	<1	1.6	3	0.01	26	2.22	<0.001	0.02	3.4	31	<0.01	253	0.139	283	20	<1	15.4	14.9	1030	0.246	
ME2200415032	GWA32	17-Mar-2022	1107	0.01	<0.001	0.03	382	118	<1	527	3010	0.003	17/03/2022	1.62	9.2	6	<1	1.04	<0.05	<0.001	140	0.039	0.003	0.001	7.3	18	<0.01	331	1.56	502	20.5	382	33	32.3	2070	0.006	
ME2200415033	GWC32	17-Mar-2022	1125	0.02	<0.001	0.031	1240	142	<1	315	3500	0.013	17/03/2022	3.93	6.9	35	<1	2.22	1.3	<0.001	112	0.05	<0.001	0.006	6.5	44	<0.01	540	4.74	263	18.5	1240	39.1	40.9	2280	0.01	
ME2200415034	GWA34	10-Mar-2022	1357	20.9	0.004	0.055	<1	431	<1	294	4850	0.081	10/03/2022	4.1	6.7	<1	<1	2.17	56.4	0.01	393	7.2	<0.001	0.723	4.6	5	0.03	321	1.16	3010	20	<1	71	67.9	5290	1.83	
ME2200415035	GWC34	10-Mar-2022	1419											Dry																							
ME2200415036	GWA36	09-Mar-2022	1159											Dry																							
ME2200415037	GWC36	09-Mar-2022	1216	0.04	<0.001	0.026	4	114	<1	298	3250	0.004		10.88	7.4	6	<1	12.1	0.44	<0.001	112	0.771	<0.001	0.004	6.8	30	<0.01	472	1.25	955	20	4	28.4	36.2	2380	0.02	
ME2200415038	GWC25	23-Mar-2022	1117	0.05	<0.001	0.148	102	34	<1	52	525	0.005	23/03/2022	6.53	7.4	5	<1	3.87	0.12	<0.001	17	0.011	0.001	0.015	6.8	10	<0.01	40	0.329	58	20.5	102	4.71	5.09	283	0.017	
ME2200415039	PZ13	10-Mar-2022	1457											Dry																							
ME2200415040	PZ20	23-Mar-2022	1327	2.88	0.002	0.036	400	30	<1	33	834	0.01		2.12	5.4	16	<1	6.8	1.86	0.004	31	0.336	0.001	0.008	7.6	16	<0.01	97	0.328	49	21.5	400	9.94	8.68	443	0.027	
ME2200415041	PZ21	23-Mar-2022	1305	3.22	0.002	0.041	600	33	<1	35	1140	0.017		3.33	5.3	26	<1	10.7	2.26	0.005	27	0.528	<0.001	0.01	7.4	10	<0.01</										

ME2200562007	GWA7	07-Apr-2022	1448	0.39	<0.001	0.091	1070	487	<1	2460	12	0.002		3.81	7.8	23	<1	4.34	4.32	<0.001	641	0.99	0.002	0.011	7.2	35	<0.01	1920	7.94	2750	20.5	1070	148	161	9550	0.018	
ME2200562008	GWA8	07-Apr-2022	1140	0.14	<0.001	0.033				2480	0.002		1.3						0.33	0.002		14.2	<0.001	0.007	7		<0.01		1.42		20.5					0.02	
ME2200562009	GWC1	20-Apr-2022	1353	0.03	<0.001	0.052	447	130	<1	542	3080	0.014		10.08	7.8	8	<1	3.01	0.44	<0.001	87	0.677	<0.001	0.003	7	26	<0.01	403	1.35	461	17.5	447	33.8	31.8	1920	0.014	
ME2200562010	GWC2	13-Apr-2022	1120	0.09	<0.001	0.297	505	68	<1	106	1260	0.001		6.1	8.9	13	<1	1.31	0.21	<0.001	27	0.088	<0.001	0.002	7	27	<0.01	161	0.593	28	19	505	13.7	13.3	733	0.007	
ME2200562011	GWC3	08-Apr-2022	1250	6.55	0.006	0.094	623	126	<1	480	4040	0.021		5.34	7.5	9	<1	2.34	14.3	0.019	130	0.748	<0.001	0.022	7.5	34	0.01	664	1.56	894	20	623	44.6	46.7	2790	0.035	
ME2200562012	GWC4	07-Apr-2022	1340	0.09	<0.001	0.05	650	185	<1	322	2420	0.002		14.36	6.3	26	<1	0.88	3.1	0.004	86	0.05	<0.001	0.002	6.6	49	<0.01	229	2.09	239	19.5	650	27	27.5	1470	0.013	
ME2200562013	GWC5	07-Apr-2022	1115	0.06	<0.001	0.216					5450	0.003		5.9					0.41	0.003		1.26	<0.001	0.03	6.5		<0.01		8.28		18.5					0.033	
ME2200562014	GWA10	13-Apr-2022	1419	3.83	0.003	0.077					3500	0.023		3.1					2.52	0.004		1.97	<0.001	0.013	6.8		<0.01		1.24		19.5					0.018	
ME2200562015	GWC10	13-Apr-2022	1439	0.05	<0.001	0.034	338	189	<1	343	3550	0.027		3.5	8.9	13	<1	<0.01	1.14	<0.001	120	0.285	0.002	0.035	6.7	34	<0.01	445	1.82	1110	19	338	39.5	39.5	2680	0.006	
ME2200562016	GWA11	13-Apr-2022	1348	6.88	0.002	0.063	552	36	<1	93	1310	0.014		3.5	7.7	10	<1	2.15	8.29	0.007	33	0.334	<0.001	0.012	7.4	15	<0.01	211	0.536	50	19.5	552	14.7	14.1	768	0.027	
ME2200562017	GWC11	13-Apr-2022	1316	0.1	<0.001	0.02	240	68	<1	220	2030	0.002		8.48	8.5	29	<1	2.9	5.85	0.001	63	0.996	0.006	0.064	6.3	23	<0.01	270	0.628	536	18.5	240	22.2	20.9	1280	0.031	
ME2200562018	GWA12	13-Apr-2022	1239	2.63	<0.001	0.024	220	17	<1	63	688	0.004		3.26	9.5	5	<1	1.91	1.8	0.002	11	0.042	0.002	0.005	7.7	2	<0.01	114	0.169	41	19.5	220	7.03	6.76	428	0.008	
ME2200562019	GWC12	13-Apr-2022	1222	0.07	<0.001	0.222	801	76	<1	176	2190	0.01		10.59	8.4	12	<1	1.72	0.57	<0.001	35	0.15	<0.001	0.002	7.4	26	<0.01	378	0.808	175	18.5	801	24.6	23.8	1120	0.008	
ME2200562020	GWA14	08-Apr-2022	1145										4.42																								
ME2200562021	GWC14	08-Apr-2022	1205	0.11	<0.001	0.535	440	161	<1	184	2560	0.015		7.36	6.4	8	<1	2.65	1.21	0.002	70	0.12	0.01	0.288	7.5	29	<0.01	352	1.39	688	18.5	440	28.3	29.8	1790	0.029	
ME2200562022	GWA15	08-Apr-2022	1122	7.48	0.001	0.054	288	32	<1	175	1250	0.044		2.6	6.7	5	<1	0.09	4.86	0.011	10	0.224	0.003	0.018	7.6	1	<0.01	237	0.298	98	20	288	12.7	12.8	812	0.047	
ME2200562023	GWC15	08-Apr-2022	1043	0.18	<0.001	0.212	537	48	<1	115	1460	0.063		9.54	5.4	11	<1	3.18	8.71	0.003	24	0.128	0.014	0.009	7.2	23	<0.01	260	0.638	62	18	537	15.3	16.3	861	0.021	
ME2200562024	GWC33	21-Apr-2022	1330	0.72	<0.001	0.284	<1	358	45	139	4770	0.012		47.32	8.5	<1	759	1.11	0.41	0.002	<1	0.017	<0.001	0.002	12.5	18	<0.01	44	0.249	34	21	804	20.7	20.2	1140	0.019	
ME2200562025	GWC26	21-Apr-2022	1445	0.27	<0.001	0.205	460	44	<1	148	1360	0.02		50.56	7.9	6	<1	2.46	1.35	0.002	20	0.034	0.002	0.01	7.3	18	<0.01	210	0.4	36	19.5	460	14.1	13.4	796	0.023	
ME2200562026	GWA16	20-Apr-2022	1524	0.39	<0.001	0.15					22600	0.003		1.72					0.49	0.002		0.098	0.002	0.003	7.2		<0.01		6.34		19.5					0.012	
ME2200562027	GWC16	20-Apr-2022	1457	1.87	<0.001	0.154	684	80	<1	376	2400	0.028		30.88	6.6	9	<1	3.67	2.61	0.014	38	0.08	0.002	0.001	7.2	25	<0.01	386	0.83	103	19.5	684	26.4	24.5	1430	0.027	
ME2200562028	GWC30	04-Apr-2022	1418	0.11	<0.001	0.052	599	248	<1	694	3250	0.022		21.61	6	43	<1	6.38	3.25	<0.001	152	0.155	<0.001	0.044	6.7	44	<0.01	175	2.74	320	20	599	38.2	33.6	2320	0.02	
ME2200562029	GWC31	04-Apr-2022	1445										50.56																								
ME2200562030	GWC37	04-Apr-2022	1325	0.37	0.054	0.03	194	118	<1	195	2440	0.017		25.15	5.2	47	<1	3.23	11.3	0.007	100	1.19	0.004	0.011	6.2	50	<0.01	238	1.42	869	21	194	27.5	25.7	1860	0.047	
ME2200562031	GWC27	04-Apr-2022	1235	1.16	0.005	0.079	<1	19	<1	388	1810	0.048		16	6.3	<1	<1	9.33	3.49	0.014	23	2.4	<0.001	0.021	3.6	29	<0.01	245	0.142	299	19.5	<1	17.2	14.2	1010	0.278	
ME2200562032	GWA32	07-Apr-2022	1228	0.02	<0.001	0.039	392	143	<1	590	3300	0.005		1.63	6.7	9	<1	4.52	0.06	<0.001	158	0.179	0.005	0.004	7.2	22	<0.01	391	1.97	479	18.5	392	34.4	37.7	1780	0.01	
ME2200562033	GWC32	07-Apr-2022	1254	0.03	<0.001	0.038					3480	0.013		3.88					2.35	0.002		0.061	<0.001	0.002	6.5		<0.01		4.95		18					0.009	
ME2200562034	GWA34	07-Apr-2022	1035	16.9	0.003	0.042	<1	433	<1	305	4920	0.057		4.15	5.5	<1	<1	1.1	55	0.005	404	6.33	<0.001	0.746	4.4	5	0.02	334	1.23	3000	19.5	<1	71.1	69.5	4350	1.76	
ME2200562035	GWC34	07-Apr-2022	1010										19.44																								
ME2200562036	GWA36	13-Apr-2022	1507	27.8	0.039	0.658	1020	27	<1	1030	6290	0.149		4.87	8.9	17	<1	1.23	92.4	0.095	132	4.83	0.002	0.11	7.2	39	0.01	1230	0.635	752	19.5	1020	65.1	66.7	3990	0.302	
ME2200562037	GWC36	13-Apr-2022	1523	0.15	<0.001	0.032	399	117	<1	278	3330	0.003		10.37	9.1	16	<1	1.09	1.13	<0.001	108	0.904	<0.001	0.005	6.6	31	<0.01	486	1.46	1040	19.5	399	37.5	36.6	1710	0.018	
ME2200562038	GWC25	09-May-2022	1342	0.1	<0.001	0.107	111	22	<1	40	367	0.004		6.99	9.2	4	<1	3.7	0.11	0.002	9	0.01	0.001	0.002	6.6	5	<0.01	32	0.226	13	17.5	111	3.62	3.36	244	0.01	
ME2200562039	PZ13	20-Apr-2022	1333										Dry																								
ME2200562040	PZ20	09-May-2022	1555	0.67	0.001	0.022	256	26	<1	25	698	0.002		1.66	9.7	4	<1	0.87	0.67	0.002	26	0.154	0.001	0.005	7.6	13	<0.01	74	0.273	62	17.5	256	7.11	6.99	481	0.014	
ME2200562041	PZ21	09-May-2022	1536	2.88	0.002	0.03	367	28	<1	26	961	0.005		3.11	9.9	5	<1	1.49	1.85	0.003	22	0.252	0.001	0.007	7.5	8	<0.01	155	0.312	86	18	367	9.86	10.2	648	0.025	
ME2200562042	PZ26	09-May-2022	1509										4.46																								
ME2200562043	GWF1	09-May-2022	1500																																		
ME2200562044	GWF2	09-May-2022	1500										24.2																								
ME2200562045	GWF3	09-May-2022	1500										17.91																								
ME2200562046	GWF4	09-May-2022	1500										13.01																								
ME2200562047	GWF5	09-May-2022	1503										Dry																								
ME2200562048	GWF6	09-May-2022	1455										Dry																								
ME2200562049	GWF7	09-May-2022	1444																																		

ME2200770011	GWC3	16-May-2022	1303	3.43	0.002	0.048	539	143	<1	570	4640	0.009		4.74	8.6	14	<1	1.74	4.4	0.008	141	0.425	<0.001	0.012	7.5	32	0.01	655	1.44	1100	20	539	49.8	48	2630	0.019	
ME2200770012	GWC4	16-May-2022	1133	0.11	<0.001	0.04	548	176	<1	336	2530	<0.001		14.14	7.4	69	<1	0.86	1.66	0.003	77	0.04	<0.001	0.001	6.7	46	<0.01	205	1.58	251	19.5	548	25.6	25.2	1330	0.016	
ME2200770013	GWC5	11-May-2022	1328	0.09	<0.001	0.207	2020	229	<1	502	5400	0.008		5.19	6.6	497	<1	1.71	0.44	0.004	141	1.18	<0.001	0.026	6.6	94	<0.01	902	7.49	383	17.5	2020	62.5	64.7	3440	0.04	
ME2200770014	GWA10	19-May-2022	1253	3.83	0.003	0.08	351	138	<1	691	3730	0.016	19/05/2022	3.08	8.4	9	<1	1.29	3.15	0.004	126	1.81	<0.001	0.012	6.8	2	<0.01	418	1.12	476	17.5	351	36.4	35.5	2460	0.013	
ME2200770015	GWC10	19-May-2022	1308	0.08	<0.001	0.034	332	180	<1	352	3760	0.02	19/05/2022	3.47	8.1	10	<1	8.8	1.09	<0.001	122	0.284	0.002	0.028	6.8	30	<0.01	442	1.68	1440	17.5	332	46.5	39	2700	0.007	
ME2200770016	GWA11	19-May-2022	1225	3.24	0.001	0.046	478	36	<1	94	1340	0.007		3.51	6	6	<1	1.68	3.89	0.004	34	0.279	<0.001	0.006	7.4	13	<0.01	208	0.497	63	17.5	478	13.5	14	792	0.017	
ME2200770017	GWC11	19-May-2022	1155	0.11	<0.001	0.022	215	66	<1	226	2180	0.003		8.64	6.6	18	<1	0.87	5.39	<0.001	62	0.986	0.004	0.055	6.3	20	<0.01	263	0.578	482	17	215	20.7	20.3	1290	0.023	
ME2200770018	GWA12	19-May-2022	1120	4.86	0.001	0.038	184	16	<1	45	607	0.012		3.44	8.3	3	<1	3.15	3.3	0.004	10	0.083	0.002	0.009	7.8	1	<0.01	97	0.144	27	18	184	5.51	5.87	407	0.016	
ME2200770019	GWC12	19-May-2022	1107	0.13	<0.001	0.192	728	76	<1	177	2350	0.011		10.56	7.2	8	<1	0.92	0.63	<0.001	35	0.159	<0.001	0.002	7.4	24	<0.01	375	0.738	216	17	728	24	23.6	1350	0.008	
ME2200770020	GWA14	16-May-2022	1448											Dry																							
ME2200770021	GWC14	16-May-2022	1509	0.14	<0.001	0.842	402	154	<1	190	2650	0.012		6.91	7.7	12	<1	0.82	1.18	0.002	64	0.109	0.013	0.2	7.5	27	<0.01	317	1.13	653	18.5	402	27	27.4	1860	0.018	
ME2200770022	GWA15	16-May-2022	1437	11.5	0.002	0.078	245	35	<1	186	1280	0.054		2.61	8	6	<1	1.05	7.79	0.013	12	0.309	0.002	0.027	7.7	1	<0.01	215	0.287	107	18.5	245	12.4	12.1	857	0.058	
ME2200770023	GWC15	16-May-2022	1418	0.15	<0.001	0.153	476	49	<1	118	1470	0.014		8.54	7.2	20	<1	1.84	6.26	0.002	23	0.127	0.014	0.014	7.2	20	<0.01	229	0.511	69	17.5	476	14.3	14.8	840	0.015	
ME2200770024	GWC33	20-May-2022	1138	0.8	<0.001	0.305	<1	380	35	144	4910	0.017	20/05/2022	47.56	8.6	<1	842	1.94	0.59	0.003	<1	0.021	<0.001	0.003	12.7	18	<0.01	46	0.266	33	20	877	22.3	21.4	1390	0.024	
ME2200770025	GWC26	20-May-2022	1236	0.33	<0.001	0.223	437	39	<1	137	1210	0.056		51.27	7.4	8	<1	6.66	1.91	0.002	16	0.03	0.004	0.018	7.4	20	<0.01	183	0.45	39	18.5	437	13.4	11.7	658	0.024	
ME2200770026	GWA16	20-May-2022	1051	0.33	<0.001	0.139	624	397	<1	7010	21700	0.003		1.46	9	15	<1	6.21	0.4	0.003	575	0.07	0.002	0.003	7.2	18	<0.01	3250	6.08	1270	16.5	624	237	209	13900	0.017	
ME2200770027	GWC16	20-May-2022	1032	2.29	0.001	0.15	676	77	<1	385	2540	0.028		31.18	8	16	<1	4.83	3.48	0.019	39	0.083	0.002	0.002	7.2	22	<0.01	370	0.814	84	18	676	26.1	23.7	1580	0.027	
ME2200770028	GWC30	11-May-2022	1143	0.14	<0.001	0.062	550	226	<1	610	3220	0.02		29.52	6.5	19	<1	2.89	7.58	0.001	155	0.156	<0.001	0.016	6.6	50	<0.01	183	2.48	339	19	550	35.2	33.3	2120	0.023	
ME2200770029	GWC31	11-May-2022	1212											Dry																							
ME2200770030	GWC37	11-May-2022	1105	2.2	0.063	0.076	185	115	<1	182	2440	0.026		25.28	6	29	<1	1.7	12.1	0.01	102	1.12	0.004	0.016	6.2	56	<0.01	251	1.31	892	19	185	27.4	26.5	1690	0.078	
ME2200770031	GWC27	11-May-2022	1034	0.82	0.004	0.064	<1	19	<1	350	1820	0.039	11/05/2022	16.6	7	<1	<1	6.33	2.42	0.012	25	2.34	<0.001	0.021	3.5	32	<0.01	252	0.145	332	17.5	<1	16.8	14.8	1060	0.27	
ME2200770032	GWA32	11-May-2022	1416	0.02	<0.001	0.044	487	128	<1	661	3580	0.008	11/05/2022	1.61	8	10	<1	2.44	0.06	<0.001	155	0.32	0.004	0.006	7.1	24	<0.01	411	1.94	535	16	487	39.5	37.6	2270	0.013	
ME2200770033	GWC32	11-May-2022	1433	0.03	<0.001	0.049	1240	138	<1	321	3470	0.013	11/05/2022	3.85	6.4	92	<1	0.39	1.35	0.003	106	0.063	<0.001	0.002	6.6	47	<0.01	543	4.25	302	17	1240	40.1	40.4	2100	0.013	
ME2200770034	GWA34	11-May-2022	1245	8.22	0.003	0.053	57	144	<1	194	2470	0.078	11/05/2022	4.4	7.5	27	<1	4.66	15.1	0.009	172	0.652	<0.001	0.151	5.7	3	0.01	178	0.795	1220	18	57	32	29.2	2000	0.304	
ME2200770035	GWC34	11-May-2022	1258											Dry																							
ME2200770036	GWA36	19-May-2022	1333	15.8	0.023	0.409	1060	26	<1	978	6460	0.081		4.66	8.6	14	<1	0.9	59.1	0.057	133	2.78	0.001	0.058	7.1	34	<0.01	1170	0.556	677	18.5	1060	62.9	64	4380	0.166	
ME2200770037	GWC36	19-May-2022	1345	0.38	<0.001	0.044	386	109	<1	279	3490	0.005		10.59	9.6	14	<1	0.67	2.02	0.002	106	0.788	<0.001	0.004	6.6	27	<0.01	480	1.37	945	18	386	35.2	35.7	2460	0.026	
ME2200770038	GWC25	03-Jun-2022	1303	0.1	<0.001	0.128	100	19	<1	38	353	0.008	03/06/2022	7.3	8.7	35	<1	2.44	0.18	0.002	9	0.019	<0.001	0.002	6.6	5	<0.01	30	0.272	10	16.5	100	3.28	3.12	230	0.011	
ME2200770039	PZ13	16-May-2022	1546											Dry																							
ME2200770040	PZ20	03-Jun-2022	1438	1.7	0.002	0.027	262	26	<1	28	745	0.003		1.57	9.4	12	<1	0.24	1.2	0.003	28	0.191	0.001	0.006	7.4	13	<0.01	80	0.358	65	13.5	262	7.38	7.41	464	0.015	
ME2200770041	PZ21	03-Jun-2022	1420	1.68	0.002	0.035	386	24	<1	25	966	0.006		3.06	7.6	18	<1	1.38	1.63	0.003	22	0.374	<0.001	0.007	7.3	8	<0.01	159	0.302	69	15.5	386	9.85	10.1	652	0.023	
ME2200770042	PZ26	03-Jun-2022	1349											Dry																							
ME2200770043	GWF1	03-Jun-2022	1150										03/06/2022	Dry																							
ME2200770044	GWF2	03-Jun-2022	1201											Dry																							
ME2200770045	GWF3	03-May-2022	1223	0.77	<0.001	0.086	682	178	<1	378	3980	0.006		18.5	8.4	108	<1	0.67	2.56	0.005	255	1.52	0.002	0.011	6.7	36	<0.01	339	1.97	1050	19.5	682	46.2	45.5	2760	0.035	
ME2200770046	GWF4	03-Jun-2022	1403											Dry																							
ME2200770047	GWF5	03-Jun-2022	1357											Dry																							
ME2200770048	GWF6	03-Jun-2022	1341											Dry																							
ME2200770049	GWF7	03-Jun-2022	1500											Dry																							
ME2200773050	Barologger Office	03-Jun-2022	1514										03/06/2022																								
ME2200989001	GWA1	16-Jun-2022	1521											Dry																							
ME2200989002	GWA2	16-Jun-2022	1432	0.19	<0.001	0.012	105	10	<1	76	503	0.001		1.12	9.5	33	<1	1	0.34	<0.001	15	0.377	<0.001	0.003	6.7	4	<0.01	69	0.114	24	14						

ME2200989015	GWC10	21-Jun-2022	1057	0.02	<0.001	0.034	350	183	<1	385	3550	0.022	21/06/2022	3.92	9.4	8	<1	1.72	1	<0.001	128	0.26	0.002	0.024	7.2	32	<0.01	474	1.81	1050	17	350	39.7	41.1	2690	0.008		
ME2200989016	GWA11	21-Jun-2022	1015	0.4	<0.001	0.04	583	40	<1	119	1610	0.002		3.52	8.8	8	<1	6.1	1.47	0.001	40	0.358	<0.001	0.002	7.6	15	<0.01	294	0.561	64	16.5	583	16.3	18.4	901	0.011		
ME2200989017	GWC11	21-Jun-2022	956	0.09	<0.001	0.027	224	66	<1	235	2030	0.006		8.81	8.1	21	<1	0.69	3.58	0.002	67	1.04	0.002	0.063	6.5	21	<0.01	281	0.64	517	17	224	21.9	21.6	1310	0.044		
ME2200989018	GWA12	20-Jun-2022	1427	1.06	<0.001	0.044	179	14	<1	41	540	0.008		3.51	8.4	10	<1	0.22	0.57	0.003	8	0.097	0.001	0.006	7.9	1	<0.01	90	0.146	26	16	179	5.27	5.3	371	0.014		
ME2200989019	GWC12	20-Jun-2022	1407	0.04	<0.001	0.175	733	79	<1	193	2200	0.006		10.38	8.9	9	<1	2.88	0.54	<0.001	39	0.166	0.001	0.002	7.6	25	<0.01	410	0.792	197	17	733	24.2	25.6	1280	0.006		
ME2200989020	GWA14	20-Jun-2022	1324											Dry																								
ME2200989021	GWC14	20-Jun-2022	1337	0.08	<0.001	0.276	439	150	<1	195	2550	0.018		6.91	9	7	<1	1.11	2.63	0.002	69	0.126	0.011	0.144	7.6	30	<0.01	346	1.23	676	18	439	28.3	29	1770	0.017		
ME2200989022	GWA15	20-Jun-2022	1305	2.17	<0.001	0.075	275	33	<1	198	1310	0.063		2.66	8.6	6	<1	2.38	1.78	0.01	11	0.36	0.001	0.019	7.7	1	<0.01	232	0.322	106	16	275	13.3	12.7	790	0.046		
ME2200989023	GWC15	20-Jun-2022	1247	0.06	<0.001	0.17	514	48	<1	126	1530	0.014		8.43	8.8	8	<1	1.55	9.09	0.002	24	0.13	0.014	0.016	7.3	22	<0.01	247	0.583	66	17	514	15.2	15.7	866	0.017		
ME2200989024	GWC33	21-Jun-2022	1341	0.77	<0.001	0.286	<1	352	32	149	4490	0.018	21/06/2022	48.77	9.3	<1	538	10.6	0.4	0.003	<1	0.024	<0.001	0.003	12.2	18	<0.01	49	0.271	33	20	570	16.3	20.2	1100	0.038		
ME2200989025	GWC26	21-Jun-2022	1249	0.06	<0.001	0.174	362	47	59	149	1270	0.019		48.43	8.9	2	<1	1.21	0.81	0.002	21	0.033	0.002	0.003	7.4	19	<0.01	196	0.445	38	18.5	421	13.4	13.1	717	0.018		
ME2200989026	GWA16	21-Jun-2022	1155	0.09	<0.001	0.124	562	443	<1	6560	2090	0.004		1.5	9.4	10	<1	2.44	0.28	<0.001	641	0.078	0.002	0.003	7.4	18	<0.01	3620	7.28	1220	15	562	222	233	14800	0.026		
ME2200989027	GWC16	21-Jun-2022	1136	0.18	<0.001	0.128	628	81	<1	370	2350	0.015		31.05	8.9	8	<1	2.79	1.77	0.007	43	0.06	<0.001	0.002	7.3	24	<0.01	422	0.811	102	19	628	25.1	26.6	1440	0.088		
ME2200989028	GWC30	17-Jun-2022	1141	0.06	<0.001	0.056	556	244	<1	634	3130	0.016		30.27	8.2	20	<1	0.6	5.8	0.001	161	0.159	<0.001	0.01	6.7	47	<0.01	183	3.16	289	19	556	35	34.6	2040	0.018		
ME2200989029	GWC31	17-Jun-2022	1217											Dry																								
ME2200989030	GWC37	17-Jun-2022	1107	0.41	0.054	0.036	189	119	<1	181	2310	0.011		25.32	9.1	30	<1	1.67	11.7	0.006	107	1.1	0.003	0.011	6.3	51	<0.01	246	1.34	816	20	189	25.9	26.7	1700	0.062		
ME2200989031	GWC27	17-Jun-2022	955	0.61	0.003	0.064	<1	18	<1	358	1840	0.032	17/06/2022	15.86	9.2	<1	<1	5.04	2.62	0.013	22	1.79	<0.001	0.014	3.5	28	<0.01	248	0.151	270	17.5	<1	15.7	14.2	1000	0.202		
ME2200989032	GWA32	20-Jun-2022	1036	0.11	<0.001	0.045	506	145	<1	683	3600	0.005	20/06/2022	1.53	8.2	12	<1	1.68	0.32	<0.001	164	0.078	0.002	0.003	7.3	23	<0.01	427	1.88	442	14	506	38.6	39.9	2210	0.009		
ME2200989033	GWC32	20-Jun-2022	1121	0.1	<0.001	0.039	1250	149	<1	331	3460	0.024	20/06/2022	3.83	8.7	33	<1	2.3	3.21	0.005	112	0.06	<0.001	0.003	6.7	45	<0.01	551	5.31	268	17.5	1250	39.9	41.8	2130	0.014		
ME2200989034	GWA34	17-Jun-2022	1320	19.6	0.004	0.031	5	374	<1	320	4920	0.078	17/06/2022	4.01	9	98	<1	5.02	84.2	0.008	413	10.8	<0.001	0.674	5	5	0.02	340	1.08	3150	18	5	74.7	67.6	3280	1.78		
ME2200989035	GWC34	17-Jun-2022	1250											Dry																								
ME2200989036	GWA36	20-Jun-2022	1143											Dry																								
ME2200989037	GWC36	20-Jun-2022	1201	0.14	<0.001	0.032	472	100	<1	379	3640	0.005		10.72	9.1	14	<1	2.47	1.33	0.002	112	0.472	0.001	0.006	6.9	28	<0.01	594	1.54	897	17.5	472	38.8	40.8	2490	0.033		
ME2200989038	GWC25	30-Jun-2022	1108	0.07	<0.001	0.081	102	21	<1	34	330	0.004	30/06/2022	6.89	7.1	10	<1	1.3	0.18	0.002	9	0.011	<0.001	0.002	6.6	6	<0.01	30	0.16	8	17.5	102	3.16	3.25	203	0.008		
ME2200989039	PZ13	16-Jun-2022	1506											Dry																								
ME2200989040	PZ20	30-Jun-2022	1248	0.68	<0.001	0.033	368	35	<1	39	1050	<0.001		2.06	8.5	6	<1	4.84	0.81	0.002	37	0.39	<0.001	0.005	7.6	14	<0.01	111	0.382	122	15.5	368	11	9.98	631	0.012		
ME2200989041	PZ21	30-Jun-2022	1229	2.13	0.002	0.029	400	24	<1	23	988	0.003		3.31	7.2	5	<1	0.75	1.96	0.002	19	0.379	0.001	0.005	7.5	7	<0.01	163	0.274	74	16.5	400	10.2	10	597	0.017		
ME2200989042	PZ26	30-Jun-2022	1156											Dry																								
ME2200989043	GWF1	30-Jun-2022	1259																																			
ME2200989044	GWF2	30-Jun-2022	1025											Dry																								
ME2200989045	GWF3	30-Jun-2022	1038											19.1																								
ME2200989046	GWF4	30-Jun-2022	1208											Dry																								
ME2200989047	GWF5	30-Jun-2022	1201											Dry																								
ME2200989048	GWF6	30-Jun-2022	1259																																			
ME2200989049	GWF7	30-Jun-2022	1146											Dry																								
ME2200990050	Barologger Office	30-Jun-2022	1306										30/06/2022																									
ME2201189001	GWA1	21-Jul-2022	1416											Dry																								
ME2201189002	GWA2	28-Jul-2022	1140	0.76	0.001	0.022	100	11	<1	74	519	<0.001		0.91	7.4	17	<1	<0.01	3.08	0.001	14	0.549	<0.001	0.004	6.7	3	<0.01	65	0.124	25	13	100	4.6	4.6	270	<0.005		
ME2201189003	GWA3	28-Jul-2022	1232	33.2	0.008	0.165	172	23	<1	150	1030	0.039		2.91	9.1	8	<1	1.58	23.9	0.034	26	1.06	<0.001	0.066	6.9	1	0.01	141	0.367	100	15.5	172	9.75	9.45	736	0.063		
ME2201189004	GWA4	21-Jul-2022	1303											Dry																								
ME2201189005	GWA5	20-Jul-2022	1251	0.82	0.004	0.116	789	410	<1	1030	9680	0.005		1.84	8.6	12	<1	0.16	1.53	<0.001	670	0.152	0.001	0.013	7.6	24	<0.01	1250	4.58	4100	14.5	789	130	130	8880	0.047		
ME2201189006	GWA6	28-Jul-2022	1322	0.63	0.002	0.108	327	156	<1	263	2540	0.002		0.48	7.8	6	<1	0.91	2.82	<0.001	124	1.41	0.002	0.009	7.3	11	<0.01	239	1.21	682	11	327	28.2	28.7	1760	<0.005		
ME2201189007	GWA7	28-Jul-2022	1355	1.05	<0.001	0.181	561	168	<1	970	5390	0.002		3.01	9.1	11	<1	1.35	1.54	<0.001	203	0.239	<0.001	0.006	7.2	11	<0.01	783	2.61	1080	16	561	61	59.4	3580	0.011		
ME2201189008	GWA8	21-Jul-2022	1126	0.1	<0.001	0.029	339																															

ME2201189019	GWC12	22-Jul-2022	1103	0.17	<0.001	0.244	758	66	<1	186	2290	0.01		8.92	8.1	15	<1	2.94	0.81	0.001	36	0.174	0.001	0.004	7.6	24	<0.01	378	0.772	208	16.5	758	24.7	23.3	1320	0.006		
ME2201189020	GWA14	22-Jul-2022	1025											Dry																								
ME2201189021	GWC14	22-Jul-2022	1037	0.09	<0.001	0.555	451	131	<1	194	2650	0.01		5.49	8.3	5	<1	3.4	1.31	0.002	66	0.128	0.014	0.088	7.6	28	<0.01	328	1.24	690	16.5	451	28.8	27	1800	0.016		
ME2201189022	GWA15	22-Jul-2022	1016	3.88	<0.001	0.018	178	13	<1	61	579	0.009		2.1	7.5	3	<1	3.86	2.02	0.002	4	0.038	<0.001	0.006	7.1	<1	<0.01	100	0.091	23	14	178	5.76	5.33	398	0.009		
ME2201189023	GWC15	22-Jul-2022	950	0.15	<0.001	0.157	538	42	<1	128	1510	0.031		7.07	7.9	7	<1	2.79	5.29	0.002	24	0.147	0.03	0.085	7.3	22	<0.01	241	0.57	78	16.5	538	16	15.1	770	0.027		
ME2201189024	GWC33	28-Jul-2022	1002	1.96	<0.001	0.331	<1	377	15	137	4500	0.025	28/07/2022	47.84	9.2	<1	796	1.48	1.52	0.01	<1	0.06	0.001	0.006	12.5	18	<0.01	47	0.291	30	18.5	811	20.7	21.3	1200	0.078		
ME2201189025	GWC26	29-Jul-2022	1413	0.13	<0.001	0.162	299	35	<1	108	1000	0.015		47.59	8.1	3	<1	1.33	0.86	<0.001	11	0.026	0.002	0.002	7.8	22	<0.01	142	0.419	30	16.5	299	9.64	9.39	524	0.008		
ME2201189026	GWA16	28-Jul-2022	1102	0.41	<0.001	0.139	585	464	<1	6680	20800	0.003		1.18	8.8	13	<1	0.96	0.58	0.001	614	0.07	0.002	0.004	7.2	16	<0.01	3420	6.4	1300	12.5	585	227	223	12900	0.019		
ME2201189027	GWC16	28-Jul-2022	1047	0.31	<0.001	0.137	566	61	<1	381	2240	0.02		28.77	7.8	9	<1	0.83	3.12	0.004	32	0.047	<0.001	0.003	7.2	21	<0.01	401	0.771	96	18.5	566	24	23.6	1190	0.027		
ME2201189028	GWC30	20-Jul-2022	1404	0.37	<0.001	0.083	382	353	<1	324	2510	0.183		30.35	8.5	10	<1	1.54	2.6	0.004	86	0.11	0.002	0.024	6.9	41	<0.01	103	2.43	602	18	382	29.3	30.2	1990	0.065		
ME2201189029	GWC31	20-Jul-2022	1423											Dry																								
ME2201189030	GWC37	20-Jul-2022	1328	1.43	0.035	0.061	191	127	<1	190	2440	0.014		25.32	7.5	12	<1	1.79	5.58	0.007	102	1.04	0.002	0.017	6.4	49	<0.01	253	1.36	810	18.5	191	26	27	1830	0.113		
ME2201189031	GWC27	29-Jul-2022	1430																																			
ME2201189032	GWA32	21-Jul-2022	1202	0.03	<0.001	0.044	567	116	<1	678	3500	0.006	21/07/2022	1.48	8.4	12	<1	3.4	0.1	<0.001	148	0.028	0.002	0.003	7.3	20	<0.01	404	1.79	391	13.5	567	38.6	36	2190	<0.005		
ME2201189033	GWC32	21-Jul-2022	1141	0.36	<0.001	0.042	1220	127	<1	293	3150	0.022	21/07/2022	3.61	7.6	31	<1	2.44	0.97	0.005	98	0.088	<0.001	0.004	6.7	40	<0.01	468	3.94	237	16.5	1220	37.6	35.8	1960	0.019		
ME2201189034	GWA34	20-Jul-2022	1457	12.9	0.008	0.255	45	6	<1	6	117	0.055	20/07/2022	2.86	9.3	11	<1		16.4	0.024	7	0.194	<0.001	0.019	6.5	1	<0.01	8	0.26	10	13.5	45	1.28	1.25	192	0.071		
ME2201189035	GWC34	20-Jul-2022	1438											Dry																								
ME2201189036	GWa36	21-Jul-2022	1320											Dry																								
ME2201189037	GWC36	21-Jul-2022	1332	0.17	<0.001	0.056	513	68	<1	299	2950	0.003		9.82	8.4	23	<1	3.83	0.54	<0.001	86	0.263	<0.001	0.004	6.9	23	<0.01	450	0.901	691	17.5	513	33.1	30.6	1790	0.036		
ME2201189038	GWC25	29-Jul-2022	1039	0.25	<0.001	0.102	100	20	<1	37	341	0.007	29/07/2022	5.3	8.2	9	<1	2.5	0.38	0.002	8	0.025	<0.001	0.004	6.6	4	<0.01	32	0.2	13	17.5	100	3.31	3.15	181	0.015		
ME2201189039	PZ13	21-Jul-2022	1349											Dry																								
ME2201189040	PZ20	26-Jul-2022	1336	0.73	<0.001	0.02	310	31	<1	34	859	<0.001		1.73	7.8	3	<1	1.11	0.62	<0.001	33	0.241	0.001	0.004	7.7	14	<0.01	93	0.32	82	13.5	310	8.86	8.67	486	0.006		
ME2201189041	PZ21	26-Jul-2022	1313	2.37	0.001	0.024	378	29	<1	34	1010	0.001		3.04	8.1	4	<1	2.77	1.86	0.001	23	0.386	0.001	0.006	7.6	8	<0.01	153	0.314	109	15	378	10.8	10.2	634	0.014		
ME2201189042	PZ26	26-Jul-2022	1247											Dry																								
ME2201189043	GWF1	20-Jul-2022	1500																																			
ME2201189044	GWF2	29-Jul-2022	1138											24.15																								
ME2201189045	GWF3	29-Jul-2022	1111											18.15																								
ME2201189046	GWF4	29-Jul-2022	1234											12.9																								
ME2201189047	GWF5	26-Jul-2022	1238											Dry																								
ME2201189048	GWF6	20-Jul-2022	1500																																			
ME2201189049	GWF7	29-Jul-2022	1213											Dry																								
ME2201190050	Barologger Office	29-Jul-2022	1350										29/07/2022																									
ME2201291001	GWA1	18-Aug-2022	1030											Dry																								
ME2201291002	GWA2	19-Aug-2022	1233	0.1	0.009	0.038	133	15	<1	156	884	0.002		0.83	8.4	7	<1	4.44	14.4	<0.001	21	1.22	0.004	0.006	6.9	7.15	5	145	<0.01	121	0.18	74	12.5	133	8.6	7.87		
ME2201291003	GWA3	18-Aug-2022	1323	14.8	0.004	0.101	281	46	<1	309	1670	0.018		2.22	9.5	10	<1	2.3	12.3	0.014	50	0.477	<0.001	0.03	7.1	7.1	2	147	<0.01	236	0.52	153	16.5	281	17.5	16.7		
ME2201291004	GWA4	26-Aug-2022	1340											Dry																								
ME2201291005	GWA5	05-Aug-2022	1303	0.31	<0.001	0.018	108	52	<1	122	1300	<0.001		0.76	10.1	6	<1	1.28	0.46	<0.001	66	0.024	<0.001	0.004	7.3	7.54	6	231	<0.01	136	0.398	391	13.5	108	13.7	14.1		
ME2201291006	GWA6	31-Aug-2022	1256	0.19	0.002	0.077	527	127	<1	239	2920	<0.001		0.49	5.9	8	<1	3.56	2.32	<0.001	98	1.17	0.002	0.005	7.4	7.61	11	334	<0.01	371	0.959	760	12.5	527	33.1	30.8		
ME2201291007	GWA7	19-Aug-2022	1145	2.26	<0.001	0.106	568	119	<1	754	4310	0.009		3.01	8.6	12	<1	3.26	1.94	0.001	148	0.29	0.001	0.006	7.2	7.38	10	148	<0.01	625	1.74	769	15.5	568	48.6	45.6		
ME2201291008	GWA8	19-Aug-2022	1019	0.11	<0.001	0.029	341	130	<1	406	2460	0.002		0.91	8.3	10	<1	4.74	0.66	<0.001	108	7.72	<0.001	0.008	7.1	7.22	11	157	<0.01	240	1.25	501	12.5	341	28.7	26.1		
ME2201291009	GWC1	19-Aug-2022	1224	0.09	<0.001	0.055	449	121	<1	588	3060	0.001		9.34	8.5	12	<1	4.44	0.59	<0.001	87	0.766	<0.001	0.003	7.1	7.19	23	152	<0.01	402	1.26	414	16.5	449	34.2	31.3		
ME2201291010	GWC2	18-Aug-2022	1310	0.04	<0.001	0.285	518	66	<1	114	1310	0.004		3.82	7.5	9	<1	1.96	0.1	<0.001	29	0.073	<0.001	0.003	7.3	7.5	25	154	<0.01	167	0.632	27	17	518	14.1	13.6		
ME2201291011	GWC3	31-Aug-2022	1240	0.02	<0.001	0.018	526	95	<1	433	3600	<0.001		2.99	8.2	7	<1	3.59	0.17	<0.001	104	0.002	<0.001	<0.001	7.5	7.74	27	390	<0.01	517	1.12	791	15	526	39.2	36.5		
ME2201291012	GWC4	18-Aug-2022	1228	0.27	<0.001	0.068	584	150	<1	329	2250	0.011		13.69	8.5	25	<1	3.85	2.12	0.015	70	0.062	<0.001															

ME2201291023	GWC15	26-Aug-2022	1245	0.06	<0.001	0.168	539	52	<1	121	1580	0.016		6.04	7.4	7	<1	1.82	4.32	0.001	24	0.129	0.019	0.045	7.3	7.61	22	147	<0.01	237	0.622	88	16.5	539	16	15.4	
ME2201291024	GWC33	31-Aug-2022	1126	0.82	<0.001	0.259	<1	369	29	138	4710	0.012	31/08/2022	46.72	8.3	<1	785	0.17	0.14	0.001	<1	0.011	0.002	0.002	12.2	12.4	19	14.8	<0.01	44	0.244	34	20	815	20.9	20.8	
ME2201291025	GWC26	31-Aug-2022	1205	0.13	<0.001	0.141	126	19	39	64	716	0.018		48.43	9.5	<1	<1	3.41	0.4	<0.001	6	0.012	0.003	0.003	9.2	8.74	30	204	<0.01	78	0.464	43	19.5	165	6	5.6	
ME2201291026	GWA16	19-Aug-2022	1247	0.14	<0.001	0.129	626	420	<1	7190	21400	0.002		0.9	9.5	18	<1	3.38	0.3	<0.001	619	0.064	0.002	0.003	7.2	7.42	16	159	<0.01	3510	5.8	1220	12.5	626	241	225	
ME2201291027	GWC16	19-Aug-2022	1317	0.6	<0.001	0.121	584	84	<1	460	2520	0.03		27.24	8.8	11	<1	2.95	3.19	0.008	44	0.167	0.002	0.007	7.3	7.47	23	155	<0.01	401	0.874	133	18.5	584	27.4	25.8	
ME2201291028	GWC30	31-Aug-2022	1335	0.08	<0.001	0.041	273	389	<1	49	1860	0.172		29.06	8.4	5	<1	0.3	0.49	<0.001	16	0.022	0.002	0.01	7.2	7.45	24	302	<0.01	19	1.98	730	19	273	22	22.2	
ME2201291029	GWC31	19-Aug-2022	940											Dry																							
ME2201291030	GWC37	31-Aug-2022	1152	1.62	0.04	0.071	195	132	<1	177	2460	0.014		25.12	8.5	8	<1	3.12	9.99	0.018	102	1.2	0.004	0.017	6.3	6.58	52	54.9	<0.01	243	1.46	786	20	195	25.2	26.9	
ME2201291031	GWC27	08-Aug-2022	1417	1.08	0.021	0.214	8	12	<1	311	1680	0.03	31/08/2022	16.01	4.2	28	<1	9.01	40.9	0.007	27	1.67	<0.001	0.033	4.7	4.85	32	196	<0.01	216	0.115	321	18.5	8	15.6	13	
ME2201291032	GWA32	19-Aug-2022	1040	0.03	<0.001	0.044	574	136	<1	737	3580	0.013	19/08/2022	1.37	8.2	12	<1	3.74	0.07	<0.001	152	0.046	0.002	0.005	7.3	7.56	21	114	<0.01	409	1.78	398	13	574	40.5	37.6	
ME2201291033	GWC32	19-Aug-2022	1100	0.25	<0.001	0.042	1290	144	<1	347	3460	0.053	19/08/2022	3.45	7.2	74	<1	2.12	1.2	0.005	105	0.063	<0.001	0.002	6.8	6.96	41	160	<0.01	513	4.31	256	16.5	1290	40.9	39.2	
ME2201291034	GWA34	19-Aug-2022	957	0.58	<0.001	0.047	57	6	<1	4	133	0.025	19/08/2022	2.67	9.5	9	<1		0.8	0.002	6	0.077	<0.001	0.008	6.2	6.53	1	163	<0.01	8	0.073	9	13.5	57	1.44	1.17	
ME2201291035	GWC34	18-Aug-2022	1107											Dry																							
ME2201291036	GWA36	18-Aug-2022	1350	3.48	0.003	0.081	996	32	<1	1020	5670	0.011		3.82	9.4	16	<1	2.74	4.96	0.009	164	0.22	<0.001	0.007	7.4	7.56	30	152	0.02	999	0.799	672	16.5	996	62.7	59.3	
ME2201291037	GWC36	18-Aug-2022	1403	0.23	<0.001	0.03	435	123	<1	464	3830	0.002		8.97	8.7	20	<1	1.5	20.8	0.001	144	1.35	0.003	0.01	6.8	6.94	33	28	<0.01	522	1.06	1010	18	435	42.8	41.5	
ME2201291038	GWC25	30-Aug-2022	1036	0.05	<0.001	0.101	96	18	<1	32	353	0.01	30/08/2022	4.92	7.7	7	<1	2.41	0.22	0.002	8	0.012	<0.001	0.003	6.7	6.87	5	142	<0.01	29	0.189	13	17.5	96	3.09	2.94	
ME2201291039	PZ13	18-Aug-2022	1039											Dry																							
ME2201291040	PZ20	30-Aug-2022	1223	0.39	<0.001	0.017	258	26	<1	24	750	<0.001		1.61	6.9	3	<1	1.44	0.46	<0.001	26	0.193	<0.001	0.003	7.5	7.75	13	135	<0.01	78	0.264	74	14	258	7.37	7.16	
ME2201291041	PZ21	30-Aug-2022	1212	3.16	0.002	0.024	356	27	<1	28	896	0.003		2.86	6	4	<1	0.96	2.66	0.003	21	0.283	<0.001	0.005	7.5	7.72	8	154	<0.01	146	0.278	92	14.5	356	9.82	9.63	
ME2201291042	PZ26	30-Aug-2022	1145											Dry																							
ME2201291043	GWF1	30-Aug-2022	953										30/08/2022	Dry																							
ME2201291044	GWF2	30-Aug-2022	1006											Dry																							
ME2201291045	GWF3	30-Aug-2022	1109	0.04	<0.001	0.059	771	204	<1	225	3700	<0.001		17.52	6	18	<1	1.04	0.12	<0.001	261	1.38	0.002	0.006	6.8	7.06	38	179	0.01	260	1.83	1110	20.5	771	44.9	43.9	
ME2201291046	GWF4	30-Aug-2022	1154											Dry																							
ME2201291047	GWF5	30-Aug-2022	1140											Dry																							
ME2201291048	GWF7	30-Aug-2022	1312											Dry																							
ME2201292049	Barologger Office	31-Aug-2022	1501										31/08/2022																								
ME2201579001	GWA1	07-Oct-2022	1240											Dry																							
ME2201579002	GWA2	07-Oct-2022	1111	0.24	0.016	0.038	100	8	<1	78	506	0.012		0.82	7.6	8	<1	3.57	13	<0.001	12	1.04	0.002	0.005	7	7.02	4	218	<0.01	69	0.116	30	13.5	100	4.82	4.49	
ME2201579003	GWA3	20-Sep-2022	1131											no safe access																							
ME2201579004	GWA4	20-Sep-2022	1131											no safe access																							
ME2201579005	GWA5	20-Sep-2022	825	0.78	0.002	0.081	561	340	<1	723	6990	0.003		1.53	11.2	23	<1	2.82	0.99	<0.001	512	0.169	<0.001	0.046	7.3	7.6	20	153	<0.01	886	3.3	3470	15	561	104	98.2	
ME2201579006	GWA6	20-Sep-2022	1500											no safe access																							
ME2201579007	GWA7	20-Sep-2022	1131											no safe access																							
ME2201579008	GWA8	20-Sep-2022	1100	2.02	0.001	0.078	328	125	<1	360	2360	0.01		1.02	11.1	17	<1	4.43	4.35	0.006	103	11.3	<0.001	0.015	6.9	7.35	11	189	<0.01	228	1.3	505	16	328	27.2	24.9	
ME2201579009	GWC1	07-Oct-2022	1203	0.08	<0.001	0.064	461	137	<1	606	3290	0.008		9.1	7	16	<1	3.22	0.41	<0.001	98	0.712	<0.001	0.004	7.1	7.31	28	211	<0.01	409	1.48	448	16.5	461	35.6	33.4	
ME2201579010	GWC2	20-Sep-2022	1131											no safe access																							
ME2201579011	GWC3	20-Sep-2022	1515	0.05	<0.001	0.016	489	79	<1	395	3080	0.002		2.87	10.9	10	<1	4.1	0.27	<0.001	90	0.009	<0.001	0.003	7.4	7.82	24	179	<0.01	466	0.917	676	17.5	489	35	32.2	
ME2201579012	GWC4	19-Sep-2022	1343	0.05	<0.001	0.038	602	181	<1	344	2420	0.002		13.5	8.8	78	<1	0.99	2.26	0.002	83	0.034	<0.001	<0.001	6.4	7.45	48	191	<0.01	217	1.94	256					

Groundwater Review & Water Licence Review

WILPINJONG ANNUAL REVIEW WILPINJONG COAL MINE

**Annual Review 2022
Groundwater Compliance**

Prepared for:

Wilpinjong Coal Pty Ltd
1434 Ulan-Wollar Road,
Wilpinjong

SLR Ref: 665.10014.02205-R01
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March 2023



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BASIS OF REPORT

This report has been prepared by SLR Consulting Australia Pty Ltd (SLR) with all reasonable skill, care and diligence, and taking account of the timescale and resources allocated to it by agreement with Wilpinjong Coal Pty Ltd (the Client). Information reported herein is based on the interpretation of data collected, which has been accepted in good faith as being accurate and valid.

This report is for the exclusive use of the Client. No warranties or guarantees are expressed or should be inferred by any third parties. This report may not be relied upon by other parties without written consent from SLR.

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DOCUMENT CONTROL

Reference	Date	Prepared	Checked	Authorised
665.10014.02205-R01-v1.0	29 March 2023	K Selvaratnam	A Skorulis	S Troon

Executive Summary

The annual groundwater review for Wilpinjong Coal Mine (WCM) contributes to the requirements of the Annual Review (AR) for WCM for the 2022 calendar year. It also contains the analysis and information required to address the relevant water licence conditions 'water year' 01 July 2021 - 30 June 2022. The report addresses the following objectives:

1. Reporting against the commitments in the WCM Groundwater Monitoring Program (GWMP) – 01 January 2021 to 31 December 2021.
2. Reporting against water licence conditions for WAL41862 – 01 July 2020 to 30 June 2021 with review of inferred inflows from water balance modelling and groundwater modelling.

Since the first quarter of 2020 through to 2022 the area has experienced above average rainfall following the intense drought from 2017 to early 2020. This has resulted in the widespread increase in groundwater levels across many alluvial and coal measures monitoring sites. The following assessment has been made with respect to compliance triggers:

- Alluvium bores GWA4, GWA14 have exceeded the lower depth-to-water trigger level during 2022 and indicate the possible impact of mining activity at WCM. However, a lack of bore construction and lithology information, the lack of an ongoing mining effect observed at other nearby shallow monitoring sites, and apparent inconsistencies in monitoring limit the reliability of the collected data.
- Coal measures bores GWc1, GWc3 and GWc5 have exceeded the EC trigger level during 2022. EC at GWc1 and GWc3 may be influenced by downwards seepage from overlying strata, lateral flow from backfilled open cuts, or related to difficulties in removing stagnant water from the bores to gain representative groundwater samples. Understanding correlation between water quality in overlying or adjacent strata, and sampling method comparisons between GWc1 and GWc3 could be improved with further investigation. GWc5 has been recording stable observations above the trigger level since 2015 and shows limited impacts to WCM operations. The observed EC is likely to be representative of normal conditions at this site and a review of the EC trigger level should be considered.
- No pumping occurred from the WCPL supply borefield in 2022 and none of the cease-to-pump trigger levels were exceeded.

The approved numerical modelling predictions indicate approximately 1 m drawdown is expected for the life of approved mining at alluvium monitoring locations surrounding WCM. The assessment of modelled vs observed levels for 2022 within the shallow groundwater system indicates the timing and magnitude of predicted WCM impacts generally correlate well, often predicting a repressed response to rainfall that is also seen in the observed data. Modelled groundwater levels at the coal monitoring bores generally continue to show a good correlation with the timing and magnitude of observed drawdown. As the last numerical model review was completed in early 2020 (SLR, 2020a), the high rainfall experienced from 2020 to 2022 is not captured in the model used for this update. The observed responses to wetter climatic conditions during this time are therefore not reproduced by the groundwater model. The model is scheduled for more detailed review and update in 2023 consistent with commitments from the GWMP.

WCPL holds a groundwater licence for 3,212 ML/a under WAL 41862 for the Sydney Basin North Coast Groundwater Source. For the 2020-2021 water year the numerical model predicts an inflow of 870 ML/a while the water balance model estimates groundwater inflow of 840 ML/a (SLR, 2023). Both these values are considerably below WCPL's entitlement, indicating WCPL is compliant with licence conditions for WAL 41862.

WCPL holds a groundwater licence for 474 ML/a for the Wollar Creek Water Source to account for alluvial groundwater take. The SLR (2020a) numerical model predicts alluvial groundwater take of around 153 ML/year, this take is well below and compliant with the licence volume held by WCM.

As an outcome of this annual groundwater review, the following recommendations have been made:

- Supplementary investigation and the consideration of installing replacement bores for GWA4, GWA14, GWA5 and GWA7. These sites appear to show/ have shown impacts associated with WCM operations or may not be functioning as designed. However, as geology and construction detail is not well understood, there is reduced confidence in the data collected. Replacement sites or improving understanding of construction and geology will increase confidence in monitoring data collected at these locations.
- It is recommended that GWC1, GWC3, undergo further investigation to evaluate the groundwater source and recharge mechanism, or appropriate sampling methodology at each site. This investigation may also enable the review and update of EC trigger levels at each site.

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APPENDICES

Appendix A	Groundwater Levels Hydrographs
Appendix B	Trigger Assessment Charts
Appendix C	Metal Species and Major Ion Concentration Charts
Appendix D	Model Performance Hydrographs

1 Introduction

SLR Consulting Australia Pty Ltd (SLR) was commissioned by Wilpinjong Coal Pty Ltd (WCPL) to conduct the Groundwater Annual Review 2021 for the Wilpinjong Coal Mine (WCM).

This report contributes to the requirements of the Annual Review (AR) for the WCM for the 2022 calendar year. It also contains the analysis and information required to address the relevant water licence conditions ‘water year’ 01 July 2021 - 30 June 2022. The report addresses three main objectives:

1. Reporting against the commitments in the WCM Groundwater Monitoring Program (GWMP)¹ – 01 January 2021 to 31 December 2021.
2. Reporting against water licence conditions for WAL41862 – 01 July 2021 to 30 June 2022 with review of inferred inflows from water balance modelling and groundwater modelling.

While the commitments in the GWMP postdate the water licence conditions, the data presented to meet the GWMP commitments is relevant to addressing water licence conditions.

Open cut pit names and pit progression during 2022 are presented in **Figure 1**. Groundwater monitoring bore locations are shown in **Figure 2**.

It should be noted that since the first quarter of 2020 to the end of 2022, the Wilpinjong area has experienced significantly above average rainfall. Prior to this, from 2017 to early 2020, there was an extended period of intense drought conditions that made the separation of mining and climatic effects difficult when conducting the cause-and-effect analysis.

¹ Currently approved GWMP (Version 3) August 2017

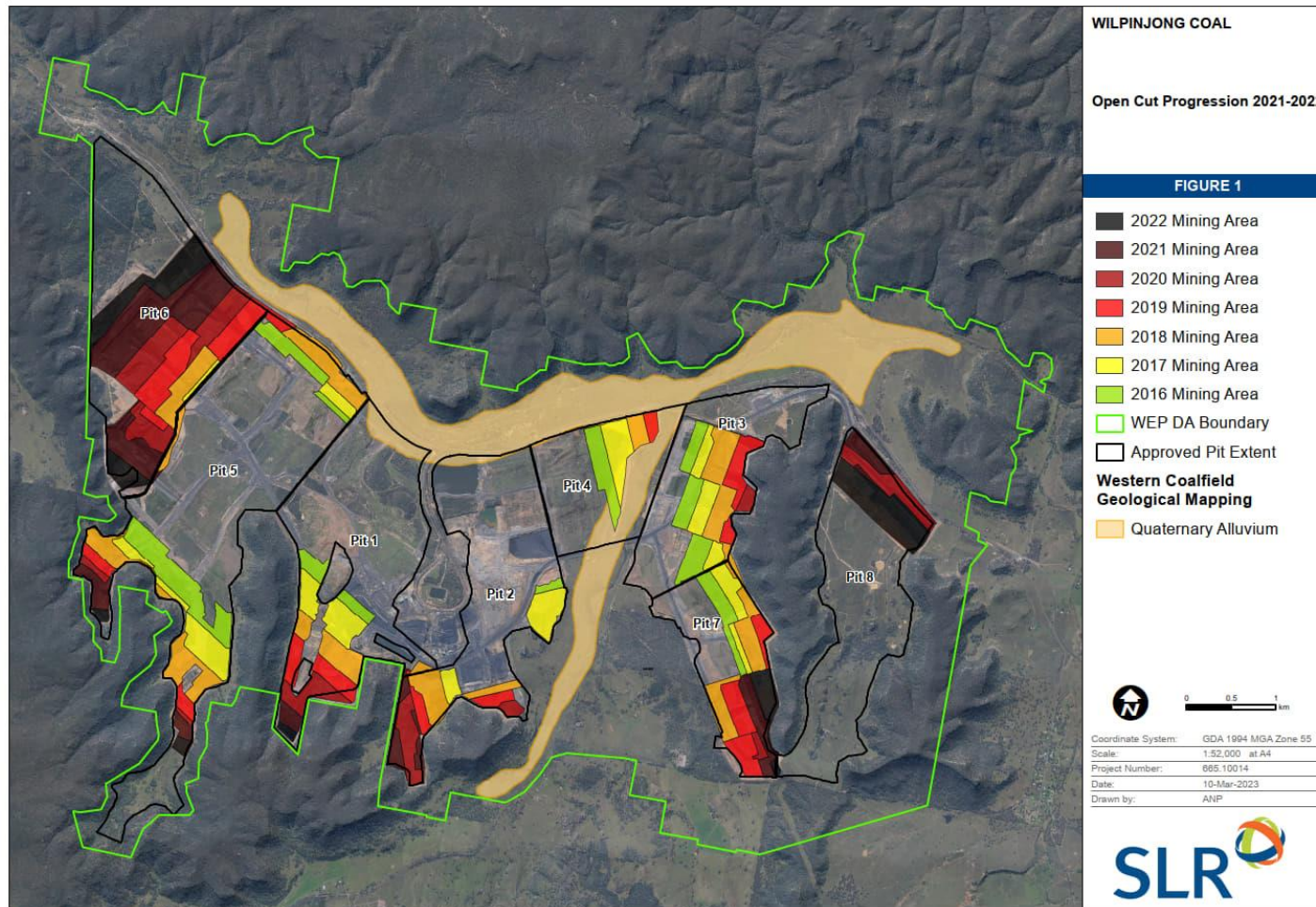


Figure 1 Wilpinjong Coal Mine open cut progression 2016 - 2022

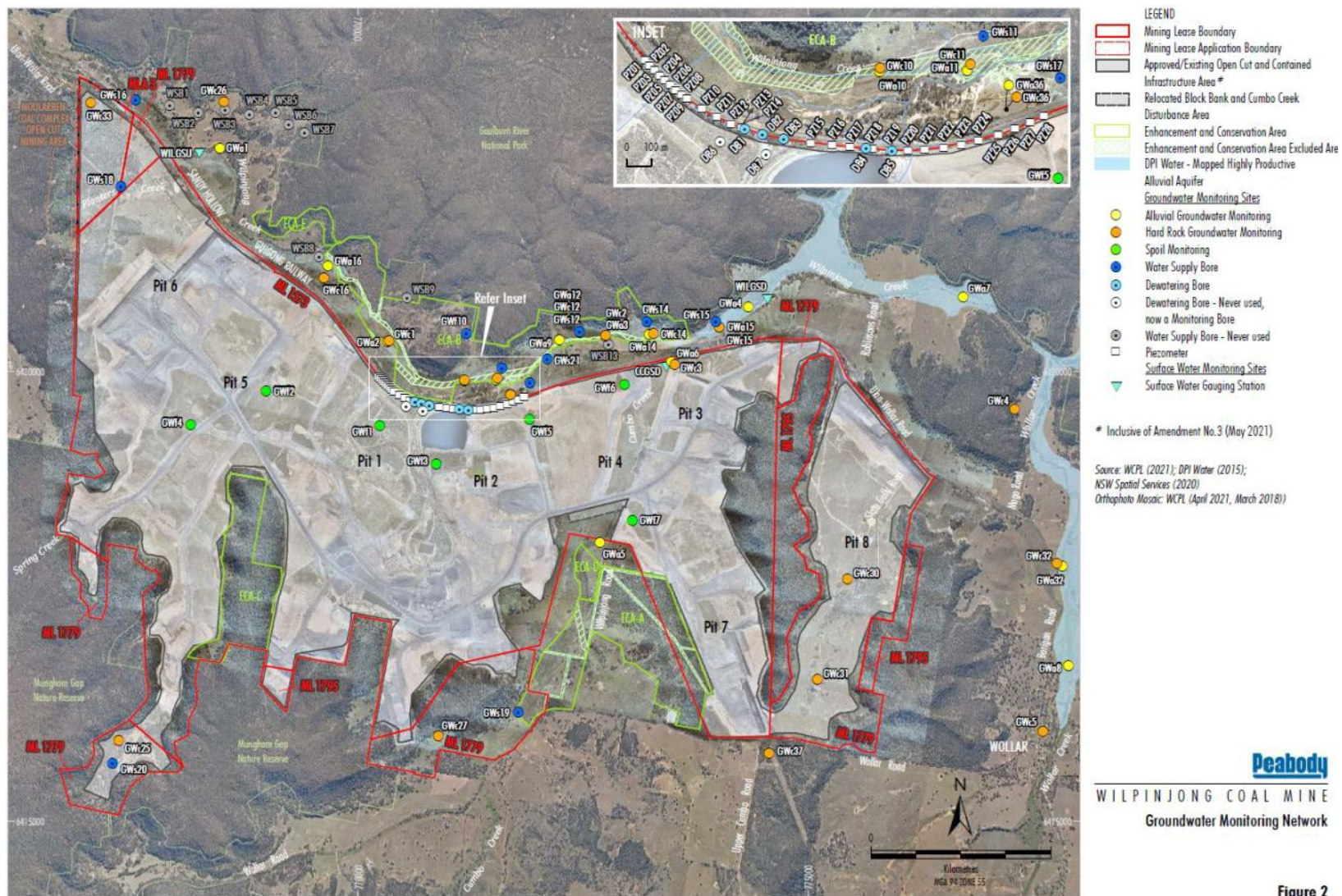


Figure 2 Groundwater Monitoring Sites at Wilpinjong Coal Mine

2 Annual Groundwater Trends

A groundwater monitoring network has been in place at the WCM since April 2006, as illustrated in **Figure 2**. Many paired monitoring bores have been drilled and installed along the Wilpinjong Creek alluvium, with a shallow bore screened in the alluvium and a deeper bore screened across the target coal seam. Several additional monitoring bores were drilled in late 2013 around the periphery of the site, in Slate Gully and along Wollar Creek (**Figure 2**).

The numerical modelling conducted for the Wilpinjong Coal Mine predicts minimal drawdown (approximately 1 m) in the shallow alluvial groundwater system along Wilpinjong Creek. Drawdowns are predicted to be even less pronounced in the more distant alluvium associated with Wollar Creek to the east of WCM (Peabody, 2017). Numerical modelling predicts a substantial reduction in potentiometric head in the Illawarra Coal Measures near WCM due to depressurisation from cumulative mining activity. Accordingly, trigger levels for water levels in the coal measures are considered unwarranted (Peabody, 2017).

For monitoring bores with sufficient records of groundwater levels around the WCM site, a cause-and-effect assessment of temporal changes in groundwater levels has been completed, with potential causes being variation in rainfall recharge, creek flow, short-term dewatering/production pumping, and mining effects. The hydrographs for all bores are included in **Appendix A (Figure 15 to Figure 31)**.

2.1.1 Review of Climate Data

New South Wales experienced an exceptionally wet year in 2022 with the state-averaged annual total being the second highest on record (Bureau of Meteorology, 2023). **Table 1** displays monthly and annual rainfall compared to the long-term average at the Wollar (Barrigan St) BOM station for 2016-2022, which clearly demonstrates the very wet conditions experienced in 2022 following the wet conditions experienced through 2020 and 2021, which was preceded by drought conditions from 2017 to early 2020. The annual total rainfall recorded in 2022 was 989 mm, 65% higher than the long-term average of 600.7 mm.

Table 2 presents the total rainfall observed by the on-site rainfall gauge during 2022. Overall, rainfall recorded on-site at WCM is slightly higher than at the Wollar BOM station with a total for 2022 of 998.2 mm. In comparison to the Wollar BOM station, significantly higher rainfall was observed on-site at WCM during April, July and October and significantly lower rainfall was observed at WCM during January and March.

Notably wet years during WCM operations, not included in **Table 1** are 2007 (840 mm), 2008 (785.5 mm) 2010 (1084 mm), 2012 (712.2 mm). Notably dry years during WCM operations not included in **Table 1** are 2006 (330.9 mm) and 2009 (481.2 mm). Significant variation in annual rainfall is a key influence on groundwater levels and trends.

Table 1 BOM rainfall station 062032 (Wollar, Barrigan St), recent monthly and annual rainfall vs long term average

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Avg	67.1	62.6	55.1	39.3	37.2	43.8	43	41.1	41.9	52.2	56.7	60.7	600.7
2016	101.2	10.4	21.4	3.0	67.0	114.2	82.4	44.0	181.2	74.2	41.0	36.2	776.2
2017	13*	31.0	127.0	19.0	24.4	12.0	1.4	25.6	2.0	30.0	62.6	86.4	421.4
2018	13.4	66.2	41.4	47.0	12.6	22.0	6.5	25.5	51.0	48.5	44.4	117.6	496.1
2019	72.0	5.0	110.5	0.0	20.0	6.0	4.0	10.0	23.0	7.0	30.0	6.0	293.5
2020	37.0	151.0	110.2	118.0	35.0	31.3	86.0	36.0	75.7	128.0	21.5	149.3	979.0
2021	43.8	107.0	157.5	2.5	11.0	82.0	68.2	21.0	45.0	72.0	183.0	134.0	927.0
2022	169.0	17.0	139.5	65.0	38.0	14.5	109.0	100.5	94.5	126.0	85.0	31.0	989.0

* No rainfall recorded at Wollar (Barrigan St). Rainfall from Bylong (Glenview) – 062107 used.

Table 2 Wilpinjong site 24 hour rainfall data

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
2022	101.4	16	119.8	95	43.6	13	136.4	103.2	93.8	185.4	64	26.6	998.2

The cumulative rainfall departure (CRD) shows trends in actual rainfall over time relative to the long-term average and provides a historical record of relatively wet and dry periods. A positive slope in the CRD indicates periods of above average rainfall, while a negative slope indicates periods of below average rainfall. A level trace indicates rainfall conditions are equal to average rainfall conditions.

For the calendar years 2020- 2022 WCM experienced significantly above average rainfall conditions, as indicated by a sharp upward trend in the CRD. This contrasts with the declining CRD trend preceding this period from mid-2017 to the end of 2019 (**Figure 3**).

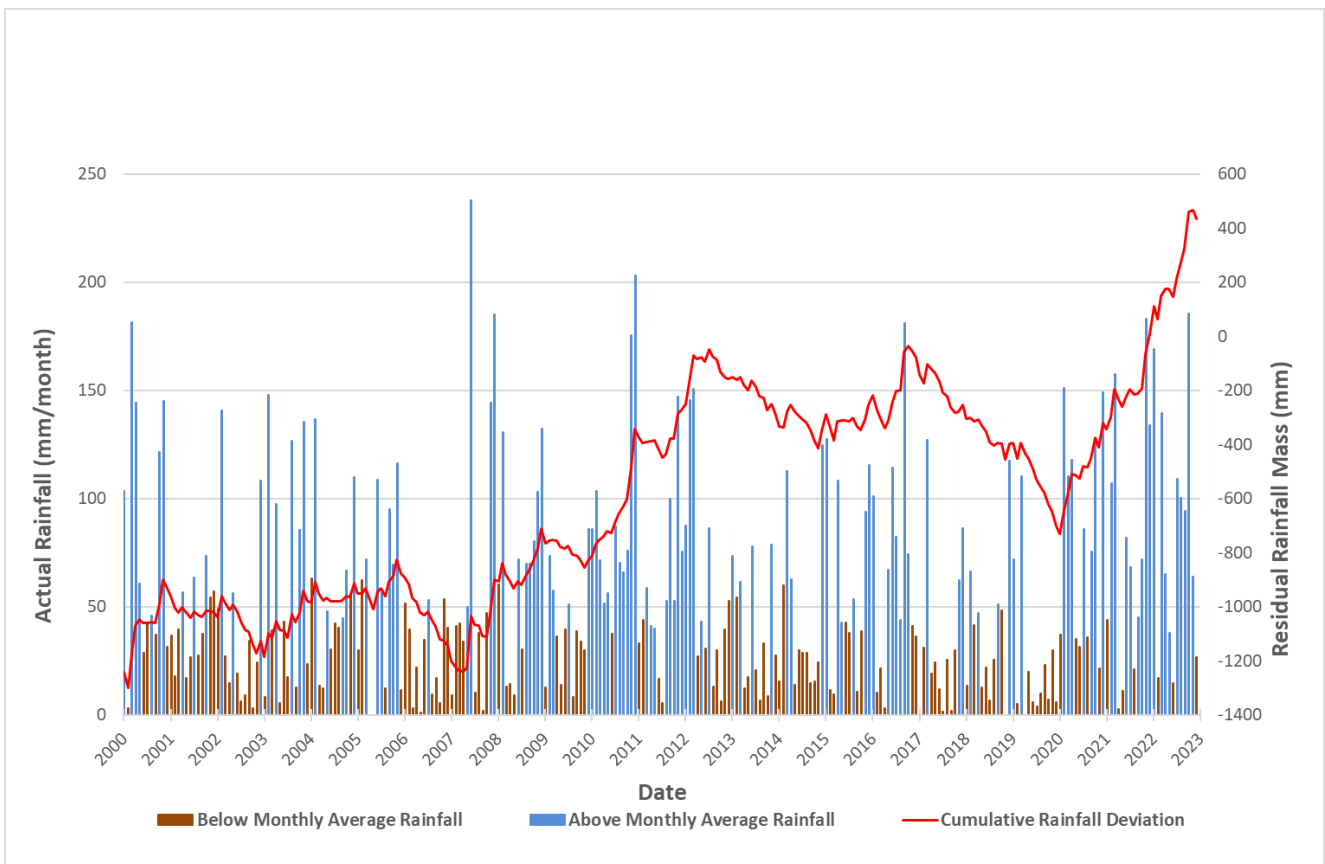


Figure 3 Monthly rainfall and CRD

2.1.2 Review of Groundwater Level Data

Figure 4 presents the groundwater hydrographs for all alluvial bores from the west (higher elevations) to the east (lower elevations) along Wilpinjong Creek, in relation to the long-term rainfall trend. The groundwater table in the alluvium varies between approximately 375 mAHD (at GWa2 in the east) and 345 mAHD (at GWa7 in the west) over approximately 7.0 km, with a hydraulic gradient of 0.43% (0.0043) towards the east.

Water table increases are evident at most bores and correlate with the higher than average rainfall through 2022, confirming that rainfall is a key recharge mechanism for the alluvial aquifer. There is also historical evidence of upward hydraulic gradients from Permian strata to the Wilpinjong Creek alluvium which would have provided a source of recharge. Drawdown due to WCM operations reversed this hydraulic gradient at some locations (**Figure 5**) for a period of time, with coal measures no longer recharging the alluvium. However, **Figure 5** also shows recovery in Permian strata in response to above average rainfall conditions since 2020, with a near neutral vertical gradient at these sites at the end of 2022.

Figure 6 presents the groundwater hydrographs for all coal monitoring bores from the west (higher elevations) to the east (lower elevations), in relation to rainfall residual mass and the commencement of mining in each Pit. The hydrographs show the expected response of drawdown varying with distance from mining activity, with many sites showing recovery in response to the above average rainfall experienced from 2020 to 2022.

2.1.2.1 Mining impacted groundwater levels - Wilpinjong alluvium and Cumbo Creek alluvium

Based on the analysis of the hydrographs in the Wilpinjong alluvium and Cumbo Creek alluvium, mining effects are considered to have occurred historically at some locations on Wilpinjong Creek. These have been discussed and investigated in previous annual reviews (SLR,2020, 2021, 2022 & HydroSimulations, 2017, 2018, 2019). In 2022, due to the extended period of above average rainfall, most alluvial monitoring locations have recovered to near pre-mining levels (**Figure 4**).

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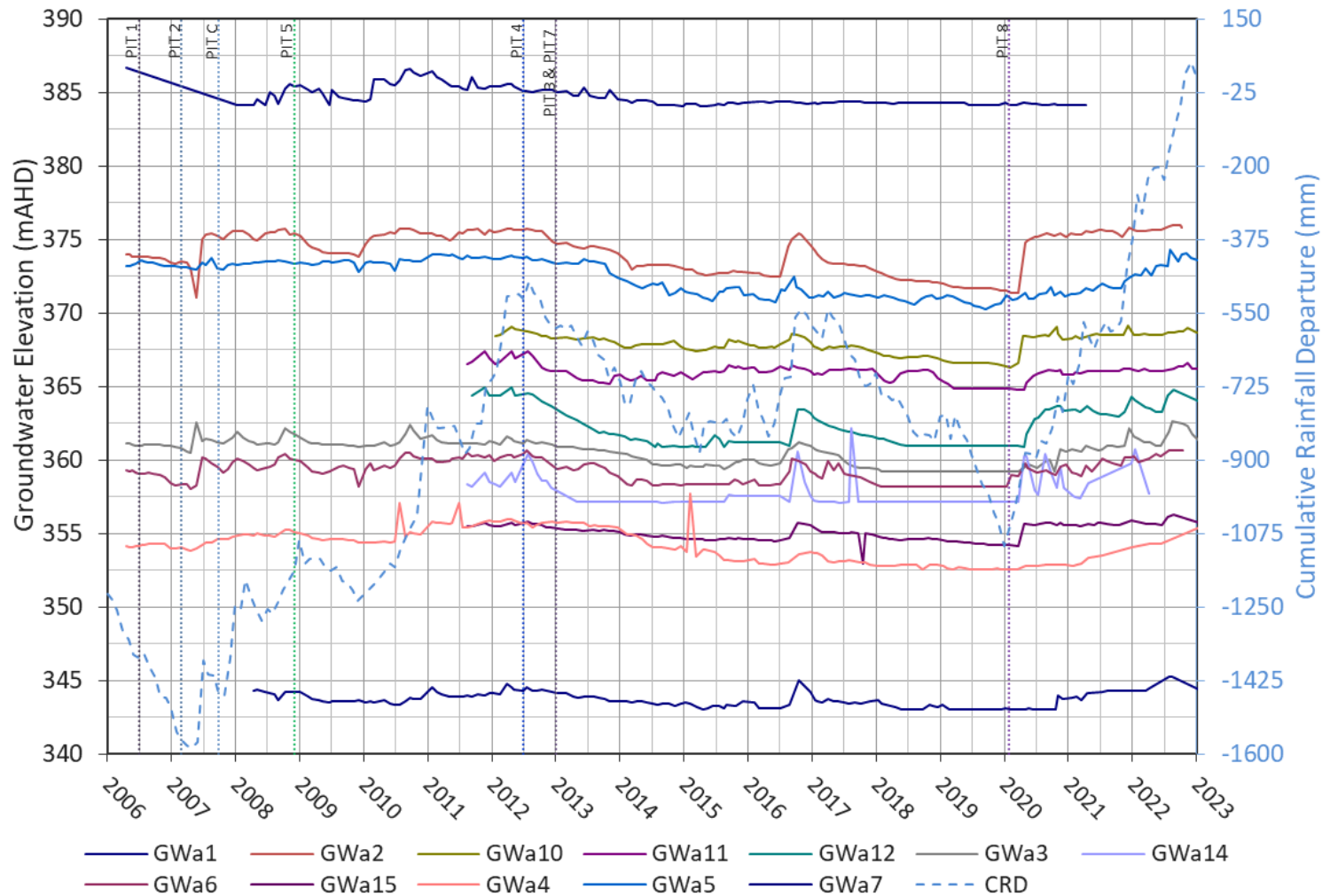


Figure 4 Transition in Alluvial Bore Groundwater Levels from West to East along Wilpinjong Creek

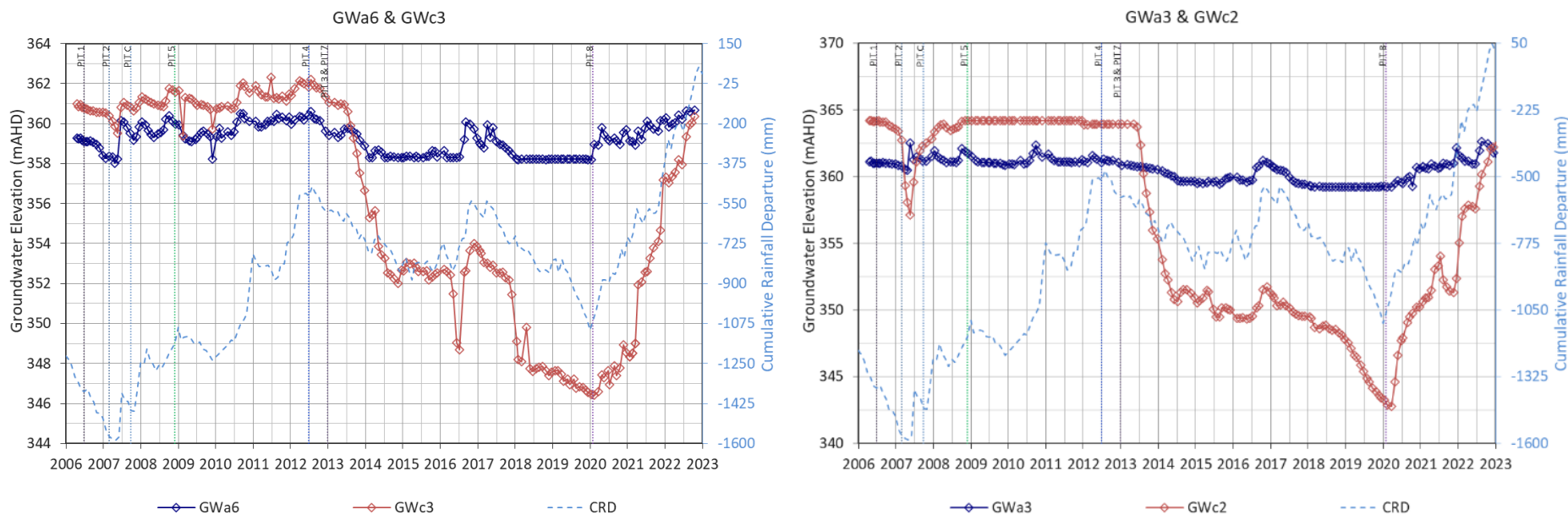


Figure 5 Example hydrographs showing vertical gradient between Permian and Alluvial strata.

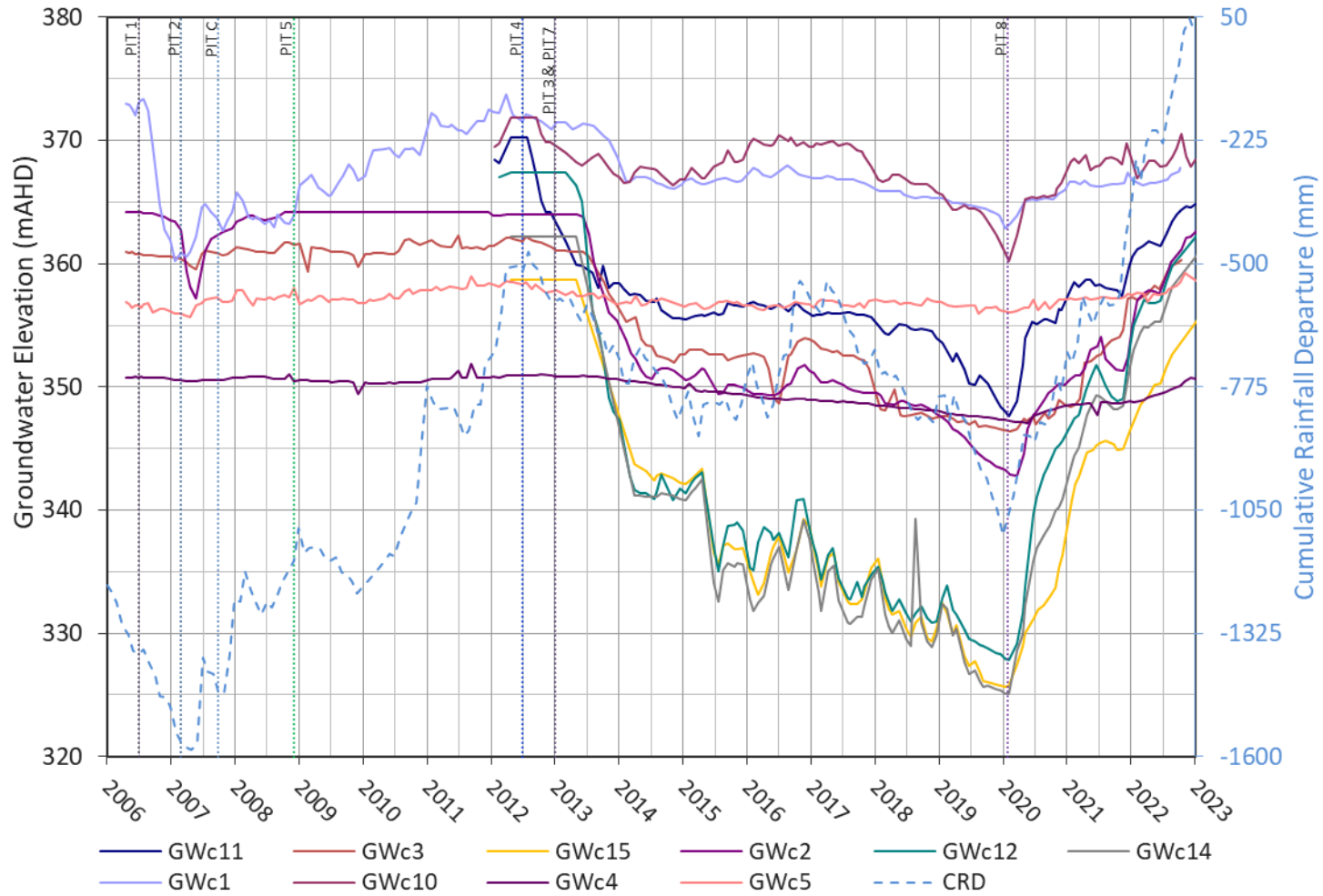


Figure 6 Coal measures bore groundwater levels.

2.1.3 Review of Groundwater Quality Data

Groundwater electrical conductivity (EC) statistics have been computed for the longest-term monitoring sites at WCM, using from a total 2,054 measurements from April 2006 to December 2022 (**Table 3**). The lowest mean salinity in the alluvium monitoring bores is 1,370 $\mu\text{S}/\text{cm}$ at GWa2, whereas the highest mean is 11,125 $\mu\text{S}/\text{cm}$ at GWa5. The lowest mean salinity in the coal monitoring bores is 1,185 $\mu\text{S}/\text{cm}$ at GWc2, whereas the highest mean is 5,220 $\mu\text{S}/\text{cm}$ at GWc5. Box and Whisker plots of alluvial and coal measures EC observations are also presented in **Figure 7**. These plots enable visual comparison of water quality differences between coal measures and alluvial sites and are presented from upstream to downstream along Wilpinjong Creek.

Overall, groundwater at alluvial monitoring sites is more saline than groundwater at coal seam monitoring sites. This suggests that the alluvial waters are sourced from Permian sediments and are concentrated through evapotranspiration or evaporation.

Table 3 Groundwater Electrical Conductivity Statistics

Alluvium Monitoring Bores	Mean ($\mu\text{S}/\text{cm}$)	Std. Dev ($\mu\text{S}/\text{cm}$)	Coal Monitoring Bores	Mean ($\mu\text{S}/\text{cm}$)	Std. Dev ($\mu\text{S}/\text{cm}$)	Location
GWa1	8110	3210	-	-	-	North of Pit 6: Far west
GWa2	1370	490	GWc1	2600	665	North of Pit 1
GWa3	1650	500	GWc2	1185	115	North of Pit 4
GWa4	2510	790	-	-	-	North-east of Pit 3
GWa5	11125	3490	-	-	-	South of Pit 4 on Cumbo Ck
GWa6	5810	2870	GWc3	3885	800	Northern end of Cumbo Ck
GWa7	10125	2400	GWc4	2360	160	North-east of Slate Gully
GWa8	2250	400	GWc5	5220	490	Wollar: SE of Slate Gully

The highest salinities recorded occur near Cumbo Creek to the south of Pit 4, near Wilpinjong Creek near Pit 6 and near Wilpinjong Creek to the north-east of Slate Gully. The lowest salinities recorded are along Wilpinjong Creek from Pit 1 to Pit 4, upstream of the Cumbo Creek junction, and on Wollar Creek.

Temporal variations in groundwater salinity in the alluvium and coal seam bores have been plotted with rainfall residual mass and the commencement of mining in each pit (**Figure 8** and **Figure 9**). Alluvial sites have a large variability in salinities, from very high with large fluctuations to near fresh and stable that bear some relationship with rainfall and flow in Wilpinjong Creek. This is examined further in **Section 3**. The salinities in the coal monitoring bores are generally more stable.

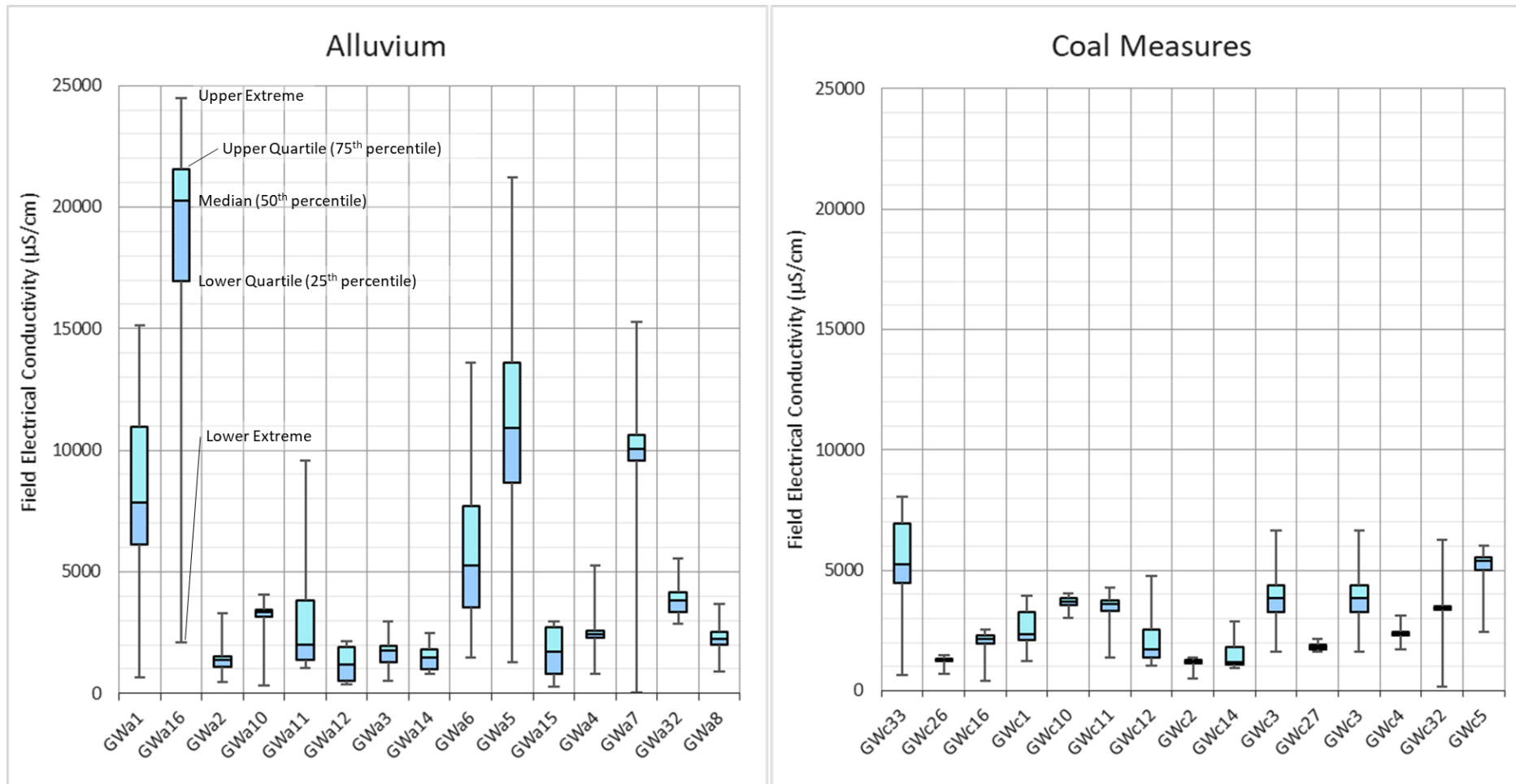


Figure 7 Box Plots for Electrical Conductivity in Alluvium and Coal Measures Monitoring Bores

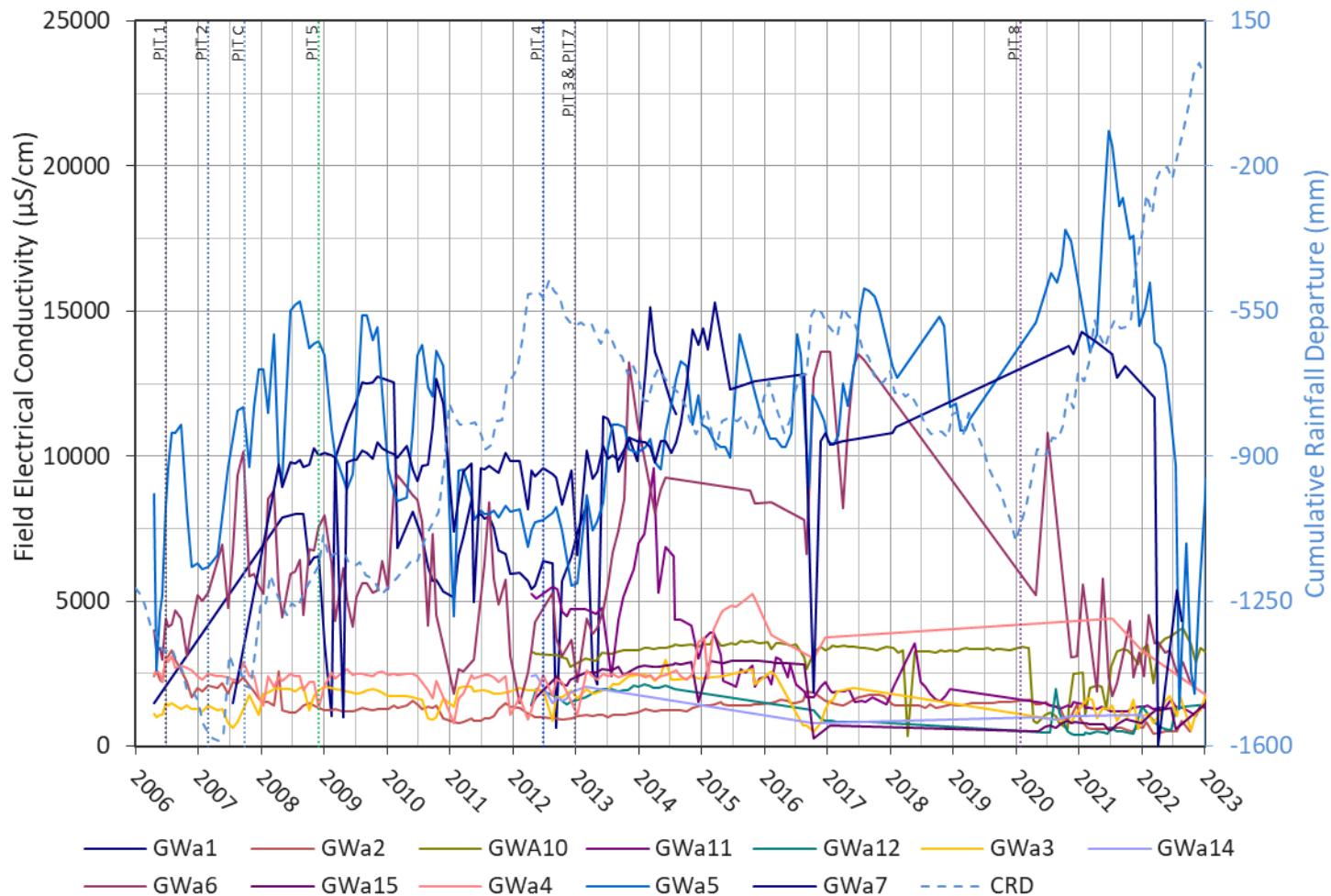


Figure 8 Alluvial Bore Groundwater Electrical Conductivity along Wilpinjong Creek

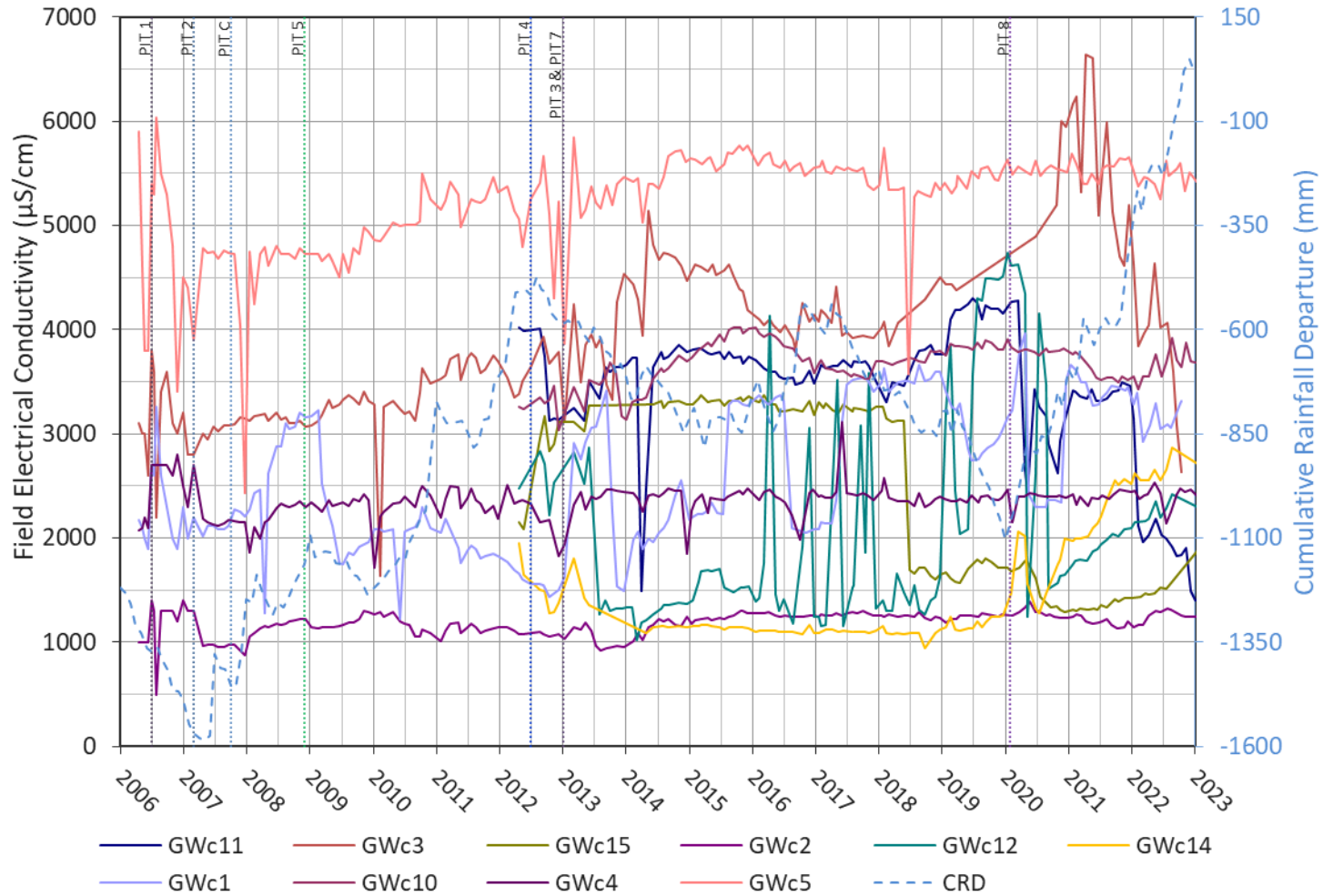


Figure 9 Coal Bore Groundwater Electrical Conductivity along Wilpinjong Creek

3 Trigger Compliance

The following section addresses the compliance of groundwater level and groundwater quality observations in relation to trigger levels during the 2022 reporting period. **Table 4** presents the trigger levels from the GWMP (Peabody, 2017).

Time series charts showing groundwater level, electrical conductivity (EC) and pH in comparison with the trigger levels can be found in **Appendix B**.

Table 4 Peabody (2017) Groundwater Level and Quality Trigger Levels

Monitoring Site	Aquifer Type	Groundwater Level	Groundwater Quality		
		Trigger RWL (mAHD)	EC (µS/cm)	pH min	pH max
GWa1	Alluvium	No Trigger ¹	12,272	6.5	8
GWa2	Alluvium	372.4	2,280		
GWa3	Alluvium	Dry ²	1,970		
GWa4	Alluvium	Dry ²	2,596		
GWa5	Alluvium	371.4	13,926		
GWa6	Alluvium	N/A [#]	6,720		
GWa7	Alluvium	No Trigger ¹	10,126		
GWa8	Alluvium	Dry ²	2,898		
GWa10	Alluvium	366.1	N/A [#]	N/A [#]	N/A [#]
GWa11	Alluvium	Dry ²			
GWa12	Alluvium	361.3			
GWa14	Alluvium	Dry ²			
GWa15	Alluvium	Dry ²			
GWc1	Coal	N/A [#]	2,844	6.5	8
GWc2	Coal		1,290		
GWc3	Coal		3,304		
GWc4	Coal		2,412		
GWc5	Coal		4,798		

Not applicable – No trigger defined in GWMP (Peabody, 2017)

¹ GWa1 and GWa7 both had ‘dry’ observations prior to mining. No effective trigger level could be developed for these bores.

² Historical observations at these groundwater bores have indicated SWLs that represent less than 1 m of head in the bore. Therefore, these bores could go dry without indicating a mining effect that exceeds the predicted 1 m drawdown.

3.1 Trigger Level Exceedances Summary

As stated in **Section 5**, numerical modelling conducted for WCM (SLR, 2020a) predicts minimal drawdown (approximately 1m) to the alluvial groundwater system along Wilpinjong Creek, and less in the more distant alluvial aquifers associated with Wollar Creek.

Trigger levels are required for alluvial monitoring bores to detect impacts and effects greater than those predicted by the groundwater modelling. As such, trigger levels have been established for alluvial monitoring bores at 1m below the minimum recorded water level during the baseline period. Three consecutive monthly exceedances (or two successive quarterly exceedances) of the lower threshold will trigger an investigation (Peabody, 2017).

An alluvium monitoring bore that has indicated a head of less than 1 m prior to the approach of Wilpinjong Mining has a trigger level set at the base of the bore (**Table 4**). These monitoring bores could go dry without necessarily exceeding the predicted 1 m drawdown. A statistical analysis on the number of dry observations at these bores is recommended within the GWMP (Peabody, 2017) to determine whether more dry days are occurring than under normal climatic variation. No statistical analysis has been completed for the 2022 monitoring period due to the recovery of water levels in many alluvial bores.

Water quality data from April 2006 to December 2009 were analysed at alluvium and coal monitoring bores to develop trigger levels for EC and pH. An exceedance of a trigger level on three consecutive monthly (or two consecutive quarterly) observations will result in the initiation of the groundwater impact investigation protocol found in the WCM Groundwater Trigger Action Response Plans (TARPs) in Section 8 of the GWMP.

- EC trigger levels are based on 80th percentile values from the baseline monitoring period.
- The 20th and 80th percentile values for pH measured at Wilpinjong monitoring locations between April 2006 and December 2009 fall within the ANZECC and ARM CANZ (2000) default guidelines for pH of 6.5 to 8. As such, these guidelines are used as triggers at all coal and alluvial monitoring sites.

Table 5 presents trigger level exceedances for the 2022 AR monitoring period. Exceedances are discussed in **Section 3.2**.

Table 5 Trigger Level exceedances in the 2022 monitoring year.

Bore	Trigger Level Exceedance in 2022 Observations			
	Minimum RWL (mAHD)	EC	pH min	pH max
GWa1 [^]	N/A [#]	Dry through 2022		
GWa2	N	N	N	N
GWa3	N	N	N	N
GWa4	Y [^]	N	N	N
GWa5	N	N	N	N
GWa6	N/A [#]	N	N	N
GWa7	N/A [#]	N	N	N
GWa8	N	N	N	N
GWa10	N	N/A [#]	N/A [#]	N/A [#]
GWa11	N			
GWa12	N			

Bore	Trigger Level Exceedance in 2022 Observations			
	Minimum RWL (mAHD)	EC	pH min	pH max
GWa14 [^]	Y [^]			
GWa15	N			
GWc1	N/A [#]	Y	N	N
GWc2		N	N	N
GWc3		Y	N	N
GWc4		Y	N	N
GWc5		Y	N	N

#Not applicable, Y= Yes (trigger exceedances recorded), N= No (trigger exceedances not recorded), [^]Bore was dry/near dry during most of 2022

3.2 Groundwater Level Trigger Exceedances

The following section discusses trigger exceedances in alluvial monitoring bores during the 2022 AR monitoring period (**Table 5**), to identify whether their cause can be attributed to a climatic or mining effect. If a mining effect is likely, further investigation may be required as per the GWMP (Peabody, 2017). All graphs showing the water levels within each monitoring bore and their associated trigger levels are shown in **Appendix B**.

GWa 4 and GWa14 exceeded groundwater level triggers in 2022.

3.2.1 GWa4

GWa4 was dry from January to March (exceeding the trigger level), and was dry again in May, July, and August before access to the bore was not possible due to high rainfall and flow in Wilpinjong Creek late in 2022. Two ‘non-dry’ depth to water observations were made in April and June 2022, but no samples were collected so it is assumed that the bore was near-dry at this time. It is noted, the depth to water observations were 3.47 m below top of casing, which is ~1.1 m above the recorded base of the bore (4.6 m depth). The following comments are made in consideration of the depth to water trigger exceedance at GWa4.

- There may be an obstruction within GWa4 that is limiting the ability to collect groundwater samples. Indicated by the depth to water observations with no sample collected above the recorded base of the bore. Downhole camera investigation undertaken in 2021 did indicate that the bore’s slotted casing may be blocked.
- Previous investigation identified that GWa4 is unlikely to be screened in more permeable Wilpinjong Creek alluvium, and more likely screened in less permeable shallow rock or regolith, meaning that the expected response to rainfall recharge and flow events in Wilpinjong Creek will not be the same as other nearby alluvial site GWa15 (screened in sand and silty-clay).
- Upward flow from underlying coal measures may have been a key recharge source at locations near Wilpinjong Creek (**Figure 5**), and drawdown in underlying strata reversing this flow gradient, is the likely mechanism for mining impacts at this site.

GWa4 could be investigated for an obstruction, and purging or bore development could be undertaken in effort to improve bore function. A replacement site targeting a greater thickness of Wilpinjong Creek alluvium rather than shallow rock should also be considered.

3.2.2 GWa14

Observations at GWa14 (located 340 m north of Pit 4) recorded one groundwater level in January 2023 before reporting dry from February to August. No observations were recorded from September- December 2023 with safe access being unachievable due to high flow in Wilpinjong Creek.

These observations come after 2021 where GWa14 was dry or near dry despite above average rainfall conditions. This followed erratic levels (mostly above the trigger level) in 2020 at elevations similar to those observed in 2012. Between 2013 and 2020, levels at this bore had mostly been dry or near dry and in breach of the trigger level.

It is unknown why dry observations were recorded at GWa14 in 2022 (and 2021), when more consistent groundwater response was observed to similar rainfall conditions in 2020. It is also noted that other nearby alluvial/ shallow bores (GWa3 and GWa15 – See Appendix B) have recovered in response to above average rainfall from 2020 to 2022 while there has been limited response at GWa14.

The construction bore log (AGE, 2007) also indicated that the base of alluvium was not encountered during construction. Investigation into the function of GWa14 or consideration of a replacement monitoring site that is installed to full depth of alluvium at this location may provide more consistent groundwater data and help evaluate the presence and magnitude of any mining effect at GWa14.

3.3 EC Trigger Exceedances

The following section discusses the EC trigger exceedances summarised in **Table 3** based on the time series plots in **Appendix B**.

3.3.1 Alluvial Bores

No EC trigger level exceedances were recorded during the 2022 AR reporting period.

In comparison to the 2021 AR, the EC trigger level is no longer being exceeded at GWa4, GWa5 and GWa7. Although, at GWa4, it is noted that EC concentrations were not recorded throughout 2022.

With the continued wetter than average conditions throughout 2022, the bores where breaches of the EC trigger had occurred have now seen EC concentrations reduce below the trigger level.

3.3.2 Coal Measures Bores

Exceedances of the EC trigger value at coal monitoring bores in 2022 occurred at GWc1, GWc3, GWc4, and GWc5 (**Appendix B** and **Table 5**). The trigger exceedances for EC observed at GWc1, GWc3, GWc4 and GWc5 appear to be occurring independently of climatic and groundwater level influences.

3.3.2.1 GWc1

EC concentrations at GWc1 exceed the trigger level (2,844 $\mu\text{S}/\text{cm}$) throughout 2022, despite a slight freshening in March. EC at GWc1 has periodically exceeded its trigger value in 2008-9, 2013, 2015-16, 2017-19, early 2020 and throughout 2021. The obvious feature of the EC data for GWc1 are the sudden step increases and decreases of around 1000 $\mu\text{S}/\text{cm}$ which result in fluctuations above and below the trigger value. There is no obvious pattern of elevated EC in relation to CRD with elevated EC occurring during above average, below average, and average rainfall conditions.

The following points provide potential mechanisms for the observed step changes in EC at GWc1:

- There is a large column of water above the screened interval at GWc1, as well as a large sump below the screen (depth to water 8 m, screened interval 22-28 m, total depth 43.4 m). There may be difficulty in removing a sufficient volume of stagnant water within GWc1 to consistently take representative groundwater samples.
- Periodic lateral flow from backfilled WCM open cut mining areas may also drive these step changes in EC. EC observed within spoil monitoring bore GWf3 is approximately 3,700 $\mu\text{S}/\text{cm}$, which is similar to the EC observed at GWc1 when it is exceeding the trigger level, although GWf3 is not within the backfilled pit adjacent to GWc1. Periods of increased recovery or saturation within the spoil may result in a gradient sufficient to cause lateral flow from the historical pit area to GWc1. .

Ongoing monitoring and evaluation of groundwater levels and EC within the spoil adjacent to GWc1, and comparison with GWc1 observations may help identify the cause of the fluctuations, as would a review of current sampling methodology at GWc1.

Regionally, EC in the coal measures and alluvium are higher than observed at GWc1. It is unlikely there will be environmental harm due to current elevated water EC at GWc1.

3.3.2.2 GWc3

EC concentrations followed a declining trend throughout 2022 but were exceeding the EC the trigger level (3,304 $\mu\text{S}/\text{cm}$) from January to August 2022 inclusive, before decreasing below the trigger level in September and October, for the first time since 2013 (when mining commenced at Pit 3 and Pit 7). EC has been exceeding the defined trigger level at GWc3 since 2013 and has previously been suggested to be occurring due to WCM mining activity, corresponding to the 8 m decline in groundwater level following extraction at Pit 3 (HydroSimulations, 2018).

EC observations at GWA6 (monitoring the overlying Cumbo Creek alluvium) have shown similar trends to those at GWc3 through 2021 and 2022 (**Figure 10**). Continuous monitoring of EC at the Cumbo Creek upstream gauging station (CCGSU) also shows similar trends to GWc3.

Groundwater level recovery in GWc3 (12 m since April 2020) also shows correlation with stored water level change in Pit 3 and Pit 4 voids which are adjacent to the east and west of GWc3 respectively (**Figure 11**).

The following comments are made regarding the EC trigger exceedance in 2022:

- Mining related drawdown may have allowed groundwater from more saline, surficial aquifers, and surface water sources such as the Cumbo Creek and its alluvium, to enter the strata monitored by GWc3. High EC caused by this re-saturation may be temporary, with a general declining trend in EC observed over 2022 (**Figure 10**).

- It is likely that some lateral connection exists between Pit 3 and Pit 4 voids and the strata monitored by GWc3. Water quality changes in groundwater could be driven by the quality of water stored within the adjacent voids.

Further review of available water chemistry data including water quality within Pit 3 and Pit4 voids could be undertaken further identify the recharge source and mechanisms behind the observed fluctuation in EC at GWc3.

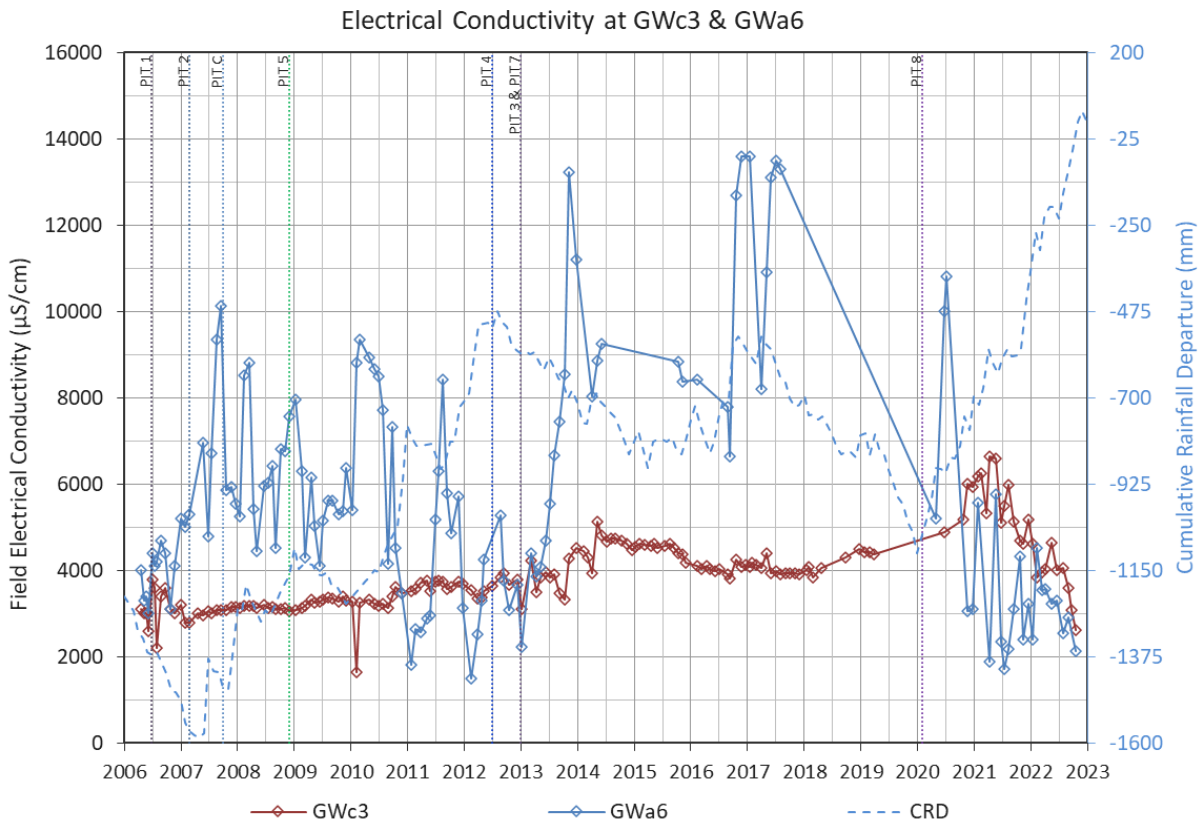


Figure 10 GWc3 and GWA6 EC comparison

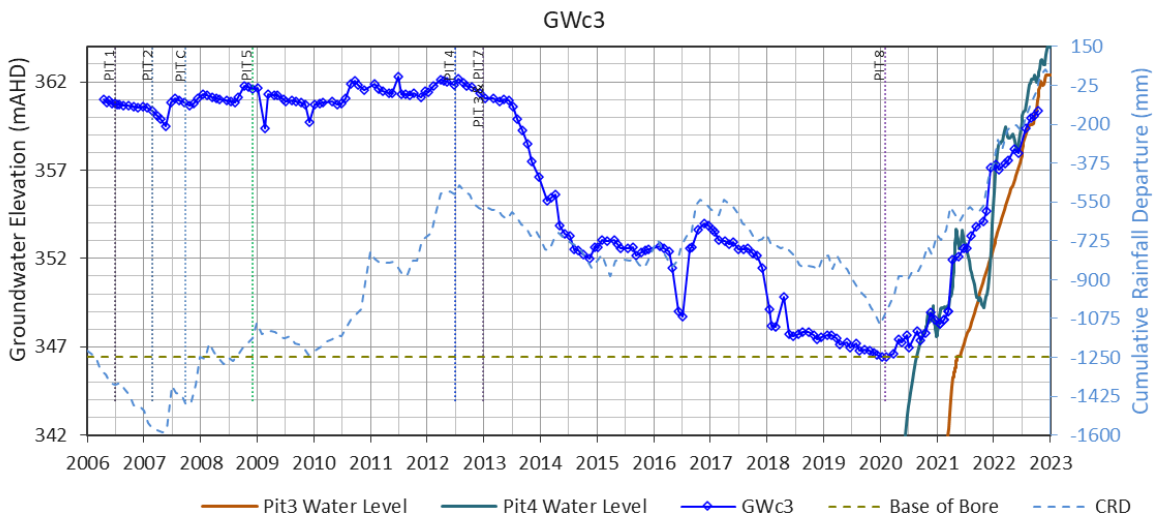


Figure 11 GWc3 groundwater level compared to Pit 3 and Pit 4 water level.

3.3.2.3 GWc5

GWc5 is located on Wollar Creek, upstream of the confluence of Wilpinjong Creek and 3.5 km from active mining in Pit 7. EC increased gradually from early 2010 to 2015, separate to climatic or groundwater level influence, and stabilised around 5,500 $\mu\text{S}/\text{cm}$ at the end of 2017 through to 2022. GWc5 is continuing to show EC levels consistently above the trigger level set for this bore, but below the maximum values observed before and during Pit 1 extraction.

As the EC observations at GWc5 are within the bounds of other coal measures and alluvial monitoring bores at WCM, the revision of the EC trigger level at GWc5 in 2023 is recommended so that it is not constantly in exceedance.

3.4 pH Trigger Exceedances

No exceedances of pH trigger levels were observed during the 2022 AR monitoring period.

4 Metal and Major Ion Concentrations

This section addresses the NRAR recommendation that the GWMP contain groundwater quality trigger criteria for “TDS, Na, K, Mg, Ca, Cl, HCO₃, CaCO₃, SO₄ and each of the metals”.

Additional investigation is required before trigger levels are developed and included in the GWMP so that any trigger exceedances are meaningful regarding a Wilpinjong Mine impact or detrimental change in water quality. For the 2022 annual review, groundwater quality time-series graphs are presented in **Appendix C** to demonstrate the volume of chemistry data collected and trends over time. **Appendix C** contains the following series for WCM monitoring bores:

- Major ions and analytes: TDS, Sodium (Na), Potassium (K), Magnesium (Mg), Calcium (Ca), Chloride (Cl), Carbonate (HCO₃), BiCarbonate (CaCO₃), Sulfate (SO₄).
- Metal species: Aluminium (Al), Arsenic (As), Barium (Ba), Copper (Cu), Lead (Pb), Manganese (Mn), Nickel (Ni), Selenium (Se), Molybdenum (Mo)

Figure 12 shows an example plot for the plots shown in **Appendix C**, with each page of the Appendix showing data for one bore. Groundwater level and EC are displayed on the major ion charts, while groundwater level and pH are displayed on the metal ion charts for context together with the cumulative rainfall departure (CRD).

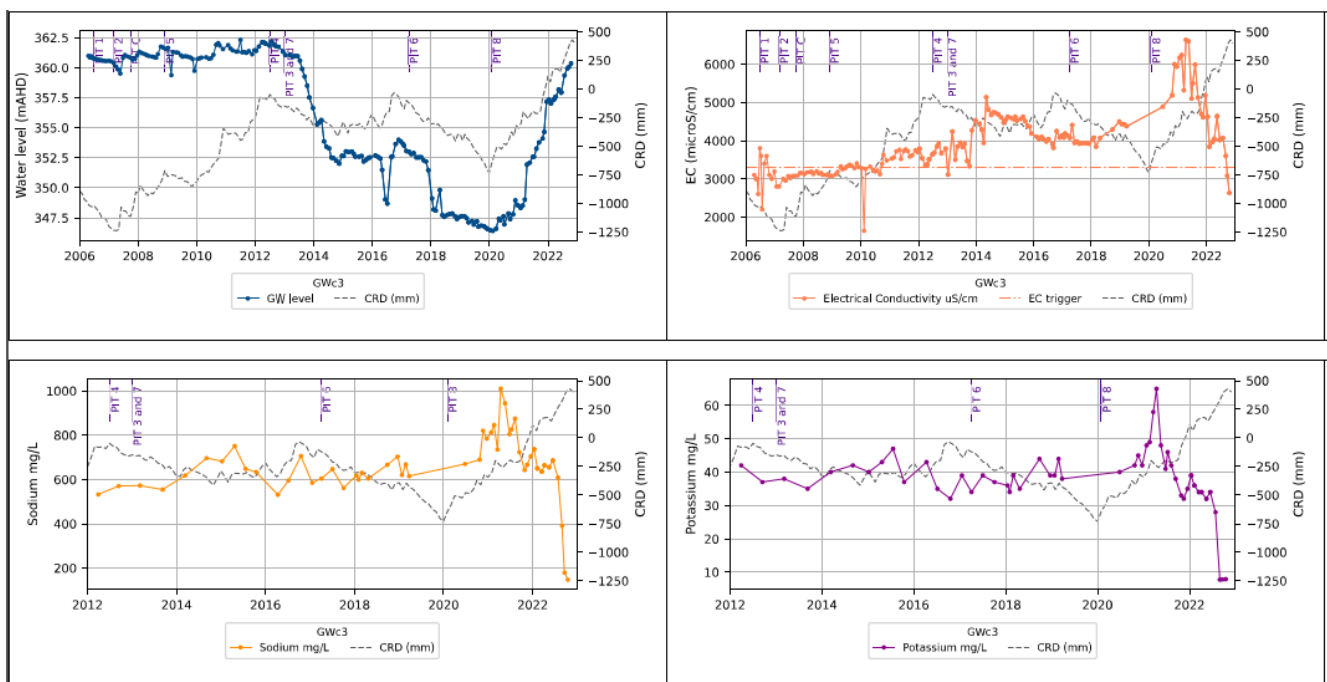


Figure 12 Example plot of water quality versus CRD as presented in Appendix C for selected bores

4.1 Data Summary

Bores which show a strong response to the CRD trend generally show higher variability in the metal concentrations. The highest concentrations were found at times when the water levels were at their lowest towards the end of the 2017-19 drought period with elevated concentrations persisting into 2020 at some locations. Bores with elevated metal concentrations during this period generally show declining concentrations

through 2021 and 2022 although some coal measures monitoring sites (e.g. GWc1, GWc14 and GWc15) do show an increase in manganese and/or iron concentration throughout 2022.

Ongoing review of water quality monitoring is recommended to further understand of the hydrochemistry of the Permian strata and alluvium as well as areas of spoil deposition. This will allow the identification of trends and increases in concentrations that may prompt the need for additional investigation.

5 Groundwater Model Review

Previous reporting (HydroSimulations, 2015a; Peabody, 2016) has utilised the HydroSimulations (2013) and (2015) groundwater model to assess likely impacts of WCM and ensure sufficient water licences are purchased prior to a water year. This groundwater model was converted from the original numerical groundwater model used by AGE (2005).

The 2015 version of the groundwater model (HydroSimulations, 2015b) was updated in 2020 by SLR (2020a), in line with the recommendations from the 2018 Annual Review (HydroSimulations, 2019). These changes aimed to verify if the model calibration was still appropriate by updating climatic inputs, updating available groundwater level observations, and revising mine progression to reflect actual extraction.

As is required by the GWMP (Peabody, 2017), the following section reports on the new model (SLR, 2020a) and presents the results of the model verification. SLR is also required to assess the performance and suitability of the model triennially to ensure predictions are consistent with observed data. The assessment of model performance and suitability is due to be undertaken in 2023 (this year).

5.1 Model Updates (2020)

Further updates to the Hydrosimulations model (HydroSimulations, 2015b), were made in 2020 (SLR, 2020a). The 2020 model revisions included:

- Update of the rainfall-recharge to reflect the actual rainfall experienced in the years following the creation of the model in 2015.
- Update of the mining progression to reflect the actual schedule and extent of mining more closely in the years following the creation of the model in 2015.
- Update of the MODFLOW River (RIV) stage heights to reflect time-series observations made in the years since the creation of the model in 2015.
- Incorporation of pumping from water supply bores using pumping rates based on site data.
- Update of the observation target file with new monitoring bores and new observed groundwater level data.

5.2 Model Verification

Hydrographs of observed and modelled groundwater levels are presented in **Appendix D**. The following section contains an assessment of the modelled vs observed groundwater levels where potential mining impacts are observed. It is noted that the above average rainfall experienced in 2020, 2021 and 2022 is not captured in the model used for this verification exercise. The model updates were completed in early 2020, prior to this very wet period.

5.2.1 Model Performance at Alluvium Monitoring Bores

The SLR (2020a) modelling predictions are consistent with HydroSimulations (2015) predictions at the alluvial monitoring sites along Wilpinjong Creek, with approximately 1 m drawdown for the life of approved mining (GWA6 has the maximum predicted drawdown in an alluvial monitoring bore of about 1.5 m occurring in 2029).

The alluvial bores examined in this section have been identified as likely to show a WCM mining effect. The performance of the model to replicate observed groundwater levels at these sites is presented as hydrographs in **Appendix D**.

The timing of the mining effects modelled at the alluvial monitoring bores shows good correlation with the observed effect and often indicates a repressed response to rainfall that is also seen in the observed data. Most of the modelled groundwater levels at the alluvial monitoring bores respond to the updated (SLR, 2020a) modelled rainfall recharge series.

Groundwater levels along Wilpinjong Creek and Cumbo Creek are generally well represented in the alluvium (GWA1, GWA2, GWA5, GWA6, GWA12, GW14 and GWA15) although recent observations in the shallow bores are not well replicated by the groundwater model due the above average rainfall conditions not being captured in the model (which was developed in 2020, prior to the above average rainfall in 2021 and 2022). The groundwater model is due to be updated in 2023. Once the model is updated to reflect the recent above average rainfall the match between modelled and observed groundwater elevation is likely to improve.

The observed desaturation of the alluvium (GWA4, GWA5, GWA6, GWA12, GWA14) occurs earlier than was predicted by the model. Differences between observations and the model simulation at GWA6, GWA12, and GWA14 (**Figure 37, Figure 38, Figure 39**) are similar for a majority of the WCM alluvial monitoring locations. The decline in observed groundwater level from 2013 to 2016 and from 2017 to 2020 is about 1.5 m greater than that predicted by the model, with dry observations during these periods of below average rainfall not being replicated by the model. This may be attributed to differences between actual and modelled alluvial thickness, the bed elevation of creeks as represented in the model. Some improvements to model performance may be made by making minor revisions to the aquifer properties and geometry of the alluvium (with a focus on including information from any recent drilling). A recalibration exercise could be considered with in the future model updates.

5.2.1.1 Comments on possible discrepancies

Observed drawdown at GWA5 (**Figure 35**) is approximately 1.5 to 2.5 m greater than the drawdown predicted by the model for the period between 2013 and the end of 2021. Previous reporting sighted a lack of inflow at Cumbo Creek due to reduced rainfall and a possible under-prediction of Pit 3 and Pit 7 mining impacts as the reason for the difference (HydroSimulations, 2018, 2019 and SLR, 2020b).

Additional investigation at GWA5 undertaken in 2021 was not able to explicitly determine whether it is still connected to the Cumbo Creek alluvial aquifer and returning representative data. The installation of a supplementary bore should be considered in this area to help understand potential impacts to the Cumbo Creek alluvium.

While the model captures alluvial groundwater response for periods of above average rainfall, low/ dry observations in drier periods such as 2015 and 2017-2020 are often not well represented in the modelling. The relationship between different recharge sources to the alluvium (i.e. flow from Permian strata, surface water flow, rainfall recharge), should be considered in future revisions of the groundwater model.

5.2.2 Model Performance at Coal Monitoring Bores

Figure 40 to Figure 49 compare modelled and observed groundwater levels at coal monitoring bores identified as being affected by mining. The largest drawdowns predicted by the model were during the excavation of Pit 3 and Pit 4, with continued drawdown predicted at several bores following mining at Pit 5. Noting the uncertainty in distinguishing between climate and mining-related drawdown in the observed data, modelled groundwater levels at the coal monitoring bores generally show a good correlation with the timing and magnitude of observed drawdown.

It is noted that many bores within the coal measures have significantly recovered in response to above average rainfall in 2020, 2021 and 2022. As this has not been captured within the SLR (2020a) updated model, similar responses are not expected within the modelled groundwater levels.

The revised groundwater model (SLR, 2020a) predicts a reduction in the rate of drawdown between 2006 and 2009 (when mining starts at Pit 1, 2 and 5) at GWc2, GWc3, GWc12, GWc14 and GWc15. The timing of drawdown is still captured in (SLR, 2020a) for these bores and the simulated groundwater levels match the observed levels well prior to the extraction of Pit 4 in 2013. The model (SLR, 2020a) better captures the maximum drawdown following mining at Pit 1 and 2 at GWc1 and GWc11 located near Pit 2, although the groundwater level recovers quicker and above the observed levels.

Revised model predictions (SLR, 2020a) improved the timing of drawdown after mining Pit 4 and following below average rainfall conditions at GWc1 and GWc2. The maximum predicted drawdown better aligns with the observed depressurisation at GWc3 (Cumbo Creek) and matches the drawdown gradient at GWc15 following the mining of Pits 4, 3 and 7. The observed data at Slate Gully monitoring bores GWc28 and GWc29 is relatively well matched by the model although observed drawdown is greater than the model predicts.

The simulated depressurisation of the coal seams between 2013 and 2019 is generally lower than the observed data in the revised model (SLR, 2020a) at GWc12, GWc15, GWc14, GWc28 and higher at GWc1, GWc2 and GWc3. Predicted recovery in 2020-21 is generally less than that observed at all coal monitoring bores, as discussed above.

6 Review of Water Balance and Groundwater ‘Take’

The following section describes a review water balance model outputs at WCM, and the method used to estimate ‘groundwater take’ from those records and water balance model outputs.

6.1 Assessment of Annualised Groundwater Inflow against License

WCPL holds a consolidated licence (WAL41862) to cover the extraction of water from all Pits.

The total authorised volume of groundwater extraction is 3,121 Unit Shares² which is the combined total of the individual Pit entitlements for the 2019-21 water year (authorised by licences 20BL173513, 20BL173514, 20BL173515, 20BL173516, and 20BL173517).

When annualised from a daily inflow value of 2.3ML/day, the SLR (2023) water balance model estimate for the 2021-2022 water year is about 840 ML/a. This is informed by groundwater model predictions (SLR, 2020a) and factored based on observed 6-monthly rainfall totals compared to the long-term average.

Table 6 presents the relevant entitlement volume for the consolidated licence, the estimated inflow or ‘take’ for 2021-22 and compares these water balance model estimates to numerical model predictions. The SLR (2022) annualised inflow estimate is within the allocated licence volume for the 2021-22 water year.

Table 6 Summary of Annual Volume of Inferred Maximum Groundwater Take

Water Access License	Limit [ML/a]	2018-2019		2019-2020		2020-2021		2021-2022	
		WRM Inflow (2020)	Modelled inflow (SLR, 2020)	SLR Water Balance Inflow (SLR, 2021)	Modelled inflow (SLR, 2020)	SLR Water Balance Inflow (SLR, 2022)	Modelled inflow (SLR, 2020)	SLR Water Balance Inflow (SLR, 2022)	Modelled inflow (SLR, 2020)
Pits	3,121 ML/a (WAL 41862)	730	797	621	740	840	910	840	870
Dewatering Bores		56.1		275.6*		0		0	
TOTAL		786	848	897	1,016	840	910	840	870

*Volume of water pumped from dewatering bores [ML] for the water year 2019-20, refer to Section 7.

² One unit is currently equivalent to 1.0 ML as per the *Available Water Determination Order for Various NSW Unregulated and Alluvial Water Sources (No. 1) 2013*

6.2 Assessment of Annualised Groundwater Take

Comparisons of the annualised total inferred groundwater inflow to the compared to WCPL’s groundwater extraction licence are made in **Figure 13** using predicted total annual inflows from the updated groundwater model for WCM (SLR, 2020a).

Figure 13 shows the inflow estimates from the SLR (2020a) groundwater model. Inflow in 2021 and 2022 is predicted to be sourced from Pit 6 and Pit 8, this is consistent with conceptual understanding as most new mining during this period occurred in those locations.

Figure 13 displays the total entitlement volumes as a red dashed line and the bar charts show the annualised groundwater inflow estimates from modelling (predicted inflows for Pits 1 to 7). The groundwater inflow estimates from water balance modelling (WRM, 2019 and SLR, 2020a) are shown as a continuous brown line (the “Annualised Inferred GW inflow”).

For the 2021-2022 water year the groundwater model predicts an inflow of 910 ML/a. These estimates are marginally greater than the 840 ML/a estimated by SLR for the 2020-2021 water year using the site water balance model (SLR, 2023).

Inflows predicted by both the groundwater model and the independent water balance assessments (SLR, 2022) are well below the licenced allocation of 3,121 ML/a.

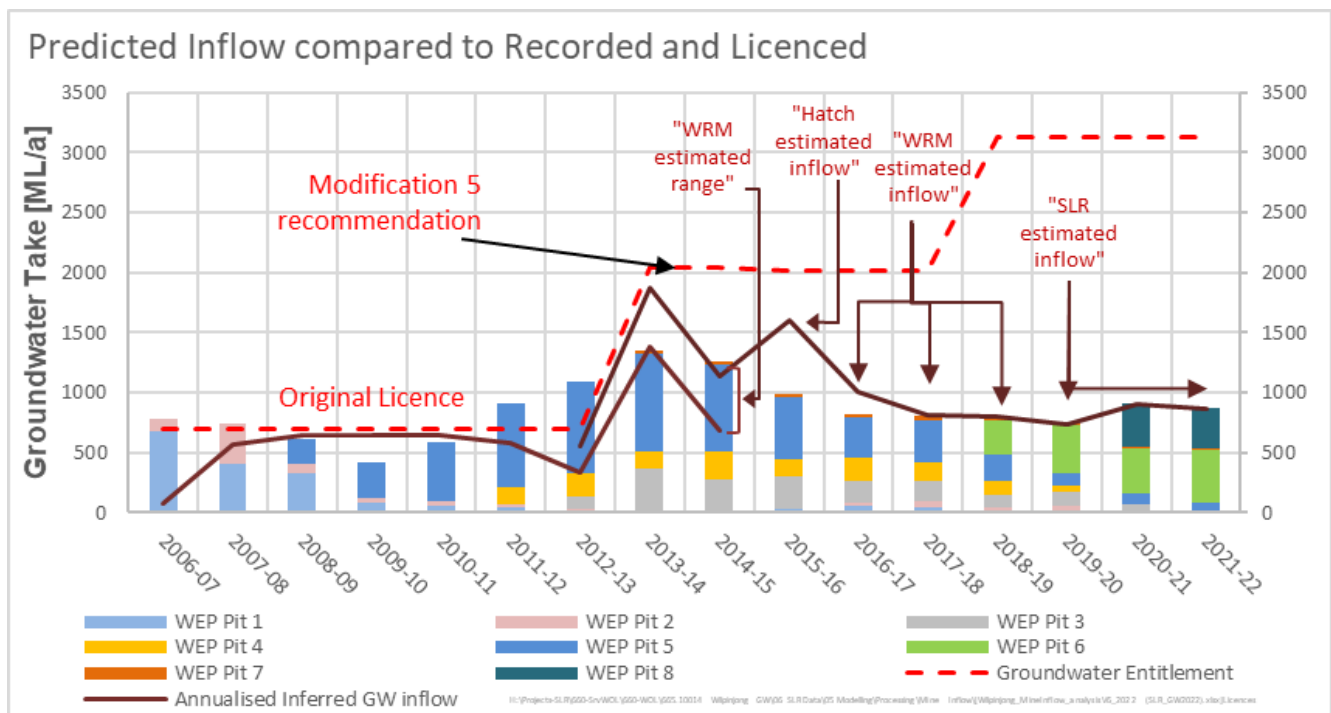


Figure 13 Comparison of Predicted Volumes against Groundwater Entitlement for the SLR (2020a) Groundwater Model

6.3 Alluvial Groundwater Inflow

Groundwater can be lost from alluvium to underlying Permian sediments through natural processes or as incidental take in response to mining (i.e., by a mining induced increase in the downward vertical hydraulic gradient from the alluvium to the Permian). As there are no physical means by which this volume of alluvial water can be measured, groundwater modelling is necessary to quantify the expected loss of alluvial groundwater to the underlying Permian strata.

The SLR model (2020b) has predicted the likely alluvial take during the 2021-2022 water year, as shown in **Figure 14** for both Wilpinjong Creek alluvium and Cumbo Creek alluvium. The predicted loss from Wollar Creek is negligible.

For the 2021-2022 water year the additional alluvial water loss, over and above what occurs naturally, is estimated to be about 0.25 ML/day from Wilpinjong Creek alluvium and about 0.17 ML/day from Cumbo Creek alluvium. This gives a predicted alluvial groundwater take of about 153 ML/year. WCM holds an allocation of 474 ML for the Wollar Creek Water Source under the *Water Sharing Plan for the Hunter Unregulated and Alluvial Sources, 2009*. This estimated take is within and compliant with the licence volume held by WCM.

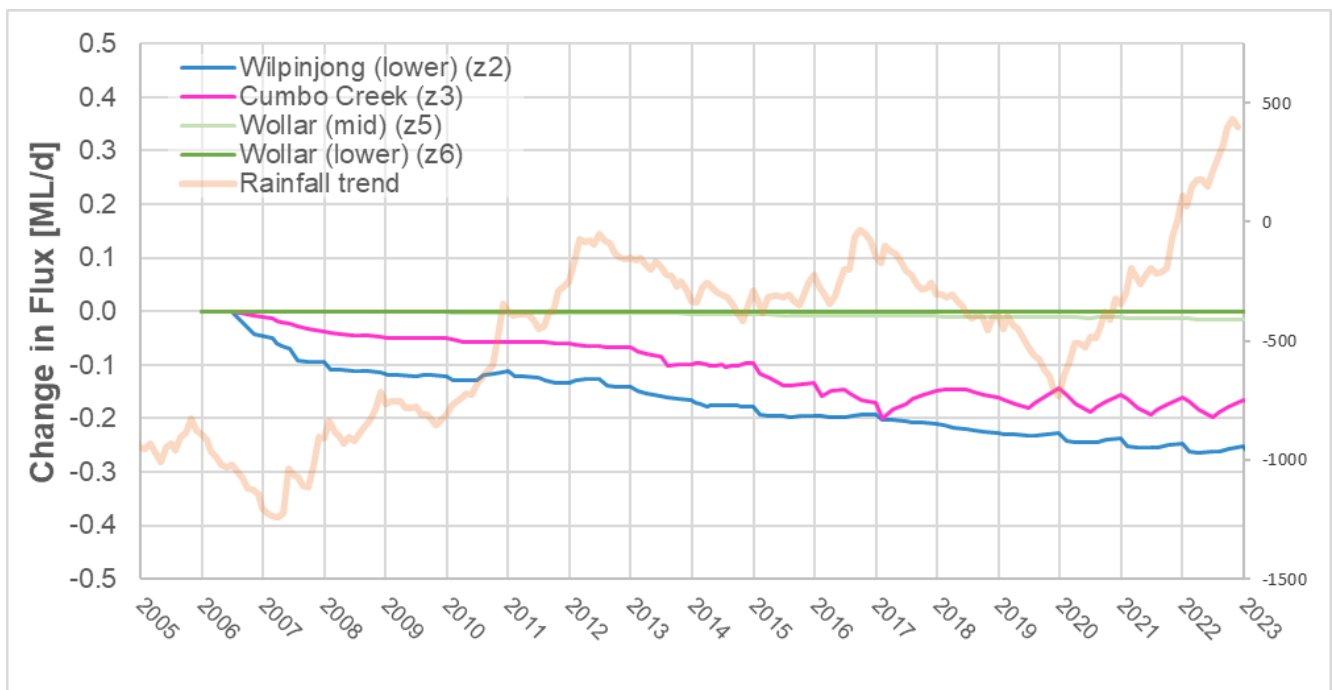


Figure 14 Modelled Take from Alluvium (SLR, 2020a)

7 Dewatering Bores

7.1 Groundwater Take

Six water supply production bores (GWs10, GWs11, GWs12, GWs14, GWs15, PB1) are located north of the active WCM mine area at locations both north and south of Wilpinjong Creek (**Figure 2**). In addition, one production bore designed for dewatering was constructed near a turkey's nest dam north of Pit 2 and Pit 4 during the 2018-19 water year. Of these seven production bores, none were extracted from in the 2021-22 water year, or the 2022 calendar year.

The consolidated licence WAL 41862 now covers groundwater extraction for both water supply bores and WCM open cut pits. The water supply production bores have recorded an extraction volume of 0 ML during the 2021-22 water year. Compliance of this extraction with the relevant licence conditions is addressed in **Section 6.1**.

7.2 Cease to Pump Trigger Levels

Trigger levels are designated to coal monitoring bores close to each of the originally installed production bores (GWs10, GWs11, GWs12, GWs14, and GWs15) and have been determined based on the expected maximum drawdown, as a result of the development of the open cut and water supply borefield. The cease-to-pump trigger levels and the minimum groundwater levels recorded during 2021-2022 water year, and 2022 reporting period is shown in **Table 7**.

Table 7 Water Supply Borefield - Cease to Pump Trigger Level Exceedances

Production Bore	Monitoring Bore	Cease-to-pump trigger level (mAHD)	Lowest observed water level 2021-2022 (mAHD)	Trigger Exceedance (Yes/No)
GWs10	GWc10	346	366.5	No
GWs11	GWc11	348.5	357.3	No
GWs12	GWc12	332.5	348.4	No
GWs14	GWc14	319.5	347.9	No
GWs15	GWc15	314.5	344.7	No

With the continued recovery of groundwater levels through 2022 there were no breaches of the cease-to-pump trigger levels during 2022.

8 Recommendations

Following the 2022 annual review of groundwater data several recommendations are made:

- Supplementary bores could be considered near GWA4, GWA14 and GWA5. These sites appear to show impacts associated with WCM operations. However, as geology and construction details are unavailable at GWA4 and GWA5, there is reduced confidence in the data. Alluvial saturation and response to climatic or mining effects will be better understood near GWA14 if a replacement bore is drilled to the base of alluvium.
- Connection between water quality in coal measures monitoring bores GWc1 and GWc3, and the water quality within the adjacent WCM voids should be further investigated as a mechanism of observed EC trigger exceedances. Sampling methodology that fully purges these deeper wells or confirms a representative sample should also be considered.
- The EC trigger level at GWc5 should be updated to encompass the full monitoring record. There is no evidence of a mining effect on water quality at GWc5.
- Update of the extent and thickness of alluvium could be considered as part of scheduled model updates. These model updates should also focus on capturing groundwater response to recent above average rainfall conditions.

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APPENDIX A

Groundwater Level Hydrographs

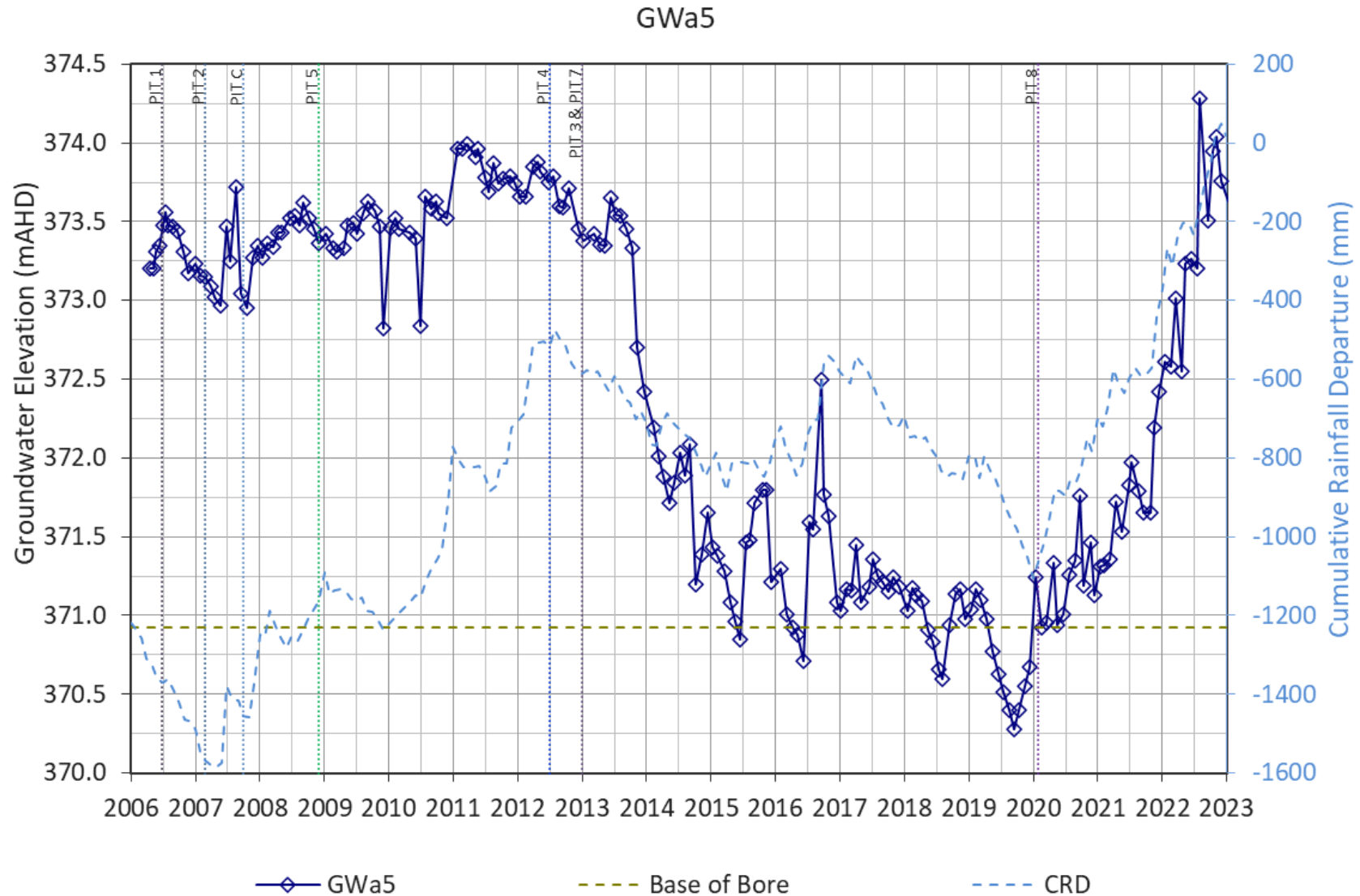


Figure 15 Alluvial Groundwater Hydrograph at GWa5 between Pit 2 and Pit 3, adjacent to Cumbo Creek

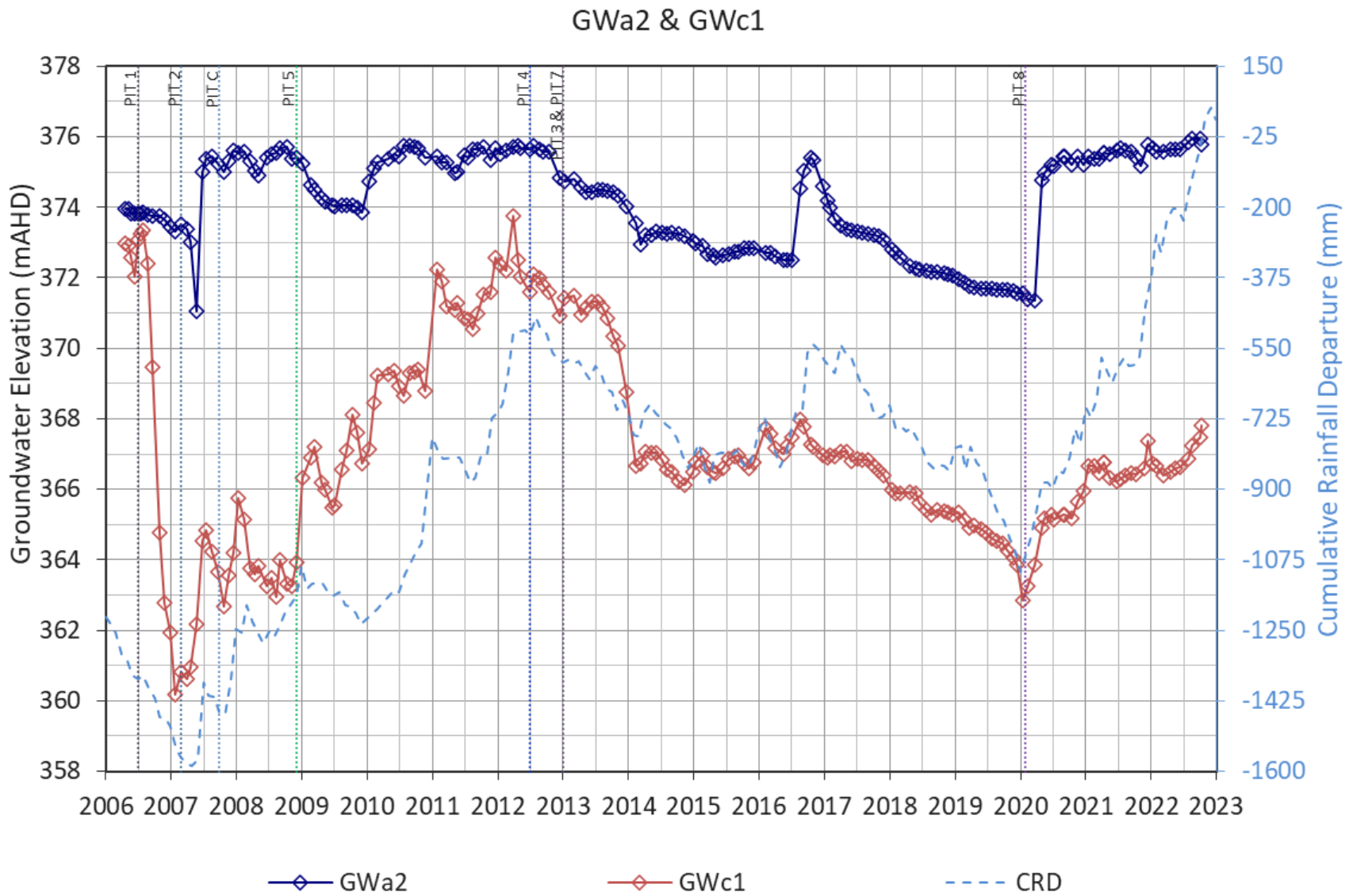


Figure 16 Groundwater Hydrographs at GWa2 and GWc1 at 0.3 km North-West of Pit 1

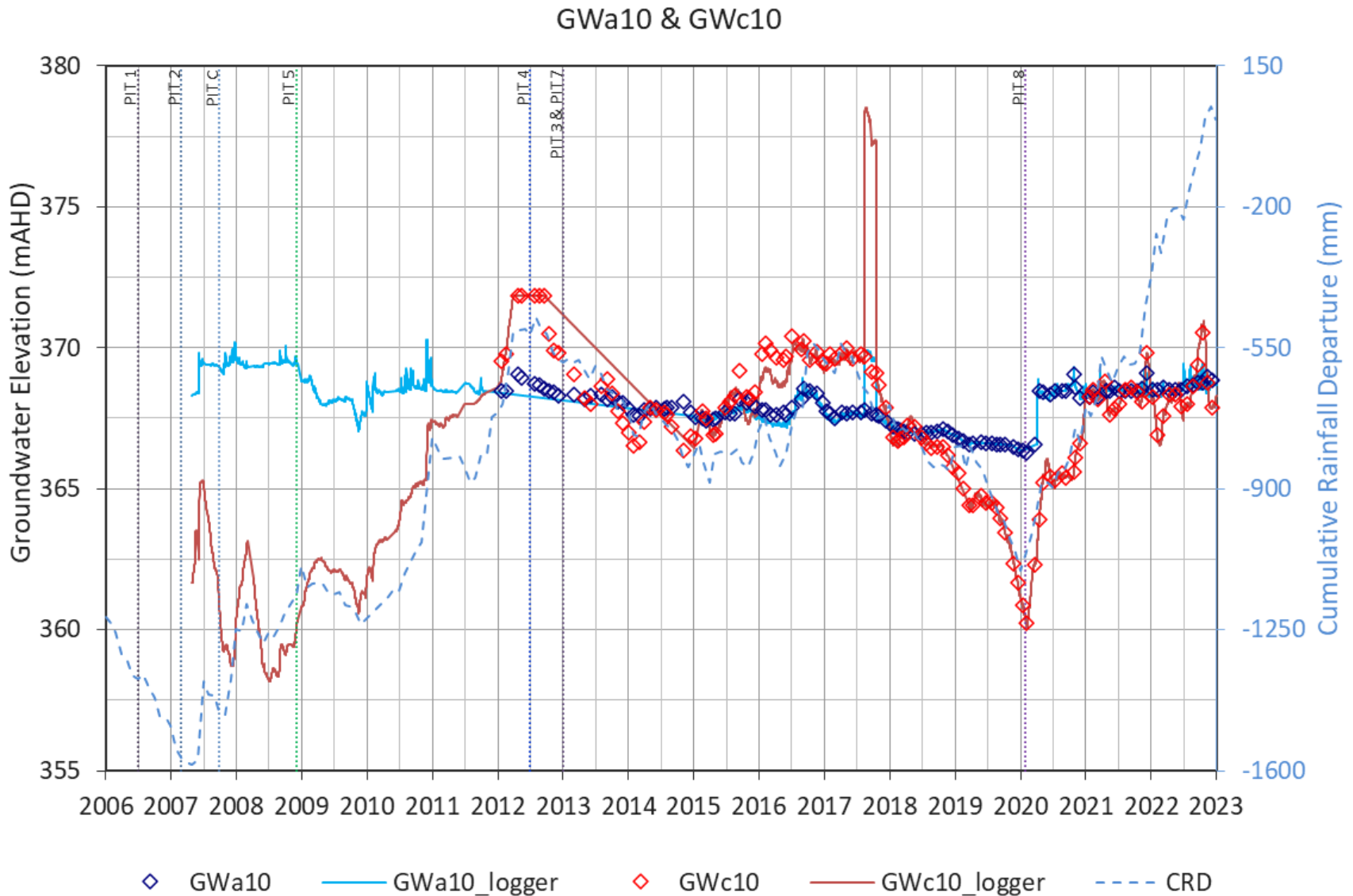


Figure 17 Groundwater Hydrographs at GWA10 and GWc10 at 0.3 km North-East of Pit 1

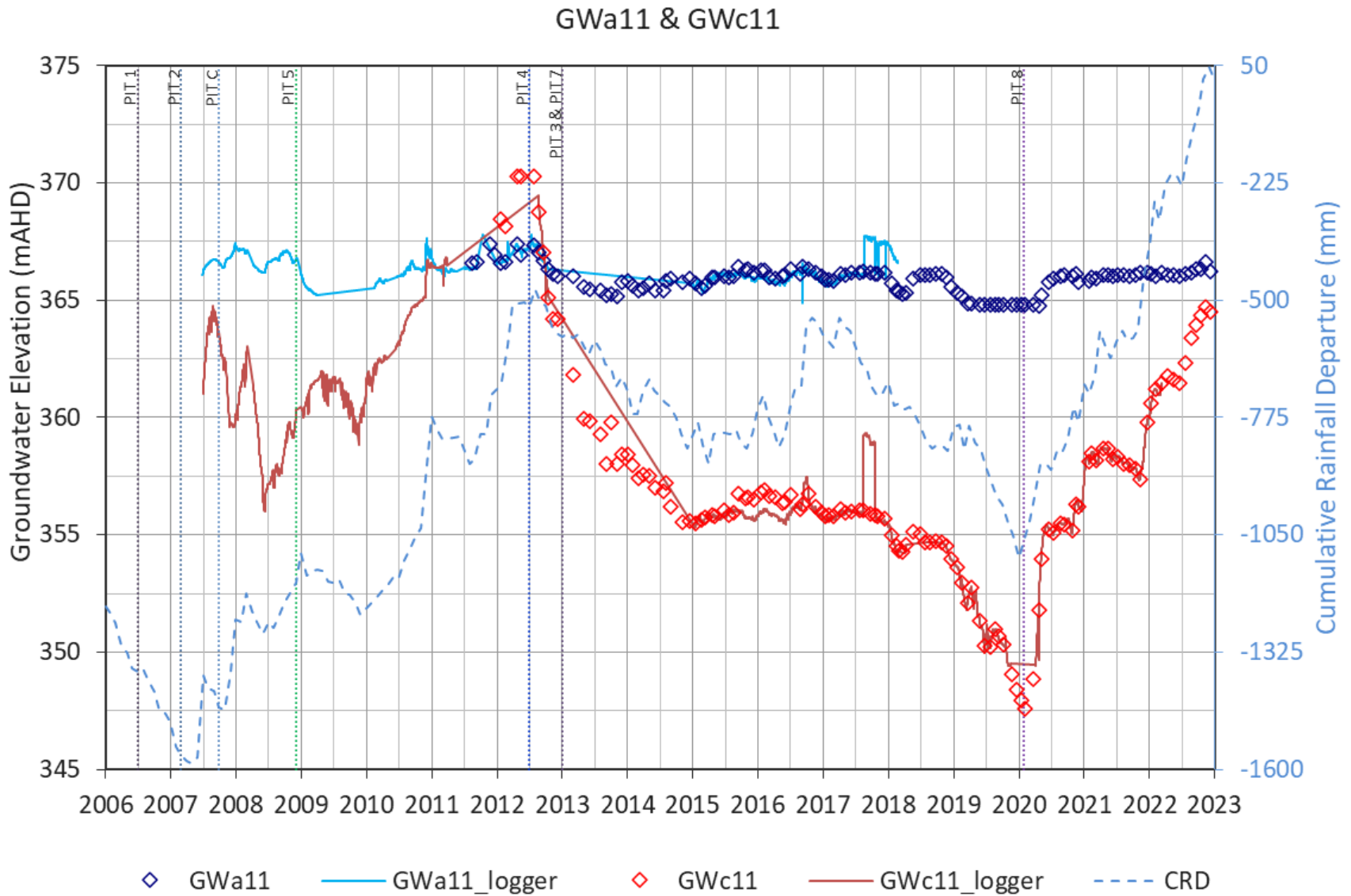


Figure 18 Groundwater Hydrographs at GWA11 and GWc11 at 0.3 km North of Pit 2

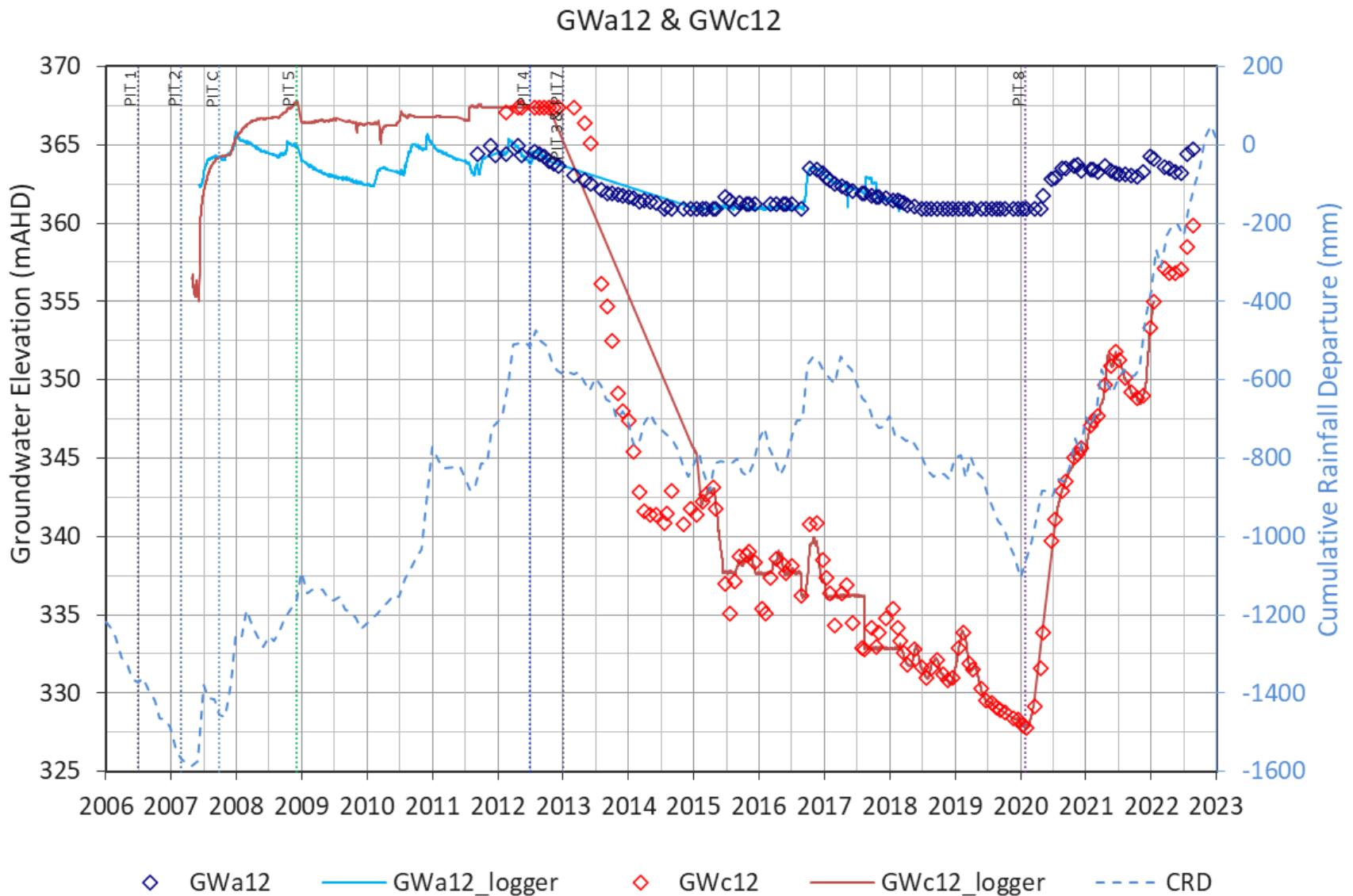


Figure 19 Groundwater Hydrographs at GWA12 and GWc12 at 0.5 km North of Pit 4

GWa3 & GWc2

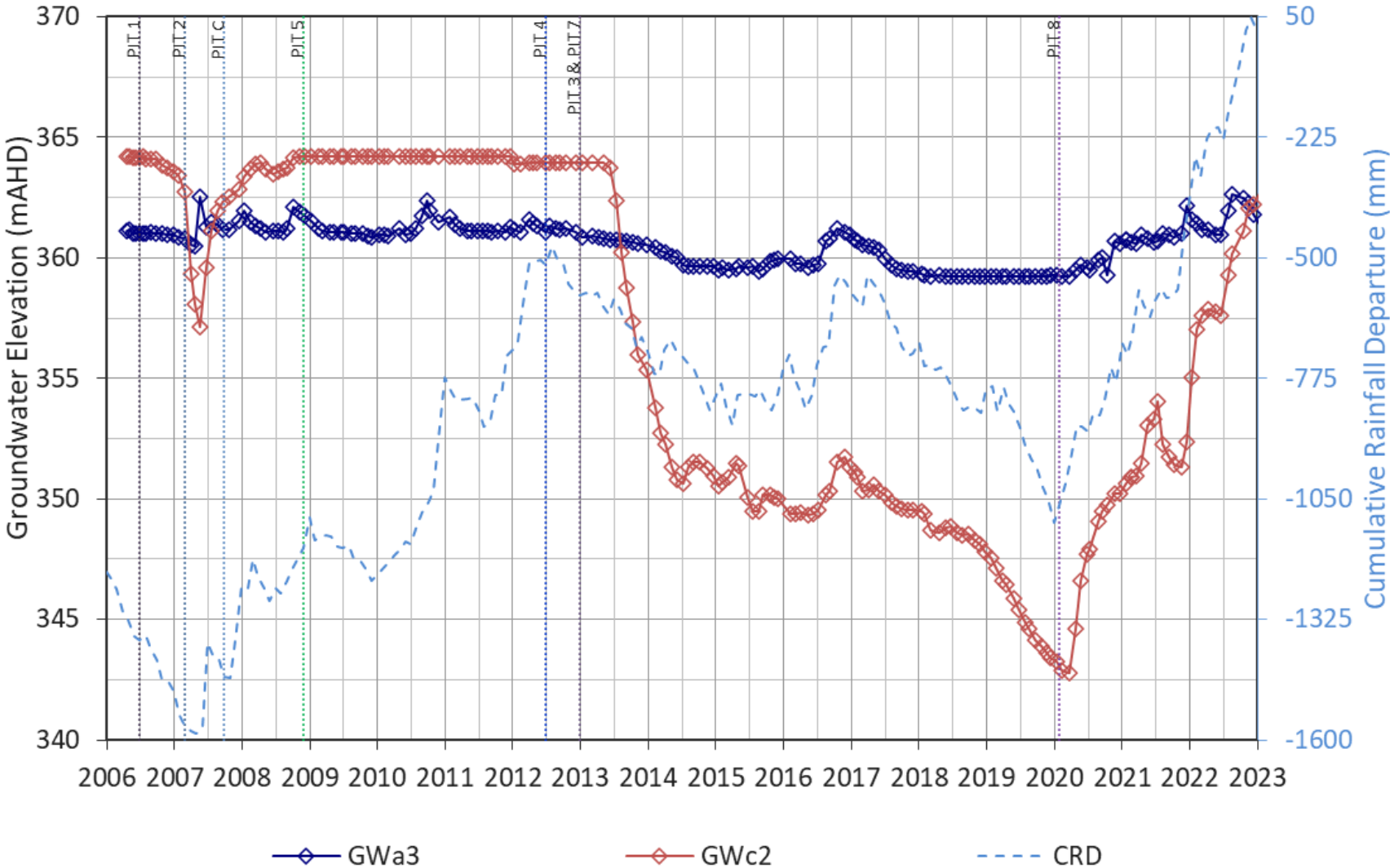


Figure 20 Groundwater Hydrographs at GWa3 and GWc2 at 0.45 km North of Pit 4

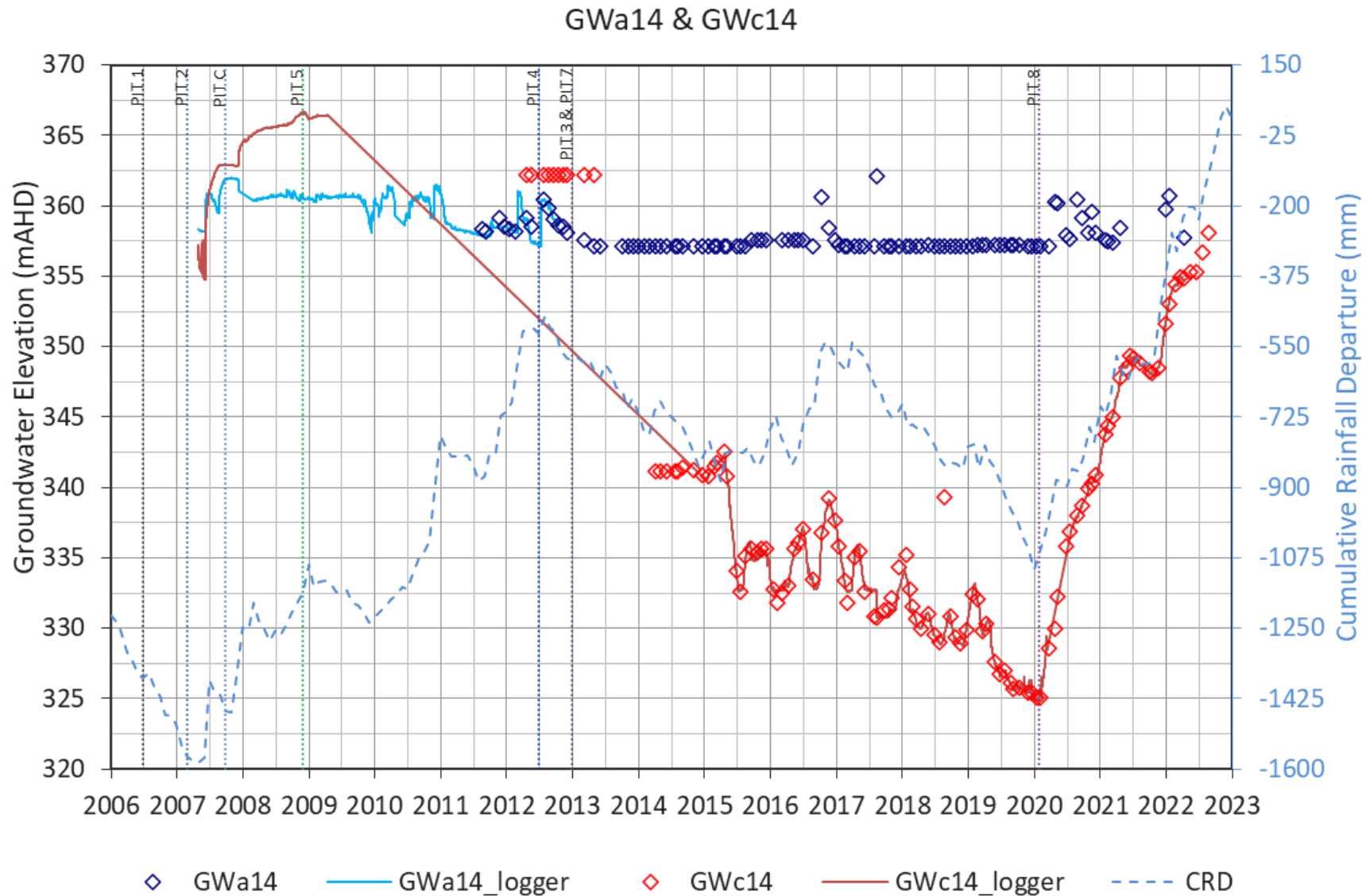


Figure 21 Groundwater Hydrographs at GWA14 and GWc14 at 0.3 km North of Pit 4

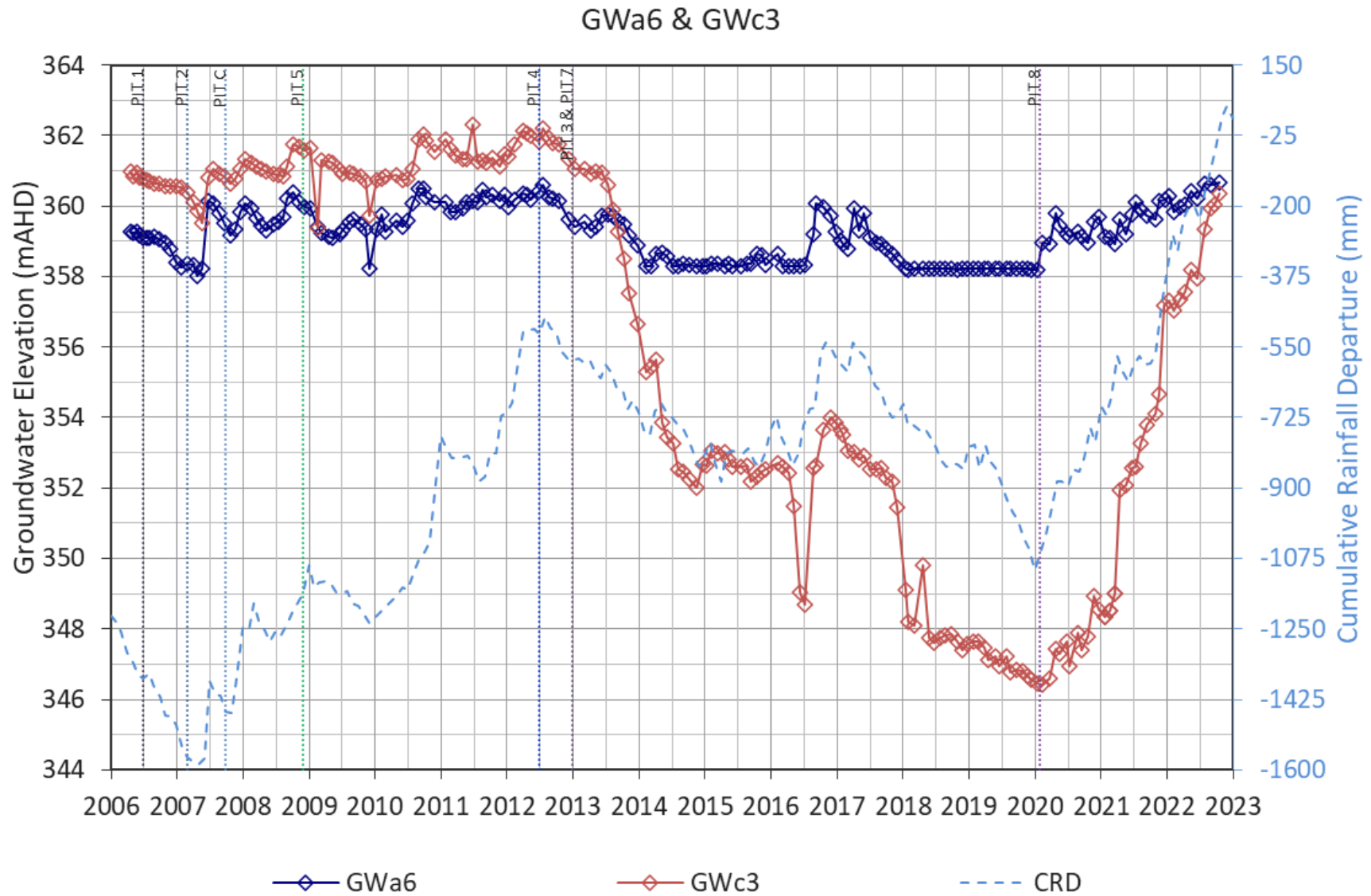


Figure 22 Groundwater Hydrographs at GWa6 and GWc3 at Northern Junction of Pits 3 and 4, adjacent to Cumbo Creek

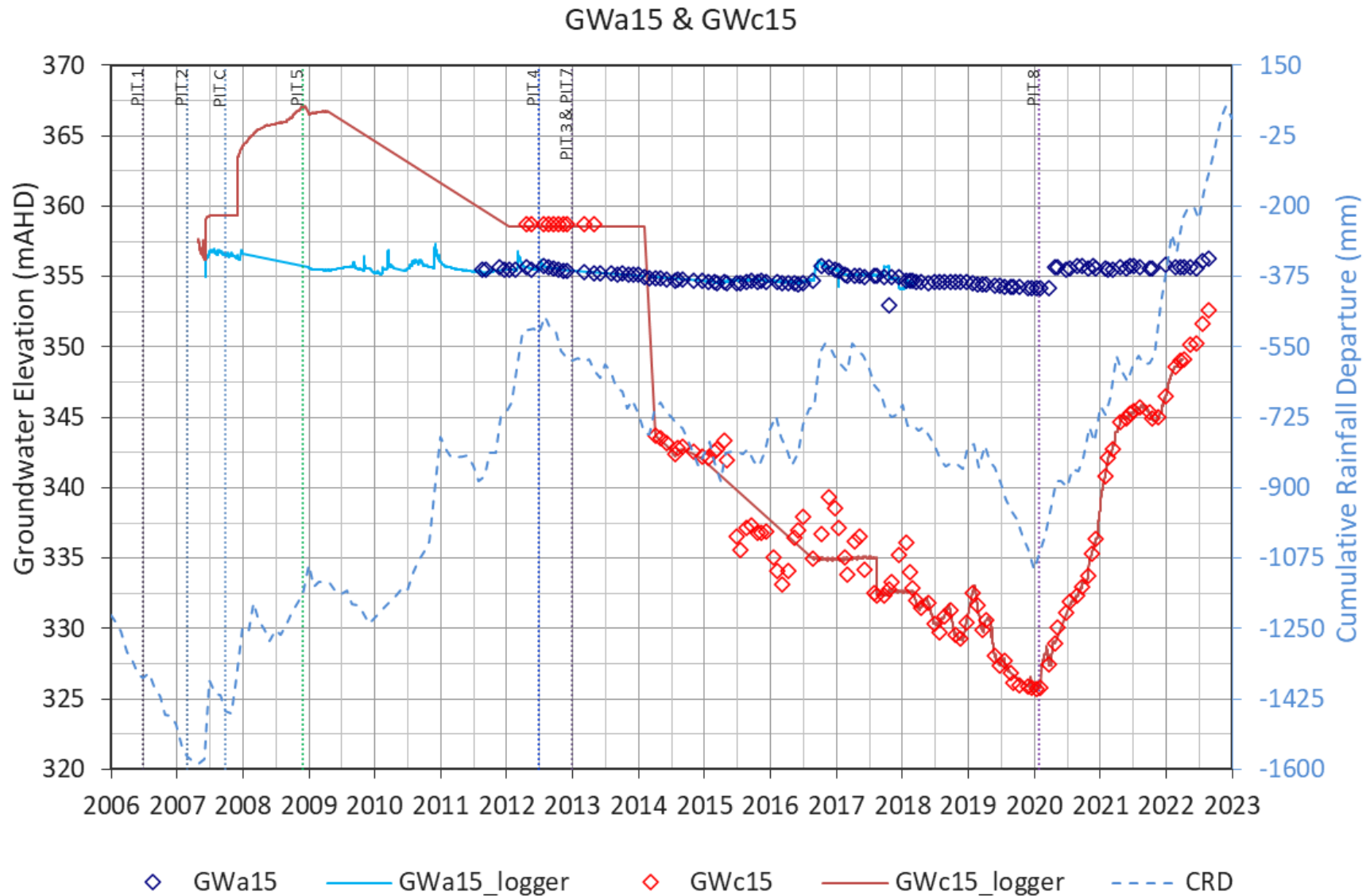


Figure 23 Groundwater Hydrographs at GWA15 and GWc15 at 0.2 km North of Pit 3

GWa7 & GWc4

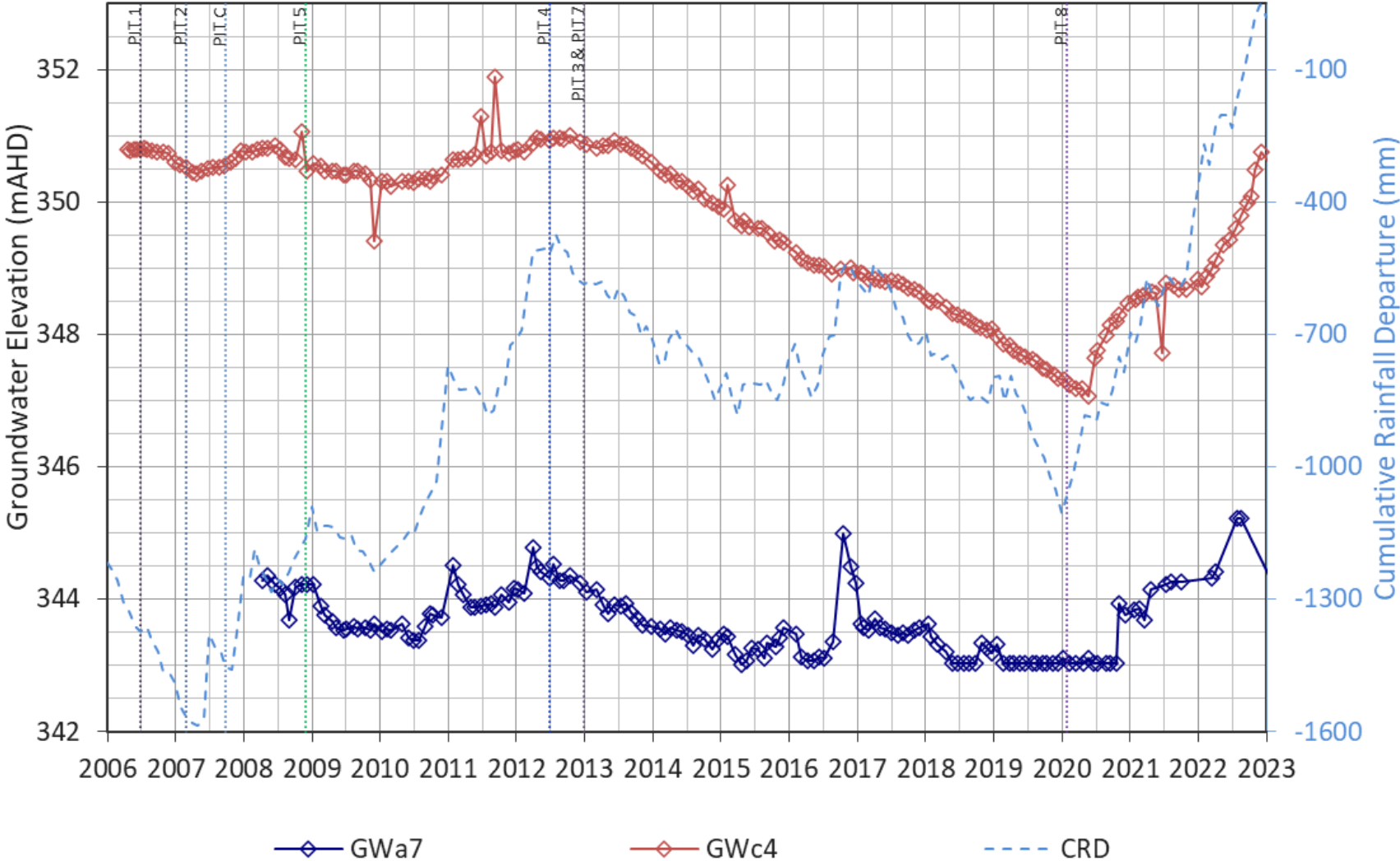


Figure 24 Groundwater Hydrographs at GWa7 and GWc4 near the Confluence of Wilpinjong Creek and Wollar Creek

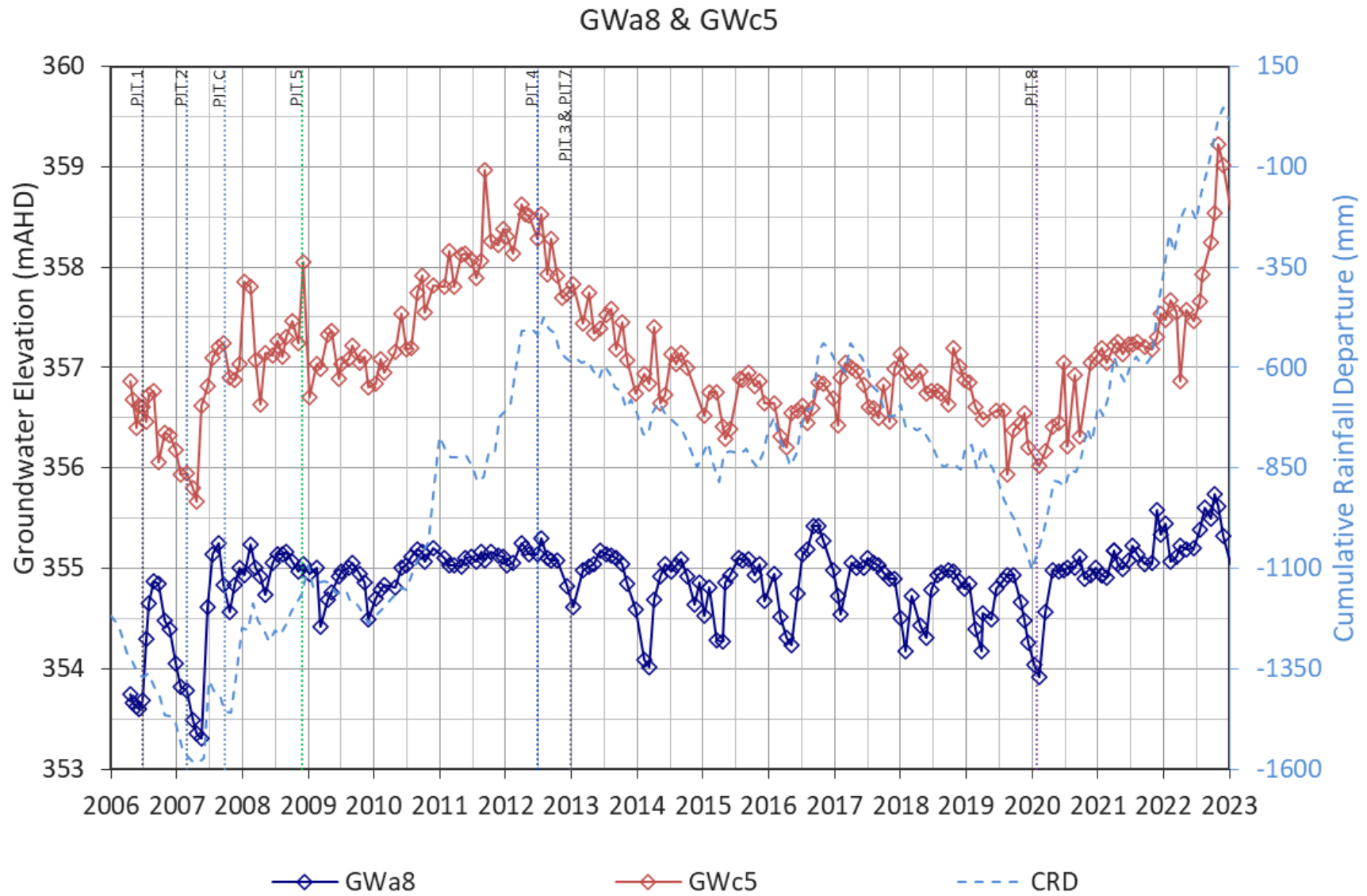


Figure 25 Groundwater Hydrographs at GWa8 and GWc5 near Wollar

GWa32 & GWc32

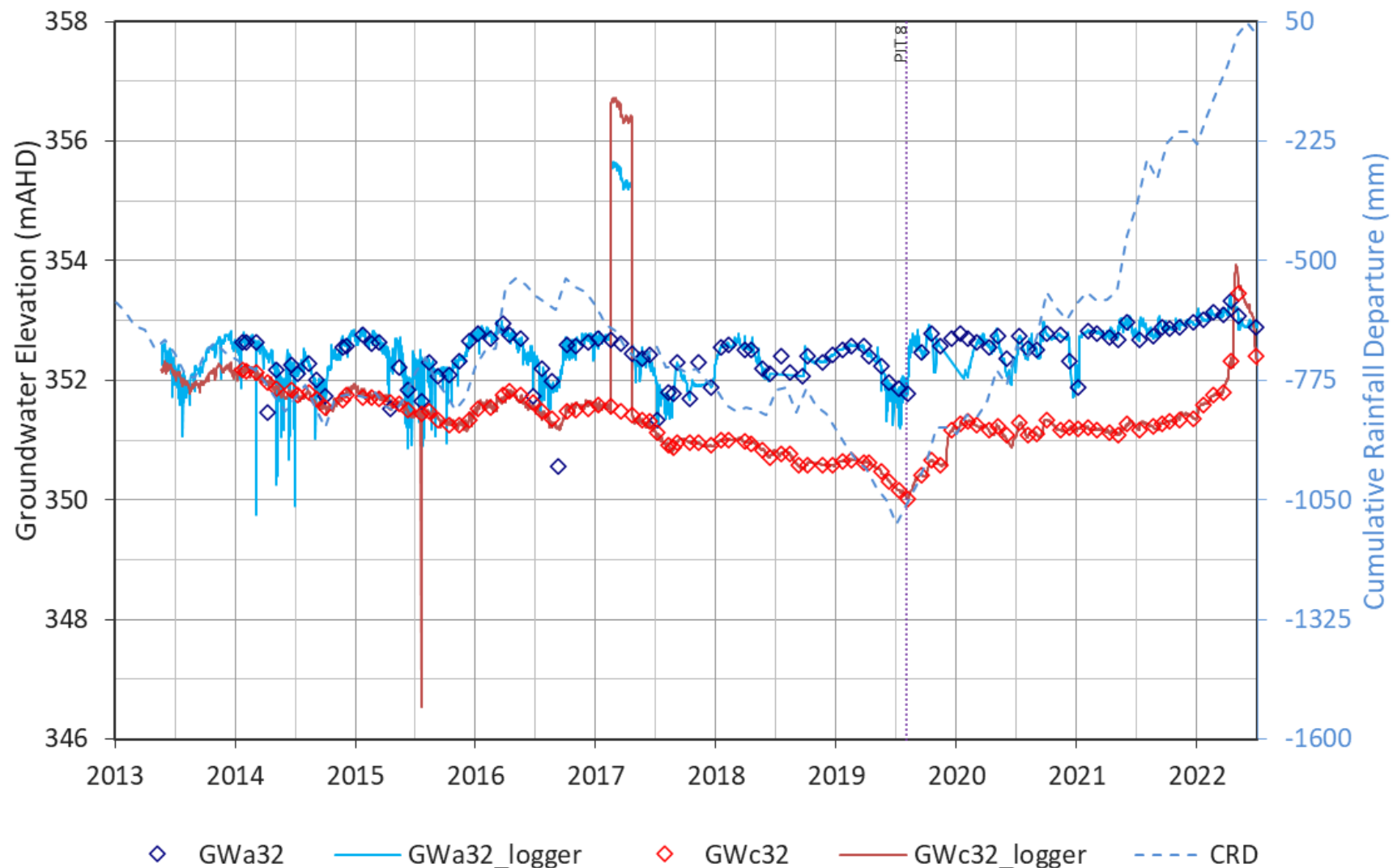


Figure 26 Groundwater Hydrographs at GWa32 and GWc32 adjacent to Wollar Creek

GWc16, GWc17 & GWc26

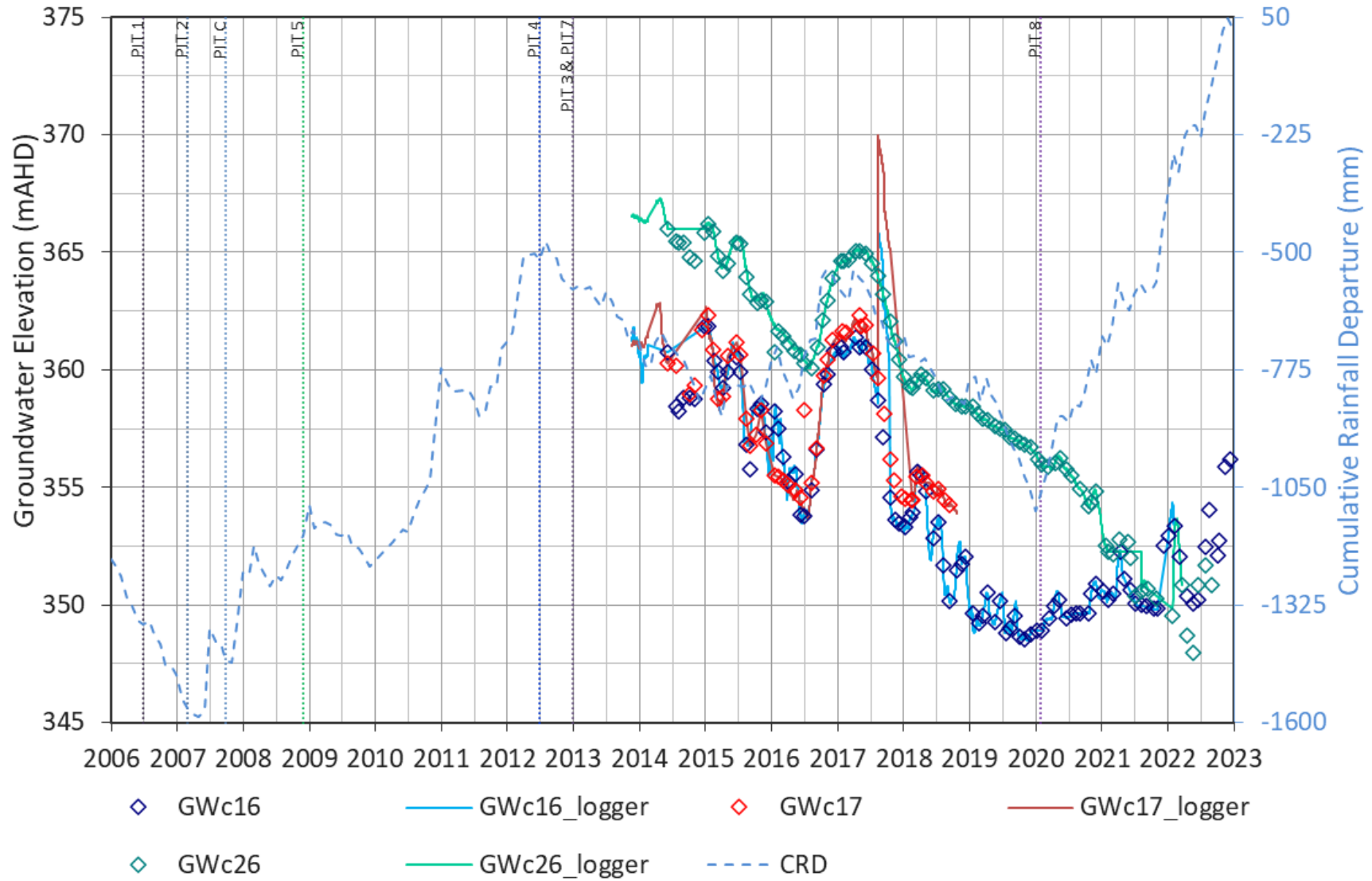


Figure 27 Groundwater Hydrographs at GWc16, GWc17 and GWc26 at Pit 6 and North of Pit 5

GWc24, GWc25 & GWc27

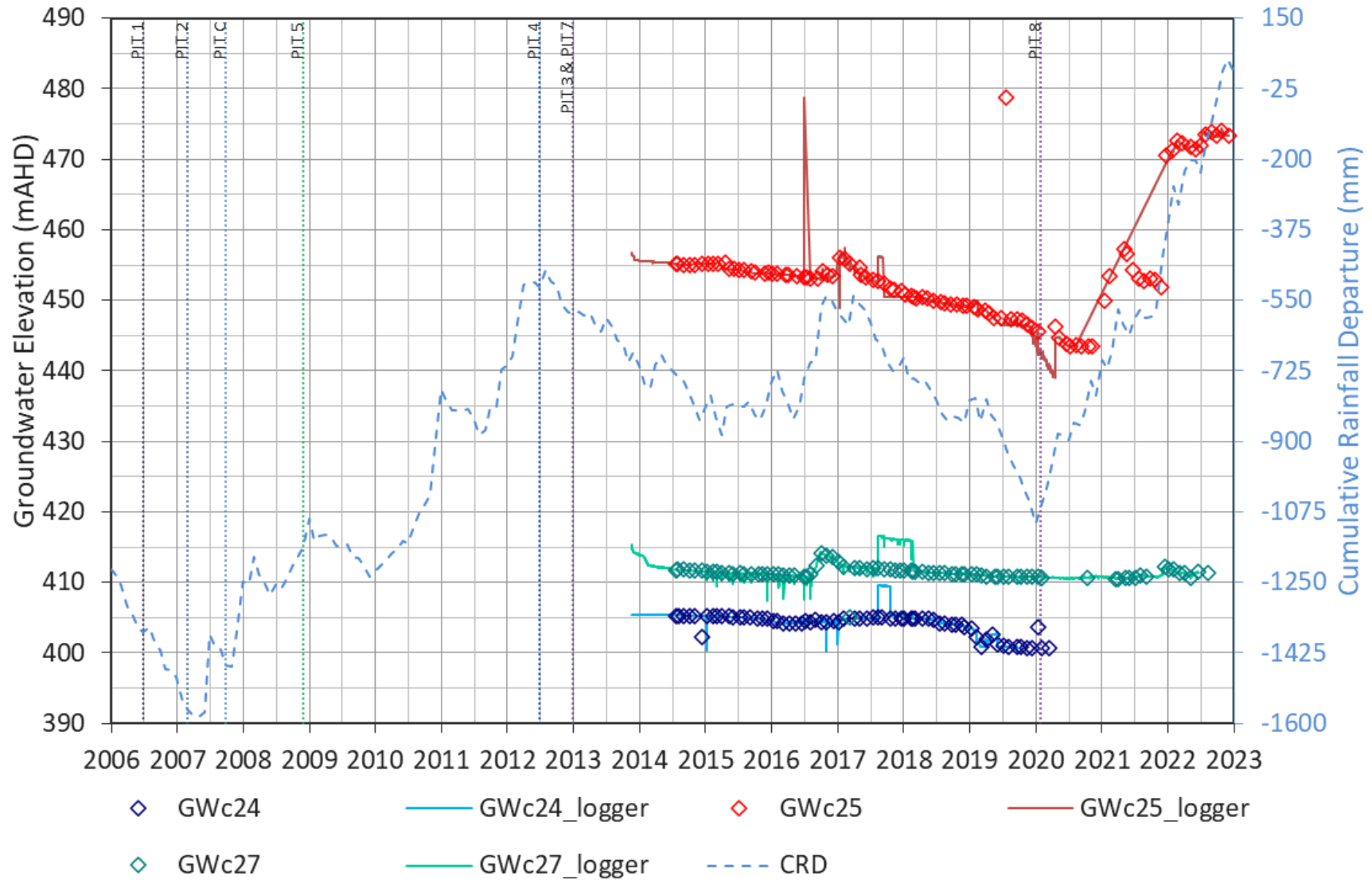


Figure 28 Groundwater Hydrographs at GWc24, GWc25 and GWc27 at the Southern Lease Boundary

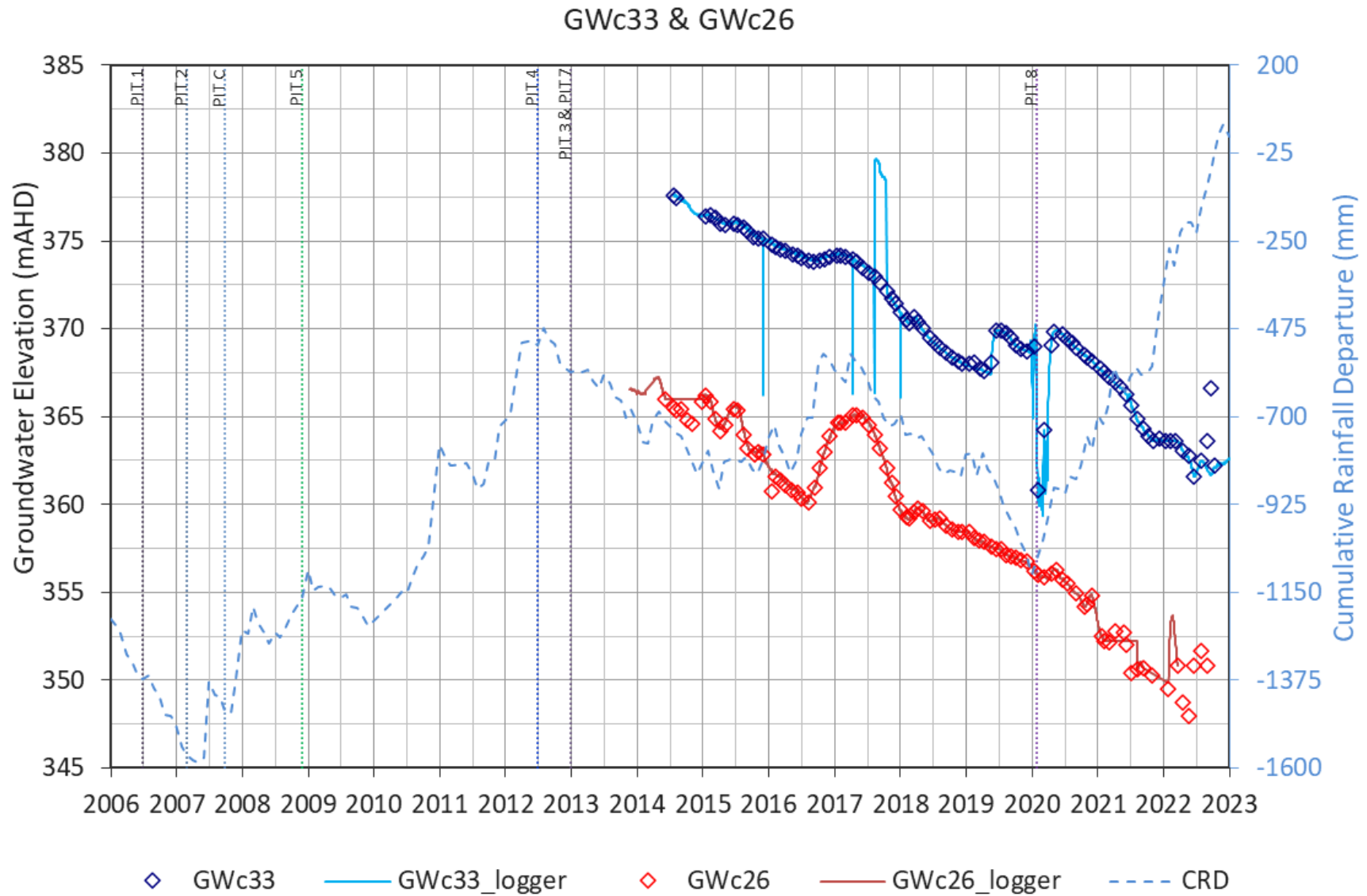


Figure 29 Groundwater Hydrographs at GWc26 and GWc33 near Pit 6 and North of Pit 5

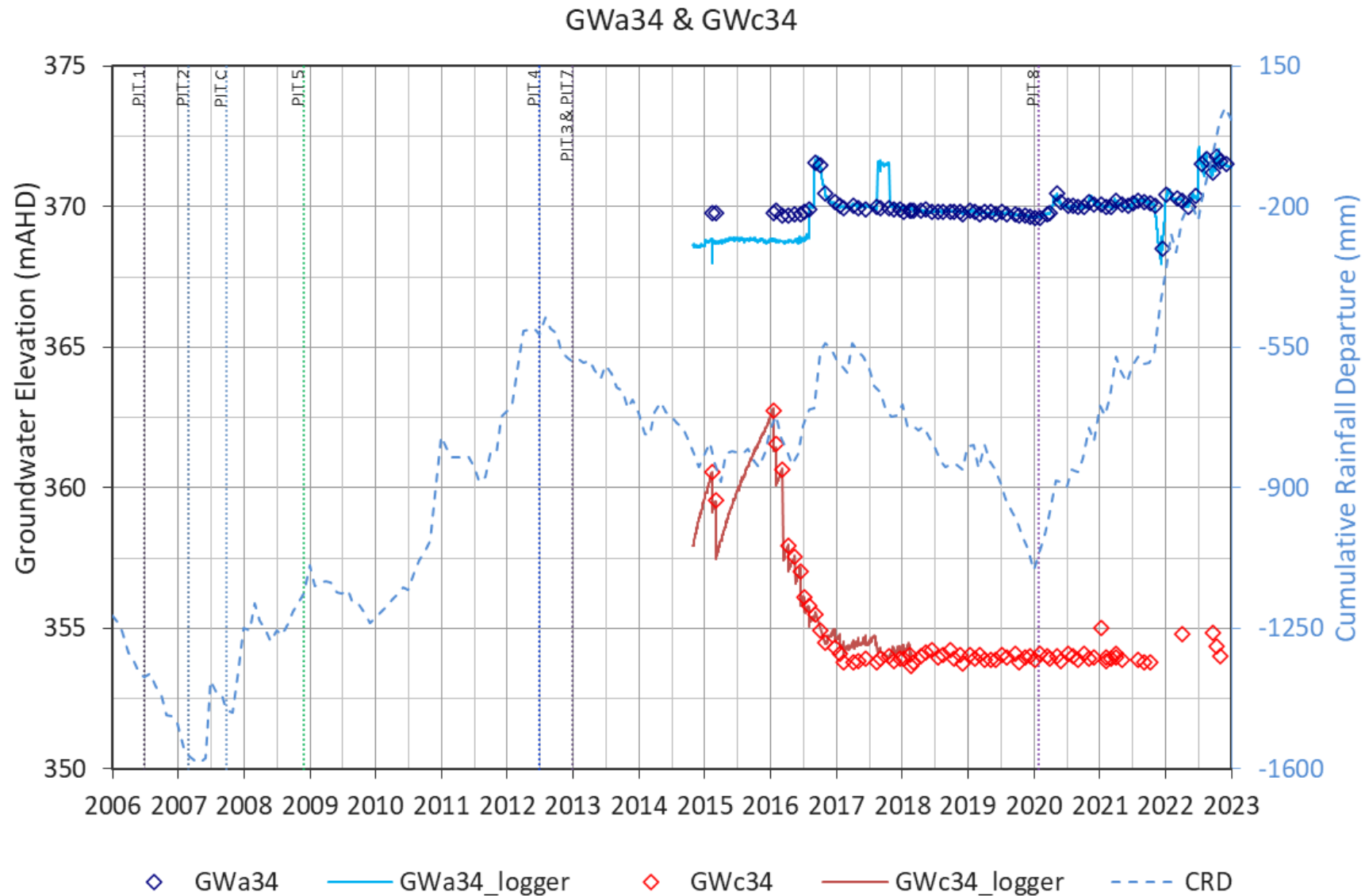


Figure 30 Groundwater Hydrographs at GWa34 and GWc34 adjacent to Wollar Ck ~3km south of Wollar

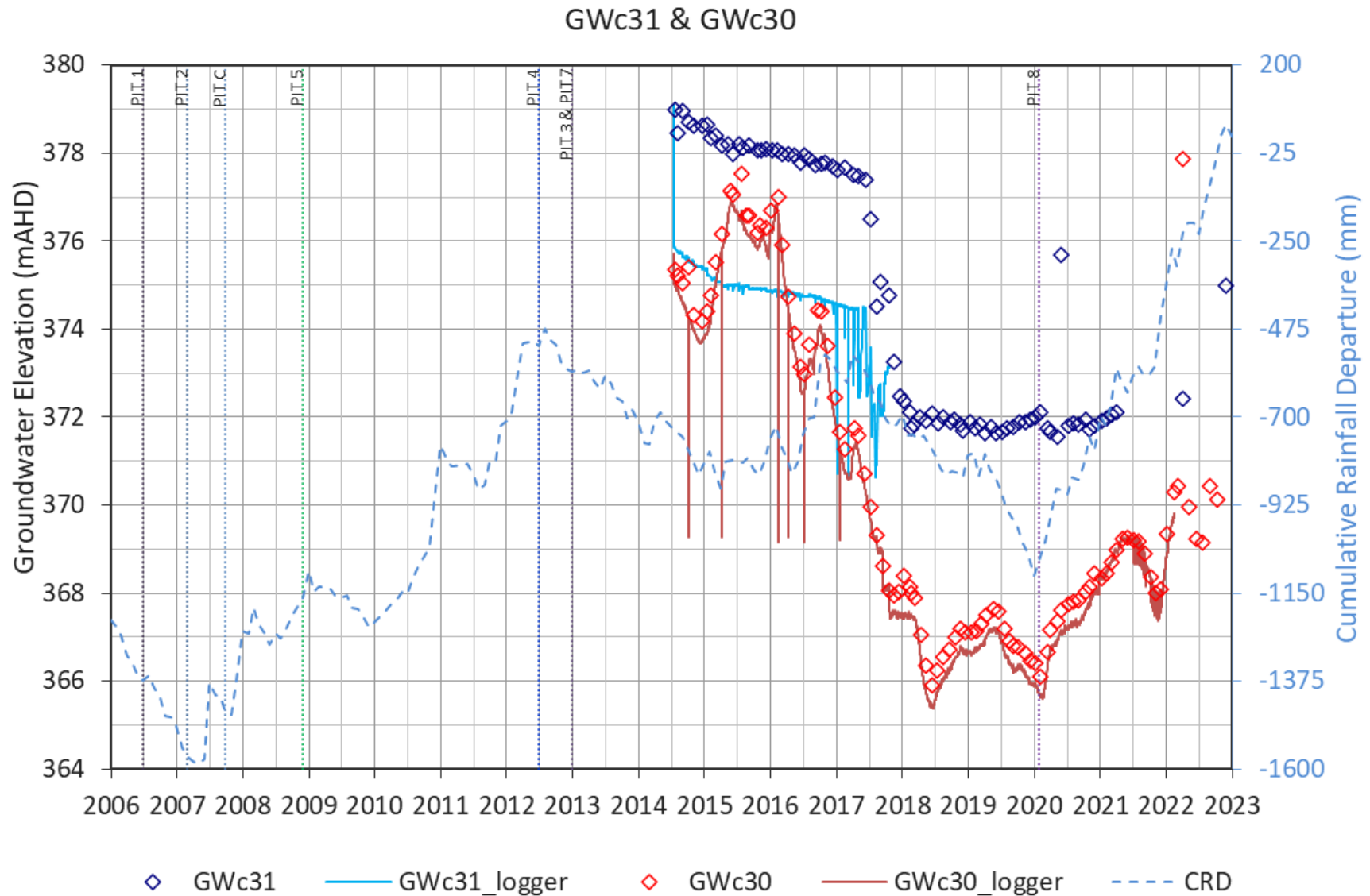
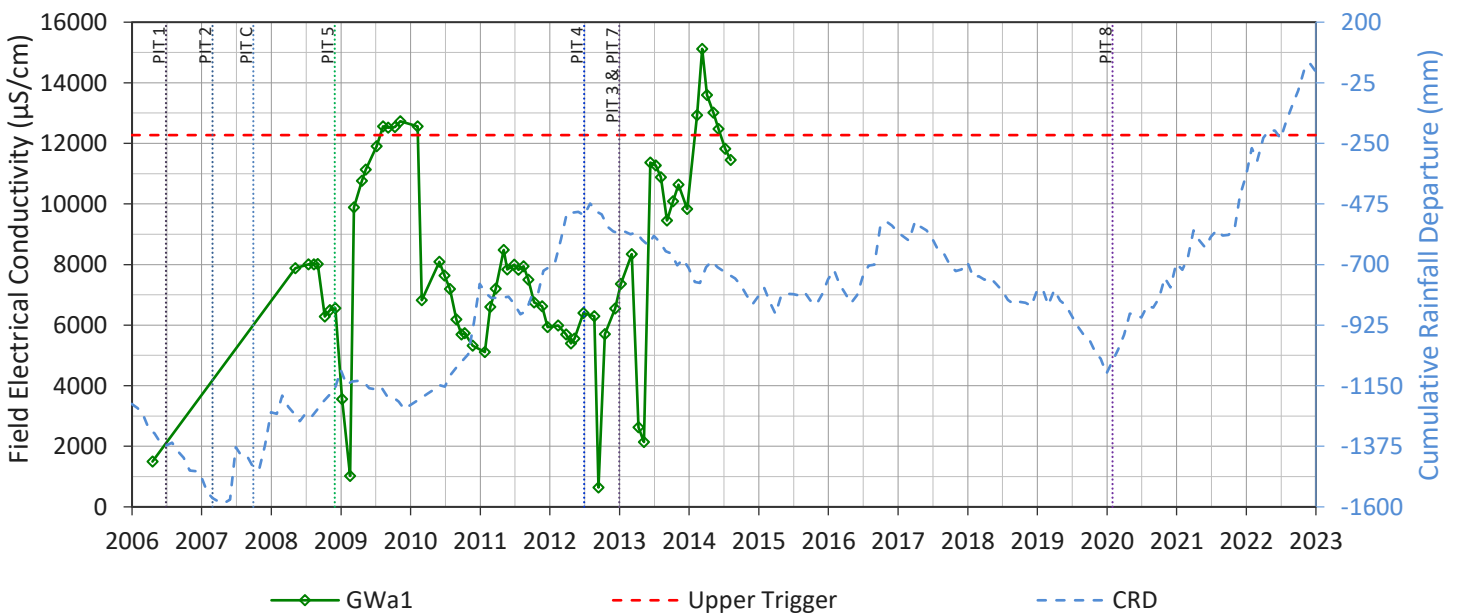
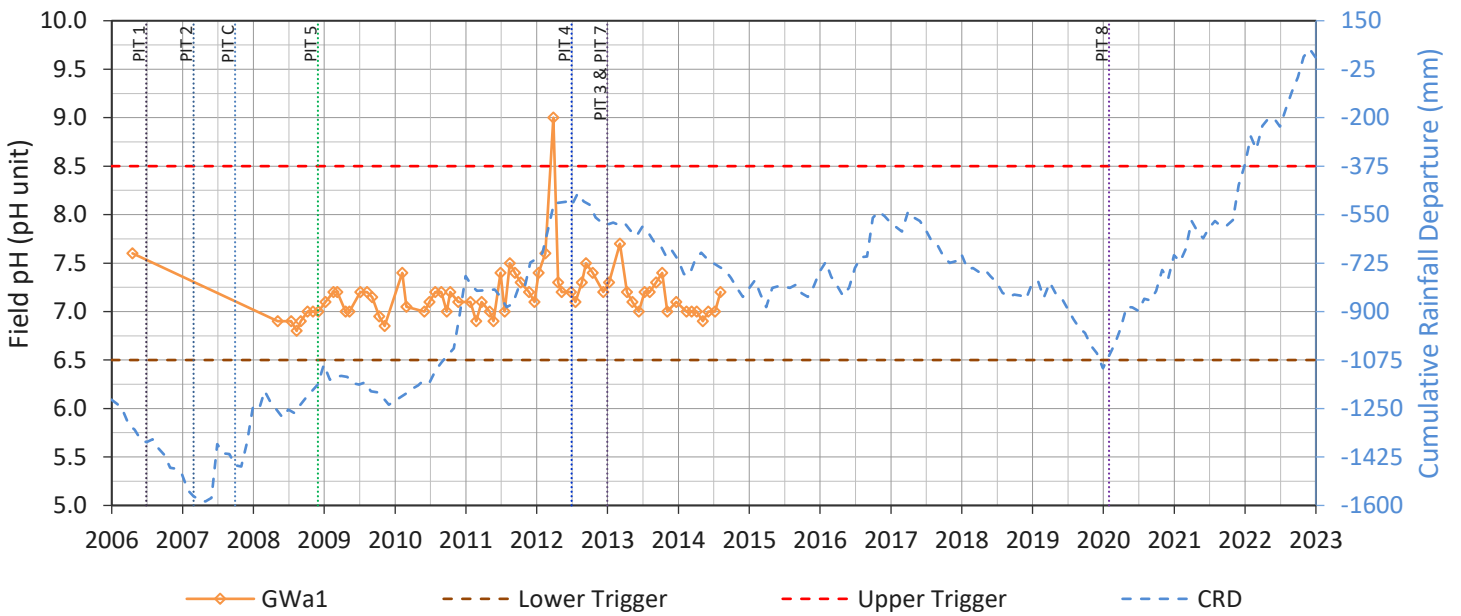
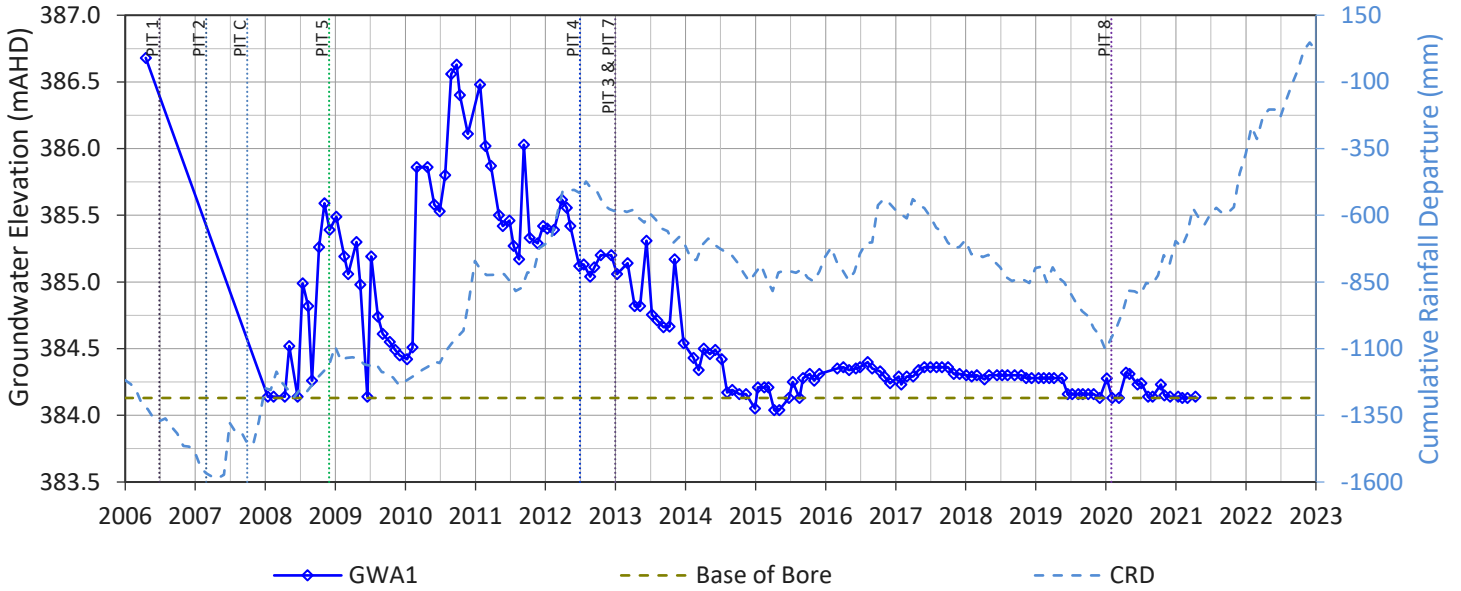


Figure 31 Groundwater Hydrographs at GWc30 and GWc31 within proposed Pit 8 boundary

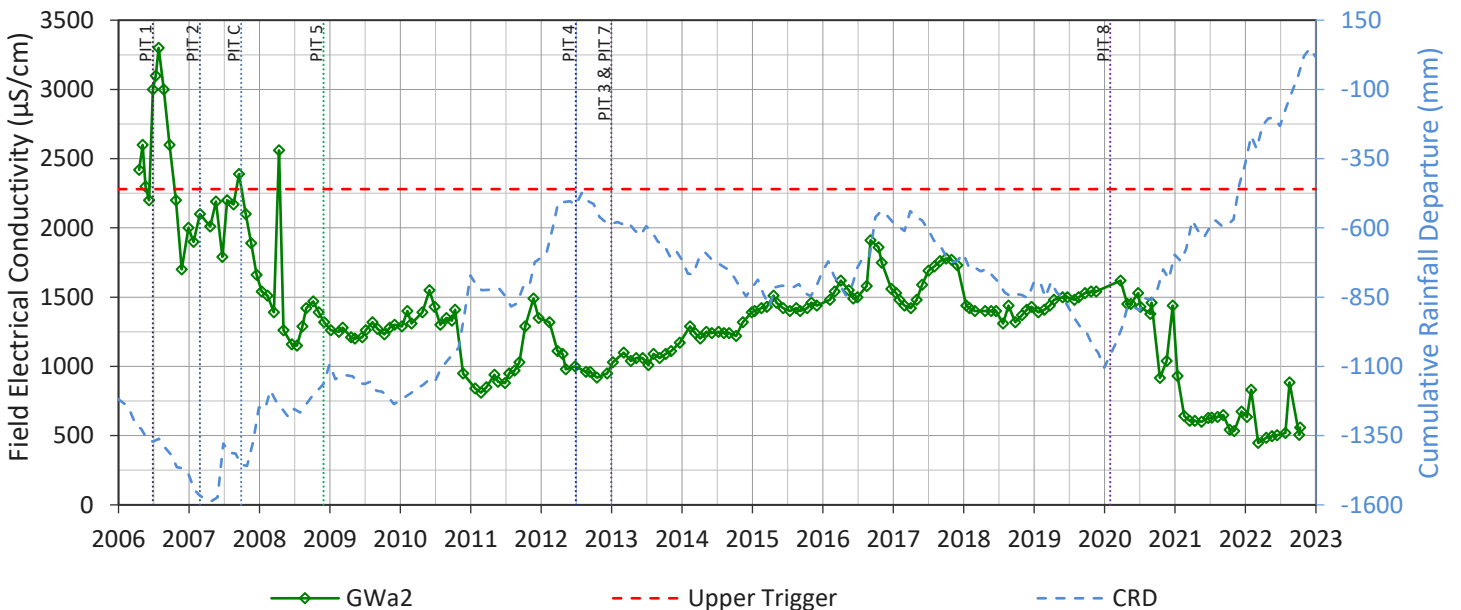
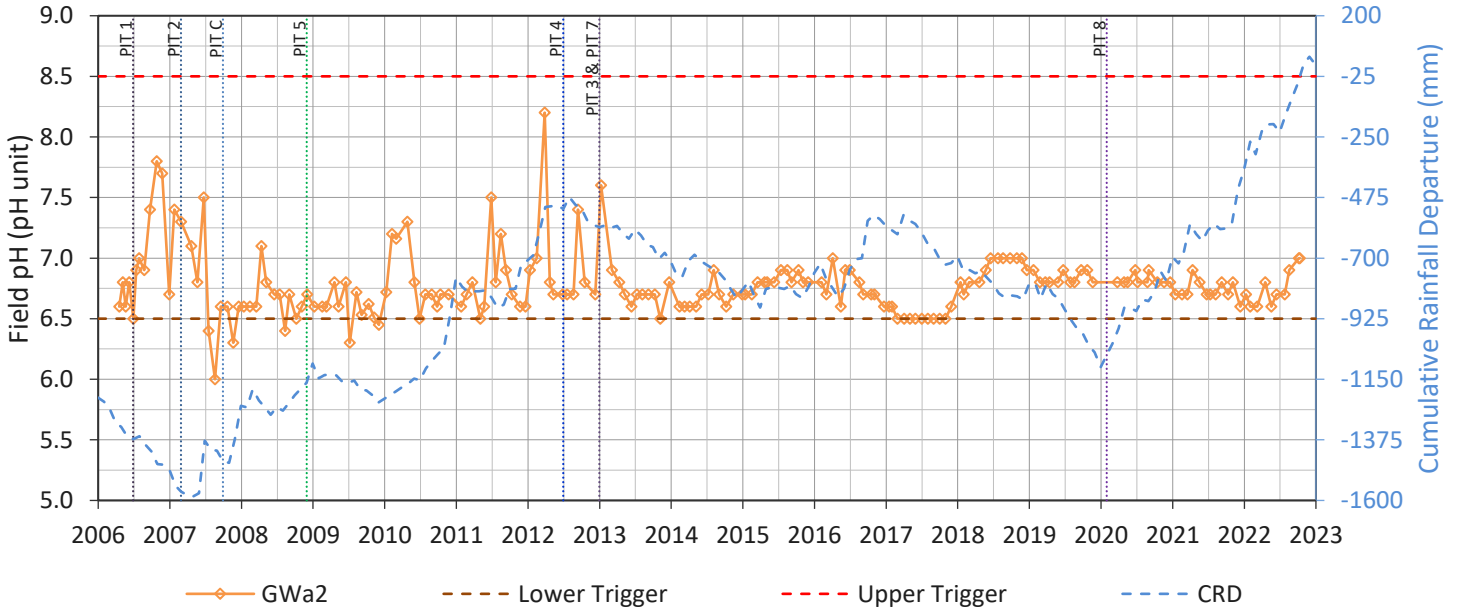
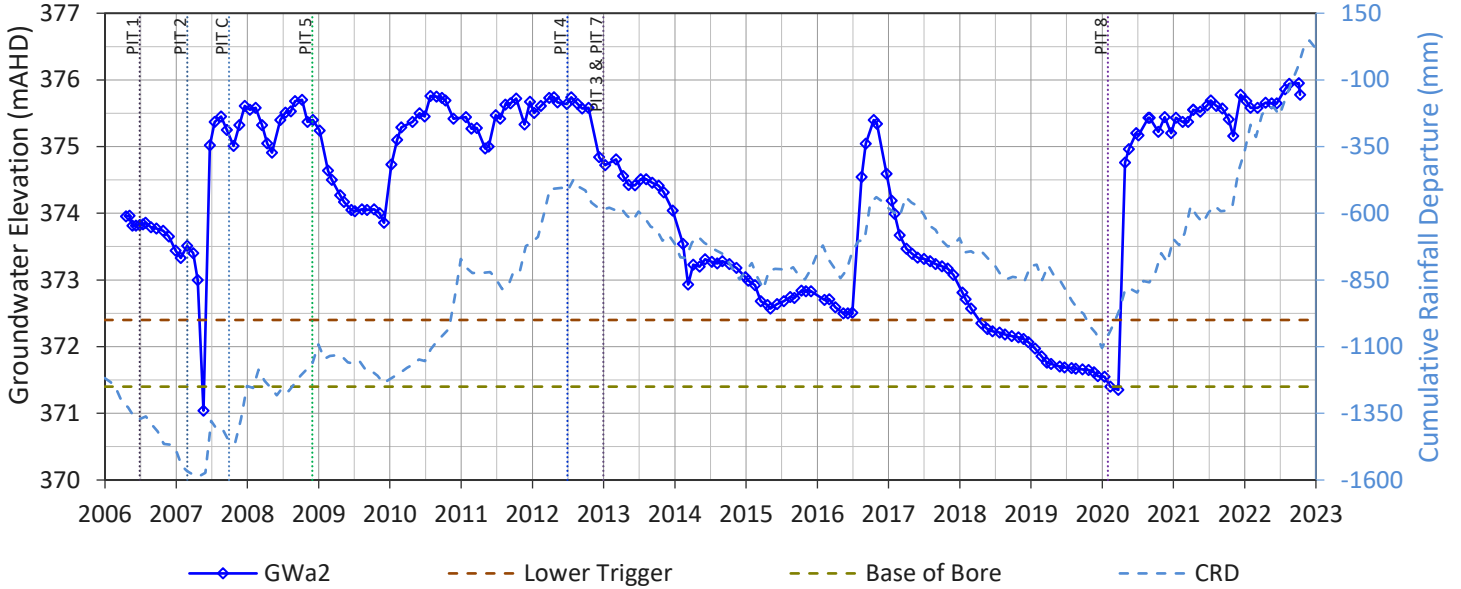
APPENDIX B

Trigger Level Assessment Charts

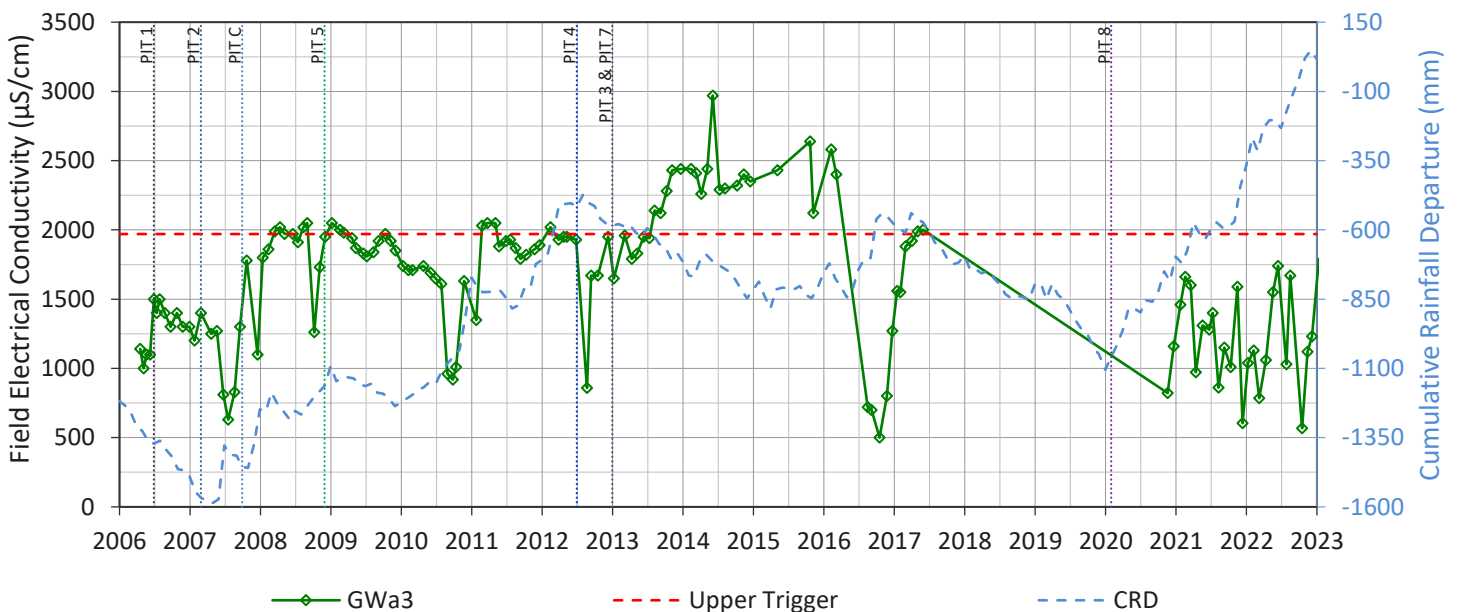
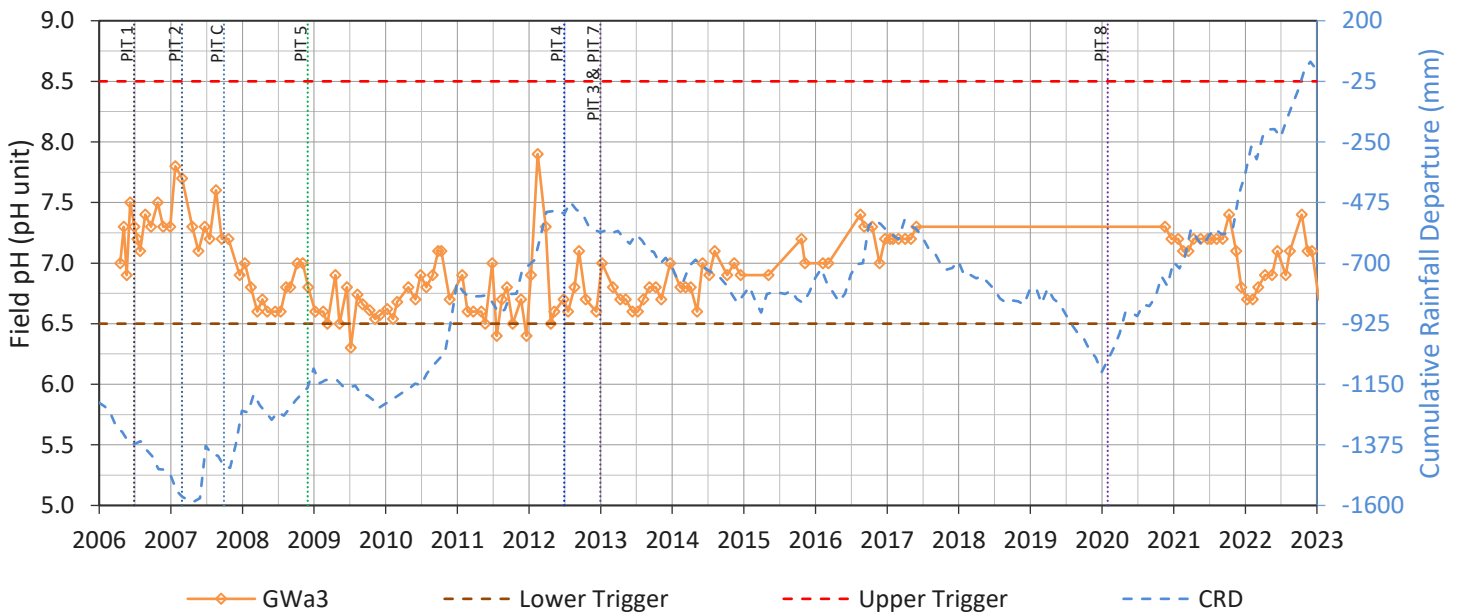
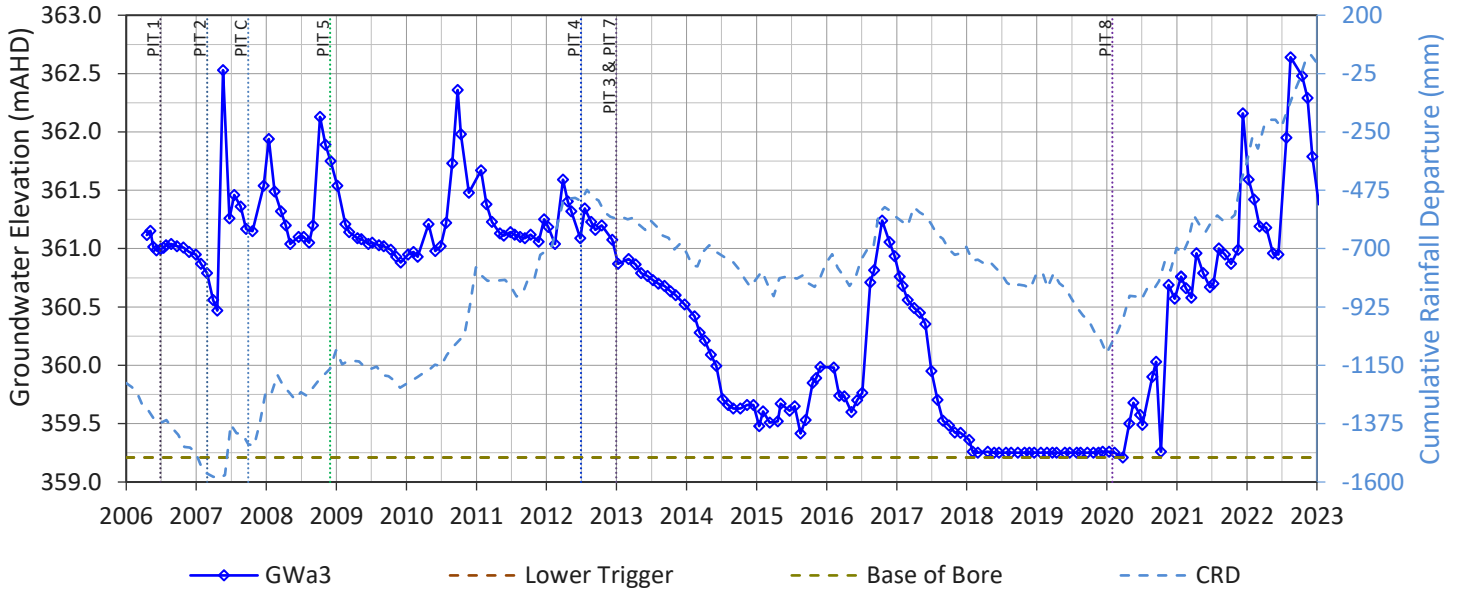
GWA1



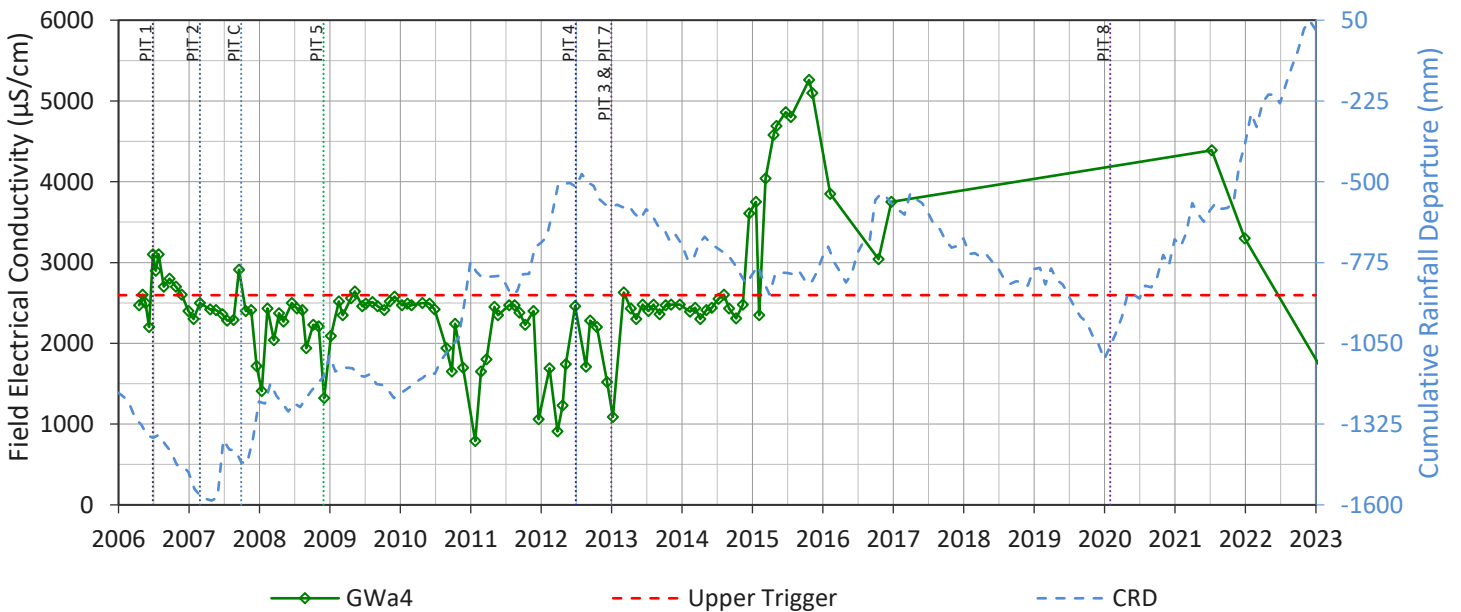
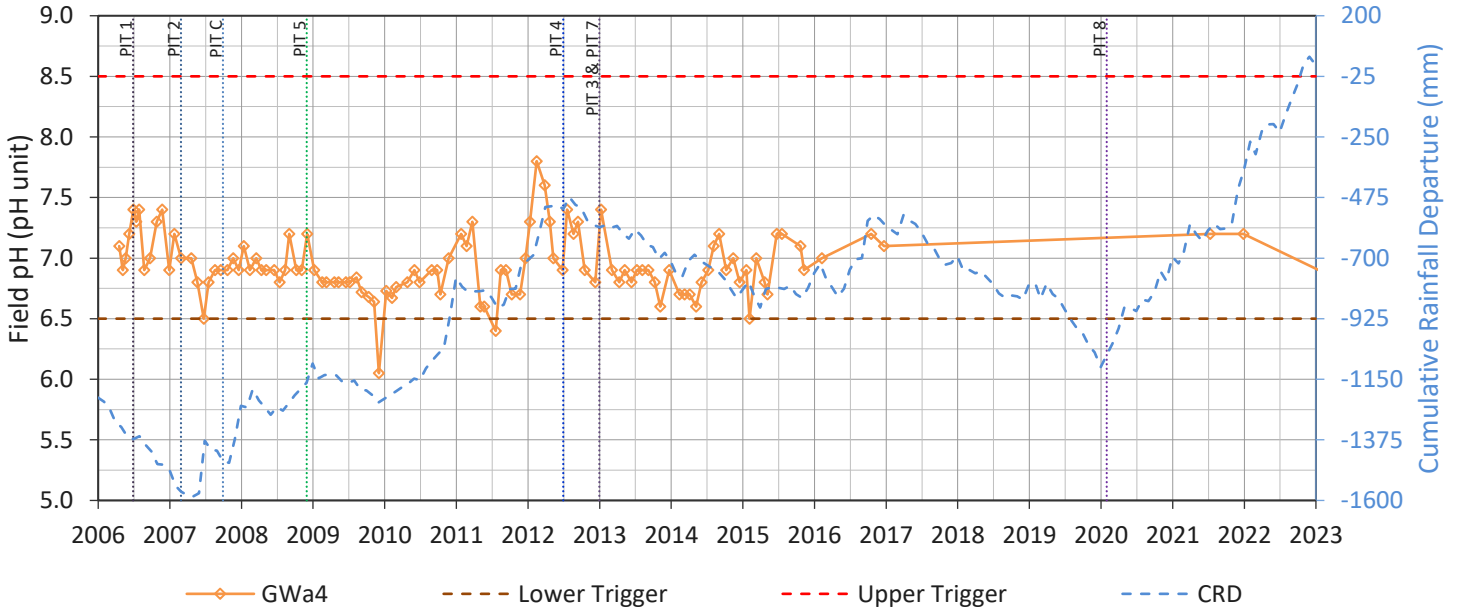
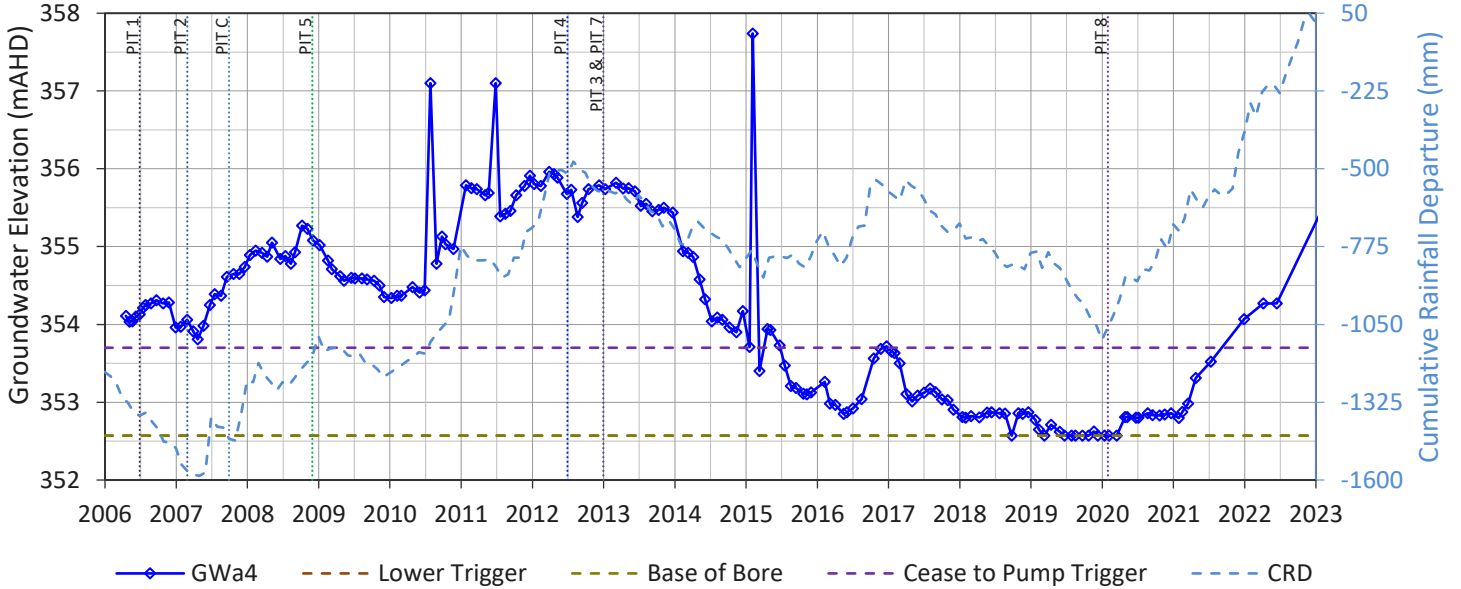
GWa2



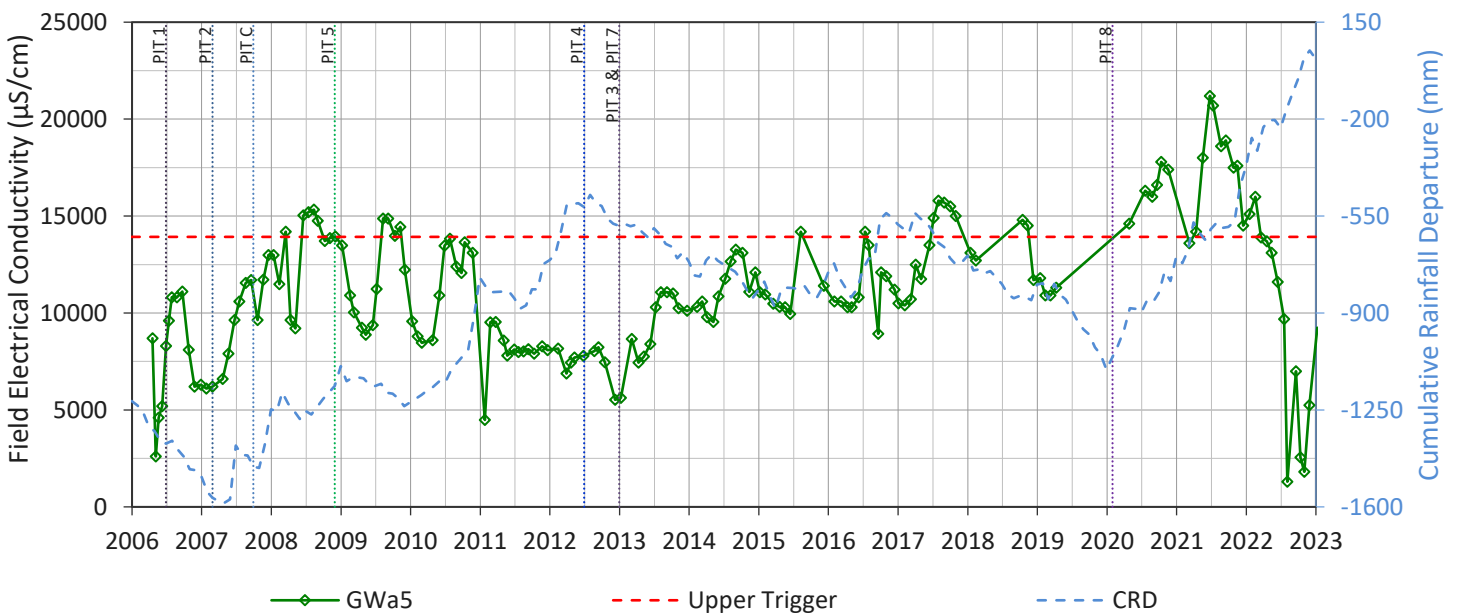
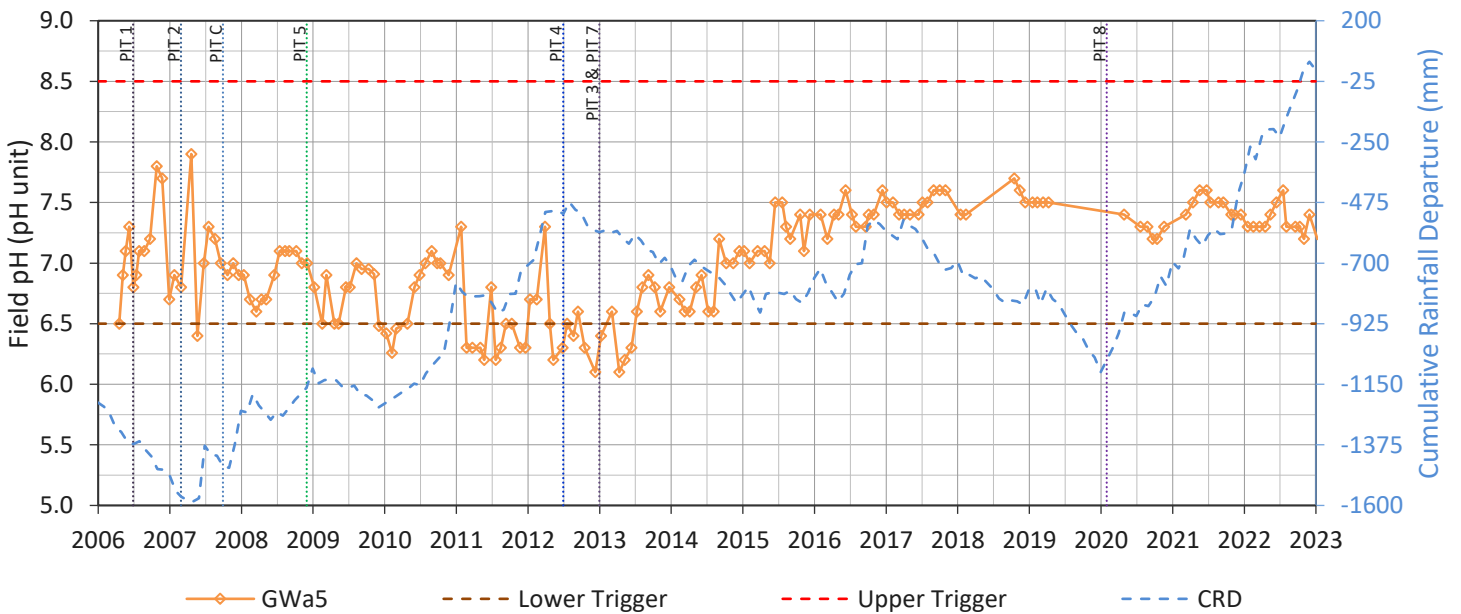
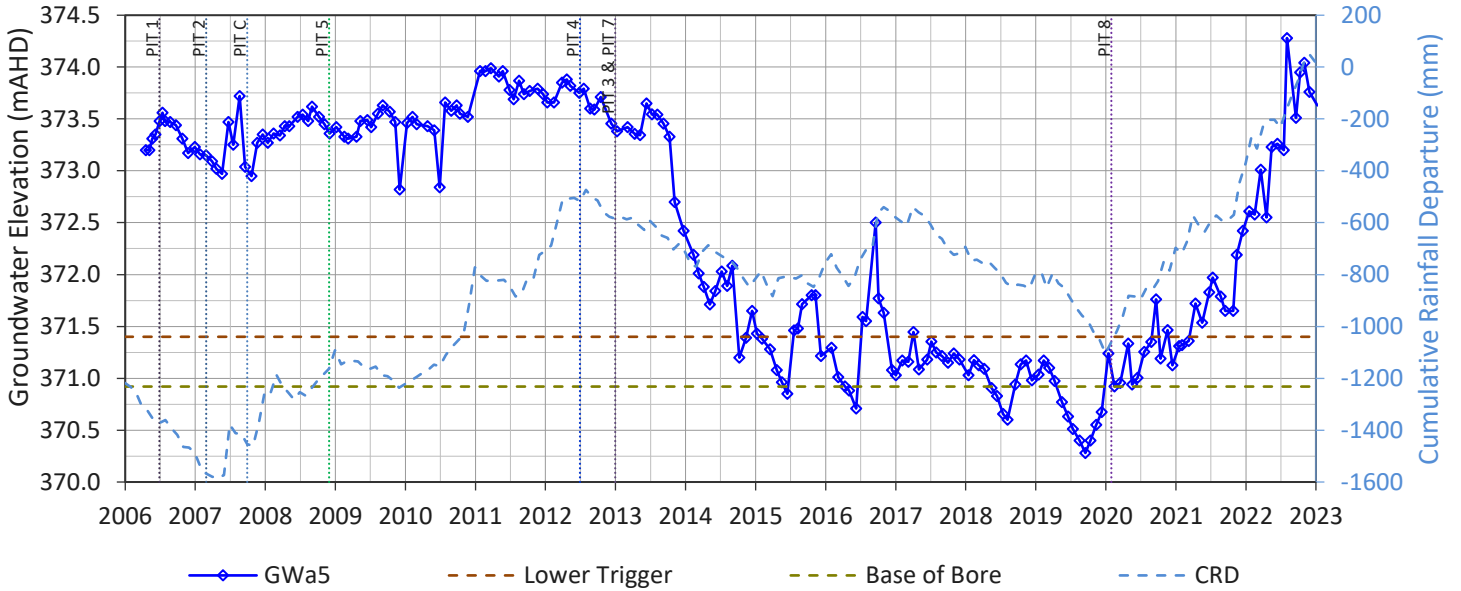
GWa3



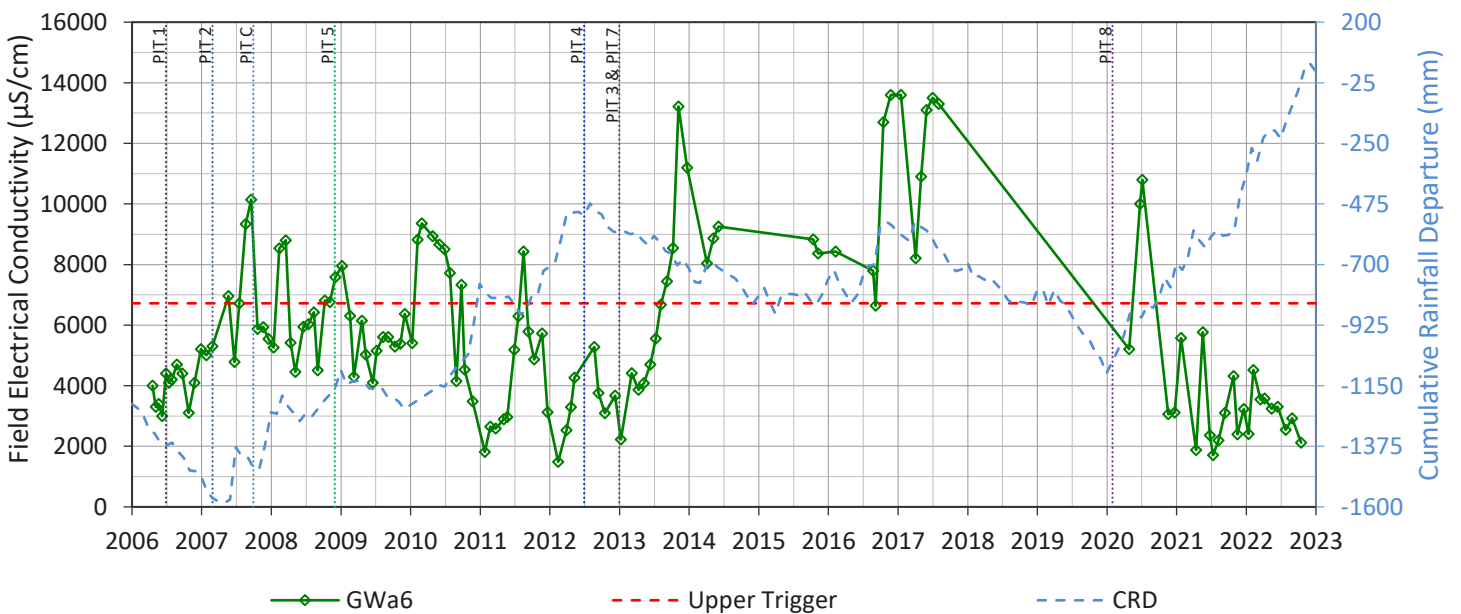
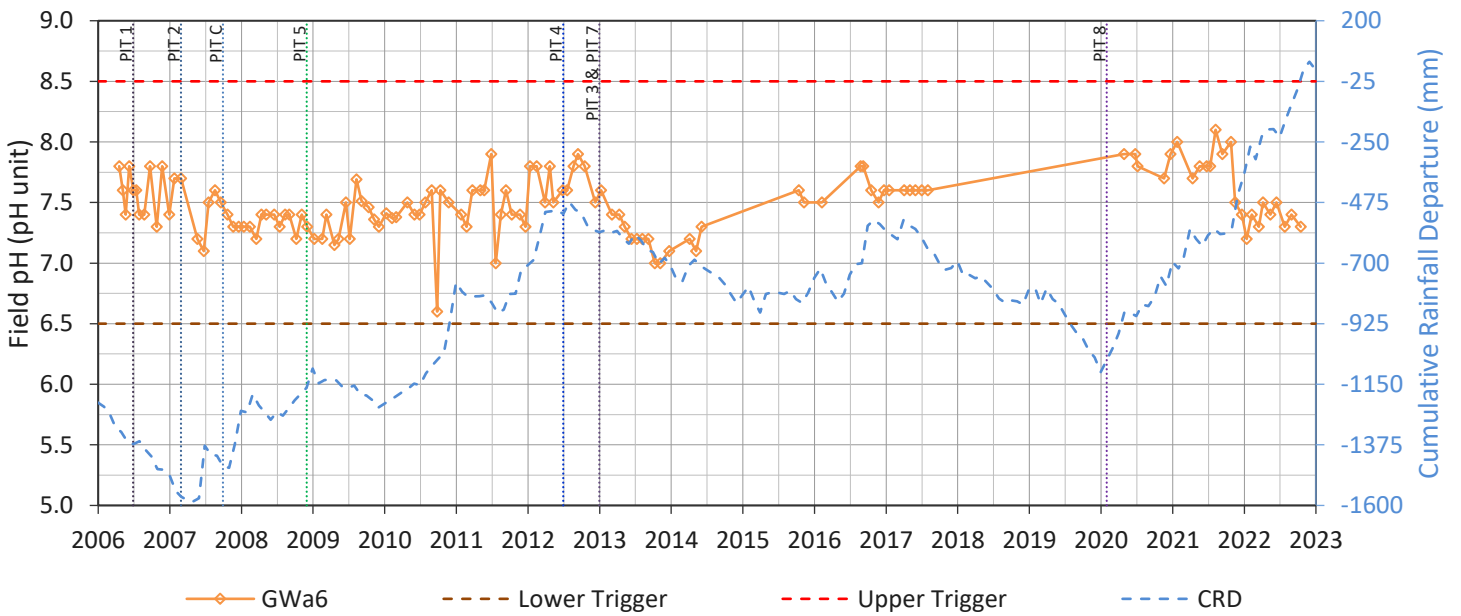
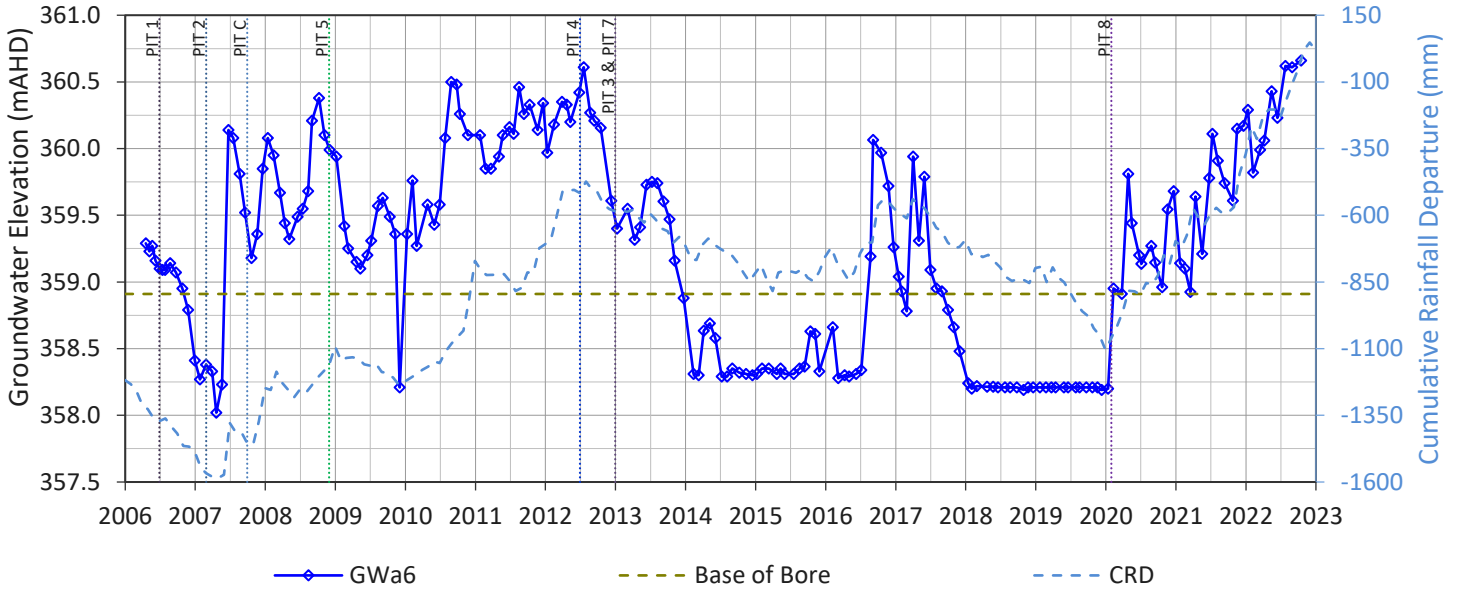
GWa4



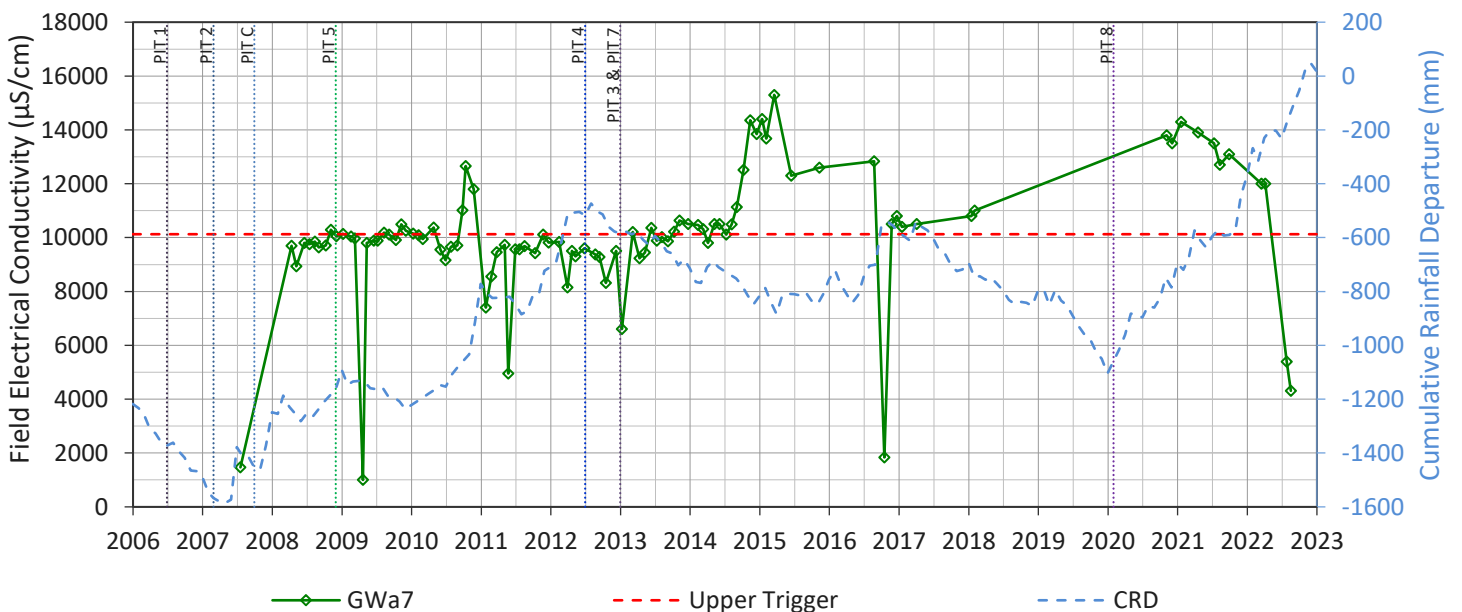
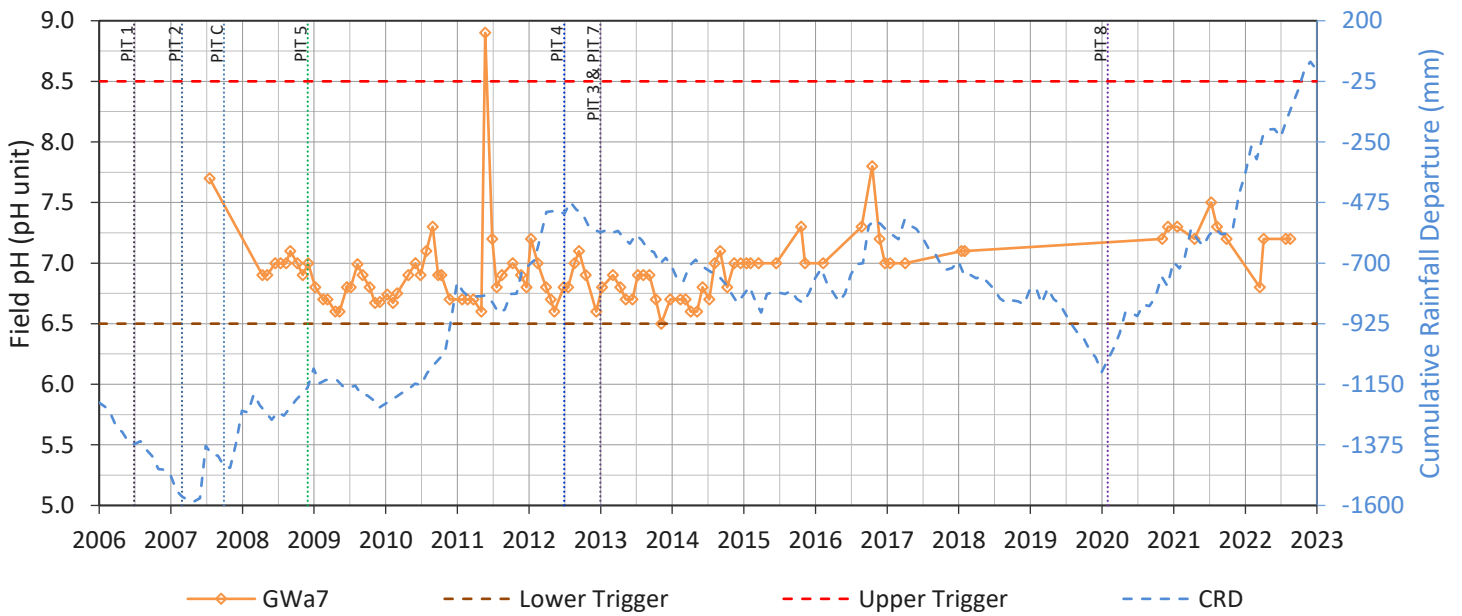
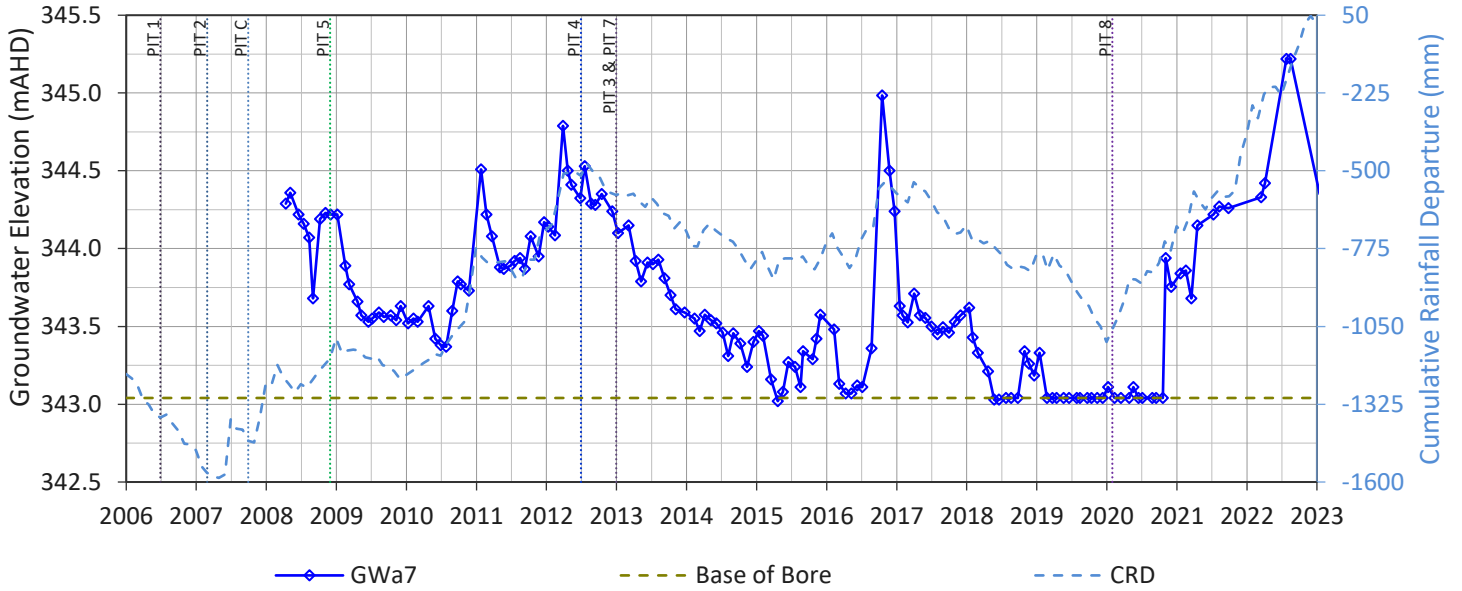
GWa5



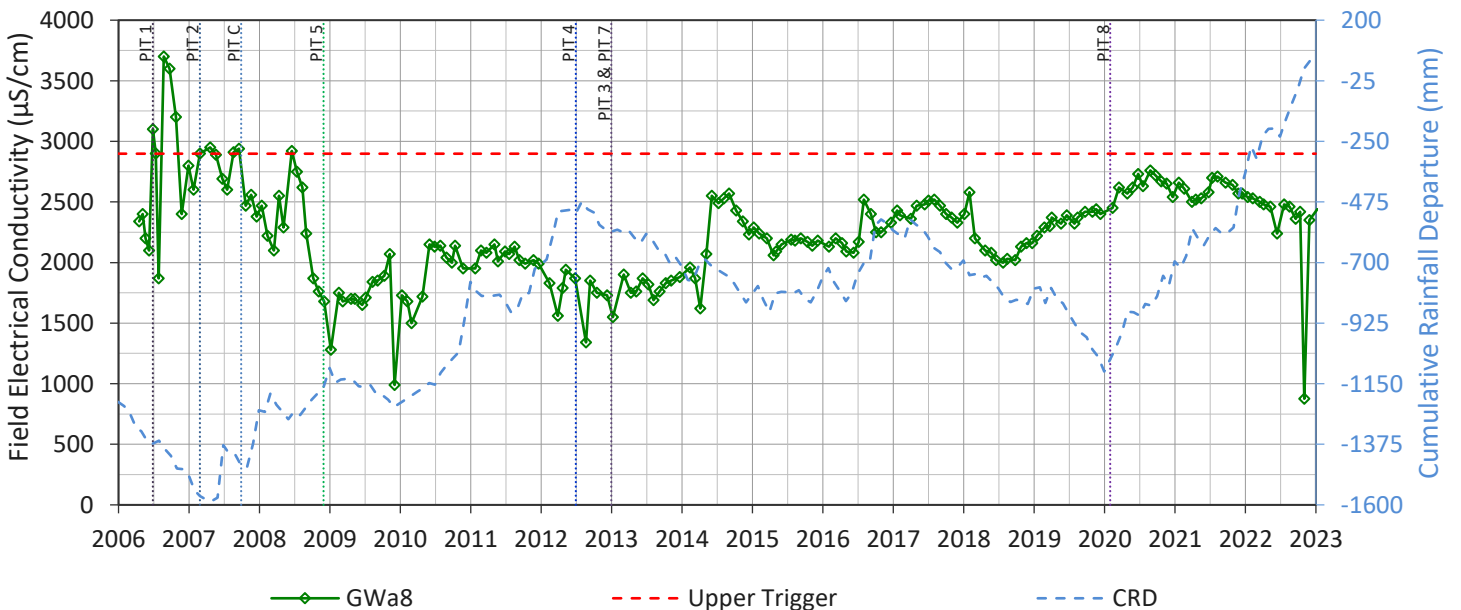
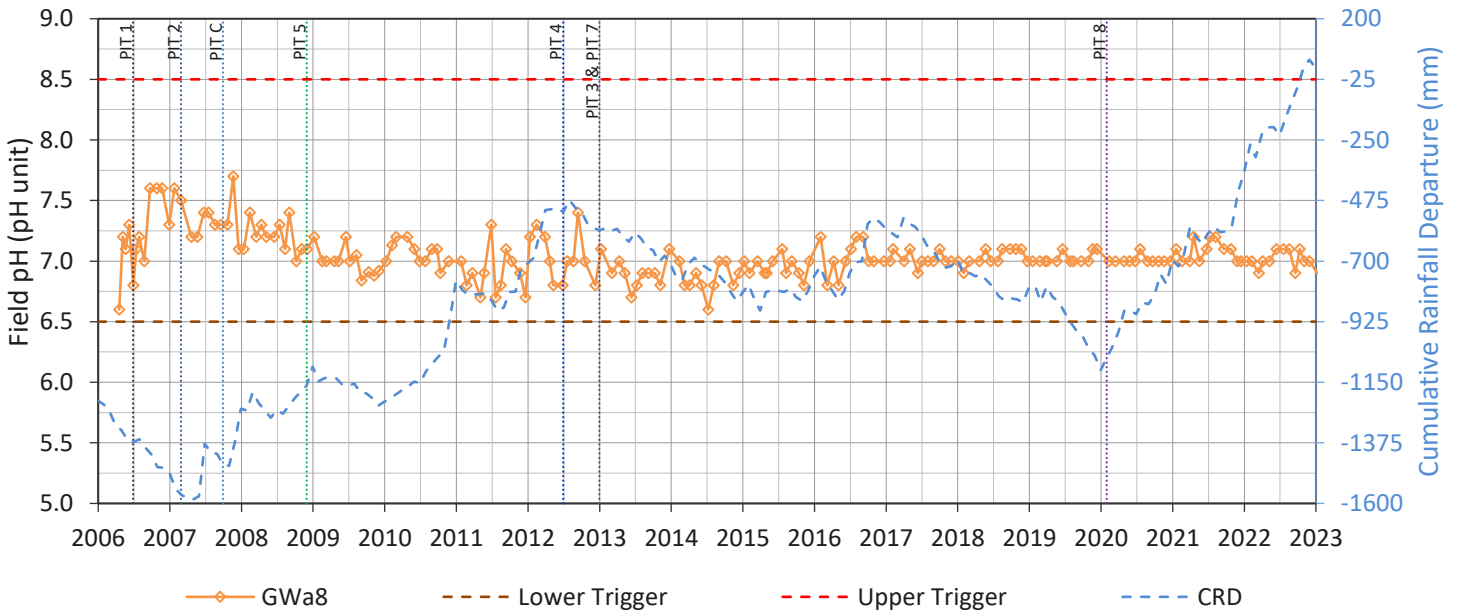
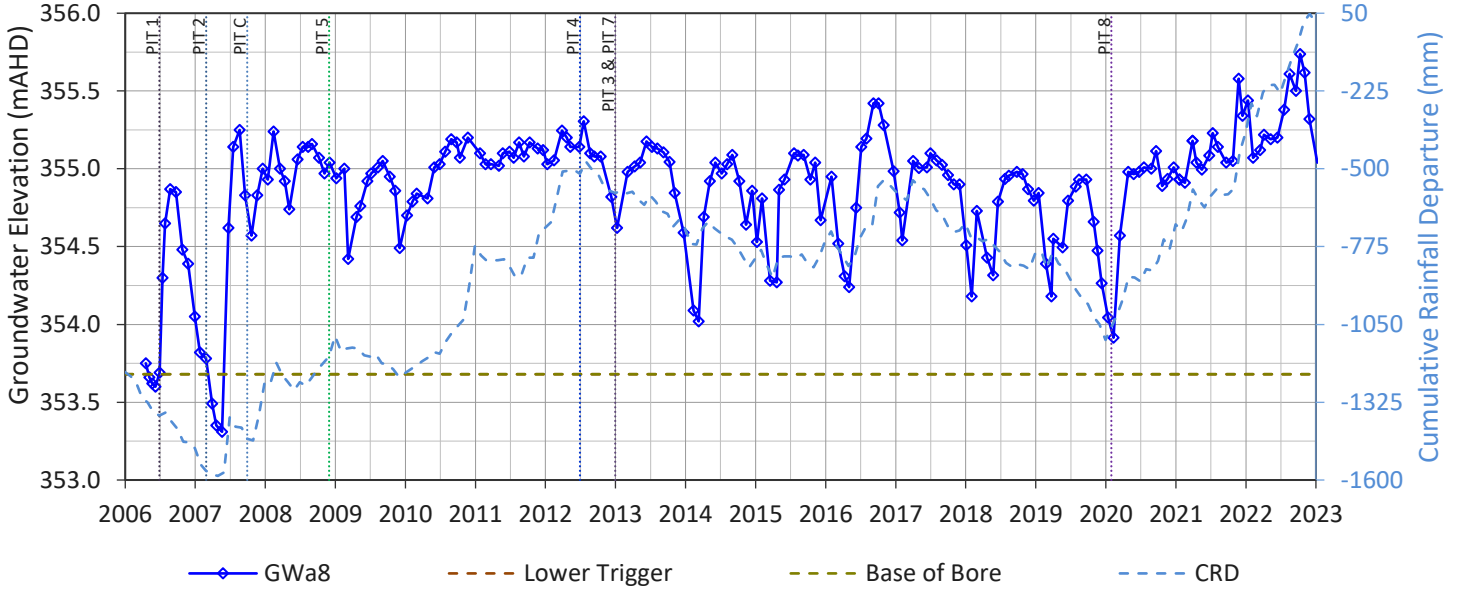
GWa6



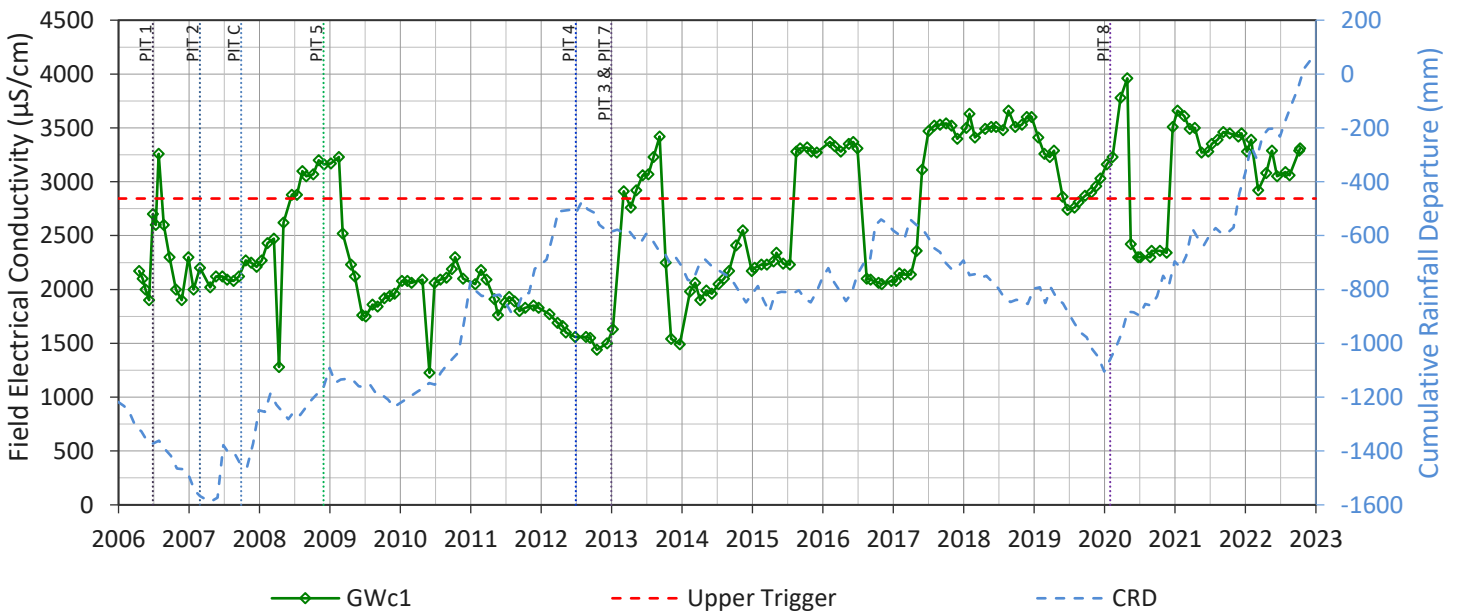
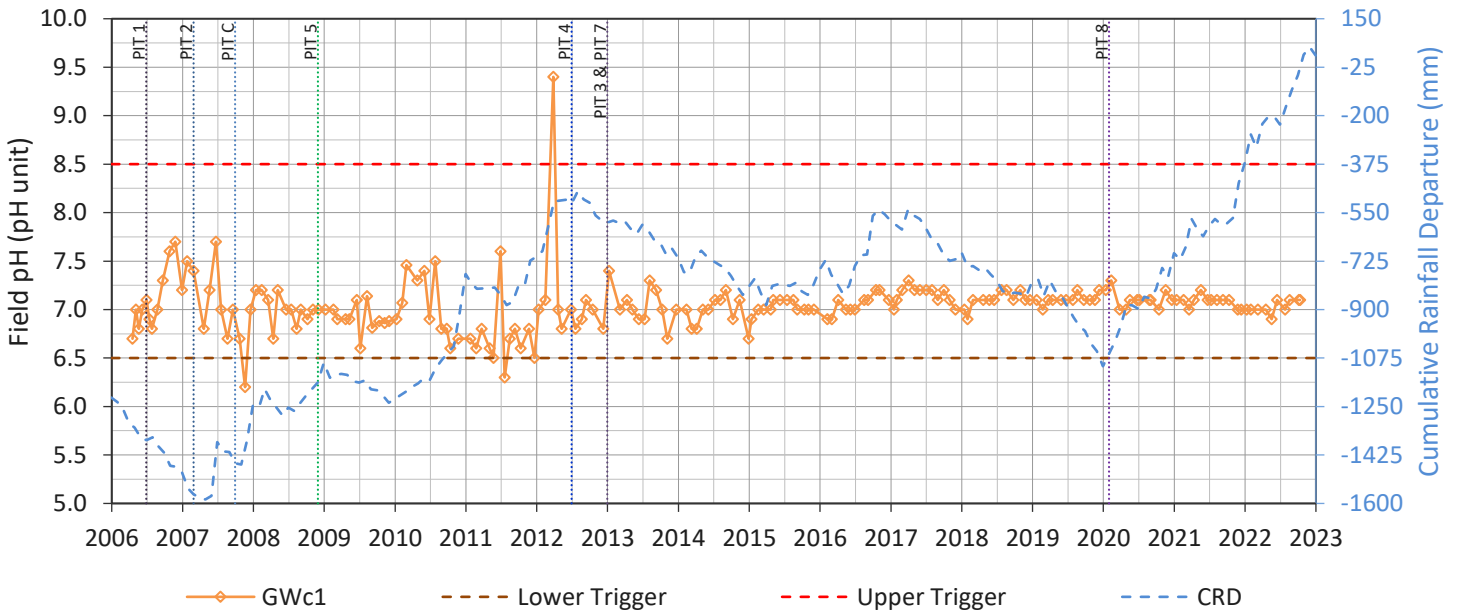
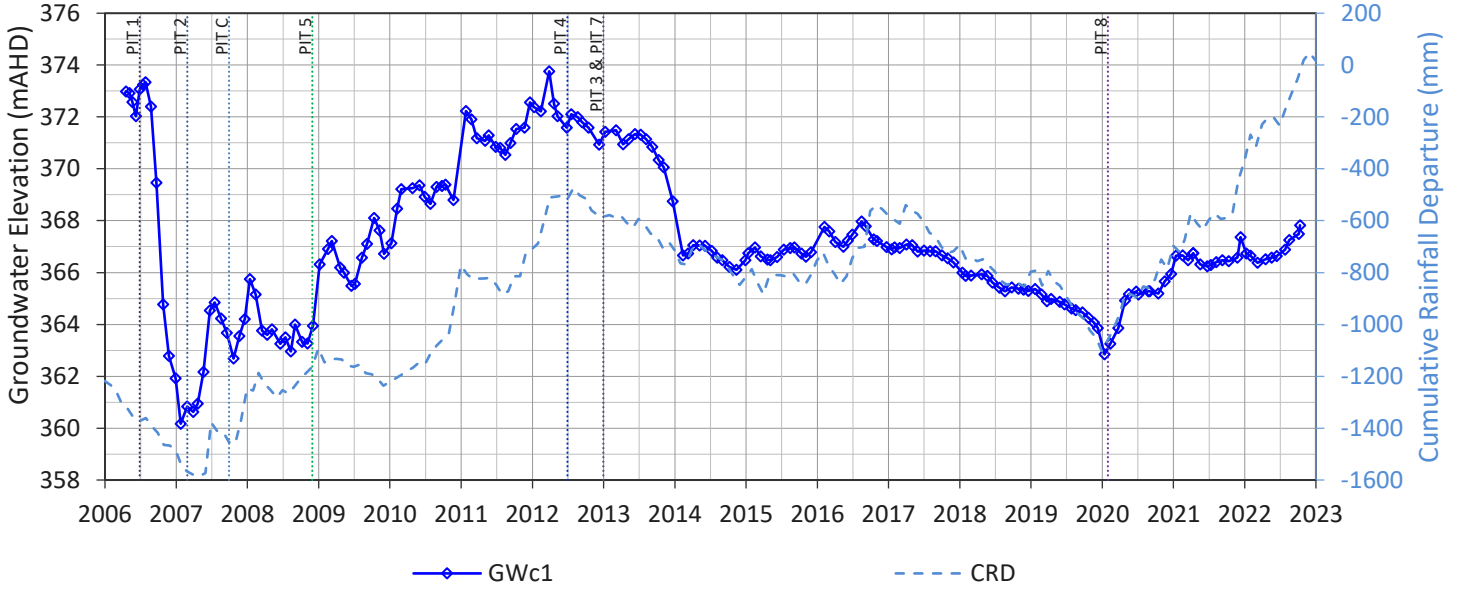
GWa7



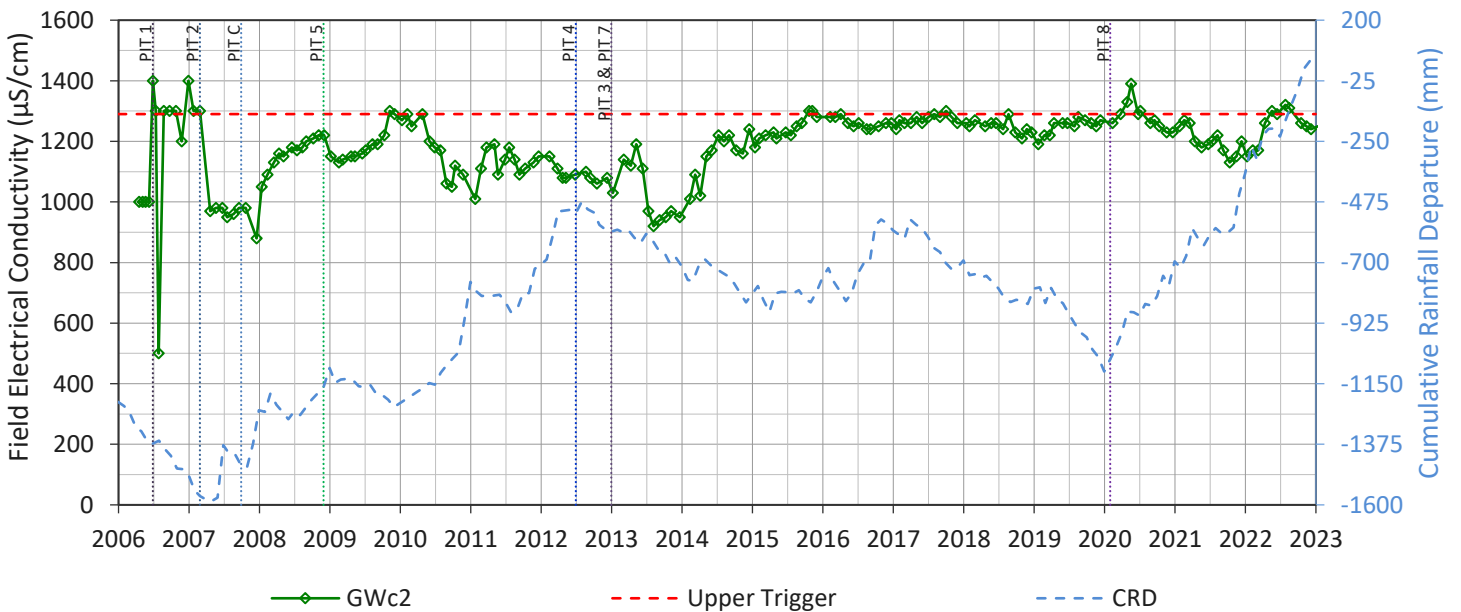
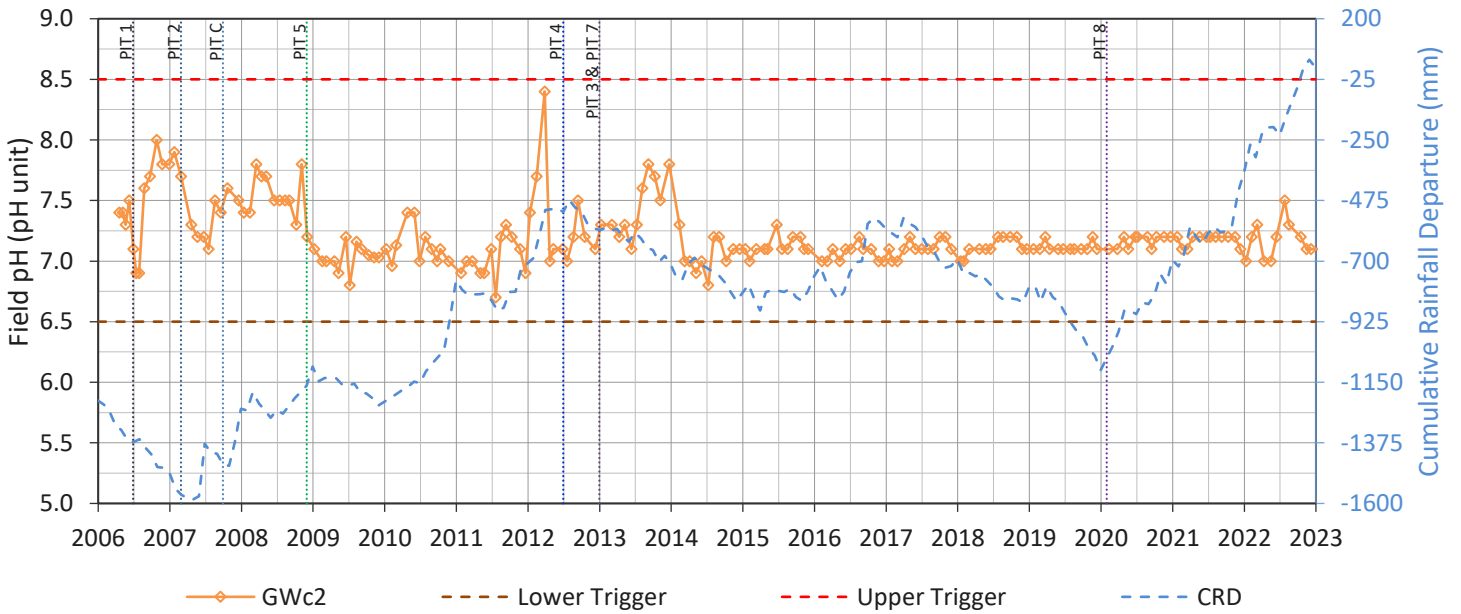
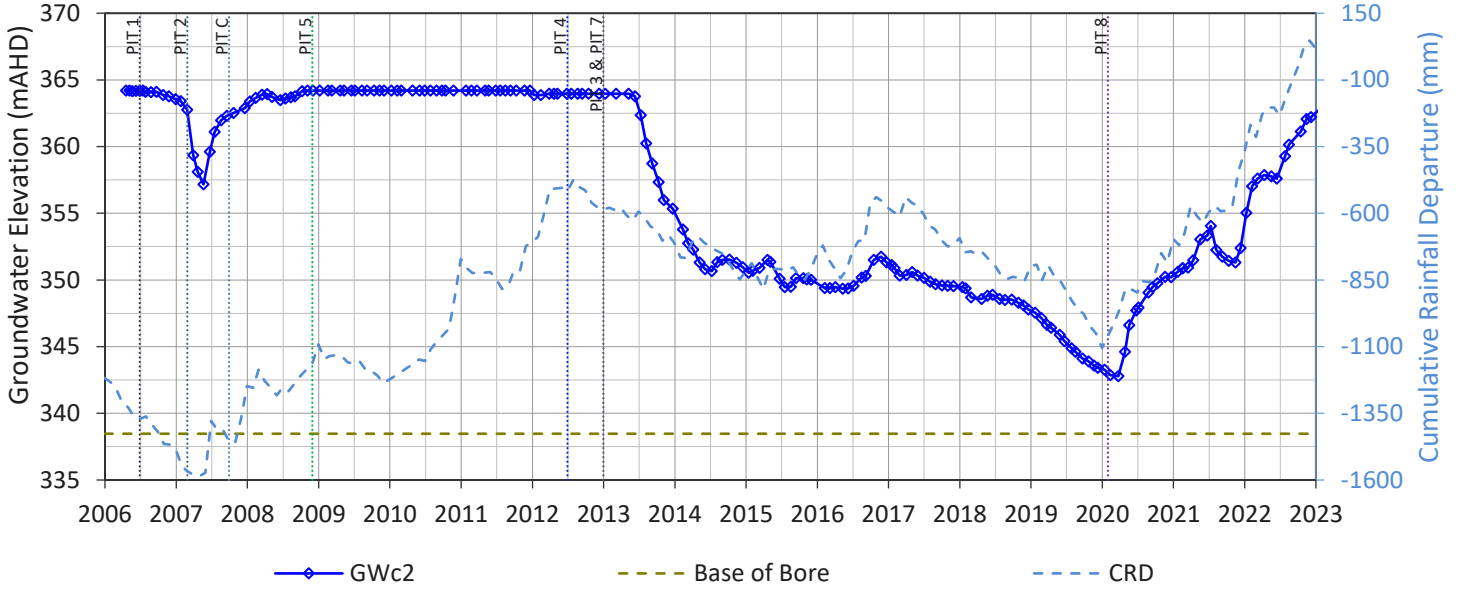
GWa8



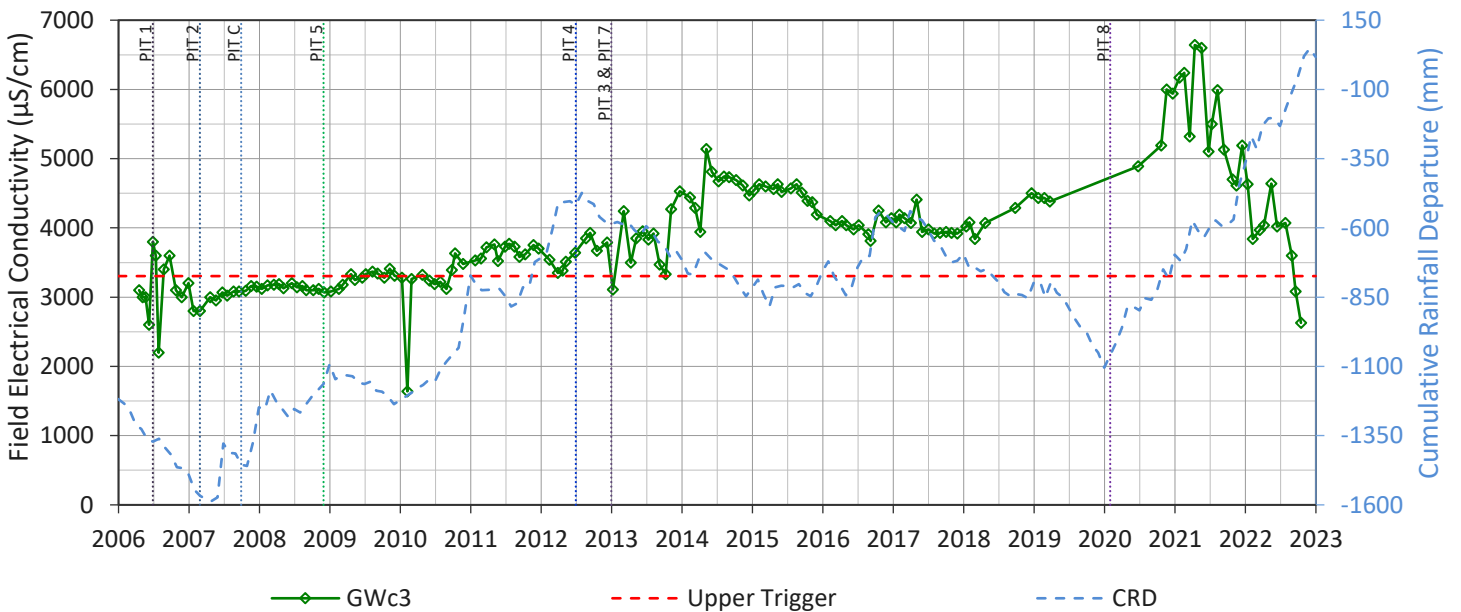
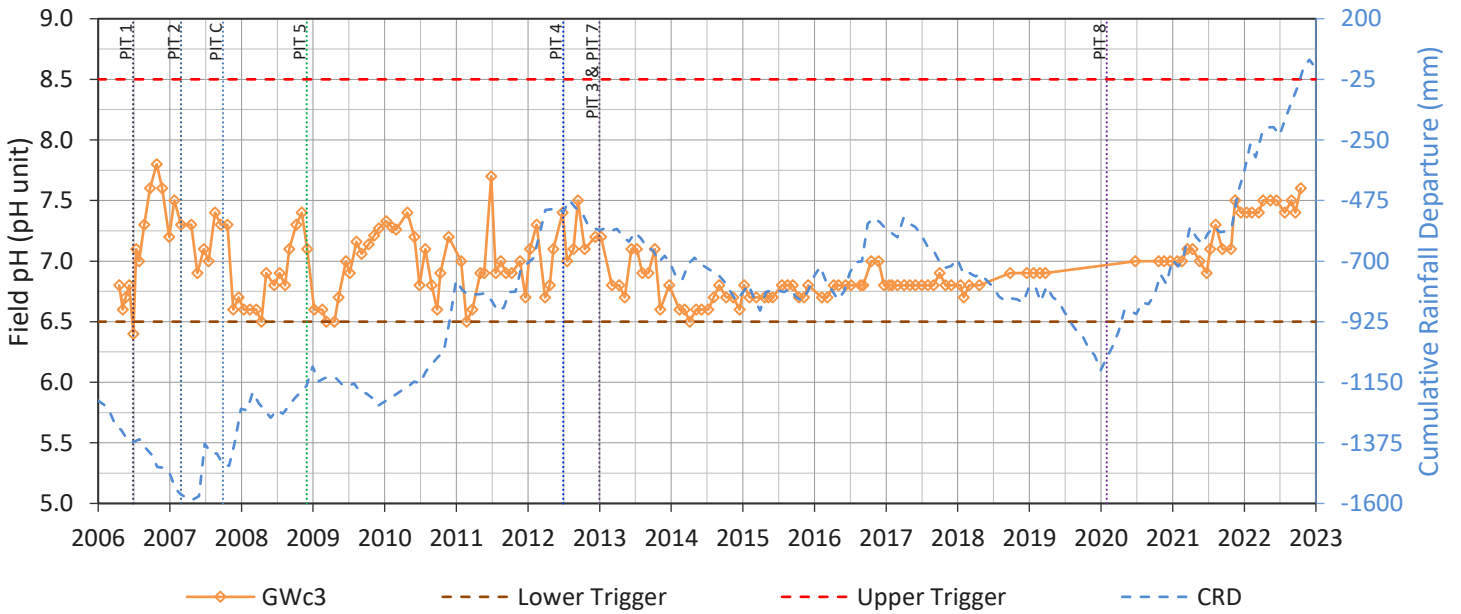
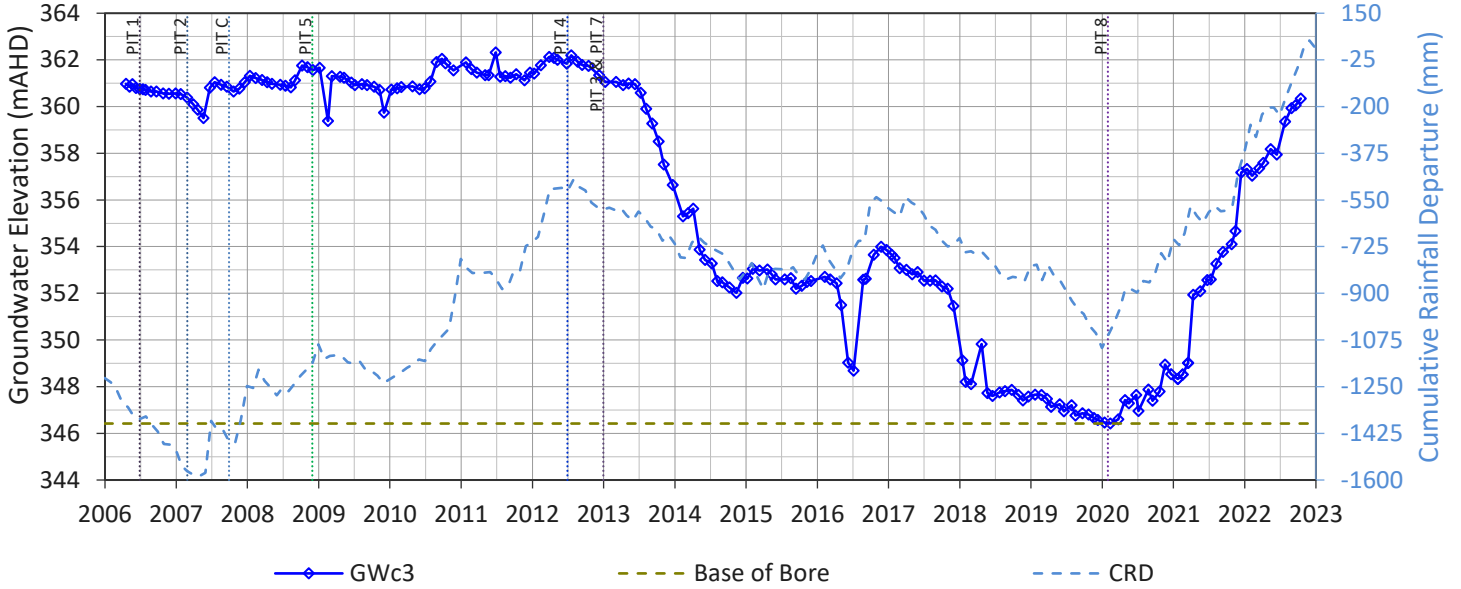
GWc1



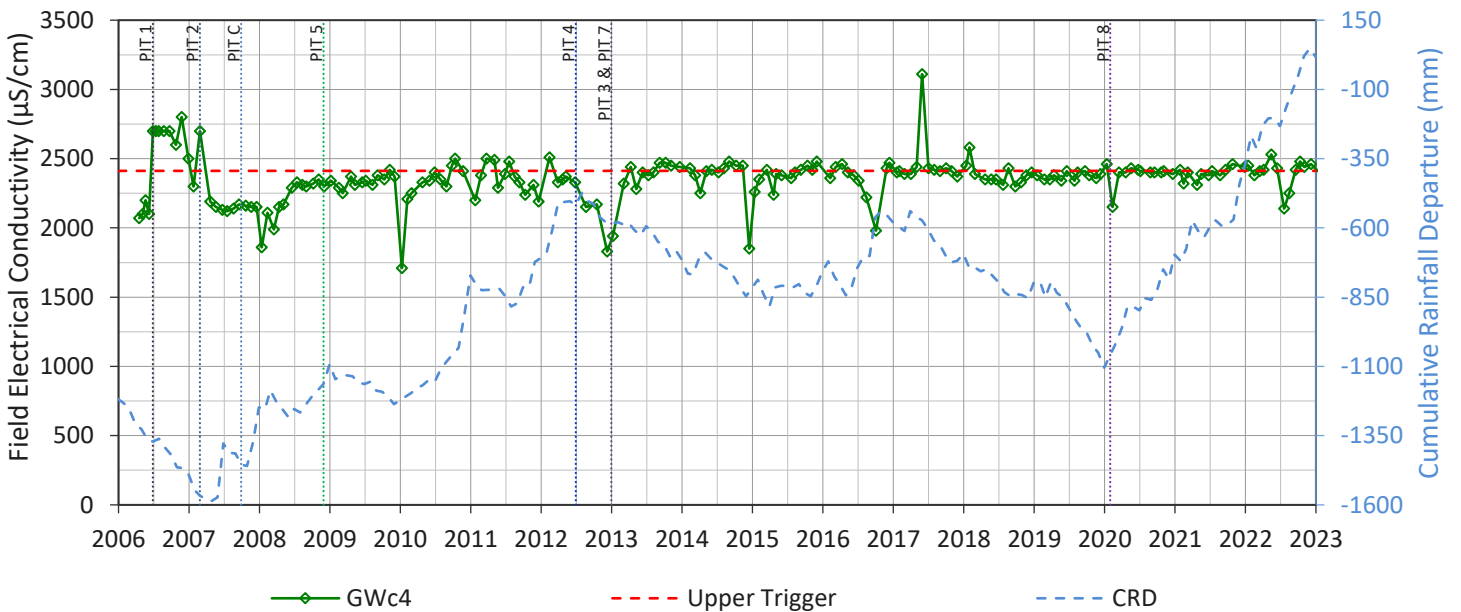
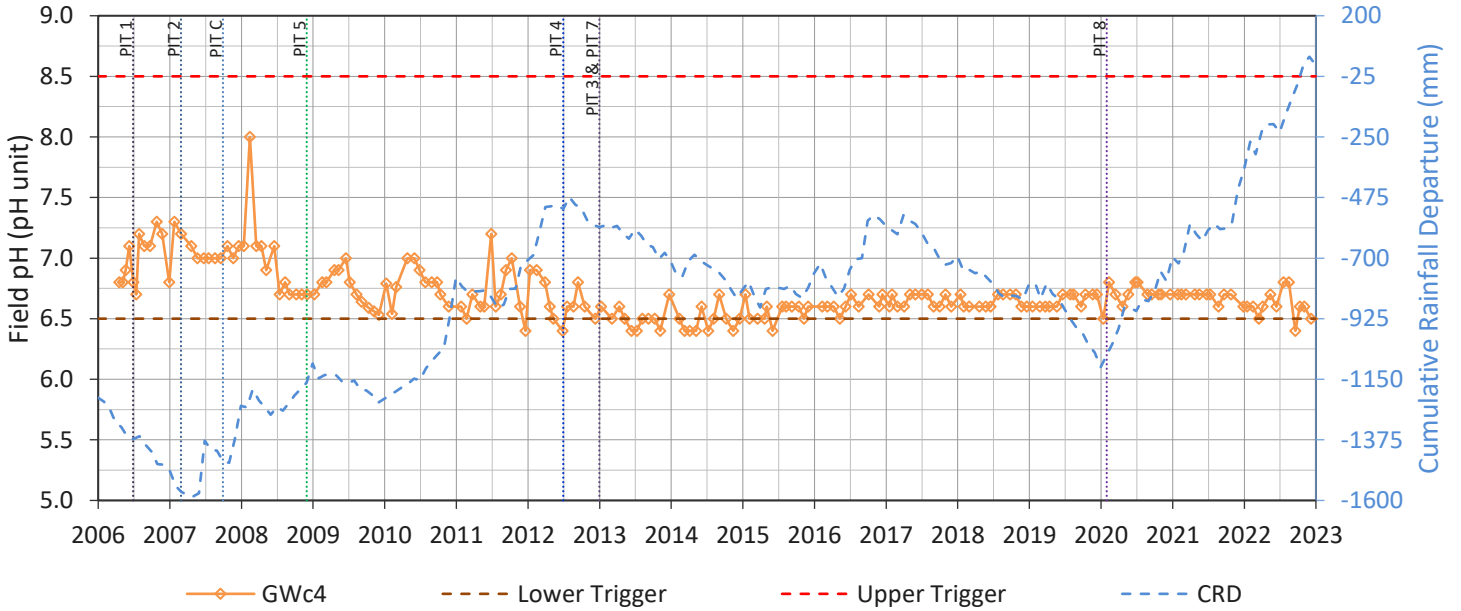
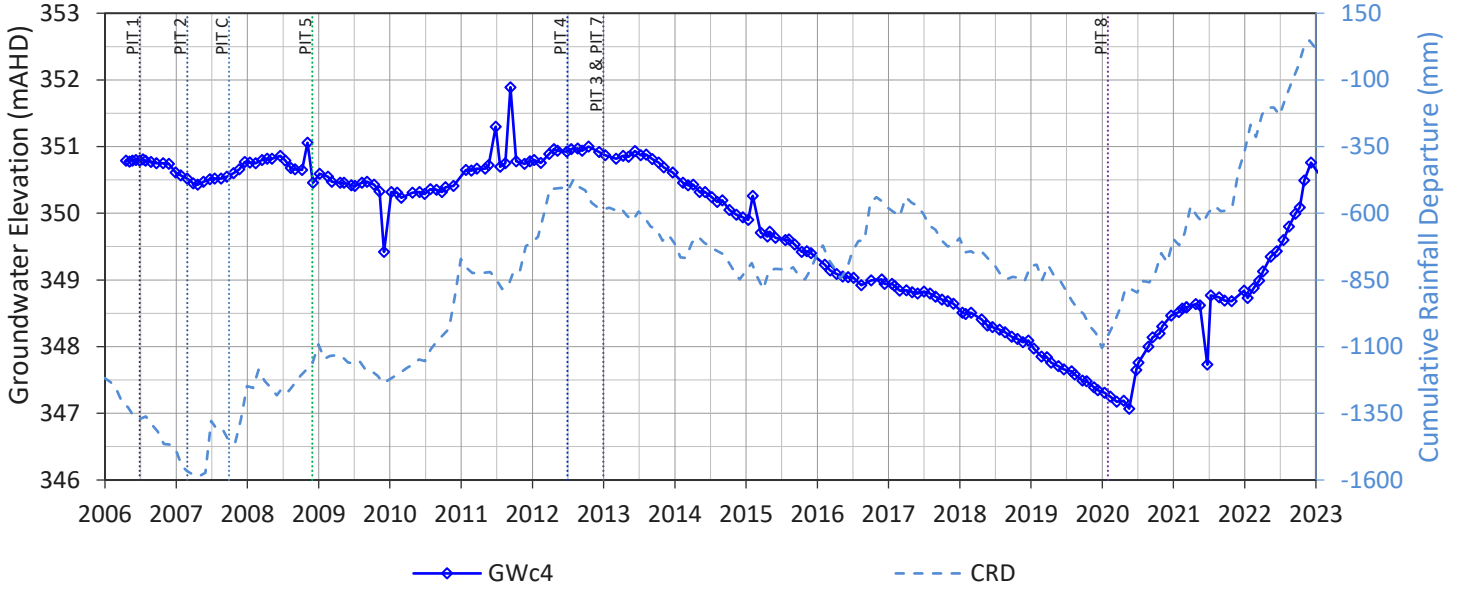
GWc2



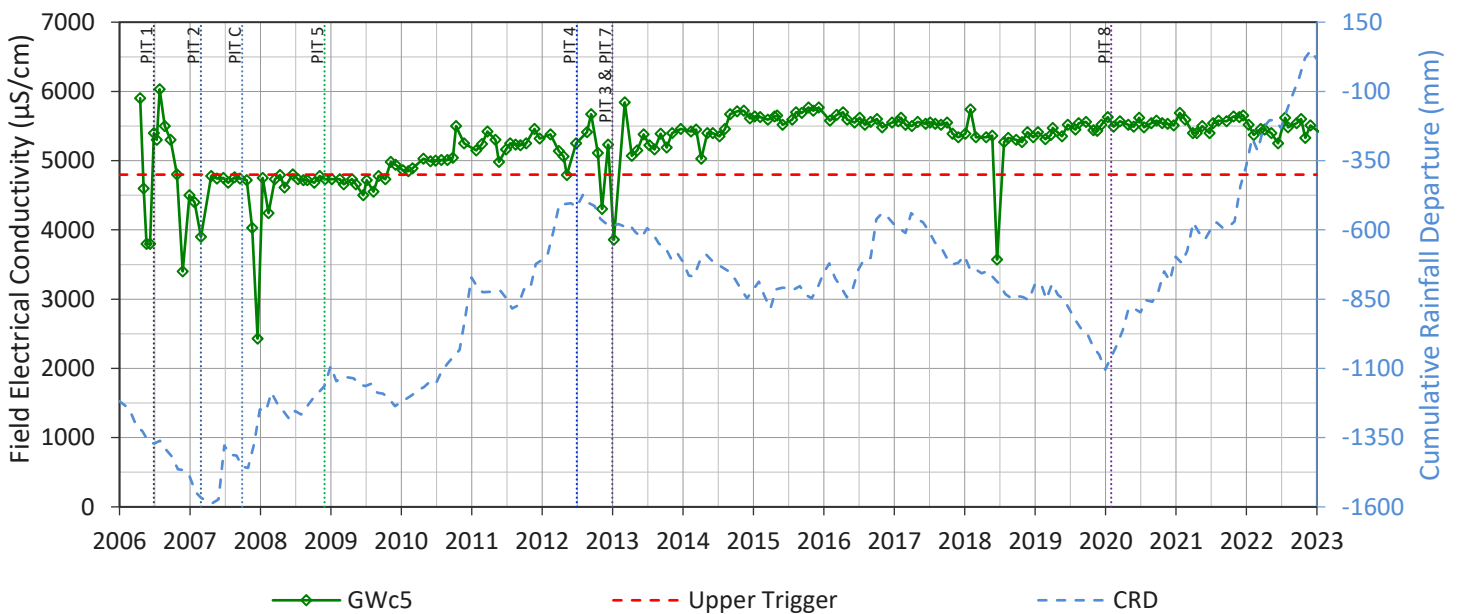
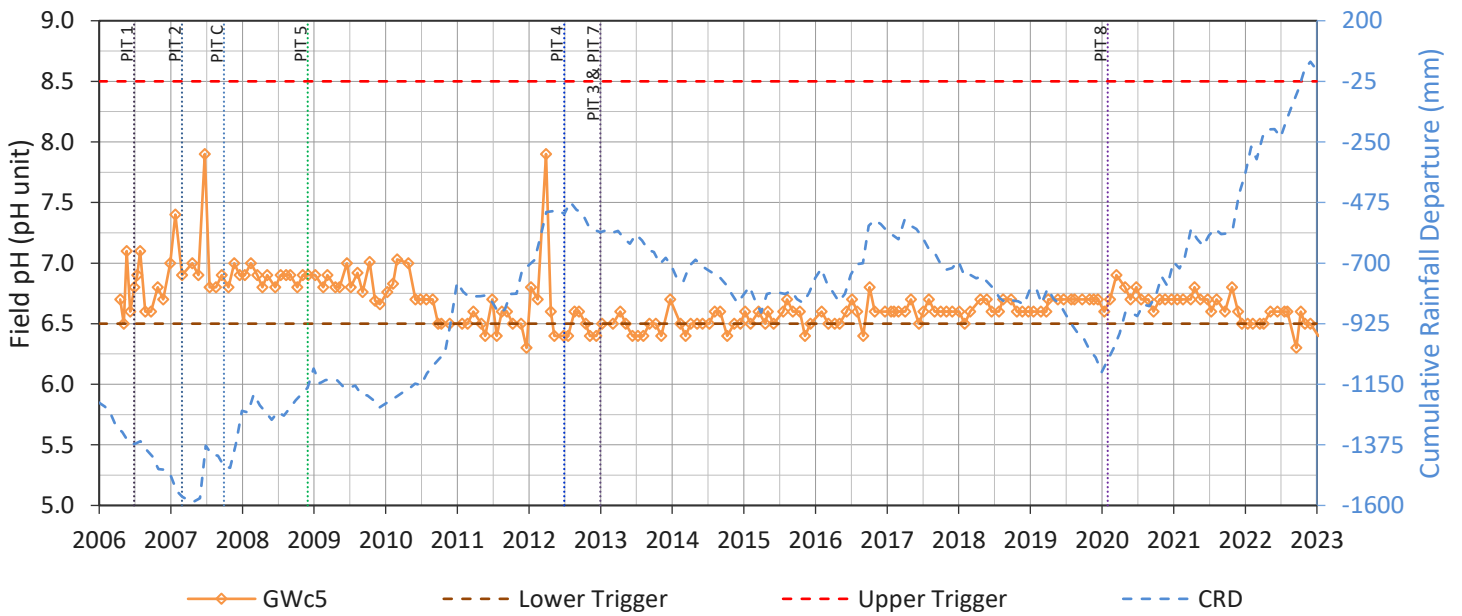
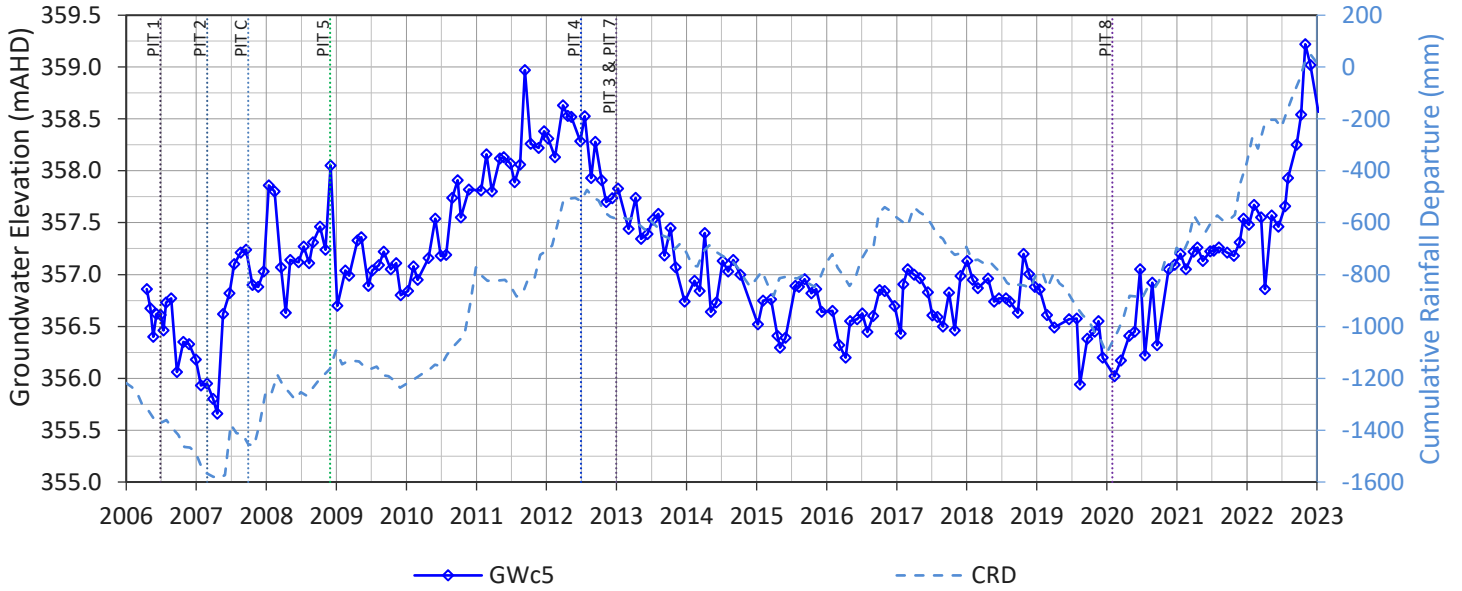
GWc3



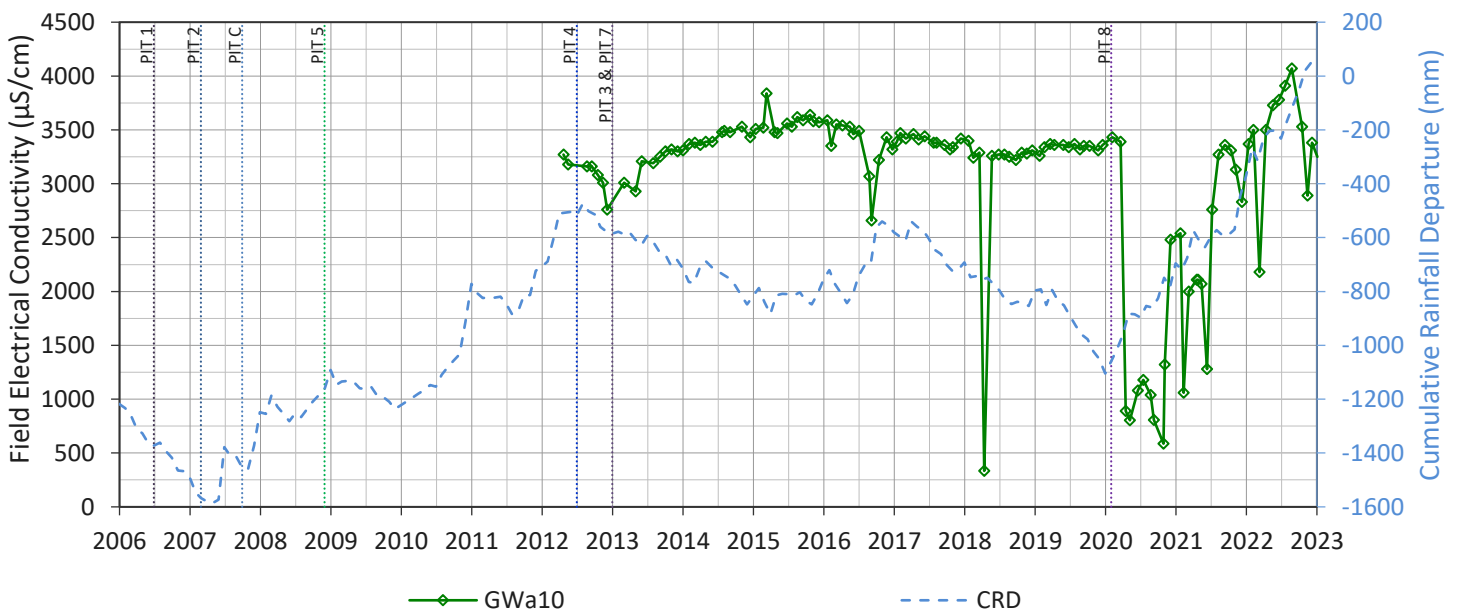
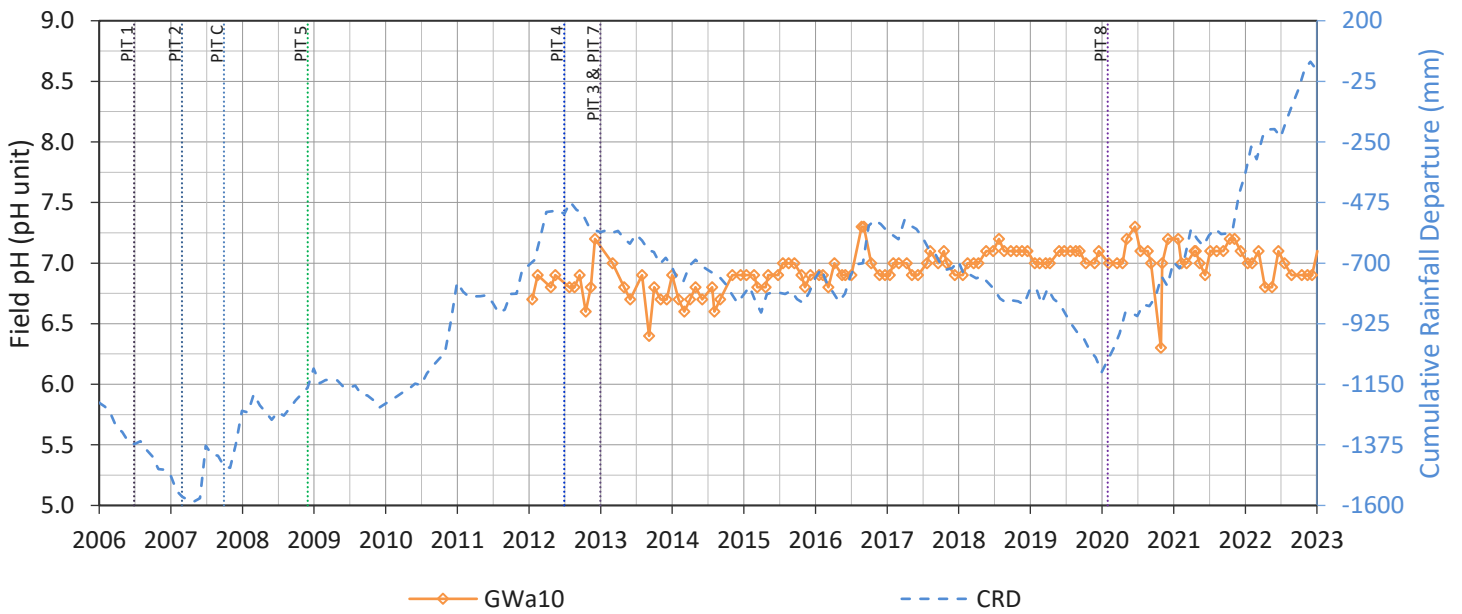
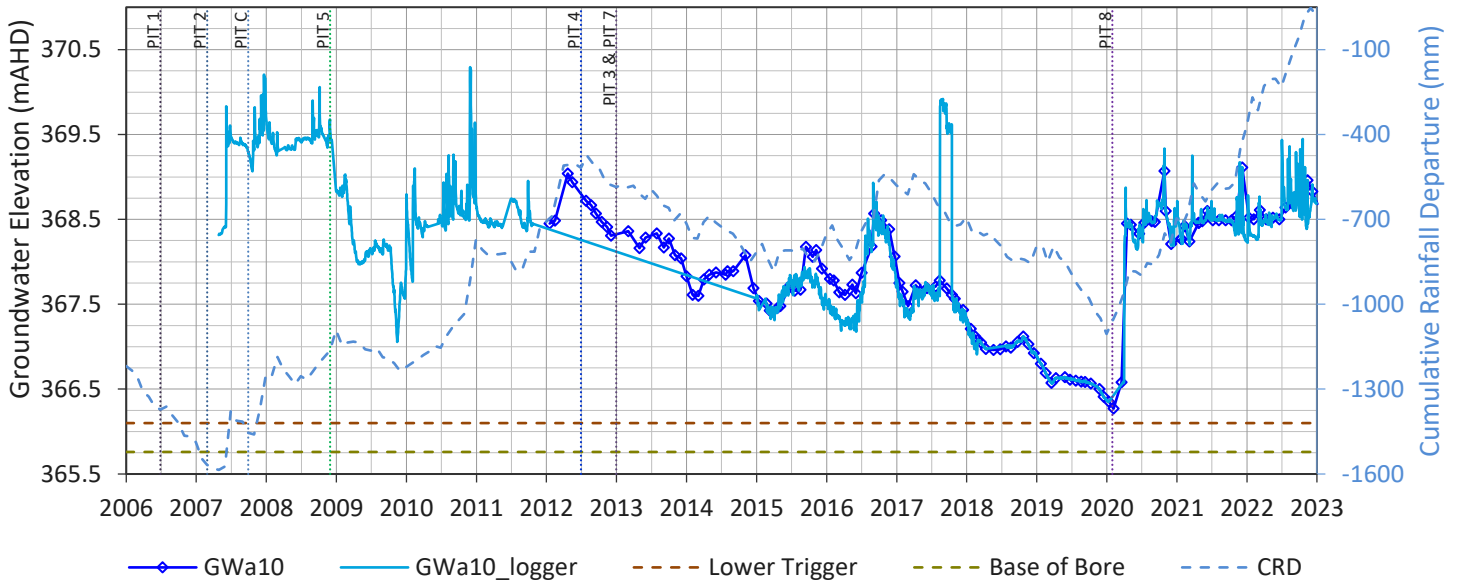
GWc4



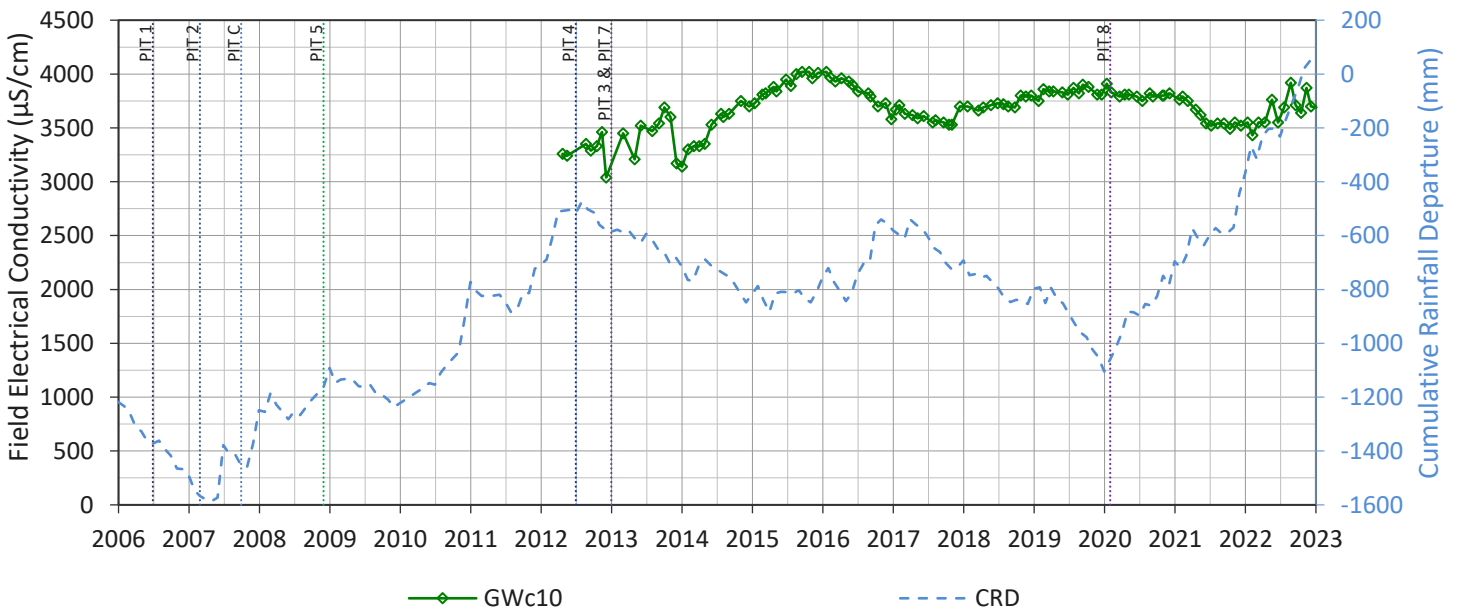
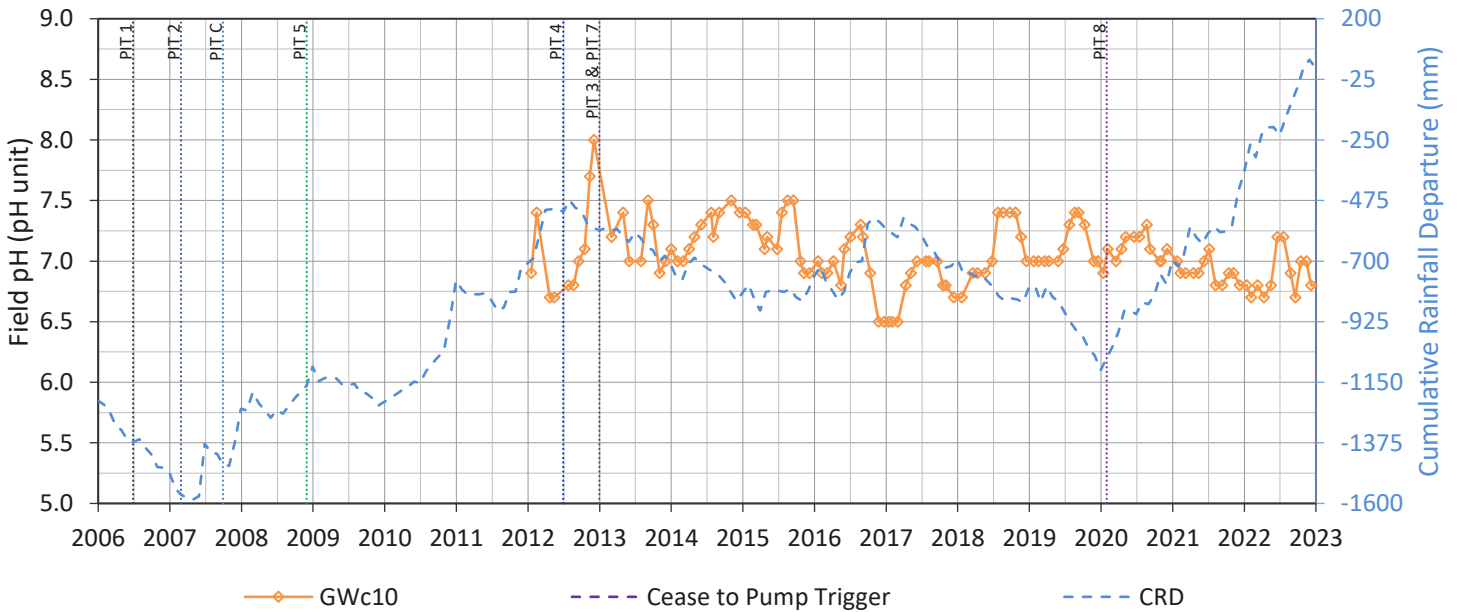
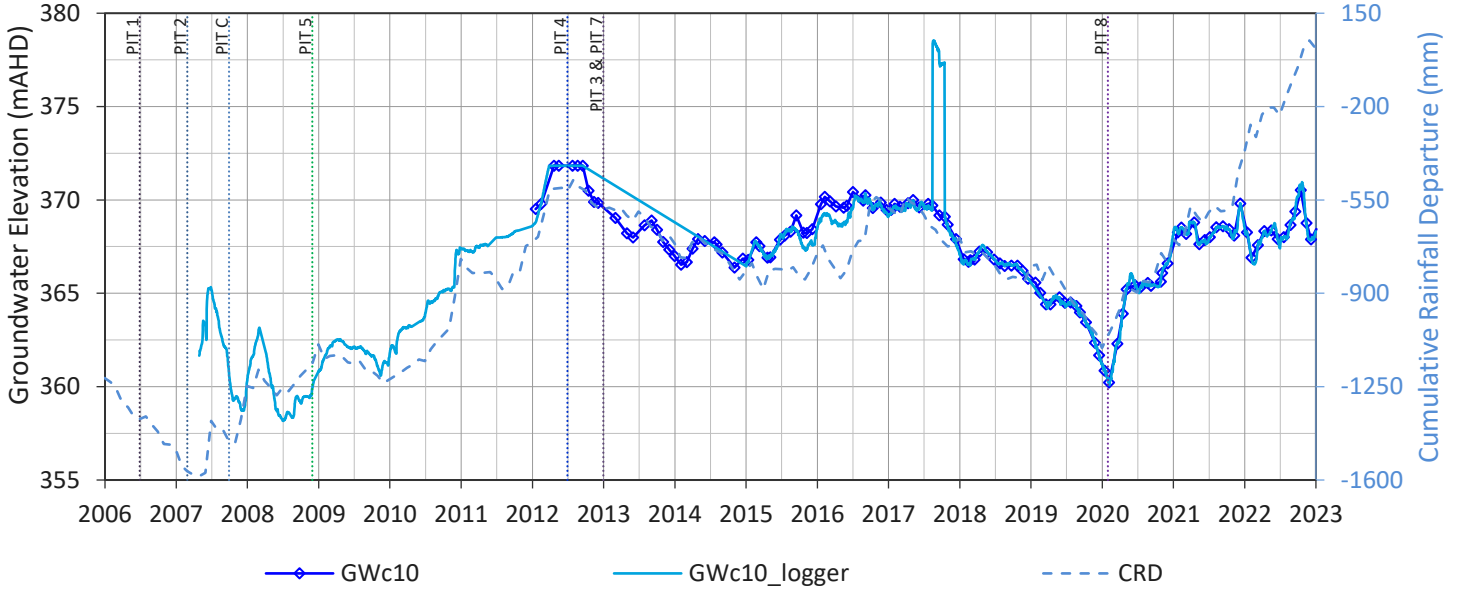
GWc5



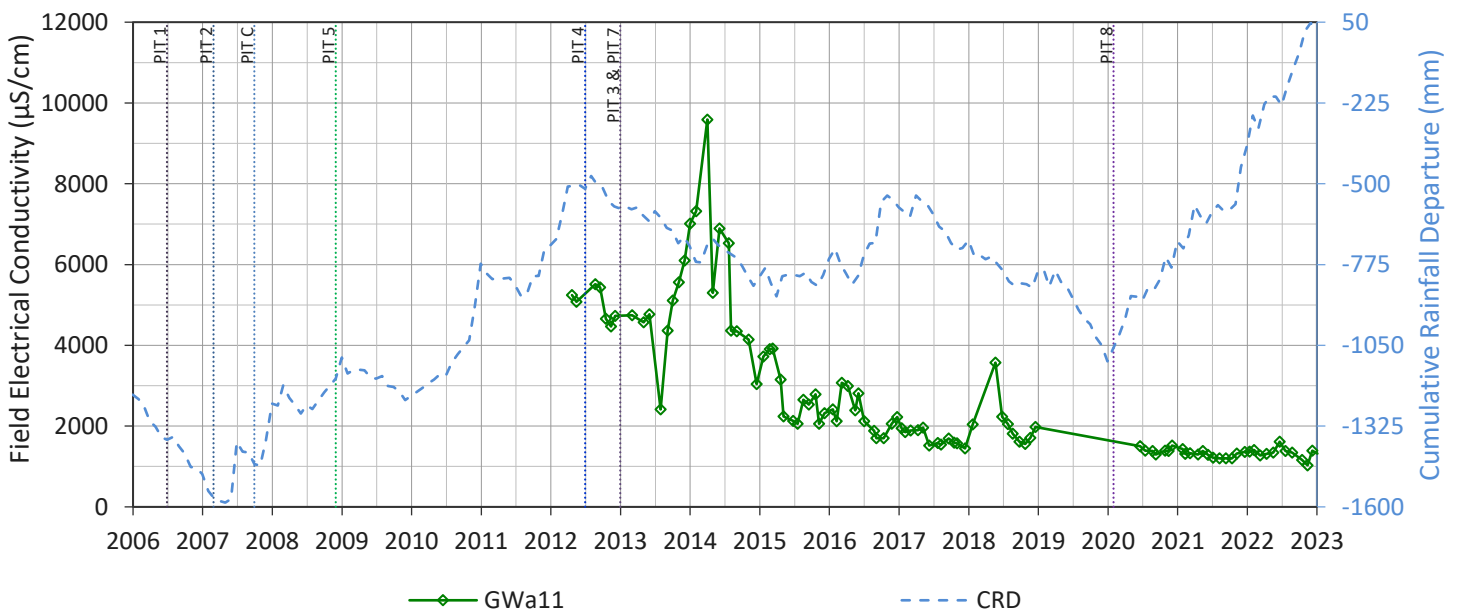
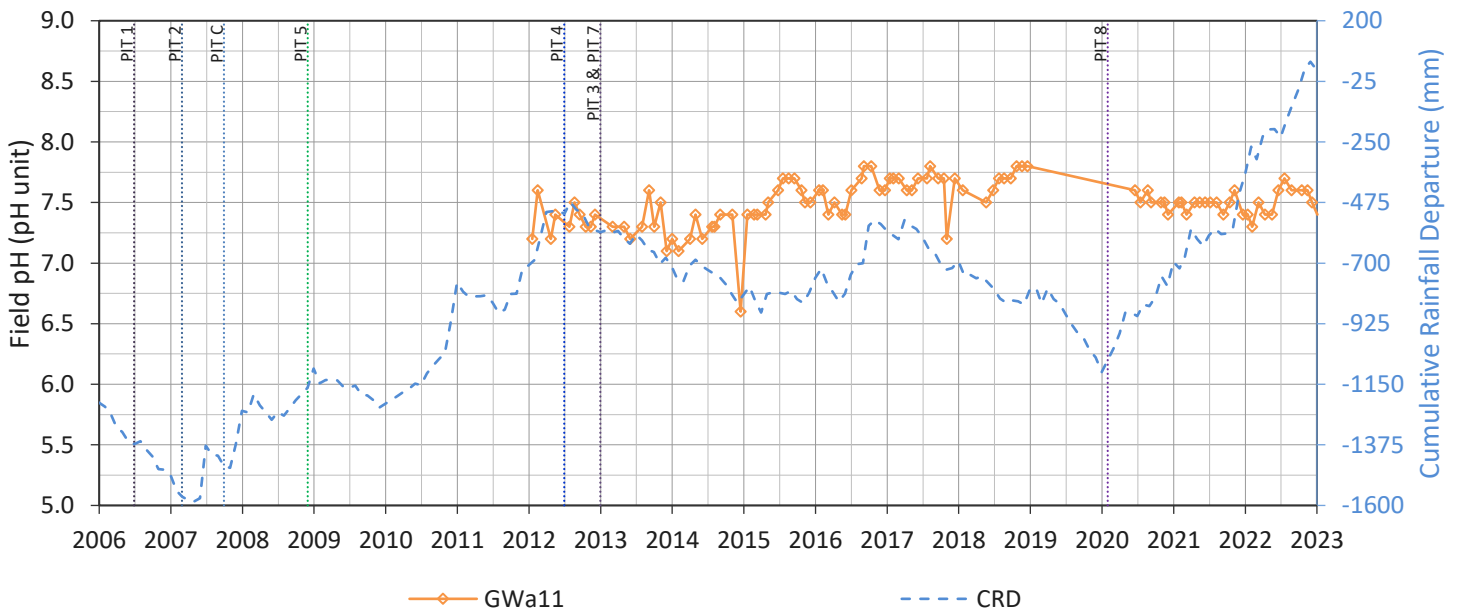
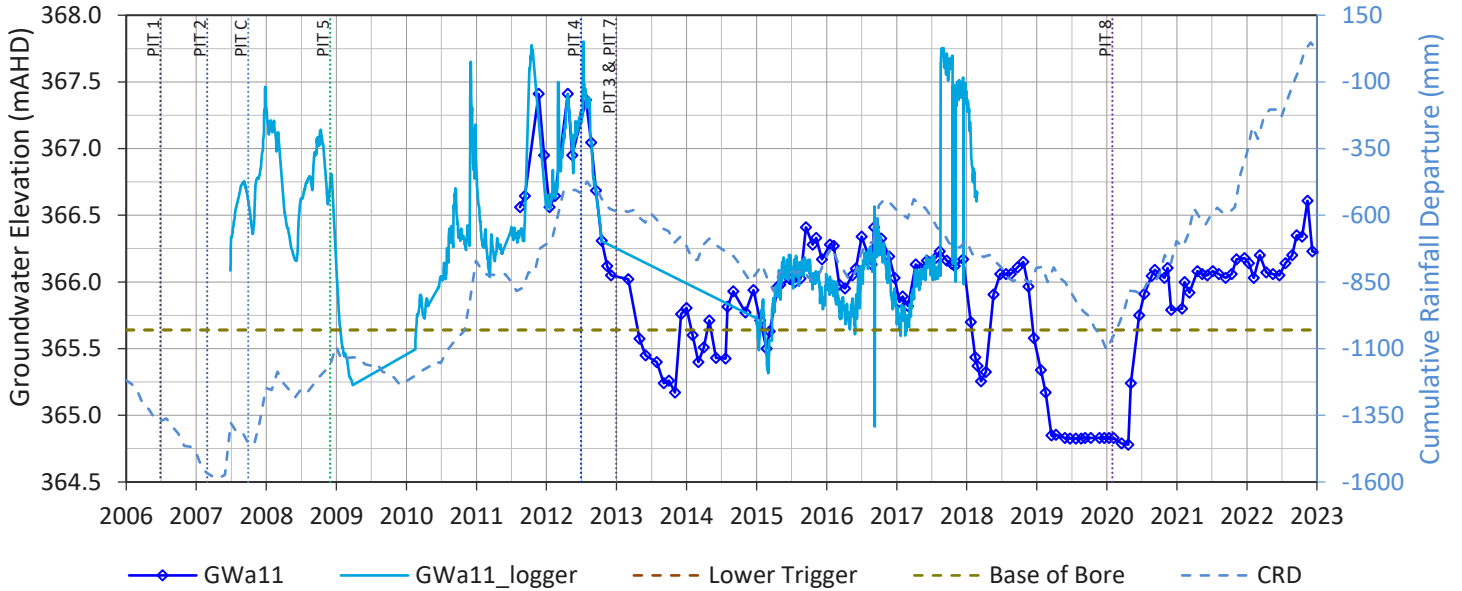
GWa10



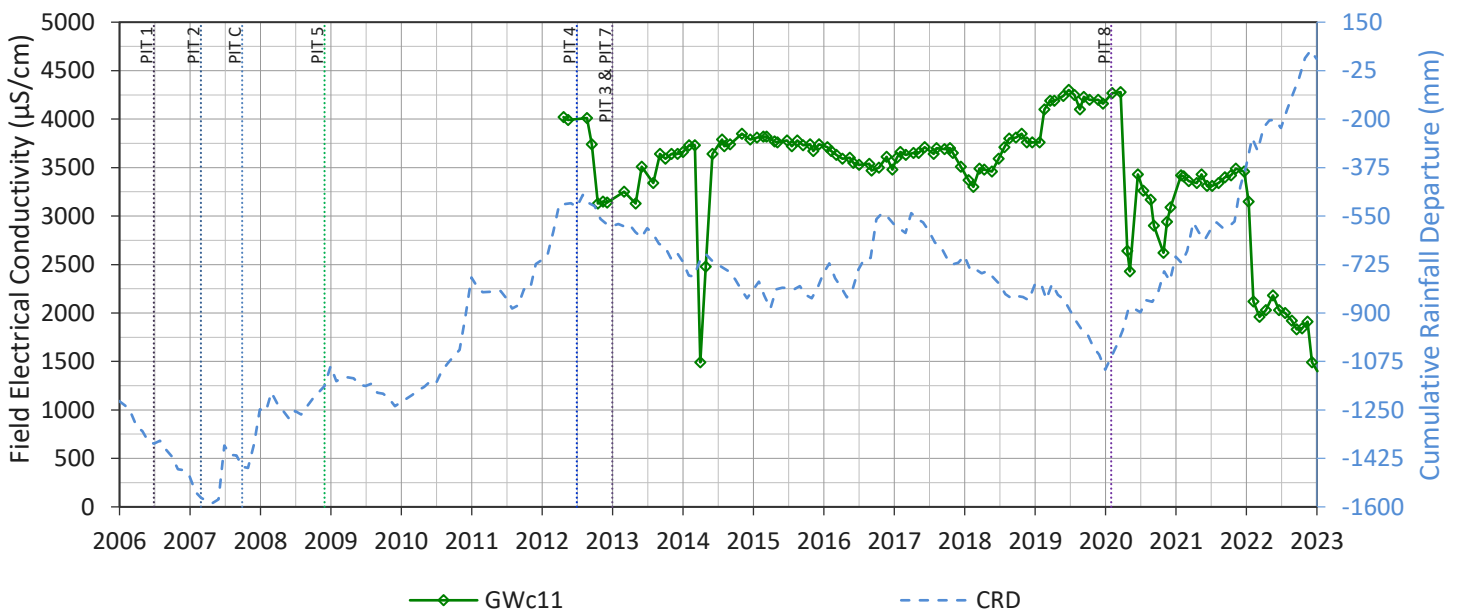
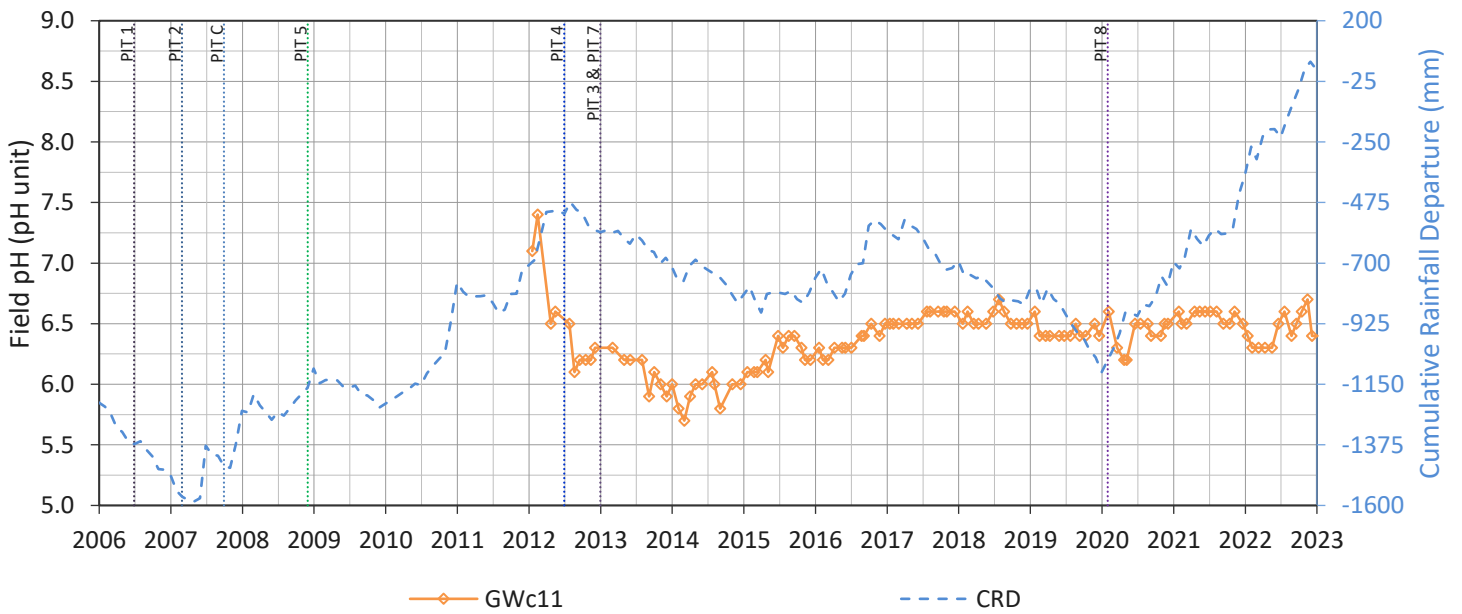
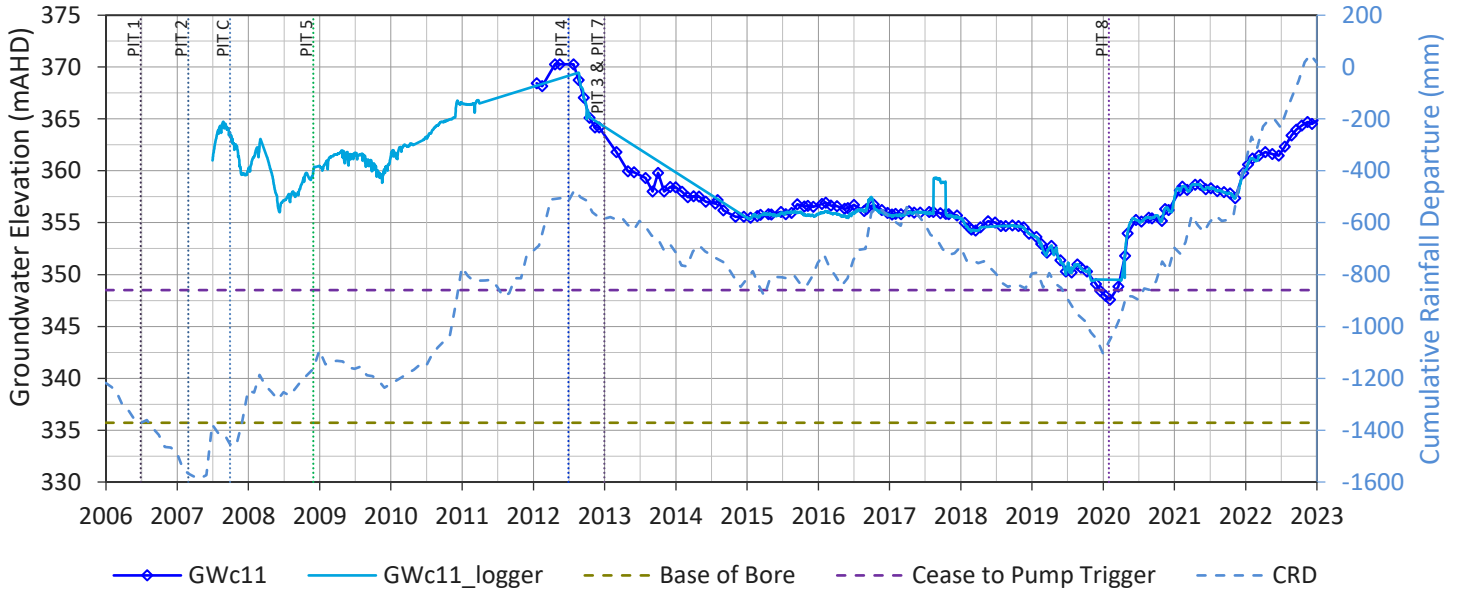
GWc10



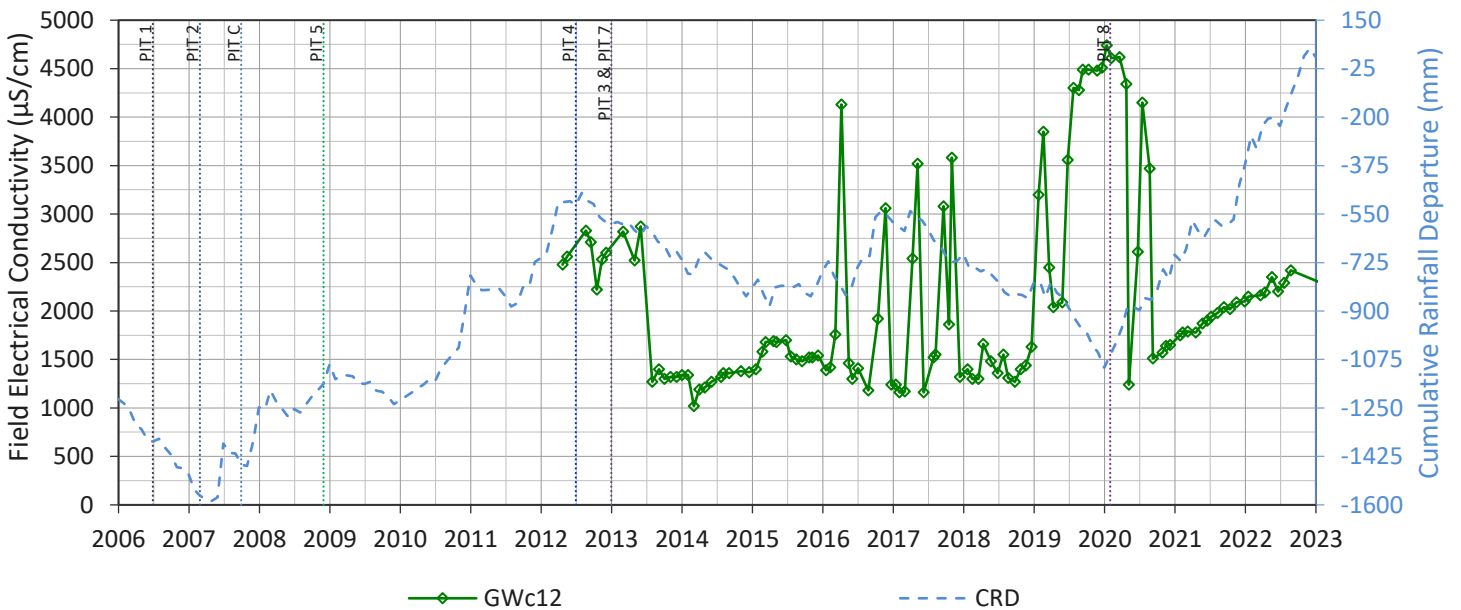
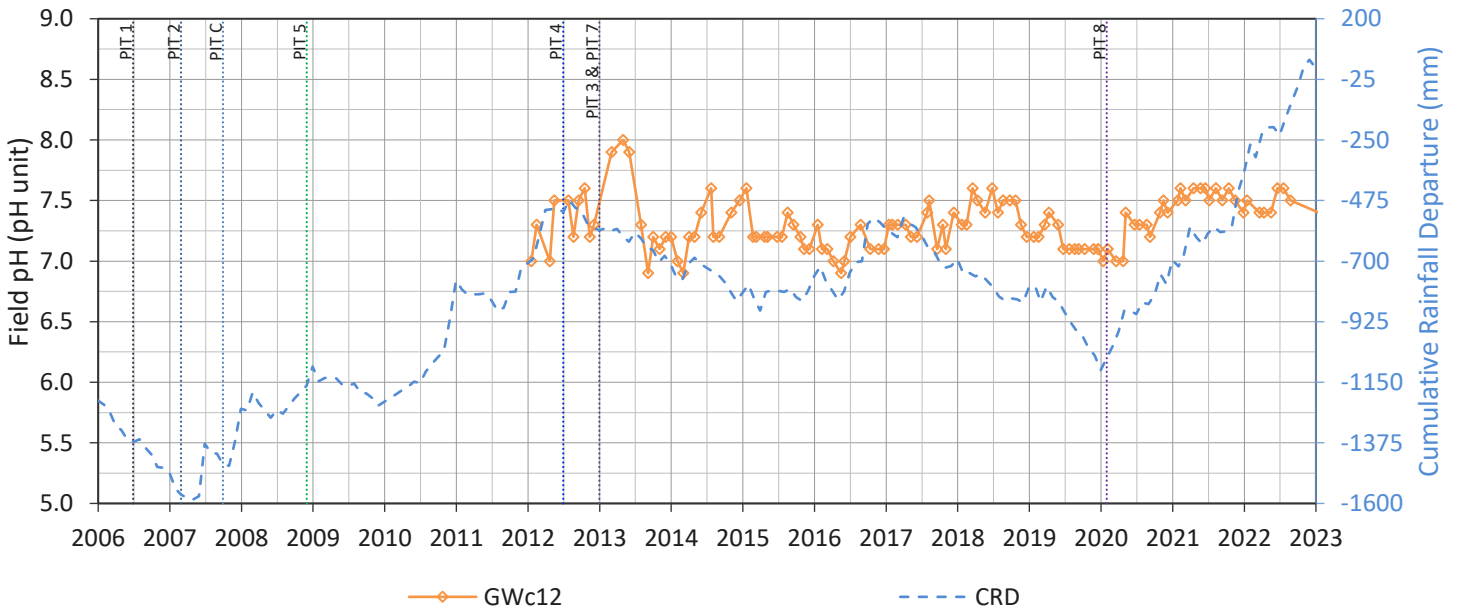
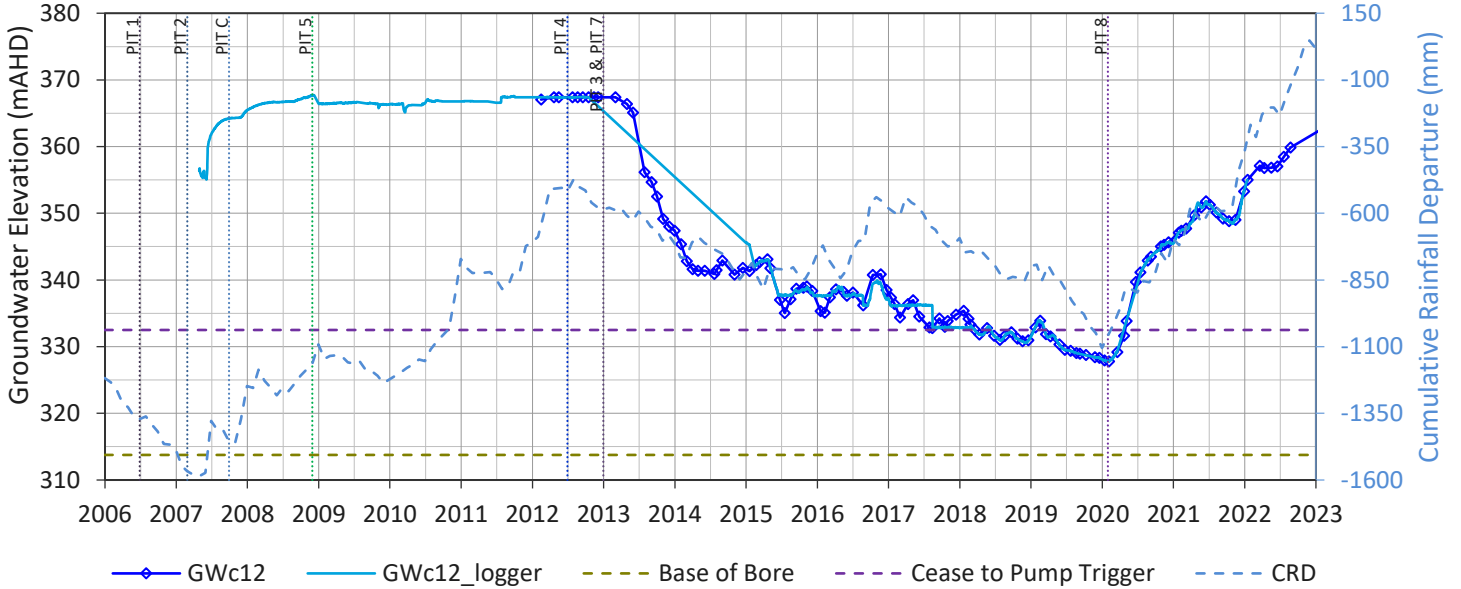
GWa11



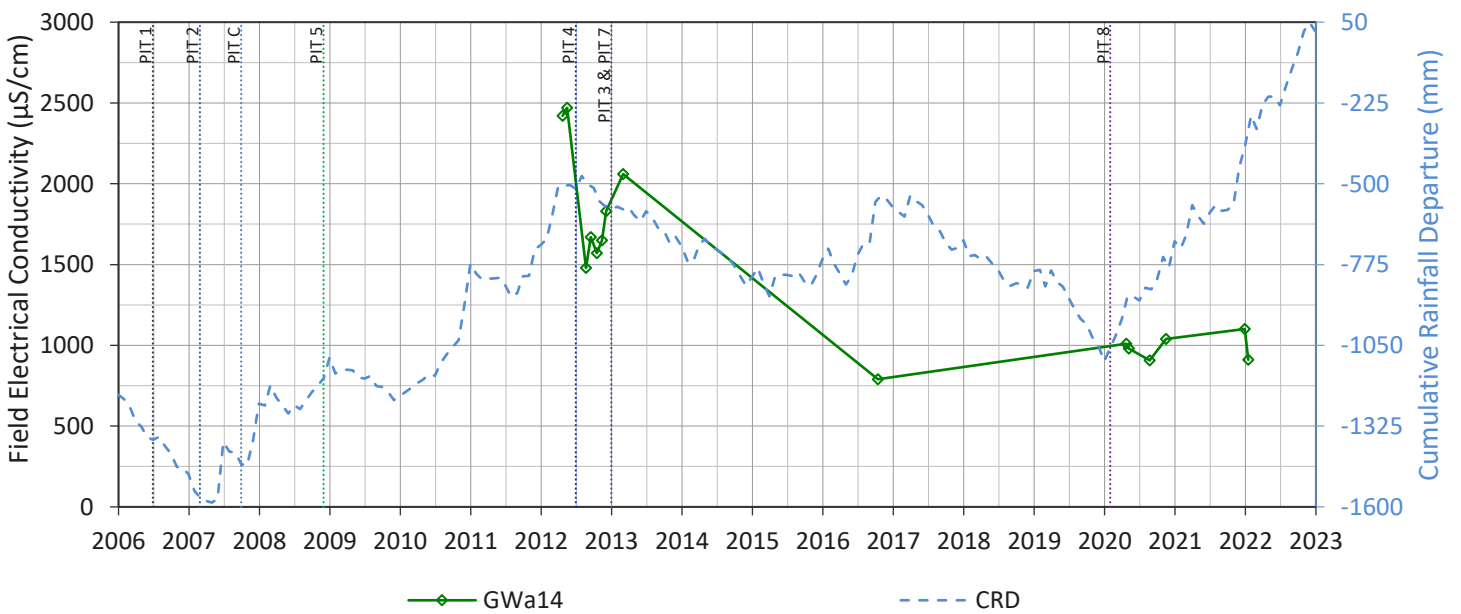
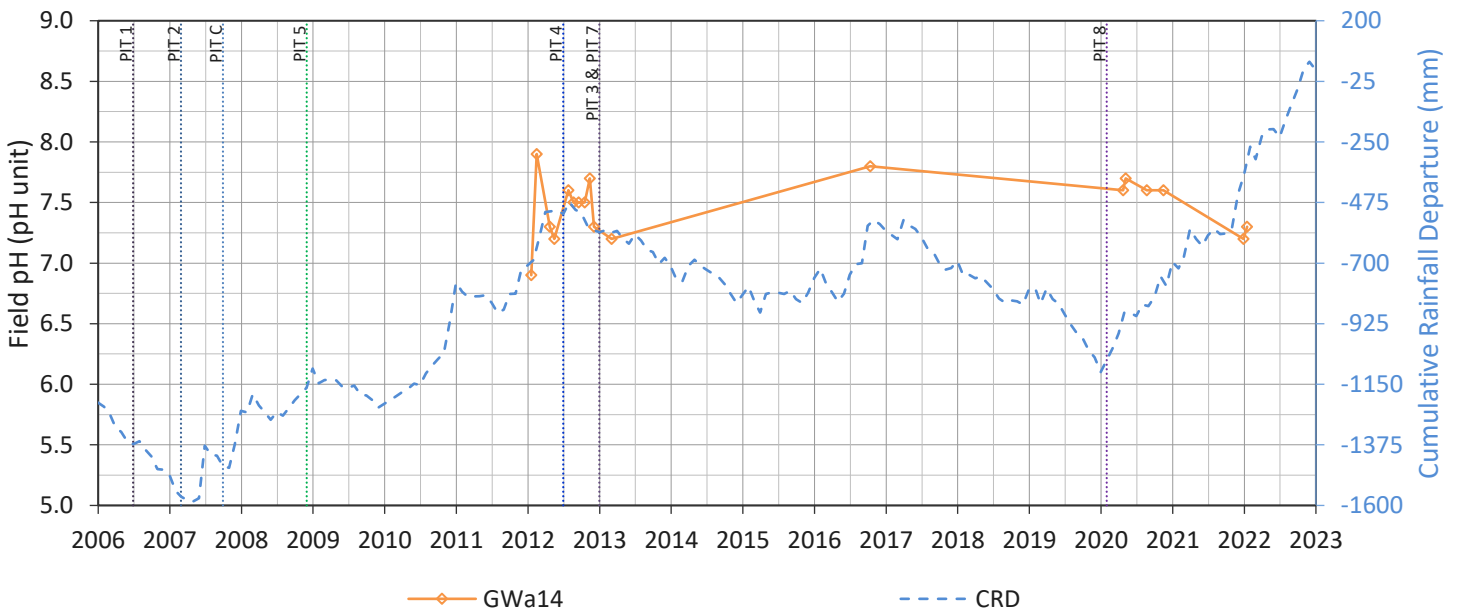
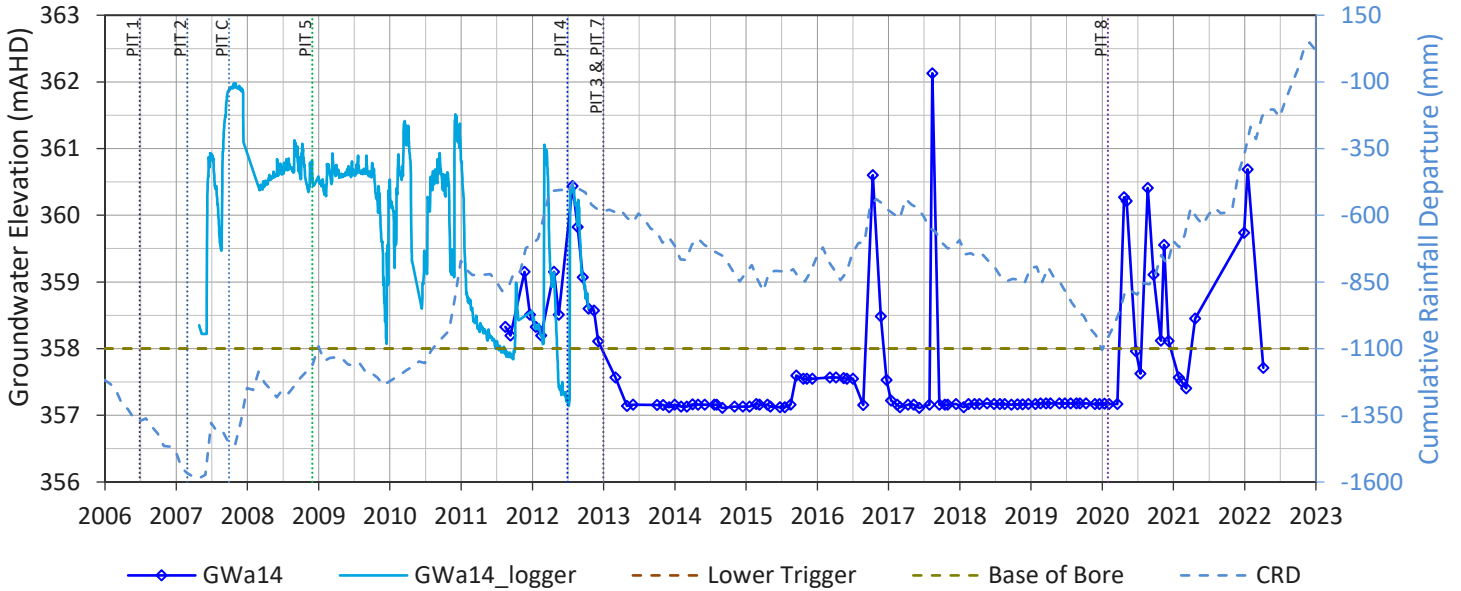
GWc11



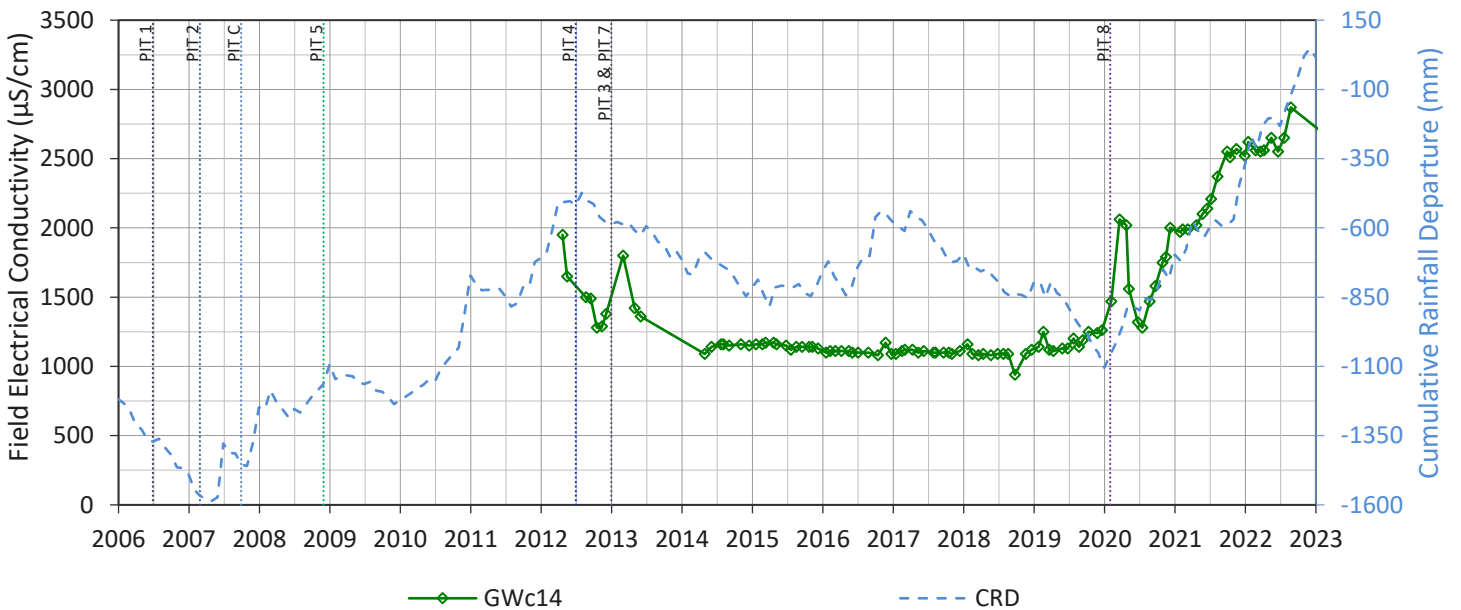
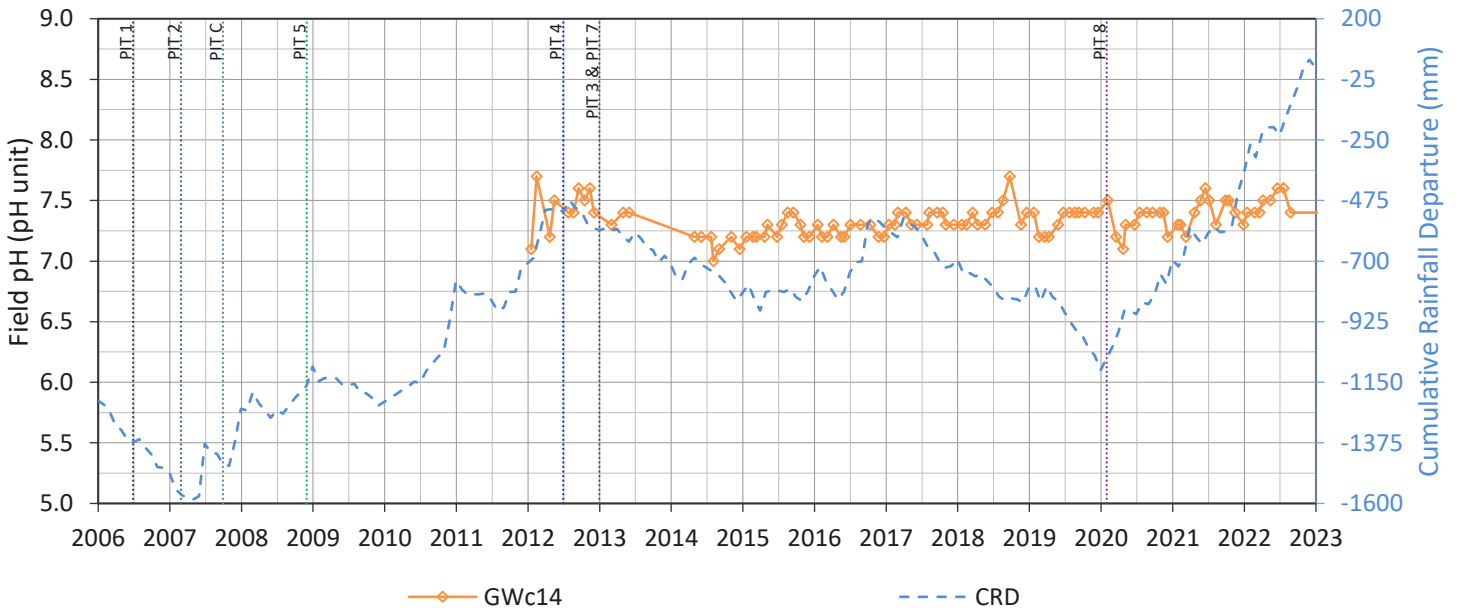
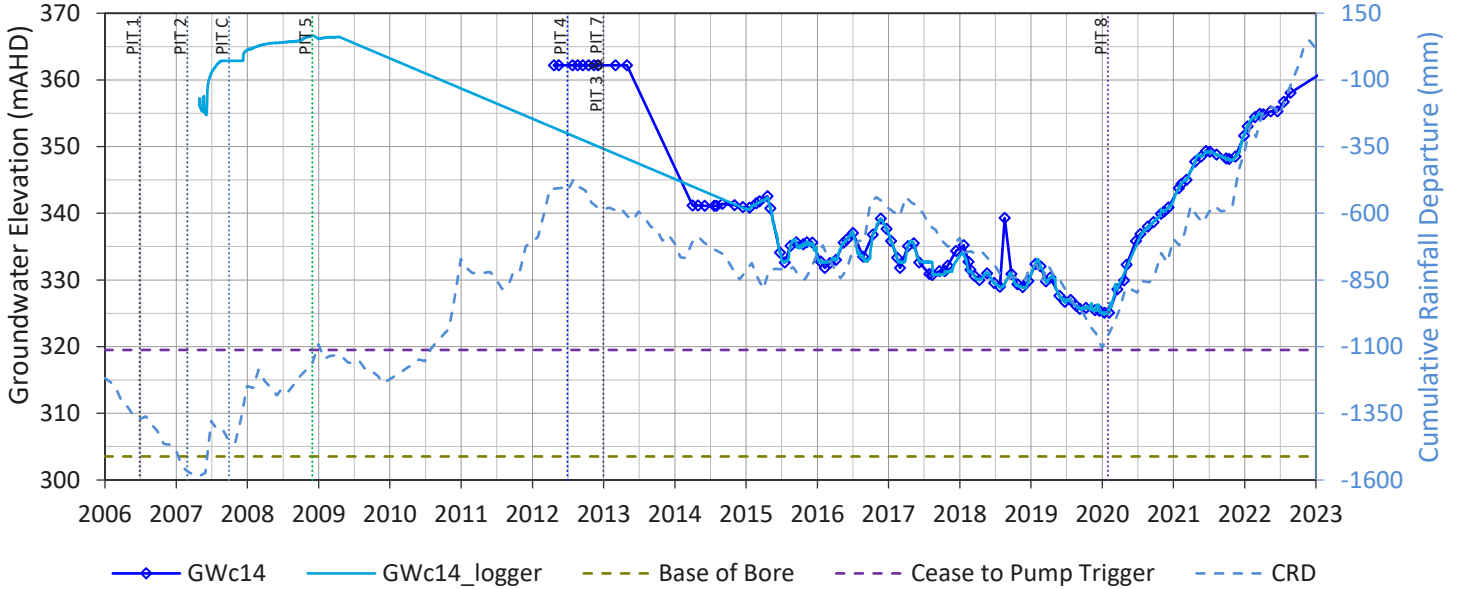
GWc12



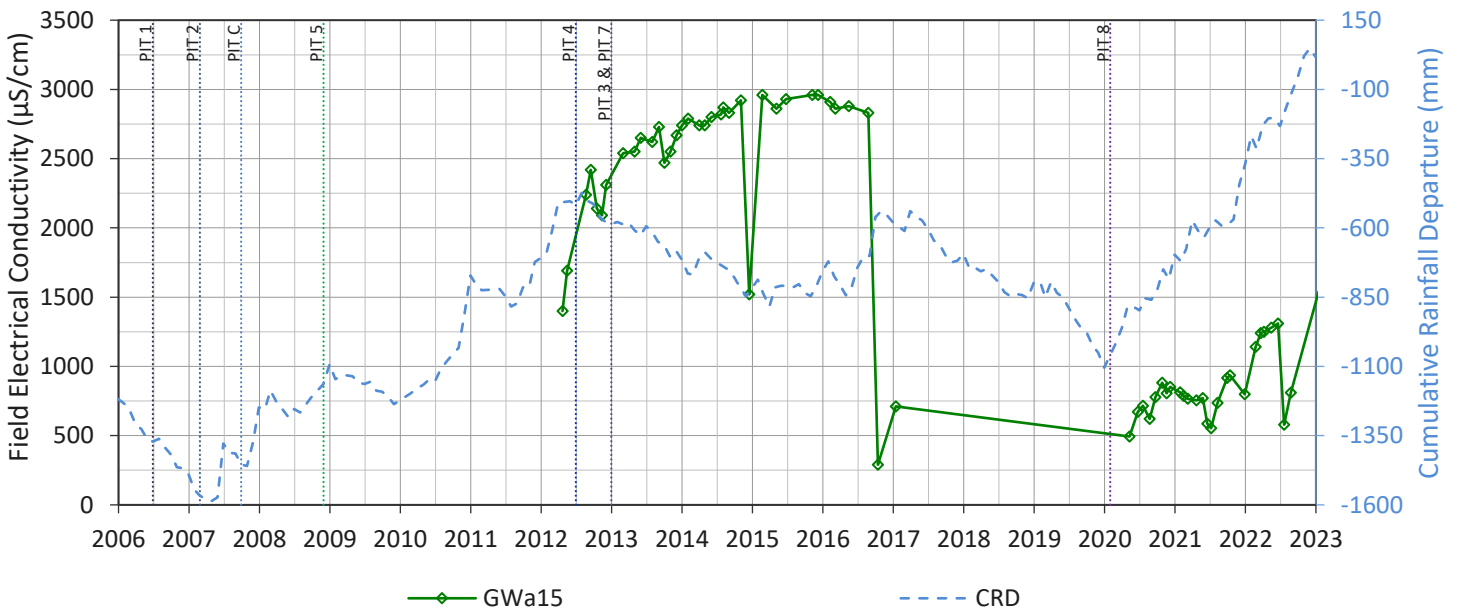
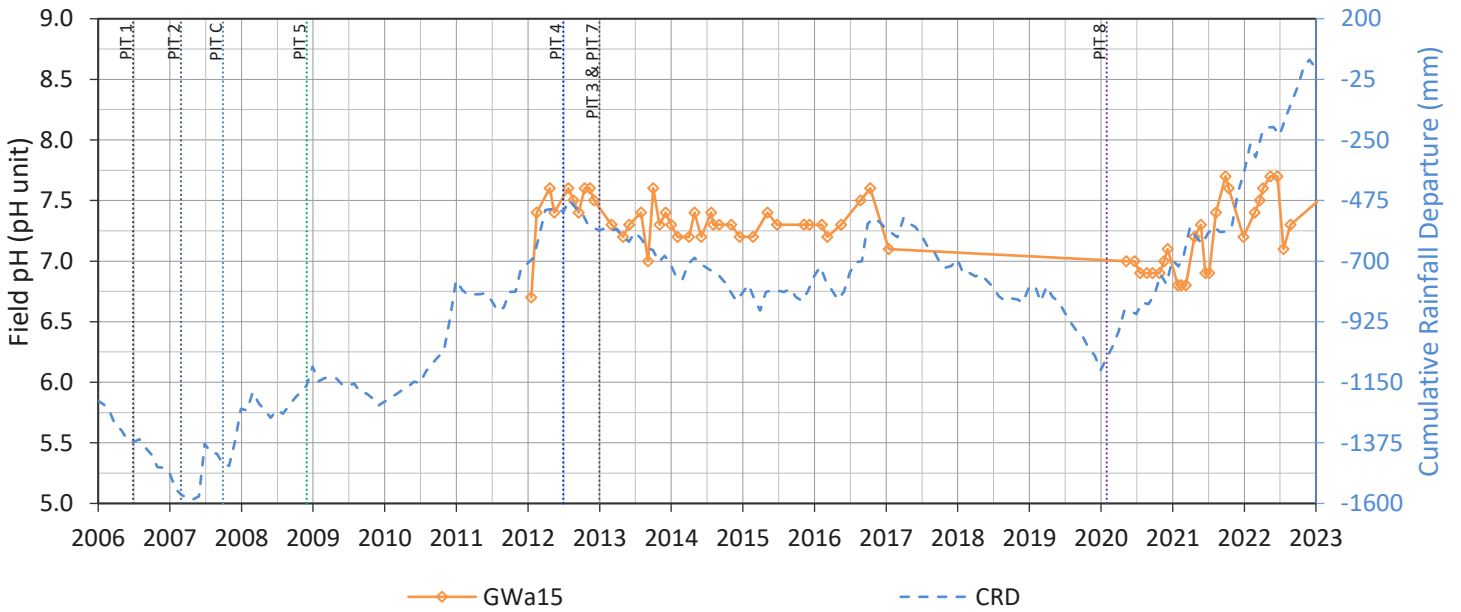
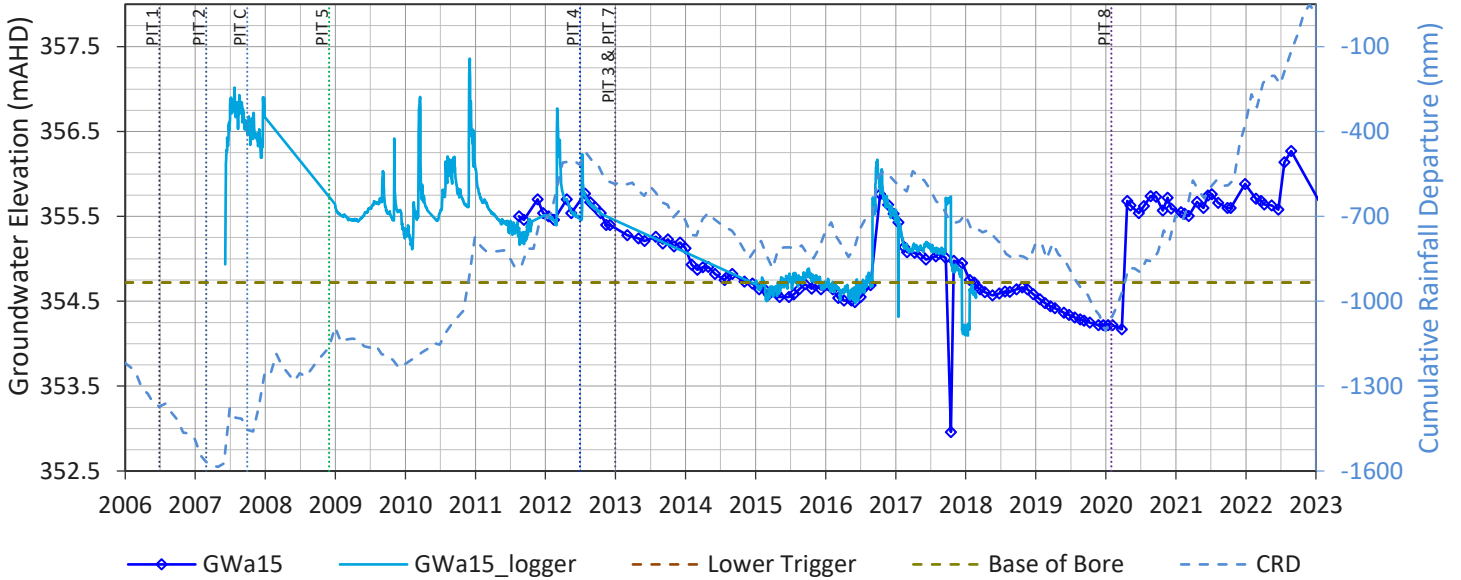
GWa14



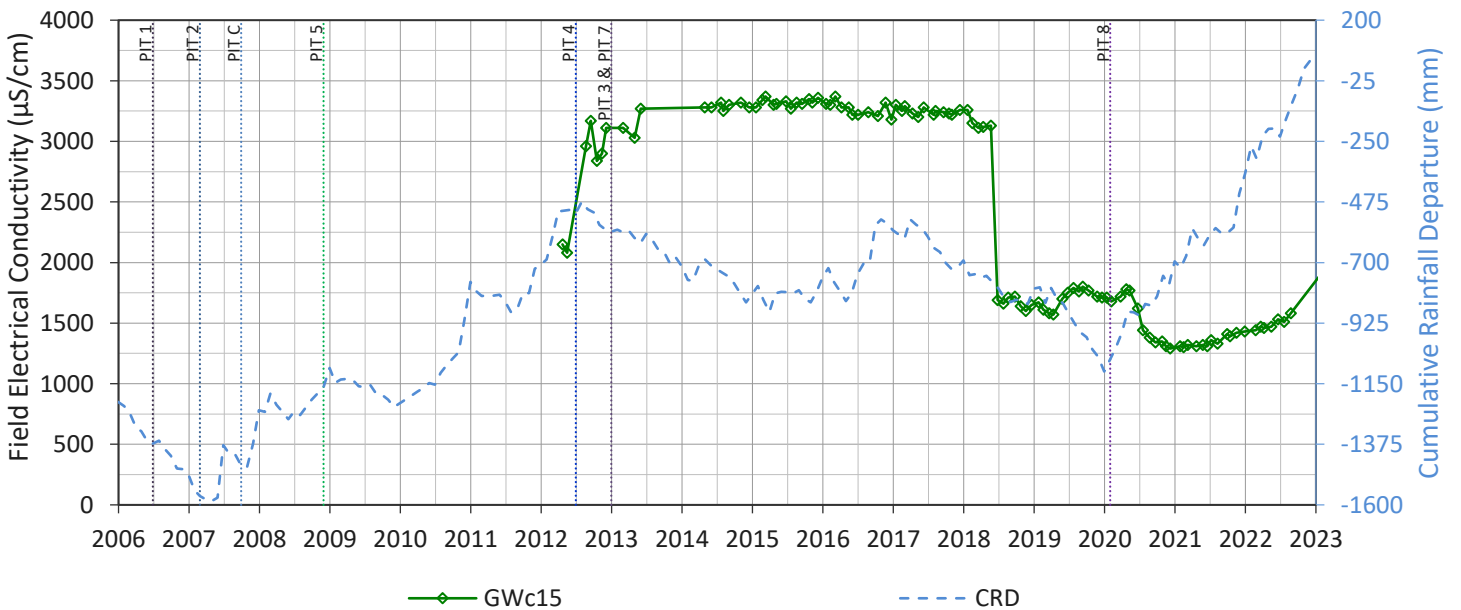
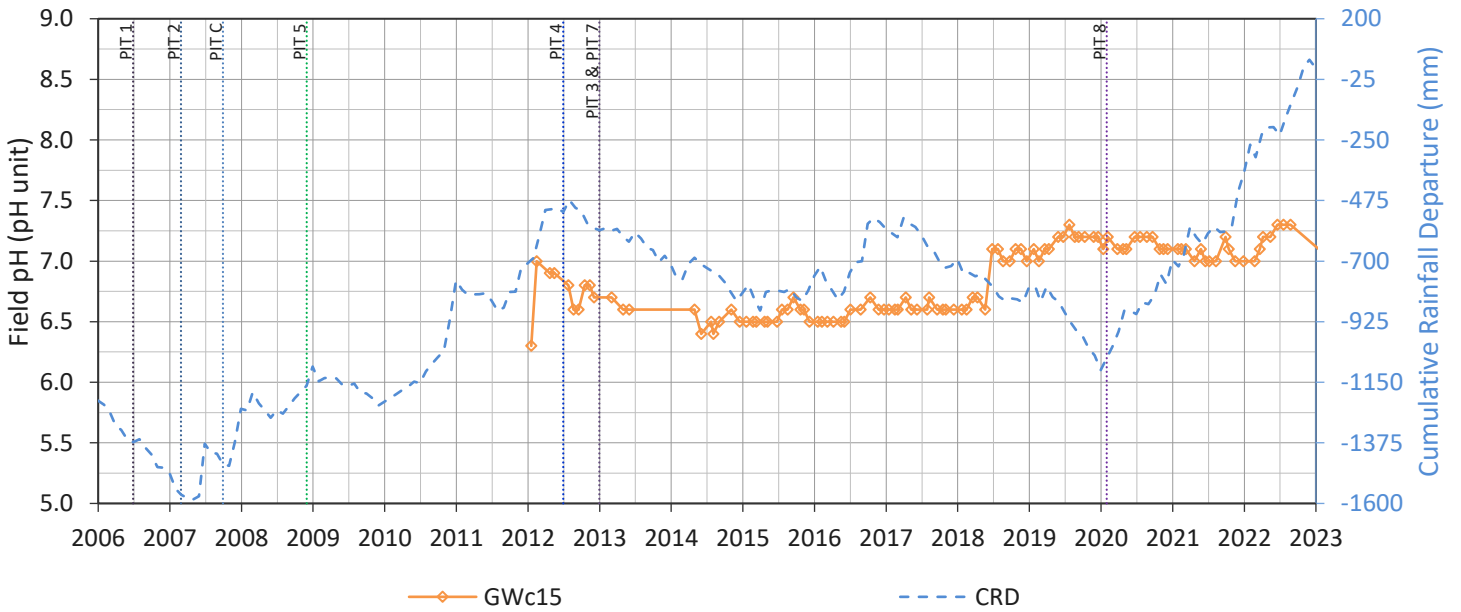
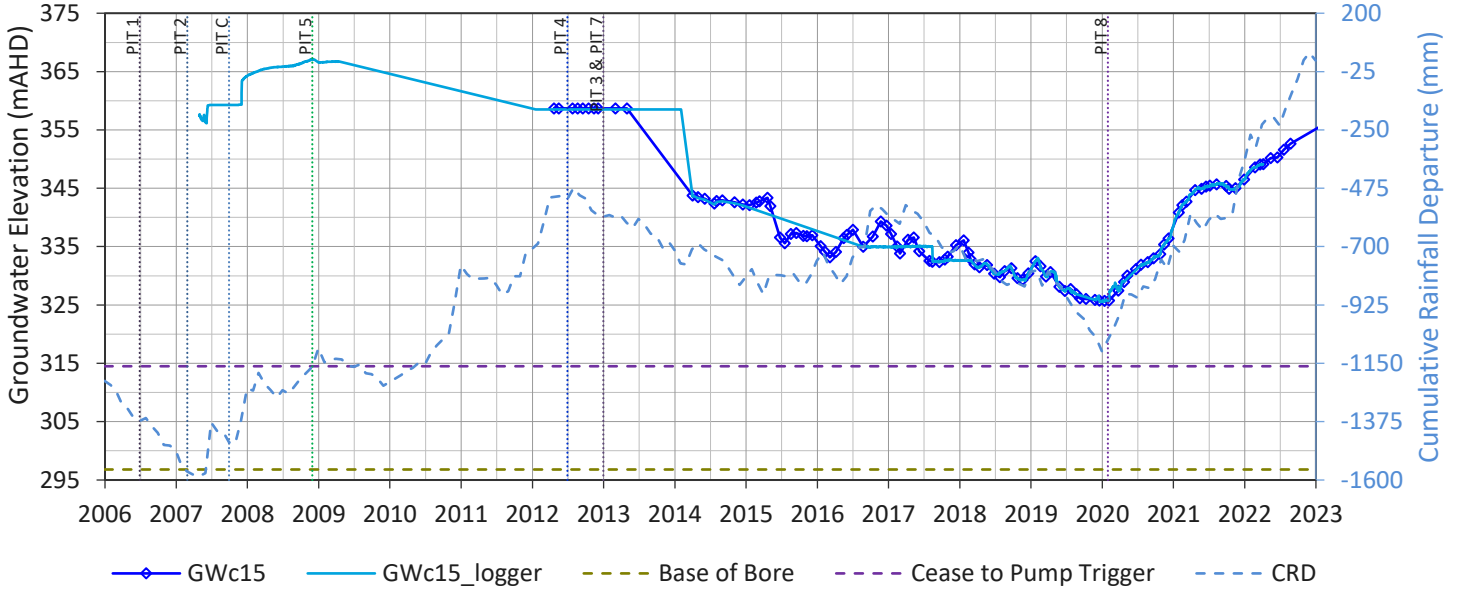
GWc14



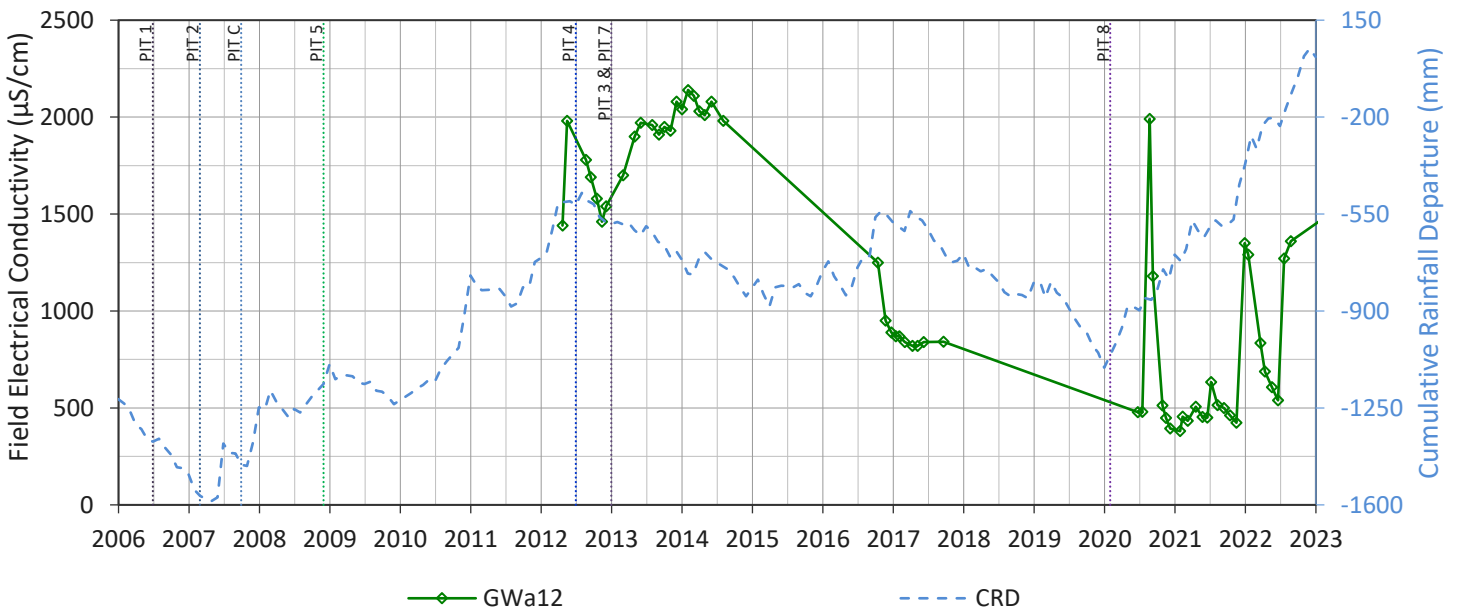
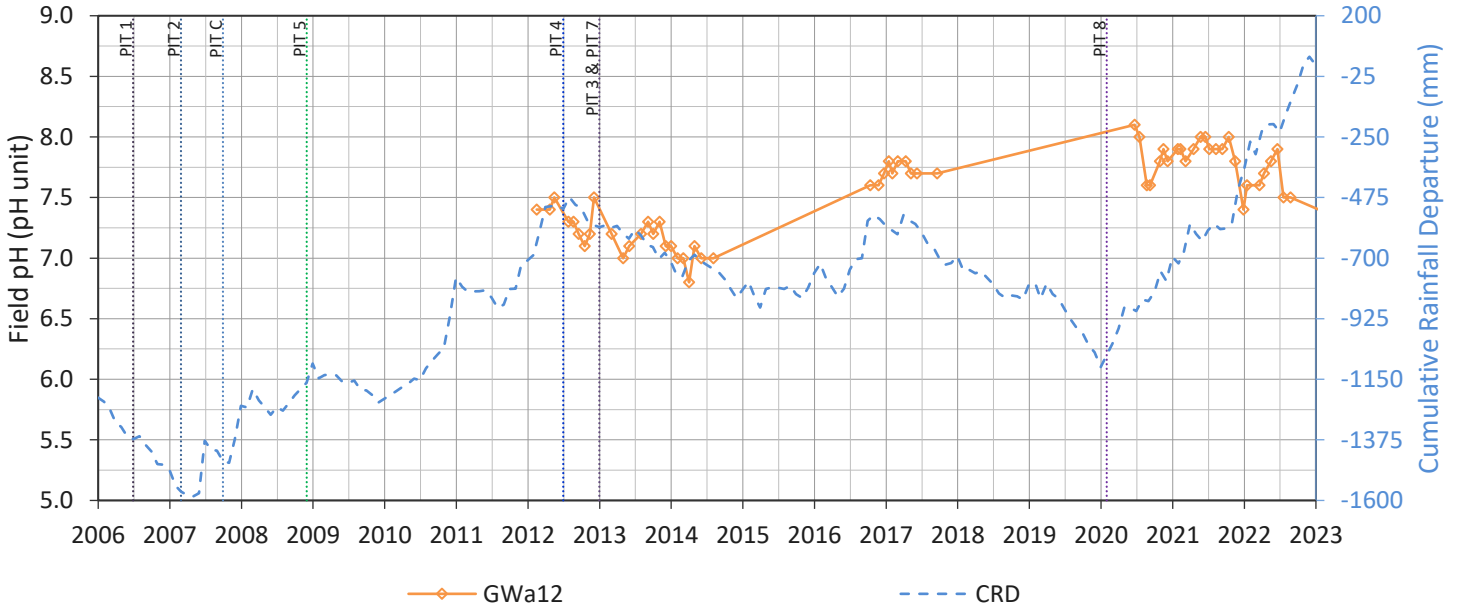
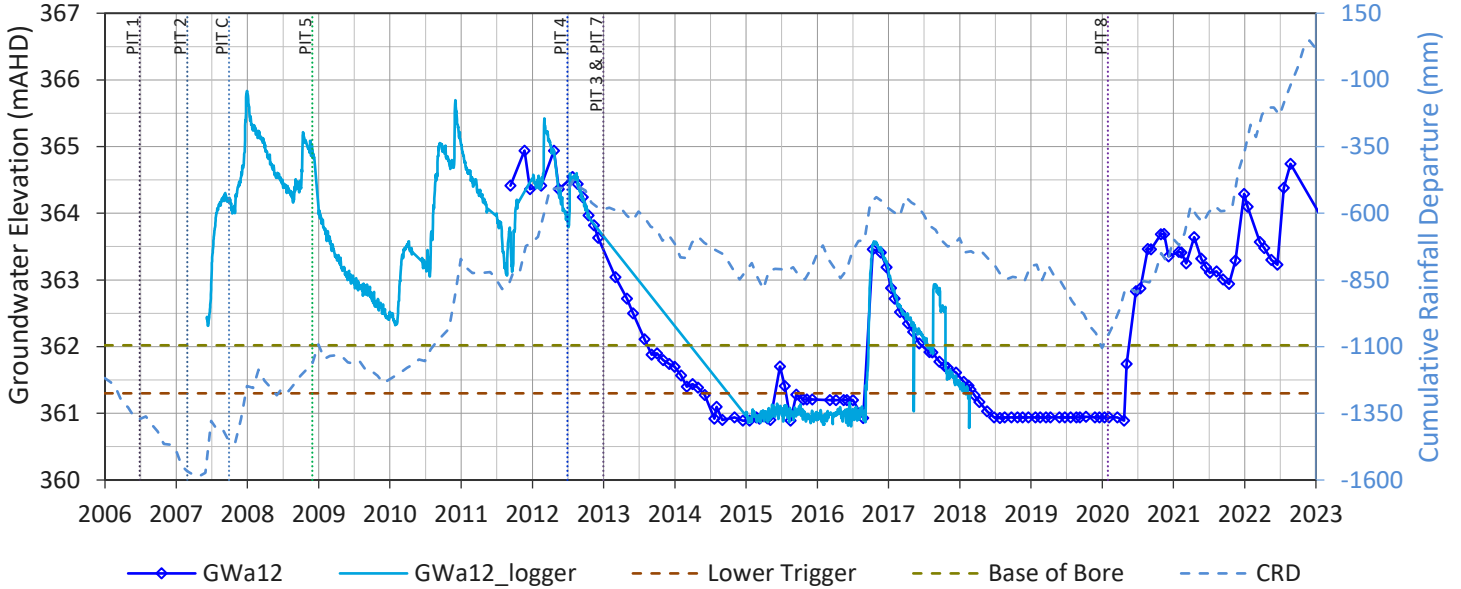
GWa15



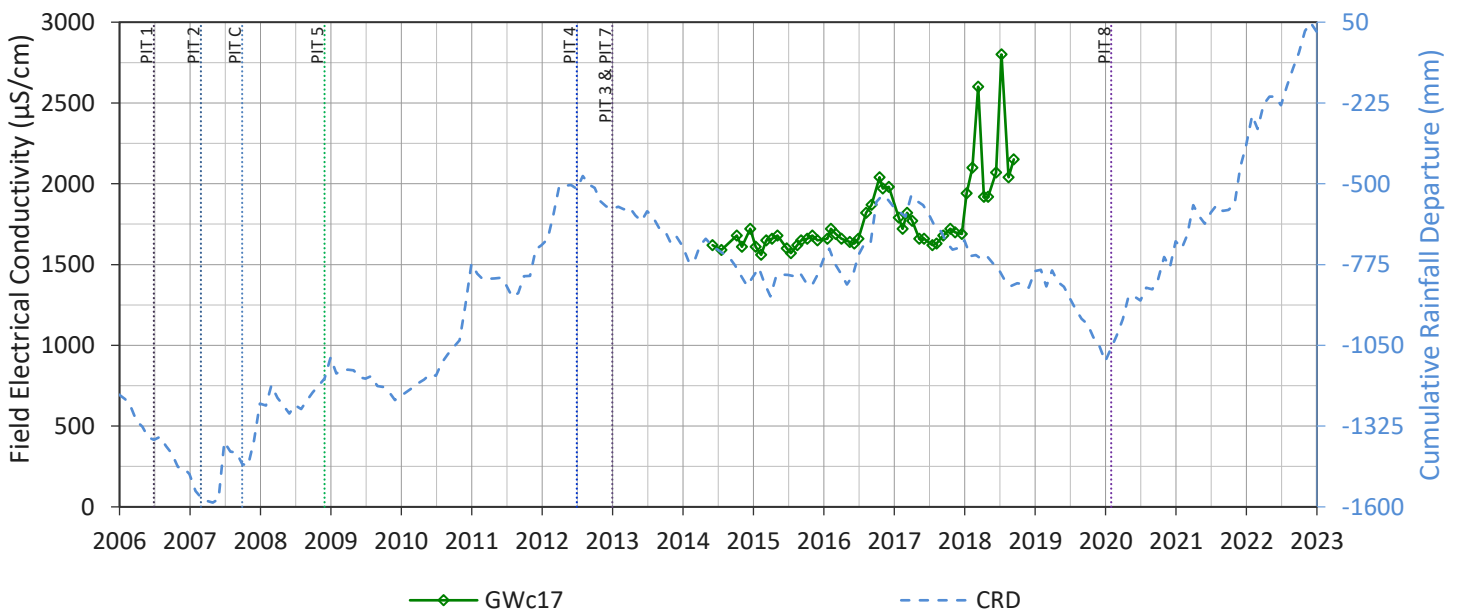
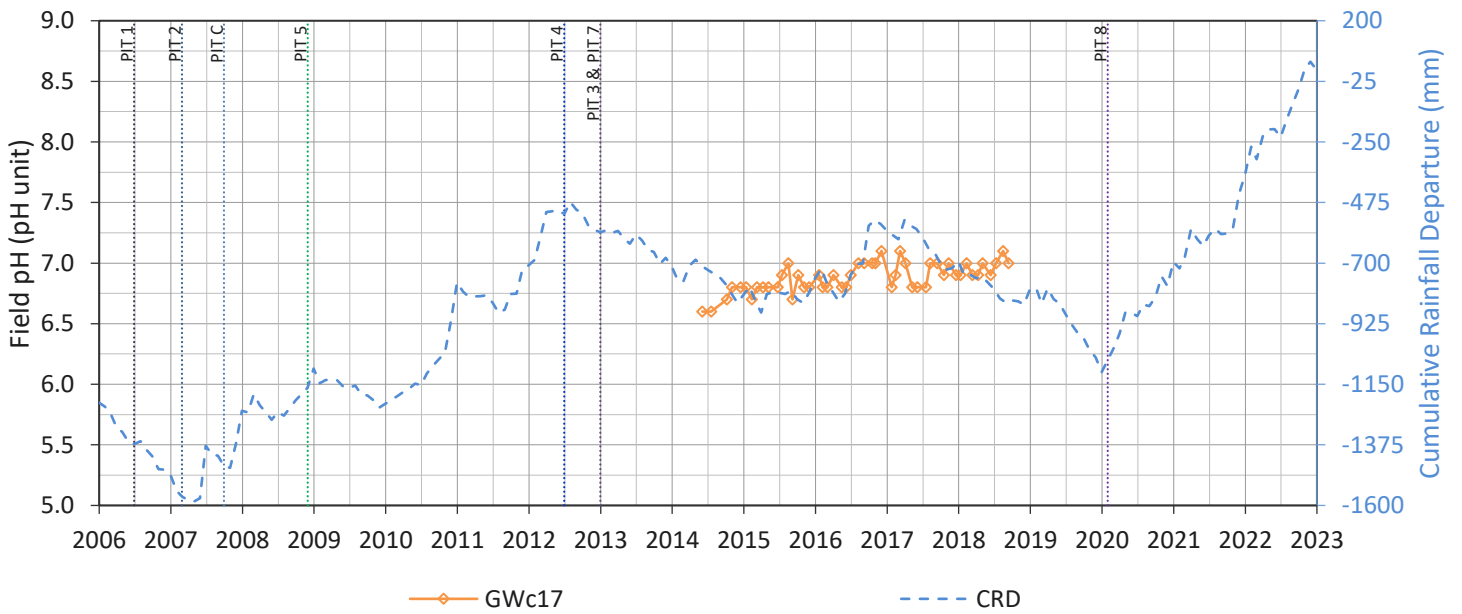
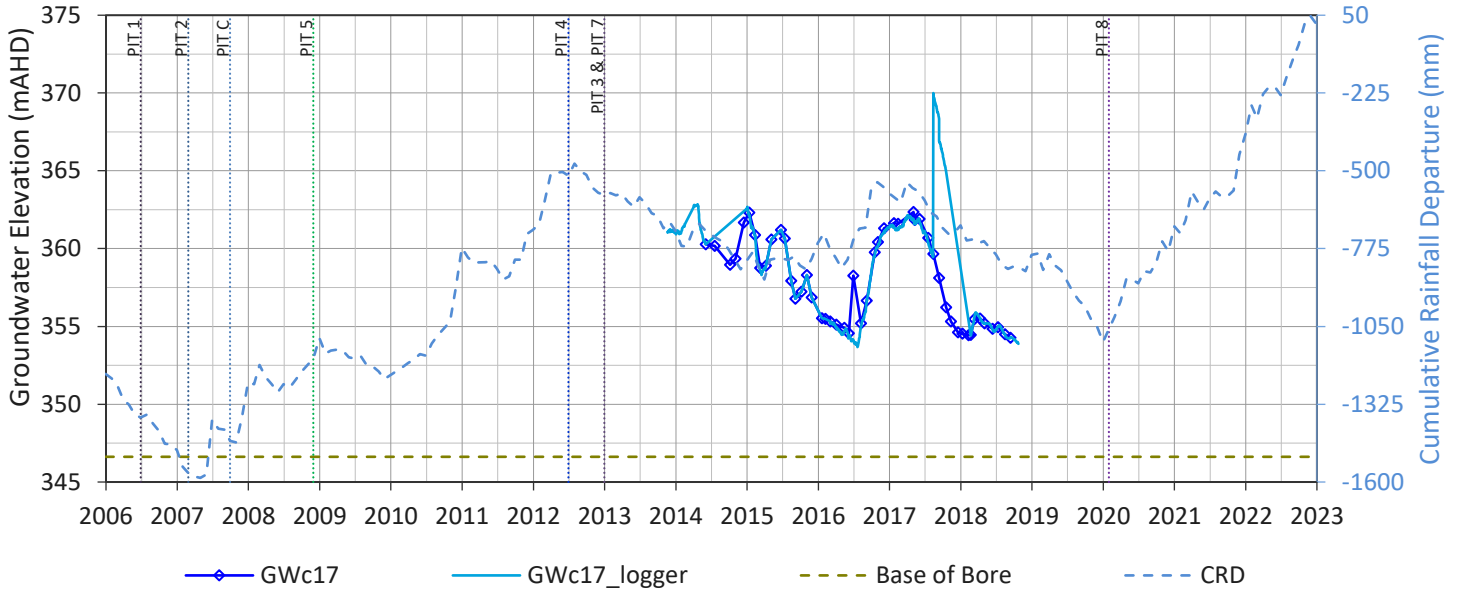
GWc15



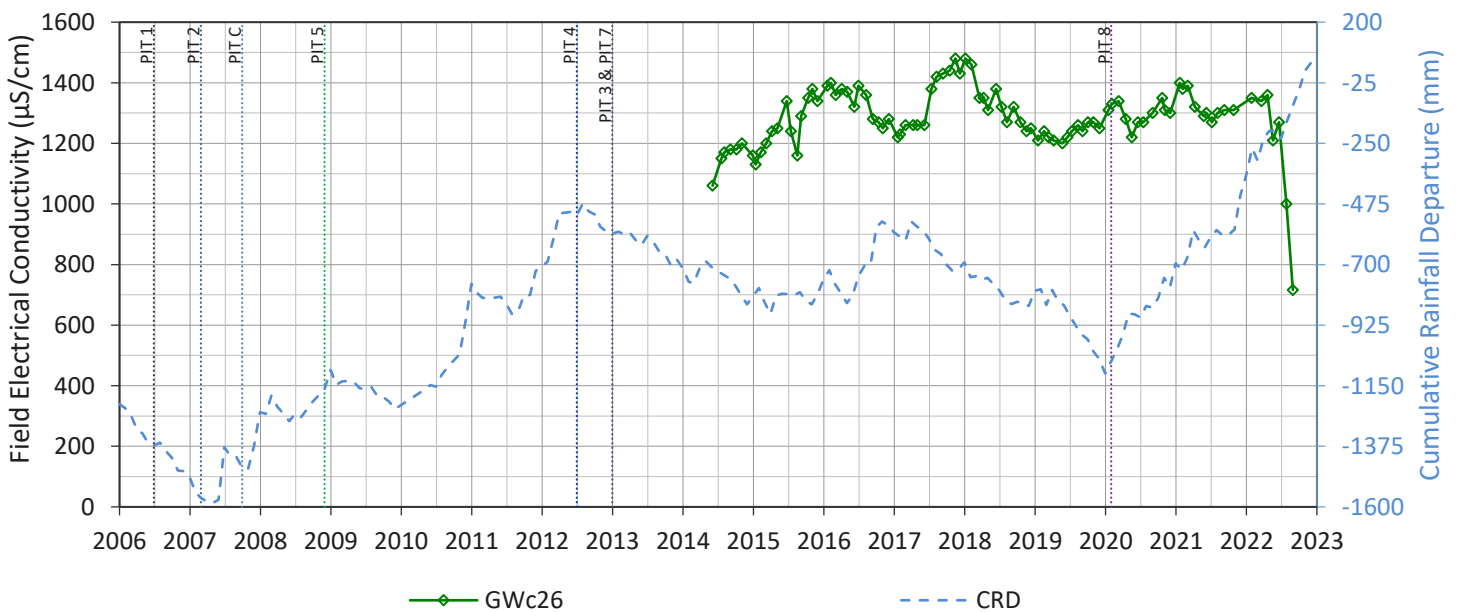
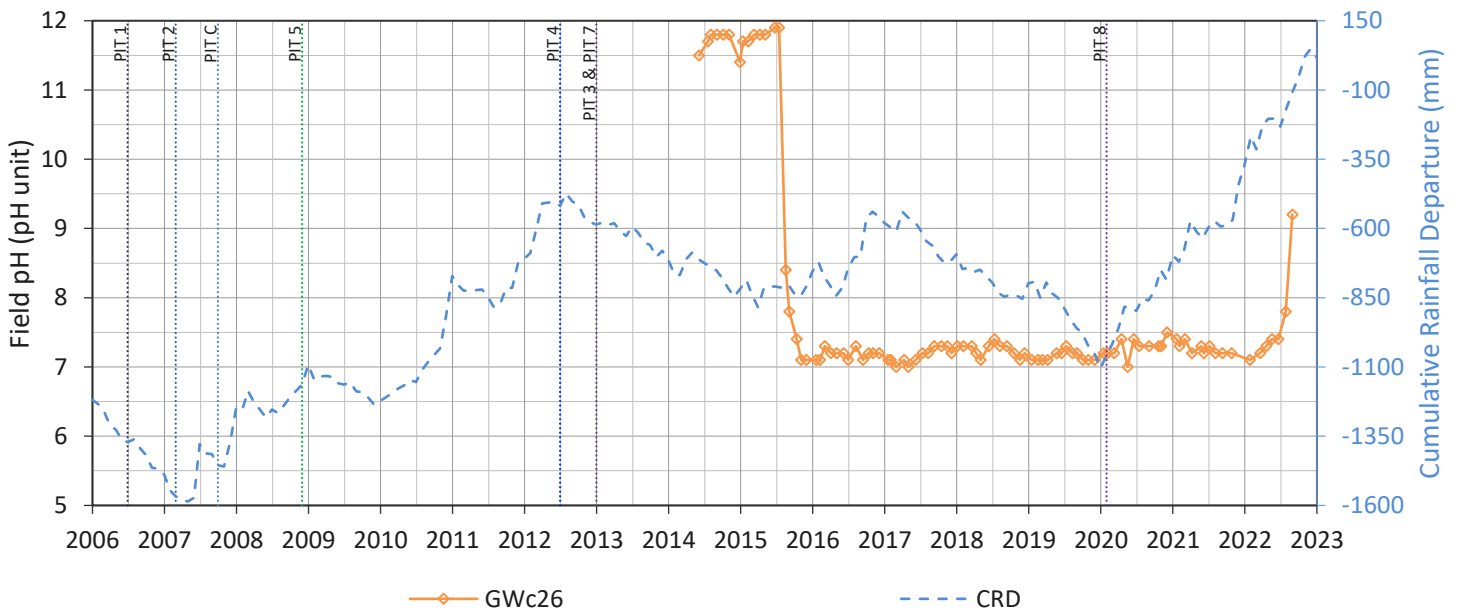
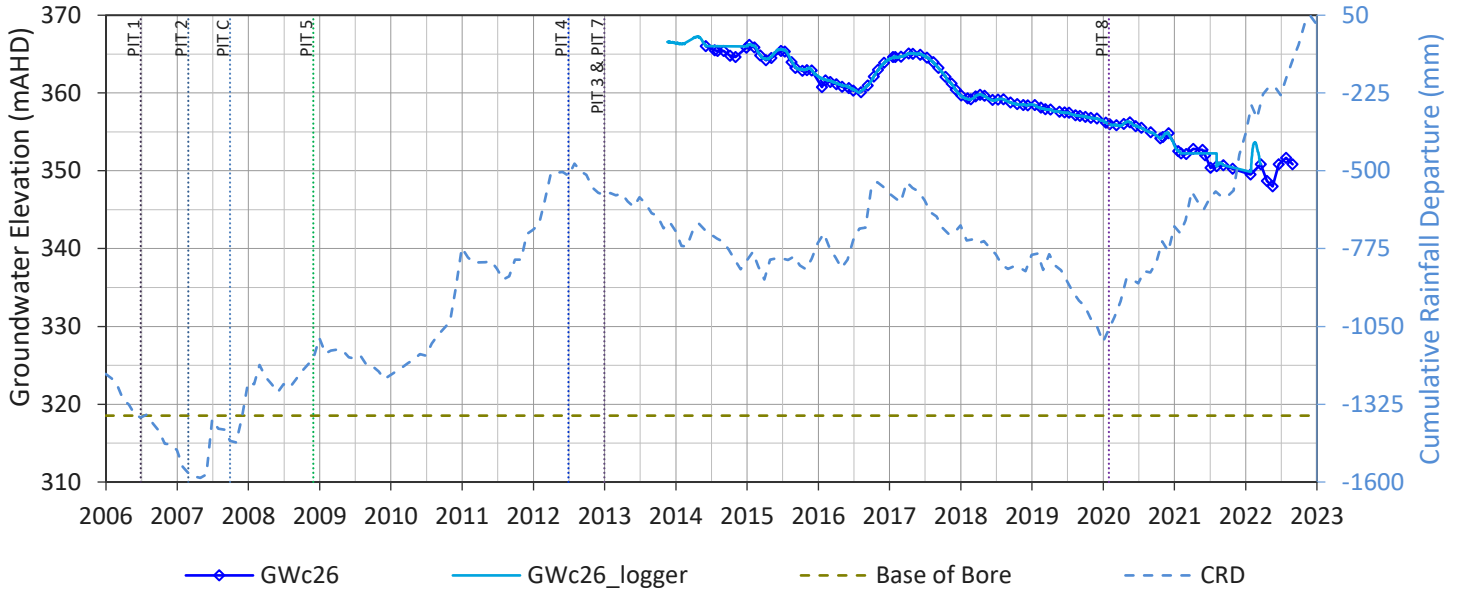
GWa12



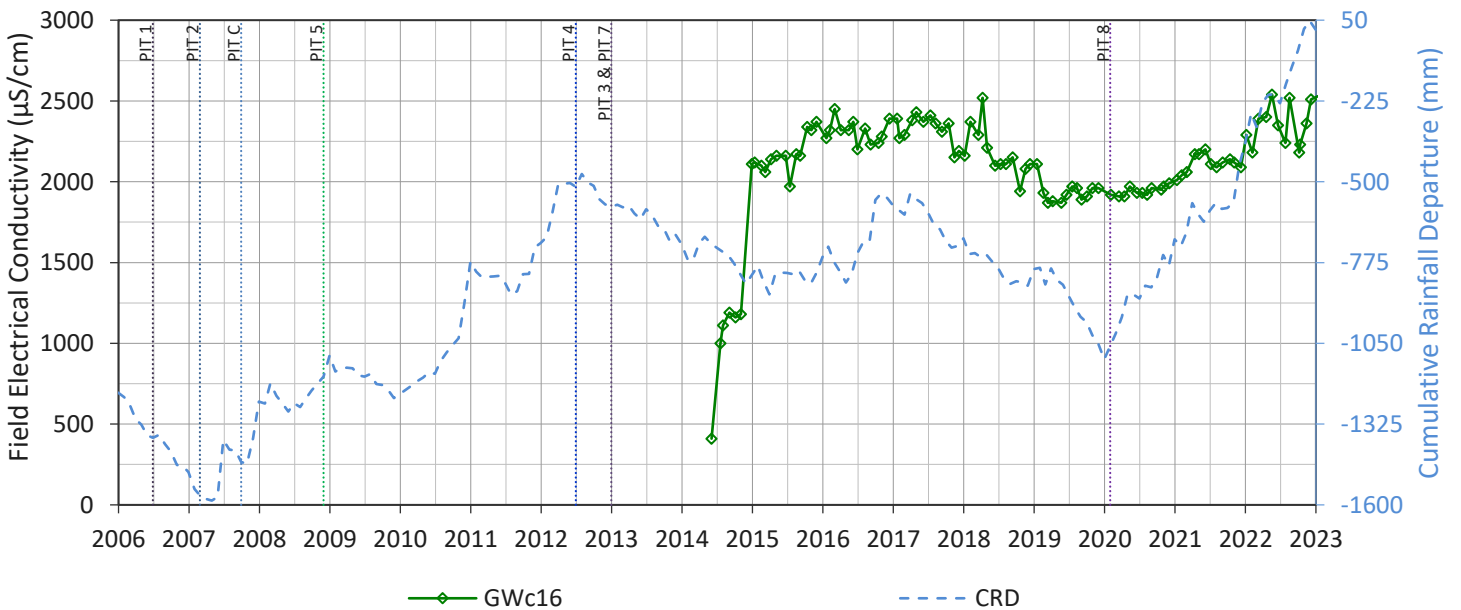
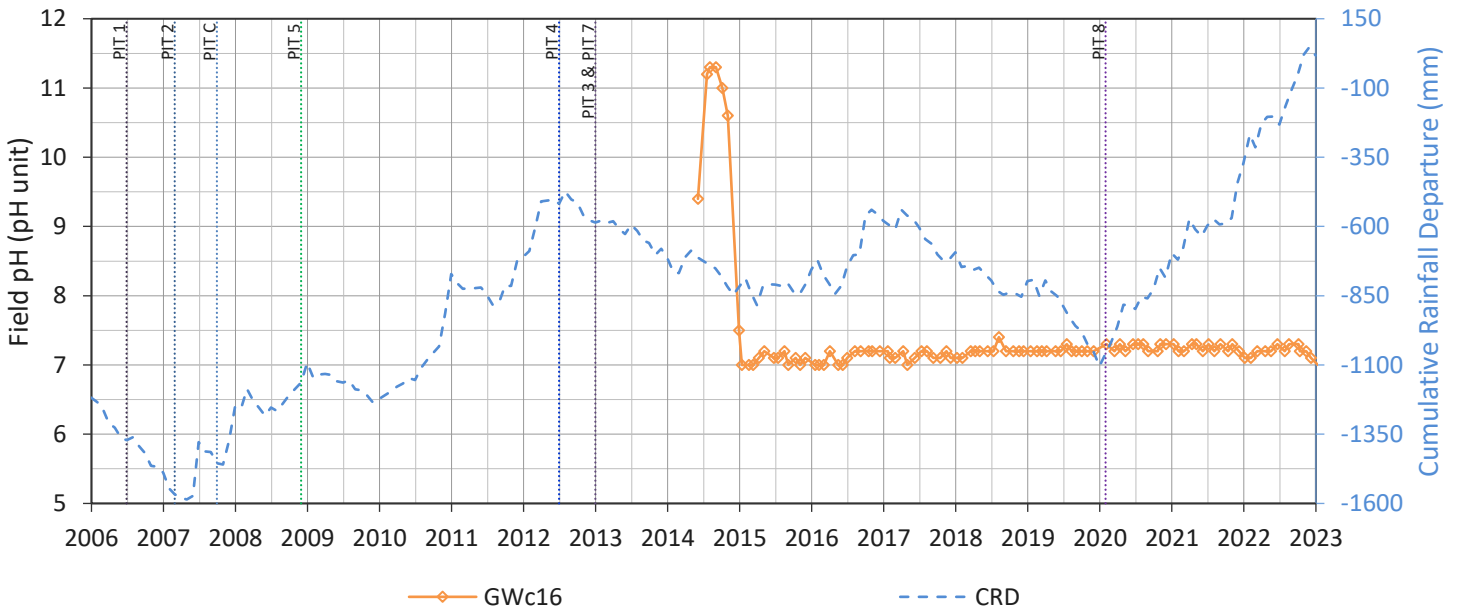
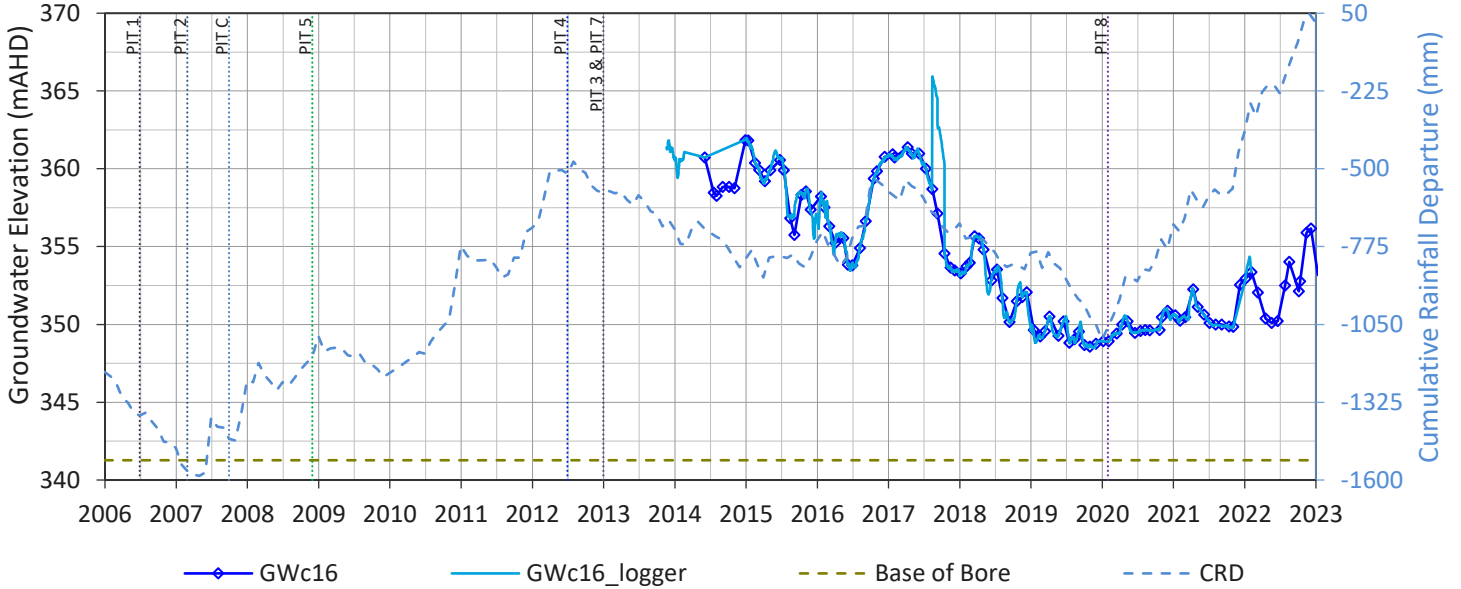
GWc17



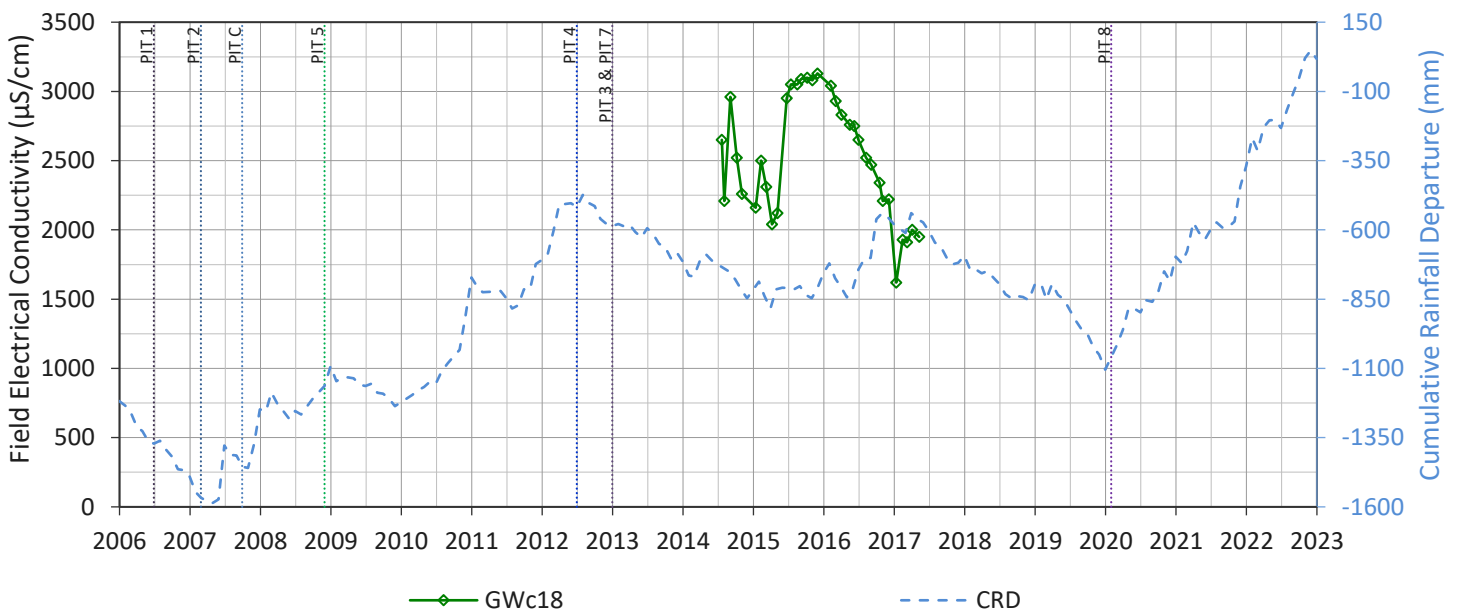
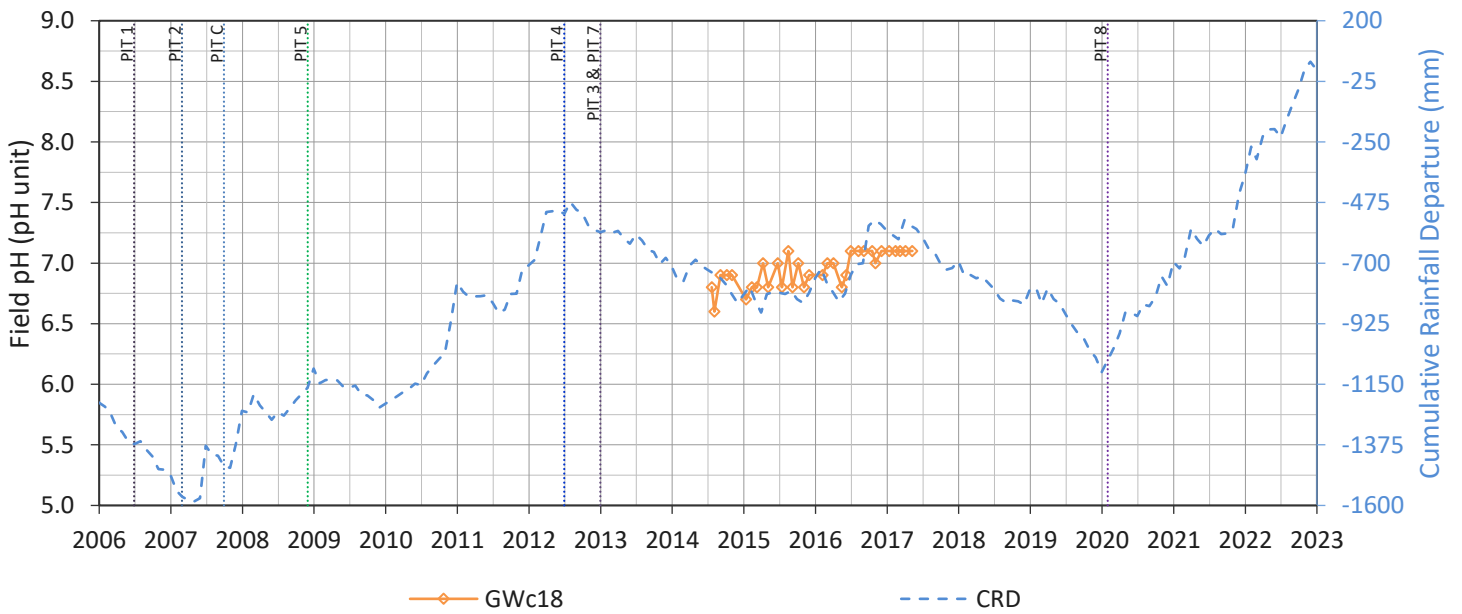
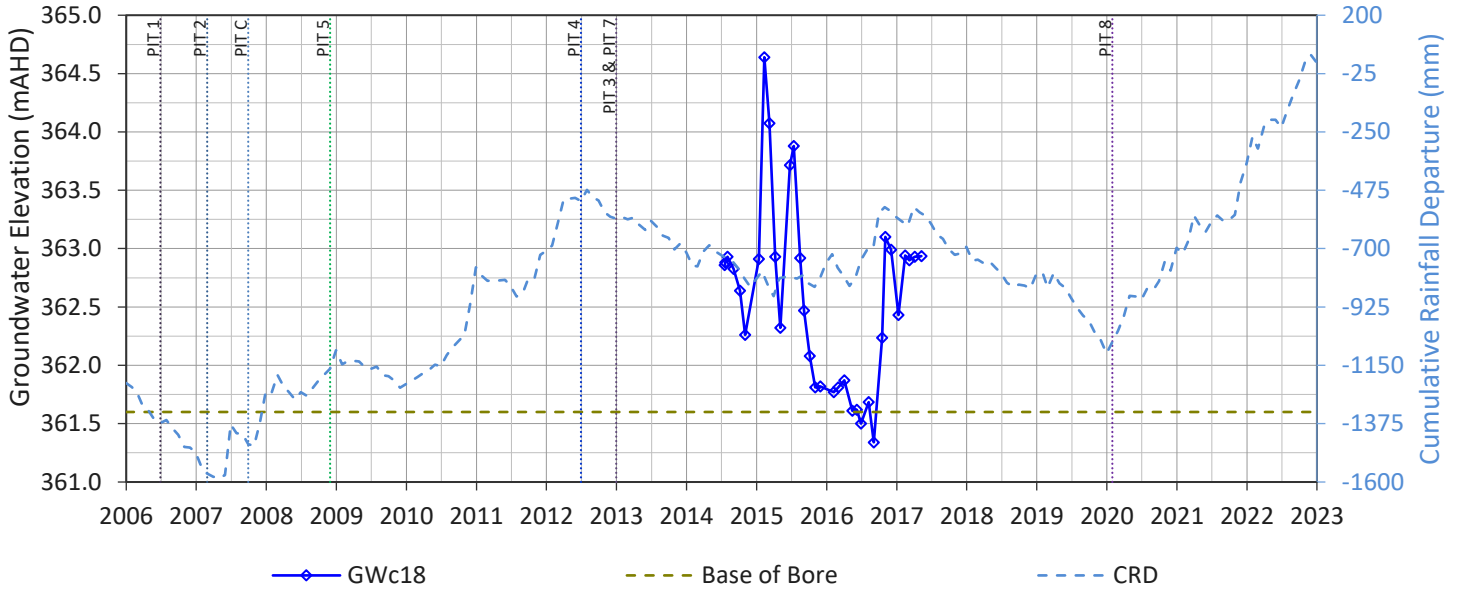
GWc26



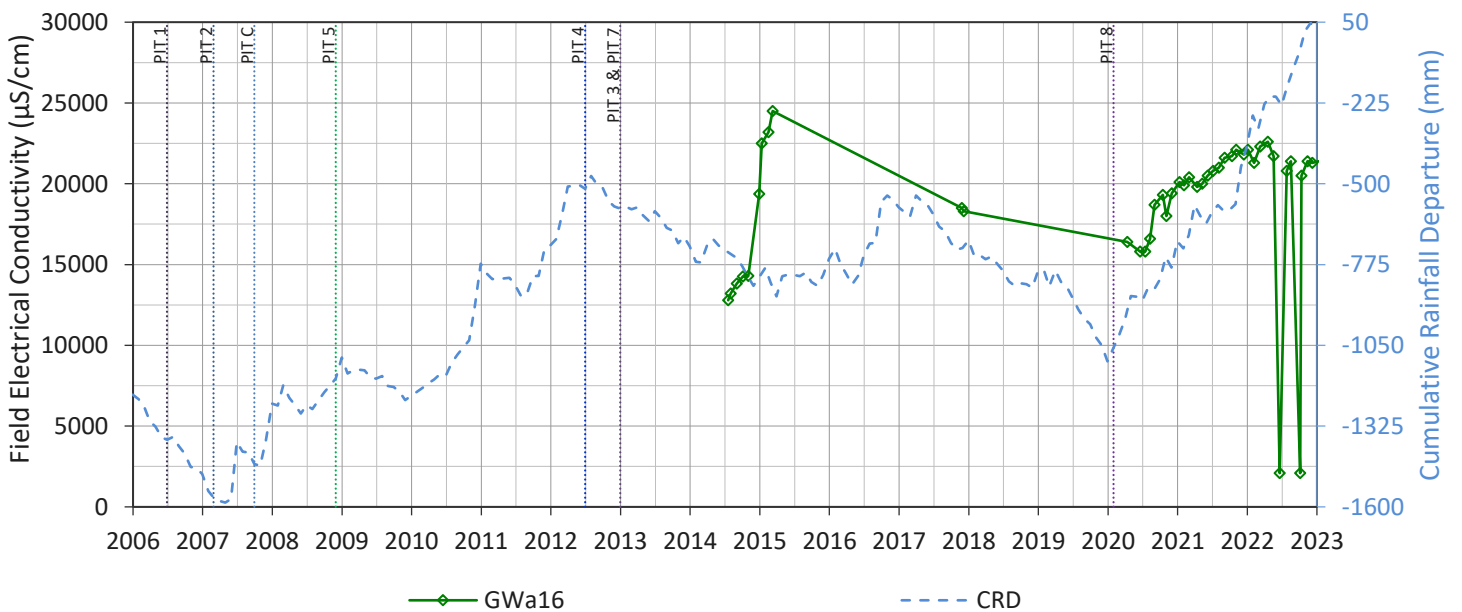
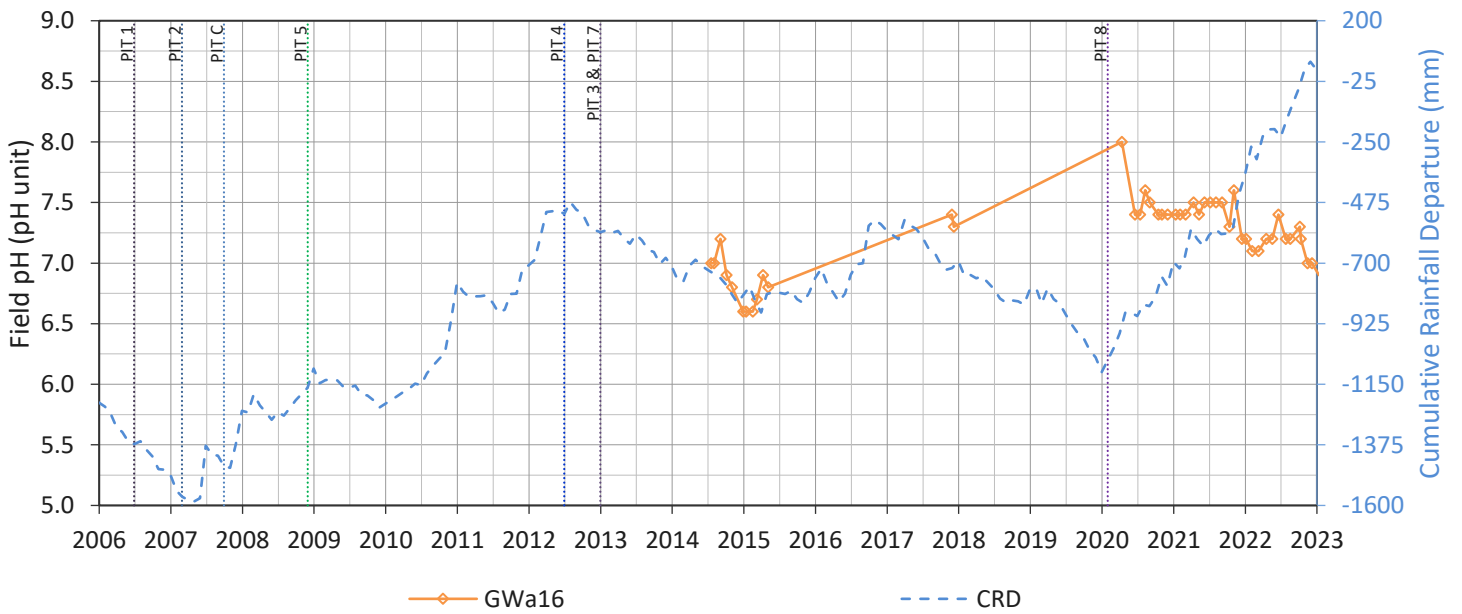
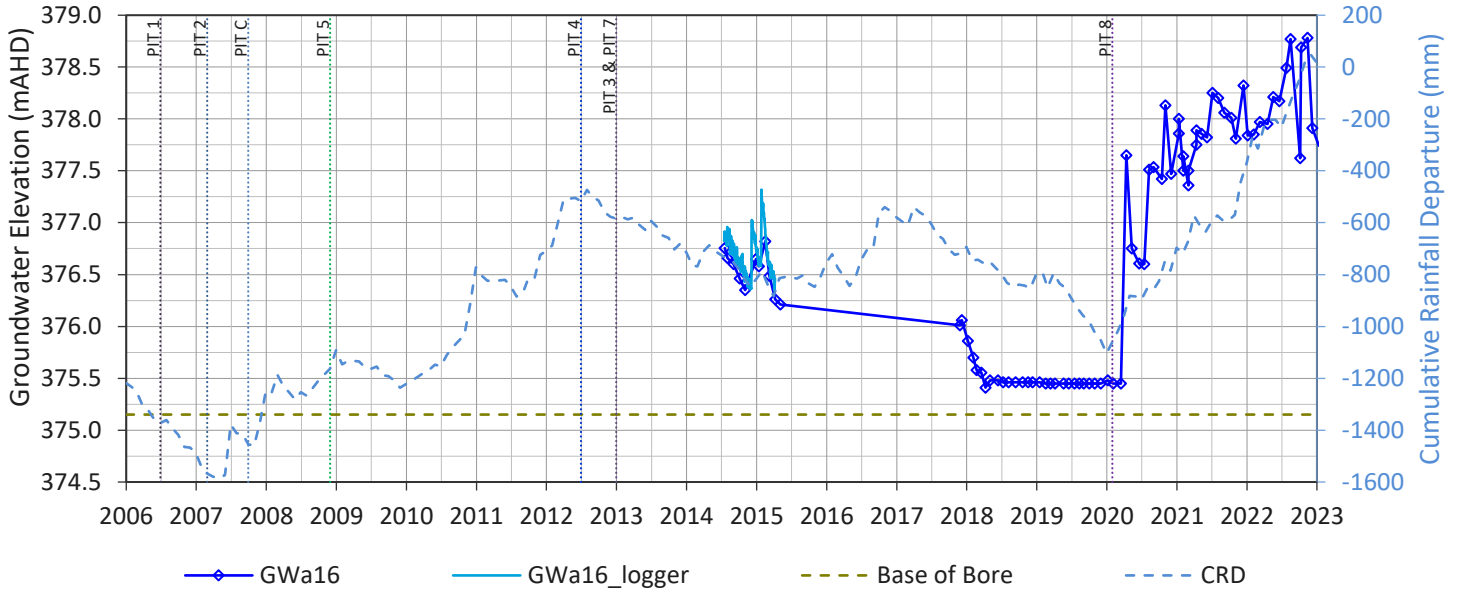
GWc16



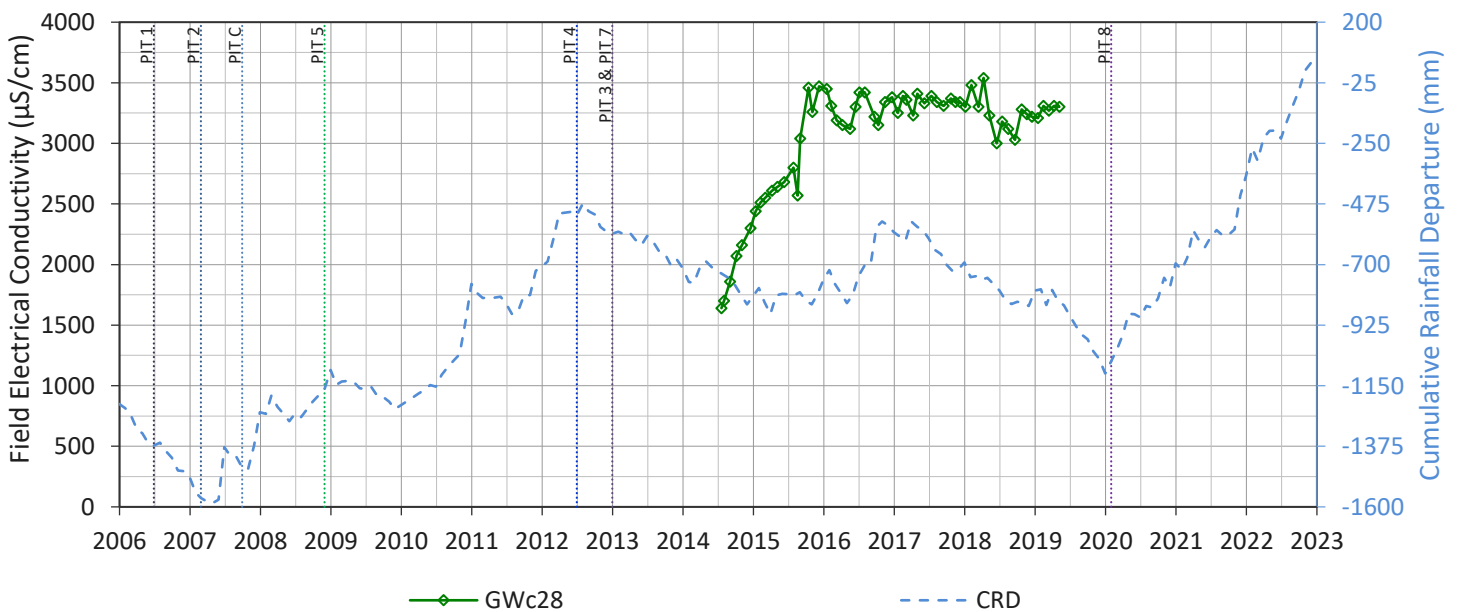
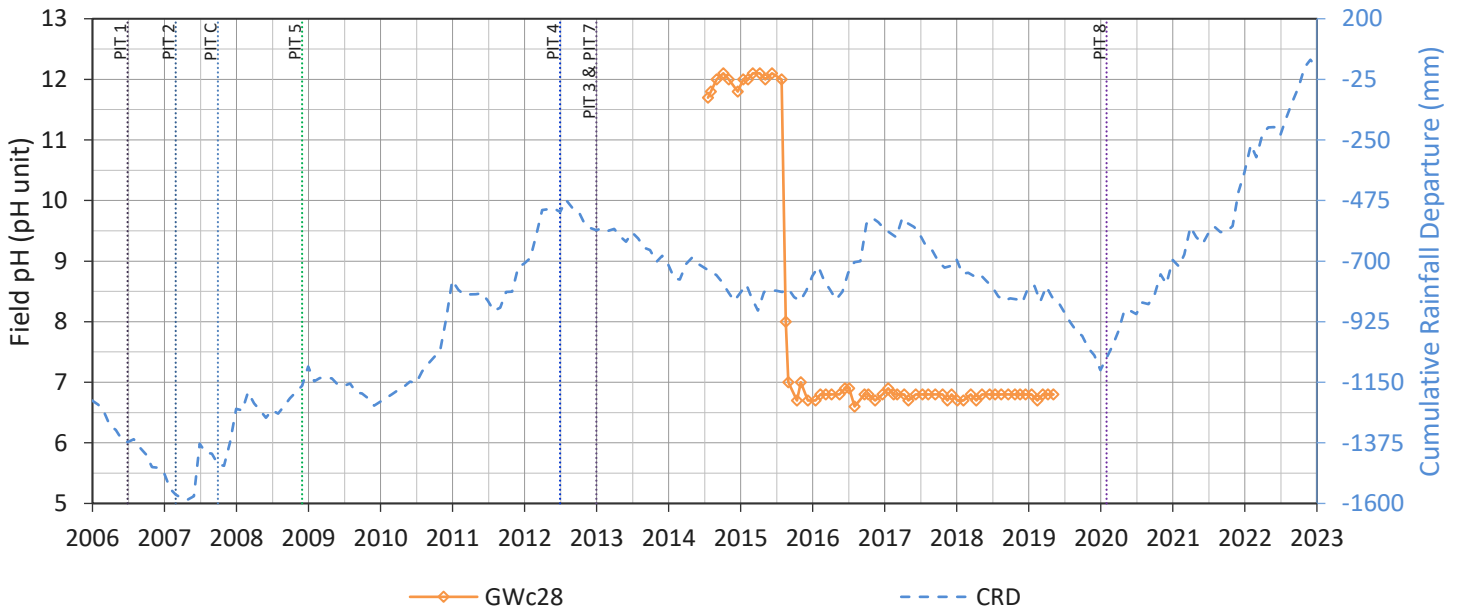
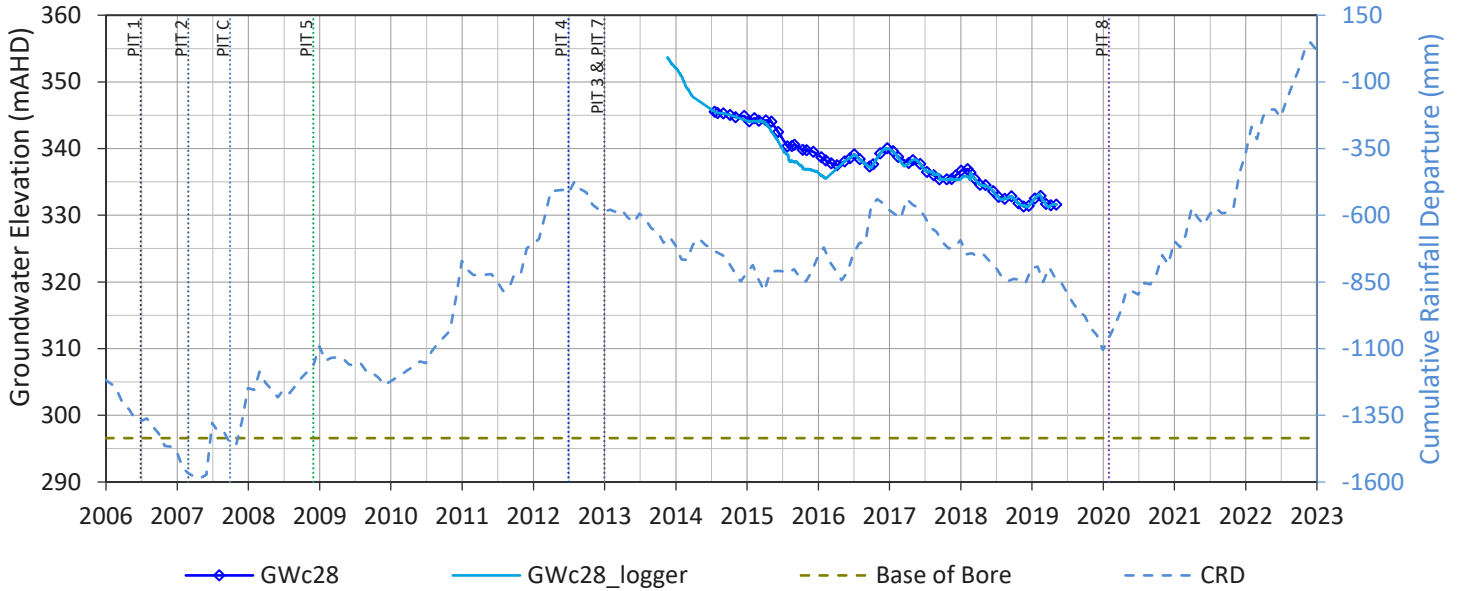
GWc18



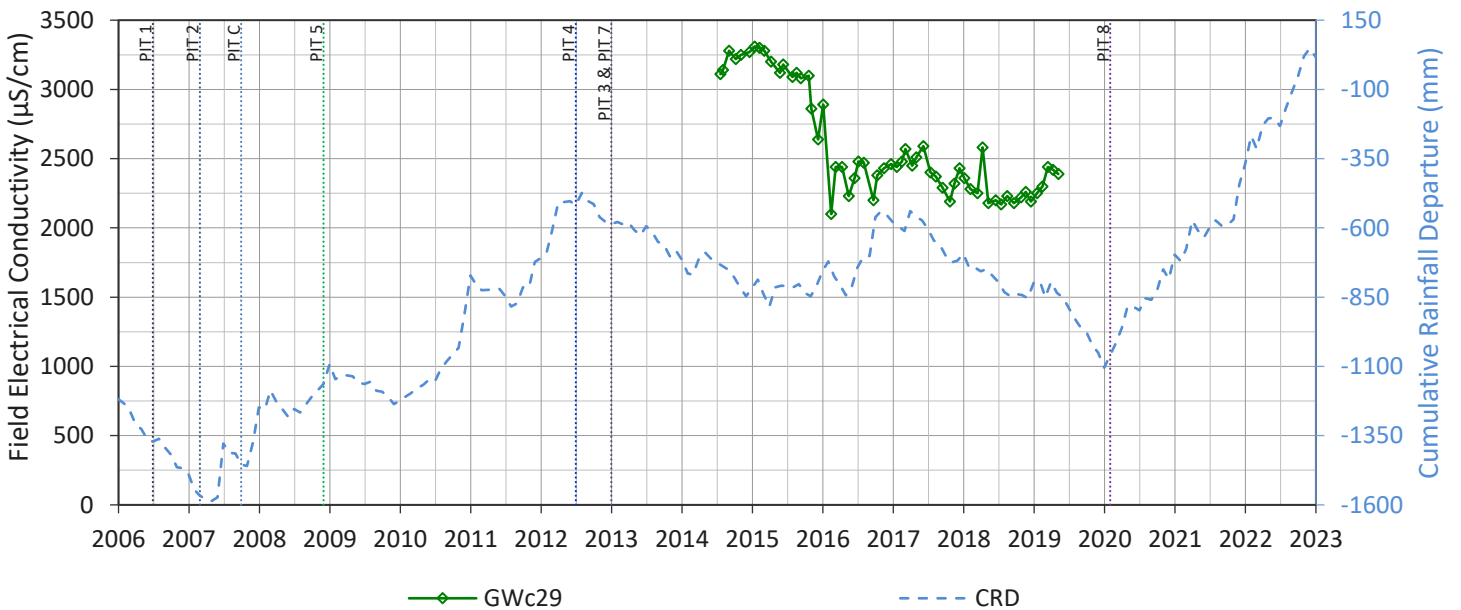
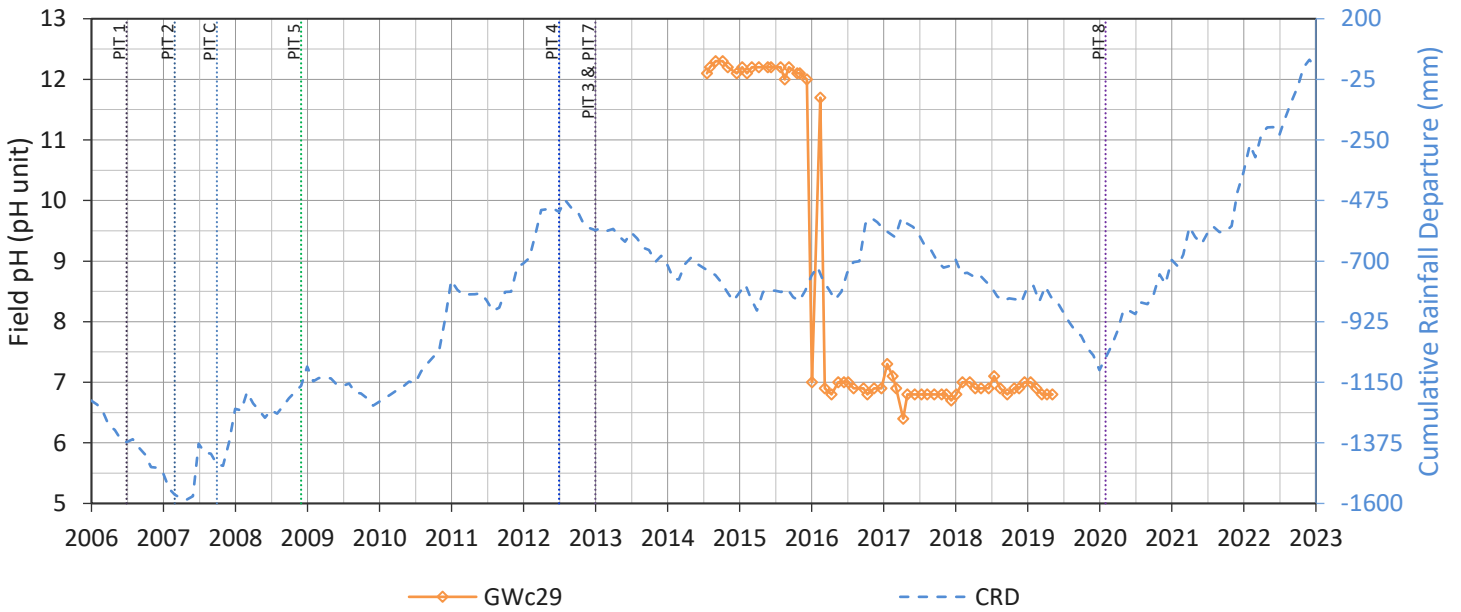
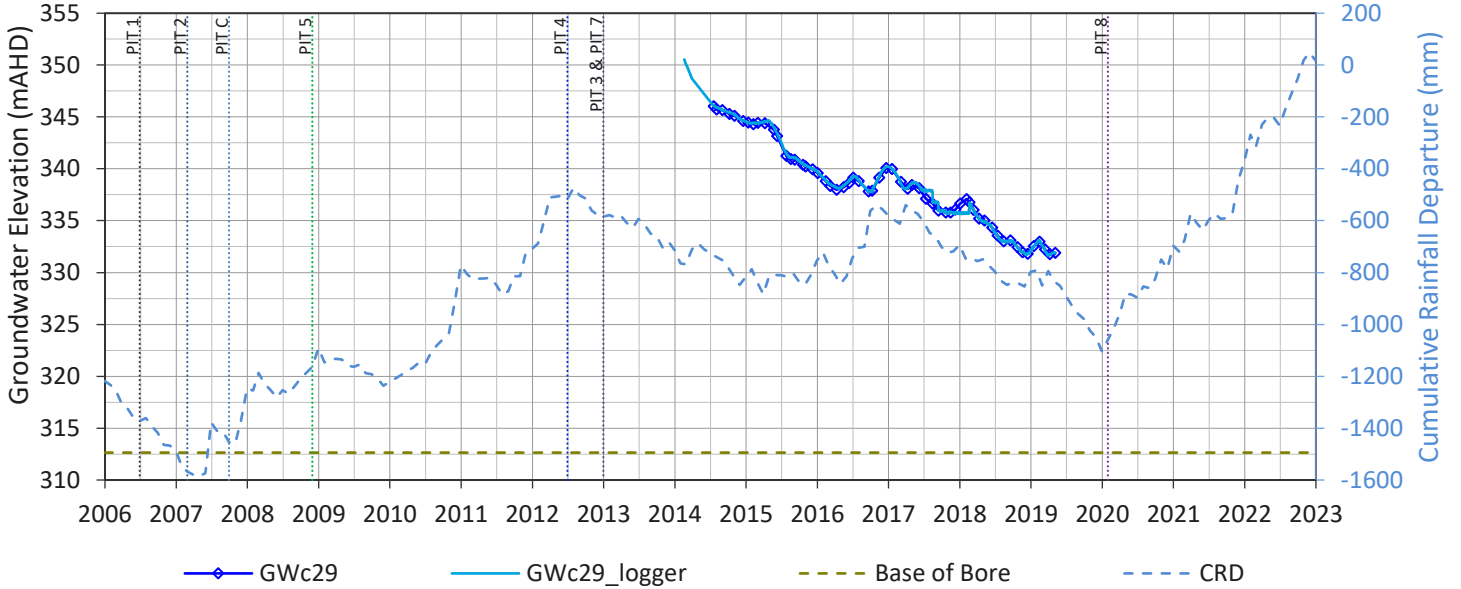
GWa16



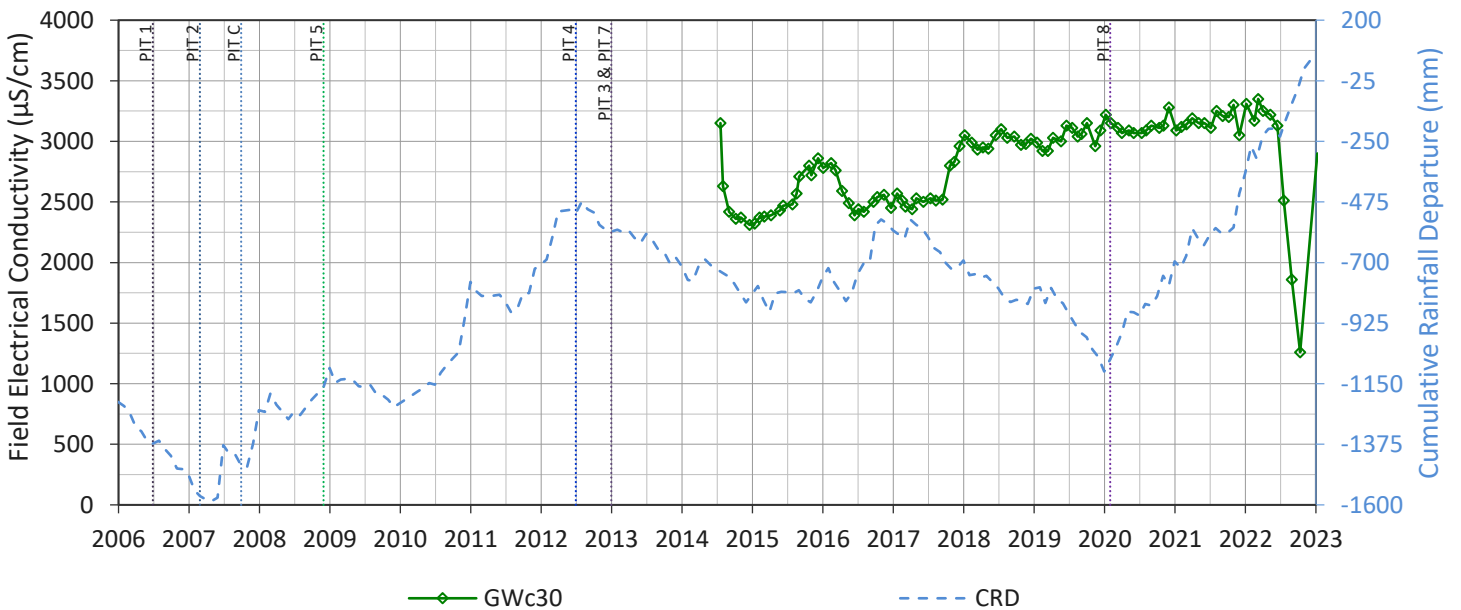
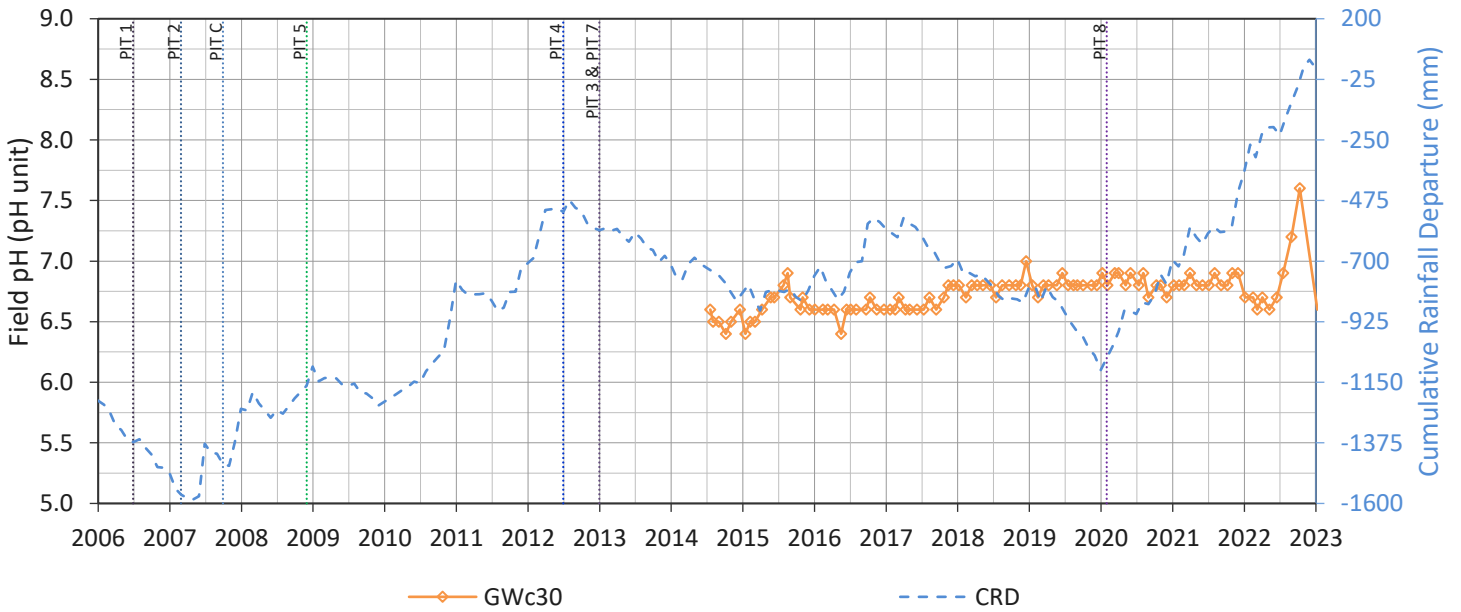
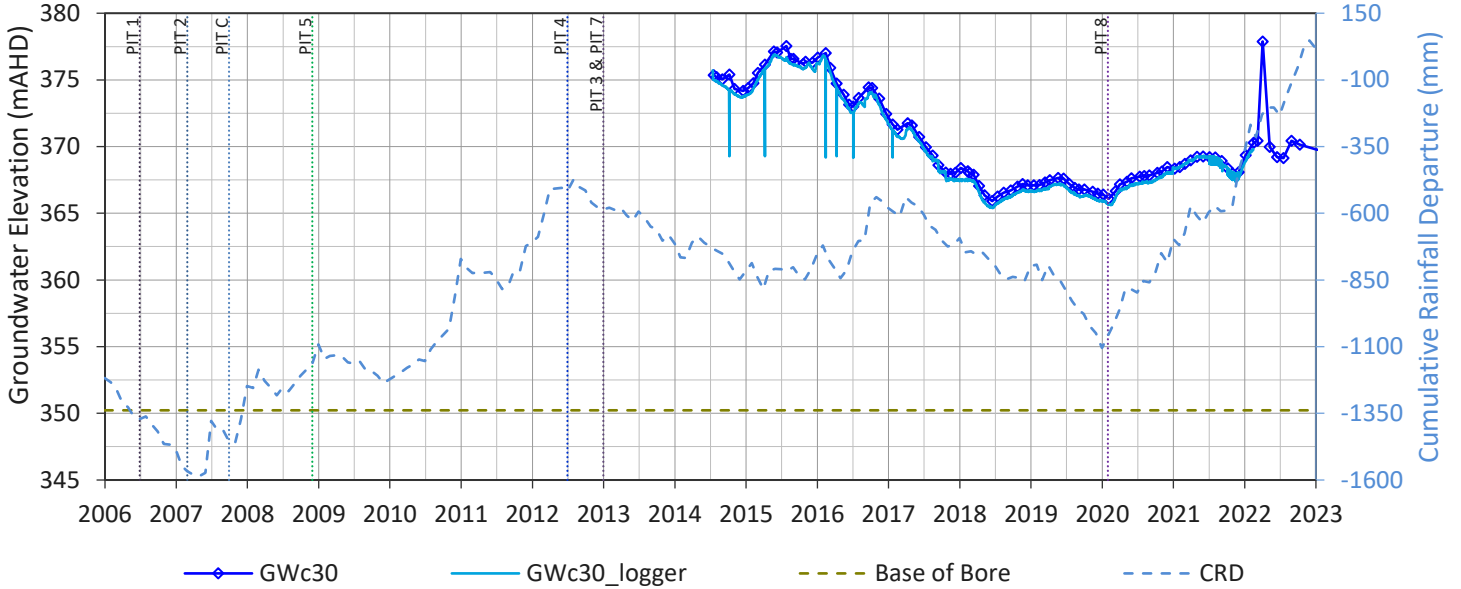
GWc28



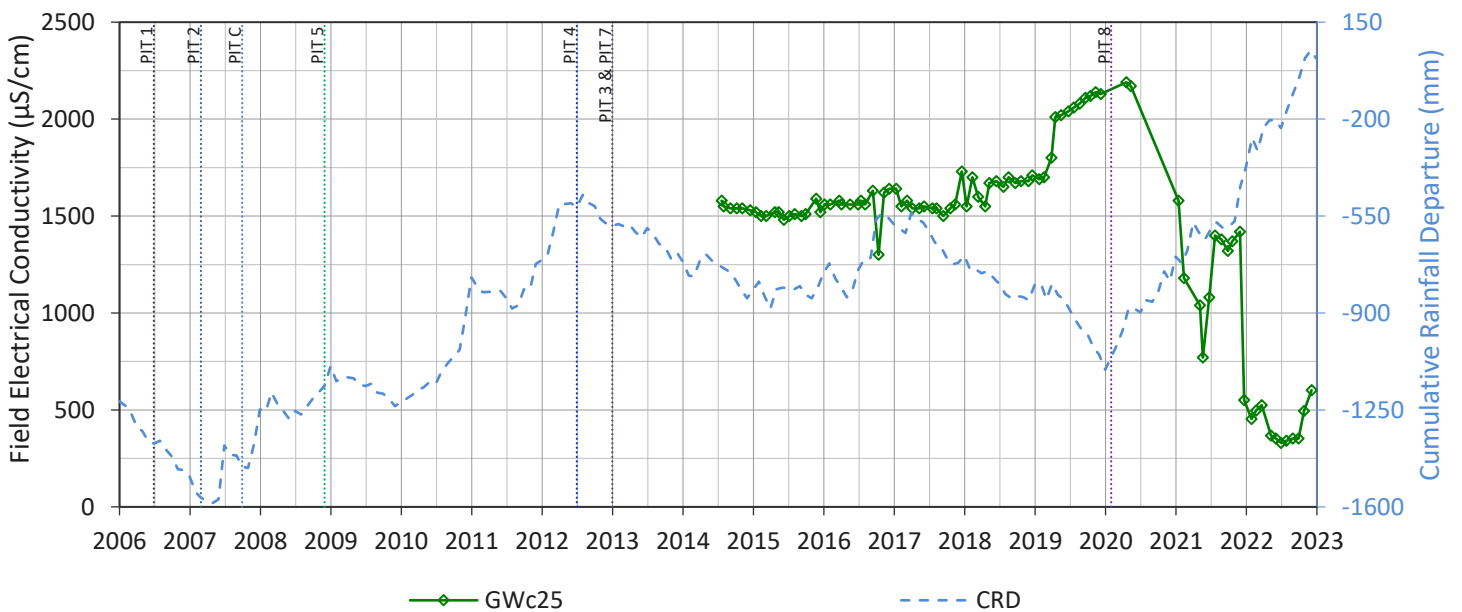
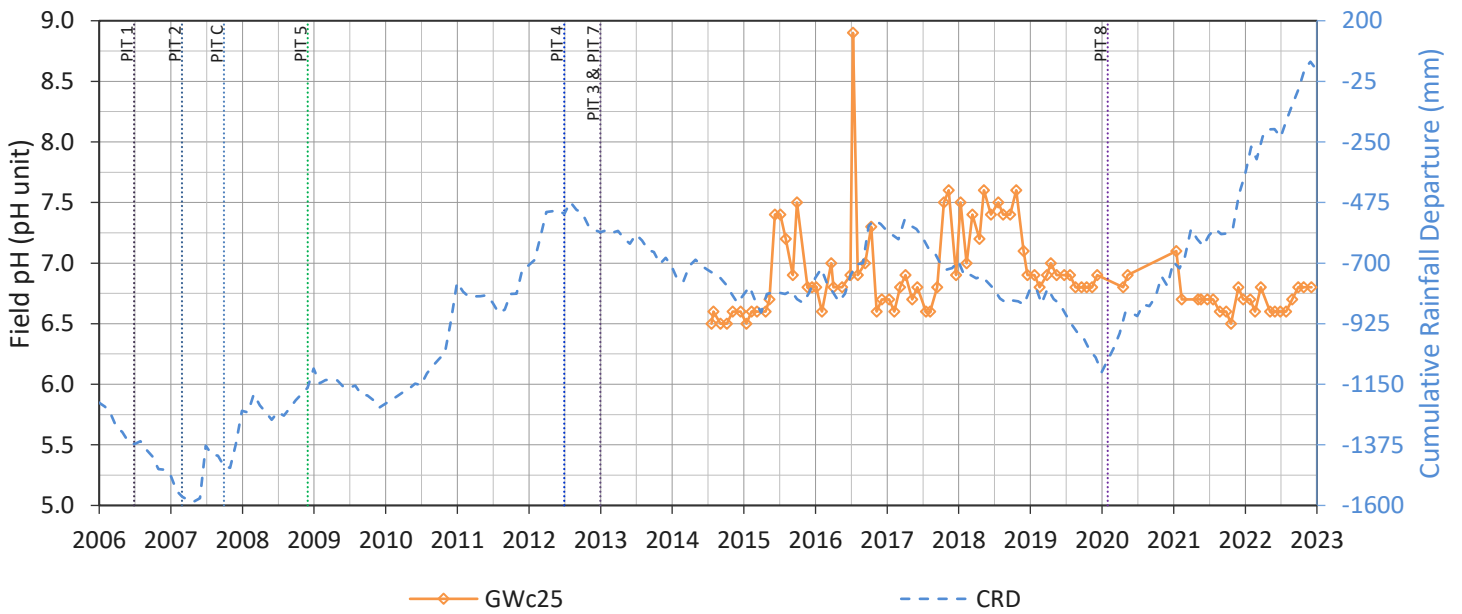
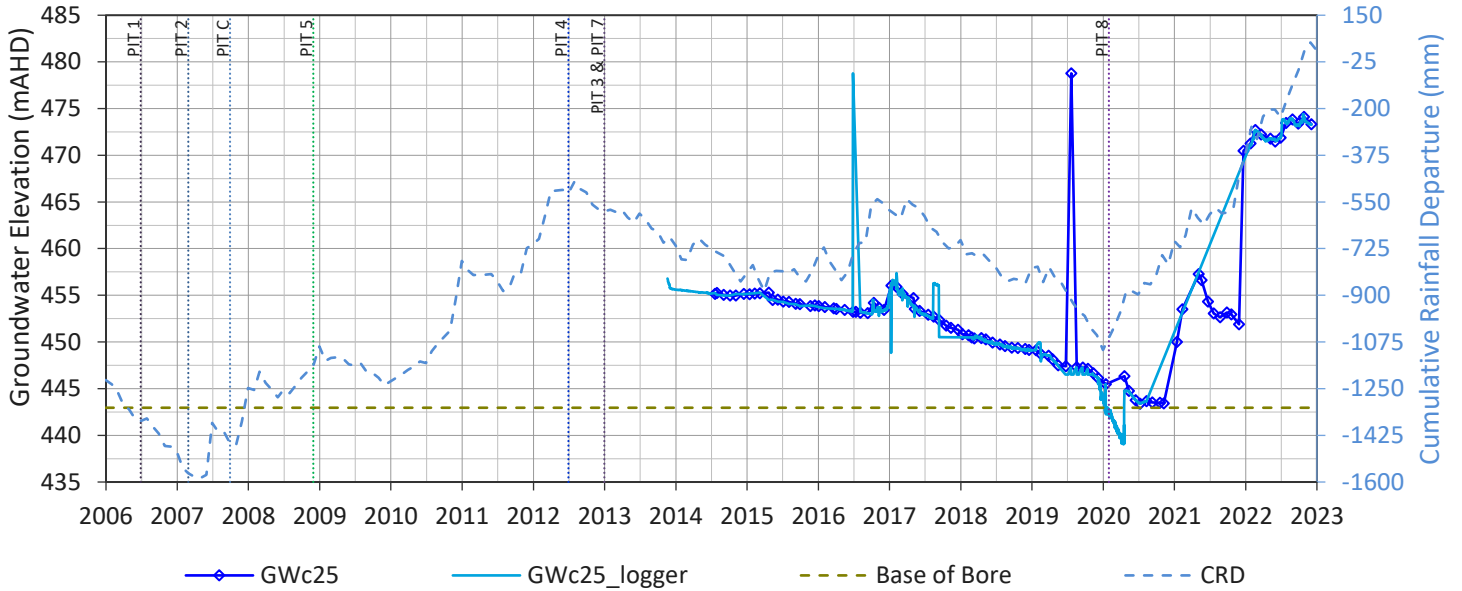
GWc29



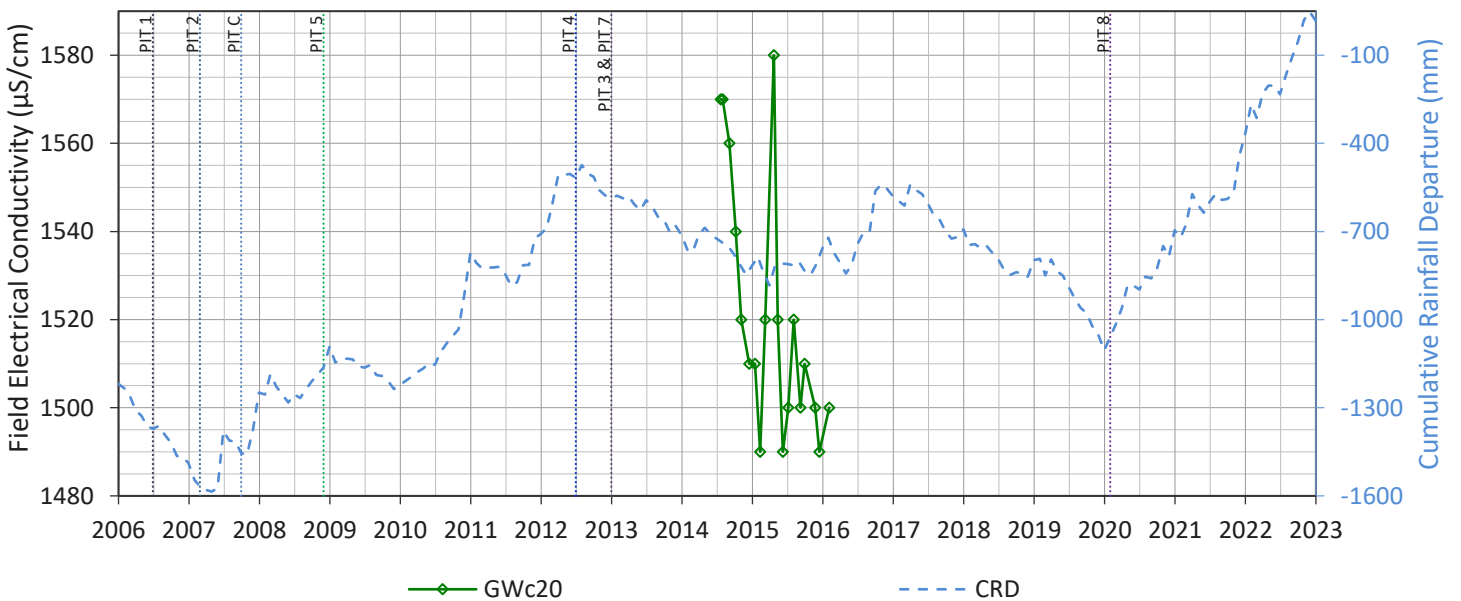
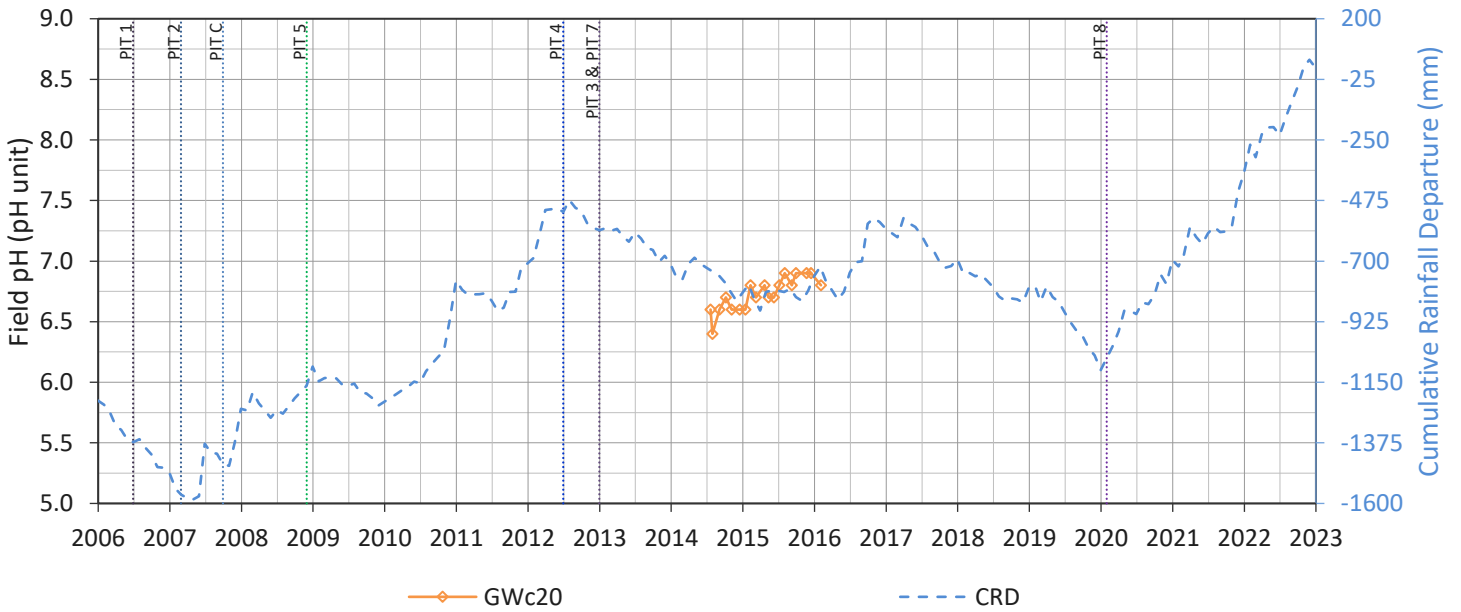
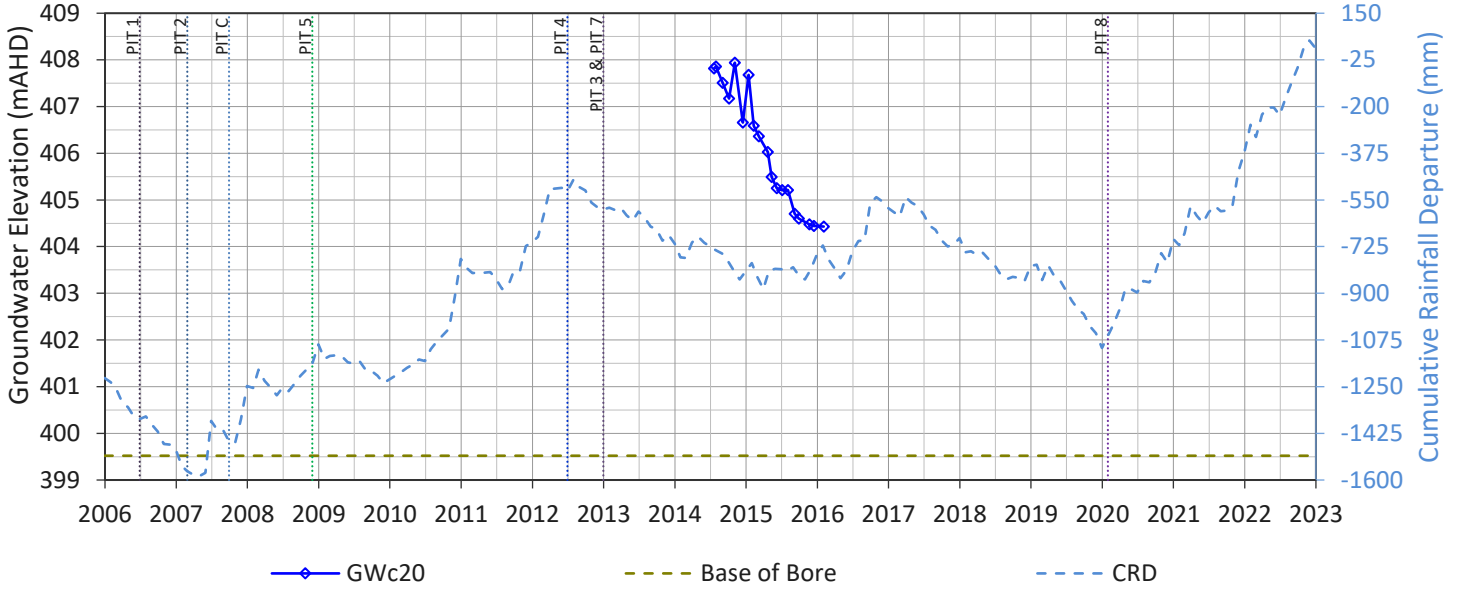
GWc30



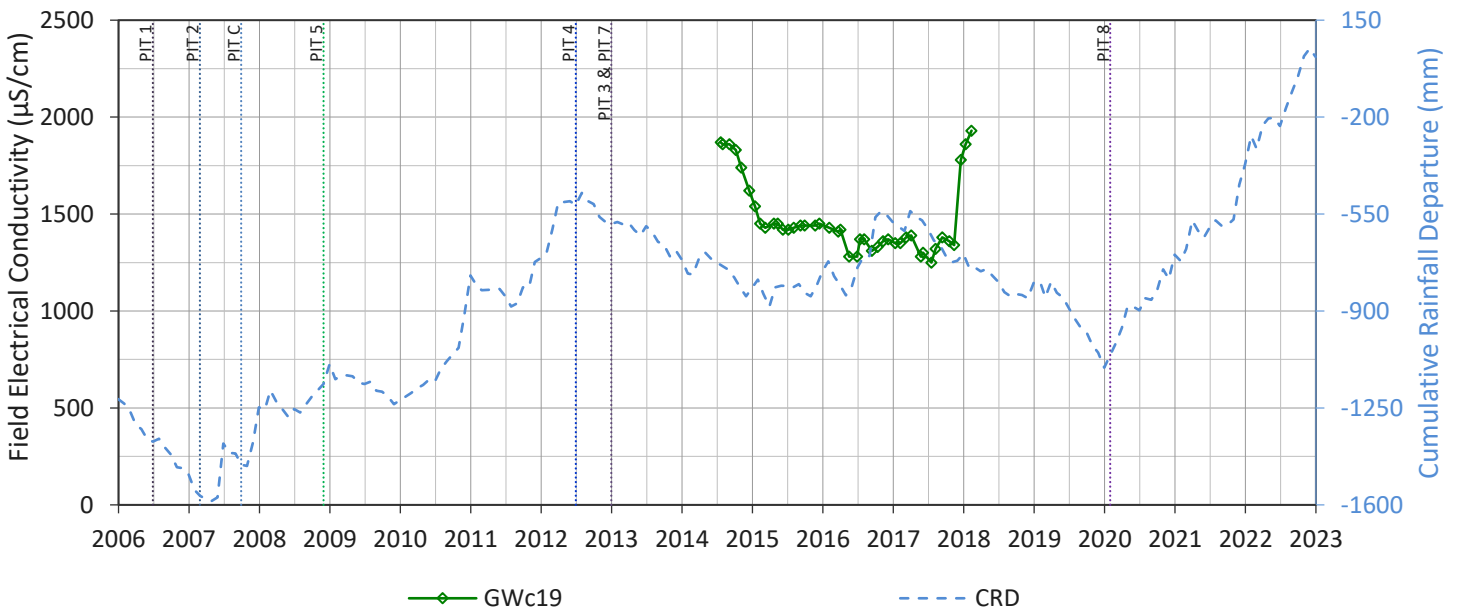
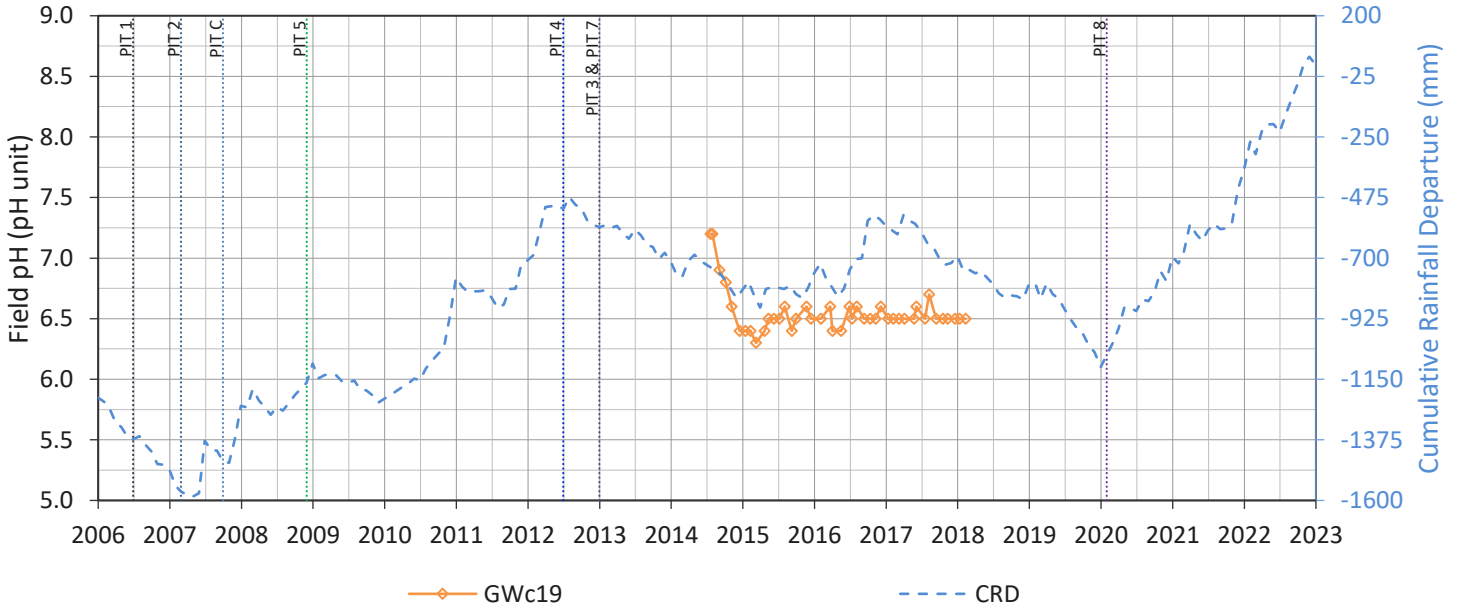
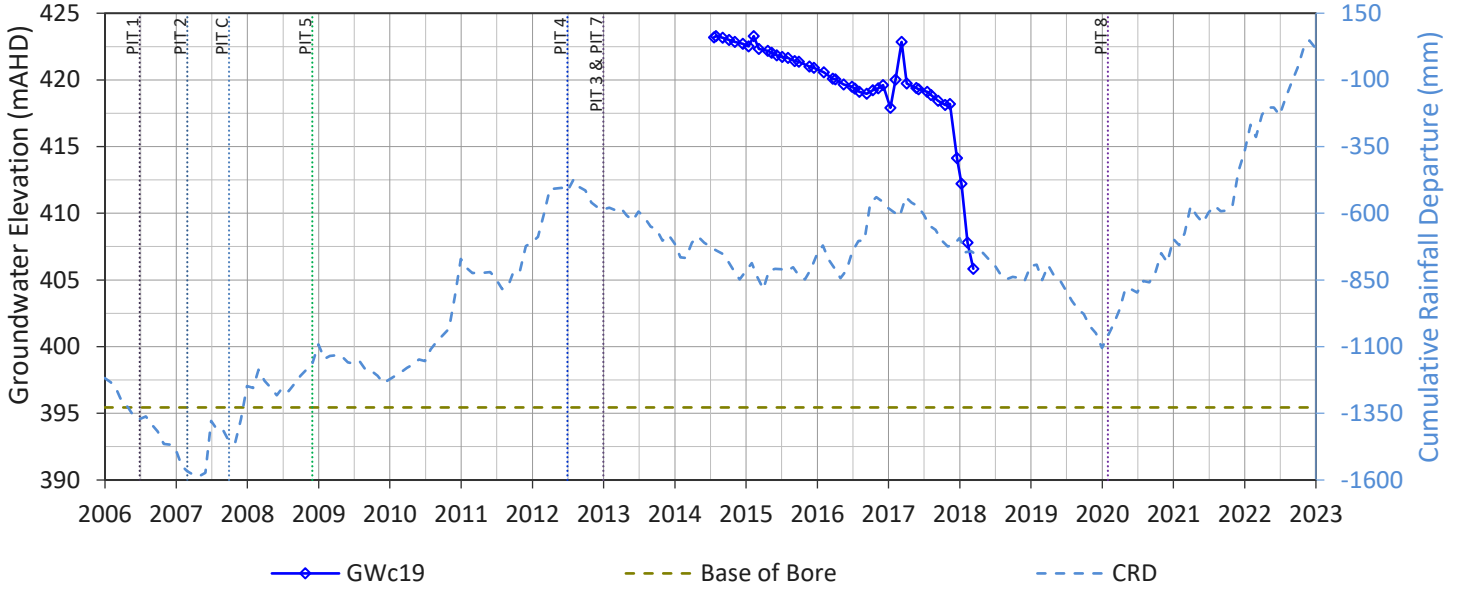
GWc25



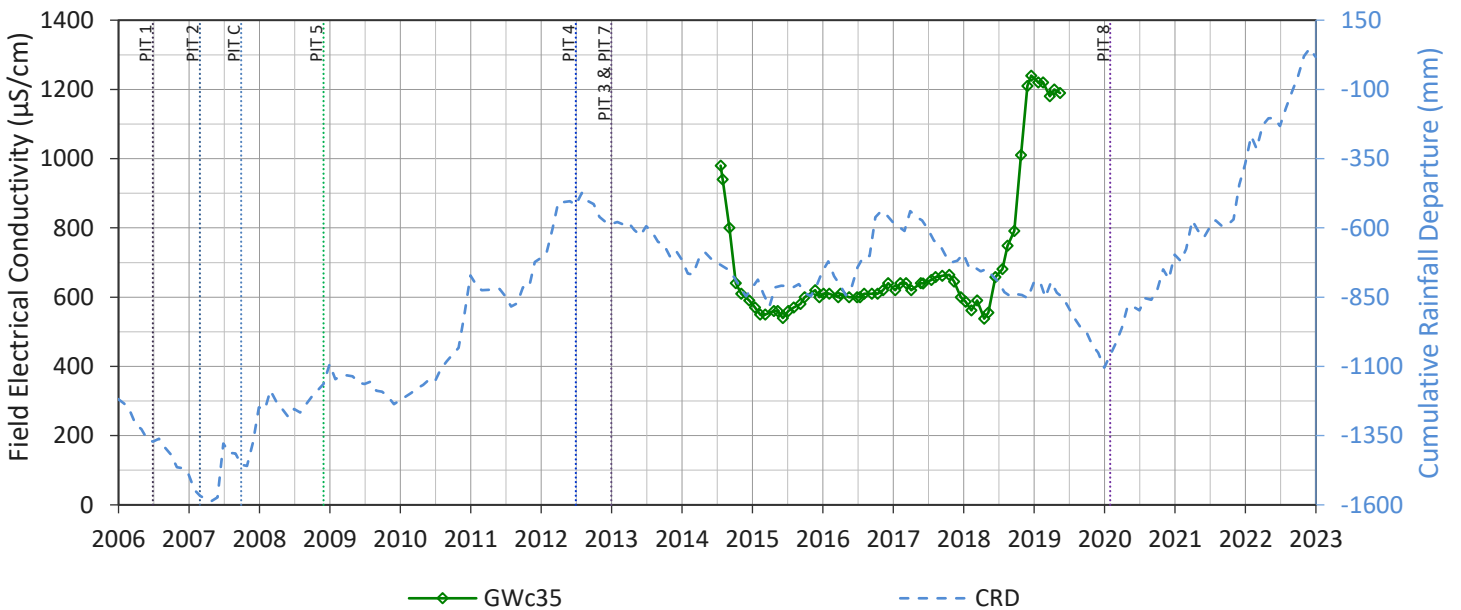
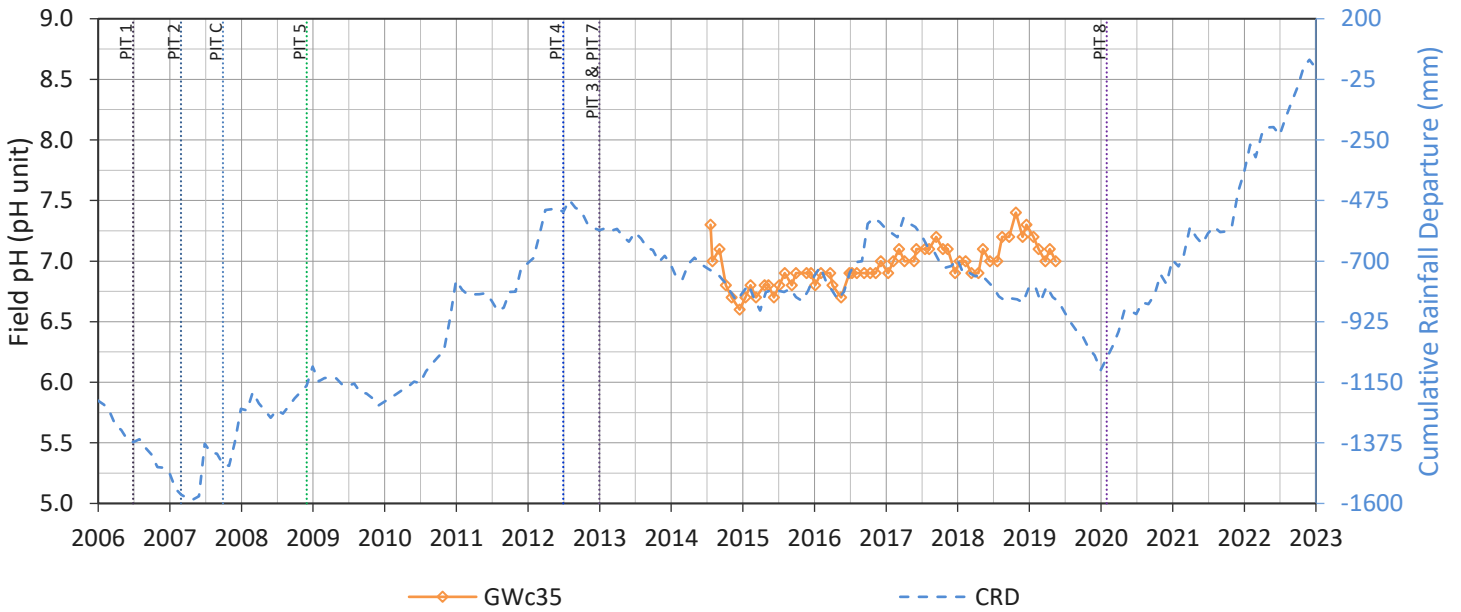
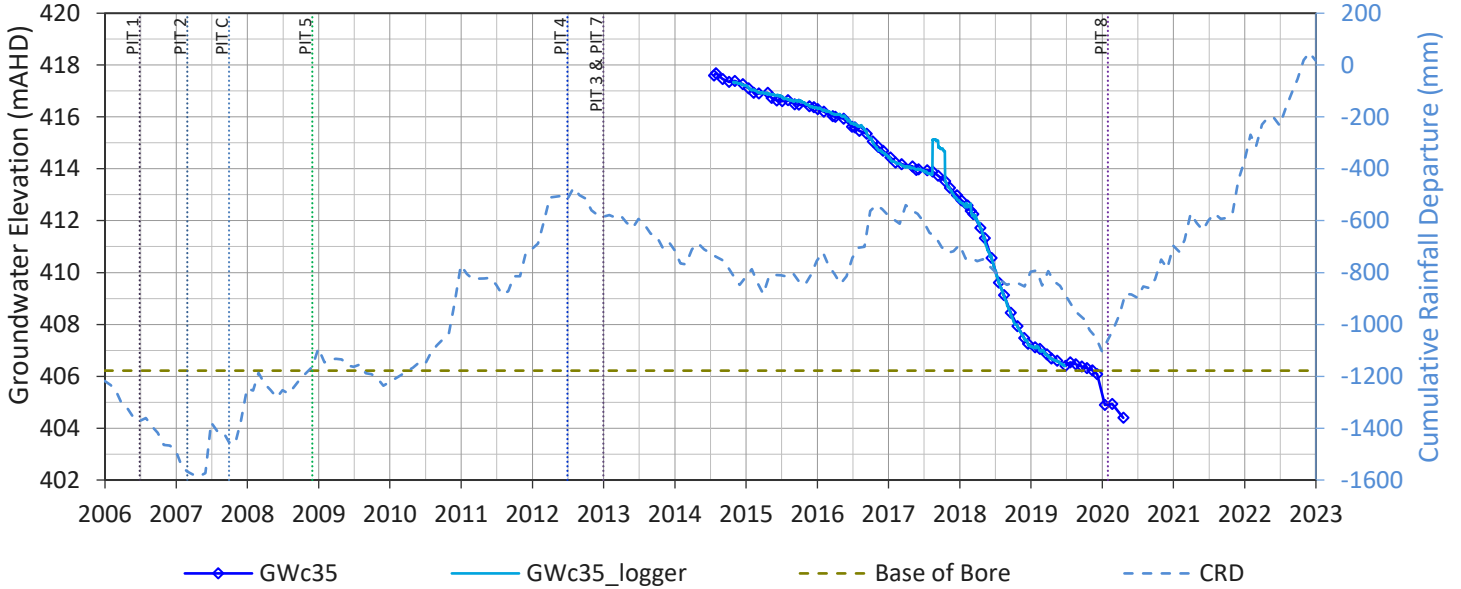
GWc20



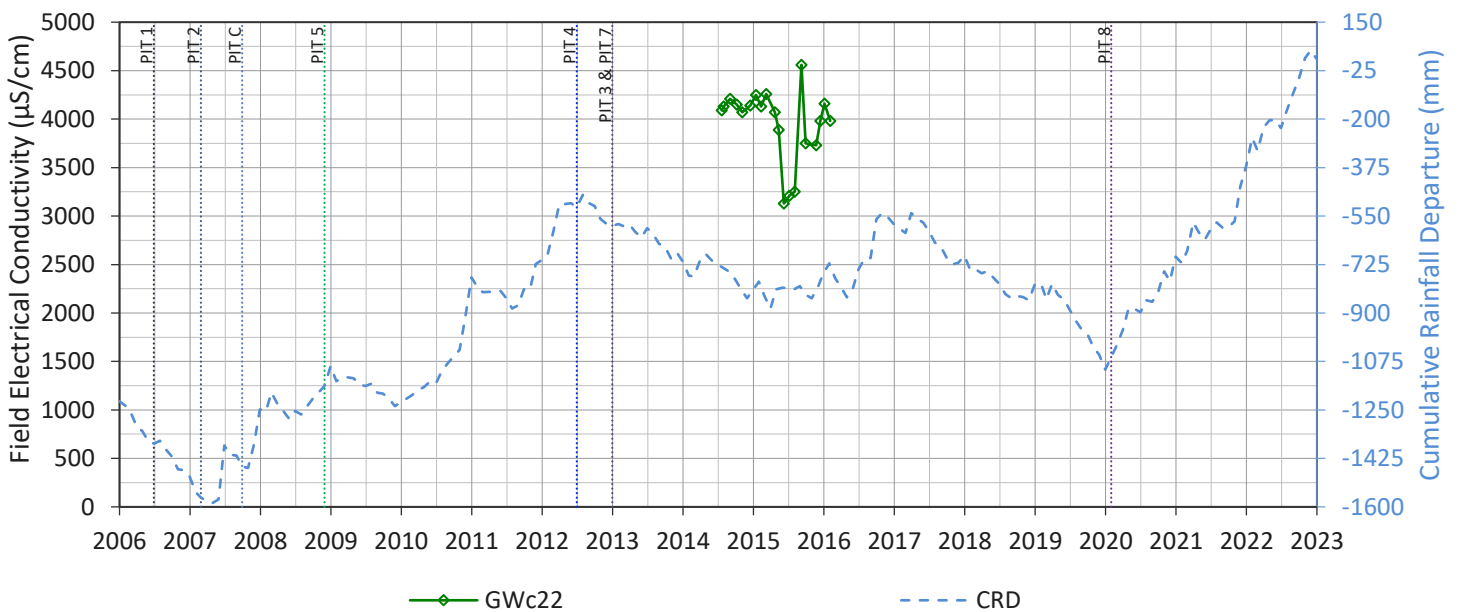
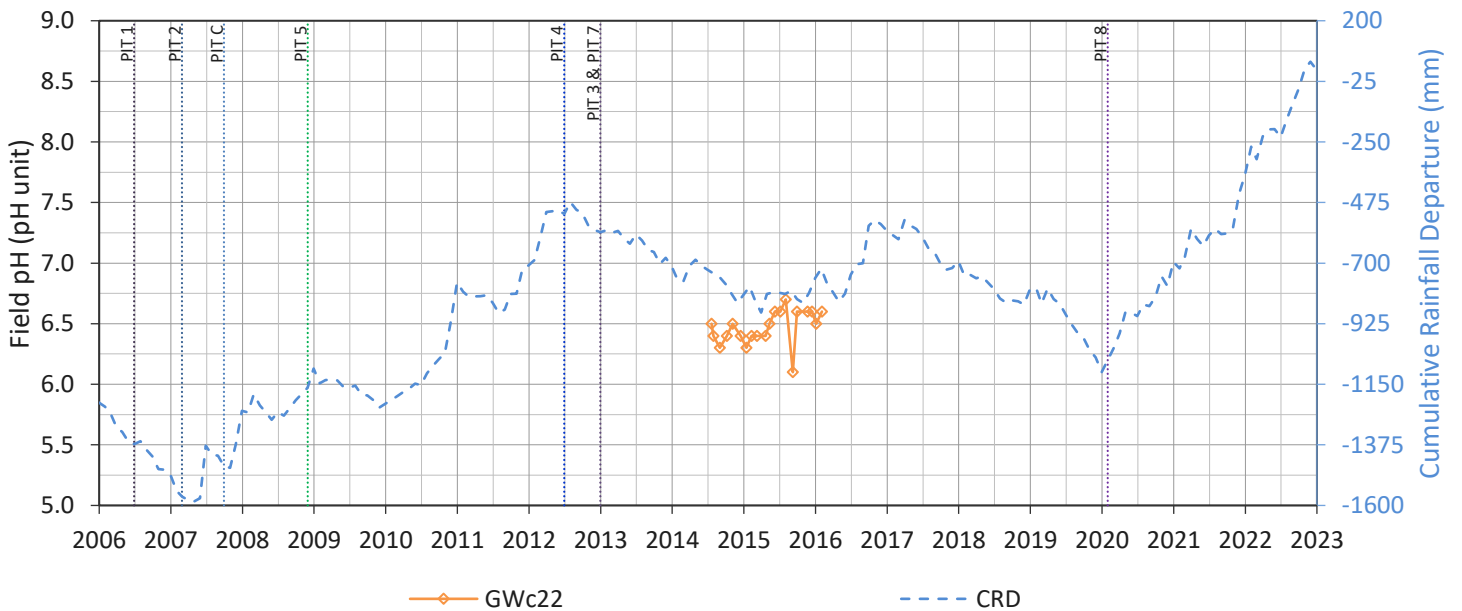
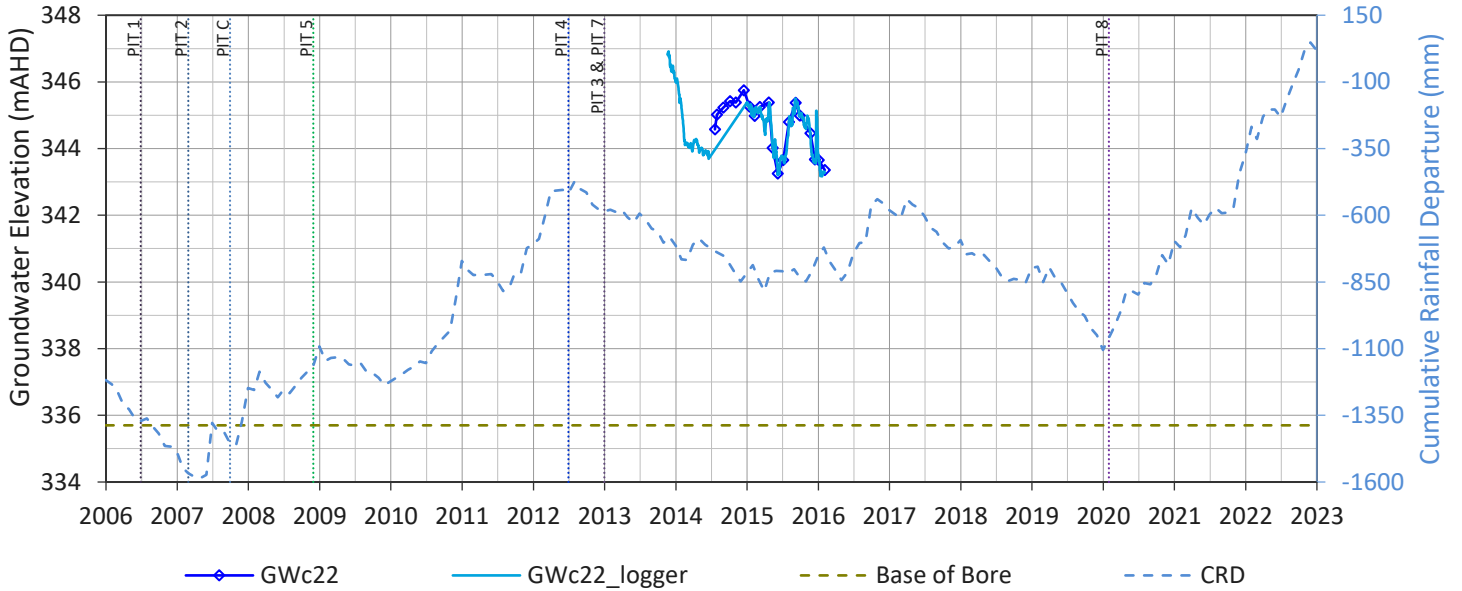
GWc19



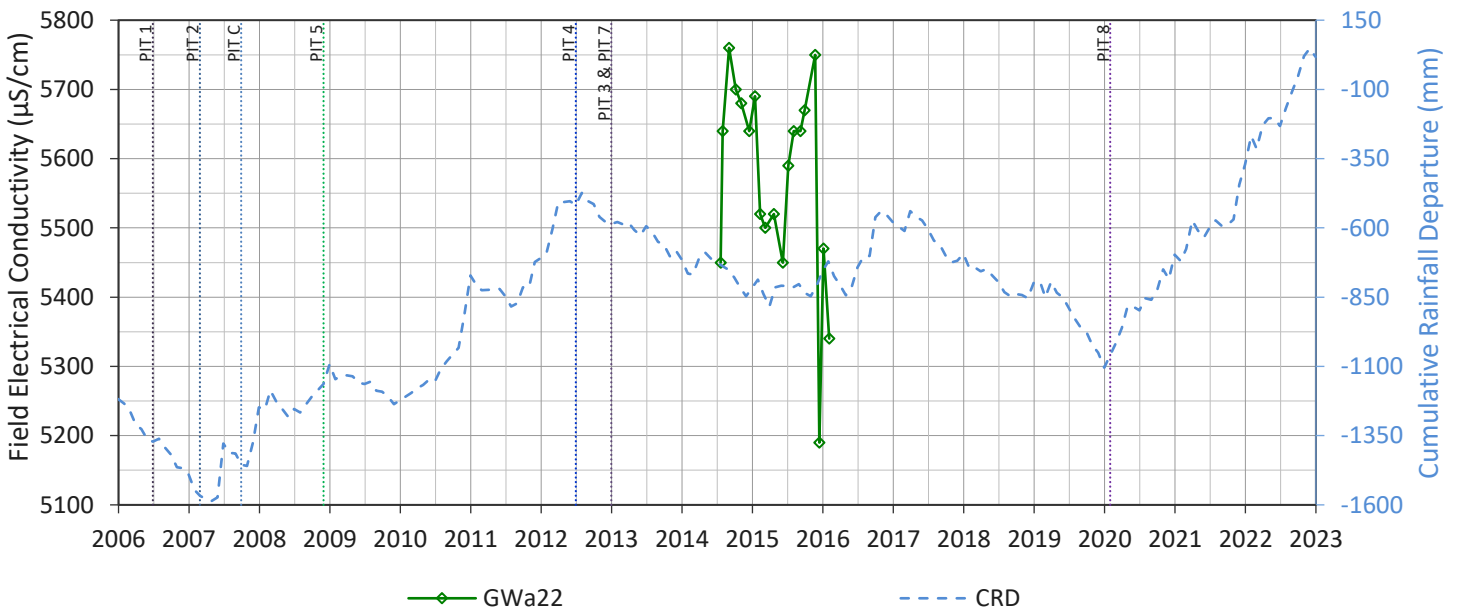
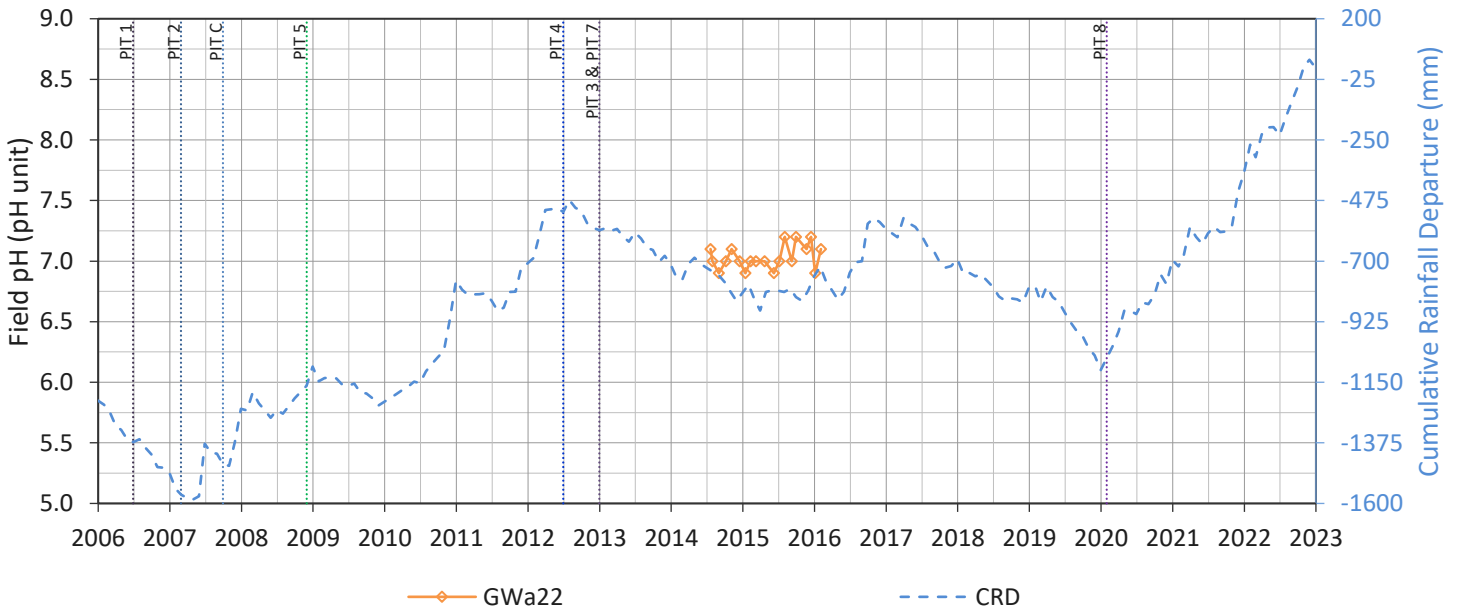
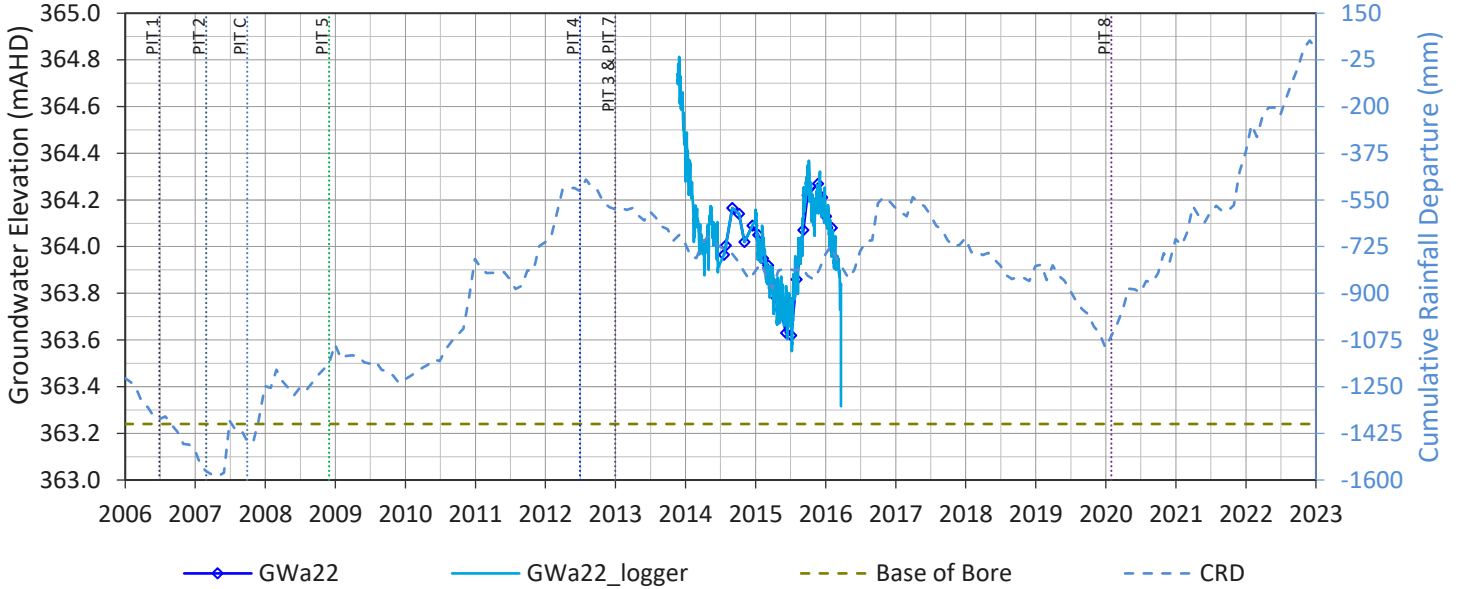
GWc35



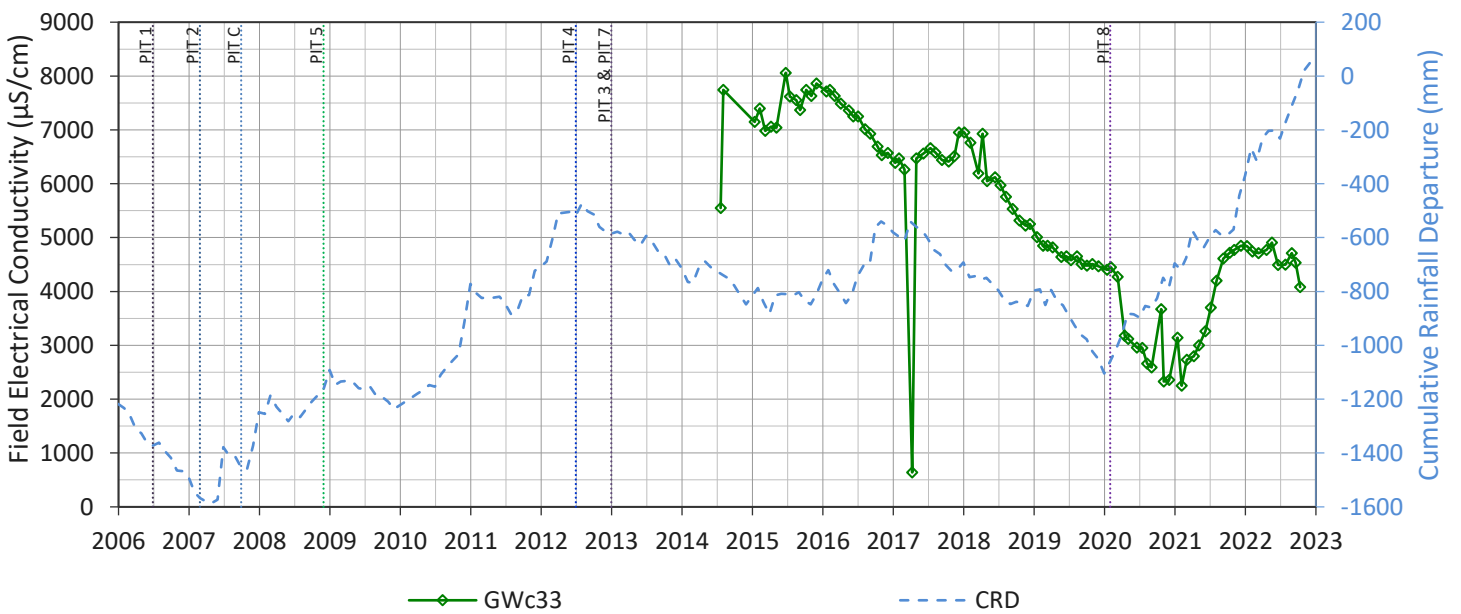
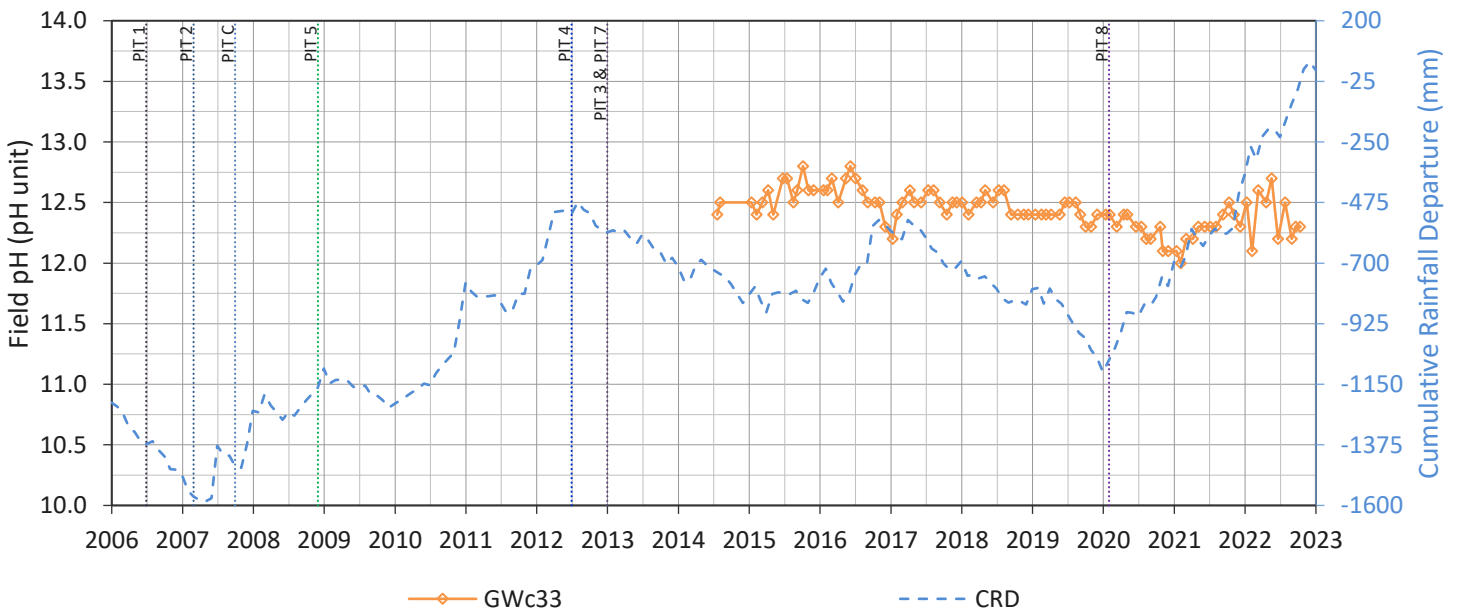
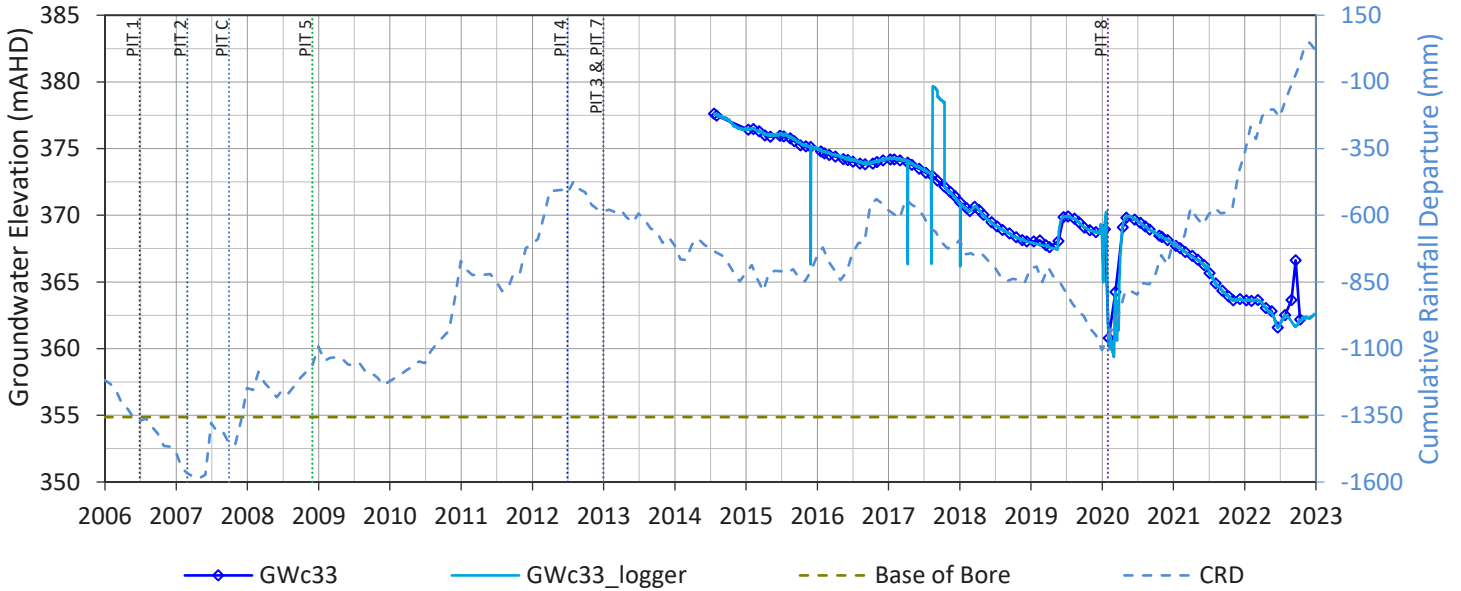
GWc22



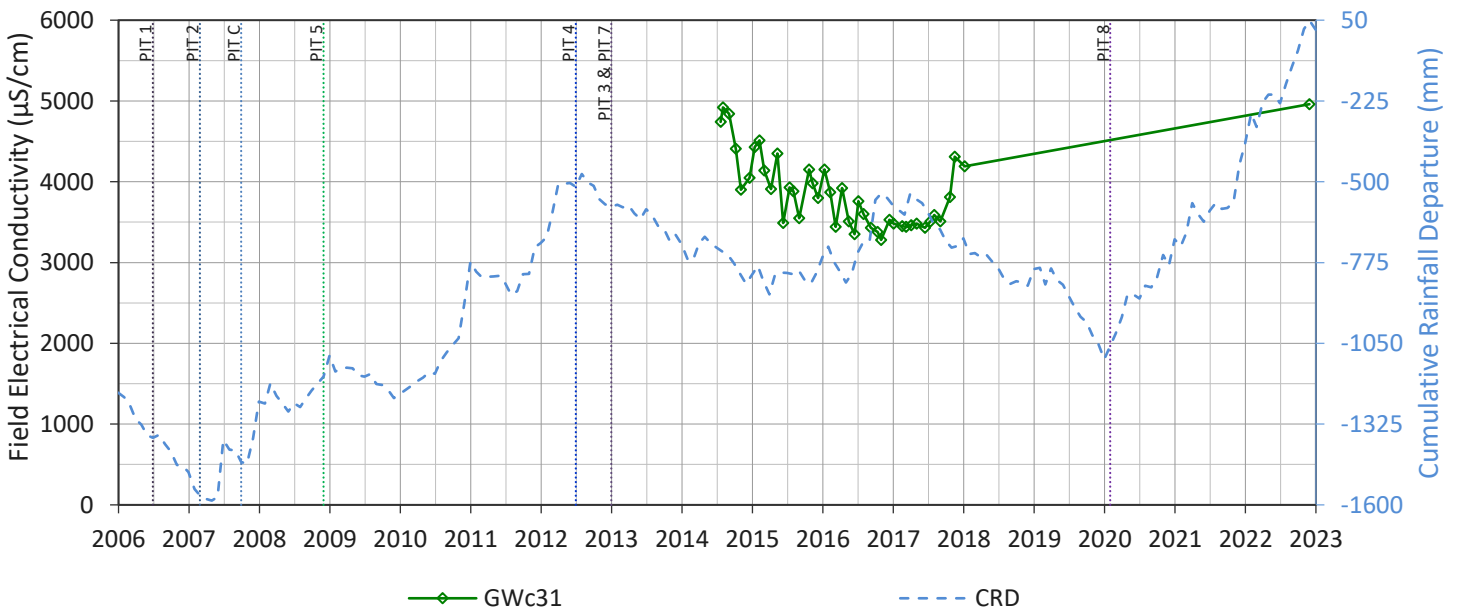
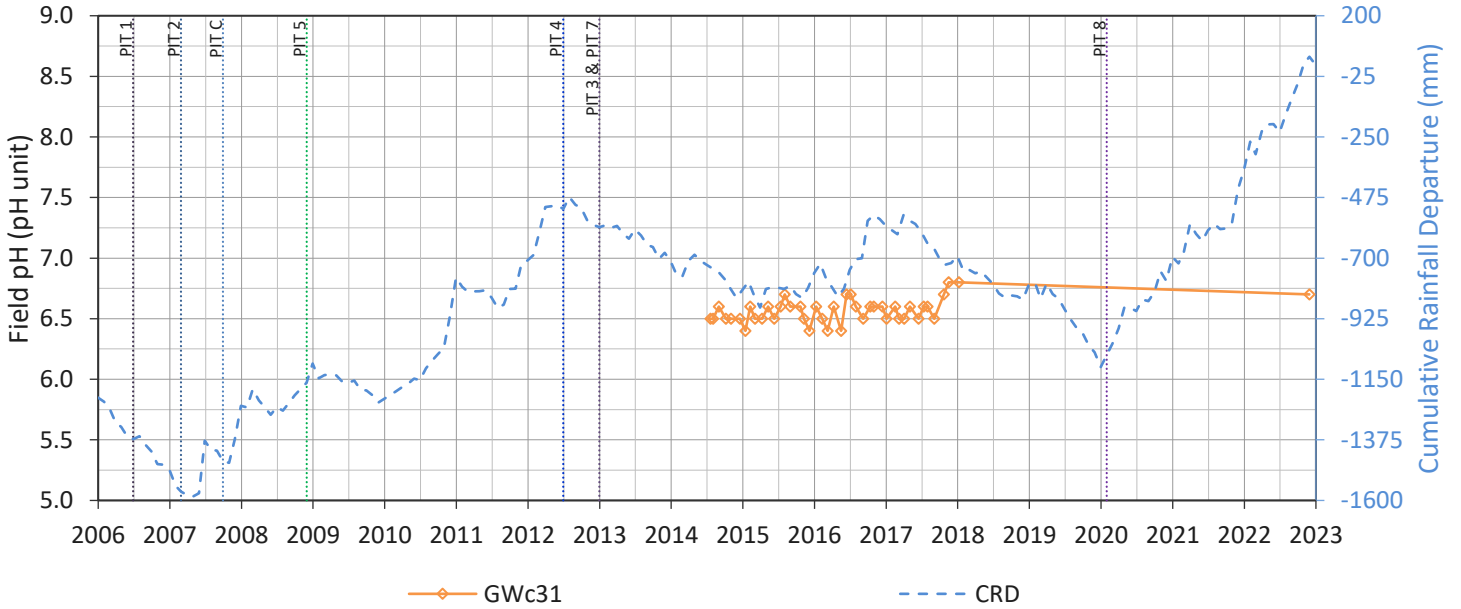
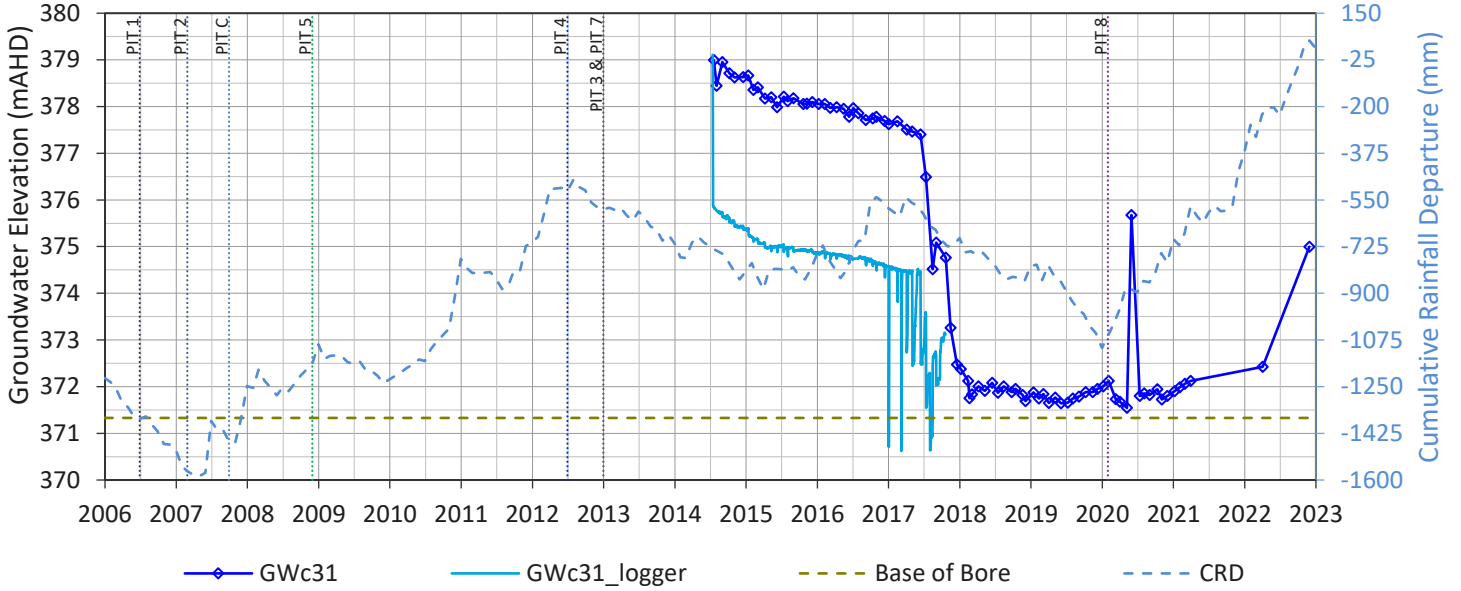
GWa22



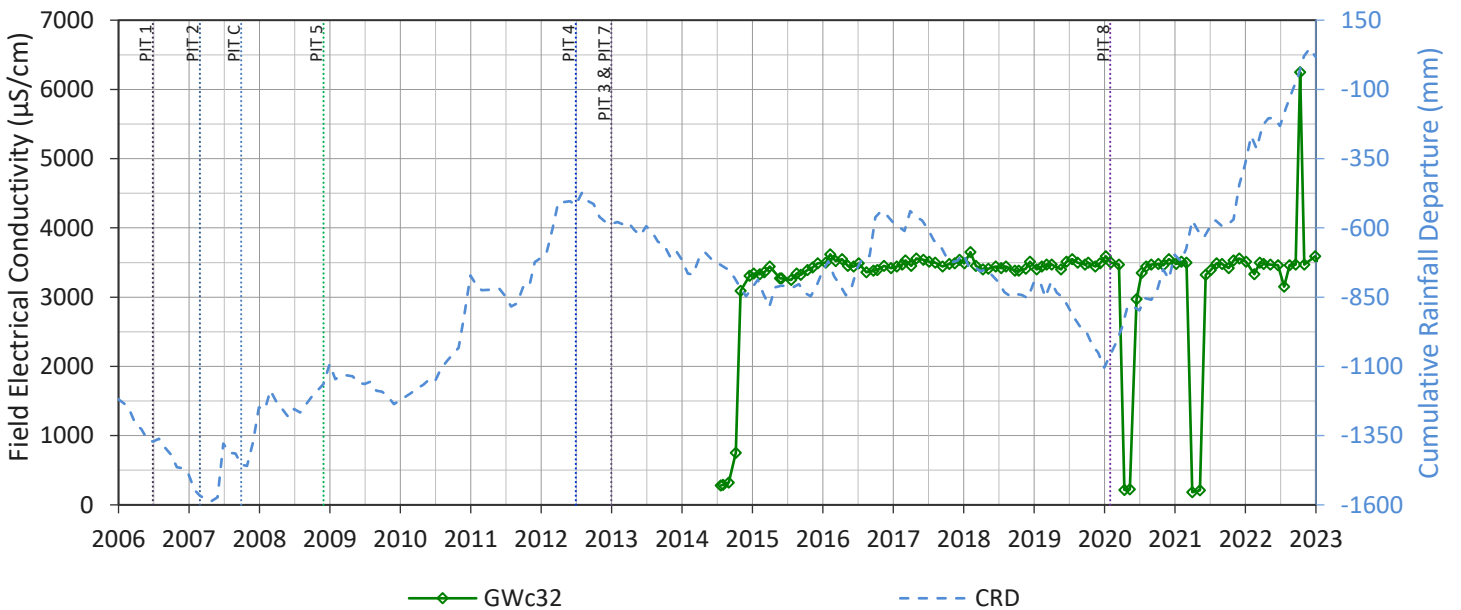
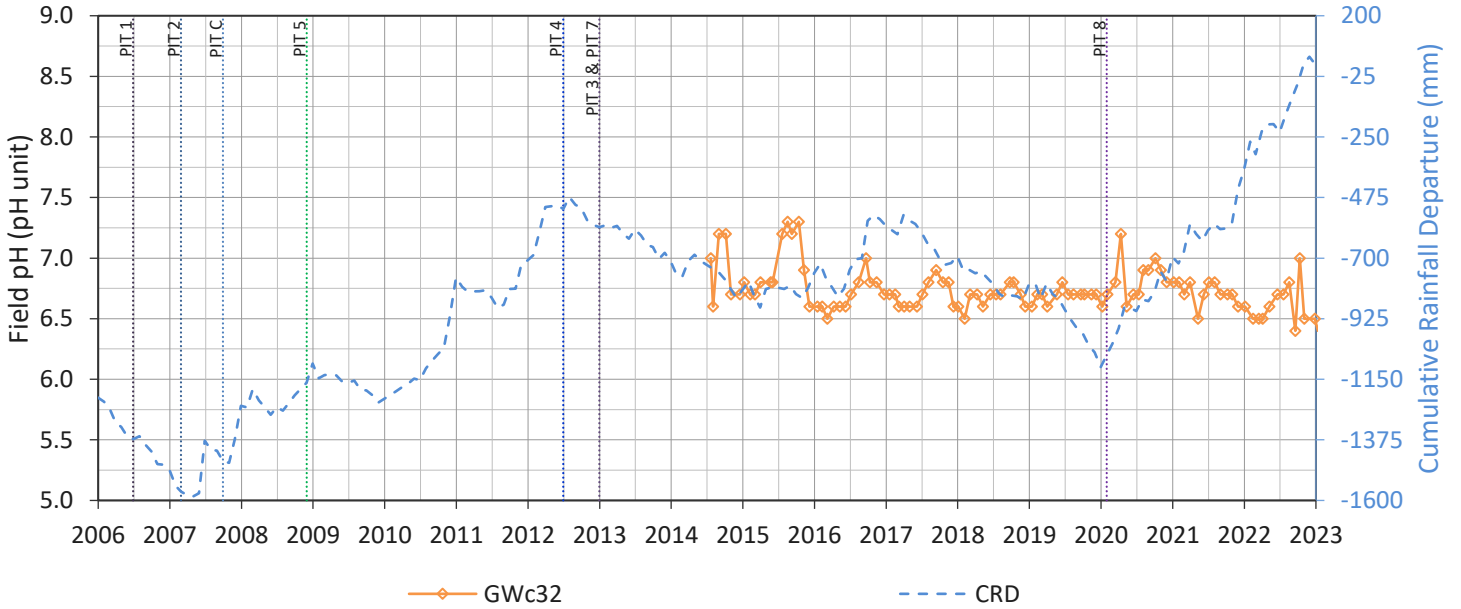
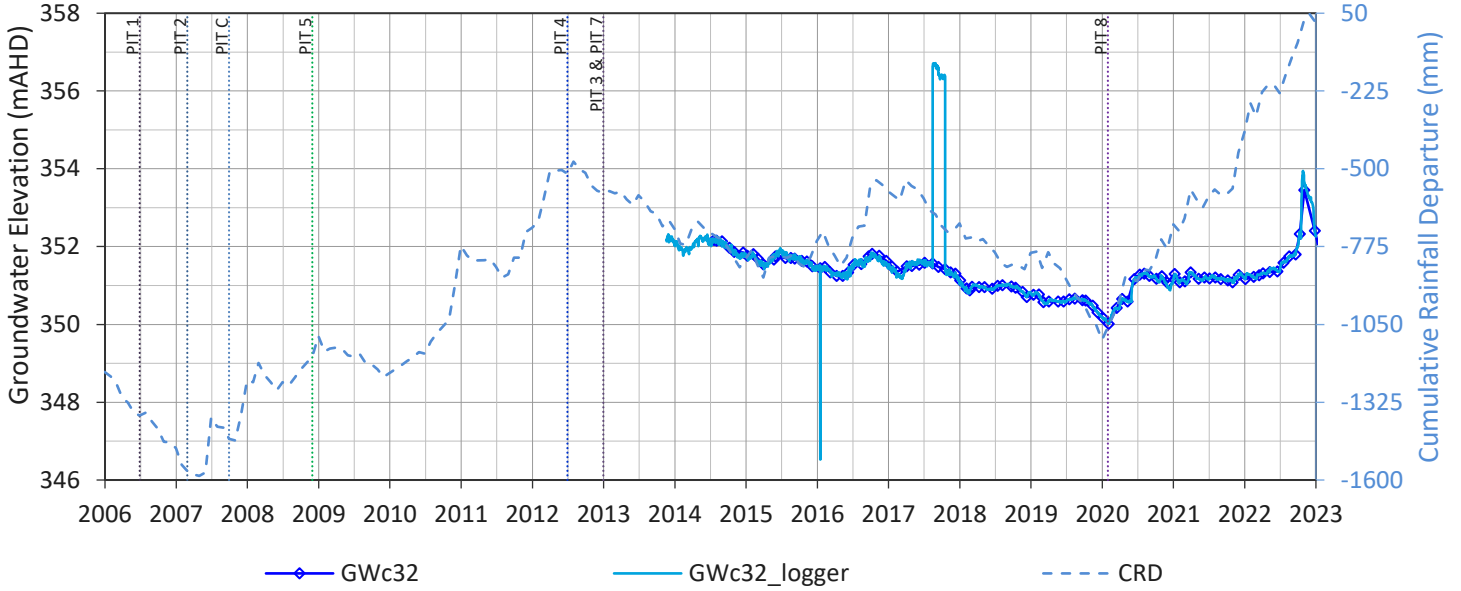
GWc33



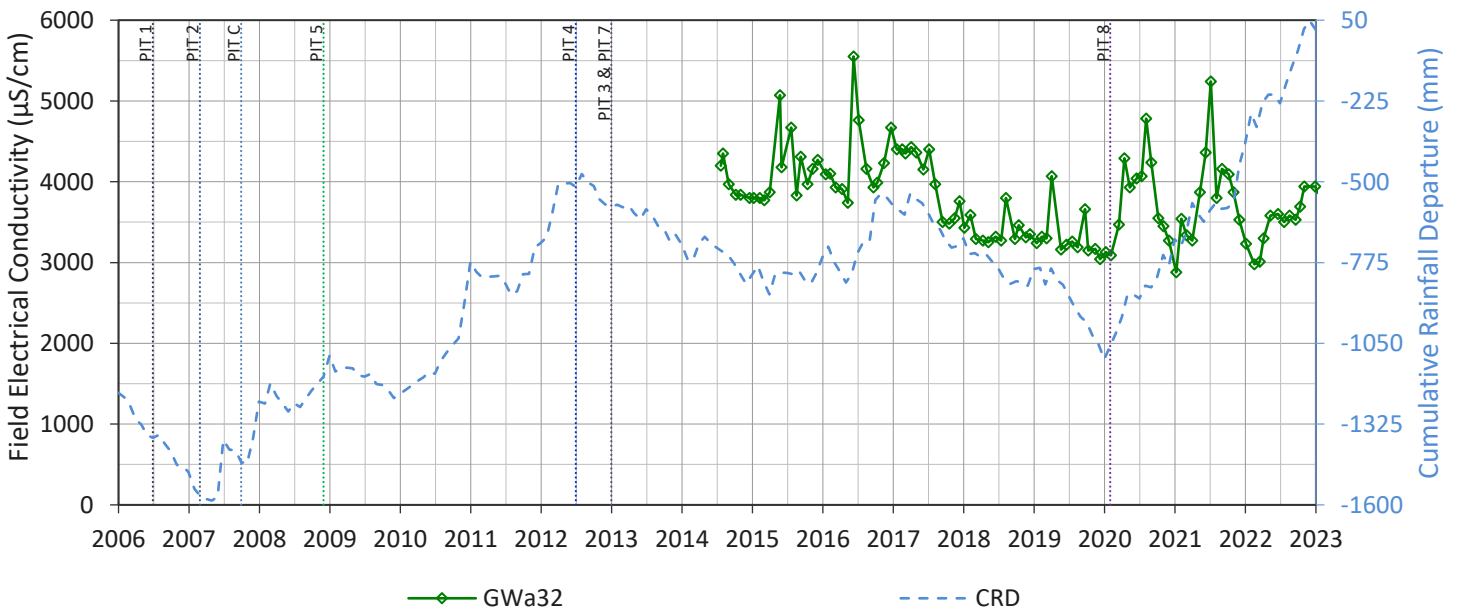
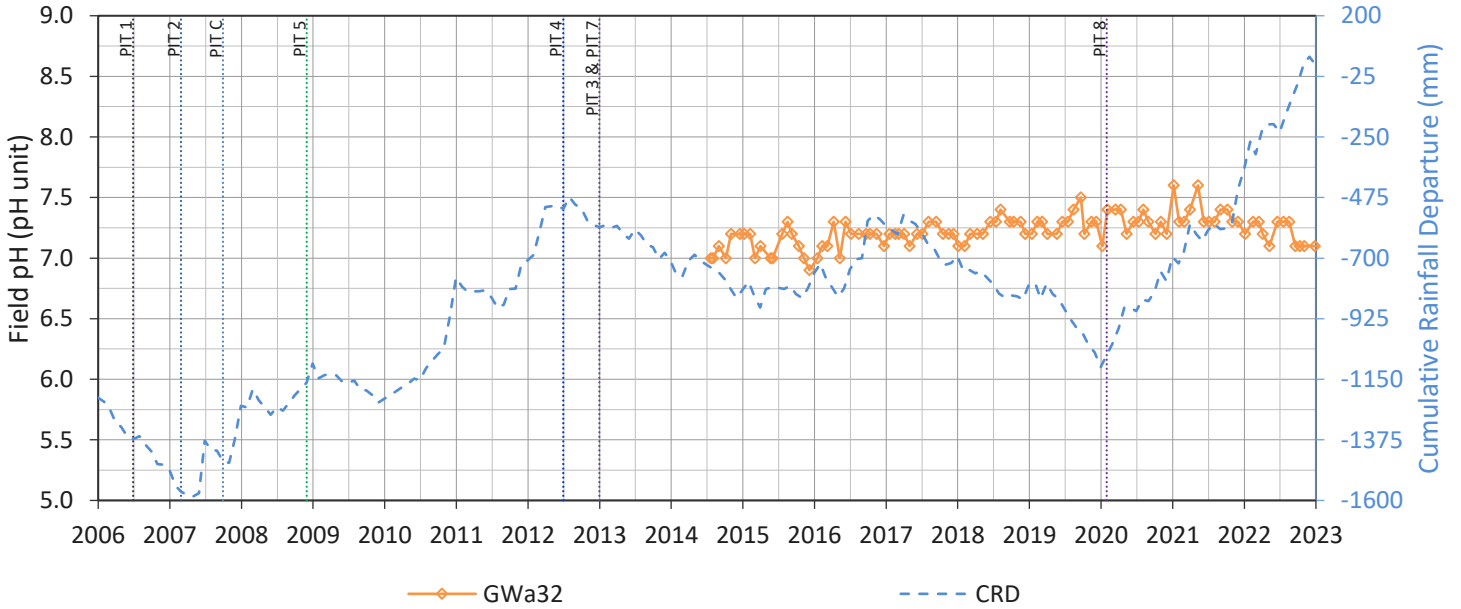
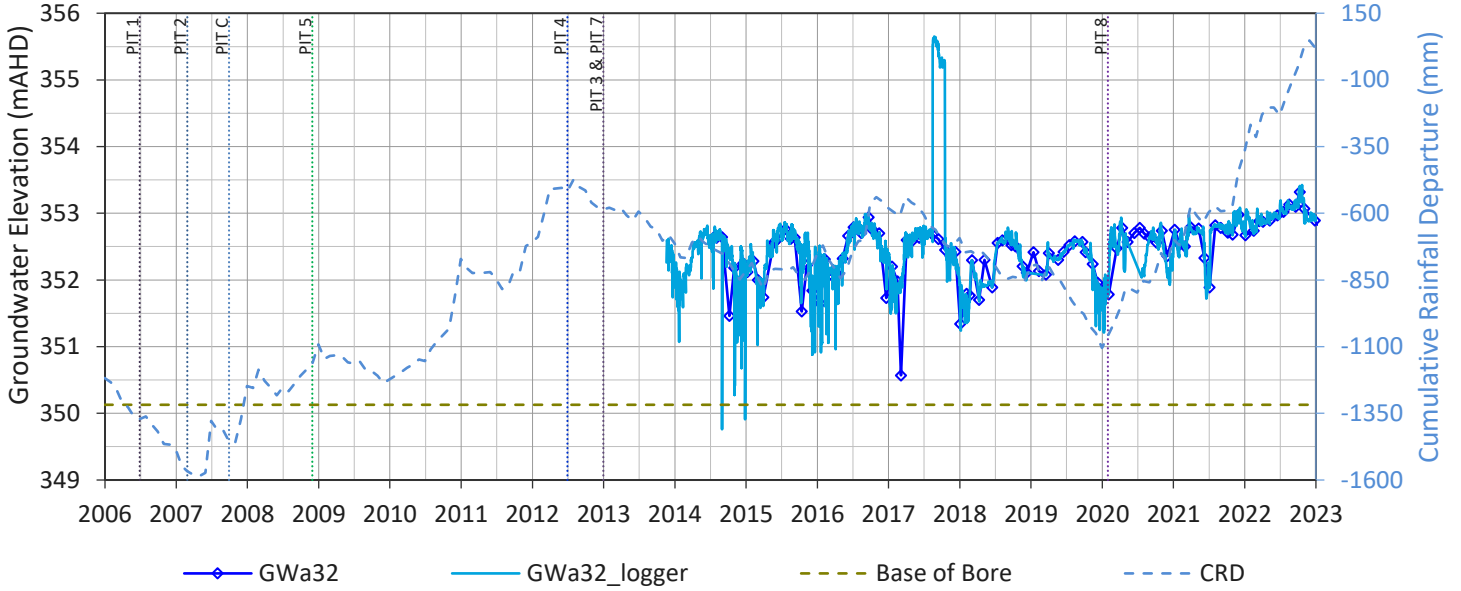
GWc31



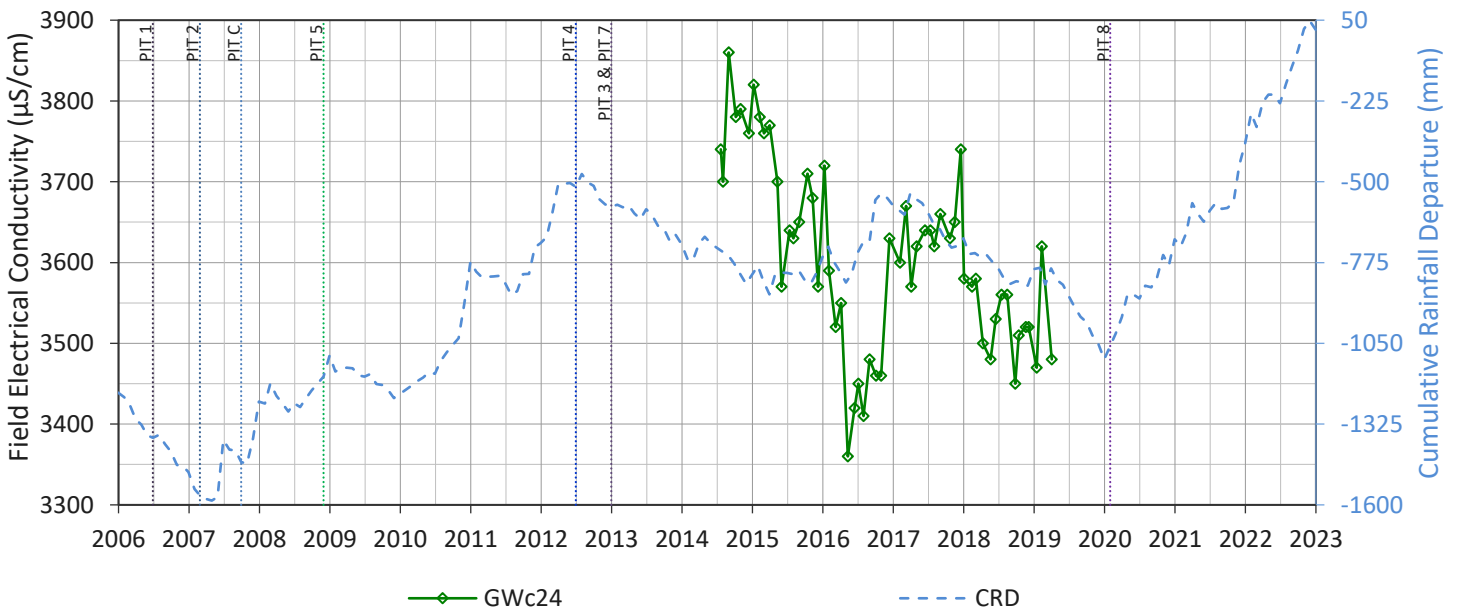
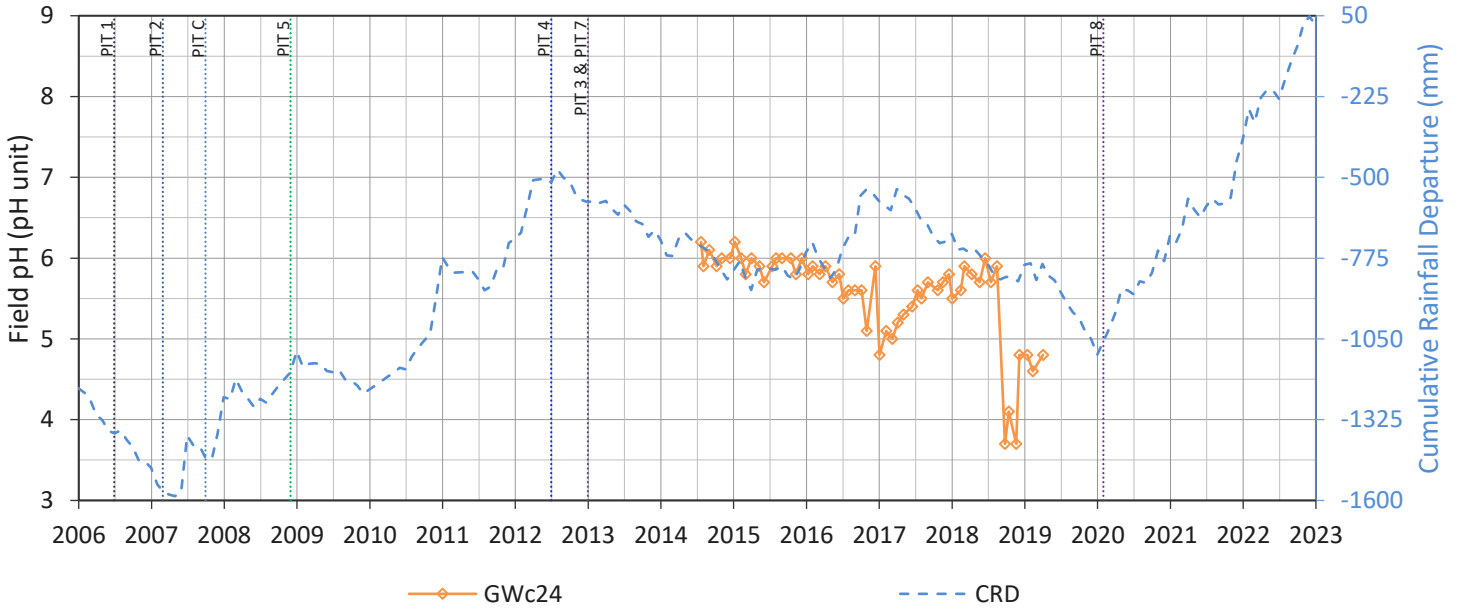
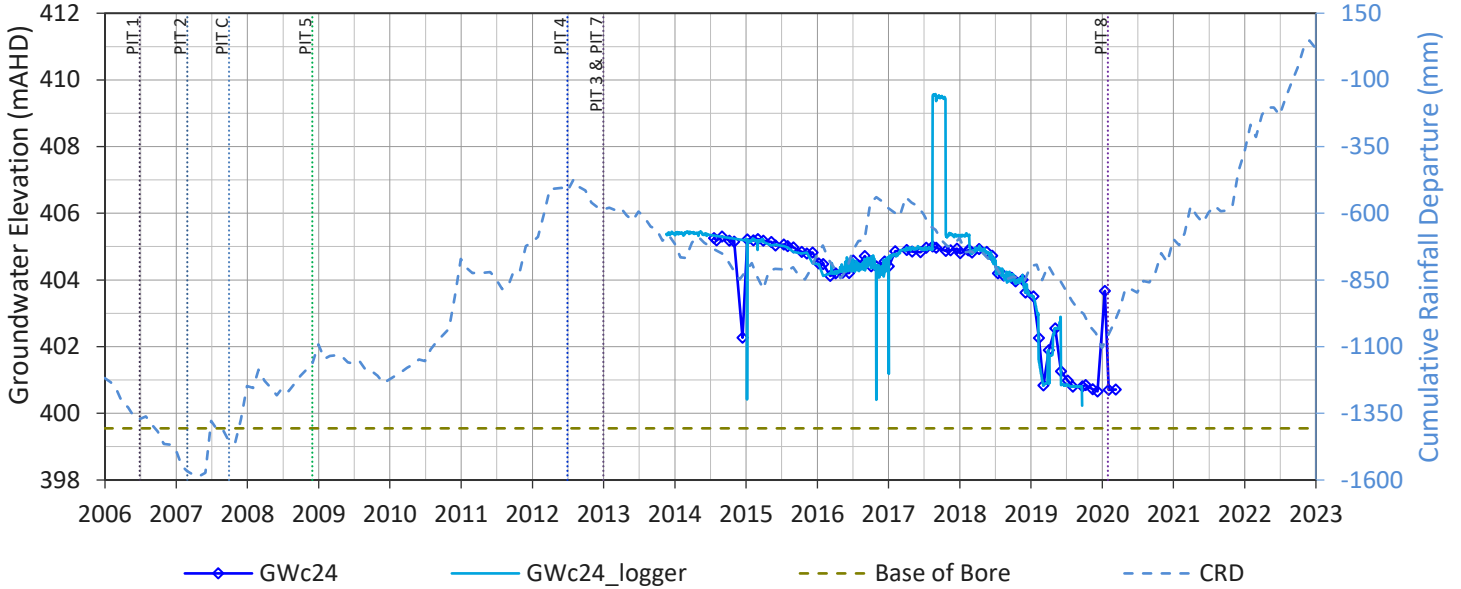
GWc32



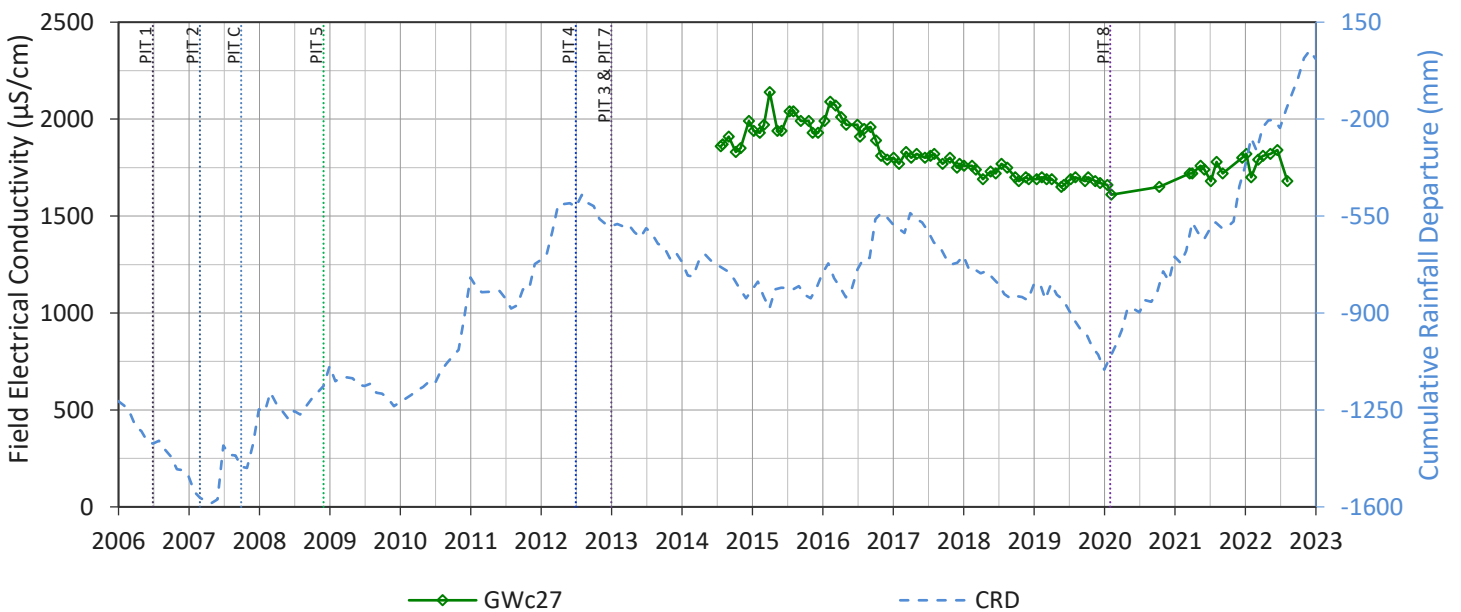
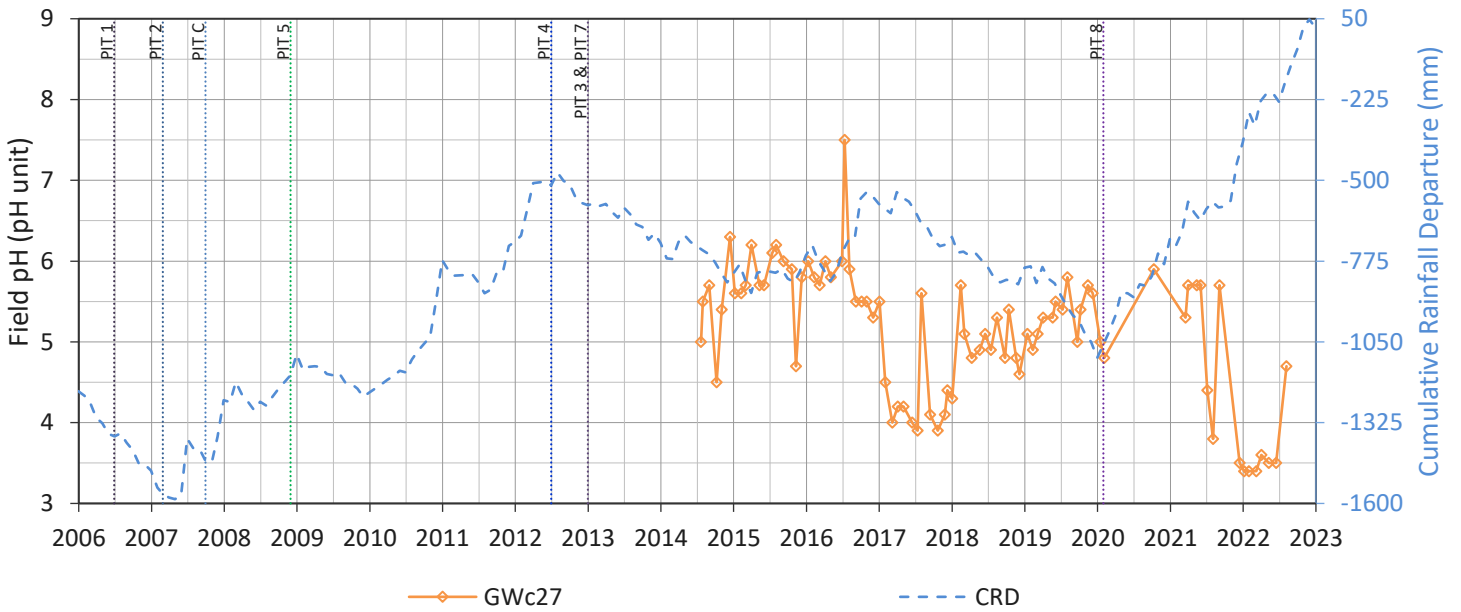
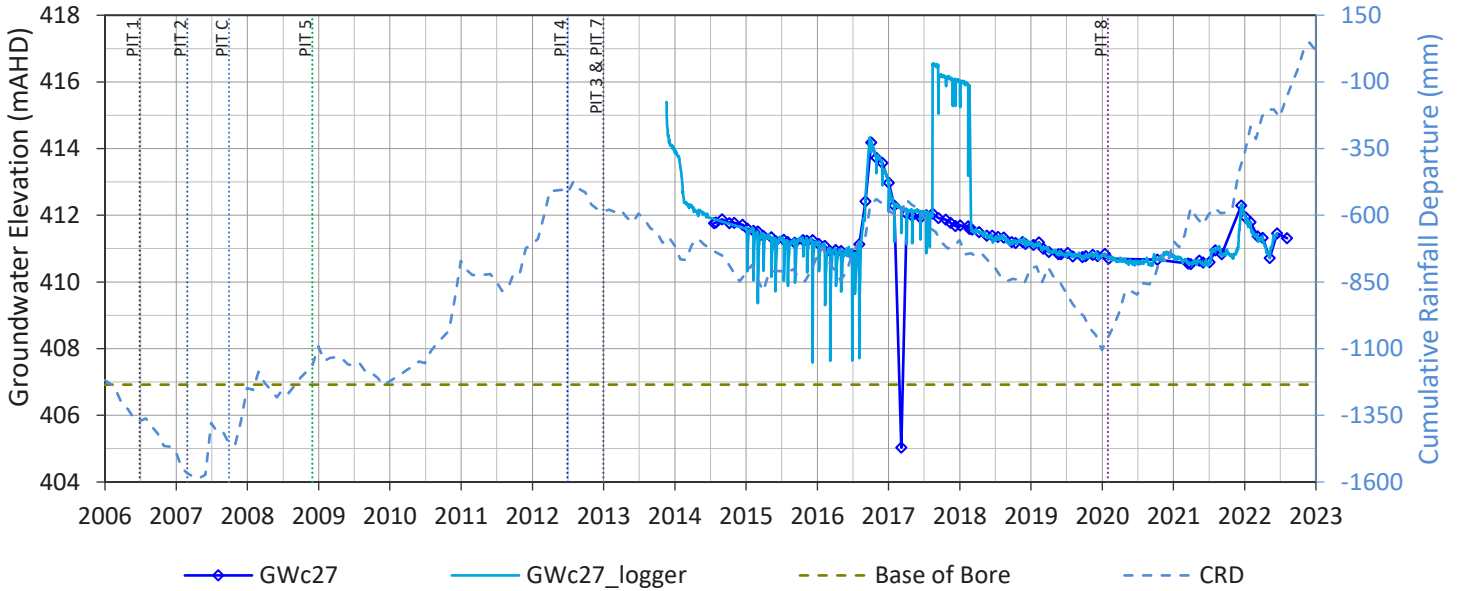
GWa32



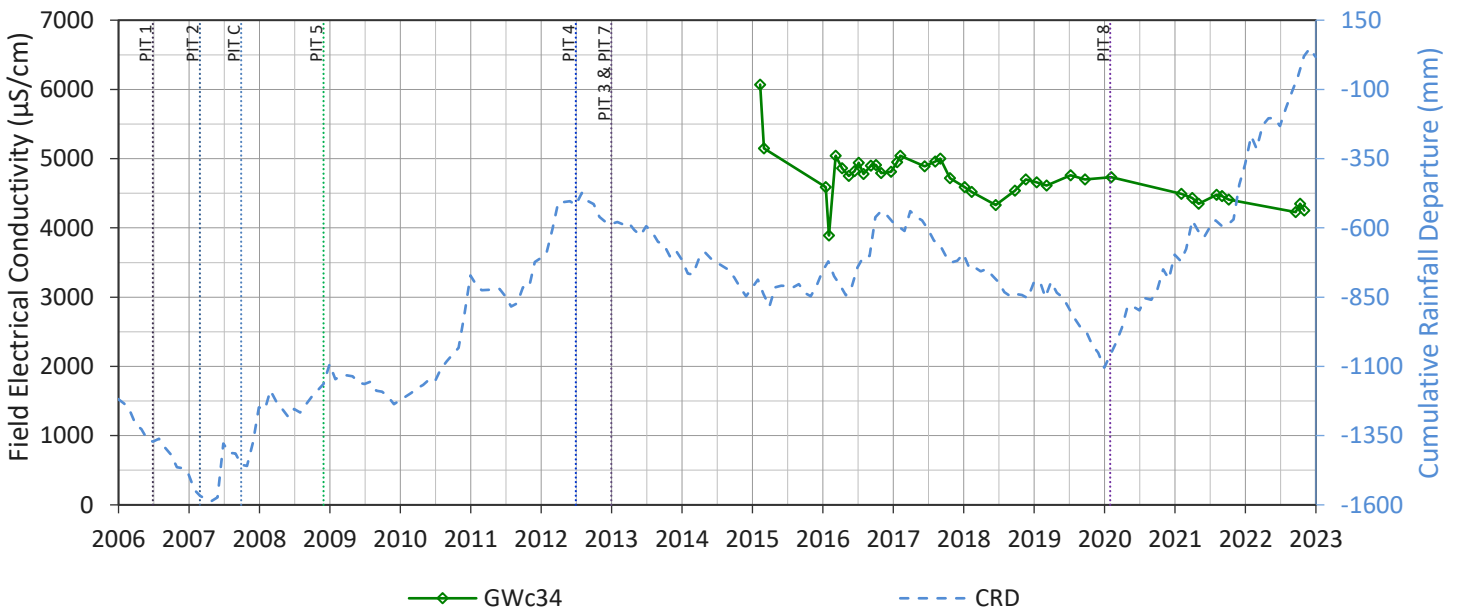
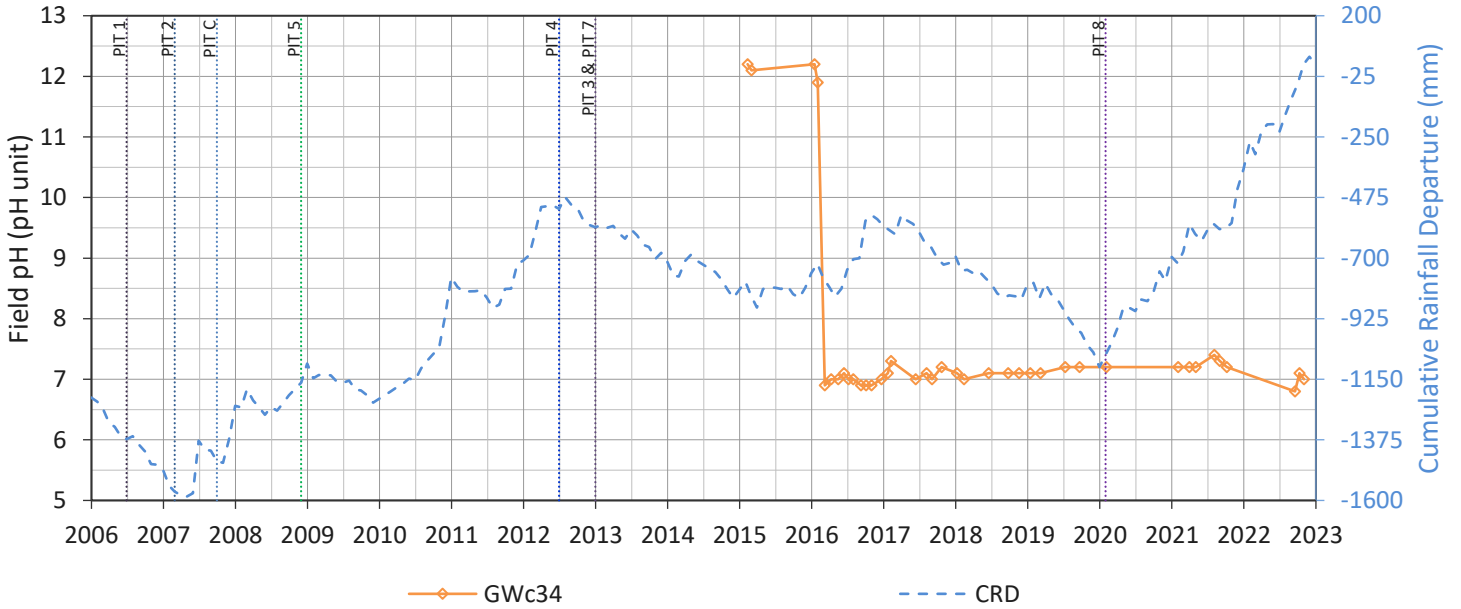
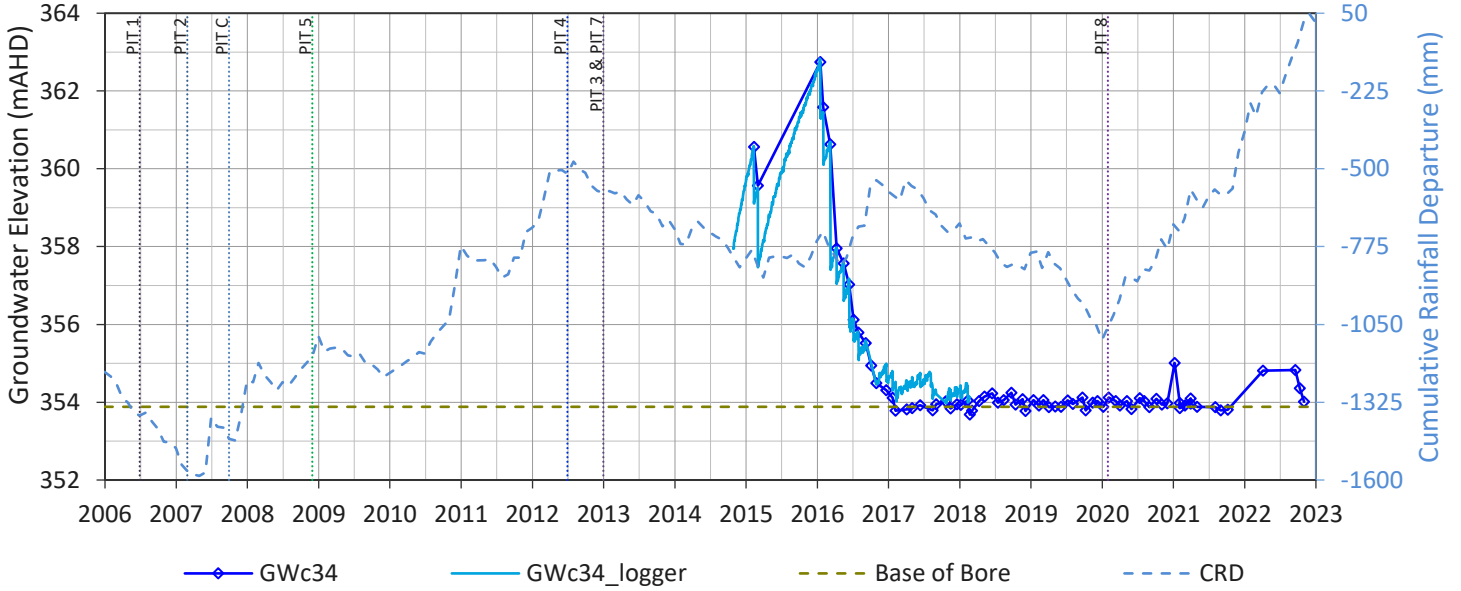
GWc24



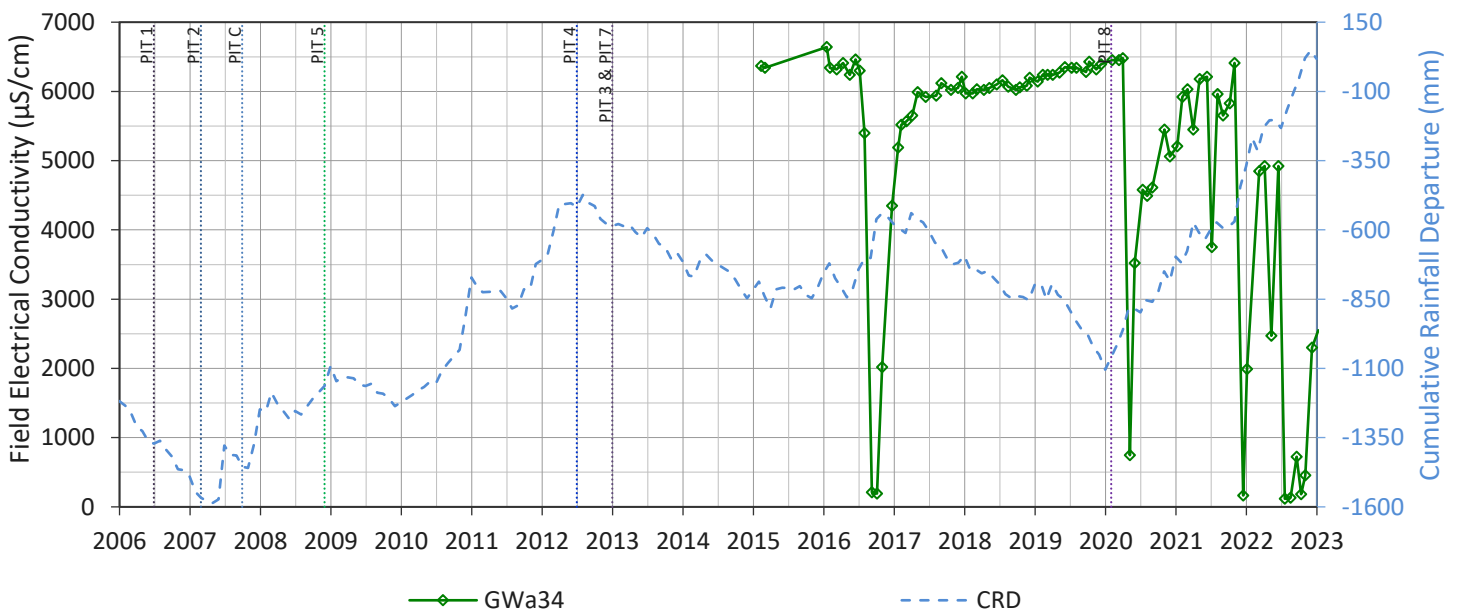
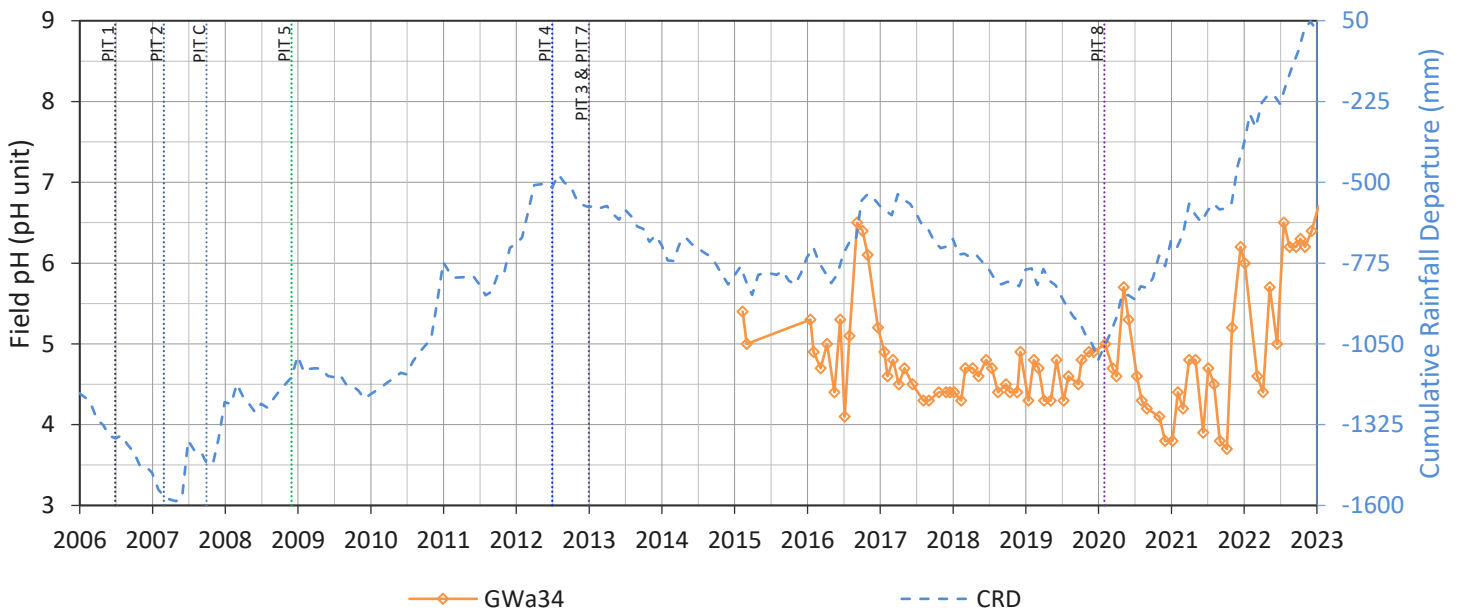
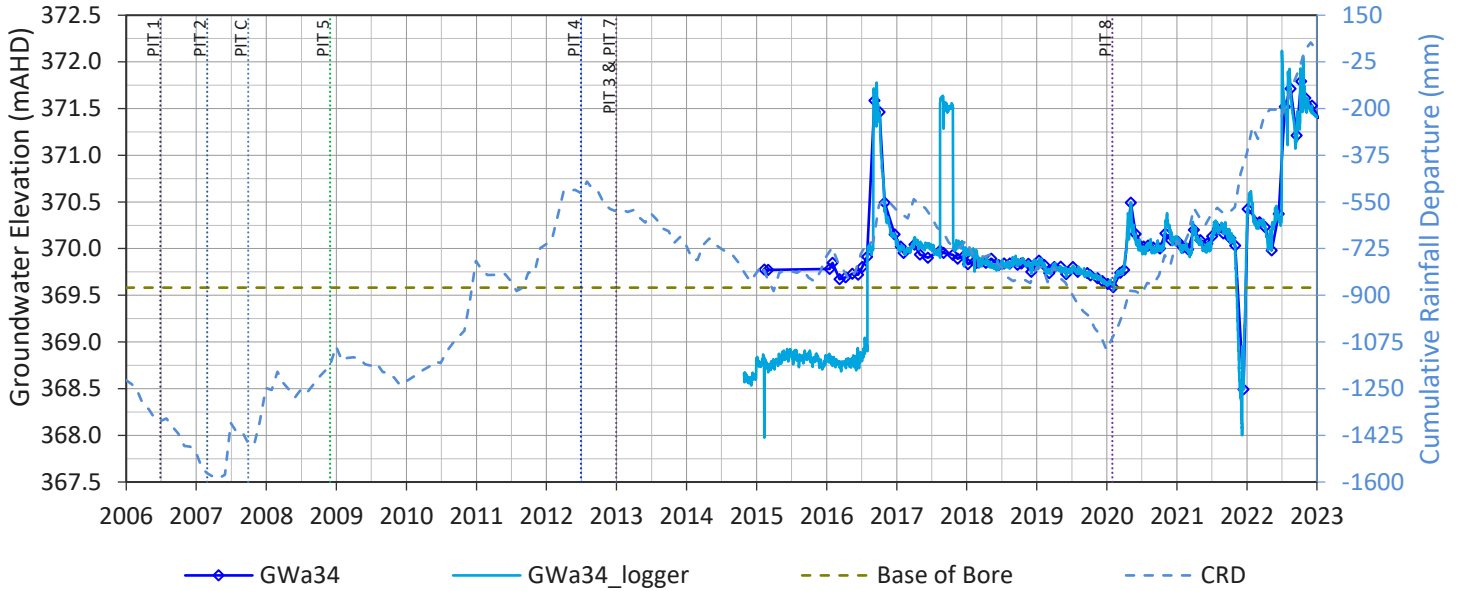
GWc27



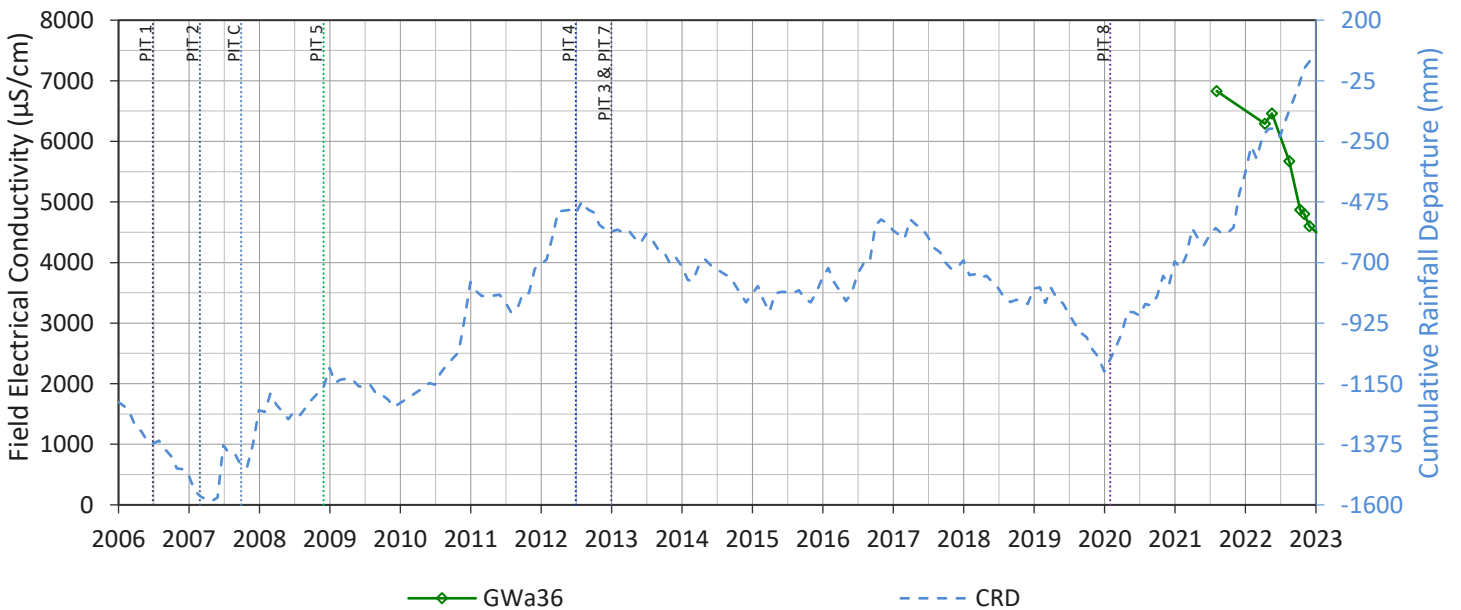
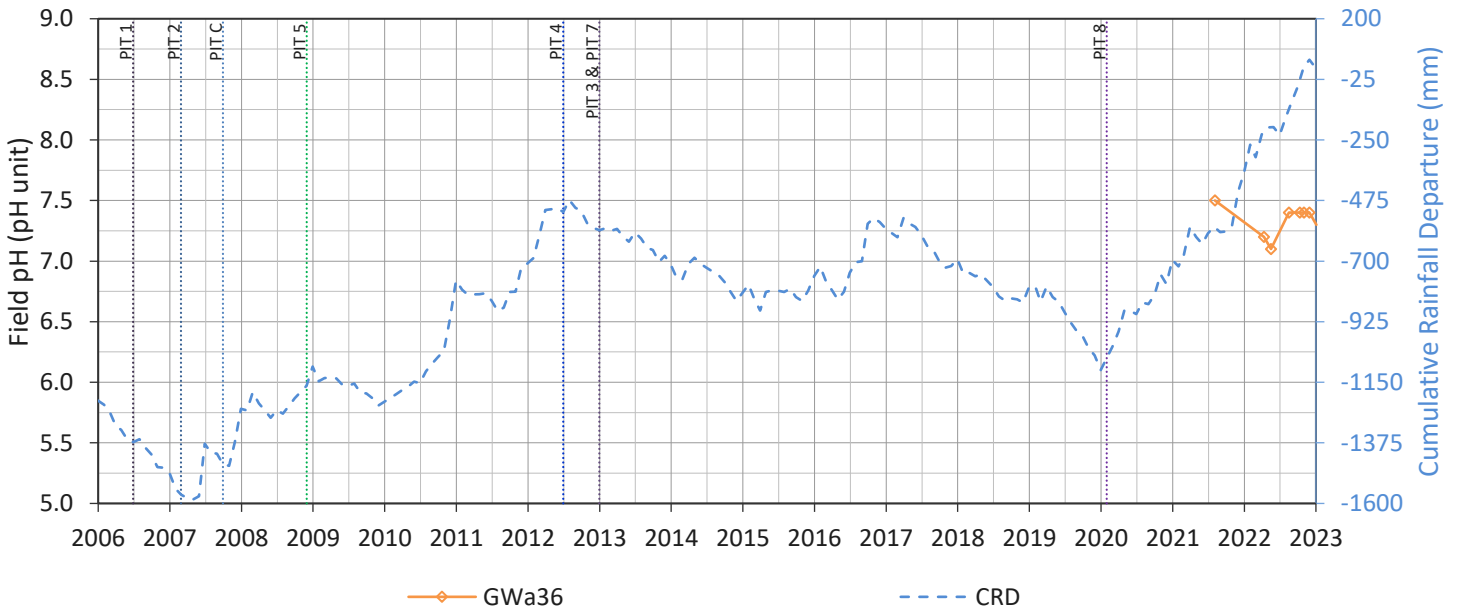
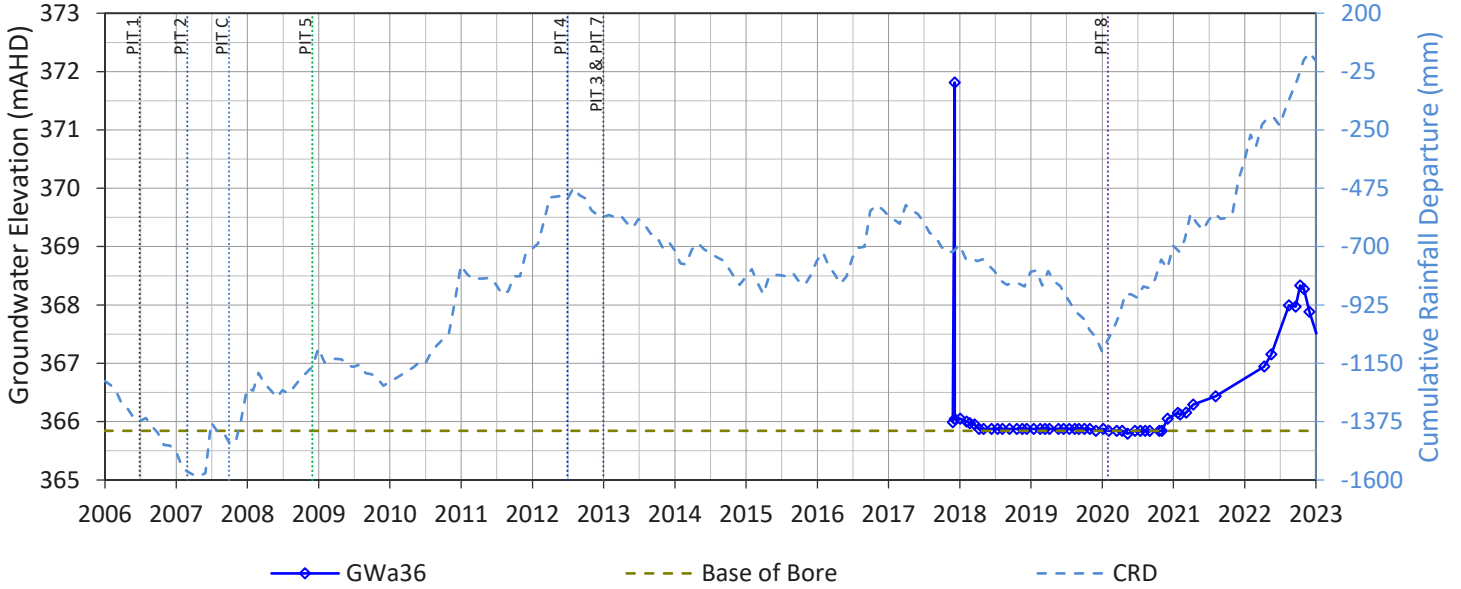
GWc34



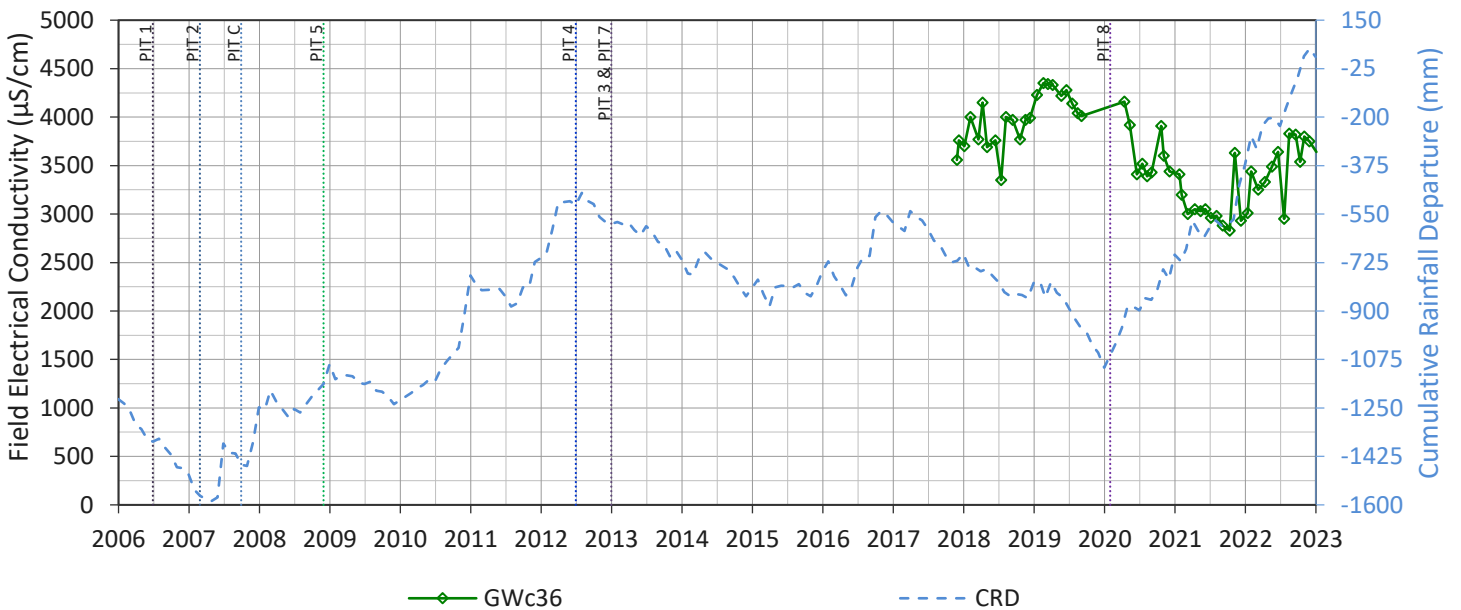
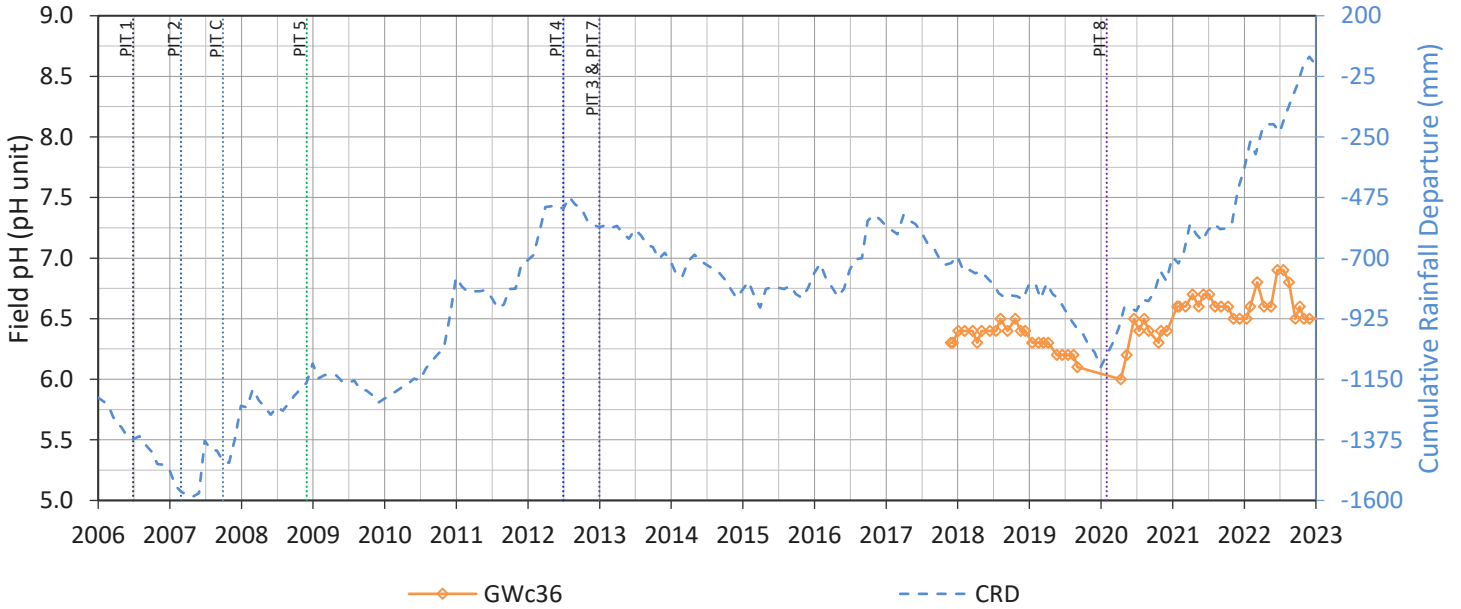
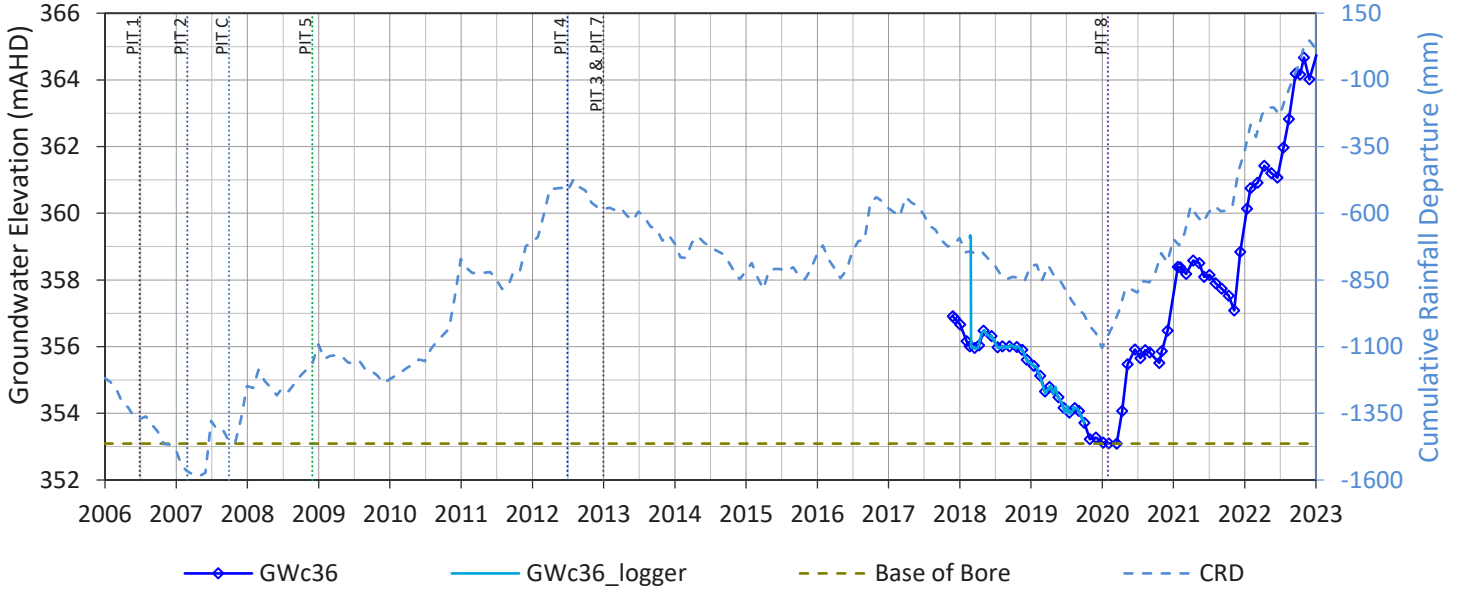
GWa34



GWa36

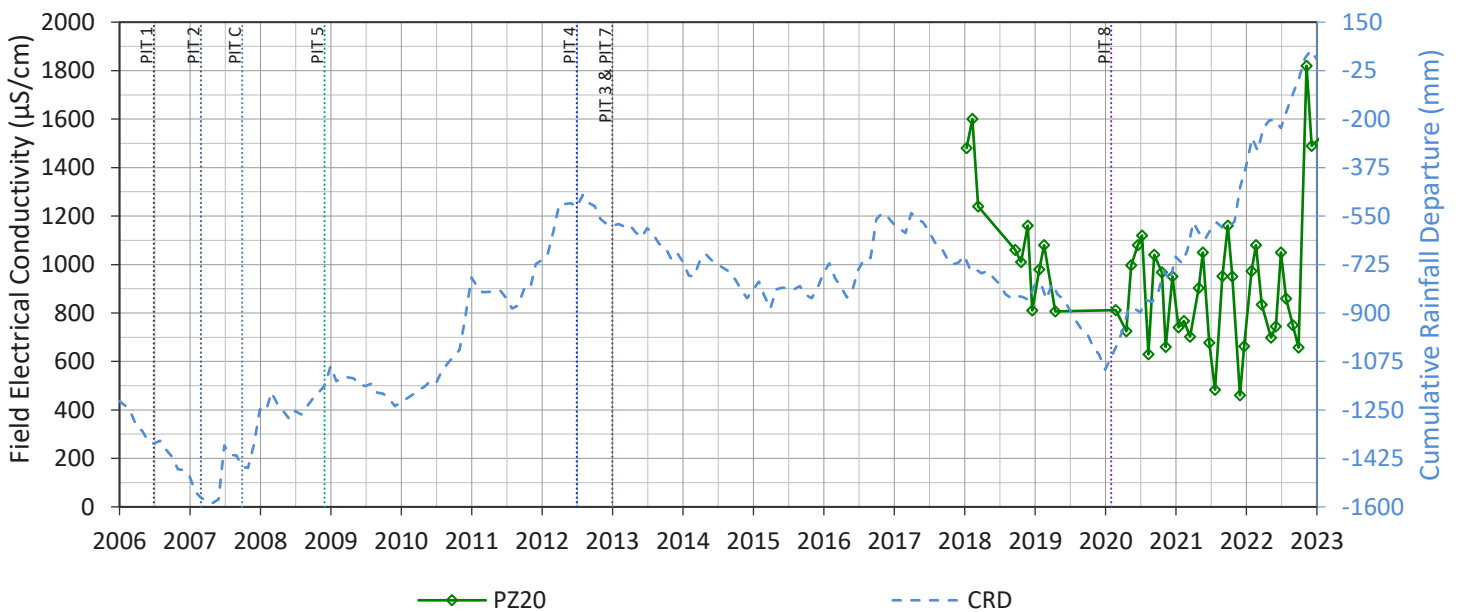
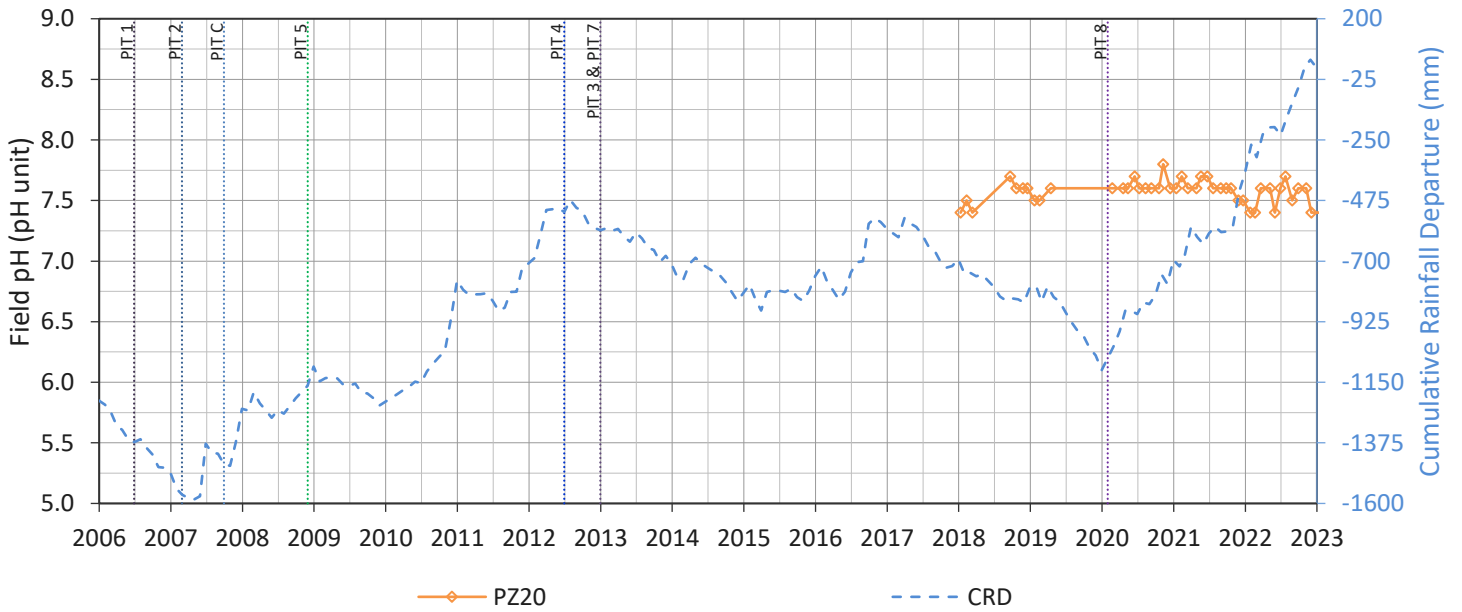


GWc36



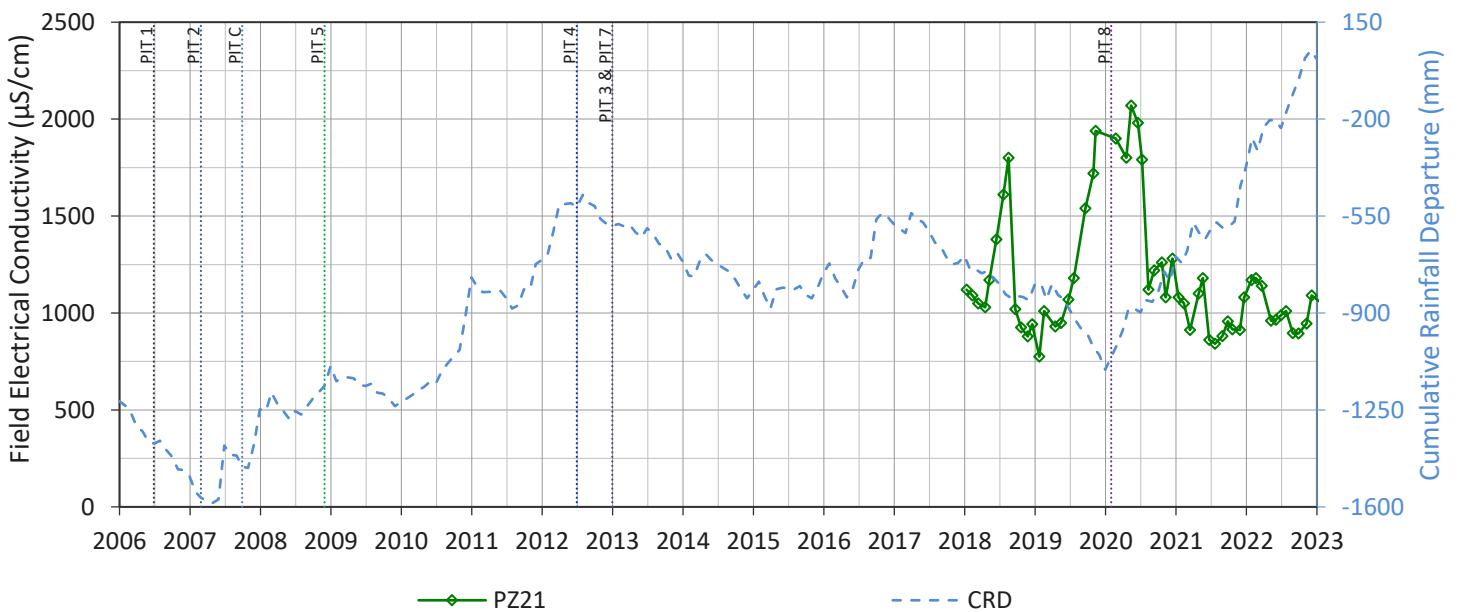
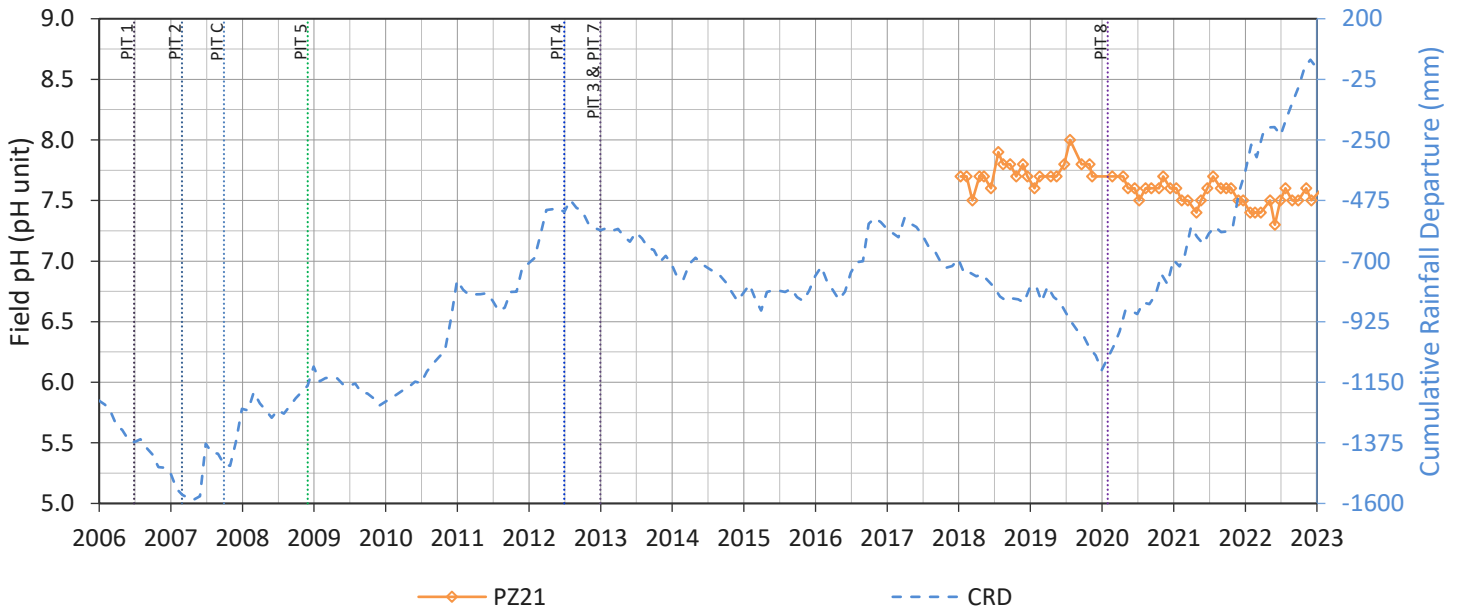
PZ20

No Data Available for Groundwater Elevation (mAHD)

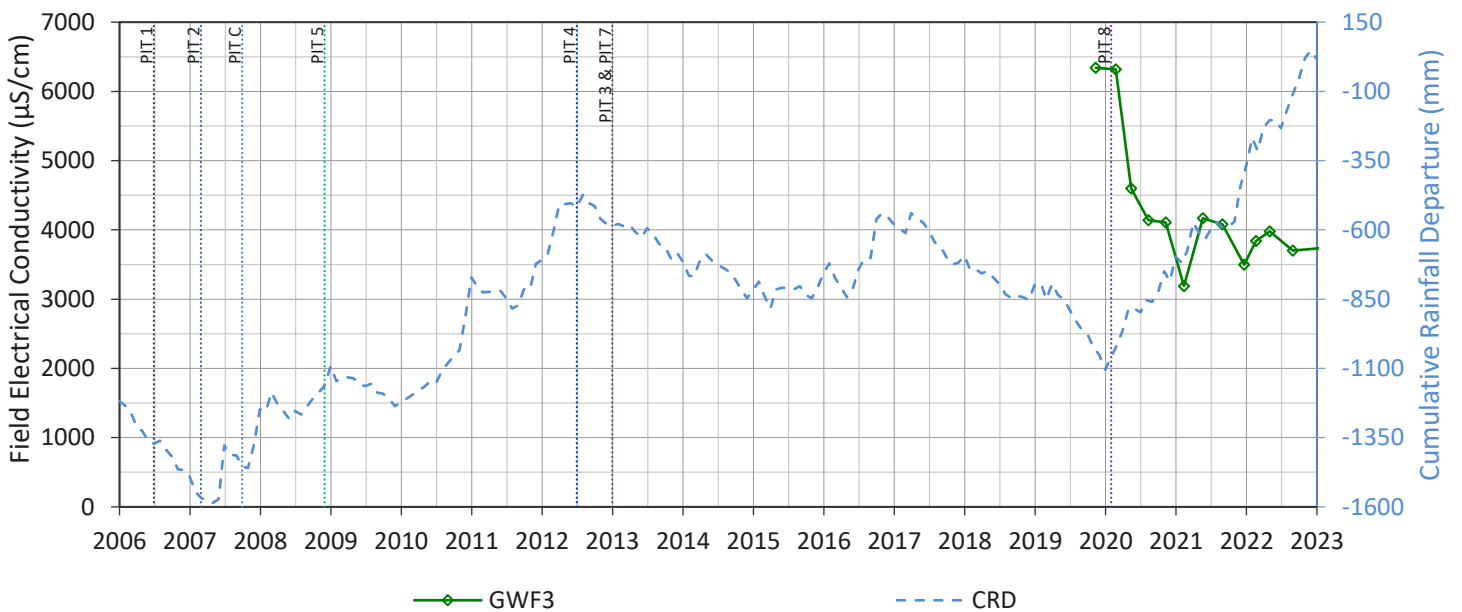
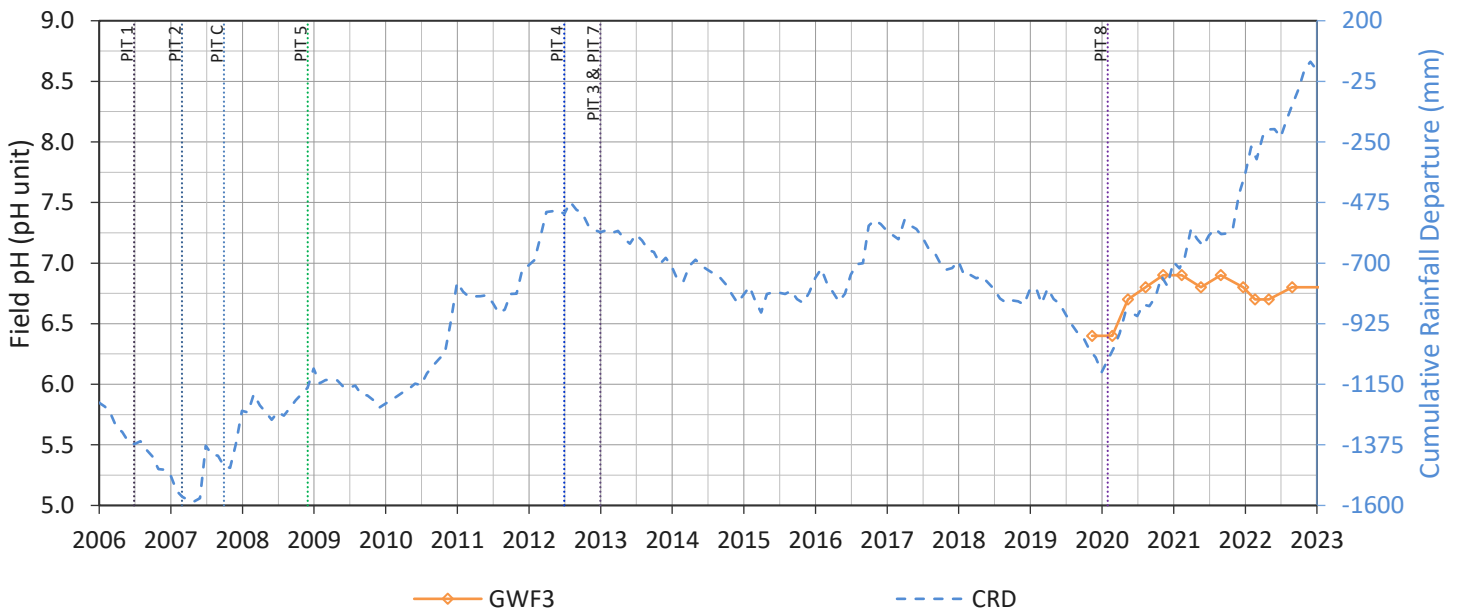
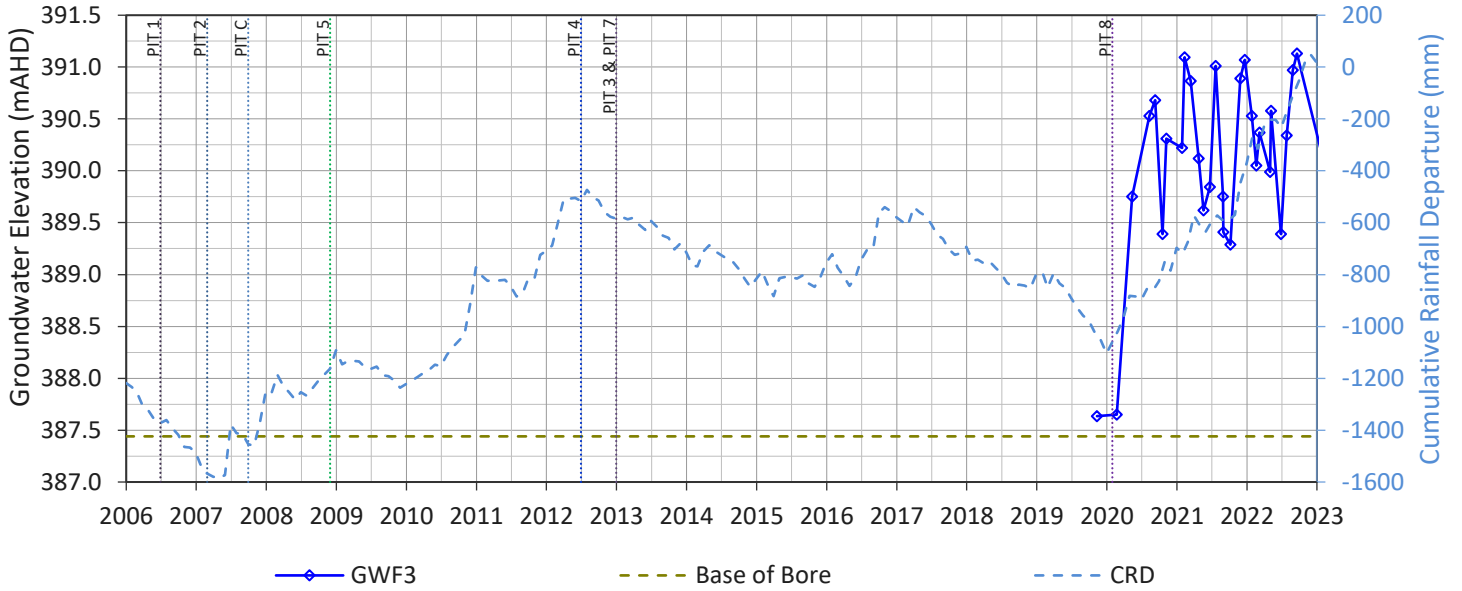


PZ21

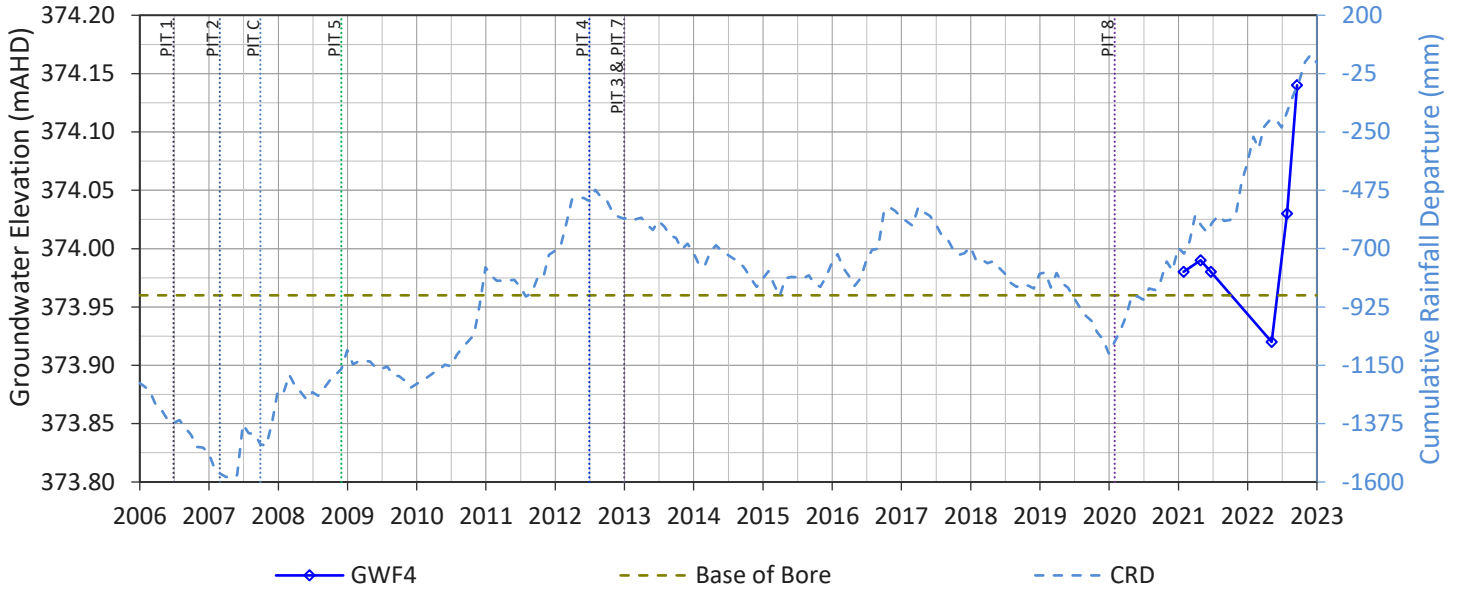
No Data Available for Groundwater Elevation (mAHD)



GWF3



GWF4



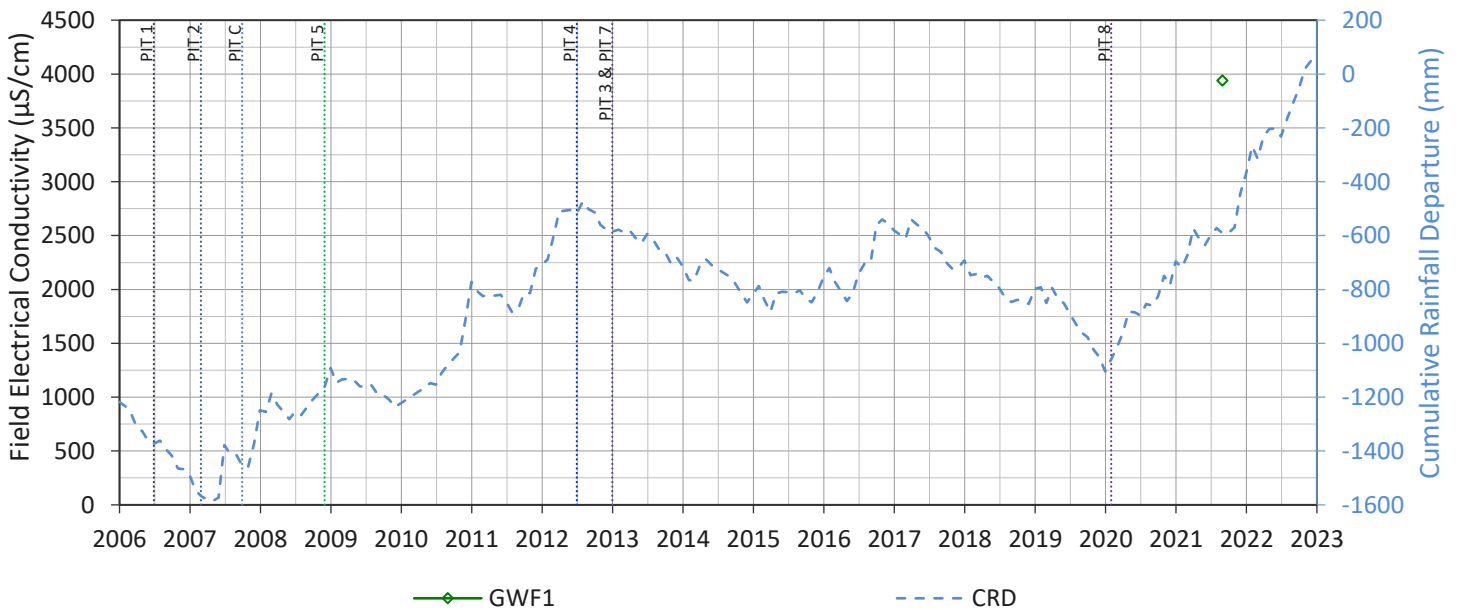
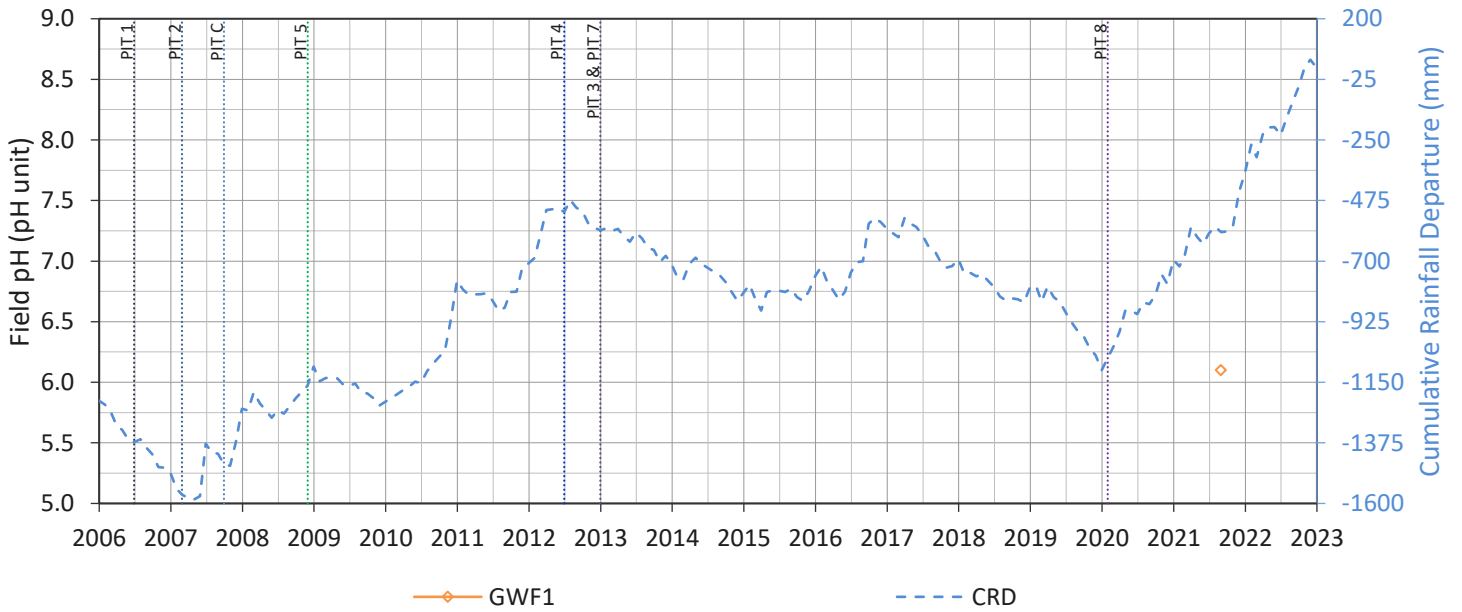
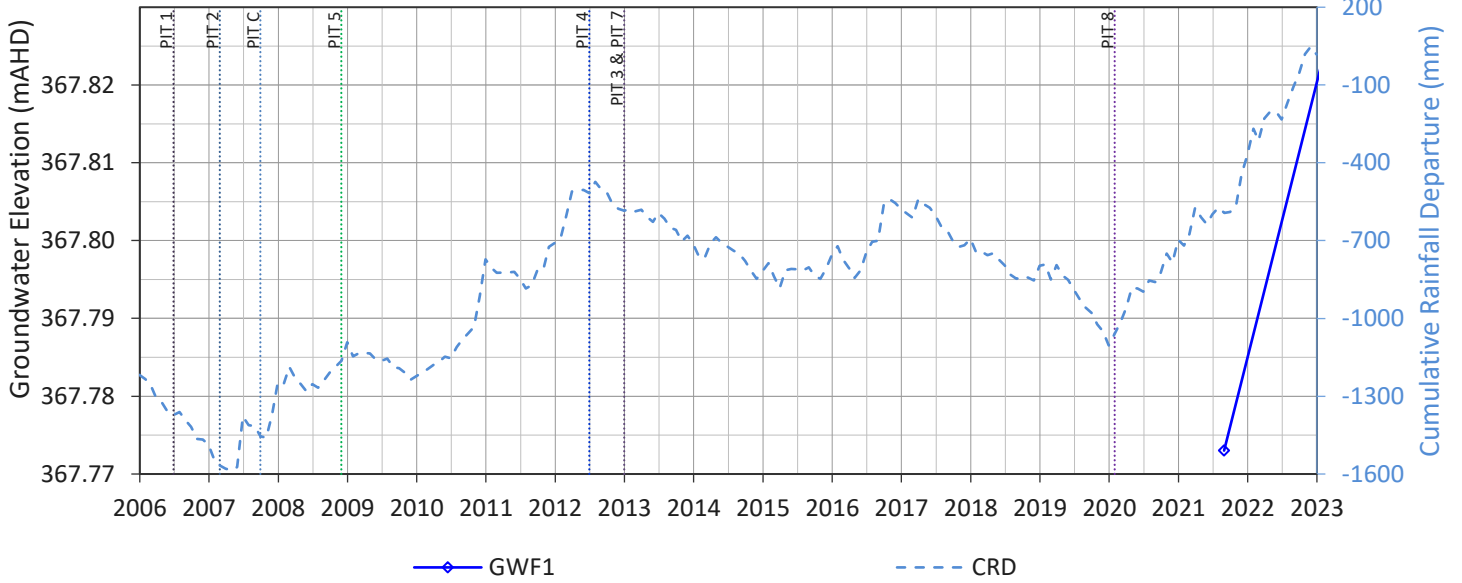
GWF4

No Data Available for Field pH (pH unit)

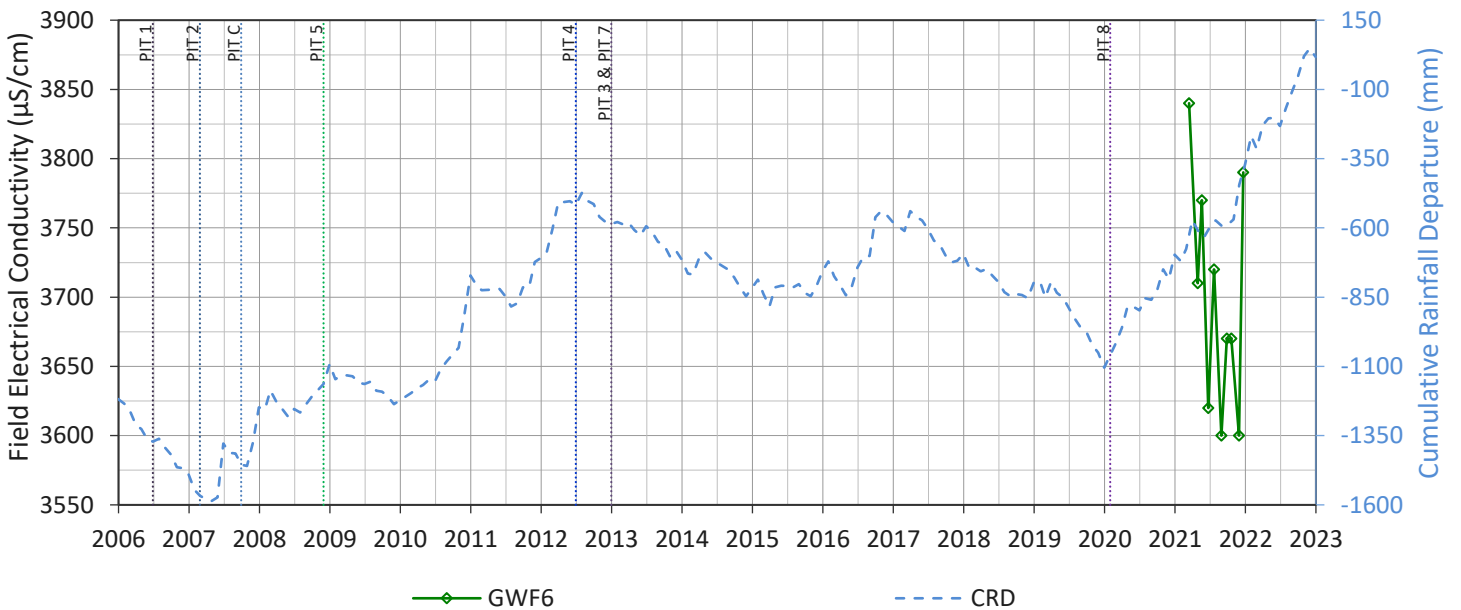
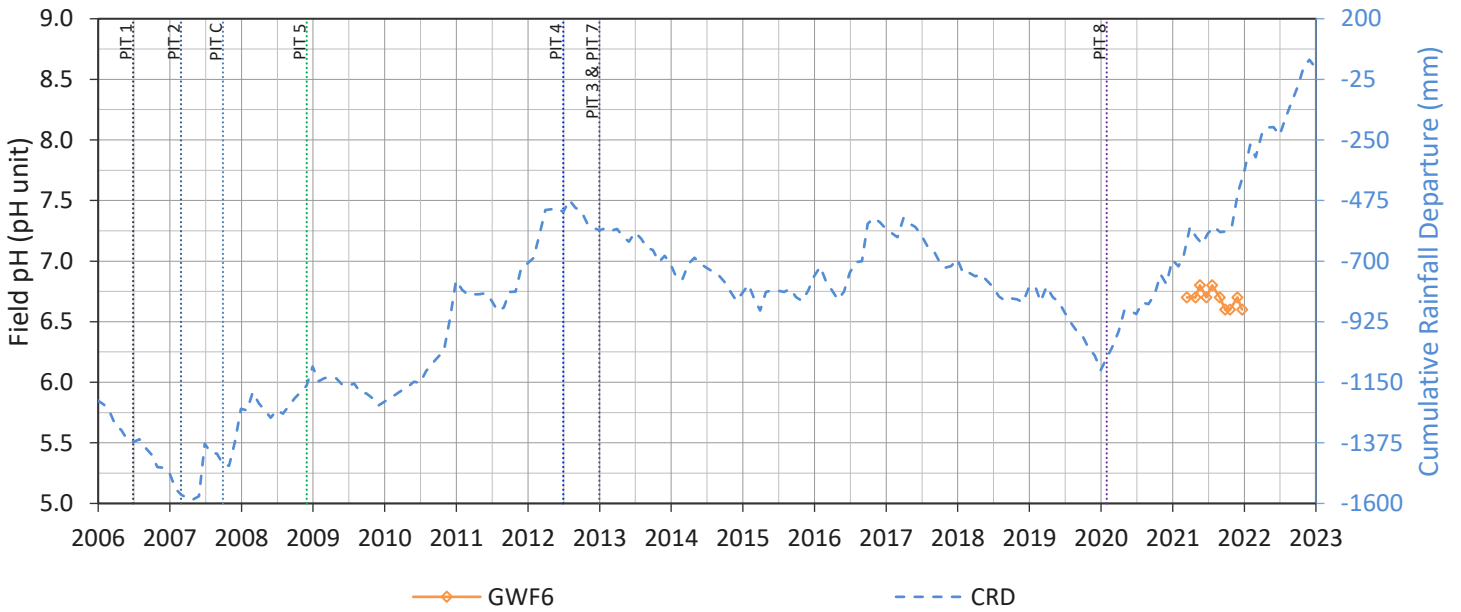
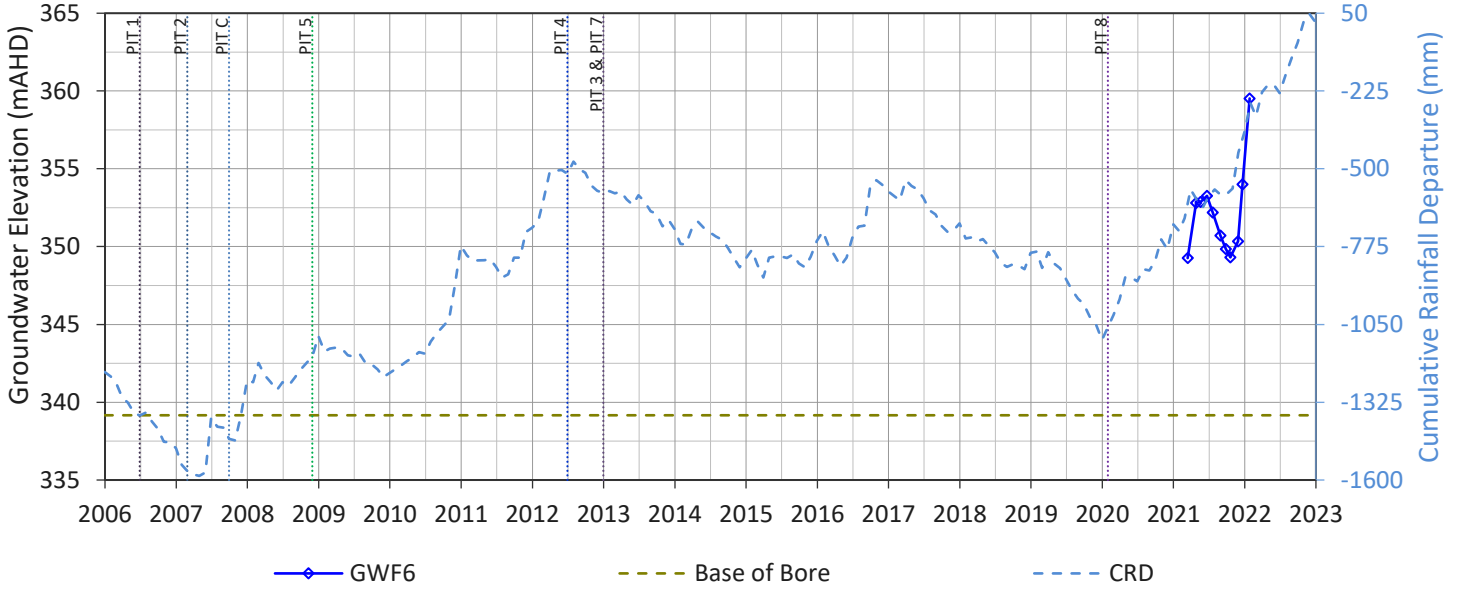
GWF4

No Data Available for Field Electrical Conductivity ($\mu\text{S}/\text{cm}$)

GWF1

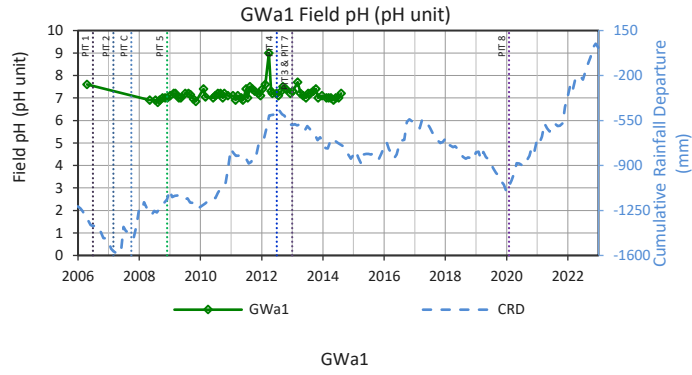
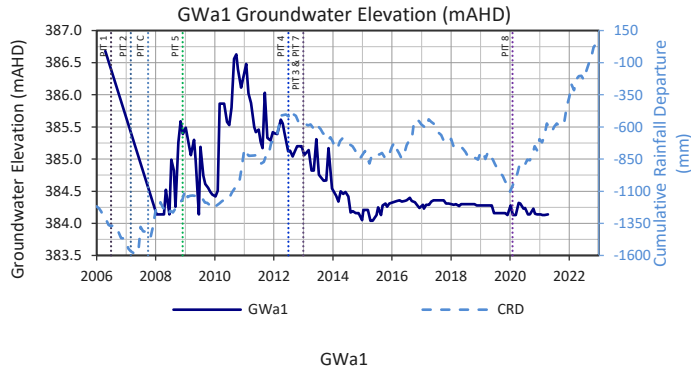


GW6



APPENDIX C

Metal Species and Major Ion Concentration Charts



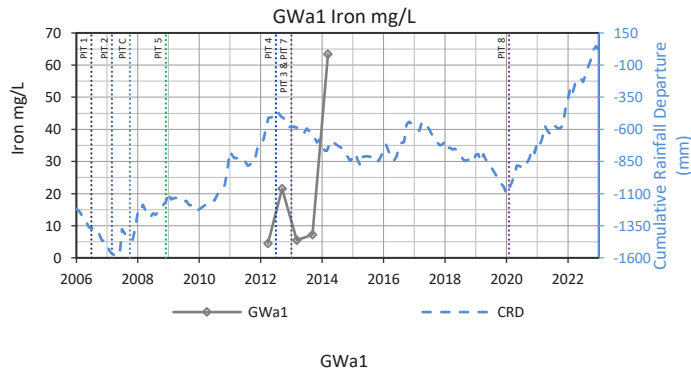
GWa1

No Data Available for Aluminium mg/L

No Data Available for Arsenic mg/L

No Data Available for Barium mg/L

No Data Available for Copper mg/L



GWa1

No Data Available for Lead mg/L

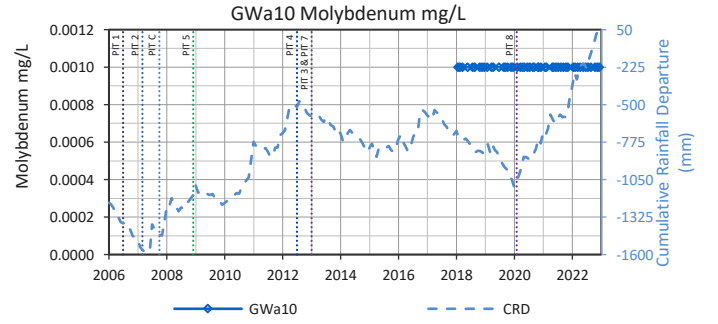
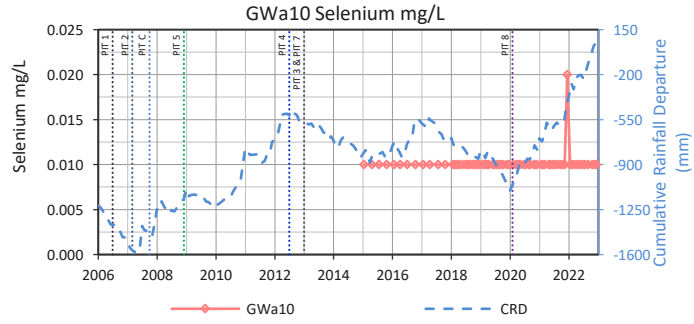
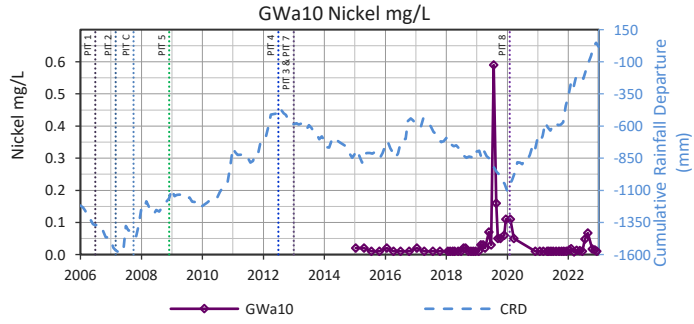
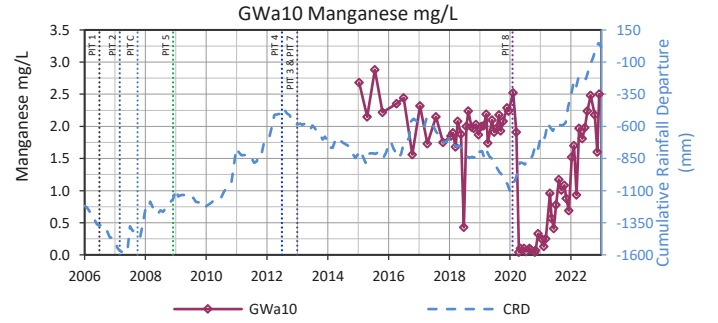
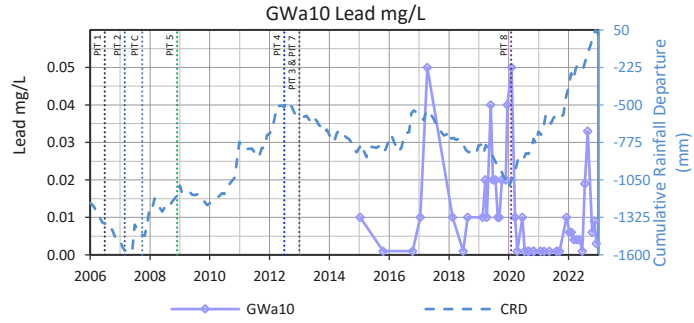
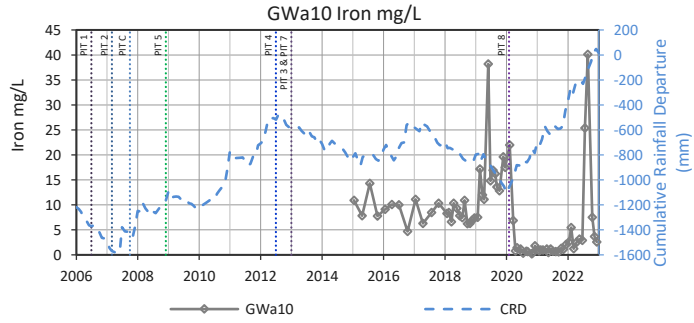
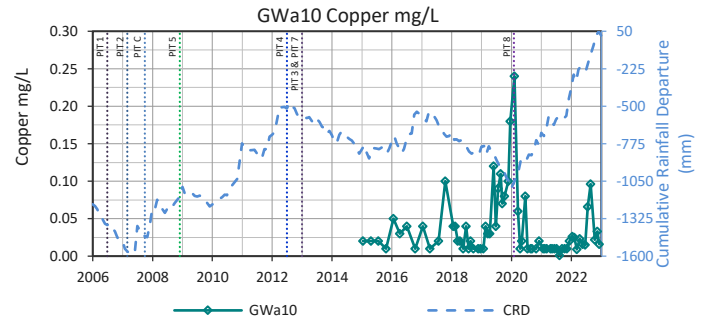
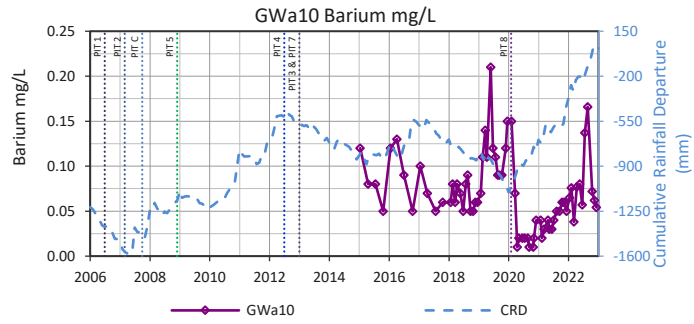
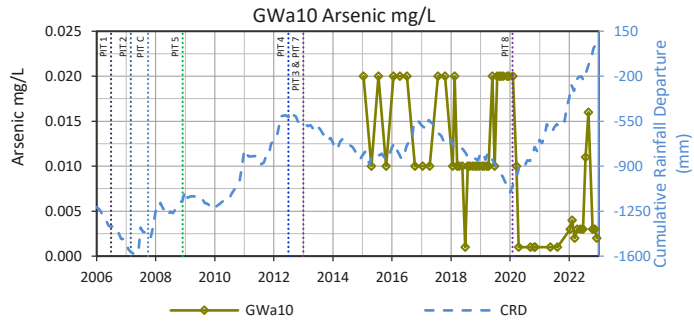
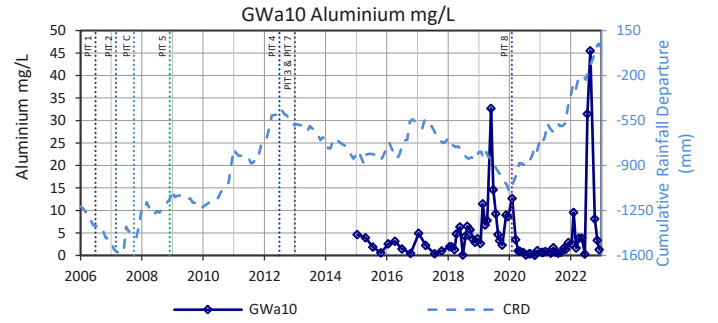
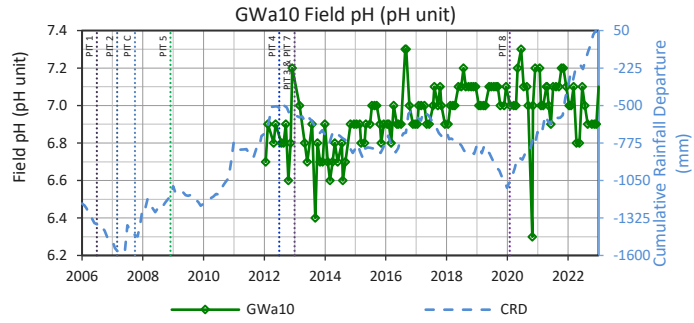
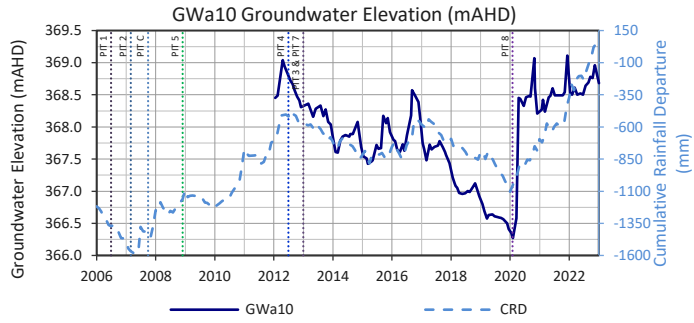
GWa1

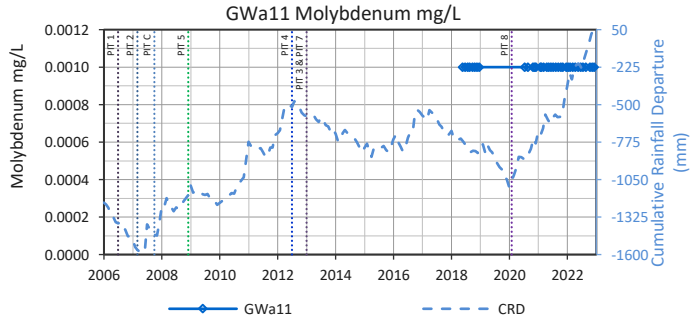
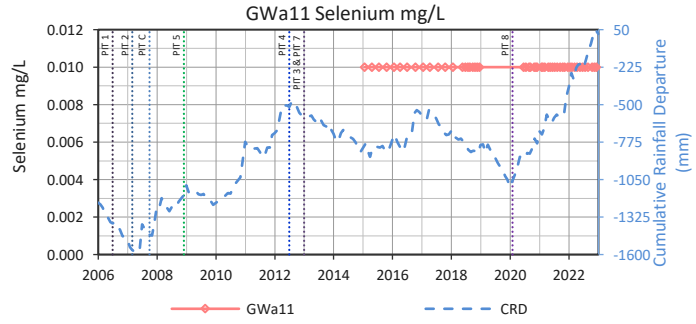
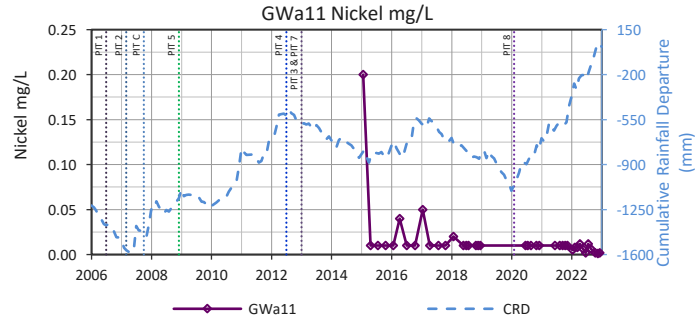
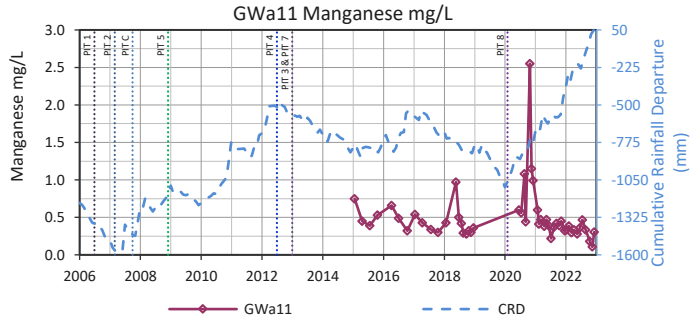
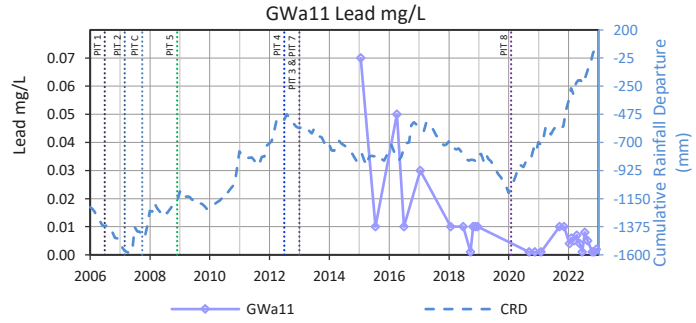
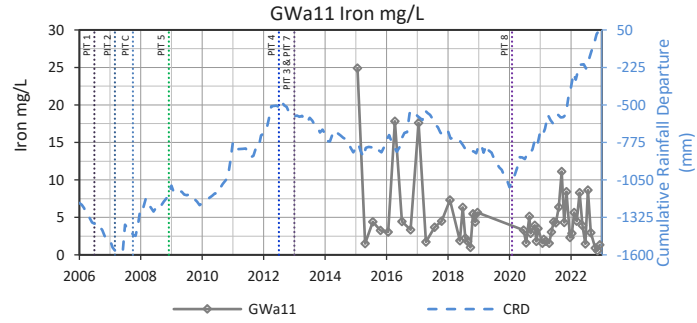
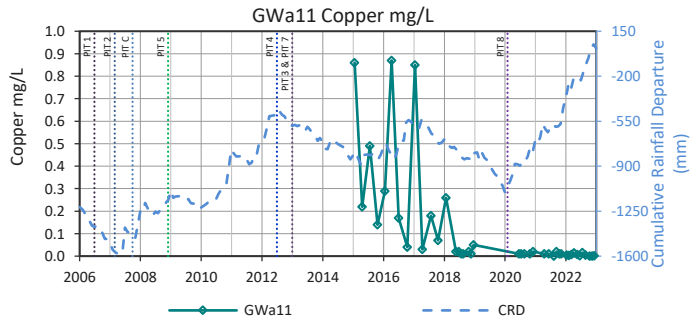
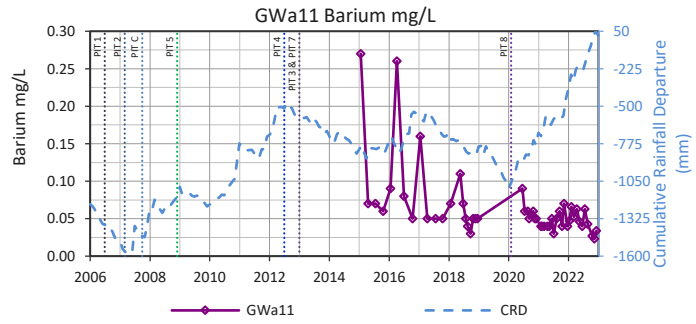
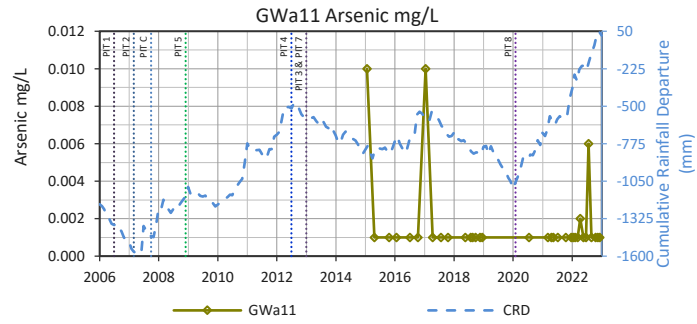
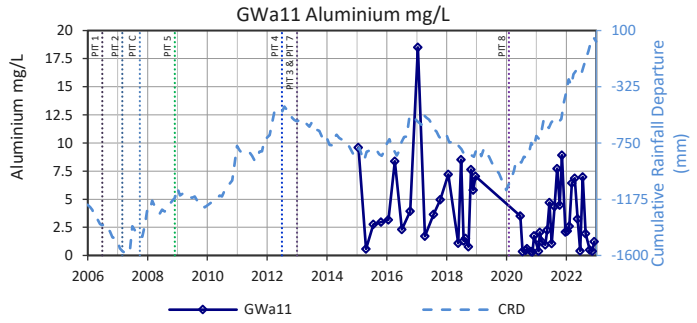
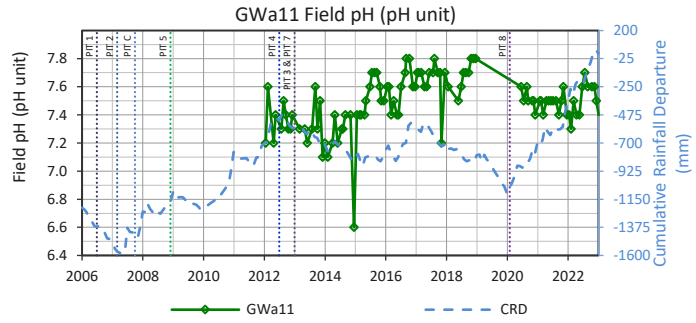
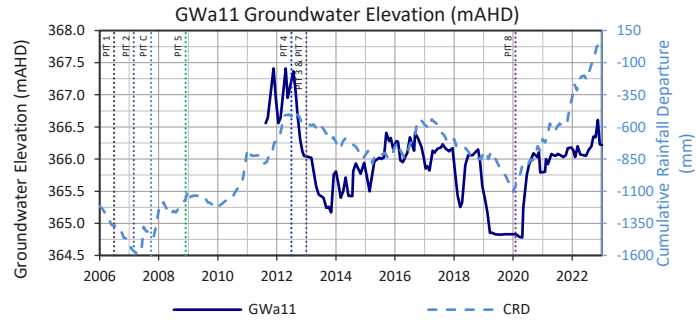
No Data Available for Manganese mg/L

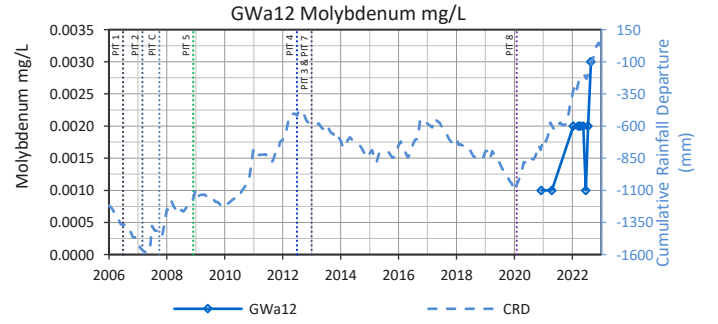
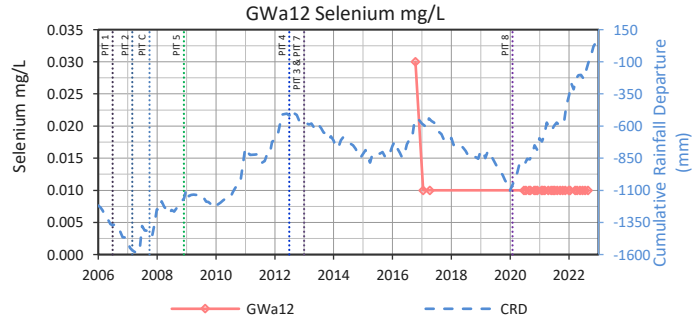
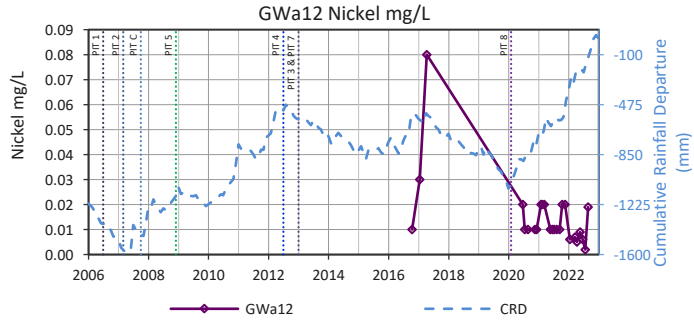
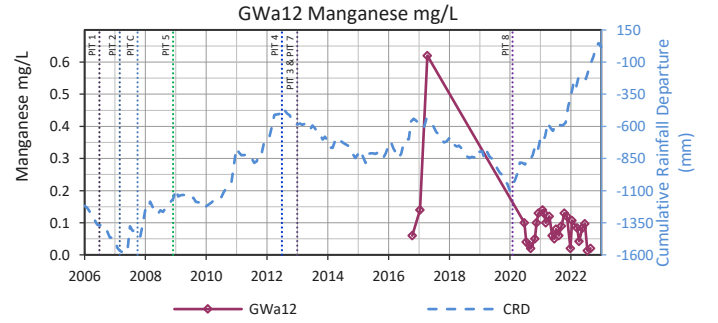
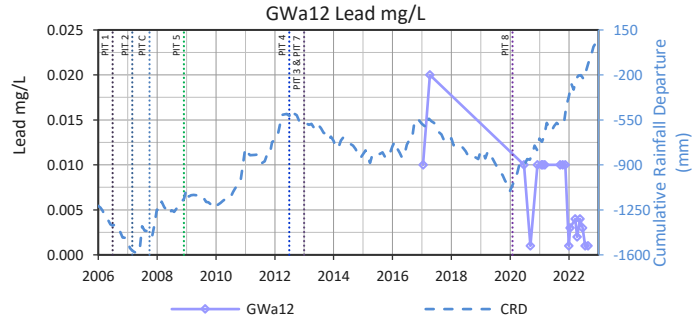
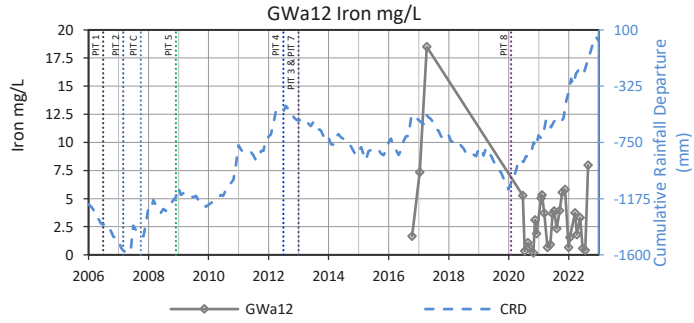
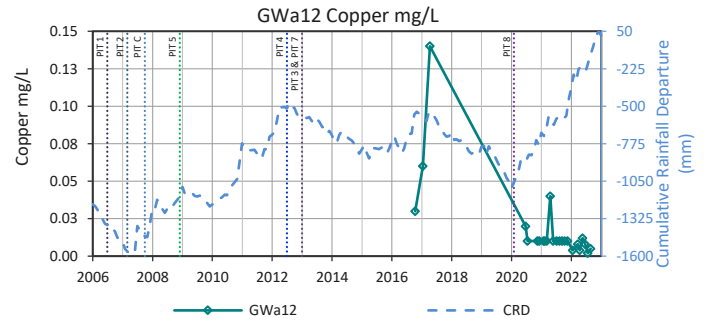
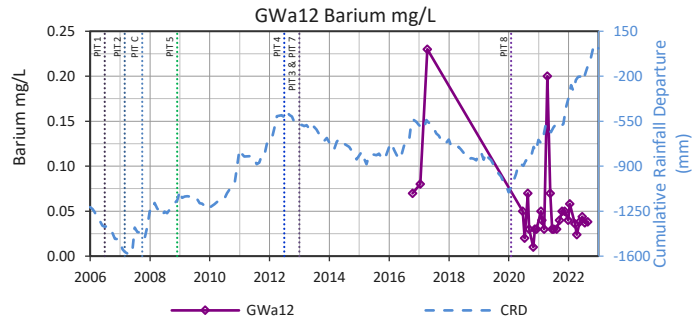
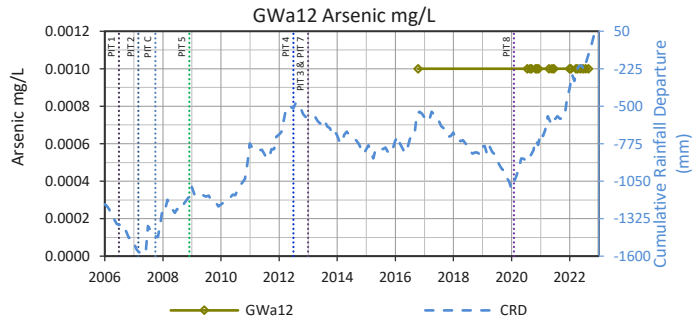
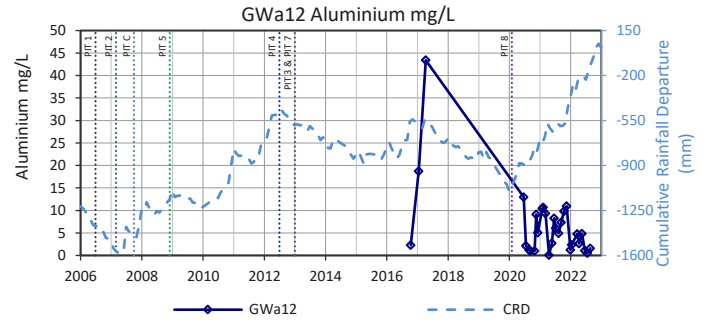
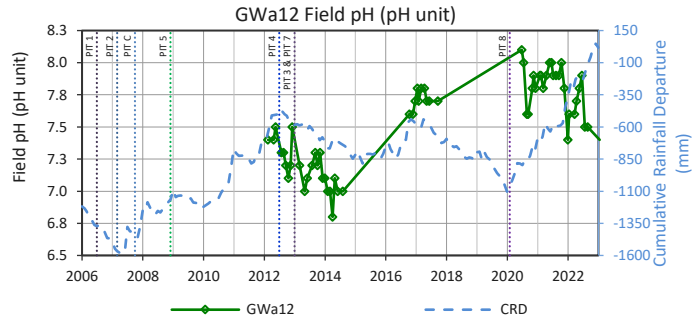
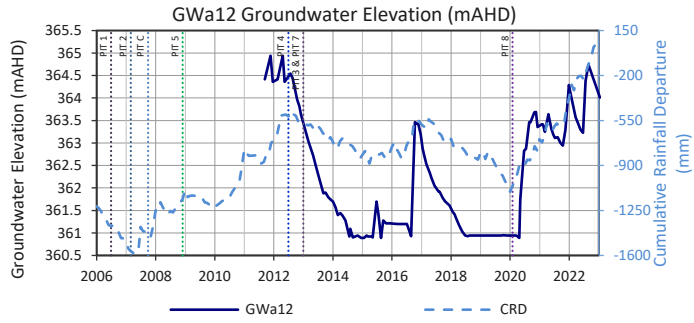
No Data Available for Nickel mg/L

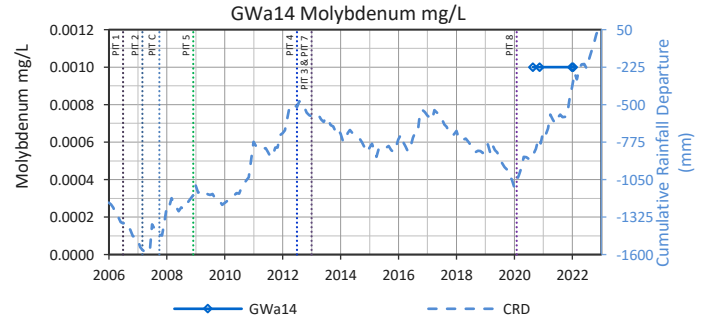
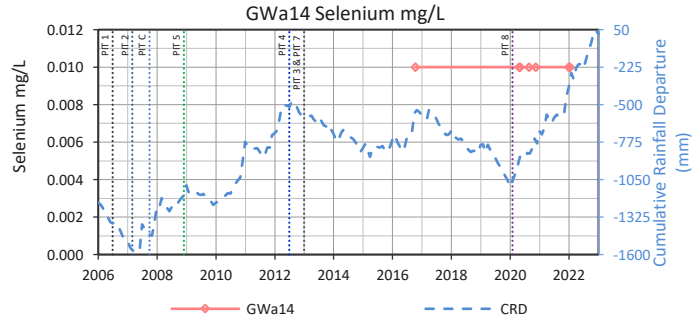
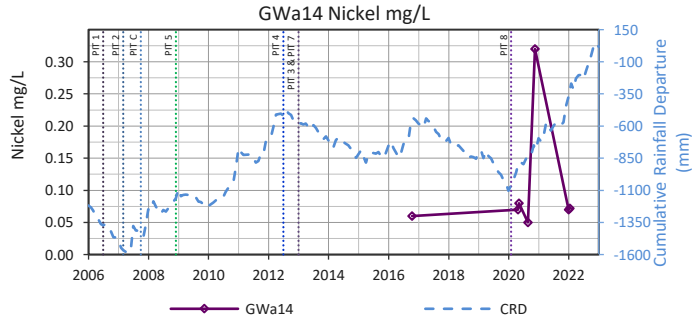
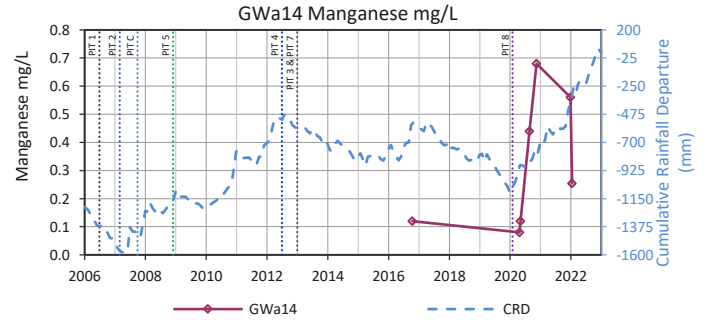
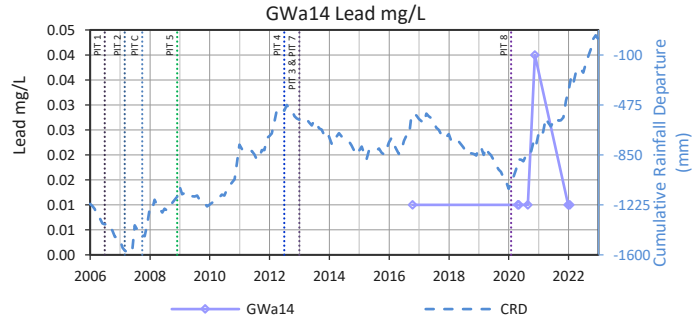
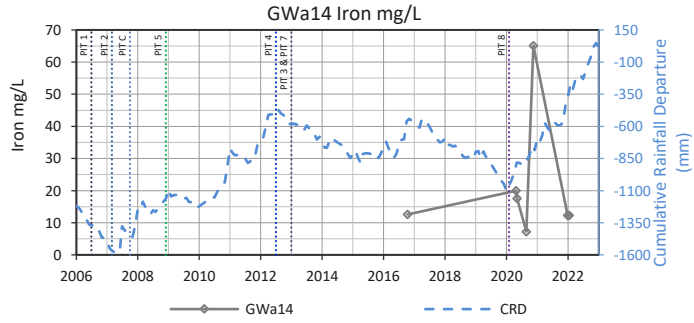
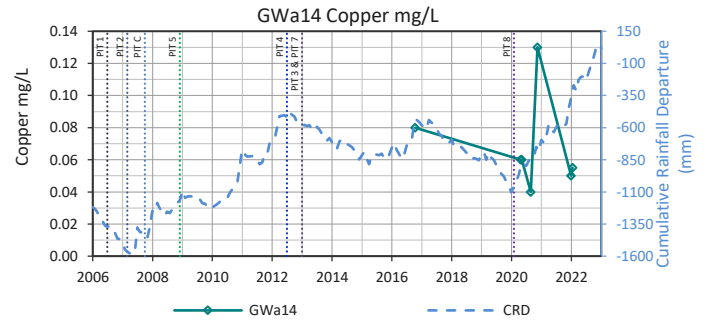
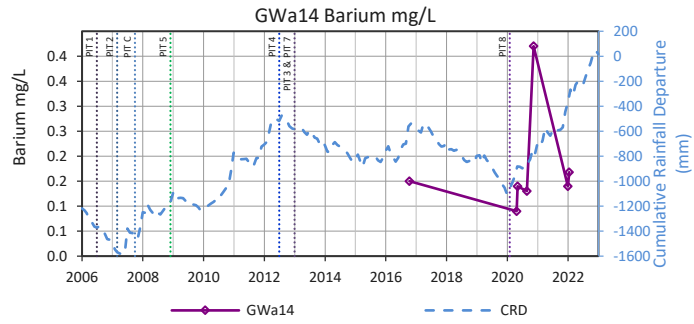
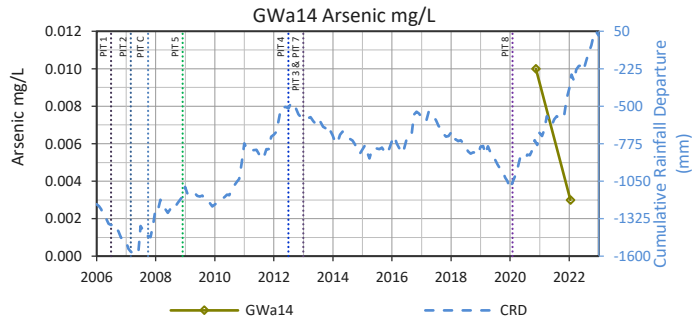
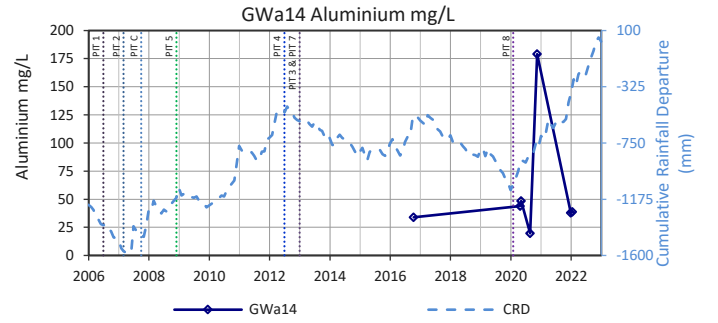
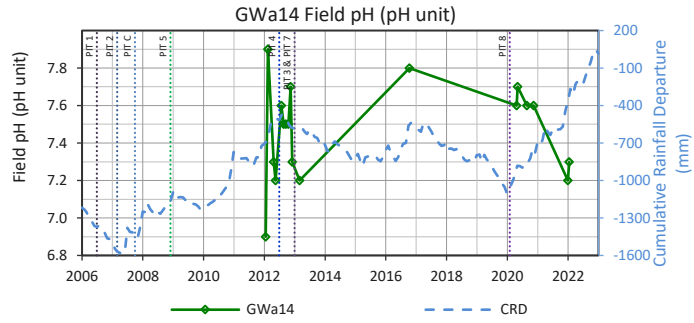
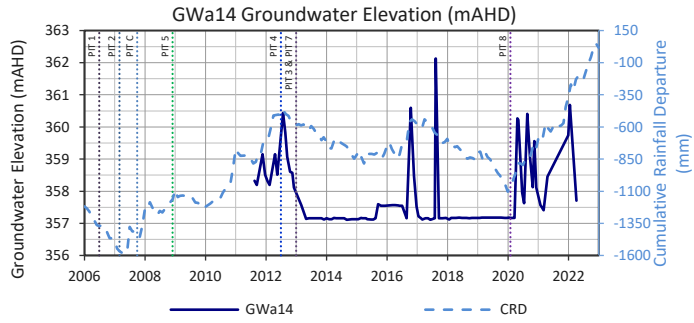
No Data Available for Selenium mg/L

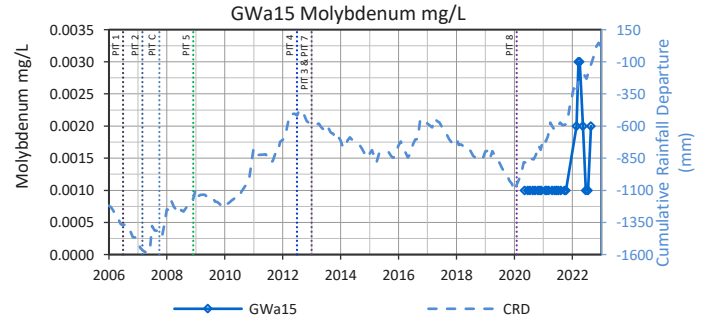
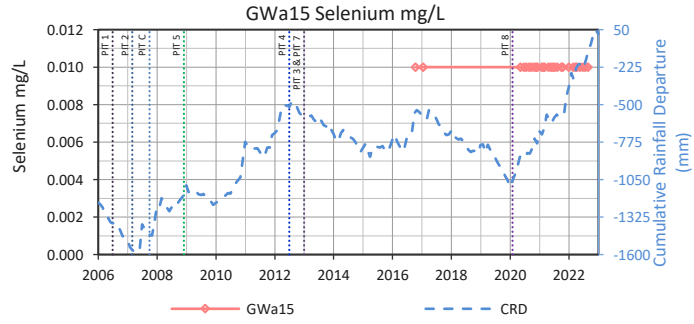
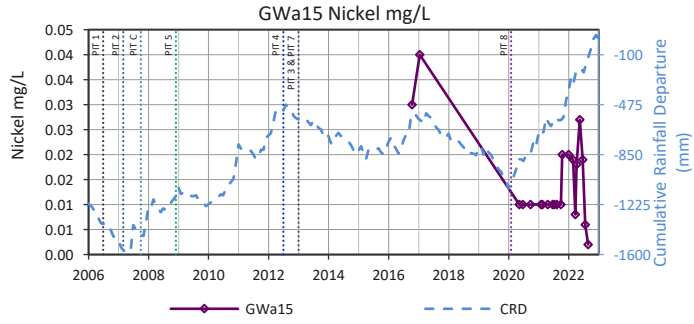
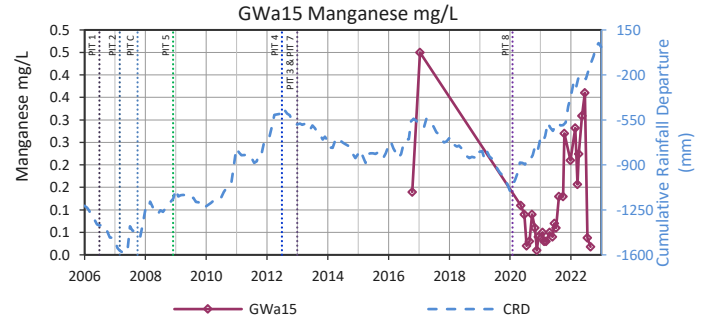
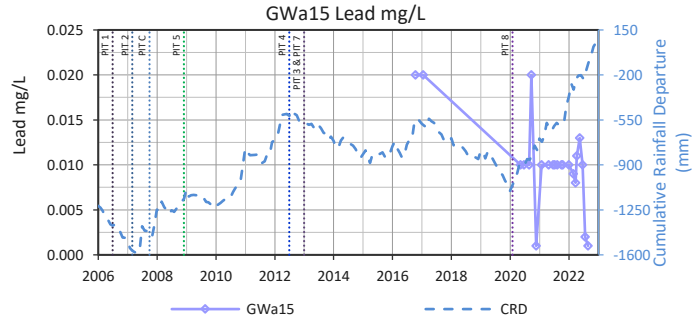
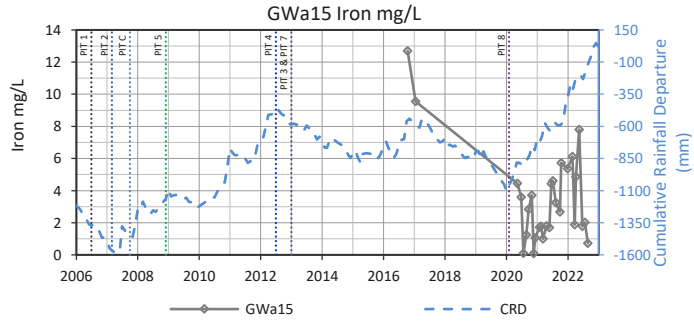
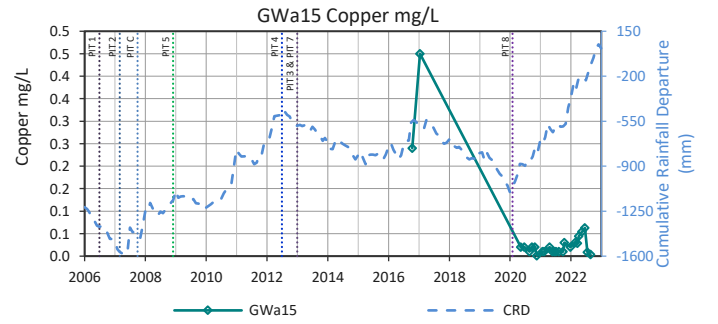
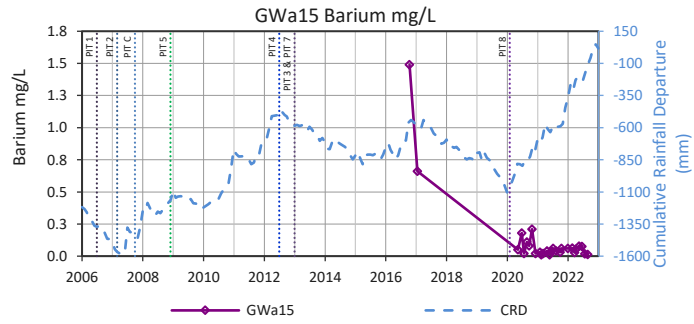
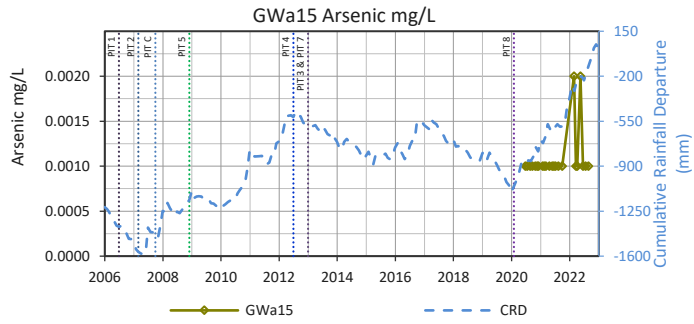
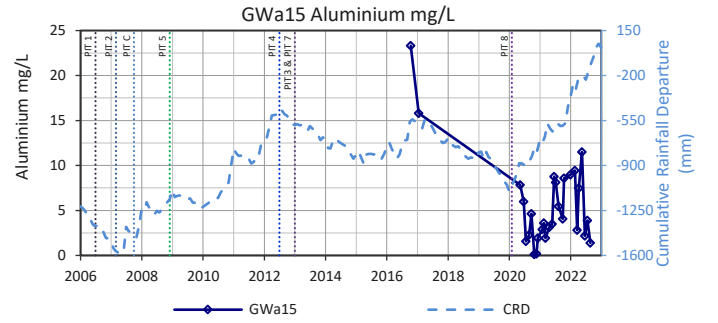
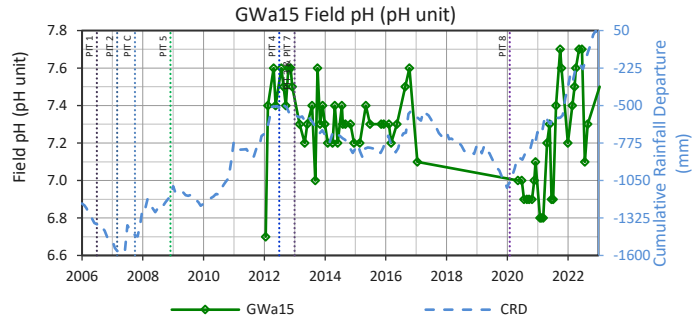
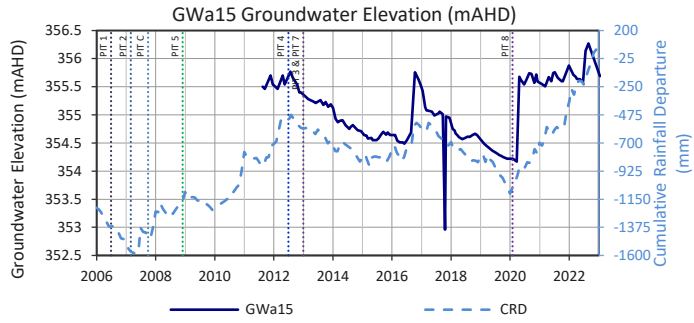
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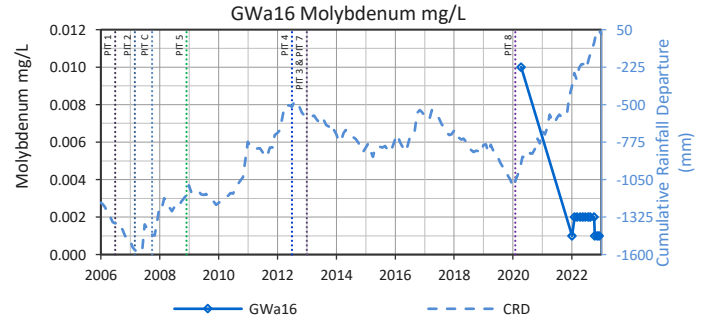
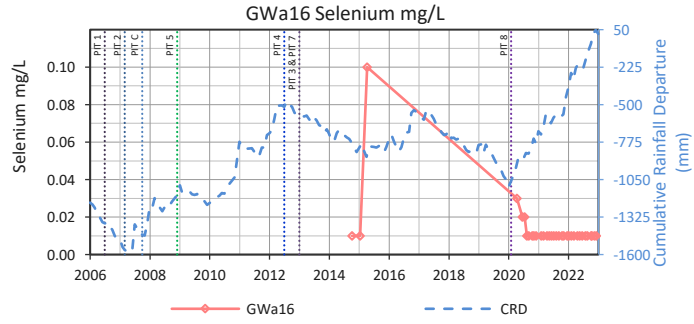
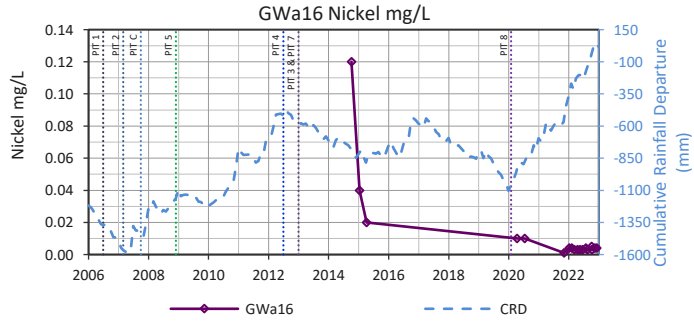
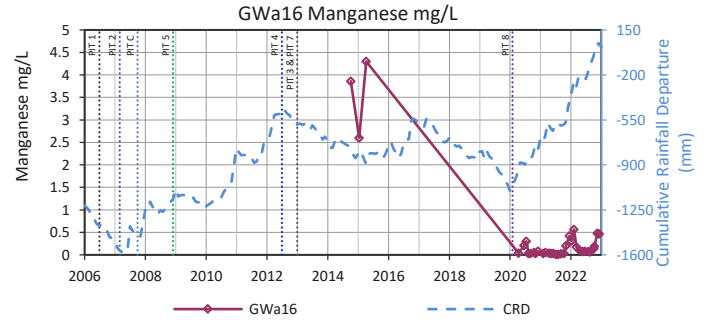
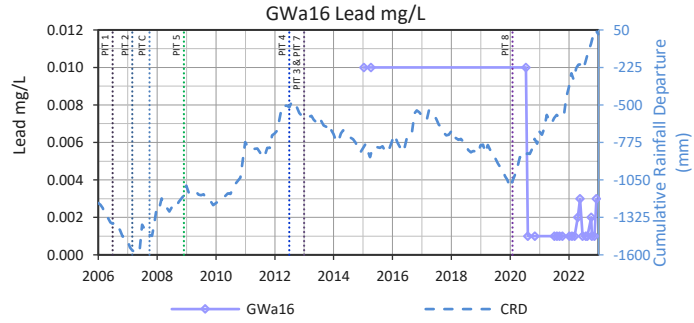
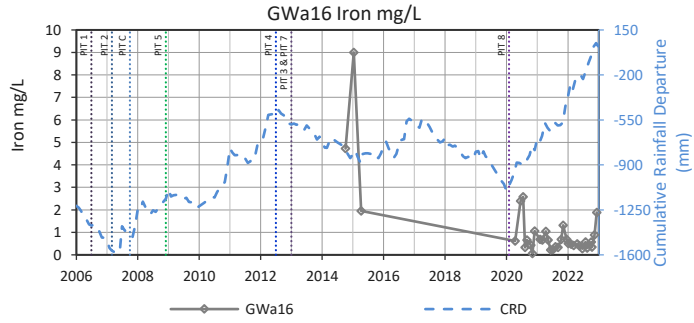
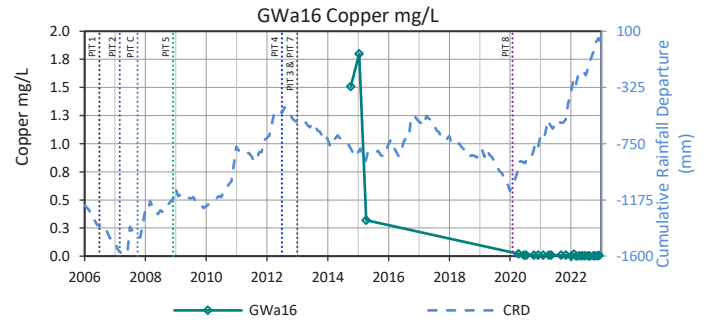
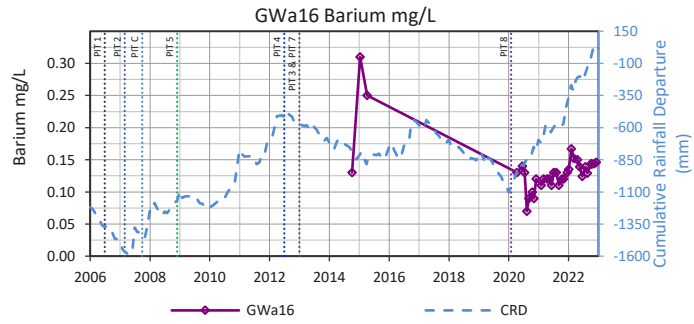
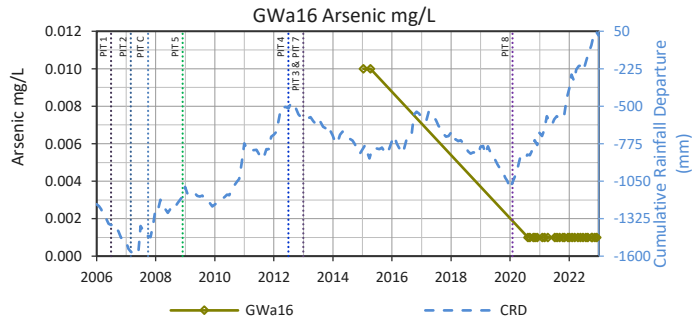
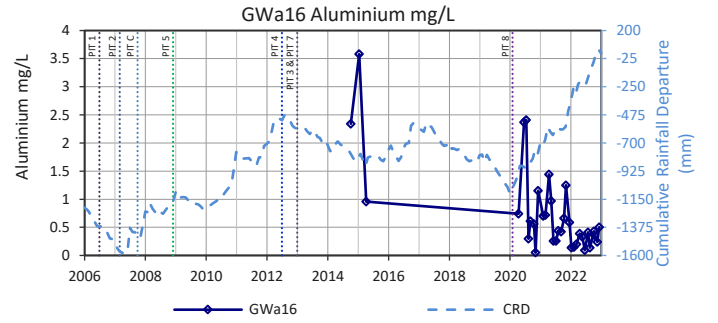
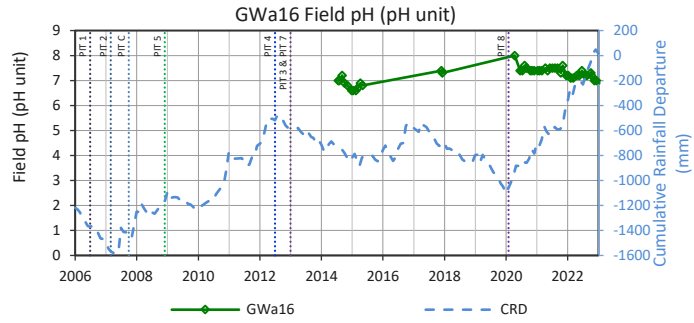
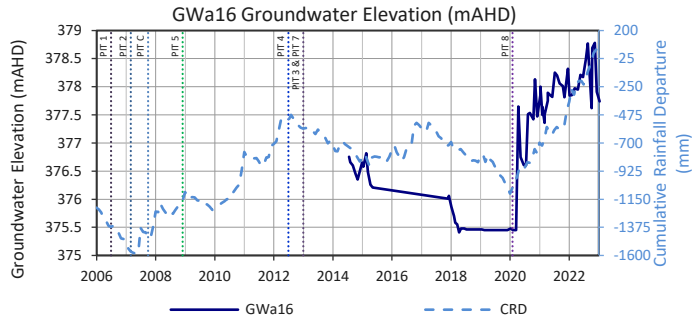


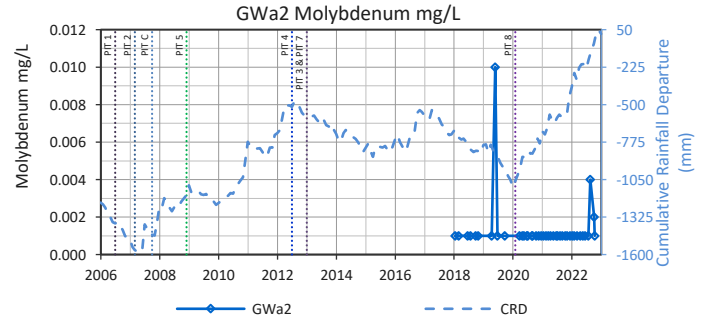
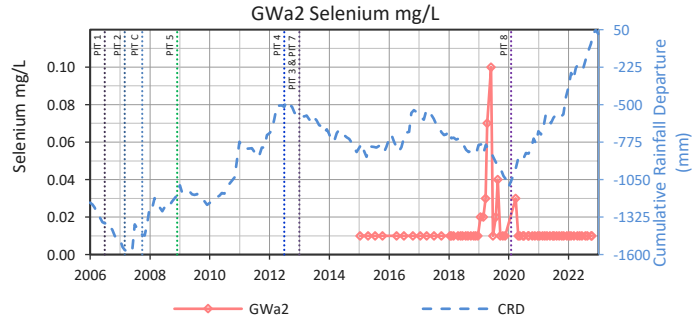
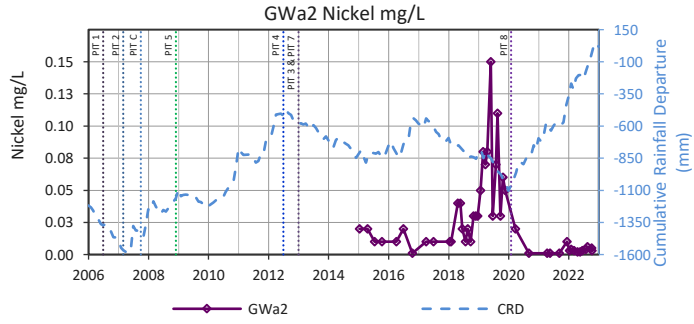
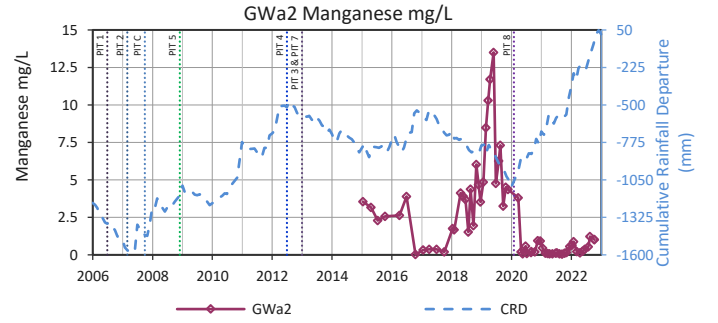
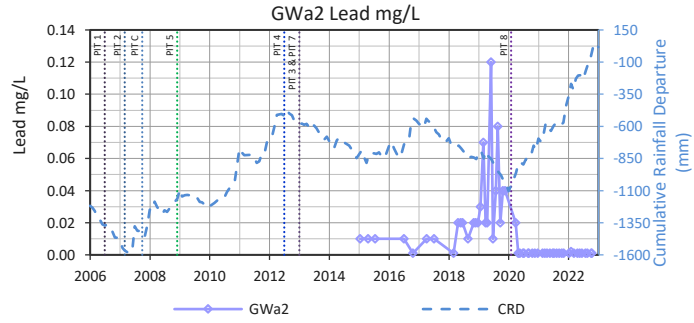
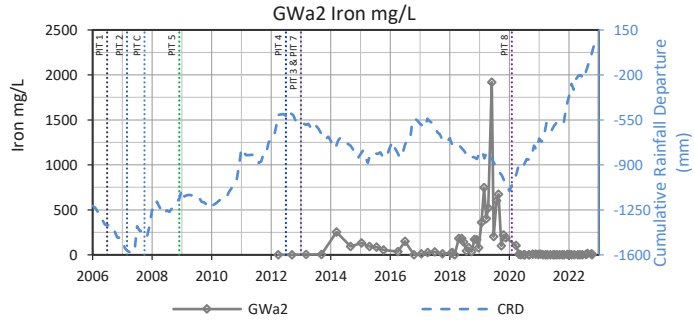
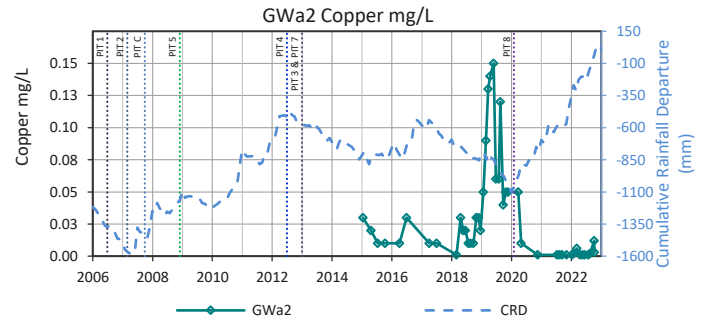
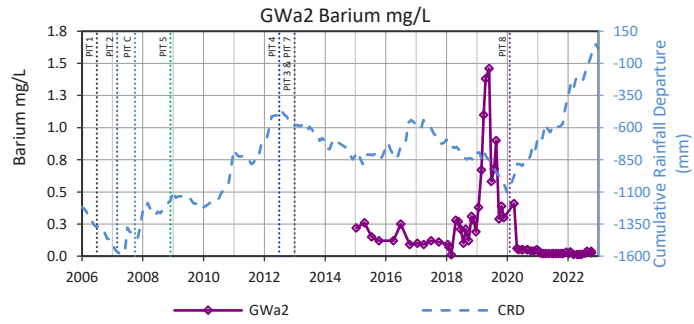
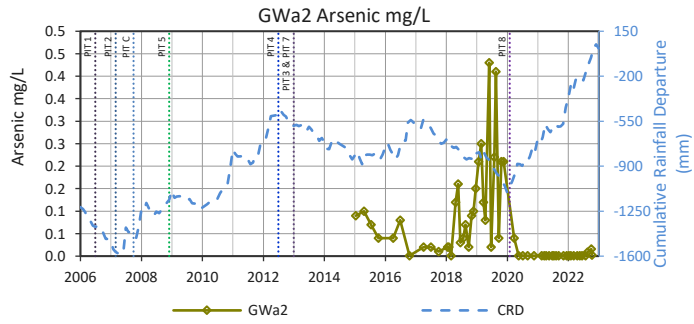
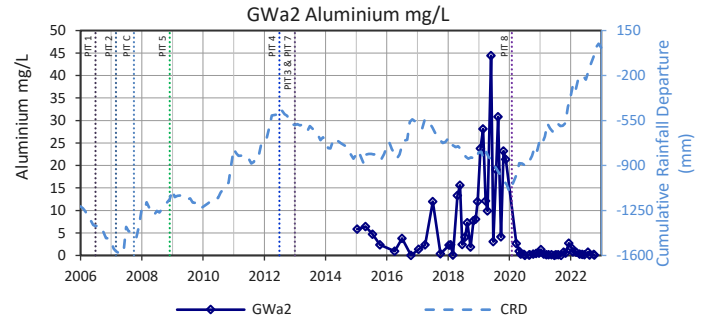
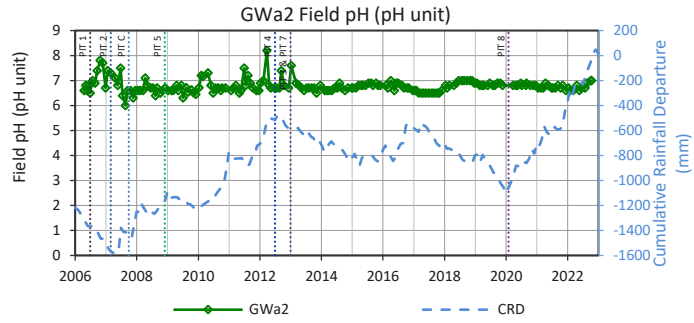
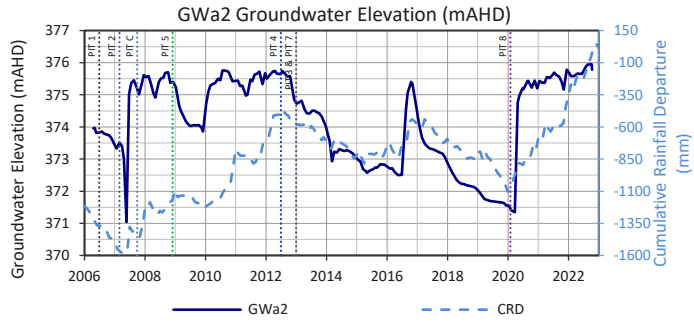


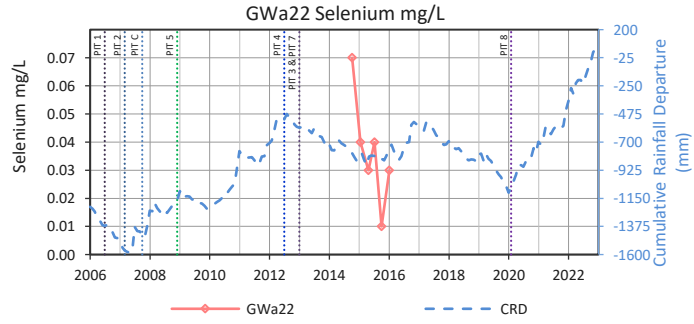
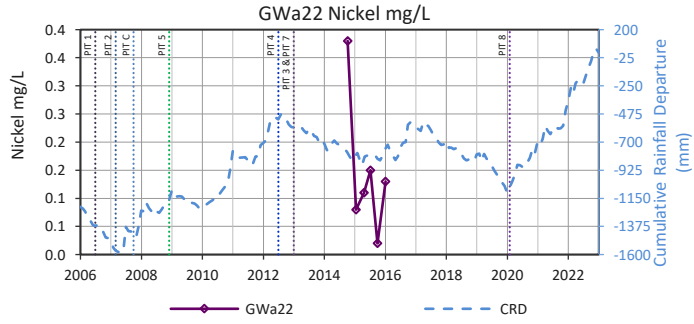
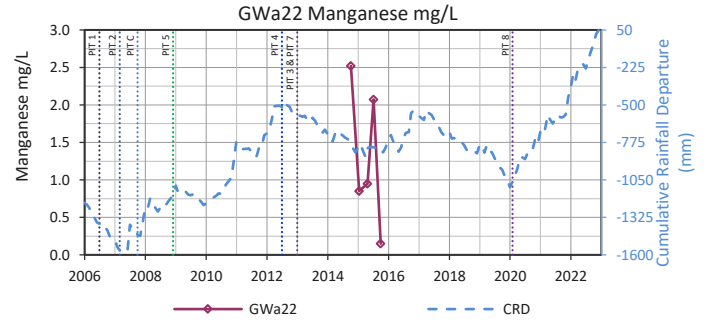
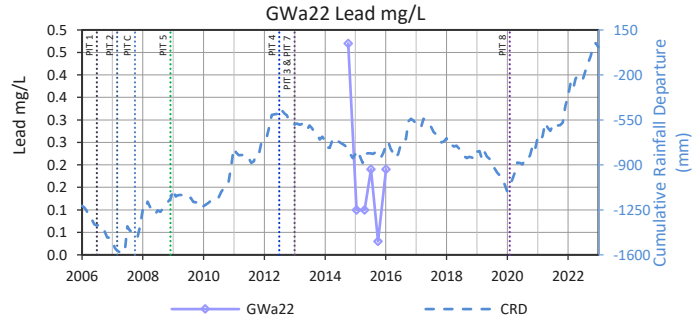
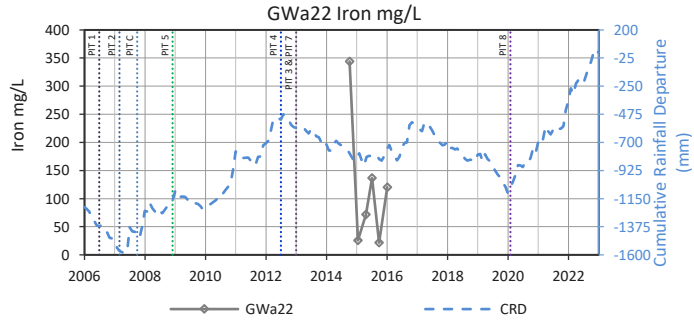
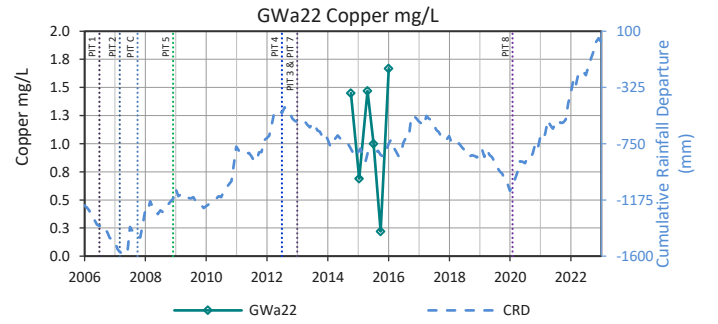
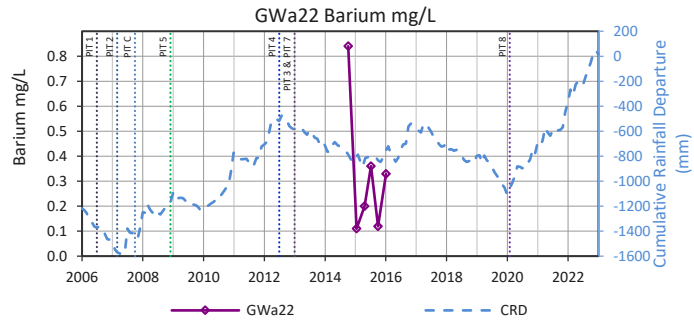
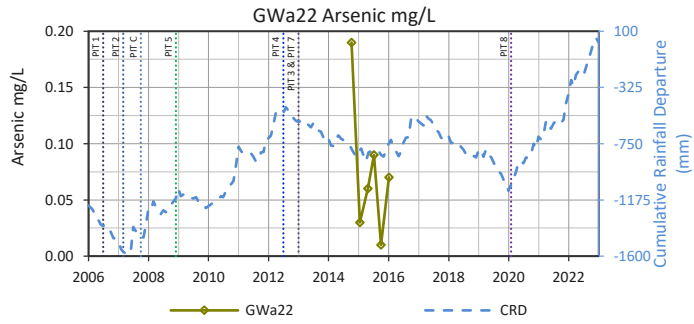
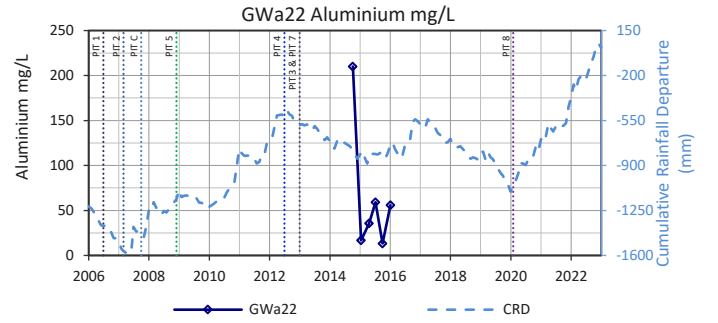
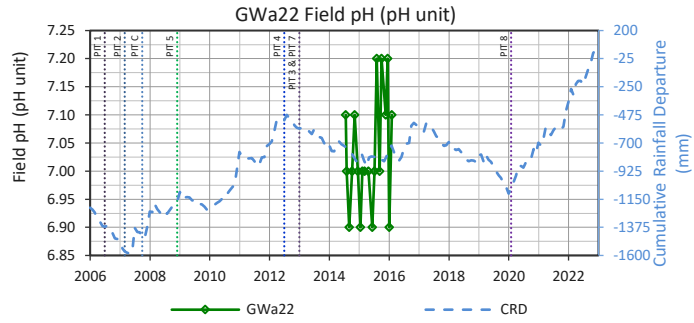
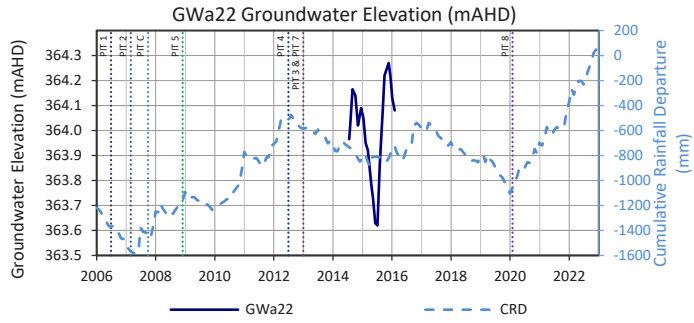






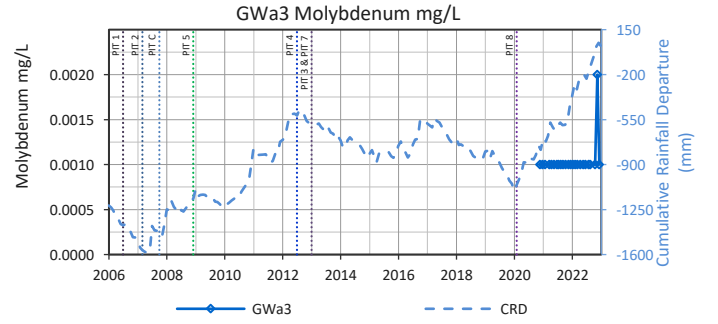
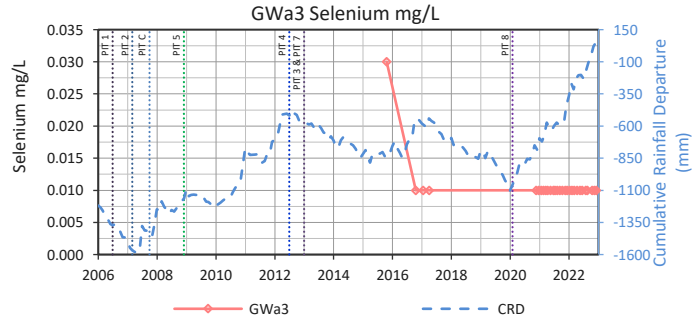
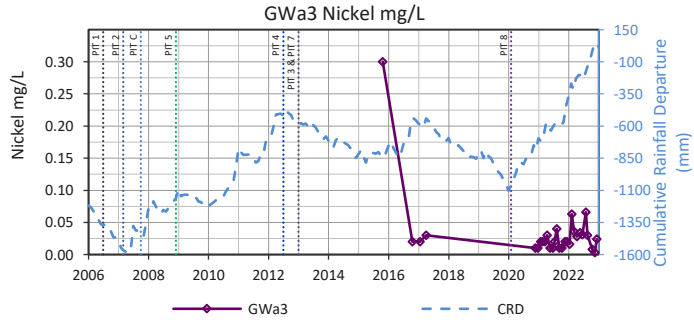
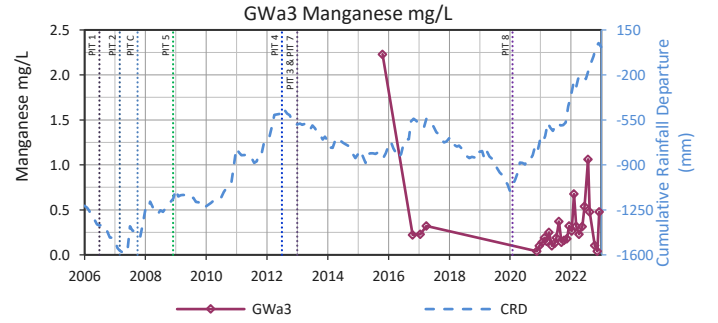
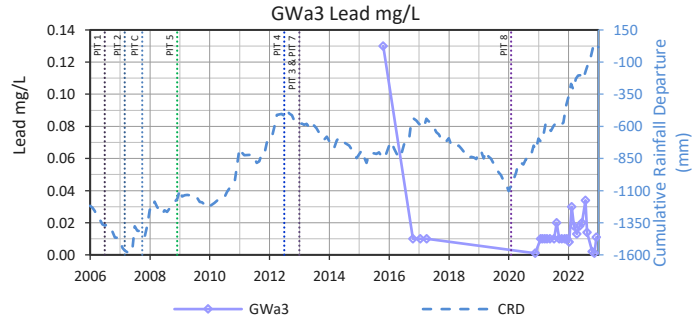
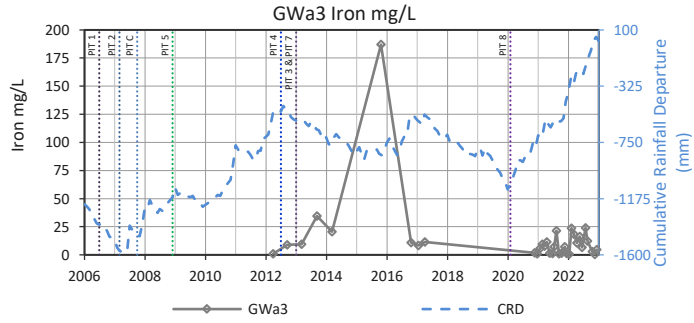
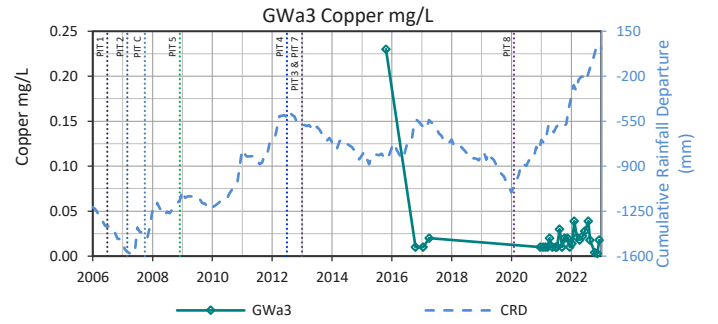
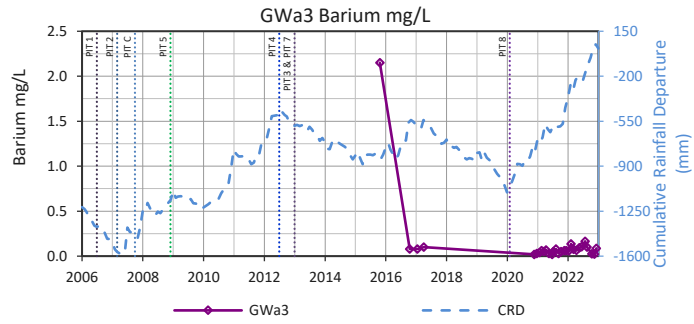
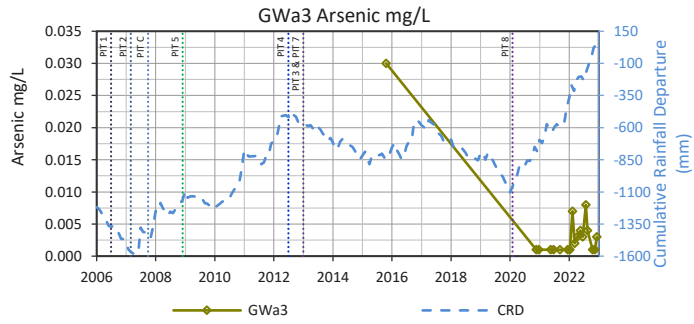
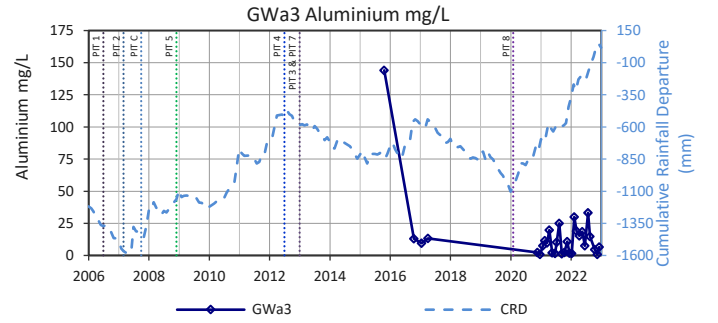
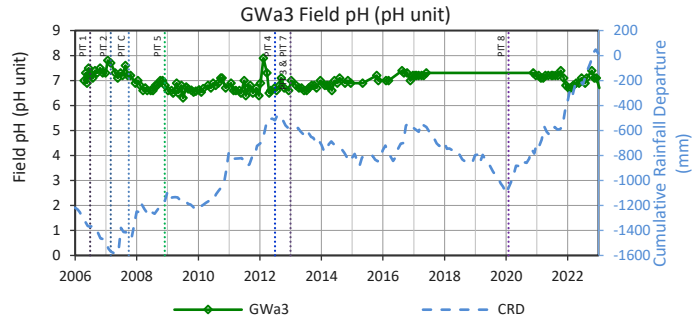
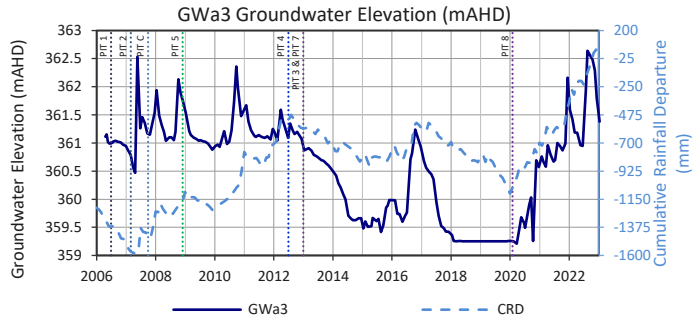


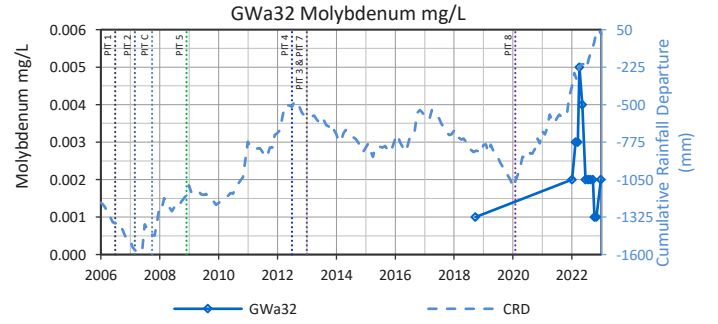
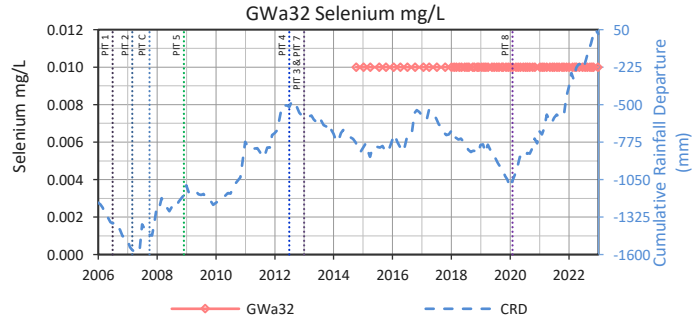
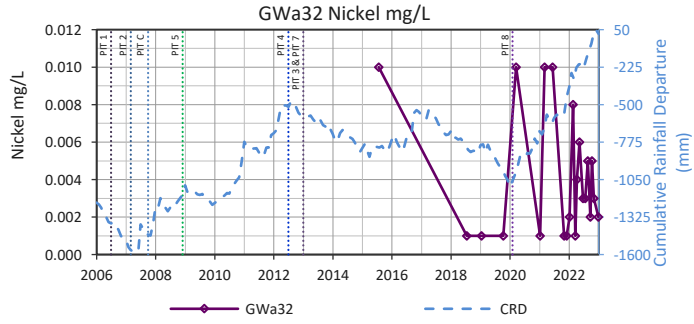
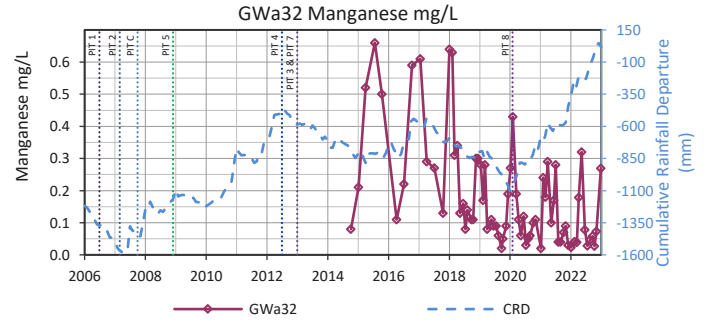
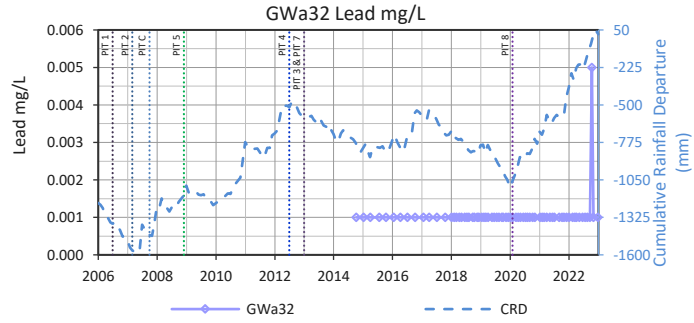
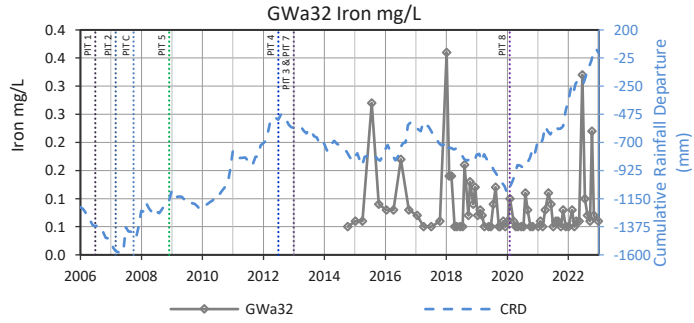
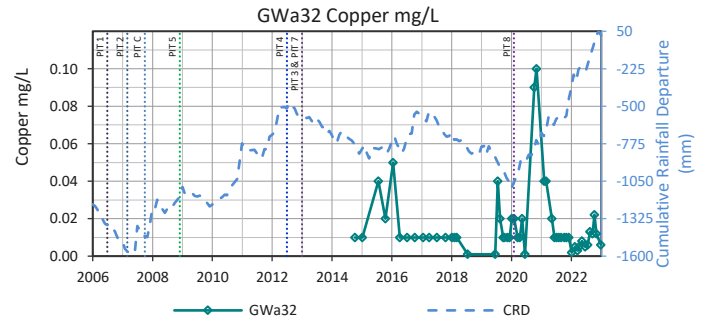
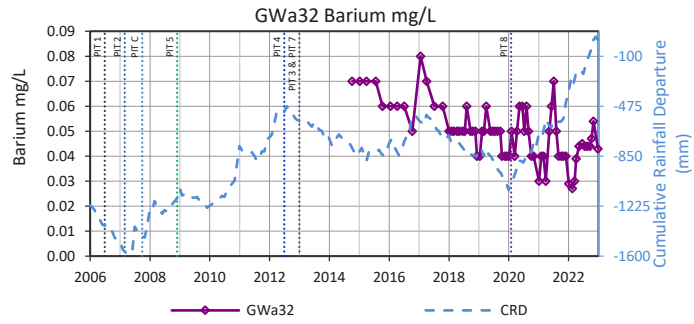
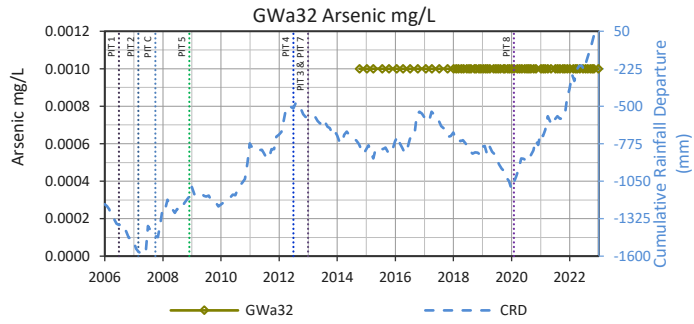
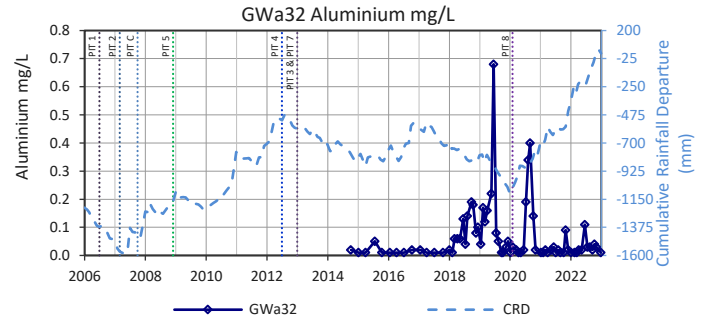
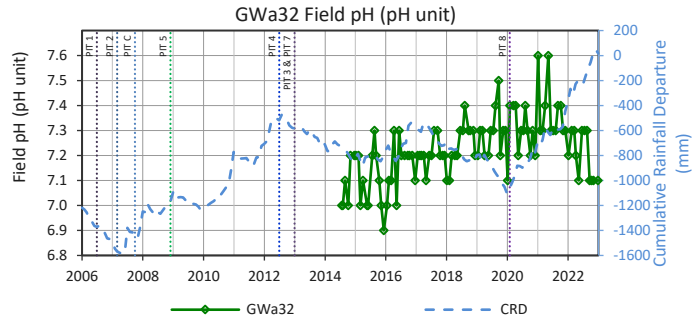
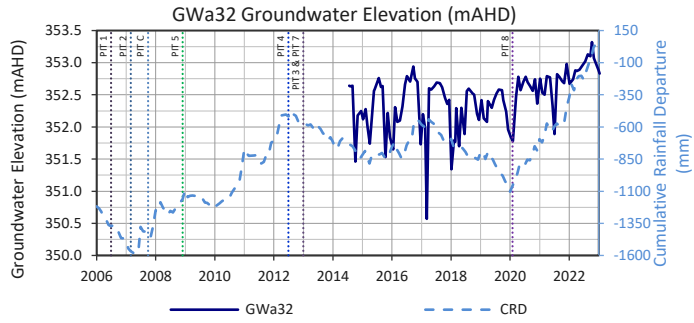


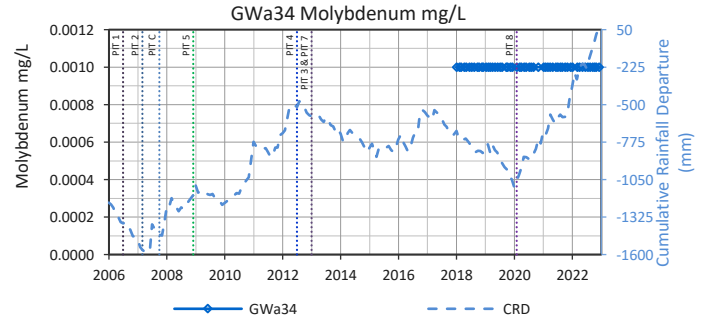
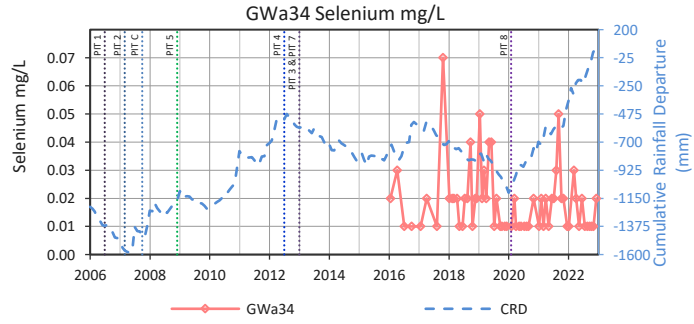
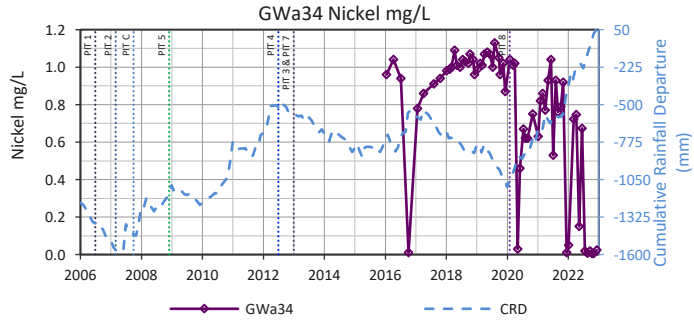
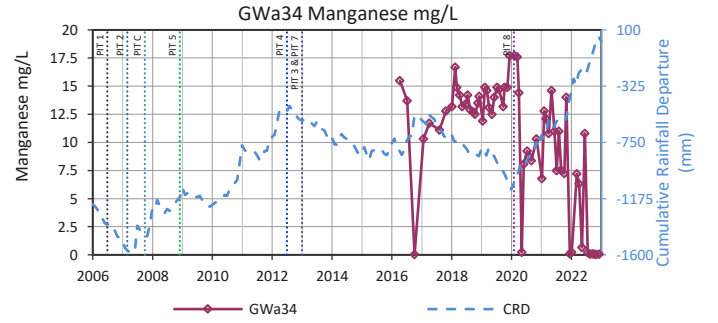
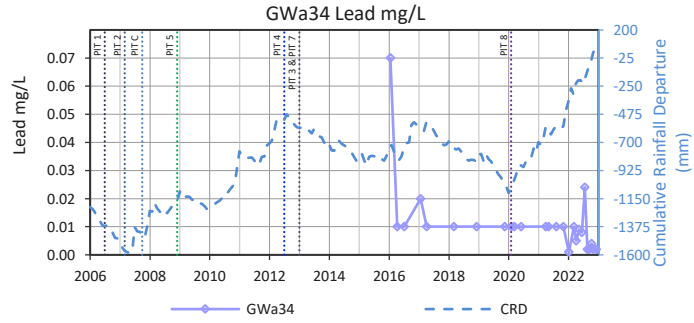
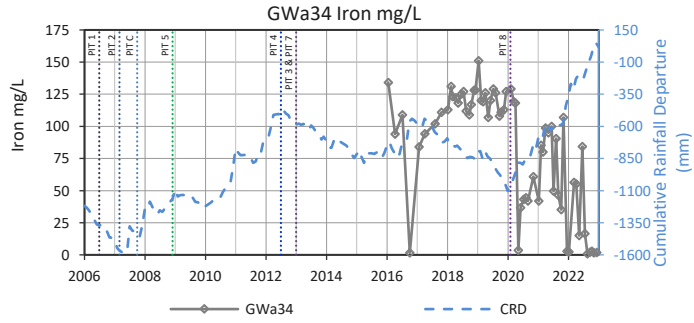
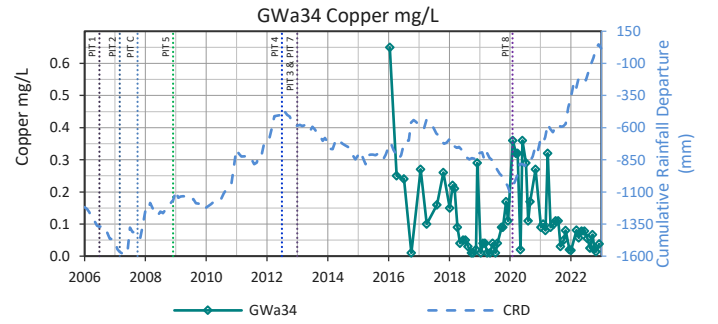
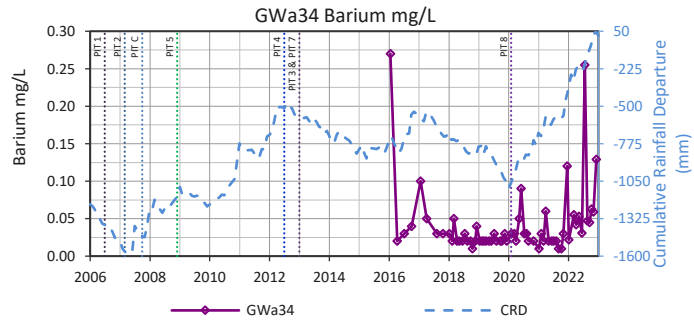
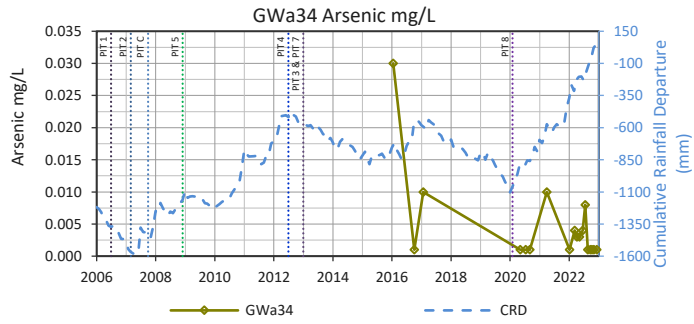
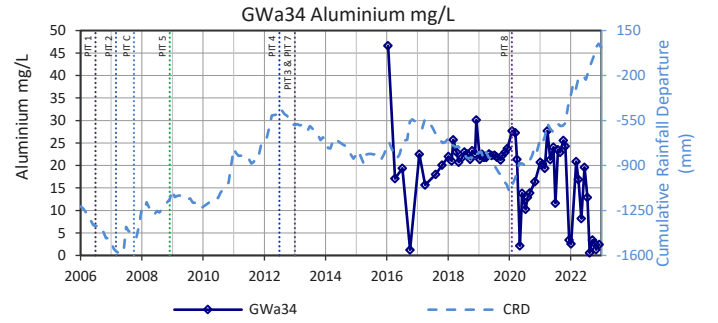
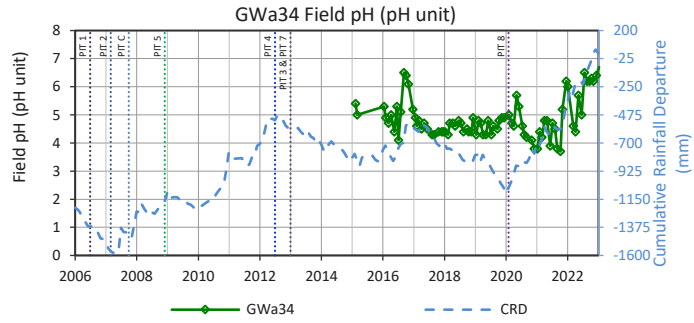
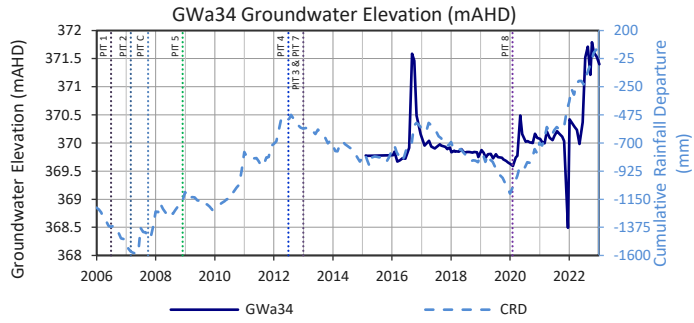


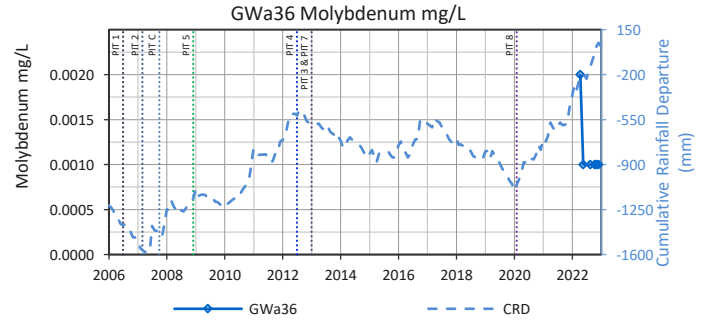
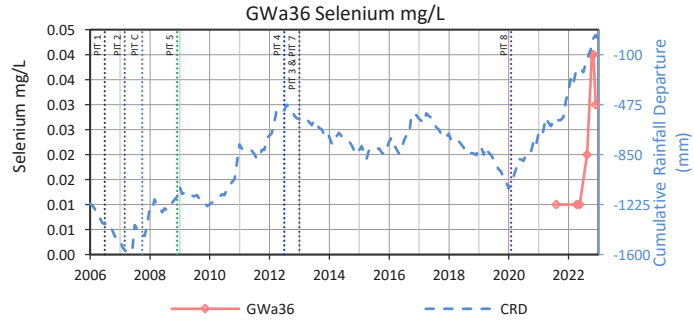
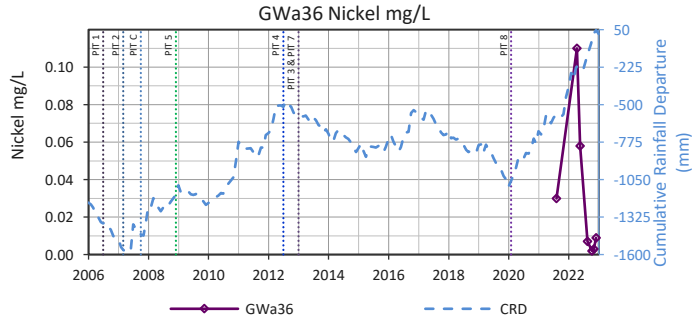
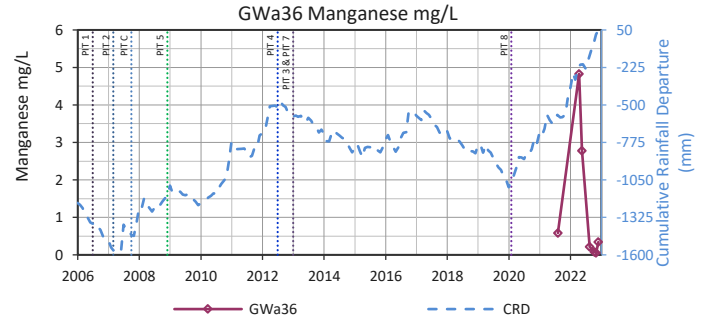
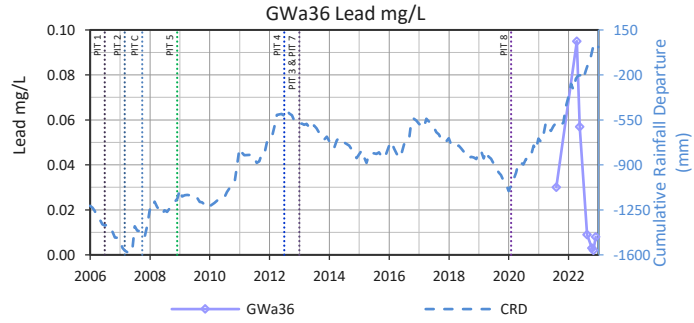
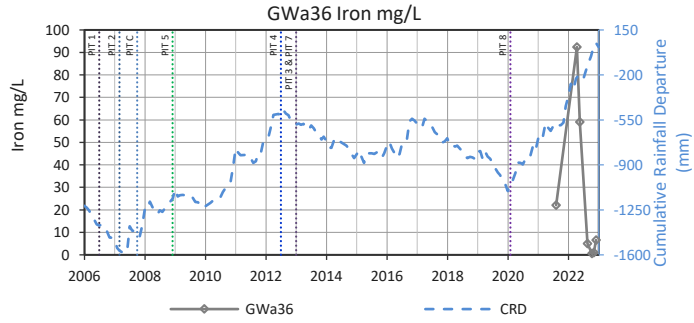
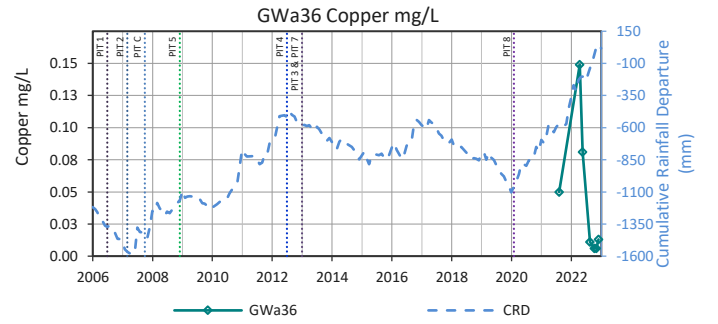
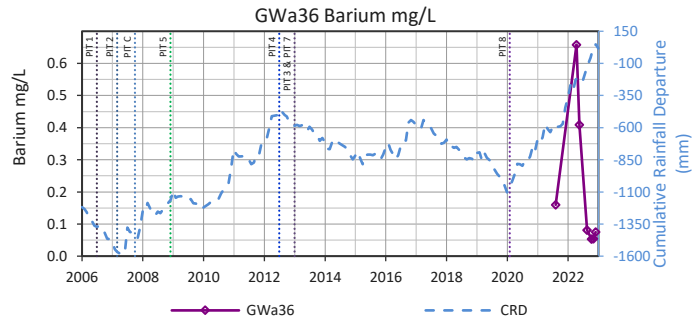
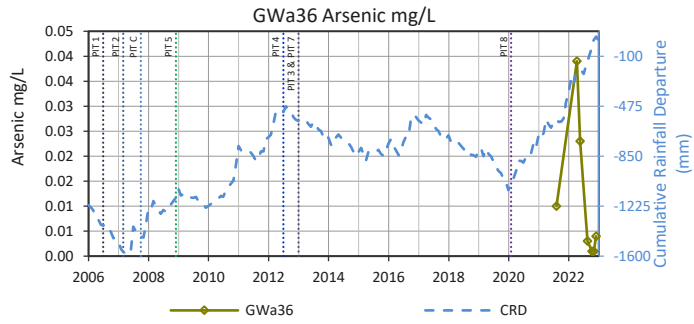
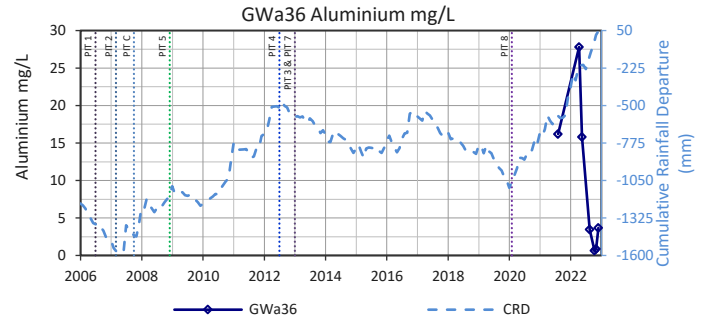
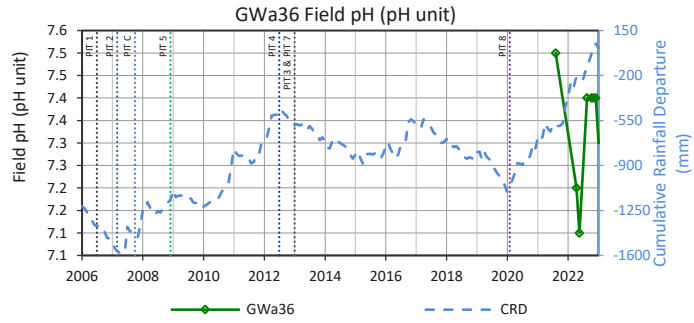
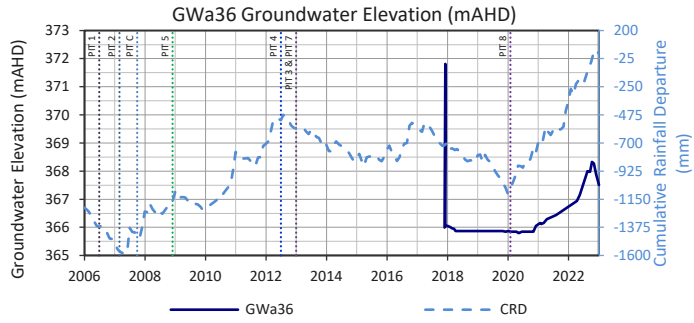
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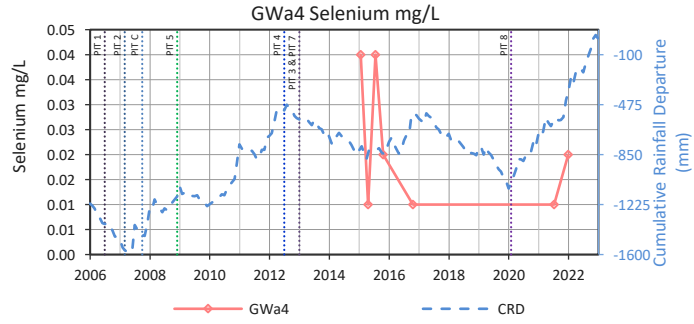
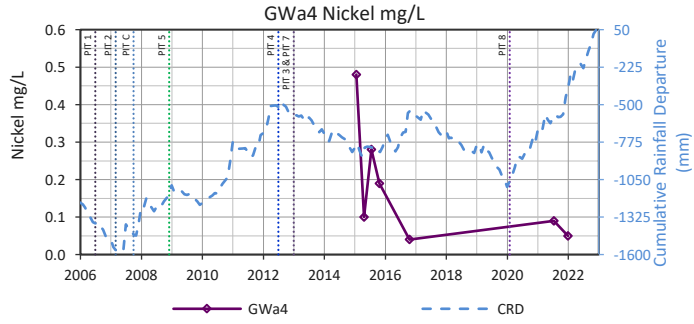
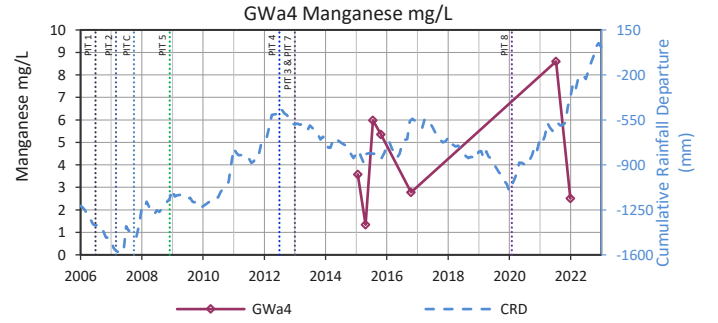
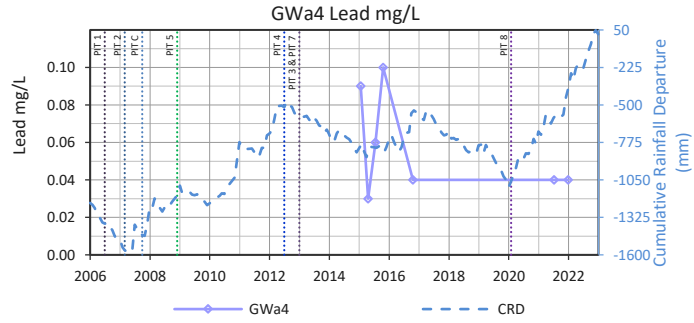
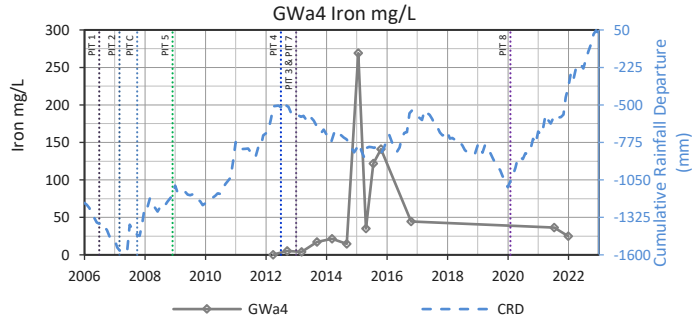
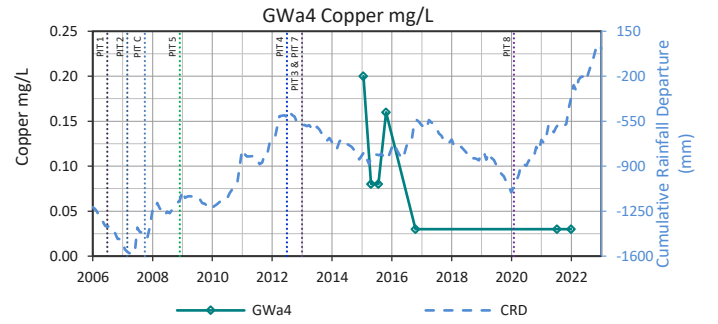
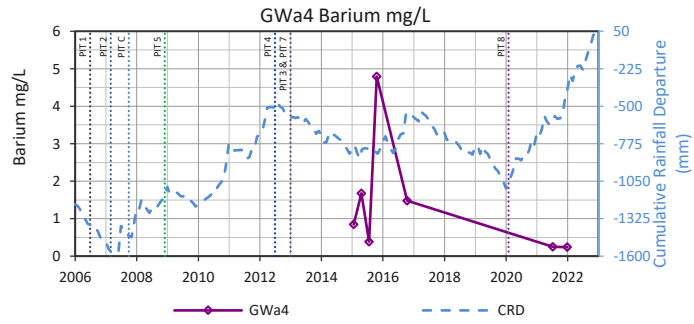
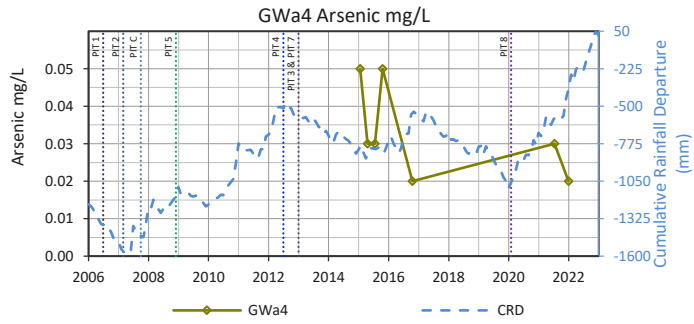
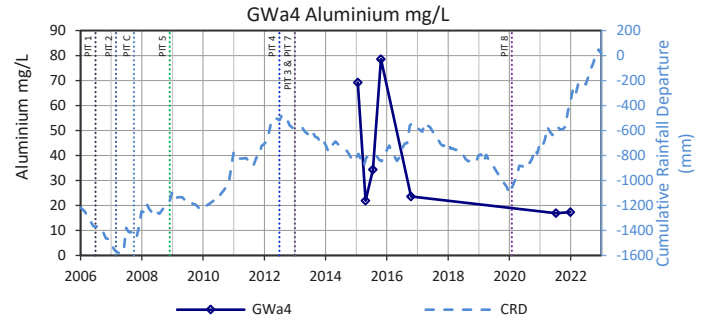
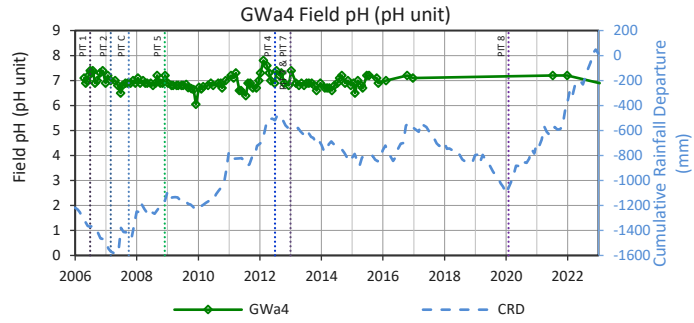
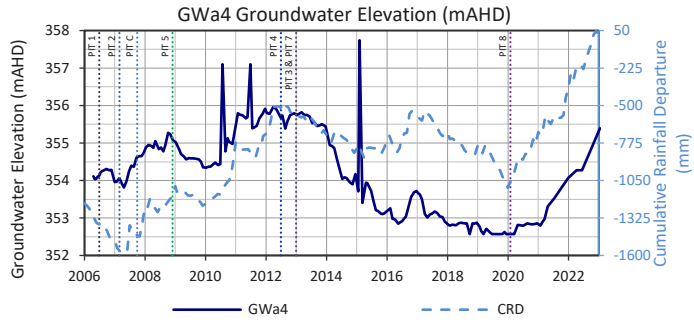
No Data Available for Molybdenum mg/L





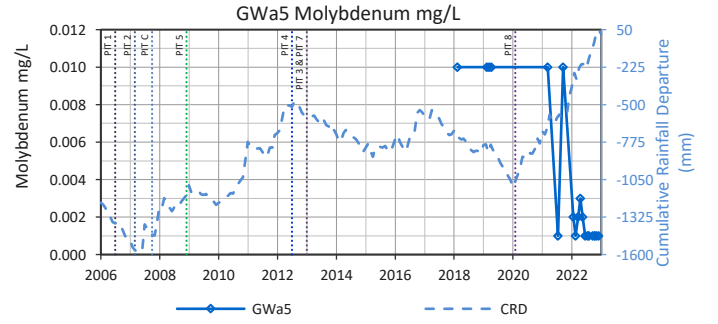
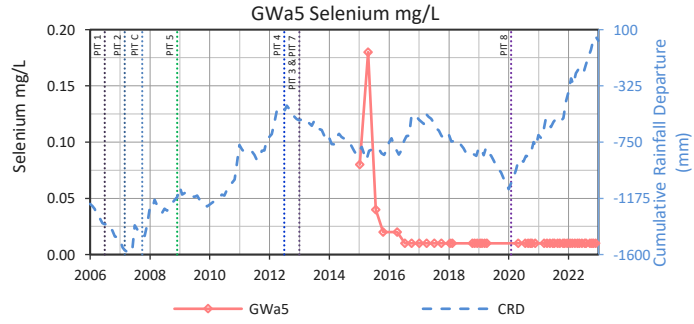
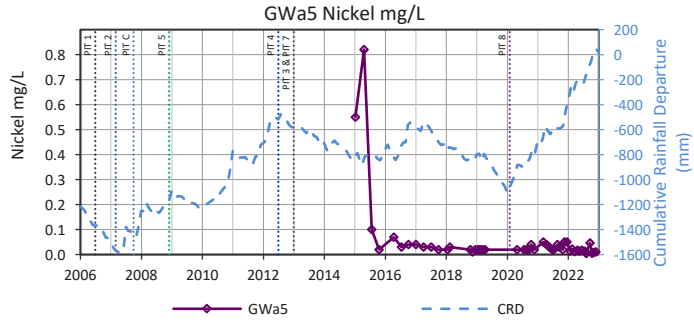
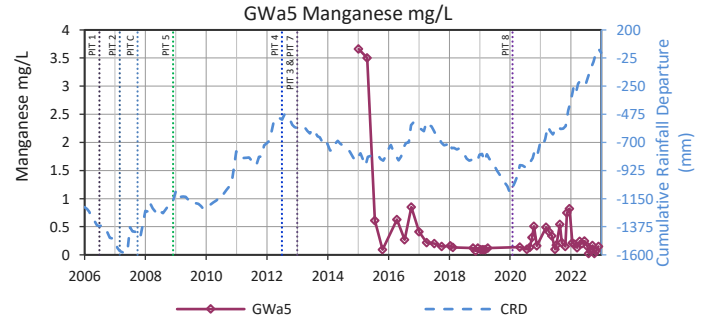
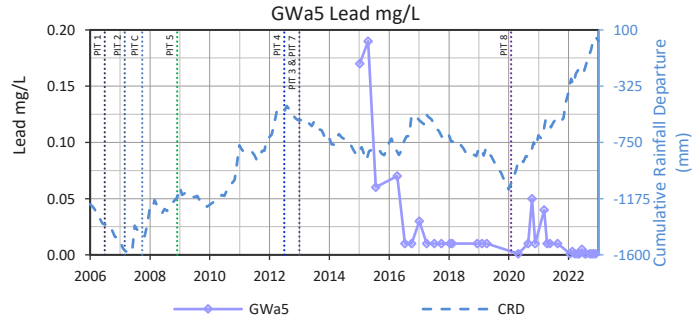
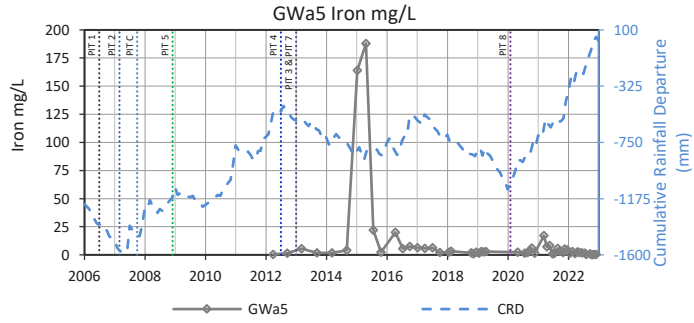
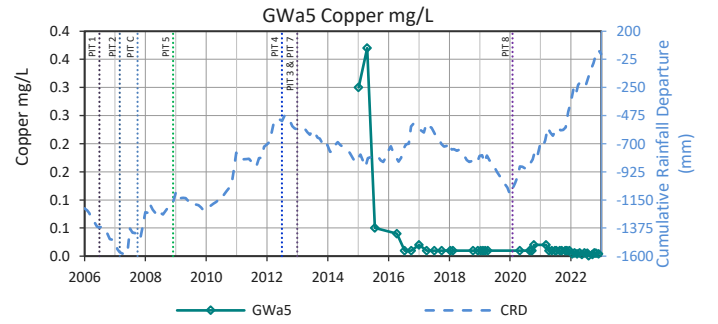
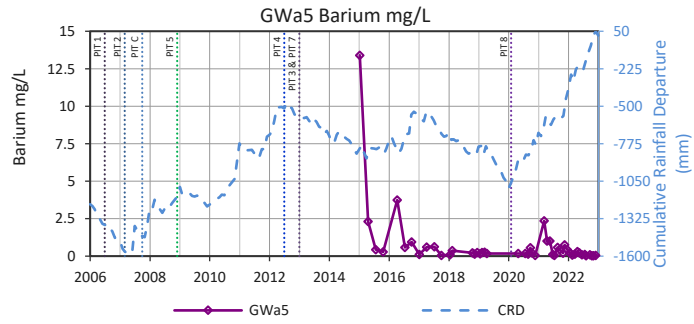
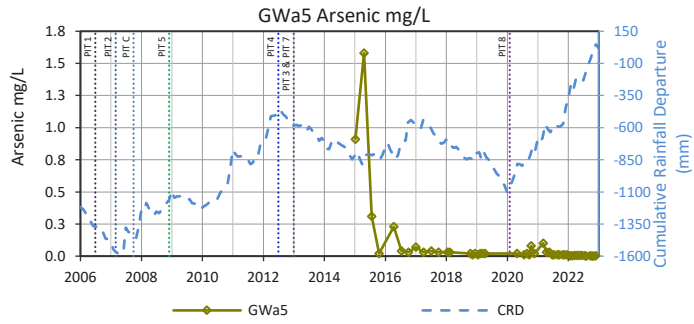
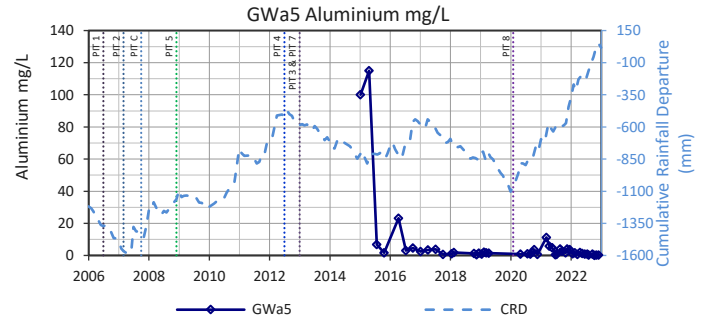
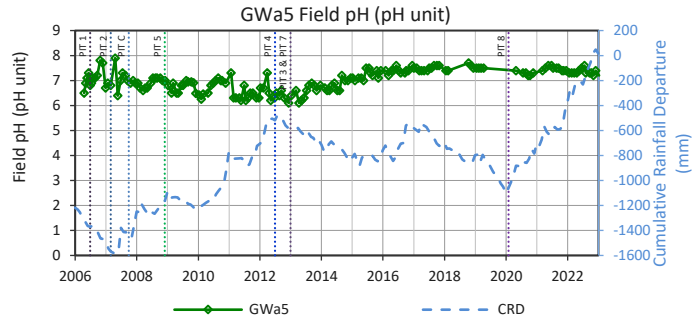
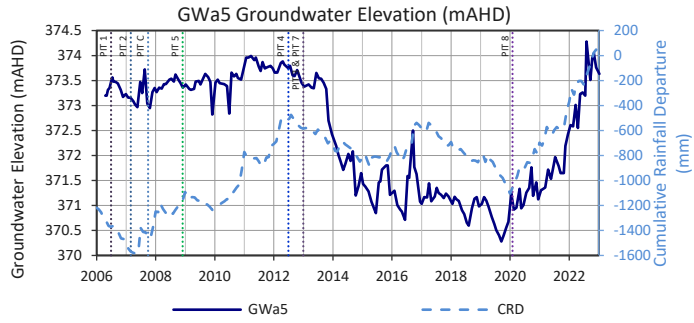


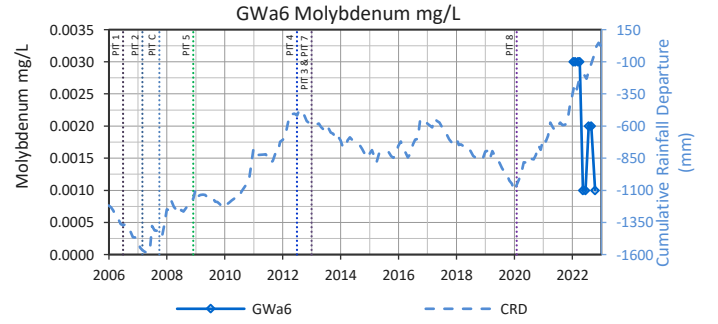
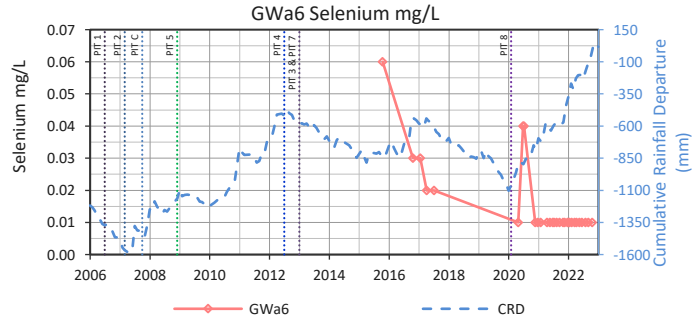
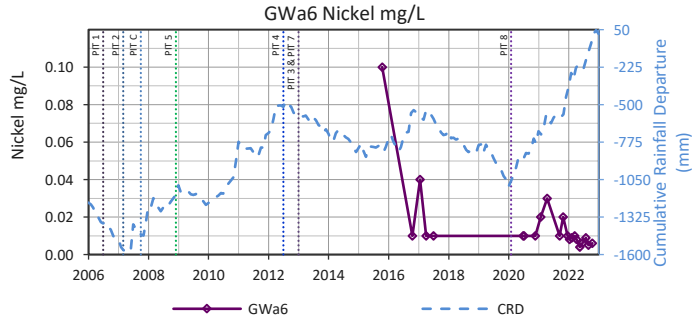
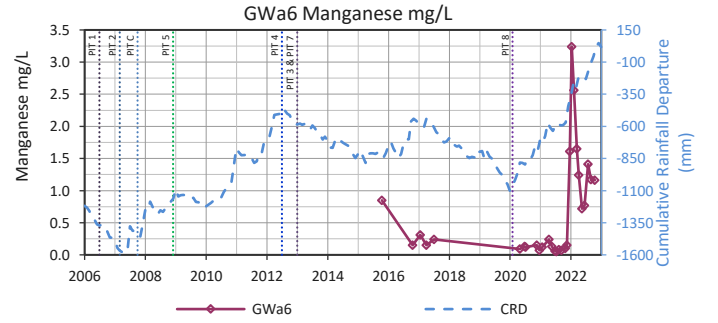
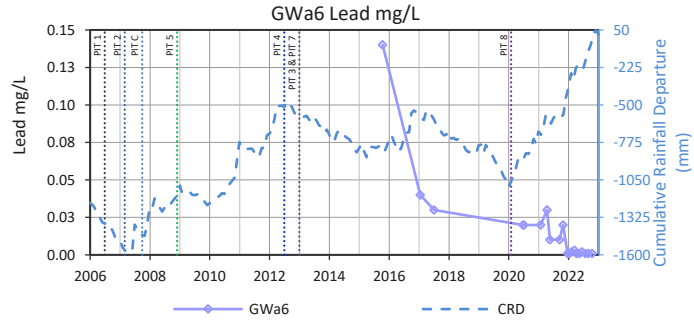
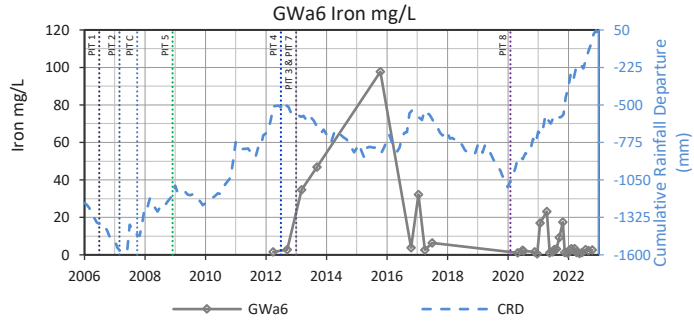
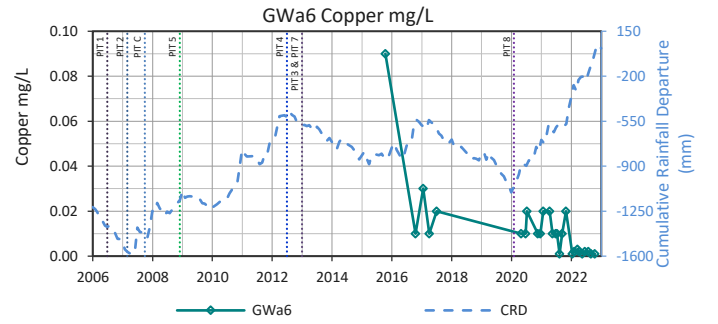
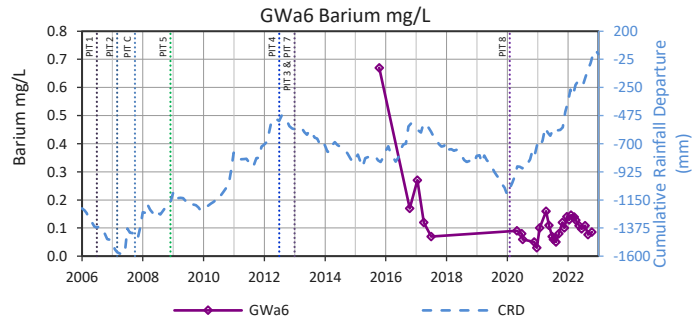
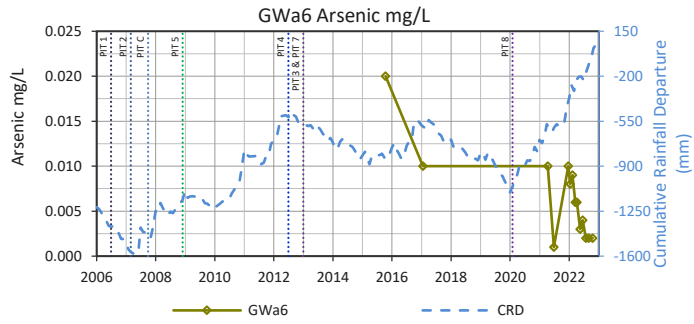
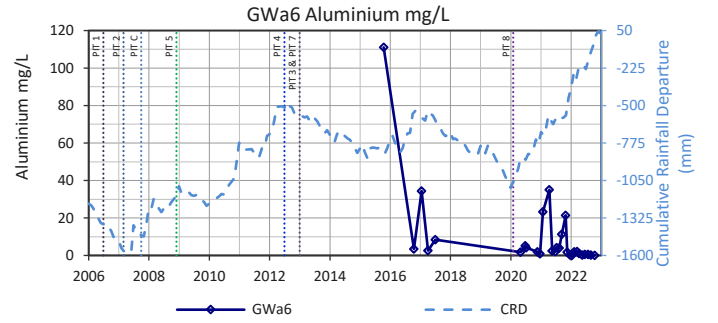
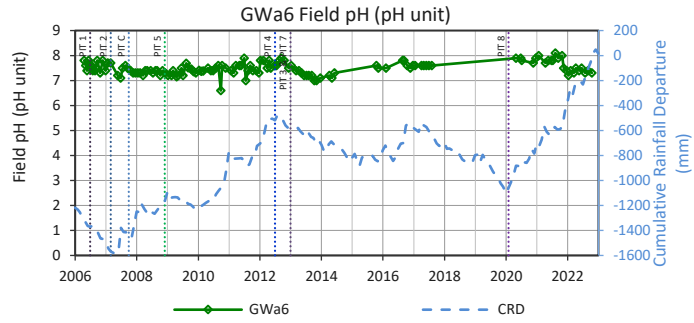
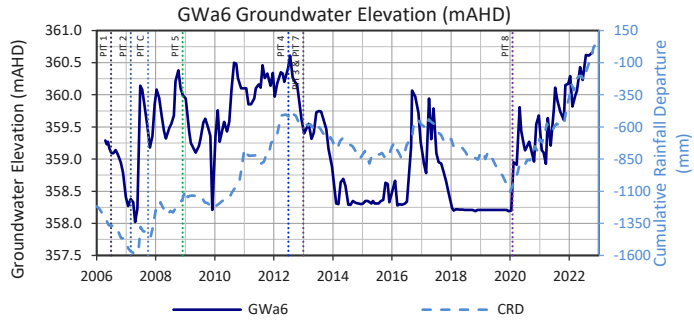


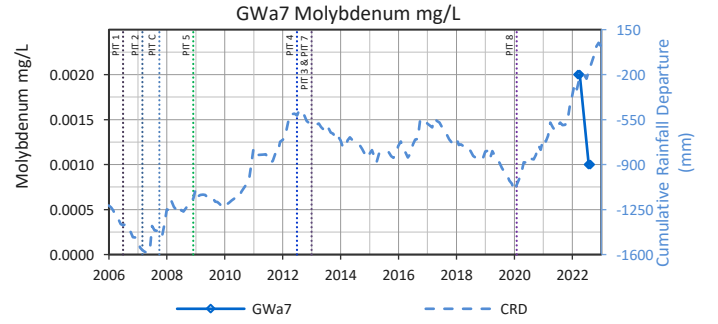
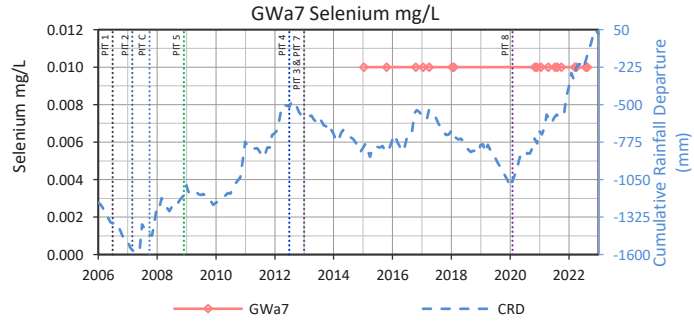
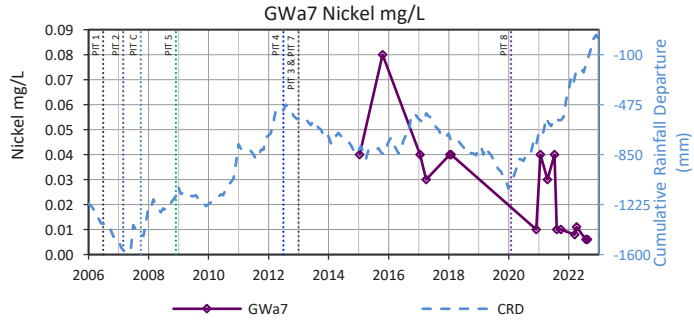
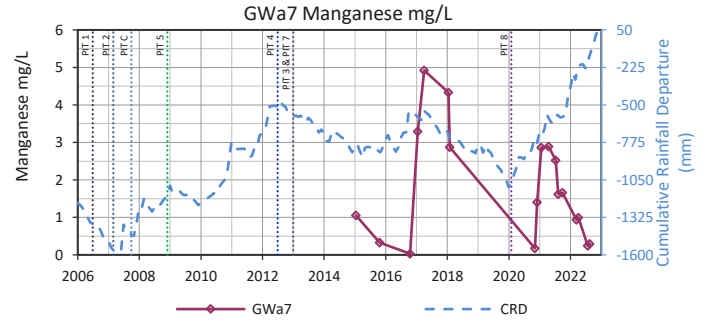
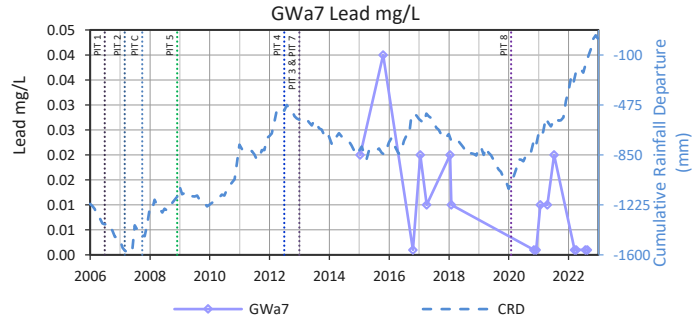
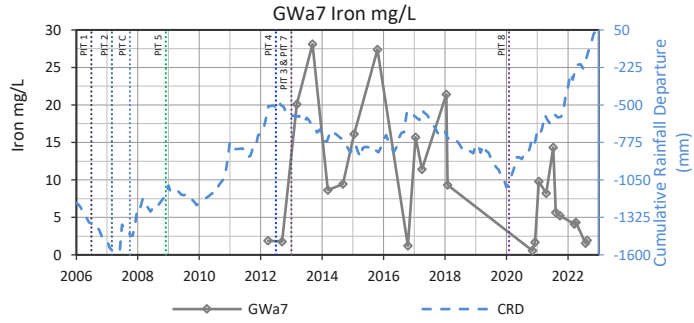
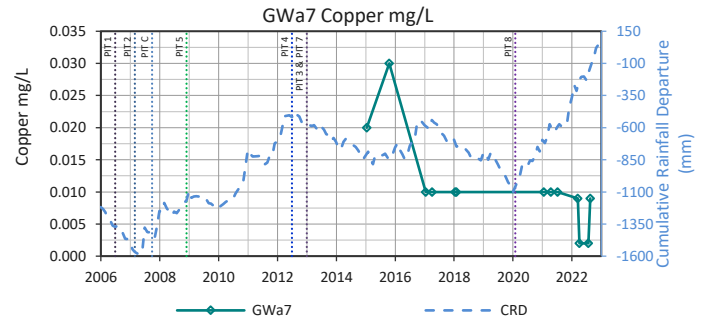
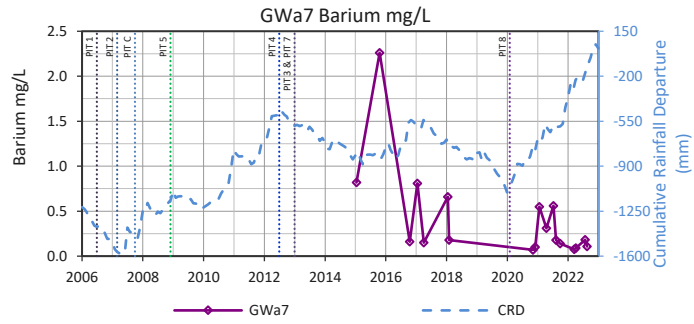
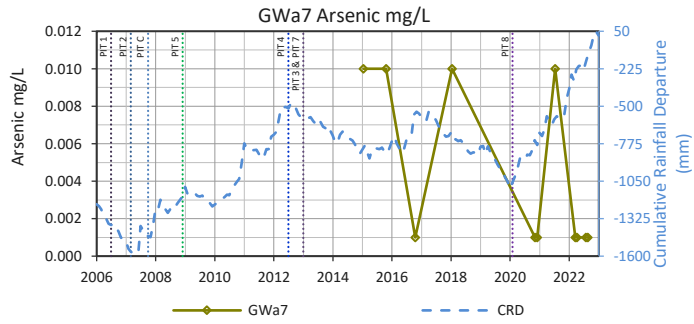
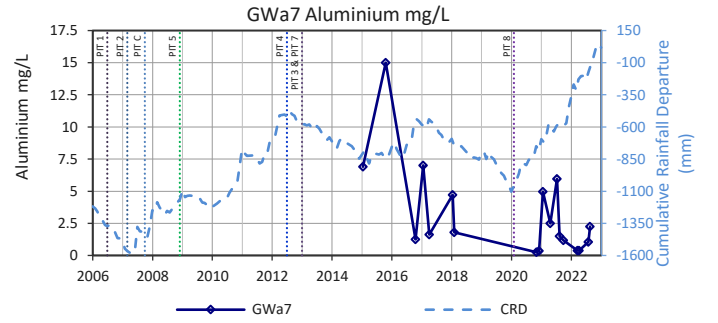
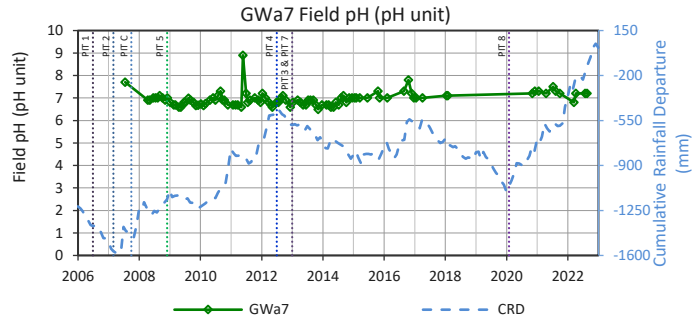
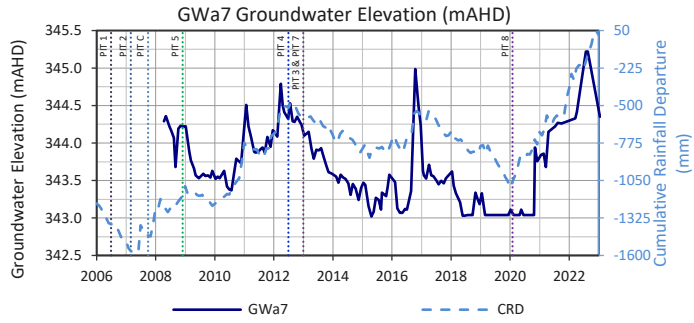


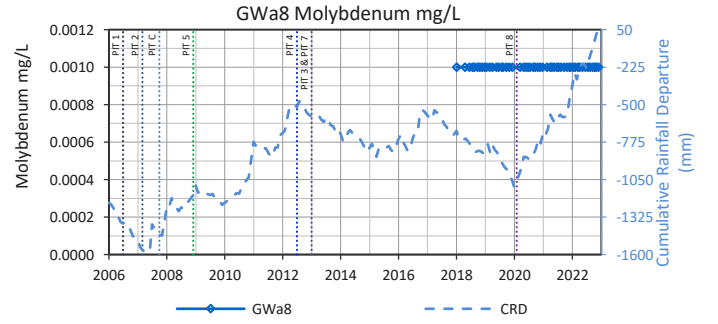
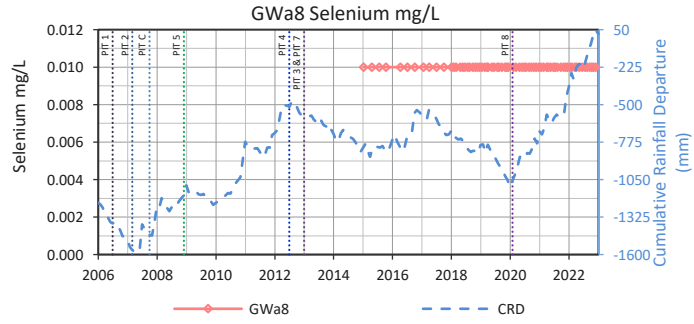
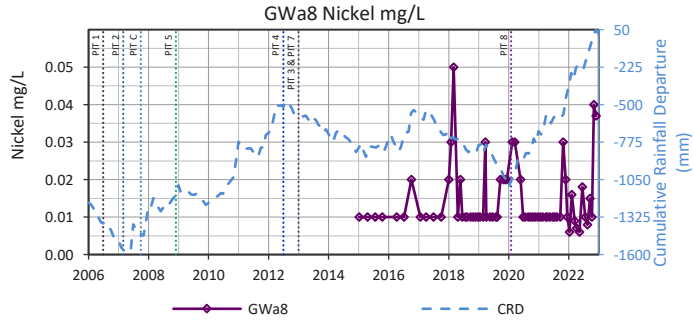
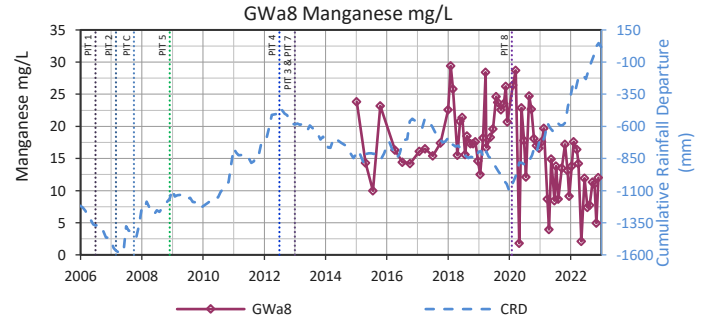
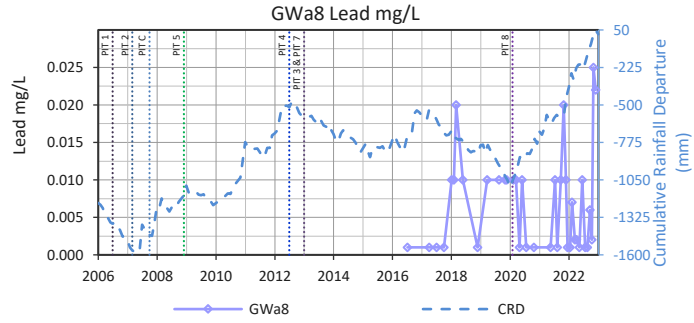
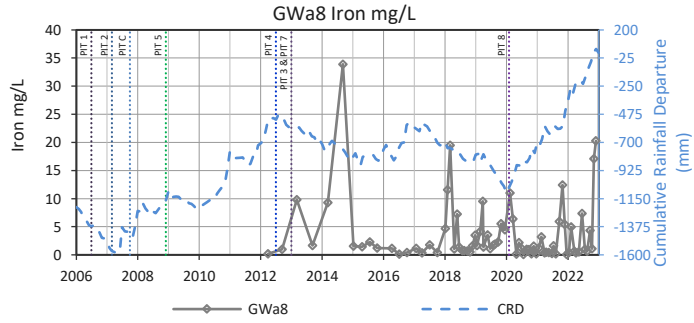
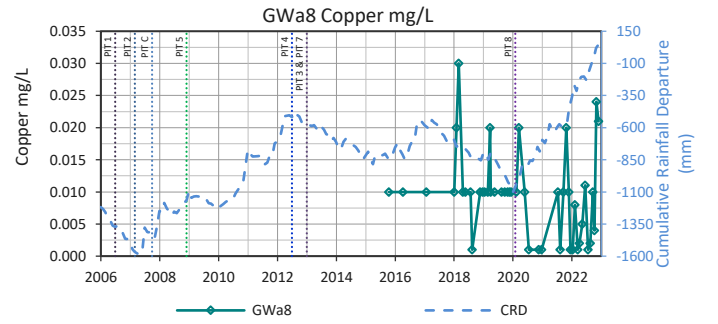
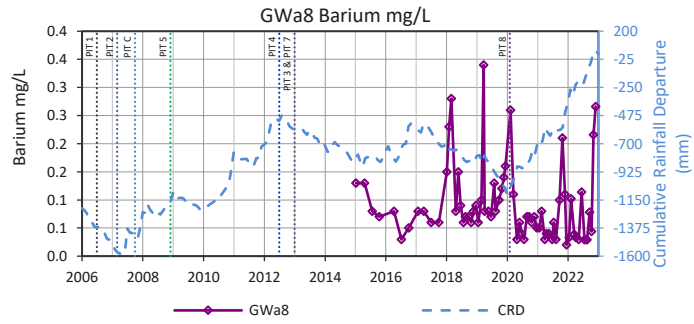
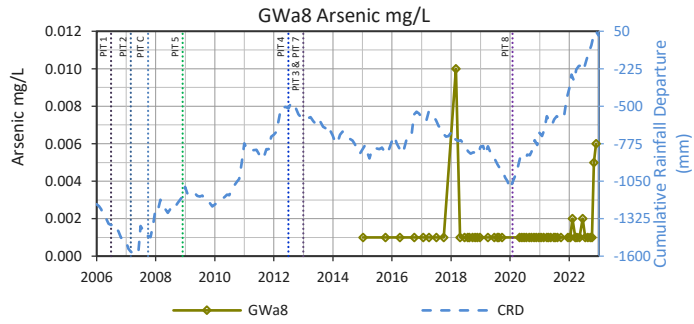
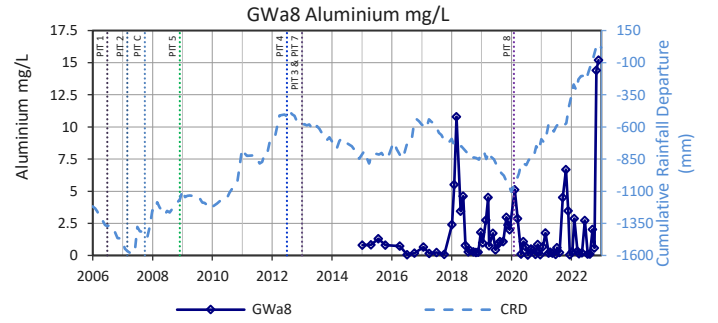
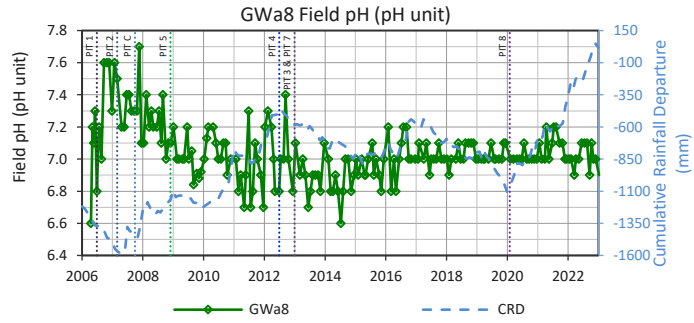
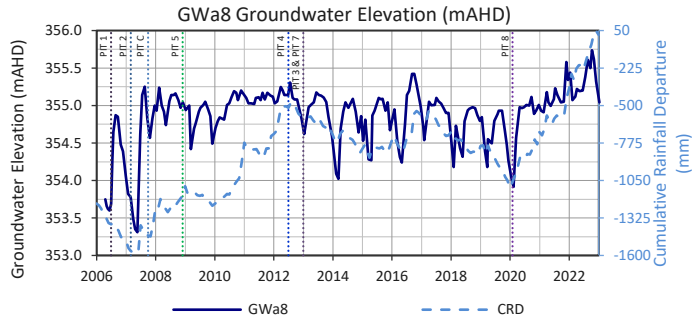
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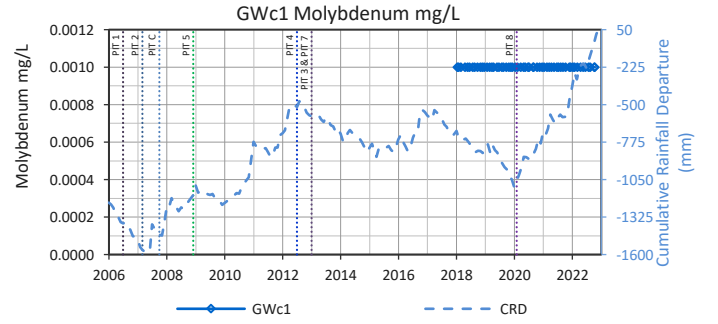
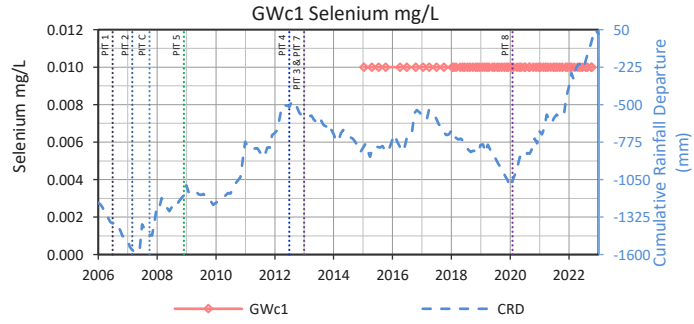
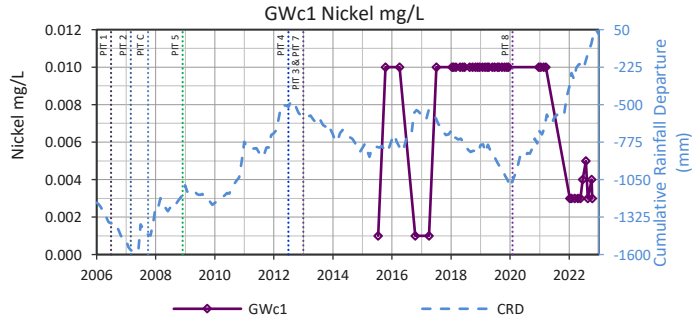
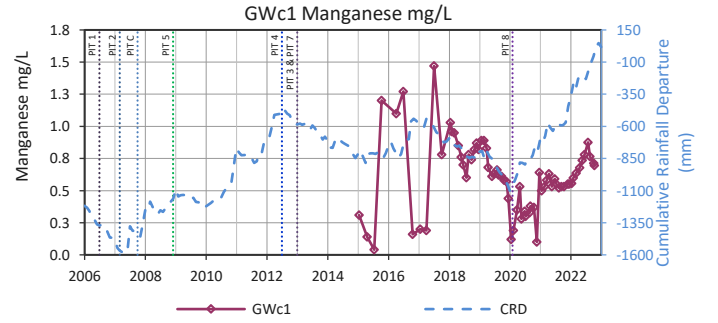
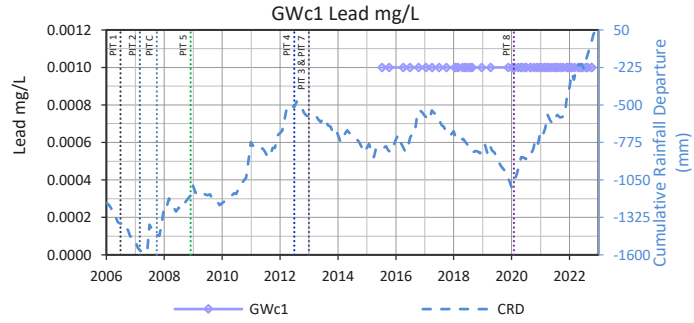
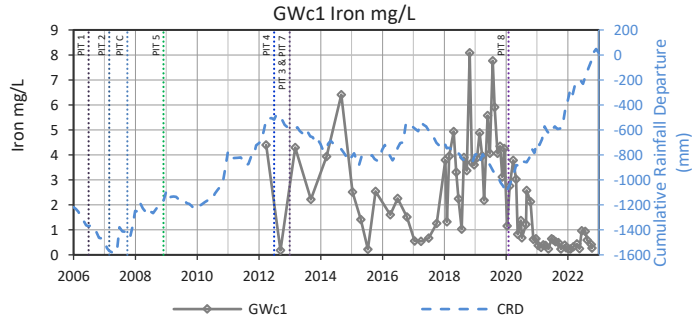
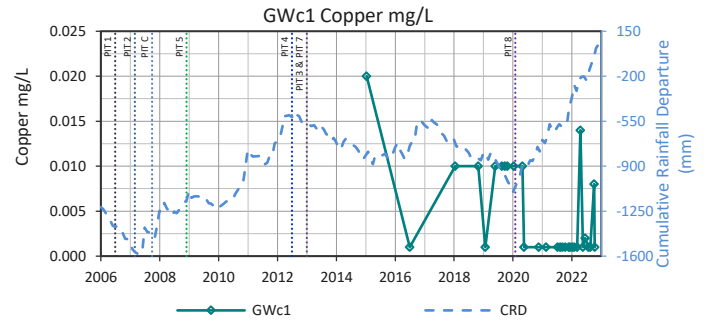
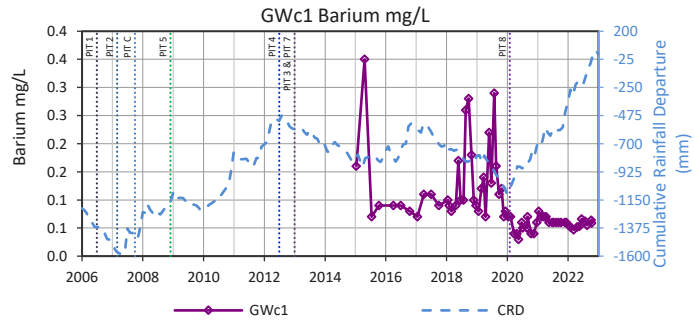
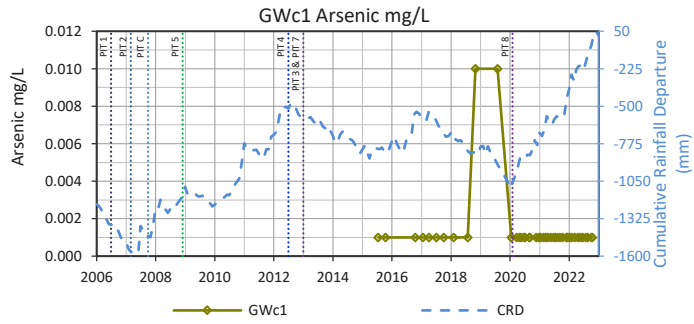
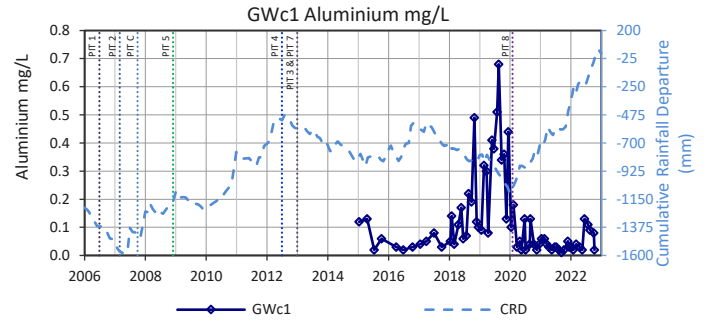
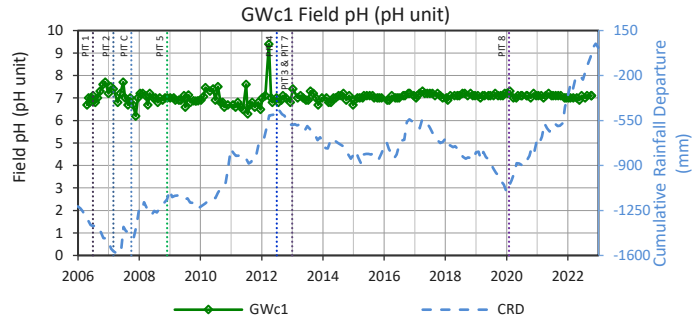
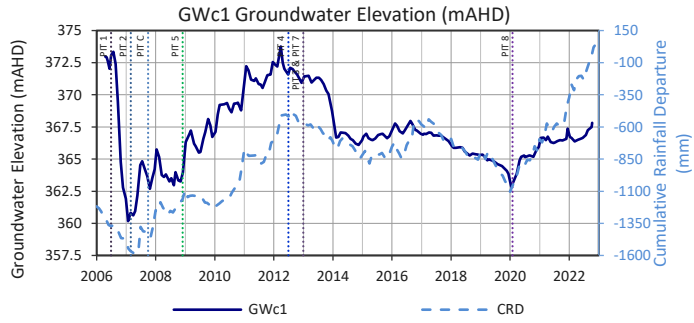
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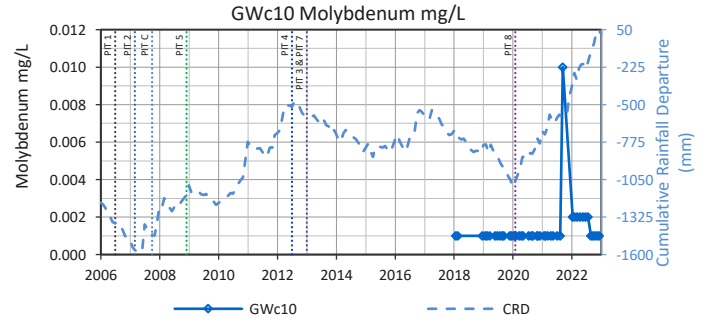
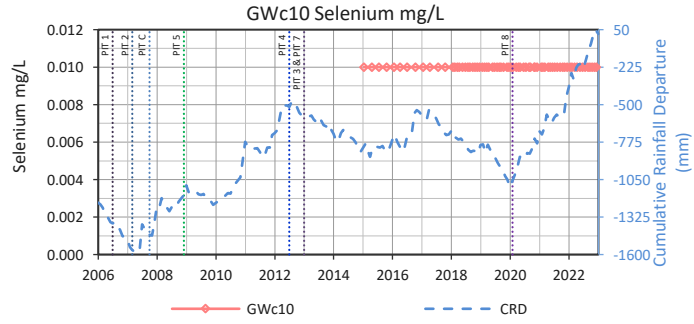
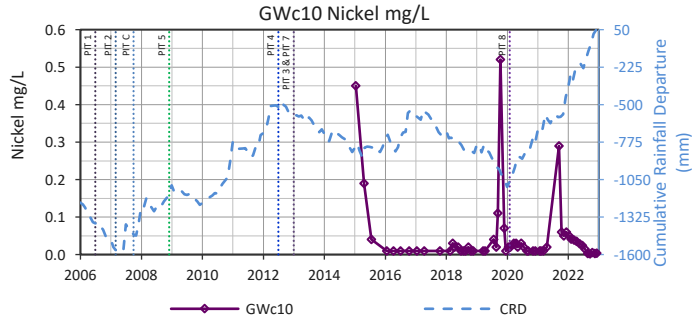
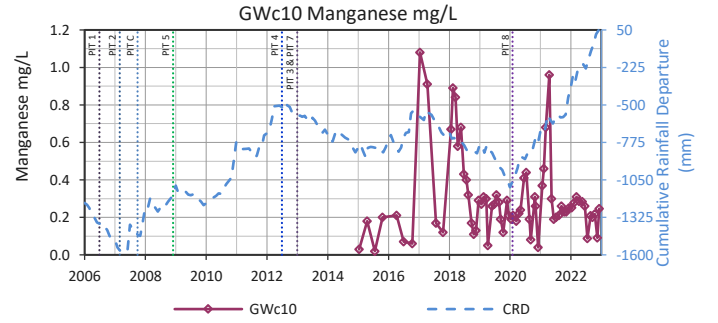
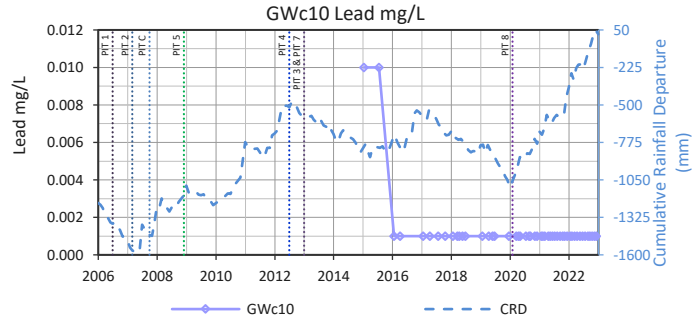
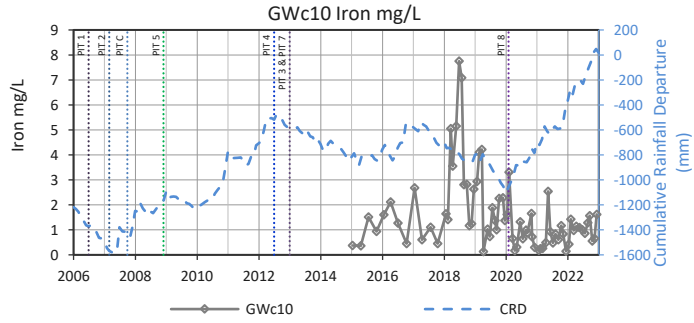
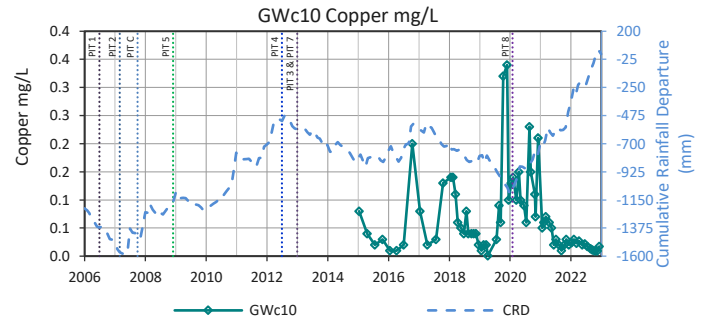
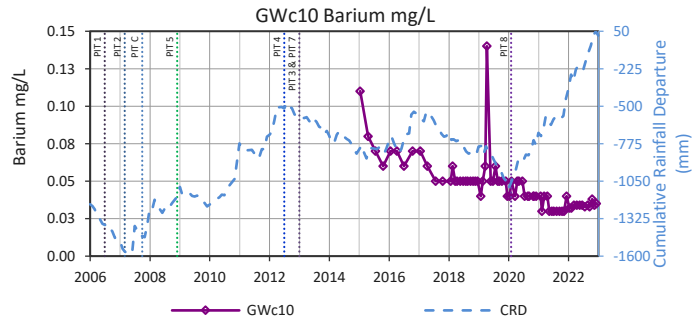
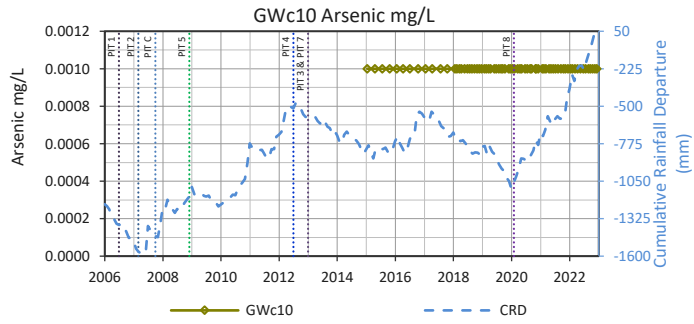
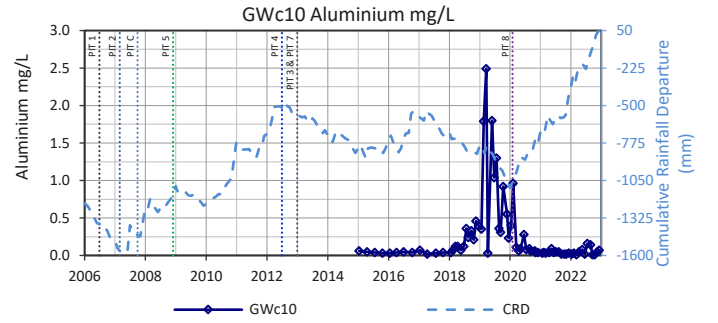
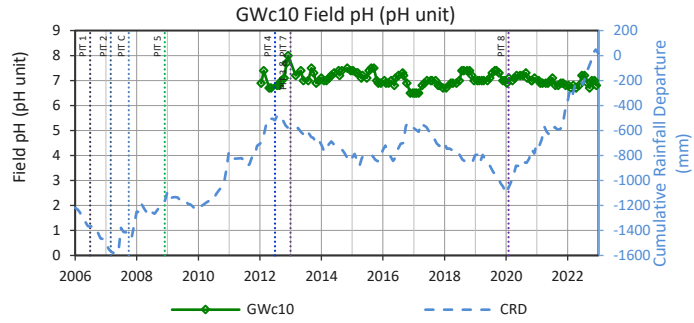
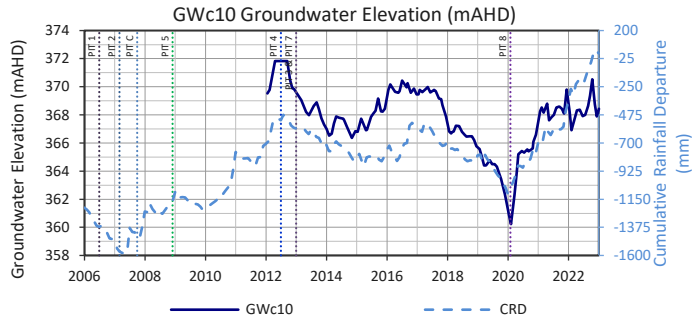


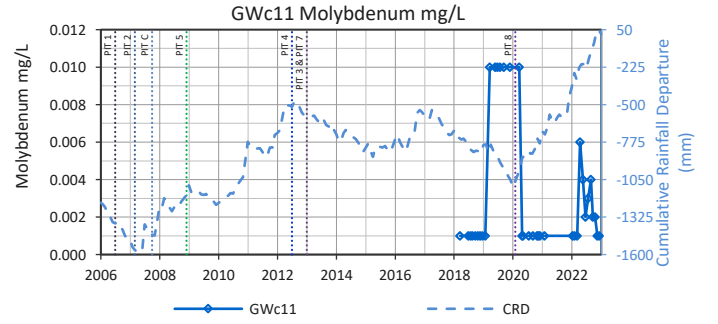
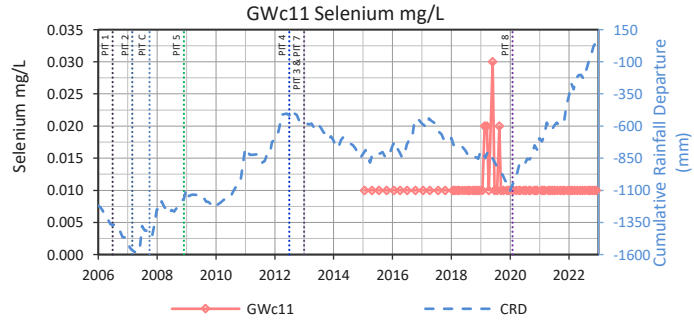
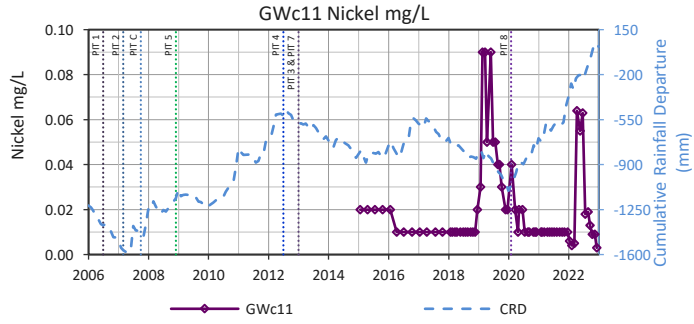
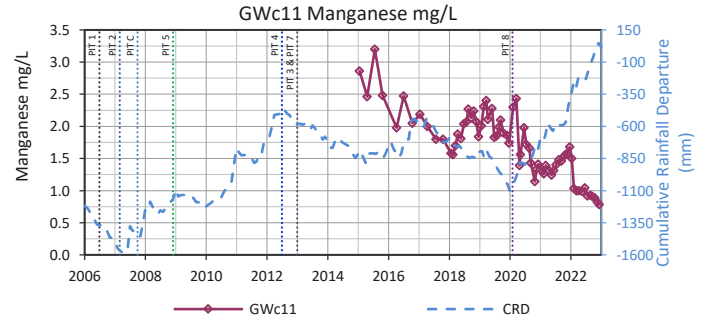
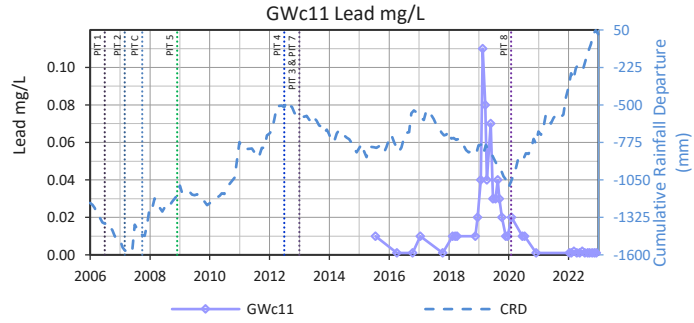
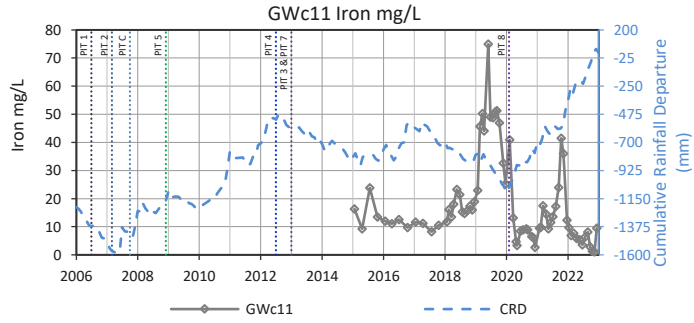
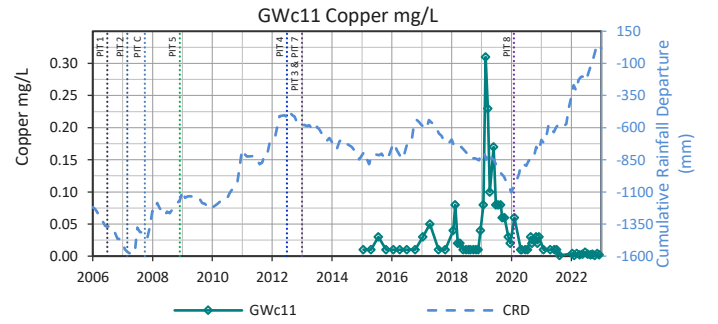
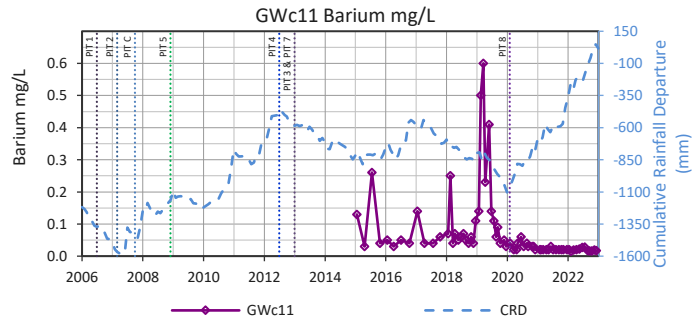
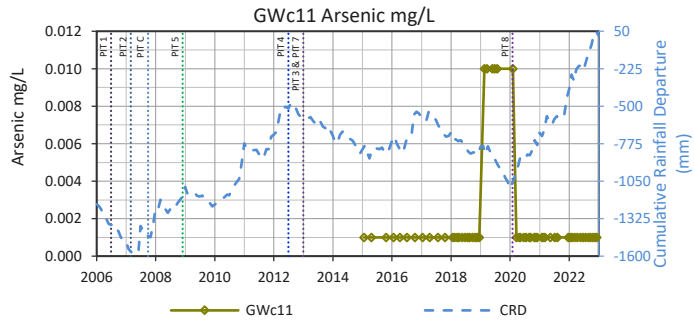
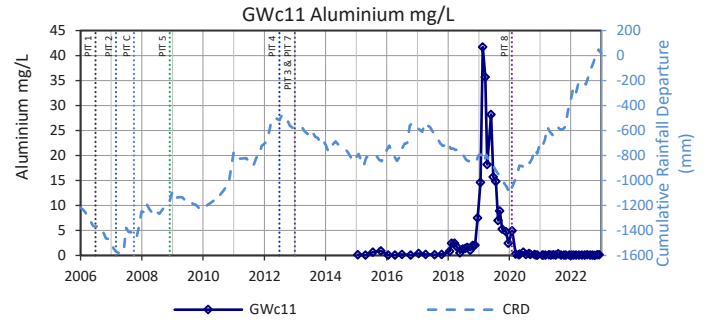
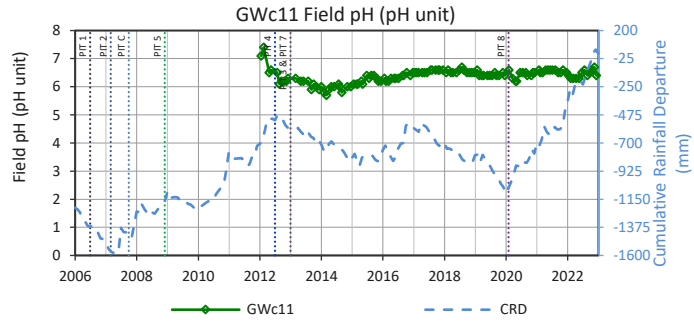
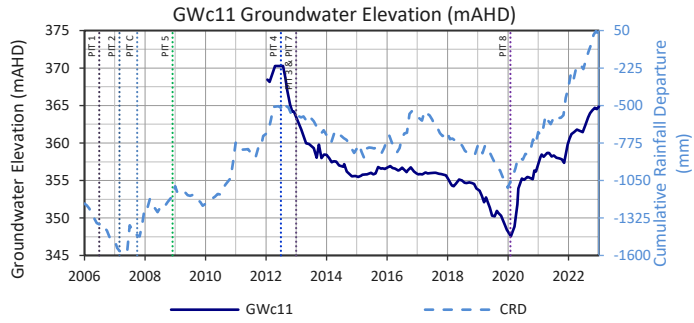


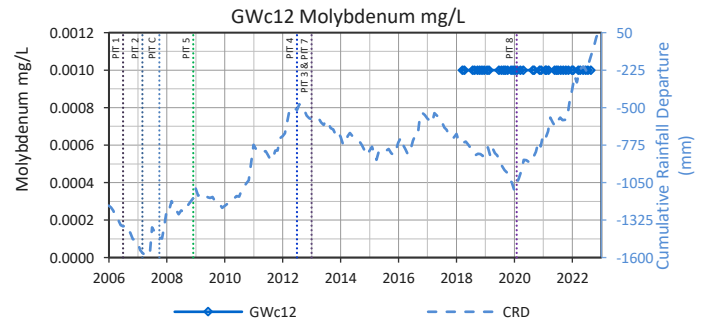
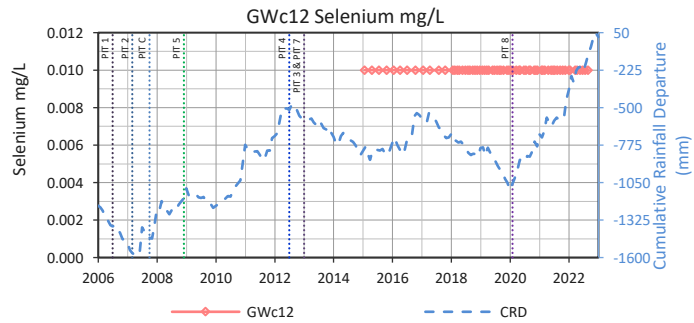
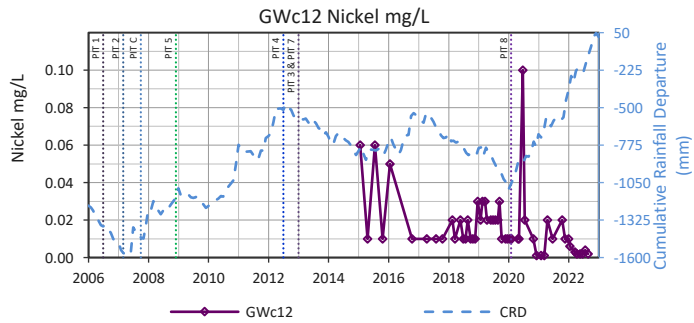
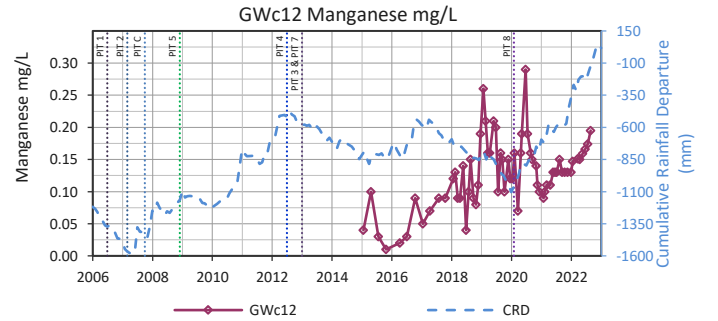
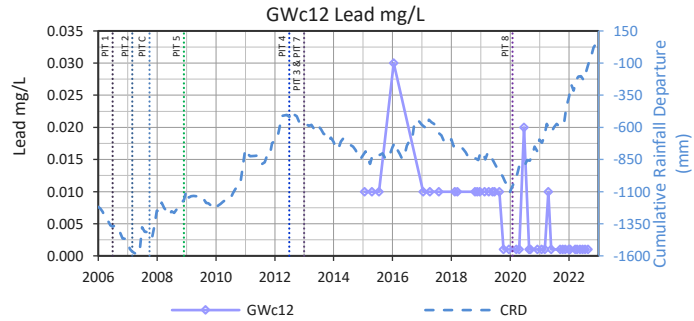
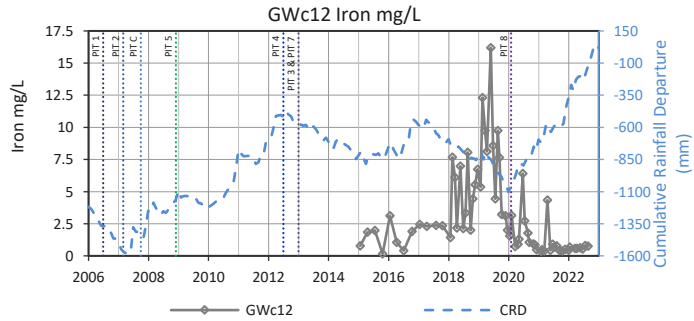
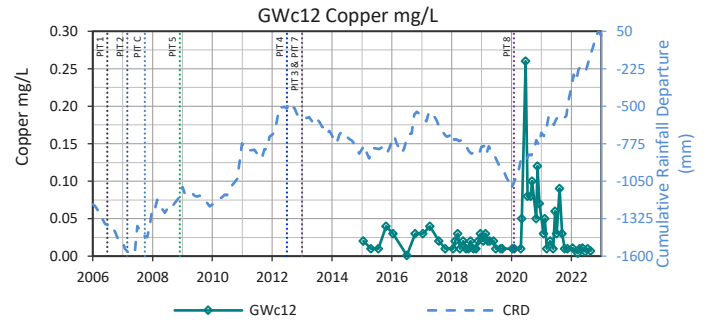
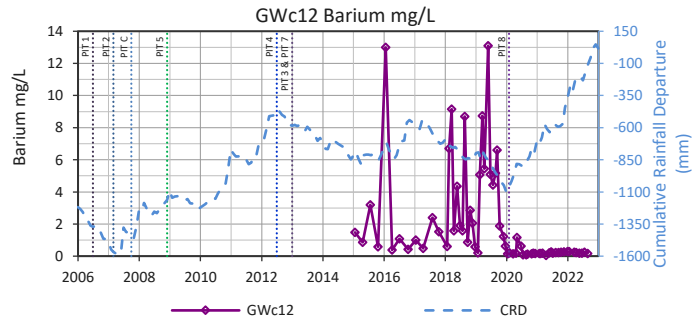
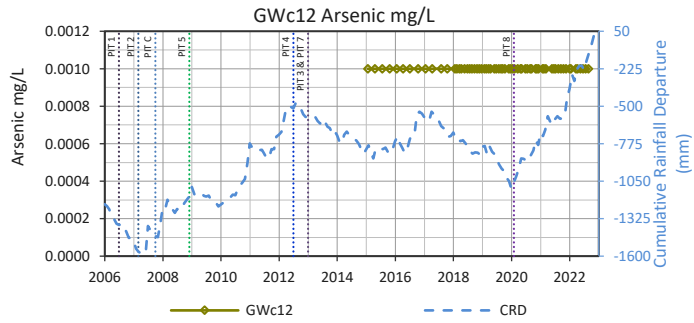
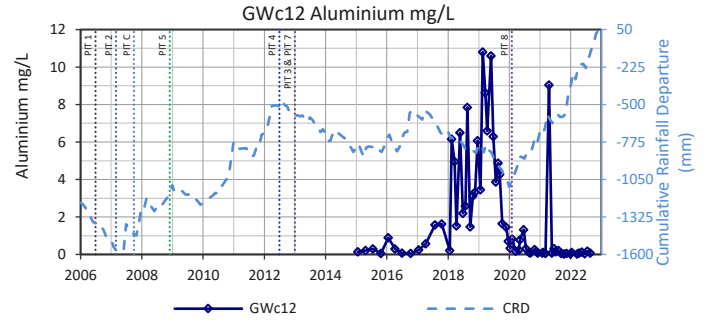
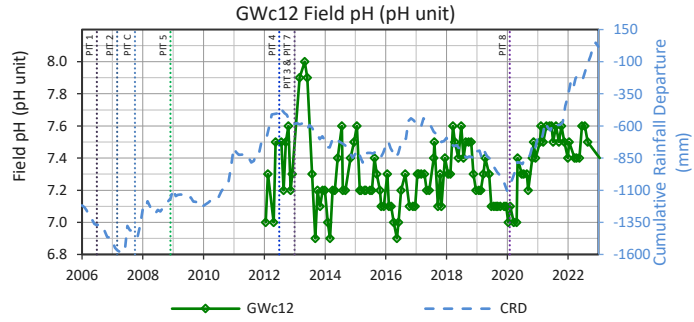
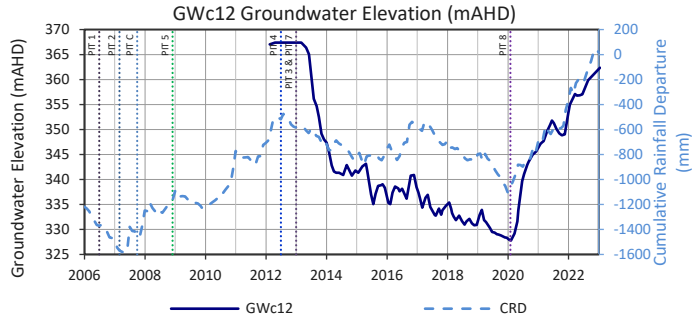


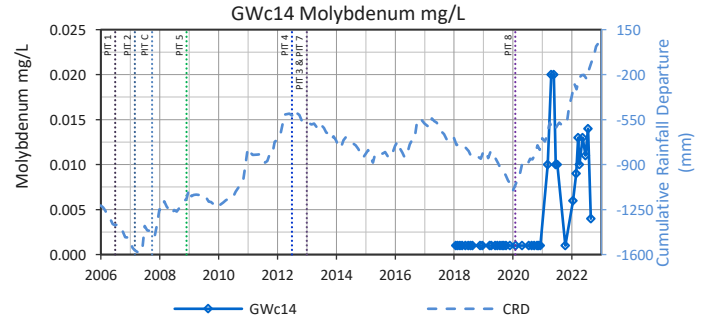
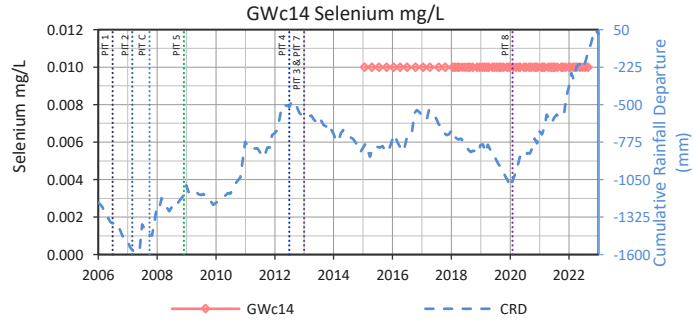
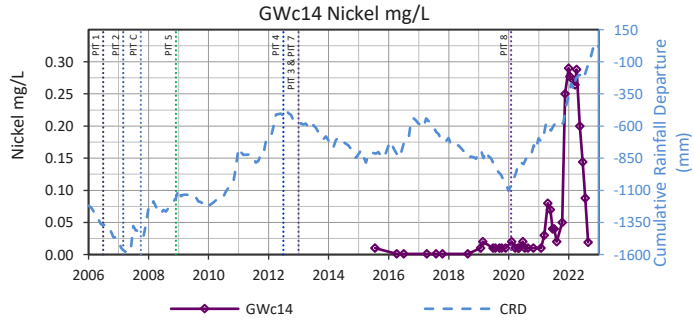
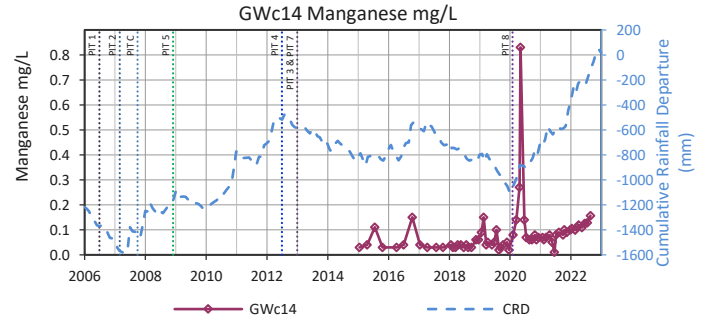
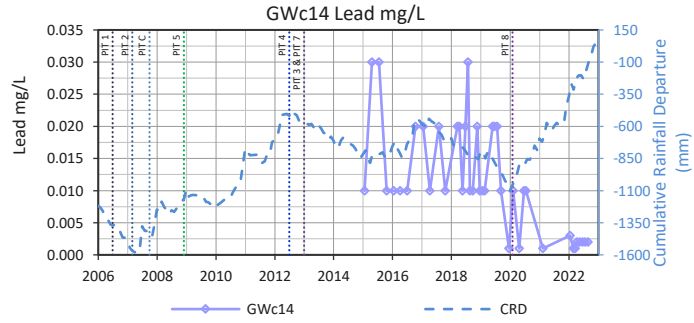
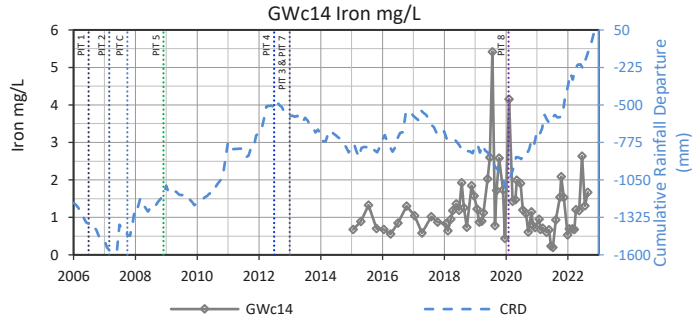
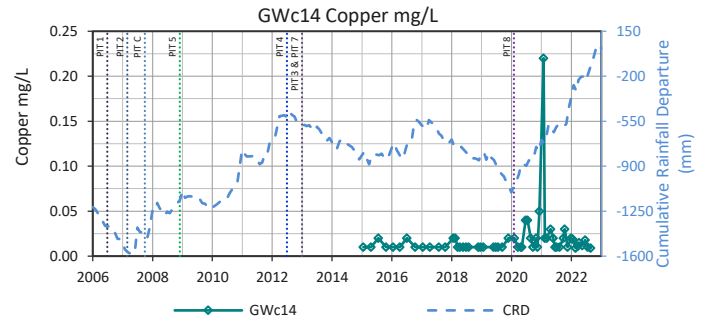
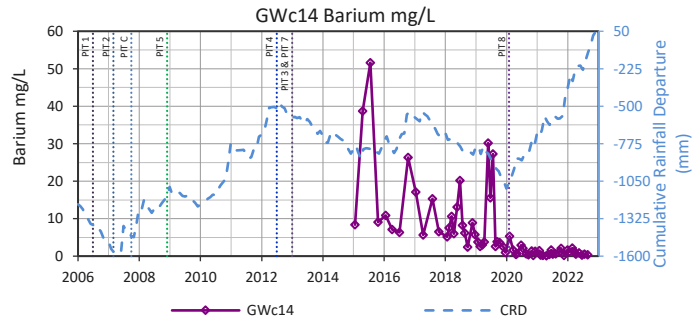
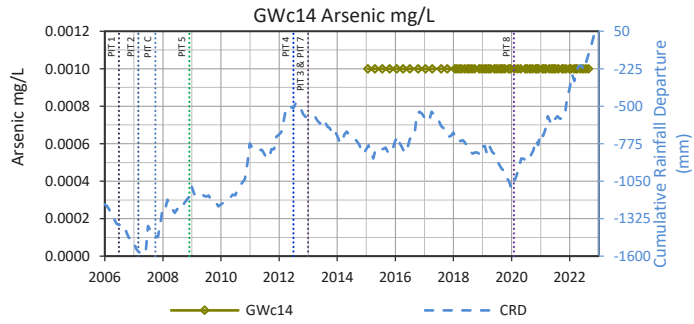
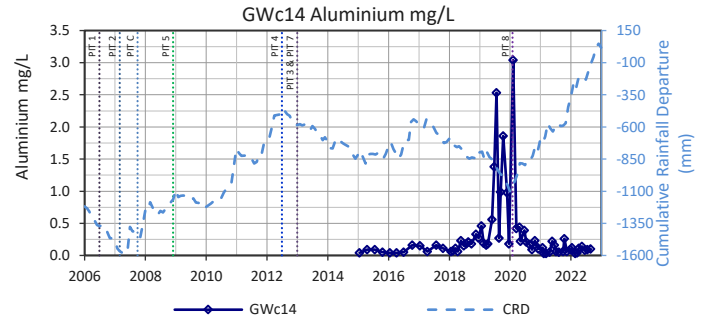
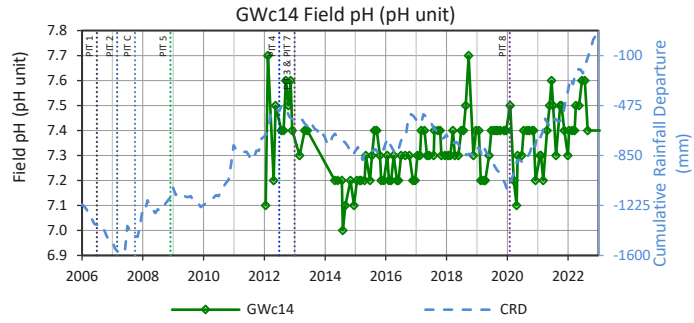
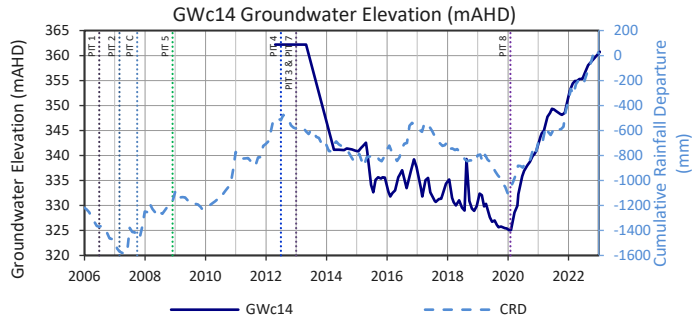


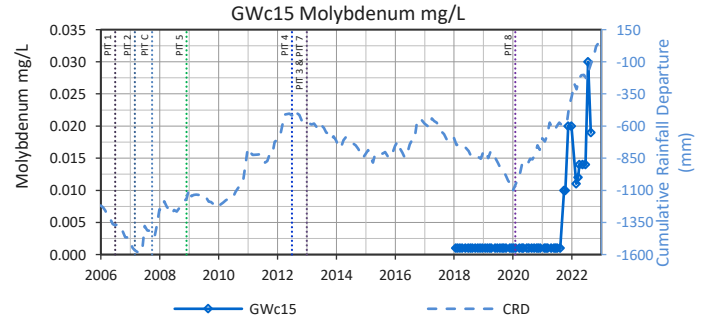
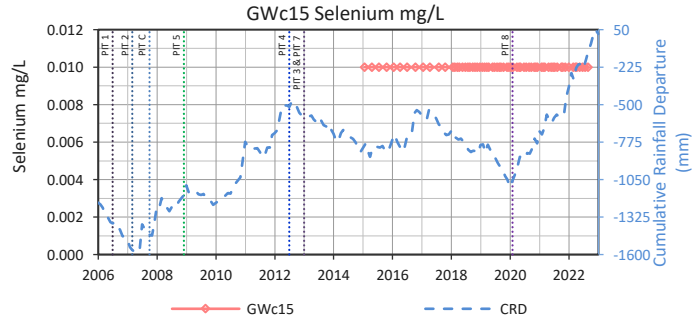
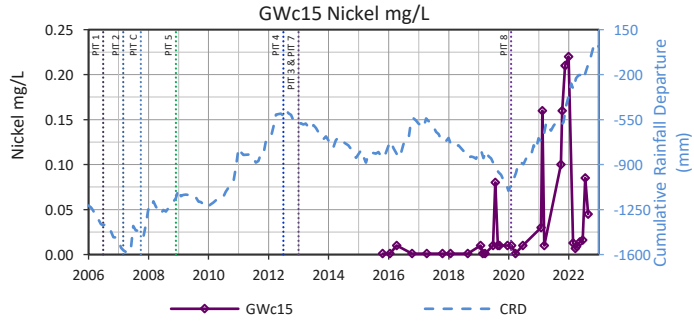
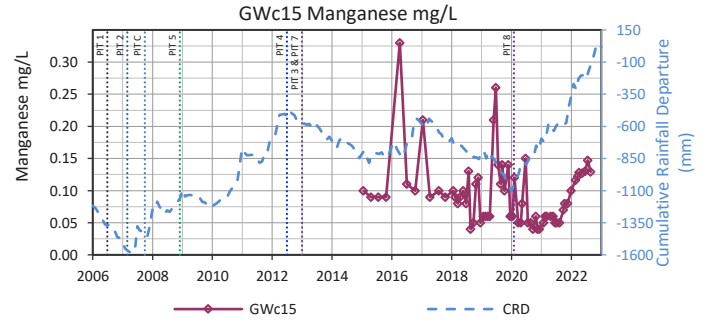
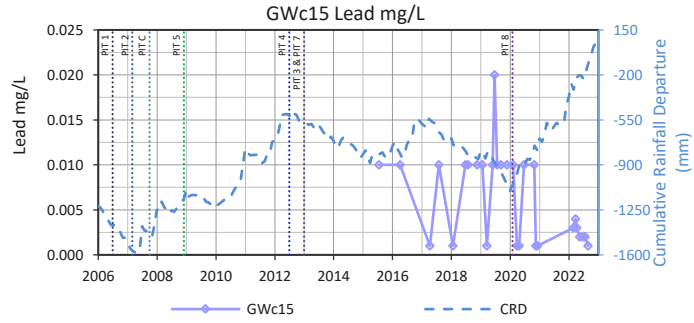
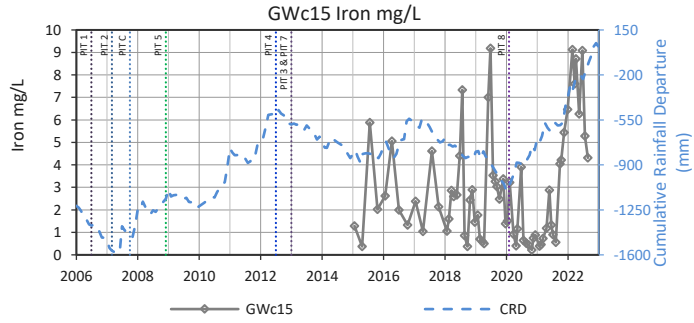
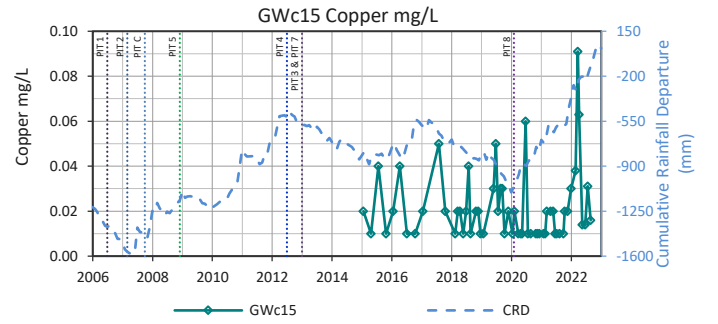
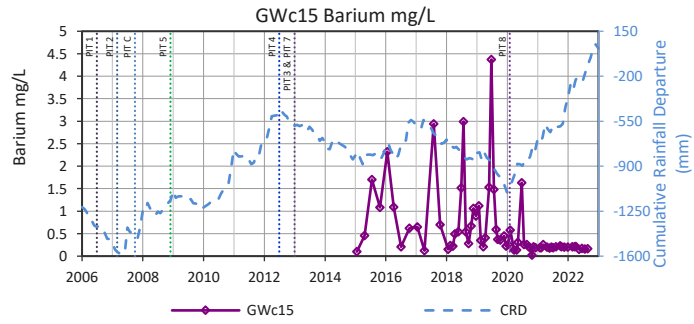
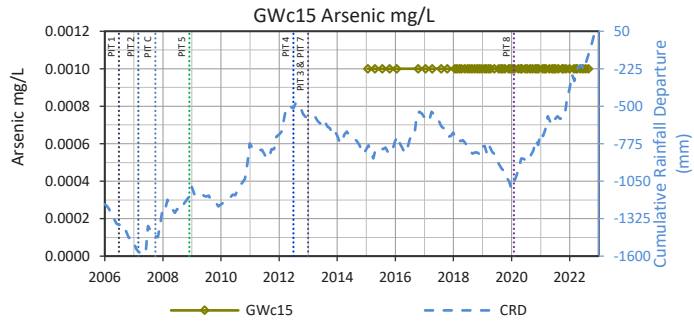
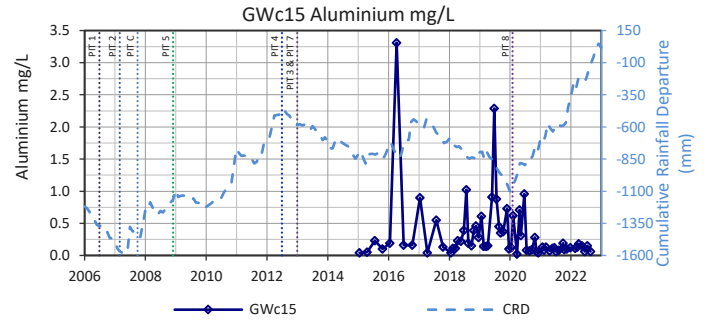
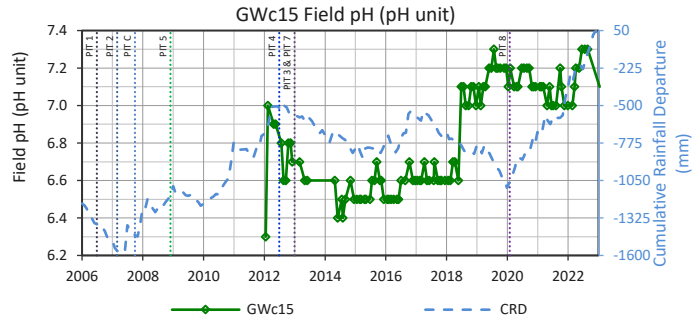
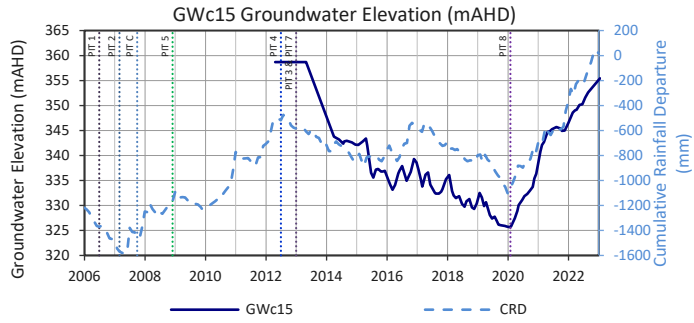


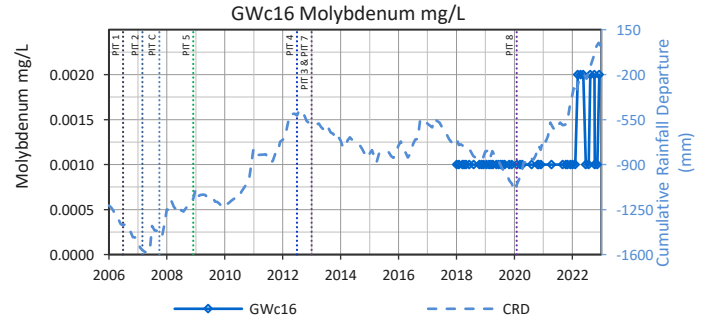
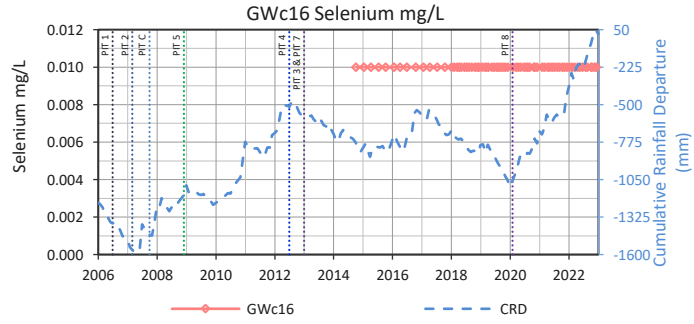
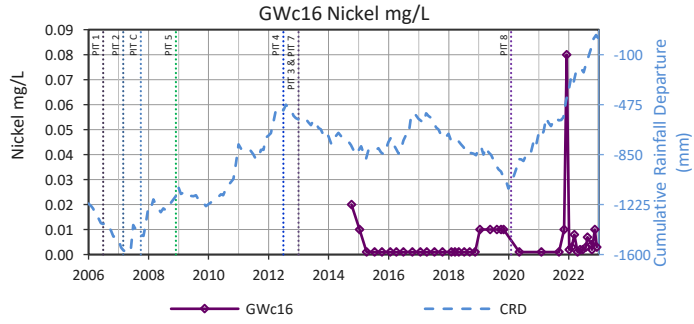
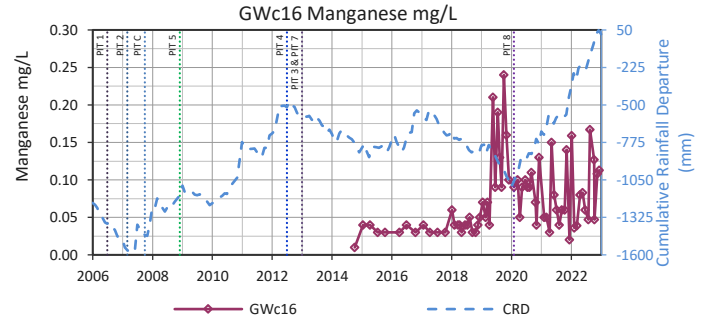
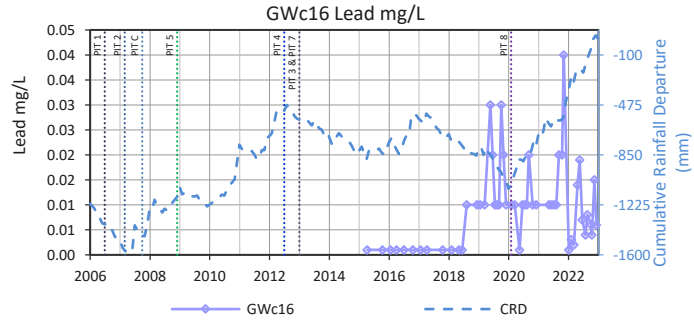
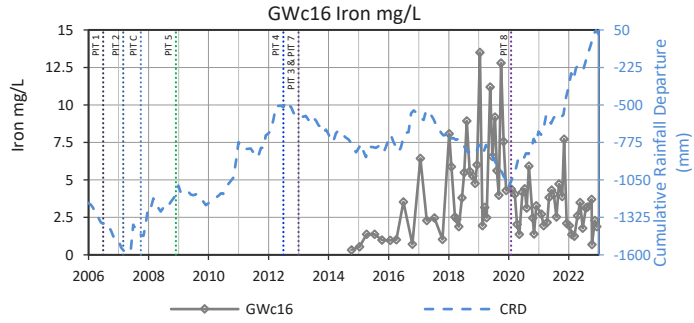
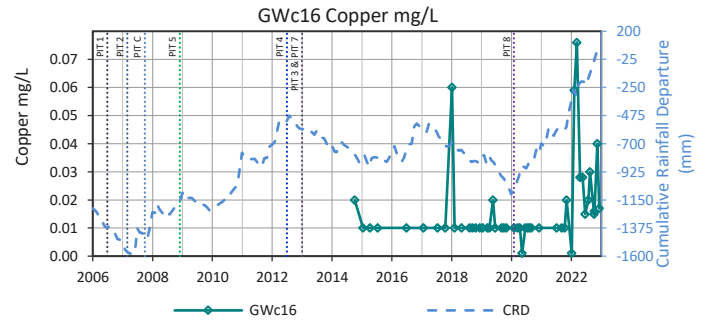
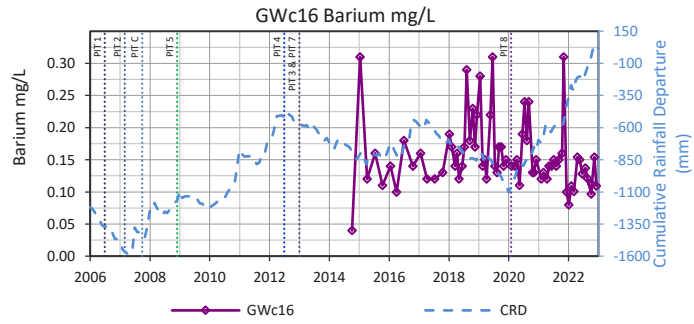
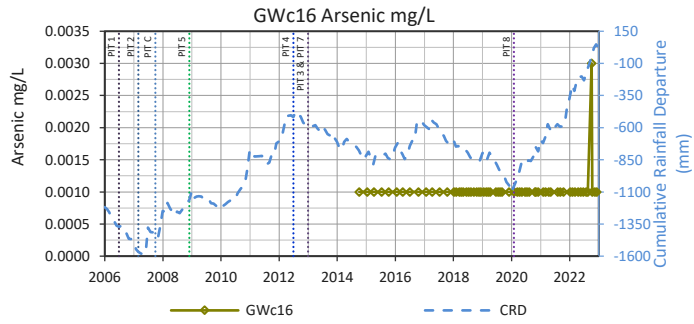
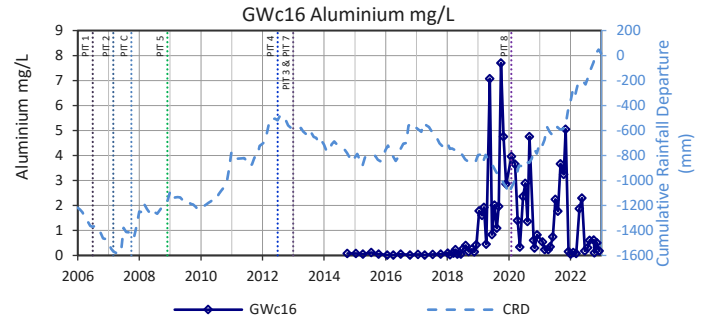
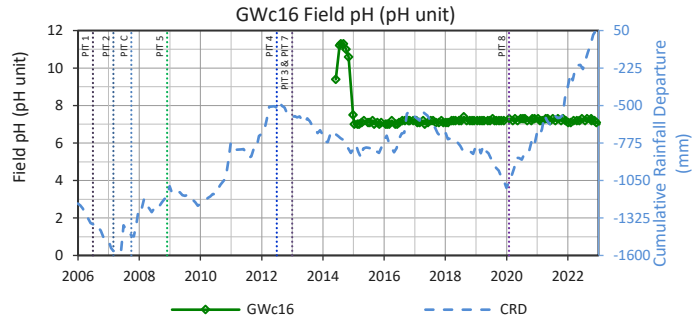
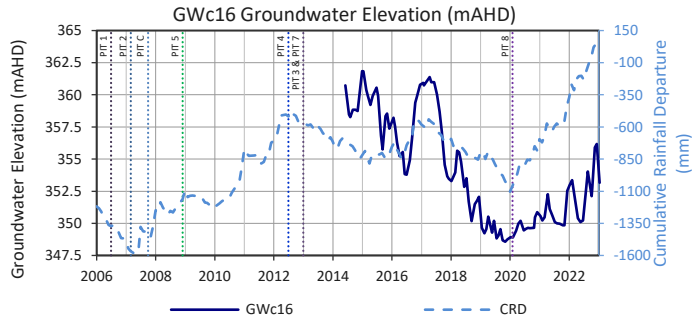


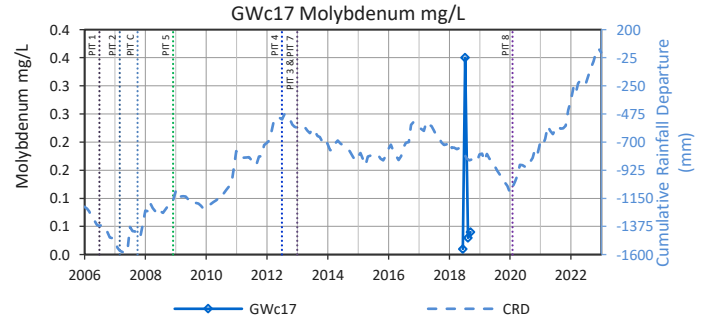
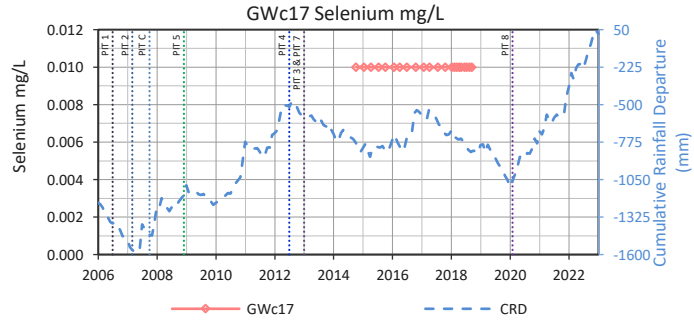
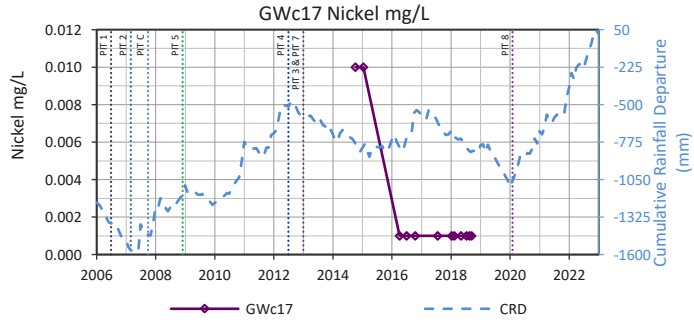
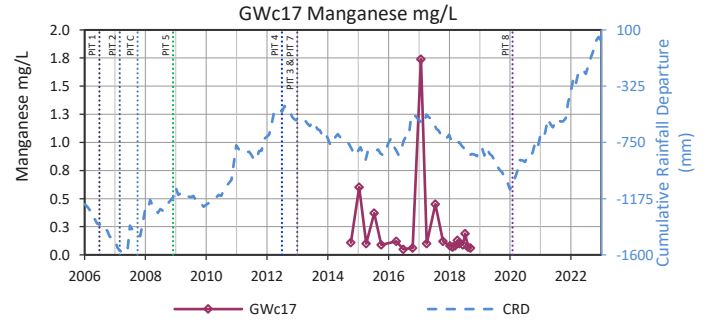
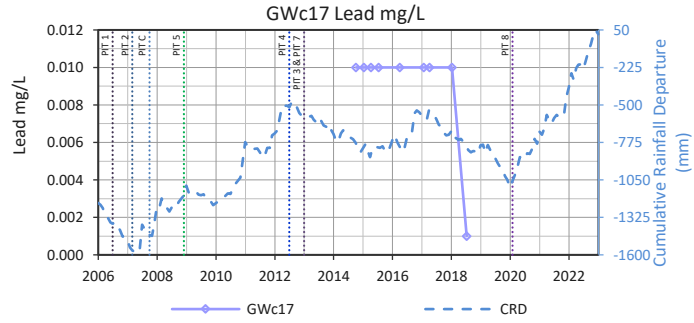
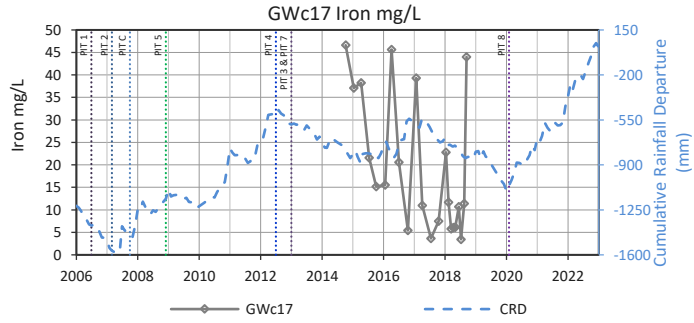
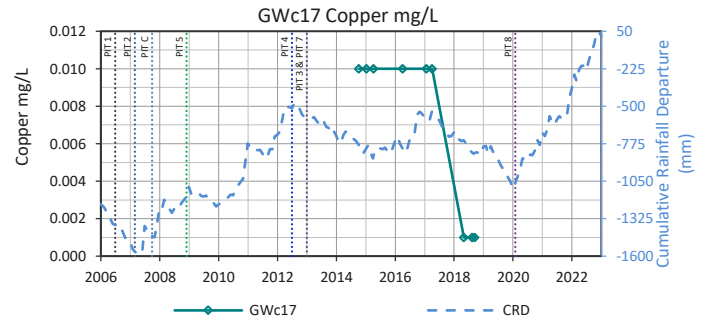
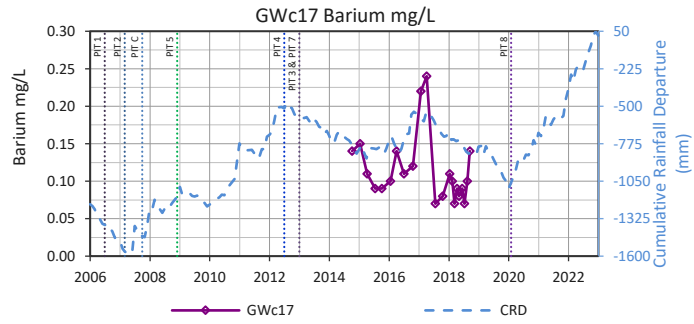
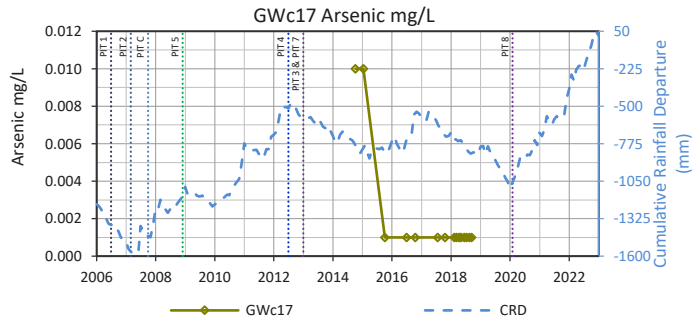
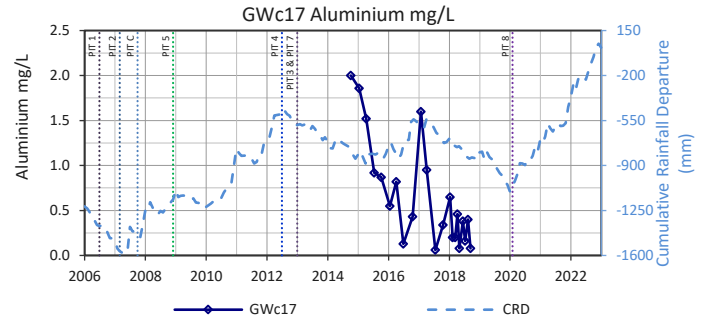
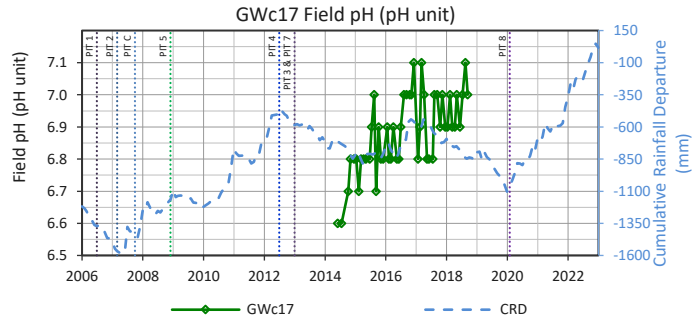
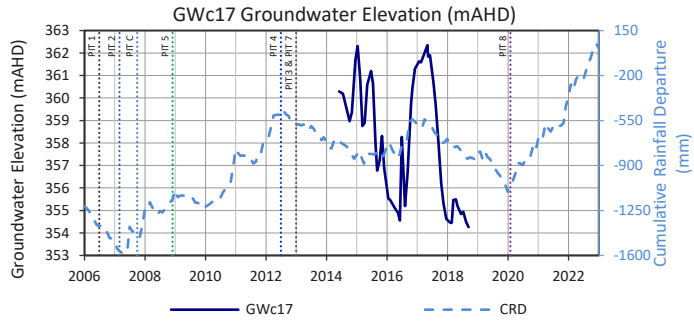


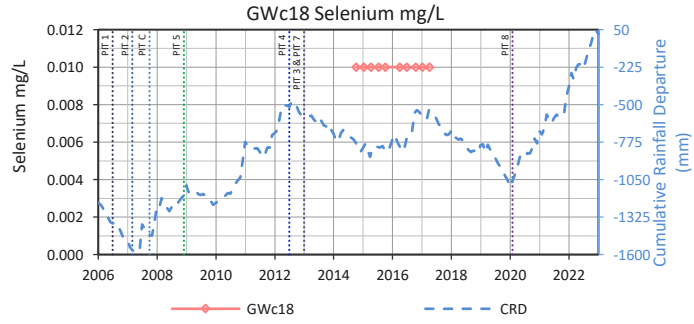
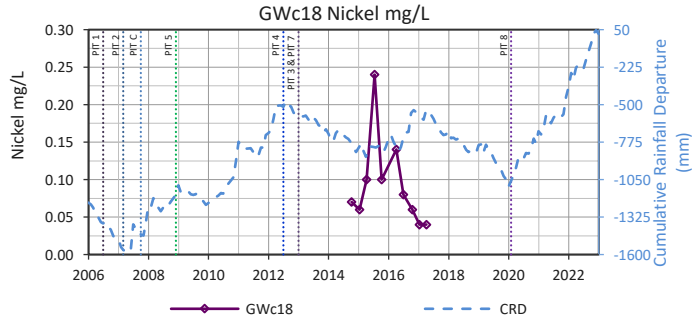
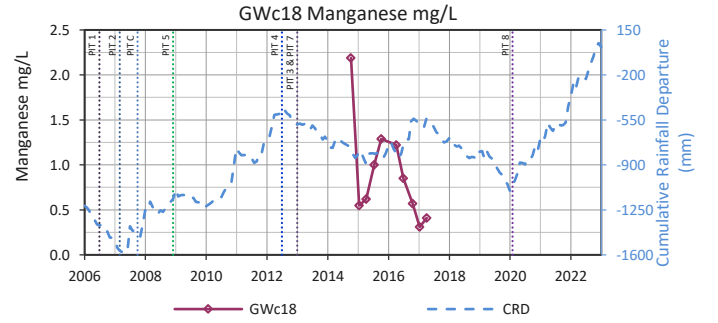
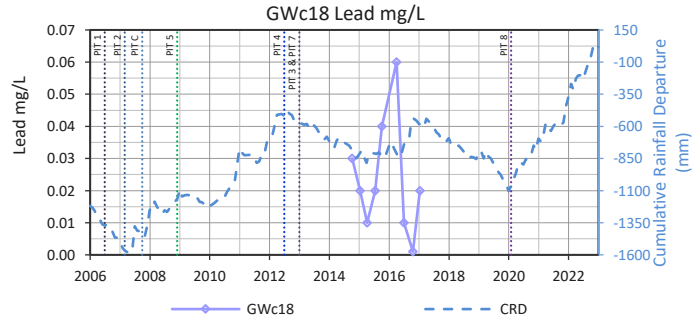
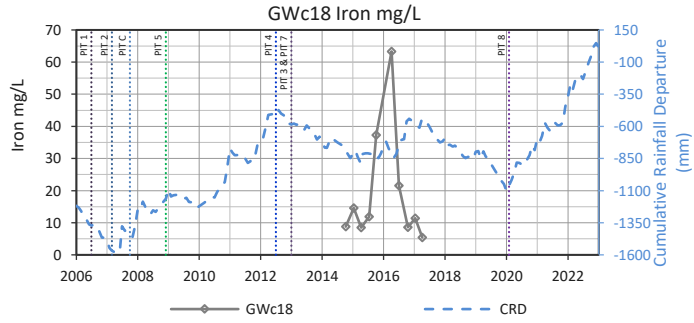
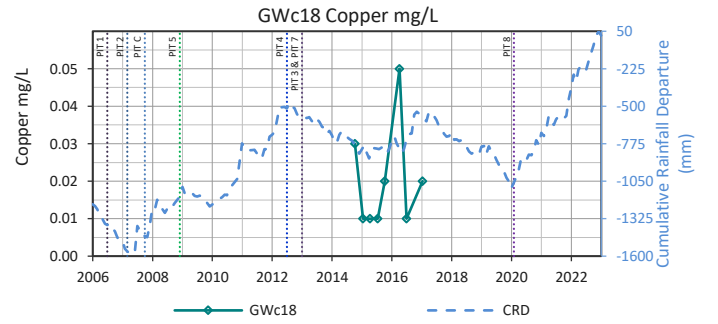
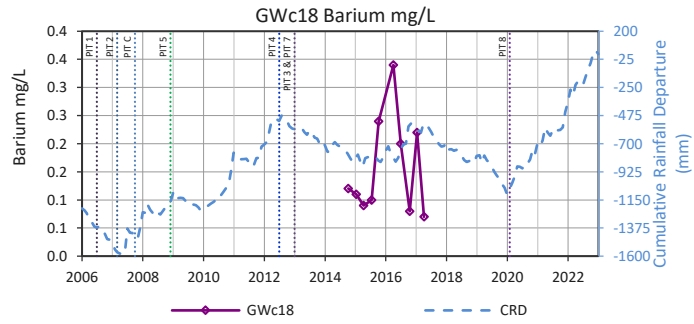
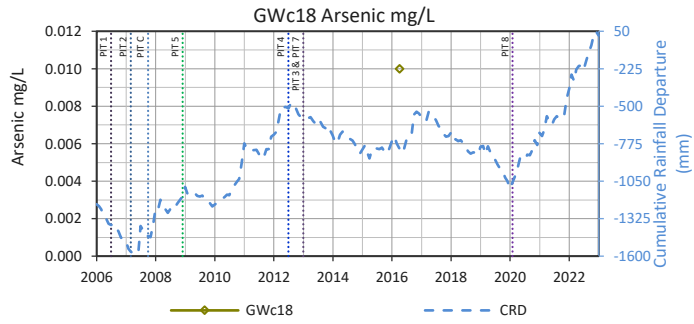
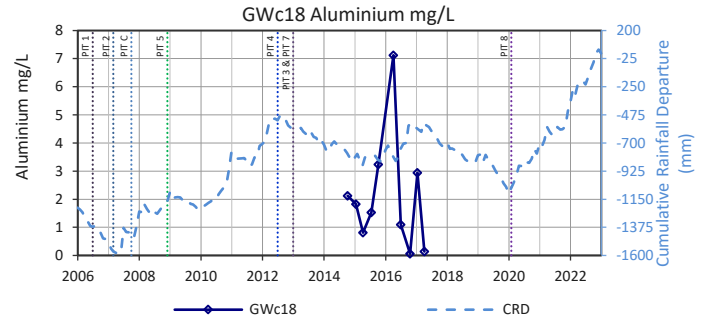
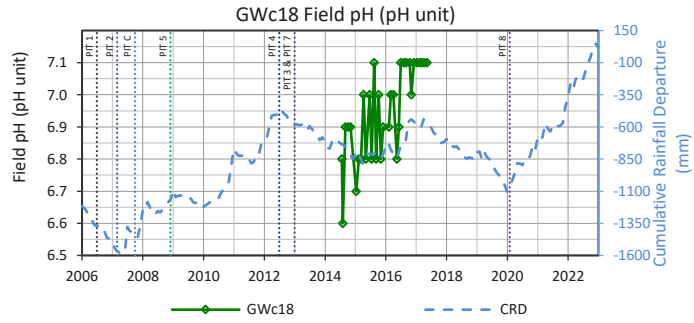
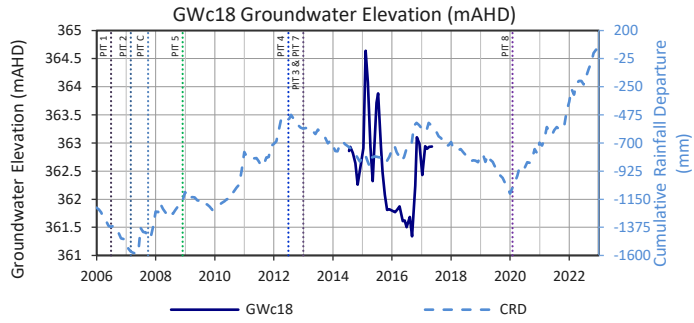






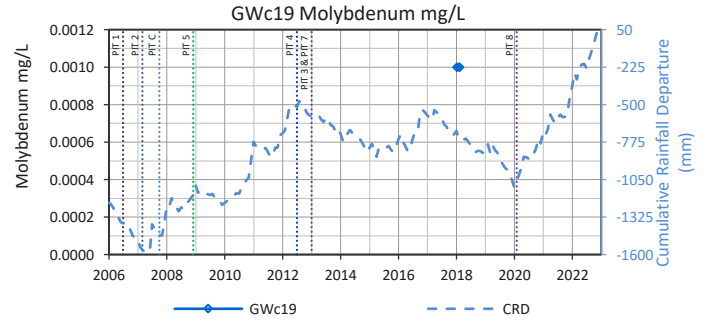
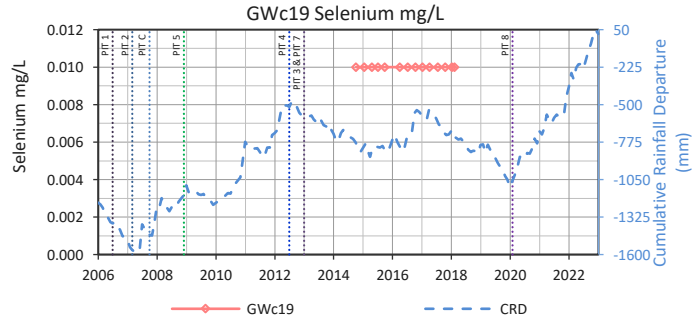
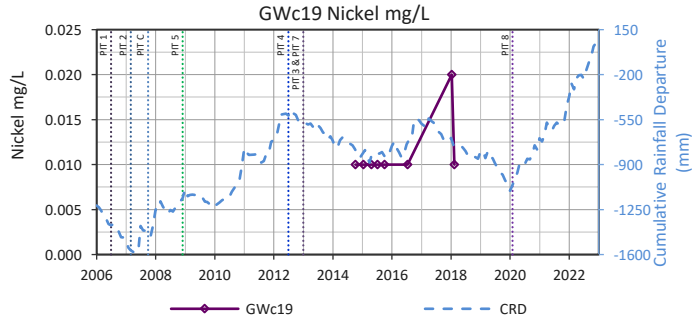
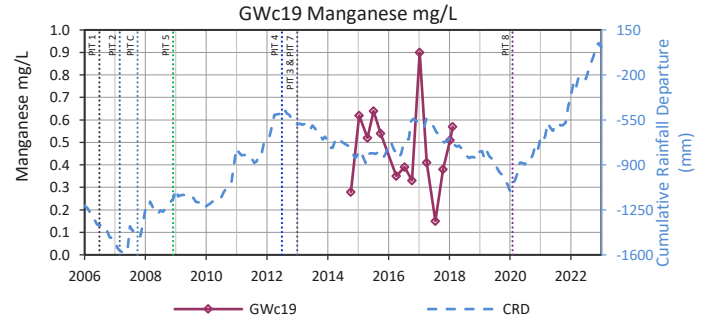
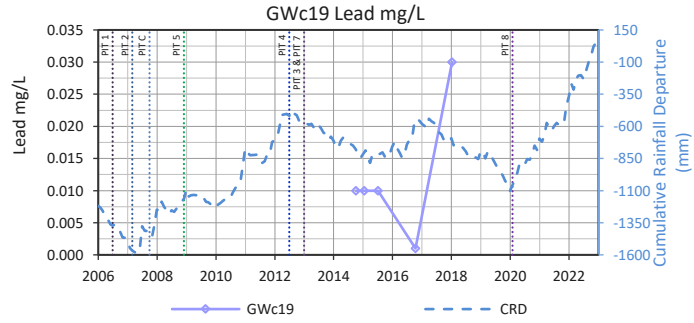
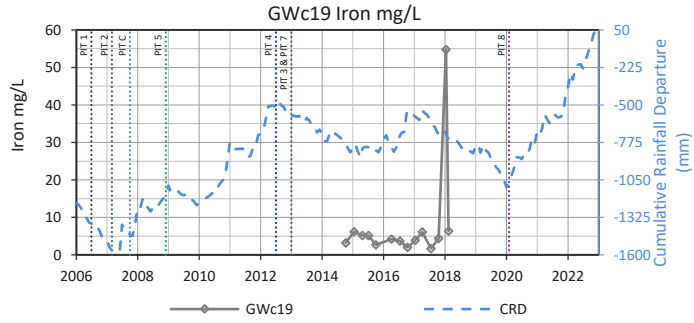
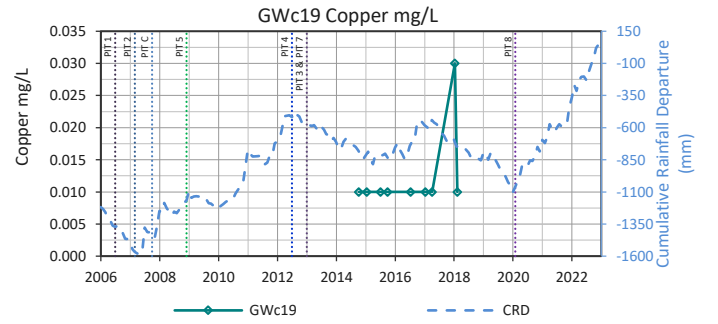
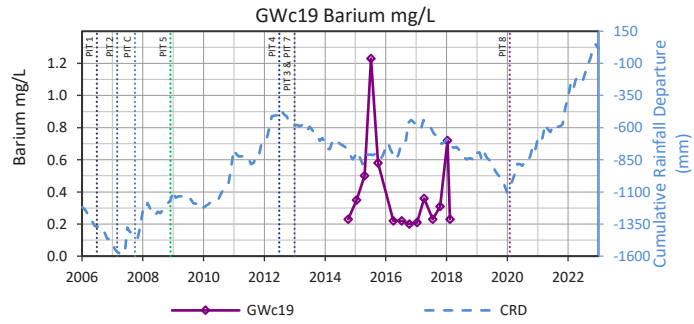
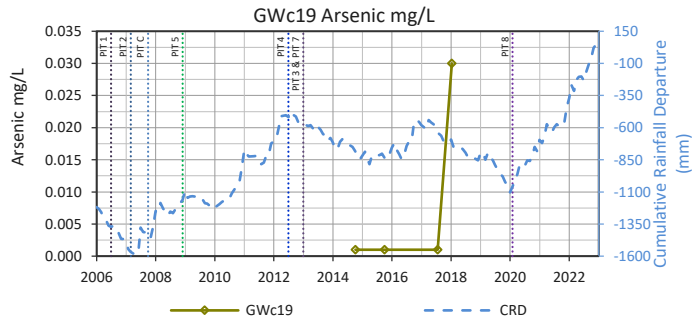
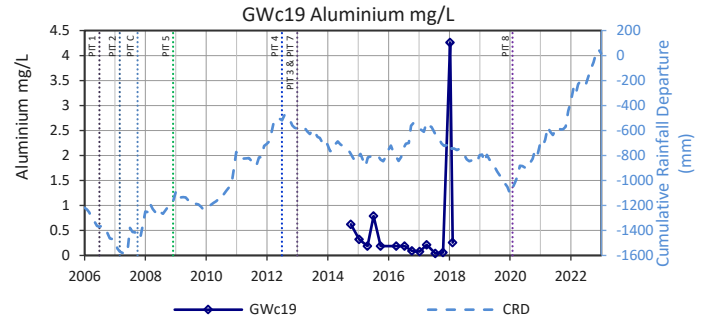
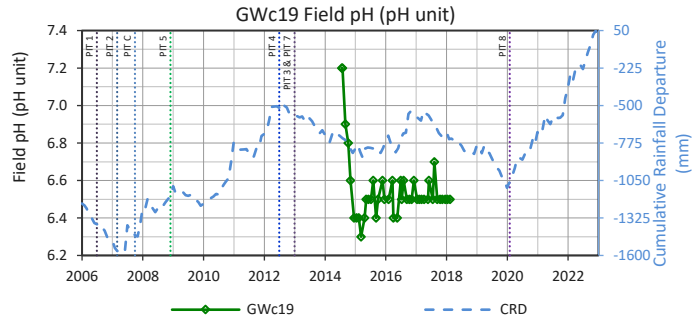
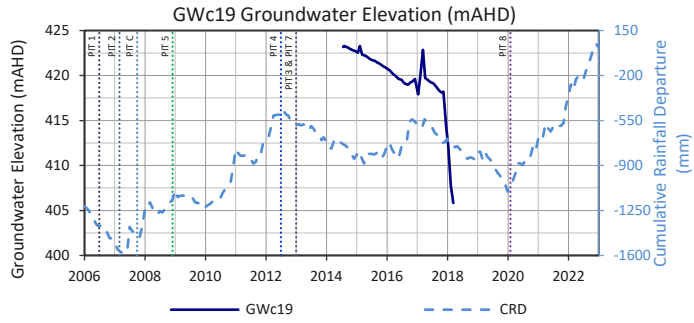


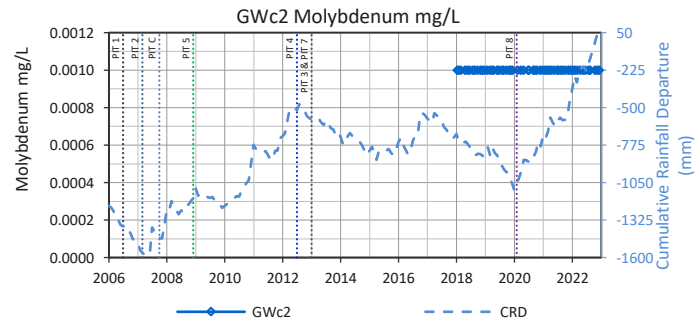
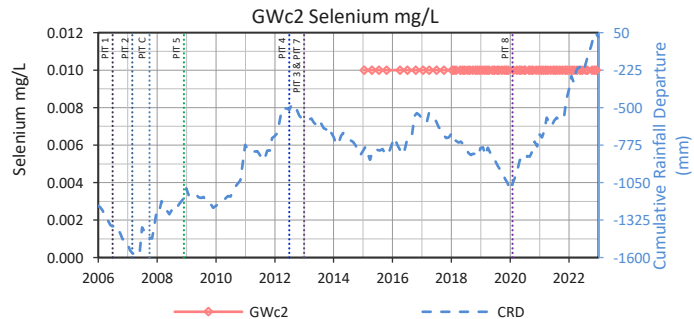
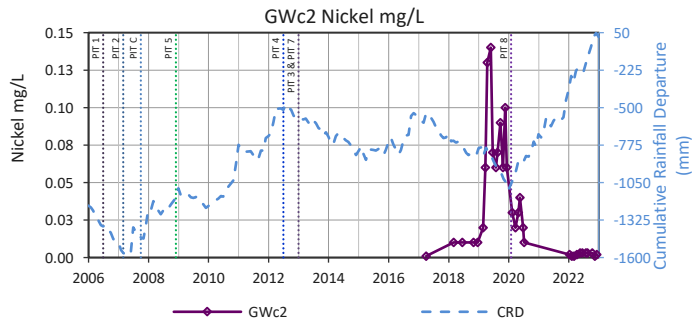
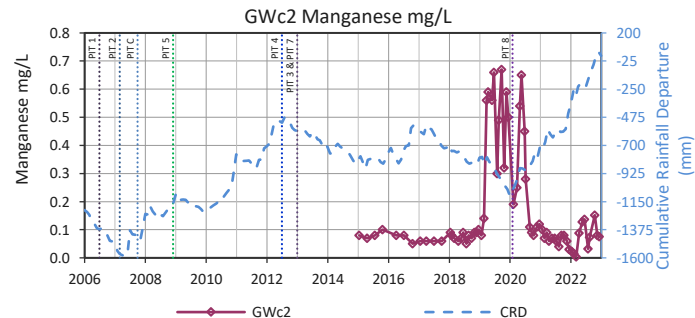
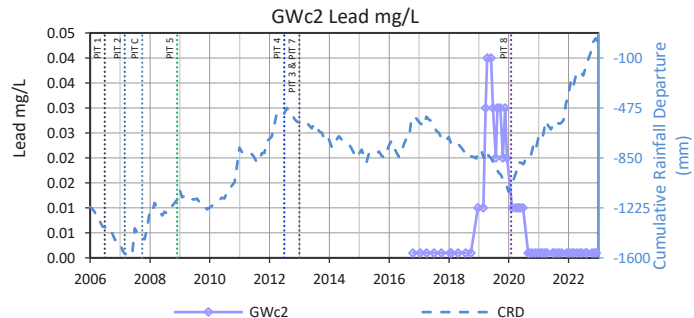
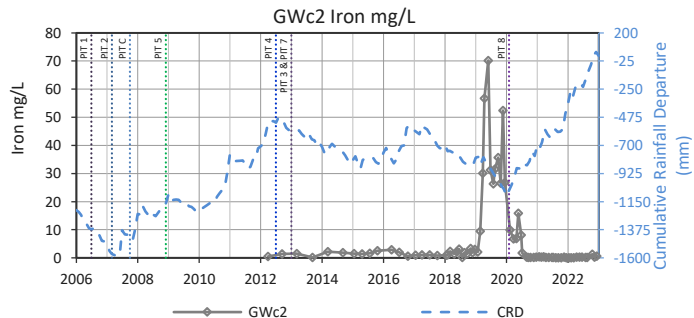
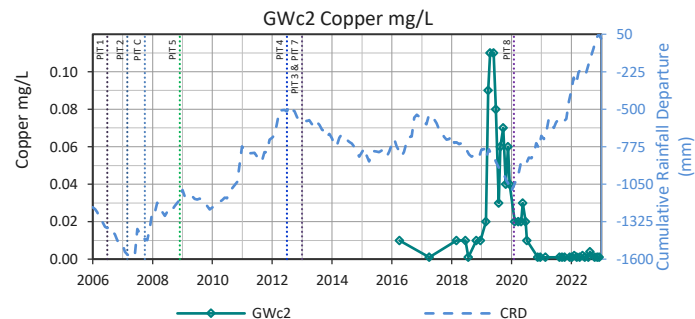
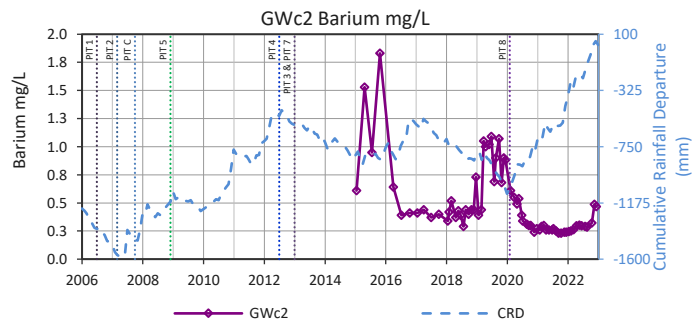
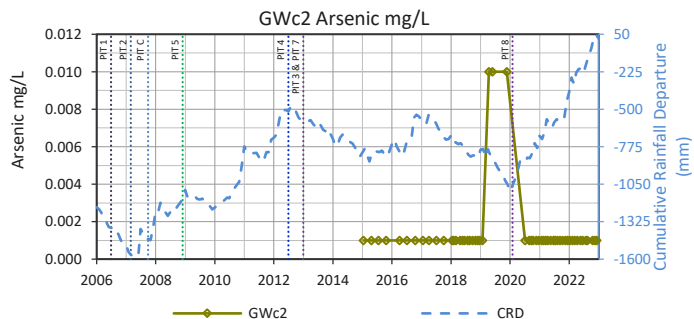
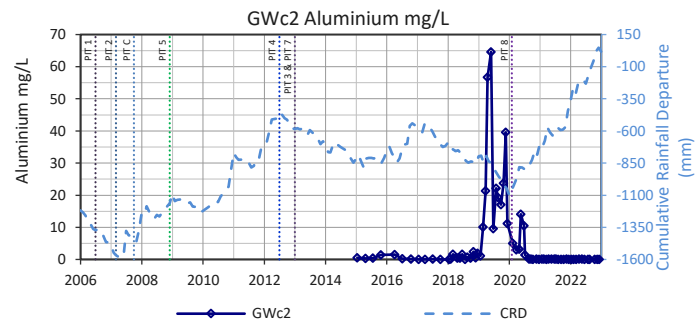
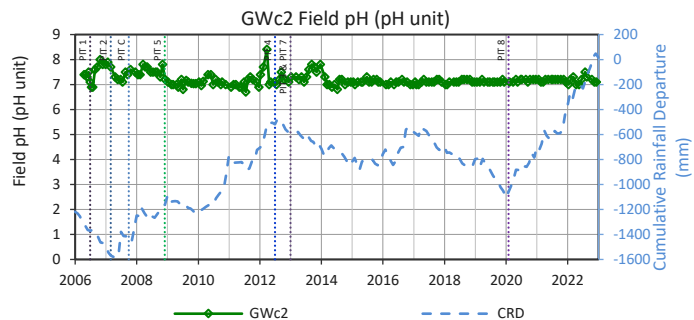
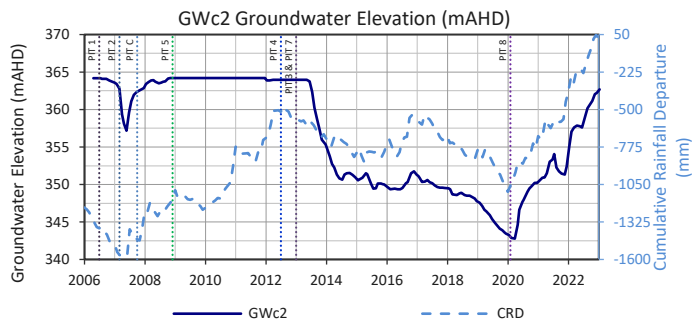


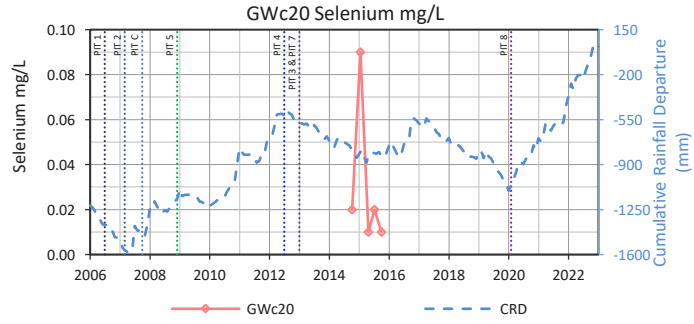
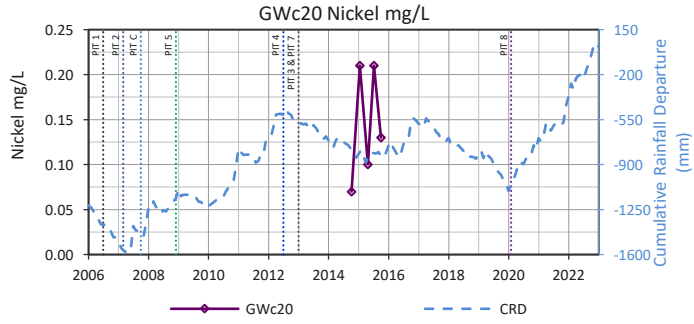
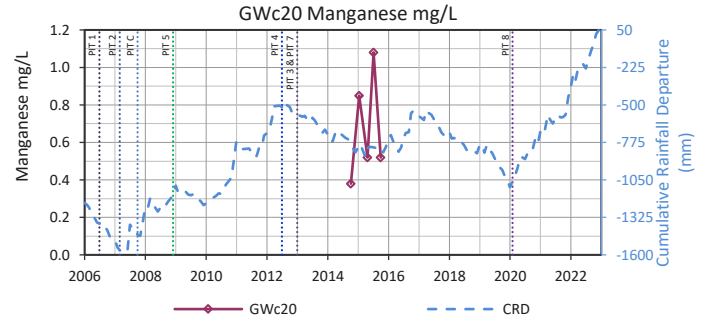
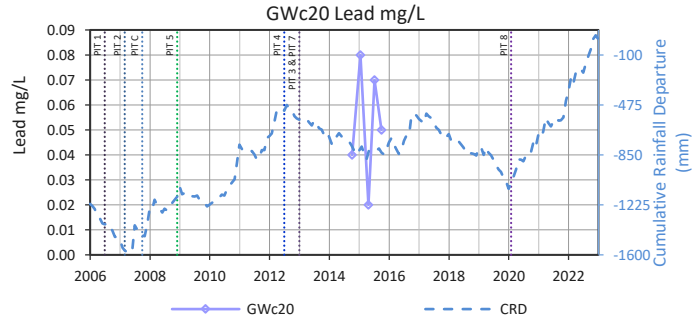
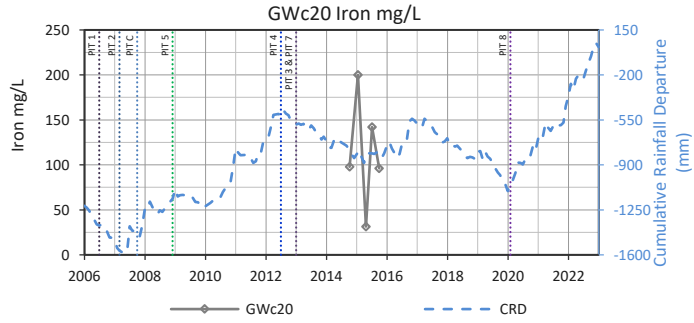
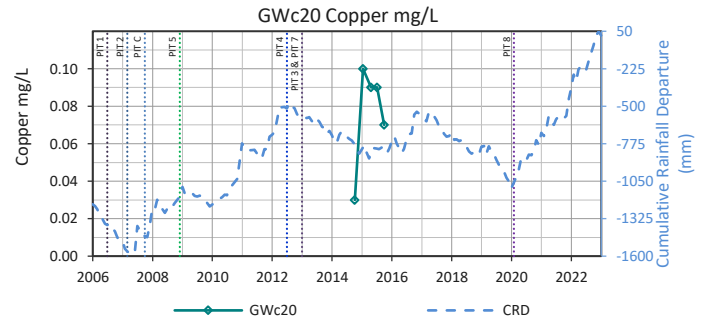
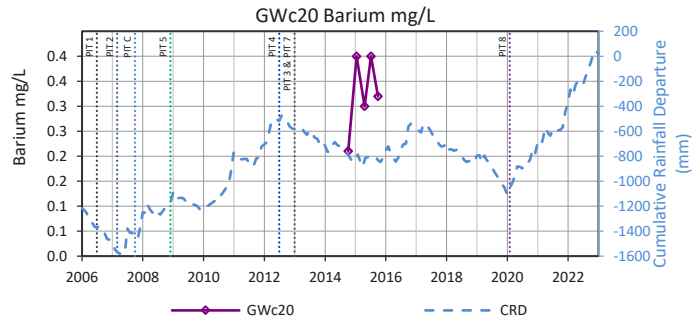
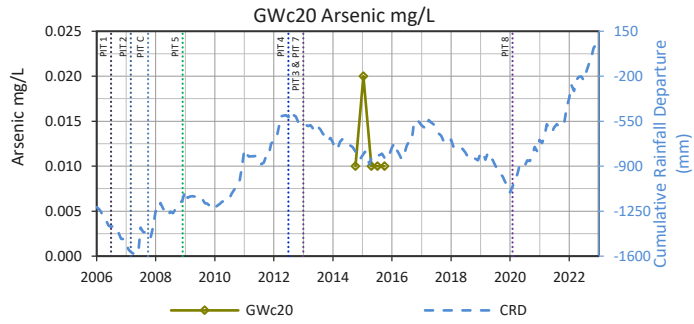
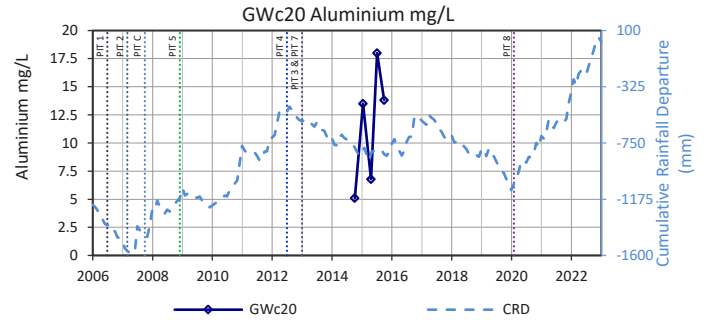
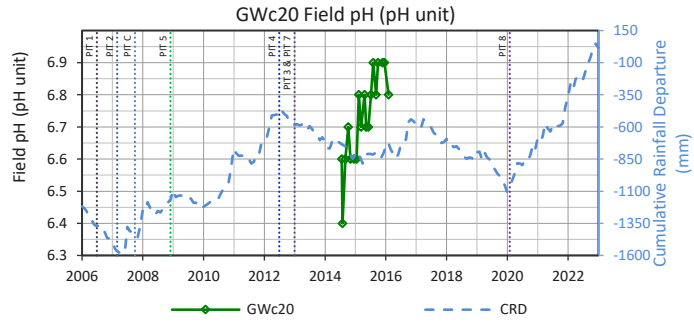
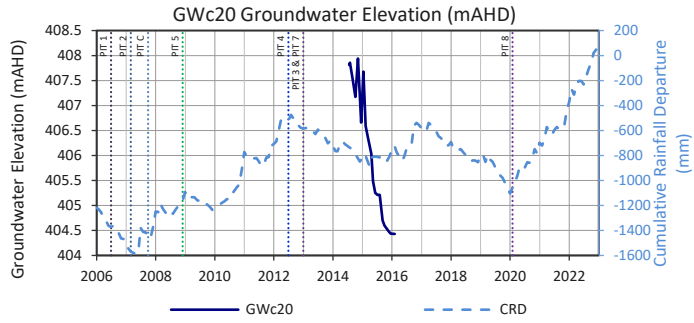


Gwc18

No Data Available for Molybdenum mg/L

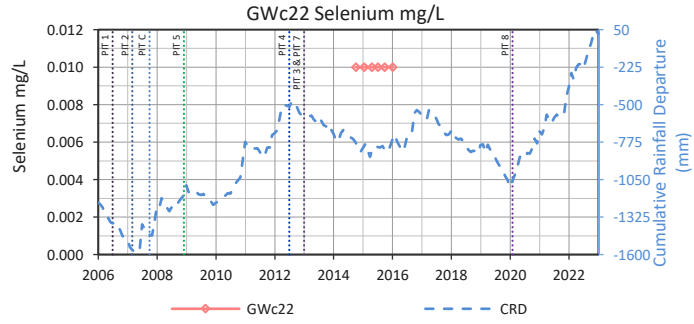
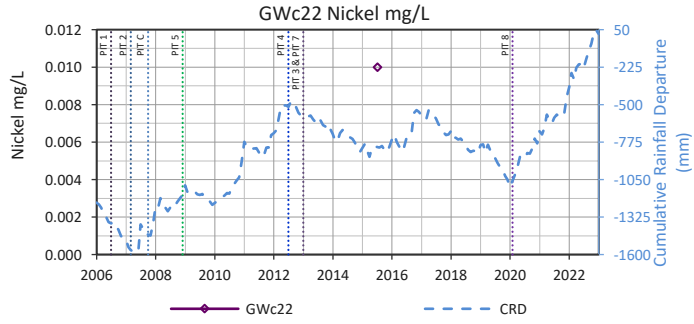
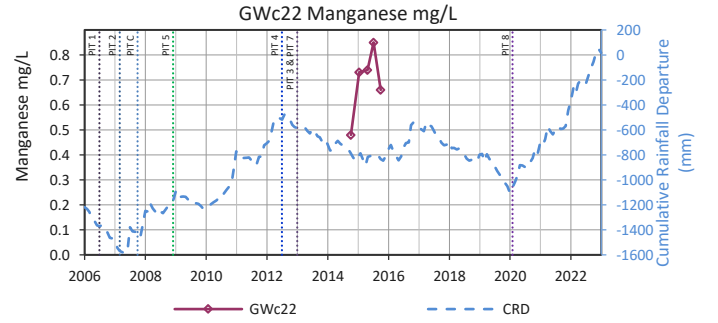
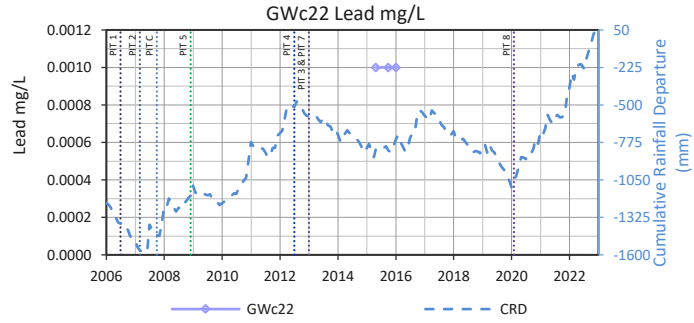
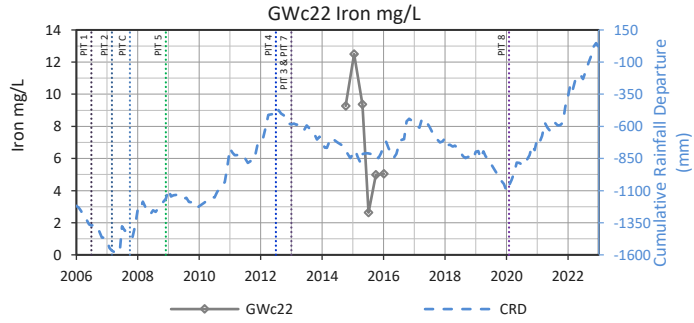
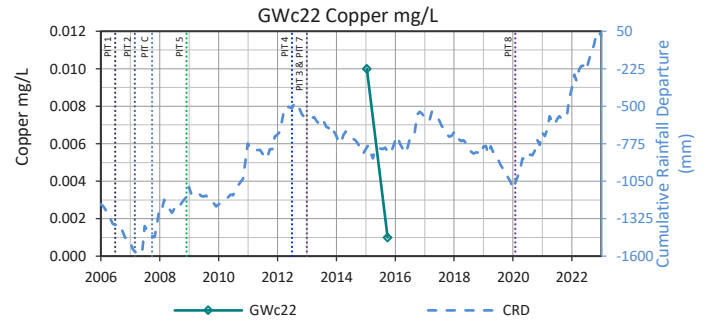
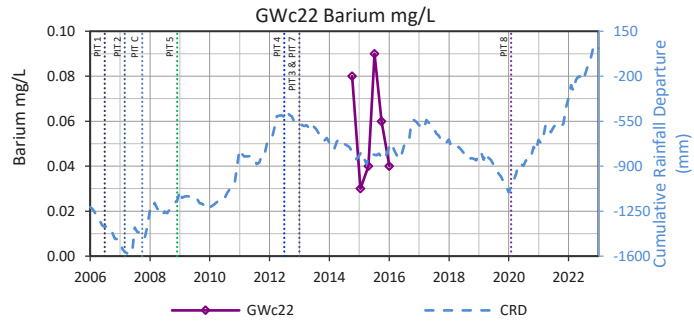
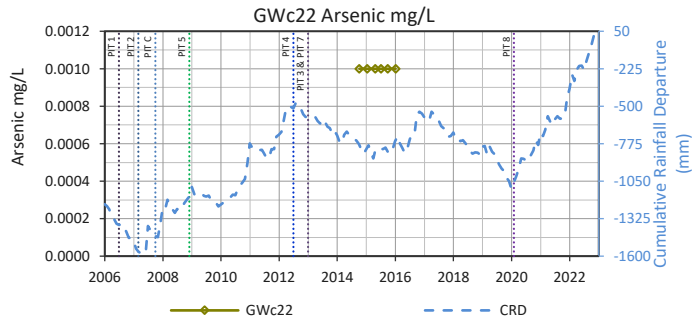
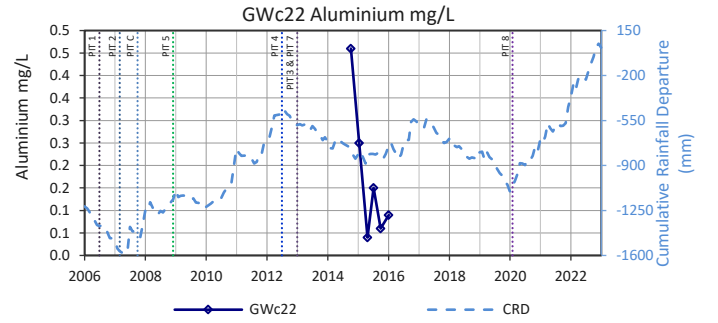
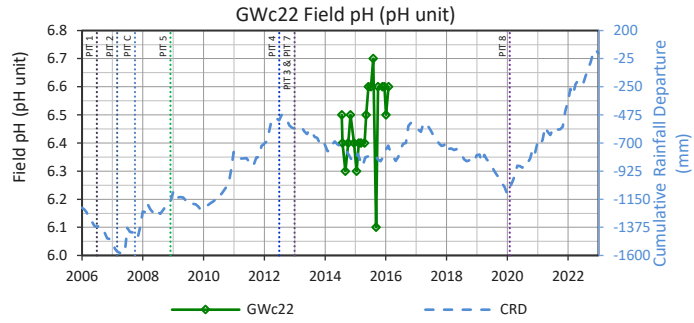
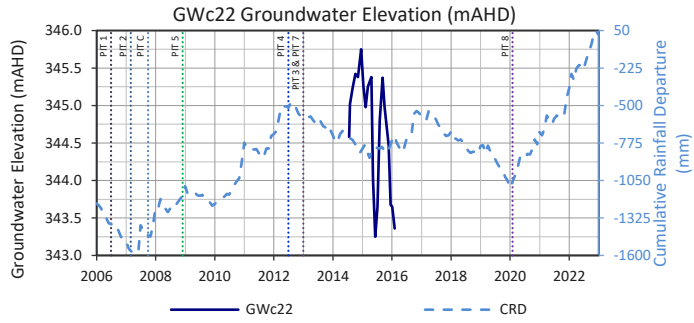






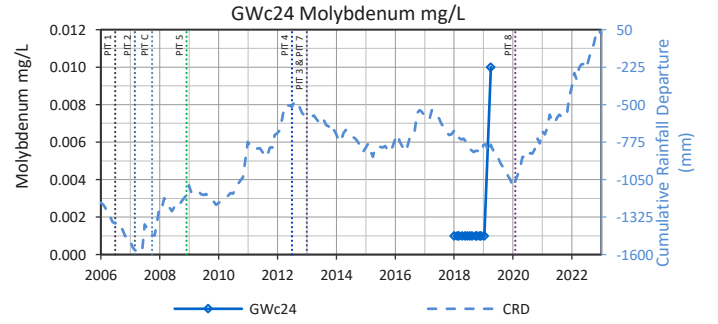
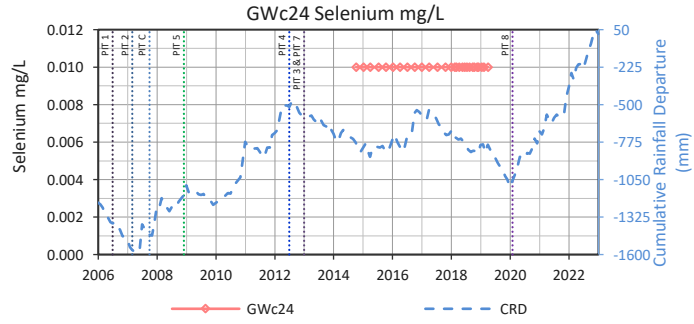
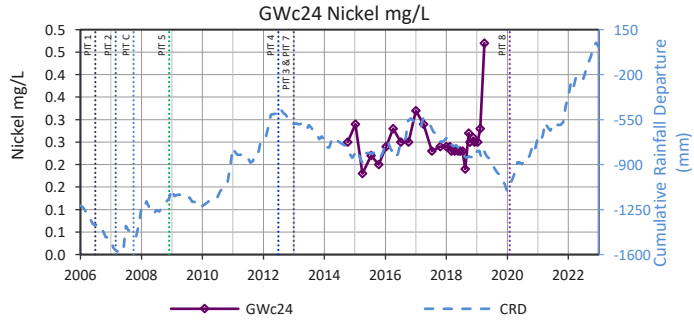
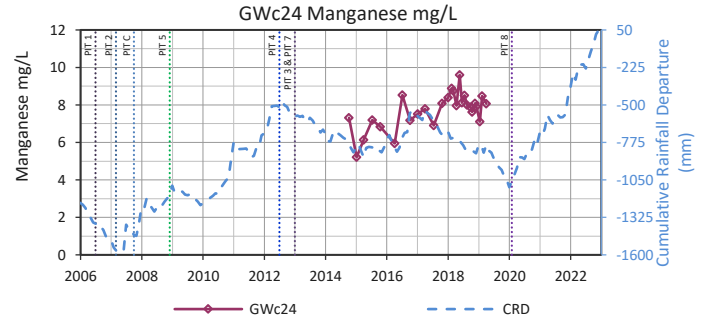
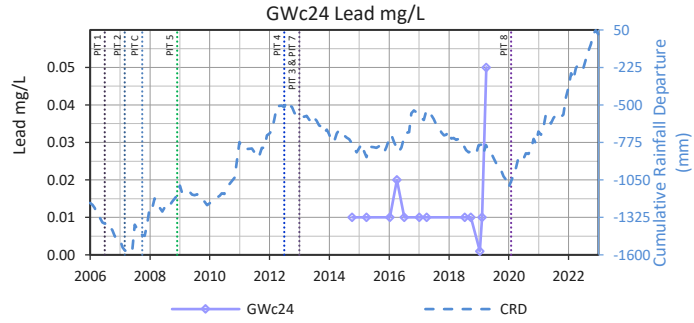
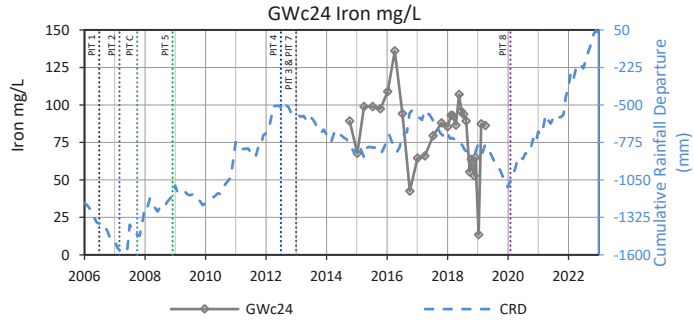
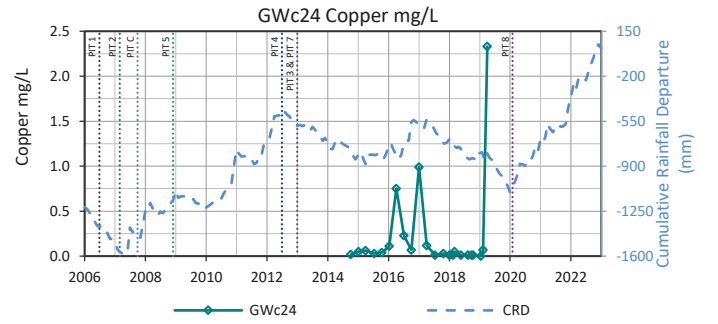
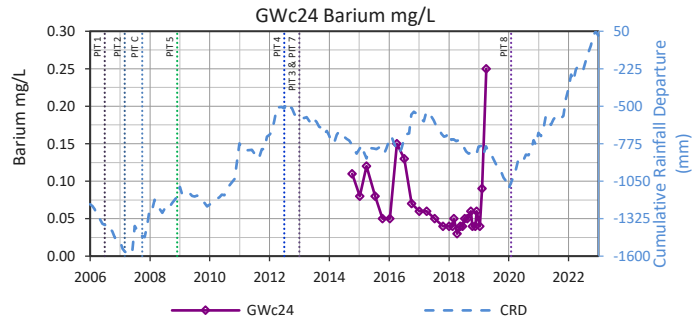
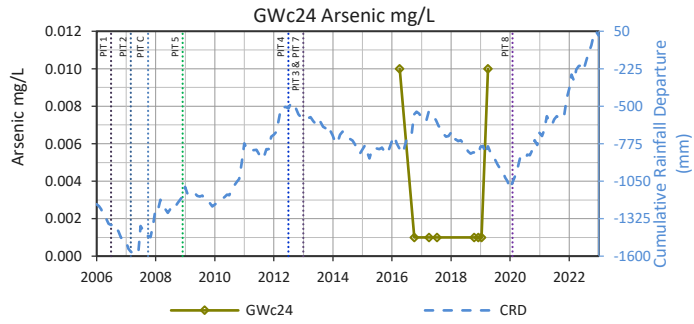
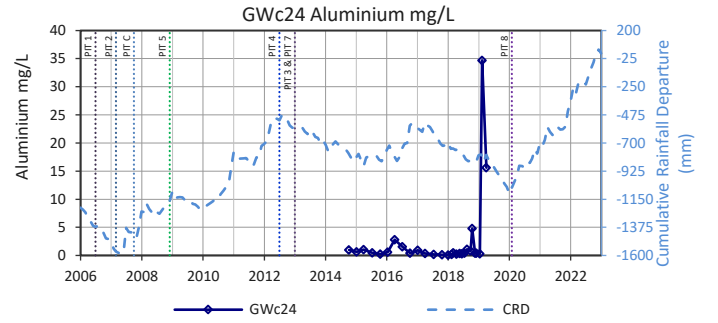
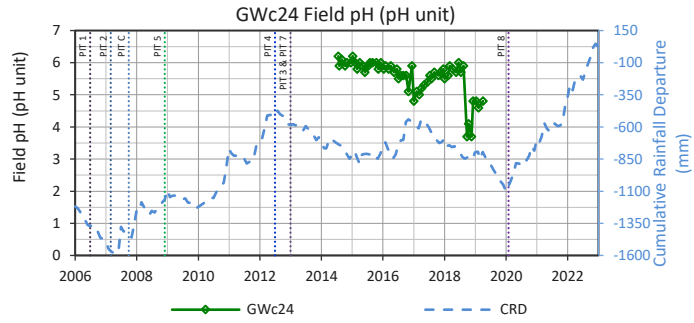
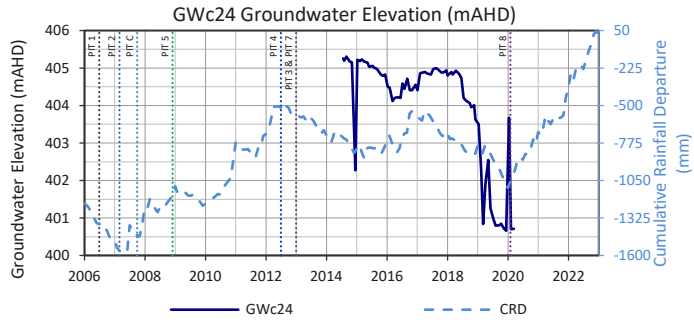
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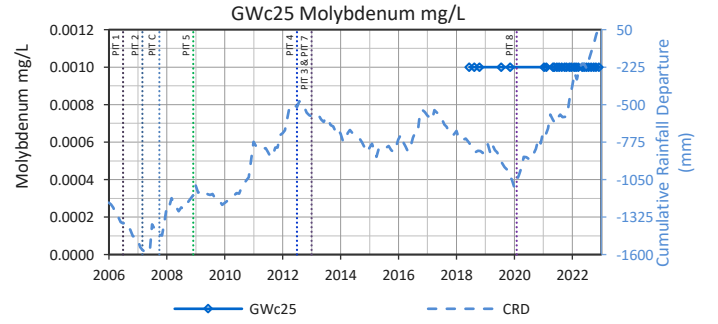
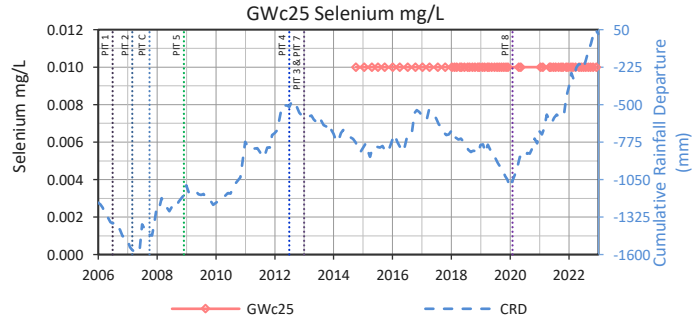
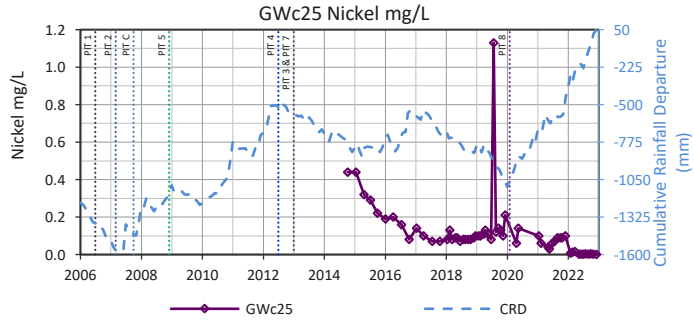
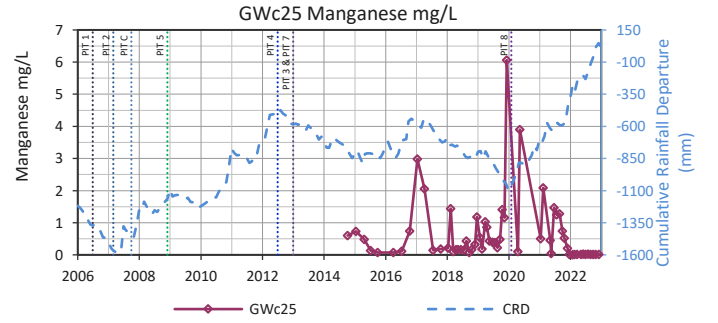
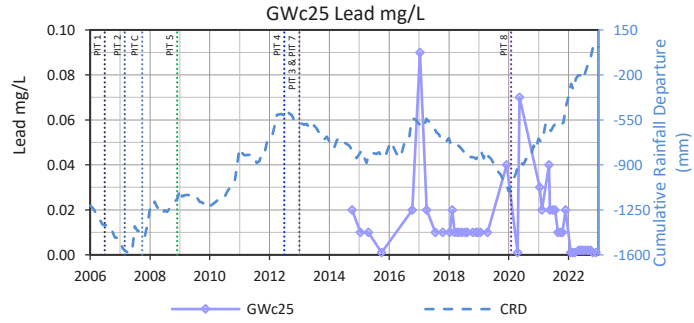
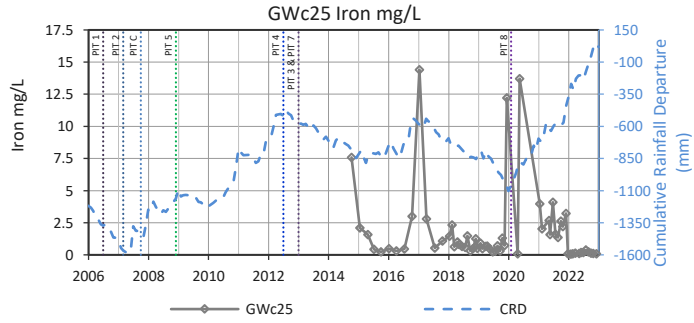
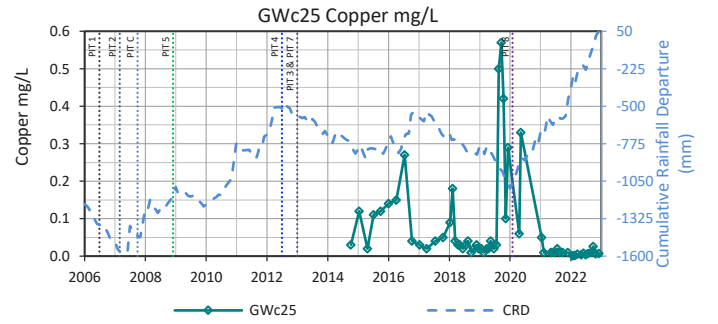
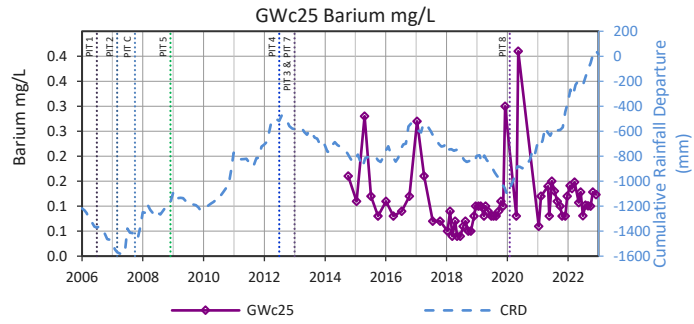
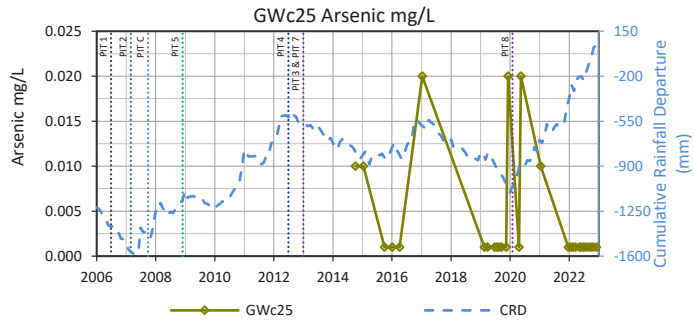
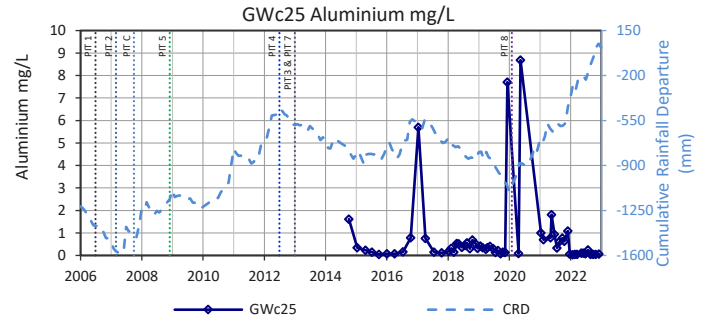
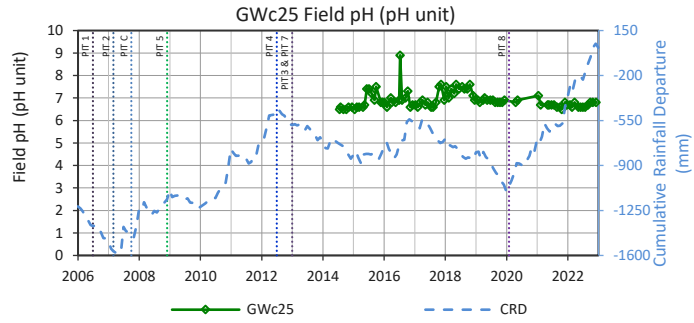
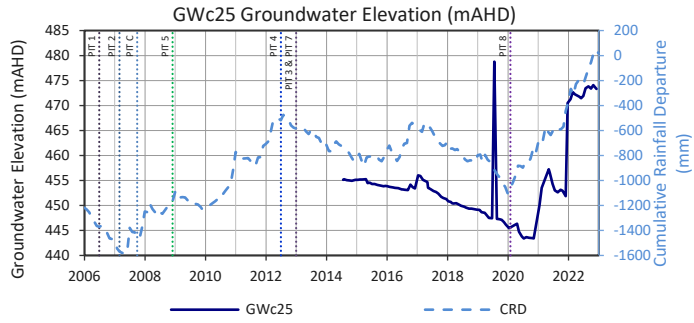
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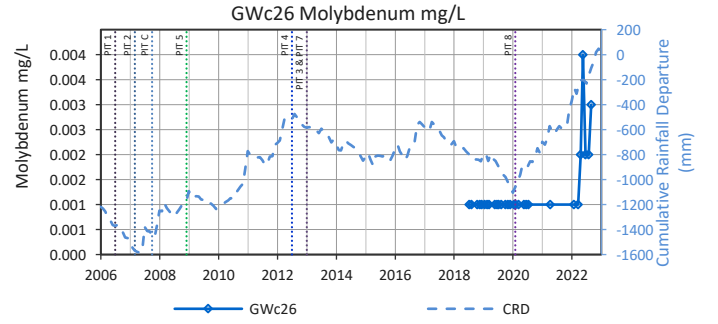
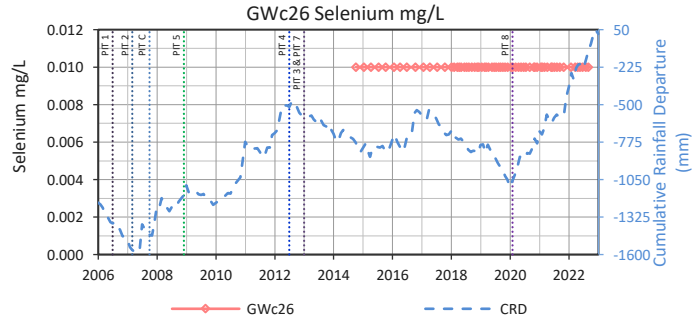
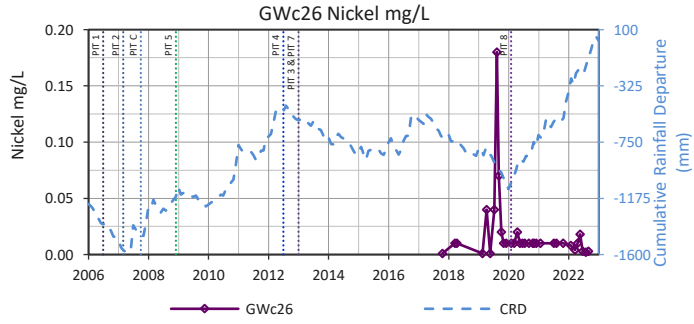
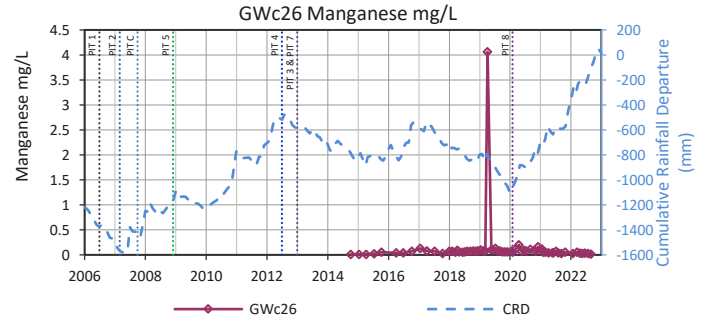
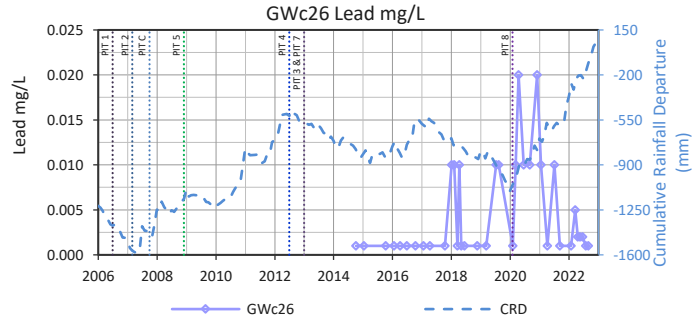
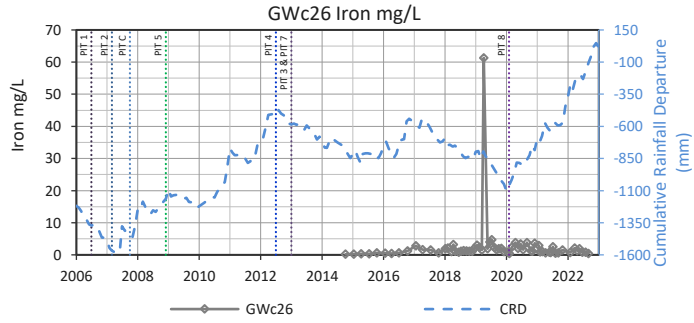
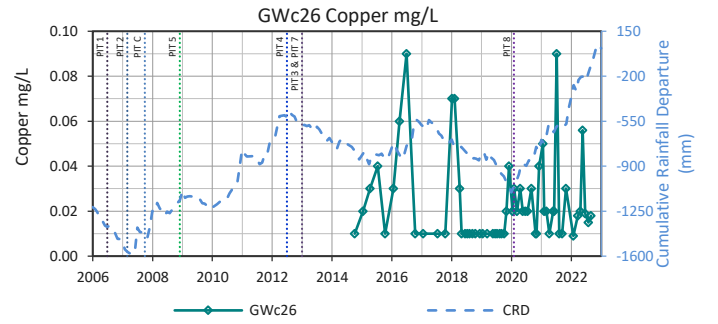
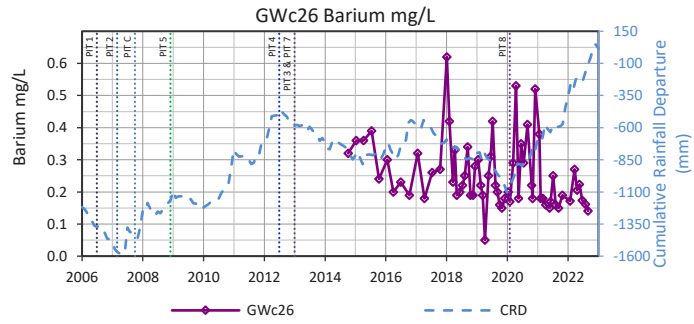
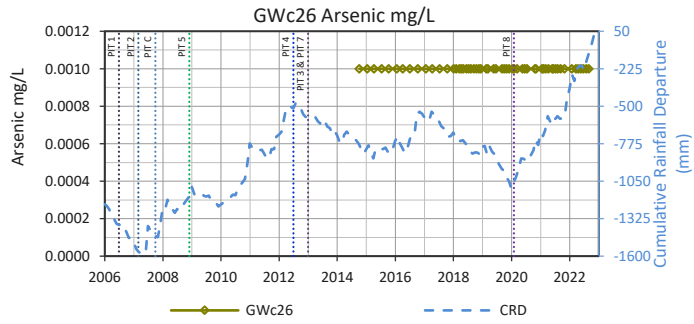
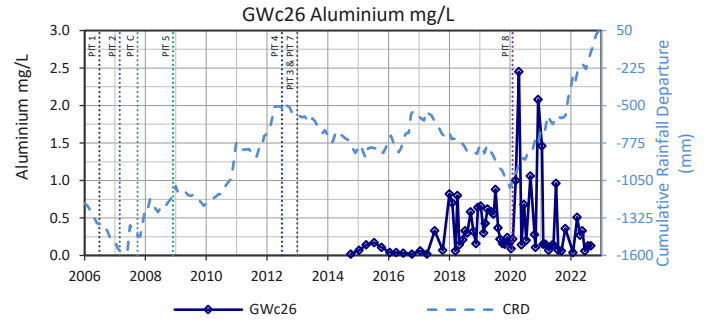
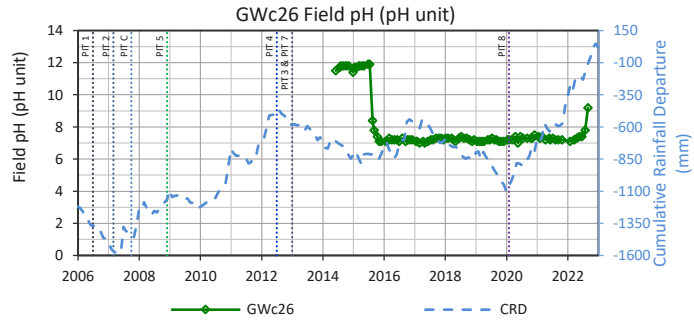
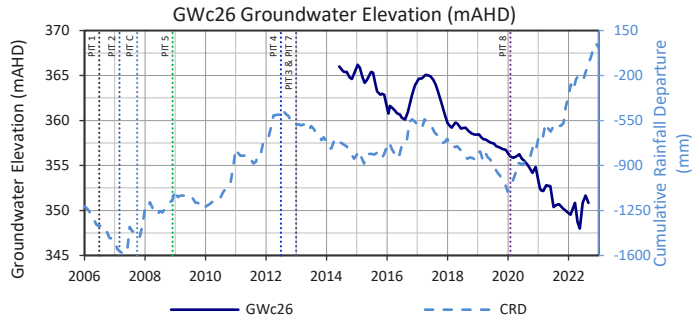


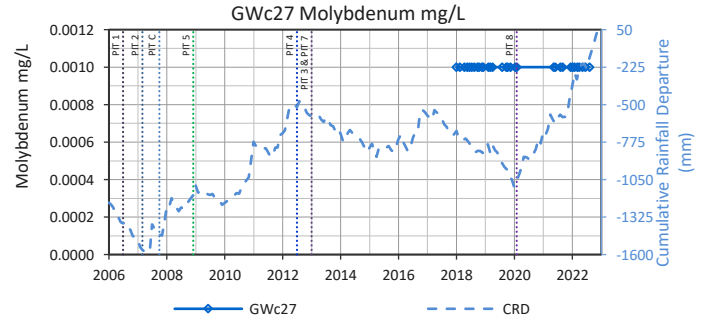
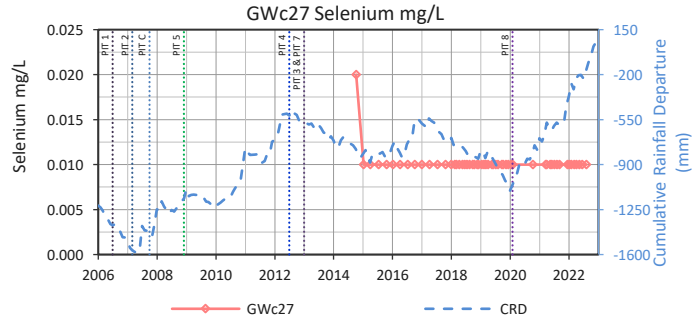
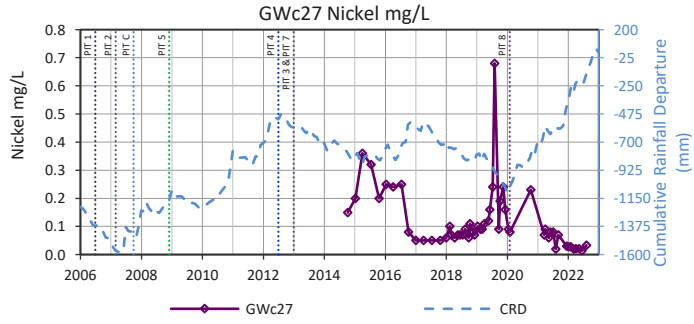
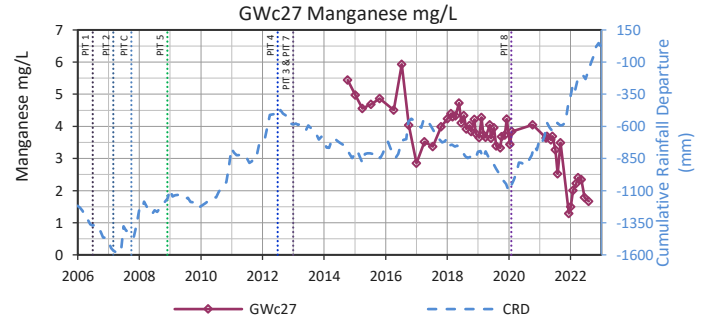
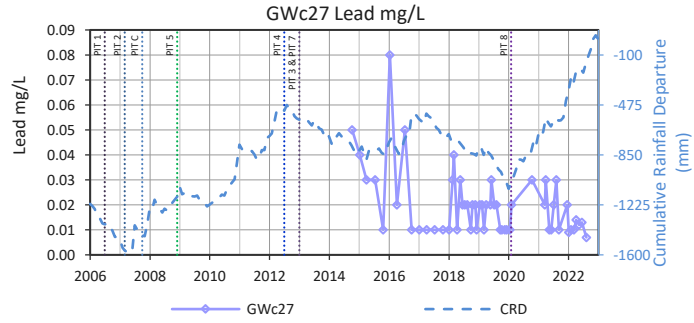
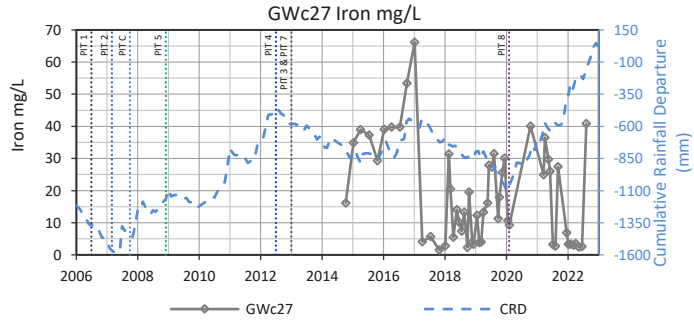
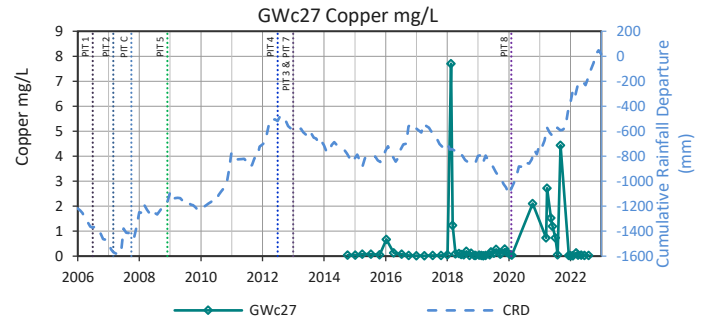
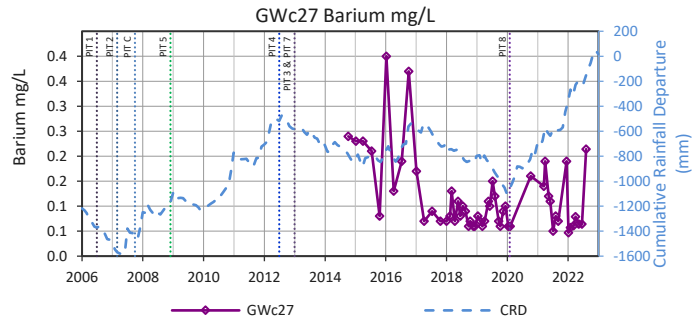
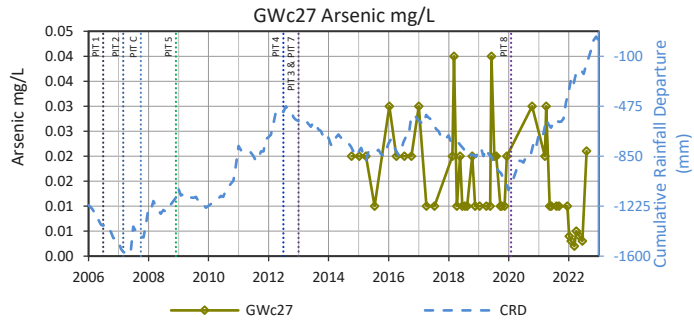
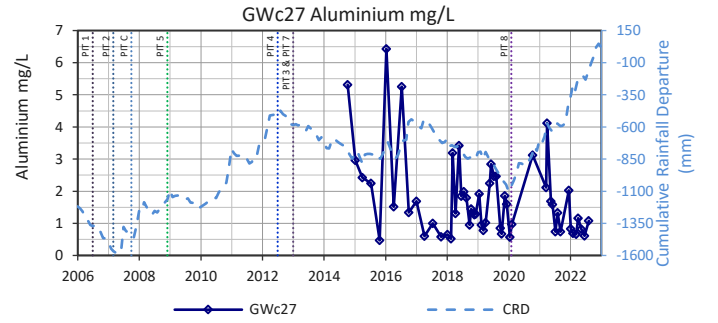
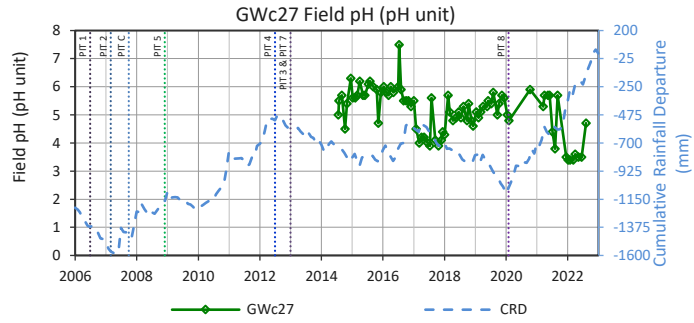
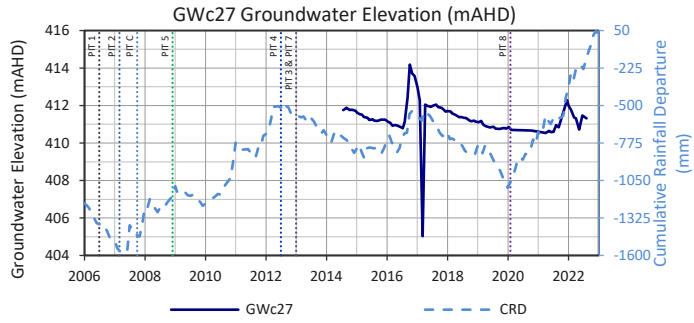
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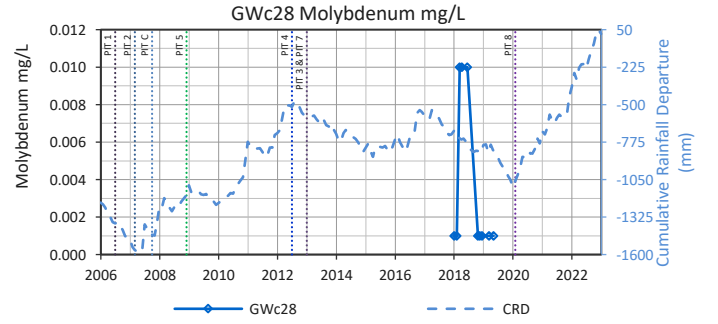
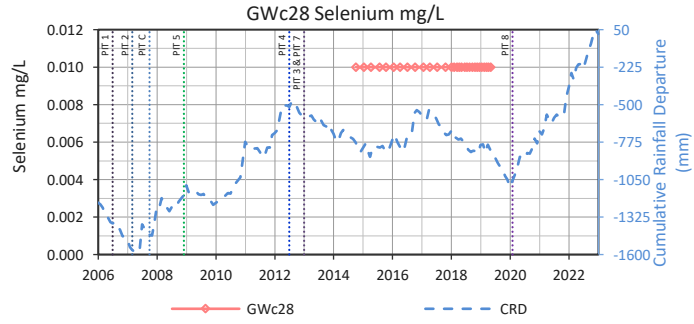
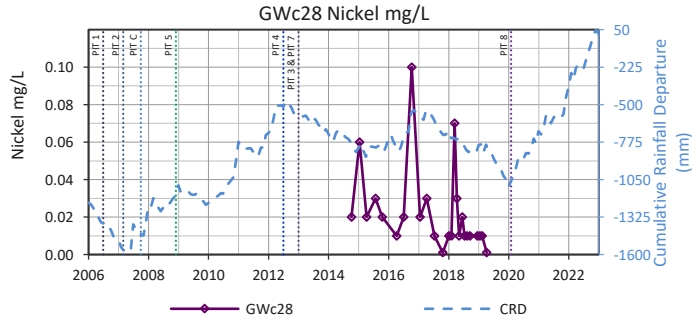
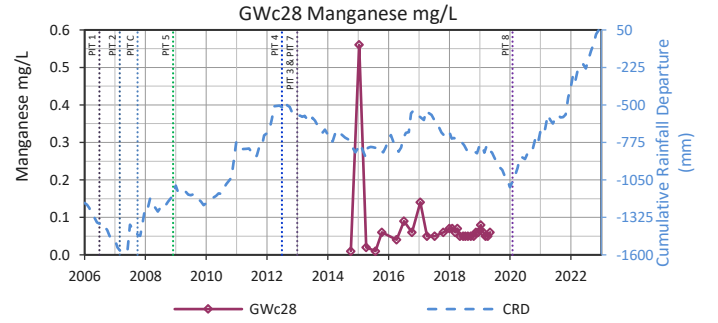
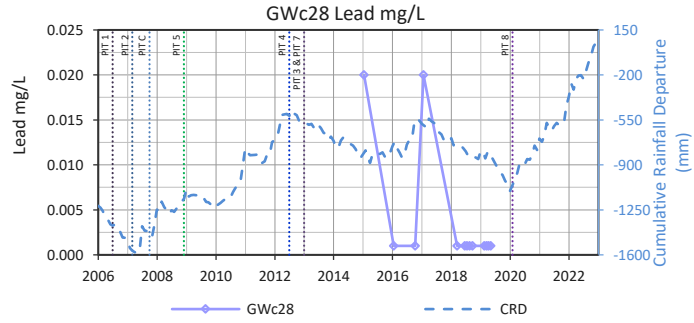
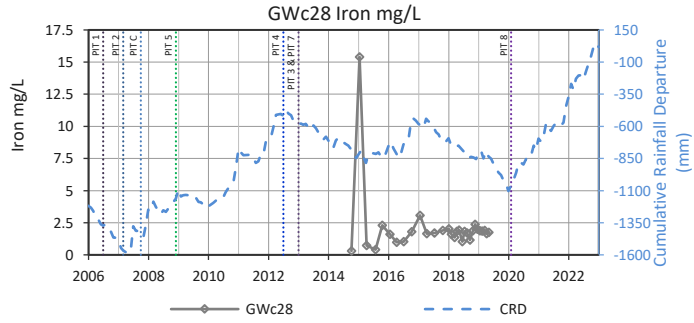
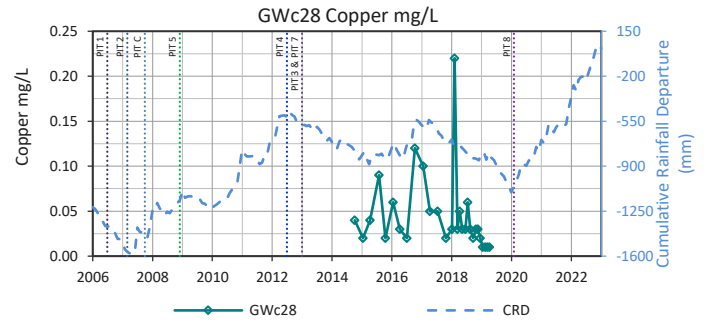
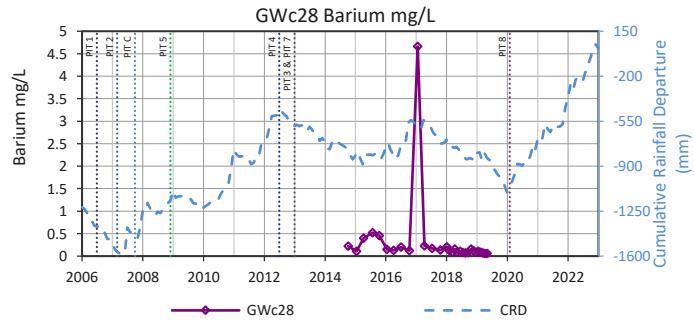
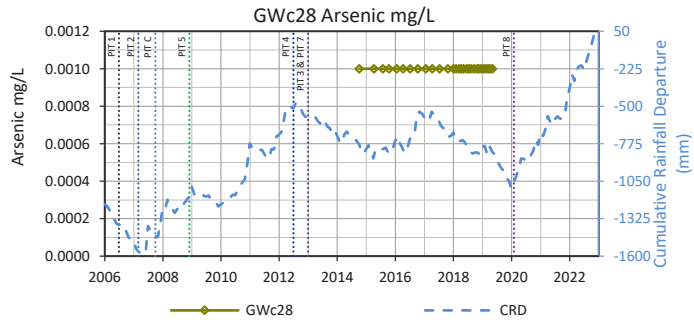
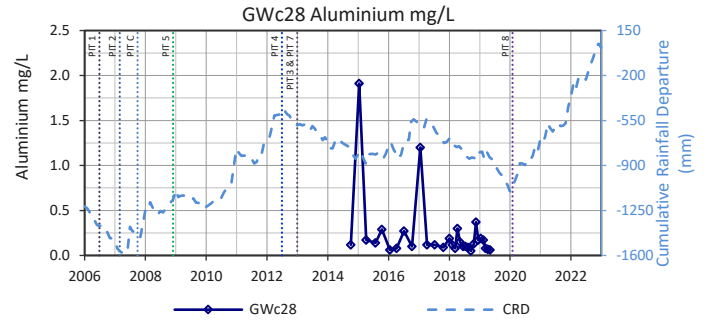
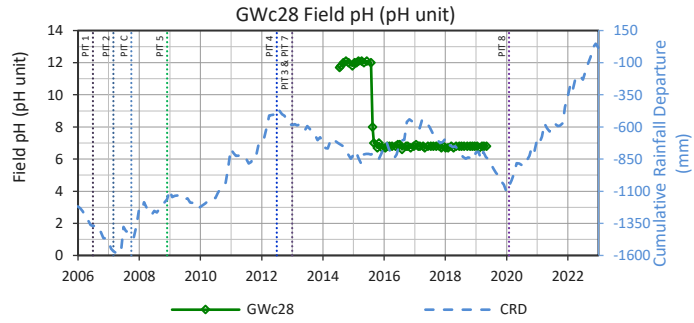
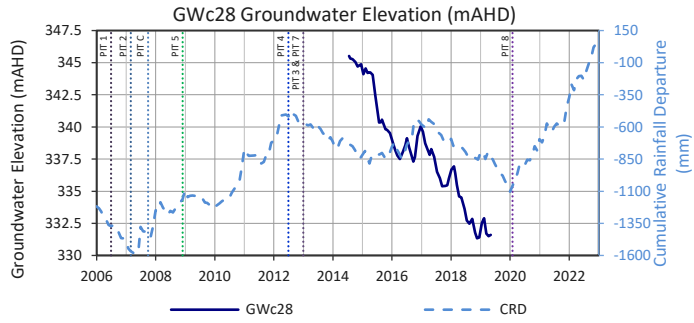
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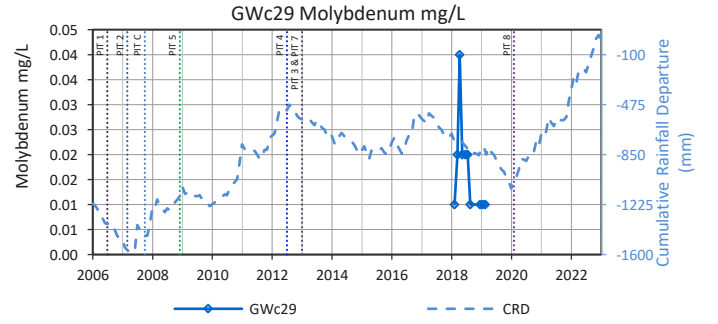
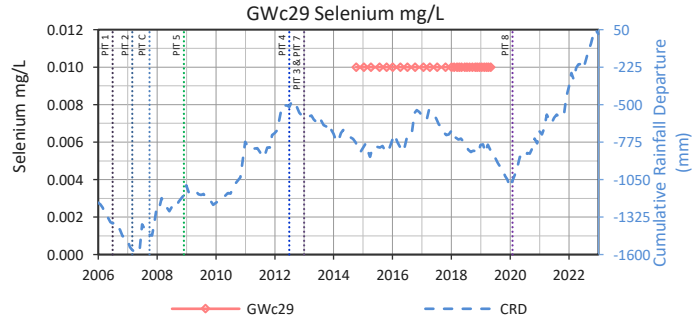
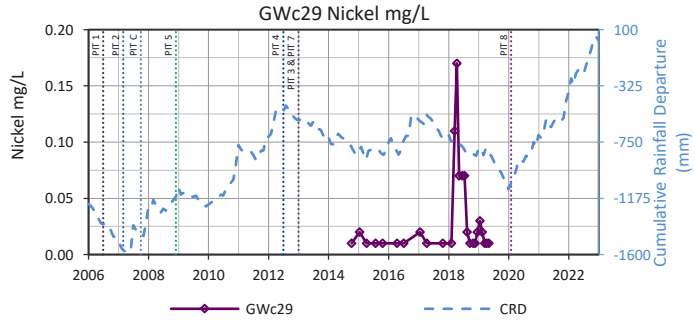
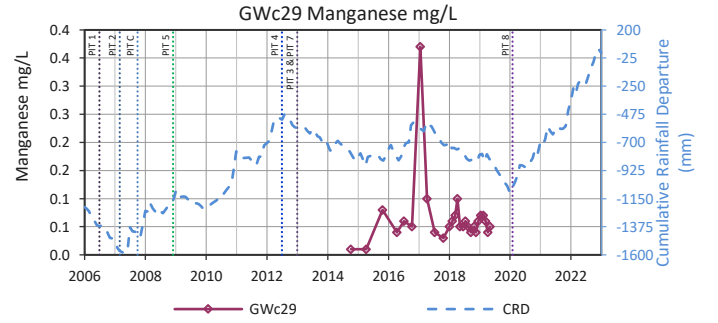
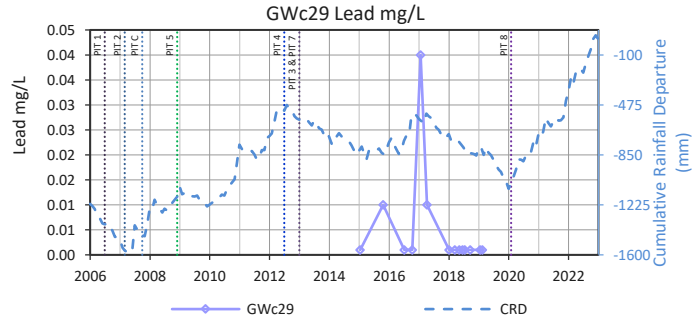
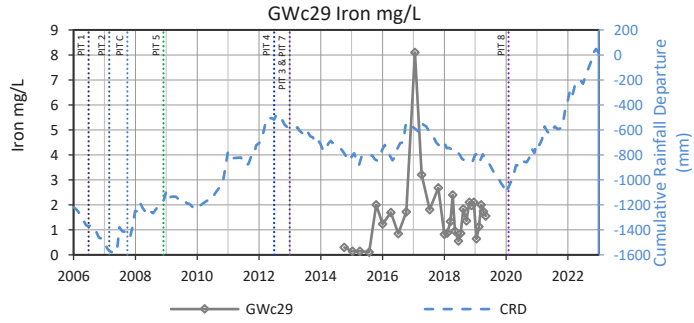
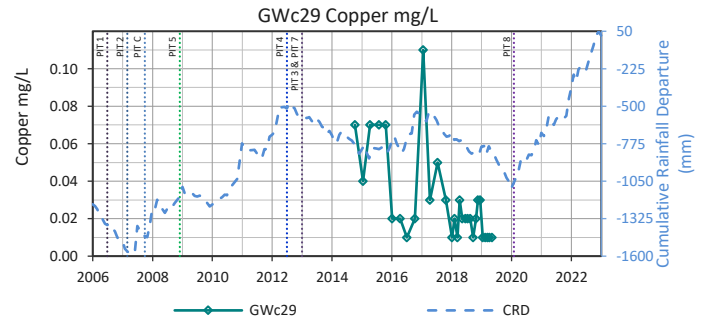
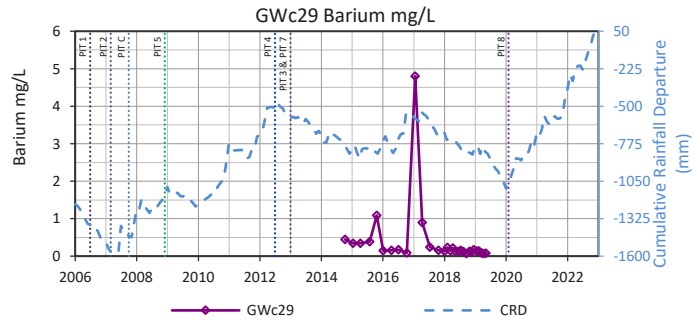
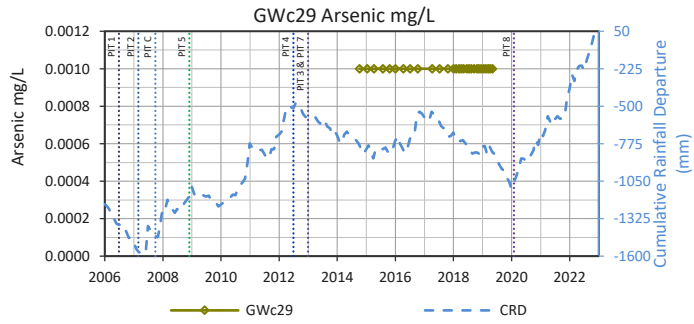
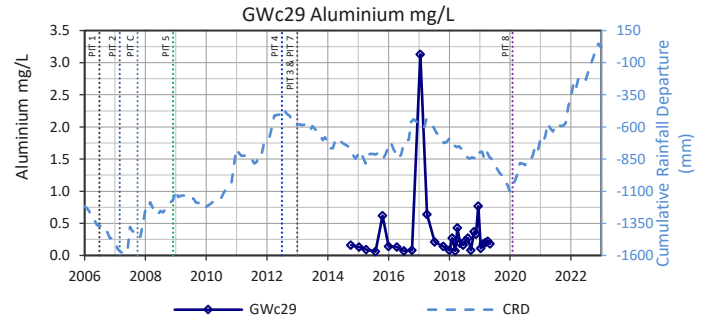
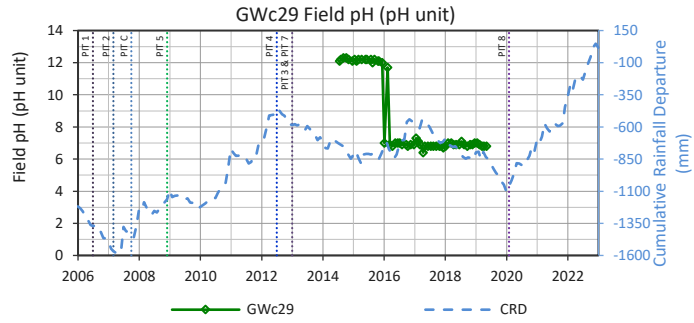
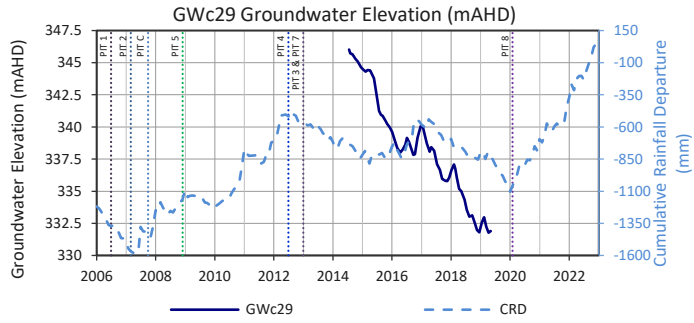


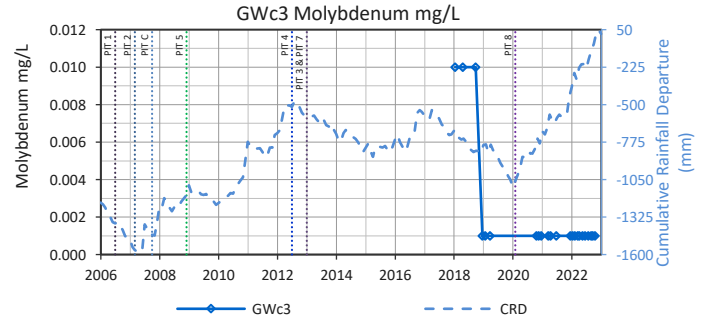
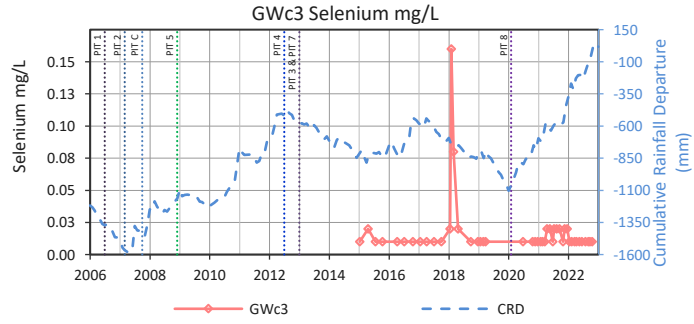
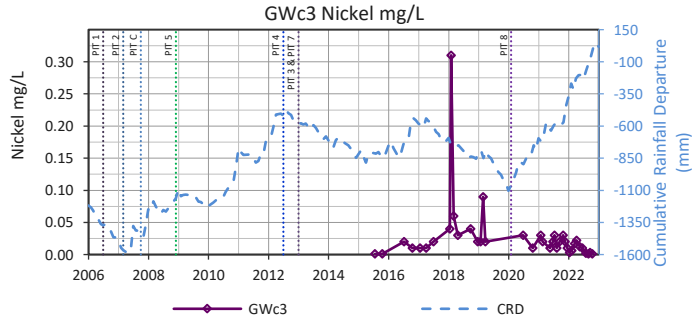
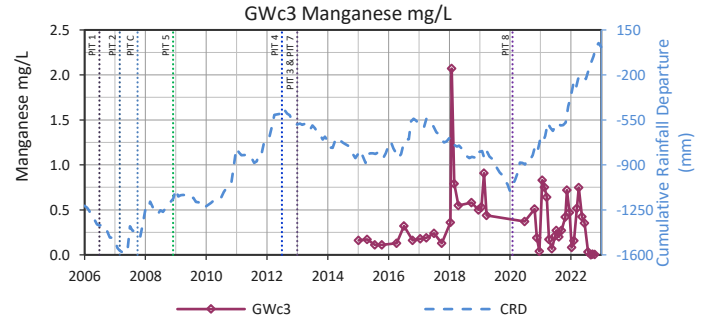
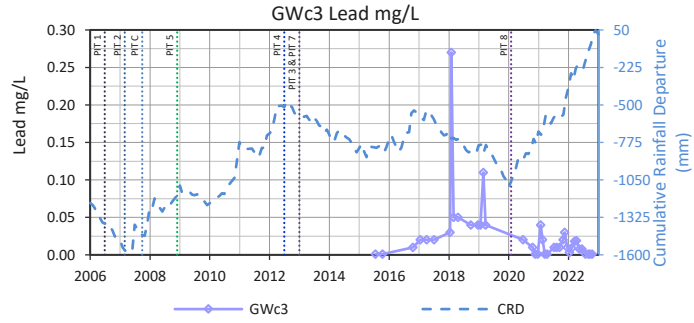
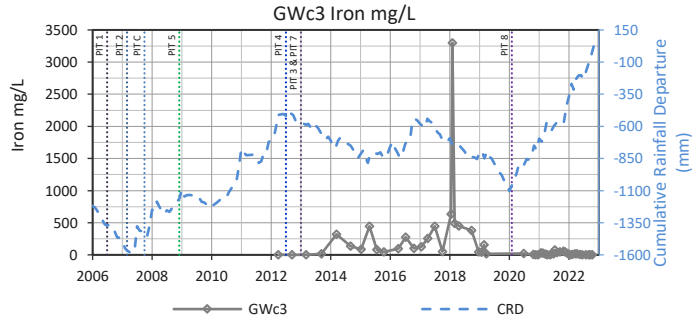
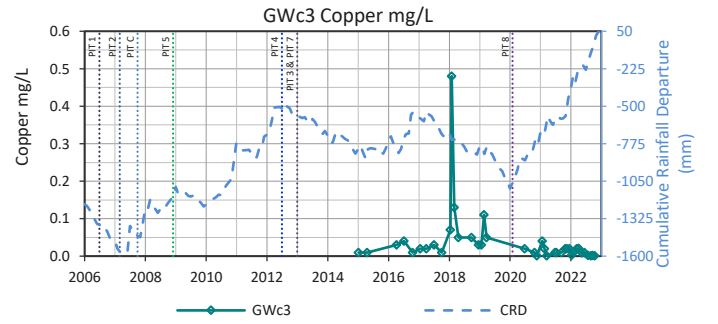
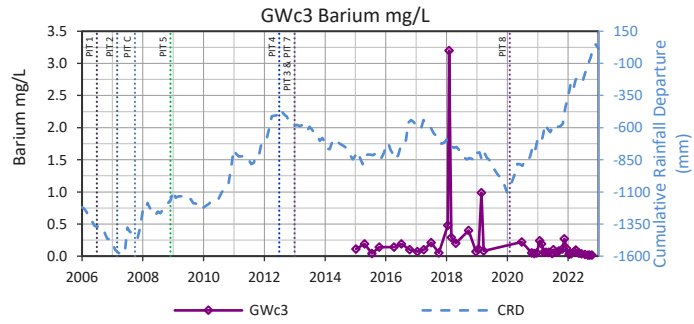
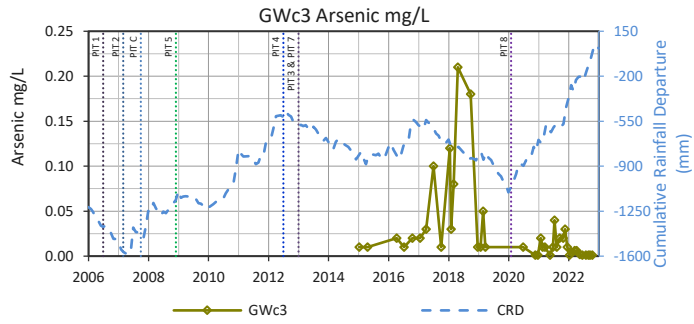
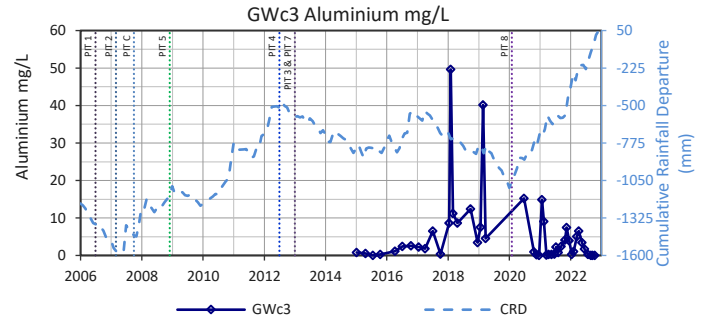
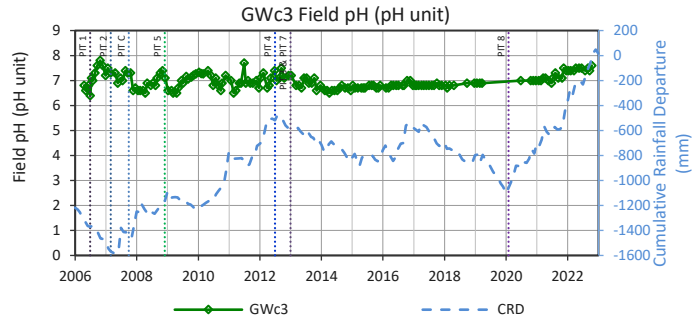
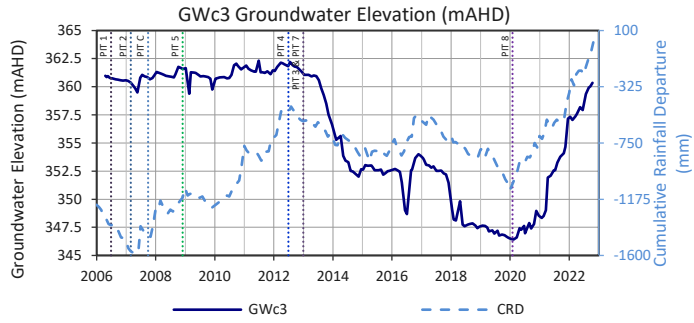


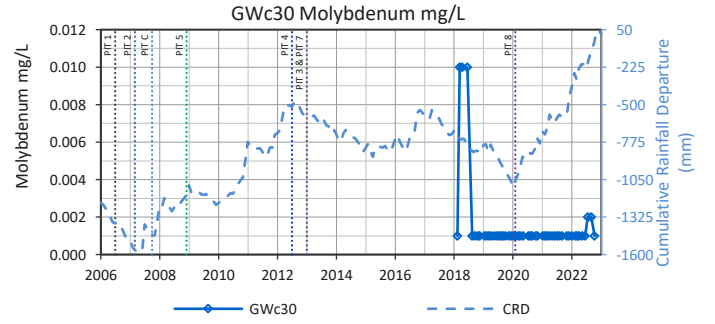
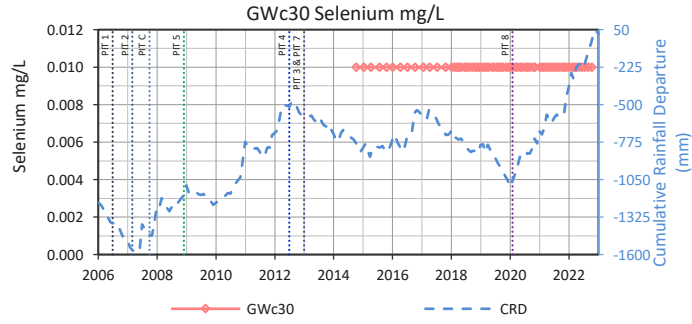
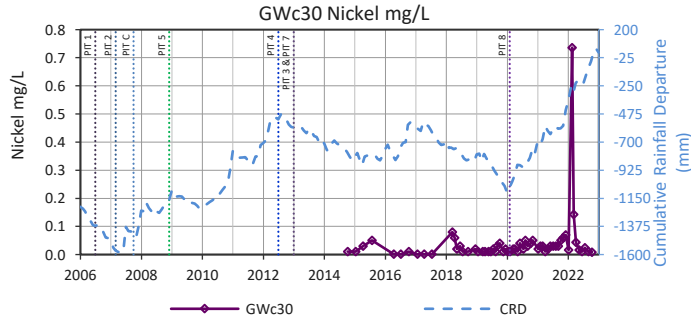
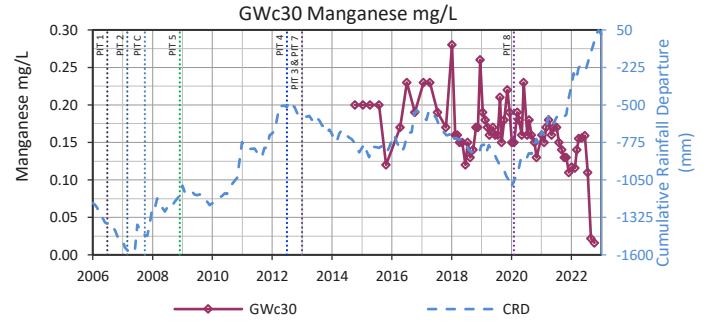
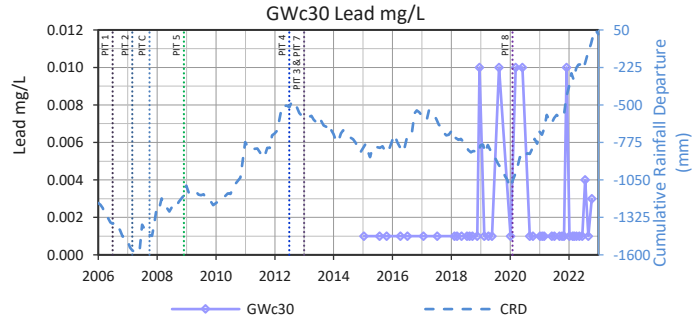
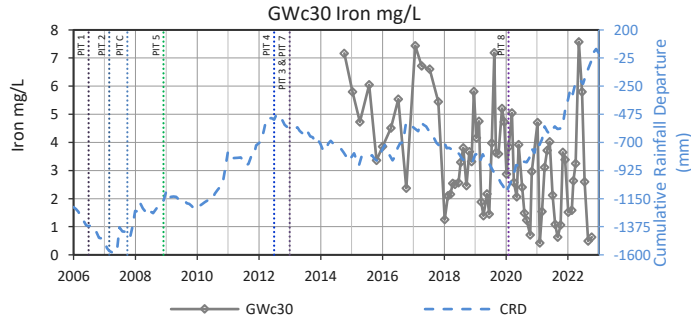
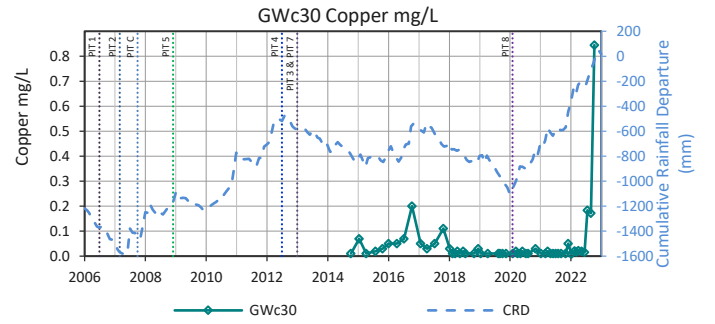
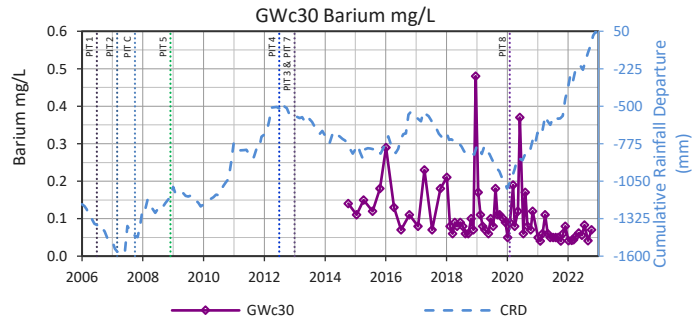
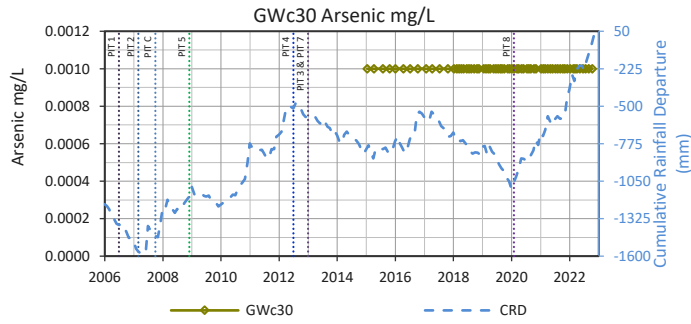
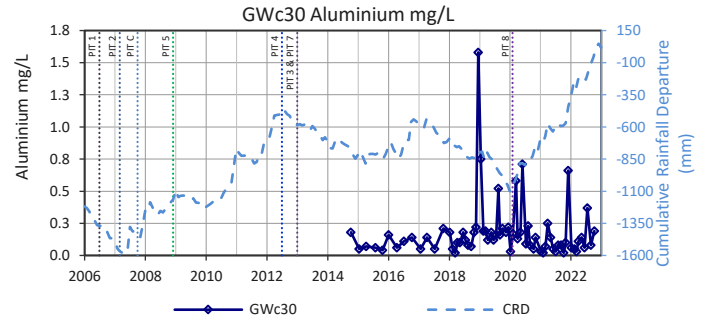
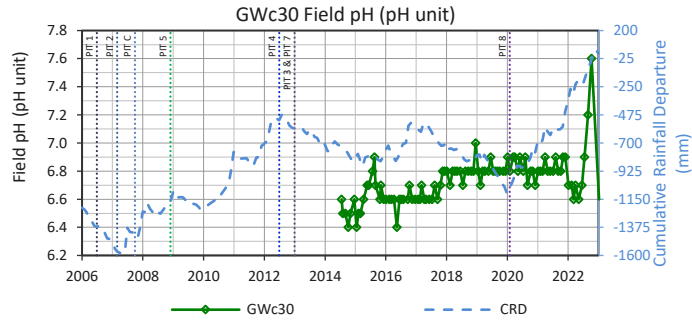
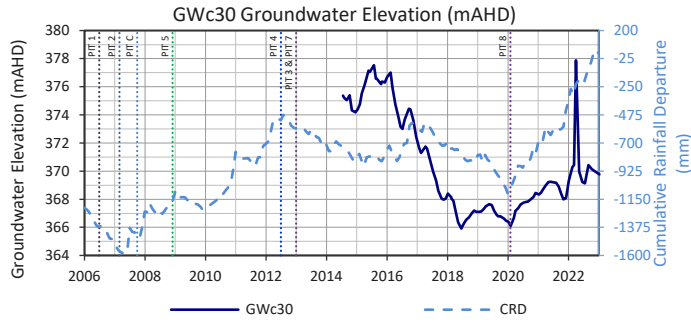


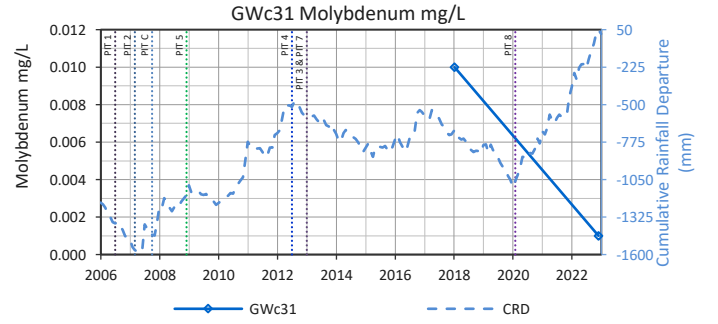
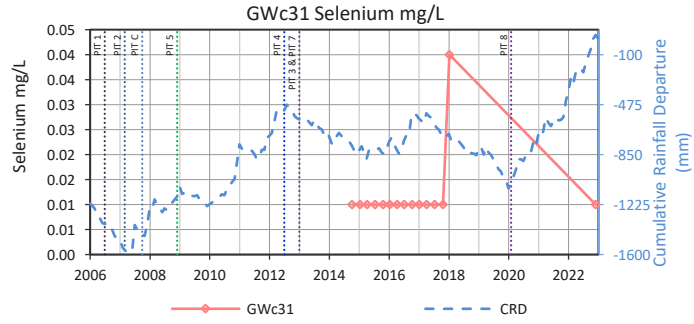
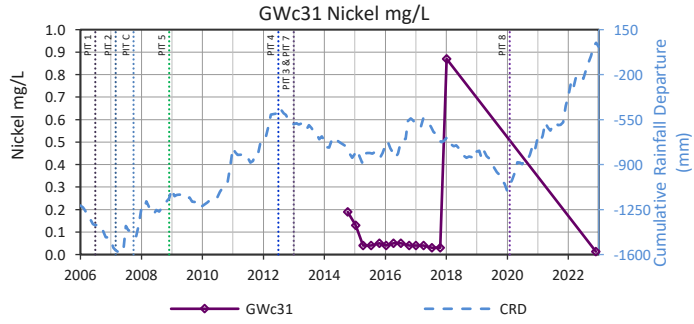
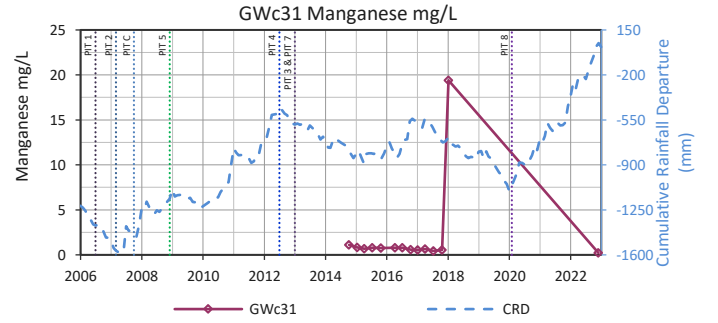
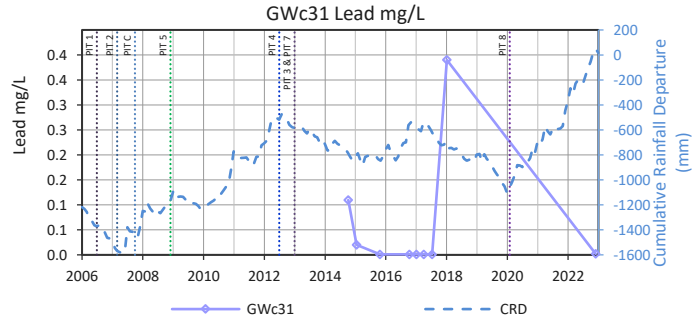
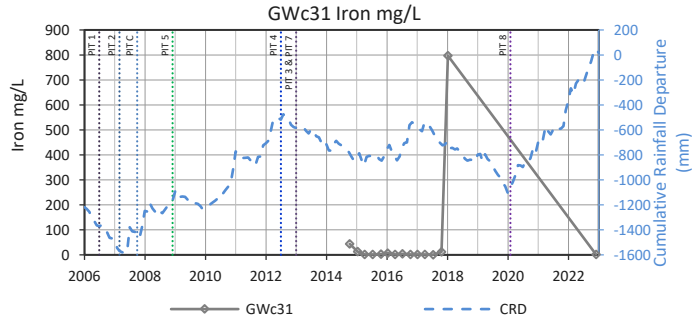
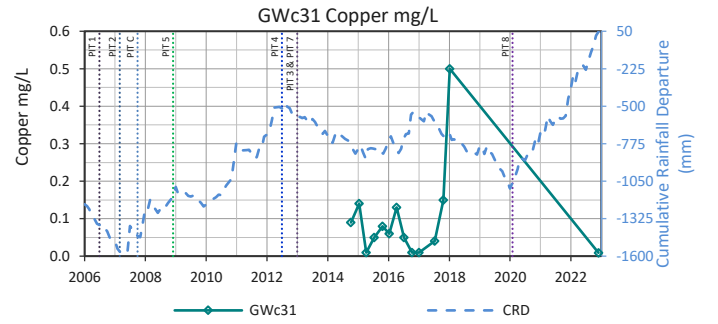
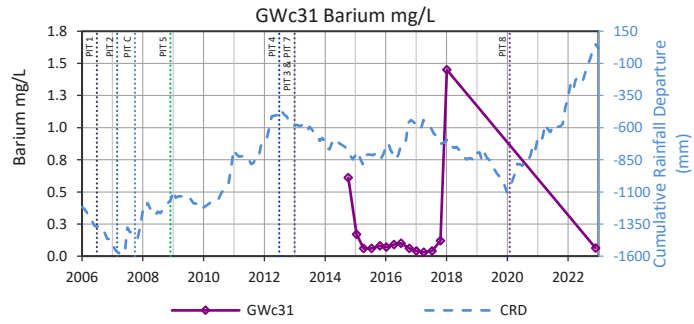
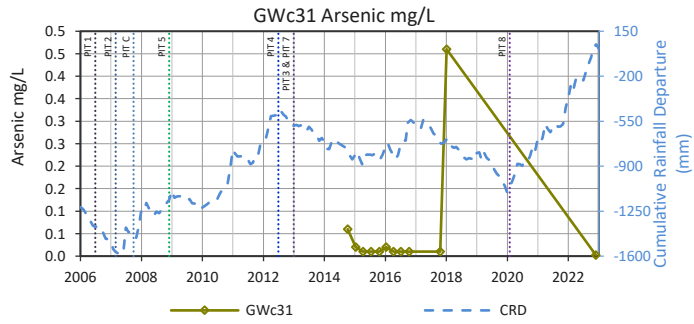
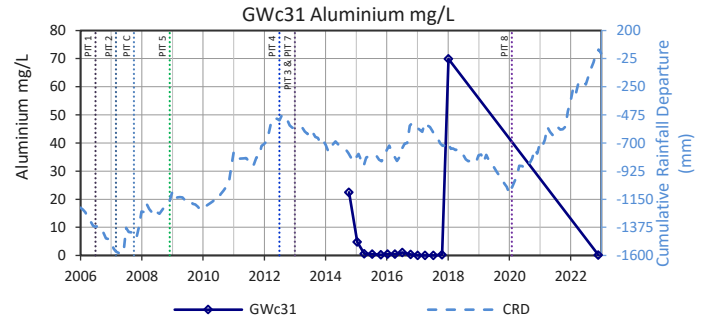
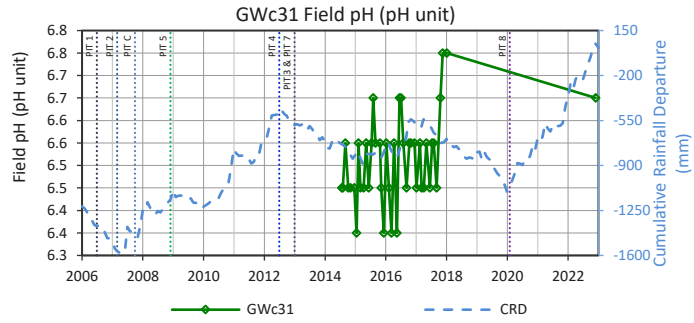
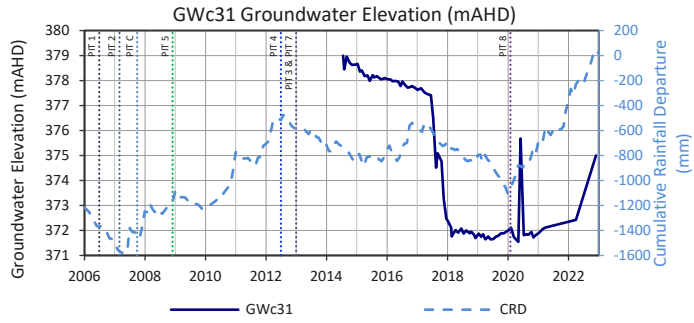


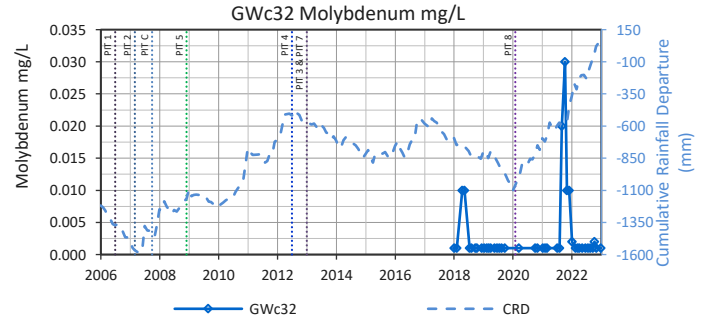
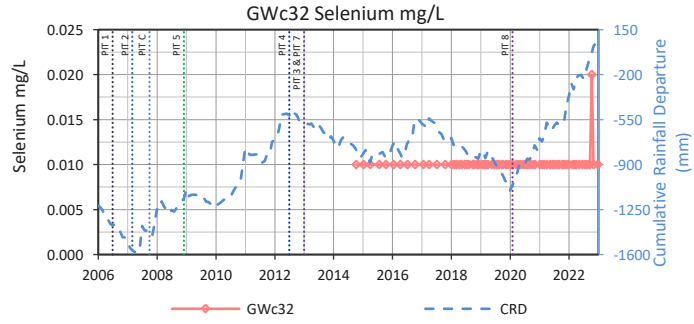
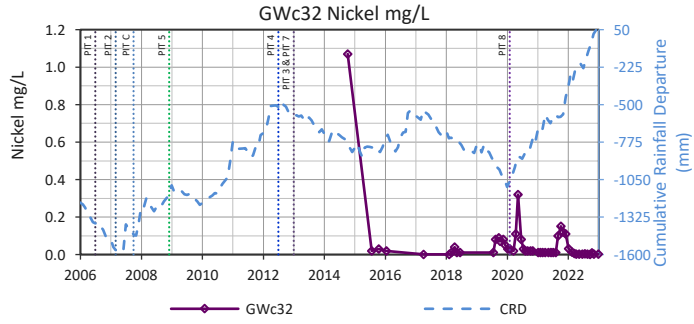
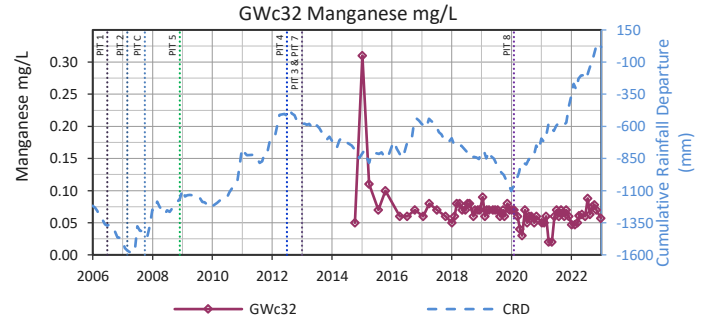
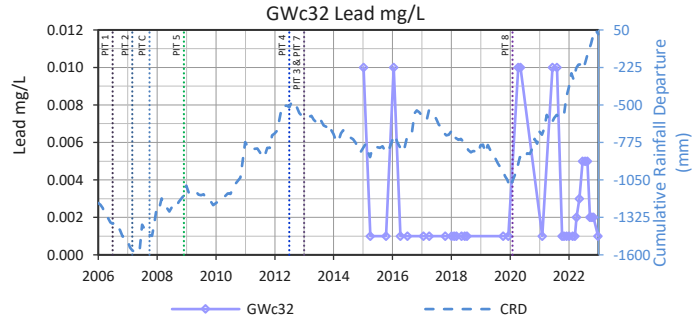
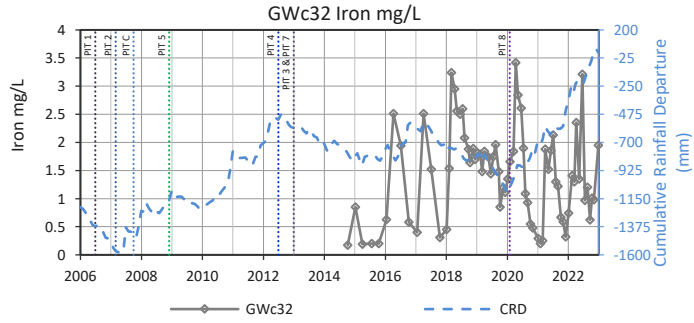
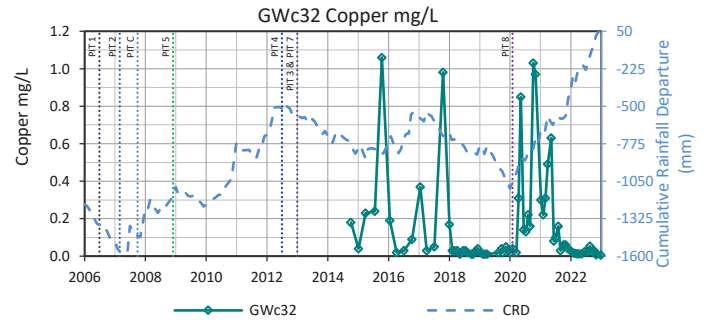
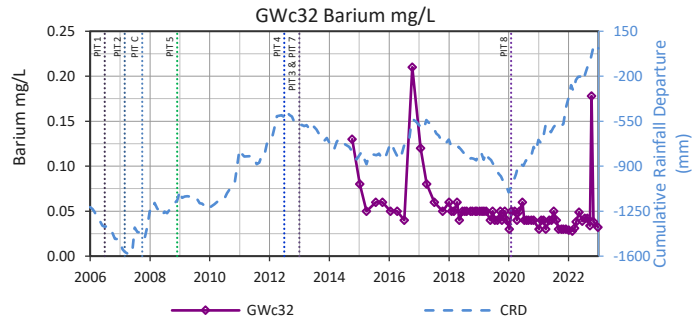
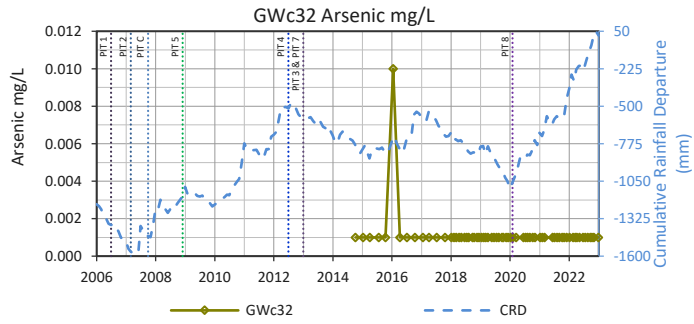
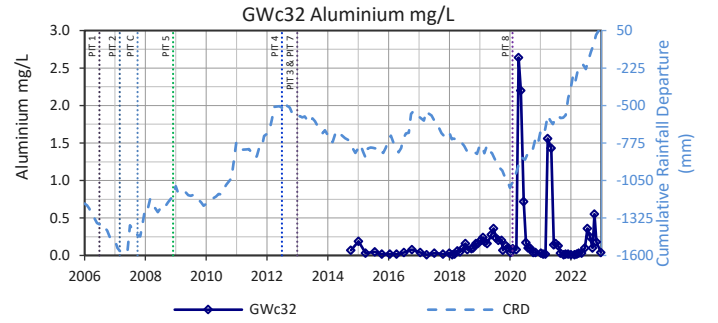
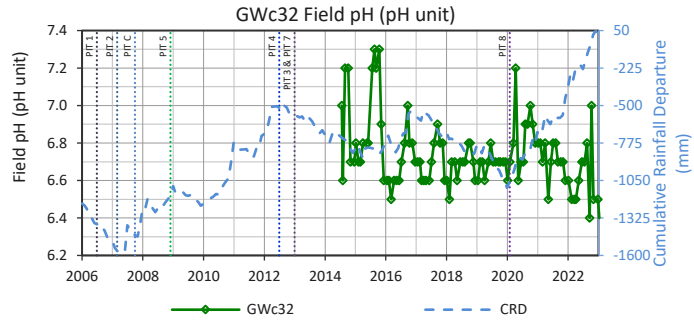
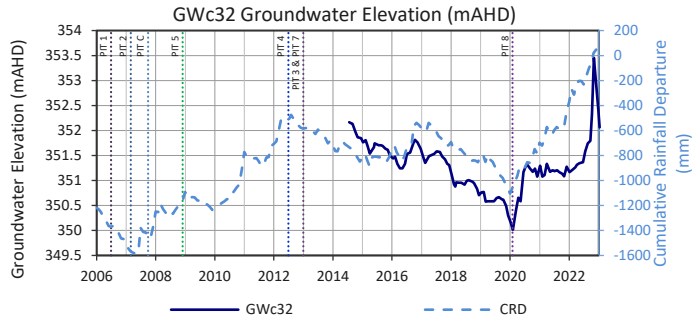


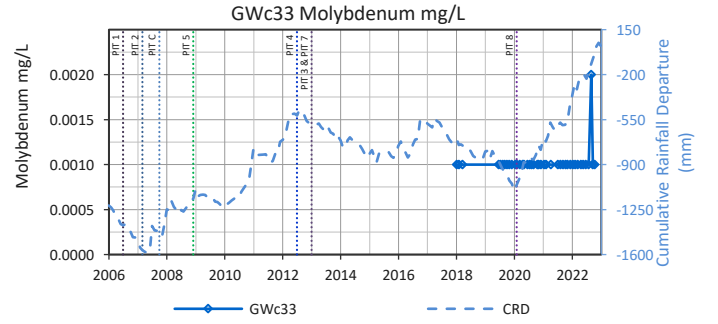
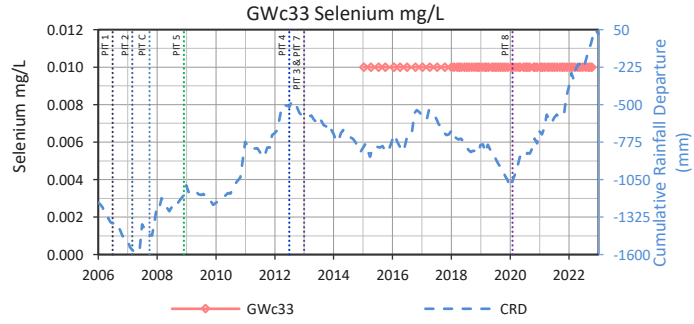
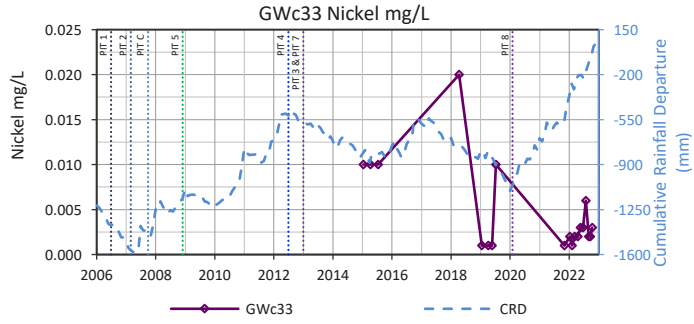
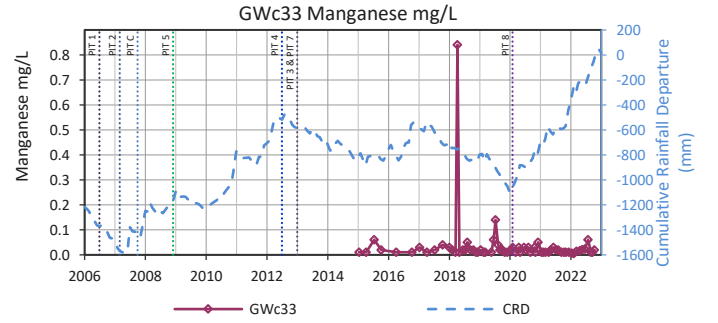
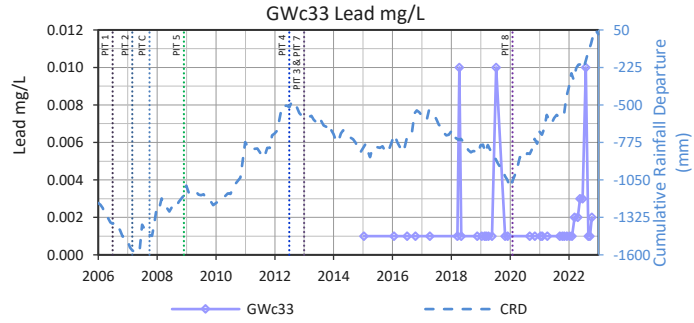
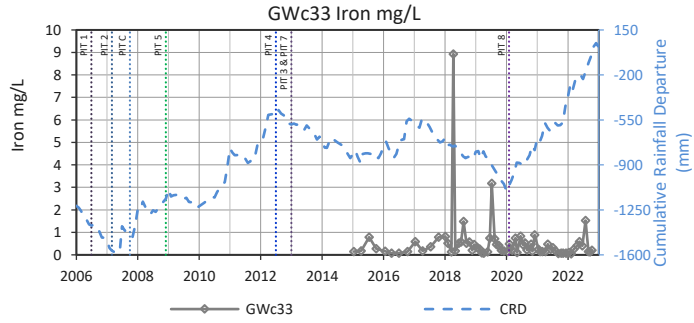
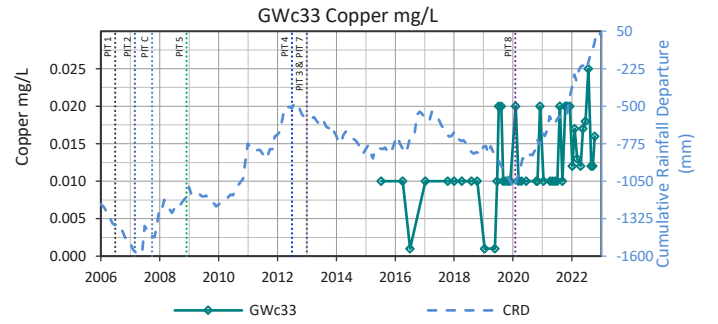
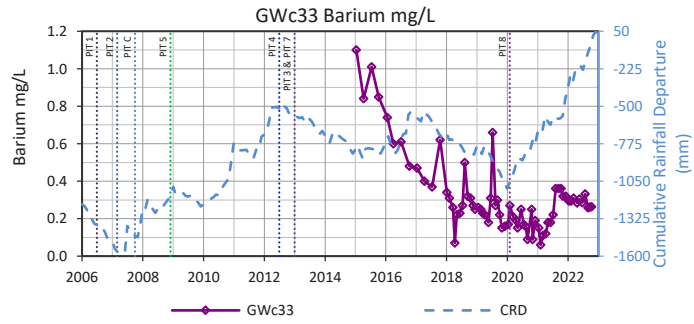
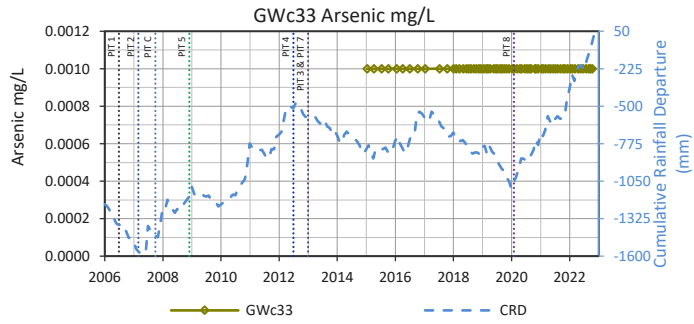
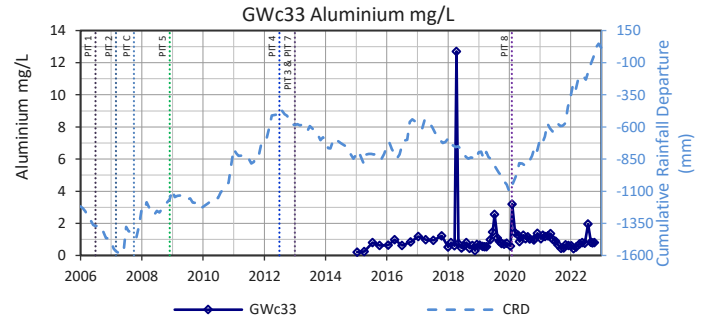
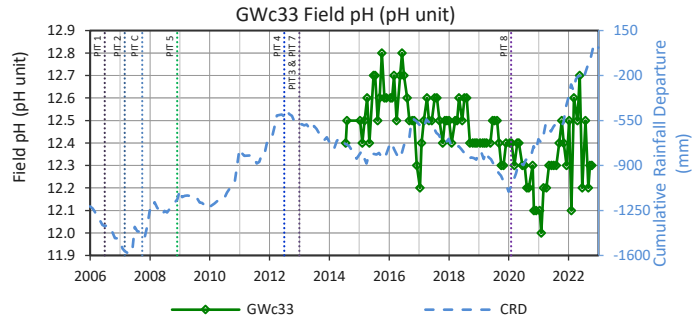
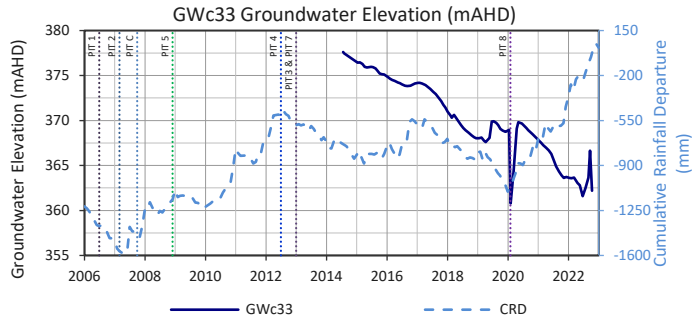


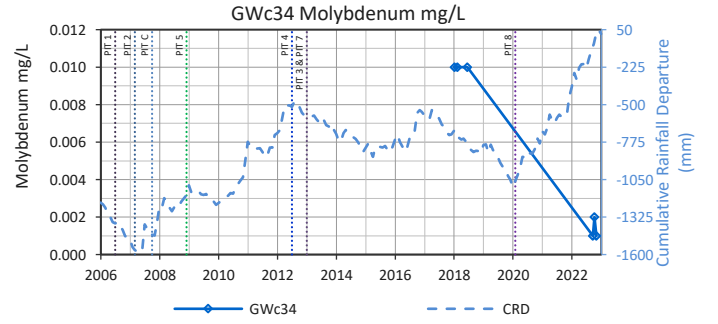
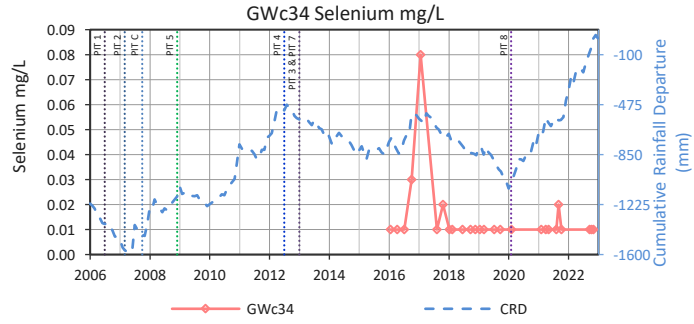
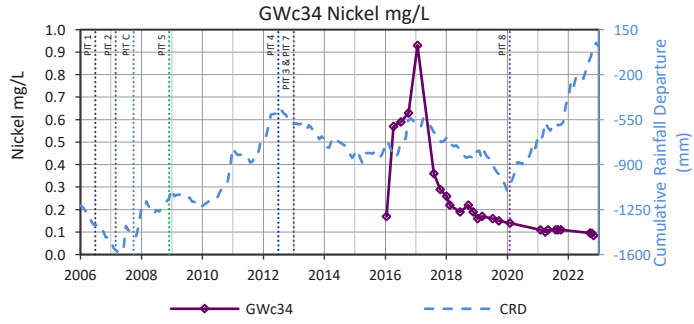
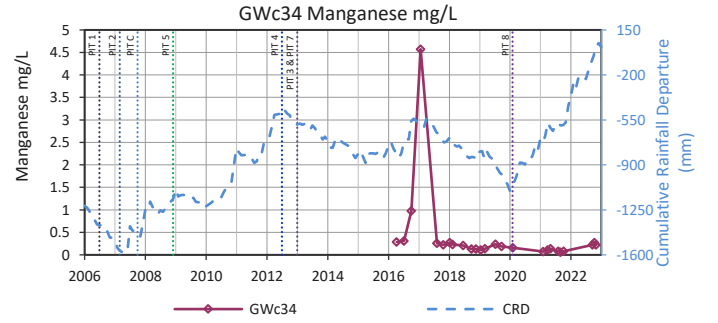
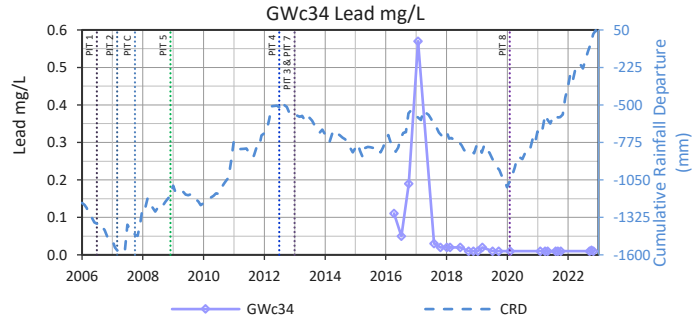
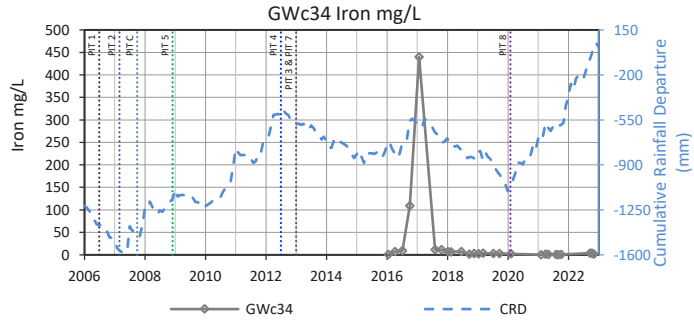
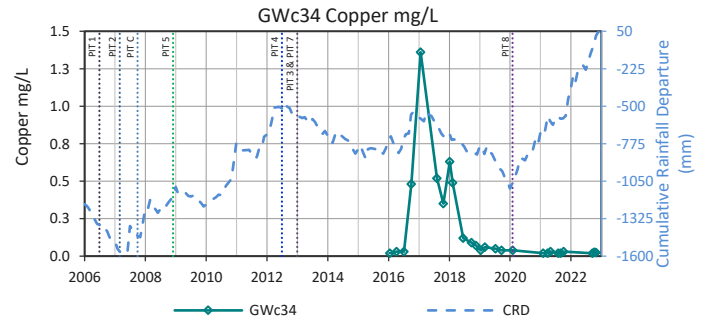
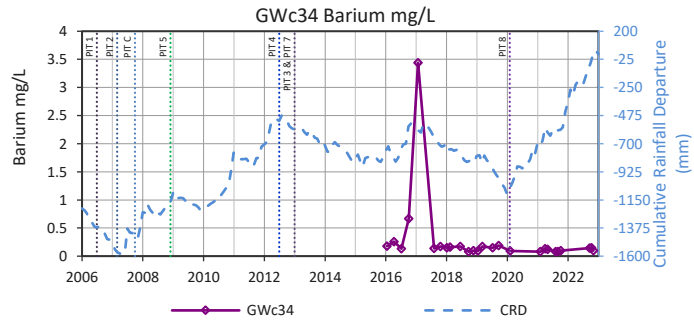
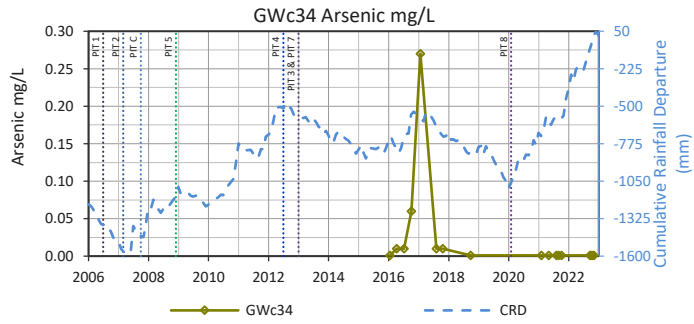
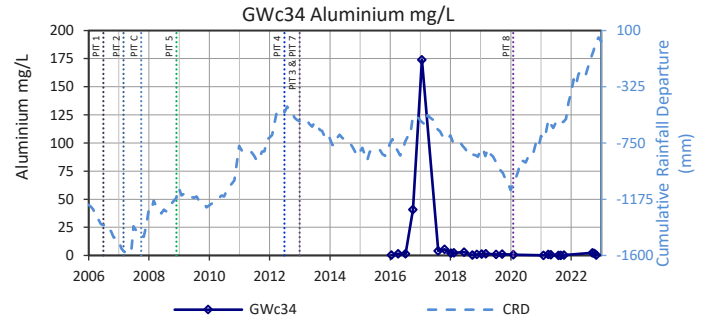
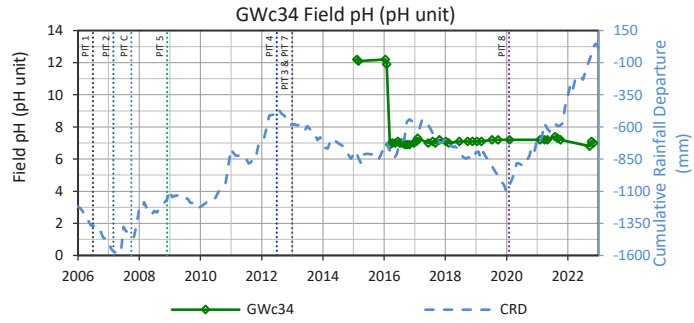
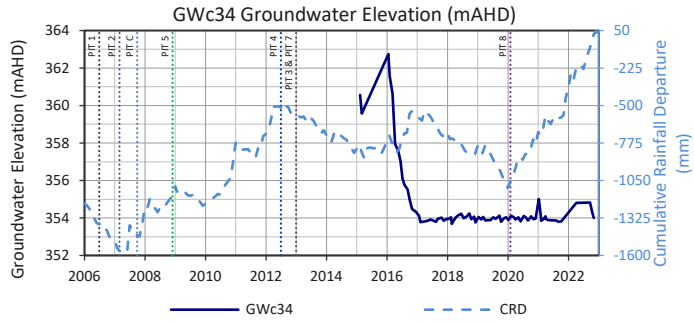


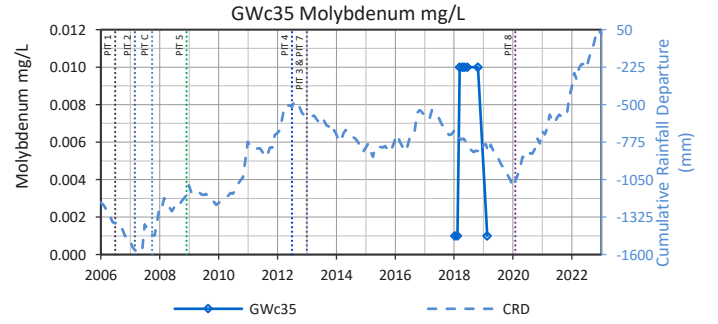
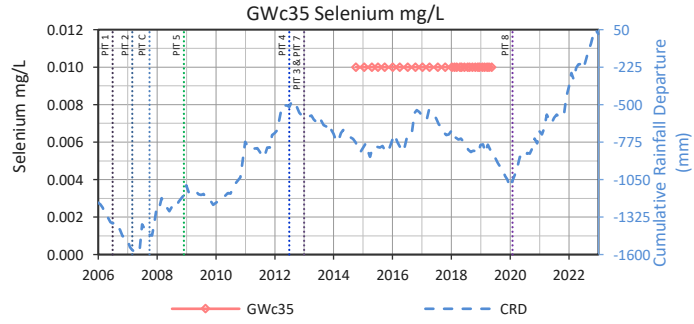
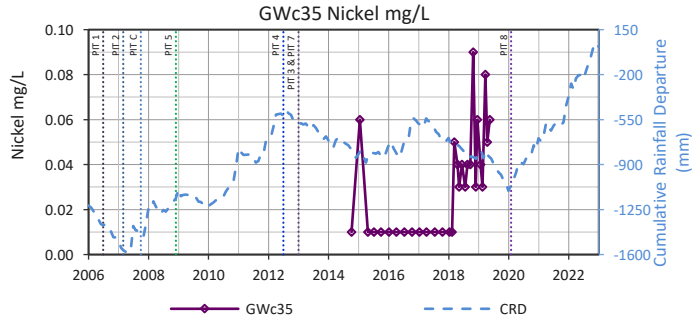
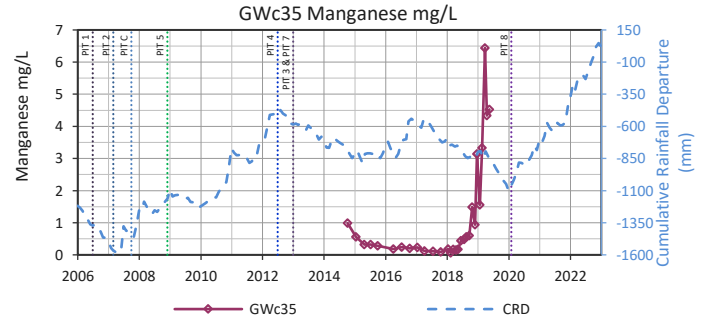
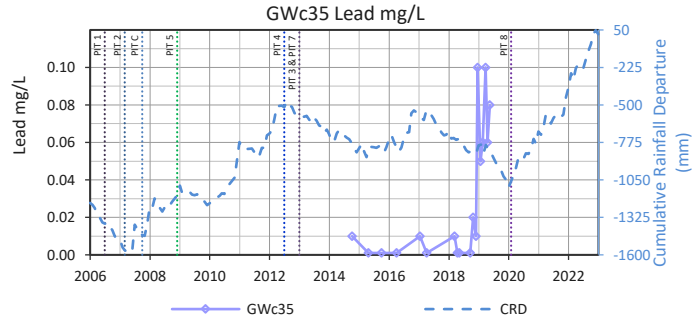
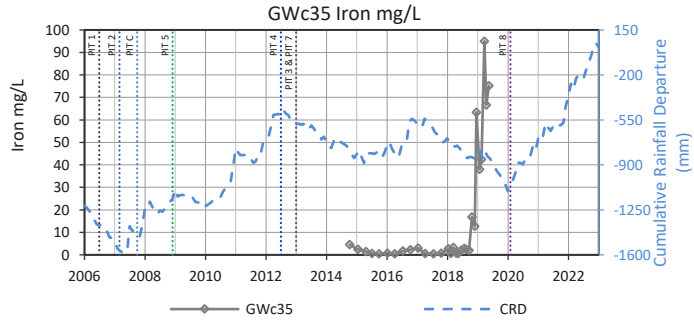
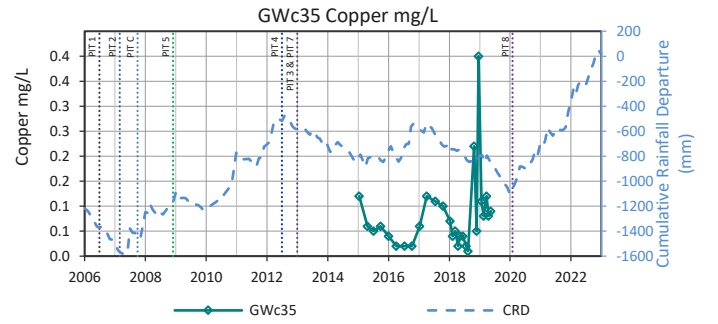
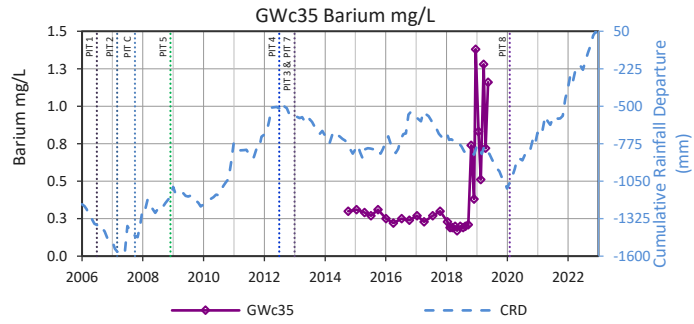
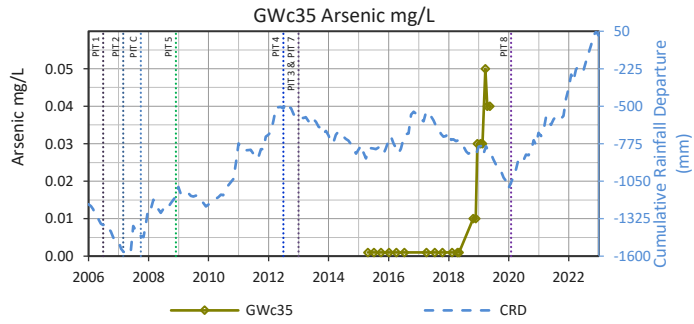
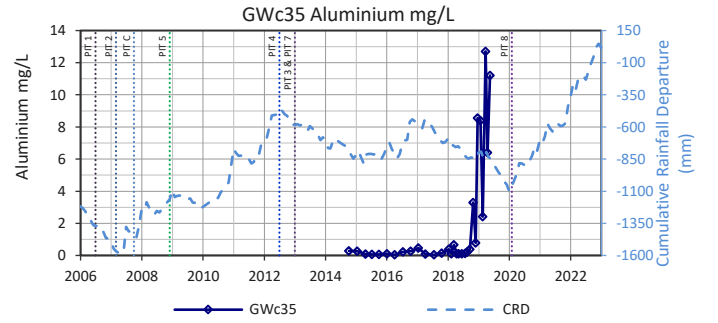
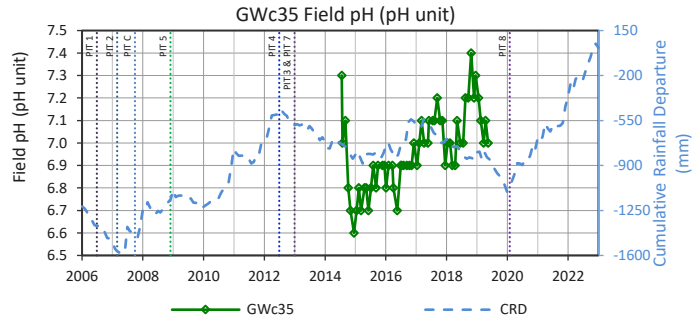
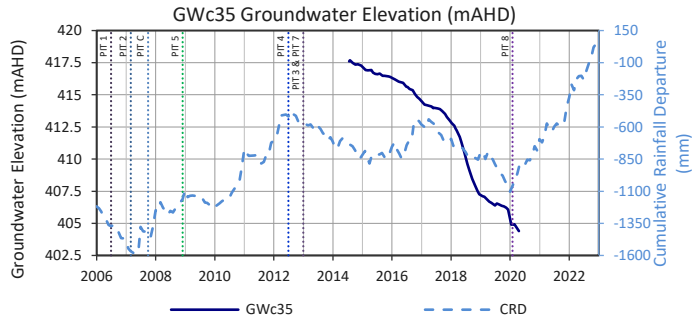


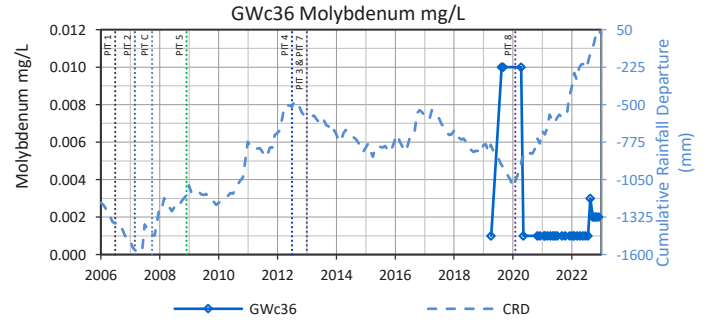
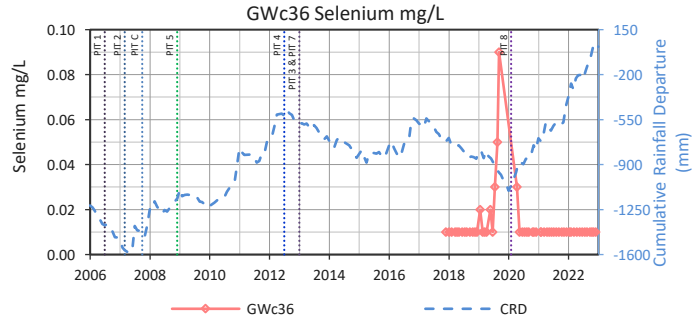
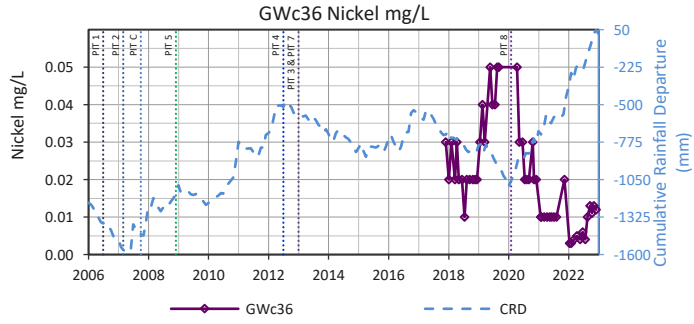
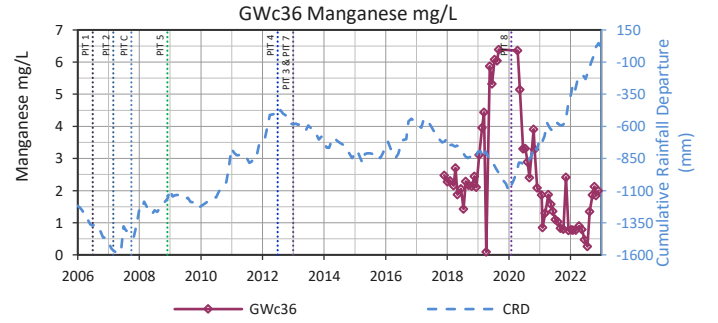
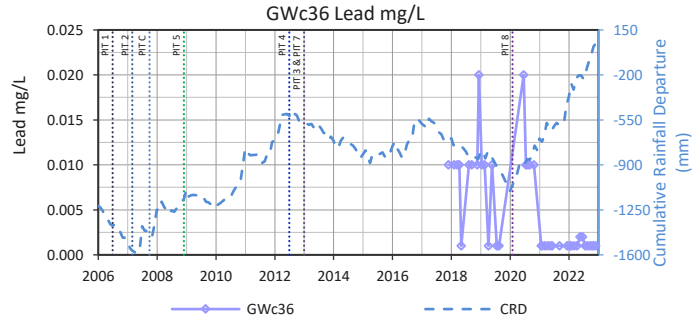
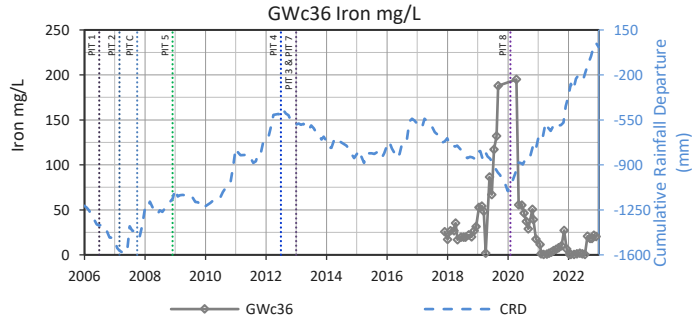
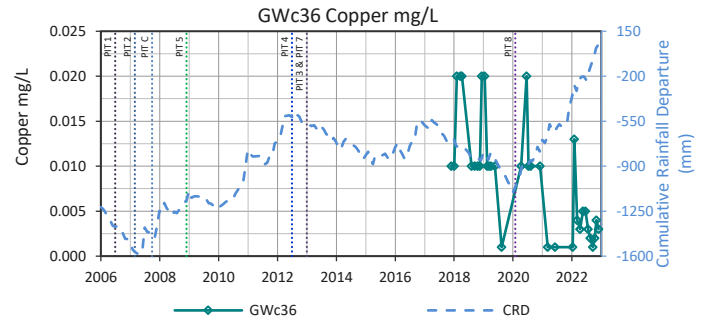
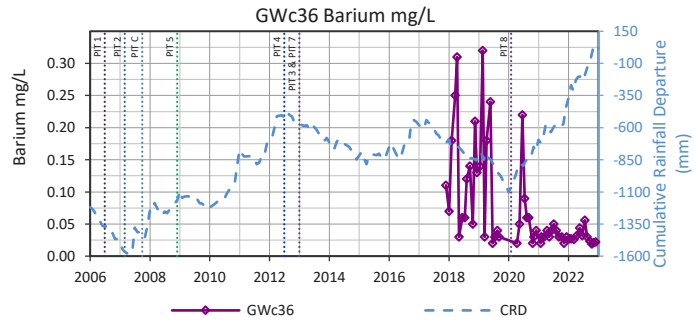
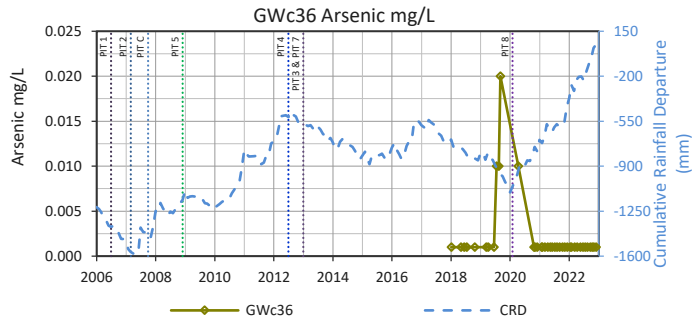
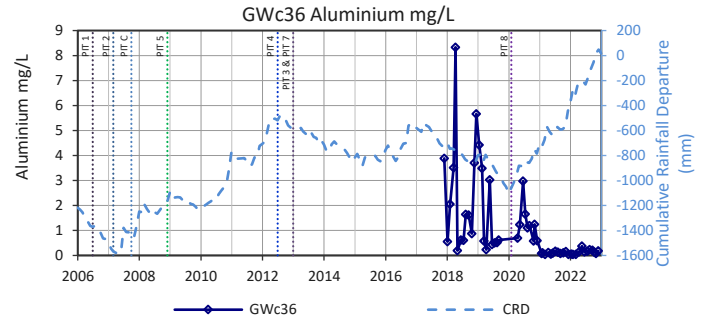
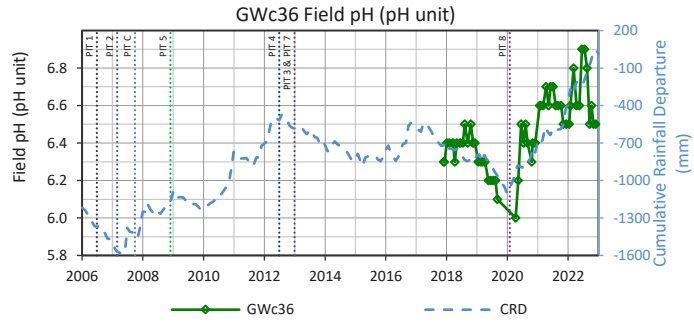
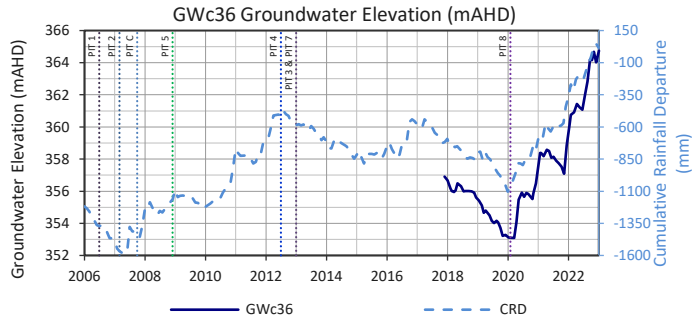


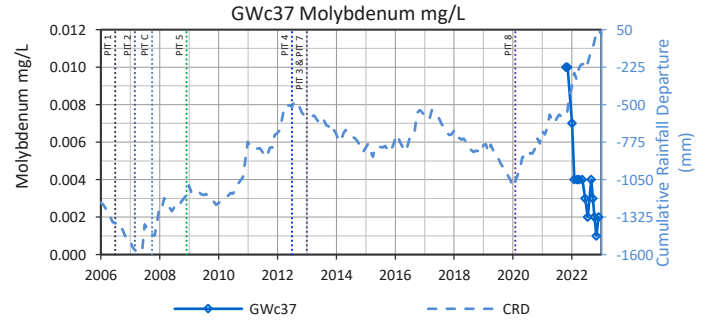
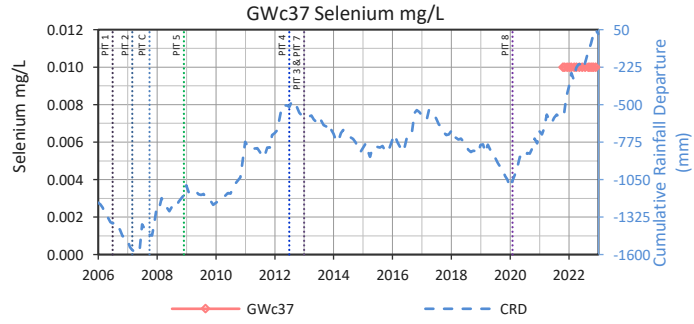
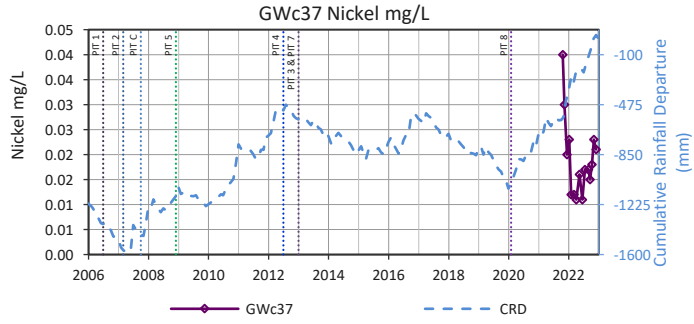
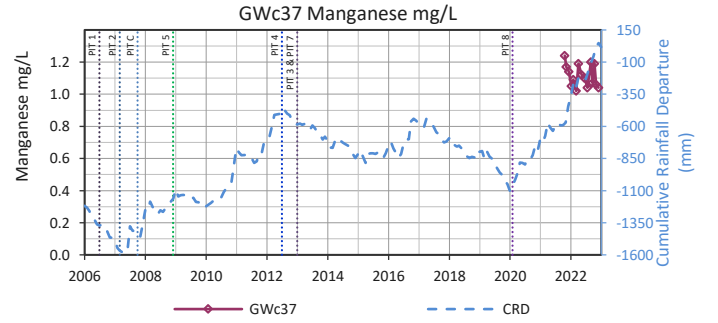
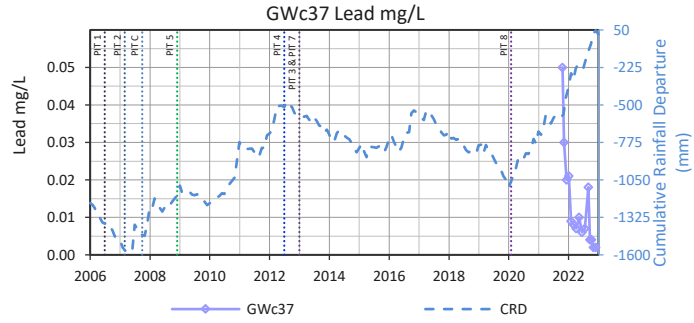
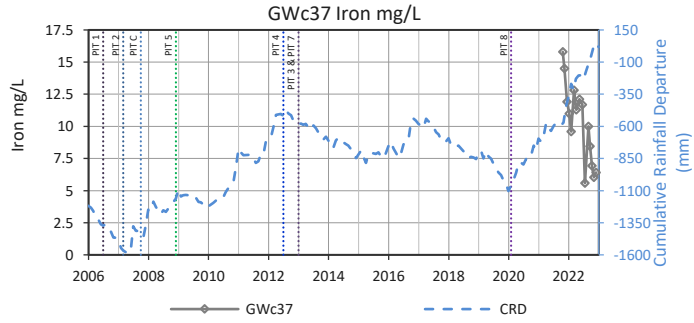
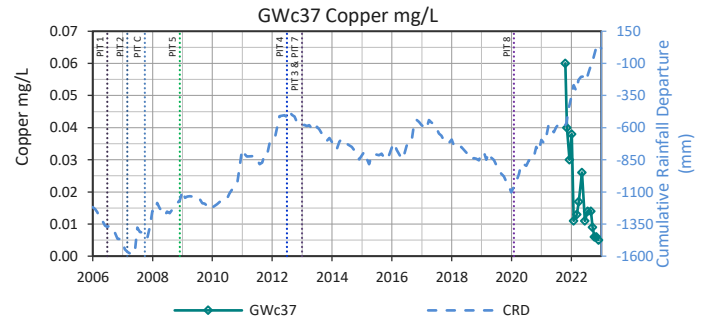
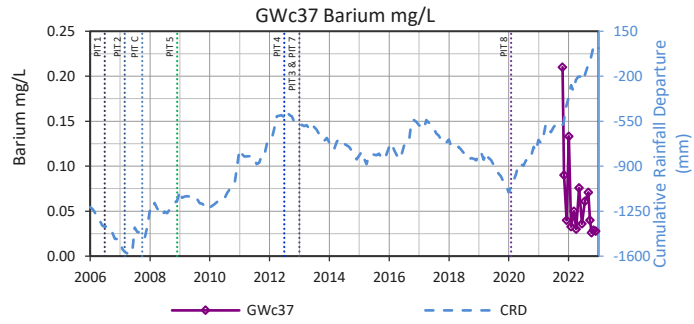
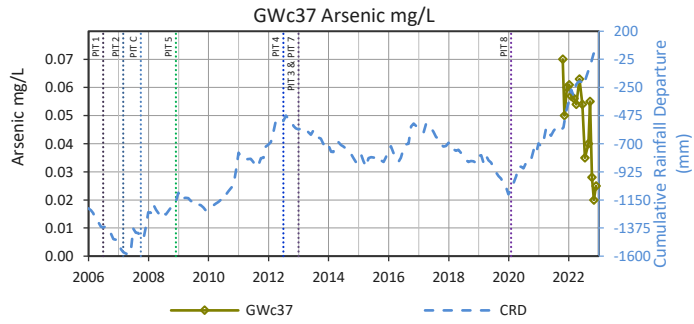
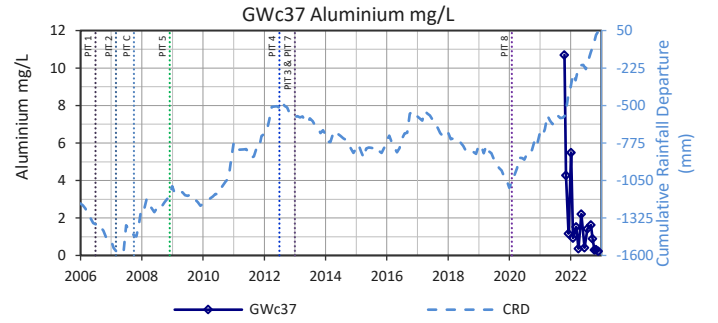
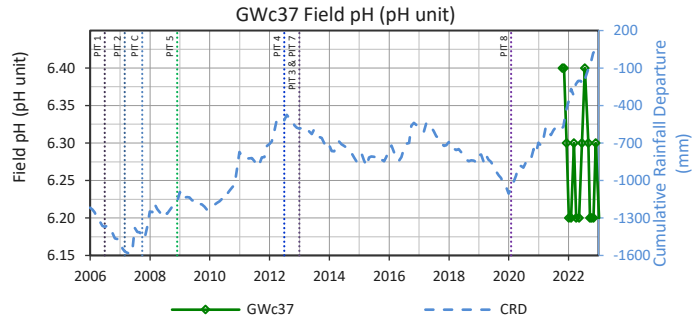
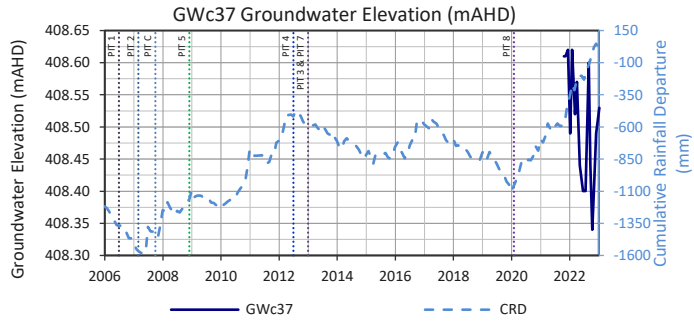


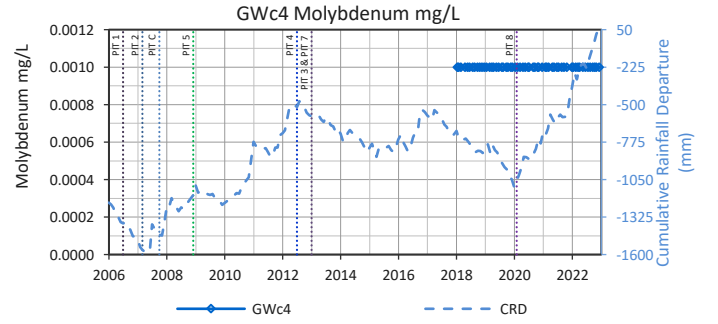
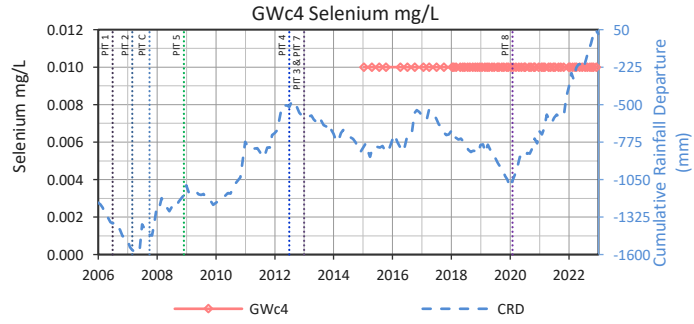
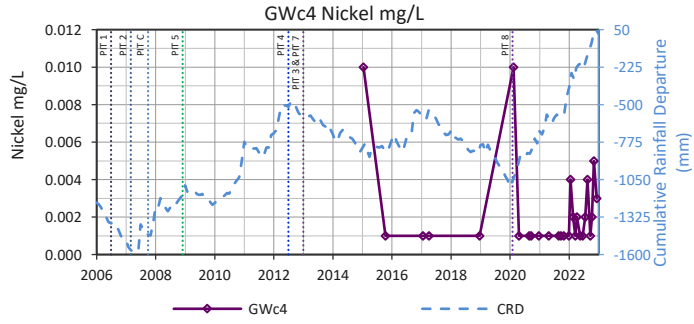
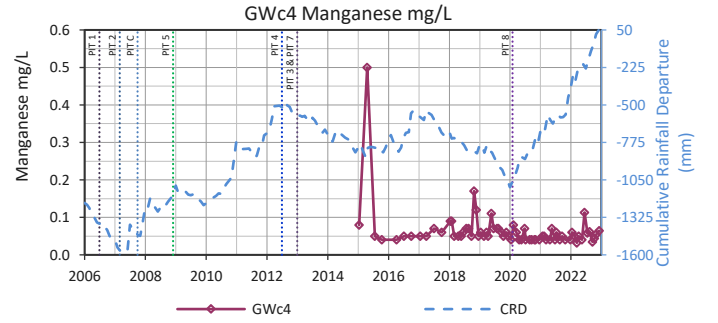
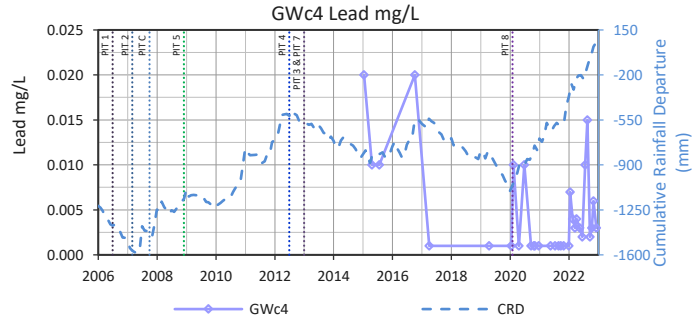
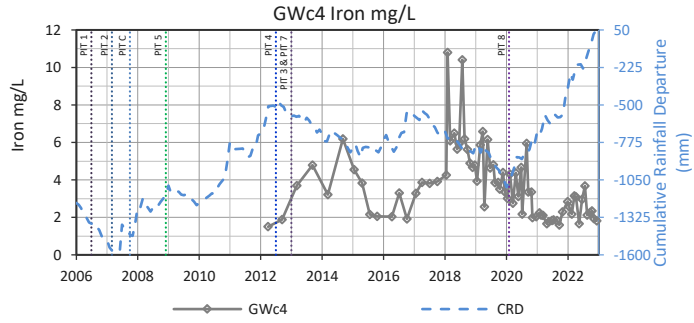
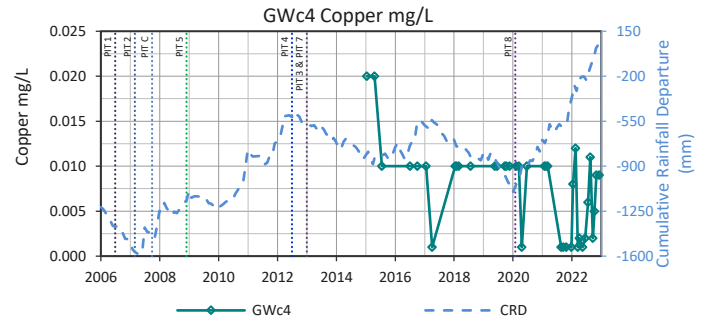
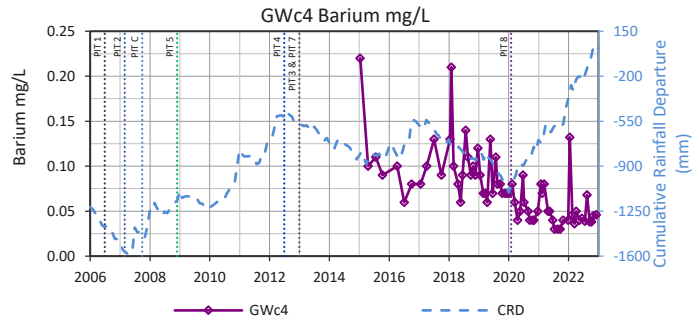
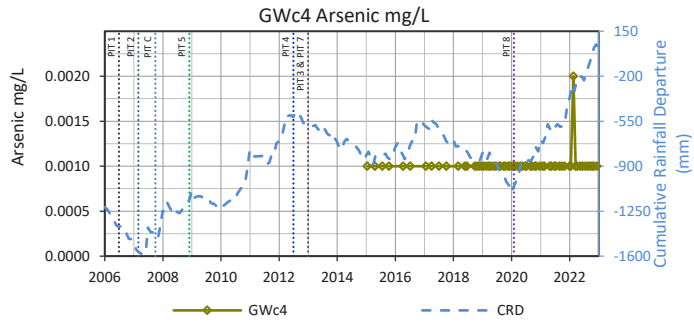
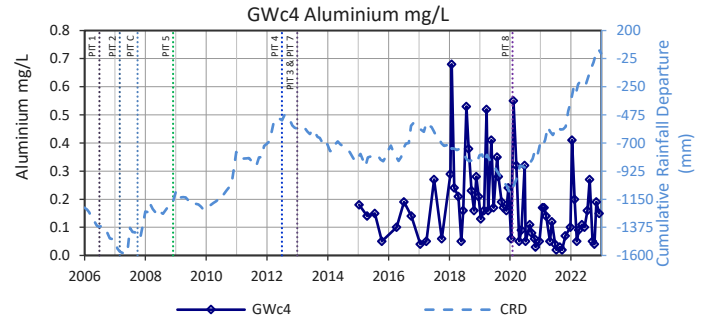
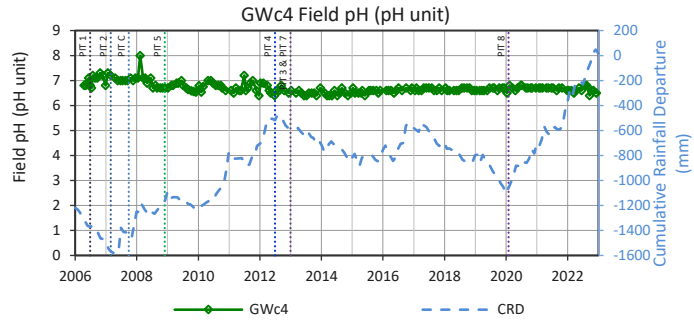
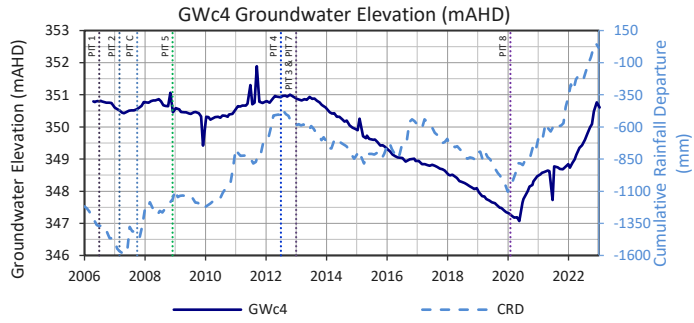


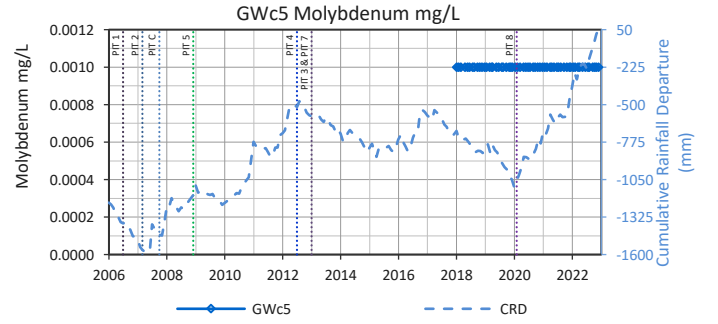
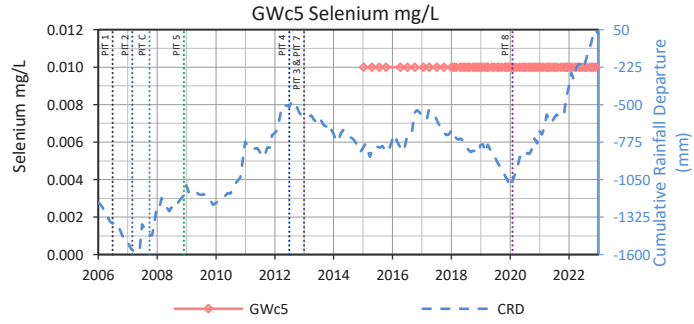
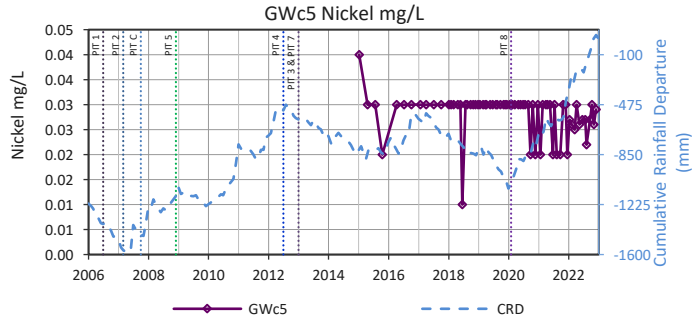
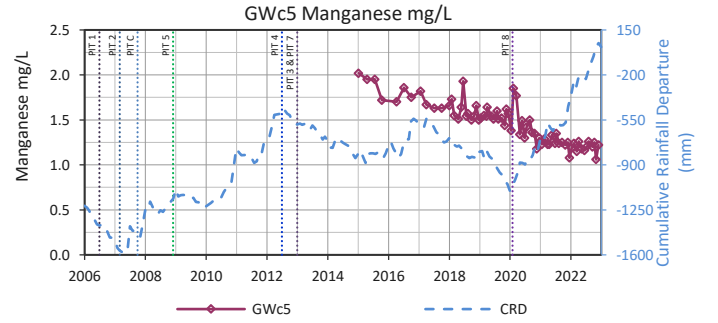
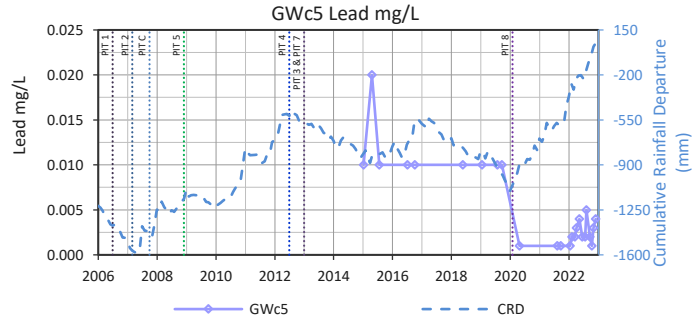
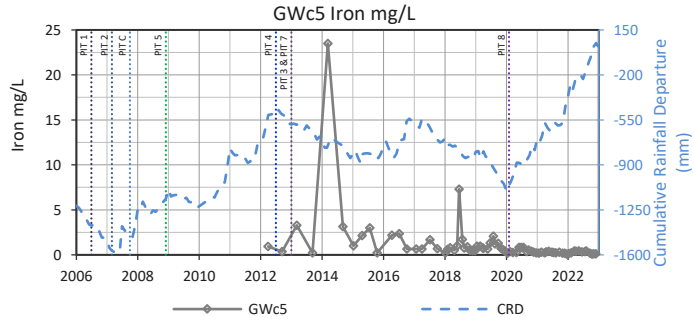
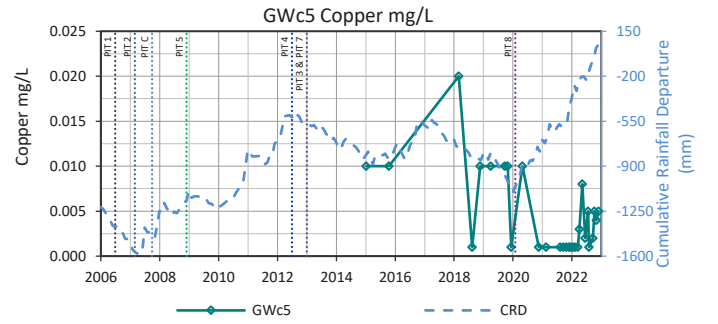
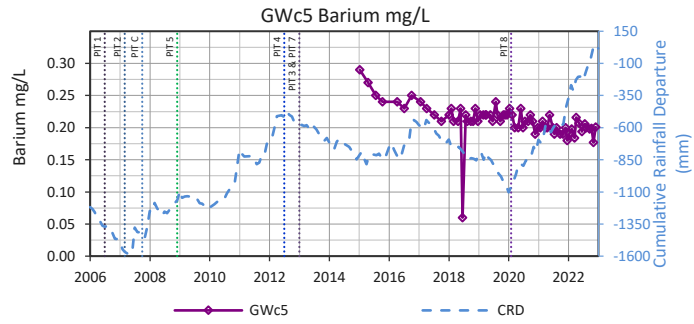
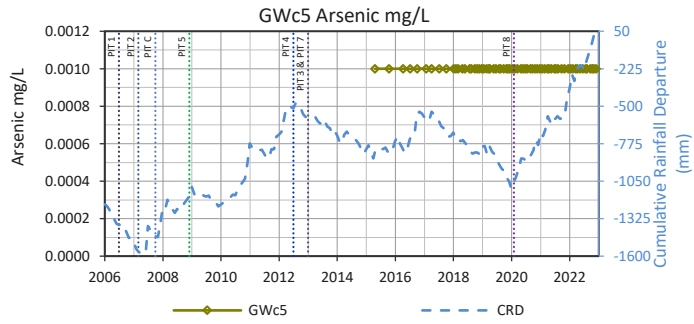
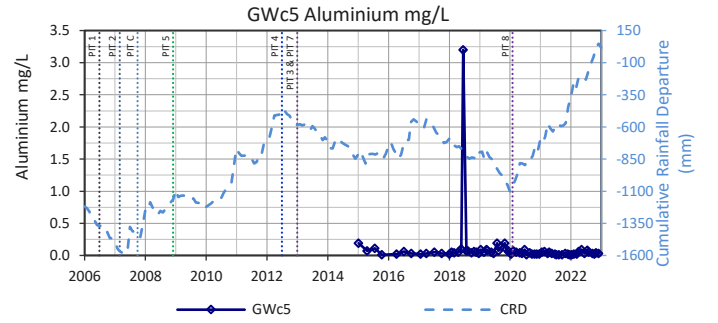
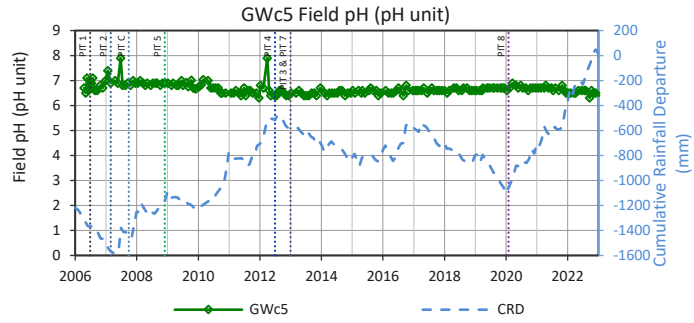
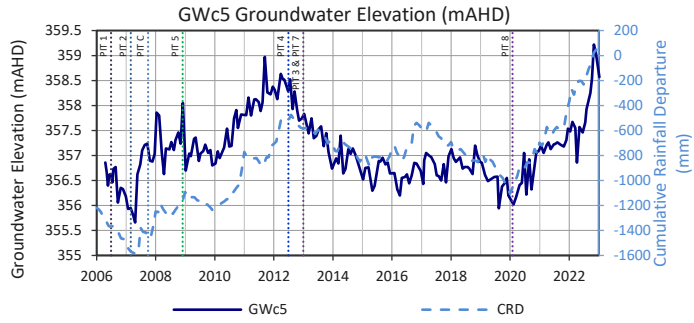


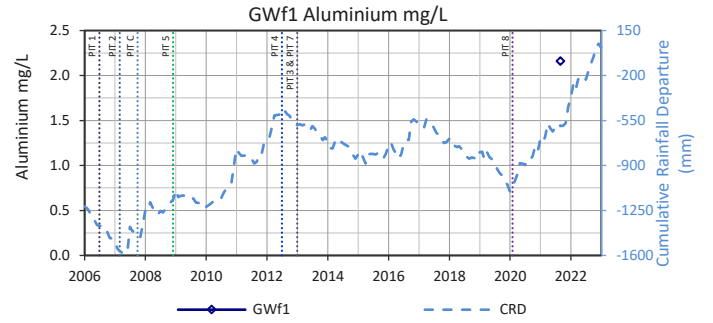
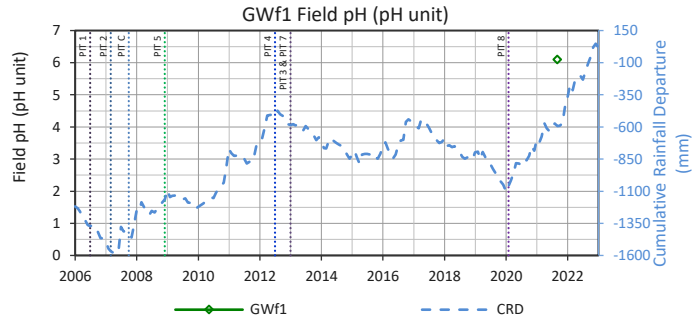
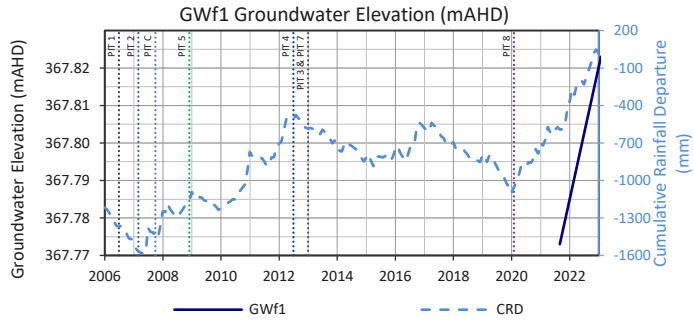






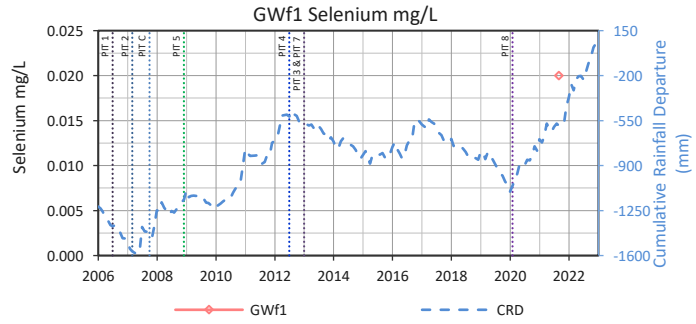
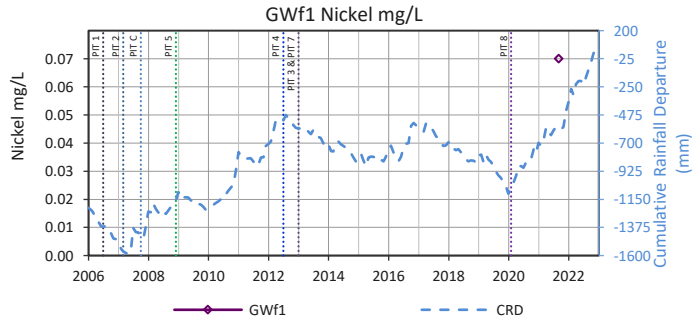
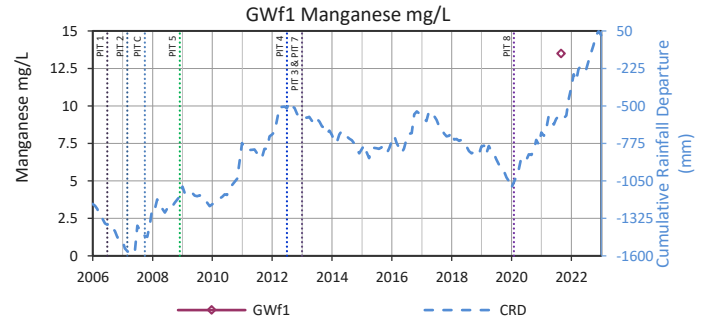
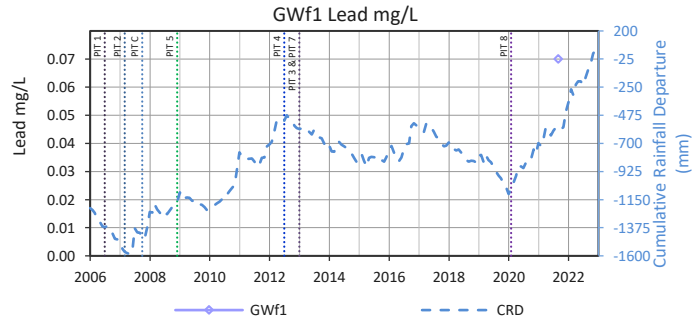
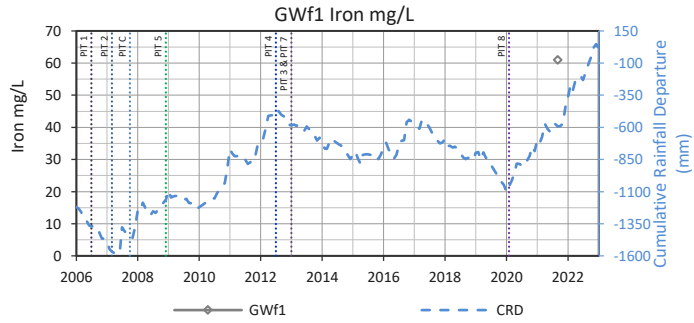
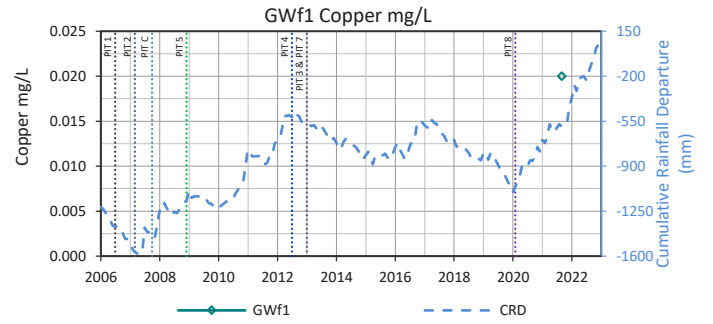
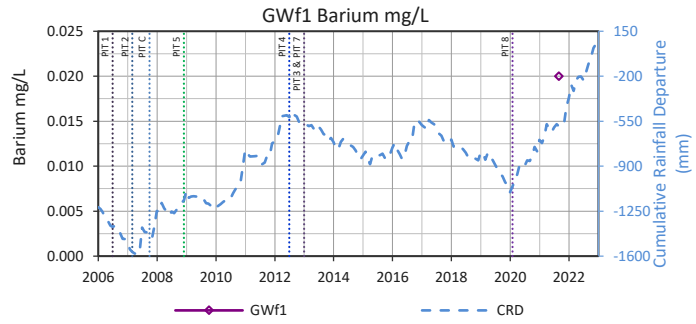






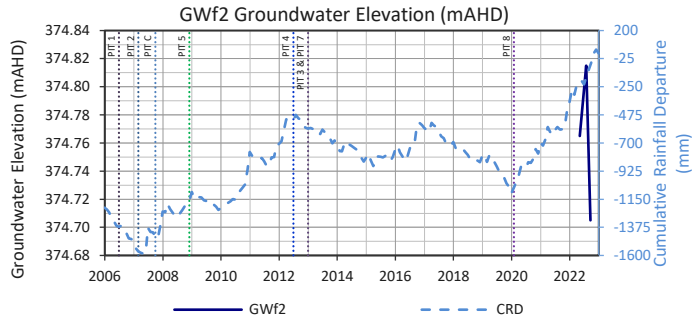
GWf1

No Data Available for Arsenic mg/L



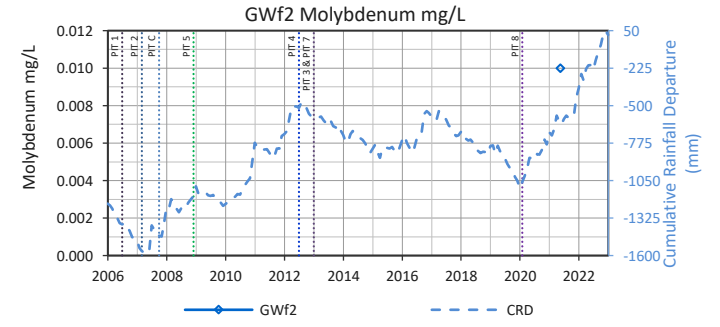
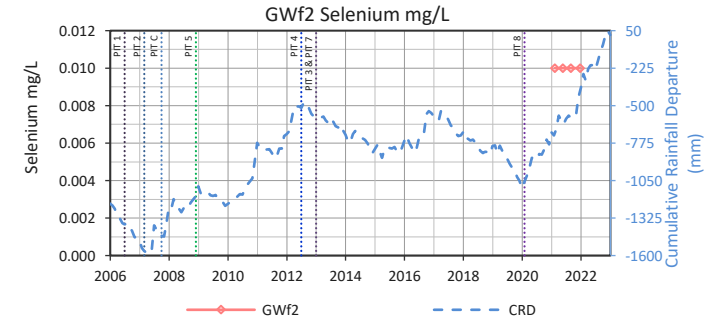
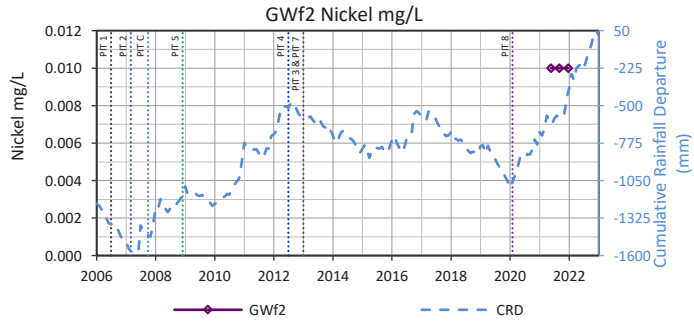
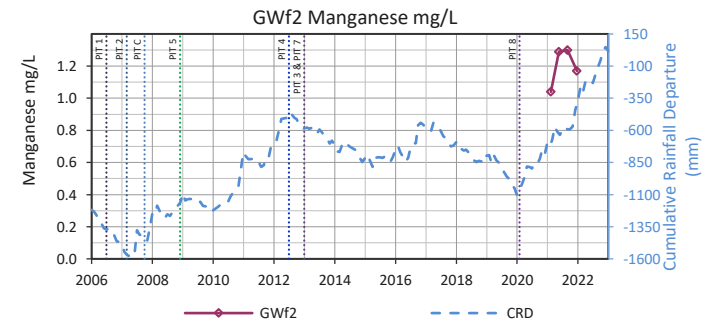
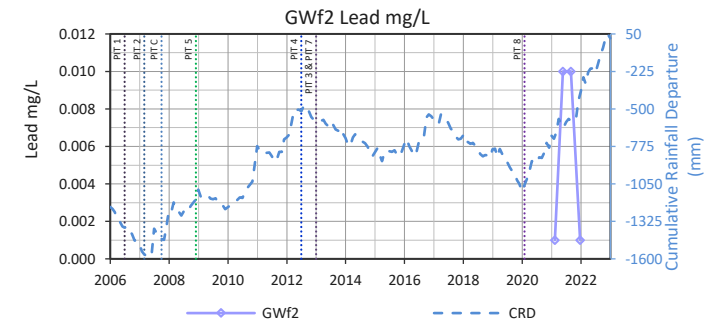
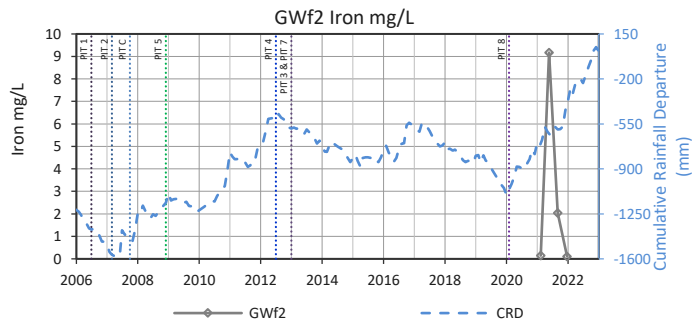
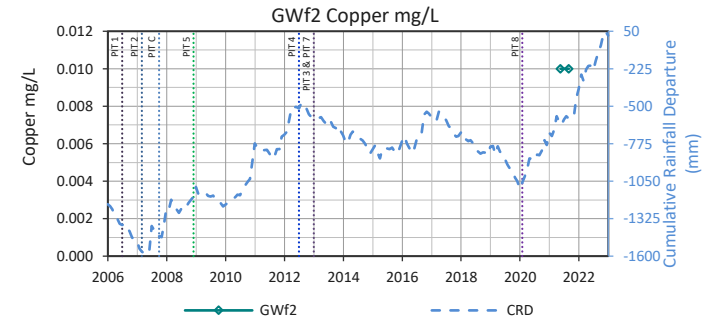
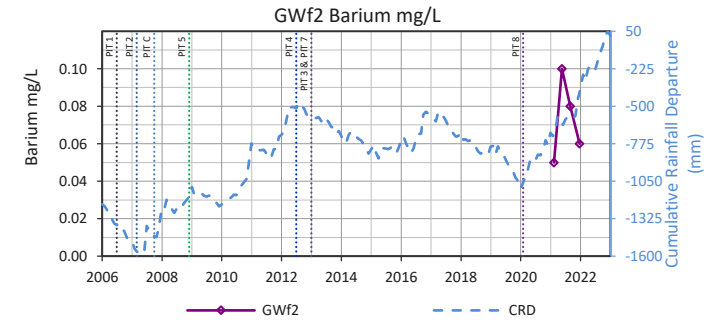
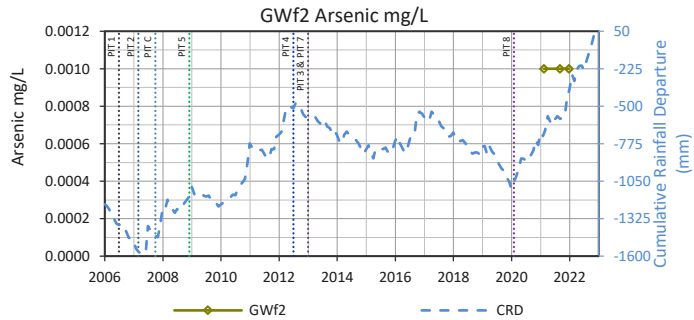
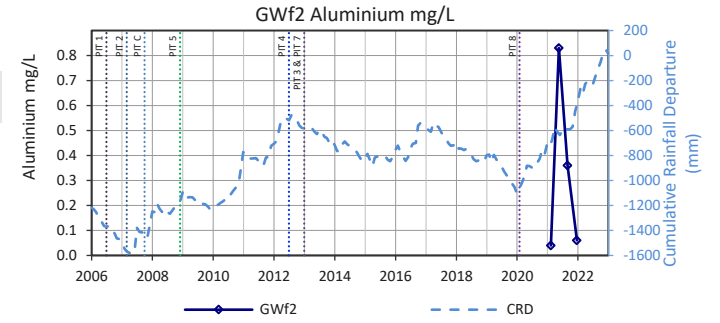
GWf1

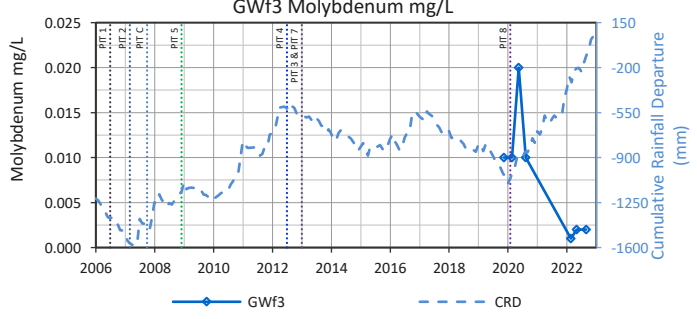
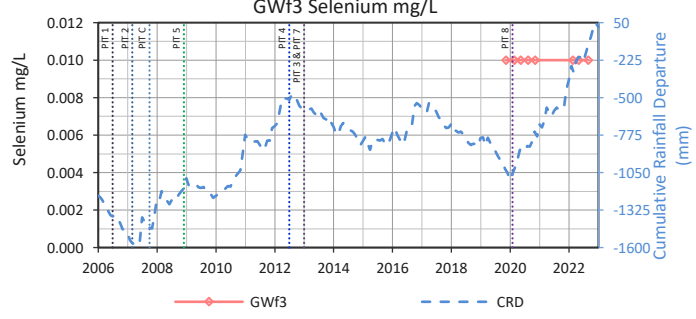
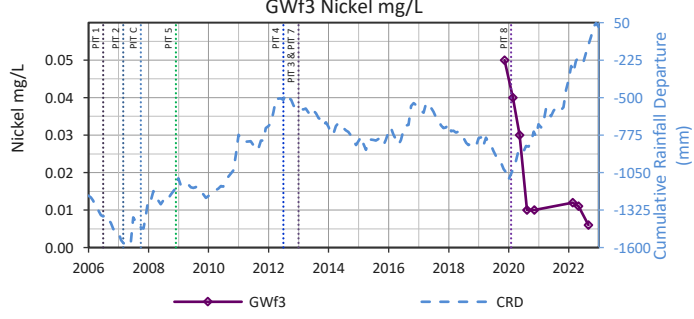
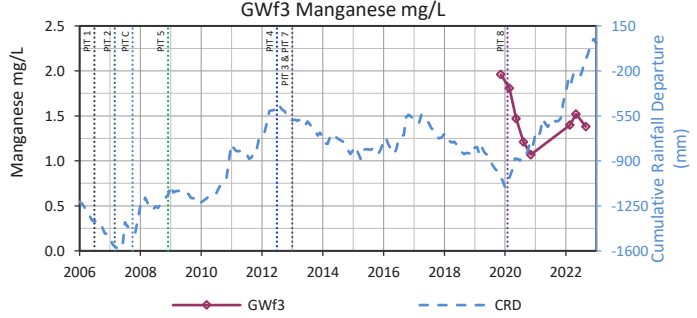
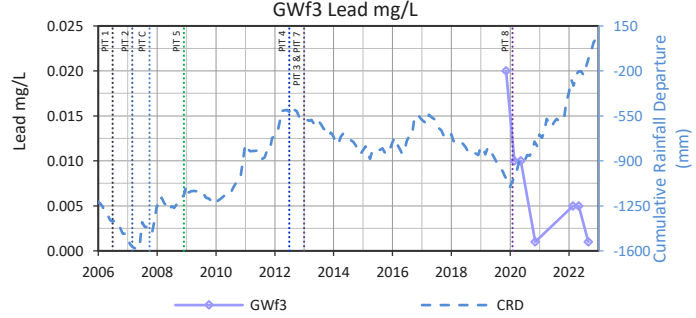
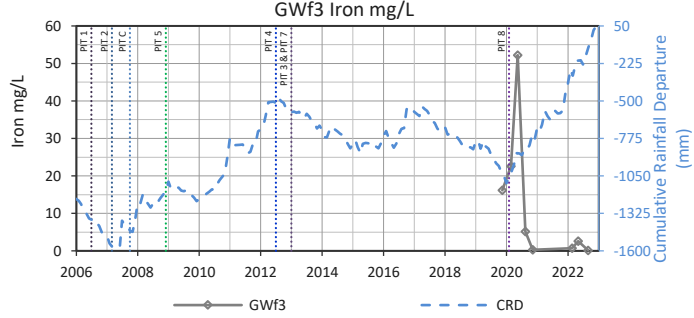
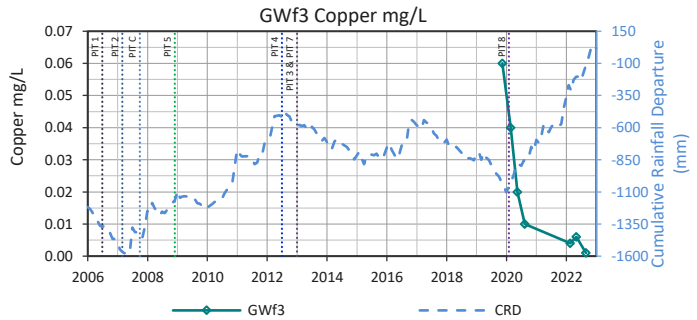
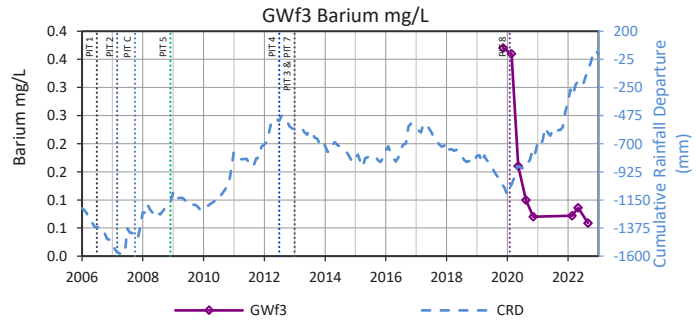
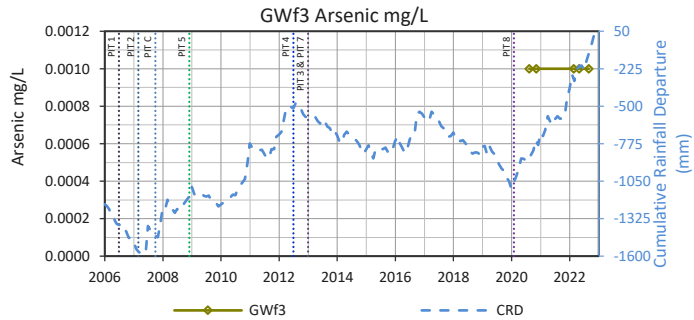
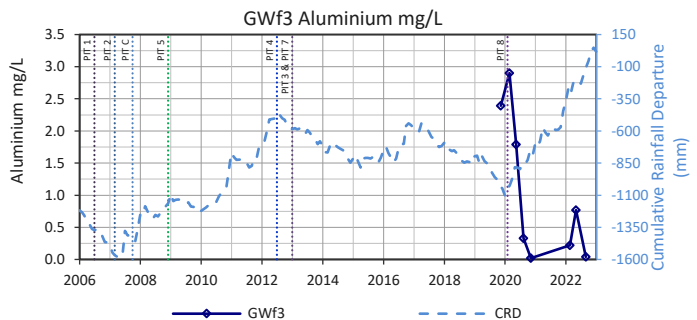
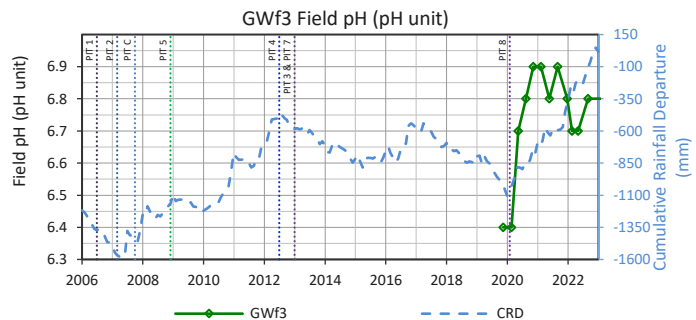
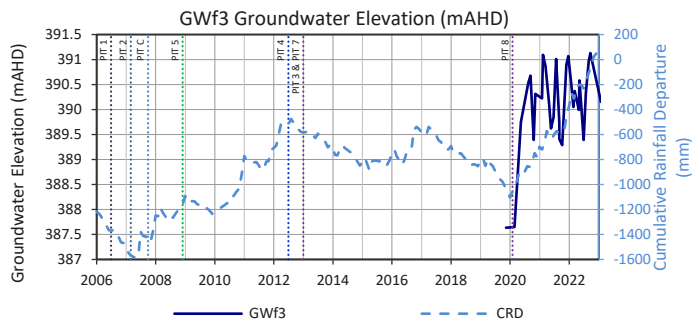
No Data Available for Molybdenum mg/L

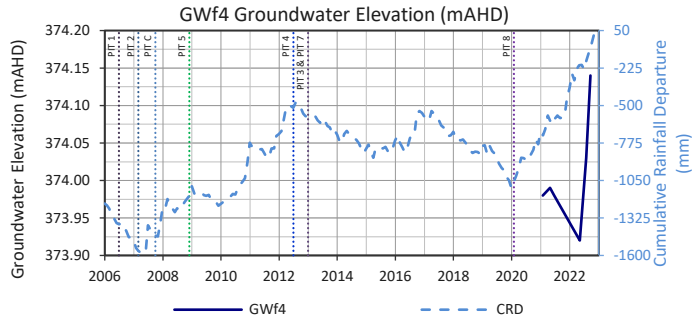


GWf2

No Data Available for Field pH (pH unit)

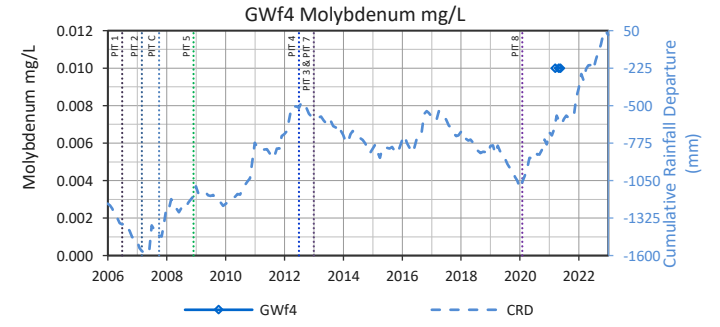
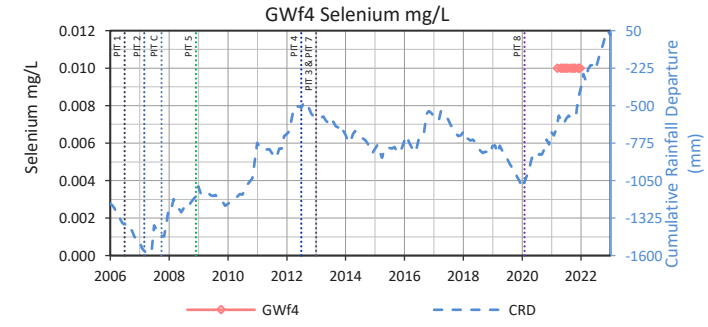
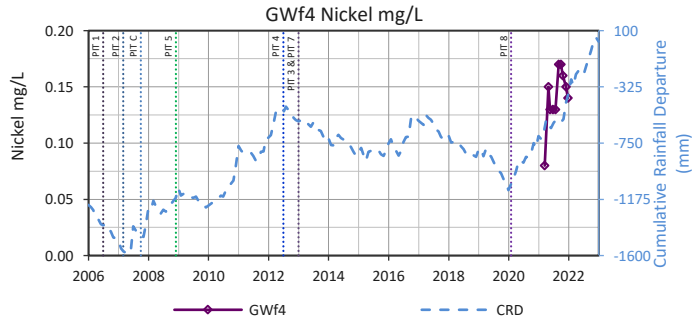
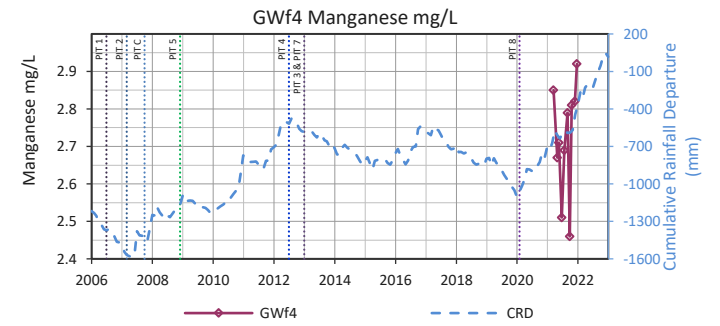
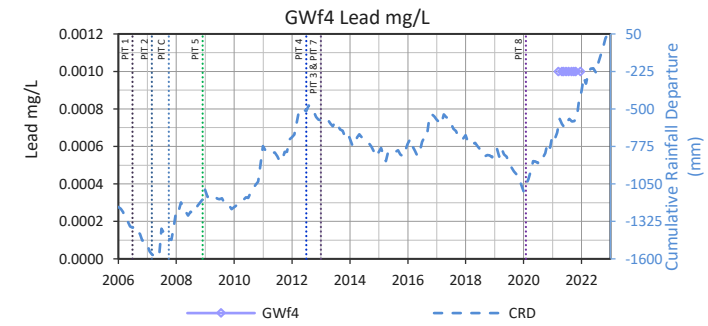
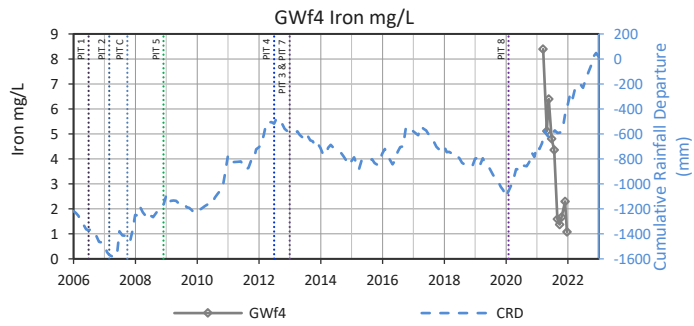
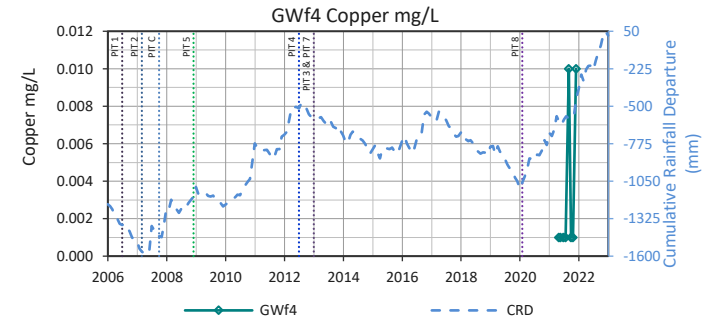
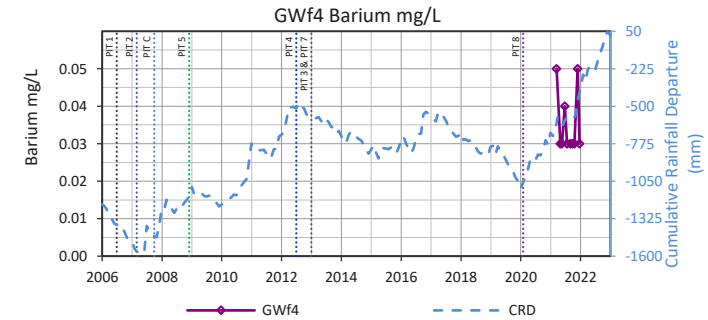
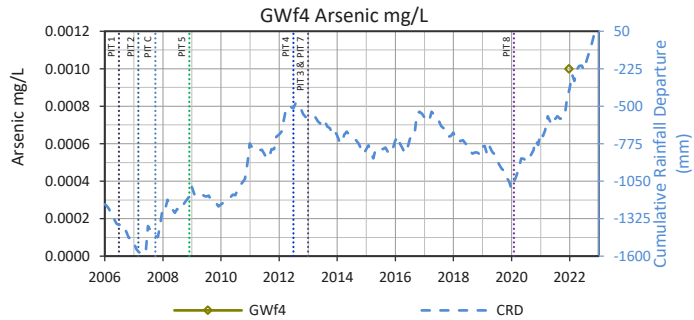
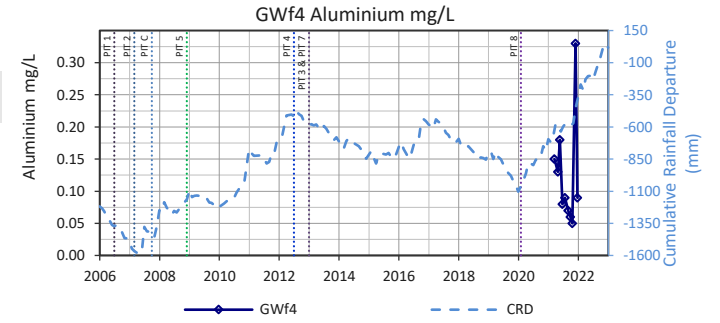


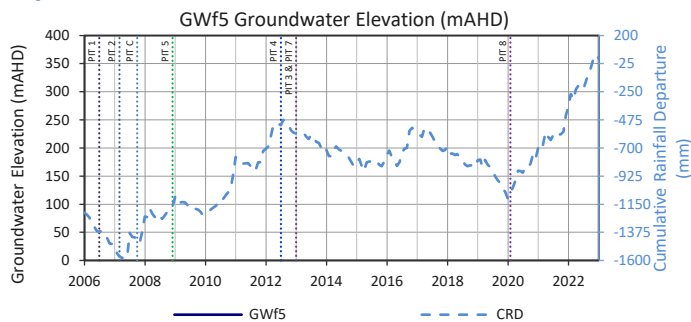




GWf4

No Data Available for Field pH (pH unit)





GWf5

No Data Available for Arsenic mg/L

GWf5

No Data Available for Barium mg/L

GWf5

No Data Available for Copper mg/L

GWf5

No Data Available for Iron mg/L

GWf5

No Data Available for Lead mg/L

GWf5

No Data Available for Manganese mg/L

GWf5

No Data Available for Nickel mg/L

GWf5

No Data Available for Selenium mg/L

GWf5

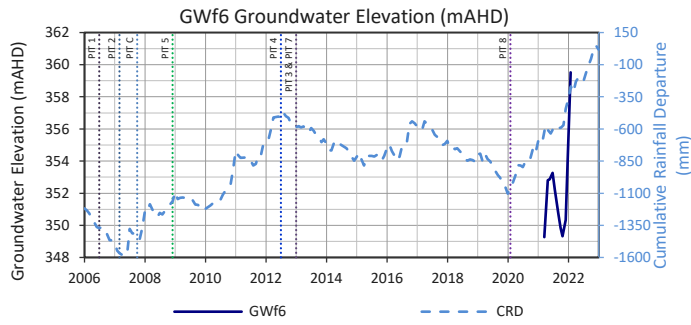
No Data Available for Molybdenum mg/L

GWf5

No Data Available for Field pH (pH unit)

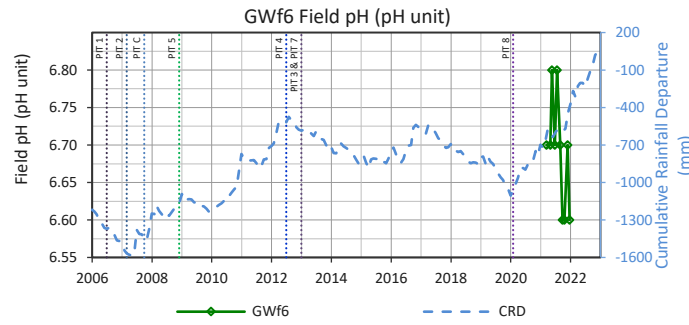
GWf5

No Data Available for Aluminium mg/L



GWf6

No Data Available for Arsenic mg/L



GWf6

No Data Available for Barium mg/L

GWf6
No Data Available for Aluminium mg/L

GWf6

No Data Available for Copper mg/L

GWf6

No Data Available for Iron mg/L

GWf6

No Data Available for Lead mg/L

GWf6

No Data Available for Manganese mg/L

GWf6

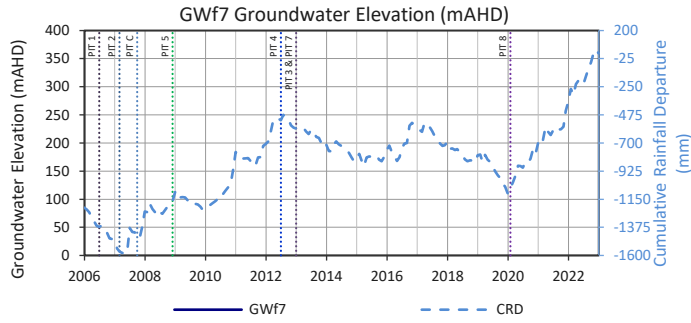
No Data Available for Nickel mg/L

GWf6

No Data Available for Selenium mg/L

GWf6

No Data Available for Molybdenum mg/L



GWf7

No Data Available for Arsenic mg/L

GWf7

No Data Available for Barium mg/L

GWf7

No Data Available for Copper mg/L

GWf7

No Data Available for Iron mg/L

GWf7

No Data Available for Lead mg/L

GWf7

No Data Available for Manganese mg/L

GWf7

No Data Available for Nickel mg/L

GWf7

No Data Available for Selenium mg/L

GWf7

No Data Available for Molybdenum mg/L

GWf7

No Data Available for Field pH (pH unit)

GWf7

No Data Available for Aluminium mg/L

PZ13

PZ13

PZ13

No Data Available for Groundwater Elevation (mAHD)

No Data Available for Field pH (pH unit)

No Data Available for Aluminium mg/L

PZ13

PZ13

PZ13

No Data Available for Arsenic mg/L

No Data Available for Barium mg/L

No Data Available for Copper mg/L

PZ13

PZ13

PZ13

No Data Available for Iron mg/L

No Data Available for Lead mg/L

No Data Available for Manganese mg/L

PZ13

PZ13

PZ13

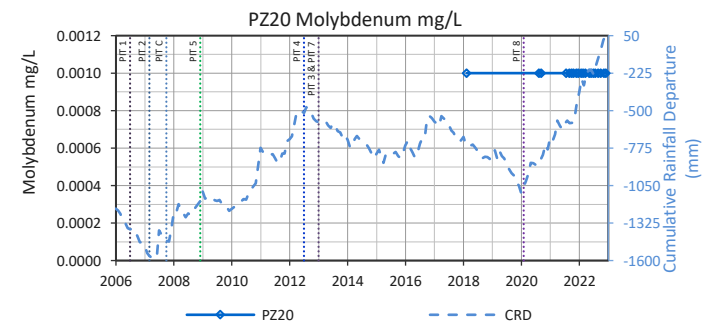
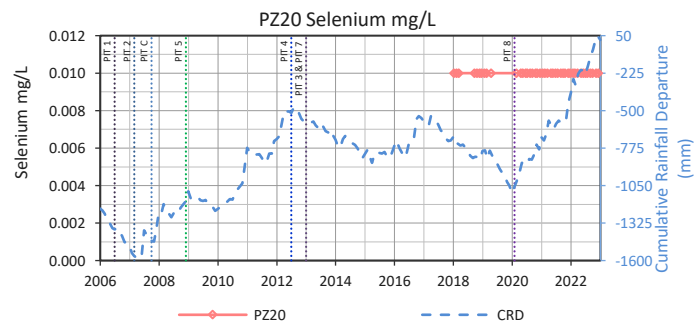
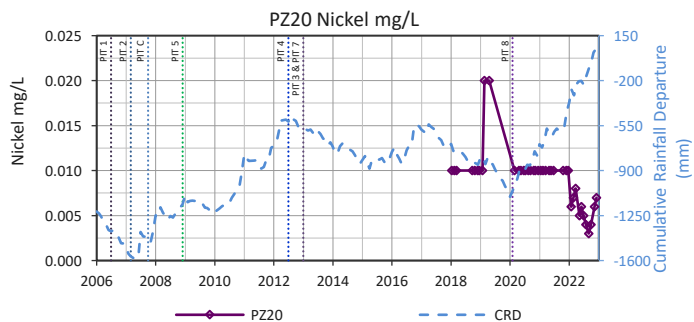
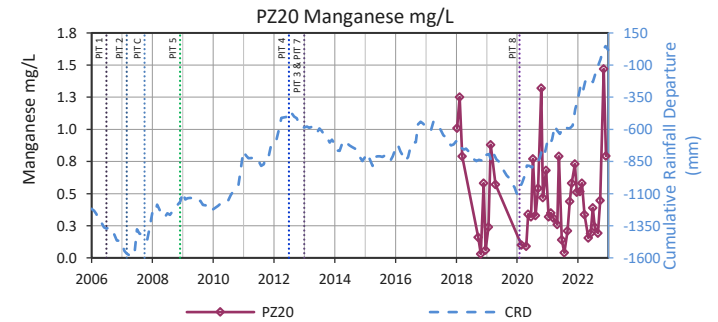
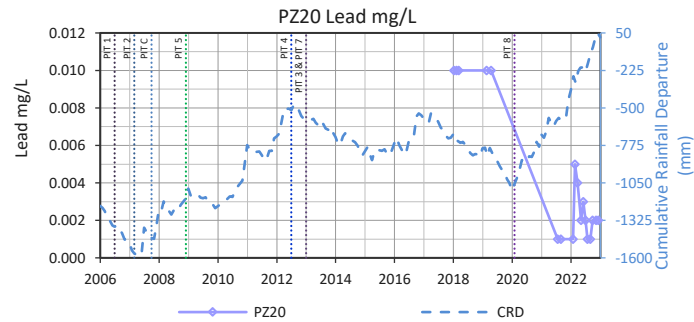
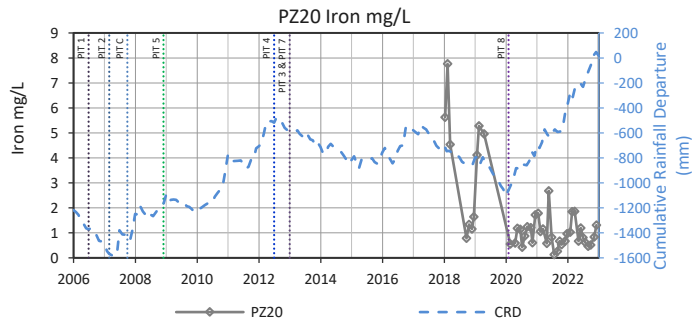
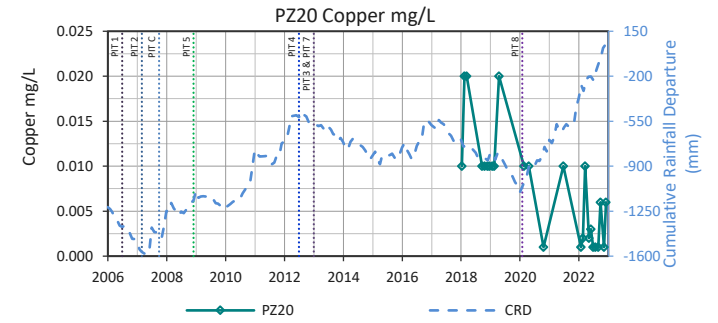
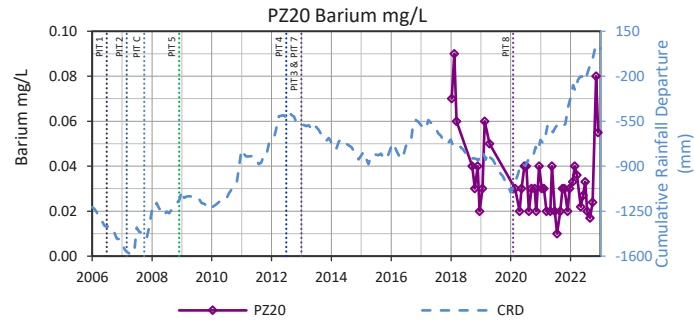
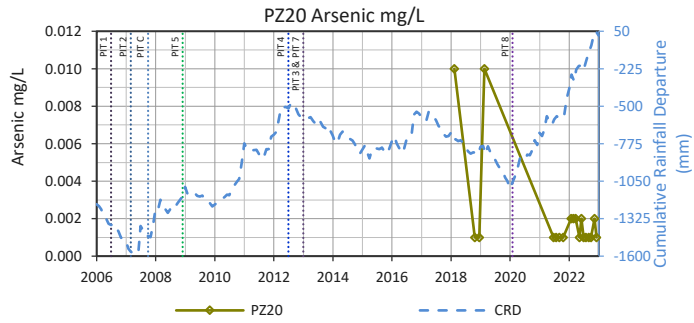
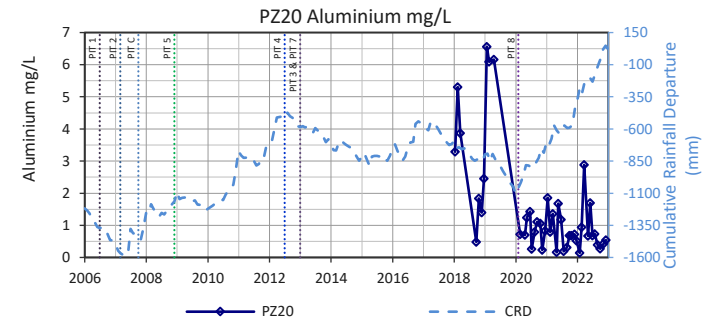
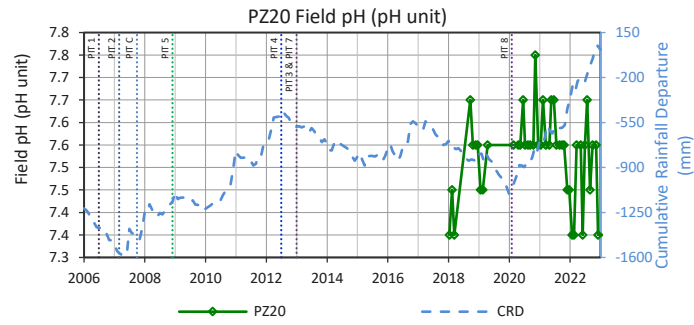
No Data Available for Nickel mg/L

No Data Available for Selenium mg/L

No Data Available for Molybdenum mg/L

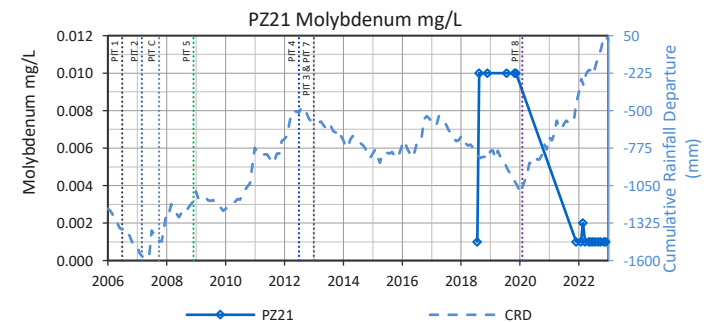
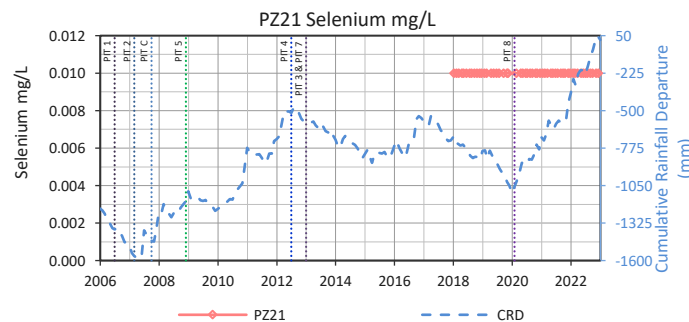
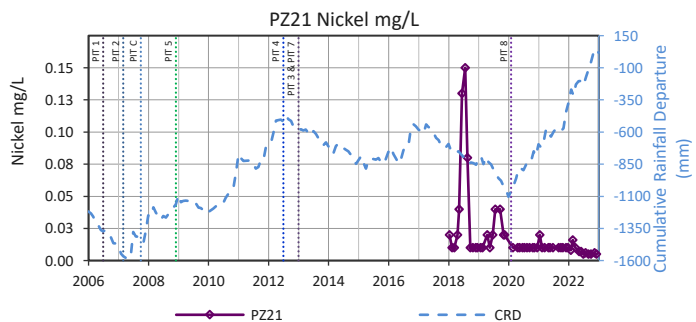
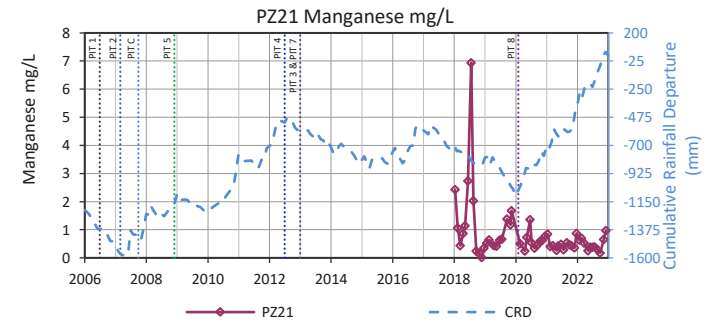
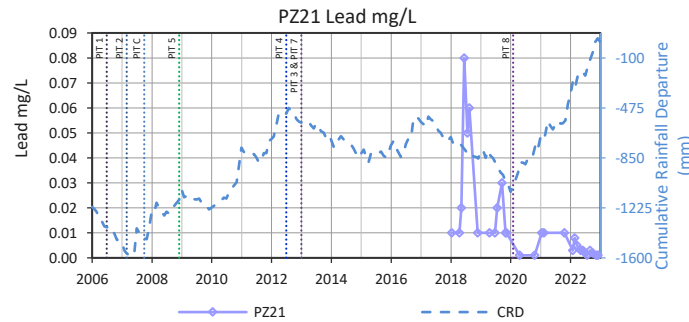
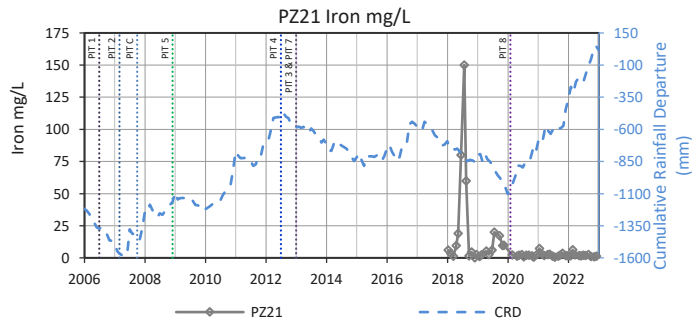
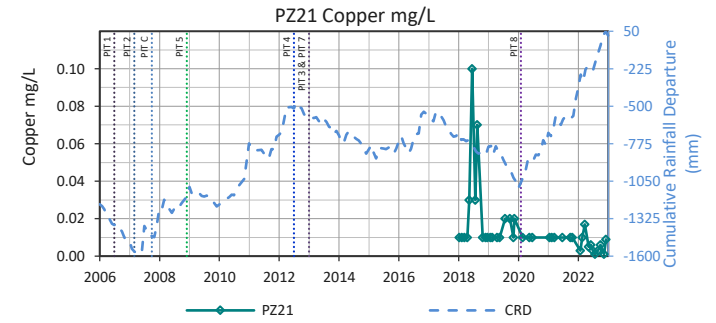
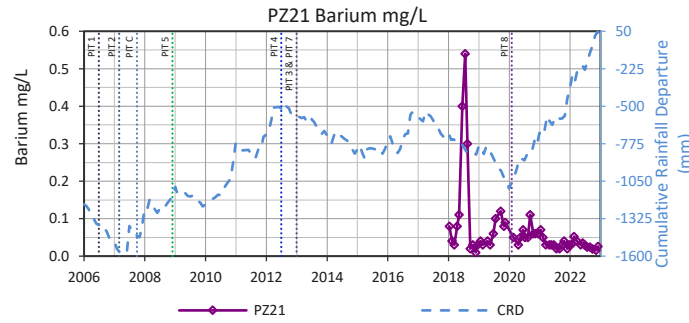
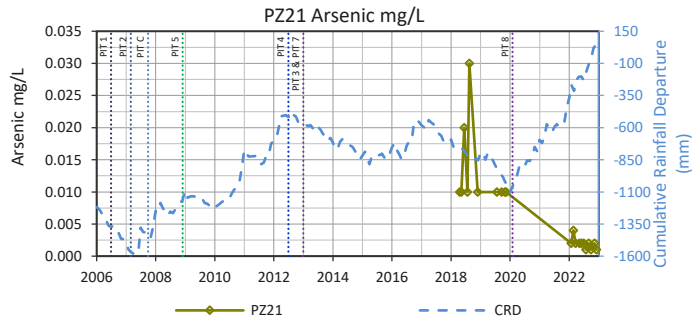
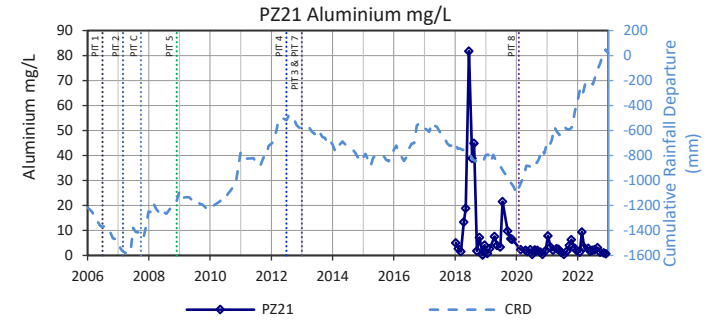
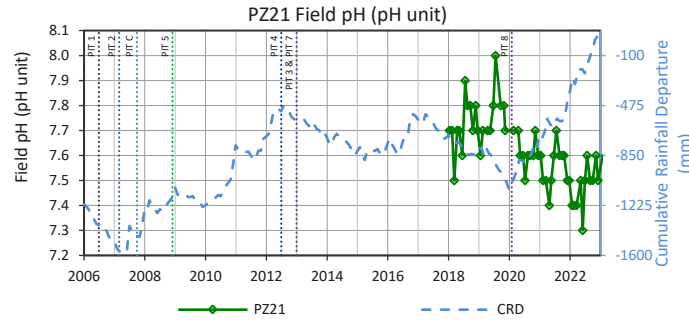
PZ20

No Data Available for Groundwater Elevation (mAHD)



PZ21

No Data Available for Groundwater Elevation (mAHD)



PZ26

No Data Available for Groundwater Elevation (mAHD)

PZ26

No Data Available for Field pH (pH unit)

PZ26

No Data Available for Aluminium mg/L

PZ26

No Data Available for Arsenic mg/L

PZ26

No Data Available for Barium mg/L

PZ26

No Data Available for Copper mg/L

PZ26

No Data Available for Iron mg/L

PZ26

No Data Available for Lead mg/L

PZ26

No Data Available for Manganese mg/L

PZ26

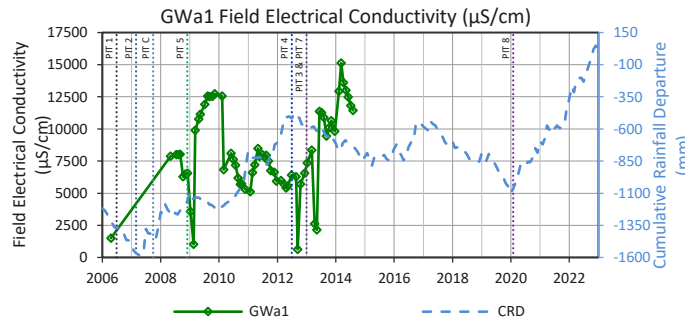
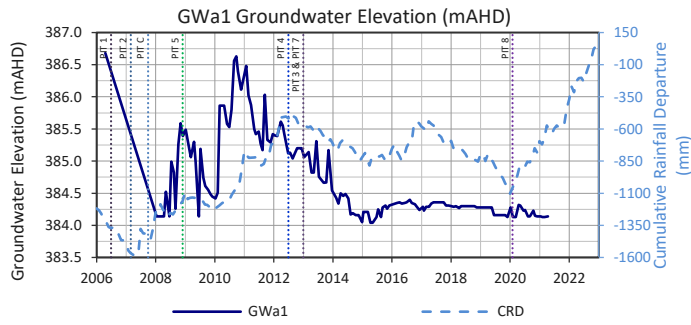
No Data Available for Nickel mg/L

PZ26

No Data Available for Selenium mg/L

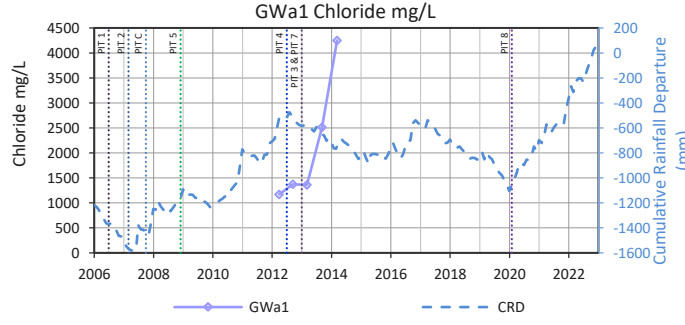
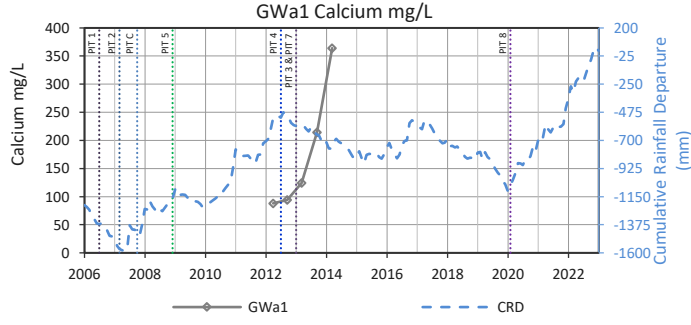
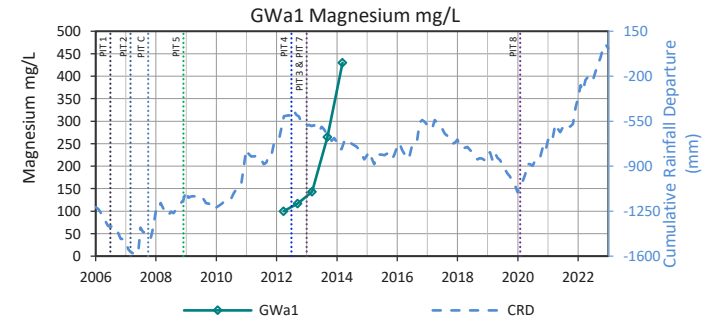
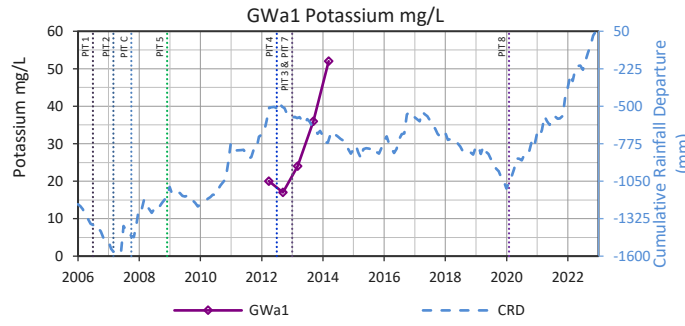
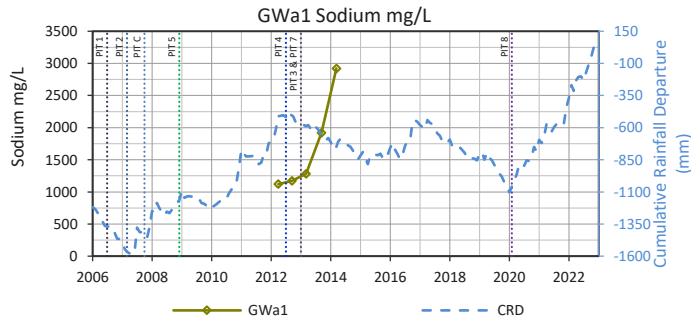
PZ26

No Data Available for Molybdenum mg/L



GWa1

No Data Available for Total Dissolved Solids mg/L

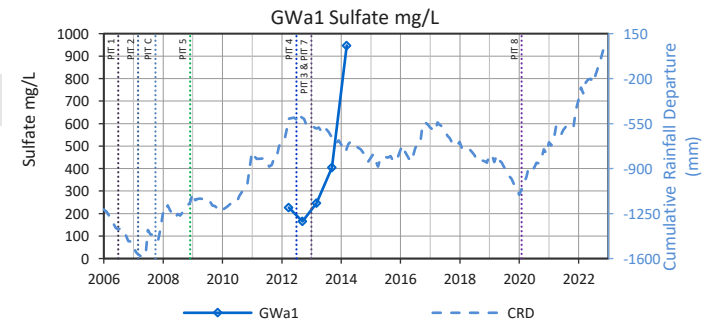


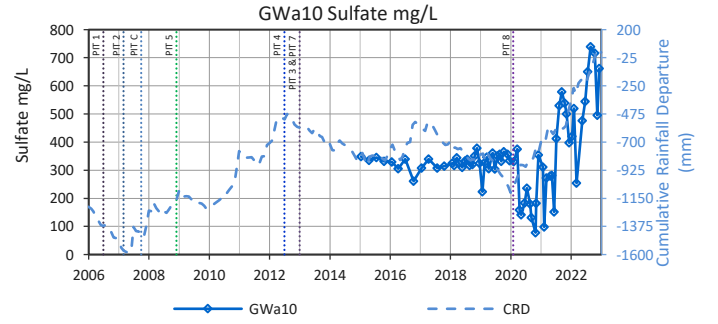
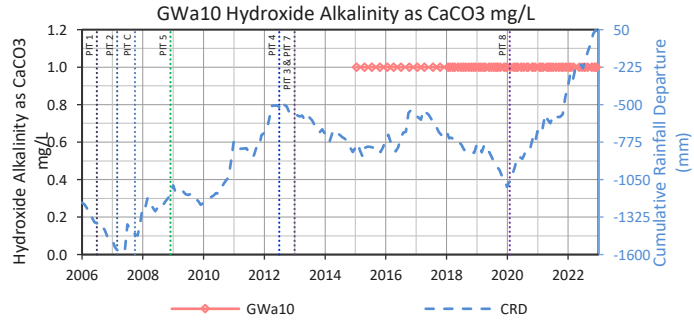
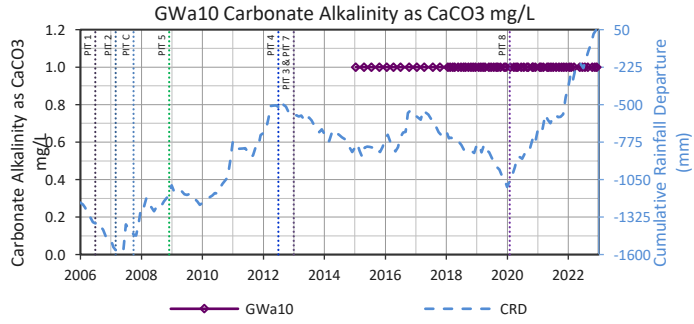
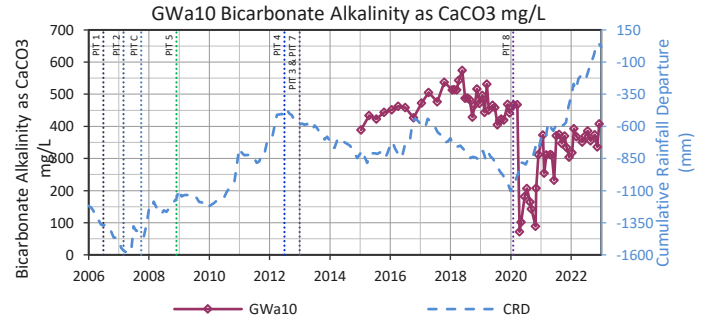
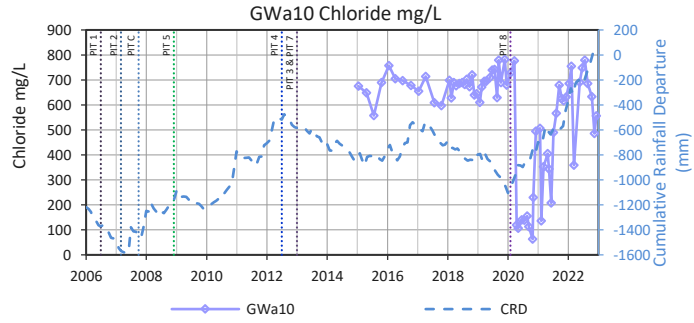
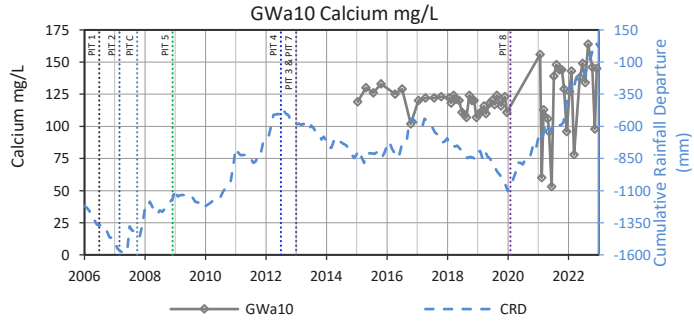
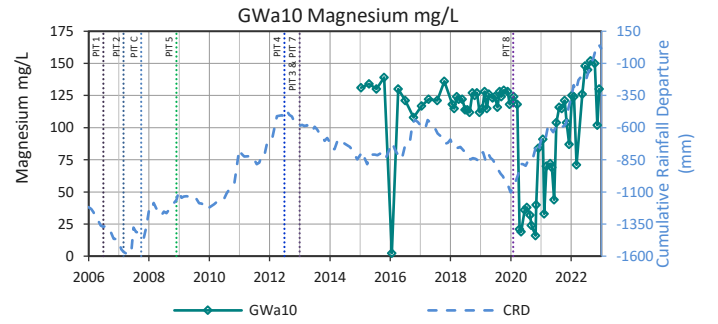
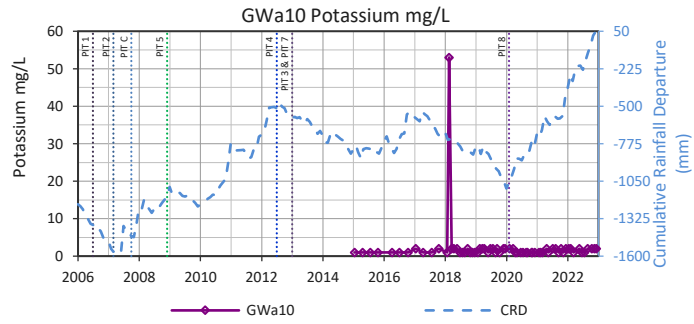
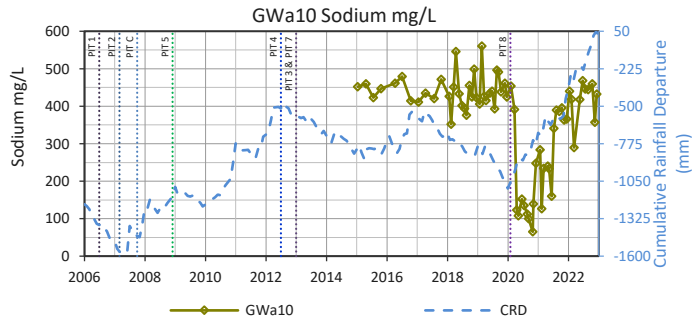
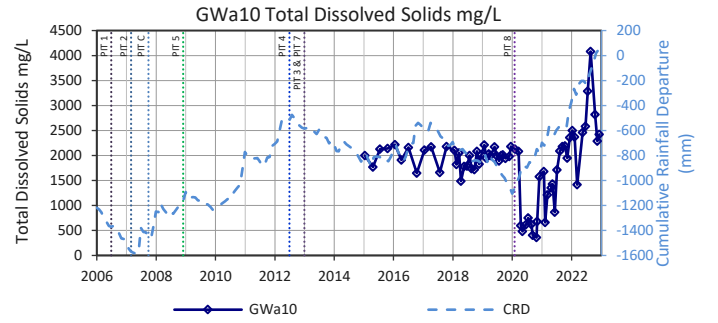
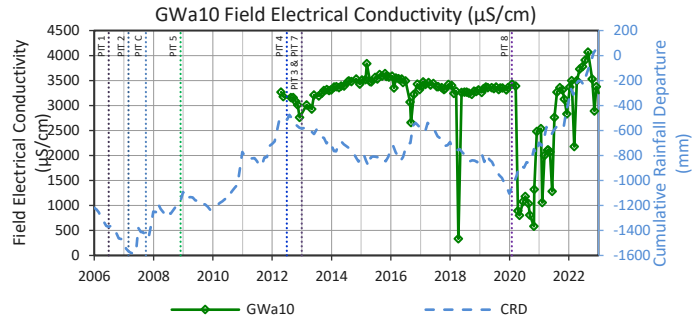
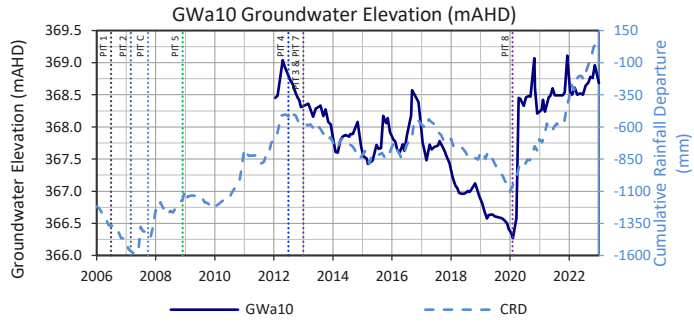
GWa1

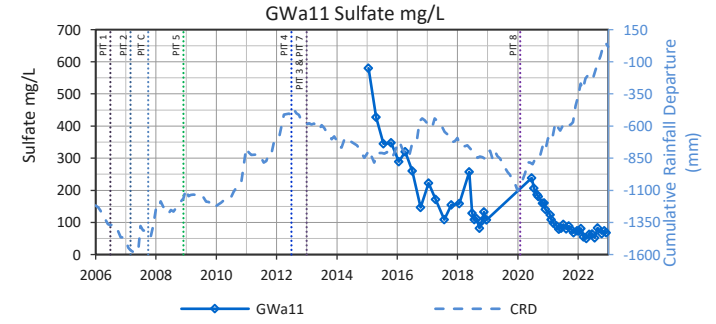
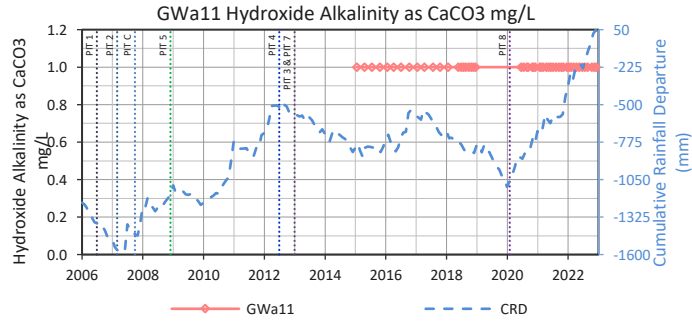
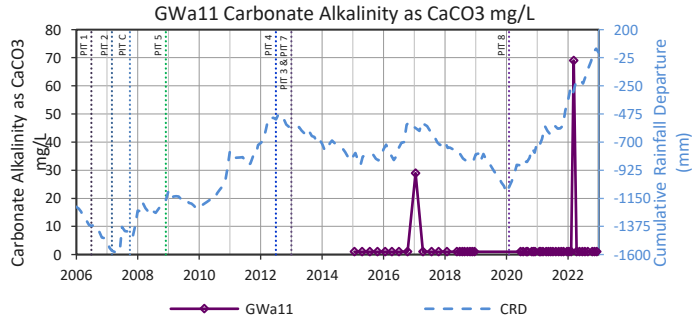
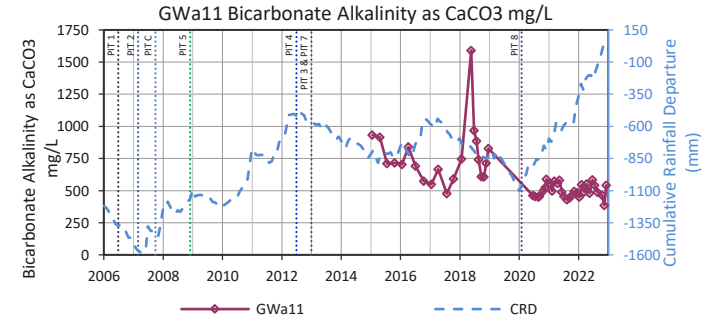
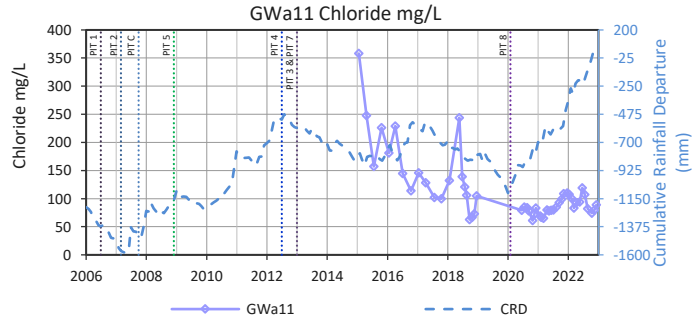
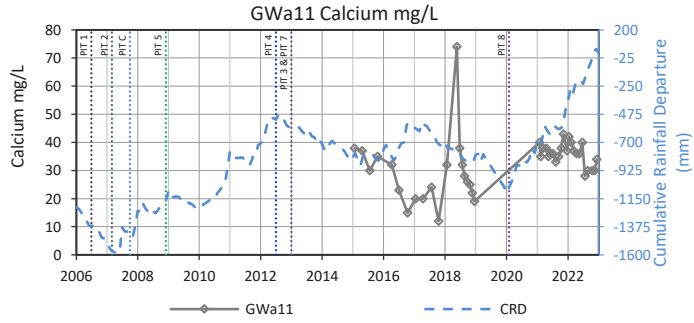
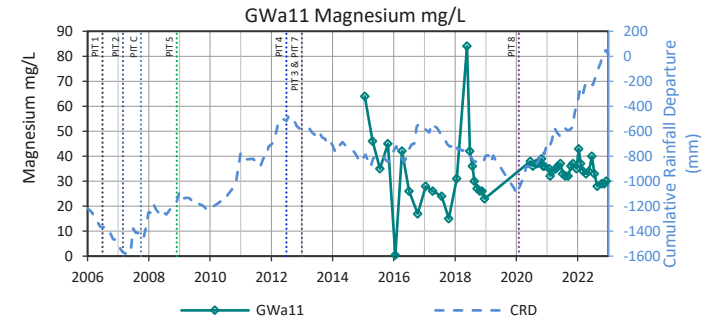
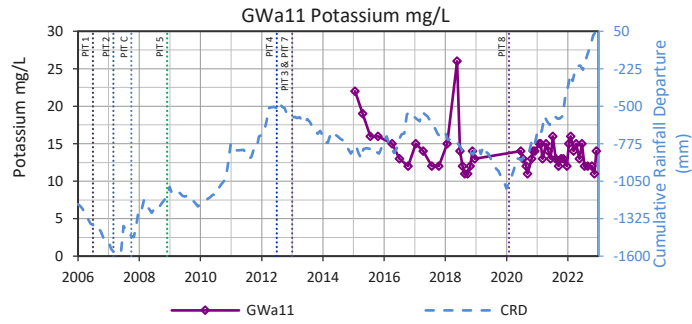
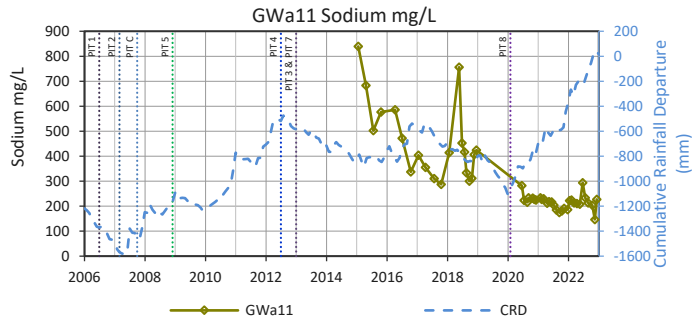
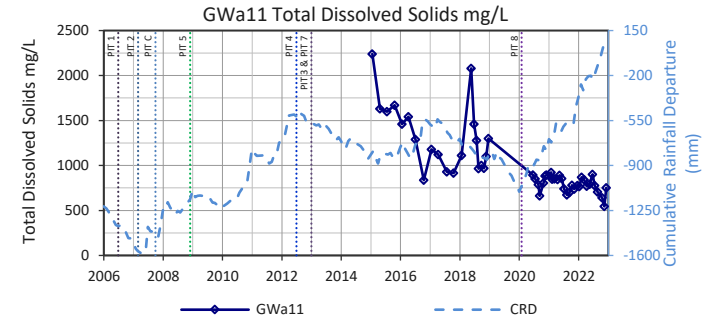
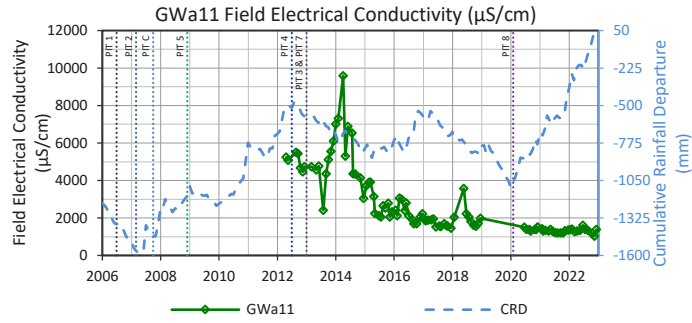
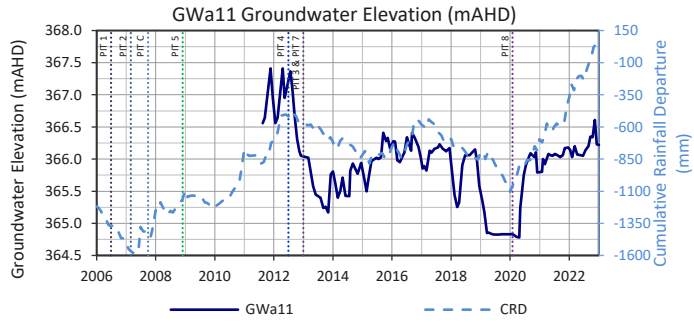
No Data Available for Bicarbonate Alkalinity as CaCO3 mg/L

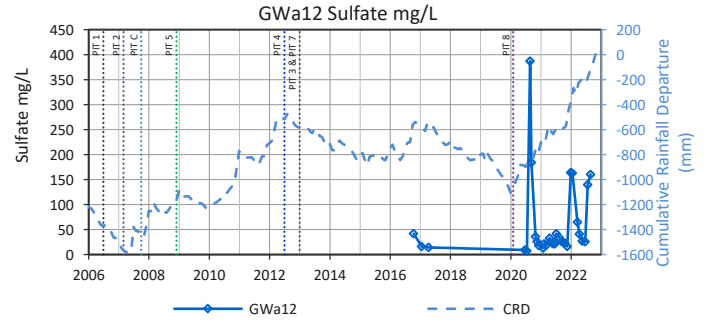
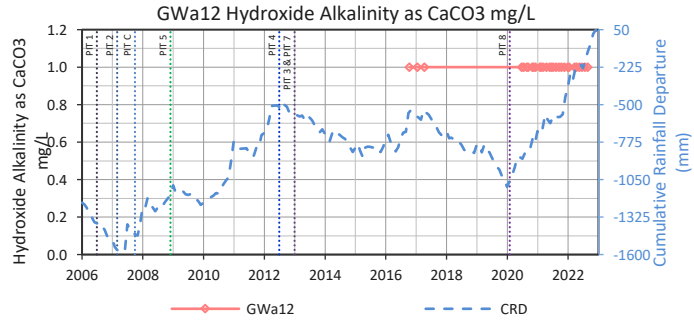
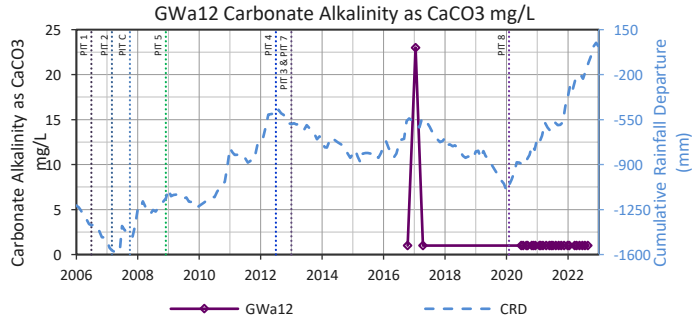
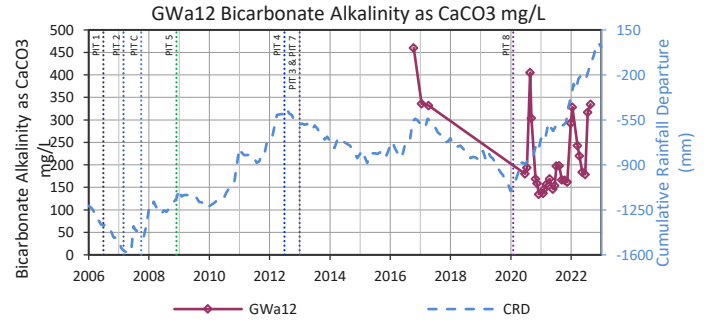
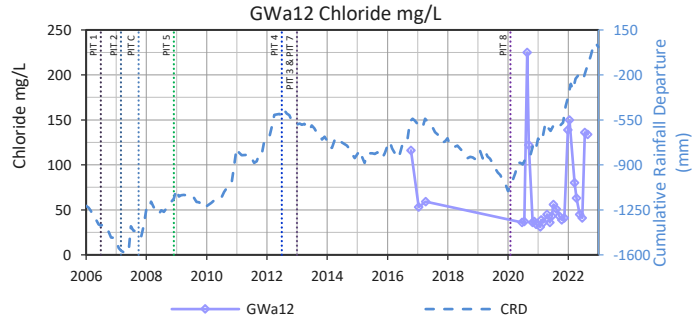
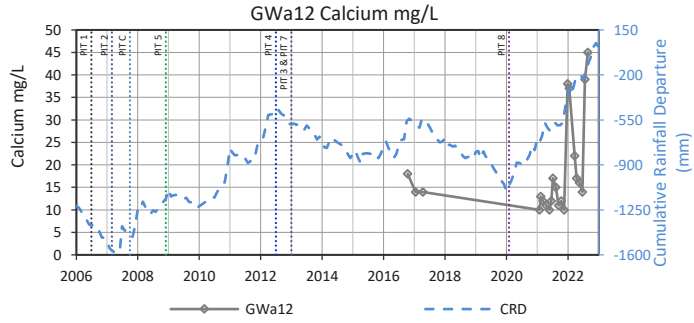
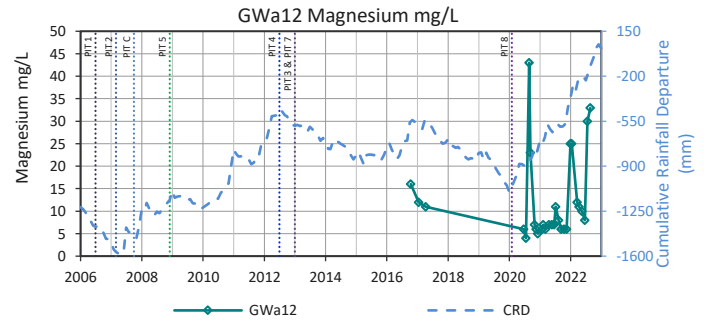
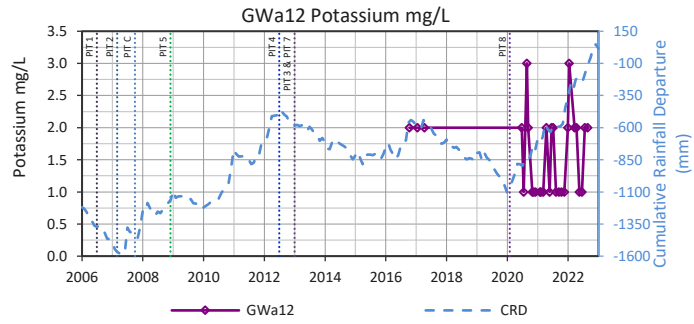
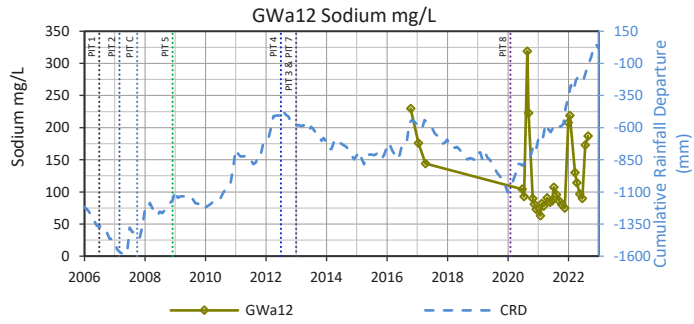
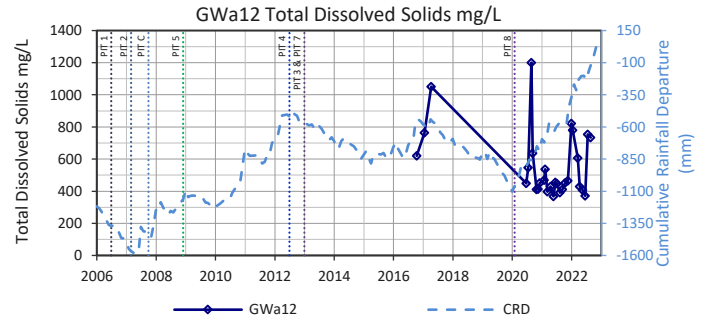
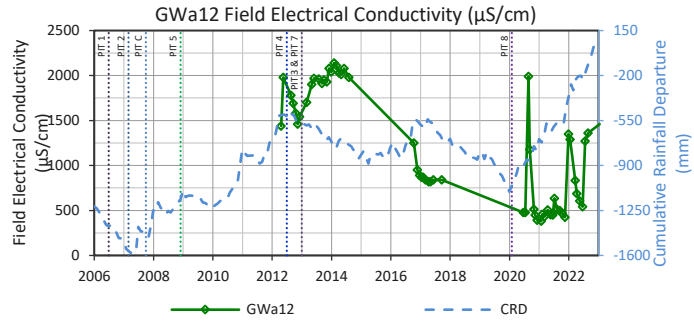
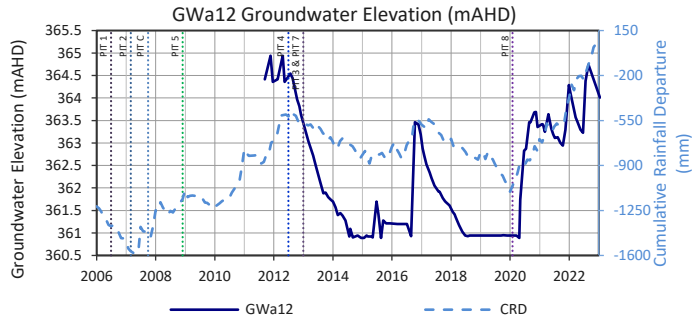
No Data Available for Carbonate Alkalinity as CaCO3 mg/L

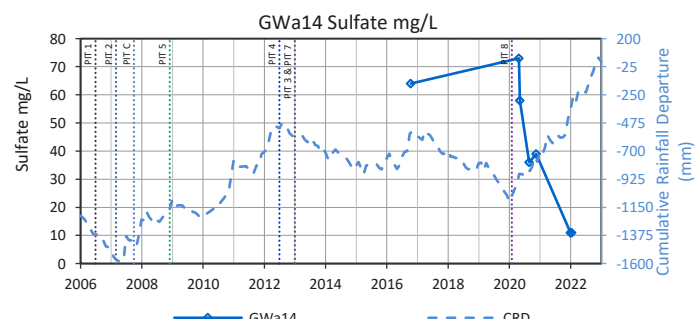
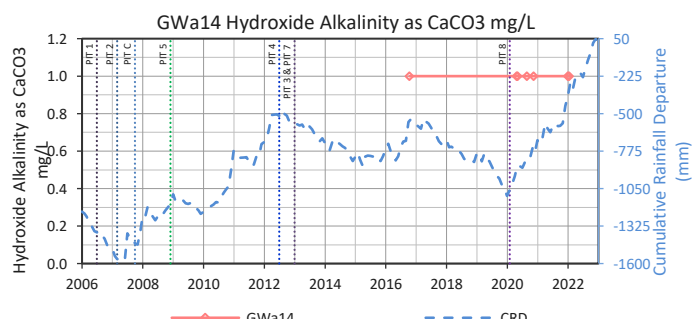
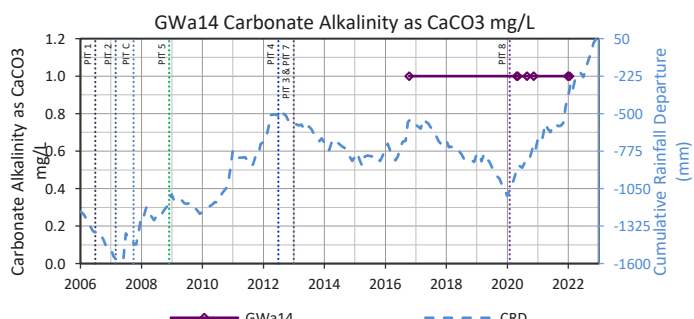
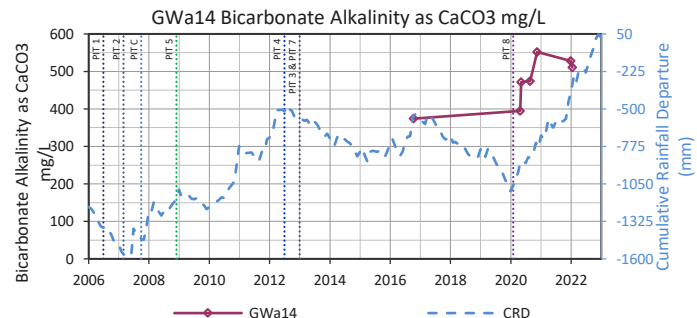
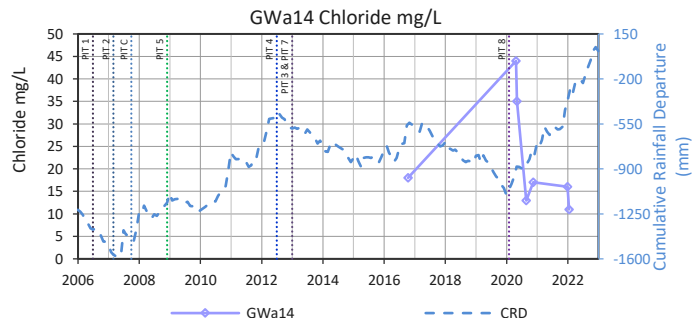
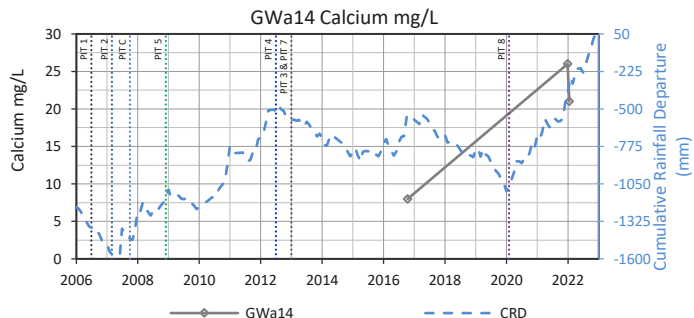
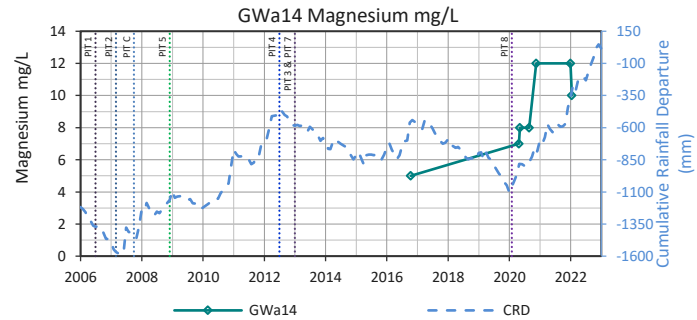
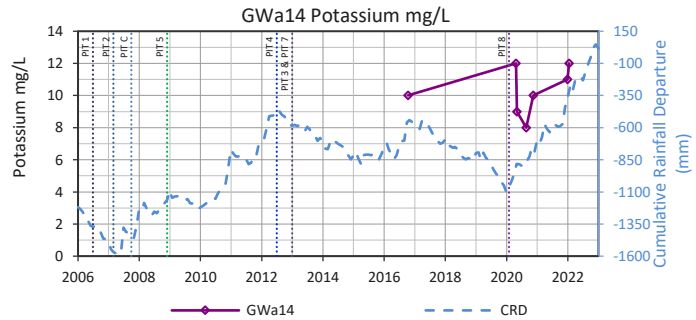
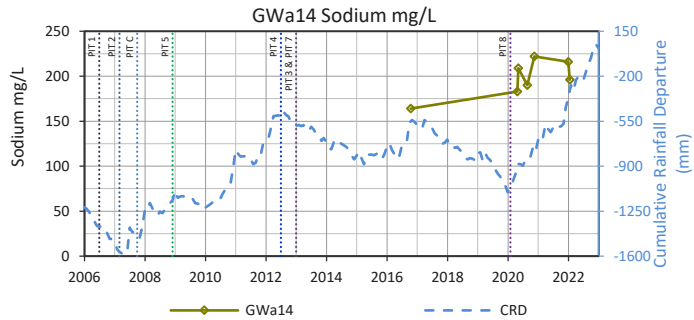
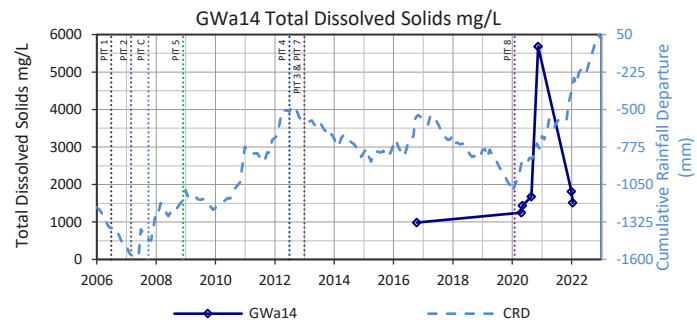
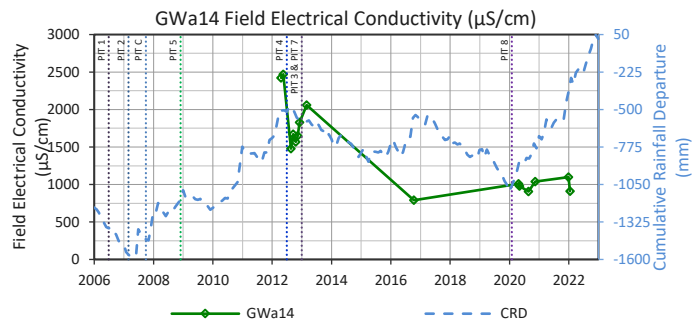
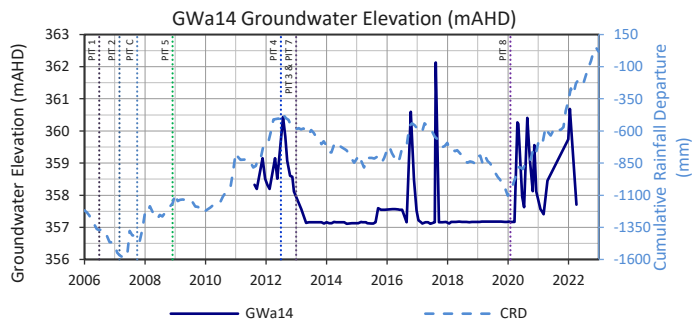
No Data Available for Hydroxide Alkalinity as CaCO3 mg/L

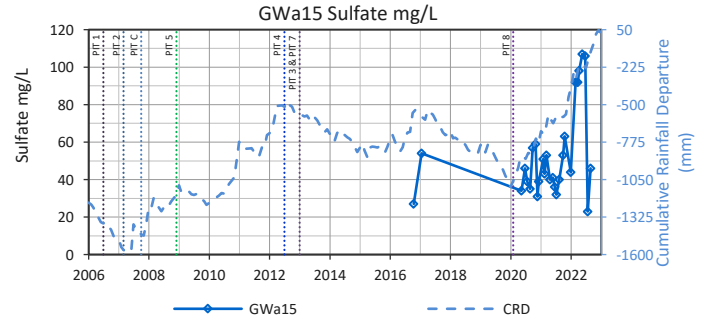
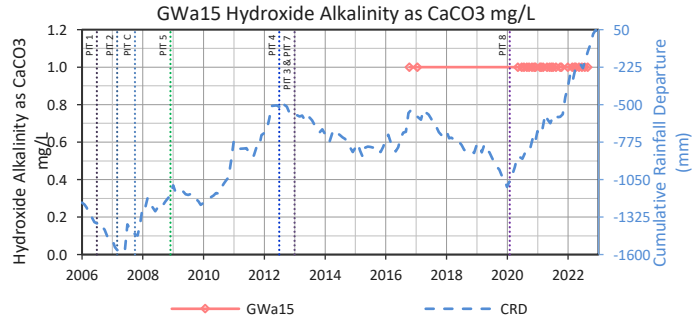
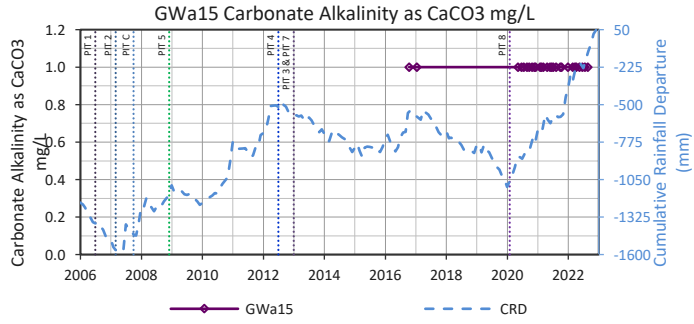
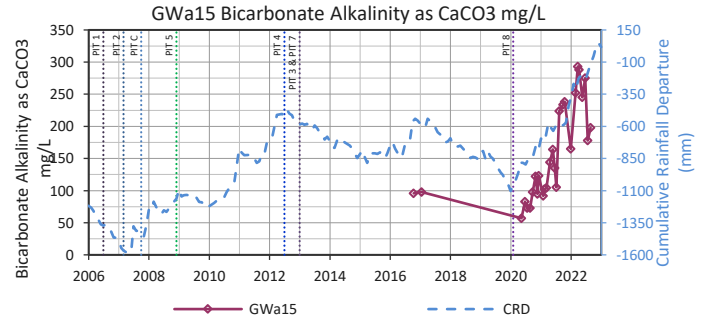
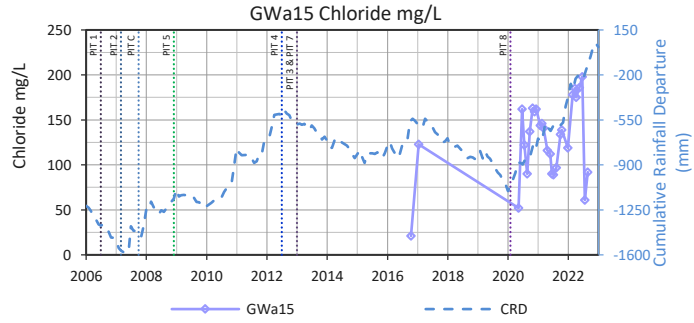
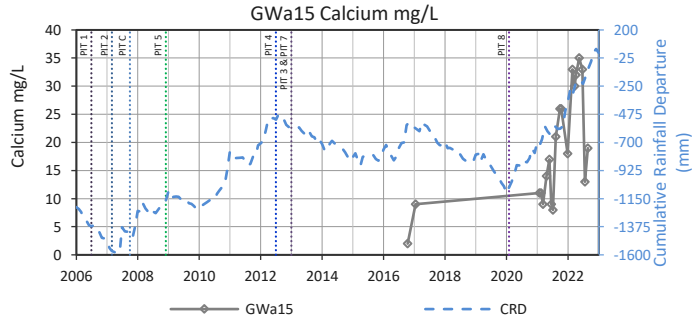
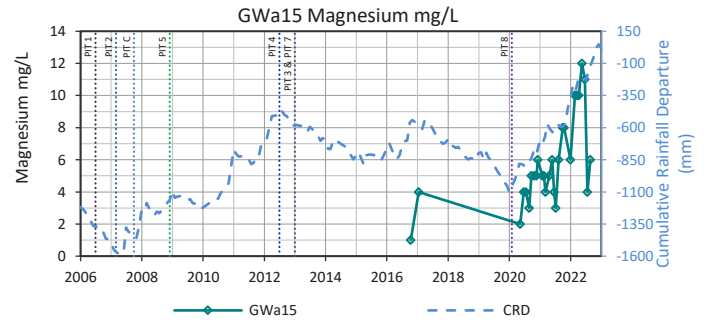
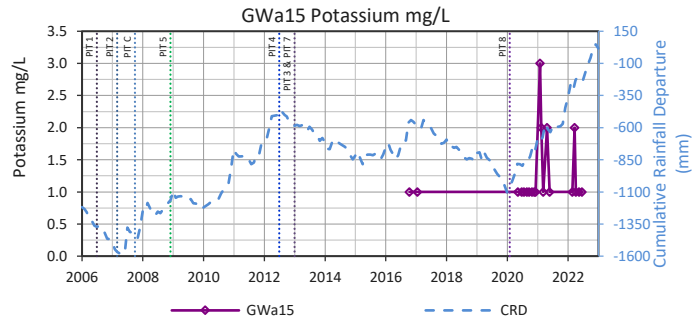
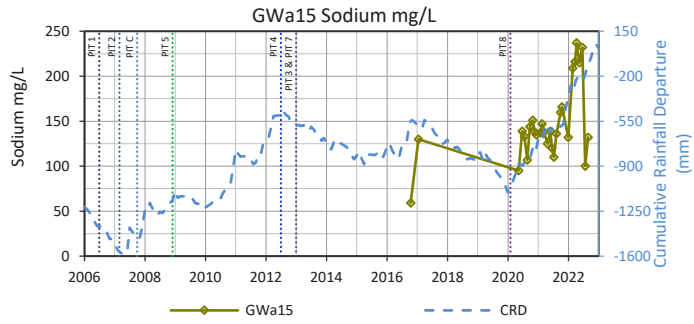
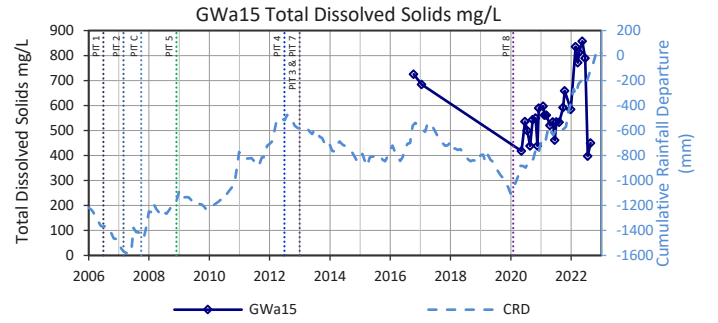
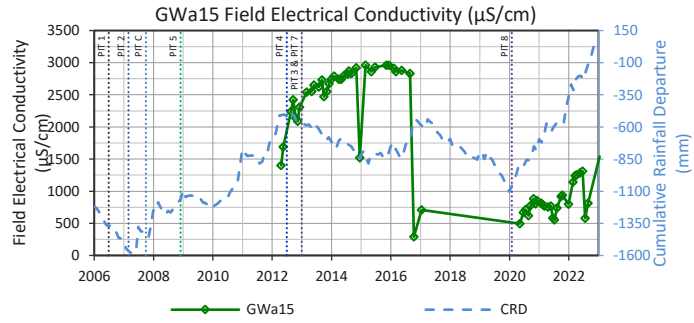
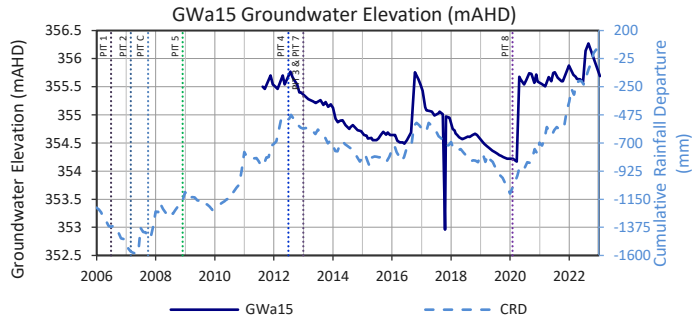


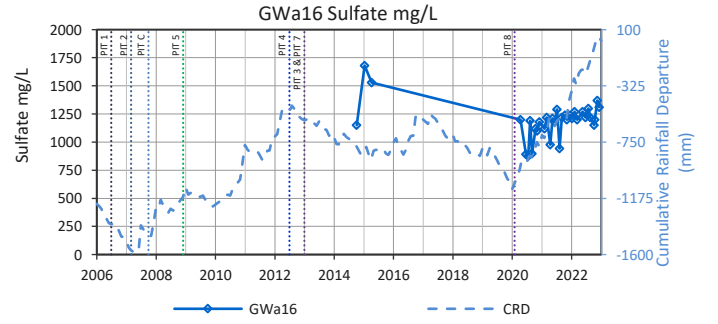
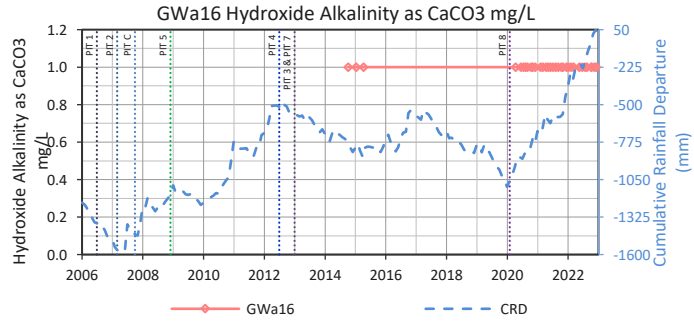
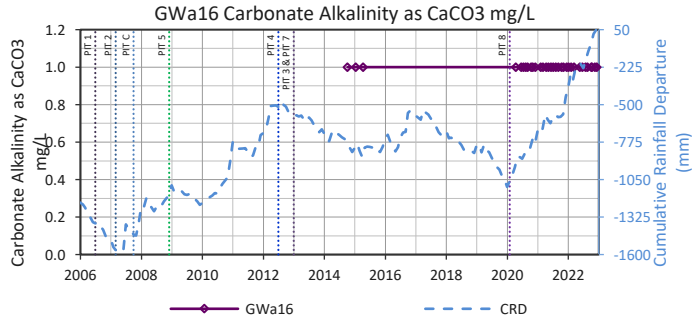
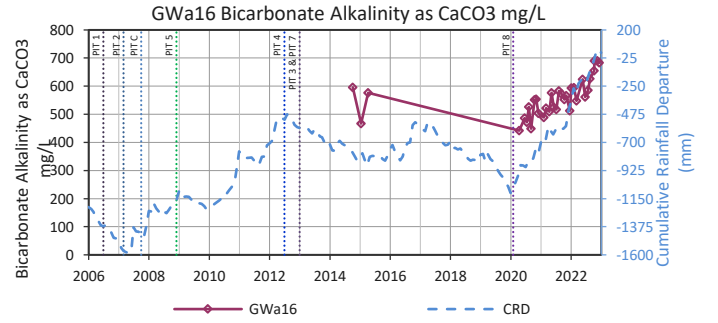
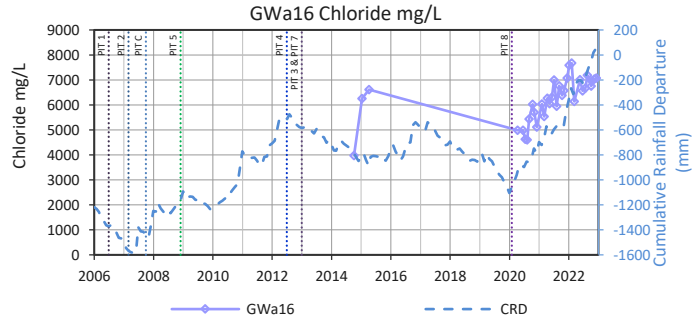
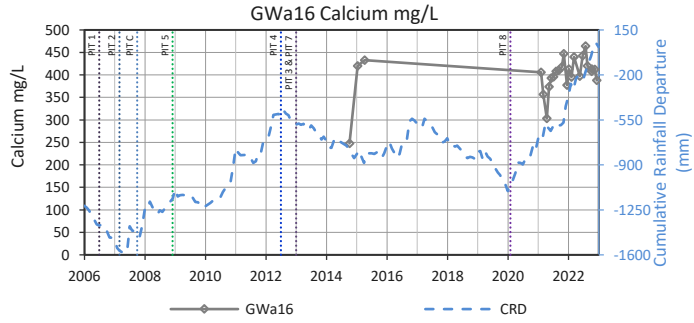
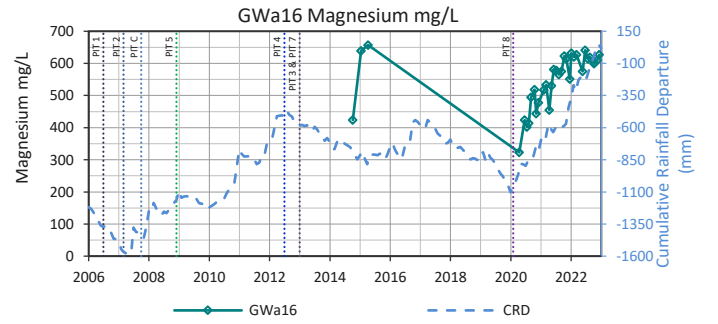
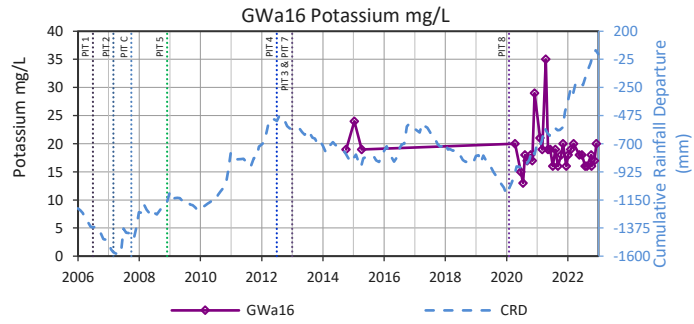
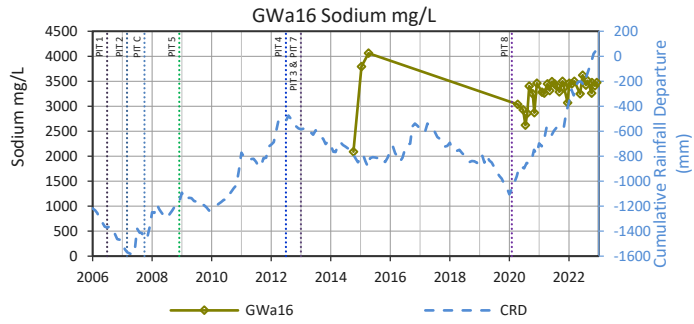
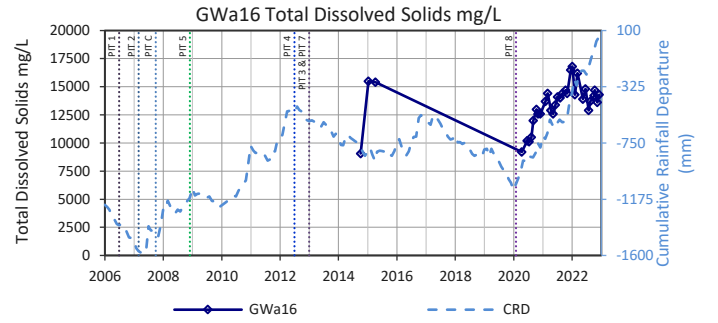
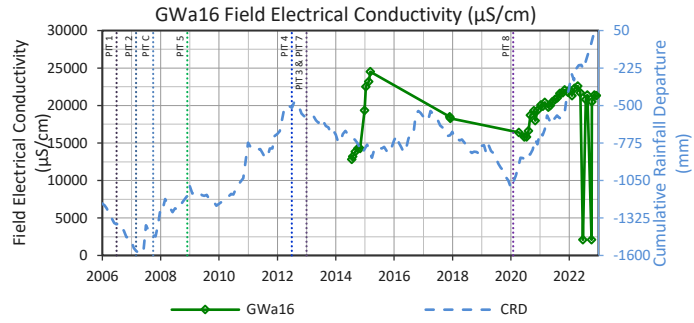
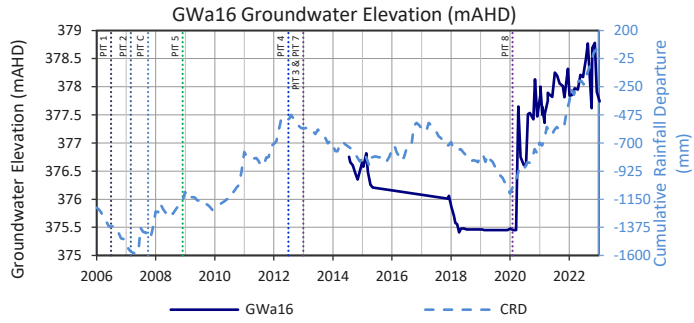


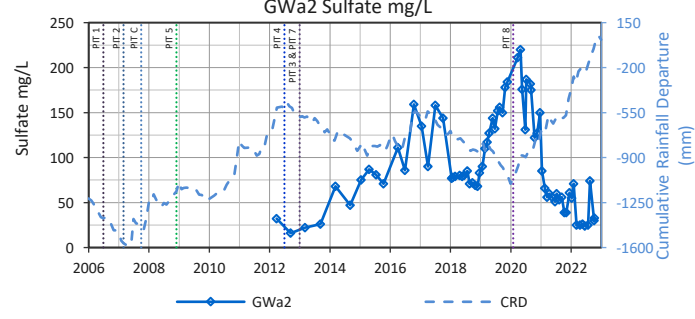
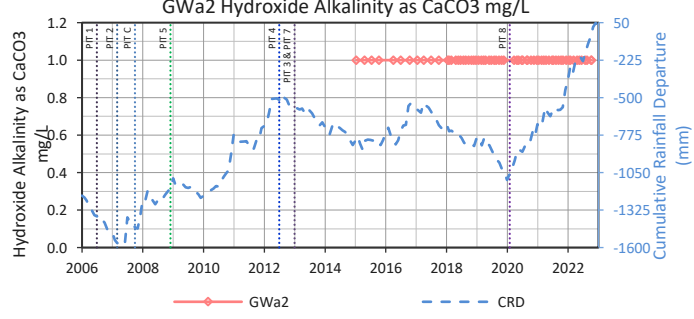
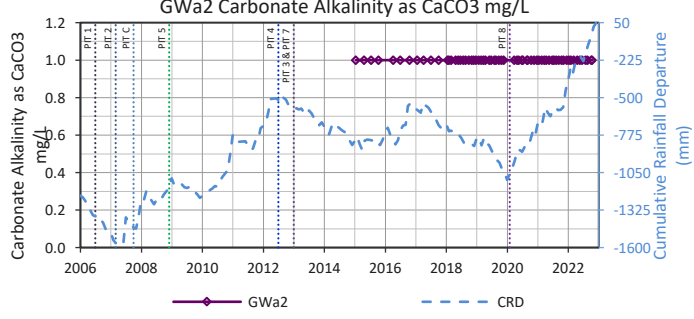
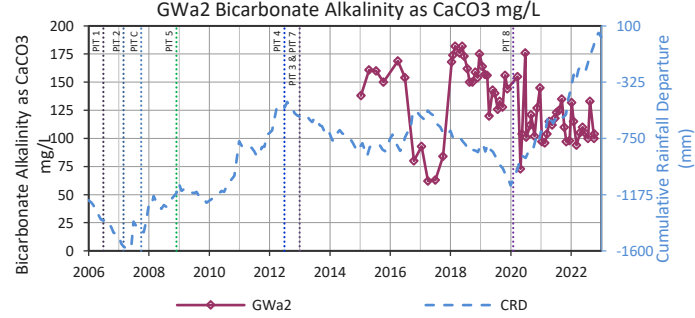
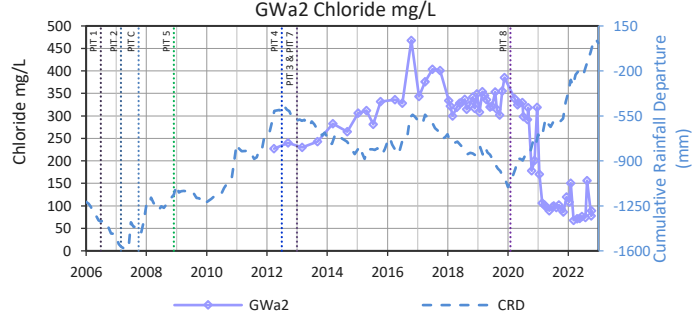
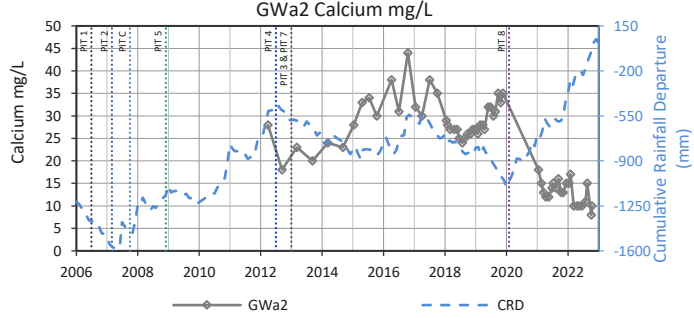
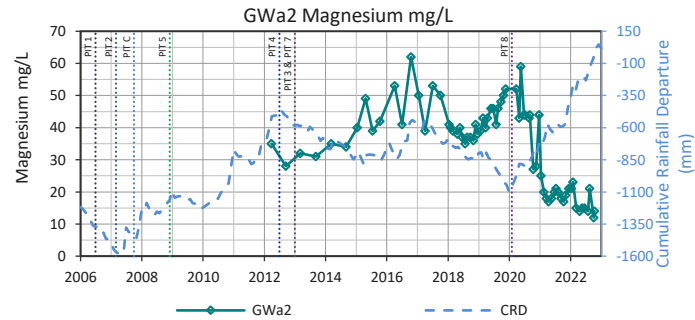
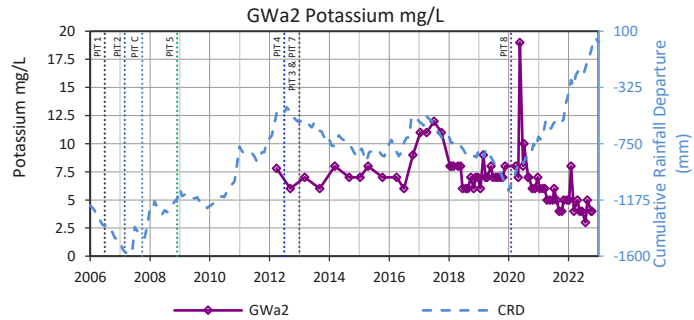
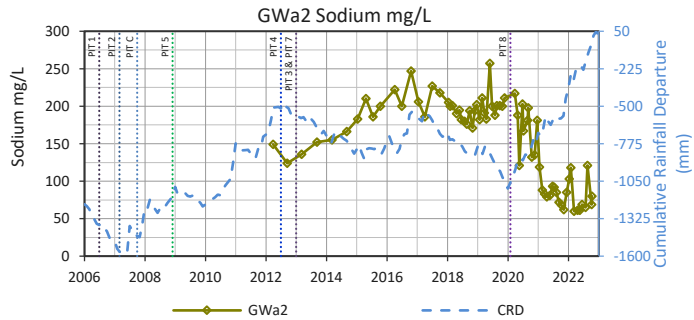
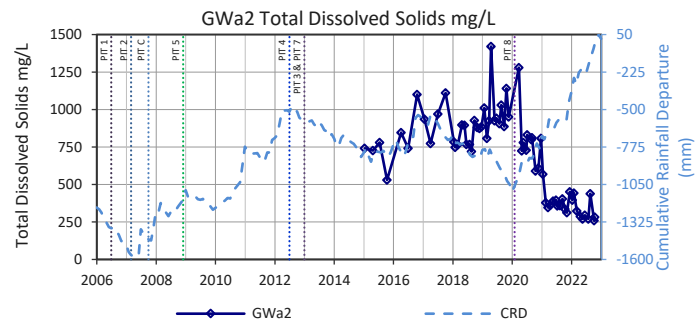
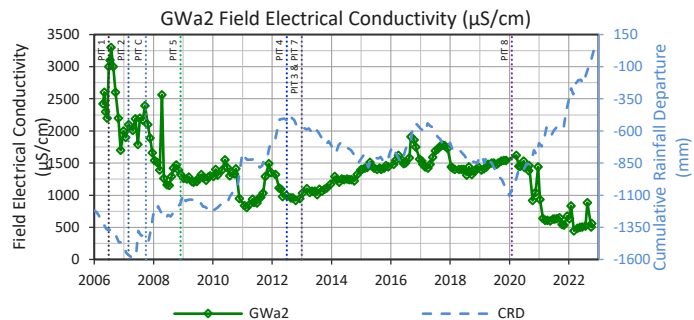
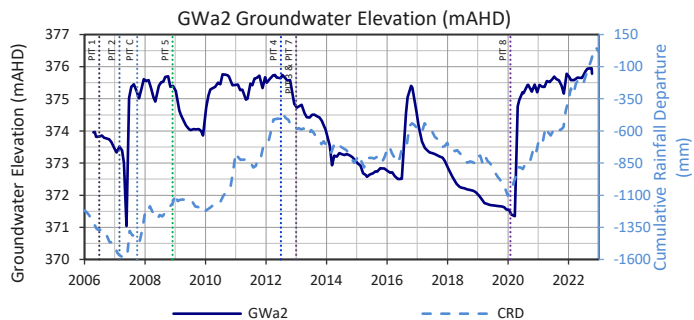


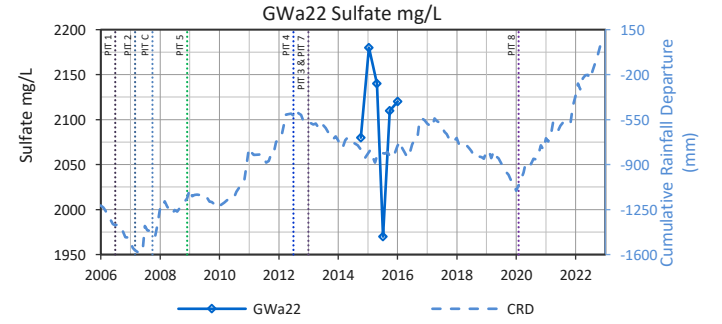
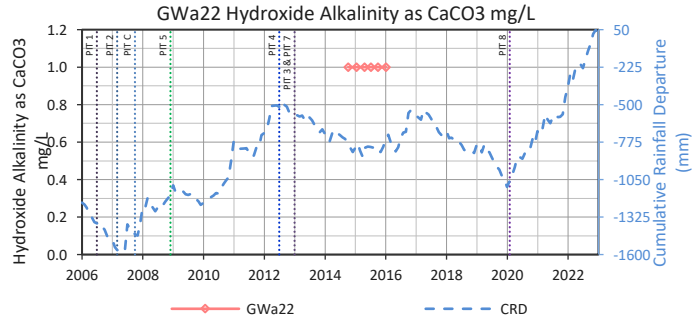
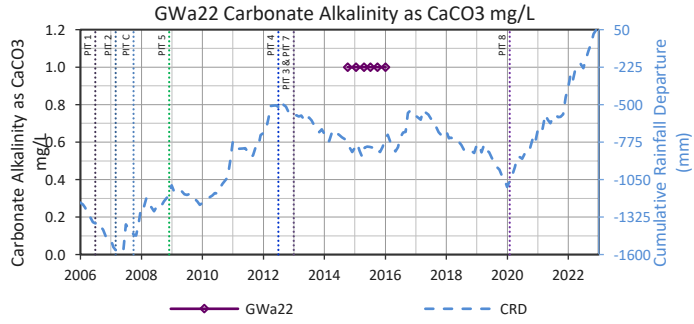
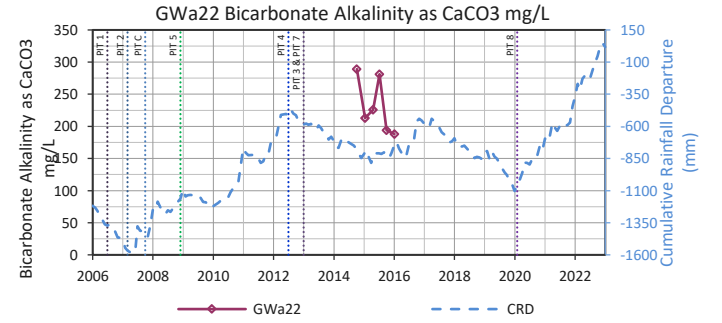
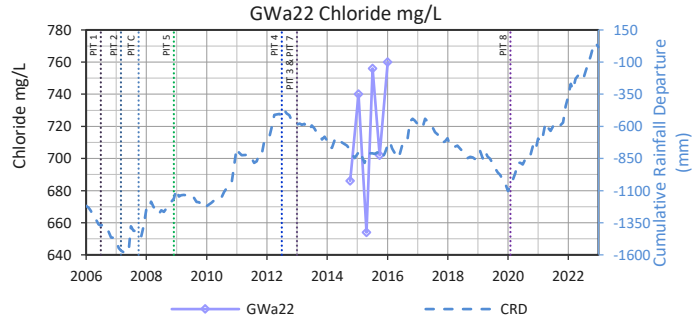
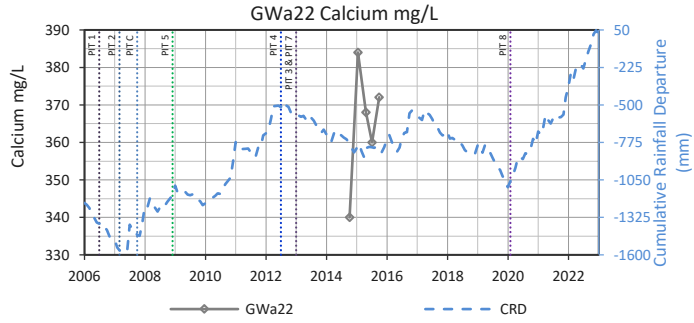
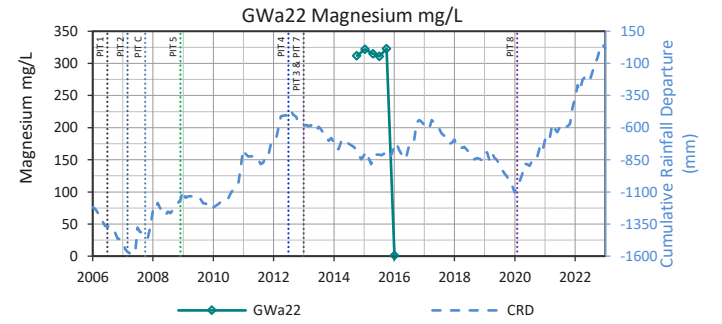
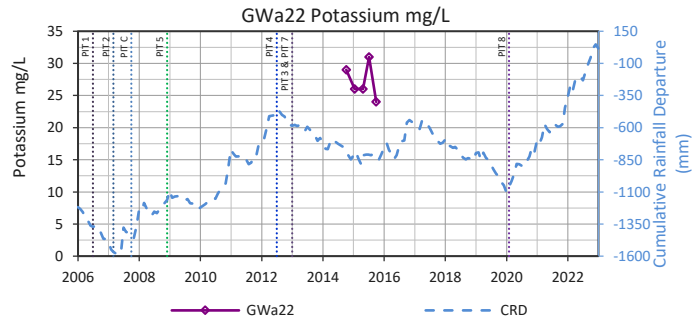
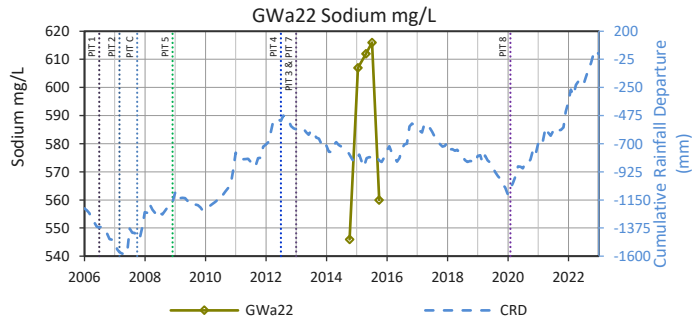
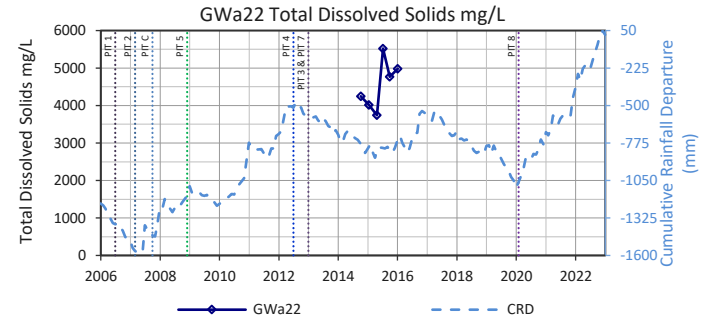
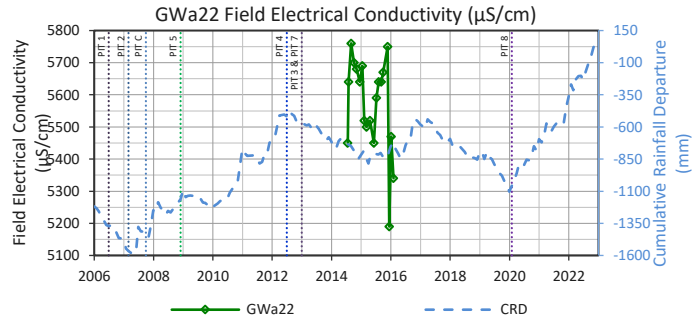
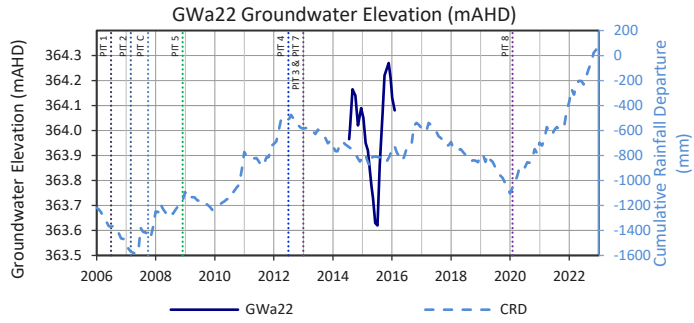


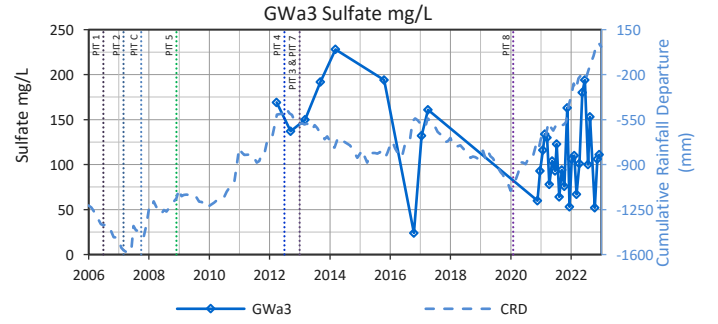
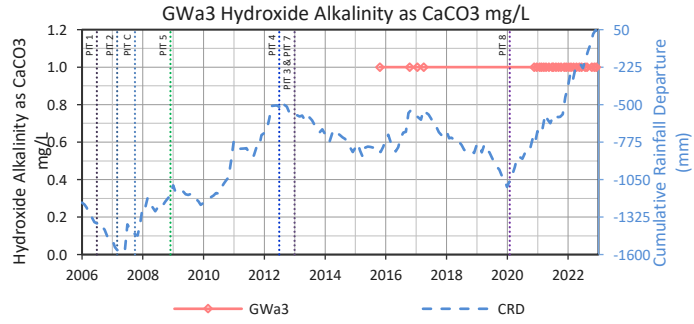
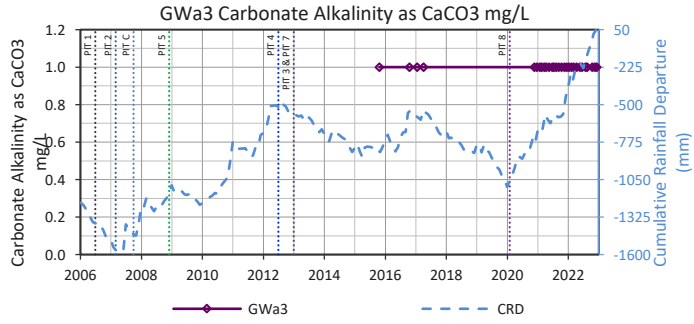
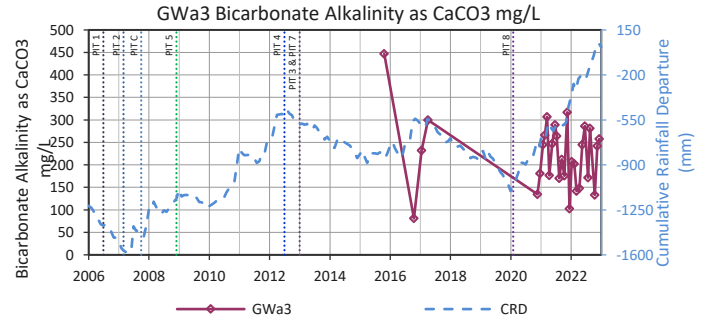
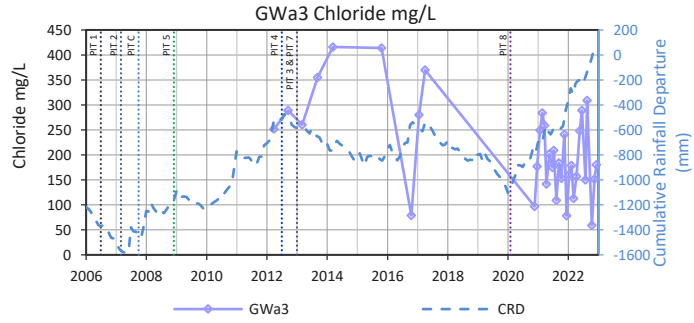
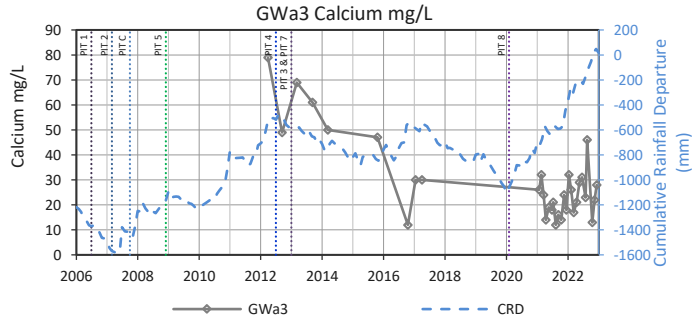
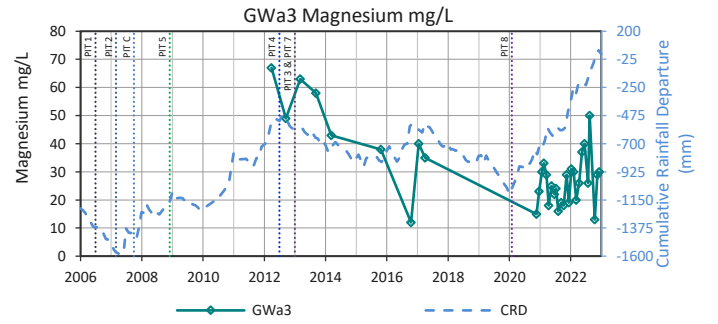
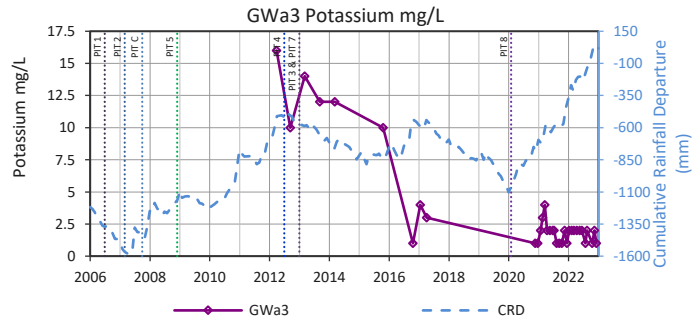
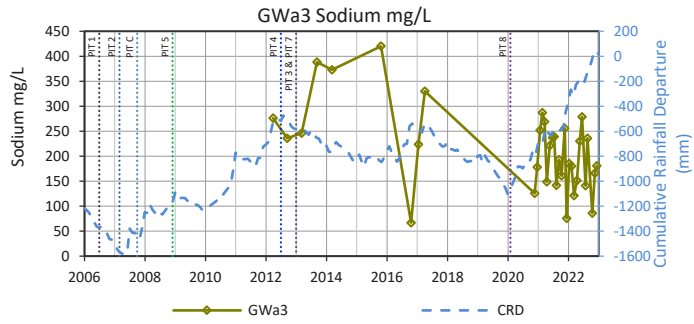
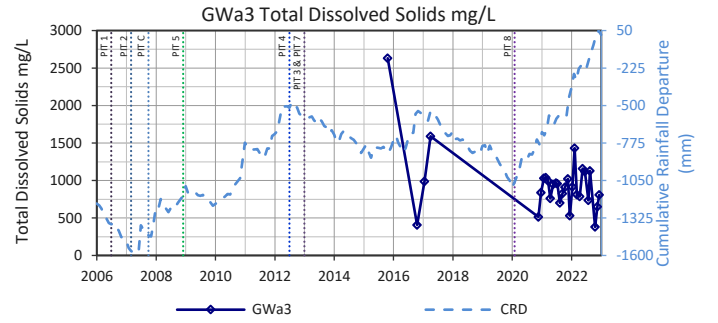
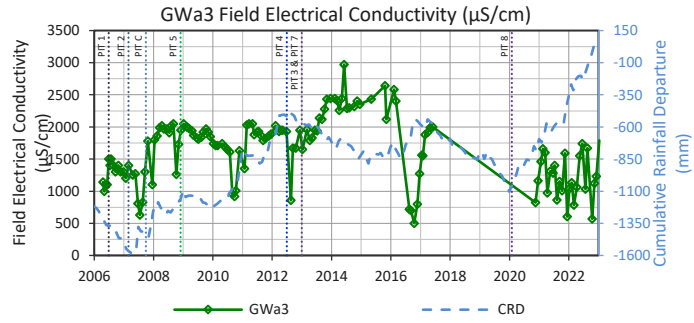
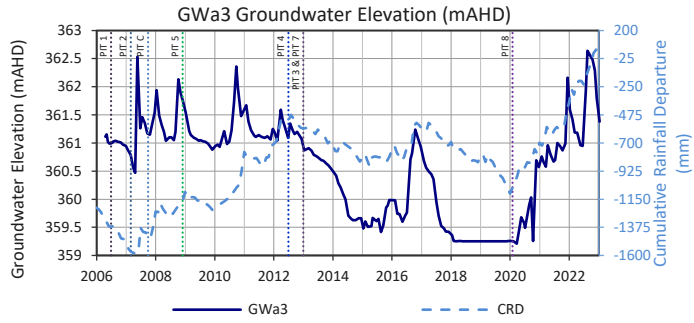


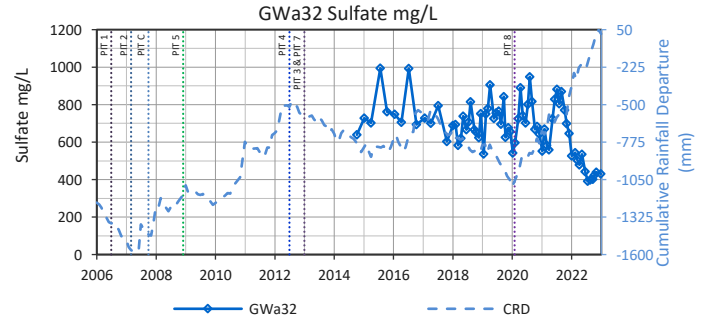
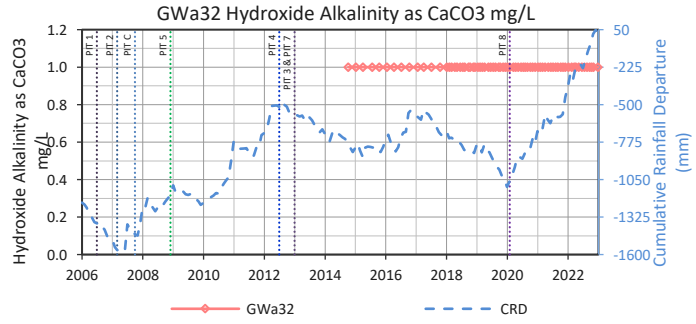
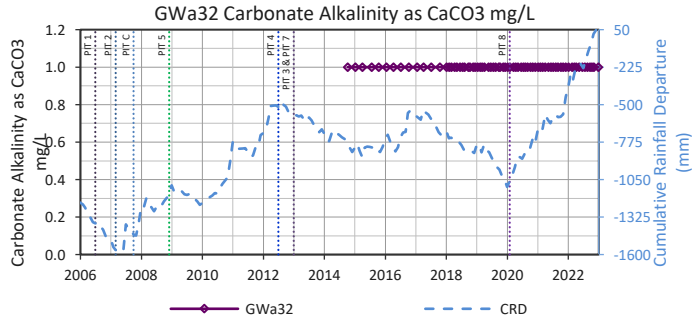
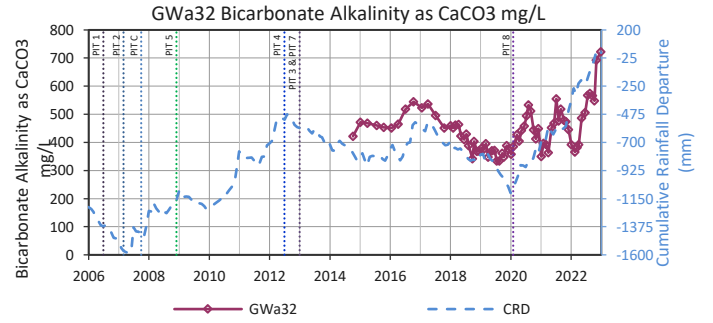
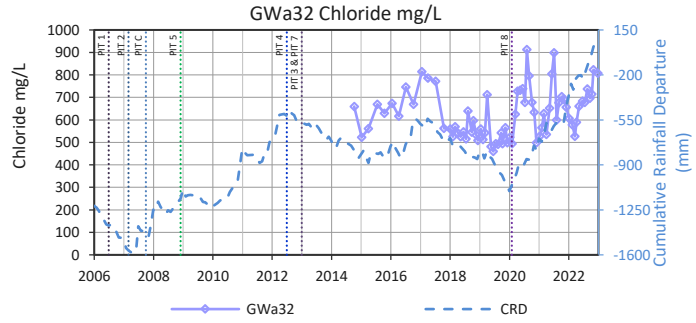
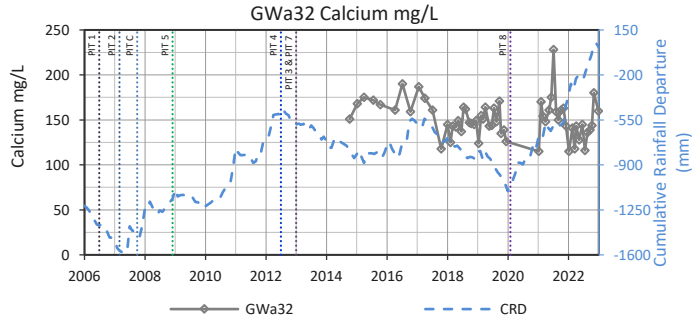
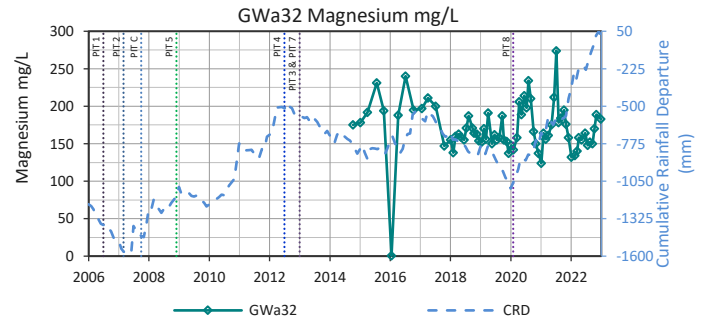
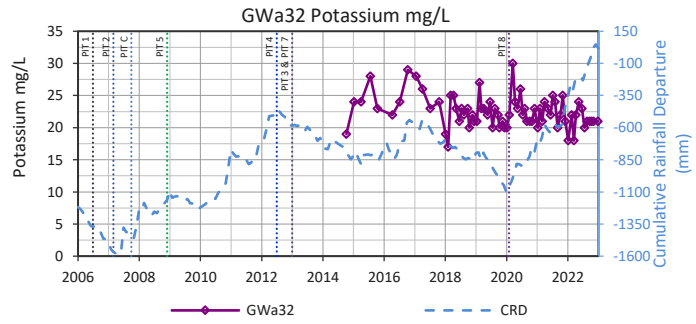
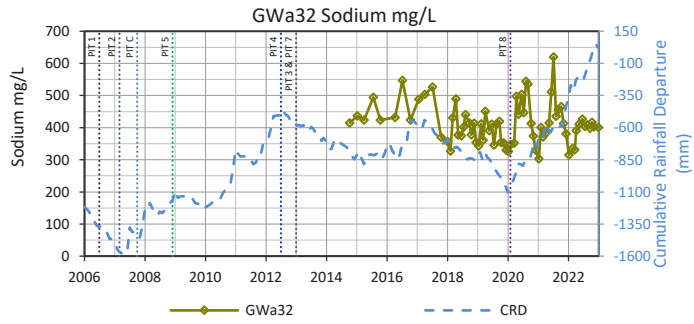
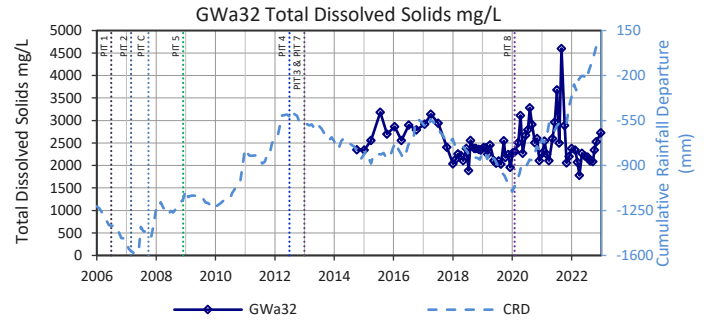
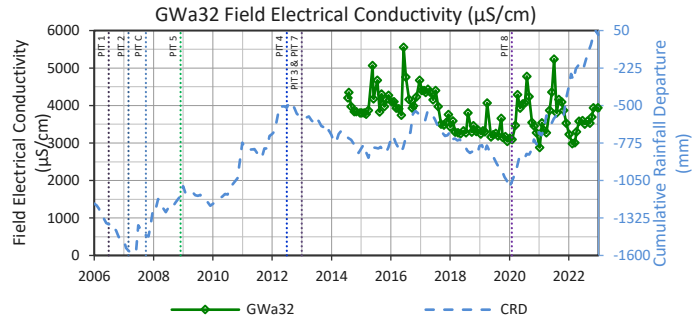
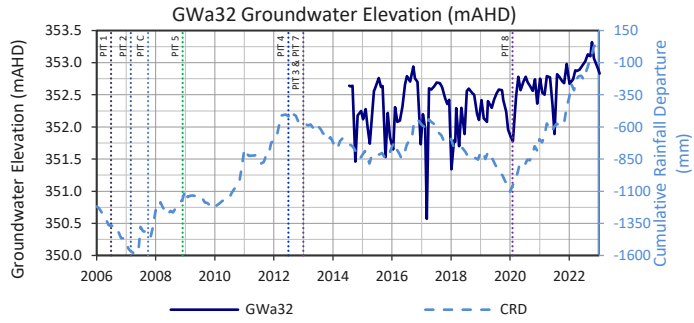


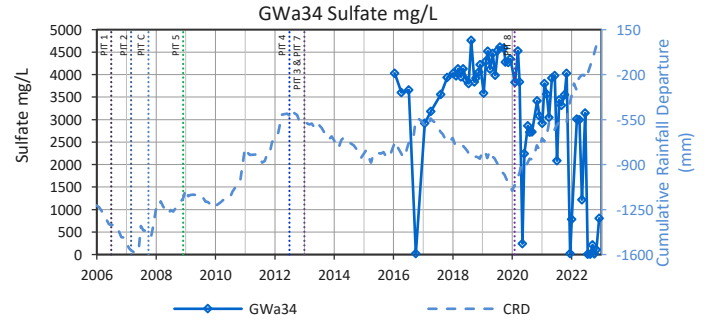
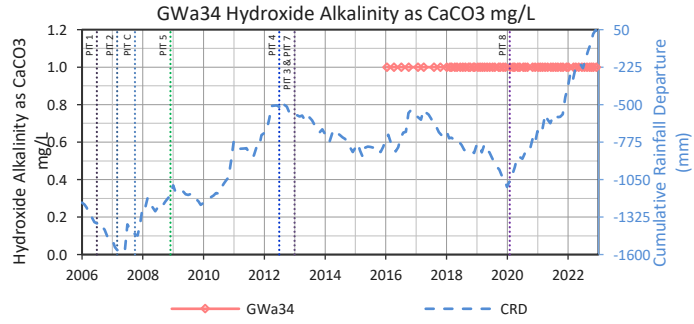
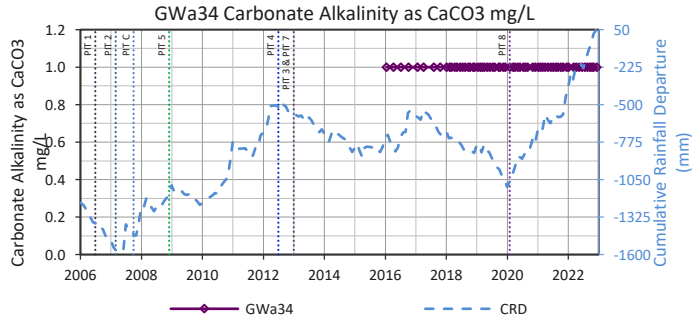
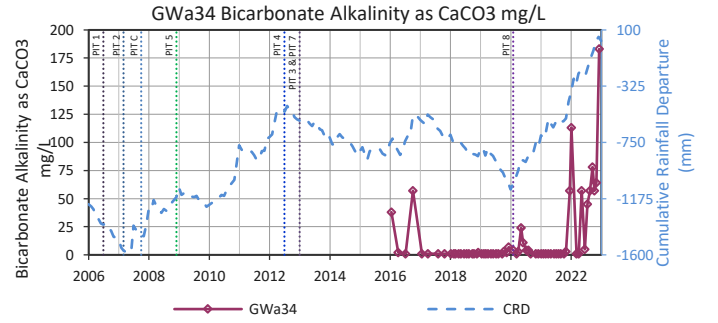
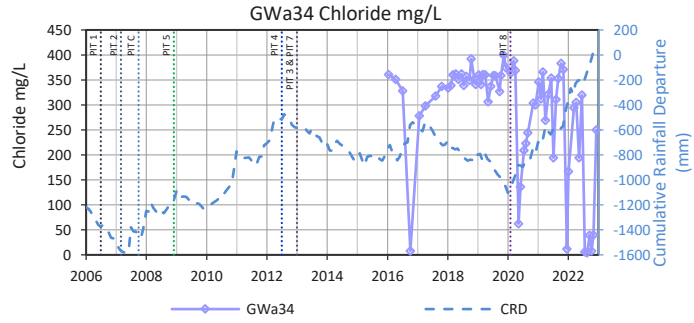
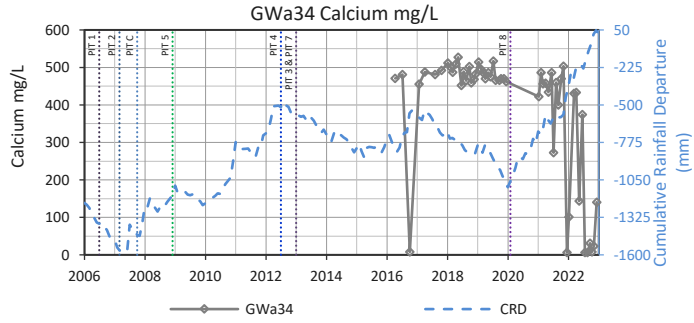
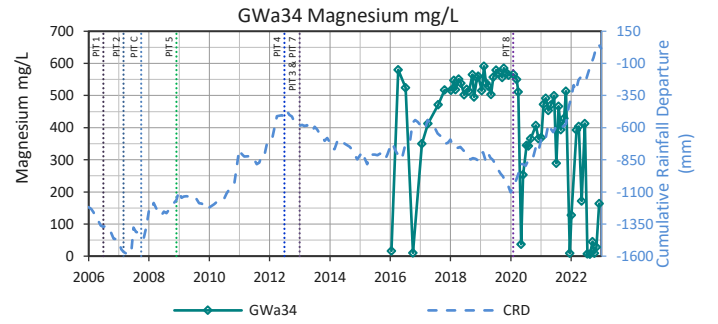
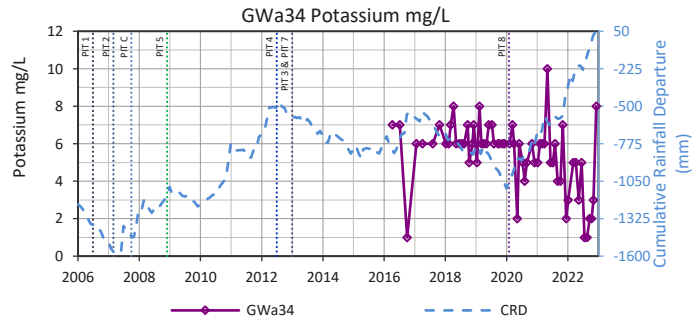
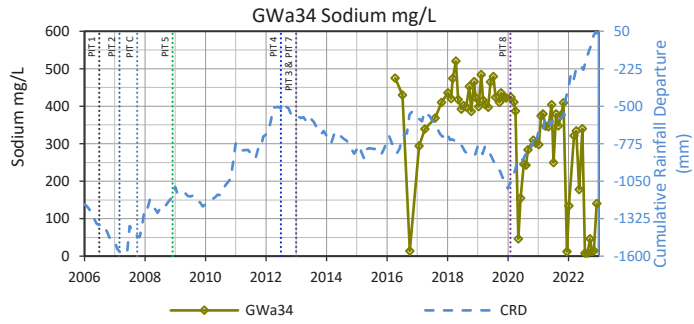
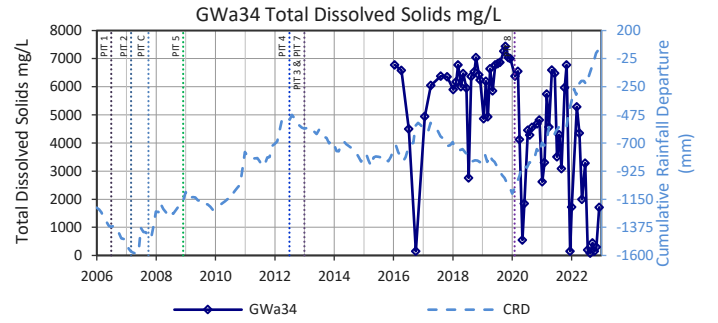
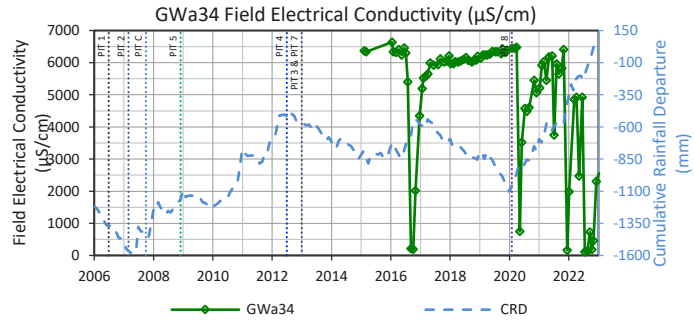
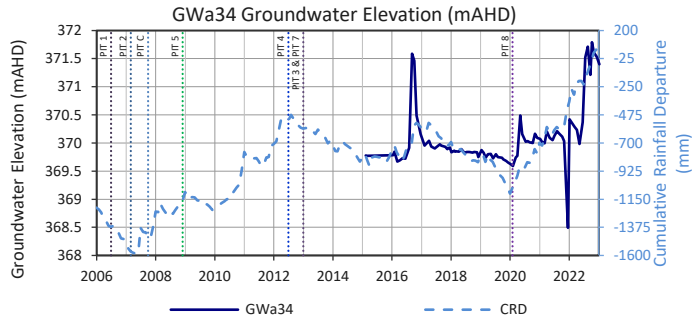


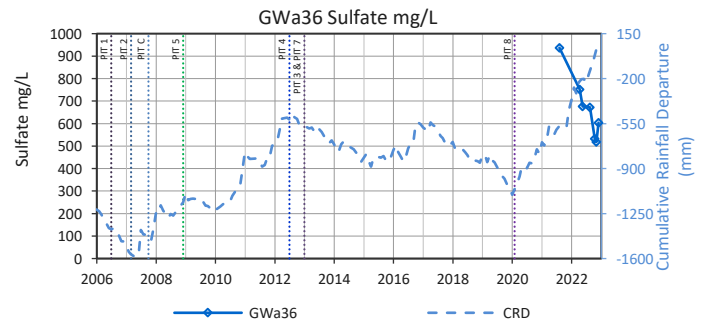
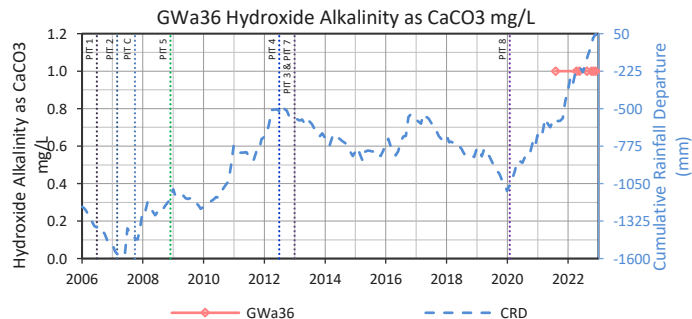
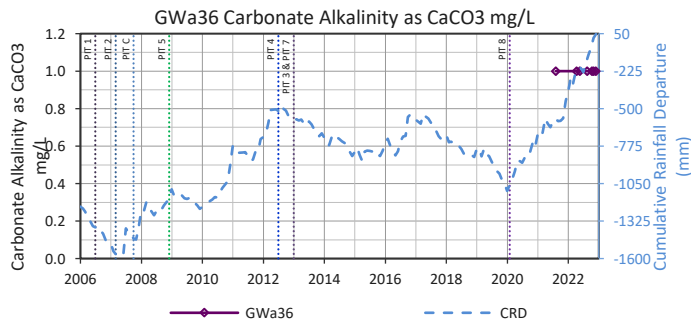
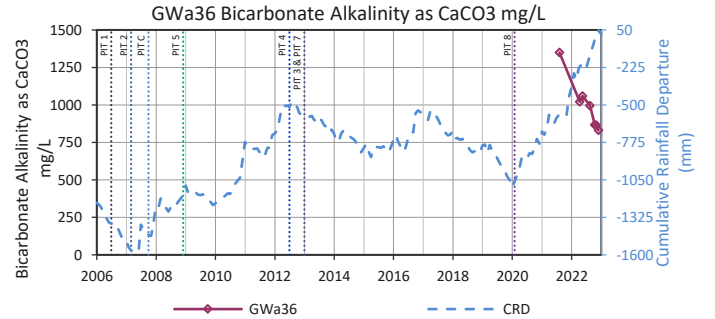
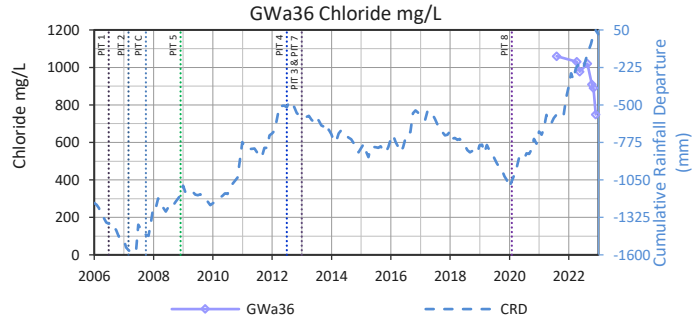
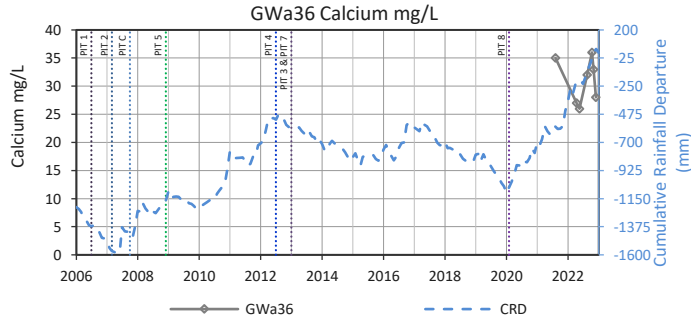
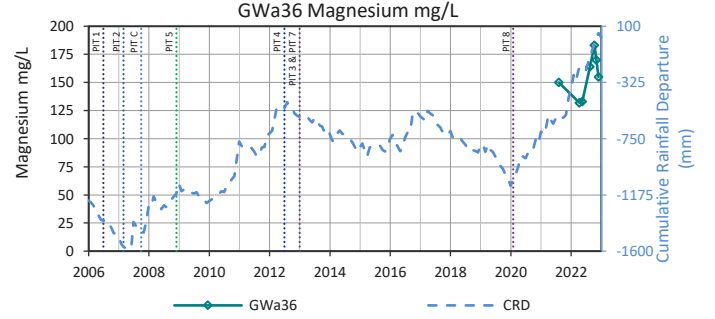
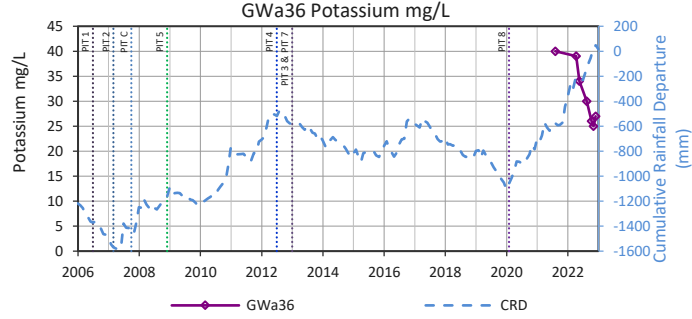
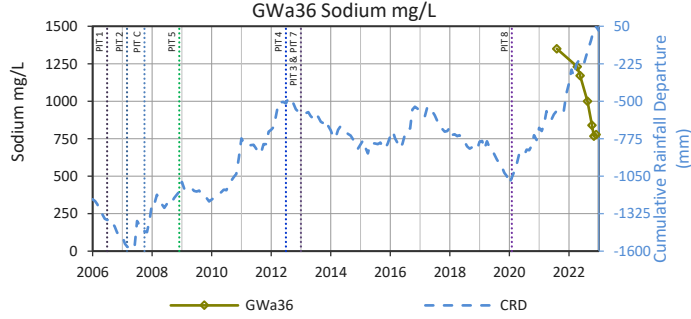
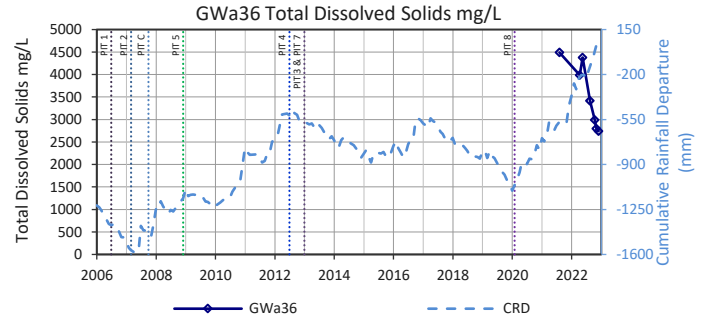
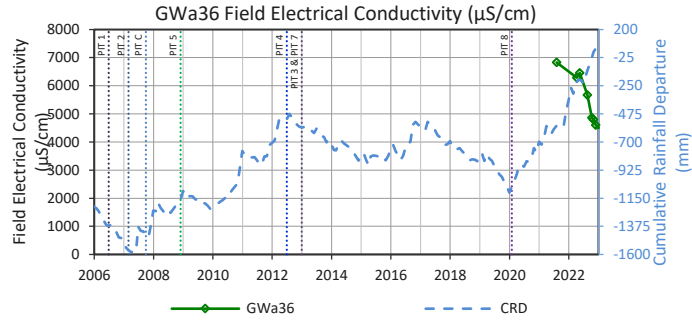
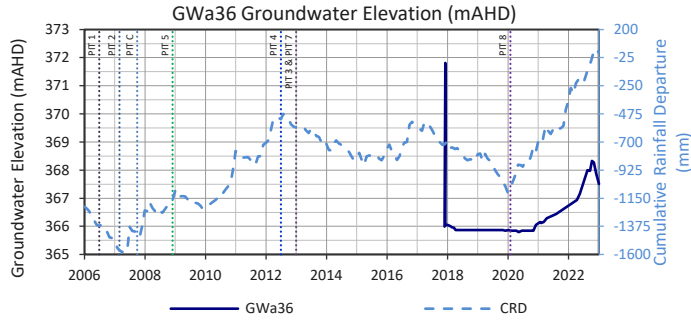


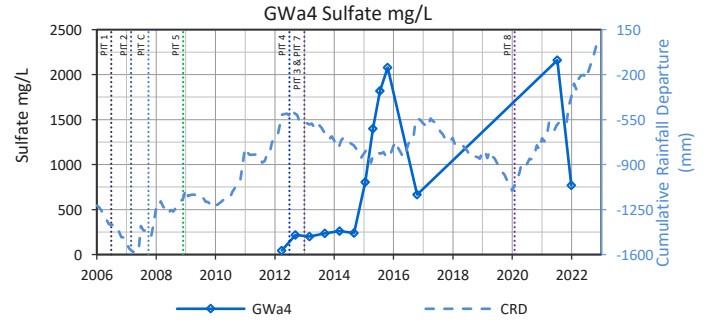
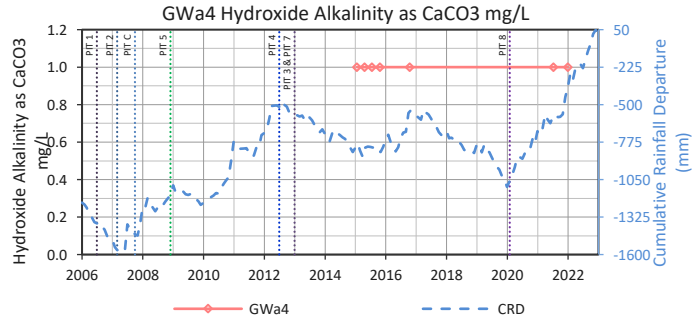
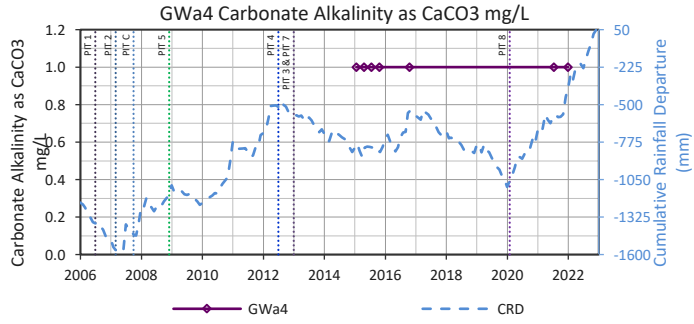
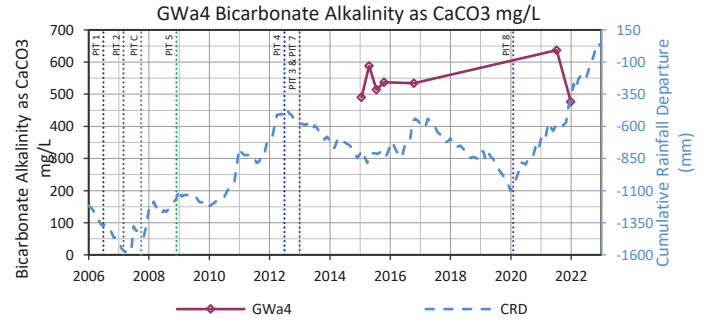
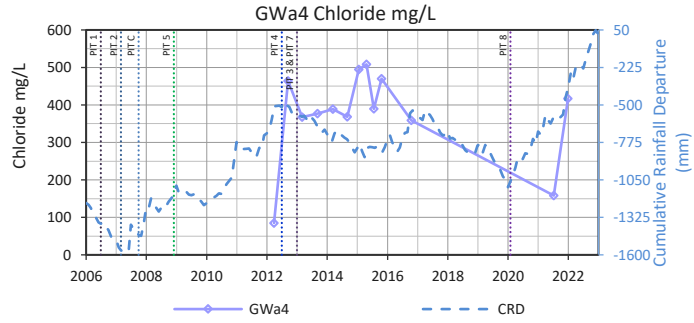
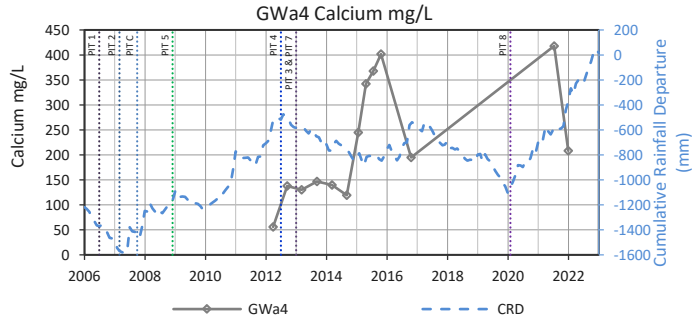
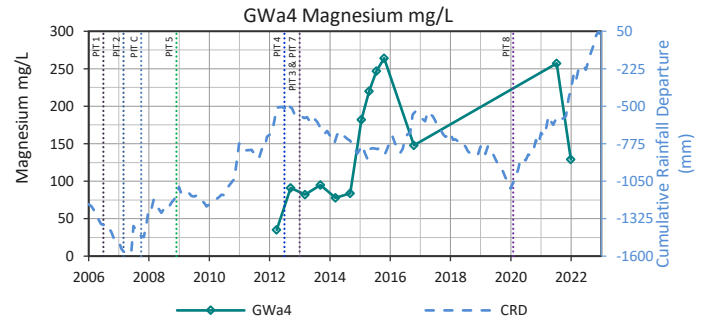
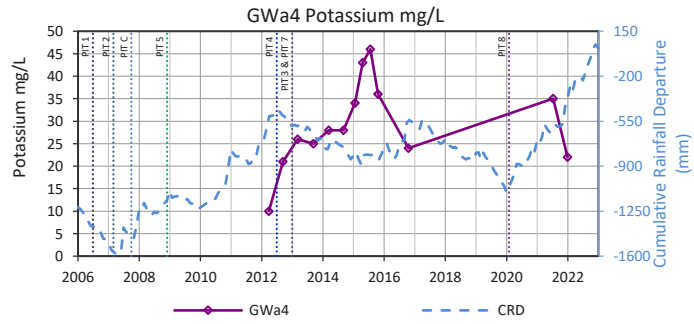
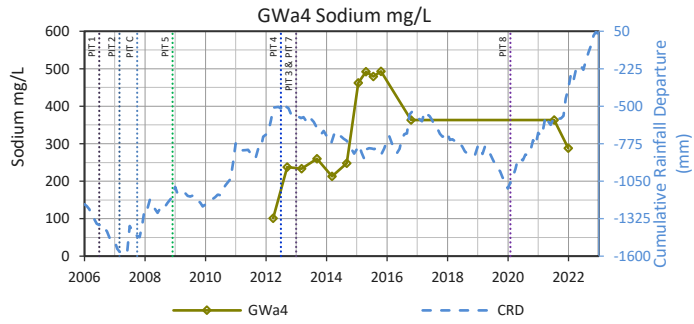
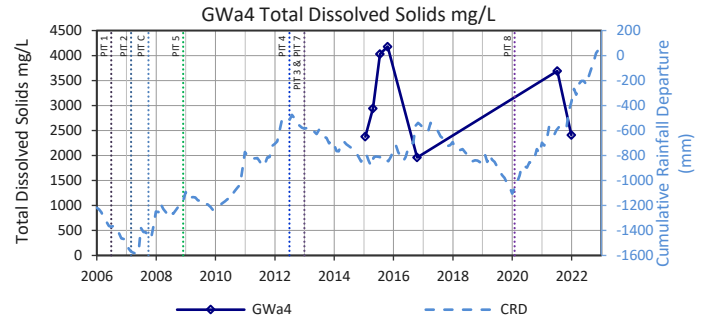
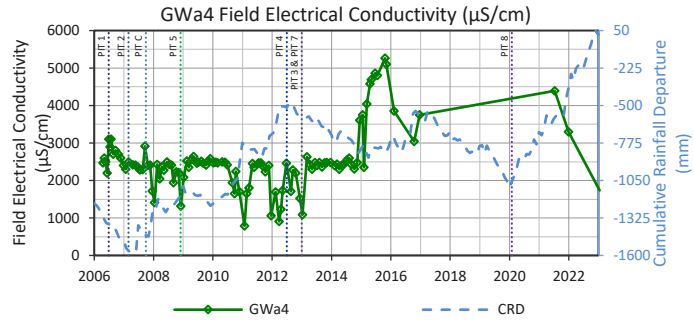
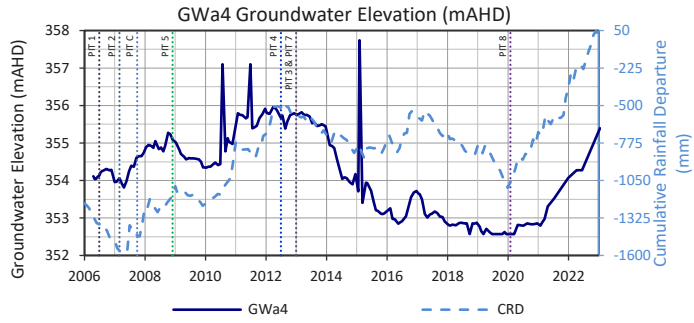


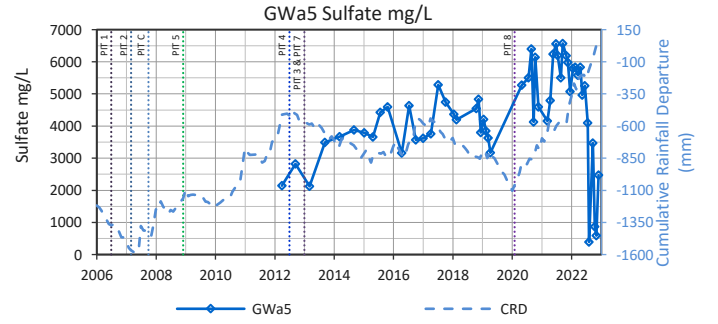
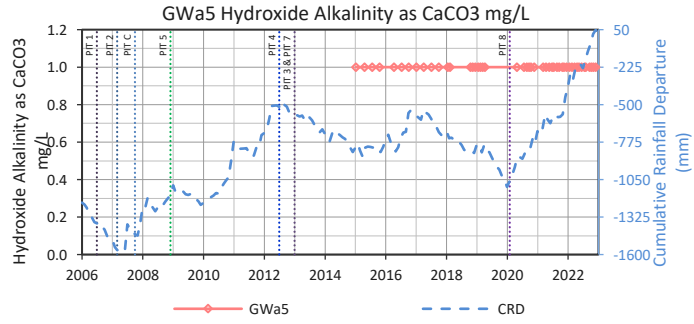
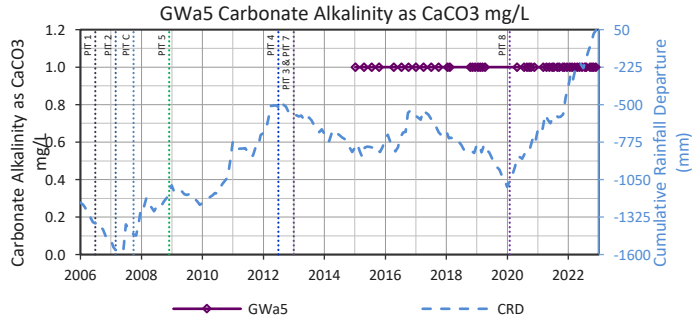
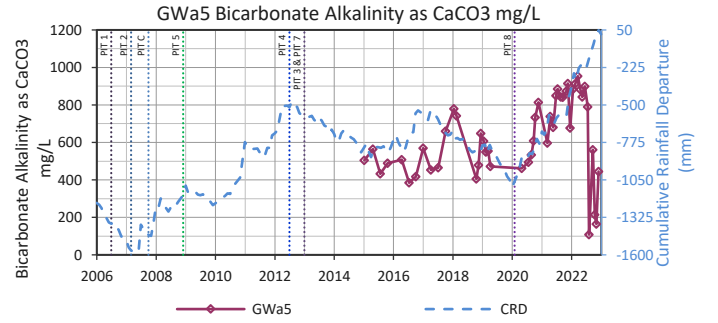
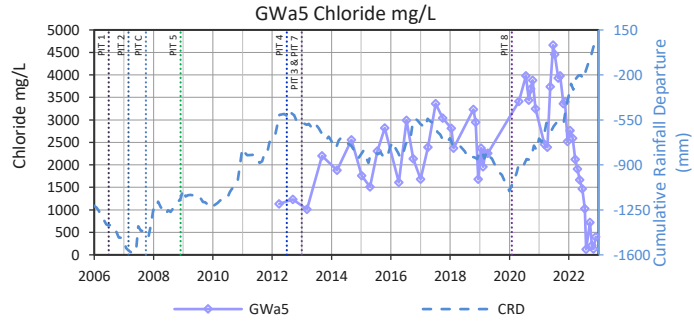
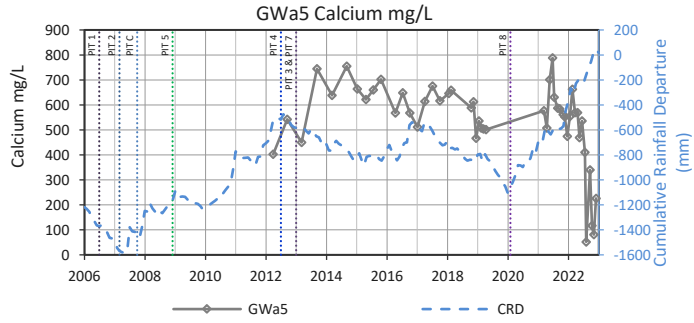
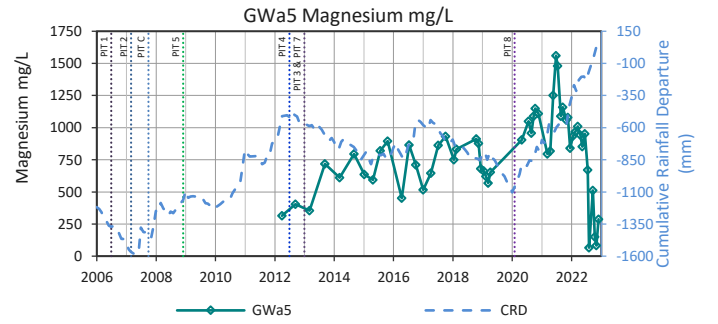
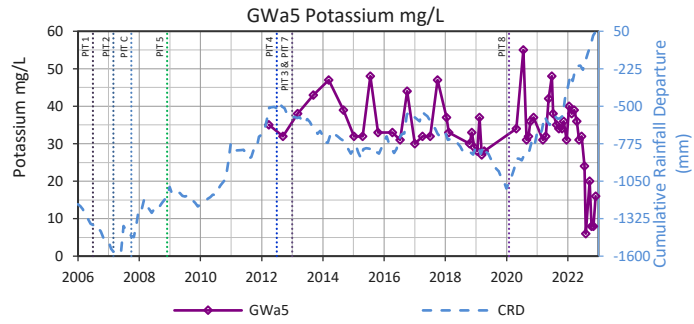
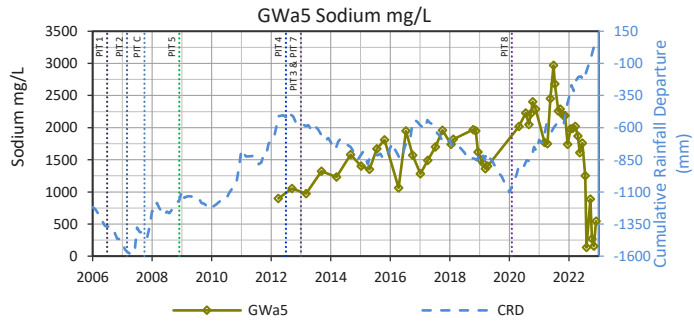
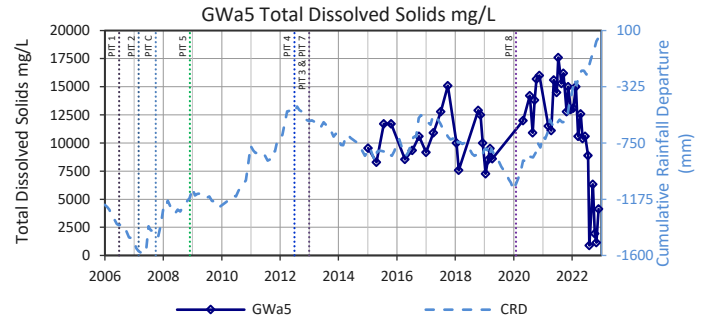
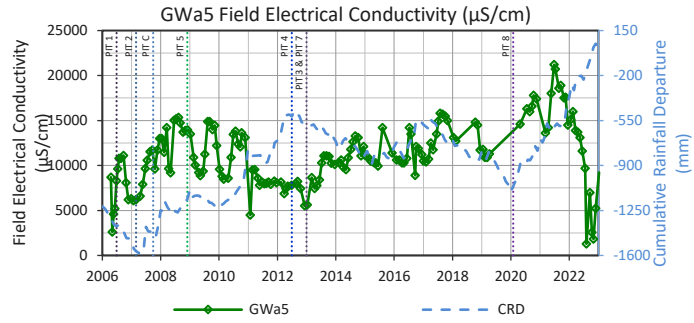
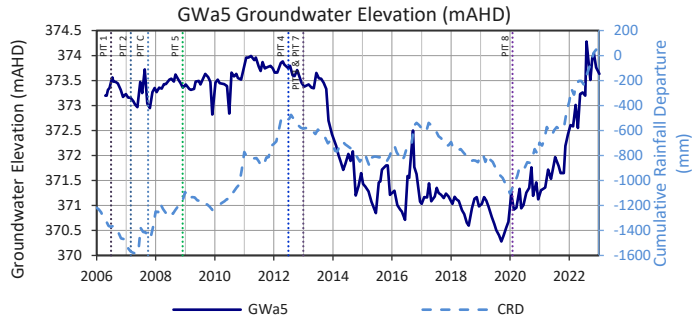


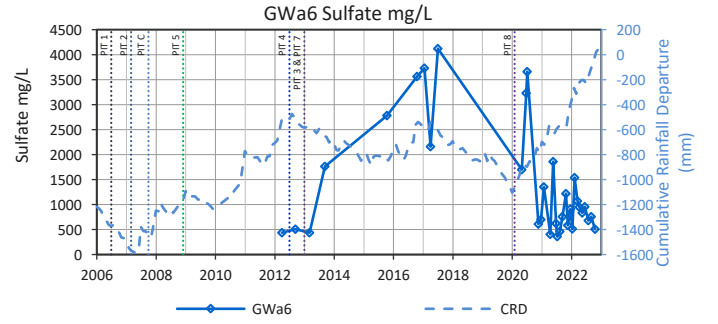
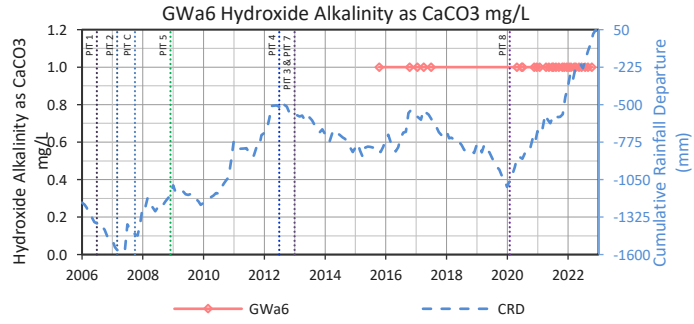
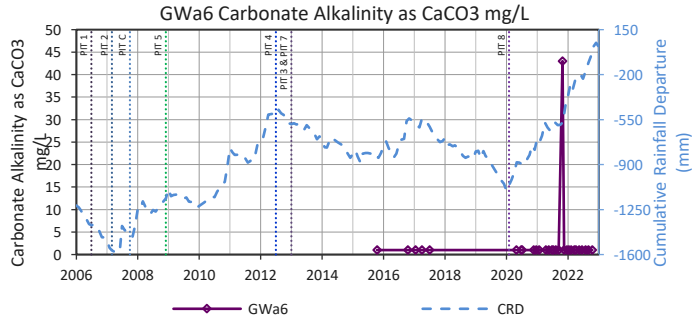
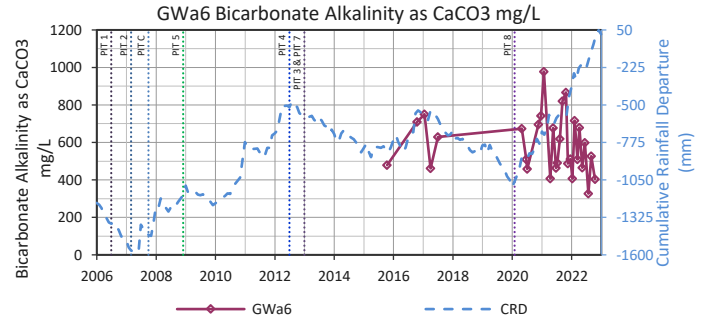
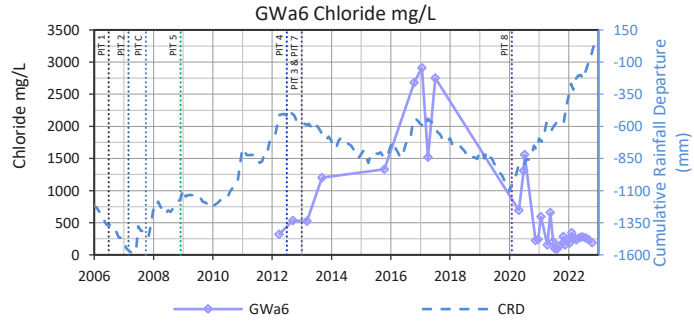
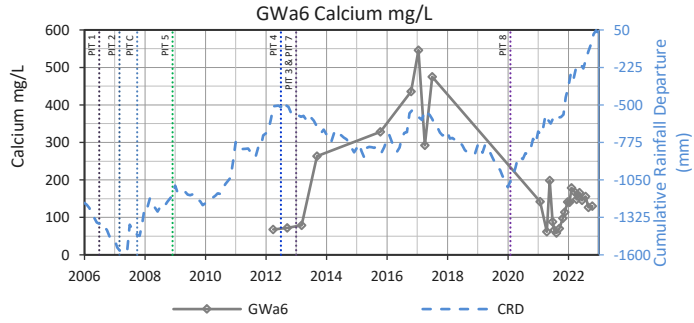
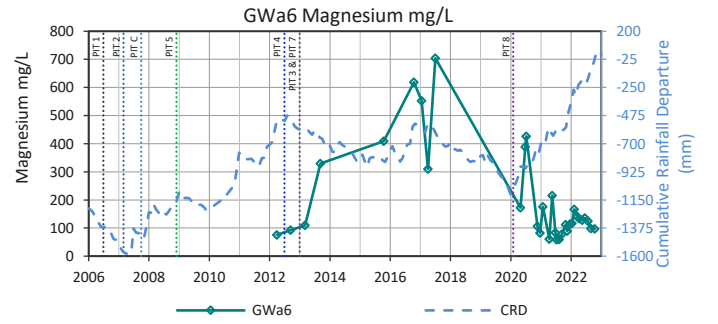
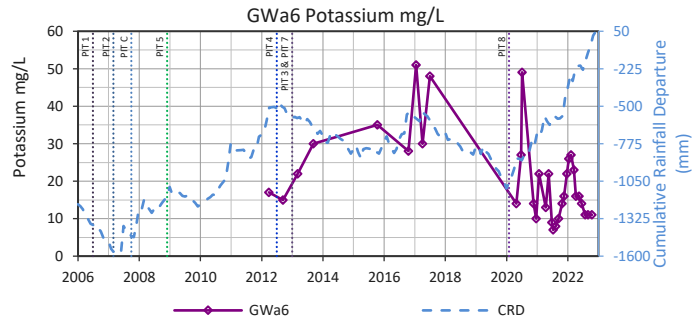
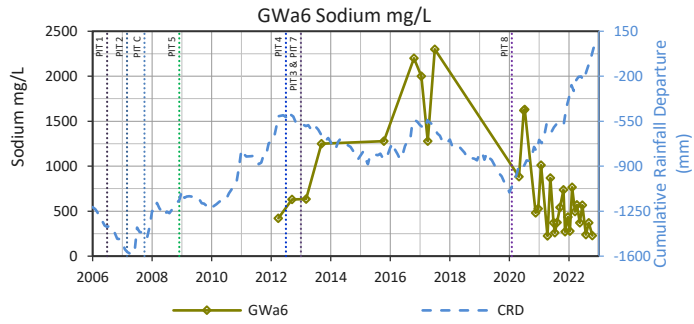
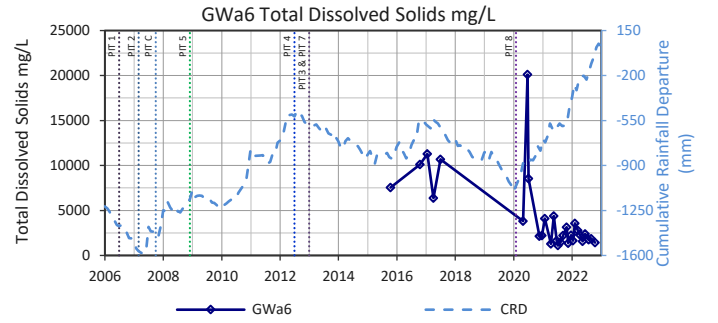
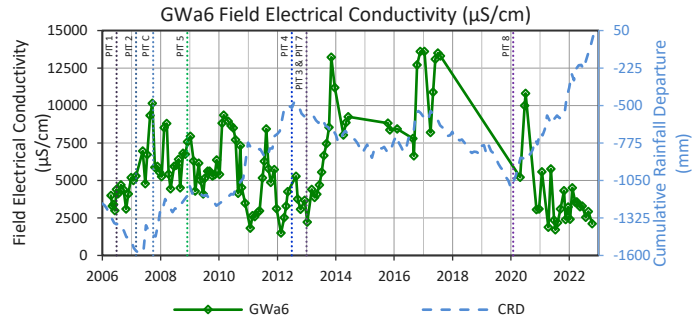
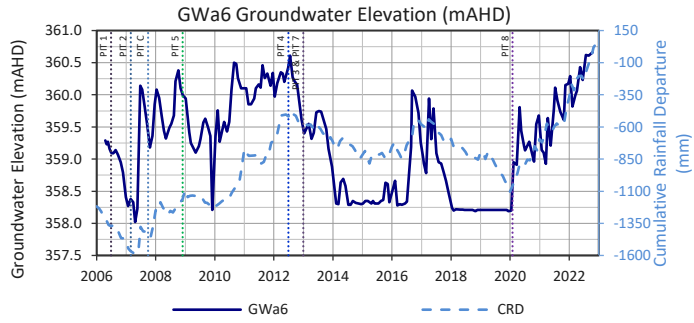


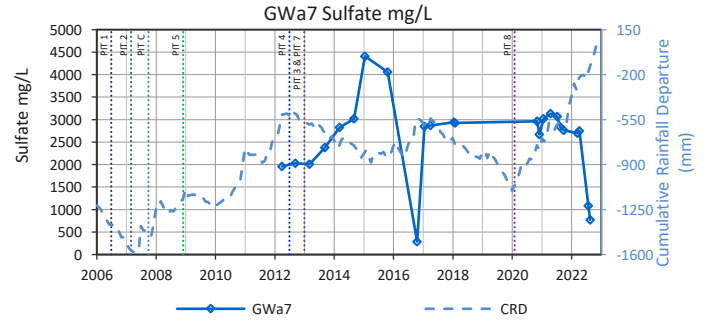
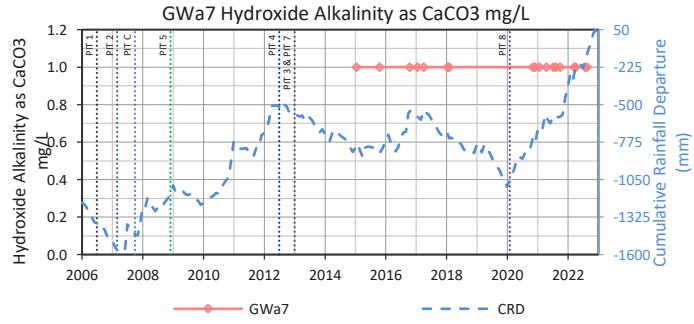
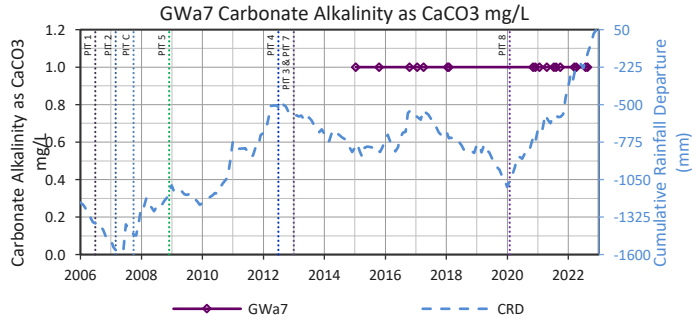
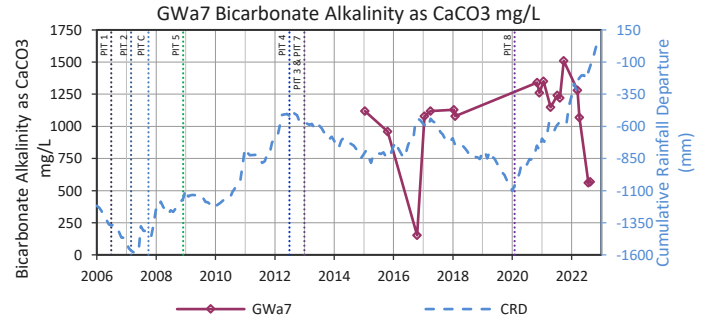
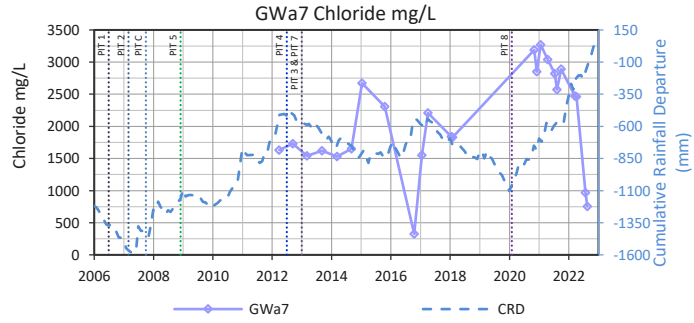
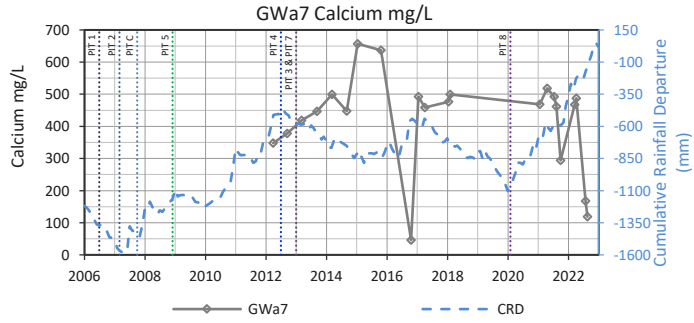
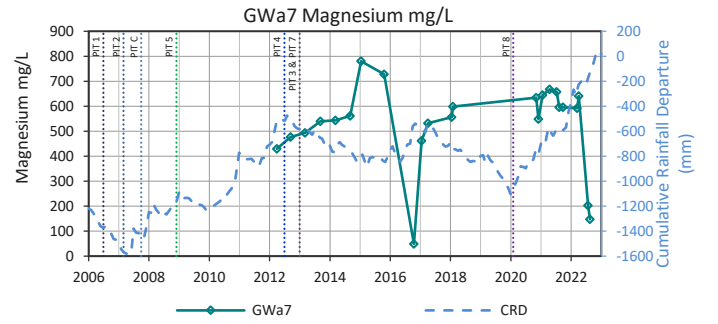
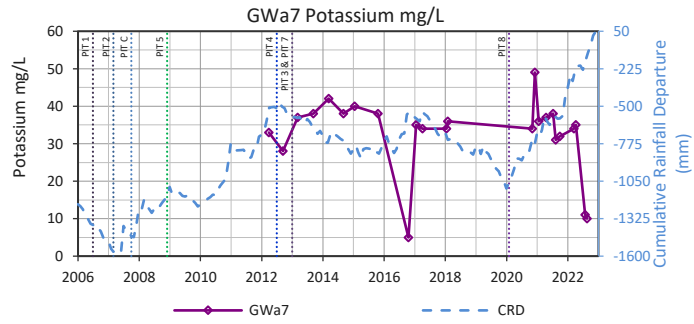
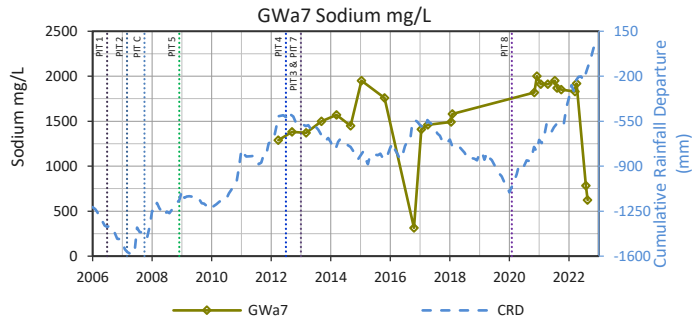
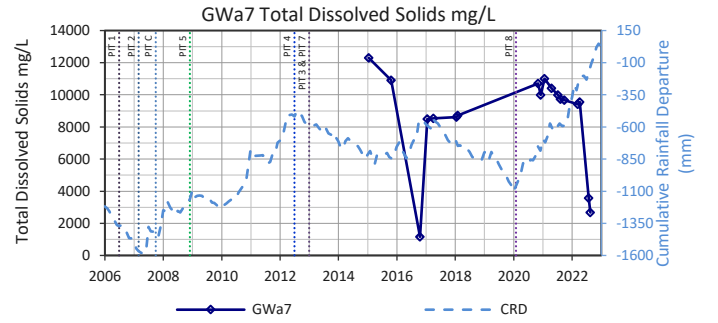
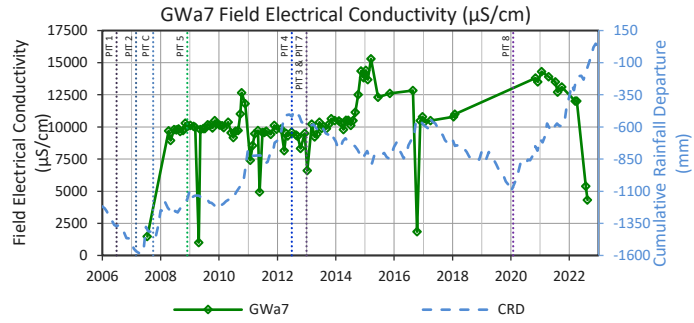
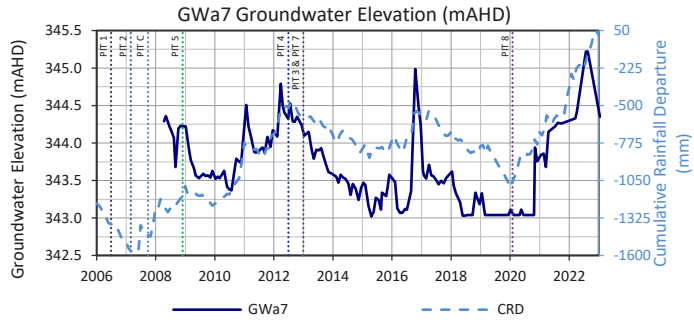


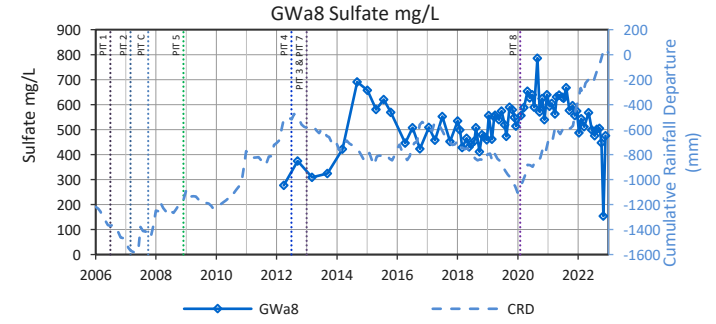
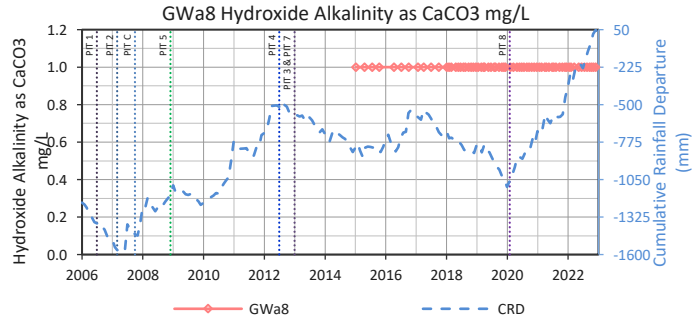
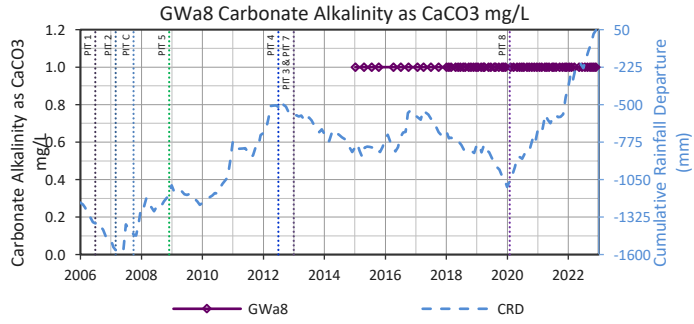
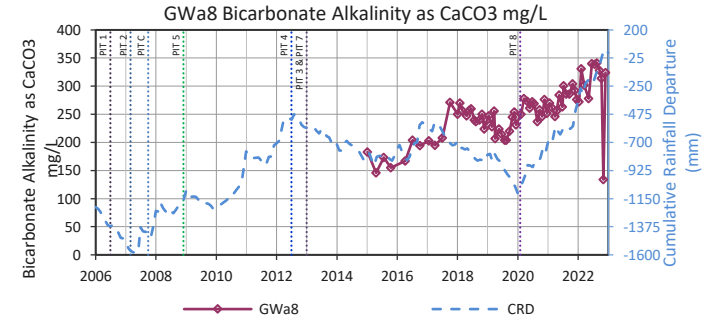
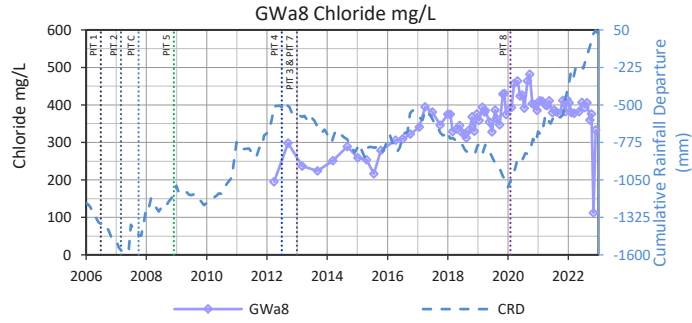
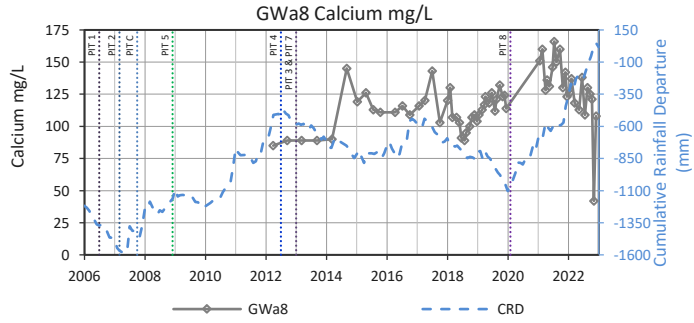
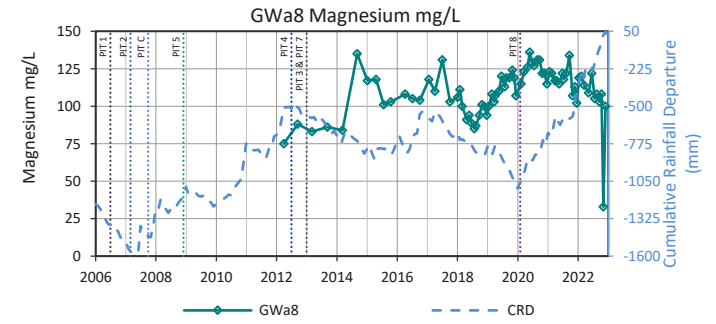
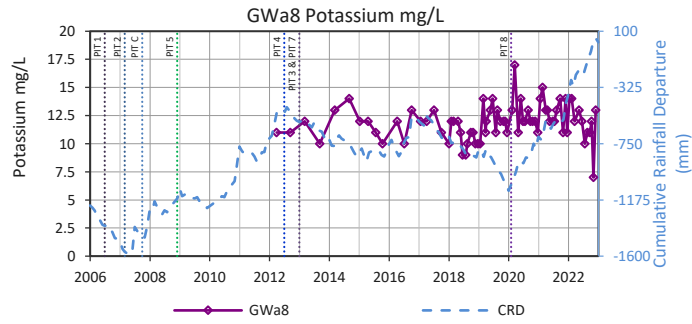
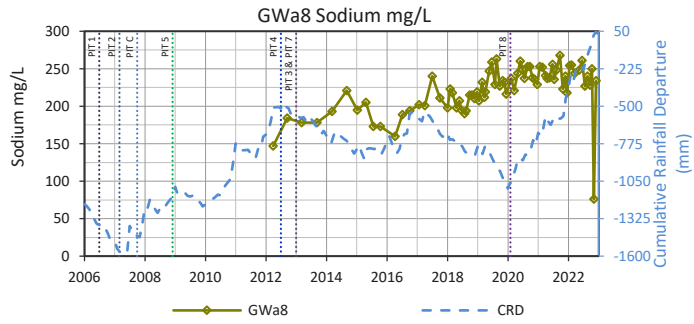
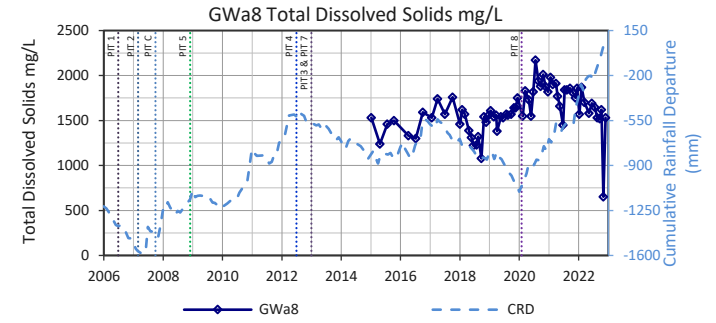
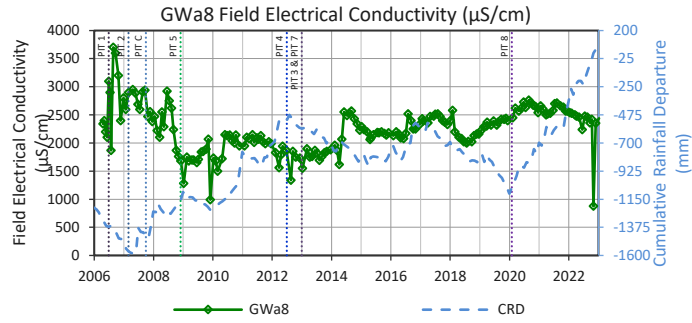
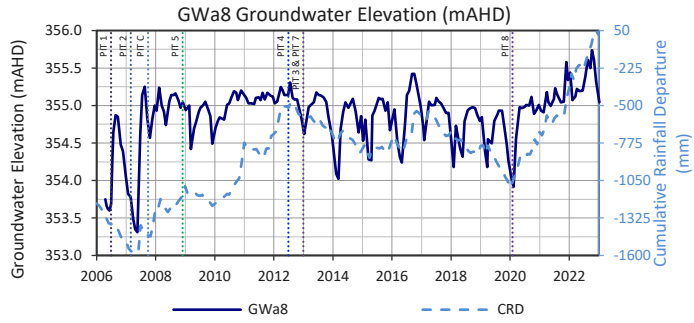


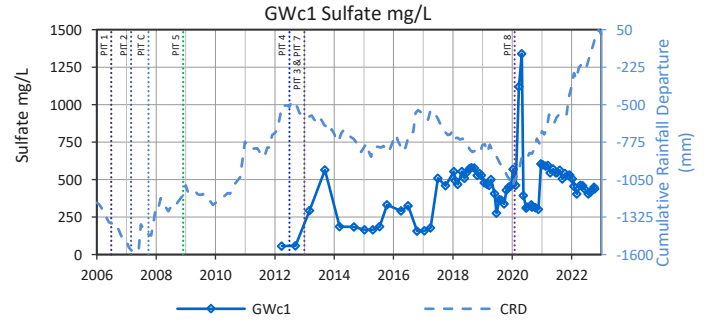
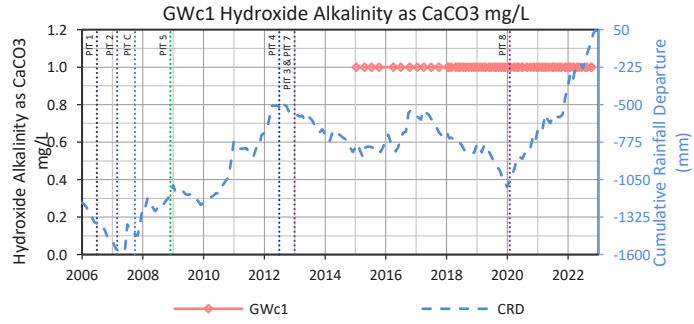
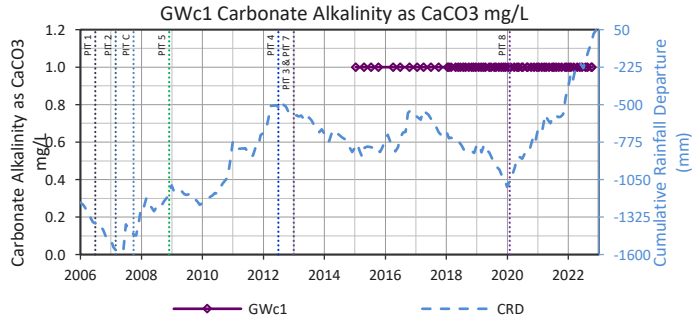
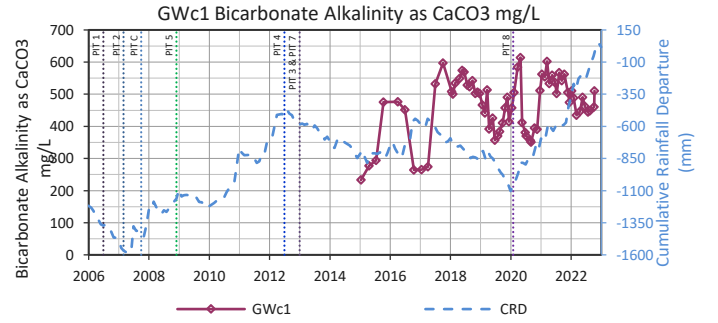
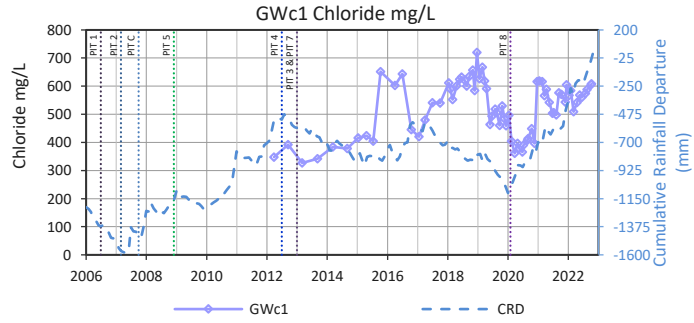
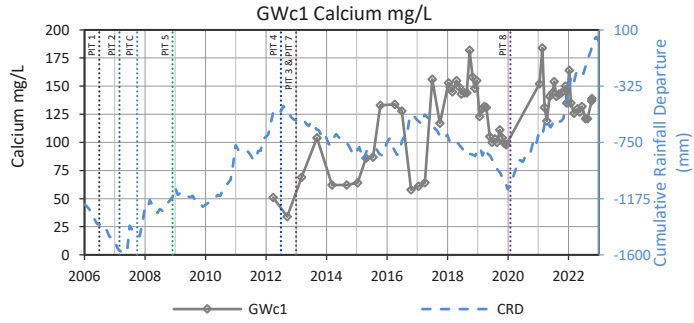
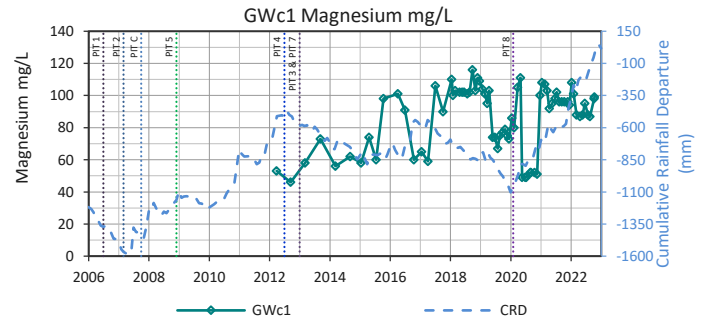
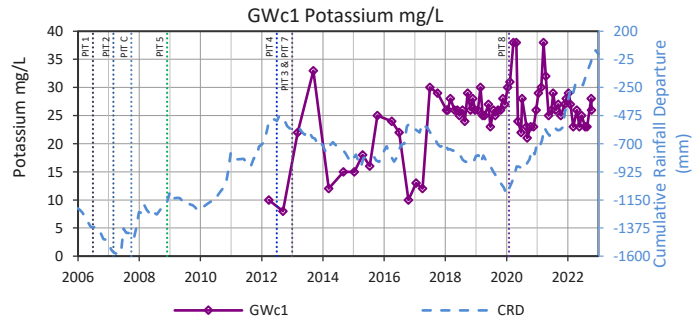
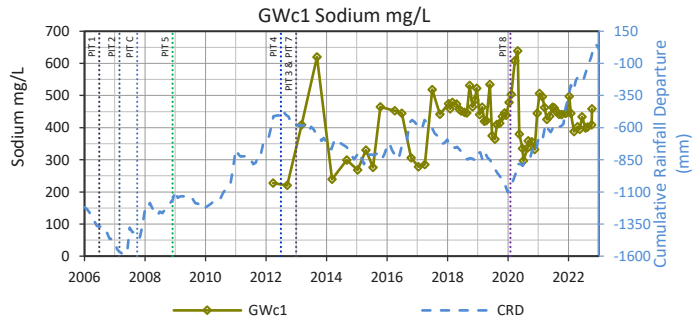
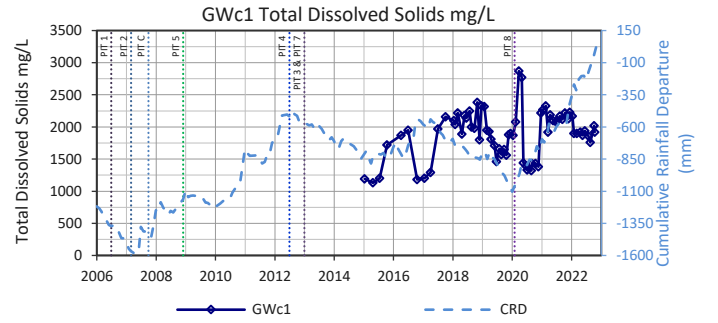
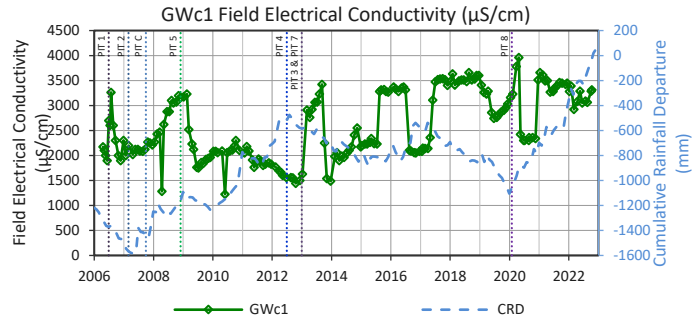
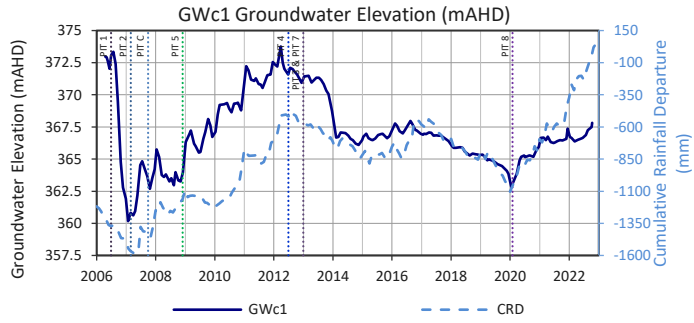


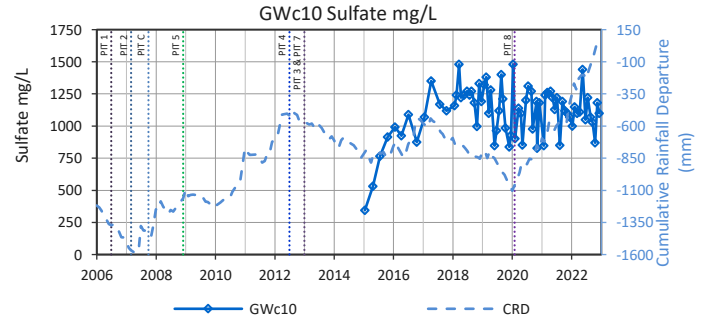
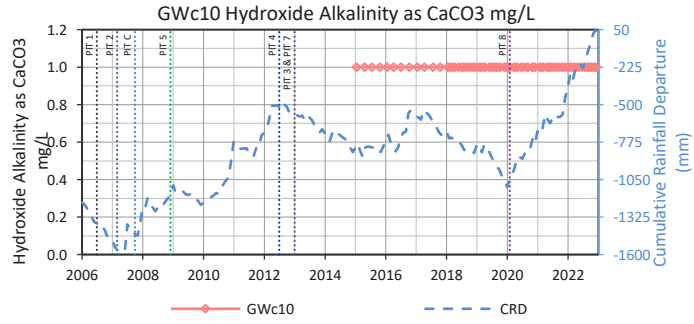
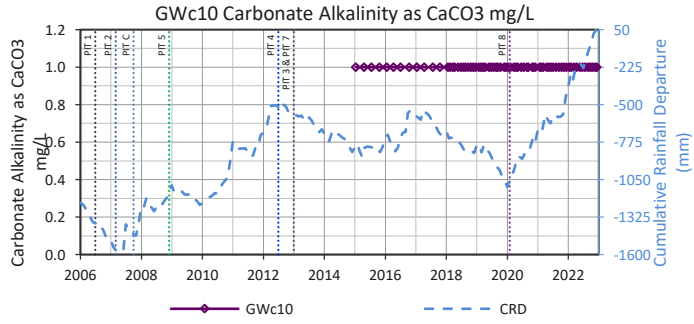
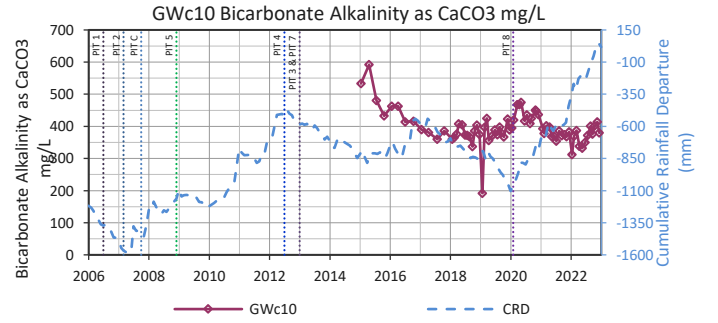
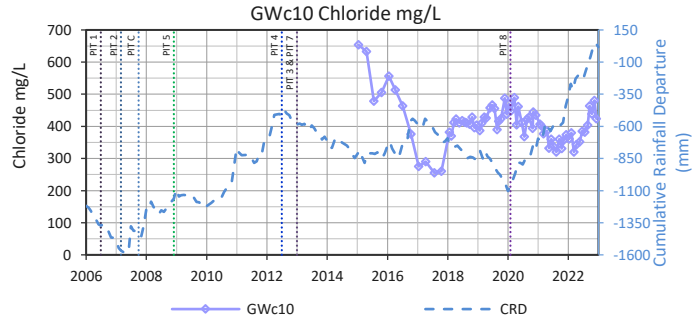
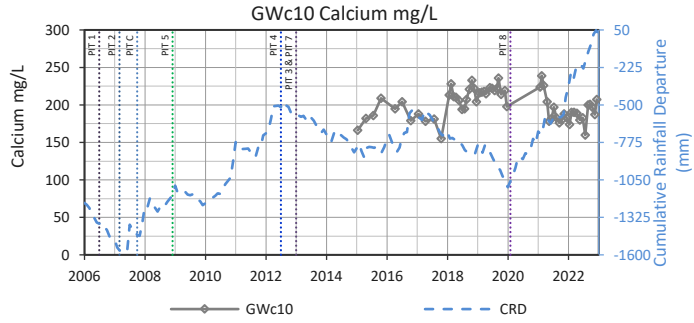
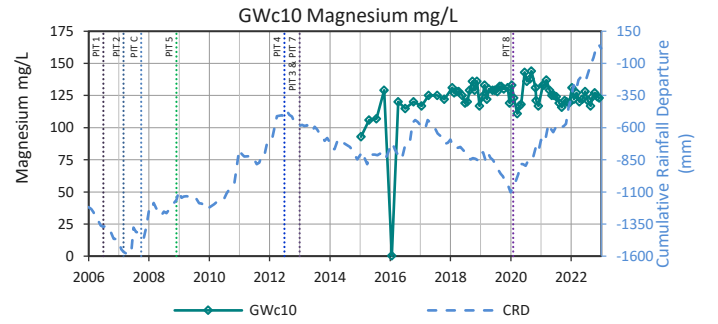
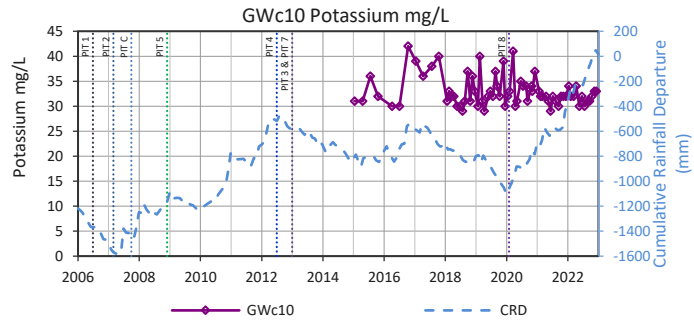
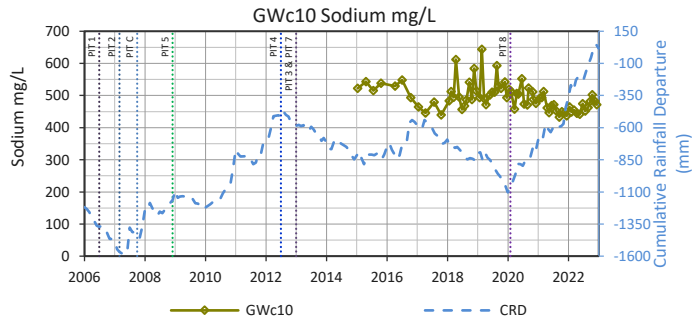
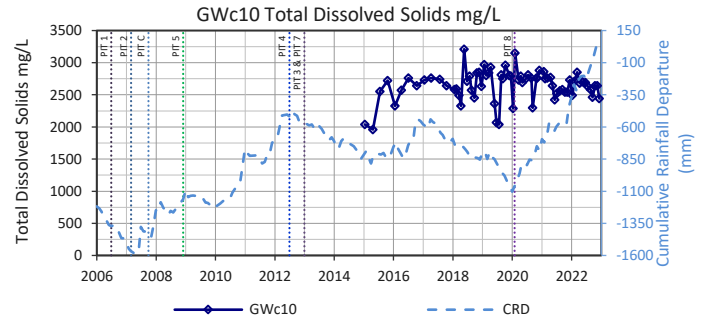
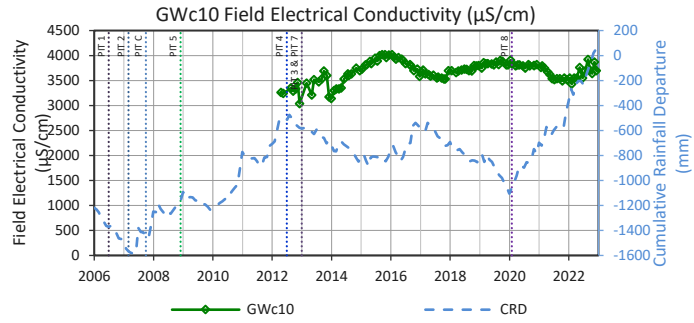
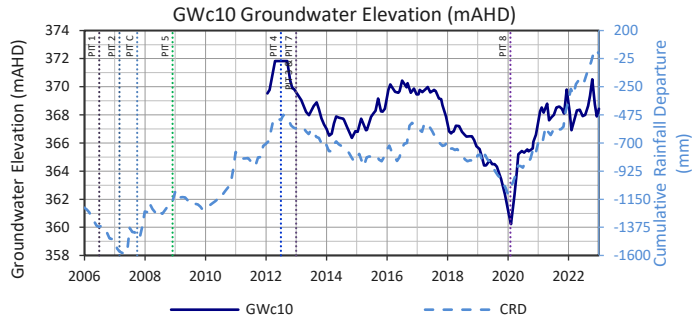


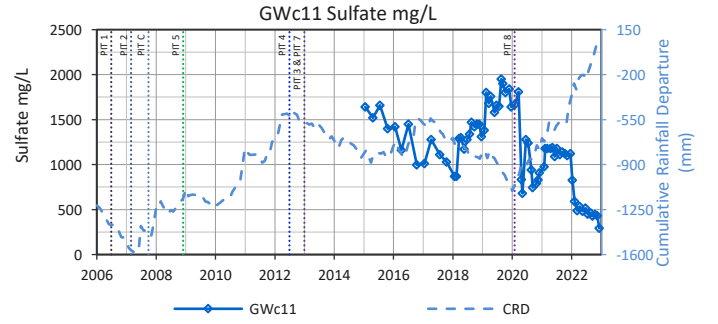
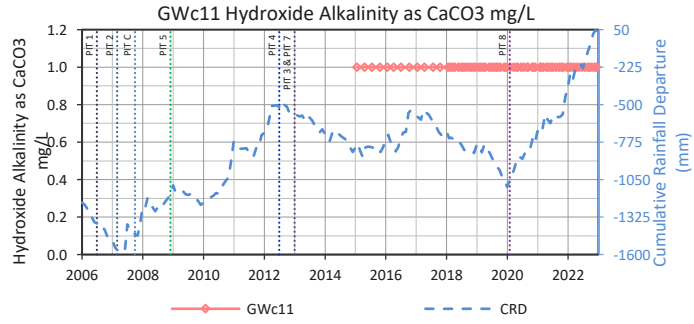
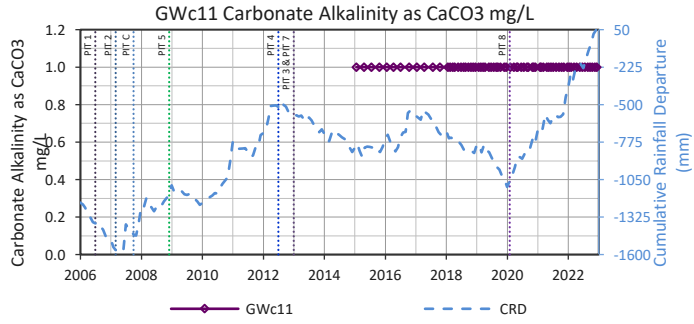
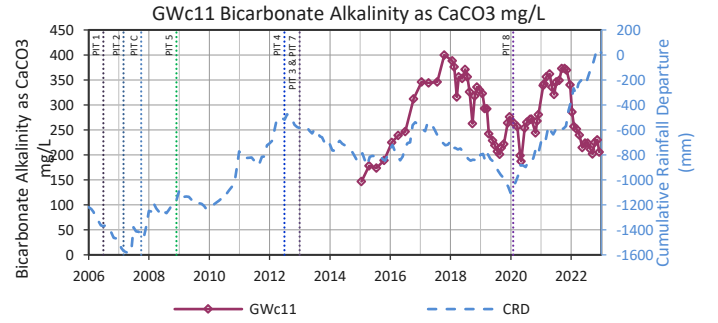
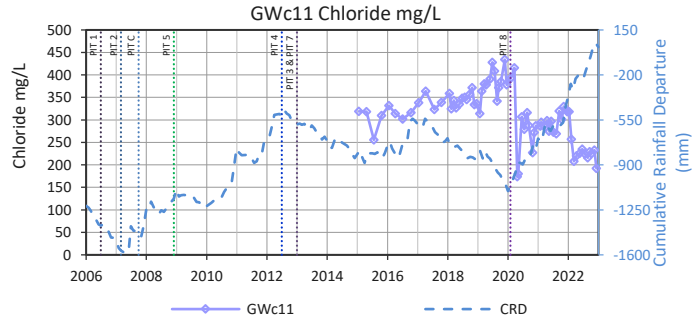
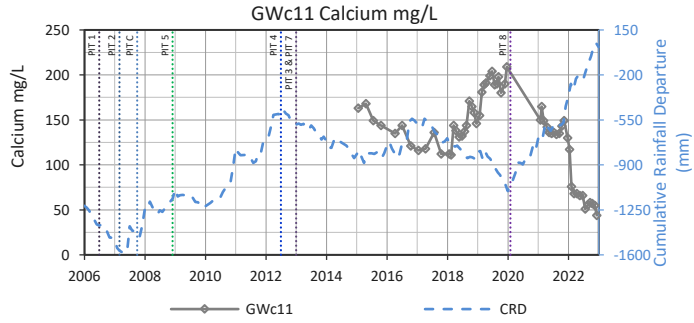
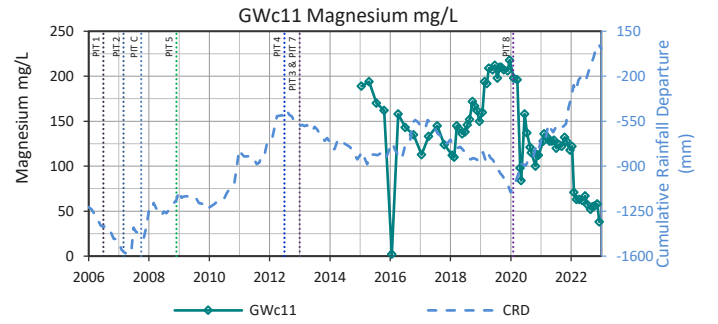
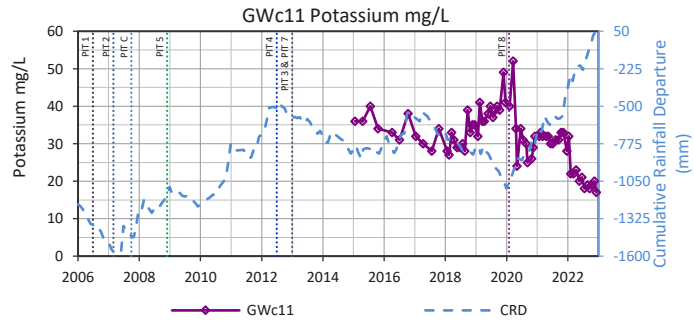
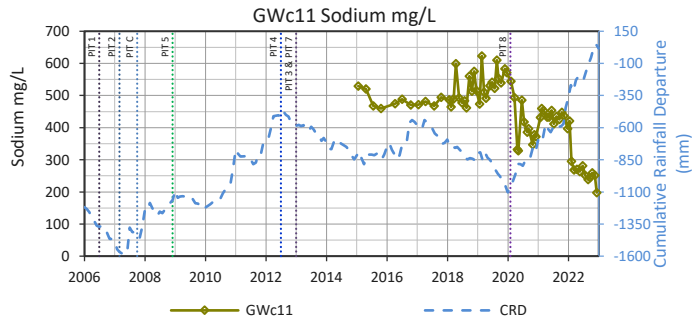
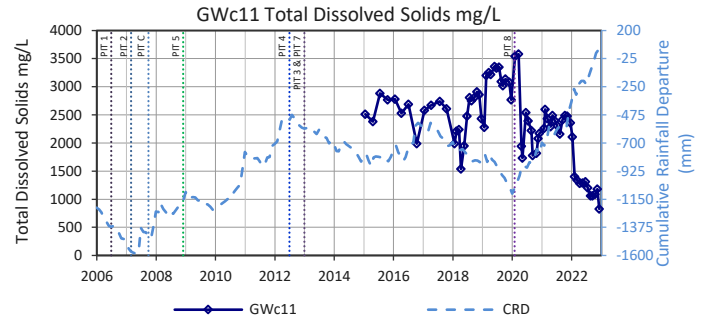
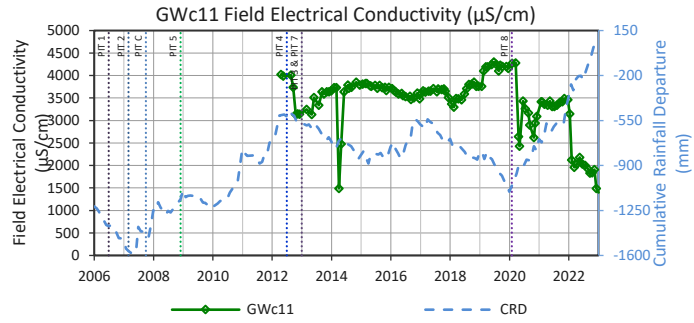
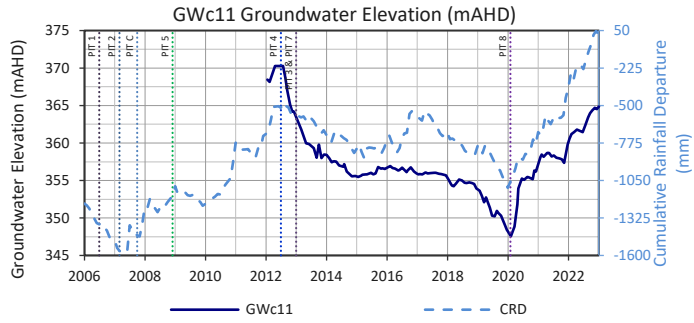


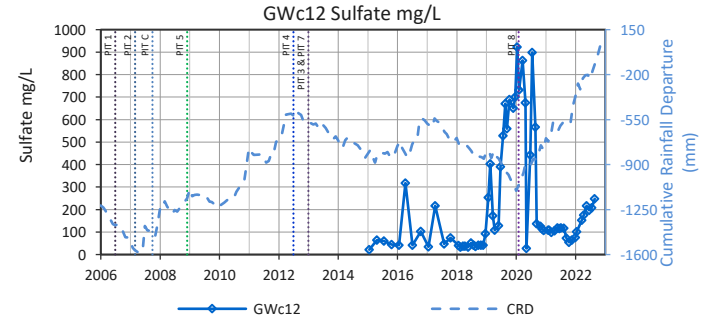
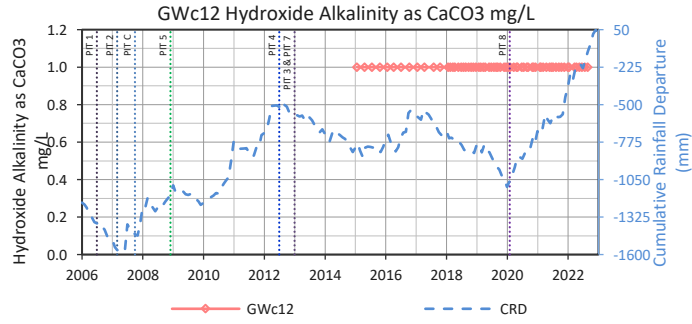
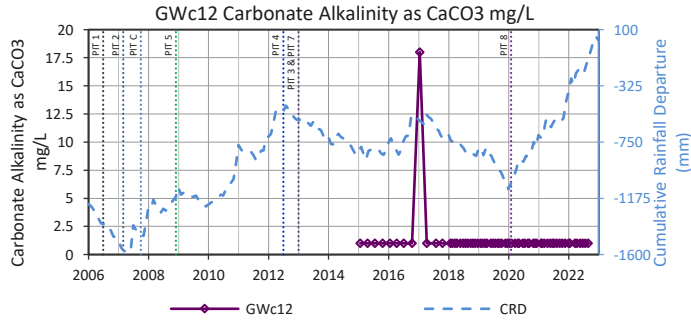
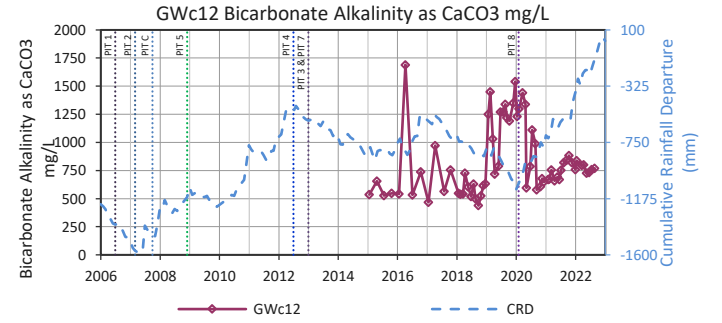
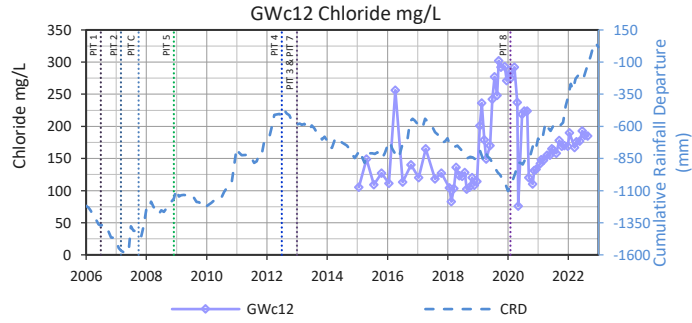
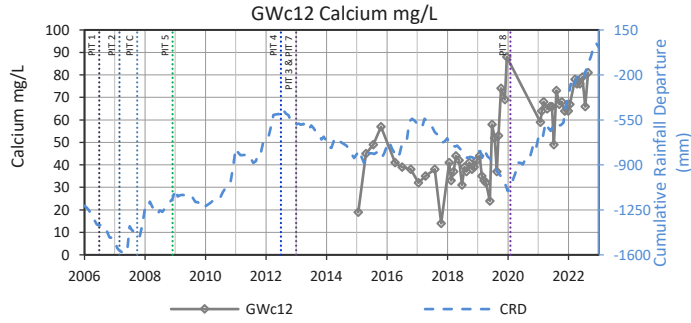
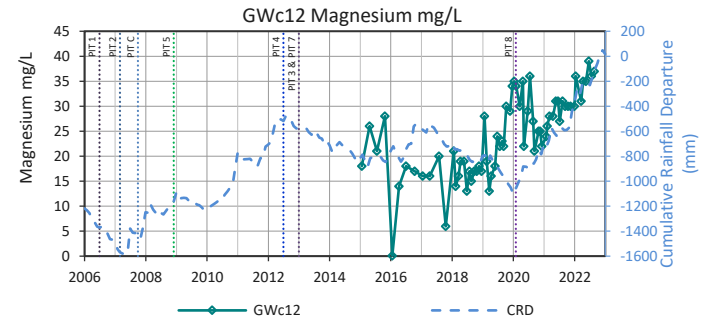
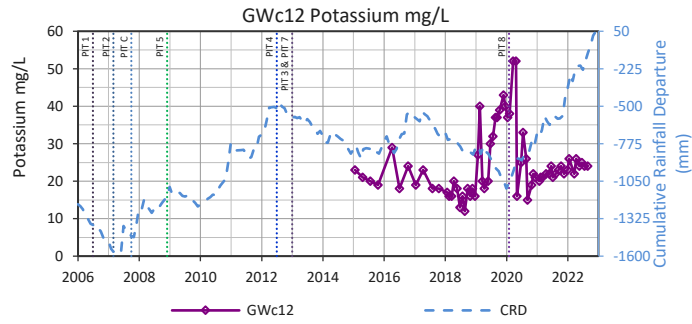
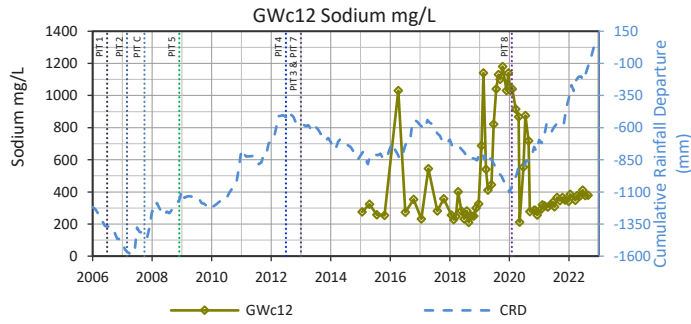
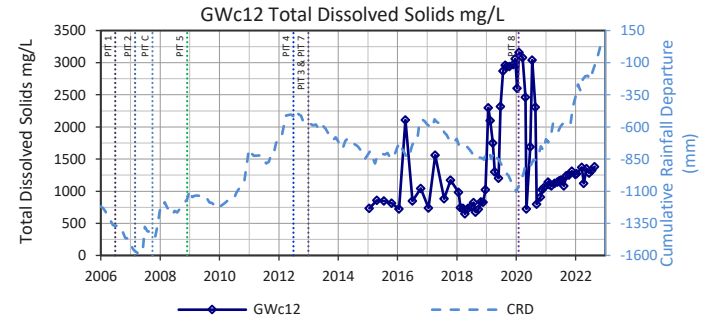
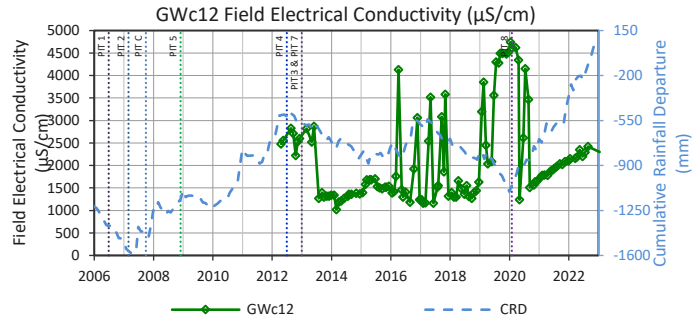
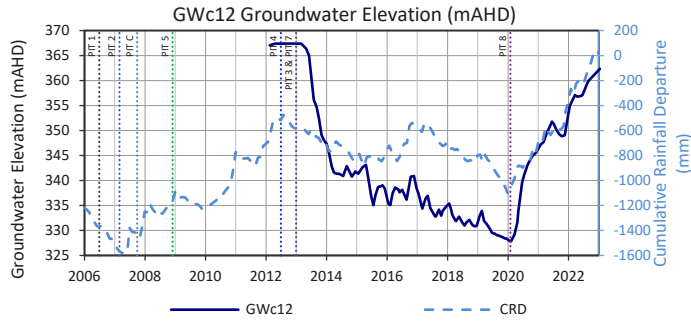


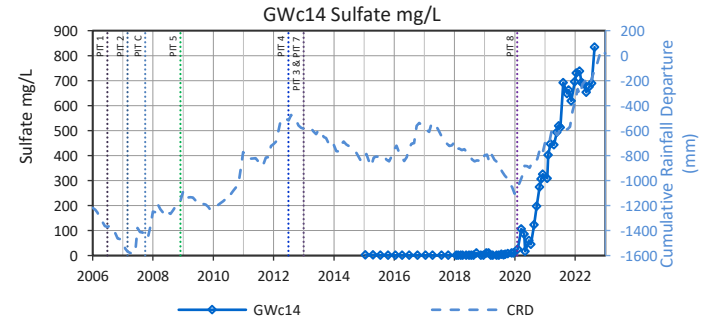
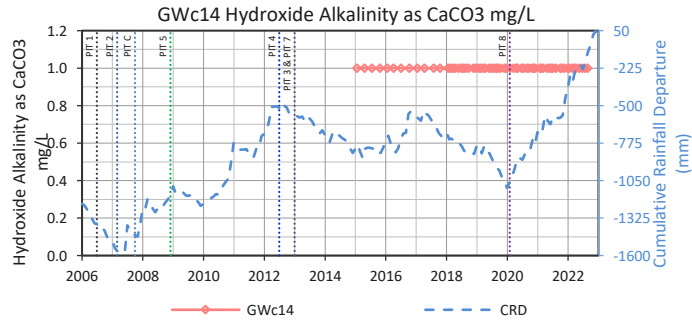
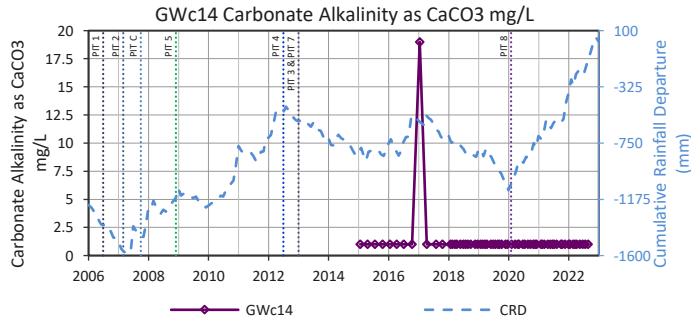
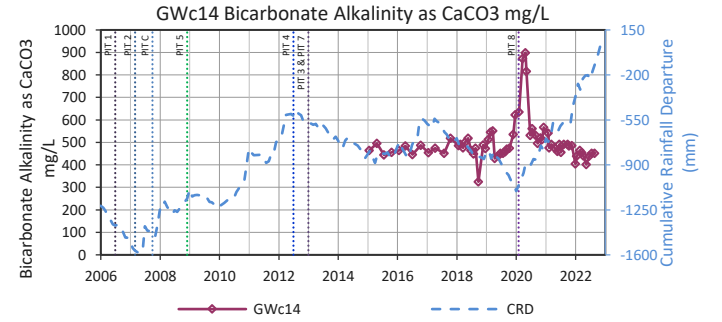
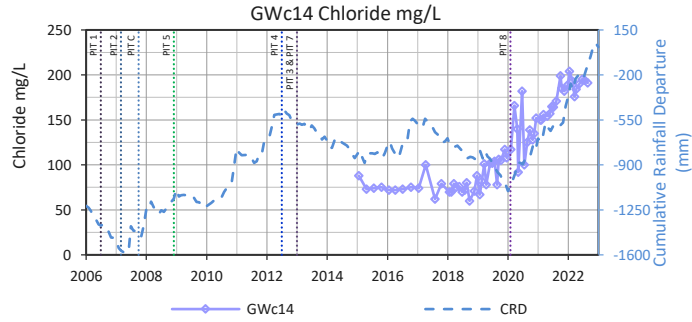
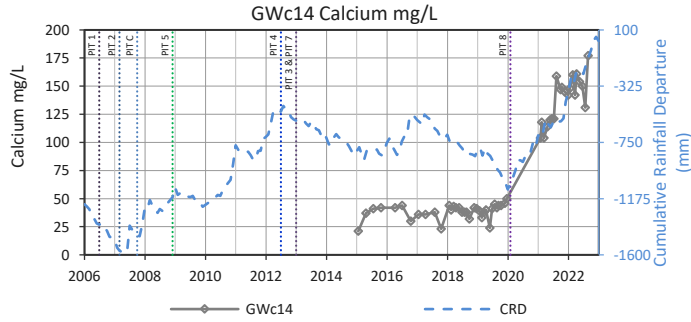
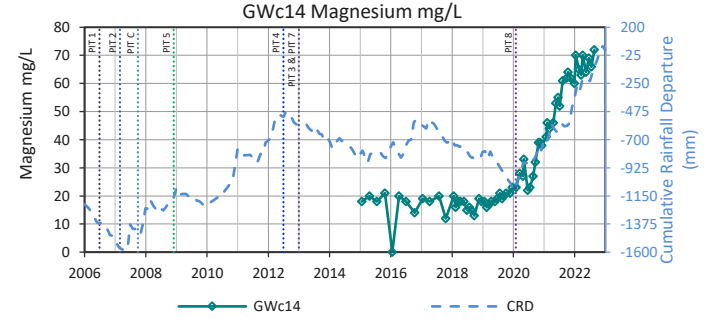
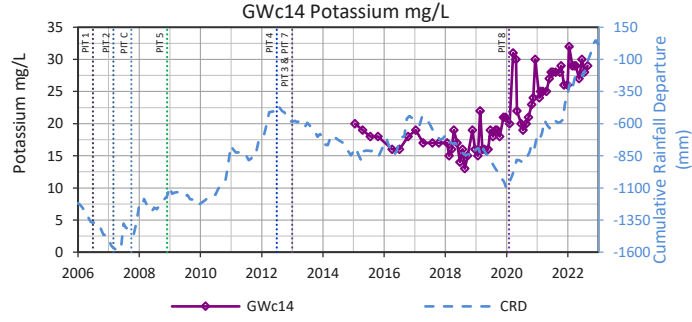
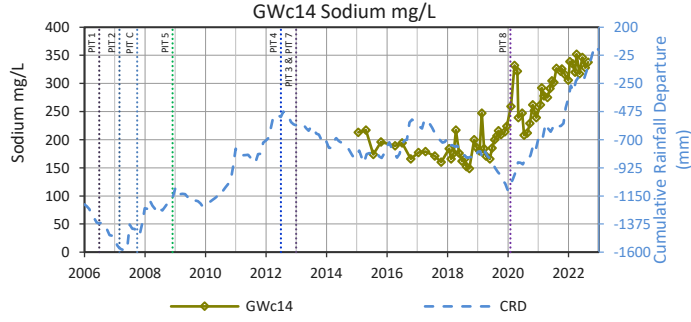
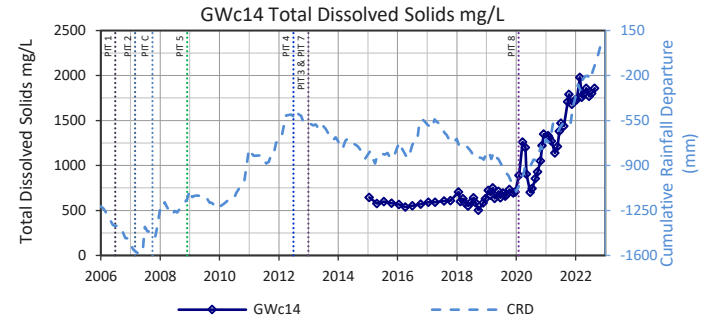
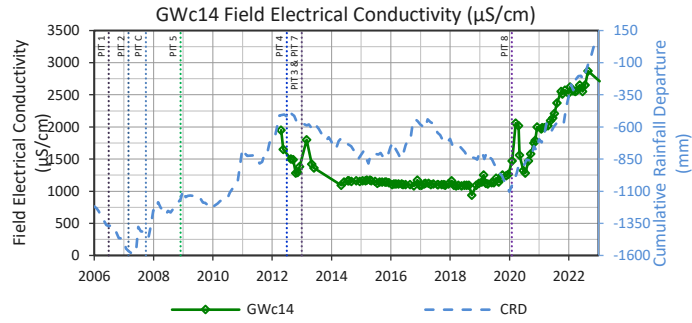
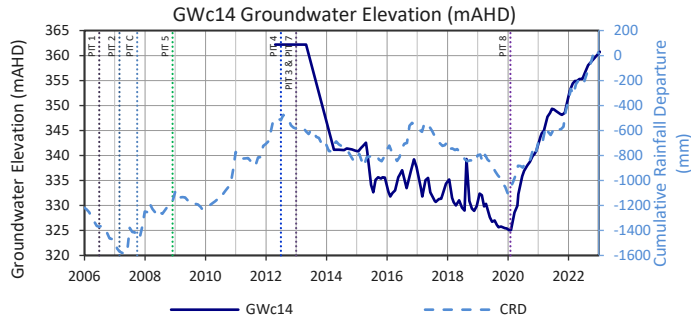


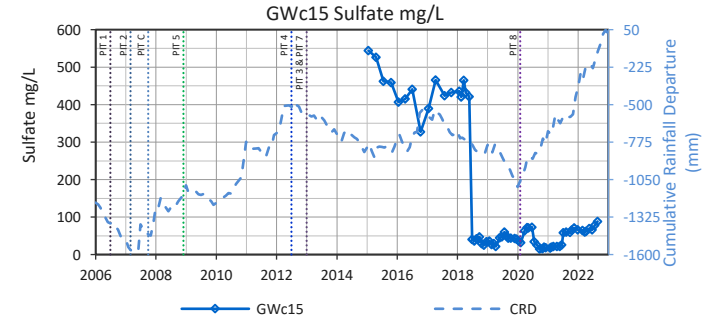
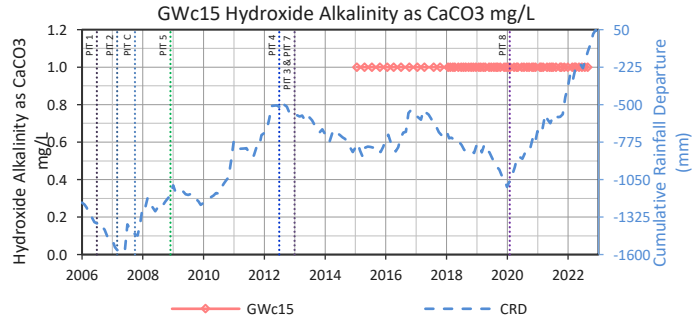
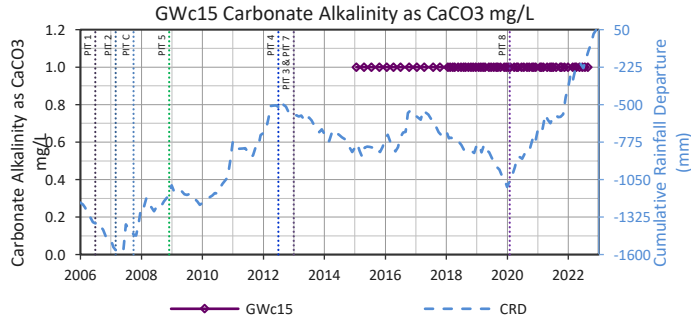
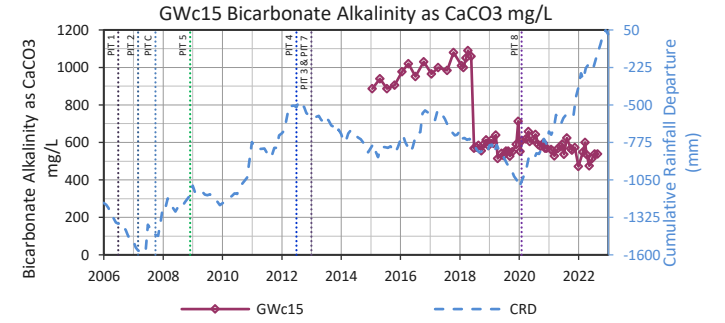
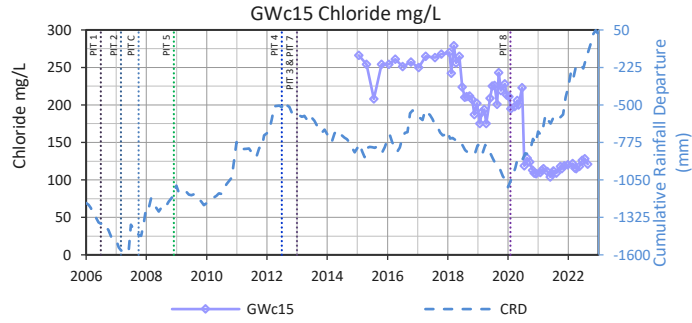
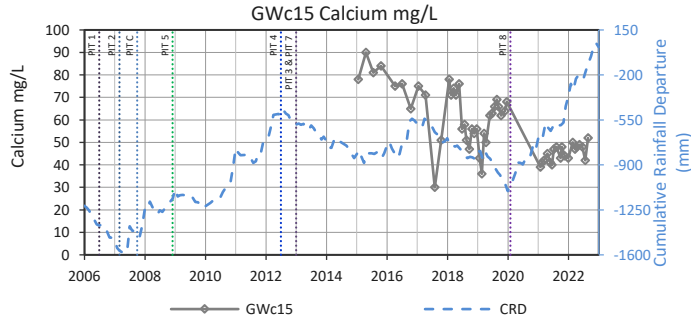
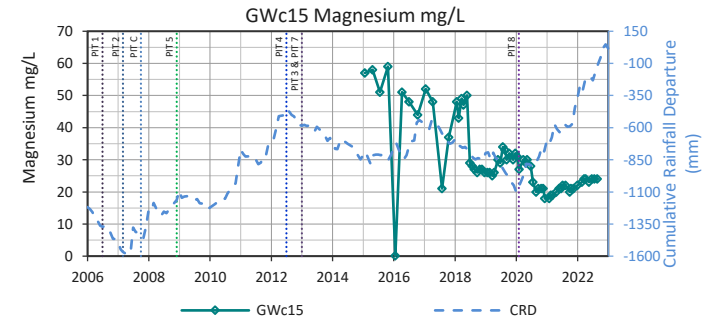
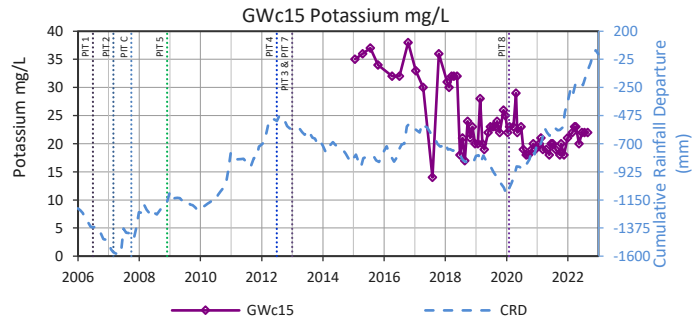
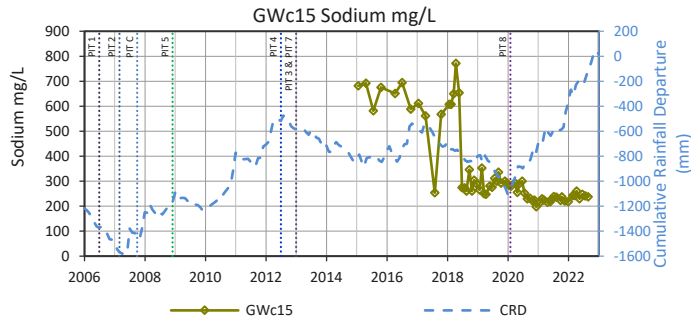
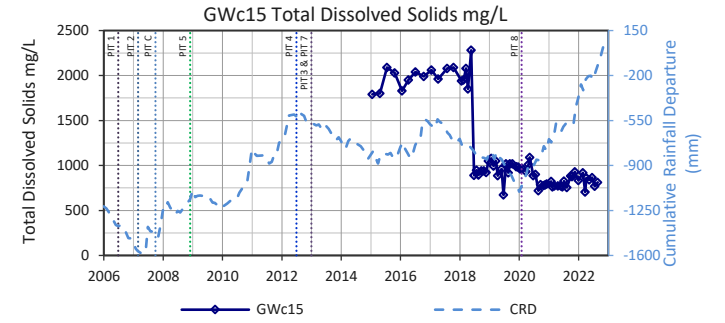
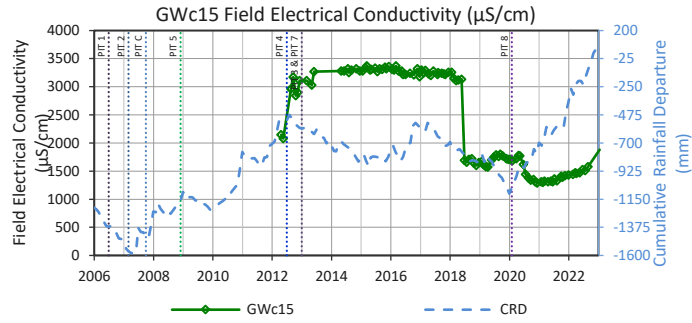
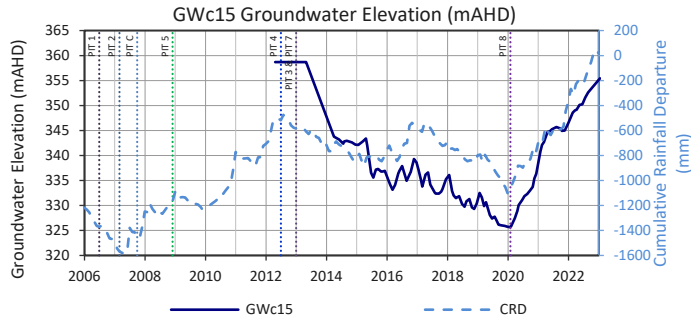


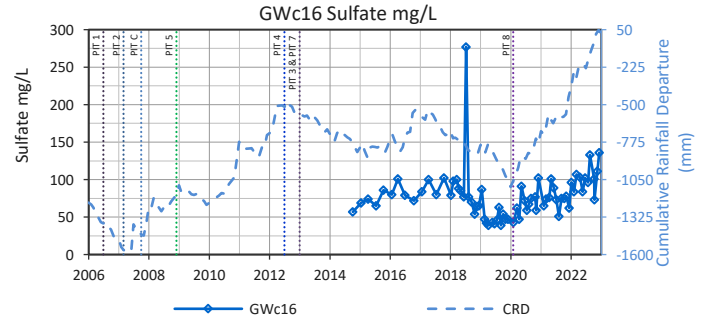
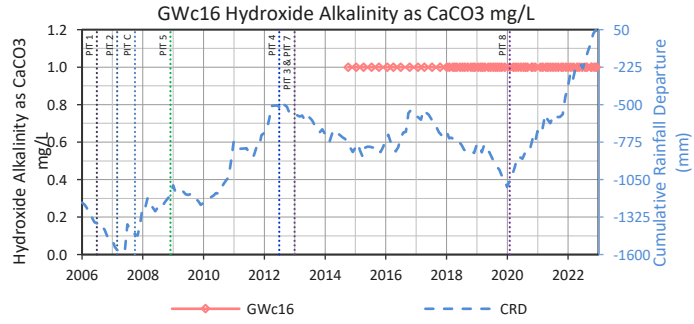
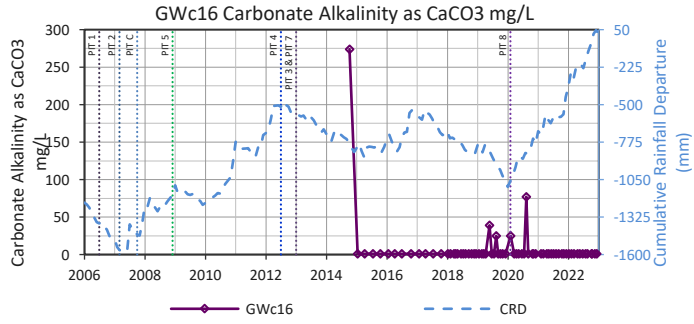
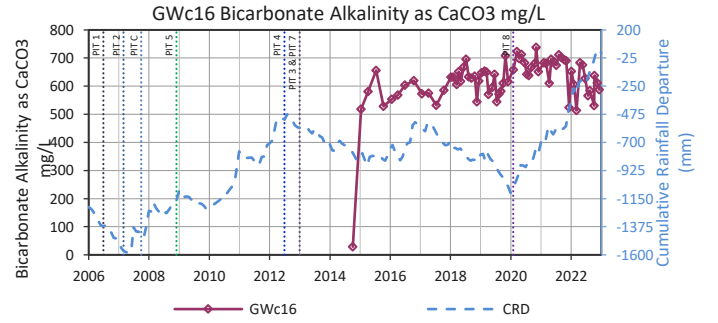
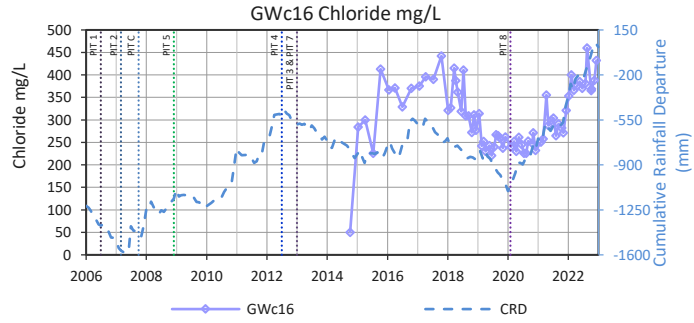
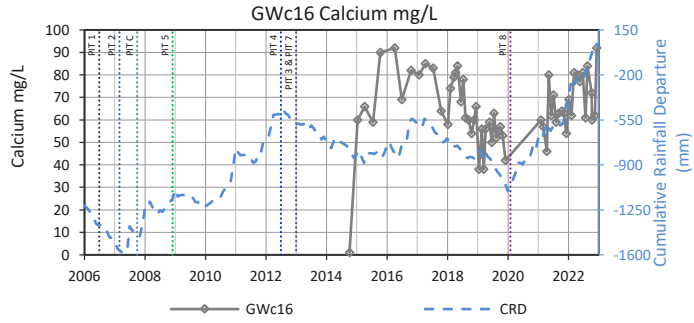
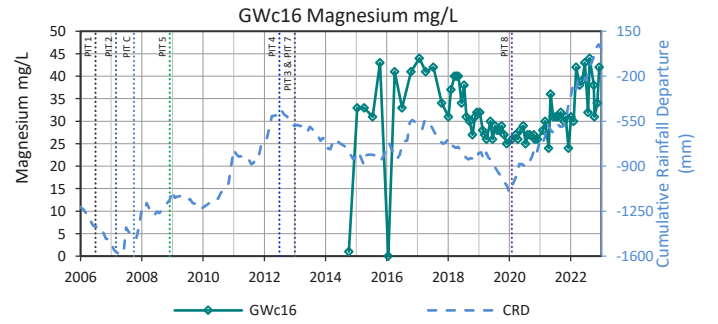
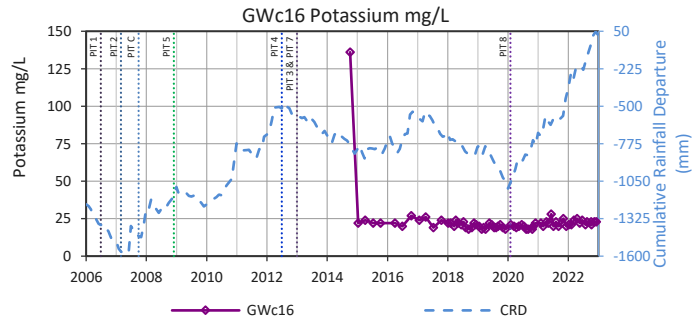
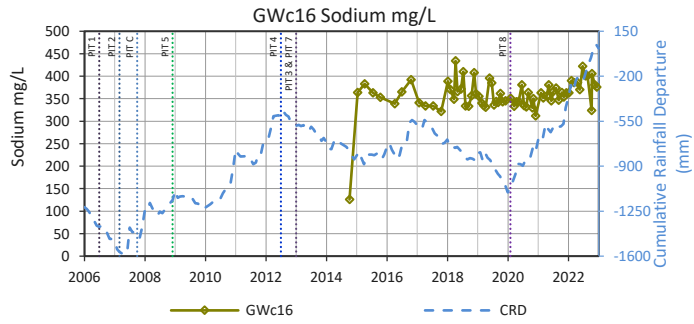
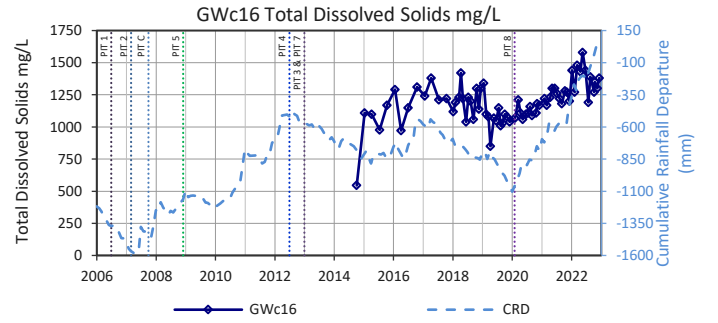
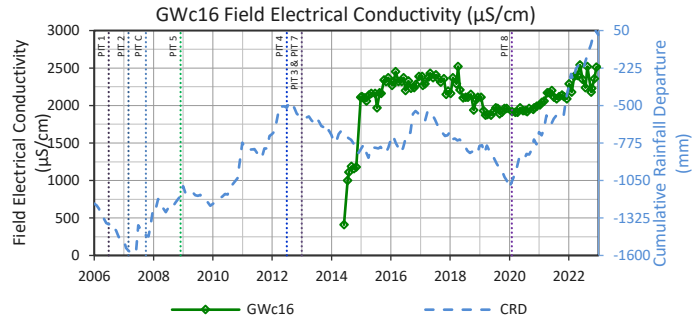
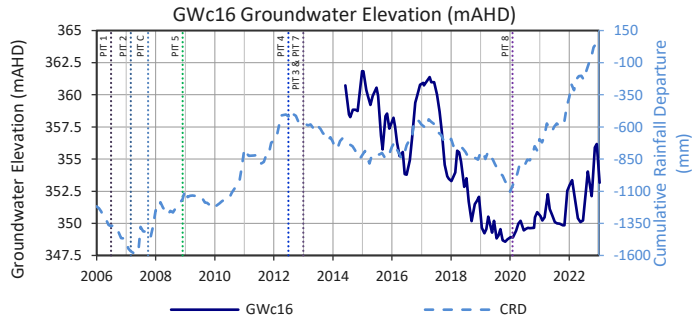


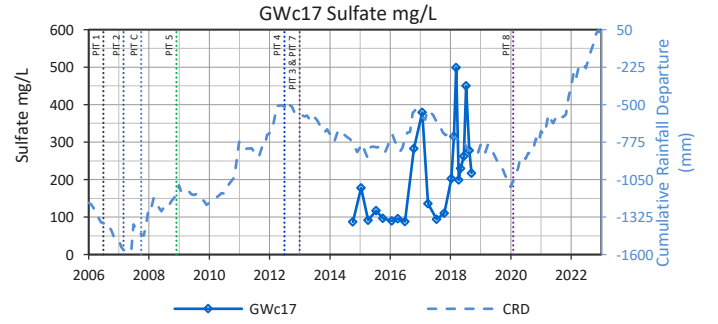
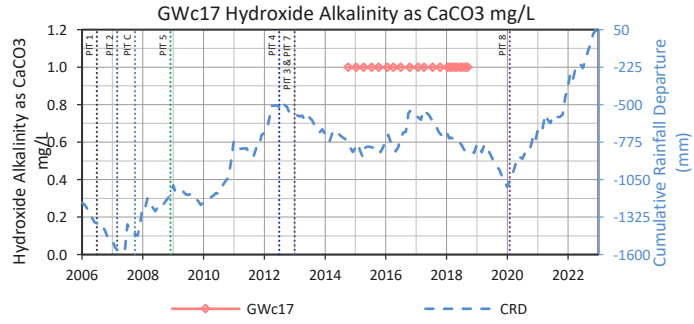
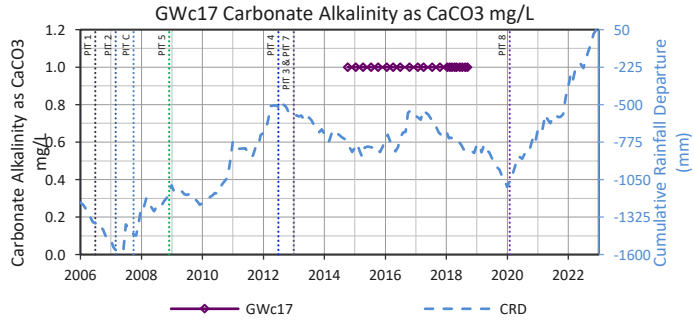
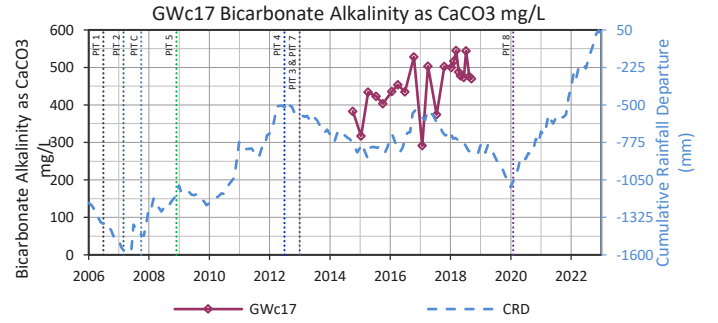
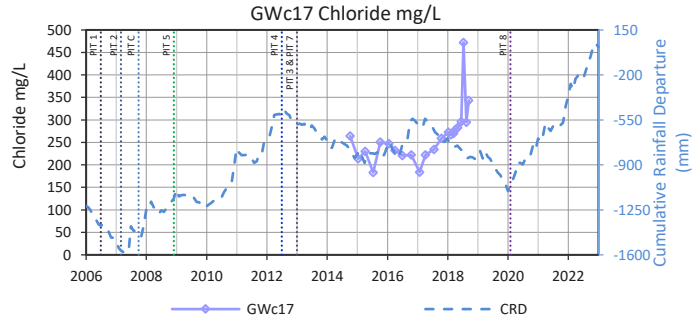
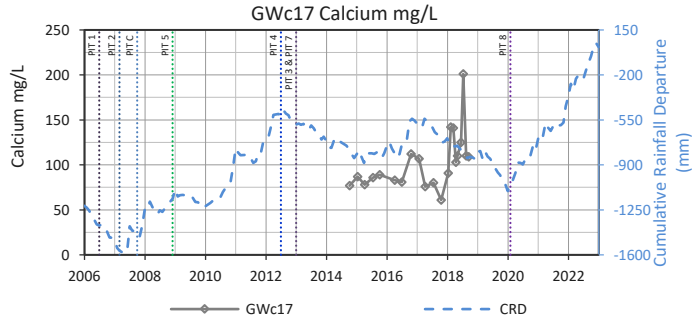
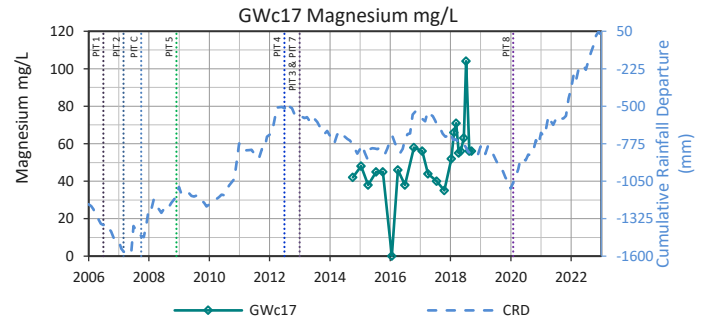
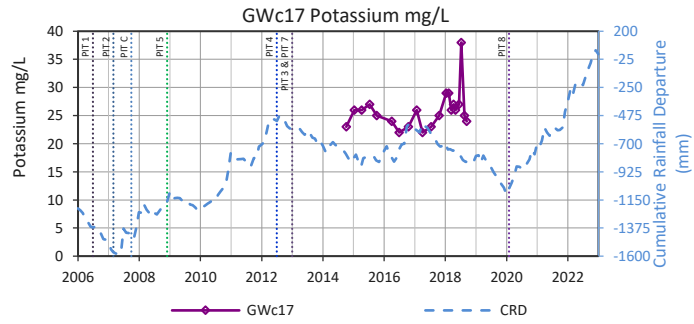
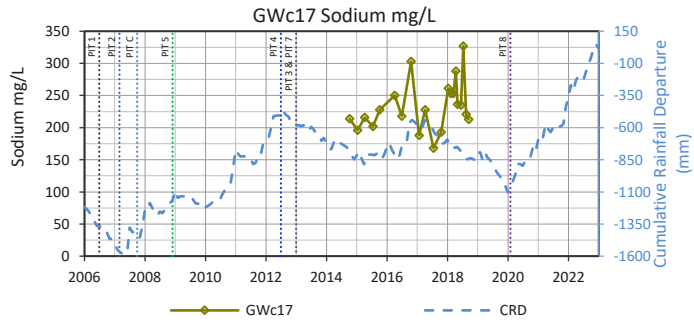
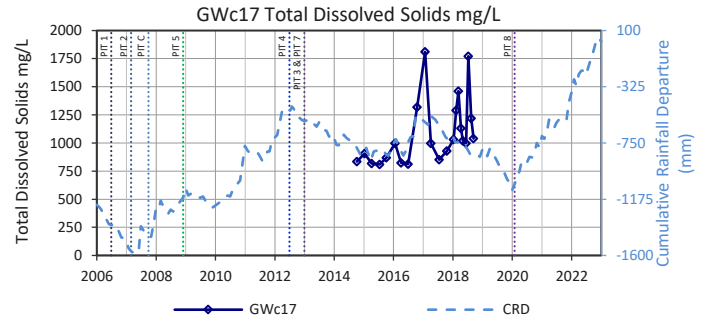
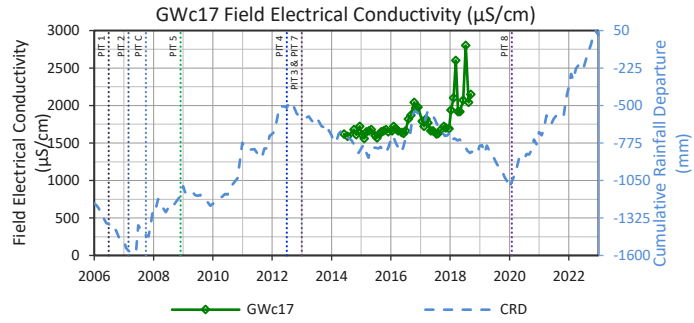
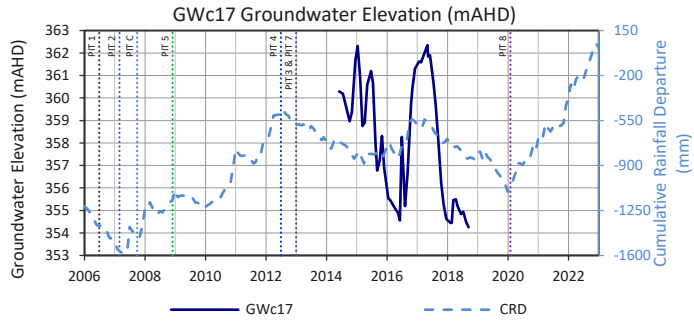


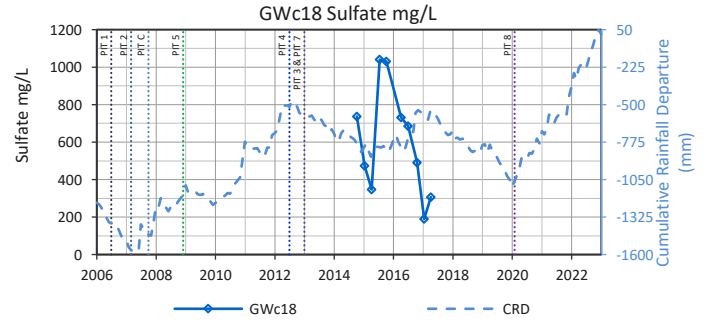
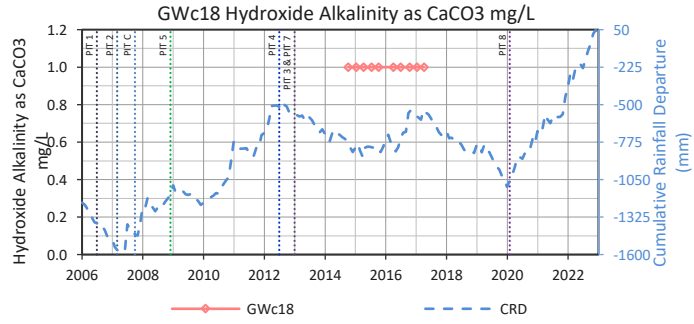
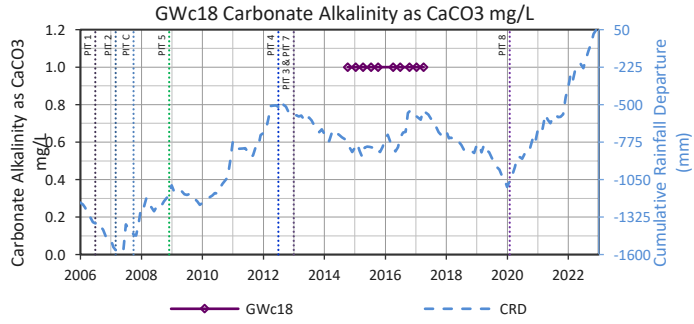
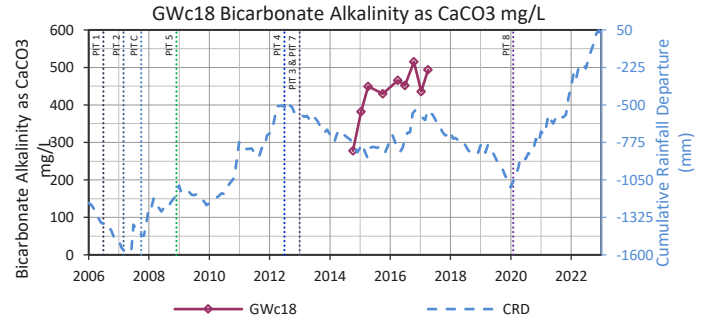
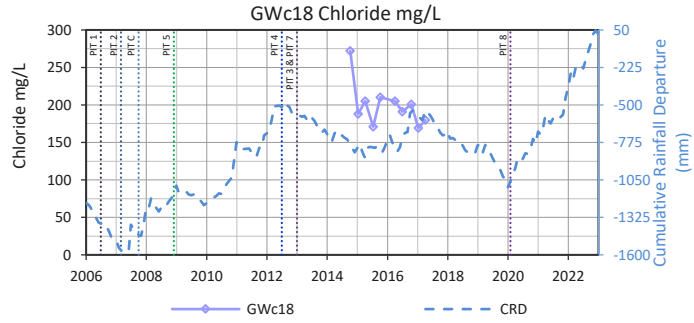
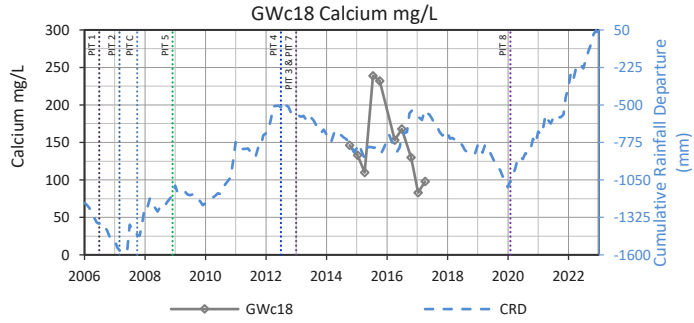
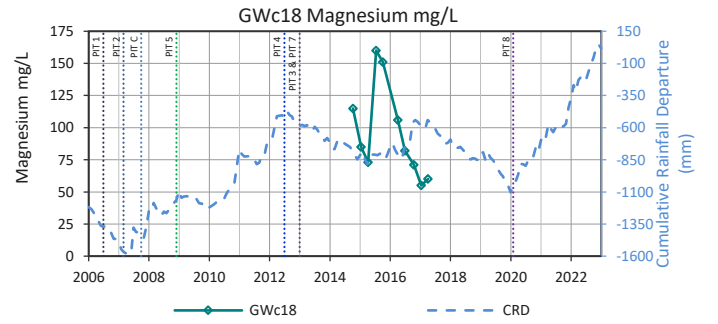
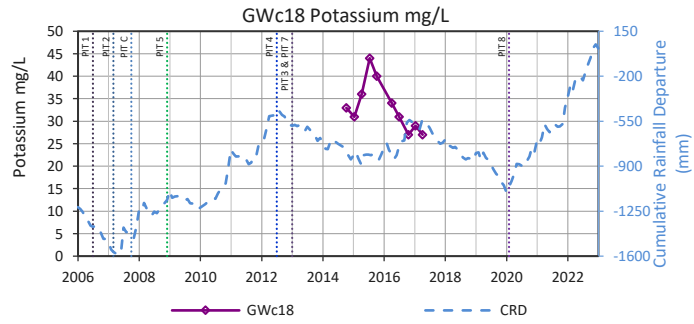
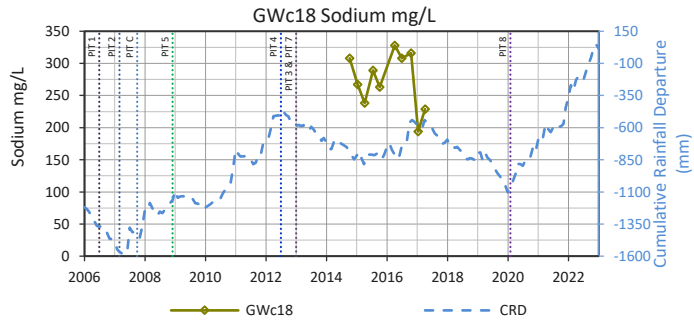
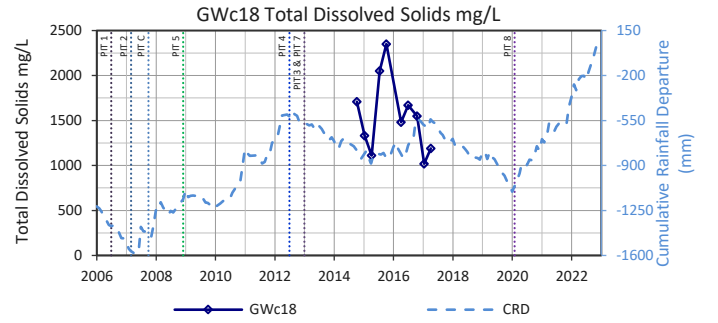
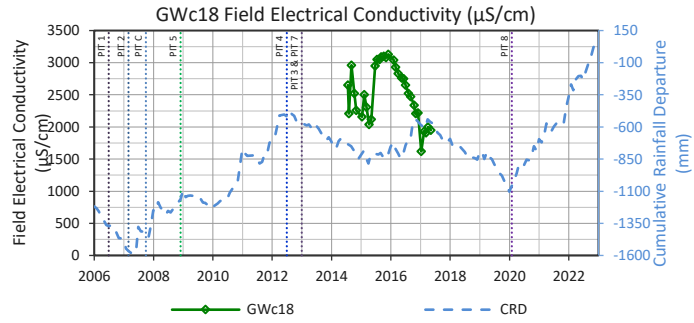
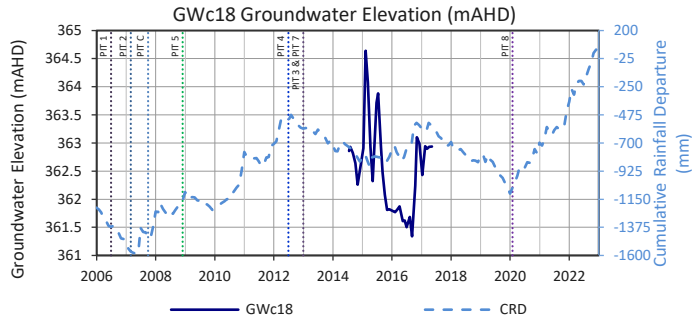


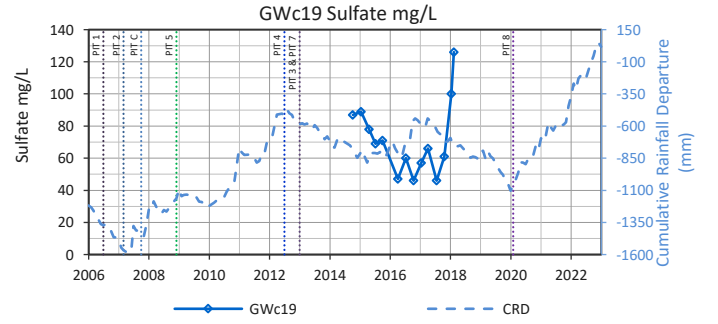
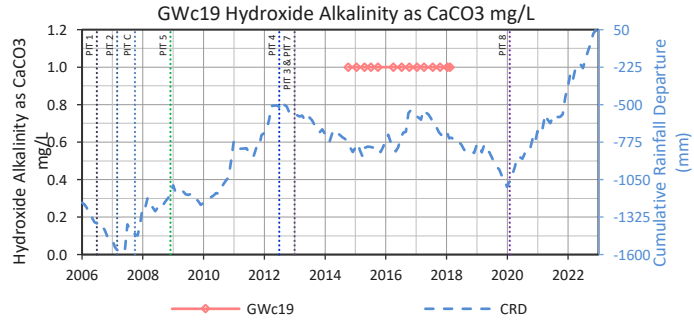
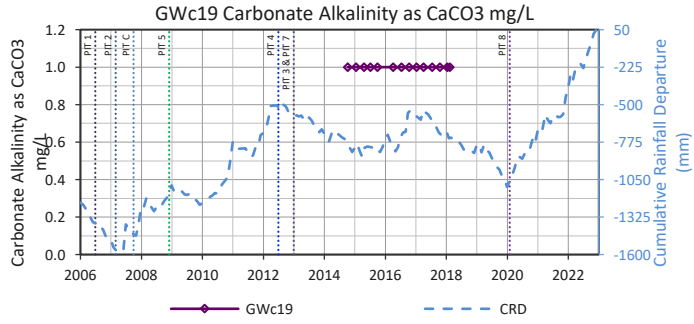
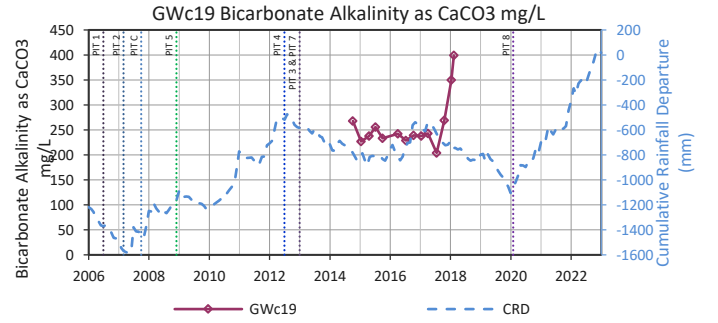
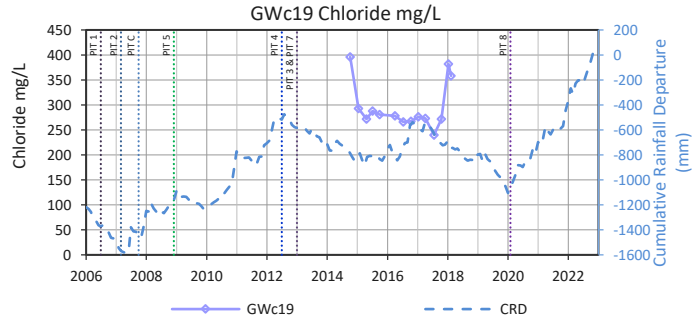
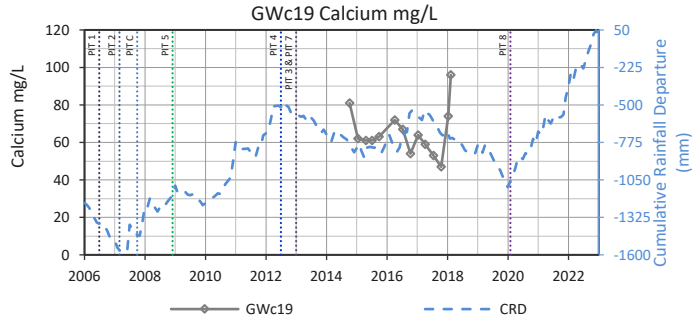
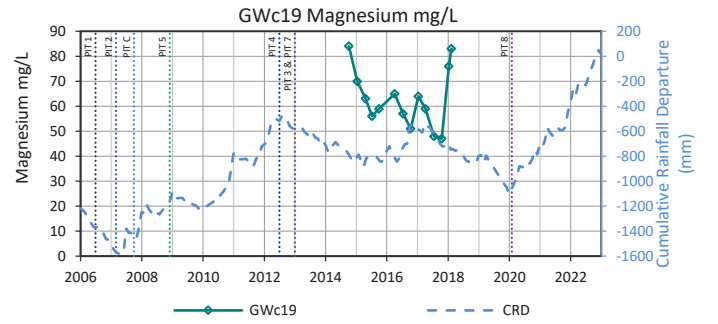
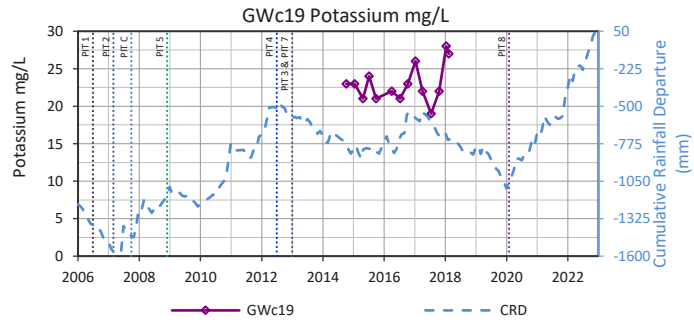
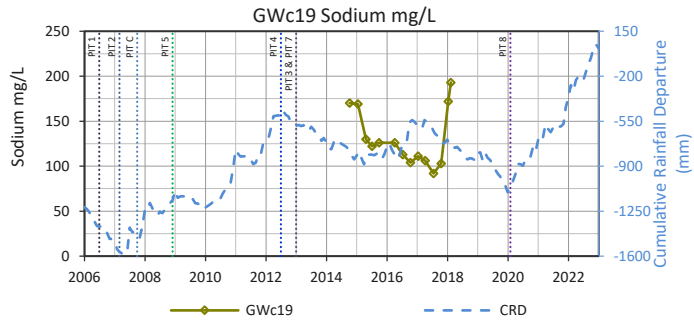
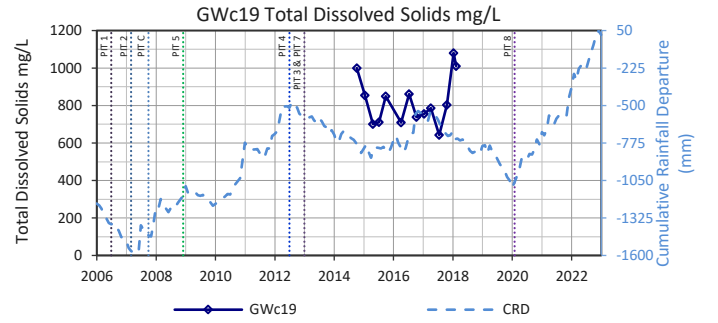
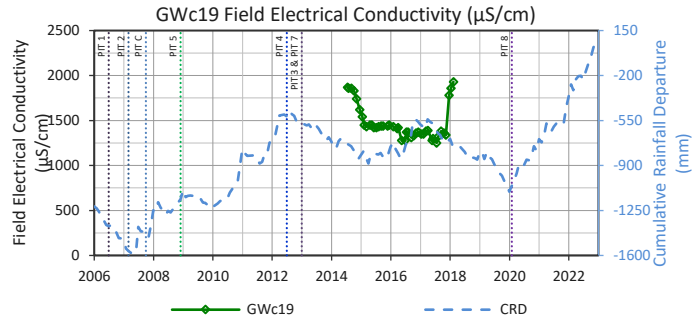
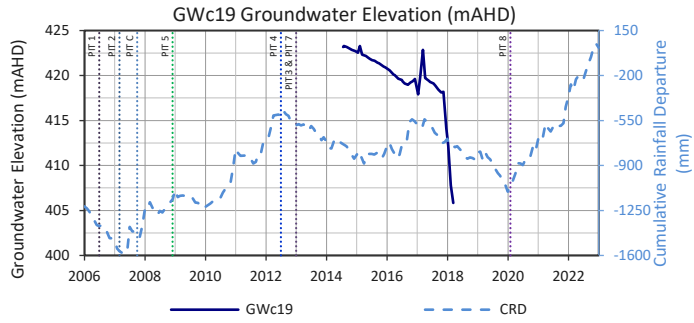


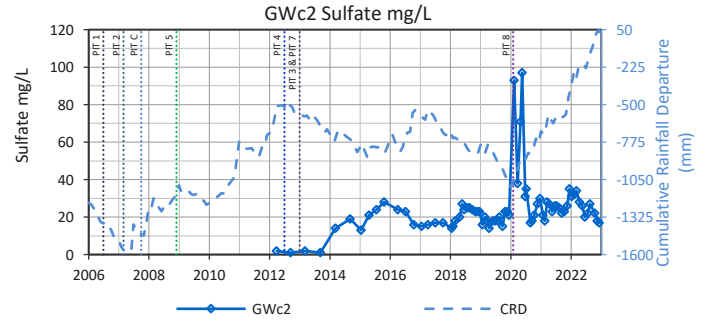
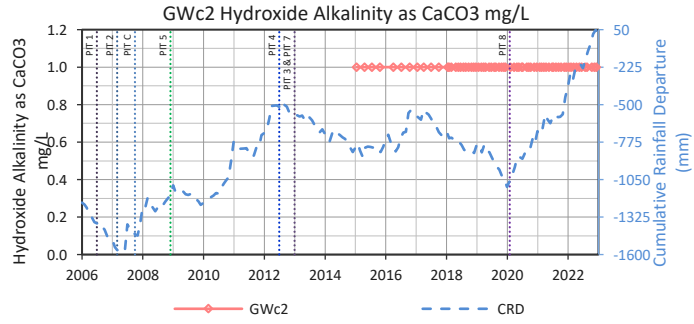
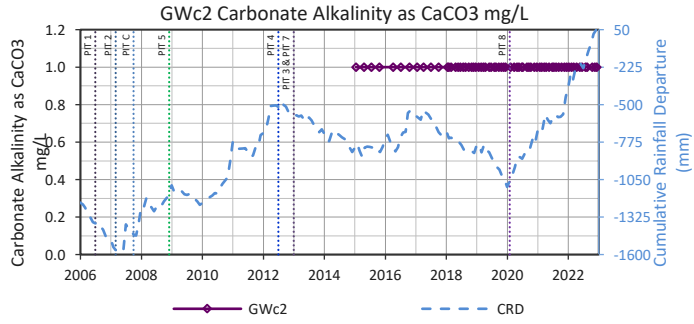
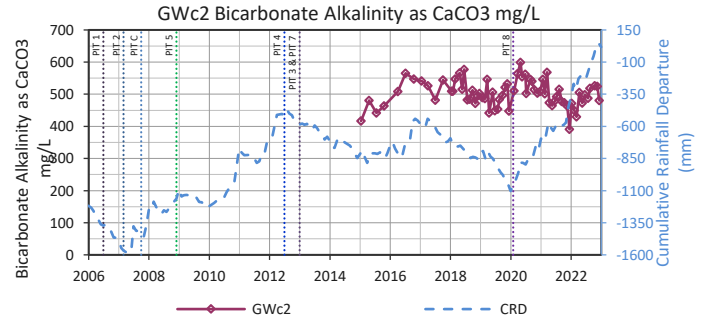
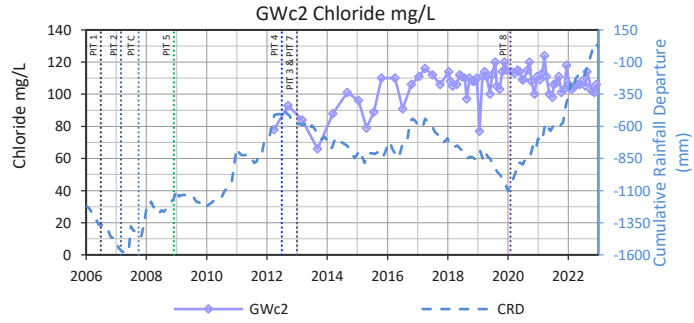
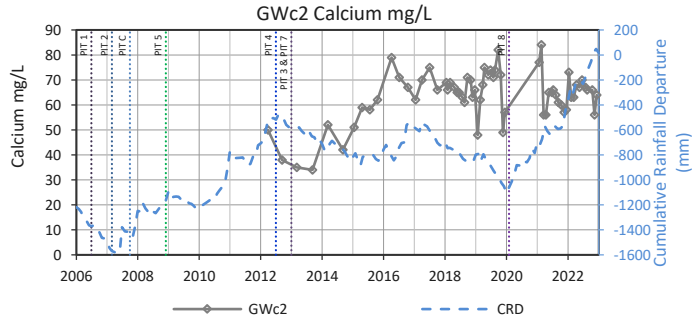
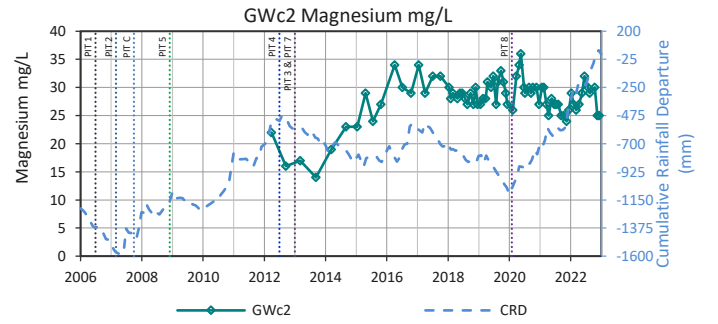
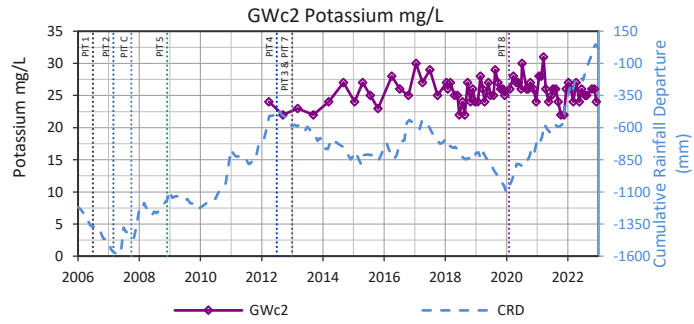
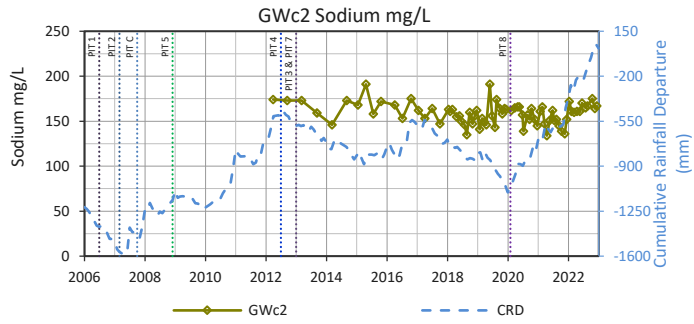
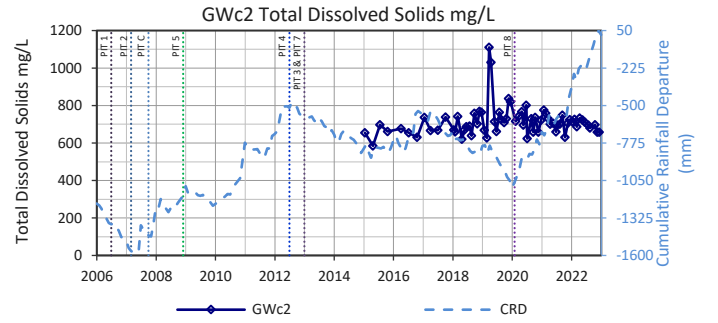
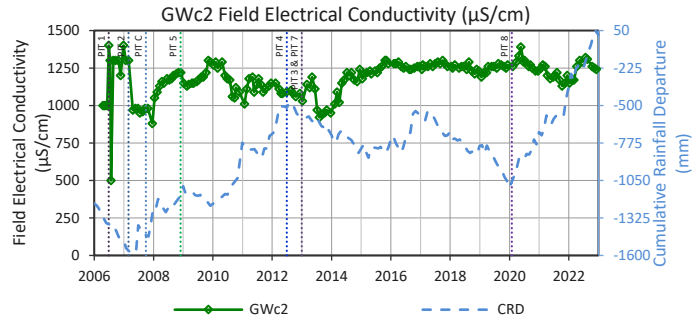
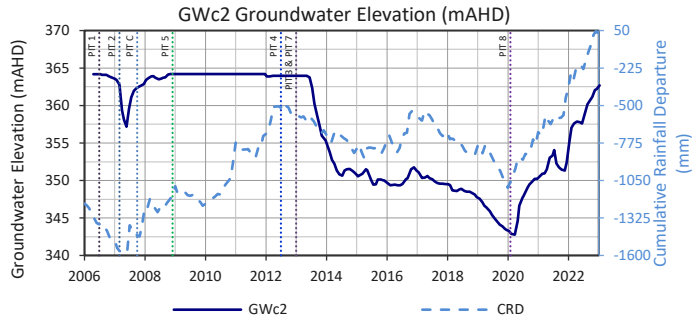


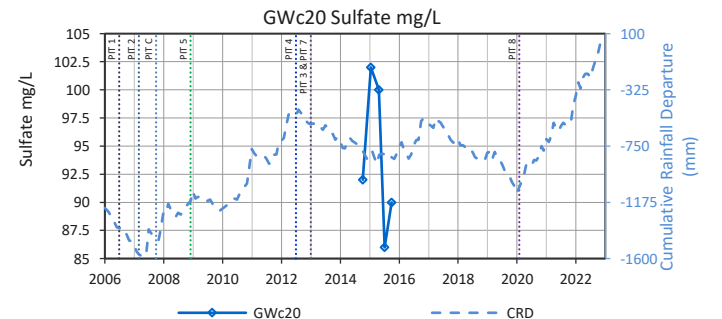
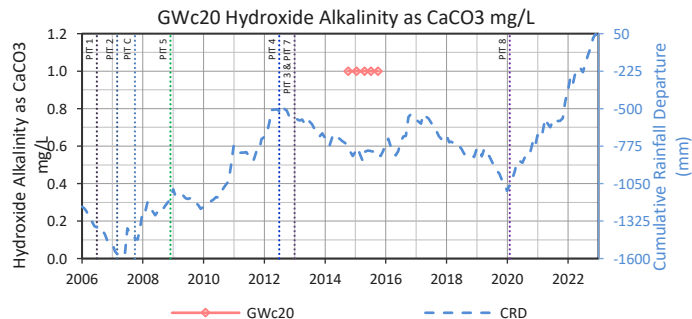
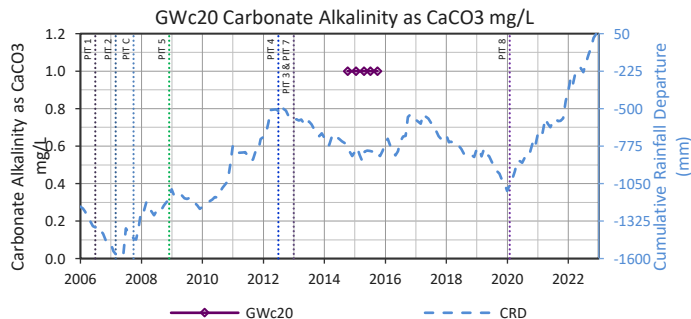
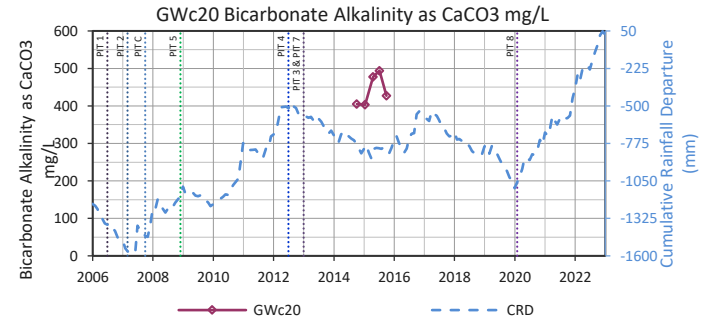
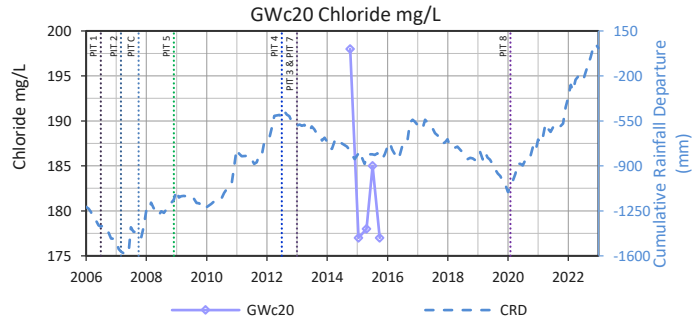
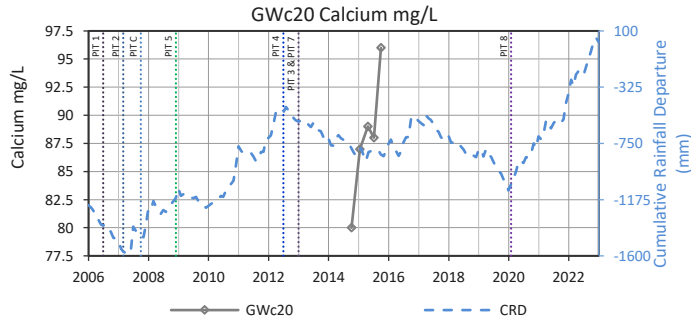
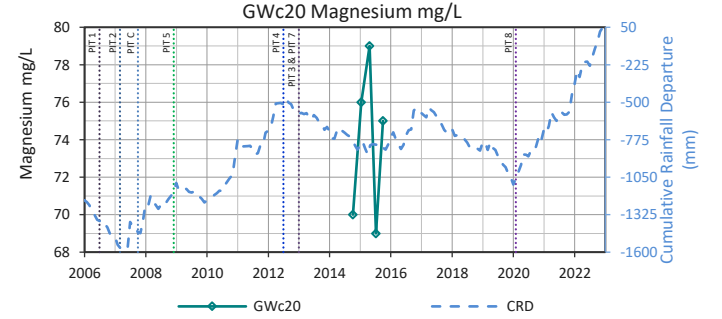
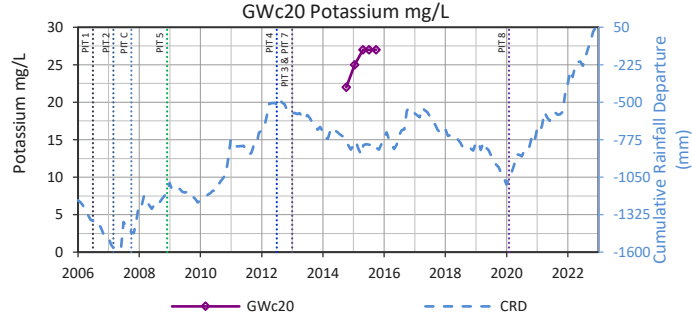
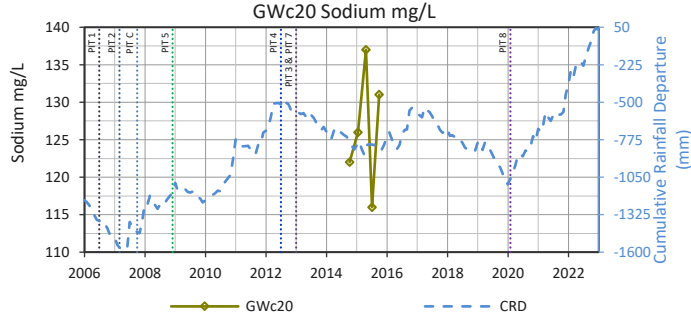
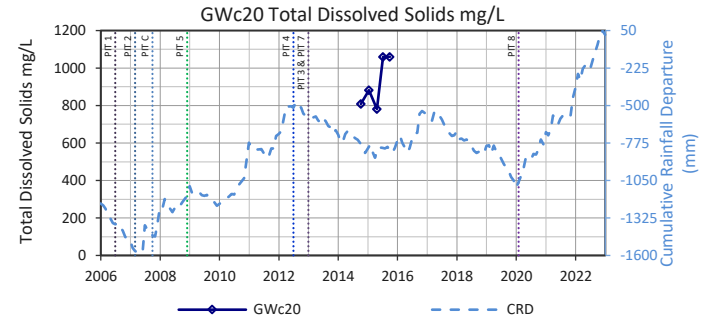
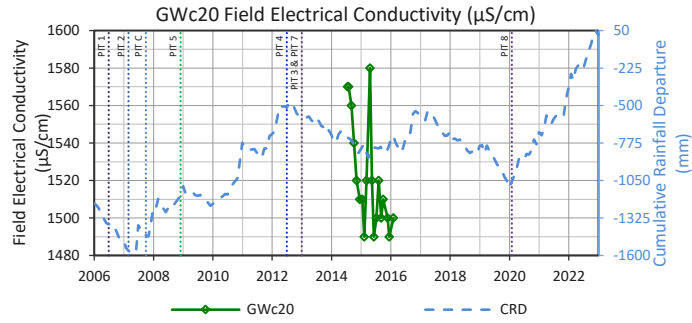
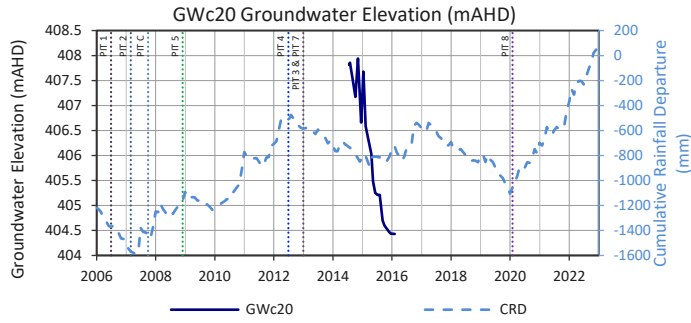


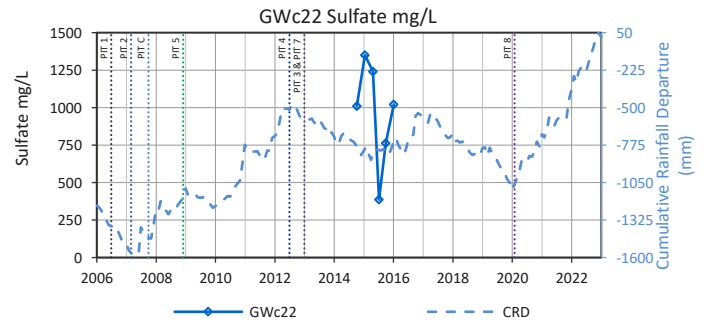
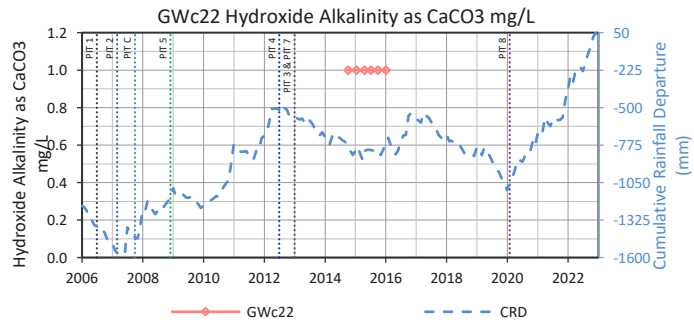
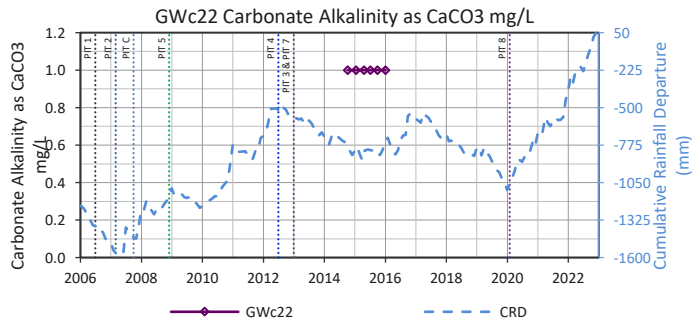
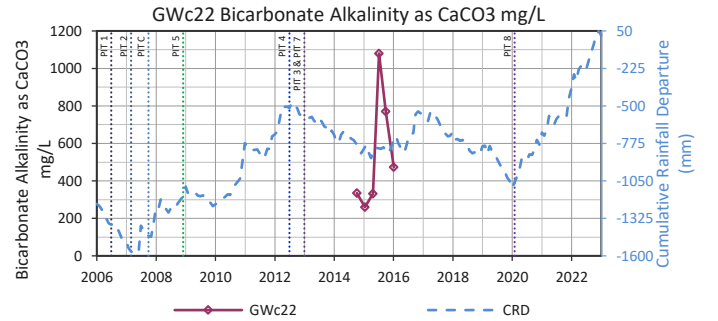
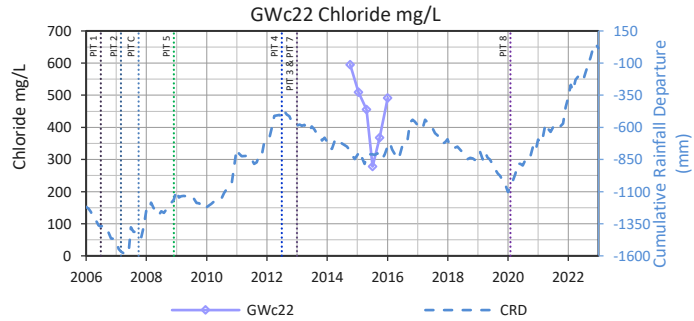
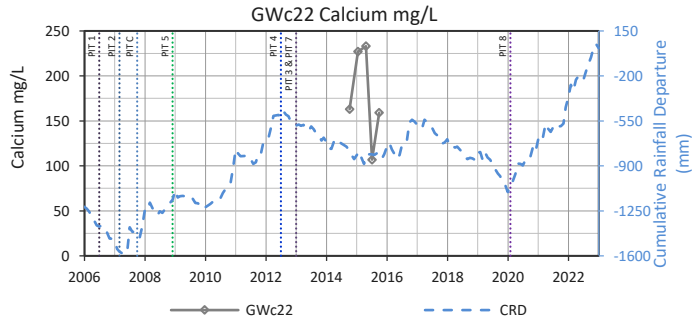
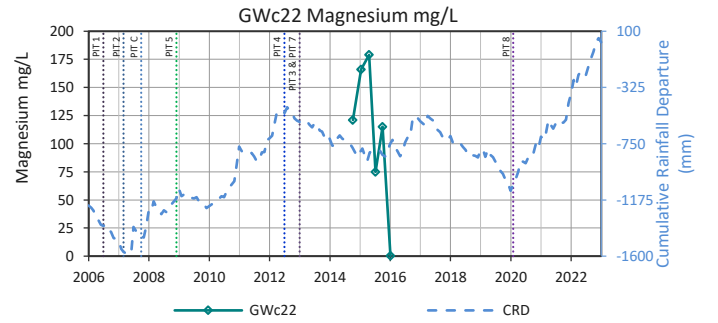
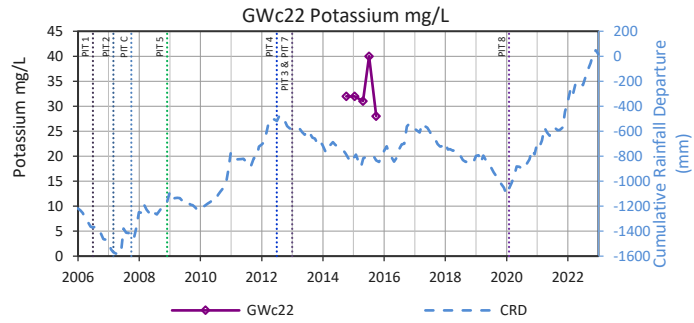
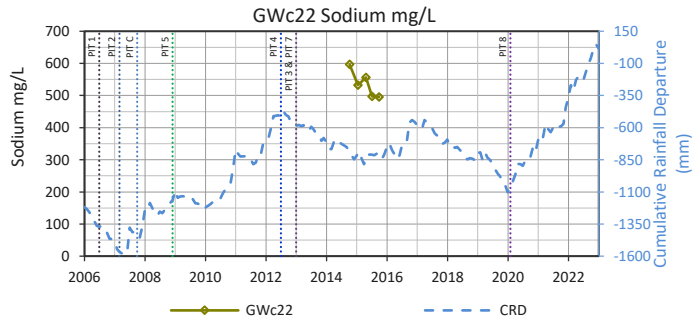
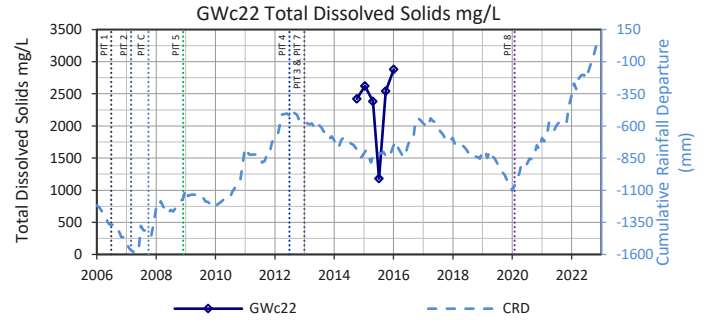
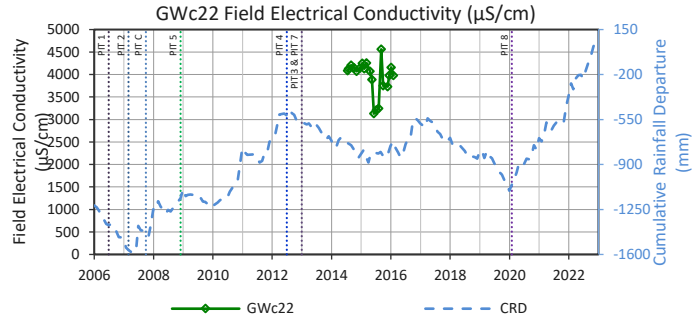
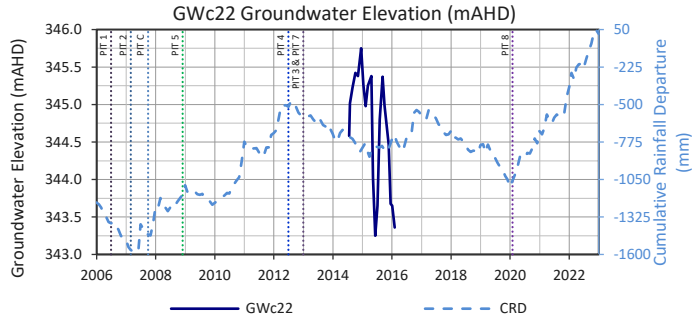


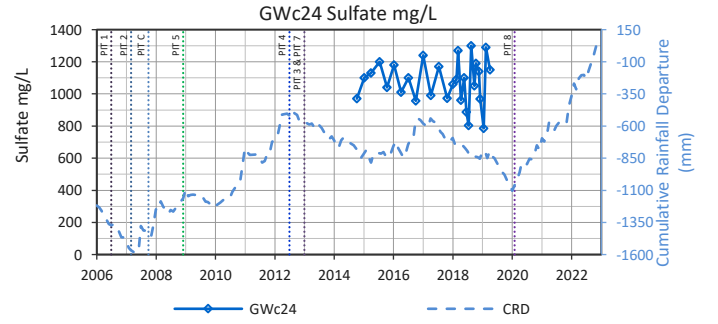
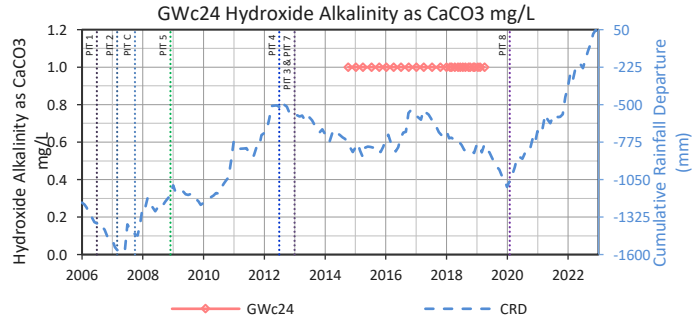
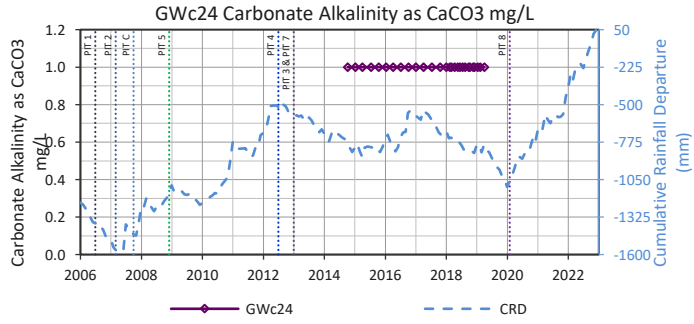
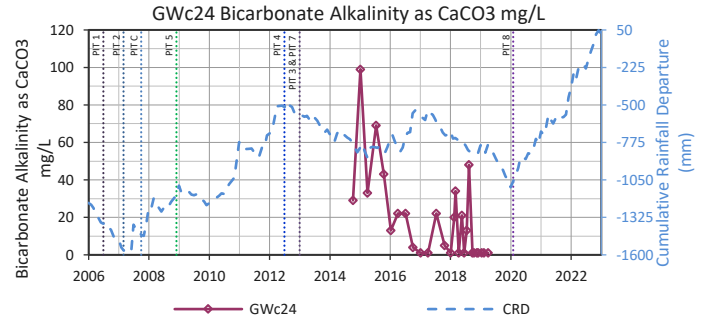
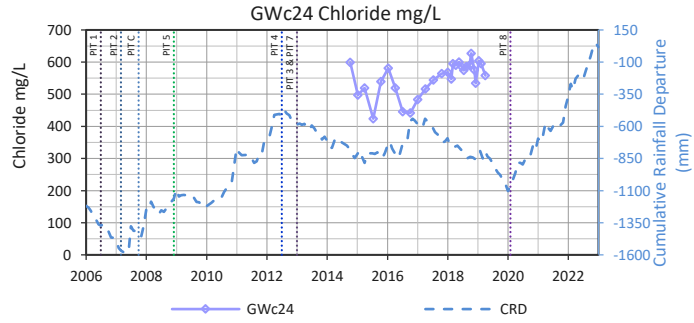
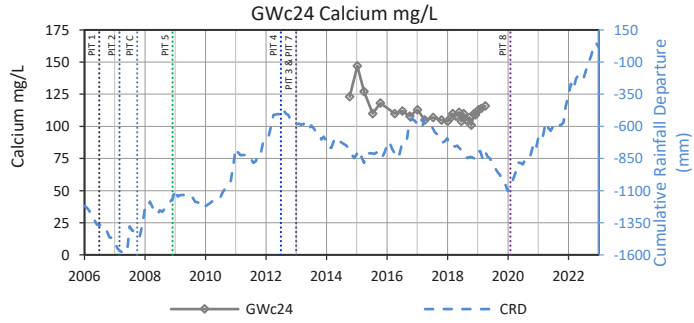
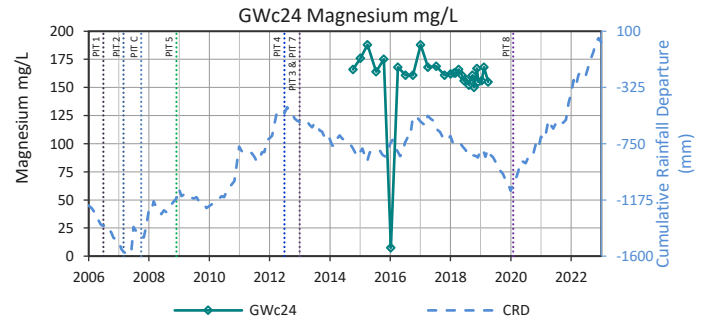
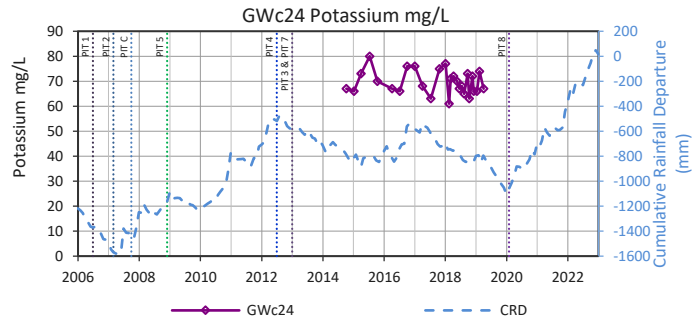
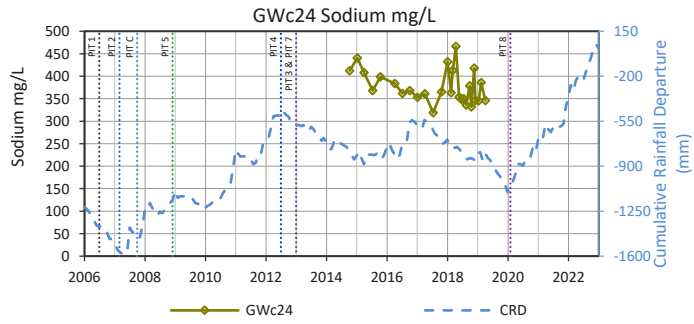
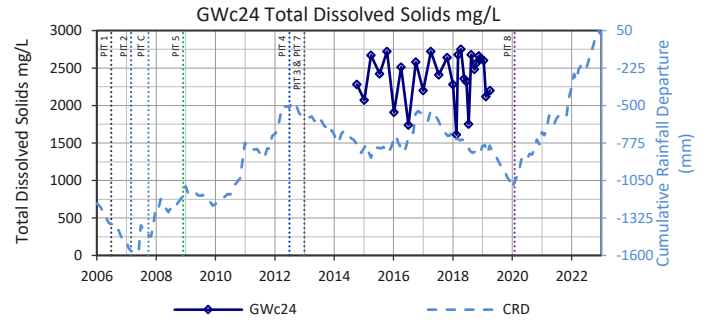
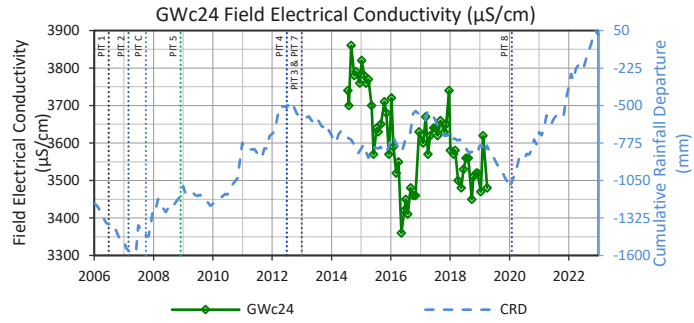
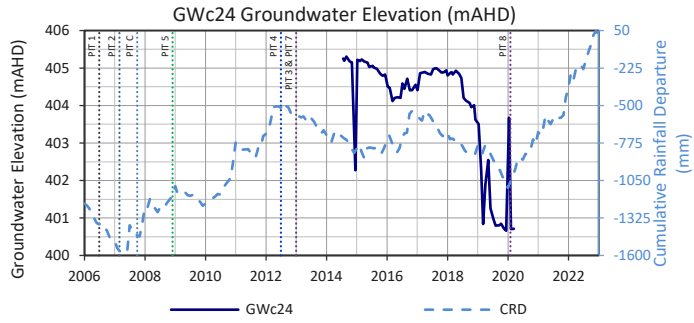


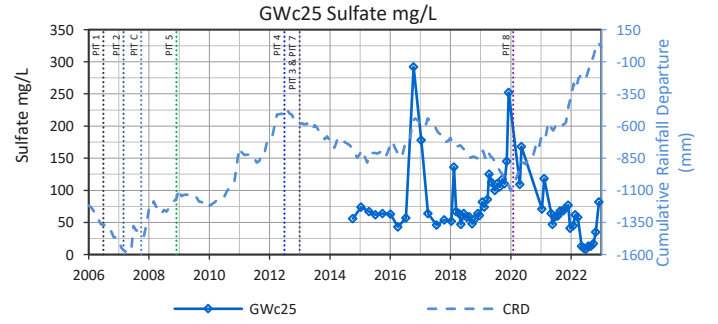
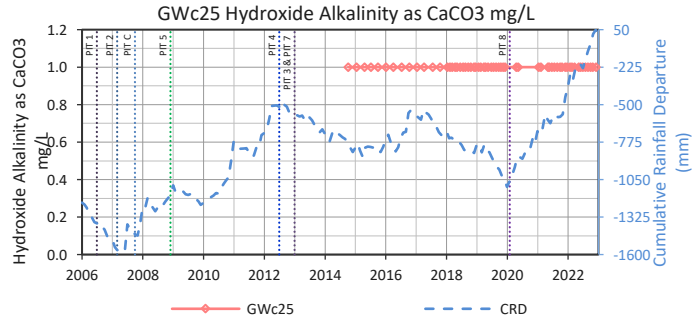
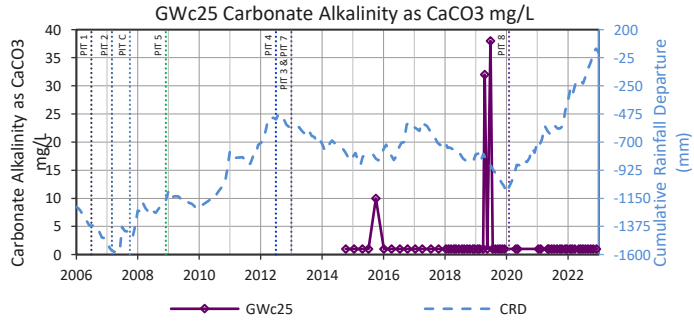
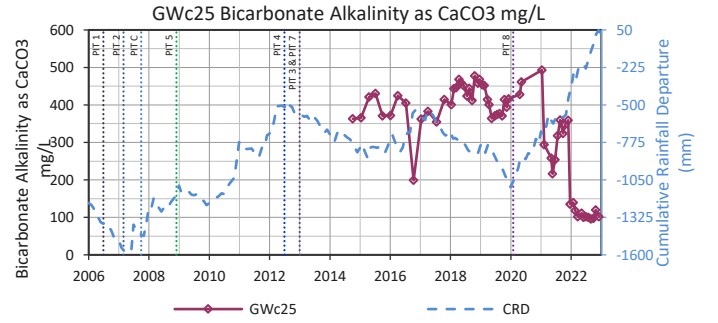
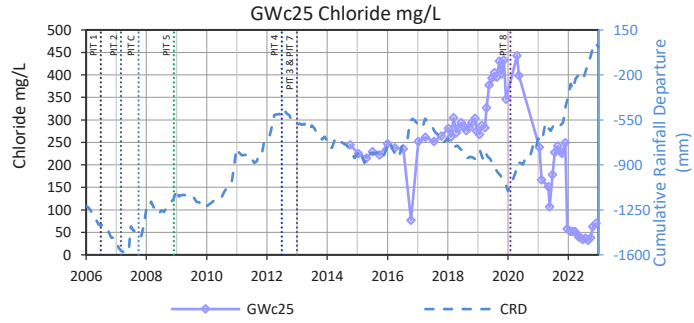
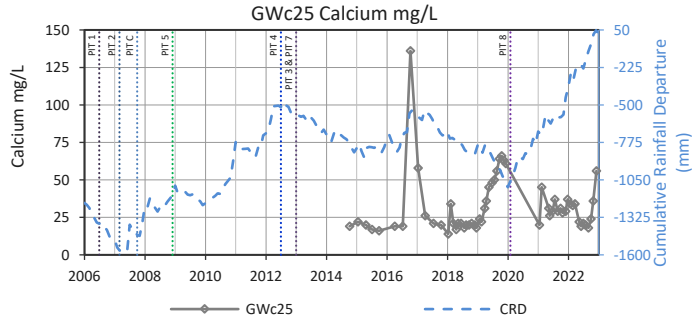
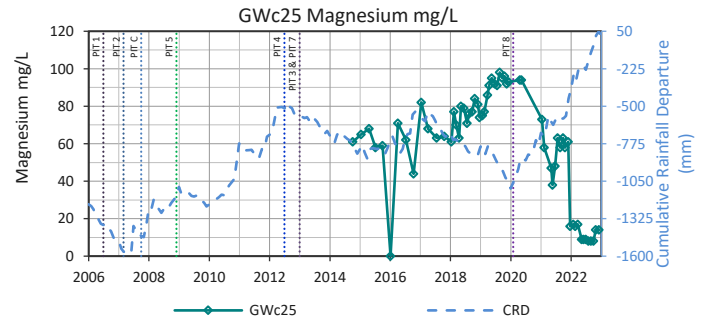
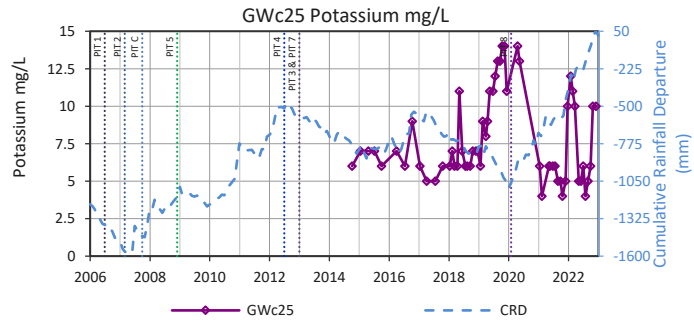
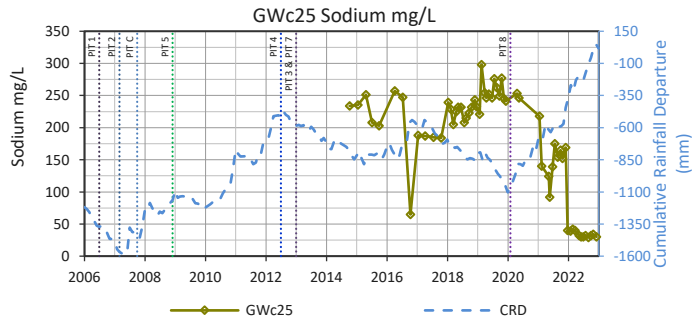
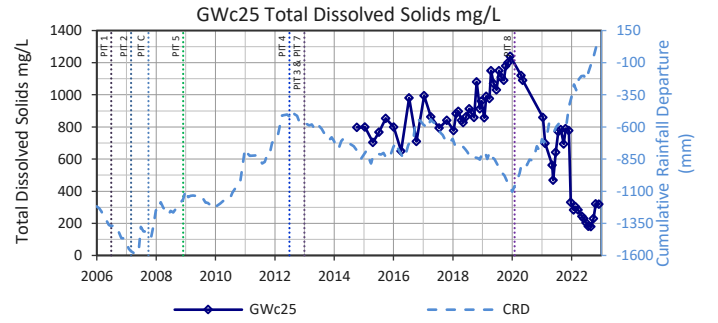
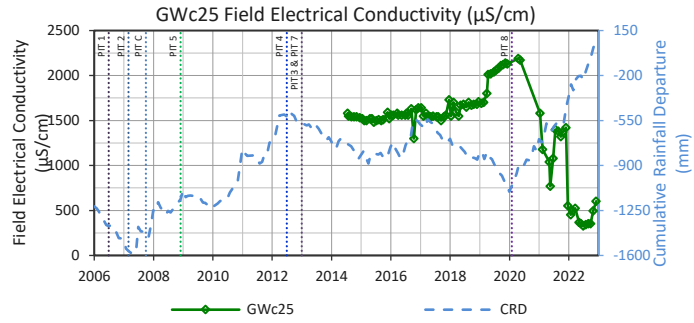
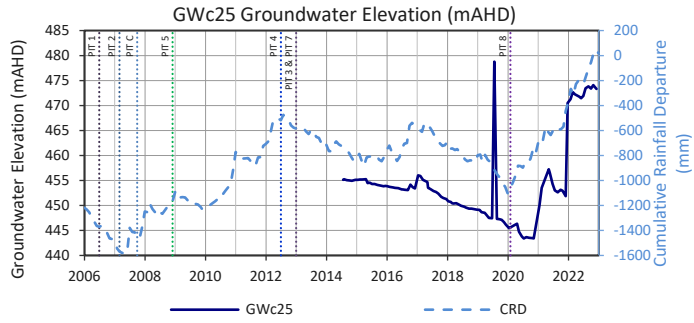


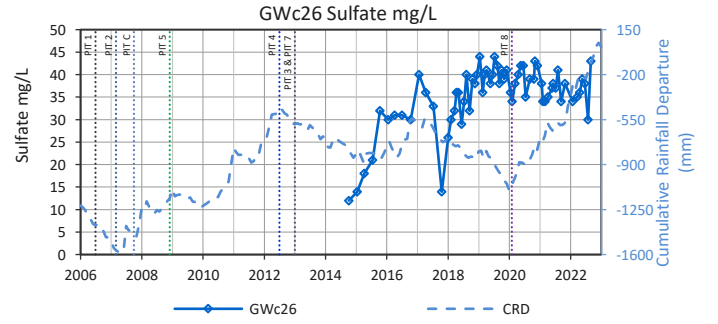
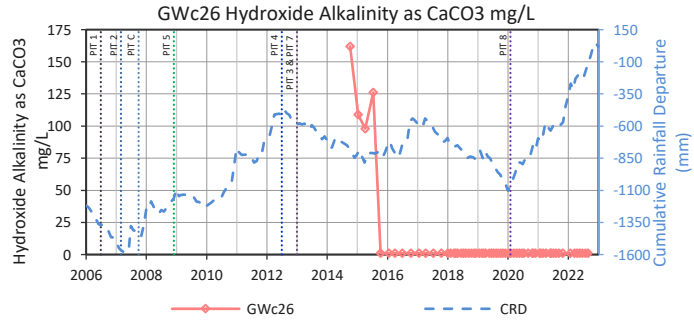
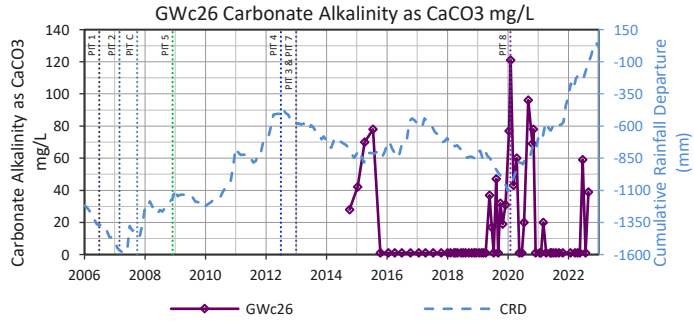
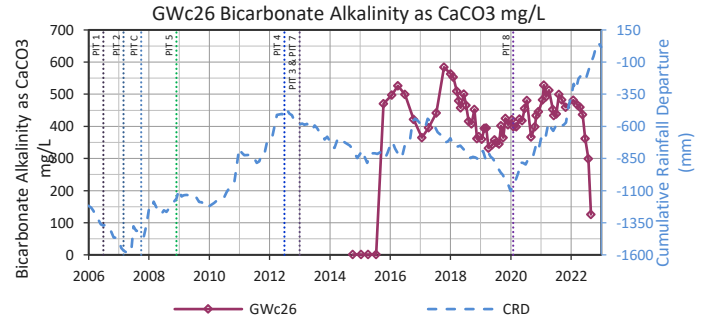
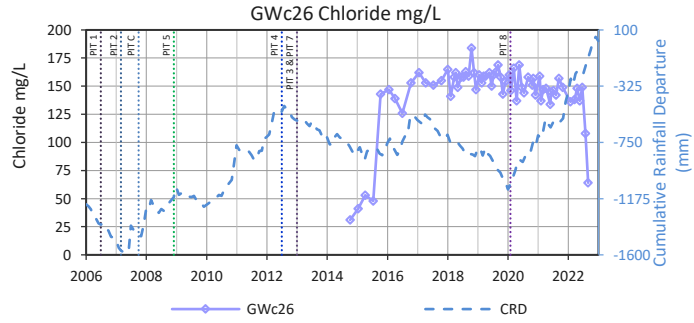
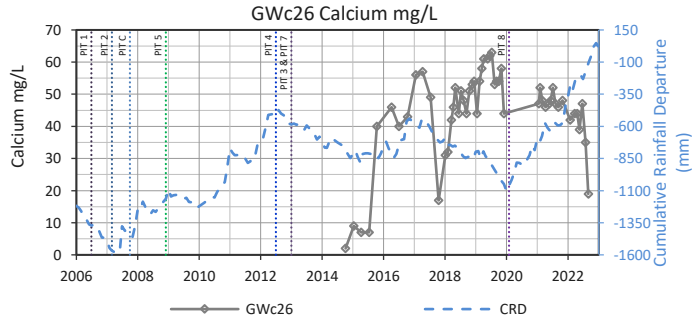
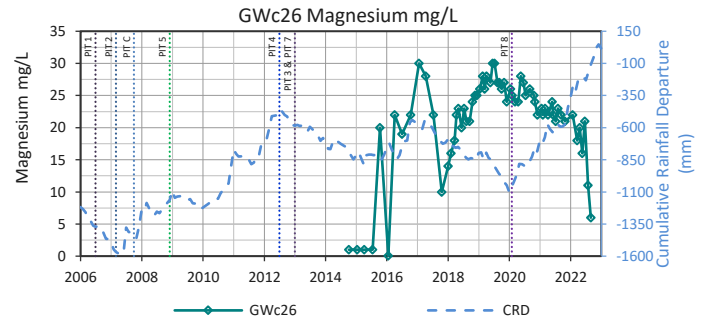
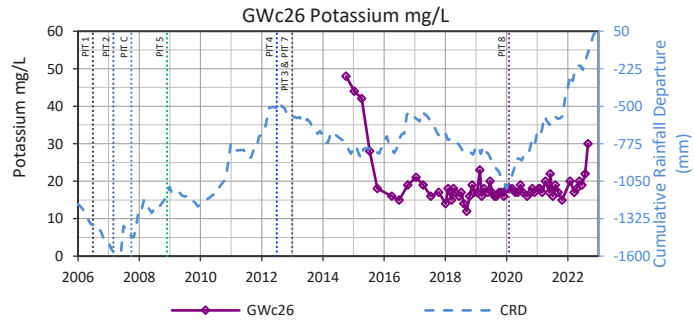
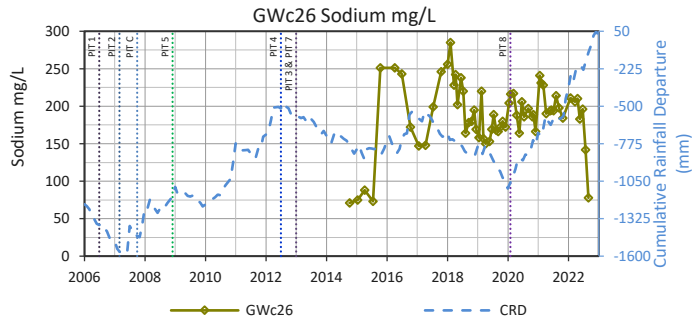
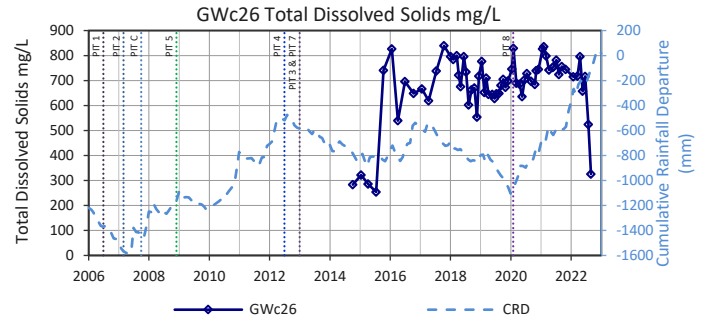
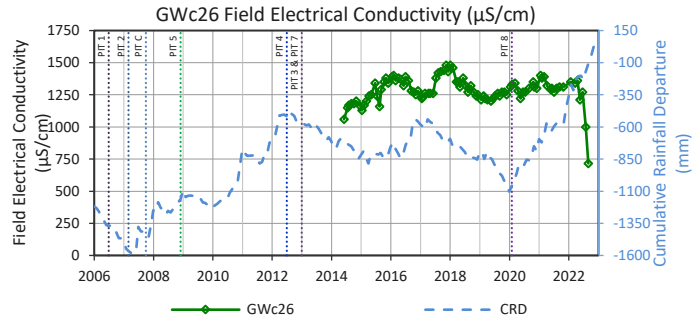
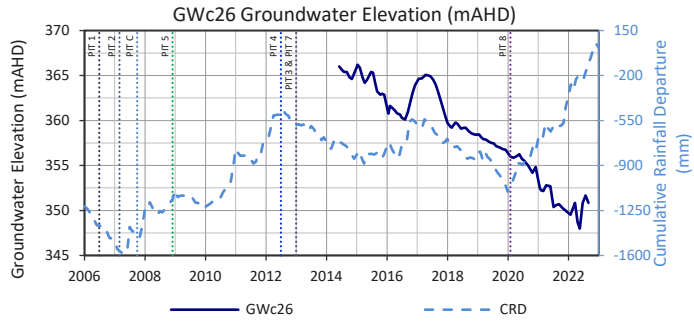


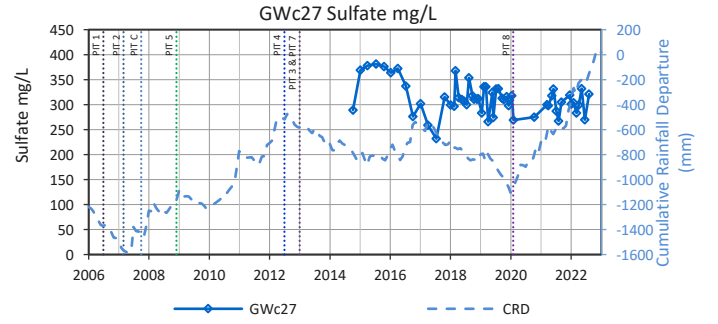
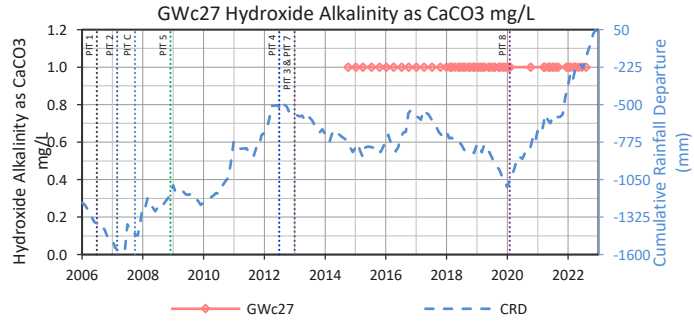
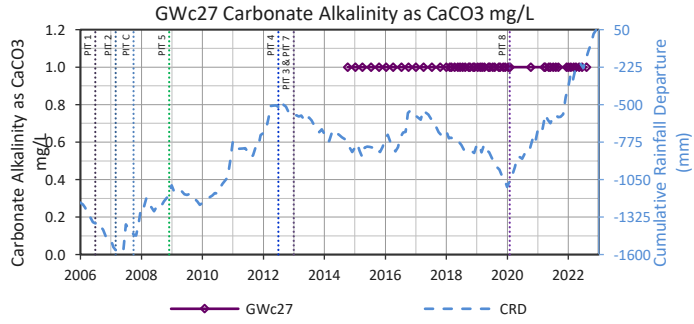
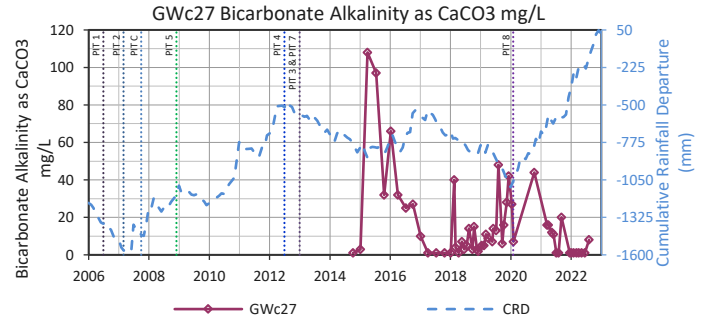
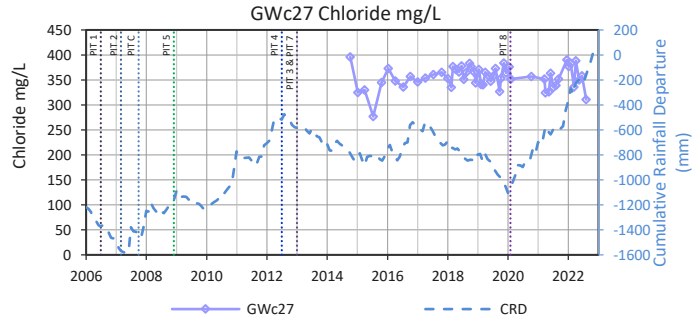
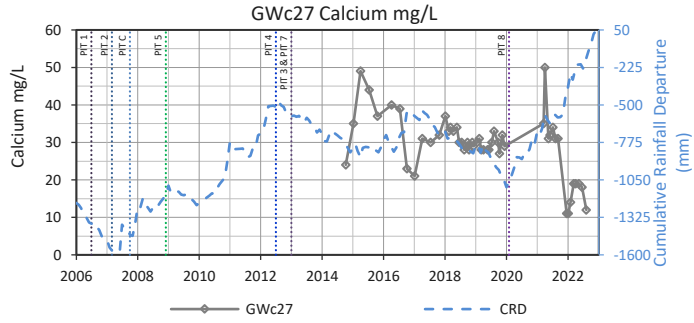
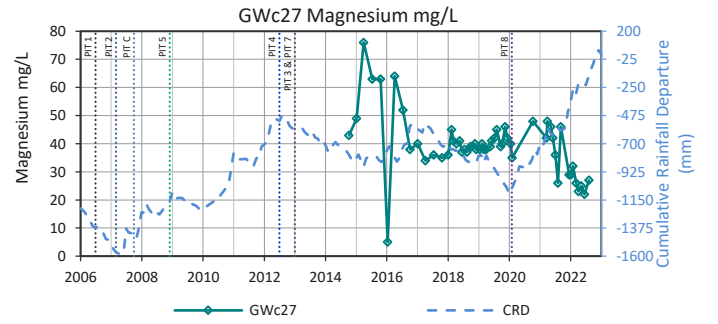
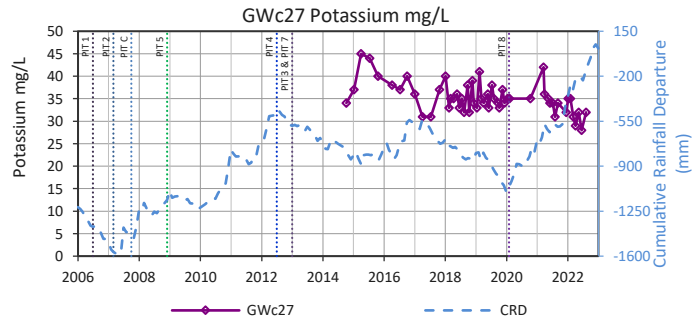
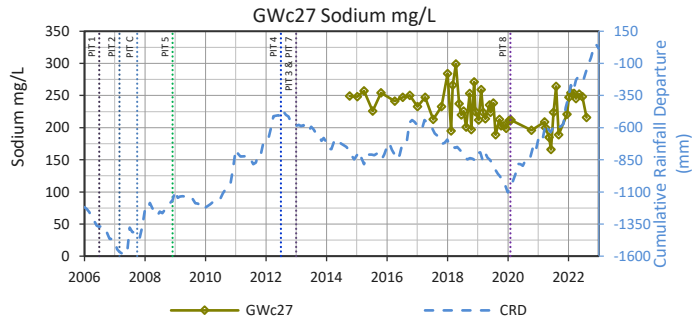
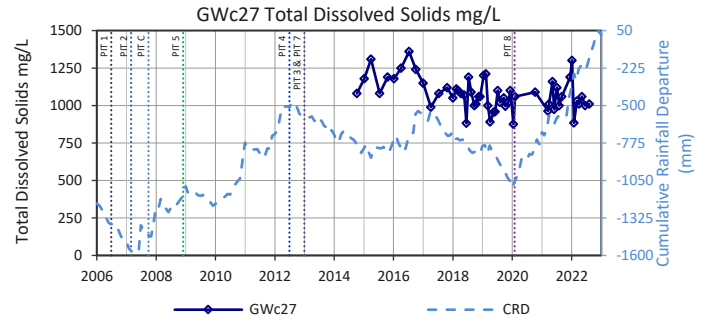
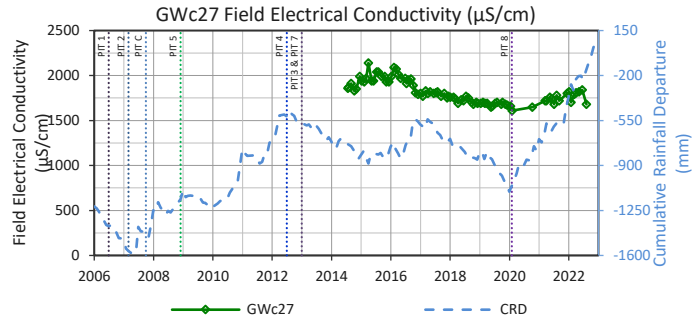
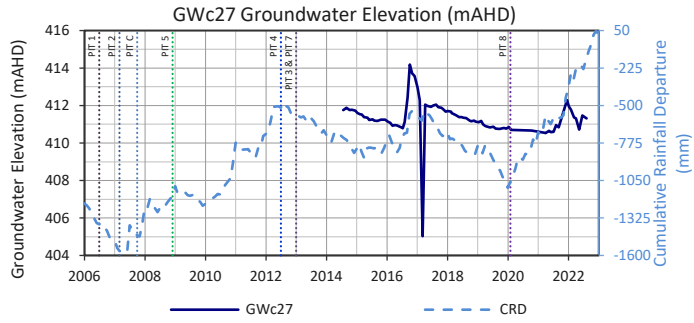


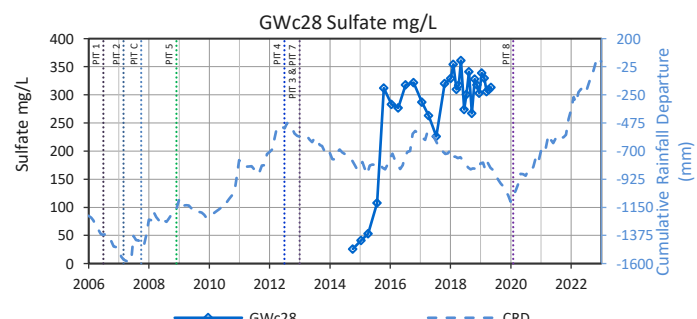
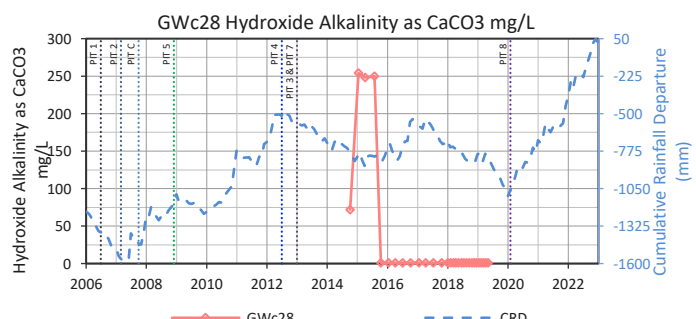
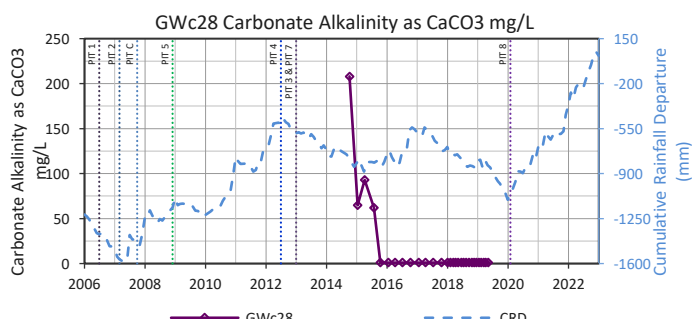
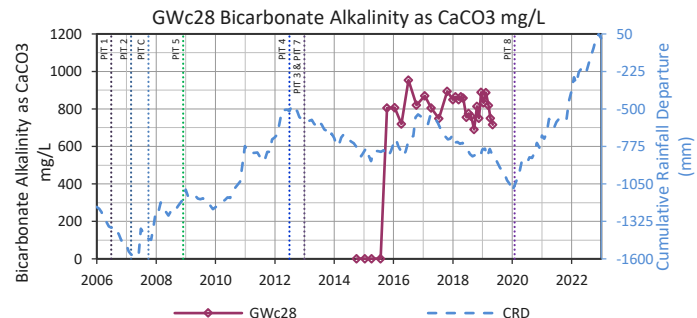
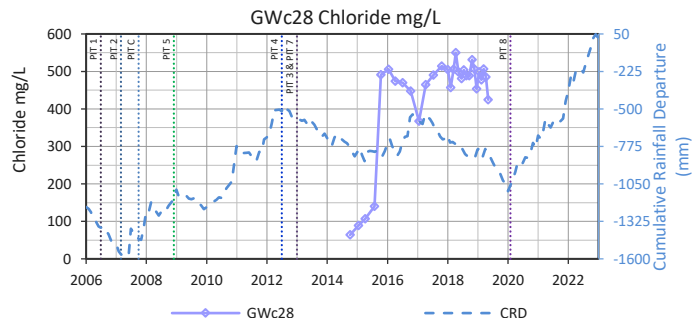
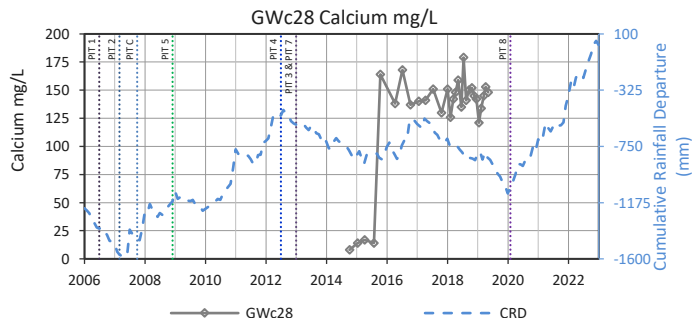
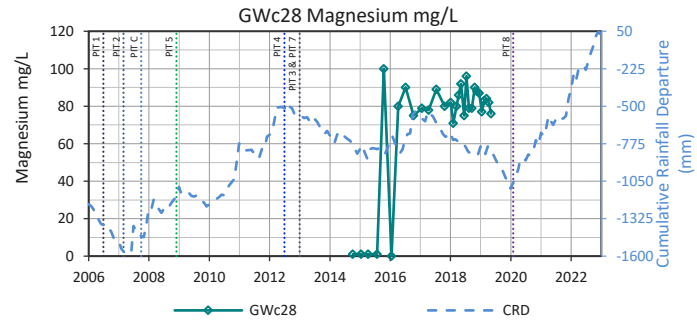
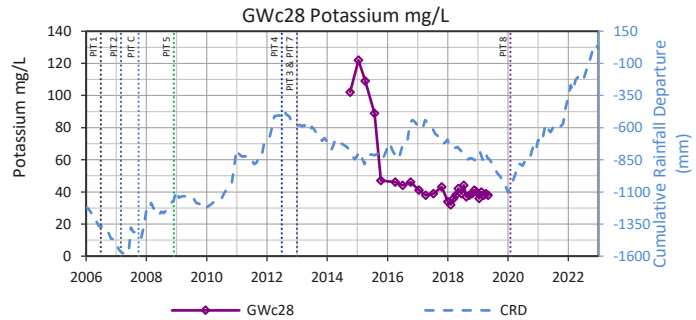
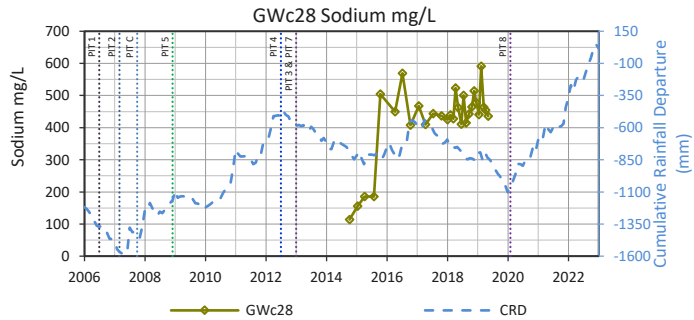
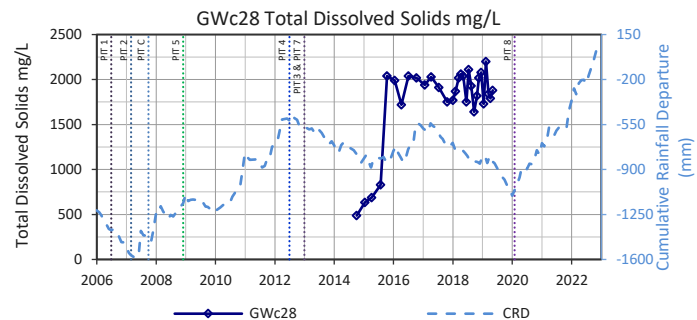
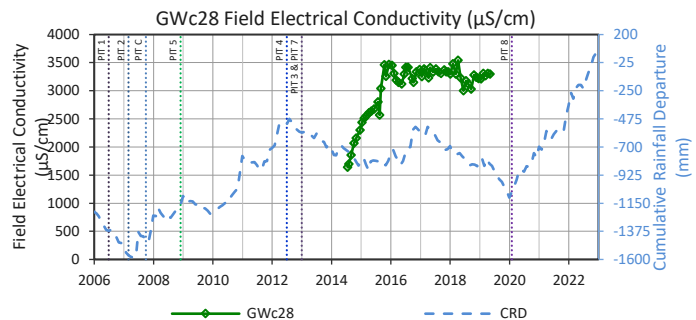
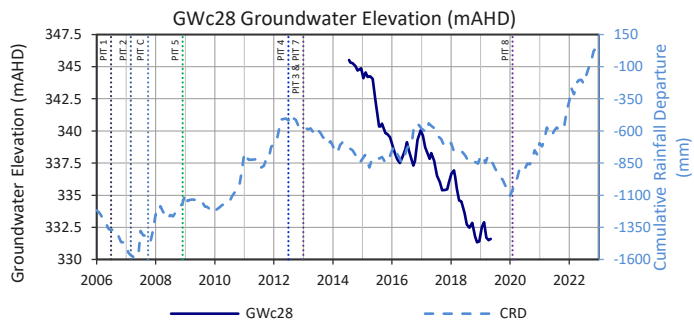


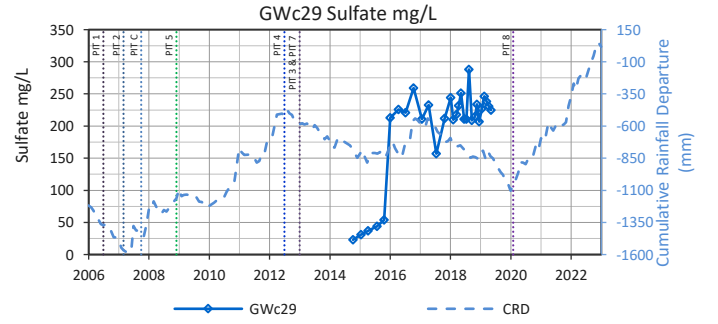
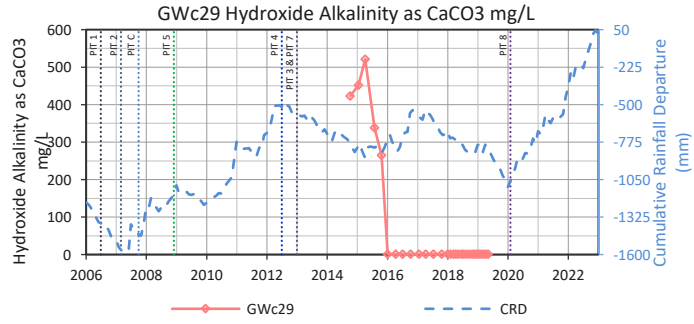
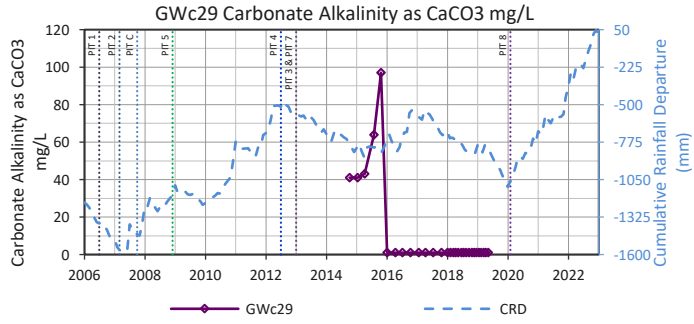
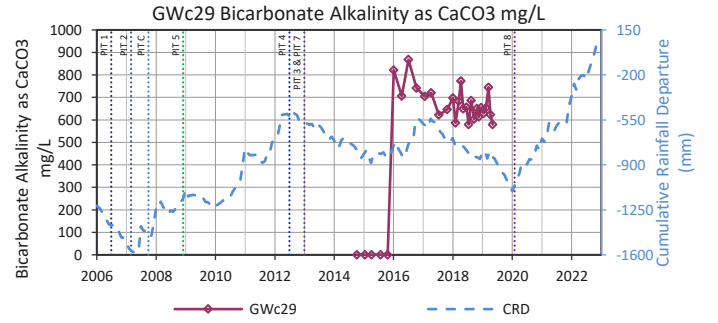
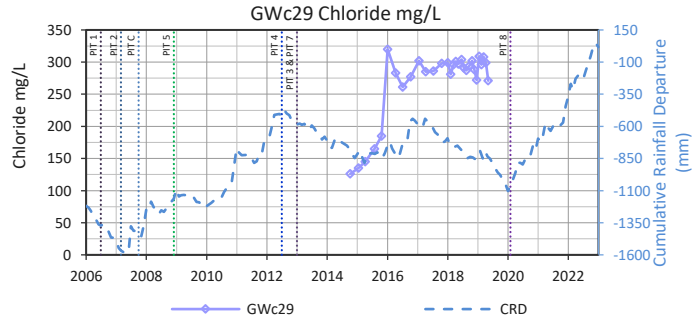
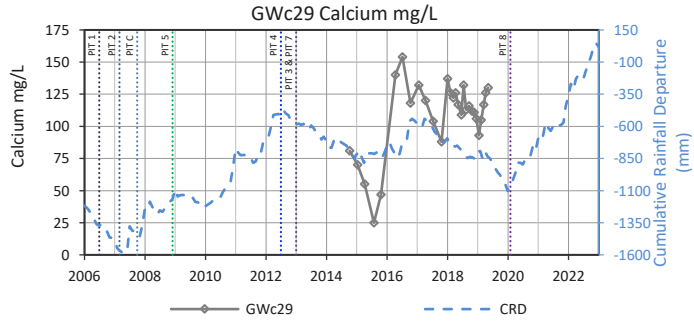
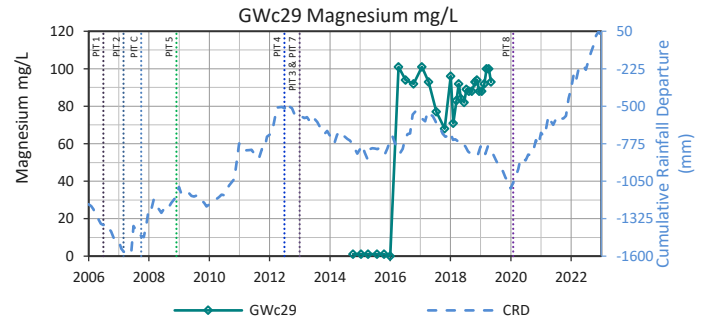
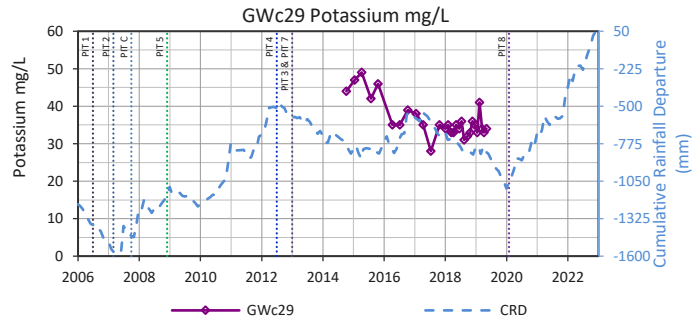
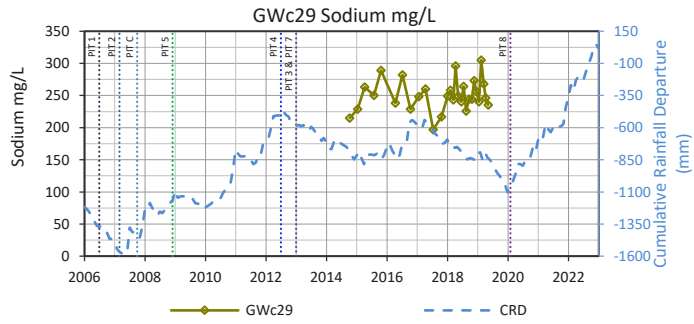
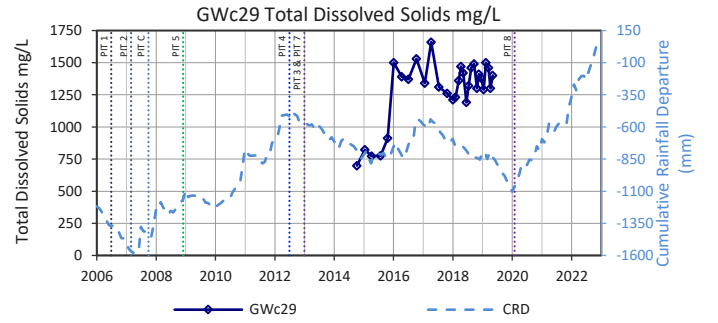
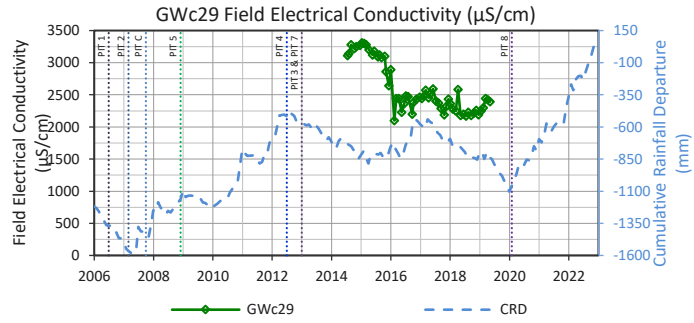
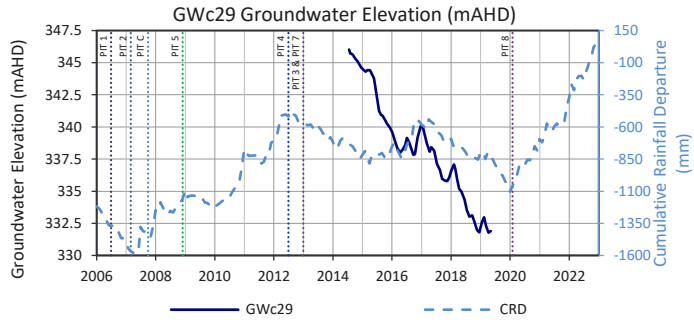


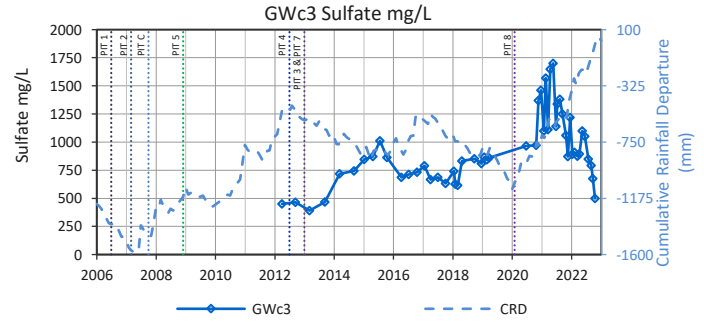
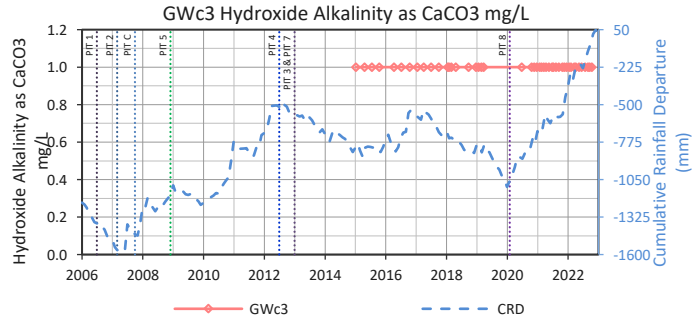
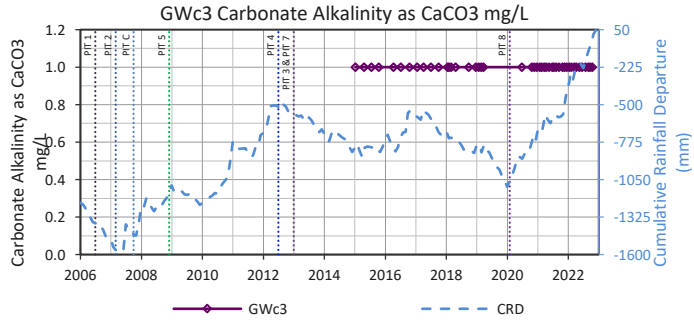
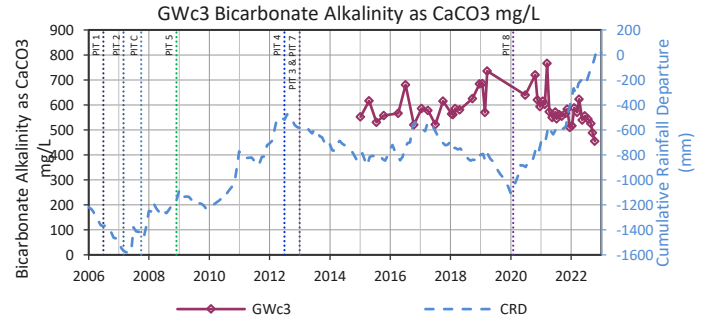
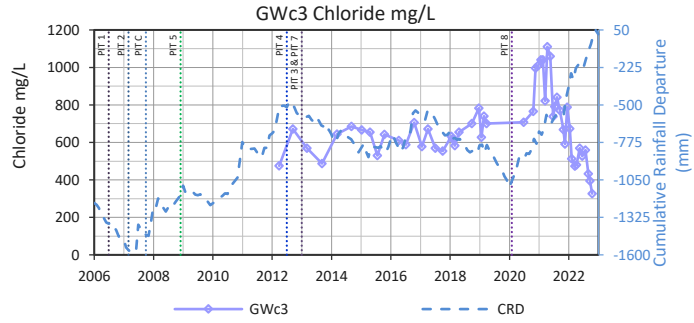
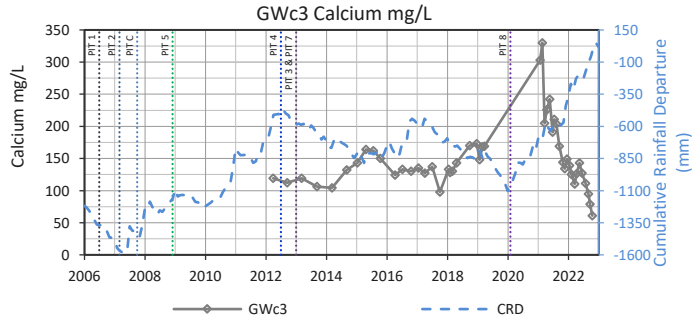
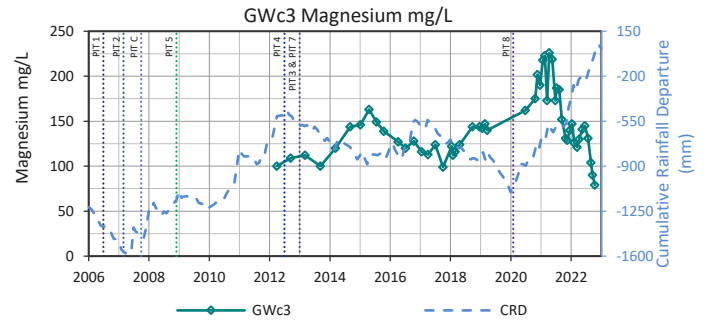
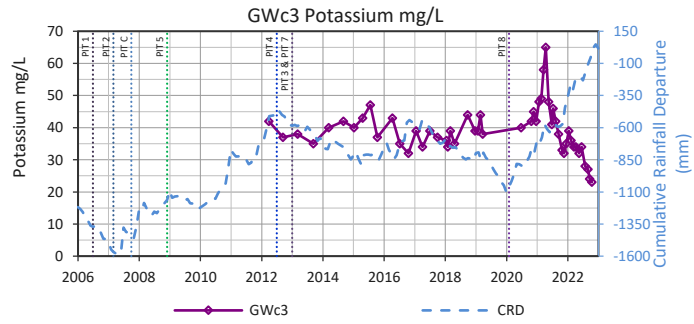
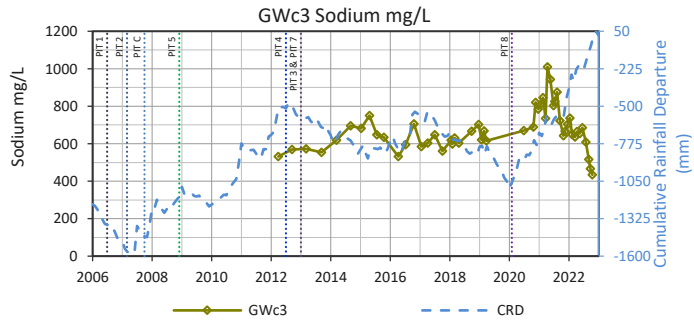
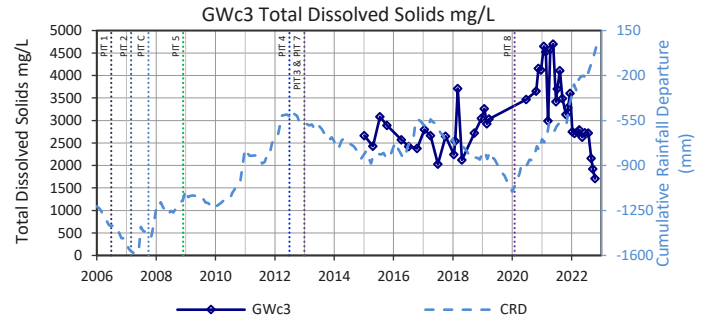
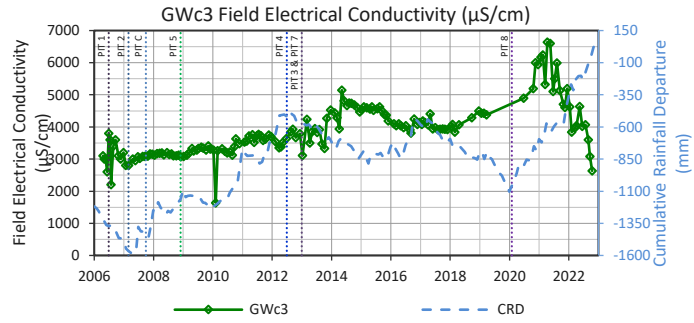
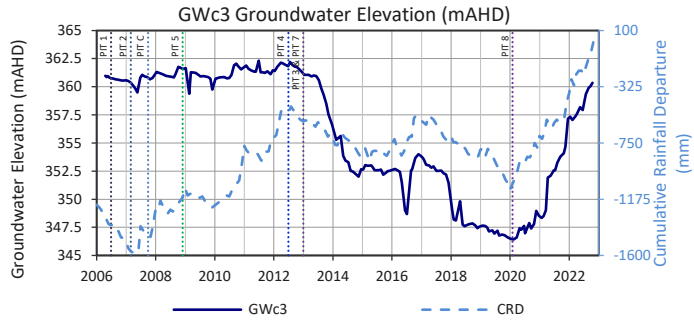


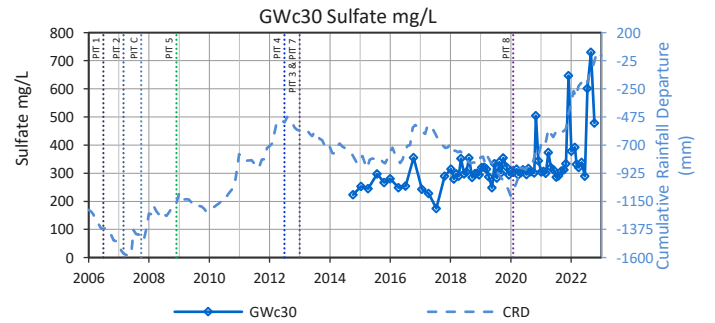
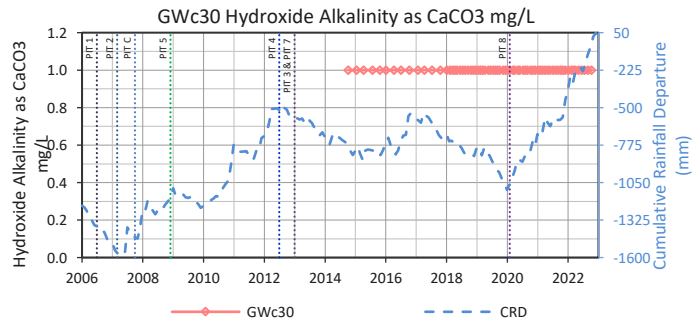
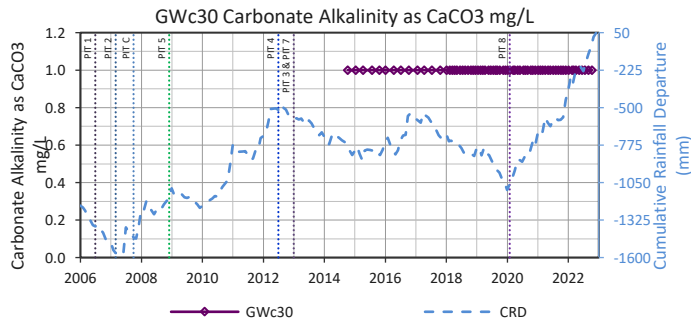
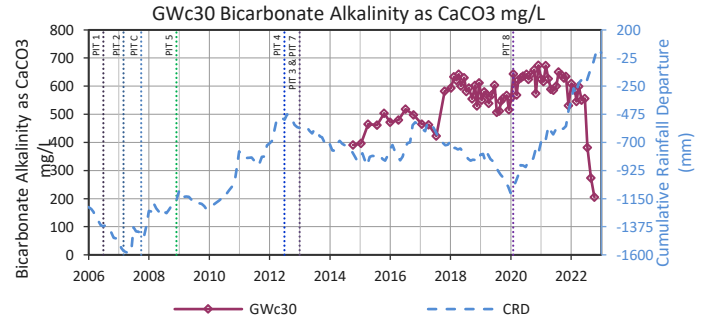
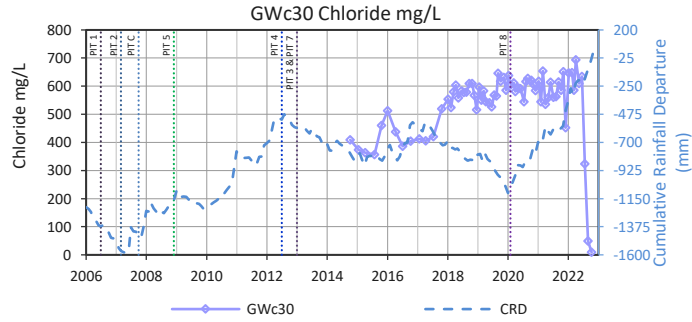
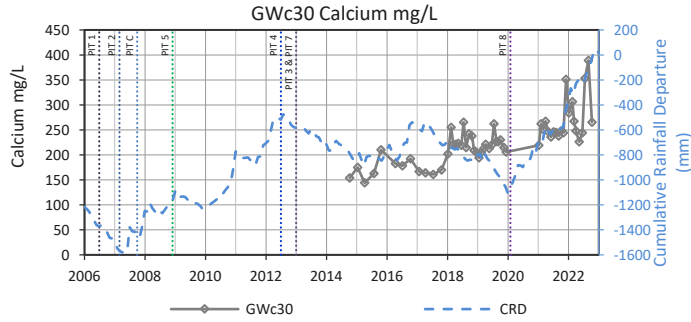
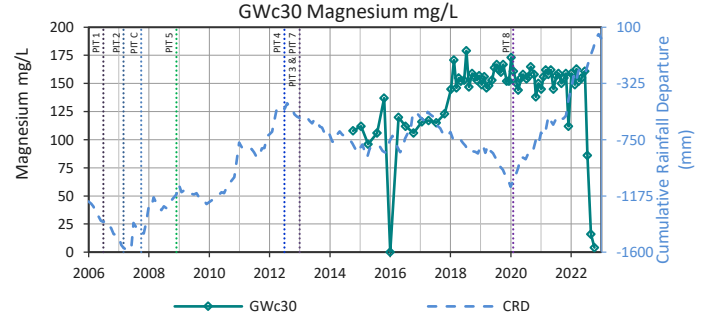
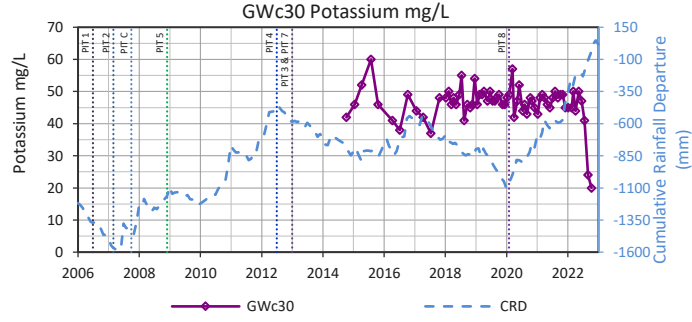
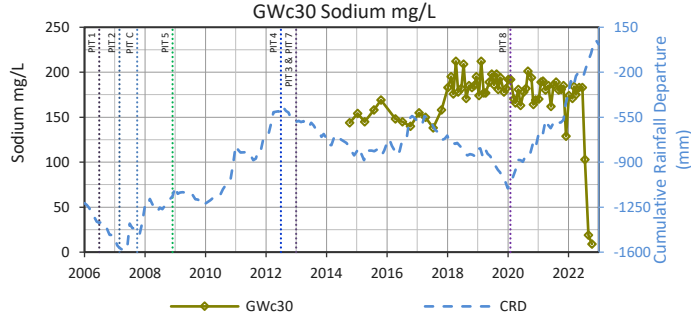
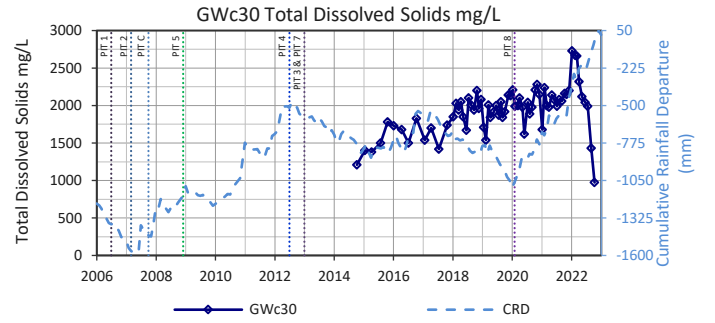
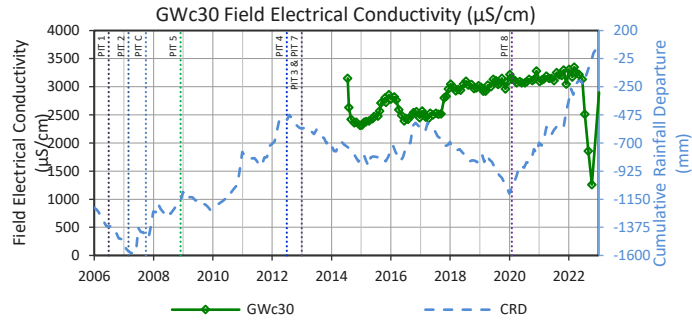
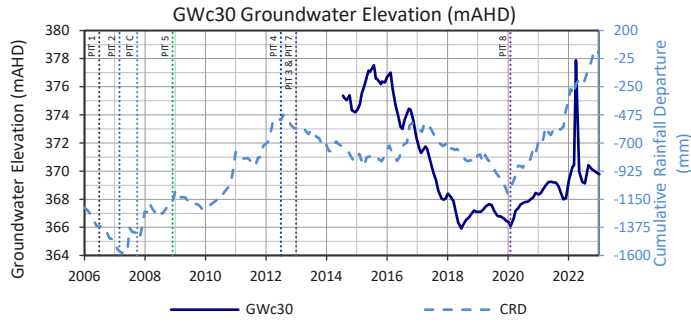


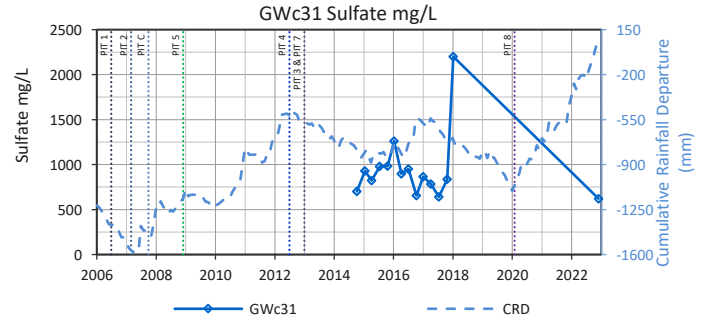
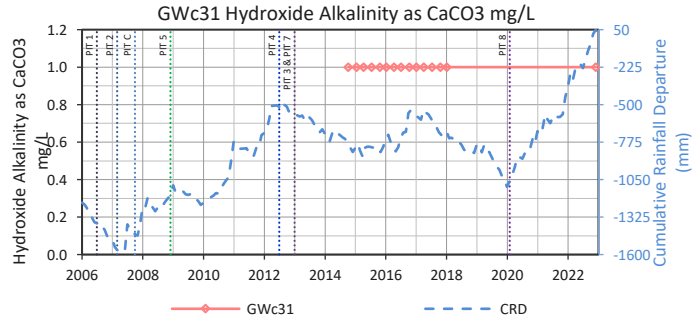
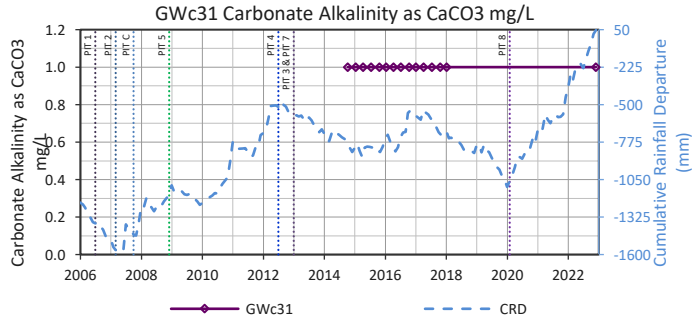
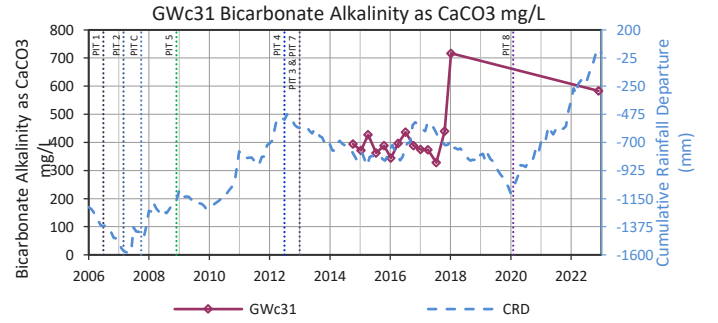
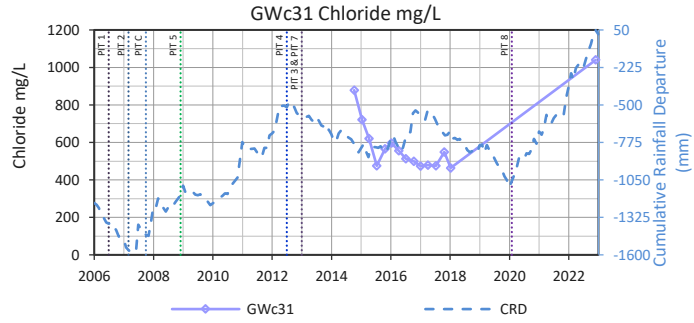
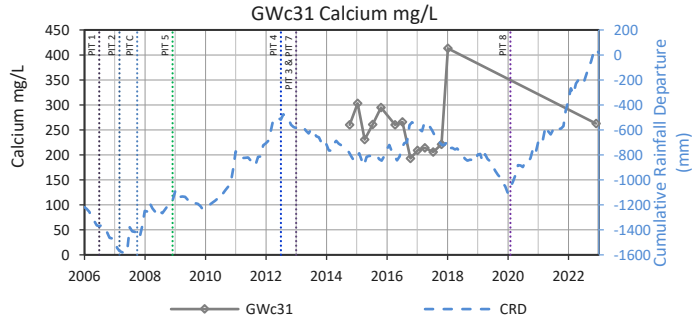
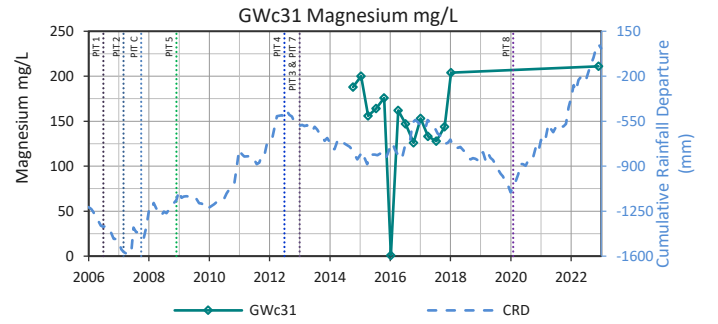
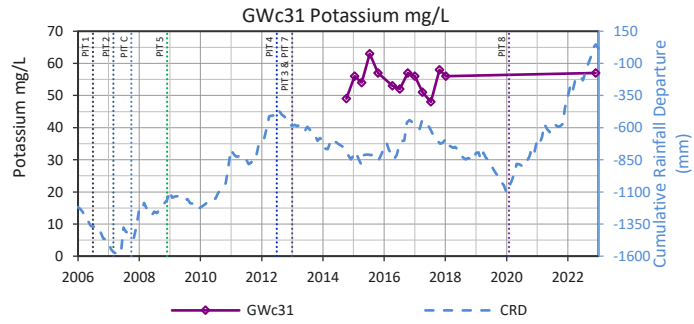
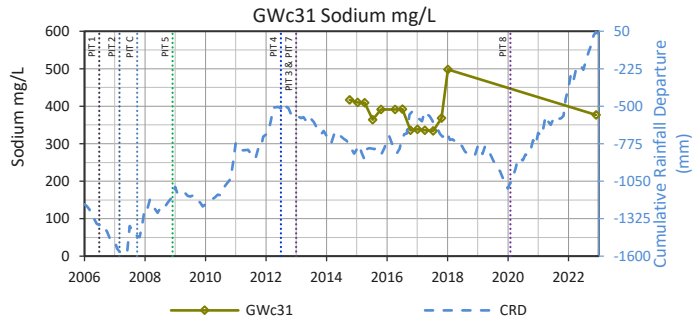
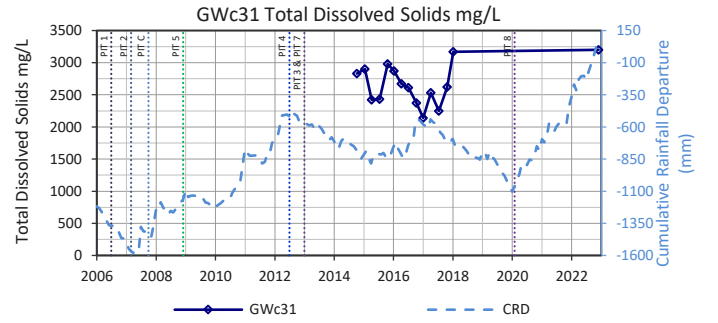
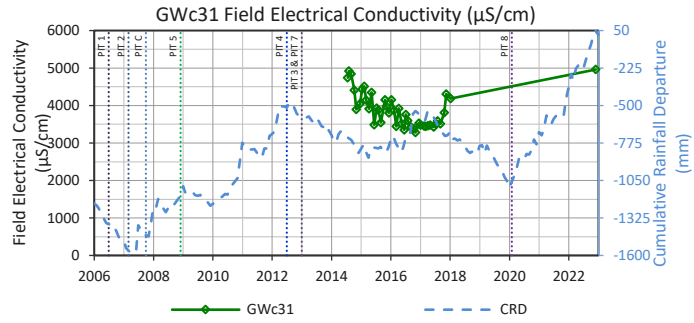
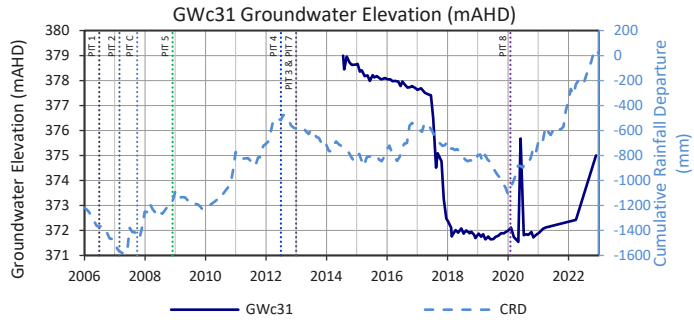


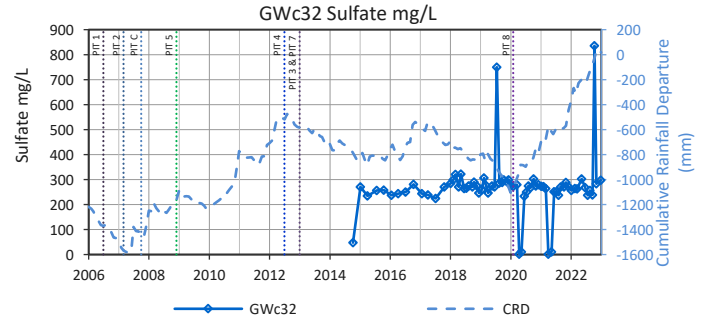
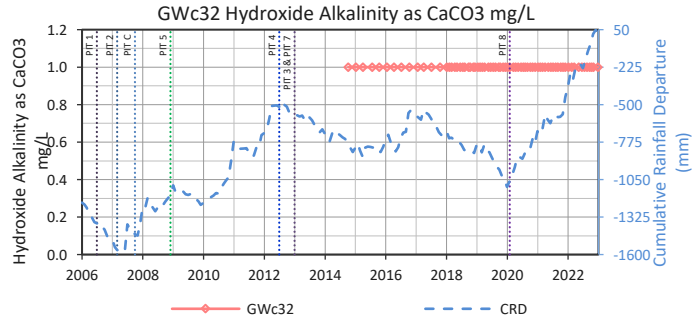
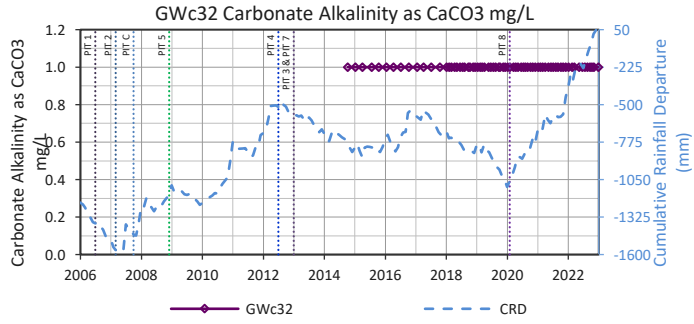
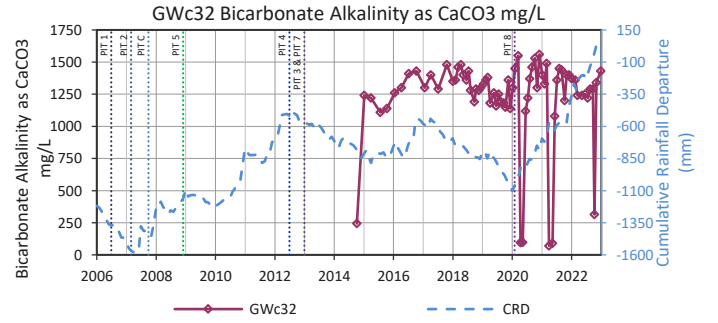
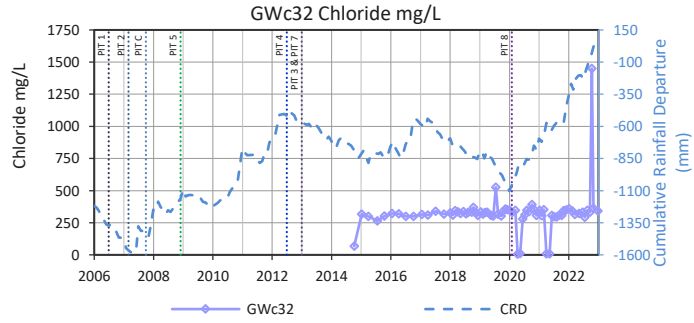
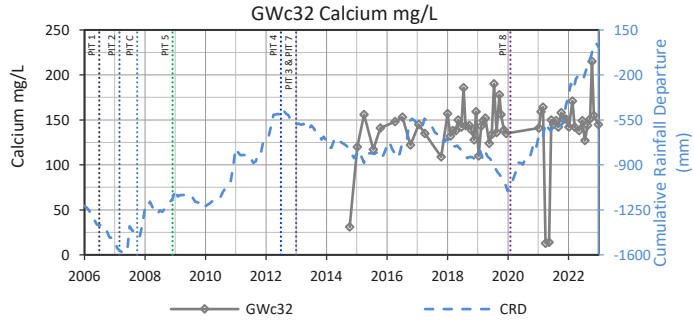
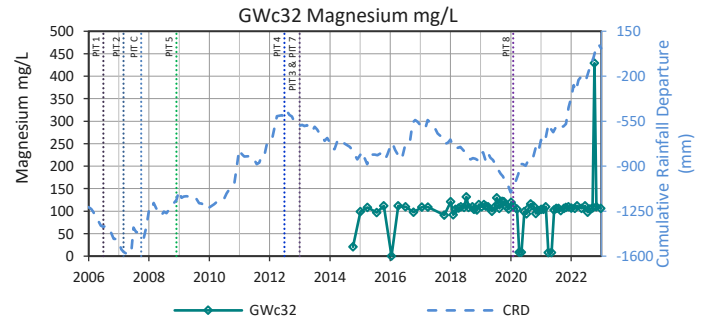
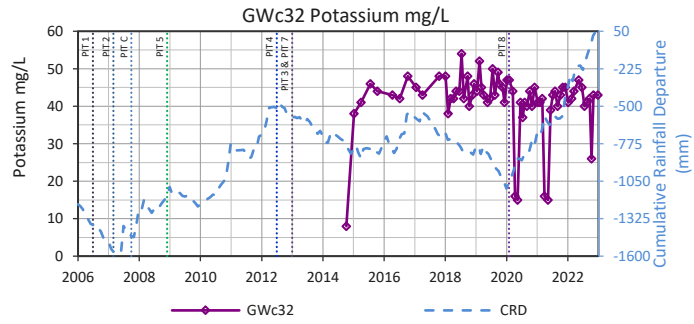
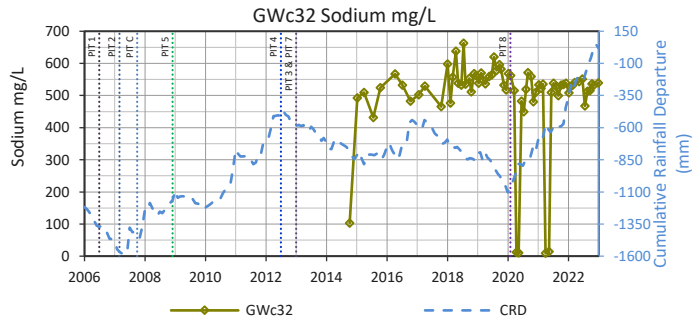
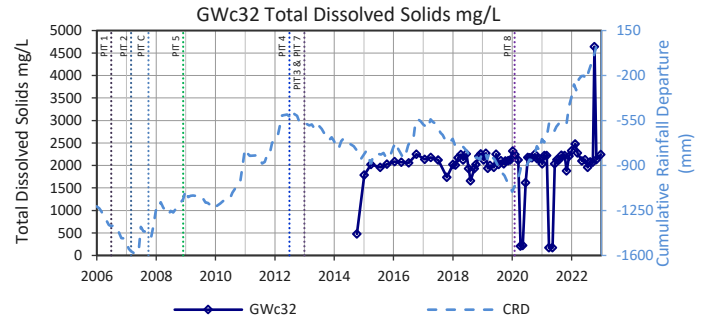
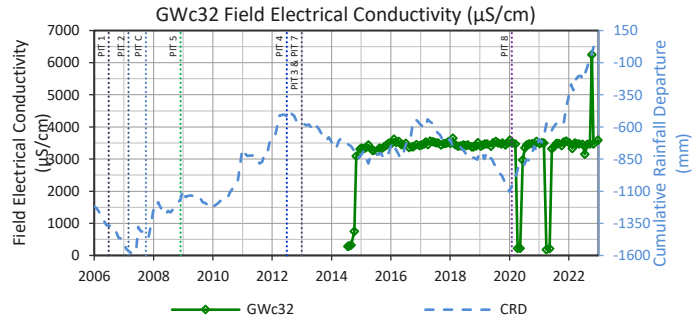
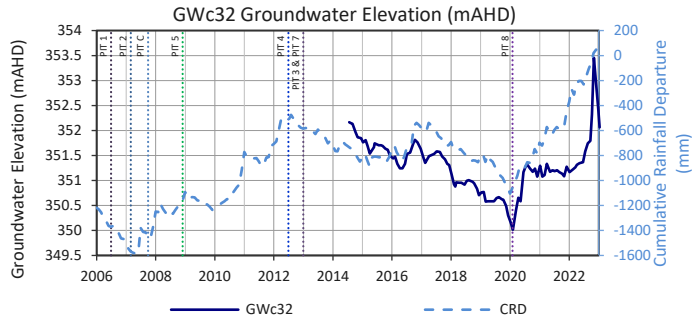


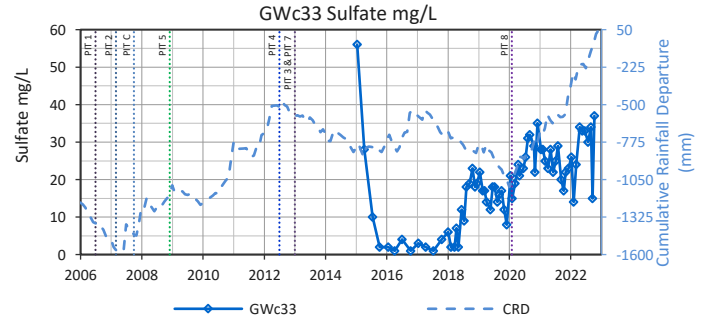
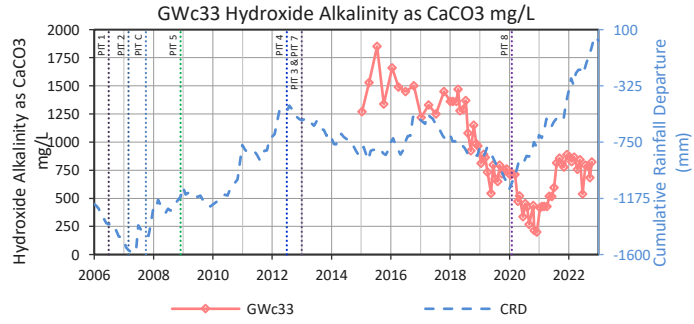
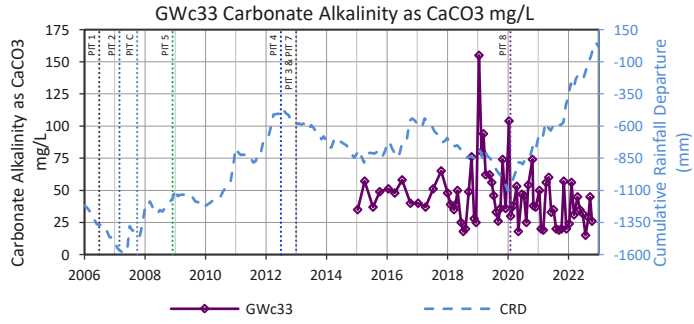
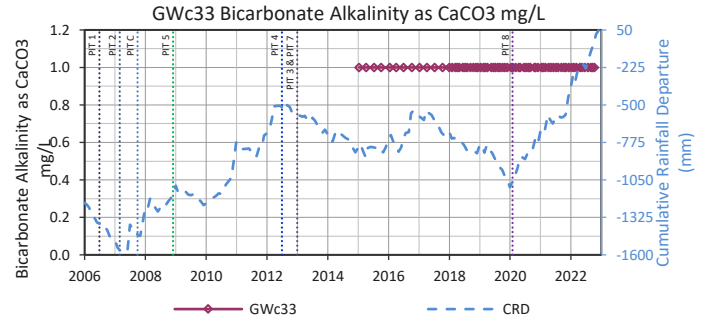
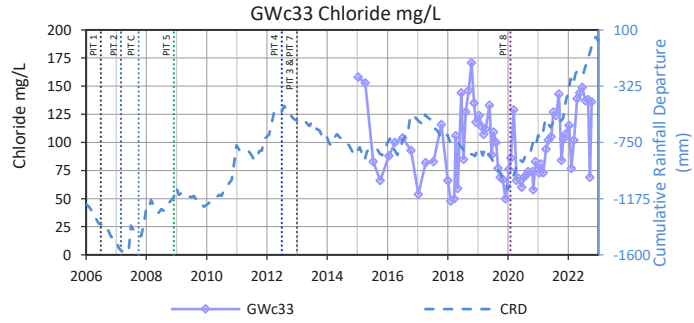
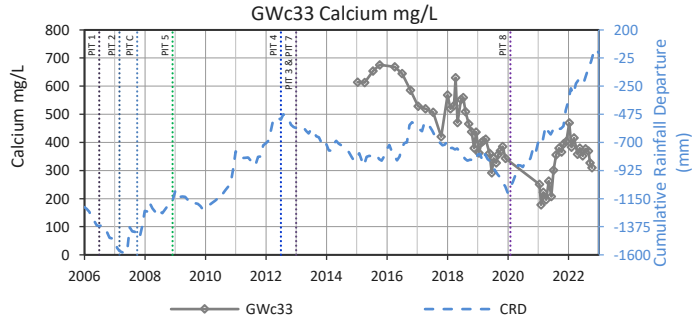
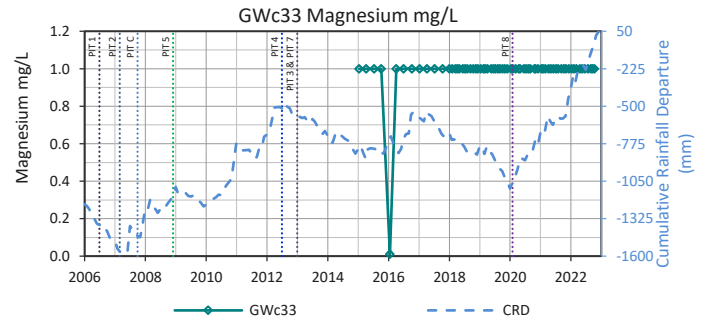
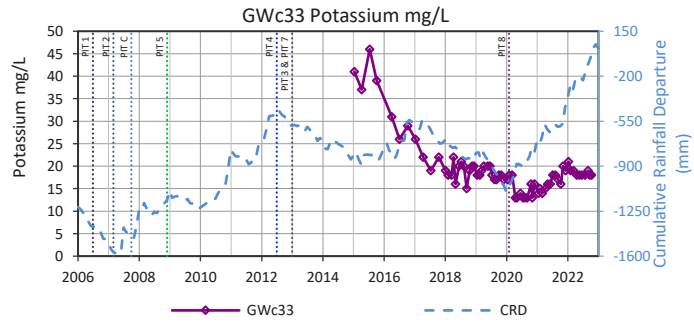
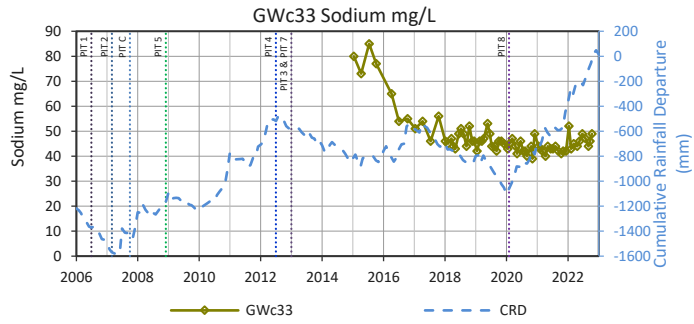
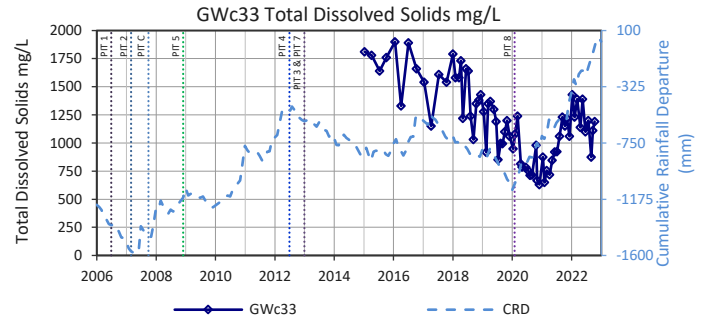
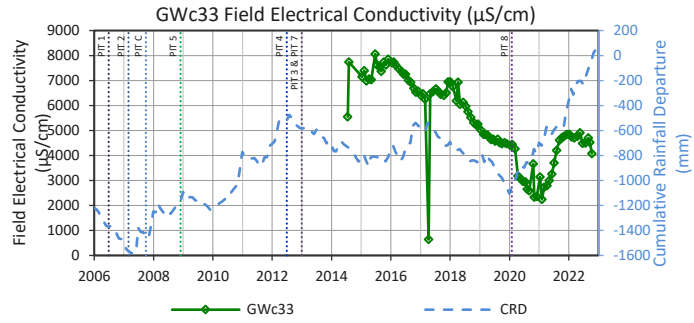
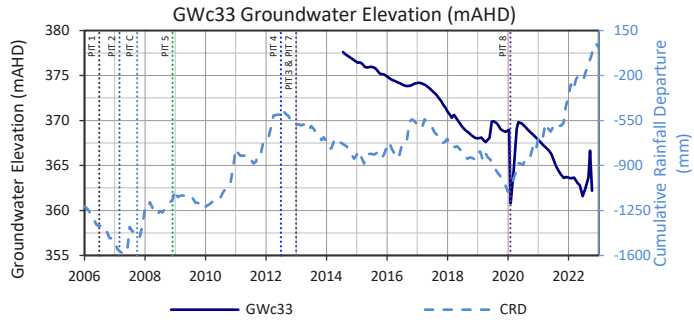


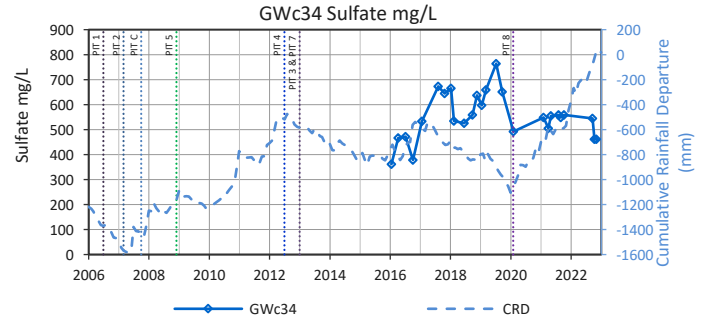
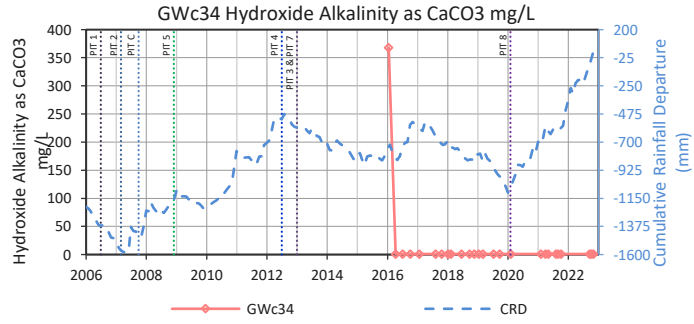
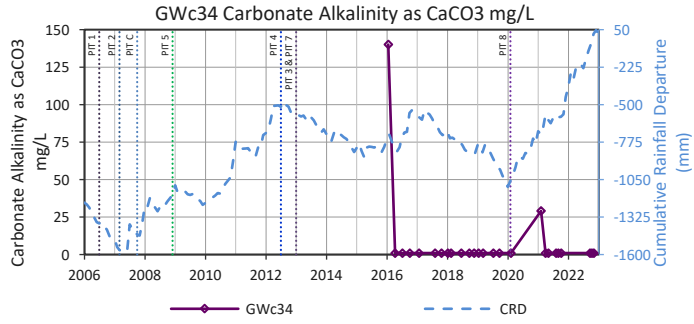
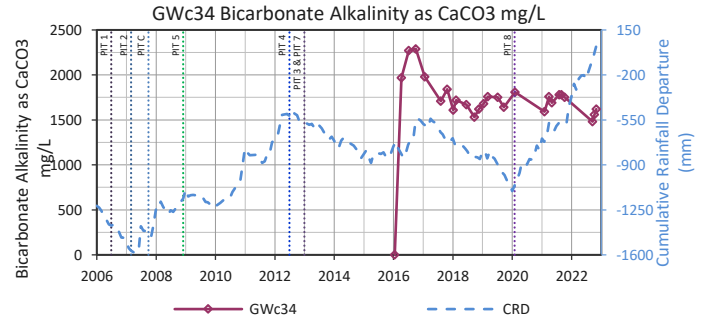
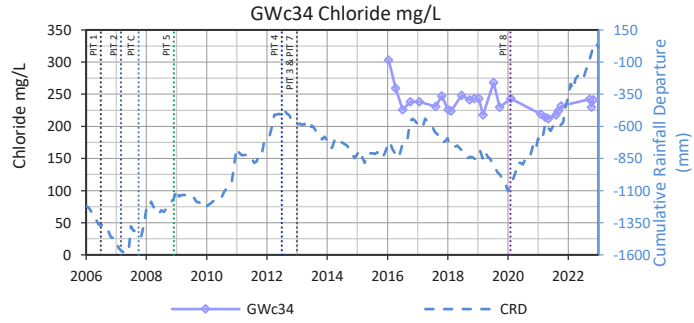
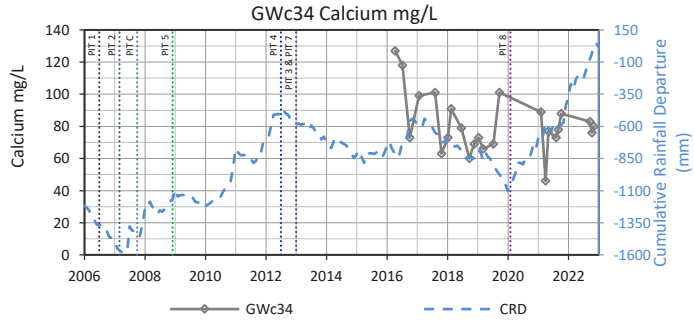
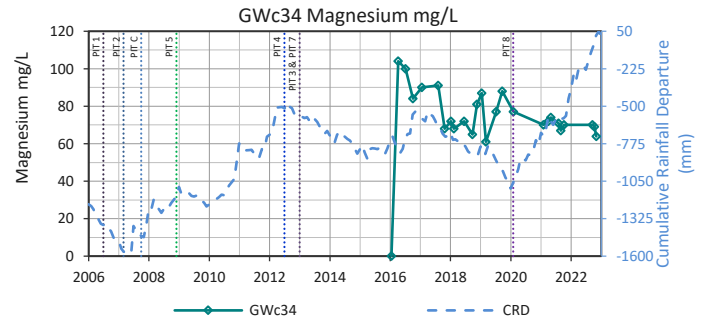
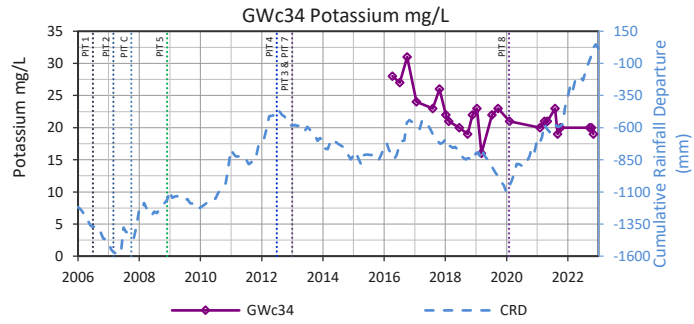
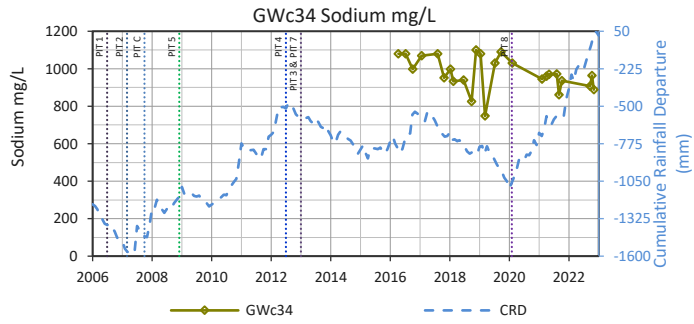
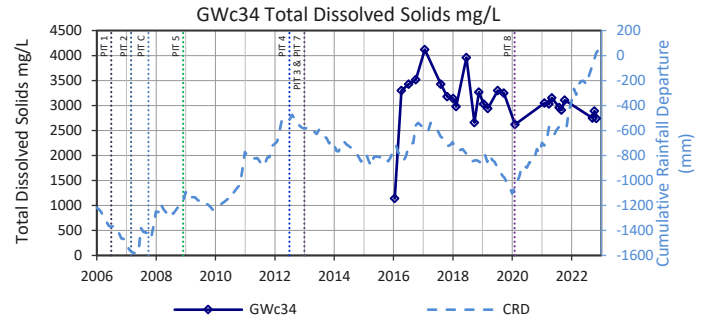
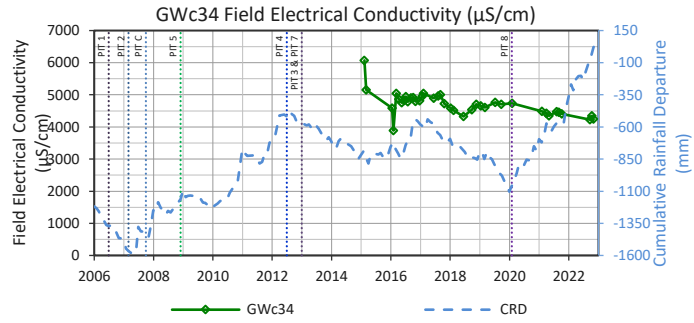
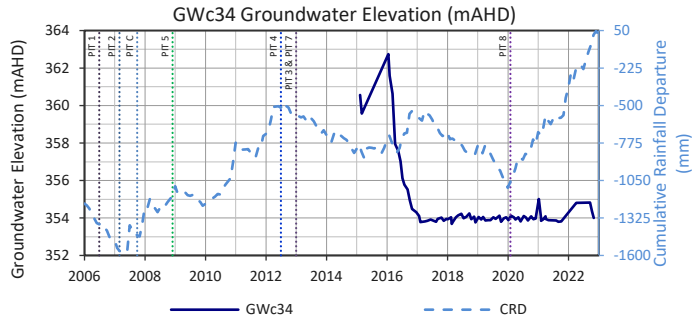


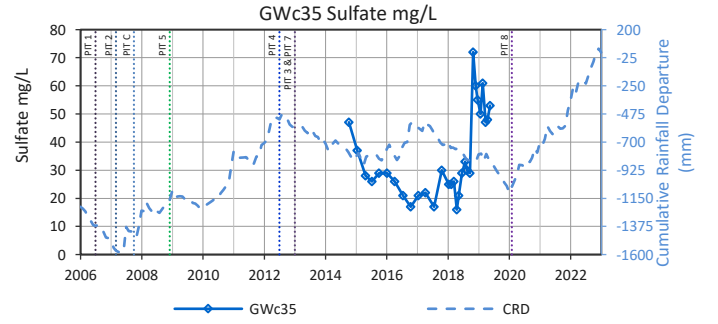
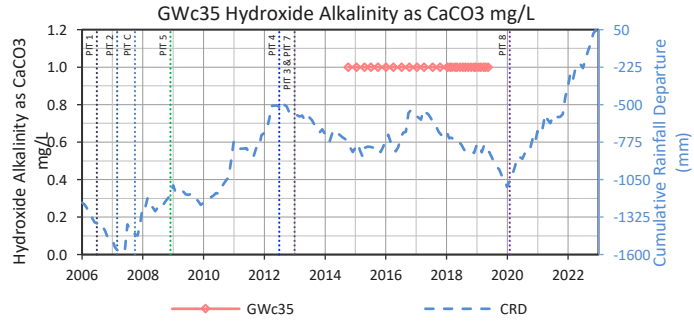
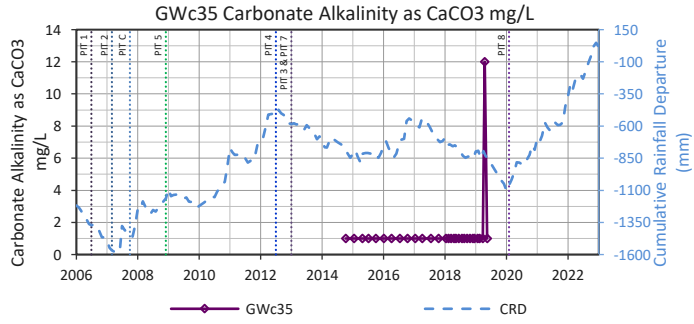
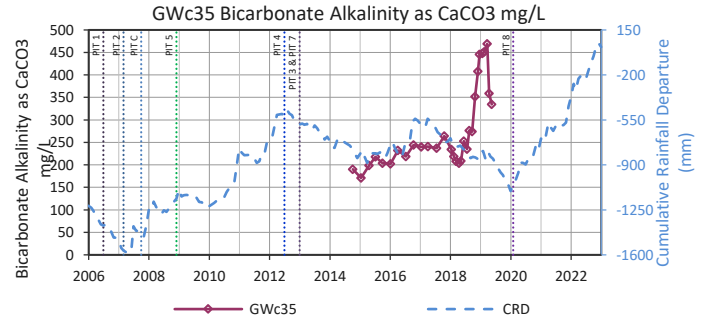
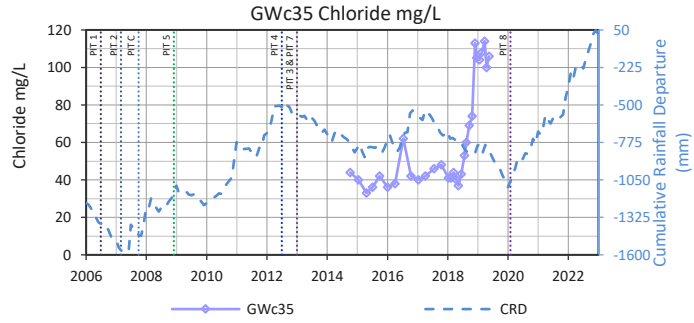
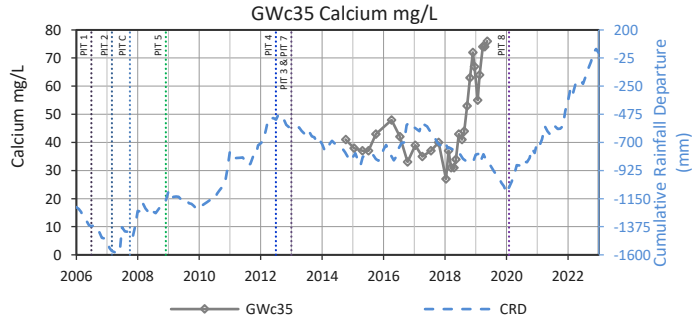
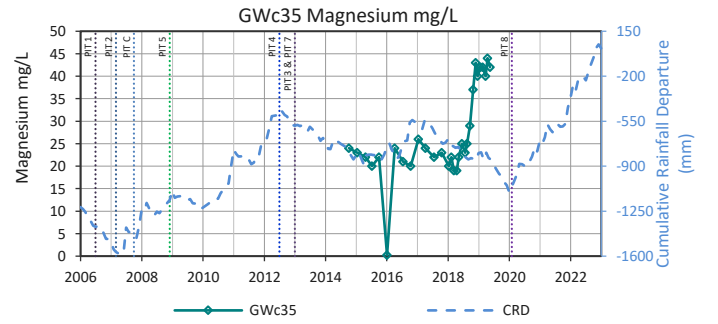
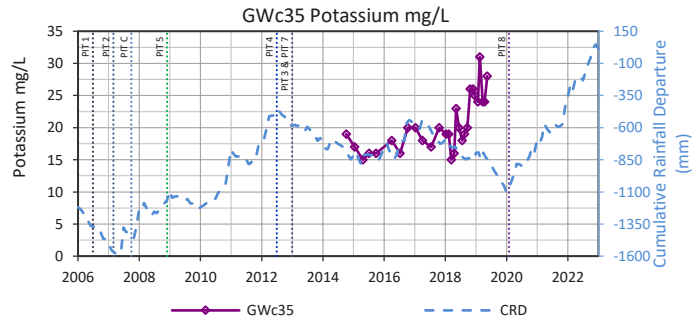
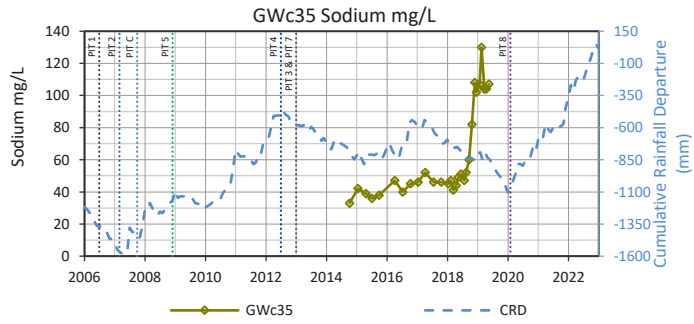
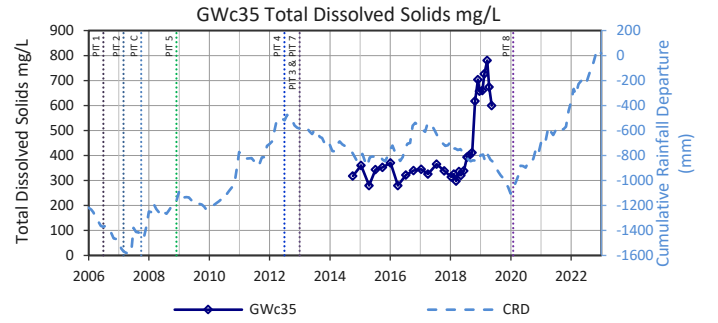
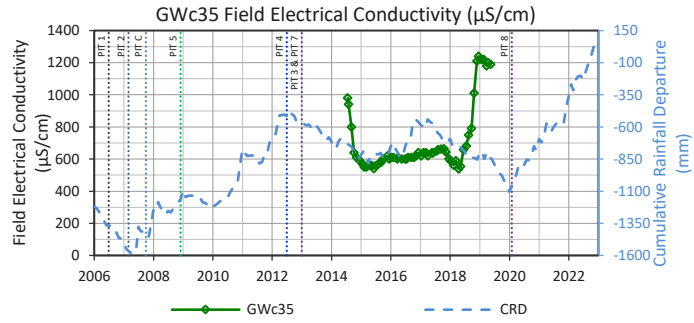
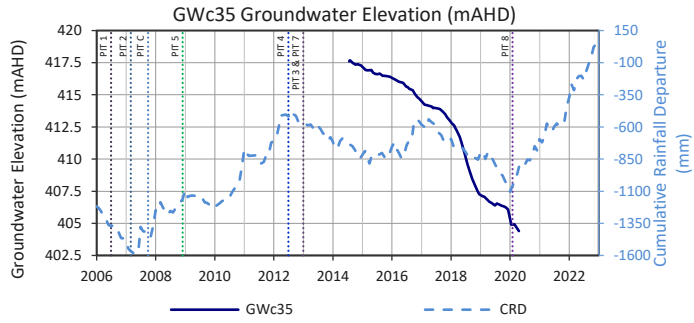


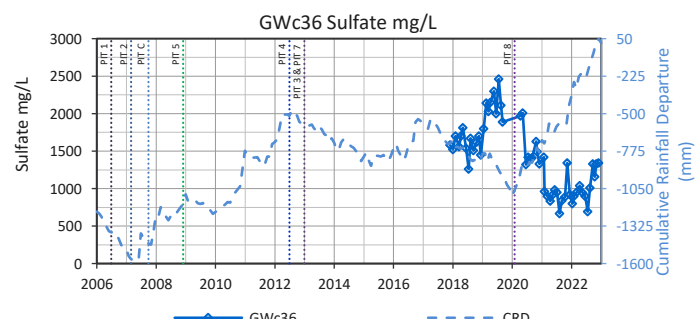
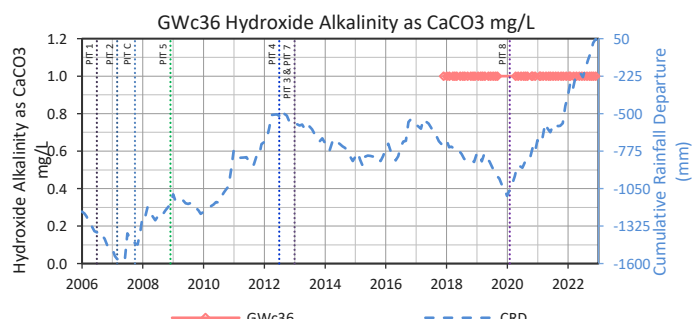
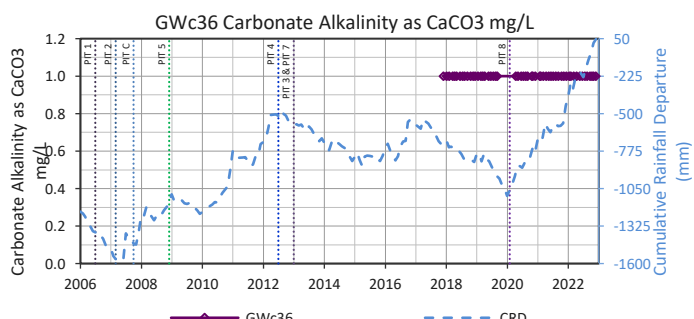
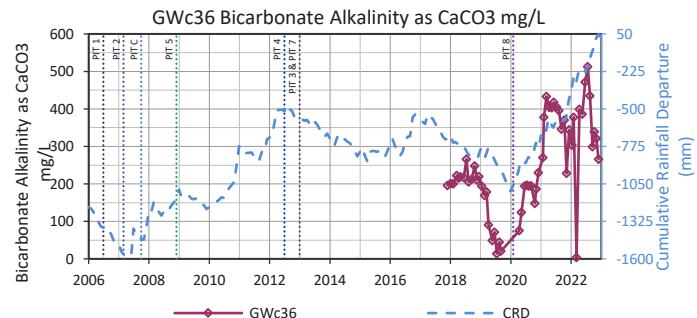
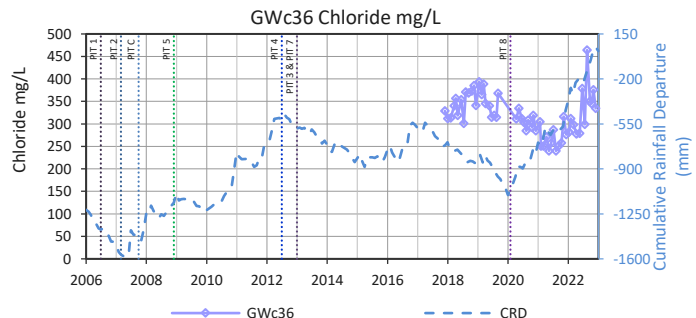
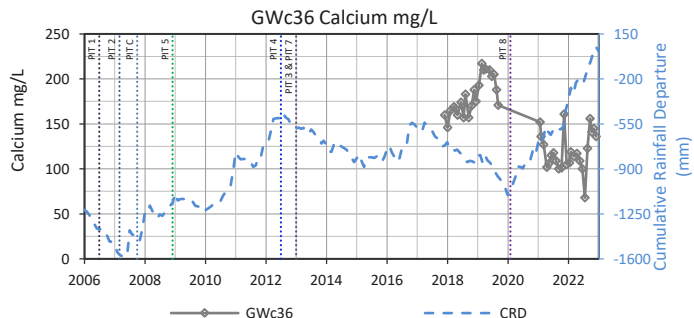
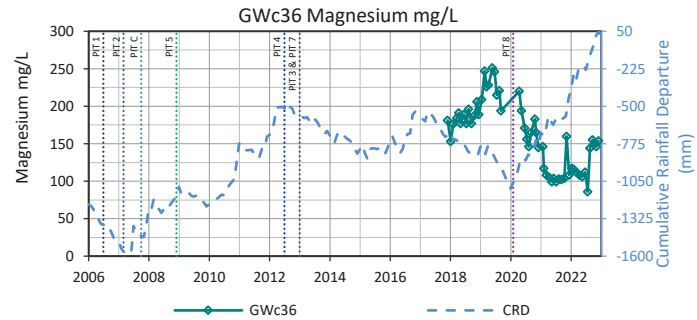
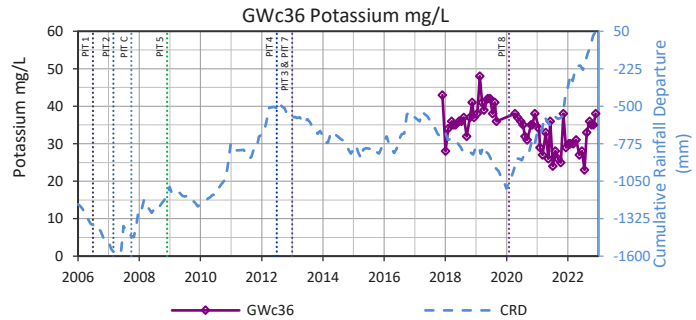
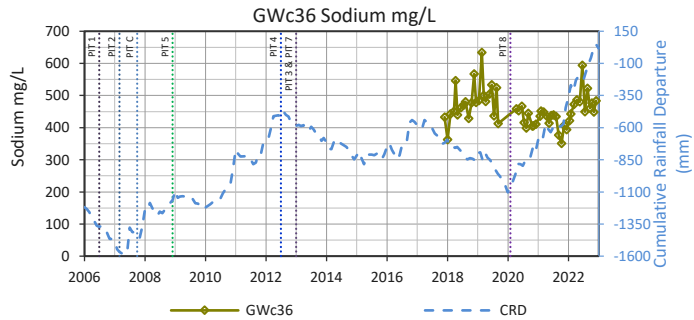
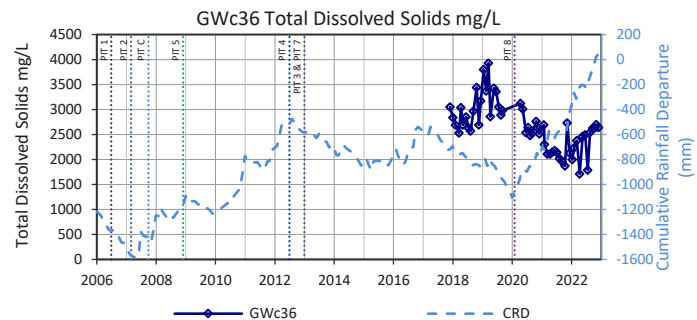
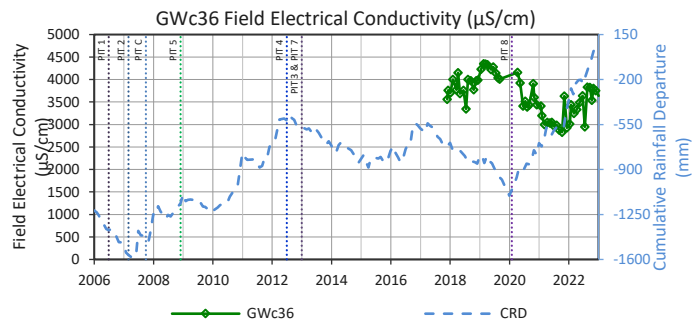
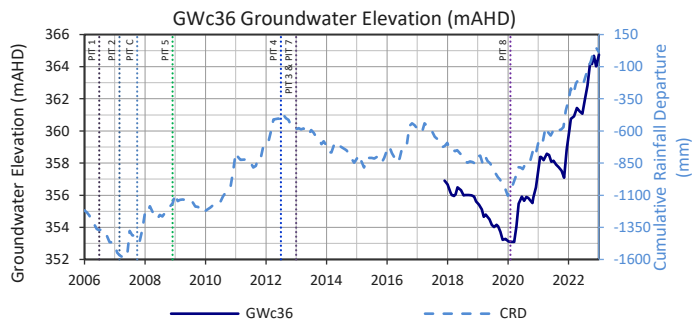


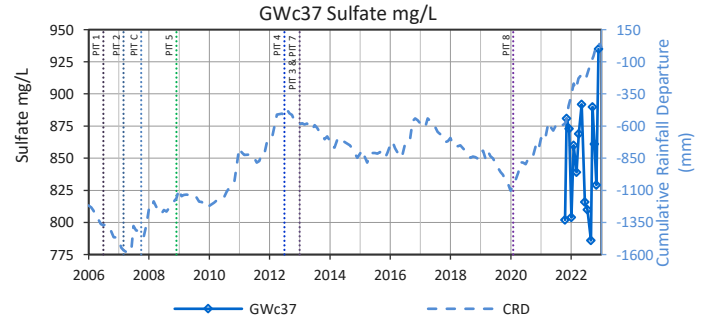
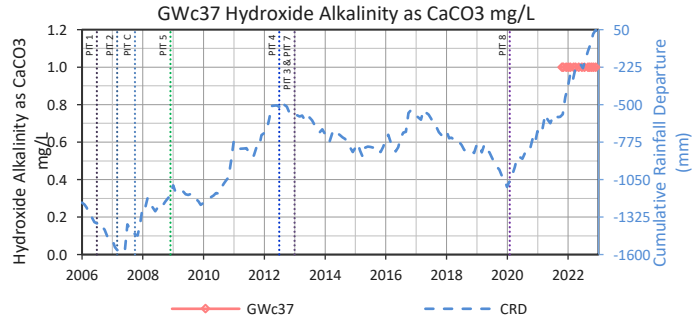
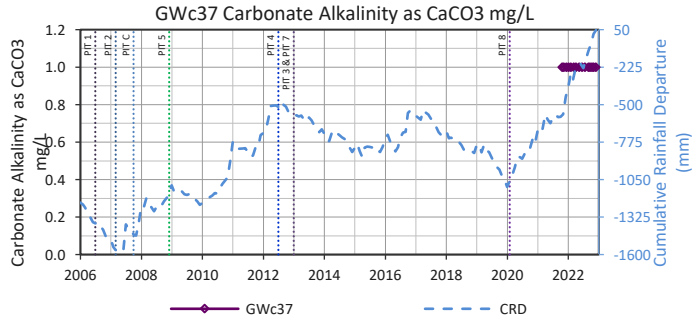
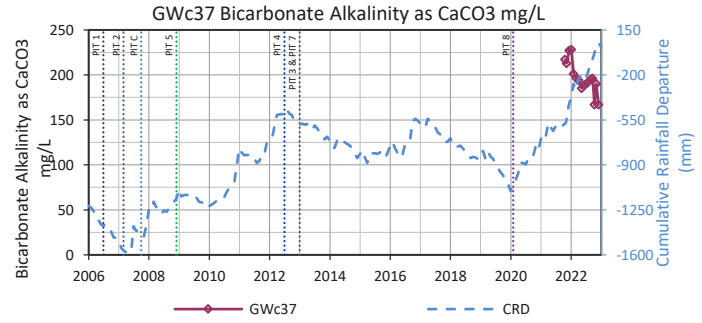
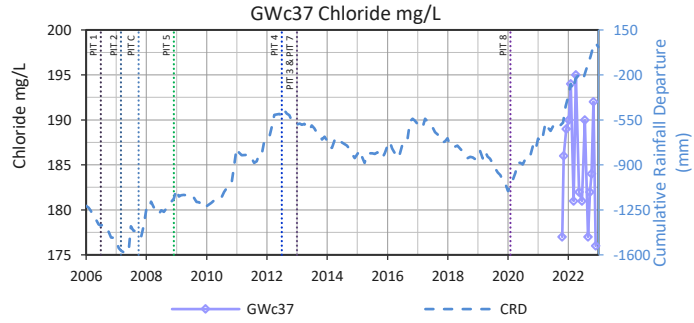
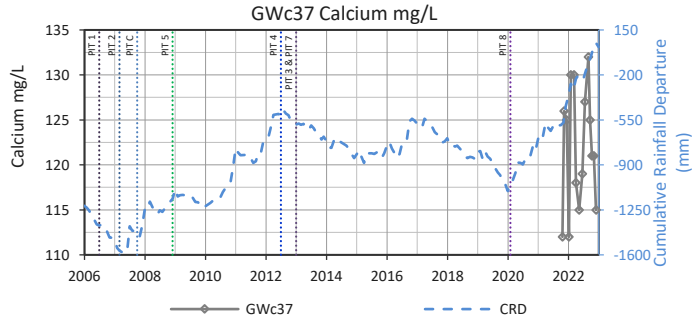
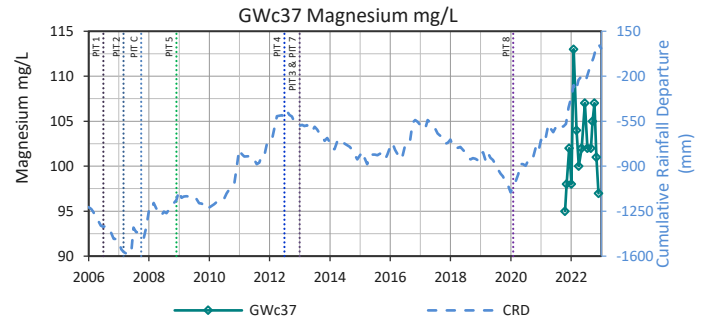
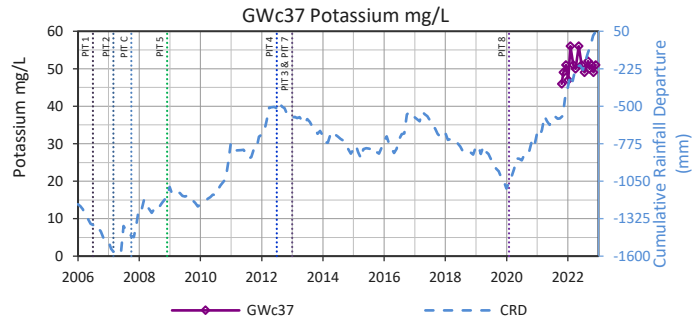
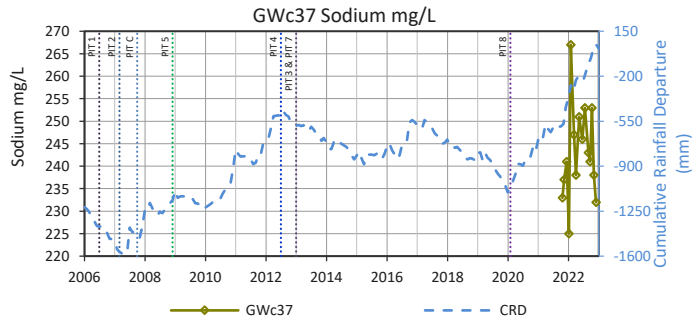
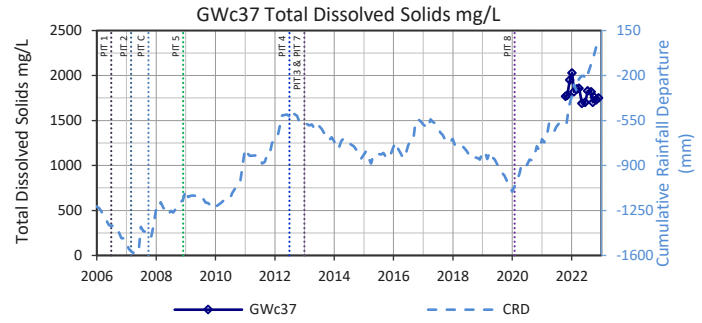
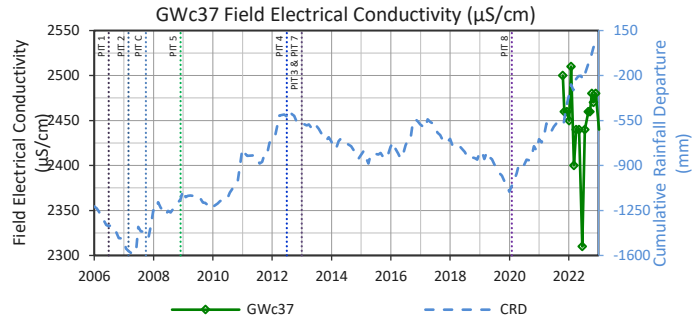
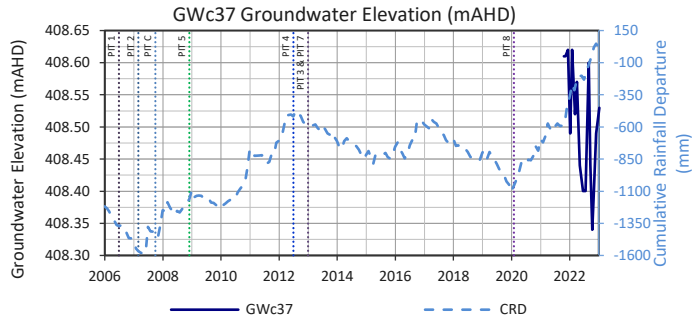


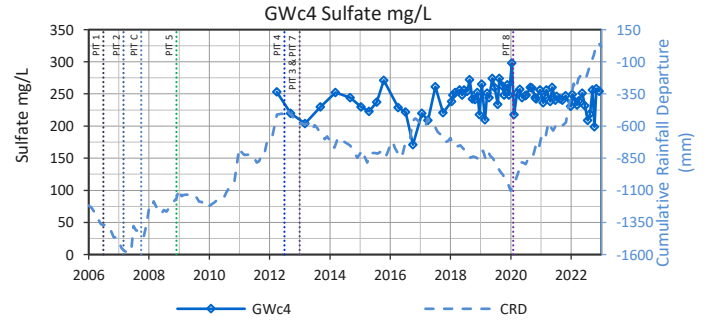
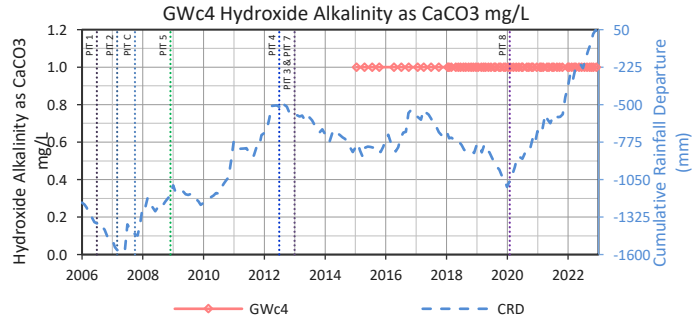
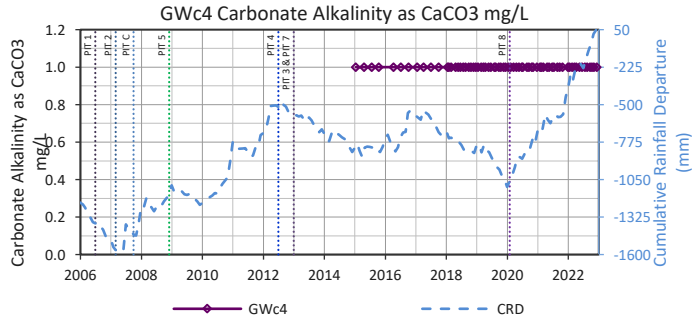
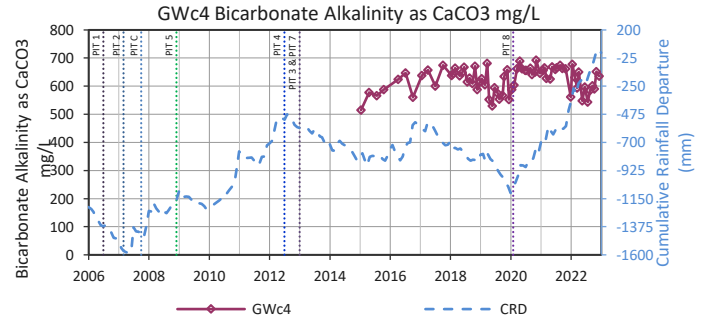
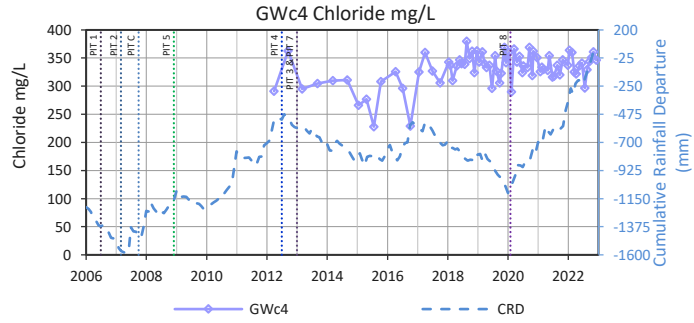
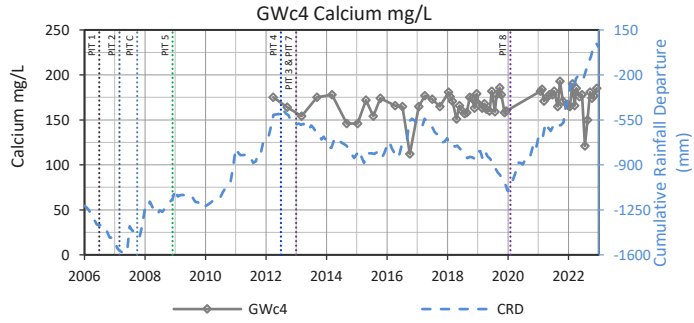
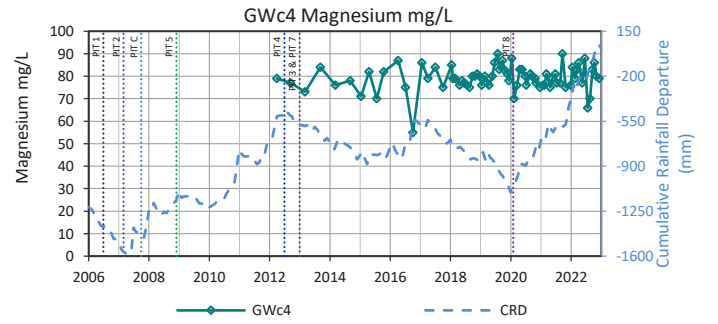
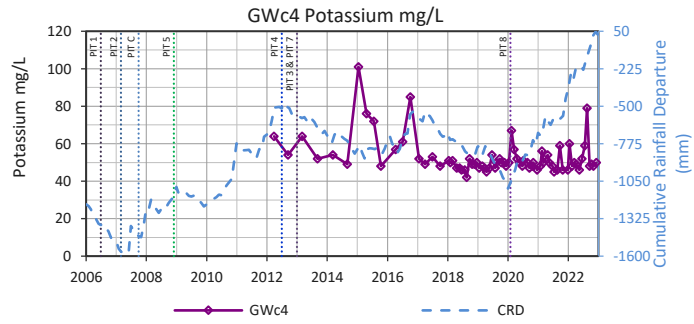
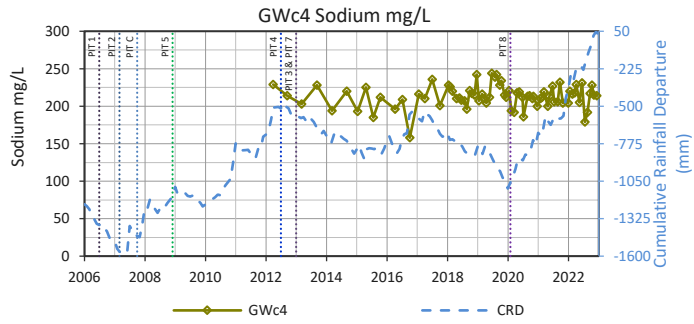
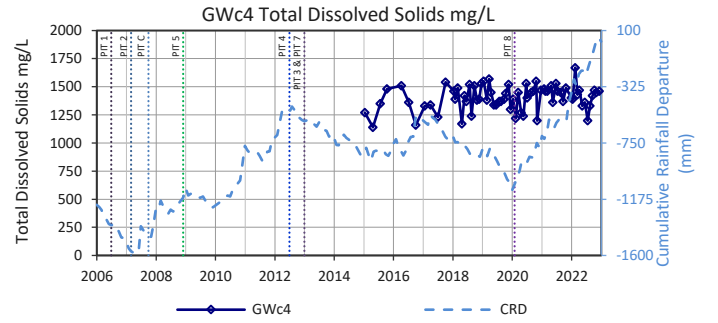
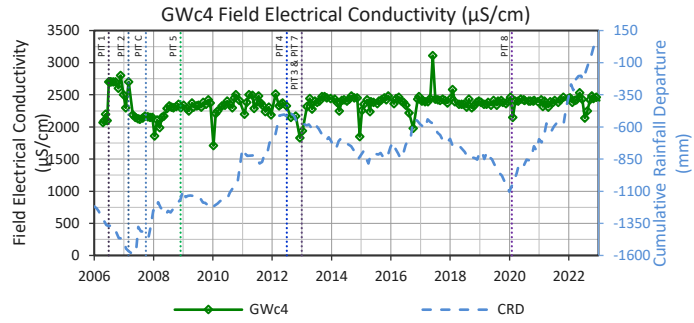
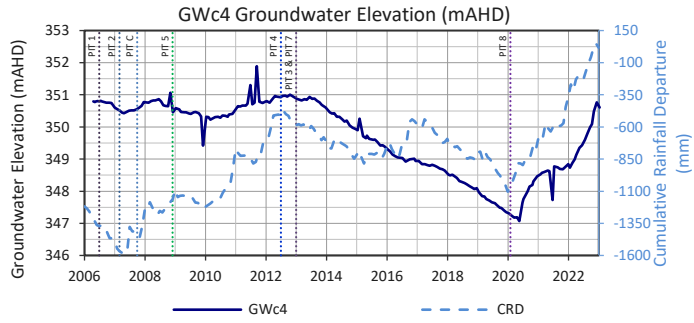


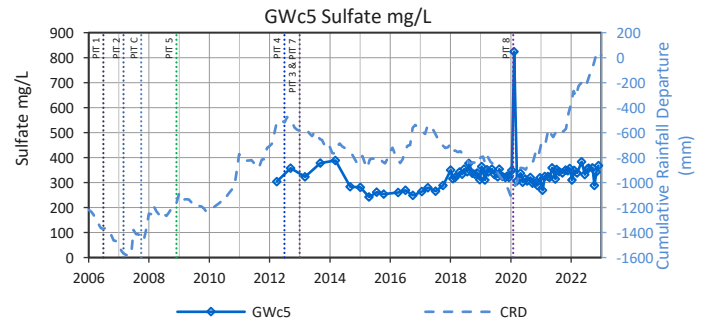
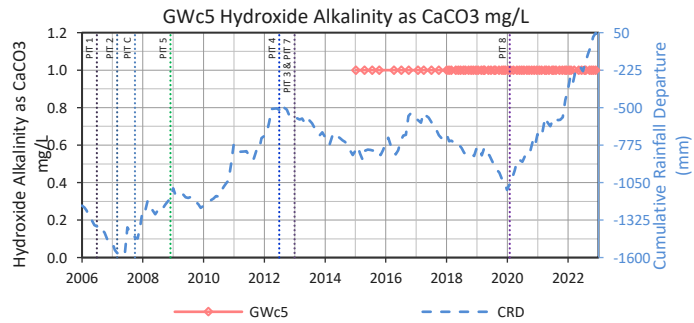
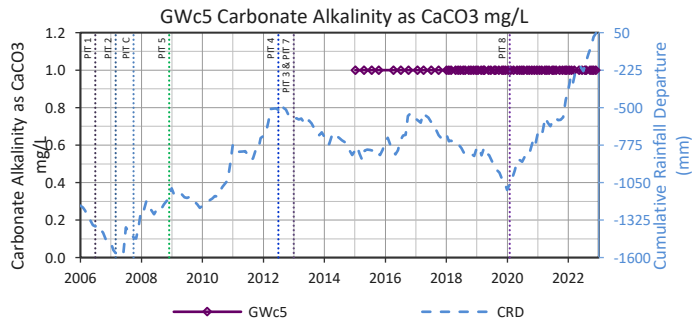
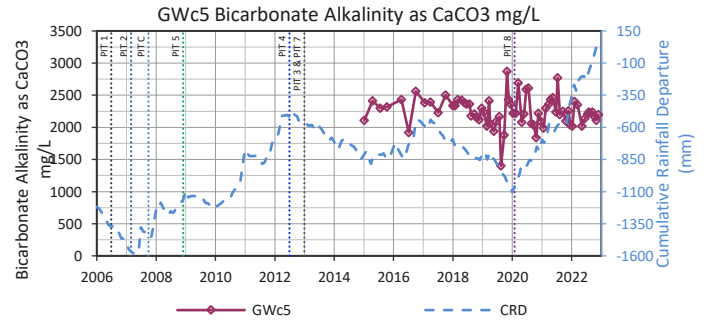
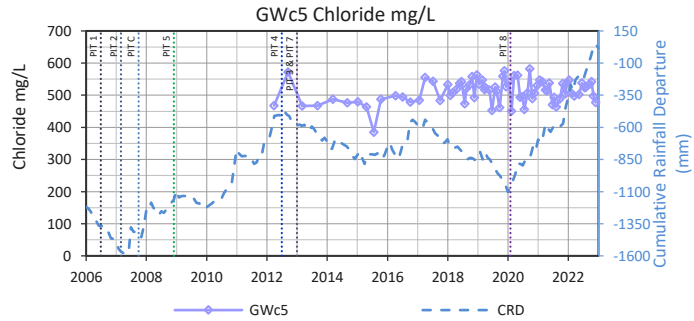
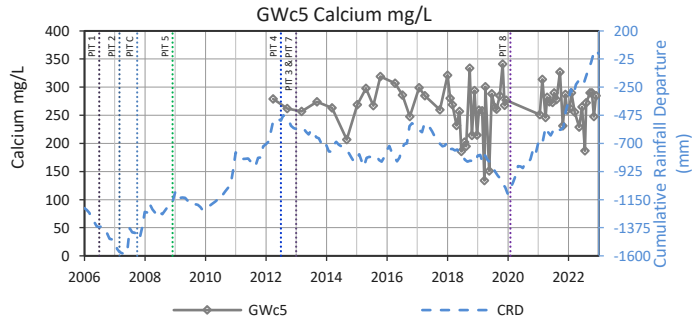
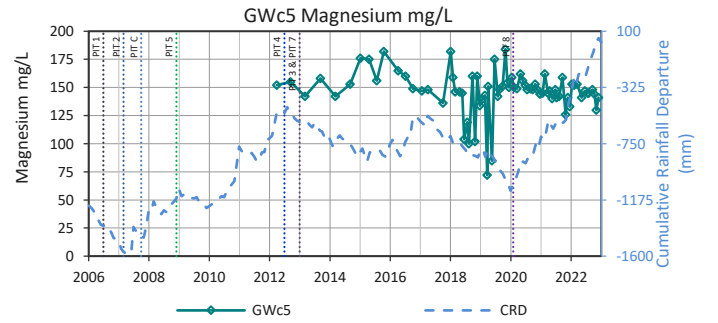
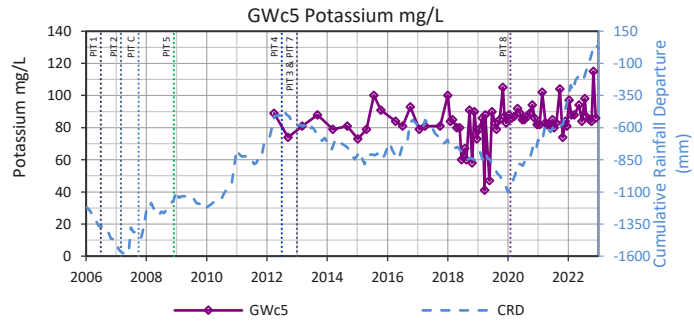
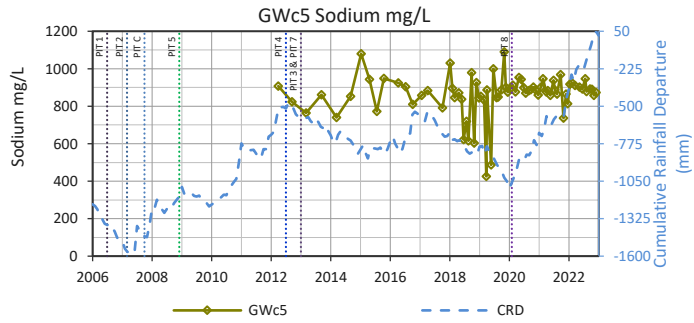
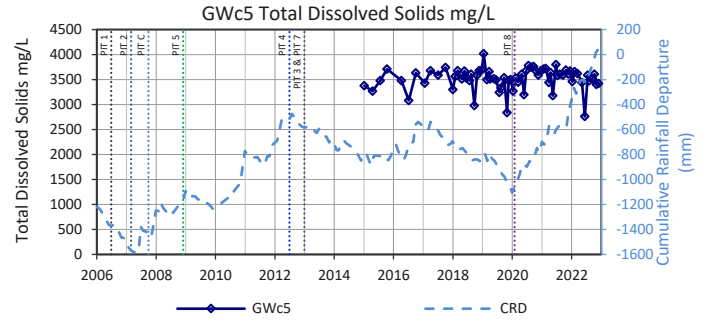
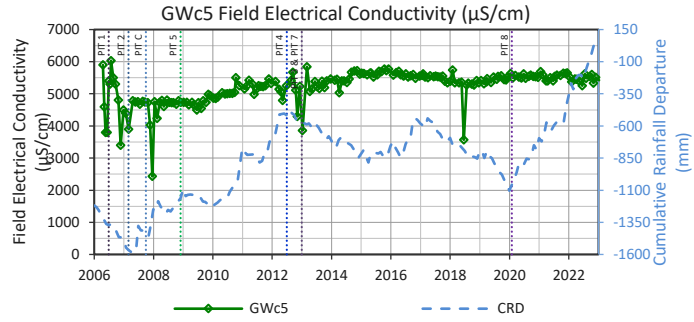
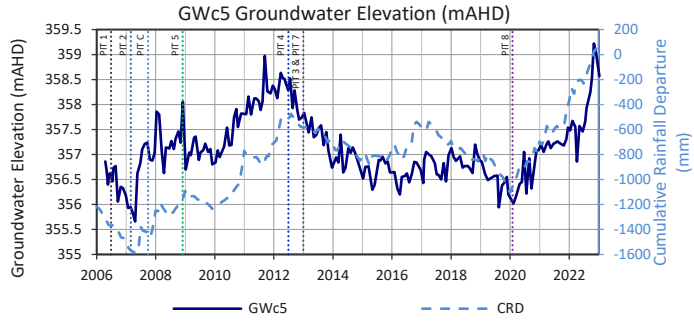


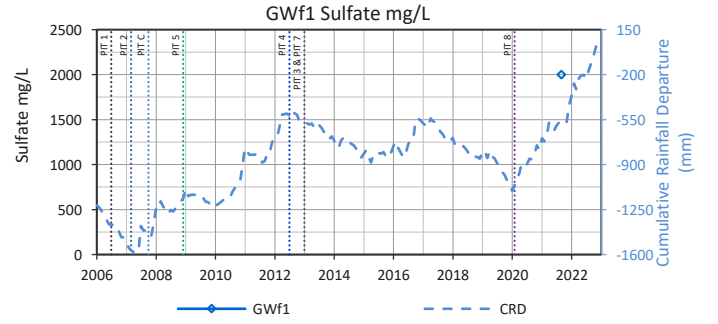
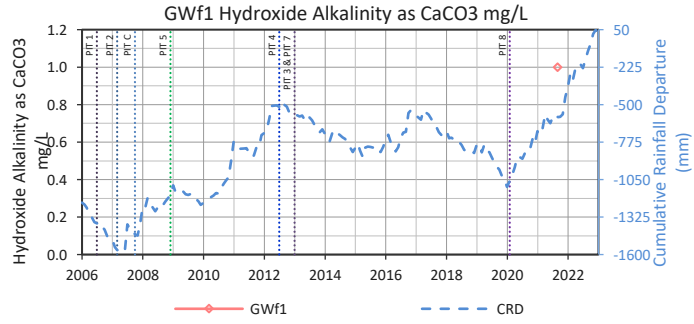
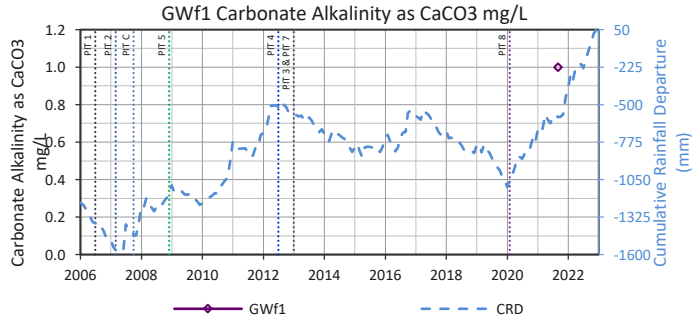
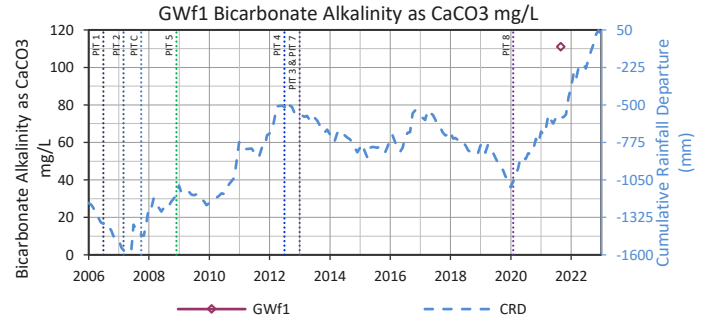
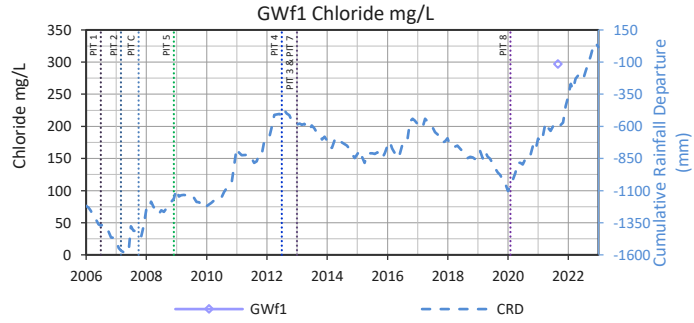
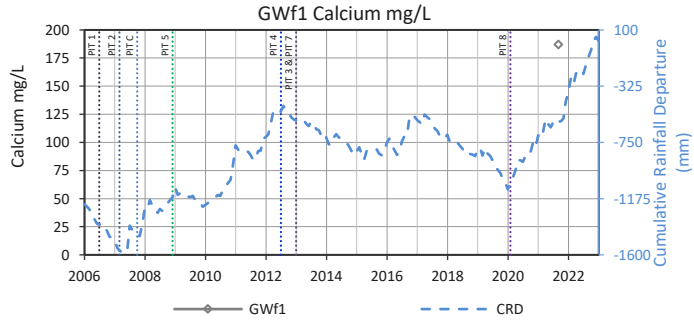
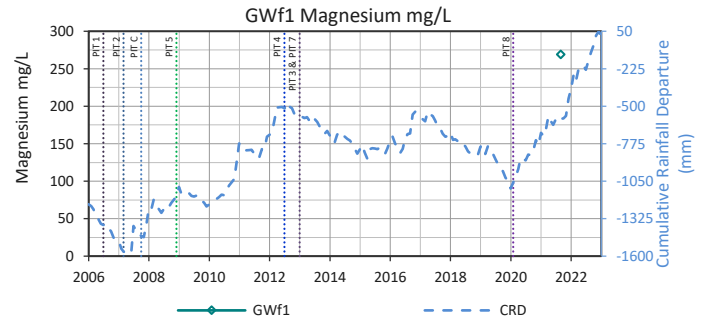
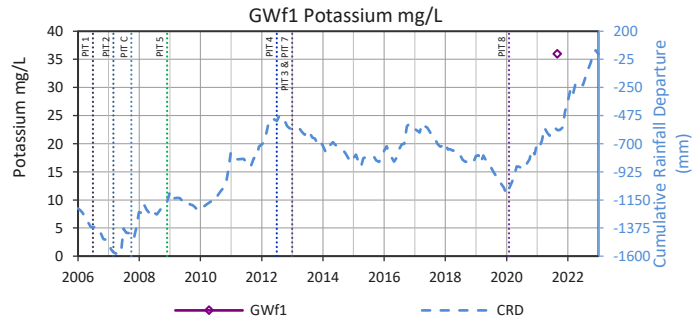
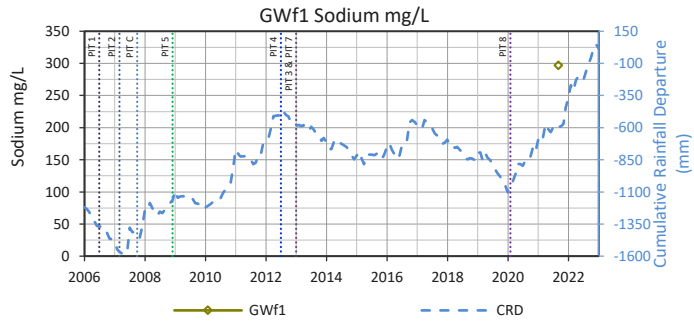
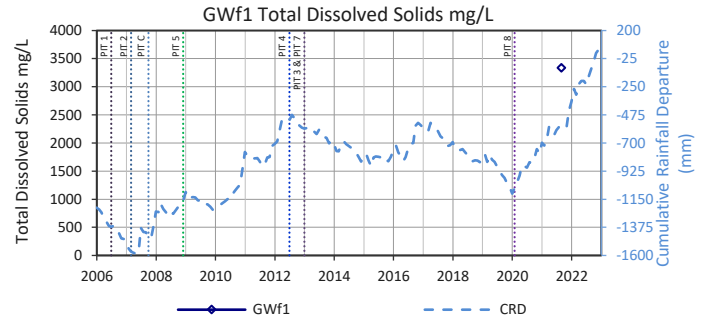
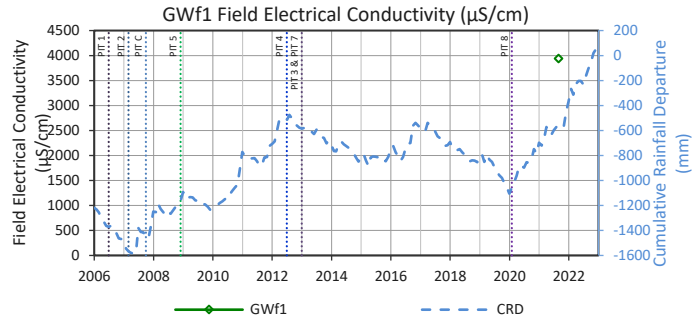
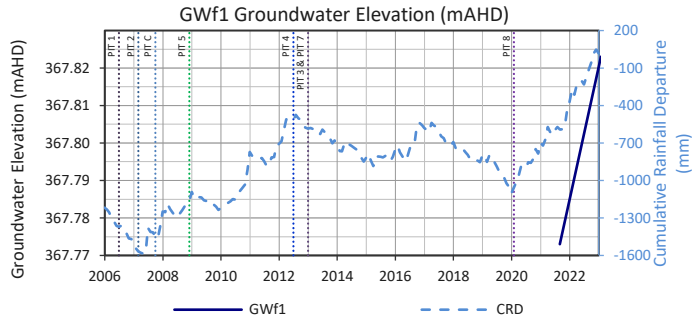


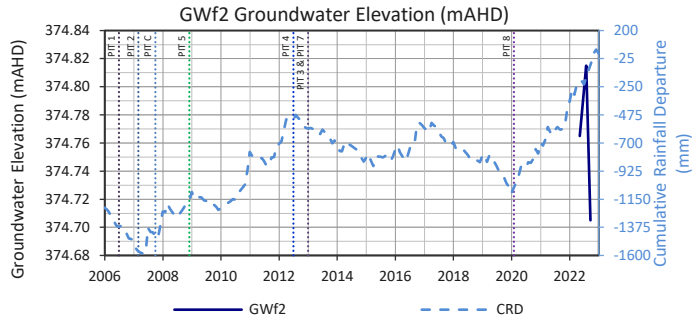






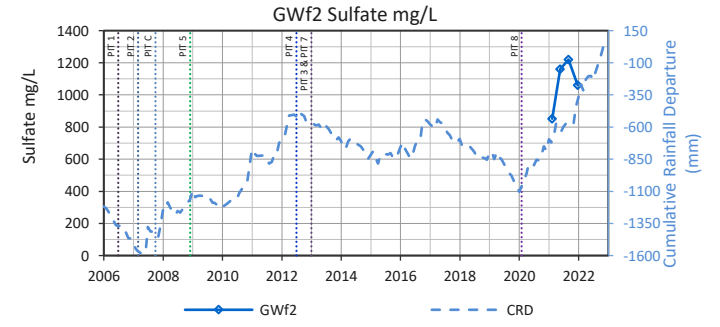
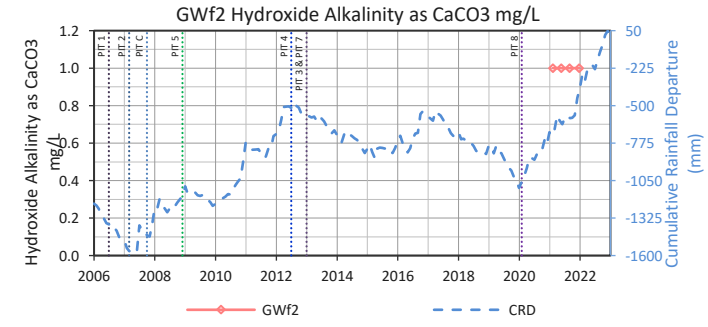
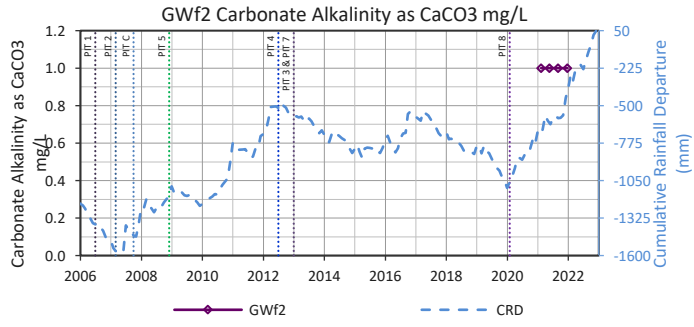
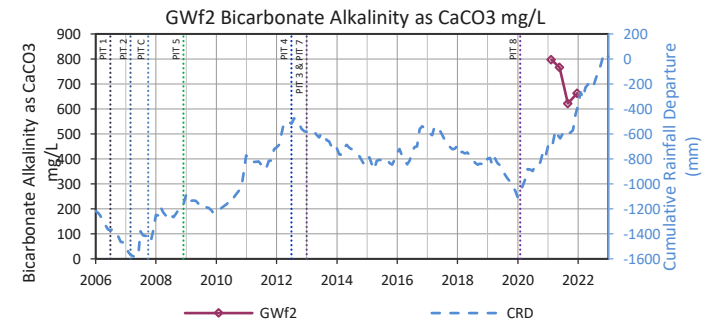
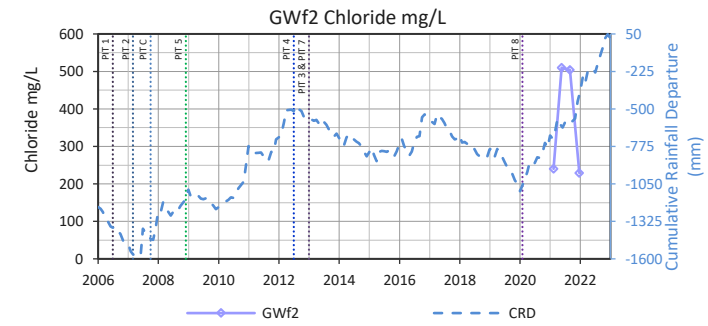
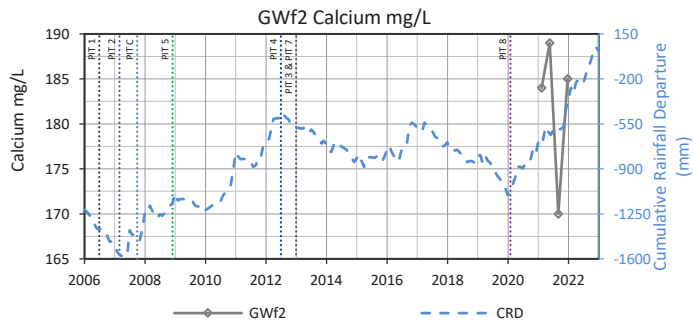
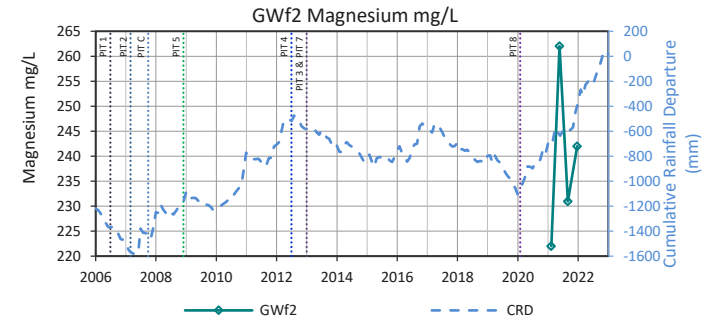
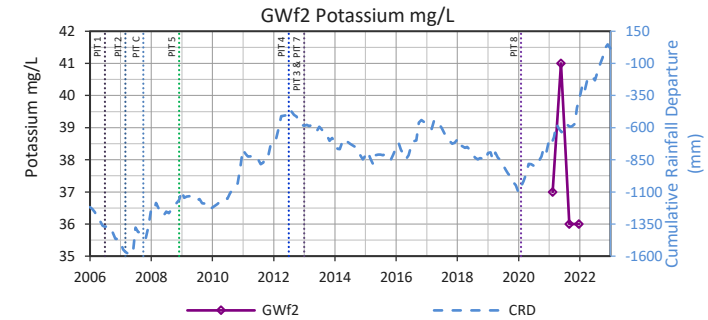
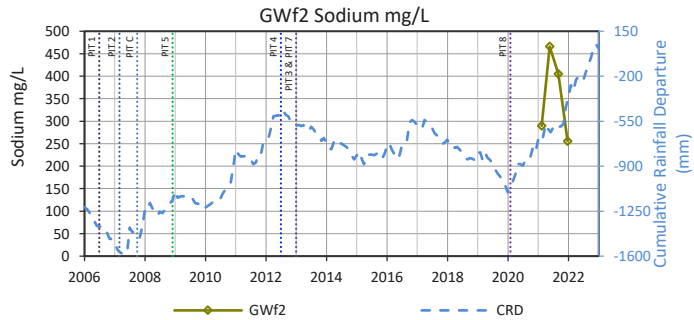
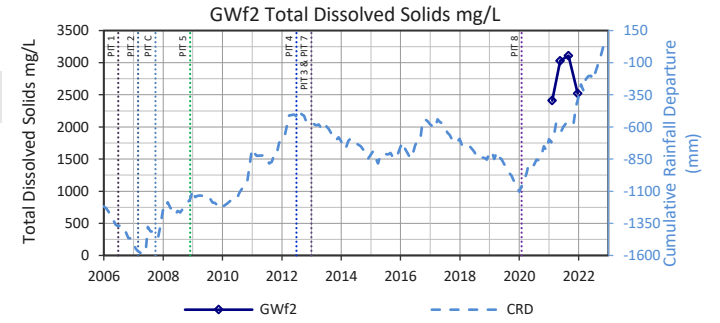


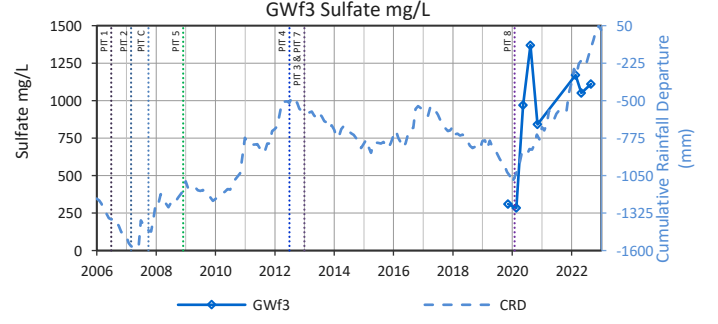
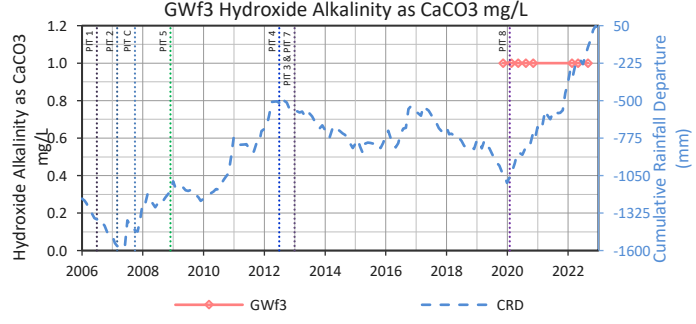
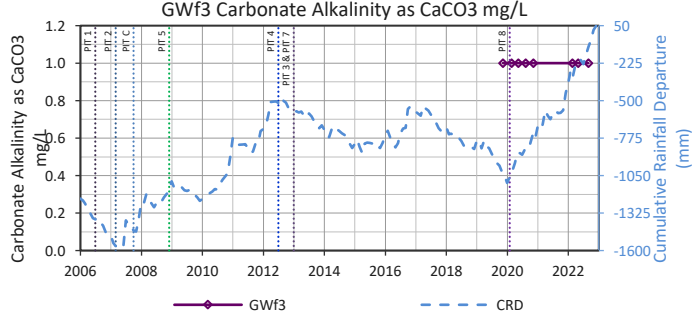
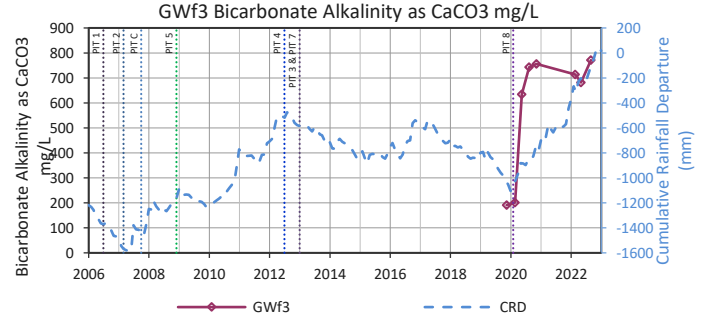
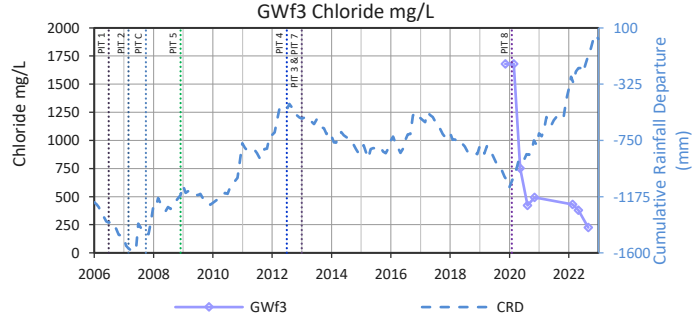
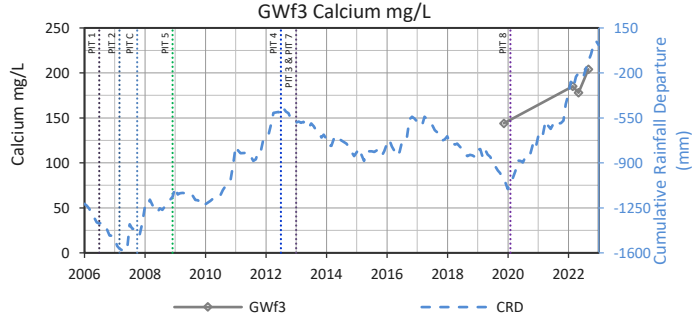
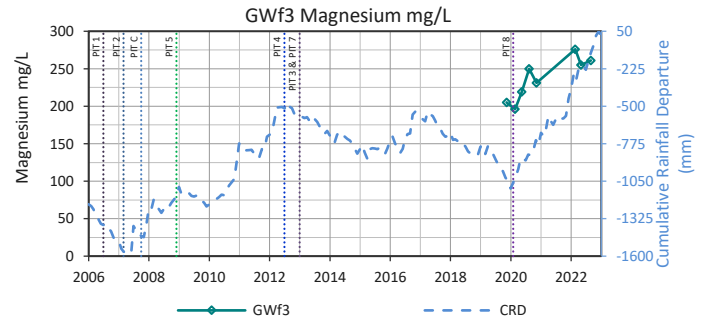
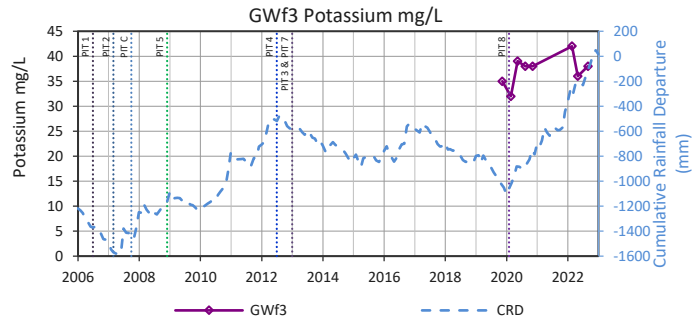
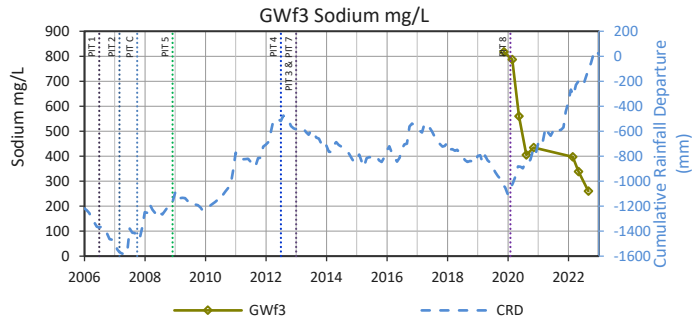
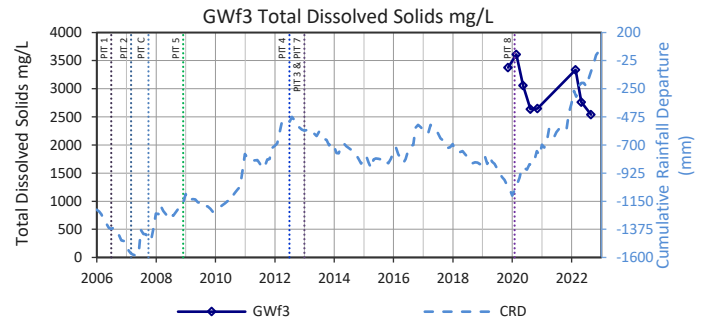
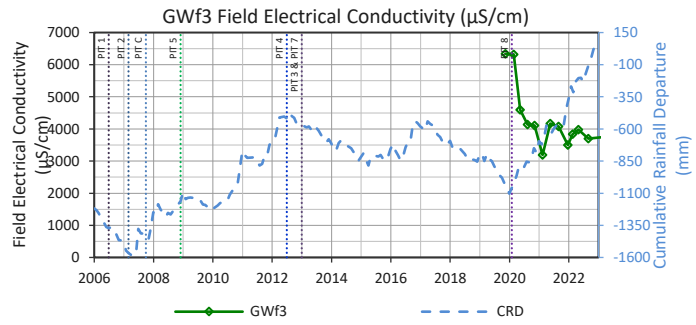
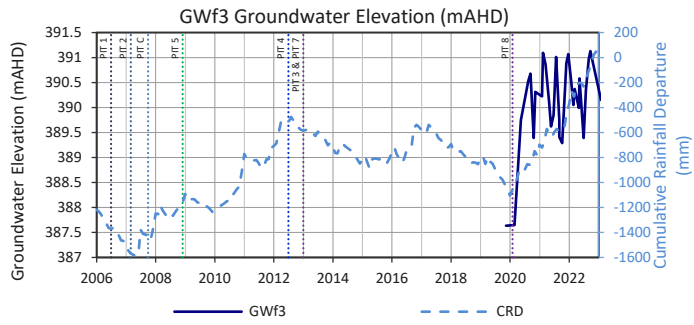


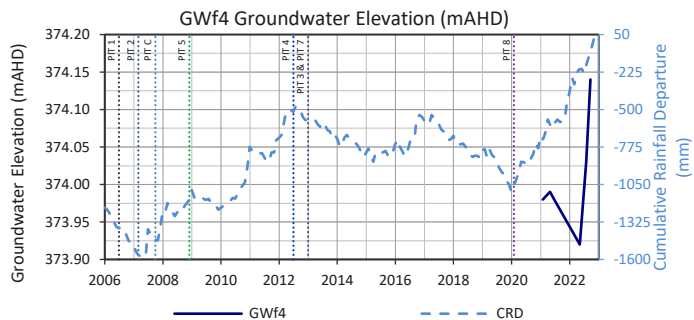


No Data Available for Field Electrical Conductivity ($\mu\text{S}/\text{cm}$)

GWf2

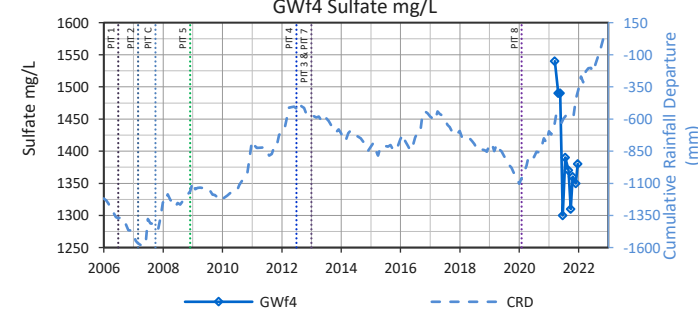
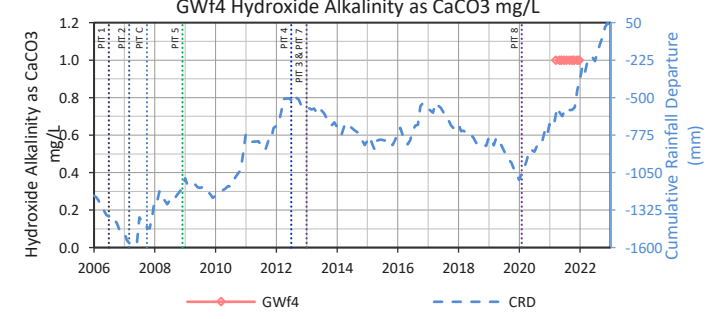
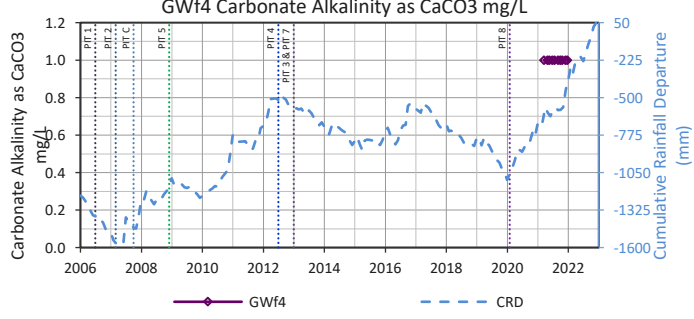
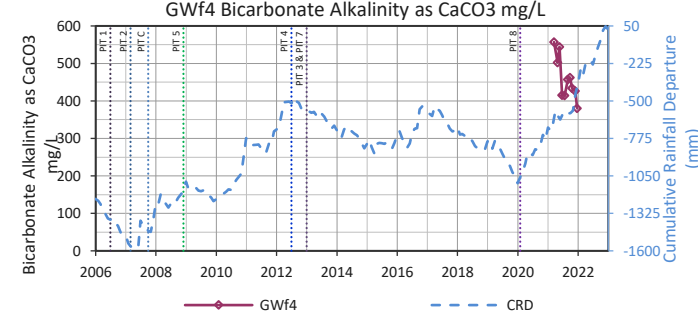
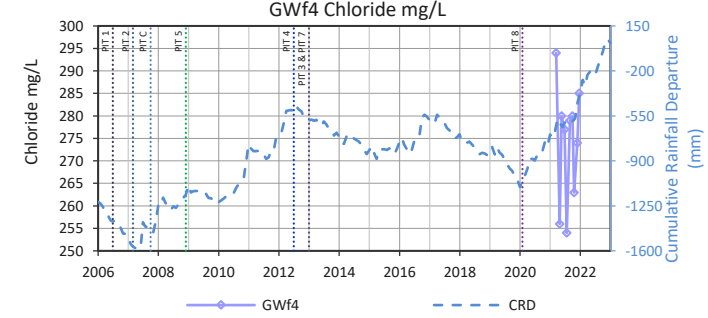
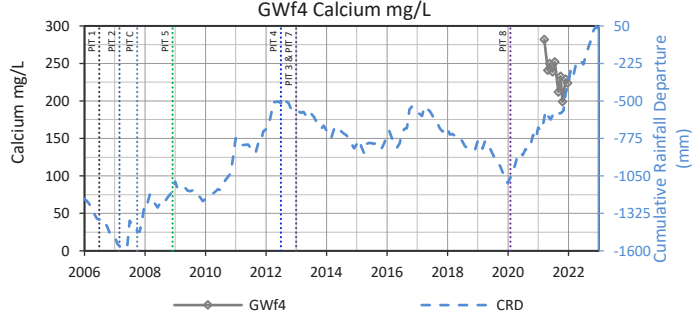
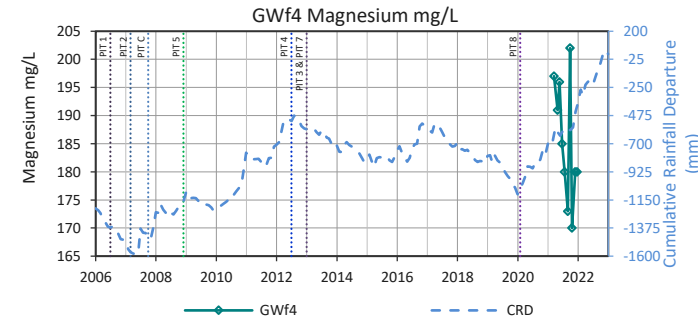
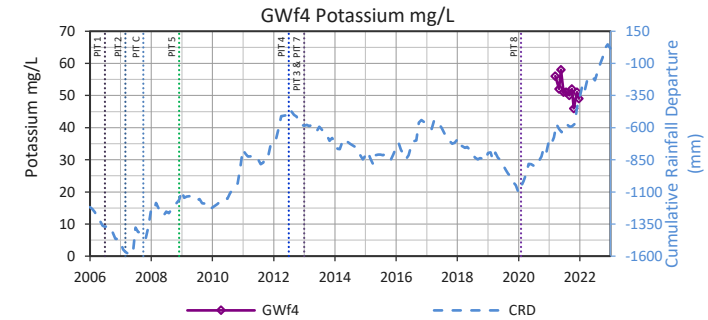
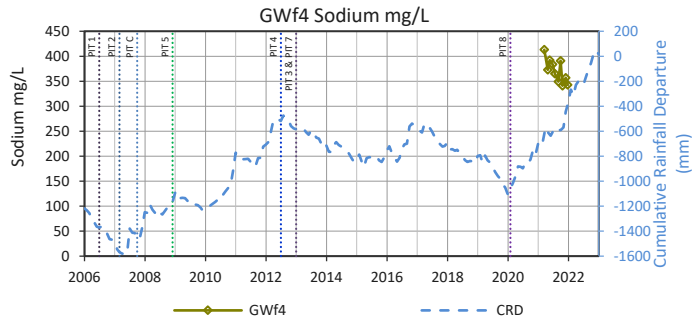
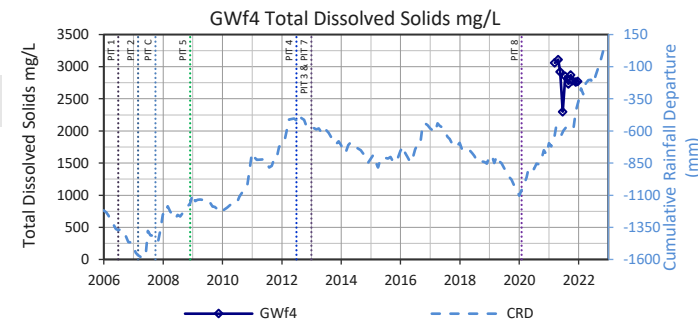


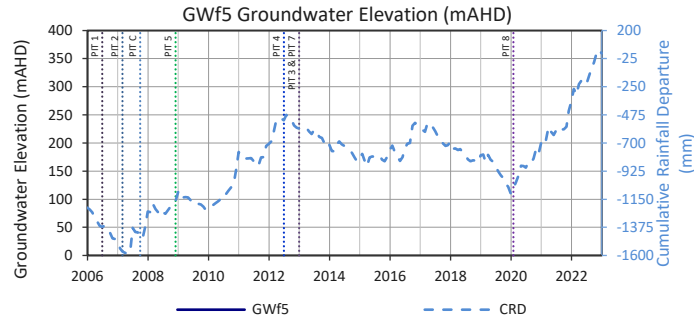




No Data Available for Field Electrical Conductivity ($\mu\text{S}/\text{cm}$)

GWf4





GWf5

GWf5

No Data Available for Field Electrical Conductivity ($\mu\text{S}/\text{cm}$)

No Data Available for Total Dissolved Solids mg/L

GWf5

GWf5

GWf5

No Data Available for Sodium mg/L

No Data Available for Potassium mg/L

No Data Available for Magnesium mg/L

GWf5

GWf5

GWf5

No Data Available for Calcium mg/L

No Data Available for Chloride mg/L

No Data Available for Bicarbonate Alkalinity as CaCO_3 mg/L

GWf5

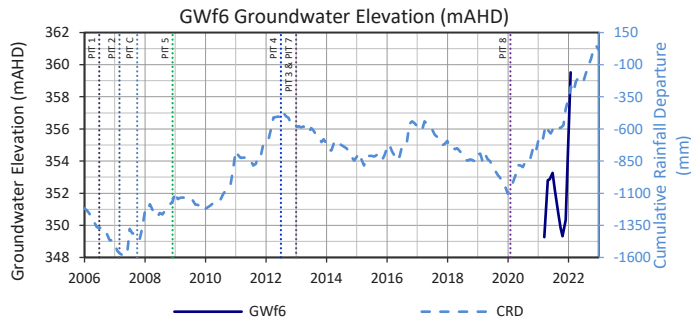
GWf5

GWf5

No Data Available for Carbonate Alkalinity as CaCO_3 mg/L

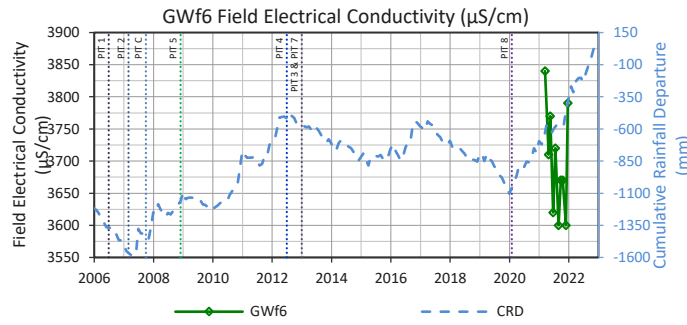
No Data Available for Hydroxide Alkalinity as CaCO_3 mg/L

No Data Available for Sulfate mg/L



GWf6

No Data Available for Sodium mg/L



GWf6

No Data Available for Potassium mg/L

No Data Available for Total Dissolved Solids mg/L

GWf6

No Data Available for Magnesium mg/L

GWf6

No Data Available for Calcium mg/L

GWf6

No Data Available for Chloride mg/L

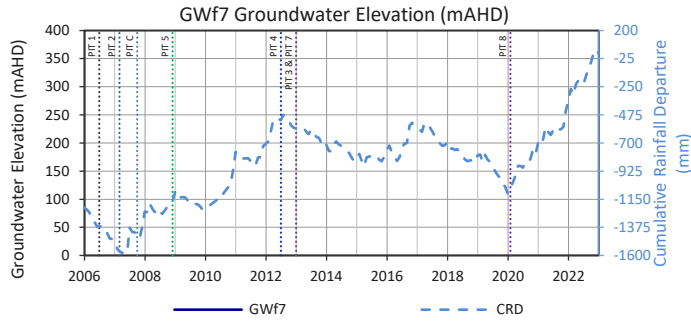
No Data Available for Bicarbonate Alkalinity as CaCO3 mg/L

GWf6

No Data Available for Carbonate Alkalinity as CaCO3 mg/L

No Data Available for Hydroxide Alkalinity as CaCO3 mg/L

No Data Available for Sulfate mg/L



GWf7

No Data Available for Sodium mg/L

No Data Available for Potassium mg/L

No Data Available for Magnesium mg/L

GWf7

No Data Available for Calcium mg/L

No Data Available for Chloride mg/L

No Data Available for Bicarbonate Alkalinity as CaCO3 mg/L

GWf7

No Data Available for Carbonate Alkalinity as CaCO3 mg/L

No Data Available for Hydroxide Alkalinity as CaCO3 mg/L

No Data Available for Sulfate mg/L

GWf7

No Data Available for Field Electrical Conductivity ($\mu\text{S}/\text{cm}$)

No Data Available for Total Dissolved Solids mg/L

GWf7

GWf7

GWf7

GWf7

GWf7

GWf7

GWf7

PZ13

PZ13

PZ13

No Data Available for Groundwater Elevation (mAHD)

No Data Available for Field Electrical Conductivity ($\mu\text{S}/\text{cm}$)

No Data Available for Total Dissolved Solids mg/L

PZ13

PZ13

PZ13

No Data Available for Sodium mg/L

No Data Available for Potassium mg/L

No Data Available for Magnesium mg/L

PZ13

PZ13

PZ13

No Data Available for Calcium mg/L

No Data Available for Chloride mg/L

No Data Available for Bicarbonate Alkalinity as CaCO_3 mg/L

PZ13

PZ13

PZ13

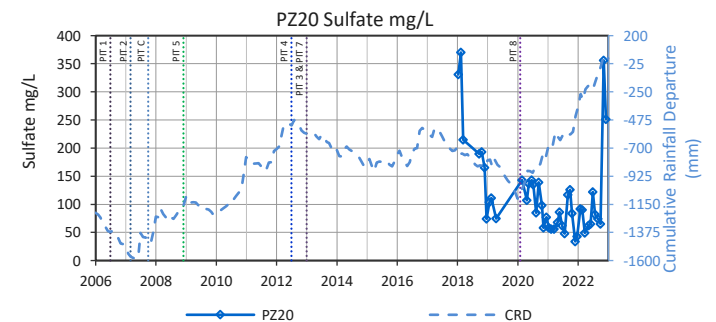
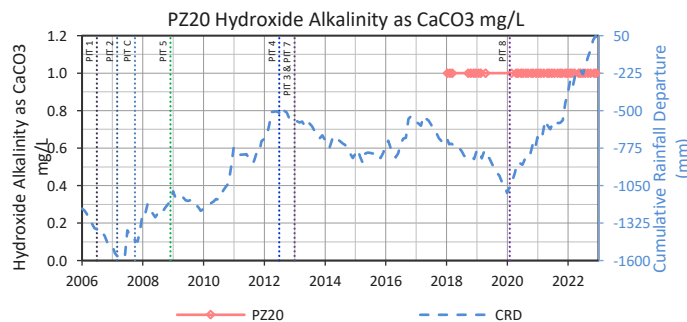
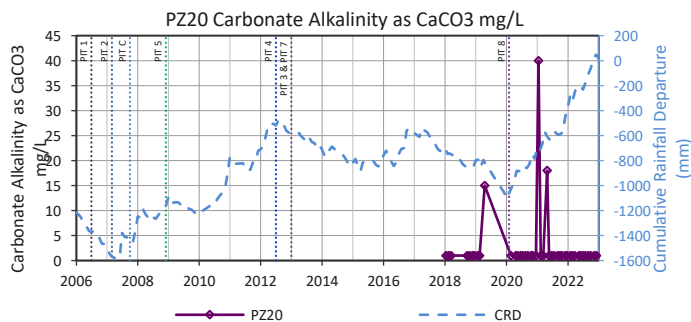
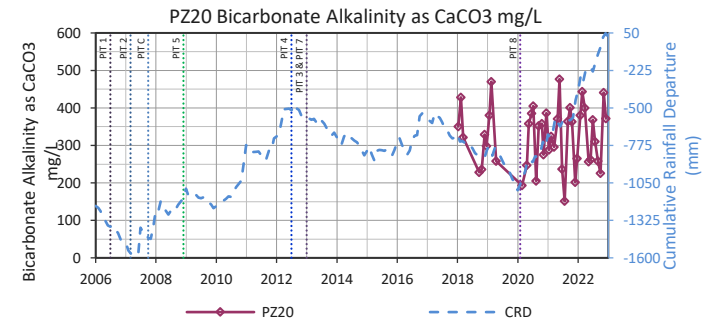
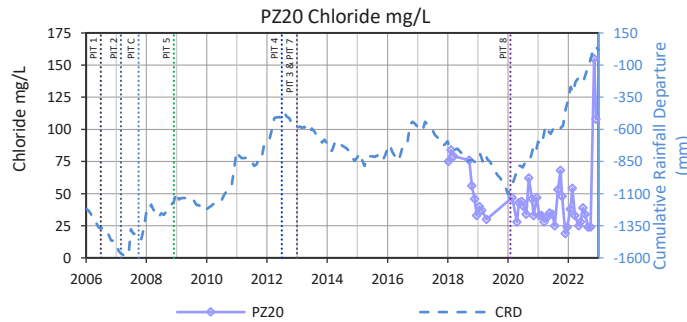
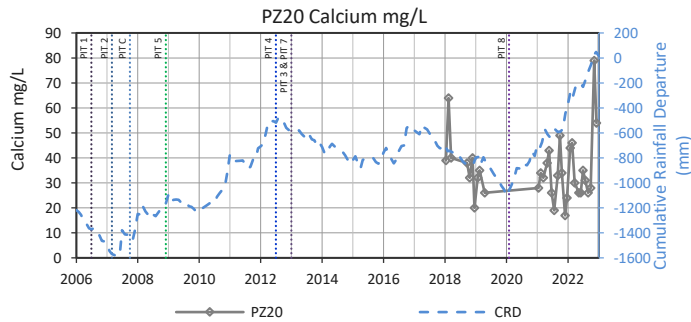
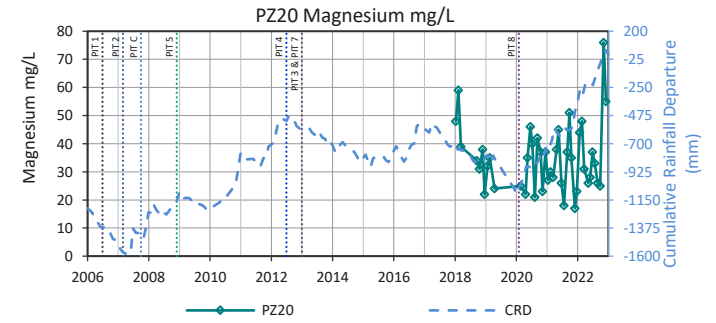
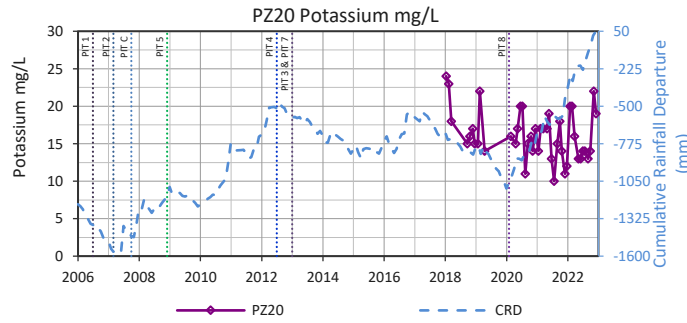
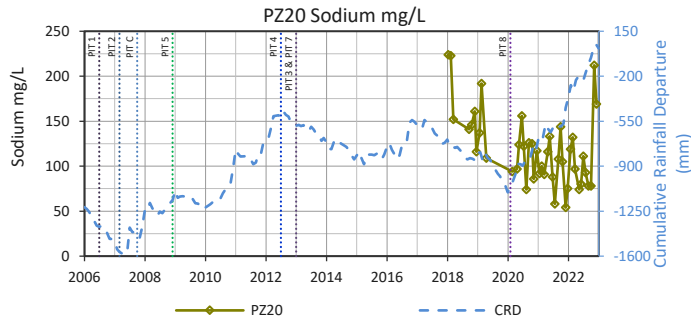
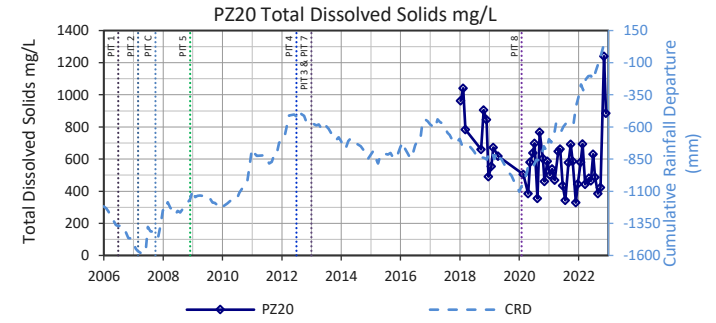
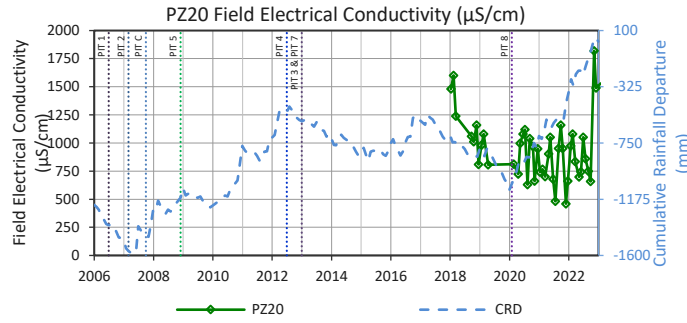
No Data Available for Carbonate Alkalinity as CaCO_3 mg/L

No Data Available for Hydroxide Alkalinity as CaCO_3 mg/L

No Data Available for Sulfate mg/L

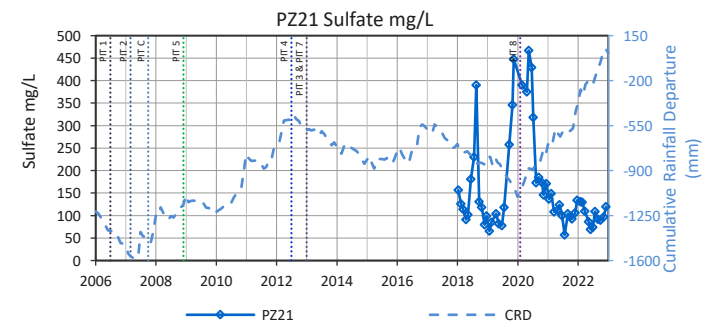
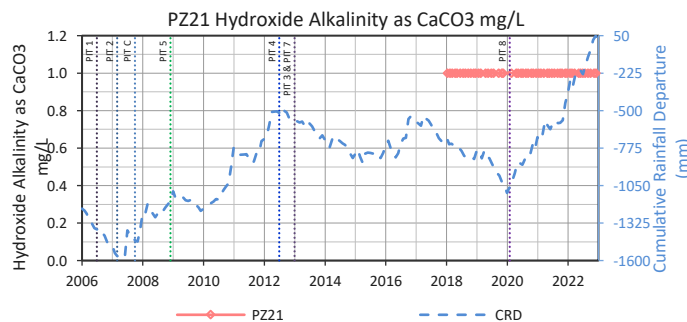
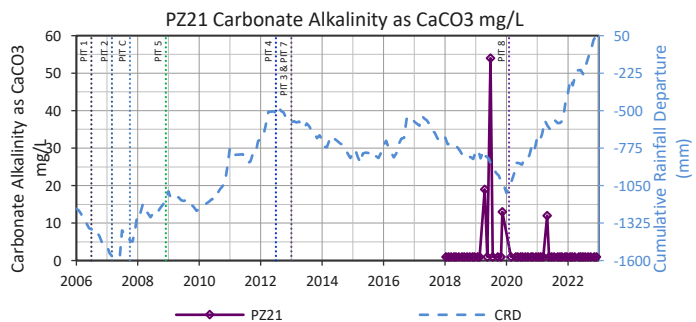
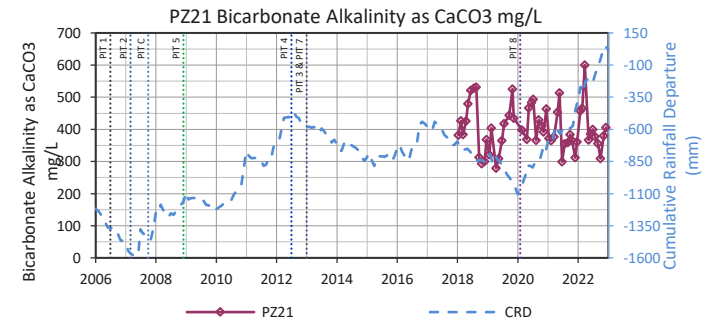
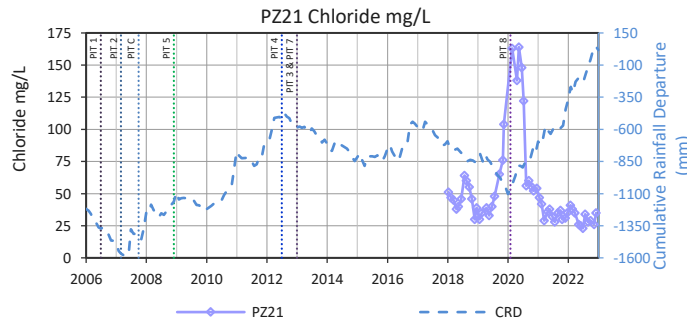
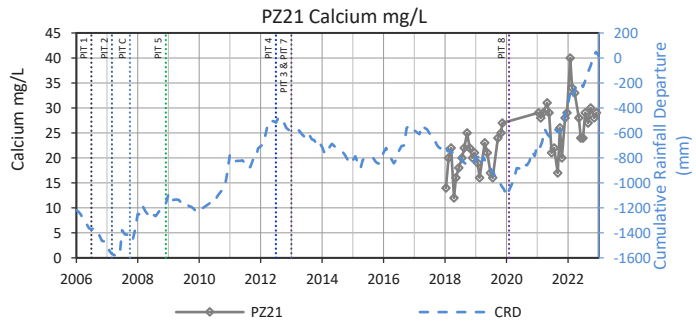
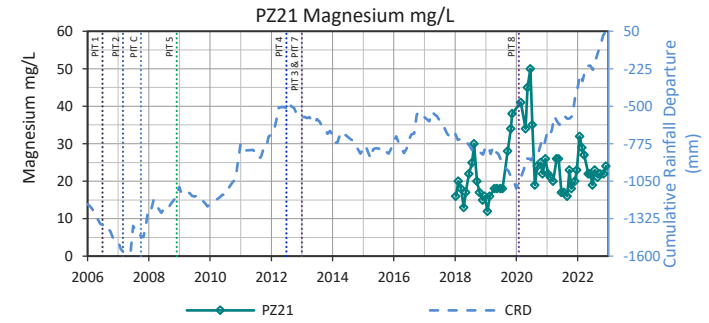
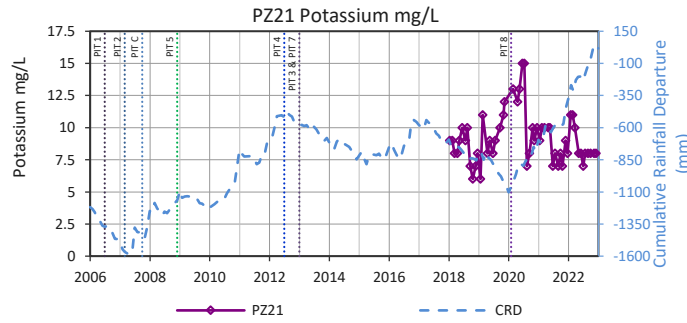
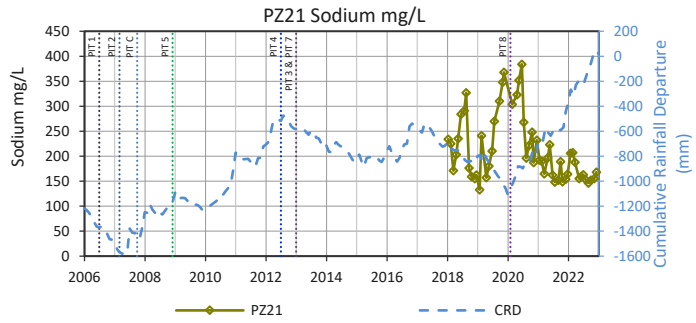
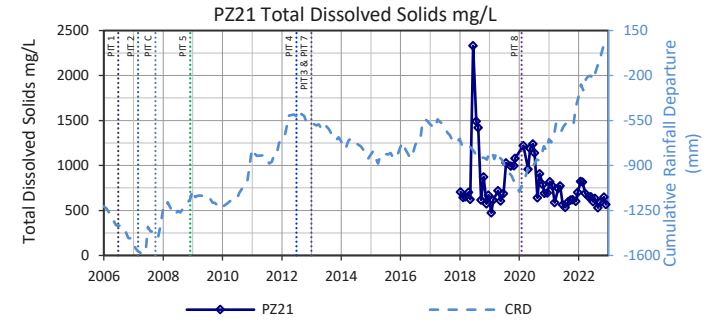
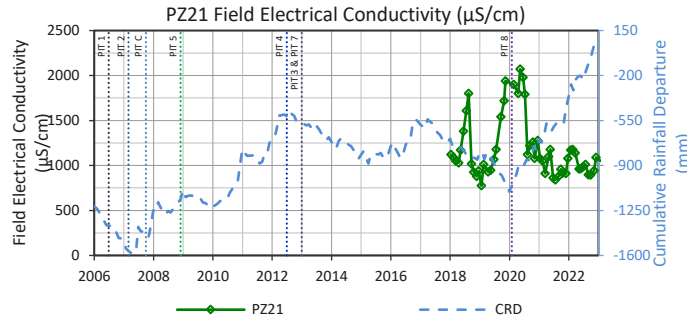
PZ20

No Data Available for Groundwater Elevation (mAHD)



PZ21

No Data Available for Groundwater Elevation (mAHD)



PZ26

PZ26

PZ26

No Data Available for Groundwater Elevation (mAHD)

No Data Available for Field Electrical Conductivity ($\mu\text{S}/\text{cm}$)

No Data Available for Total Dissolved Solids mg/L

PZ26

PZ26

PZ26

No Data Available for Sodium mg/L

No Data Available for Potassium mg/L

No Data Available for Magnesium mg/L

PZ26

PZ26

PZ26

No Data Available for Calcium mg/L

No Data Available for Chloride mg/L

No Data Available for Bicarbonate Alkalinity as CaCO_3 mg/L

PZ26

PZ26

PZ26

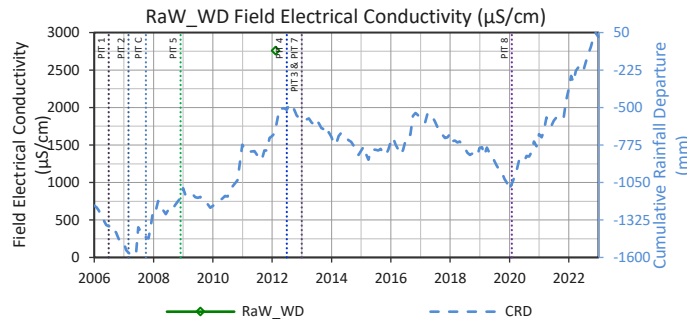
No Data Available for Carbonate Alkalinity as CaCO_3 mg/L

No Data Available for Hydroxide Alkalinity as CaCO_3 mg/L

No Data Available for Sulfate mg/L

RaW_WD

No Data Available for Groundwater Elevation (mAHD)



RaW_WD

No Data Available for Total Dissolved Solids mg/L

RaW_WD

No Data Available for Sodium mg/L

RaW_WD

No Data Available for Potassium mg/L

RaW_WD

No Data Available for Magnesium mg/L

RaW_WD

No Data Available for Calcium mg/L

RaW_WD

No Data Available for Chloride mg/L

RaW_WD

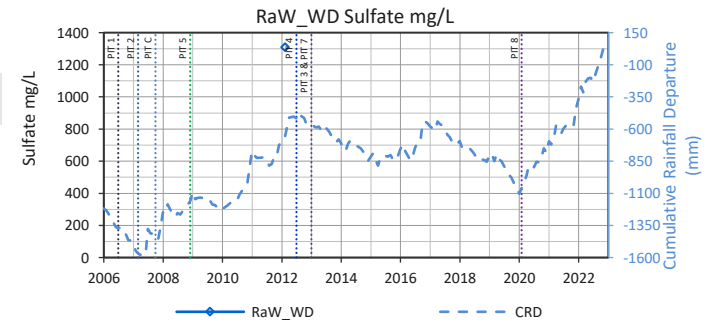
No Data Available for Bicarbonate Alkalinity as CaCO3 mg/L

RaW_WD

No Data Available for Carbonate Alkalinity as CaCO3 mg/L

RaW_WD

No Data Available for Hydroxide Alkalinity as CaCO3 mg/L



APPENDIX D

Modelled vs Observed Hydrographs

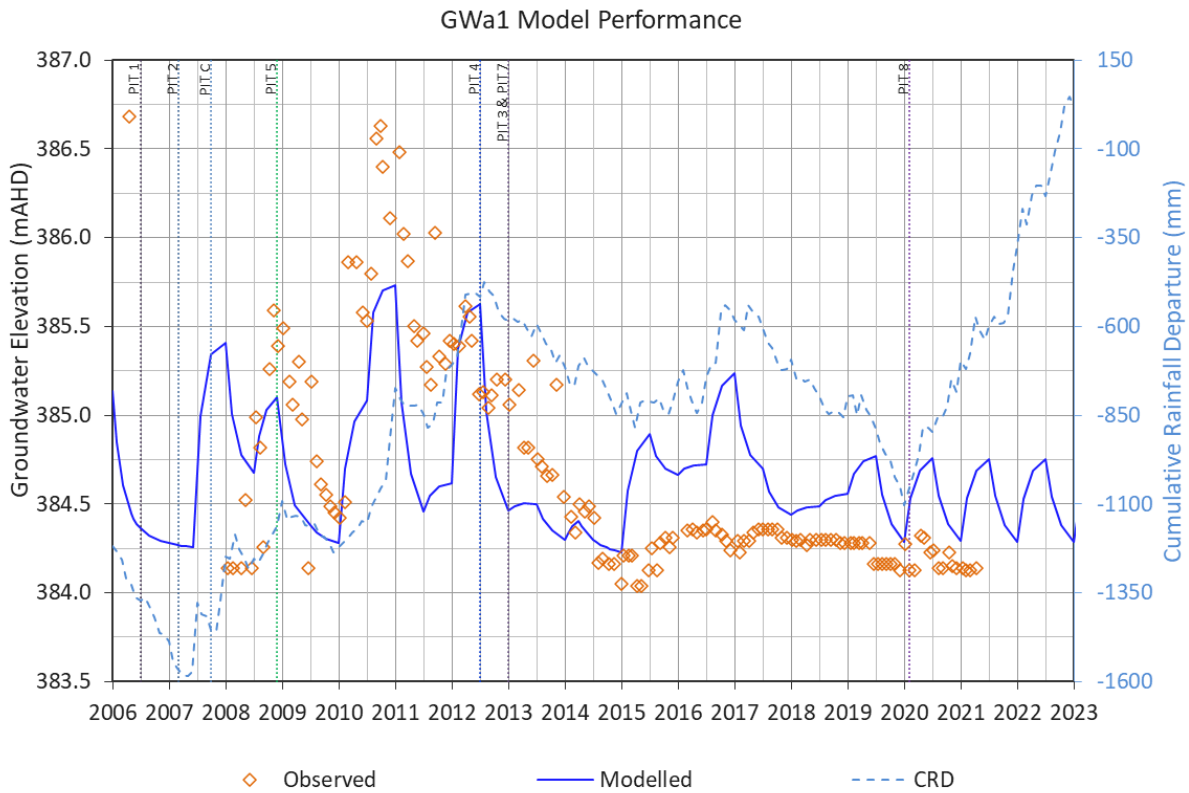


Figure 32 GWa1 Calibration Hydrographs

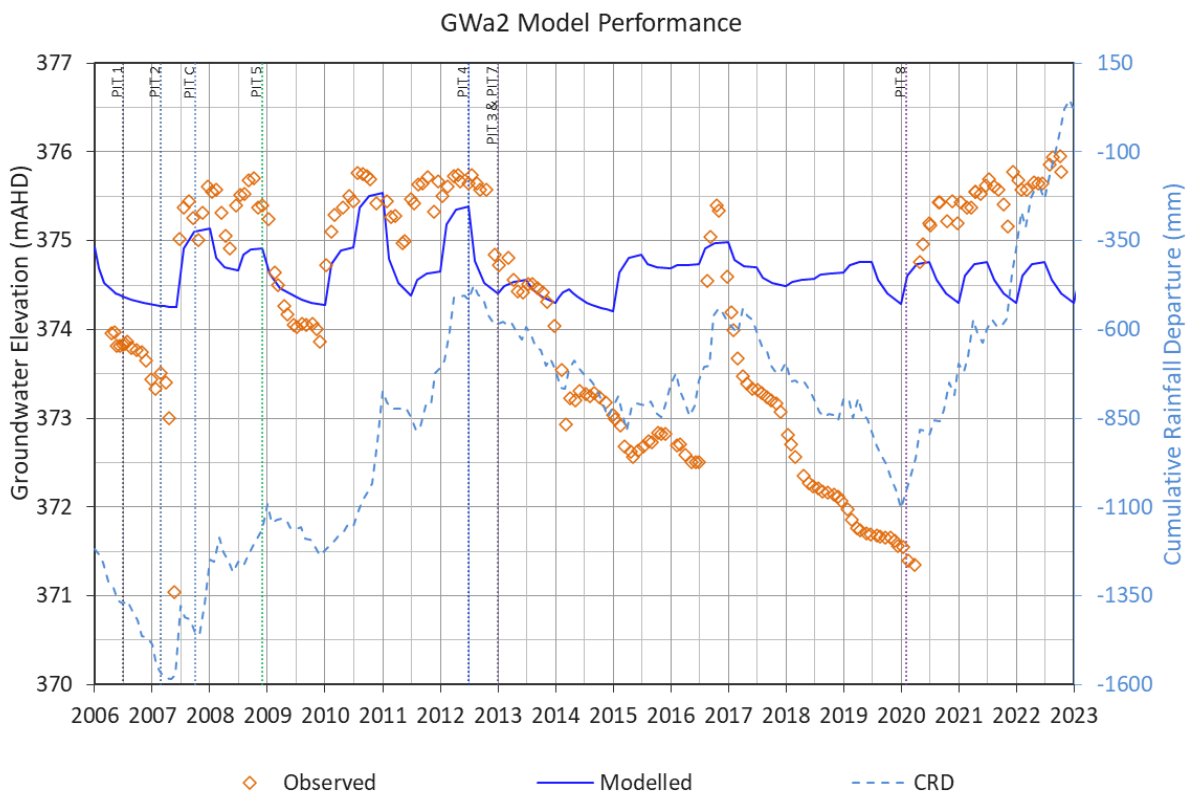


Figure 33 GWa2 Calibration Hydrographs

GWa3 Model Performance

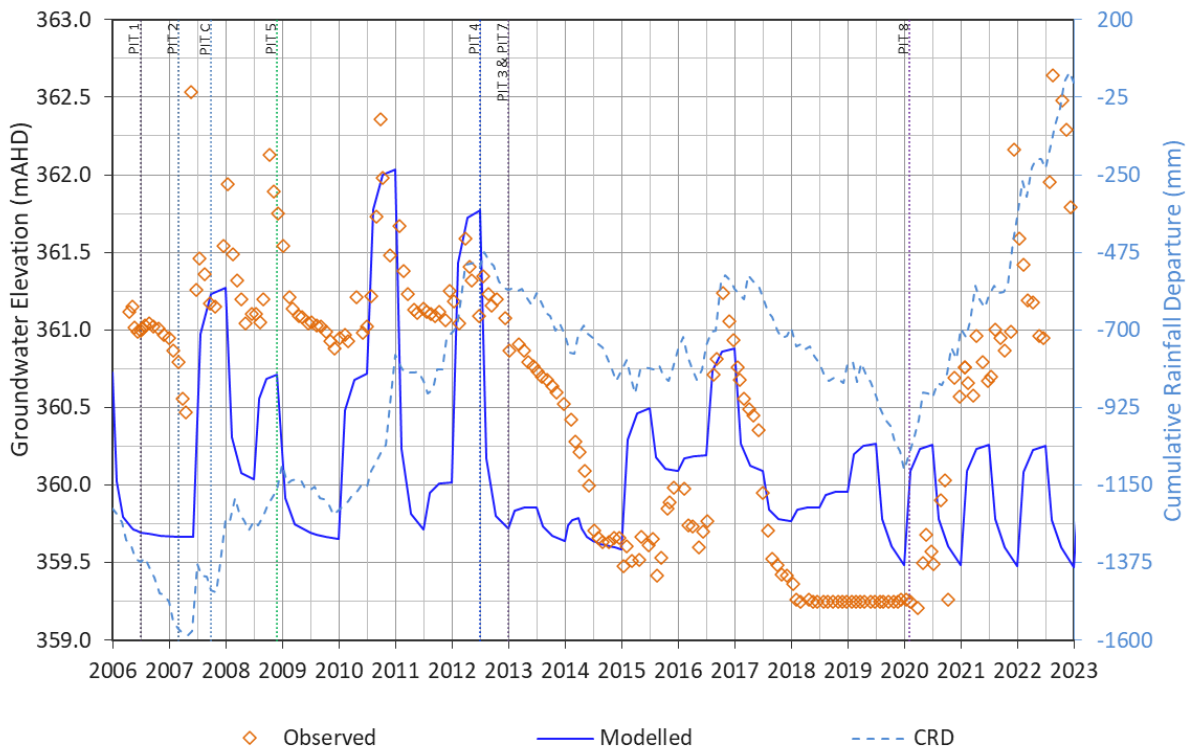


Figure 34 GWa3 Calibration Hydrographs

GWa4 Model Performance

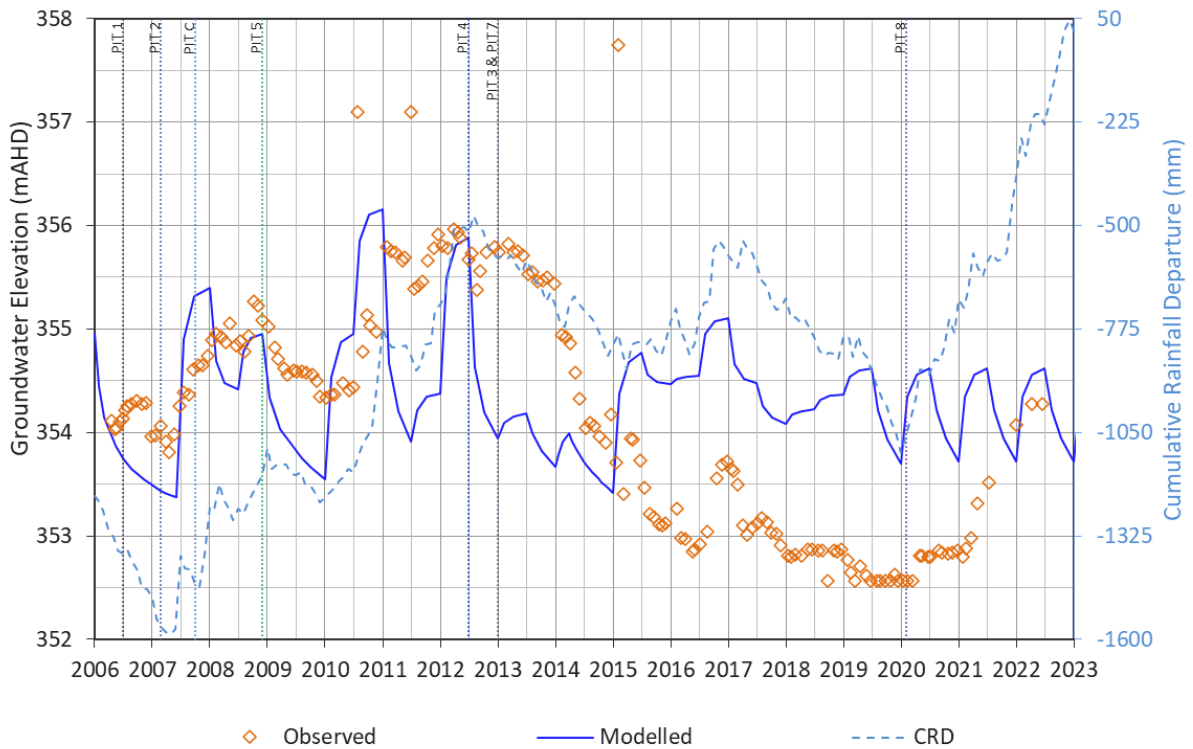


Figure 35 GWa4 Calibration Hydrographs

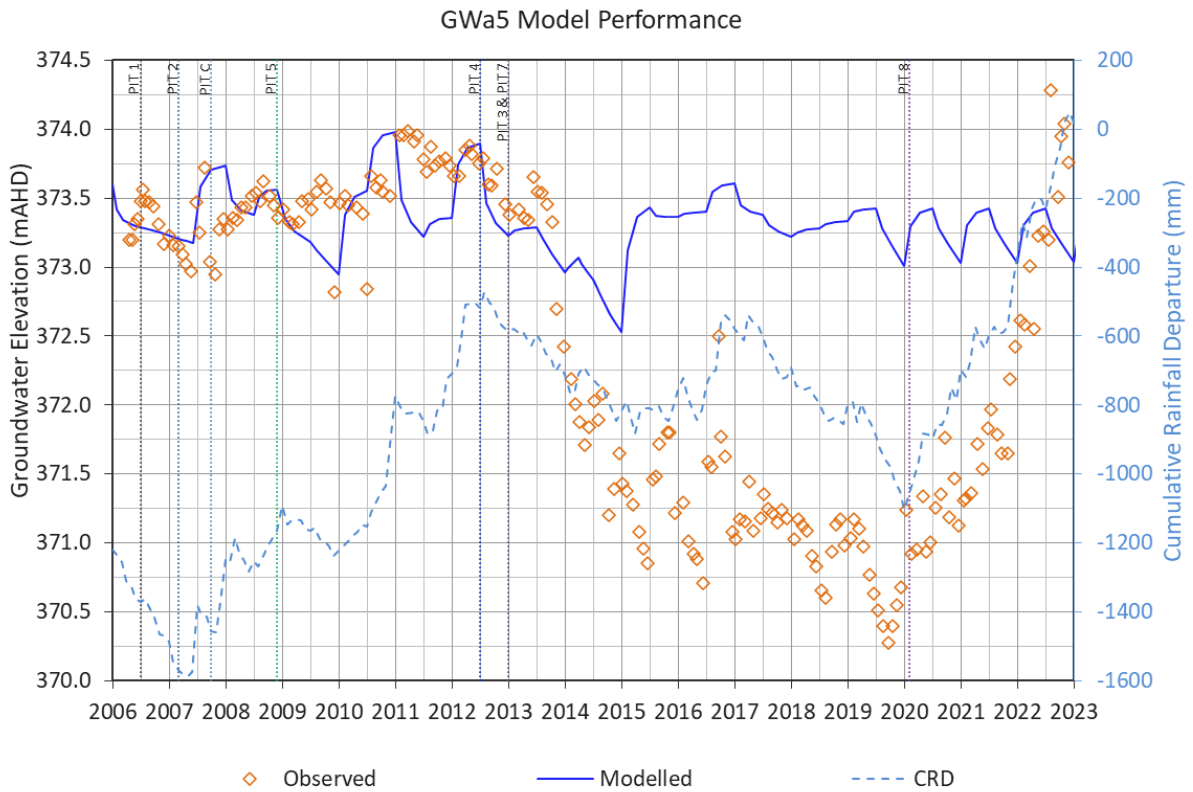


Figure 36 GWA5 Calibration Hydrographs

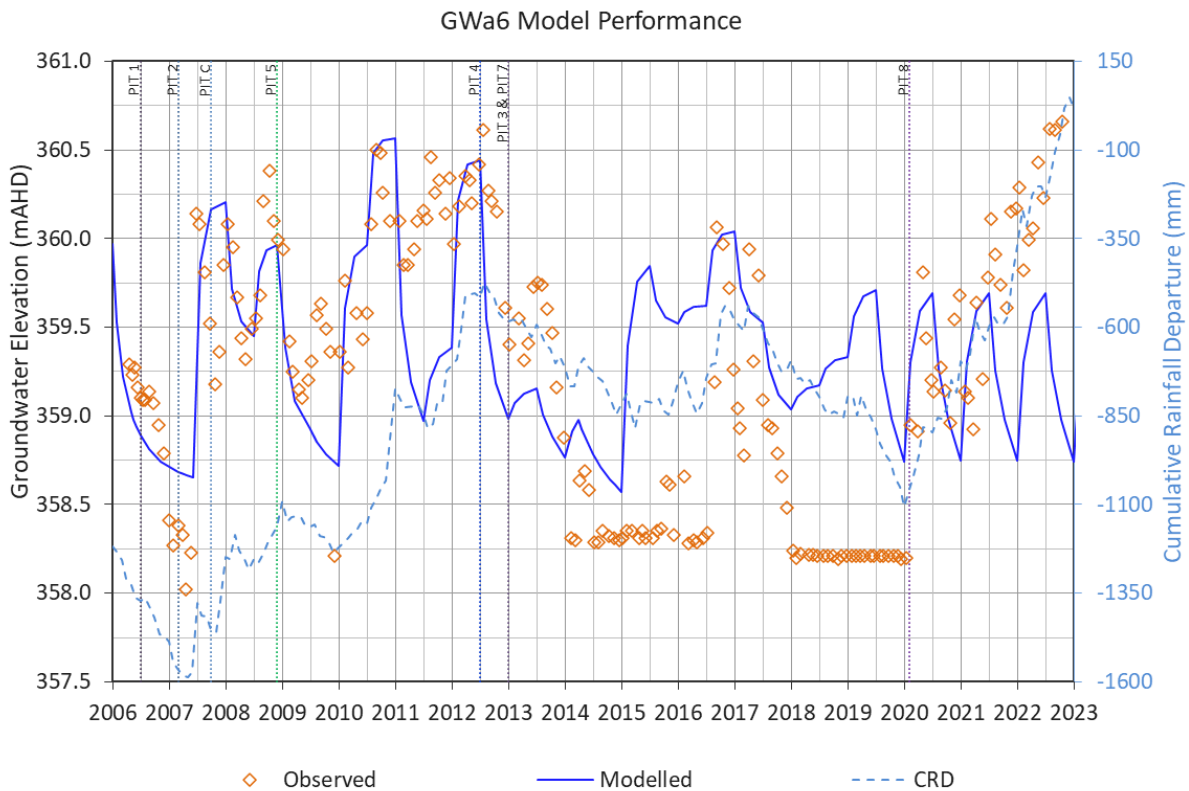


Figure 37 GWA6 Calibration Hydrographs

GWa12 Model Performance

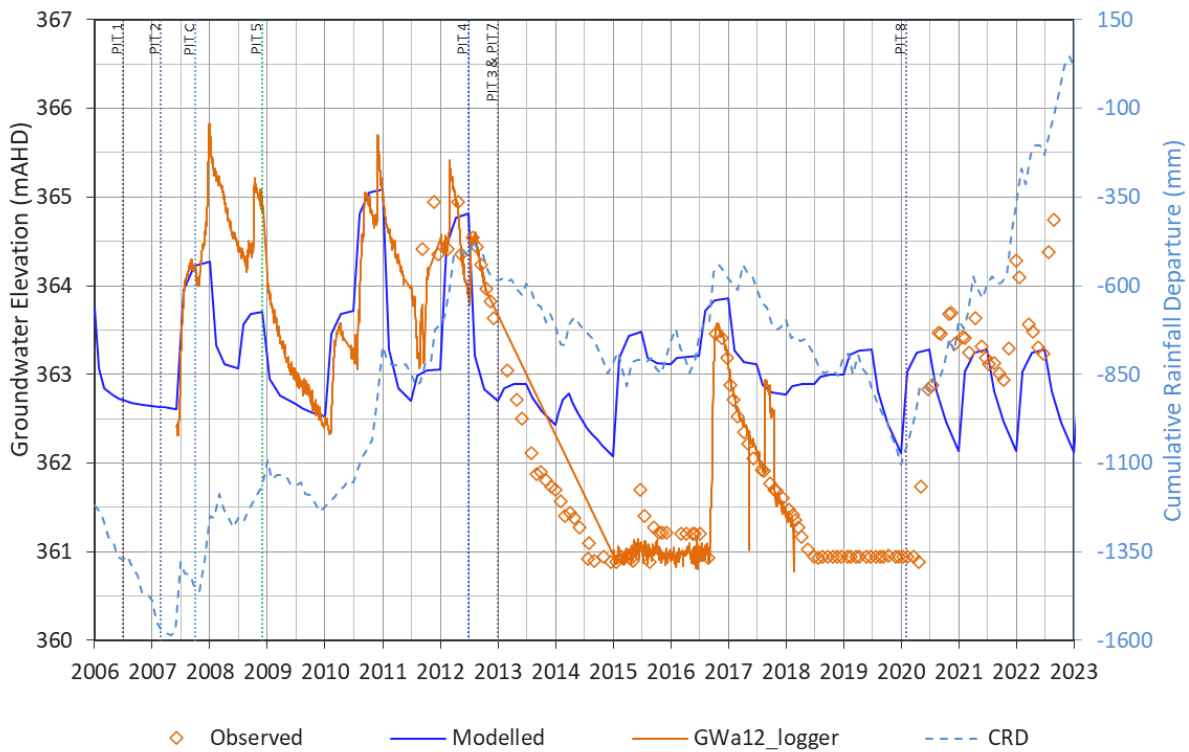


Figure 38 GWa12 Calibration Hydrographs

GWa14 Model Performance

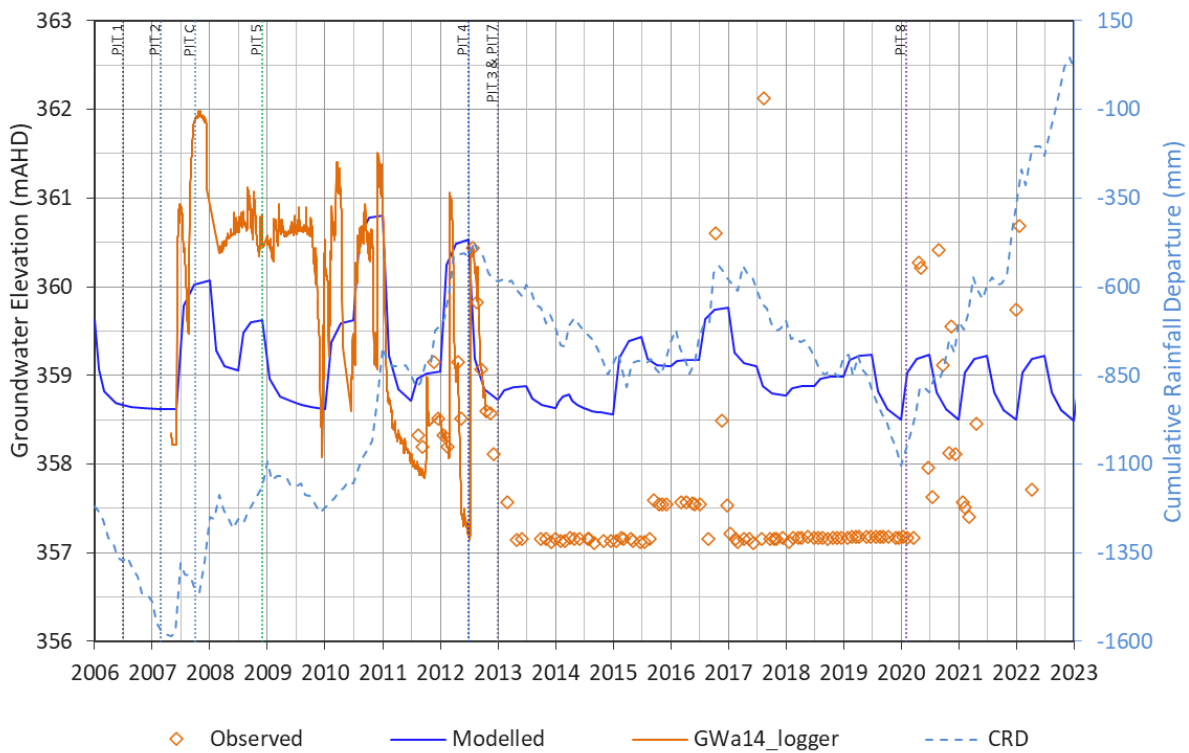


Figure 39 GWa14 Calibration Hydrographs

GWa15 Model Performance

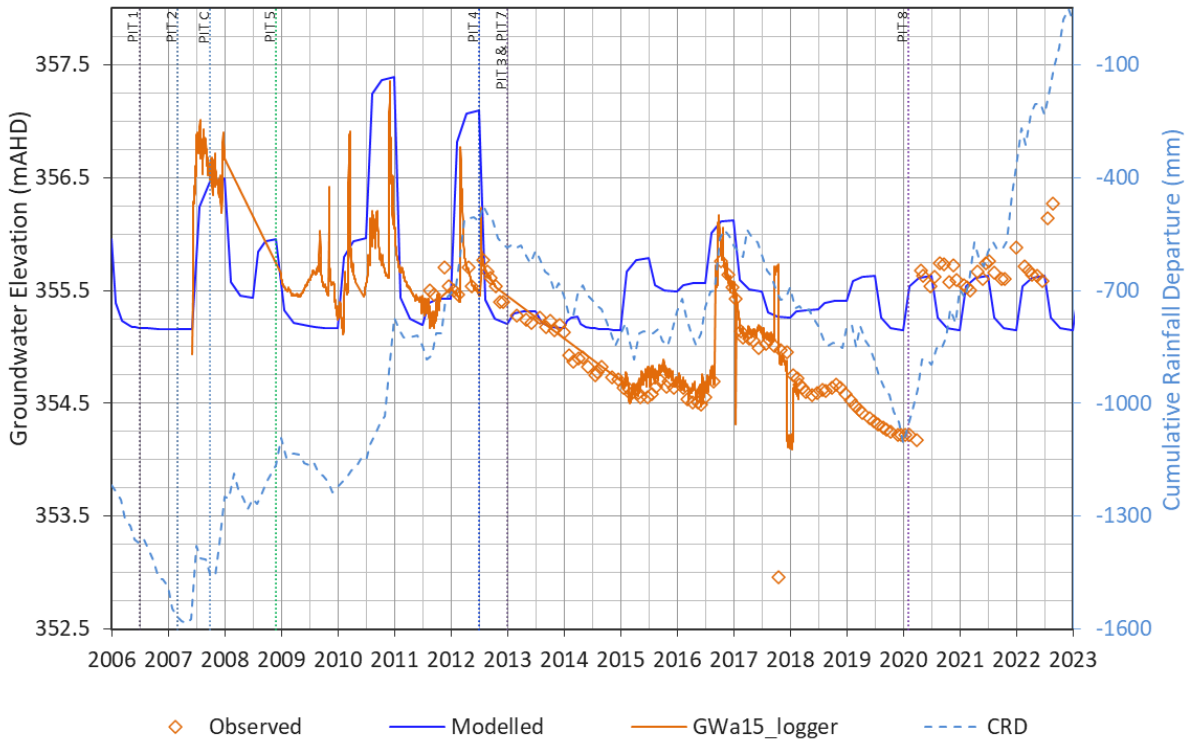


Figure 40 Gwa15 Calibration Hydrographs

GWc1 Model Performance

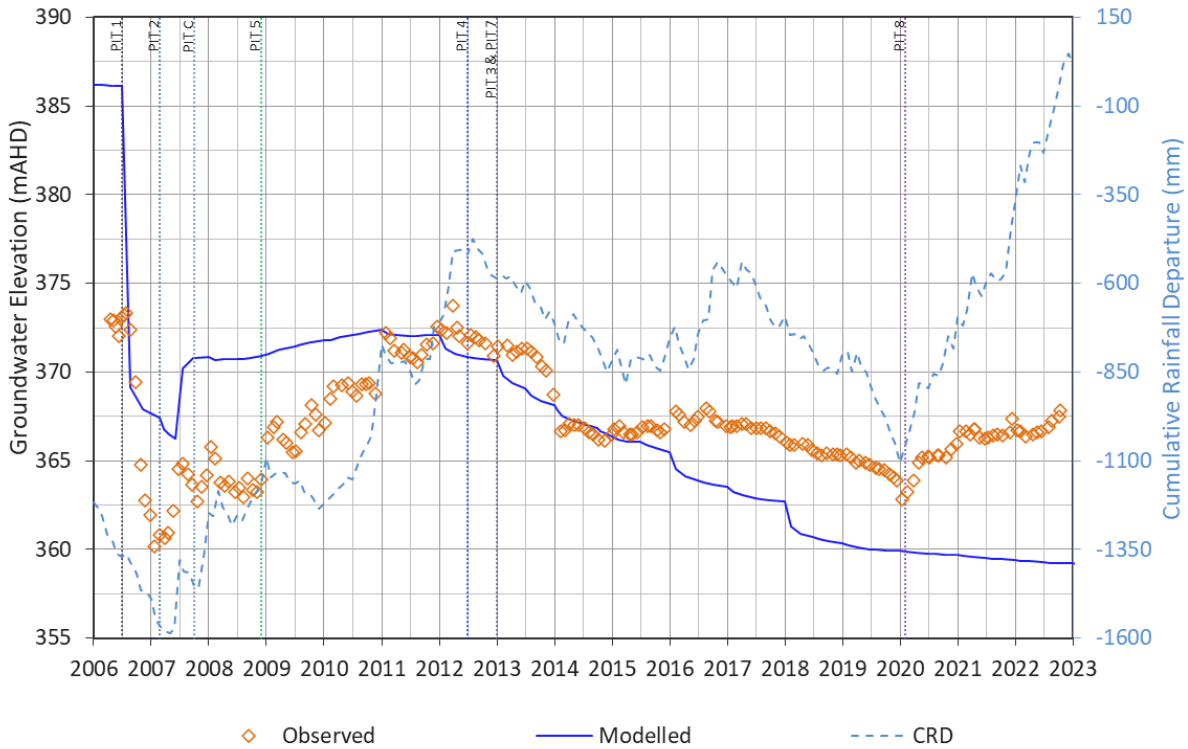


Figure 41 GWc1 Calibration Hydrographs

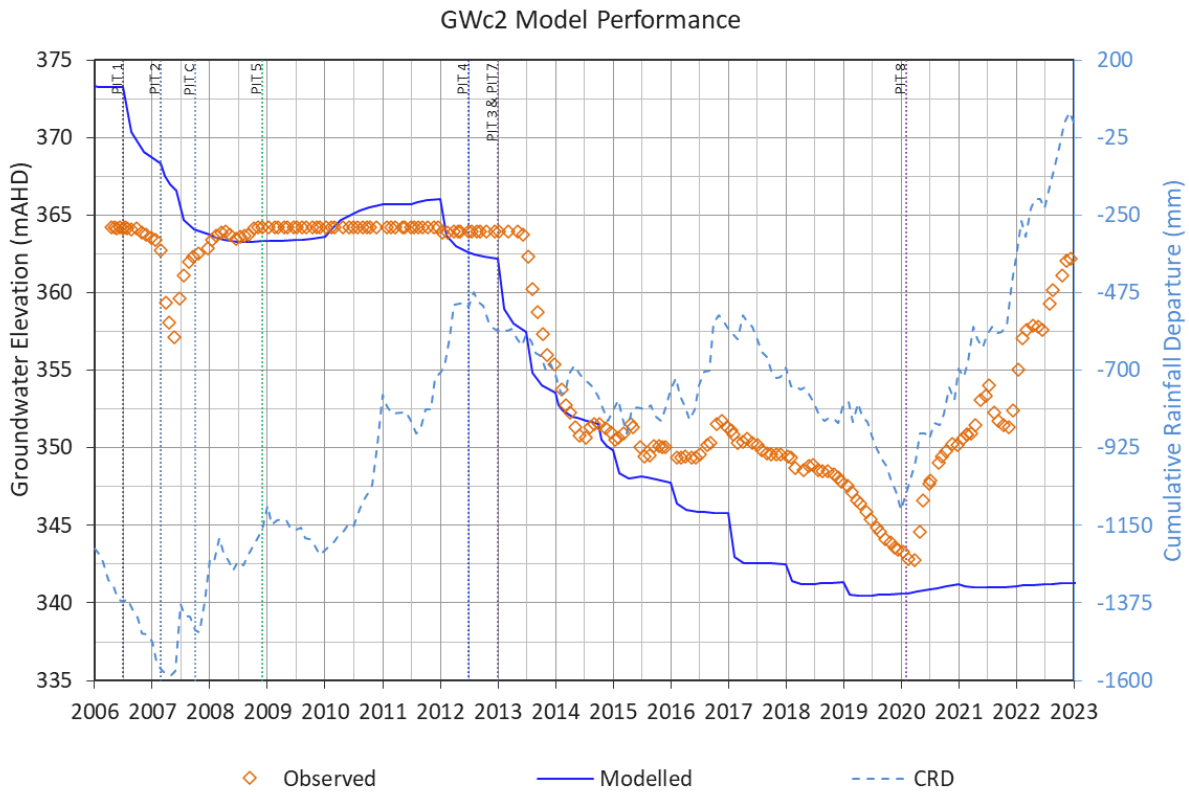


Figure 42 GWc2 Calibration Hydrographs

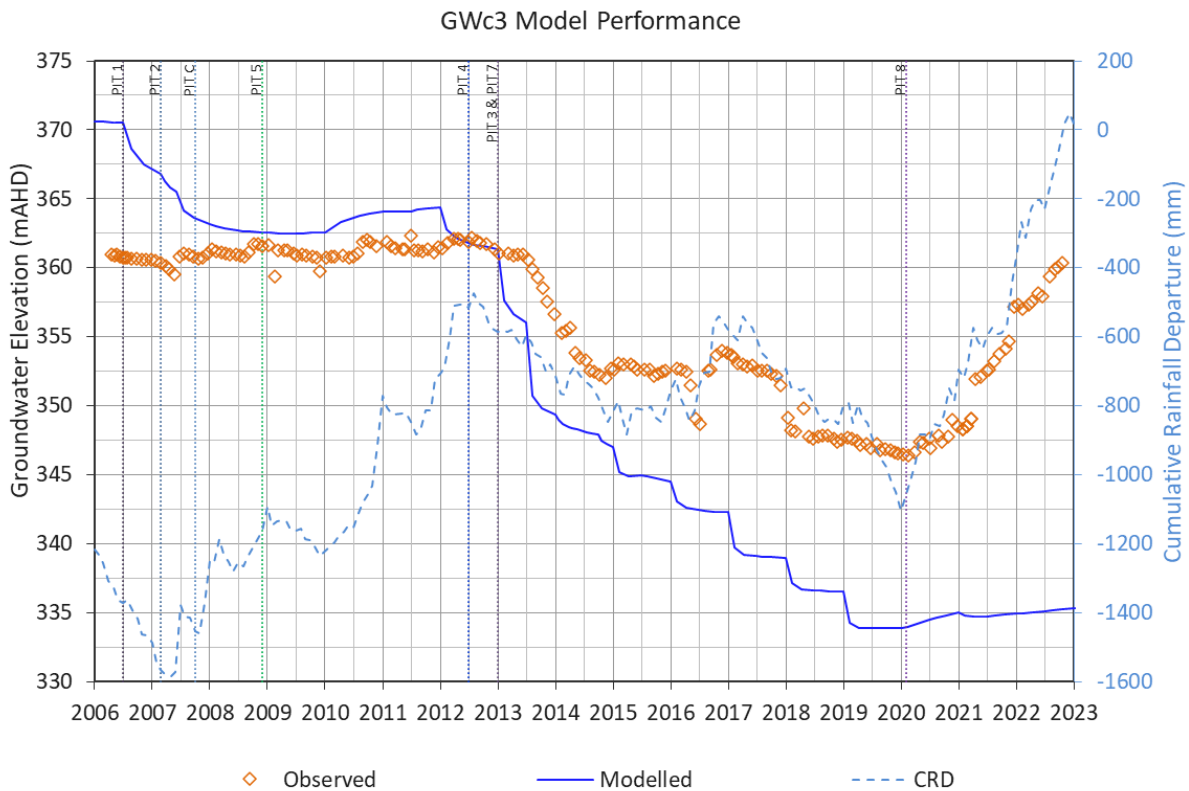


Figure 43 GWc3 Calibration Hydrographs

GWc11 Model Performance

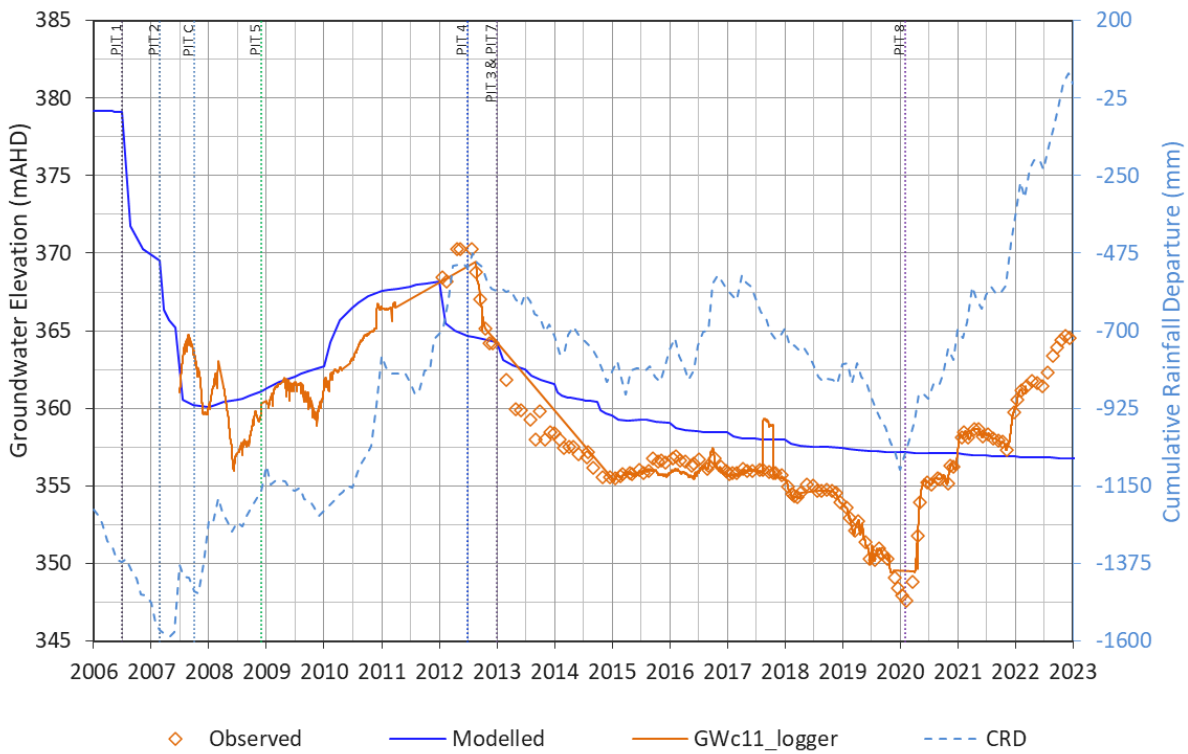


Figure 44 GWc11 Calibration Hydrographs

GWc12 Model Performance

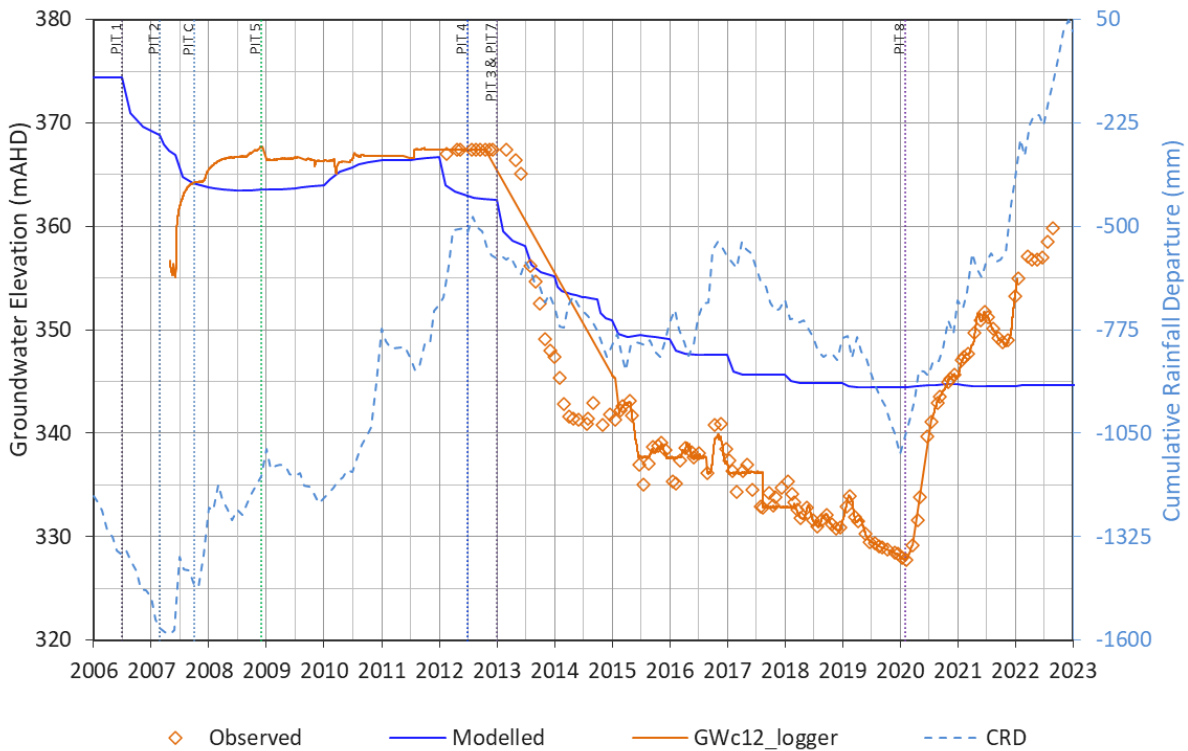


Figure 45 GWc12 Calibration Hydrographs

GWc14 Model Performance

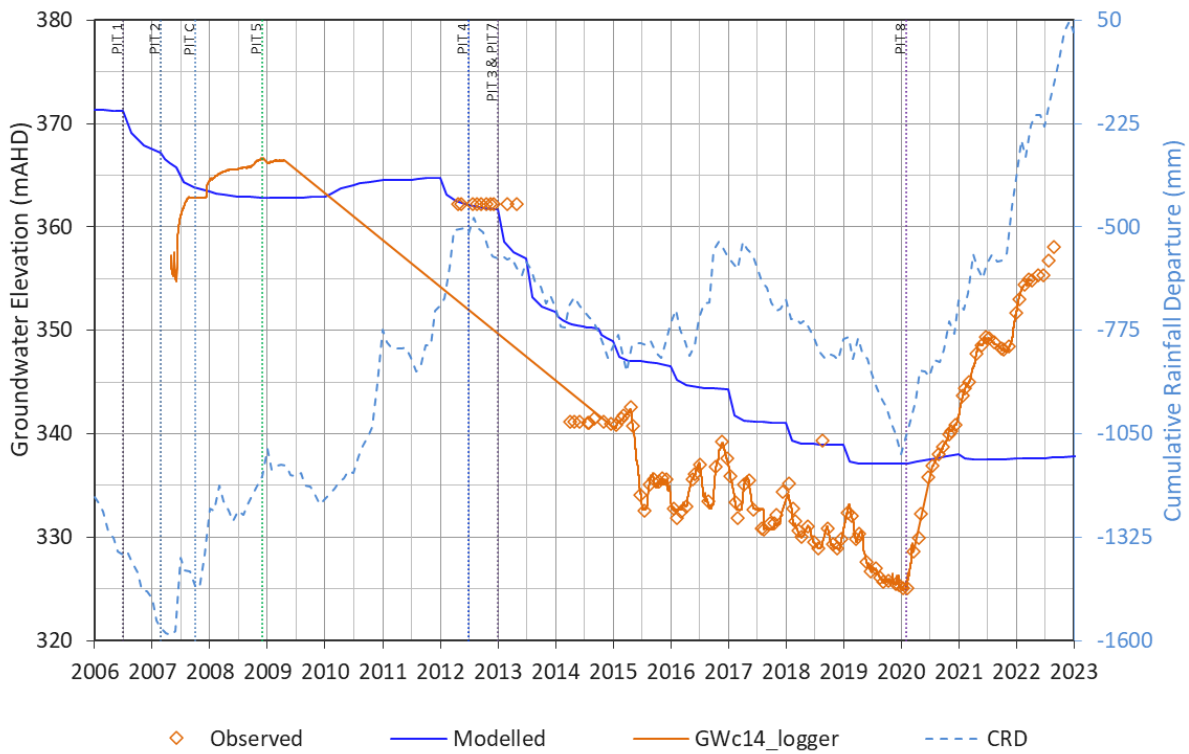


Figure 46 GWc14 Calibration Hydrographs

GWc15 Model Performance

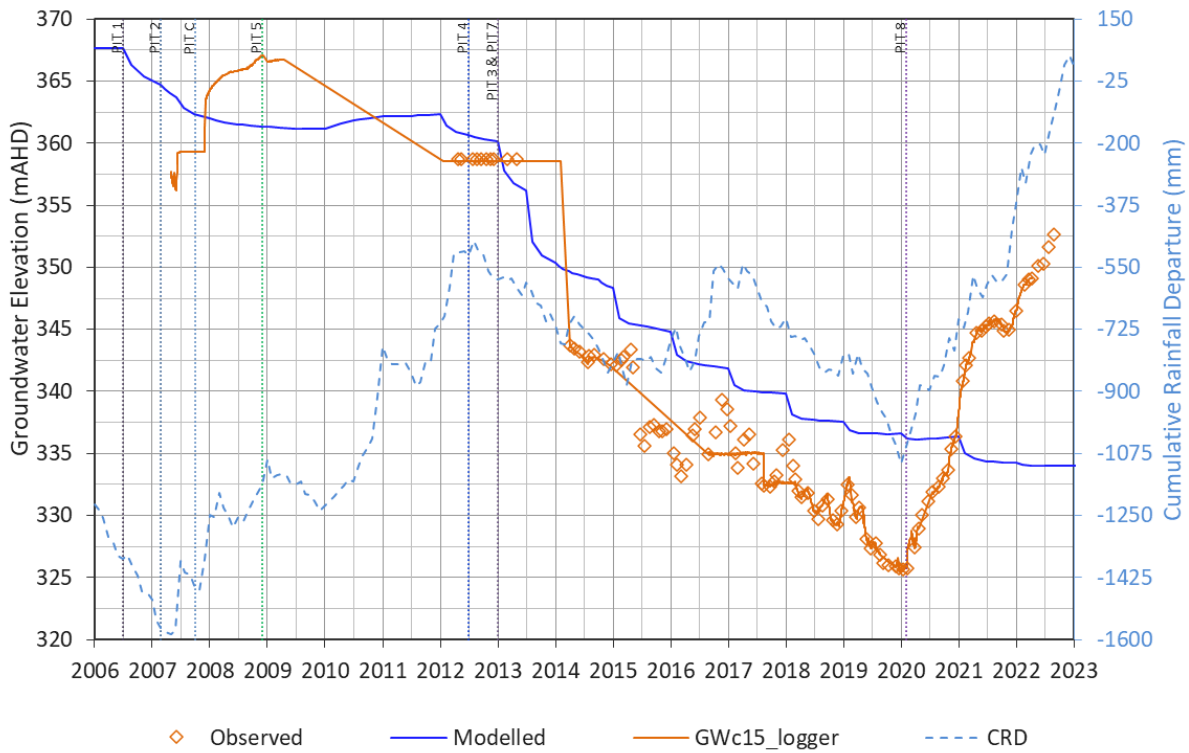


Figure 47 GWc15 Calibration Hydrographs

GWc22 Model Performance

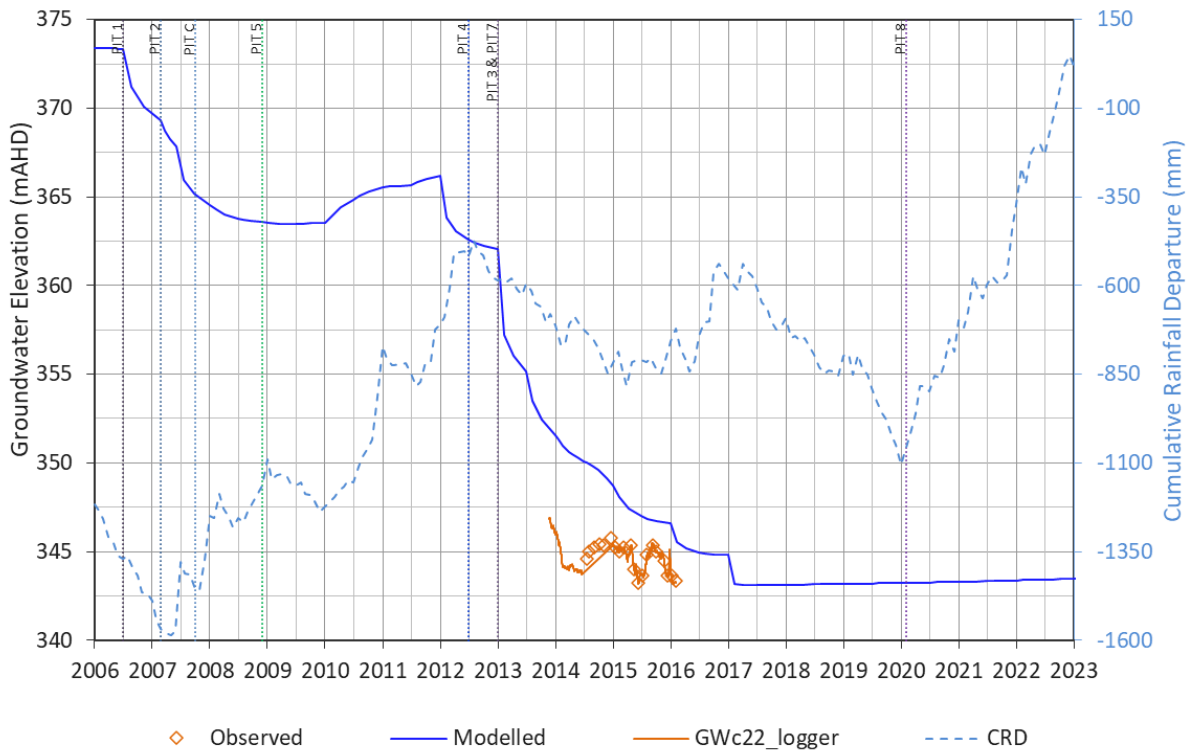


Figure 48 GWc22 Calibration Hydrographs

GWc28 Model Performance

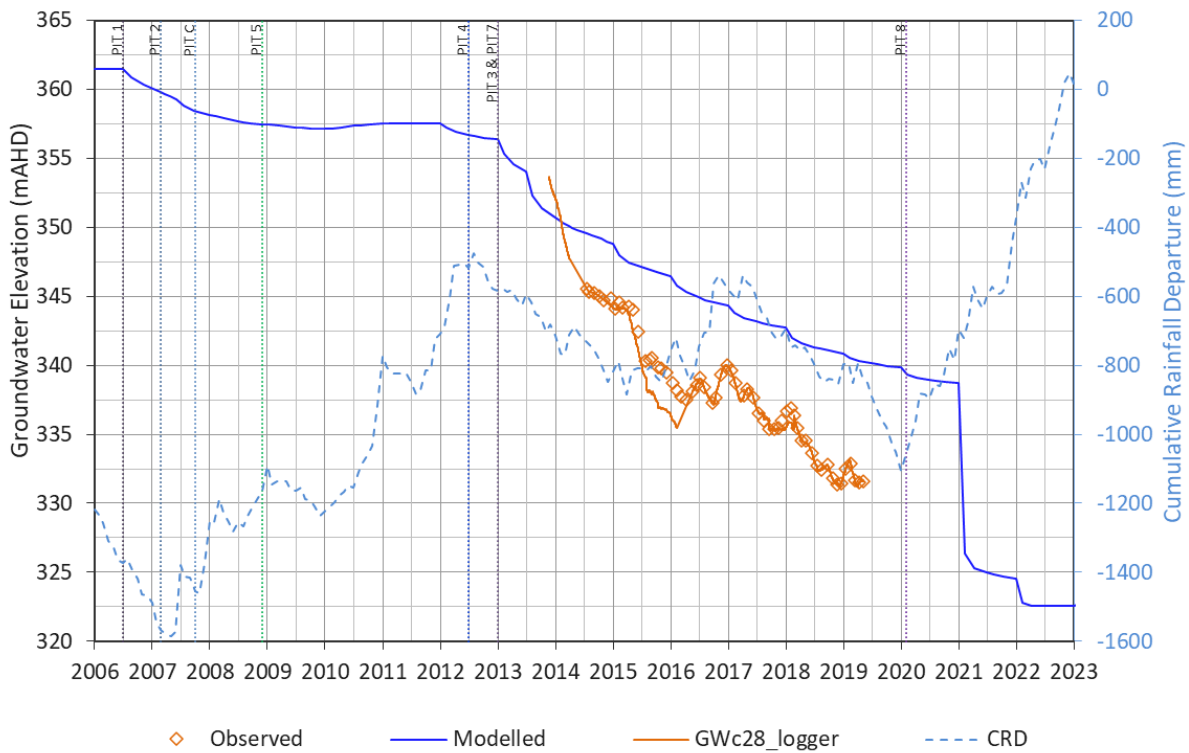


Figure 49 GWc28 Calibration Hydrographs

GWc29 Model Performance

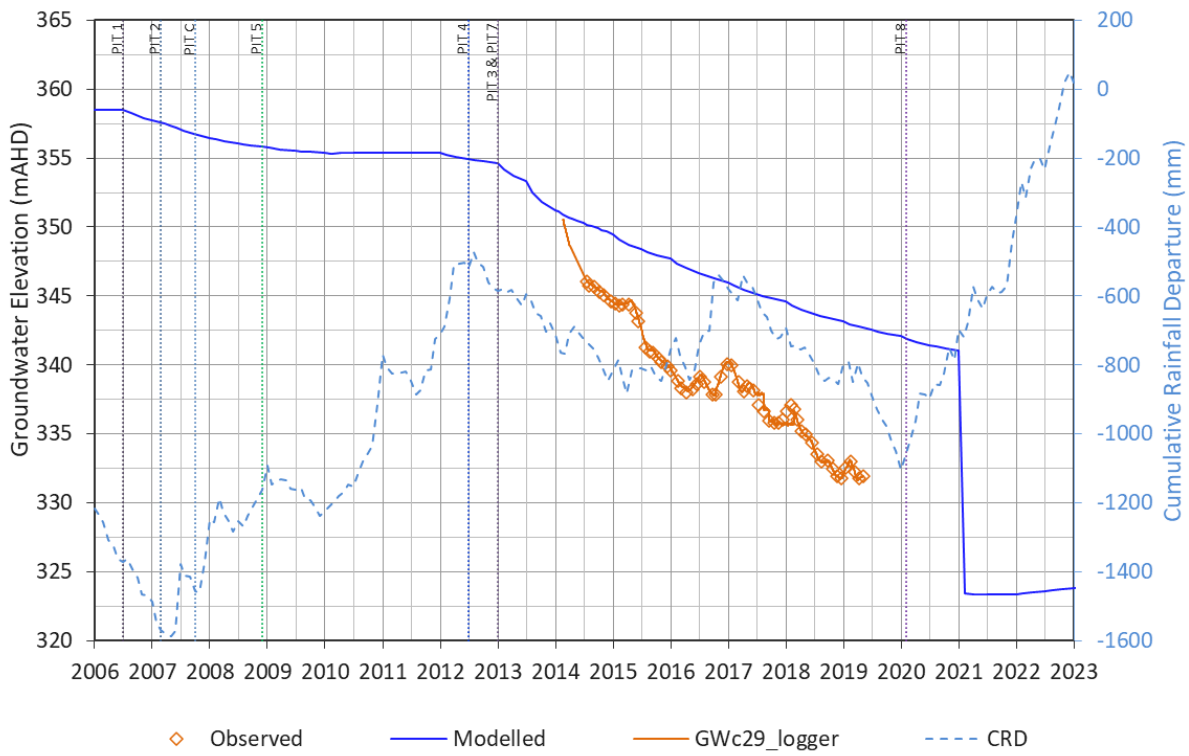


Figure 50 GWc29 Calibration Hydrographs

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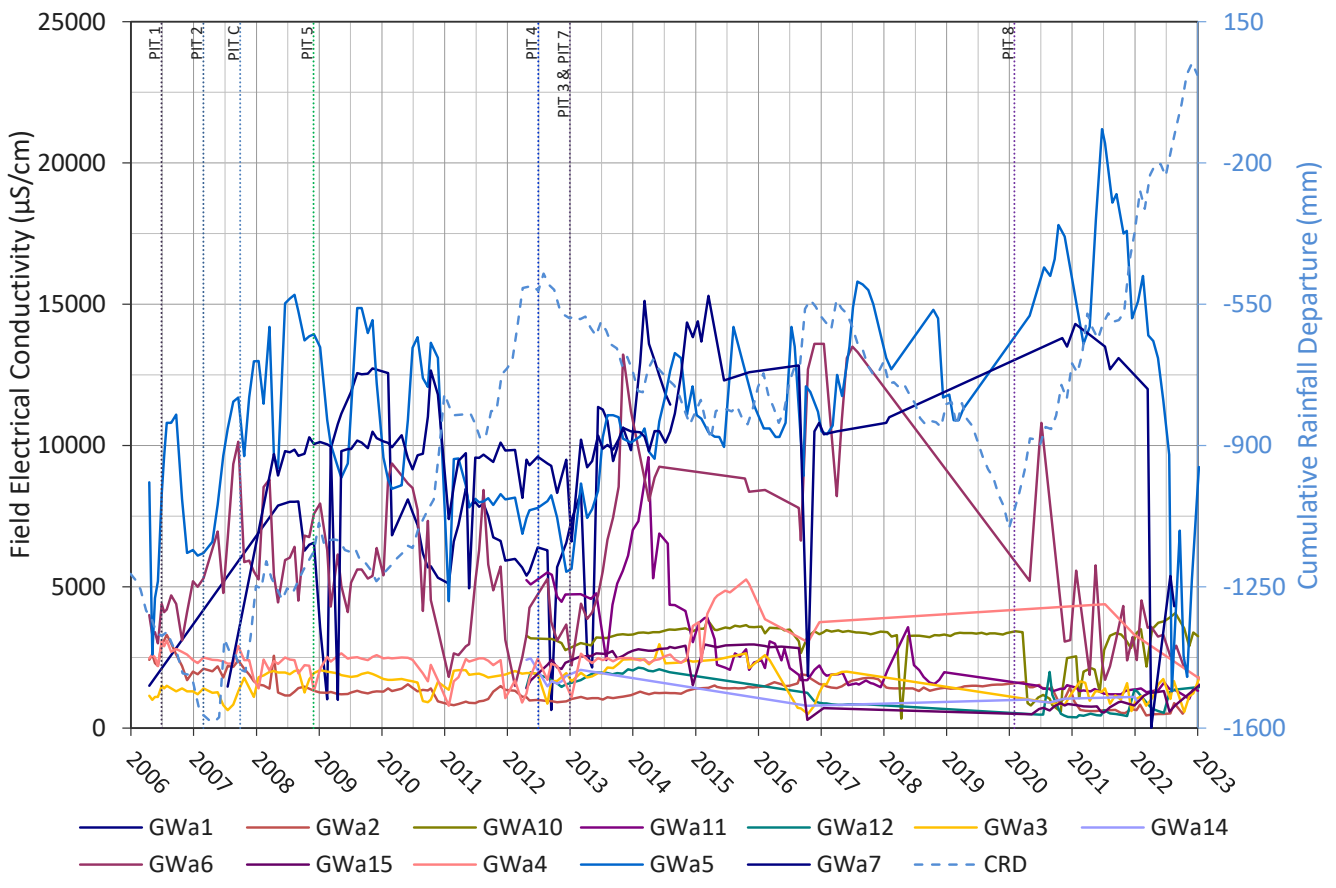
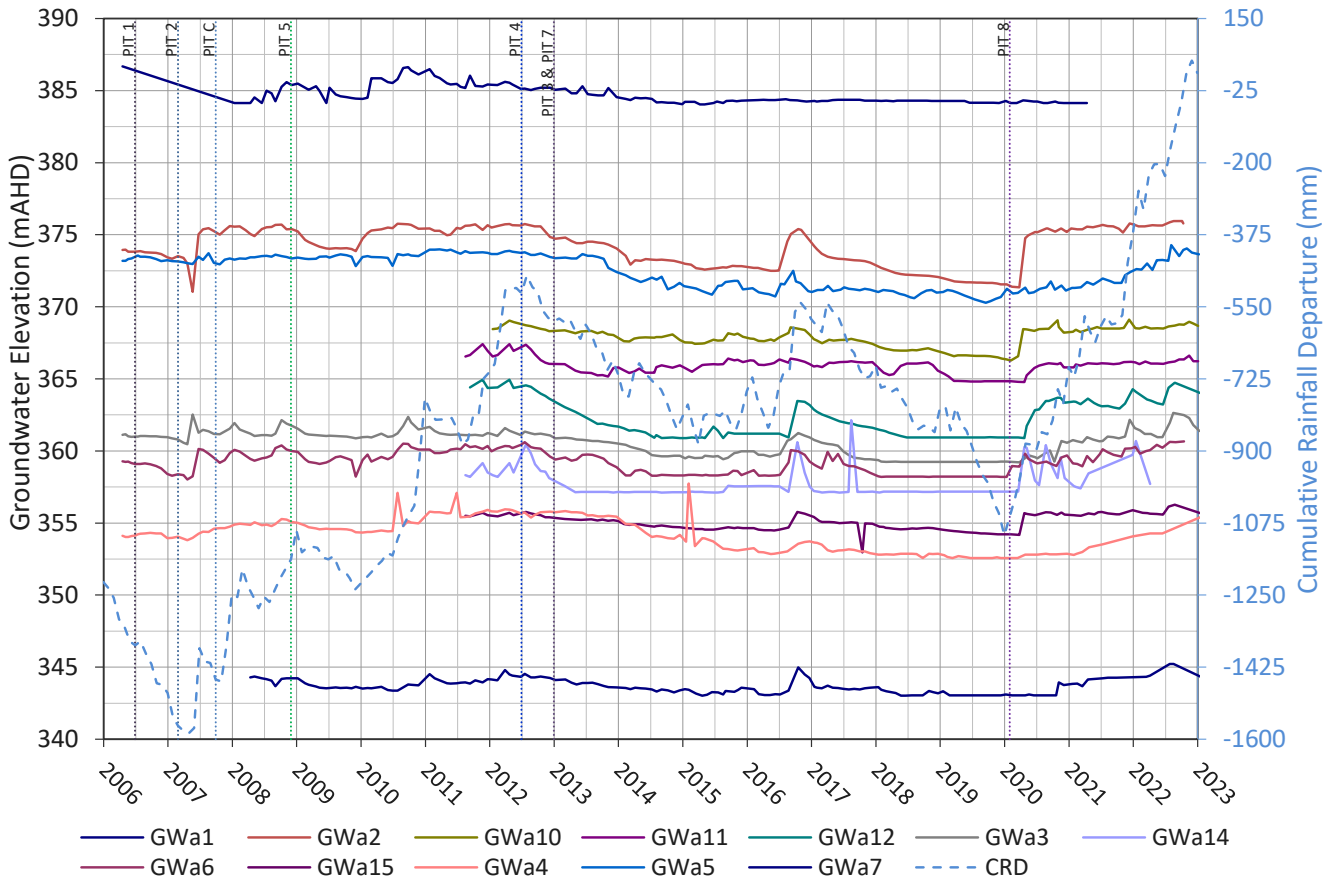
Level 1, The Central Building
UoW Innovation Campus
North Wollongong NSW 2500
Australia
T: +61 404 939 922

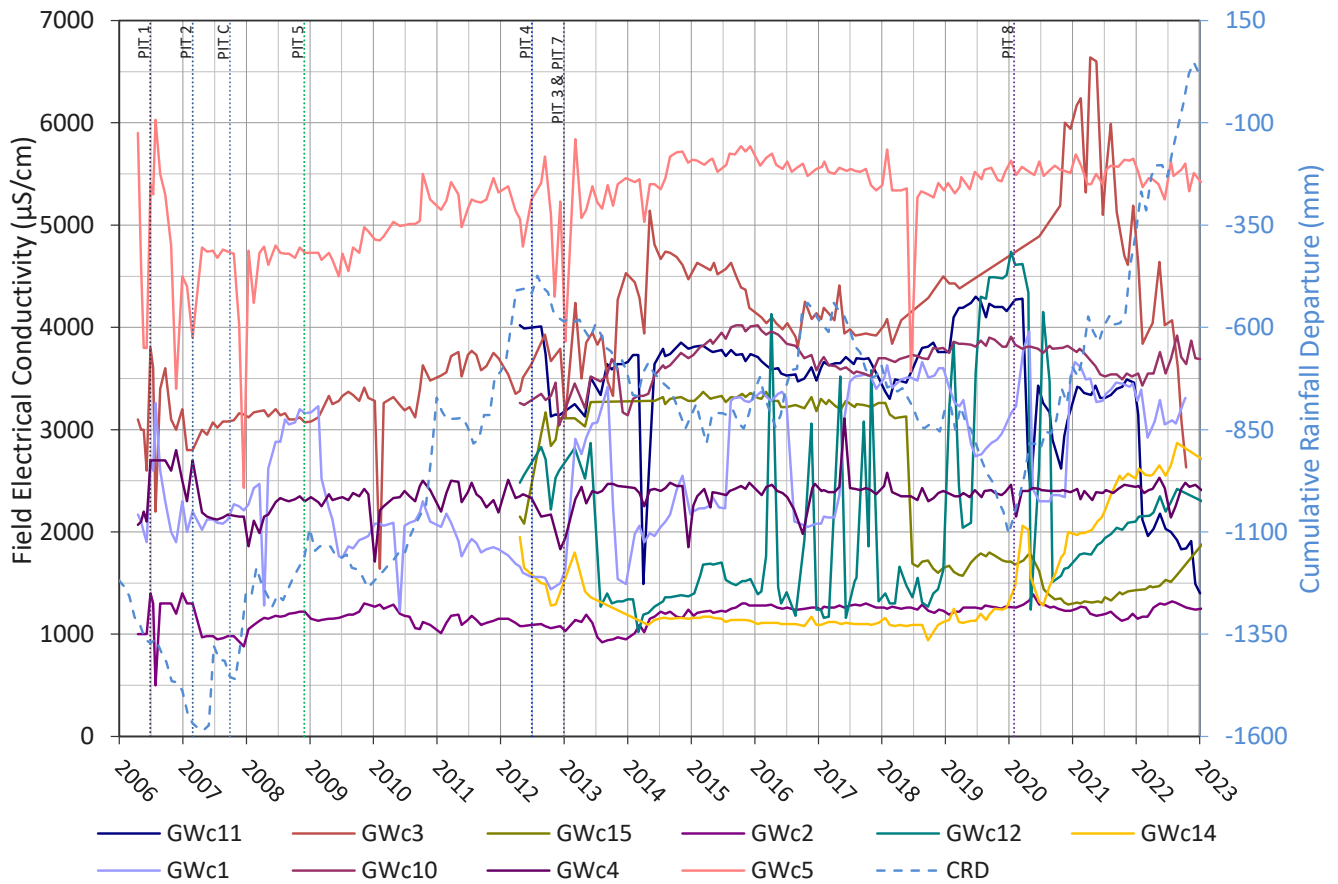
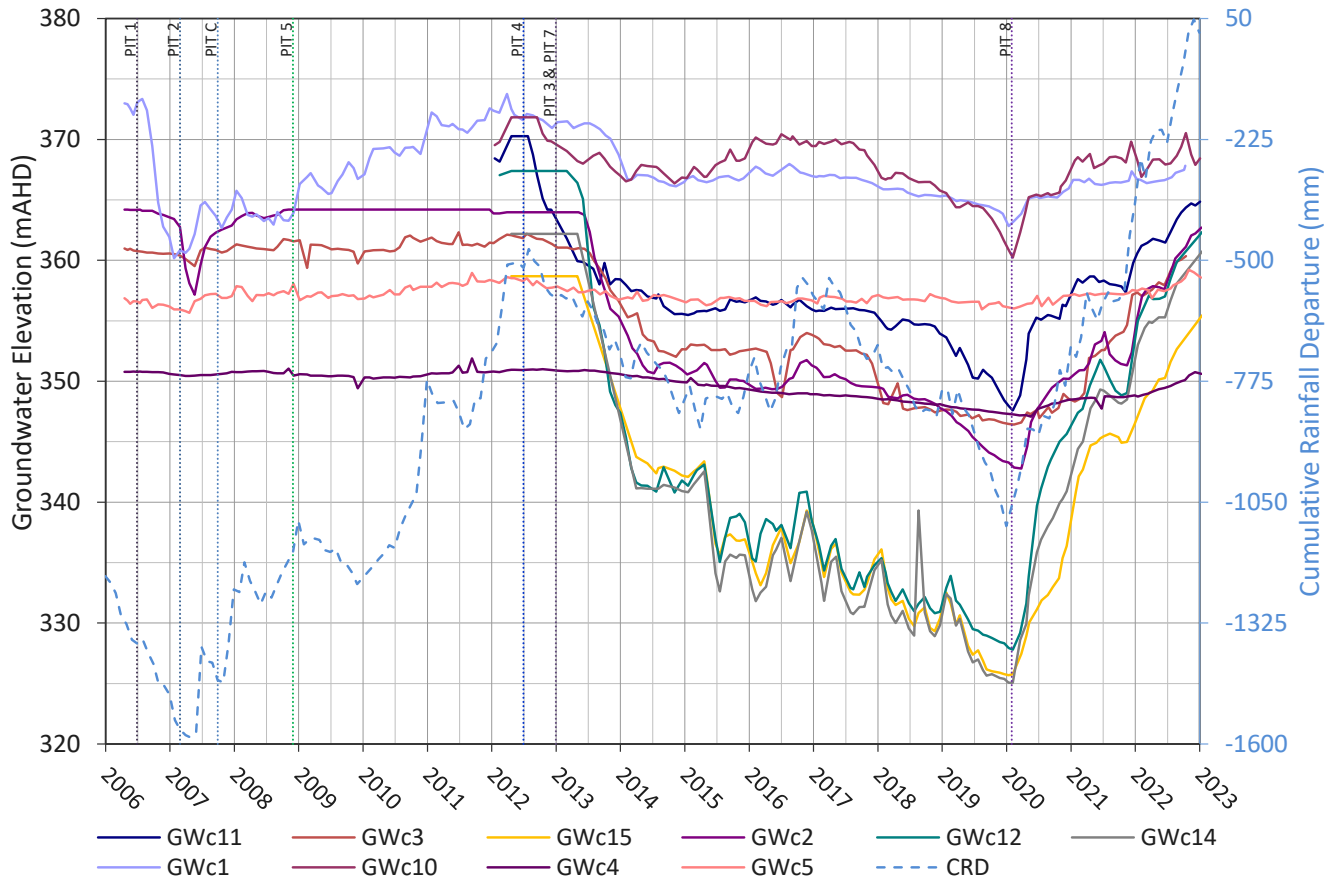
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68 Beach Road
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New Zealand
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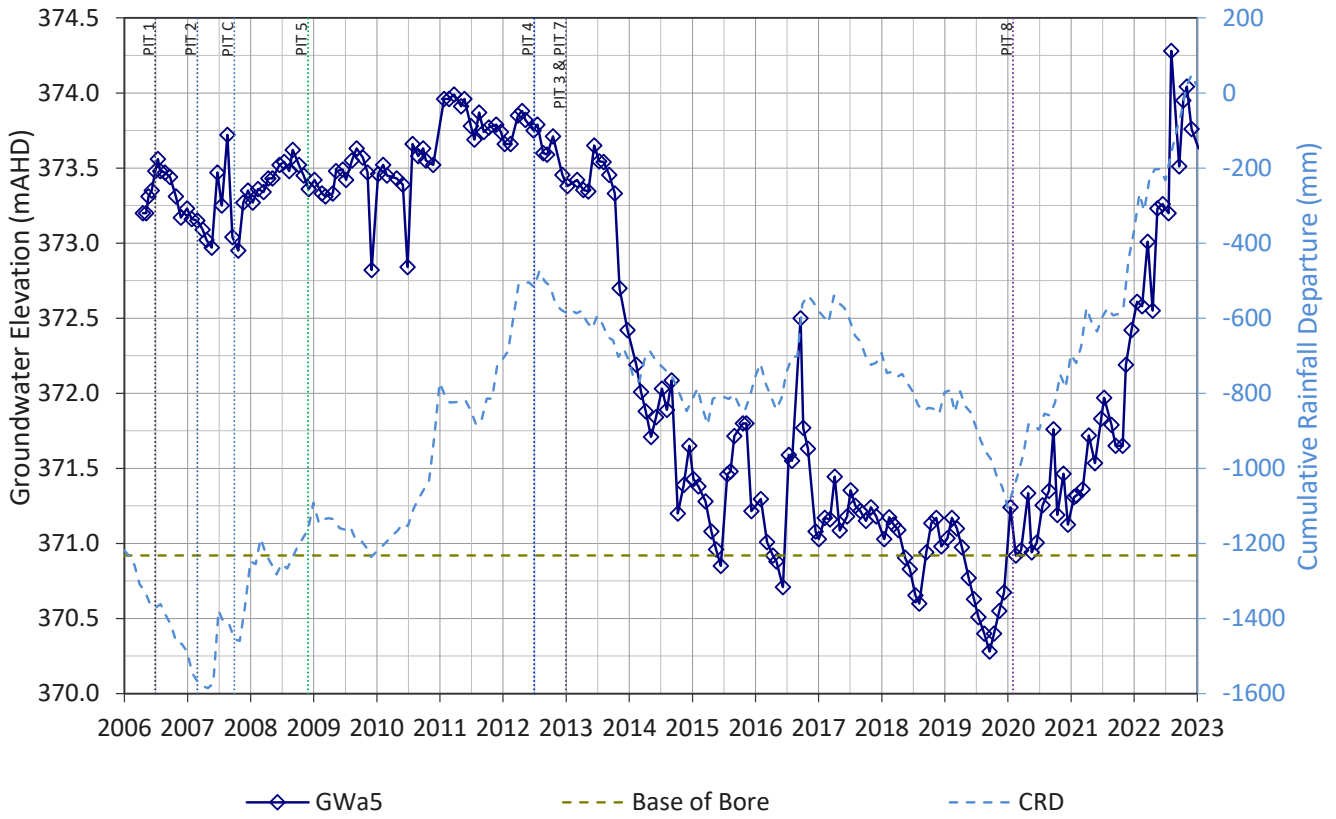
NELSON

6/A Cambridge Street
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New Zealand
T: +64 274 898 628

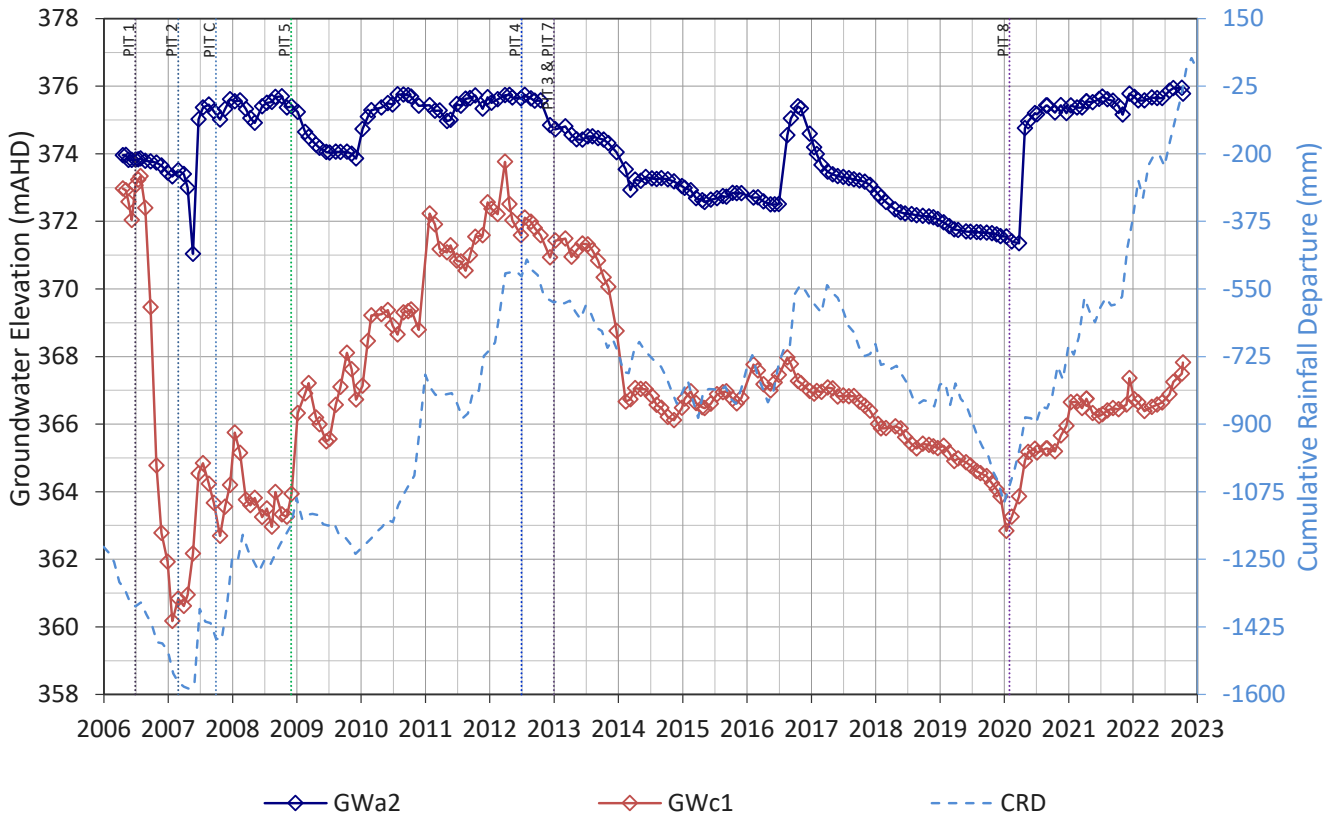




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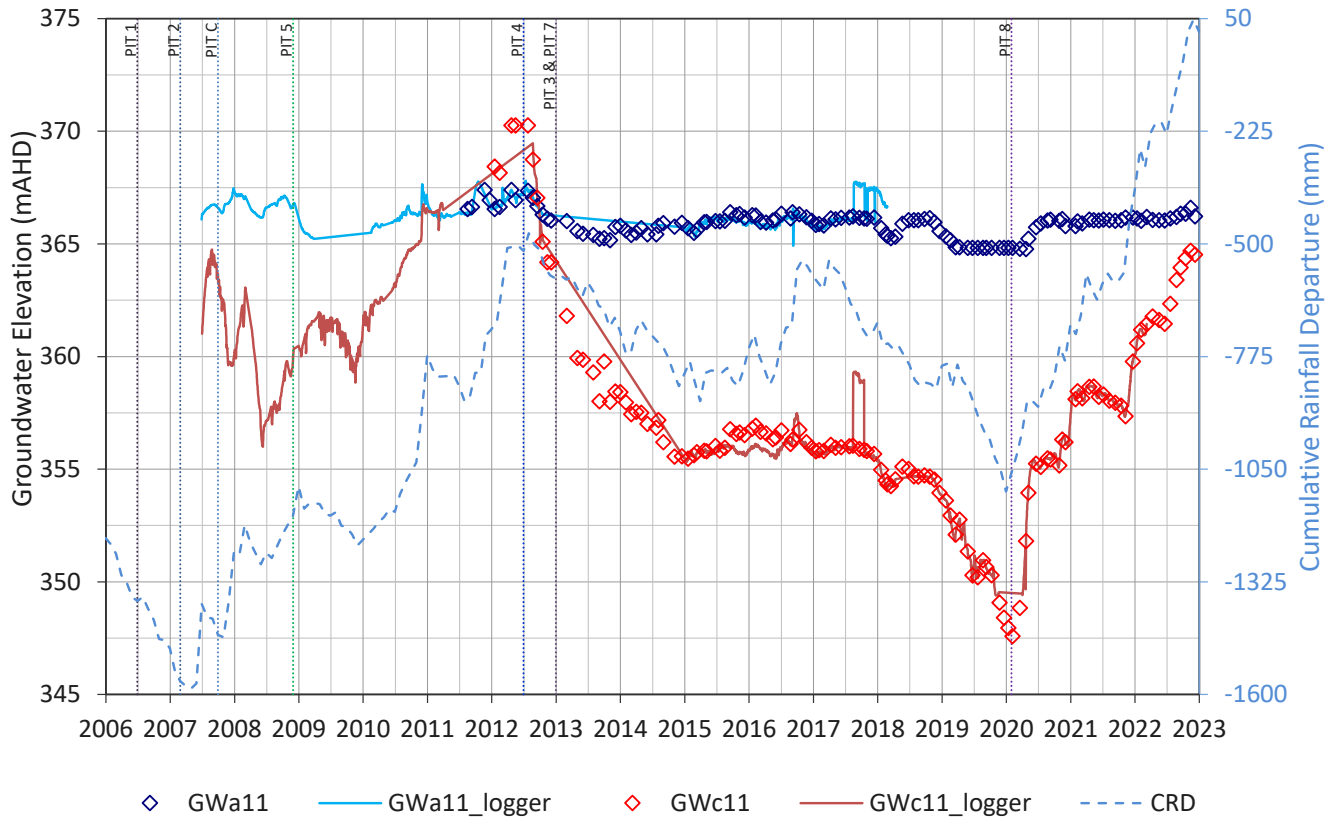
GWa2 & GWc1



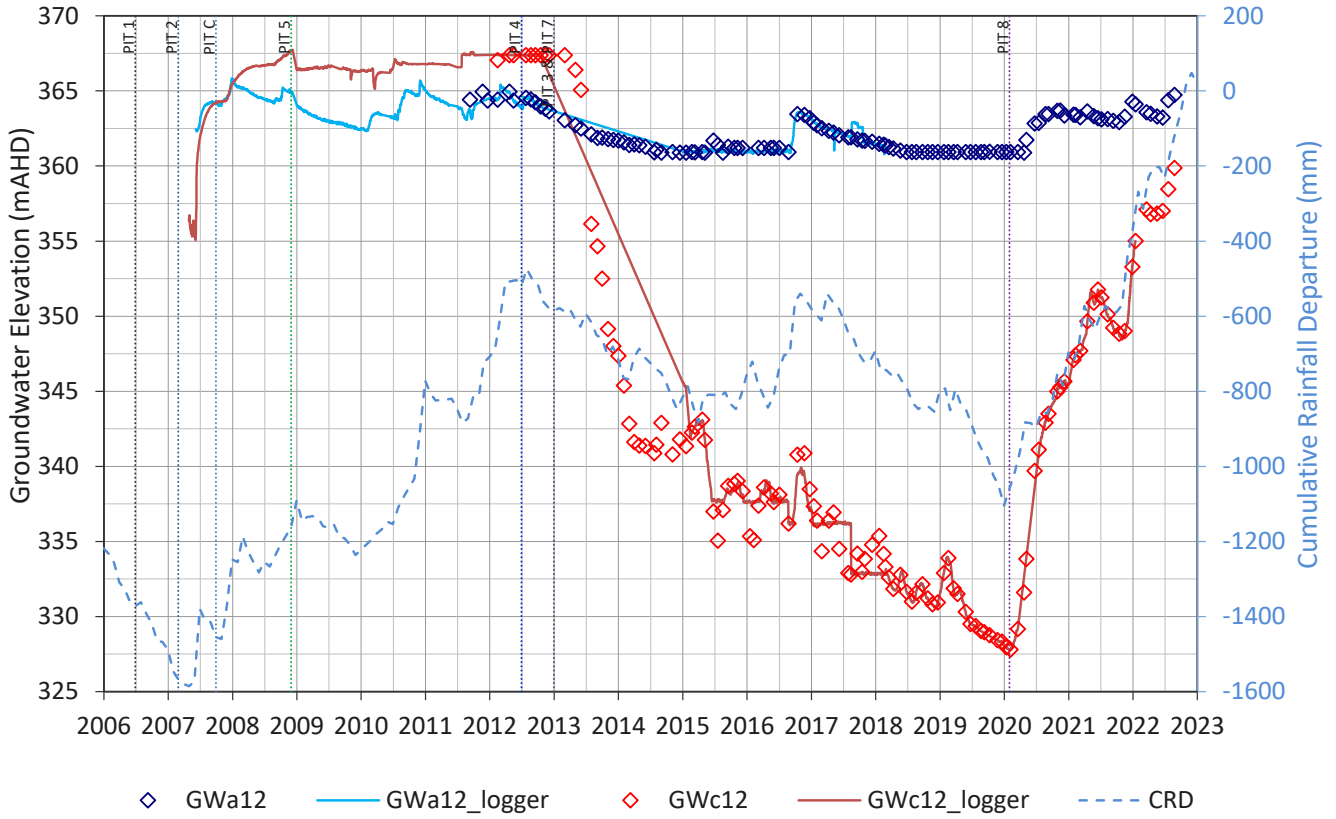
GWa10 & GWc10



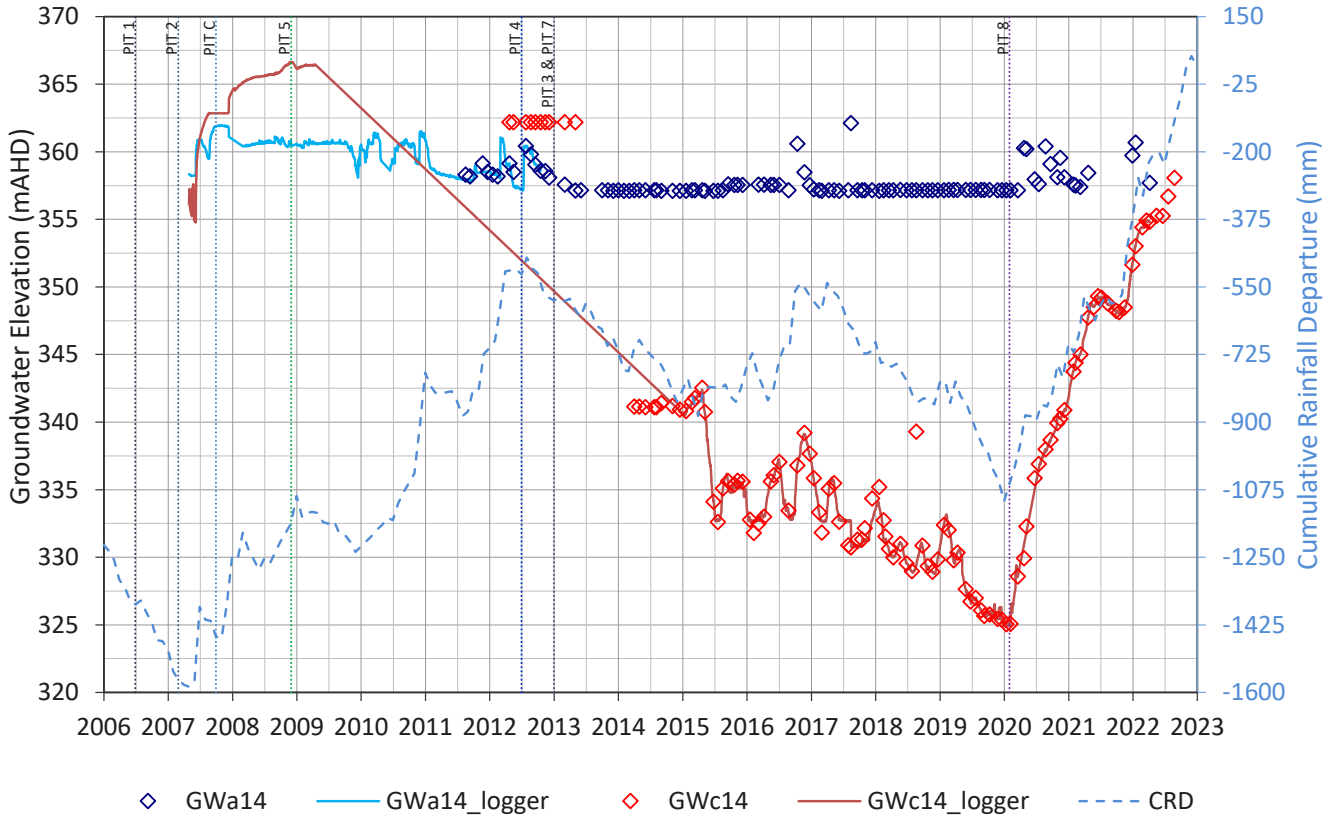
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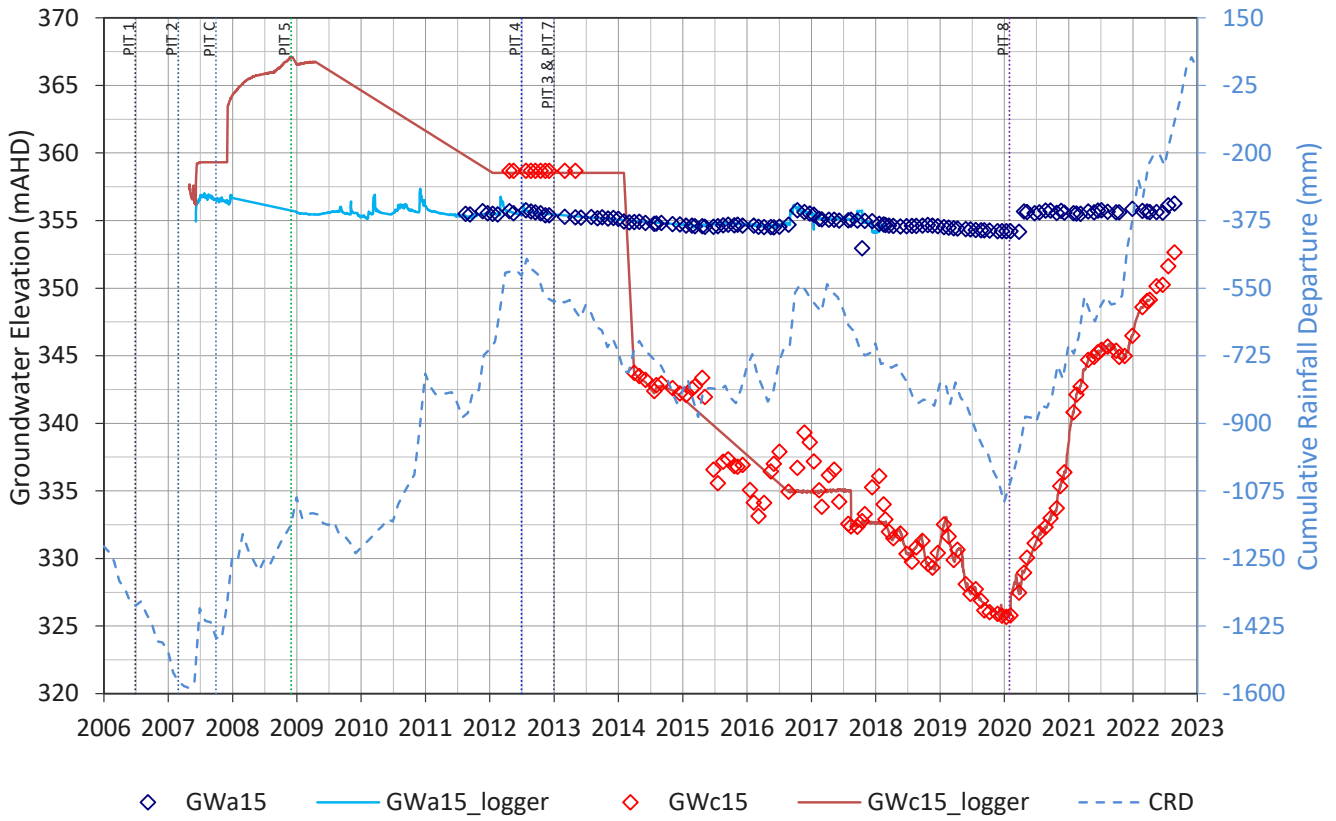
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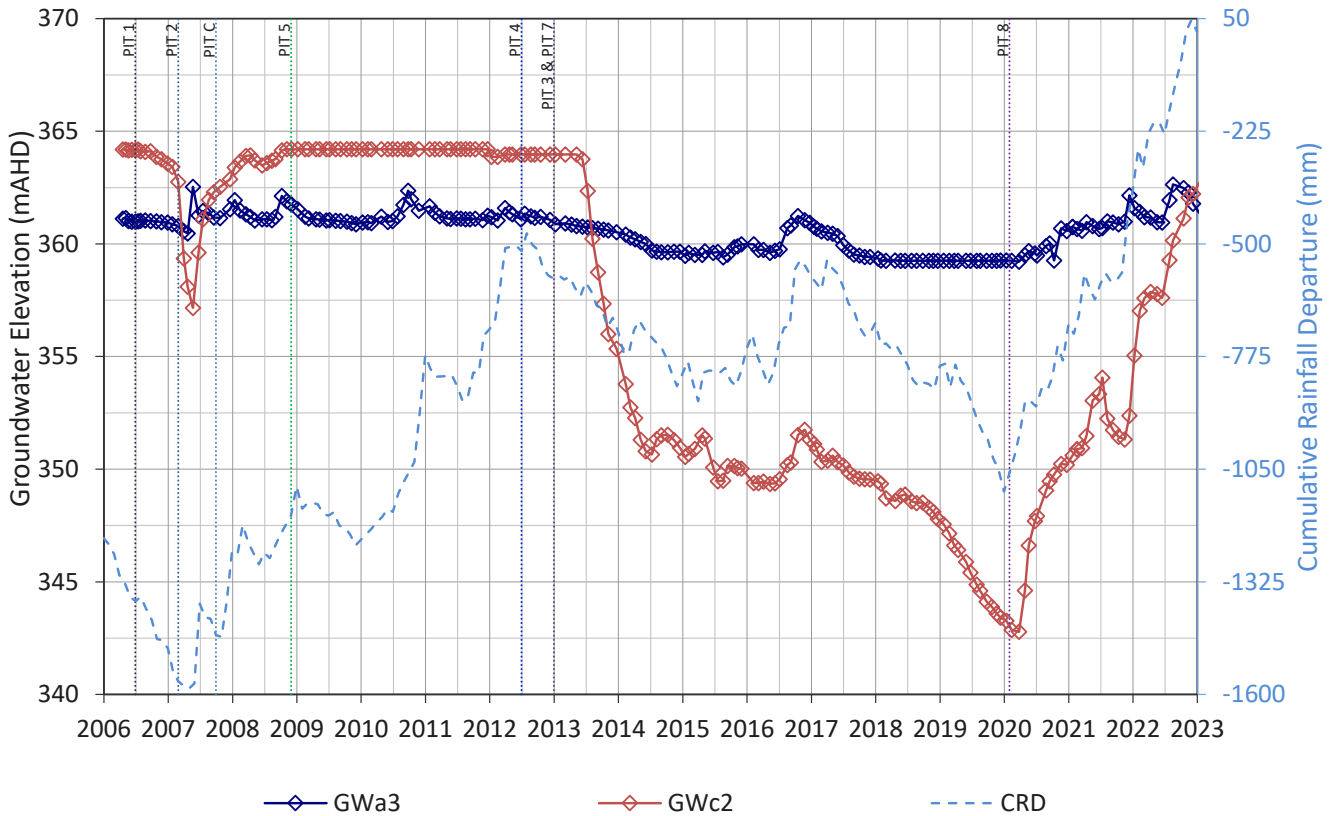
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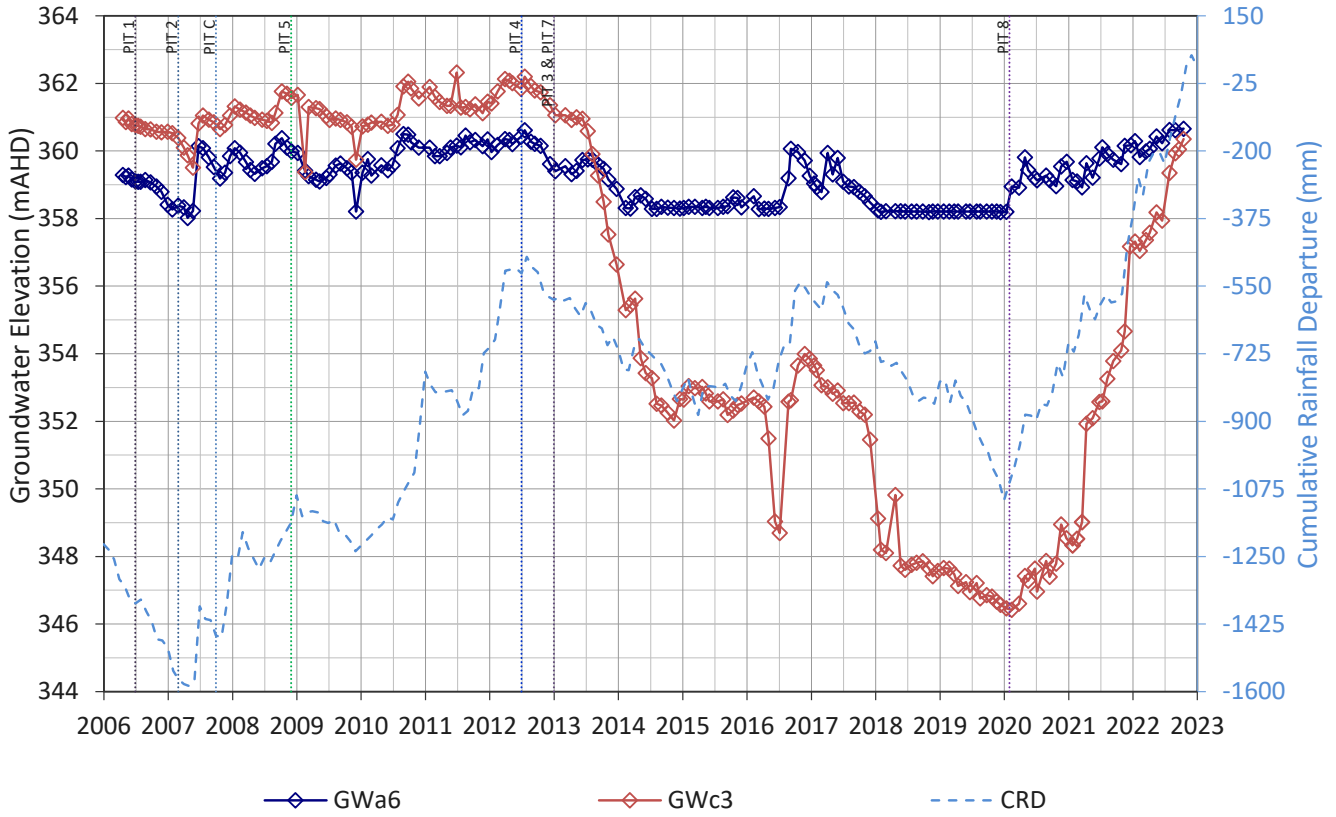
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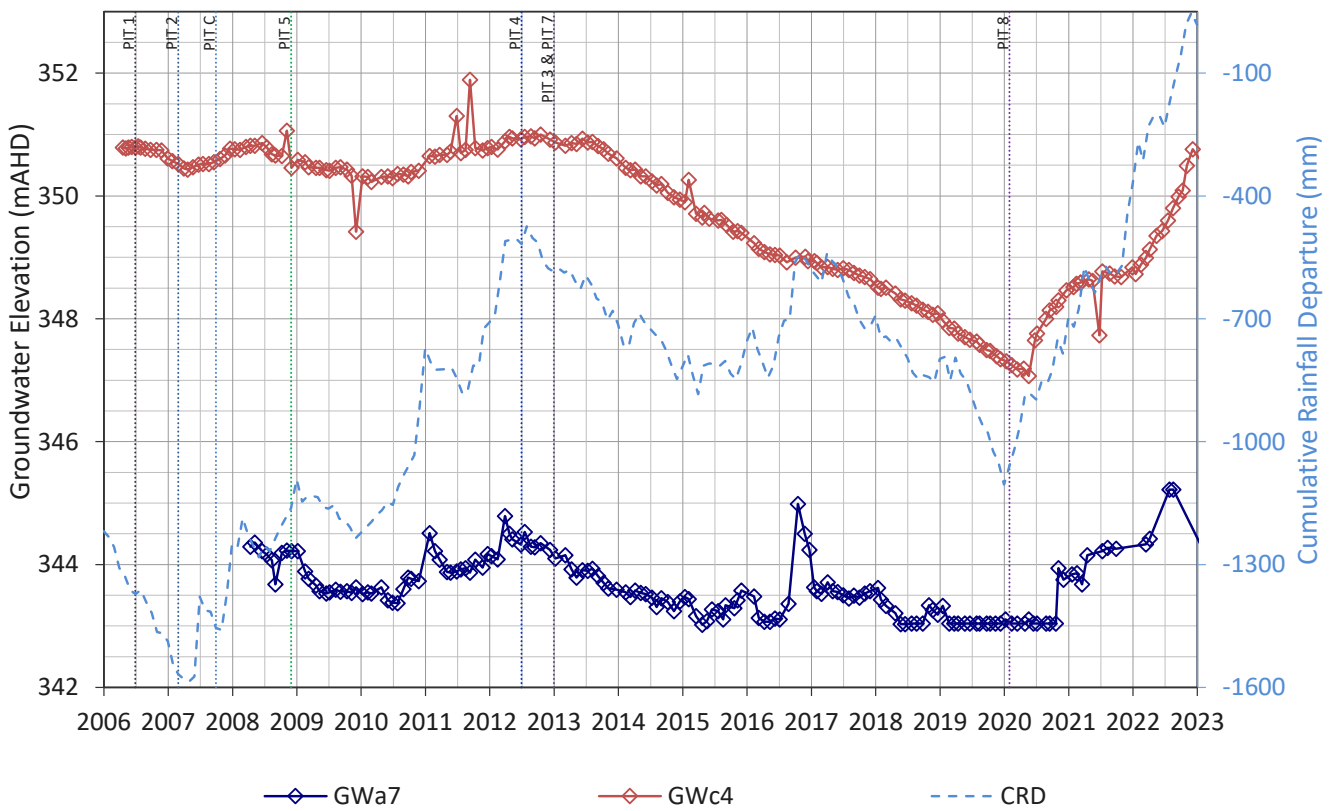
GWa3 & GWc2



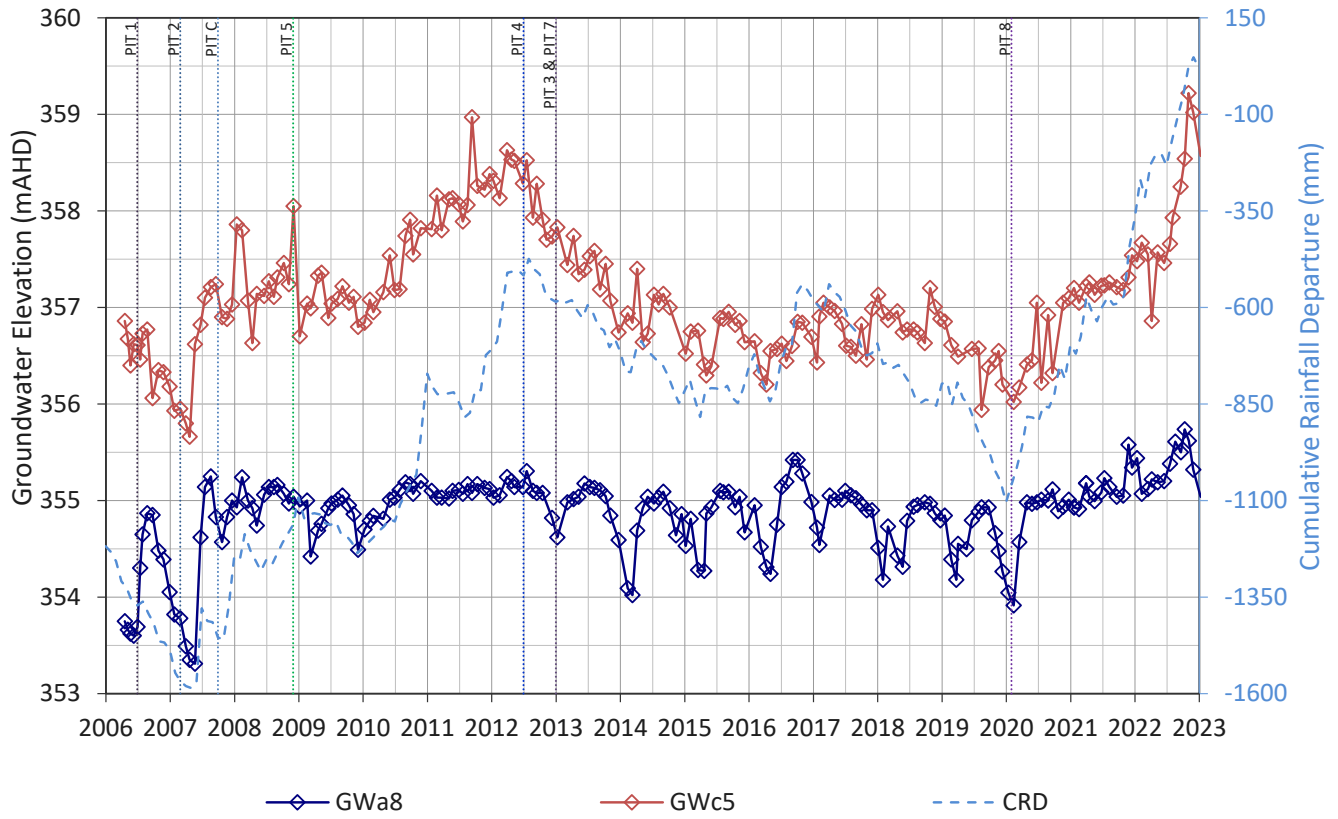
GWa6 & GWc3



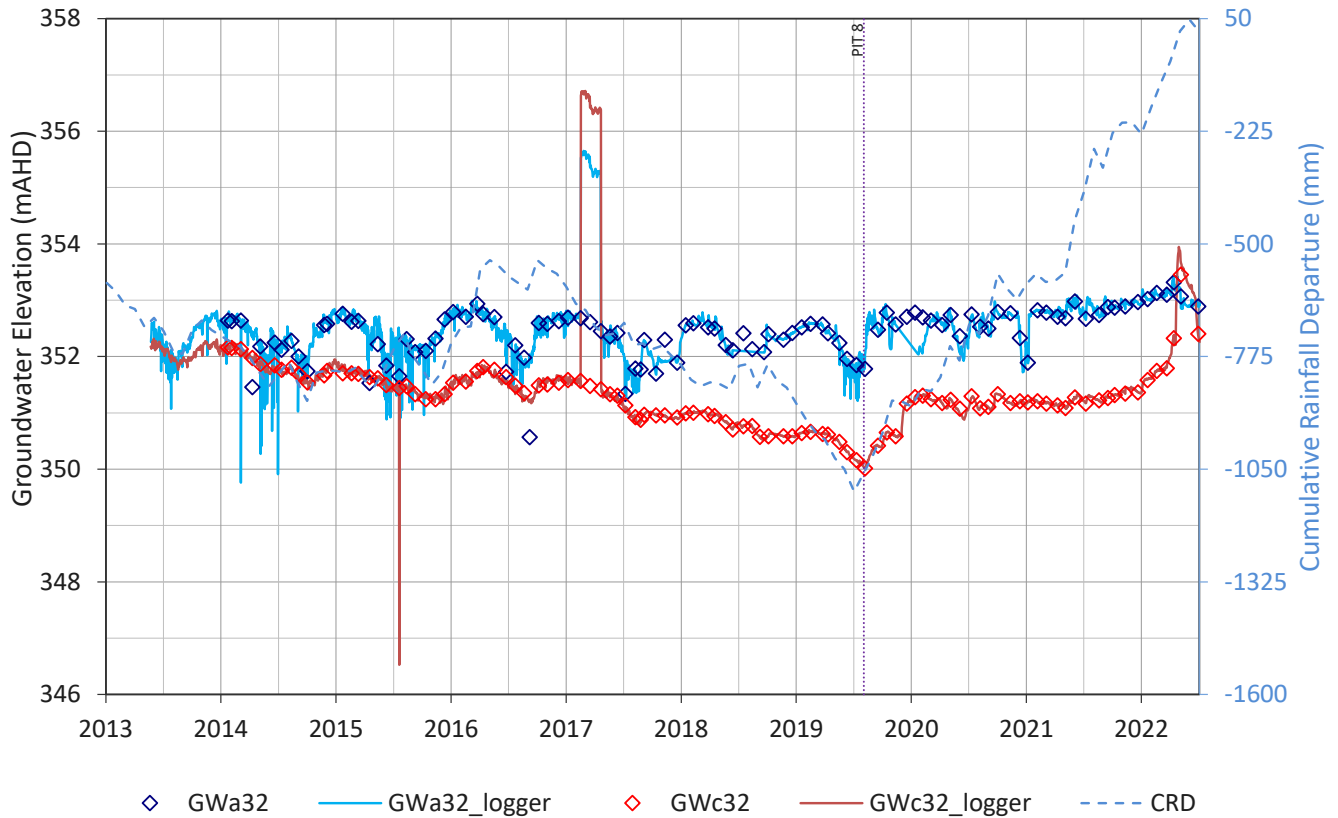
GWa7 & GWc4



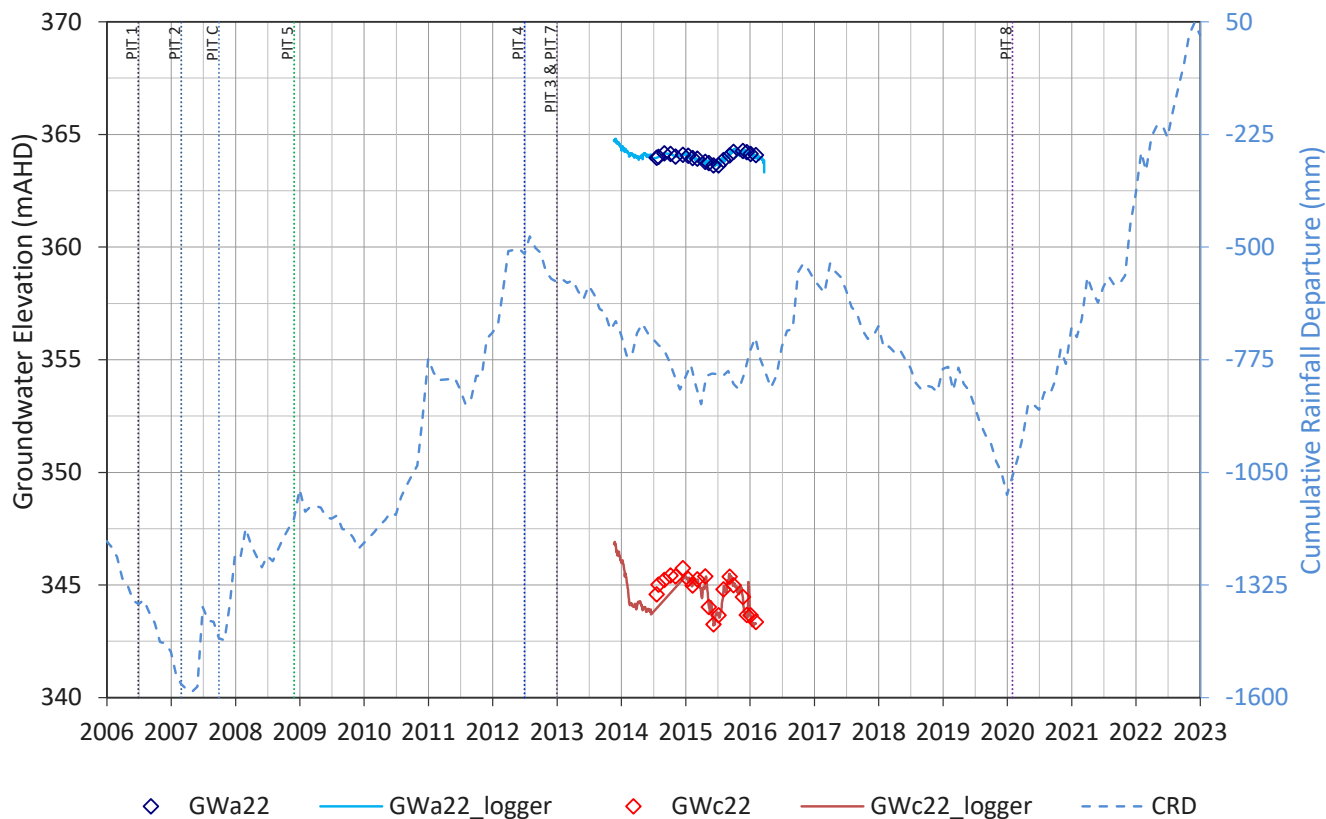
GWa8 & GWc5



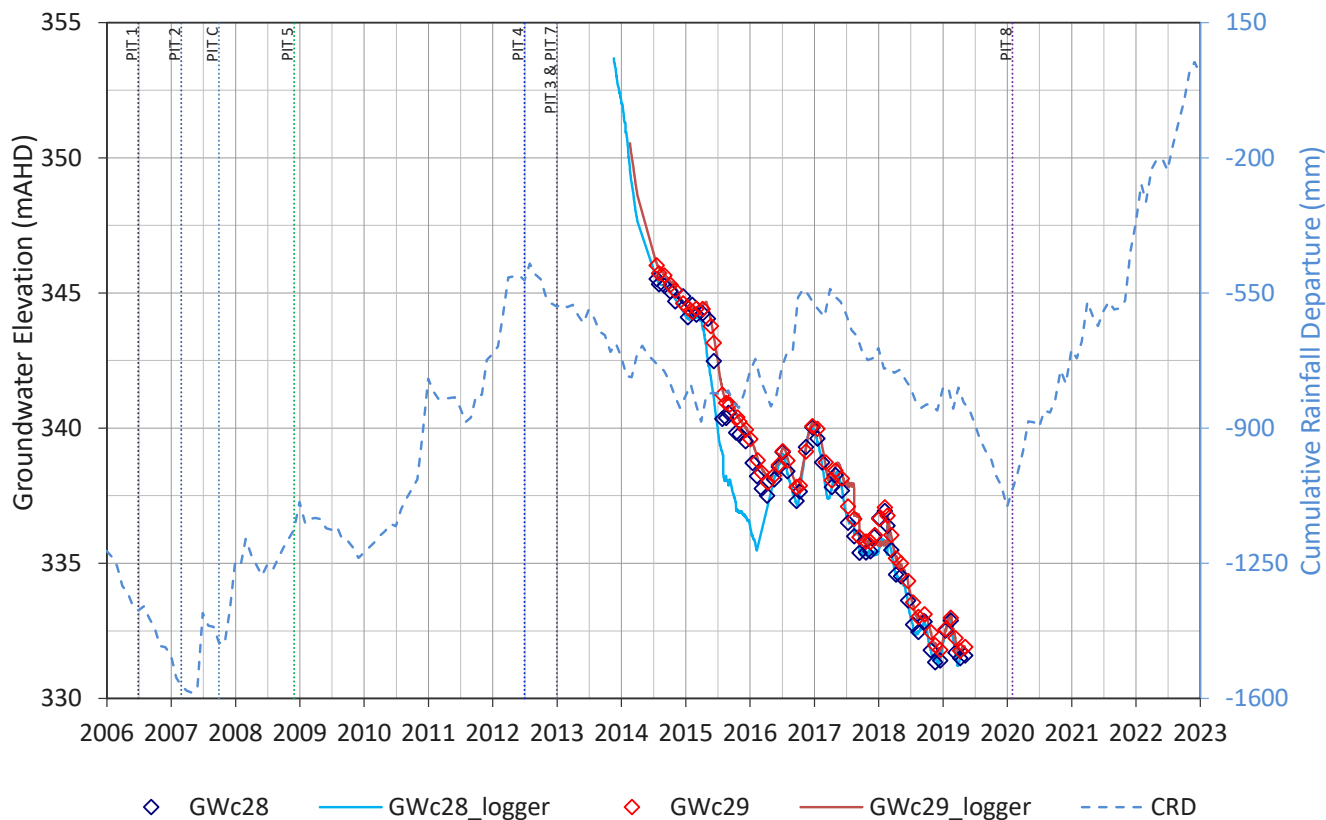
GWa32 & GWc32



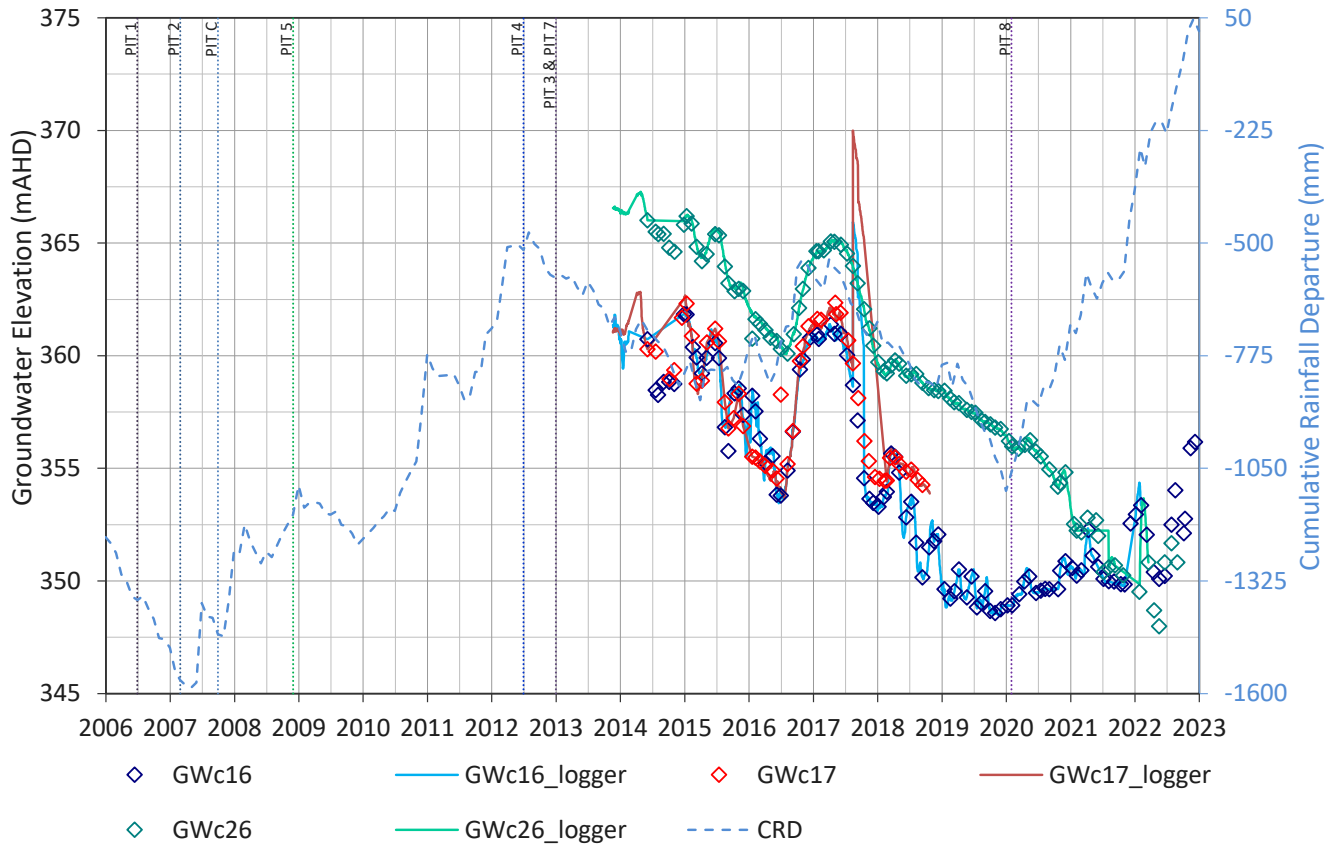
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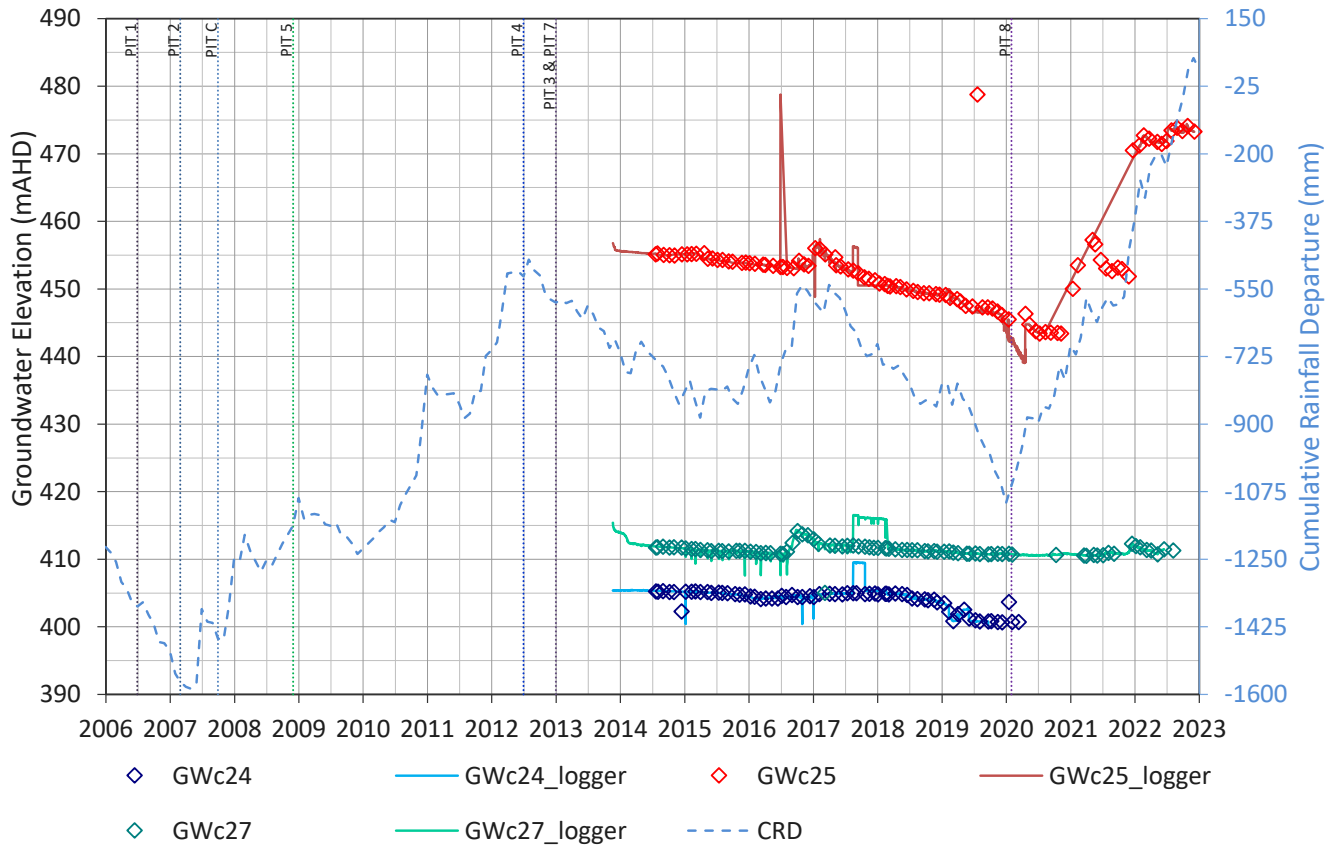
GWc28 & GWc29



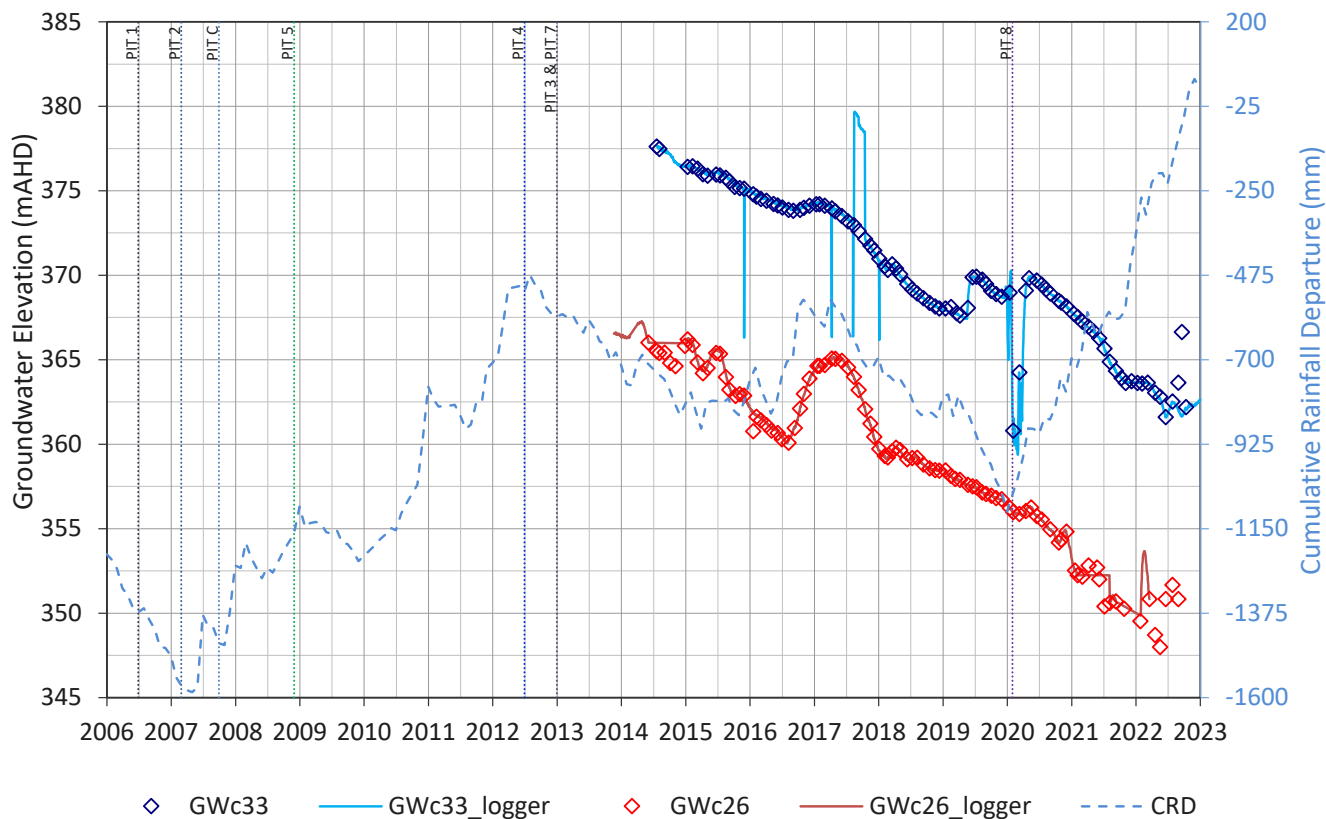
GWc16, GWc17 & GWc26



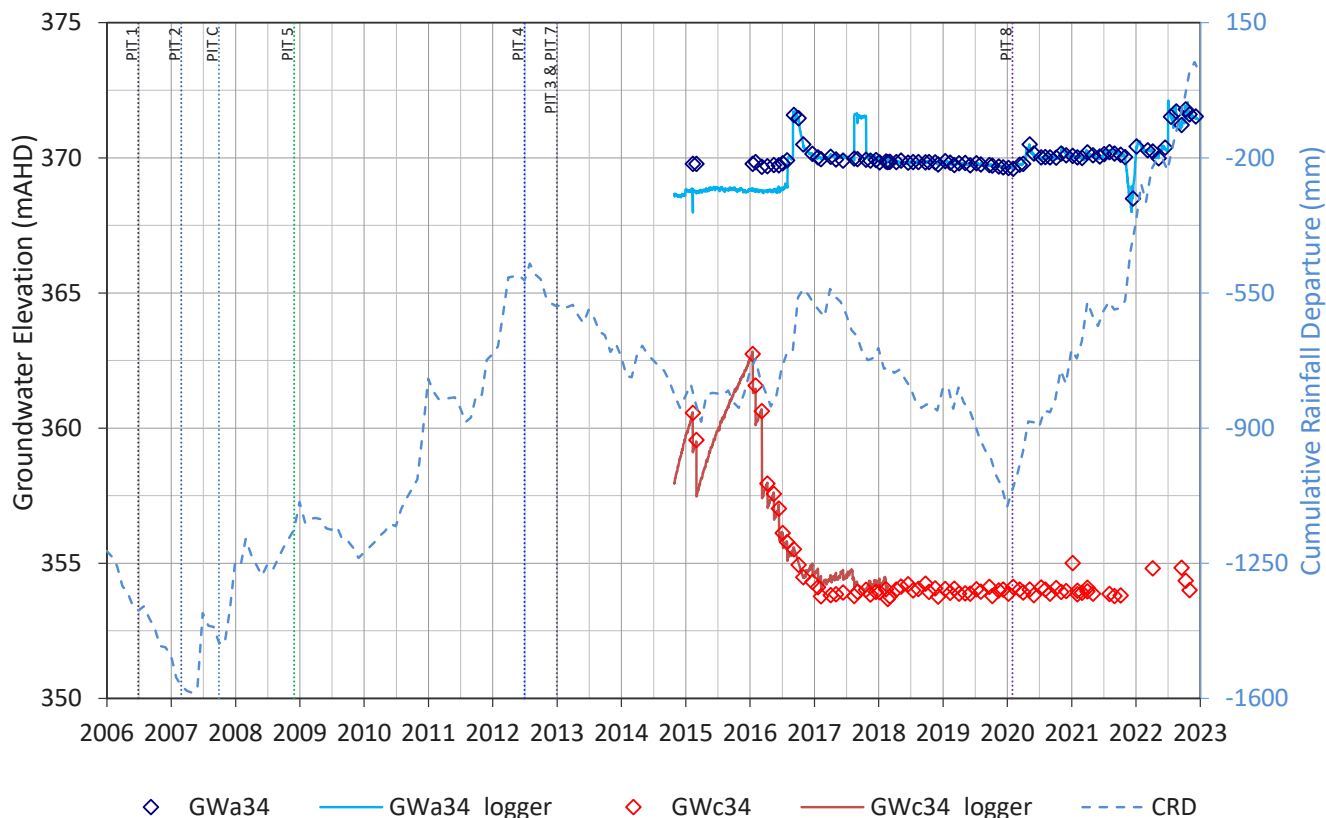
GWc24, GWc25 & GWc27



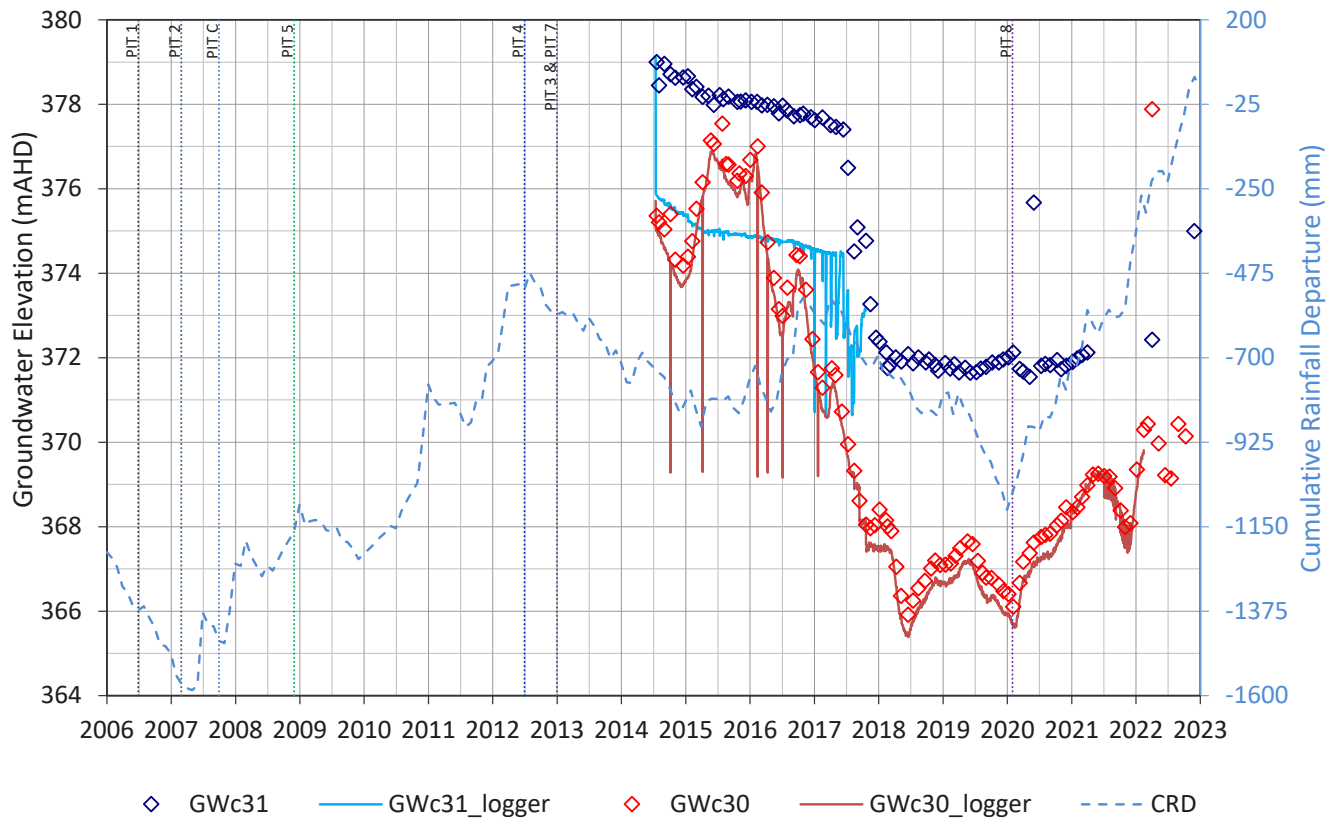
GWc33 & GWc26



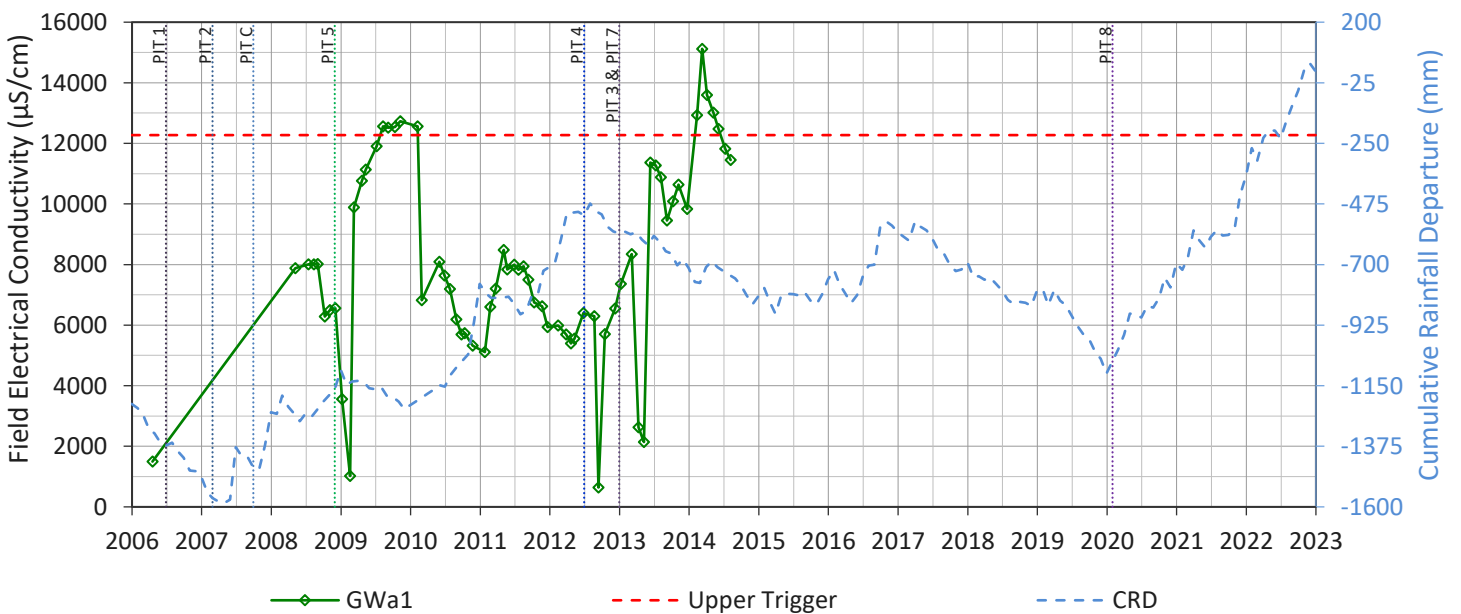
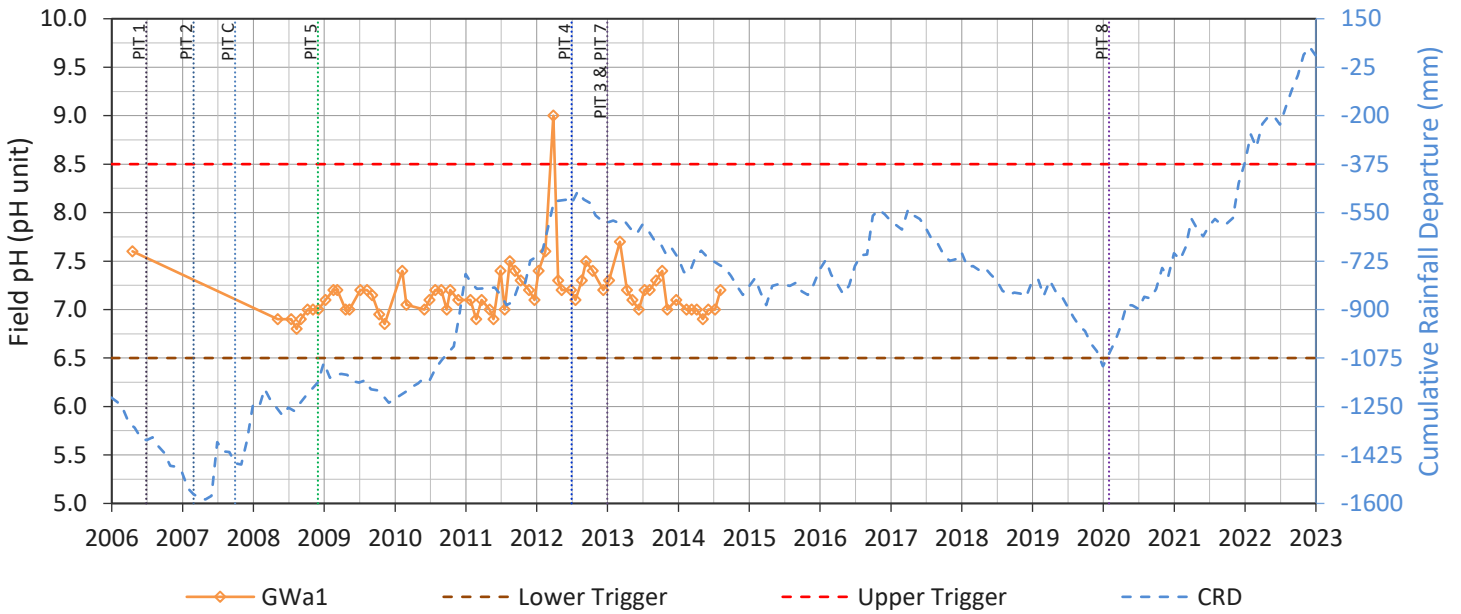
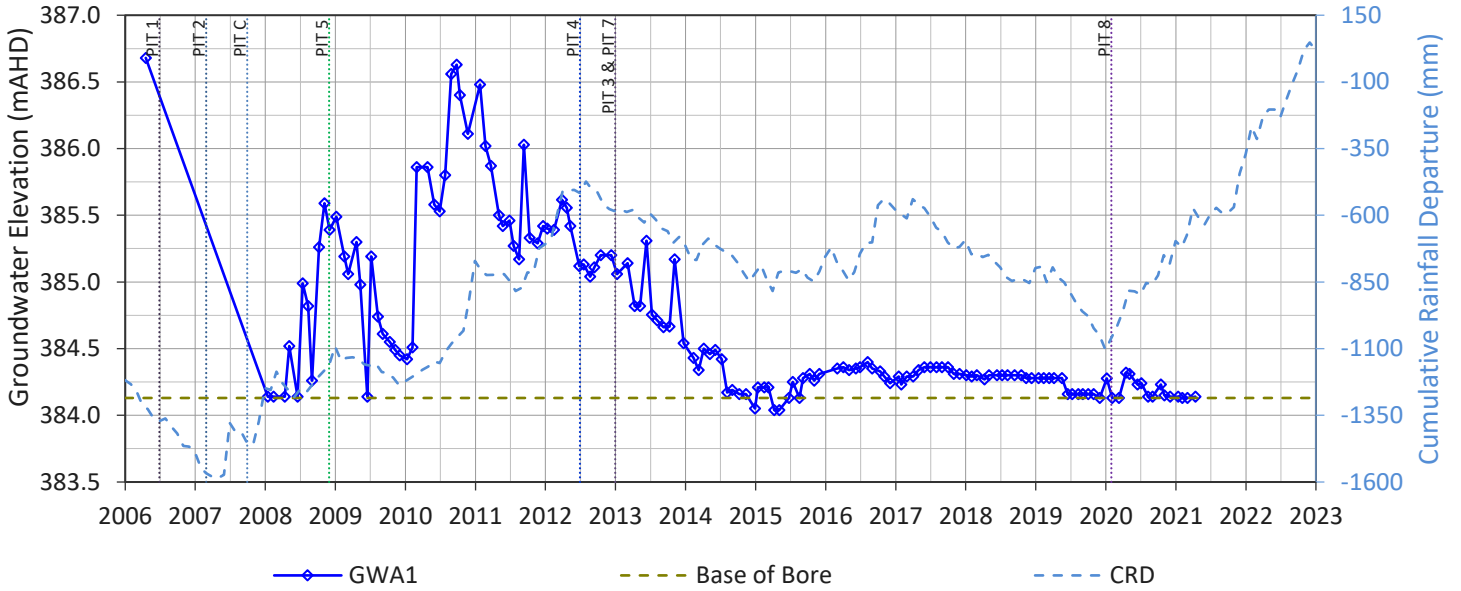
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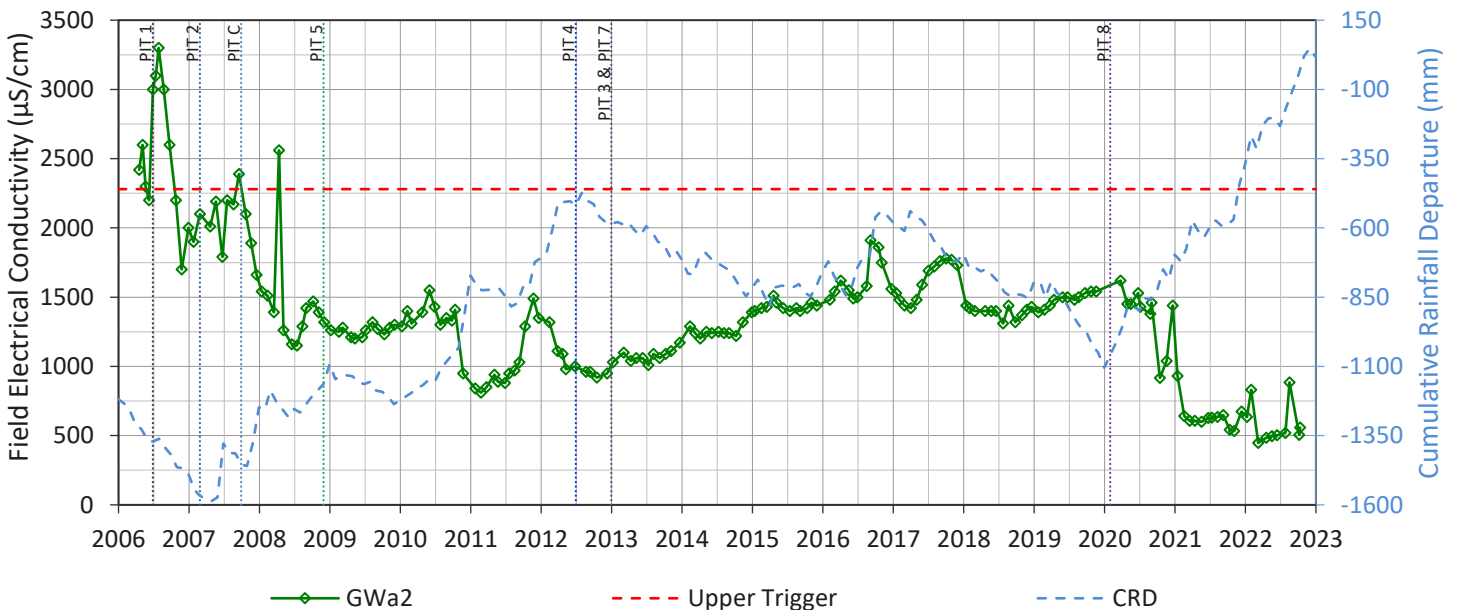
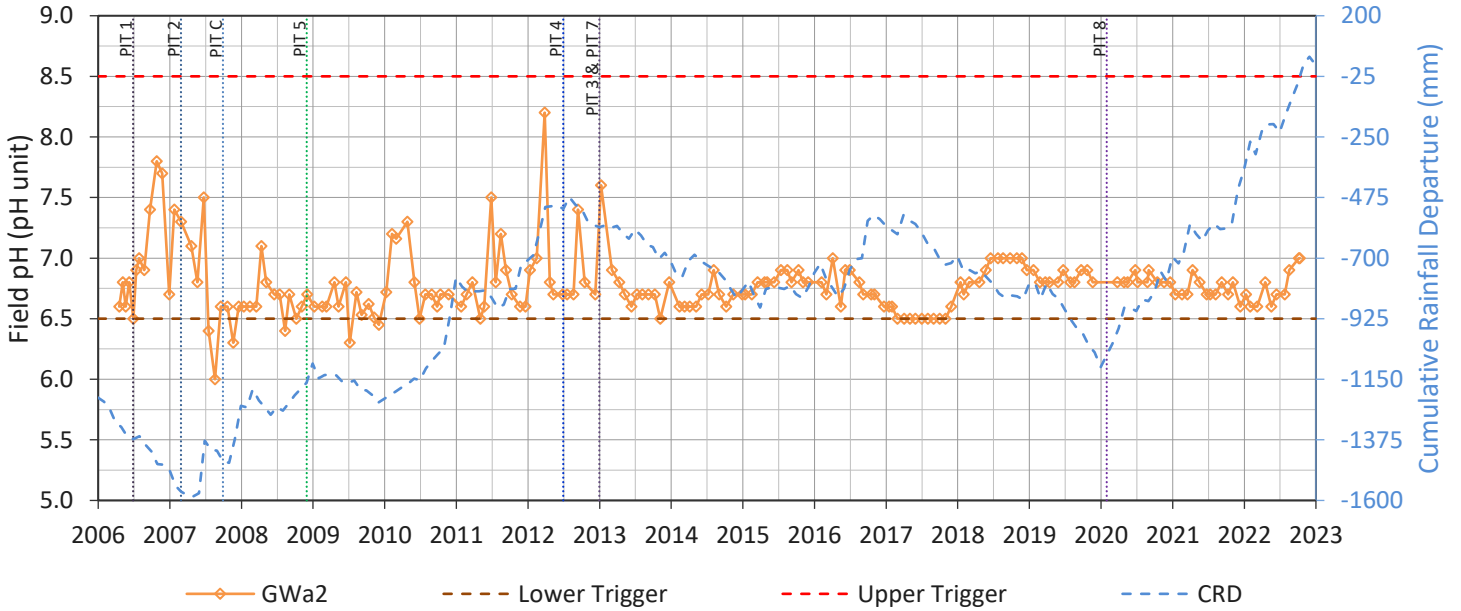
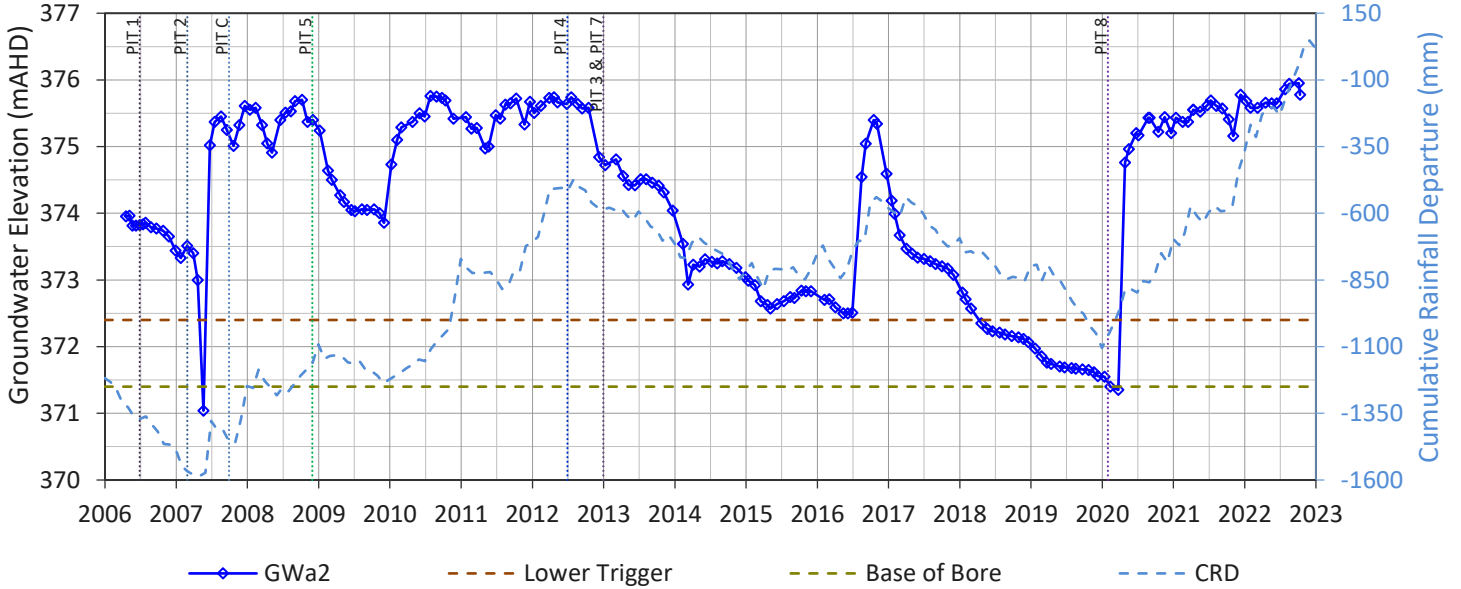
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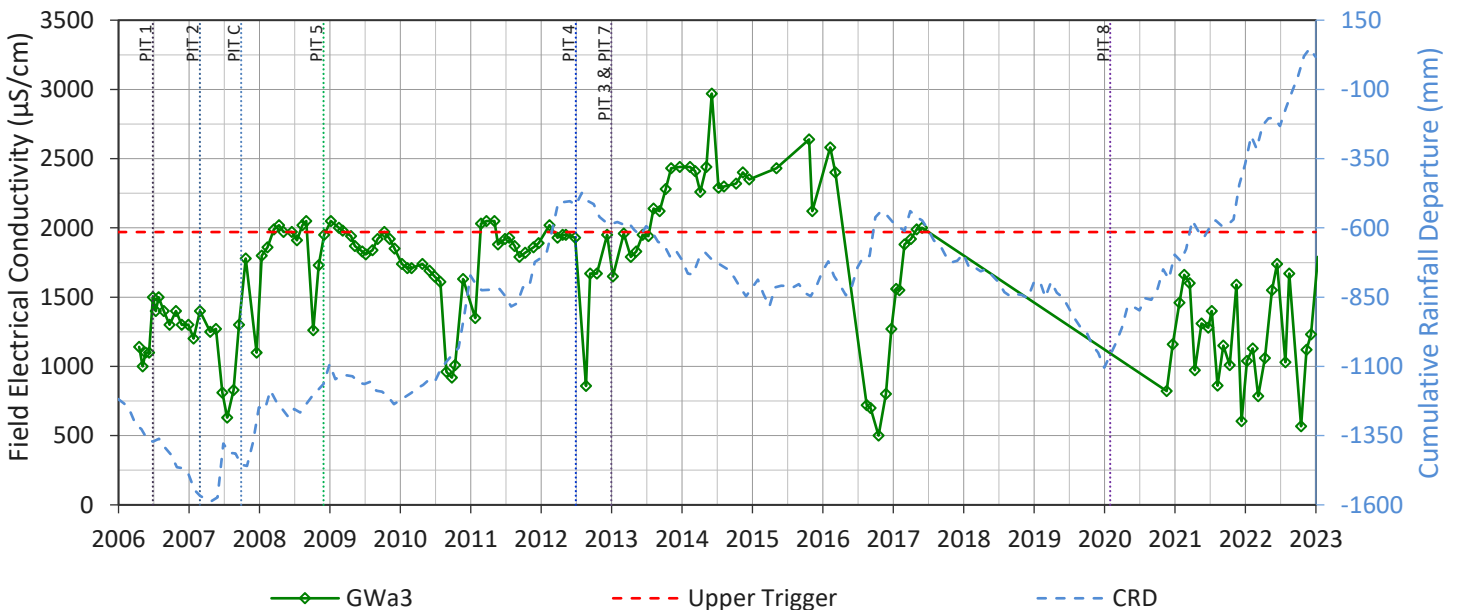
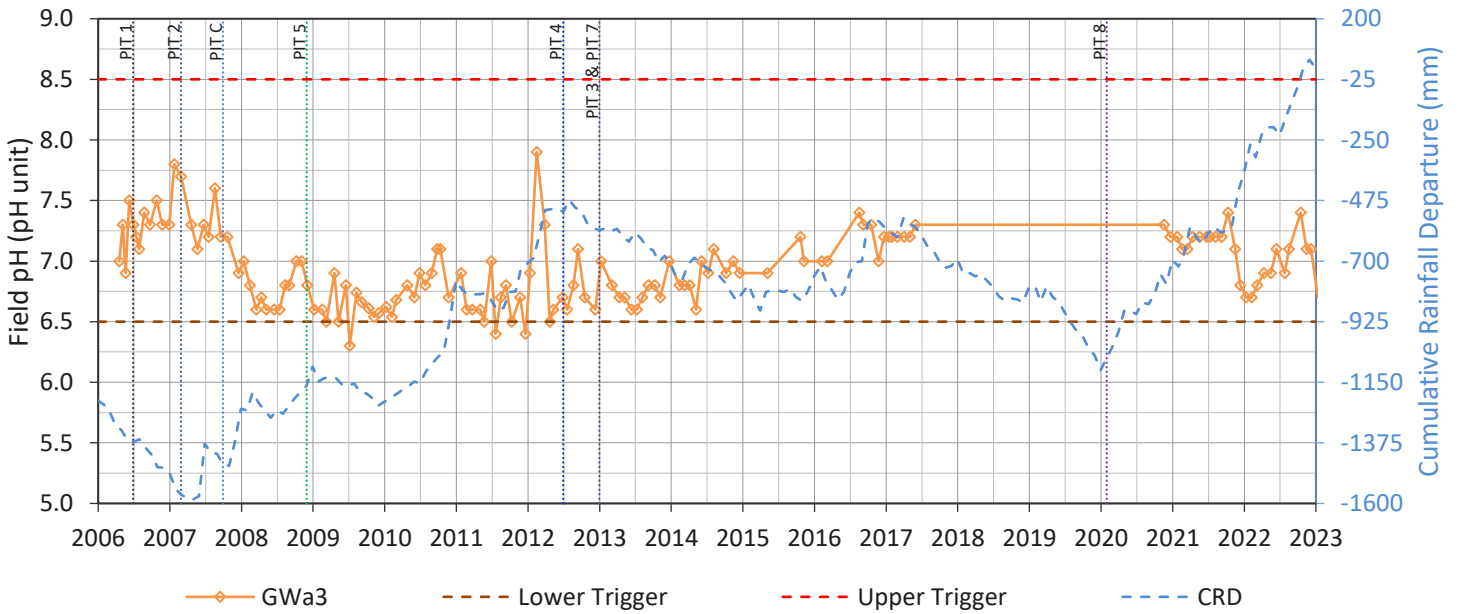
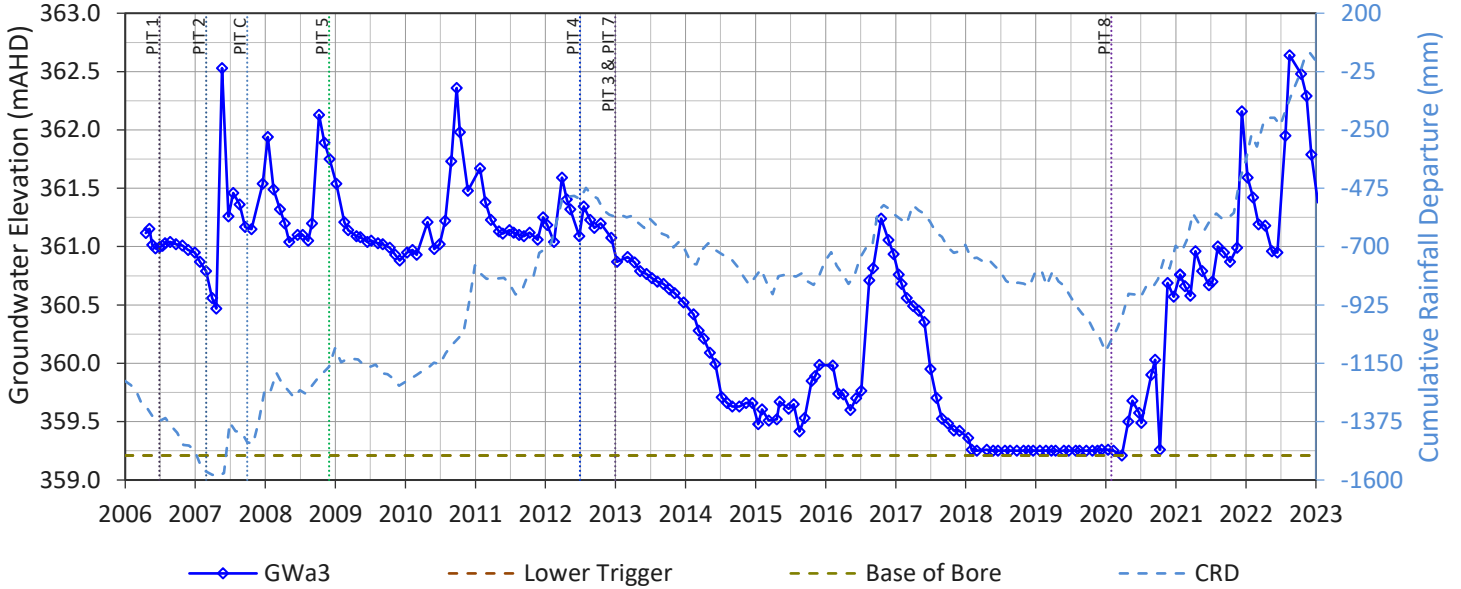
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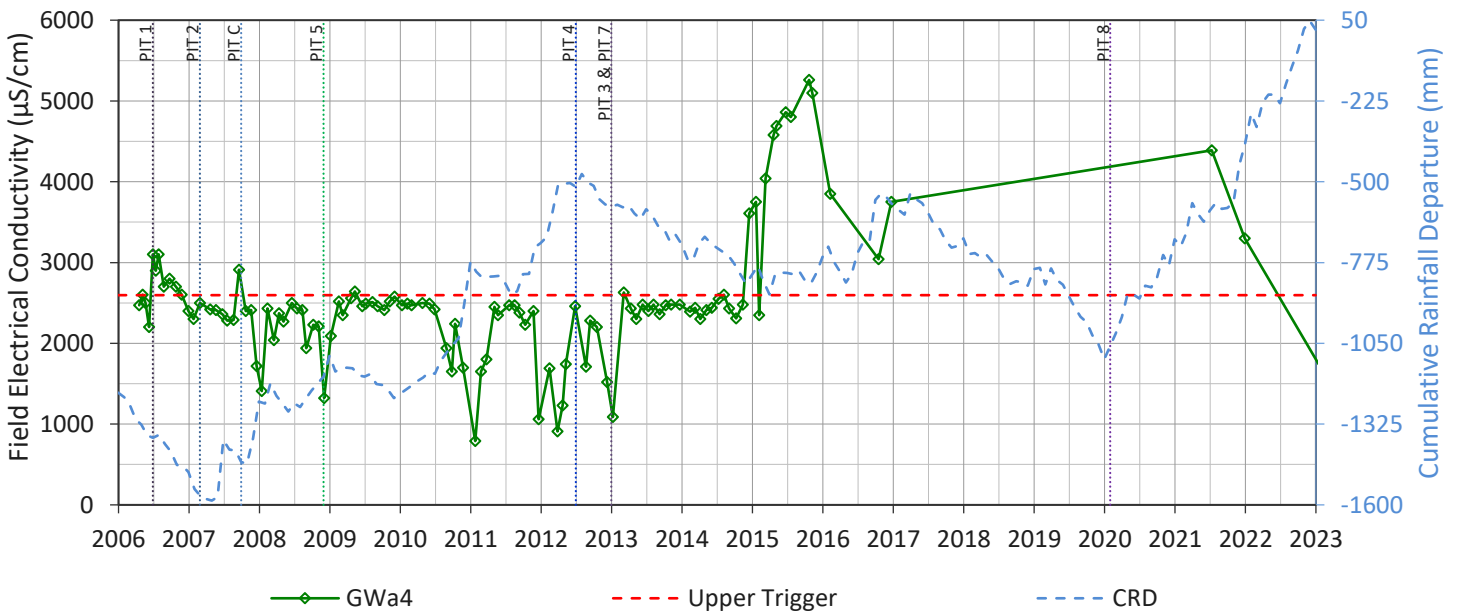
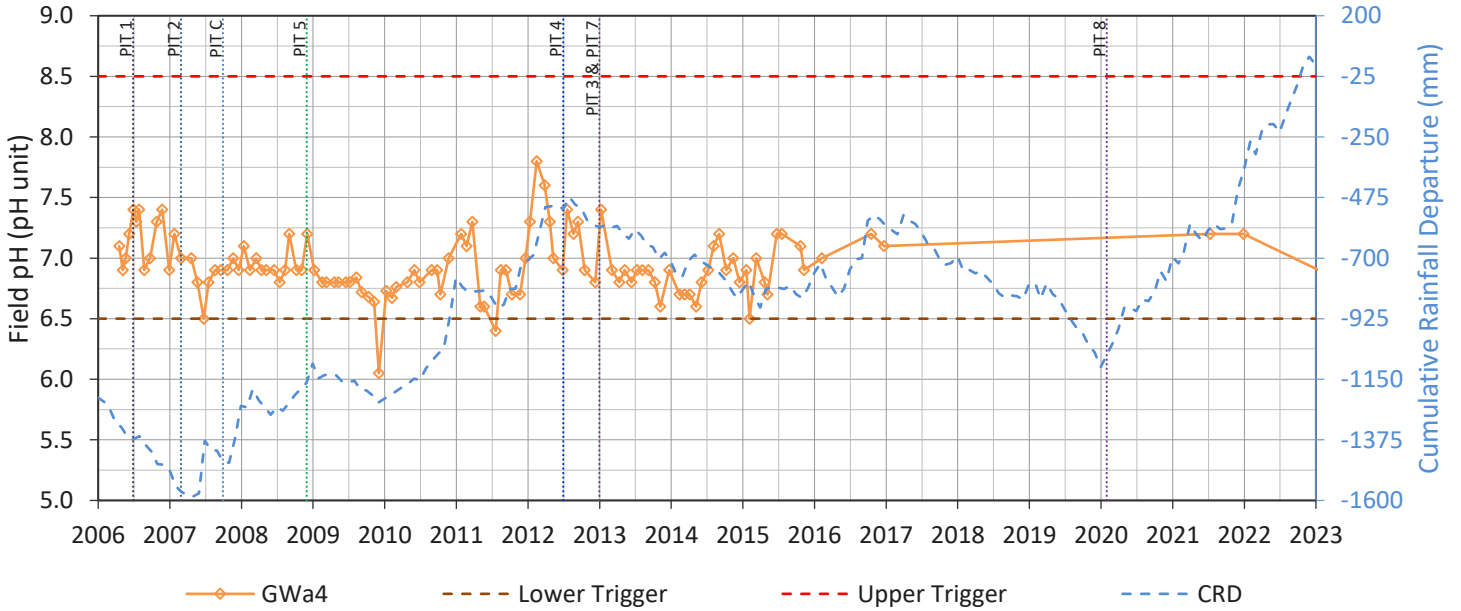
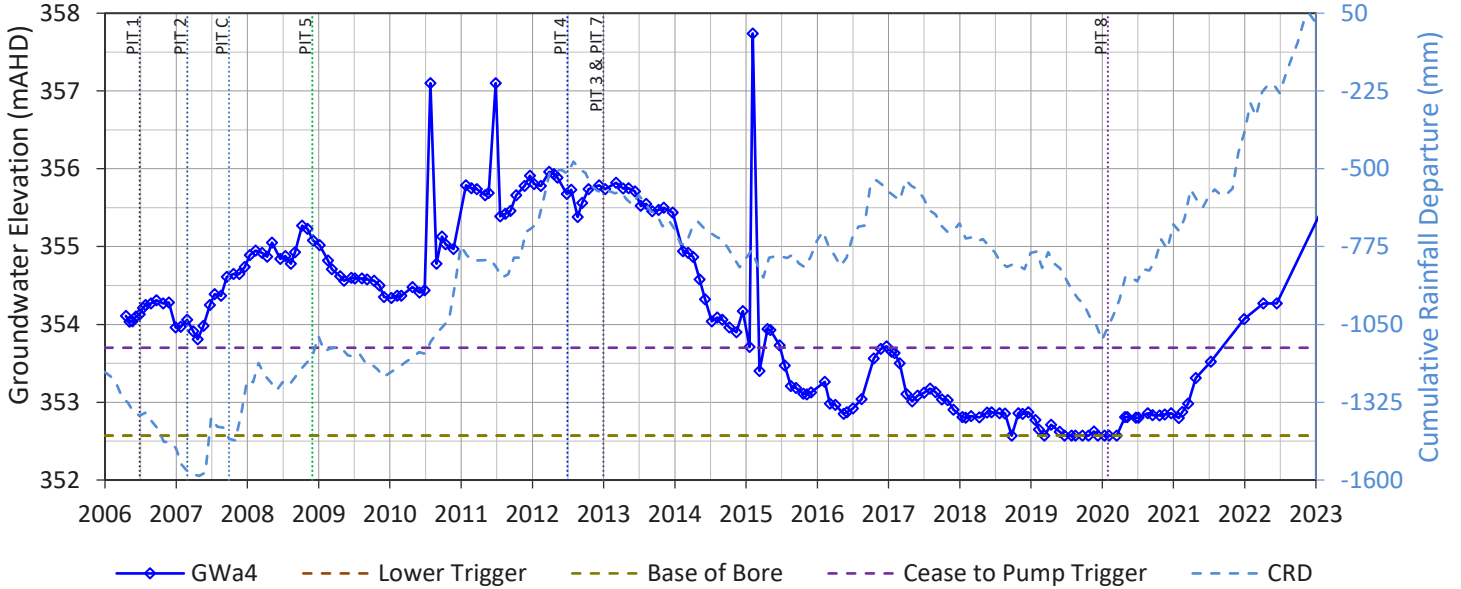
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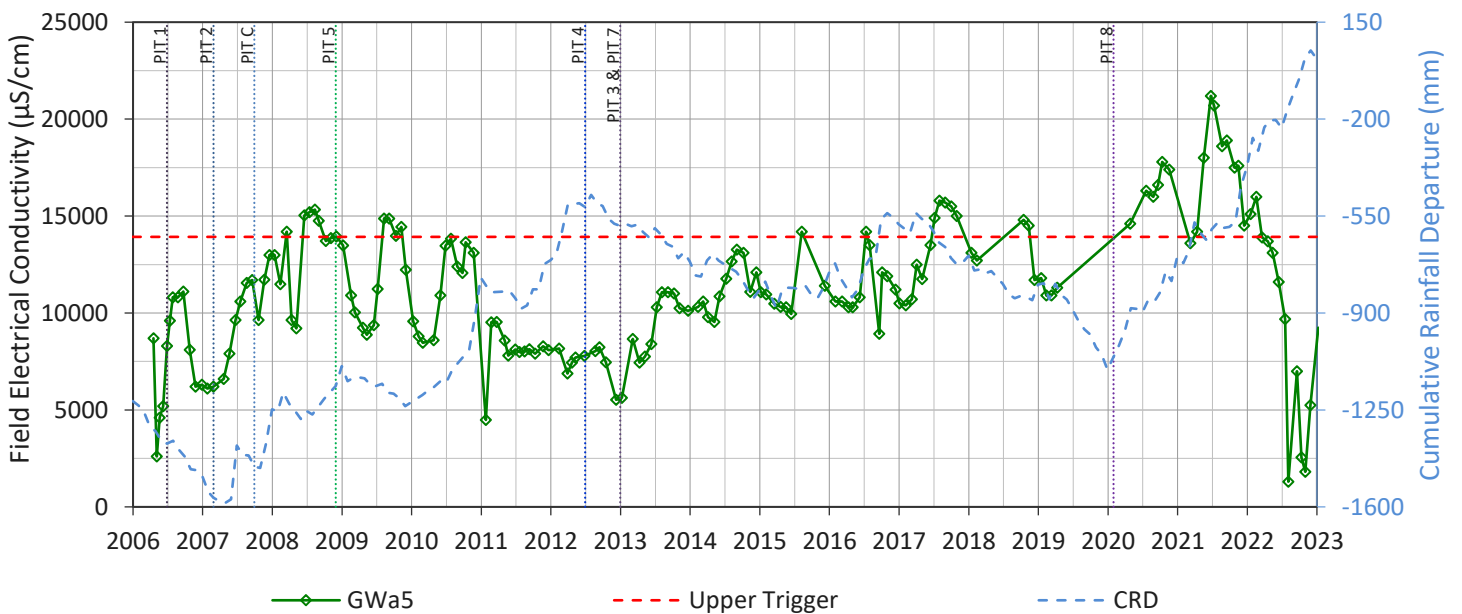
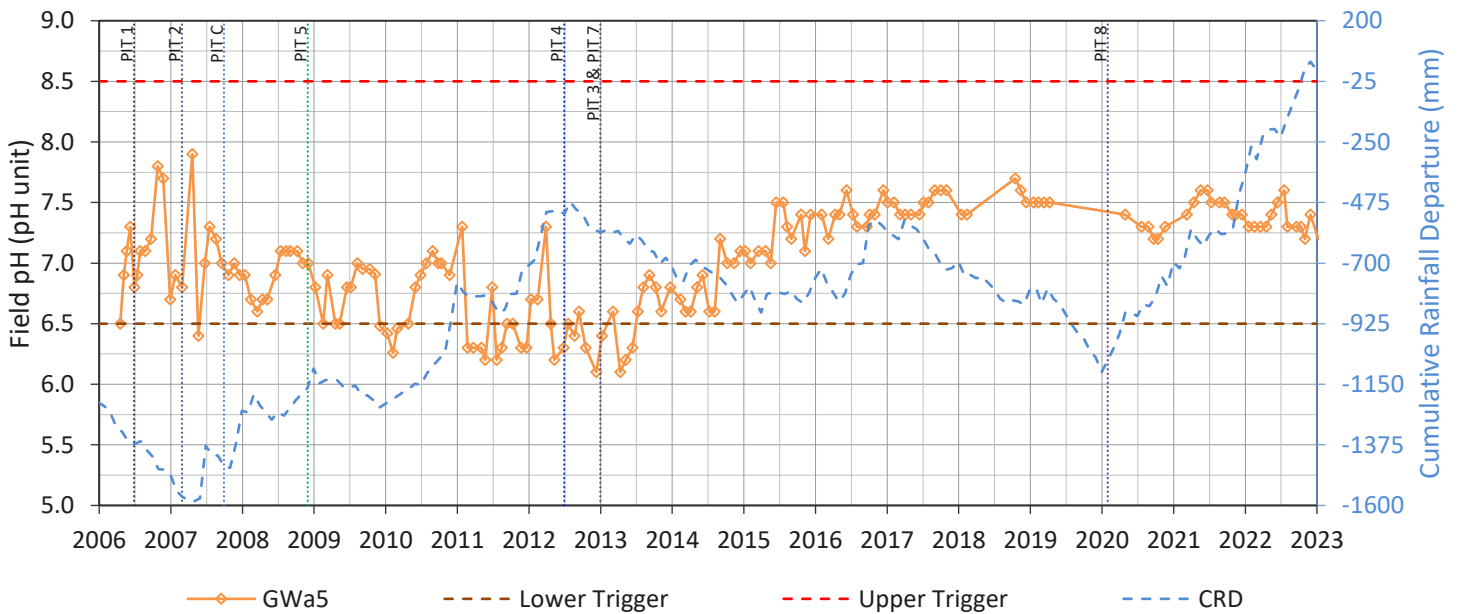
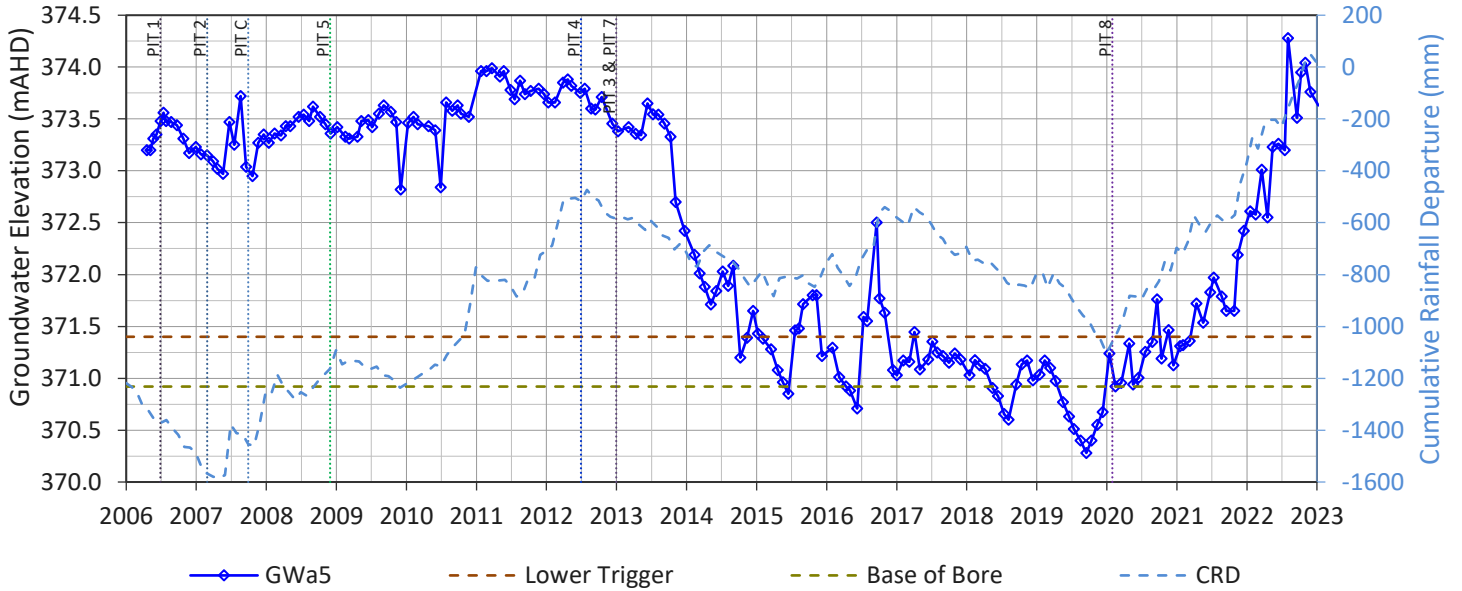
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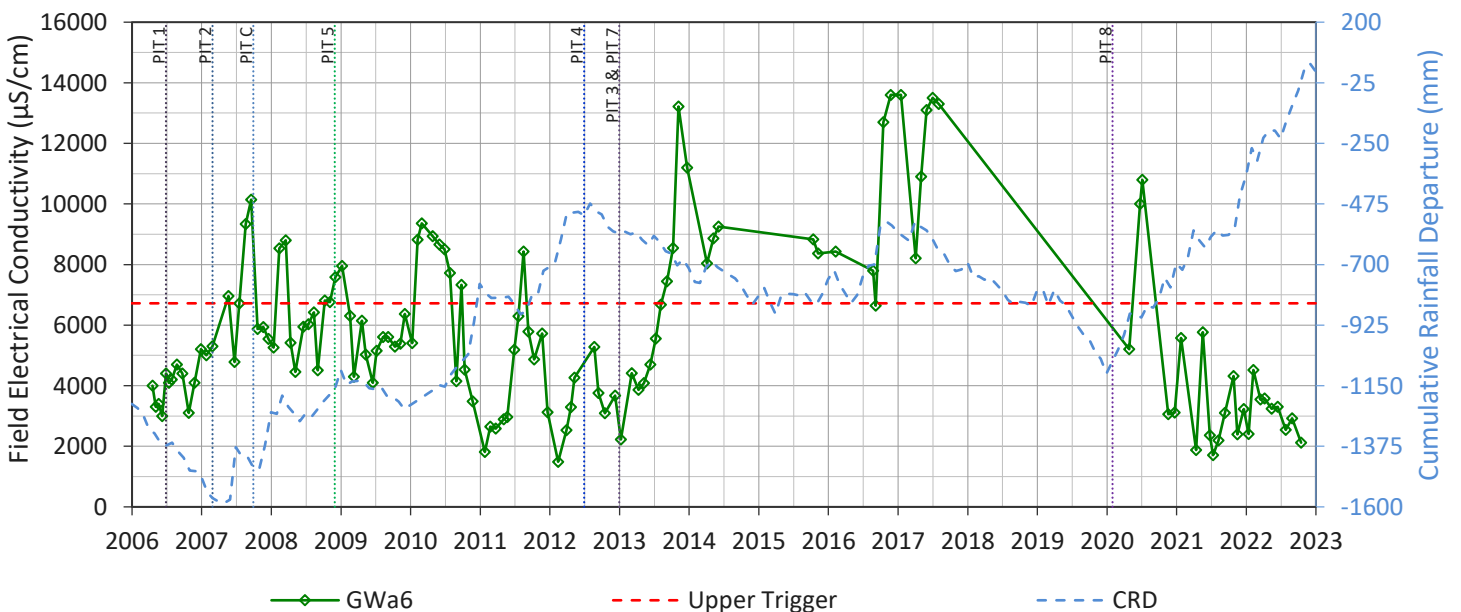
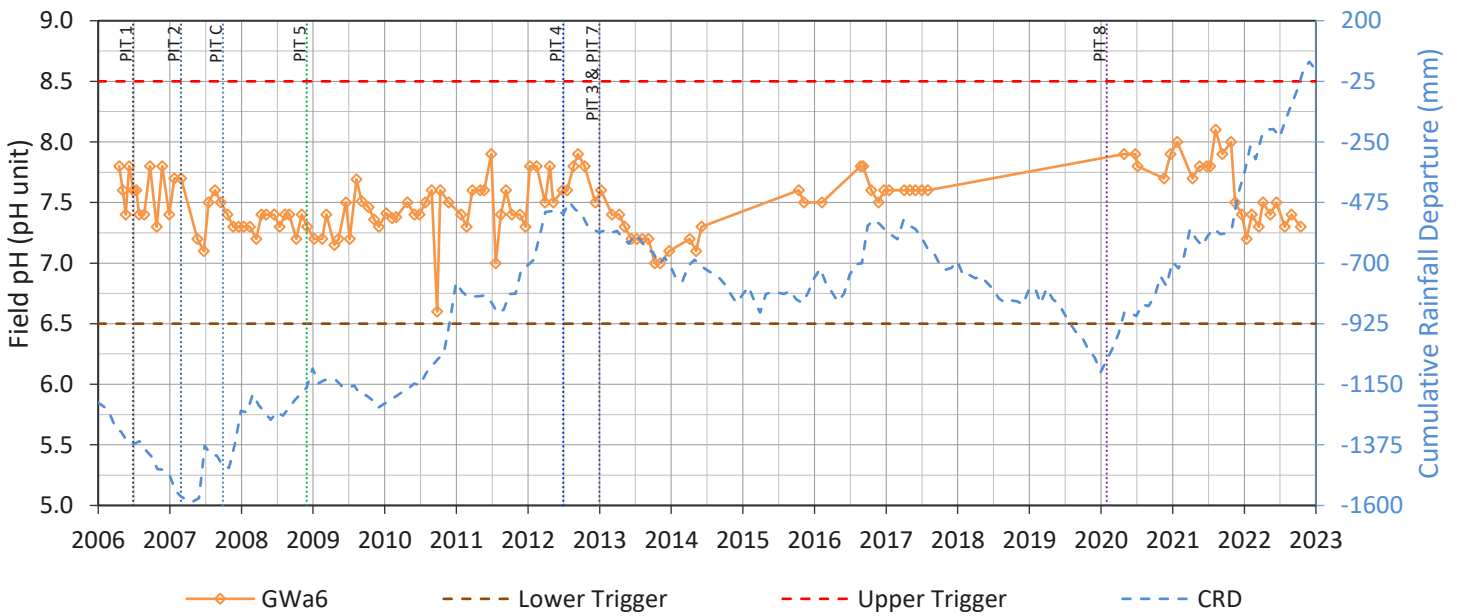
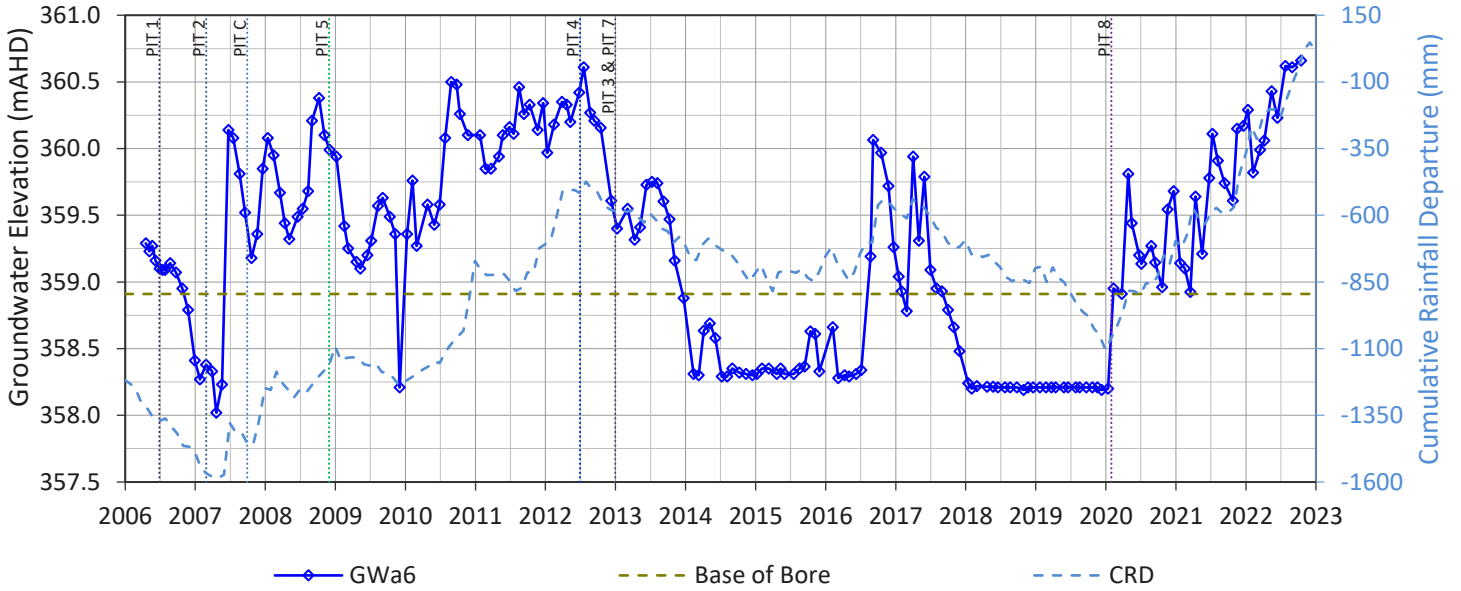
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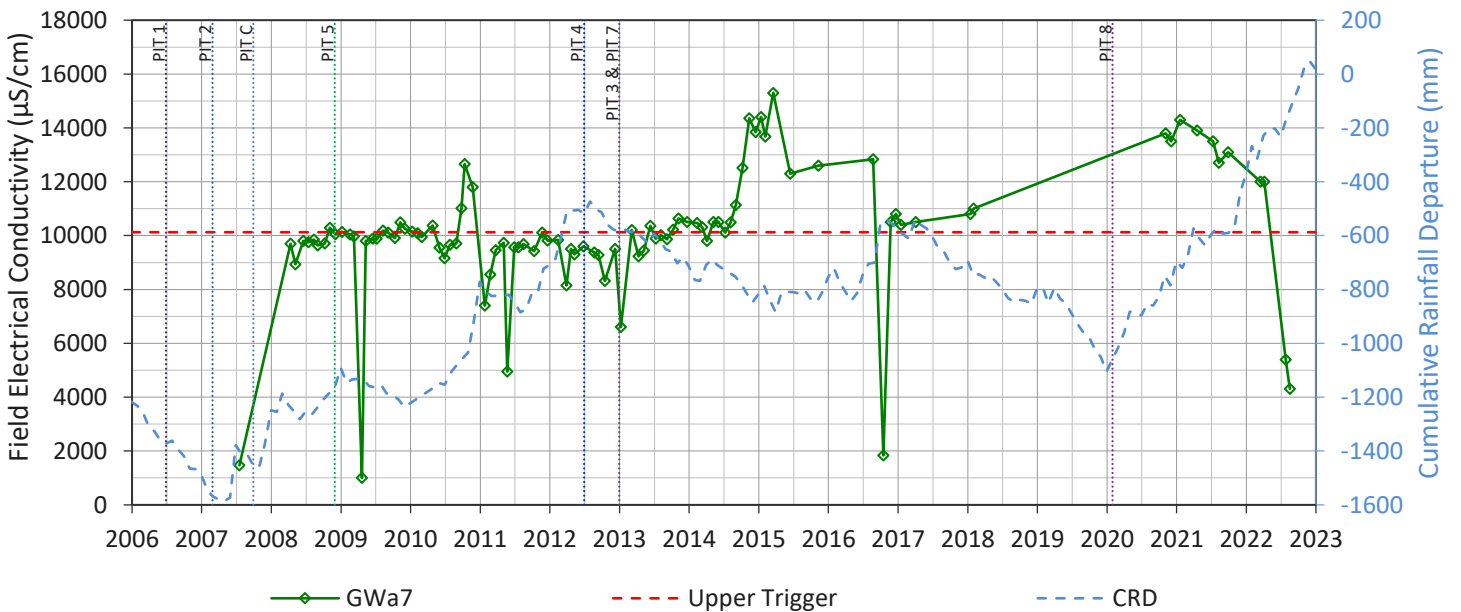
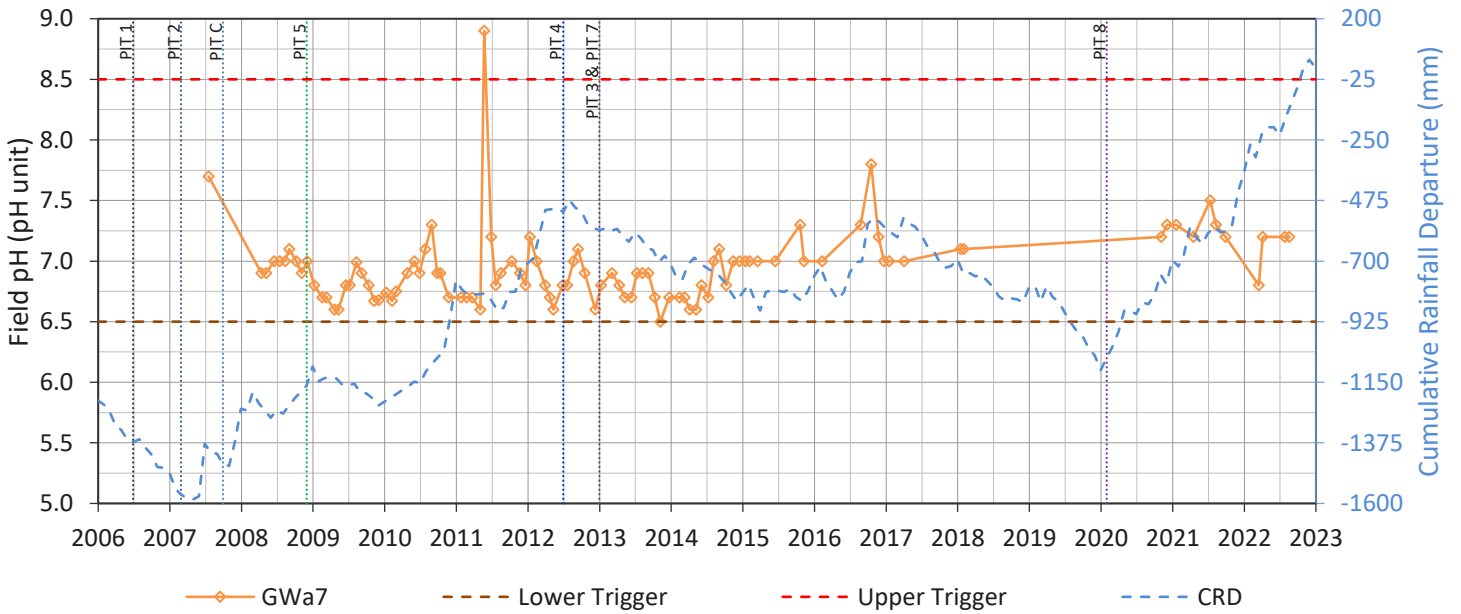
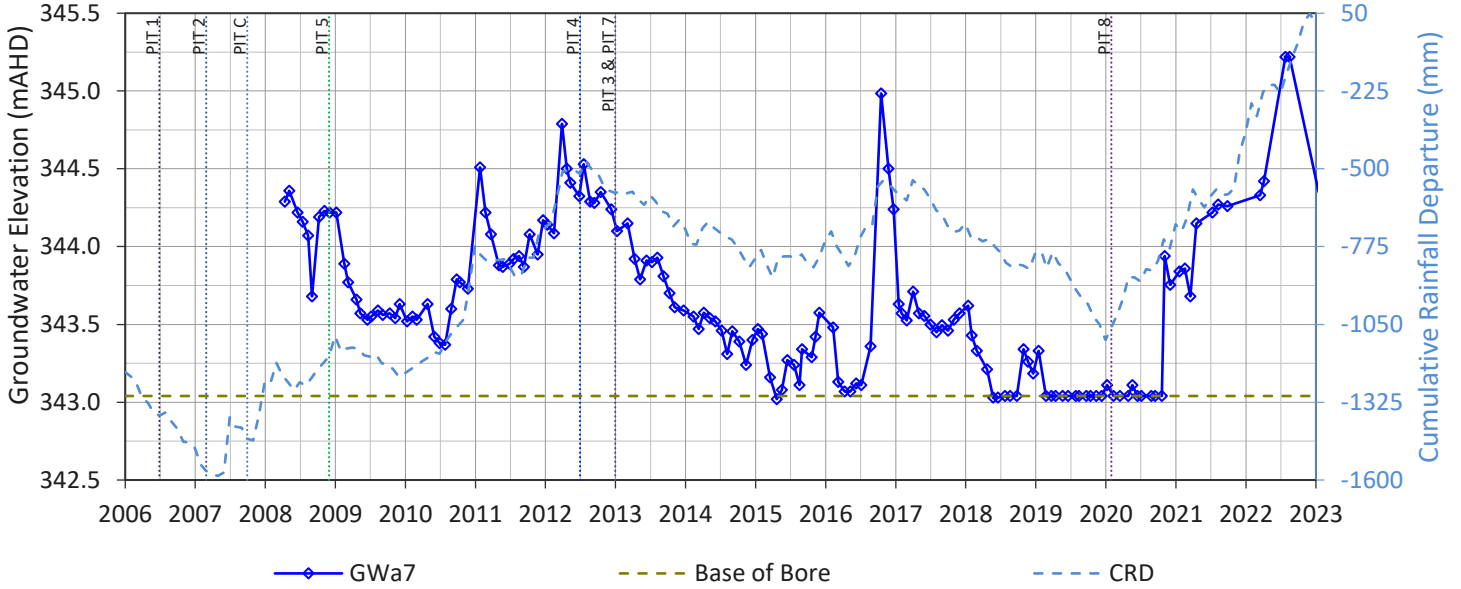
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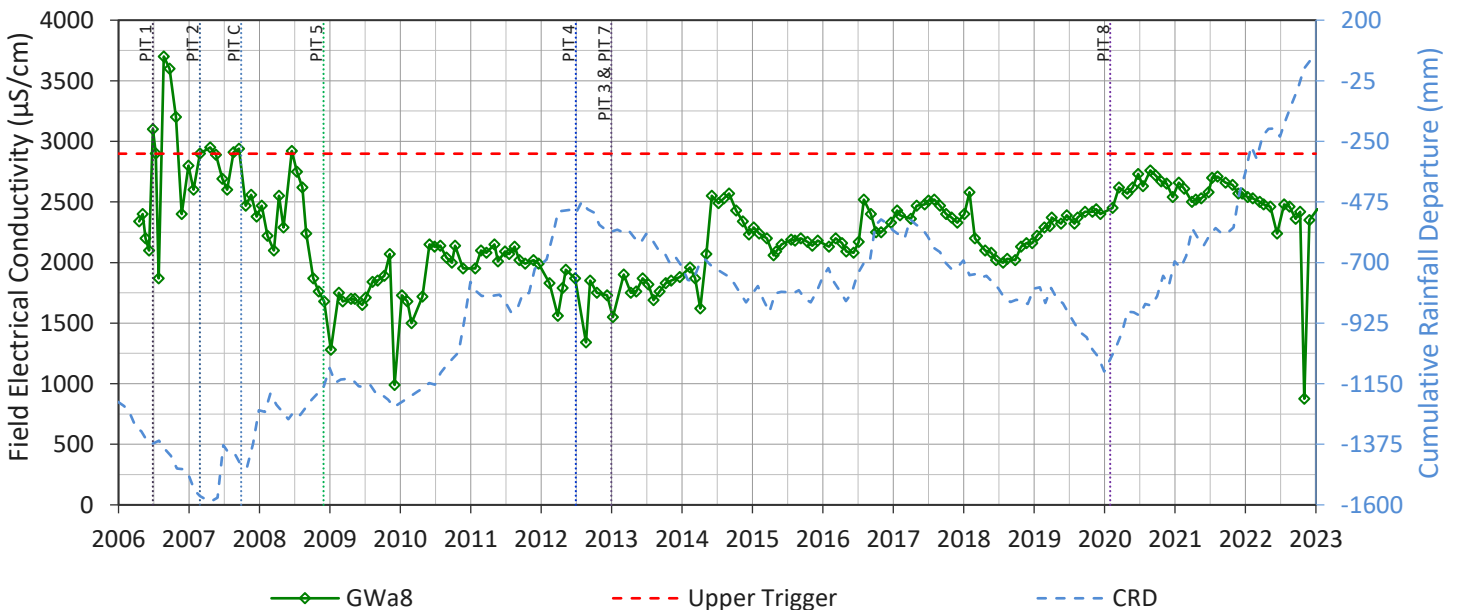
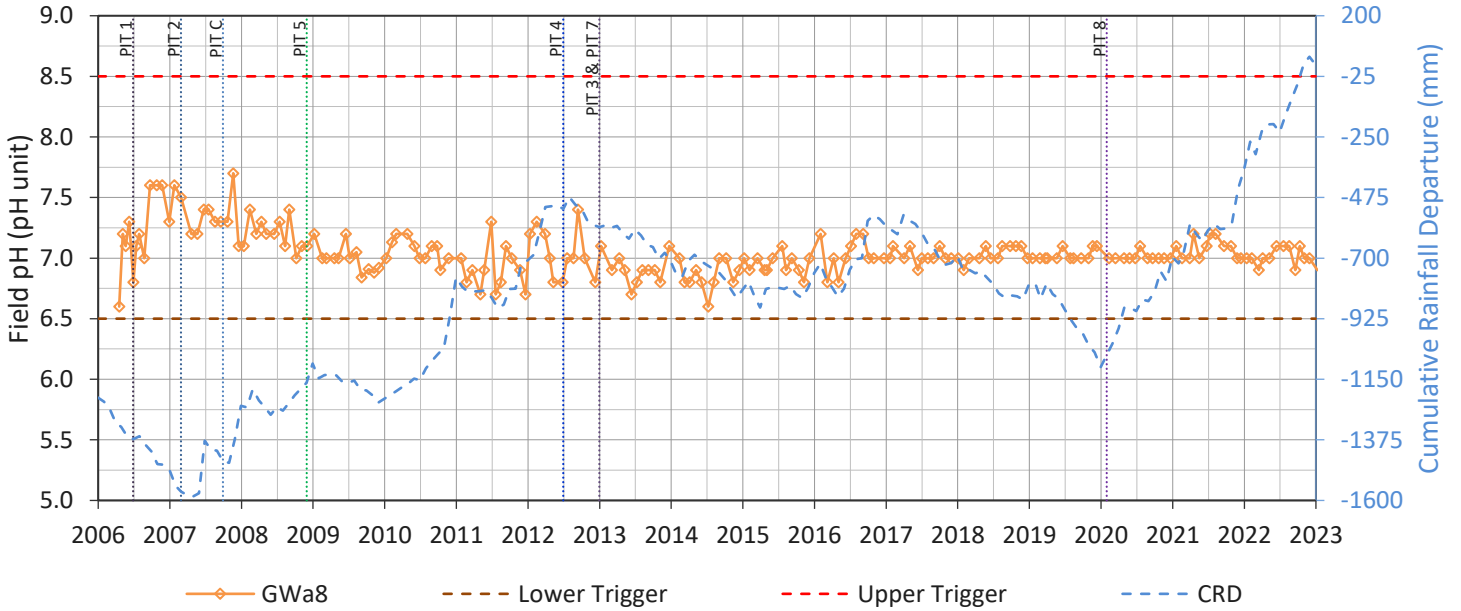
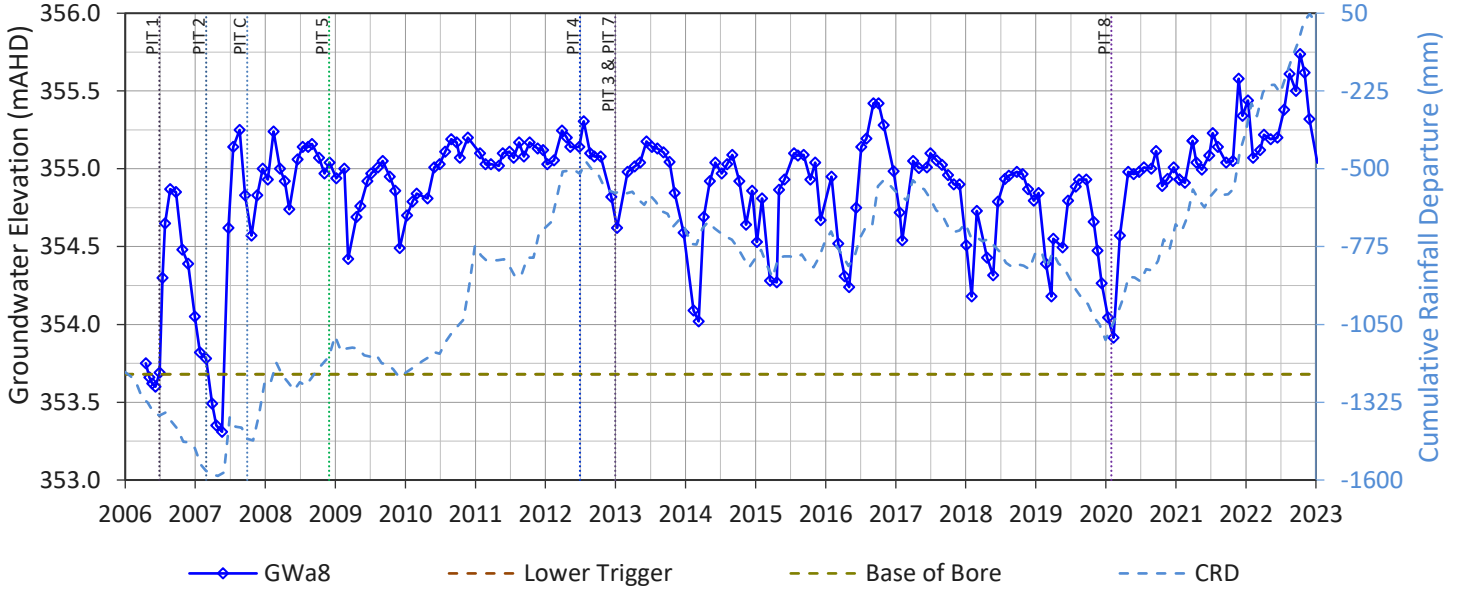
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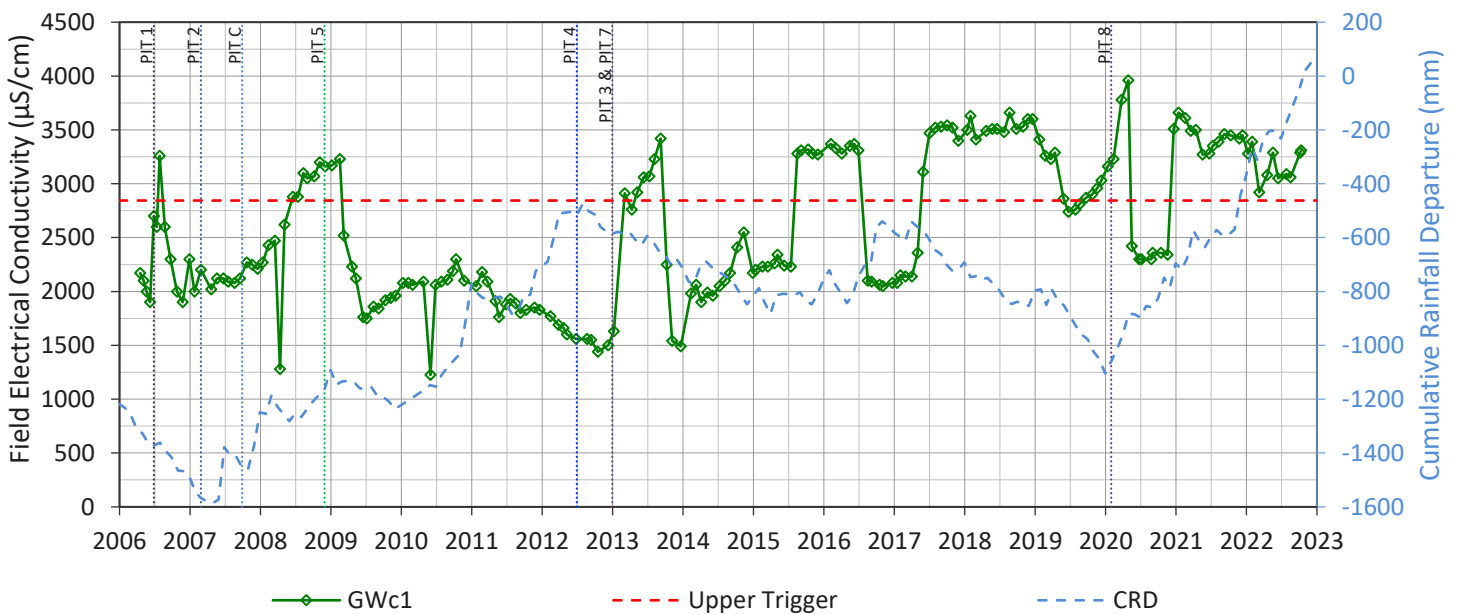
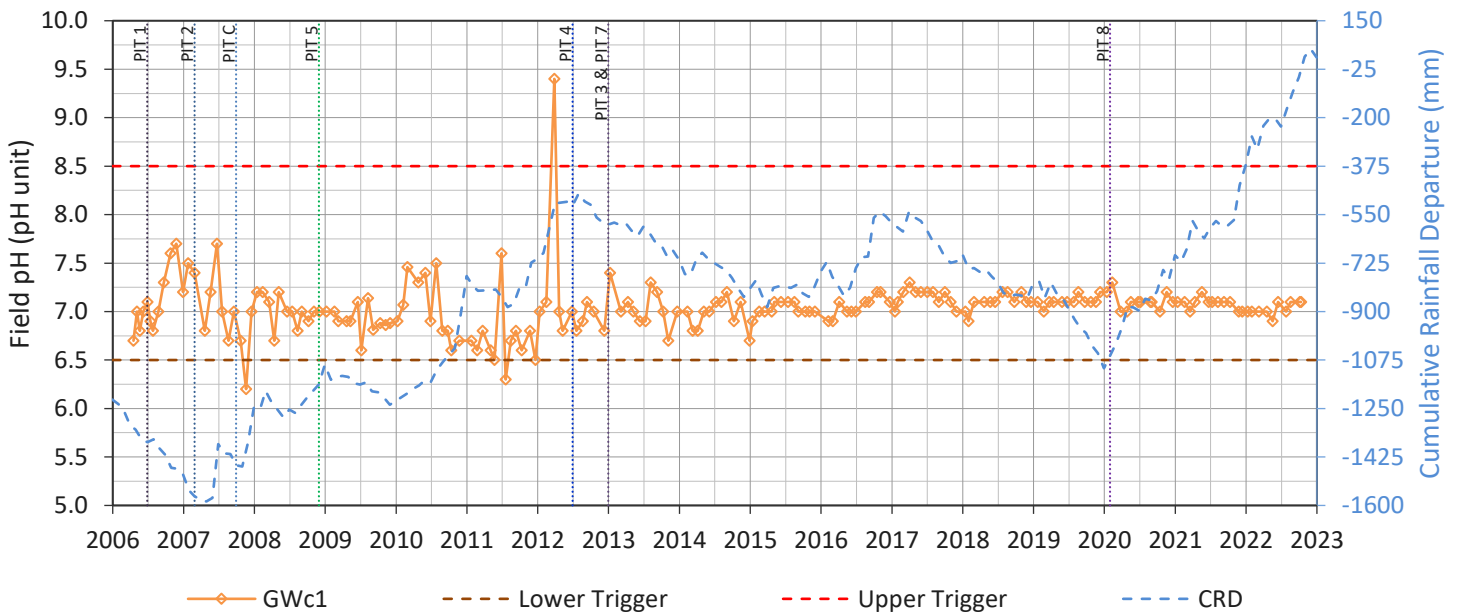
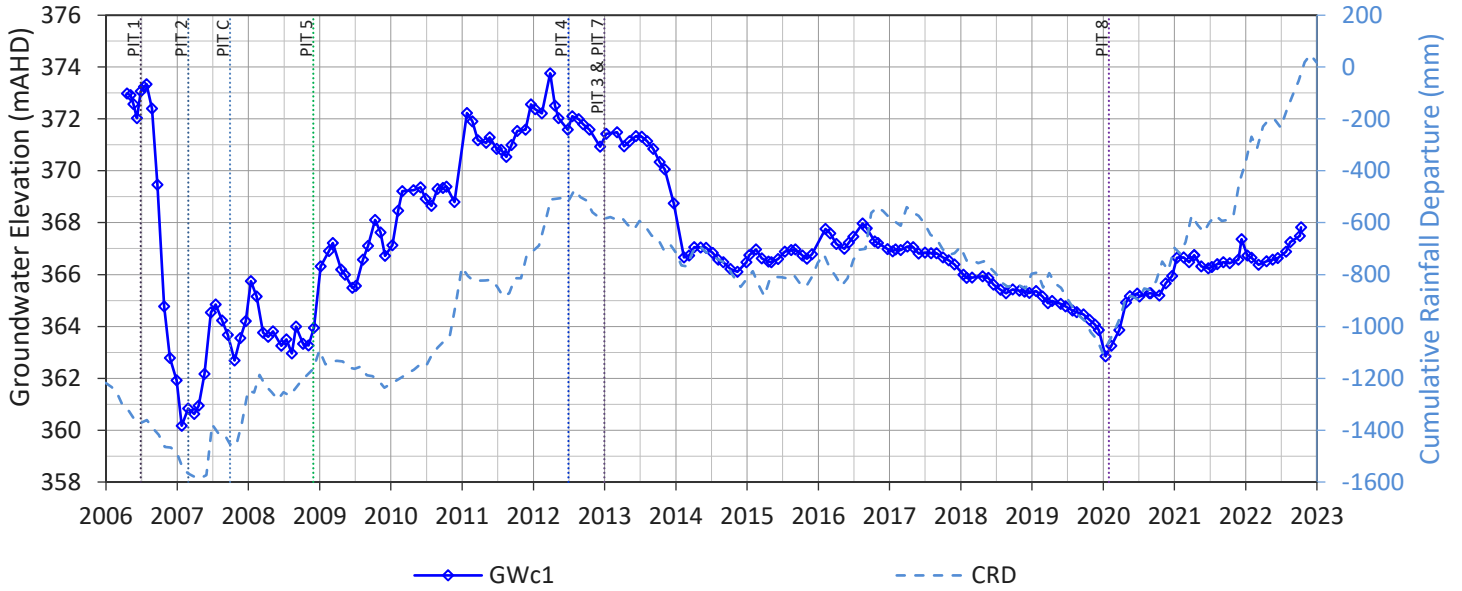
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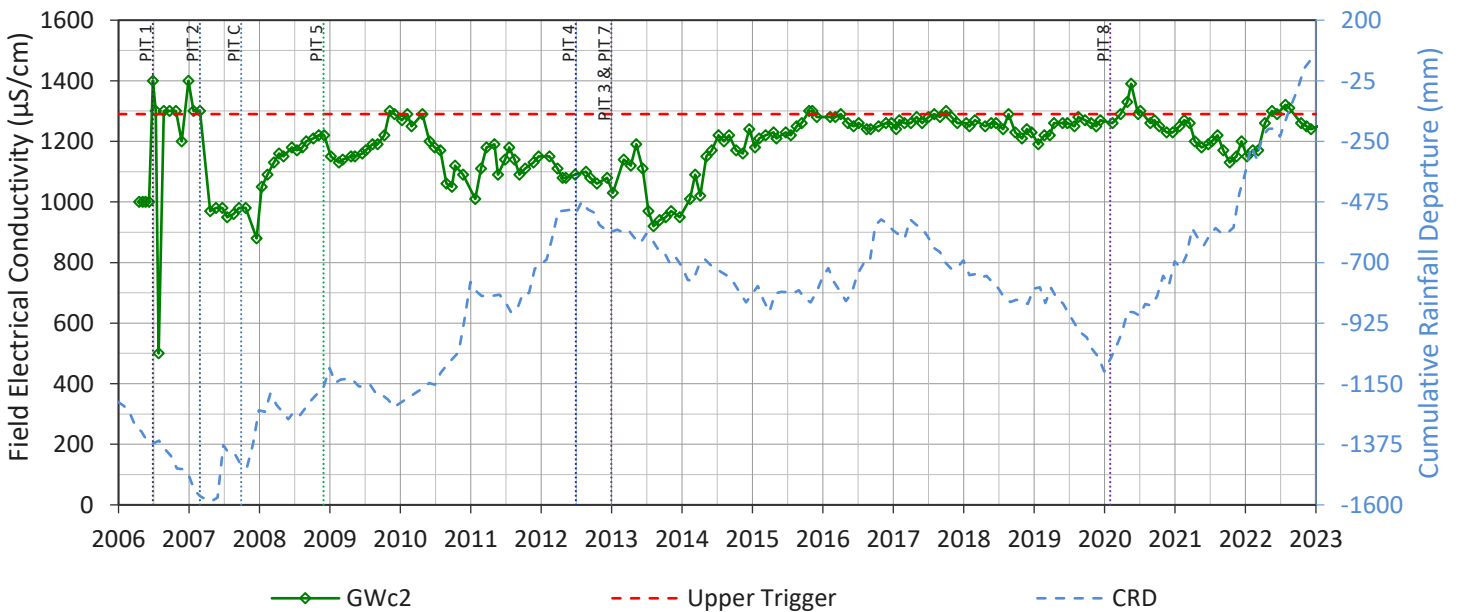
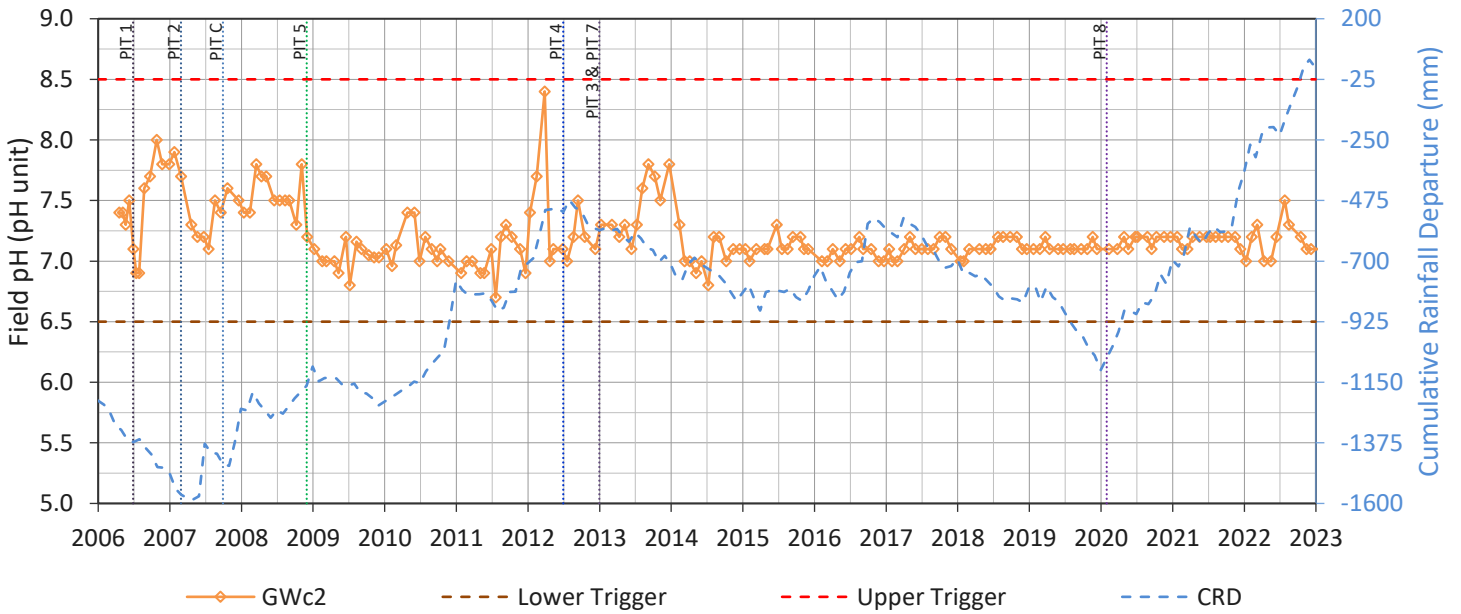
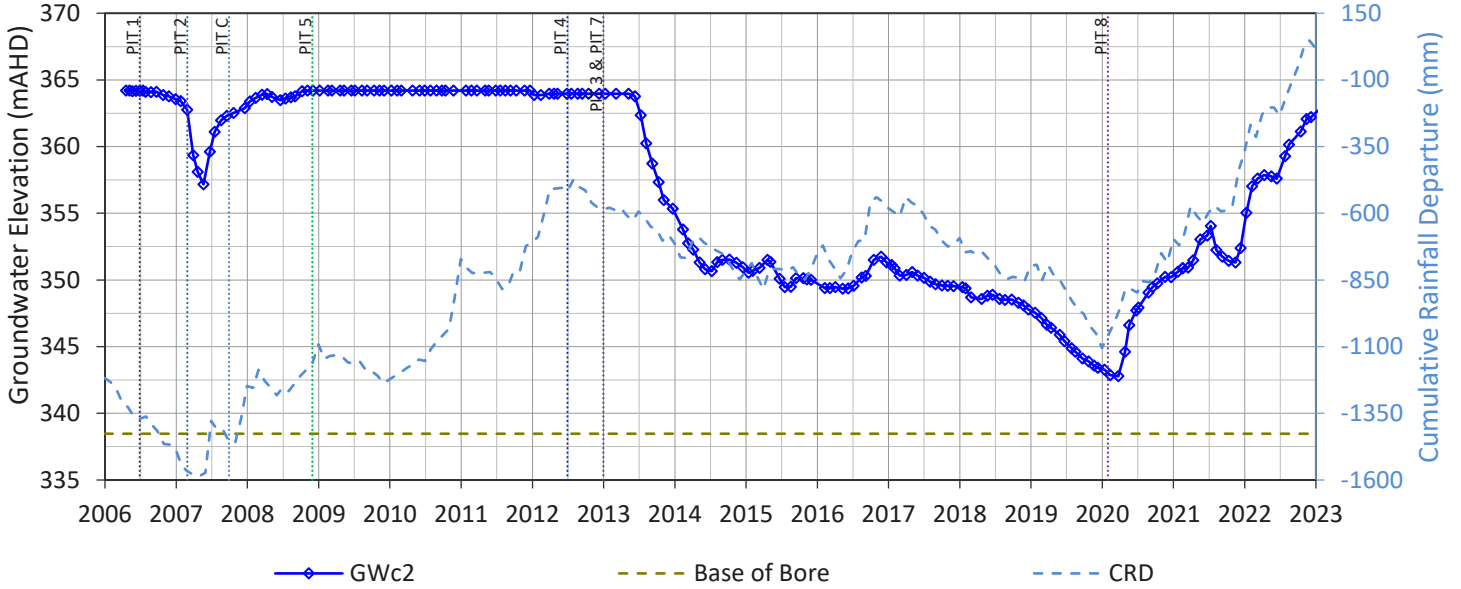
GWa8



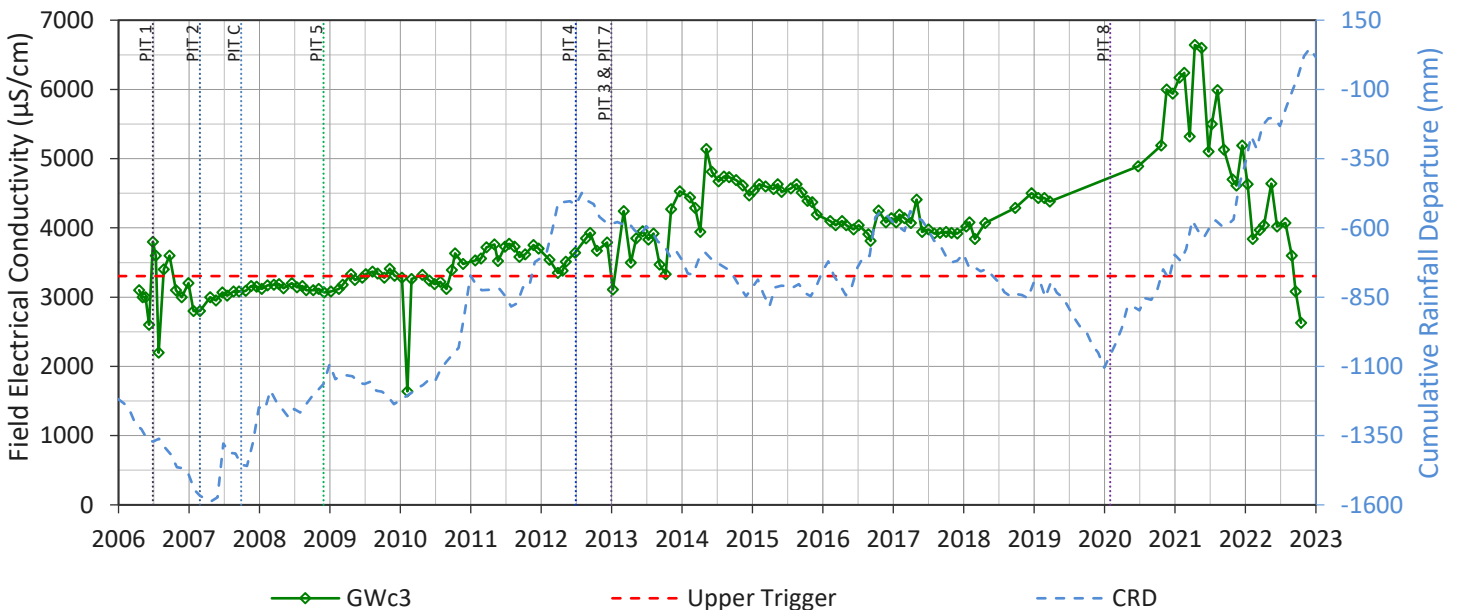
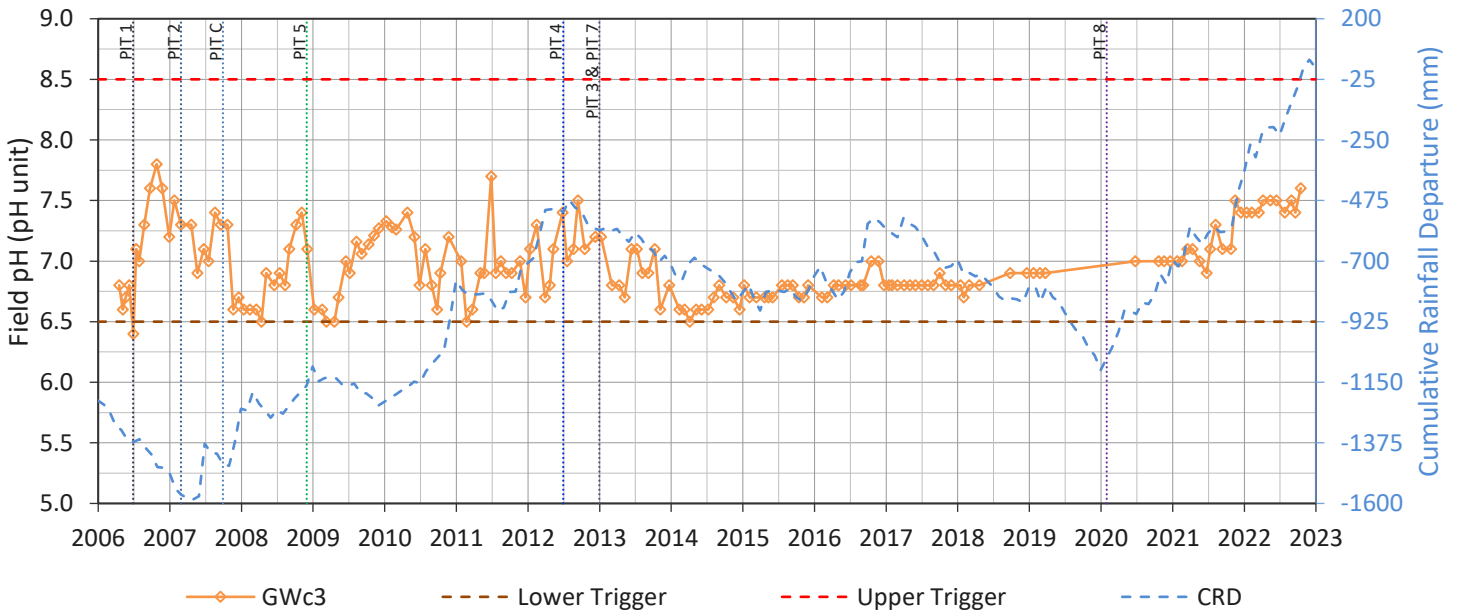
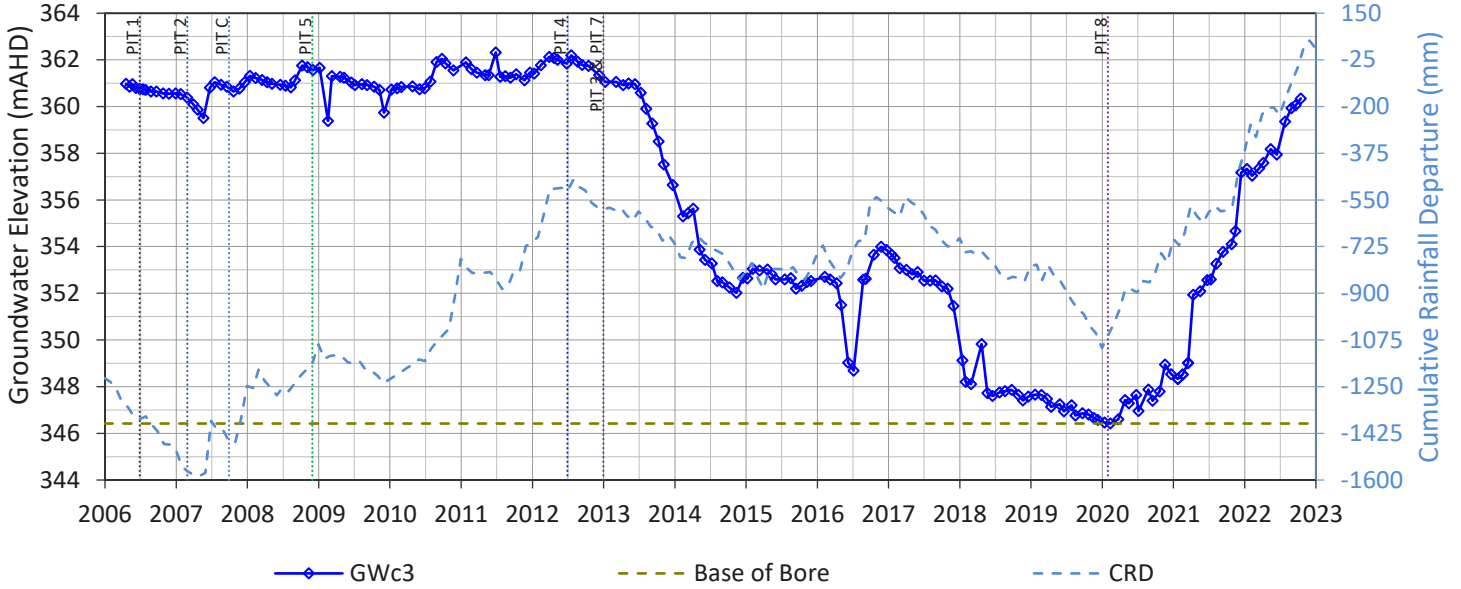
GWc1



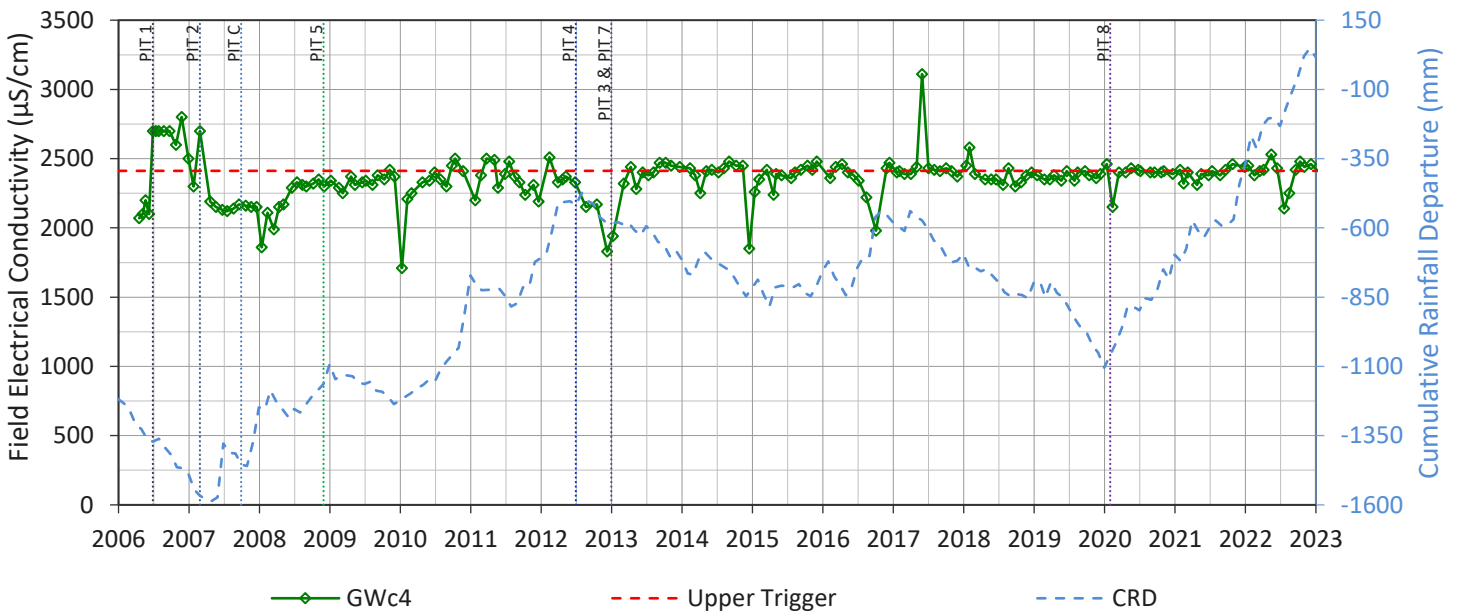
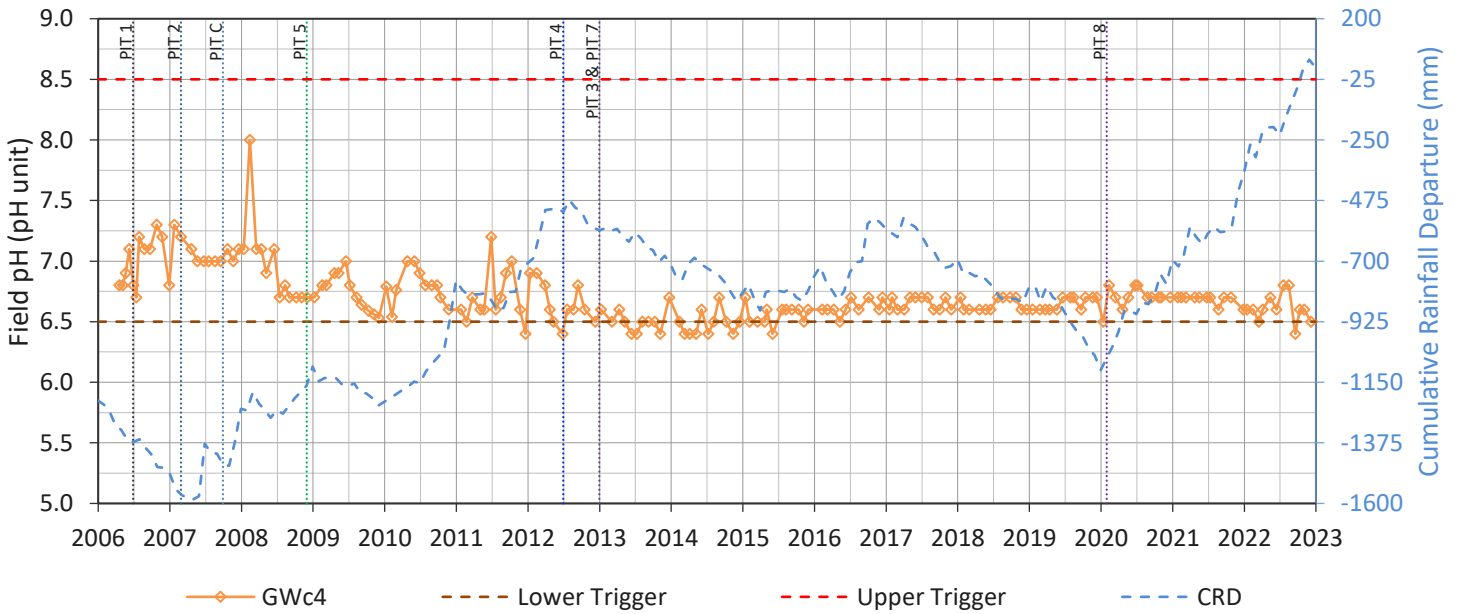
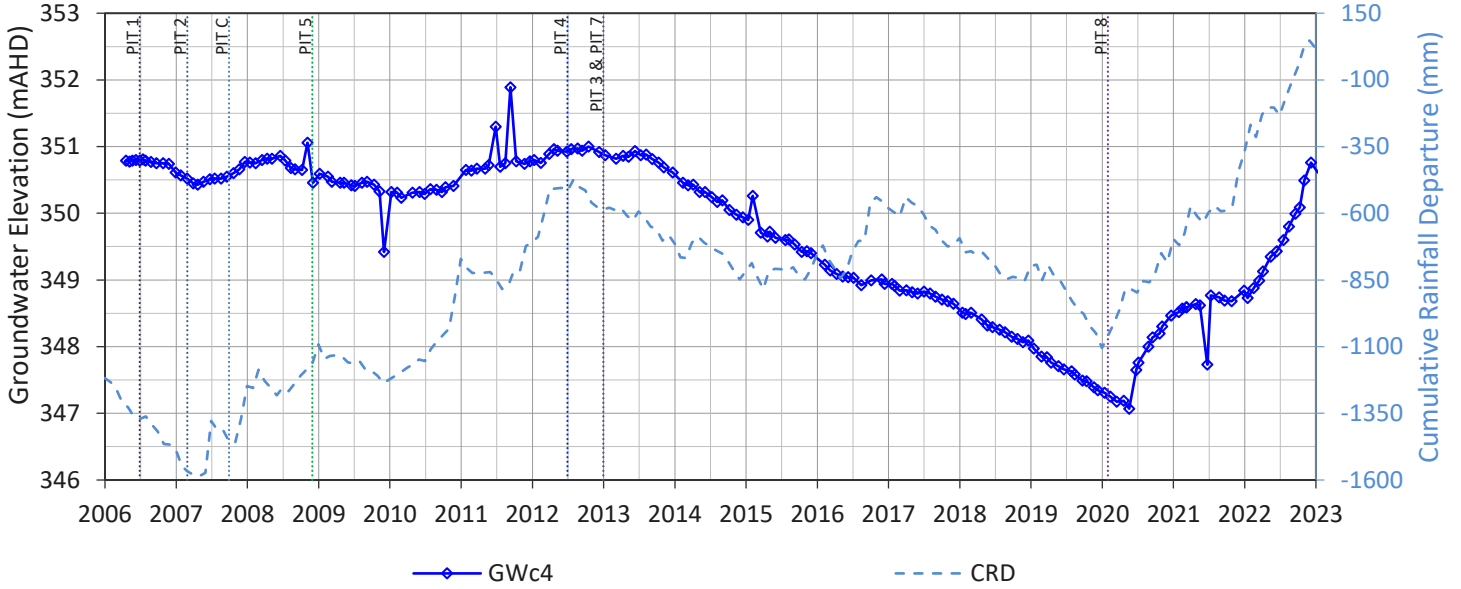
GWc2



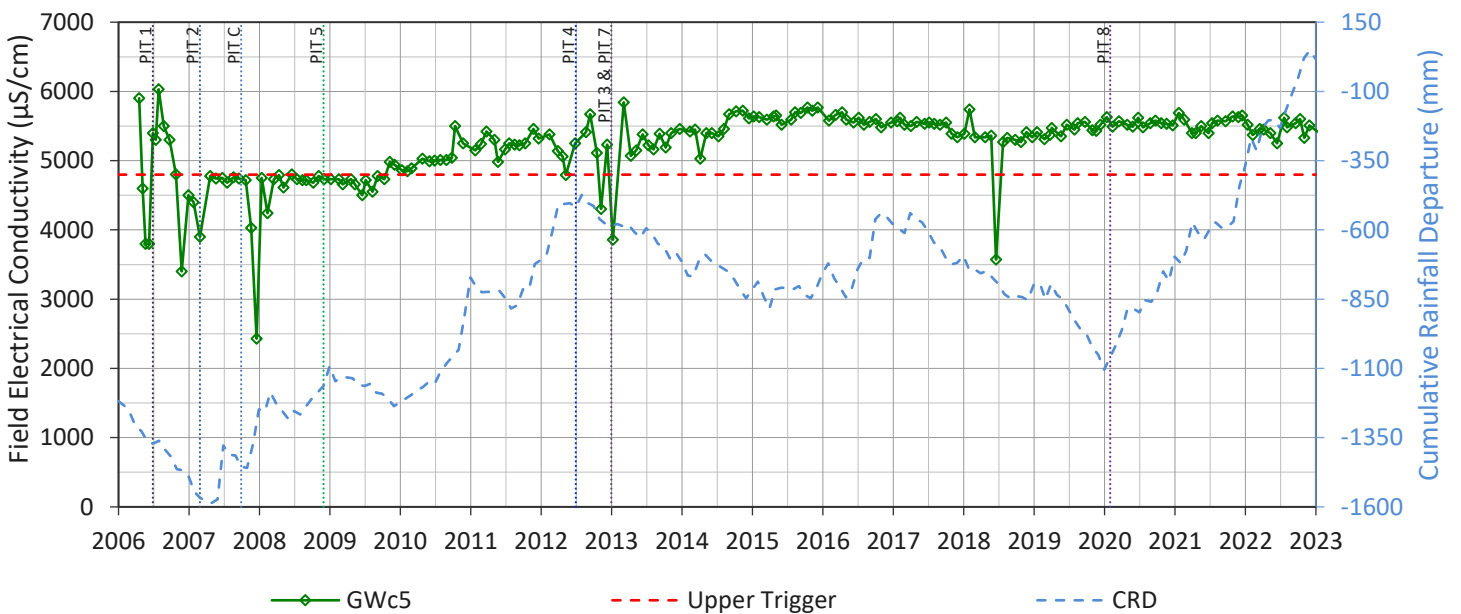
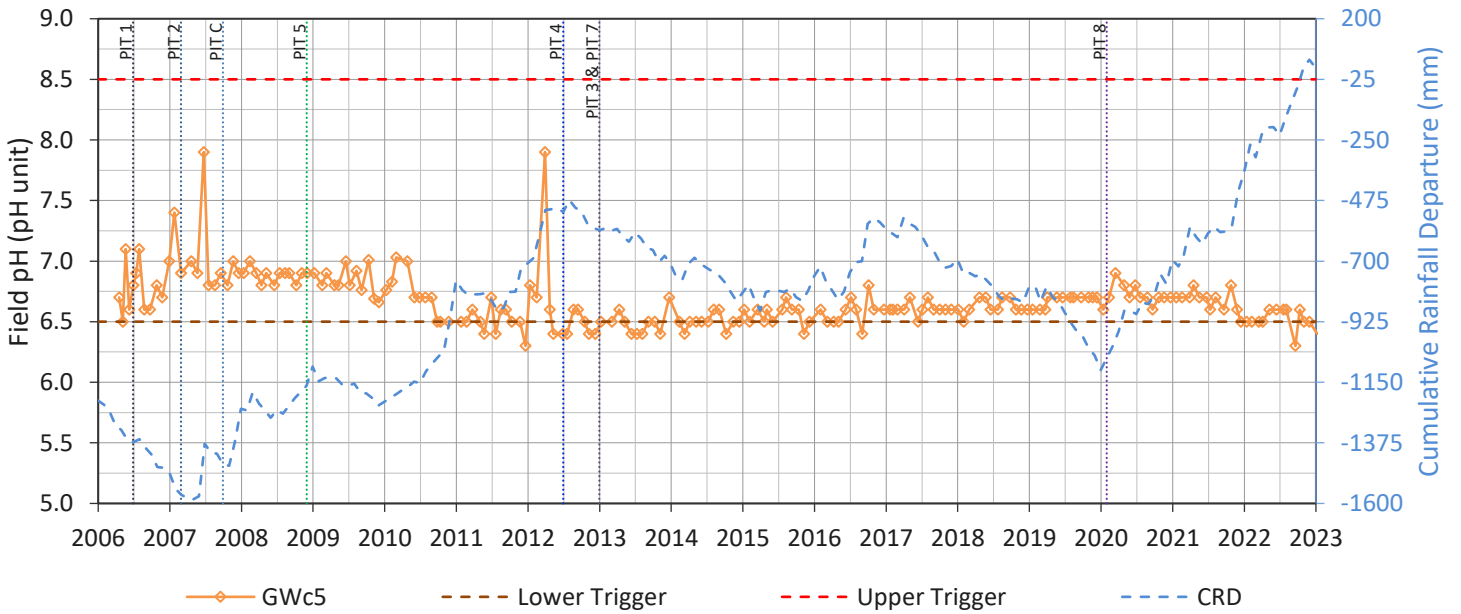
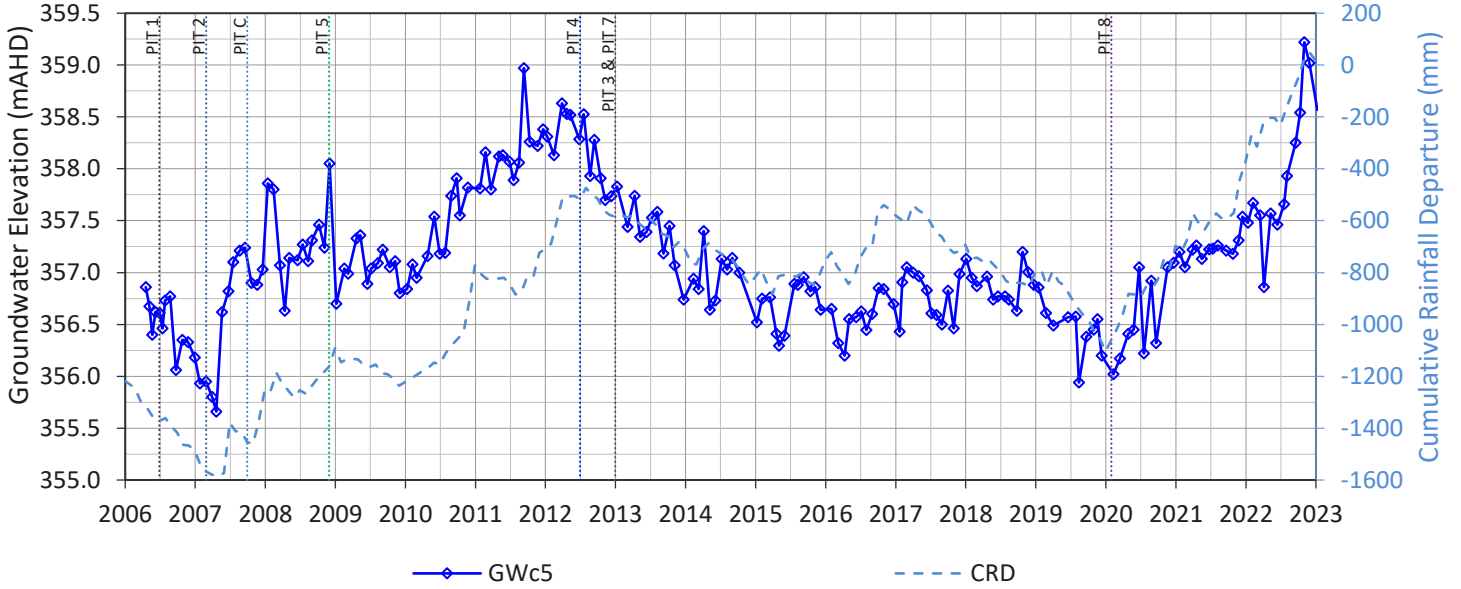
GWc3



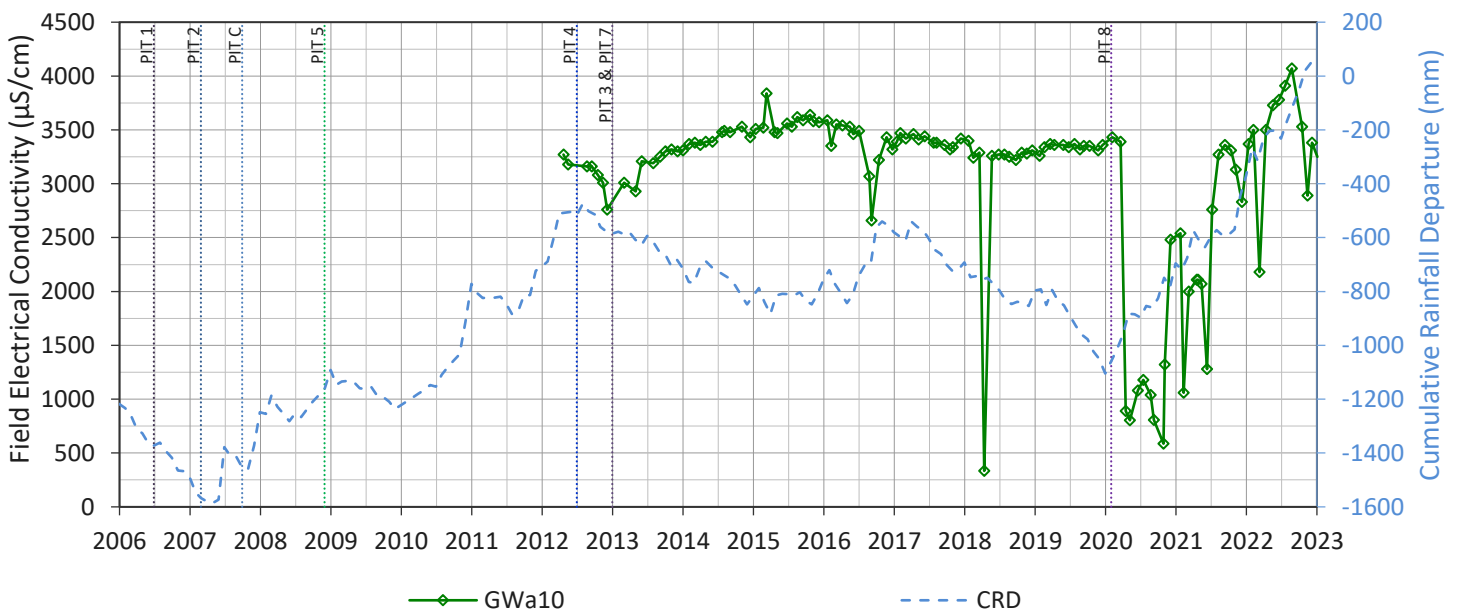
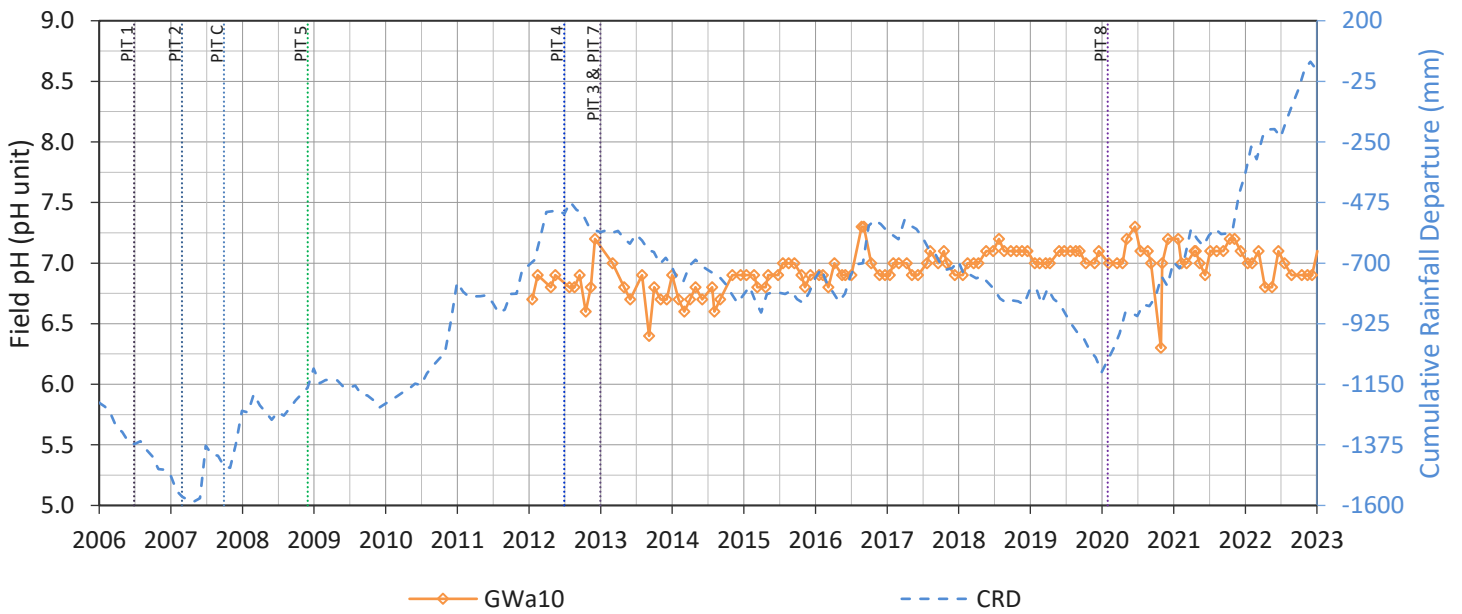
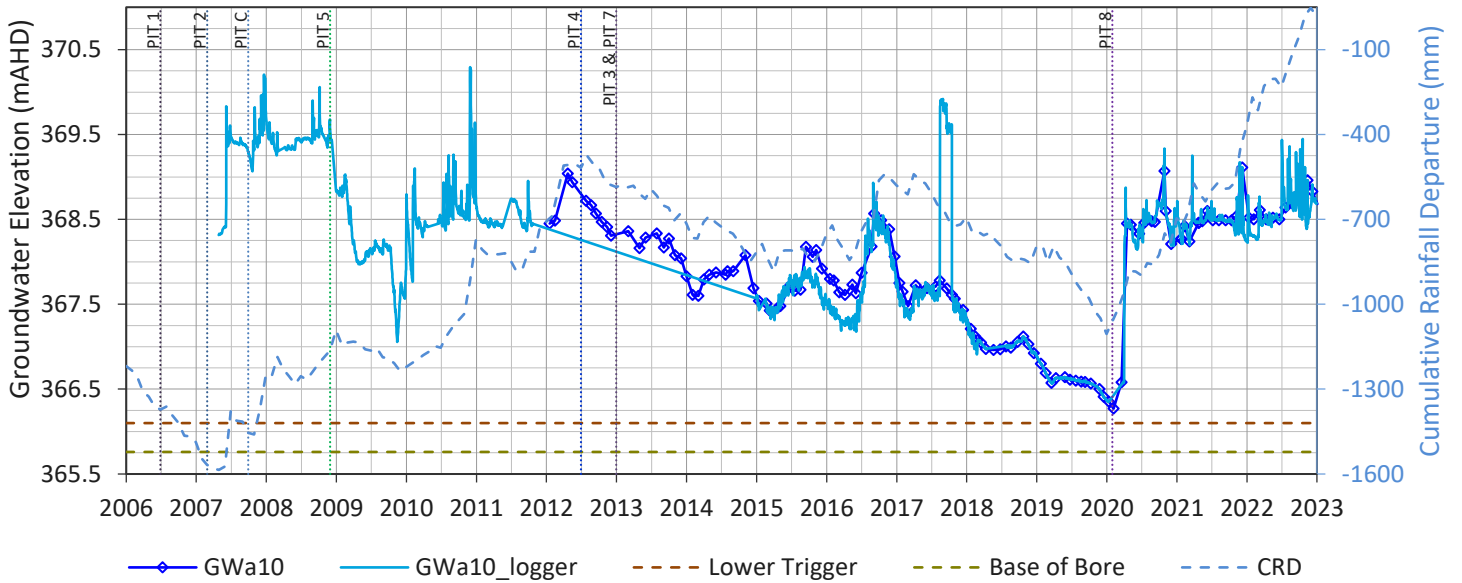
GWc4



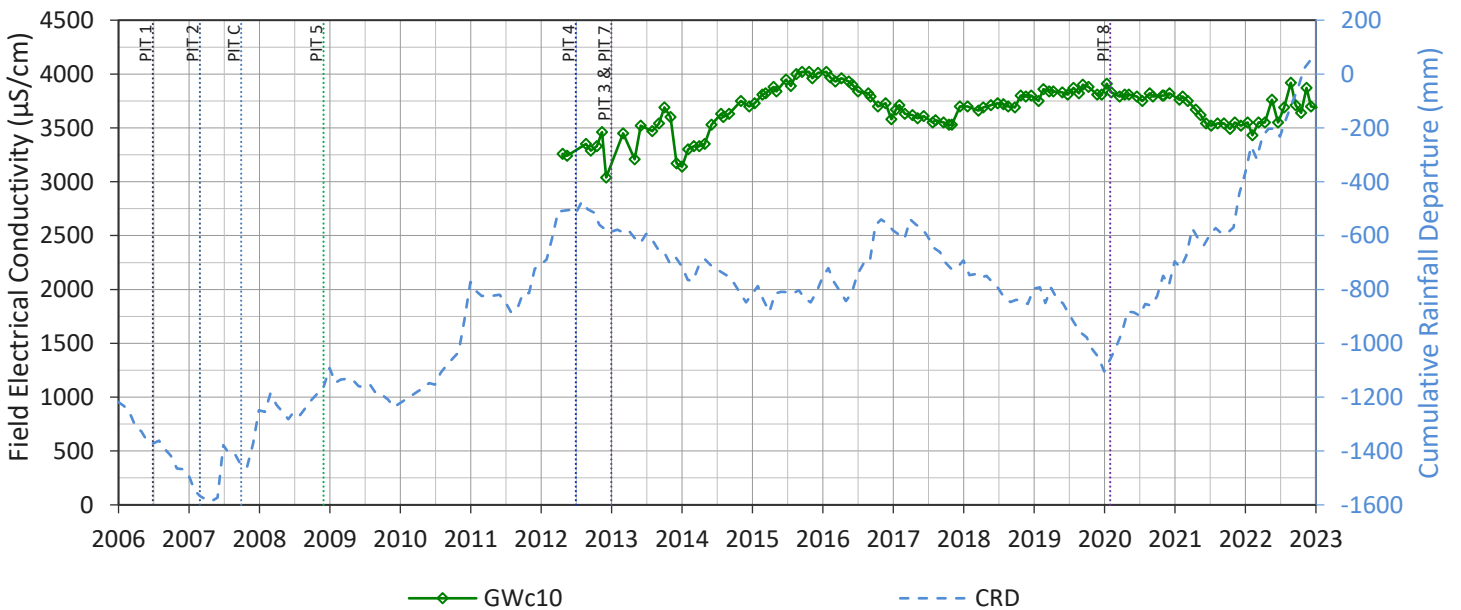
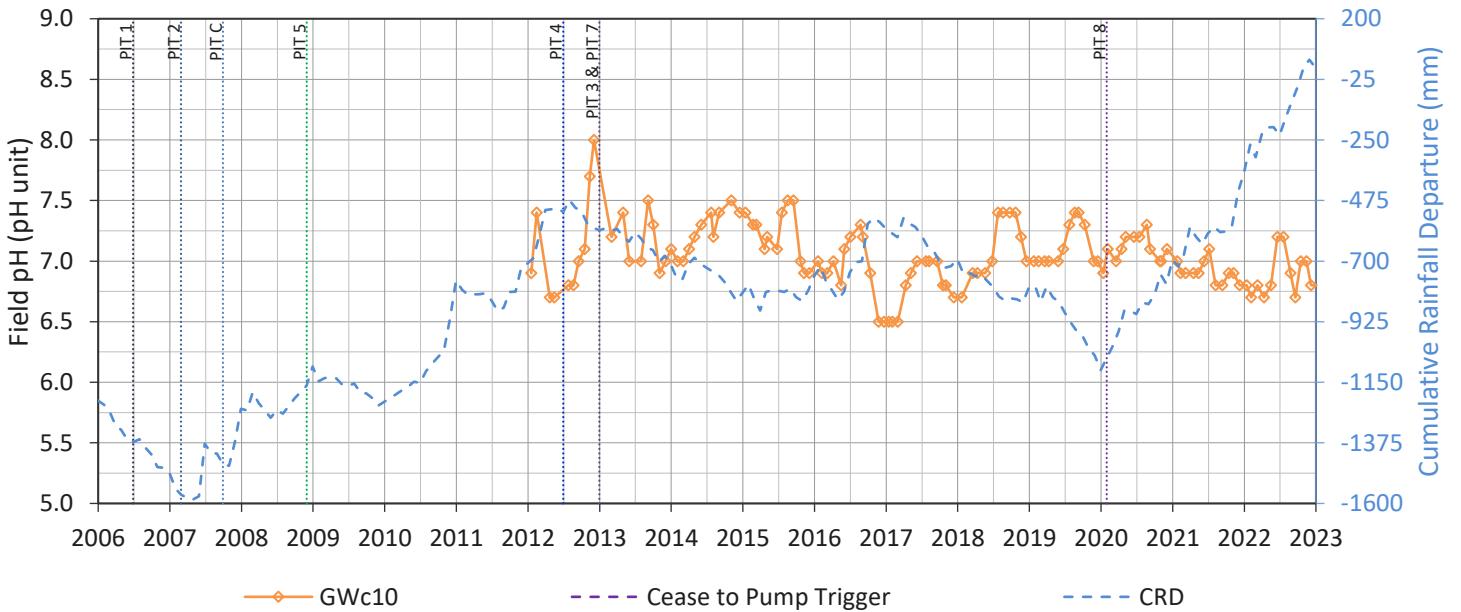
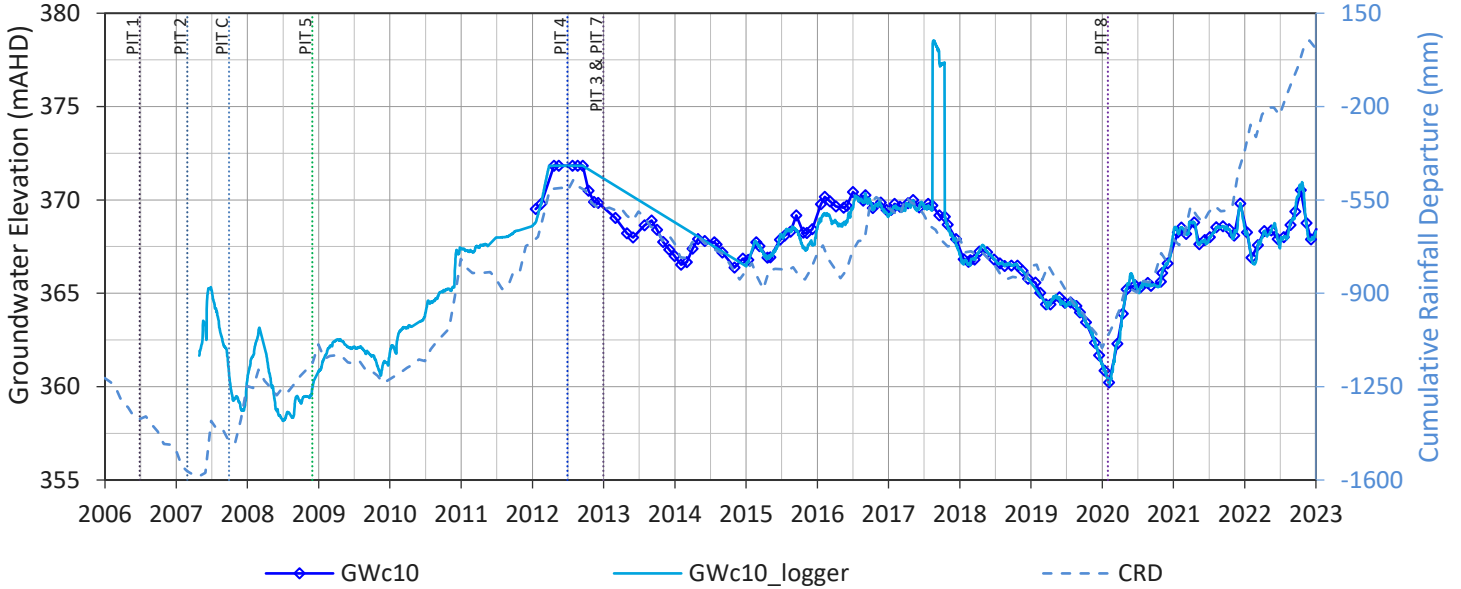
GWc5



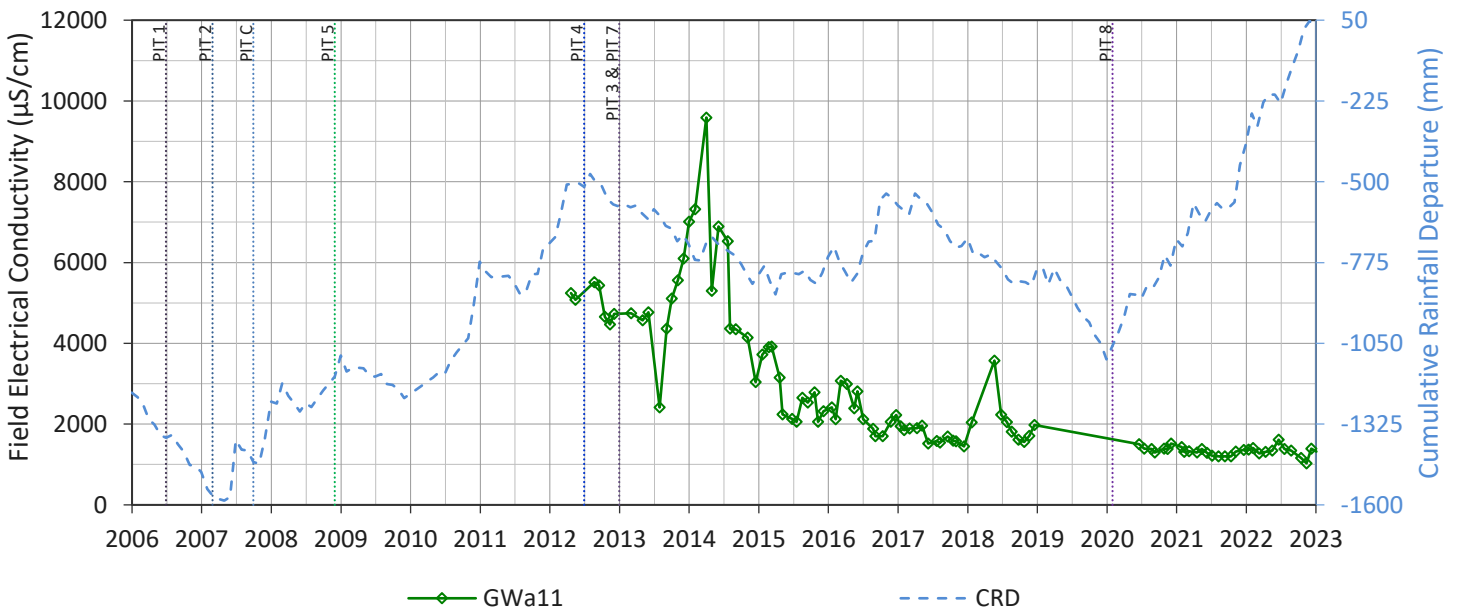
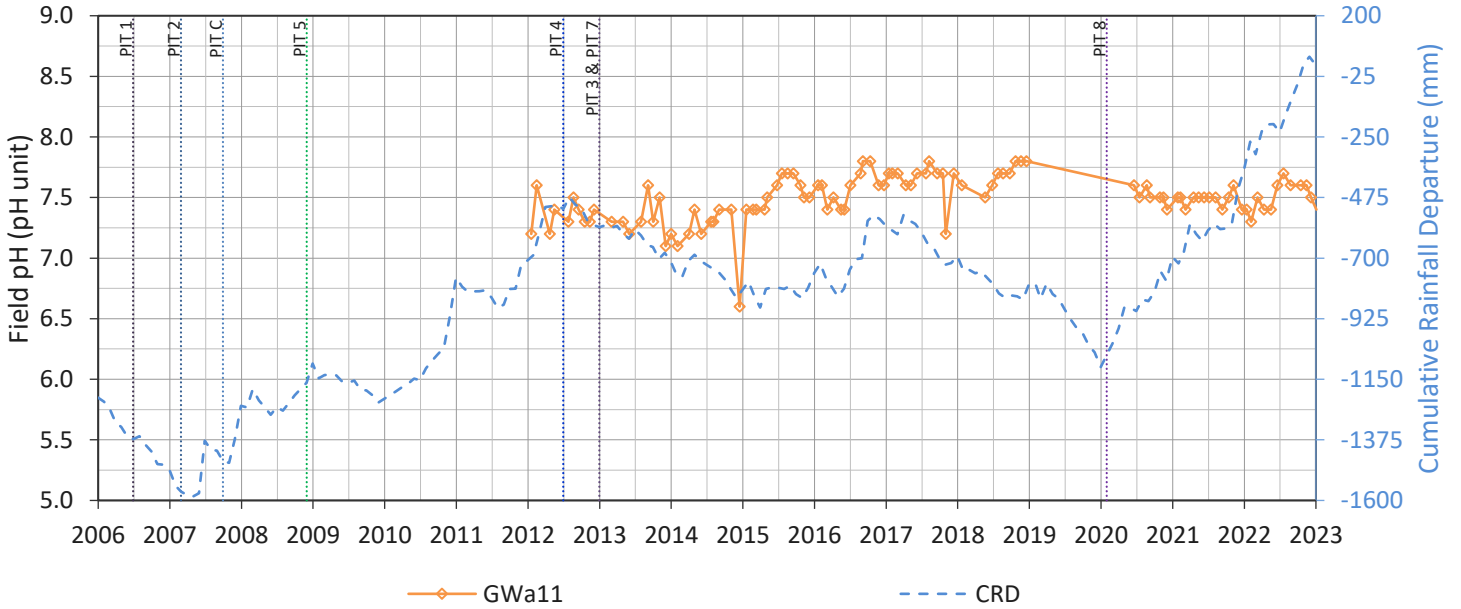
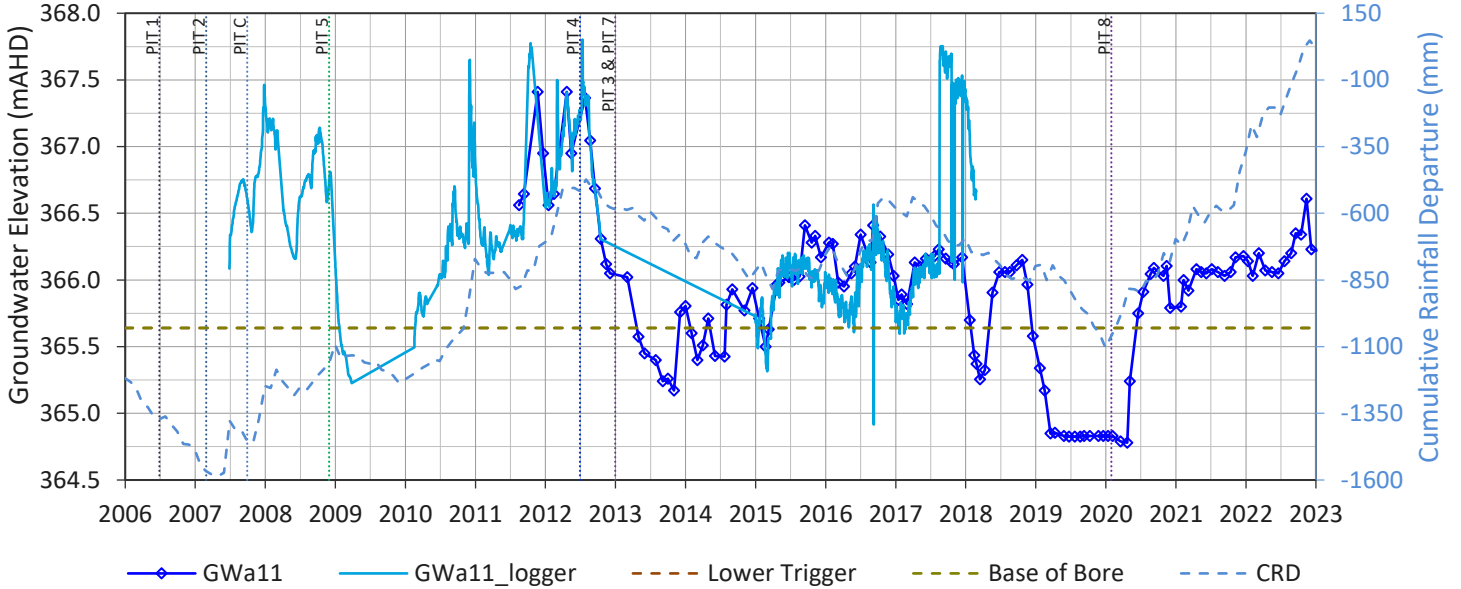
GWa10



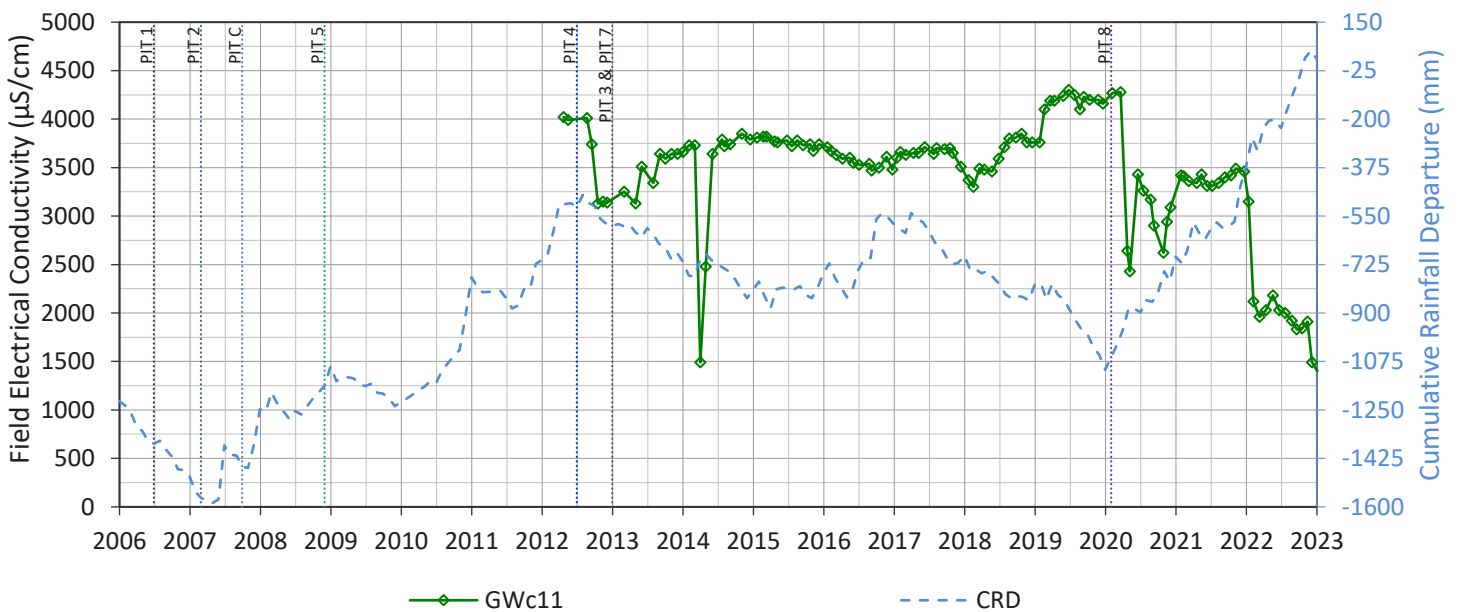
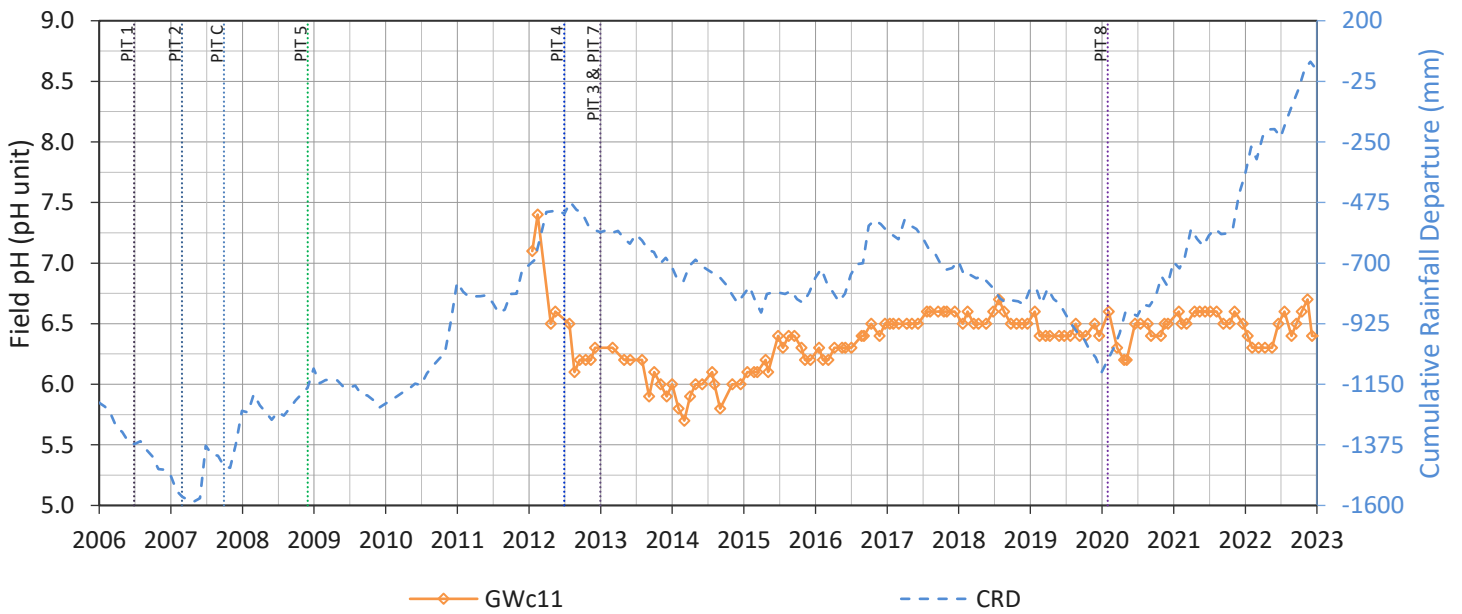
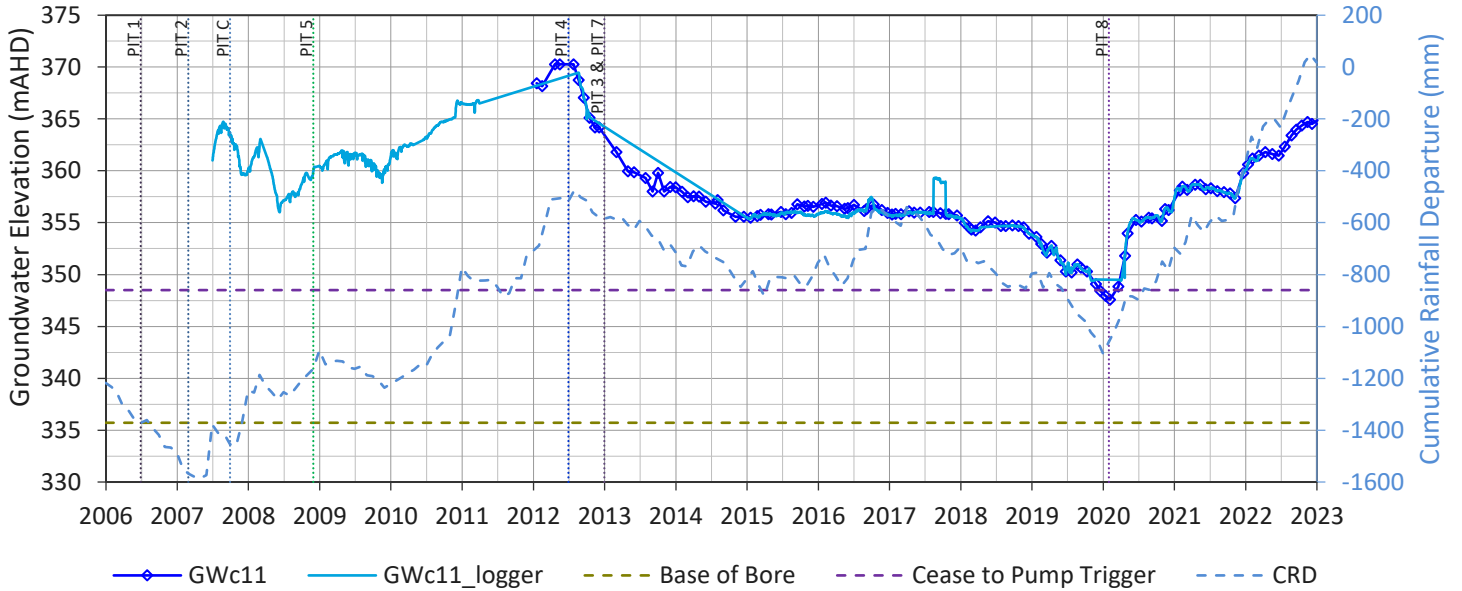
GWc10



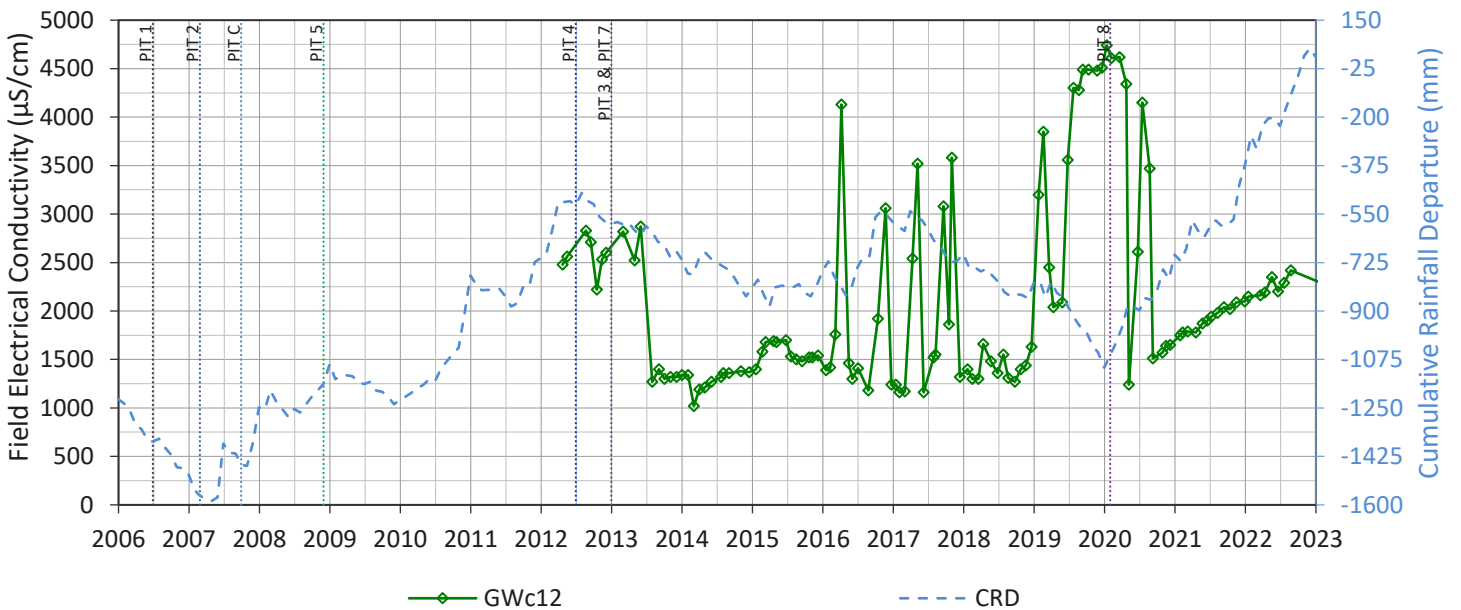
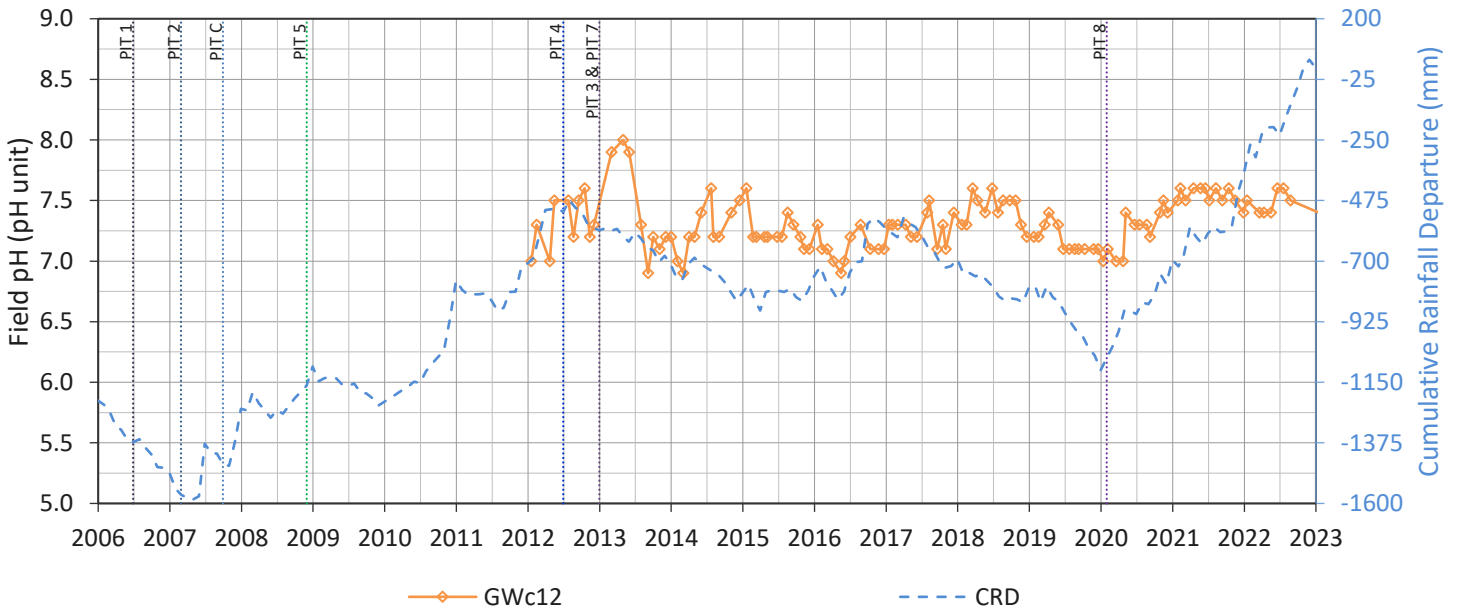
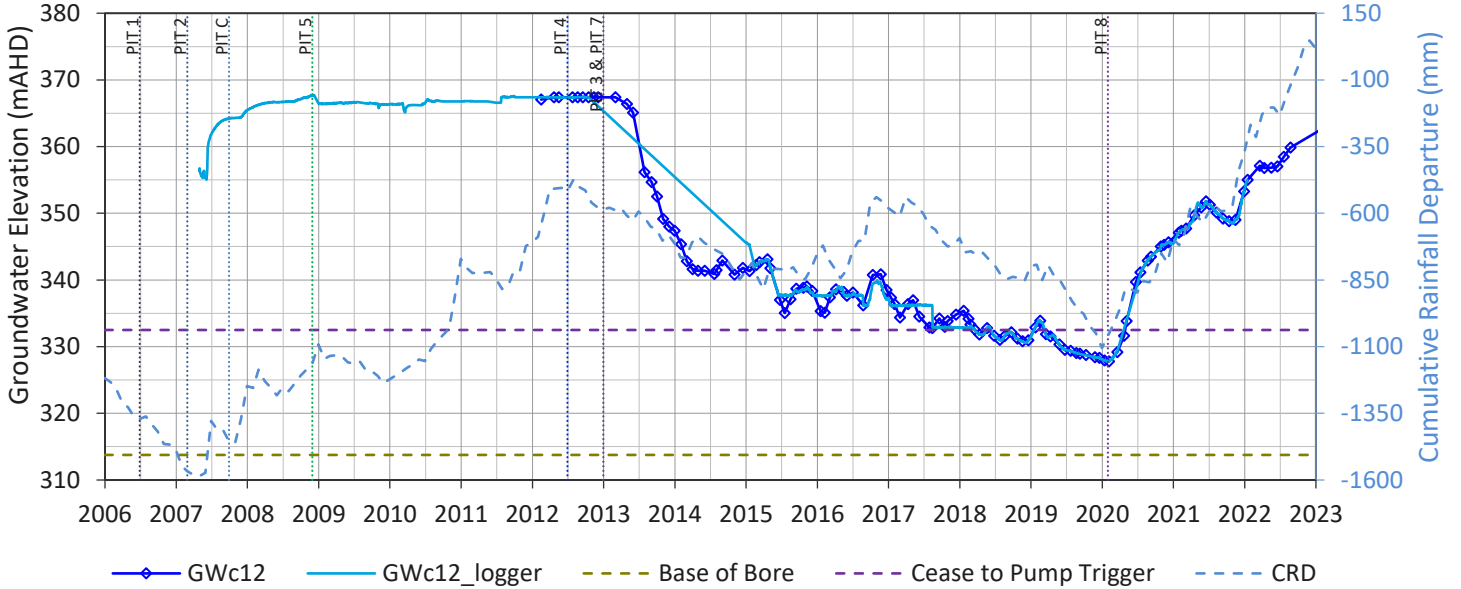
GWa11



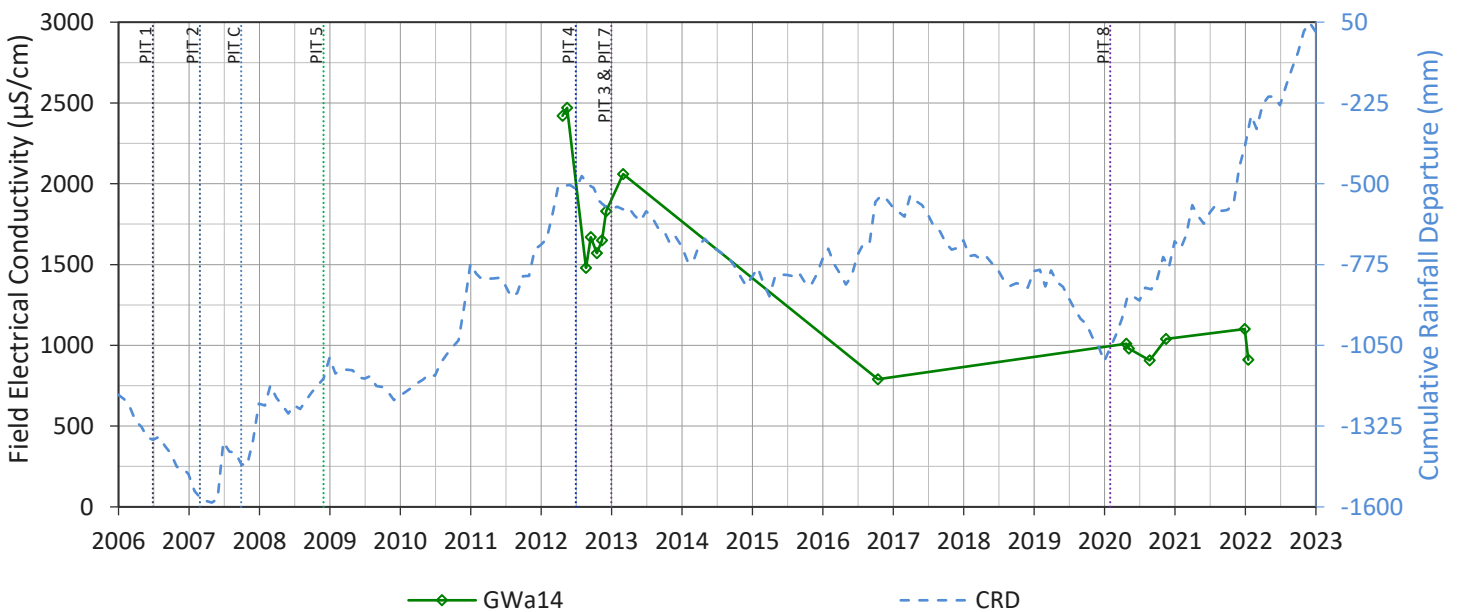
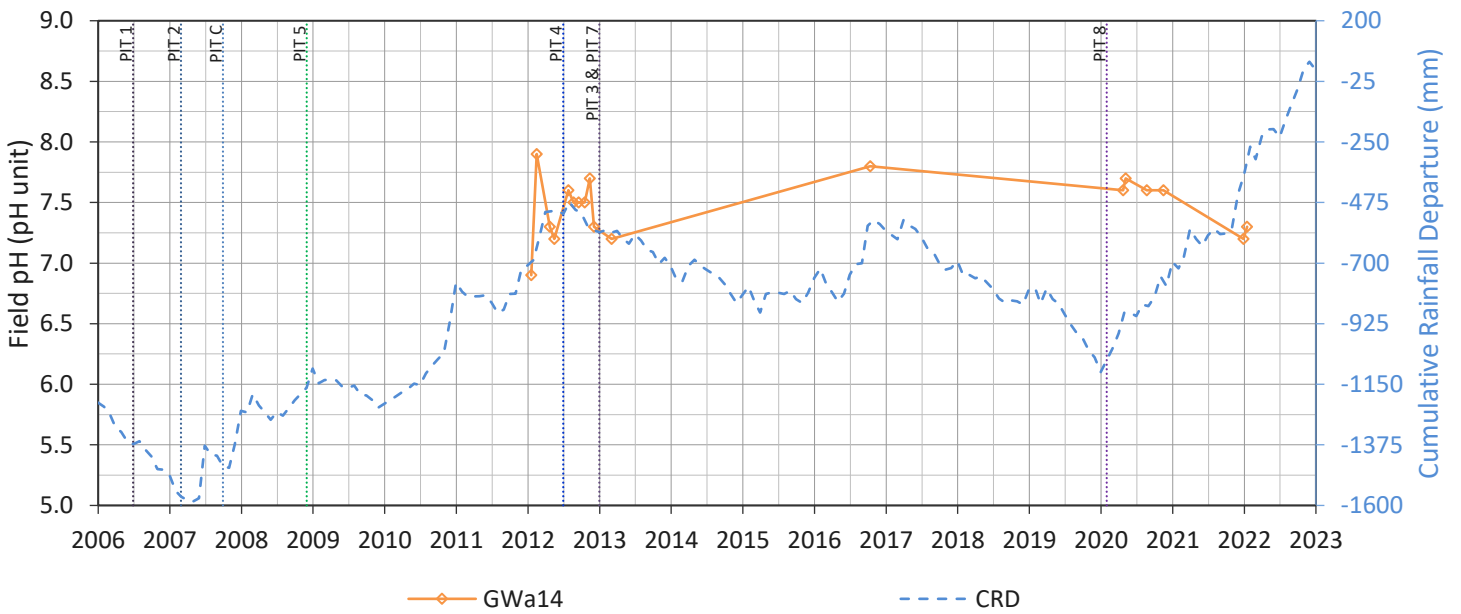
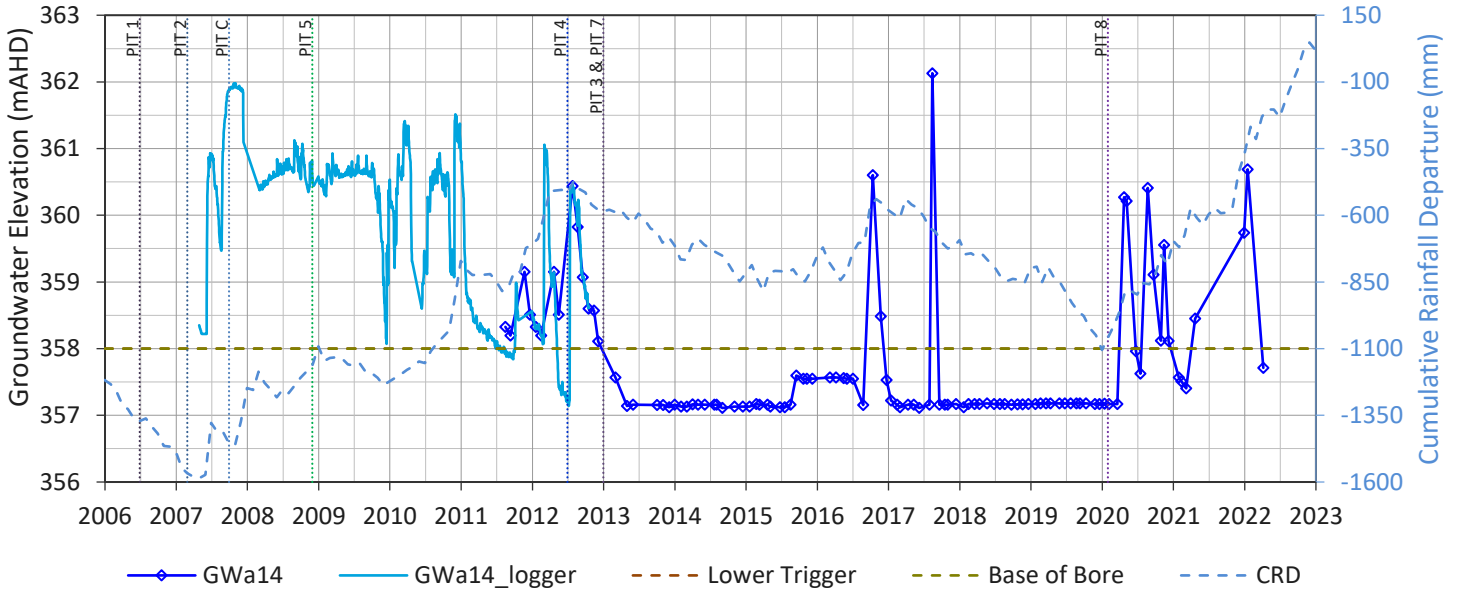
GWc11



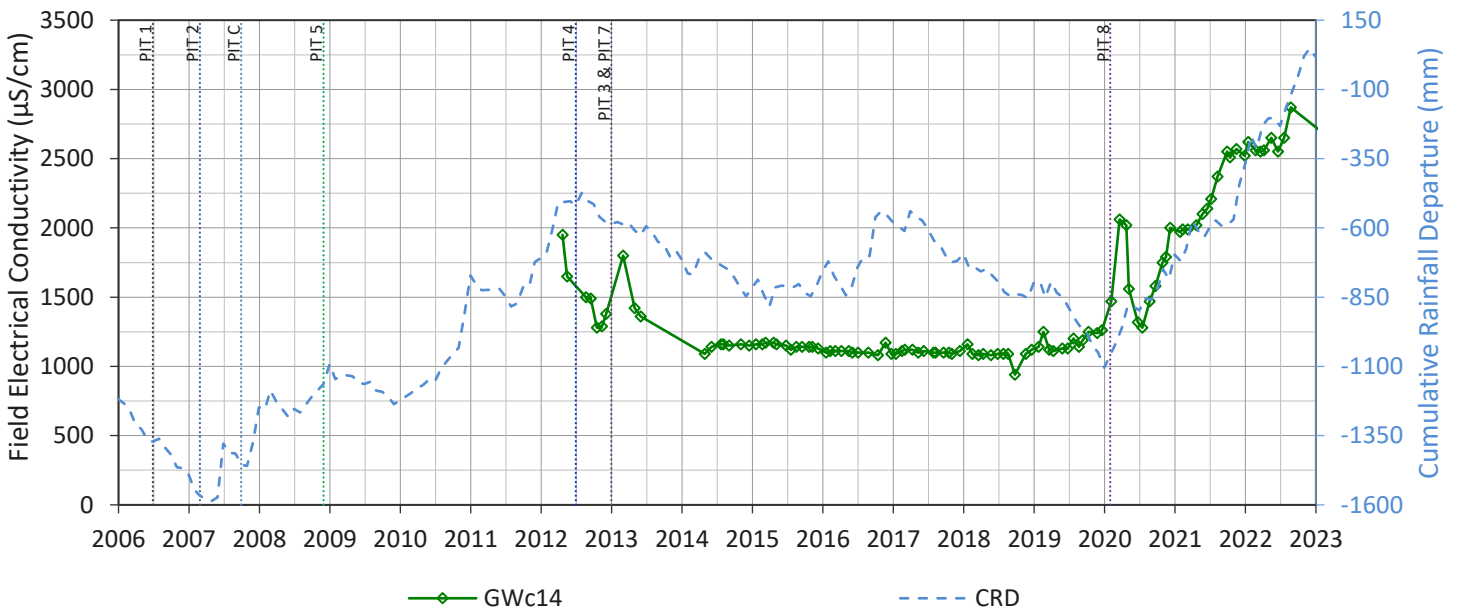
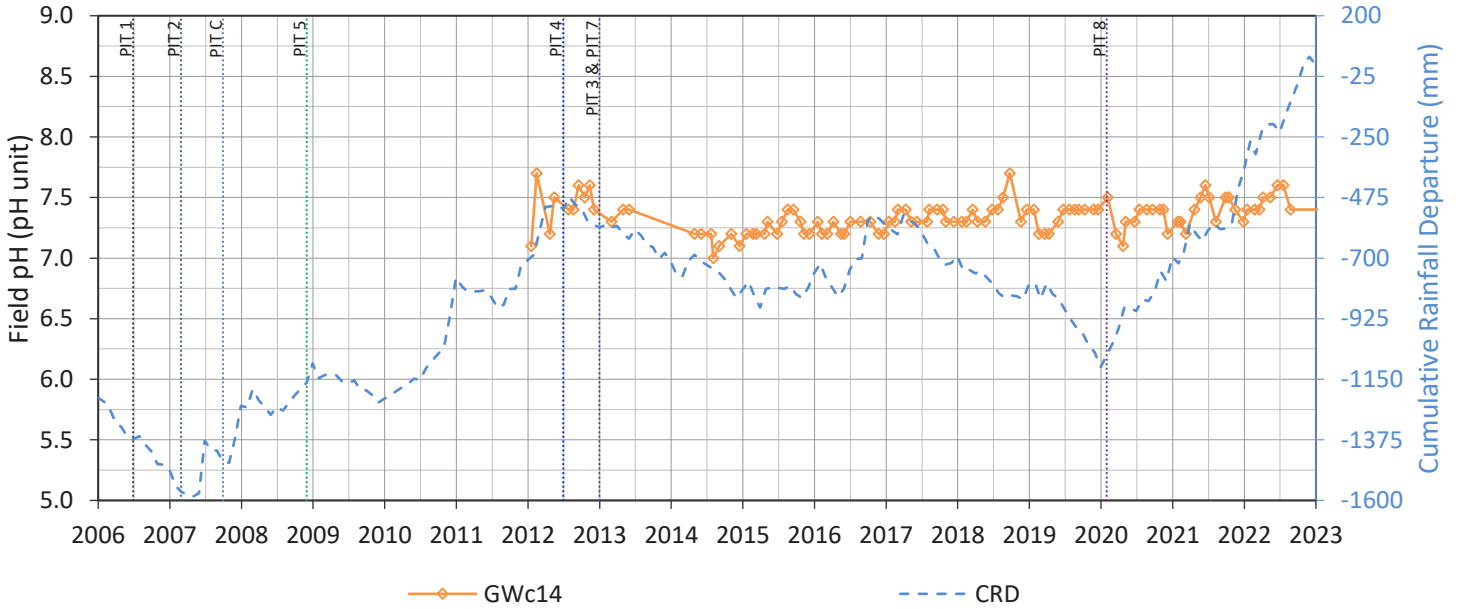
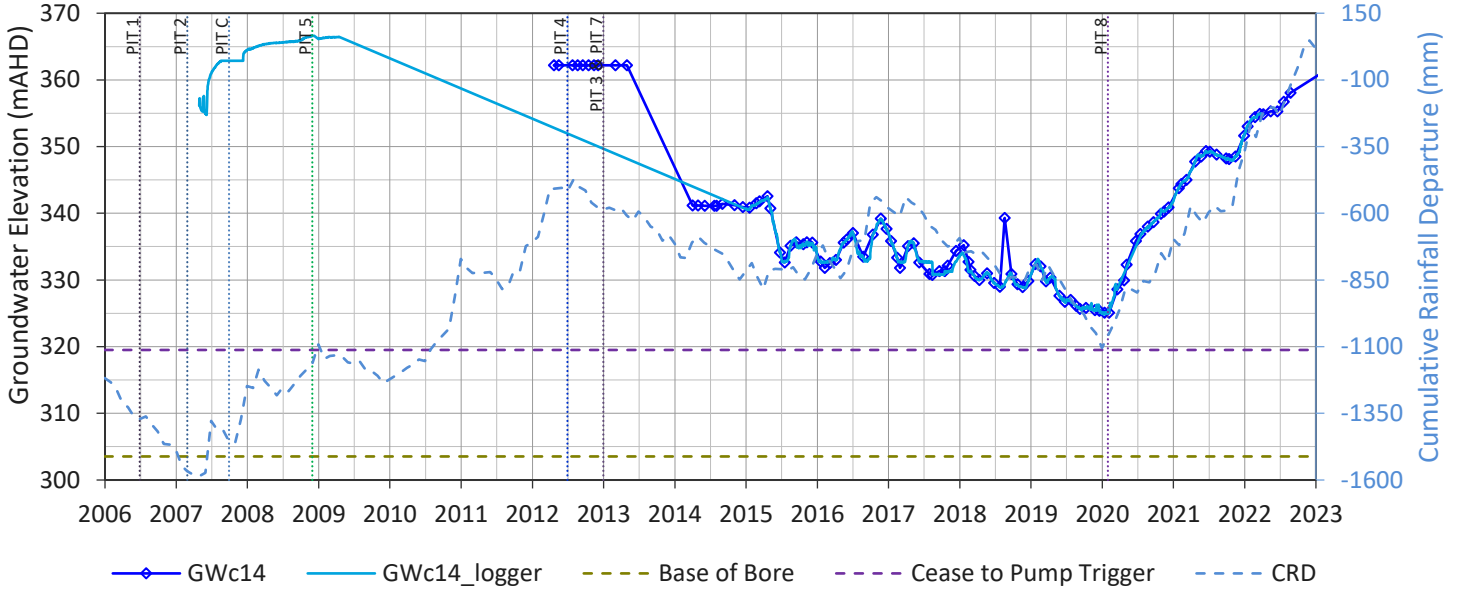
GWc12



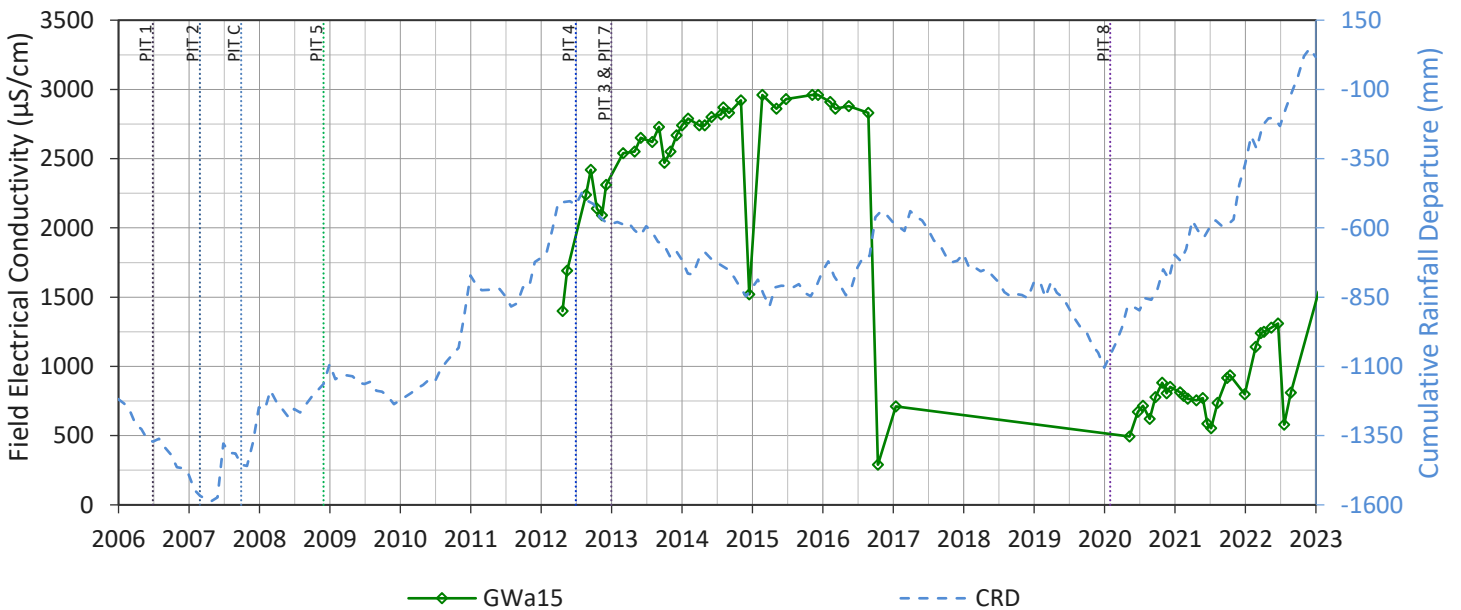
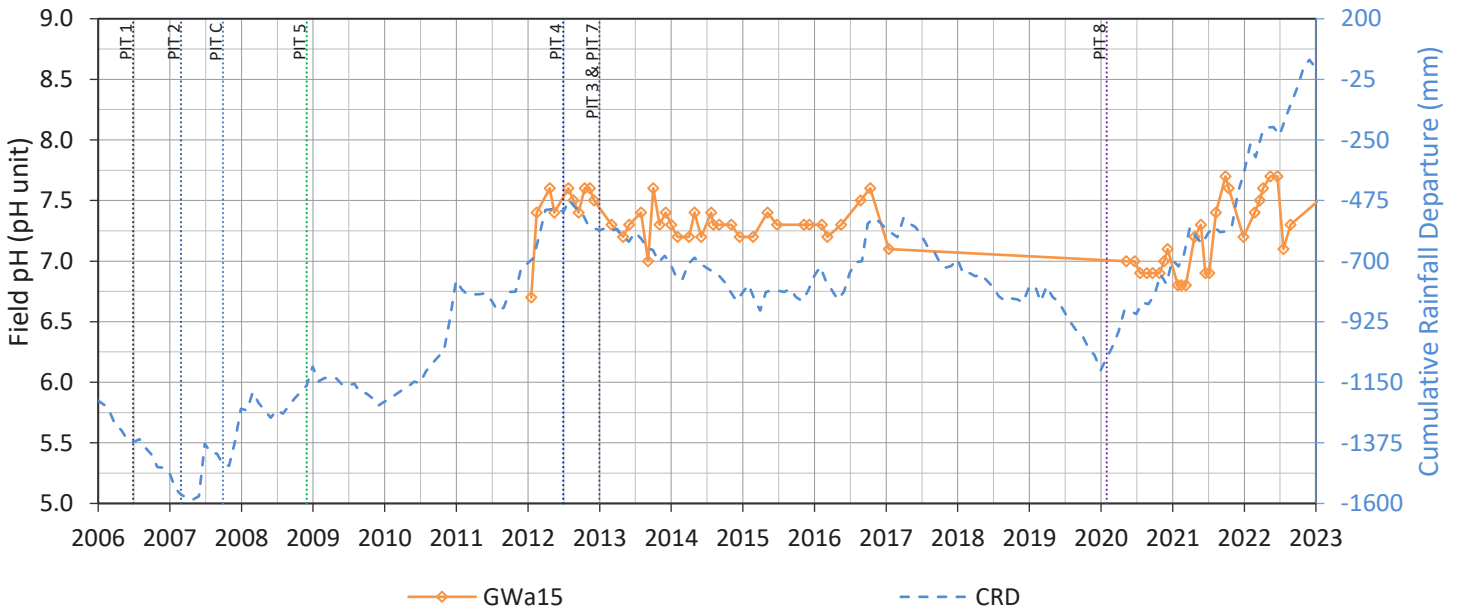
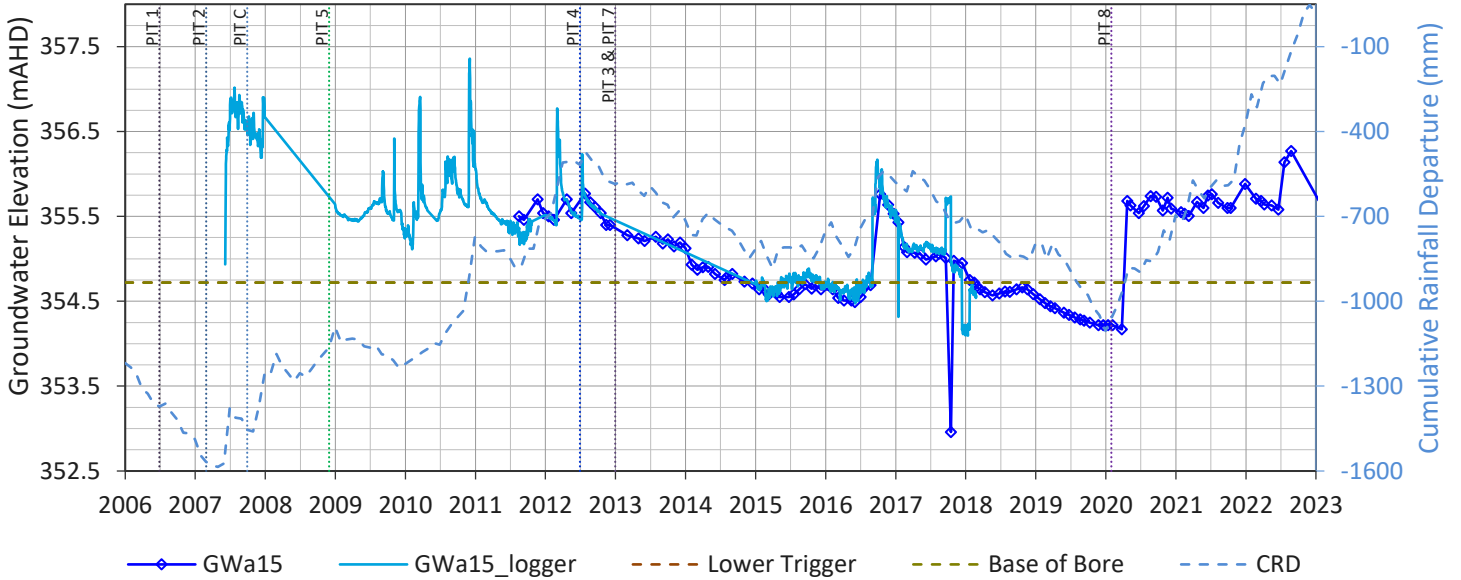
GWa14



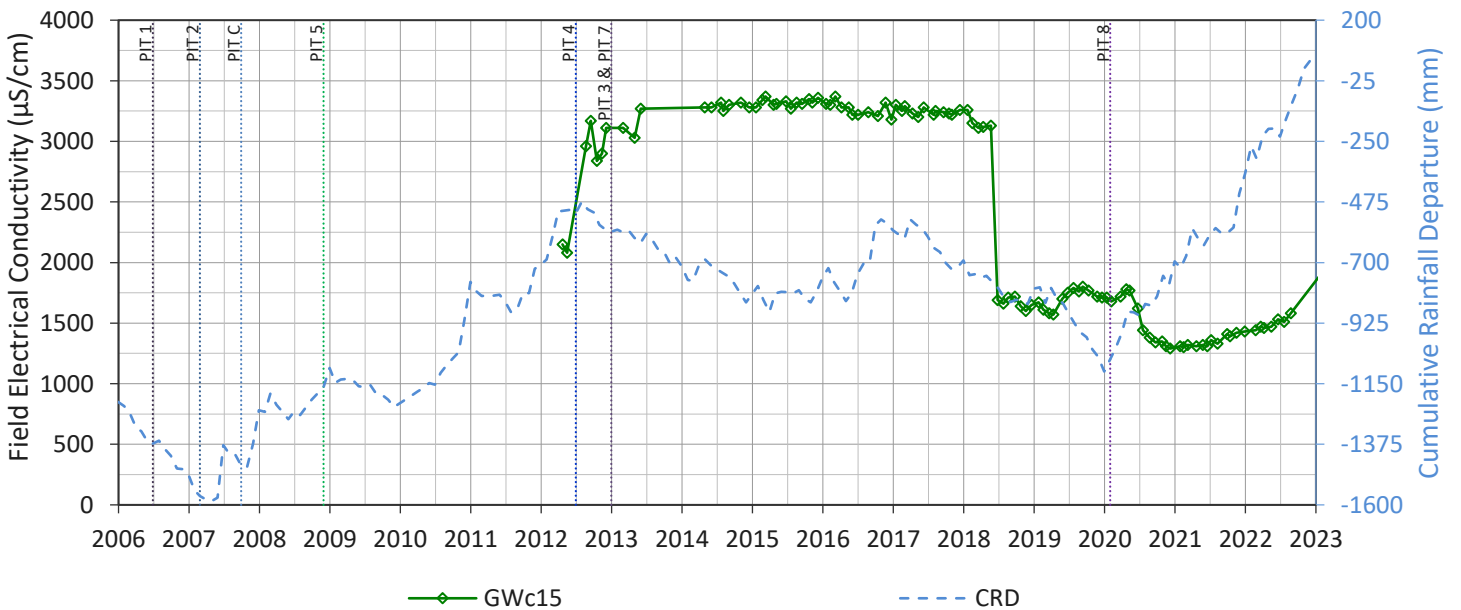
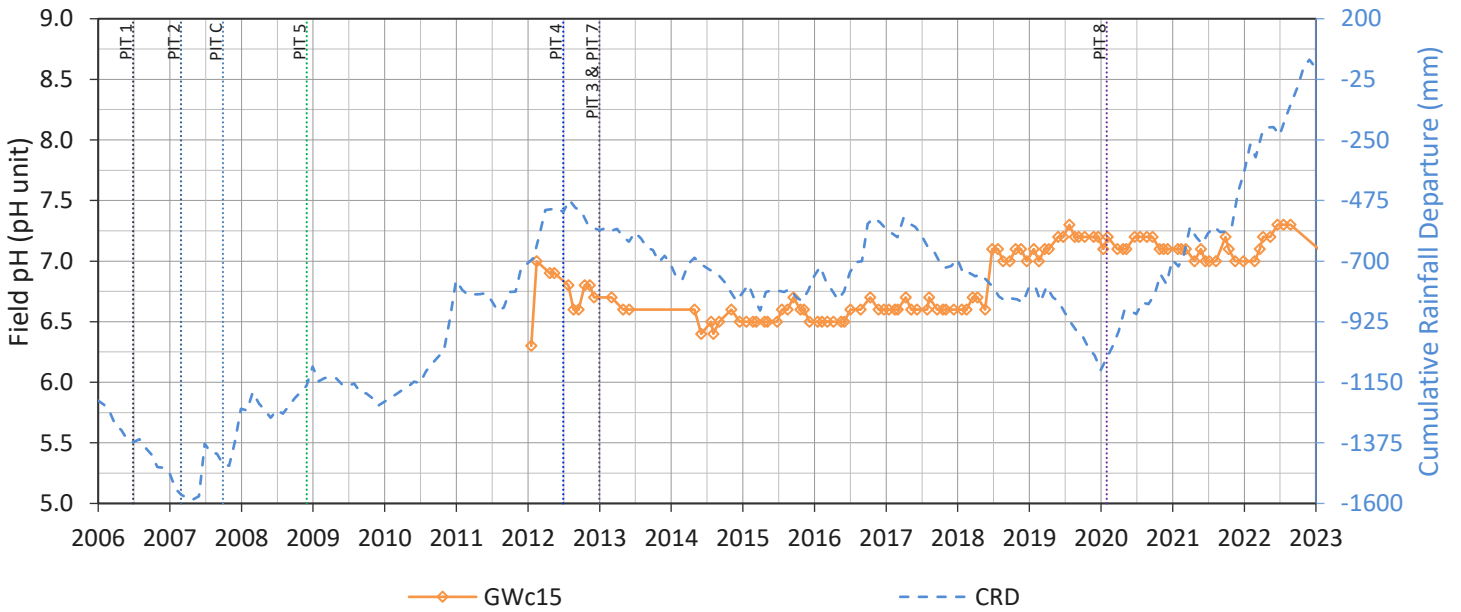
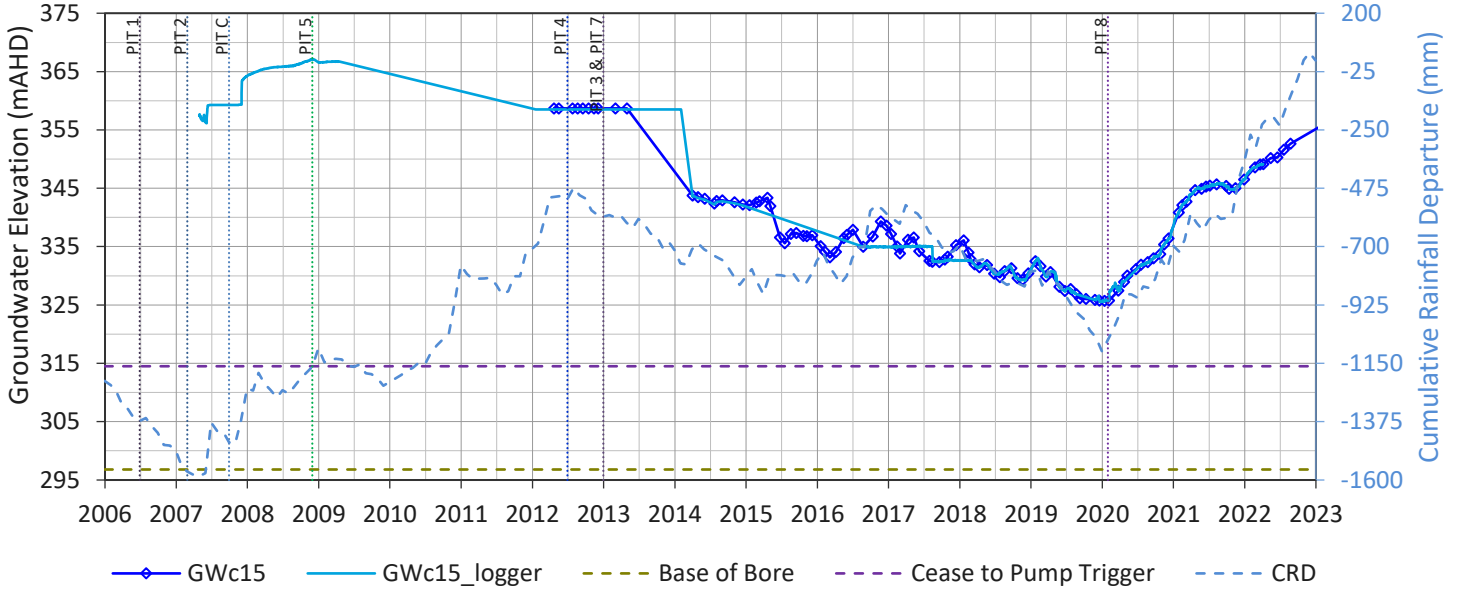
GWc14



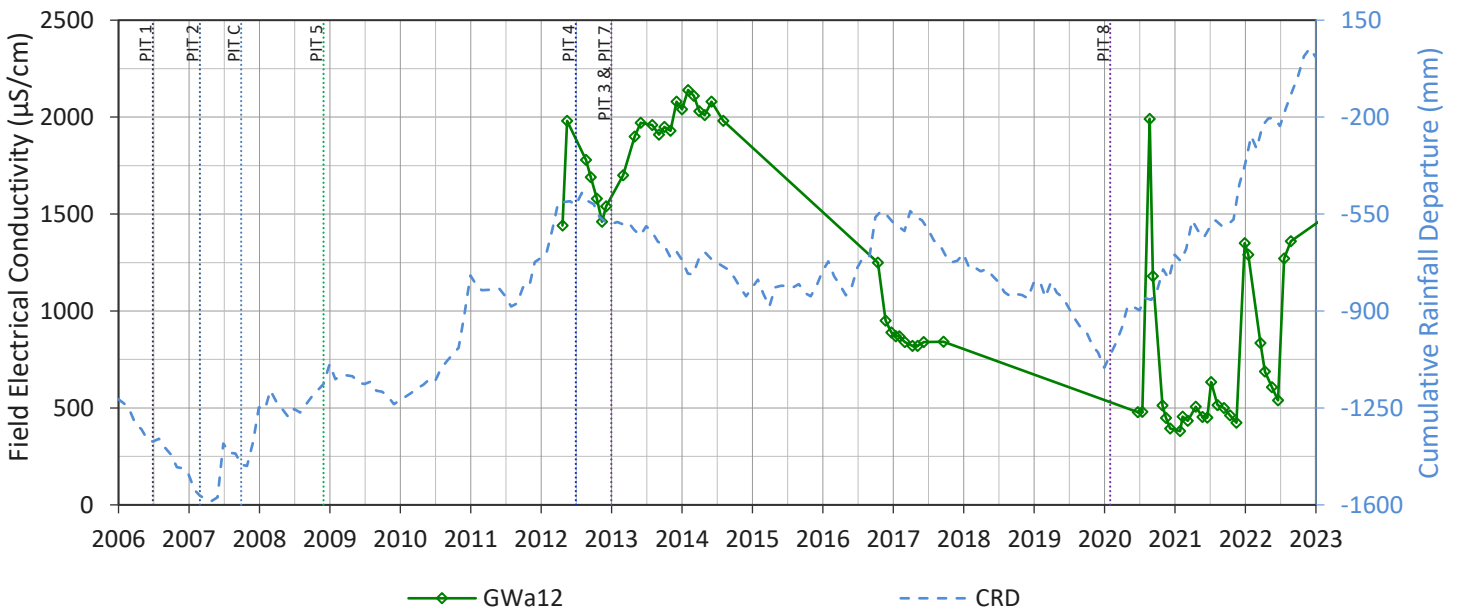
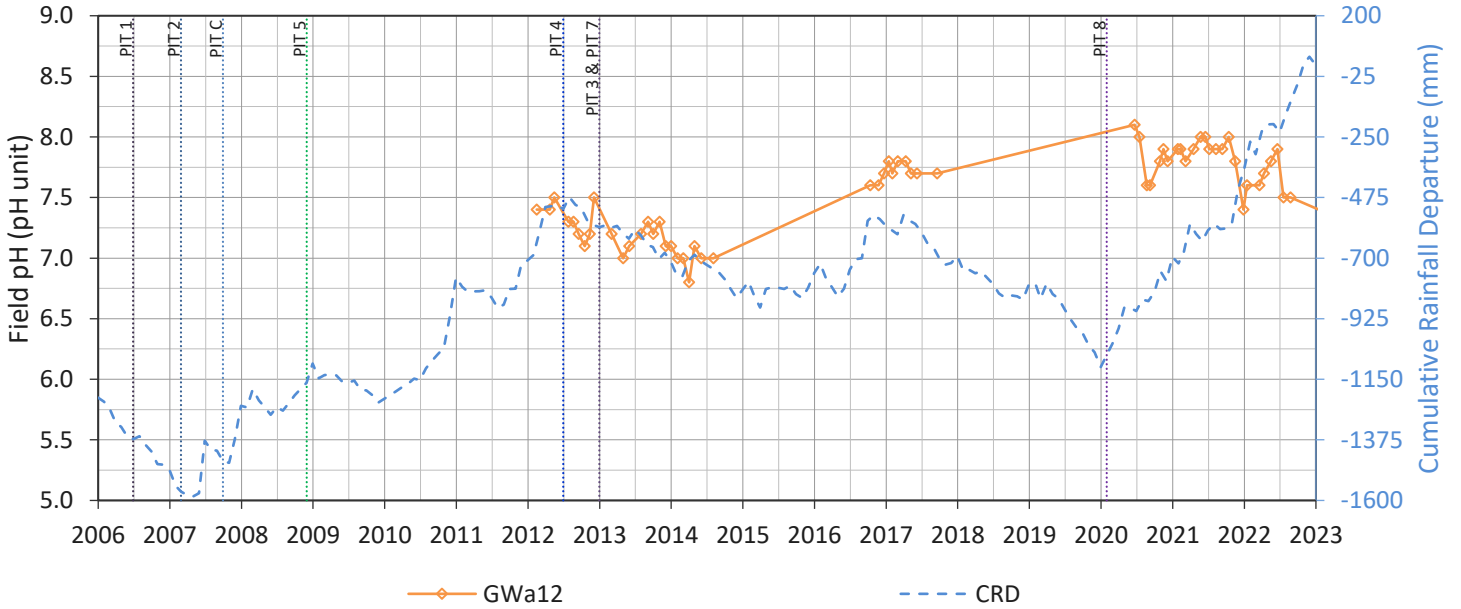
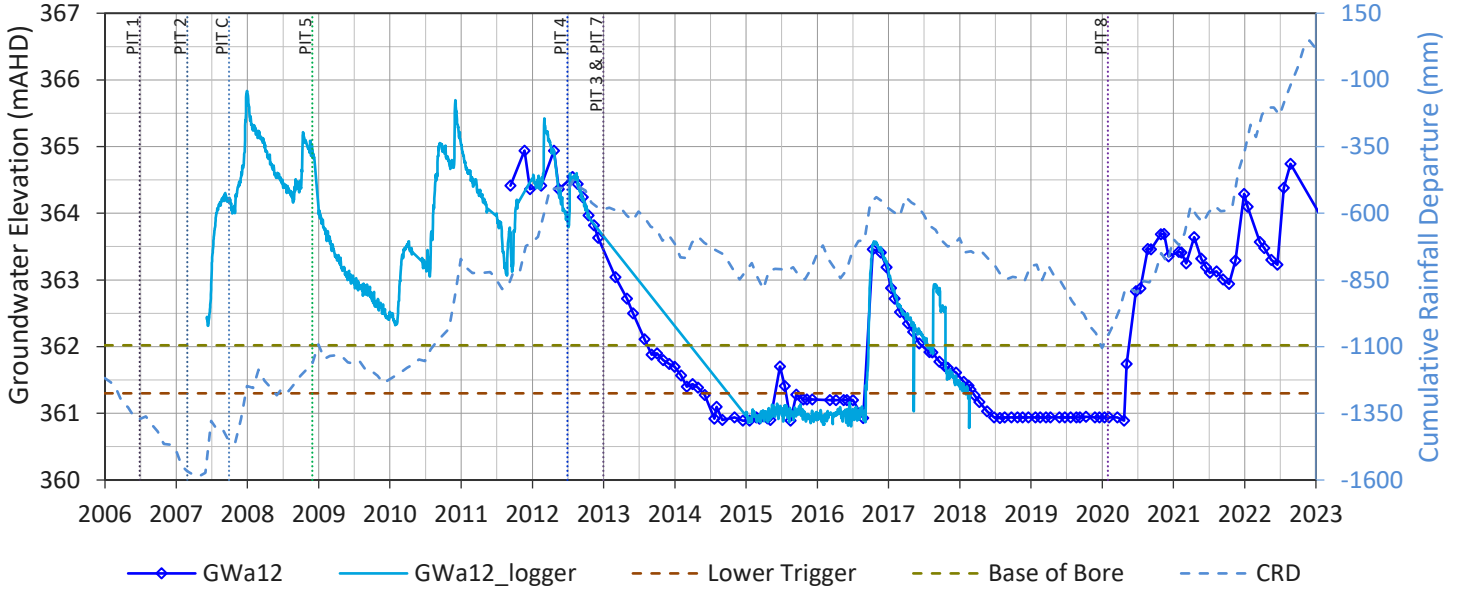
GWa15



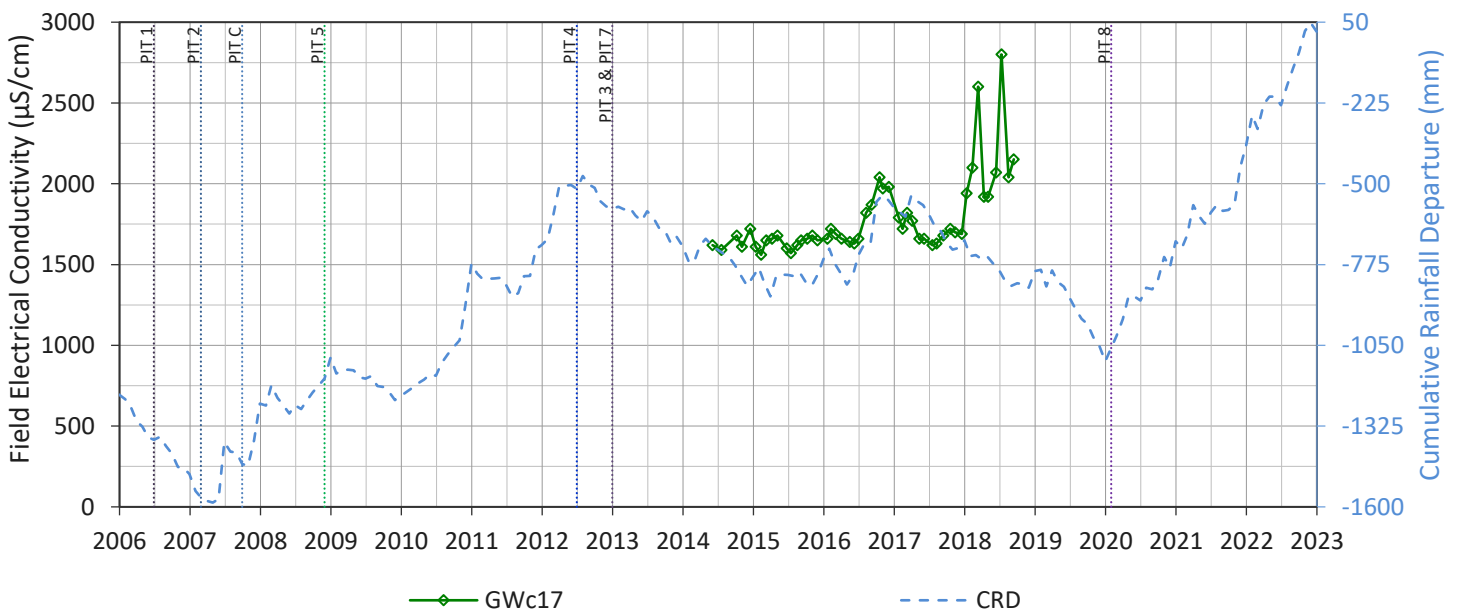
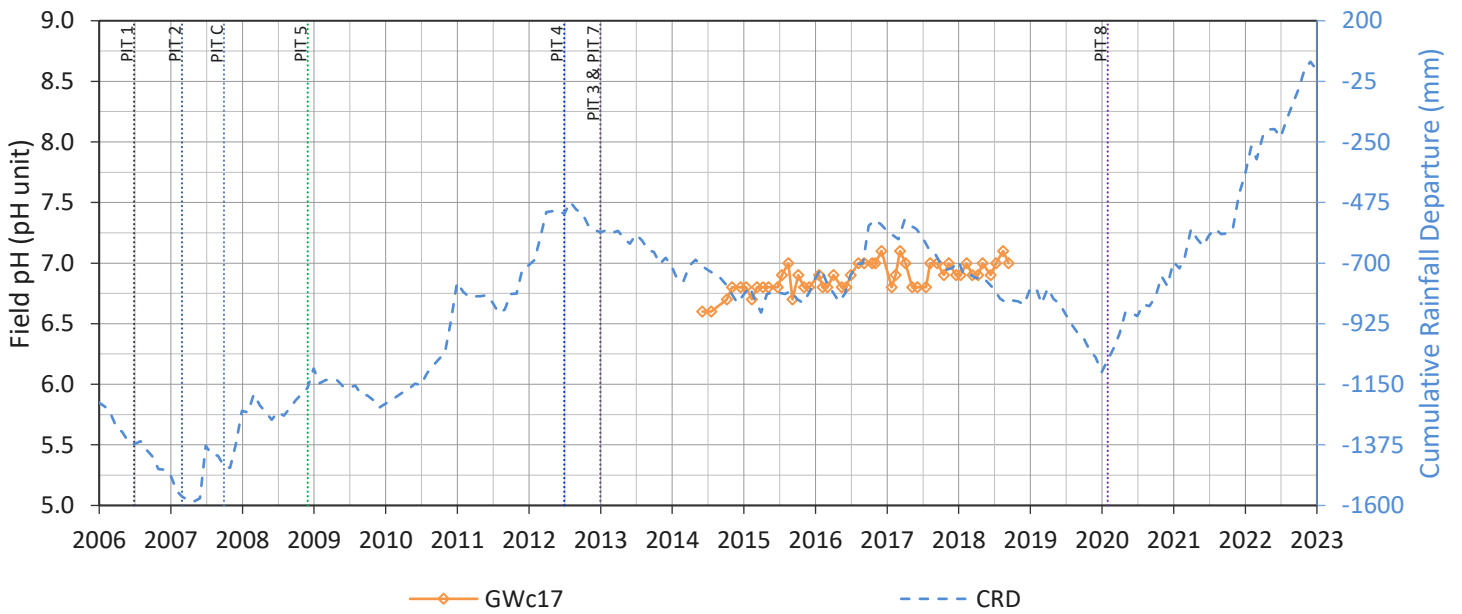
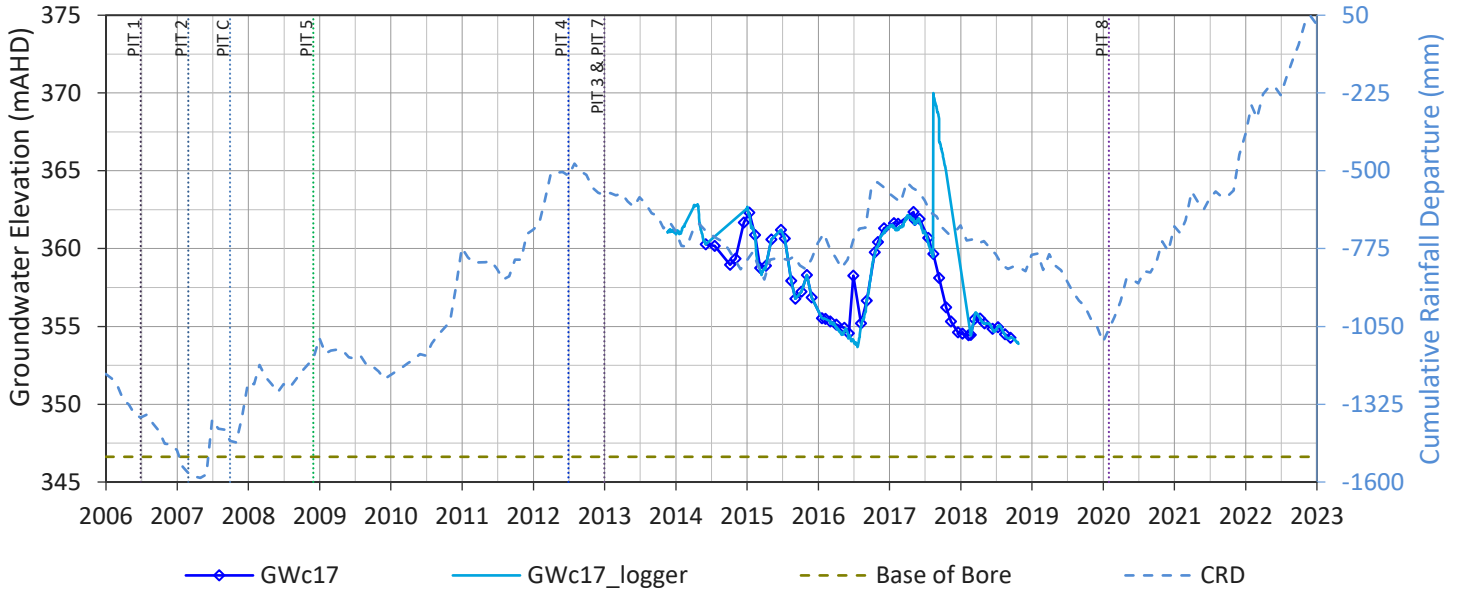
GWc15



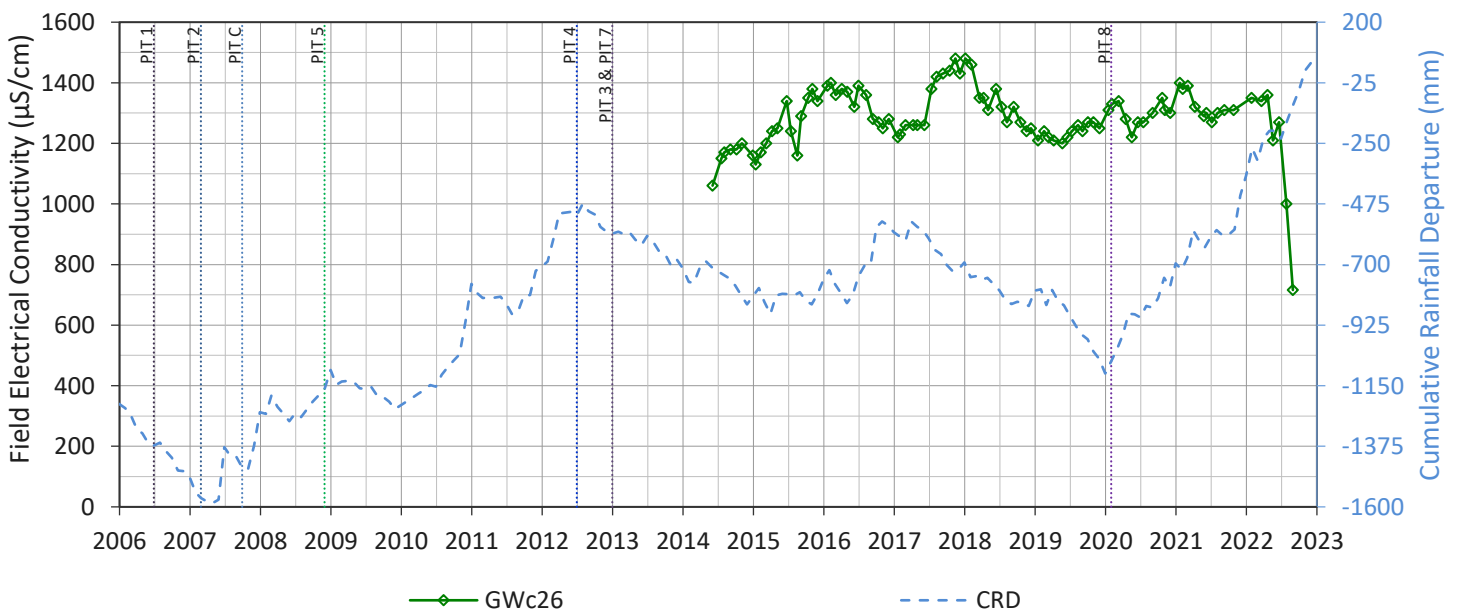
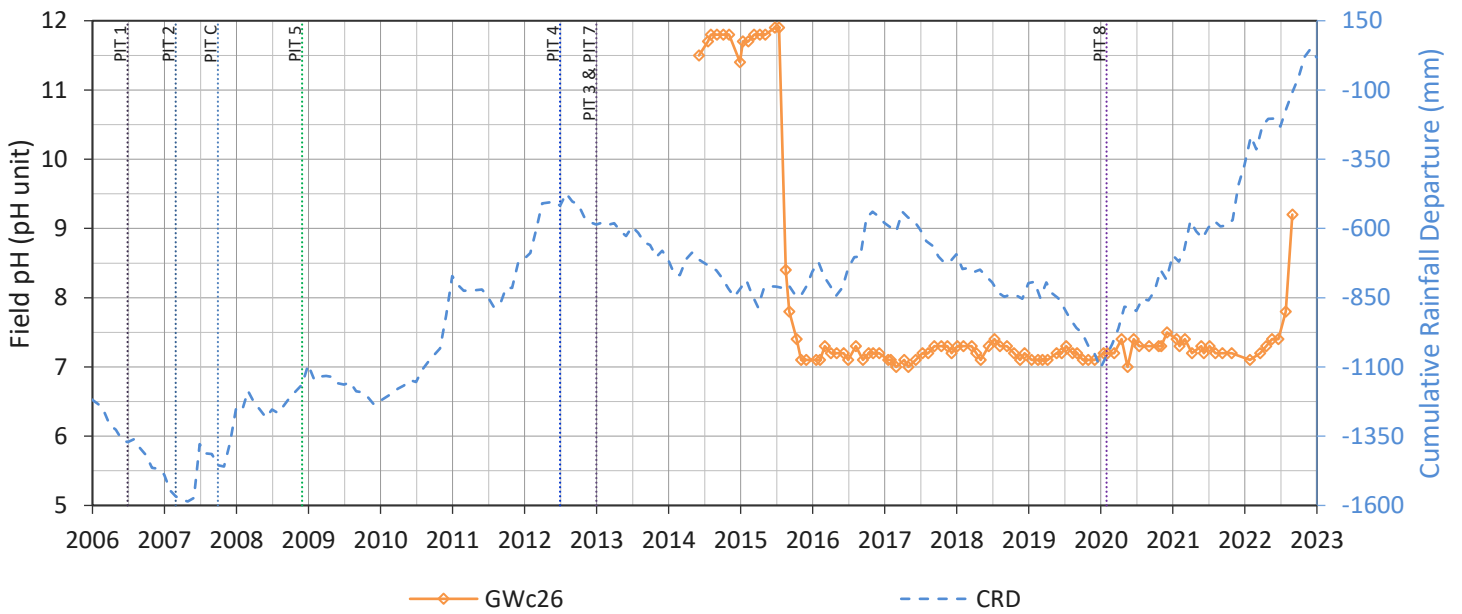
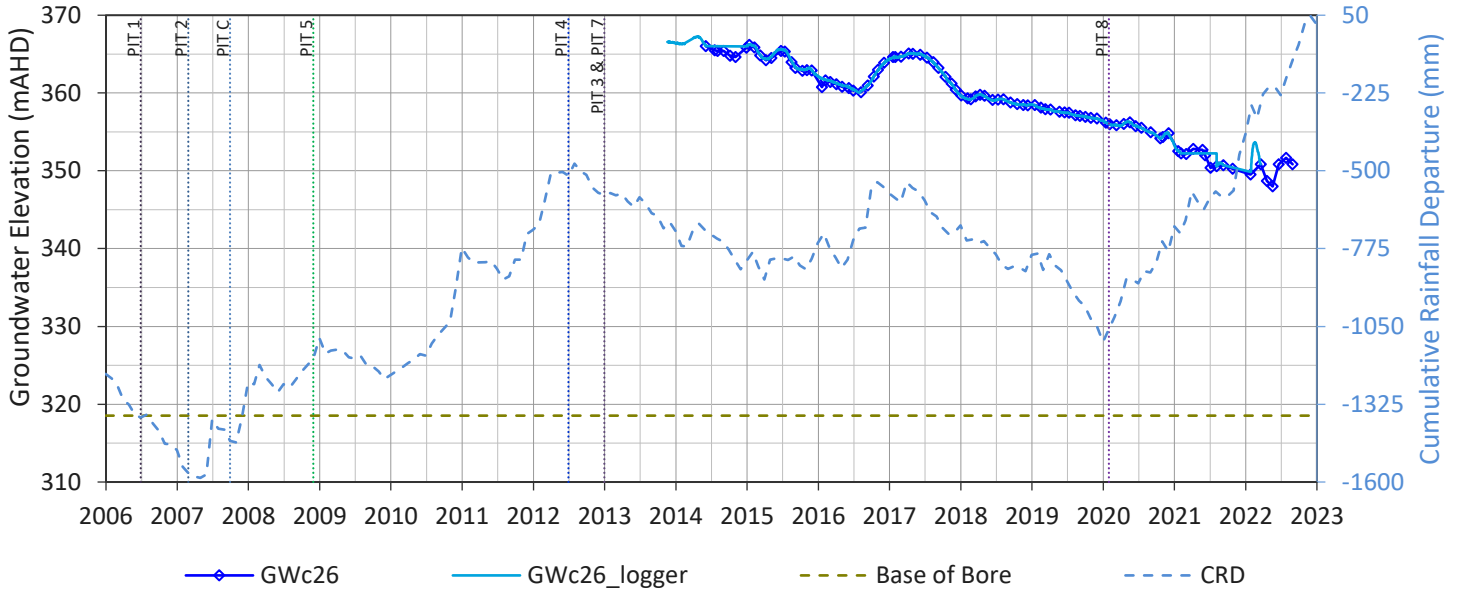
GWa12



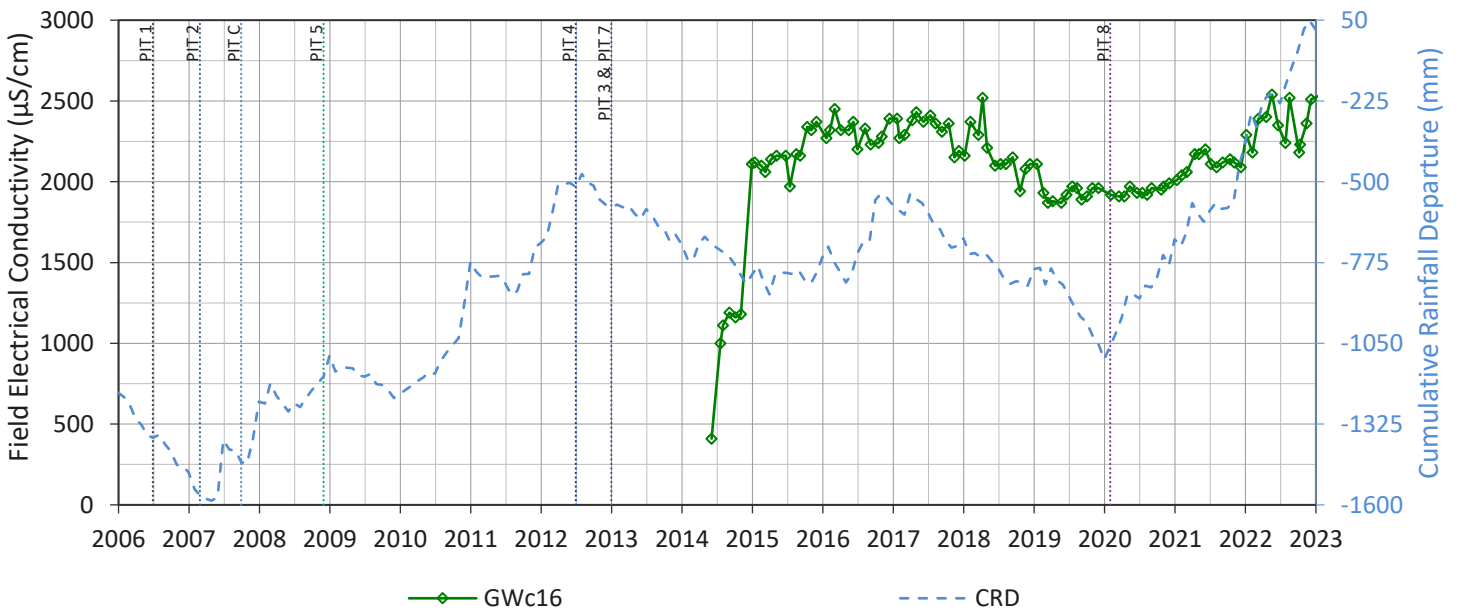
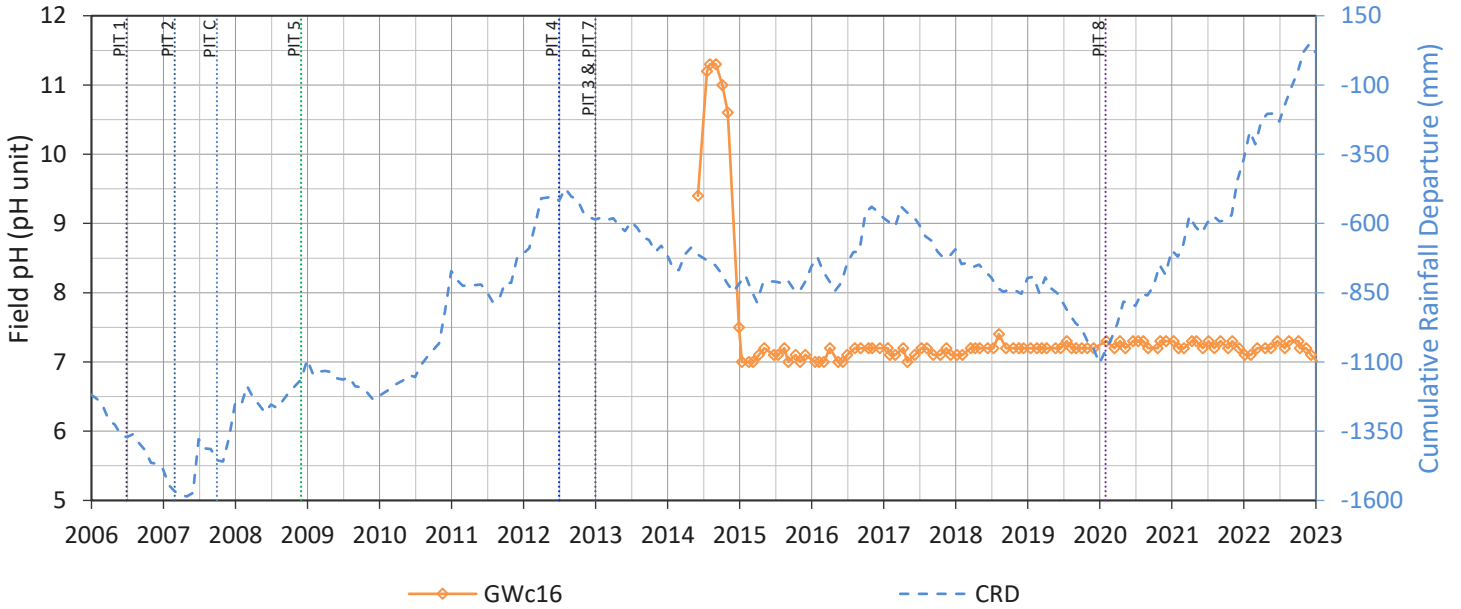
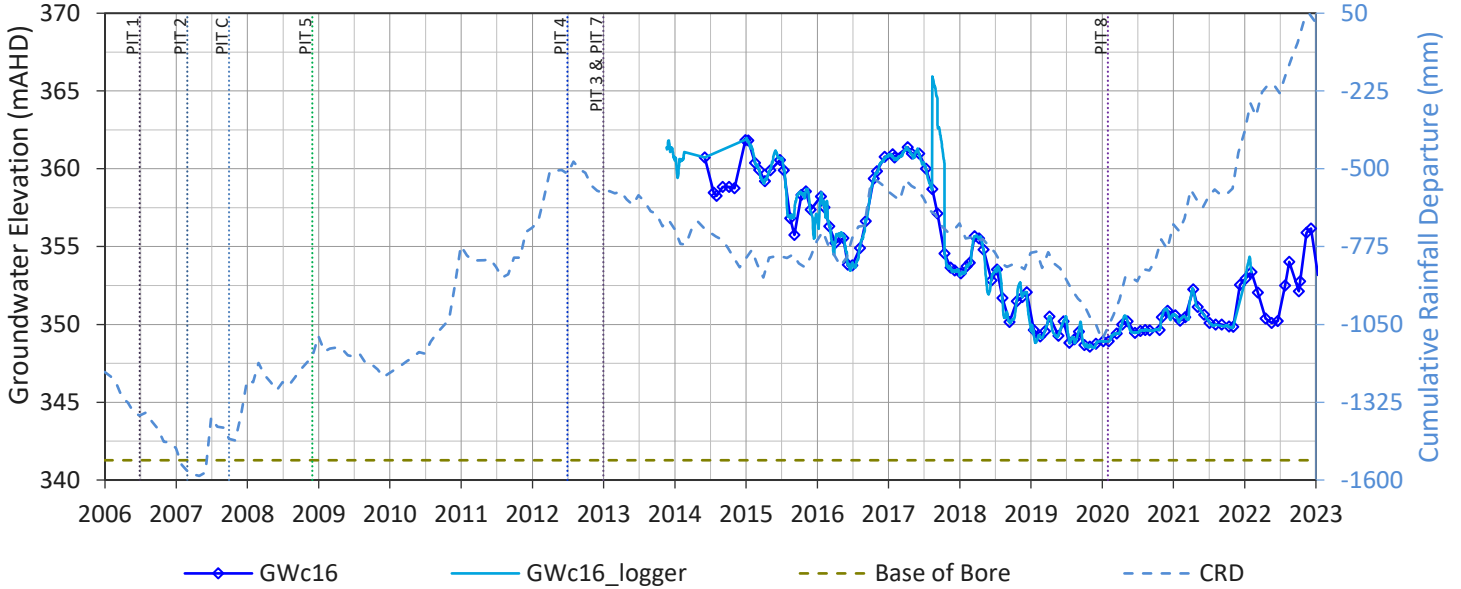
GWc17



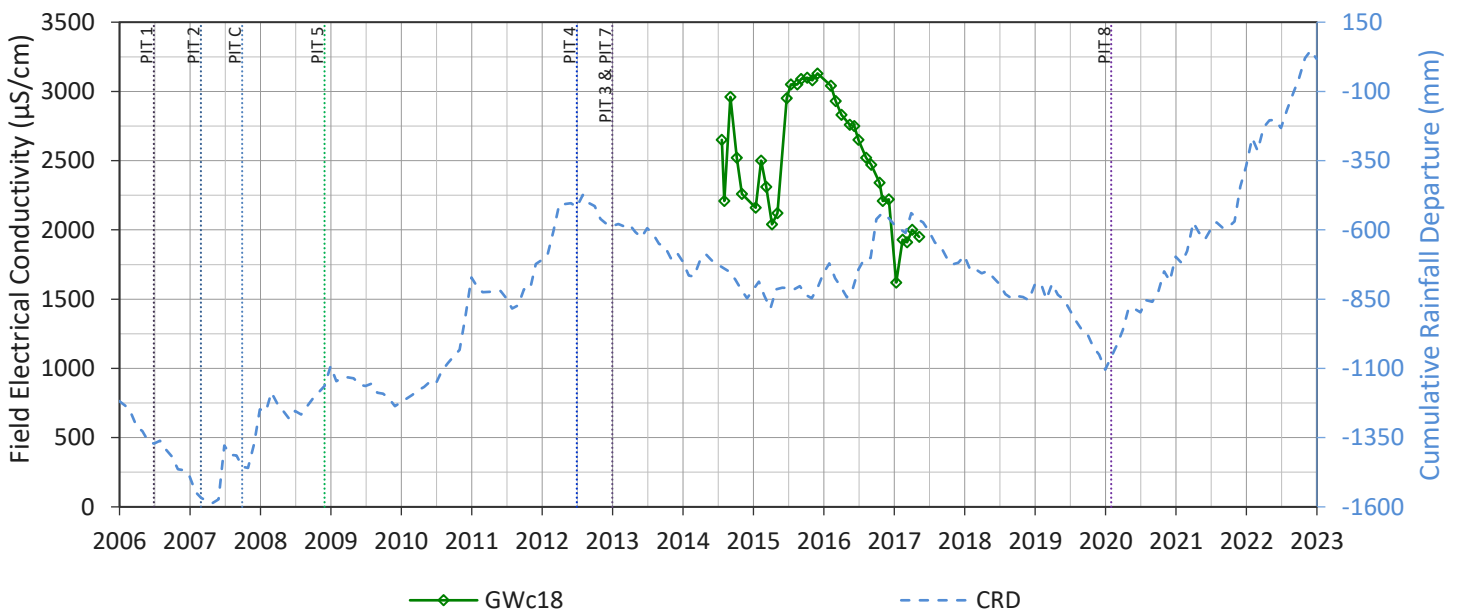
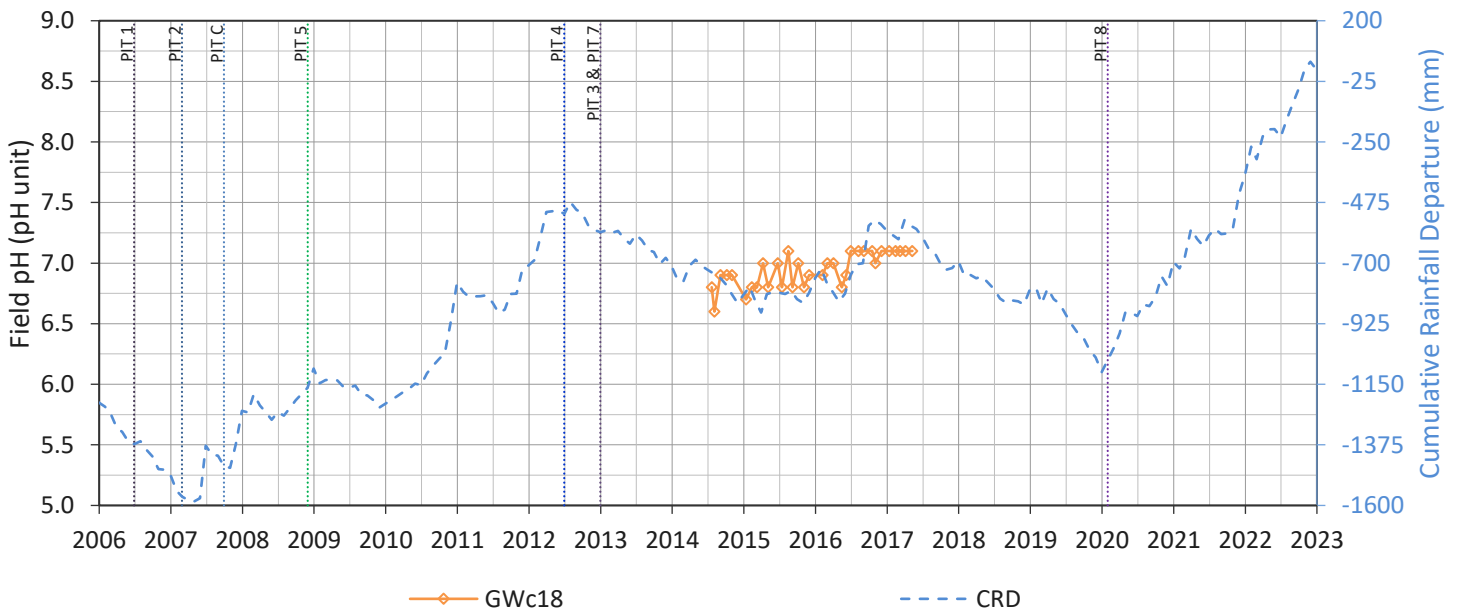
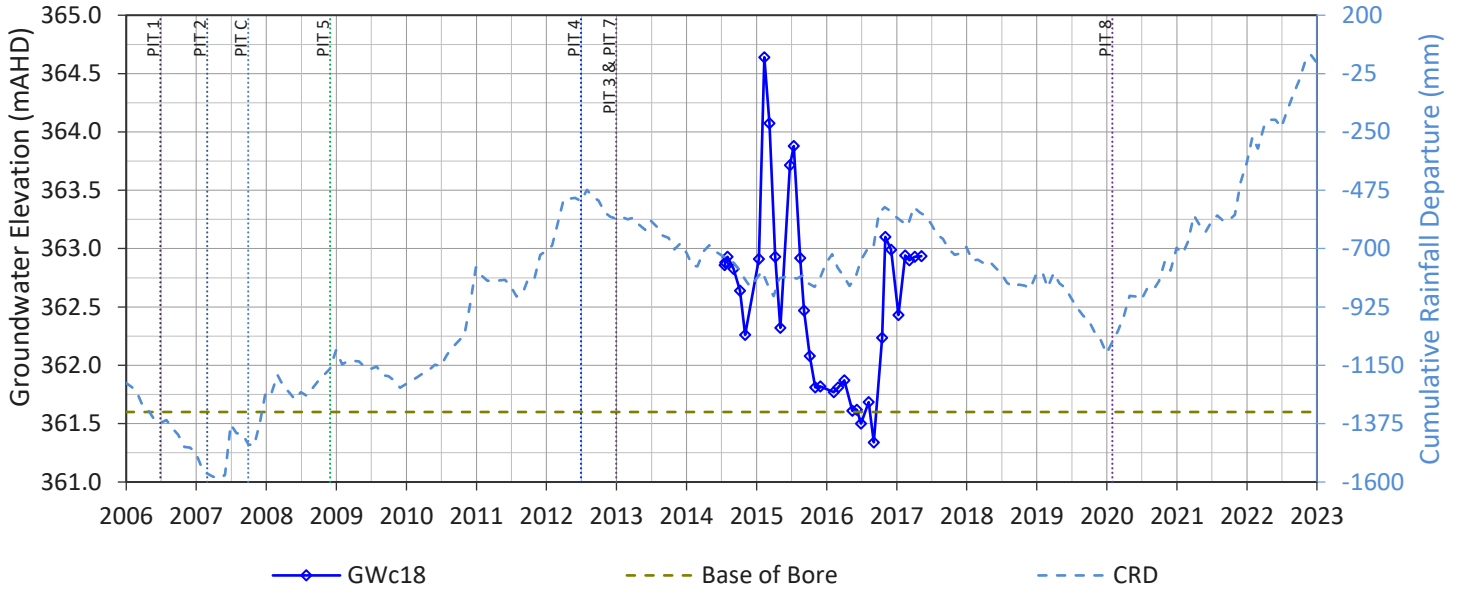
GWc26



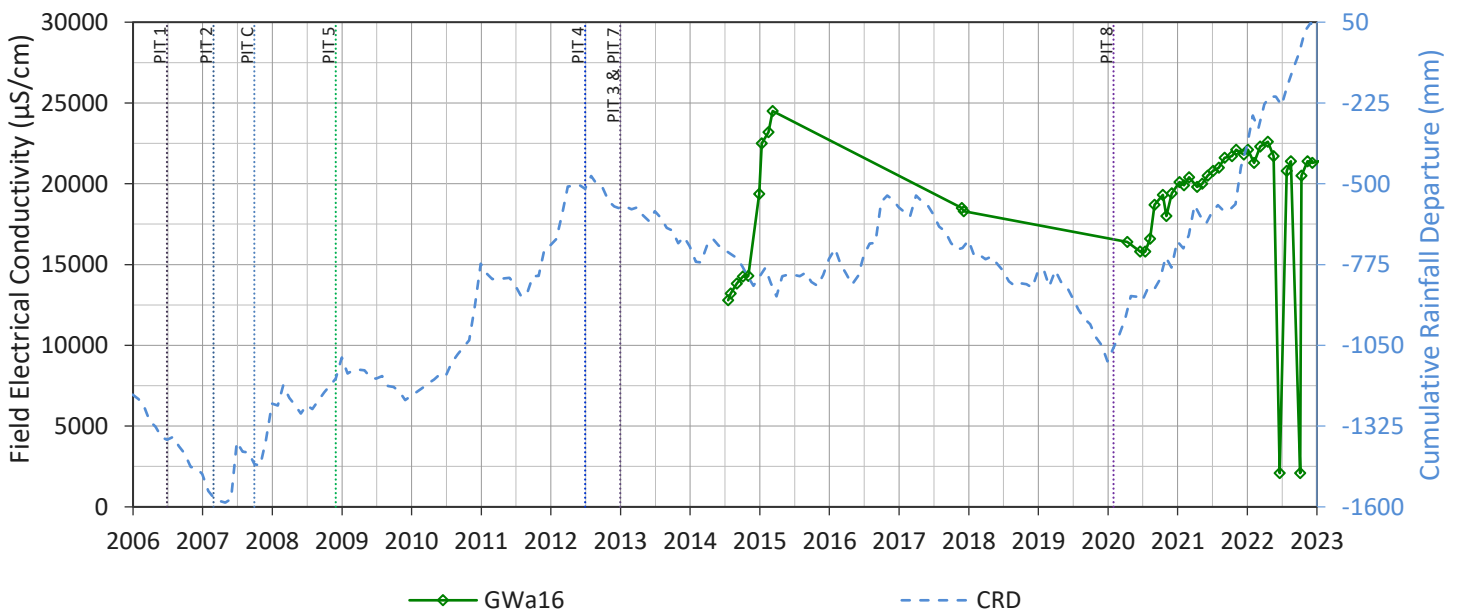
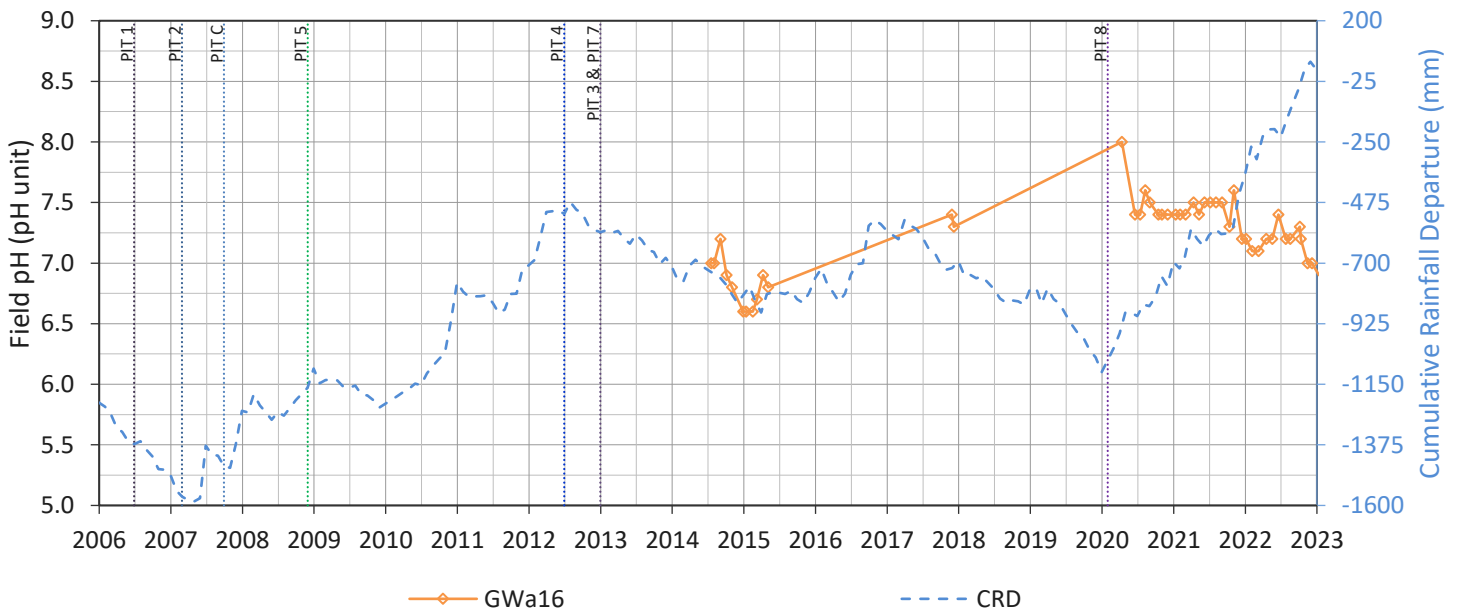
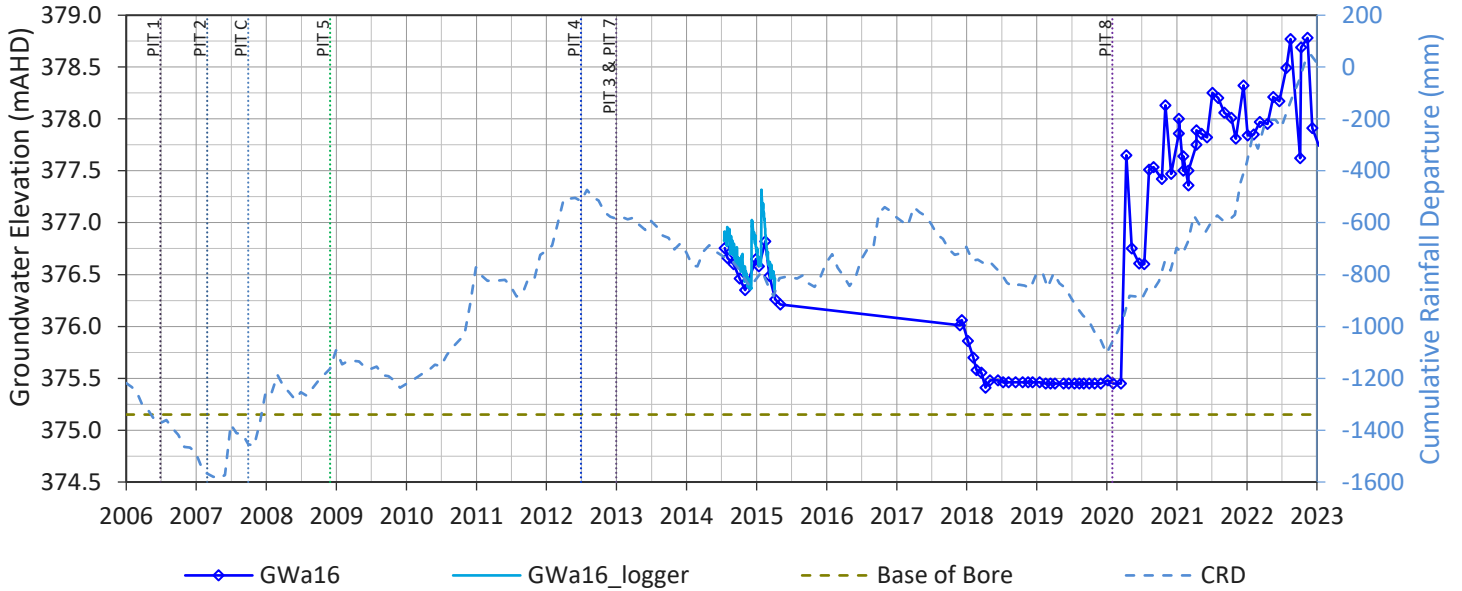
GWc16



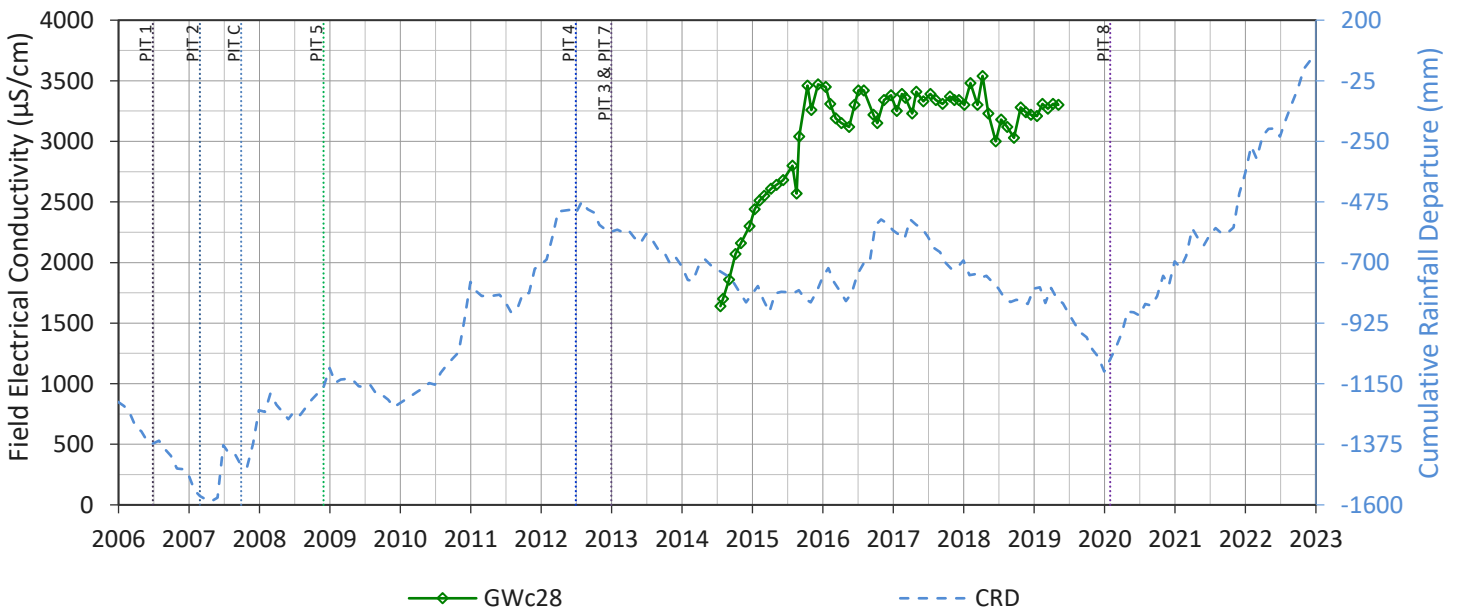
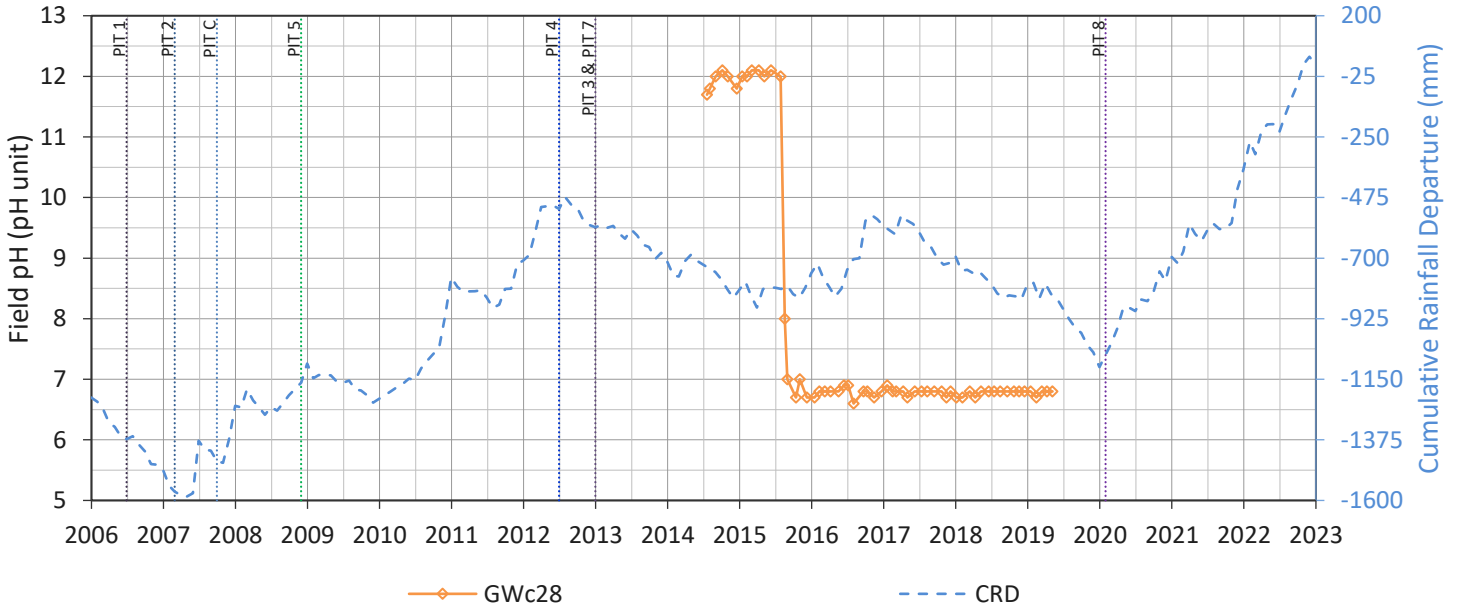
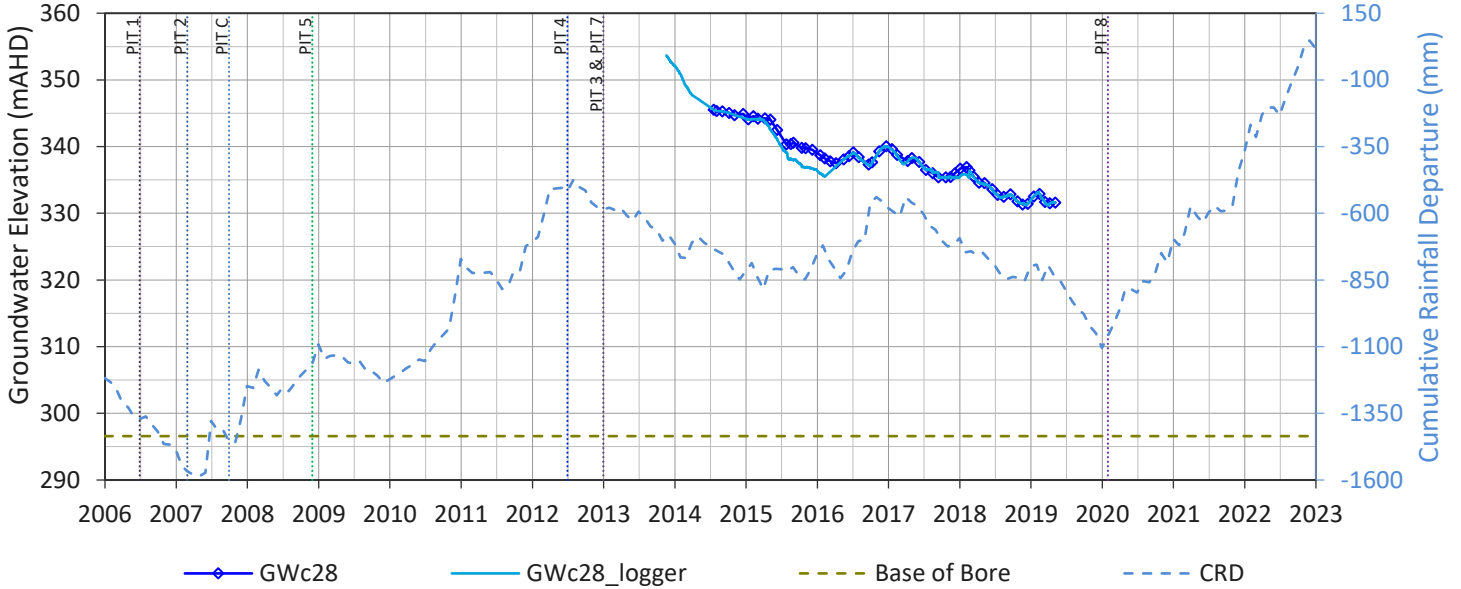
GWc18



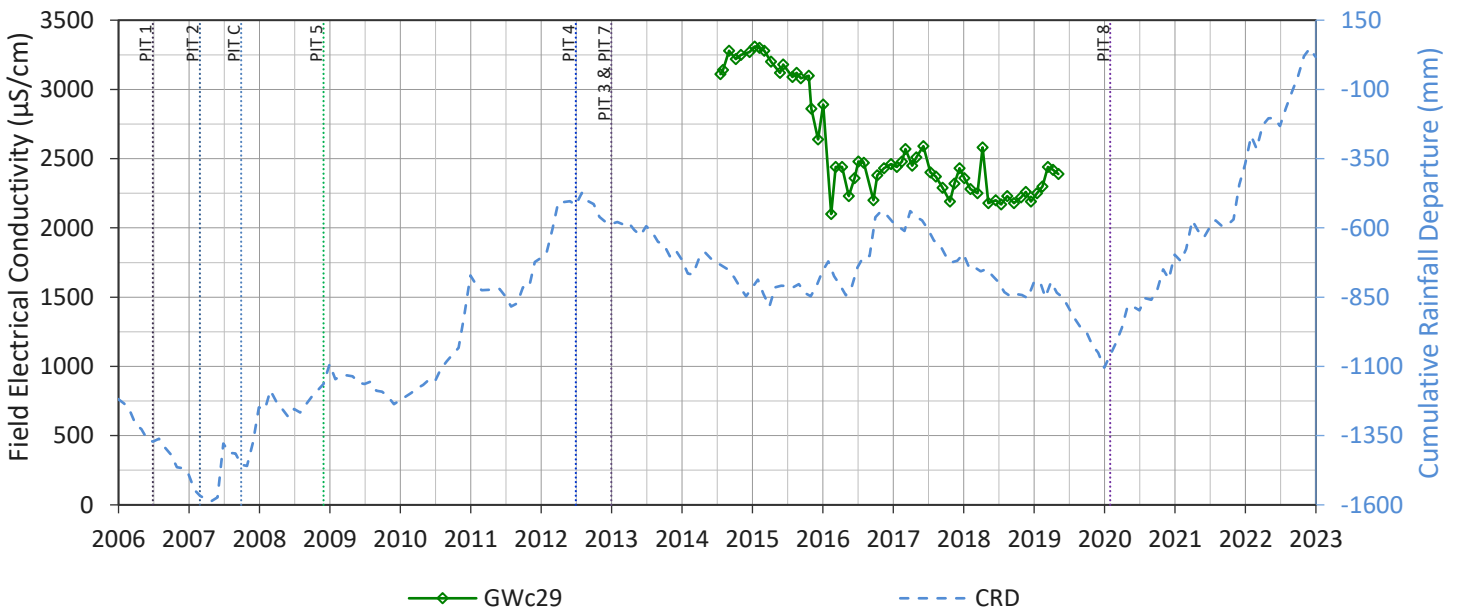
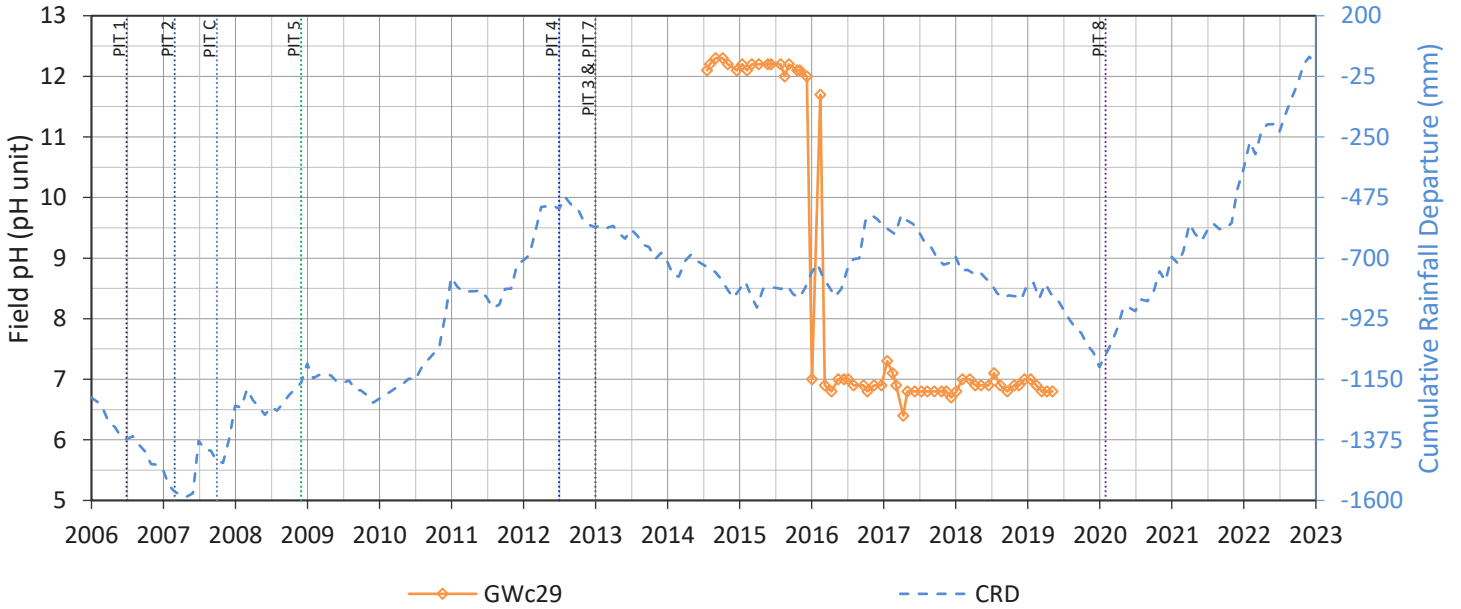
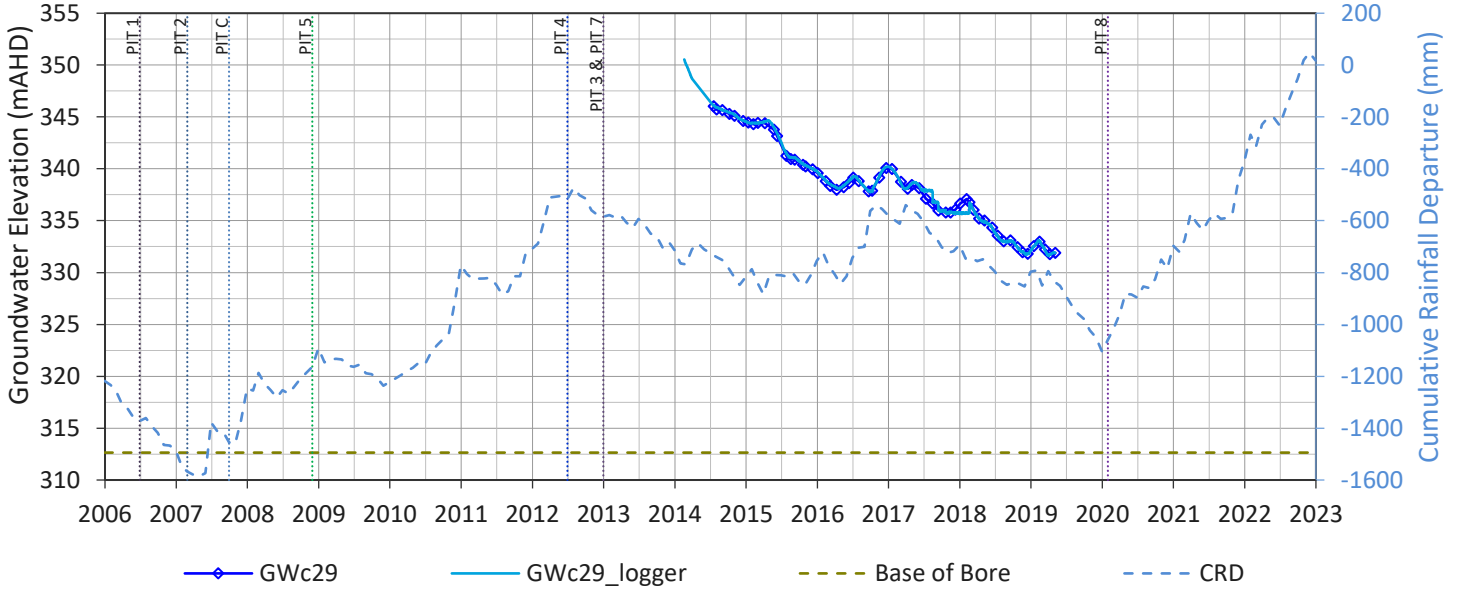
GWa16



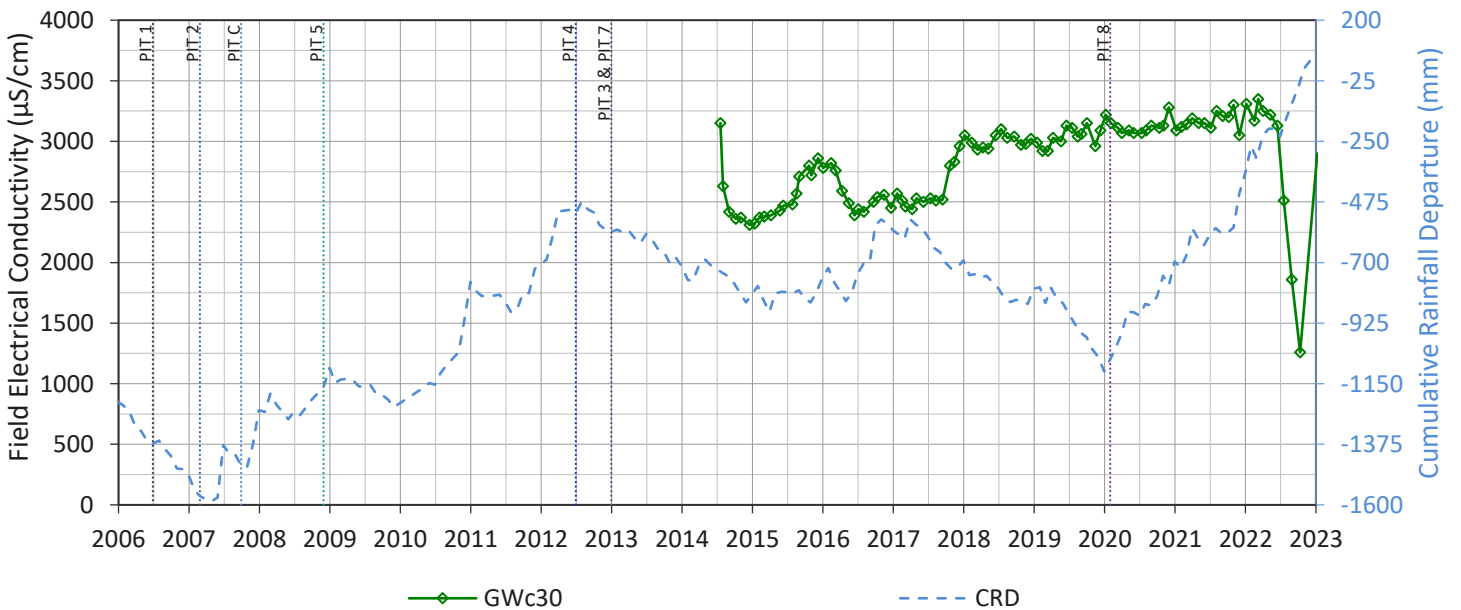
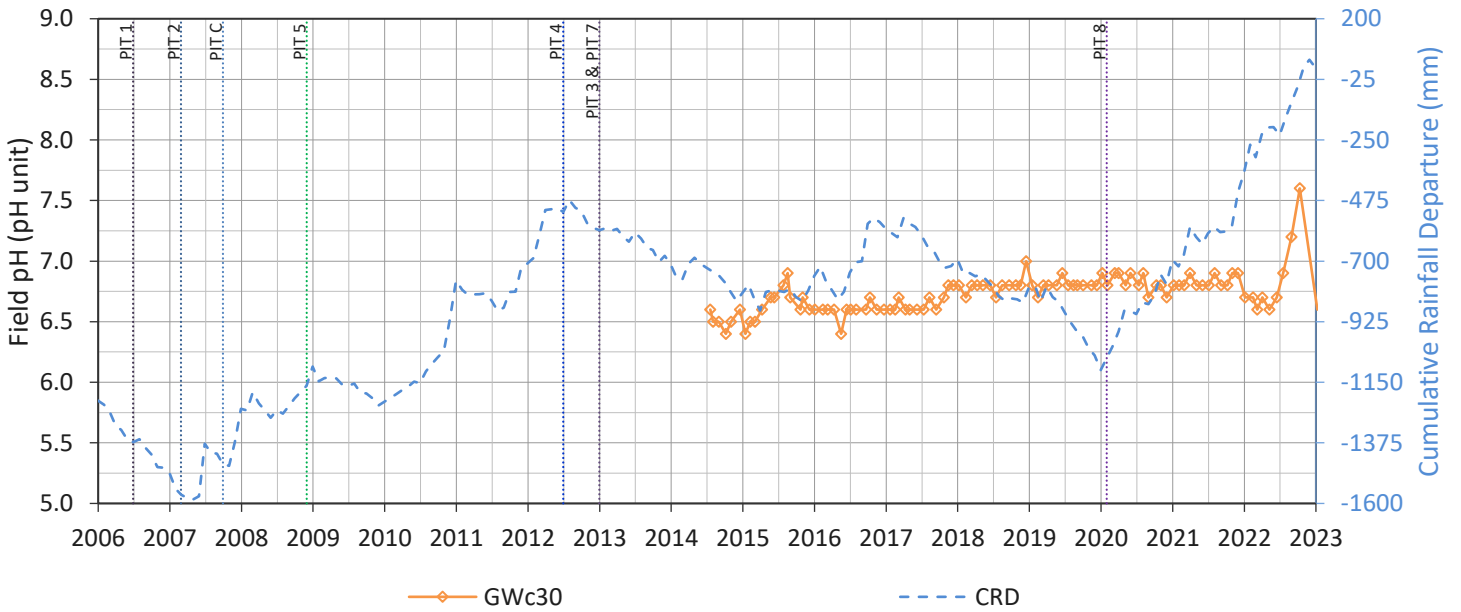
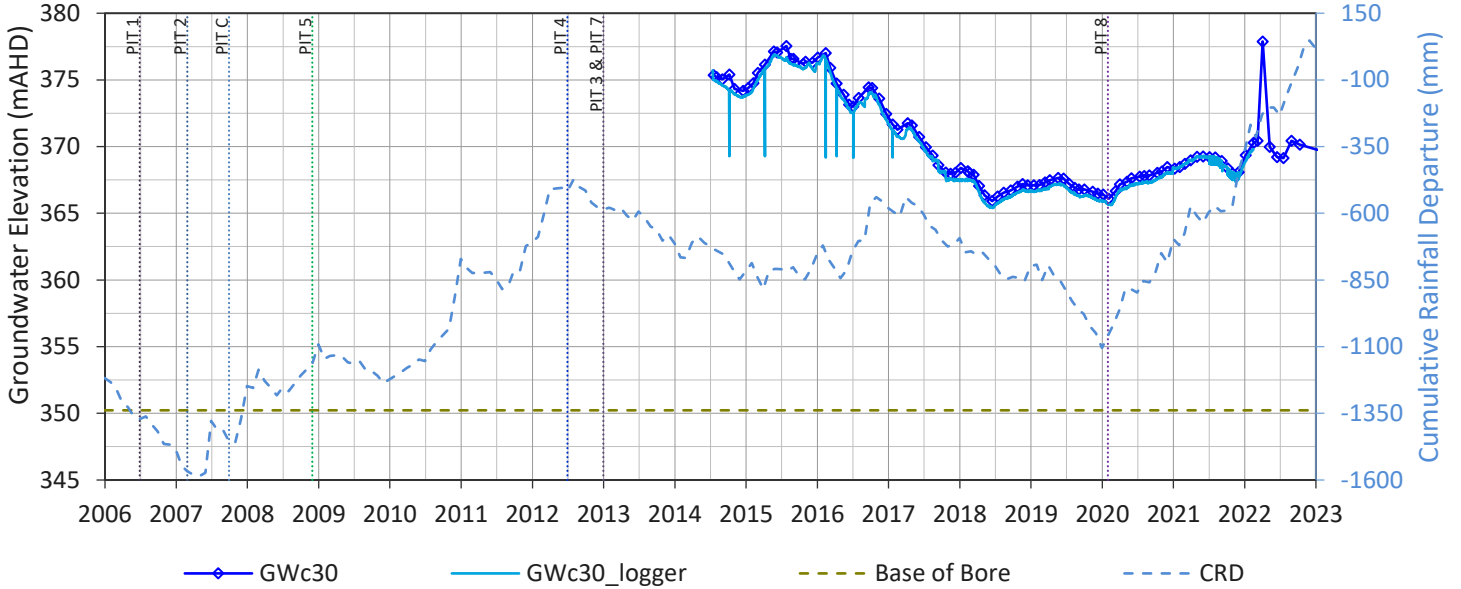
GWc28



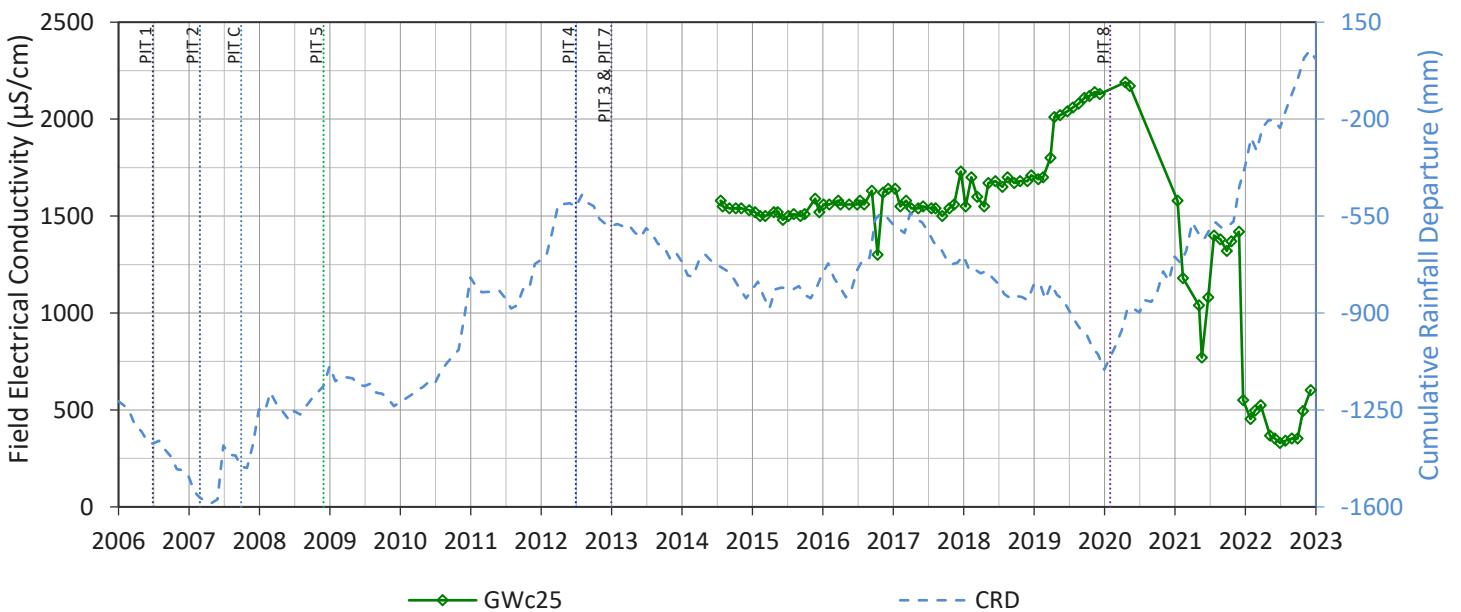
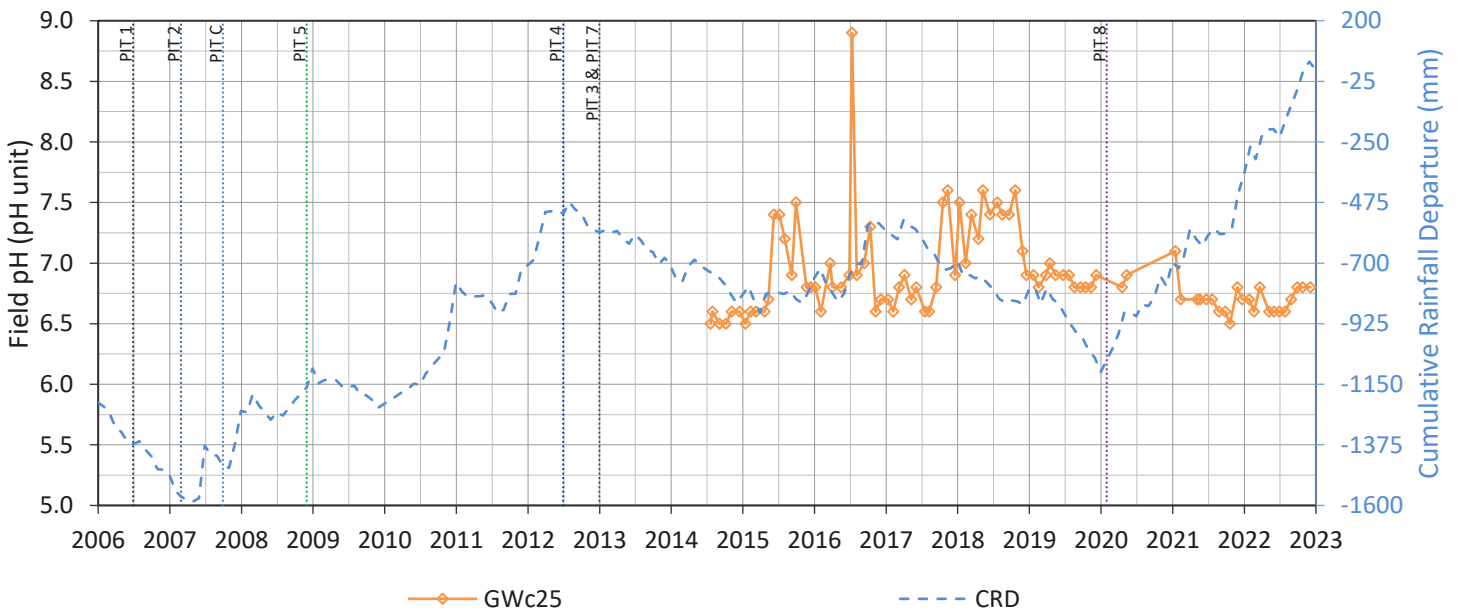
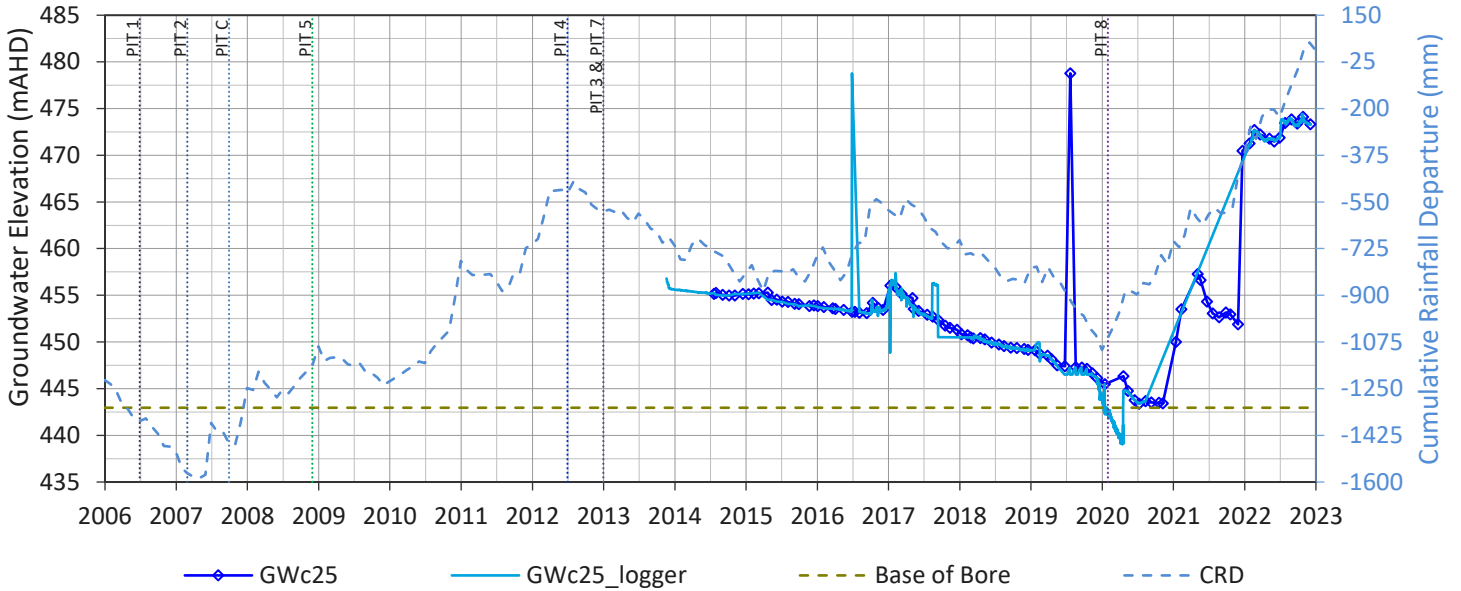
GWc29



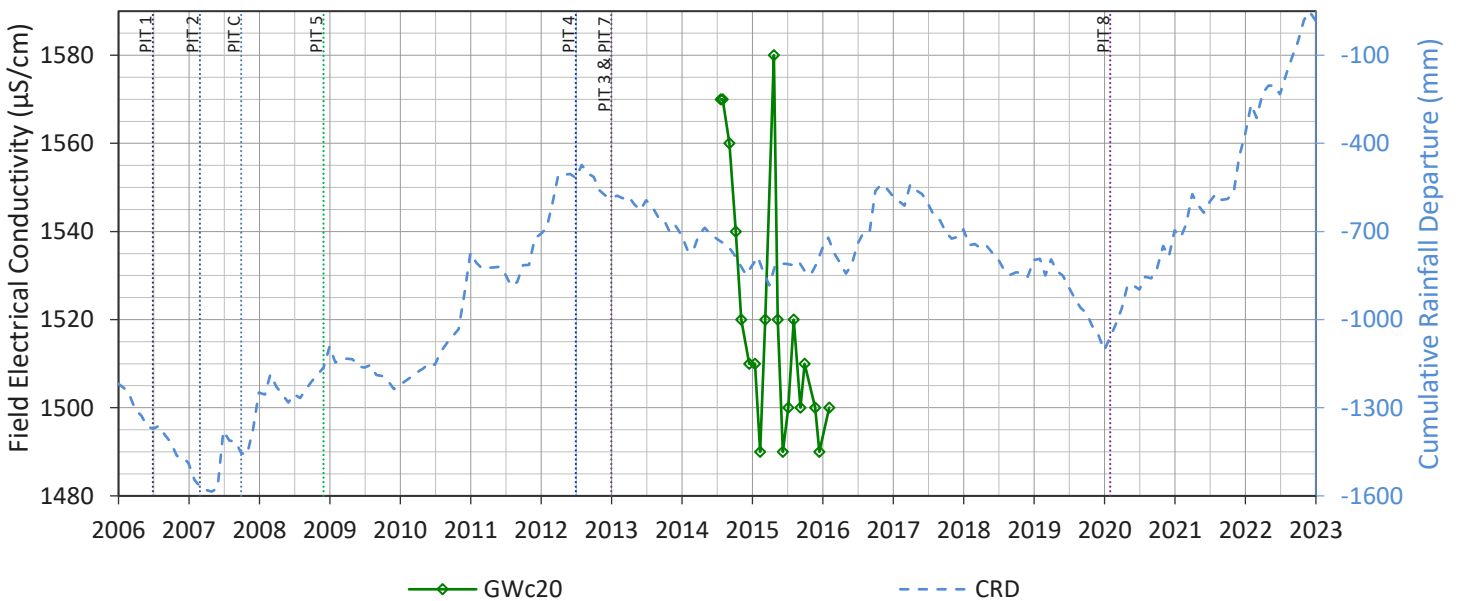
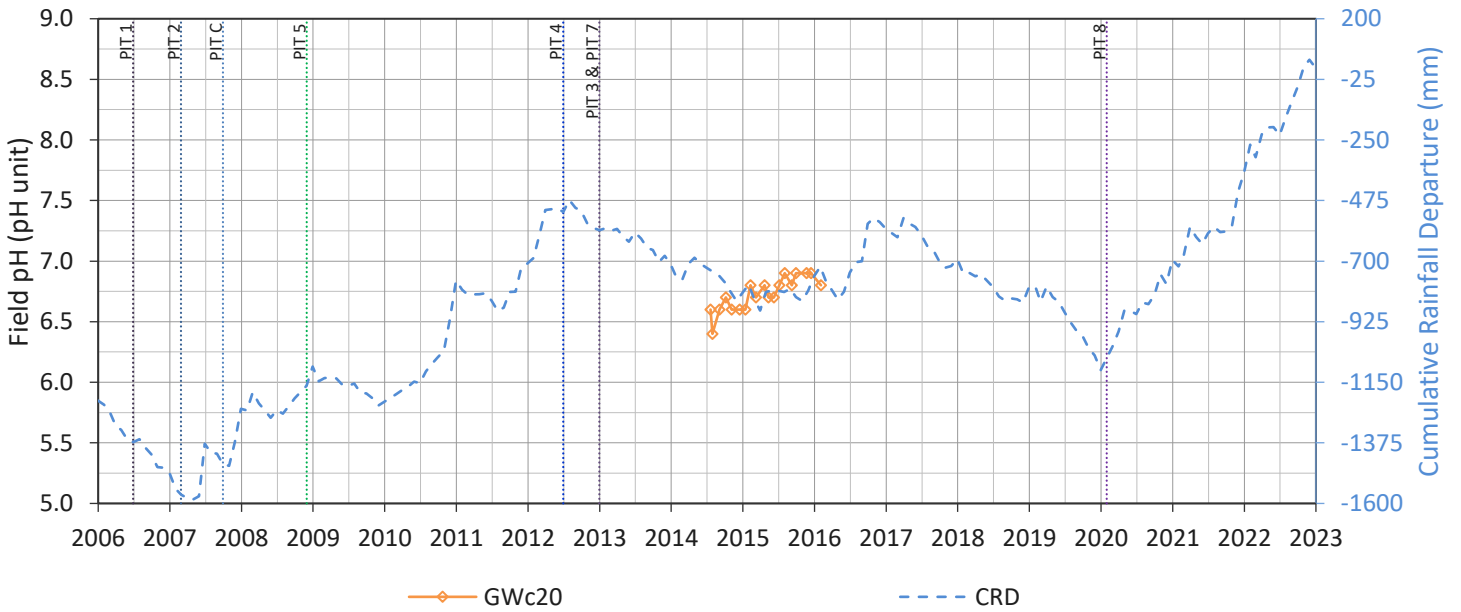
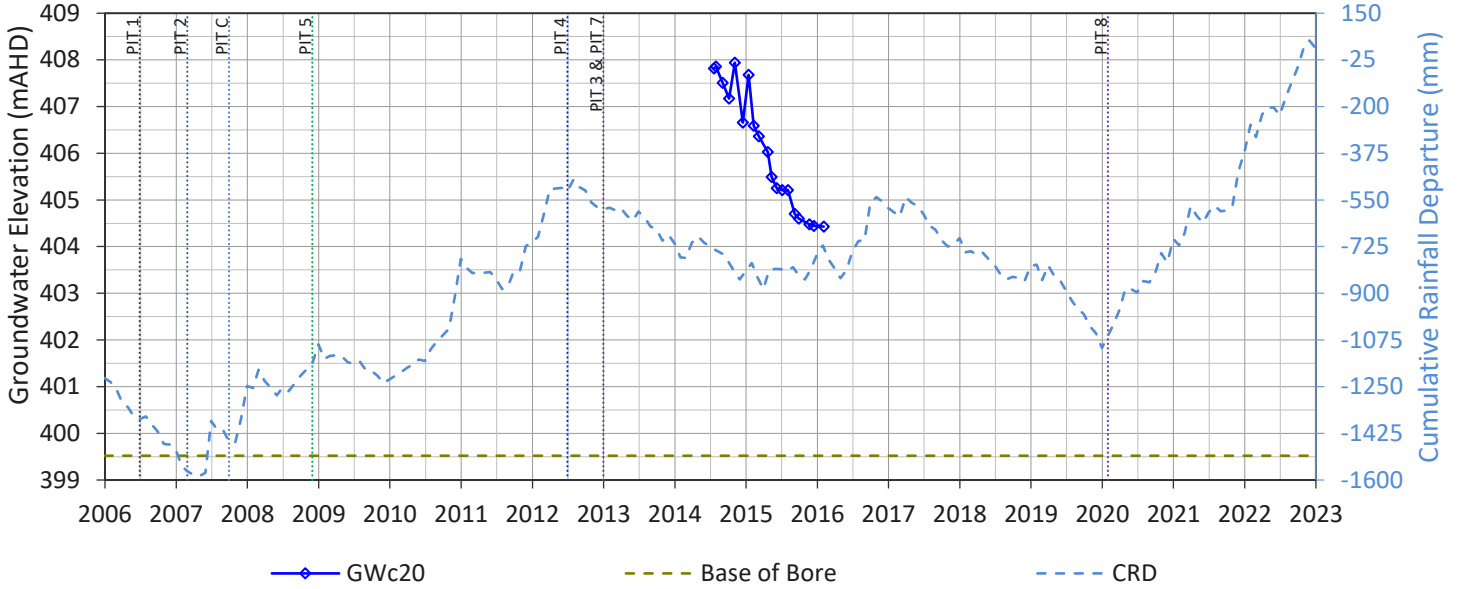
GWc30



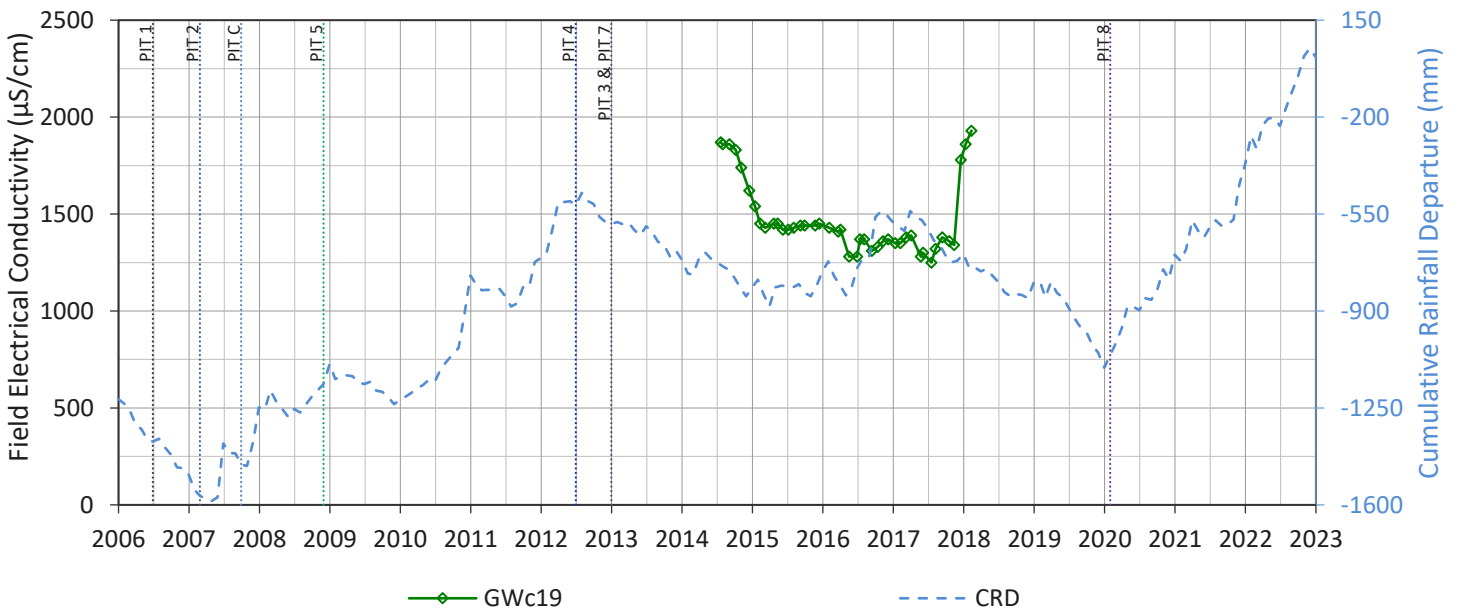
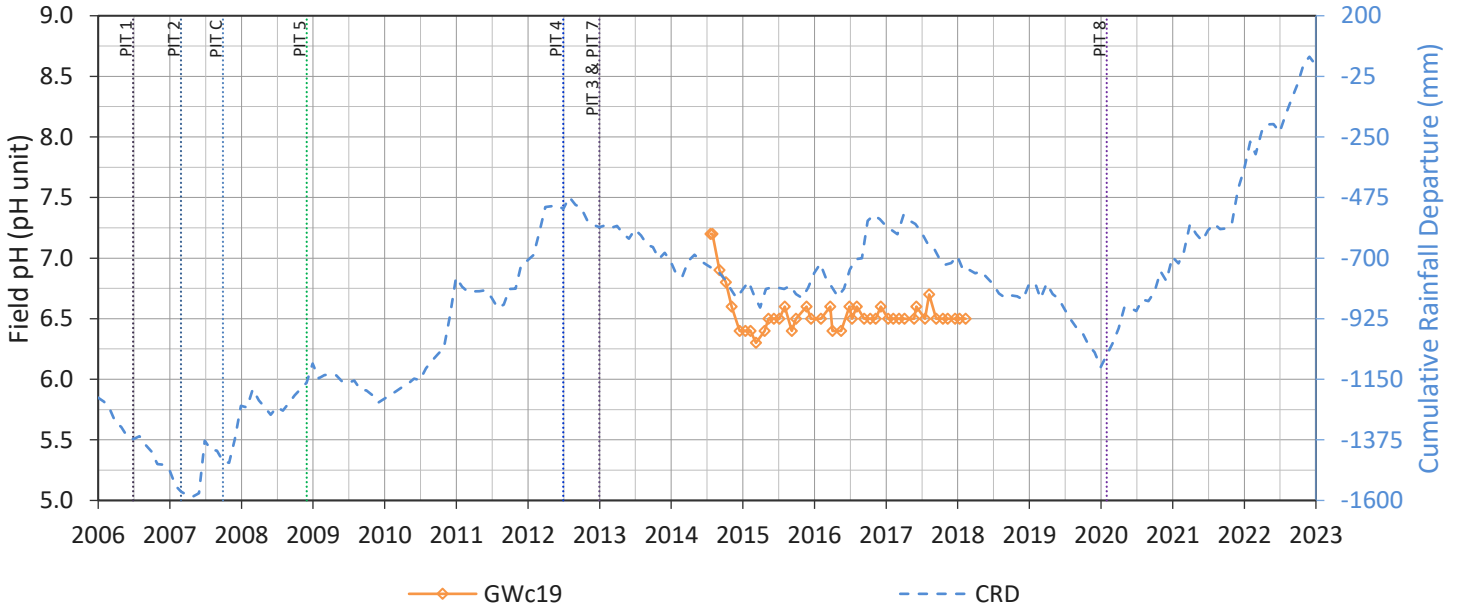
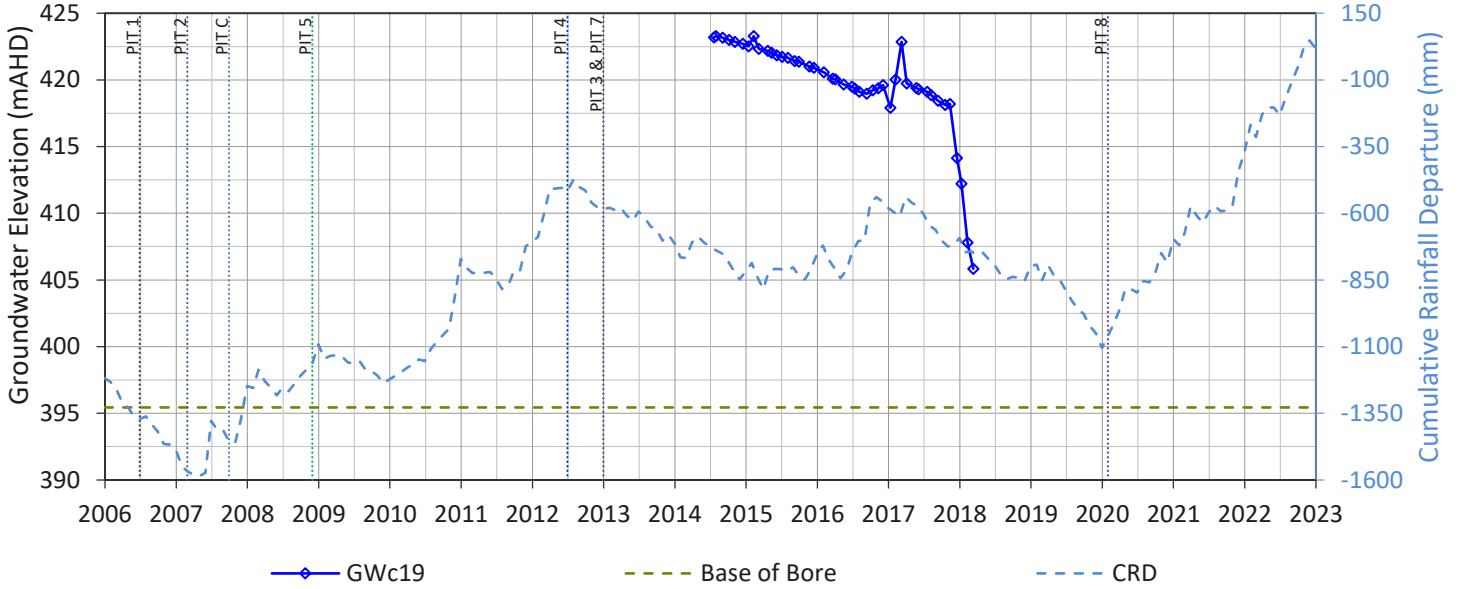
GWc25



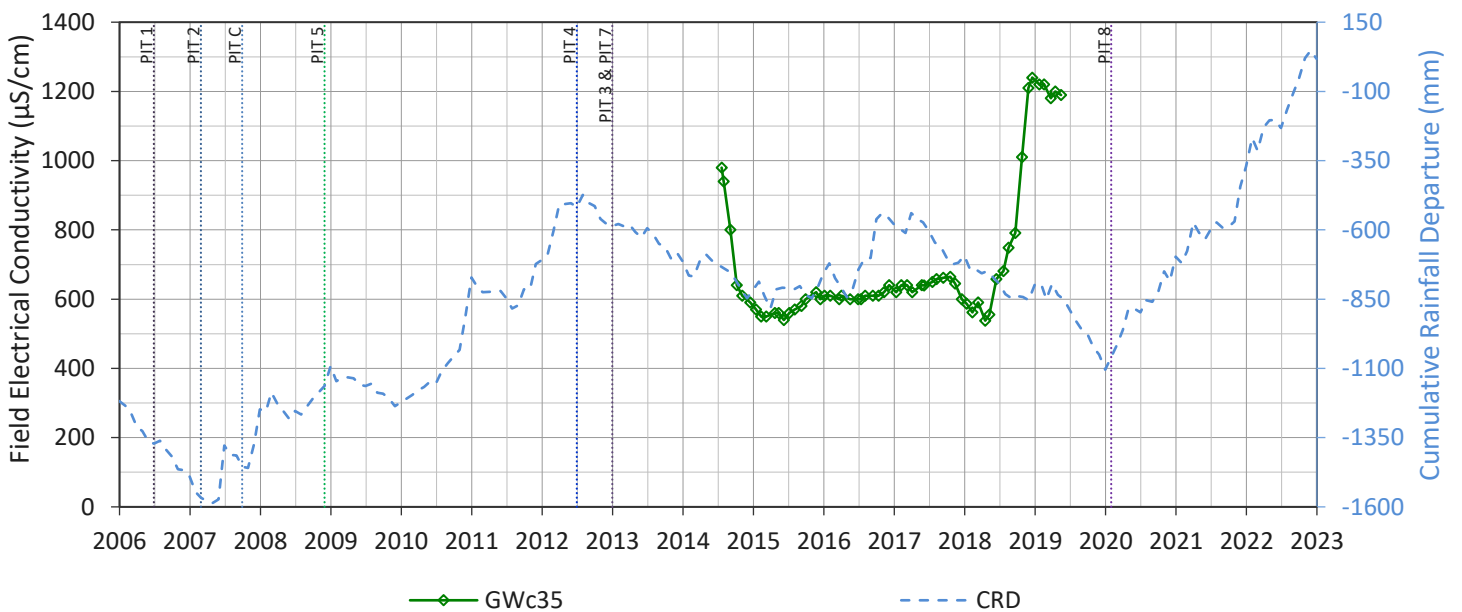
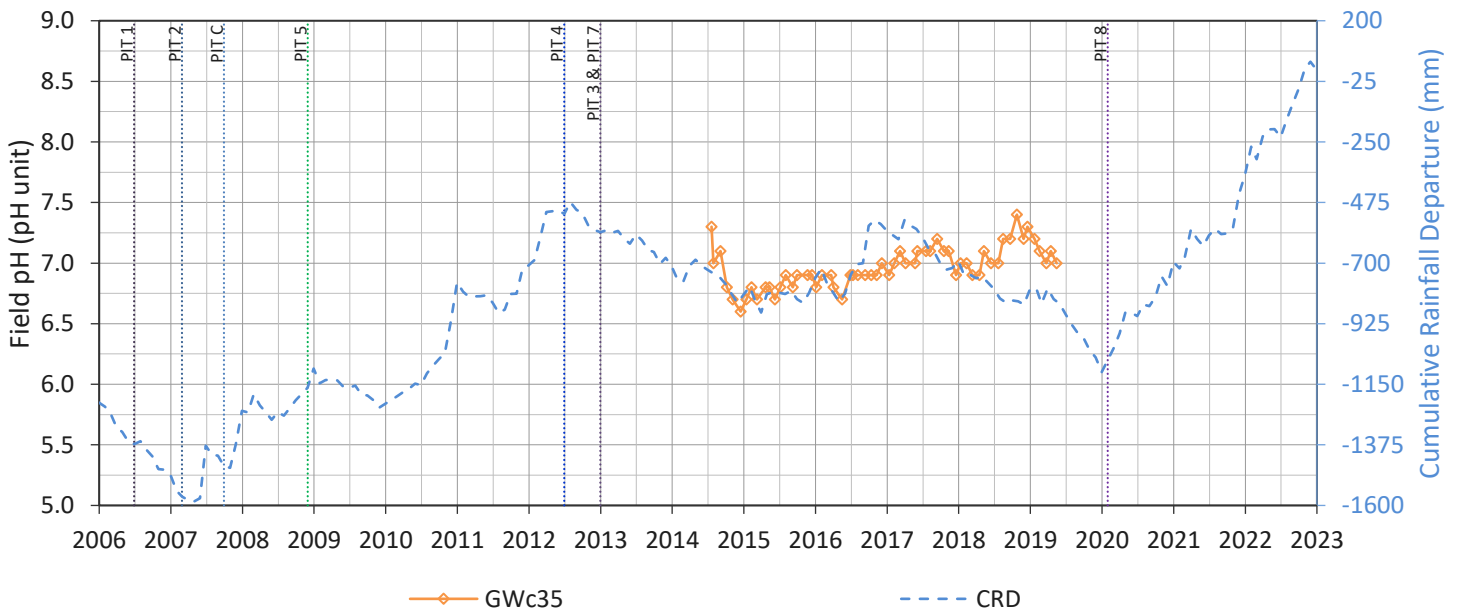
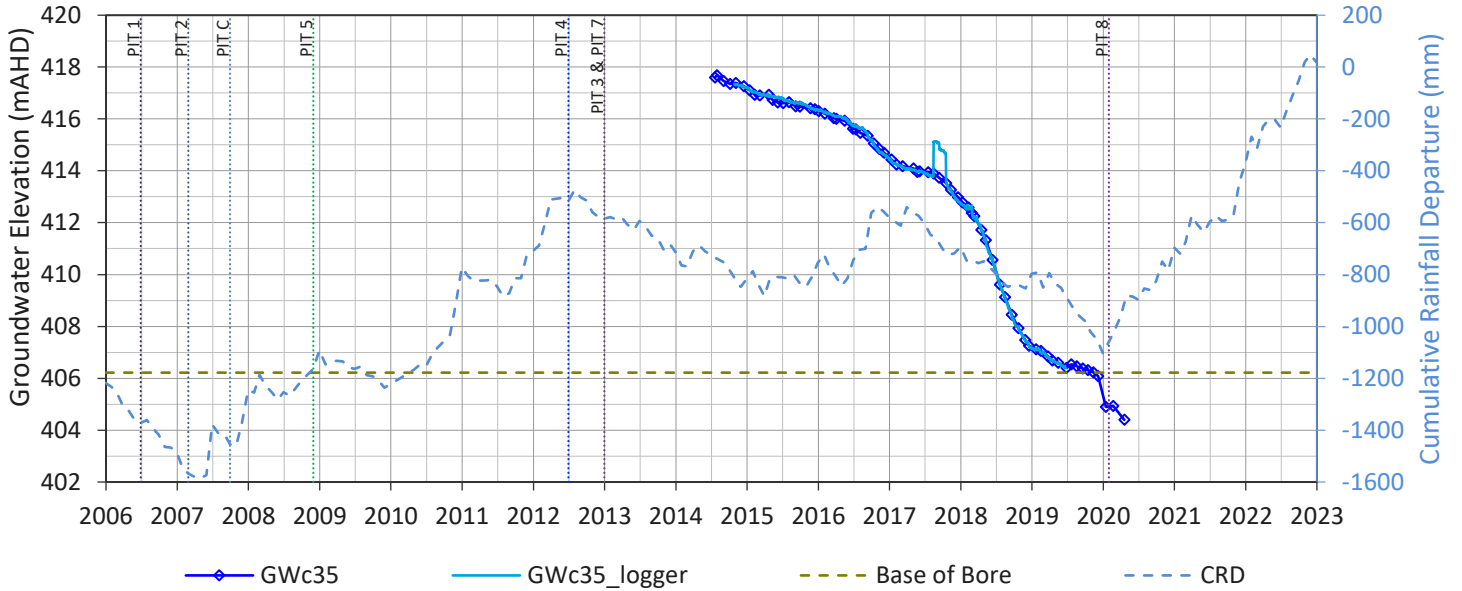
GWc20



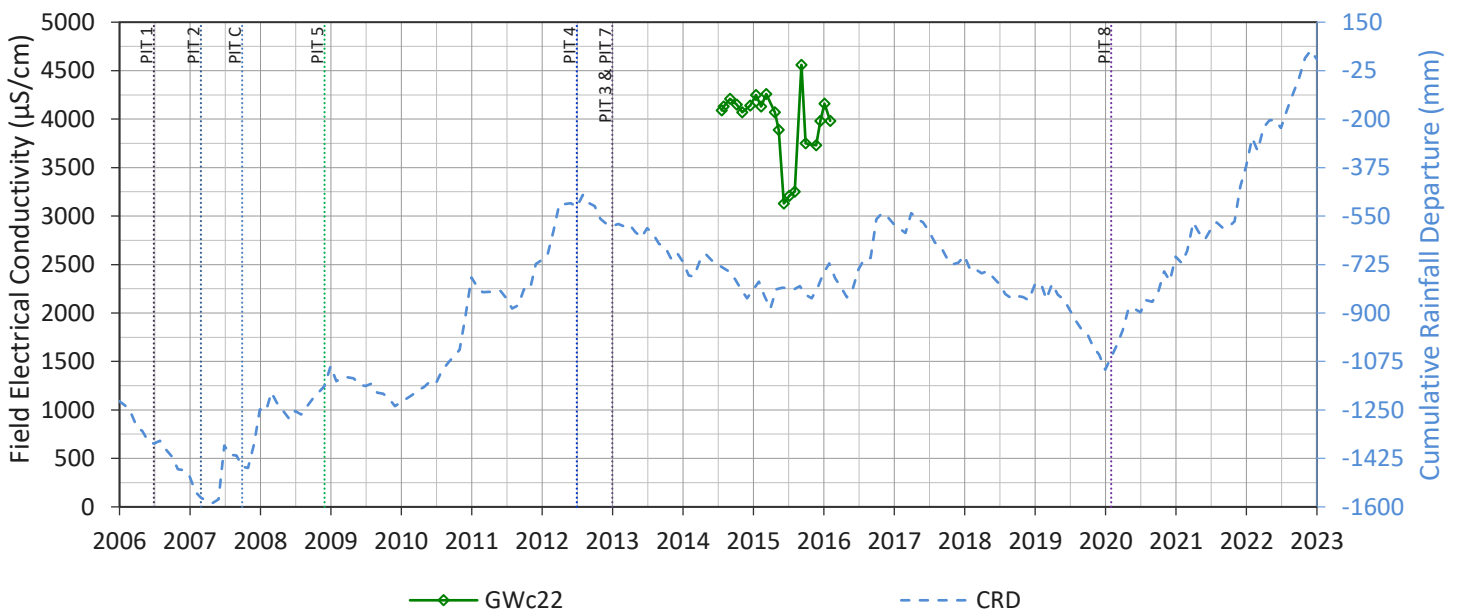
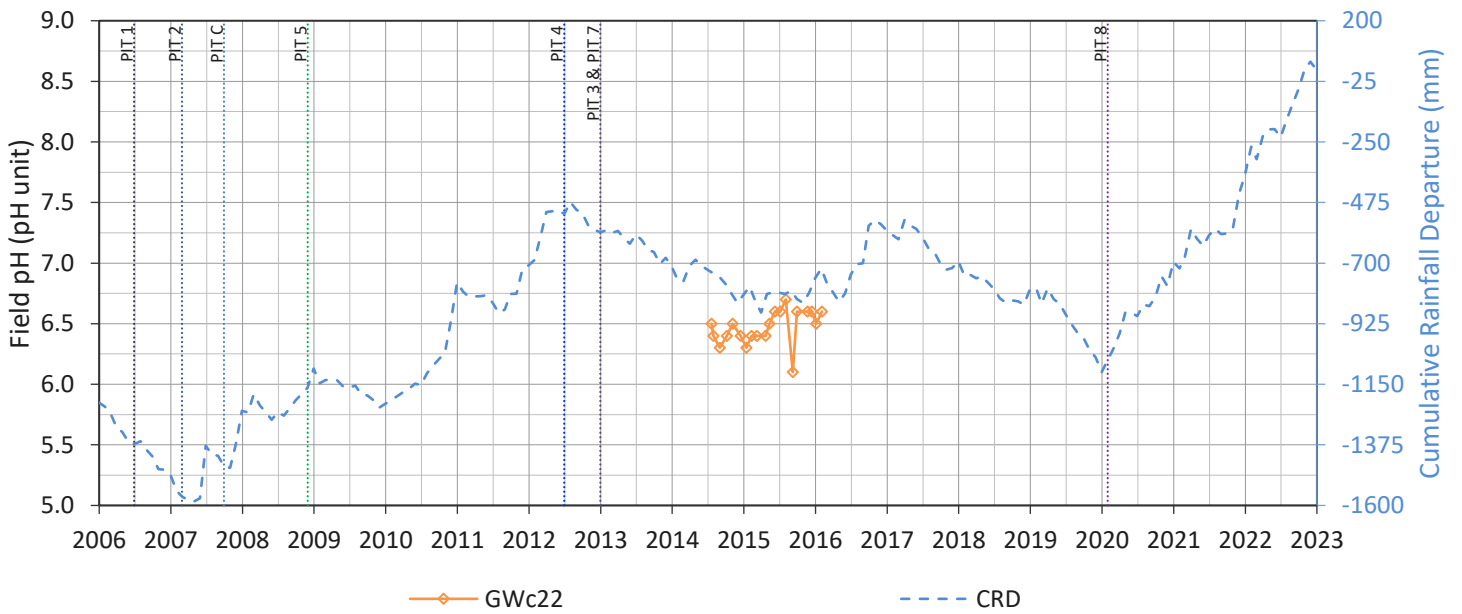
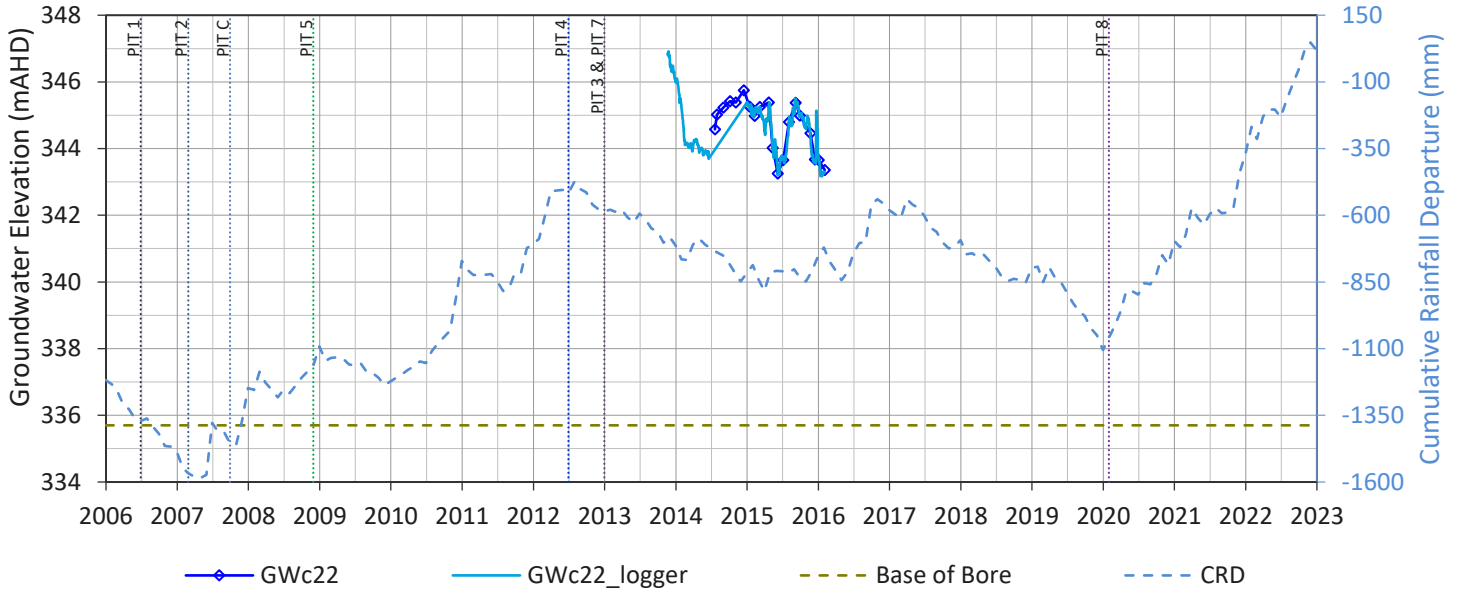
GWc19



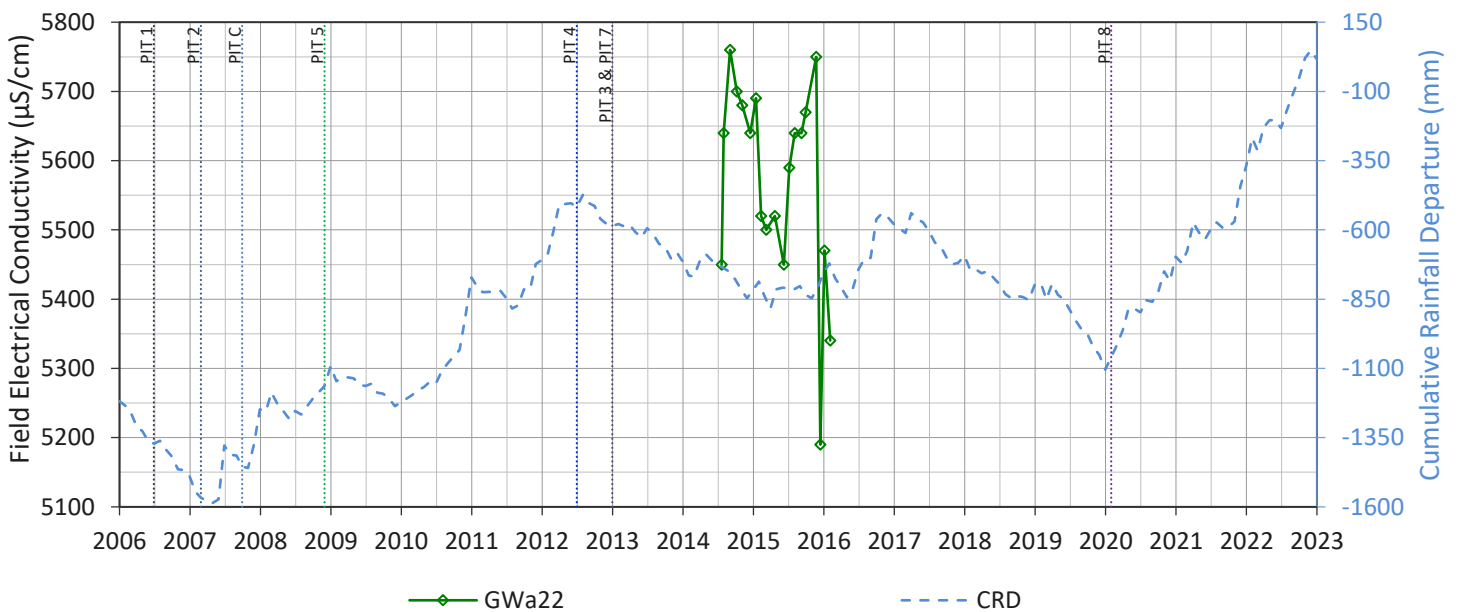
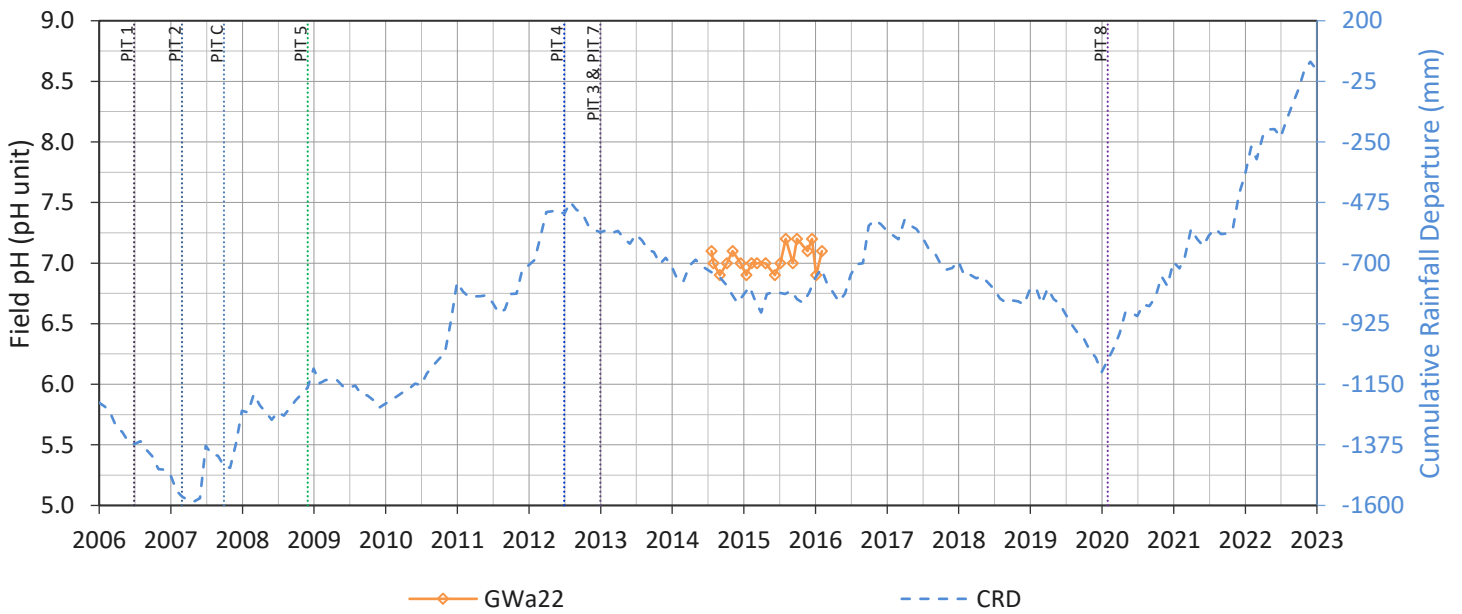
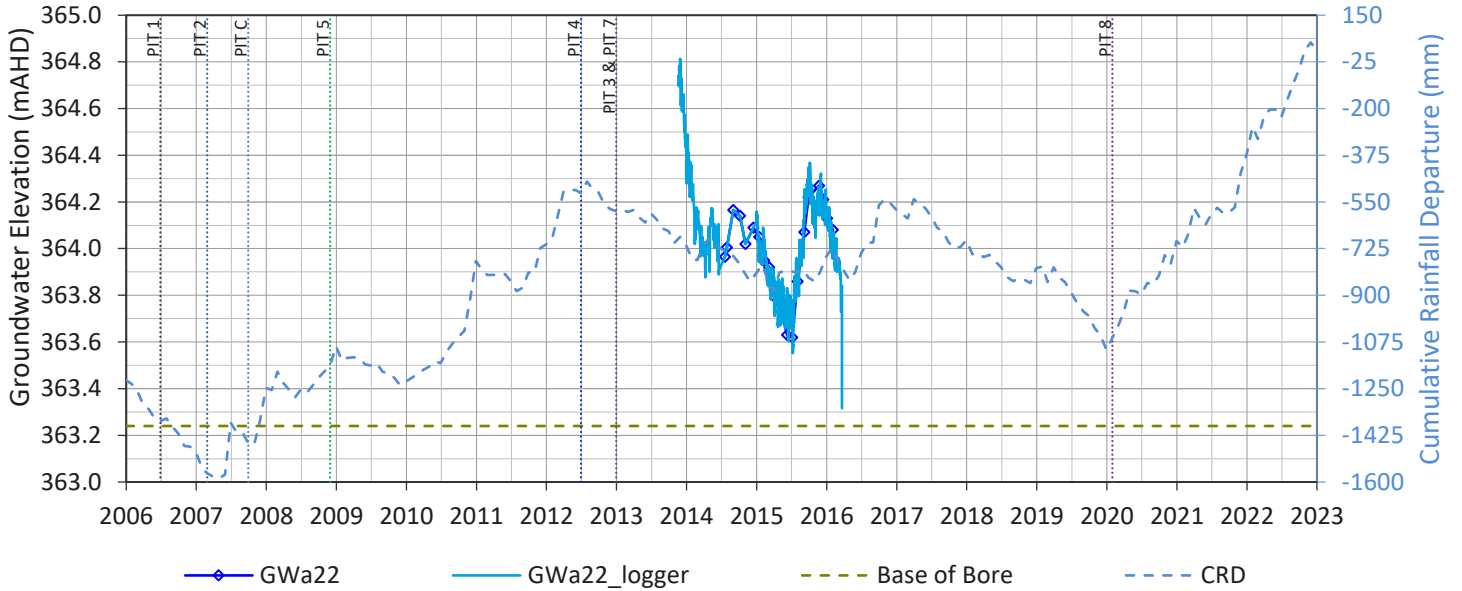
GWc35



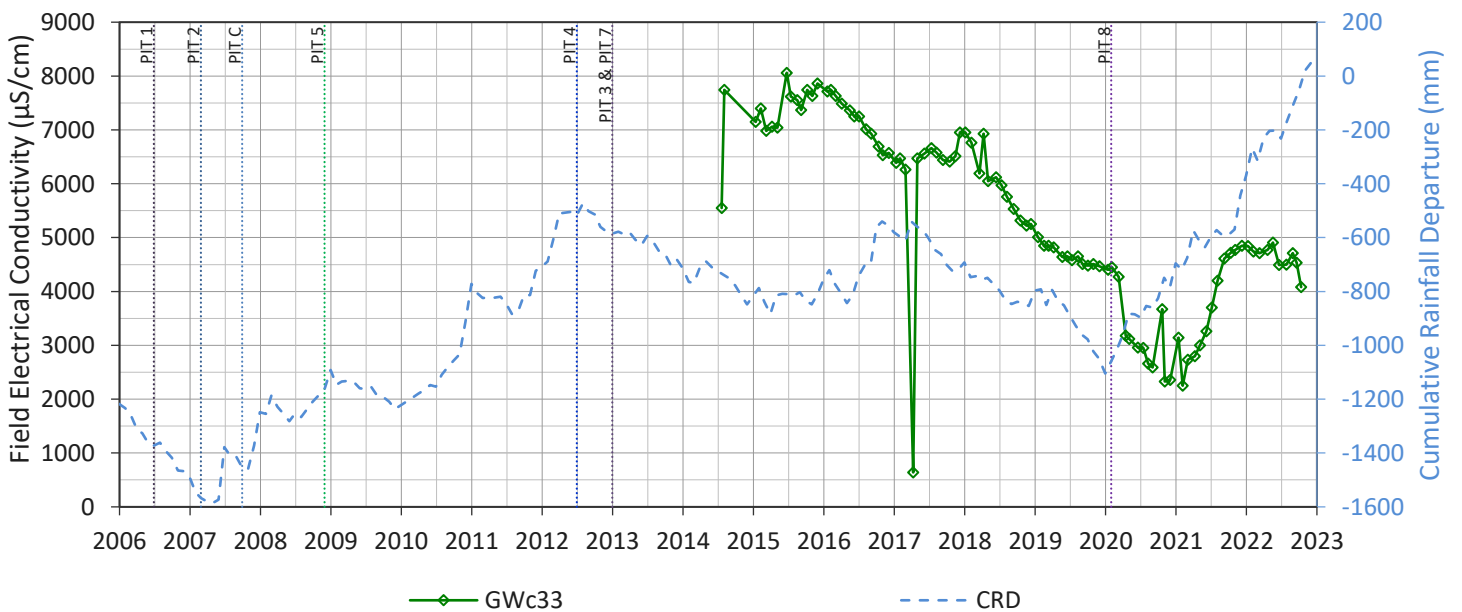
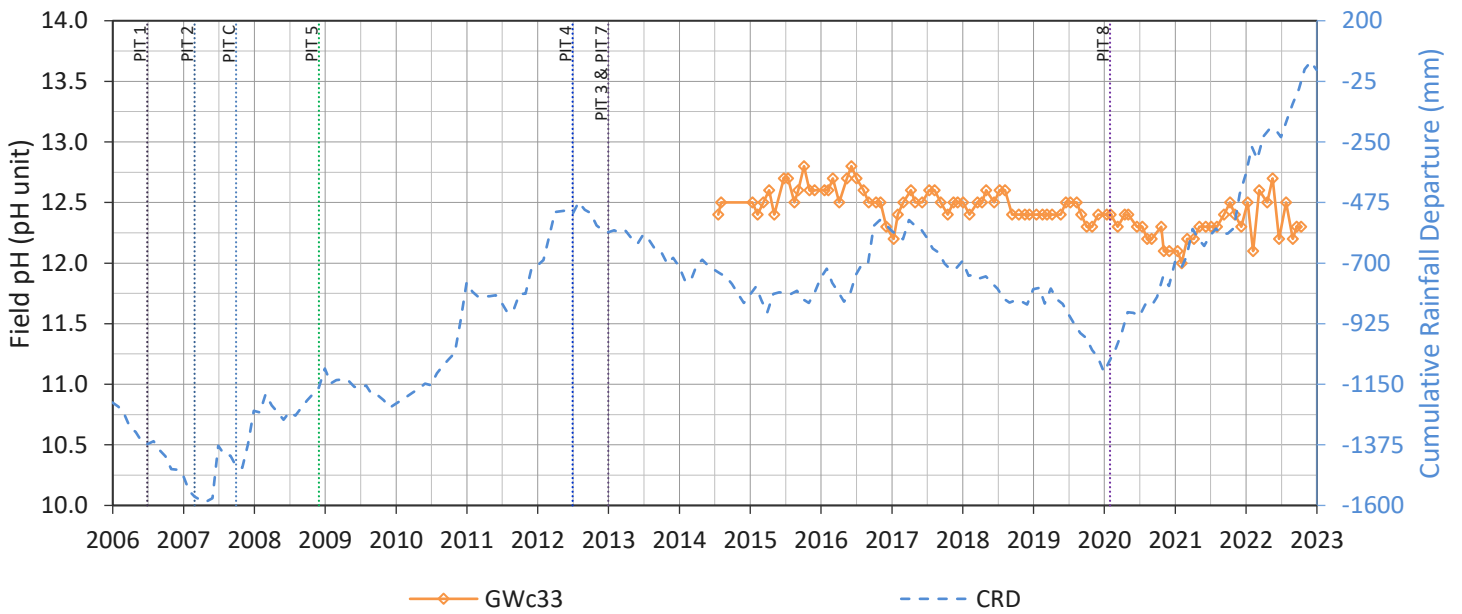
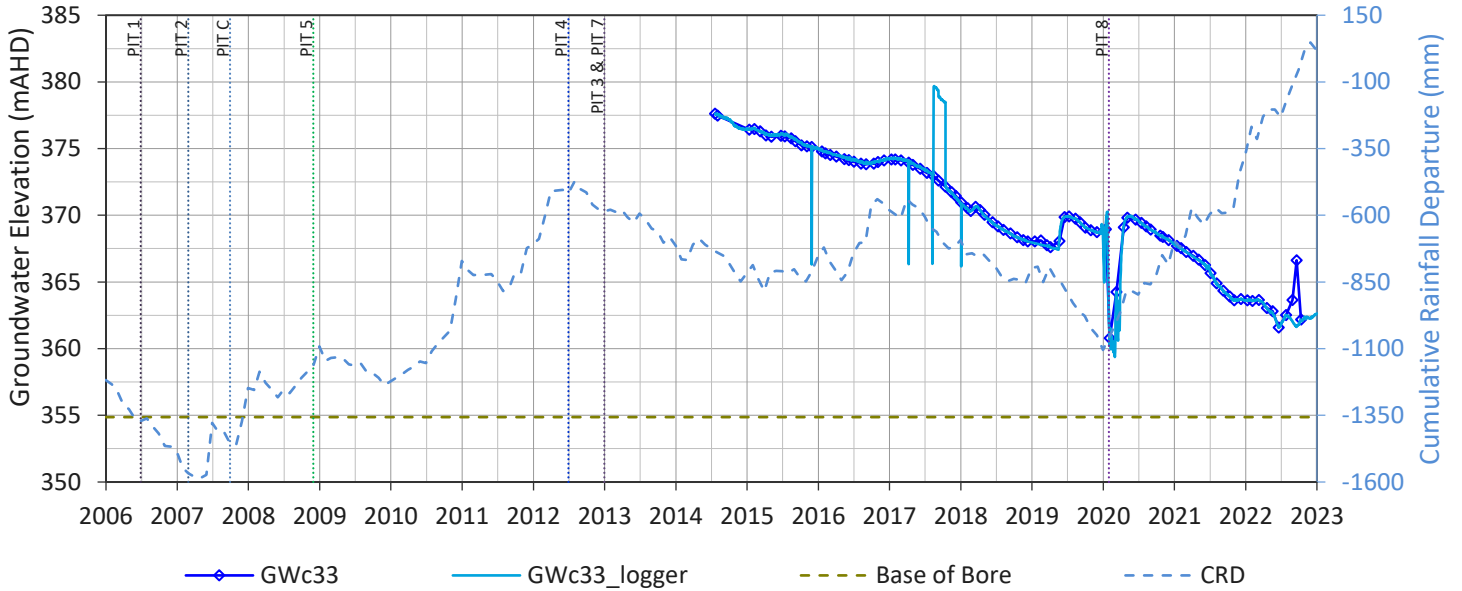
GWc22



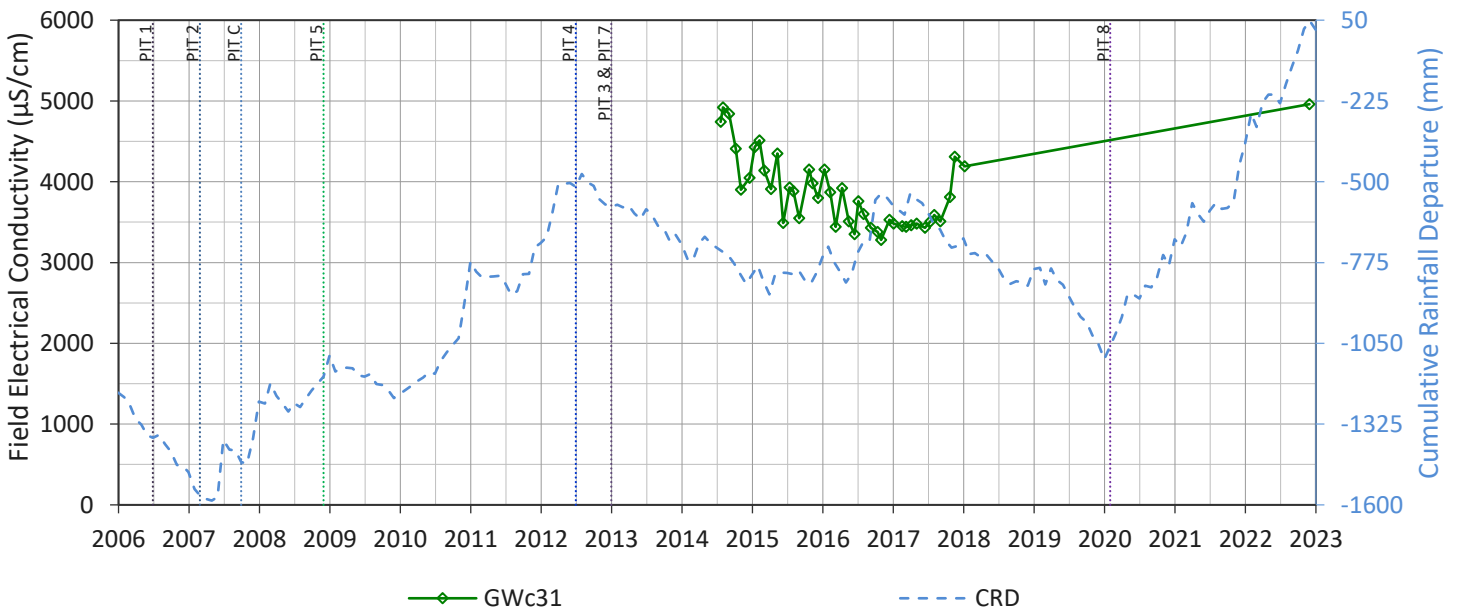
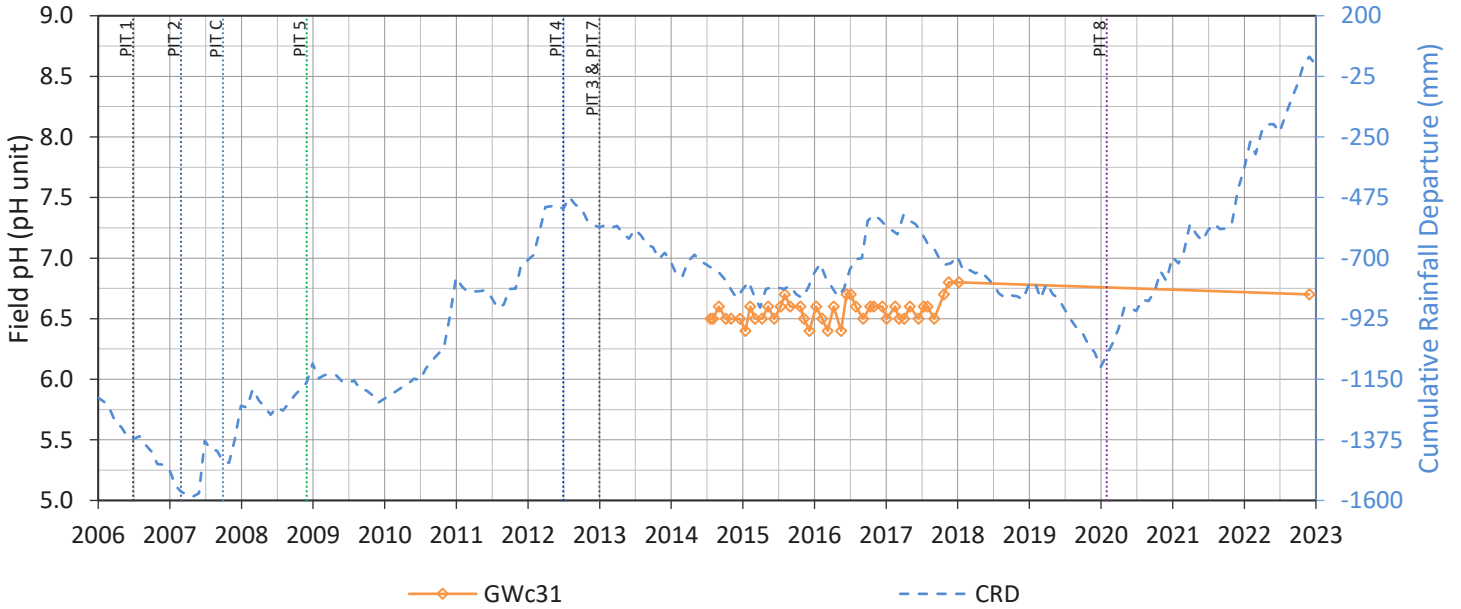
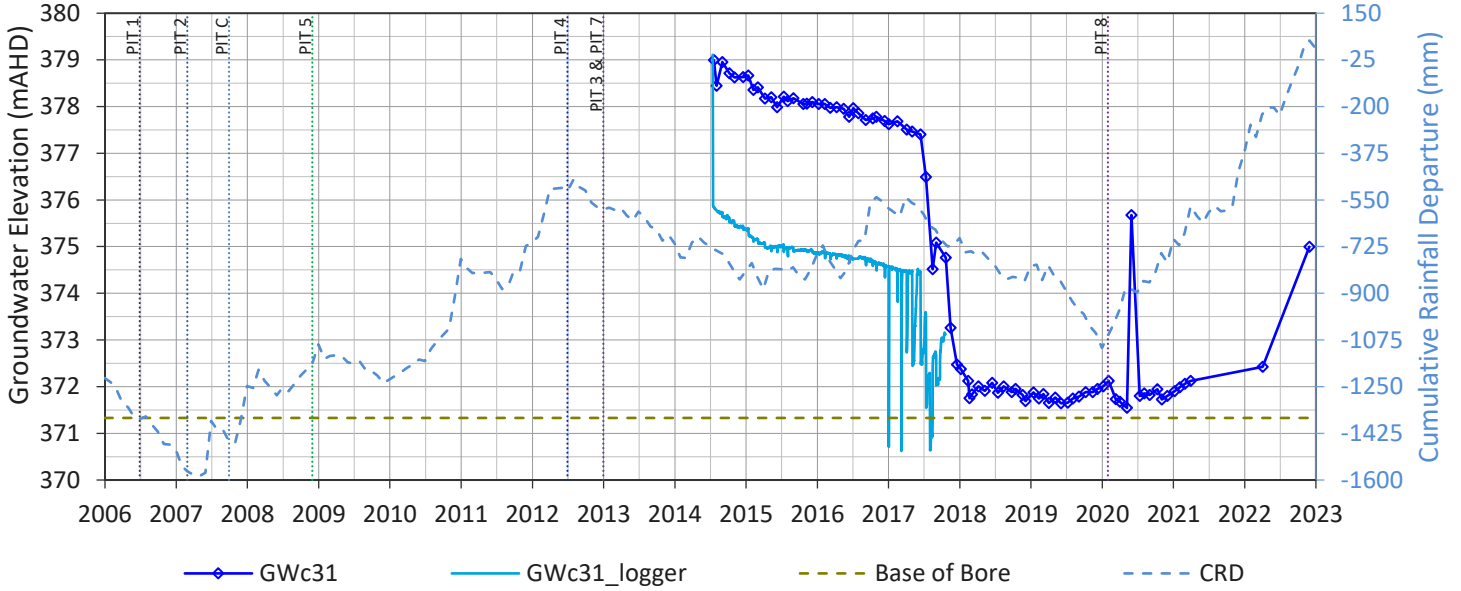
GWa22



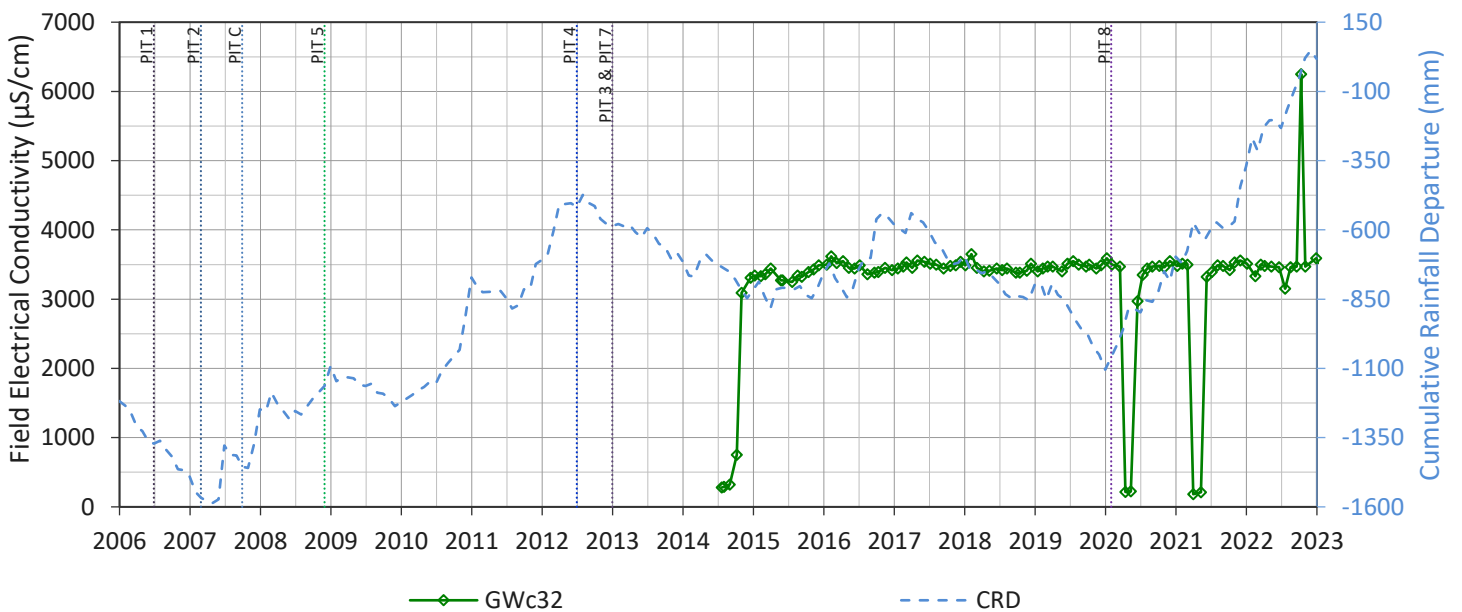
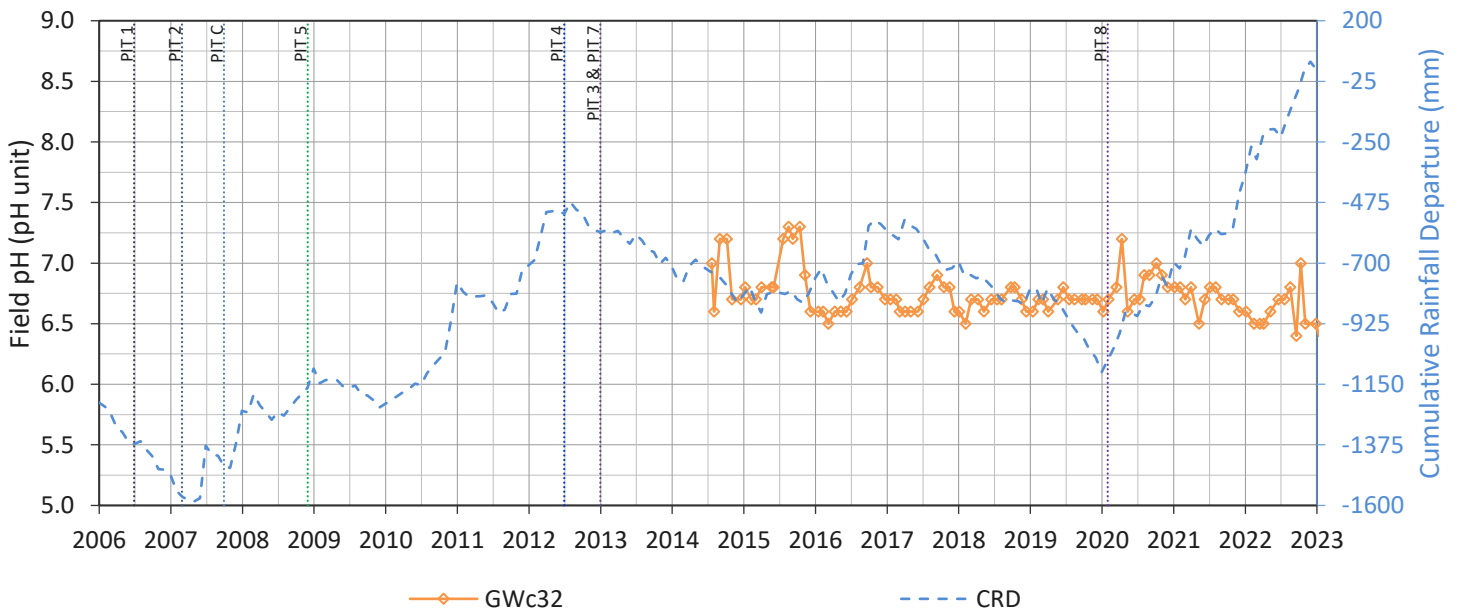
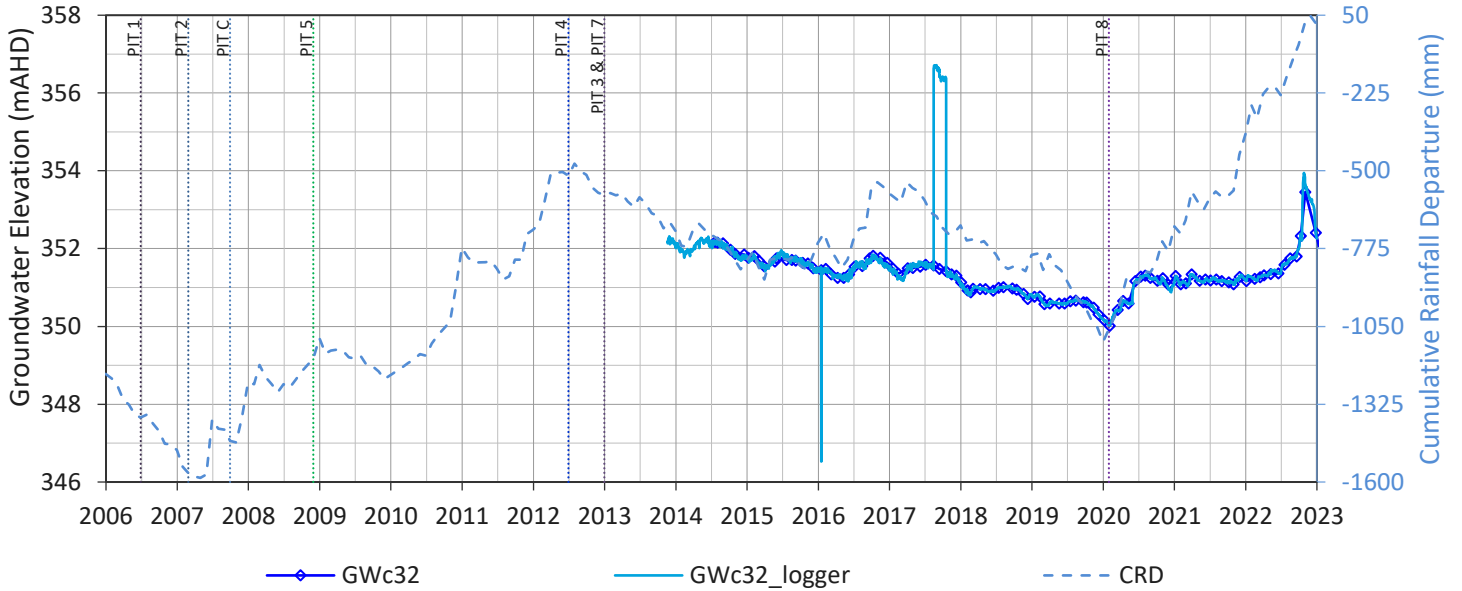
GWc33



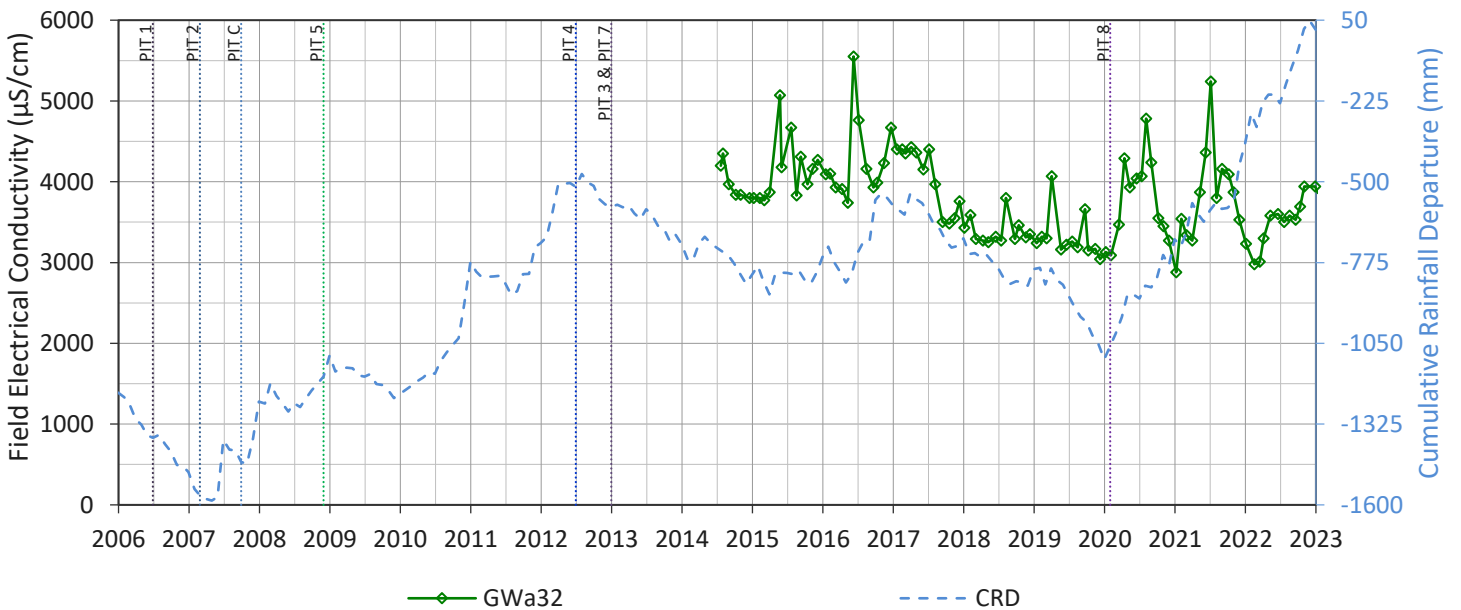
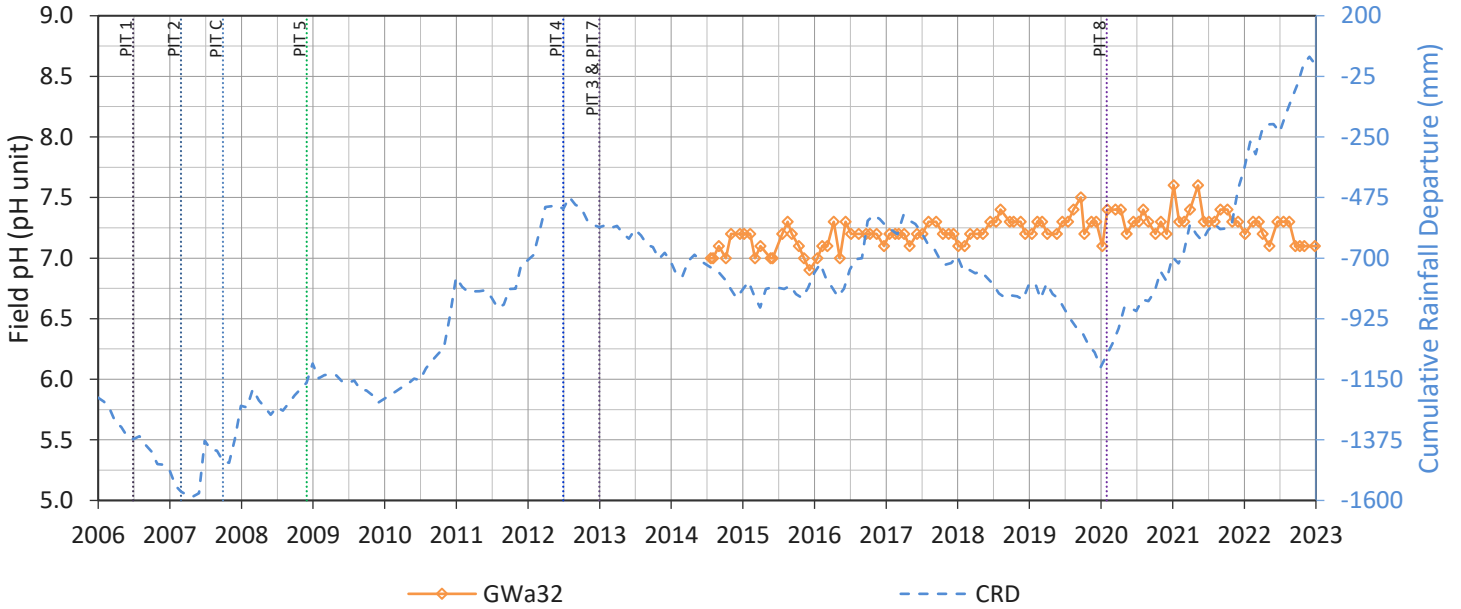
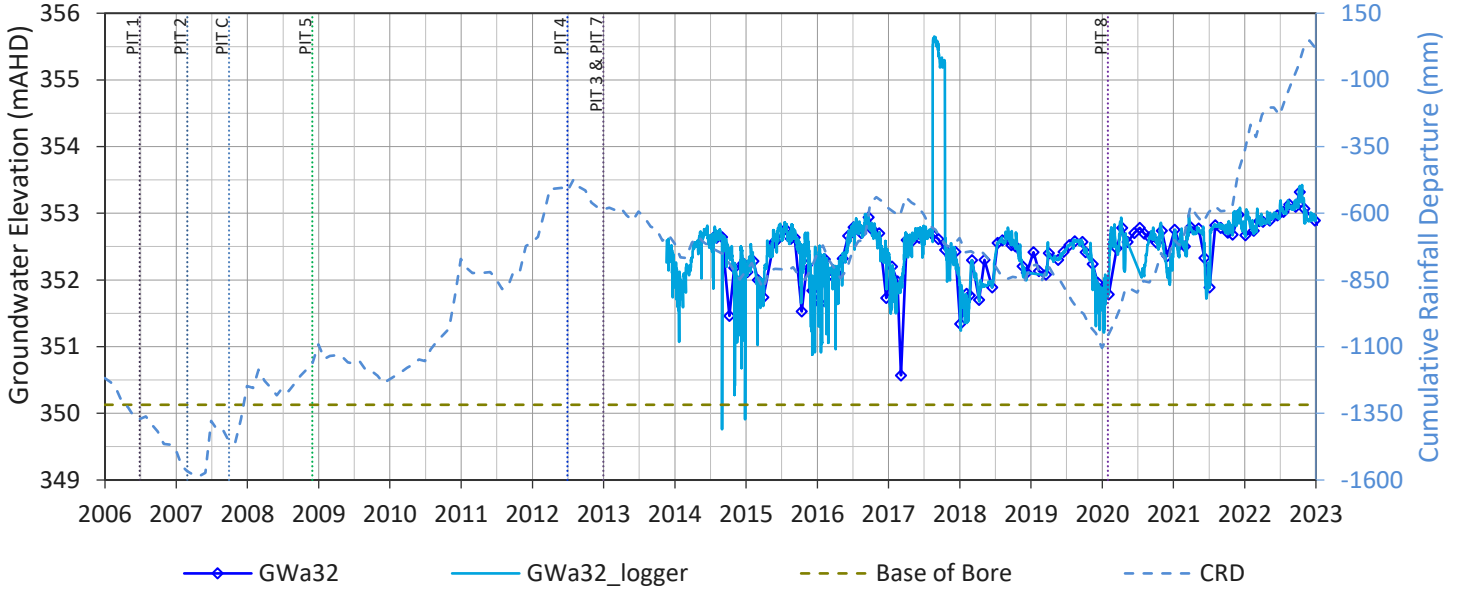
GWc31



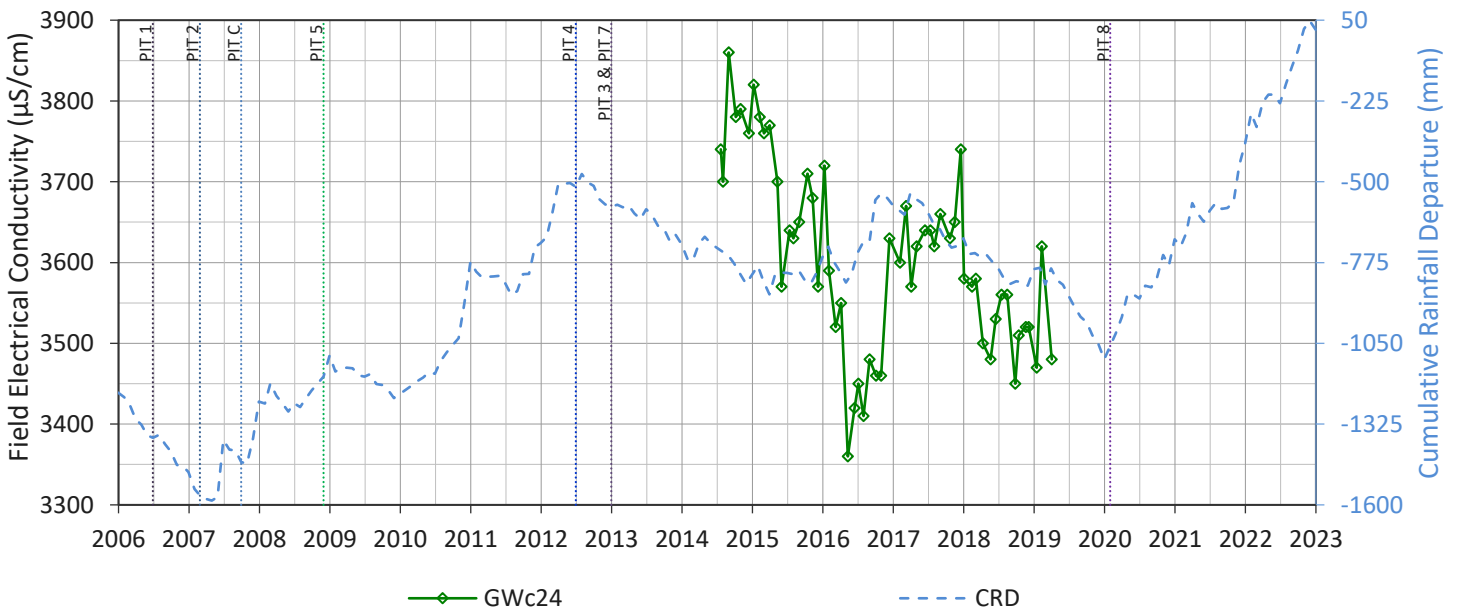
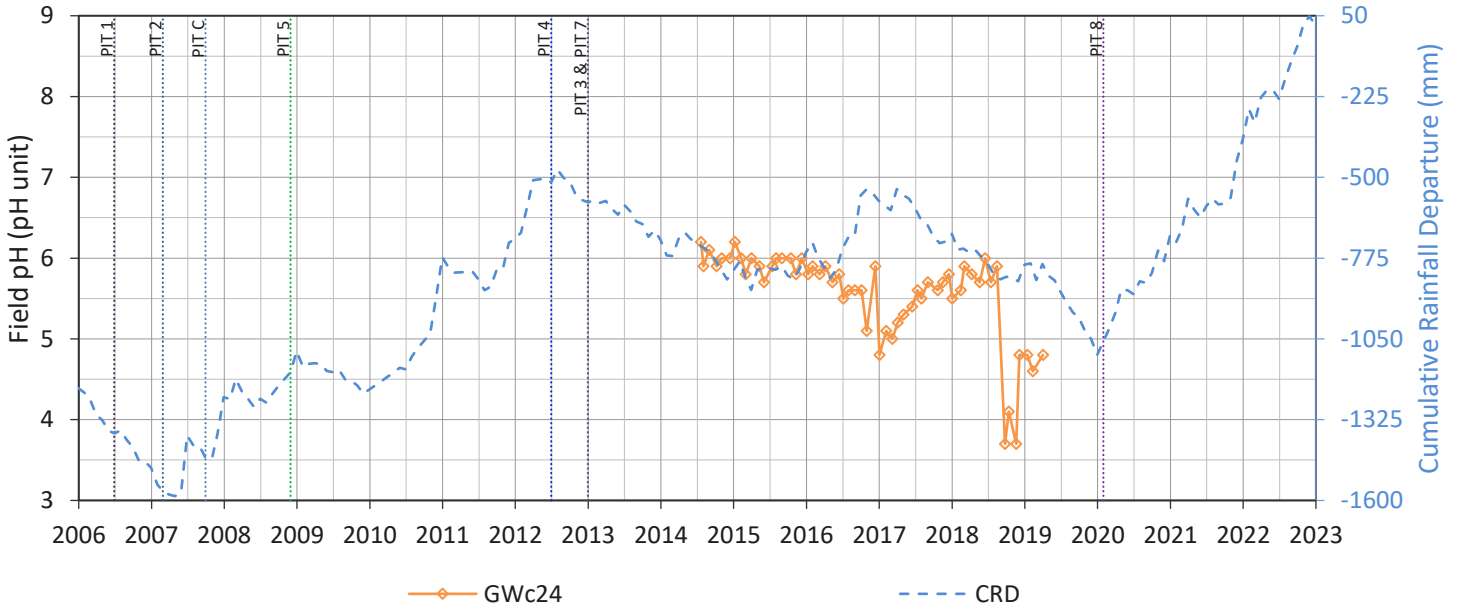
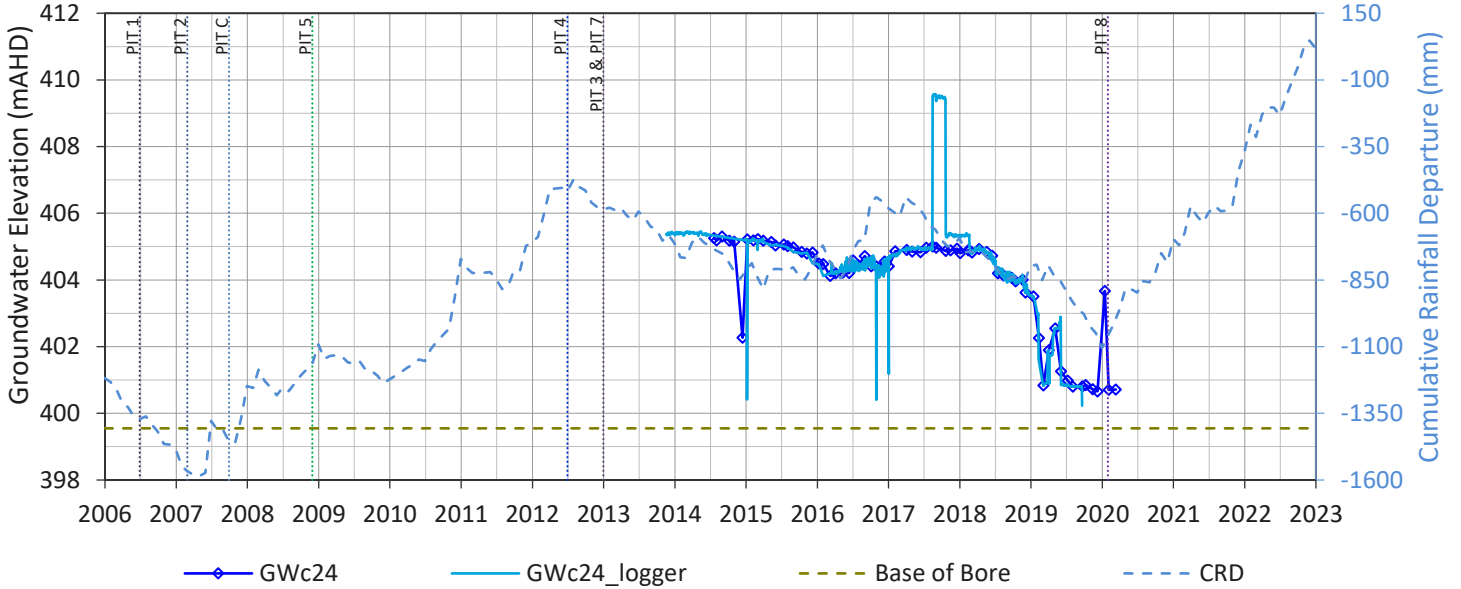
GWc32



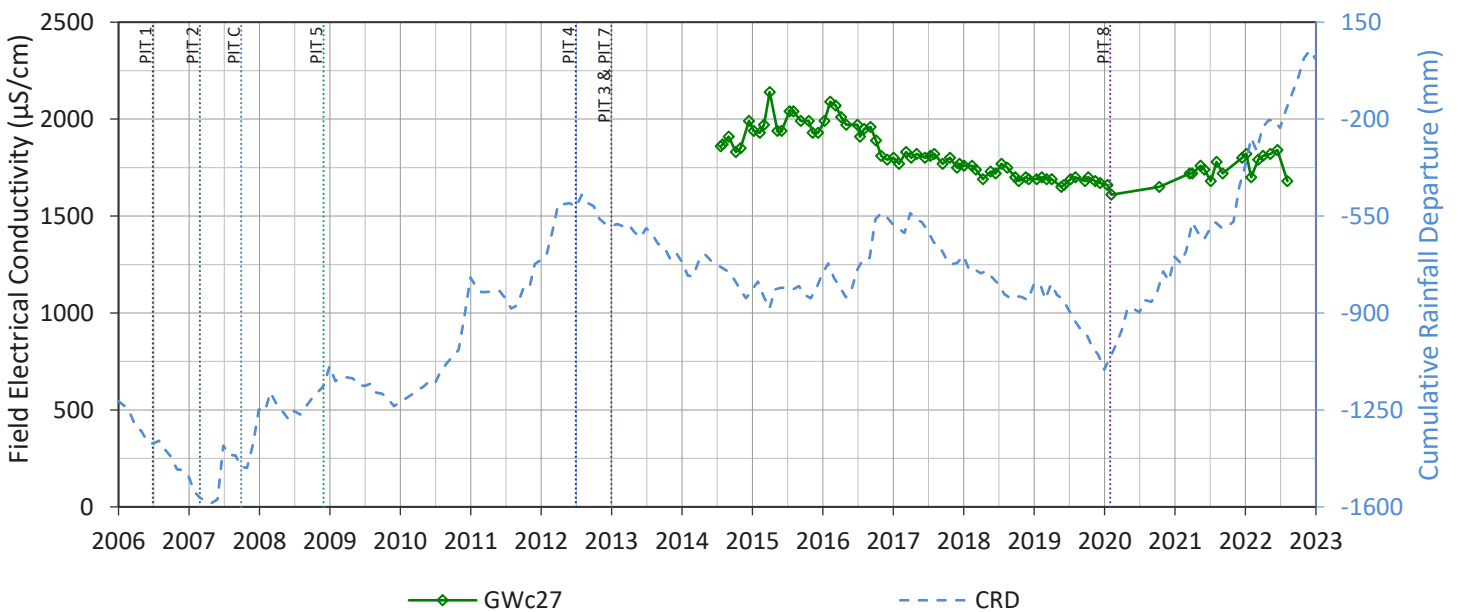
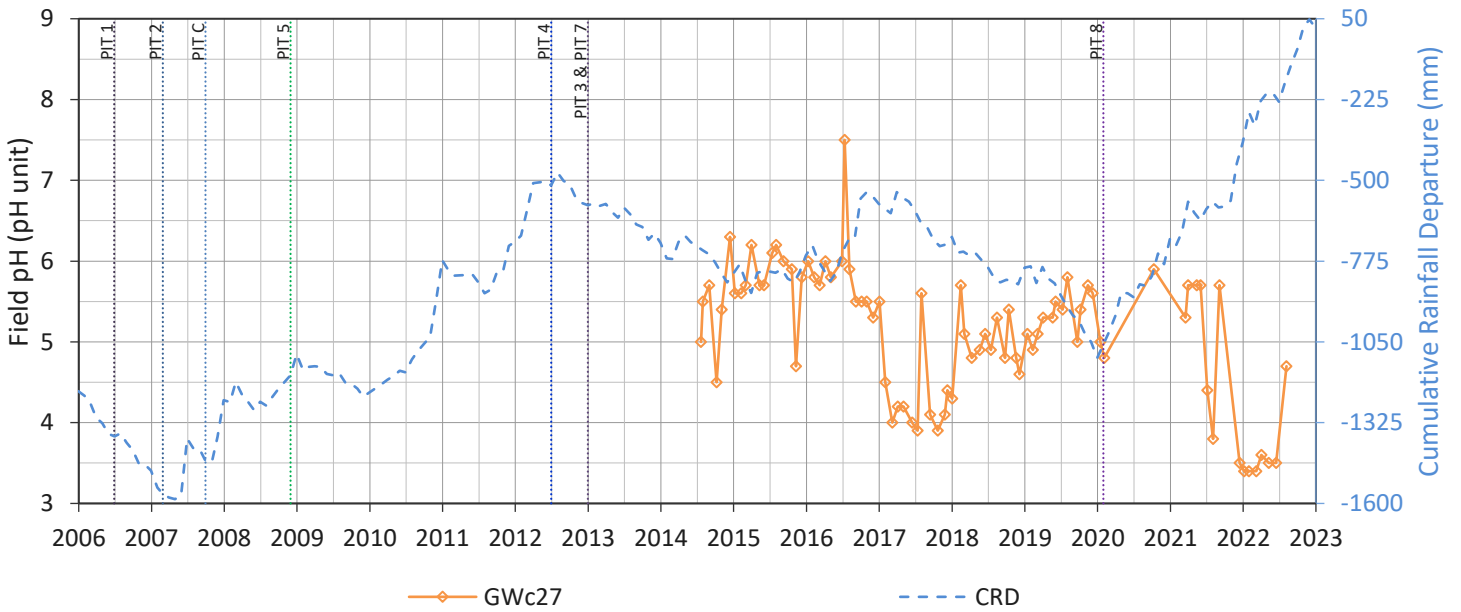
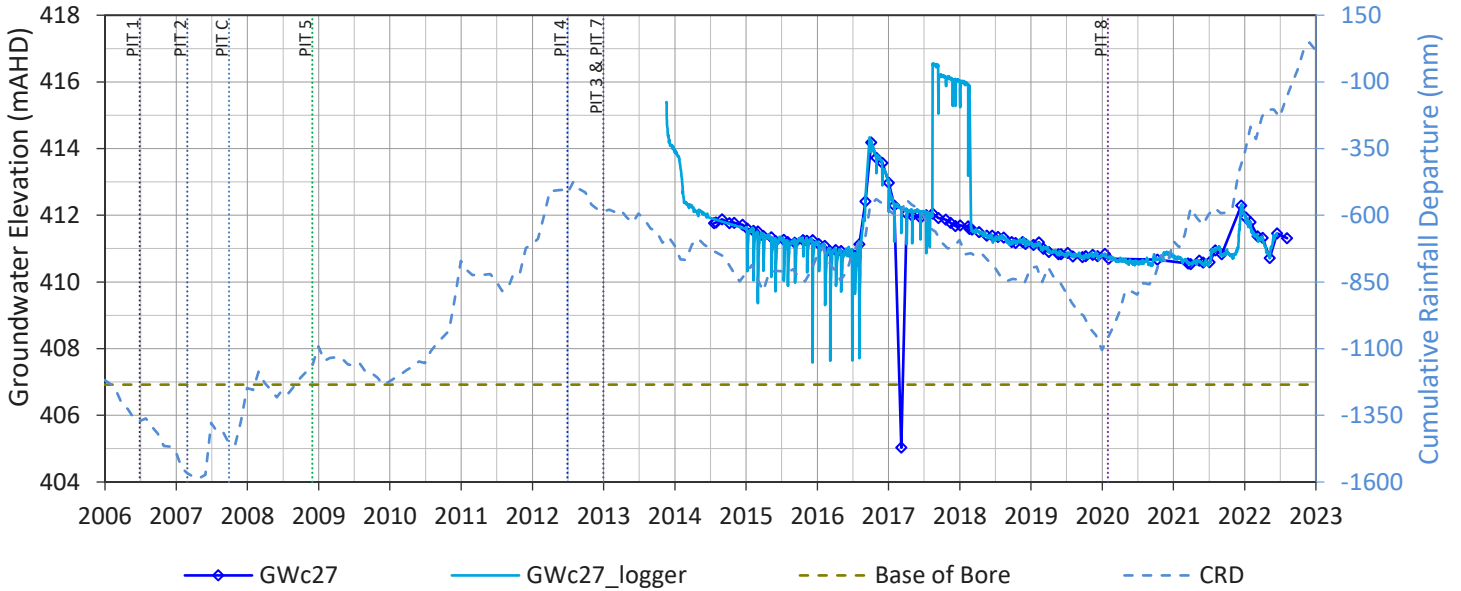
GWa32



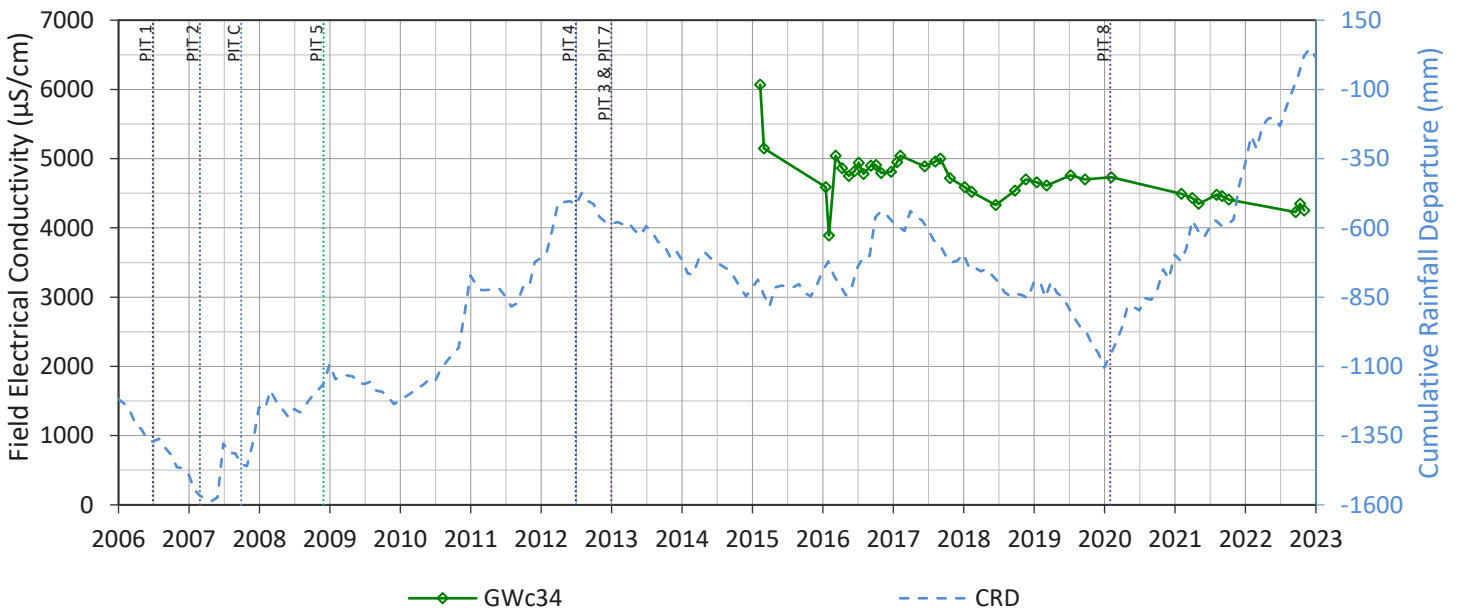
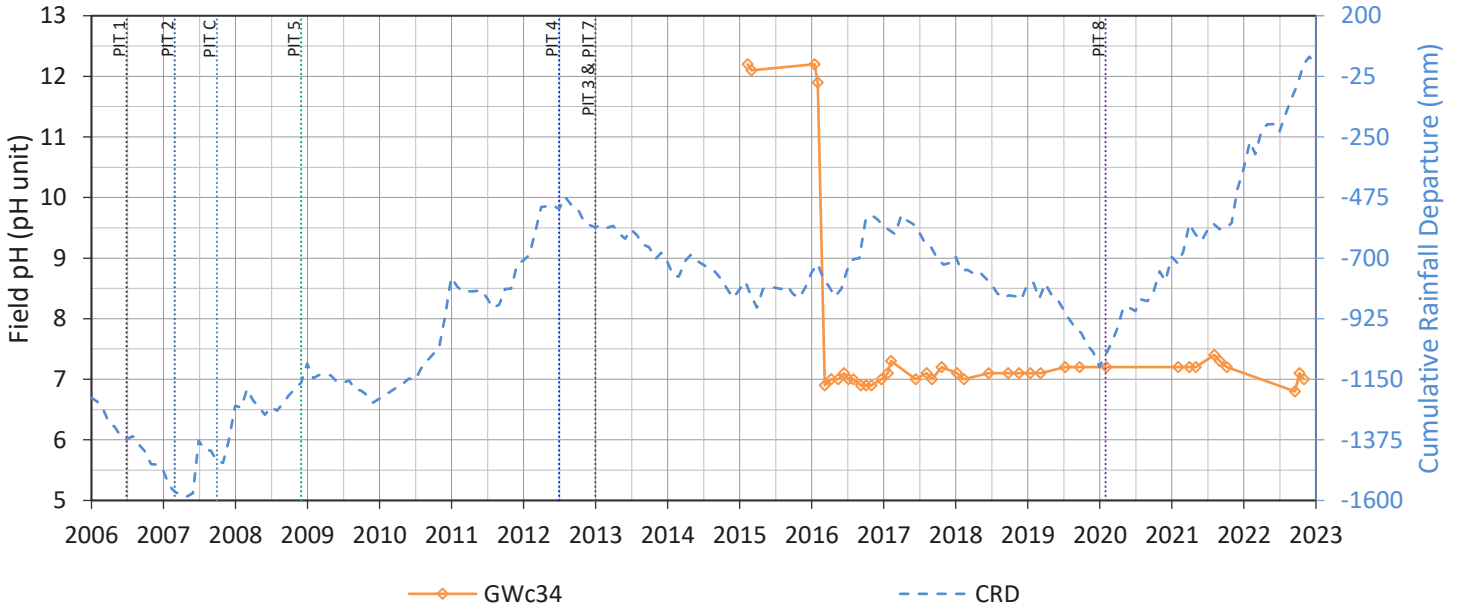
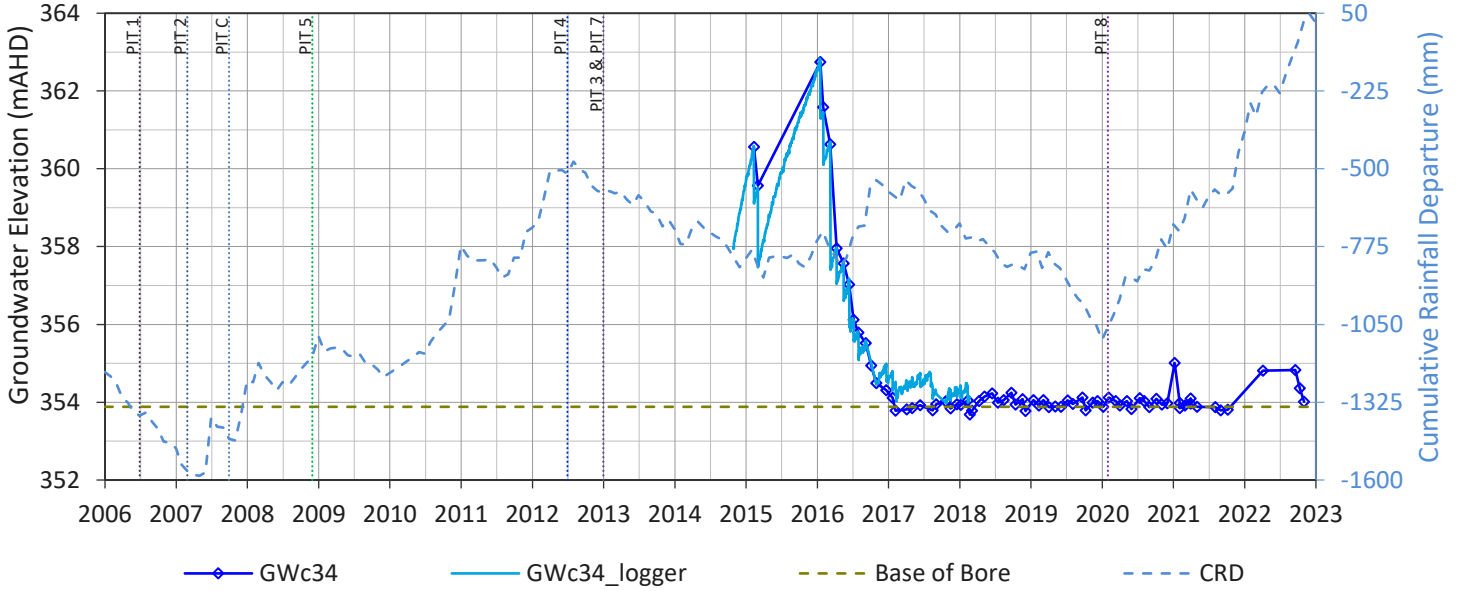
GWc24



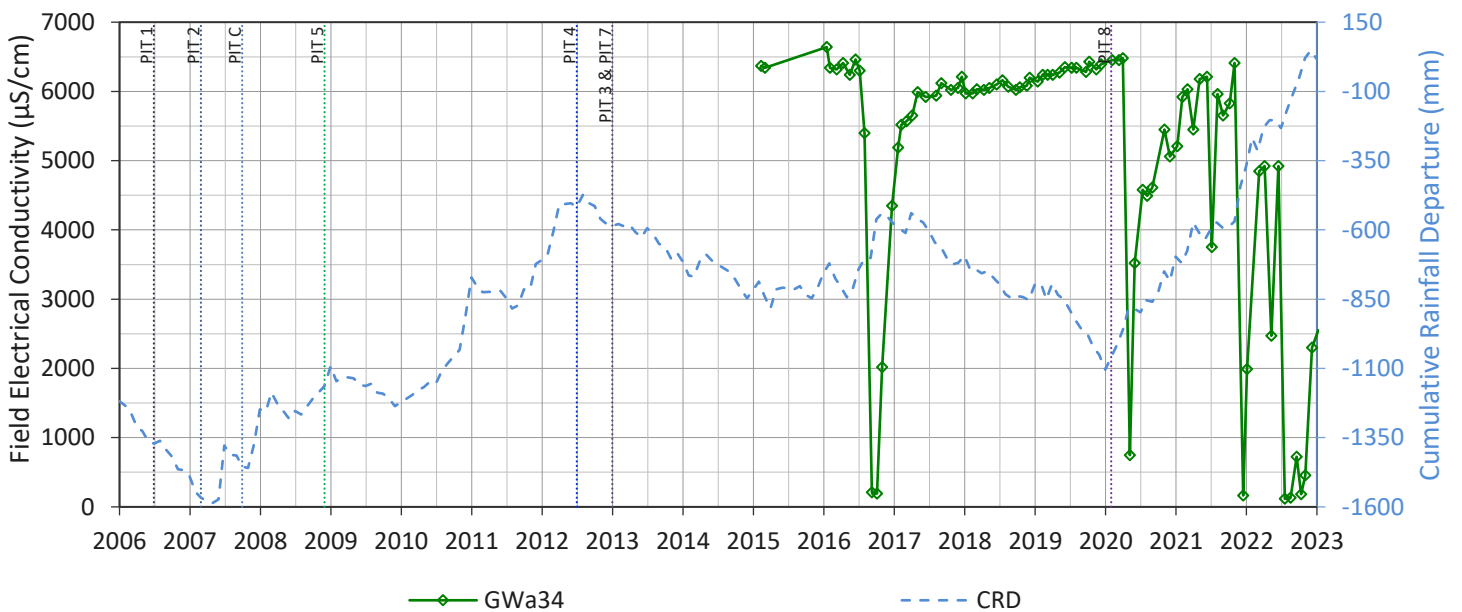
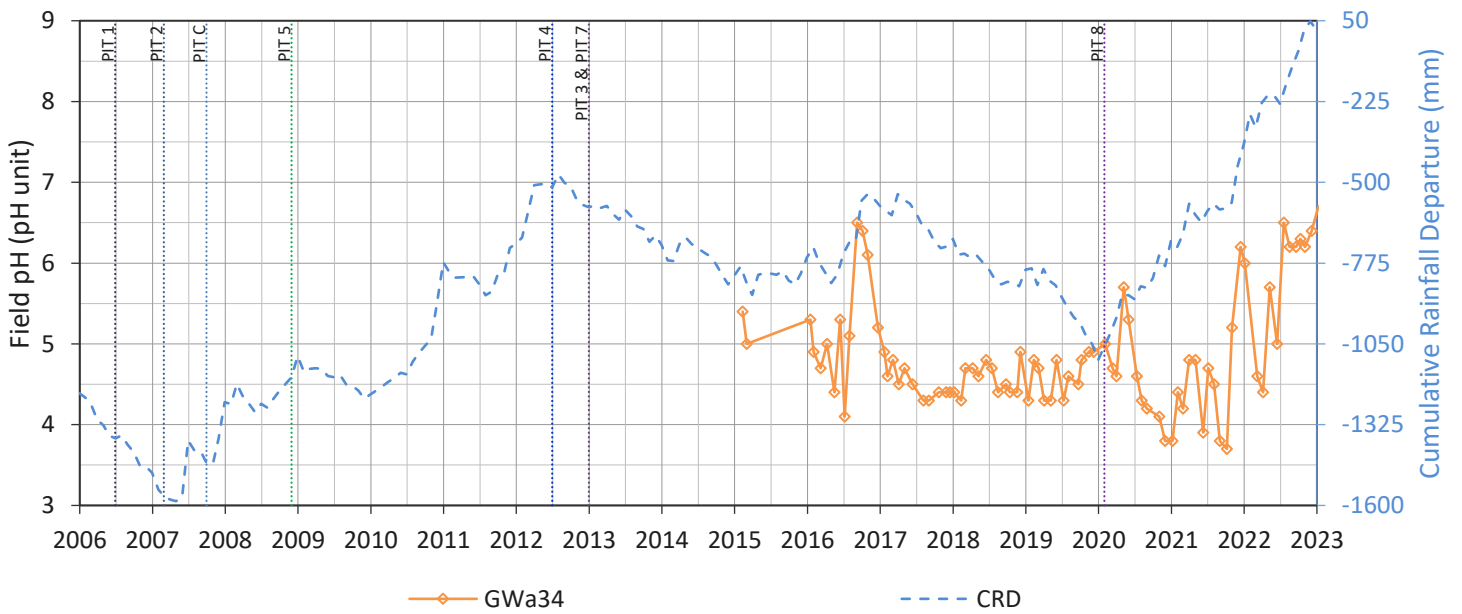
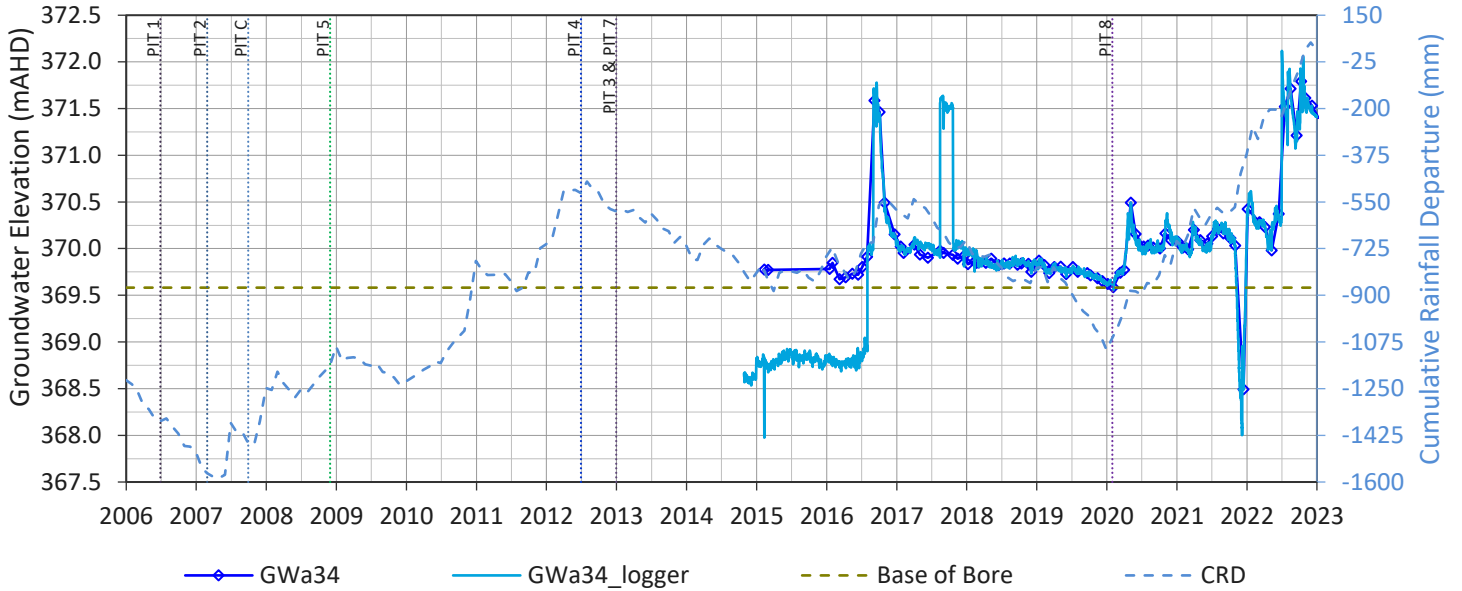
GWc27



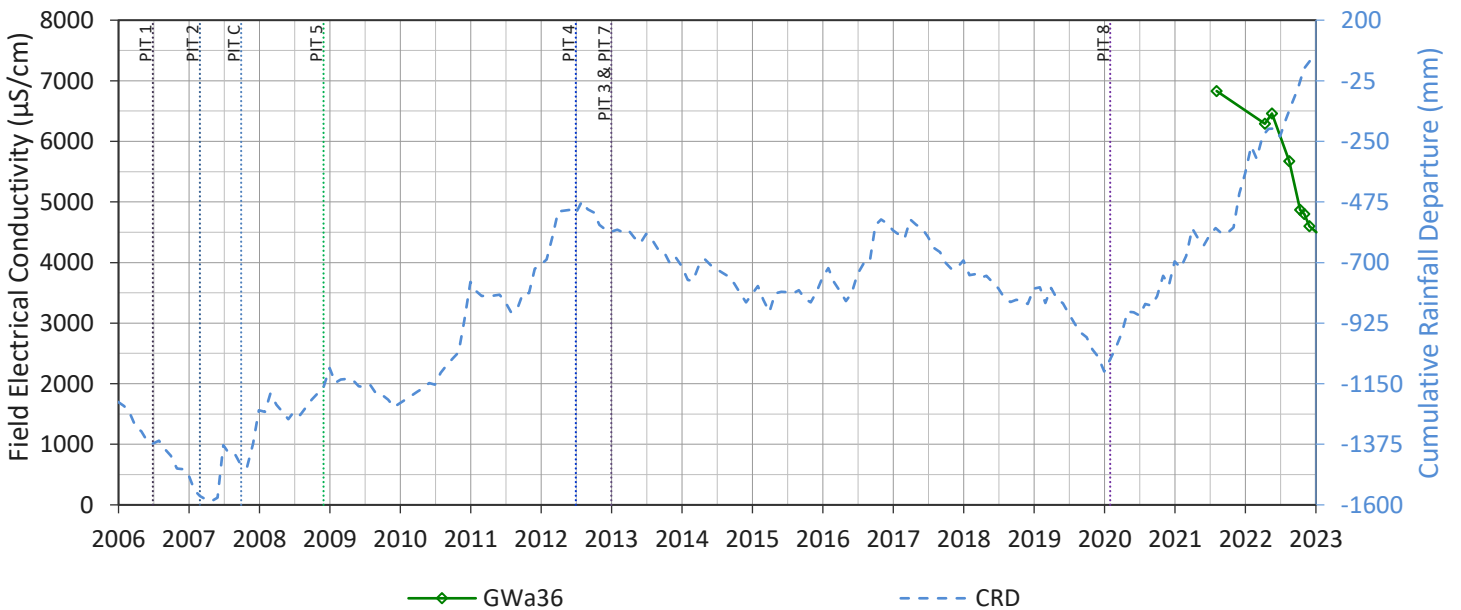
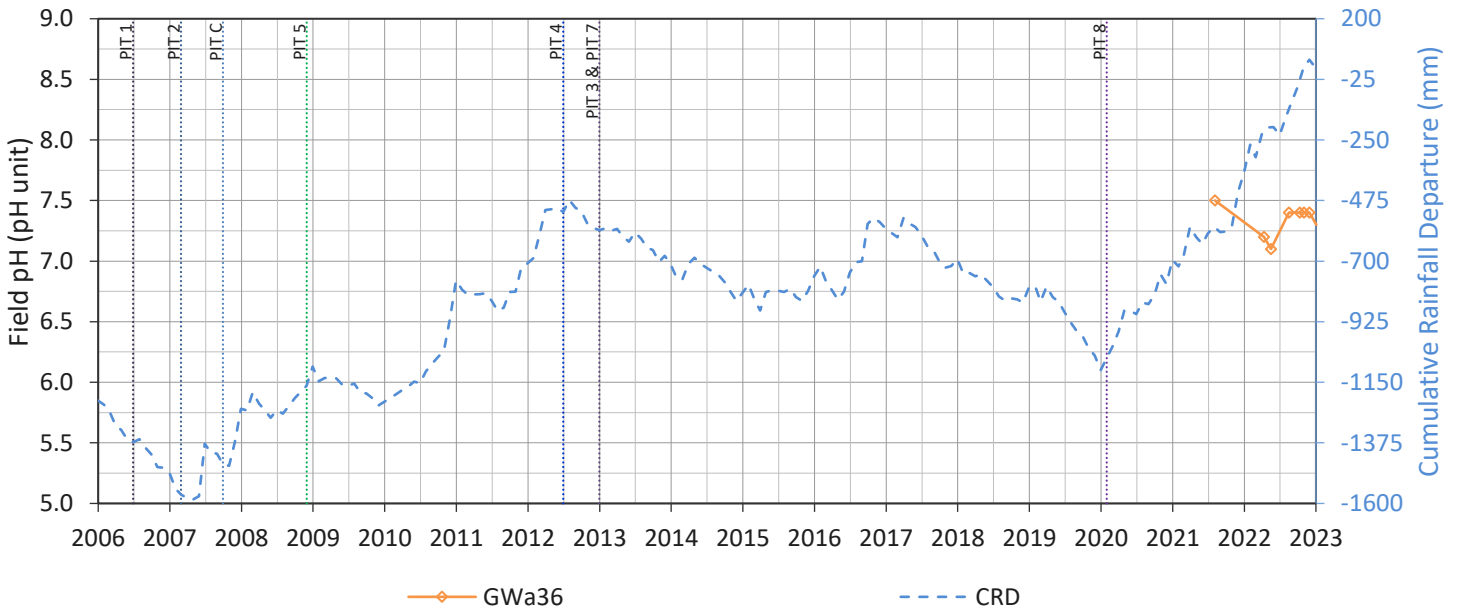
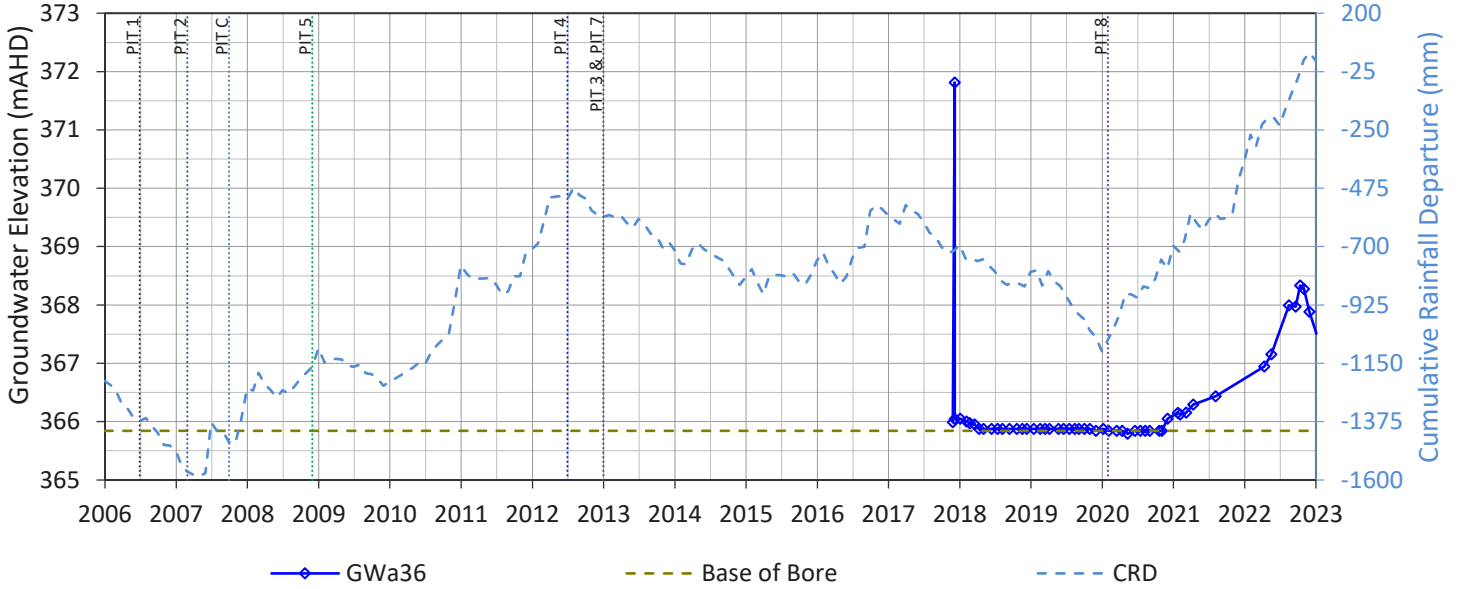
GWc34



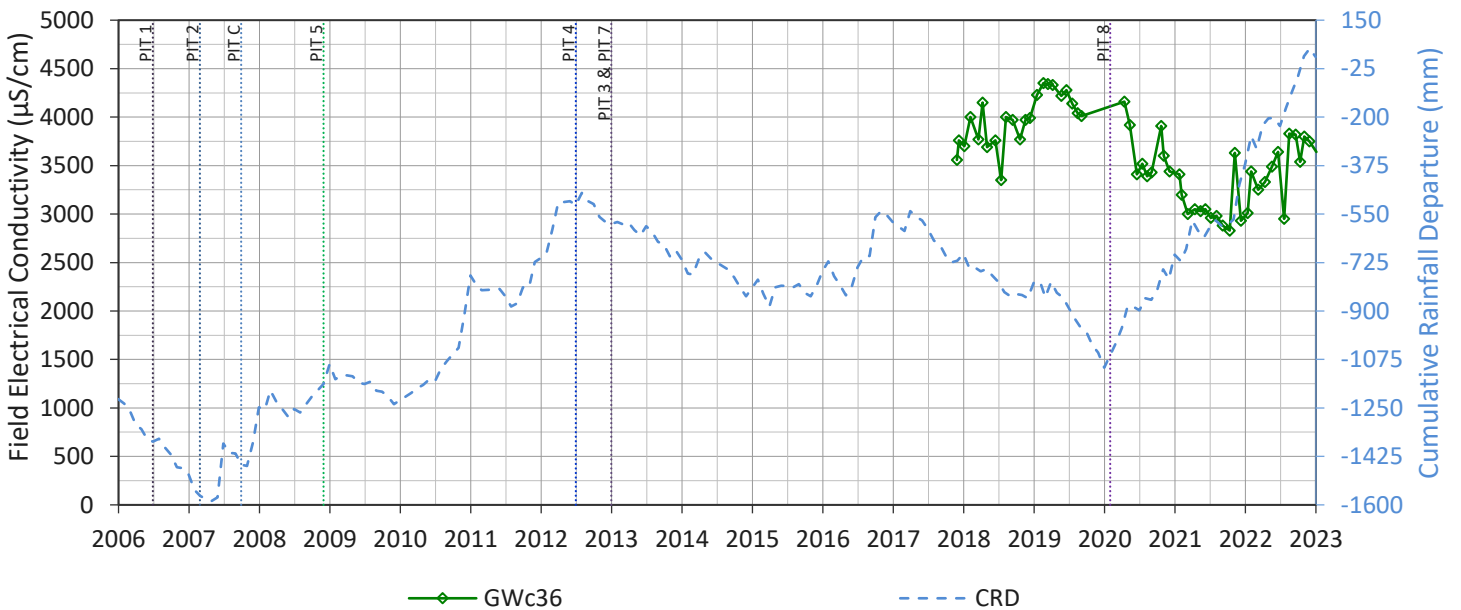
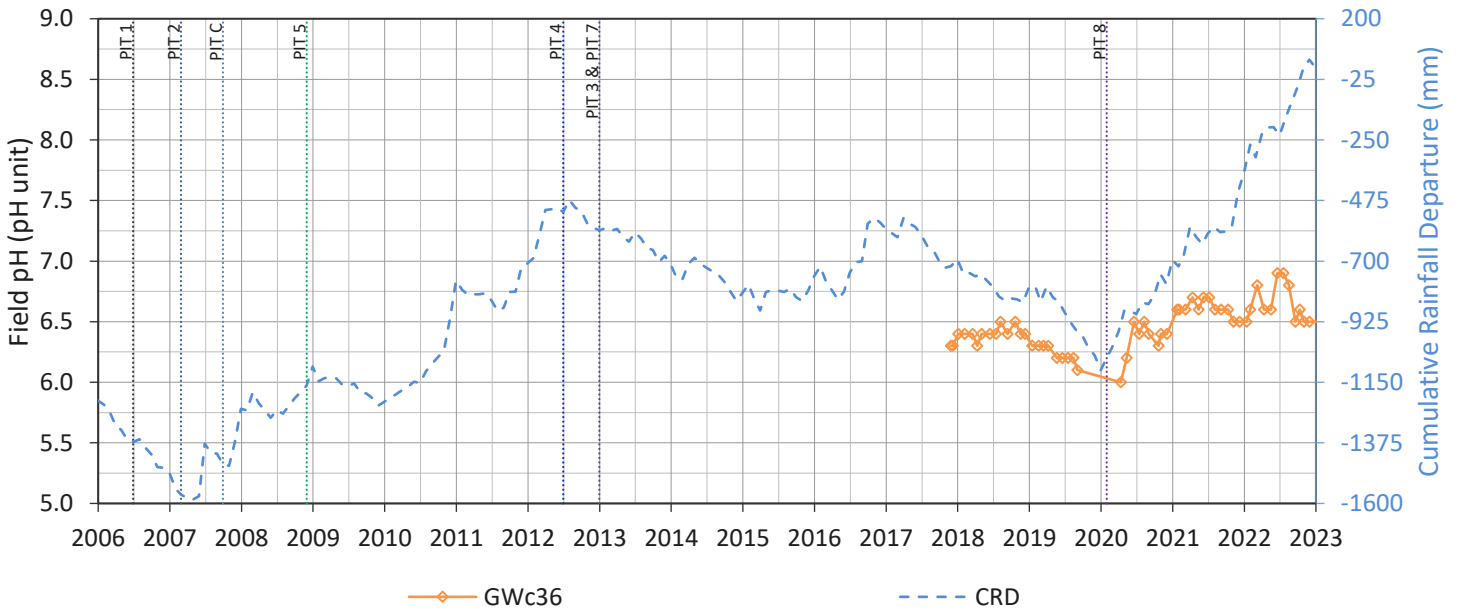
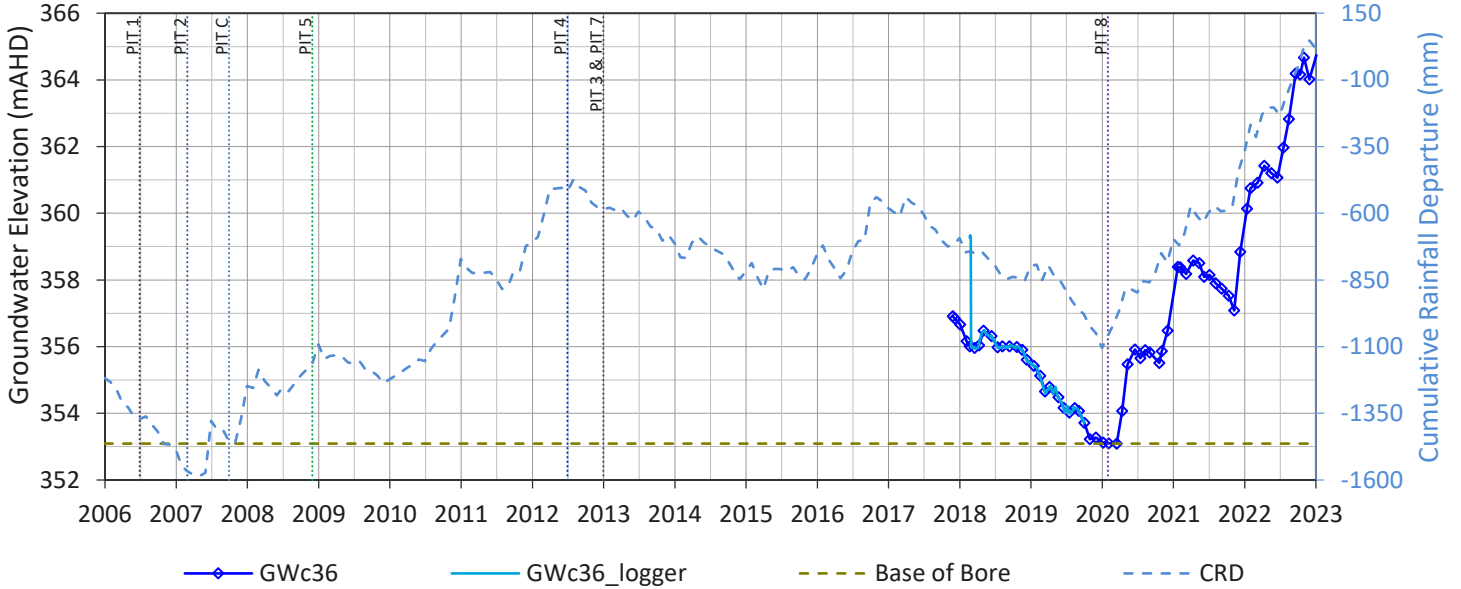
GWa34



GWa36

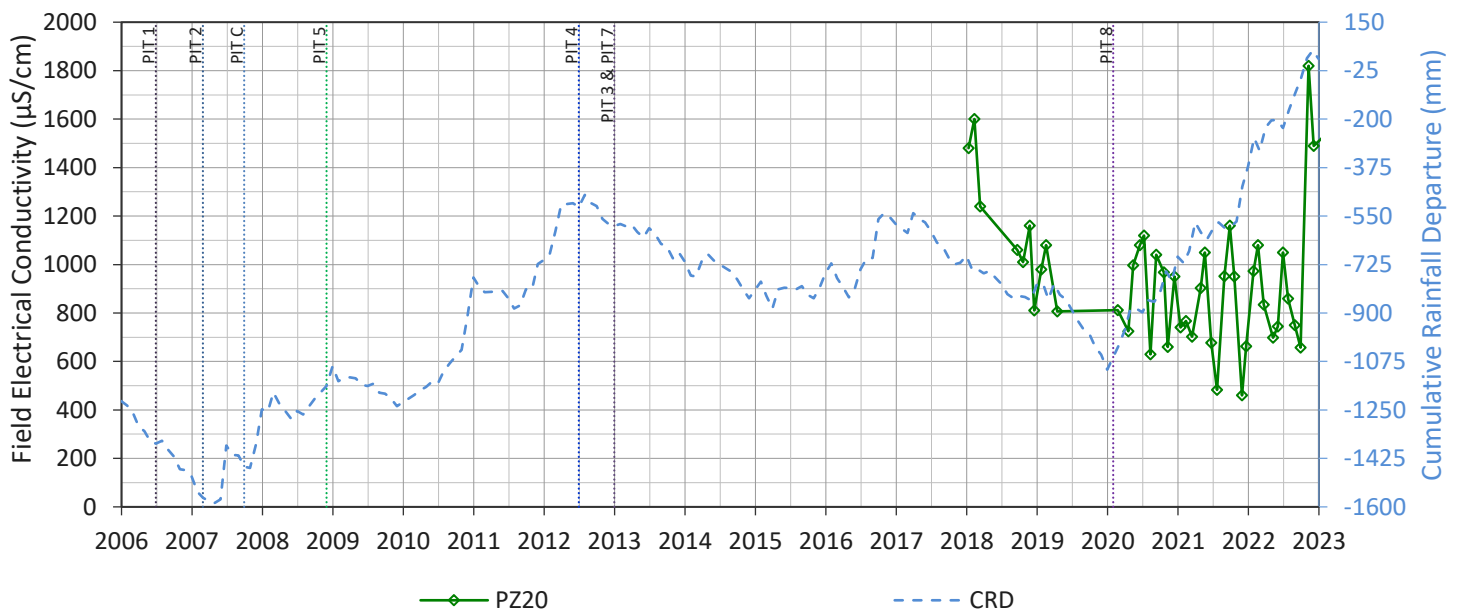
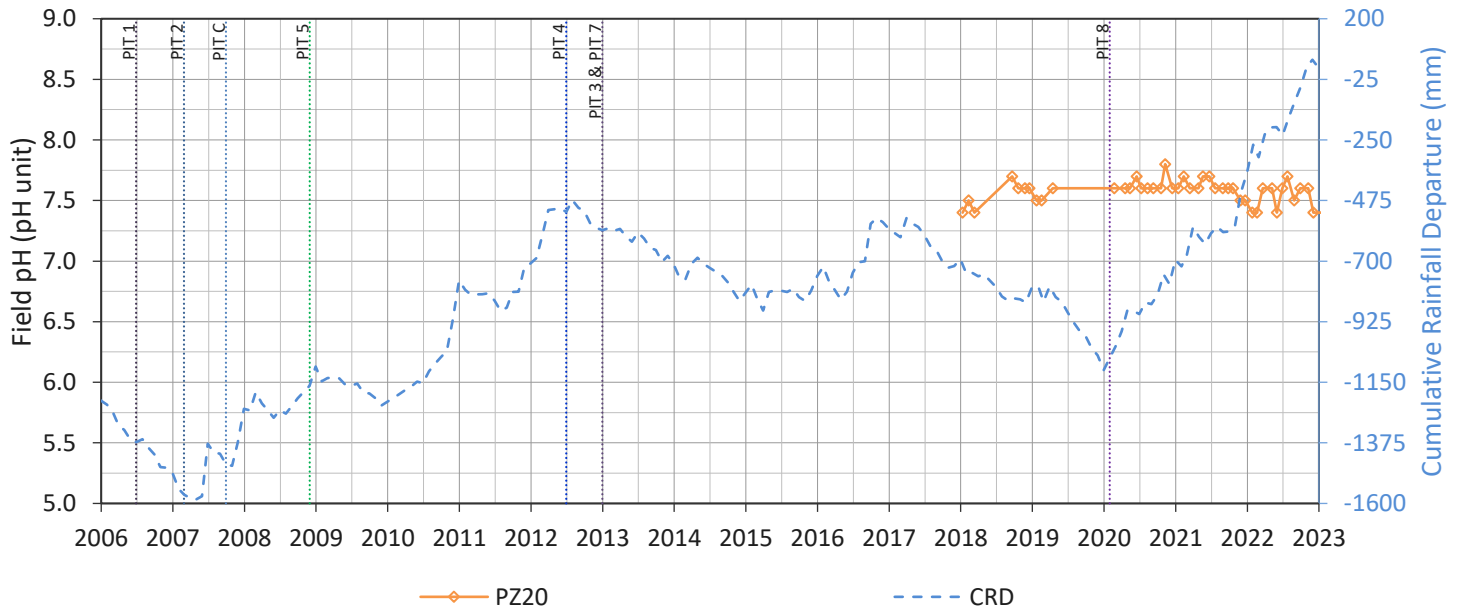


GWc36



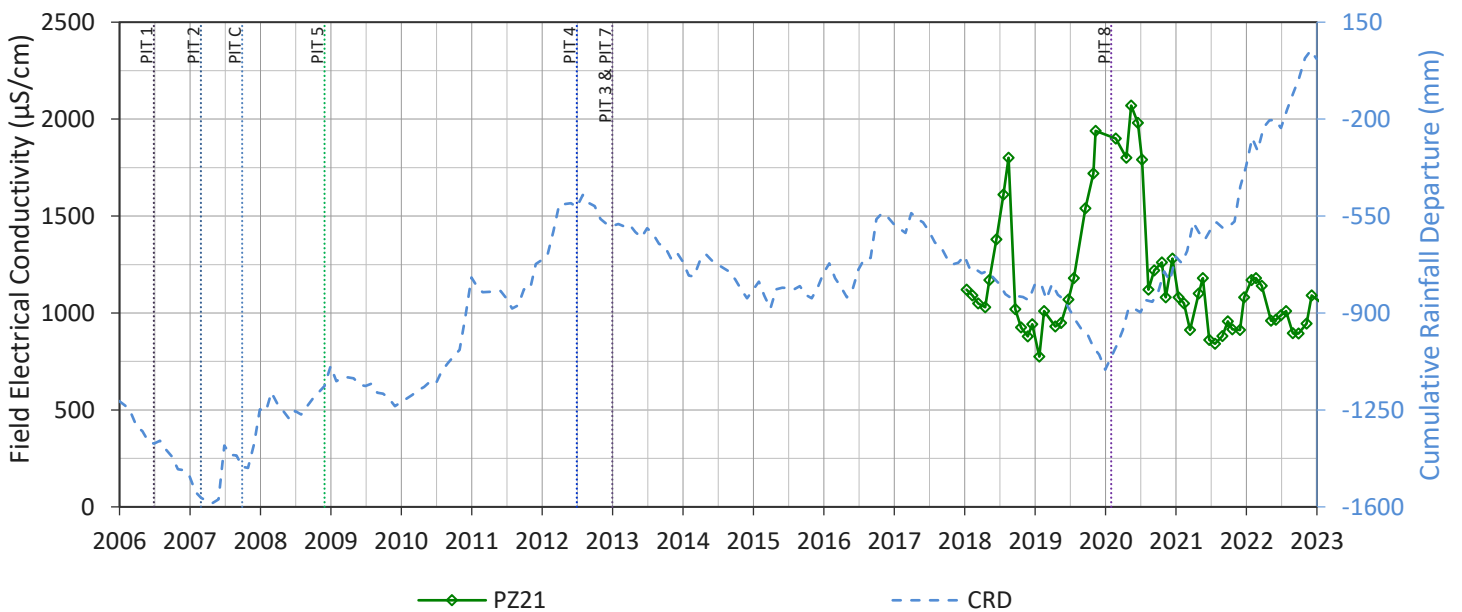
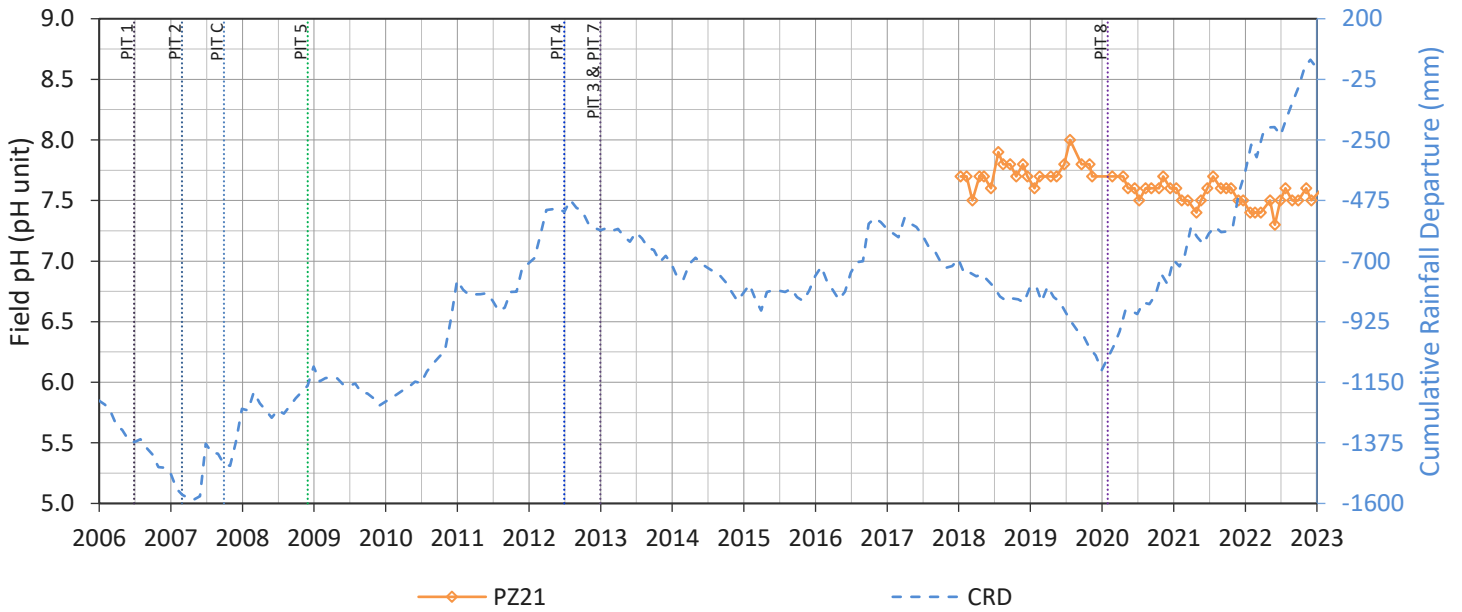
PZ20

No Data Available for Groundwater Elevation (mAHD)

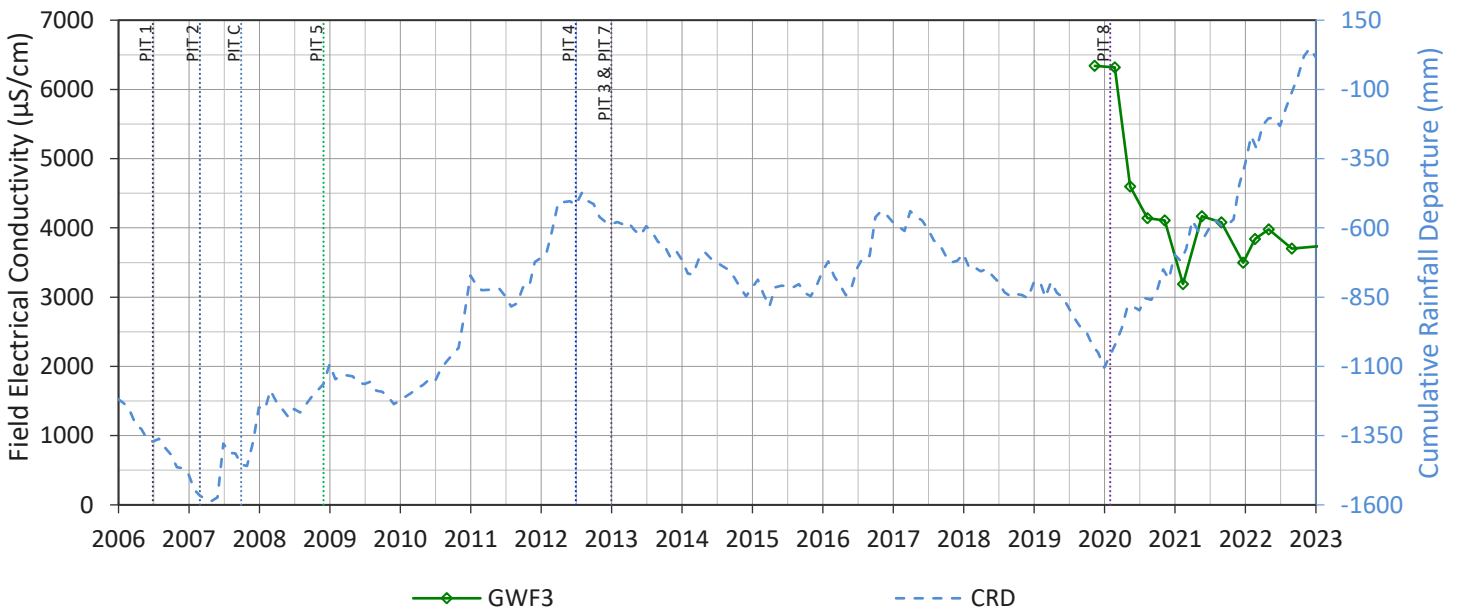
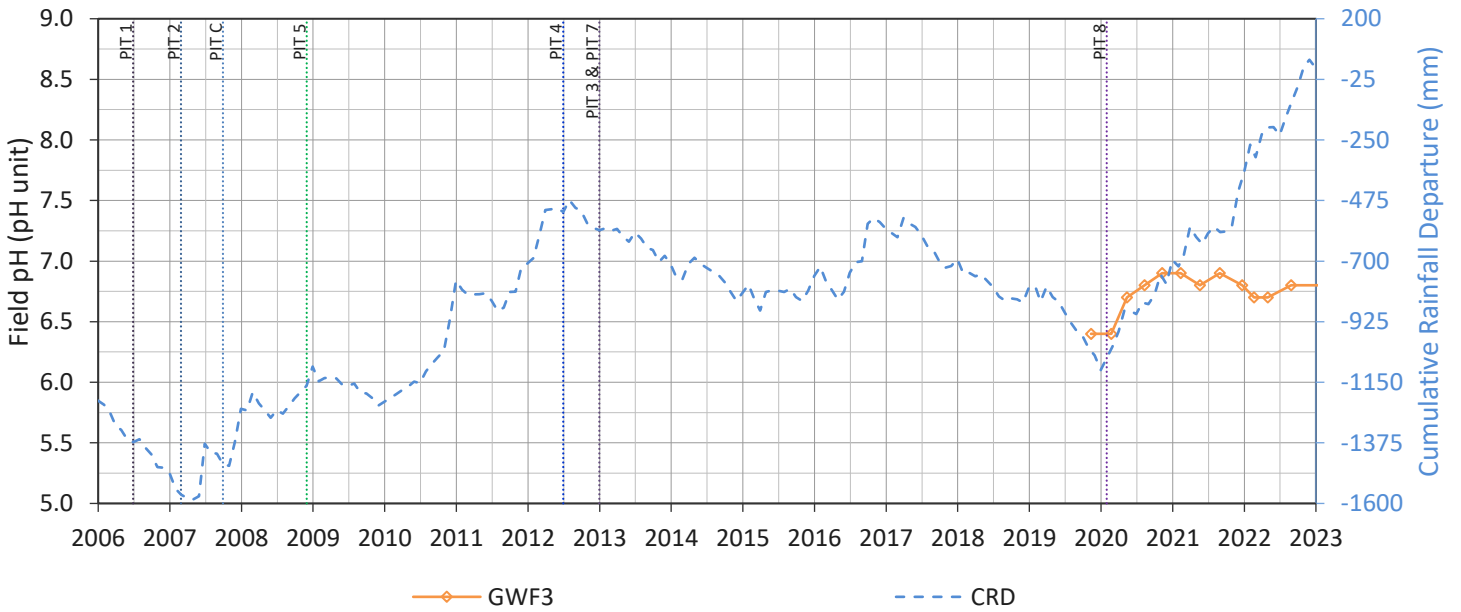
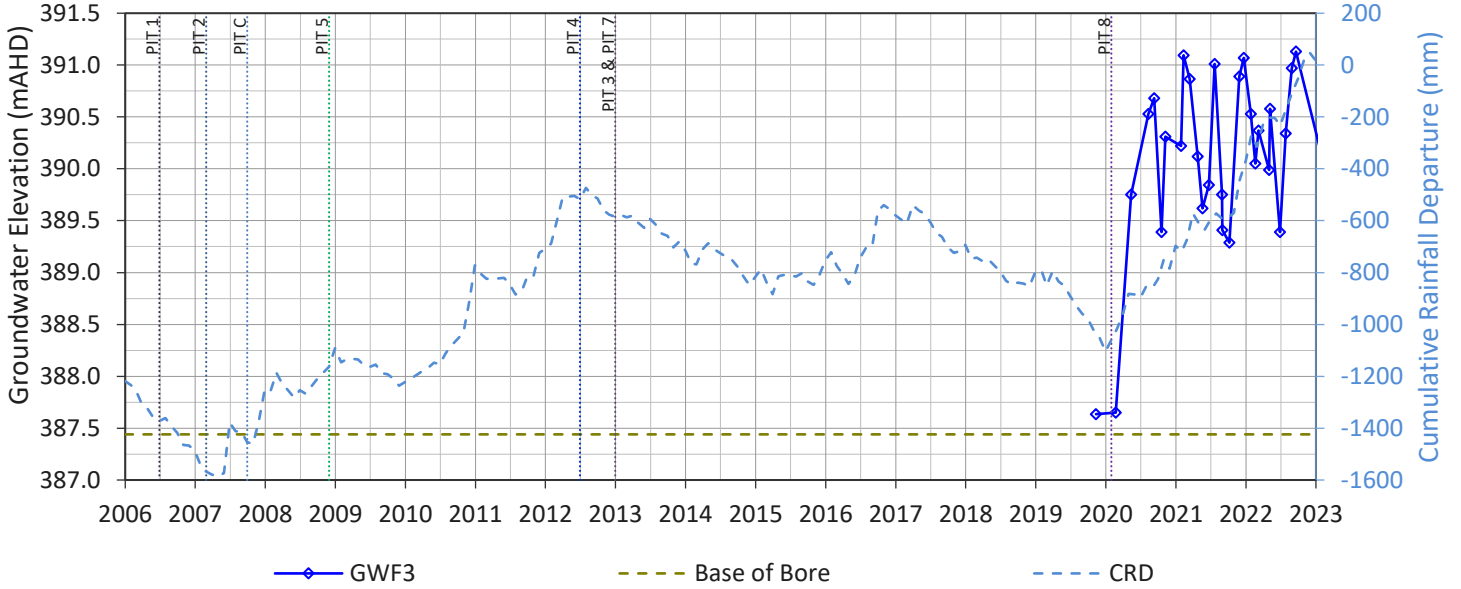


PZ21

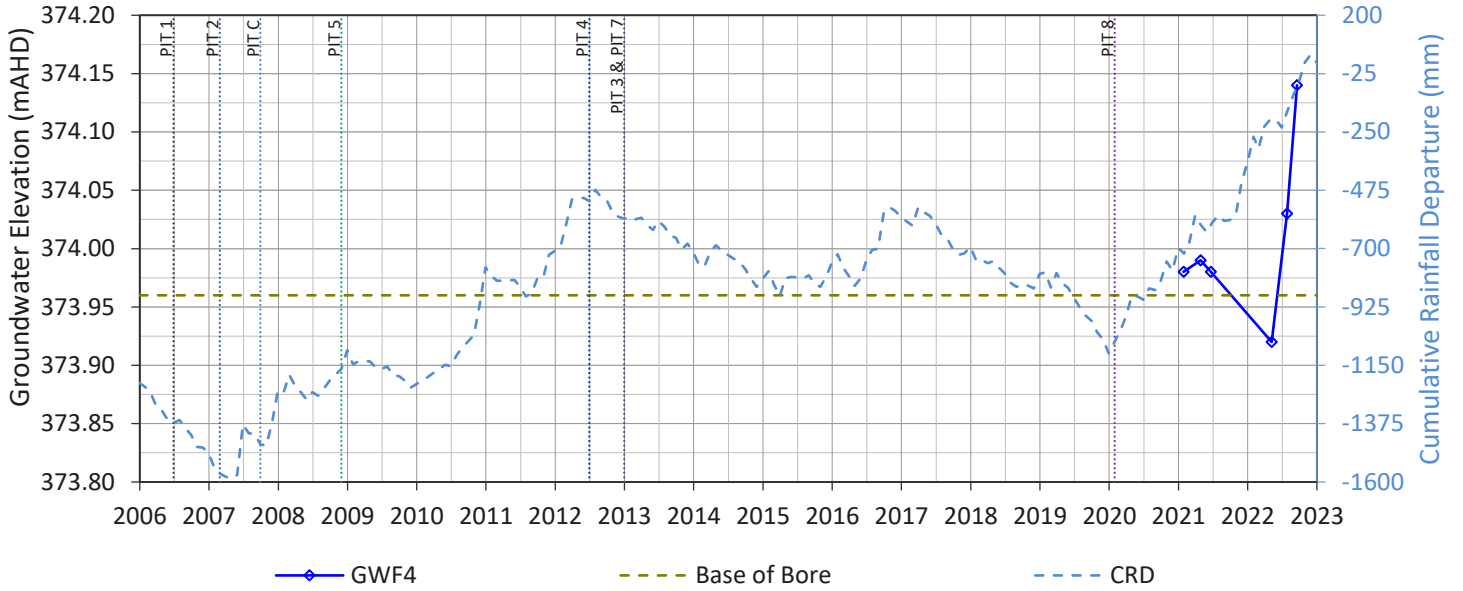
No Data Available for Groundwater Elevation (mAHD)



GWF3



GWF4



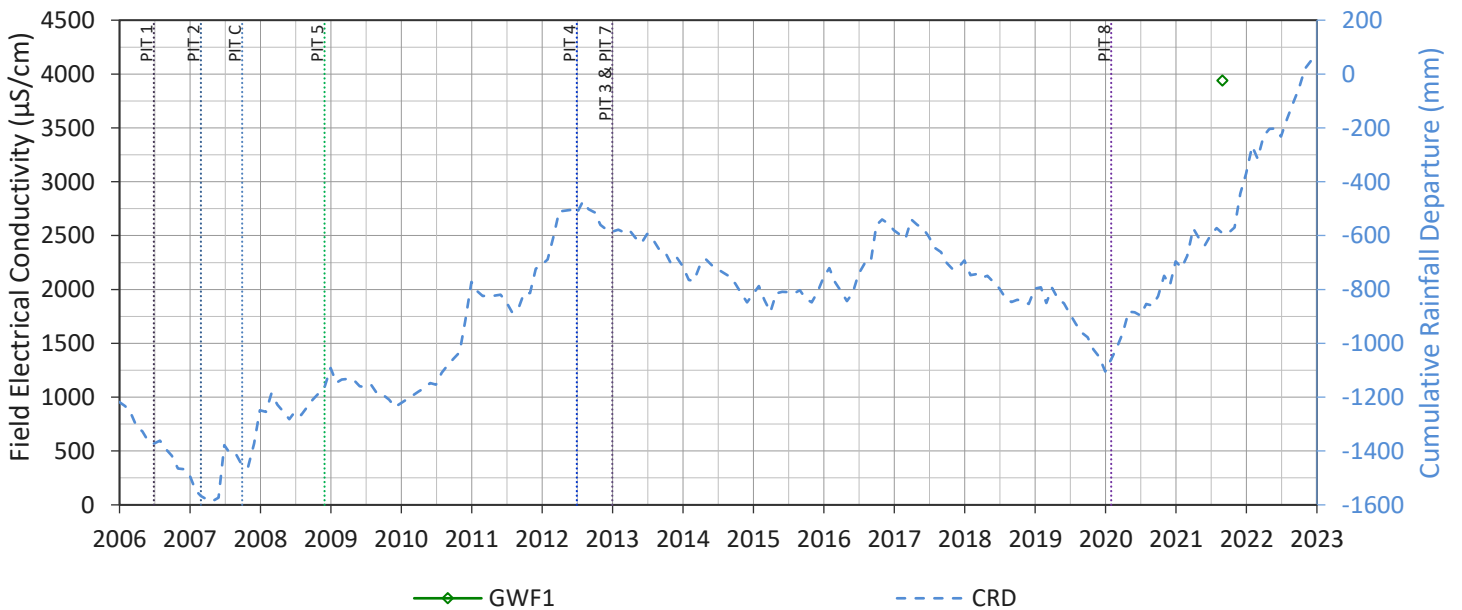
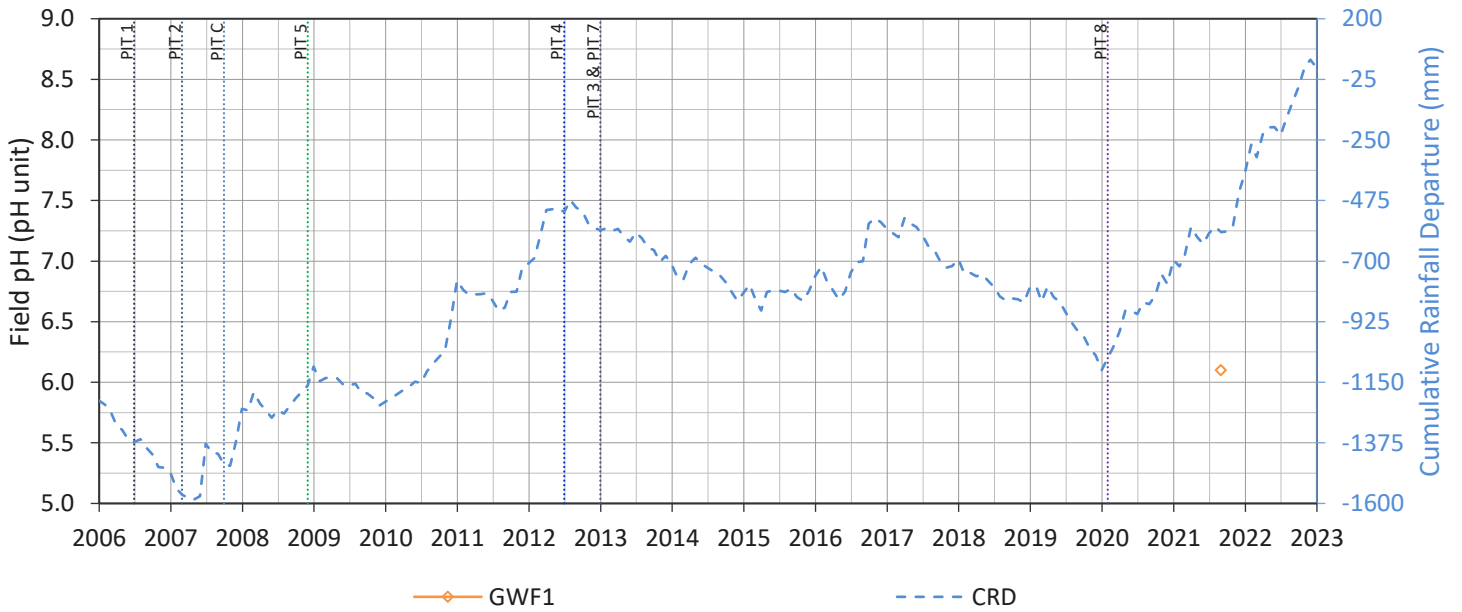
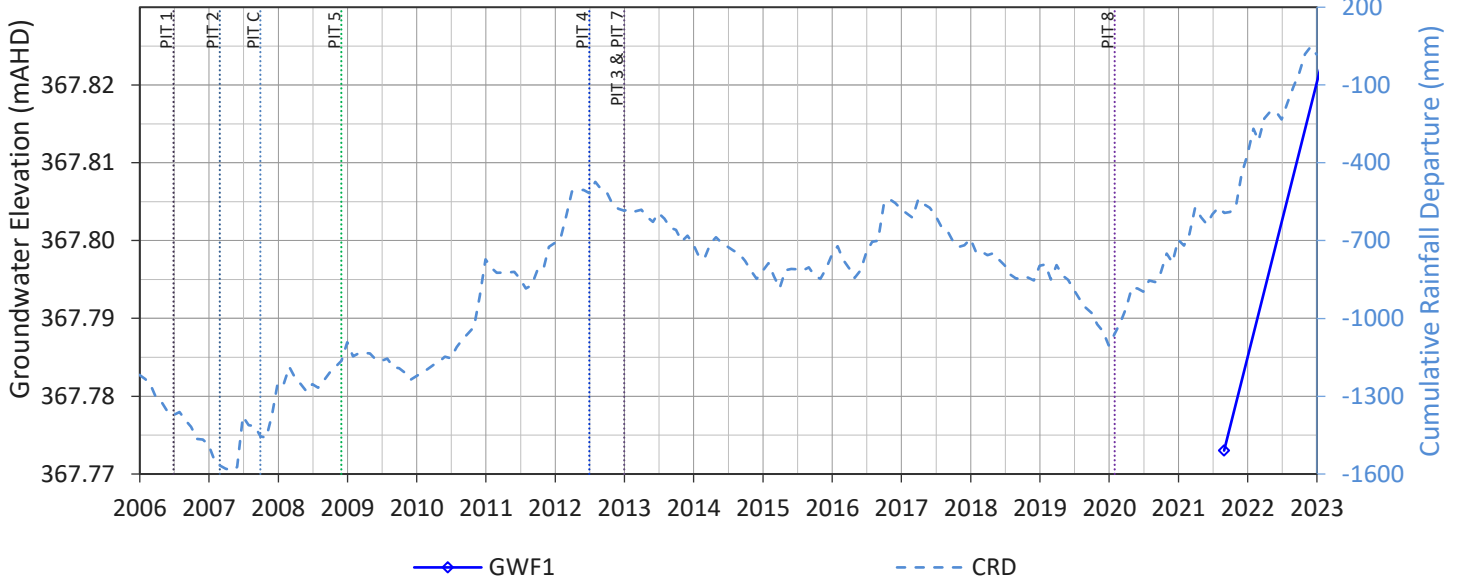
GWF4

No Data Available for Field pH (pH unit)

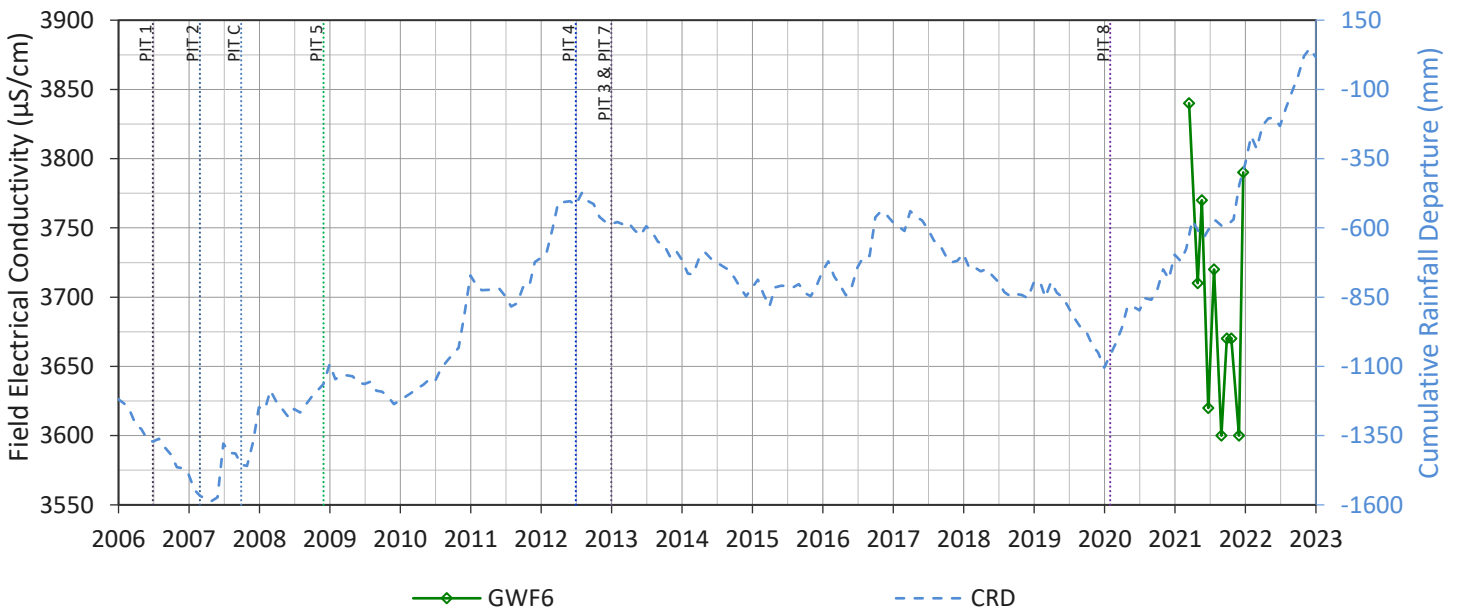
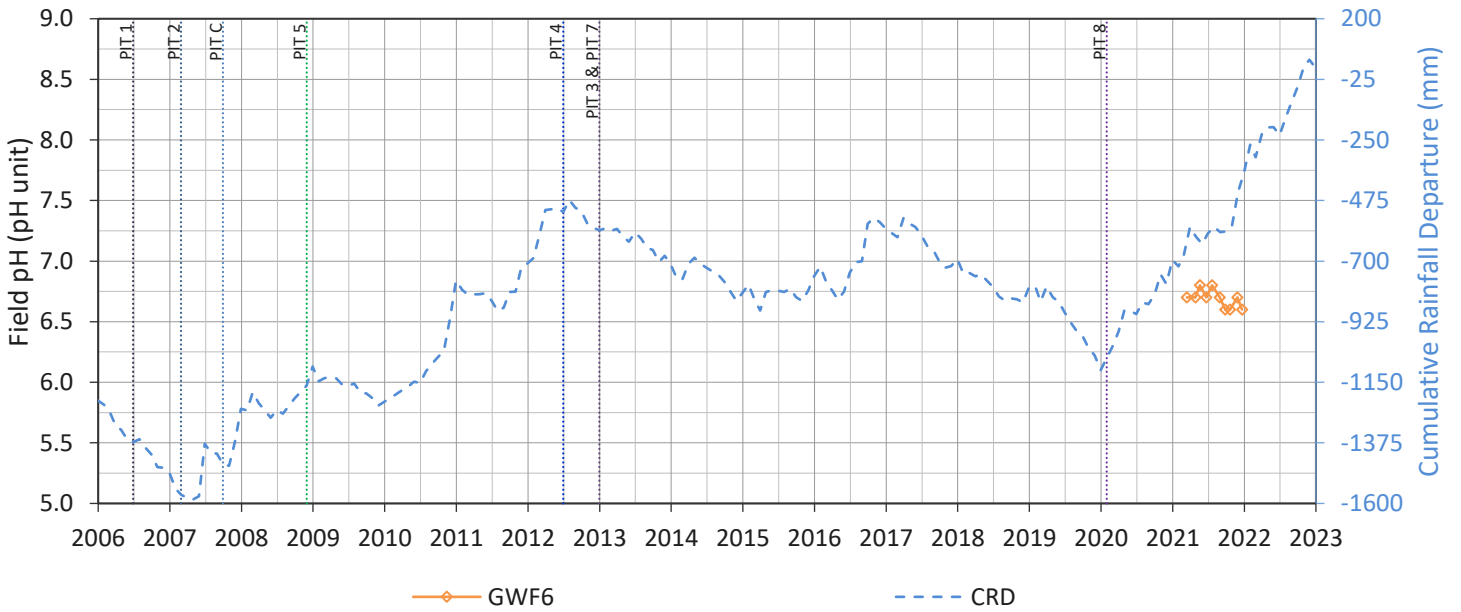
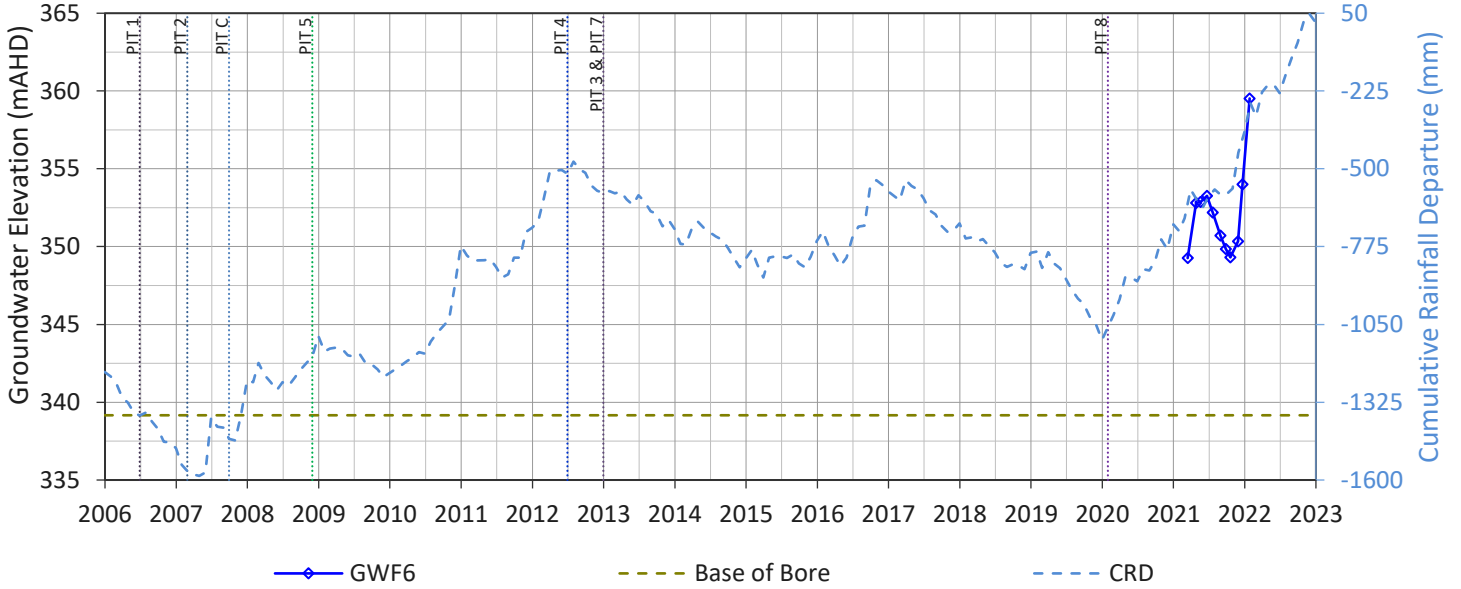
GWF4

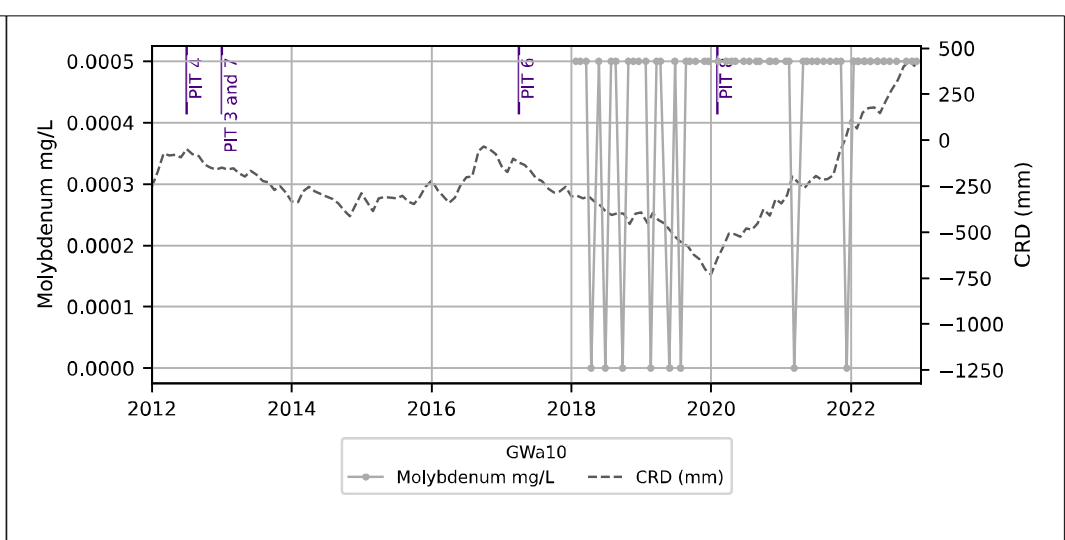
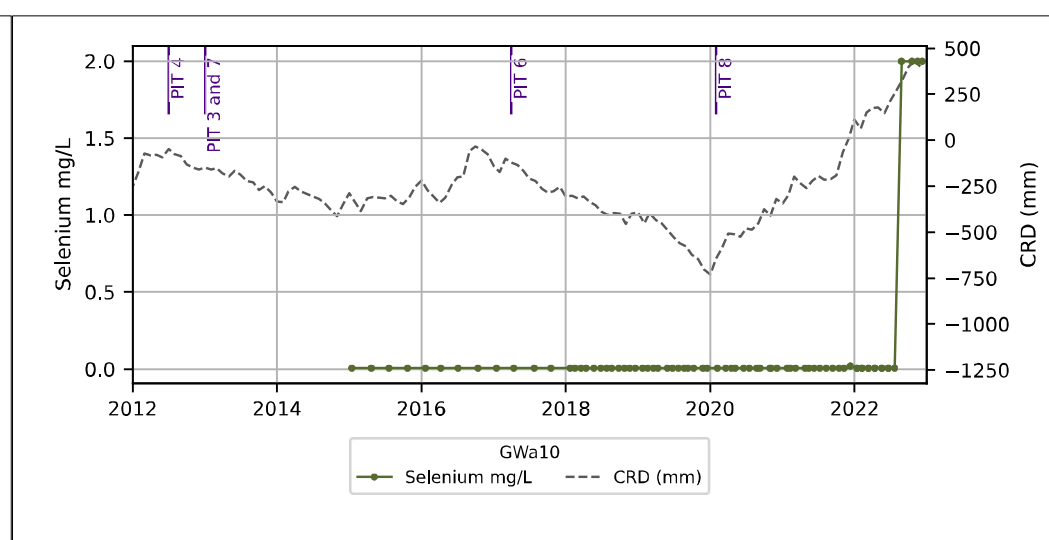
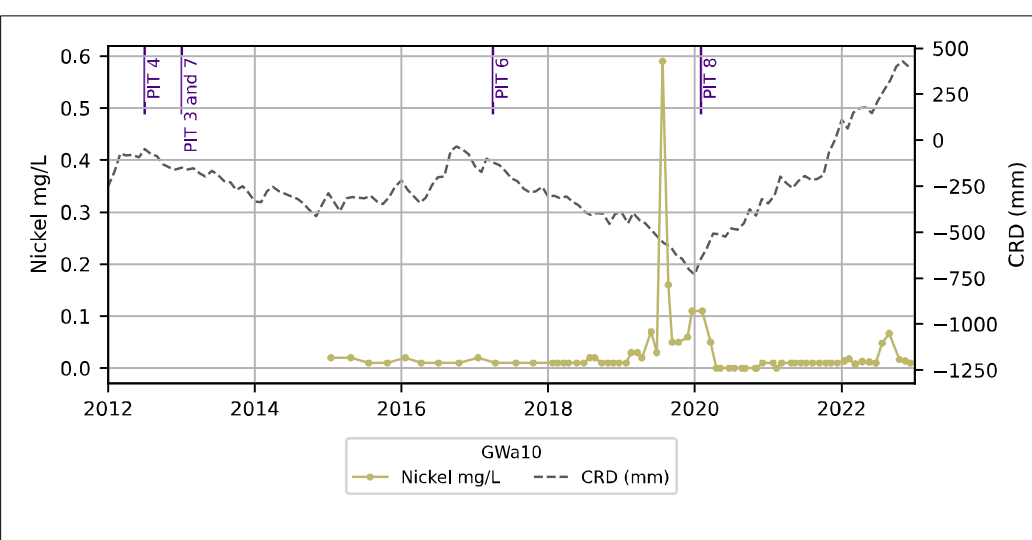
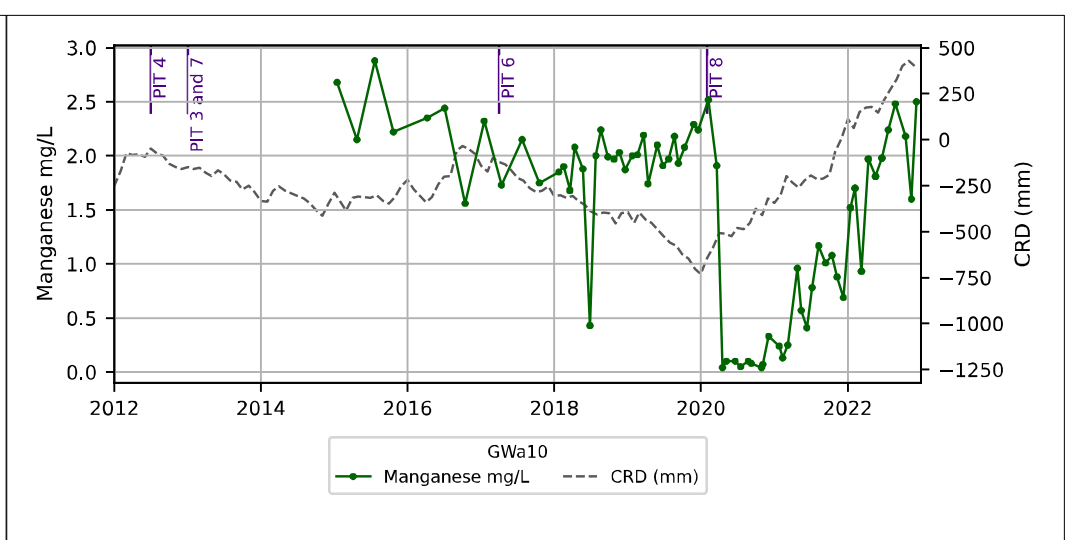
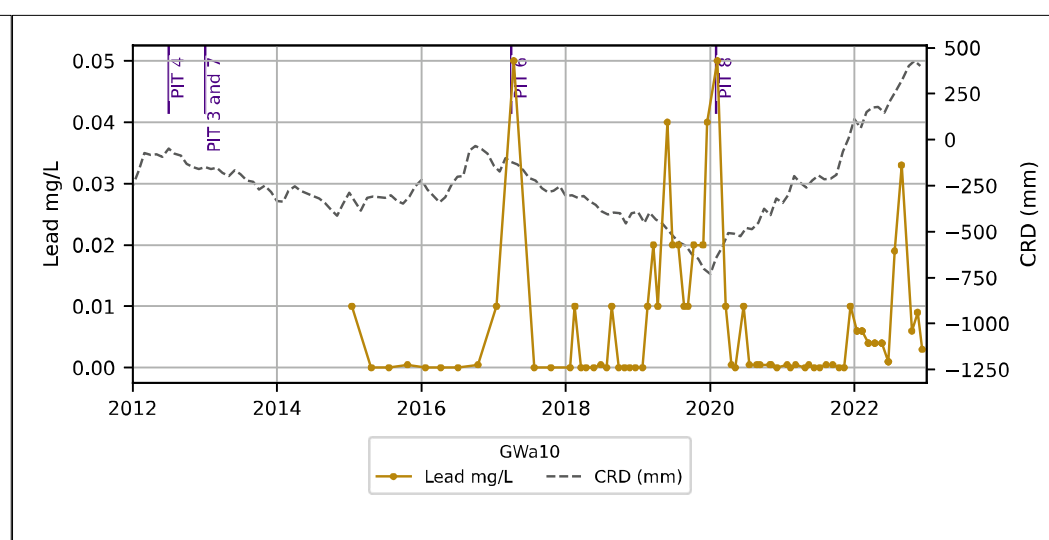
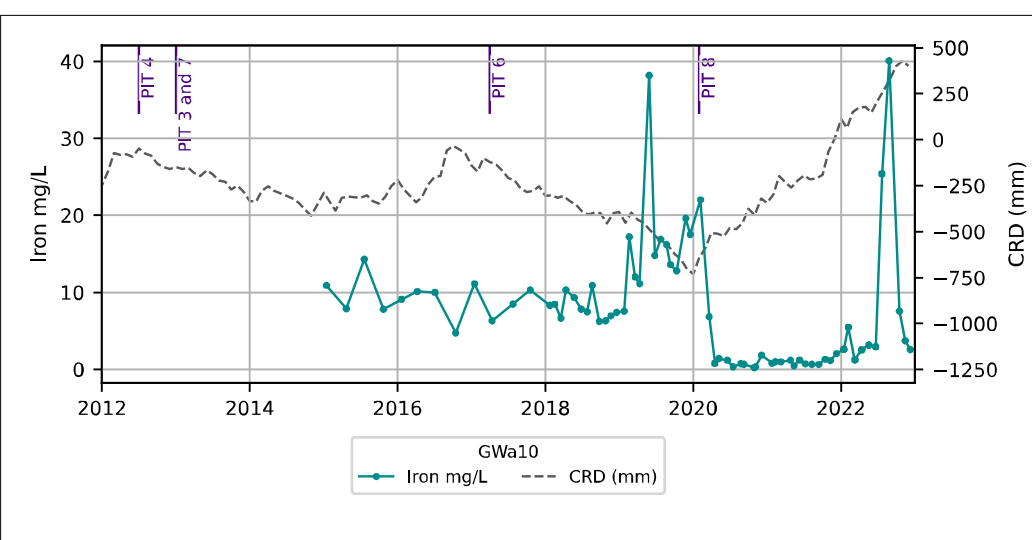
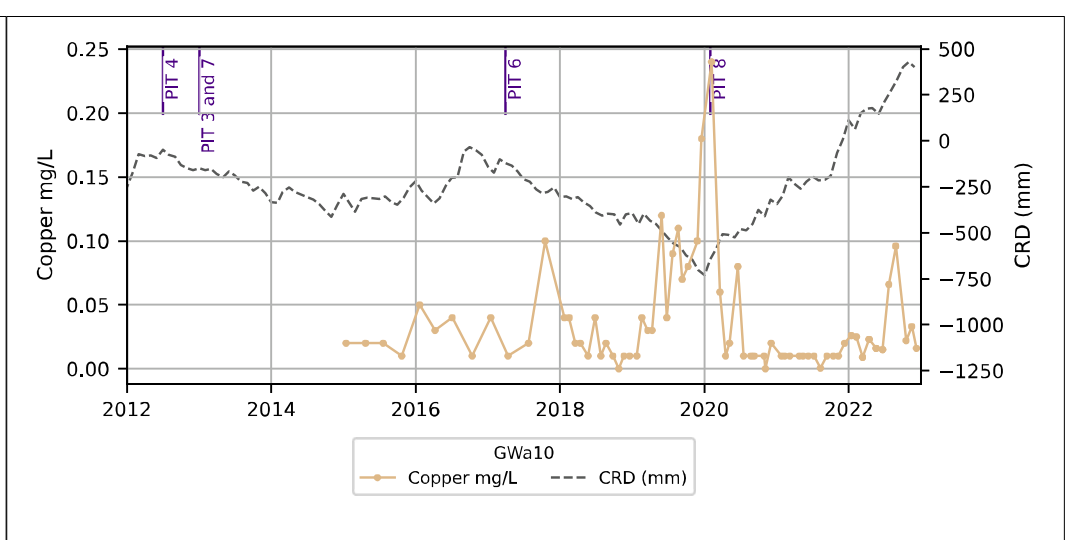
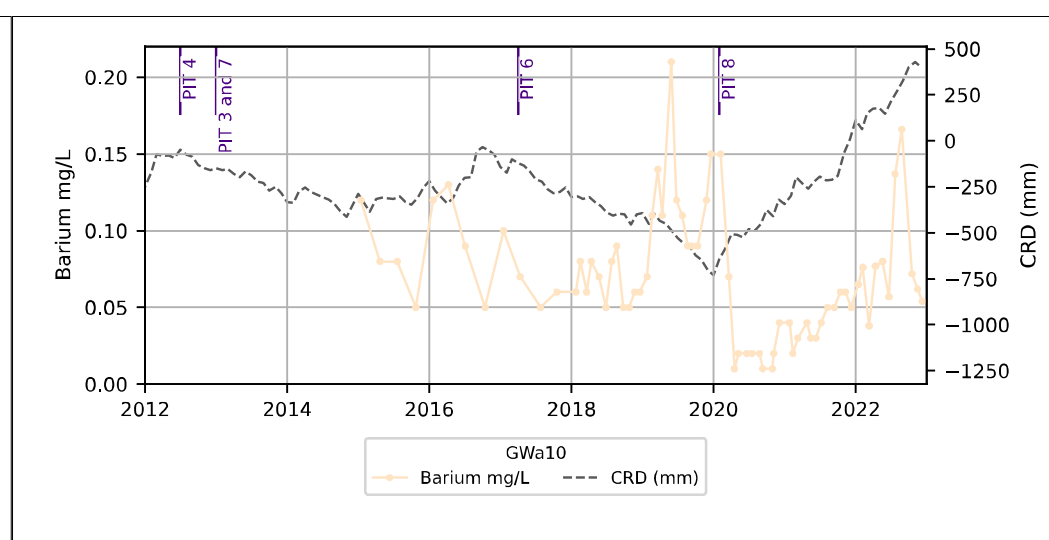
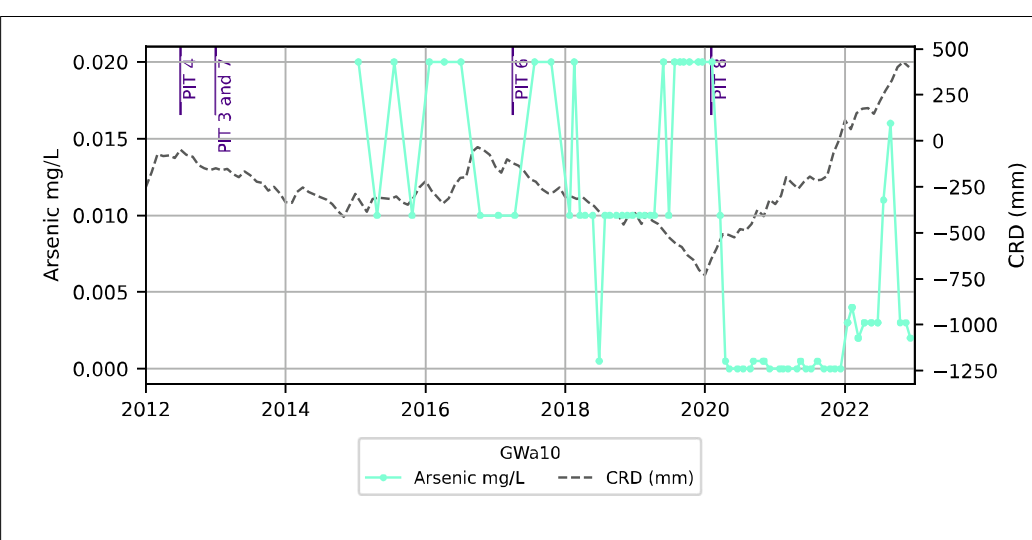
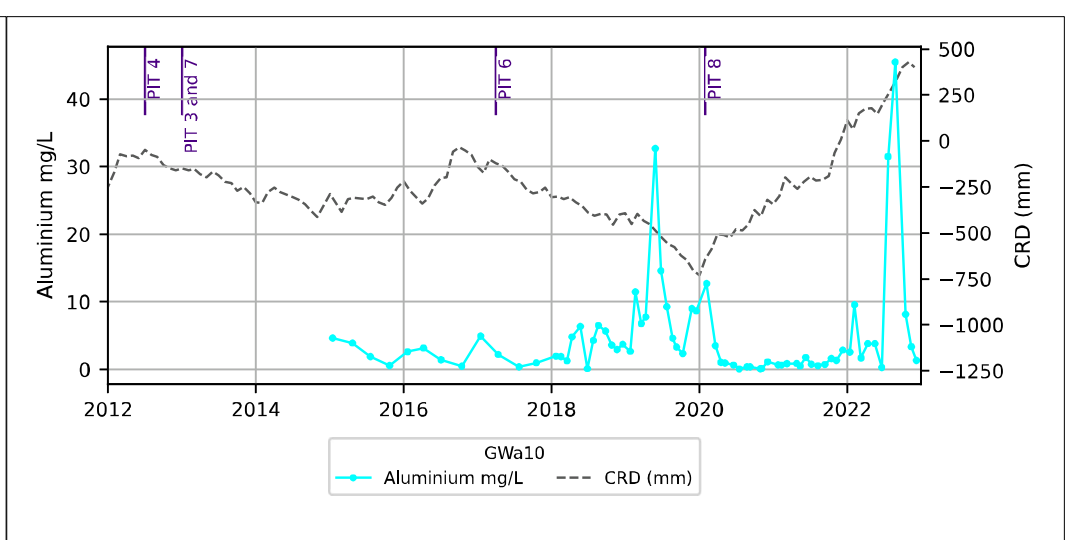
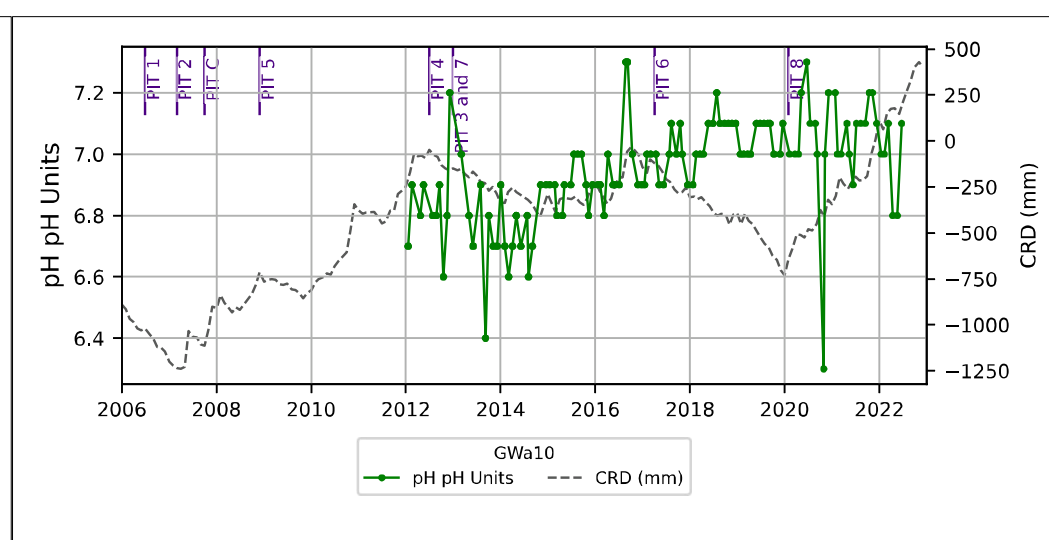
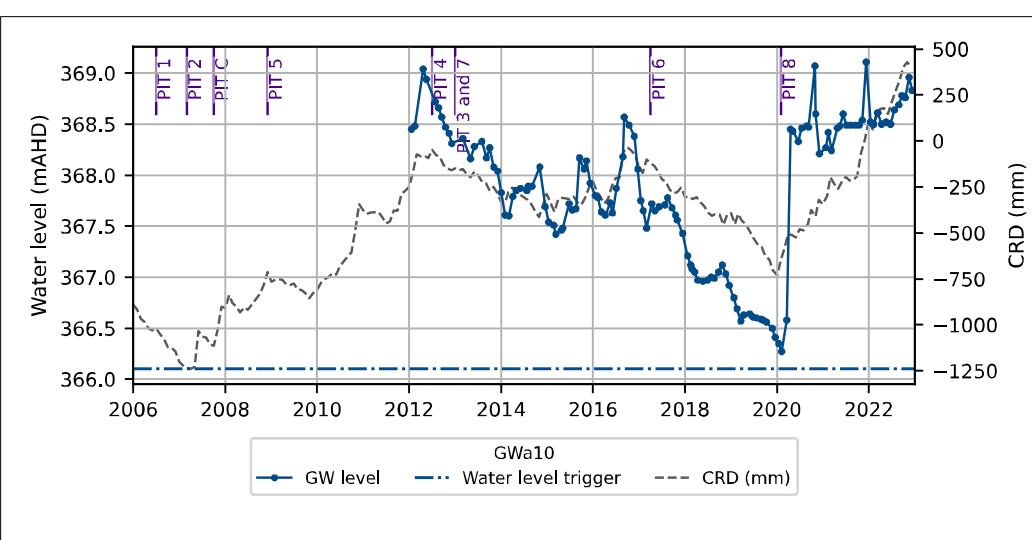
No Data Available for Field Electrical Conductivity ($\mu\text{S}/\text{cm}$)

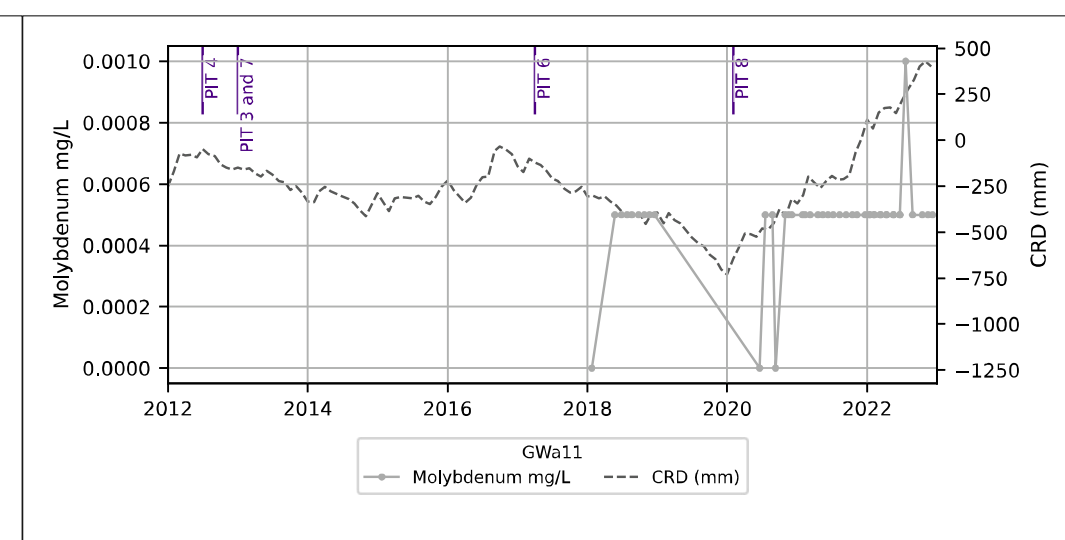
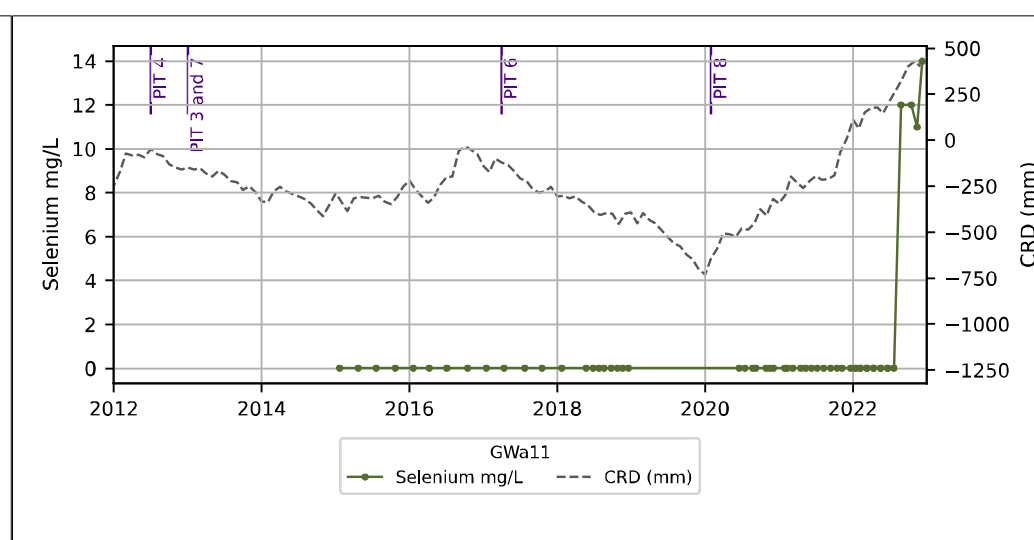
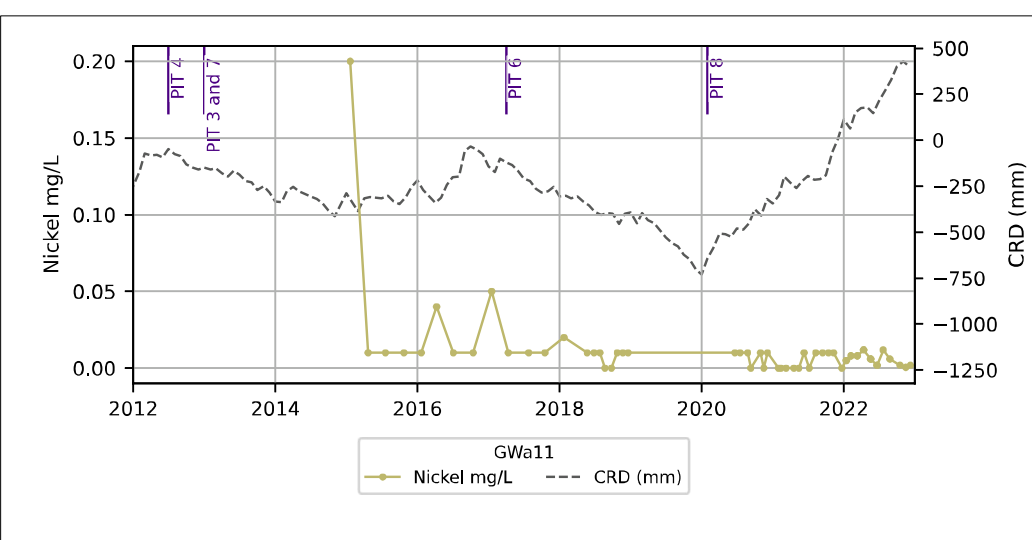
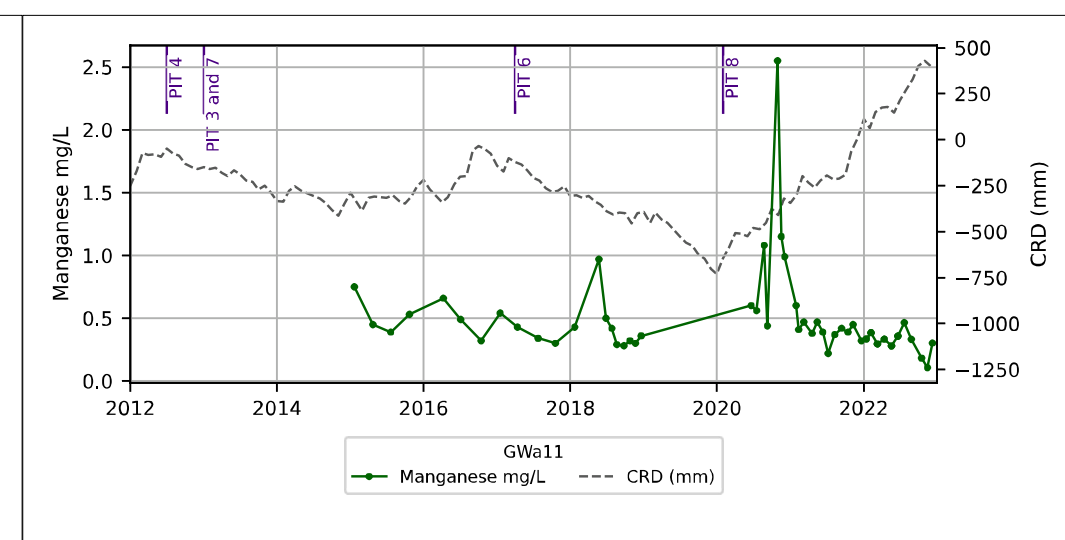
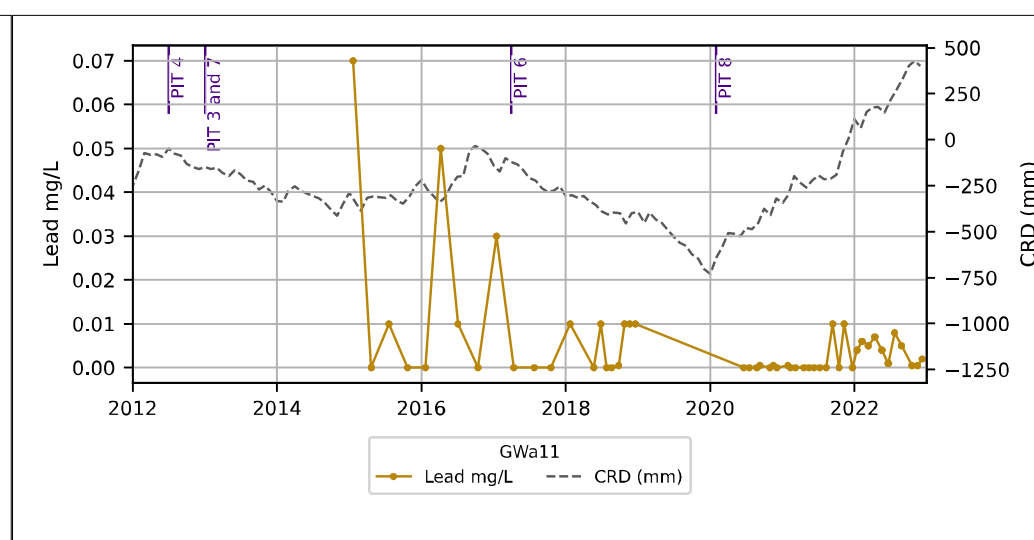
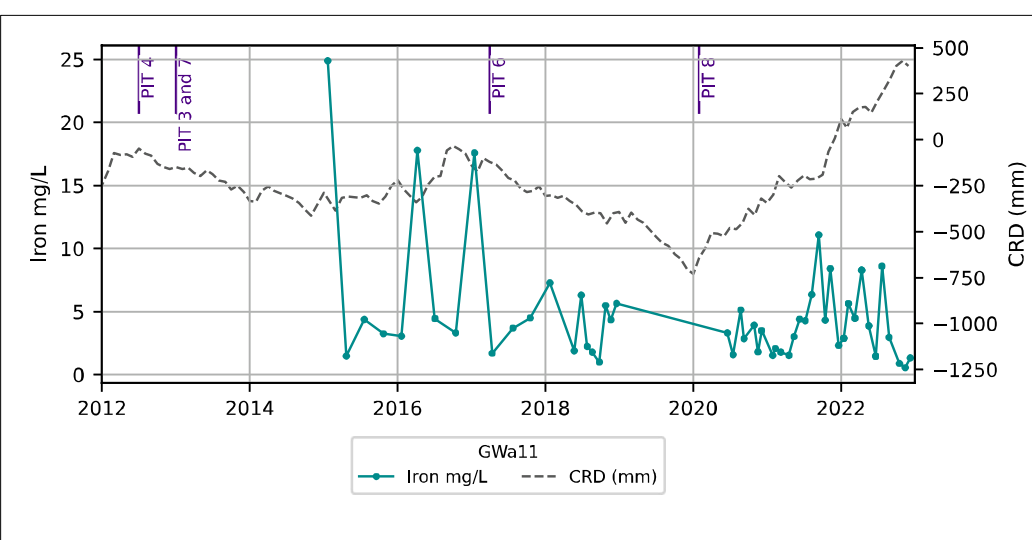
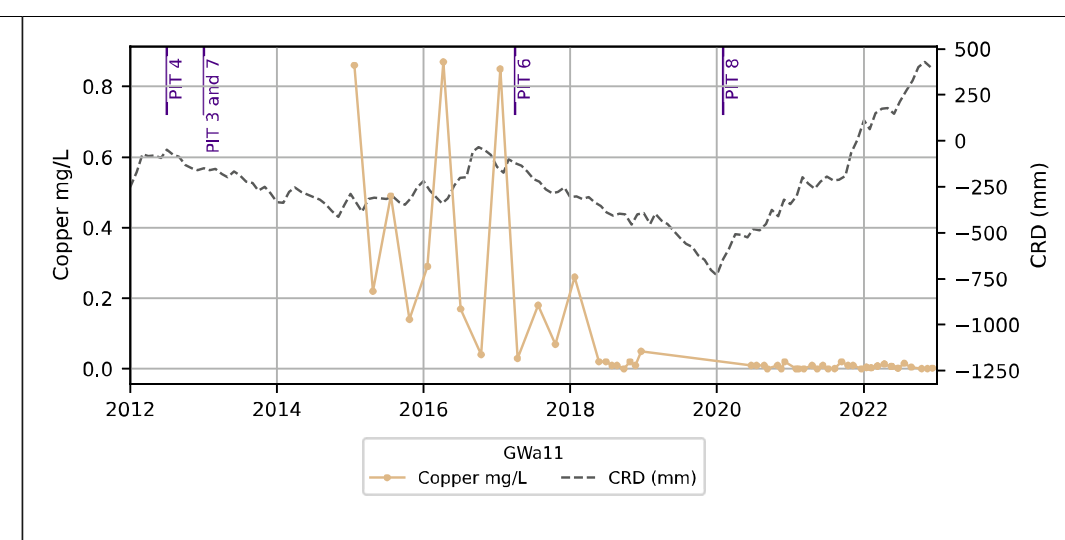
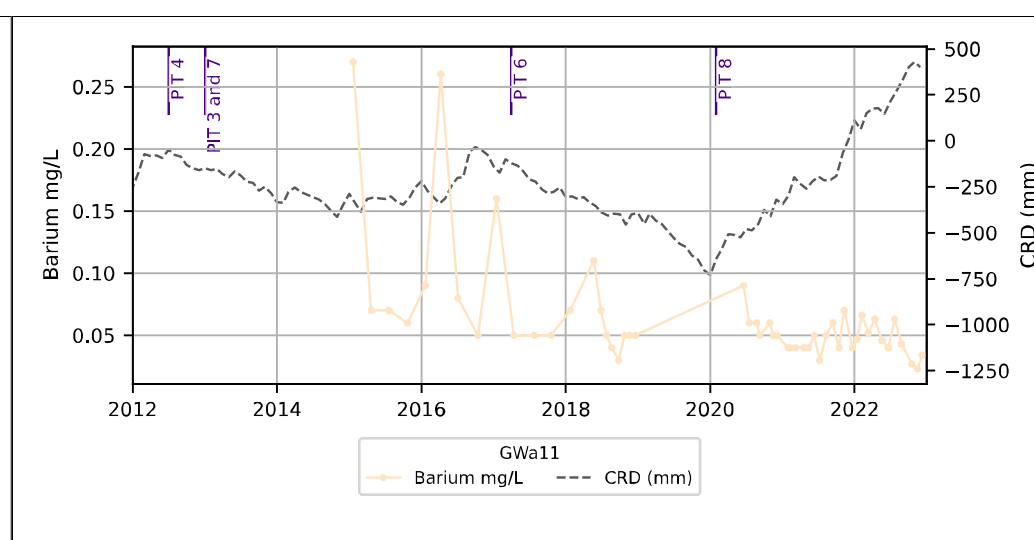
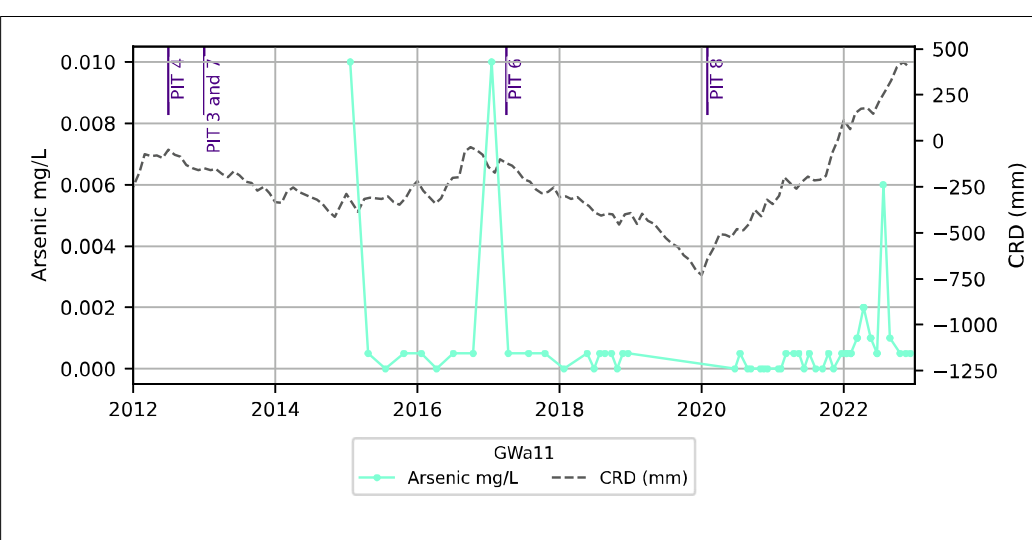
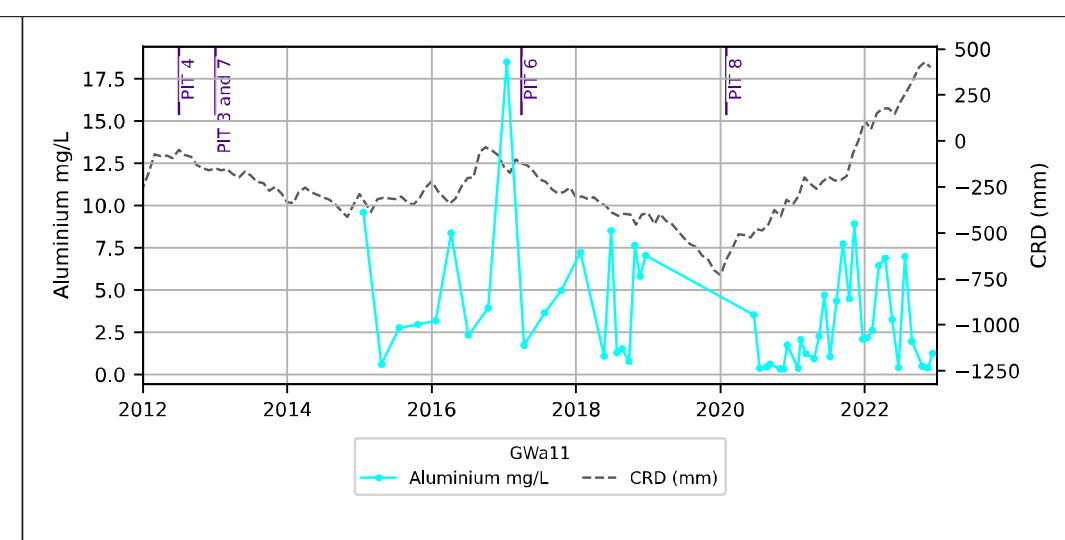
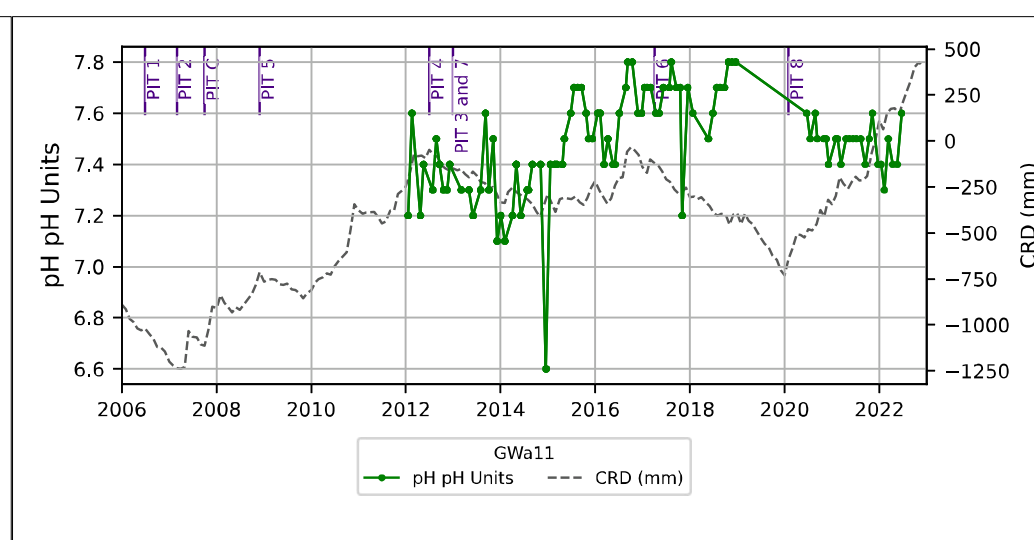
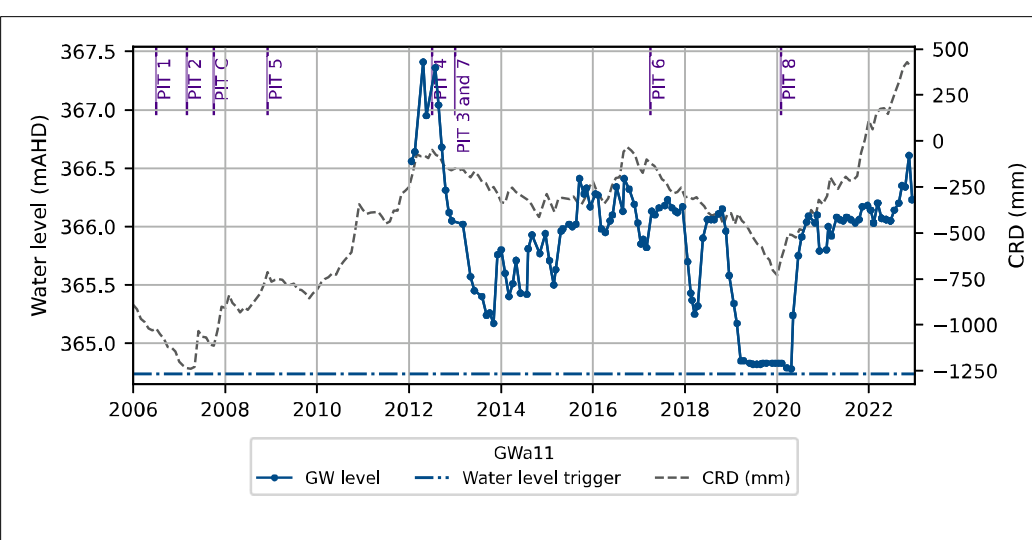
GWF1

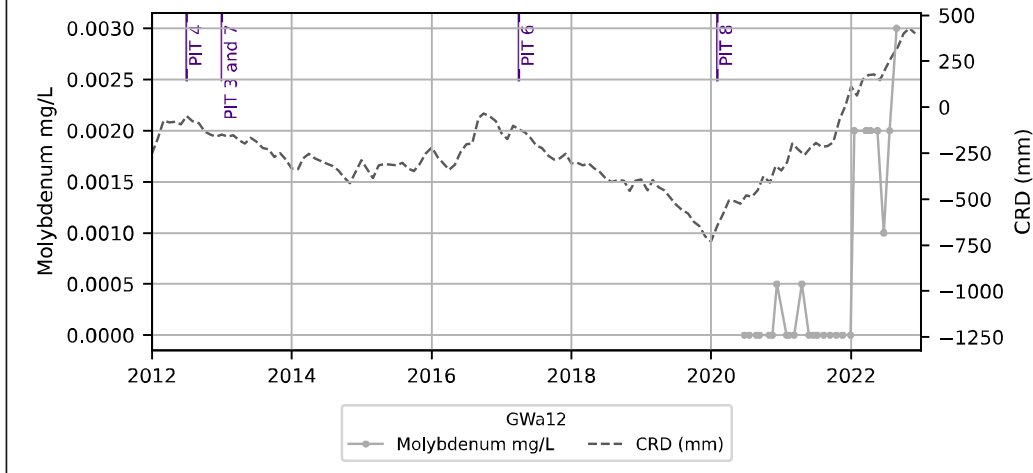
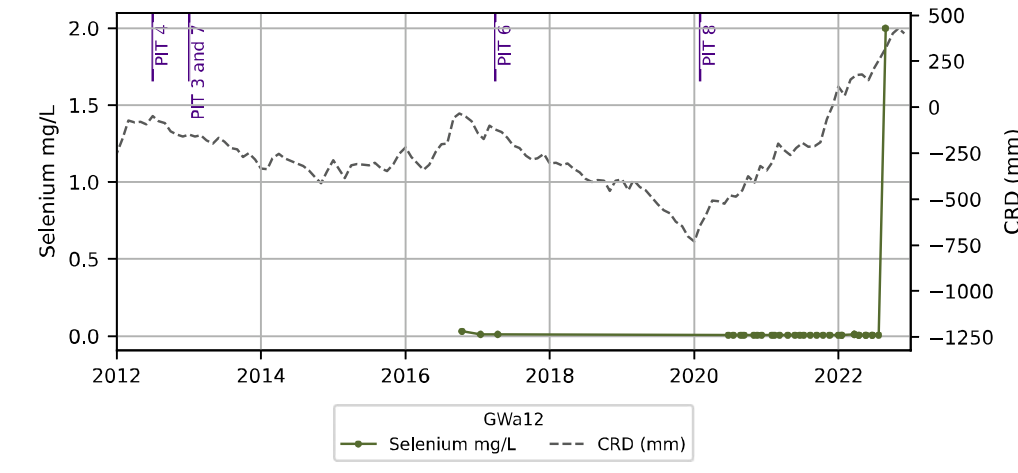
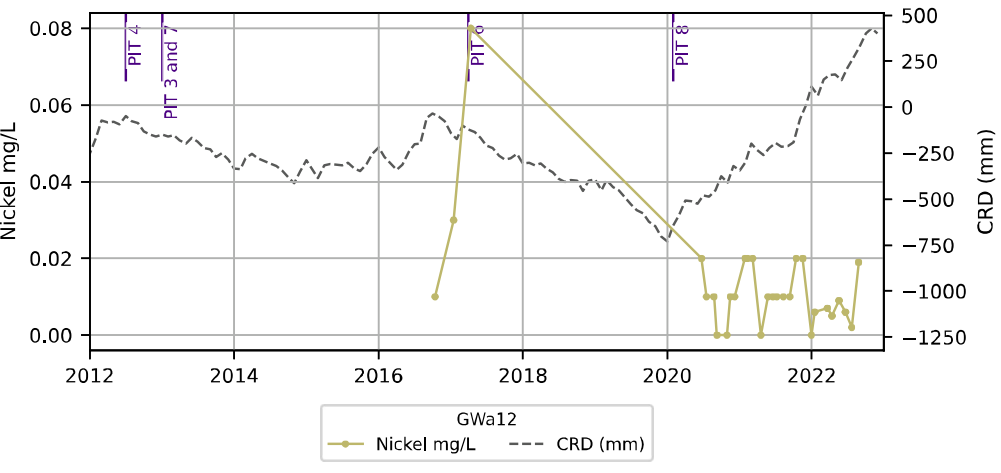
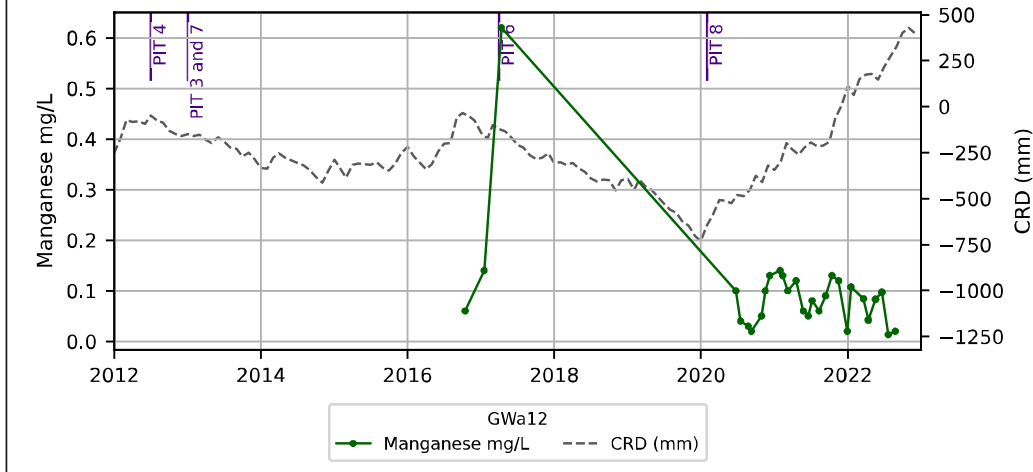
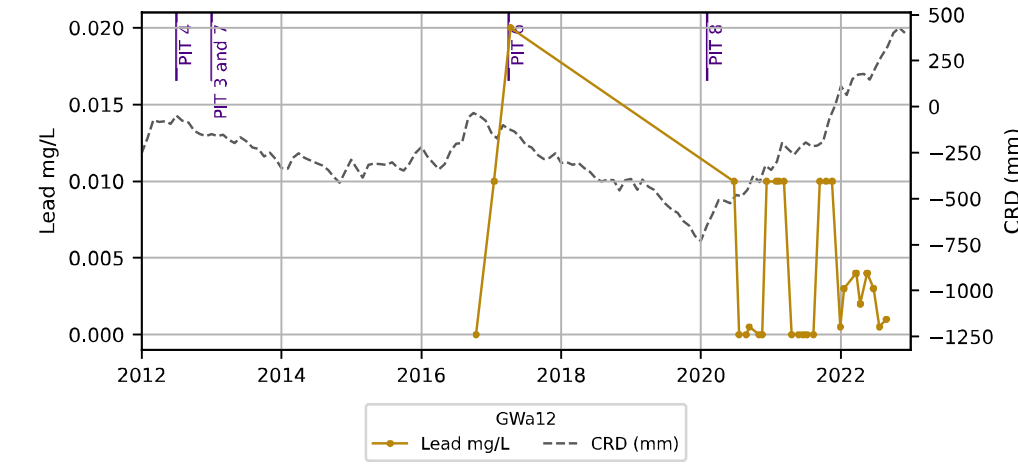
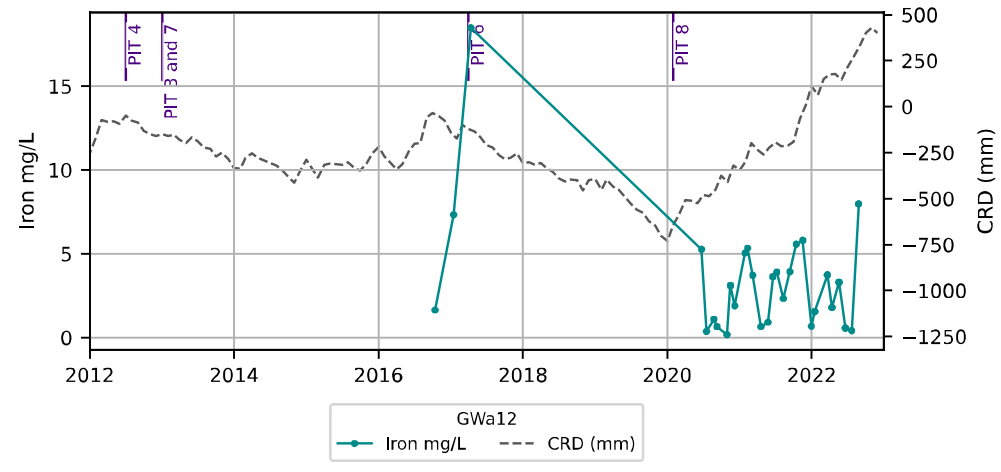
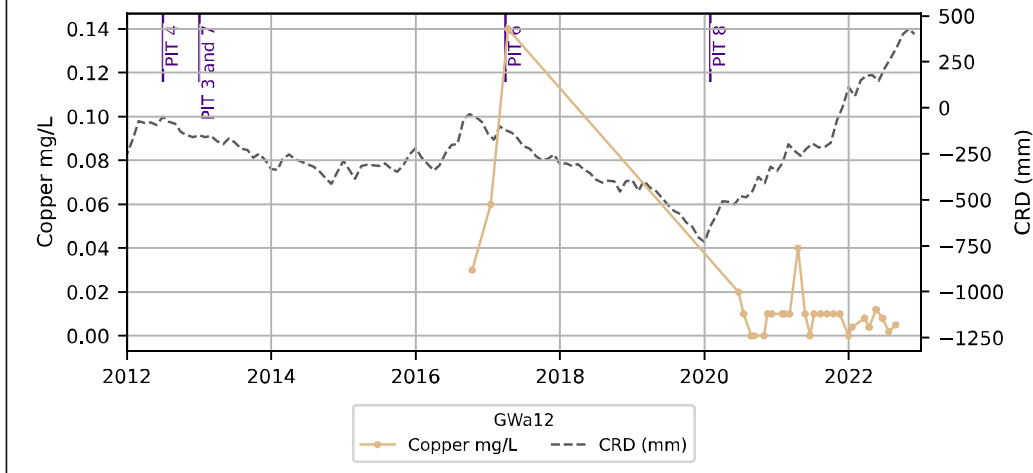
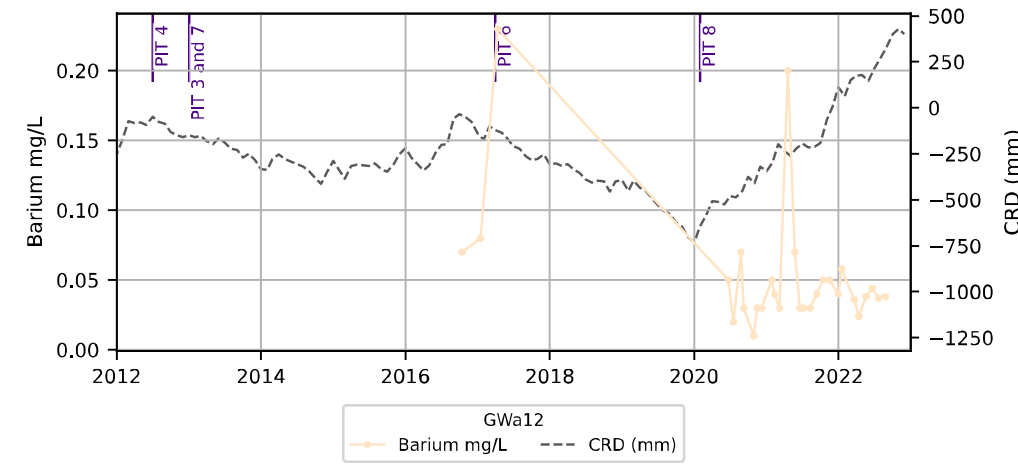
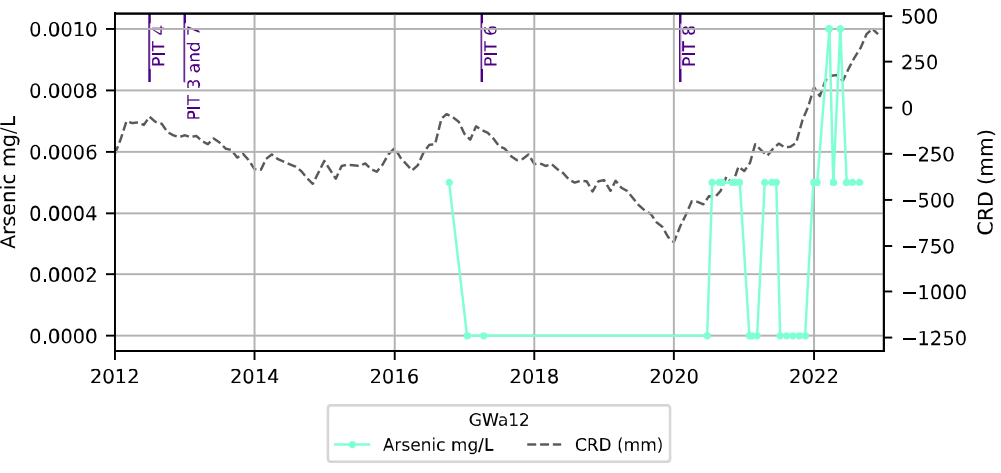
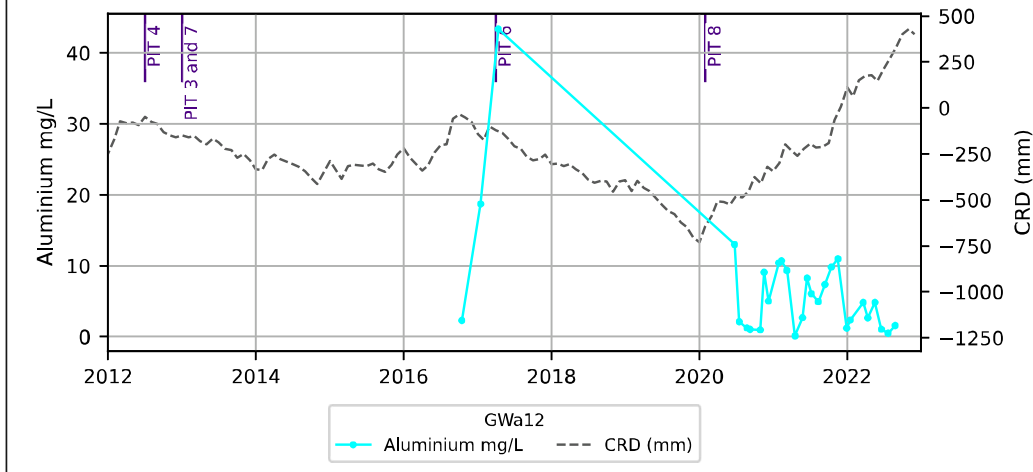
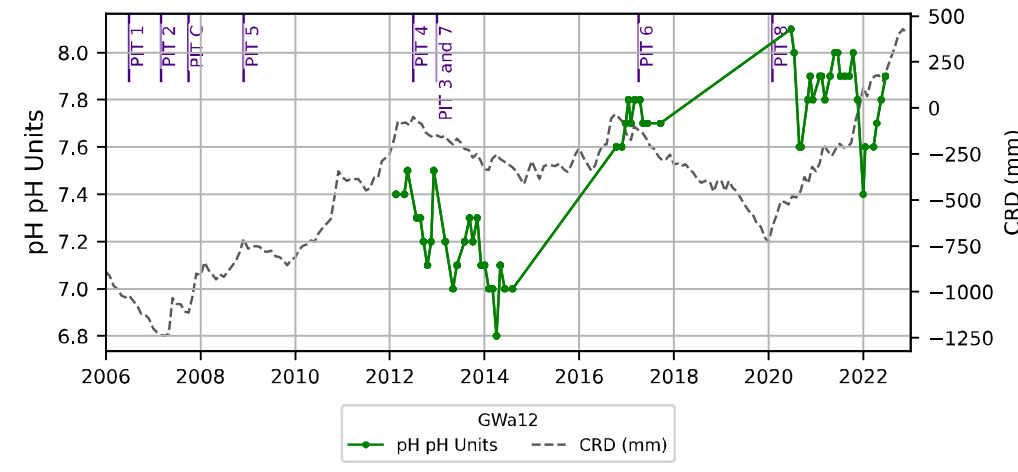
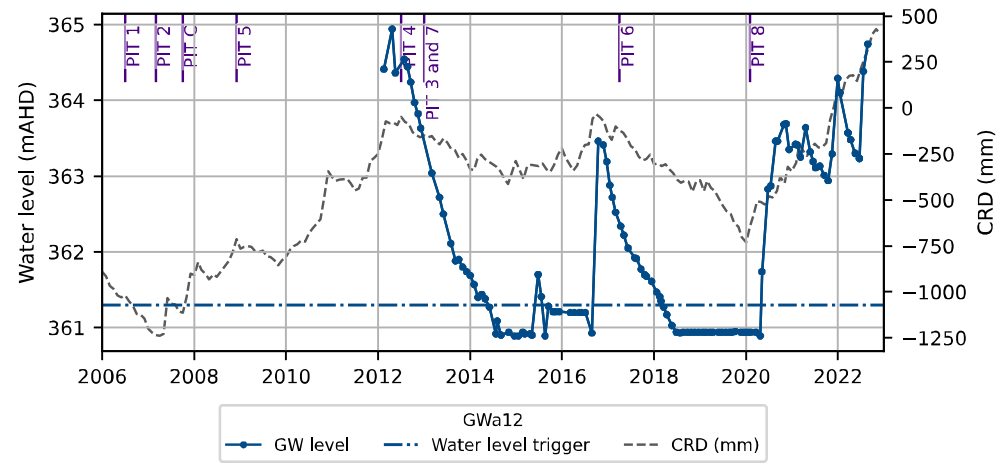


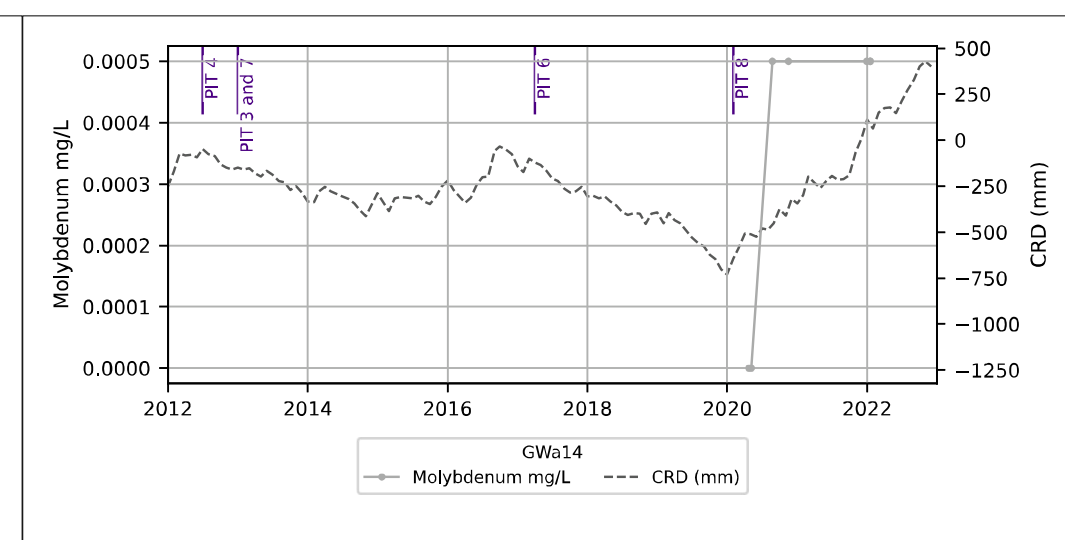
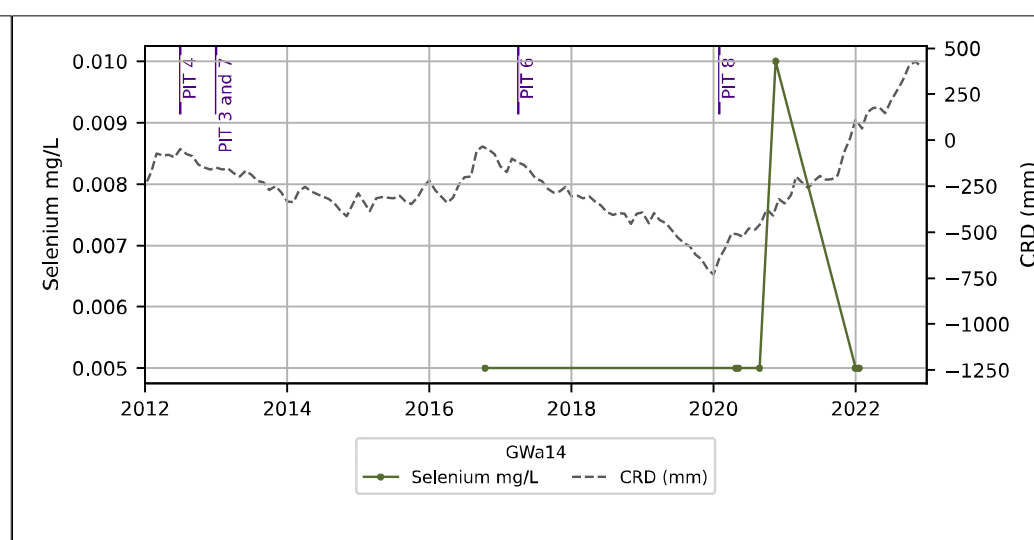
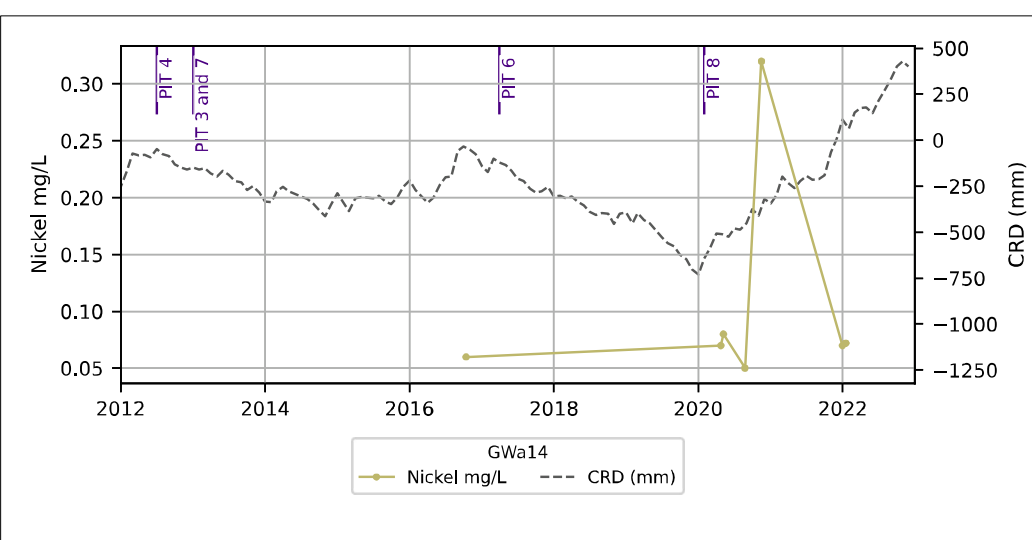
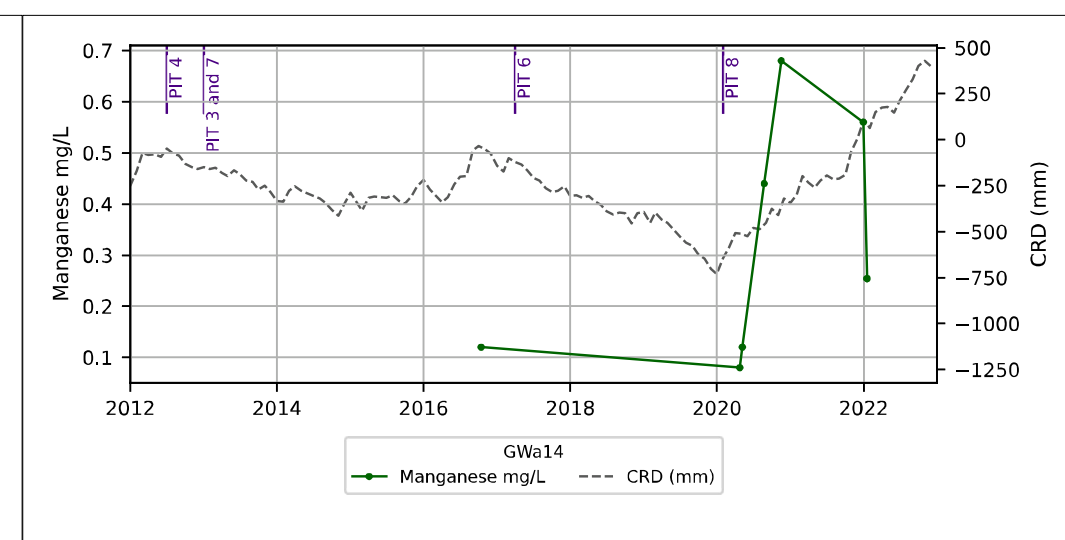
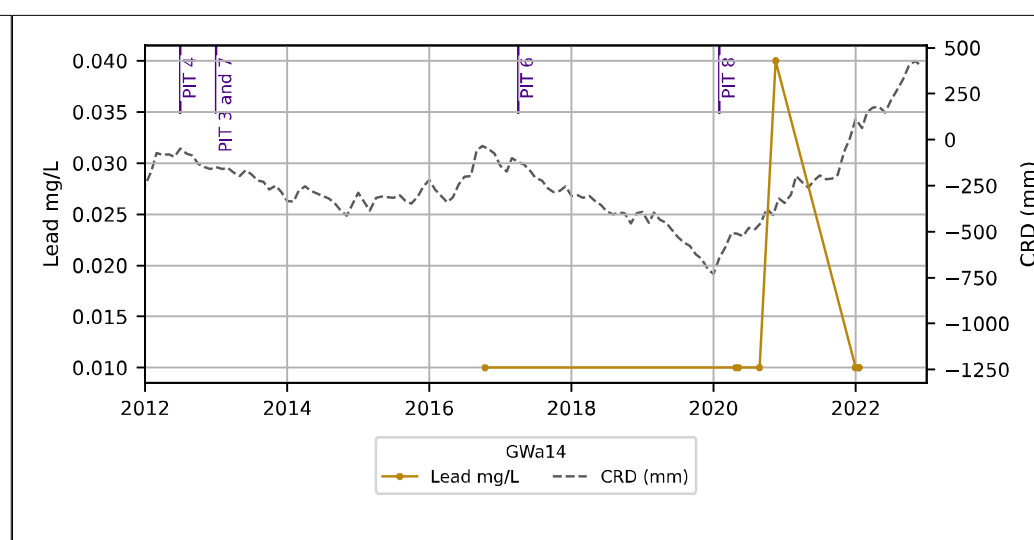
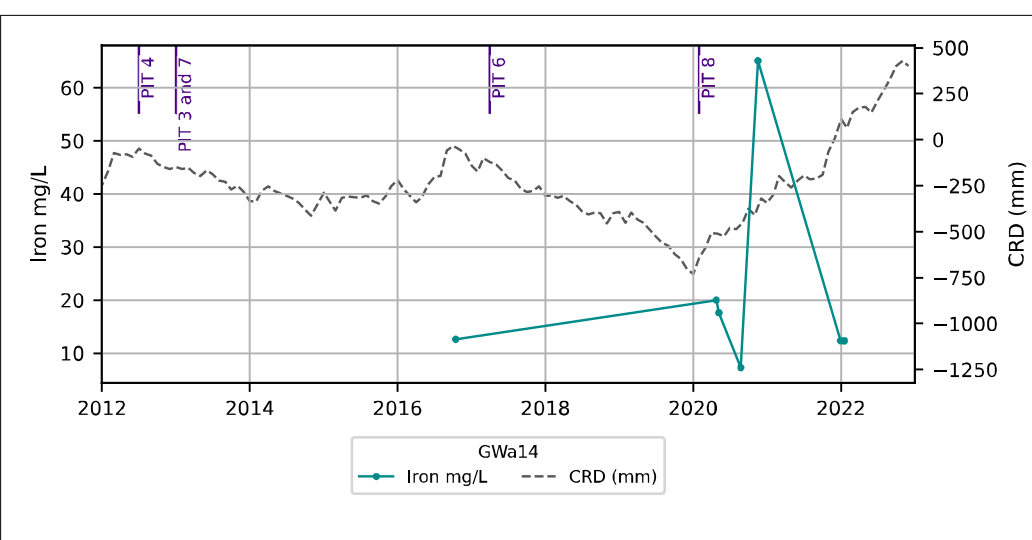
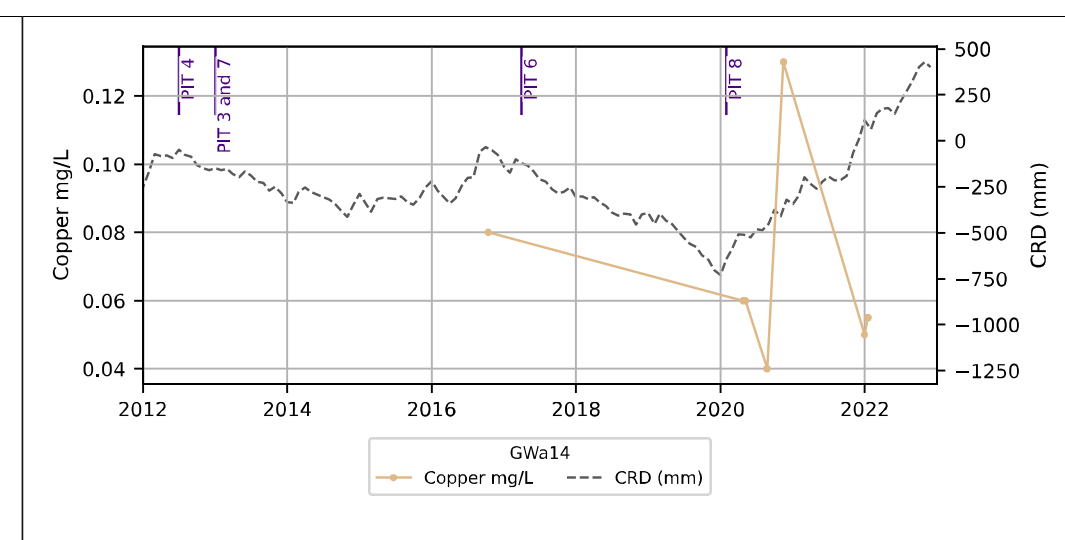
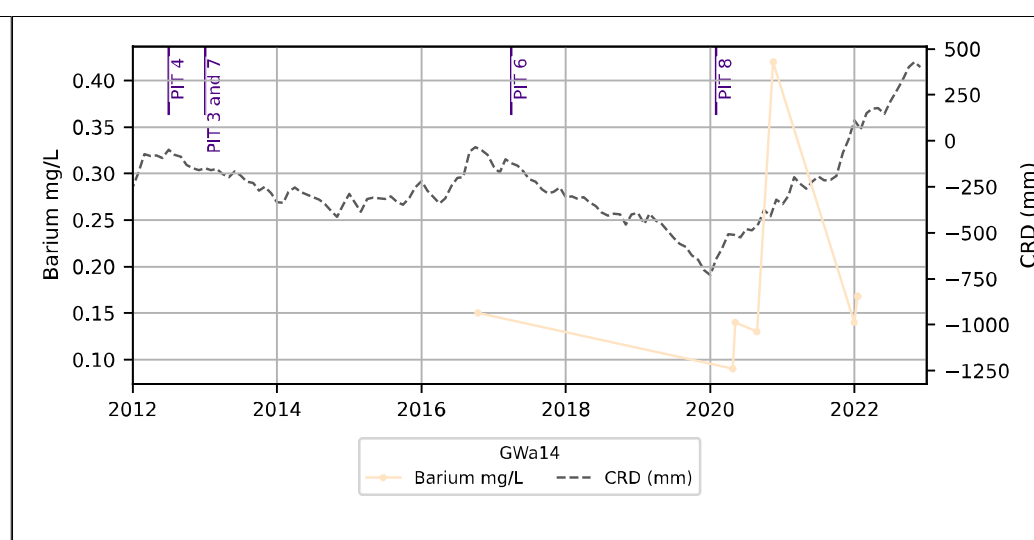
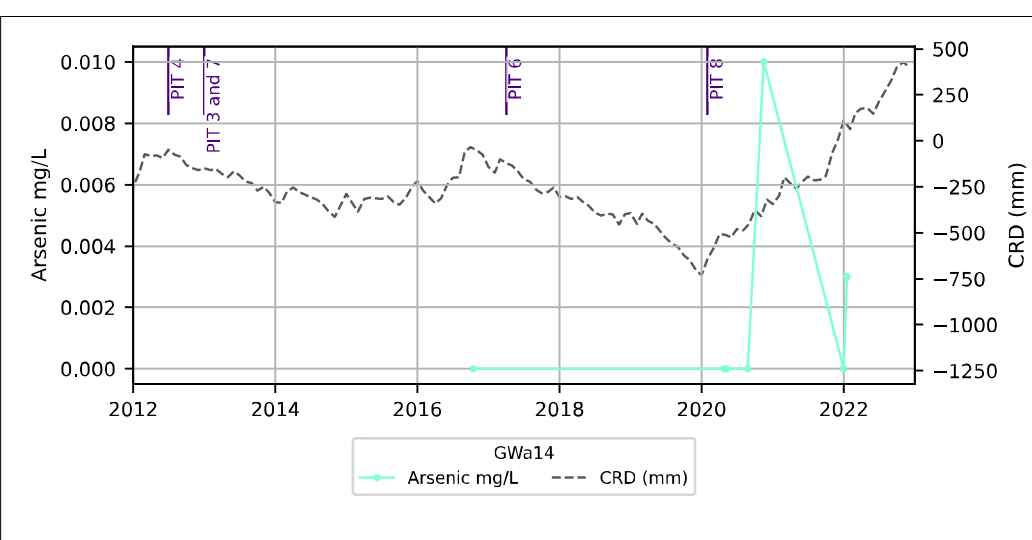
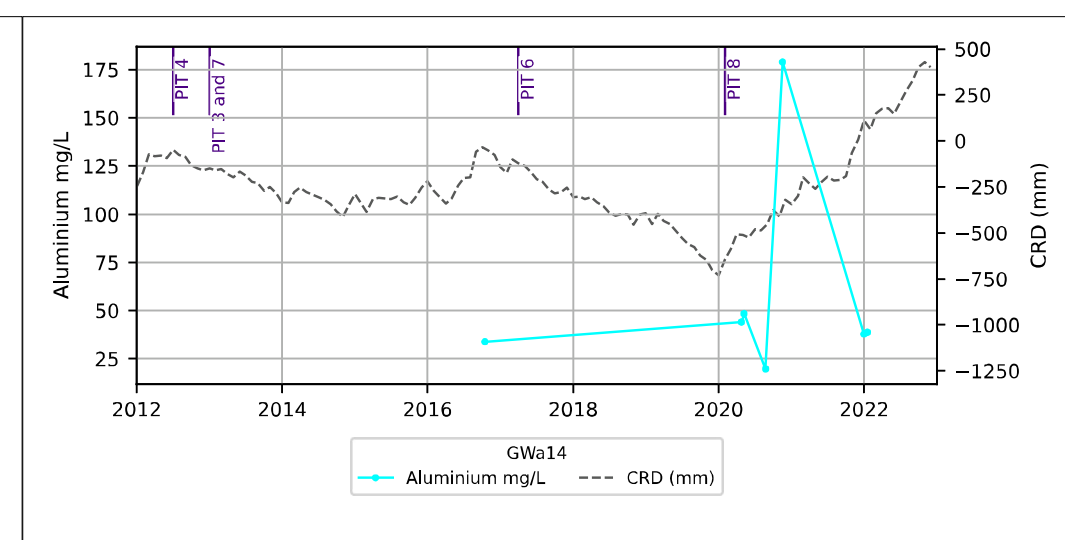
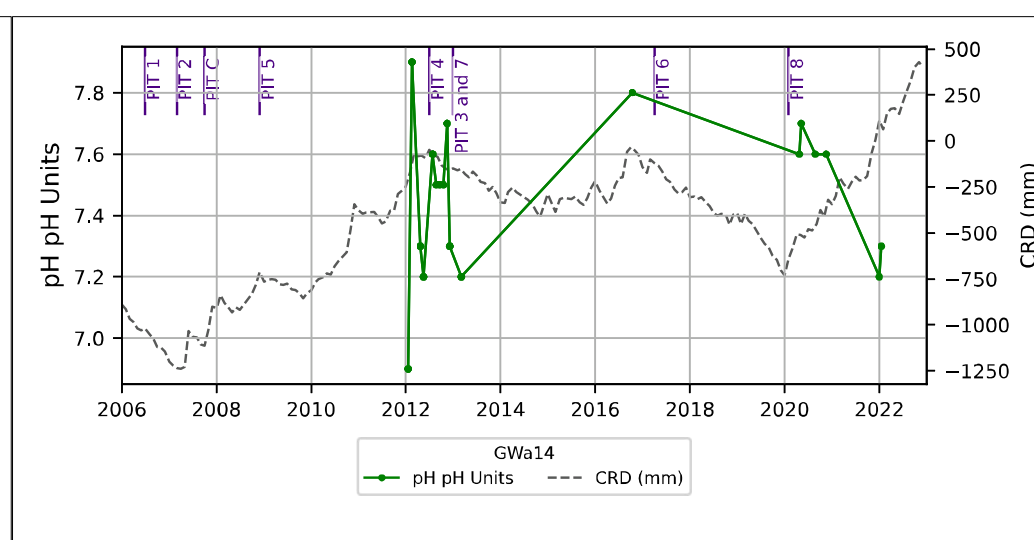
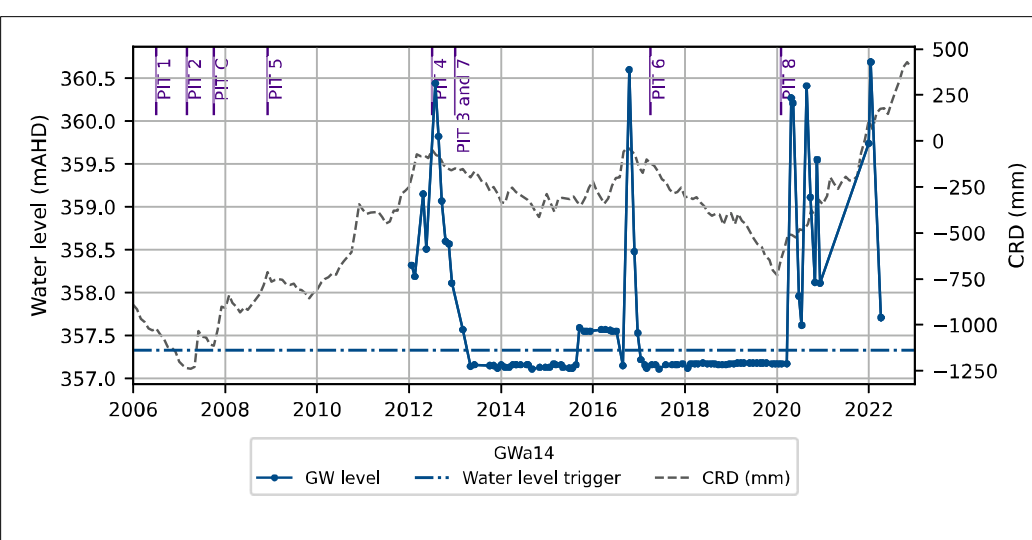
GW6

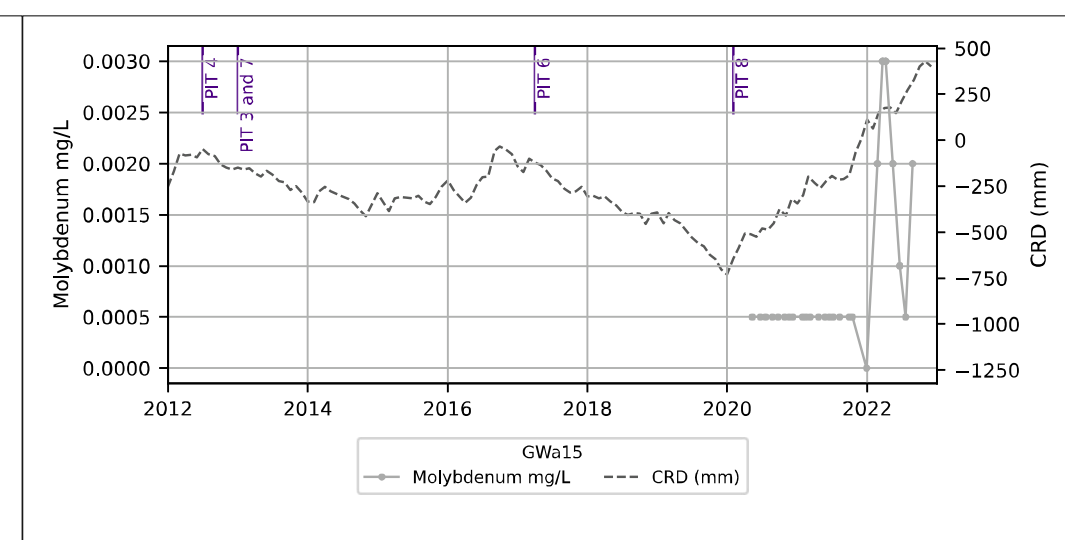
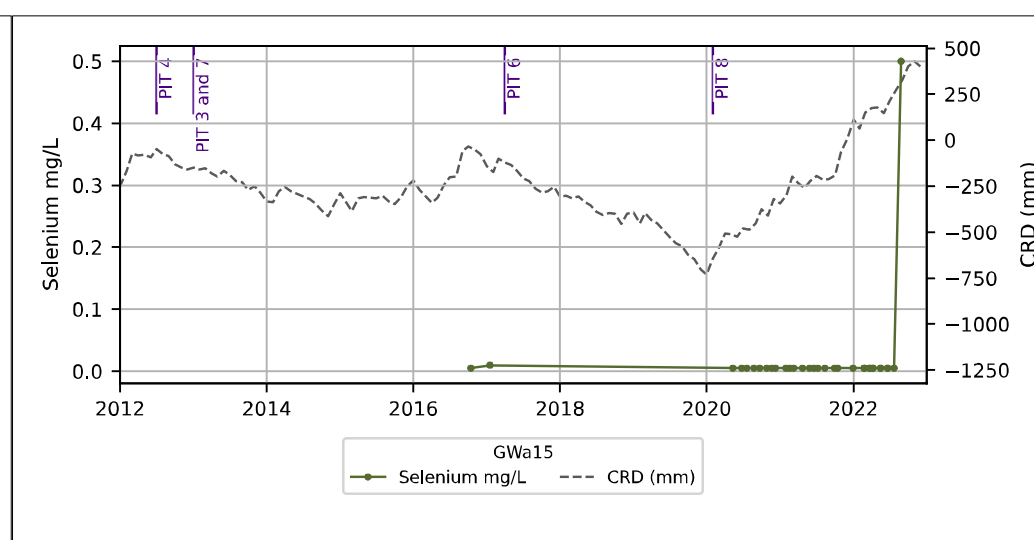
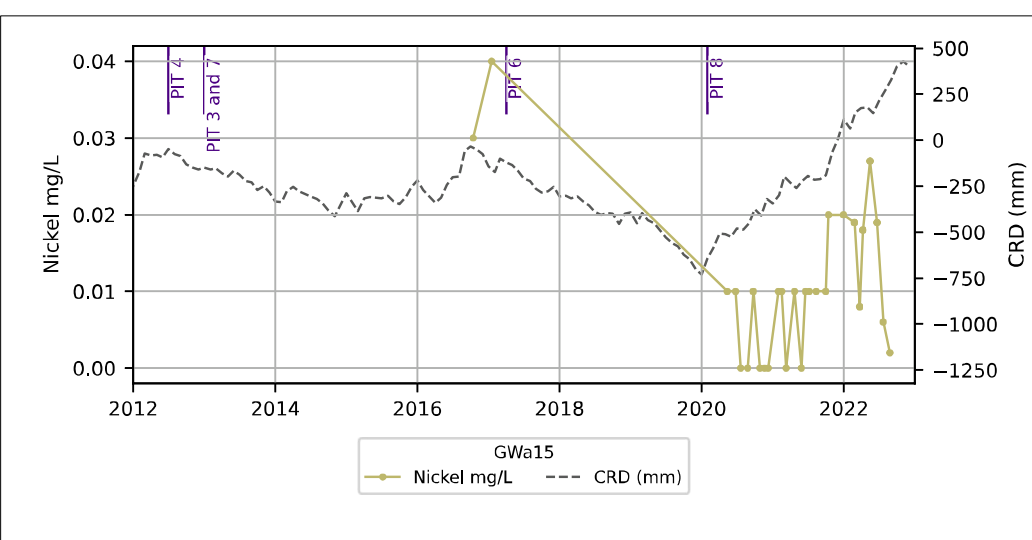
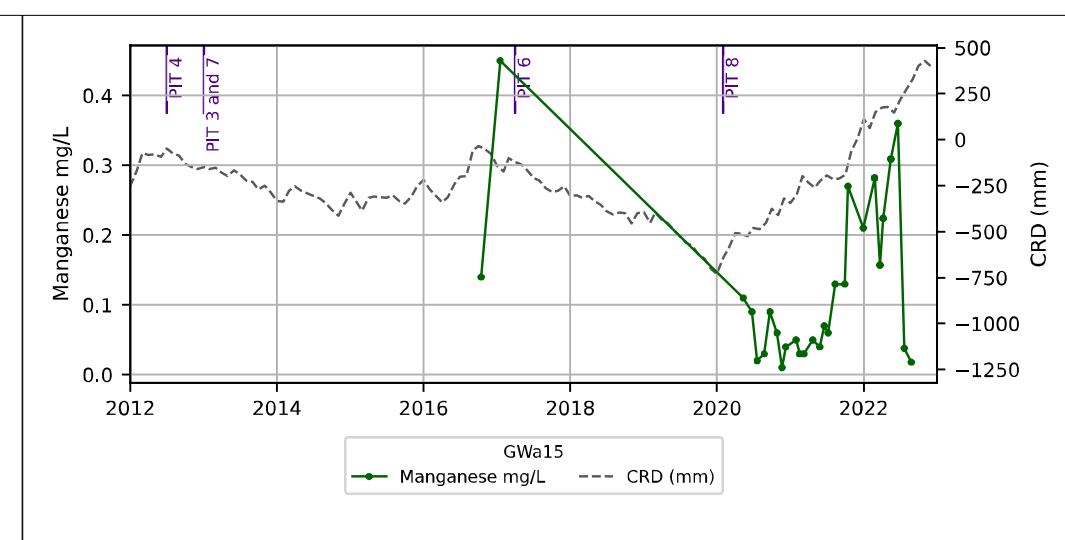
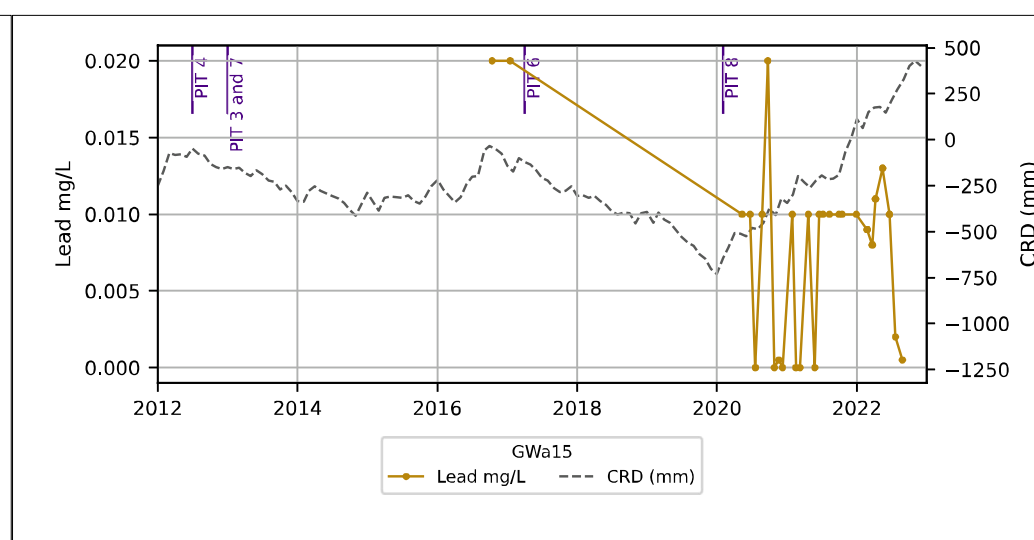
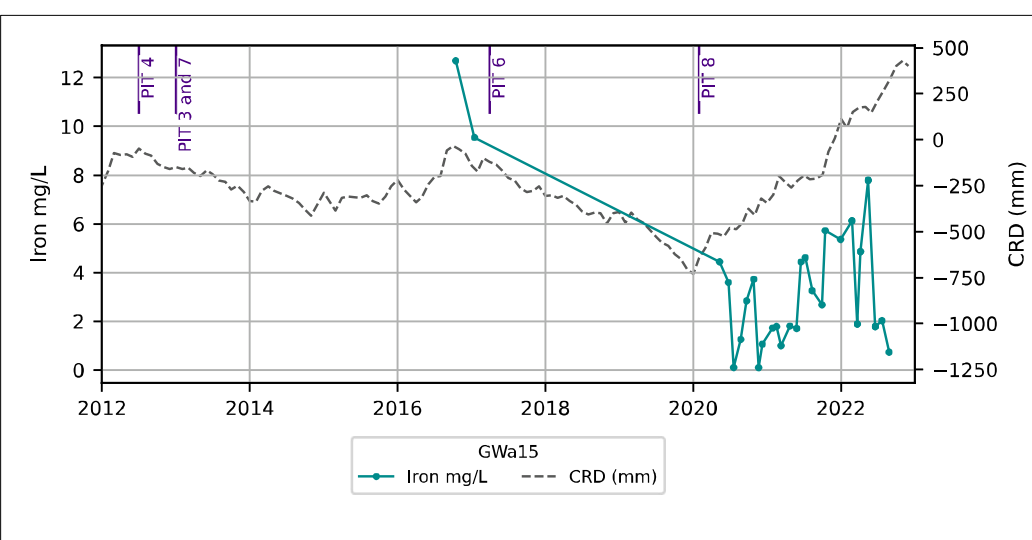
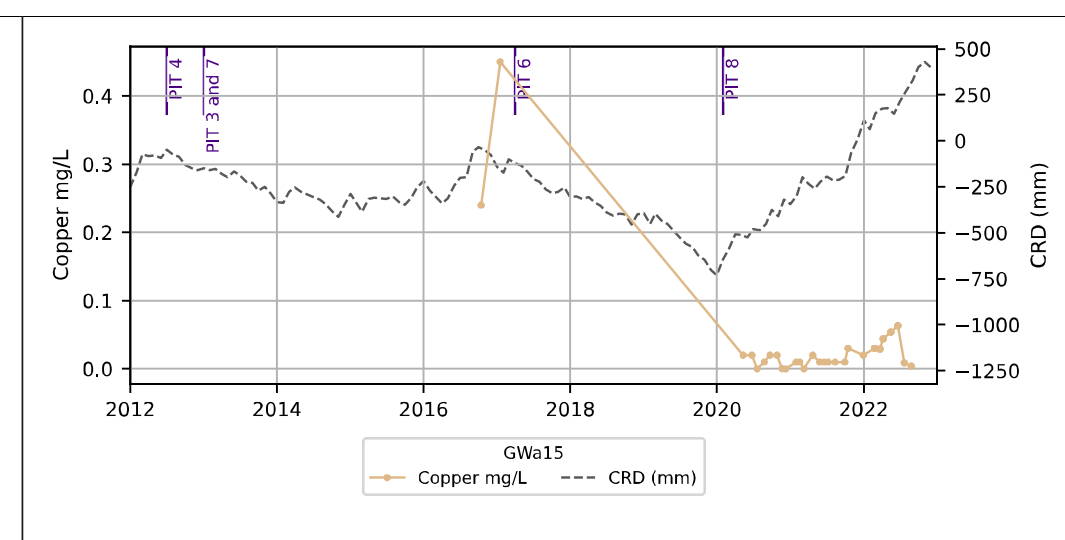
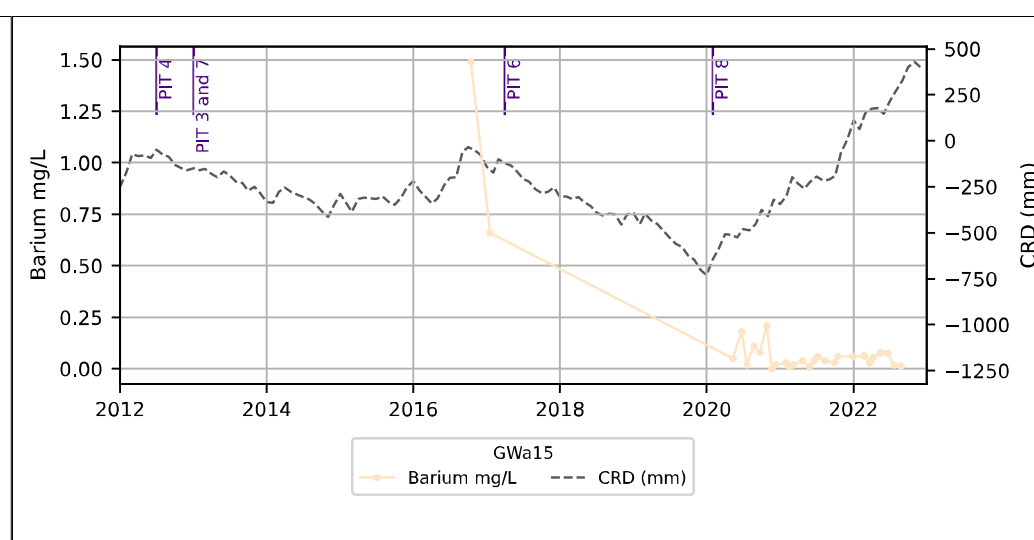
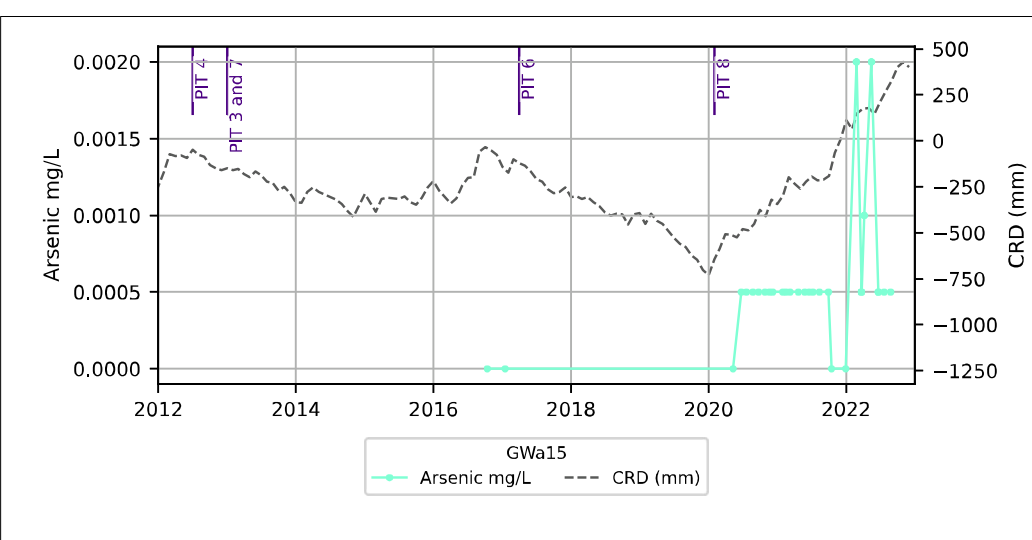
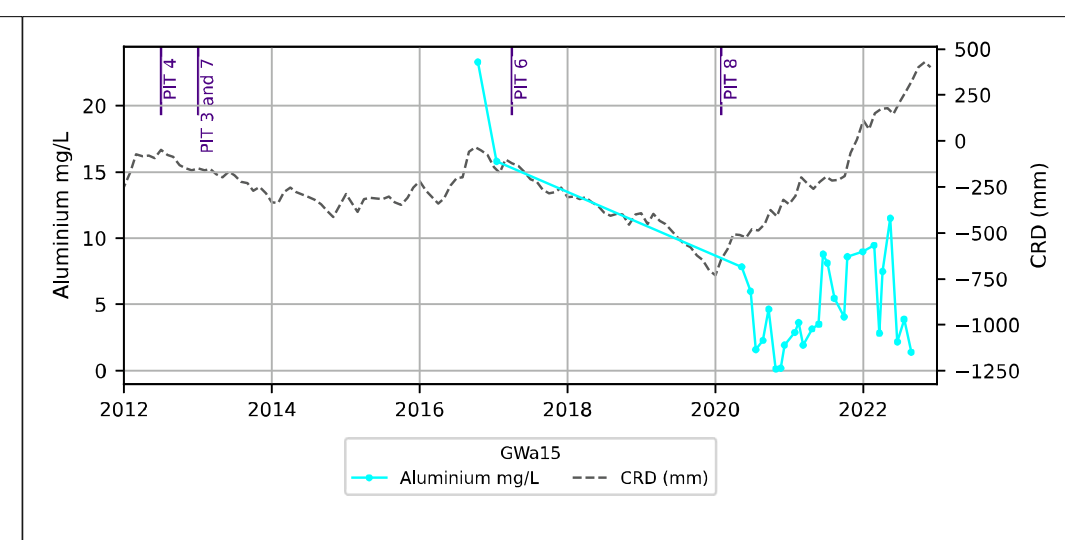
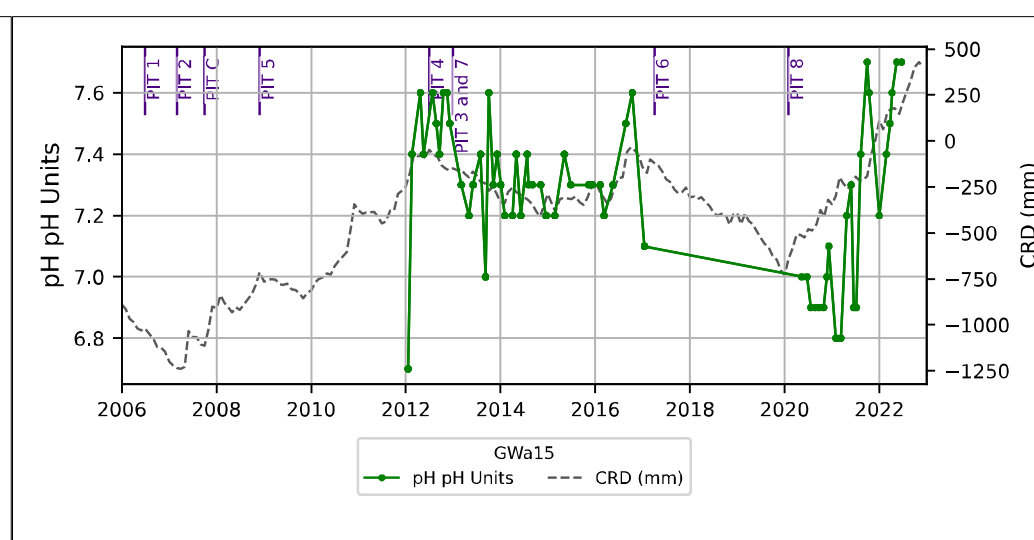
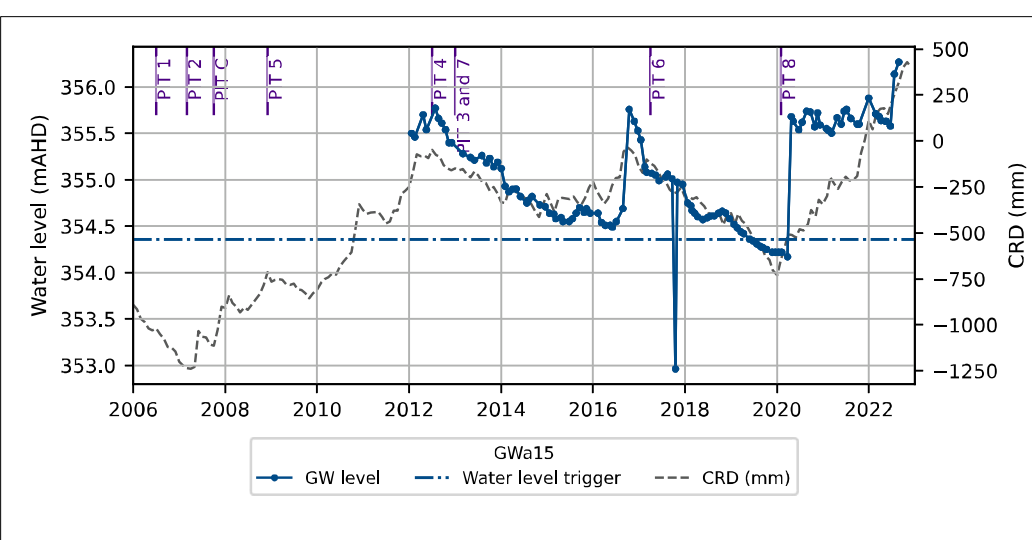


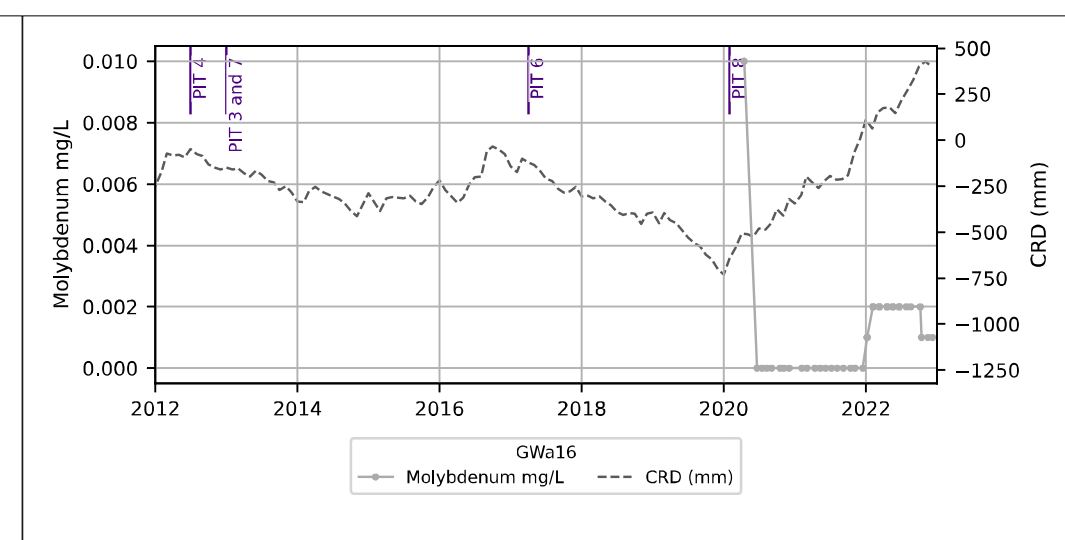
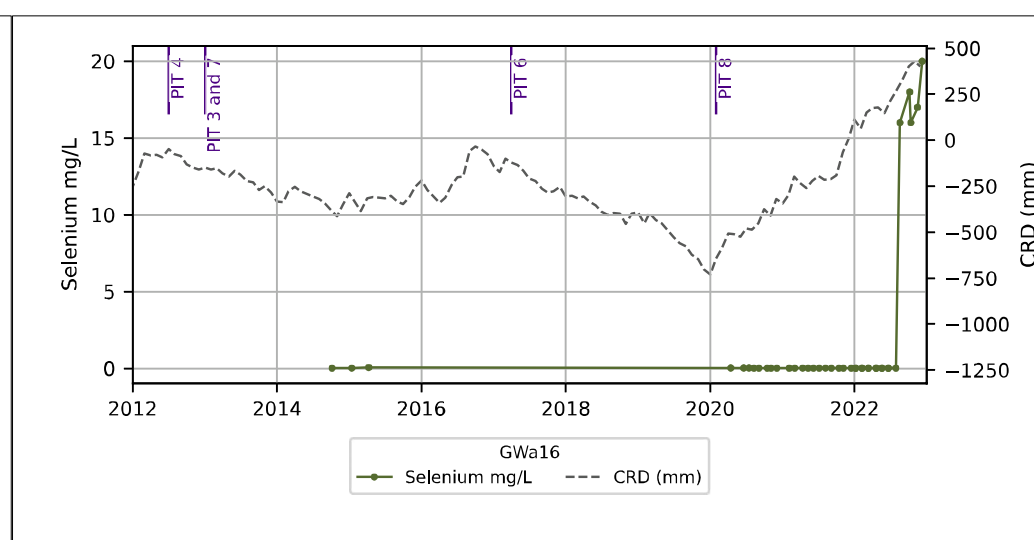
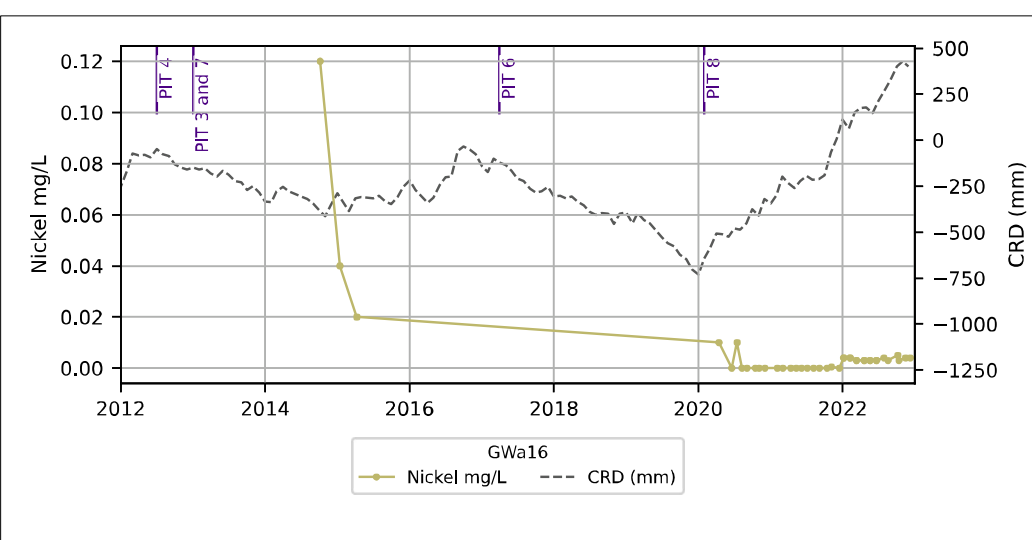
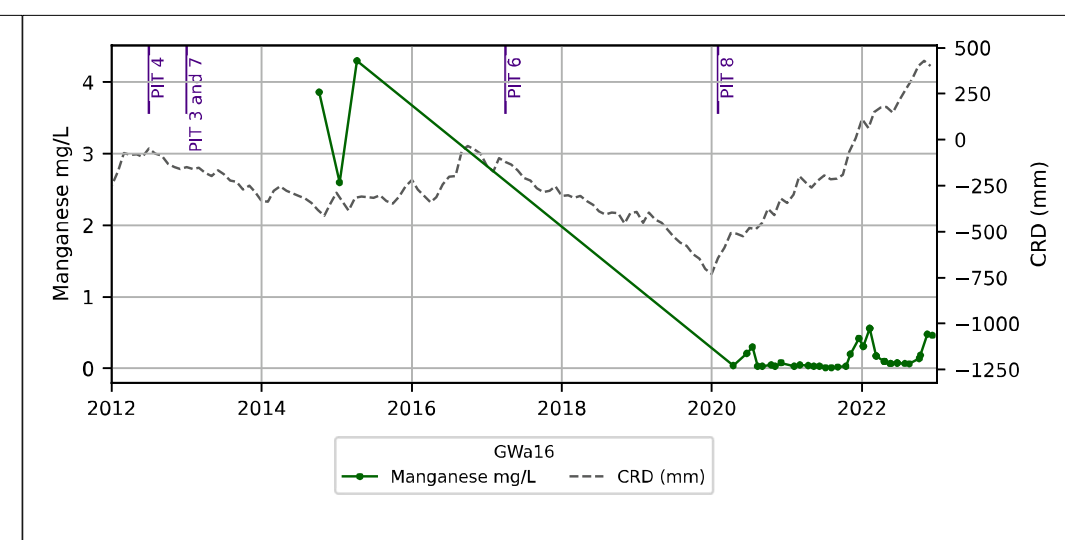
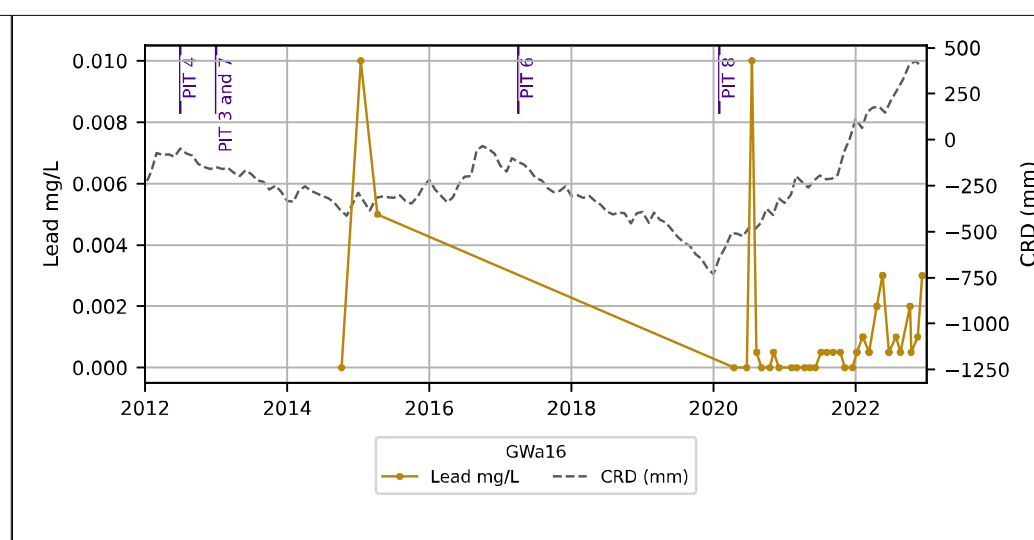
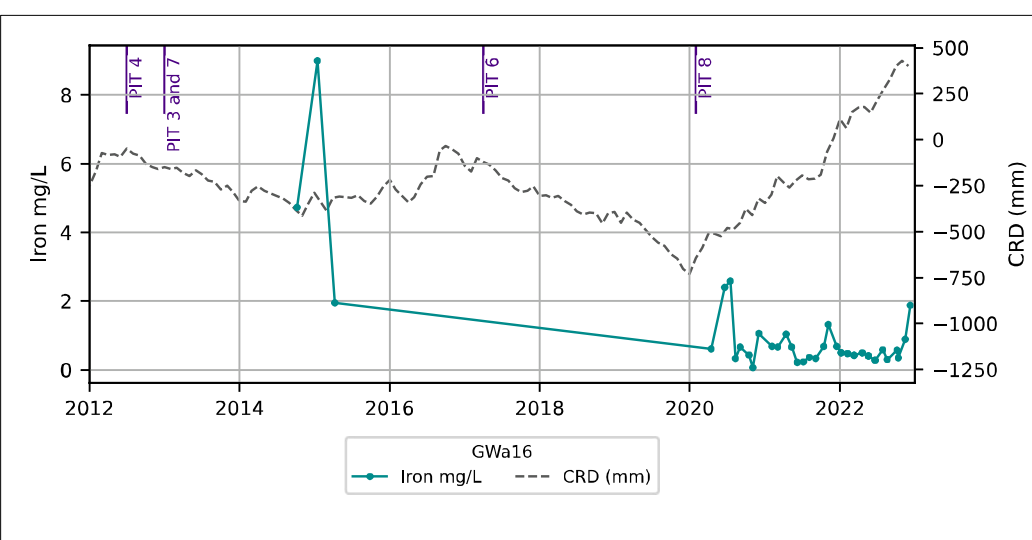
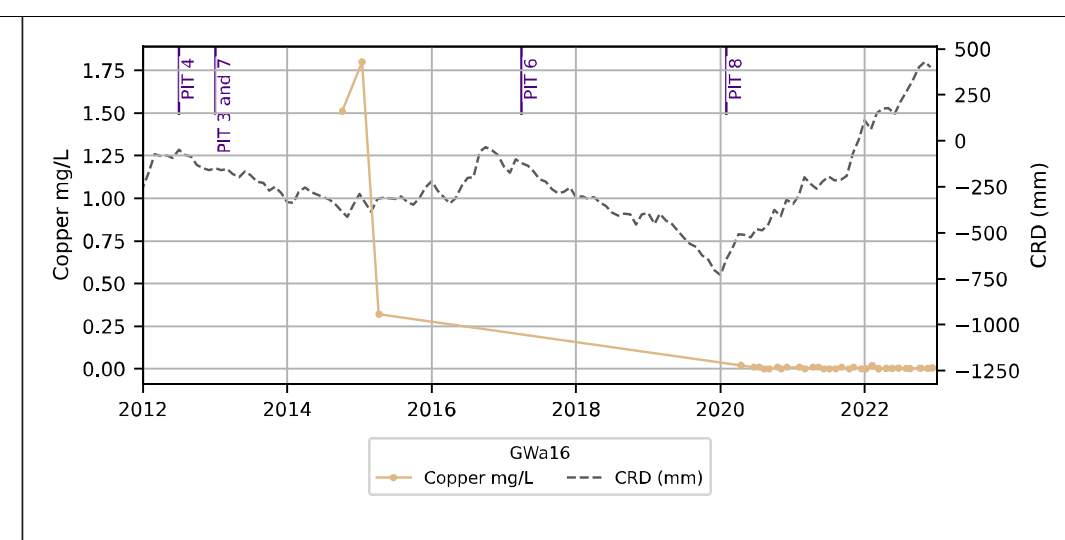
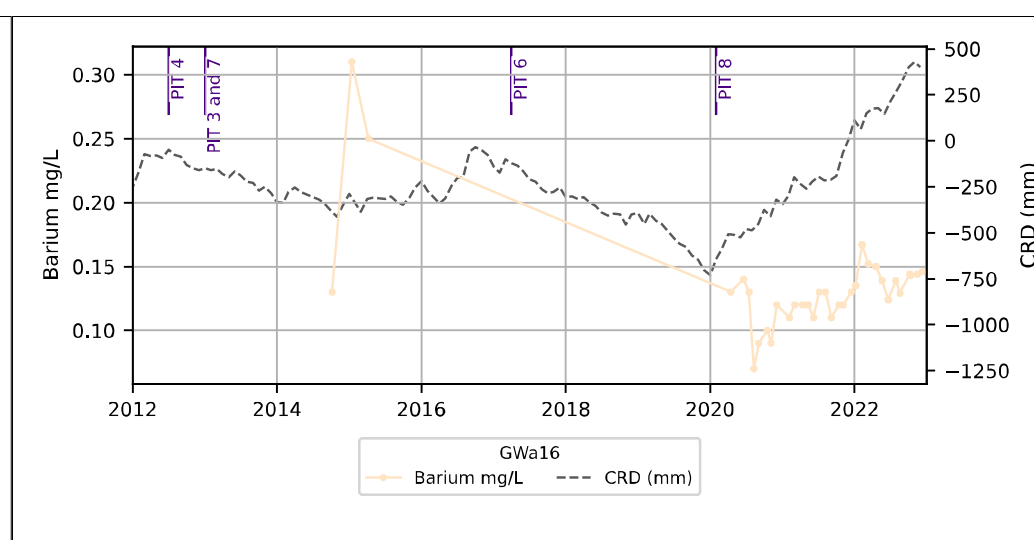
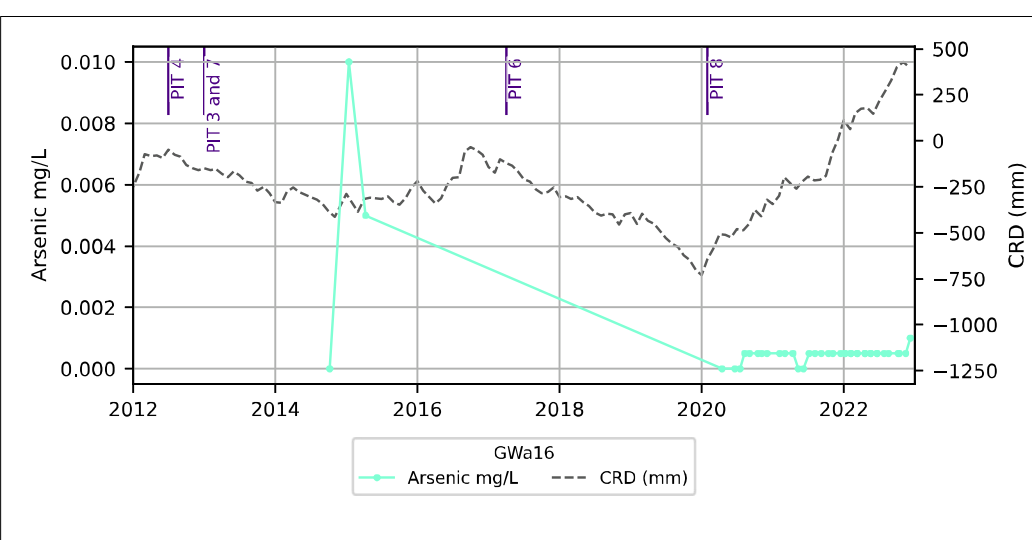
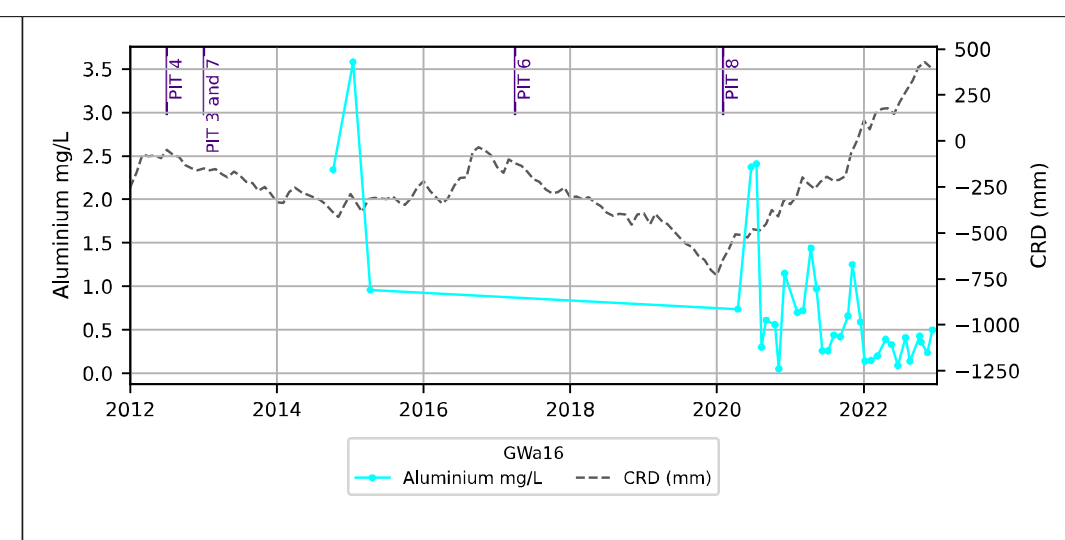
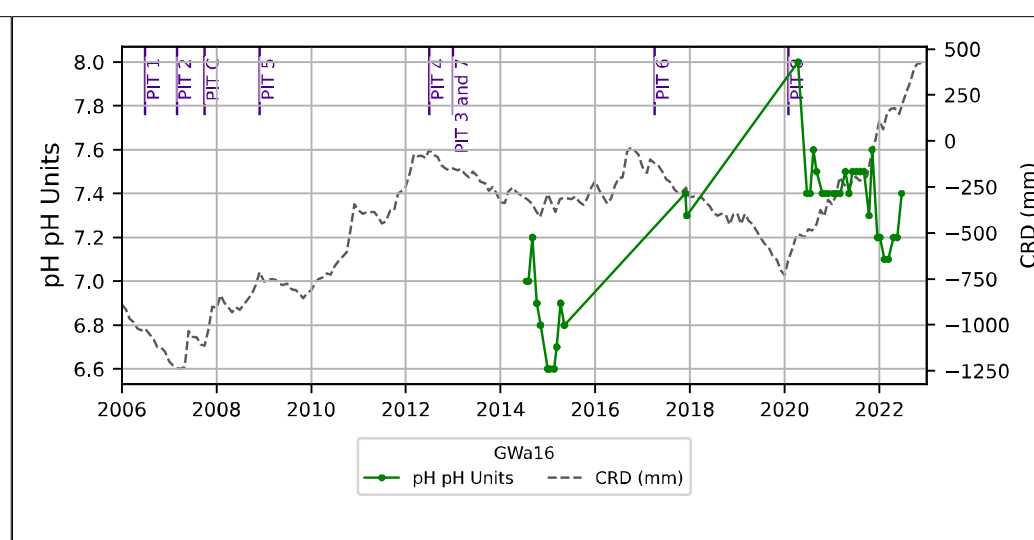
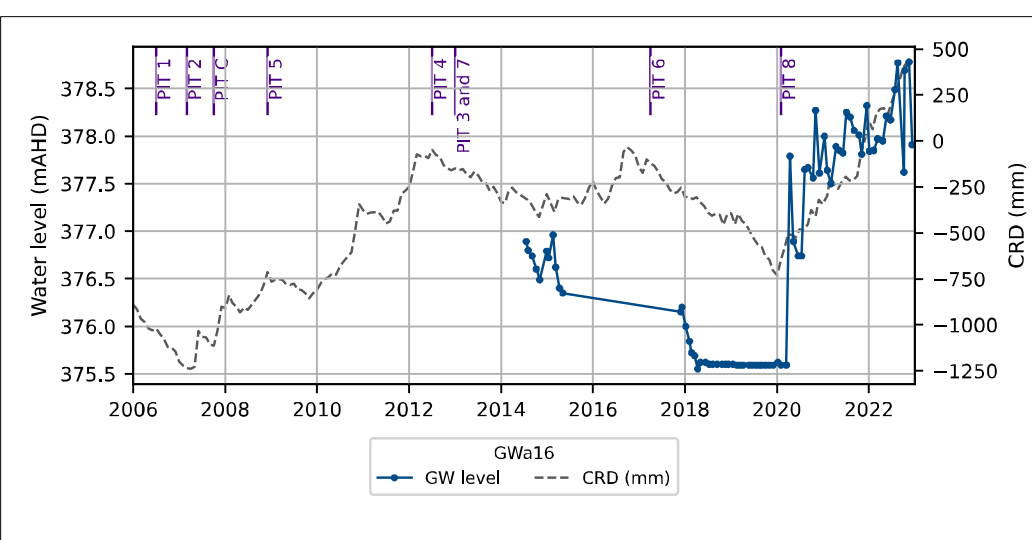


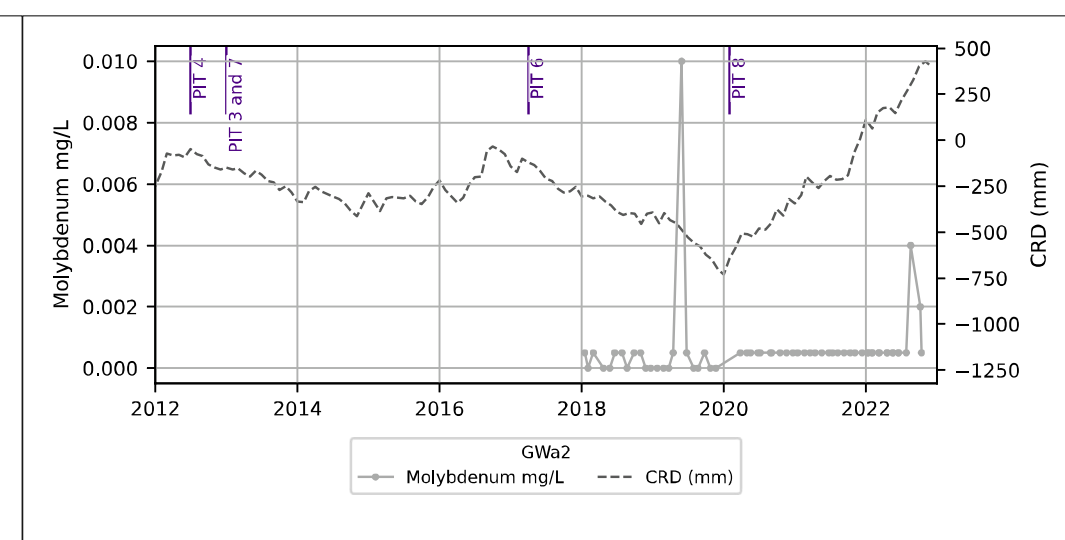
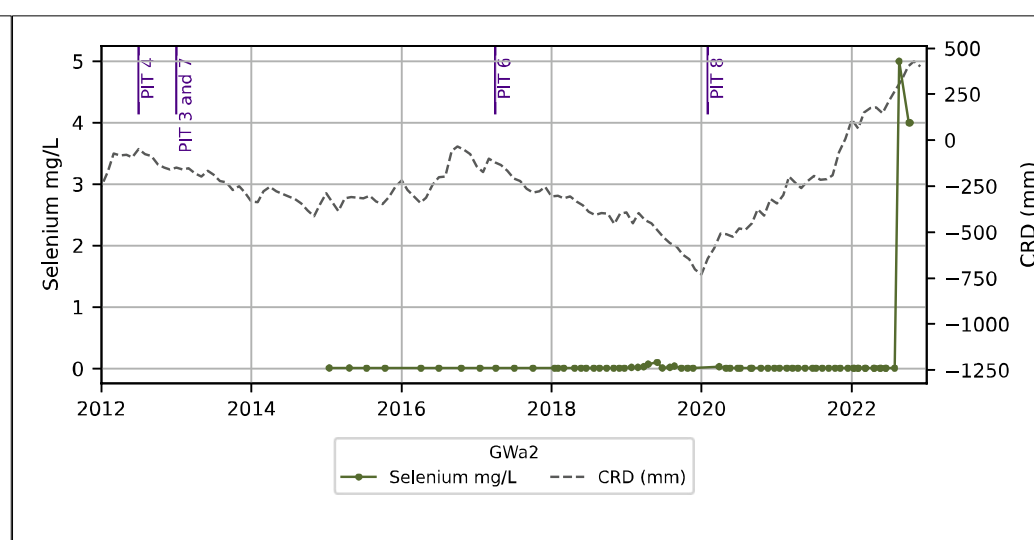
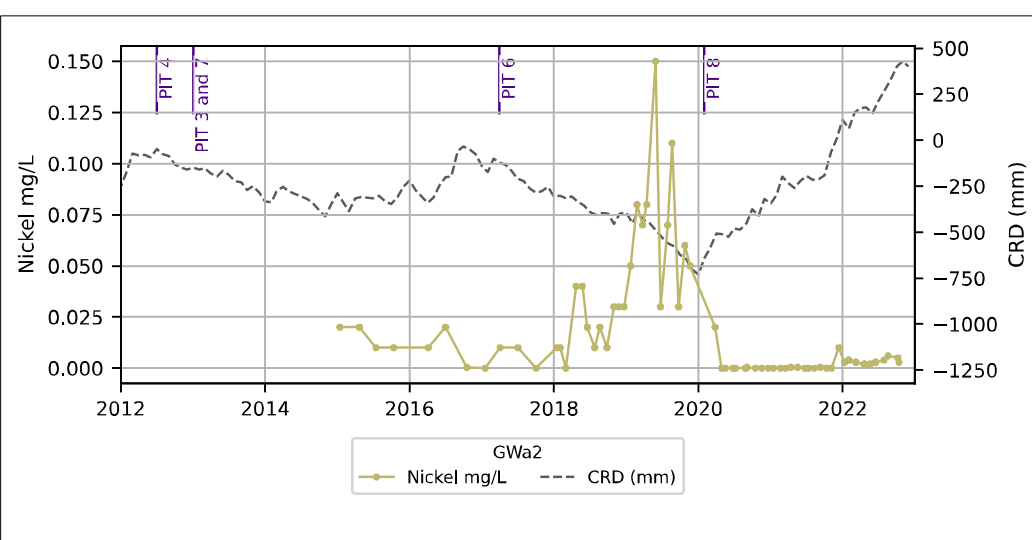
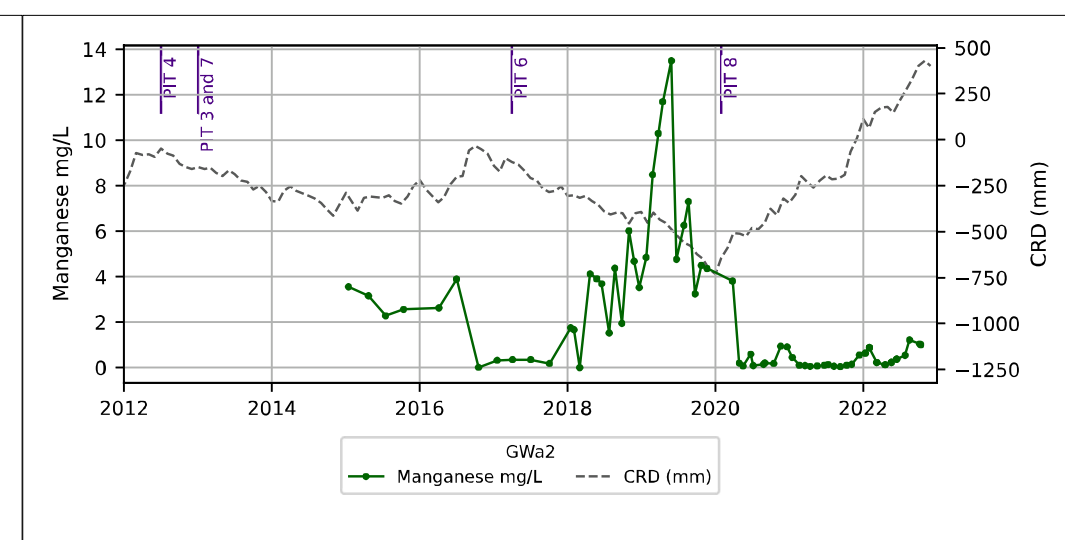
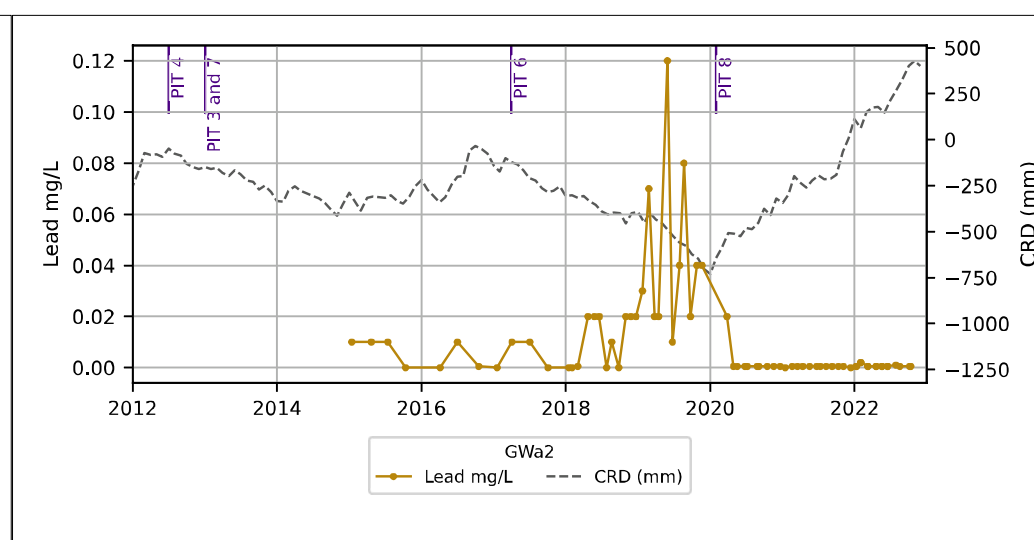
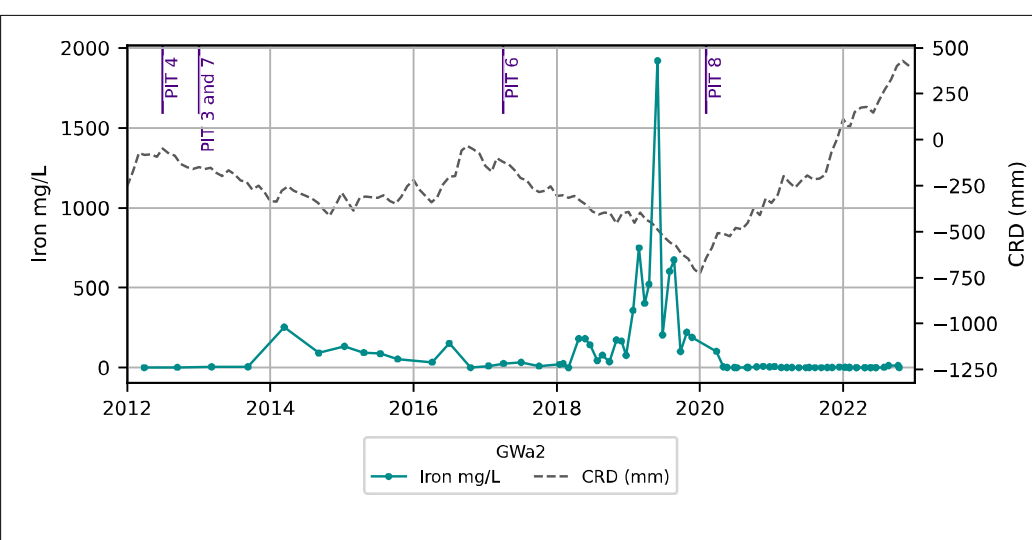
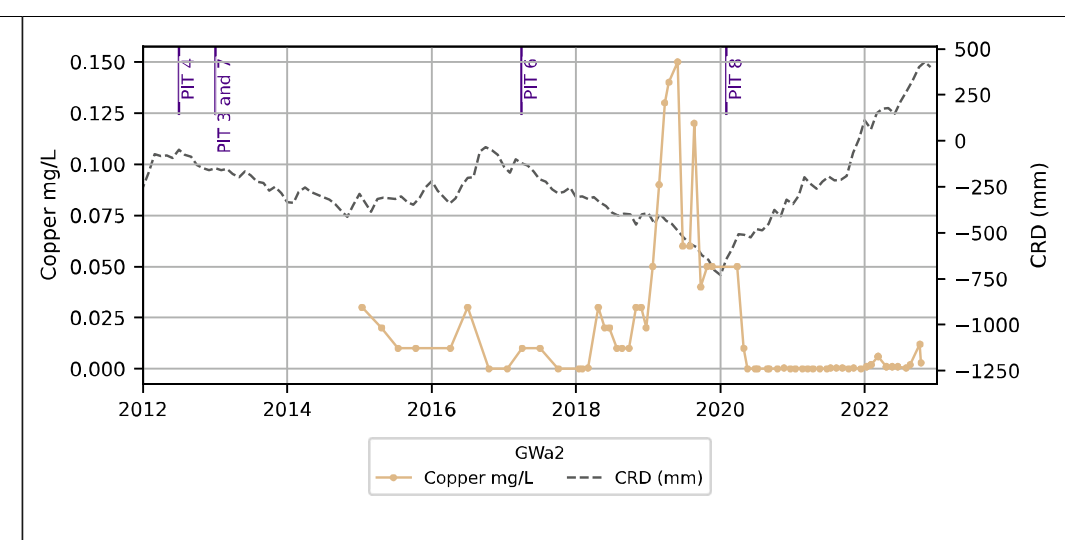
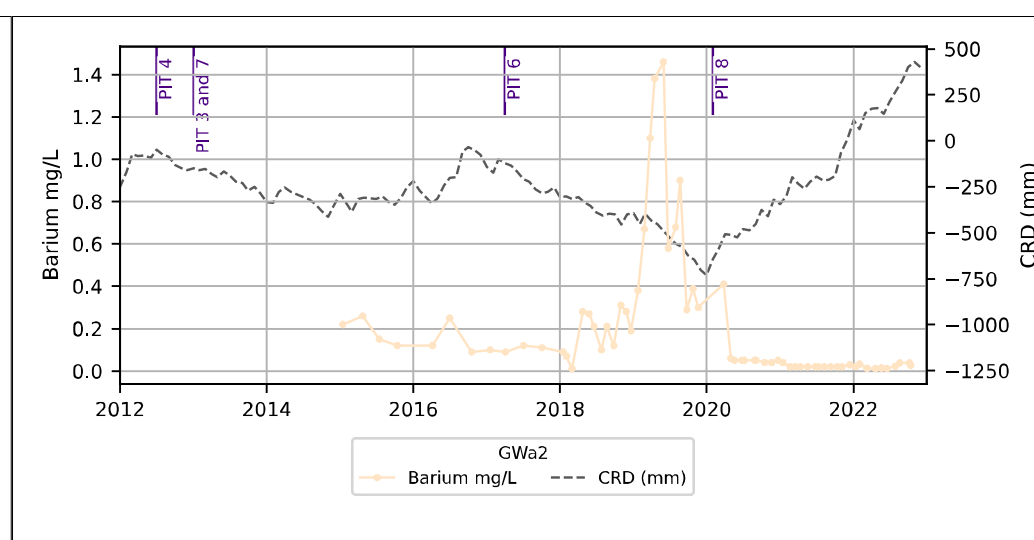
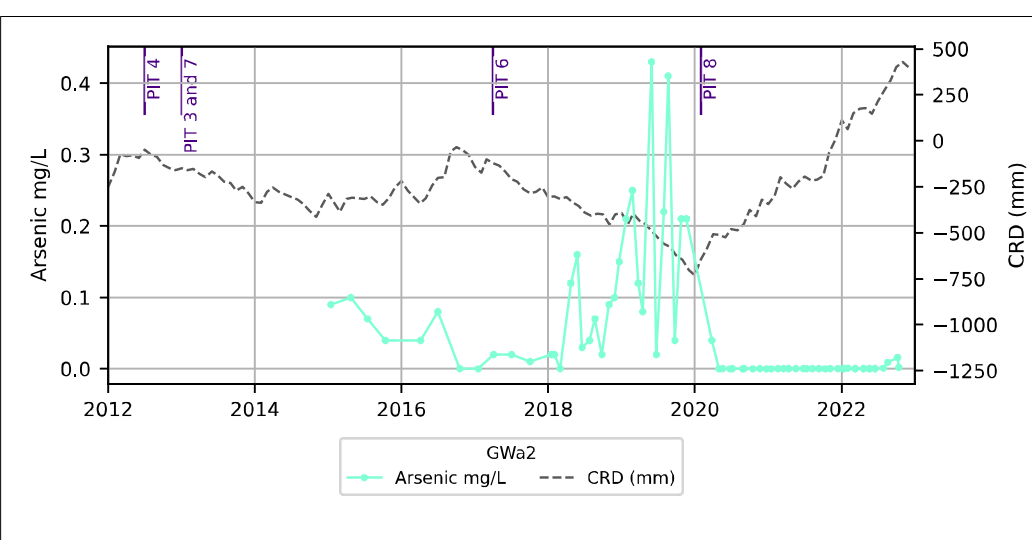
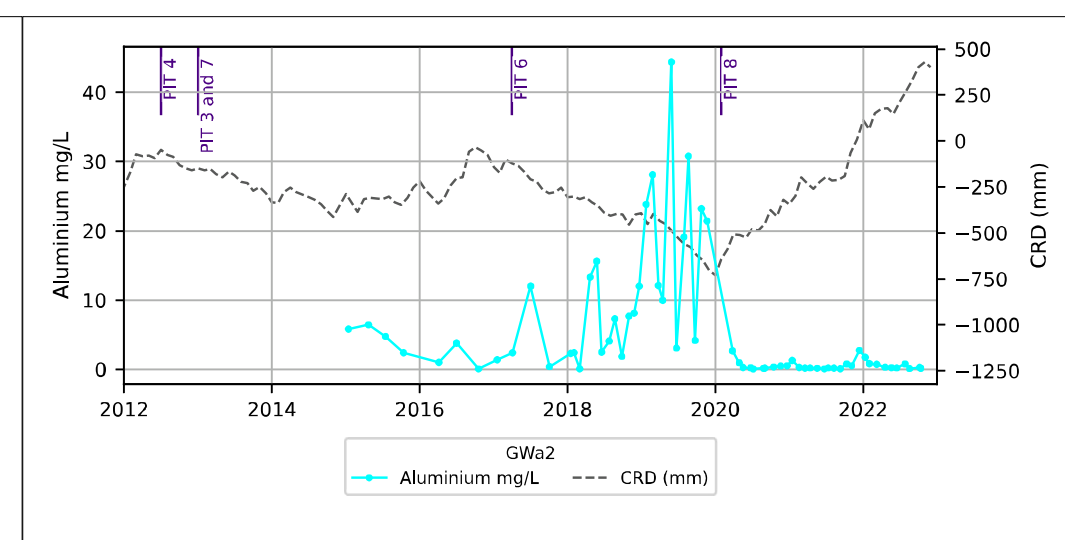
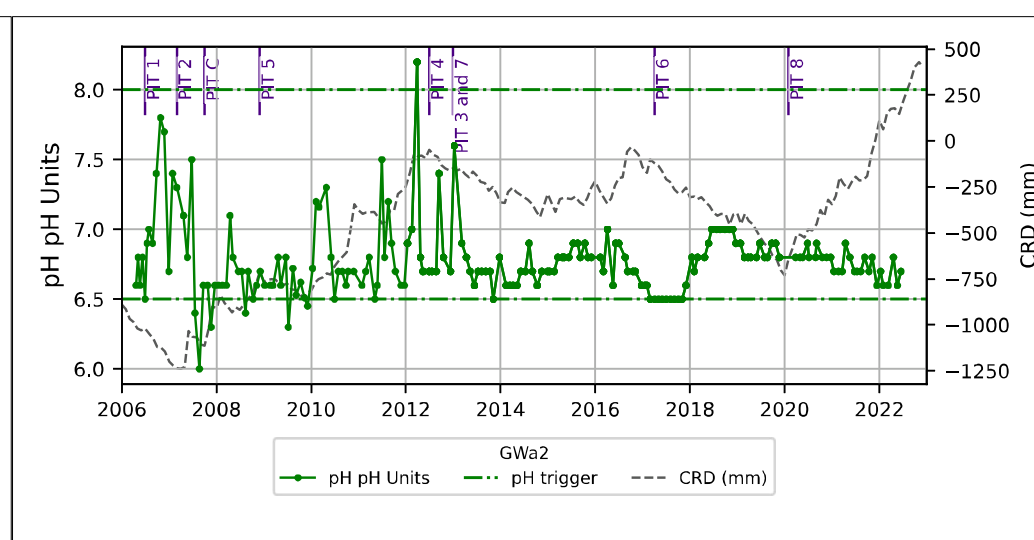
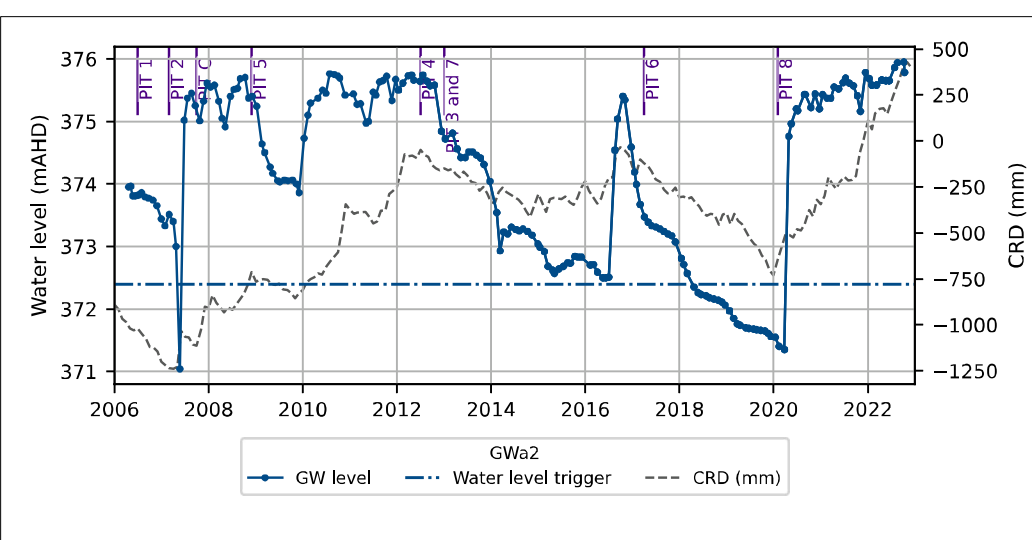


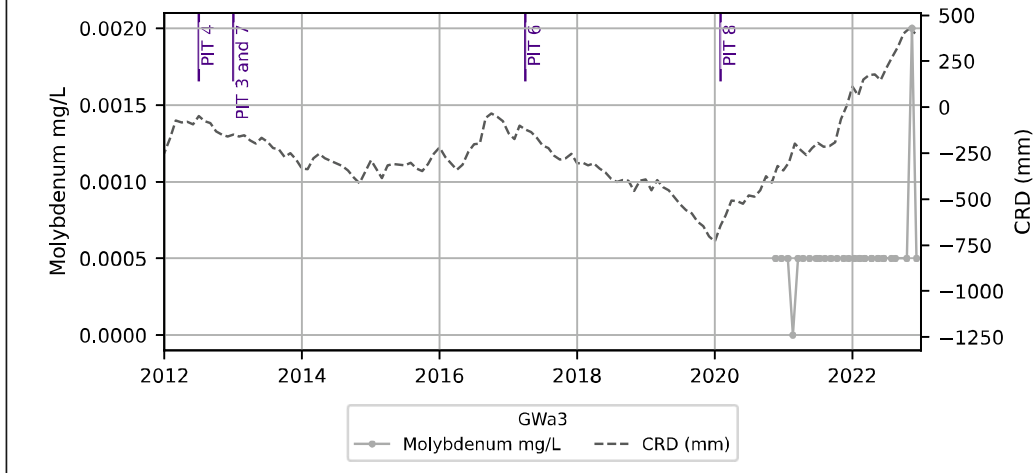
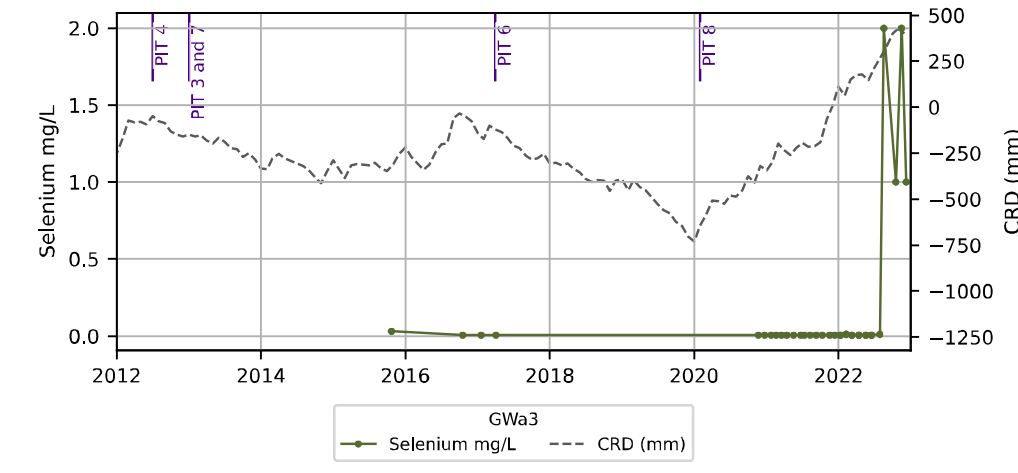
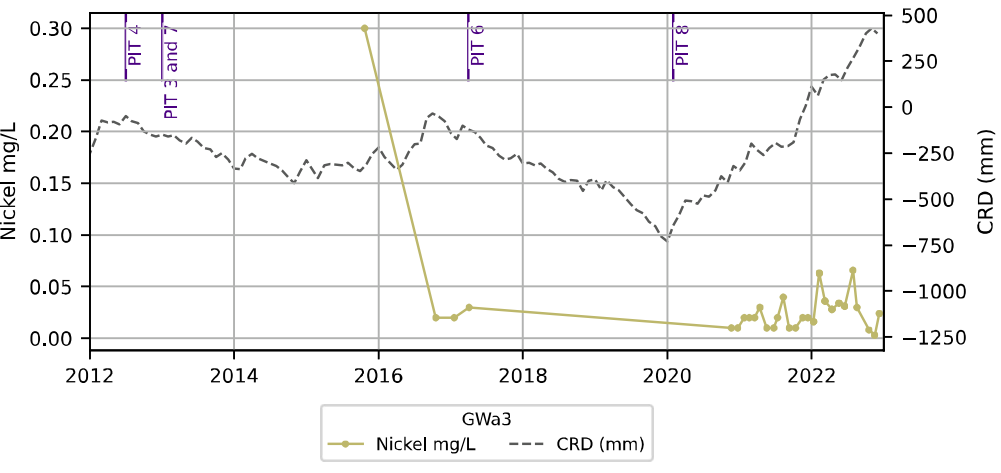
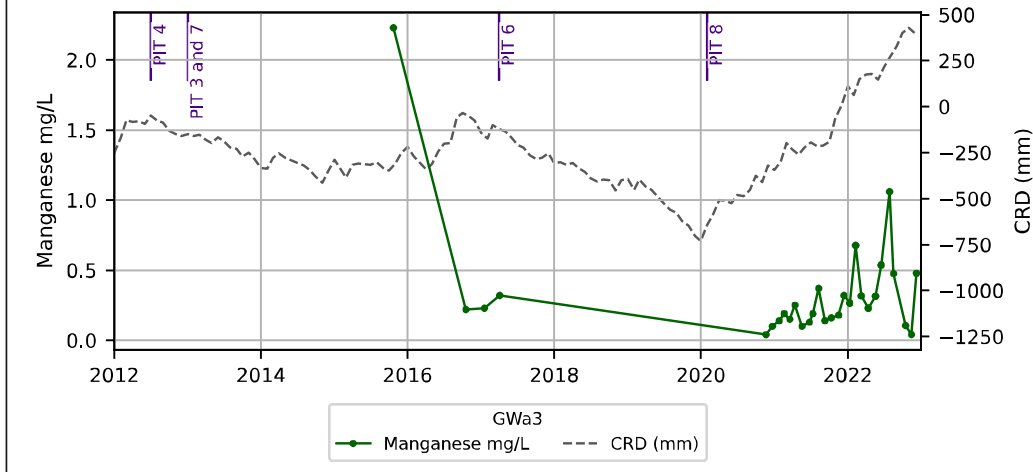
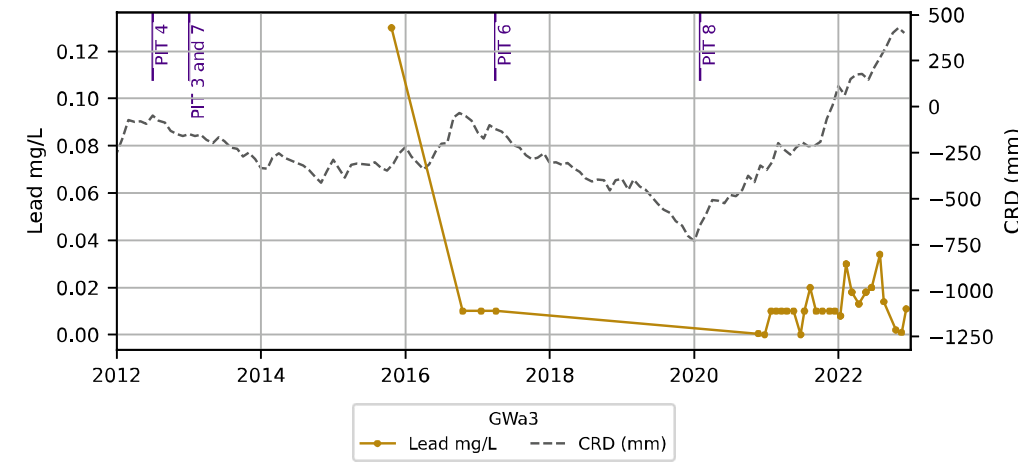
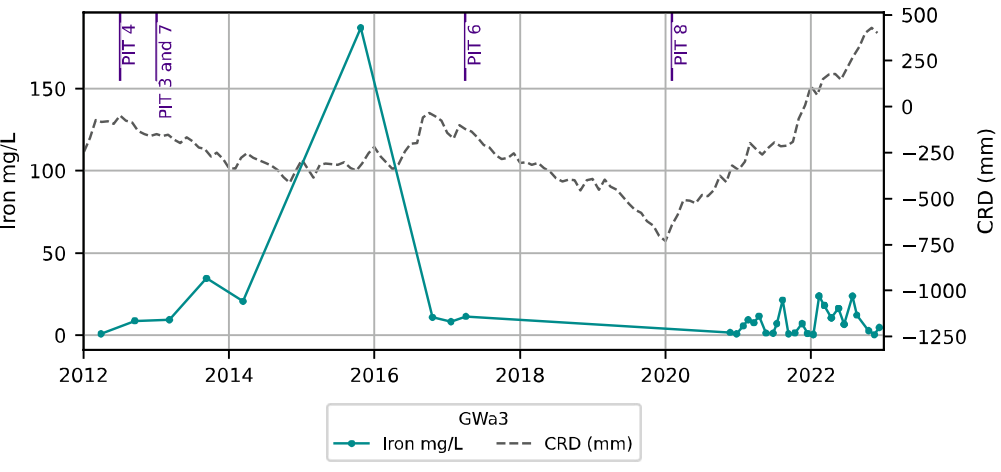
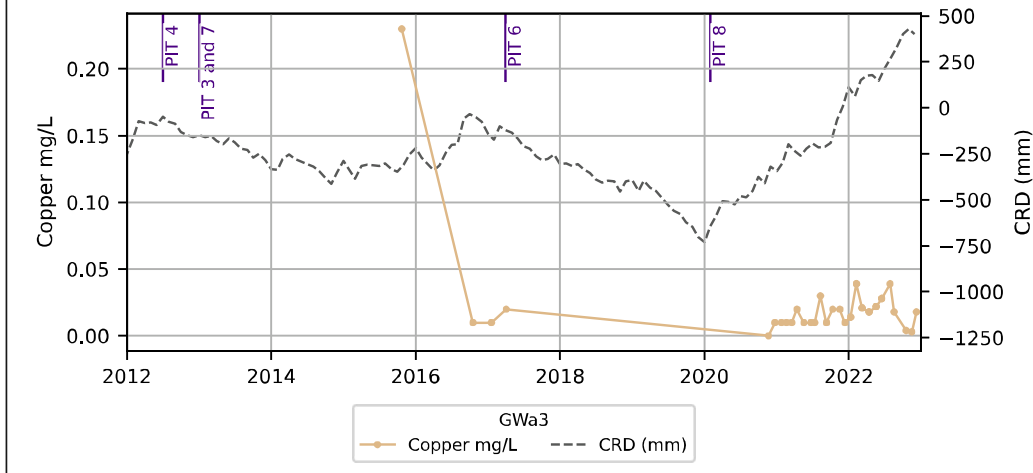
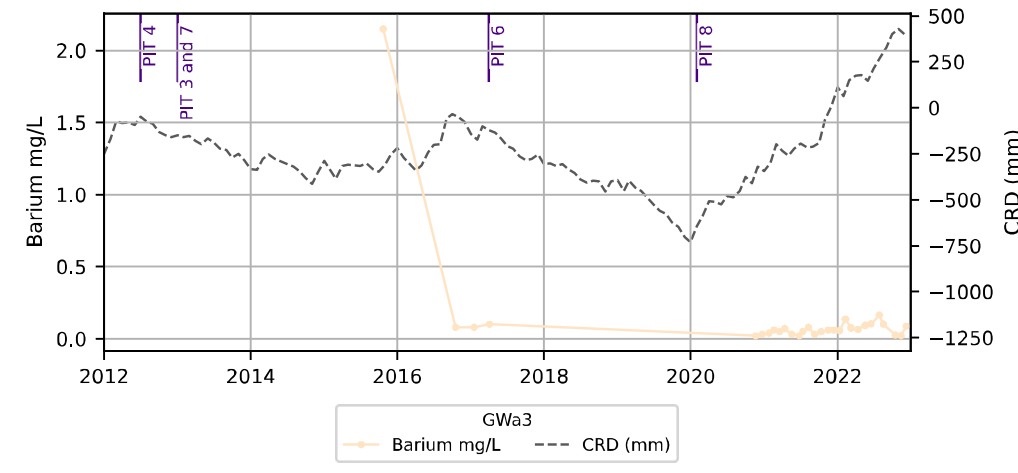
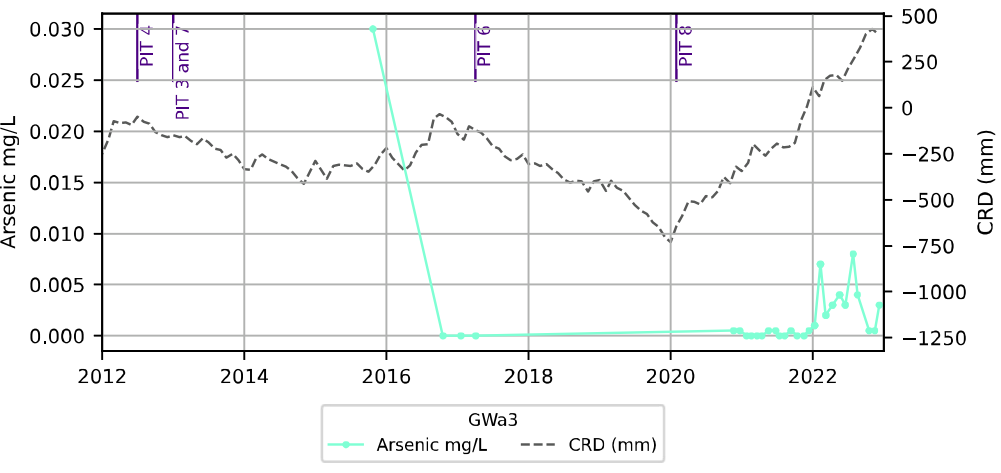
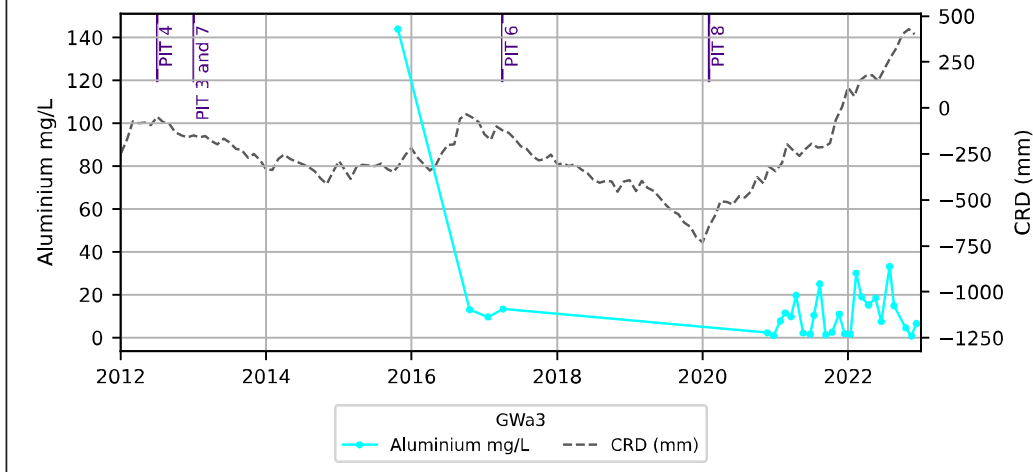
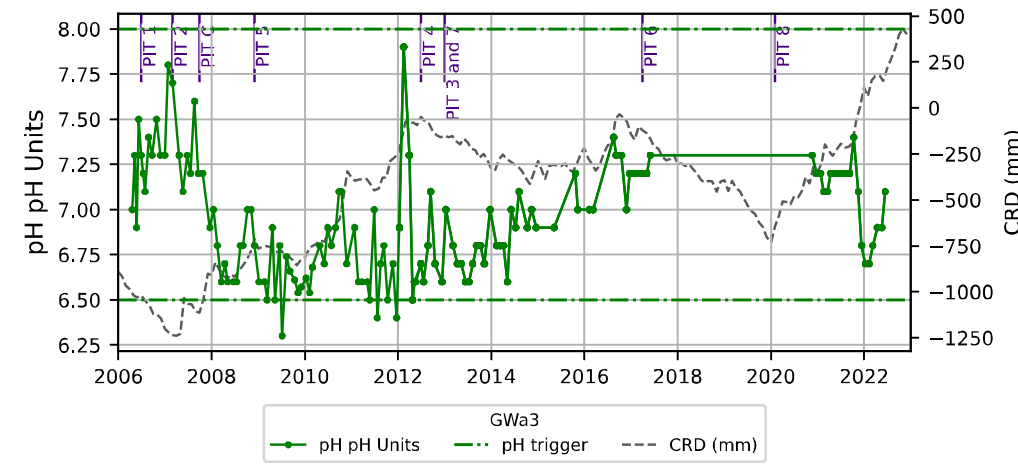
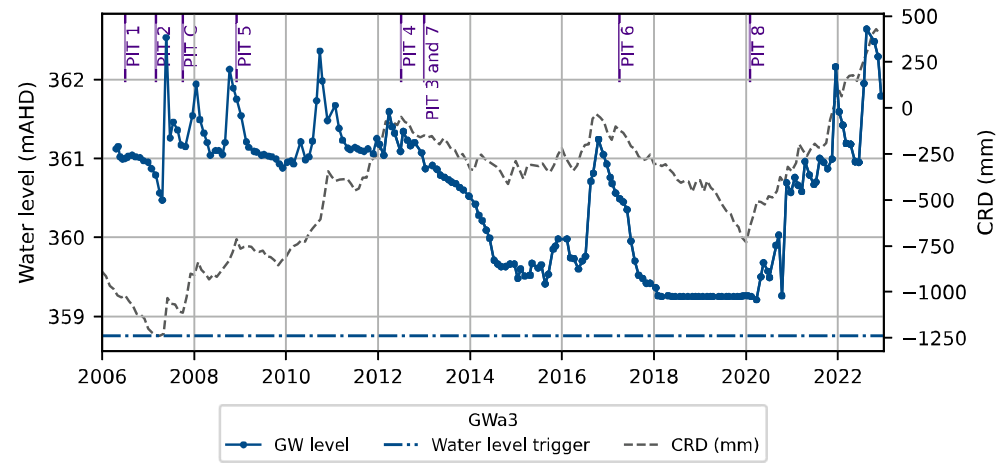


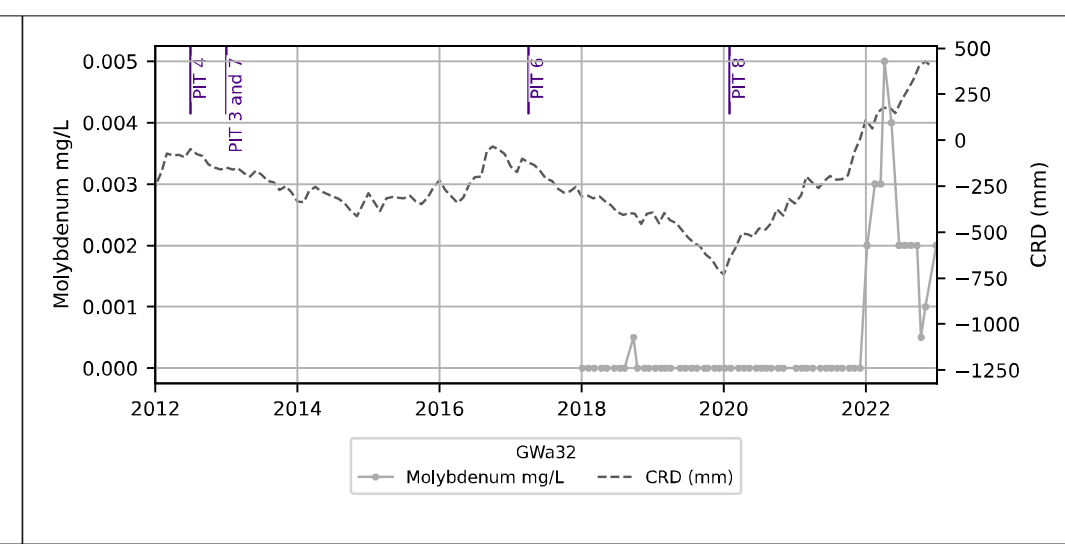
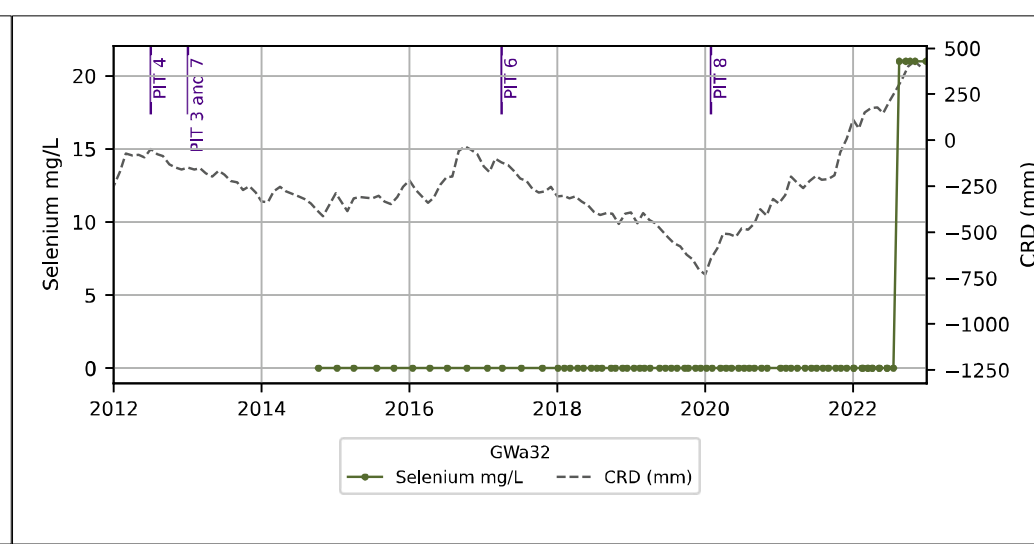
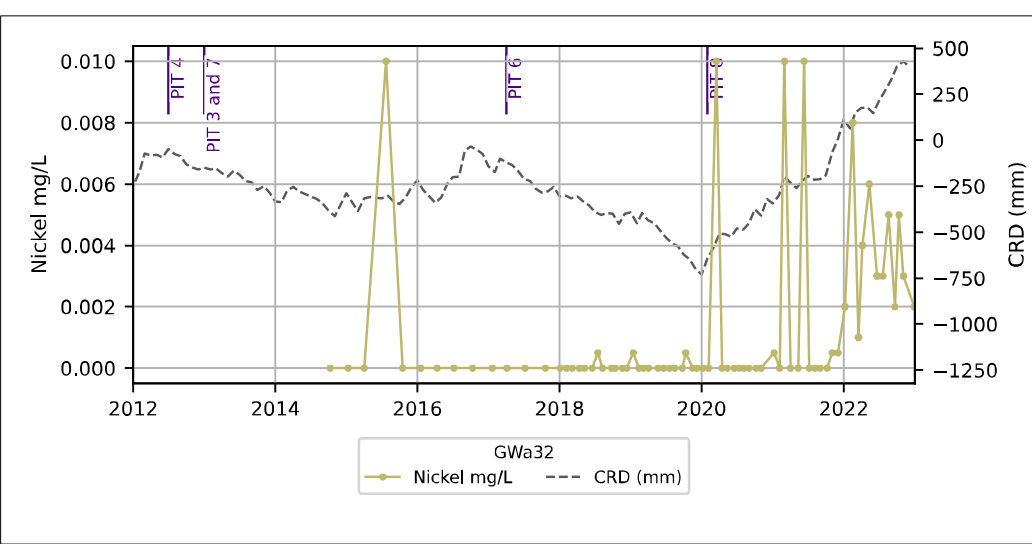
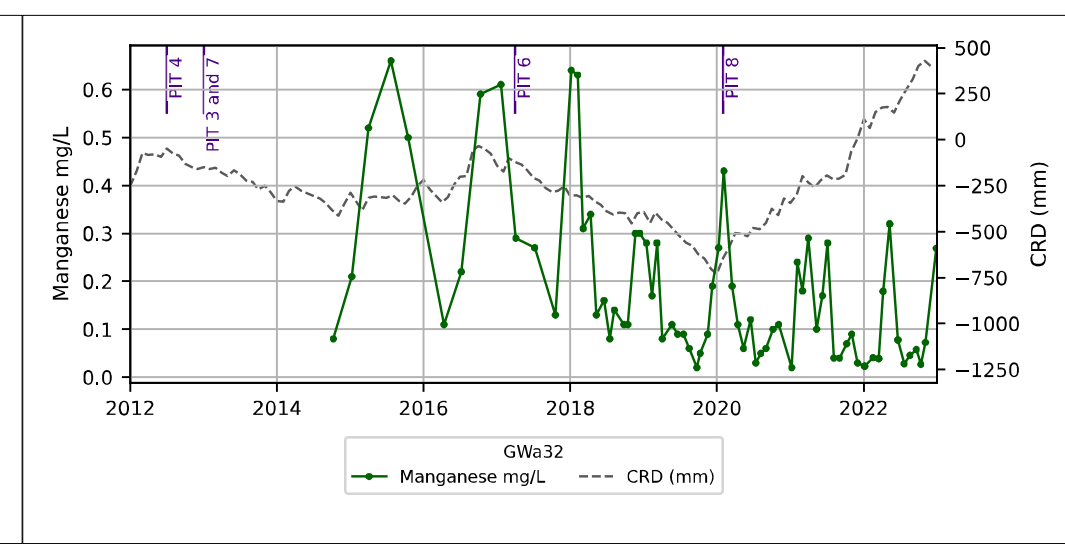
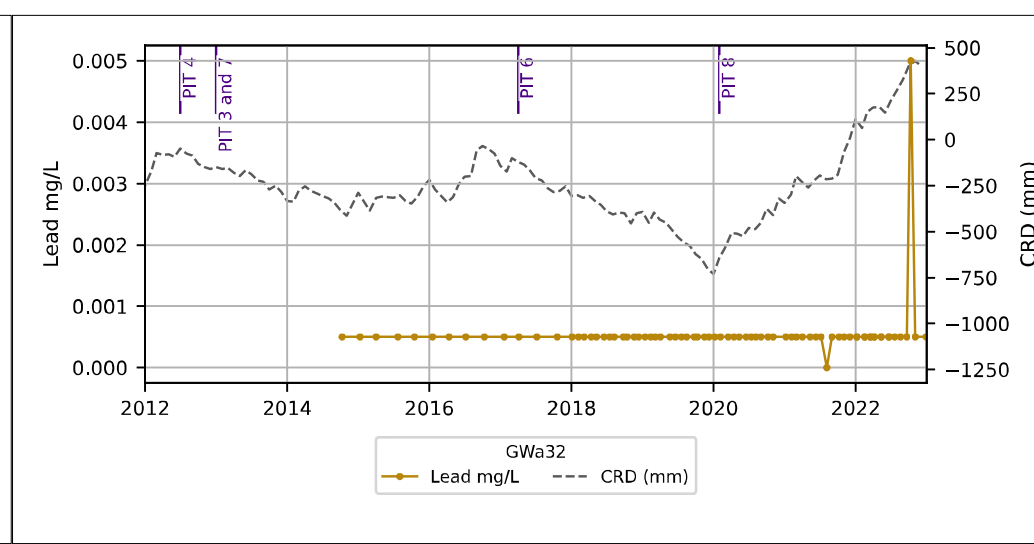
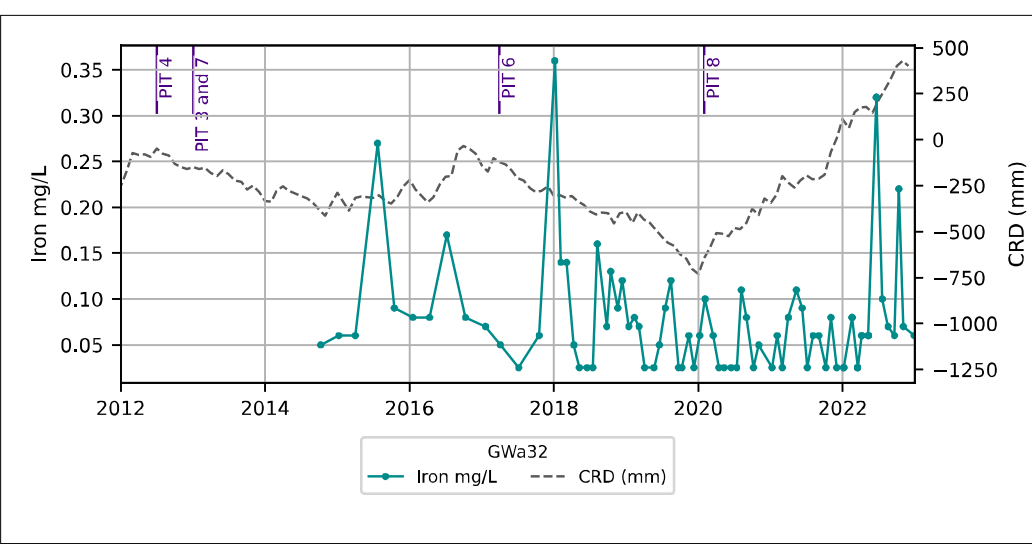
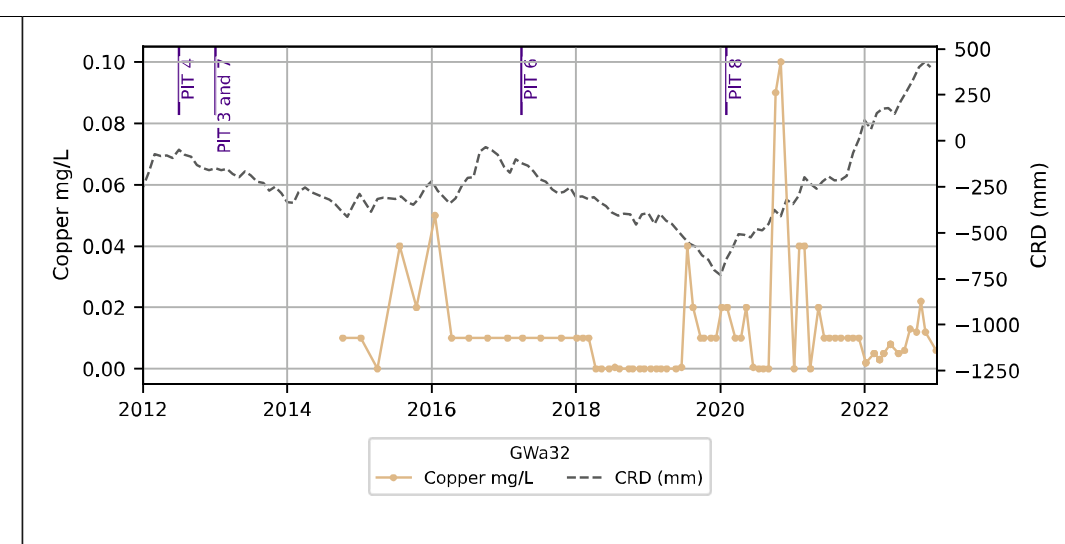
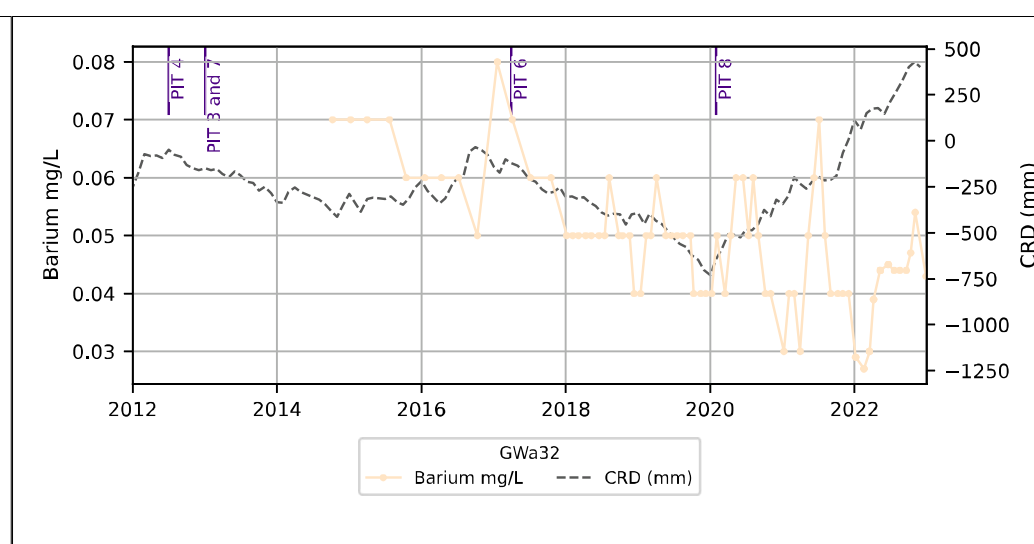
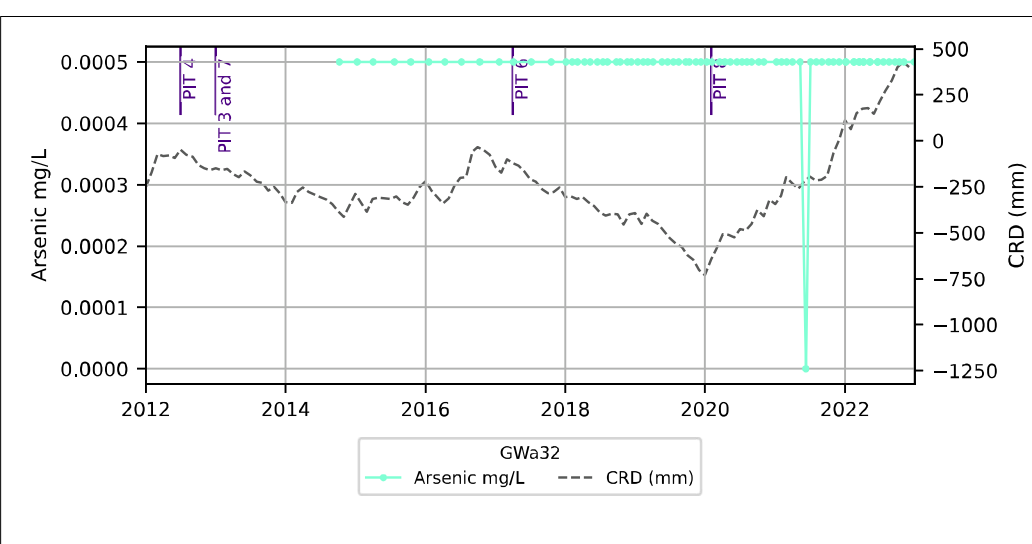
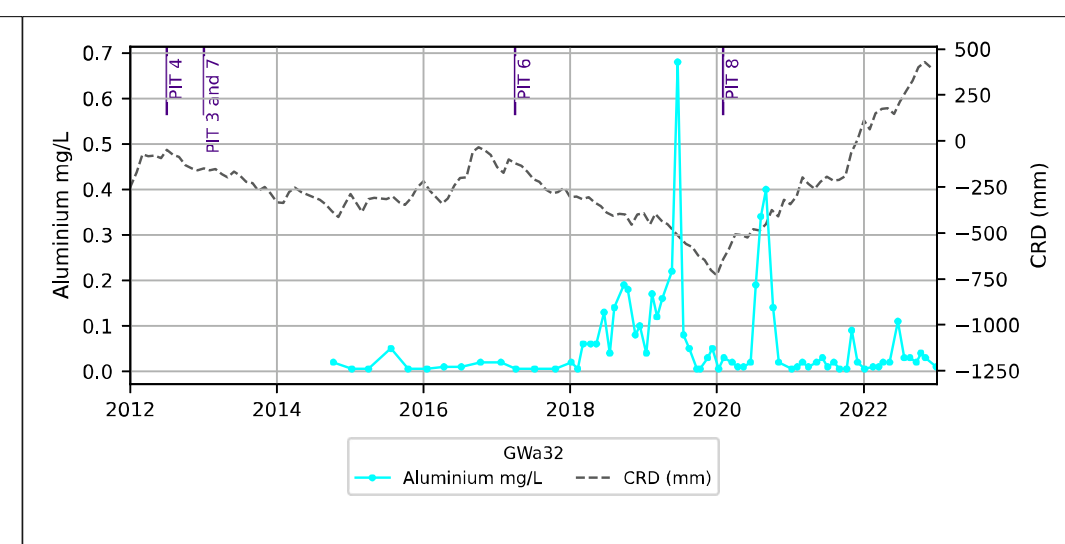
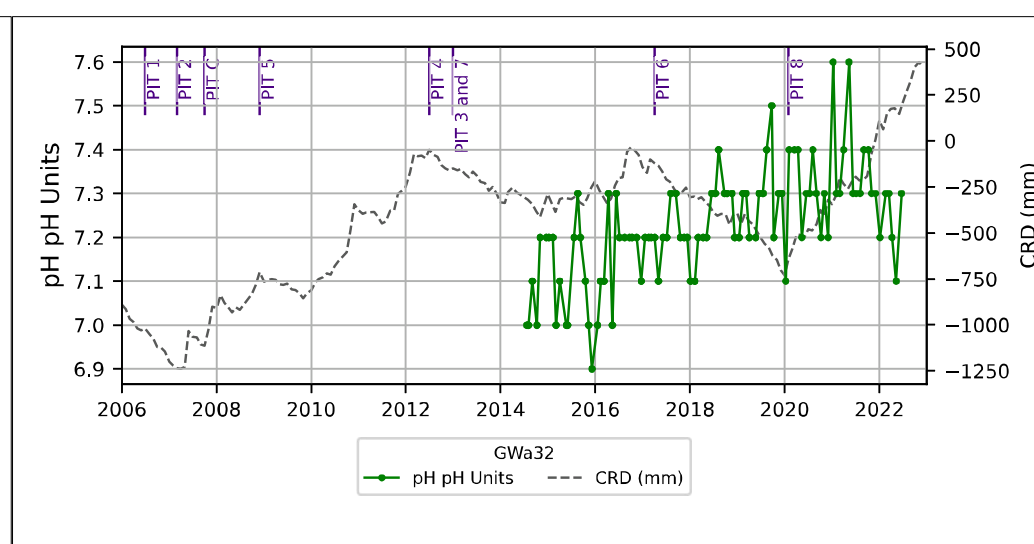
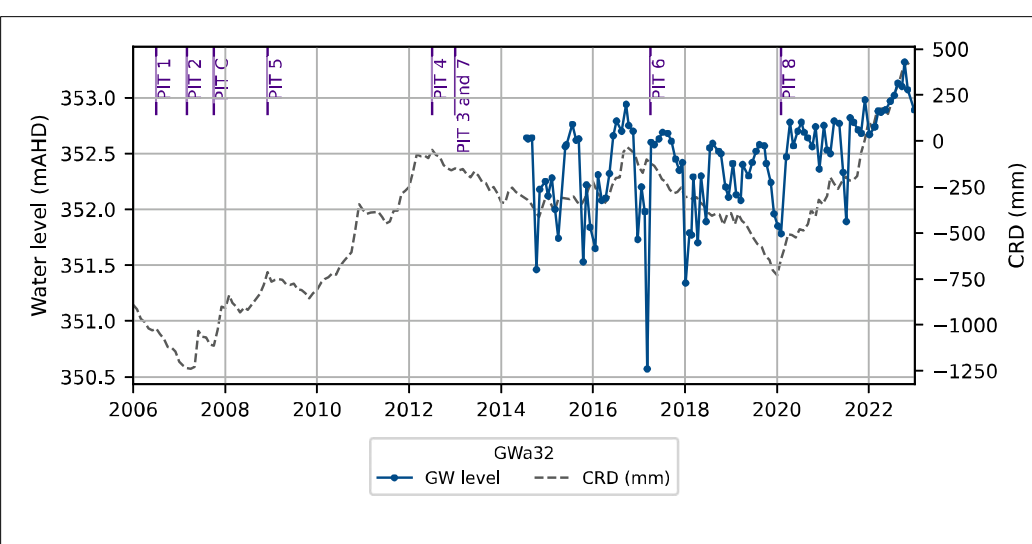


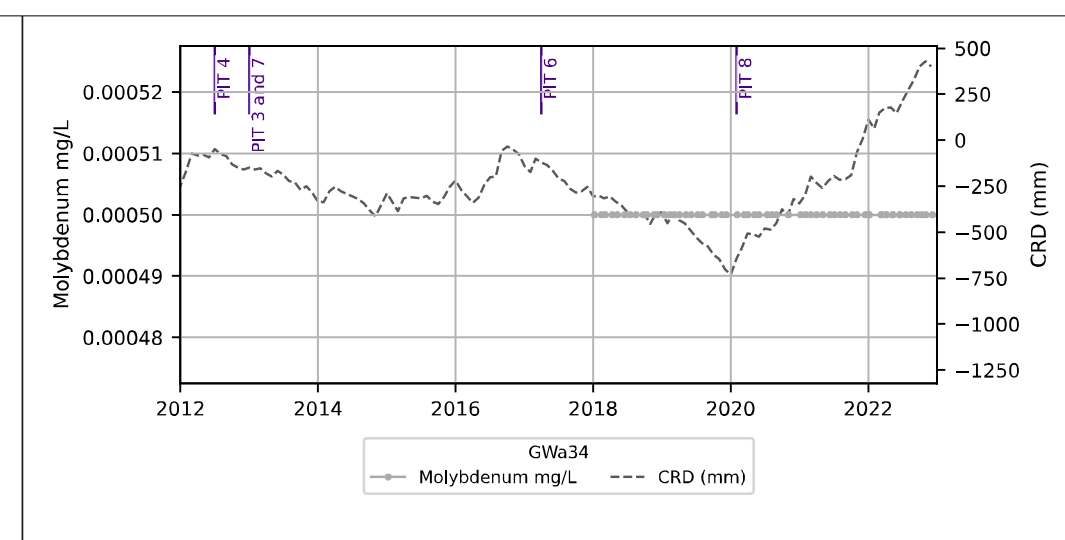
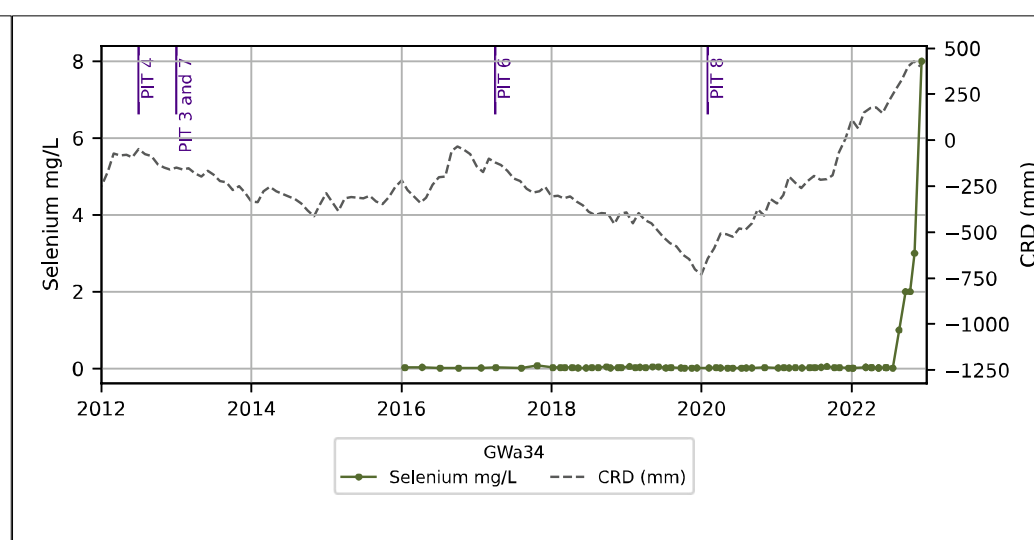
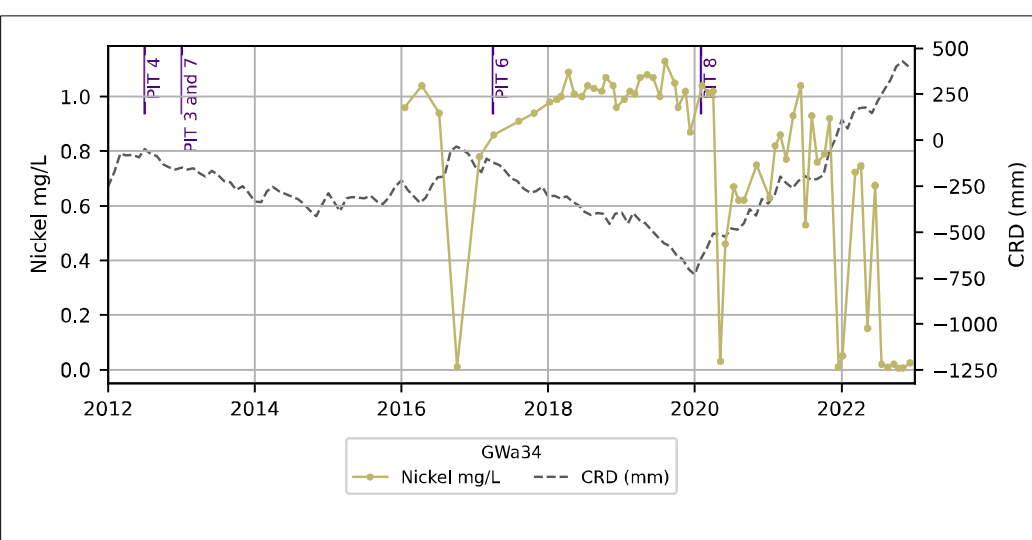
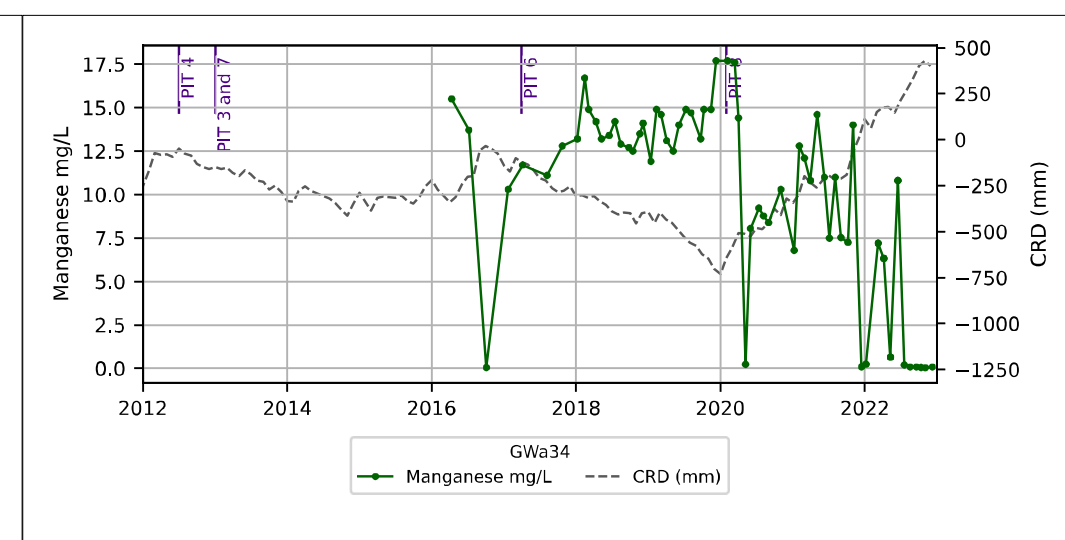
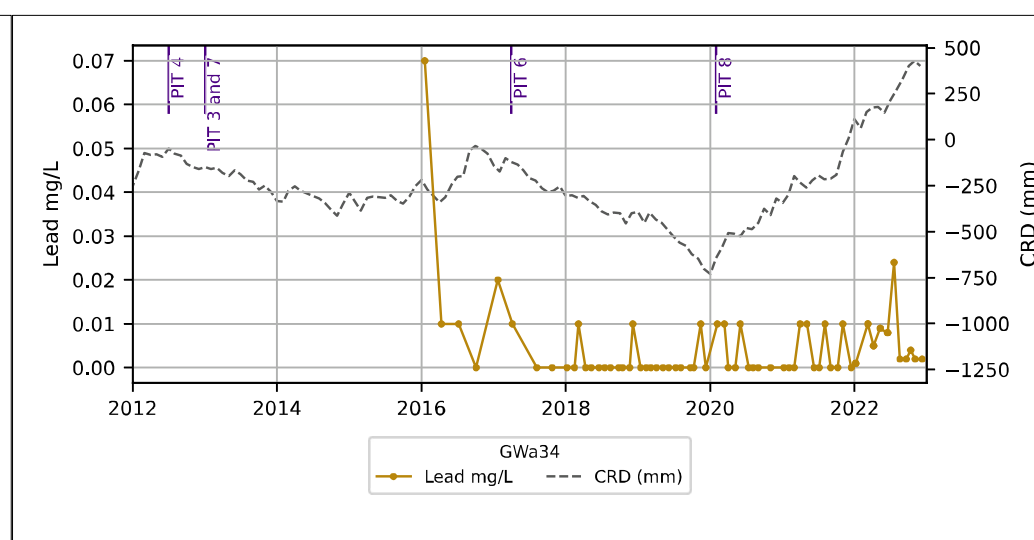
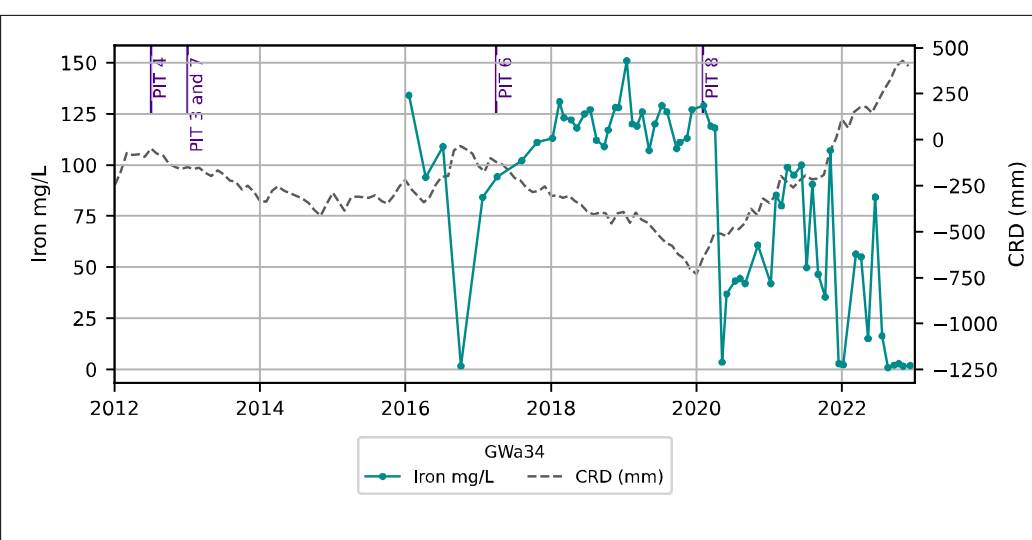
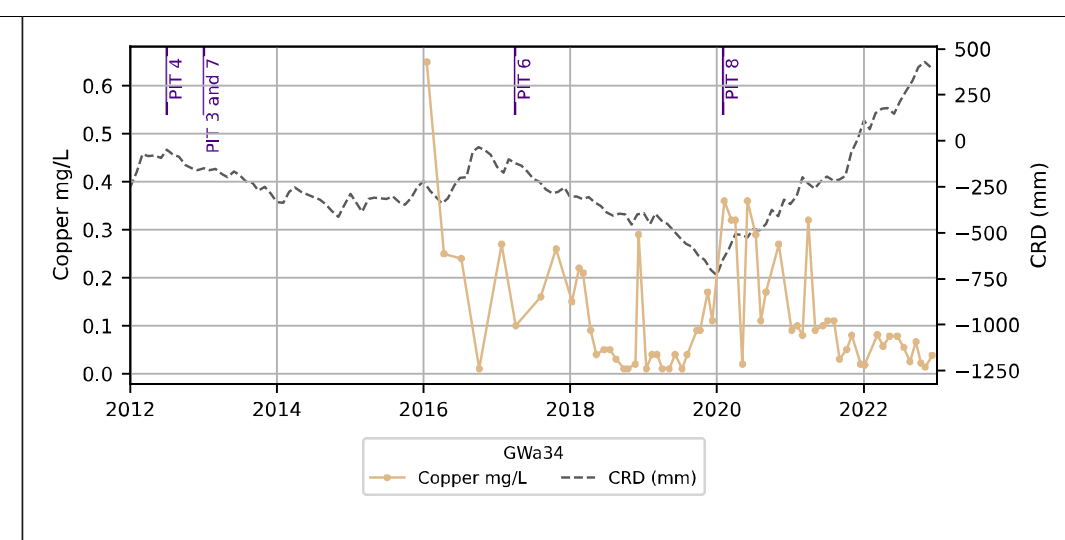
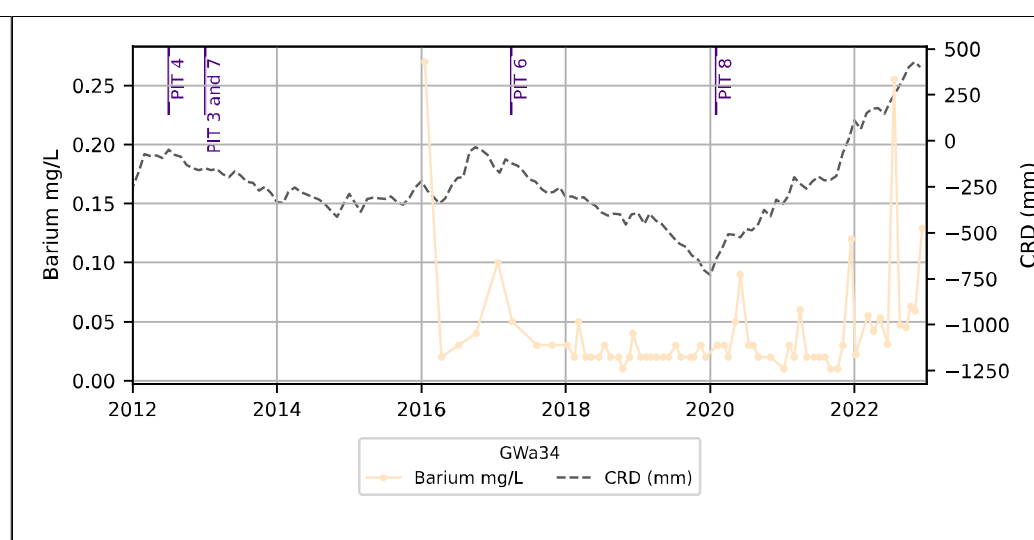
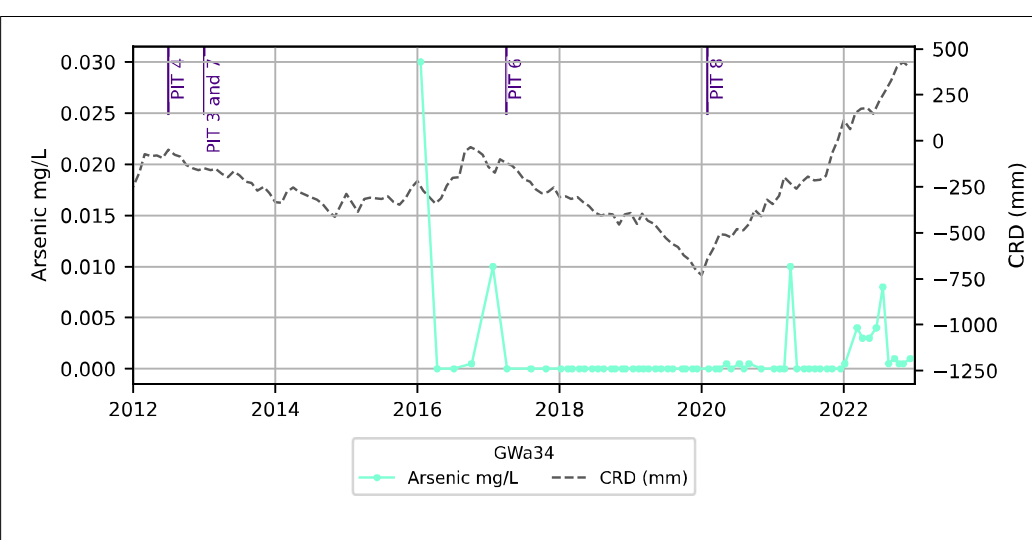
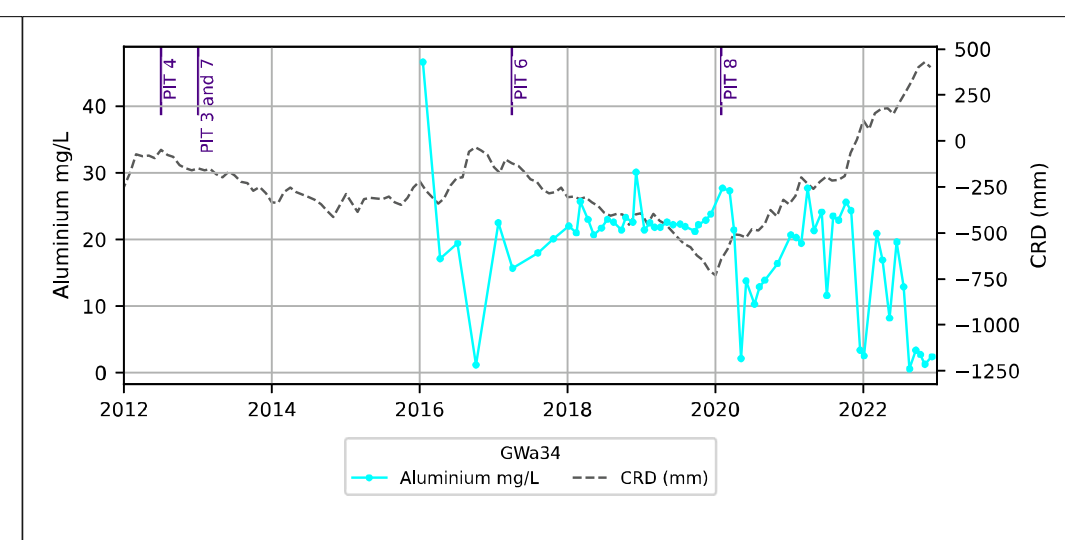
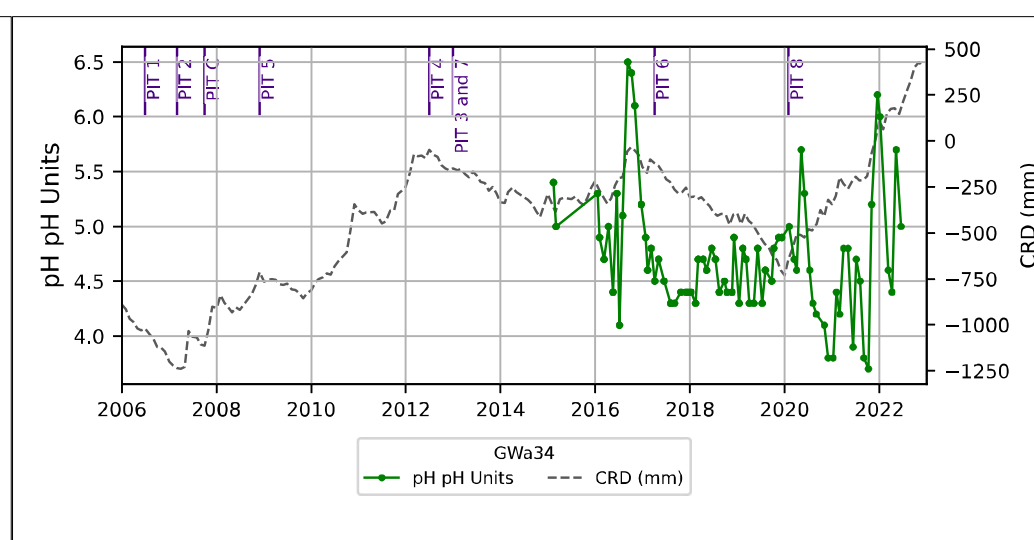
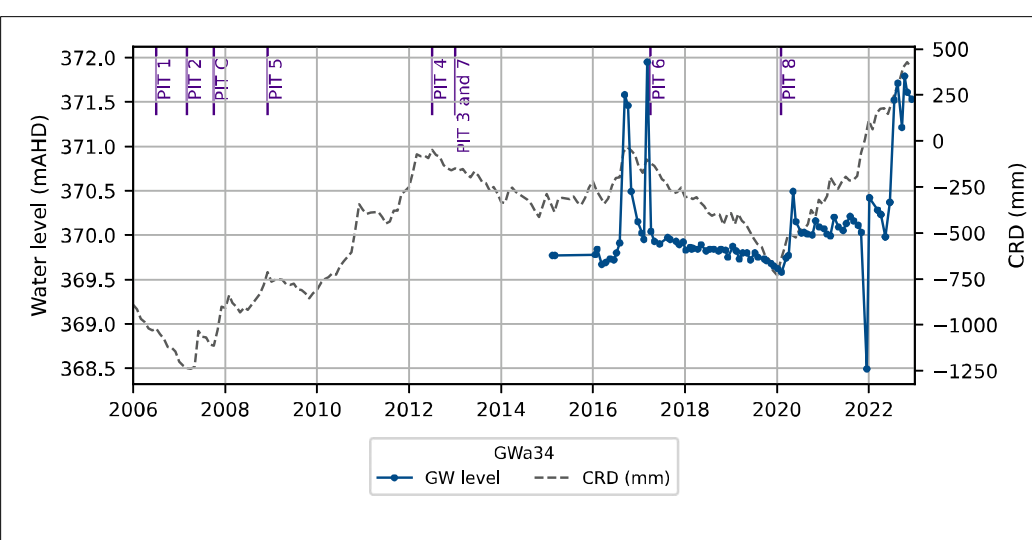


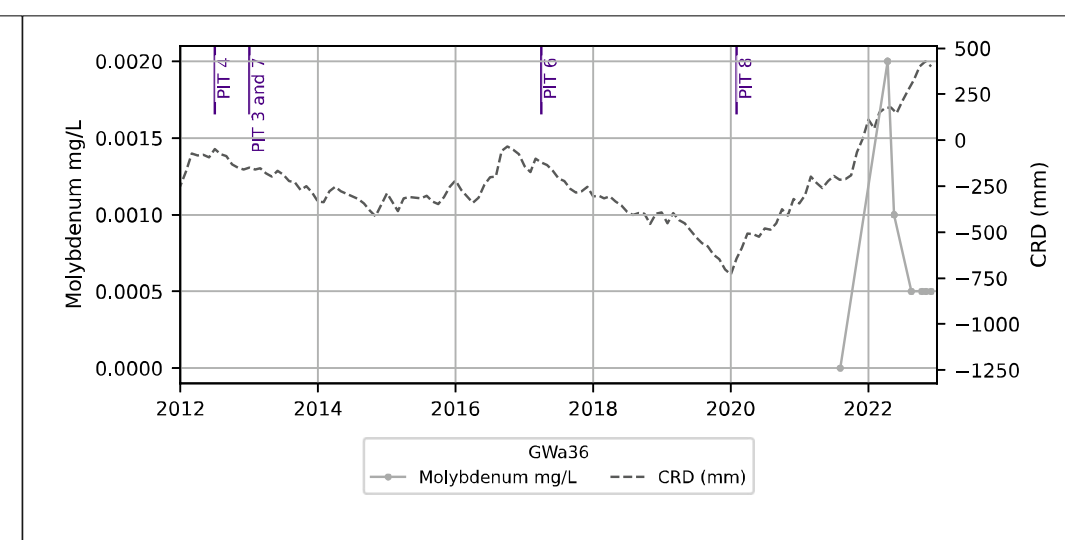
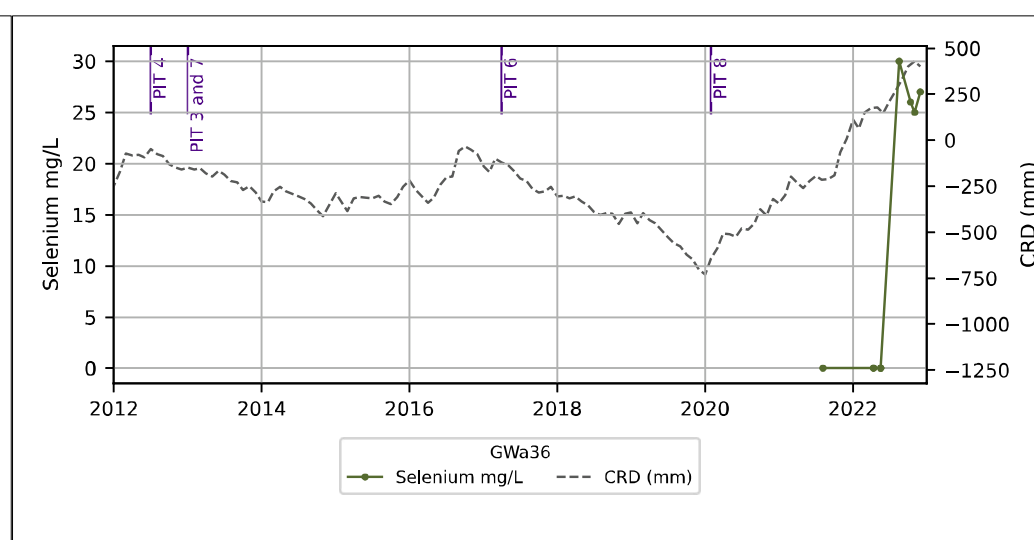
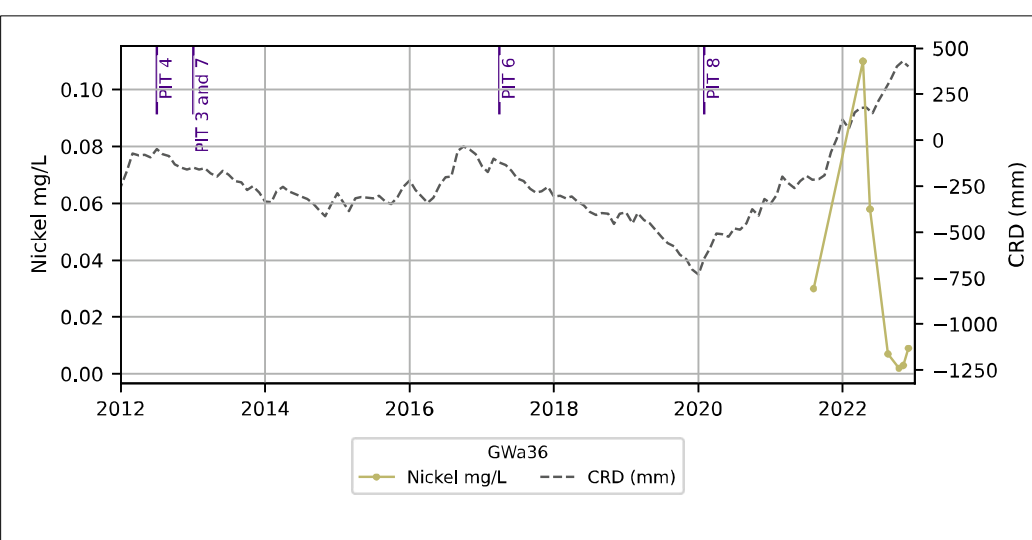
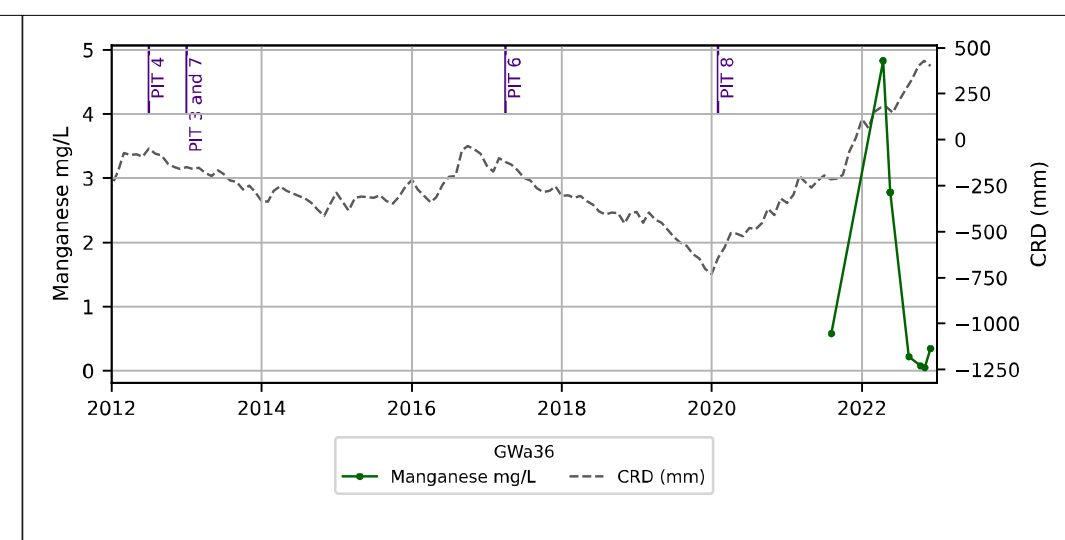
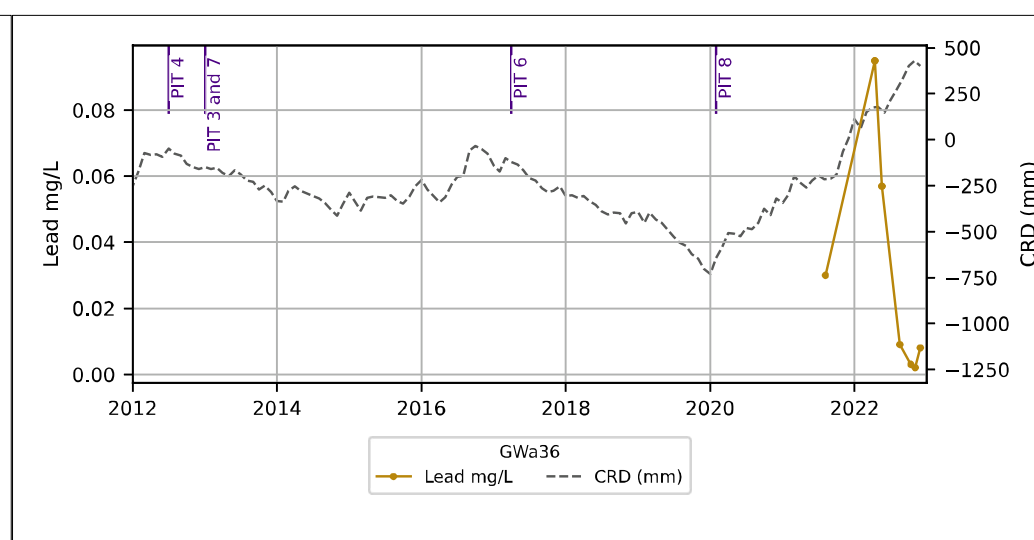
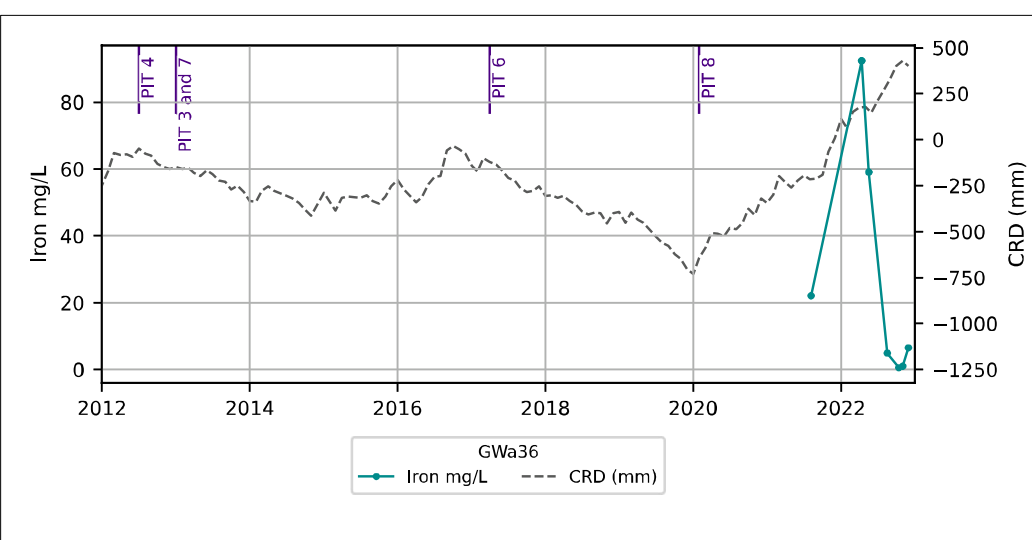
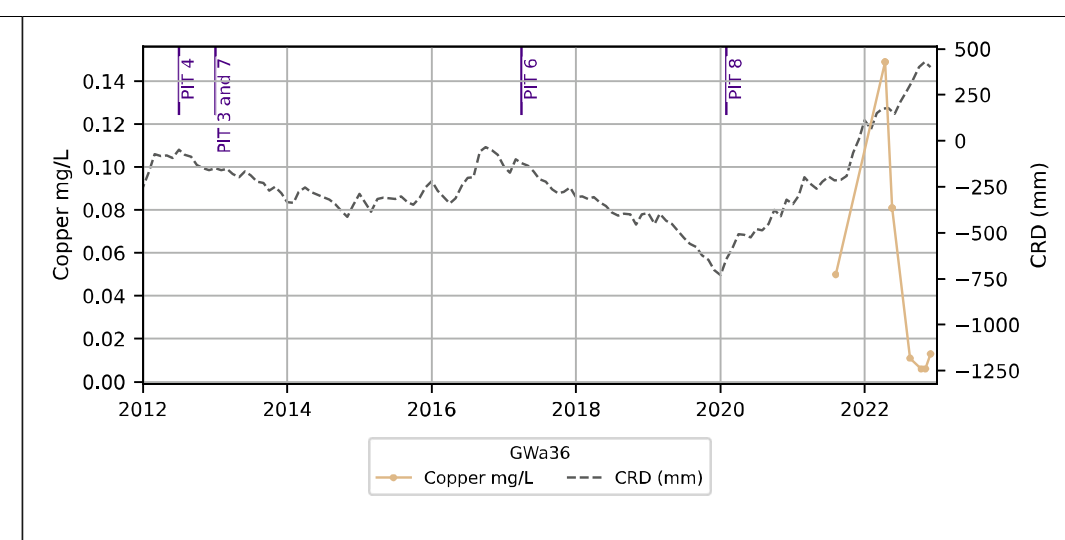
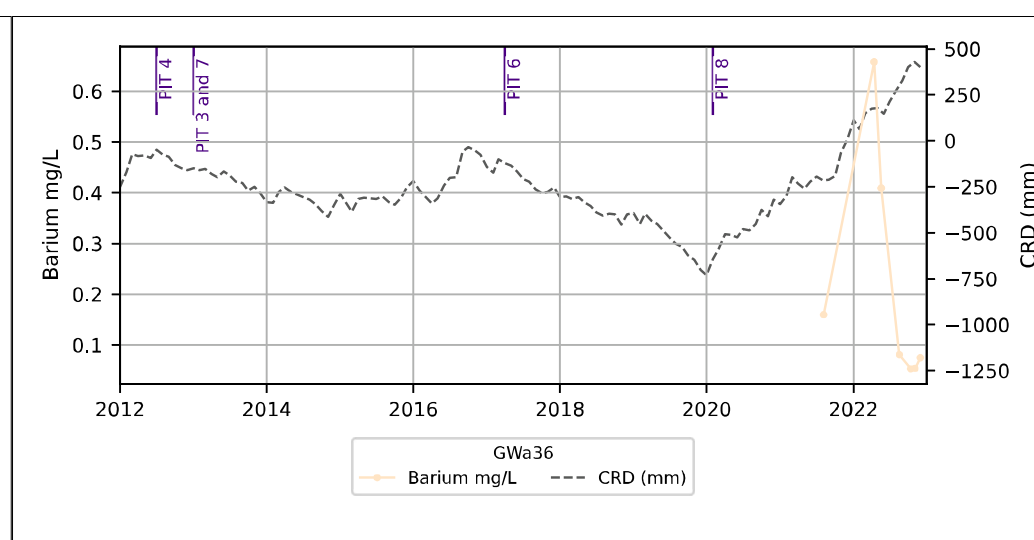
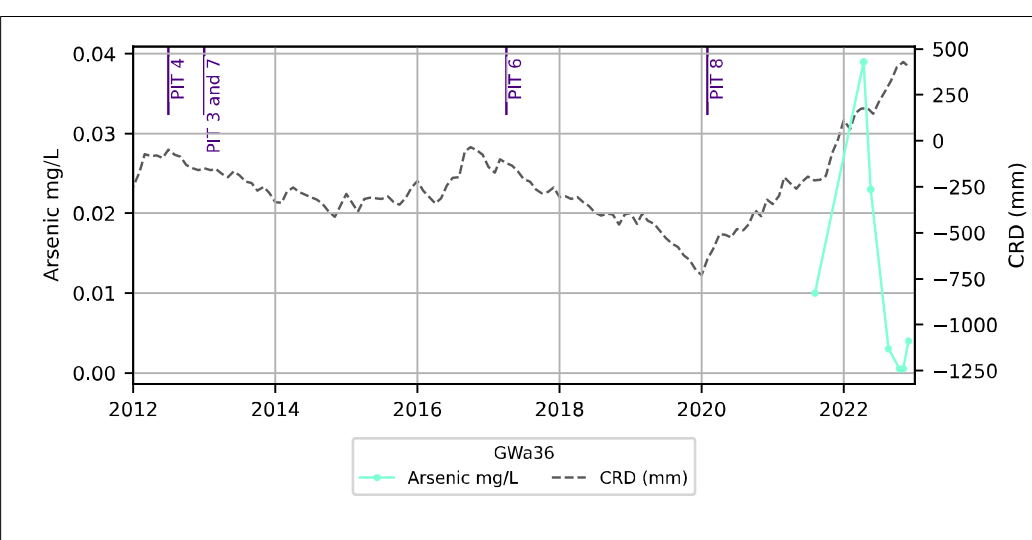
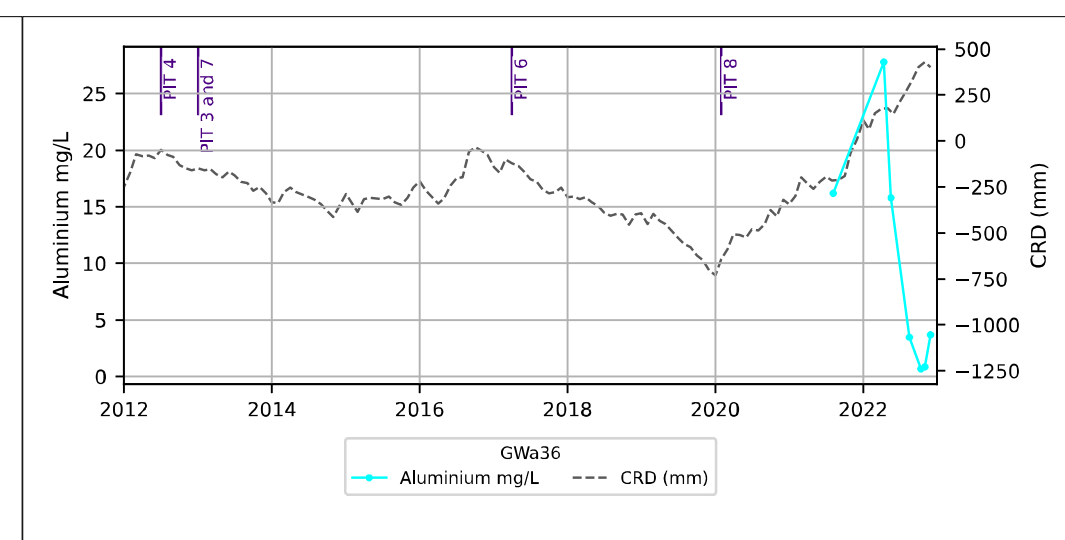
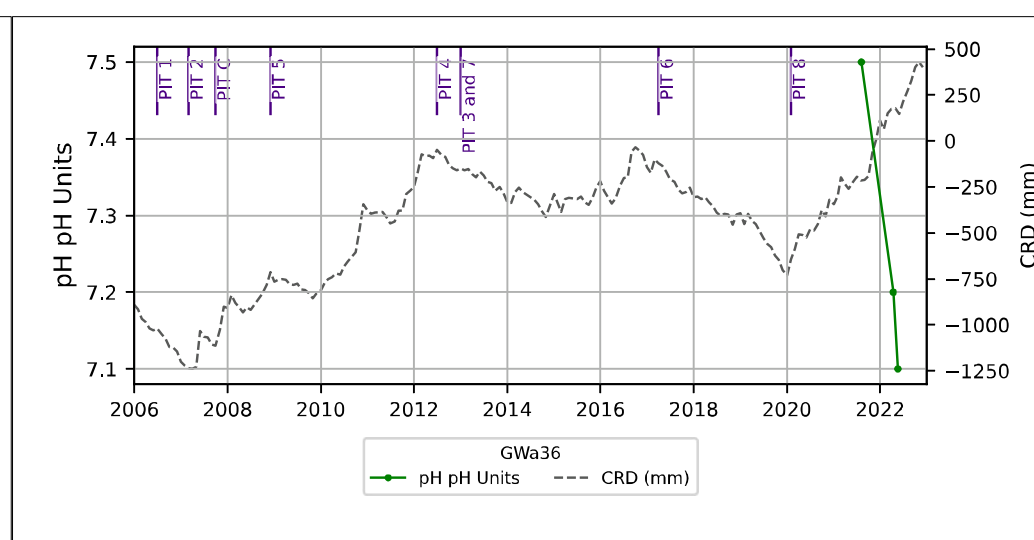
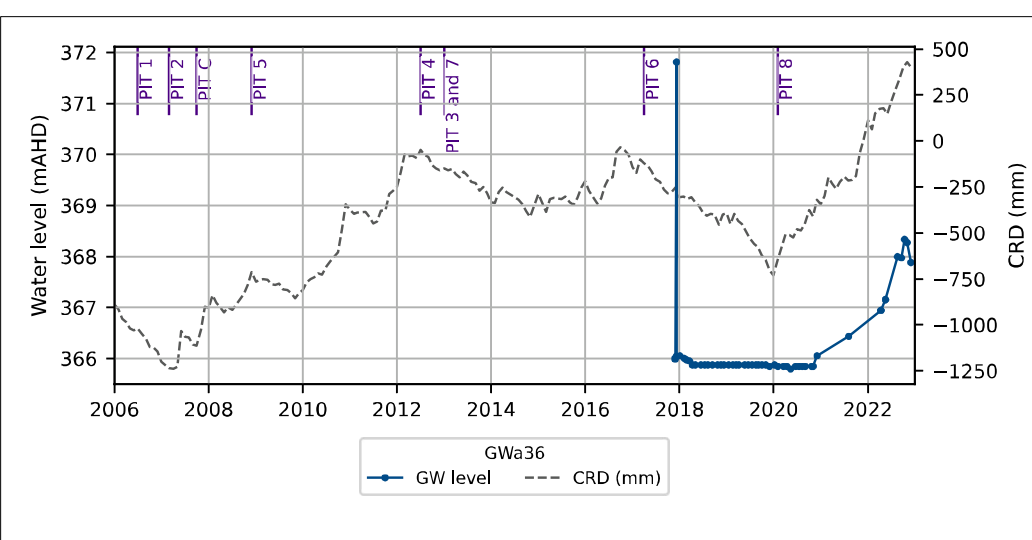


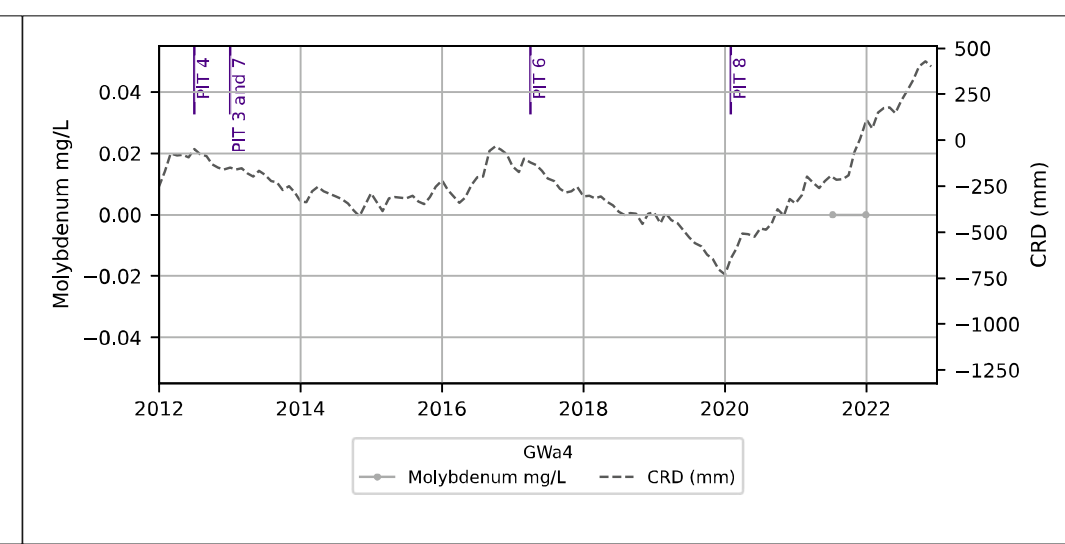
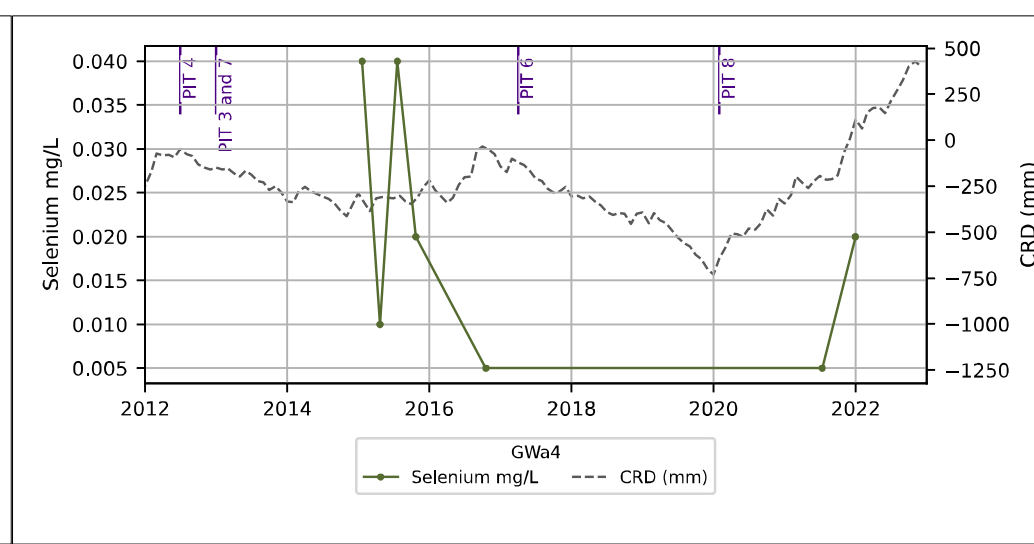
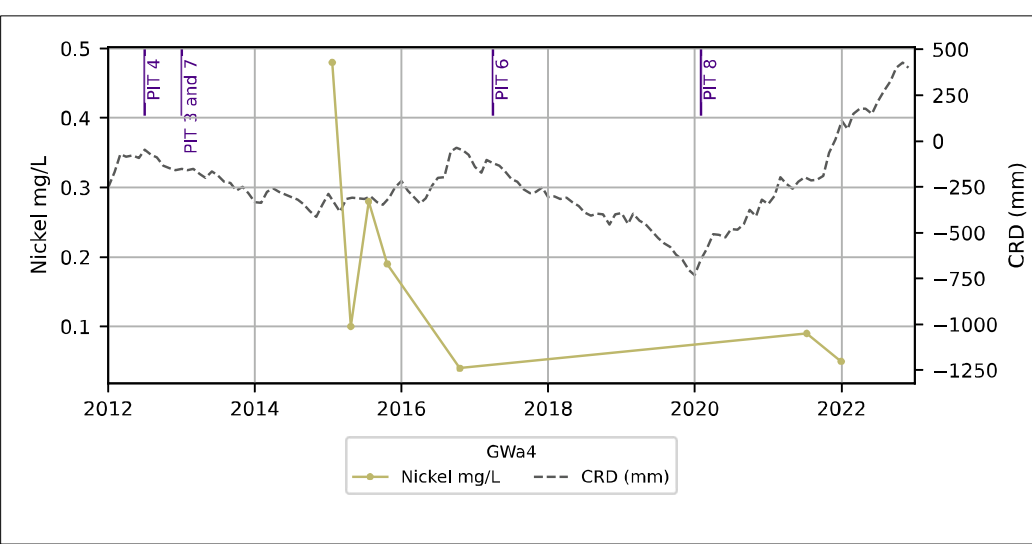
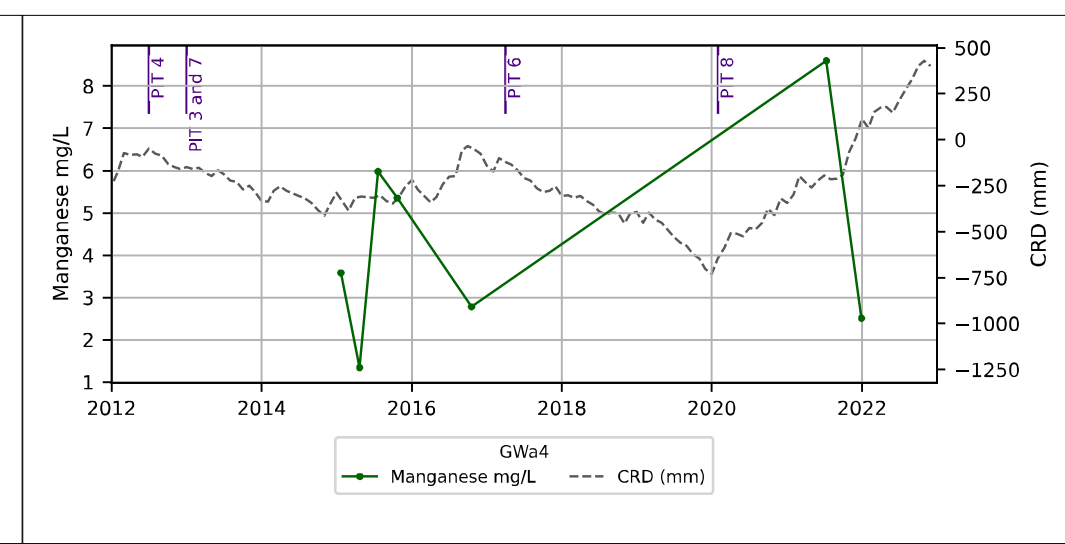
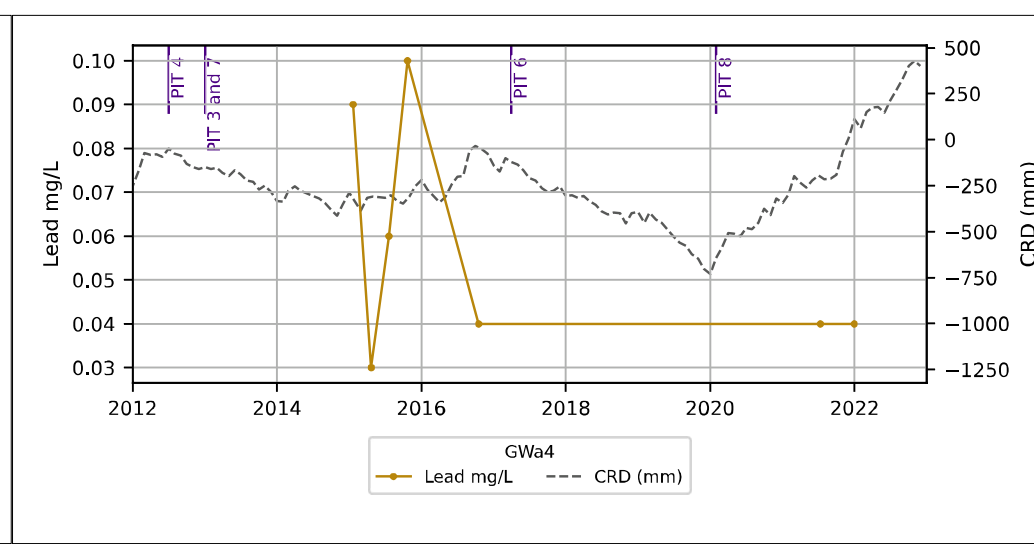
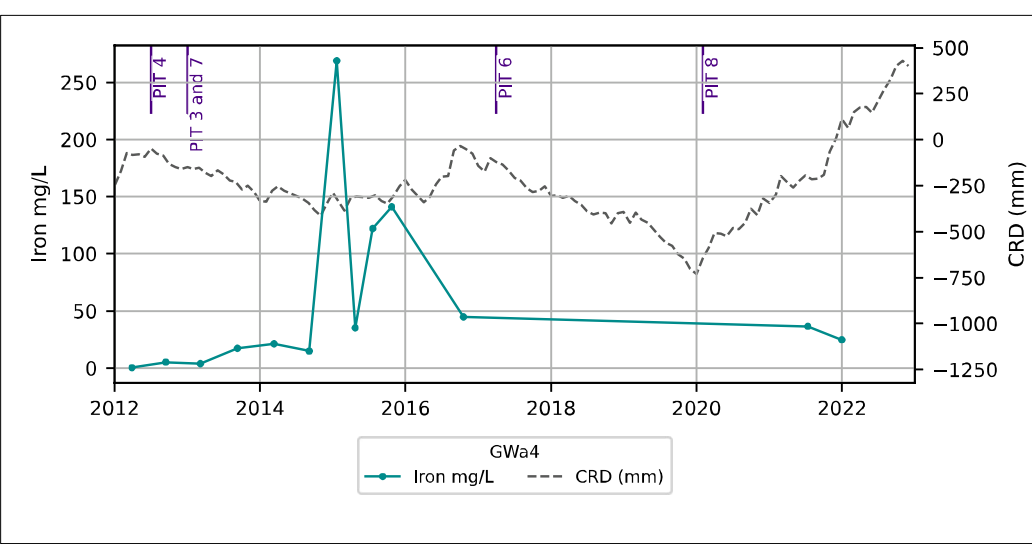
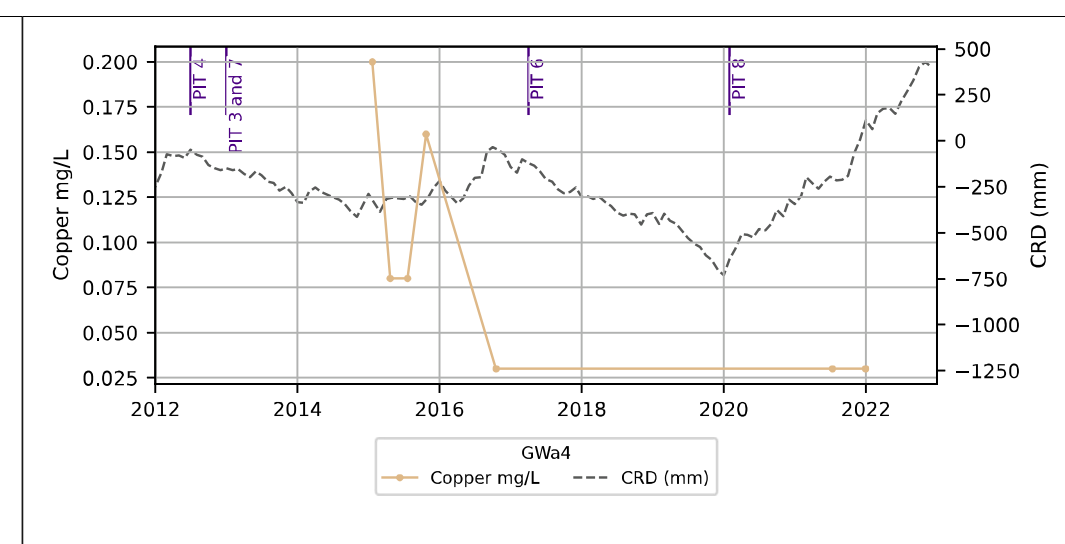
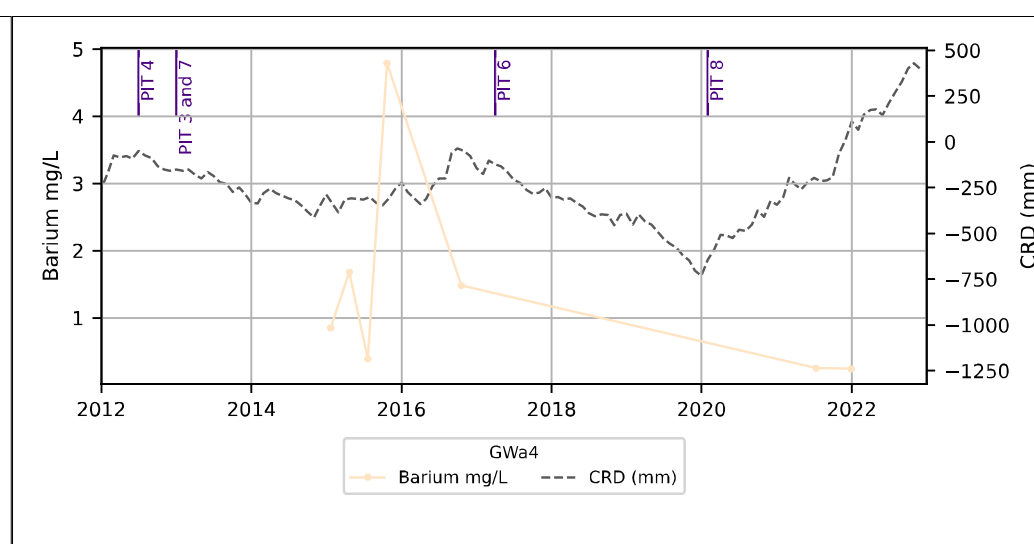
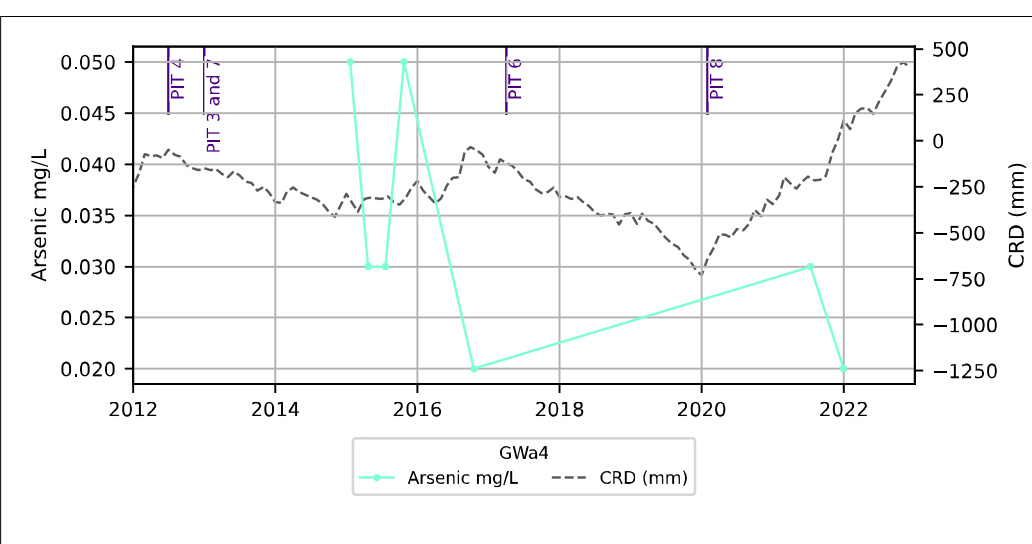
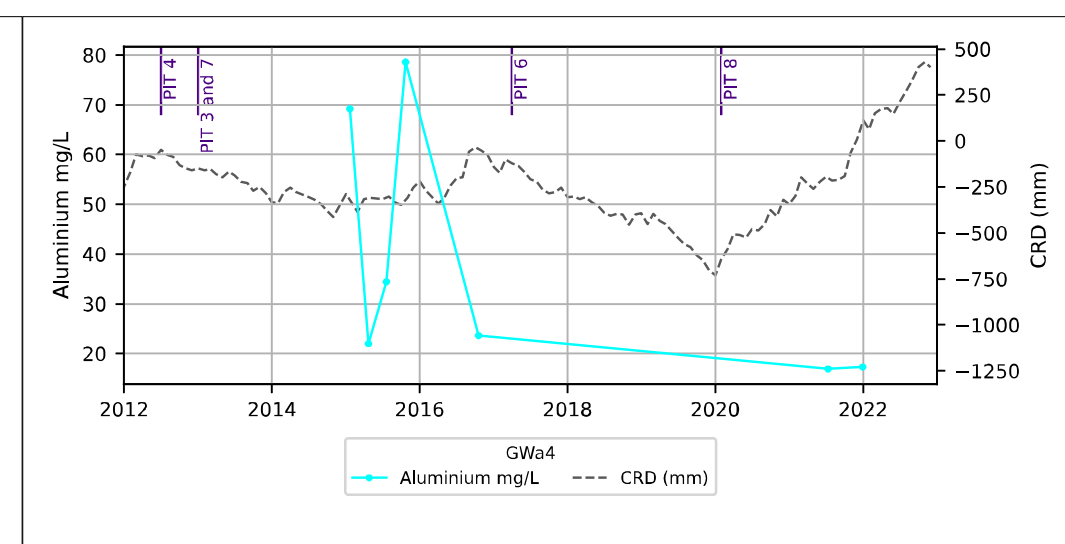
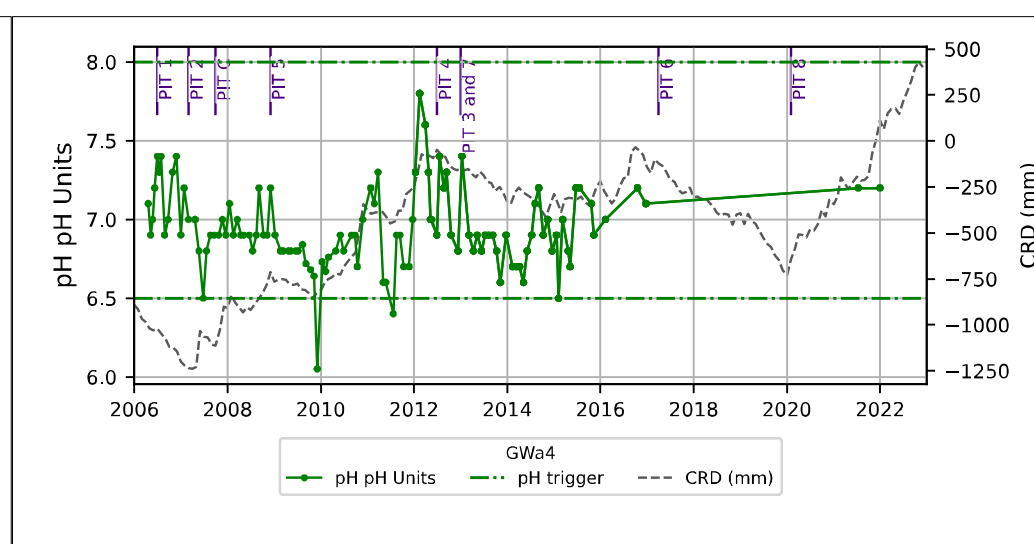
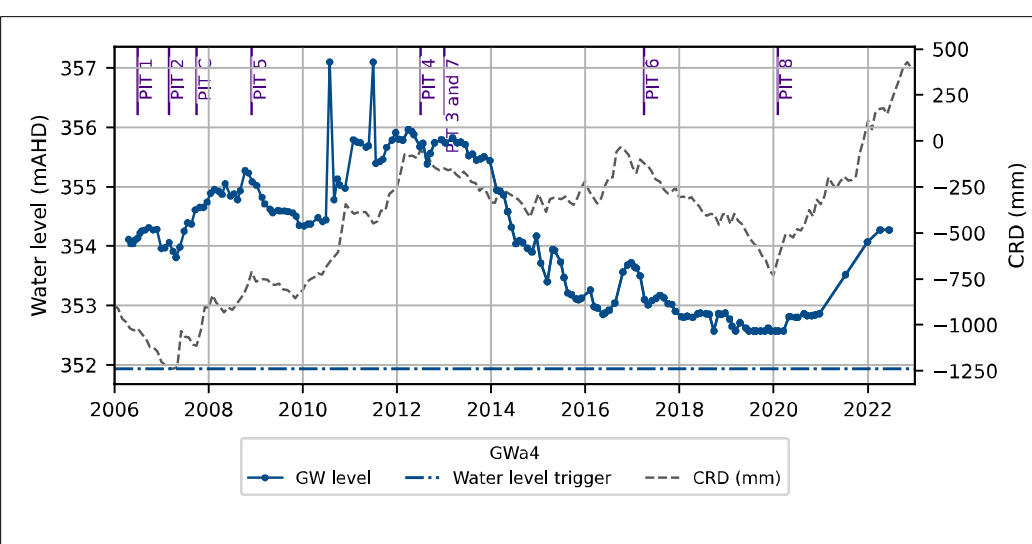


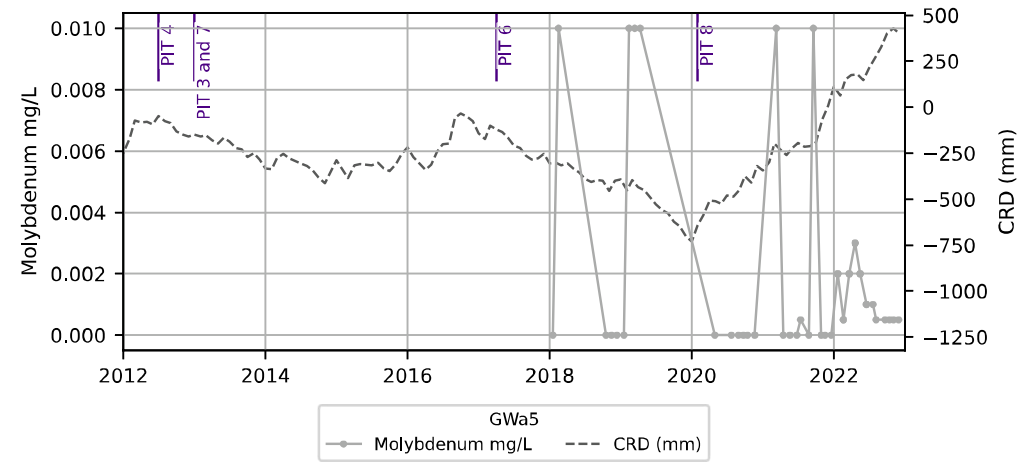
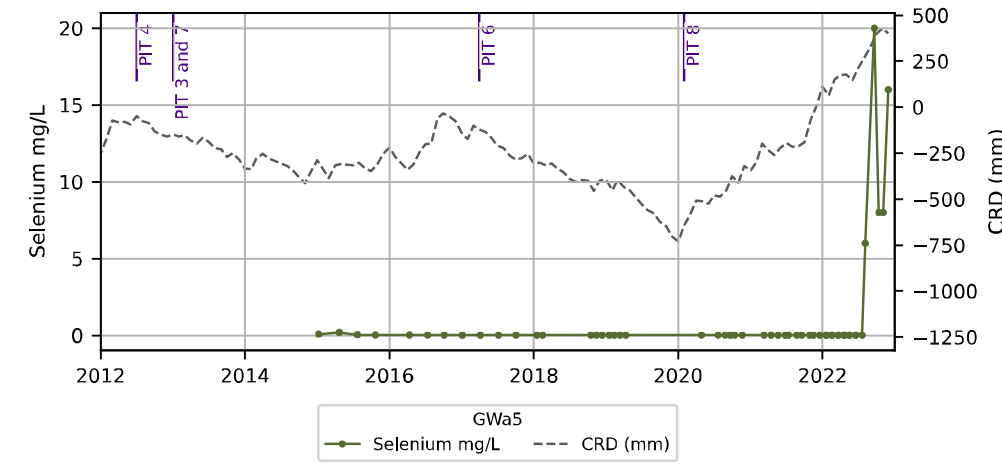
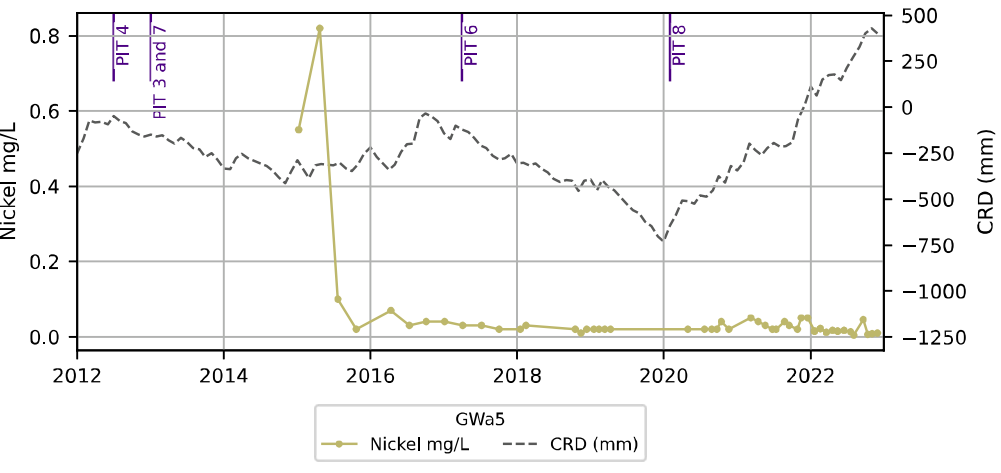
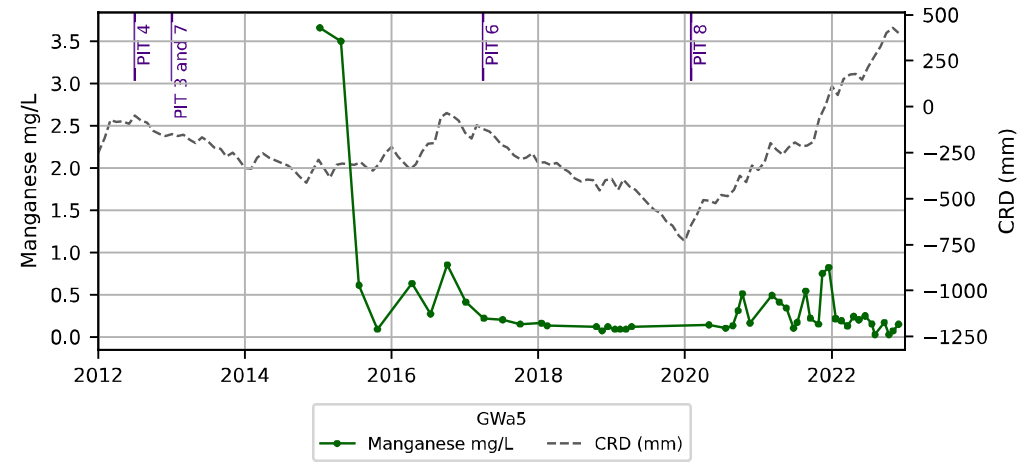
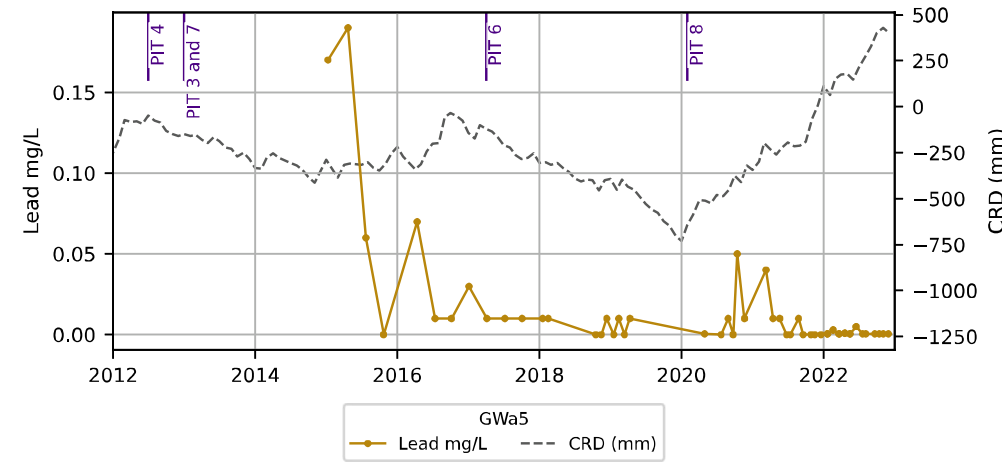
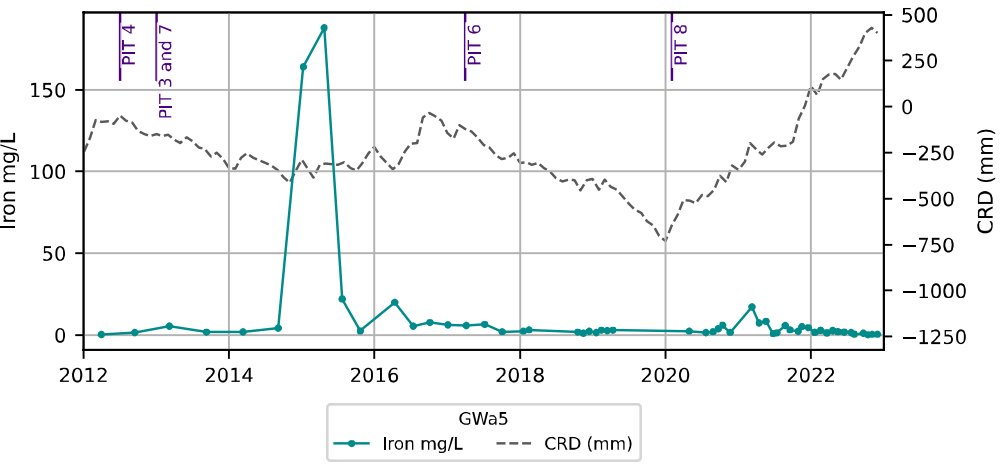
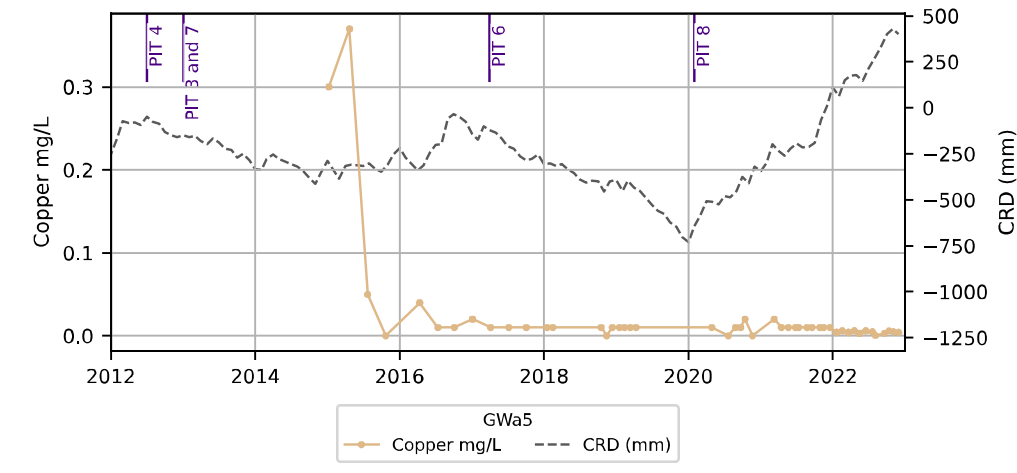
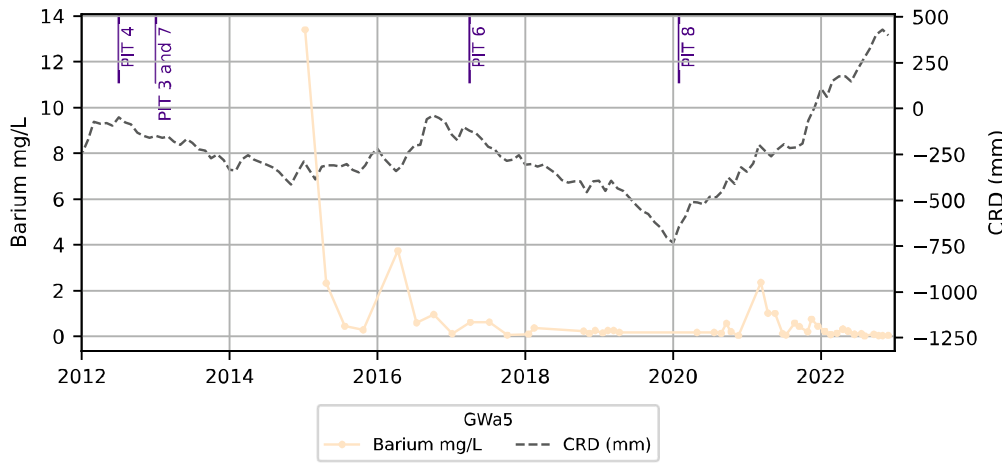
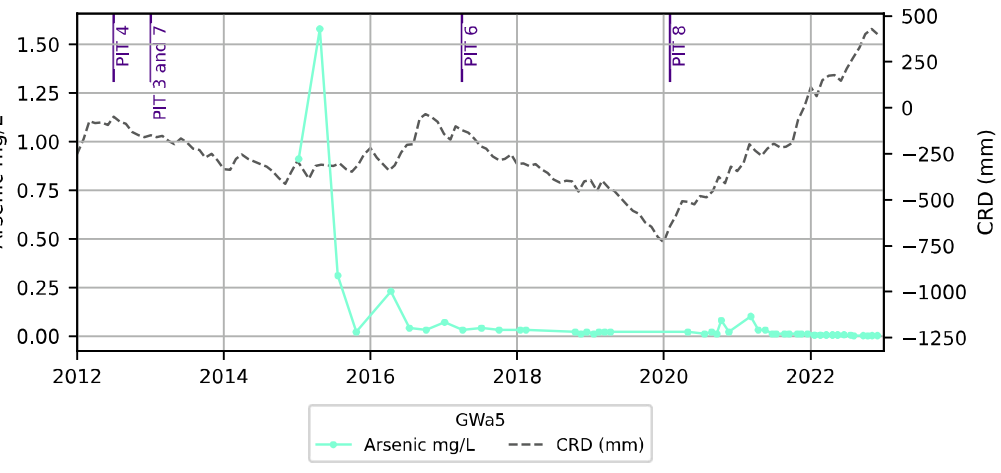
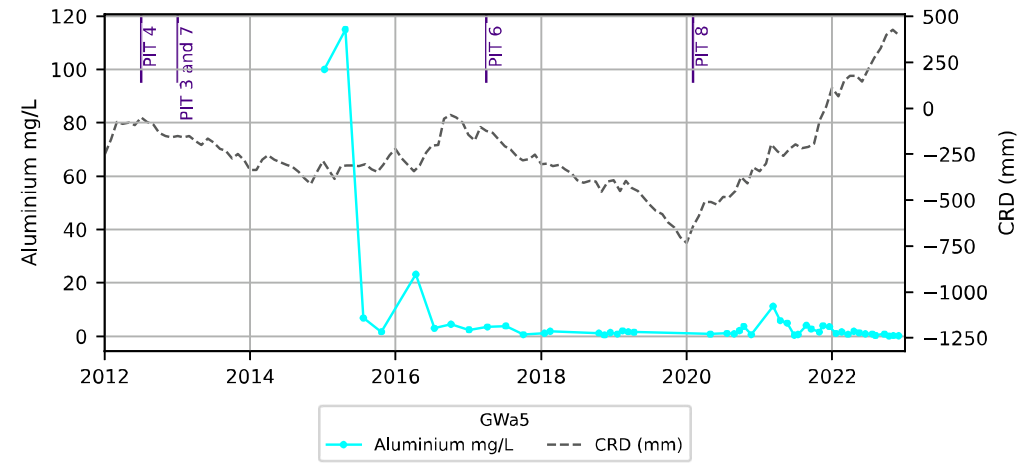
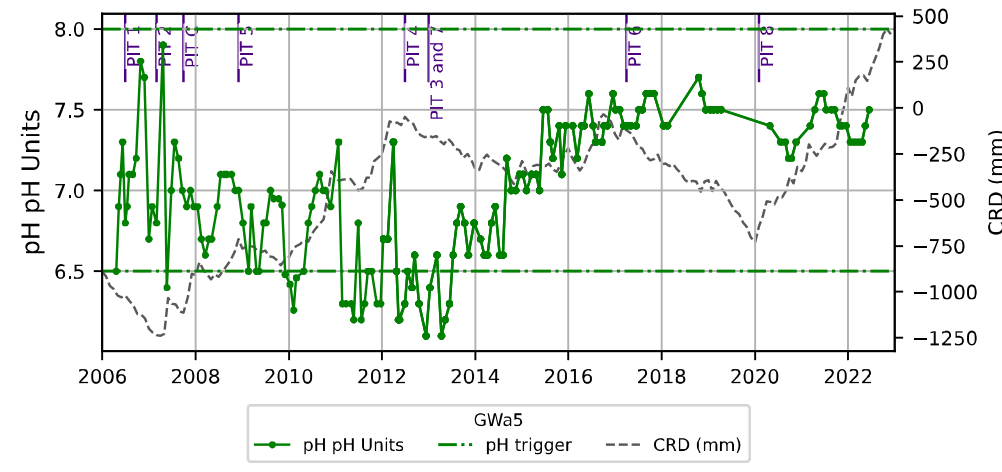
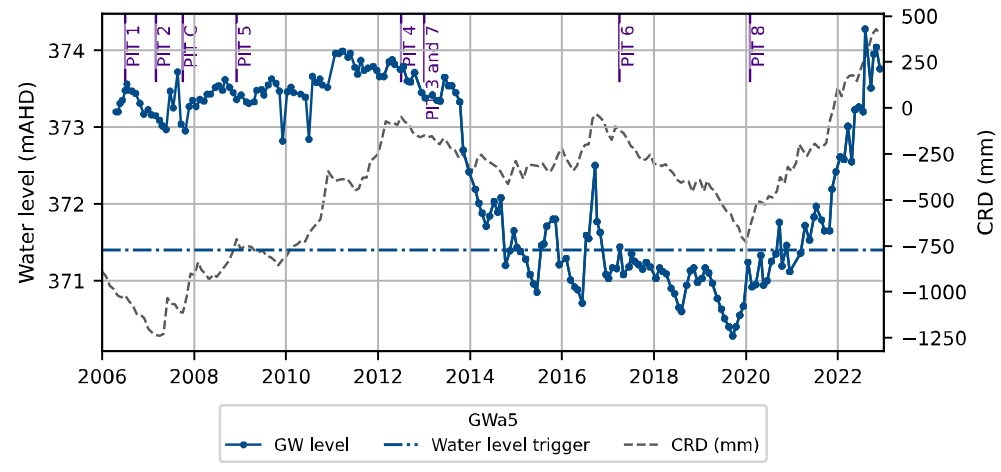


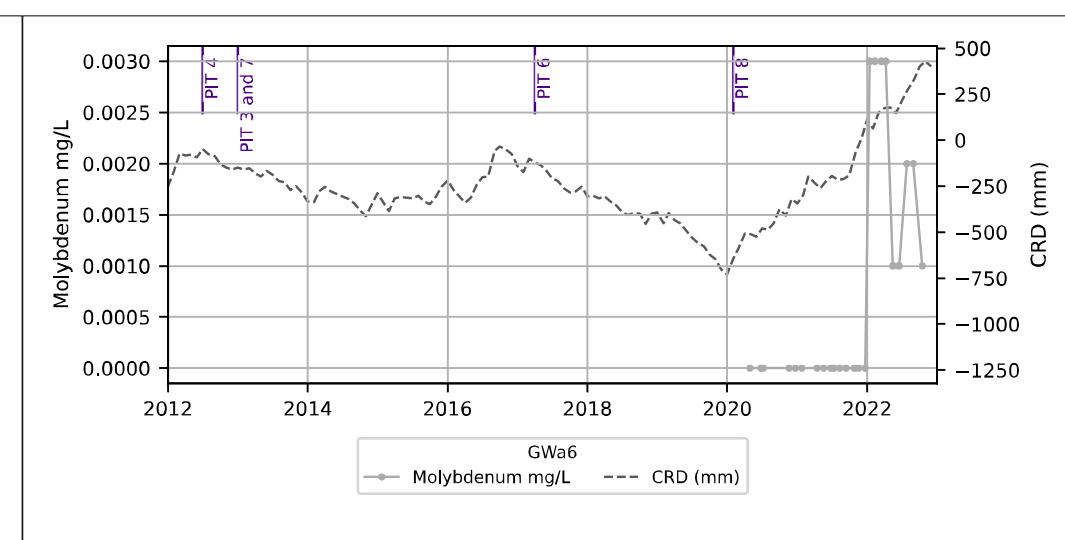
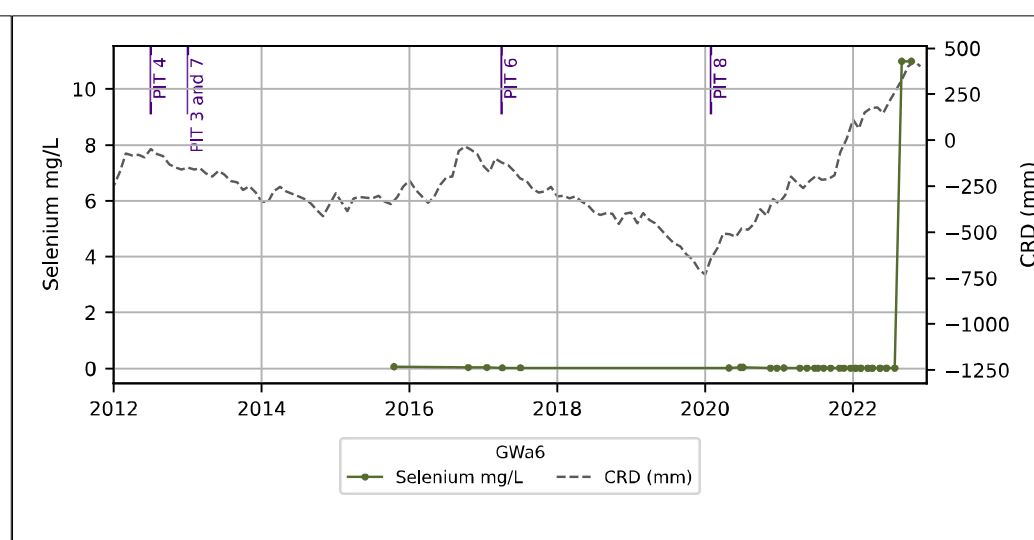
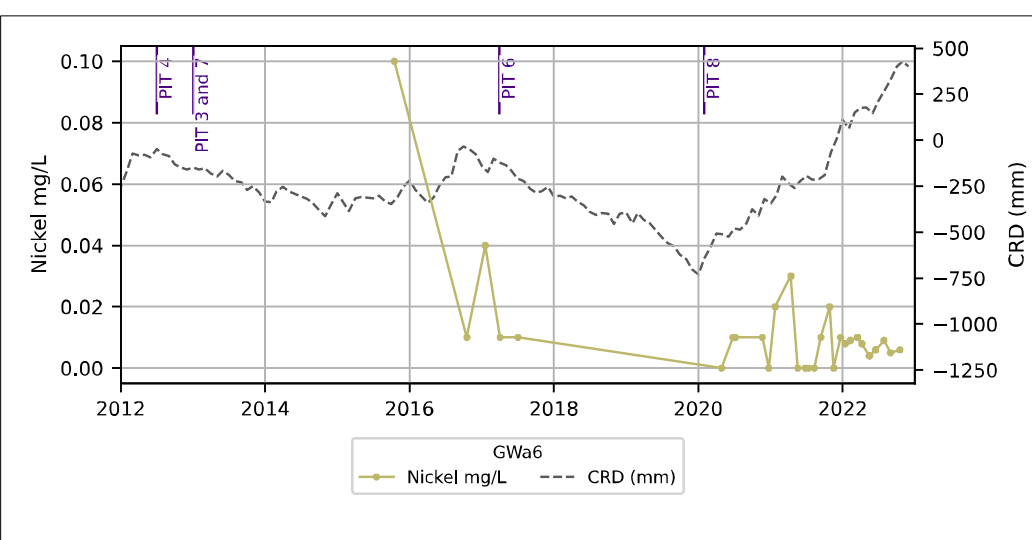
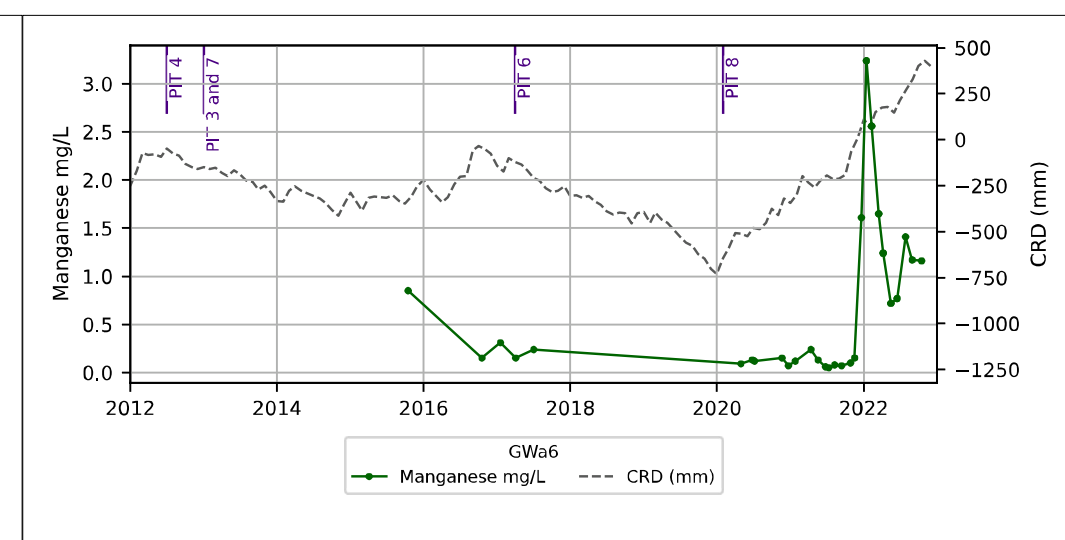
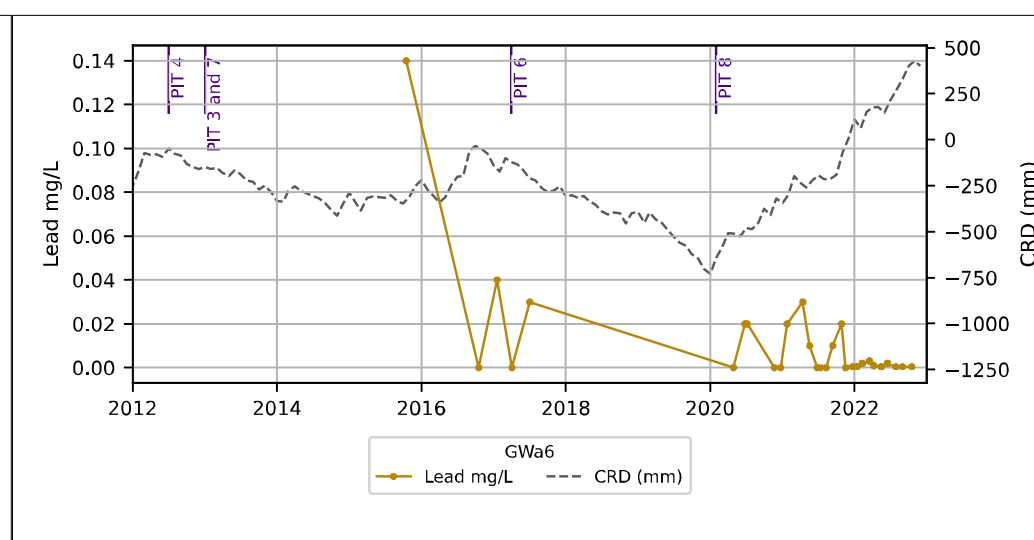
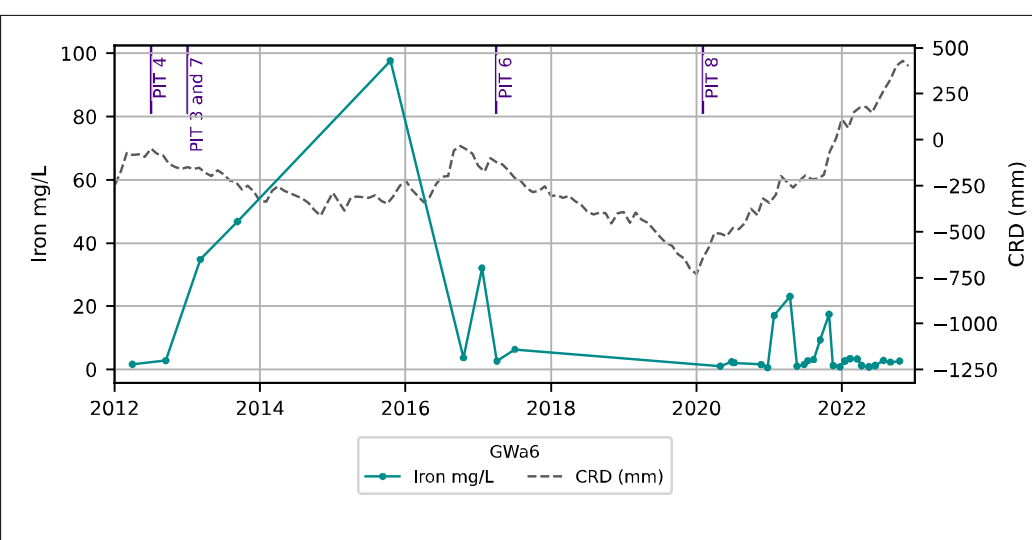
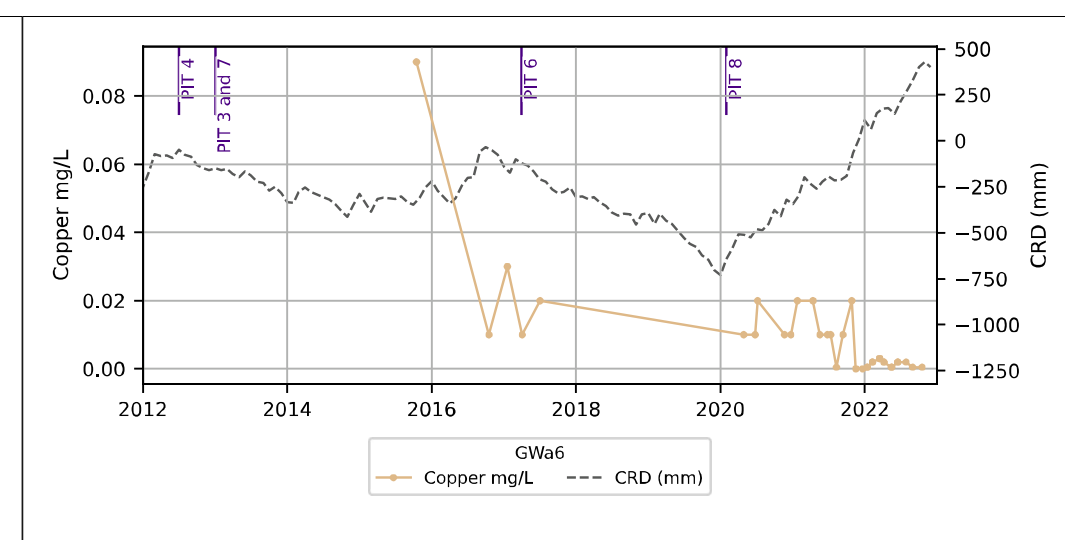
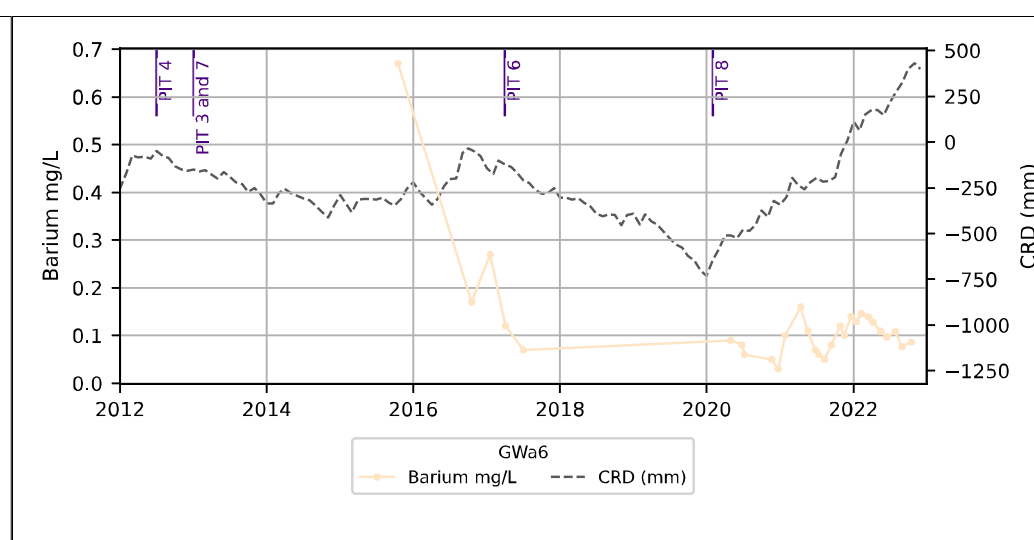
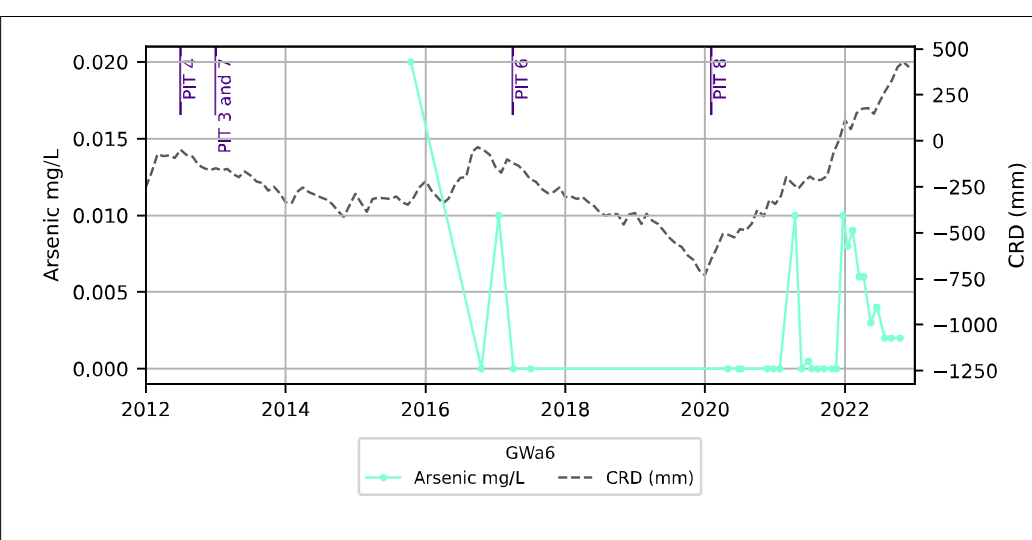
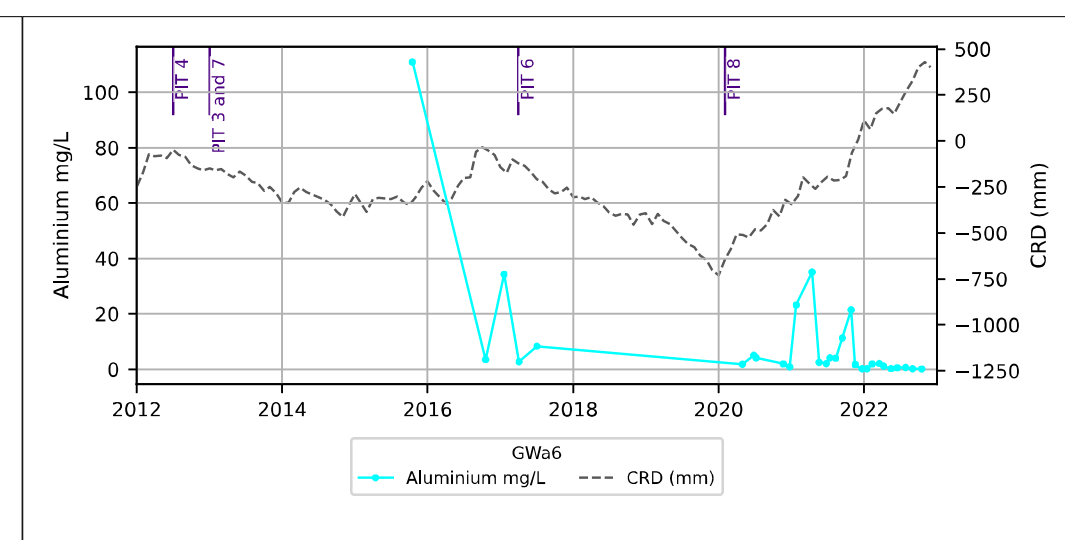
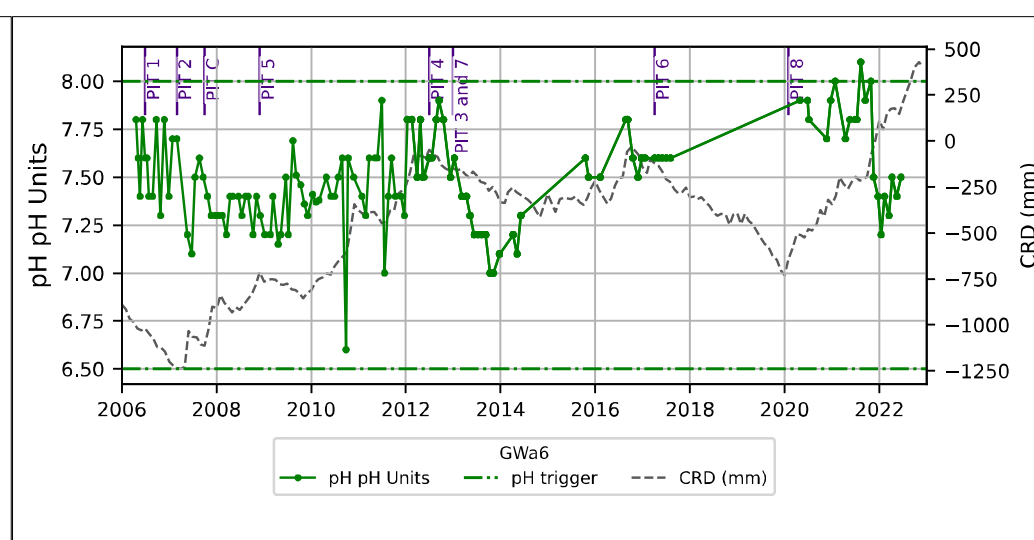
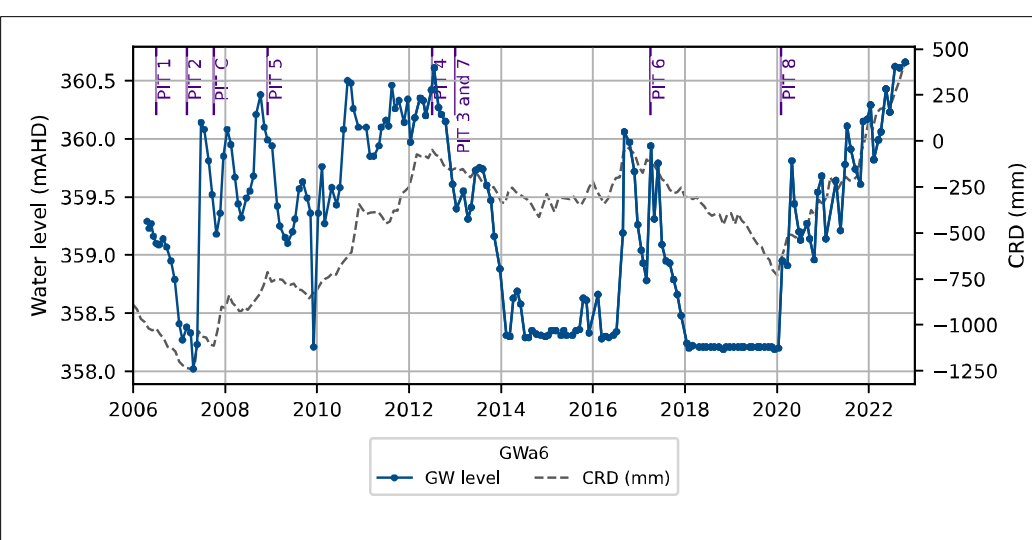


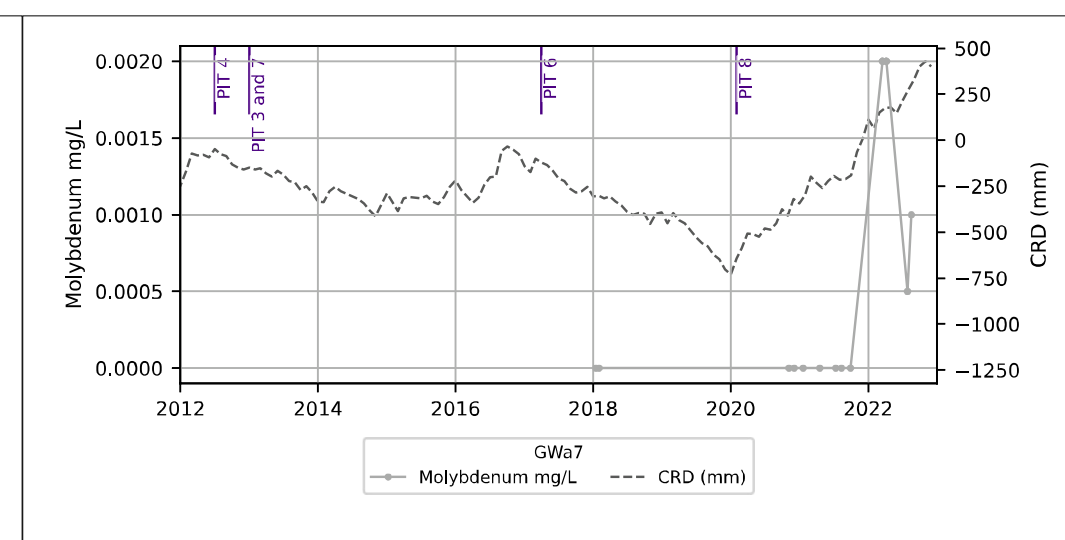
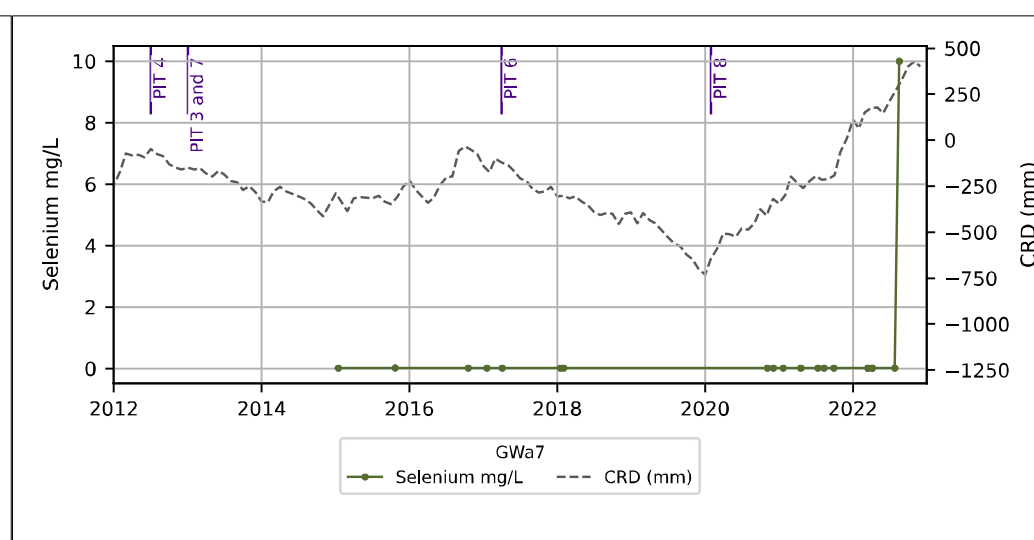
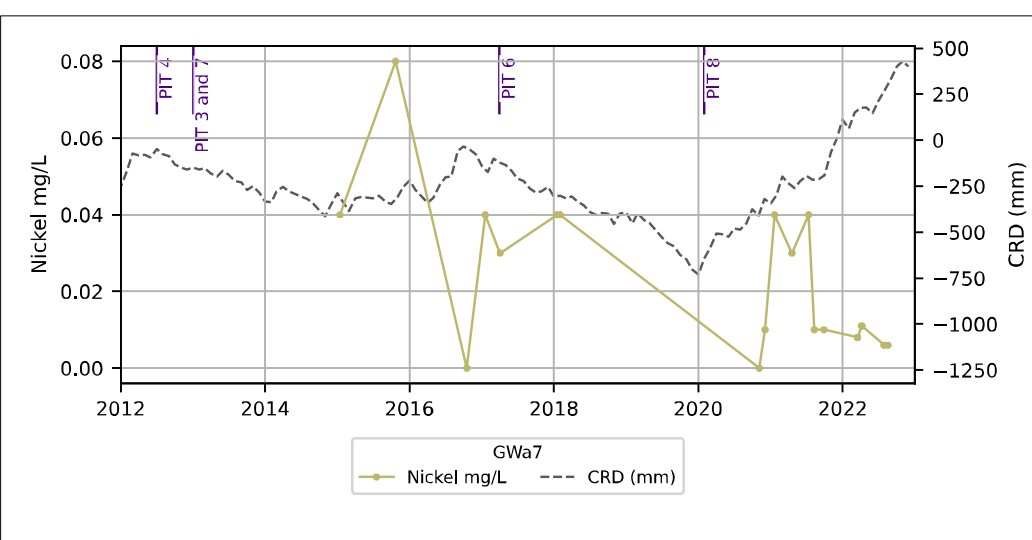
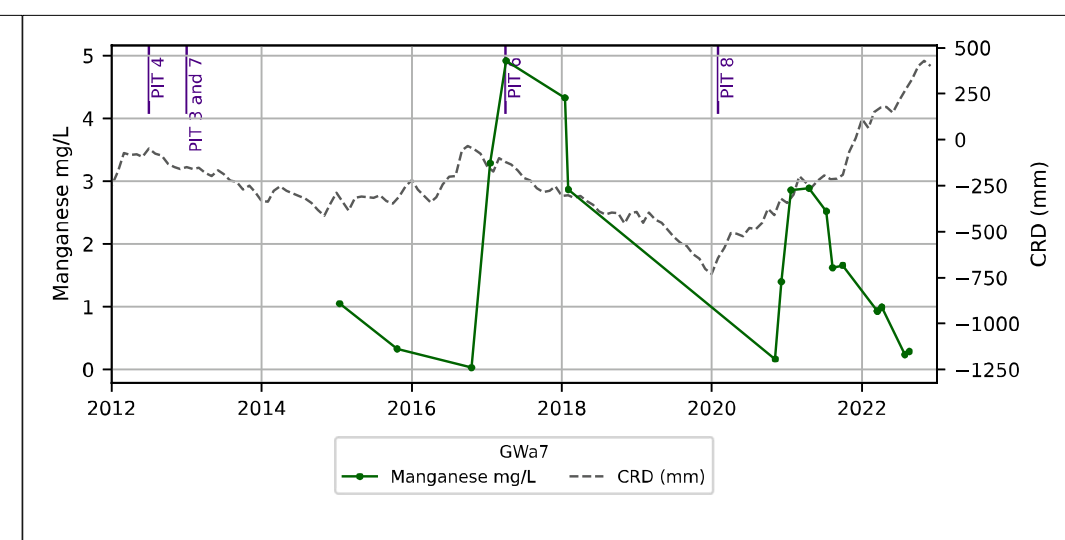
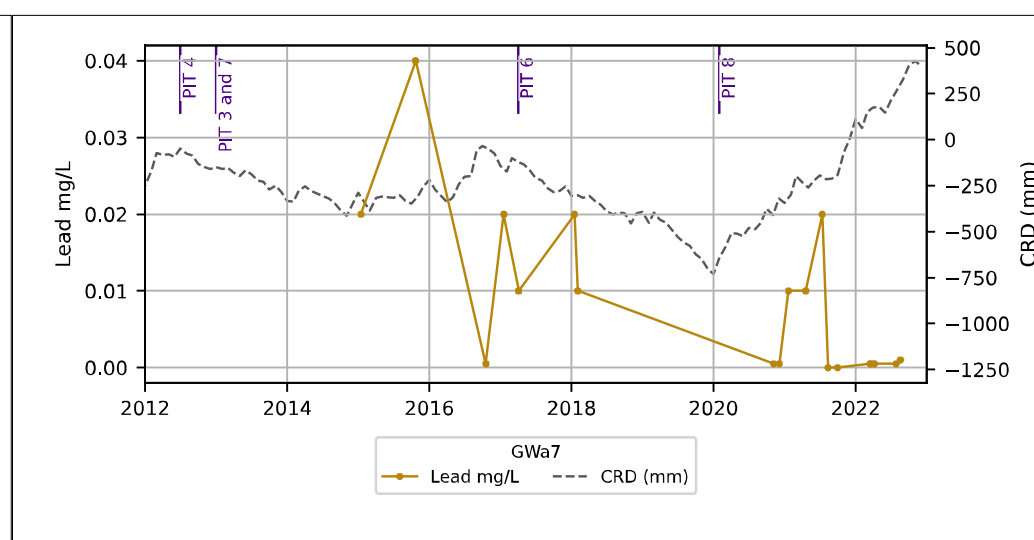
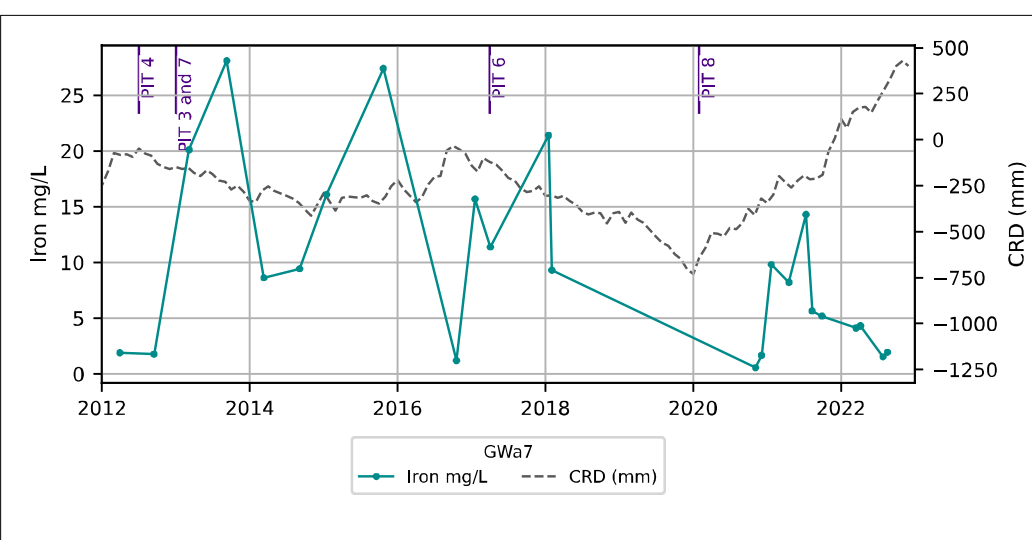
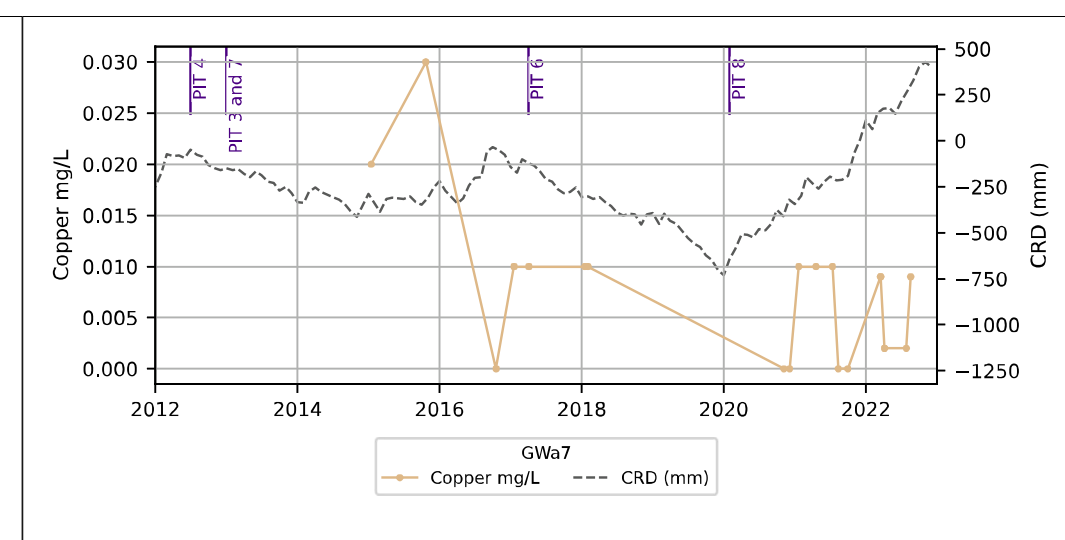
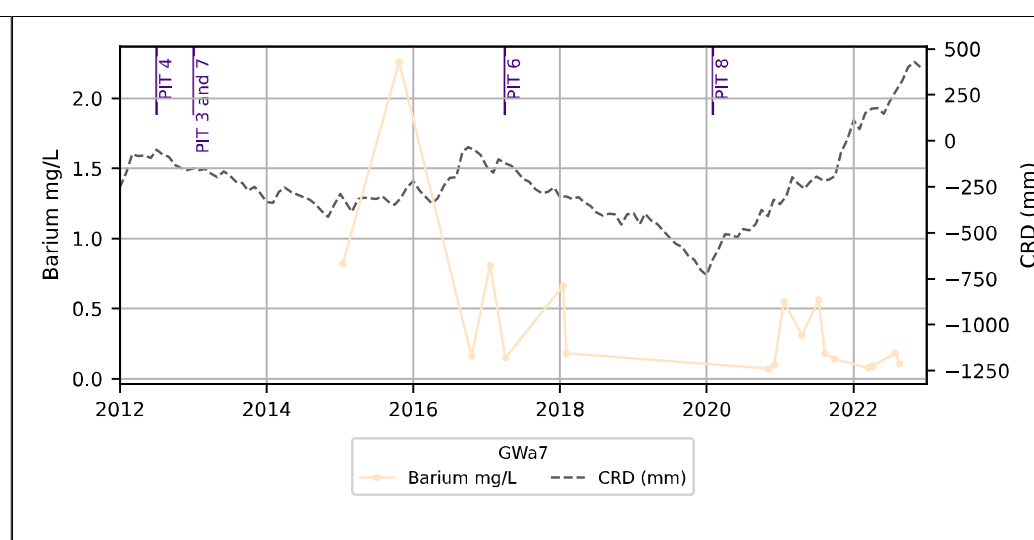
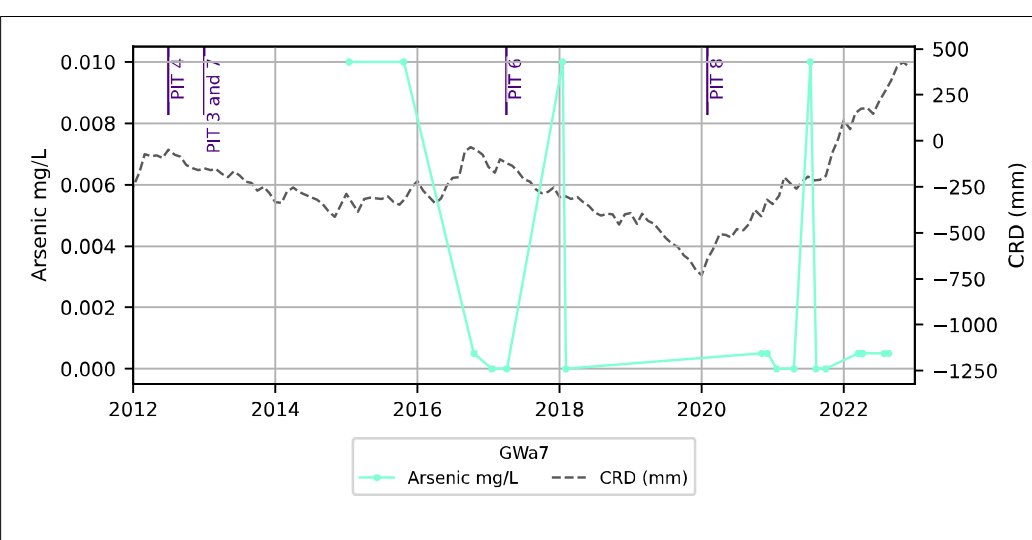
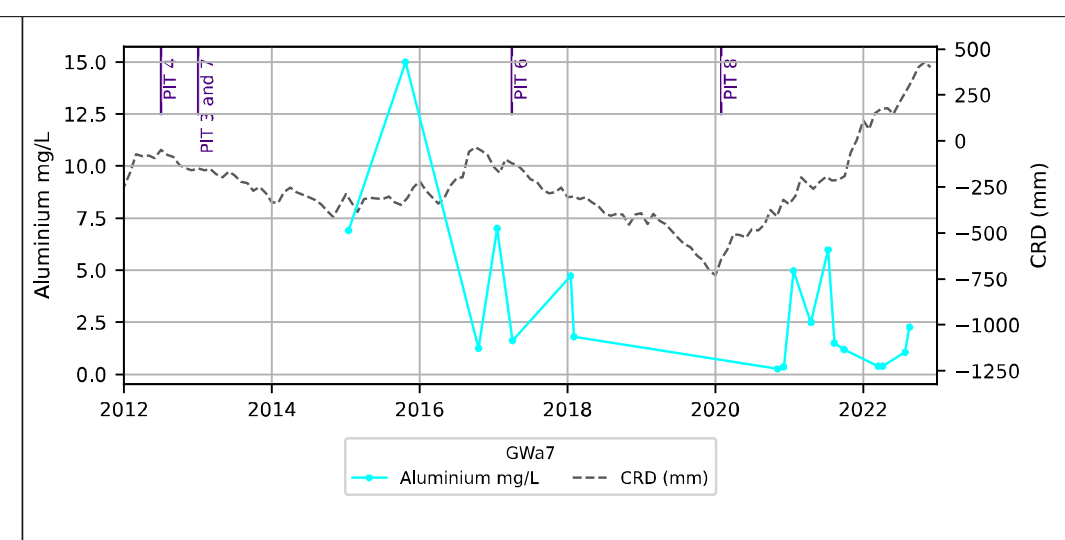
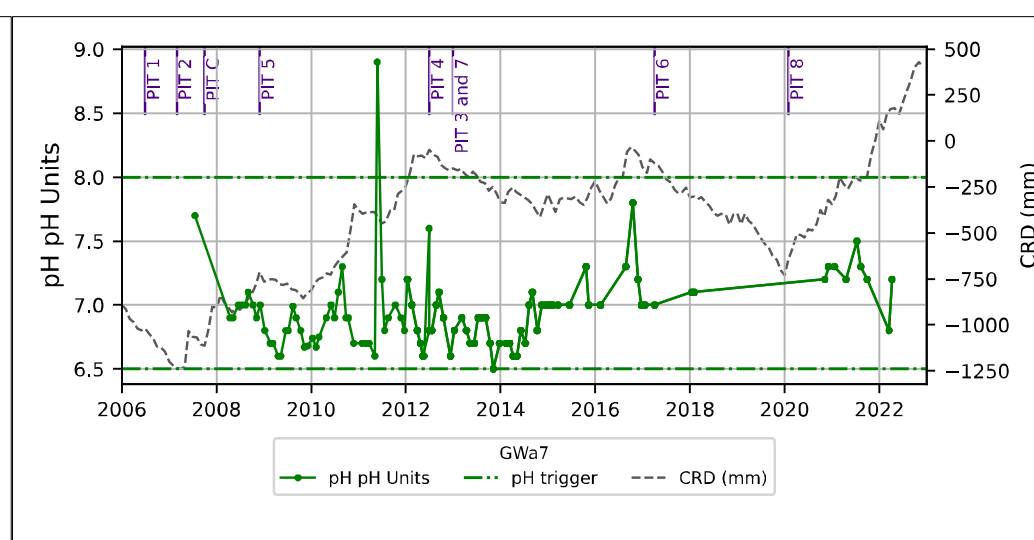
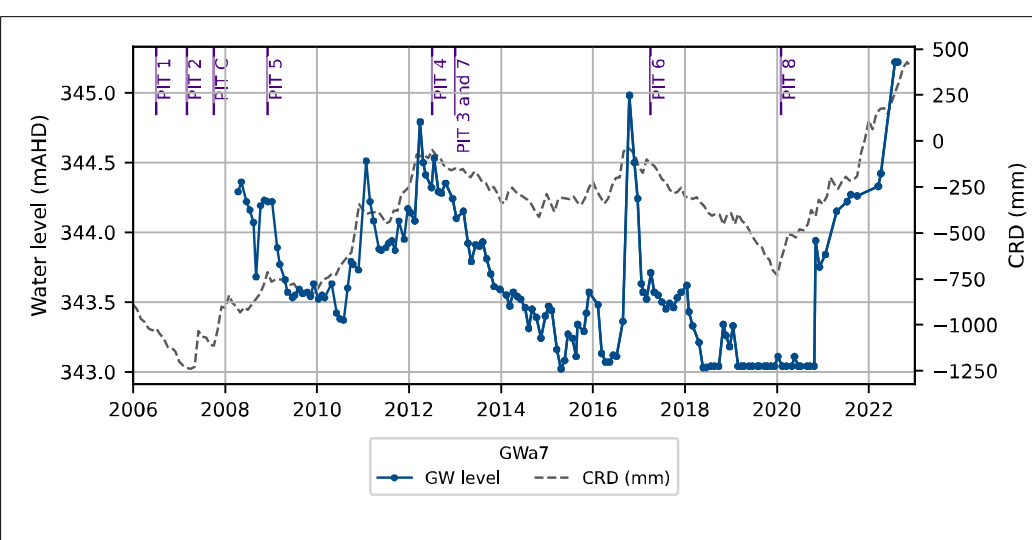


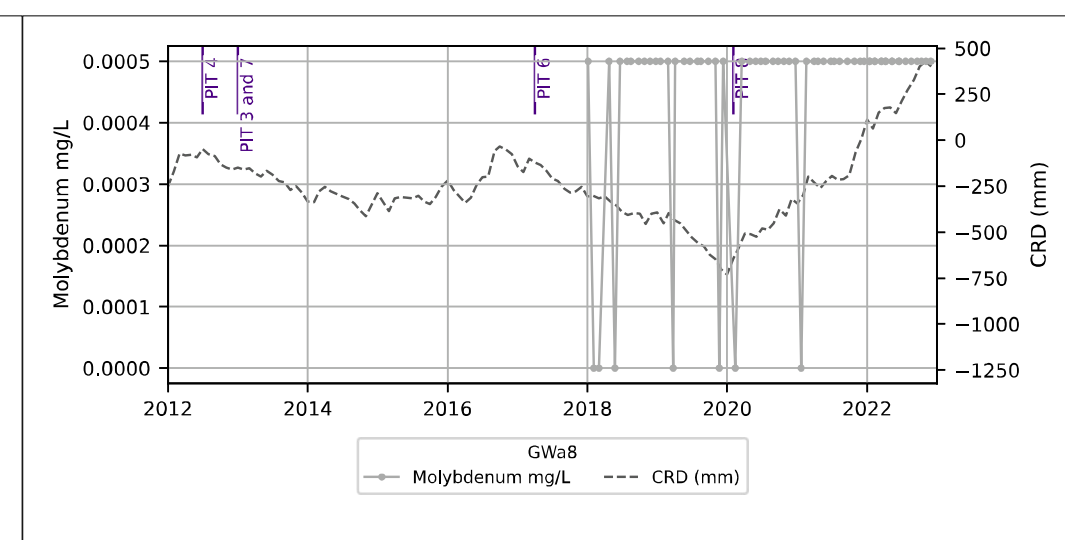
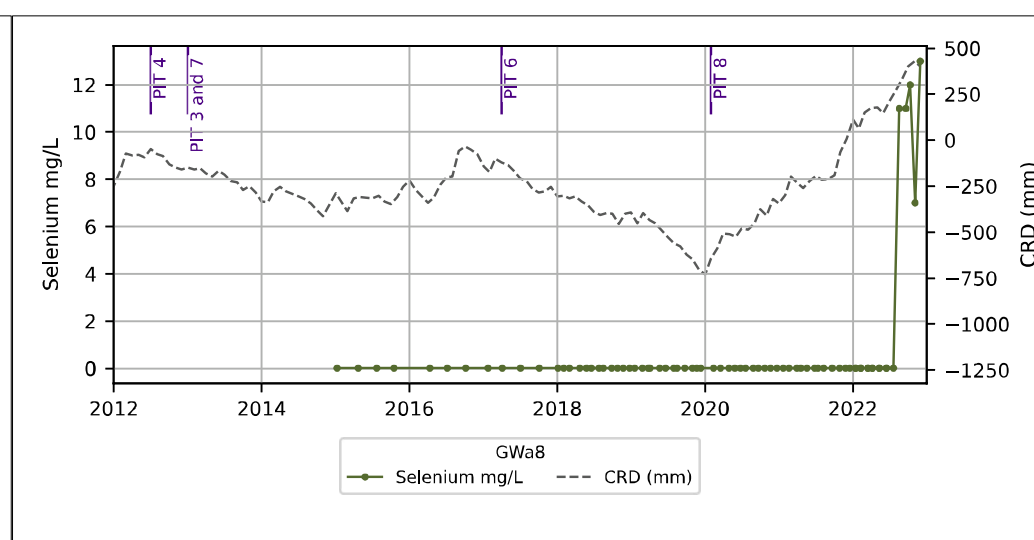
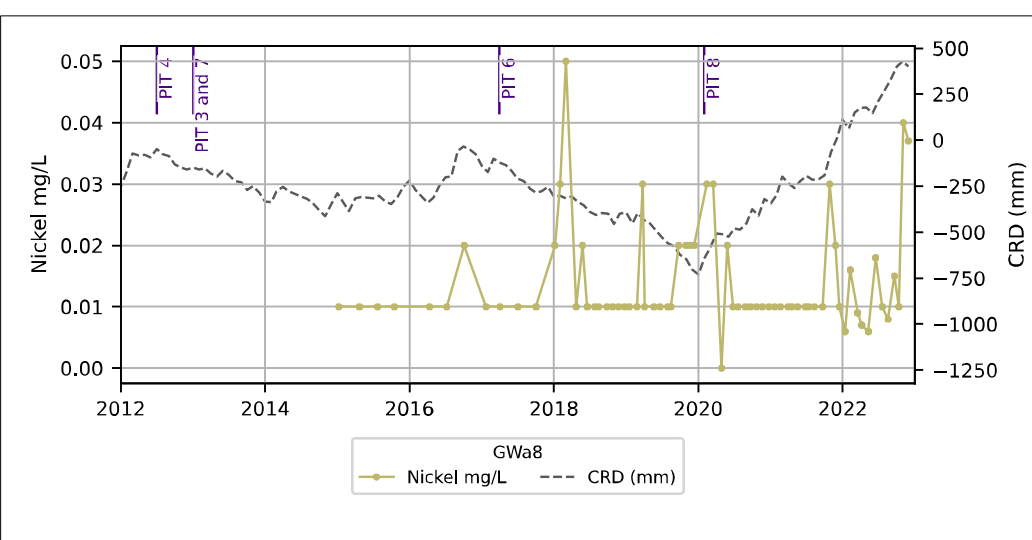
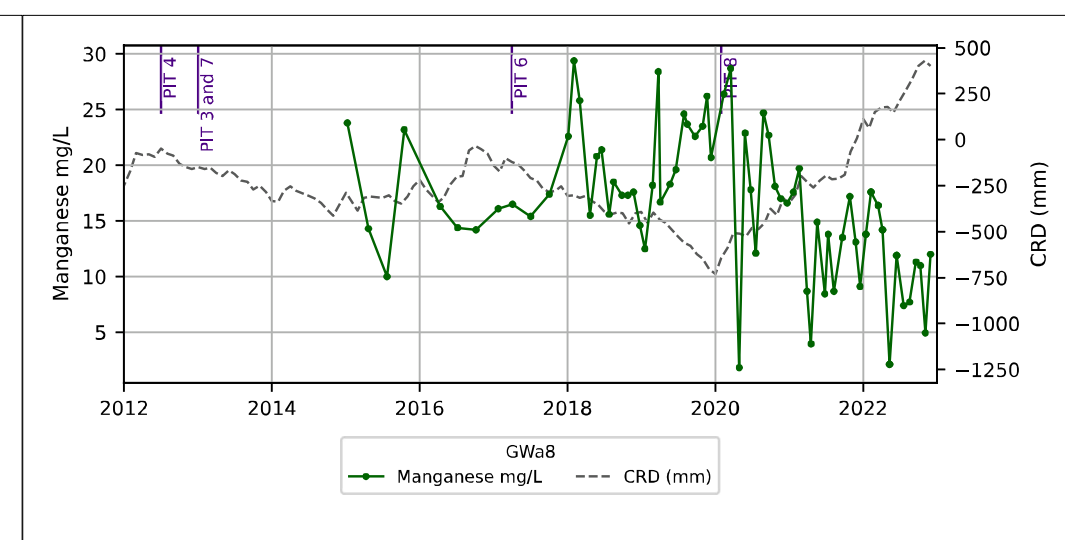
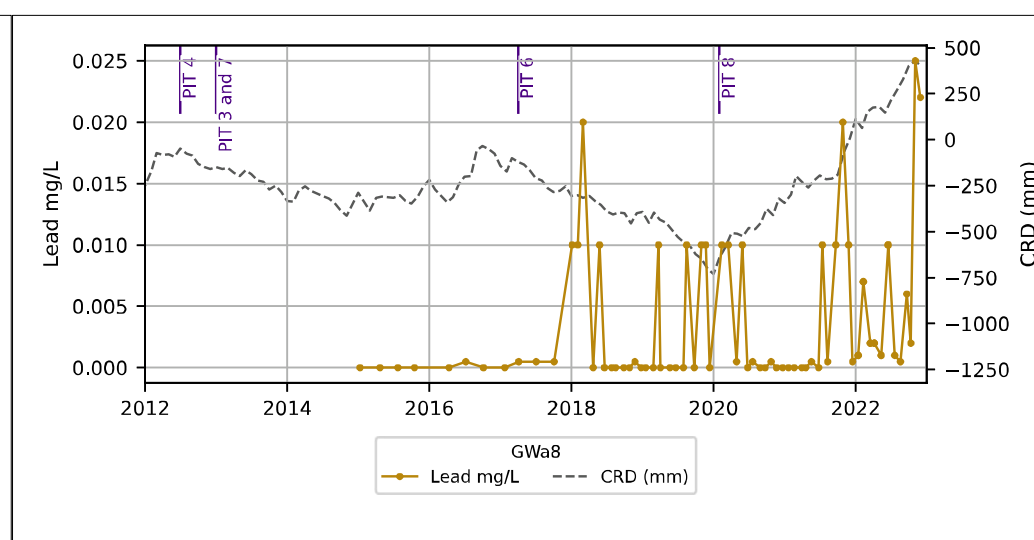
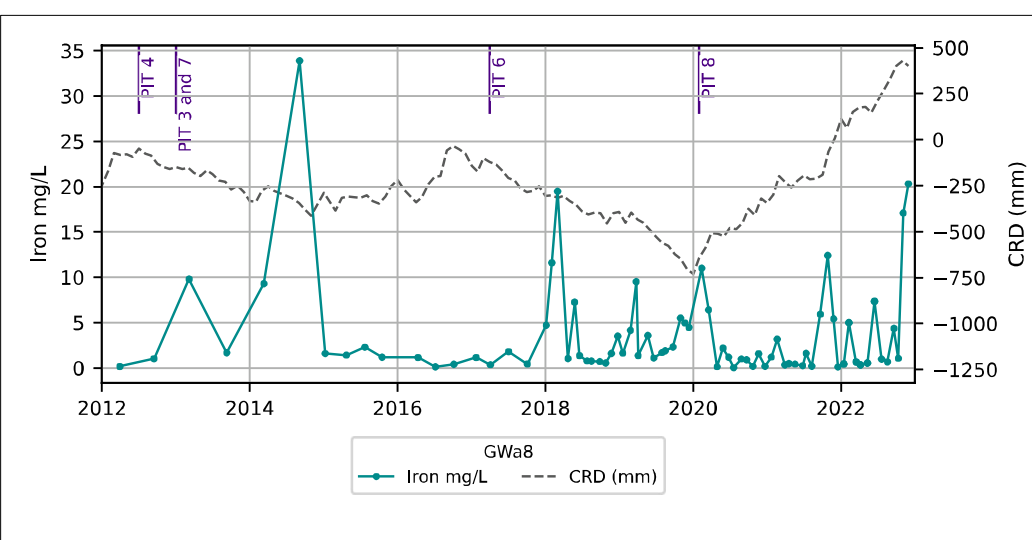
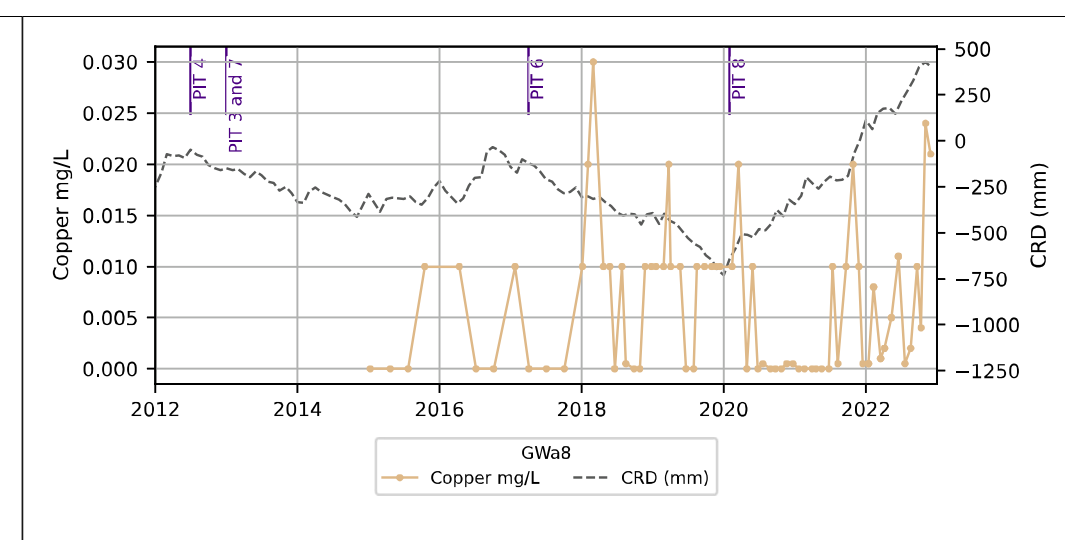
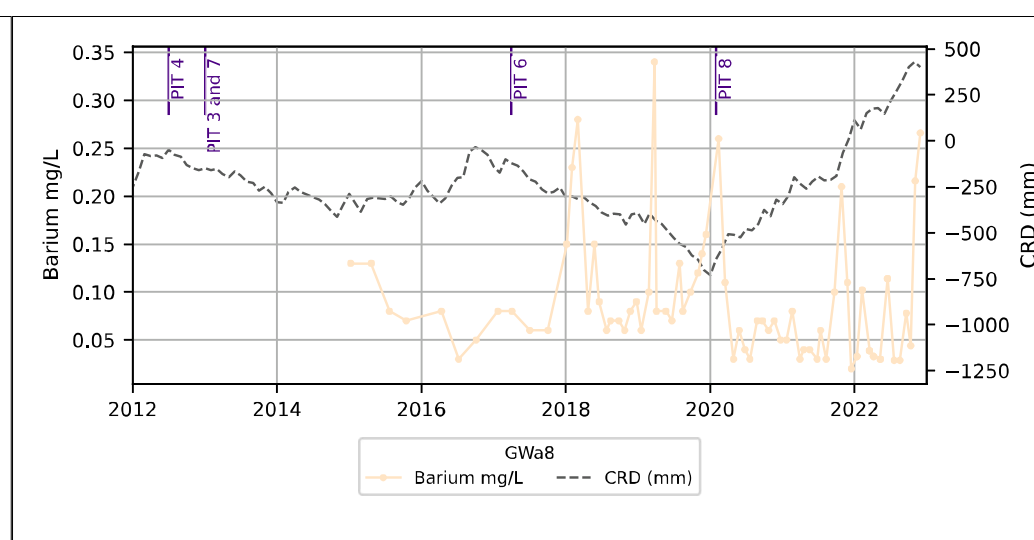
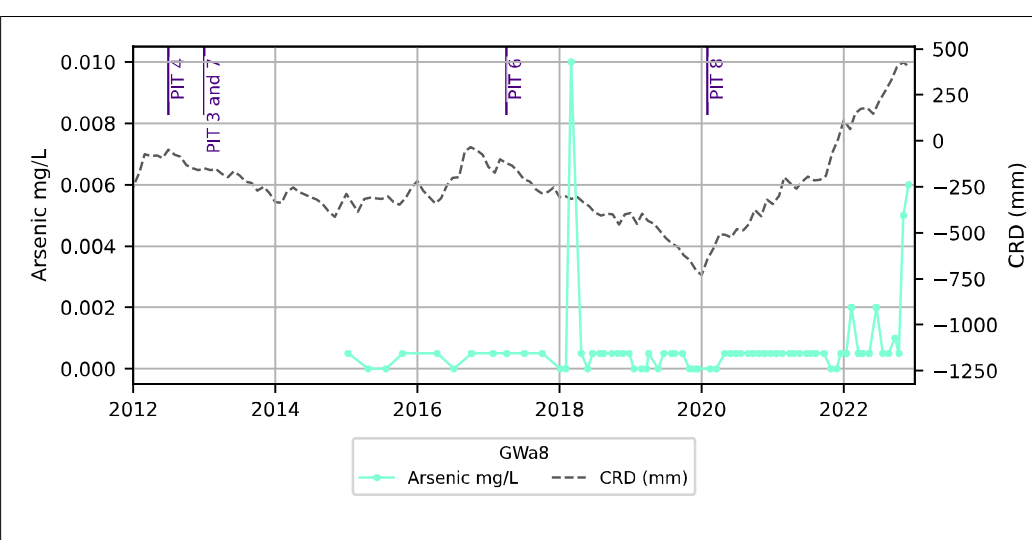
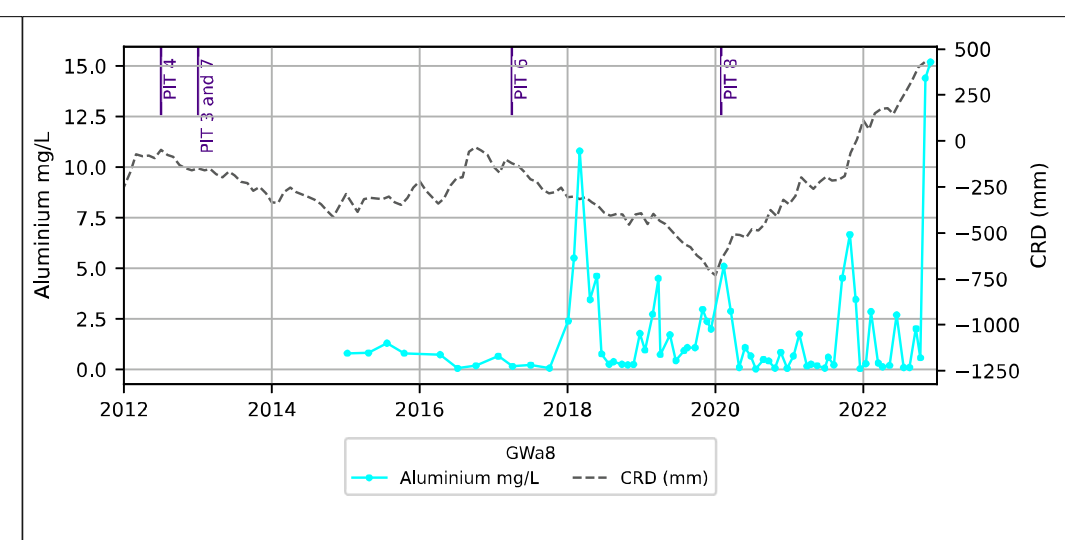
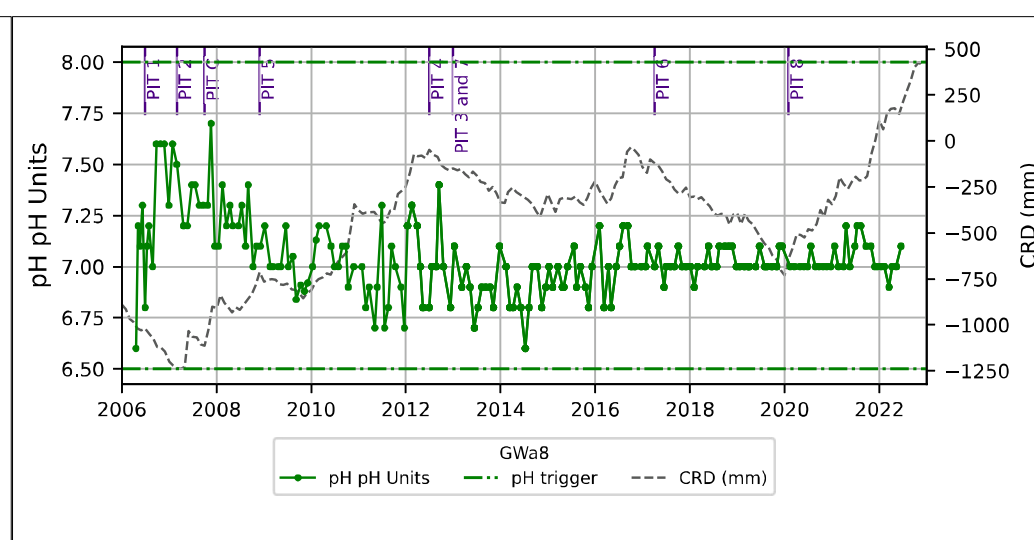
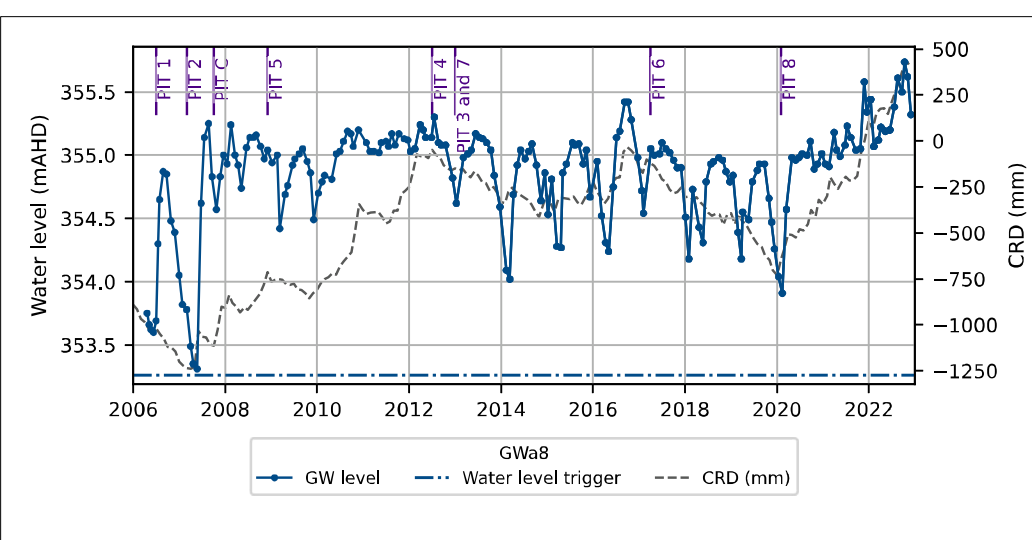


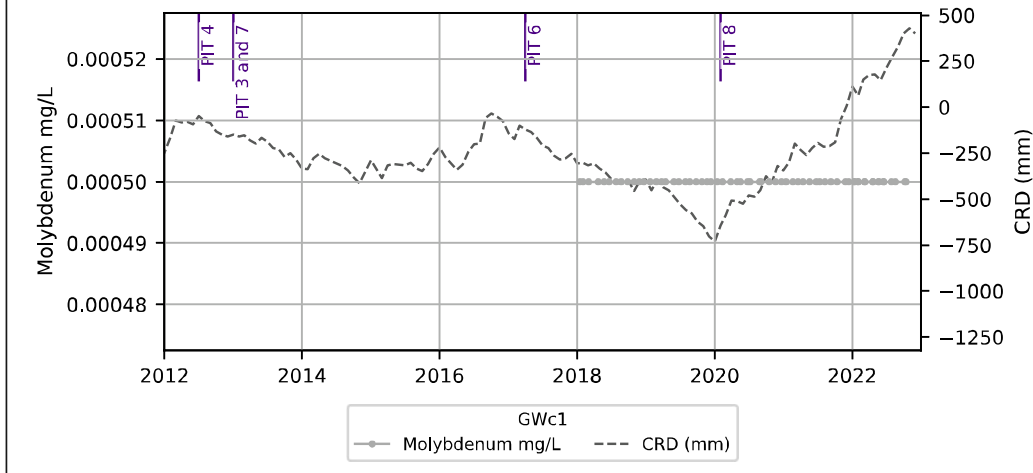
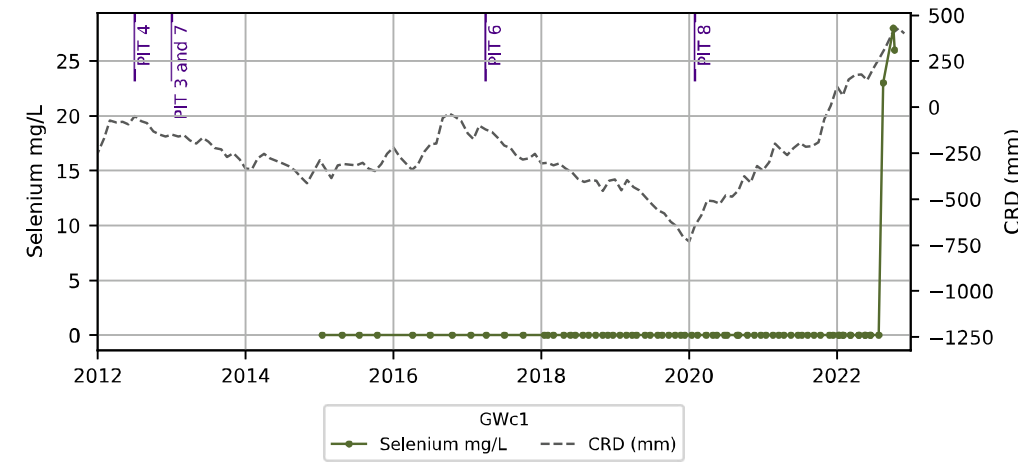
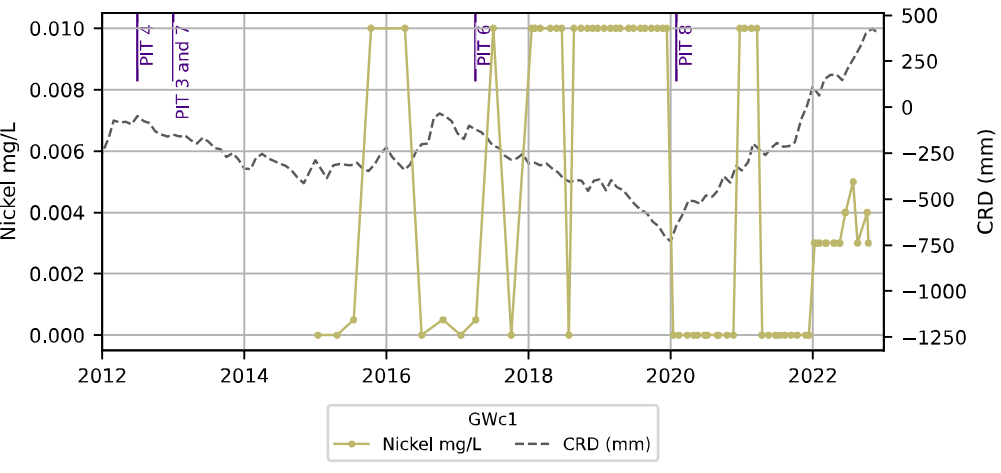
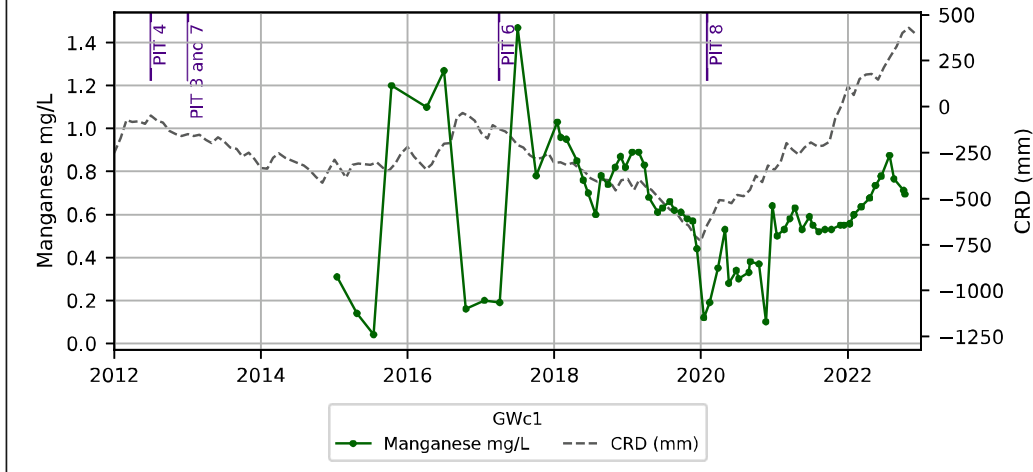
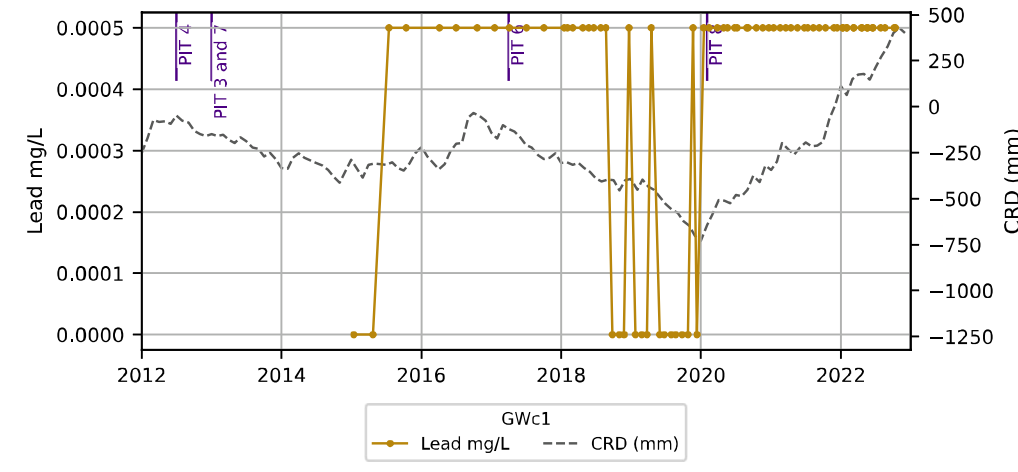
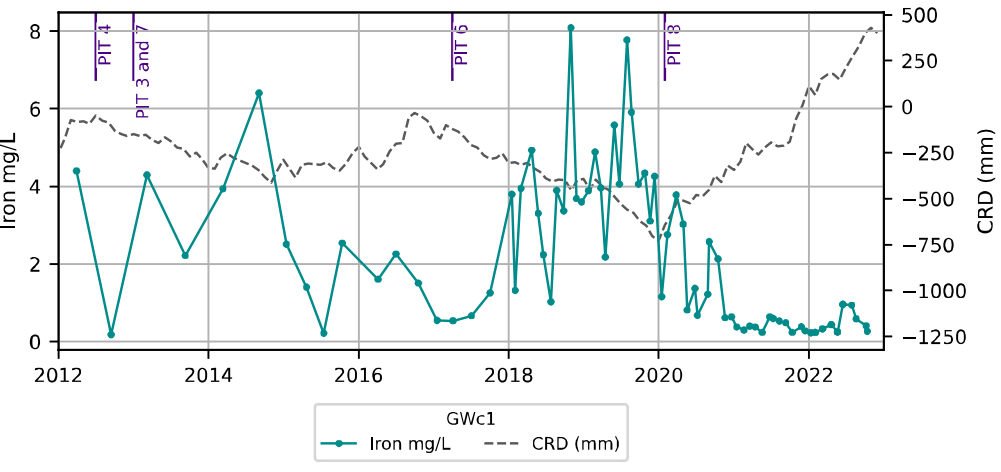
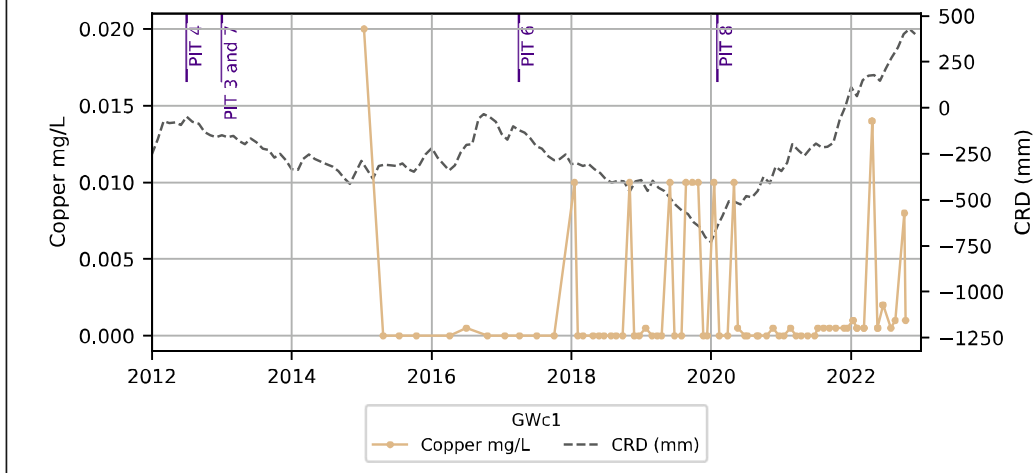
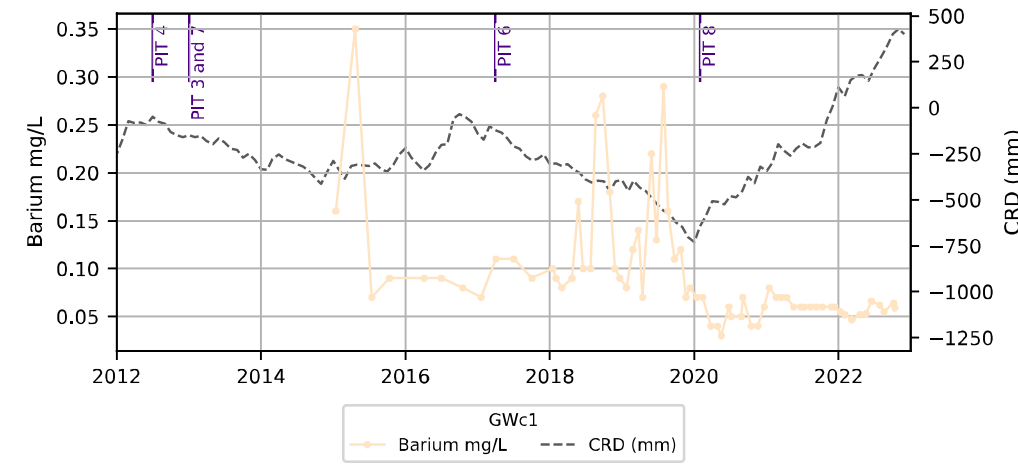
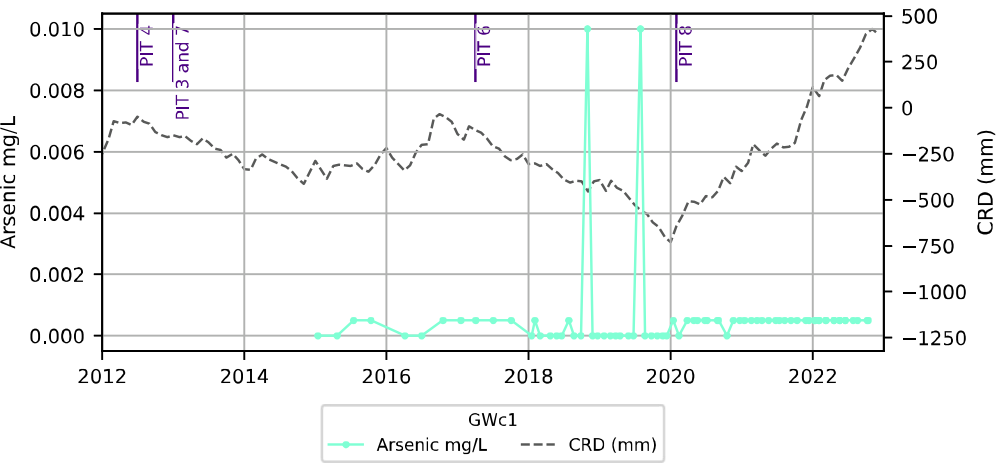
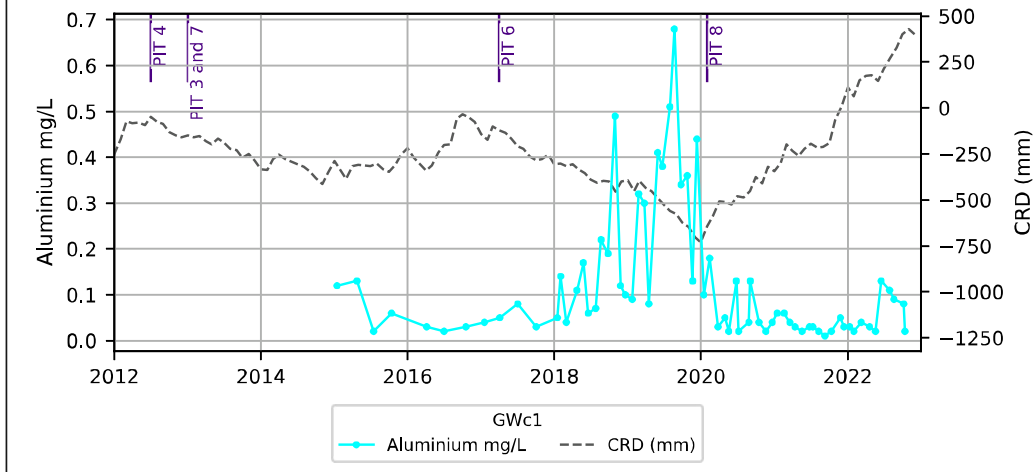
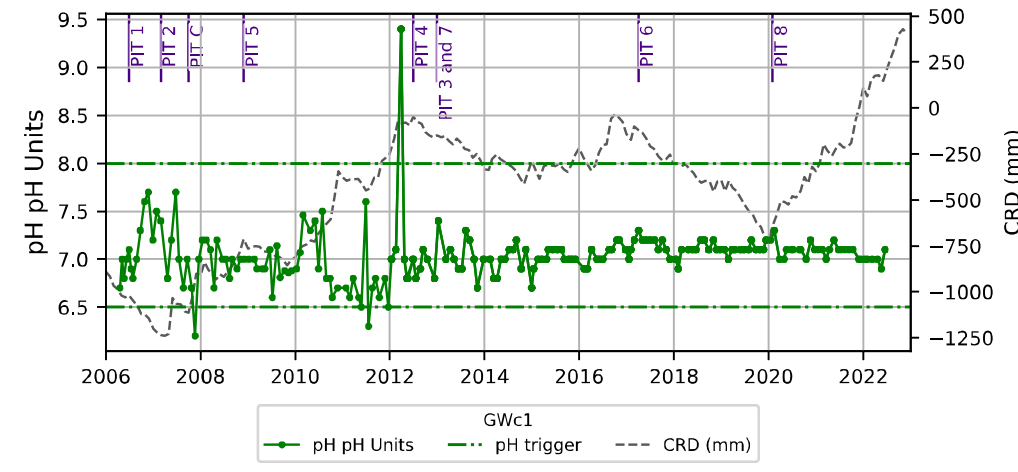
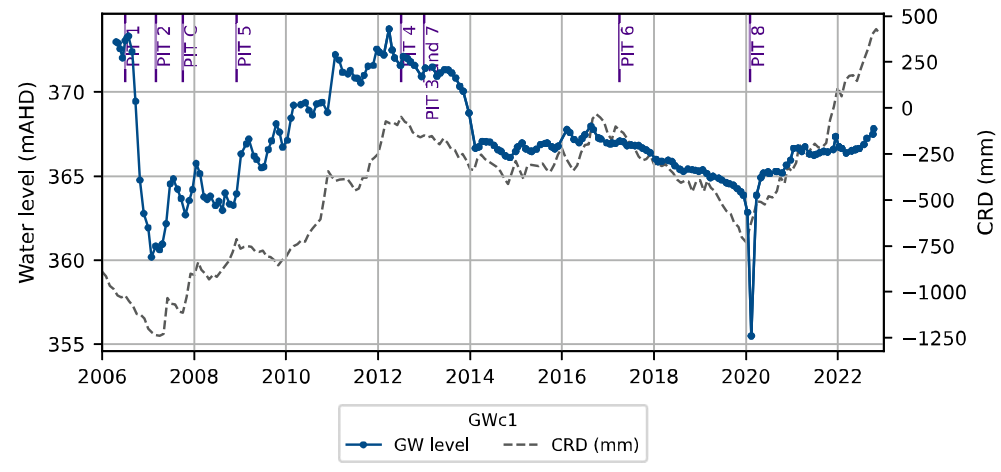


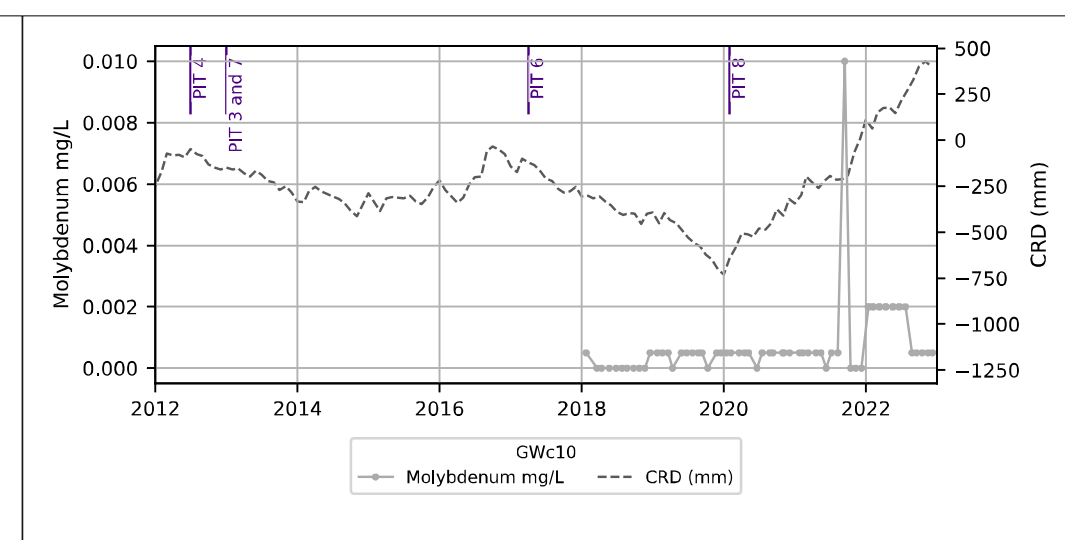
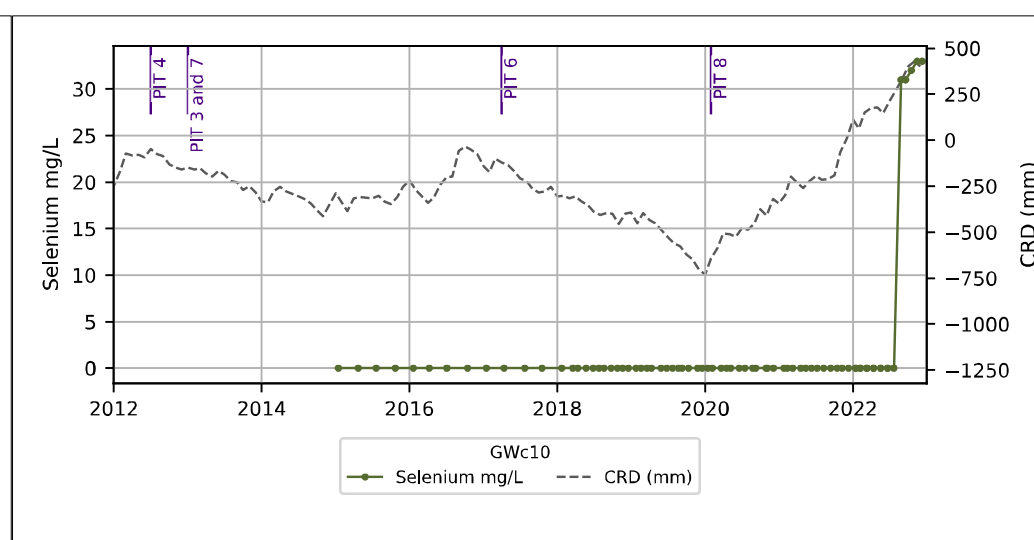
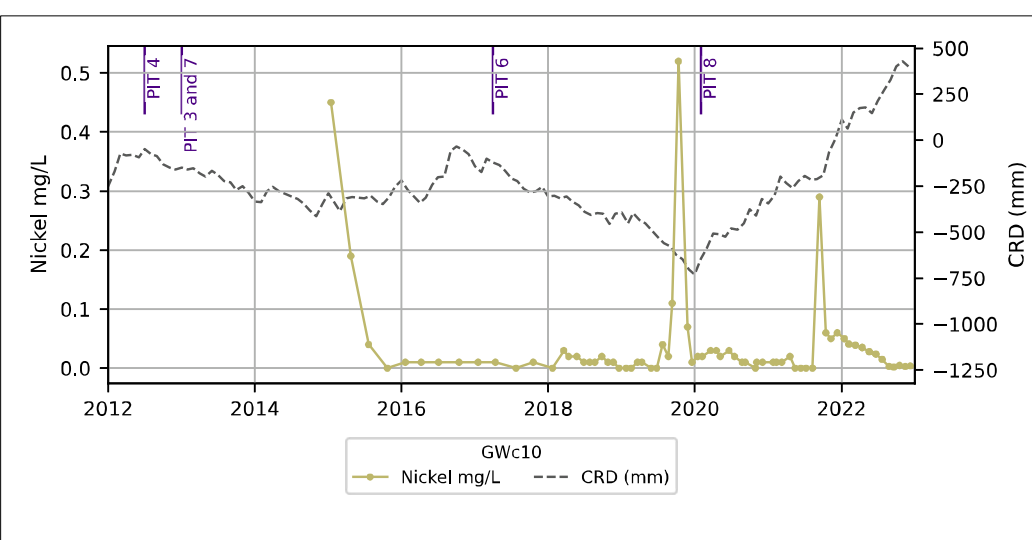
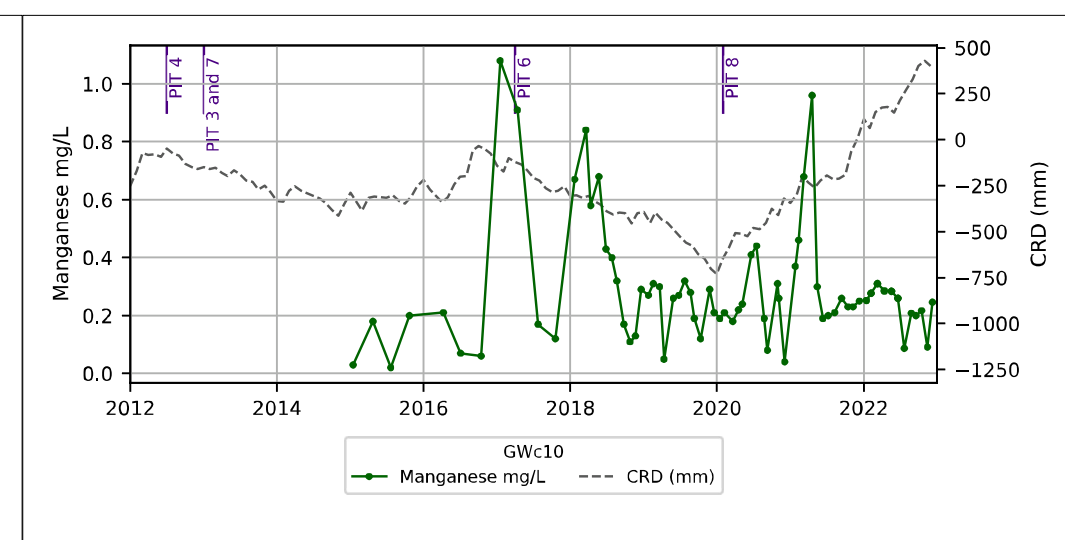
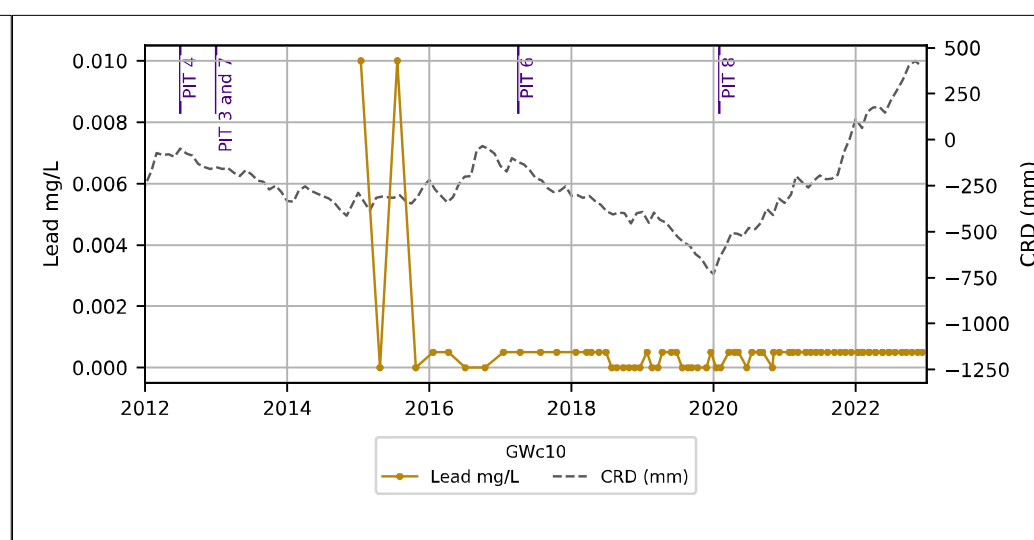
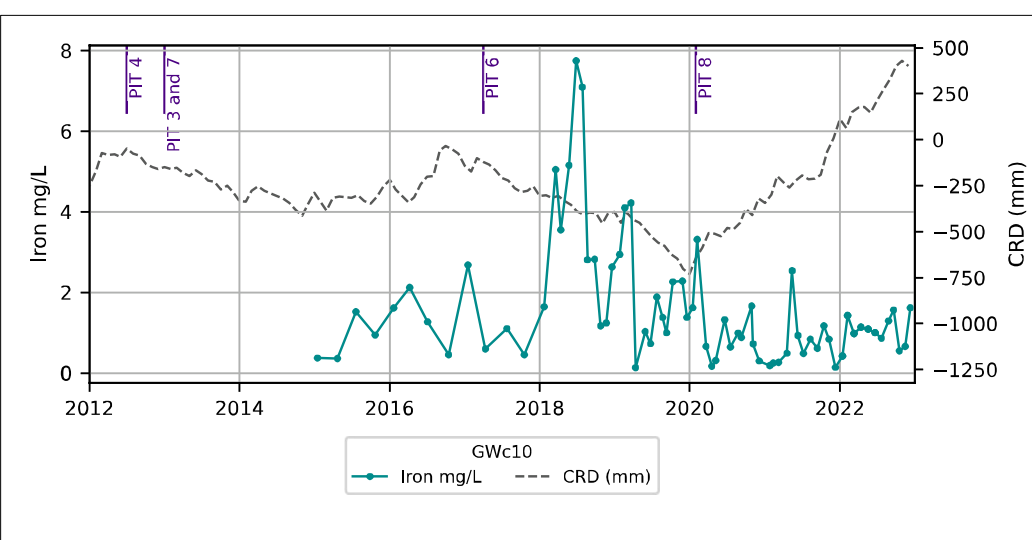
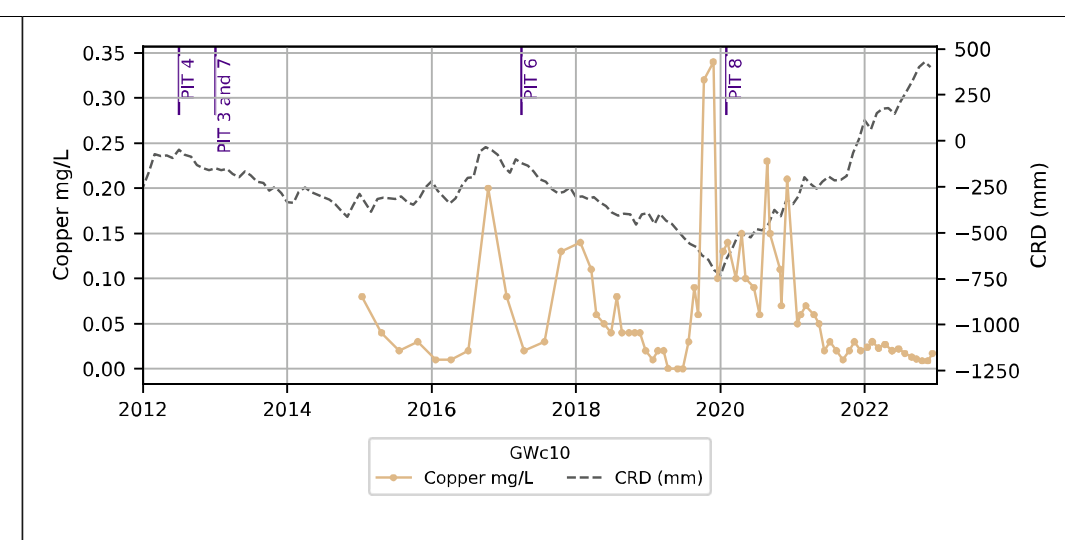
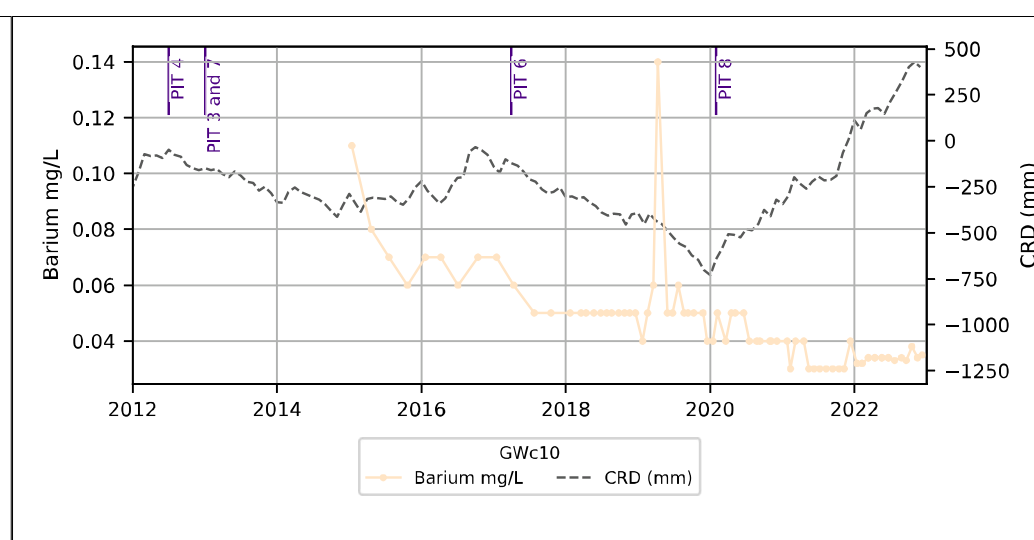
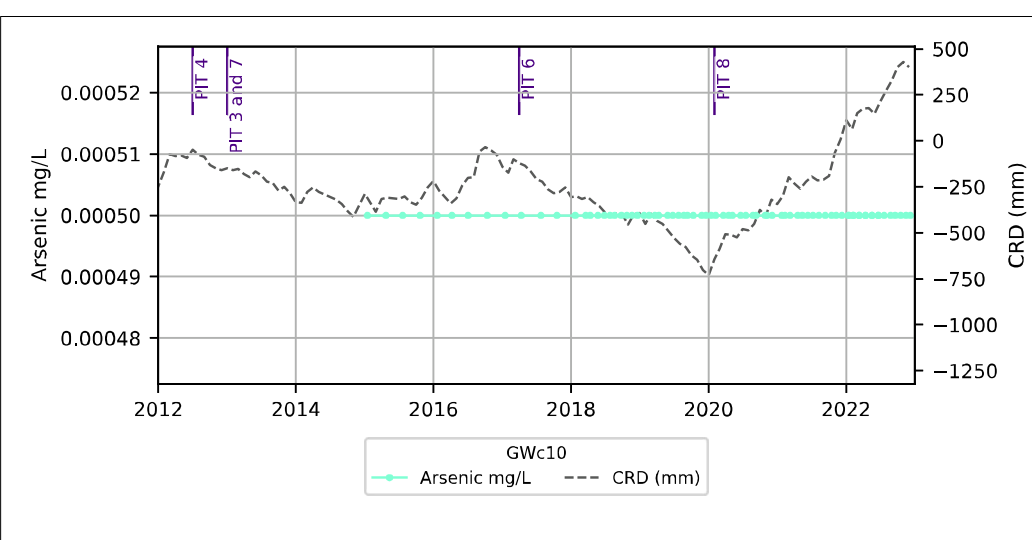
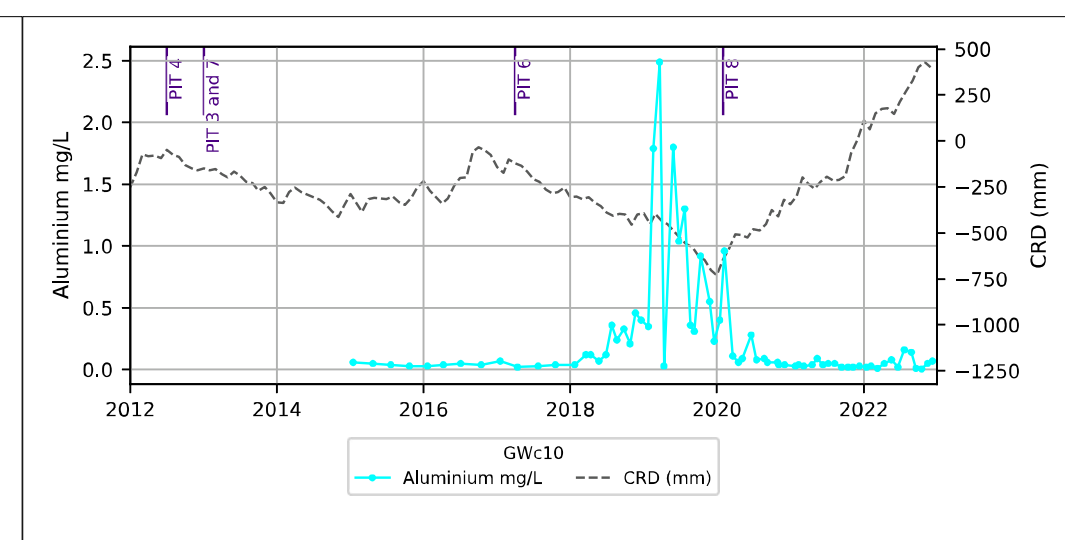
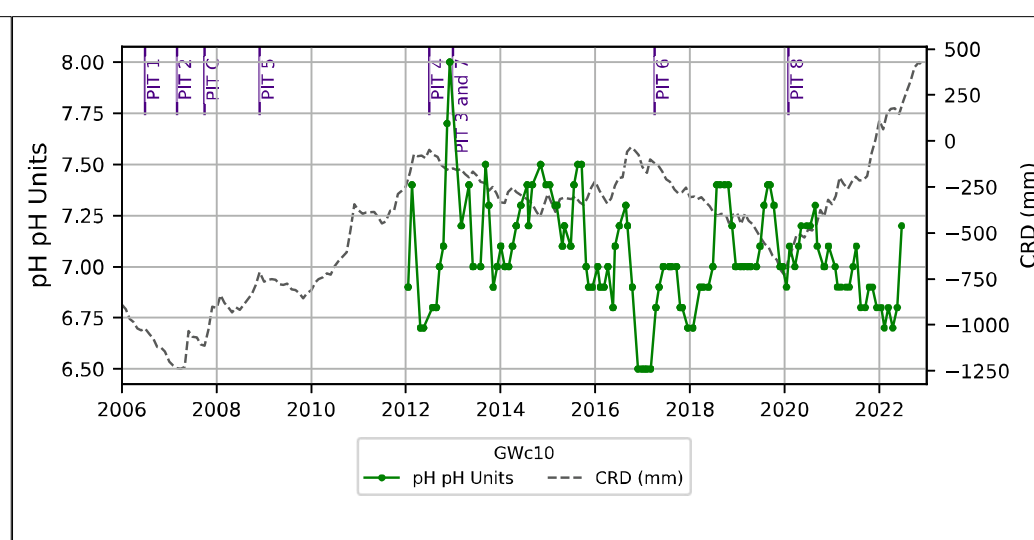
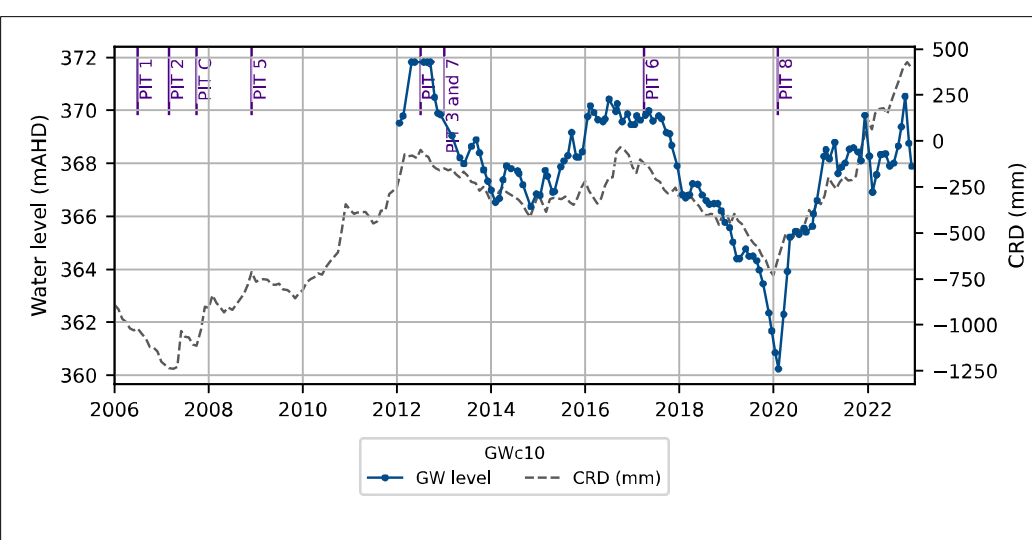


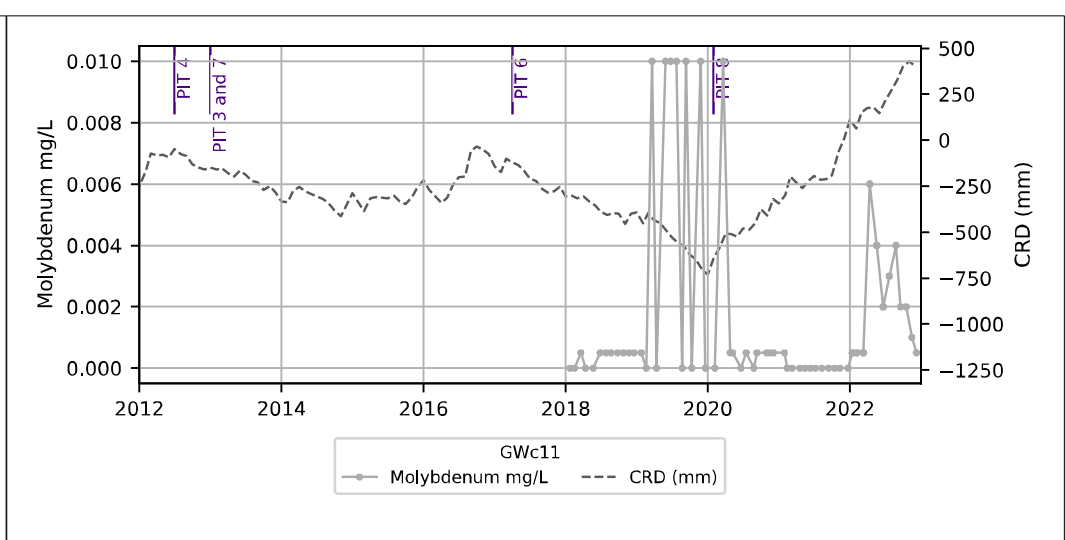
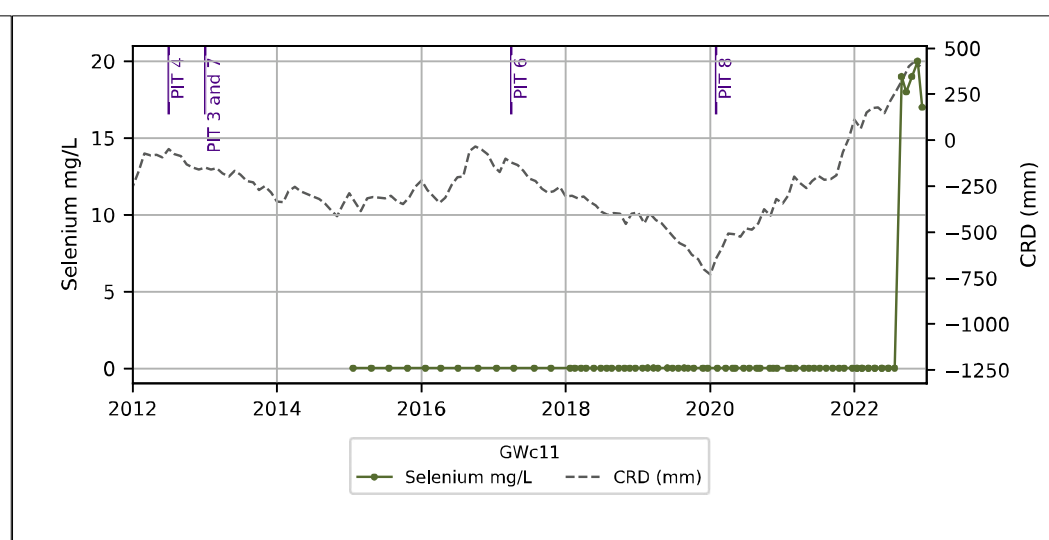
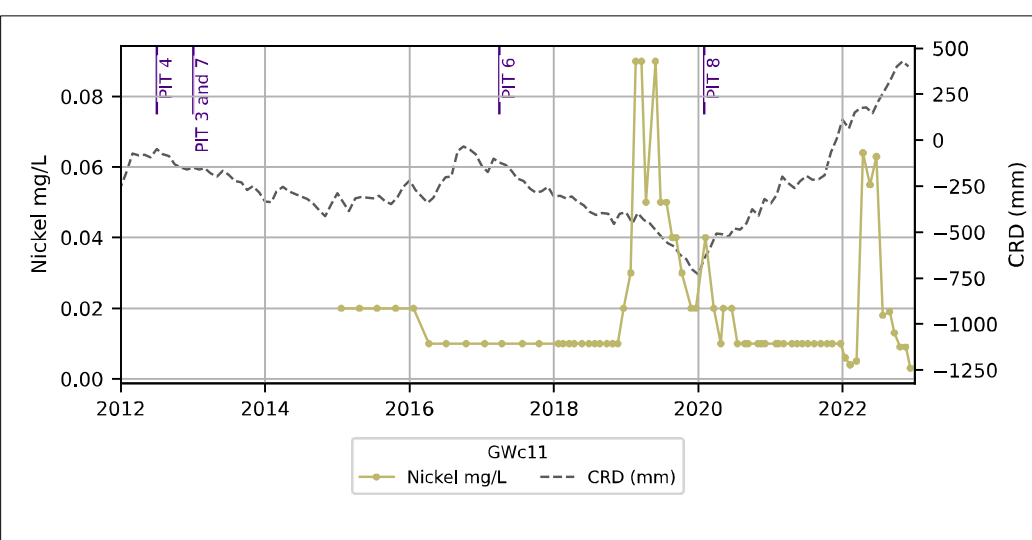
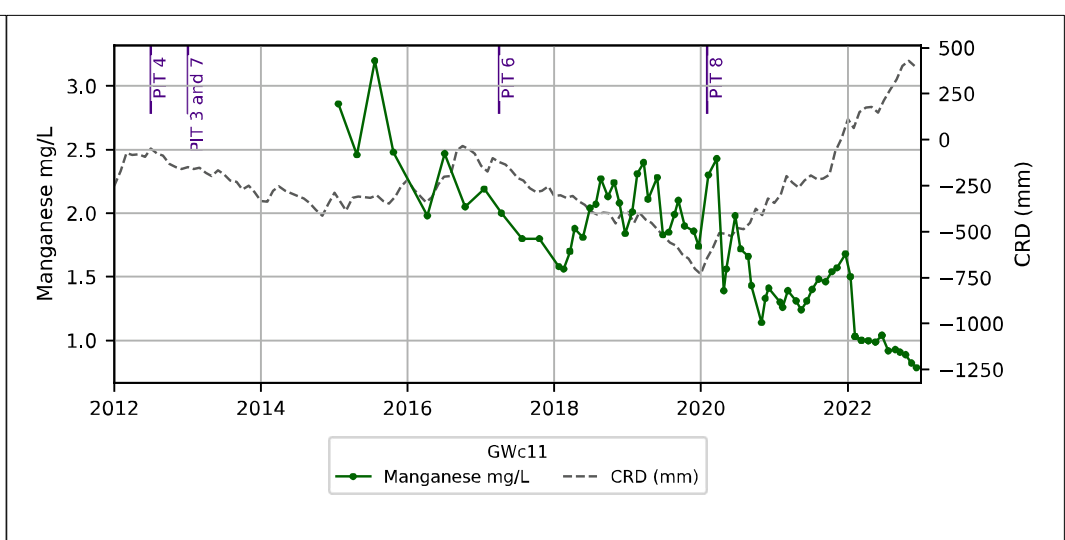
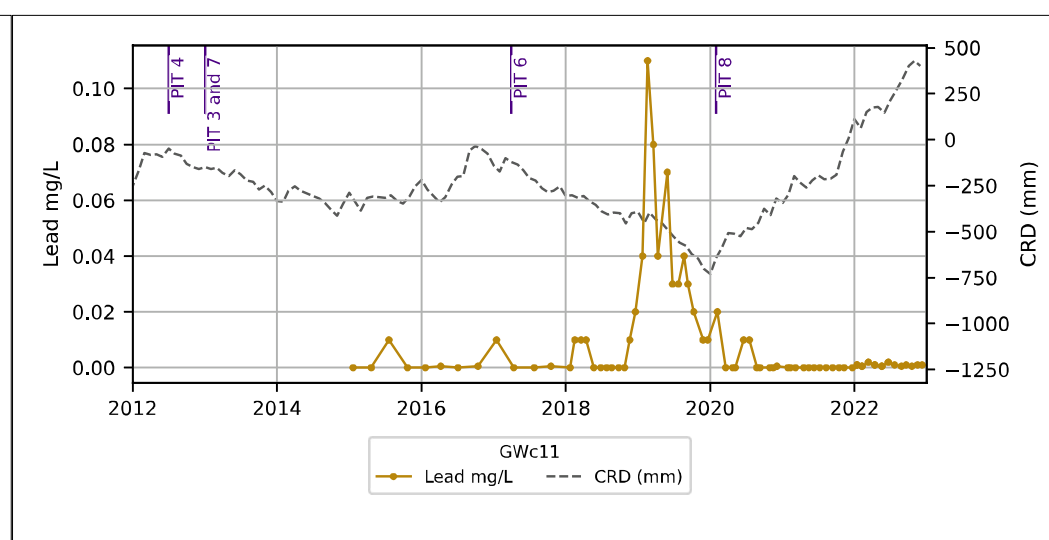
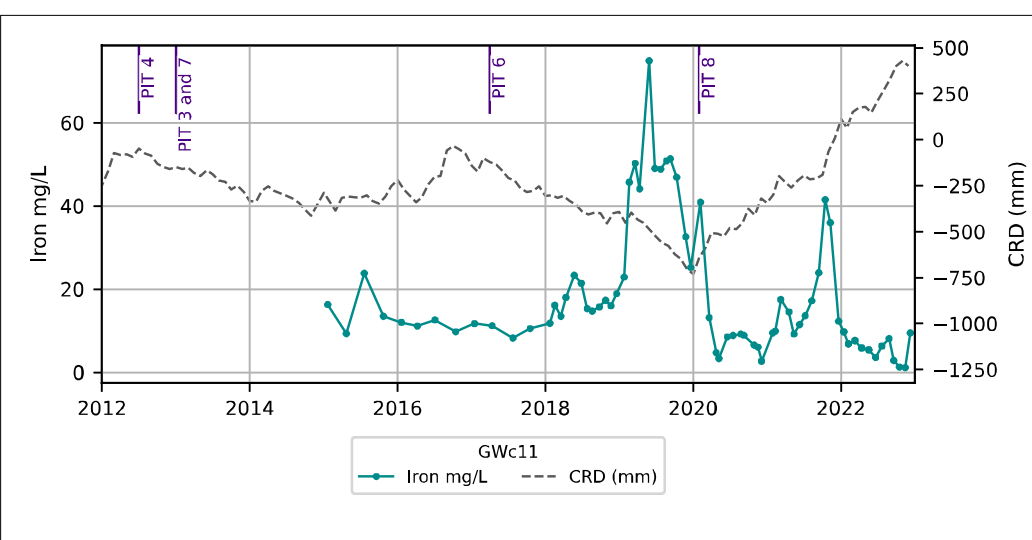
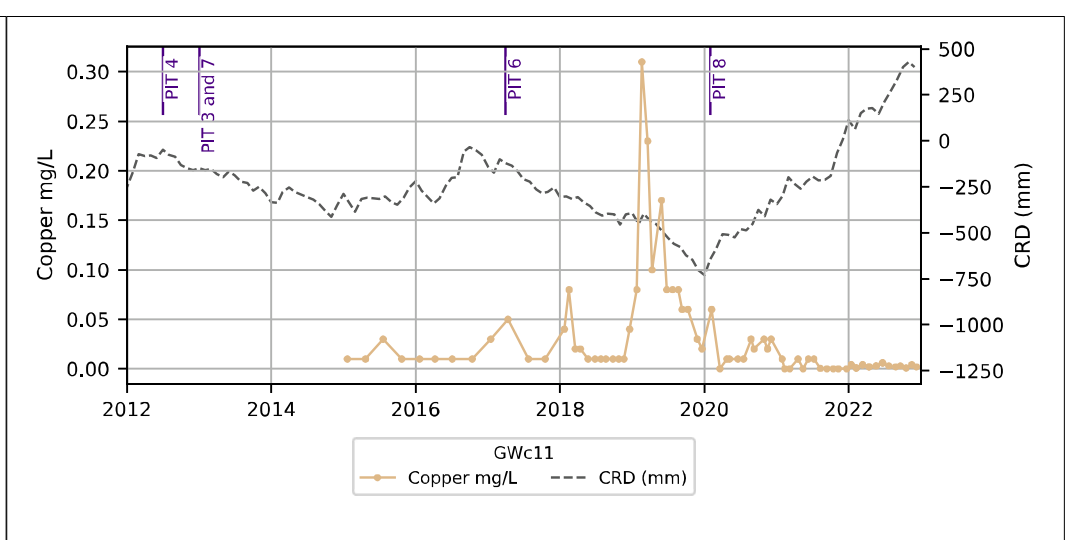
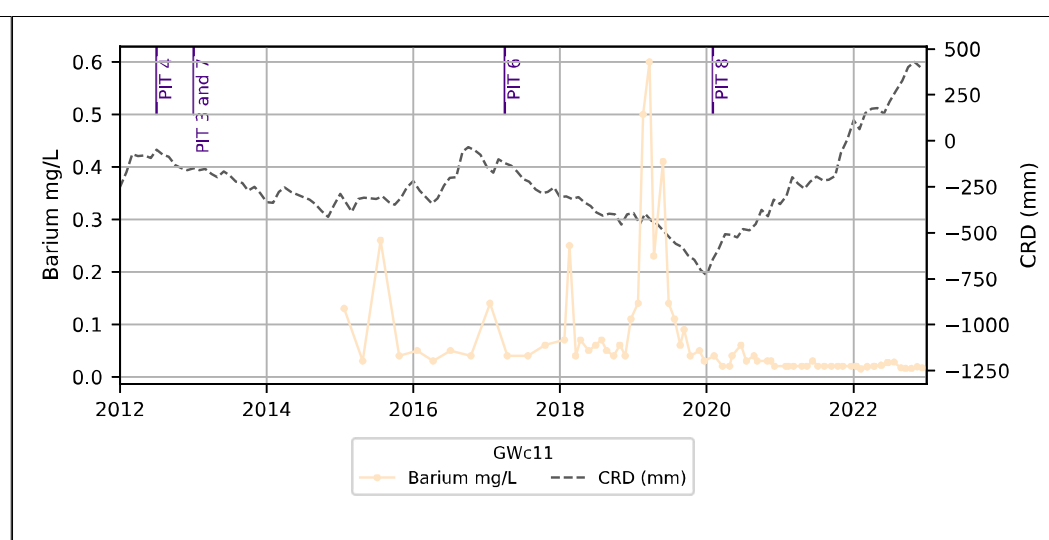
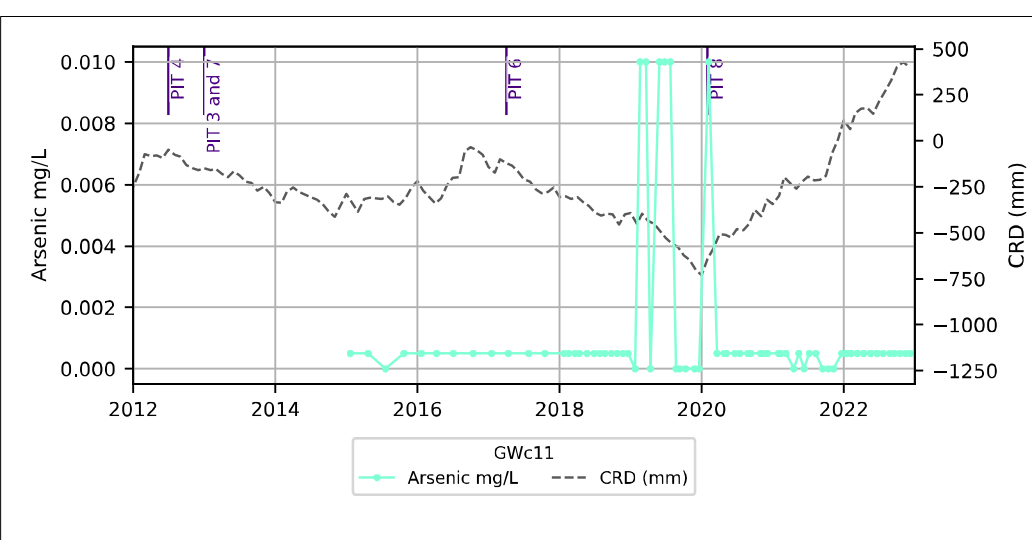
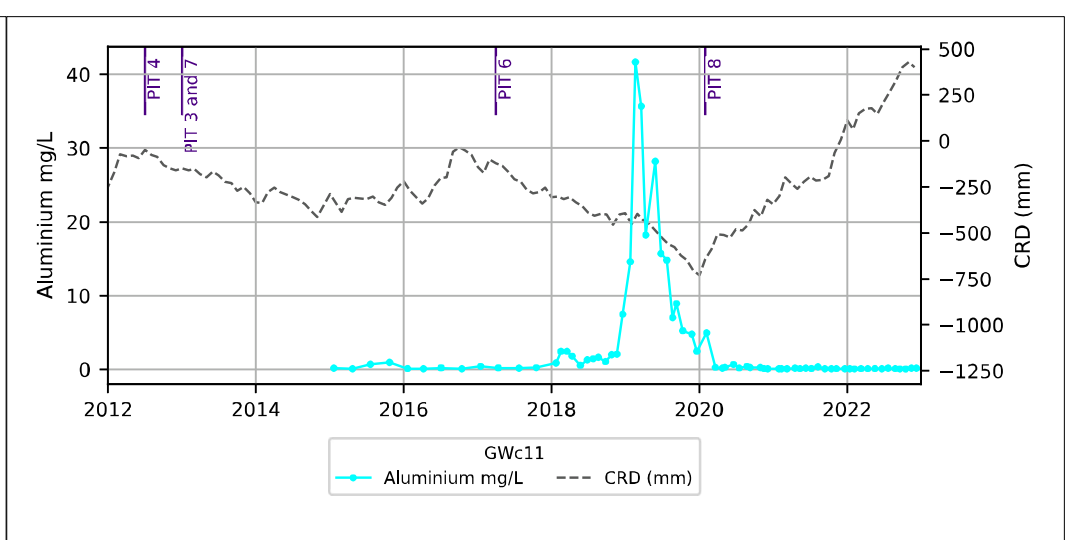
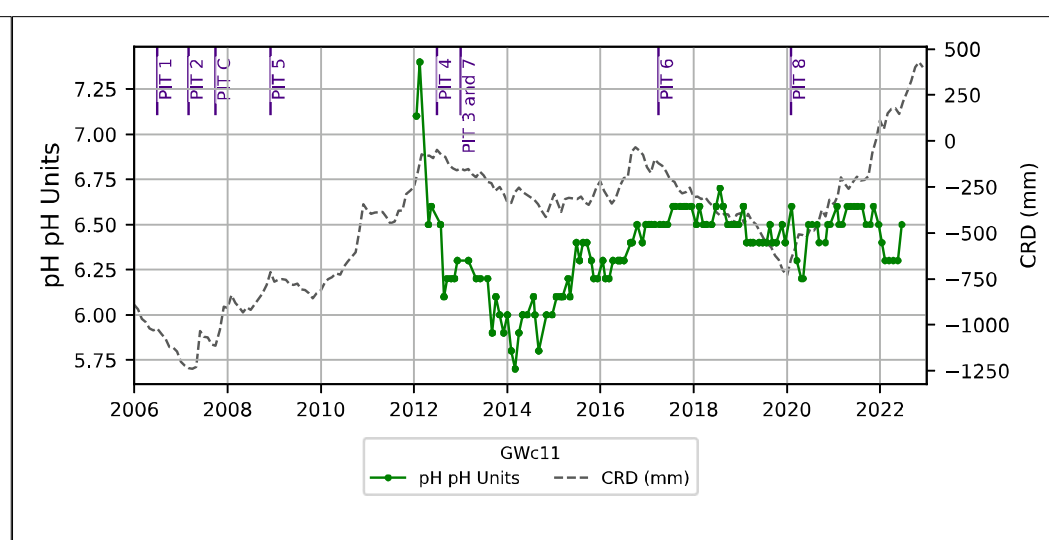
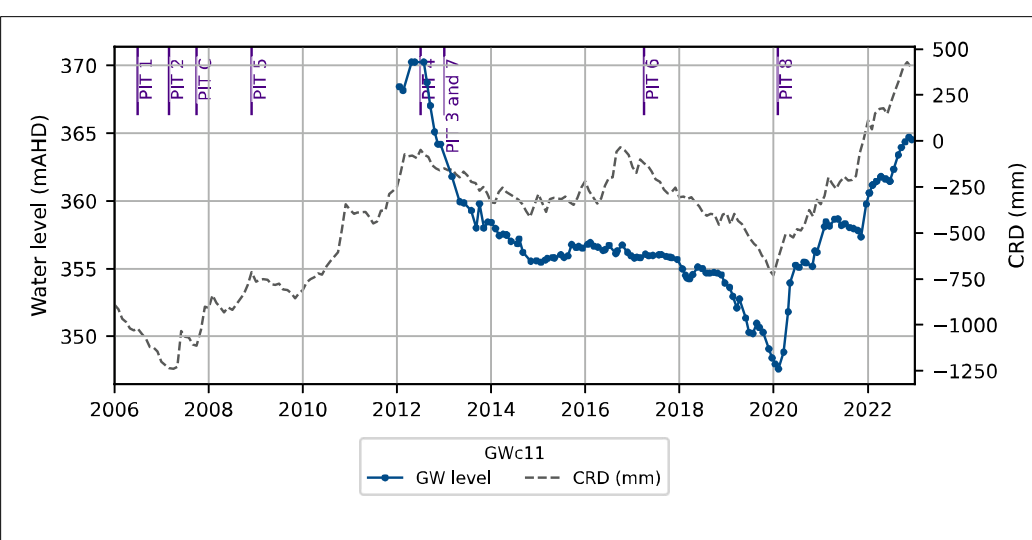


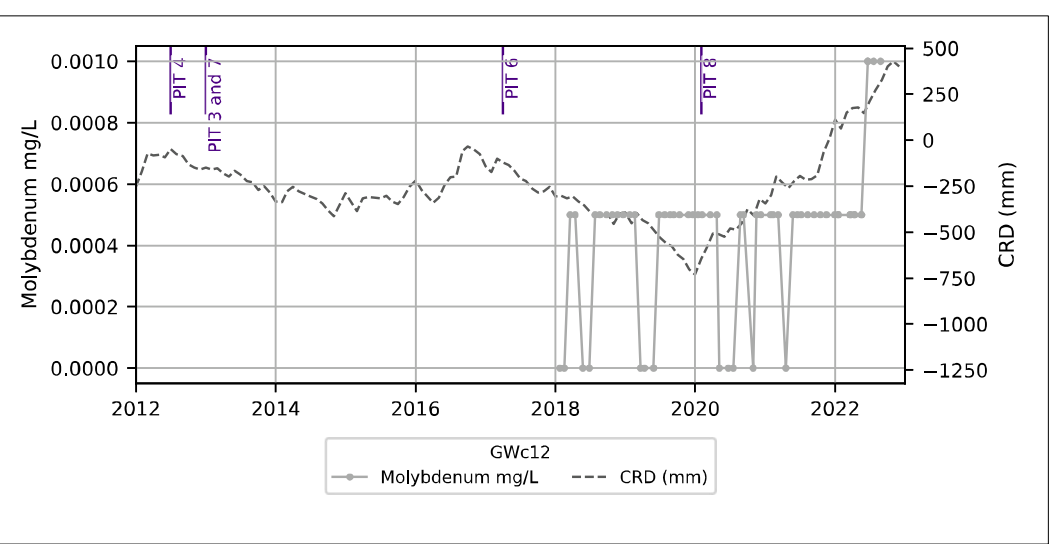
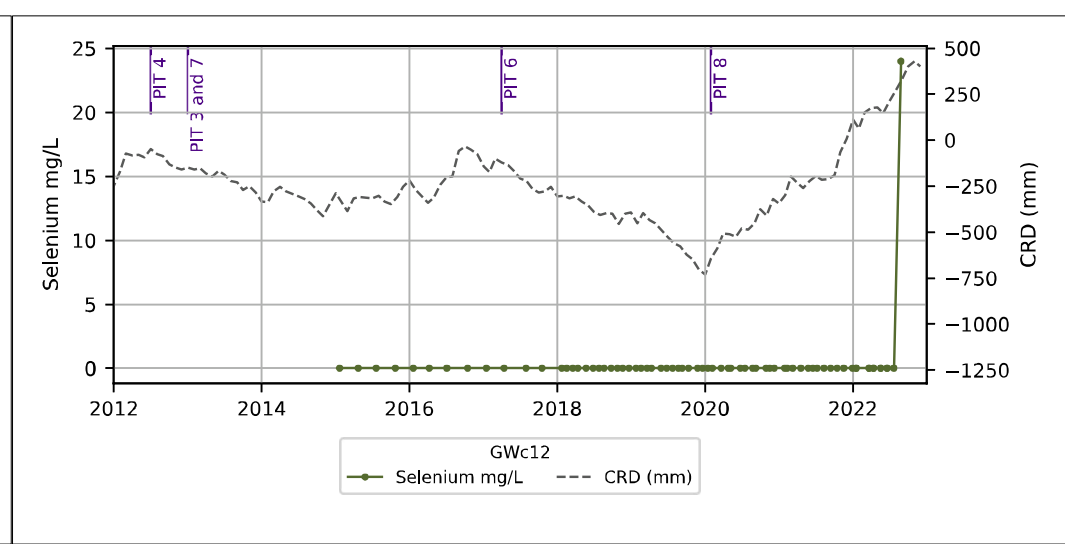
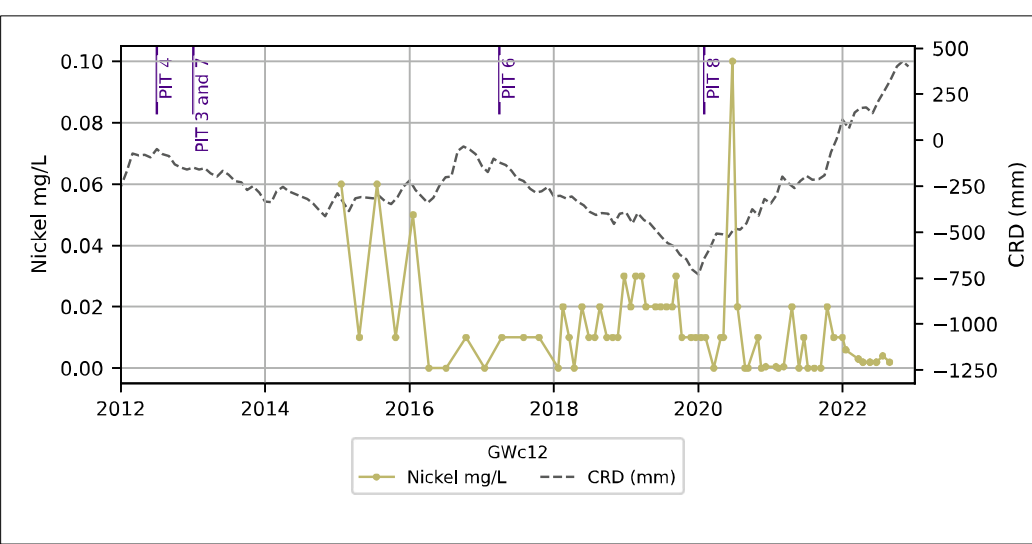
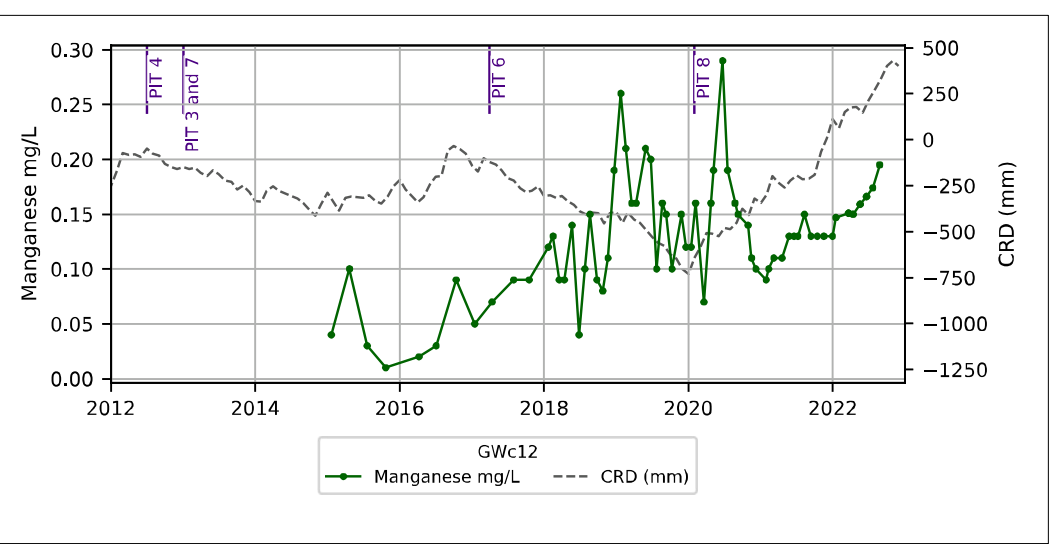
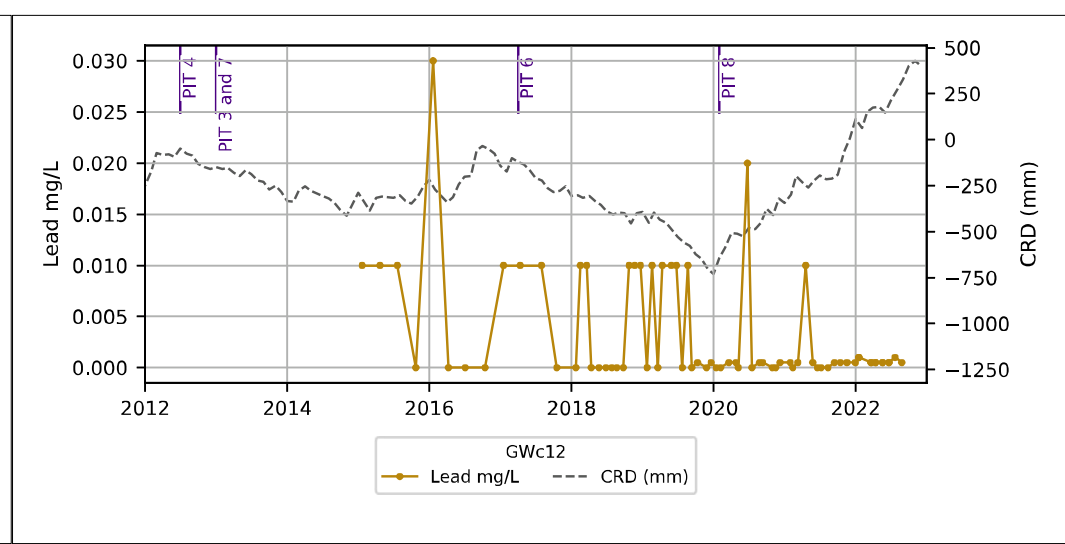
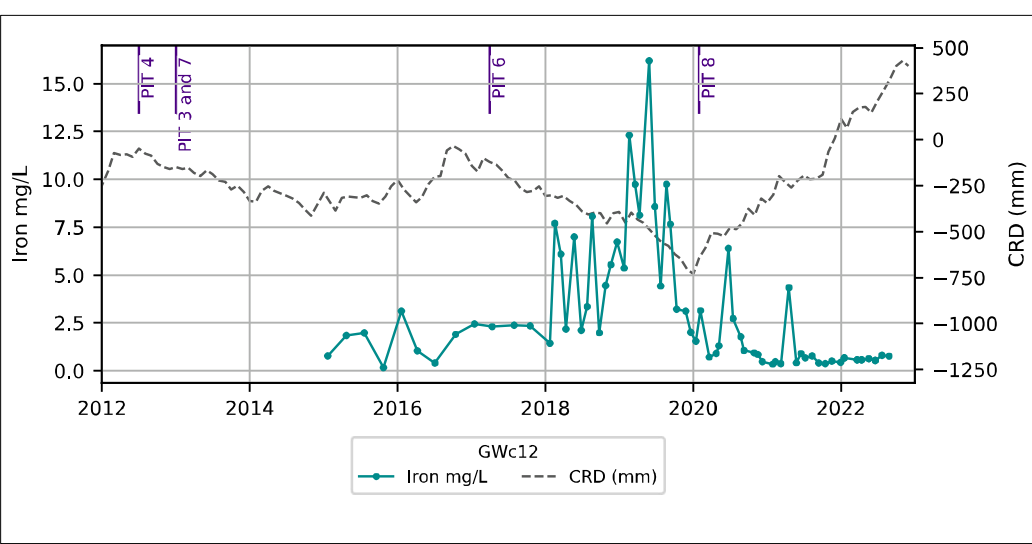
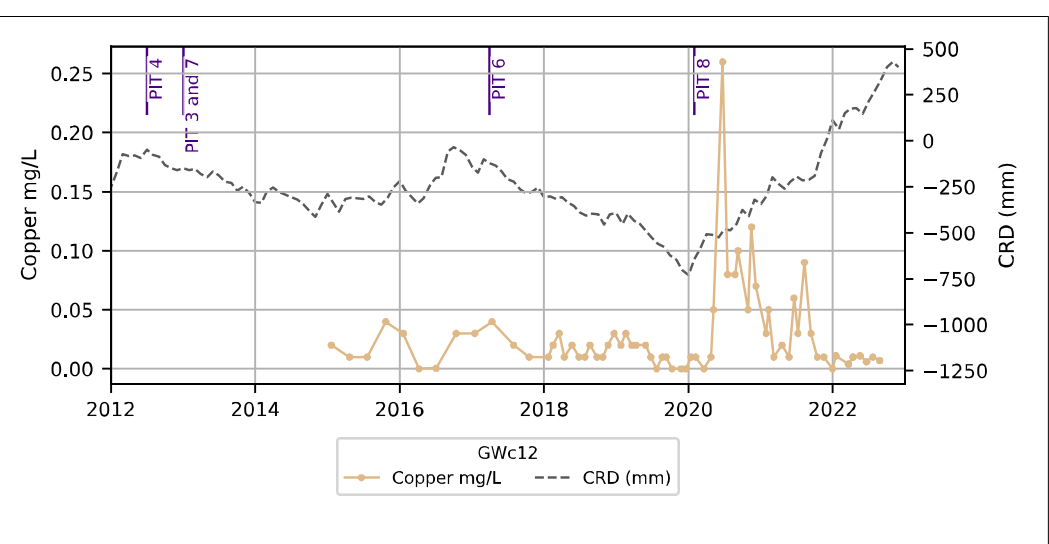
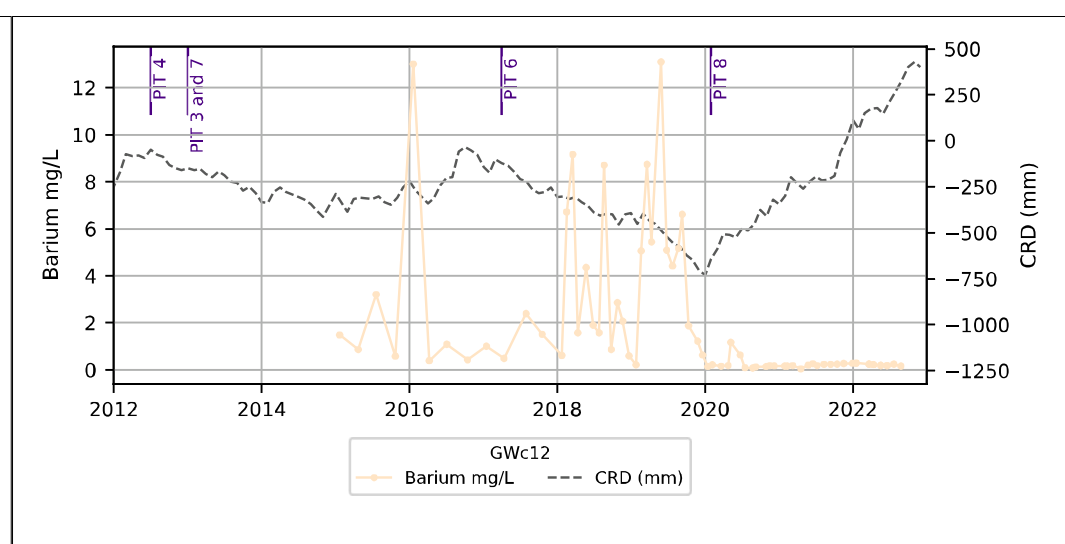
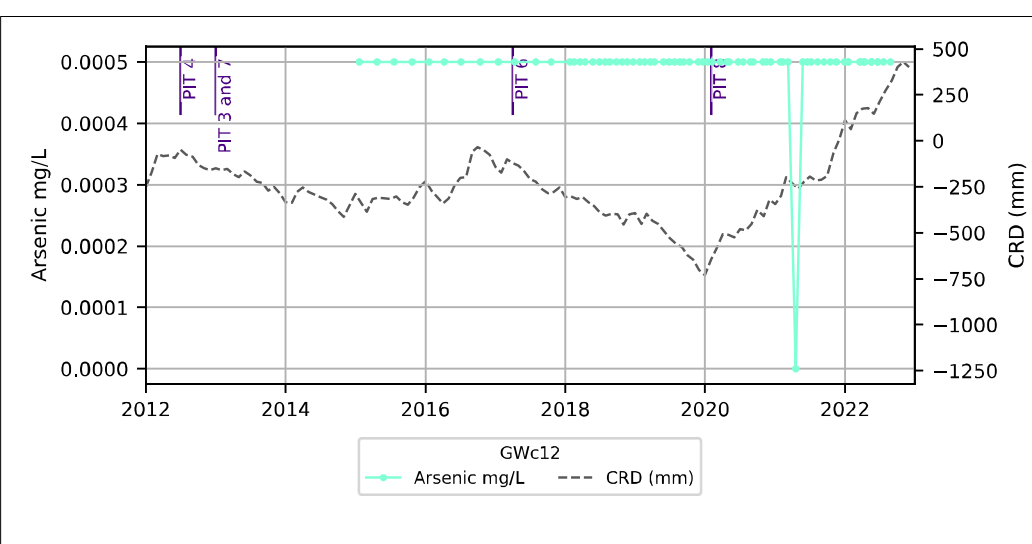
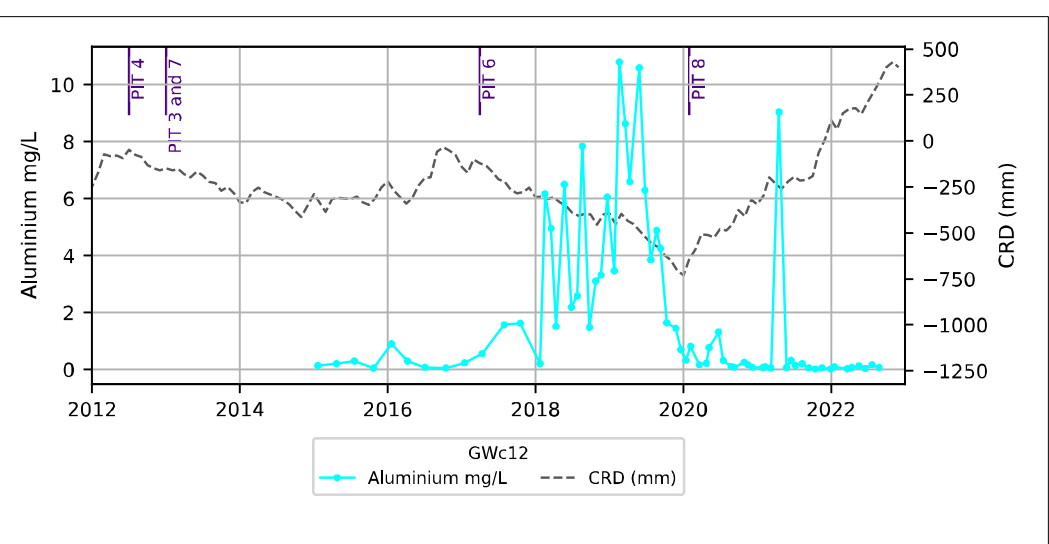
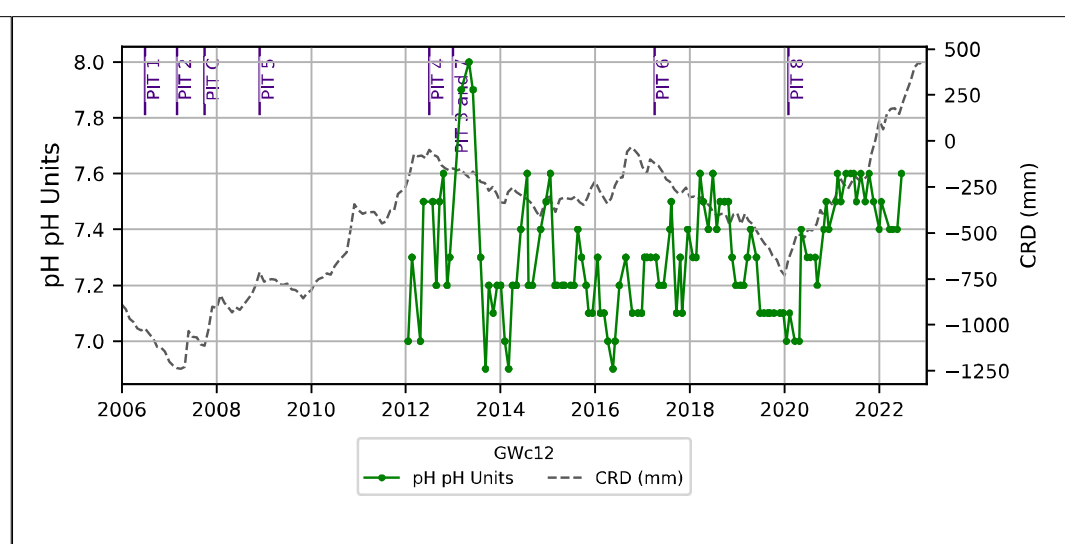
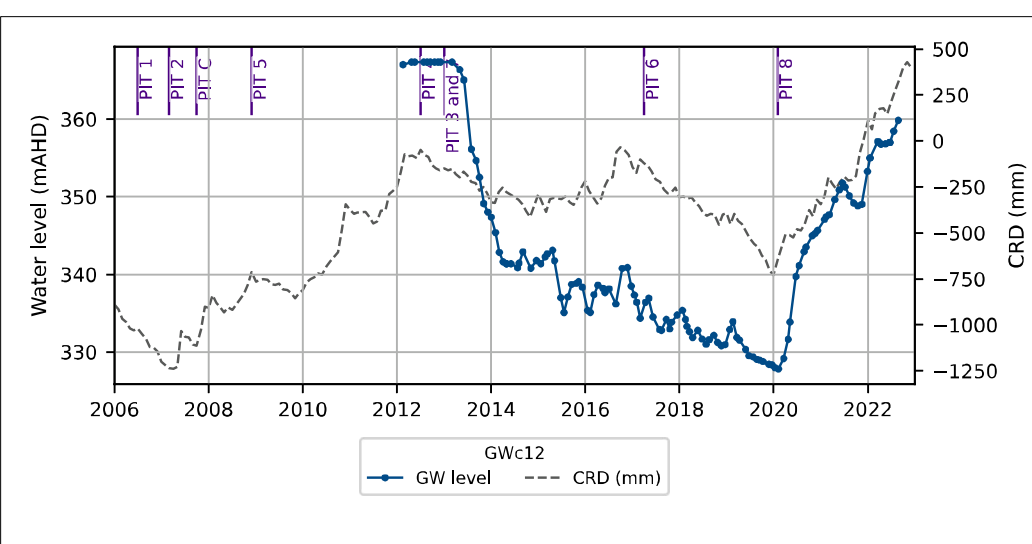


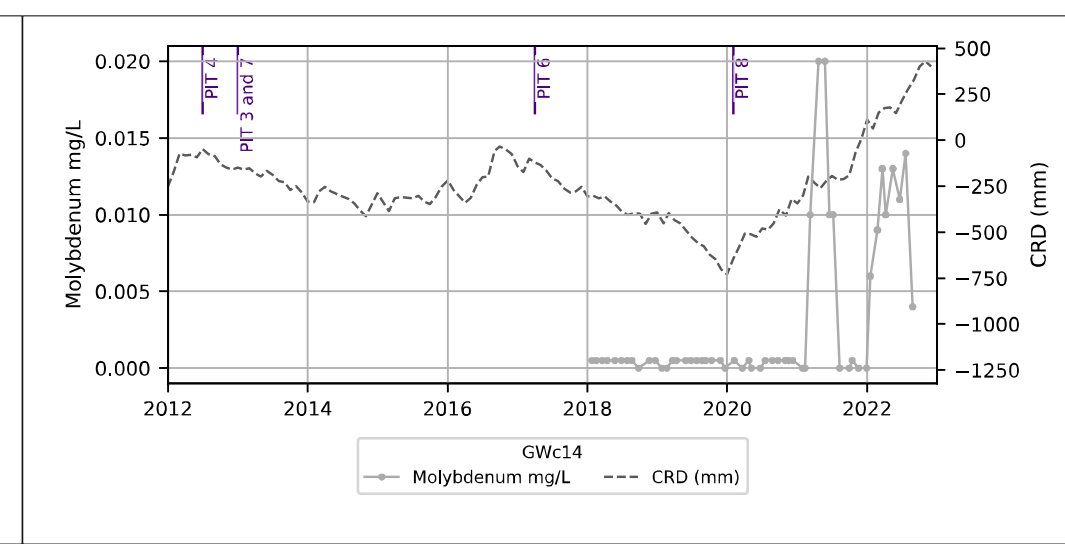
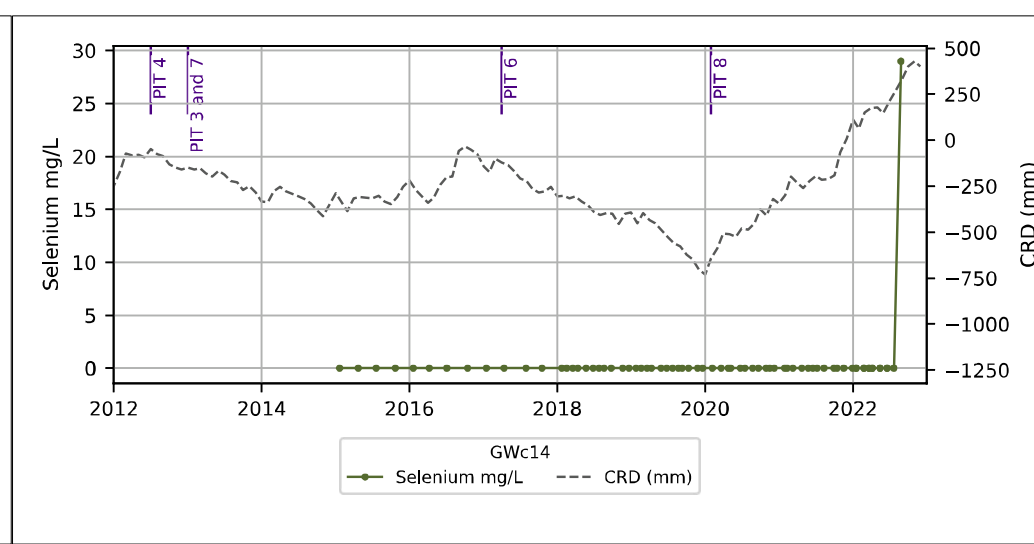
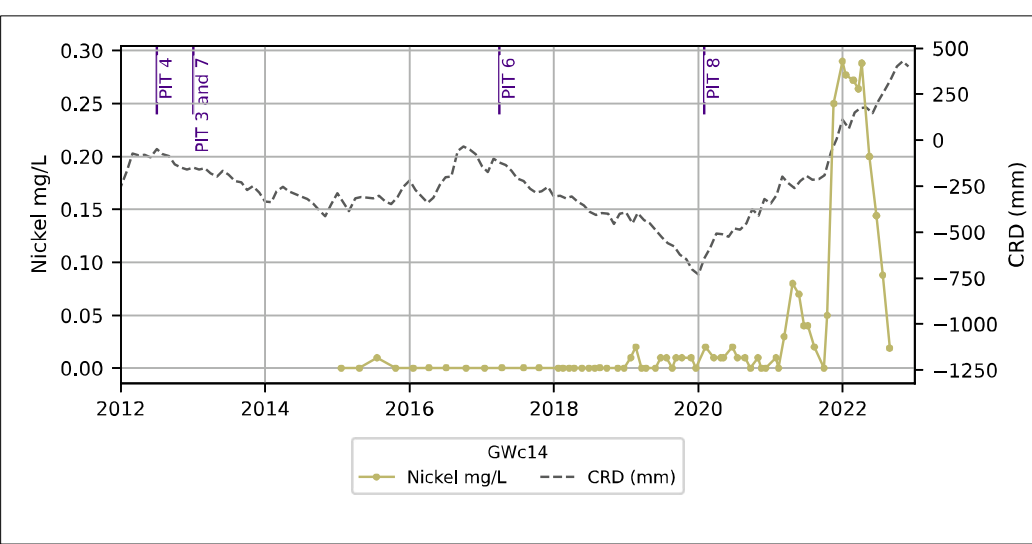
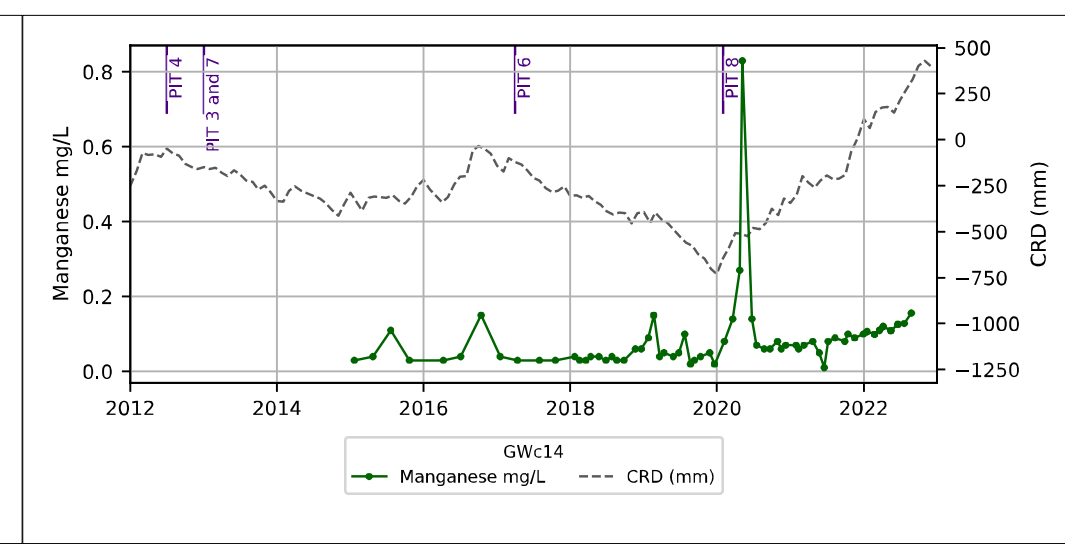
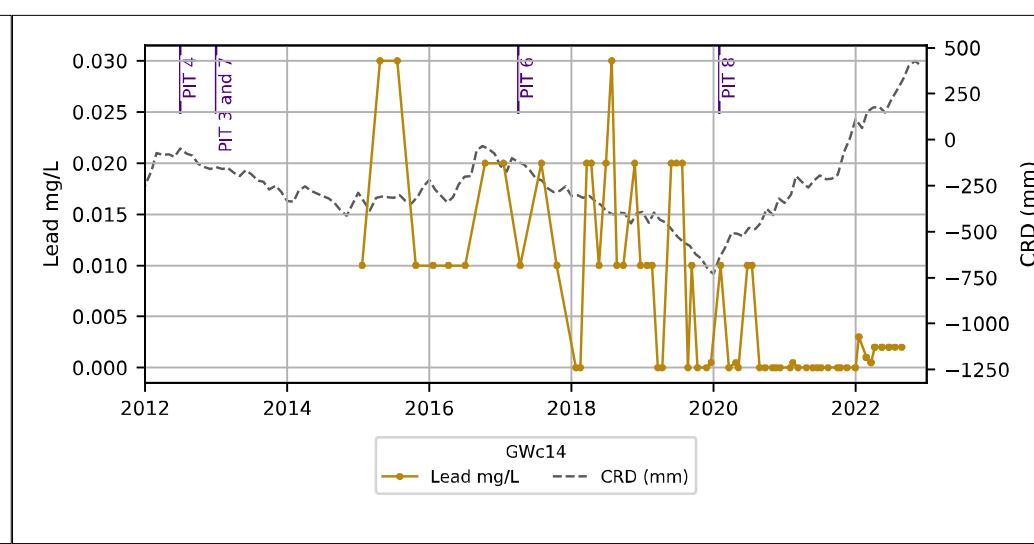
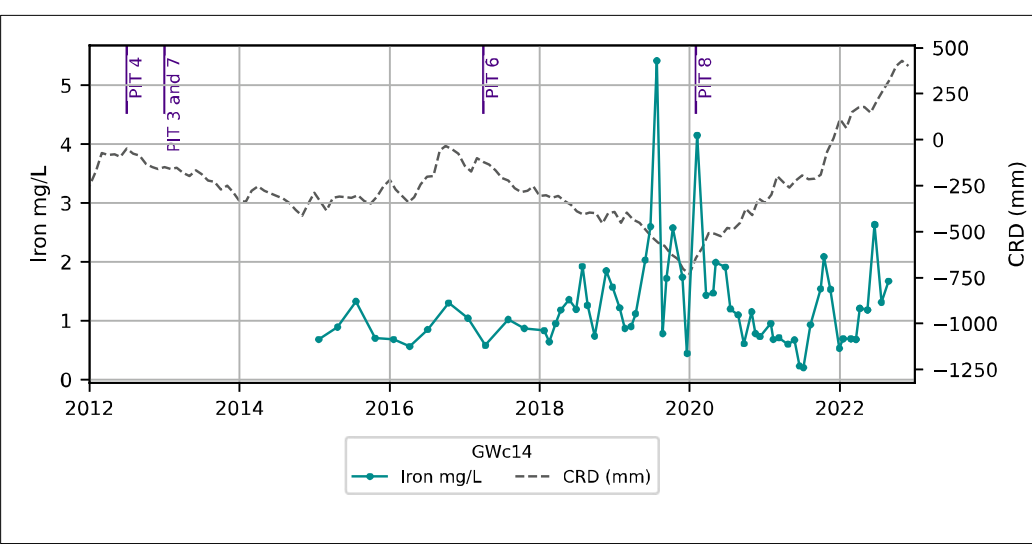
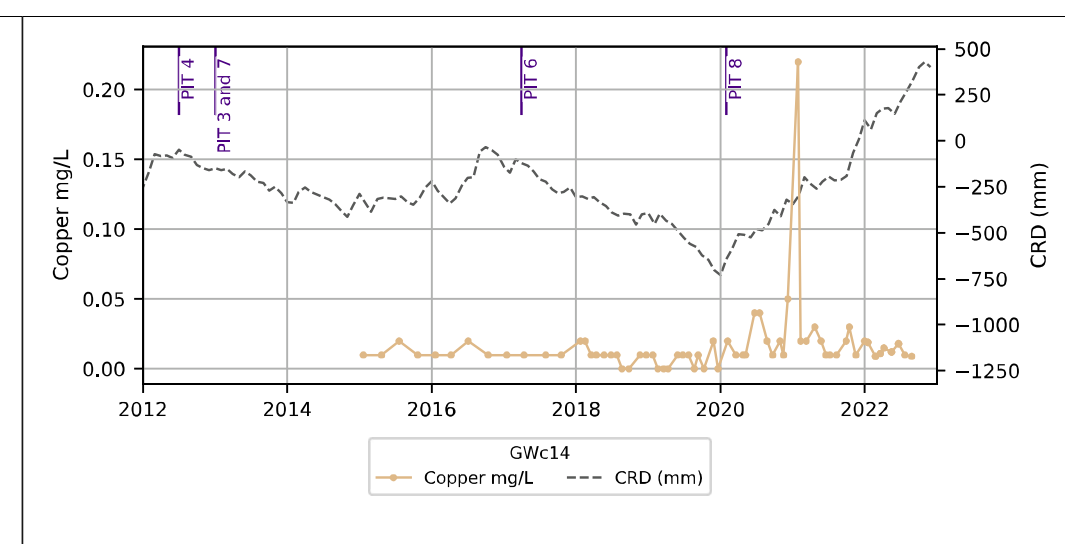
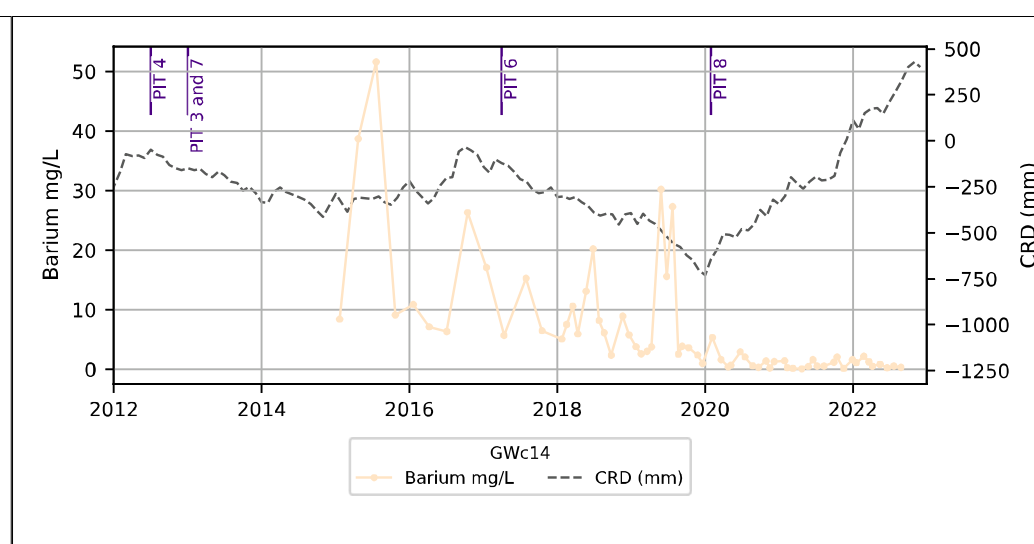
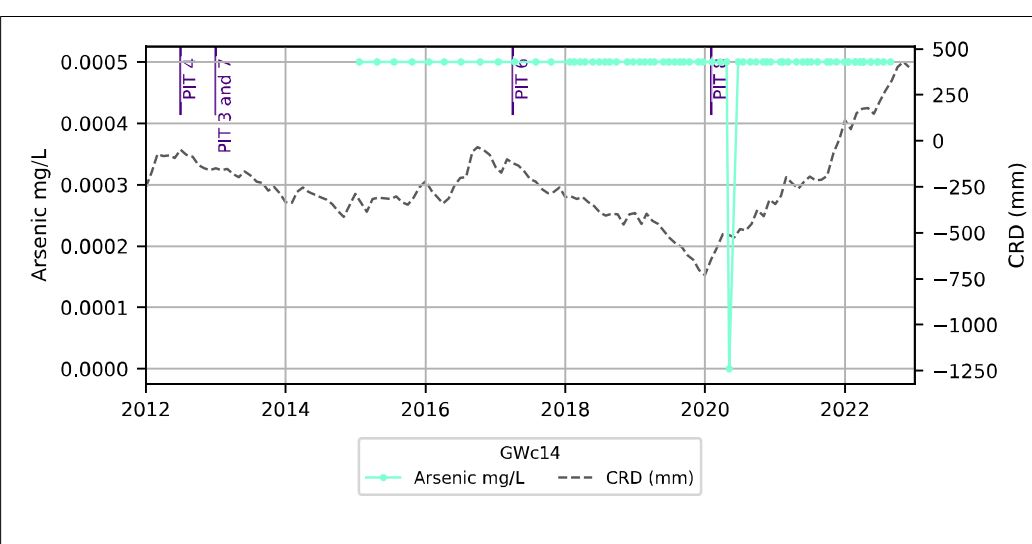
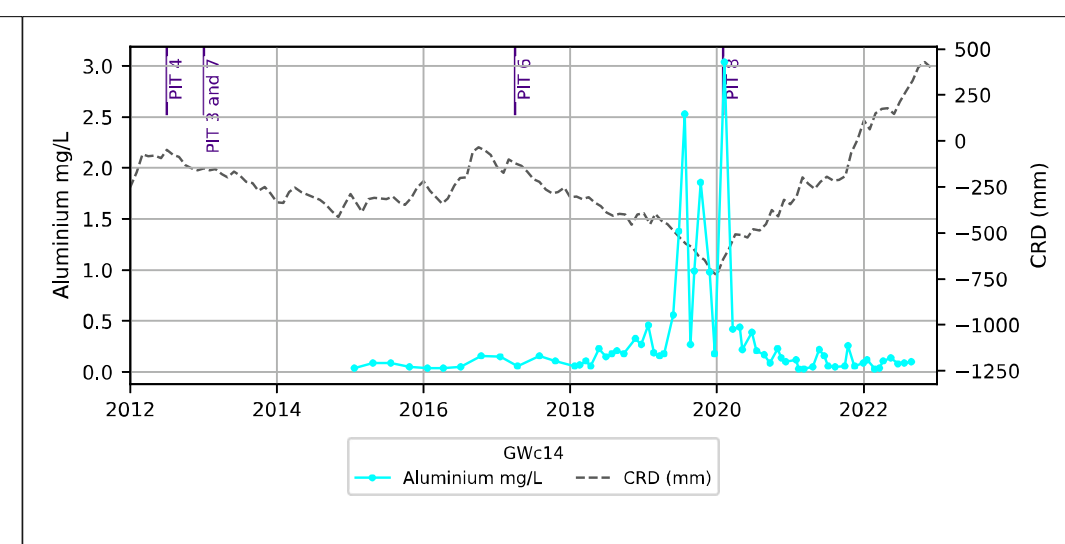
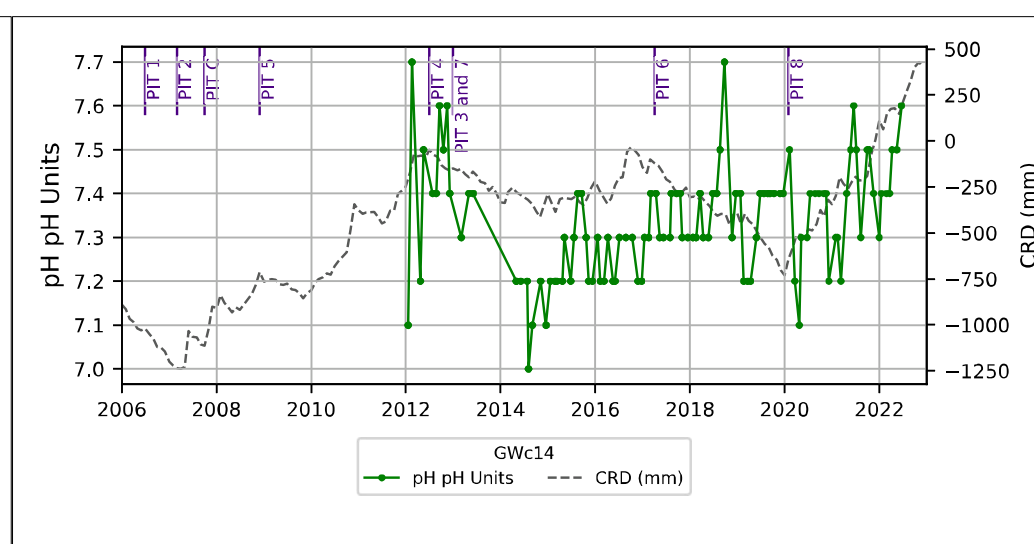
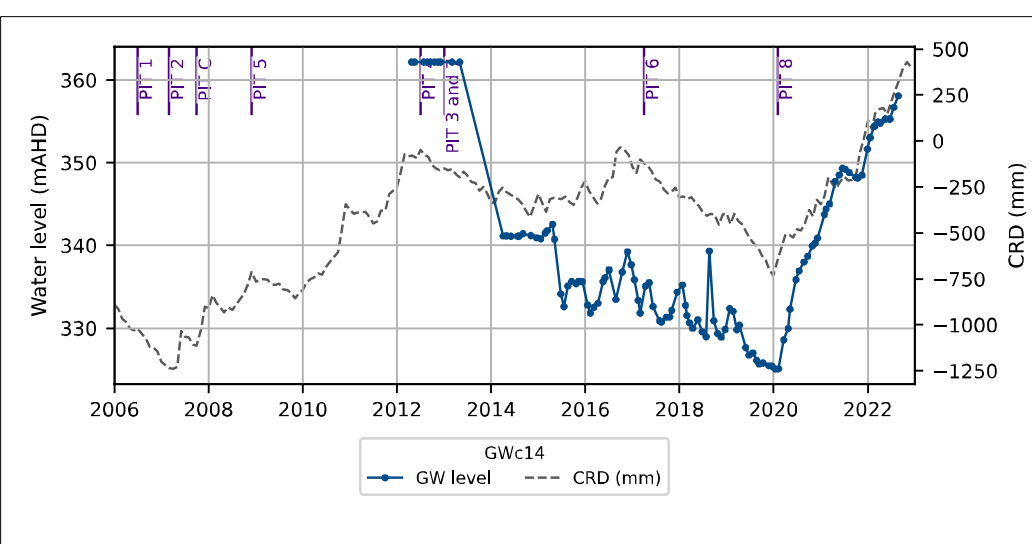


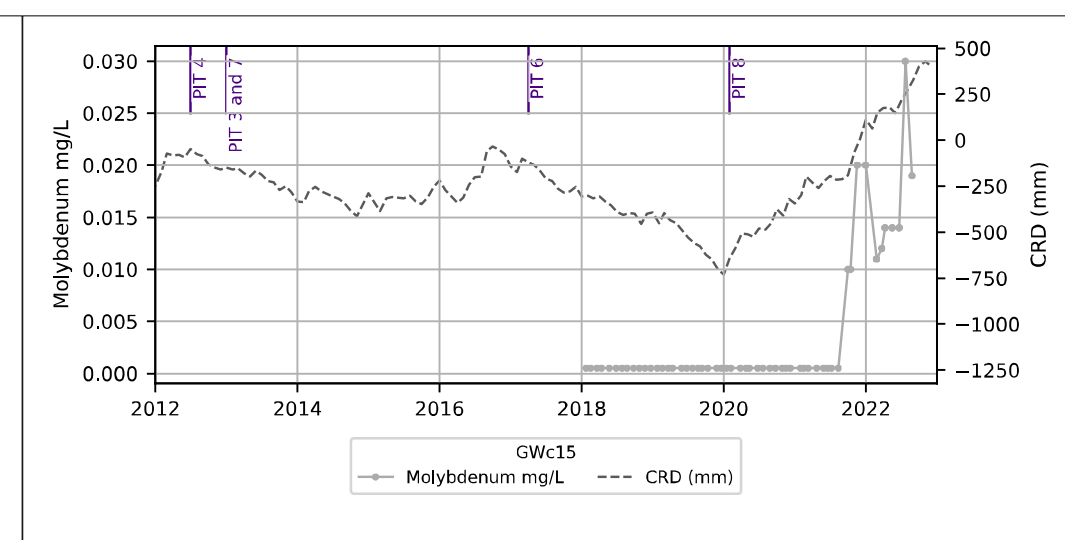
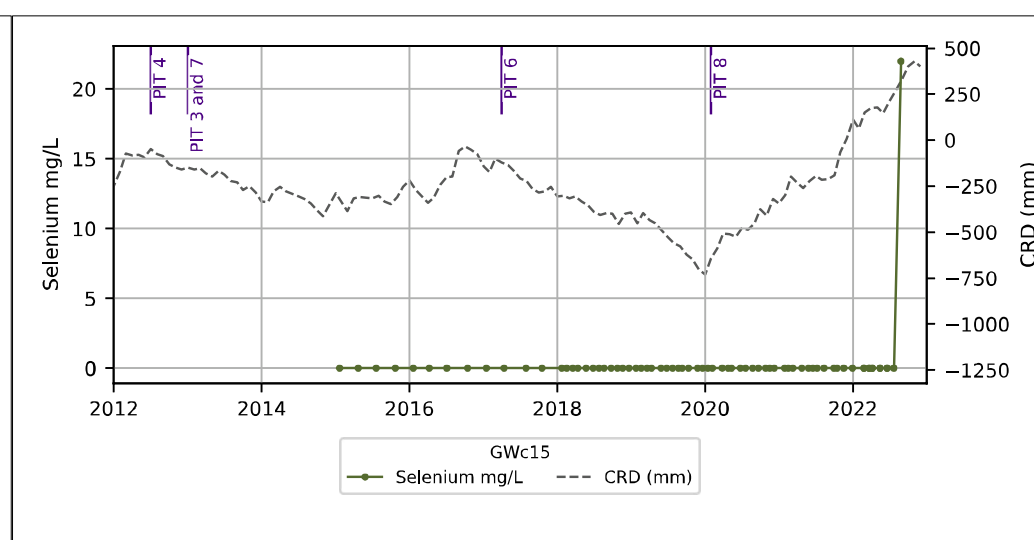
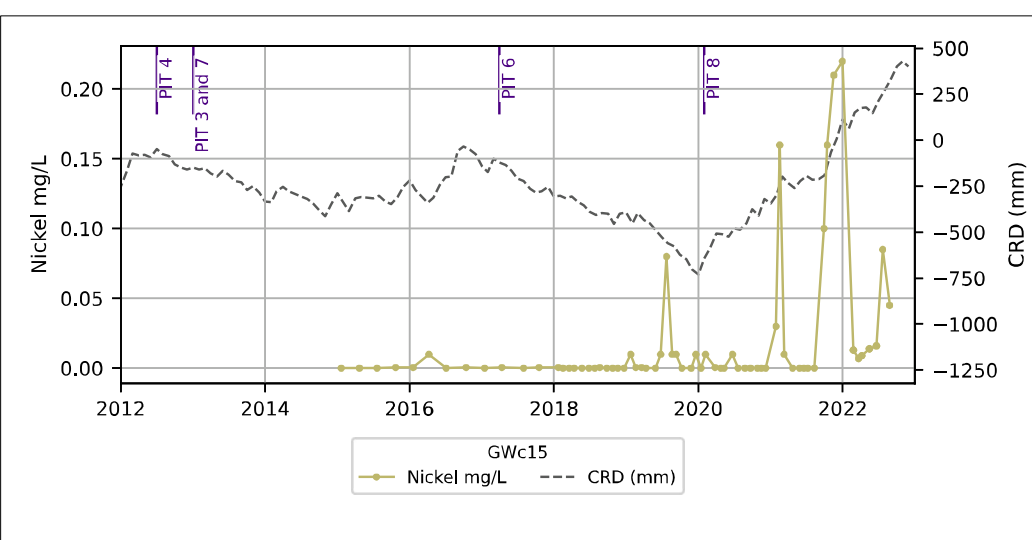
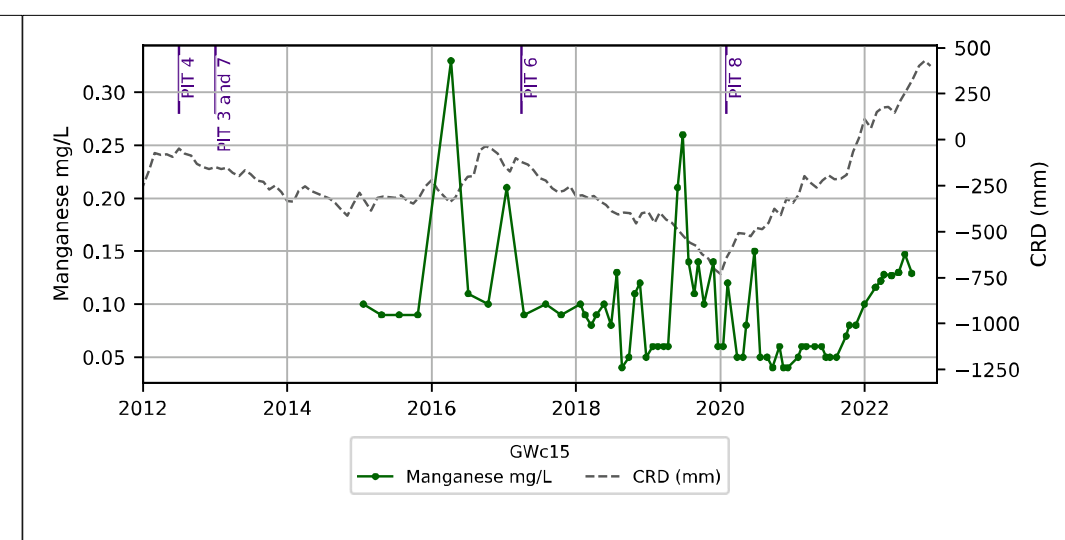
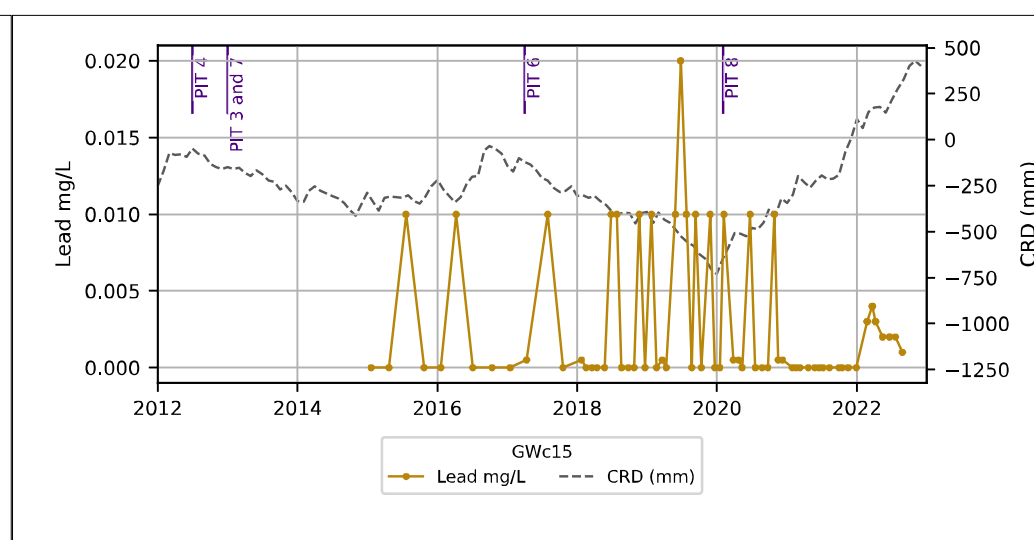
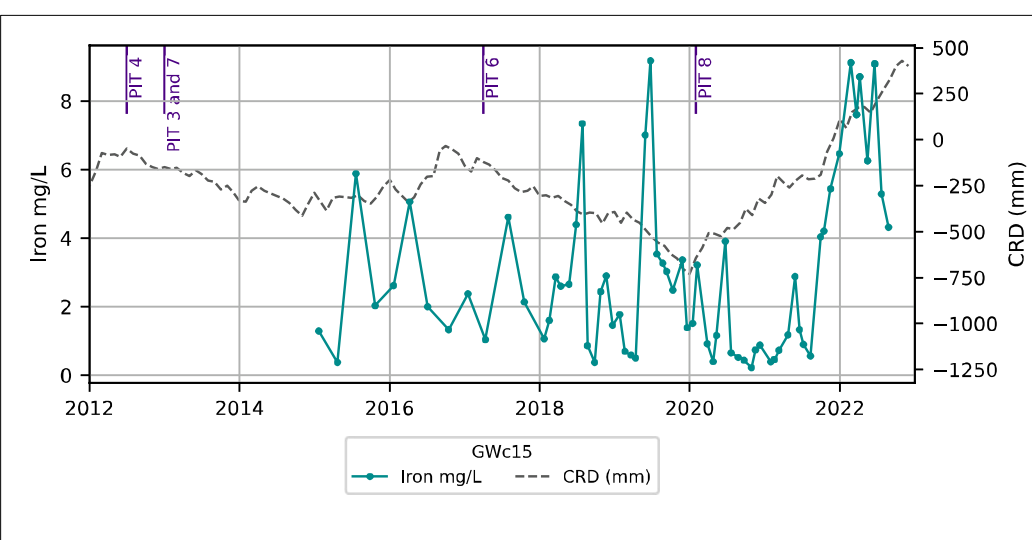
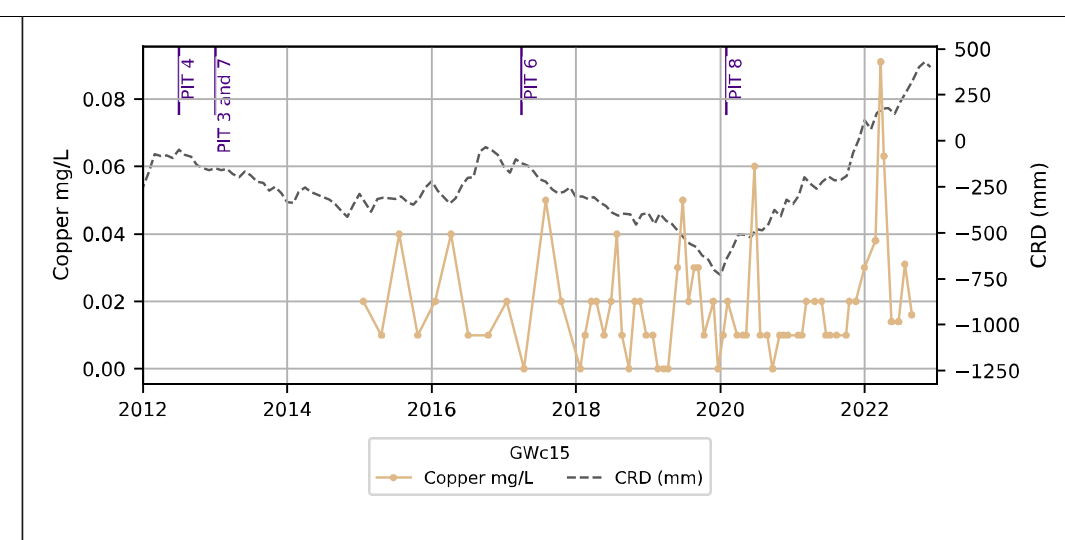
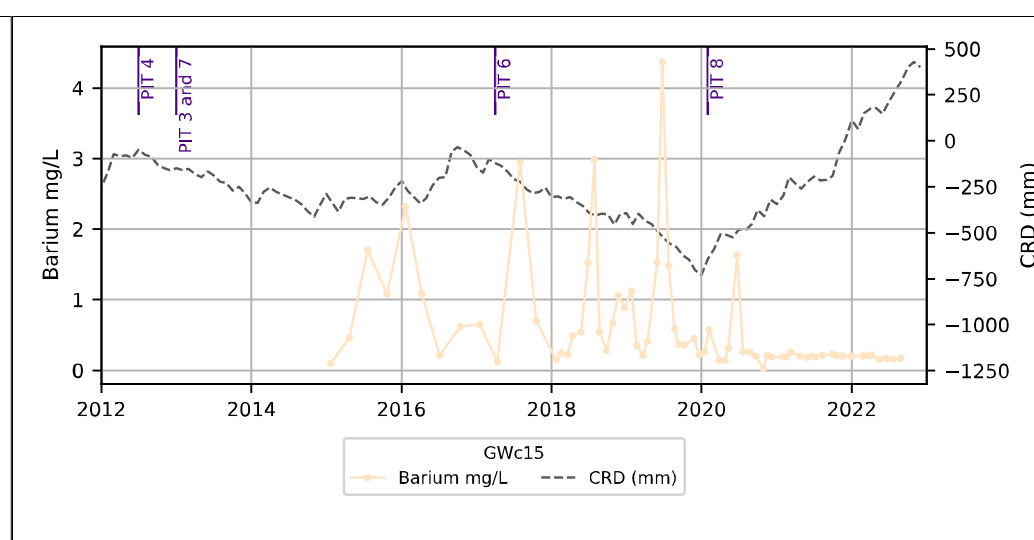
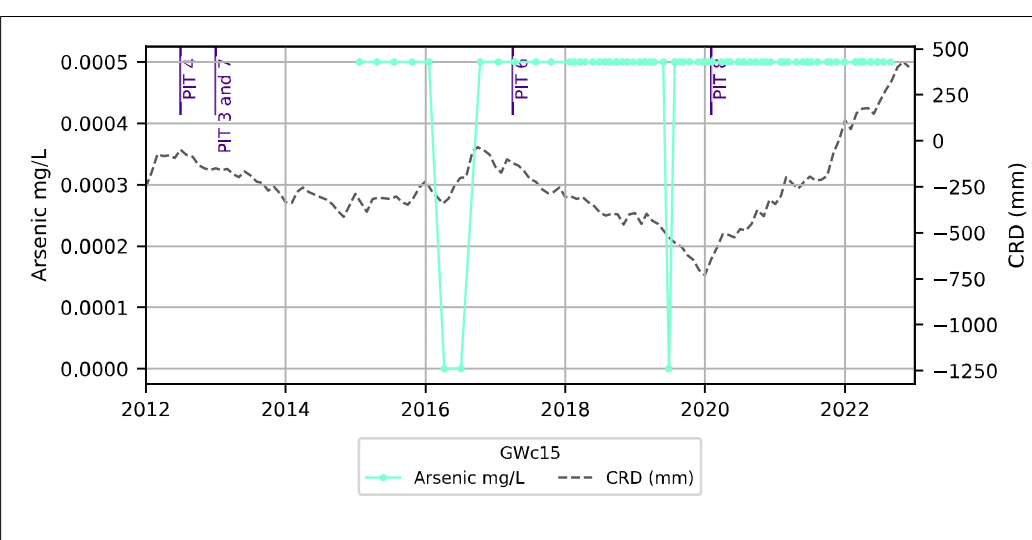
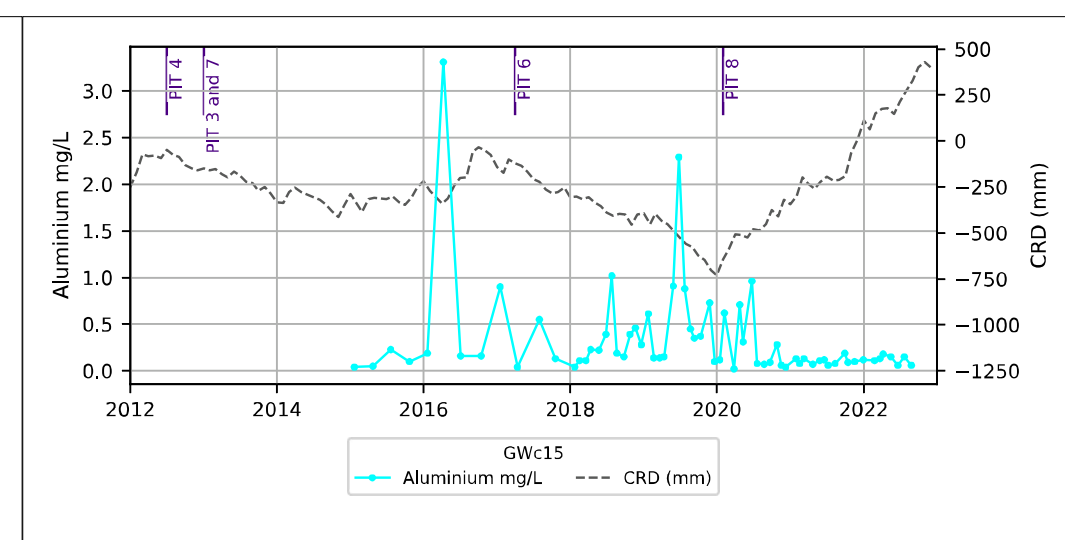
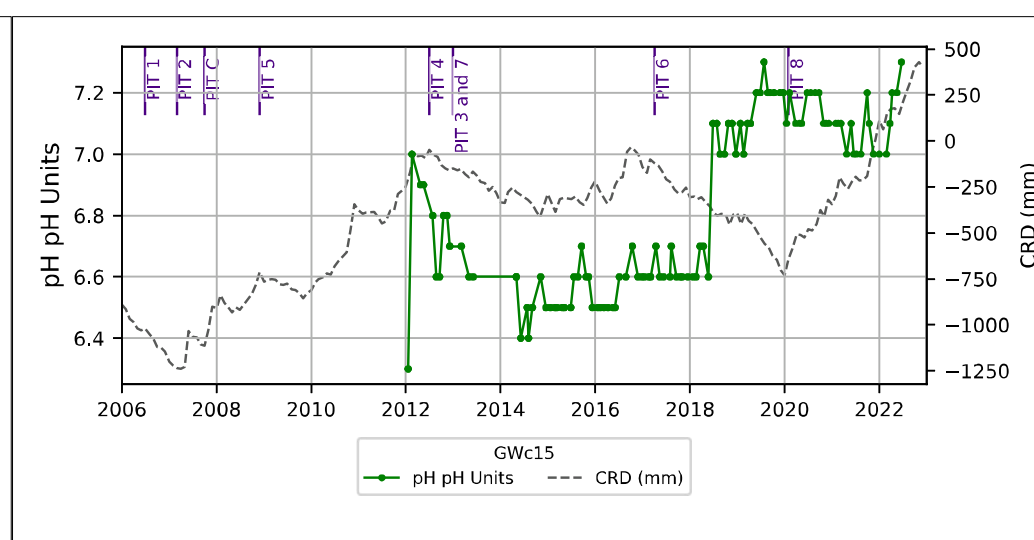
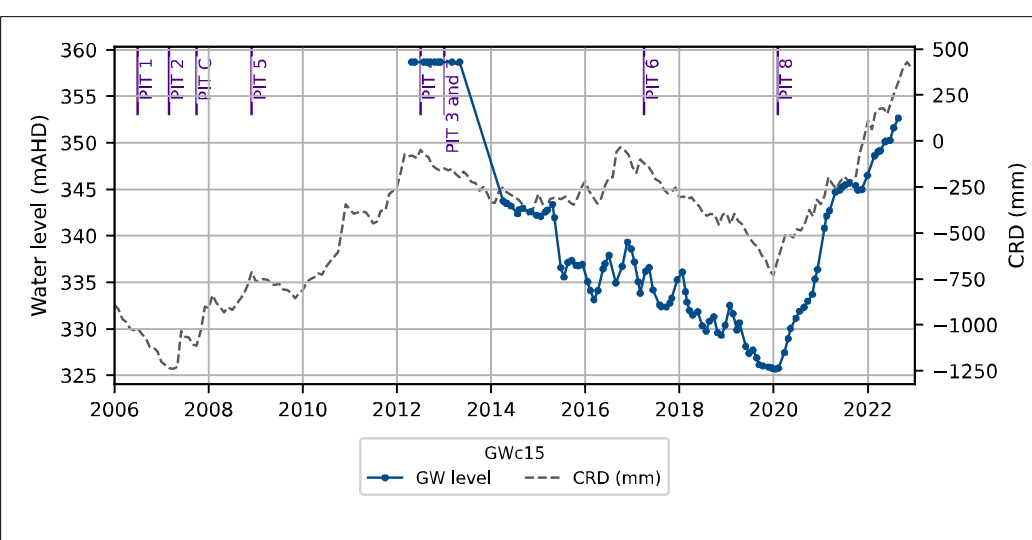


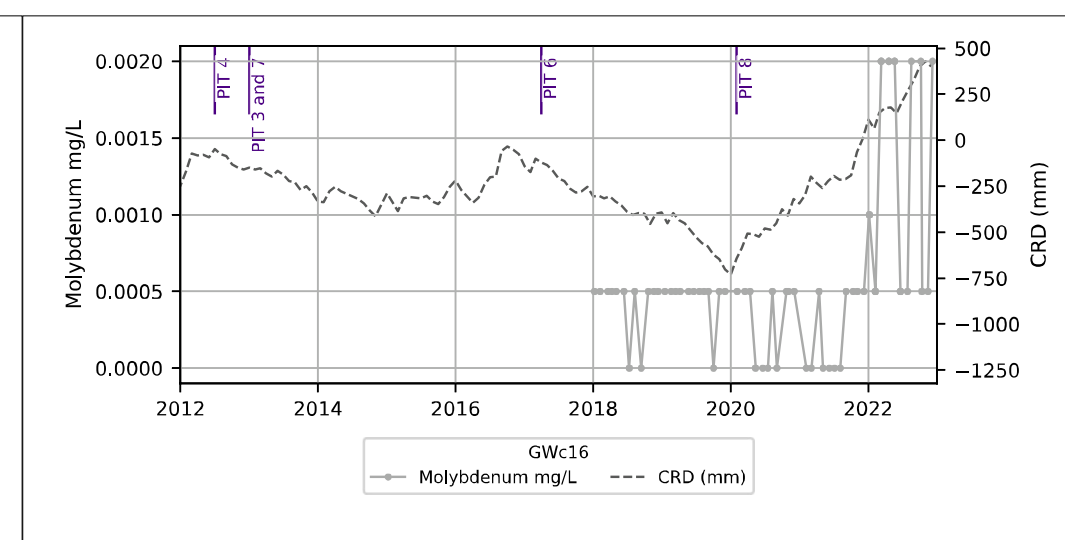
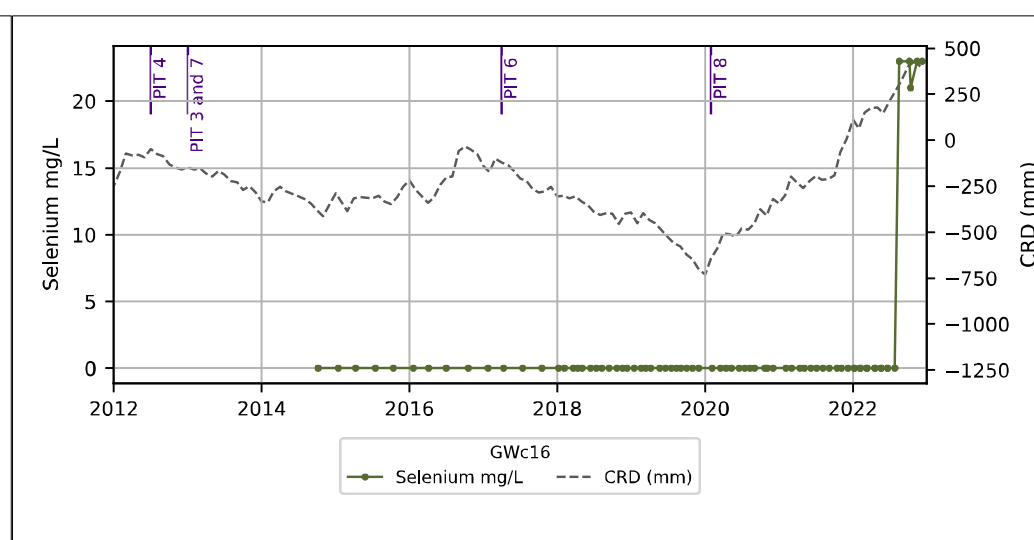
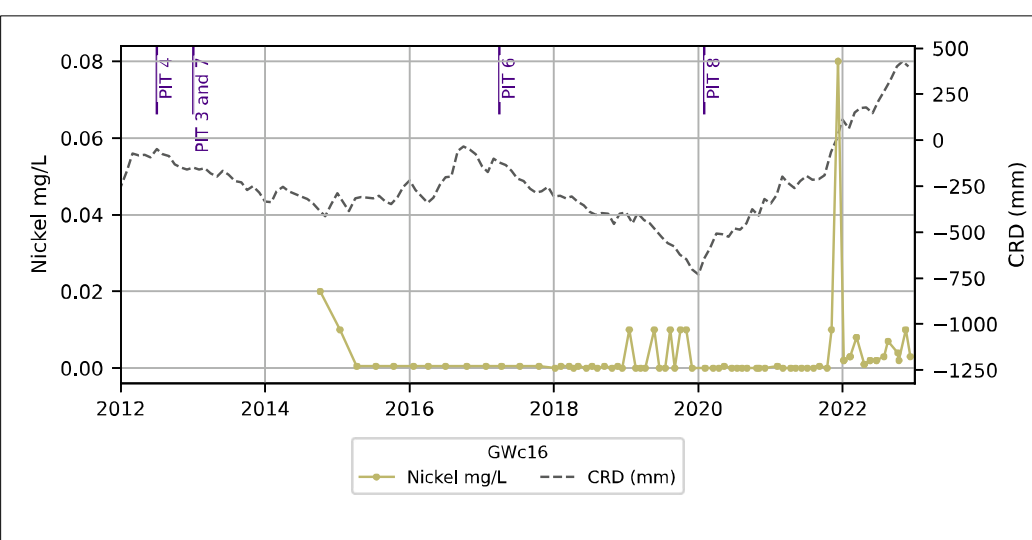
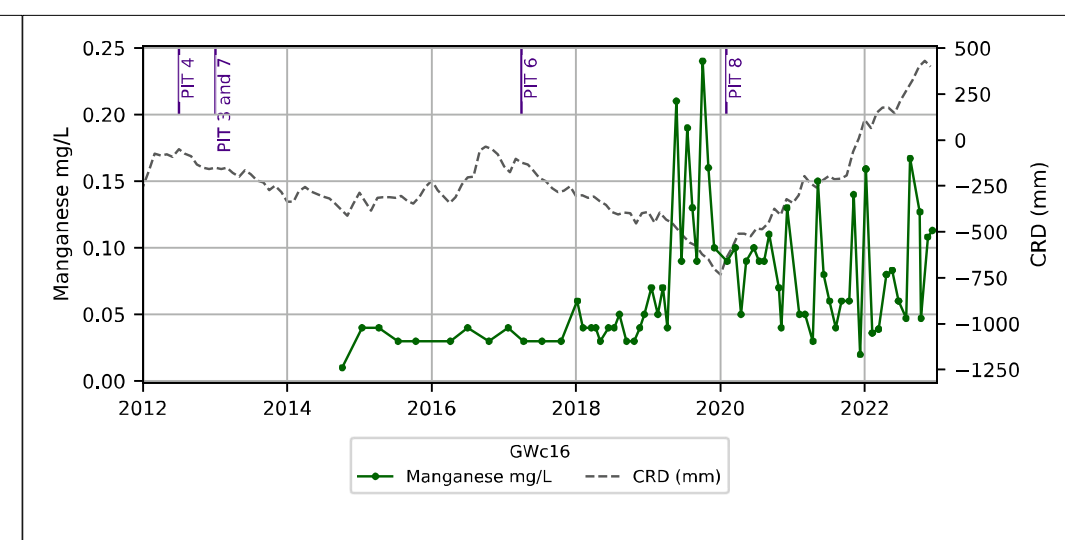
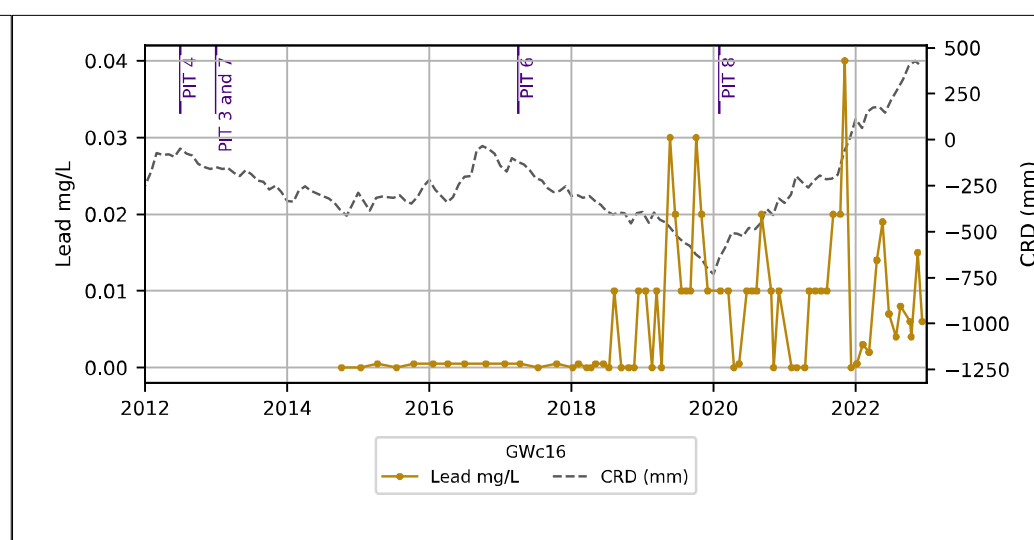
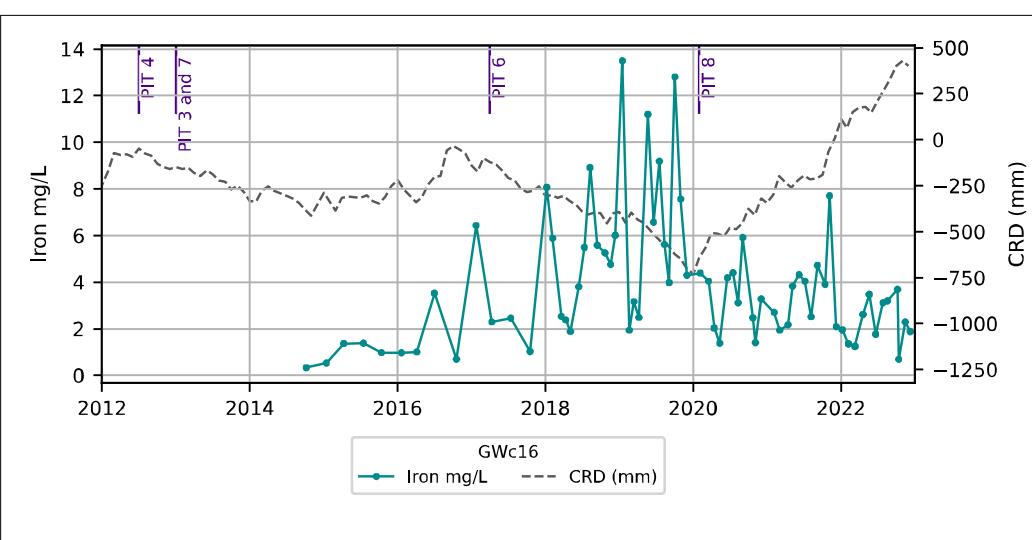
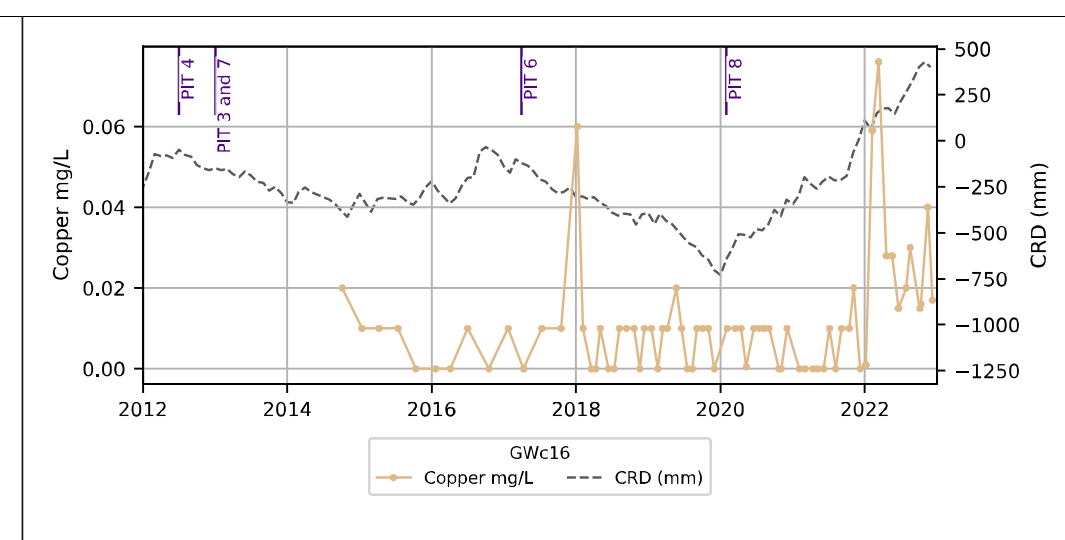
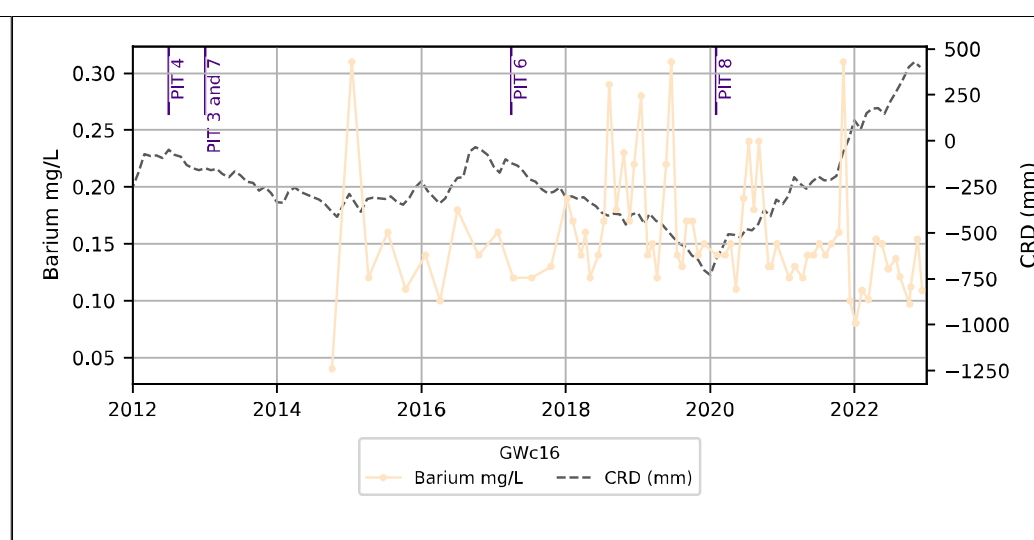
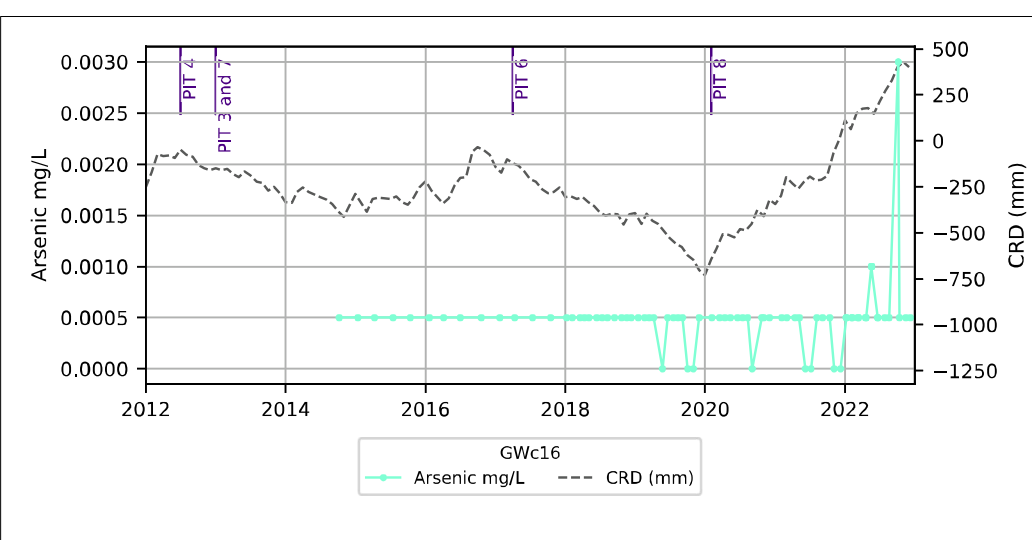
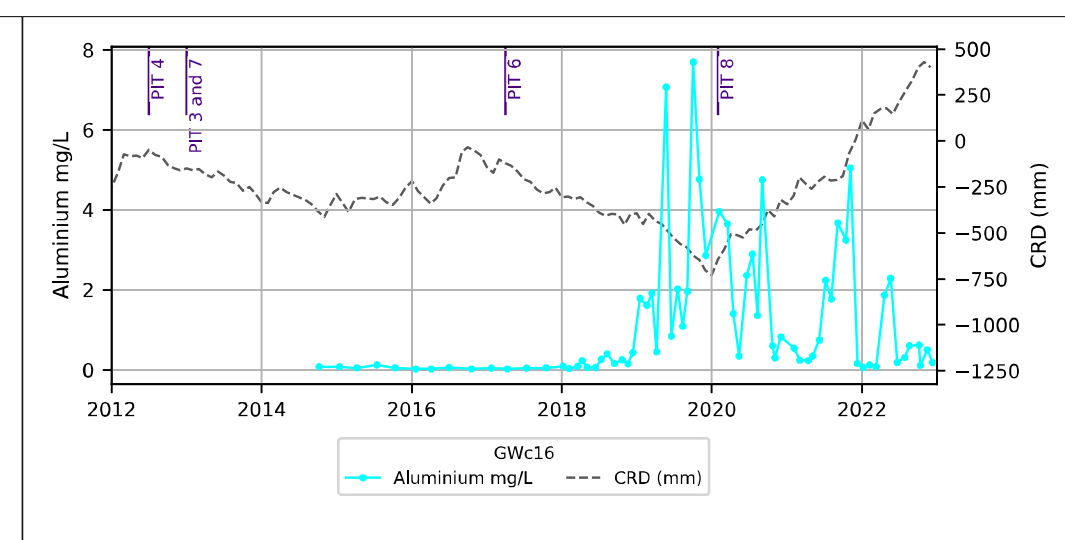
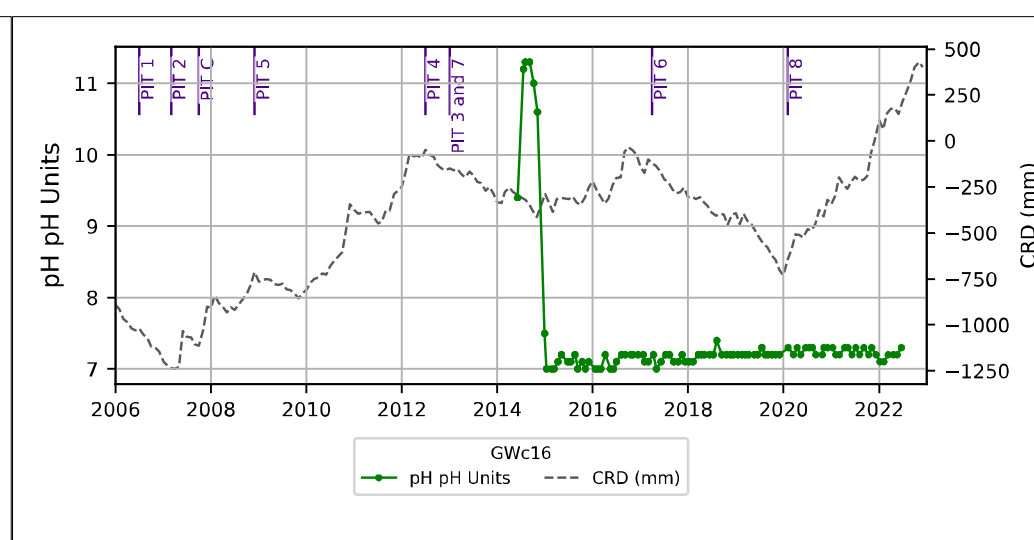
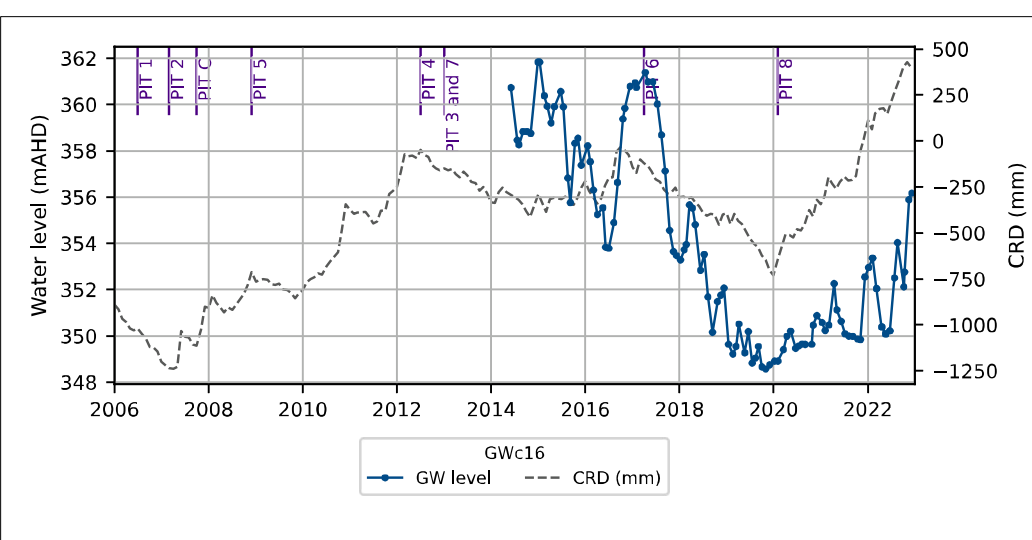


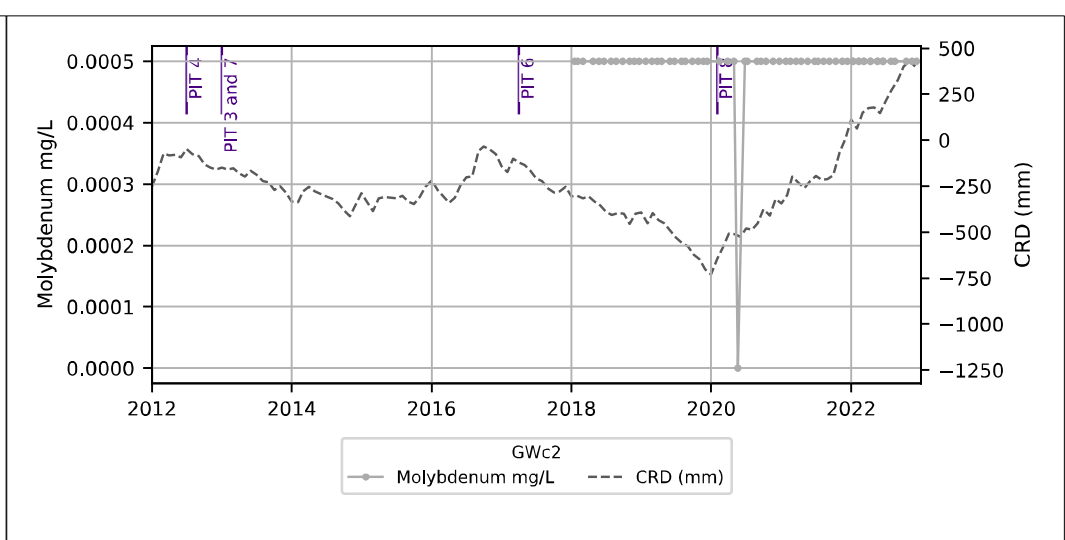
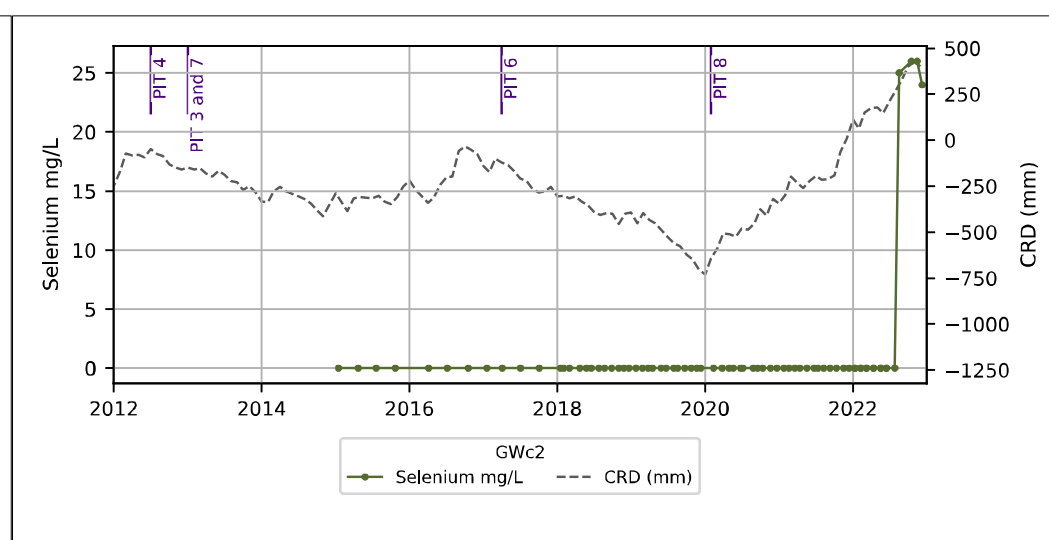
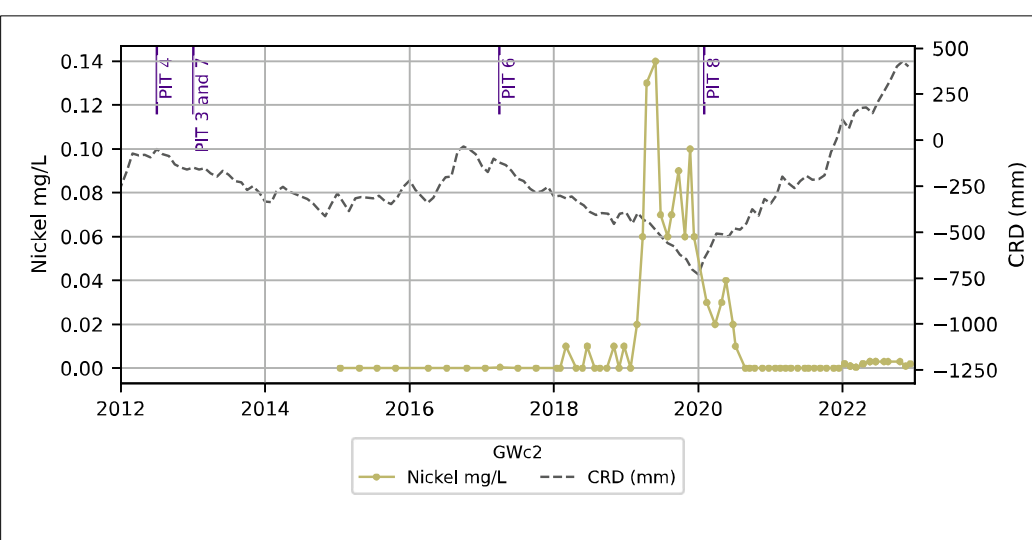
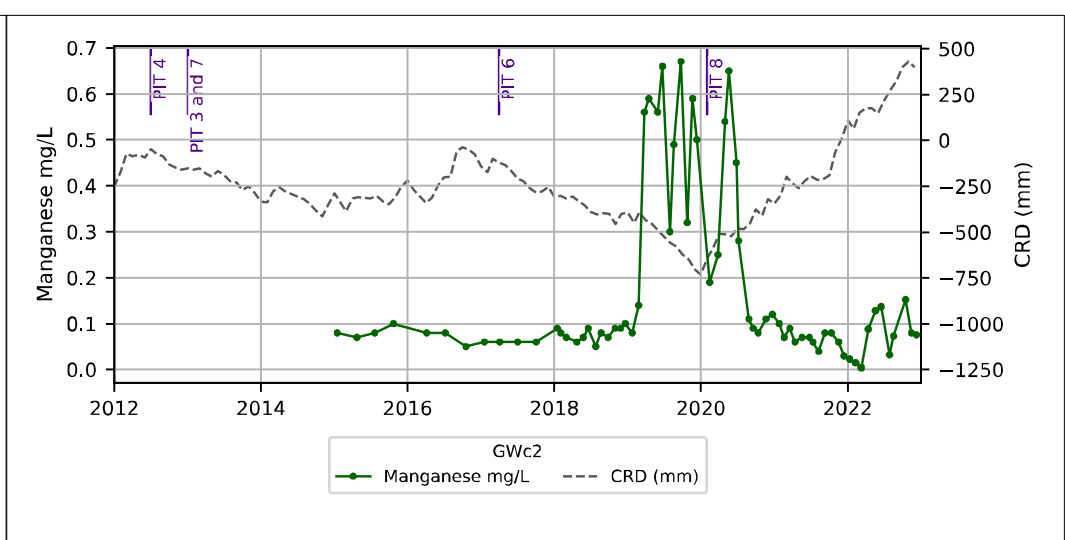
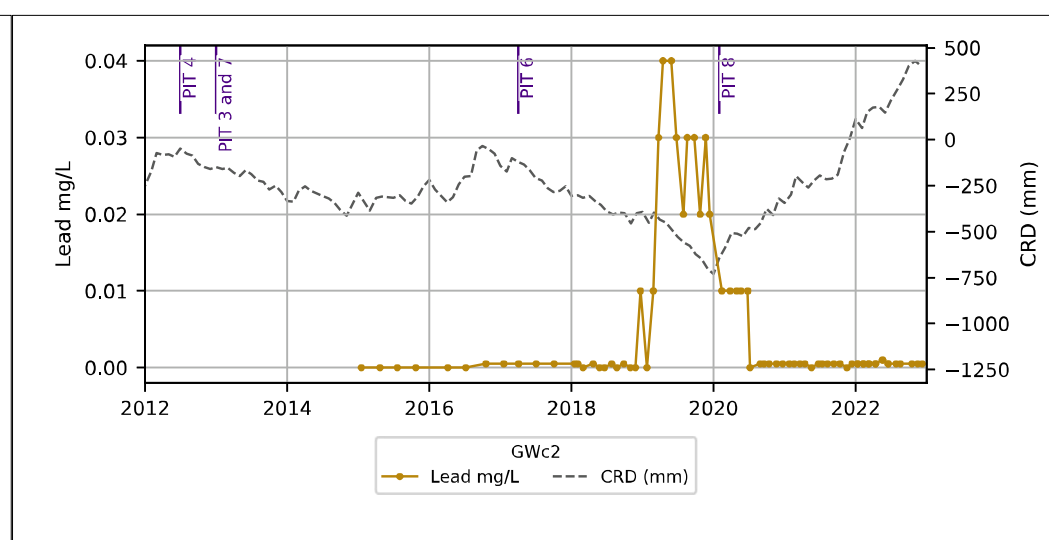
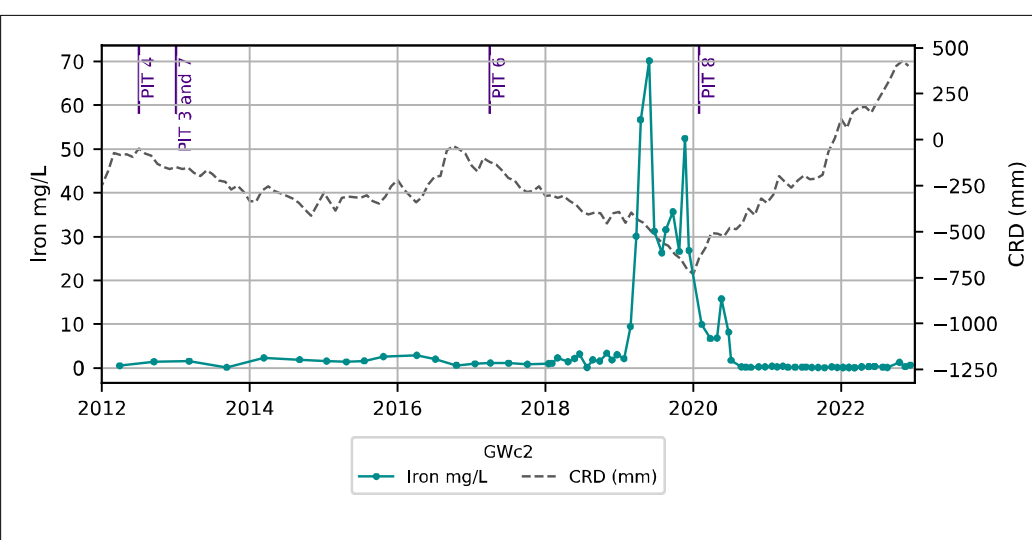
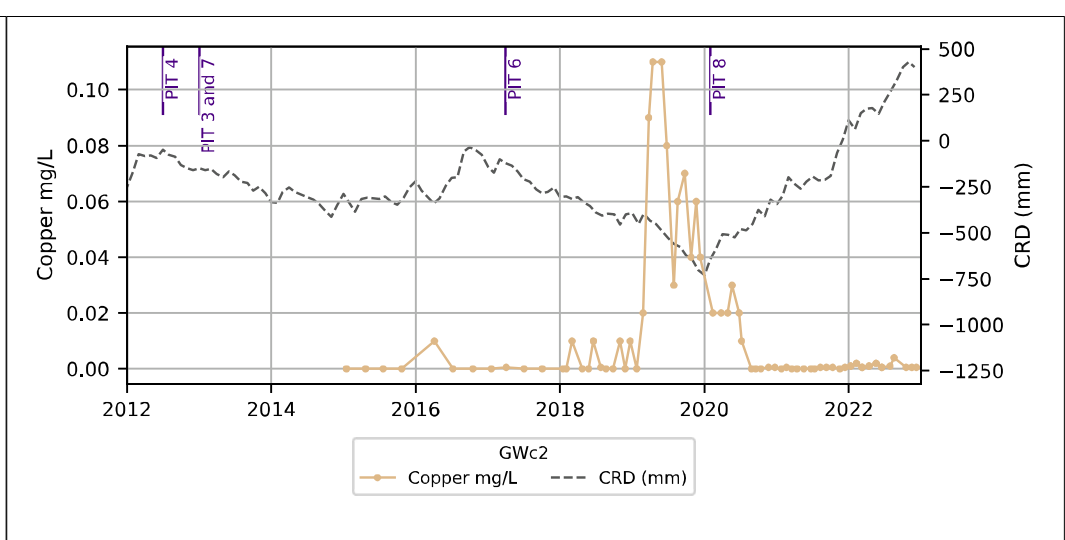
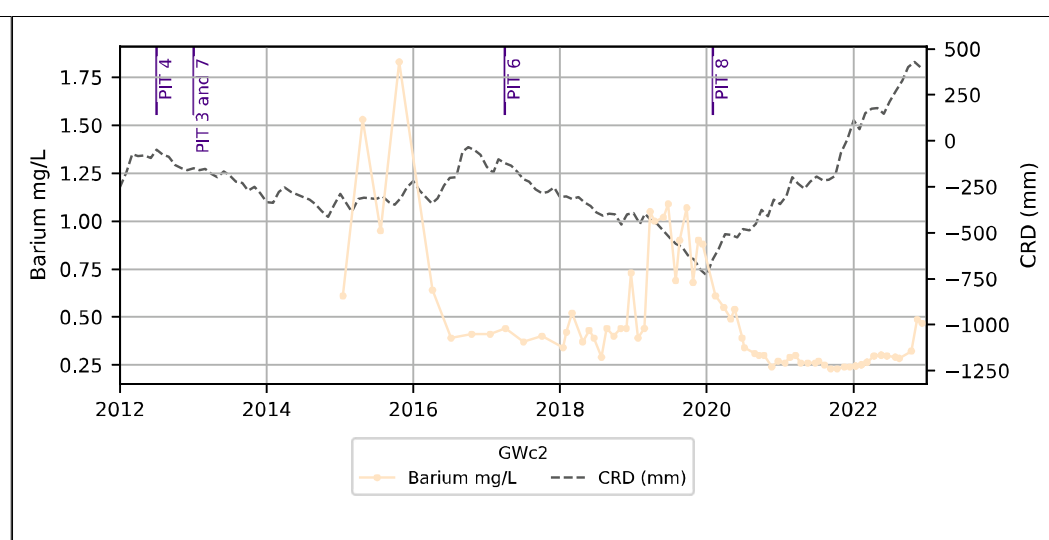
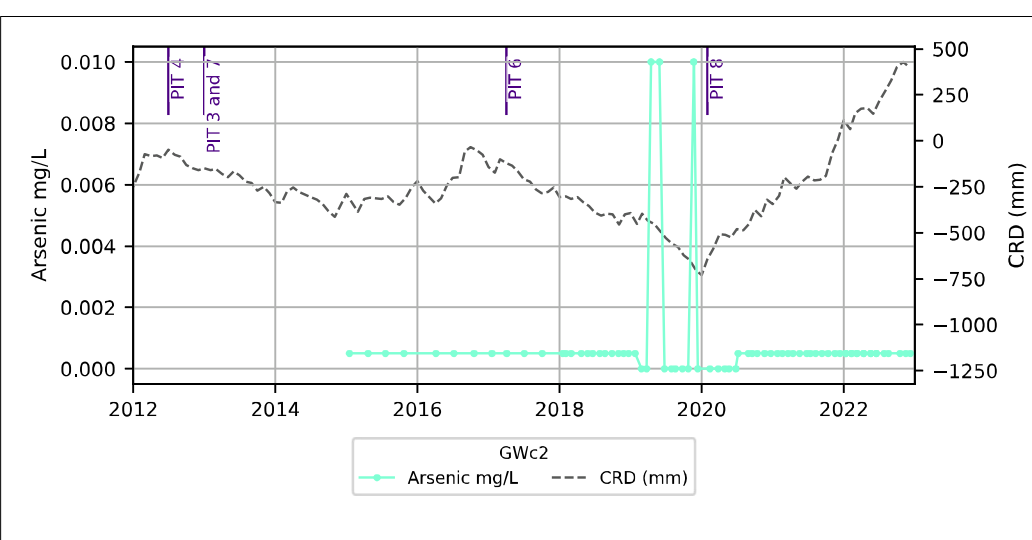
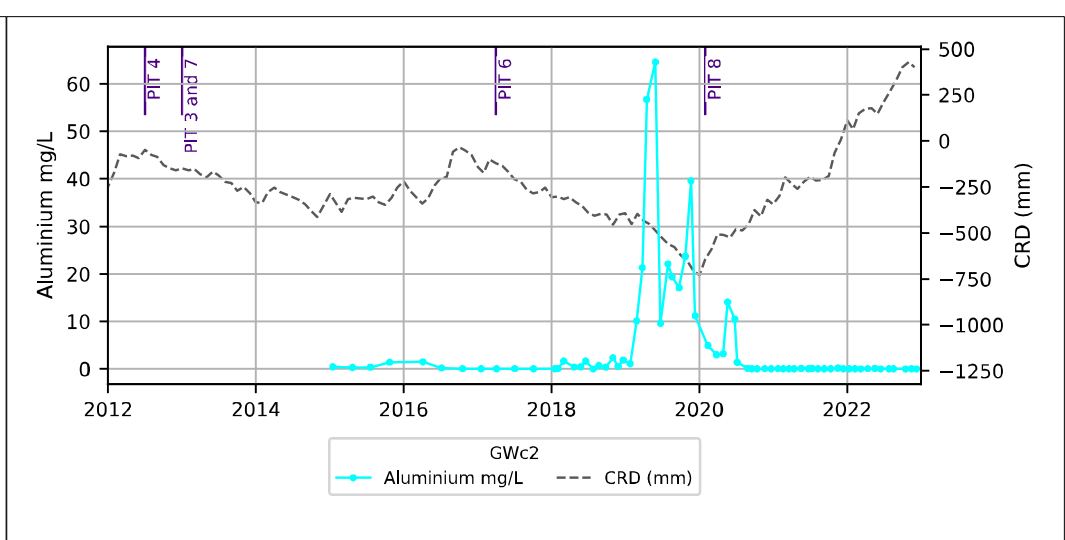
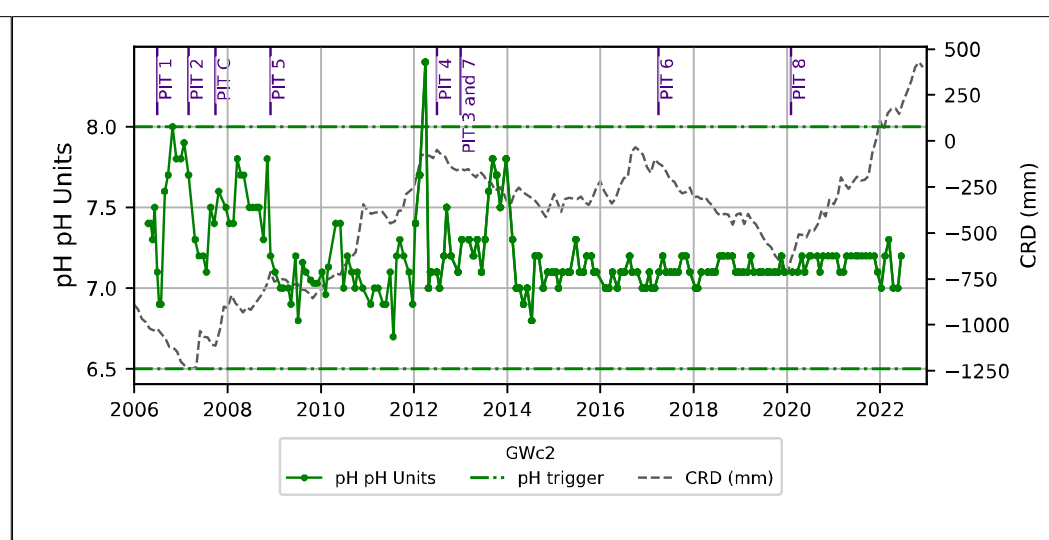
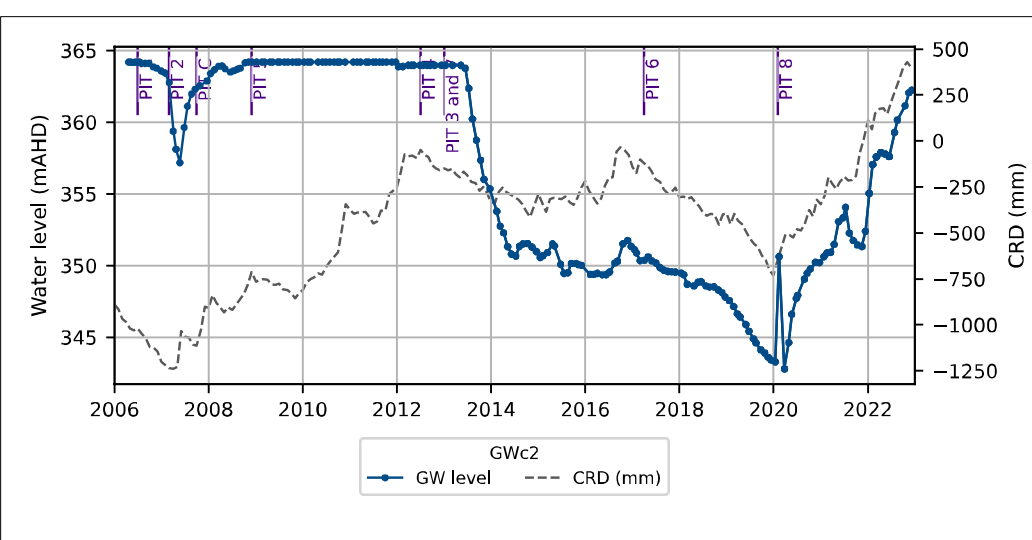


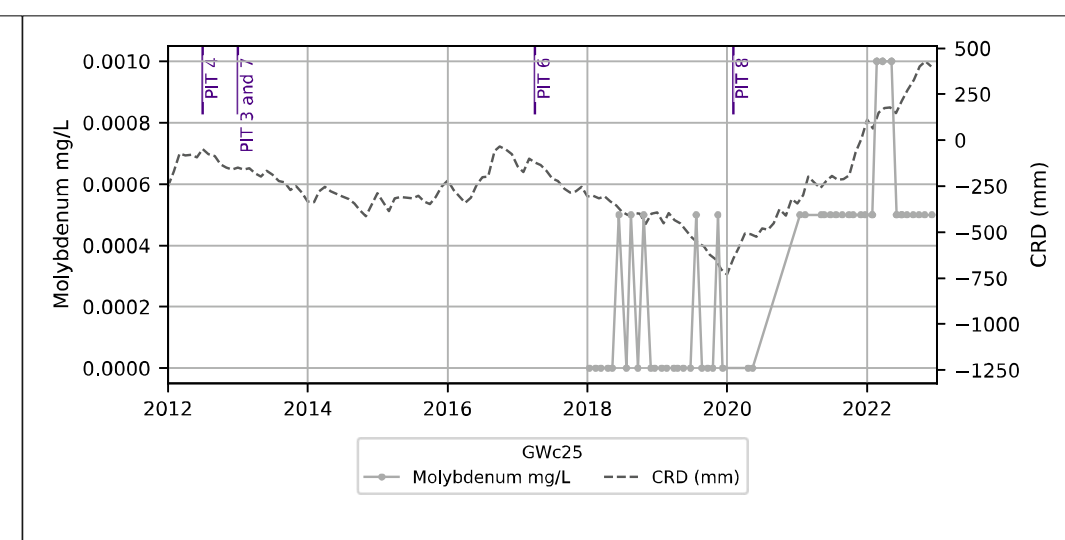
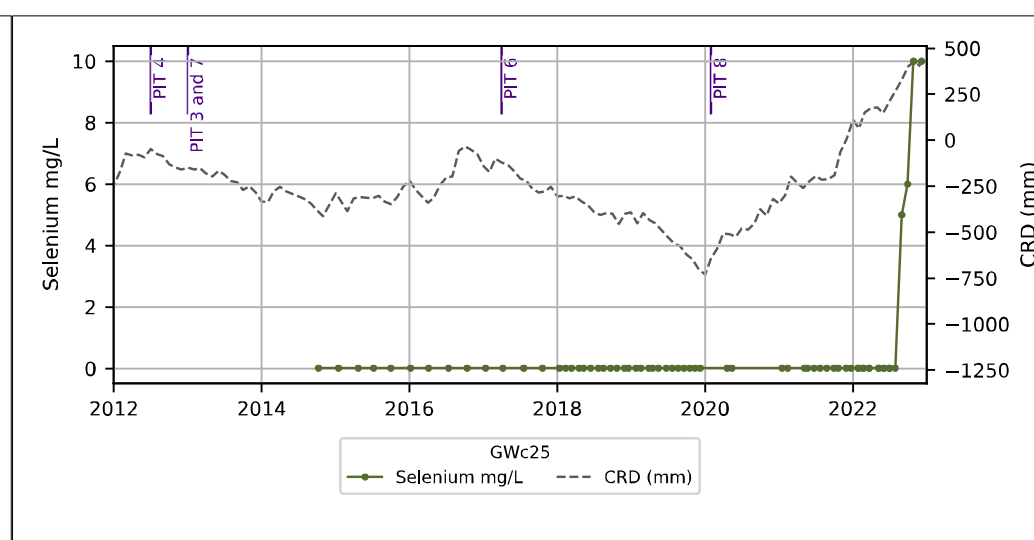
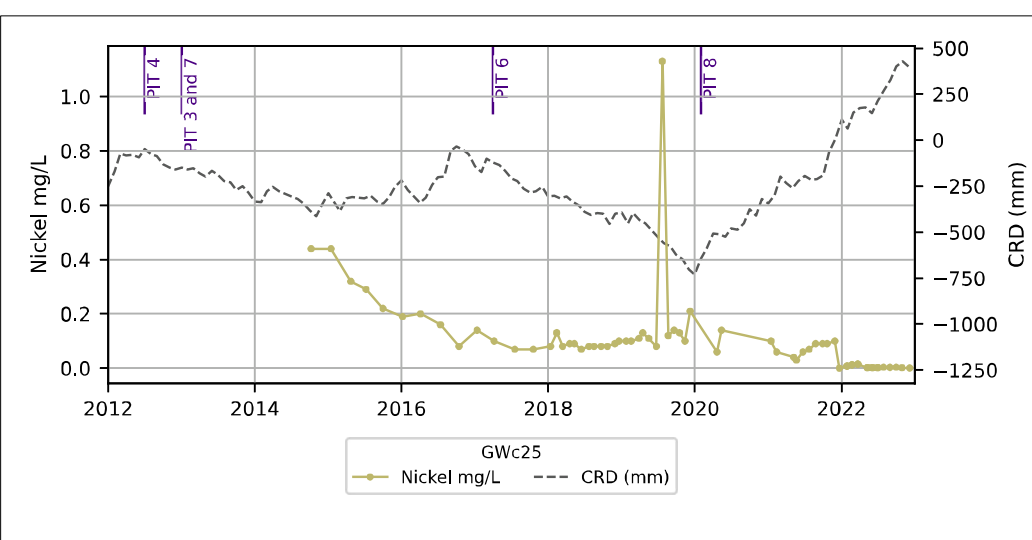
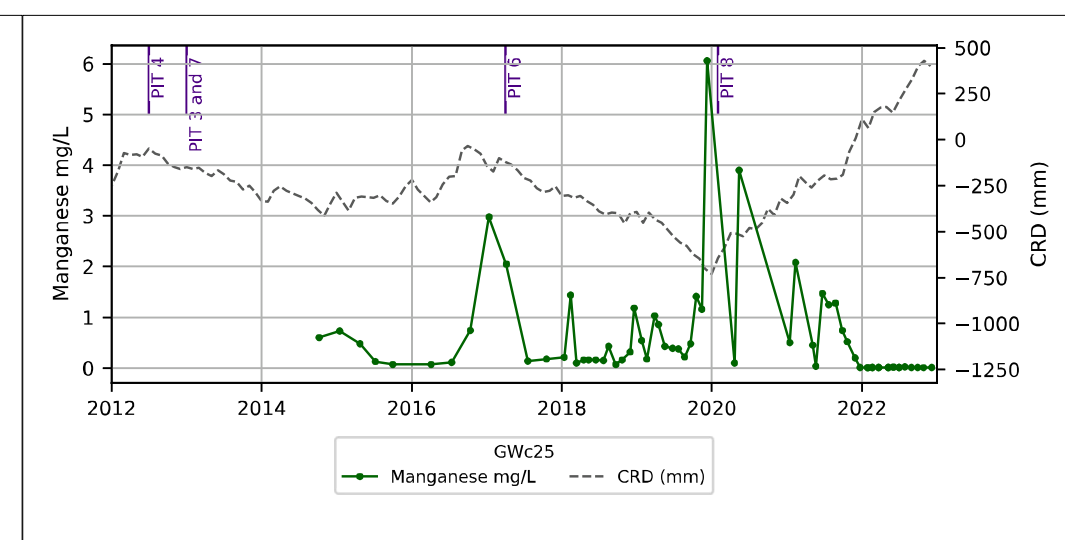
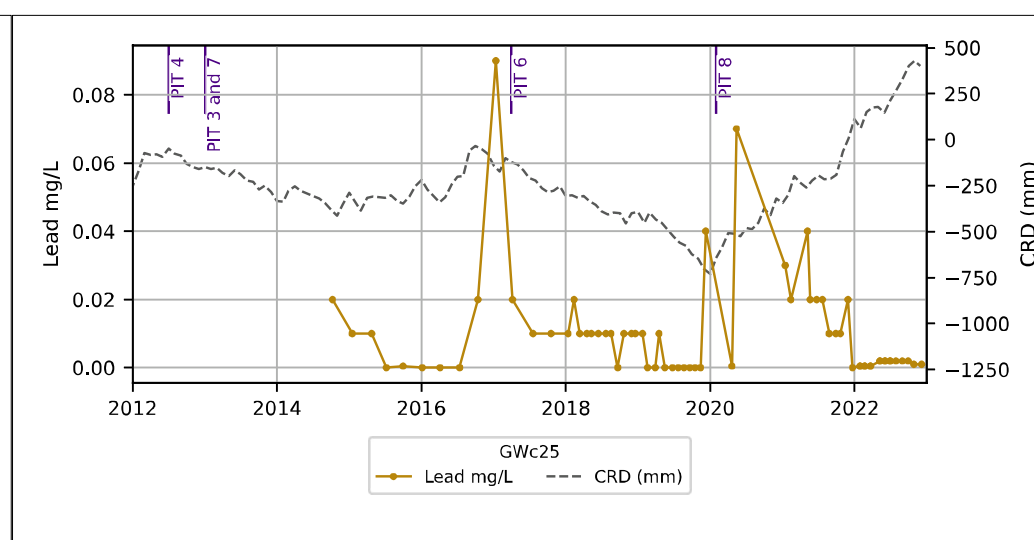
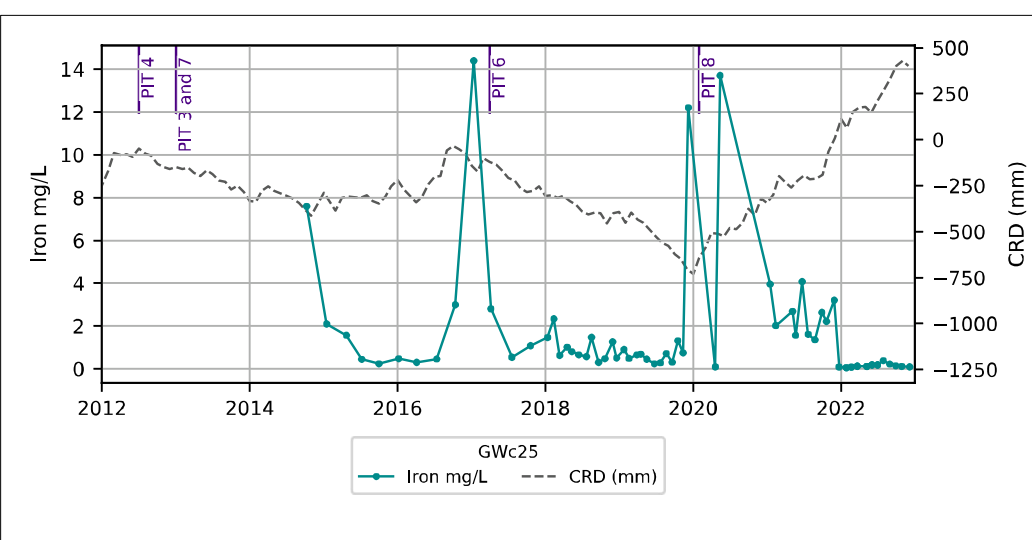
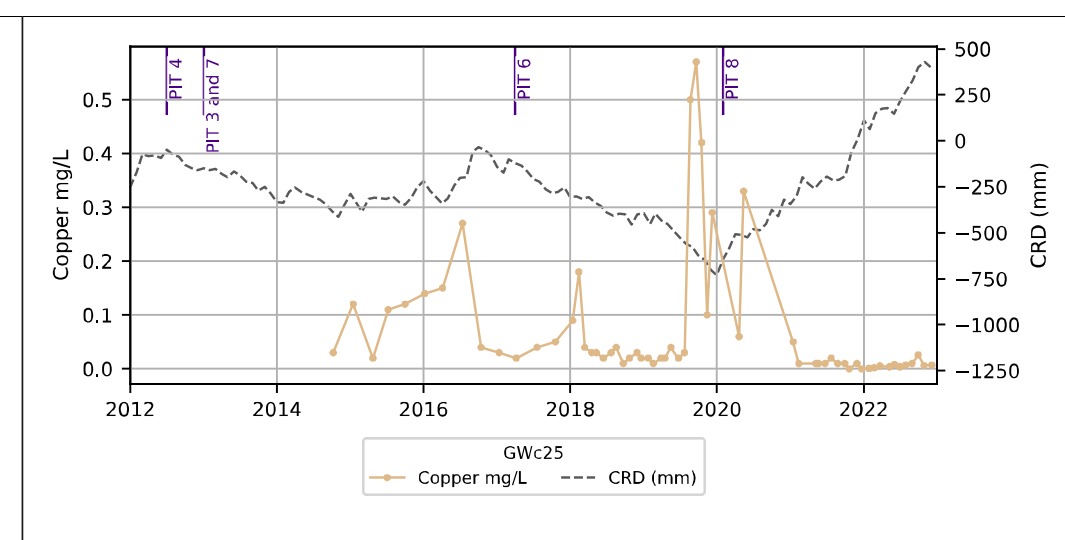
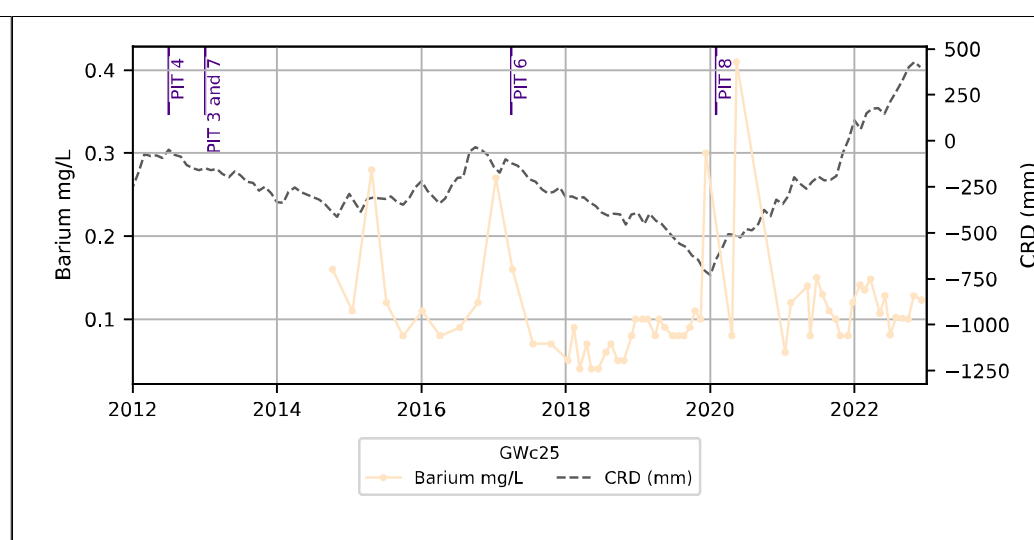
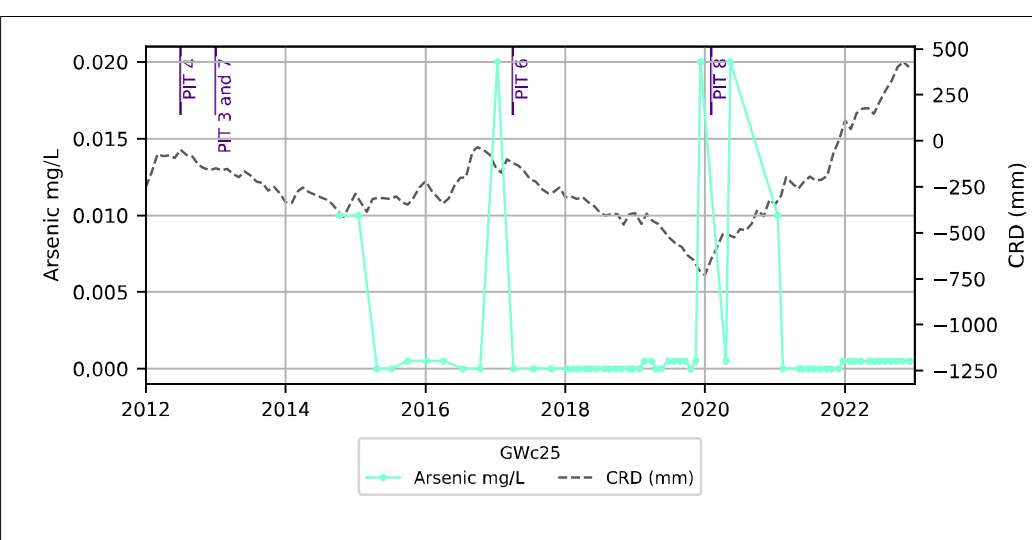
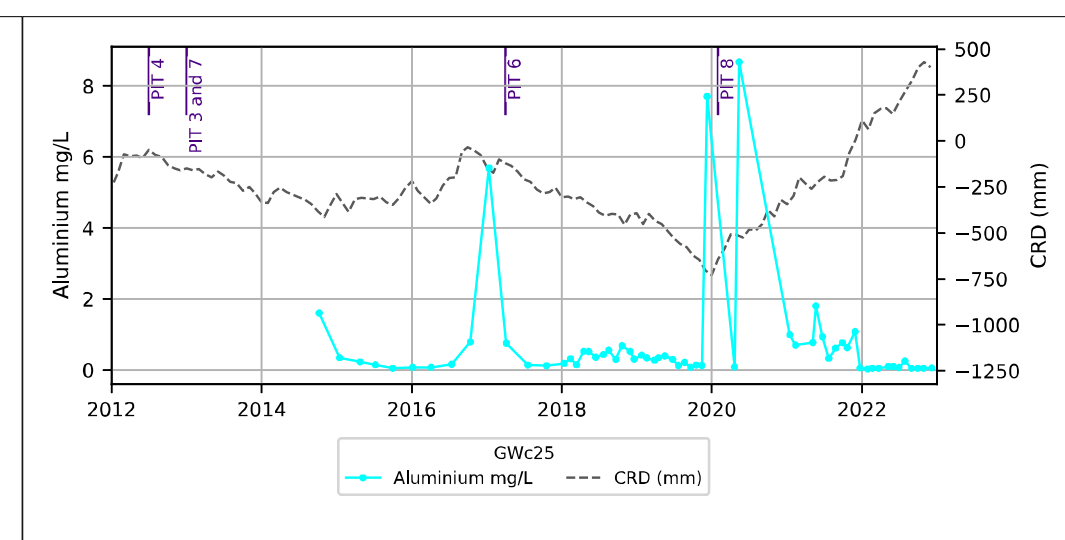
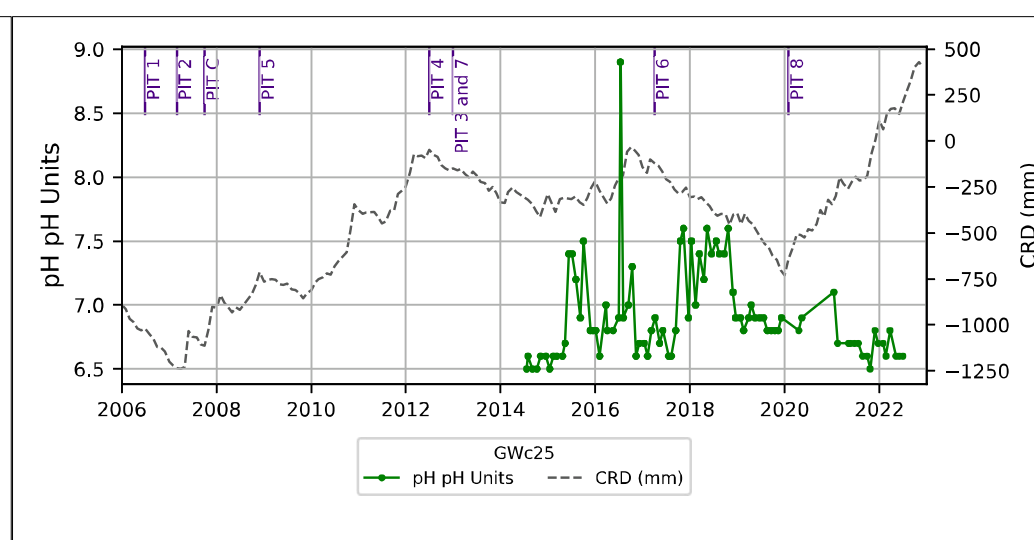
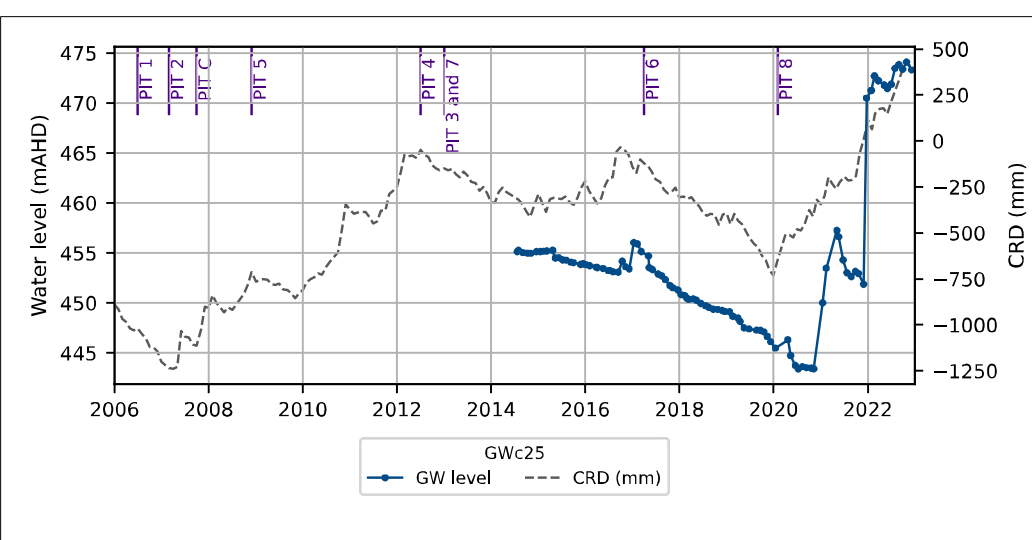


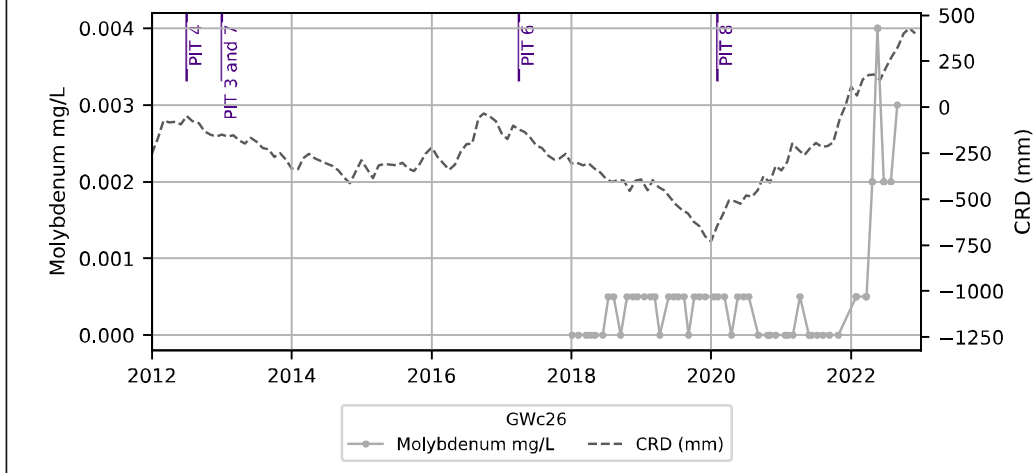
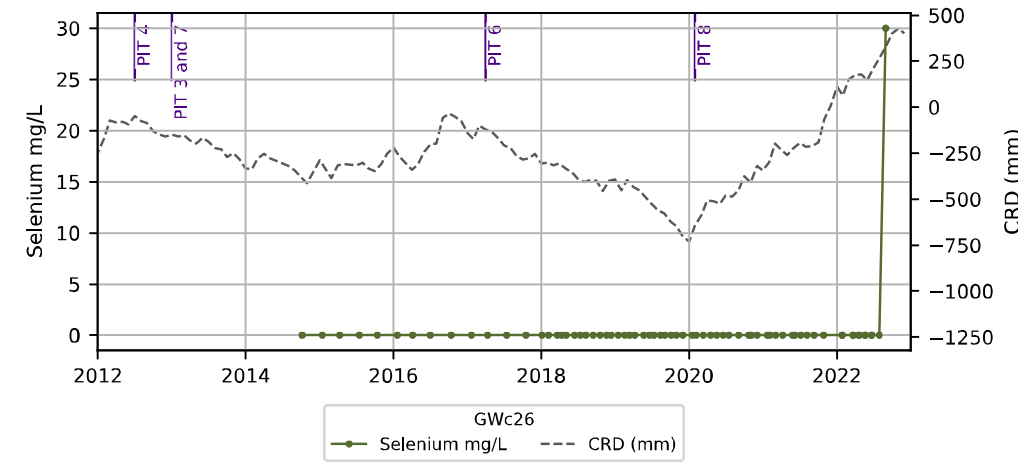
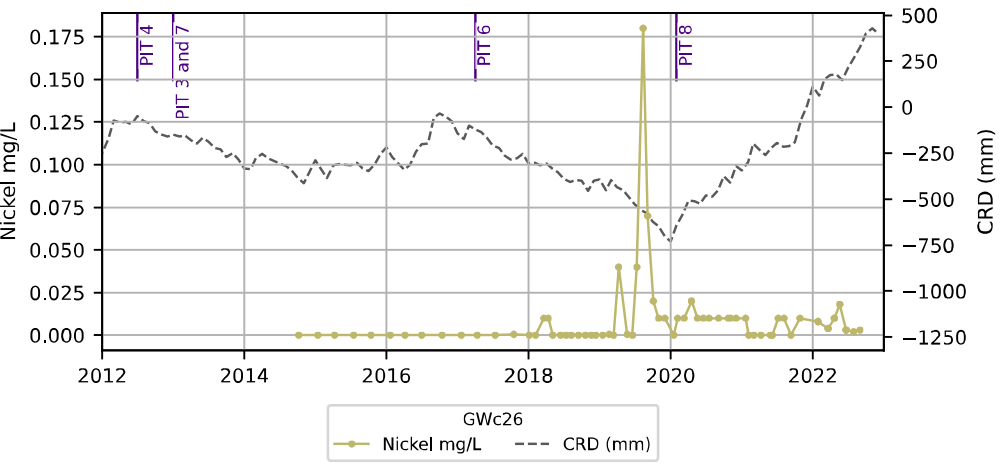
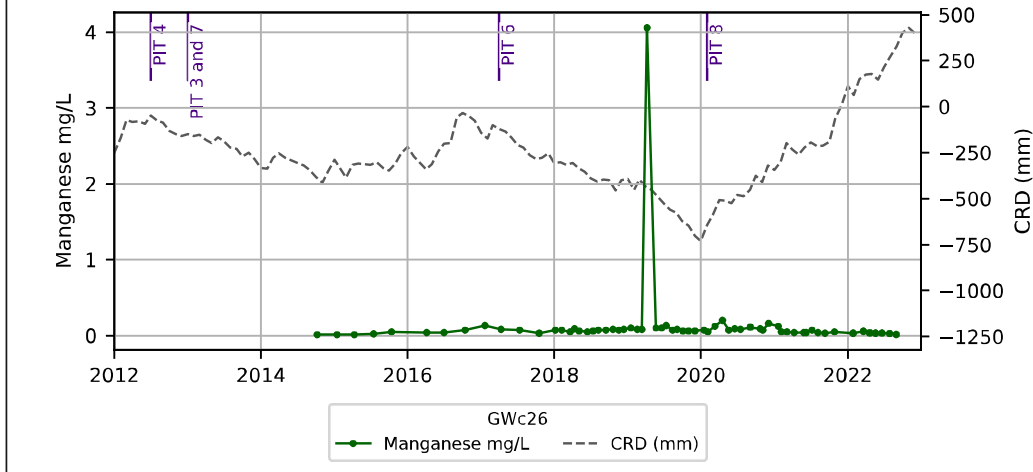
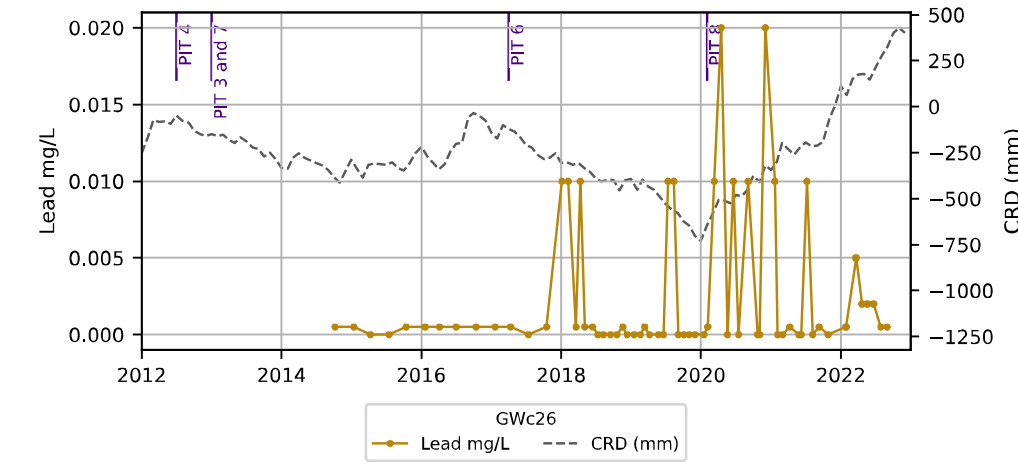
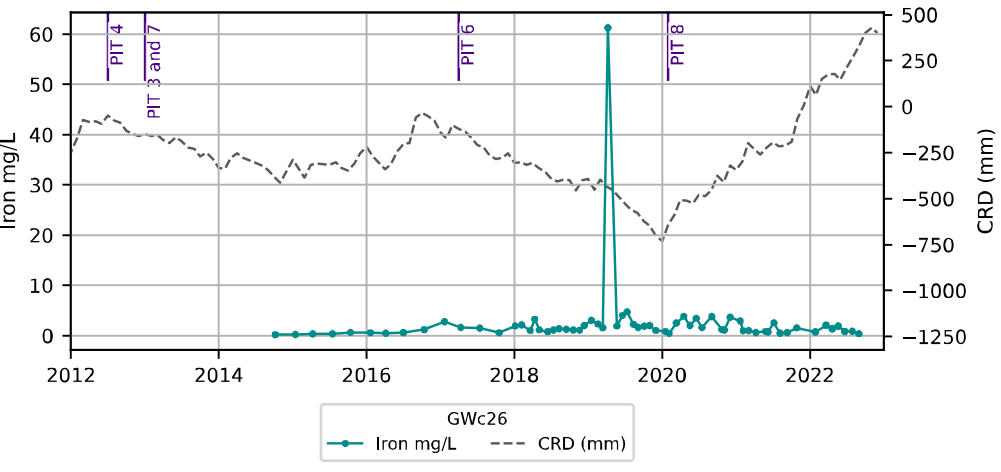
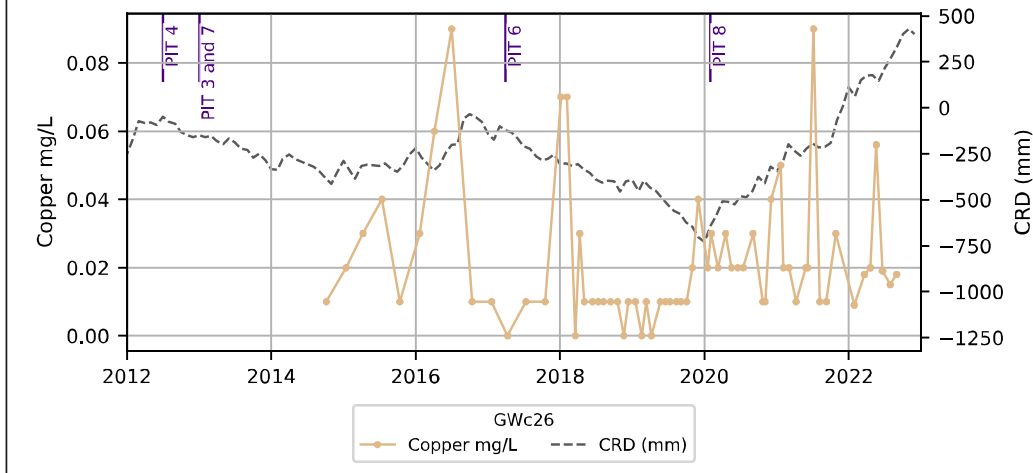
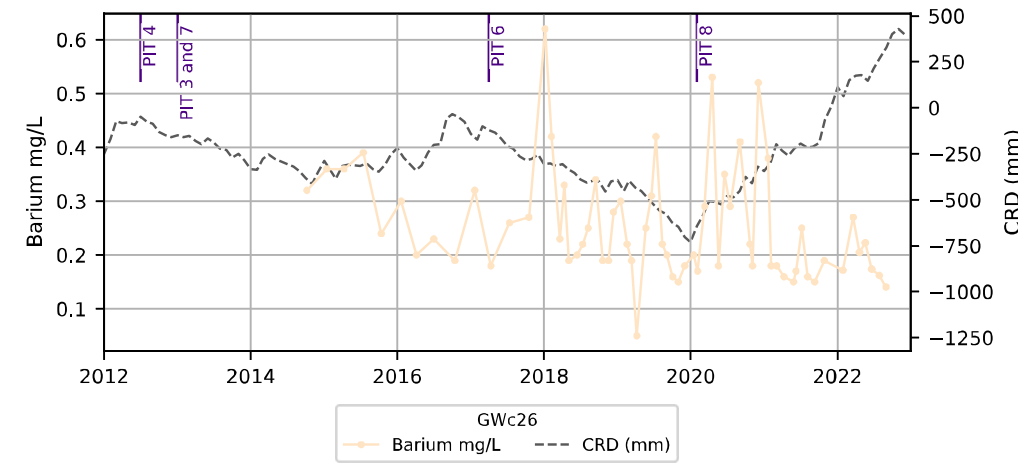
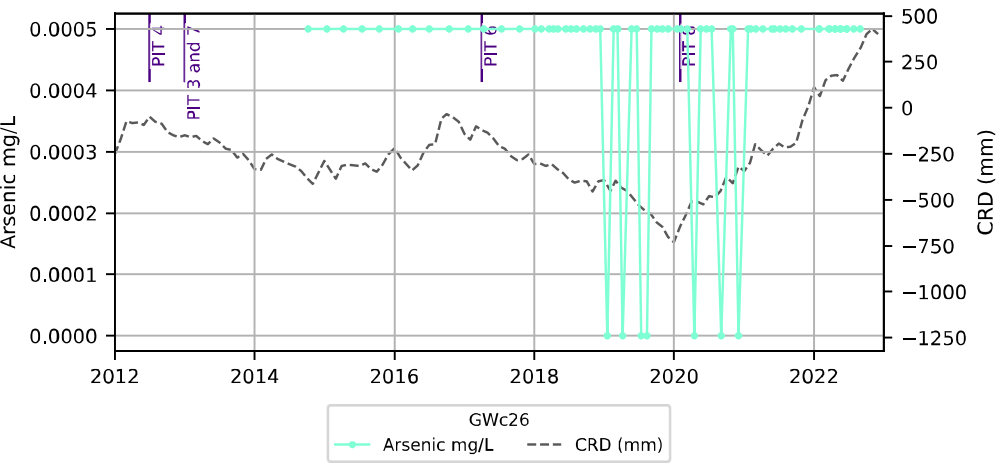
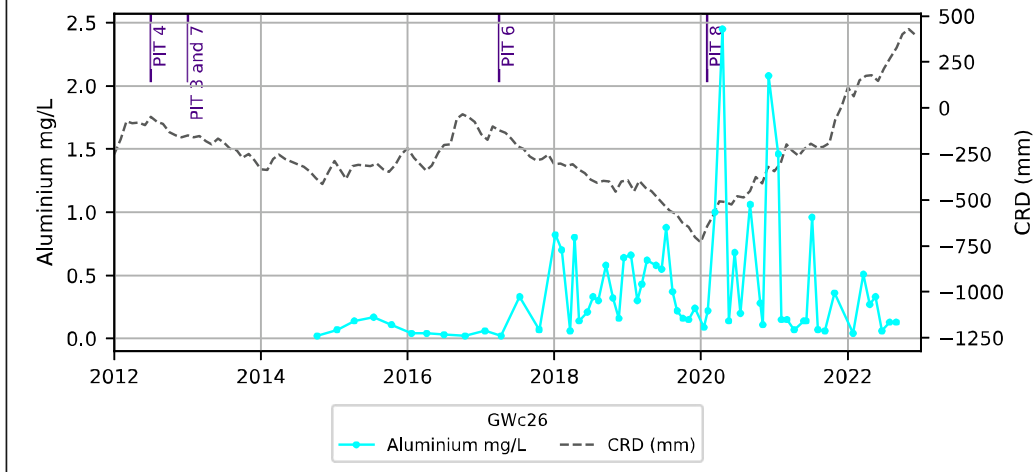
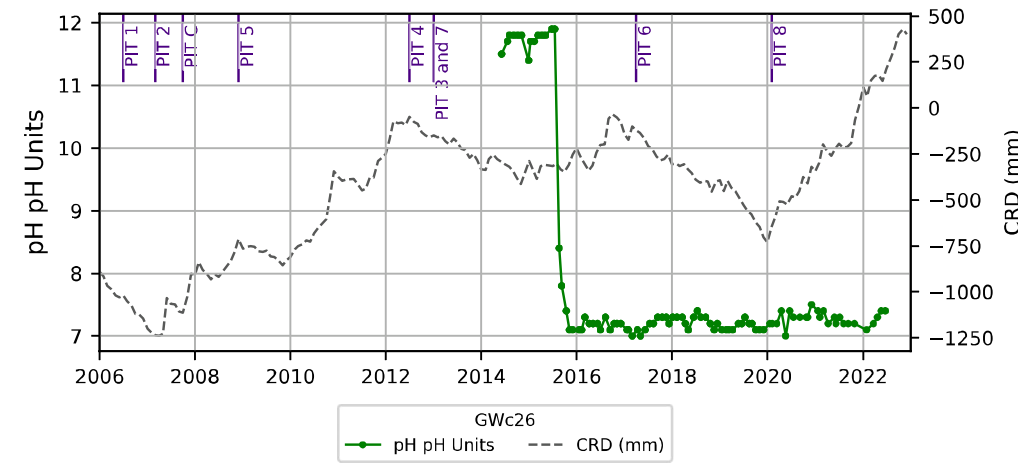
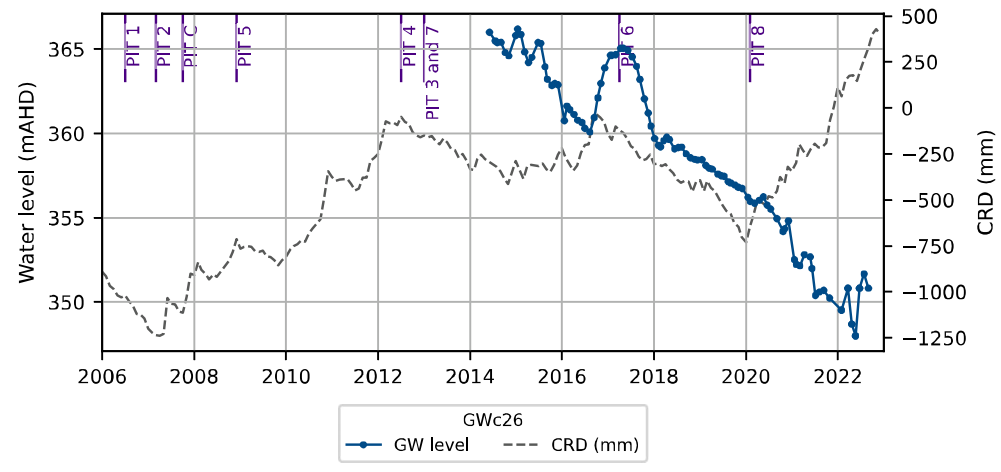


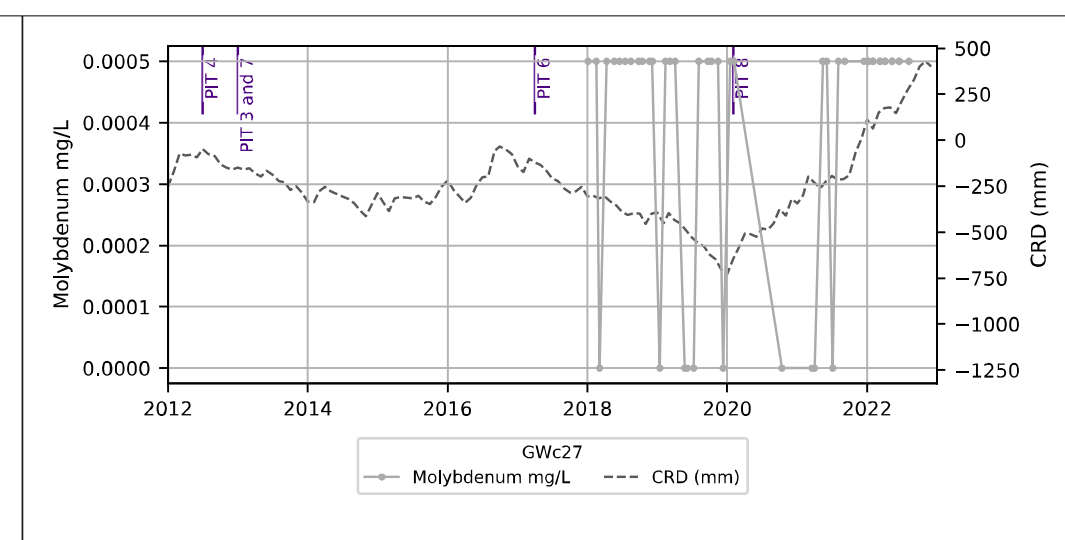
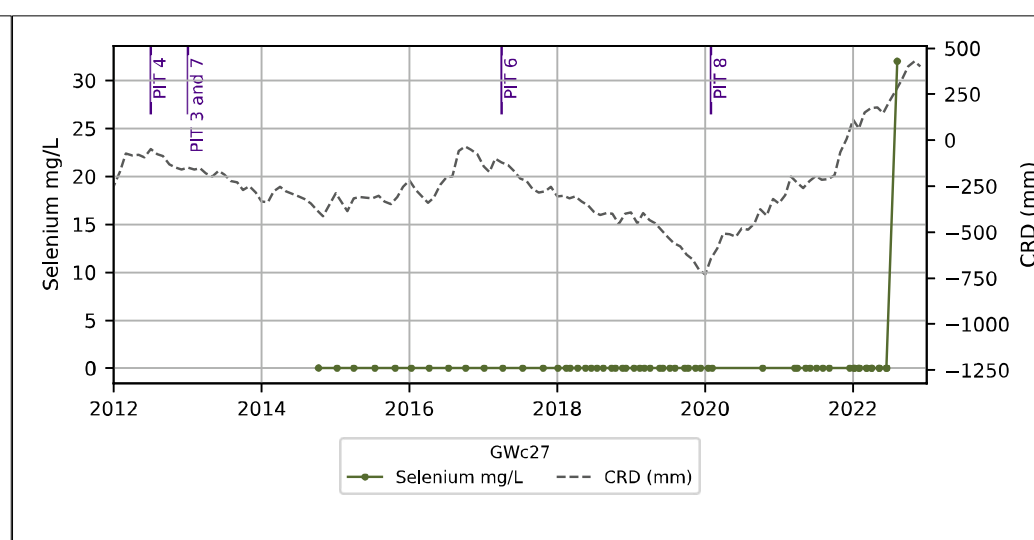
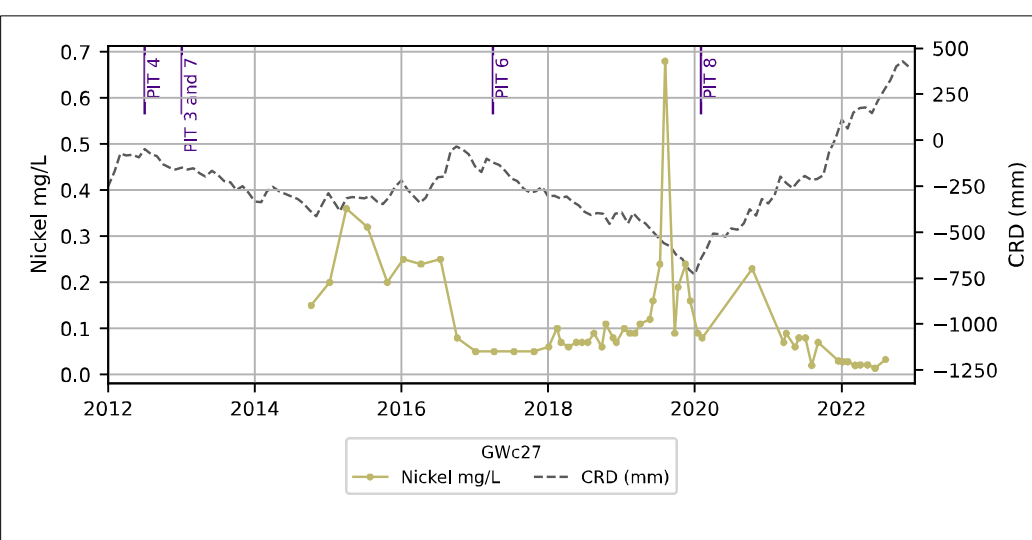
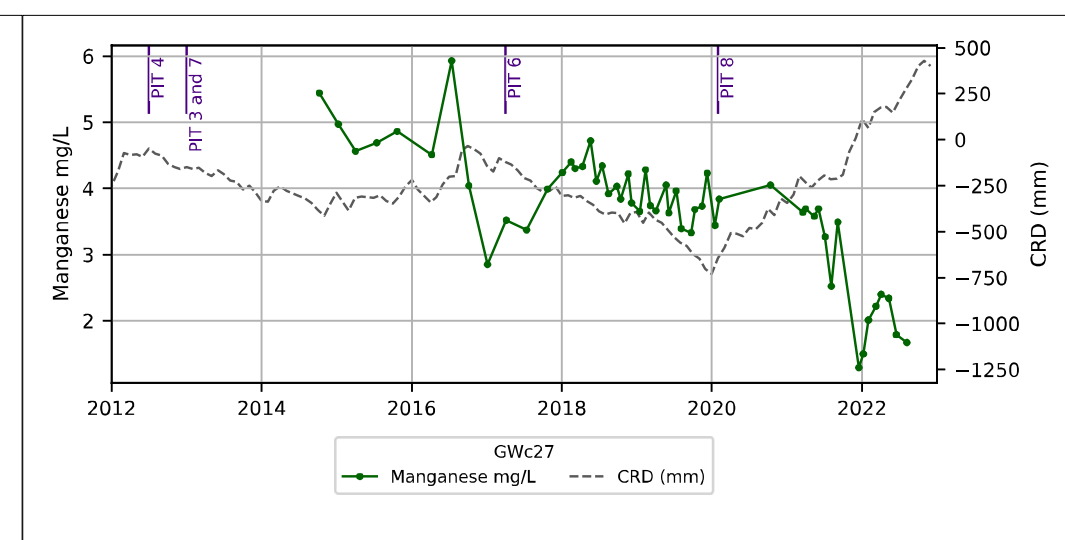
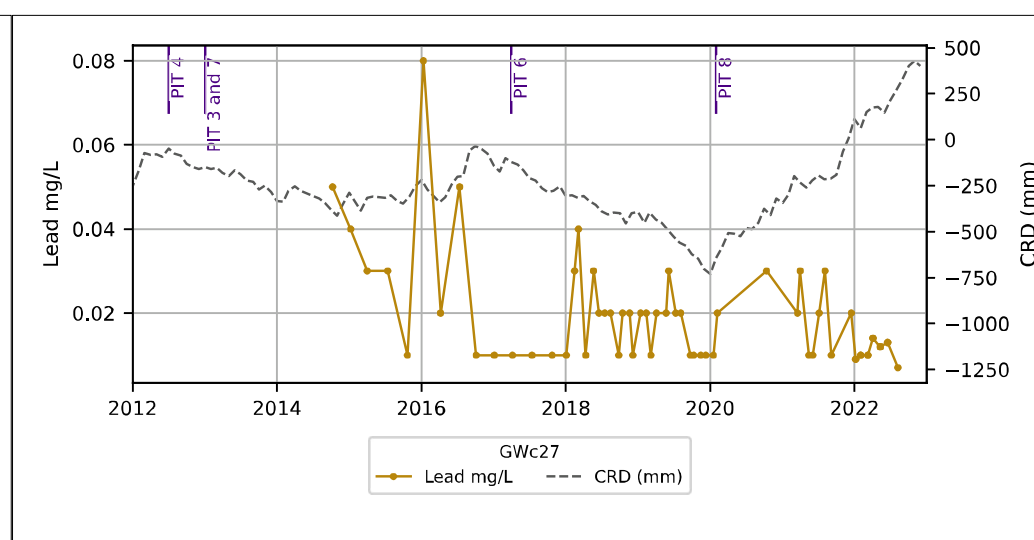
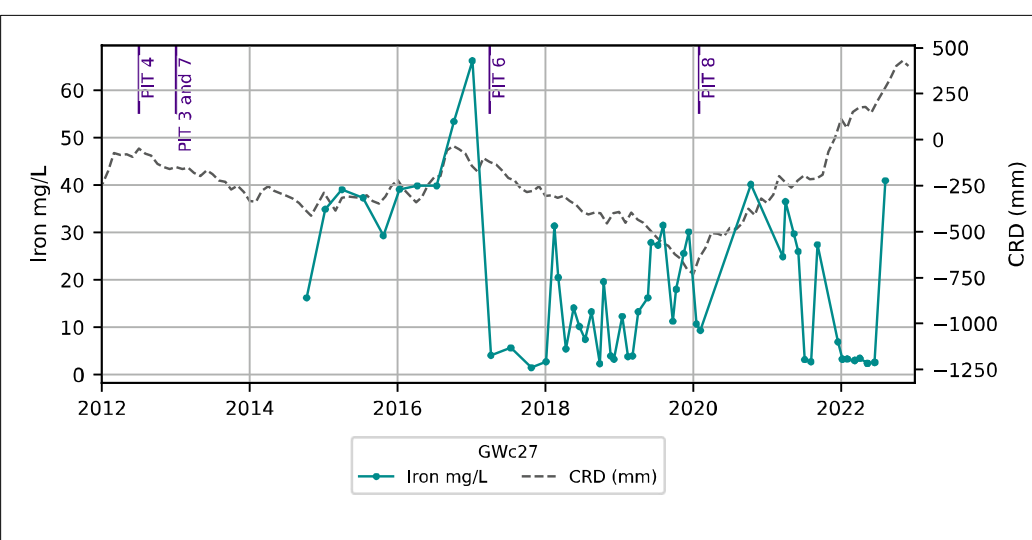
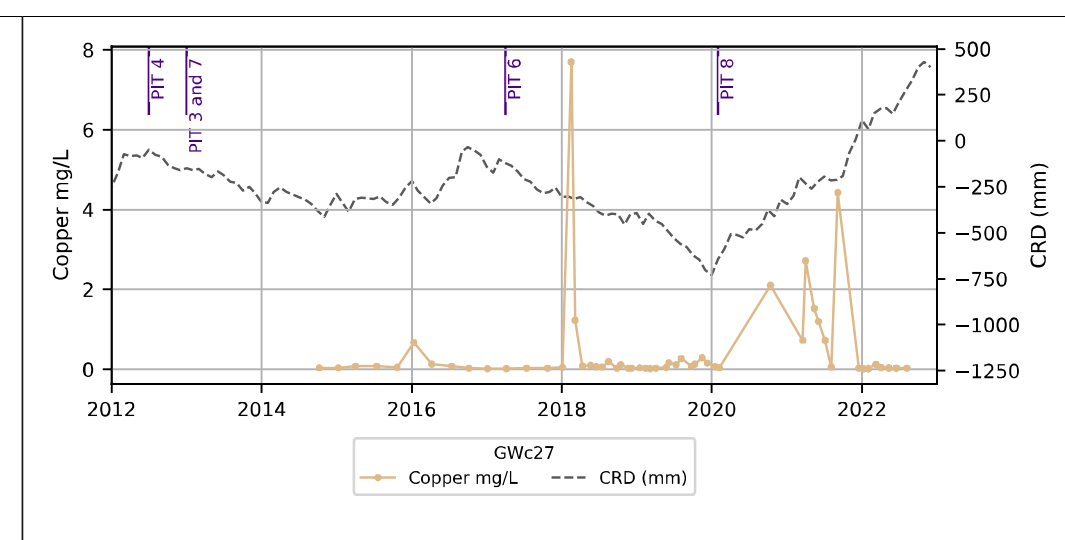
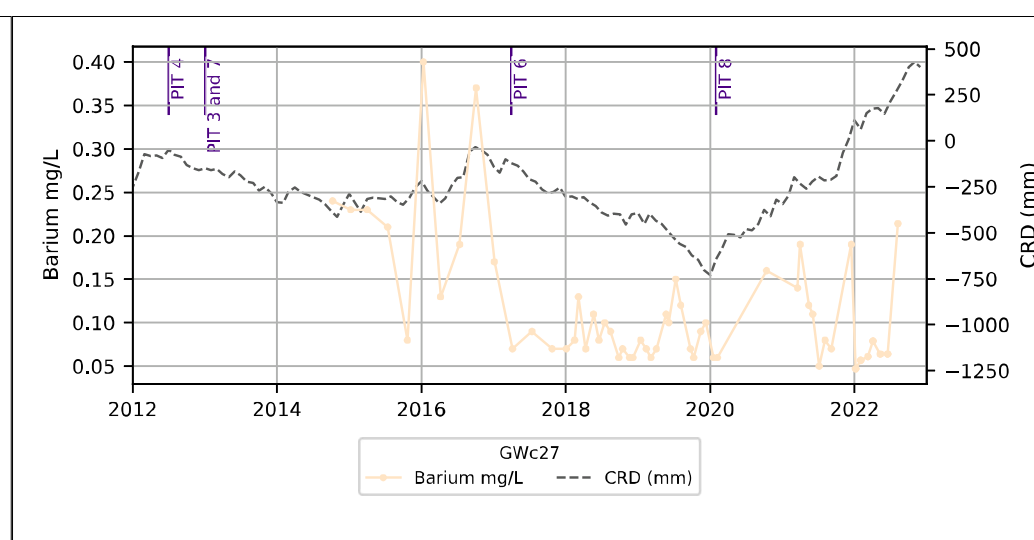
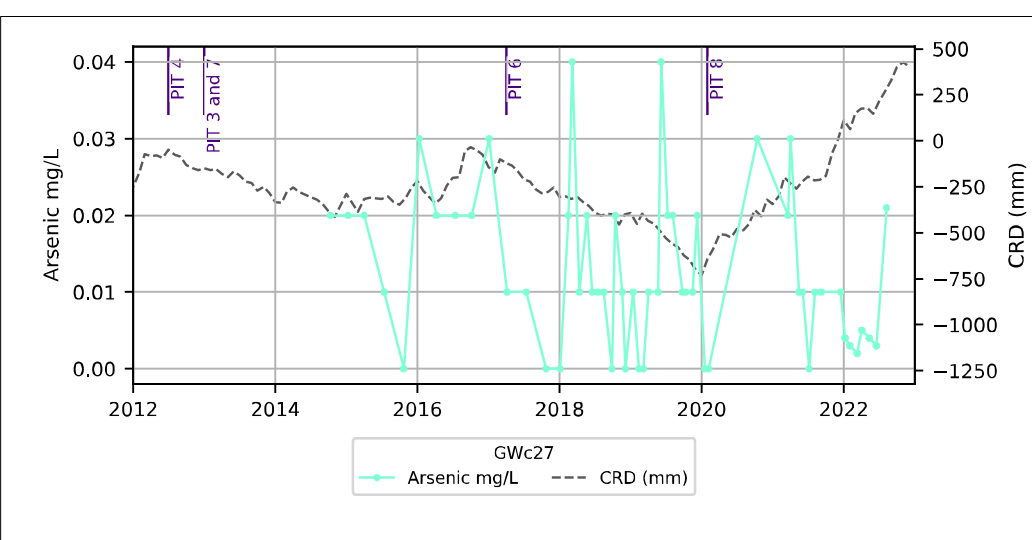
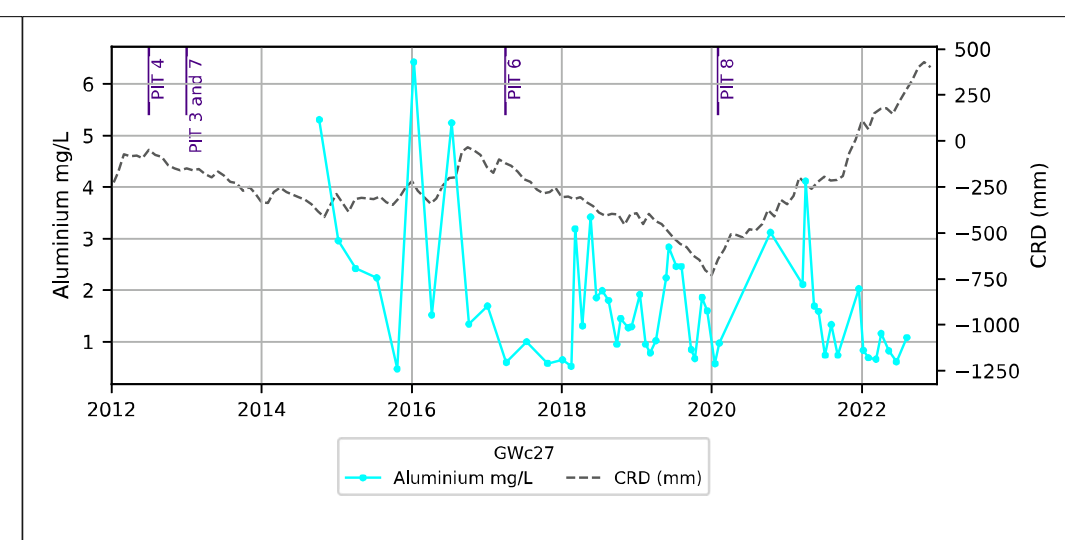
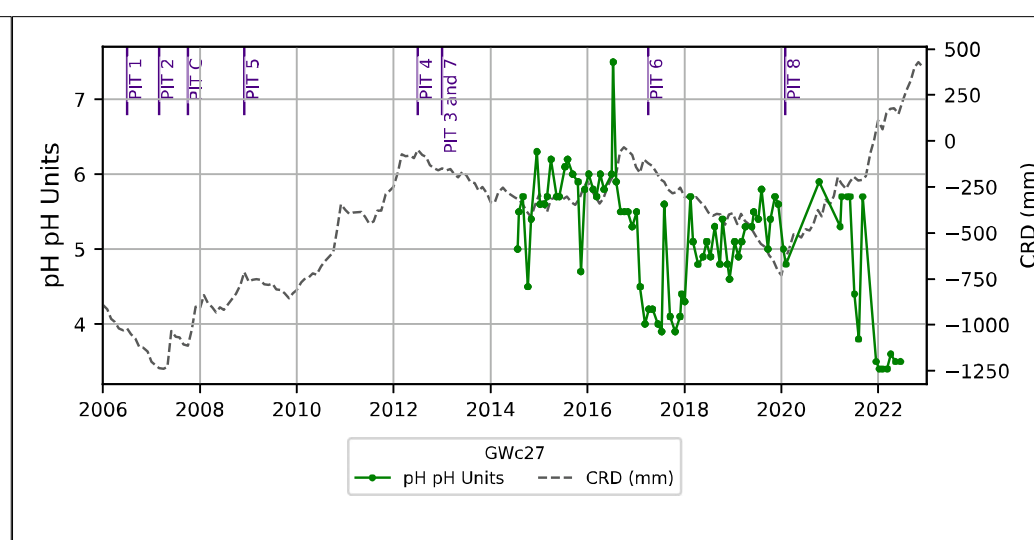
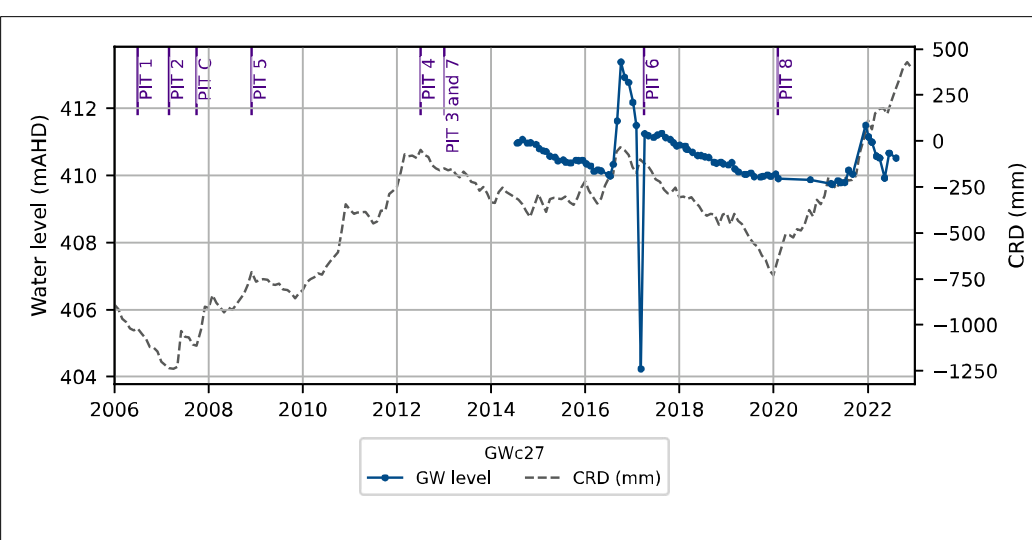


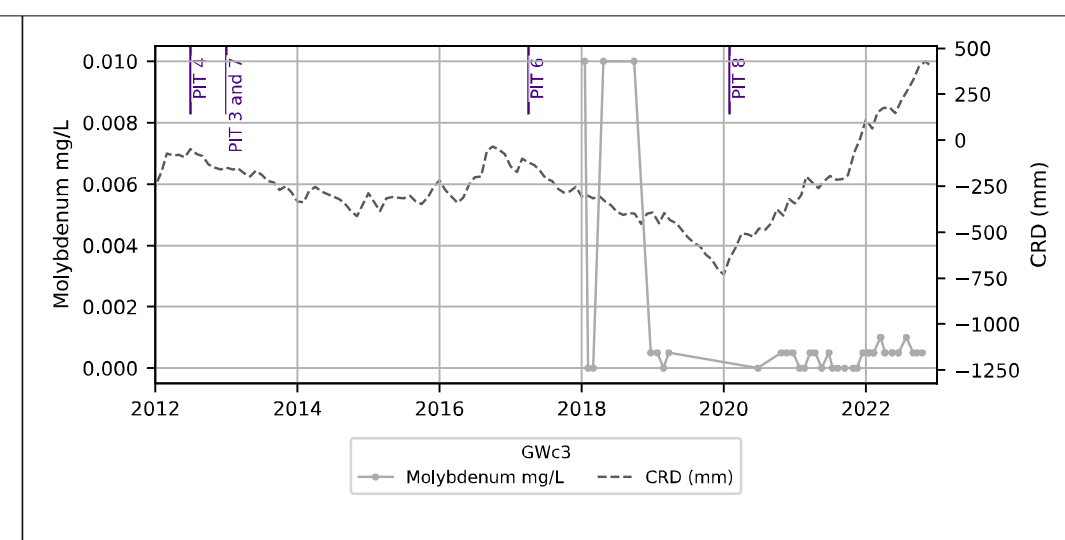
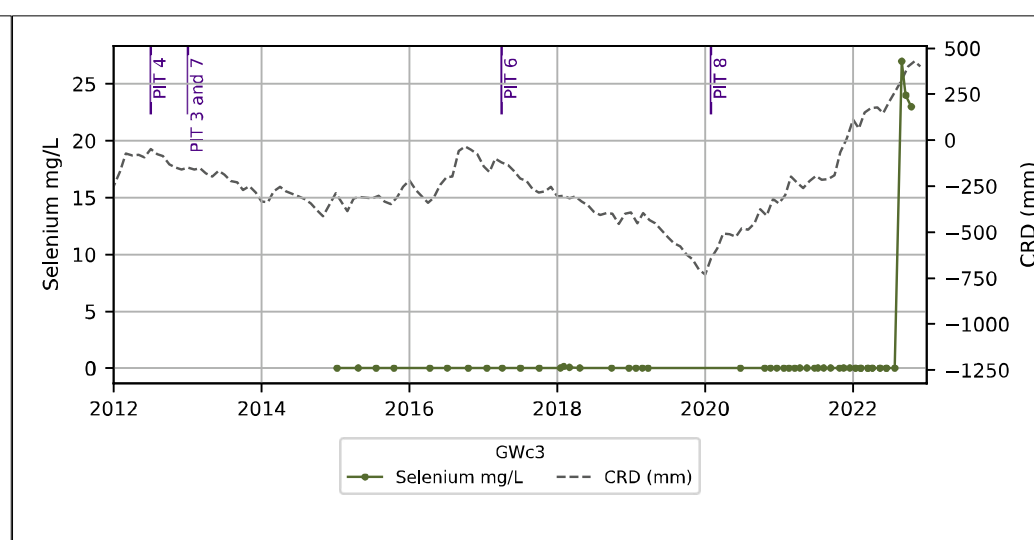
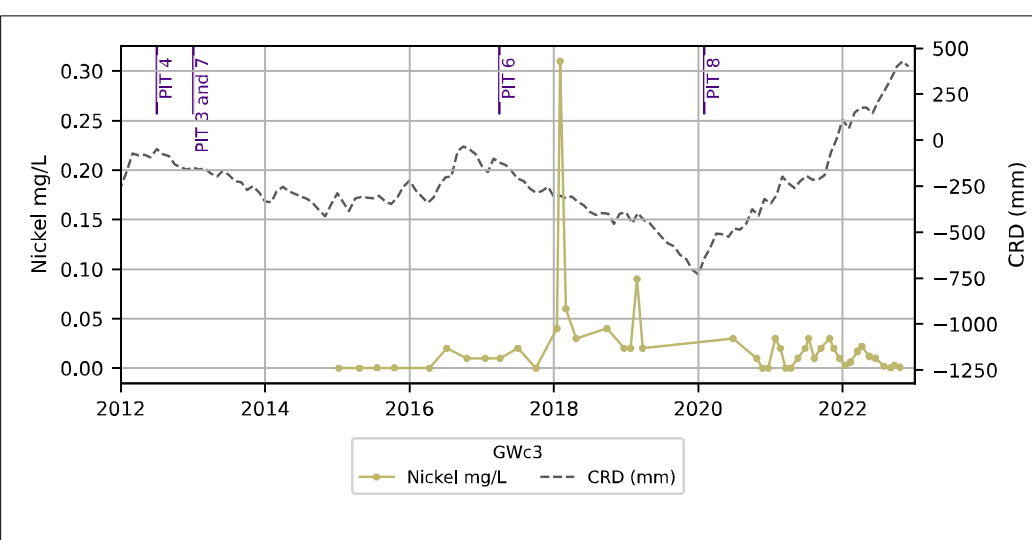
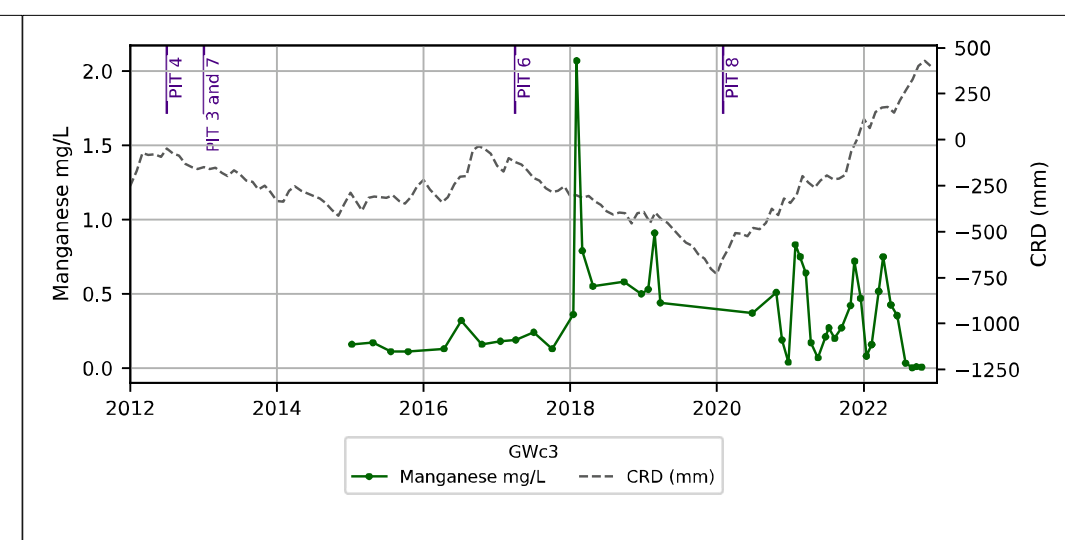
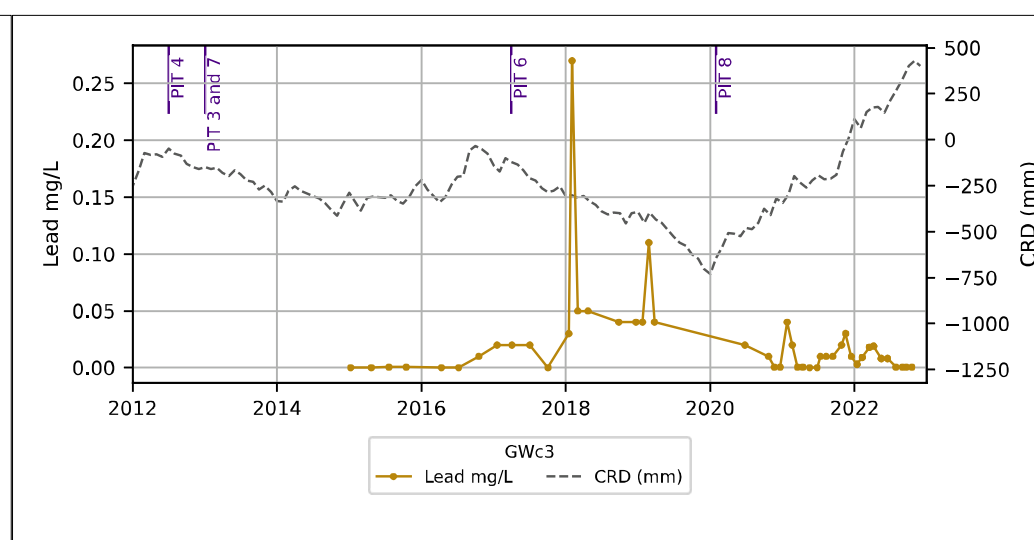
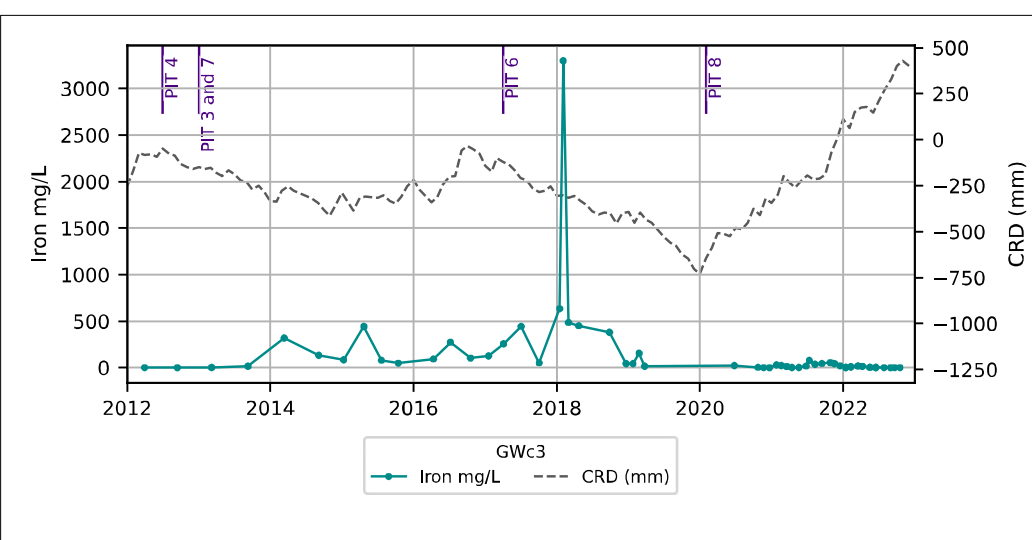
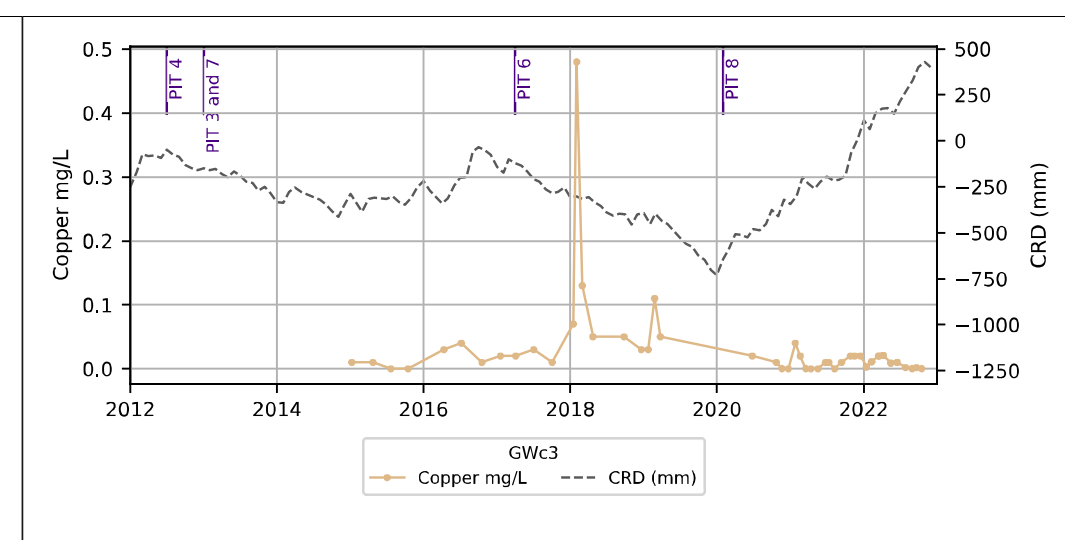
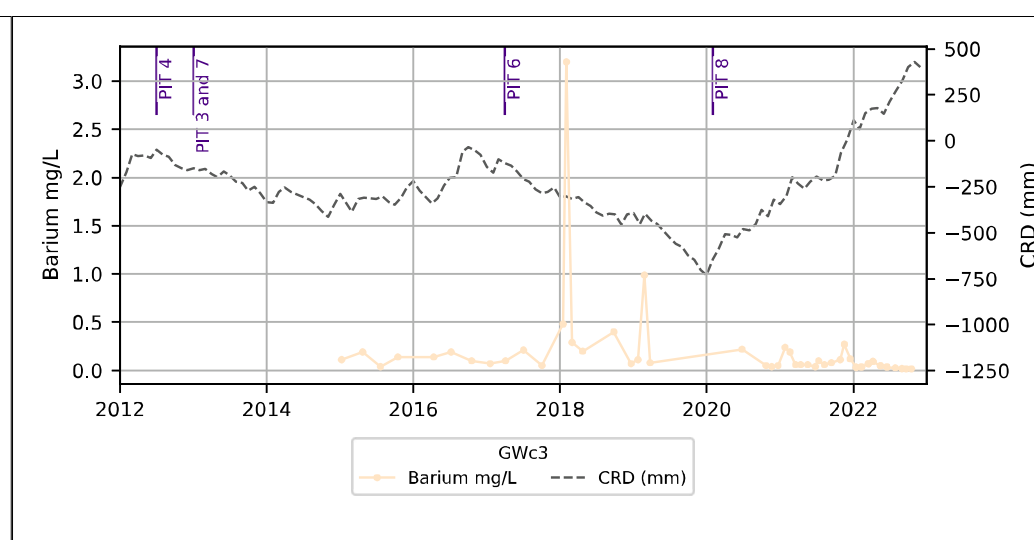
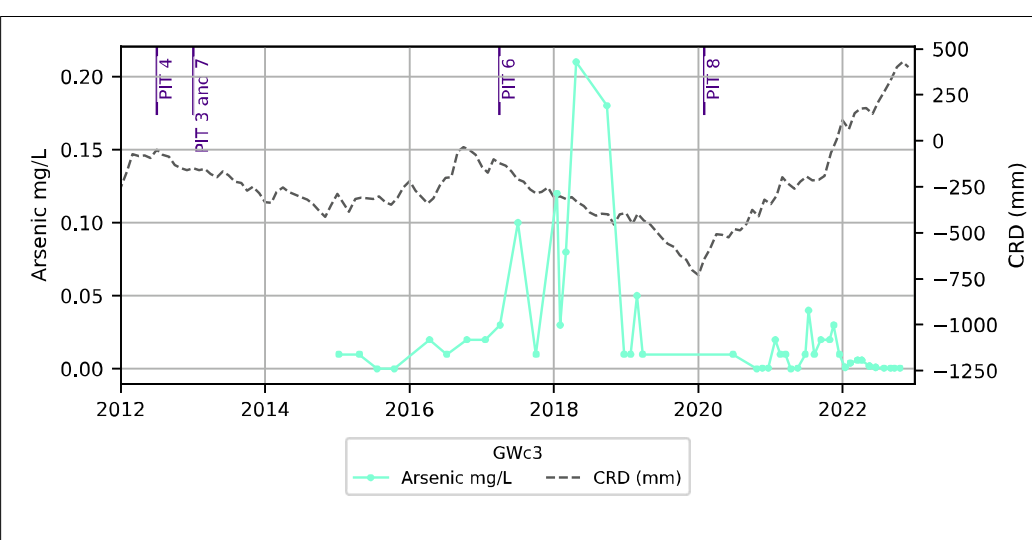
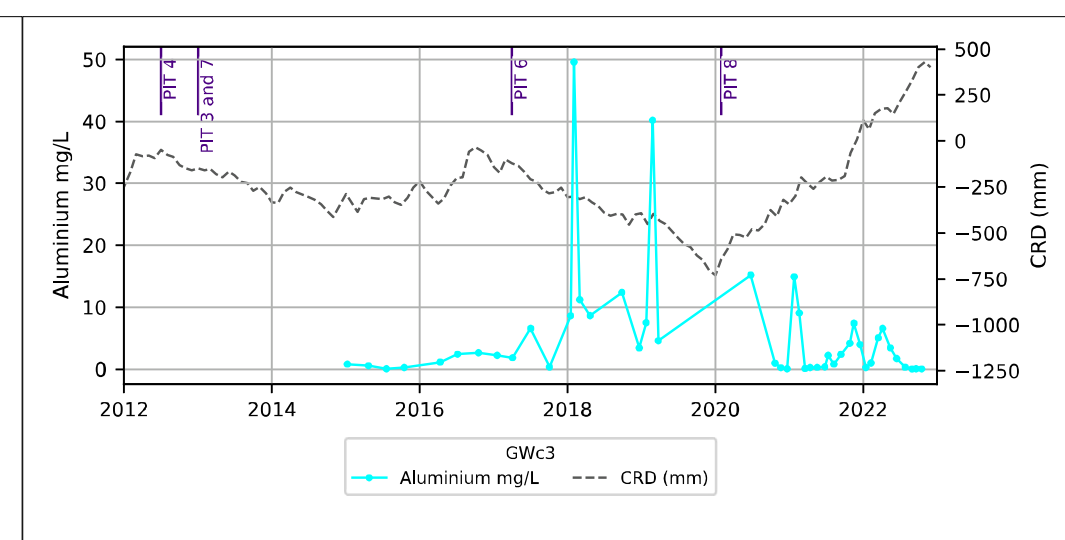
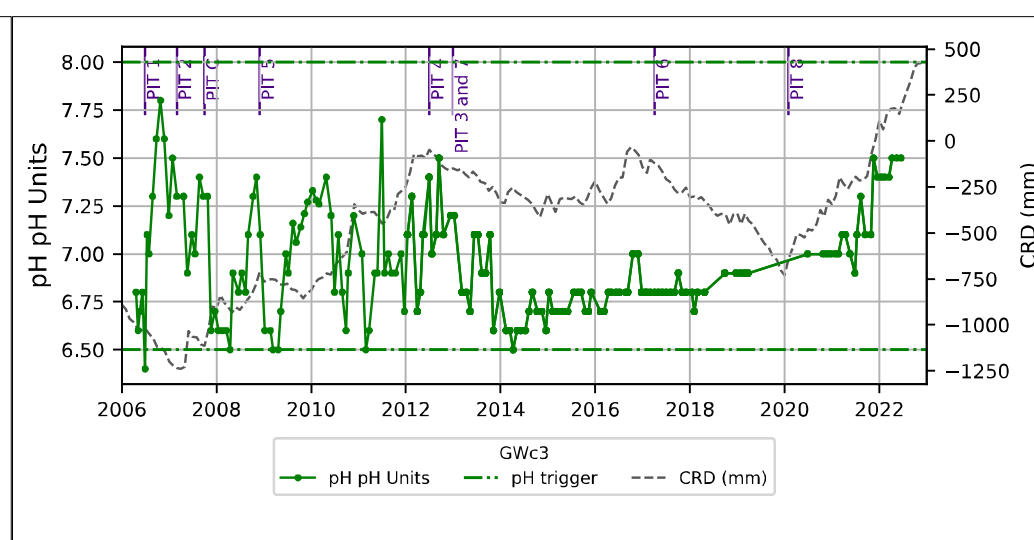
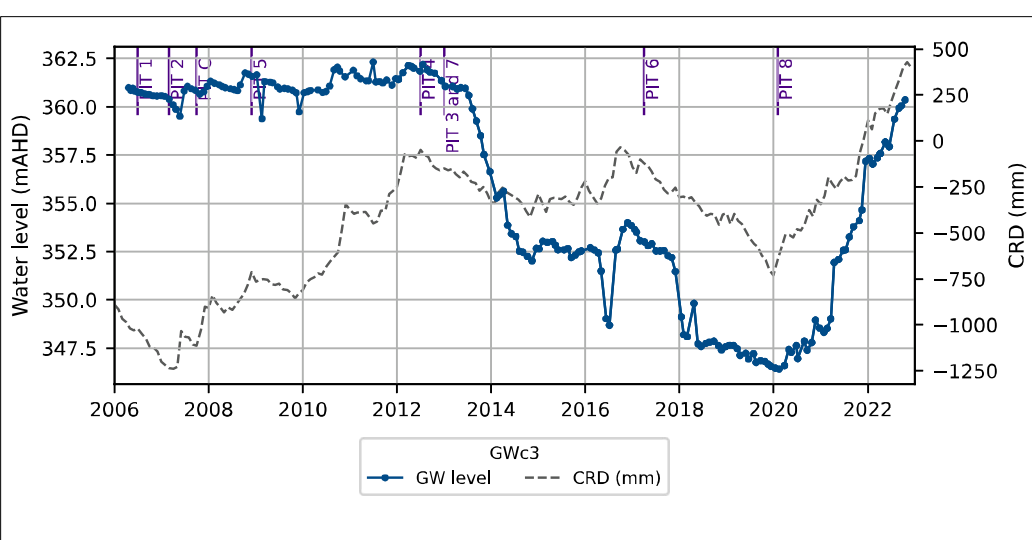


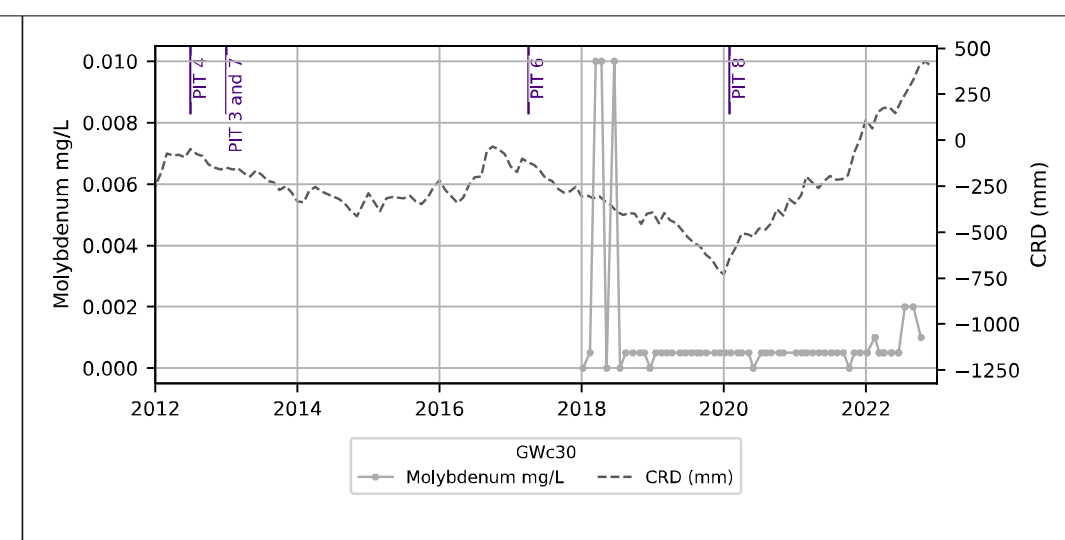
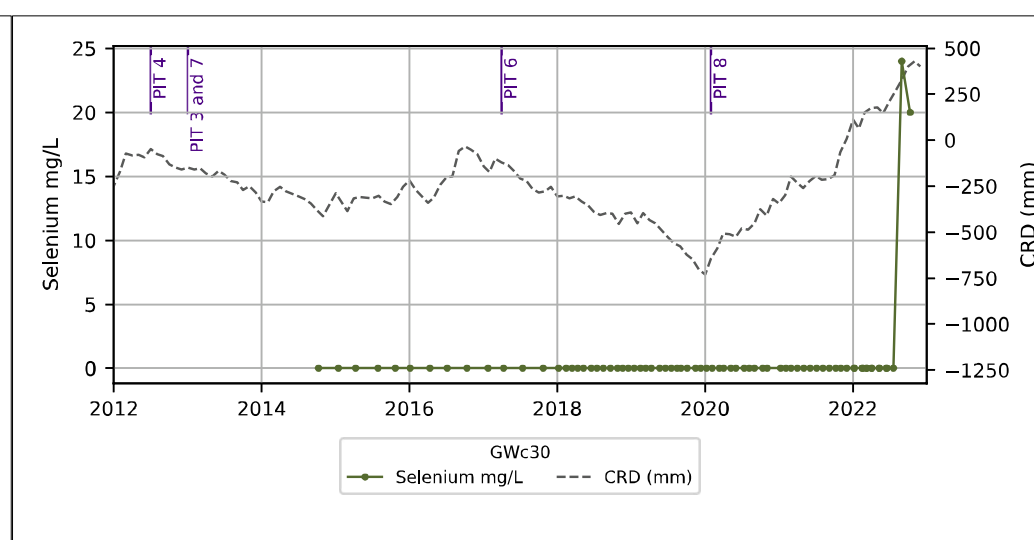
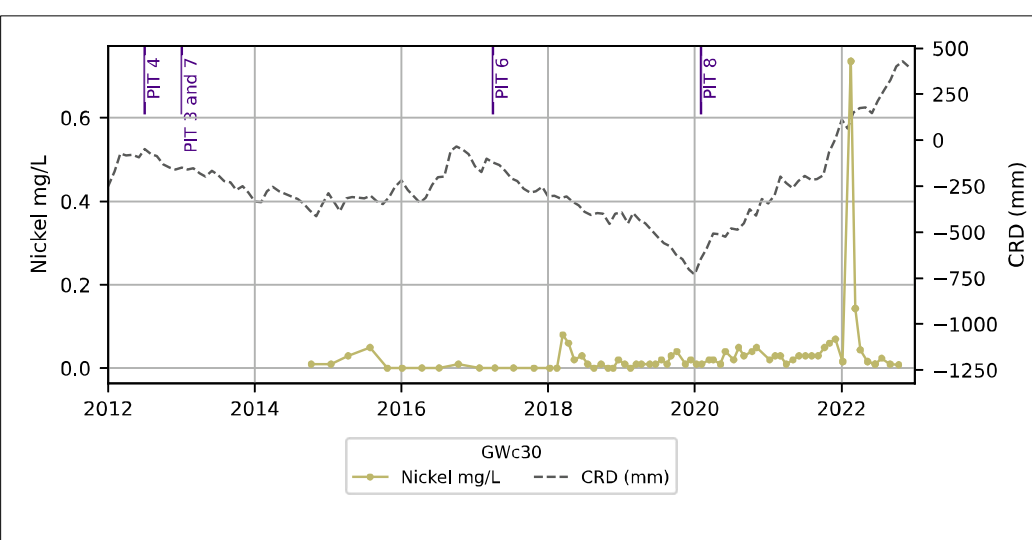
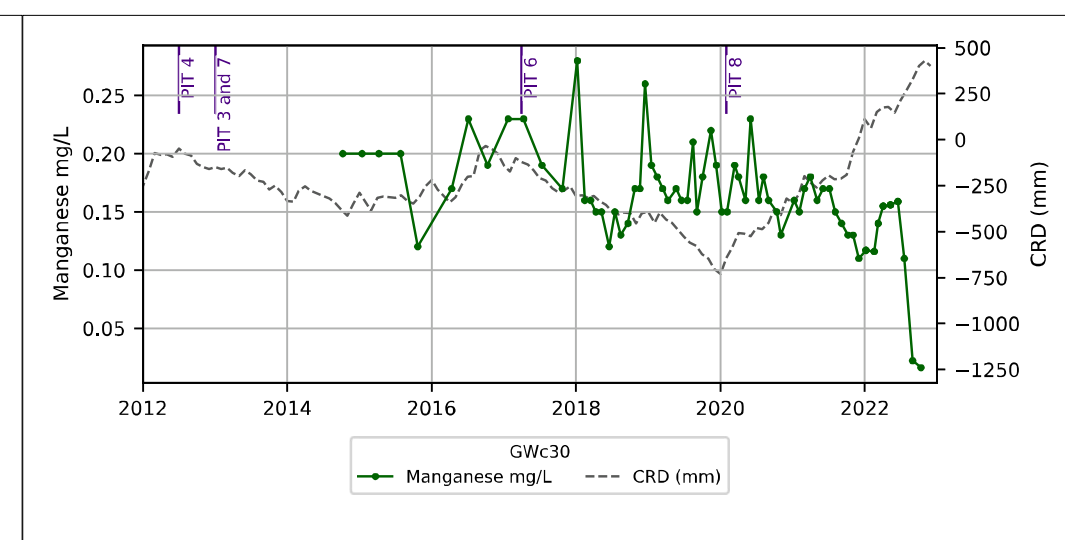
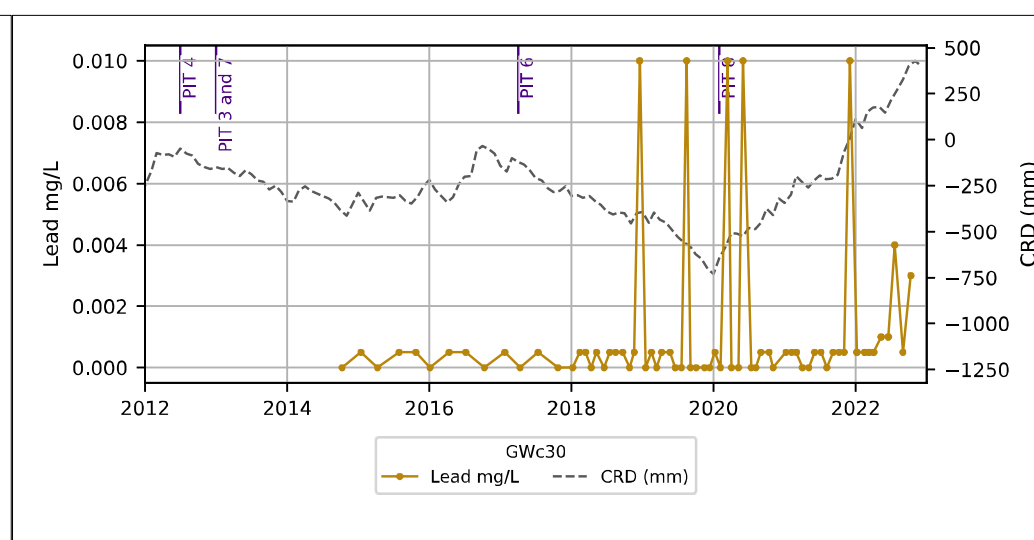
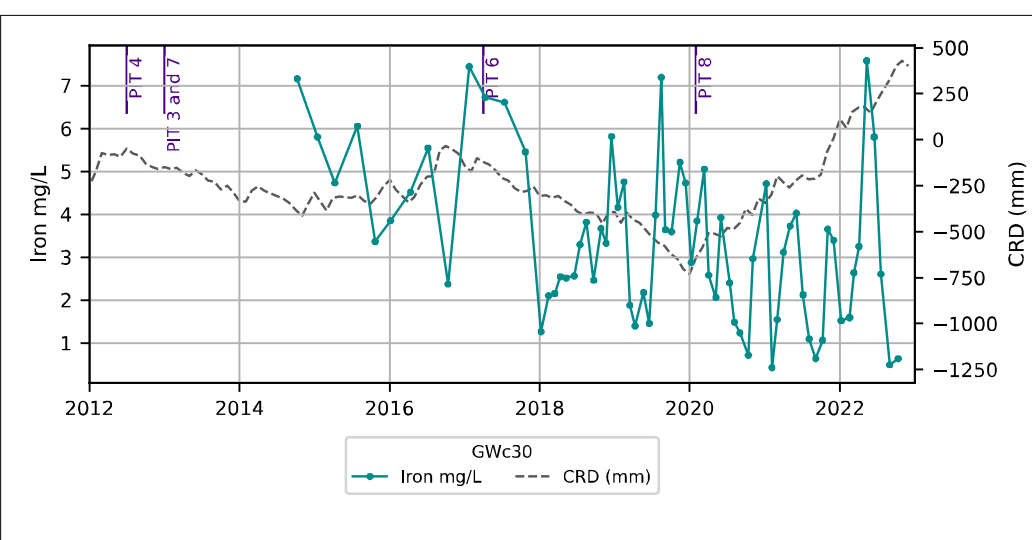
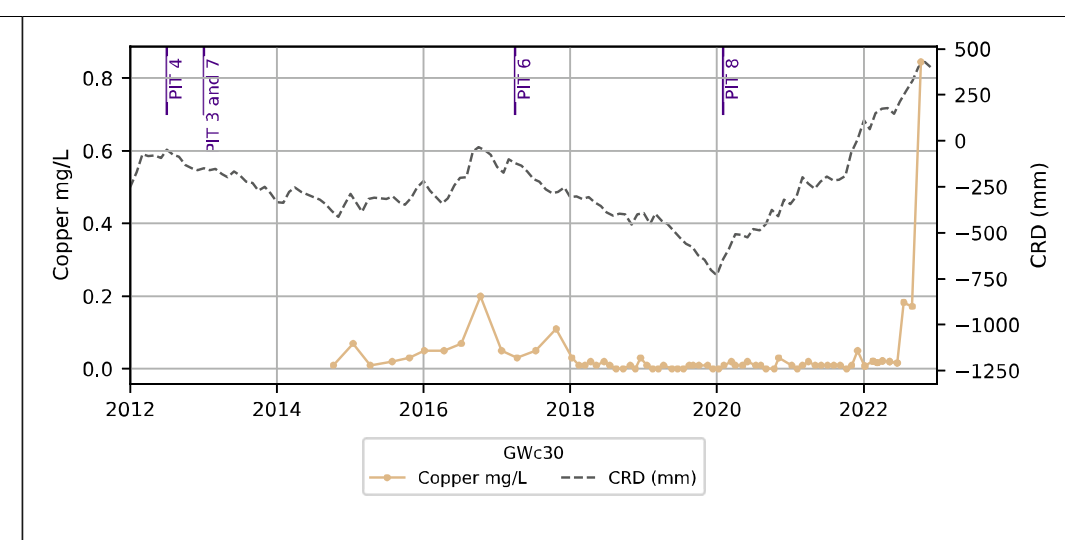
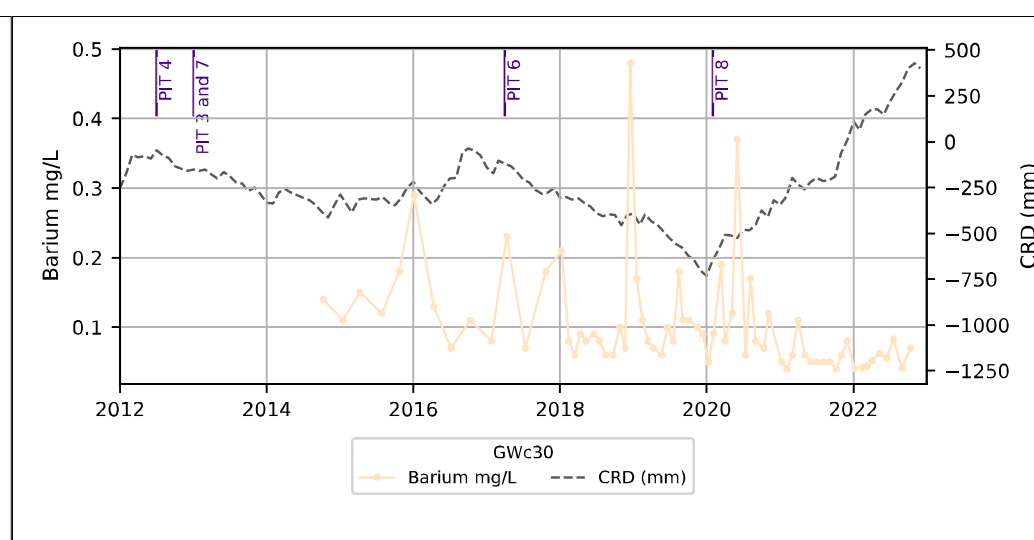
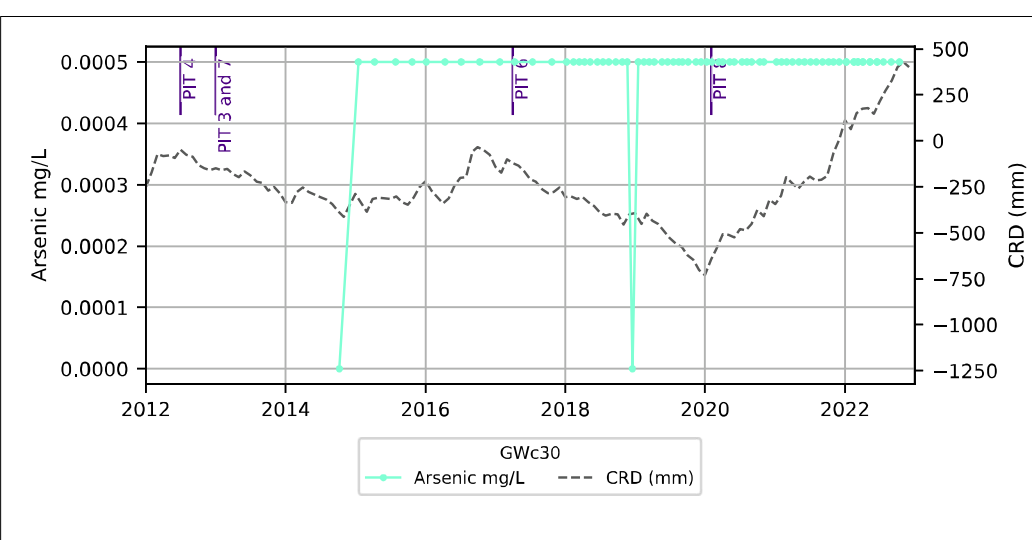
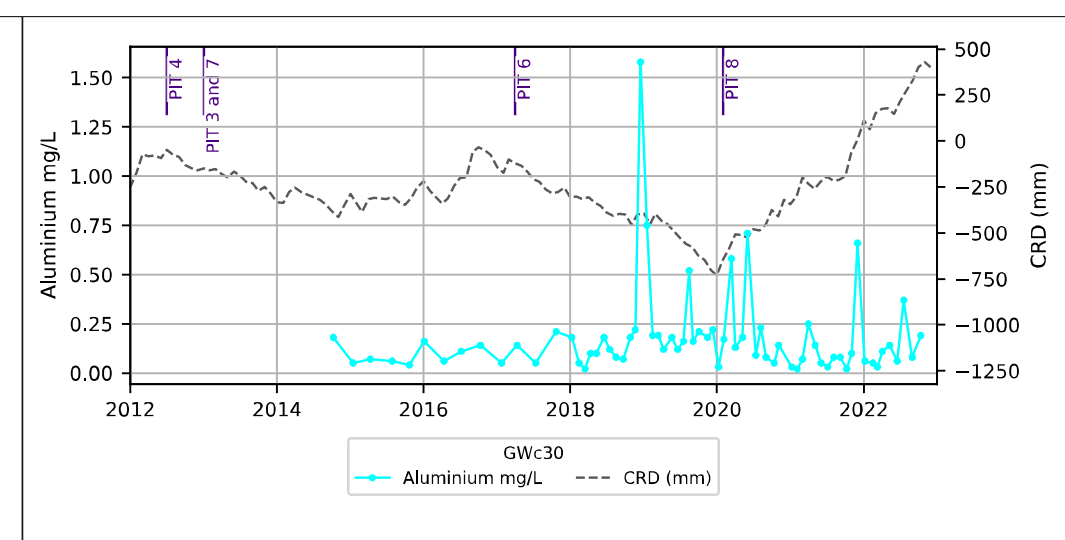
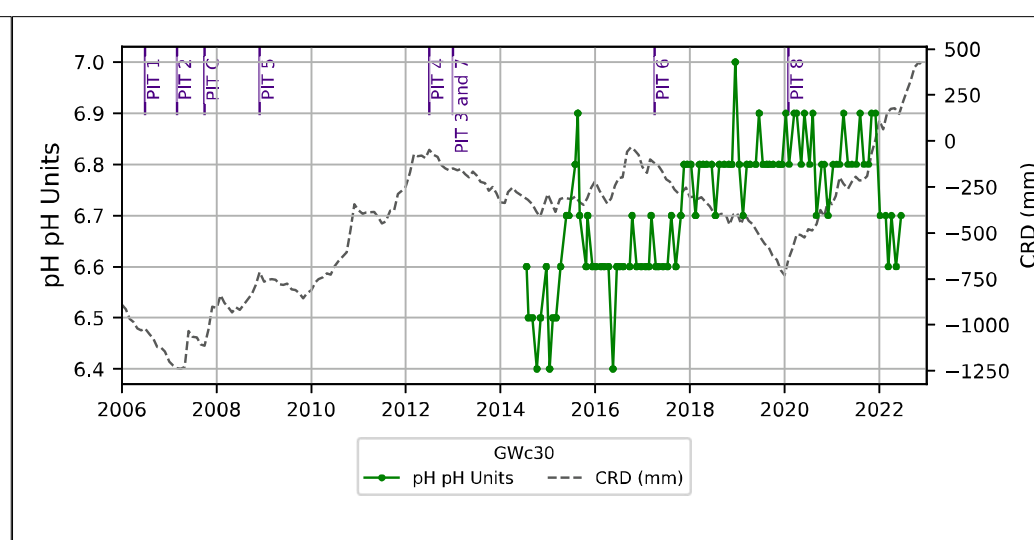
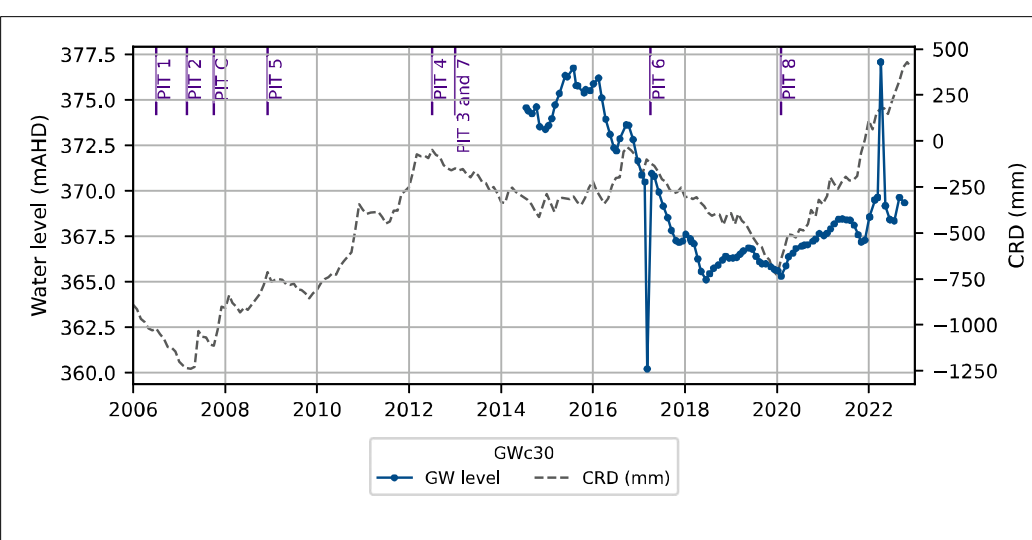


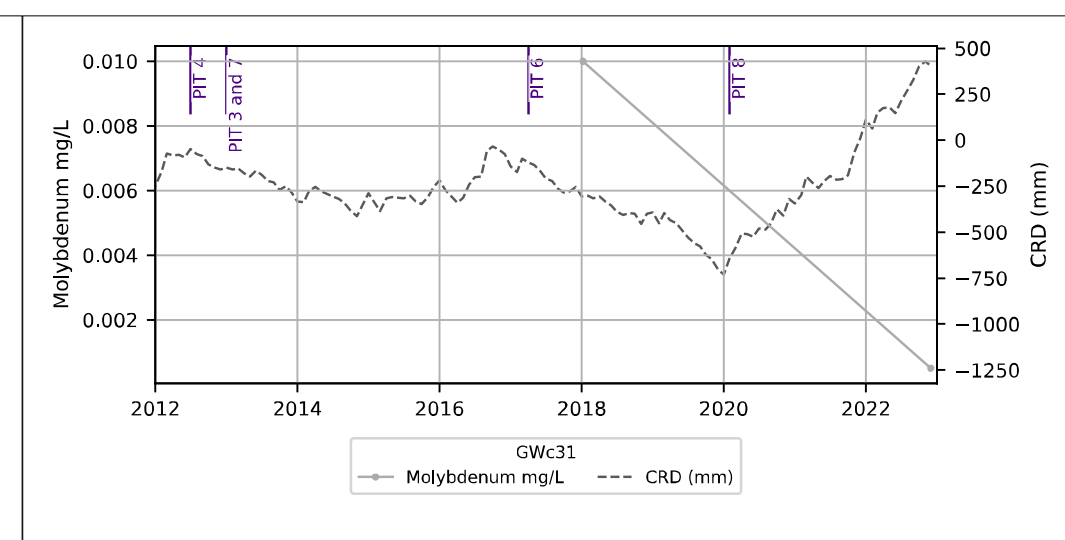
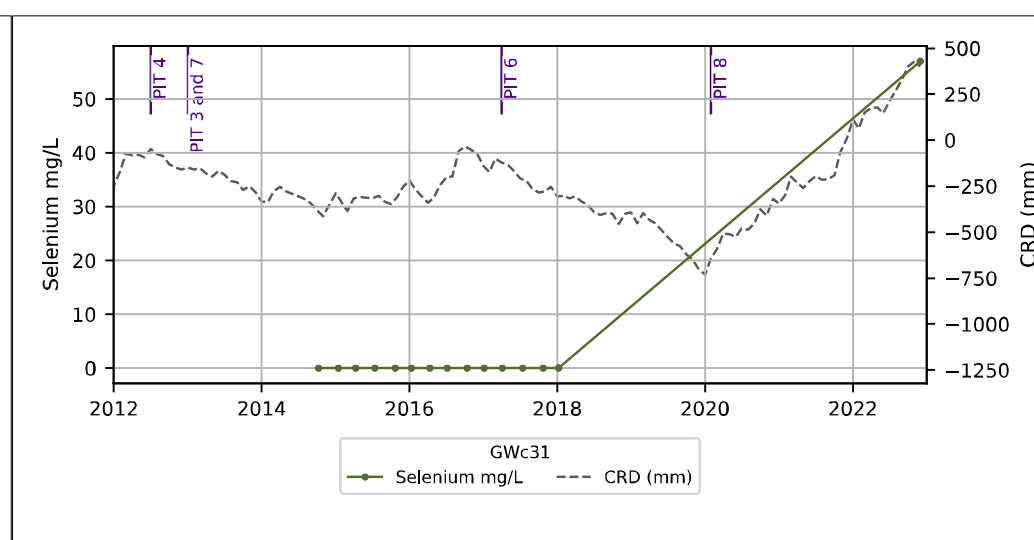
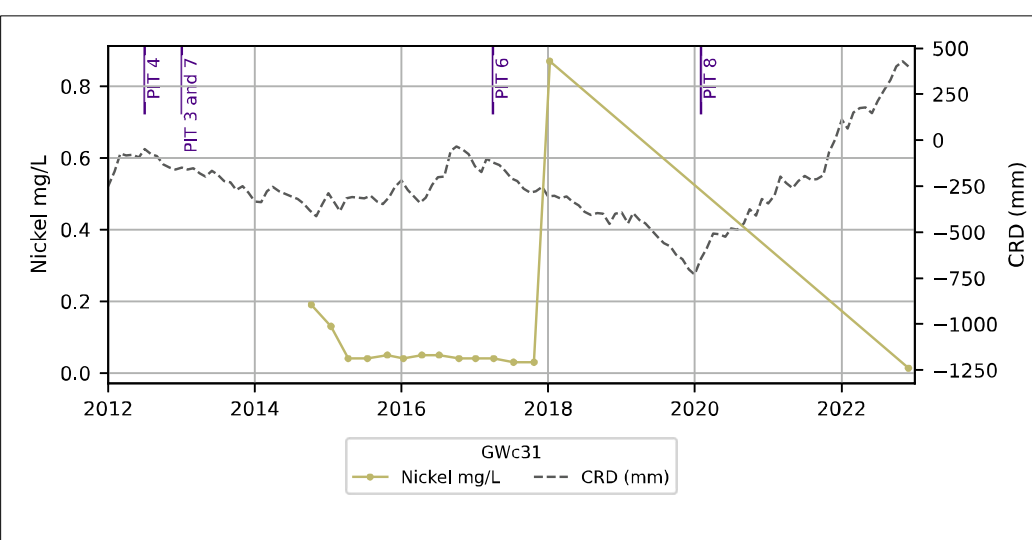
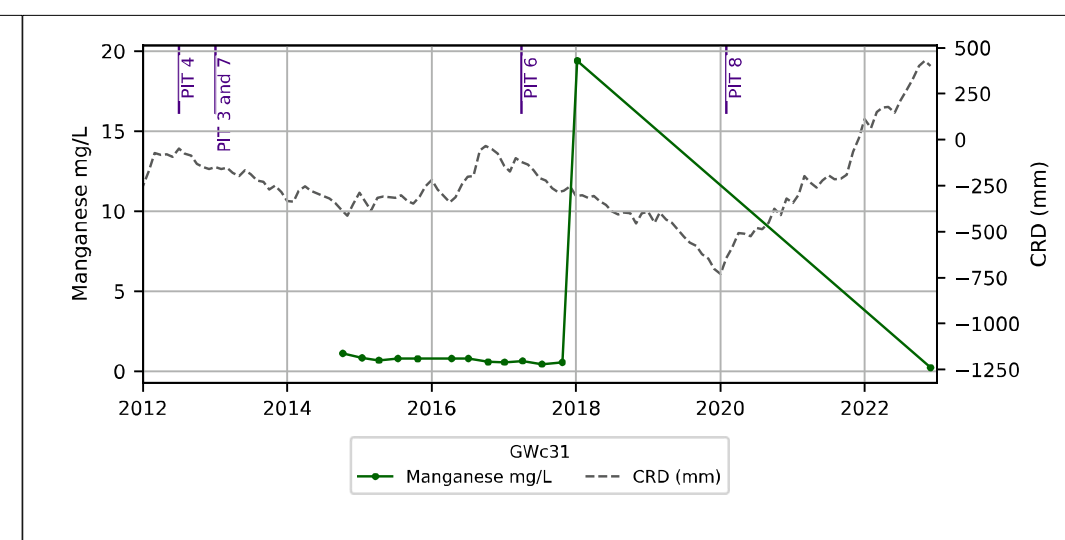
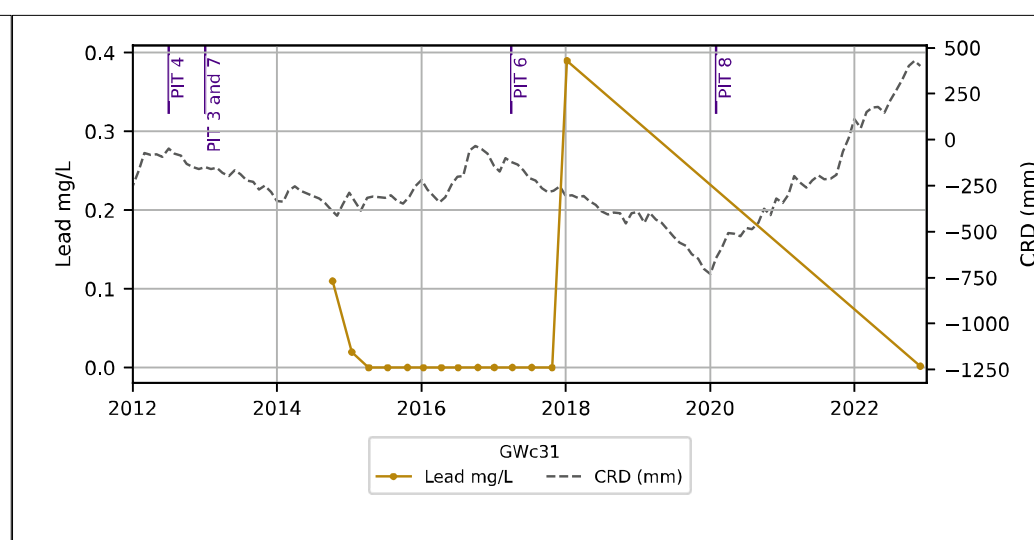
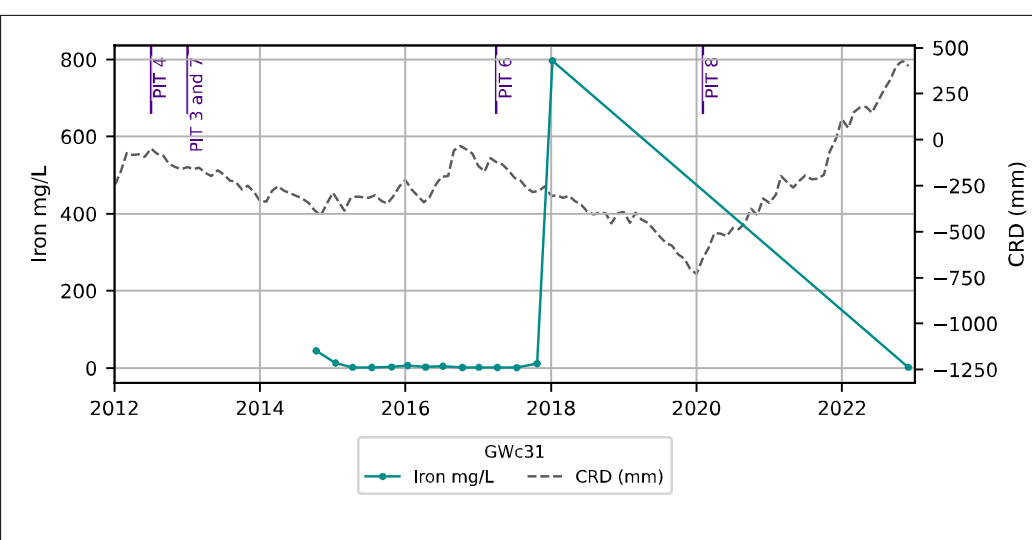
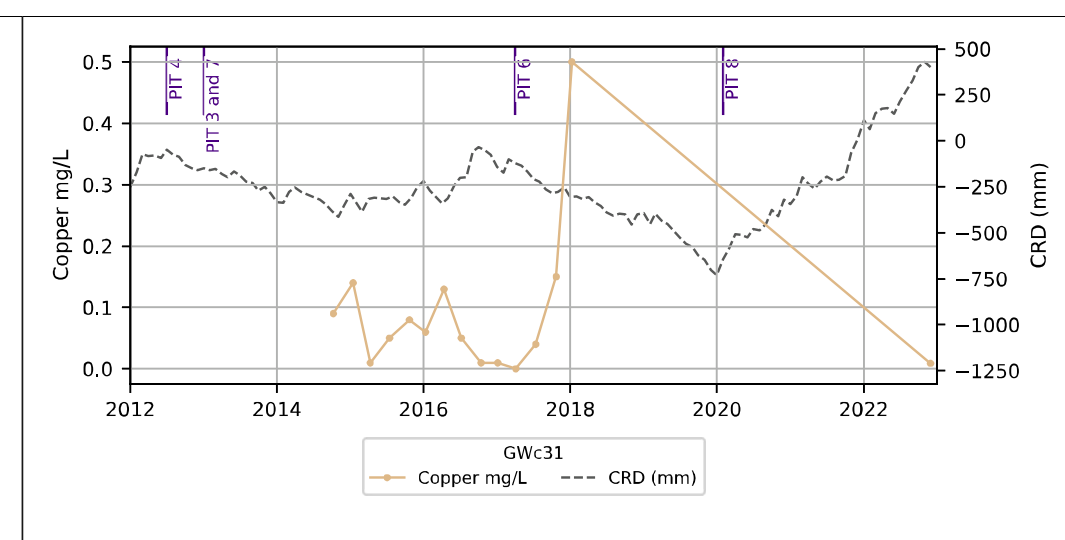
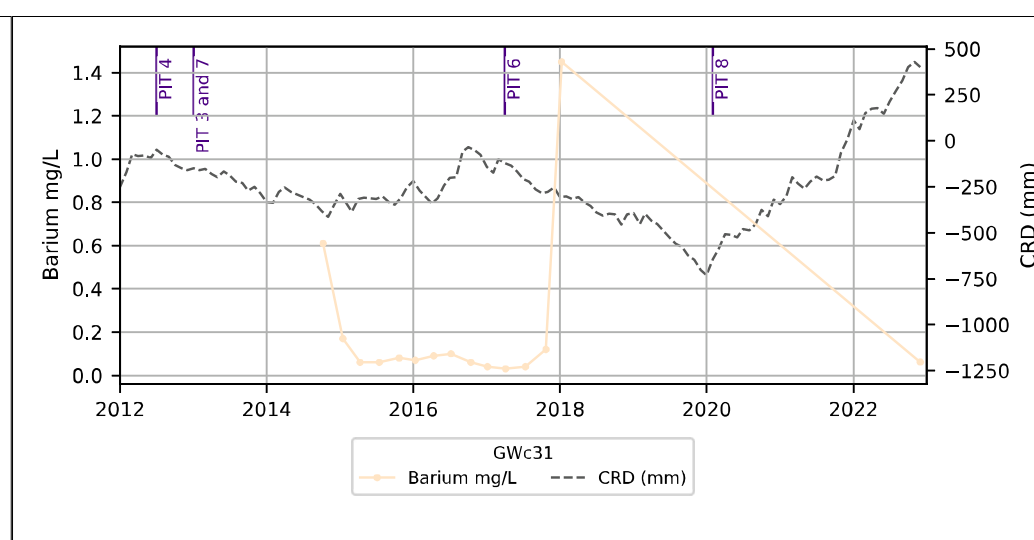
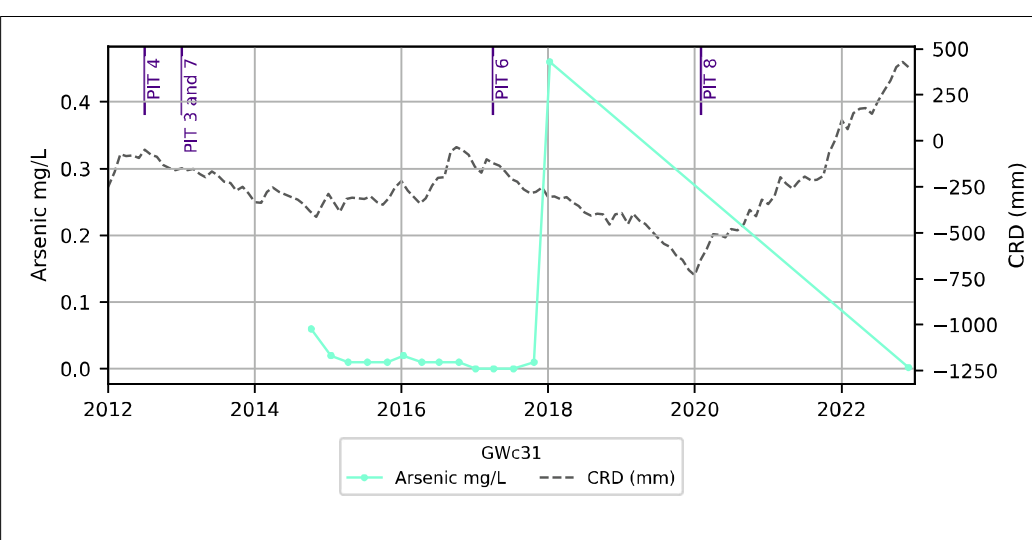
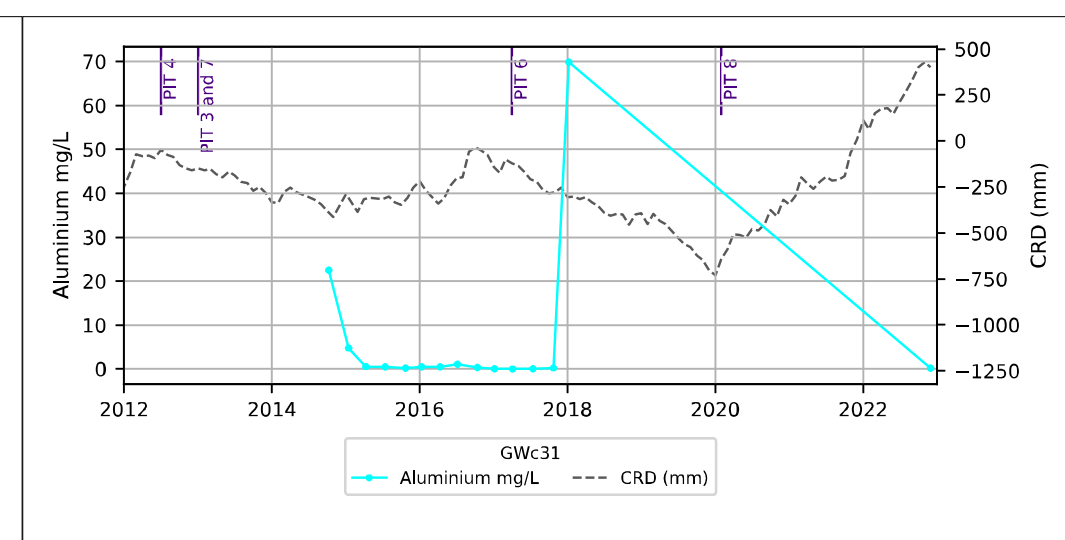
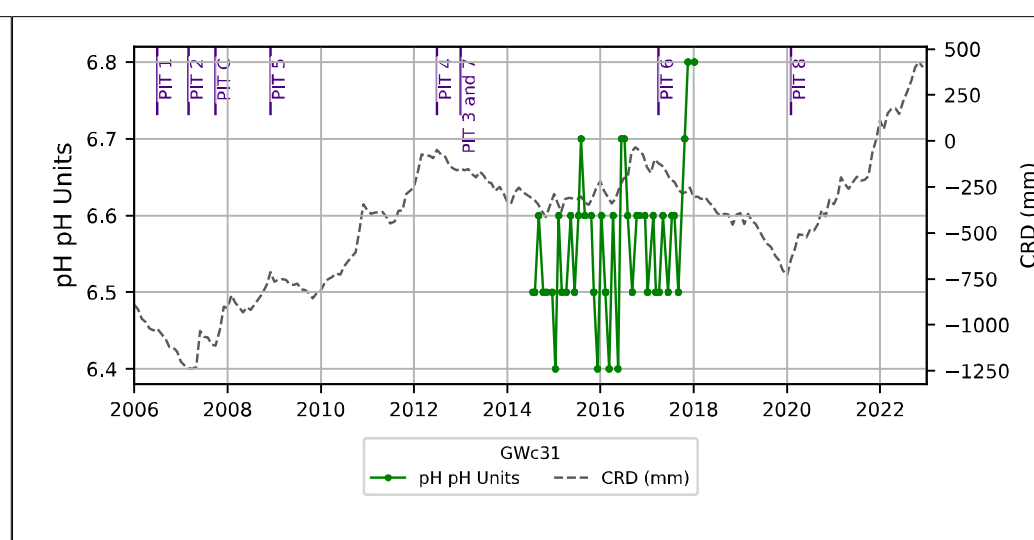
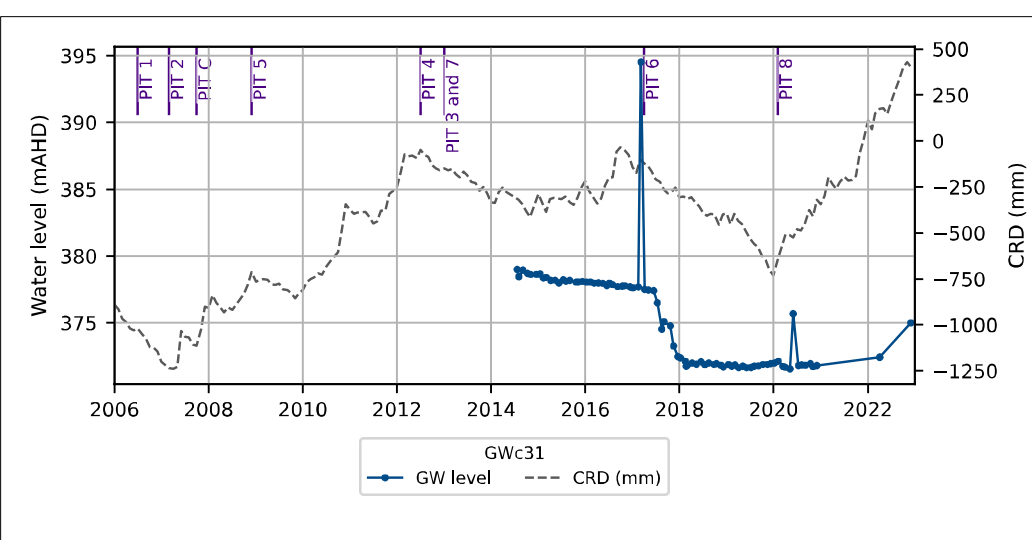


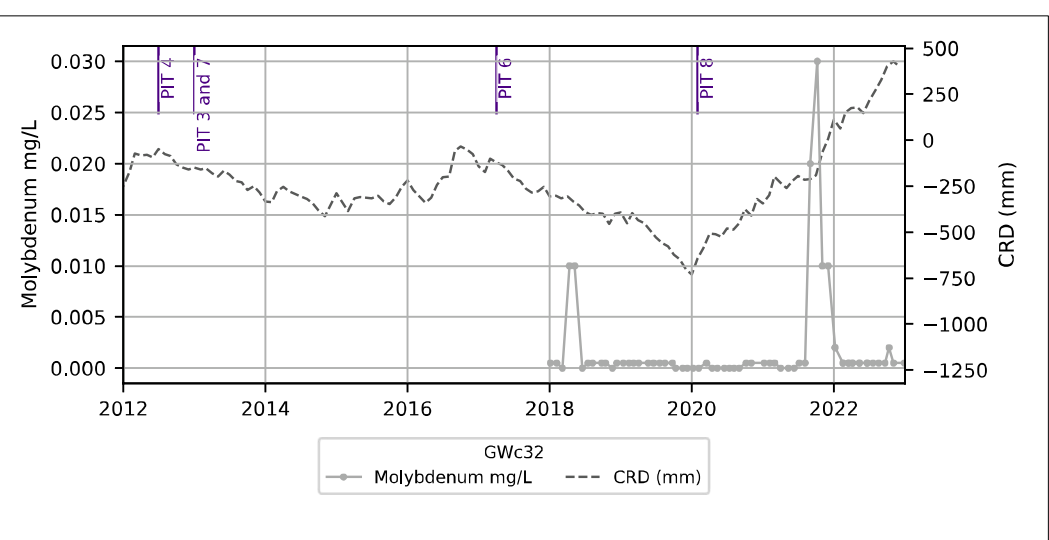
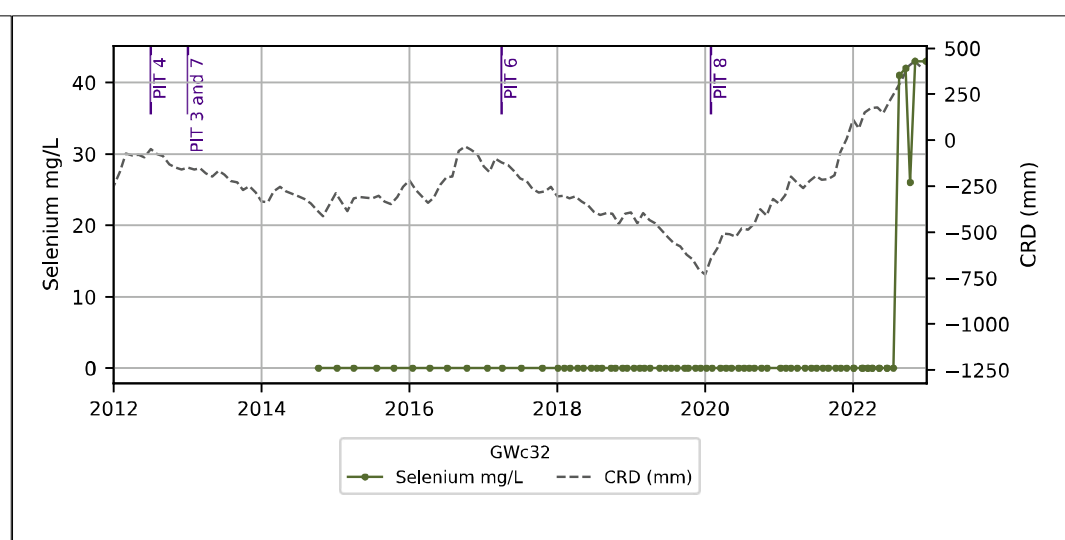
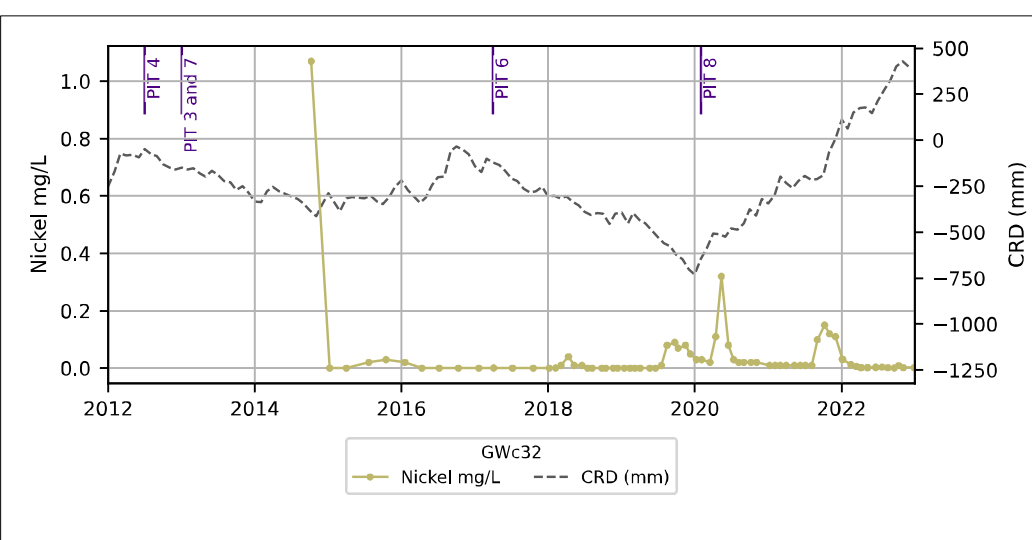
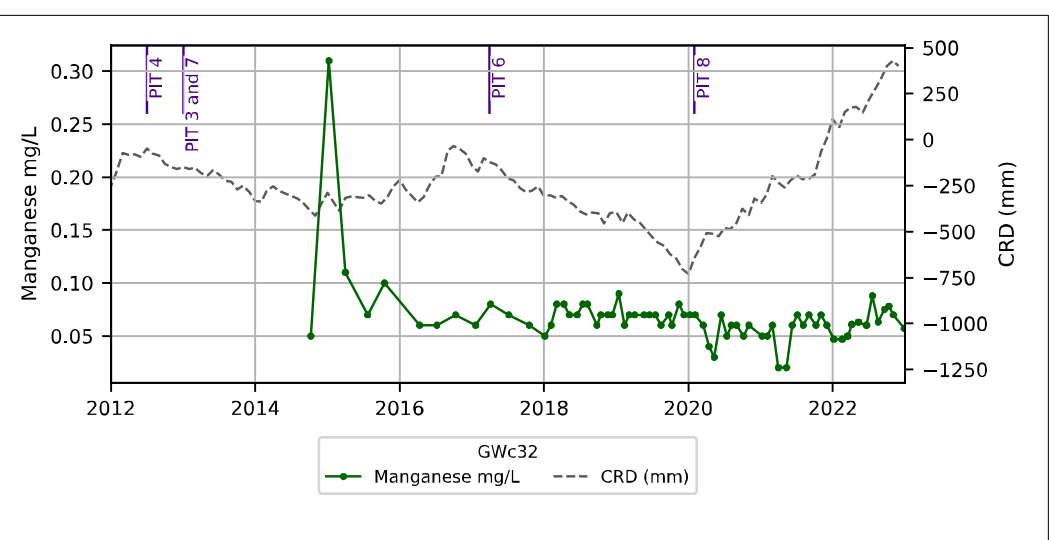
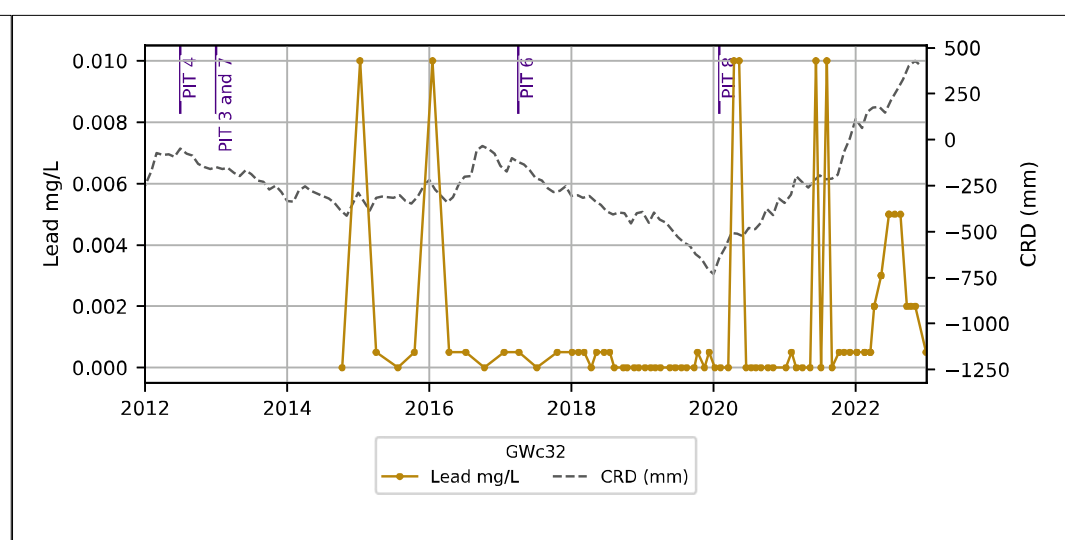
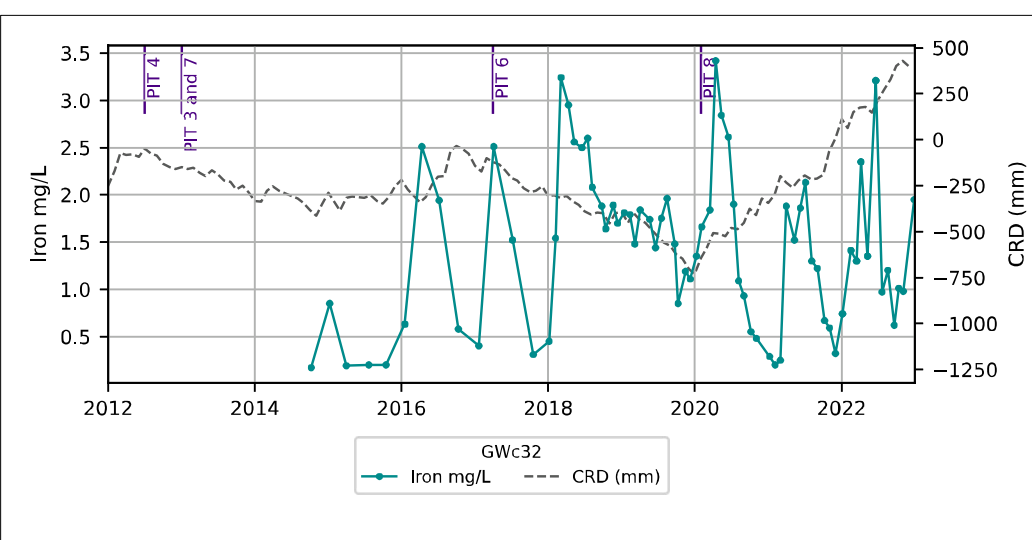
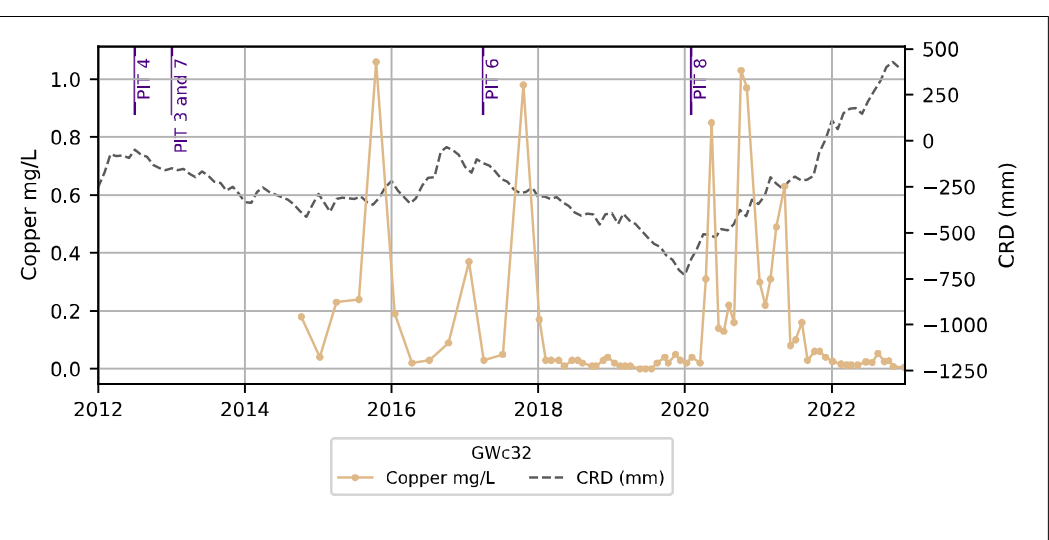
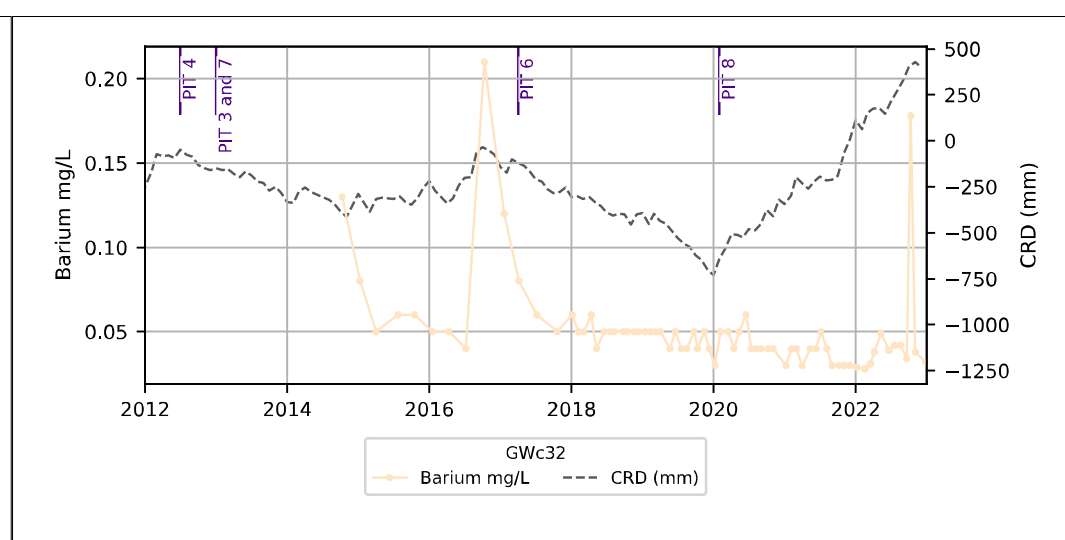
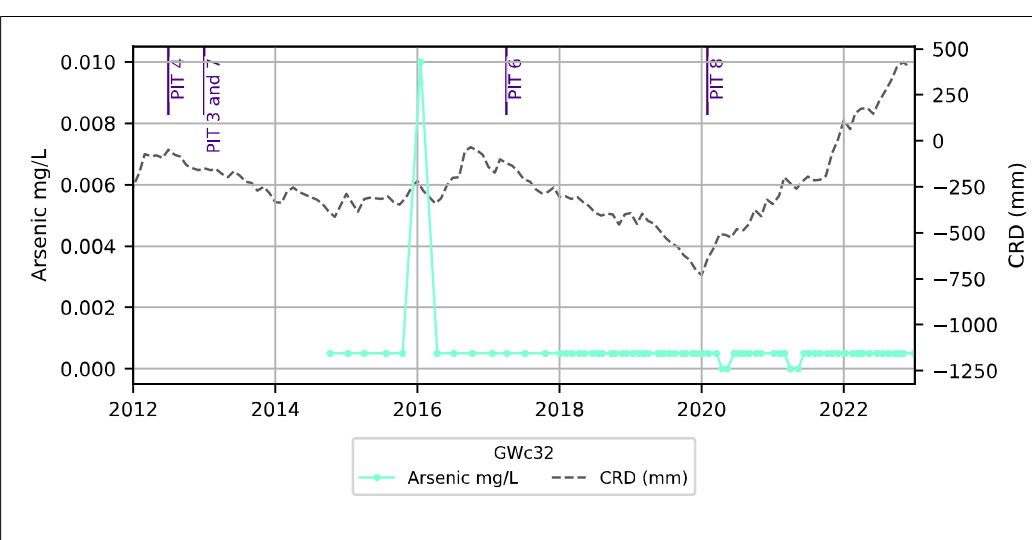
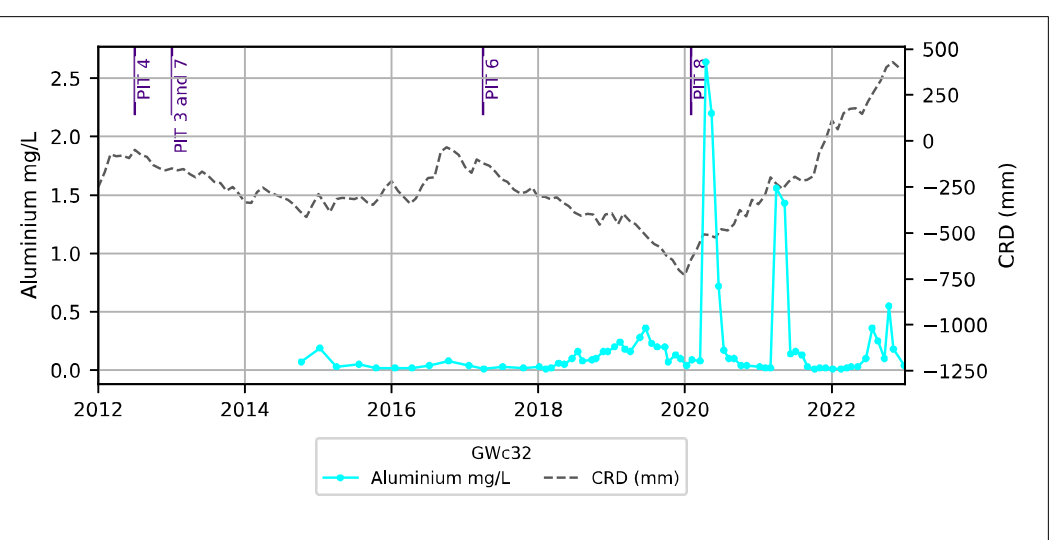
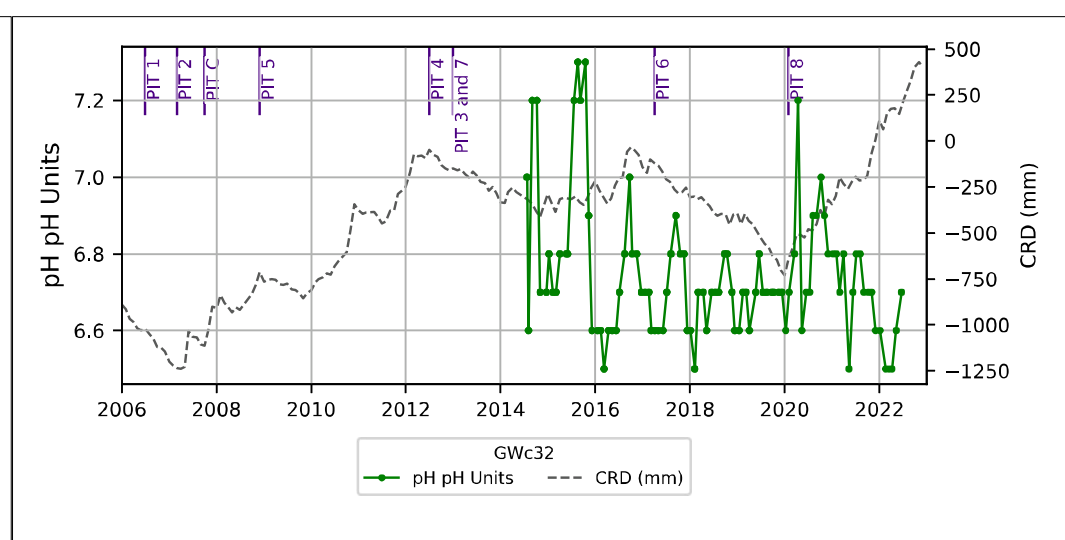
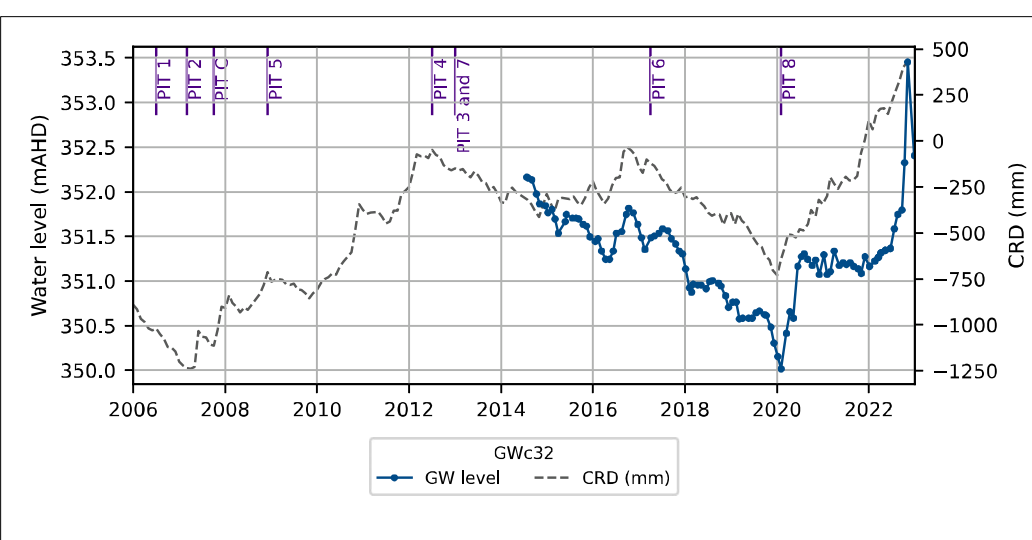


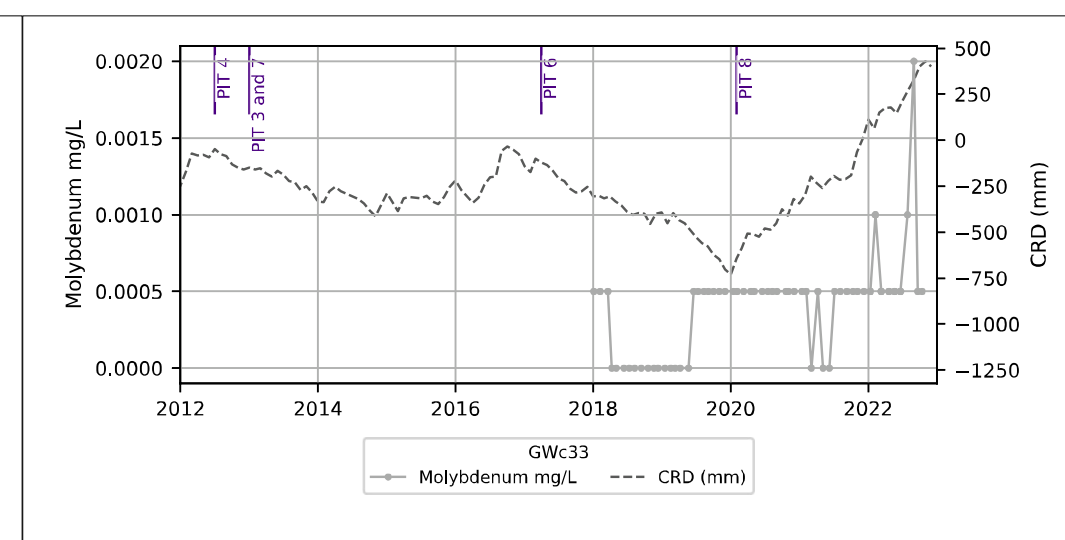
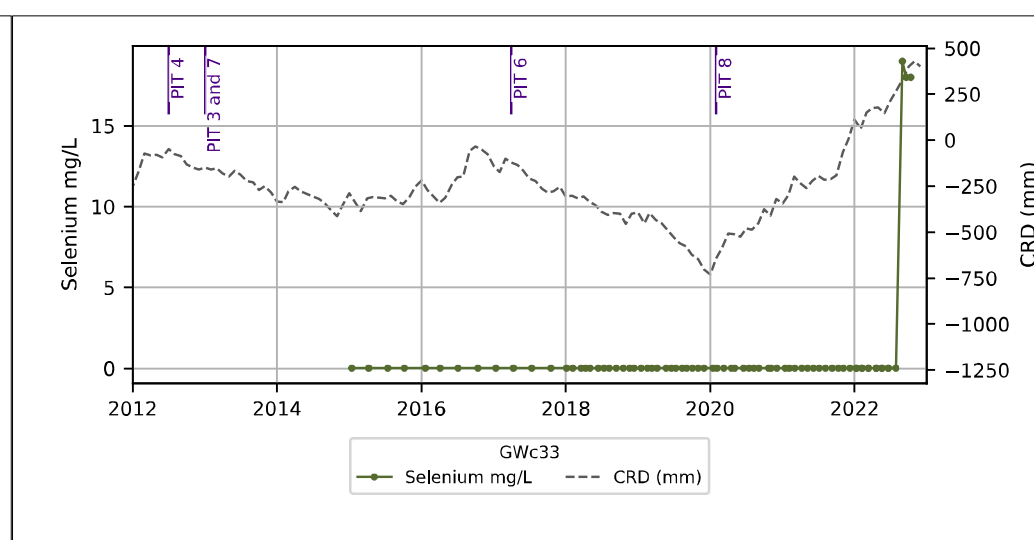
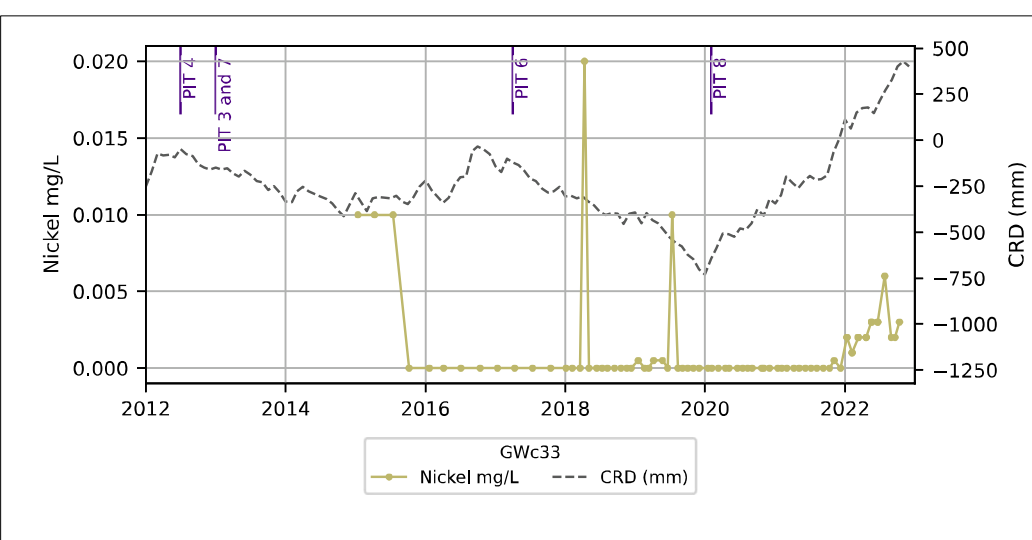
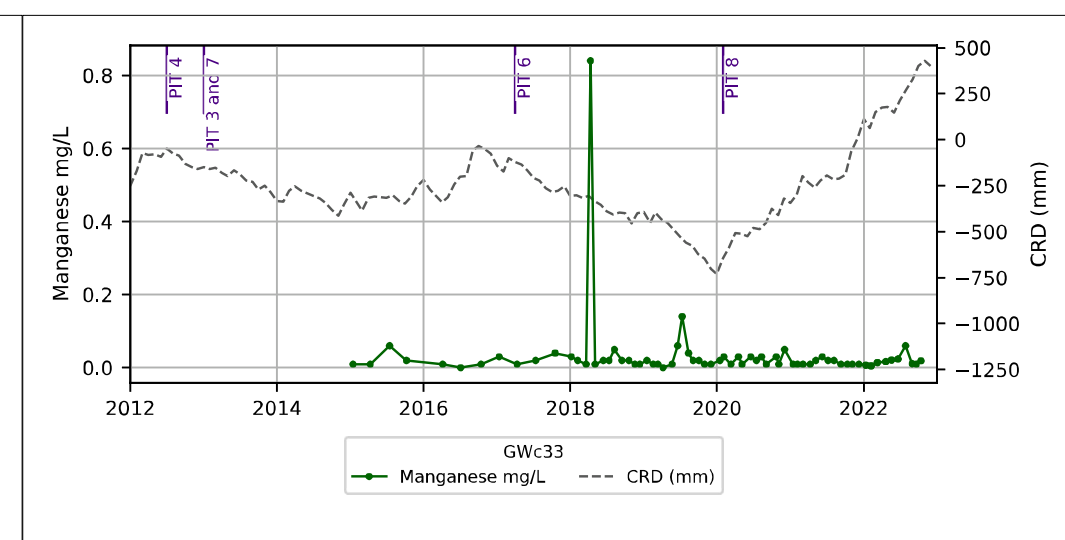
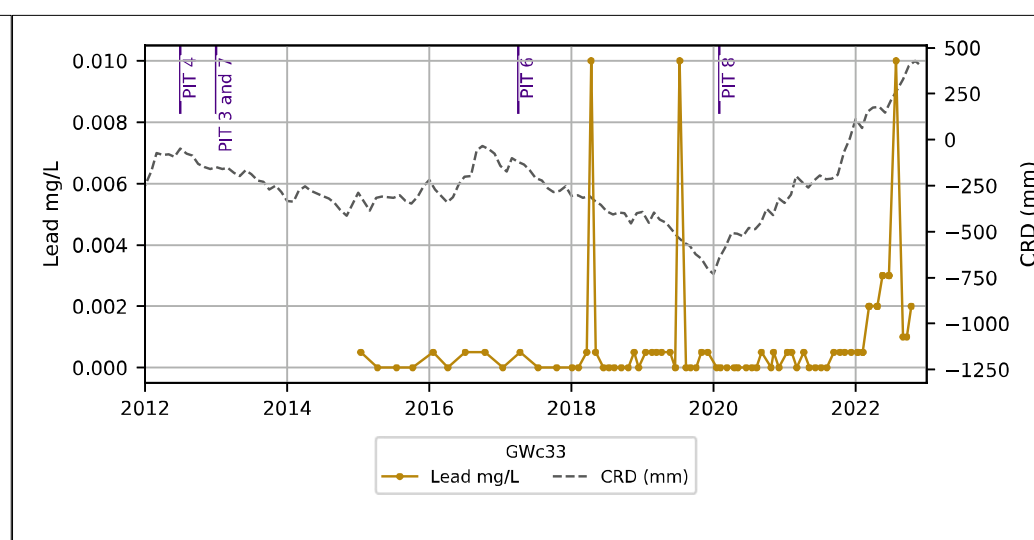
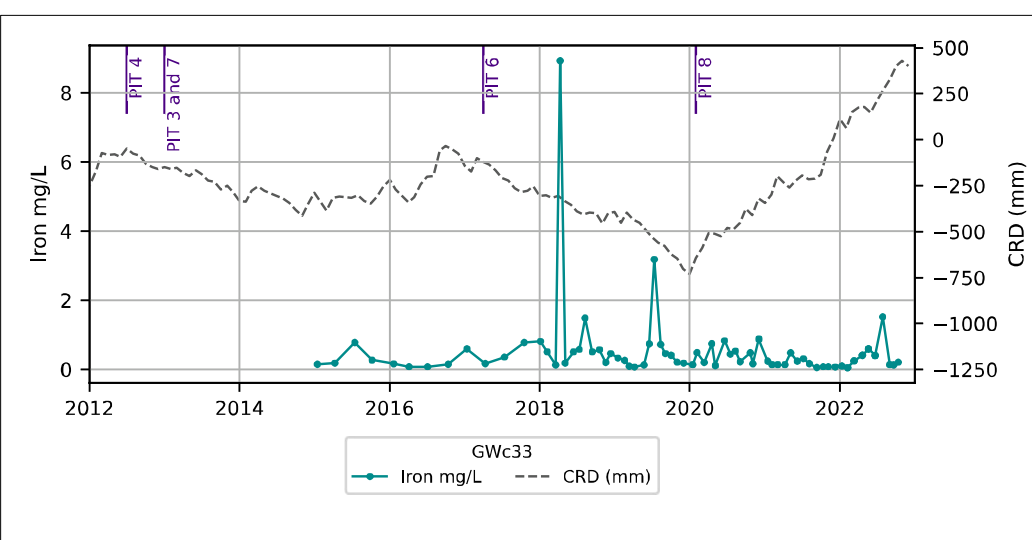
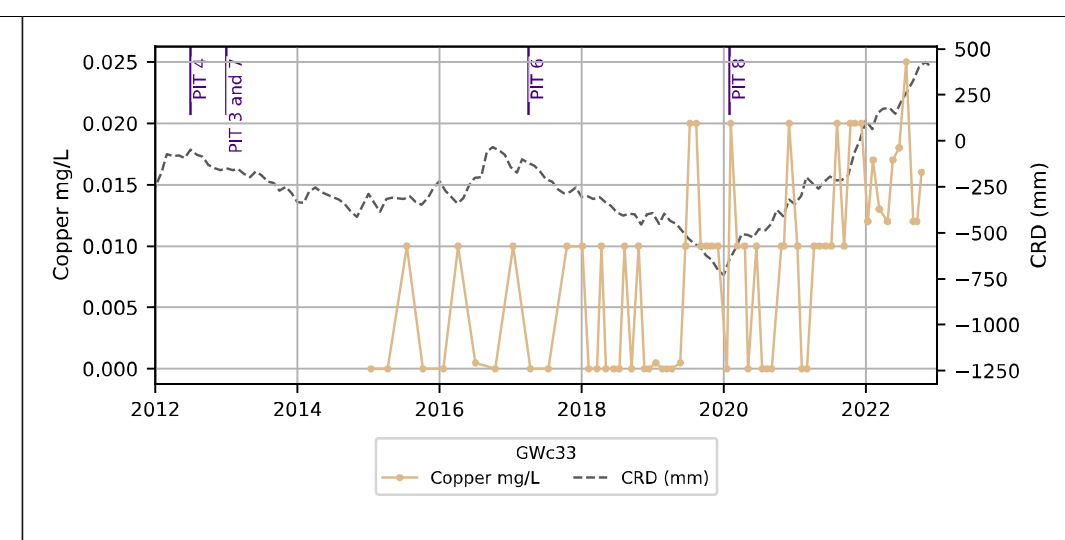
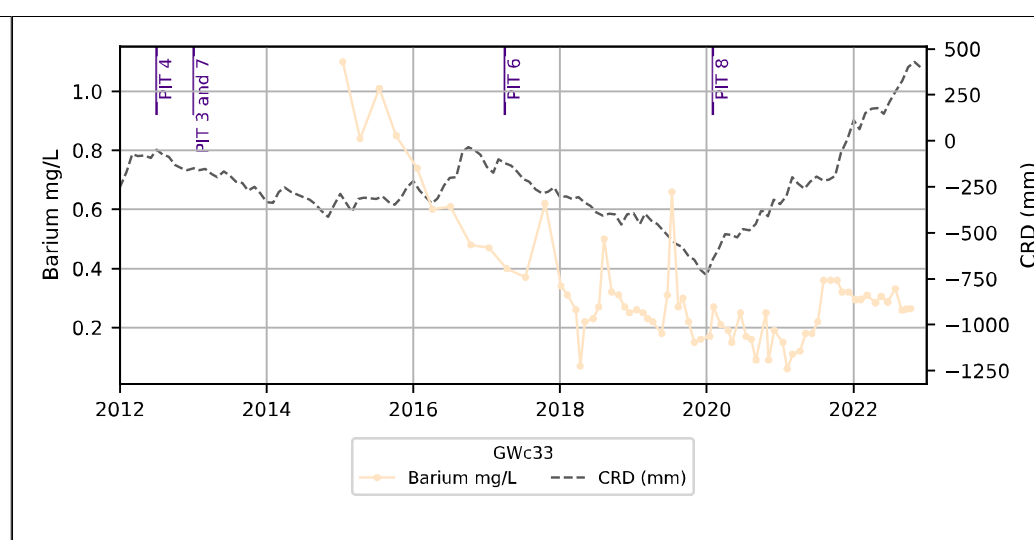
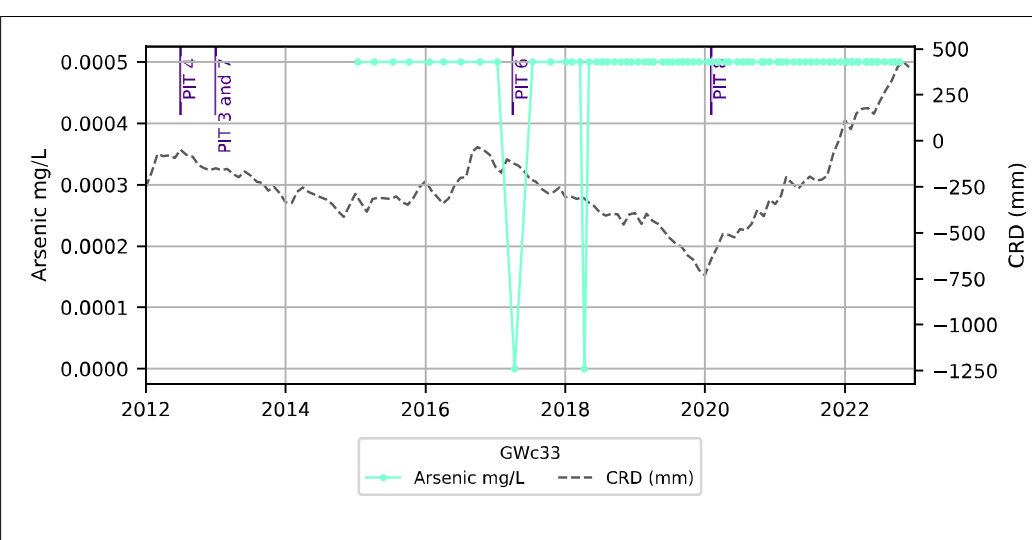
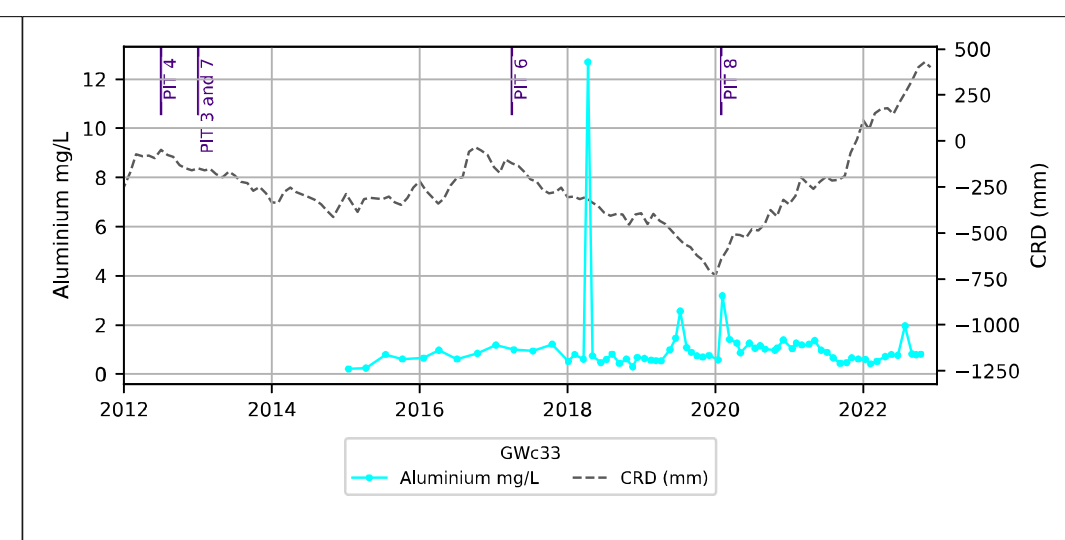
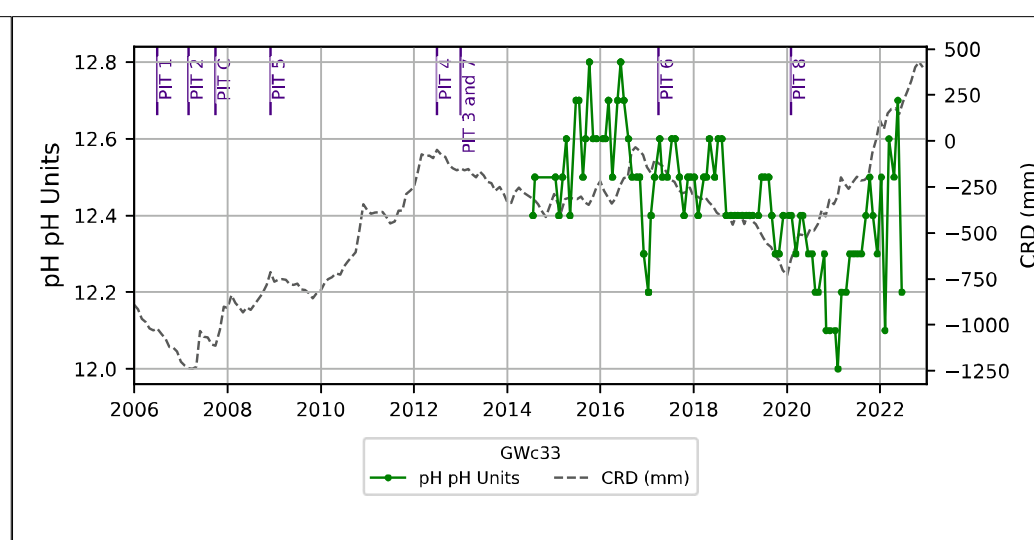
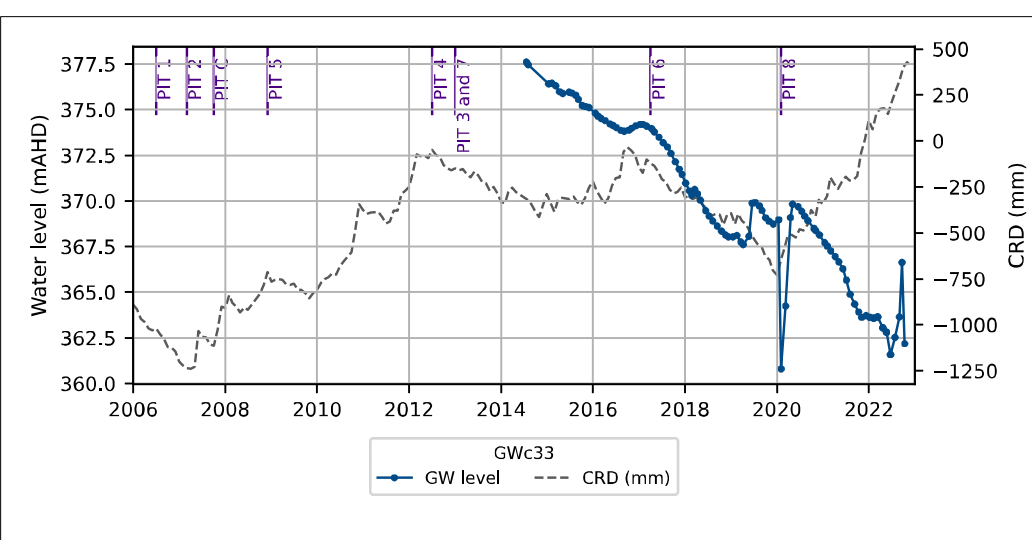


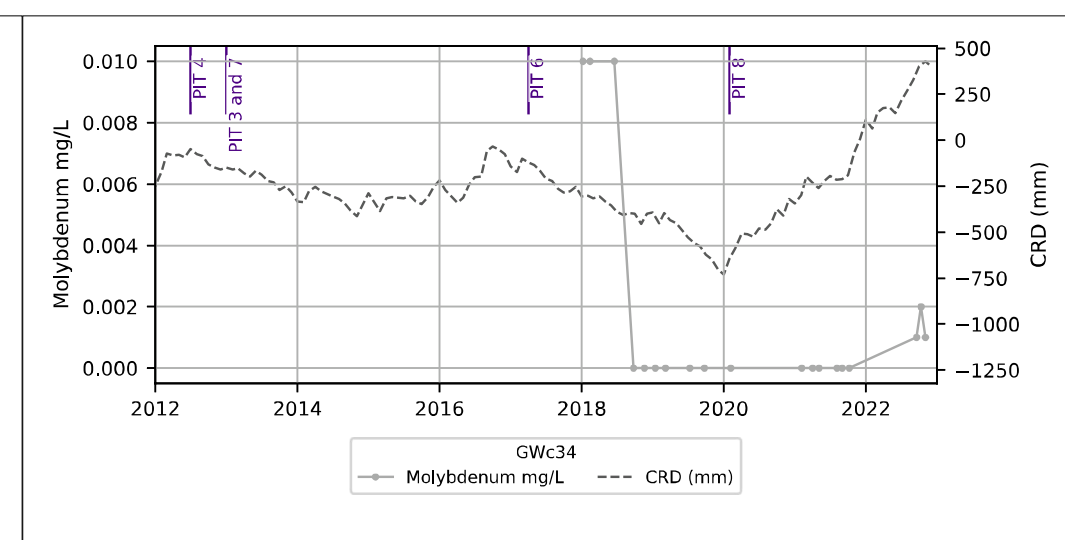
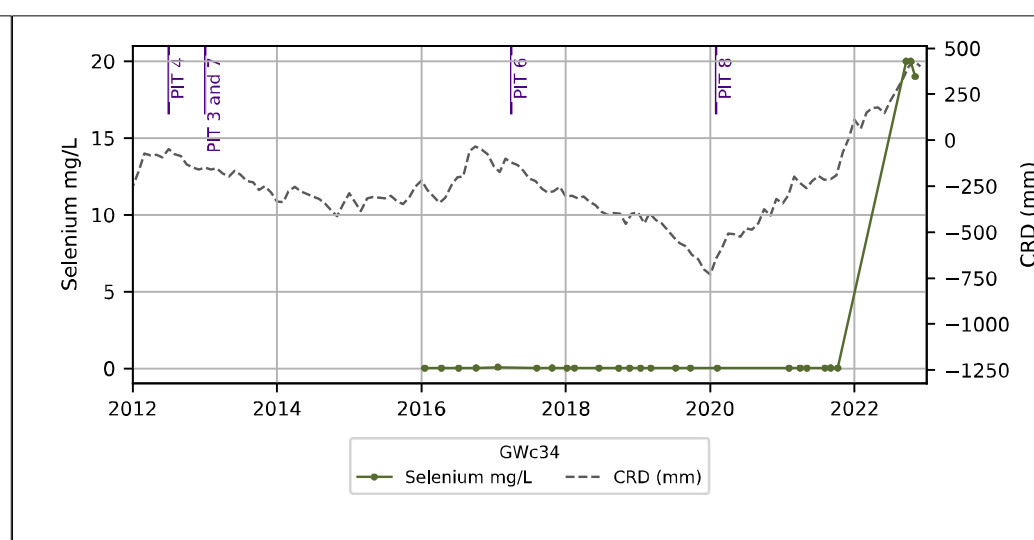
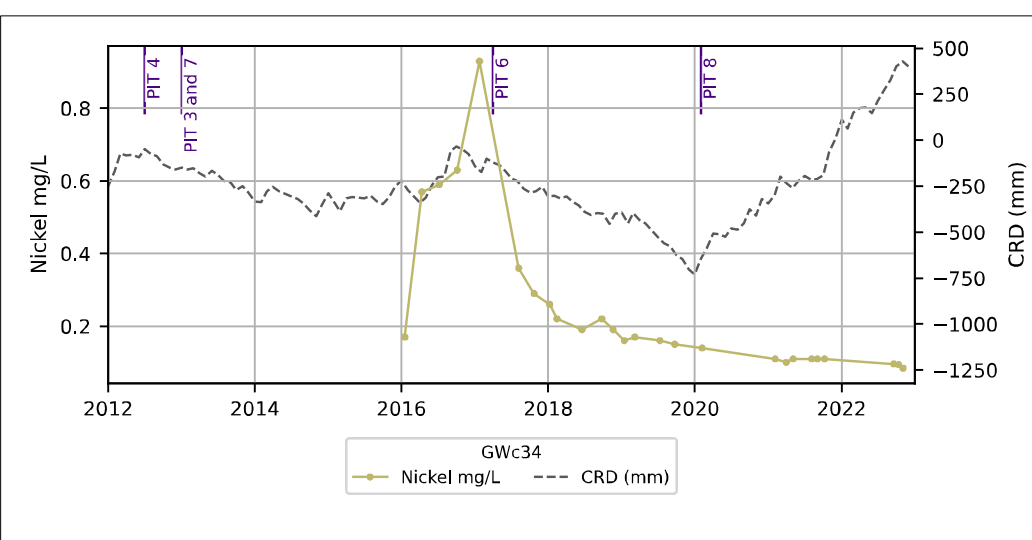
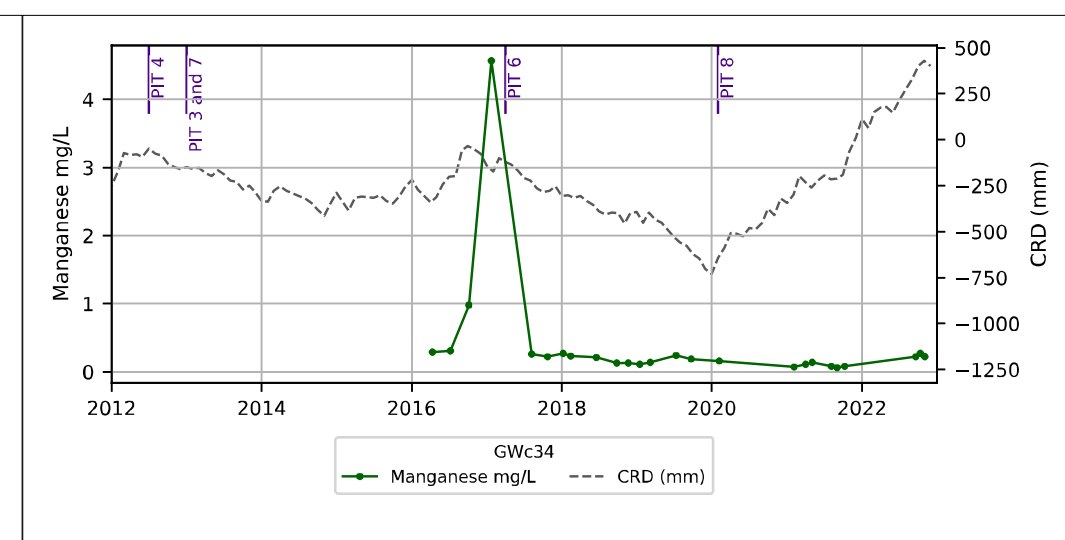
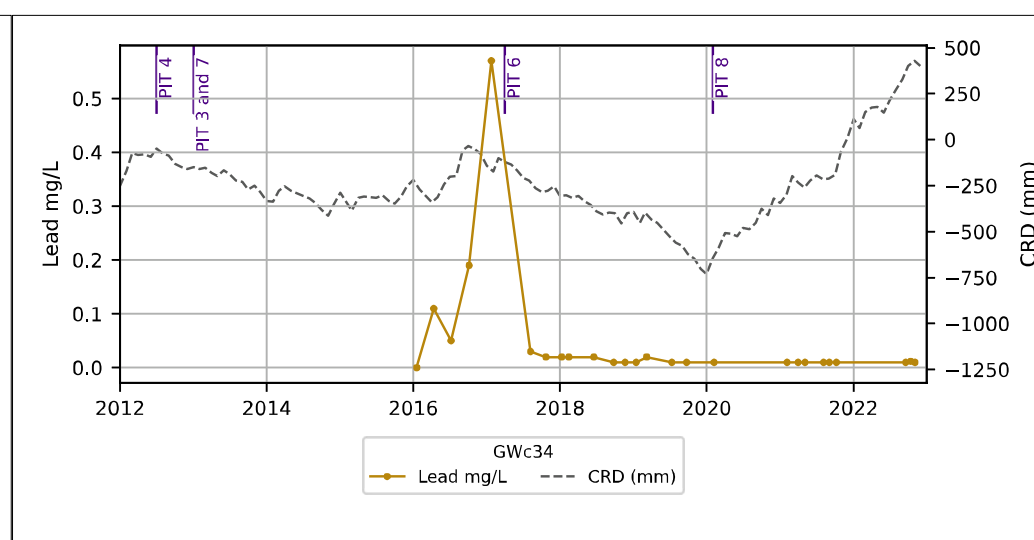
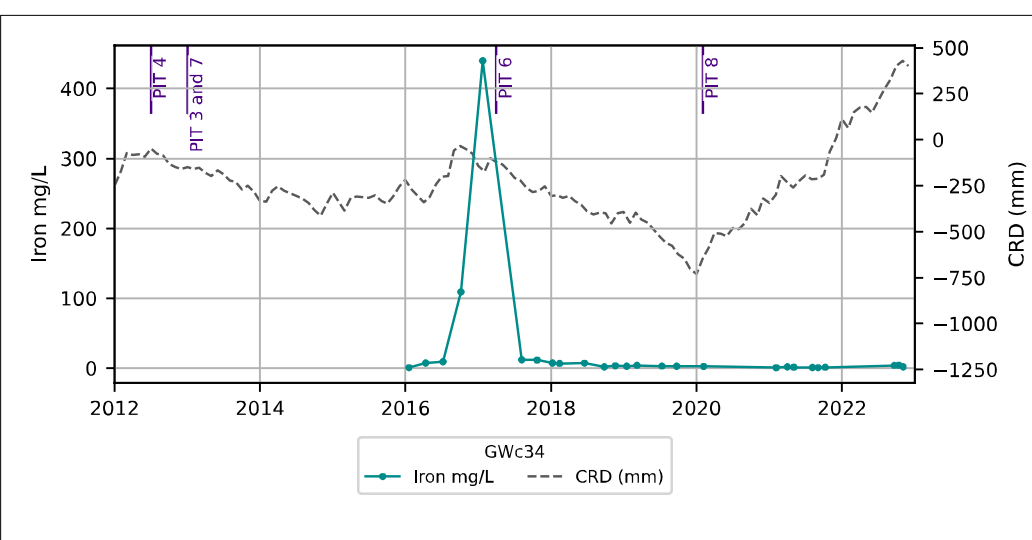
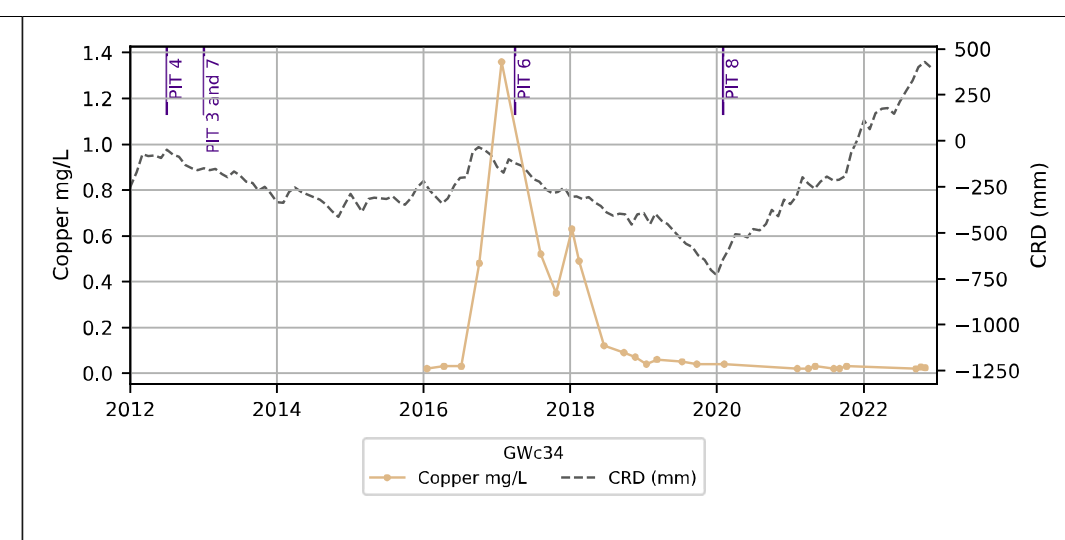
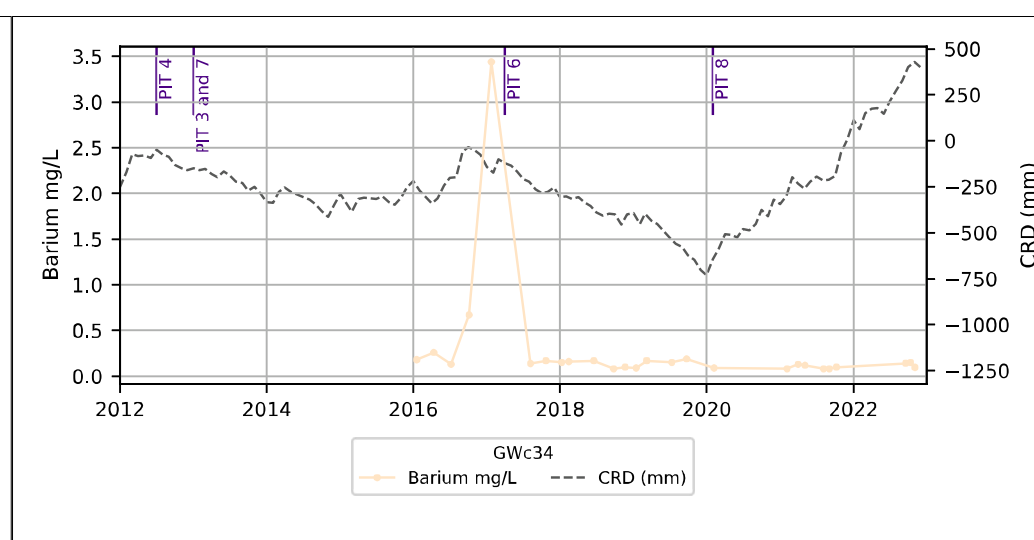
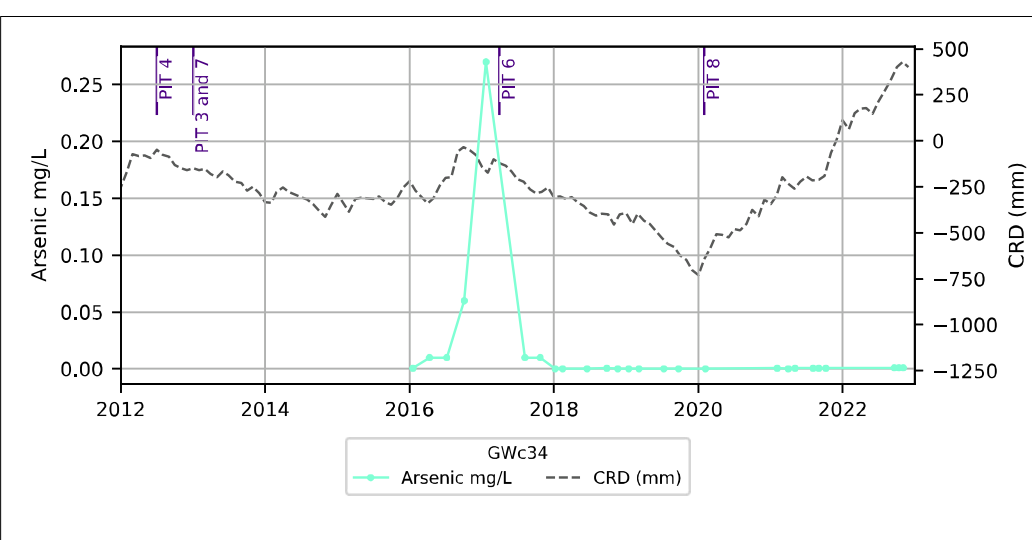
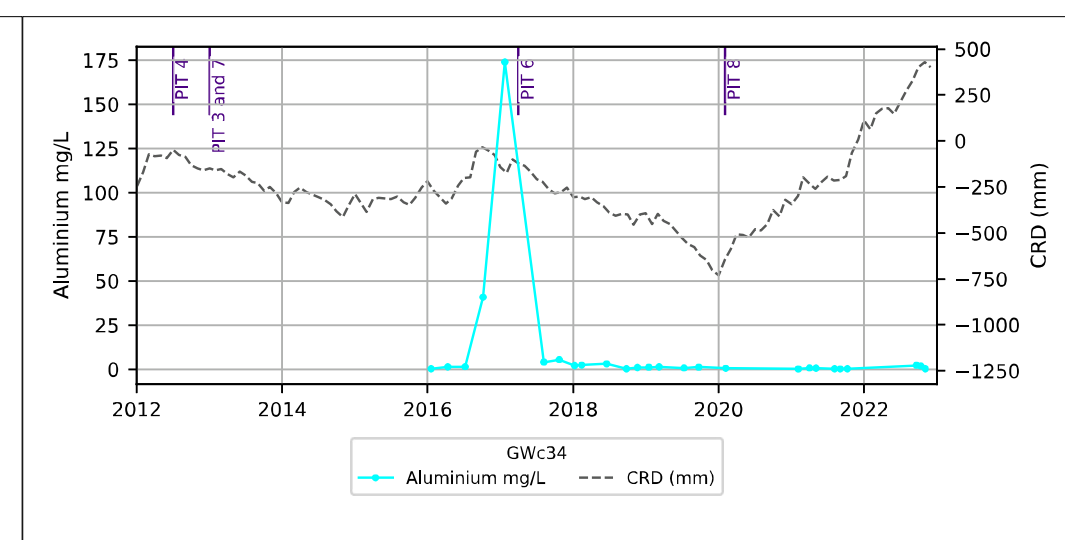
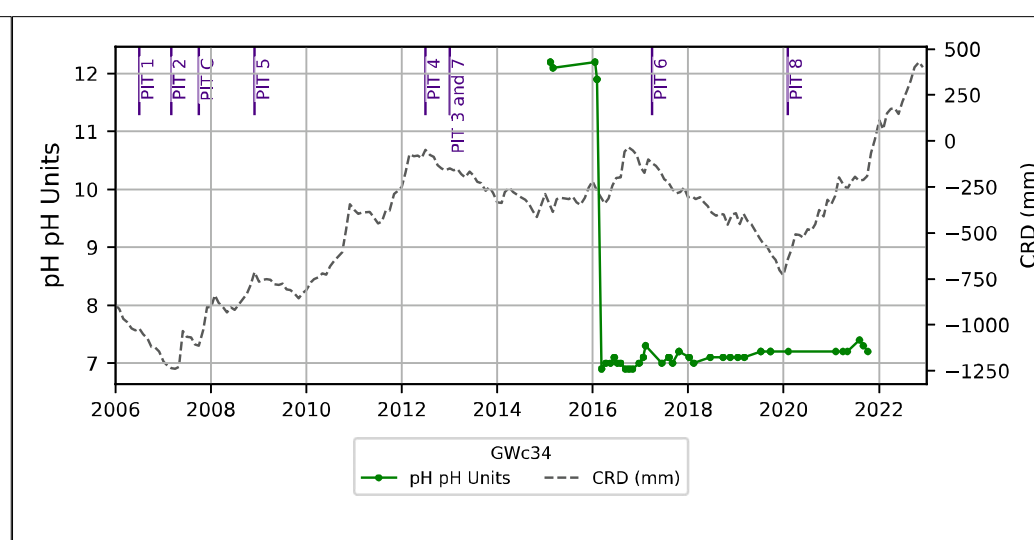
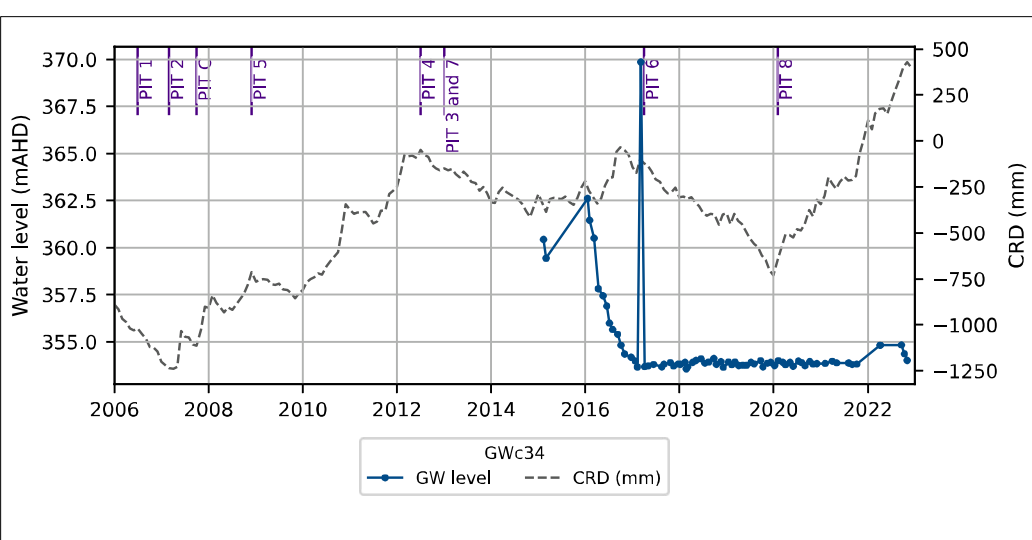


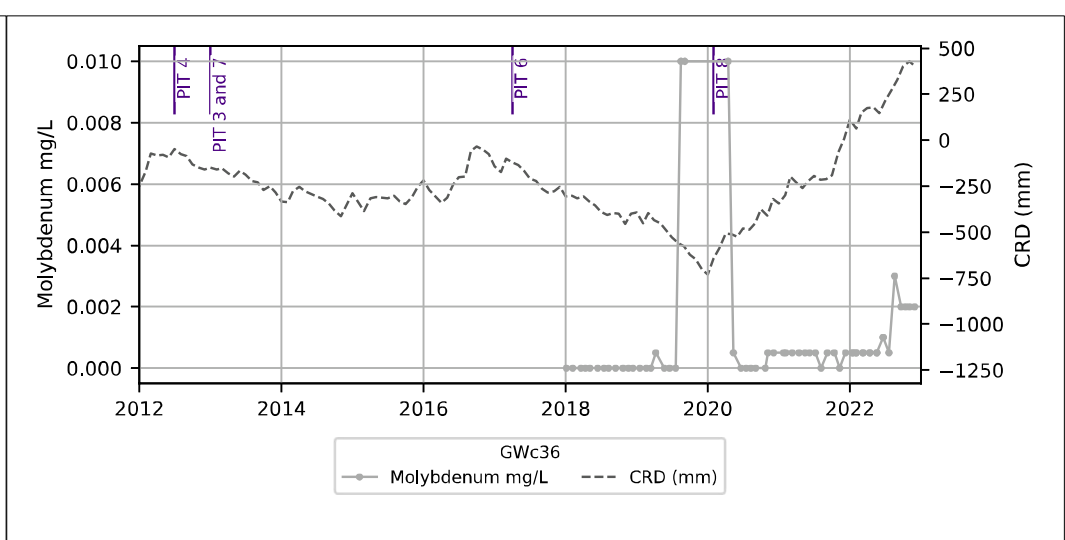
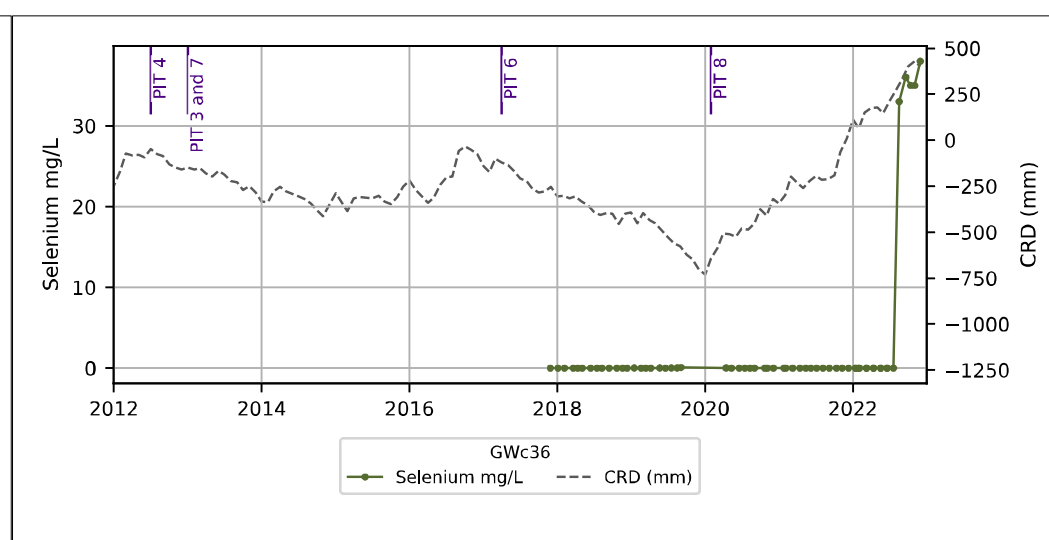
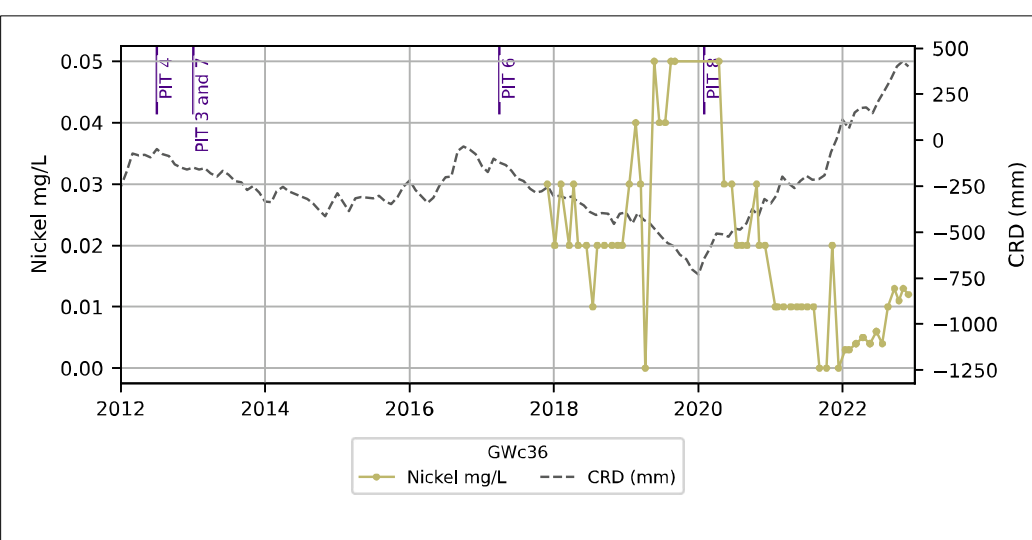
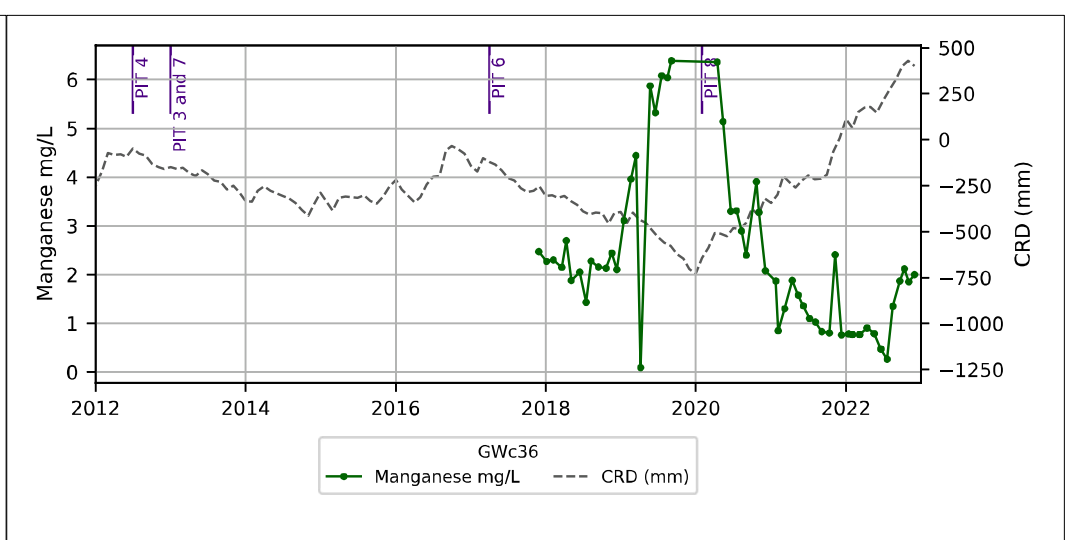
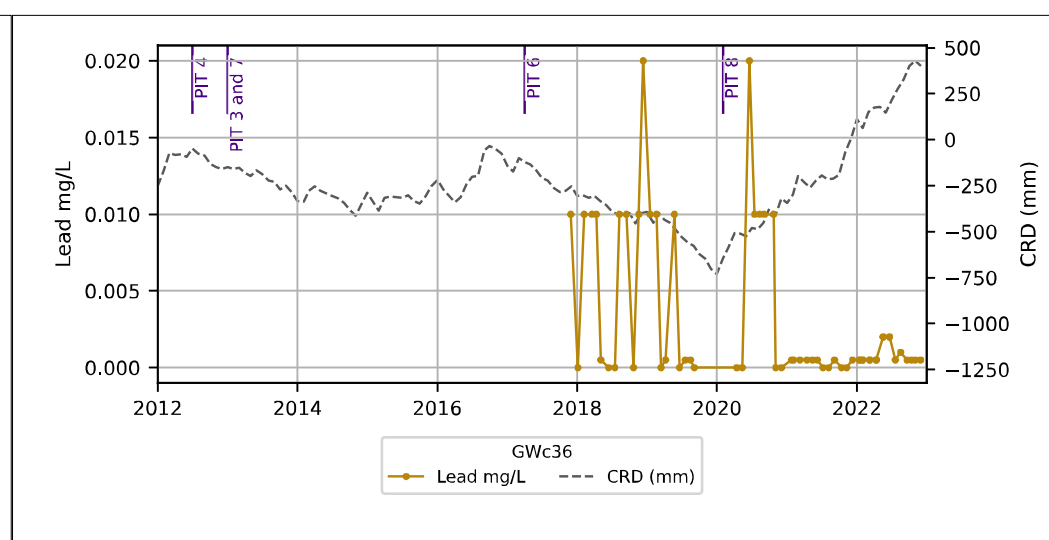
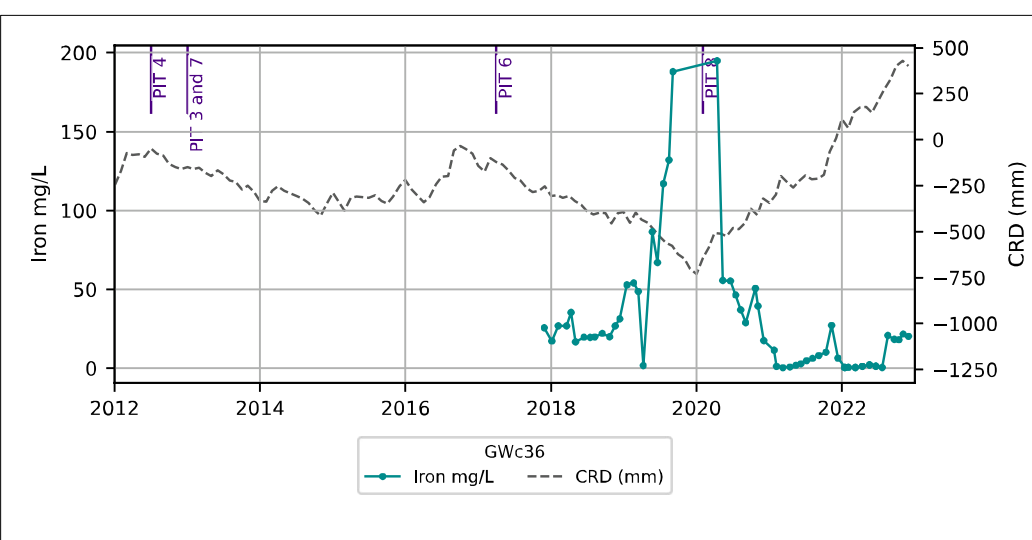
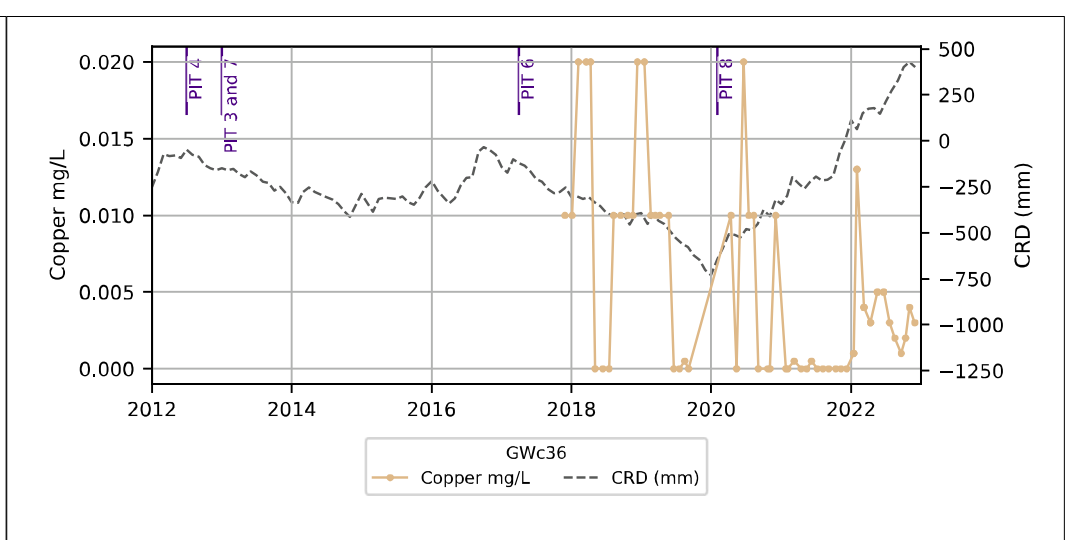
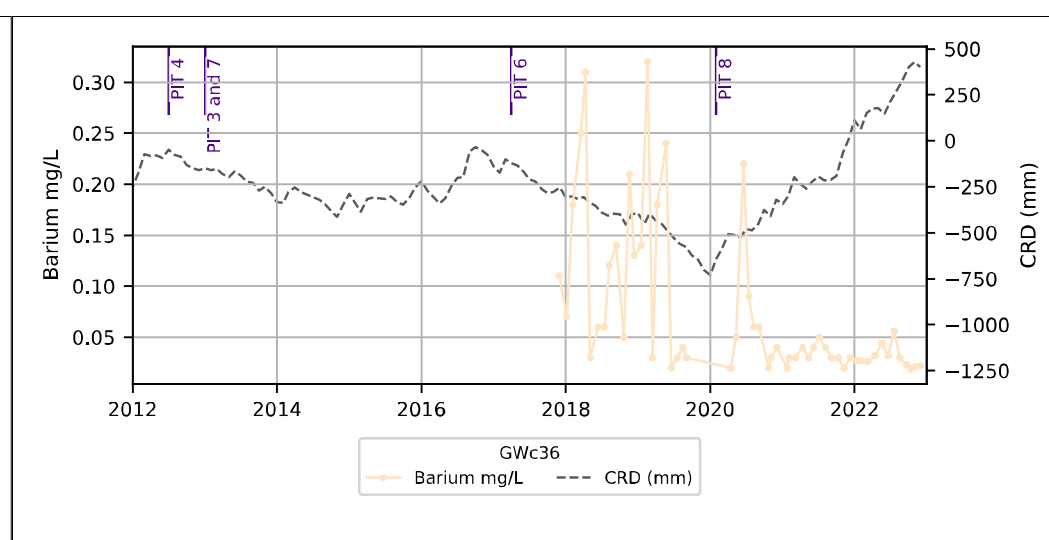
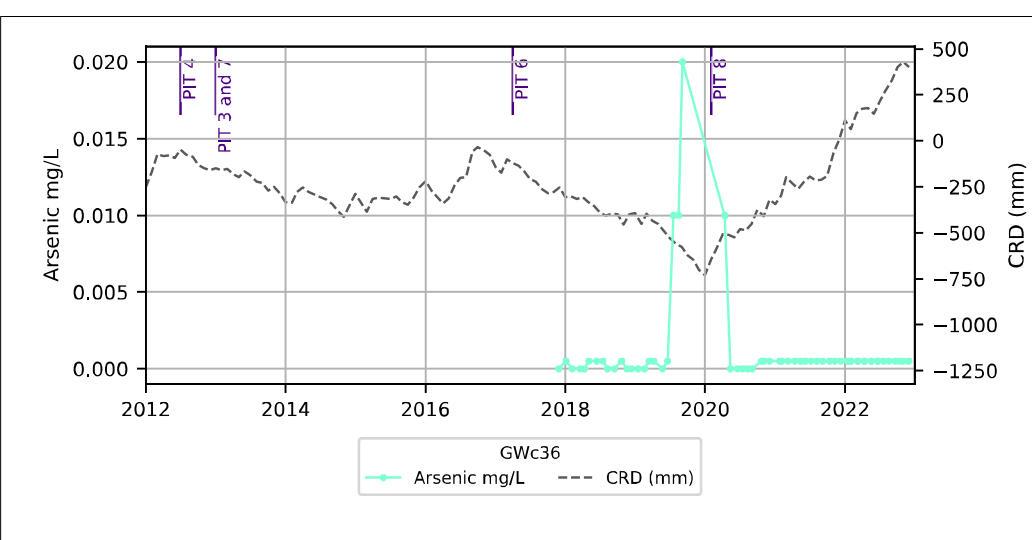
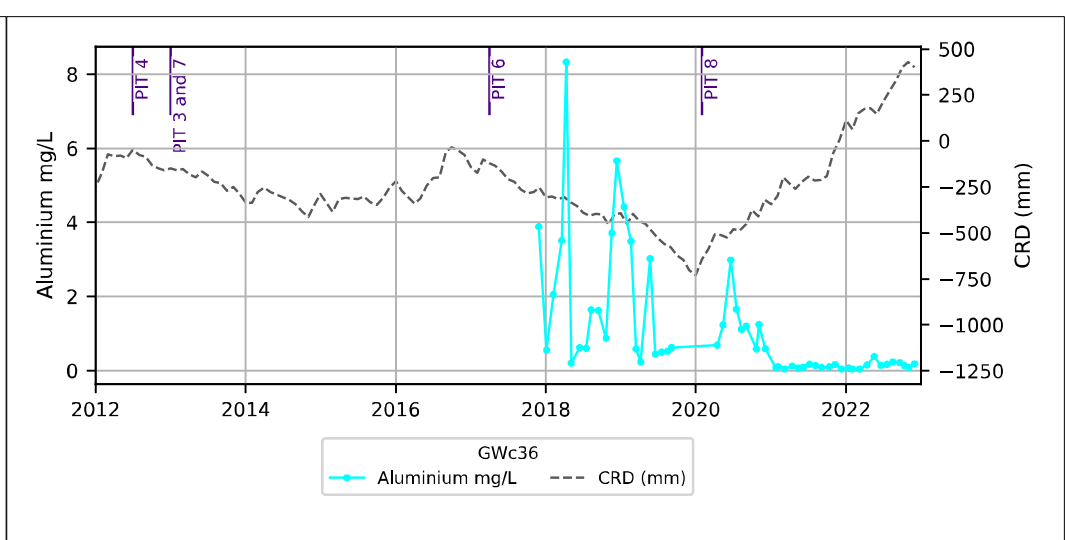
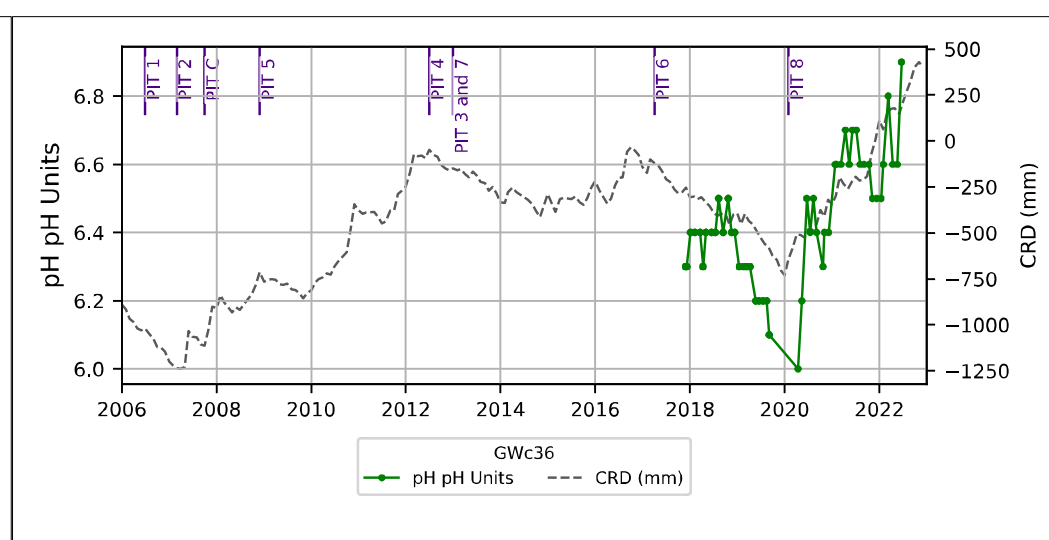
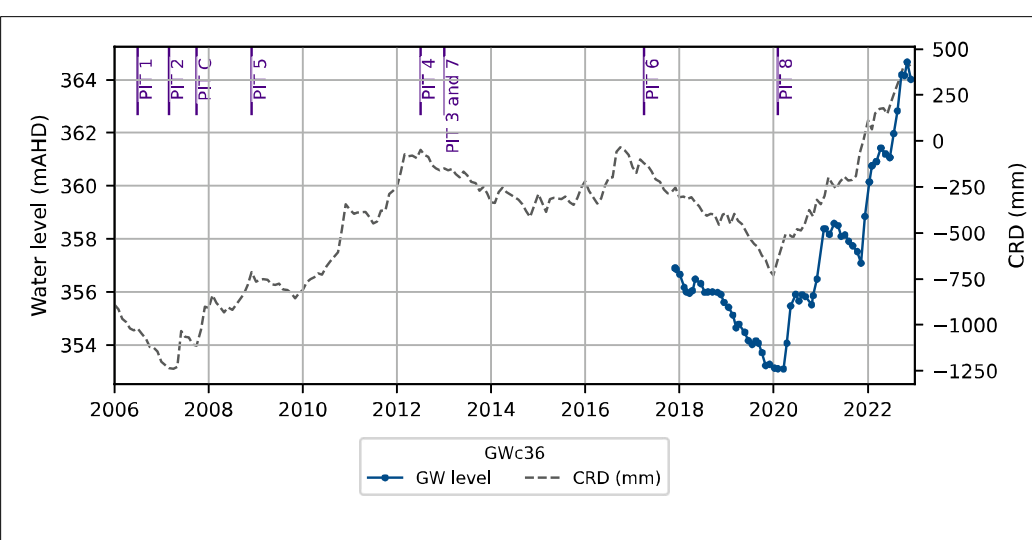


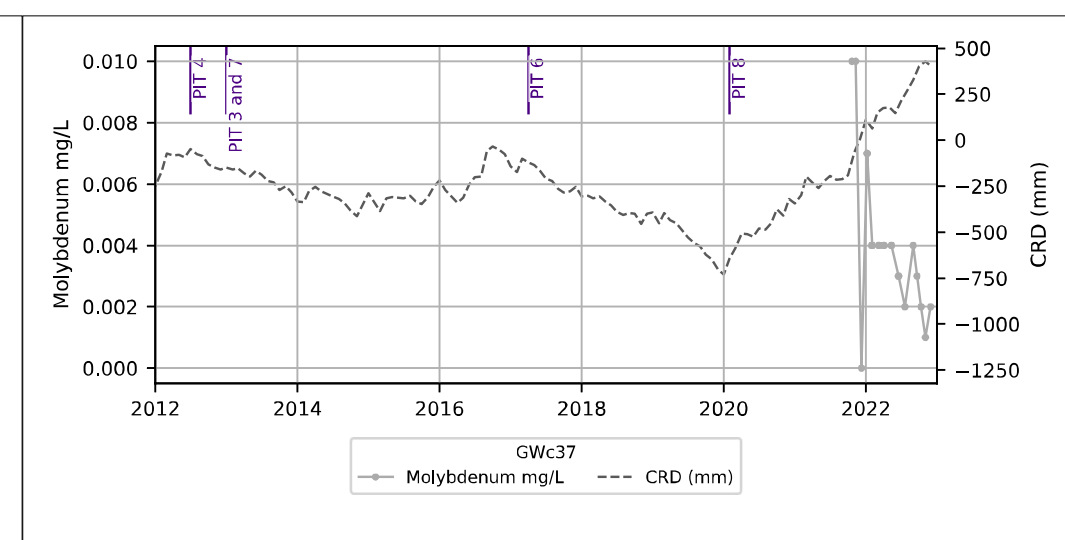
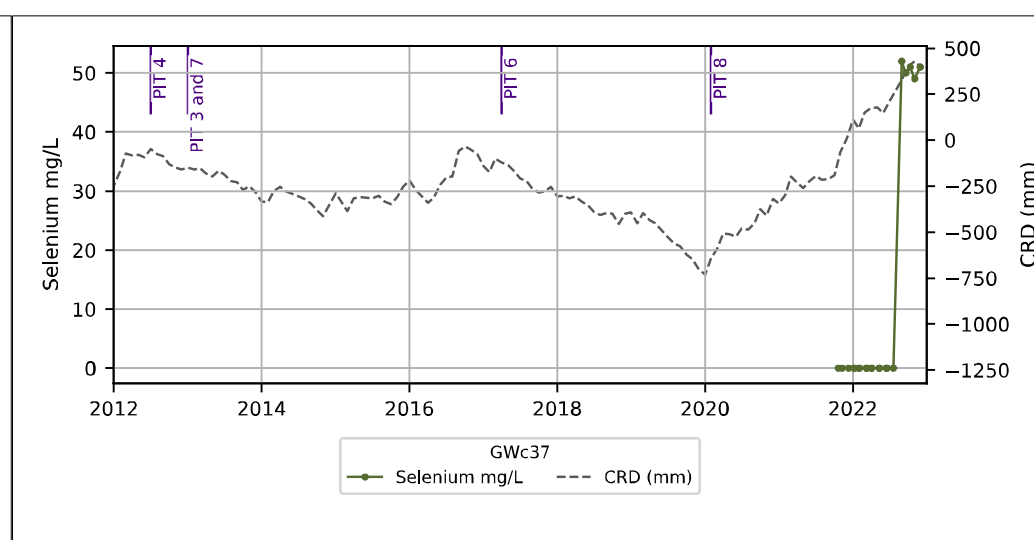
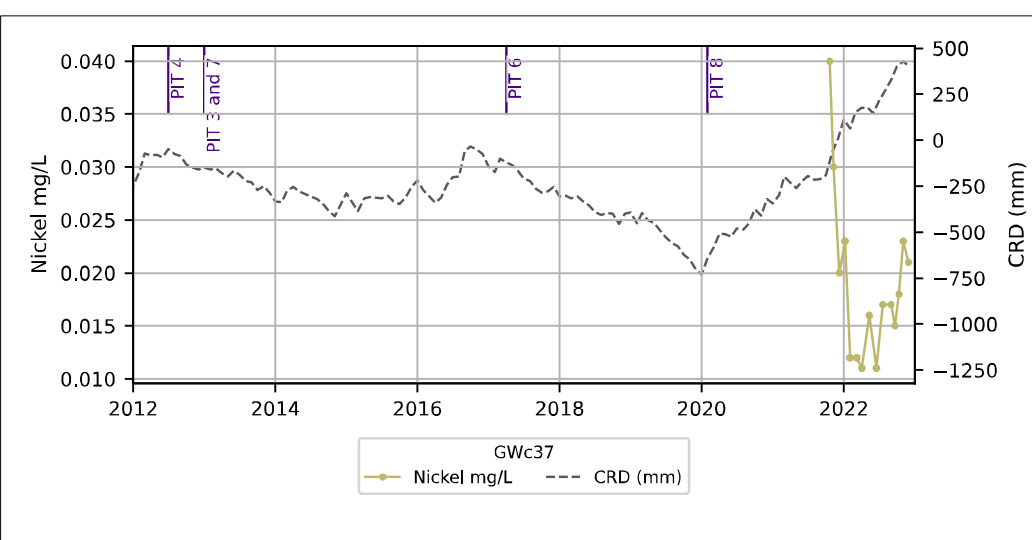
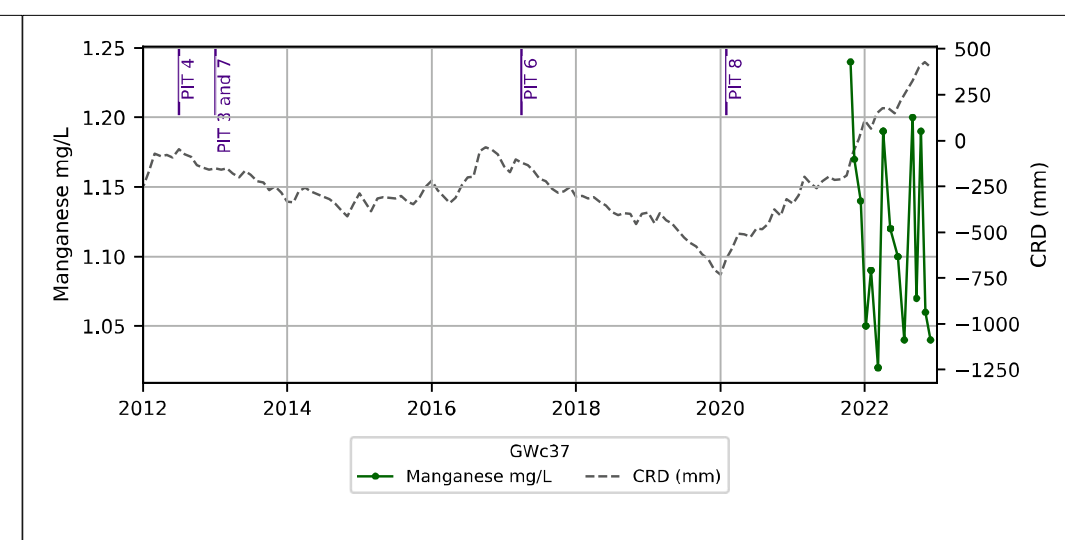
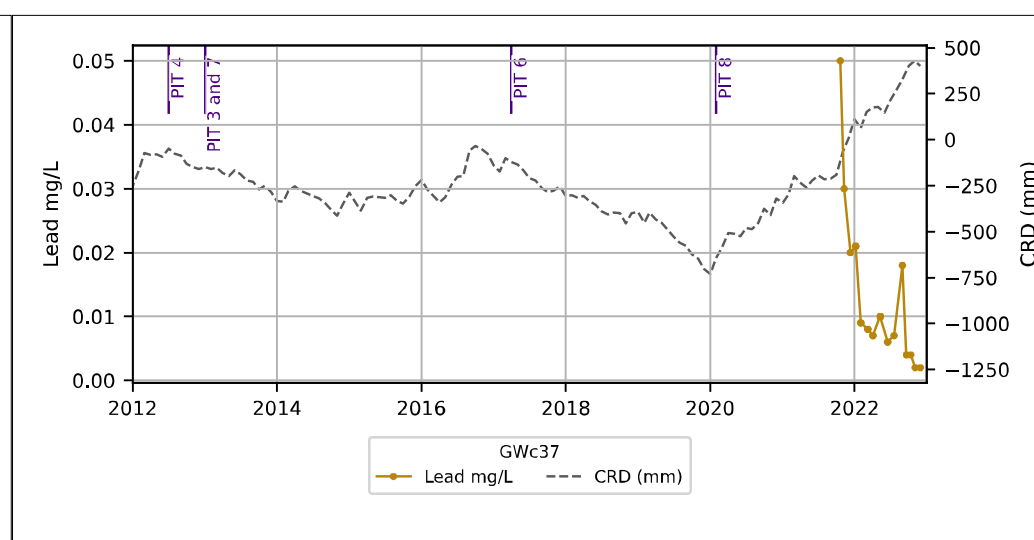
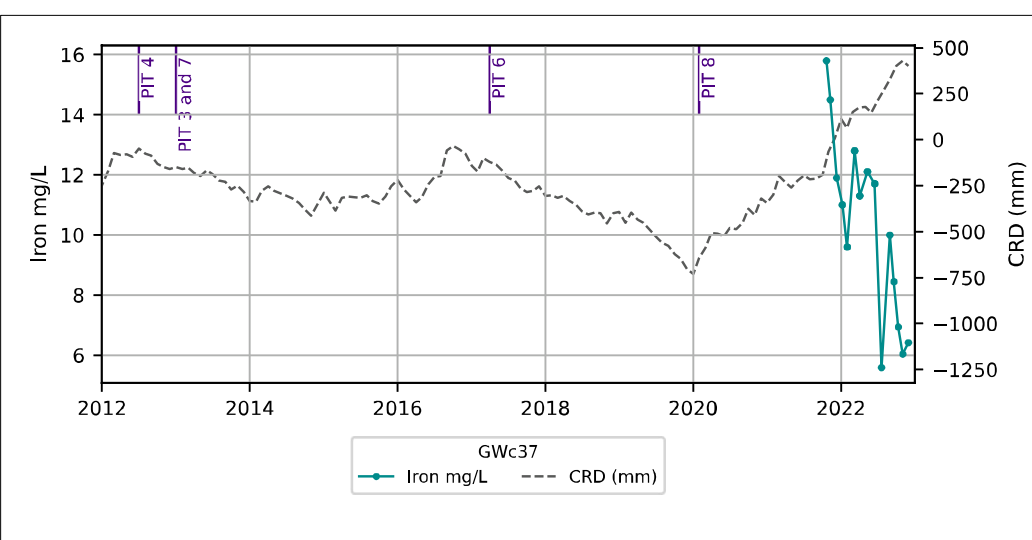
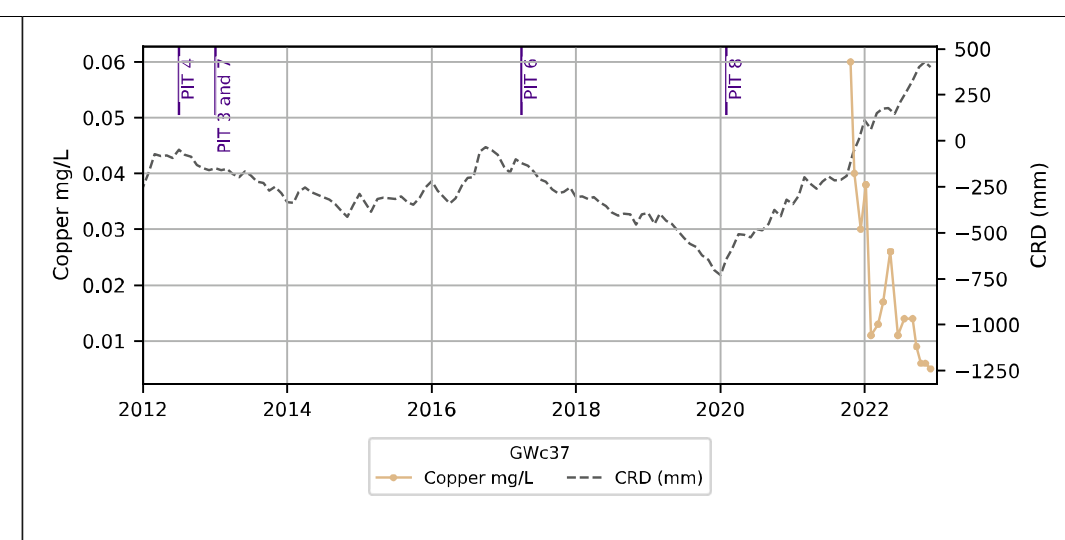
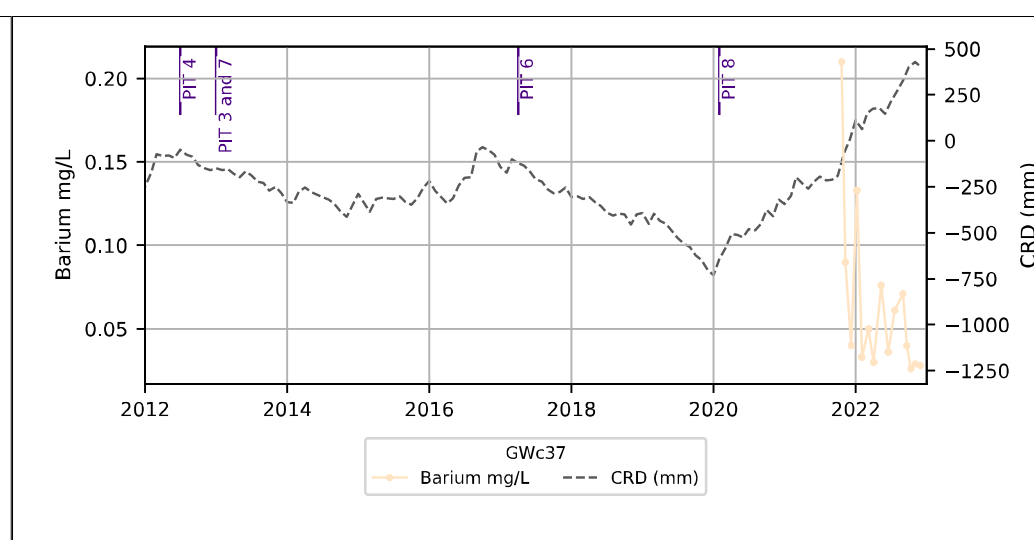
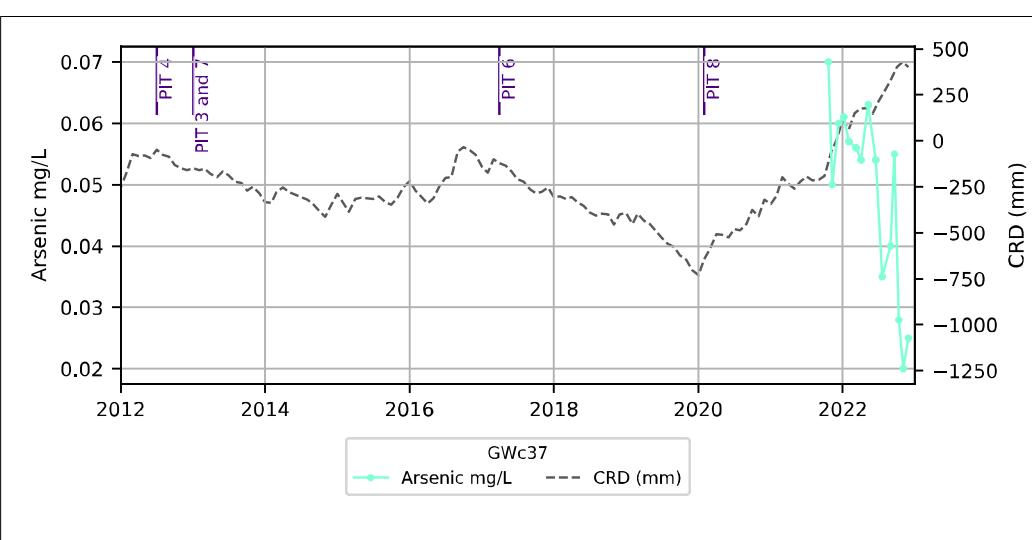
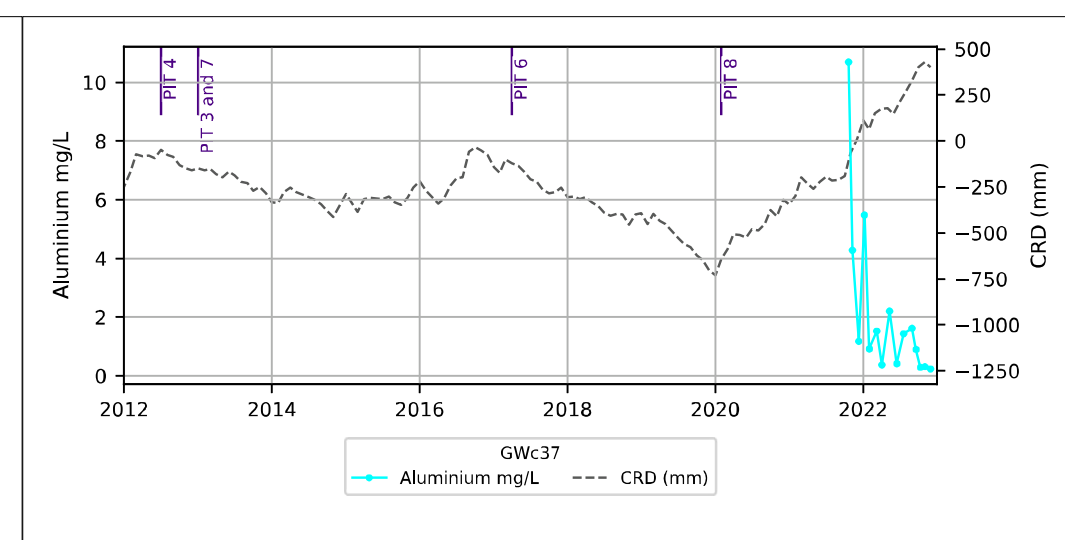
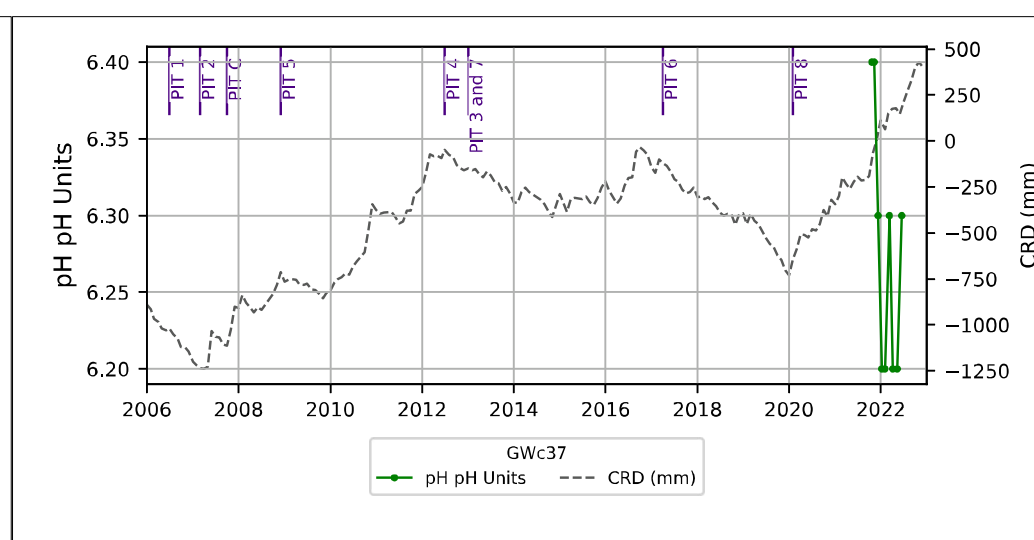
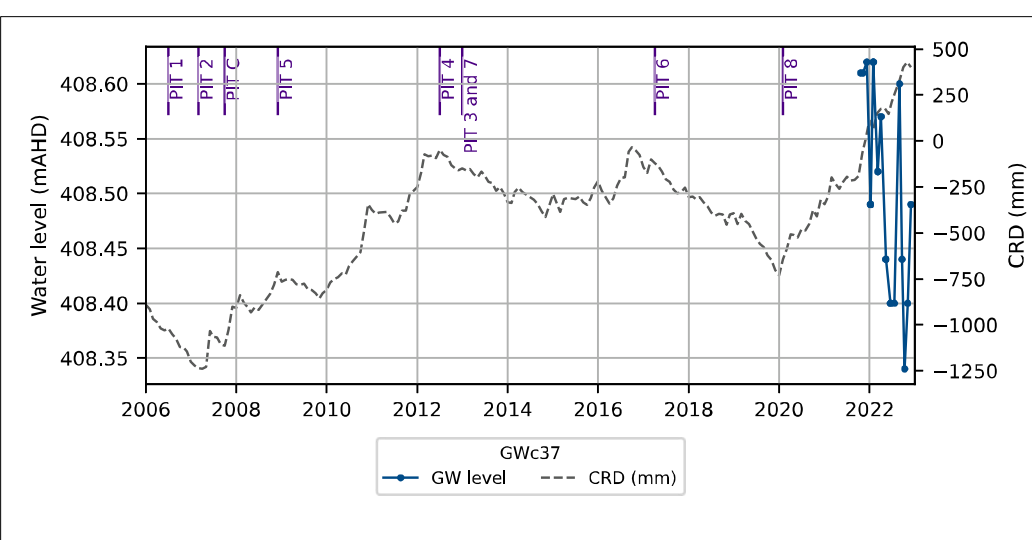


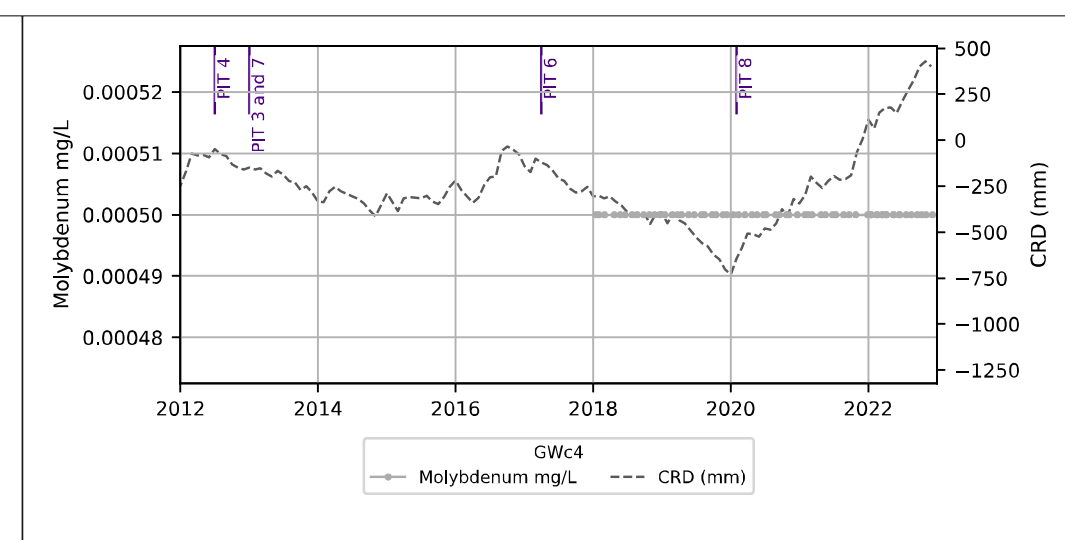
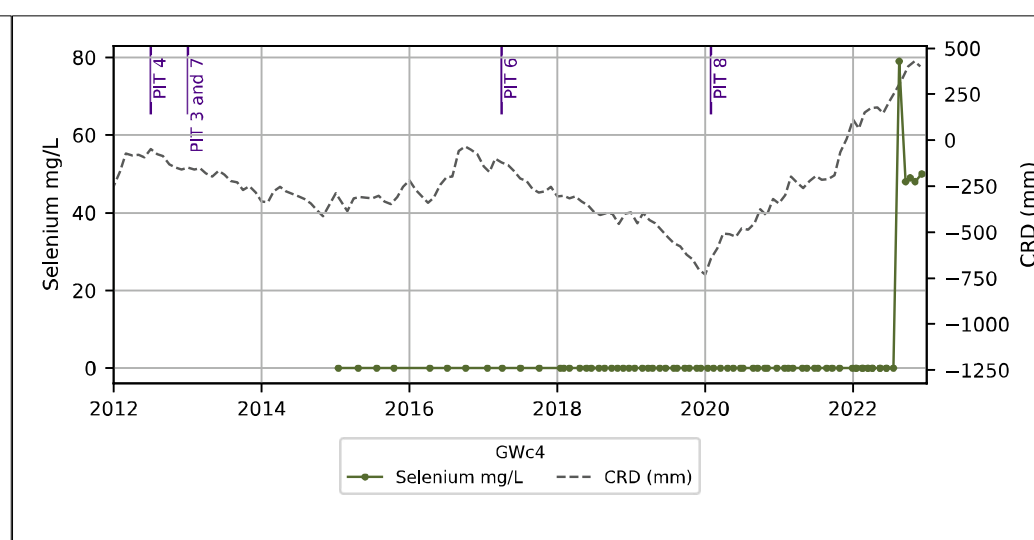
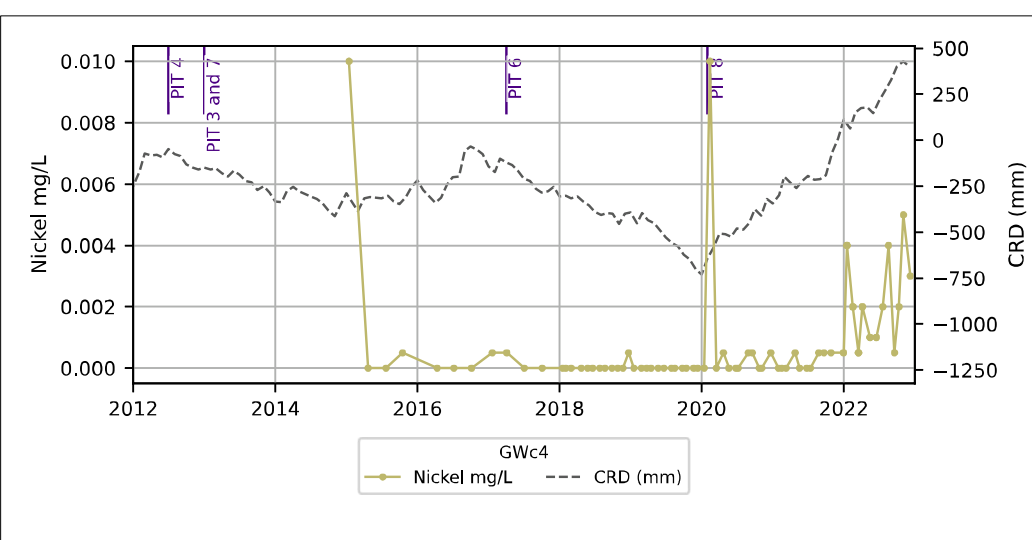
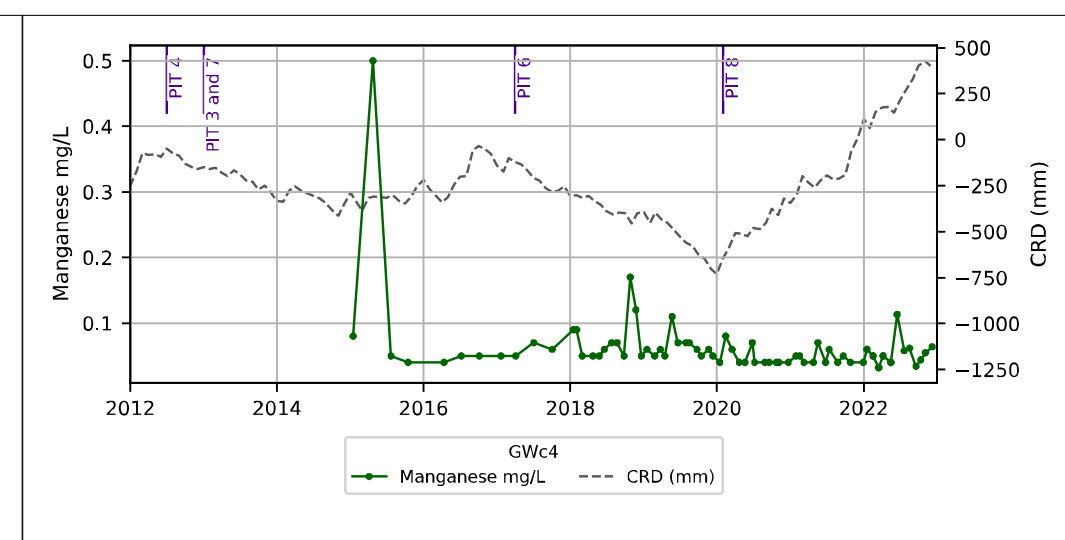
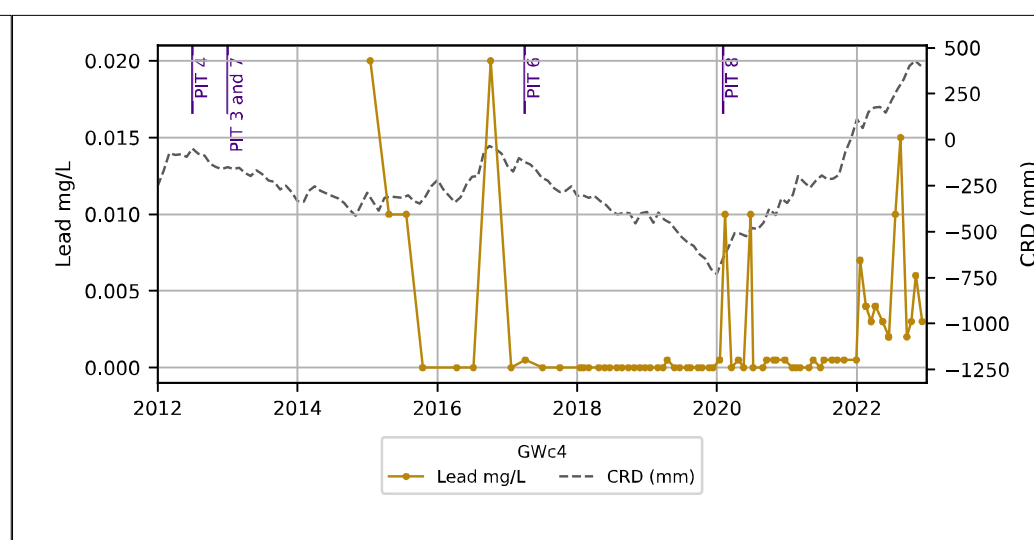
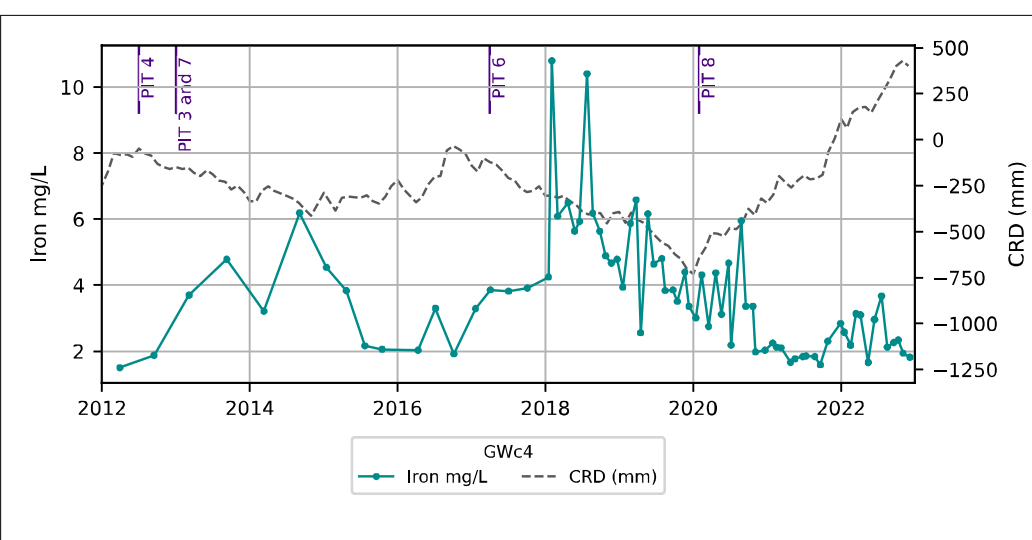
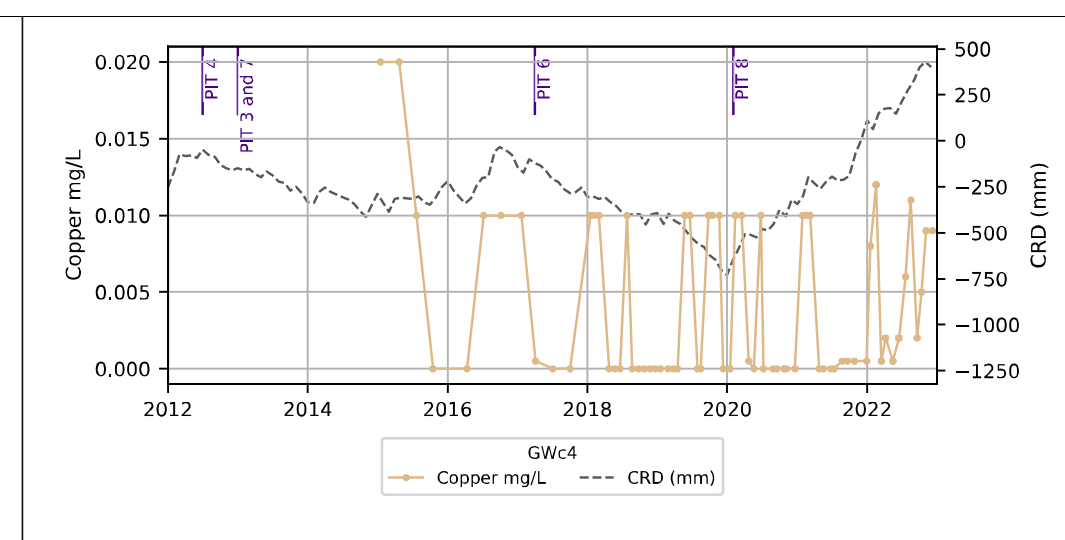
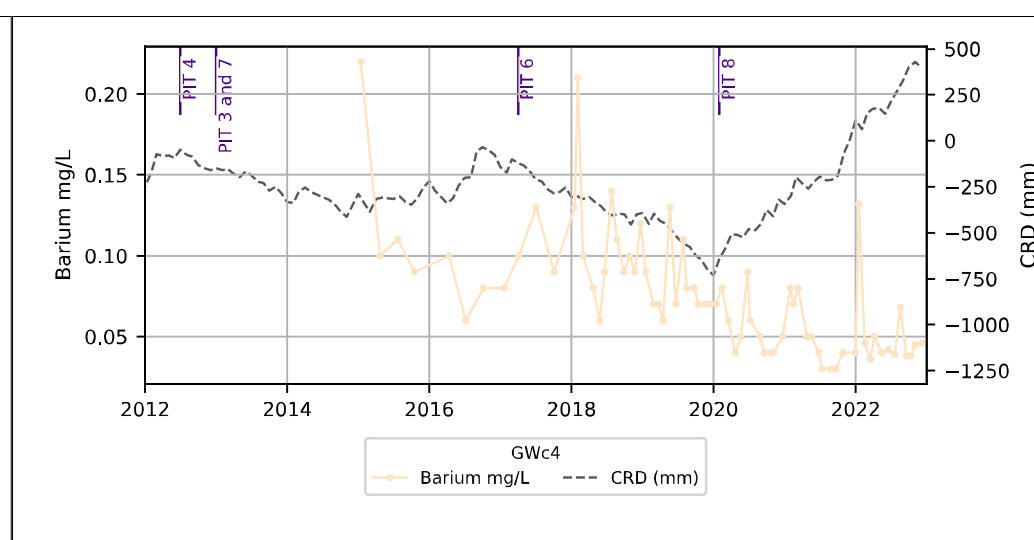
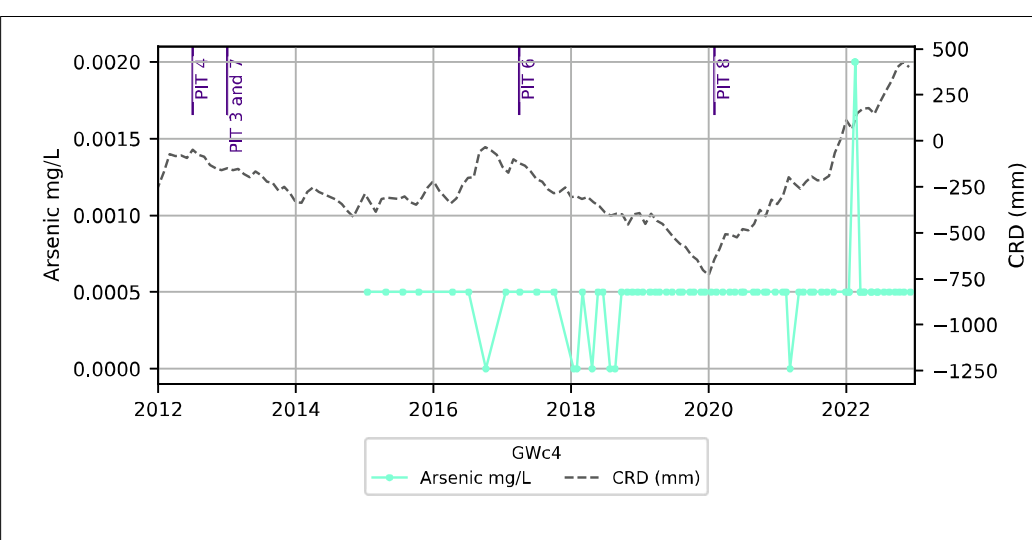
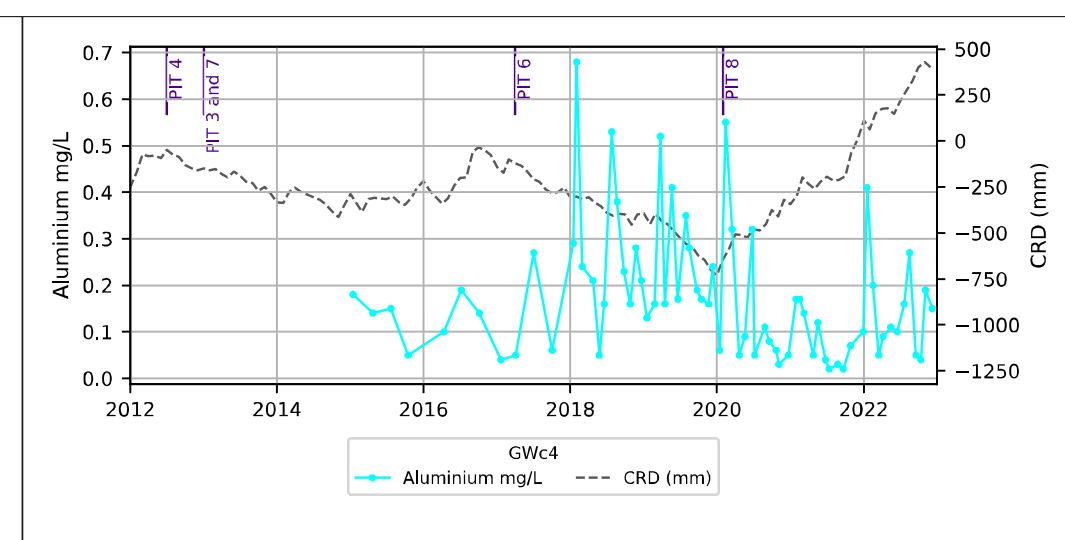
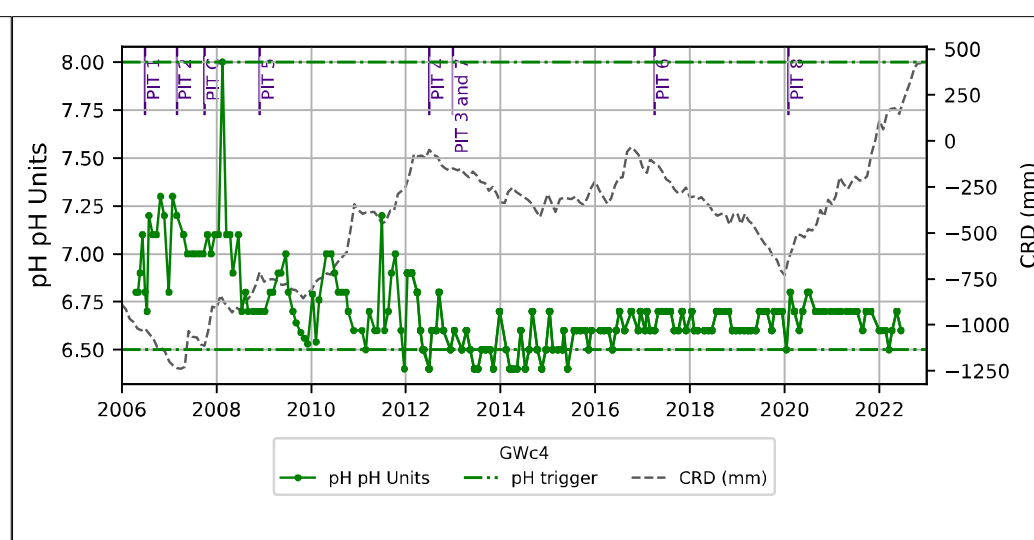
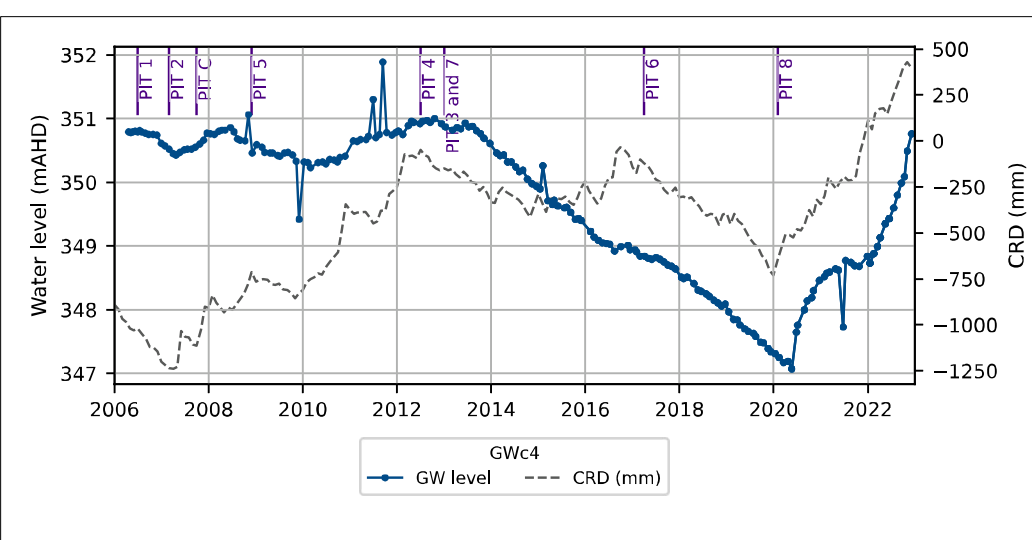


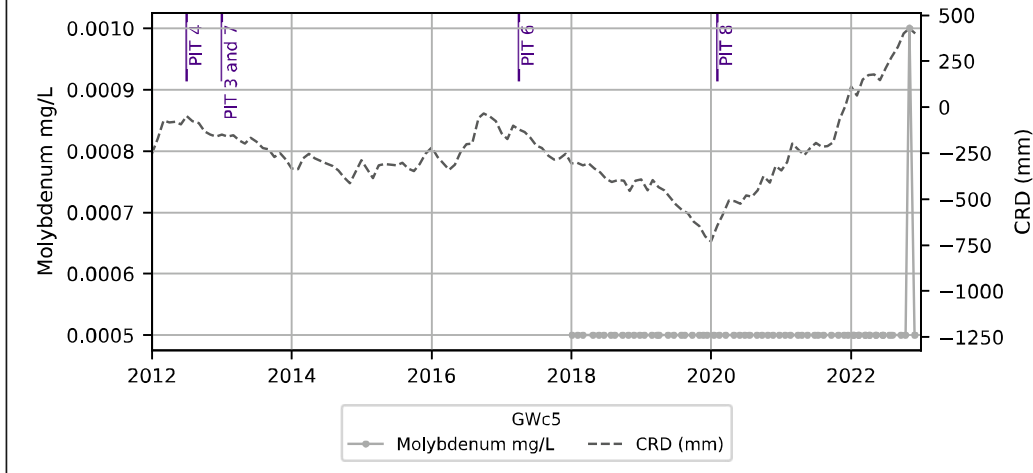
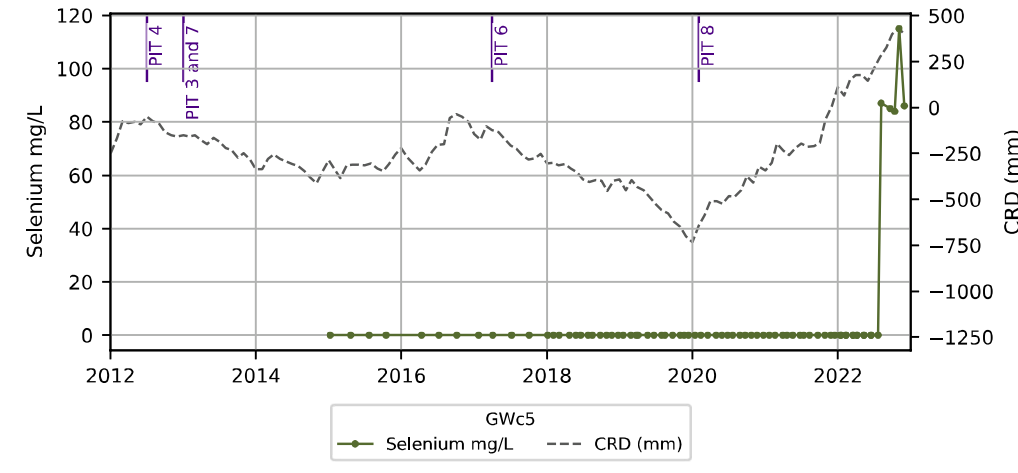
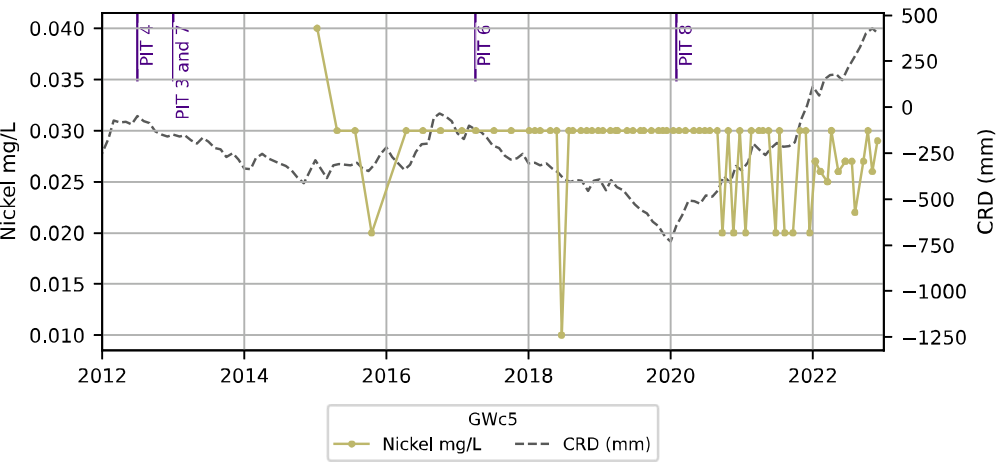
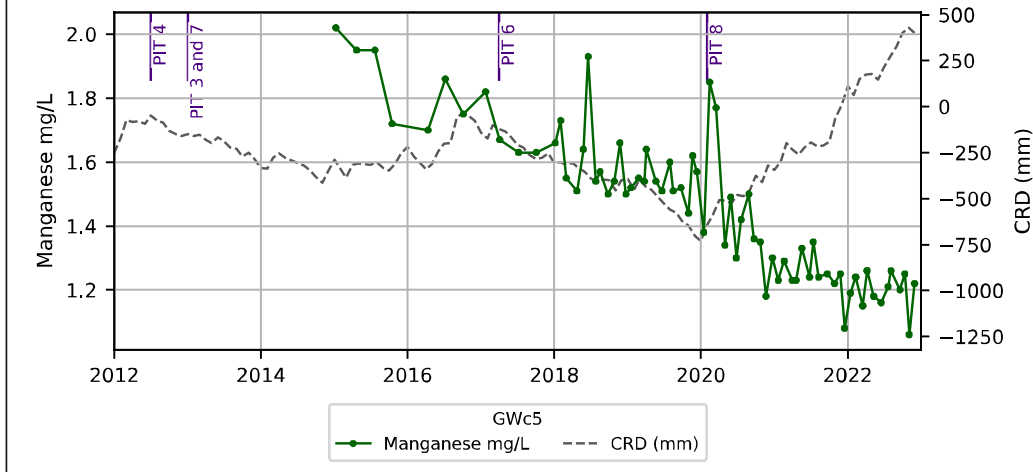
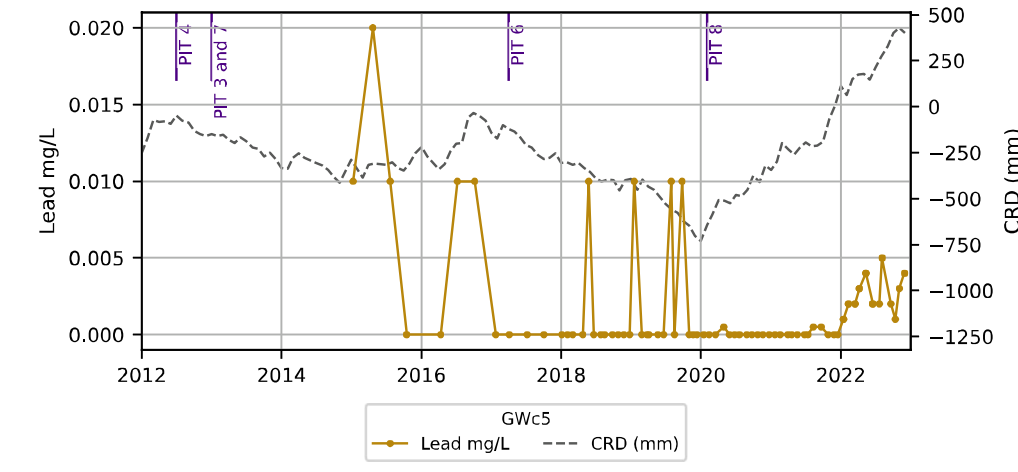
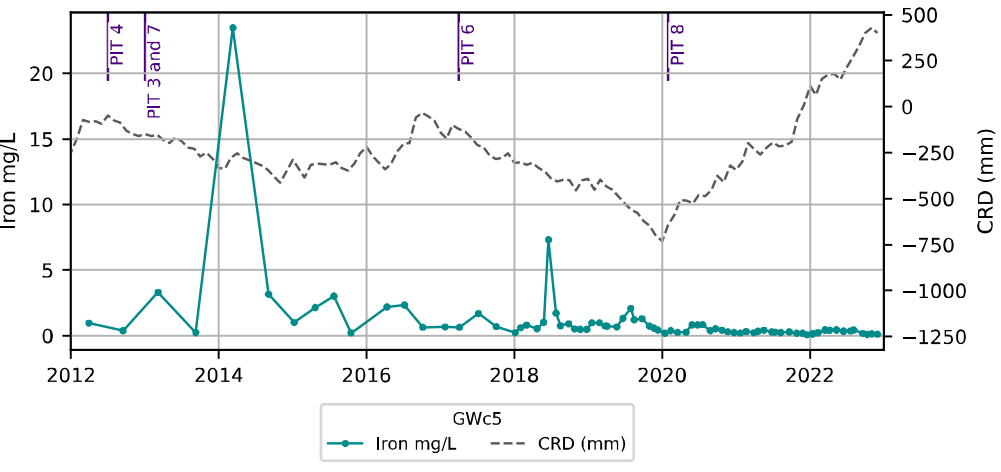
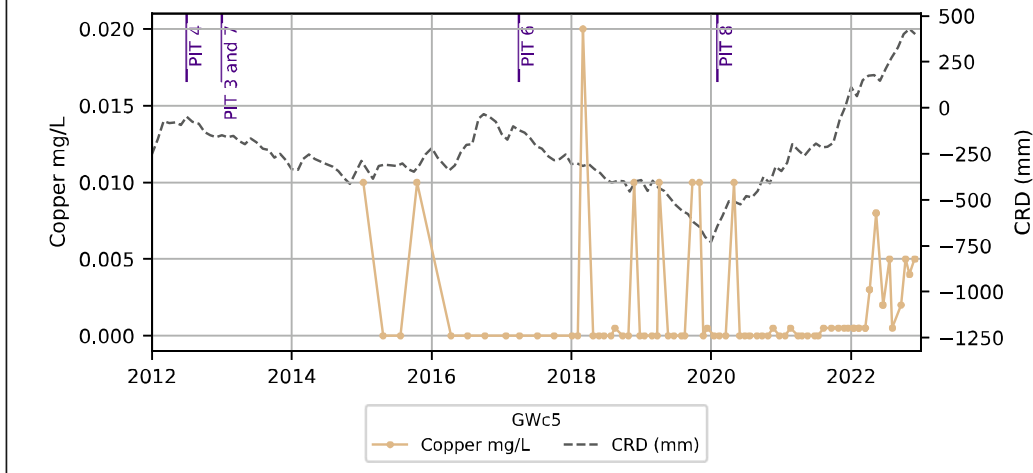
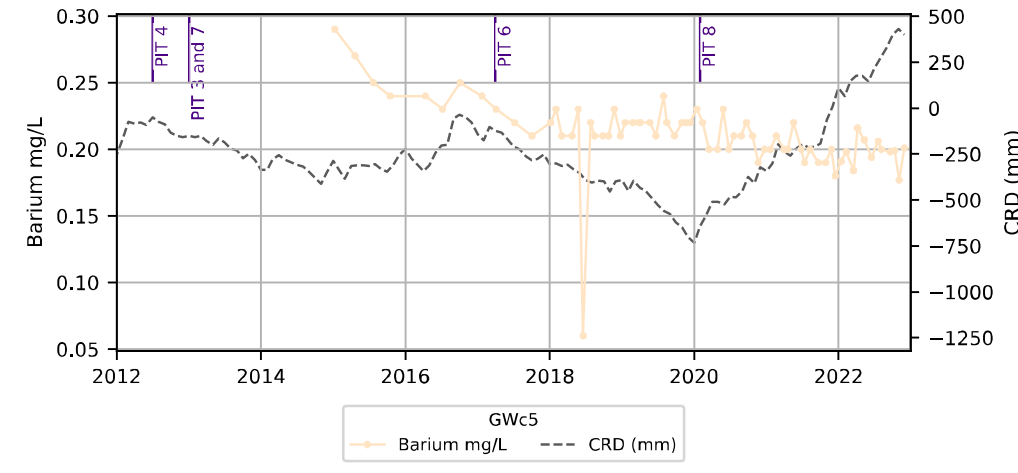
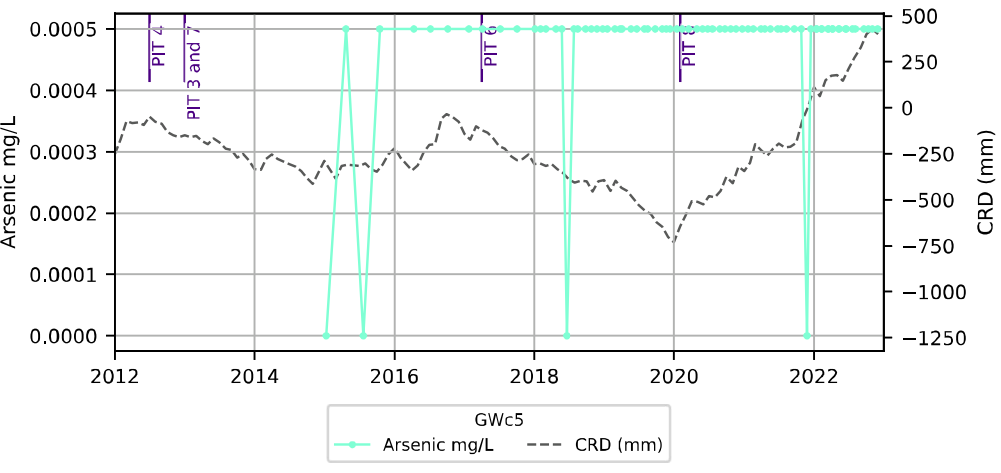
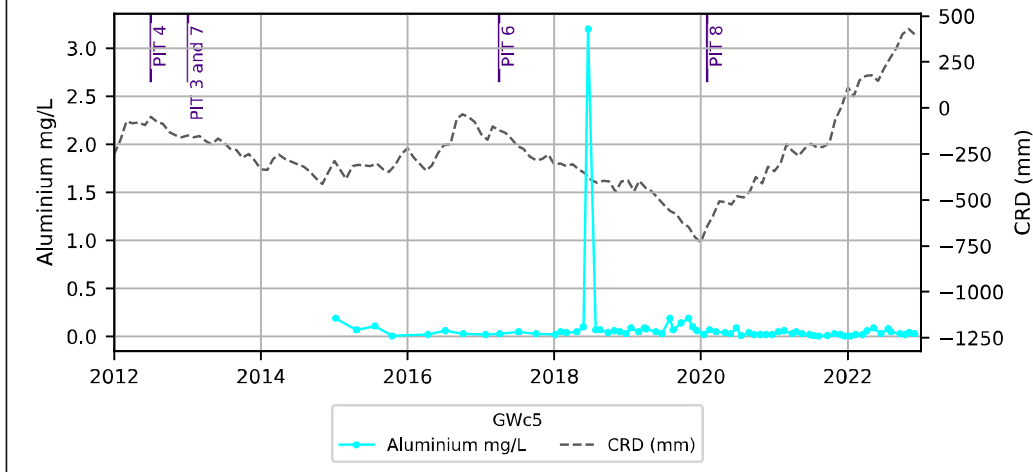
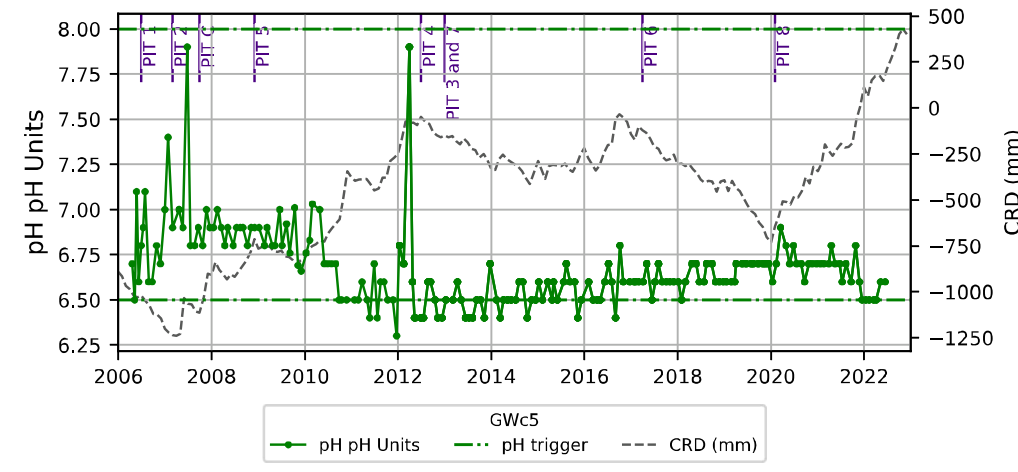
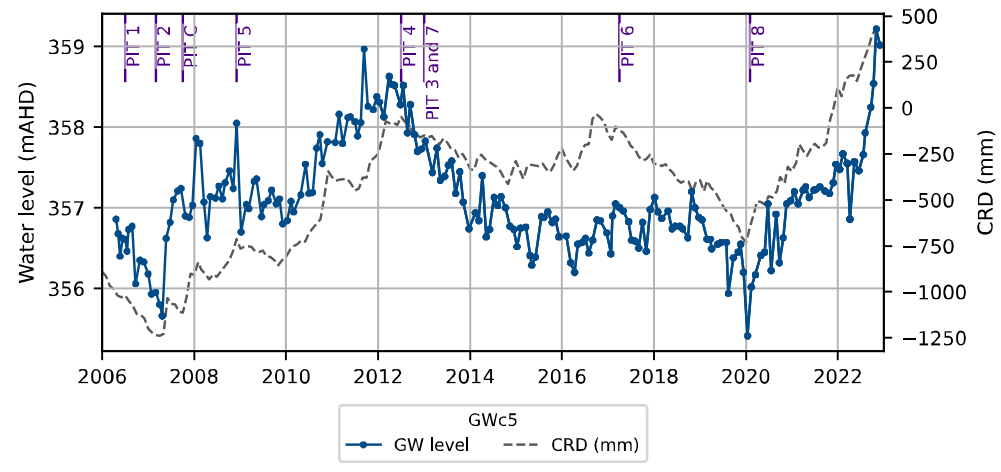


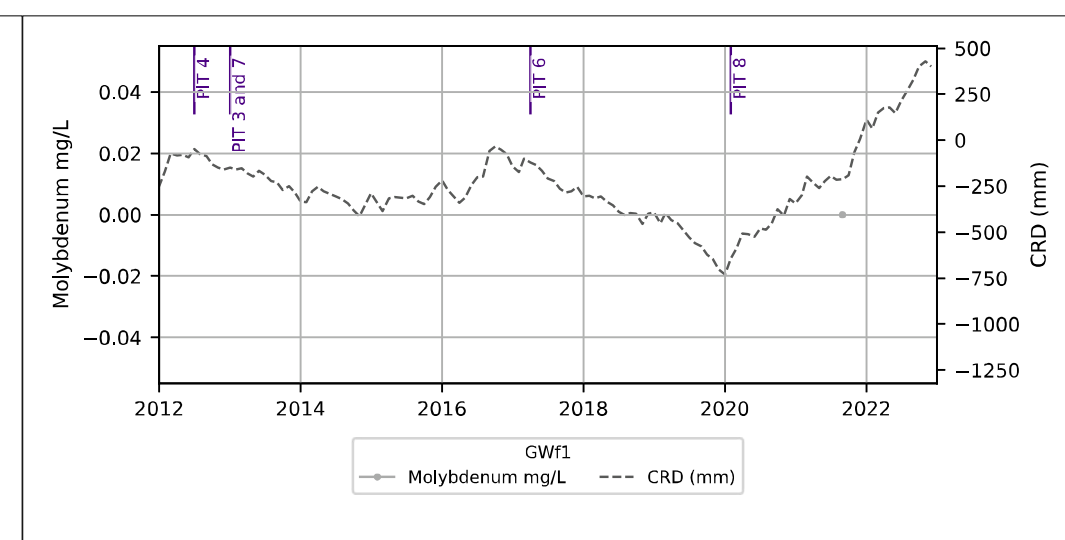
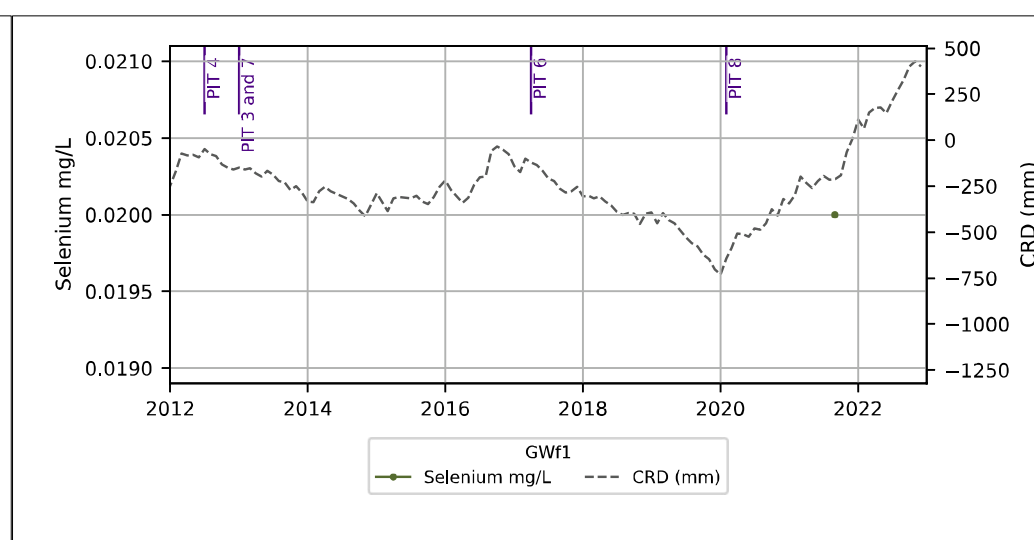
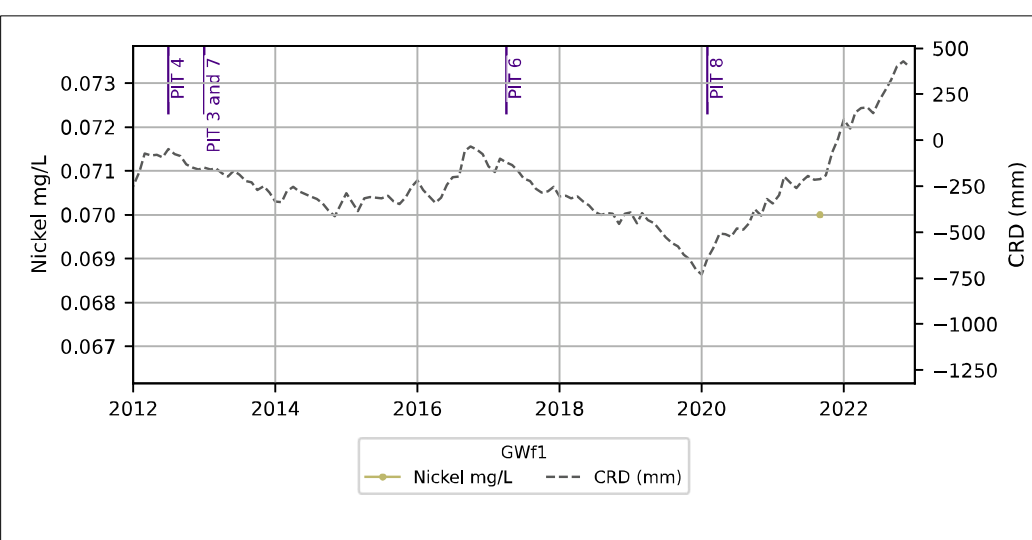
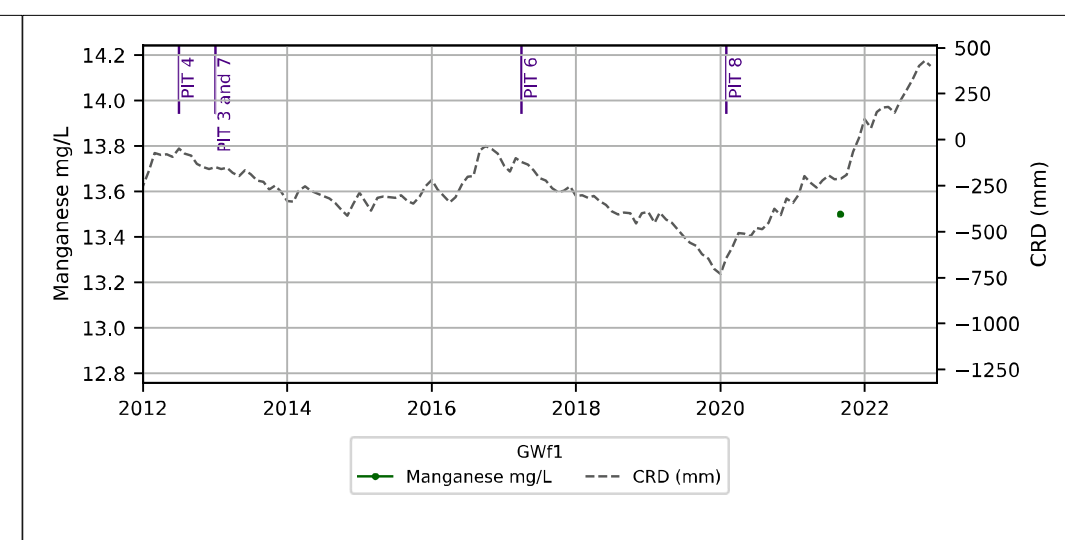
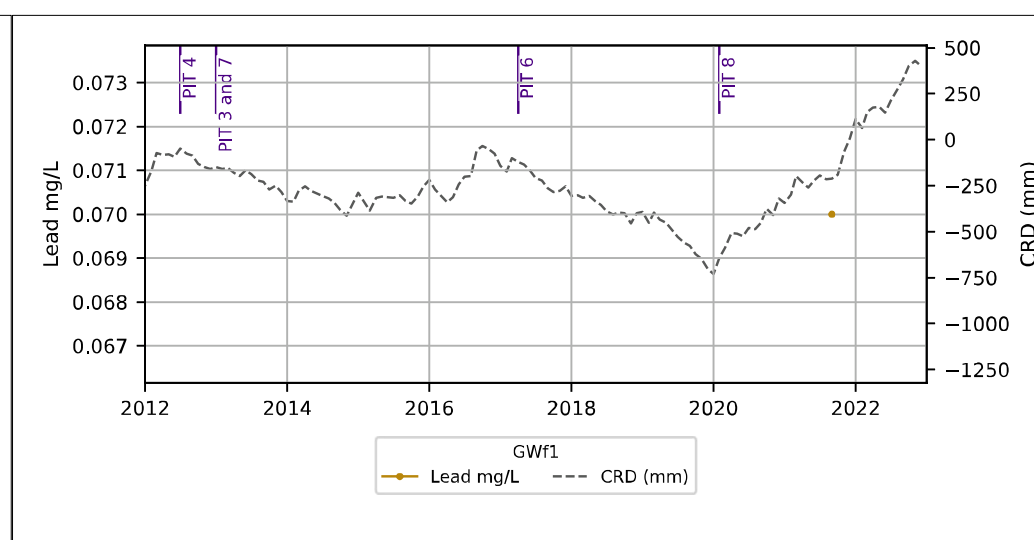
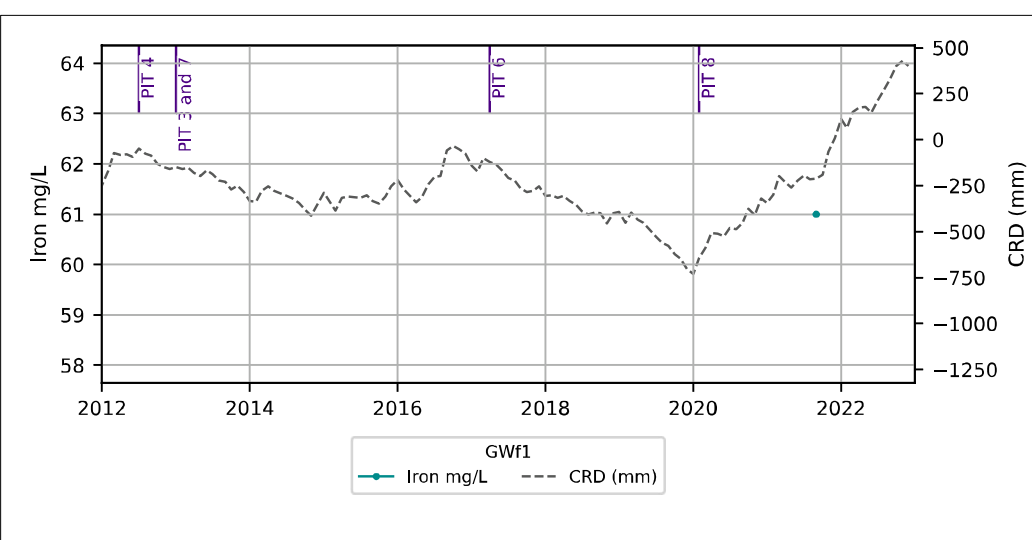
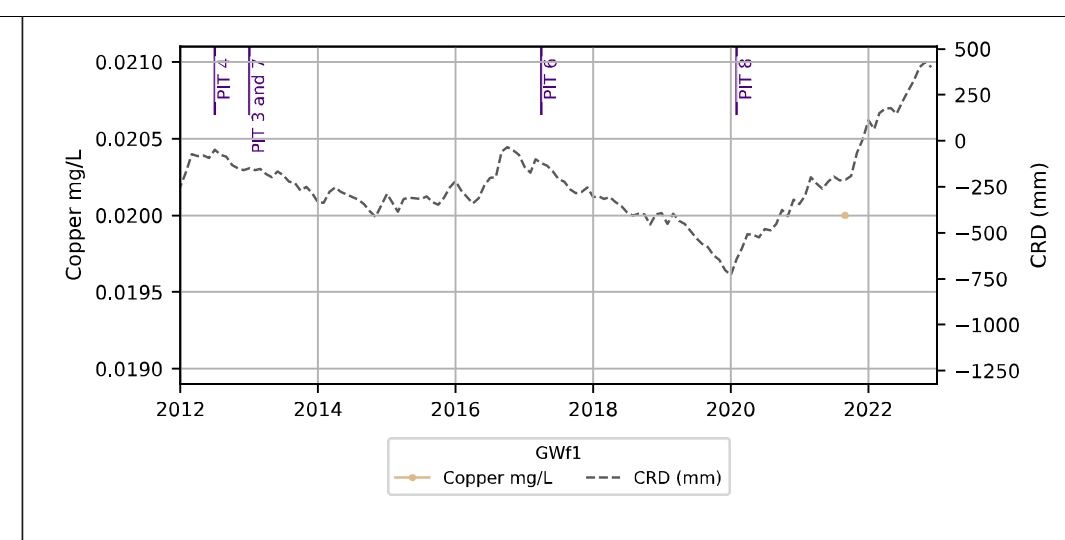
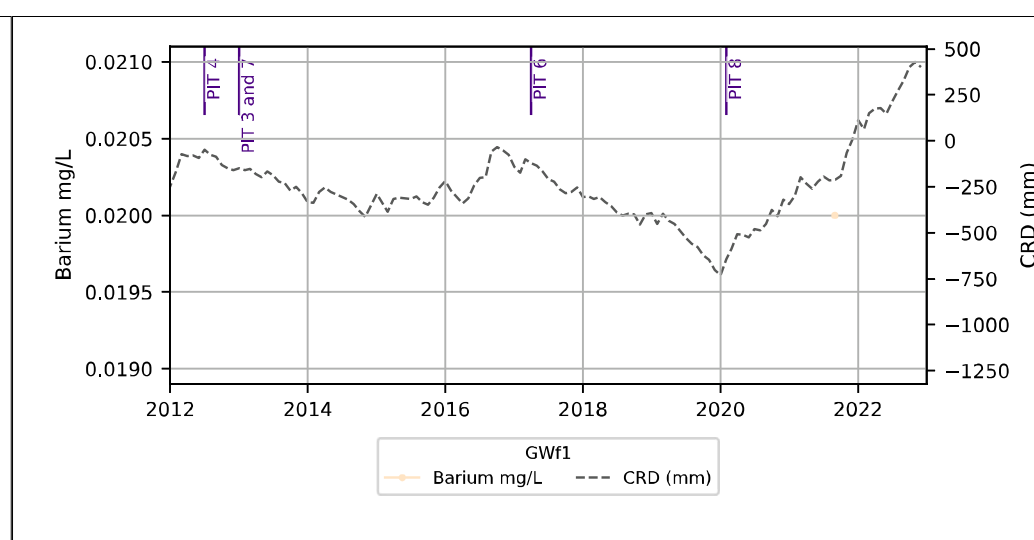
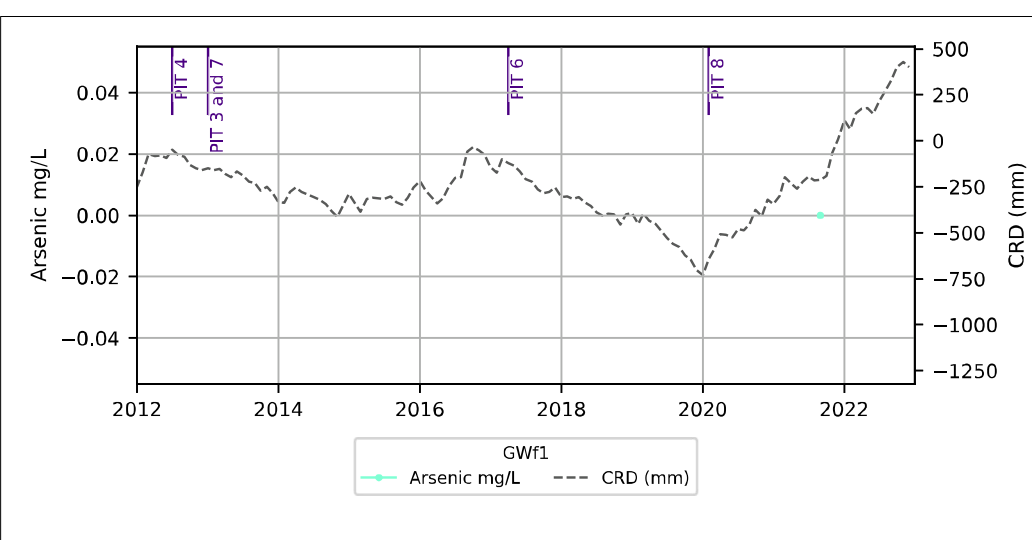
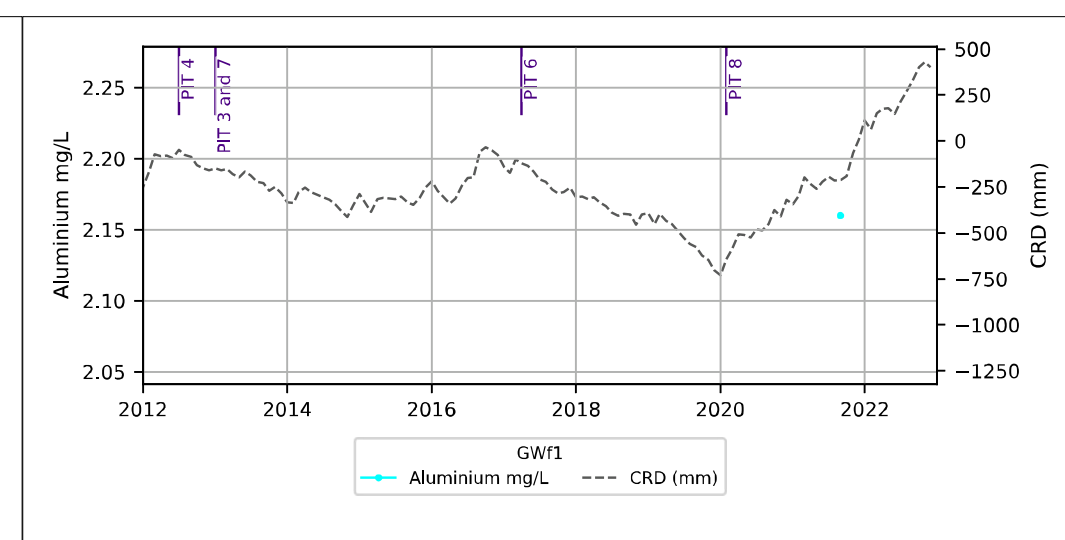
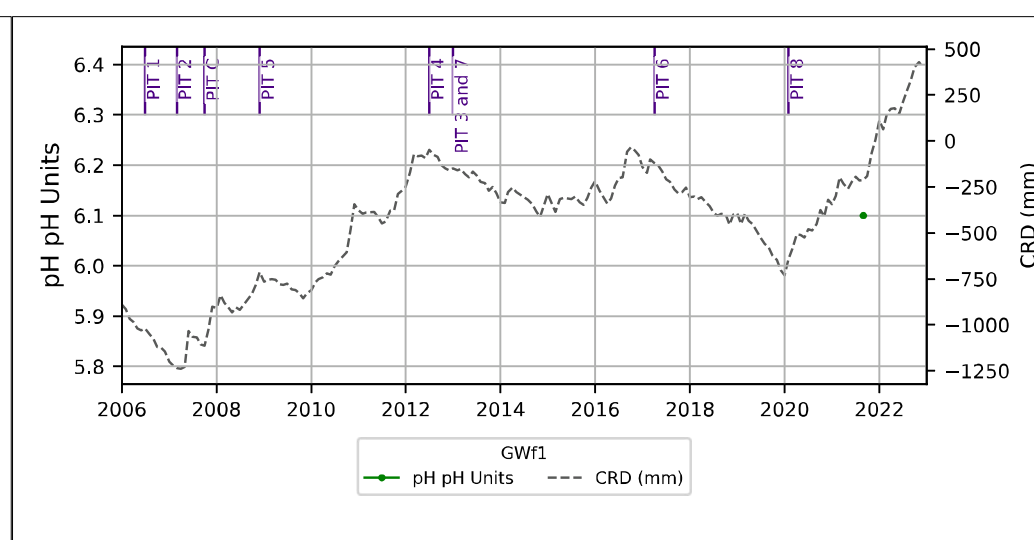
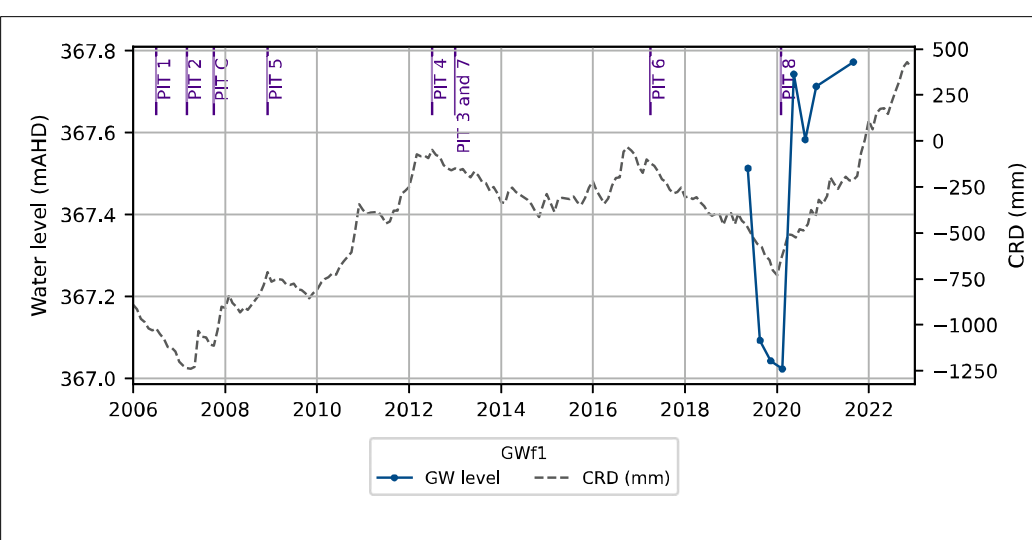


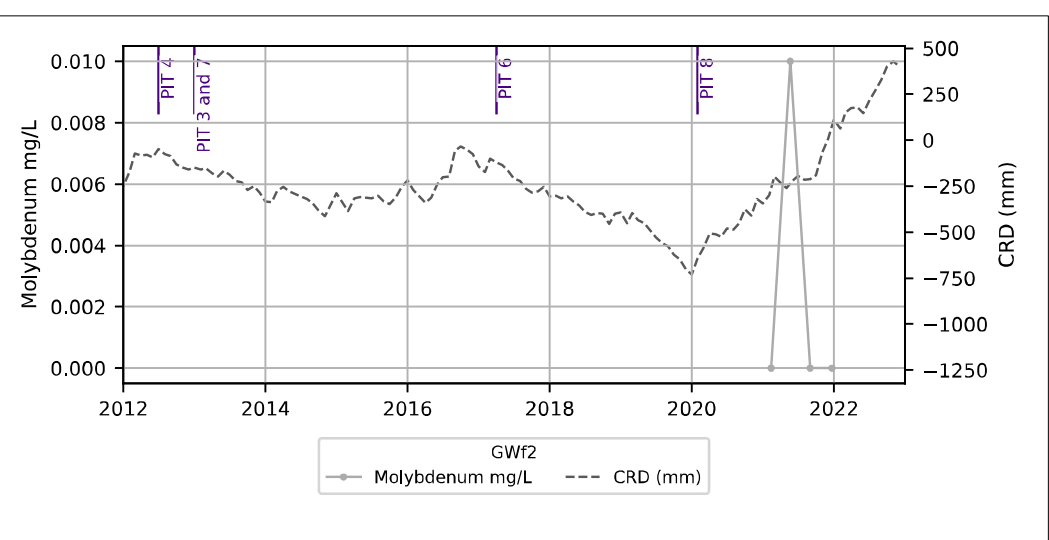
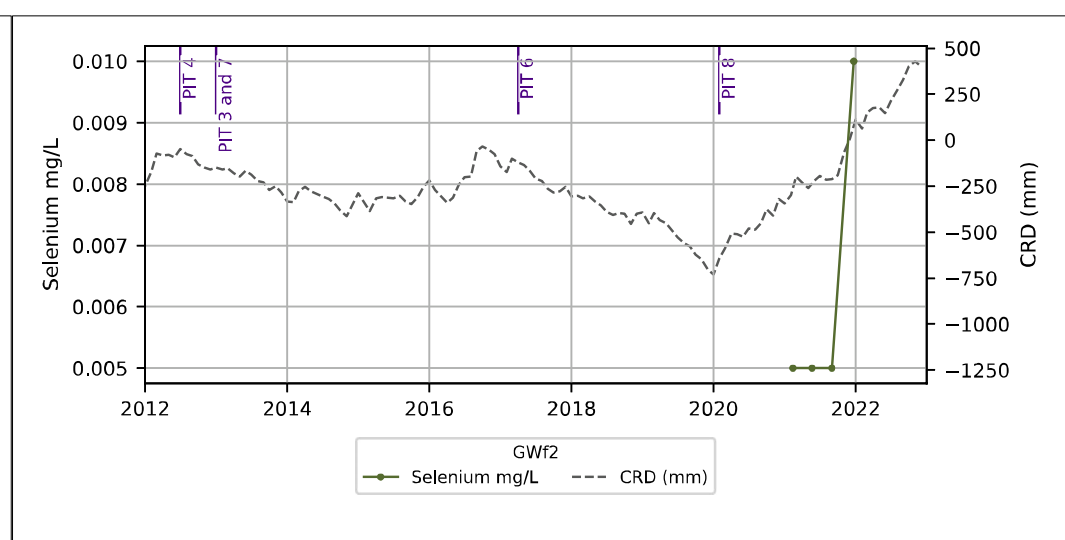
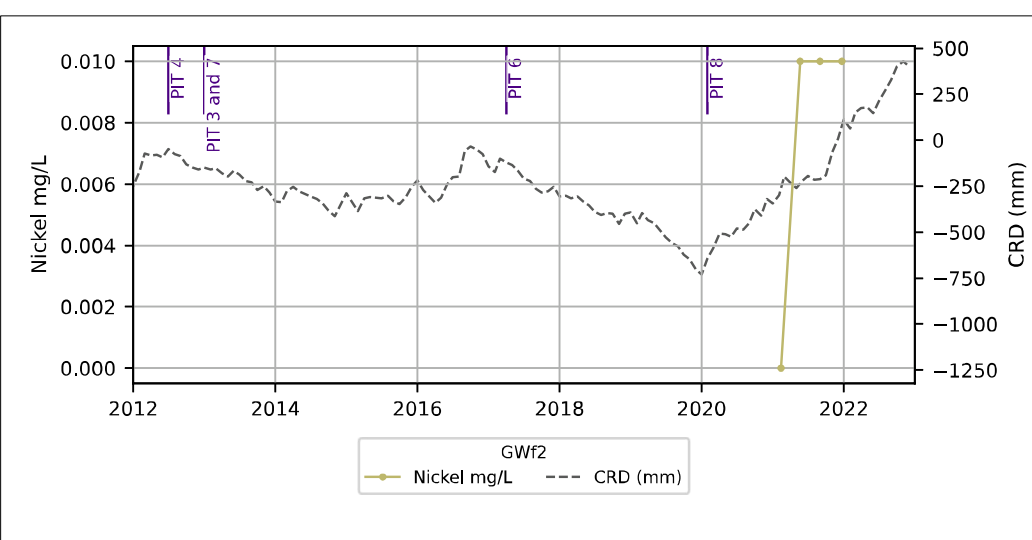
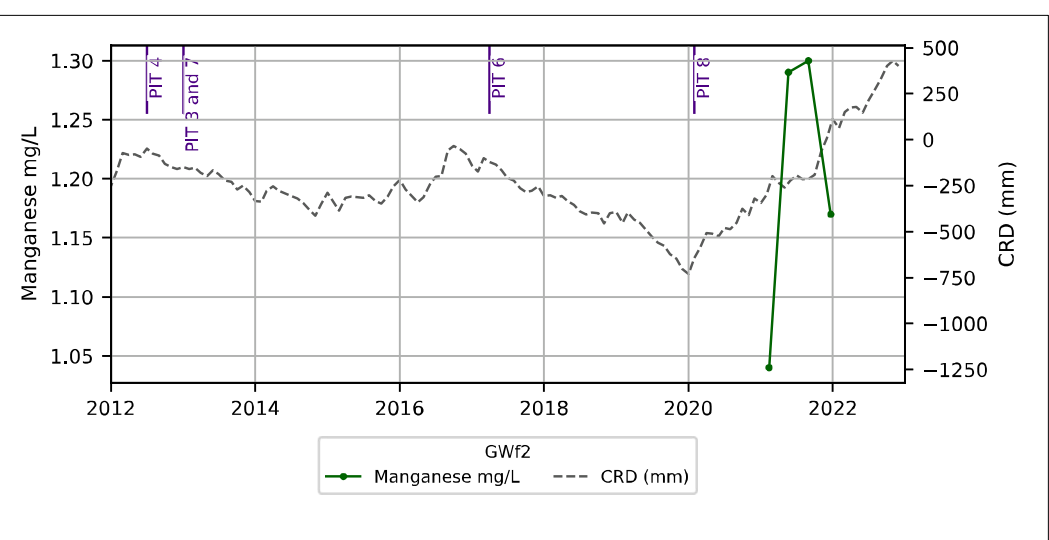
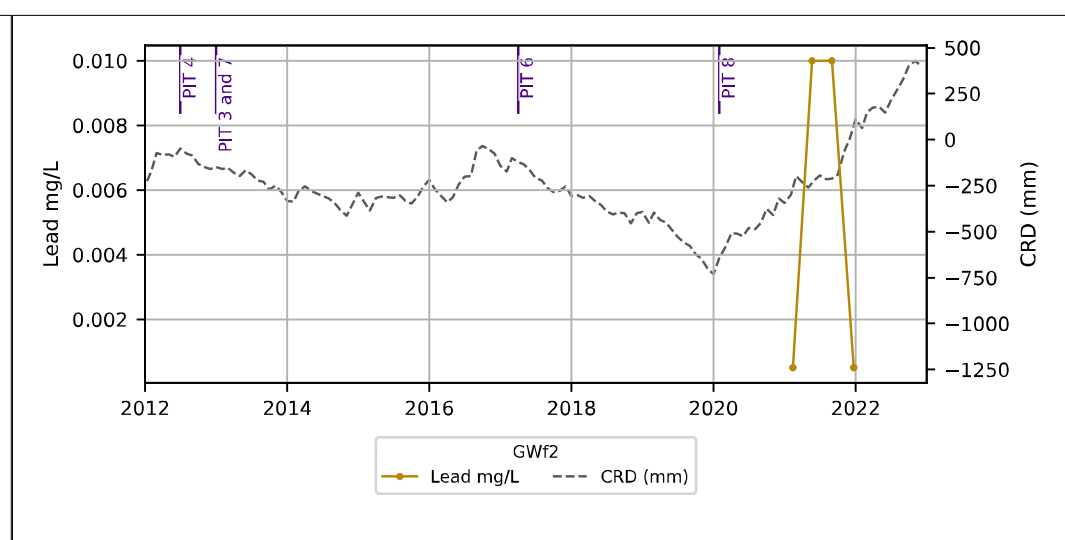
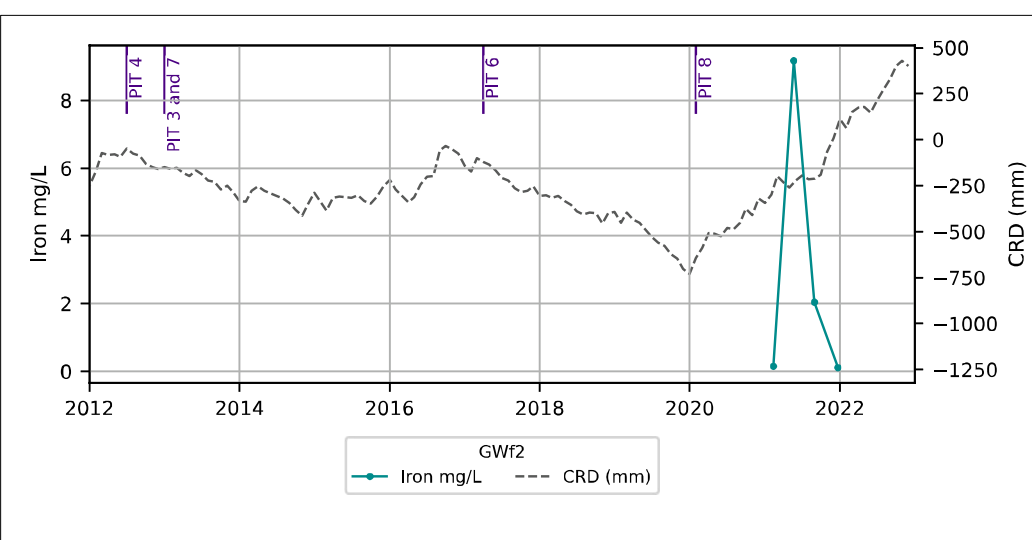
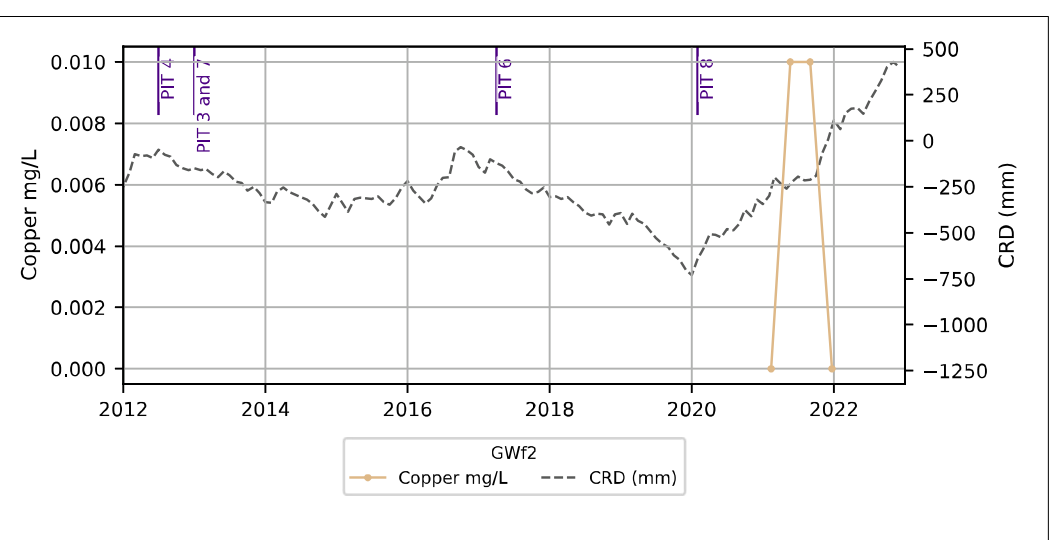
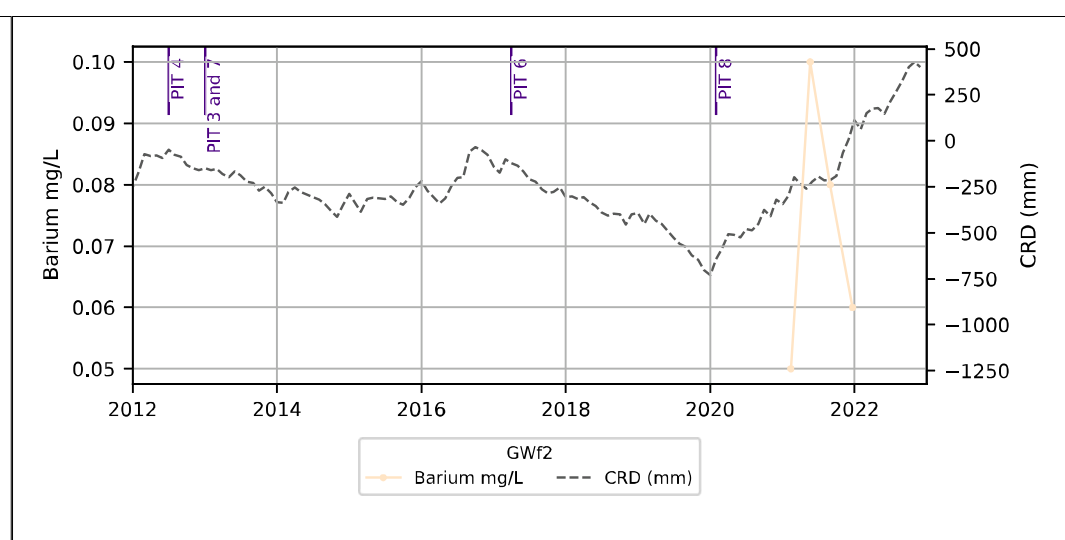
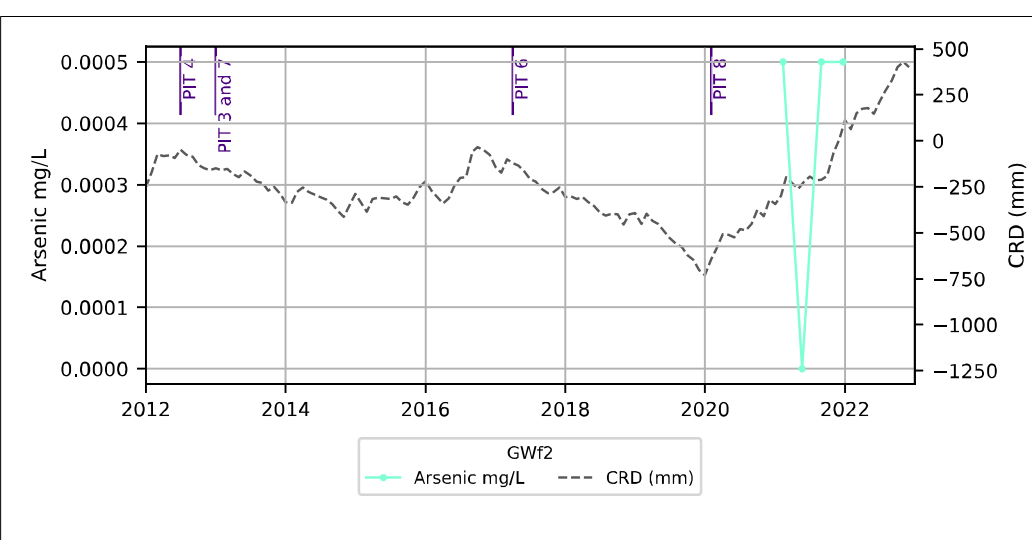
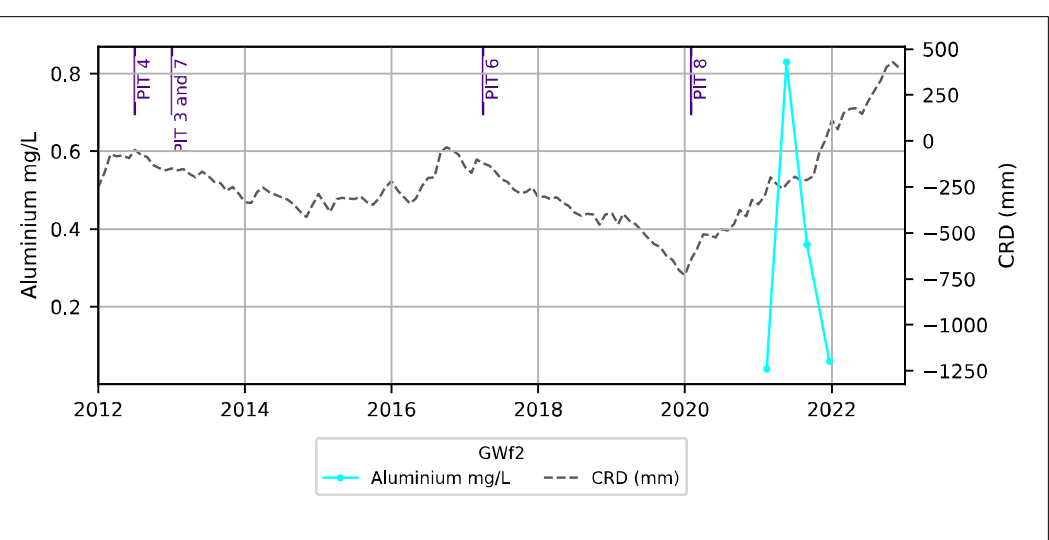
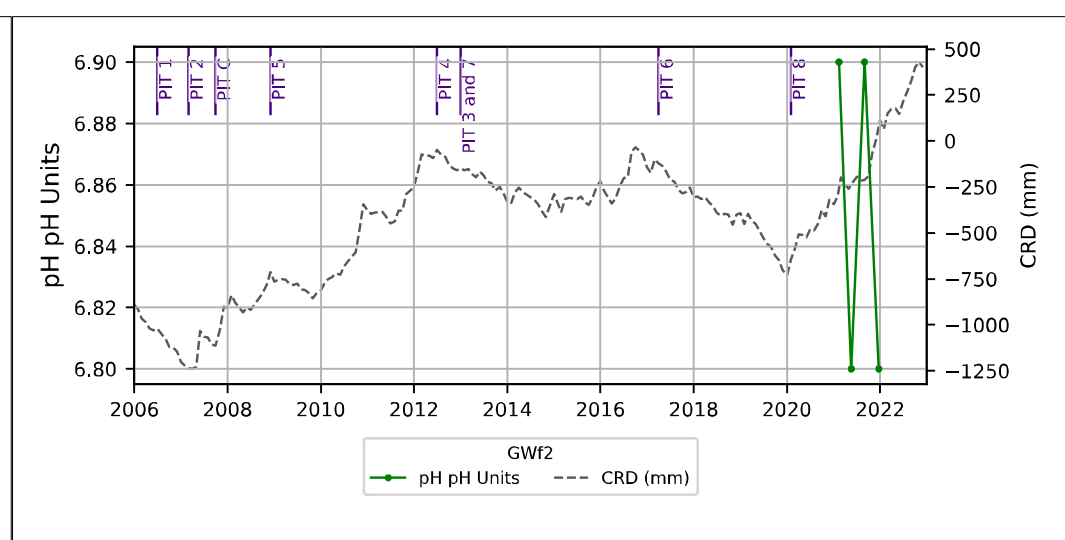
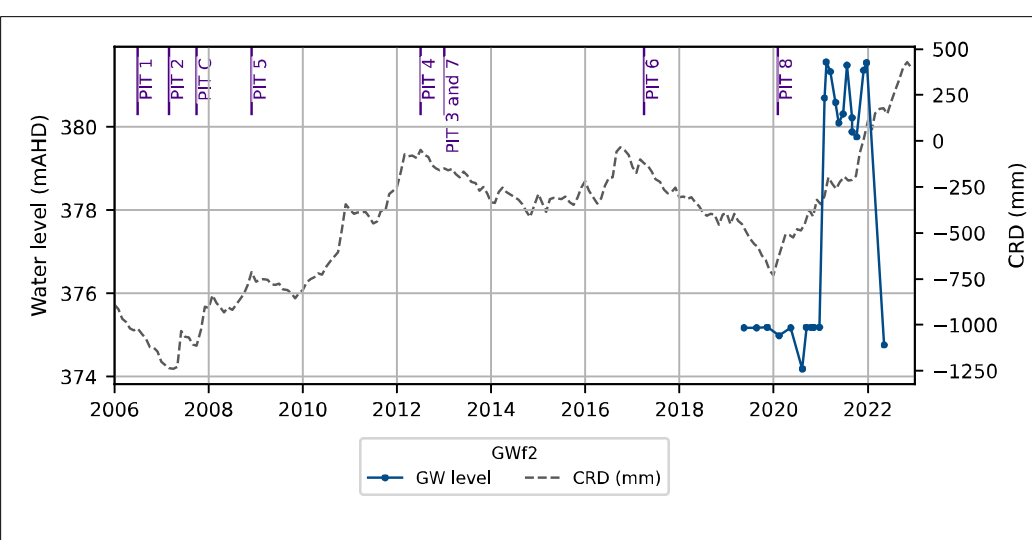


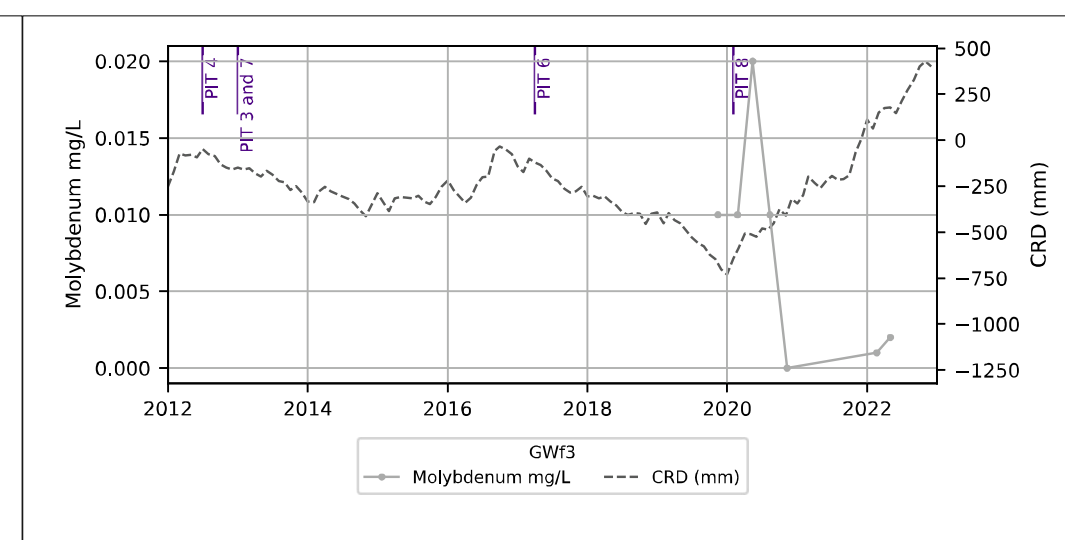
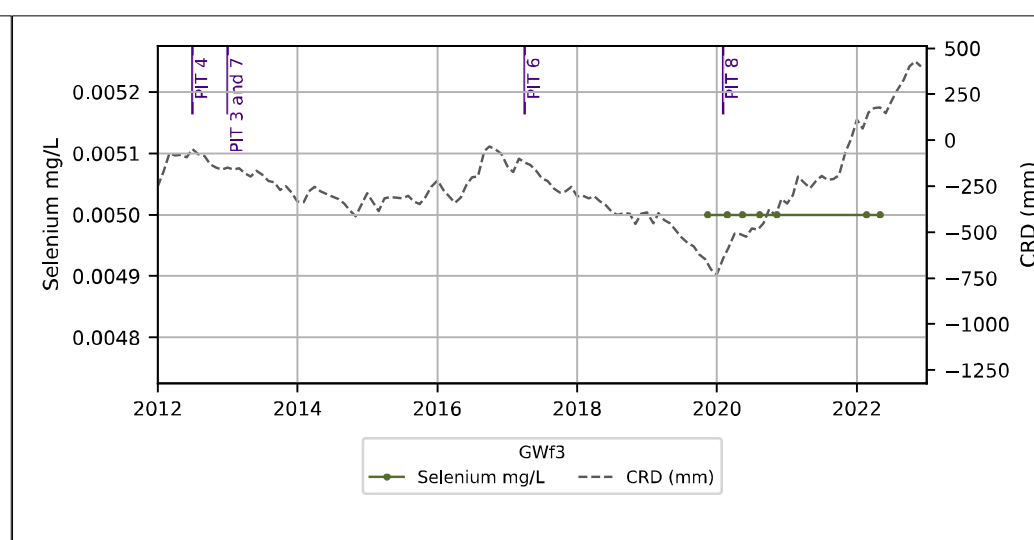
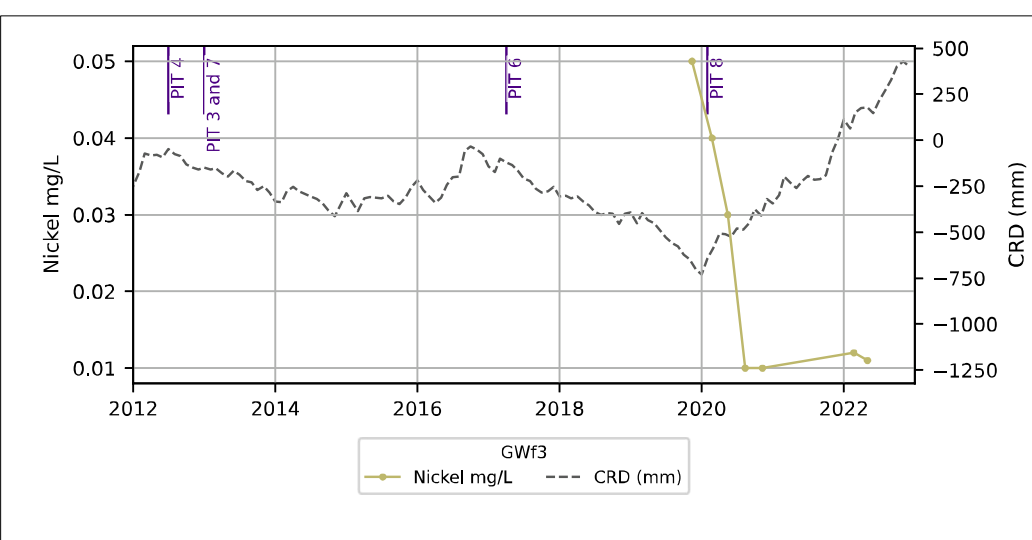
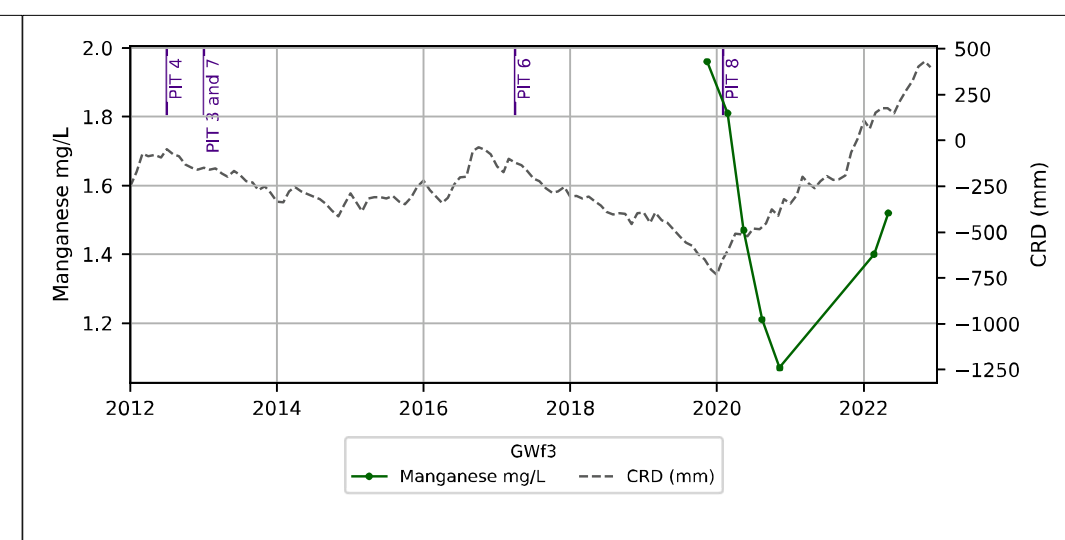
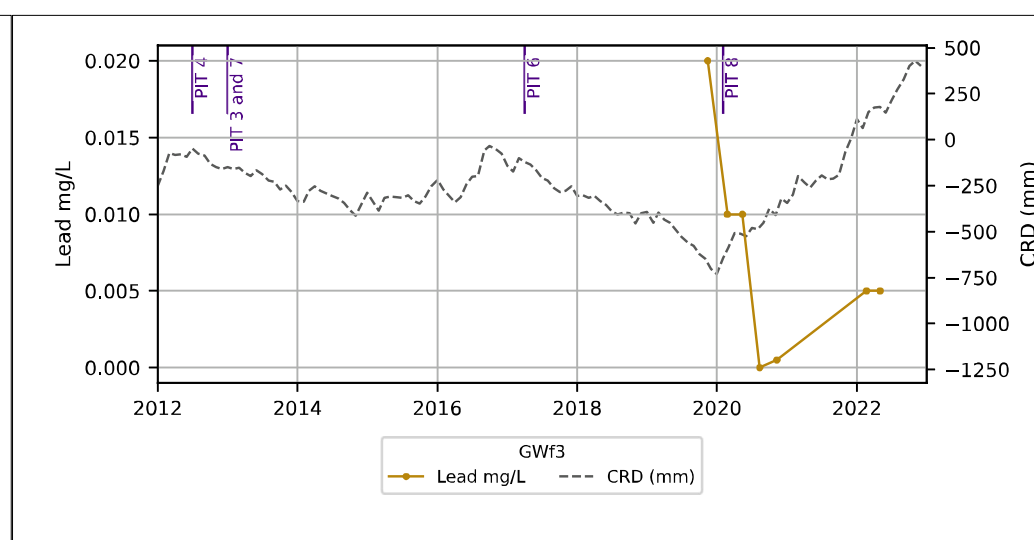
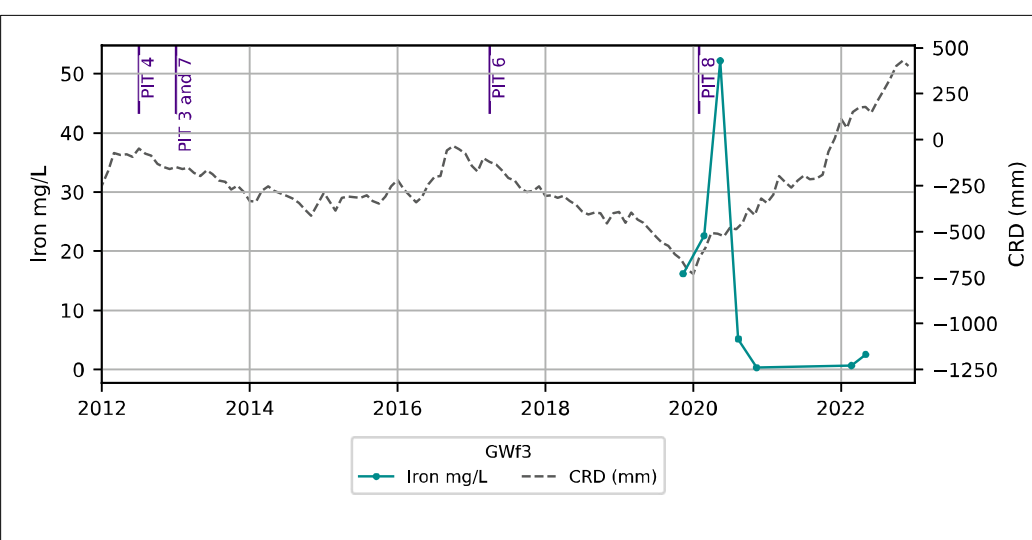
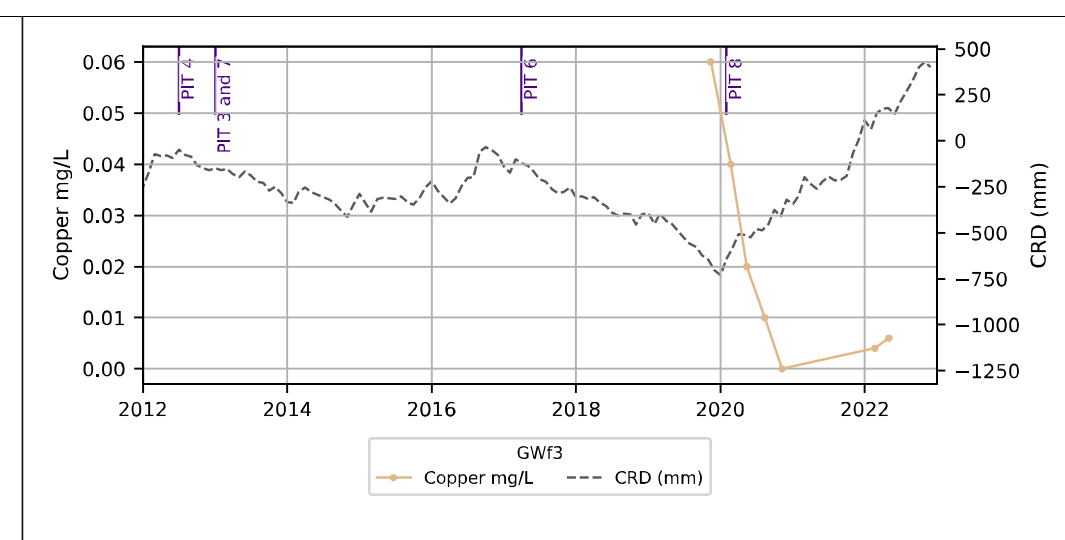
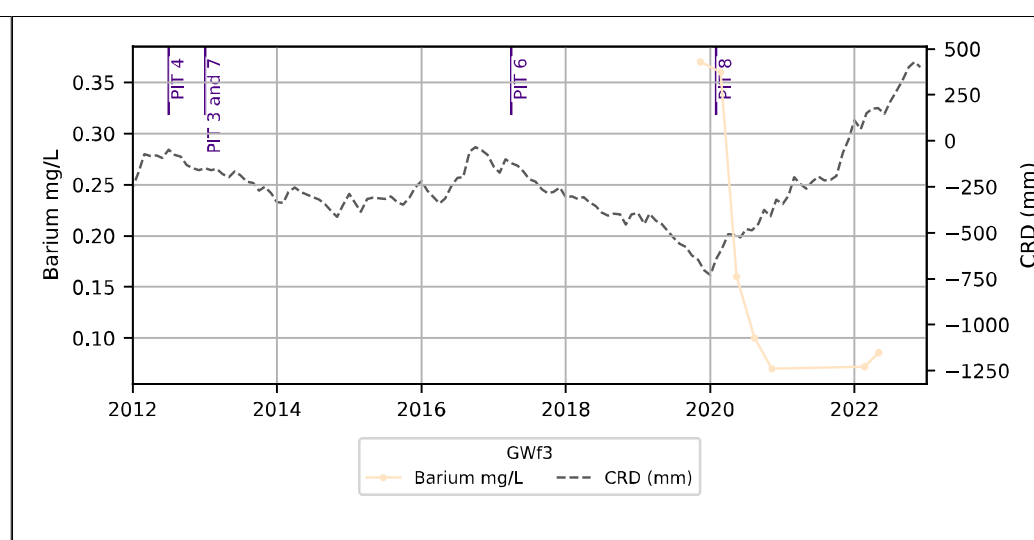
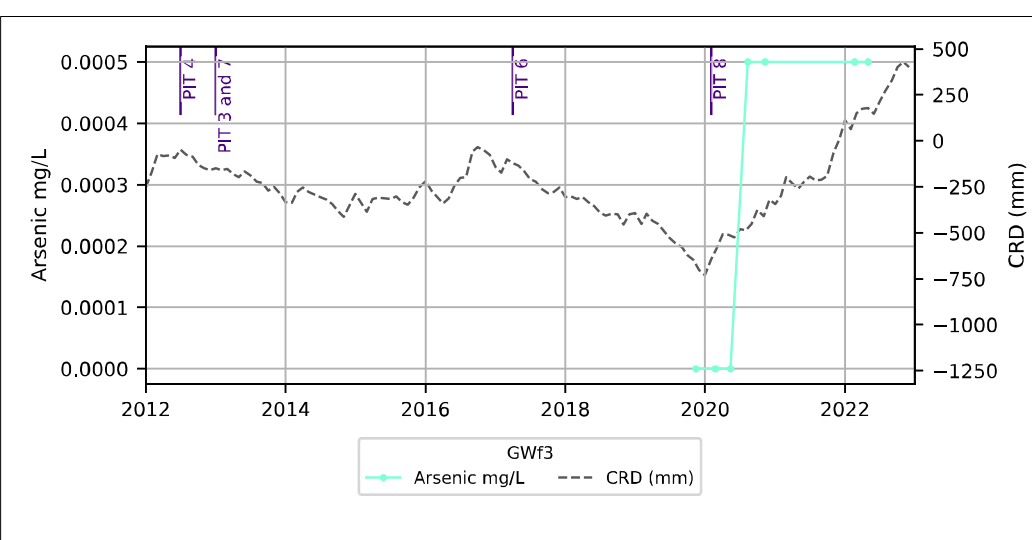
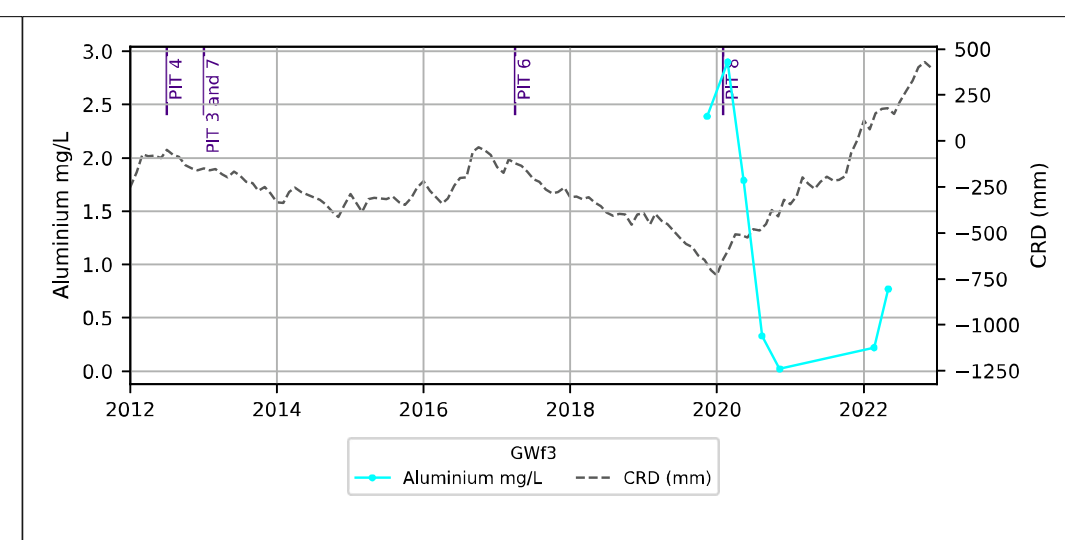
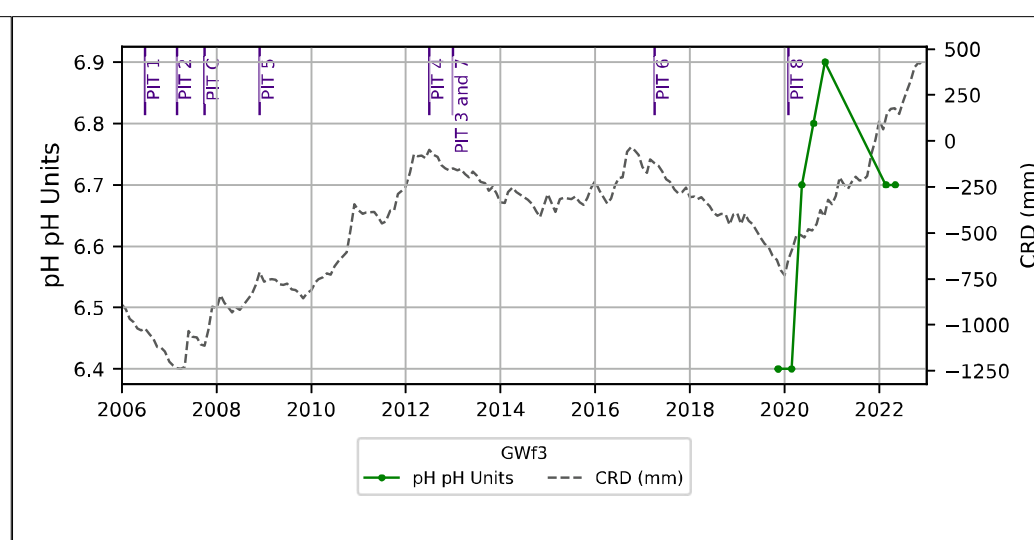
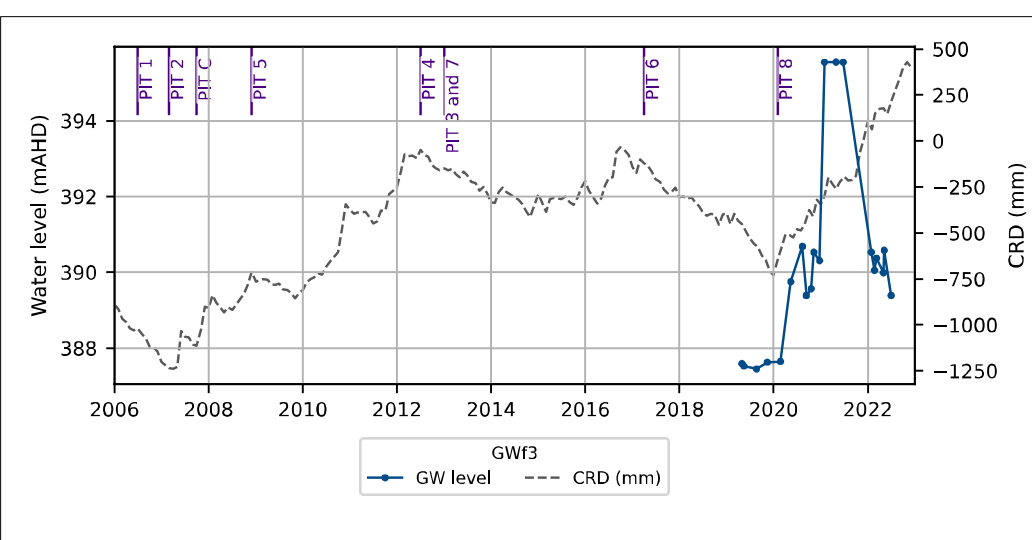


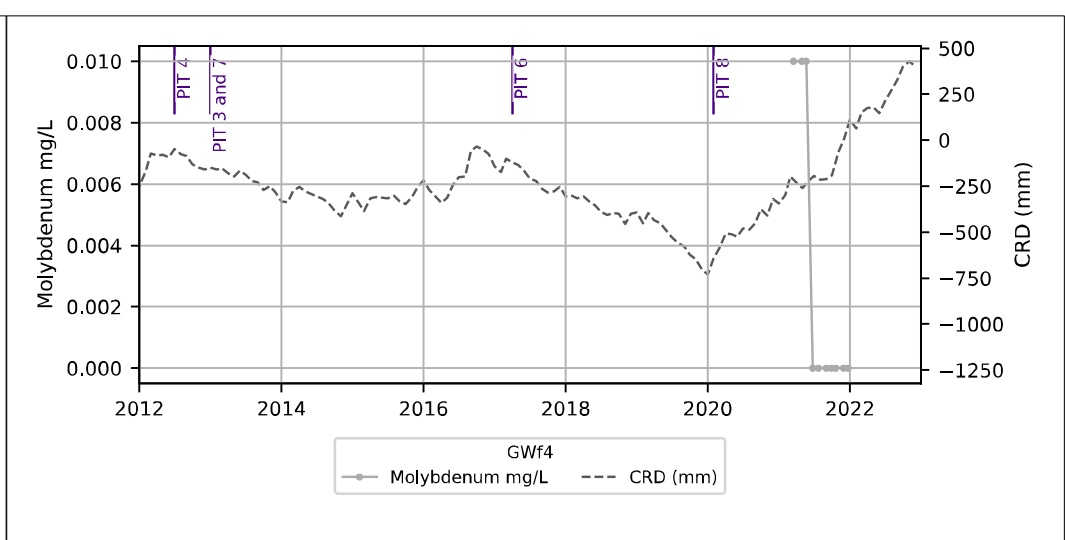
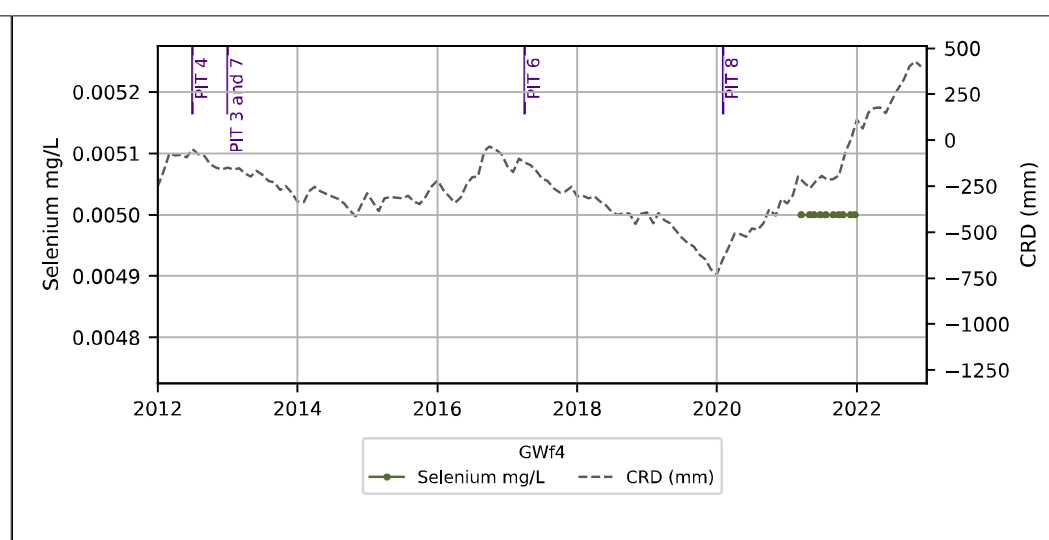
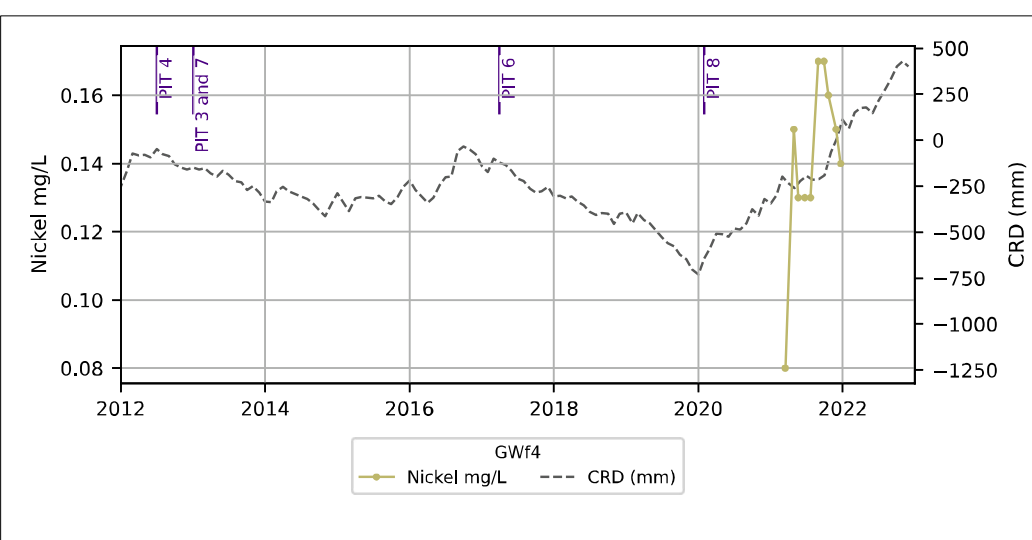
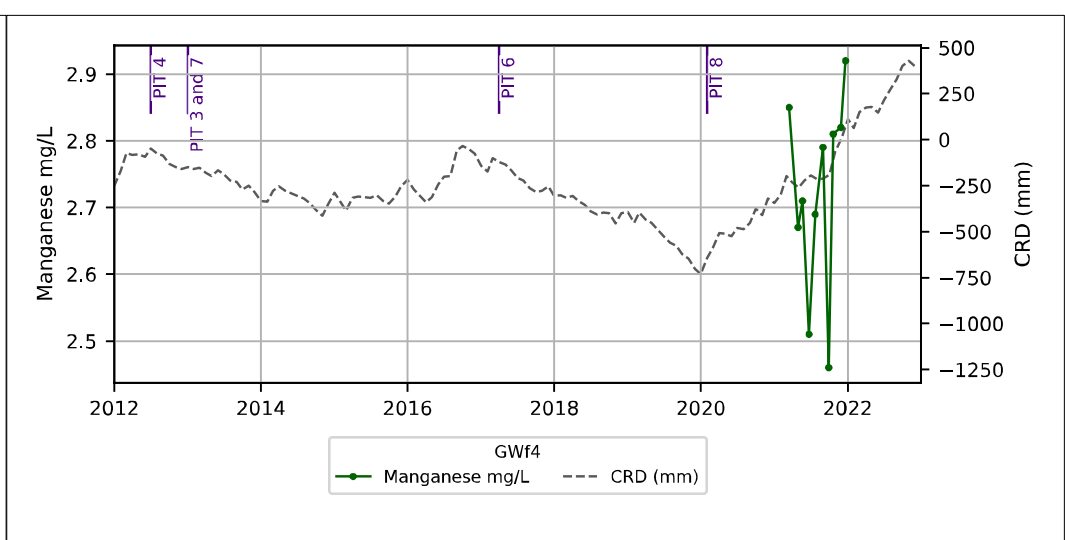
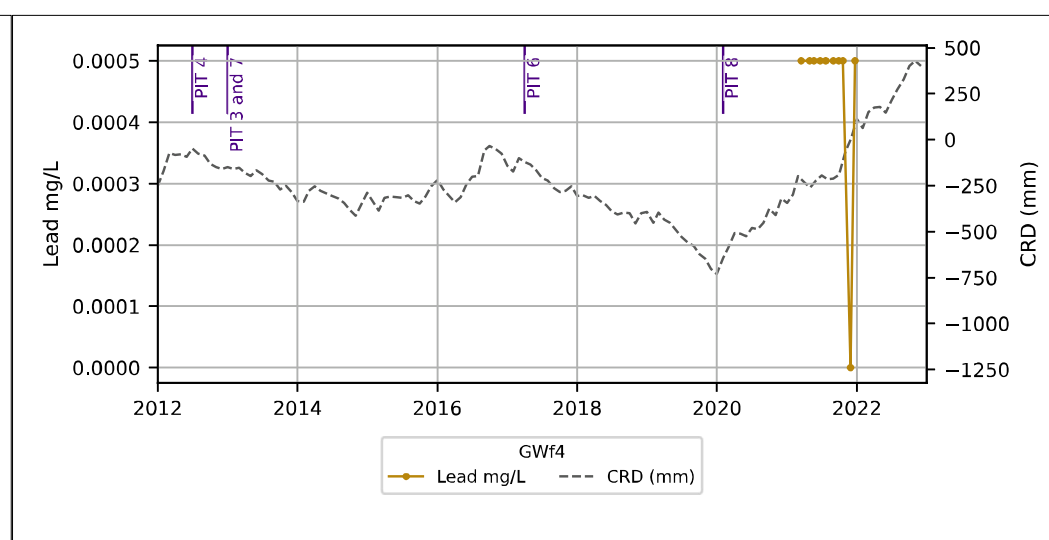
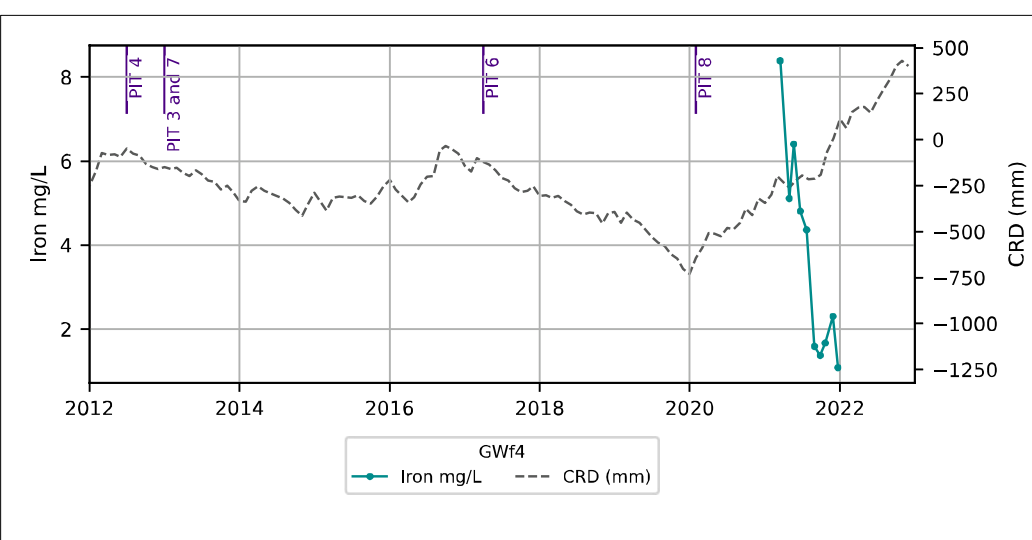
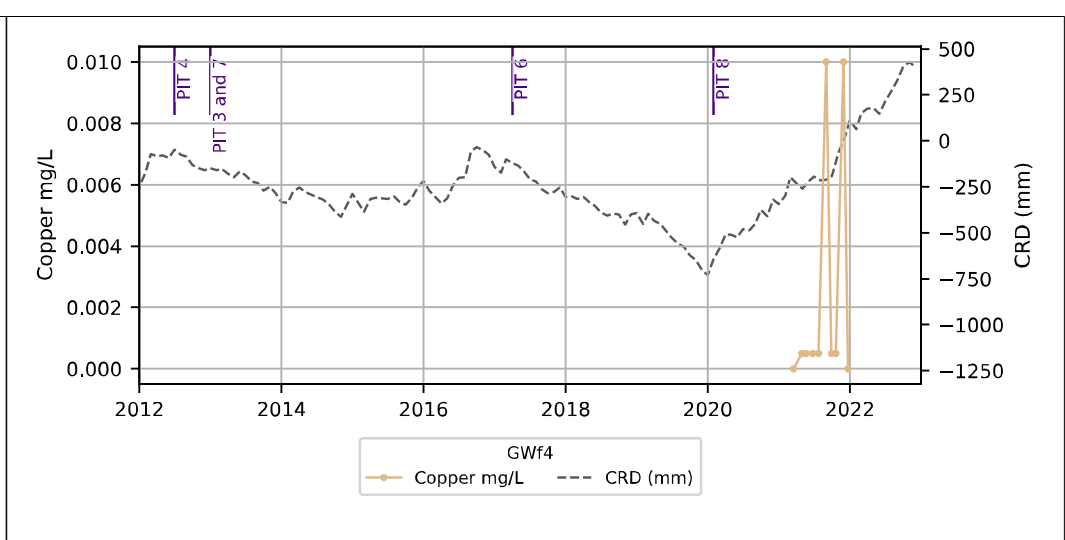
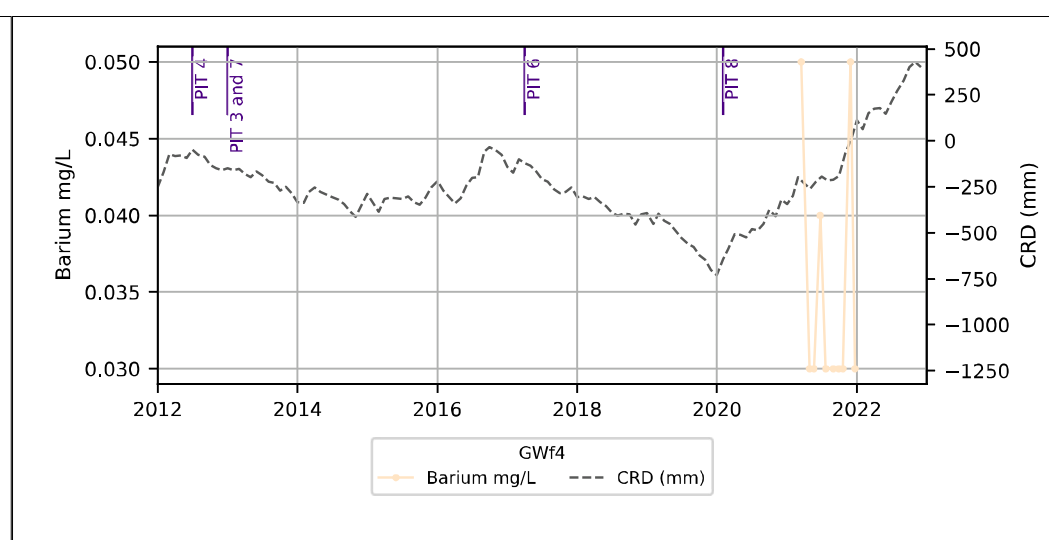
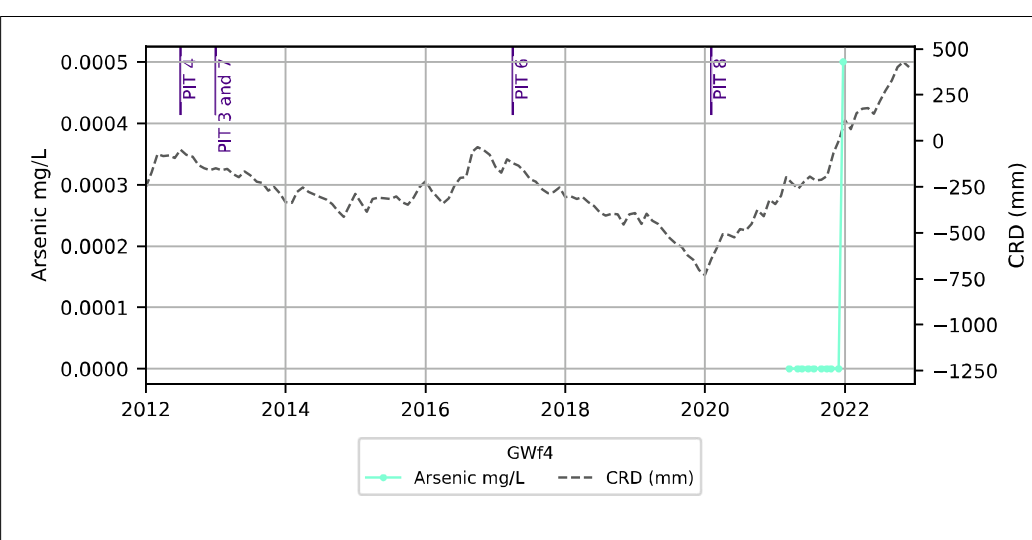
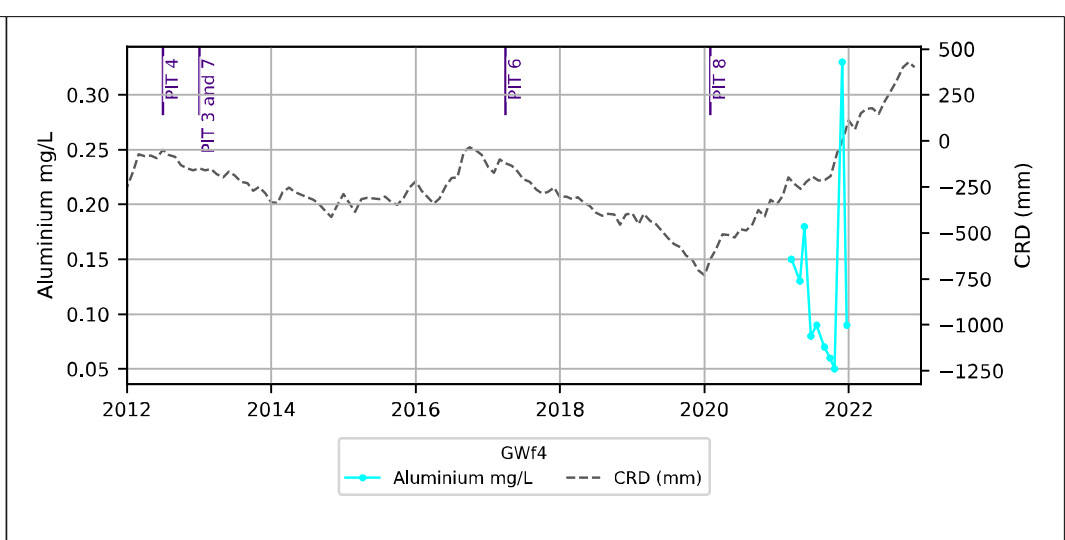
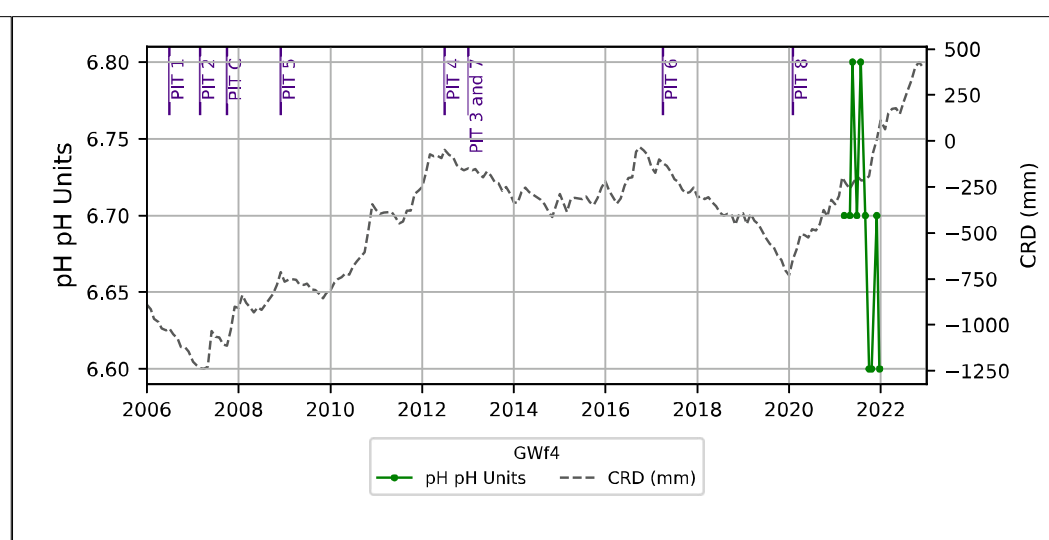
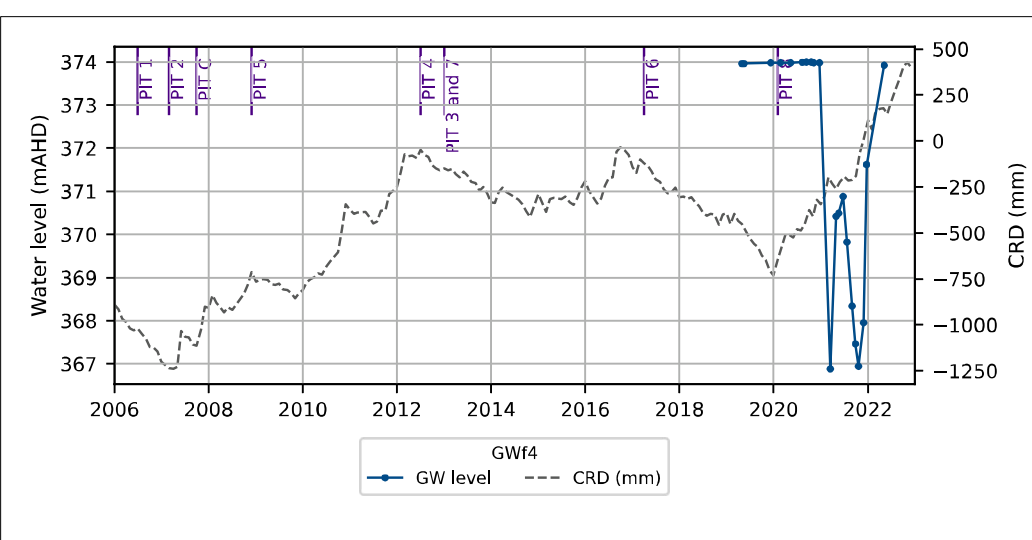


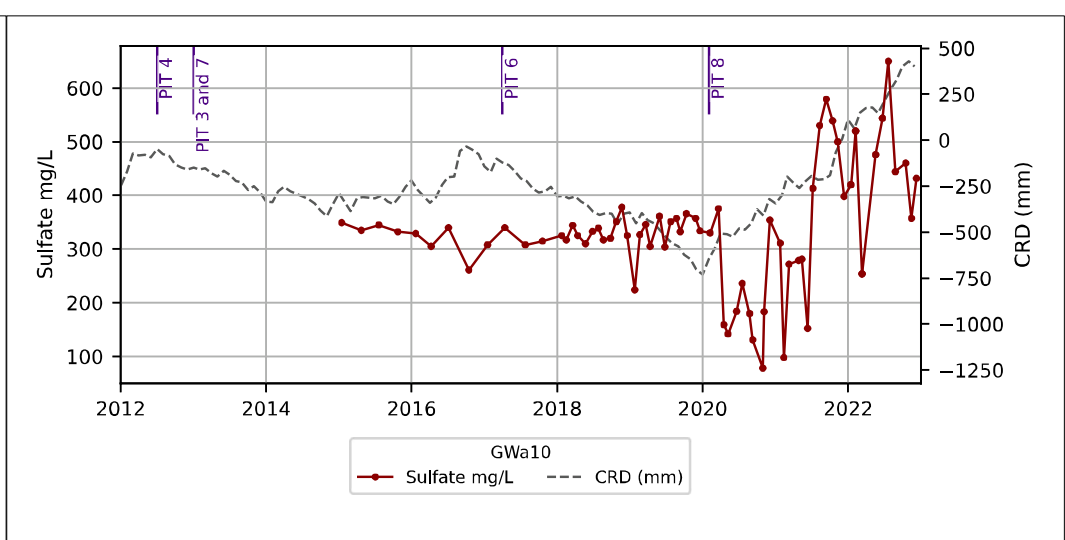
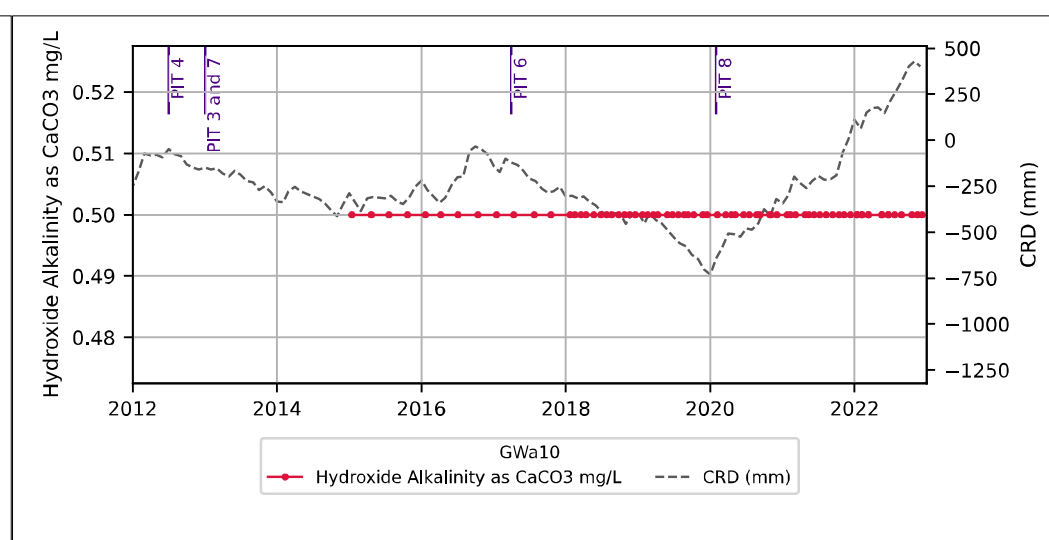
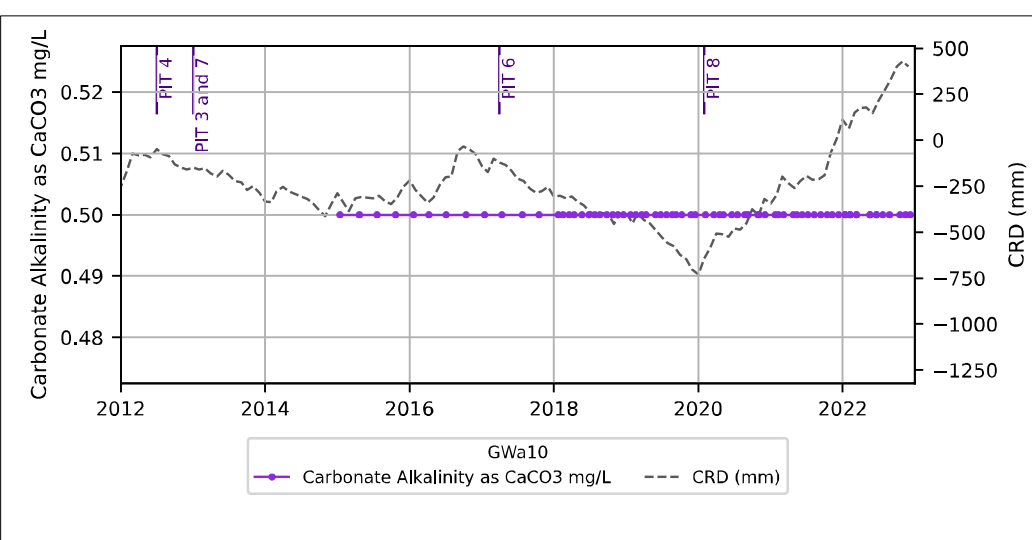
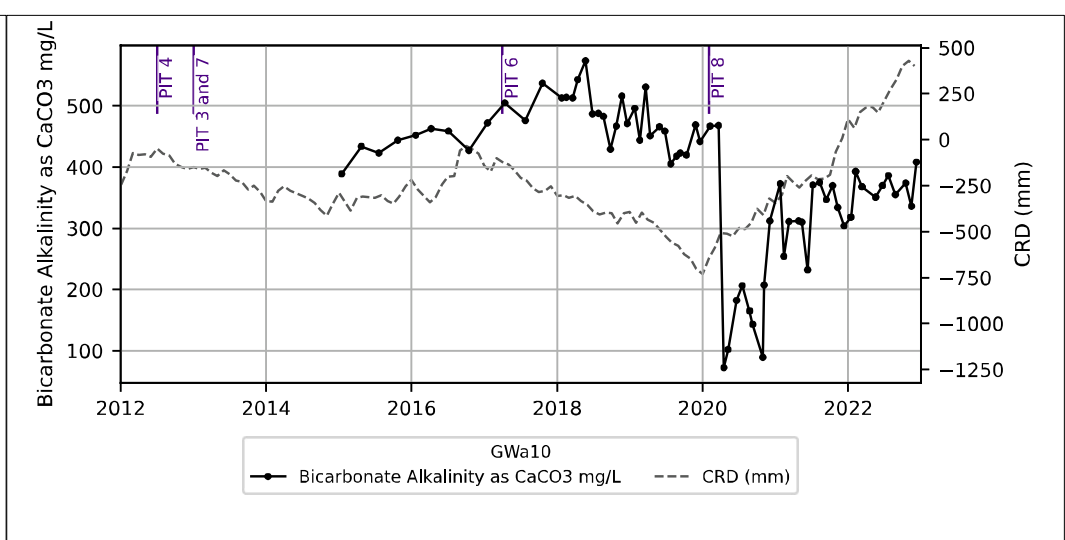
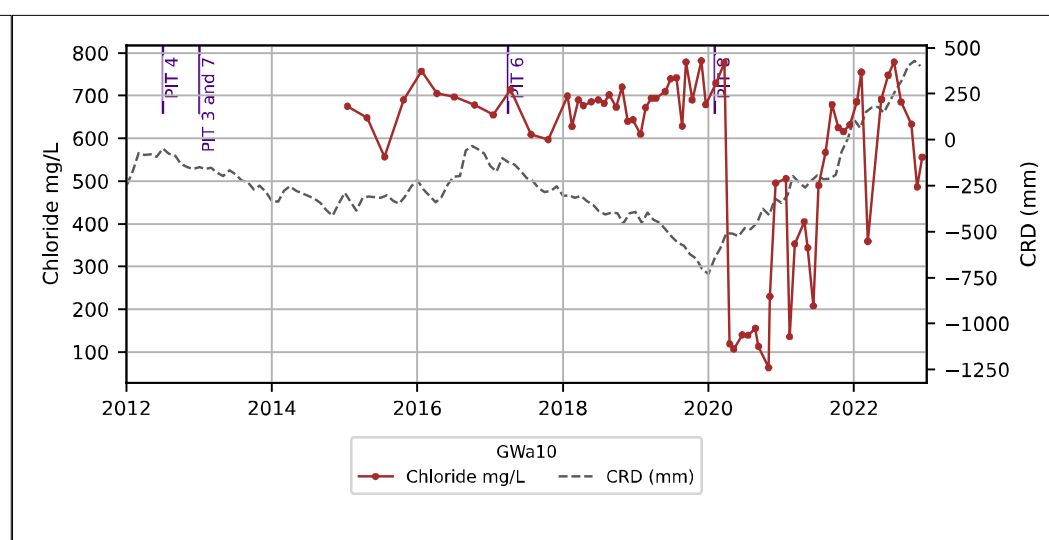
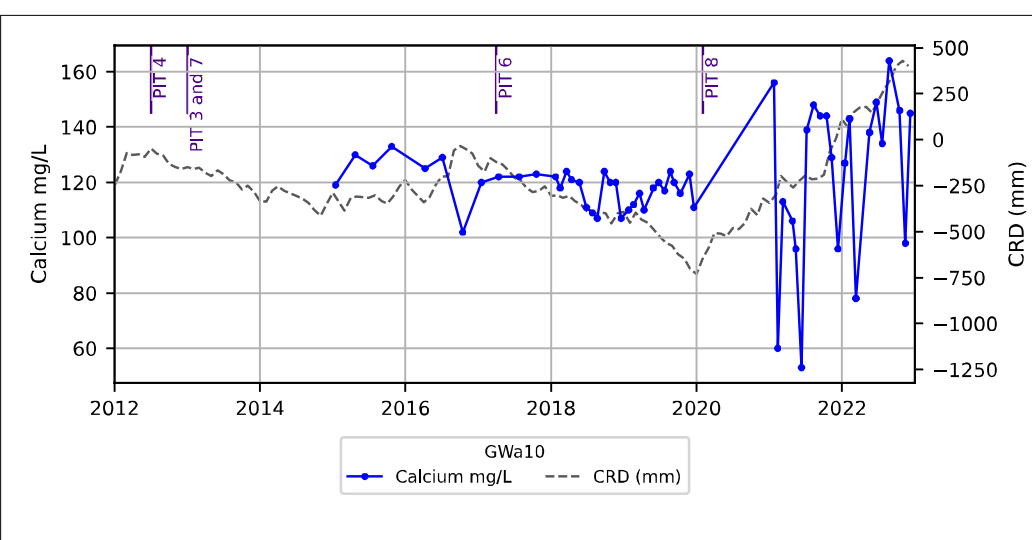
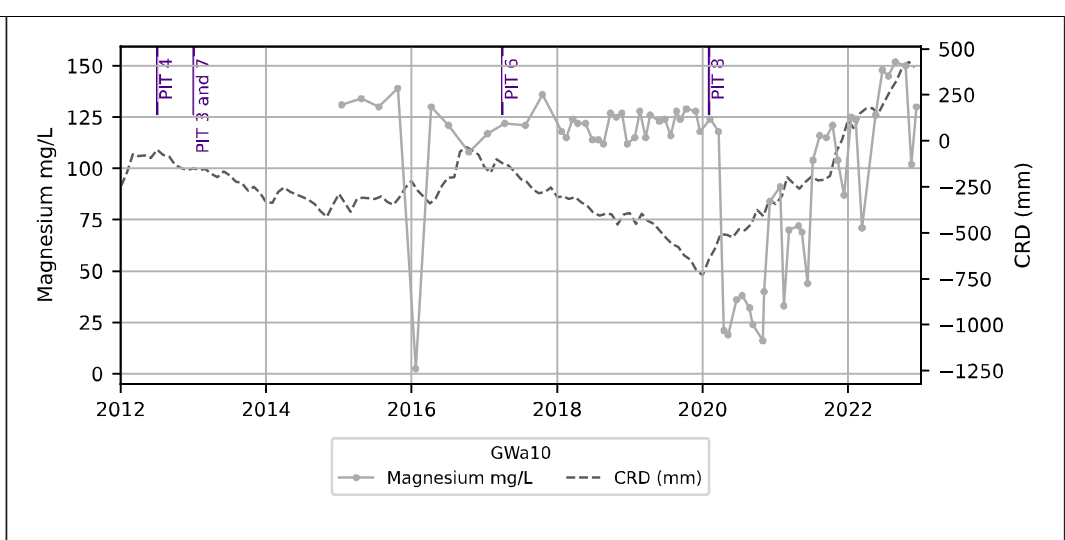
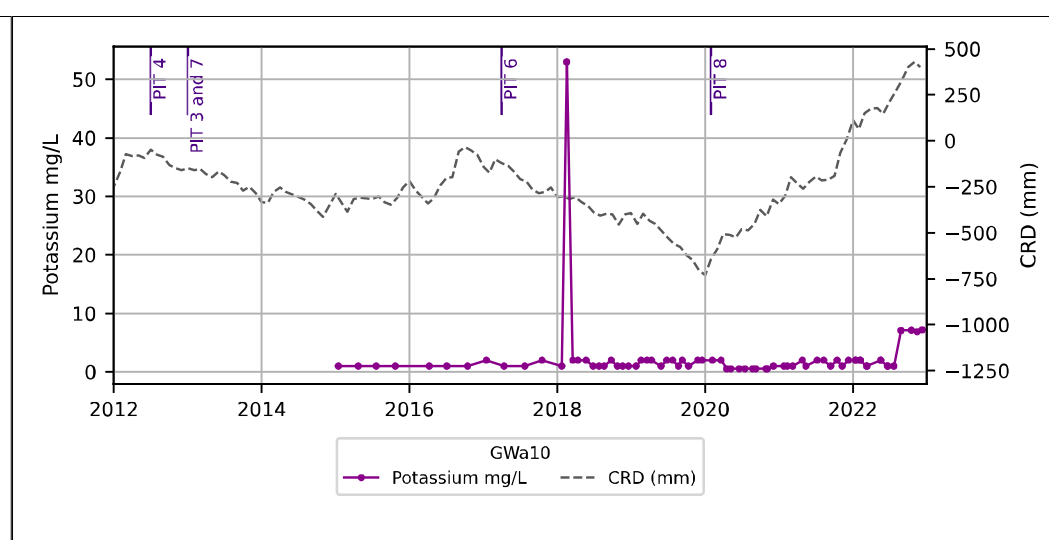
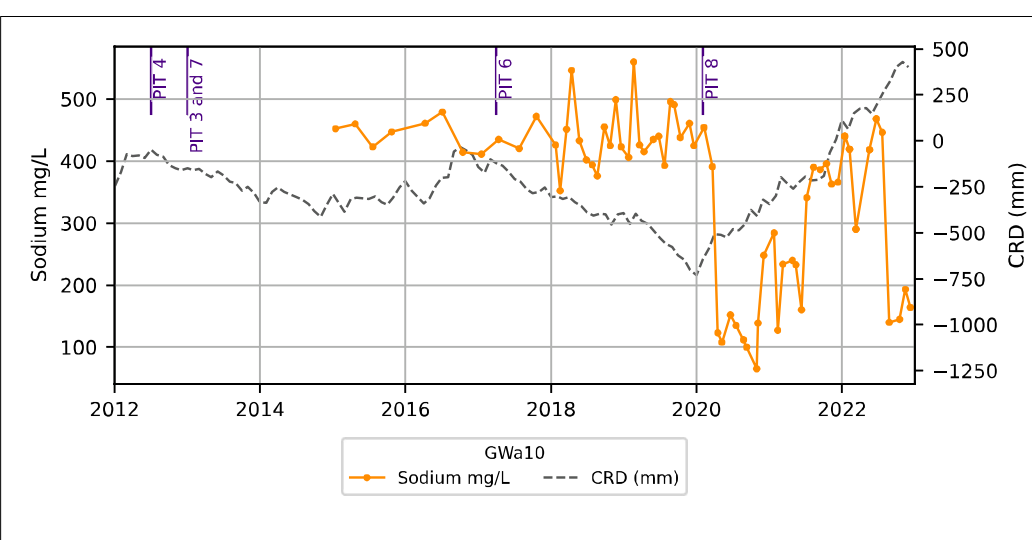
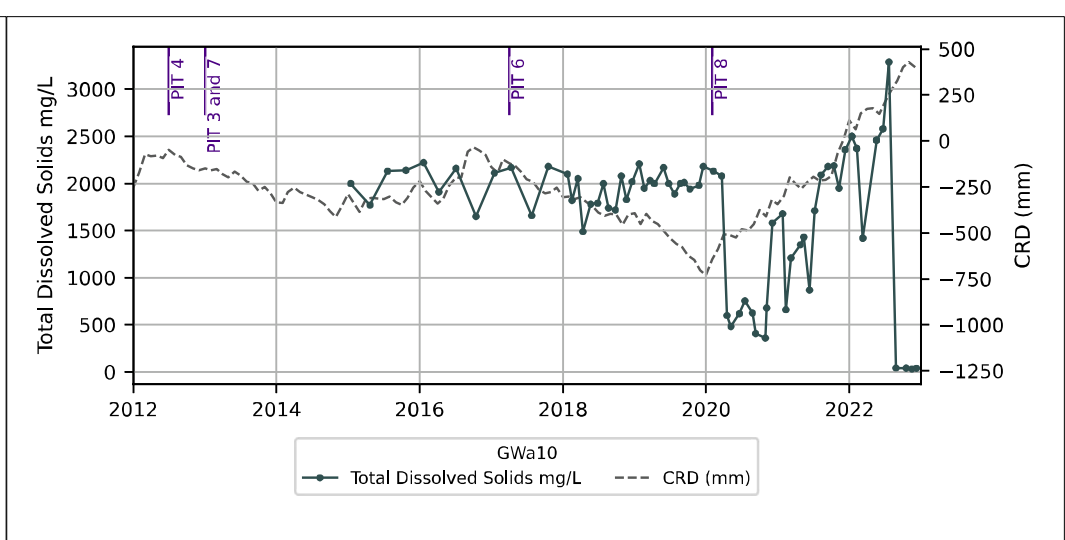
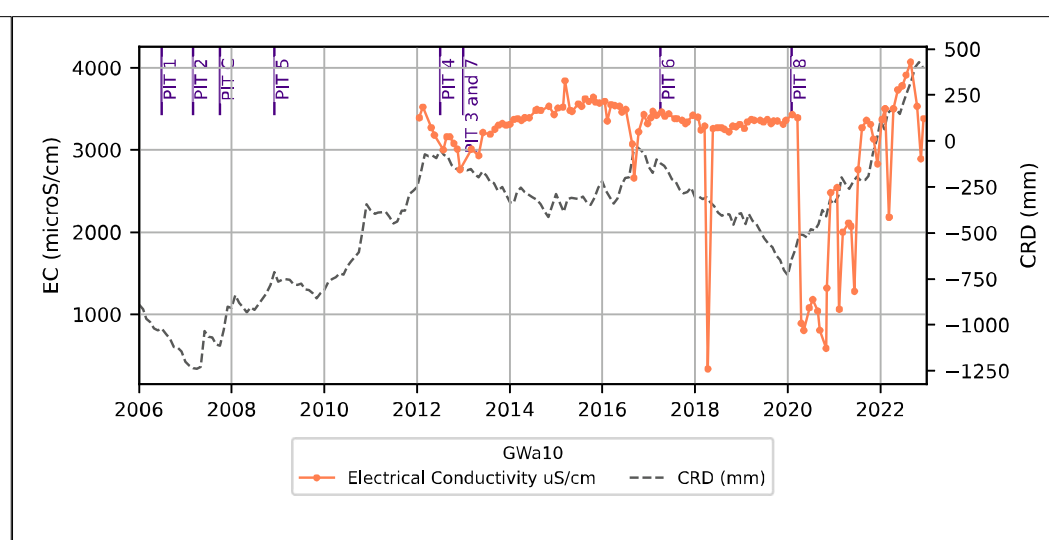
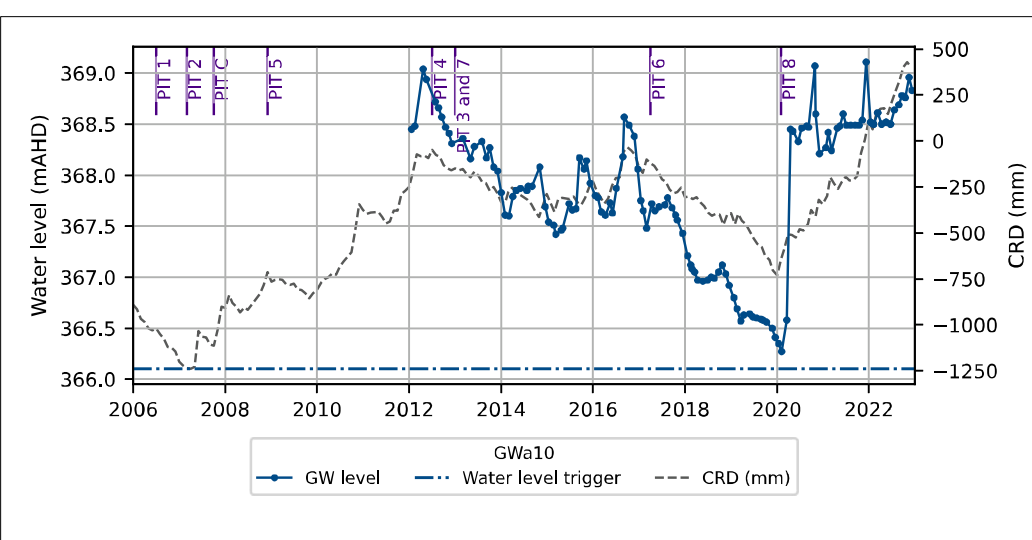


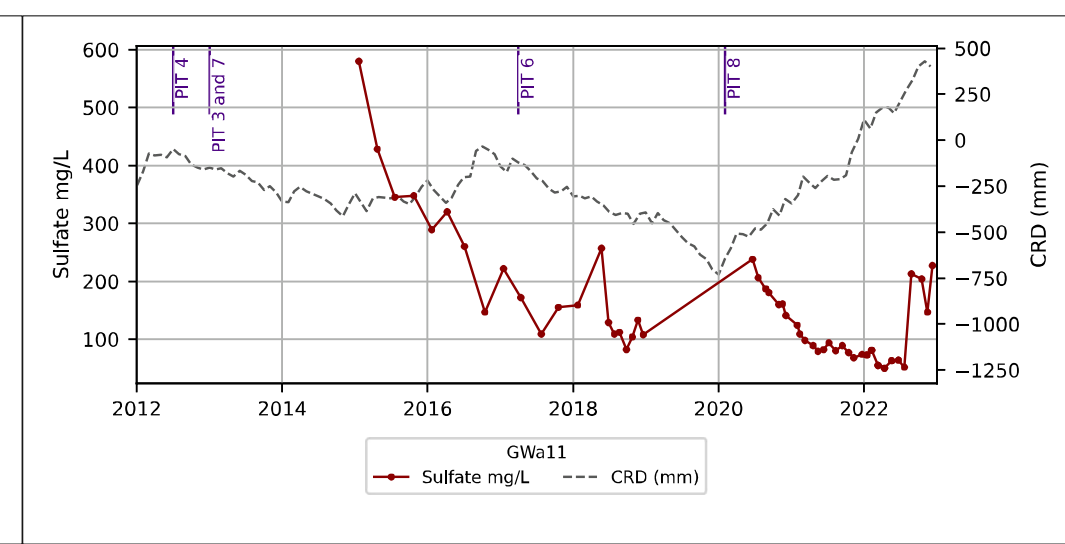
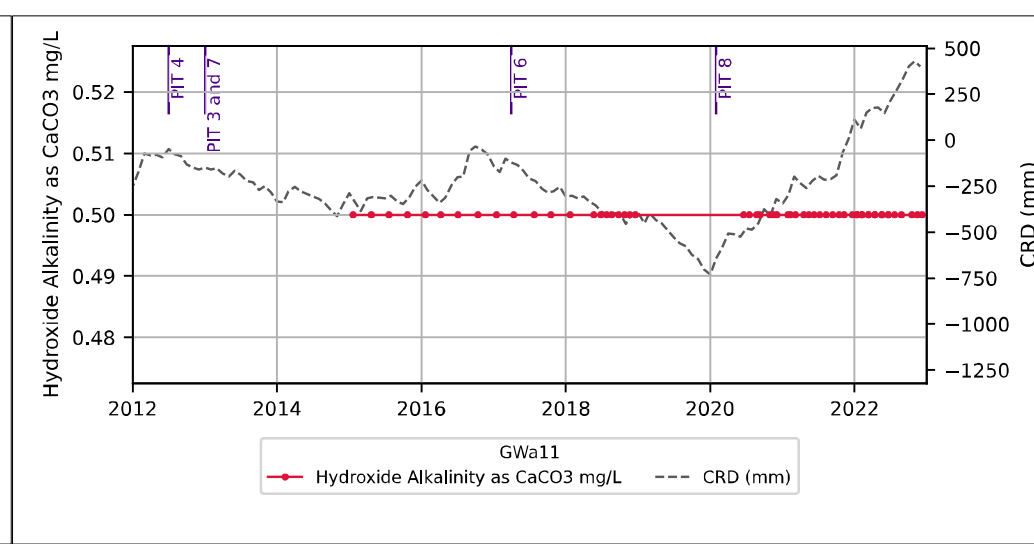
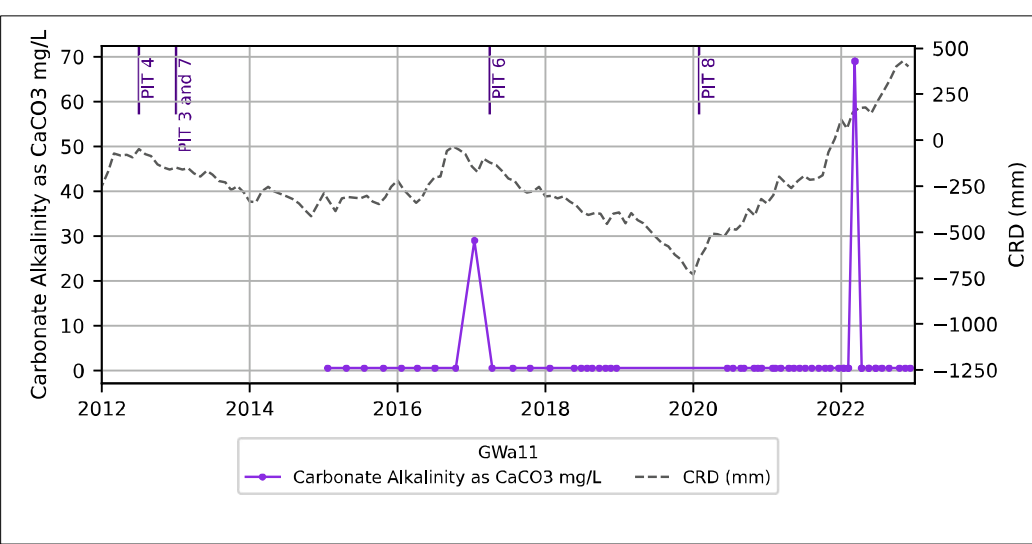
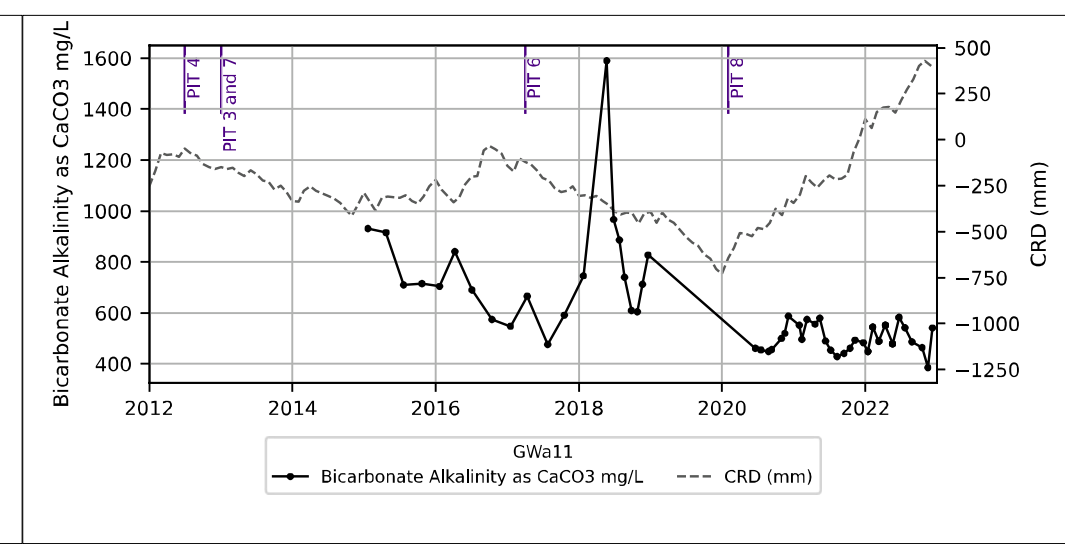
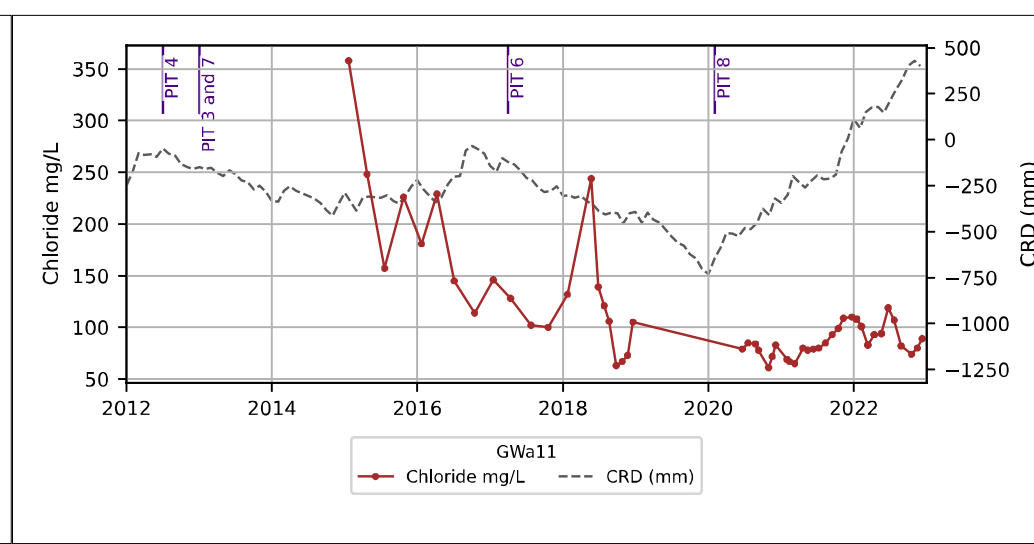
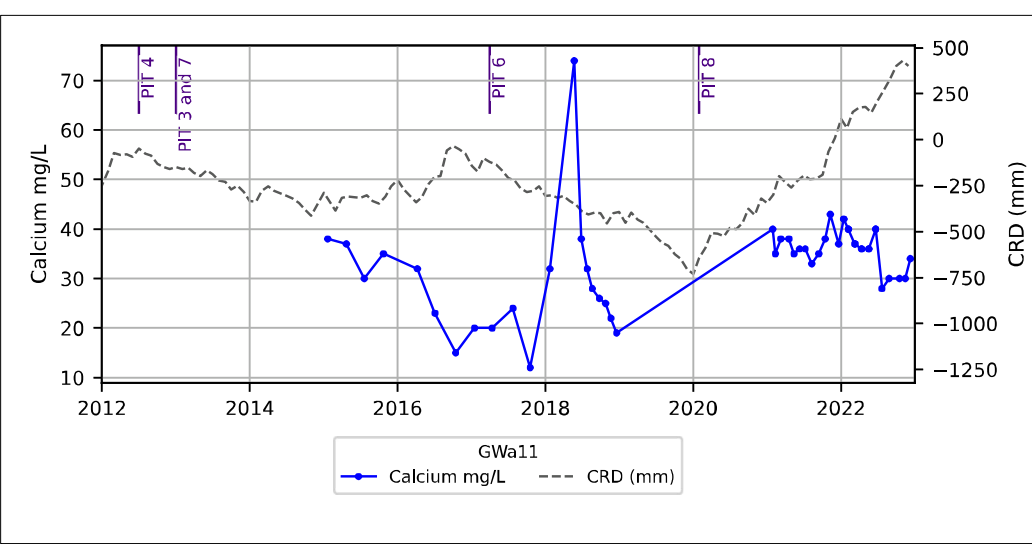
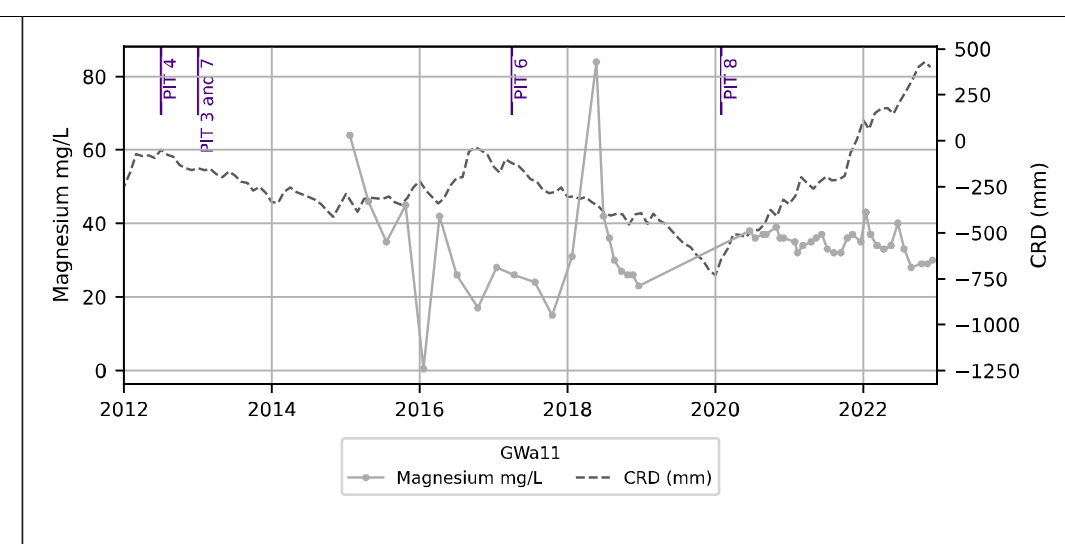
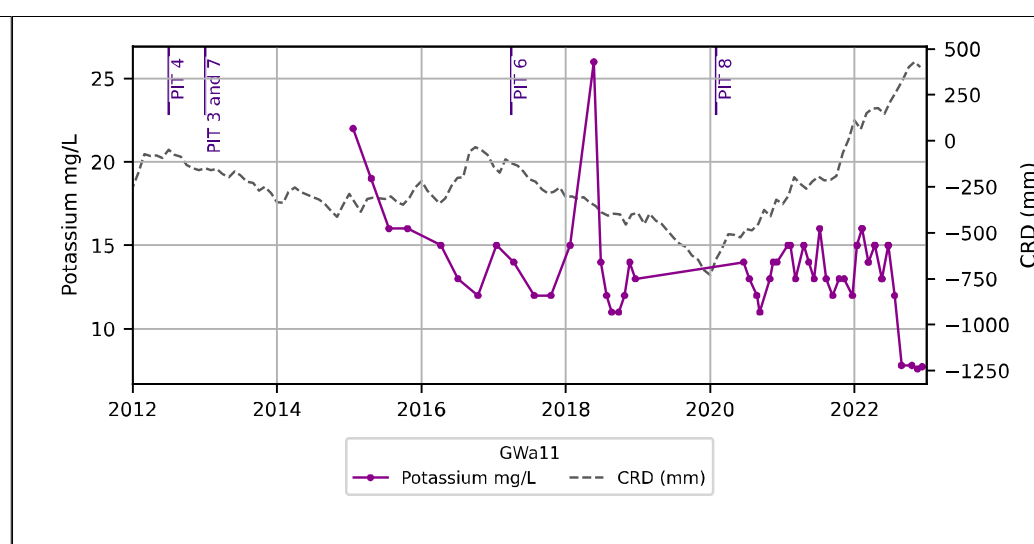
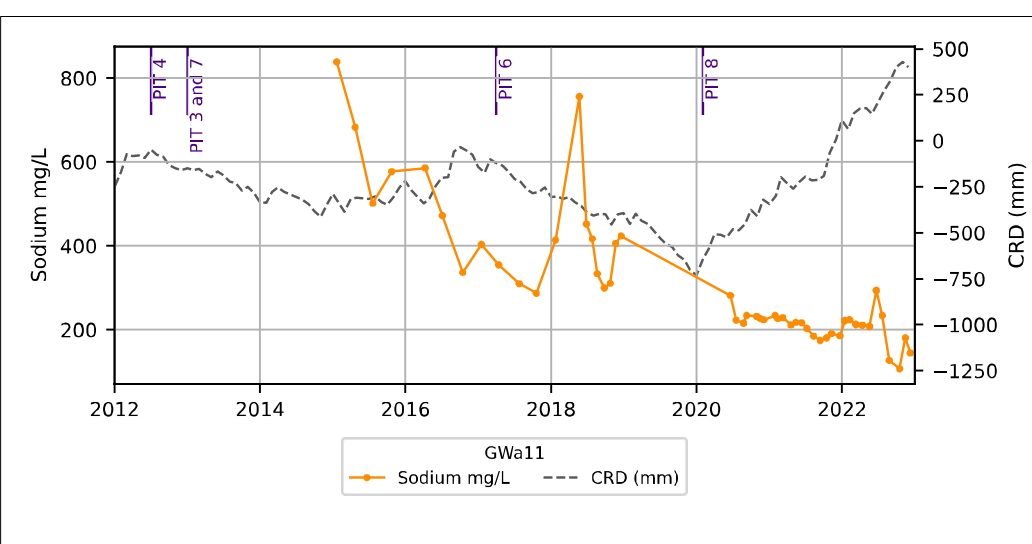
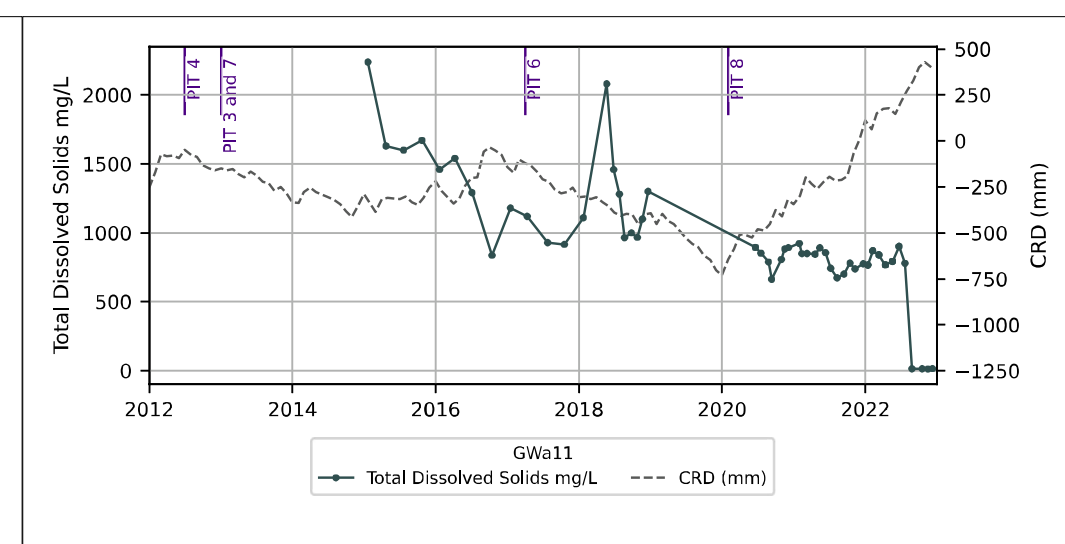
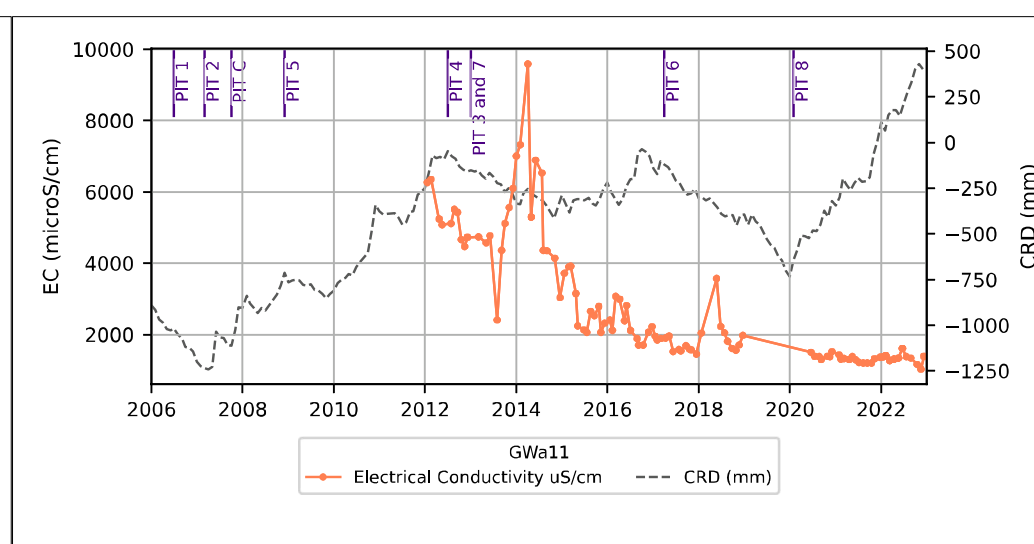
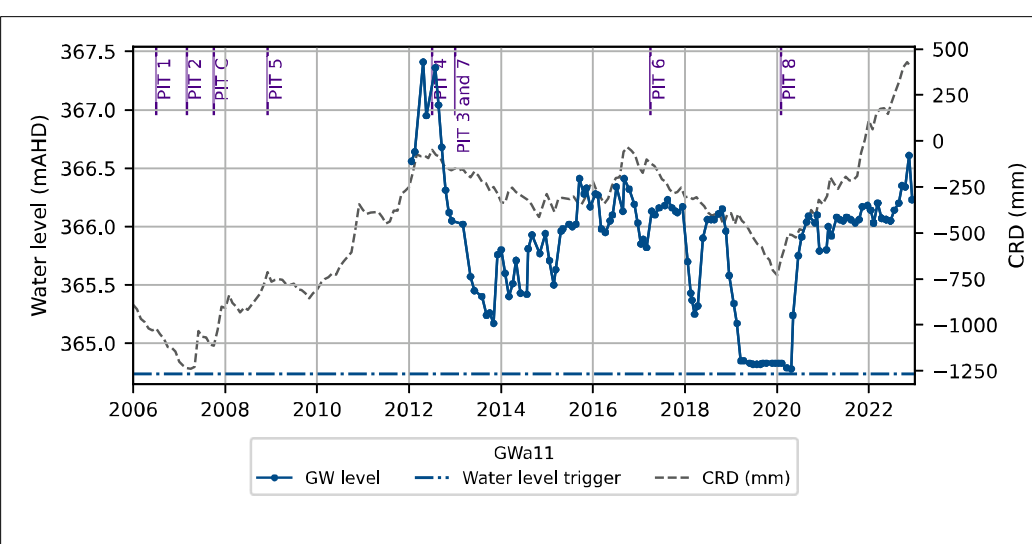


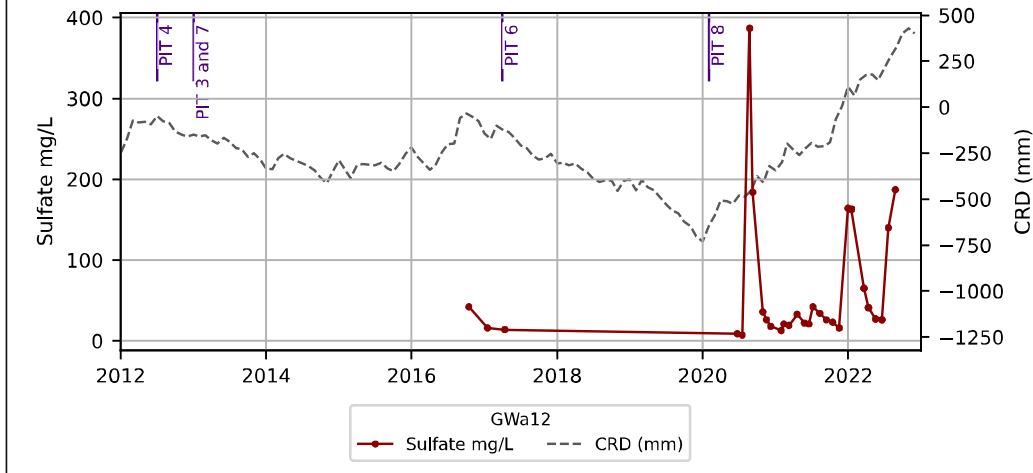
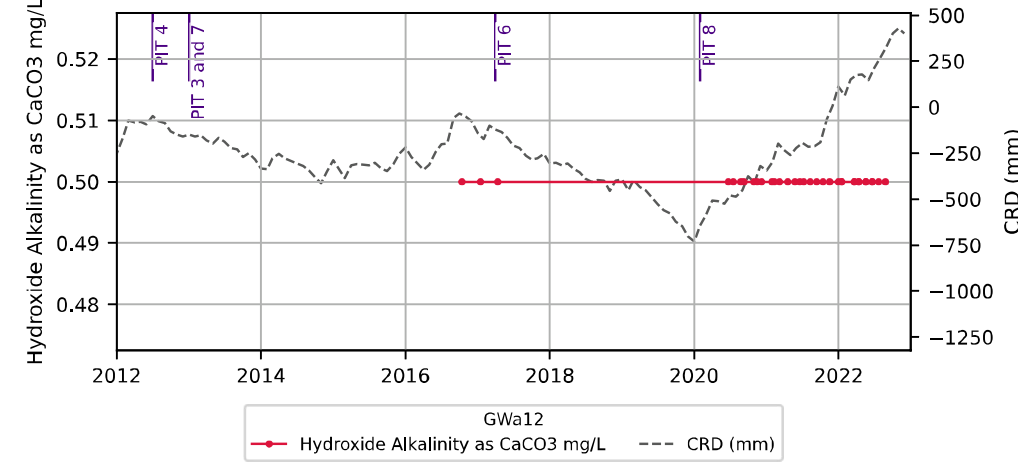
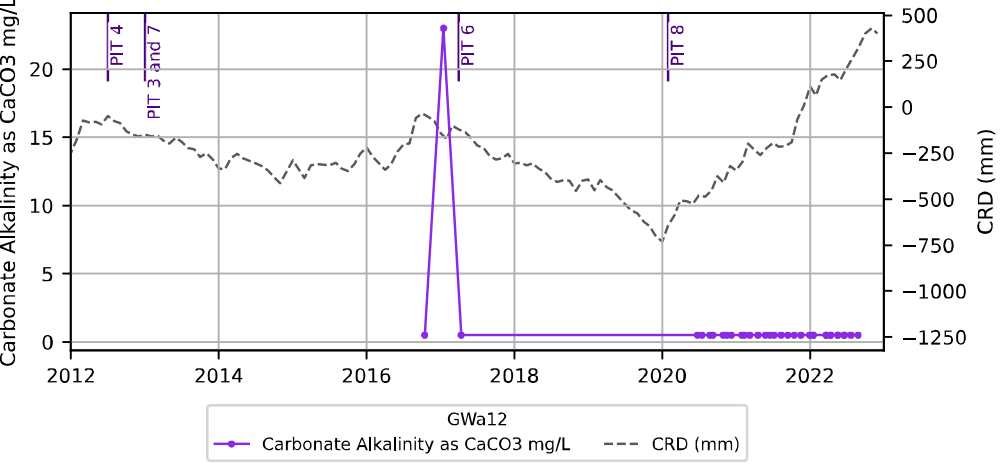
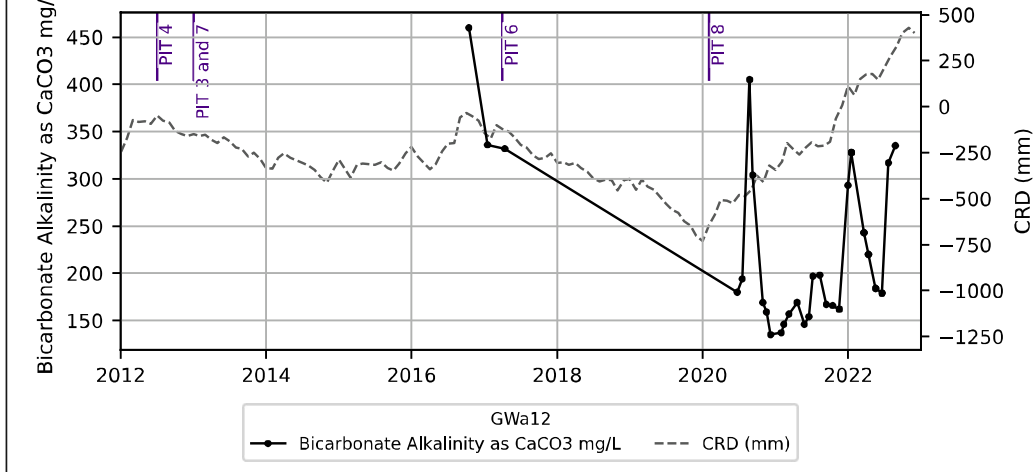
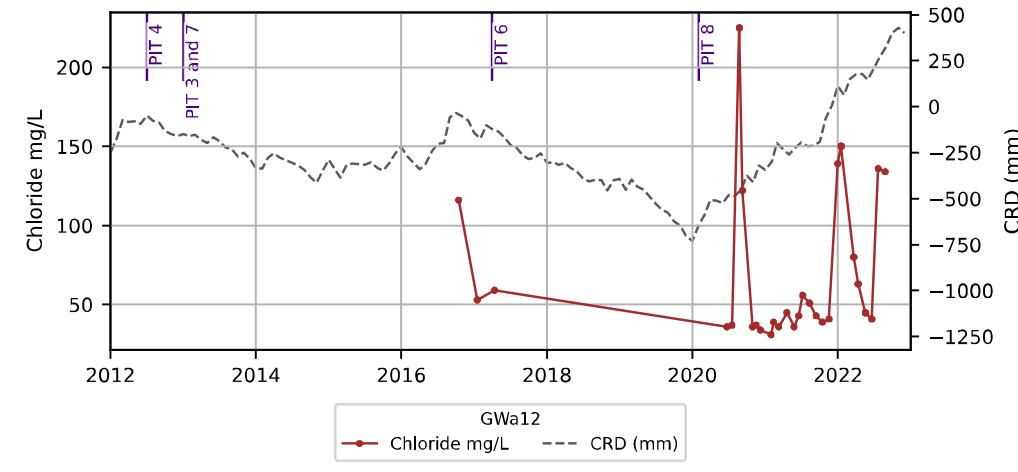
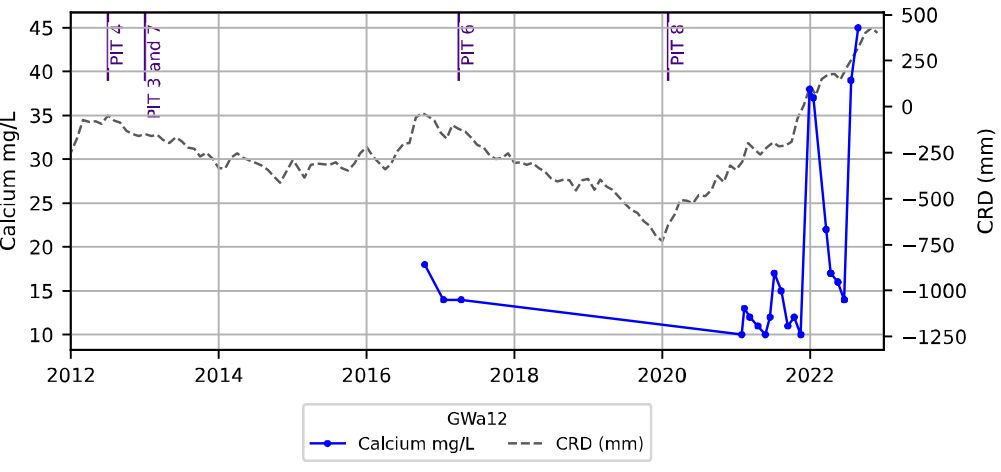
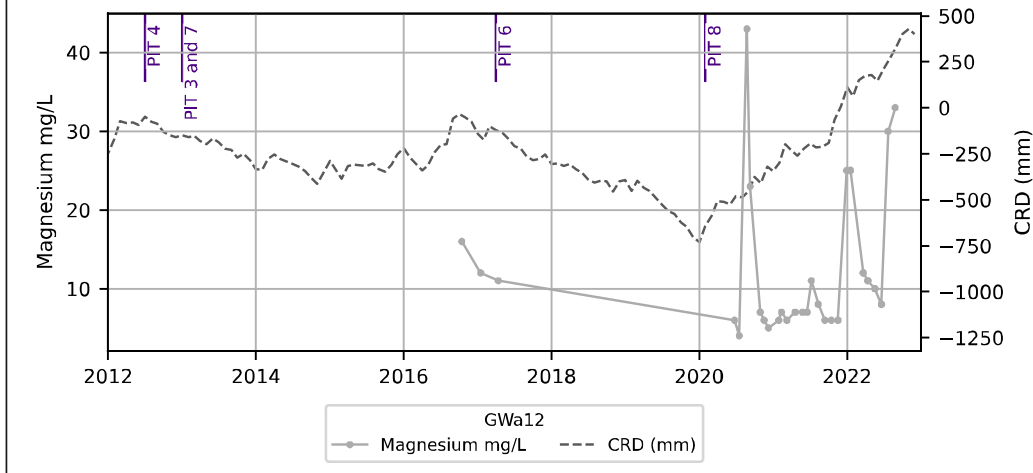
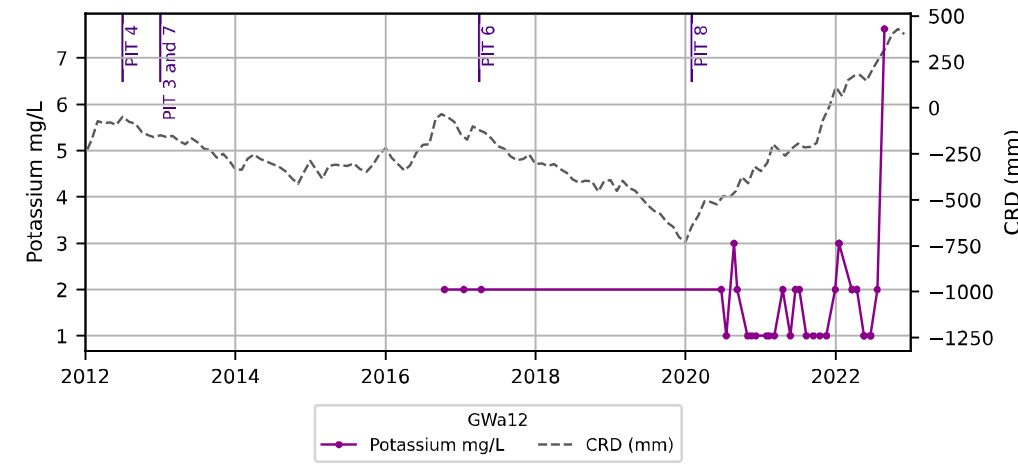
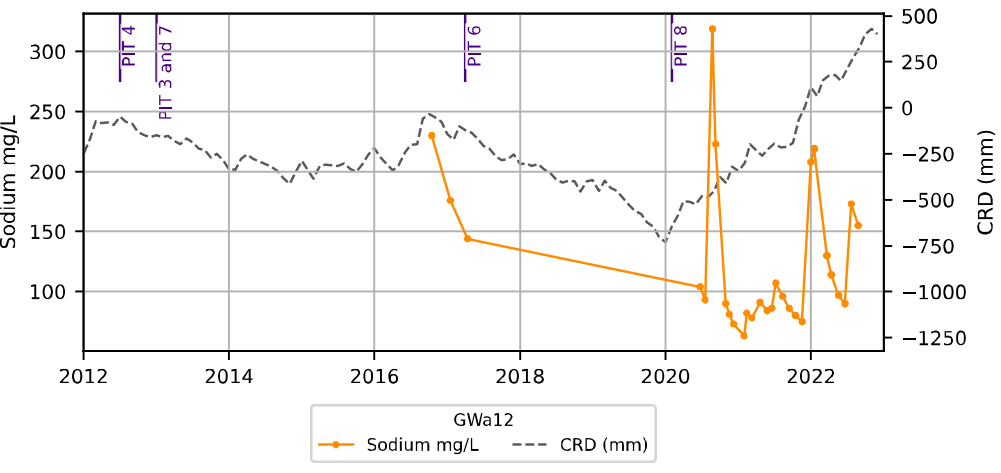
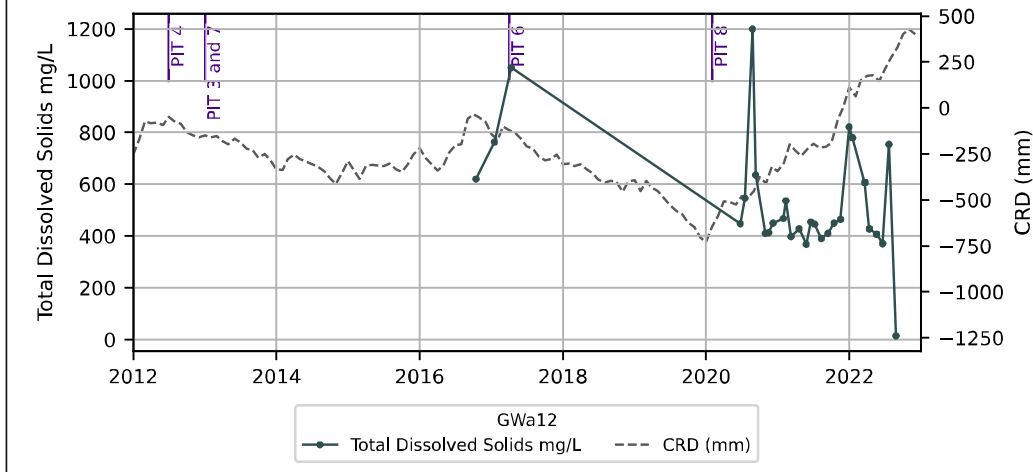
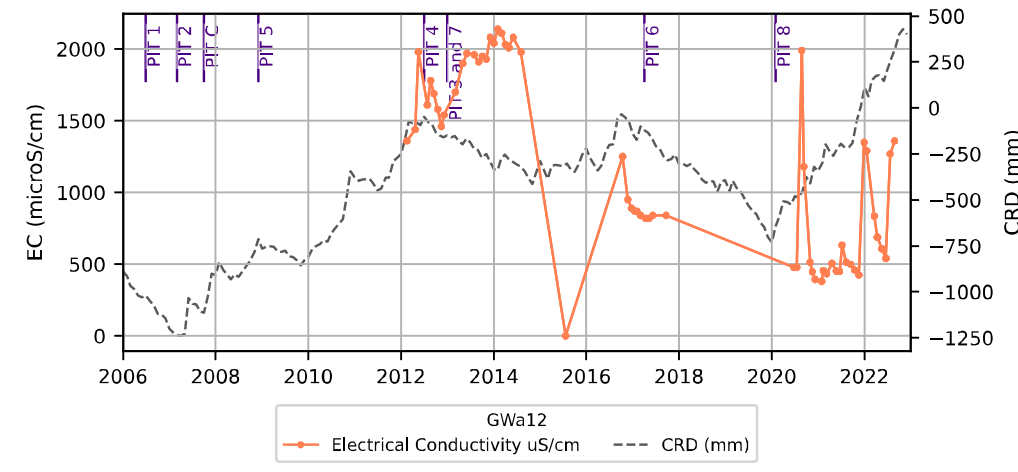
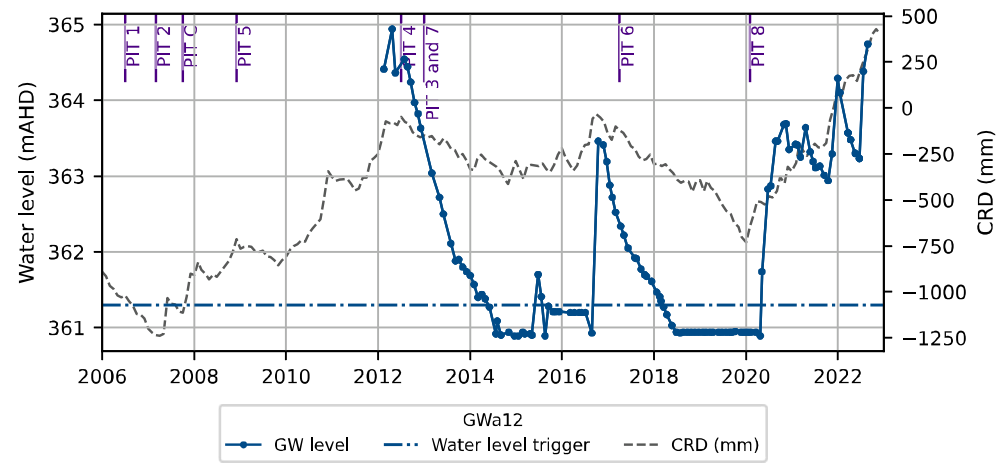


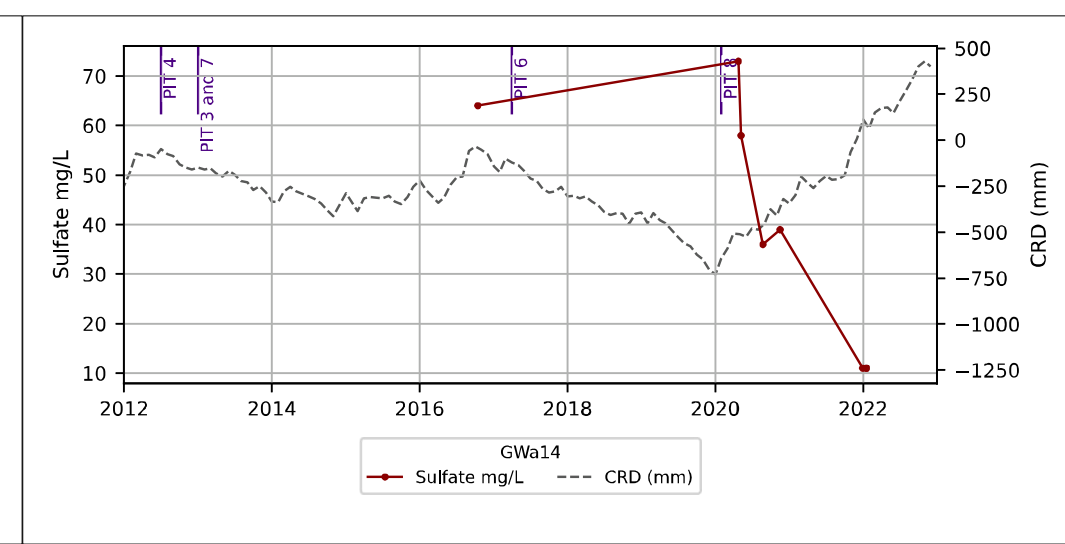
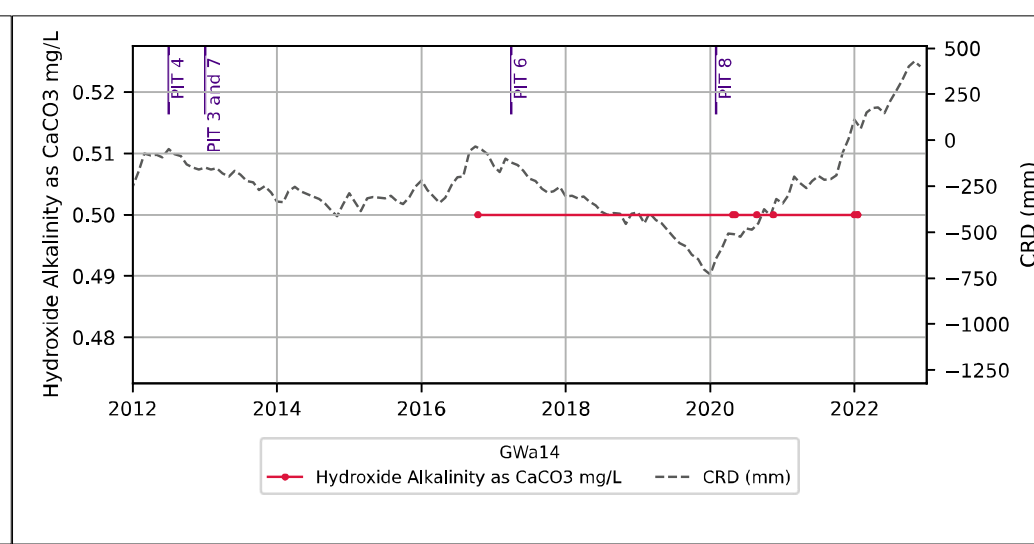
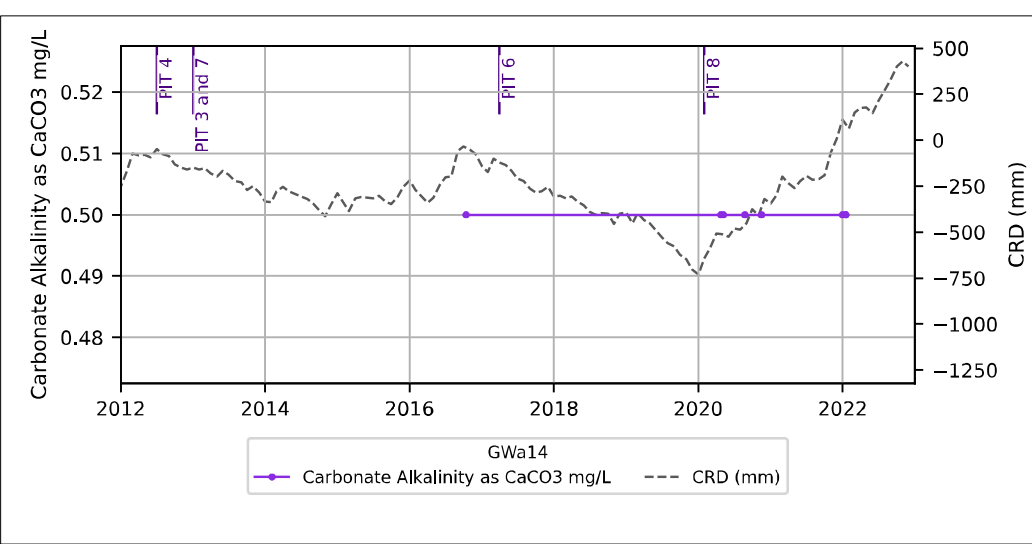
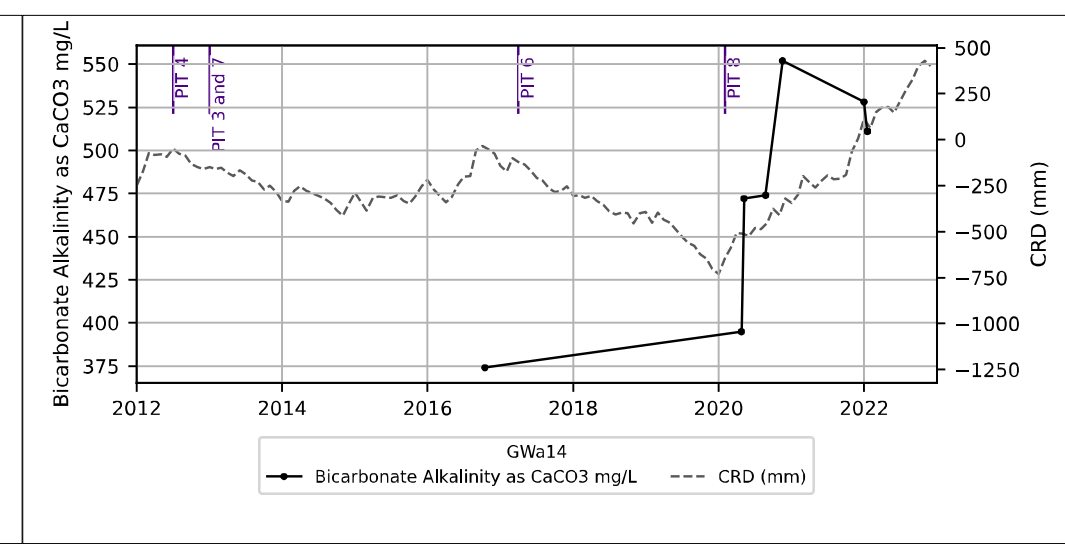
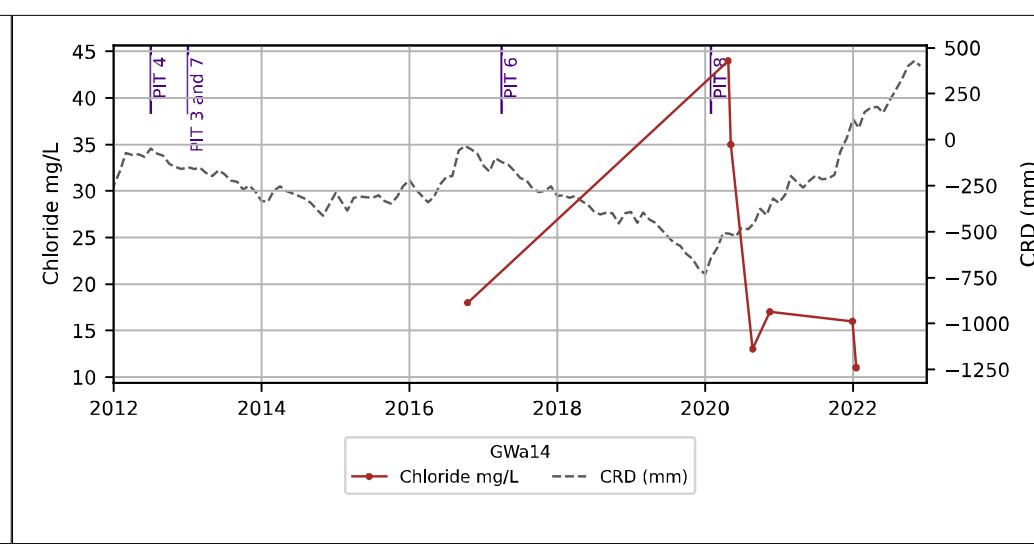
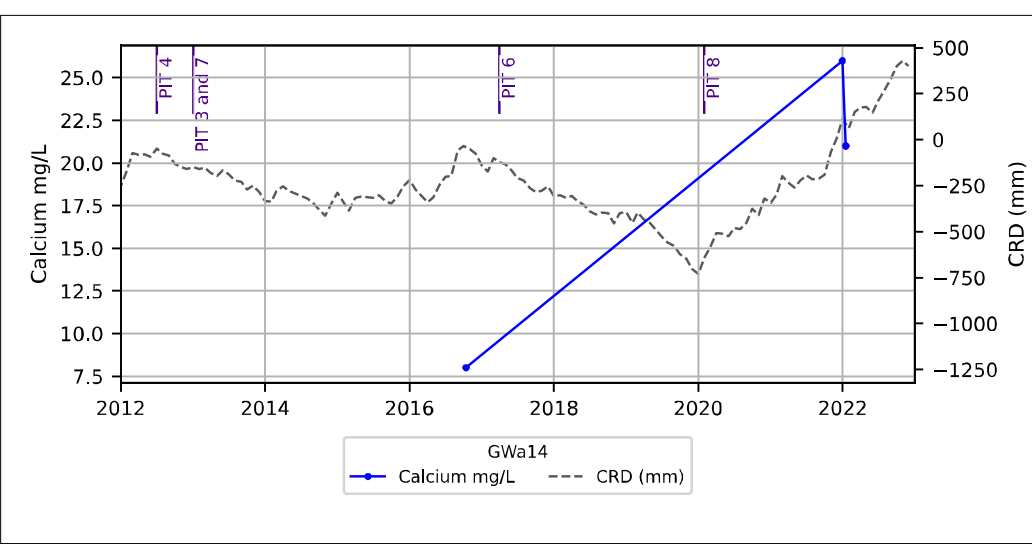
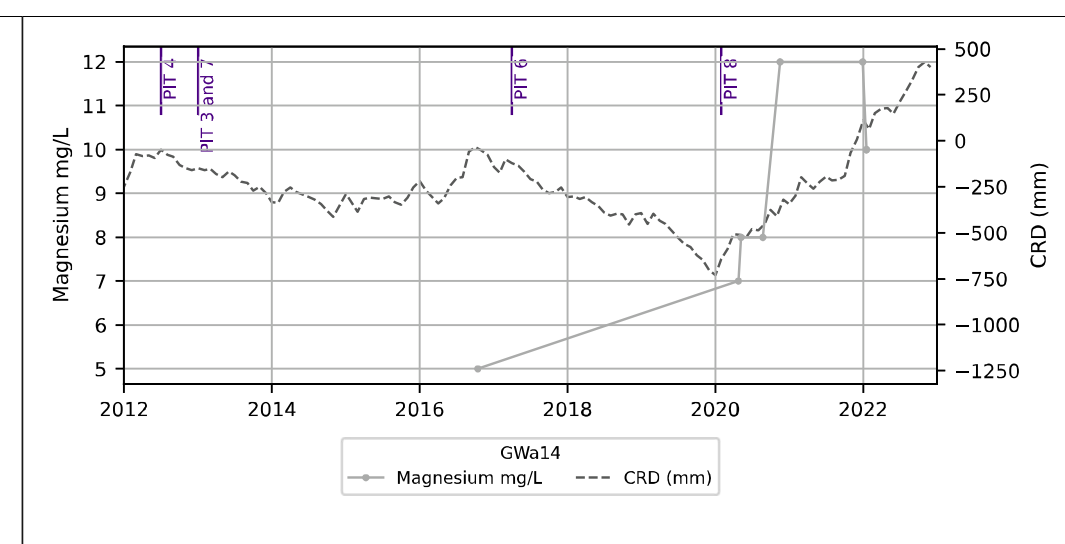
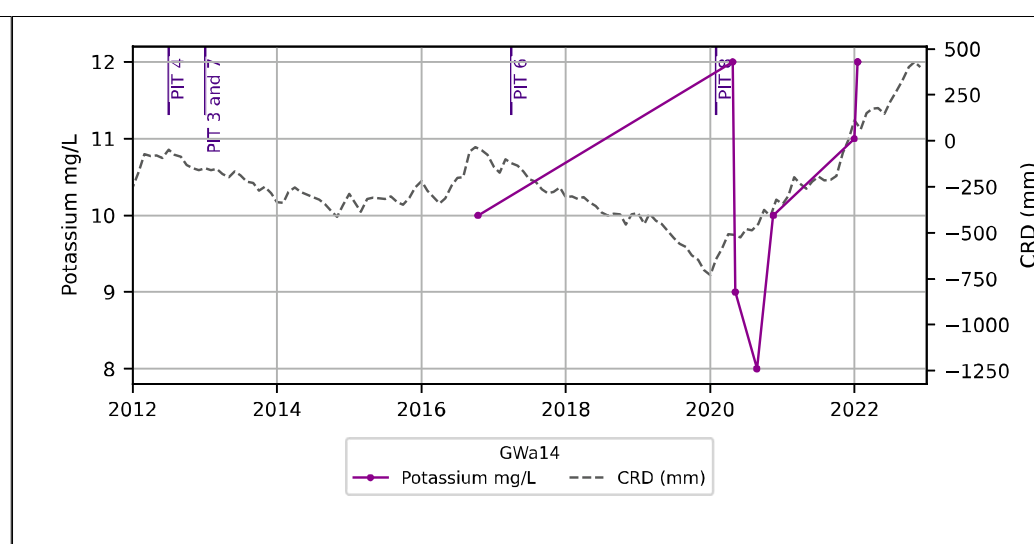
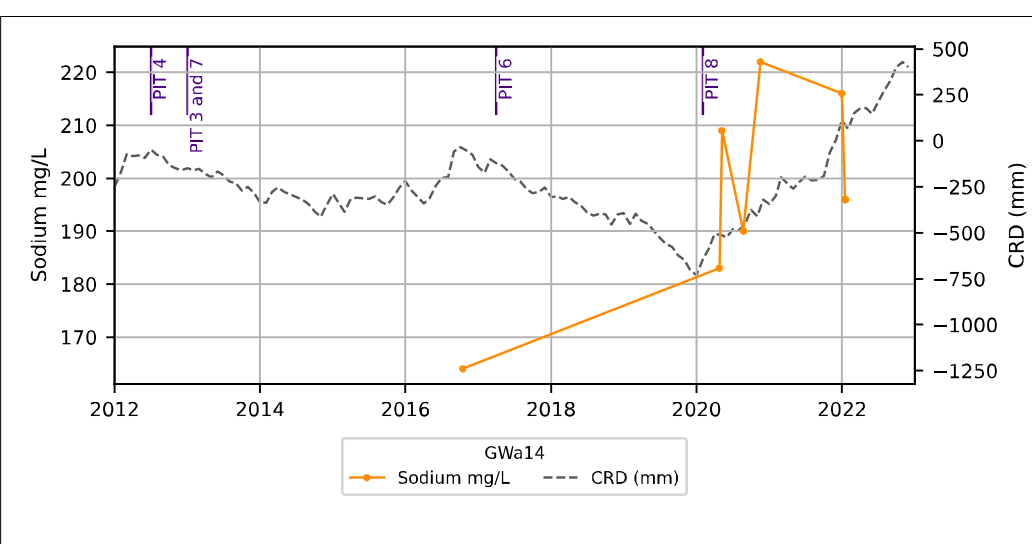
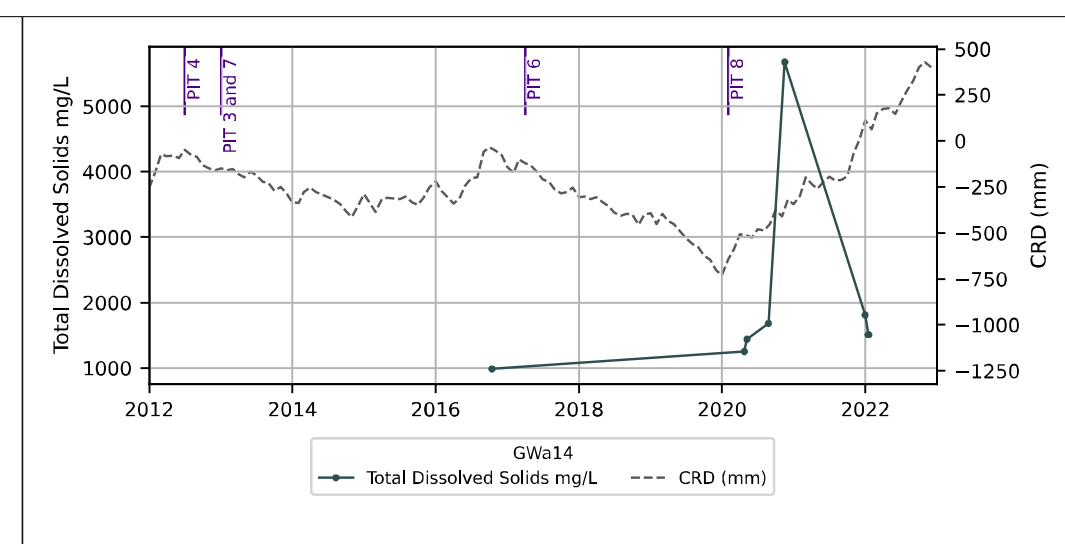
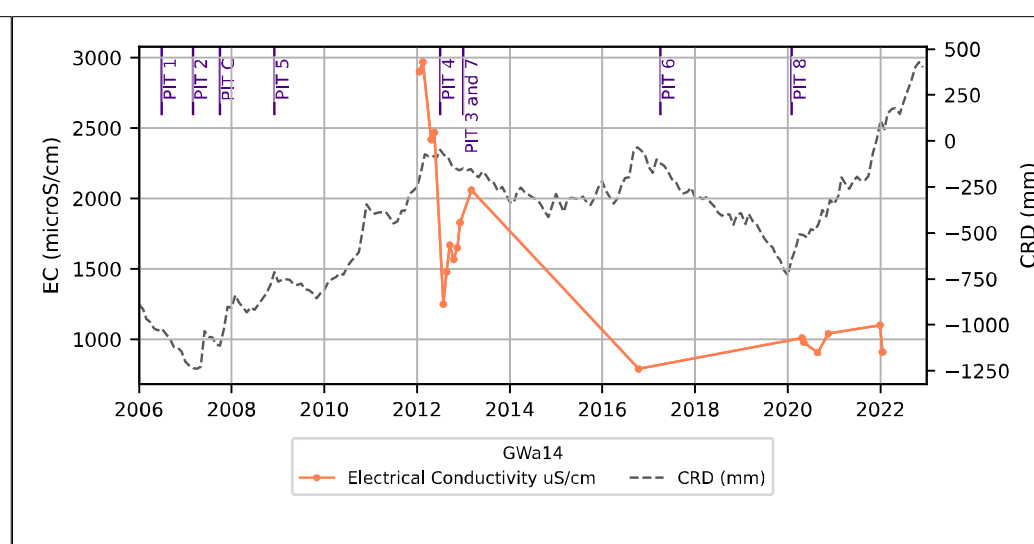
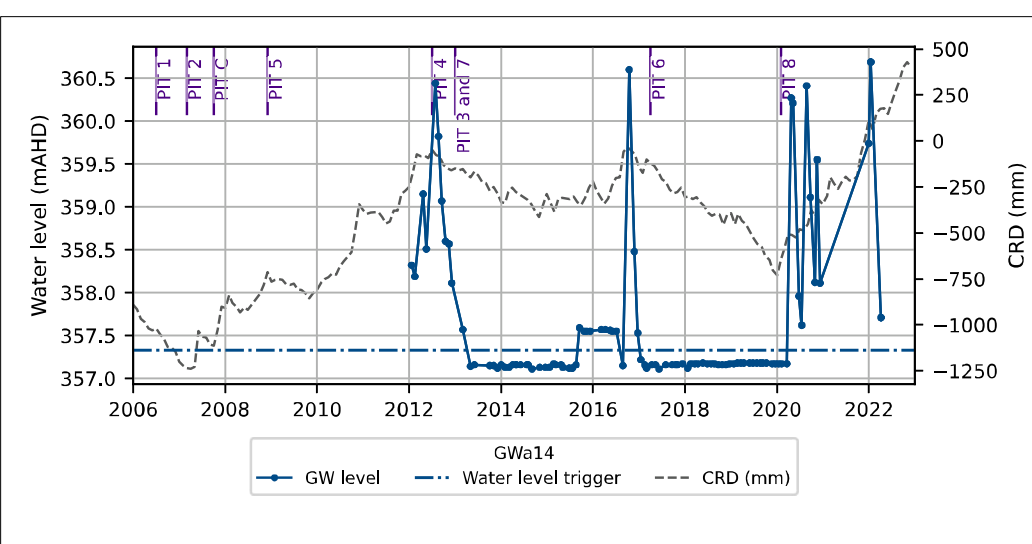


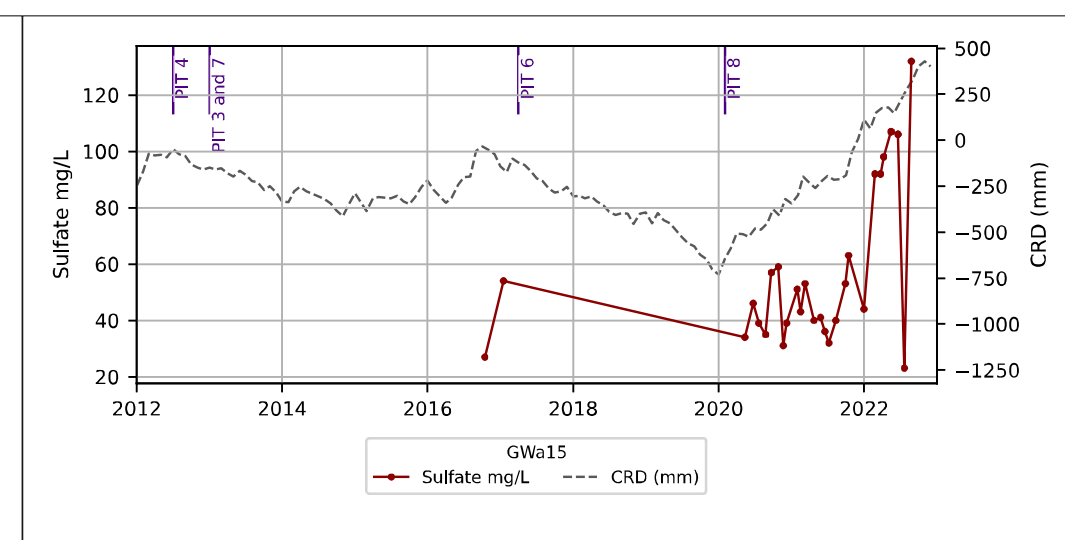
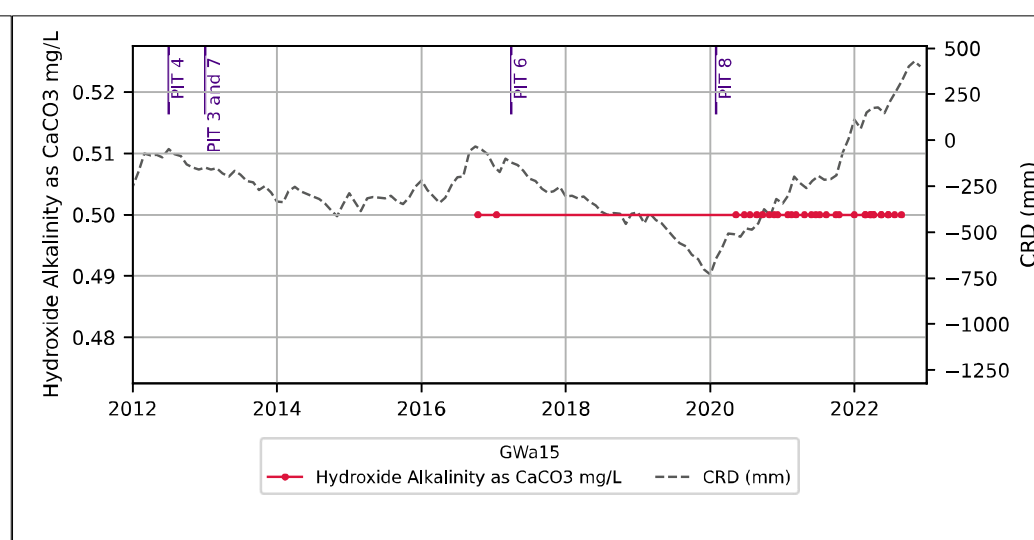
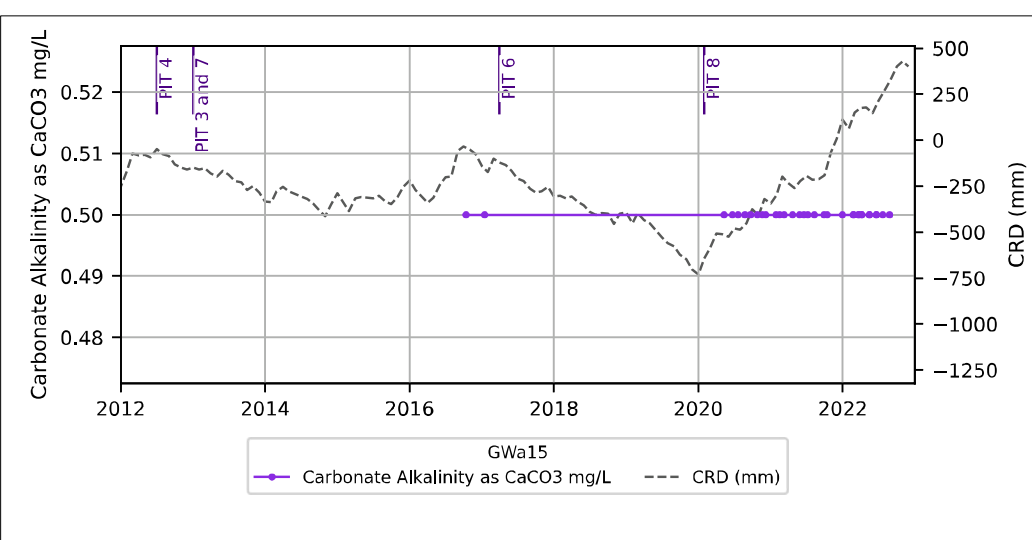
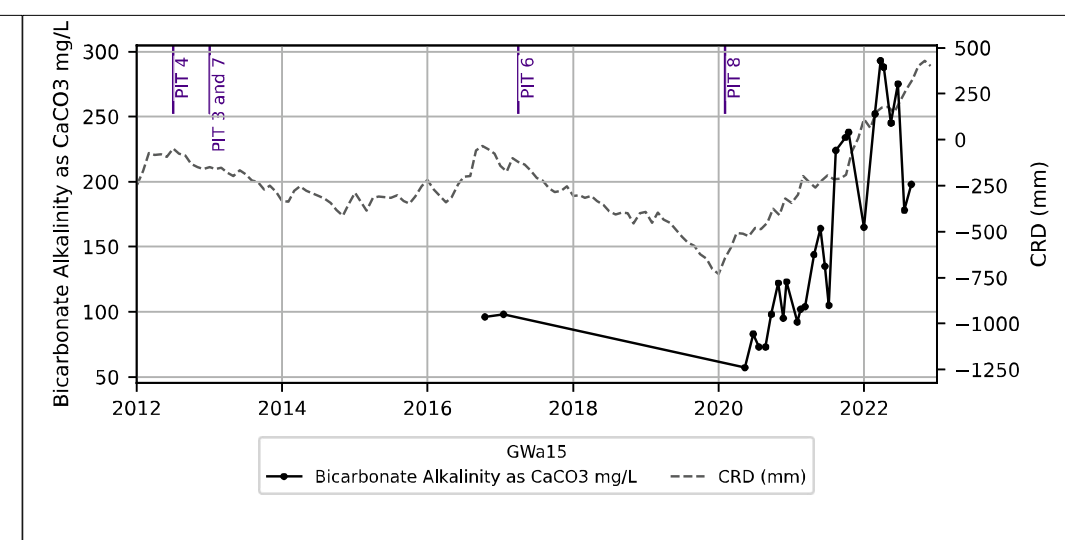
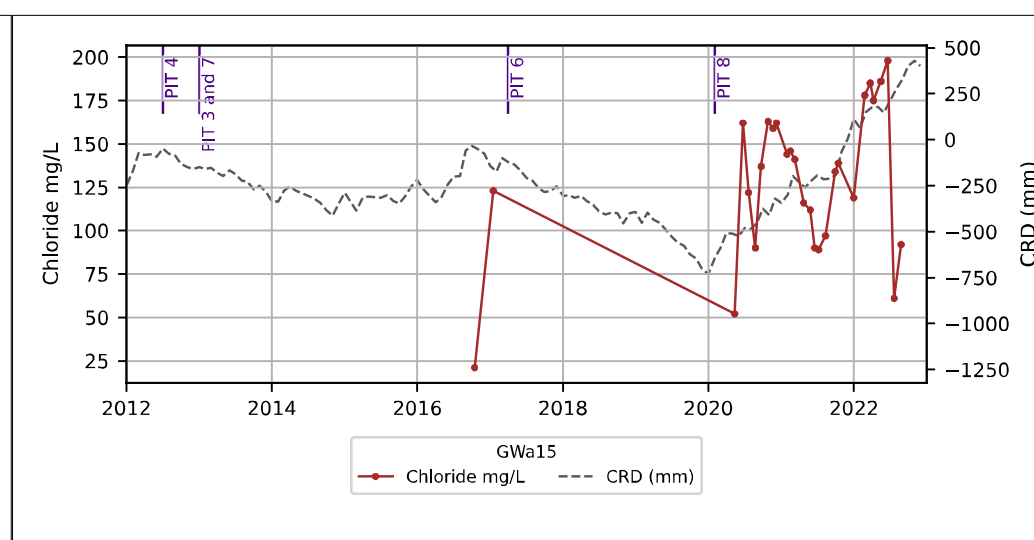
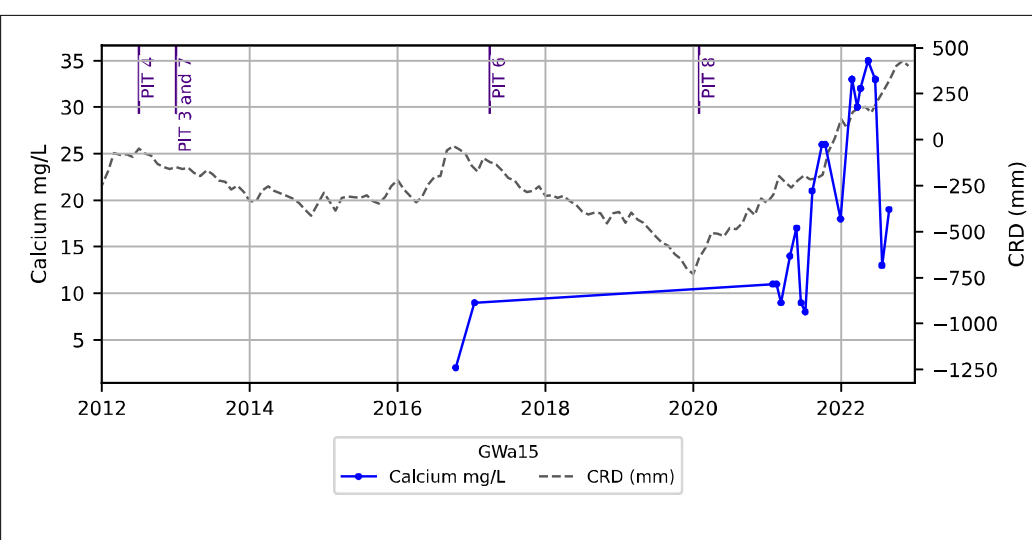
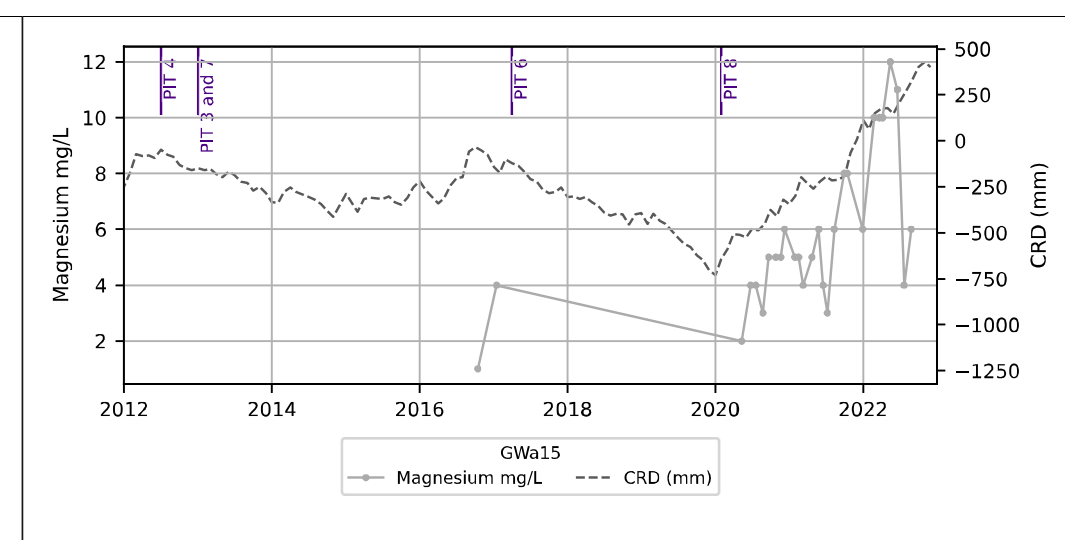
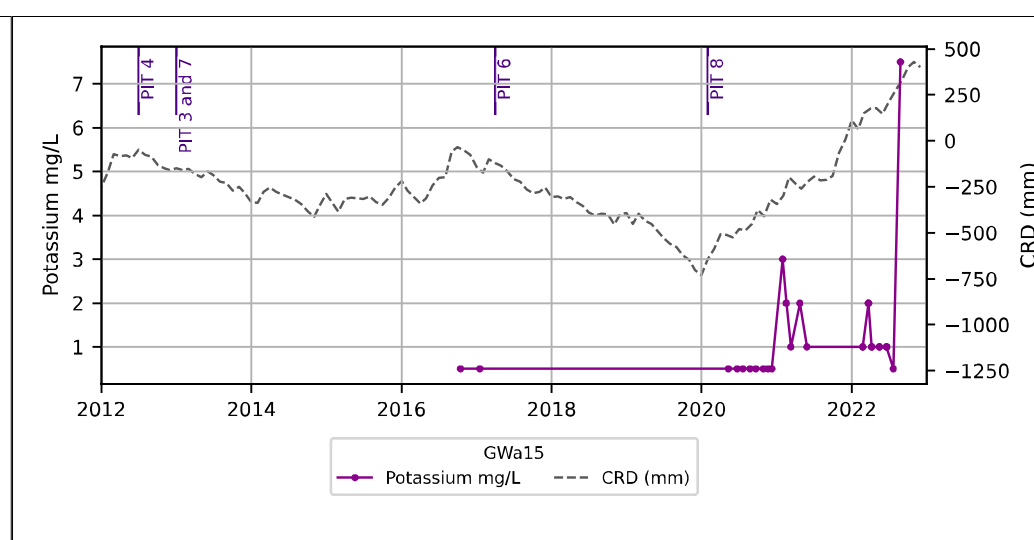
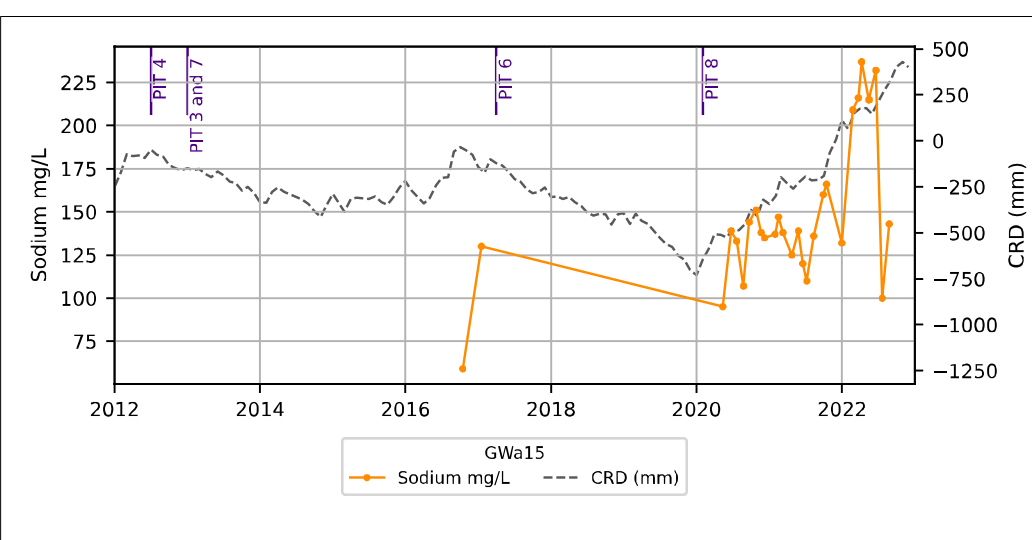
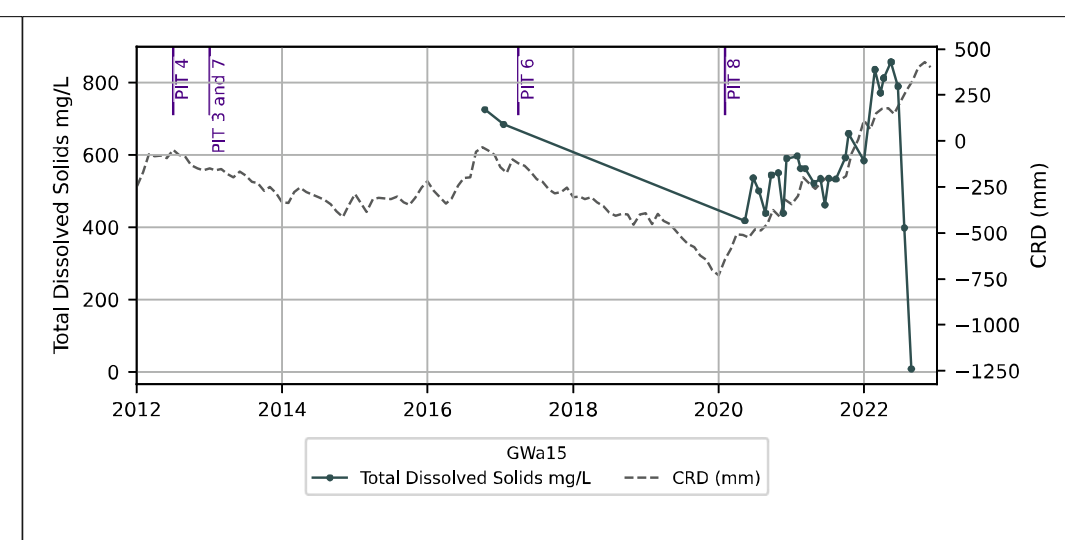
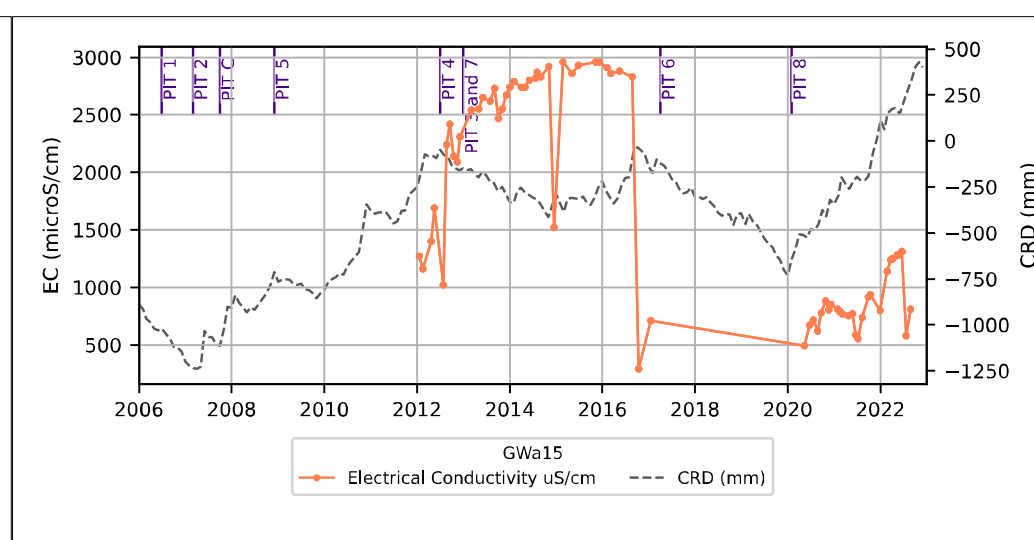
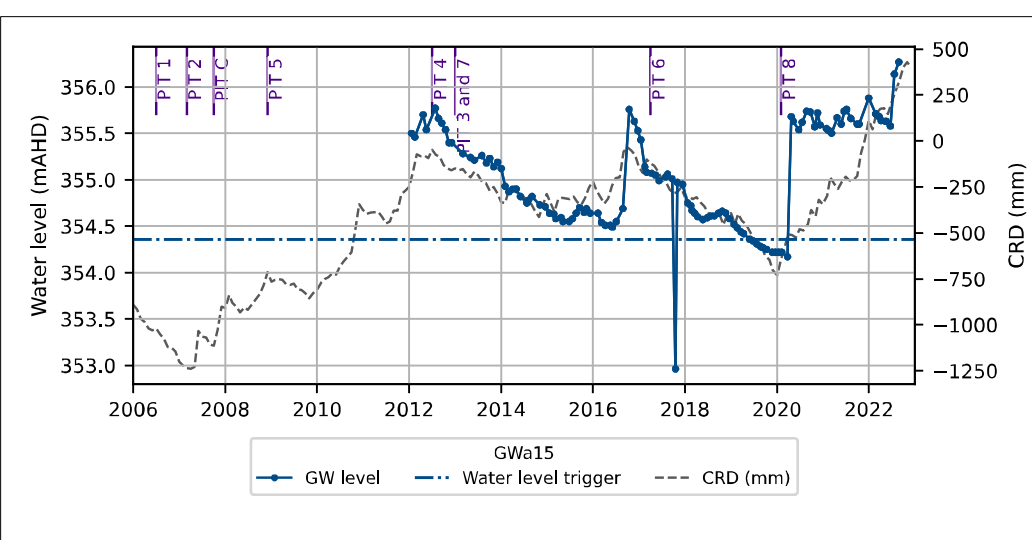


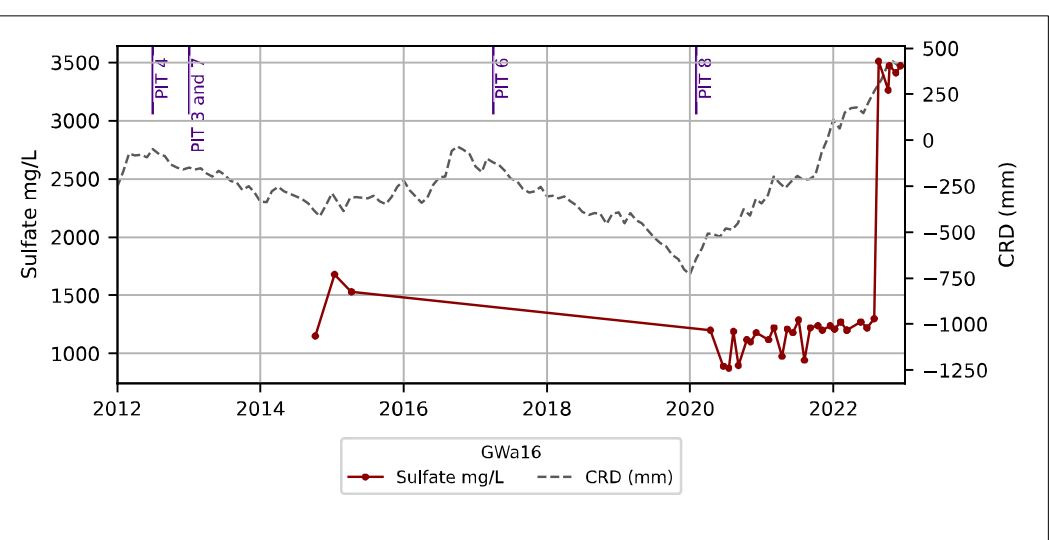
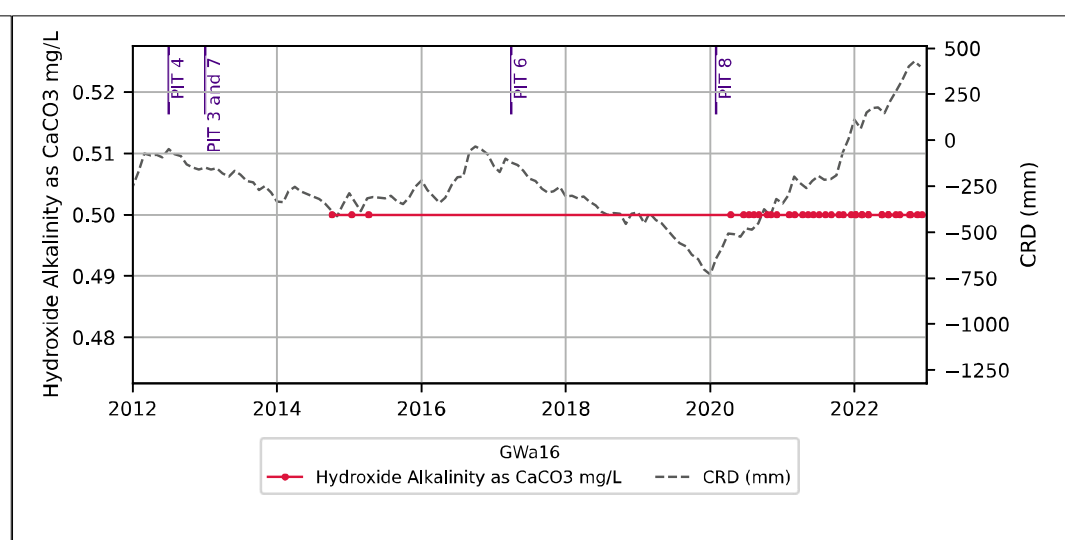
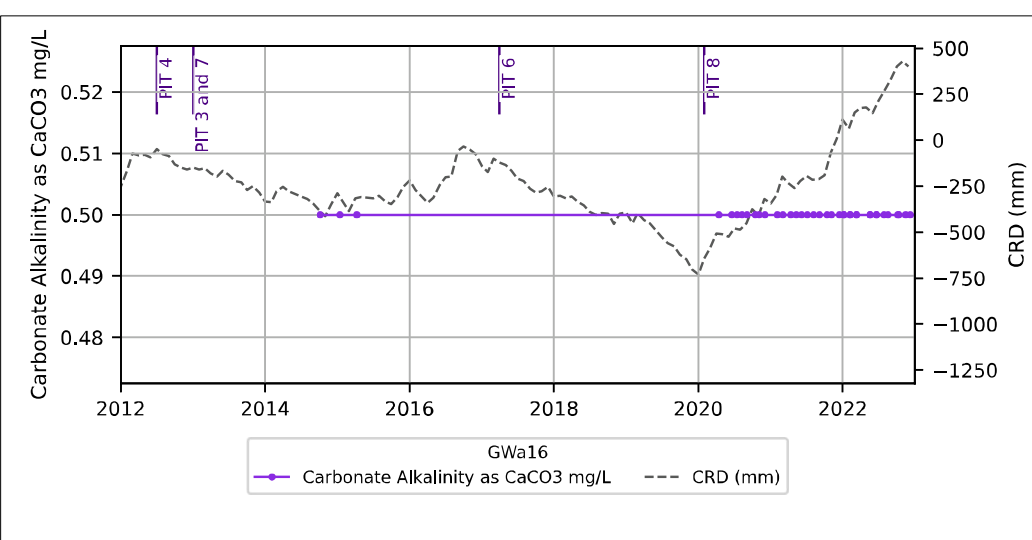
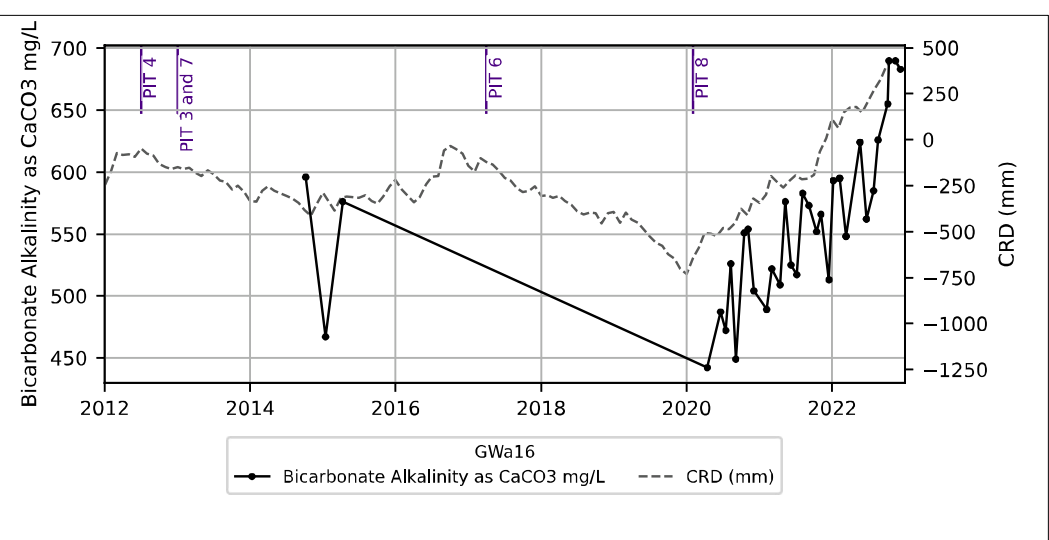
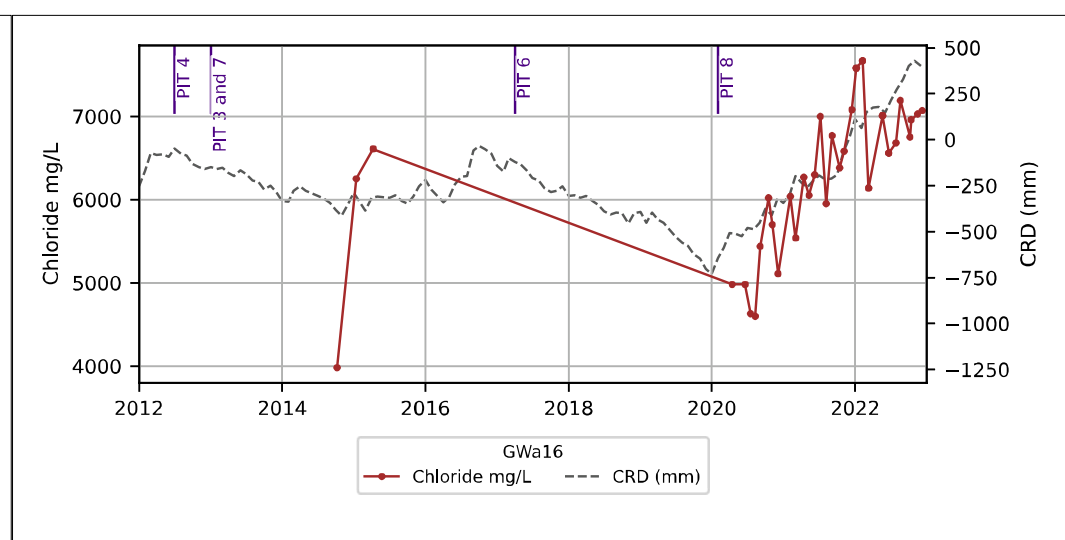
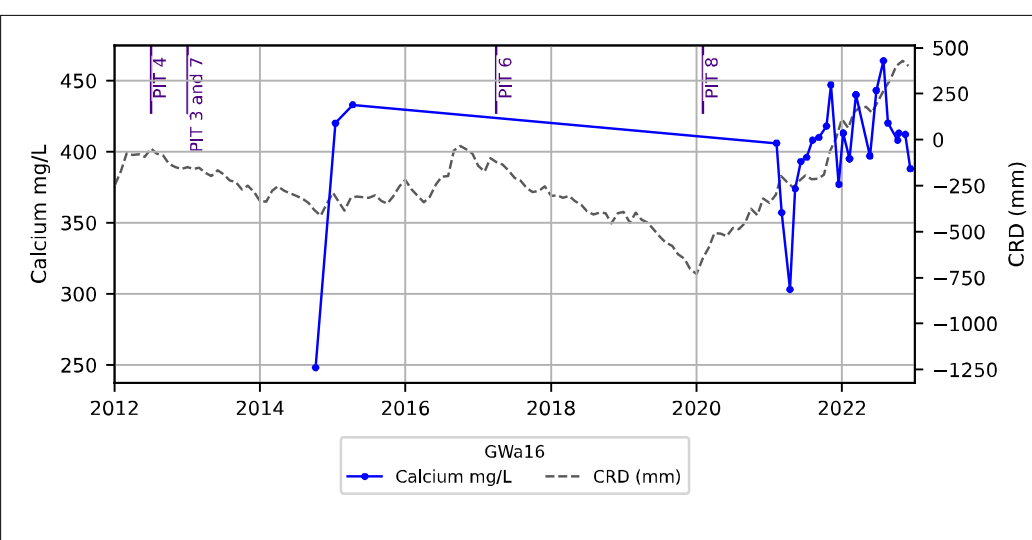
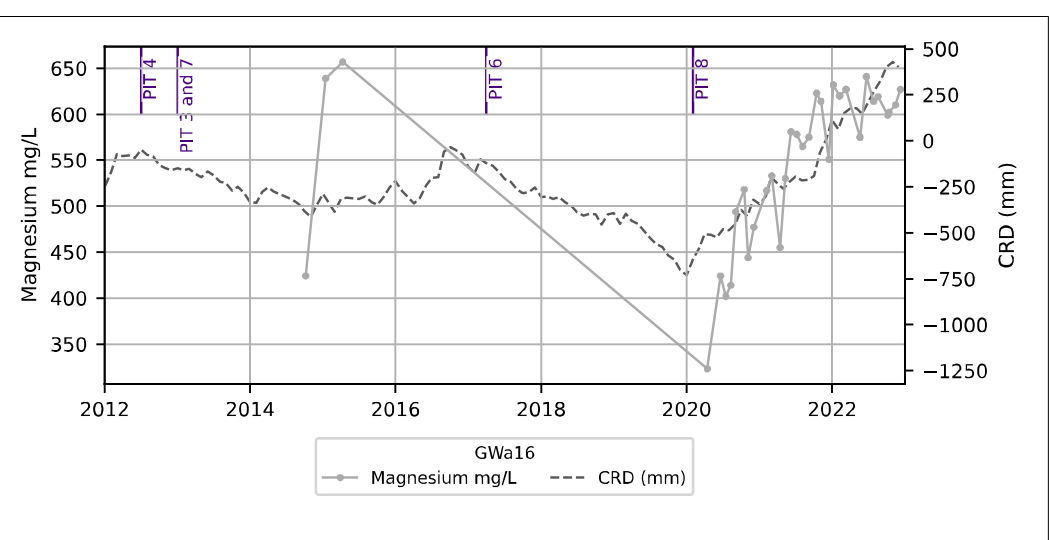
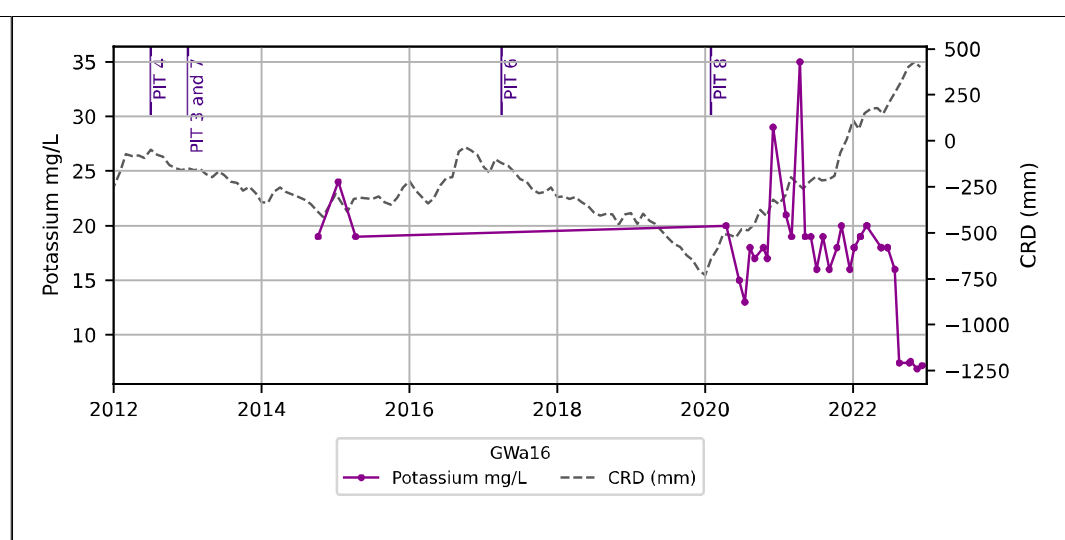
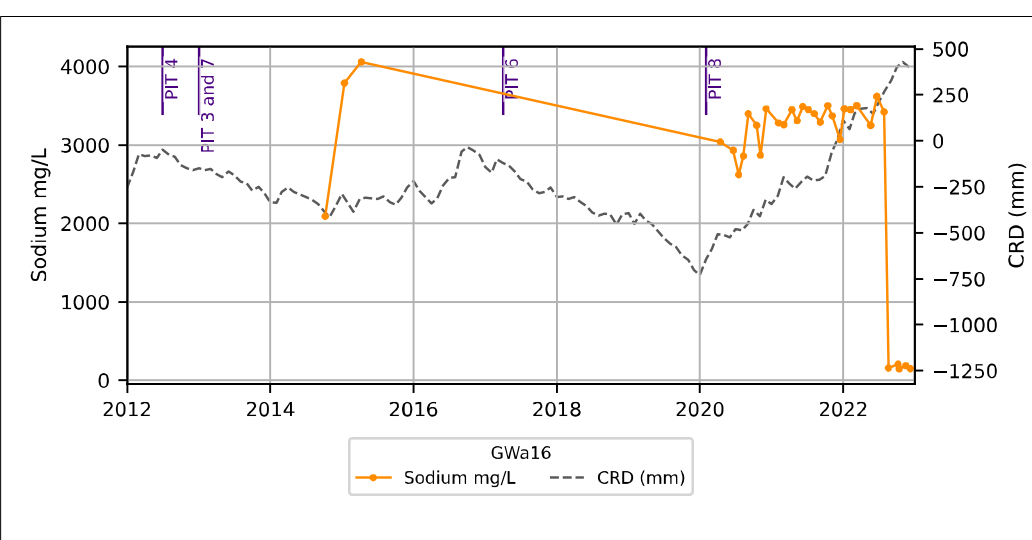
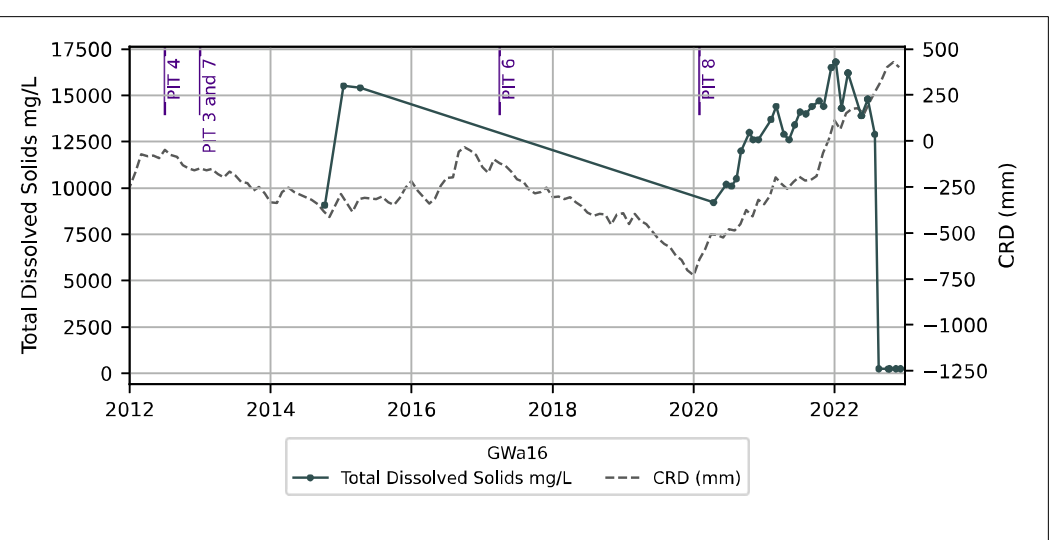
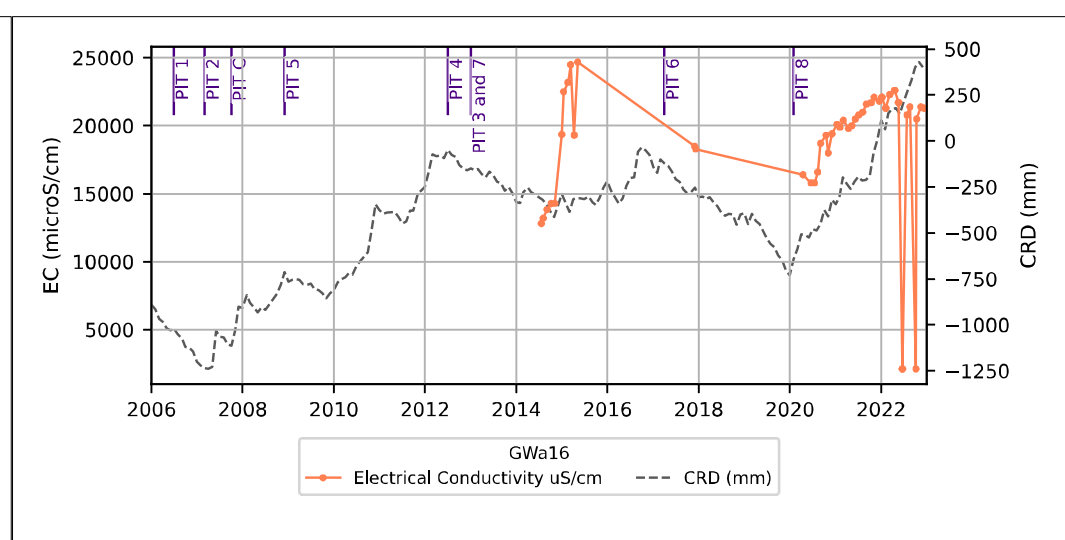
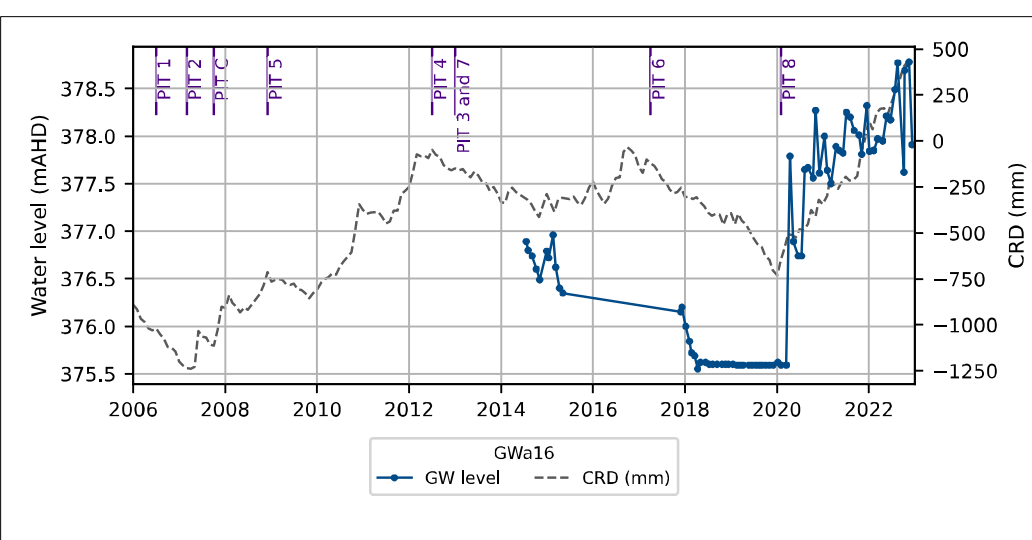


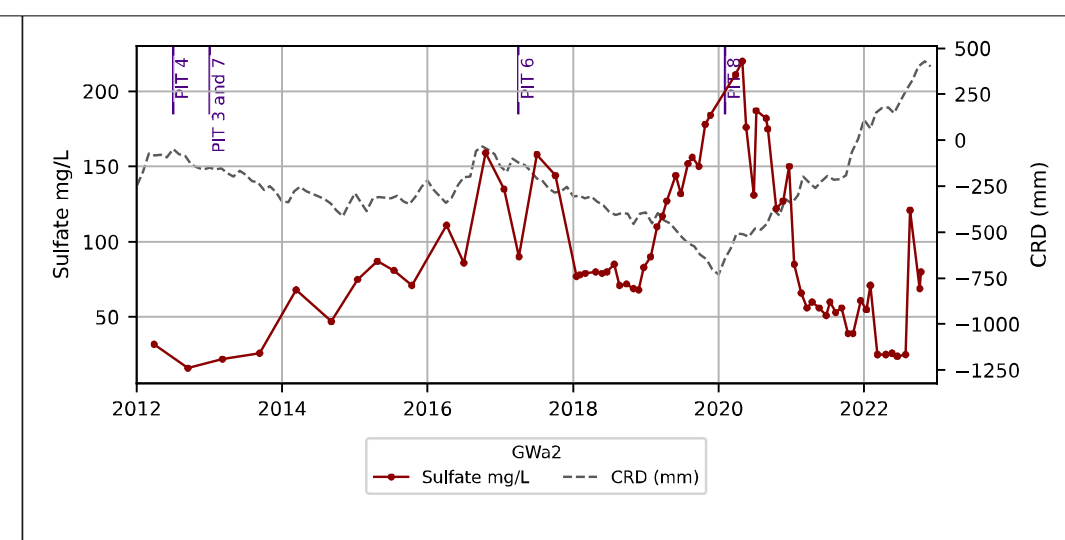
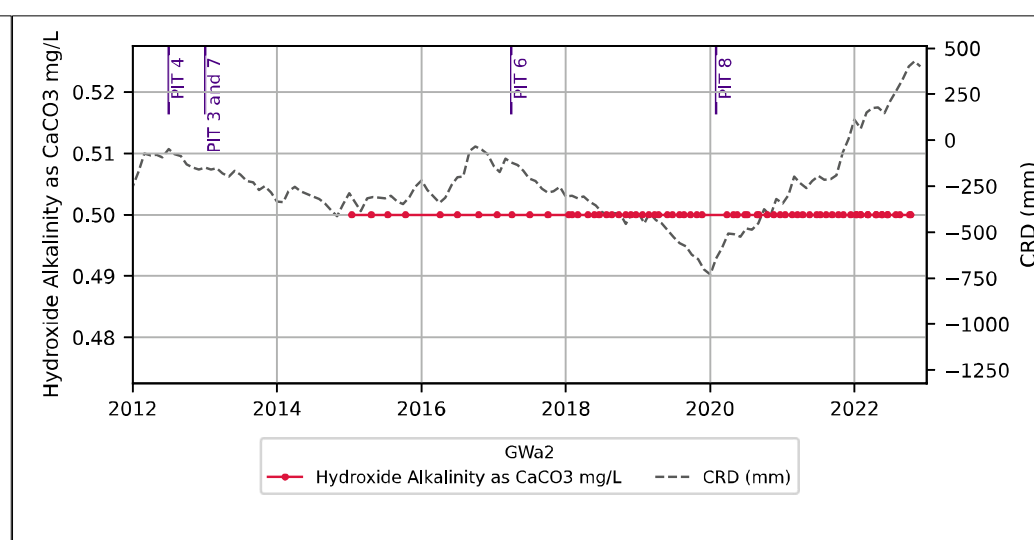
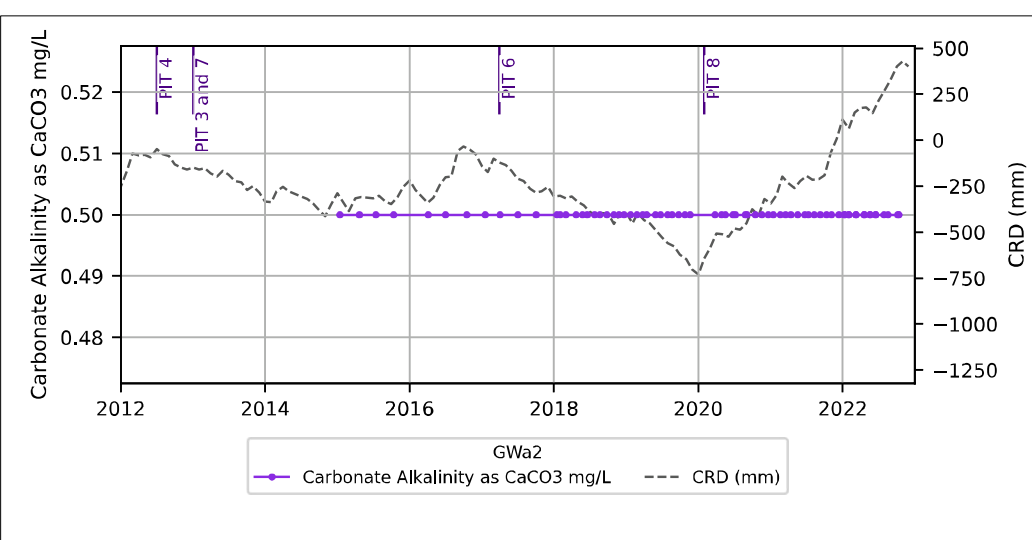
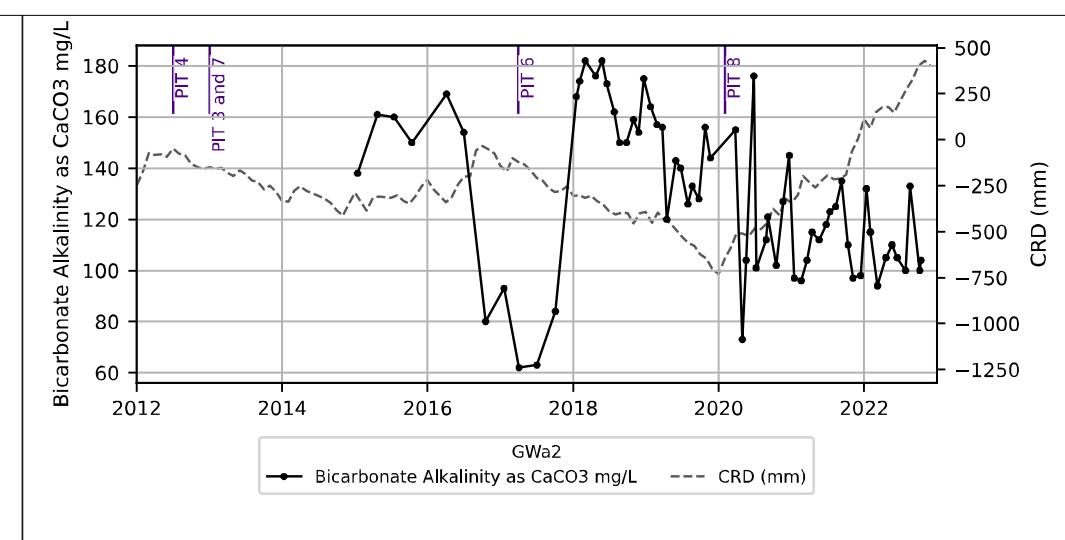
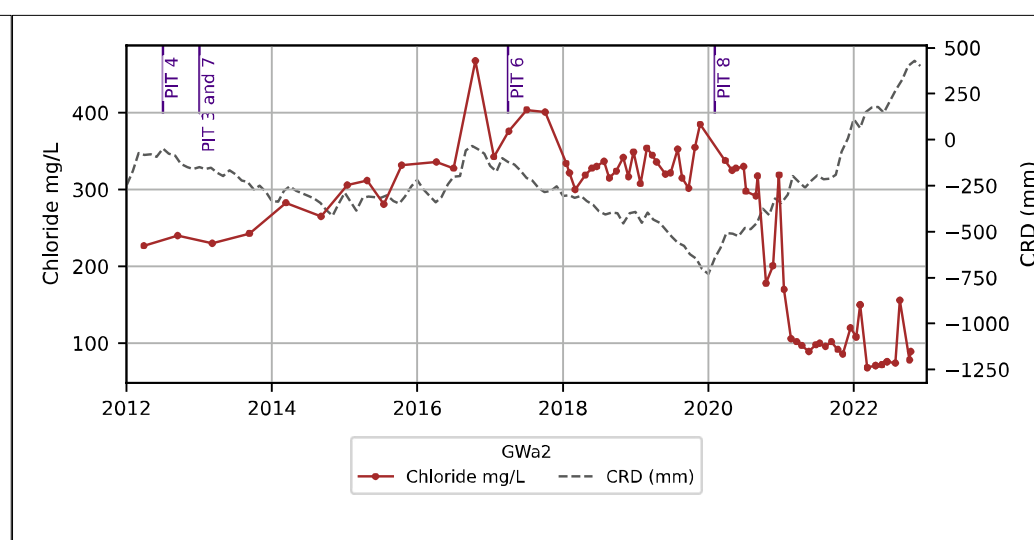
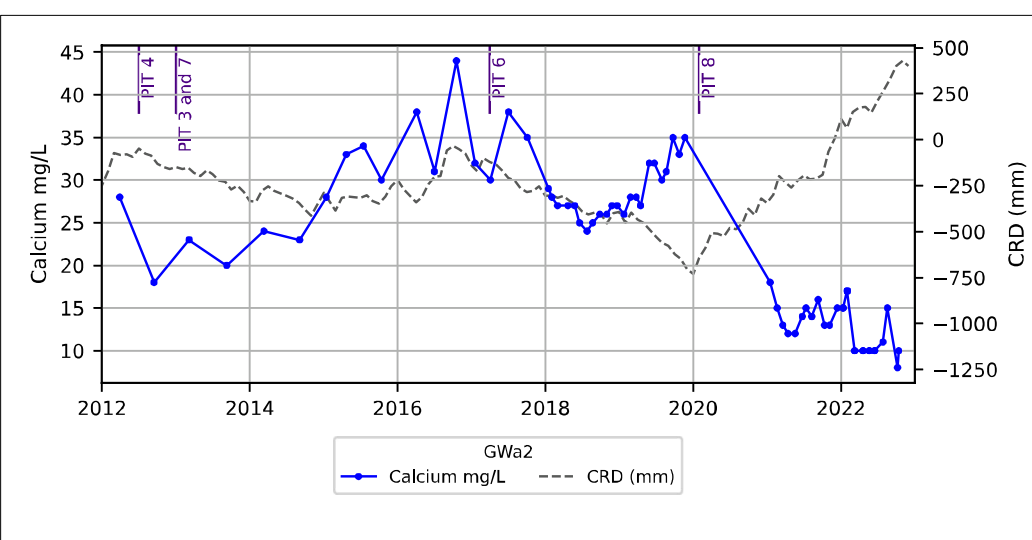
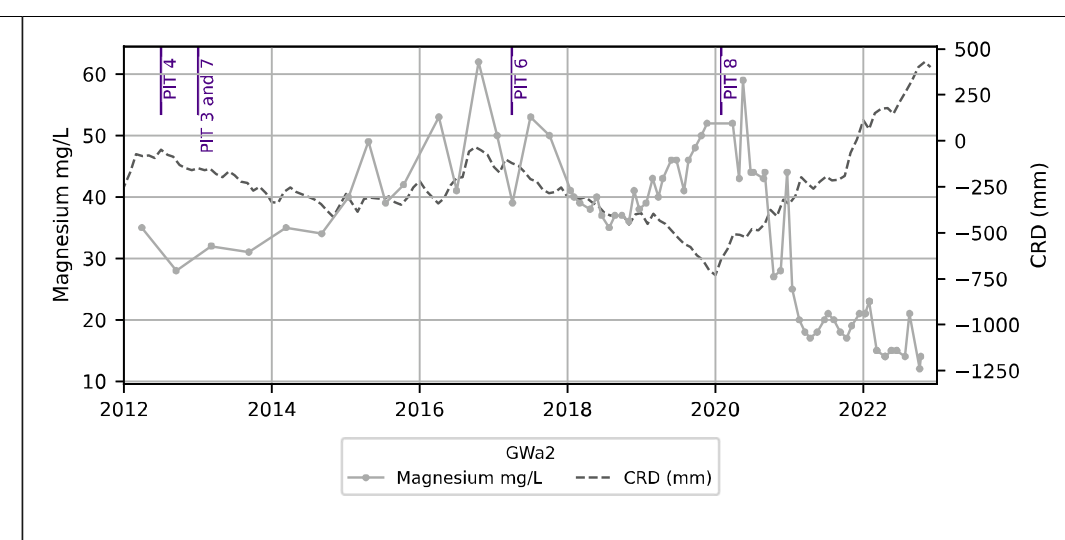
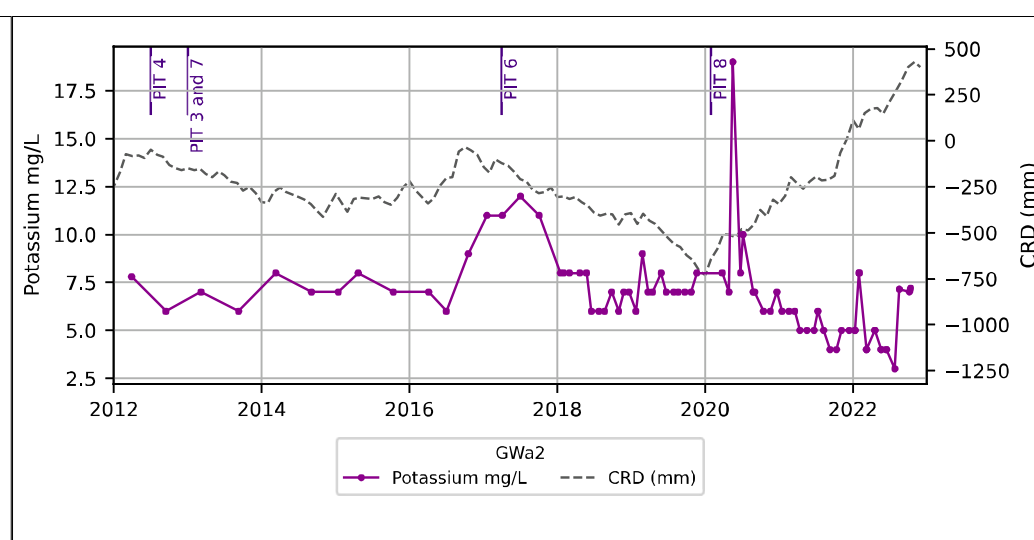
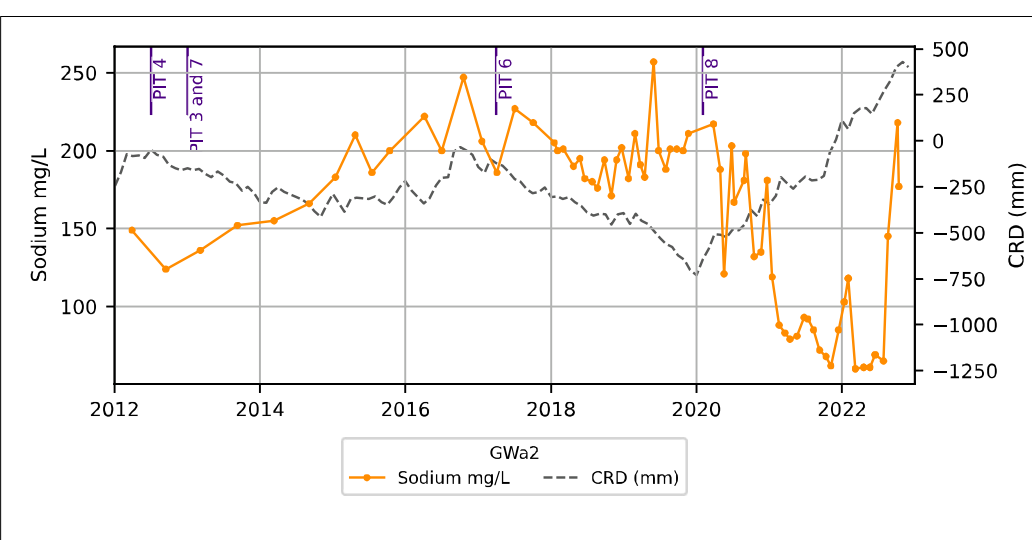
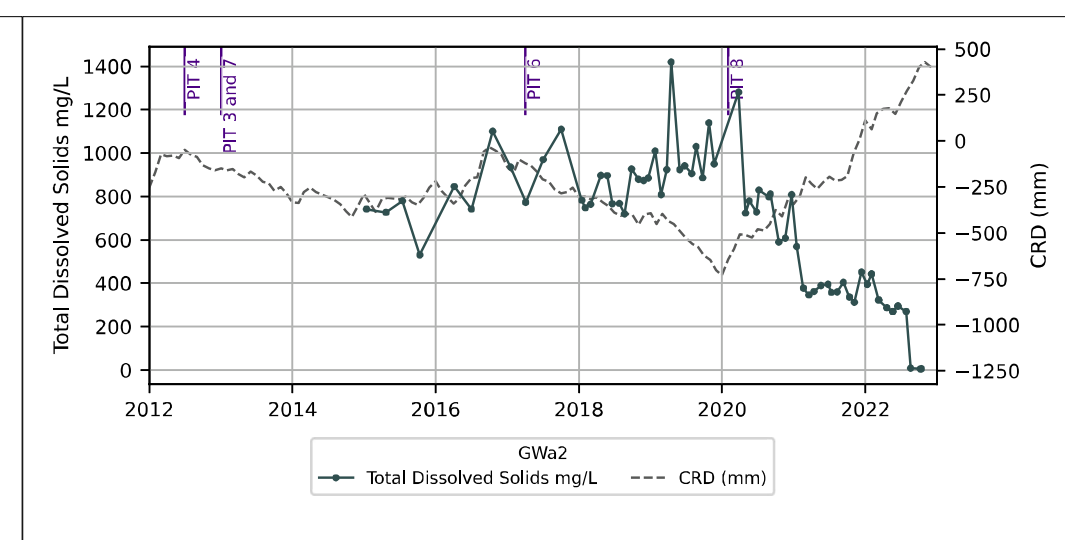
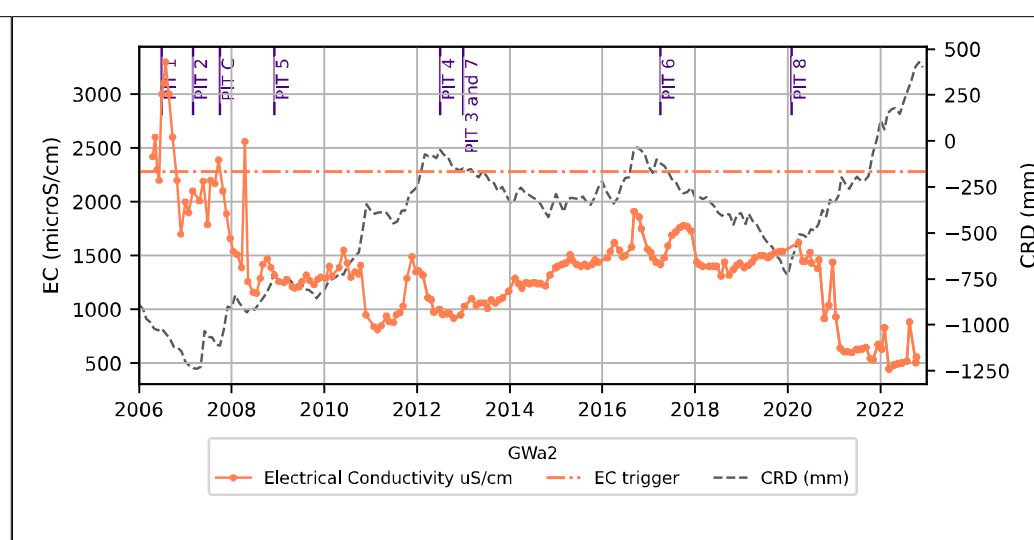
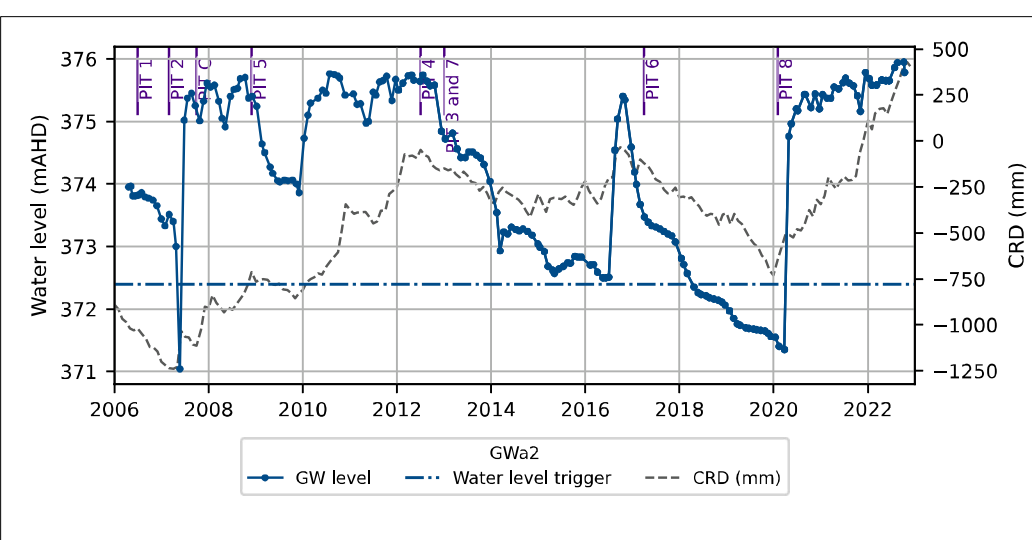


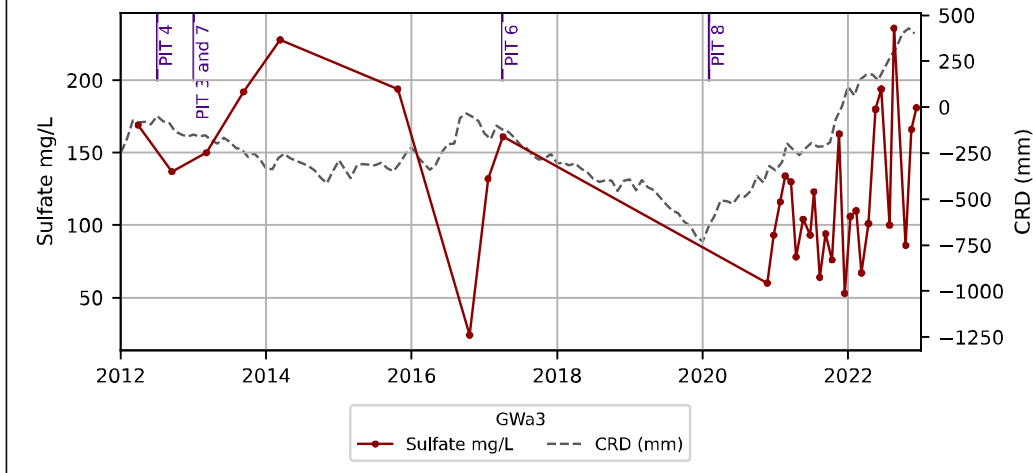
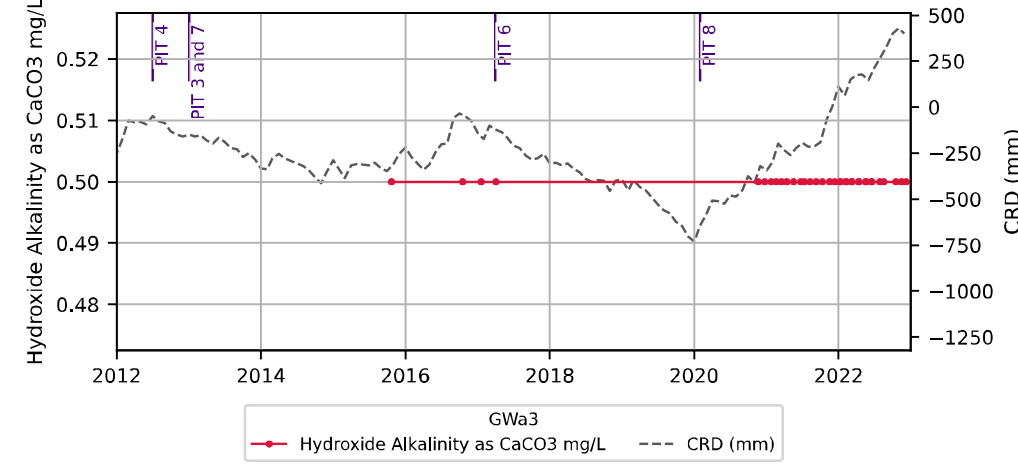
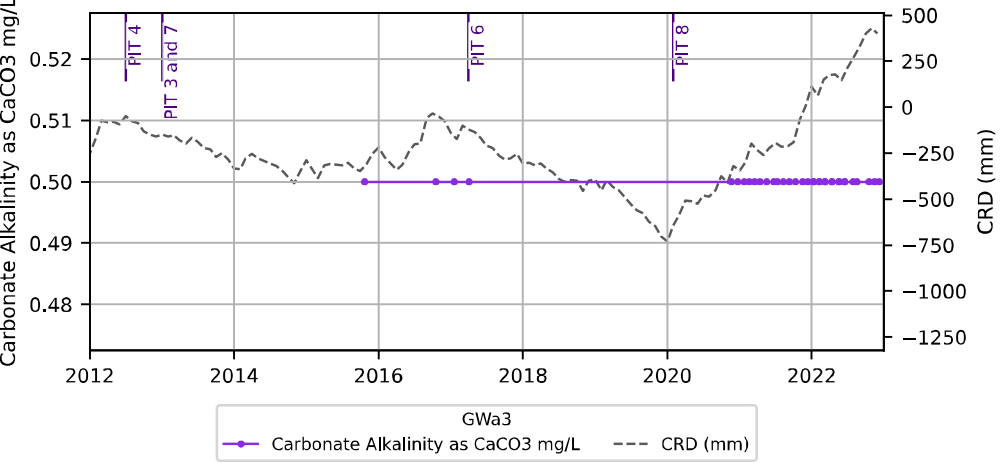
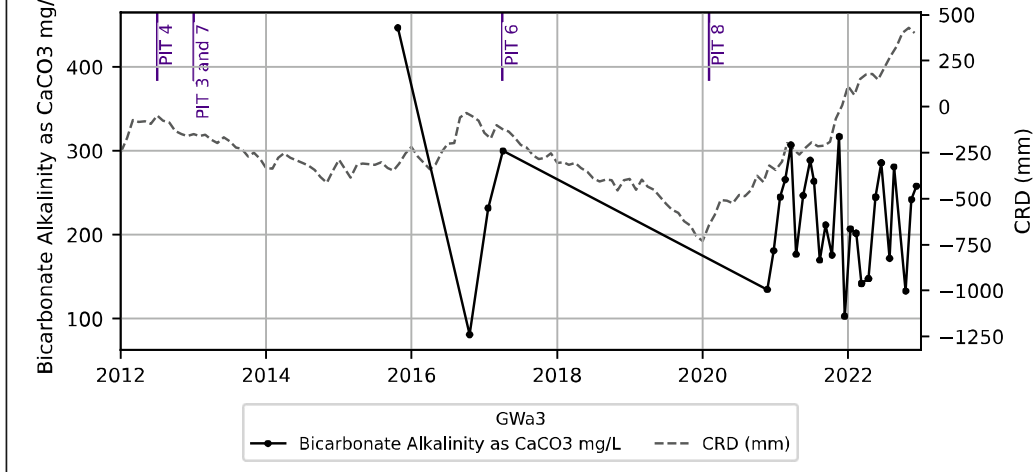
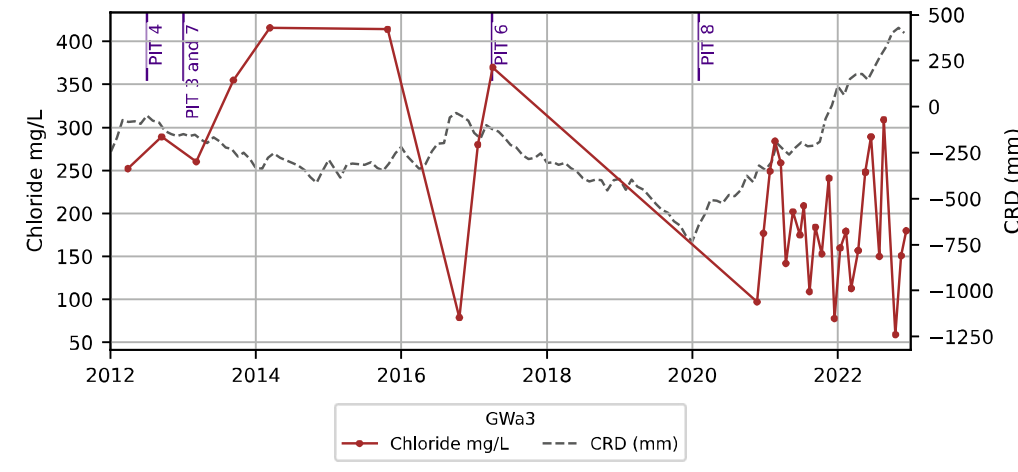
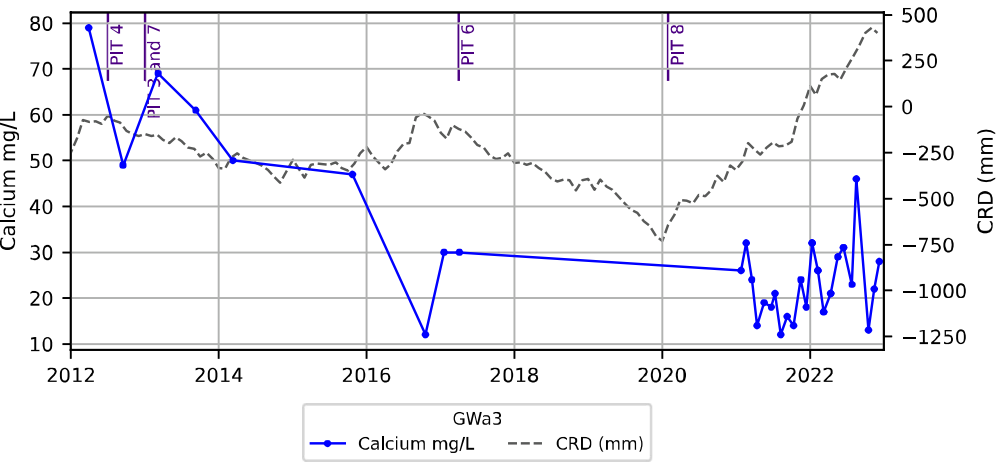
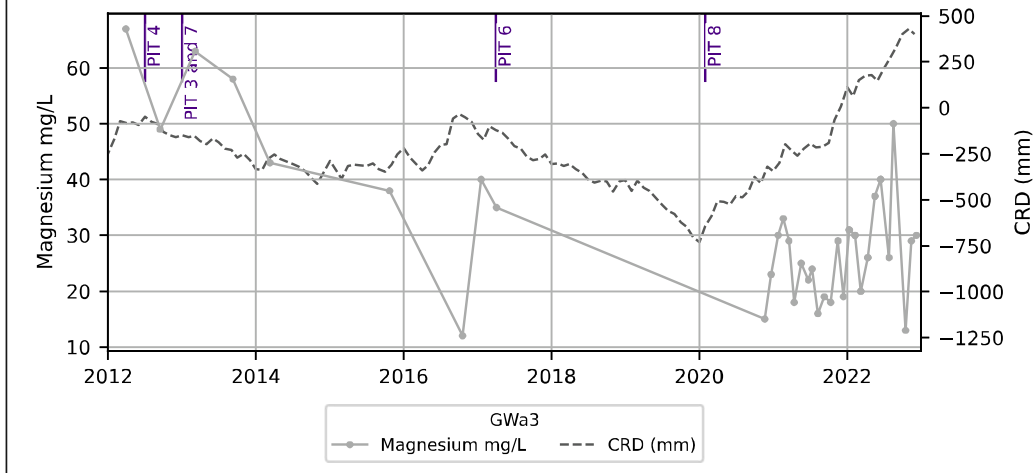
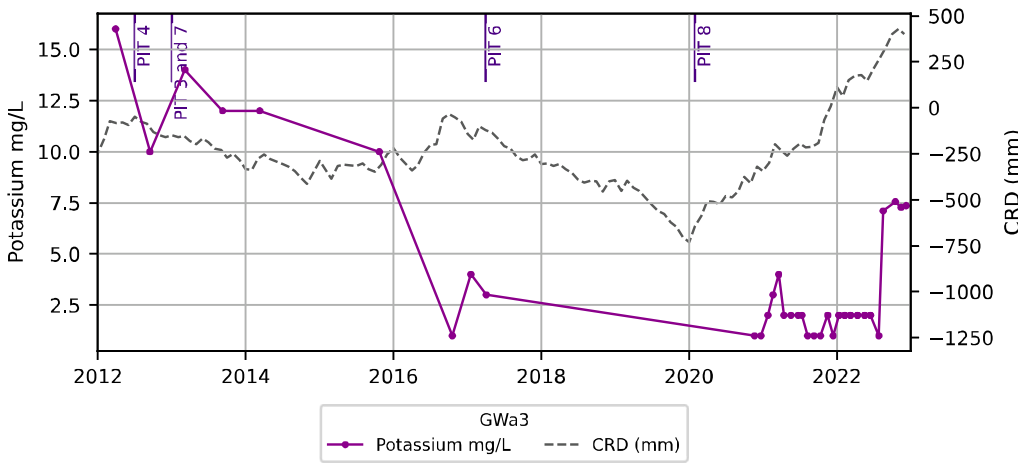
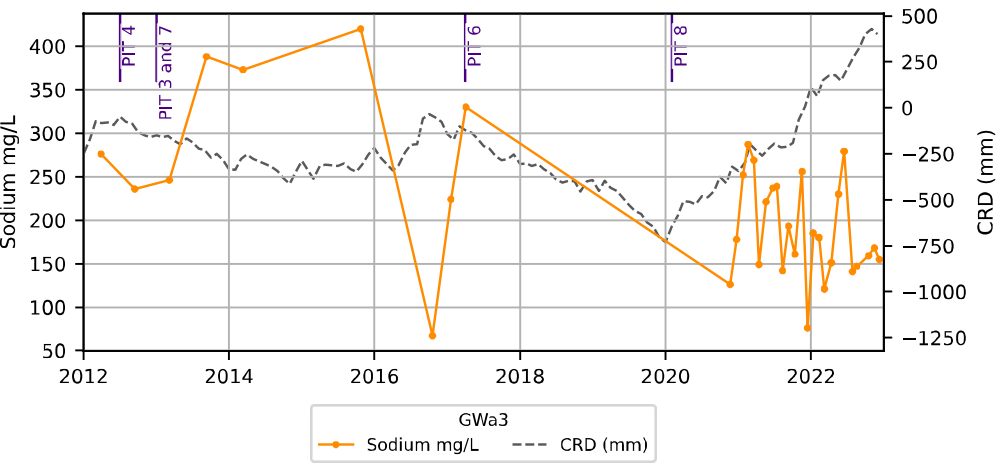
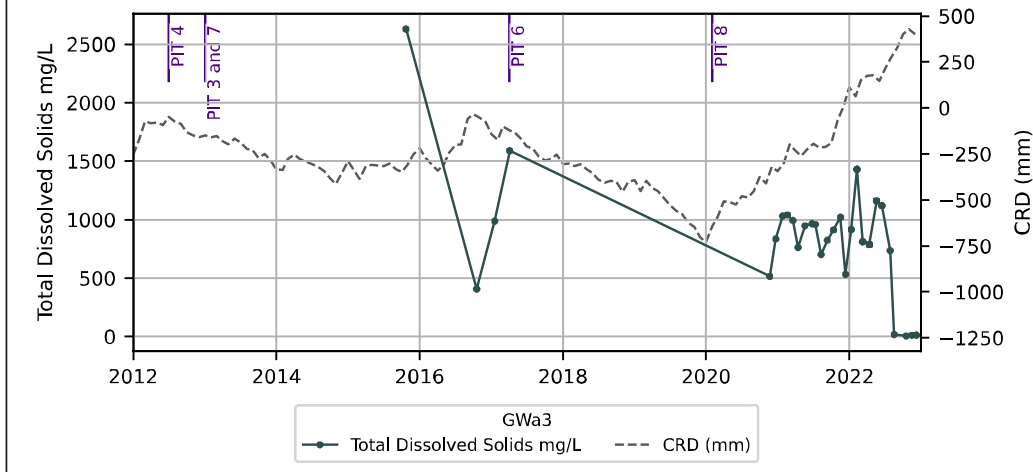
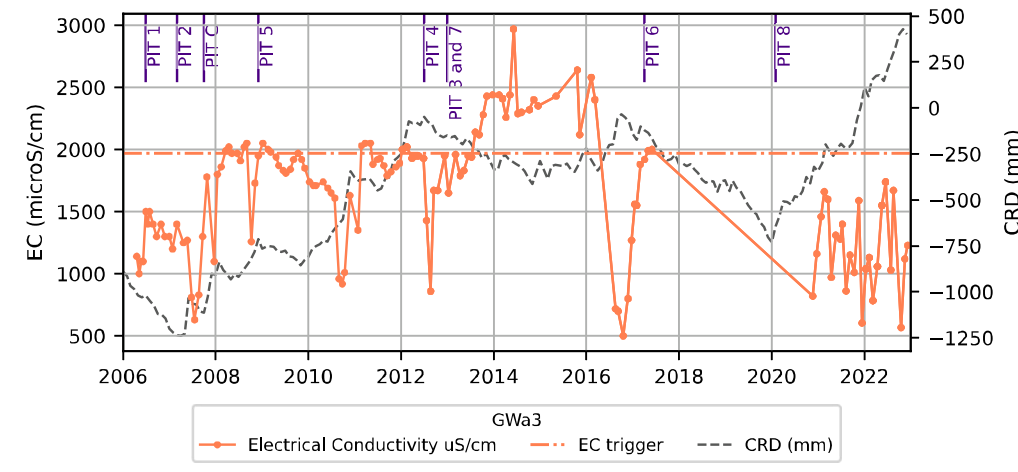
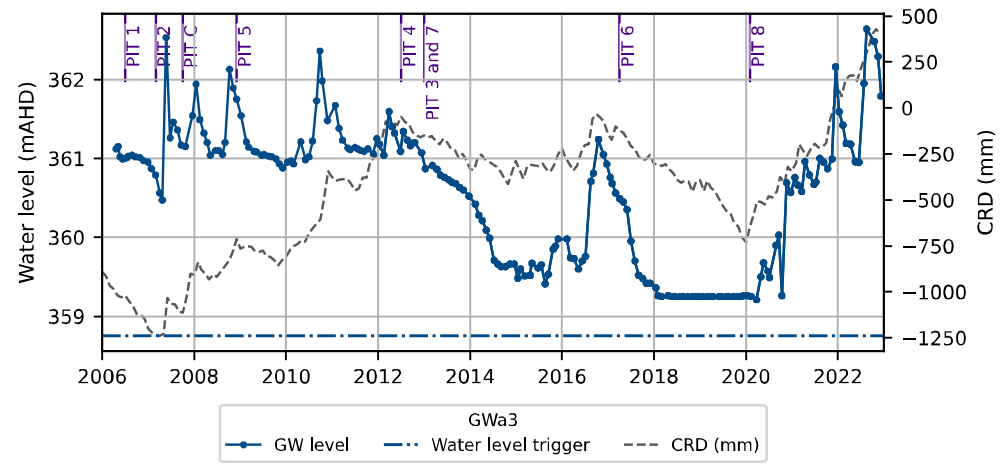


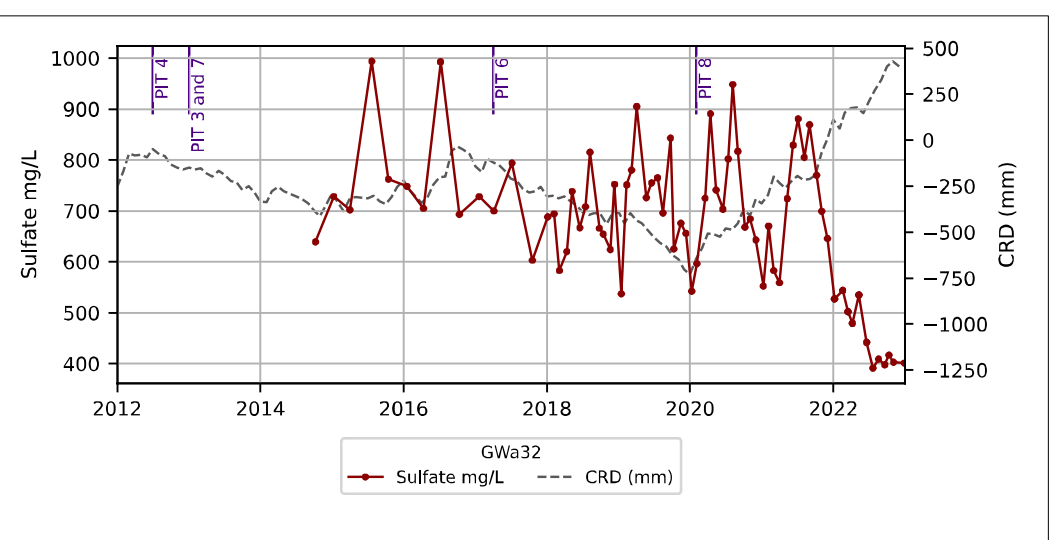
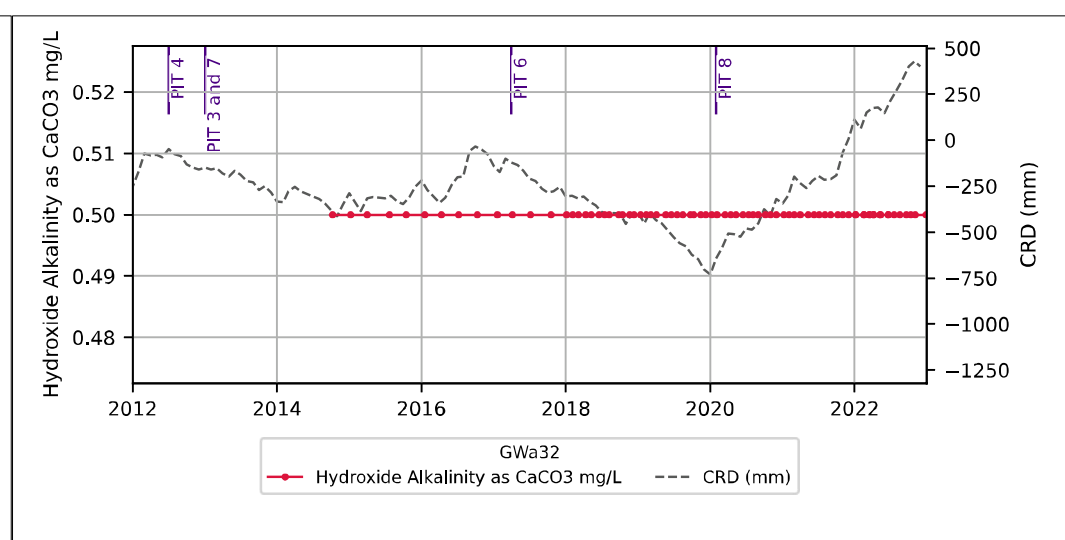
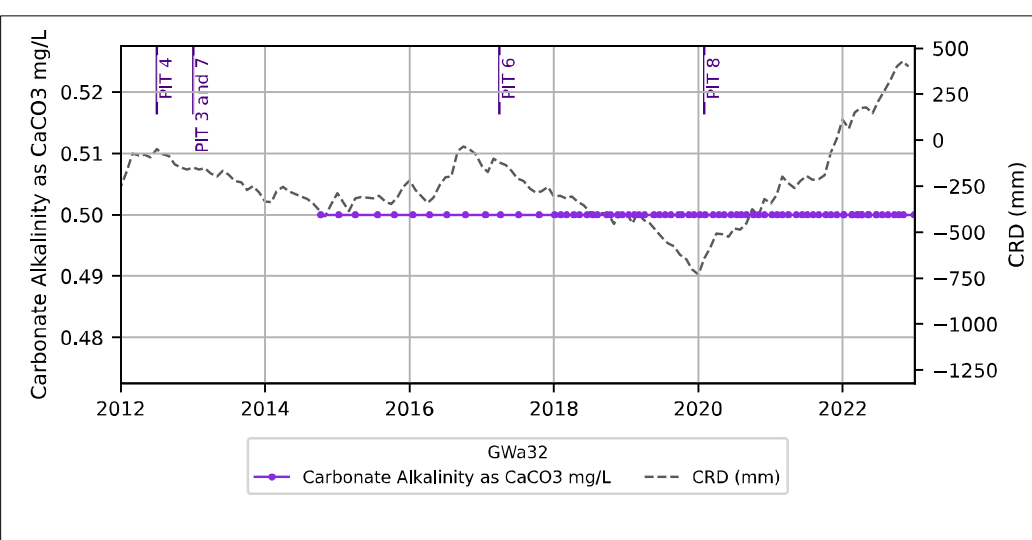
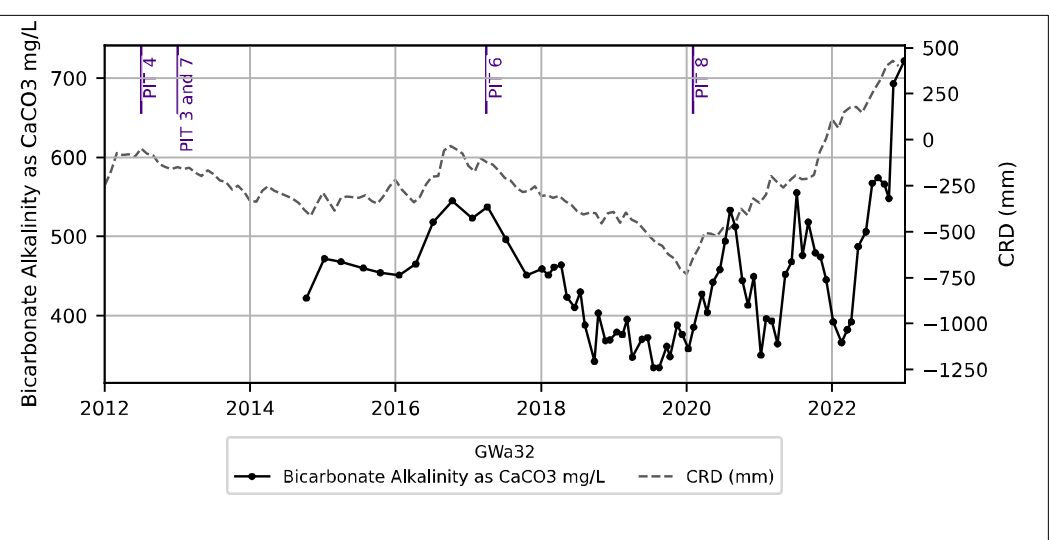
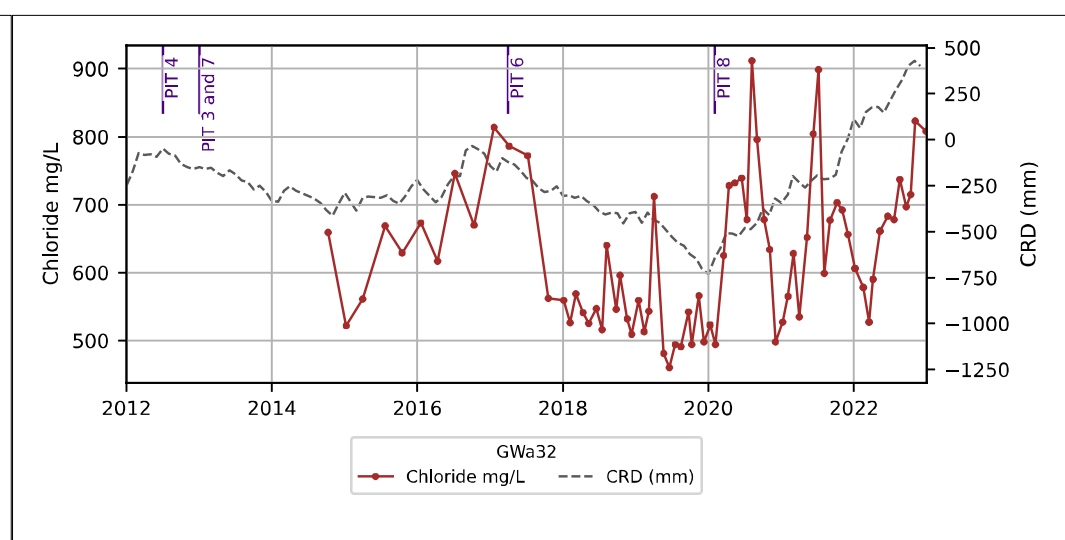
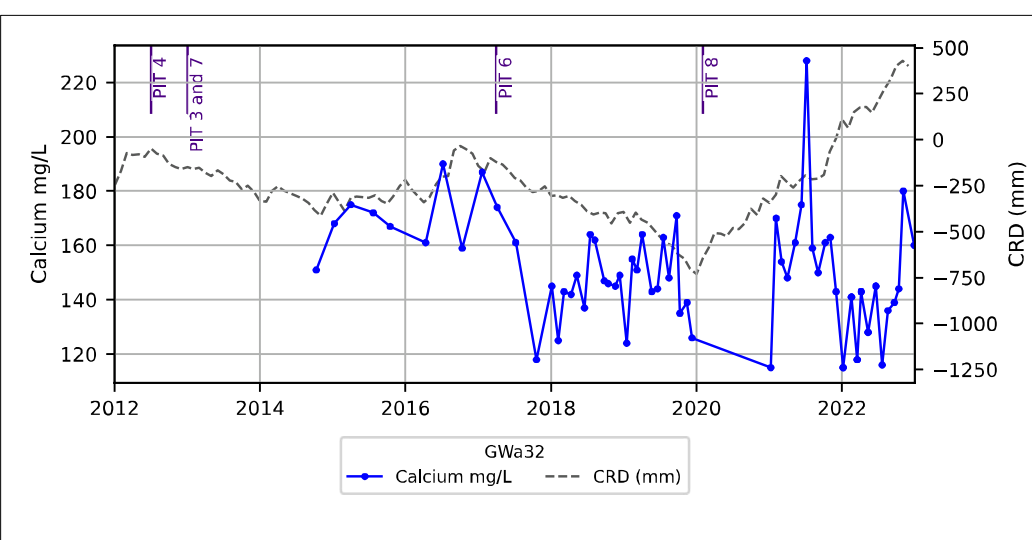
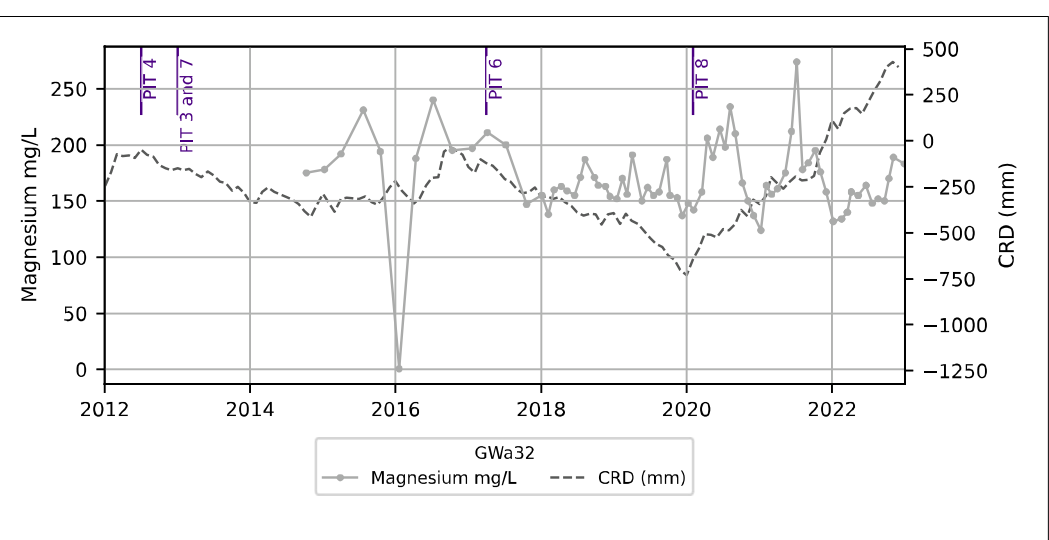
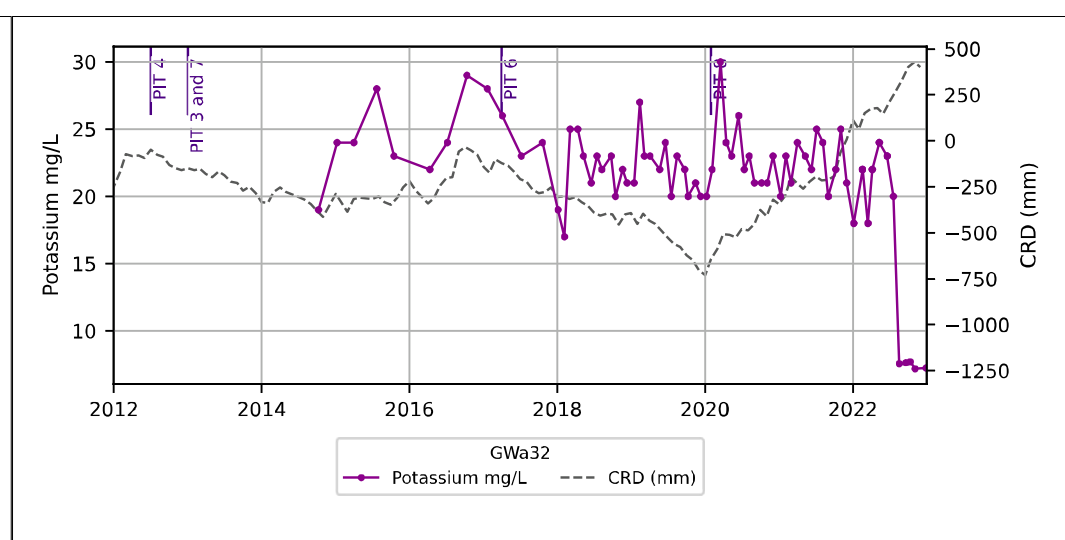
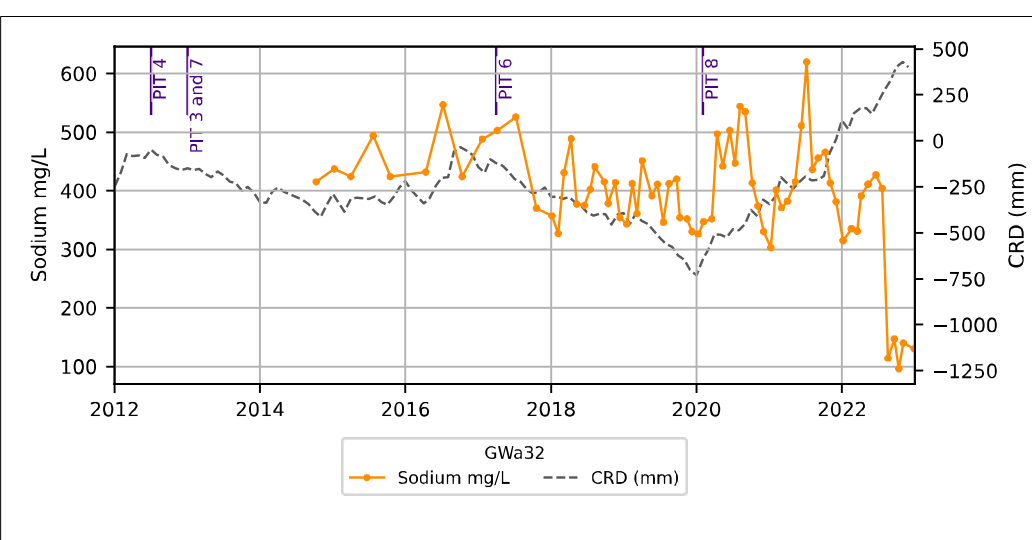
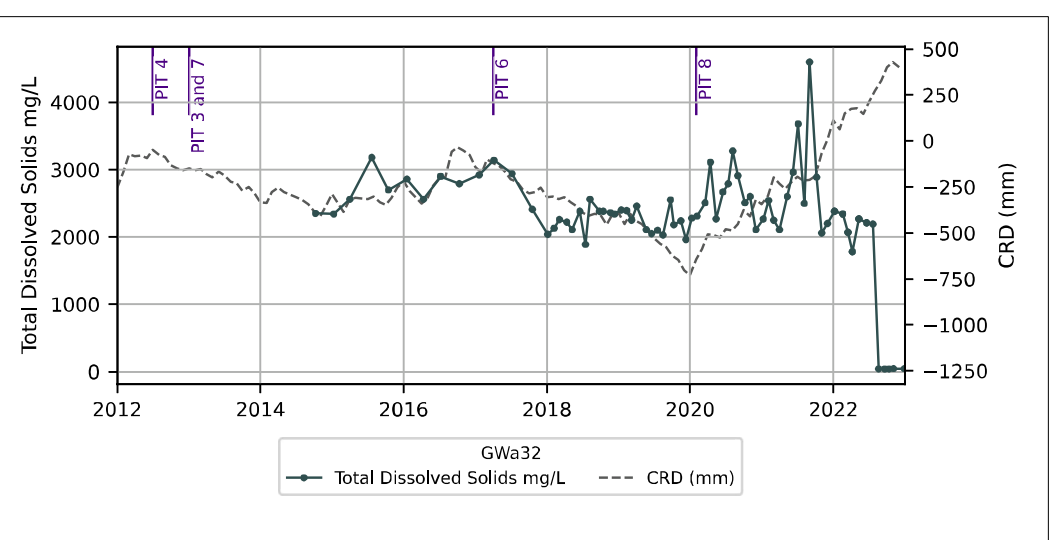
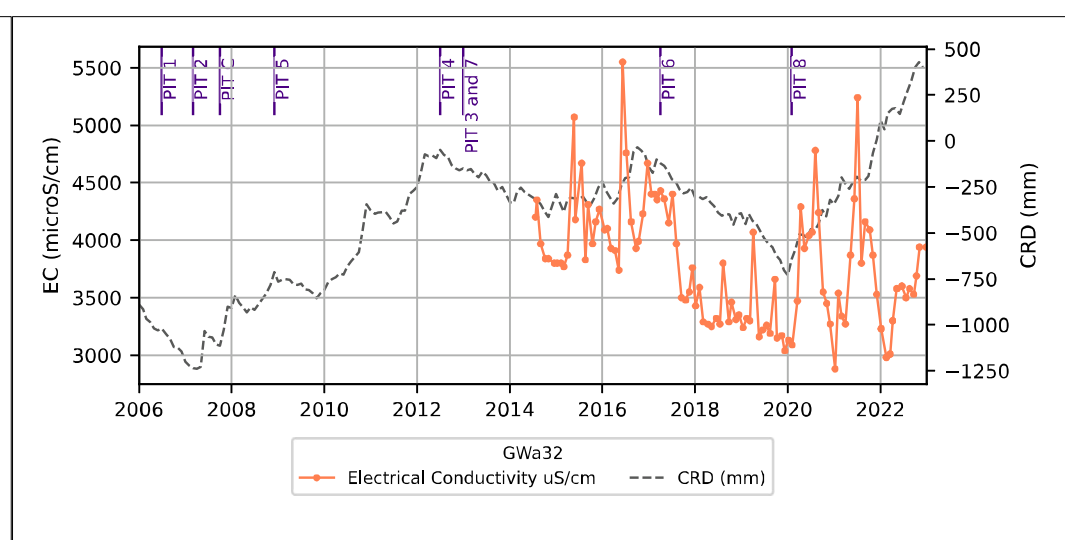
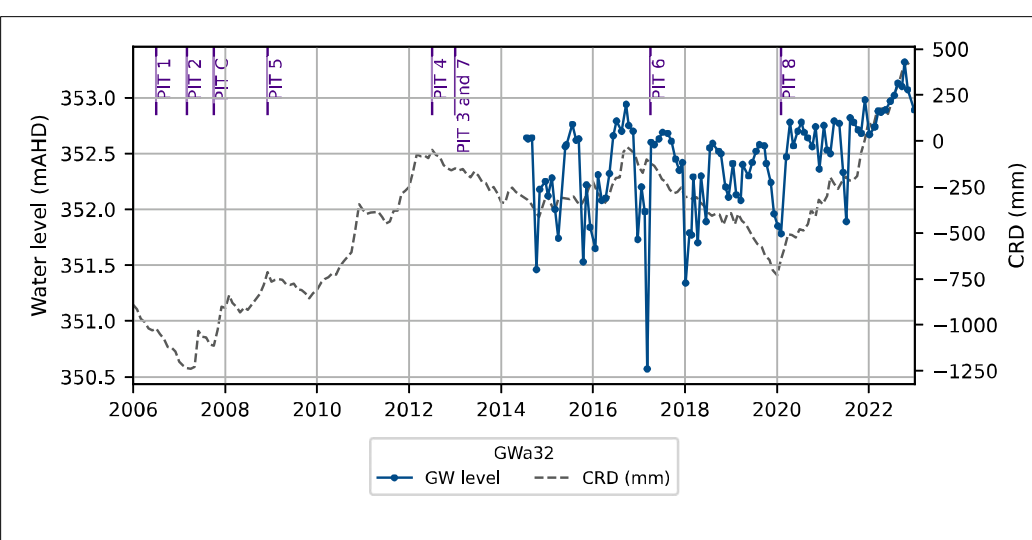


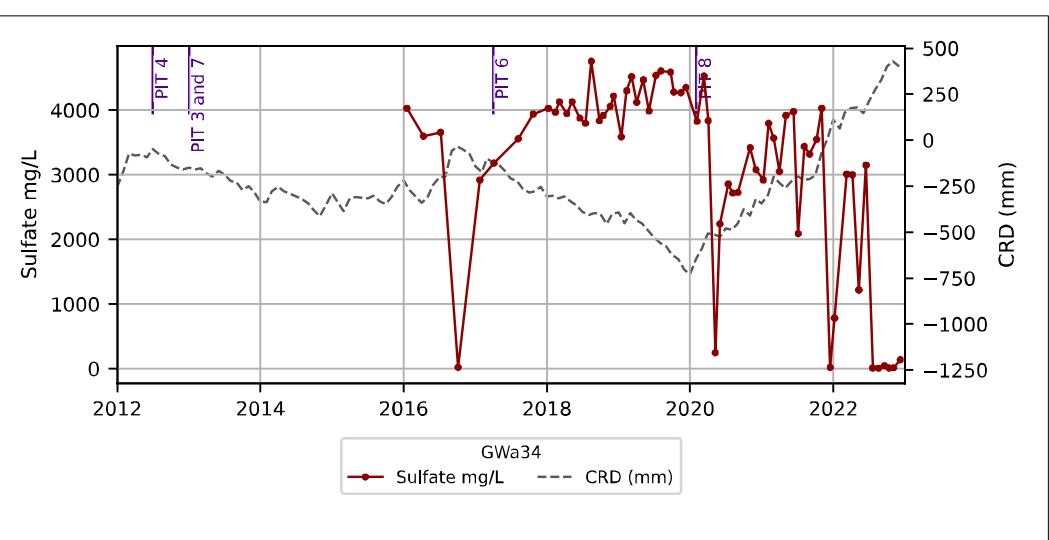
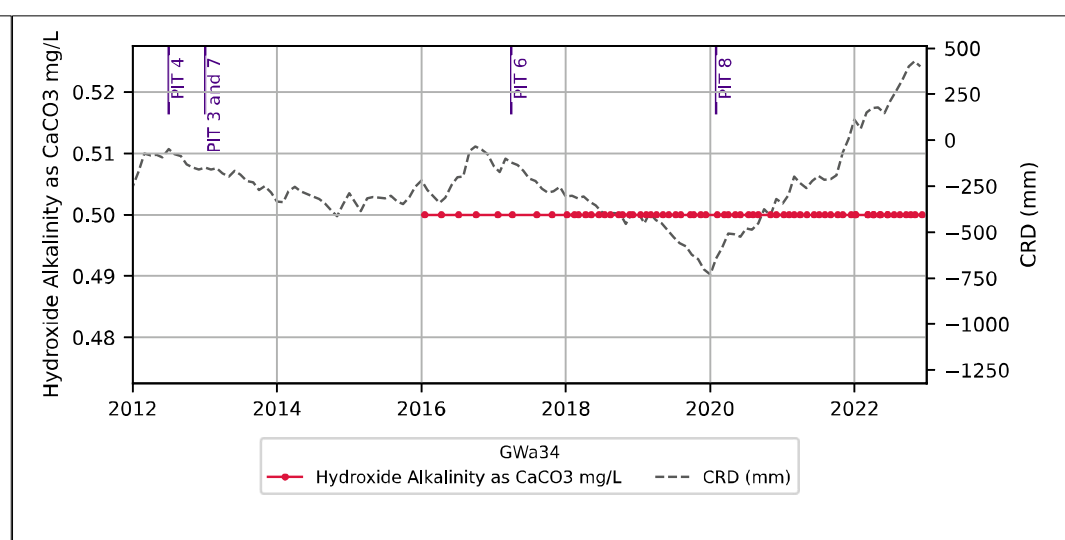
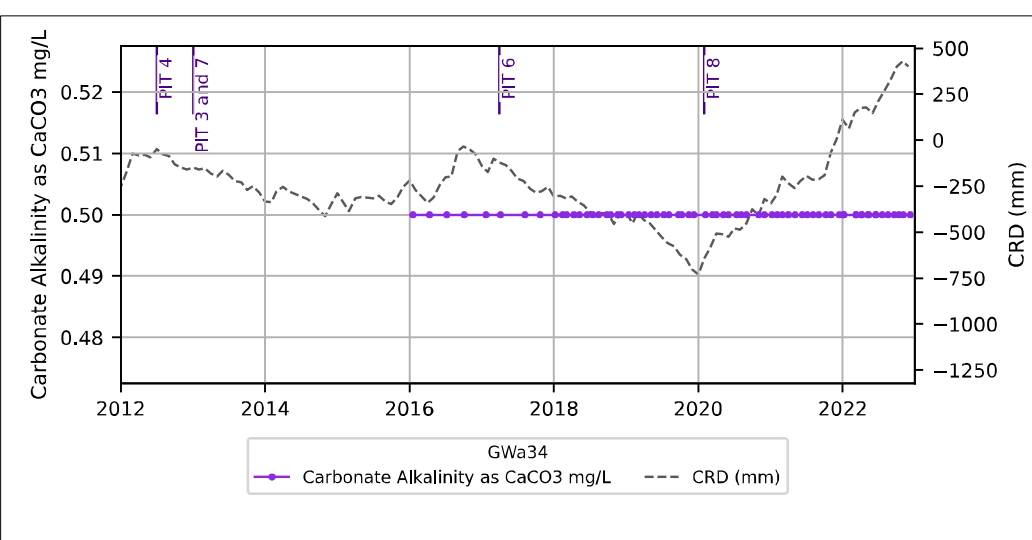
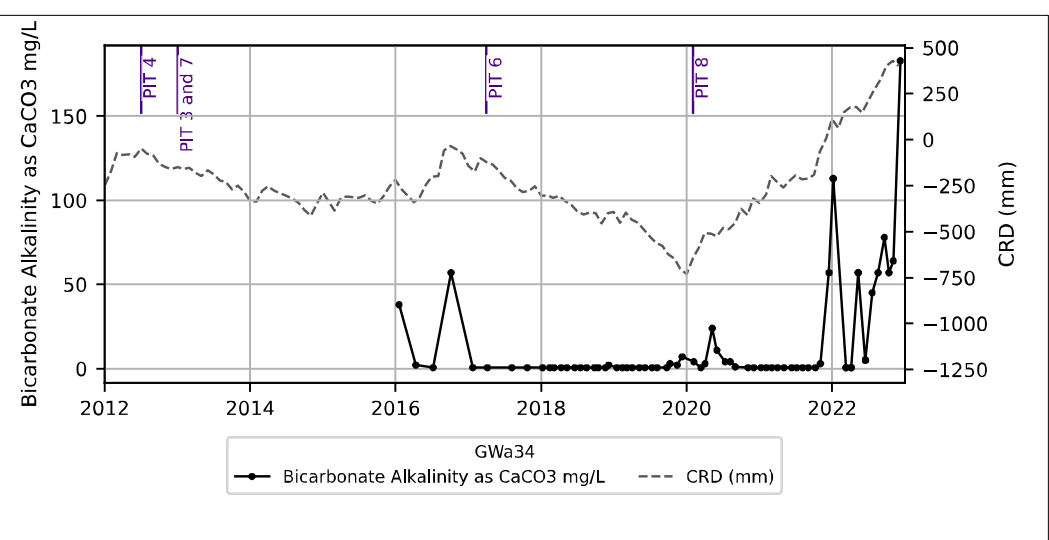
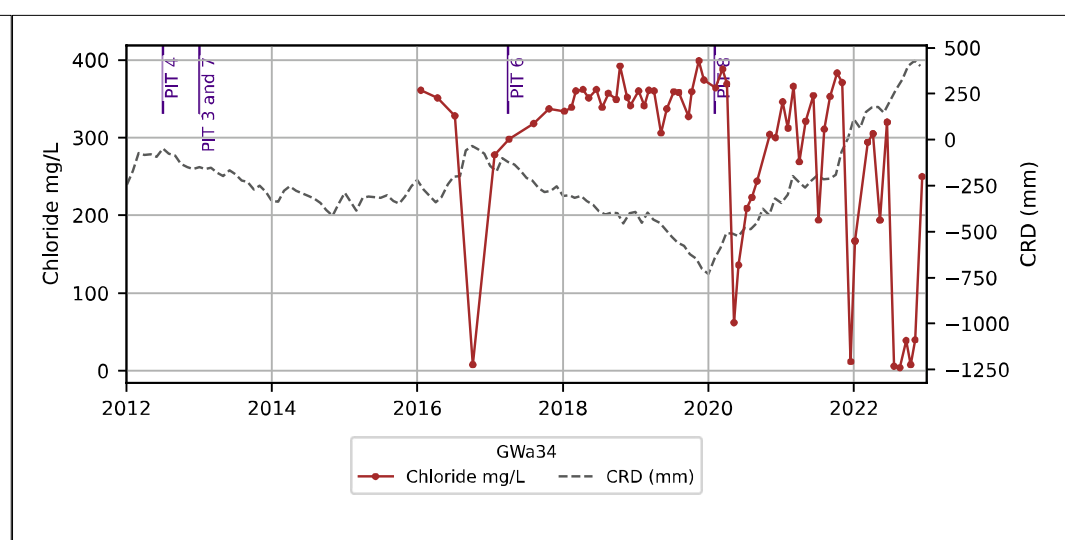
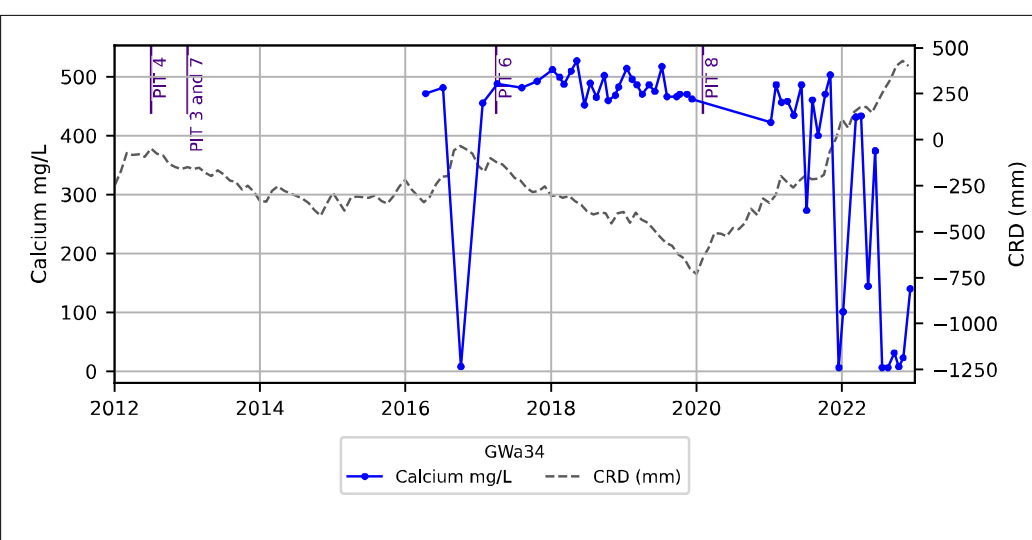
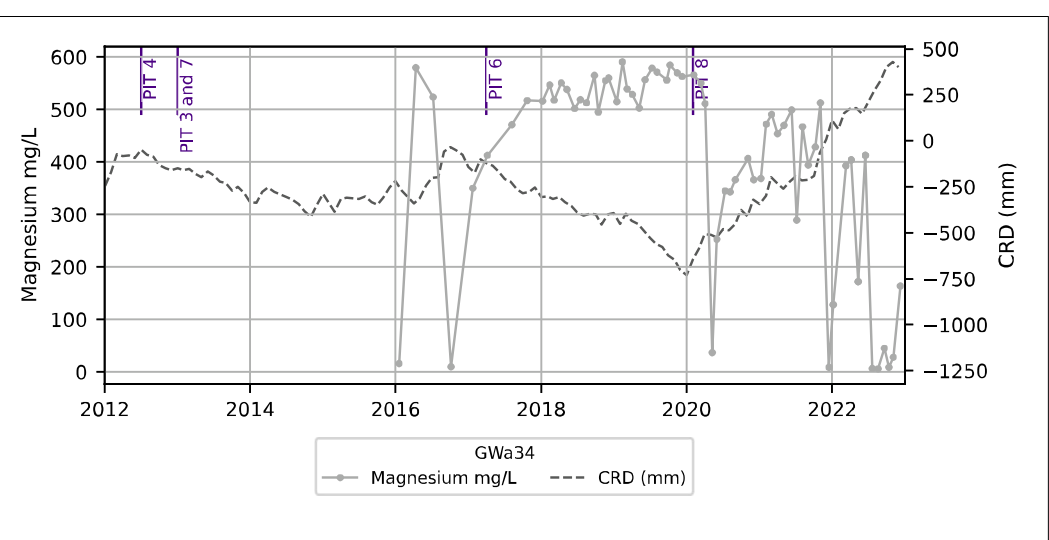
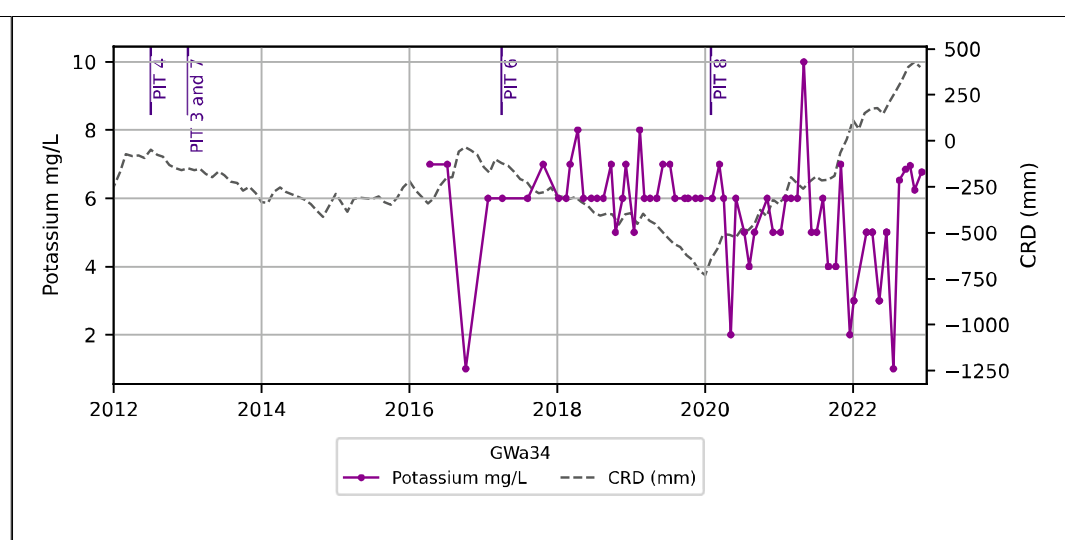
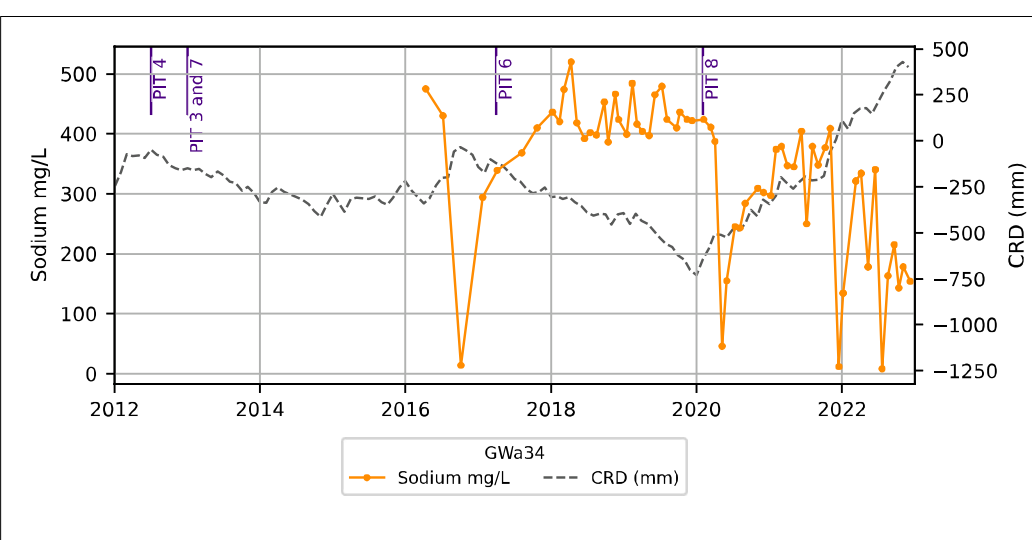
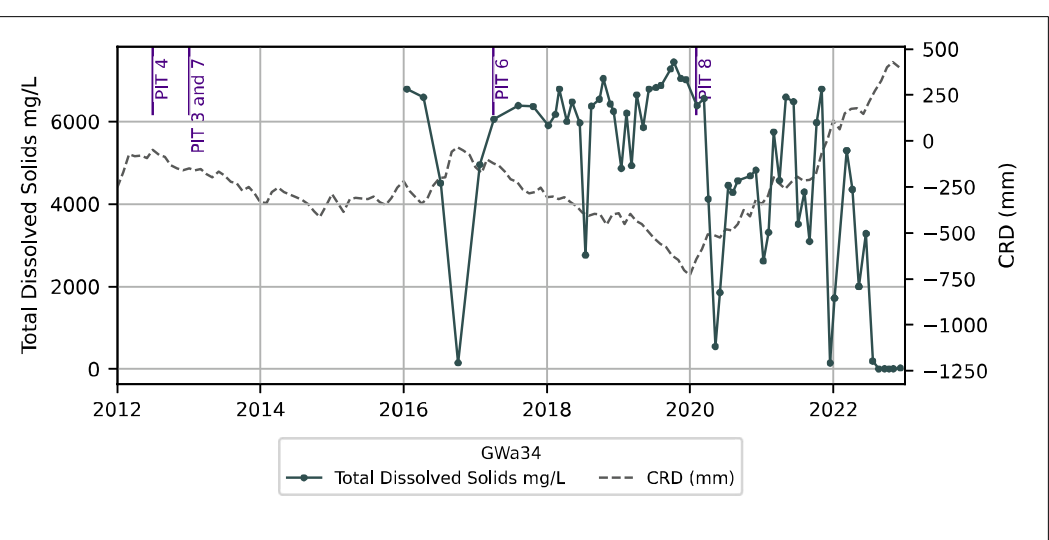
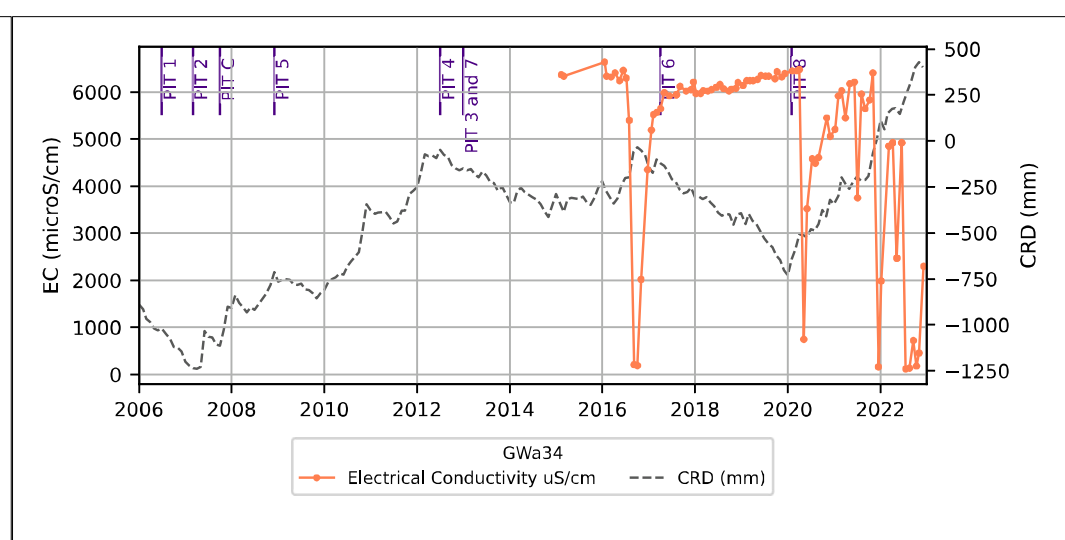
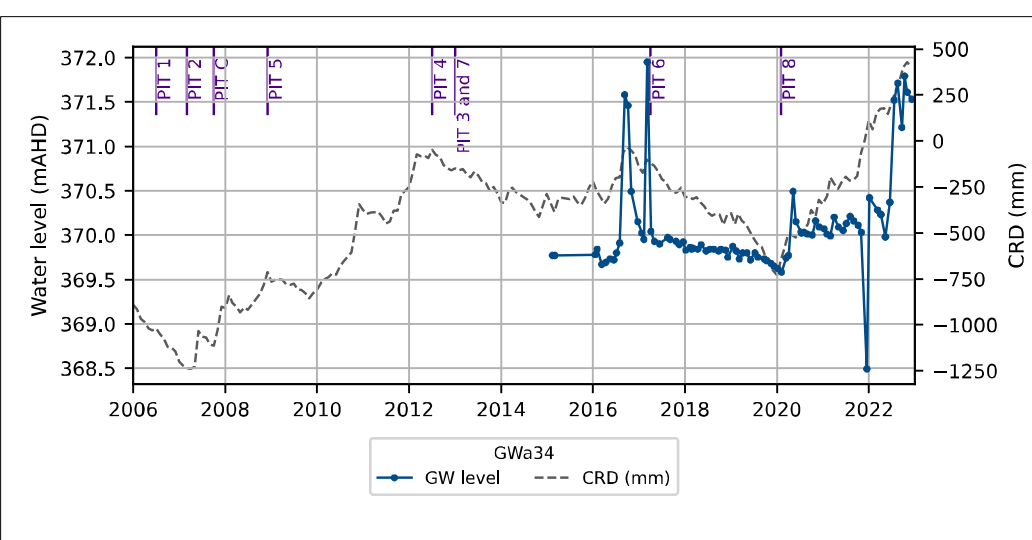


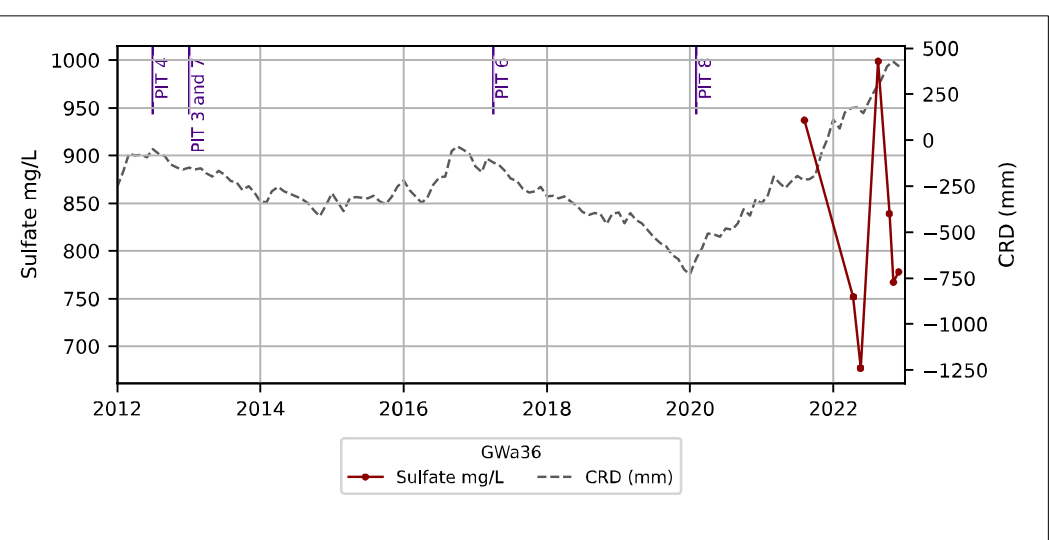
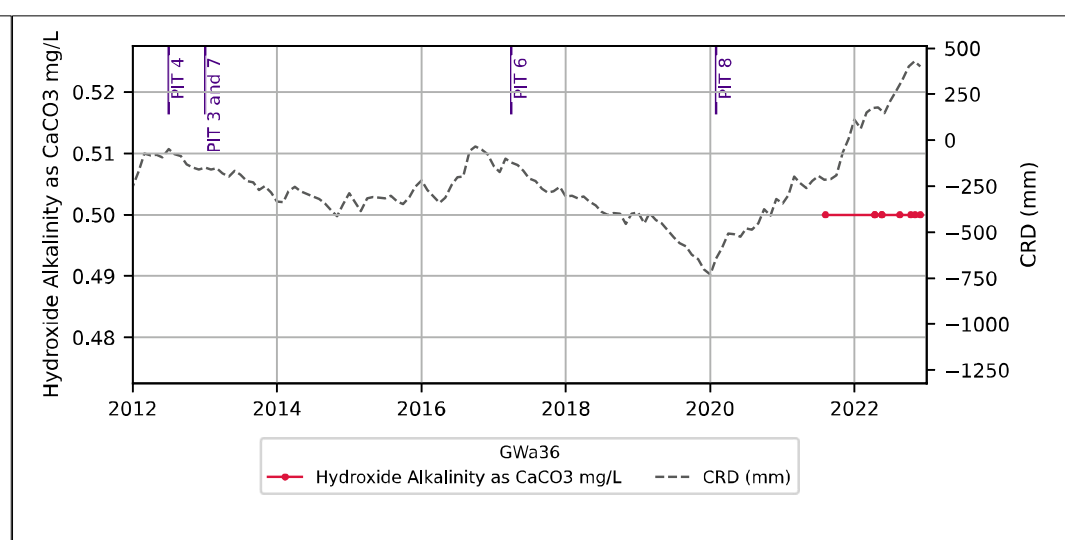
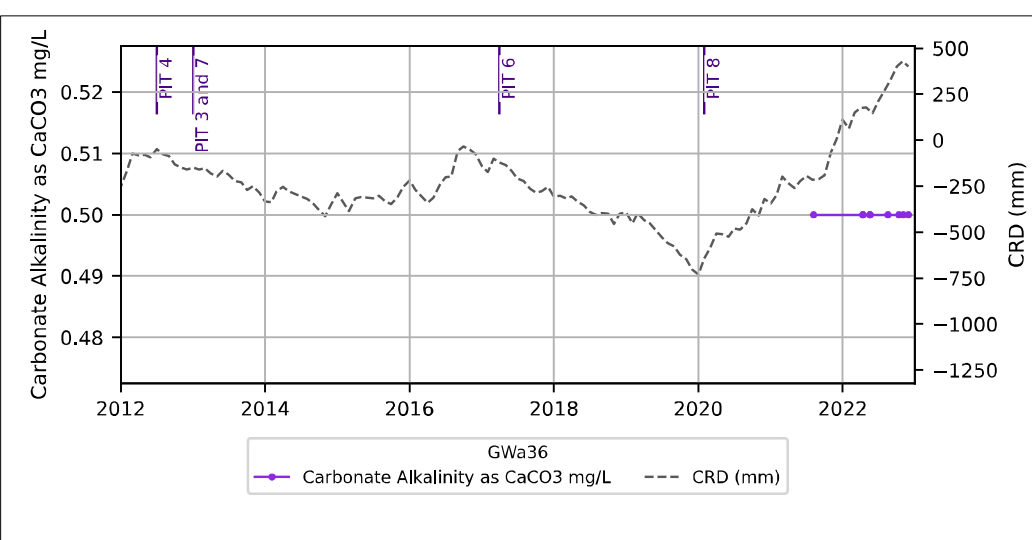
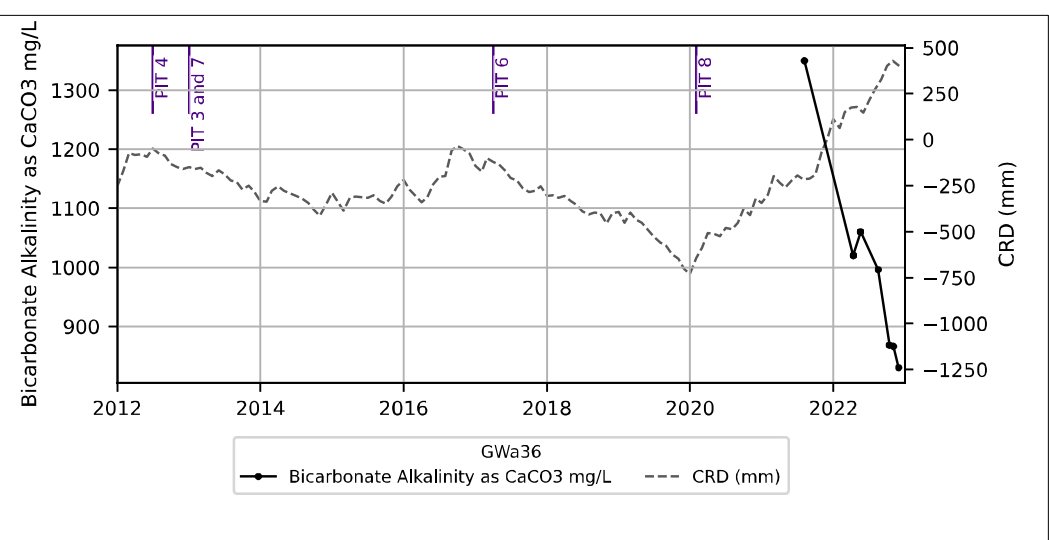
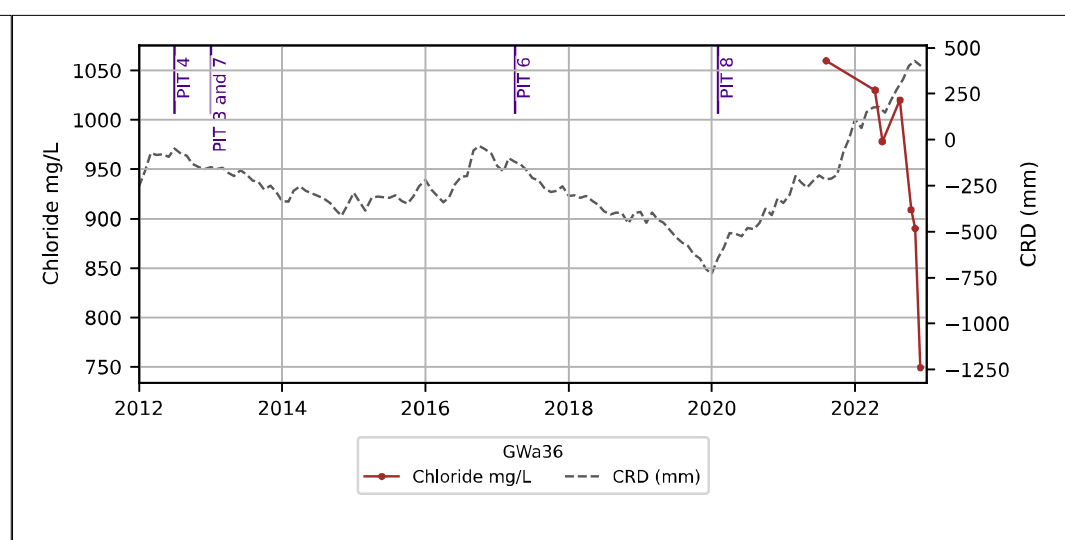
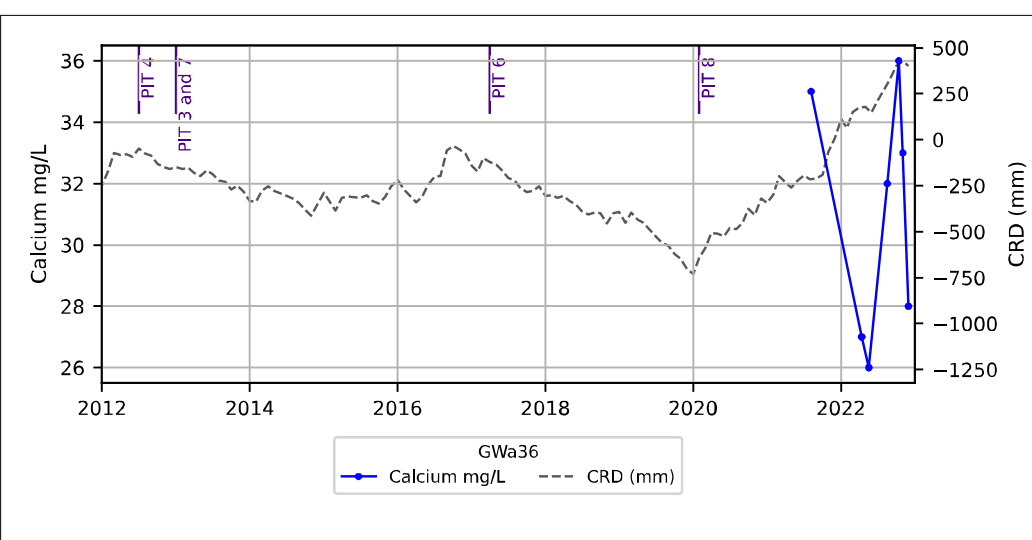
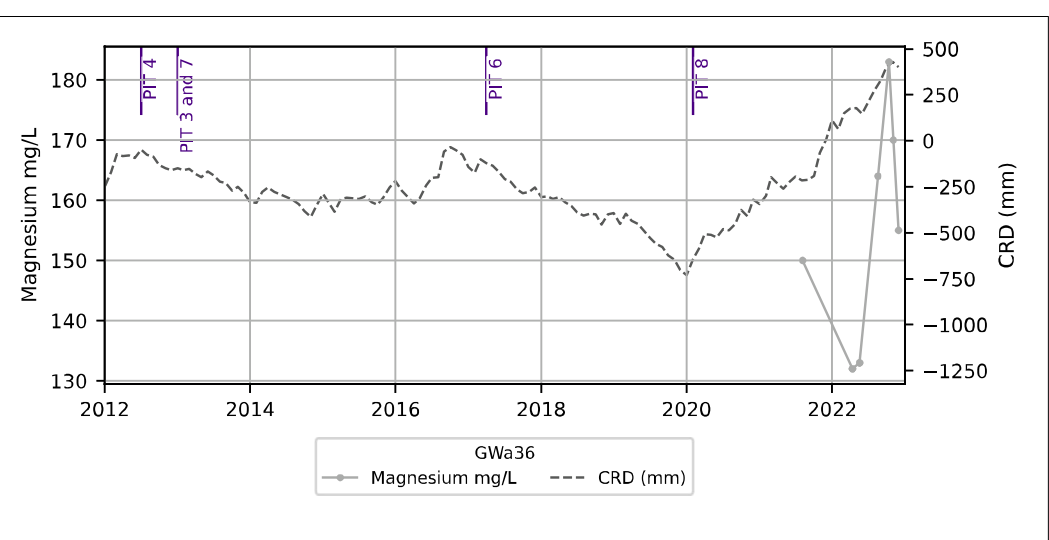
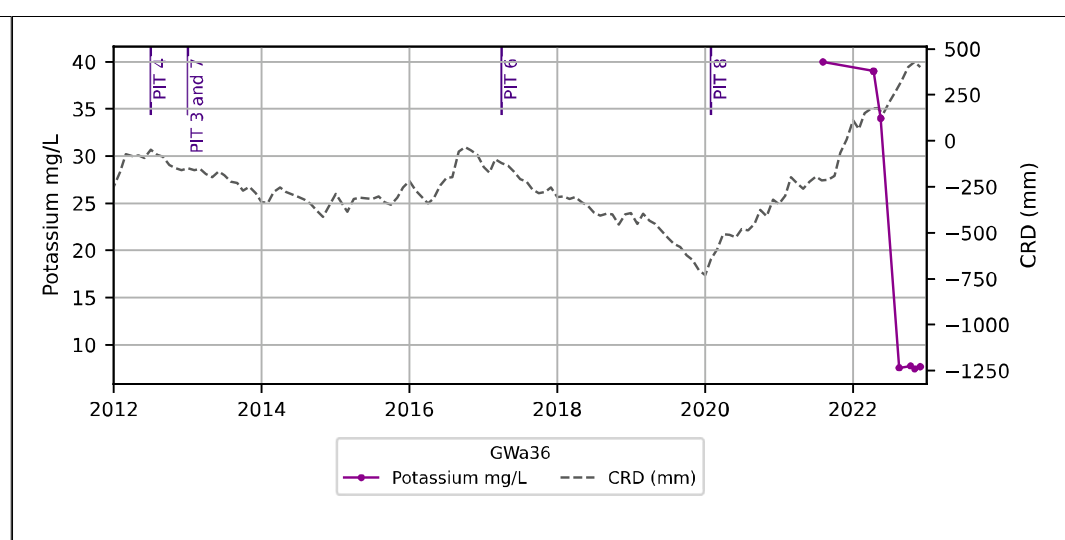
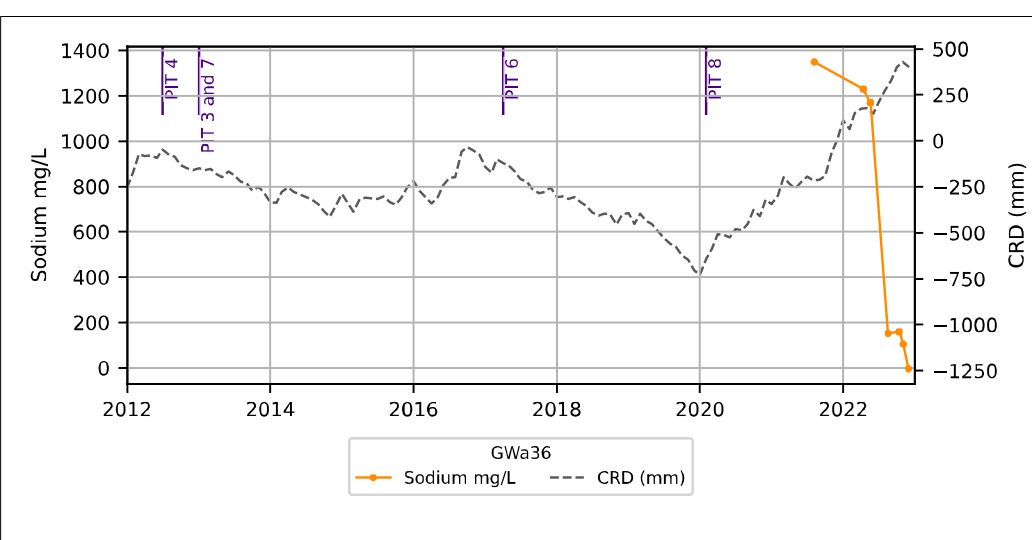
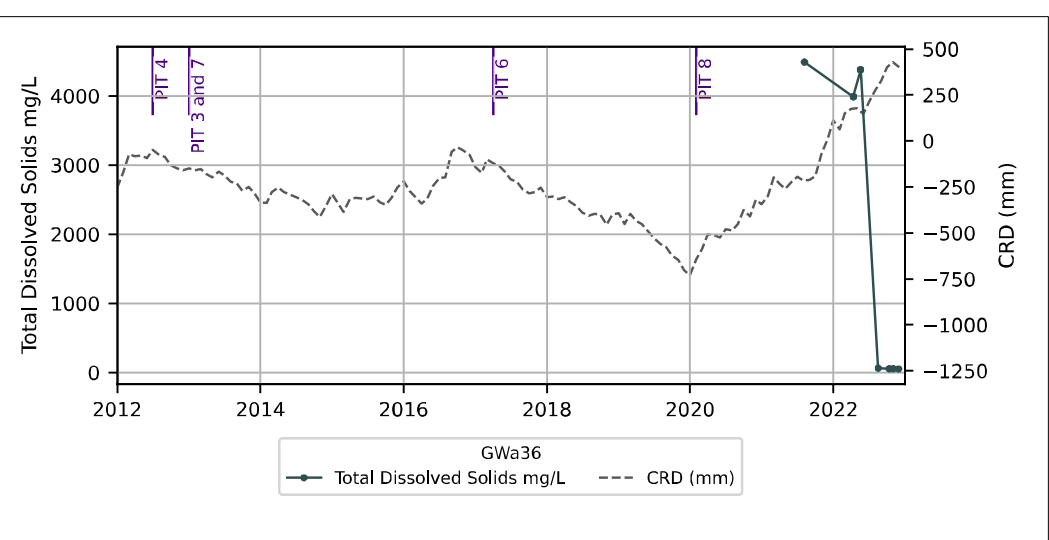
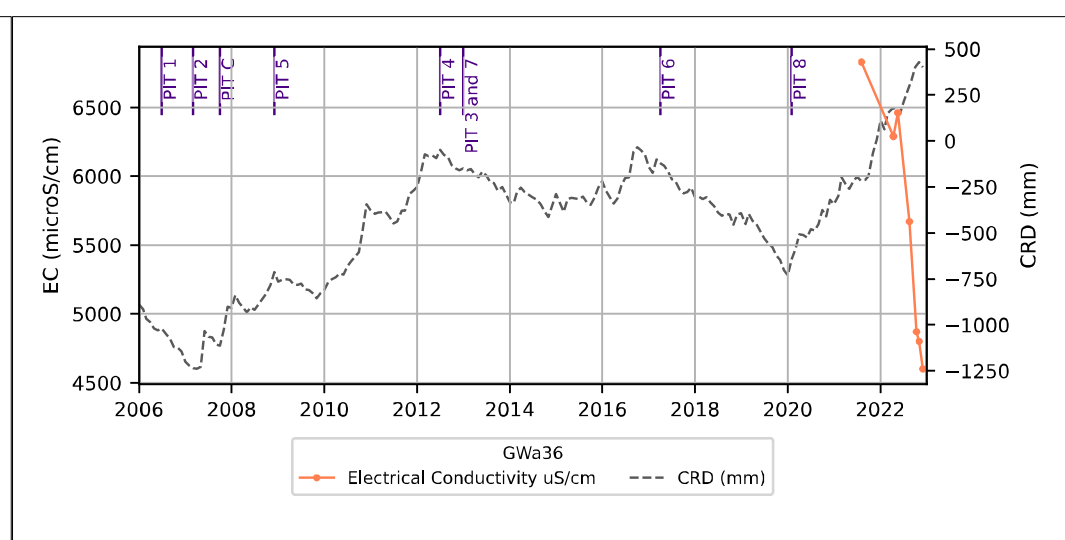
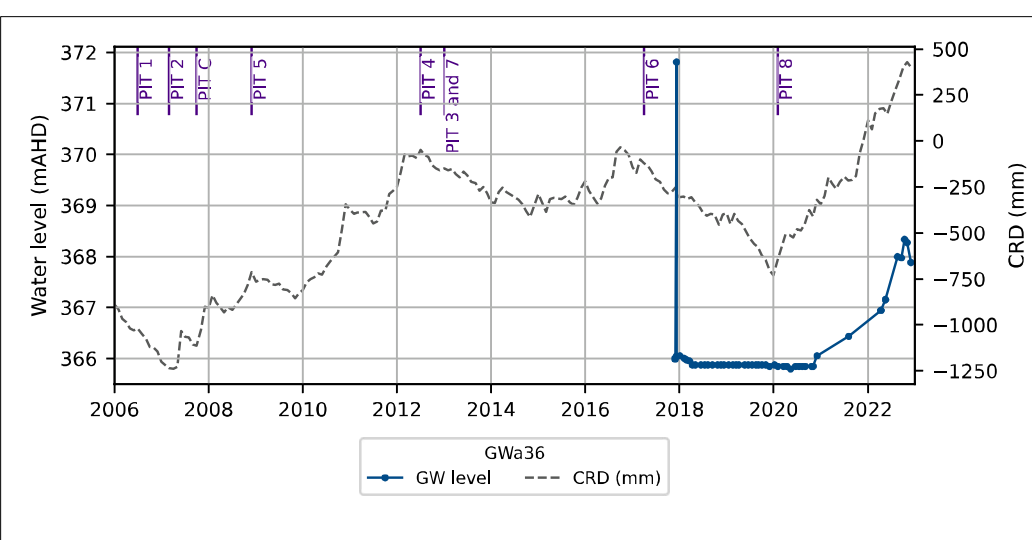


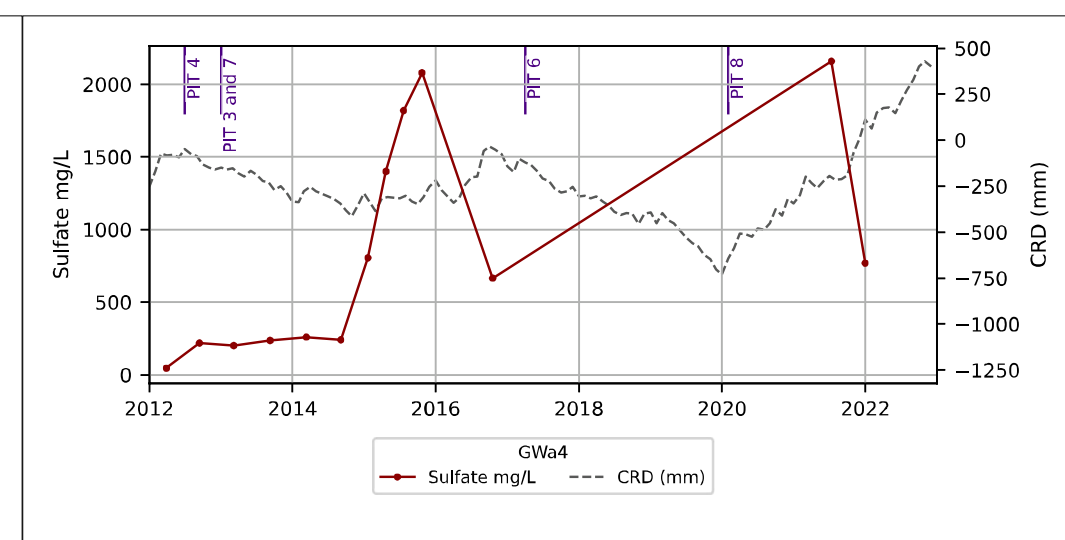
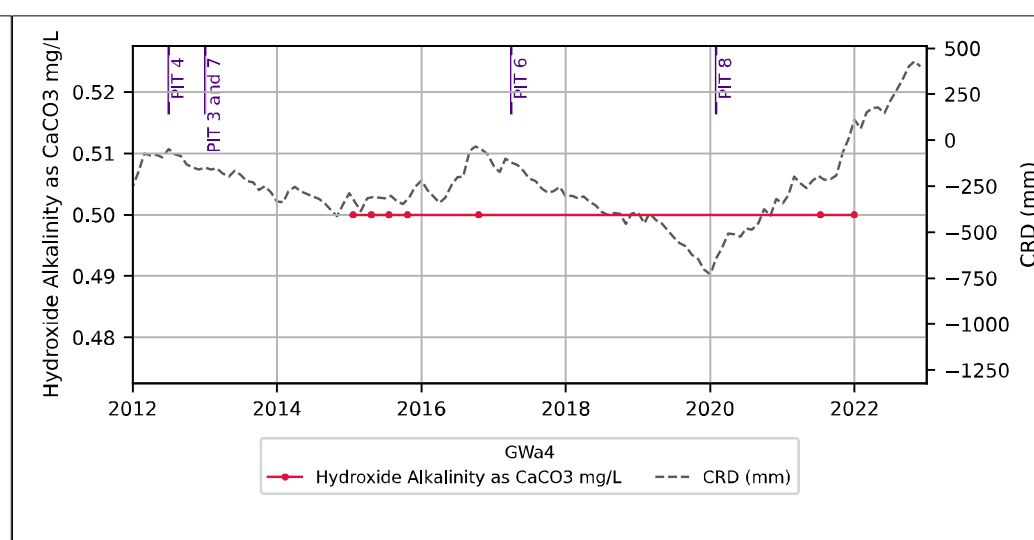
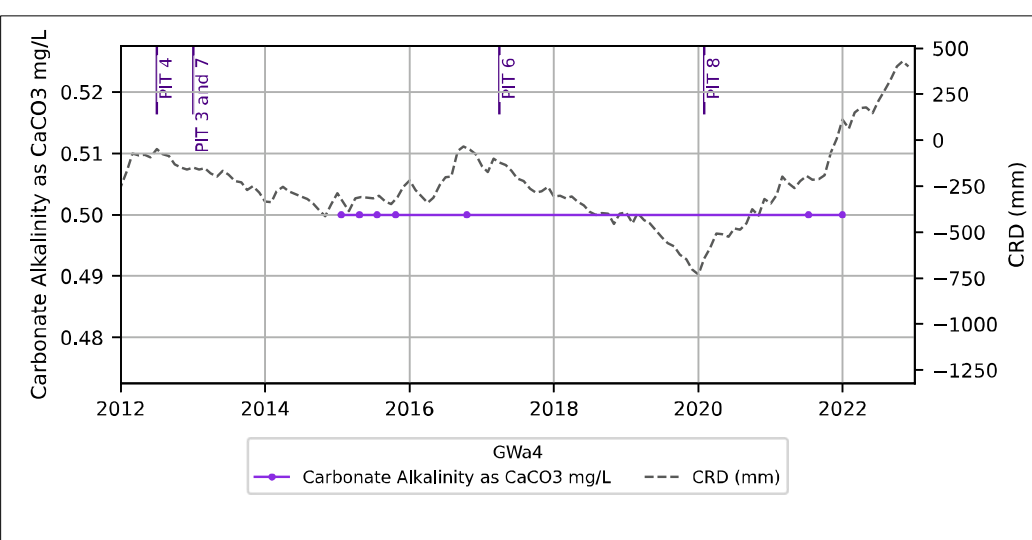
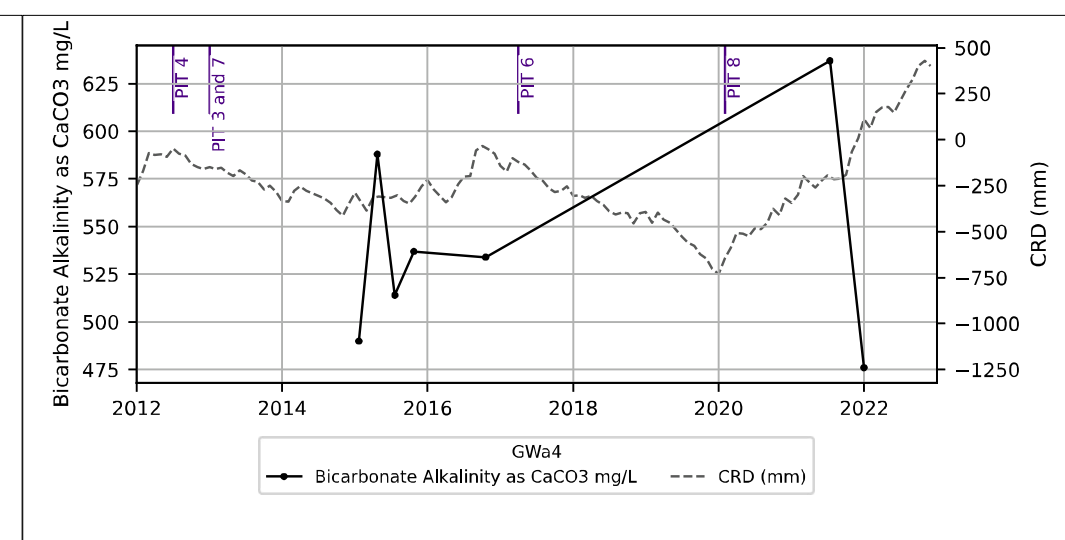
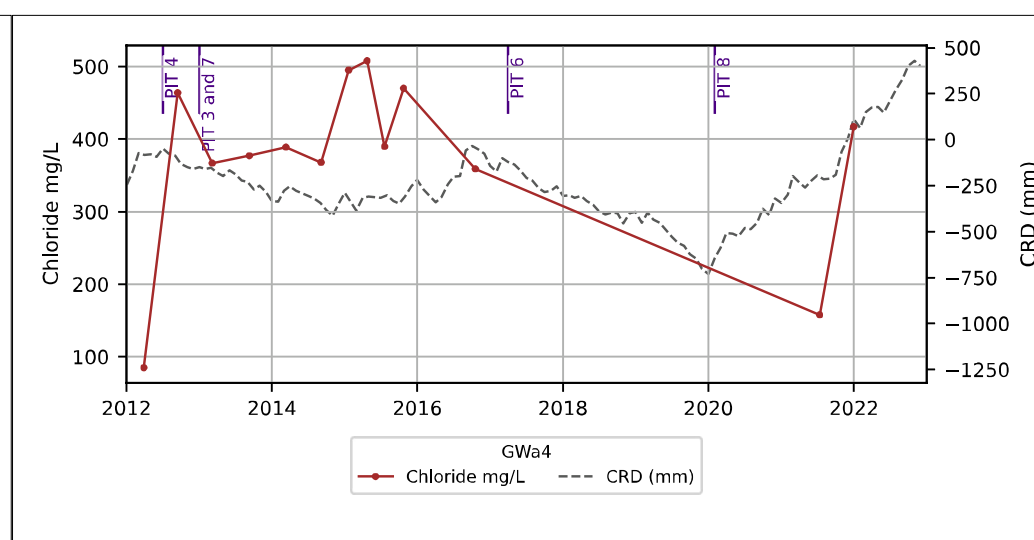
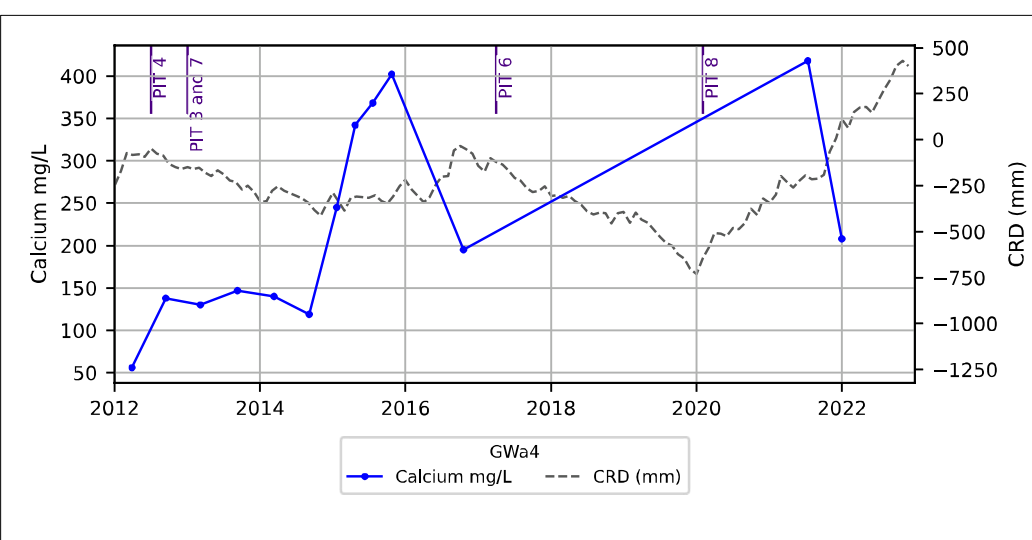
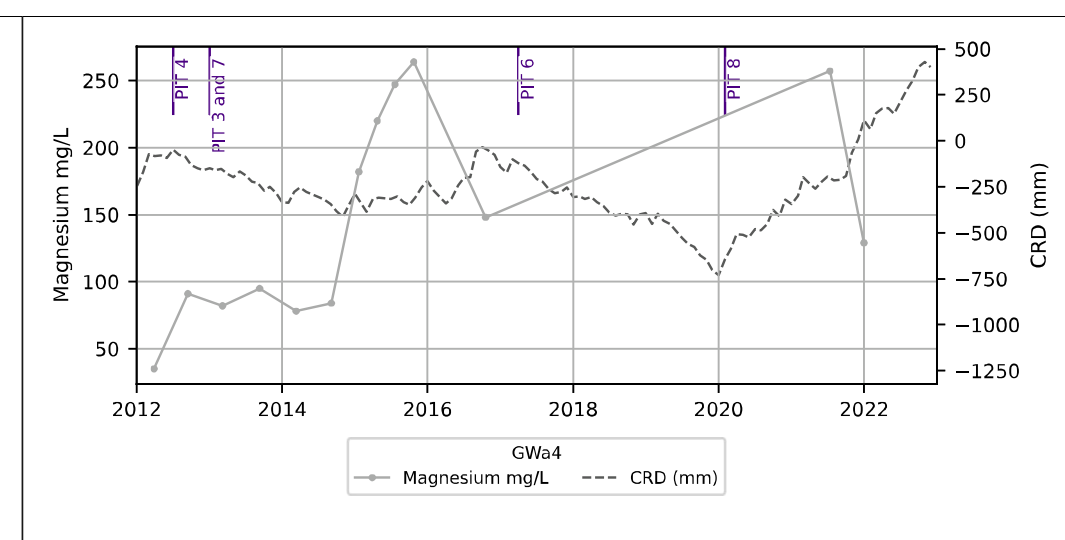
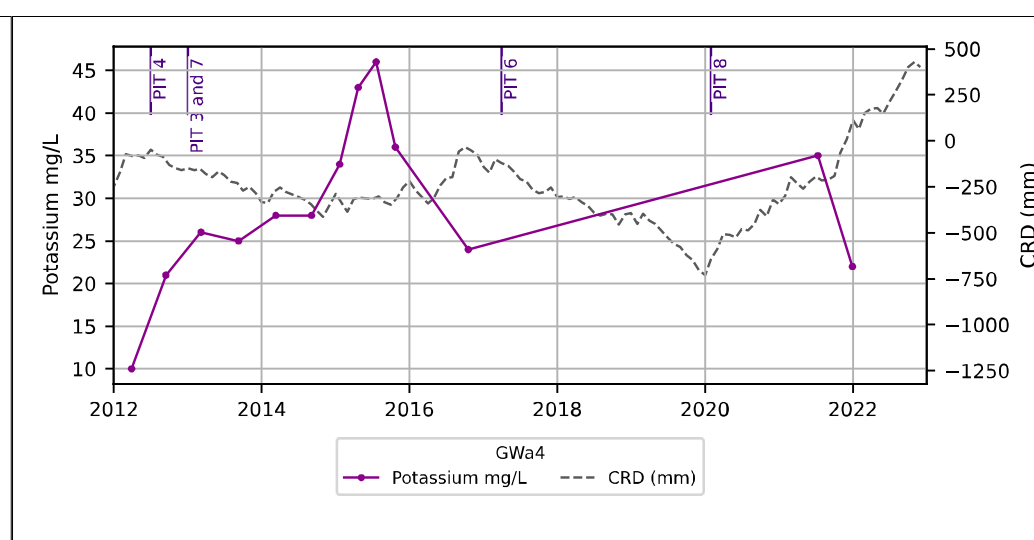
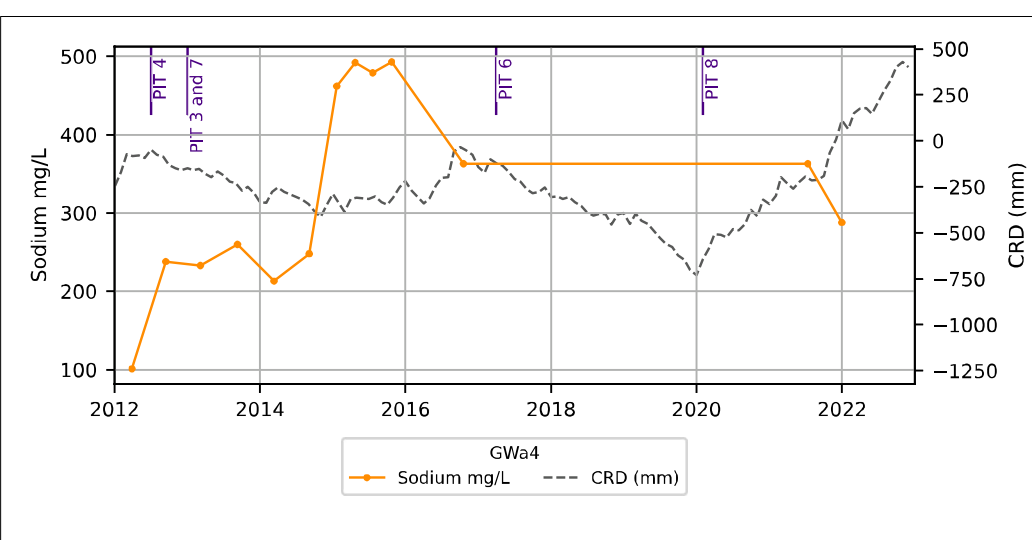
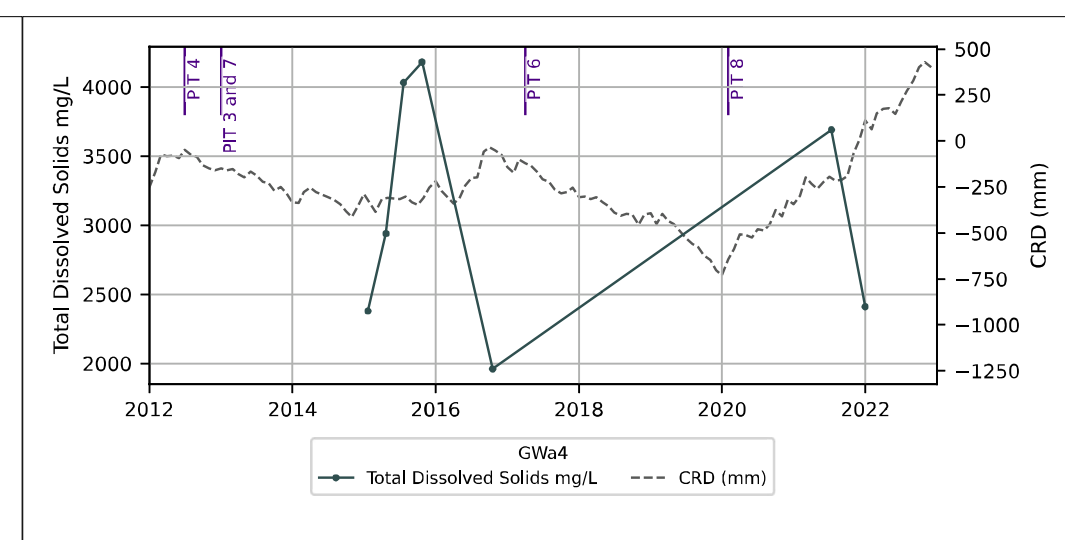
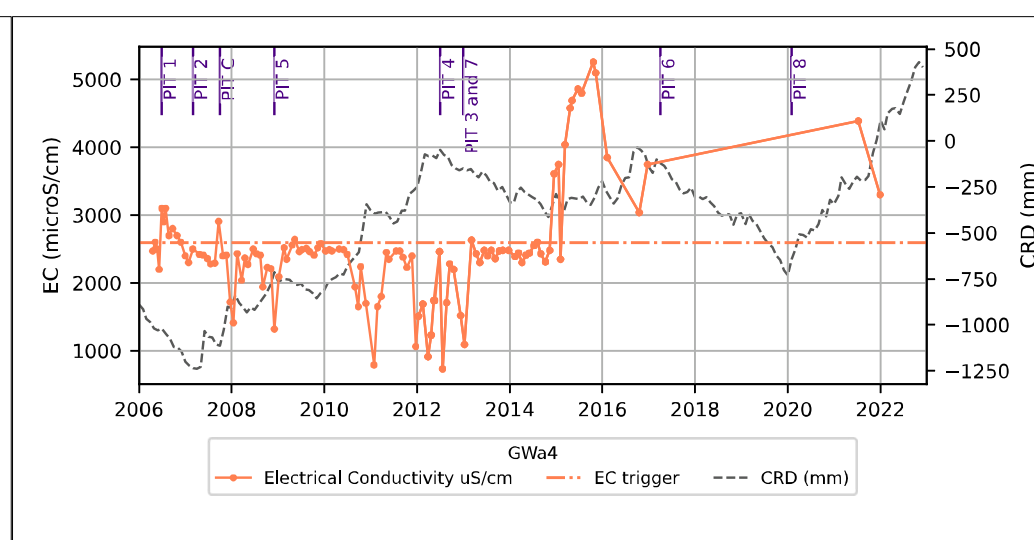
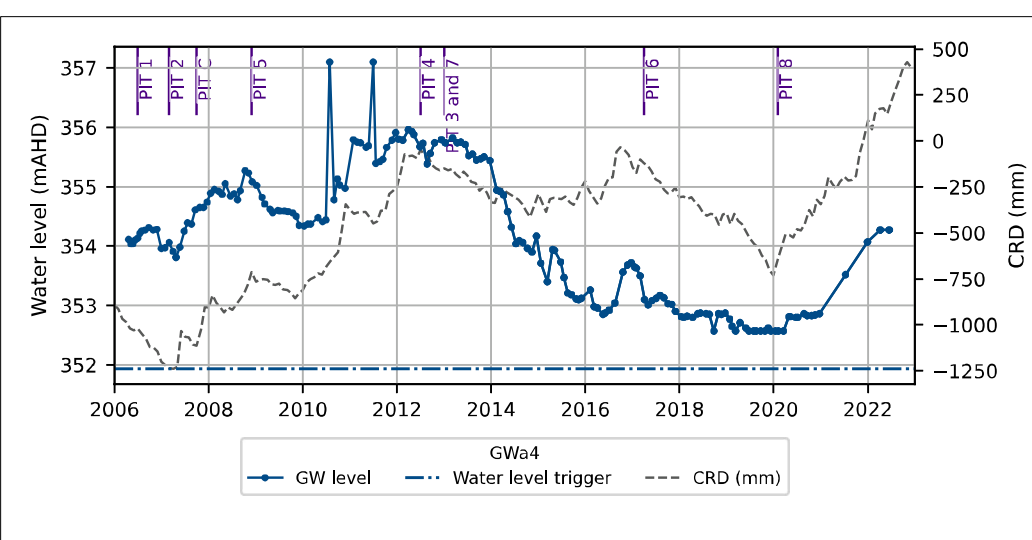


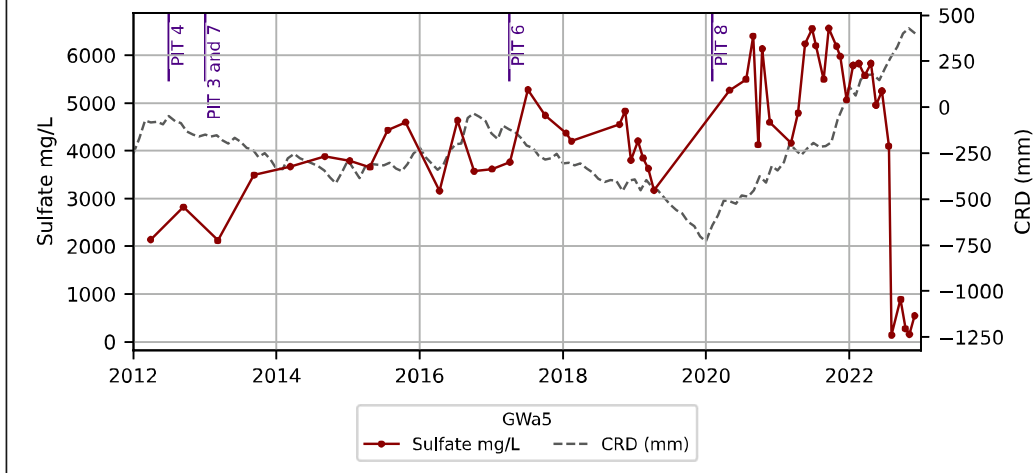
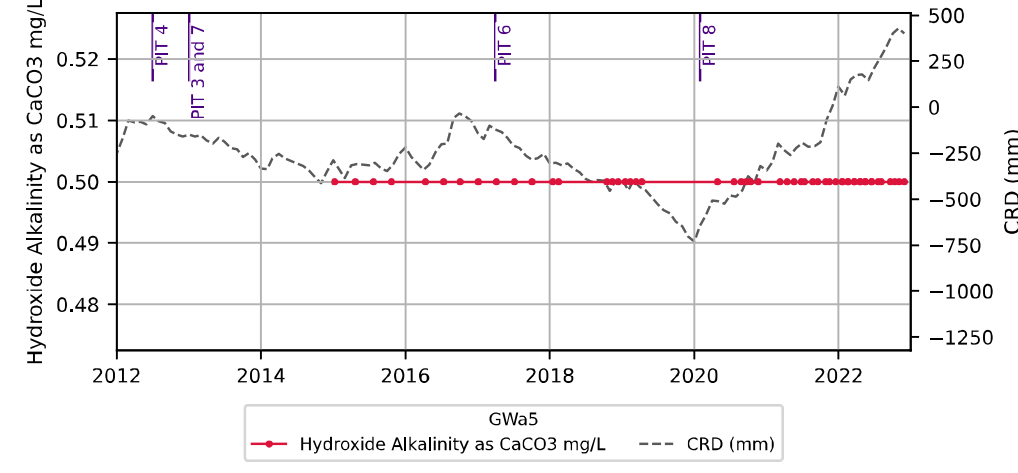
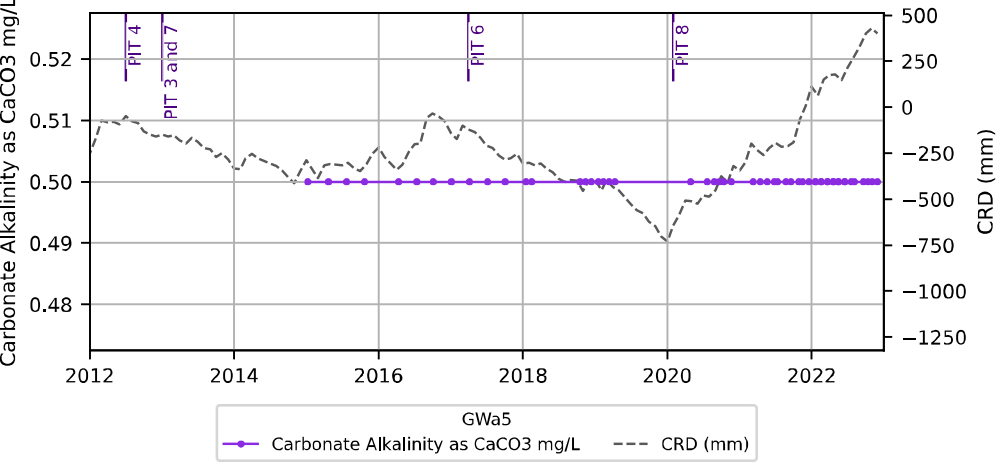
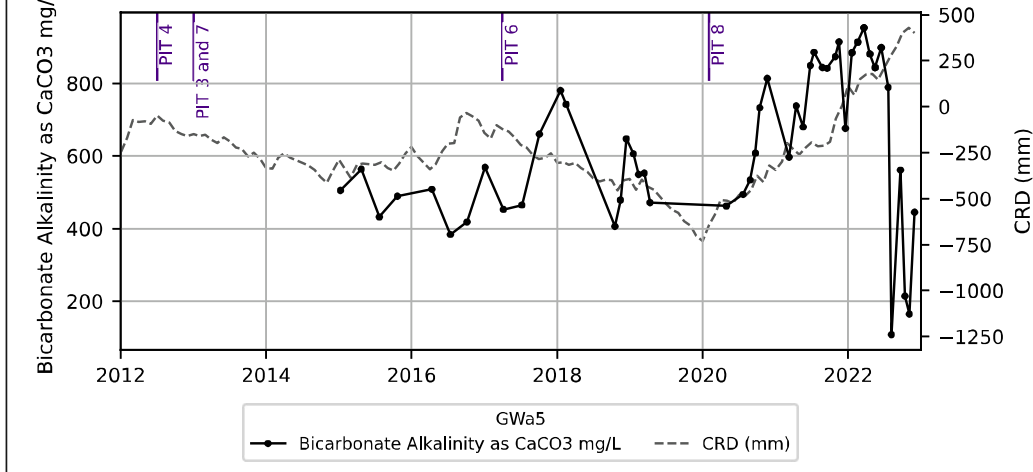
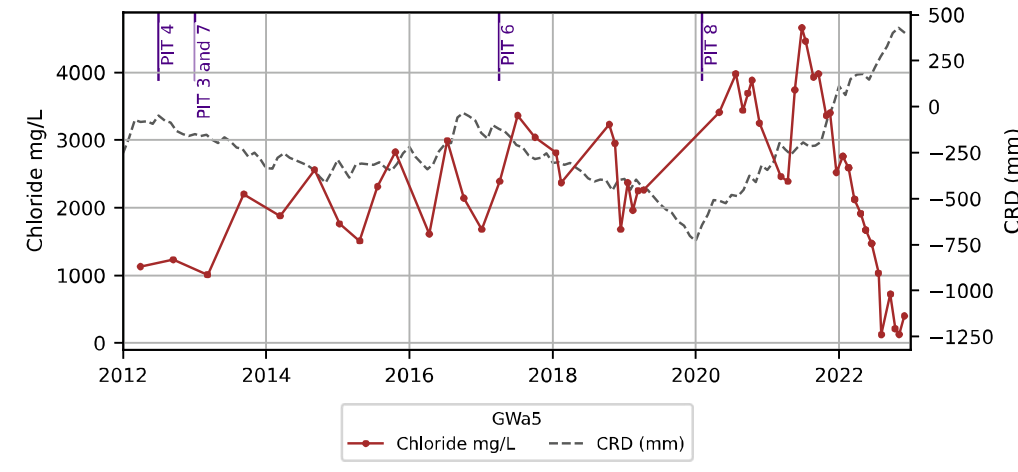
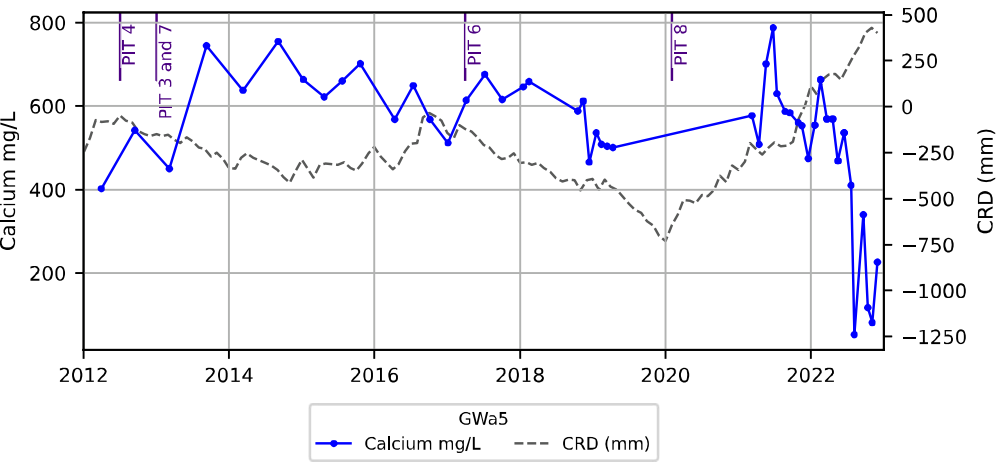
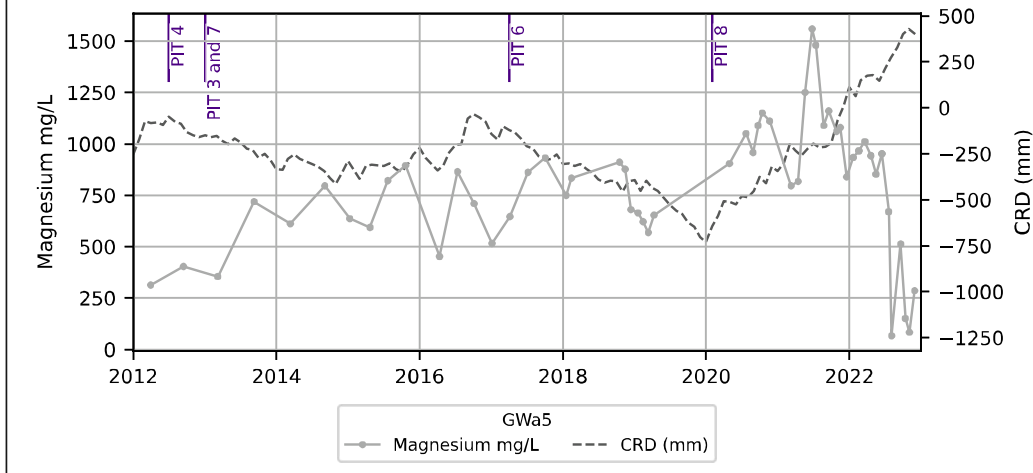
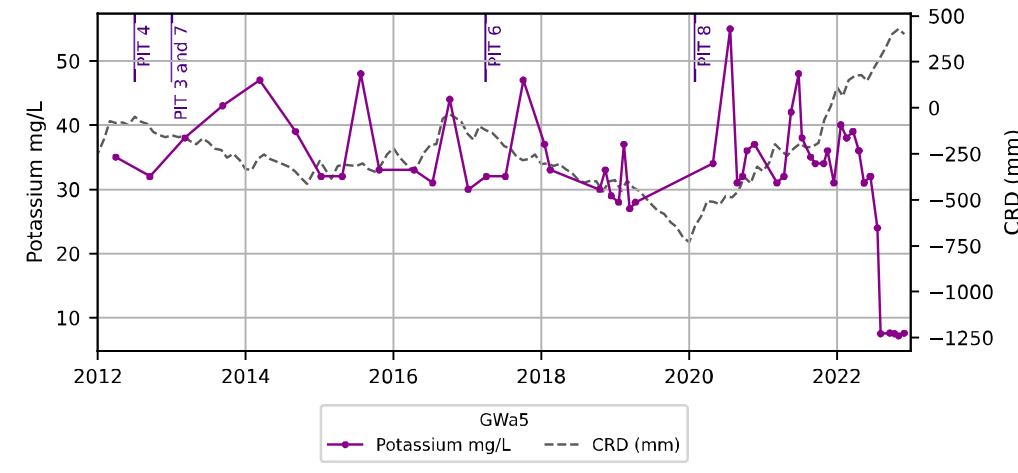
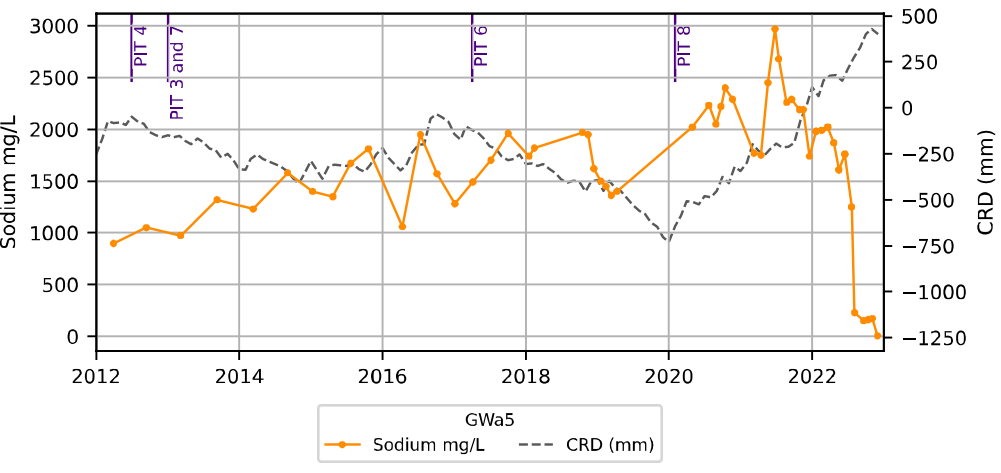
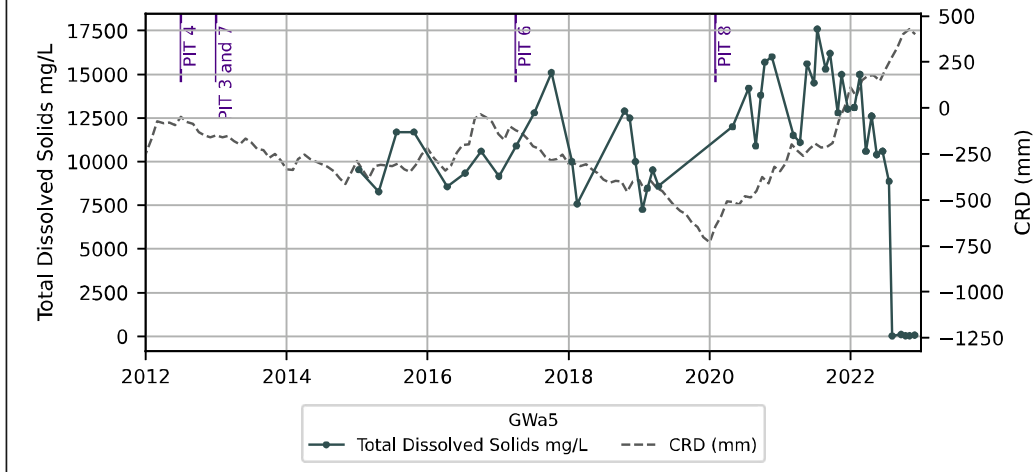
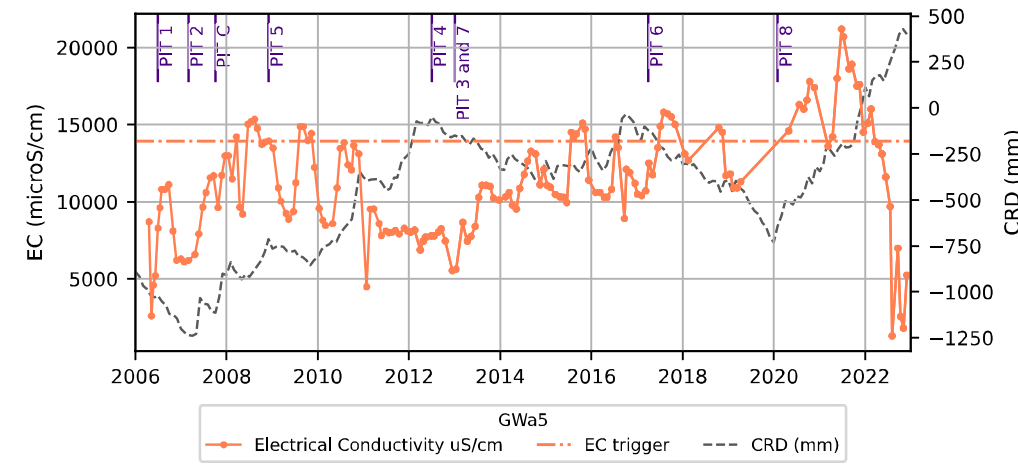
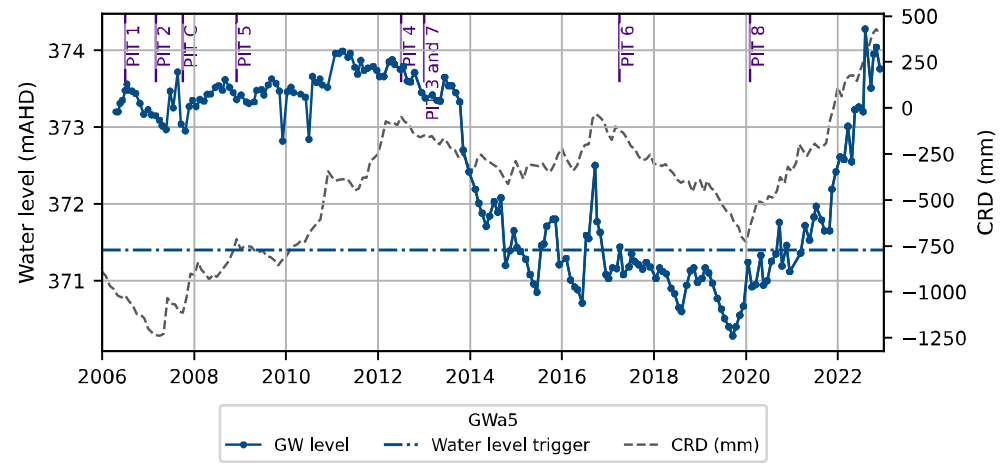


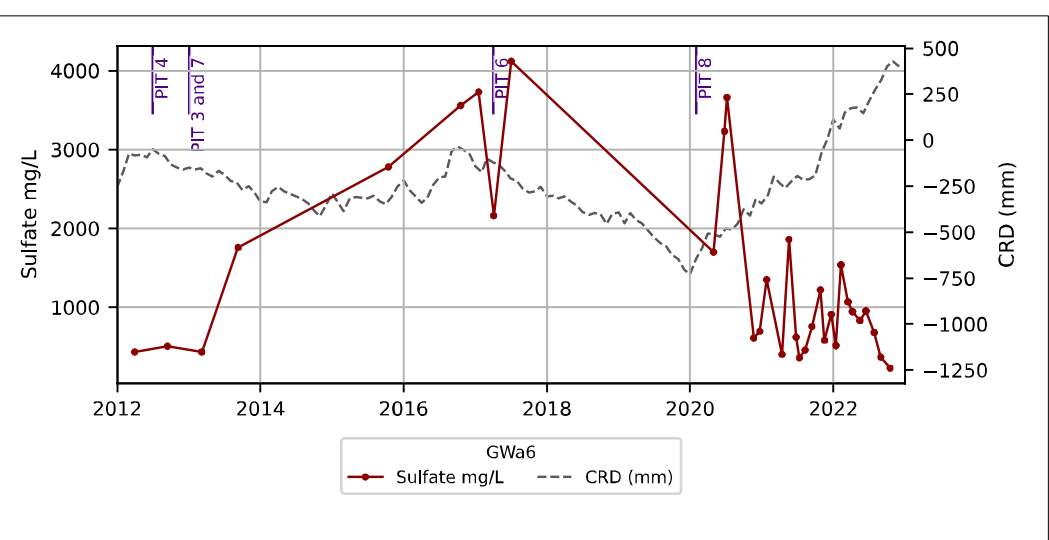
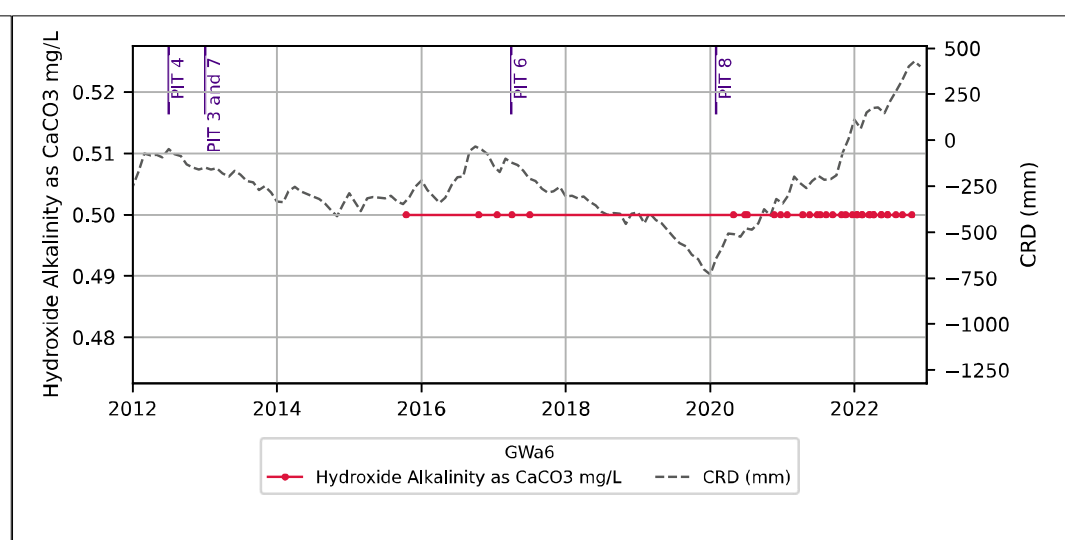
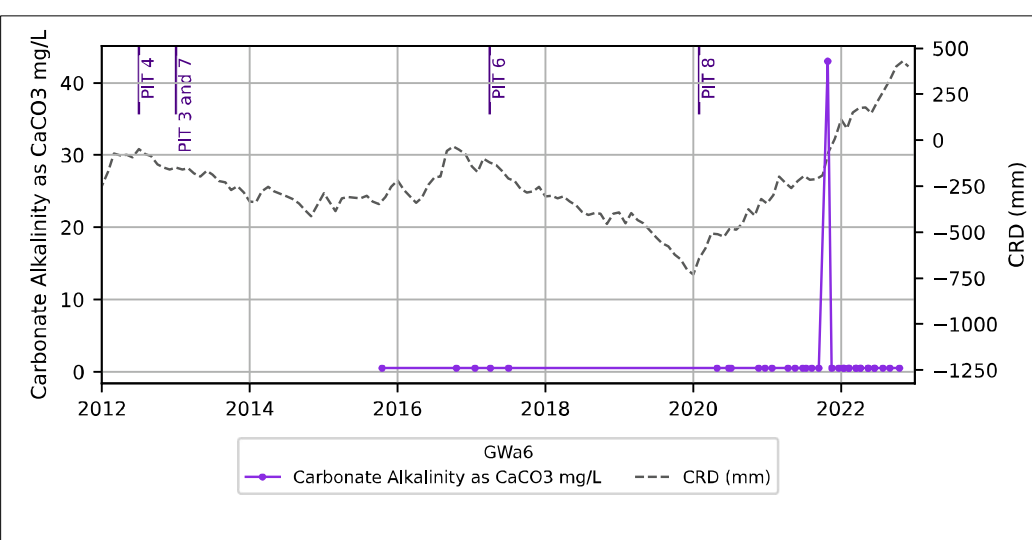
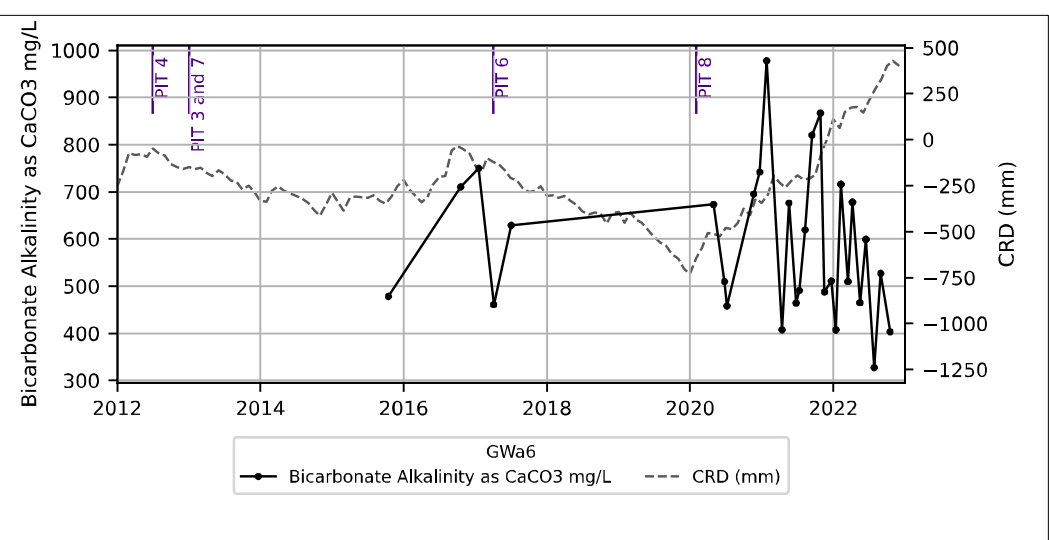
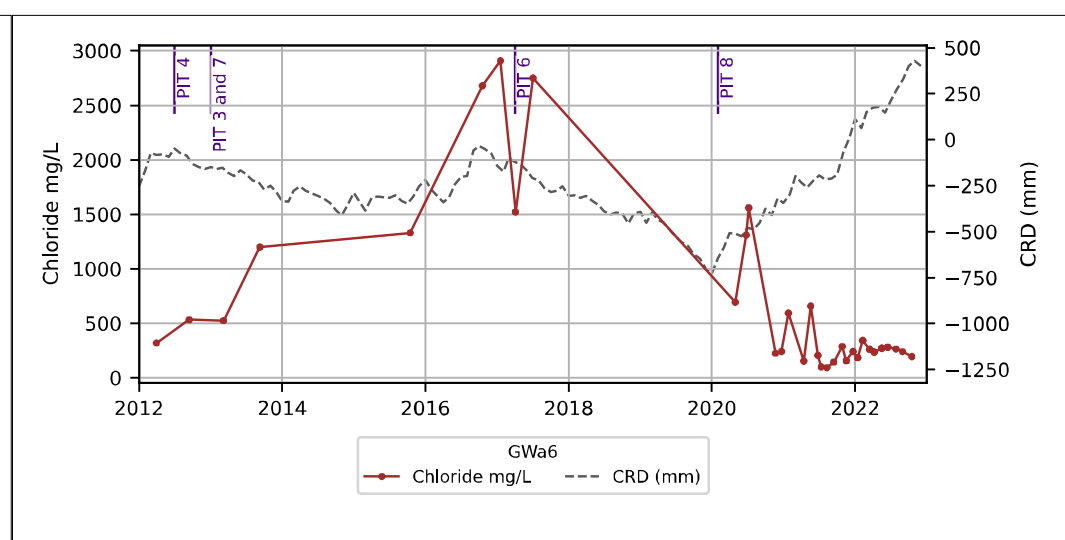
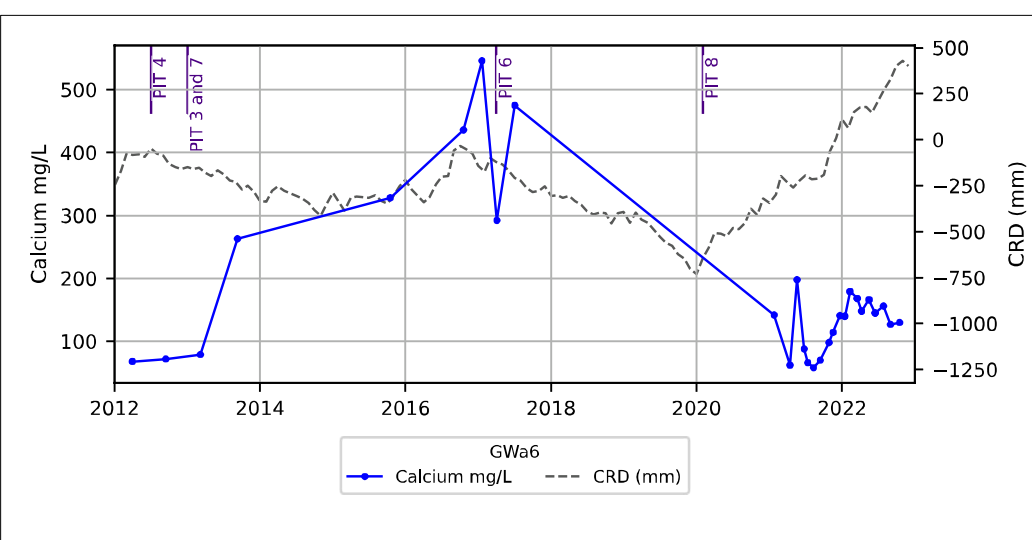
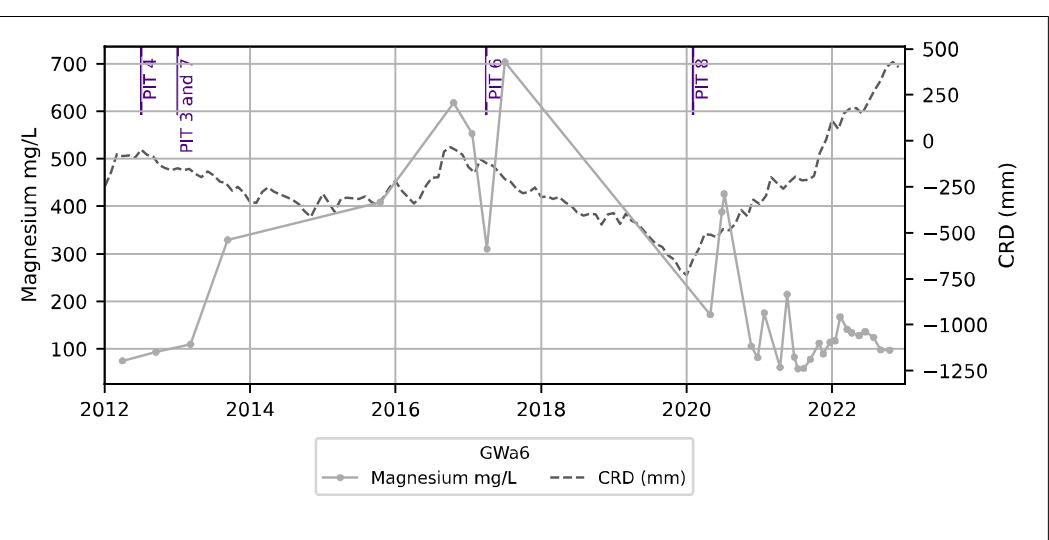
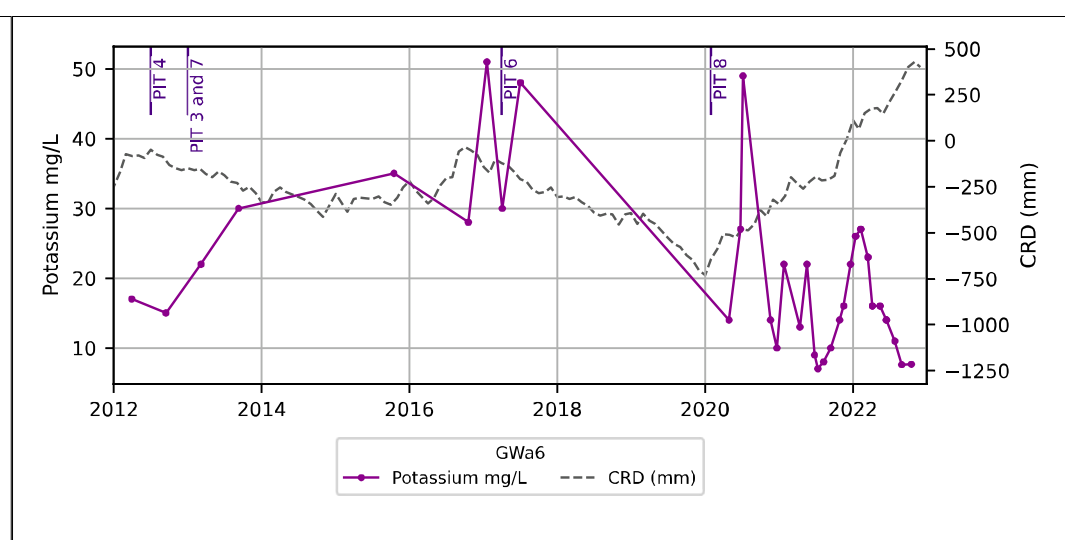
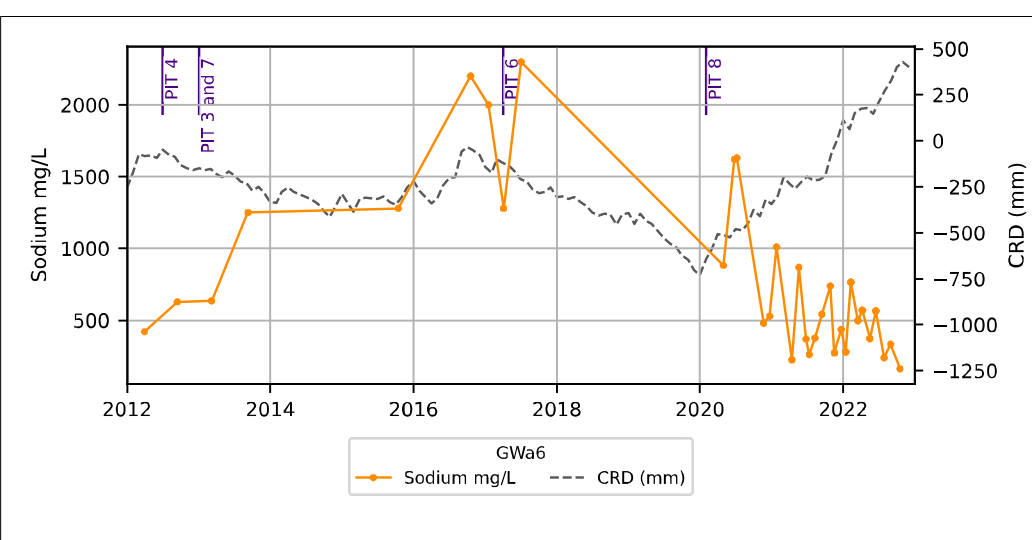
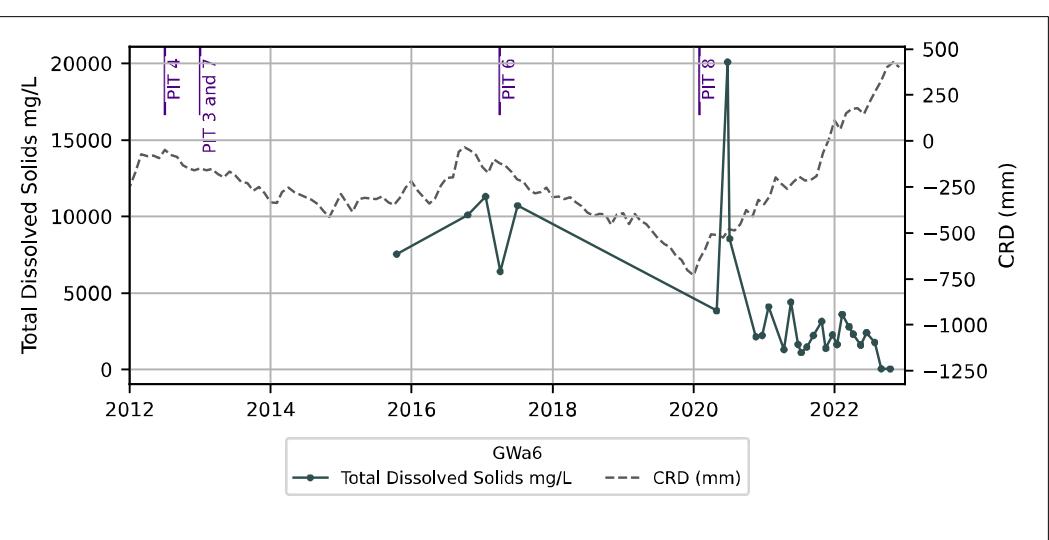
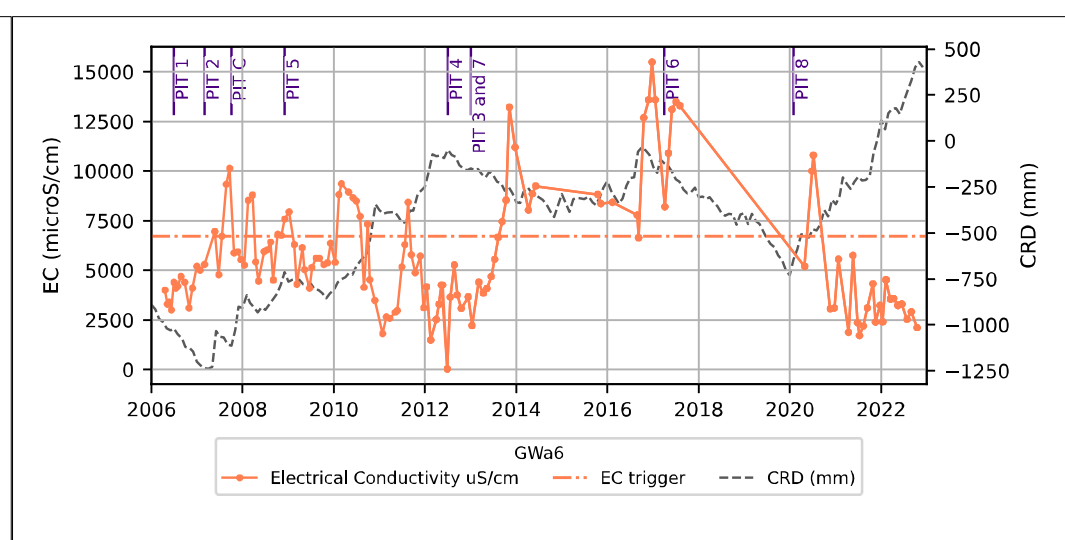
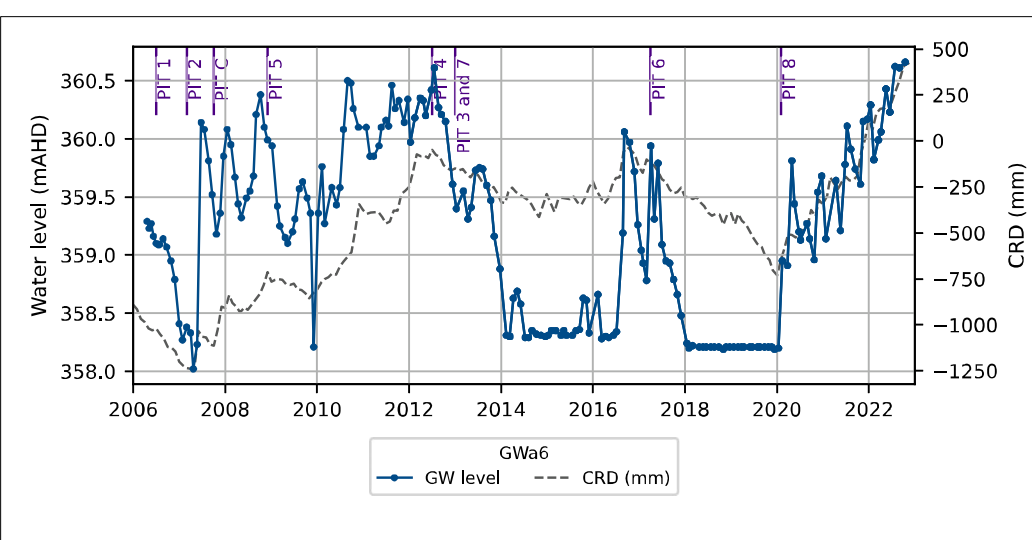


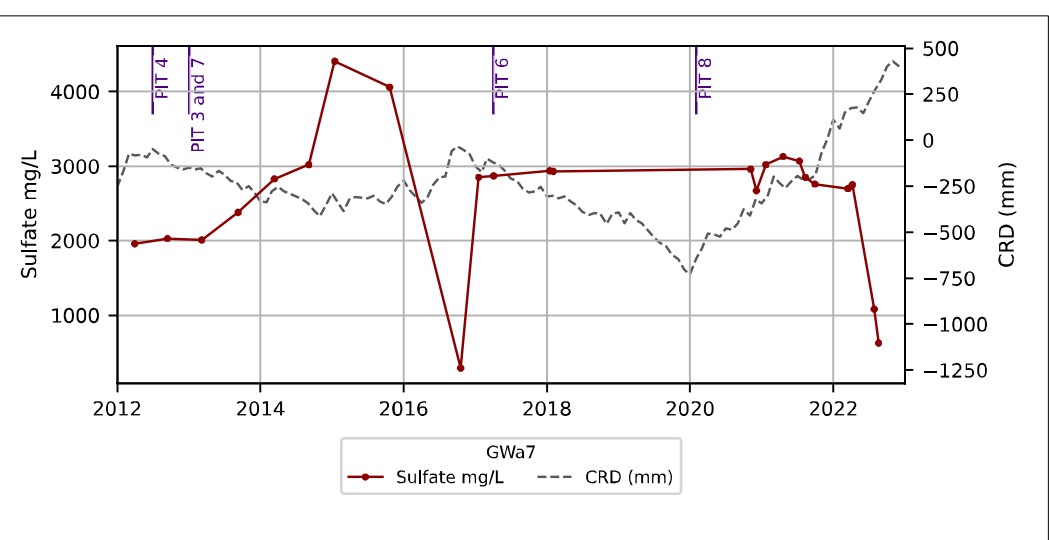
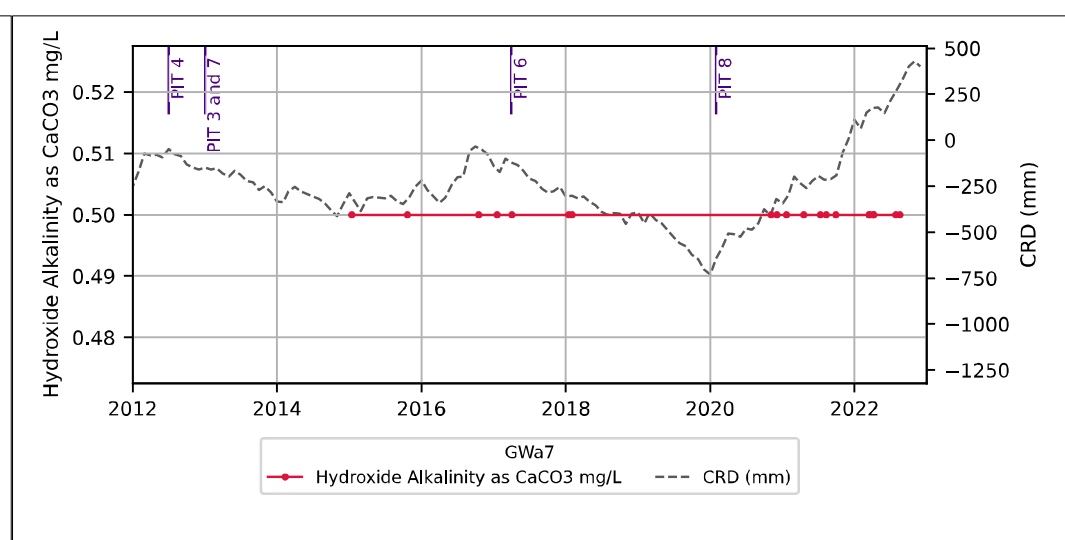
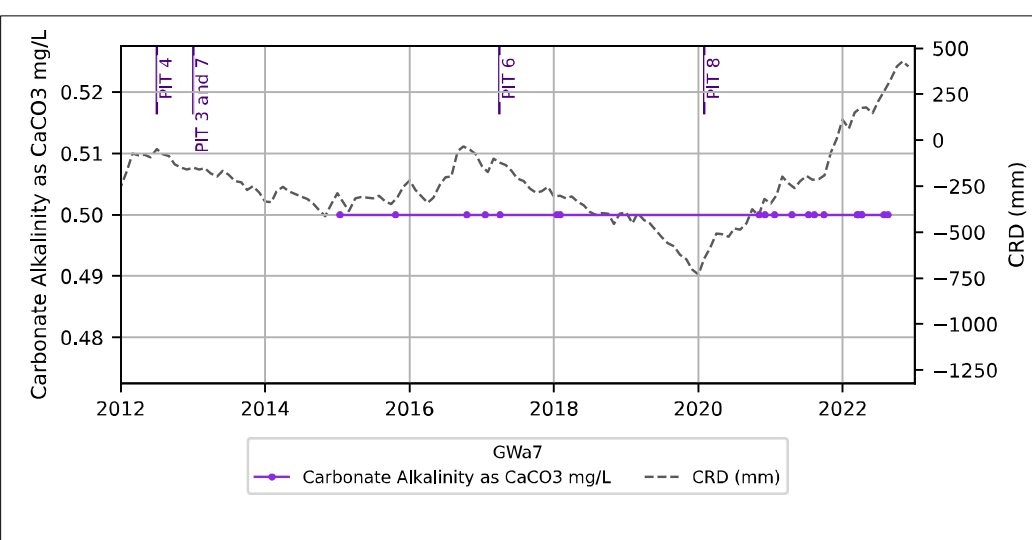
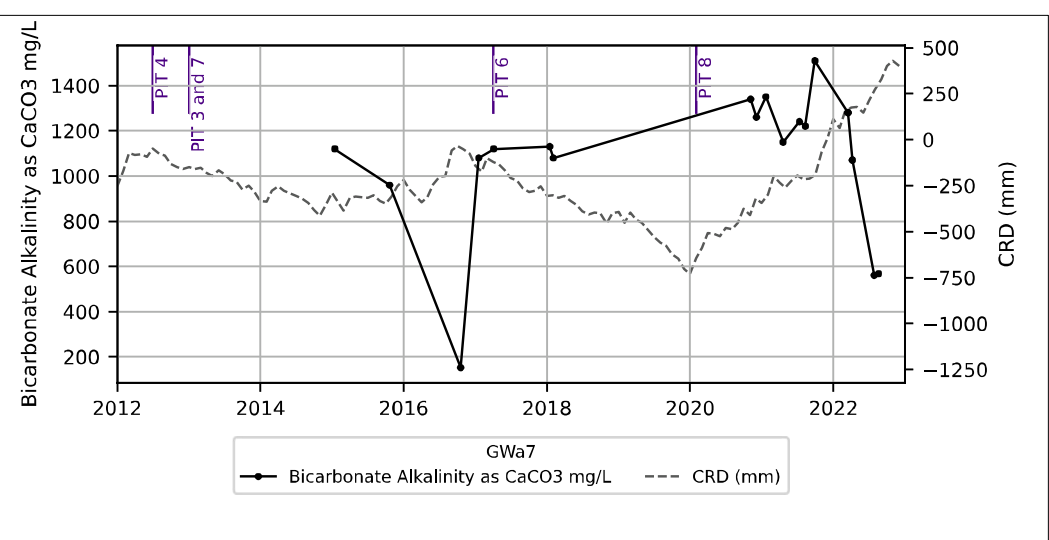
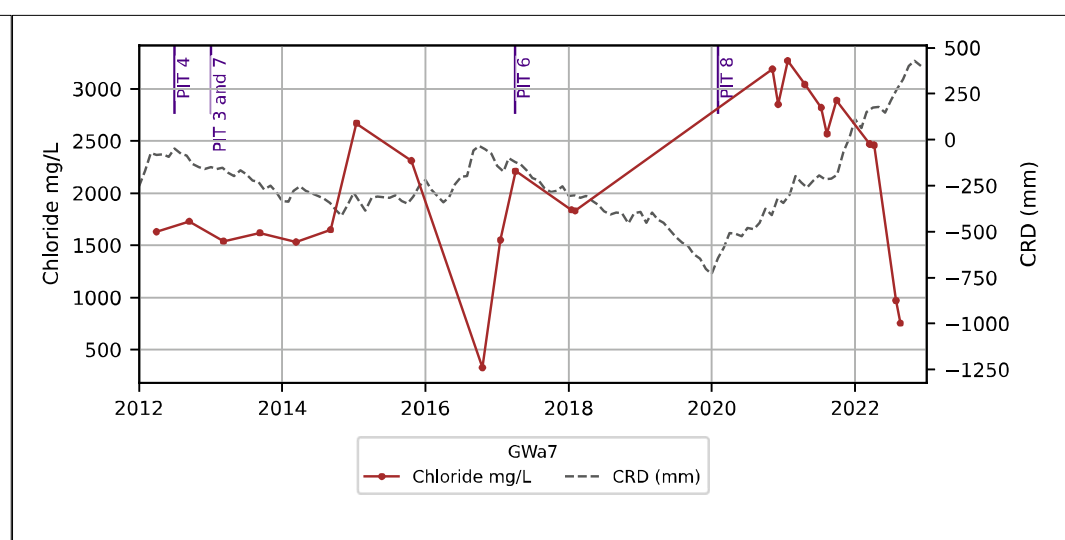
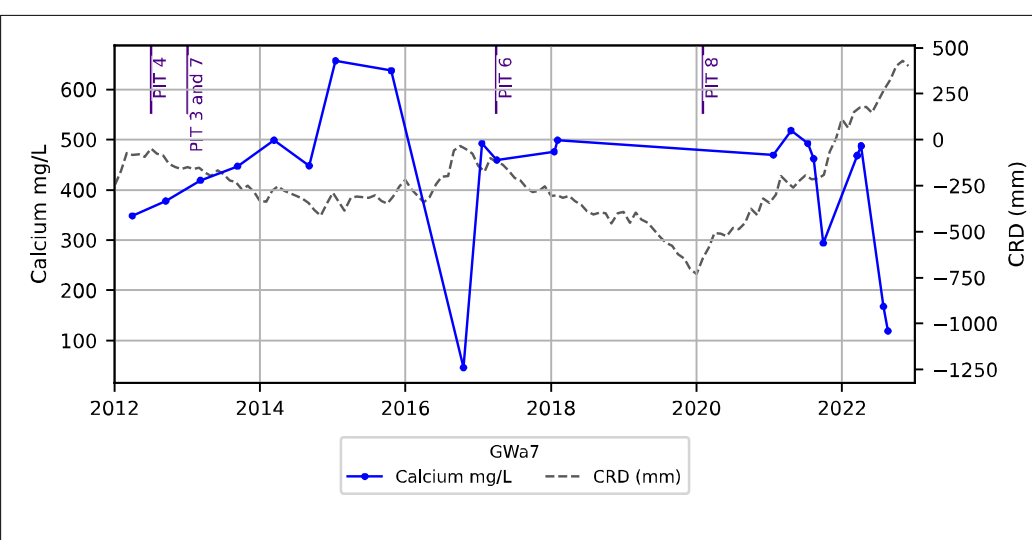
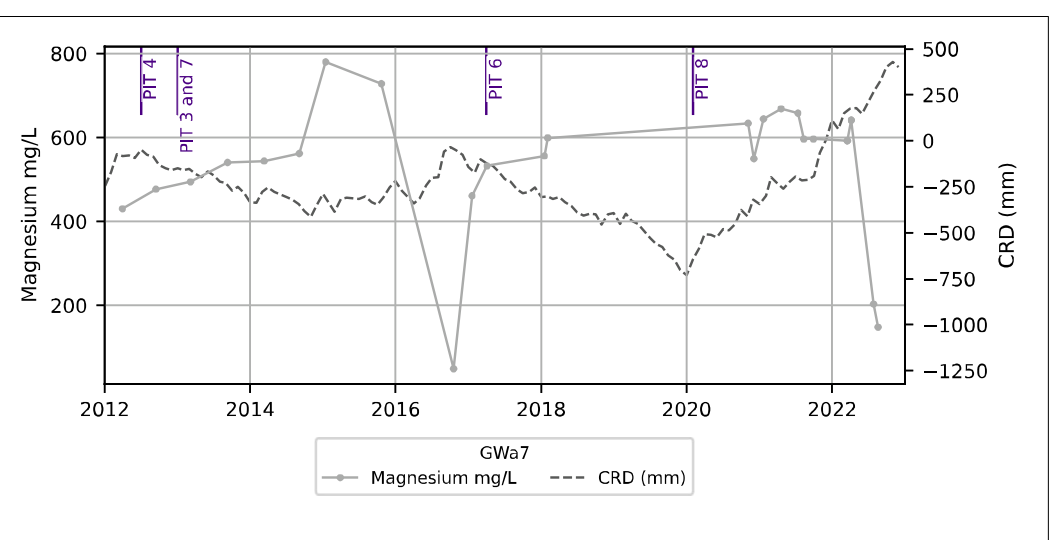
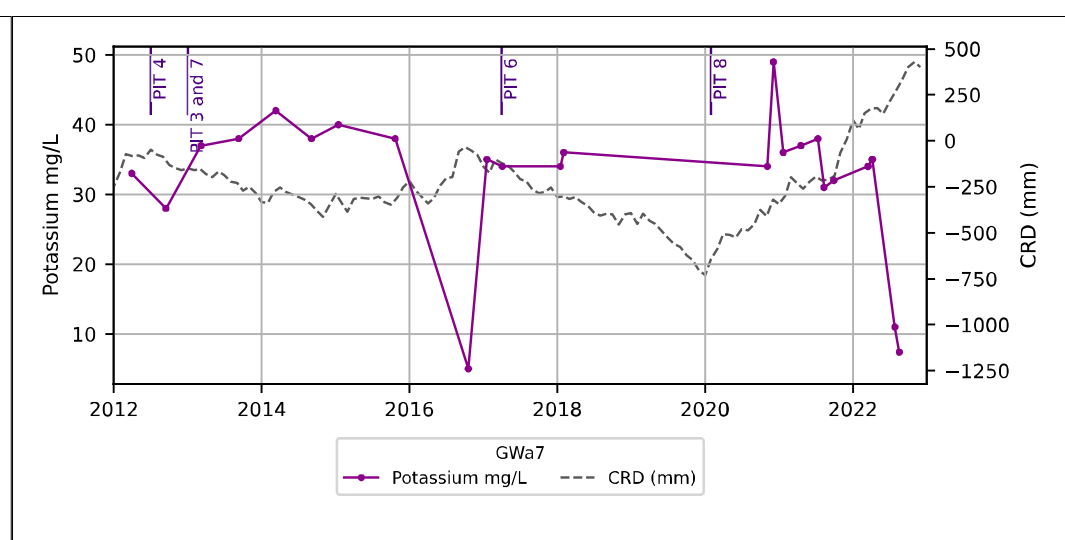
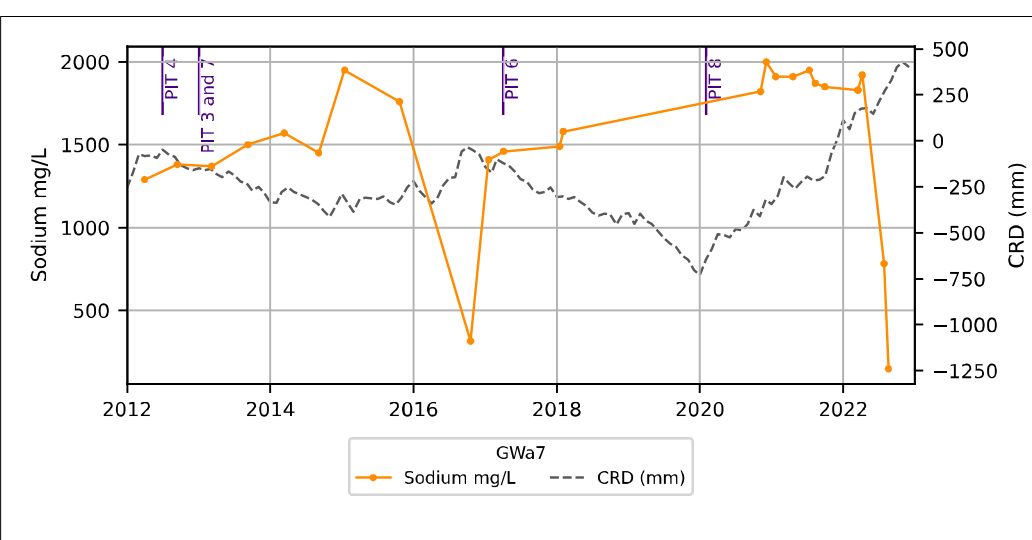
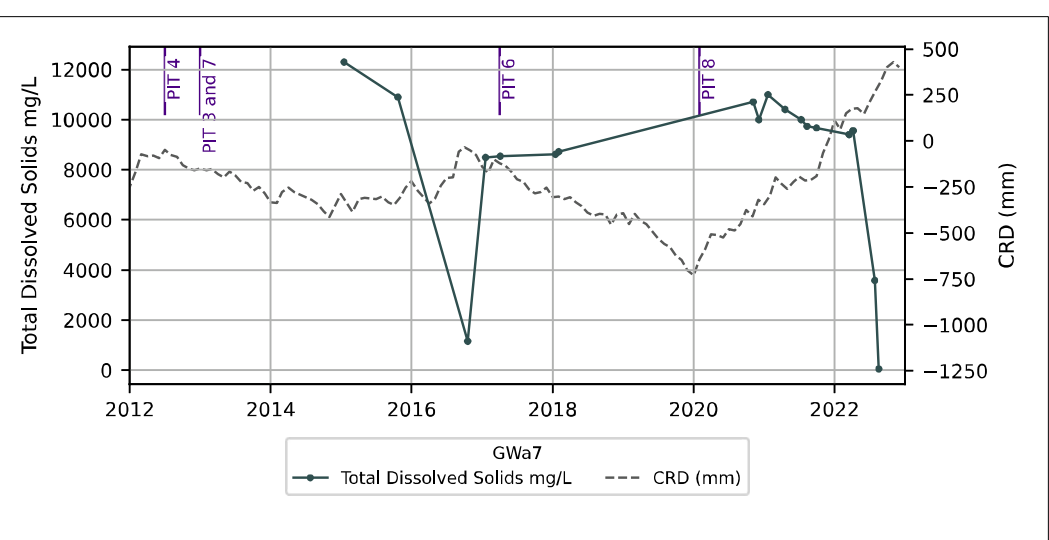
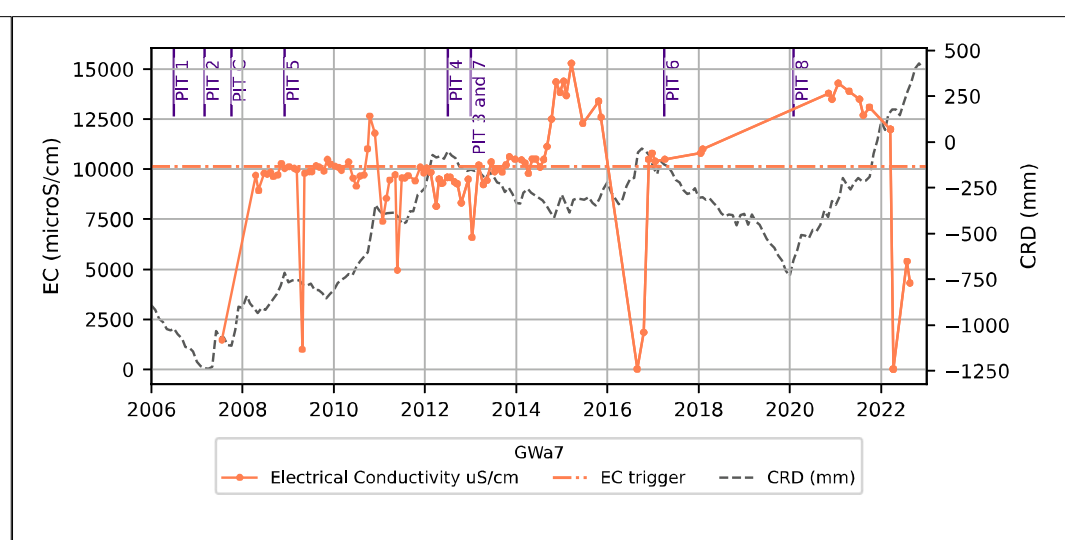
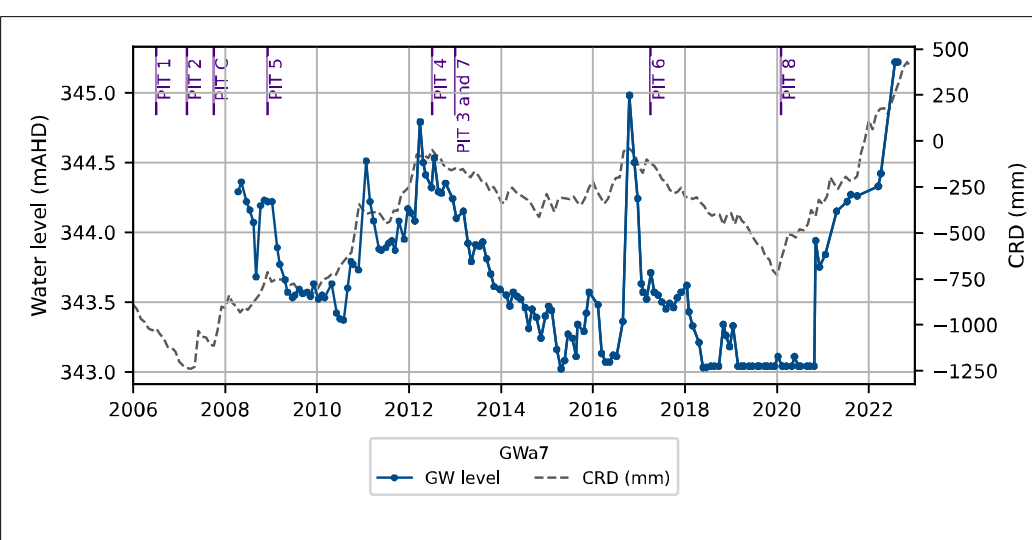


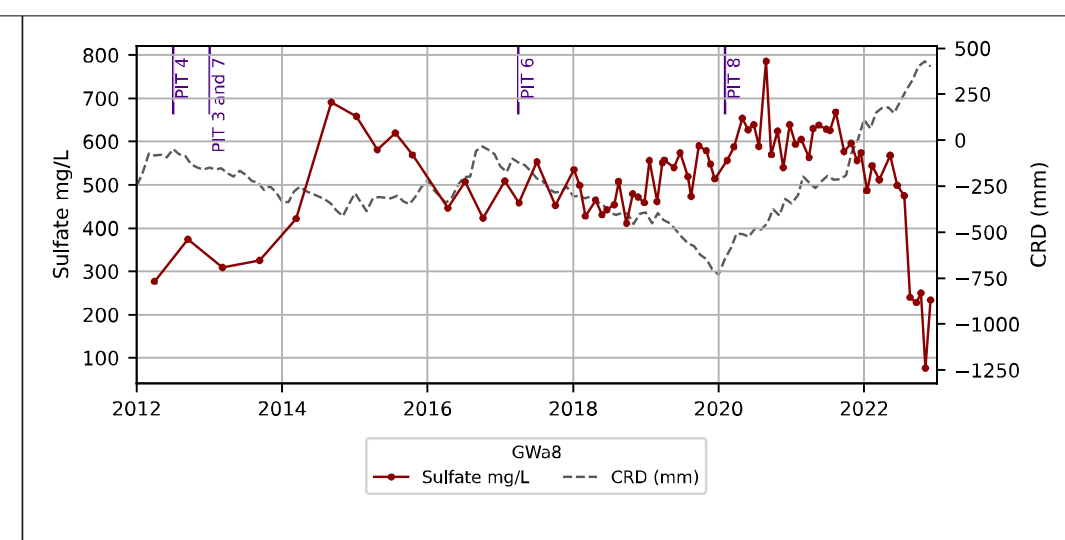
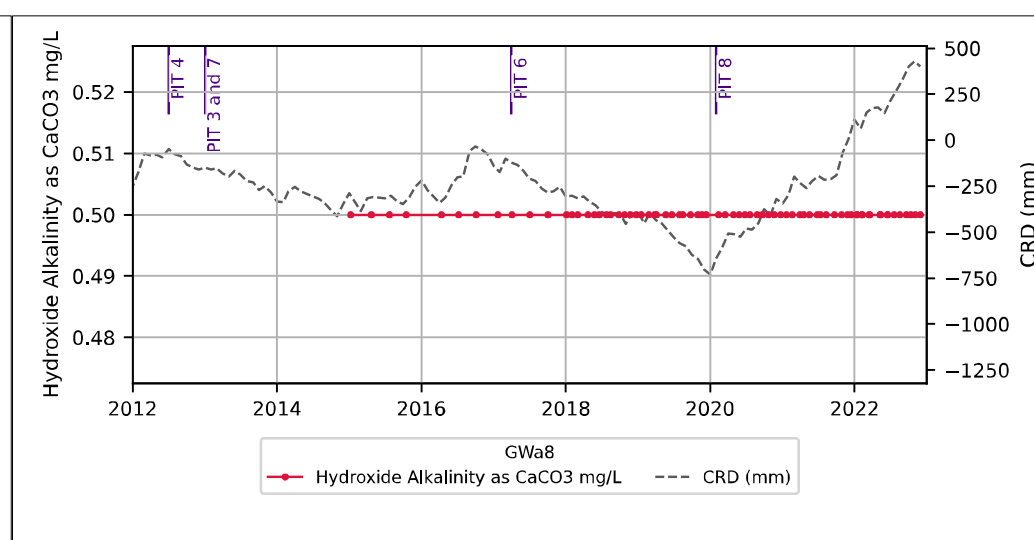
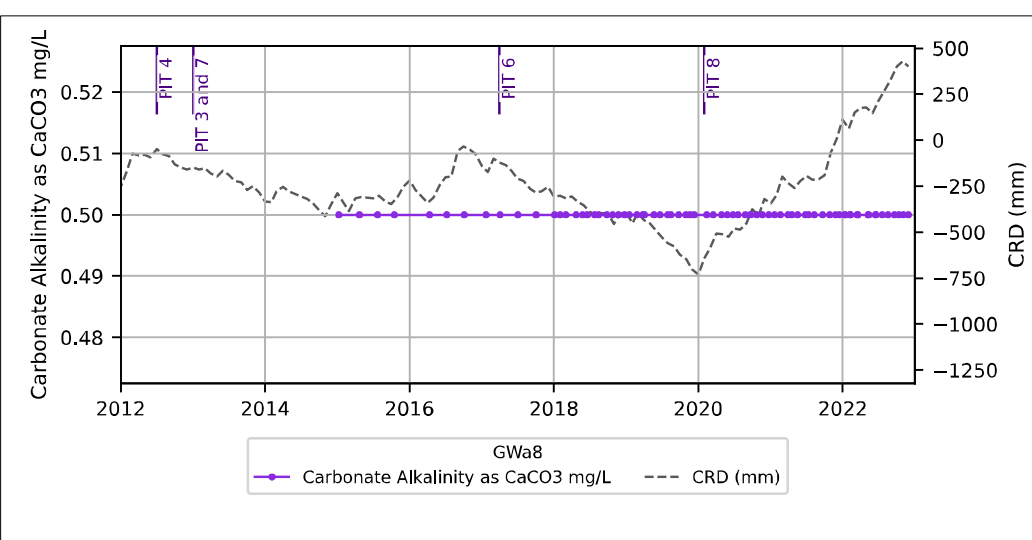
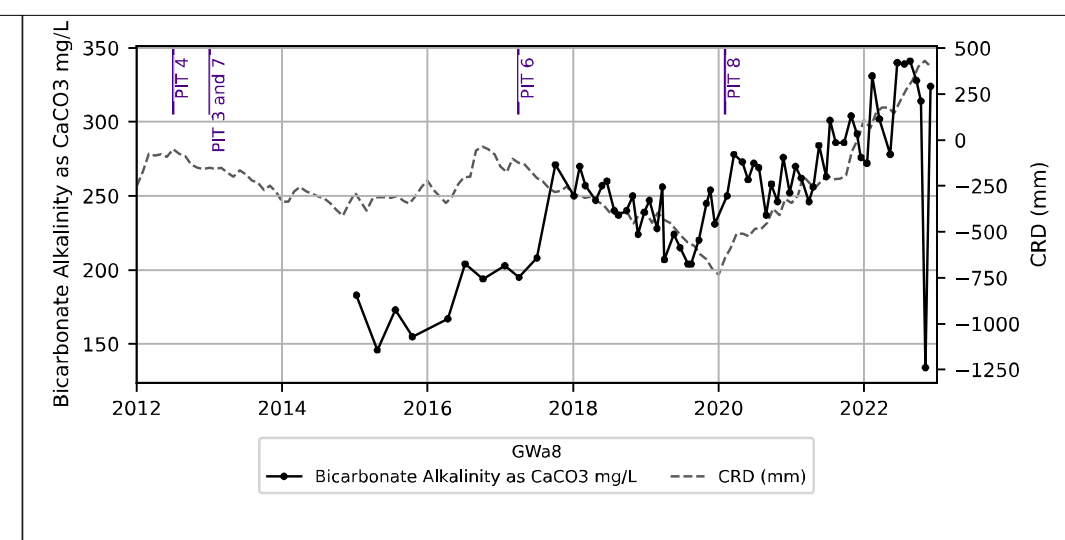
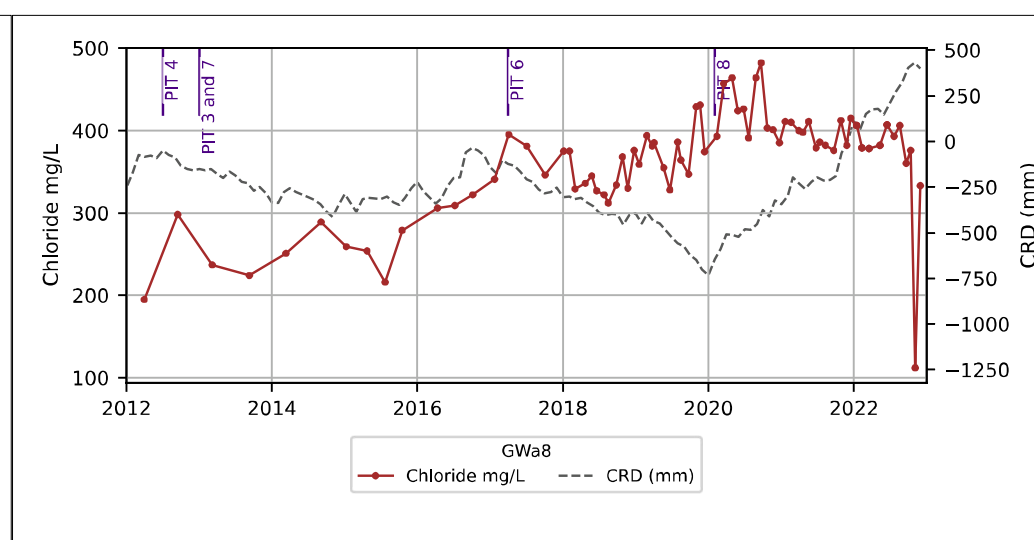
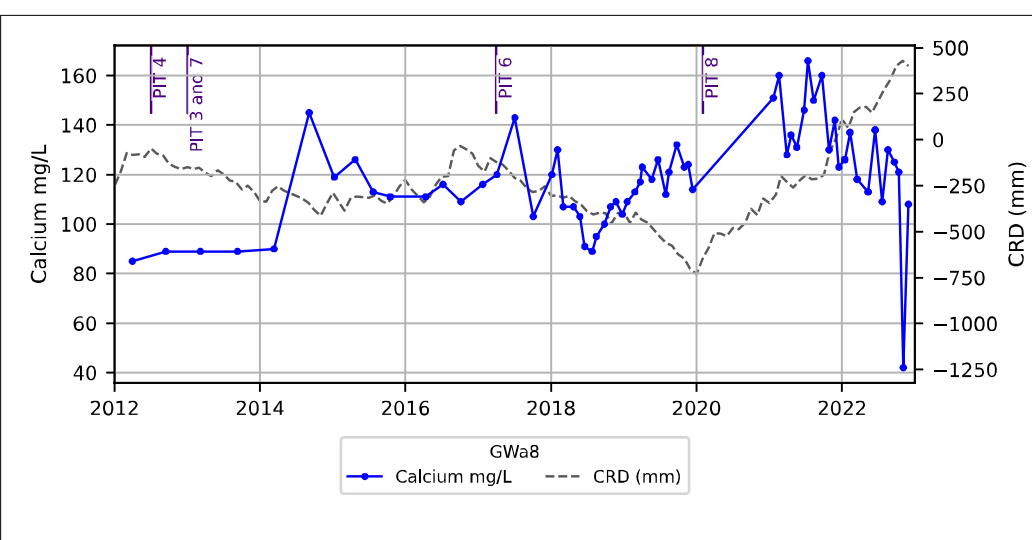
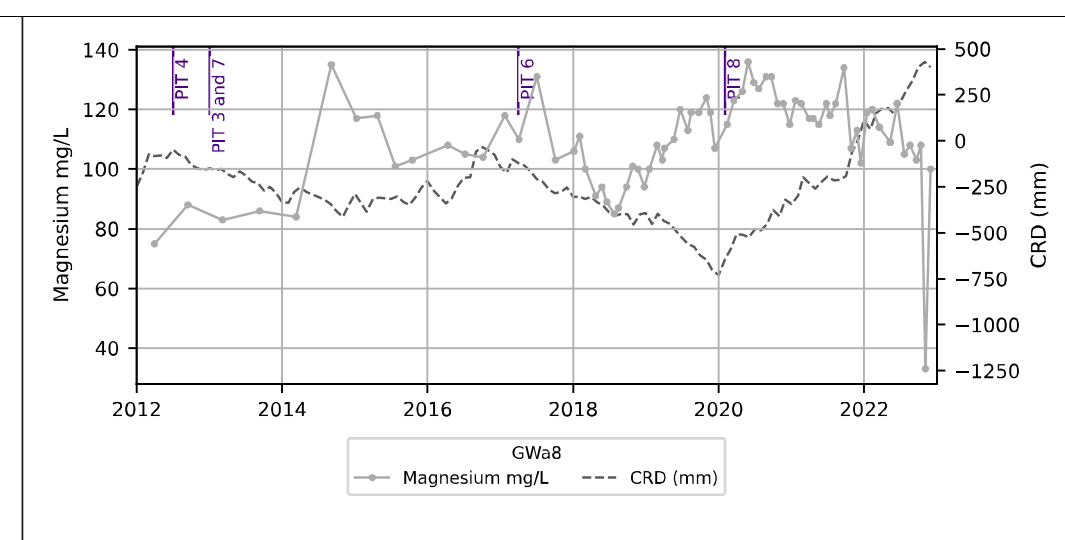
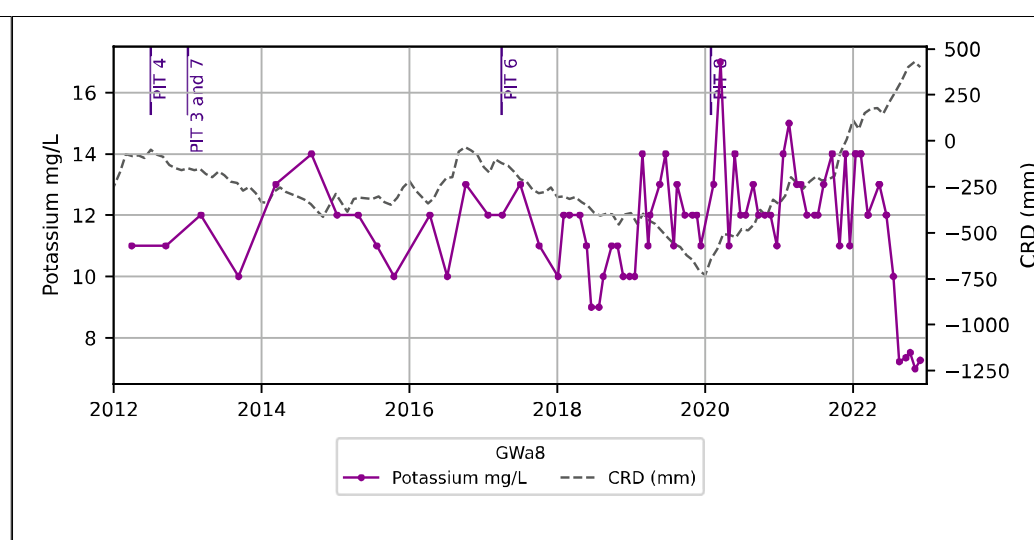
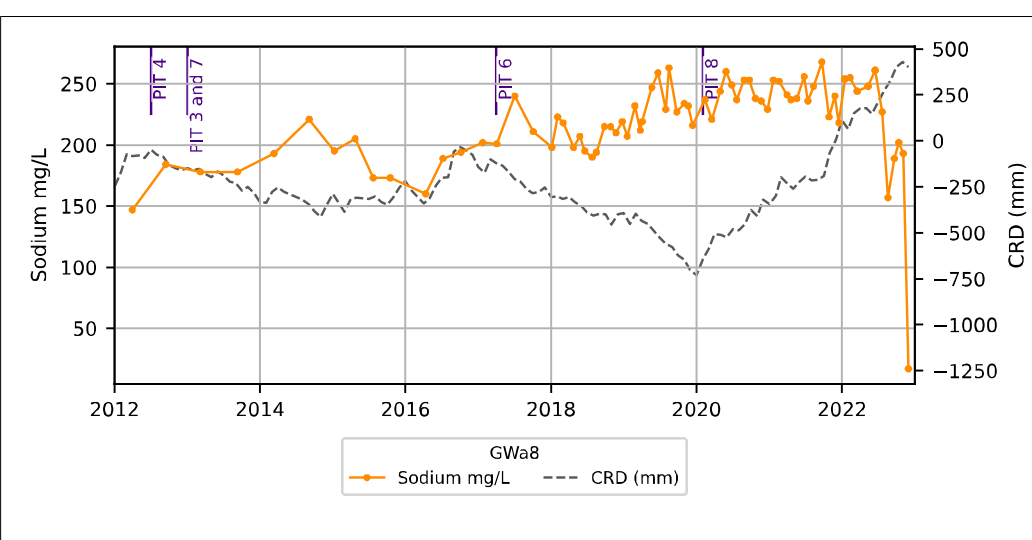
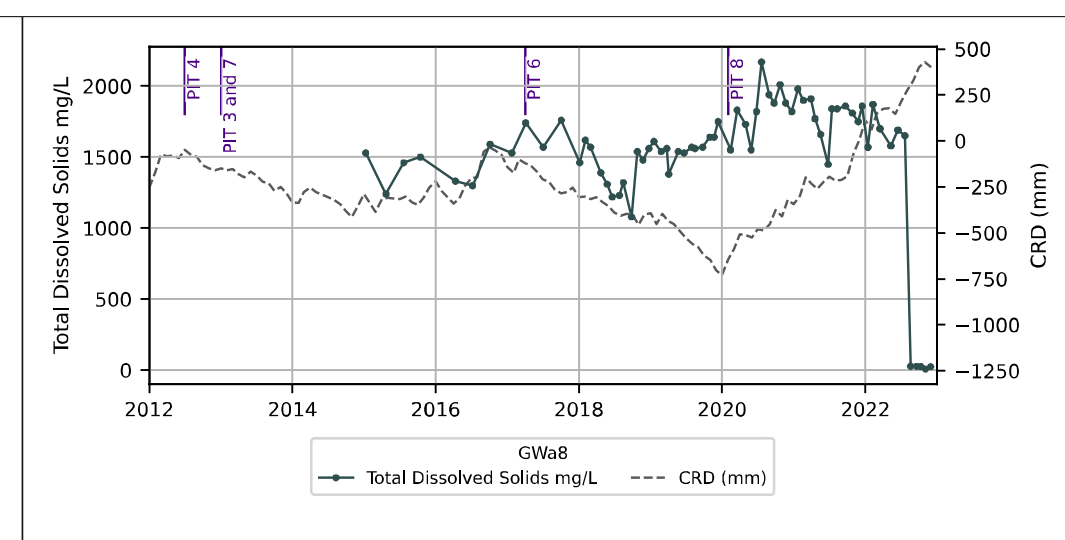
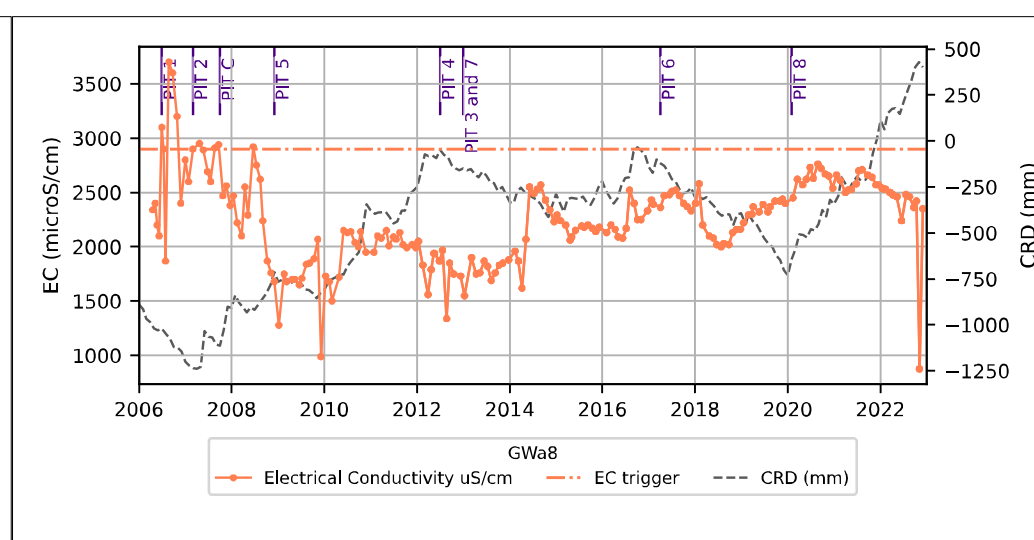
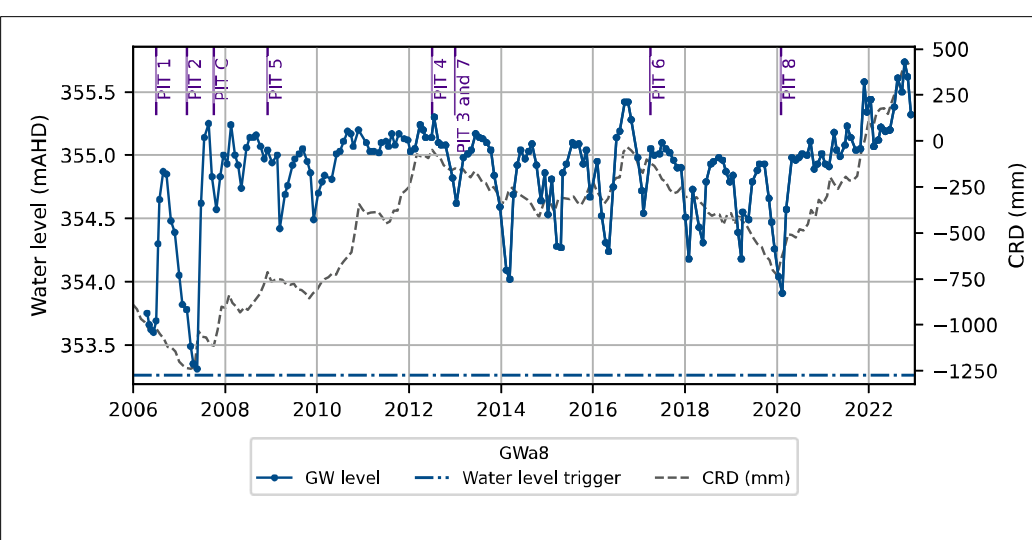


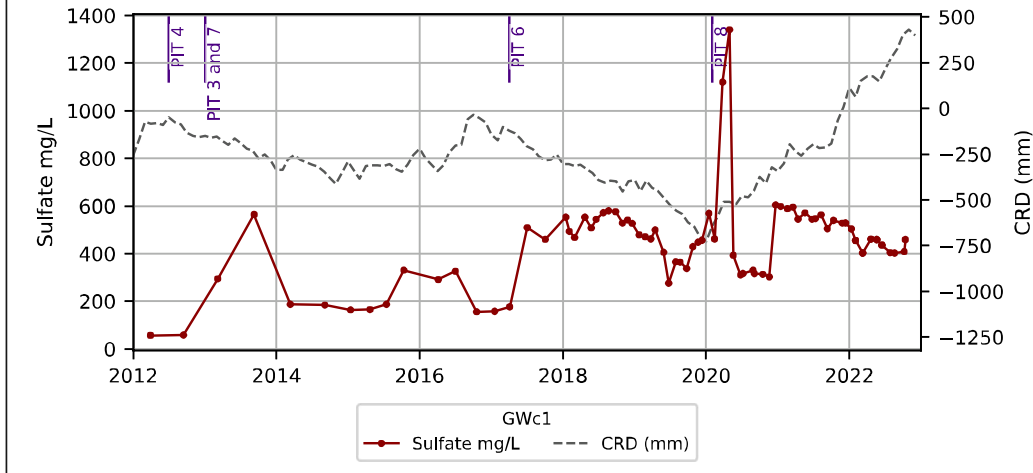
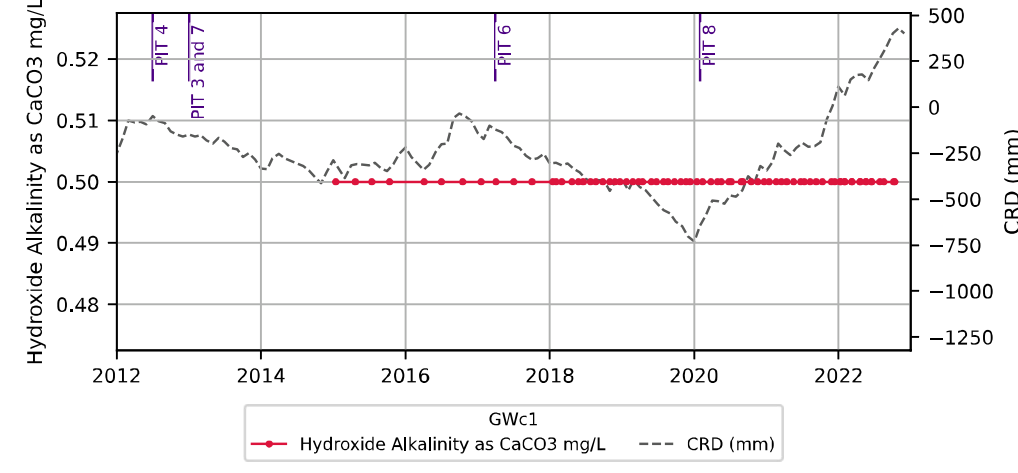
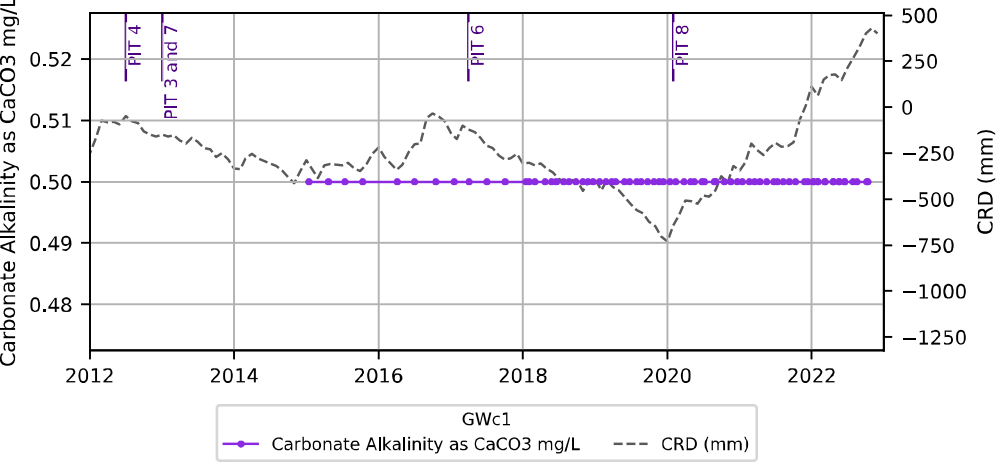
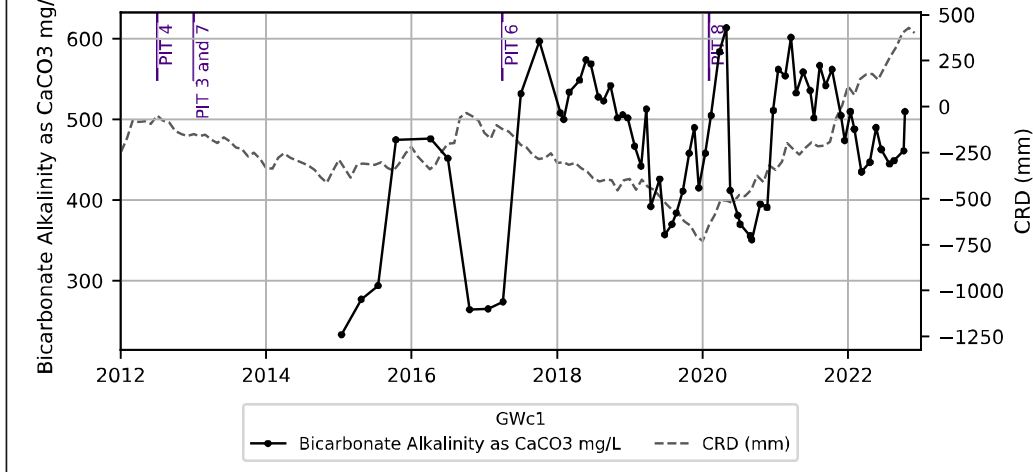
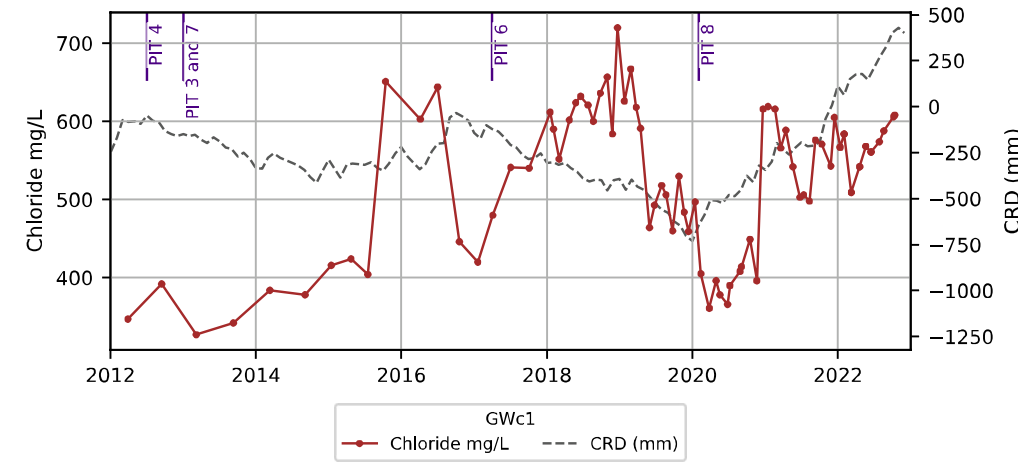
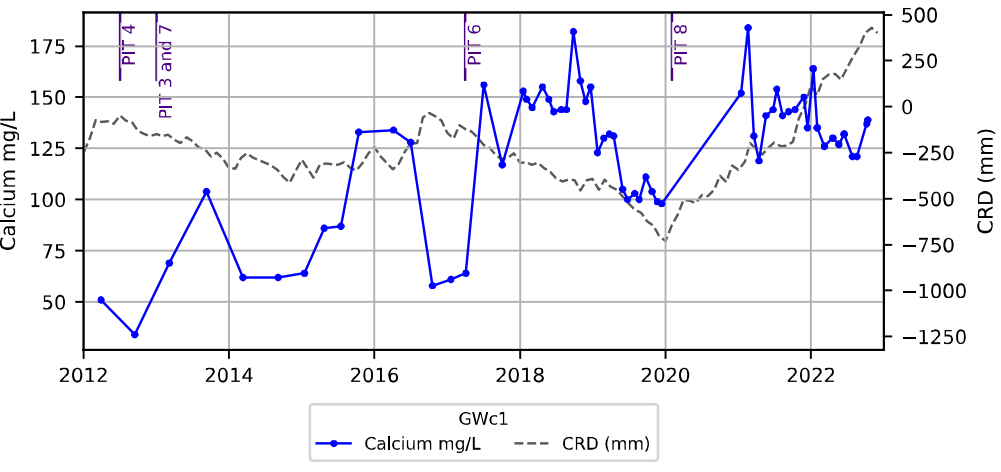
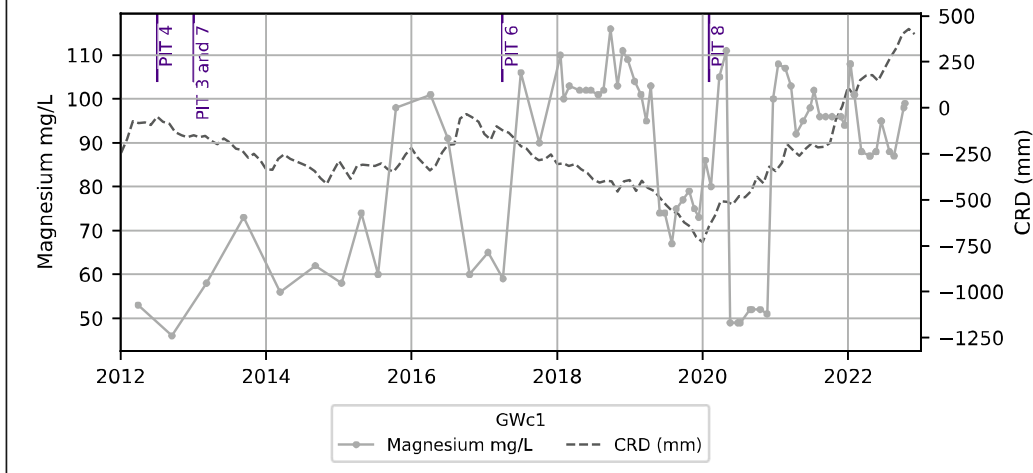
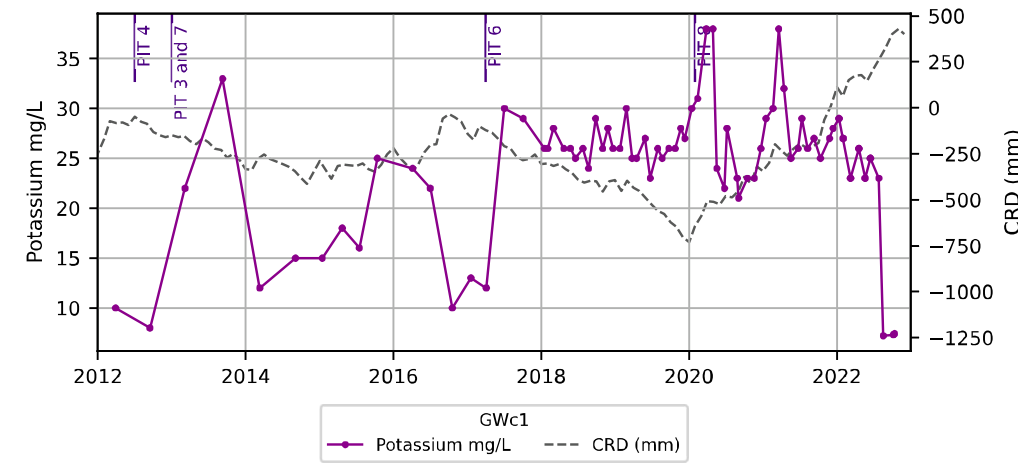
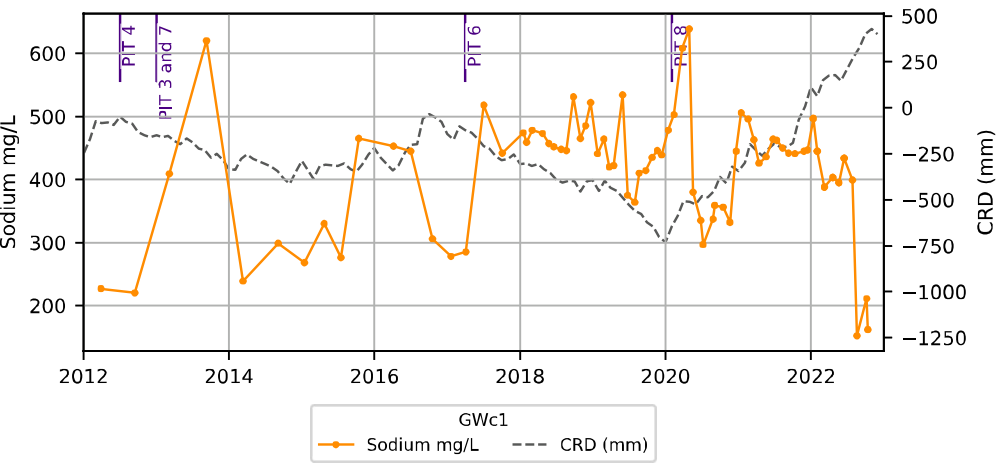
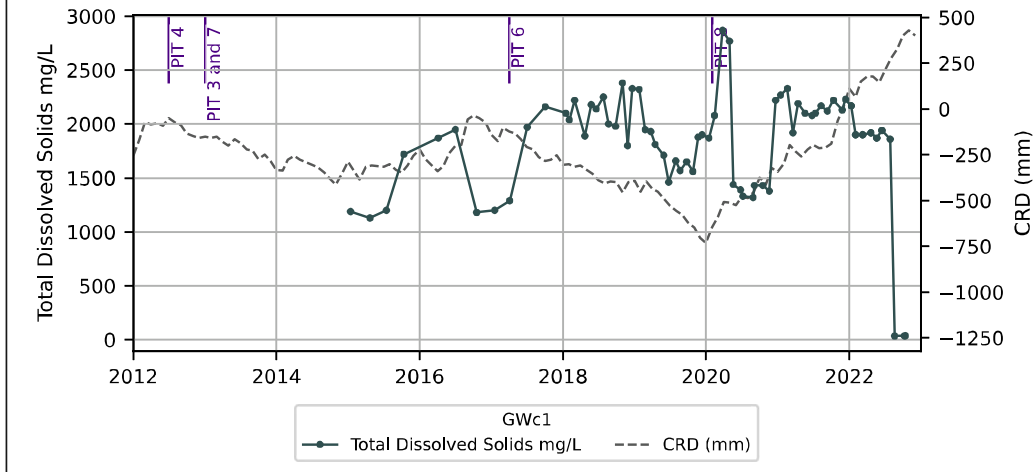
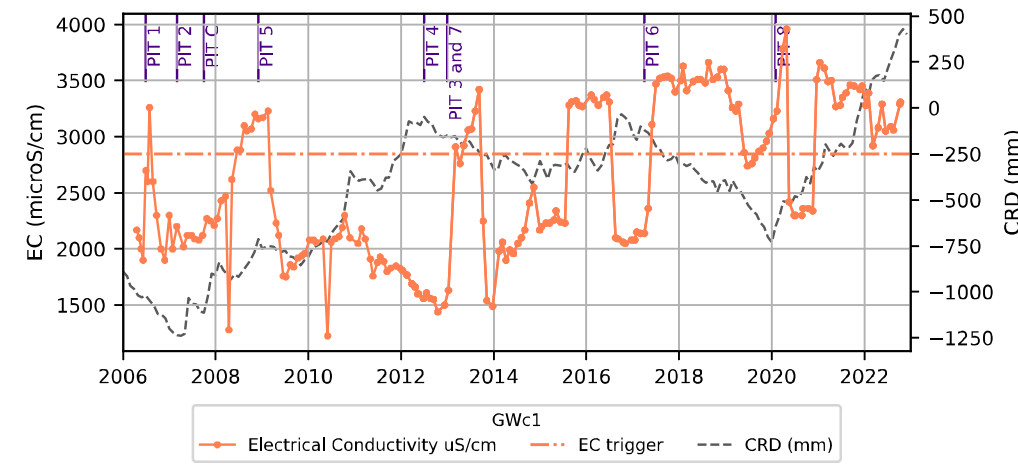
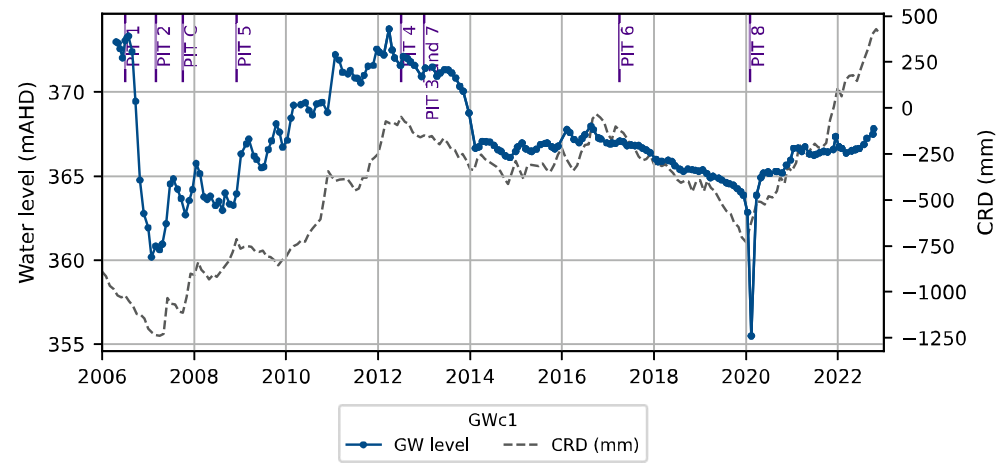


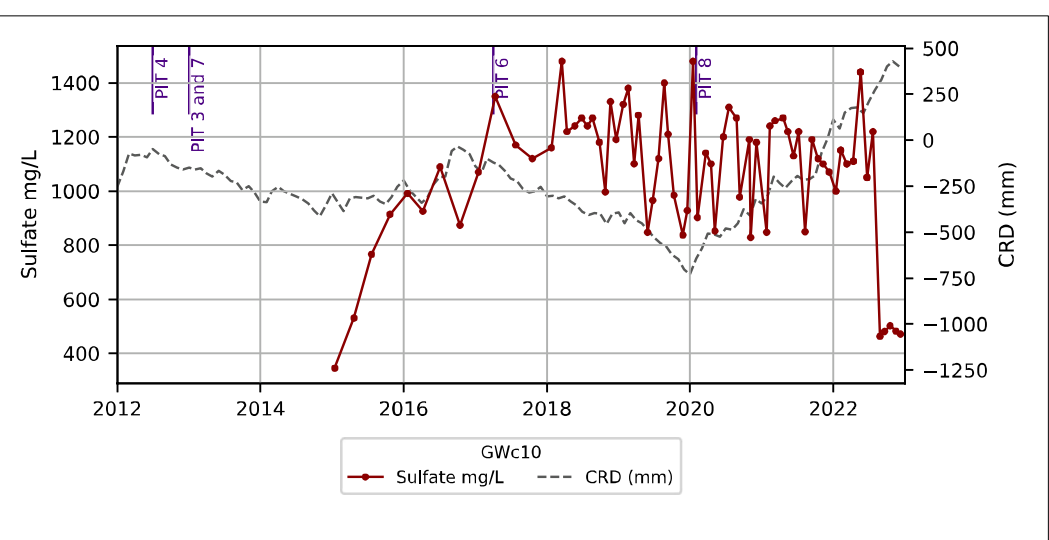
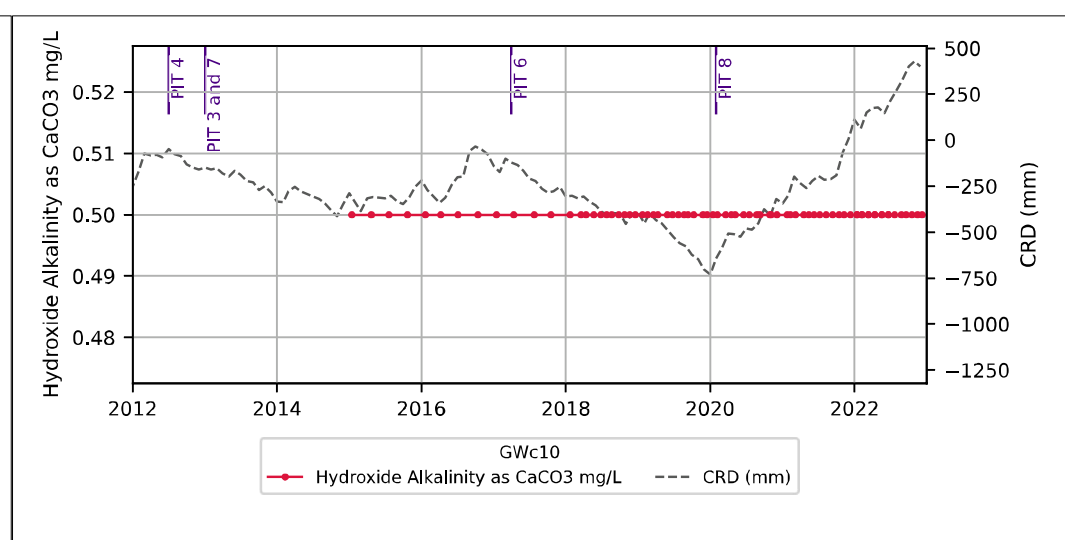
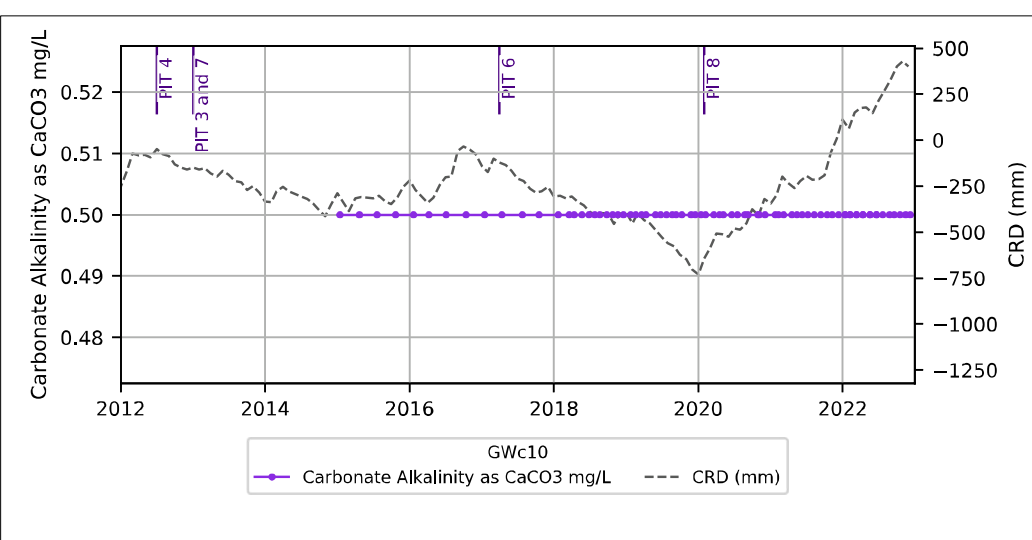
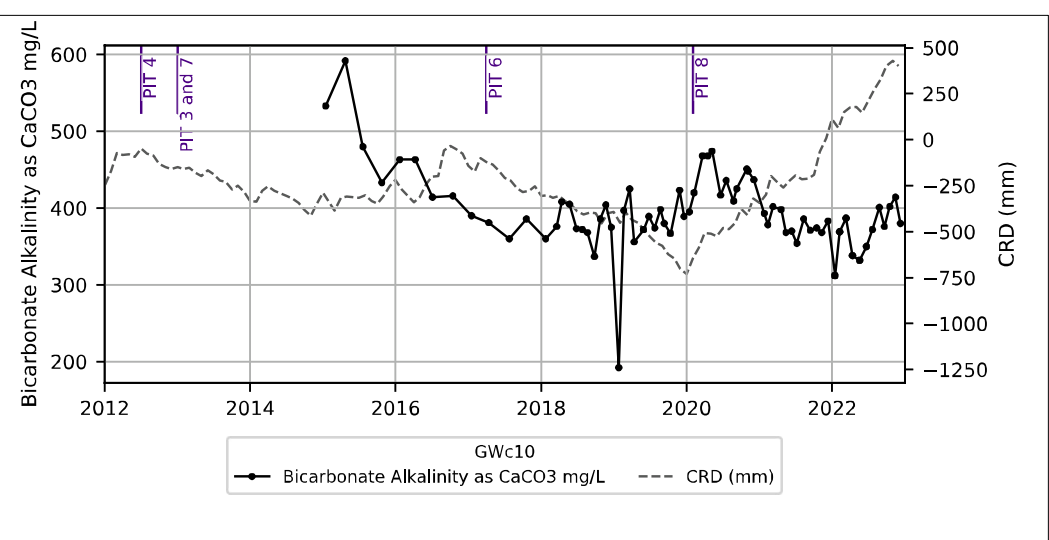
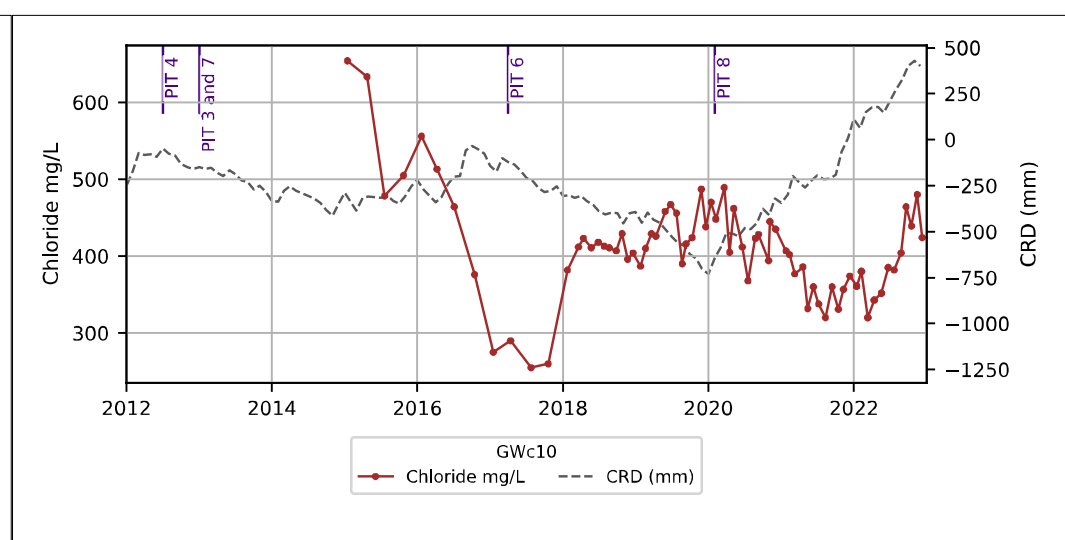
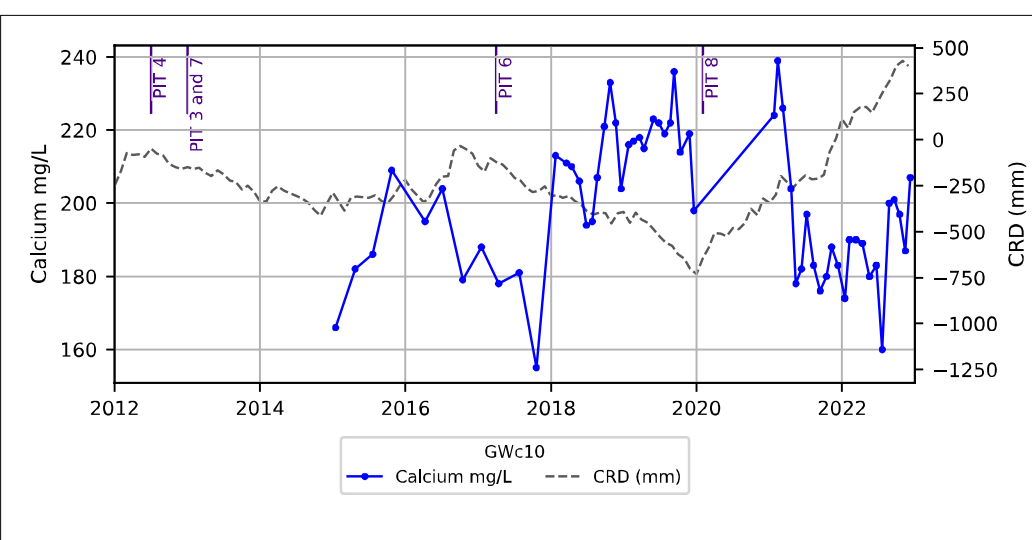
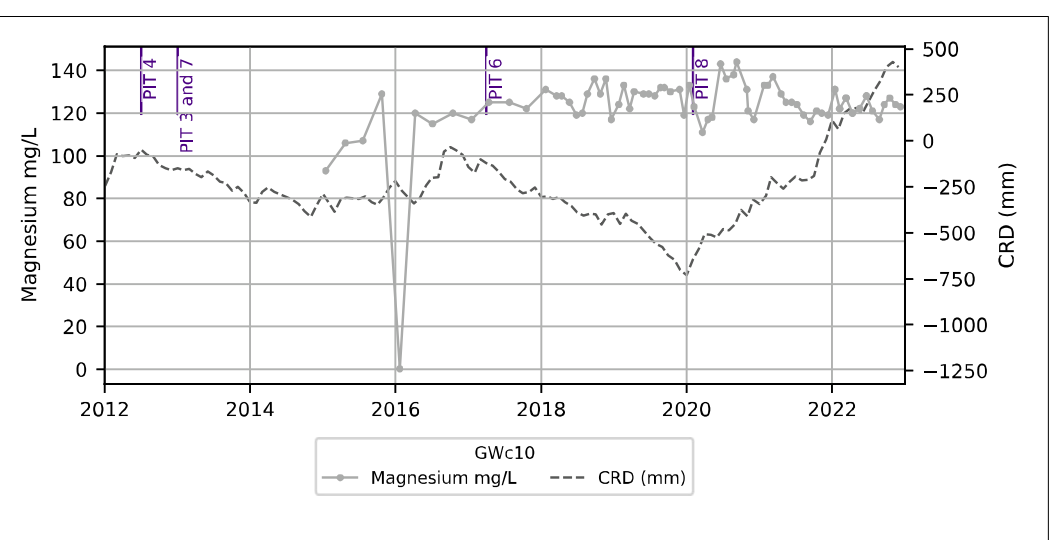
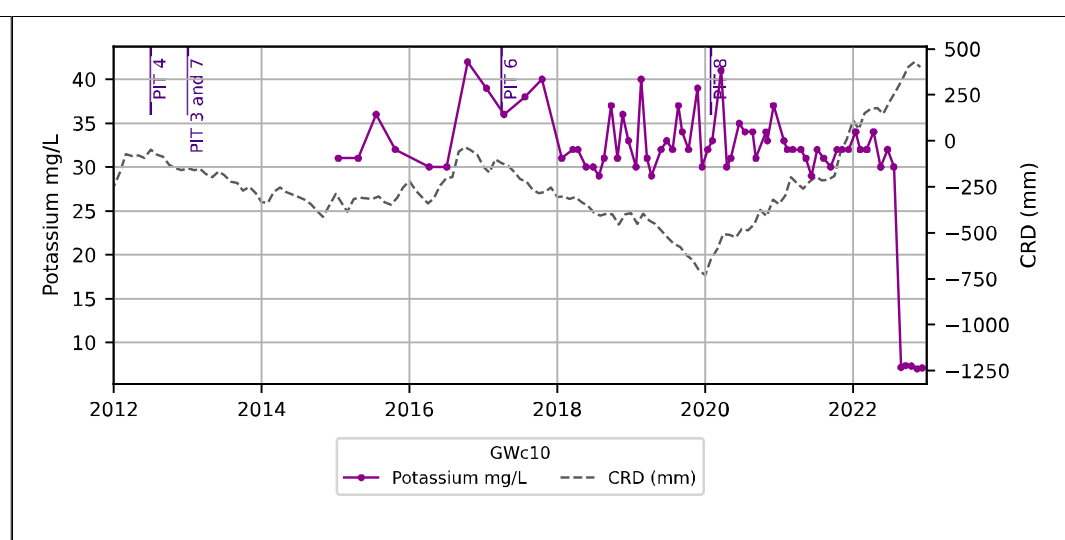
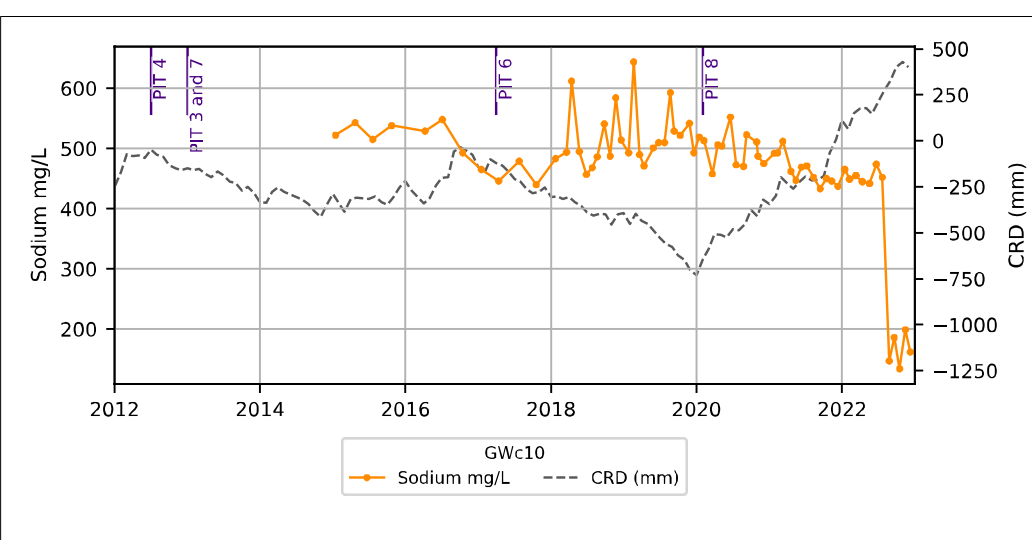
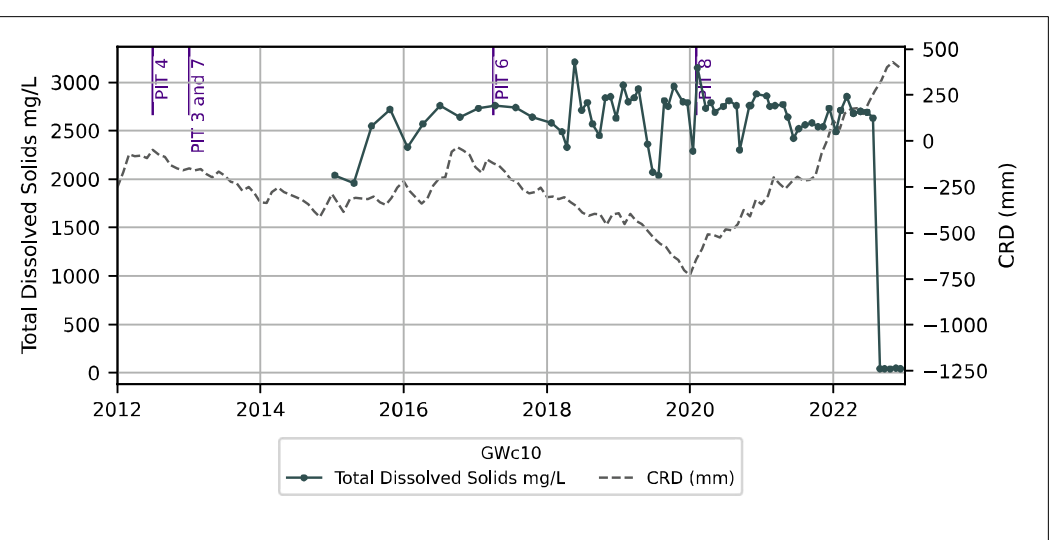
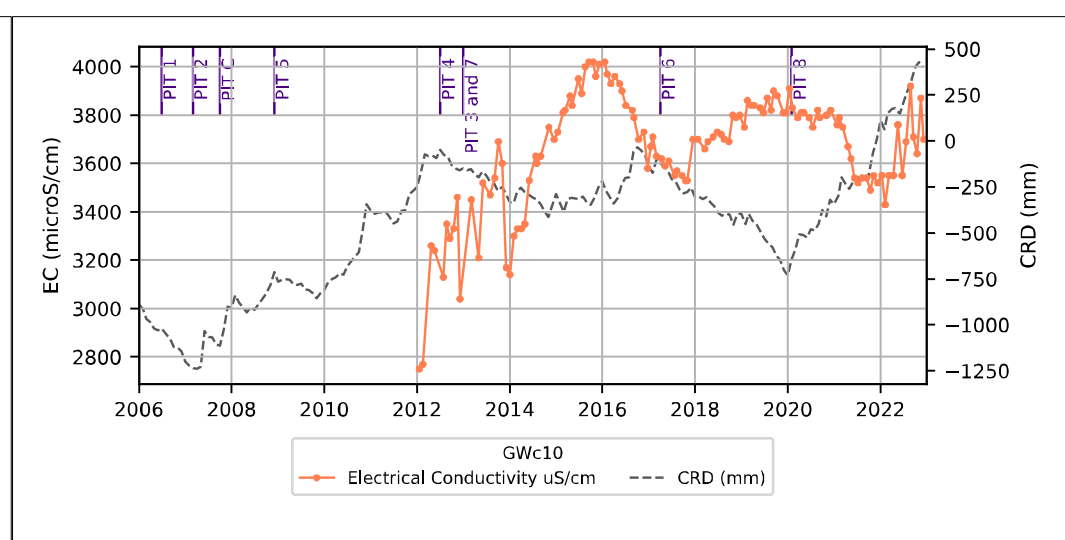
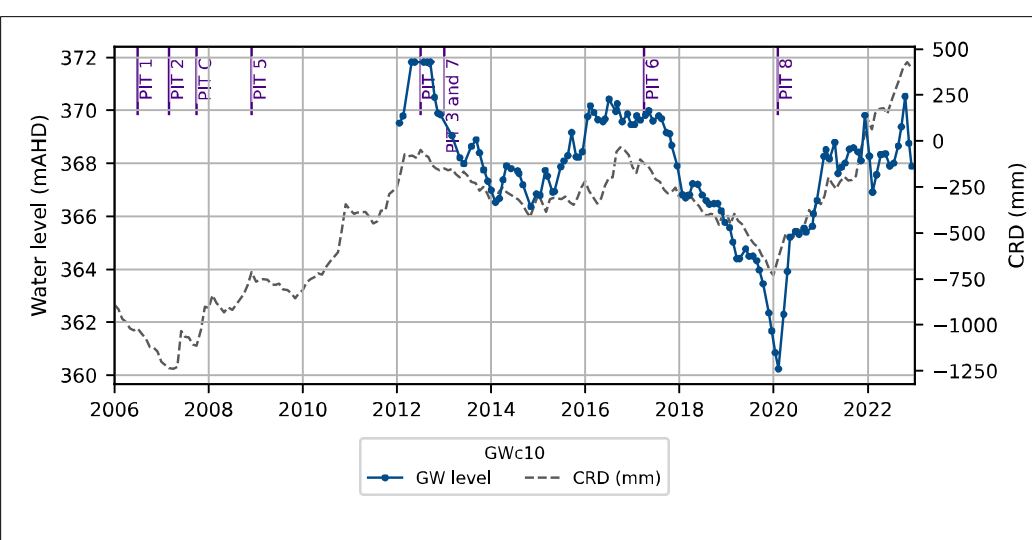


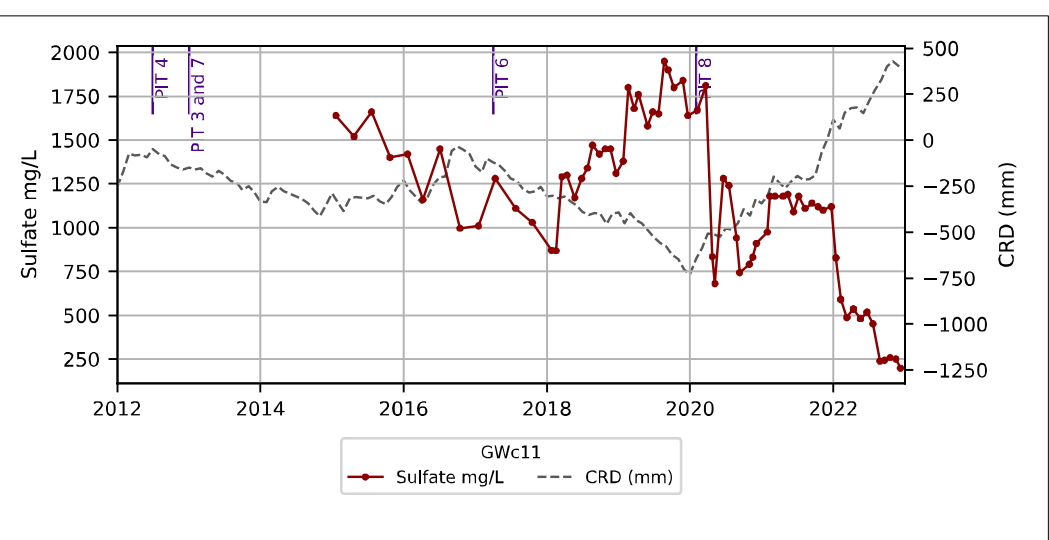
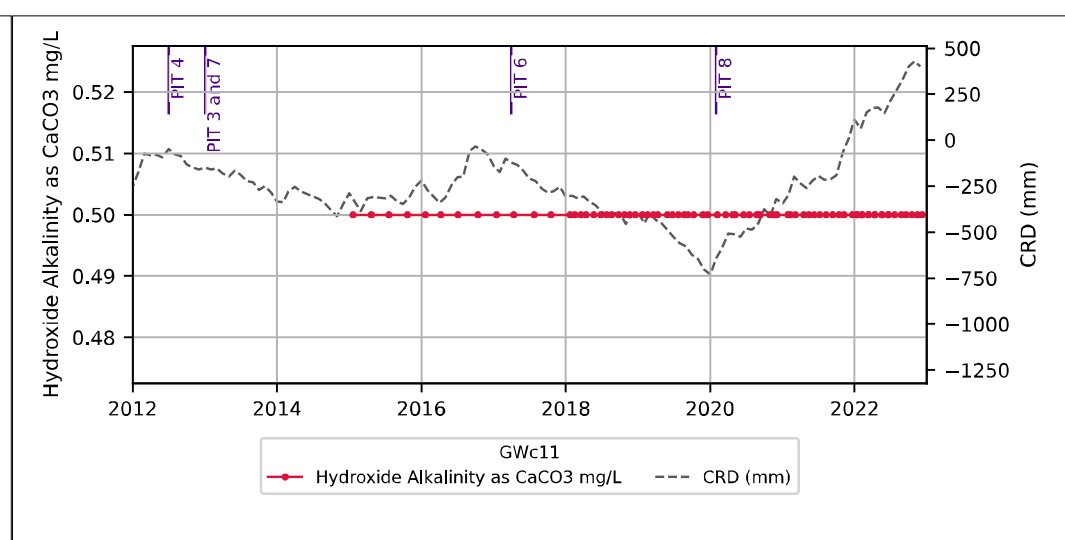
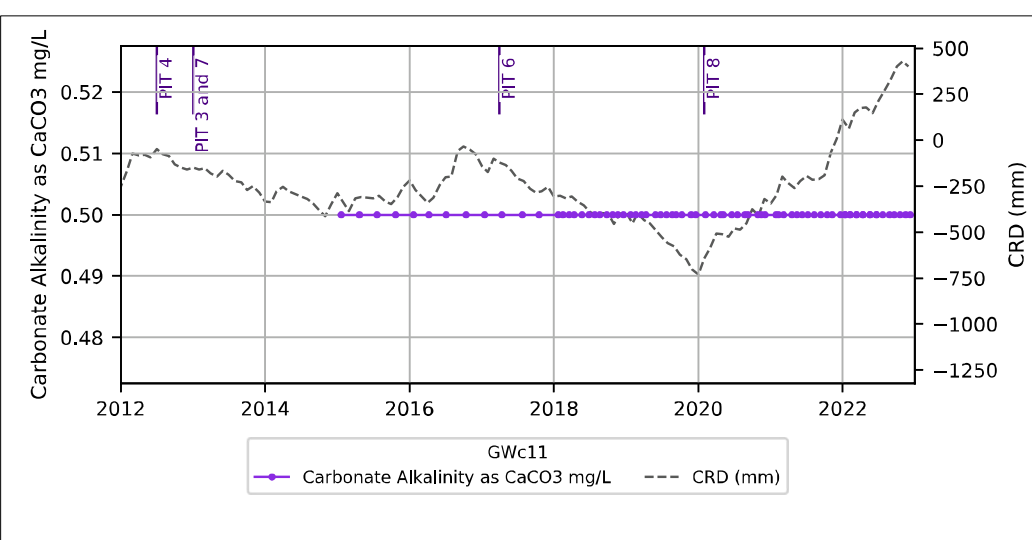
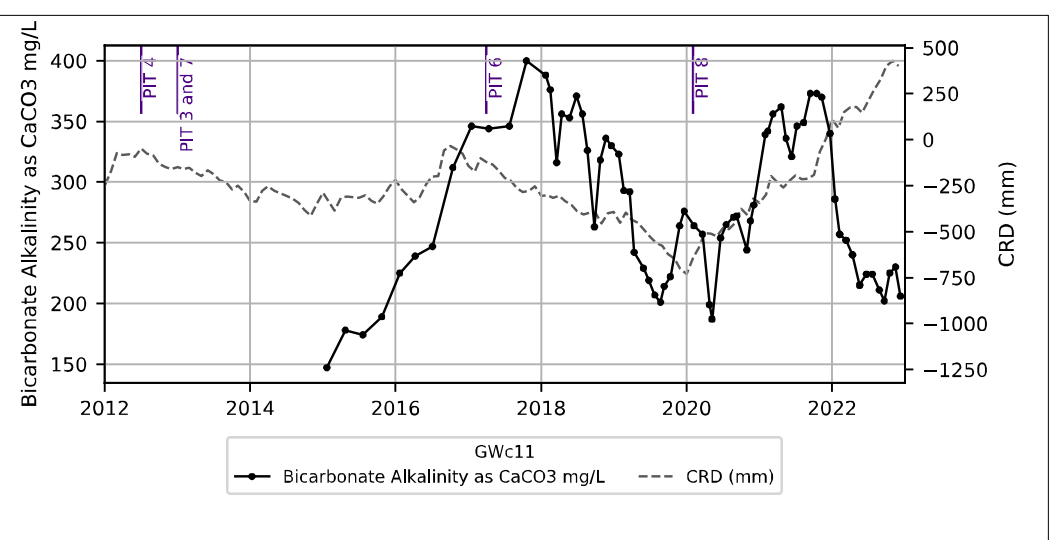
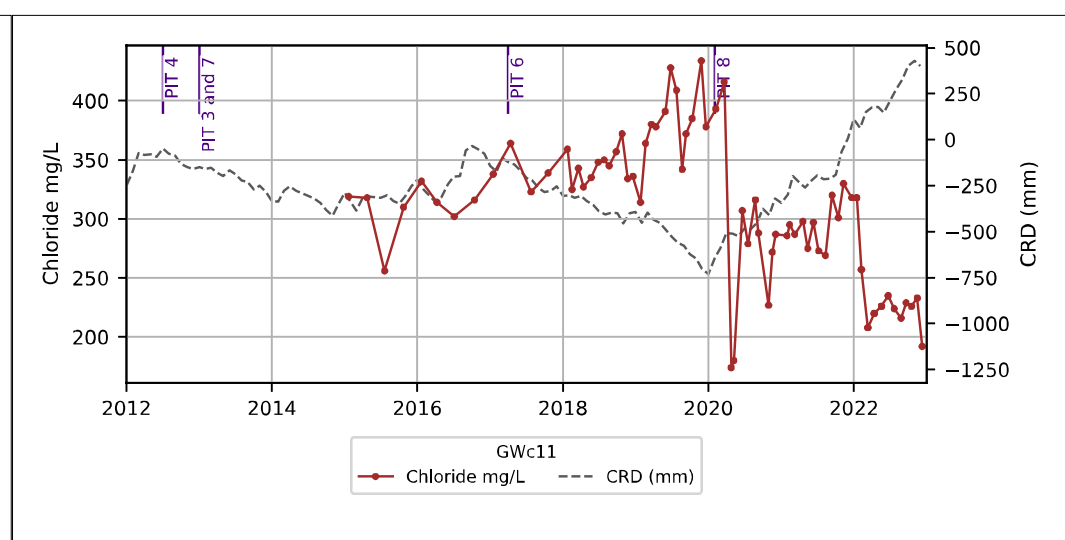
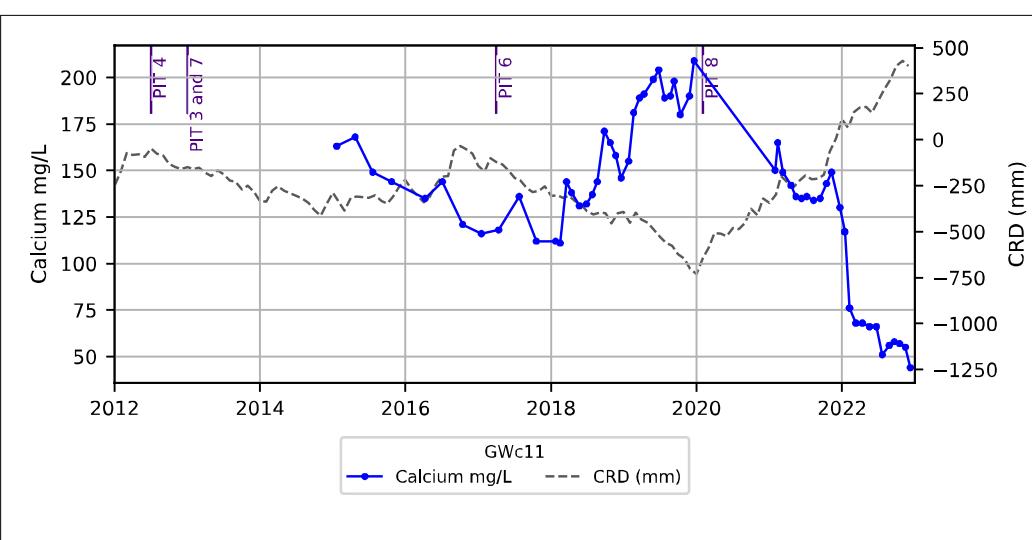
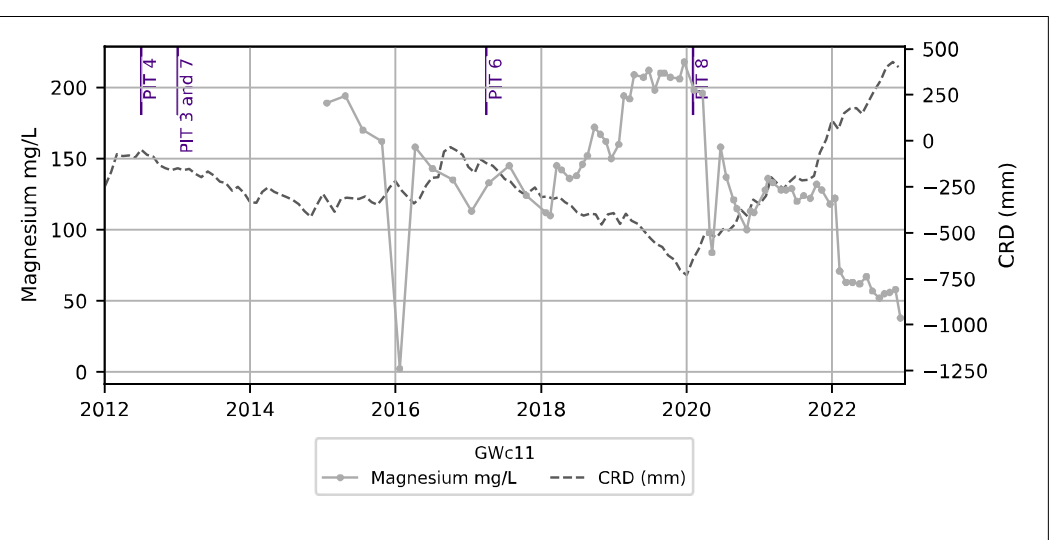
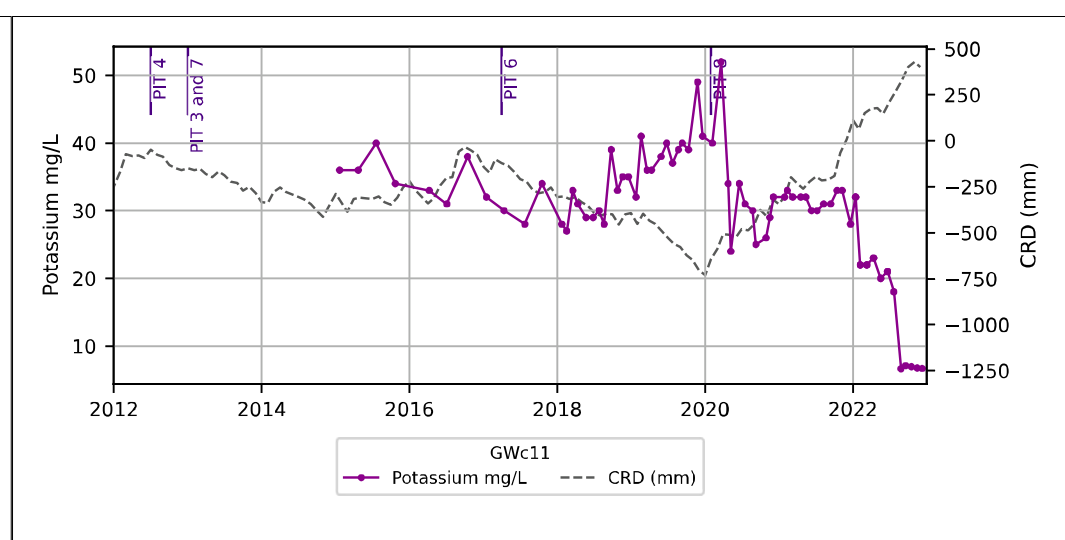
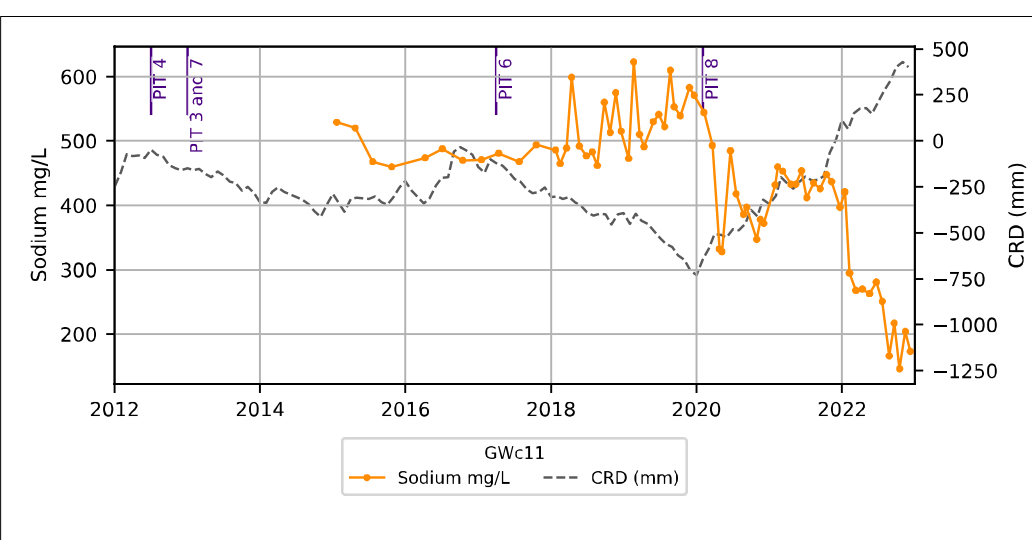
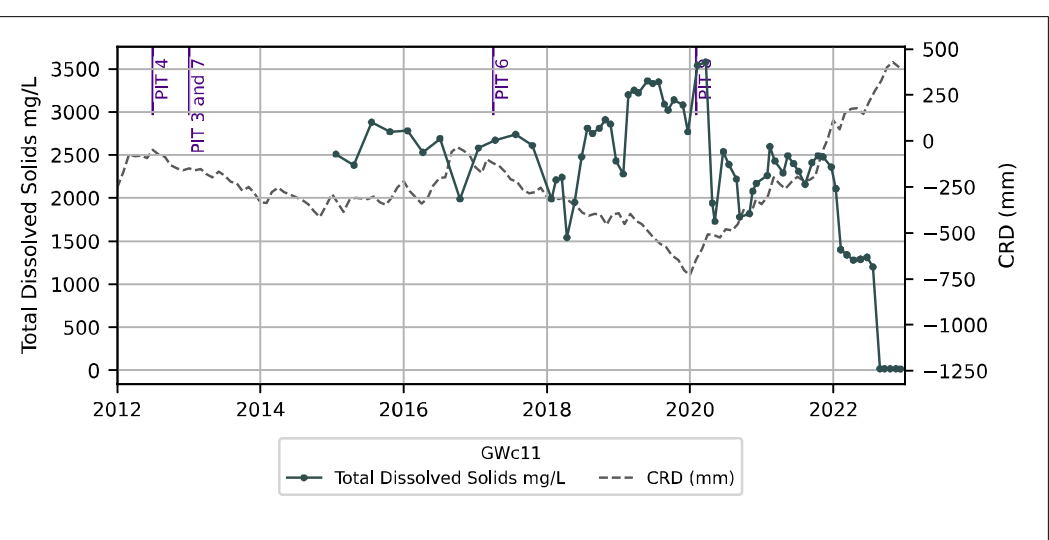
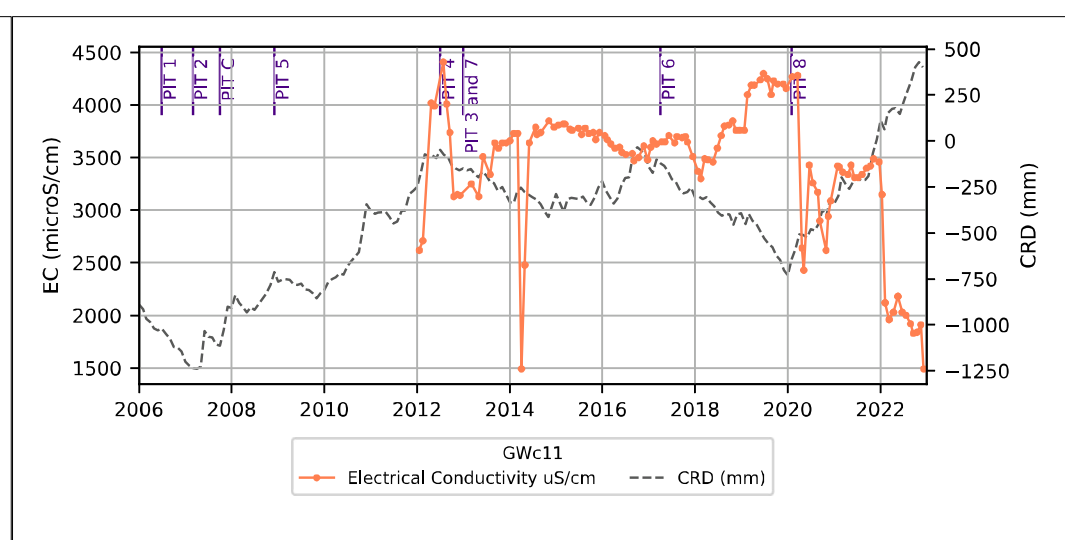
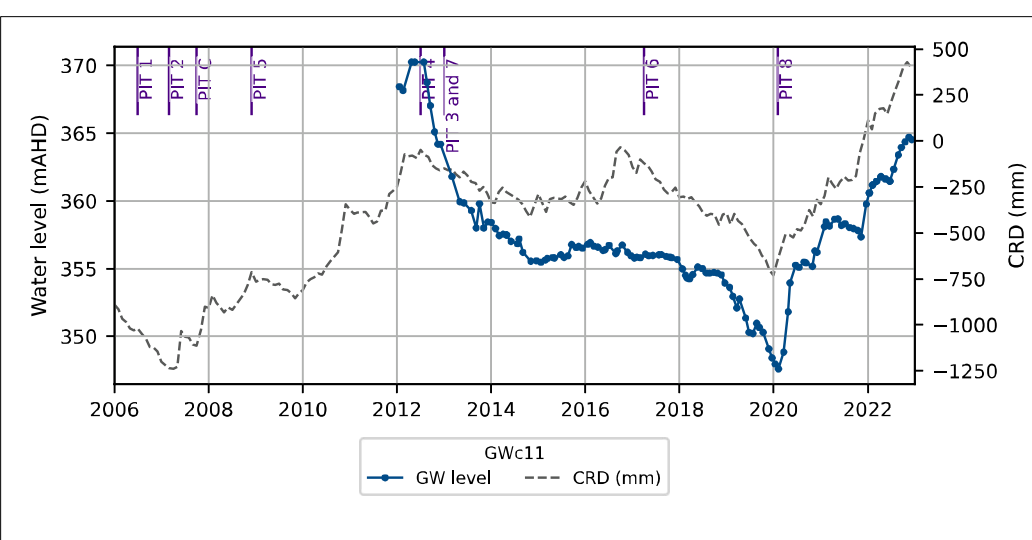


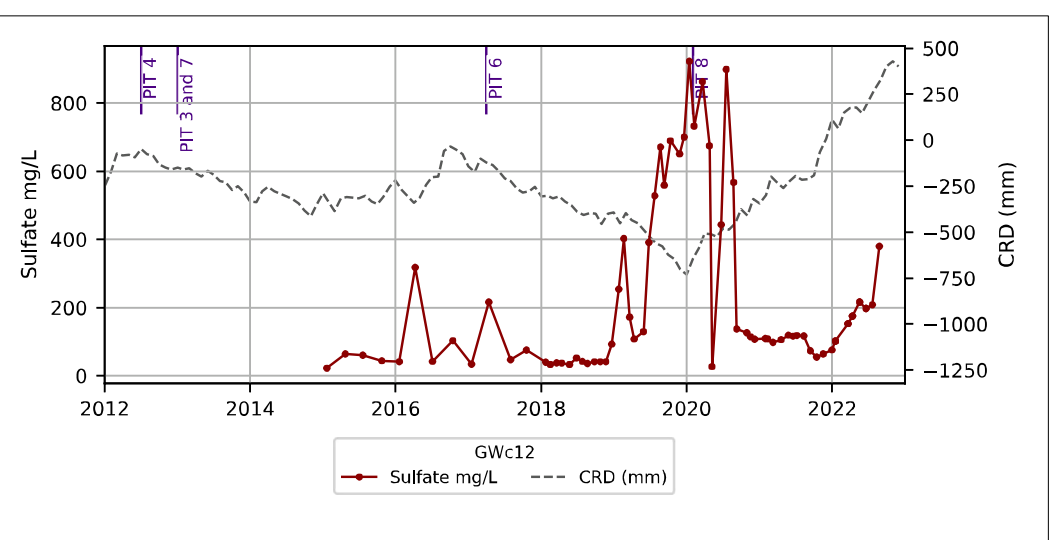
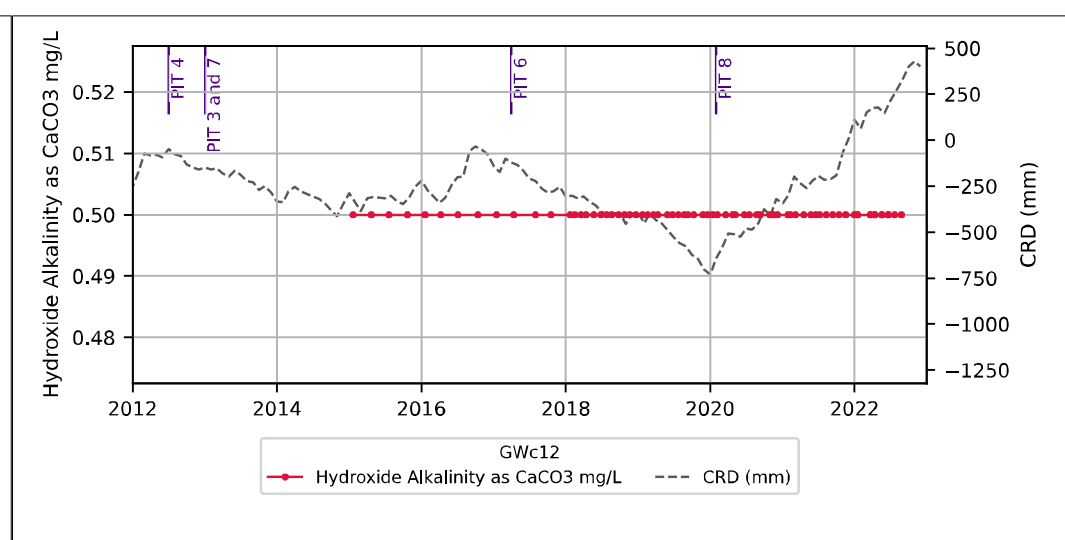
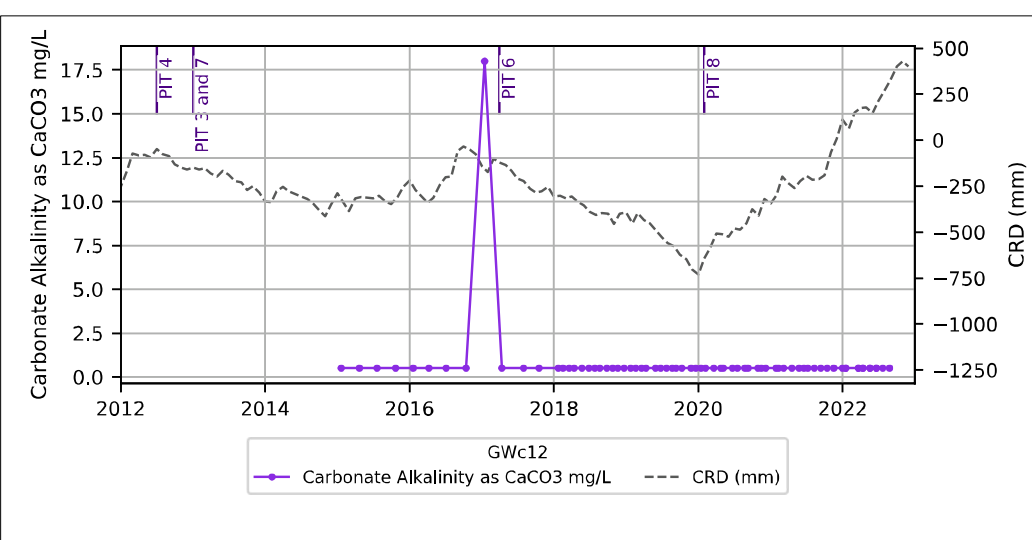
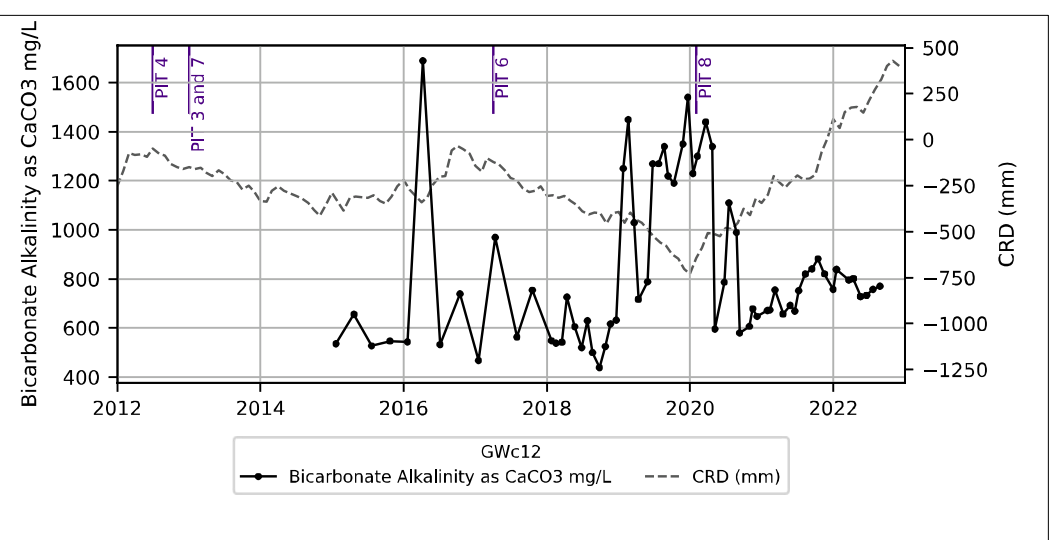
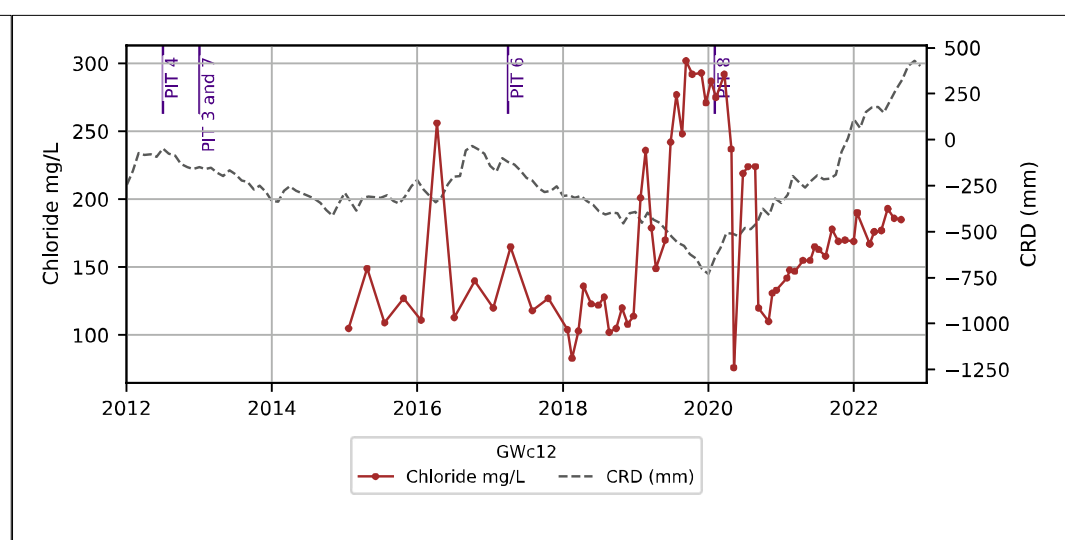
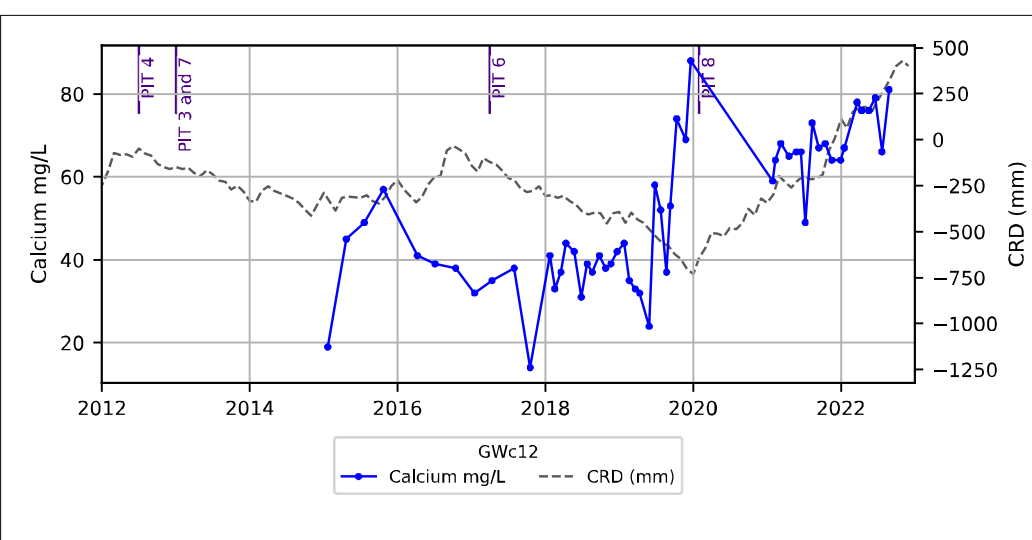
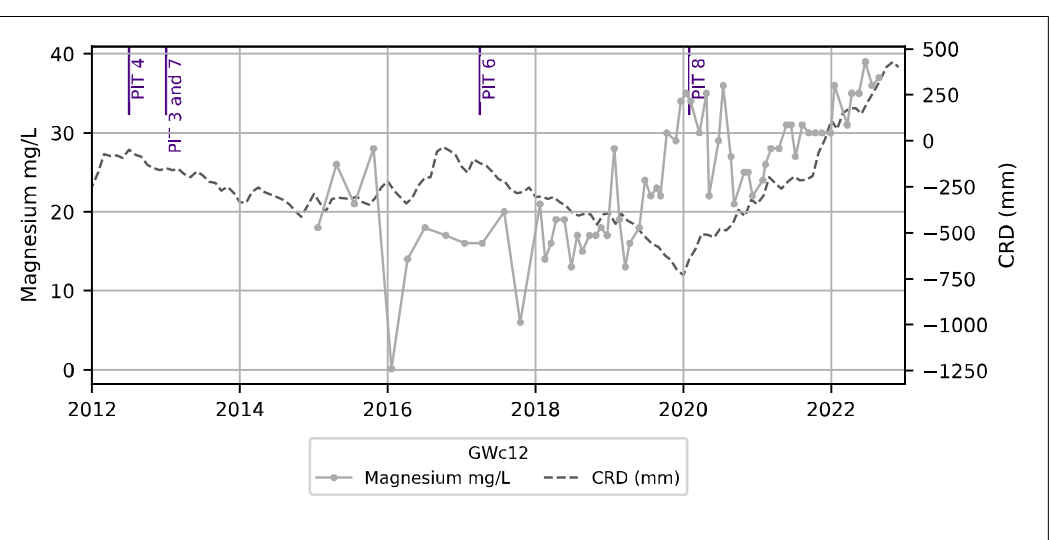
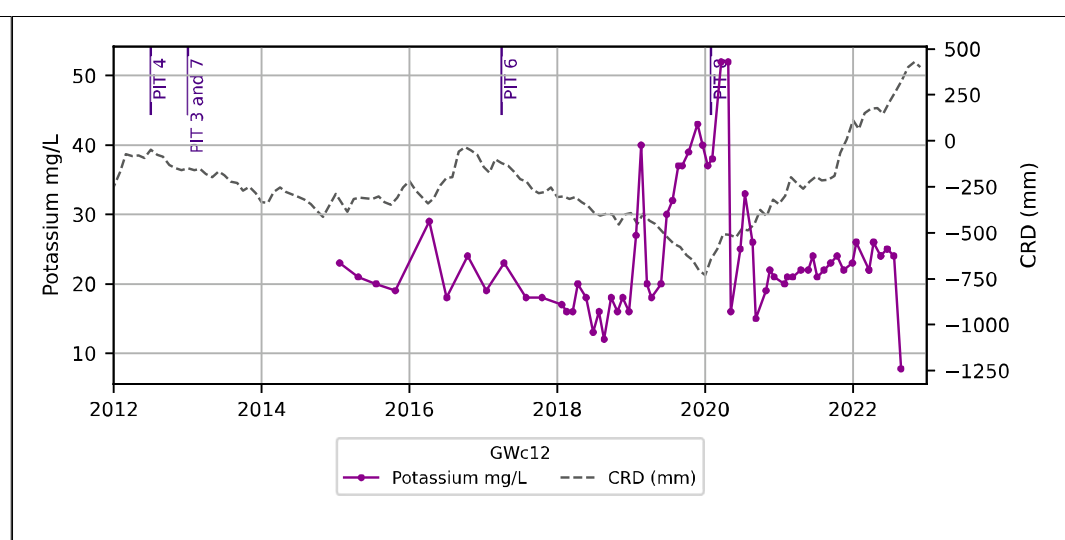
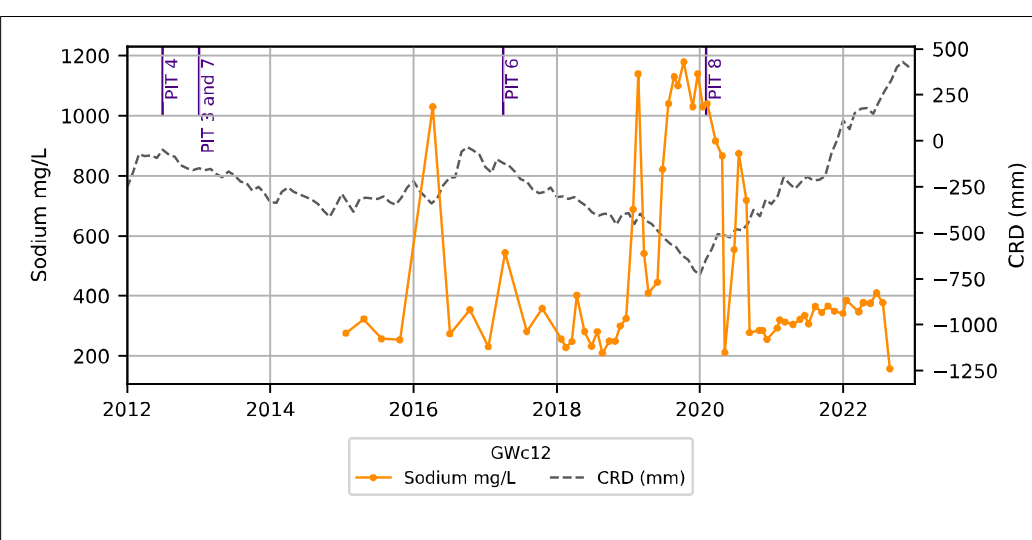
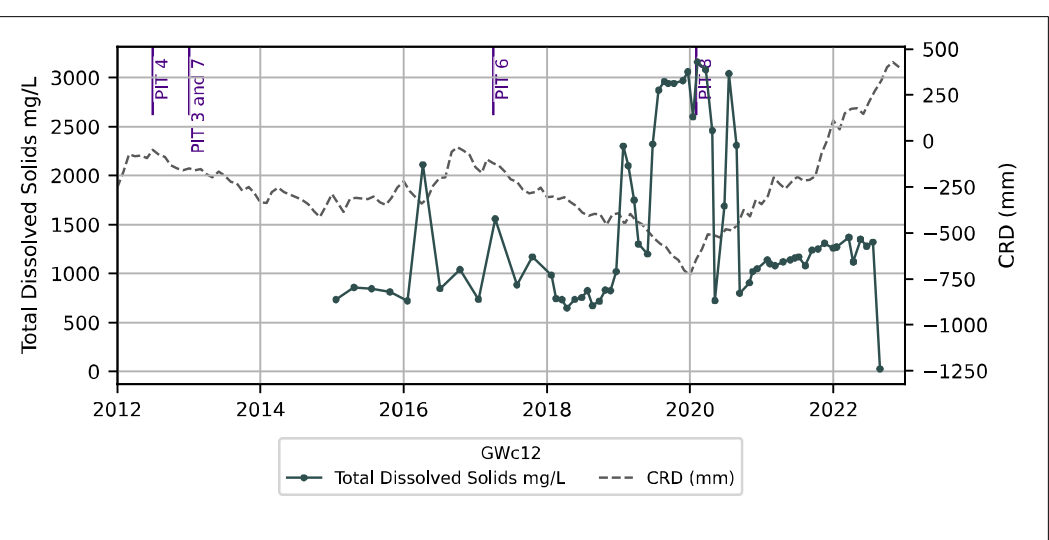
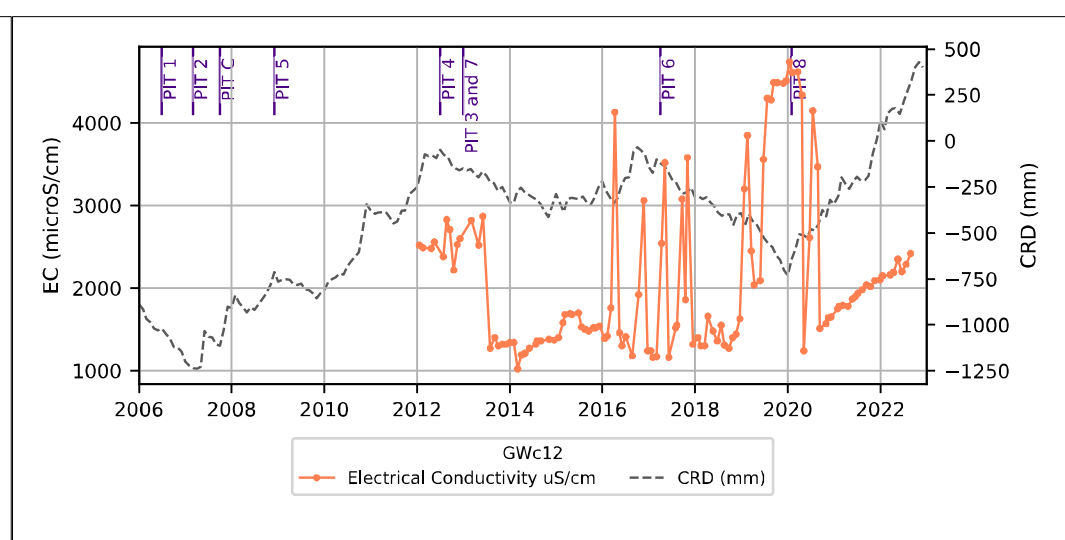
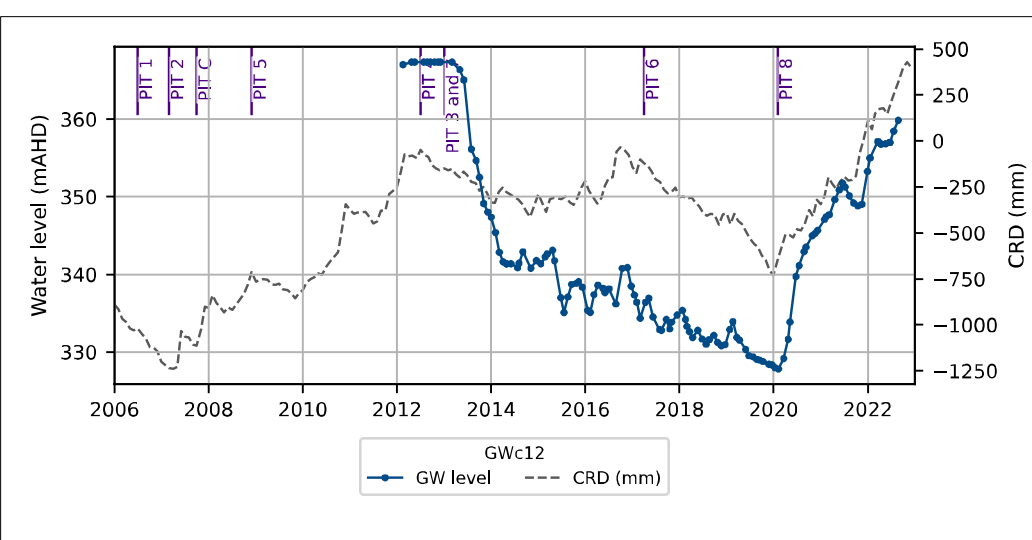


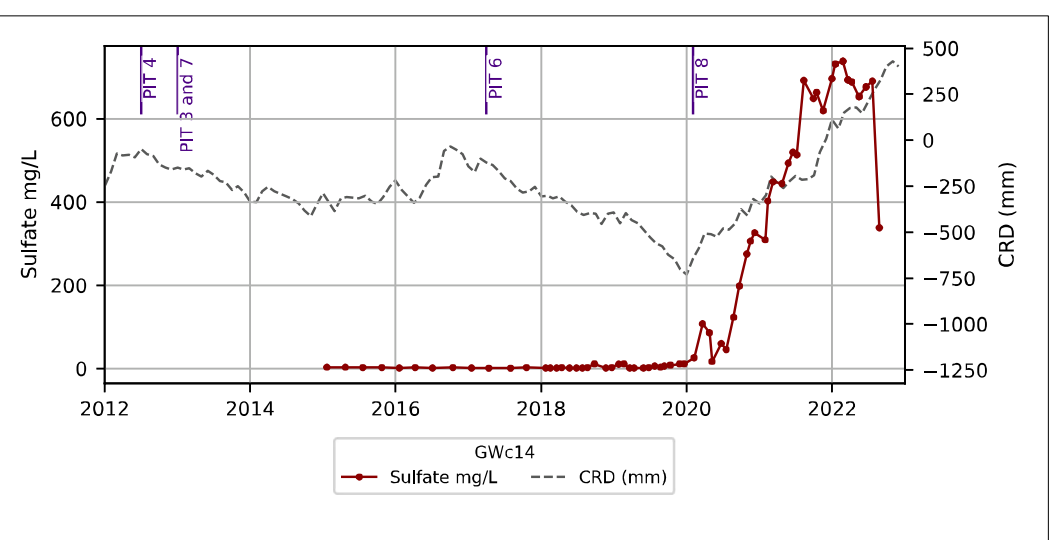
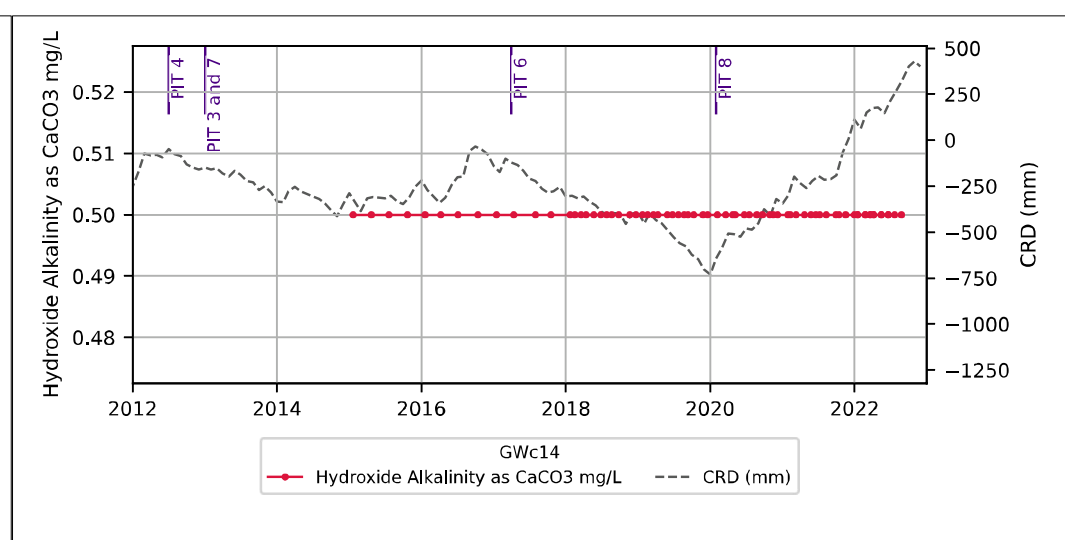
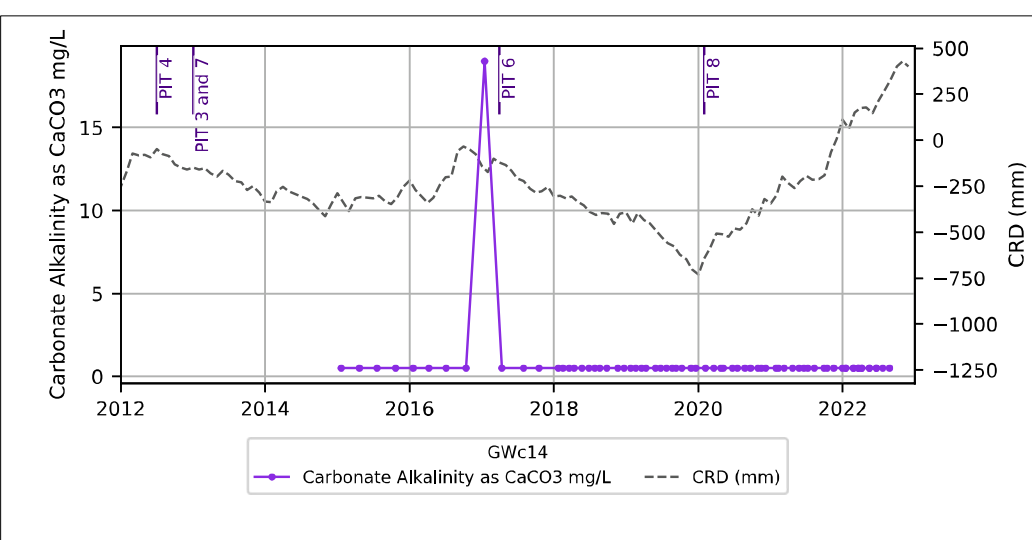
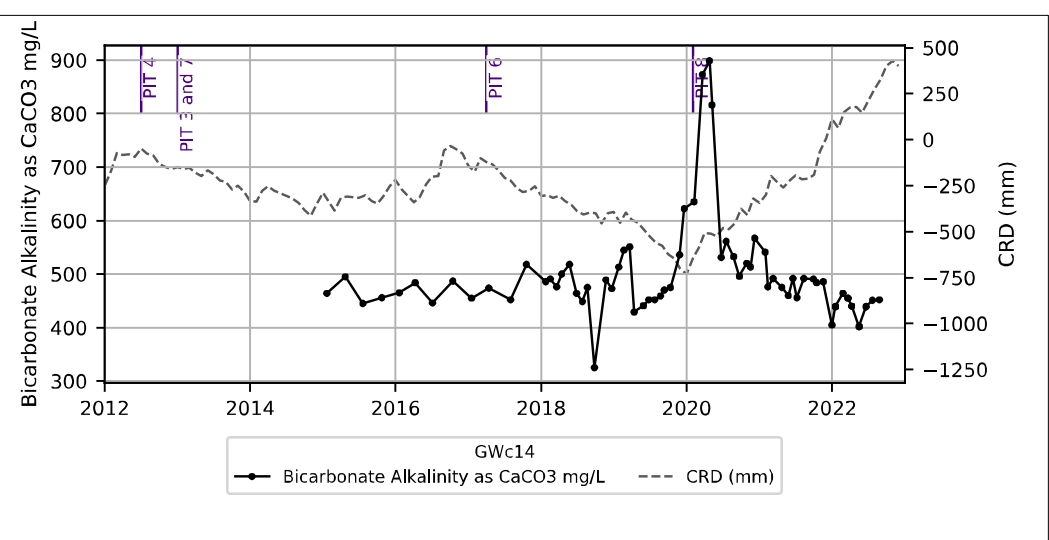
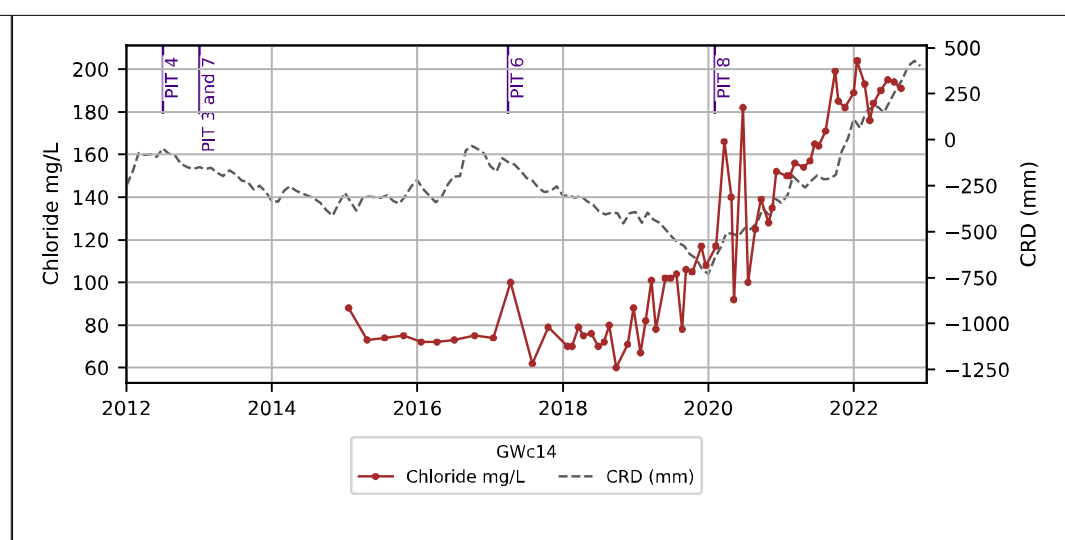
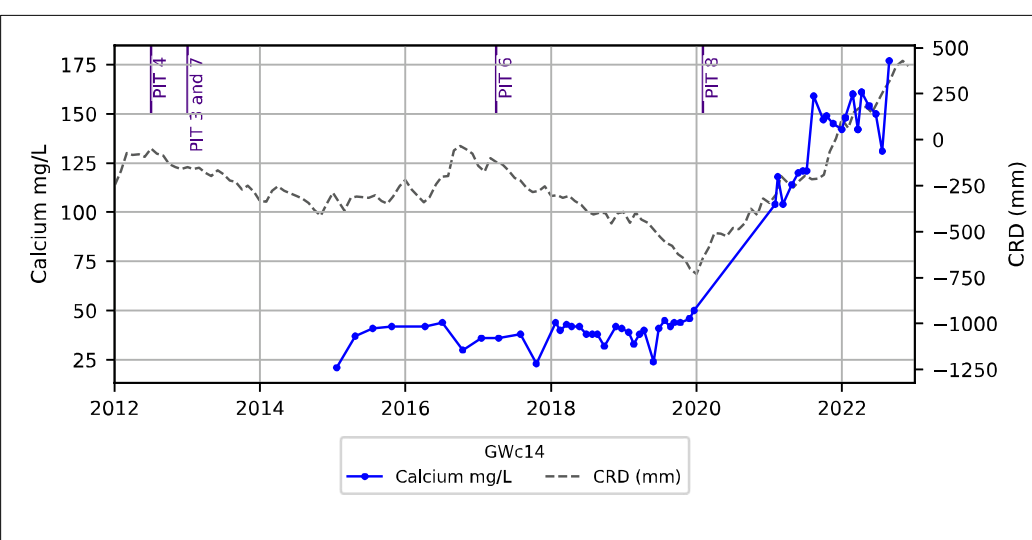
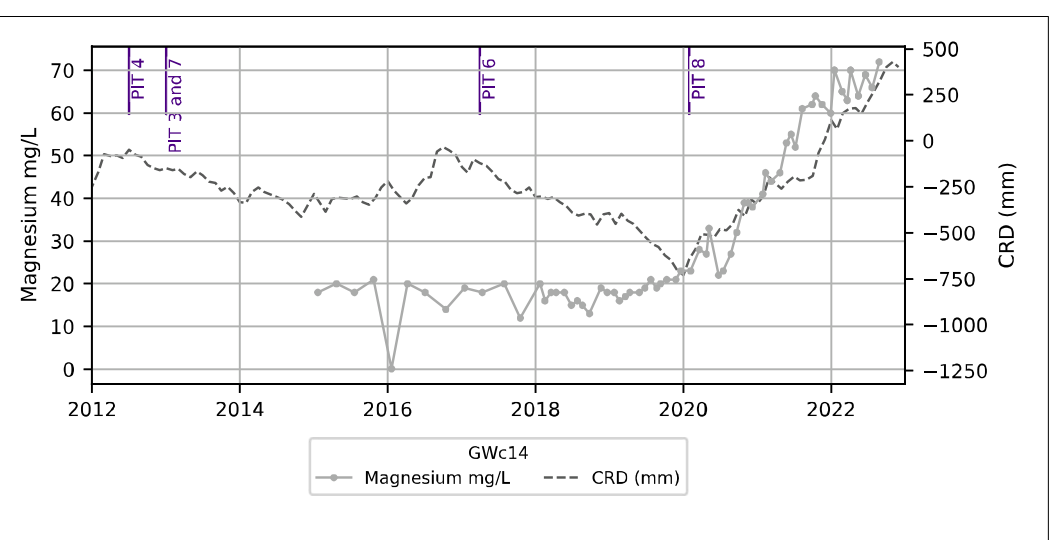
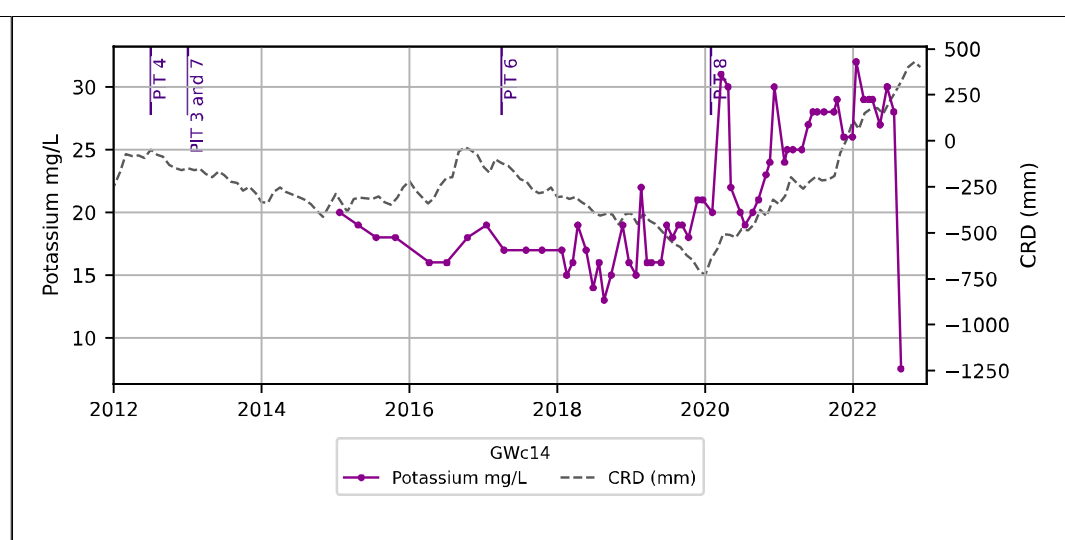
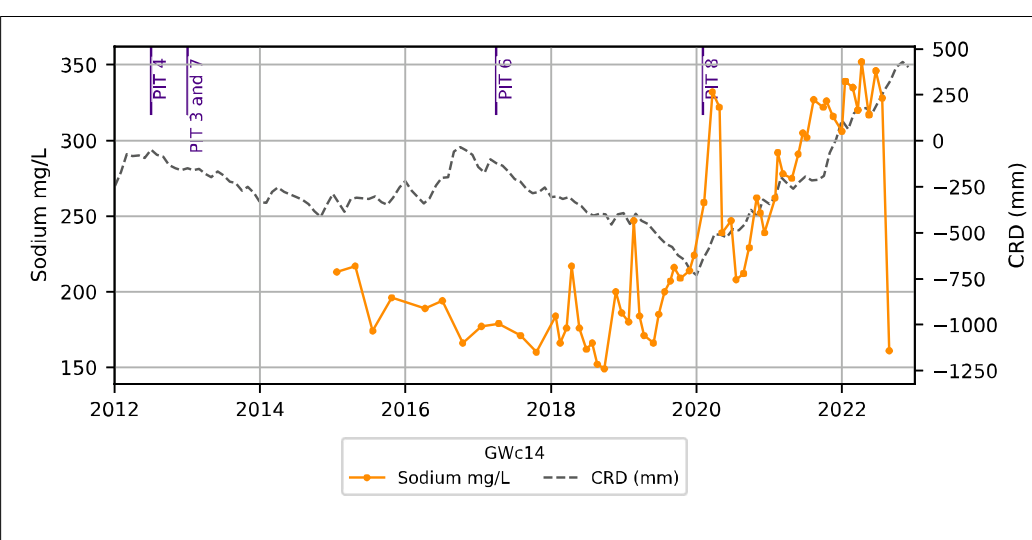
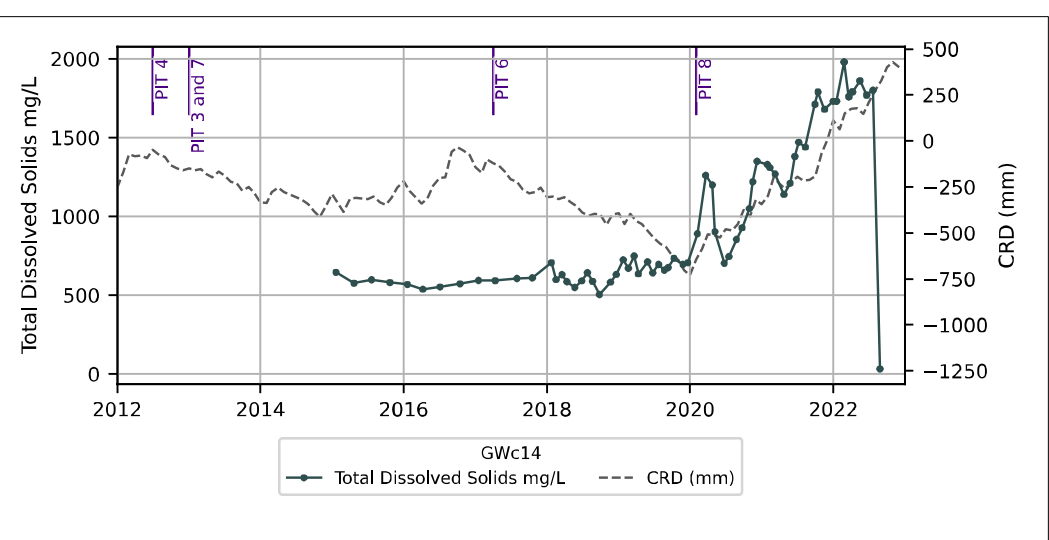
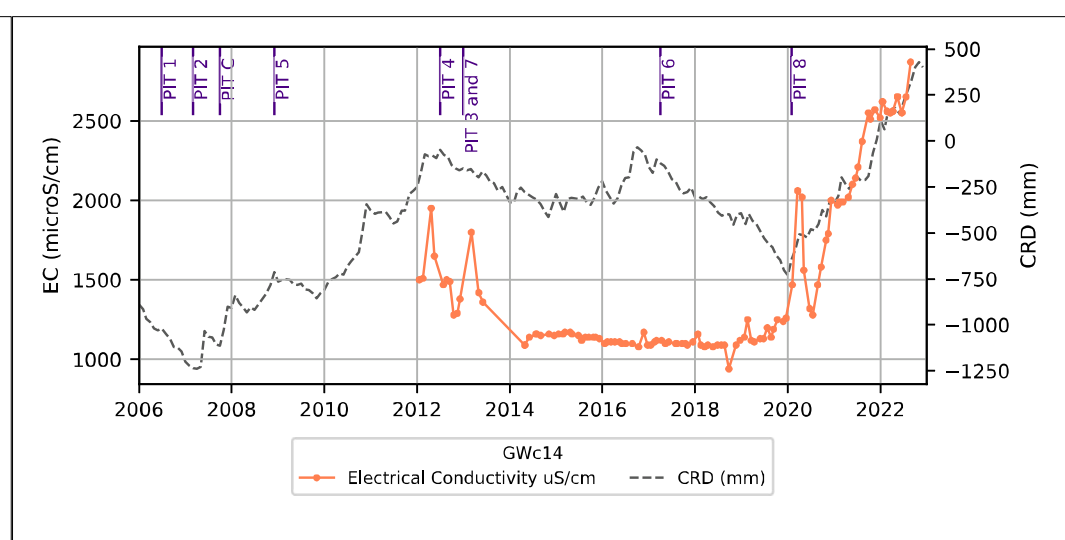
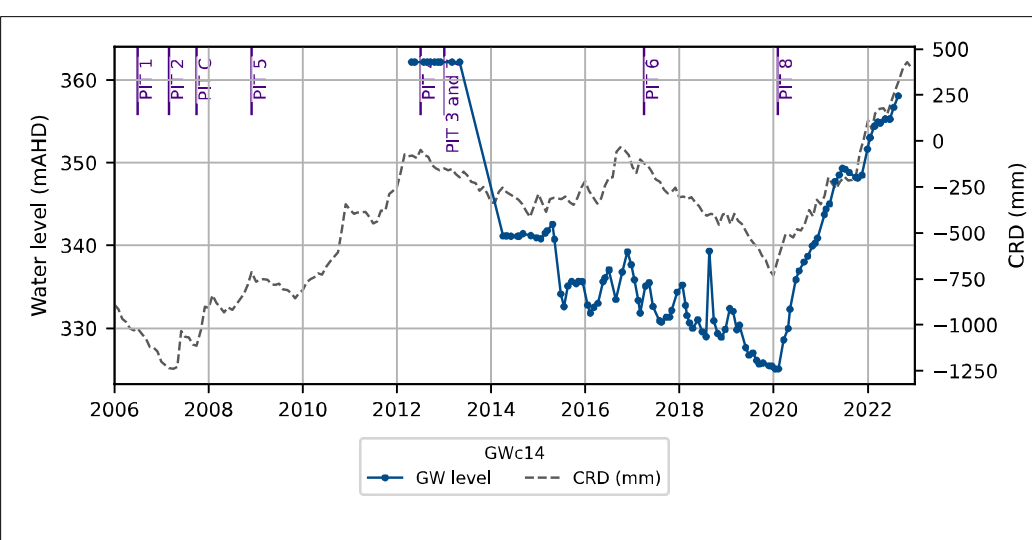


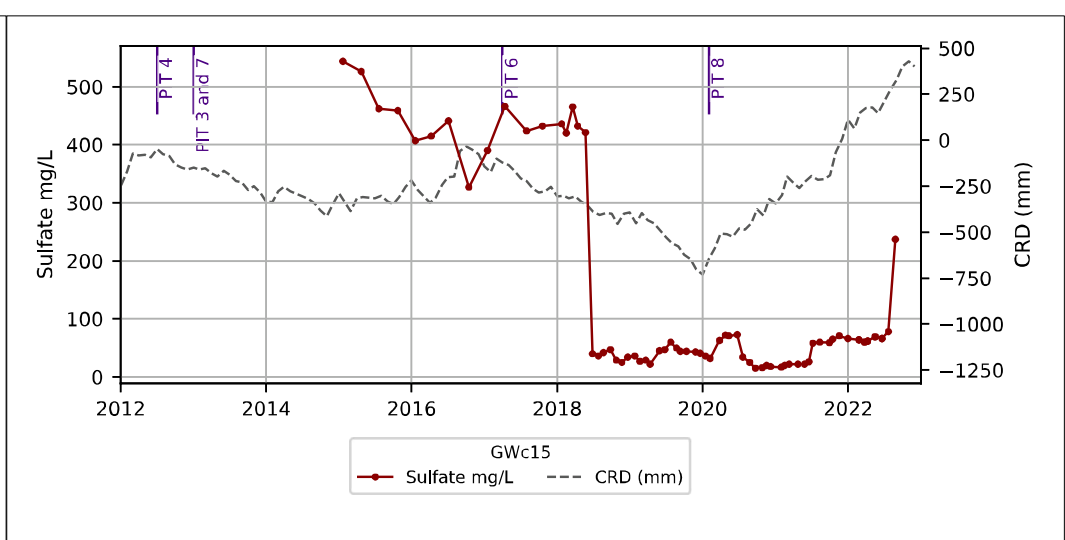
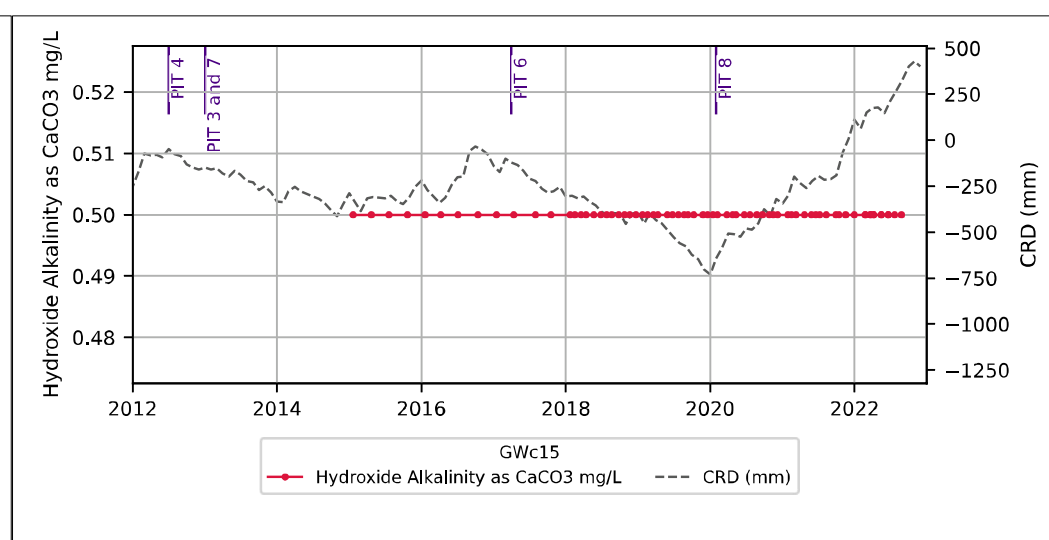
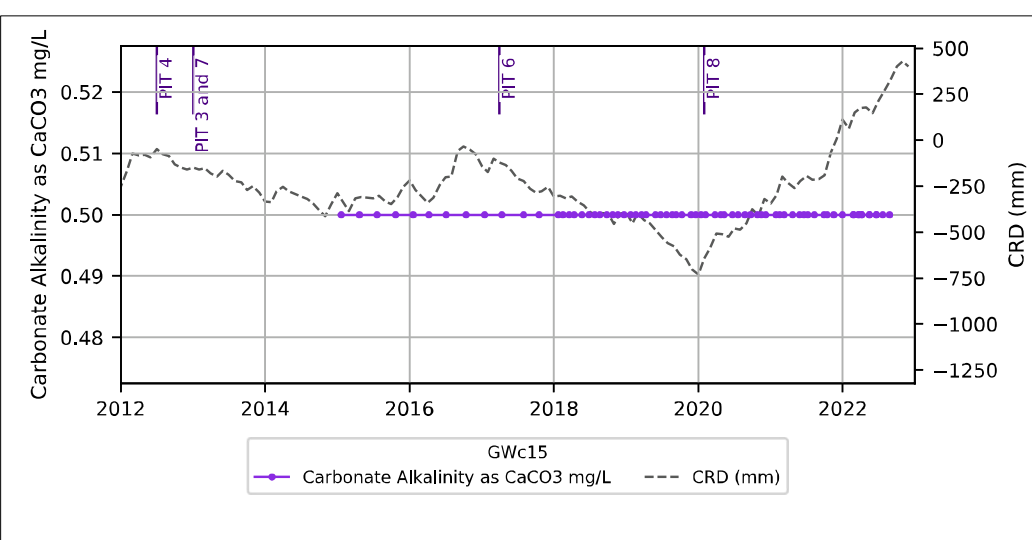
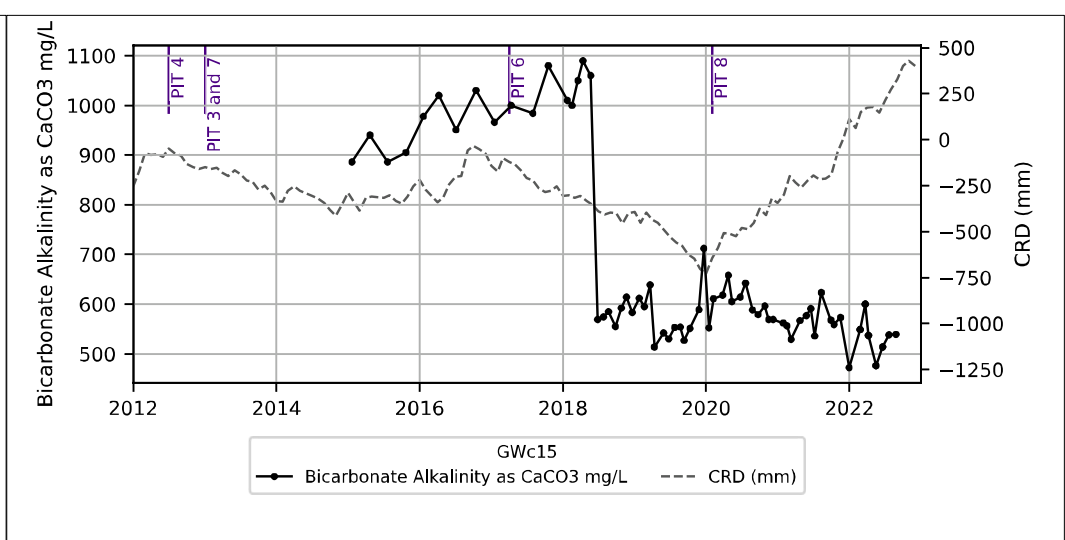
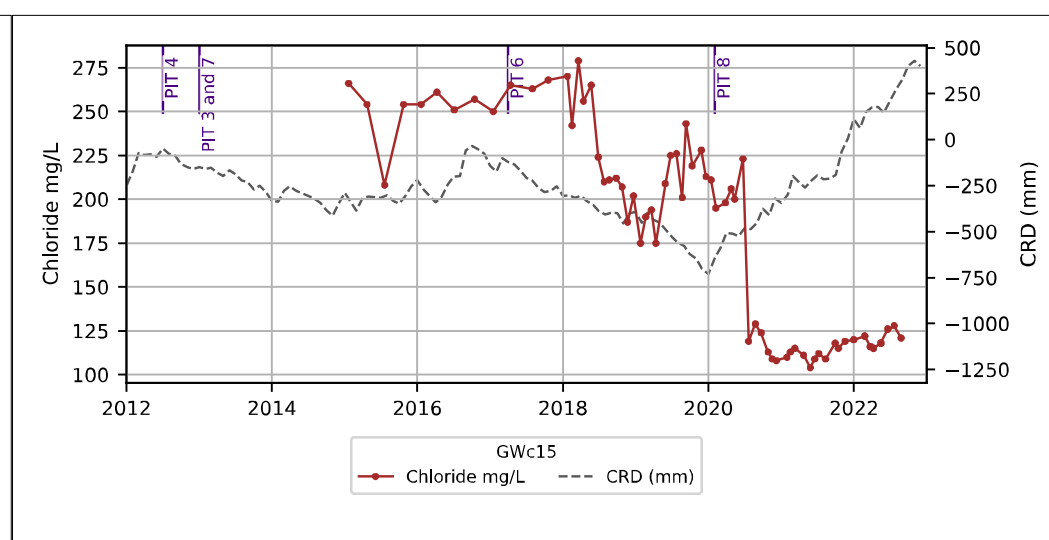
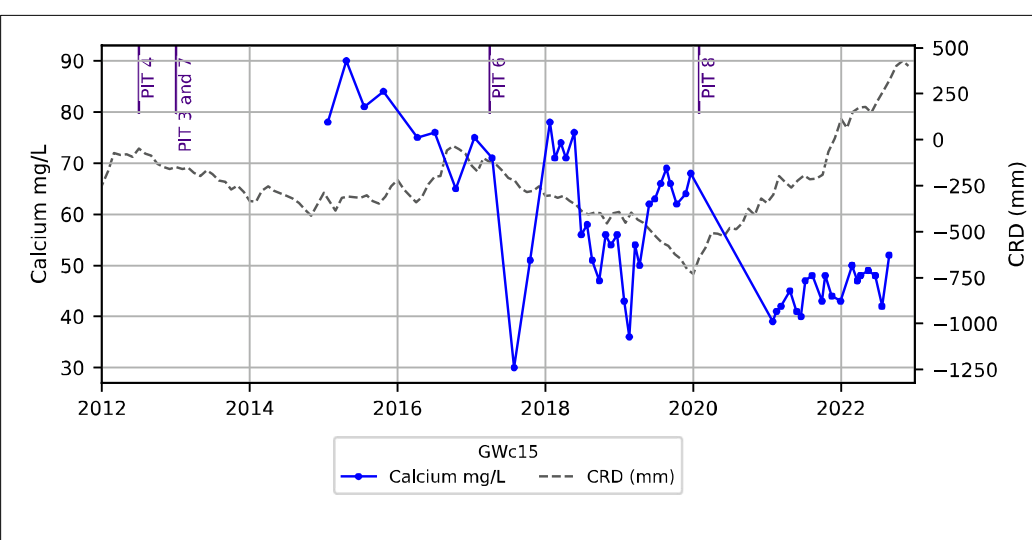
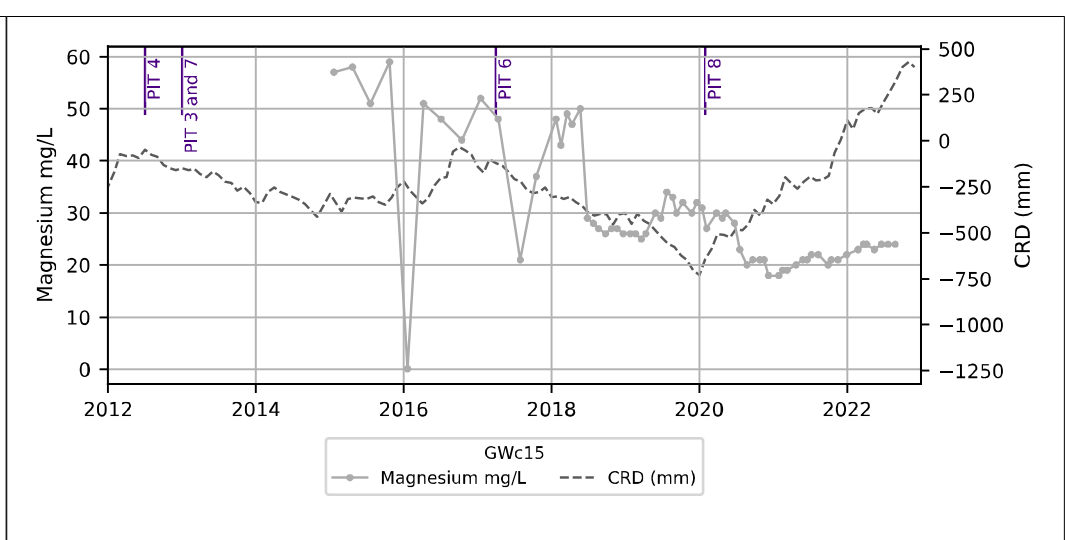
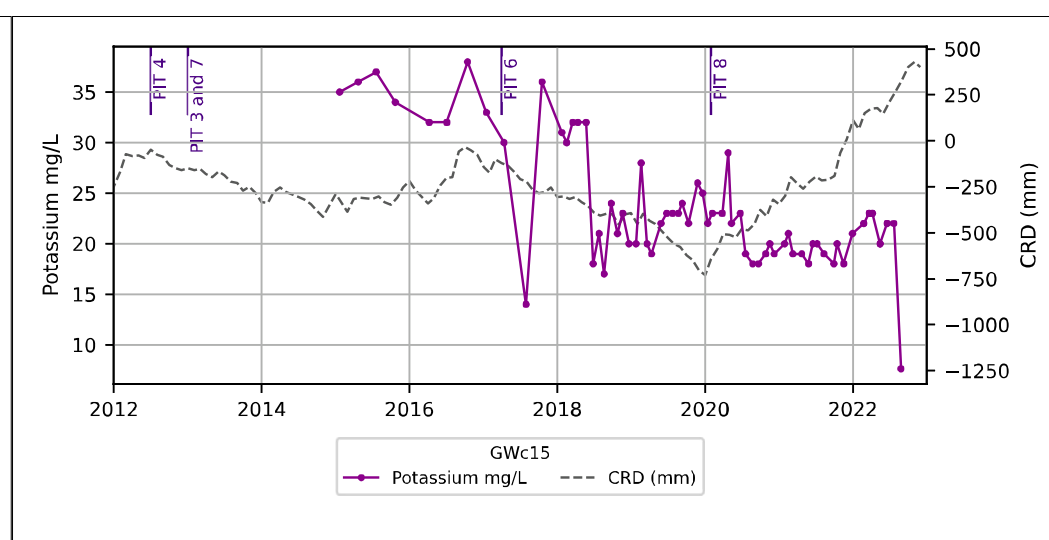
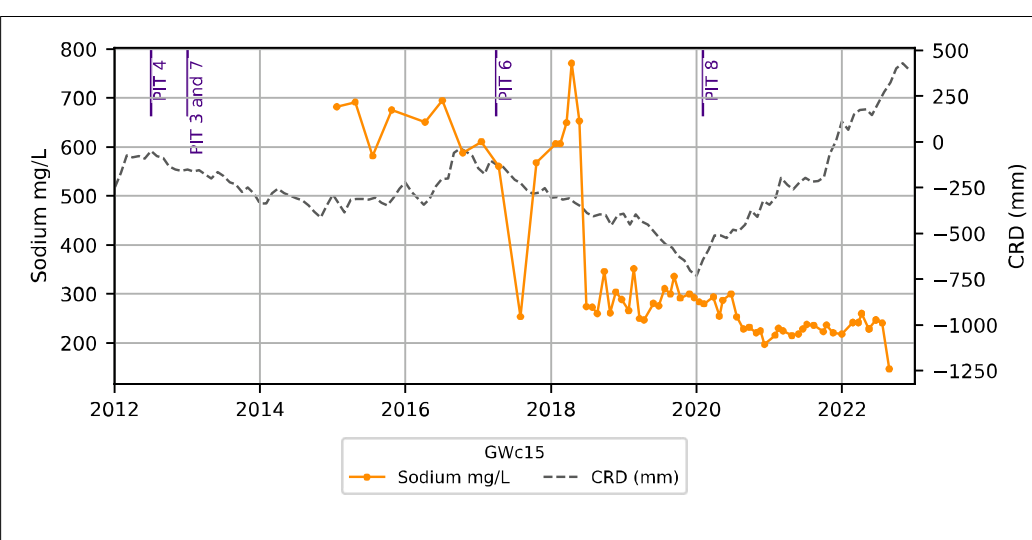
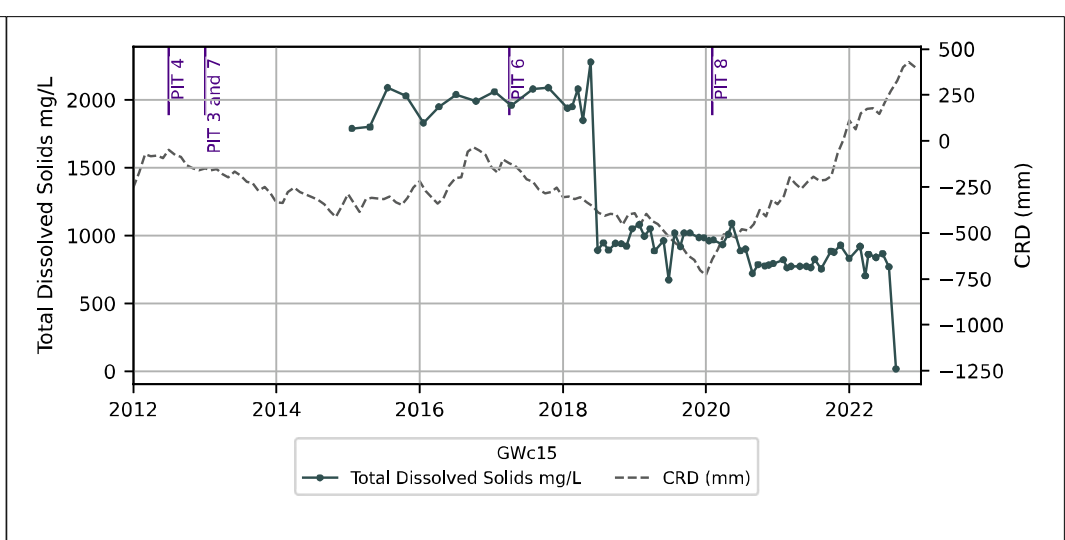
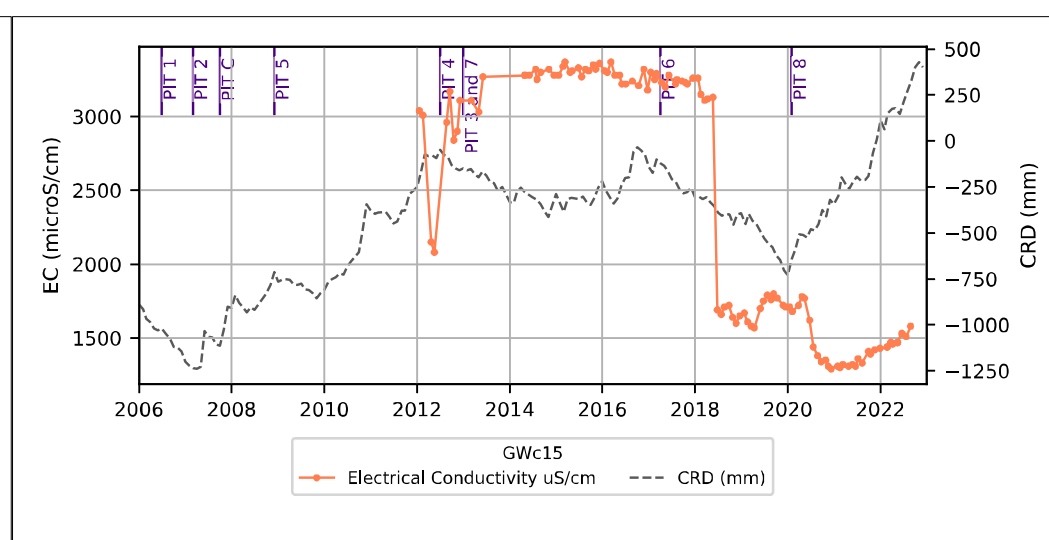
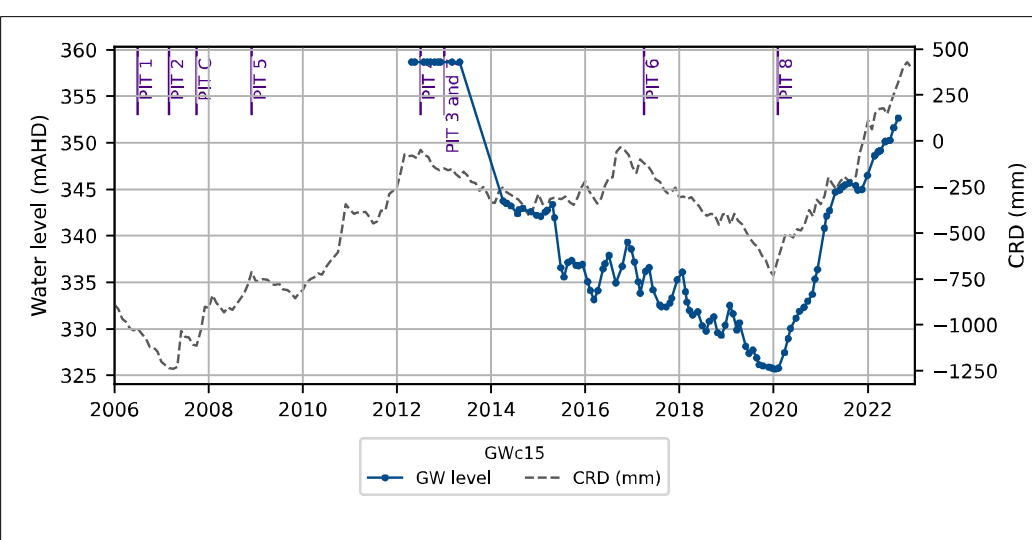


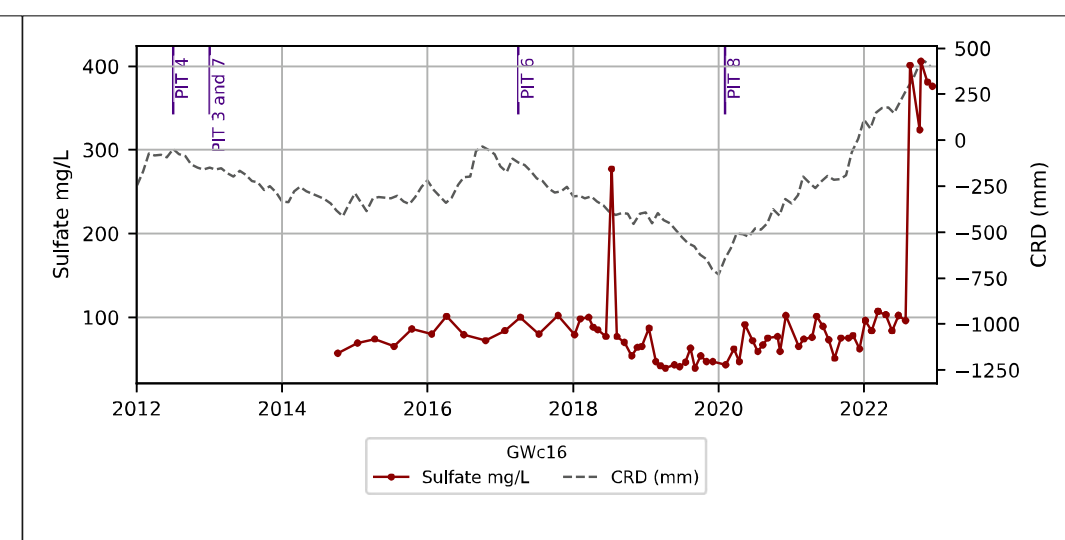
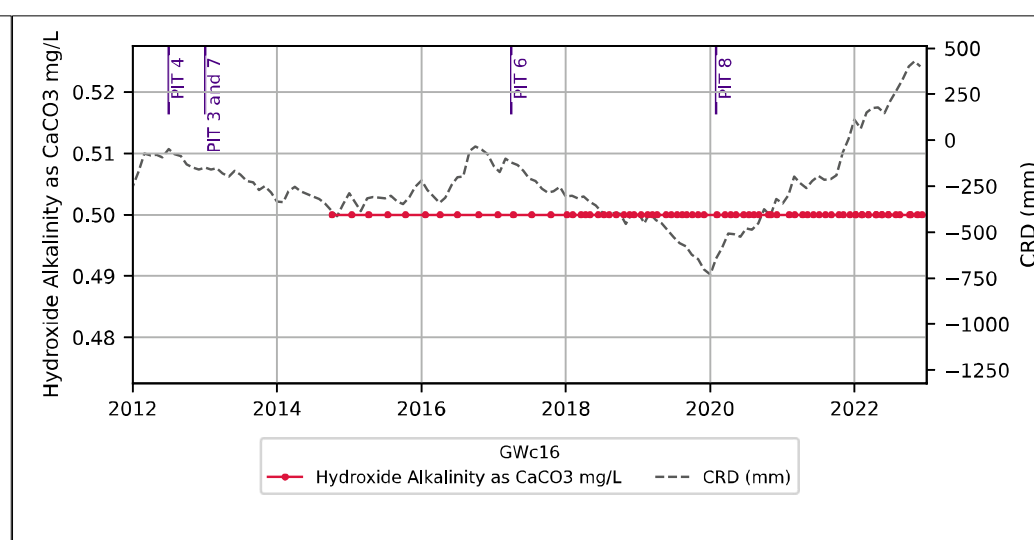
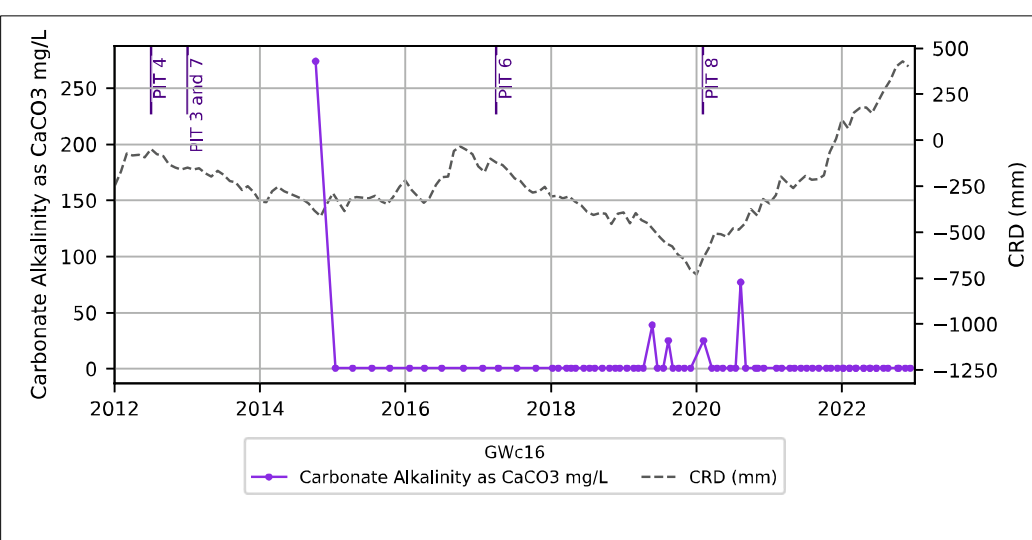
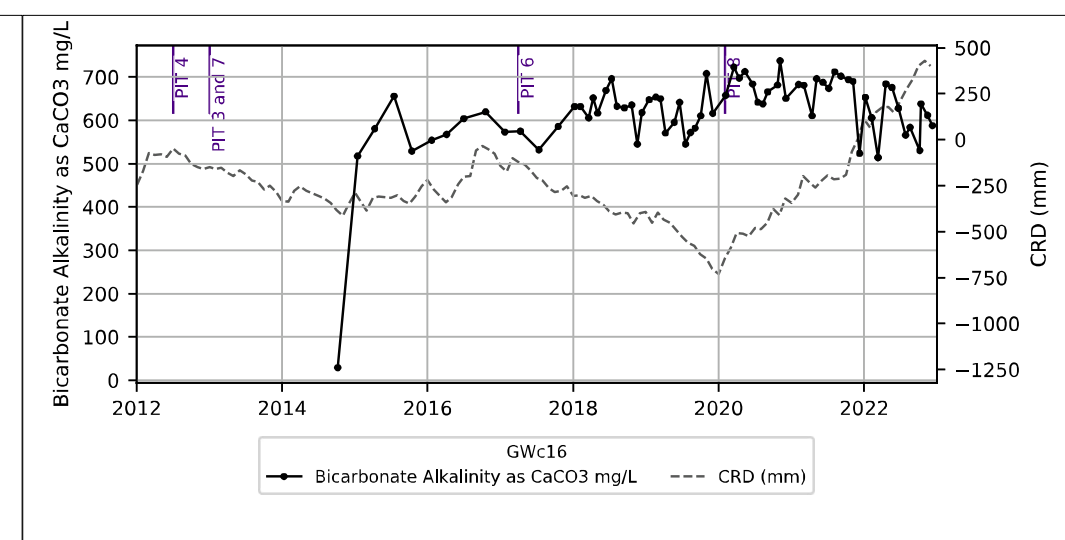
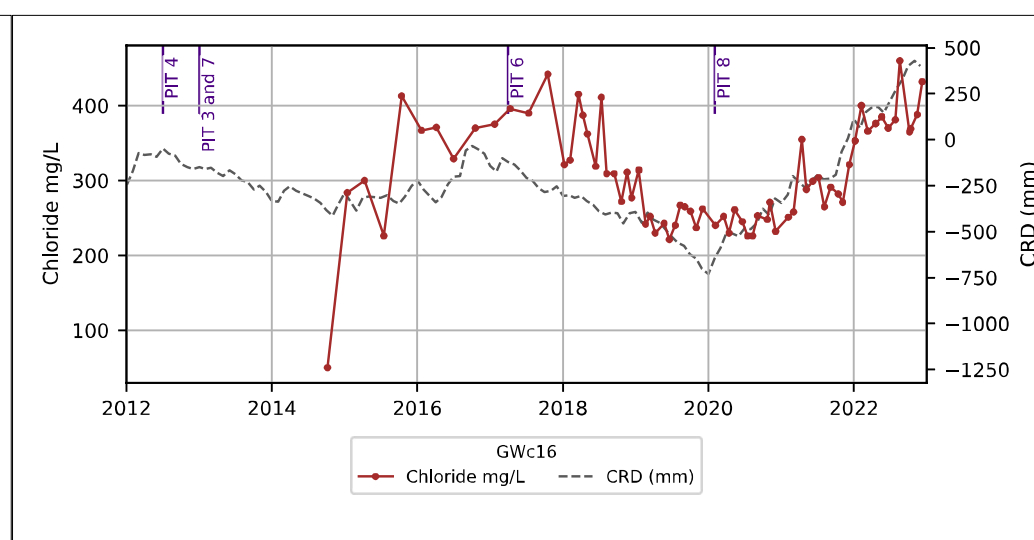
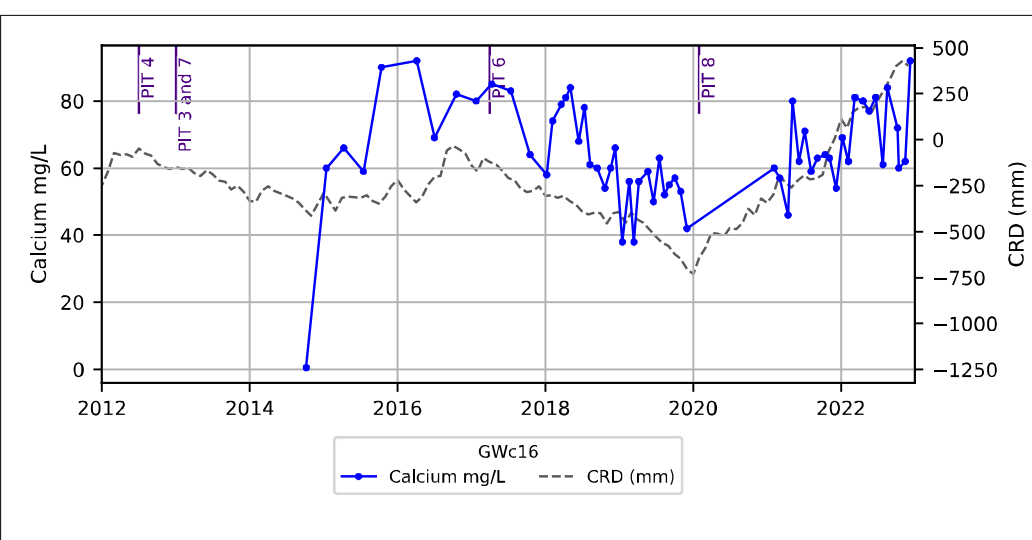
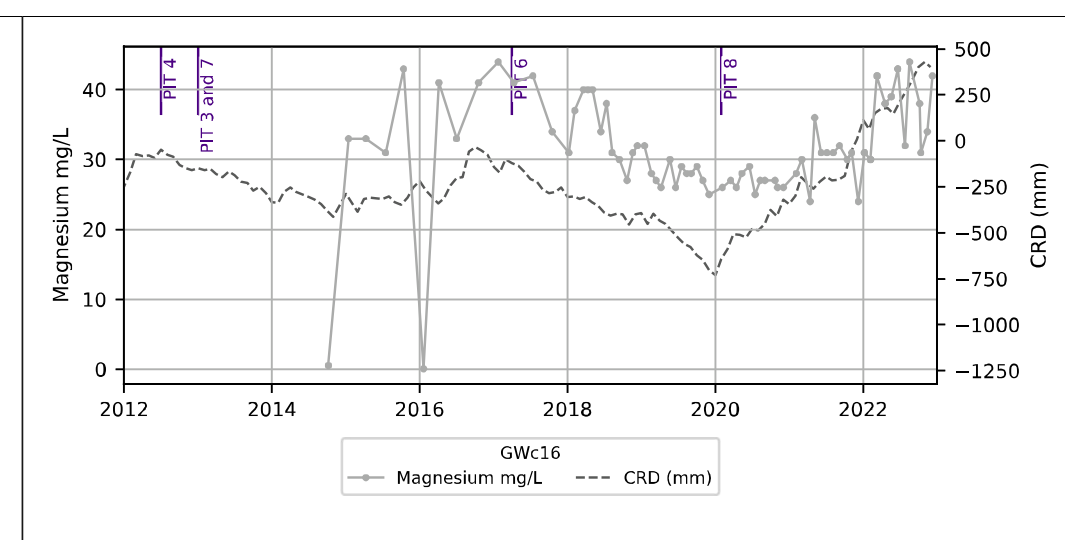
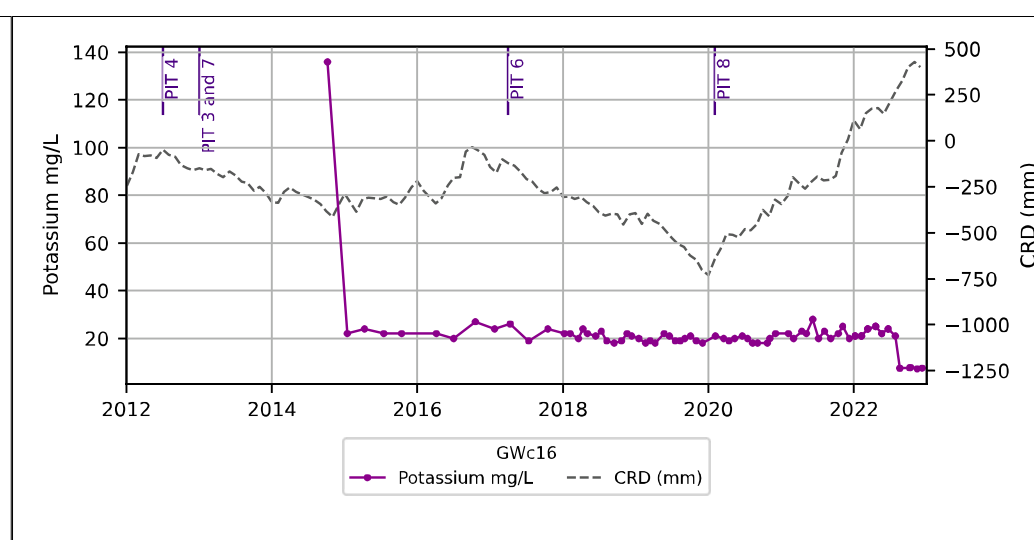
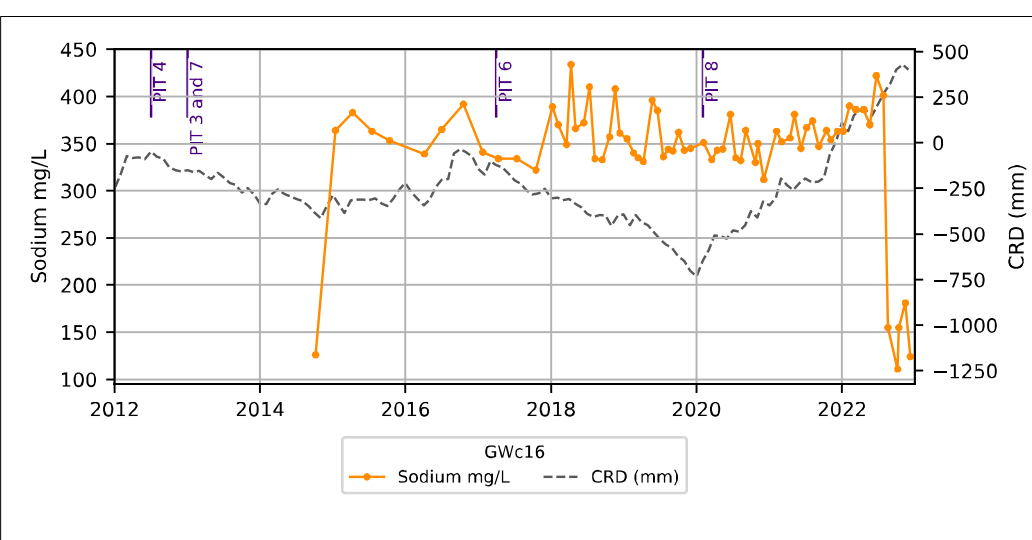
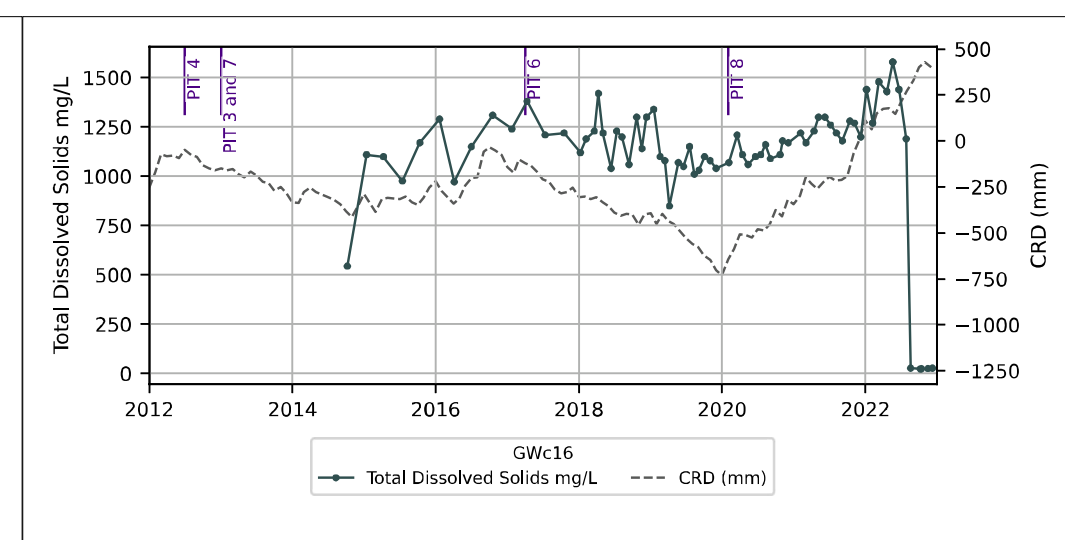
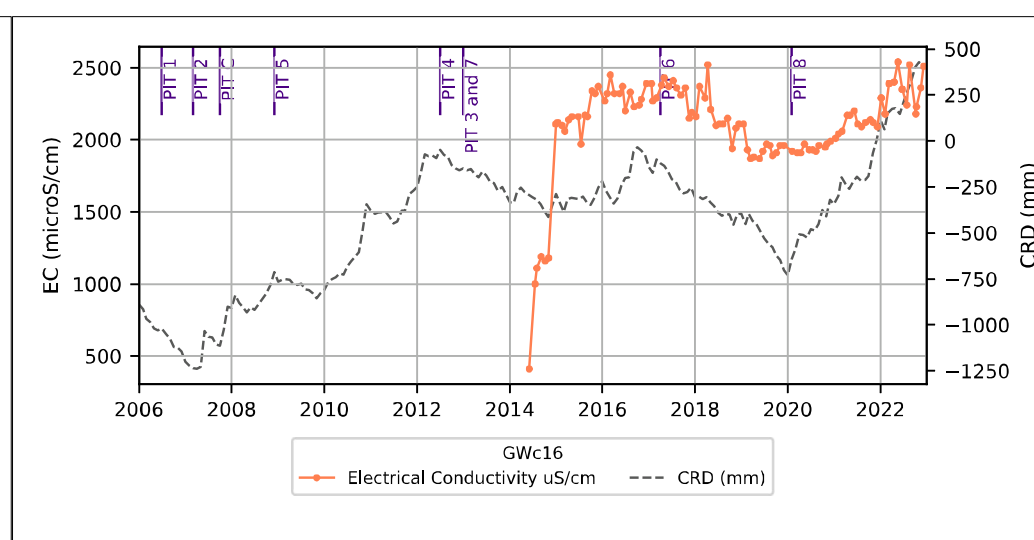
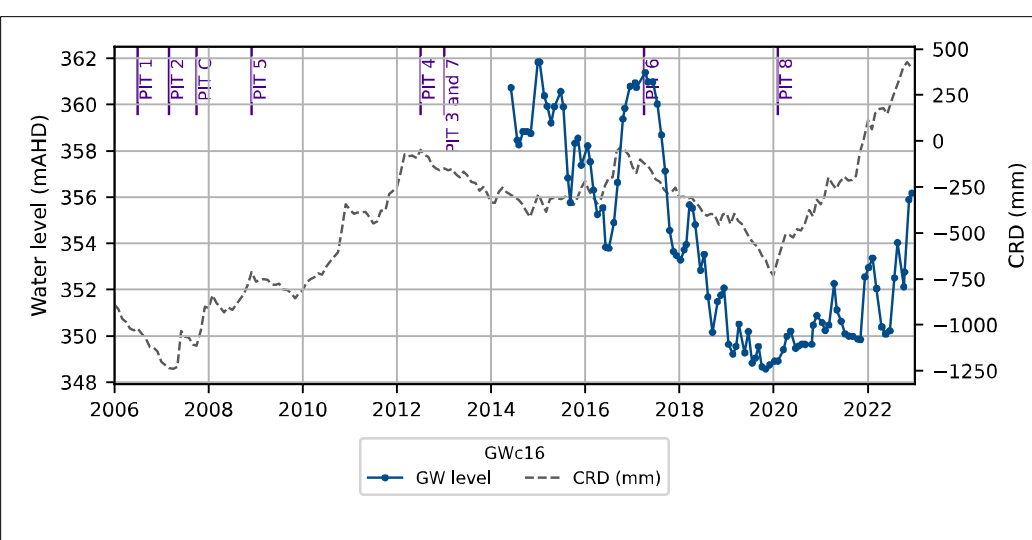


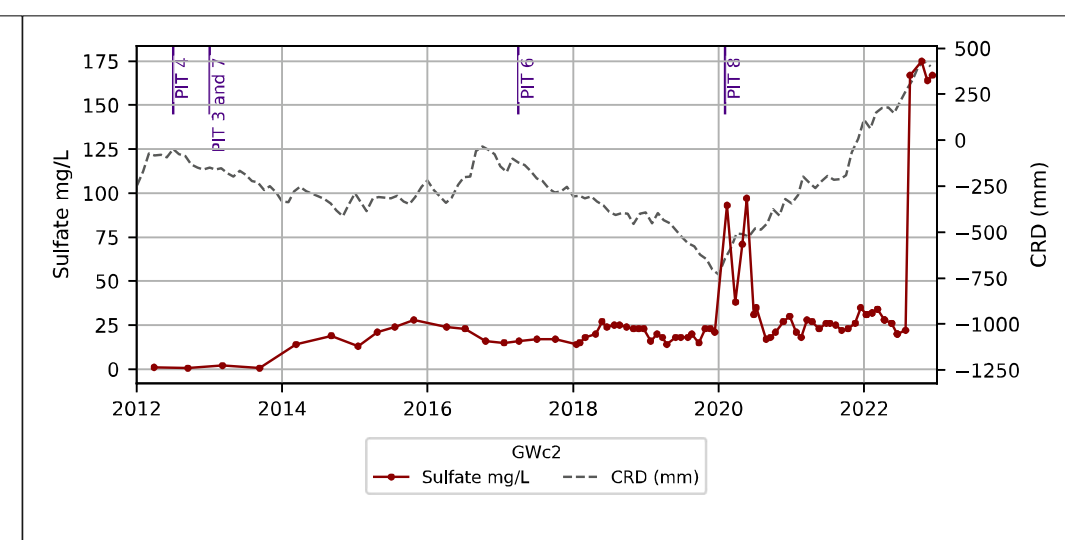
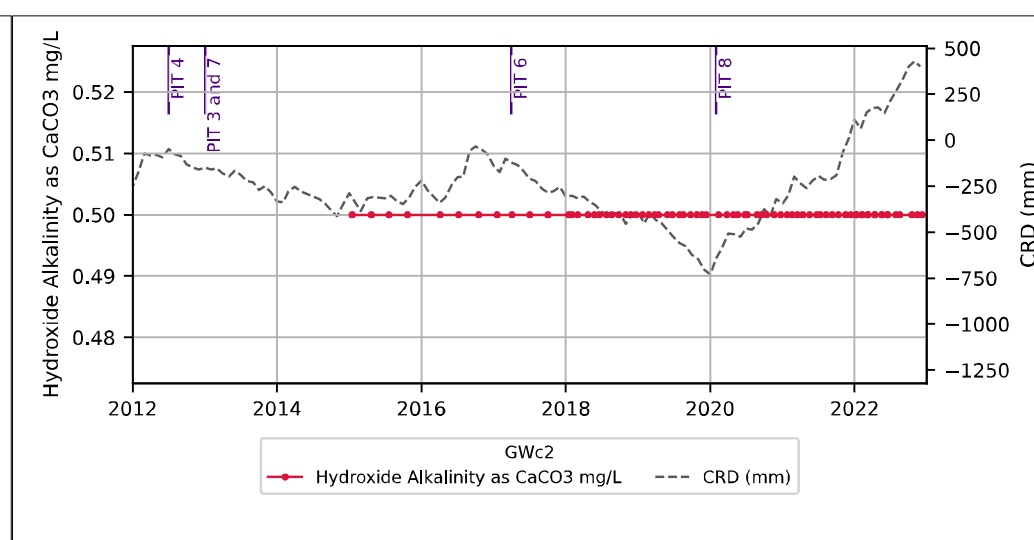
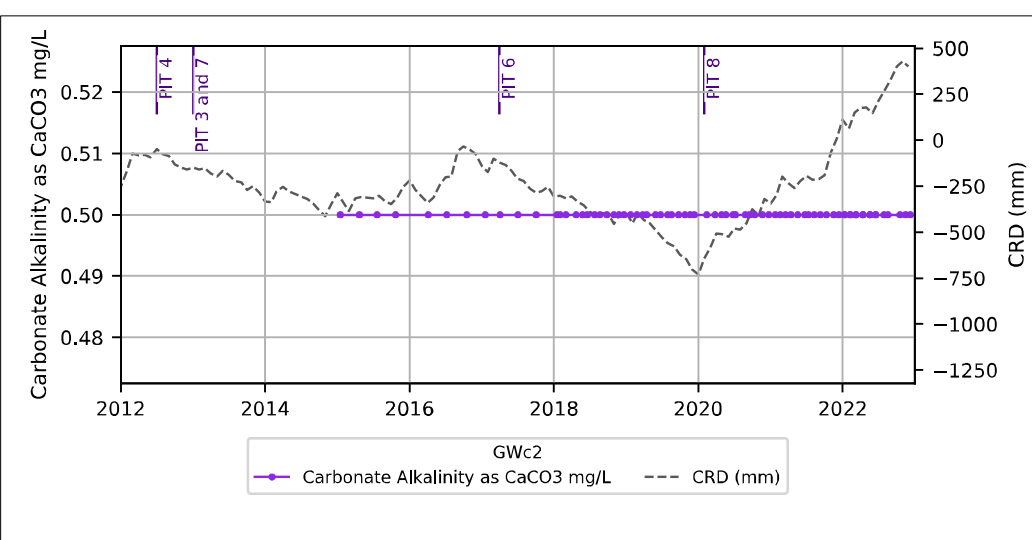
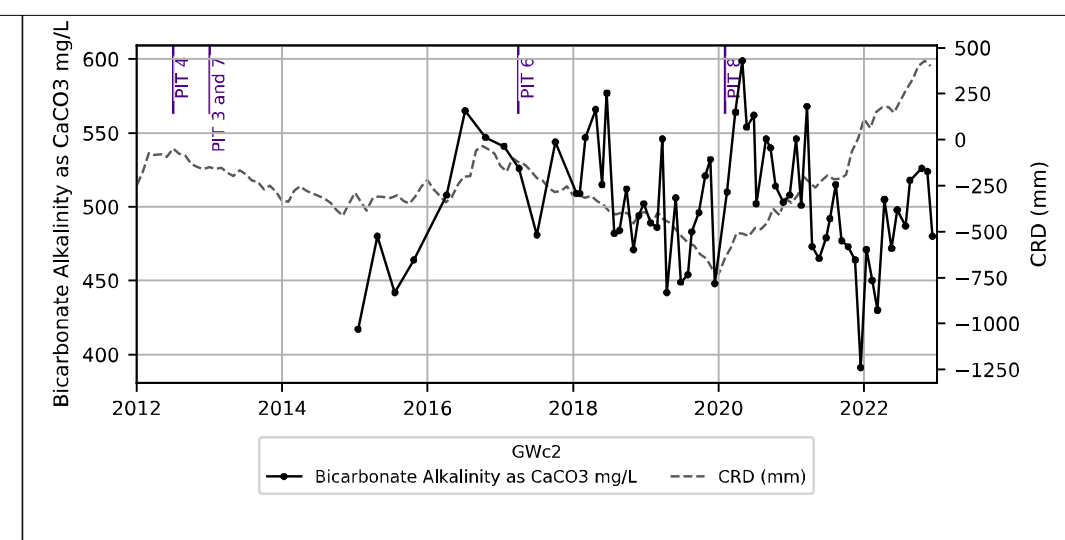
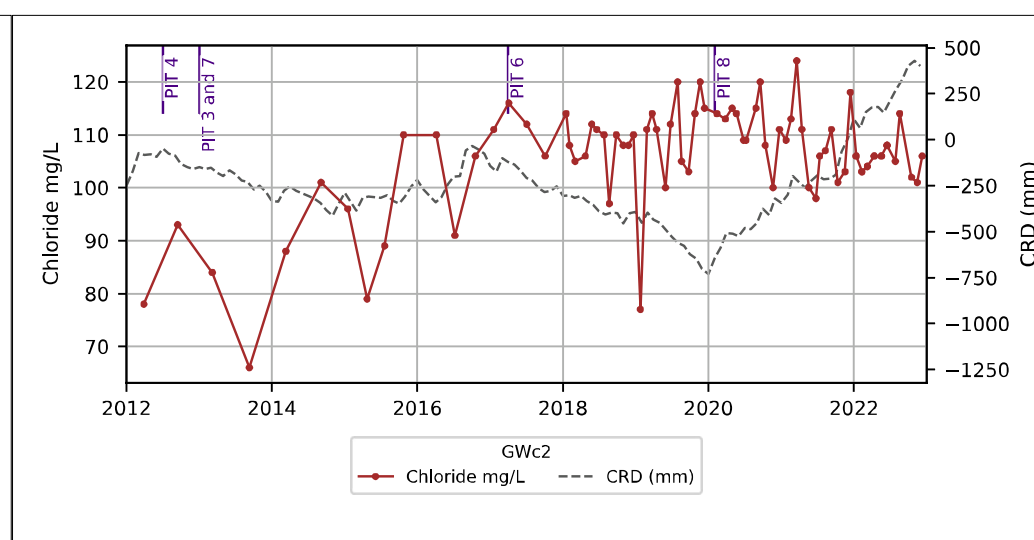
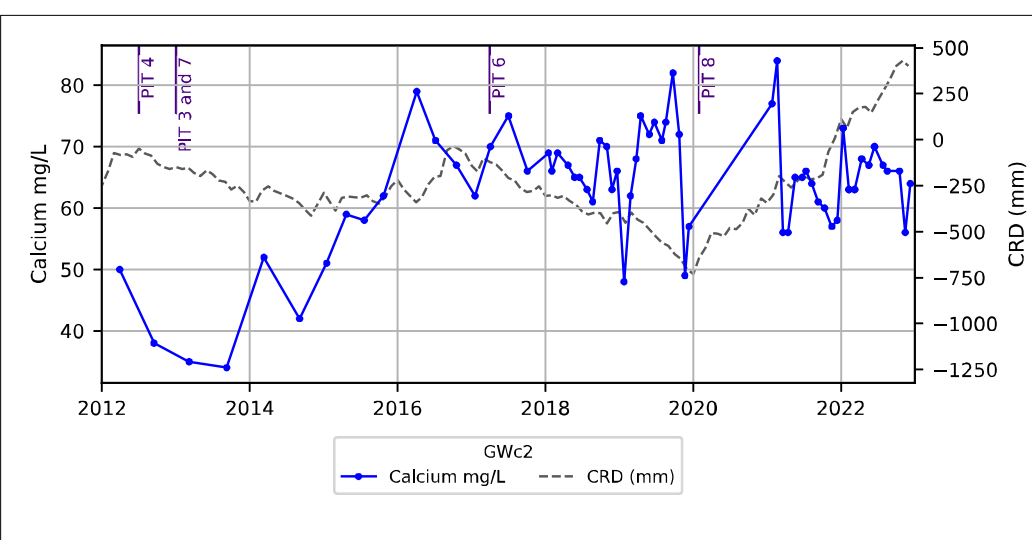
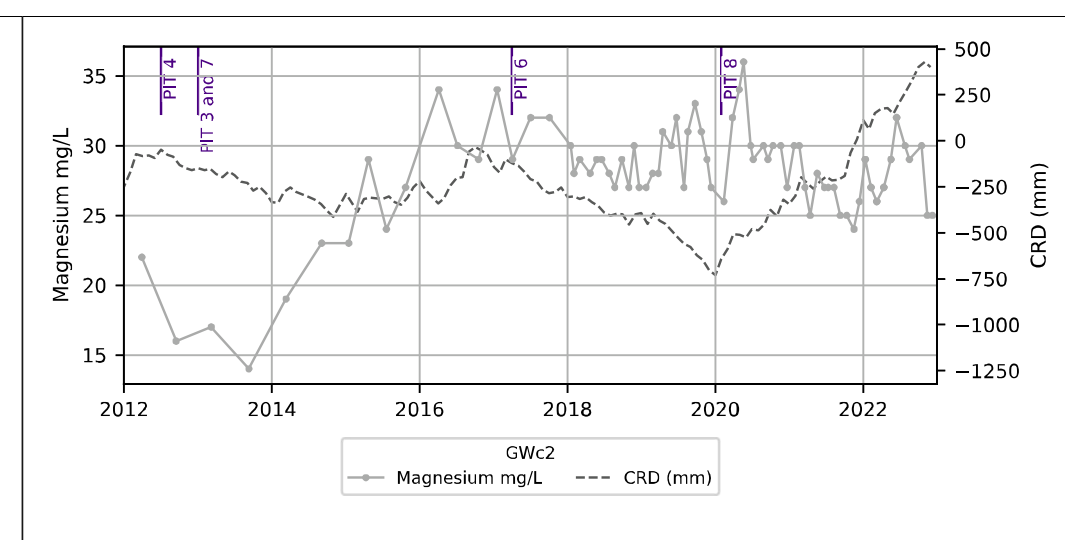
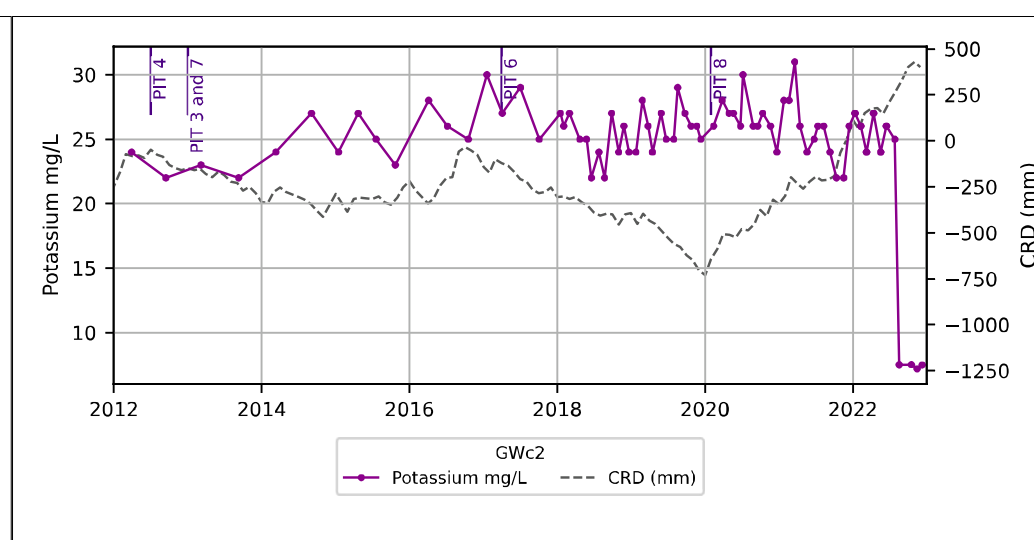
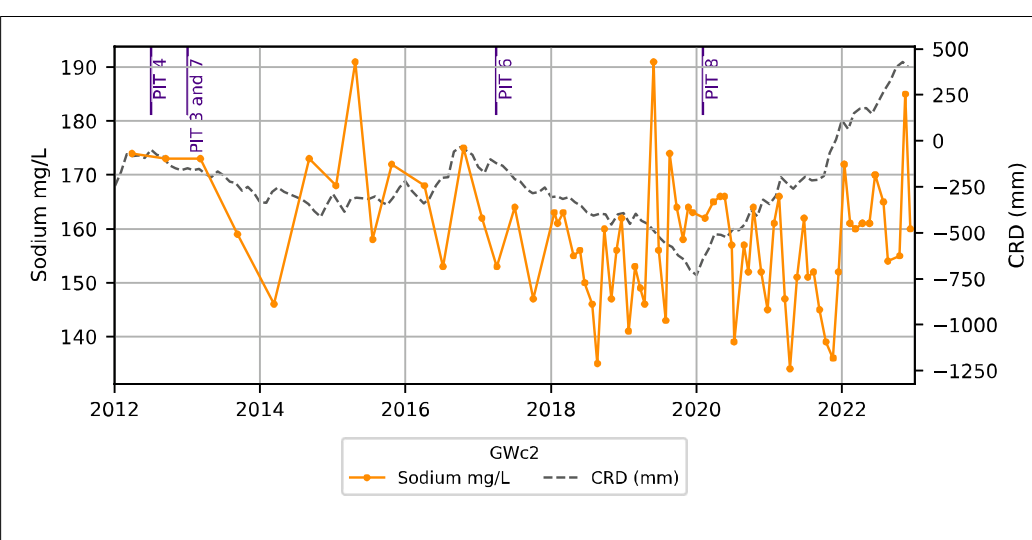
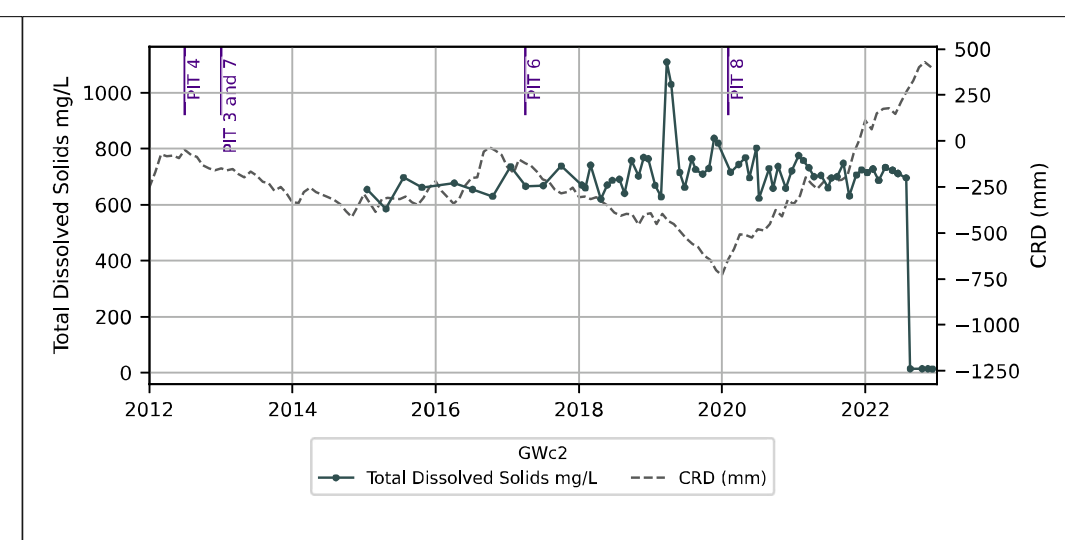
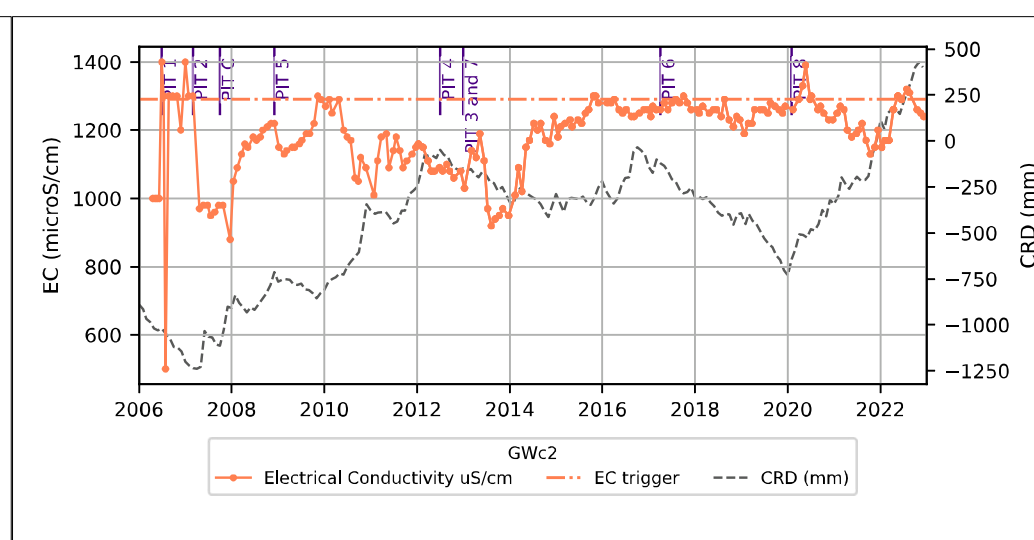
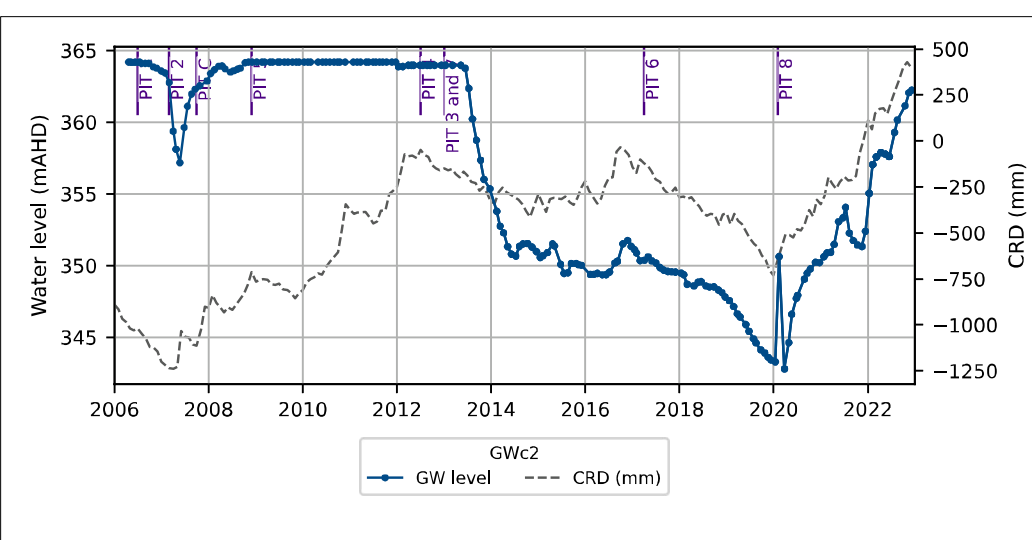


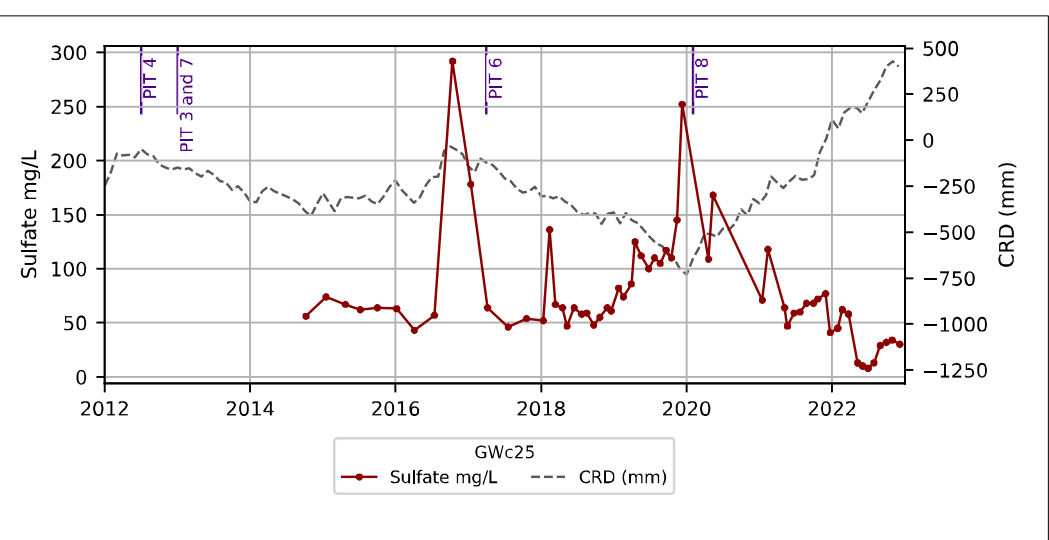
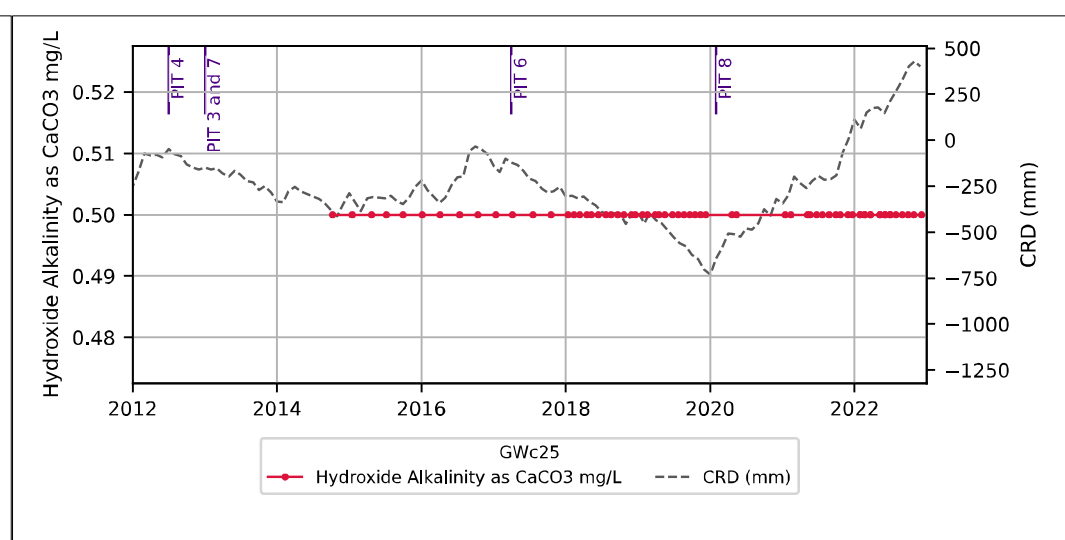
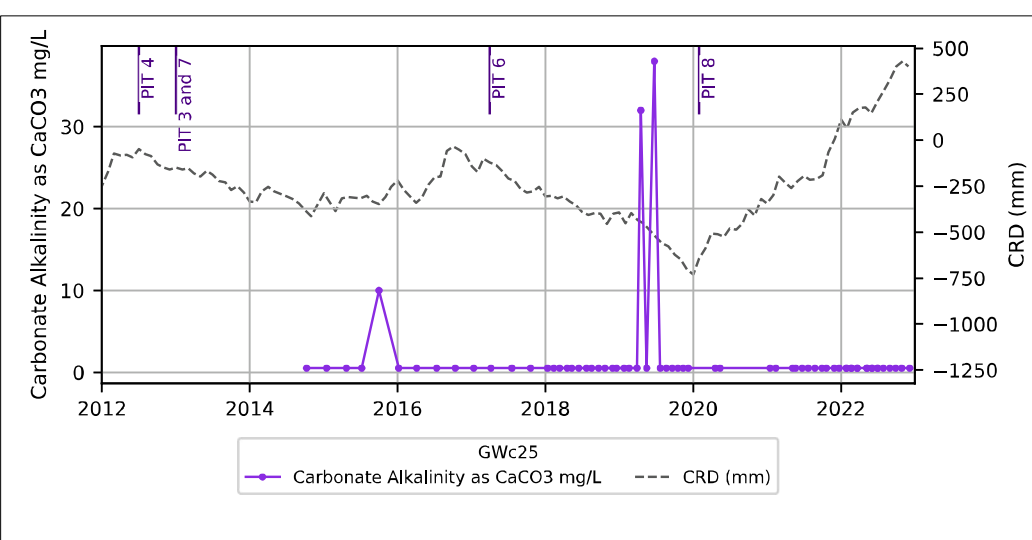
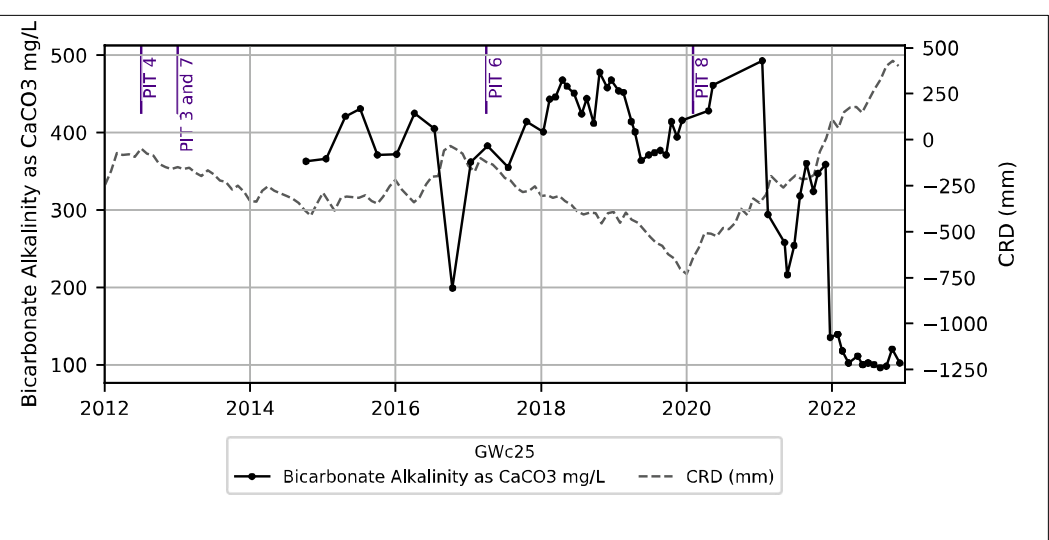
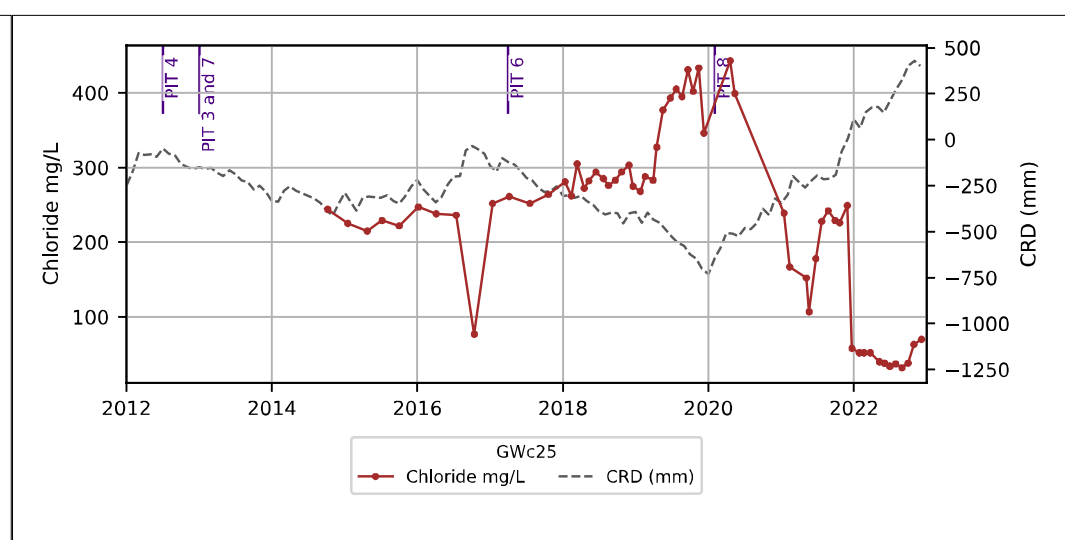
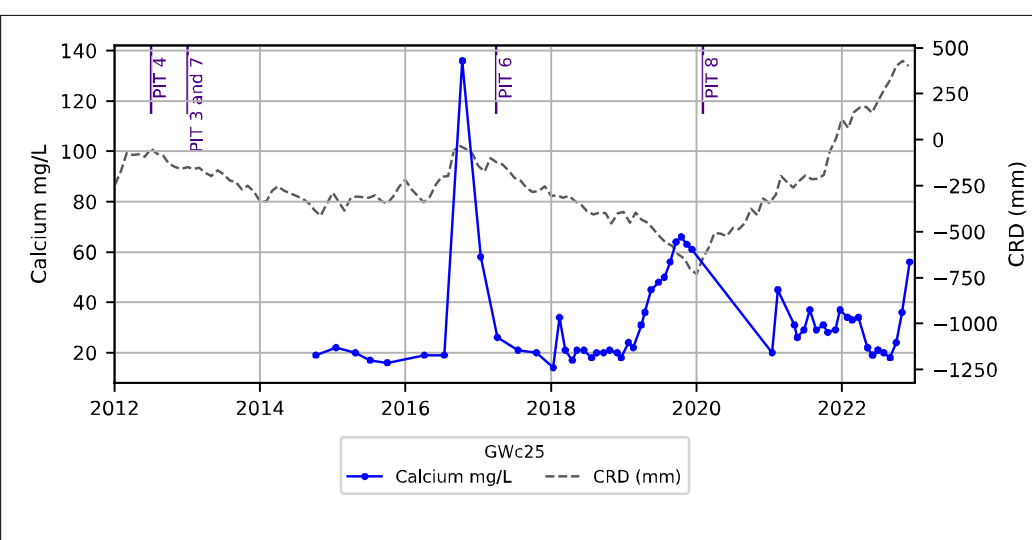
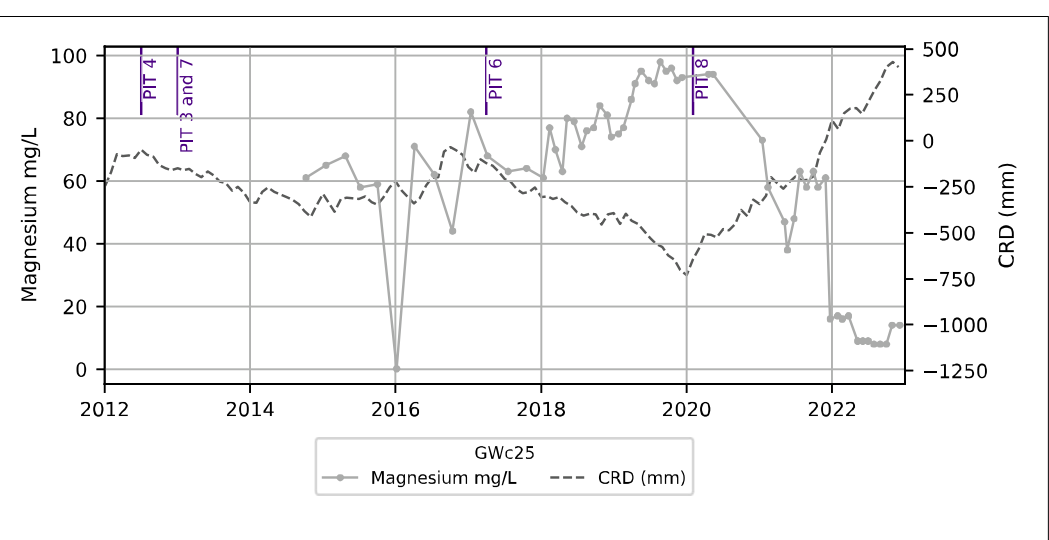
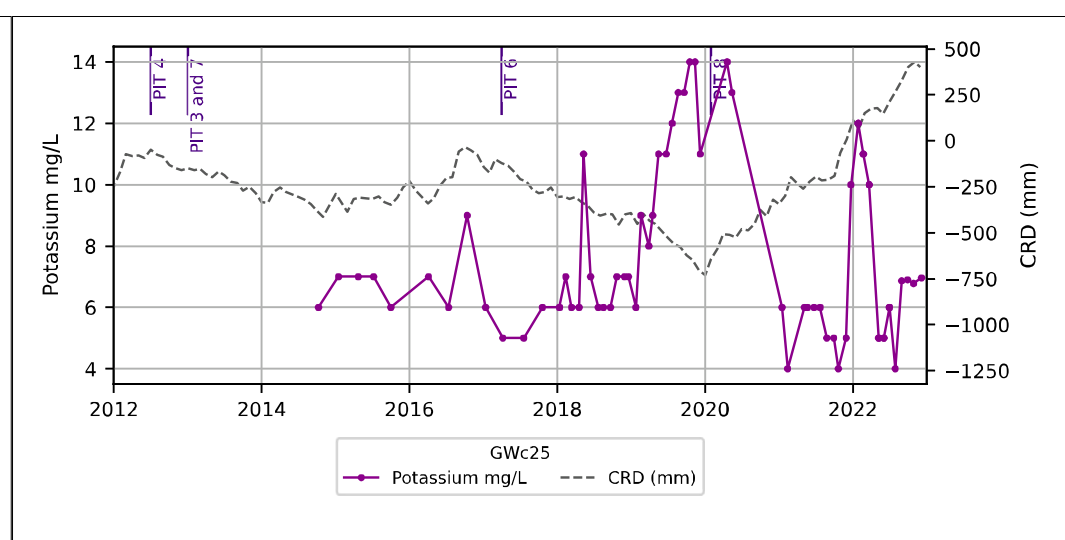
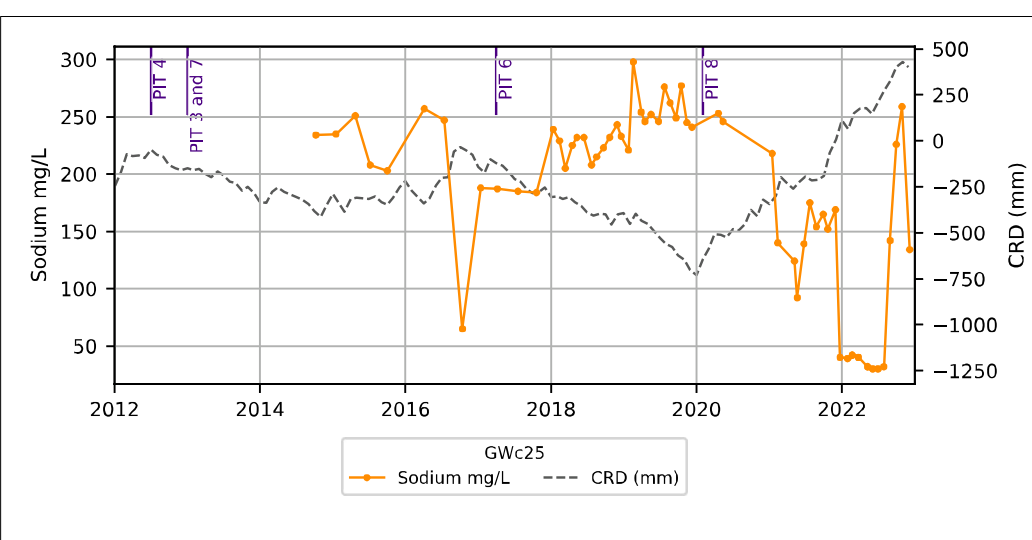
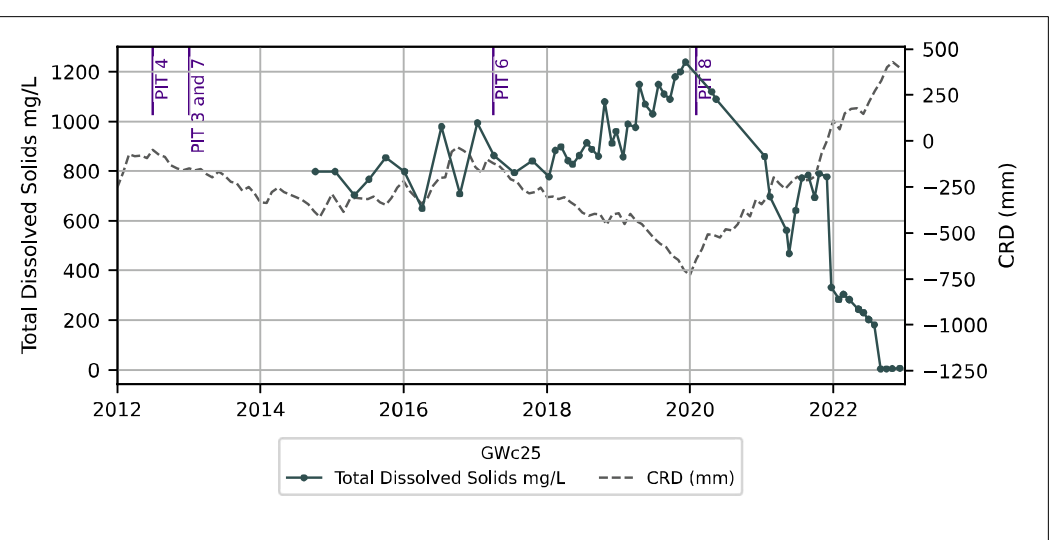
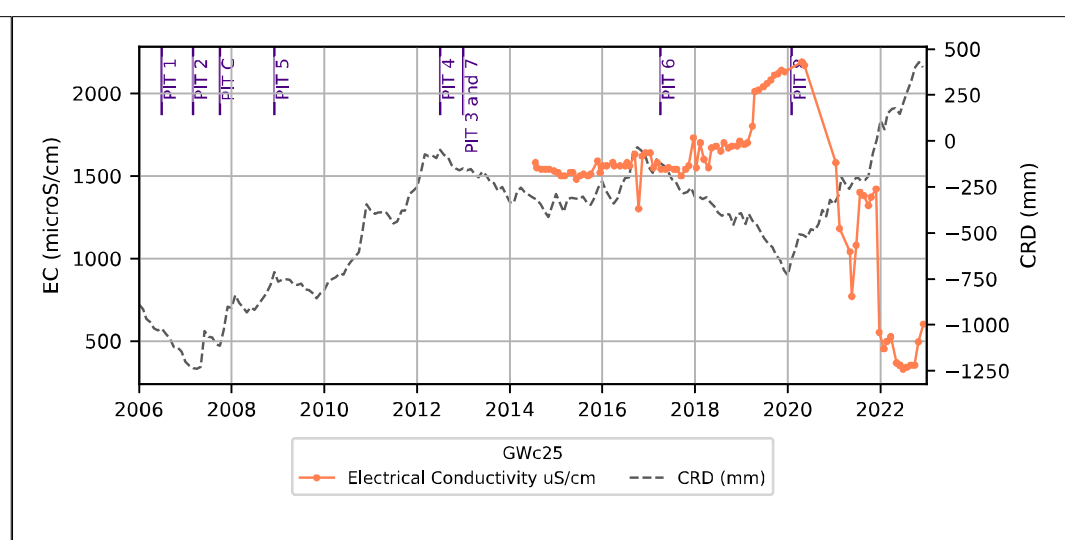
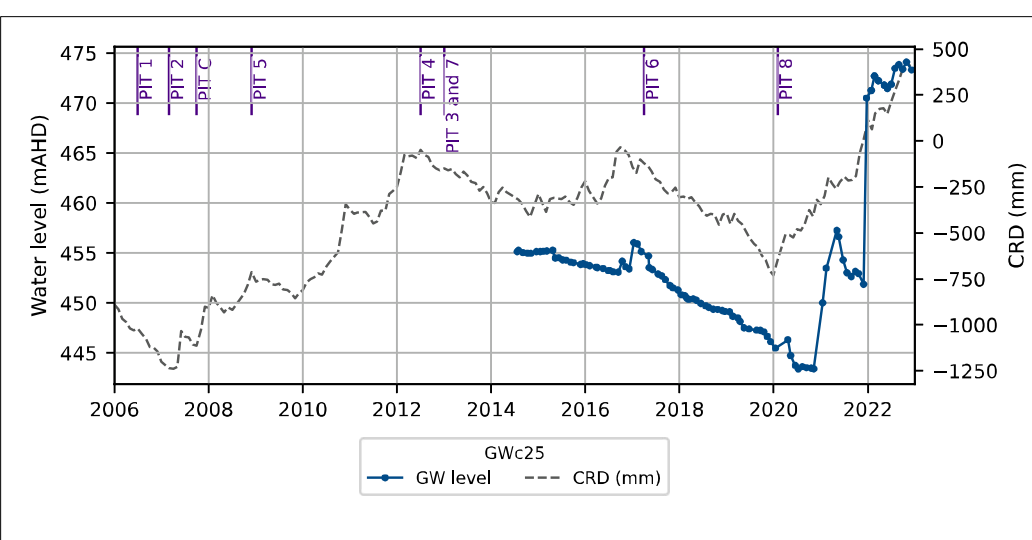


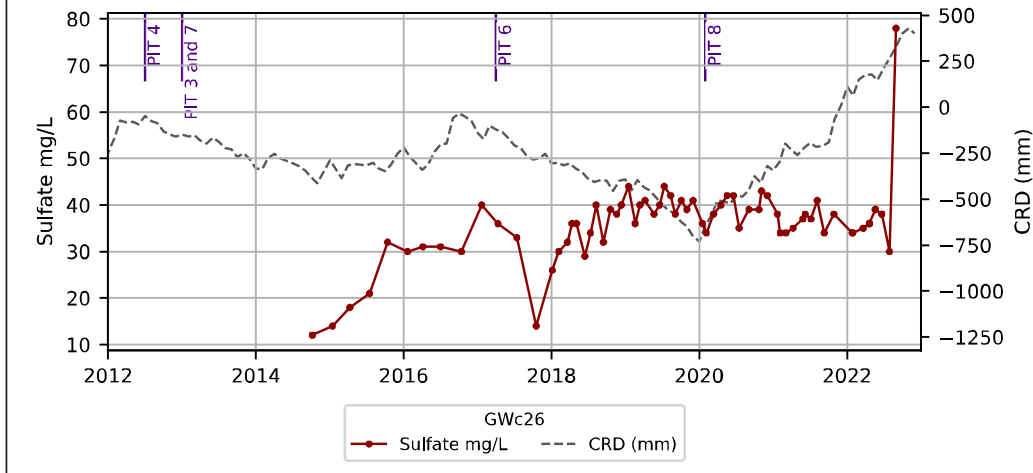
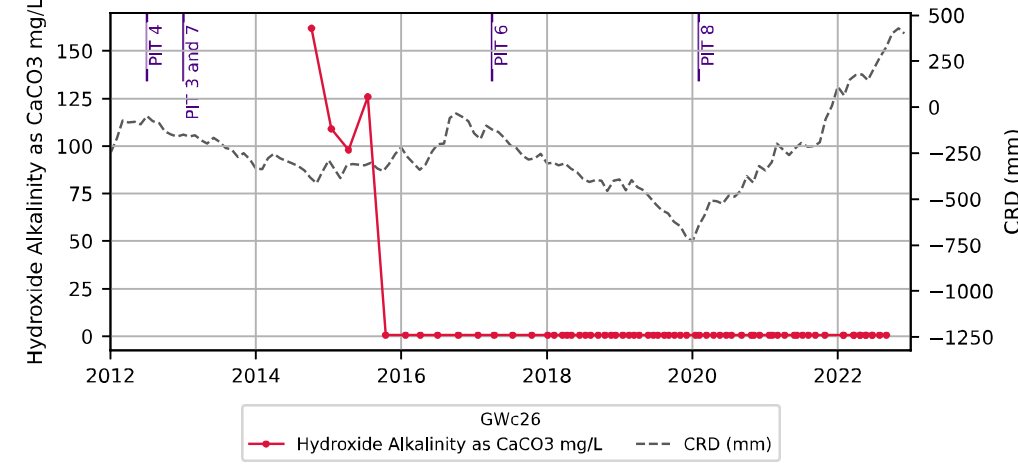
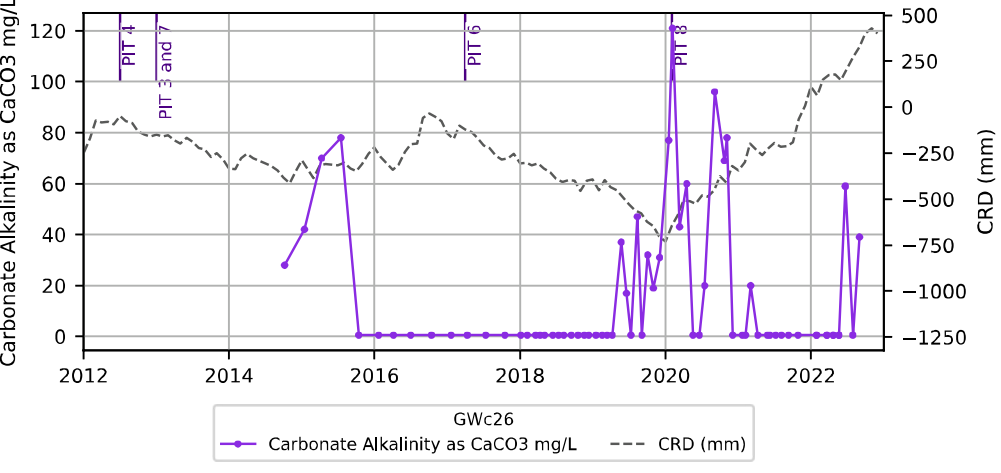
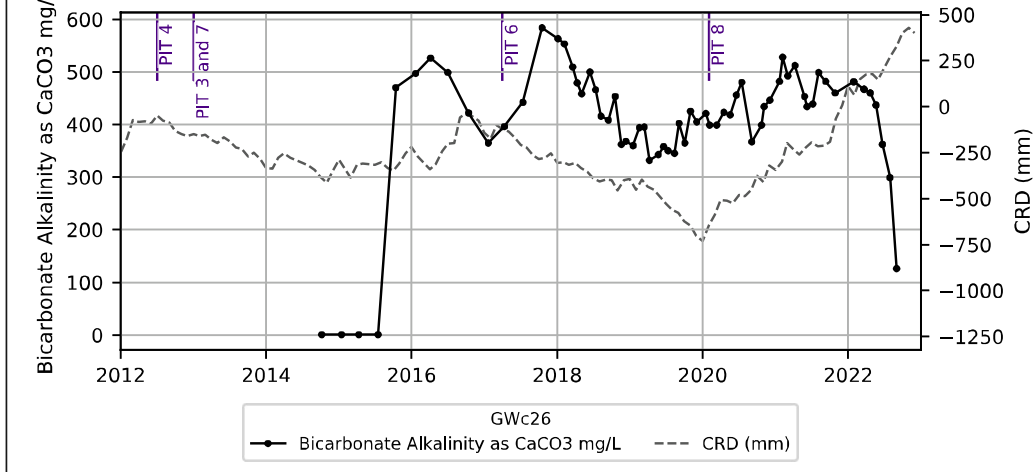
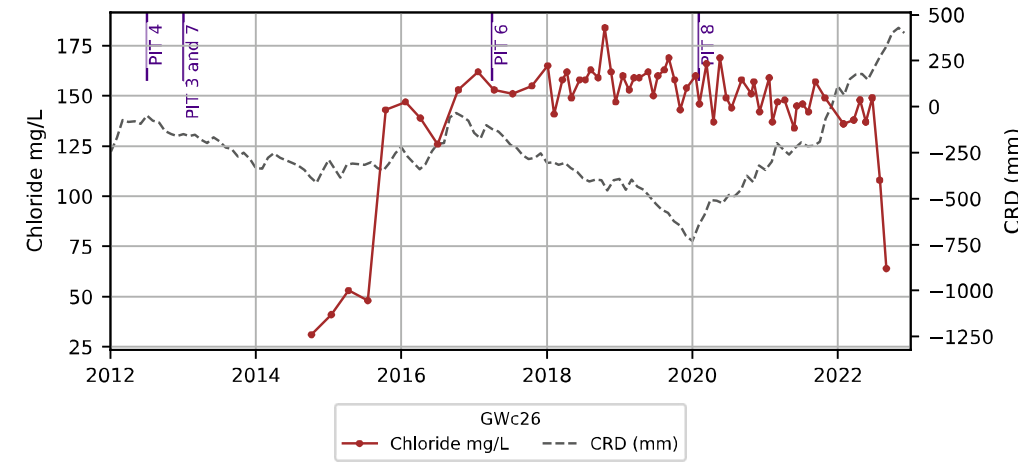
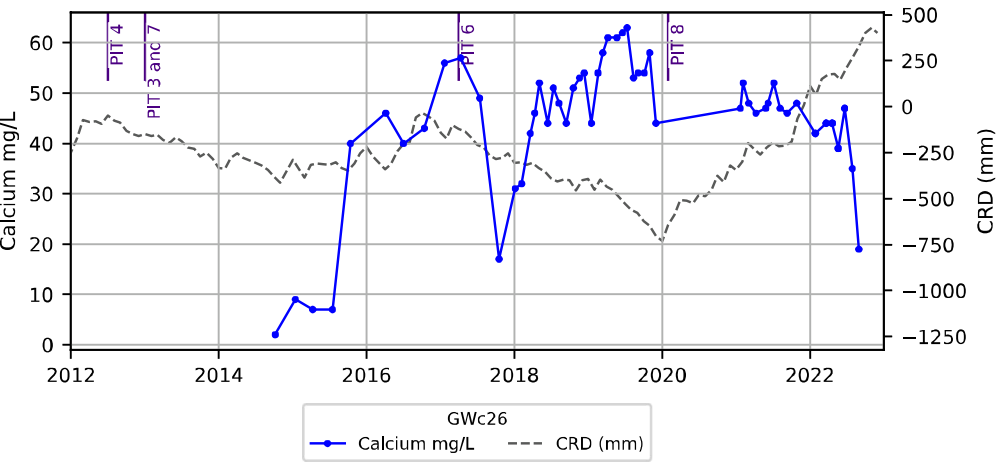
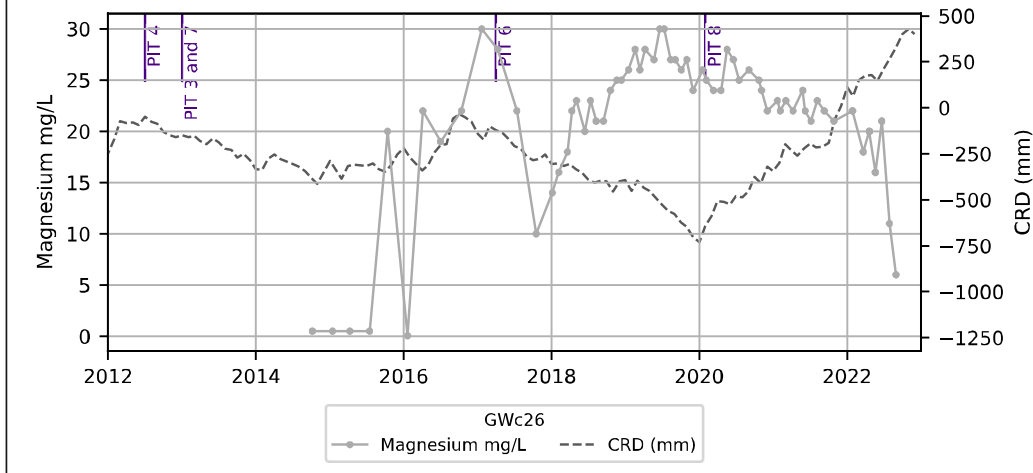
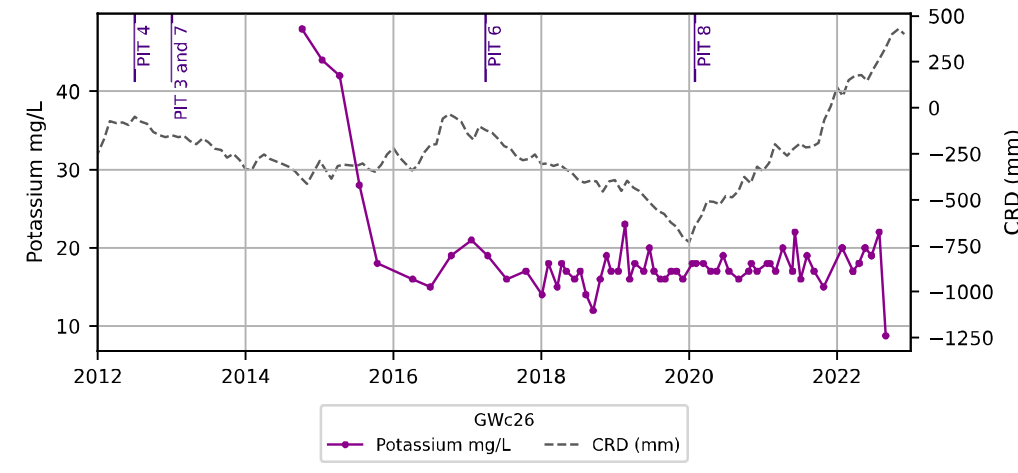
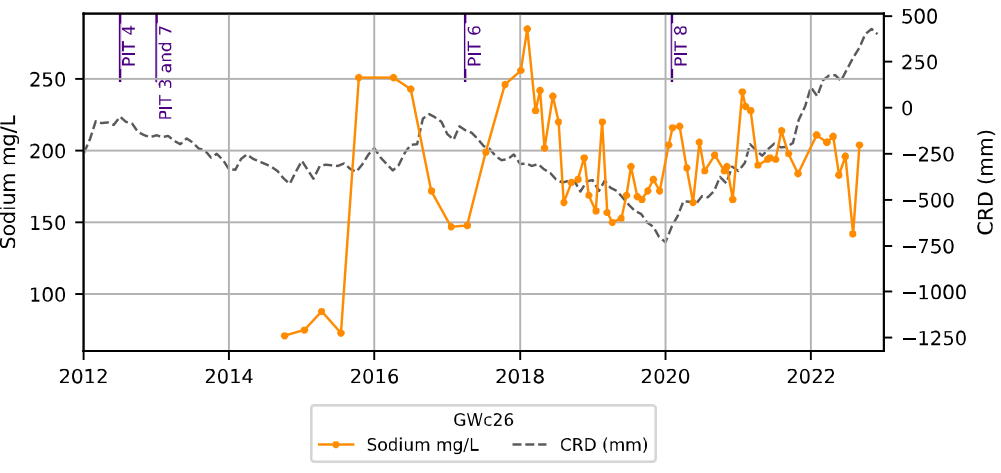
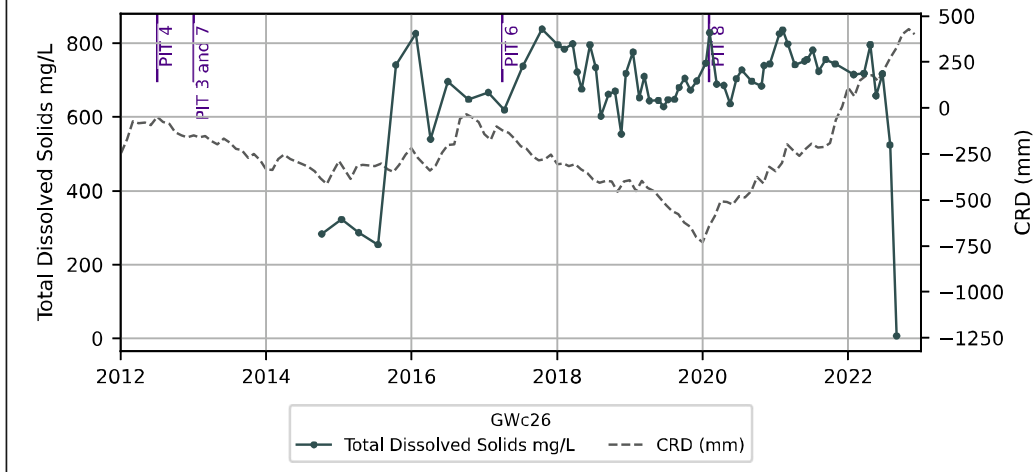
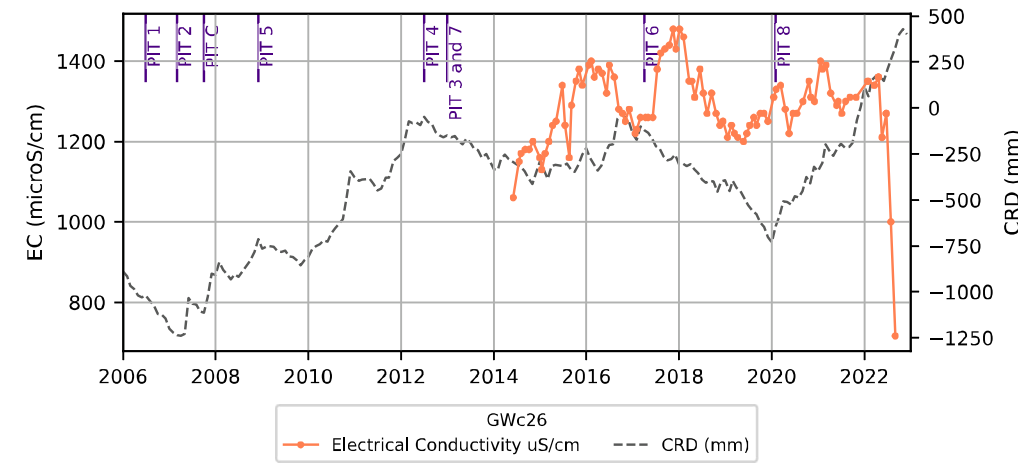
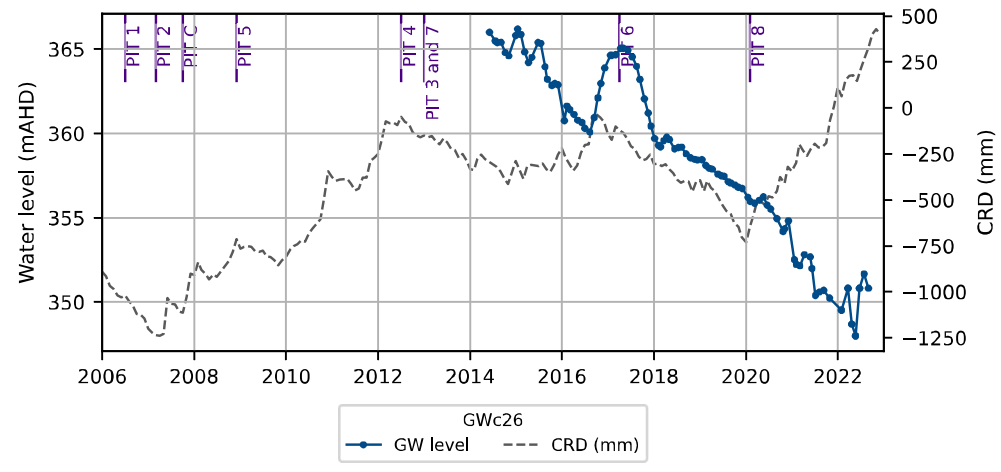


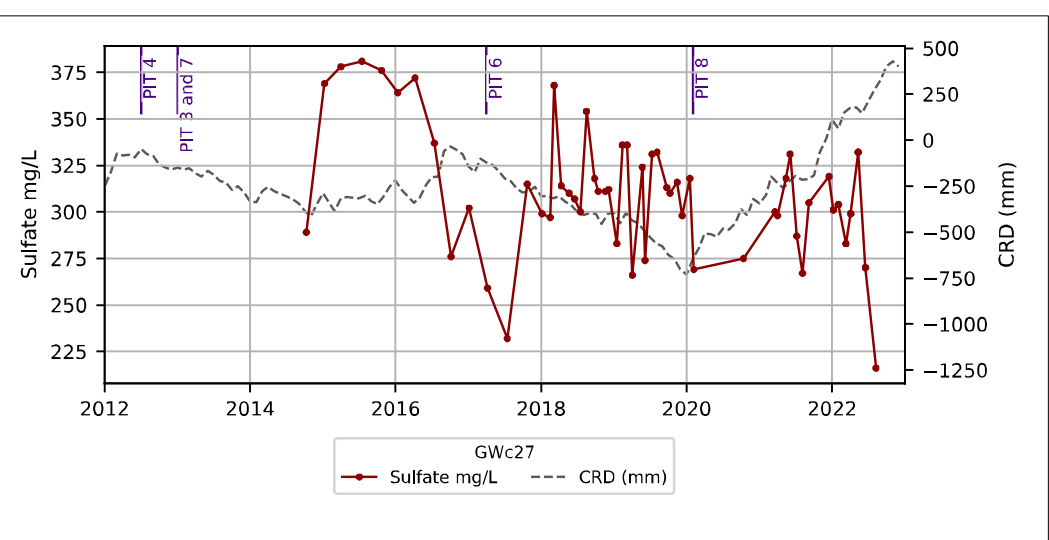
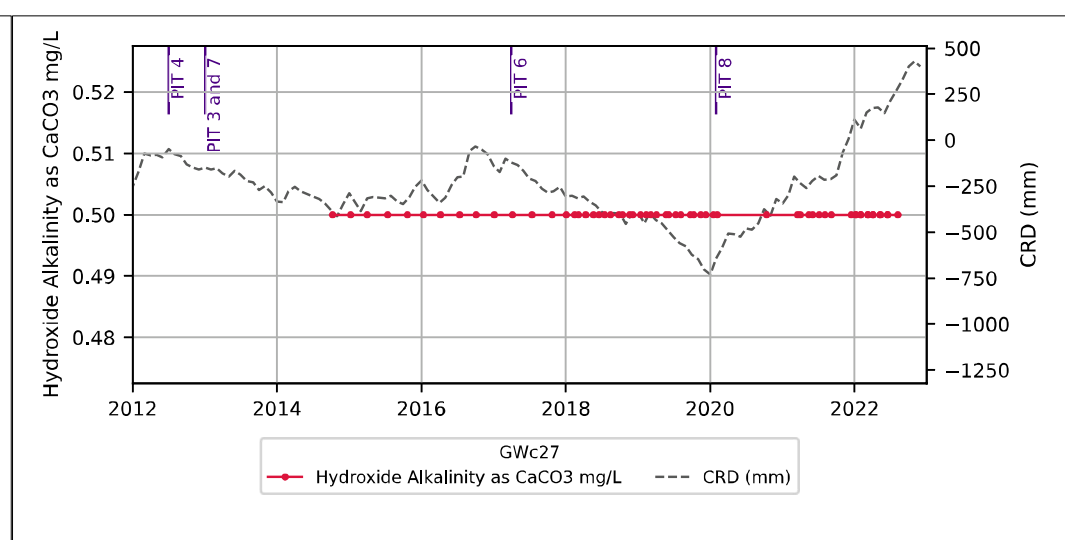
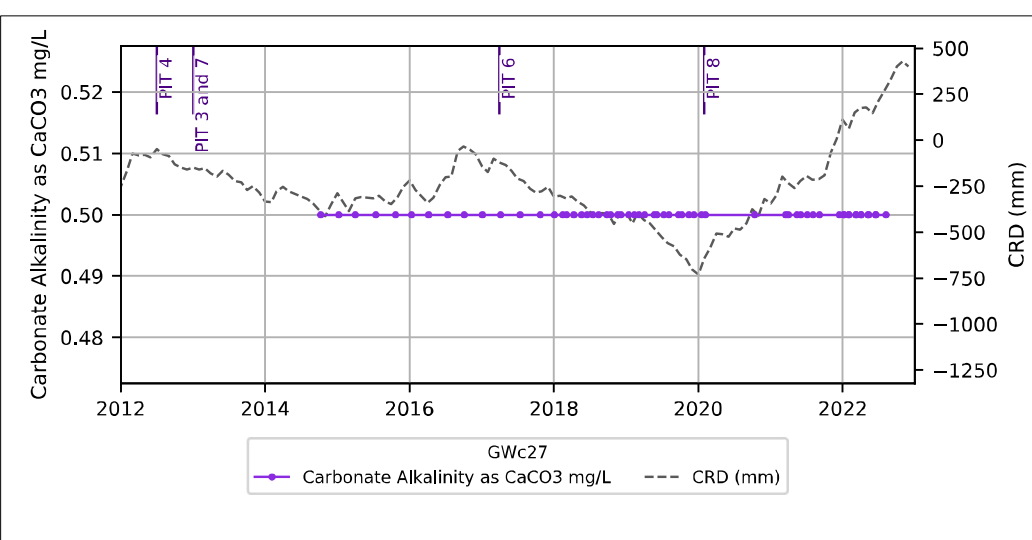
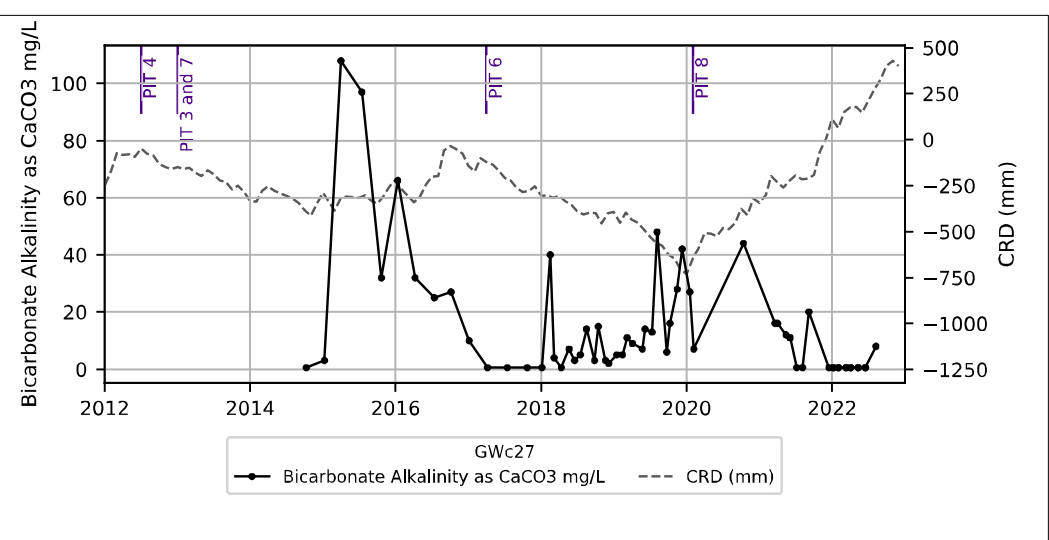
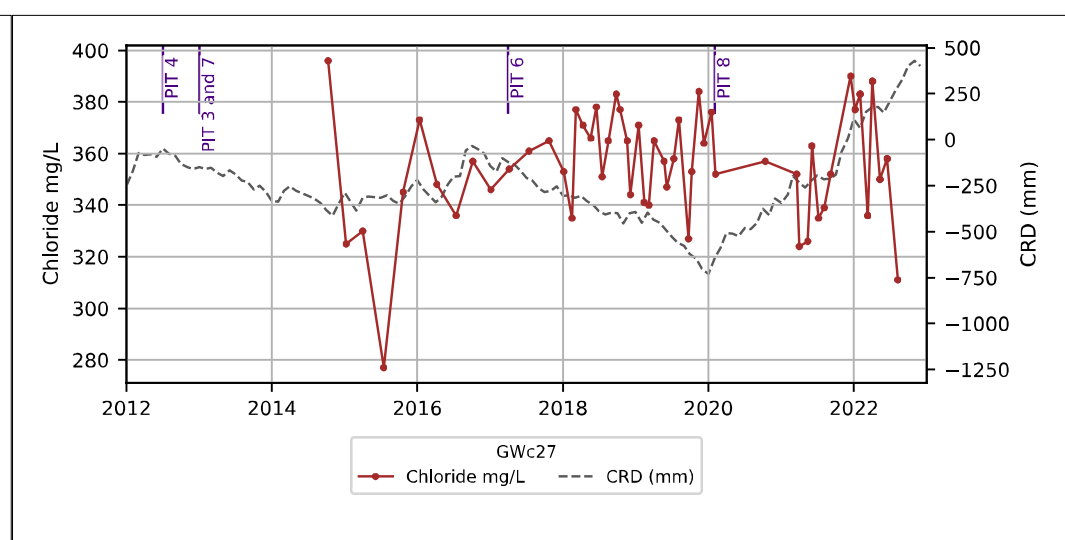
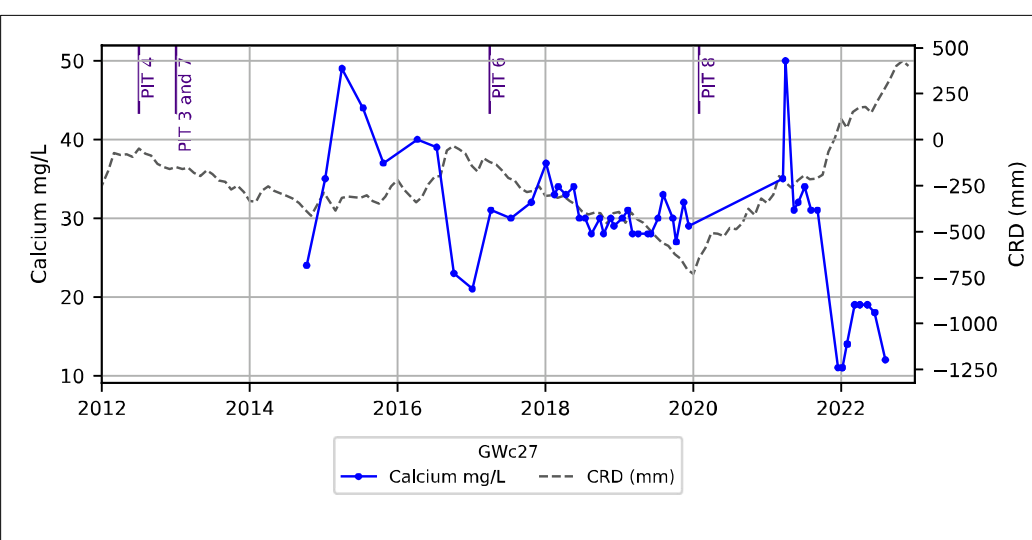
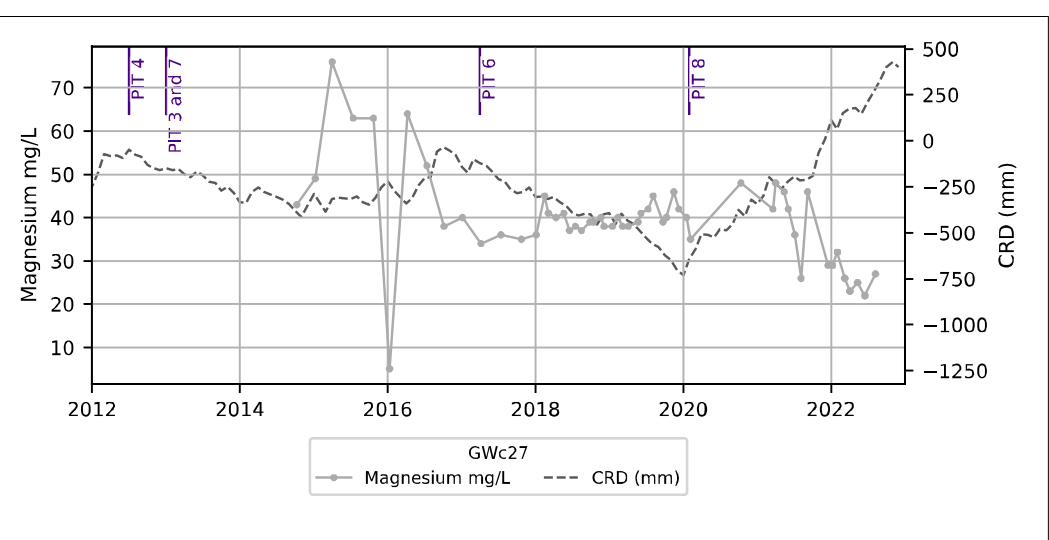
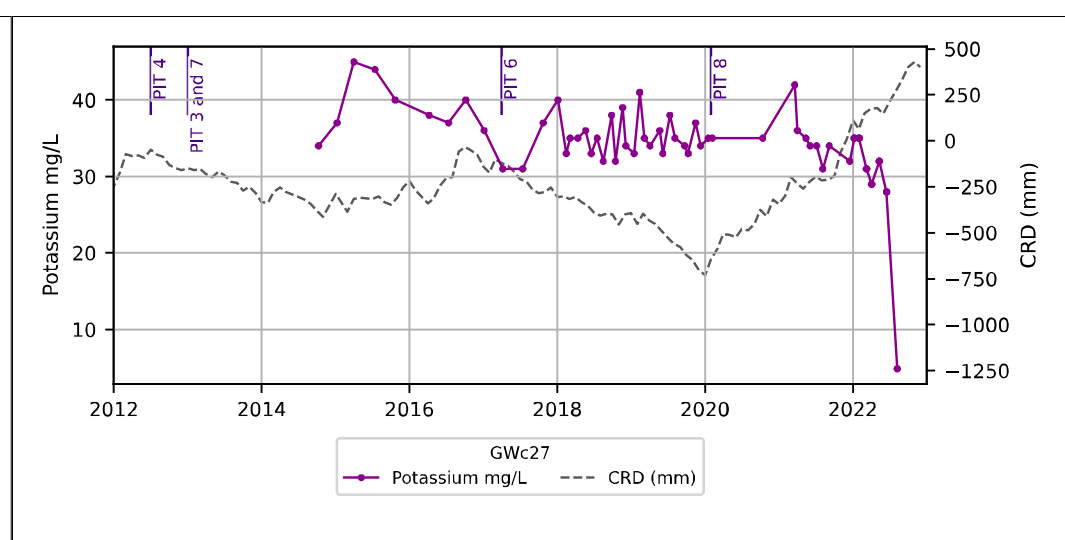
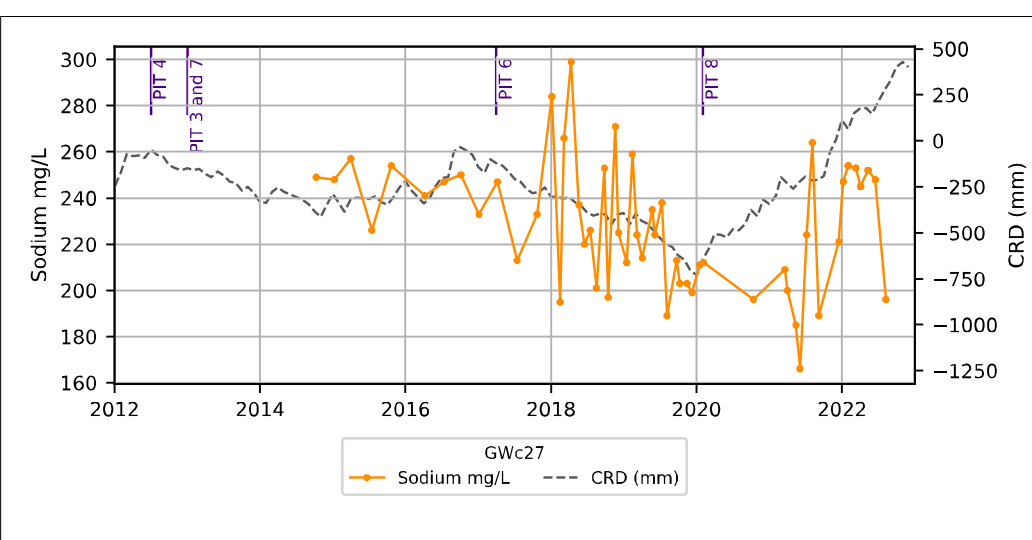
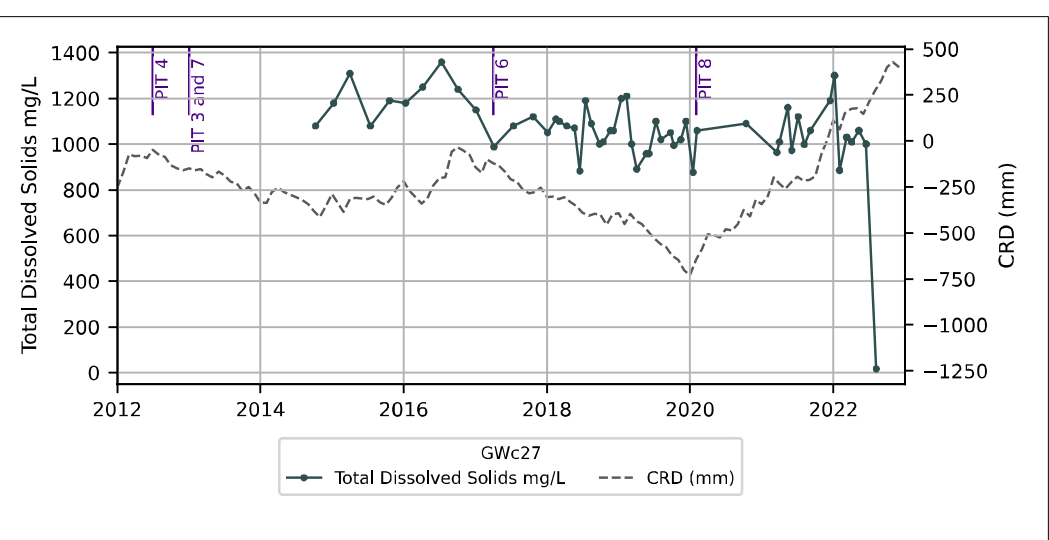
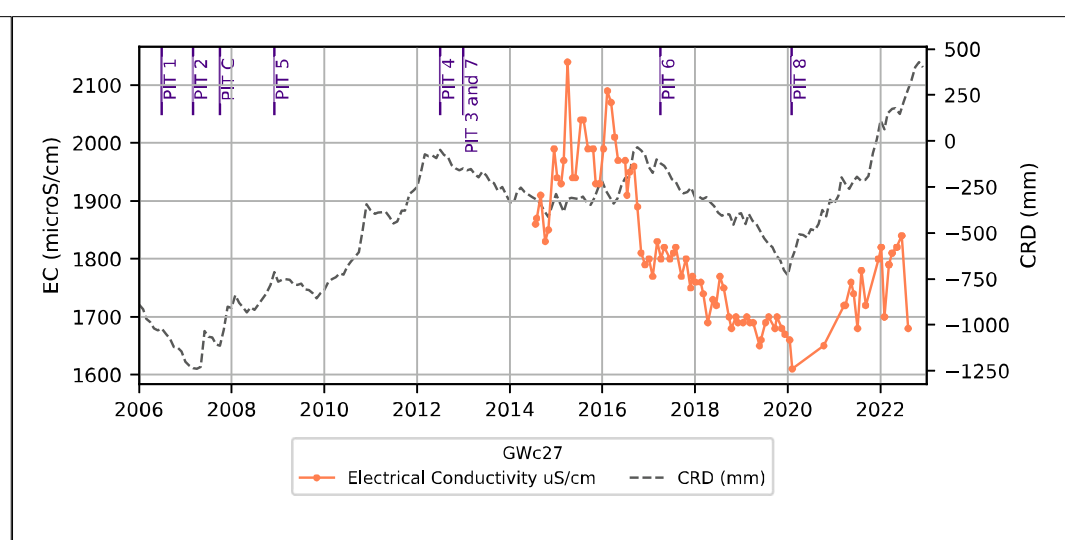
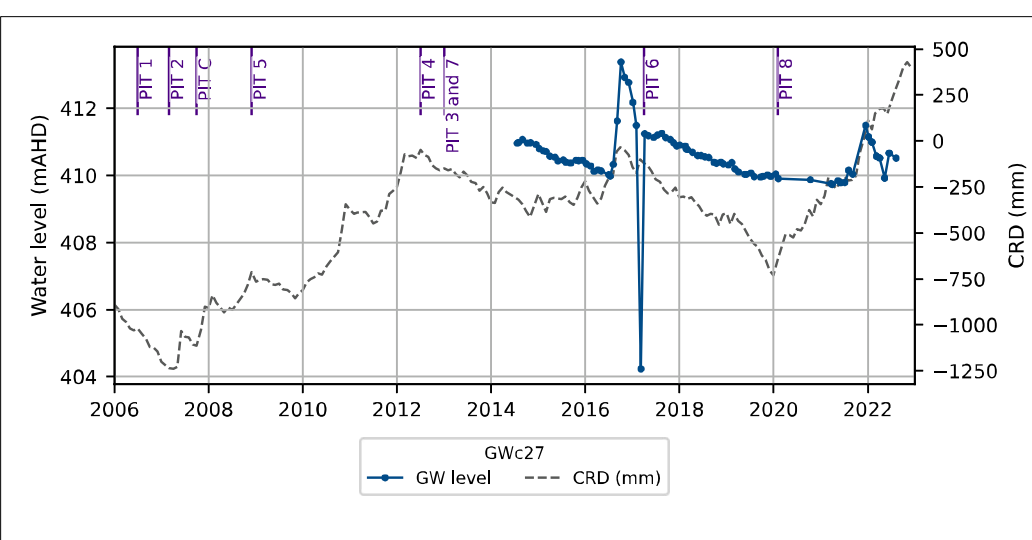


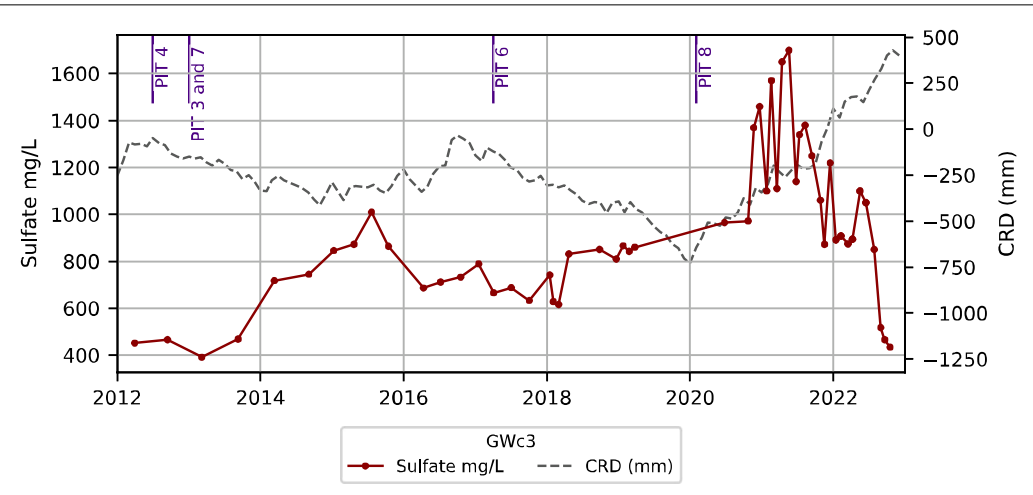
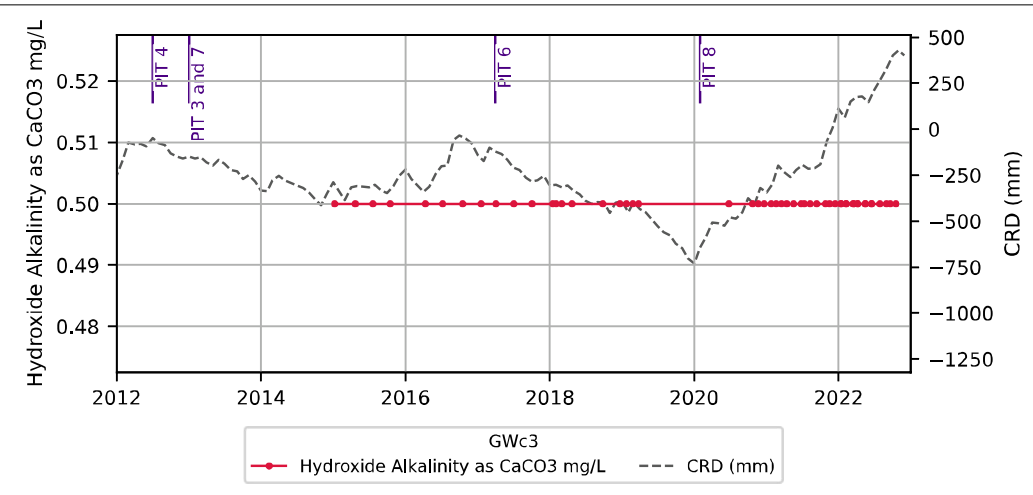
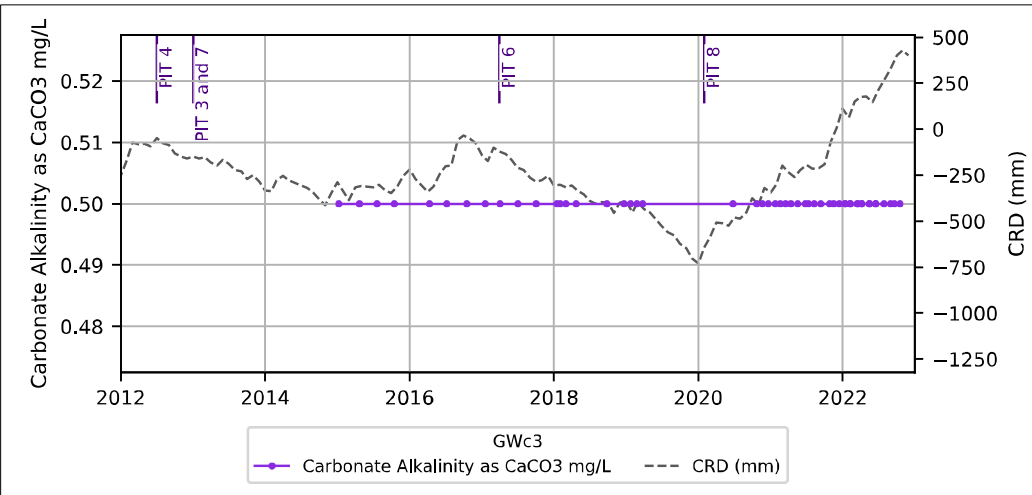
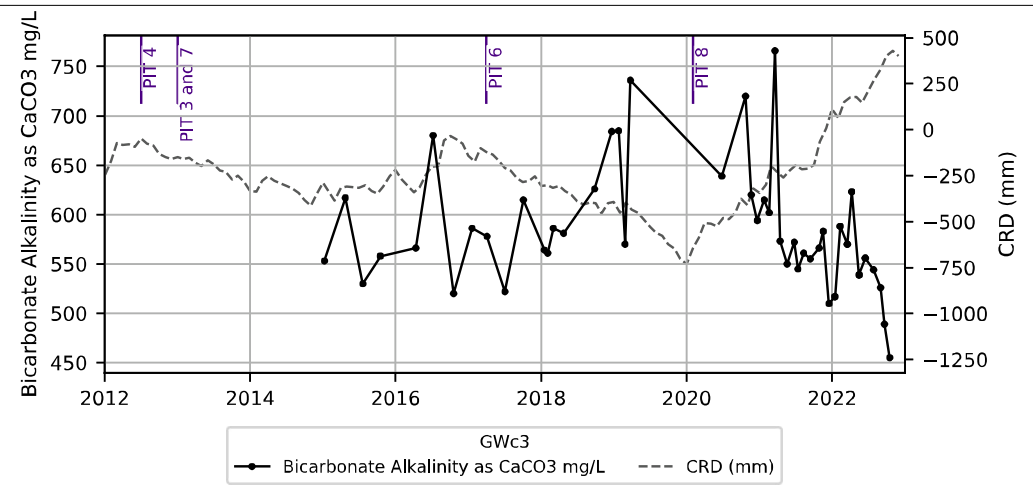
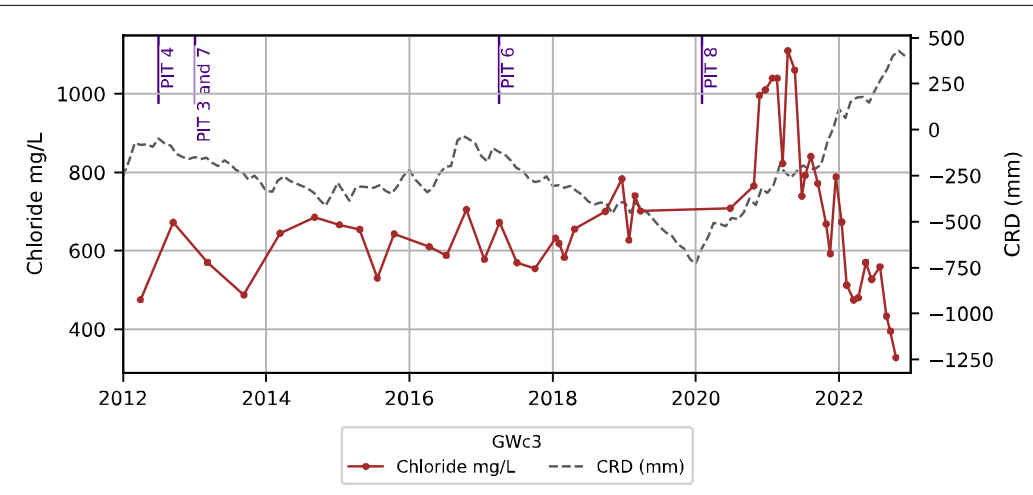
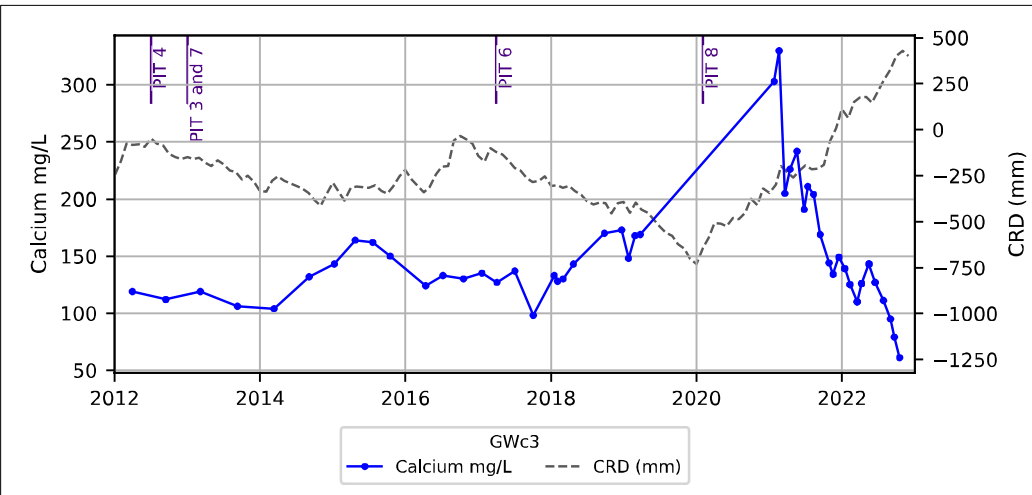
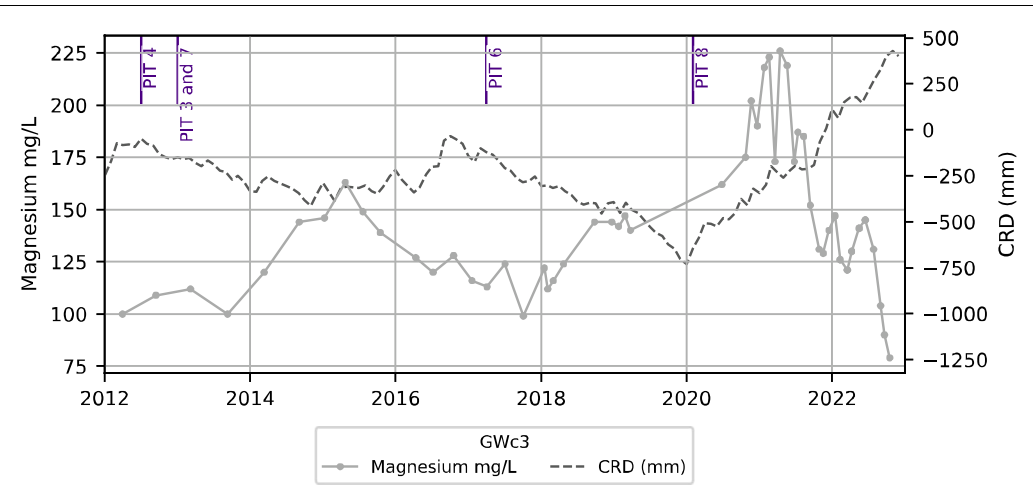
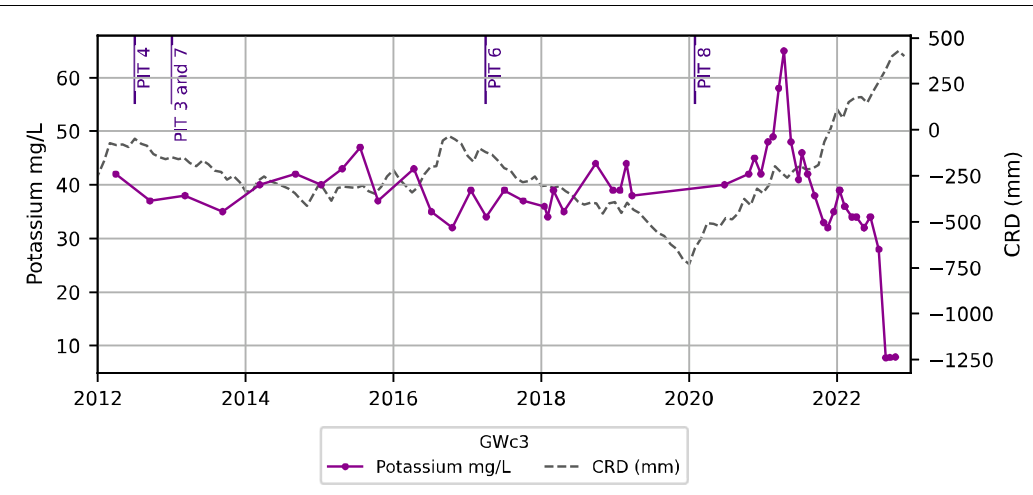
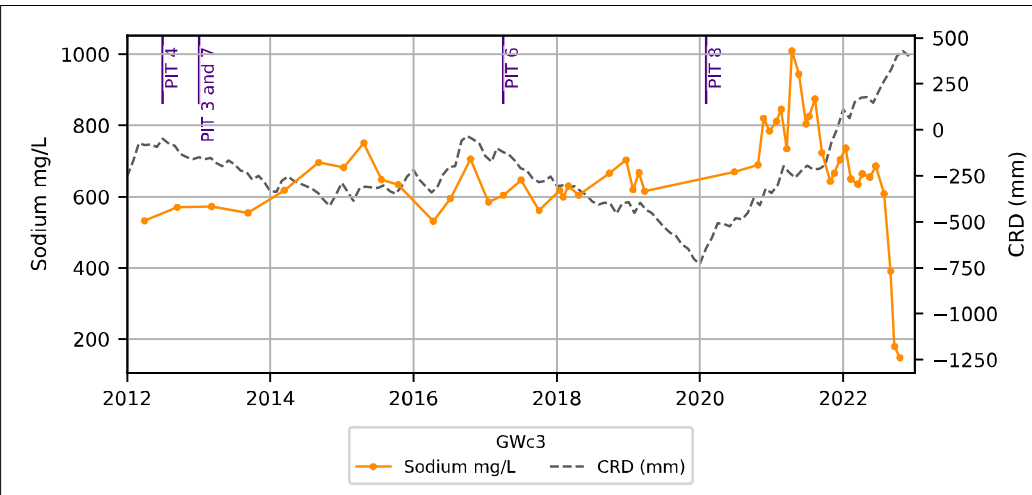
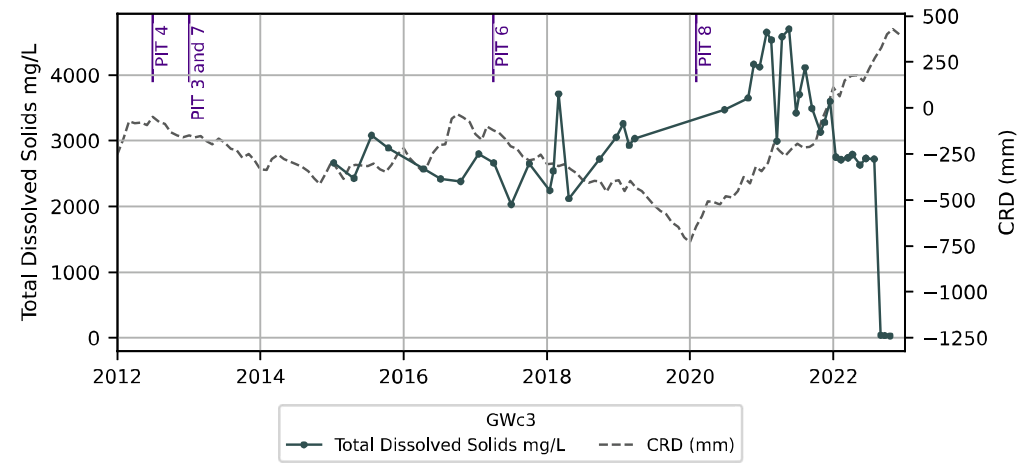
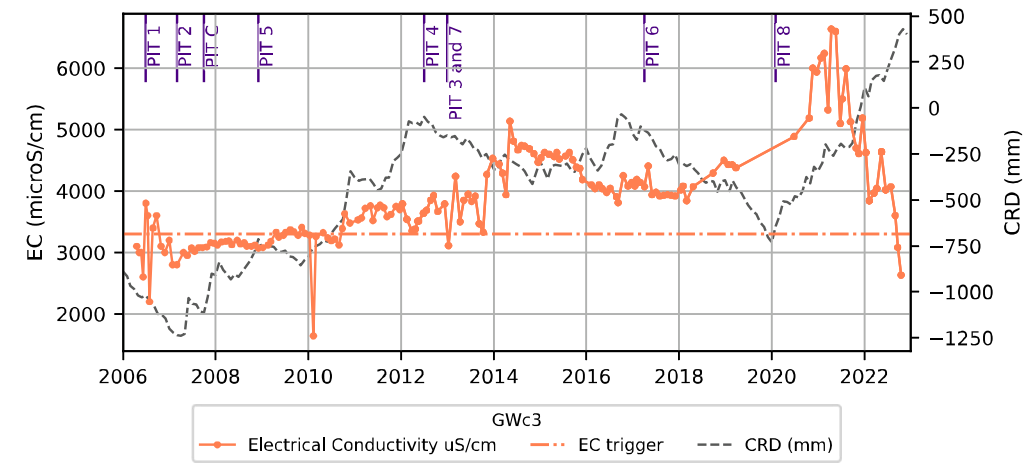
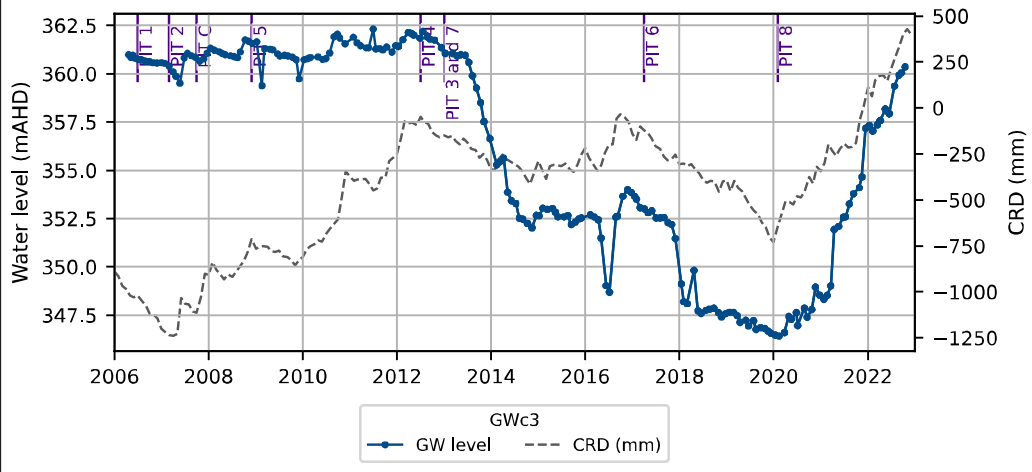


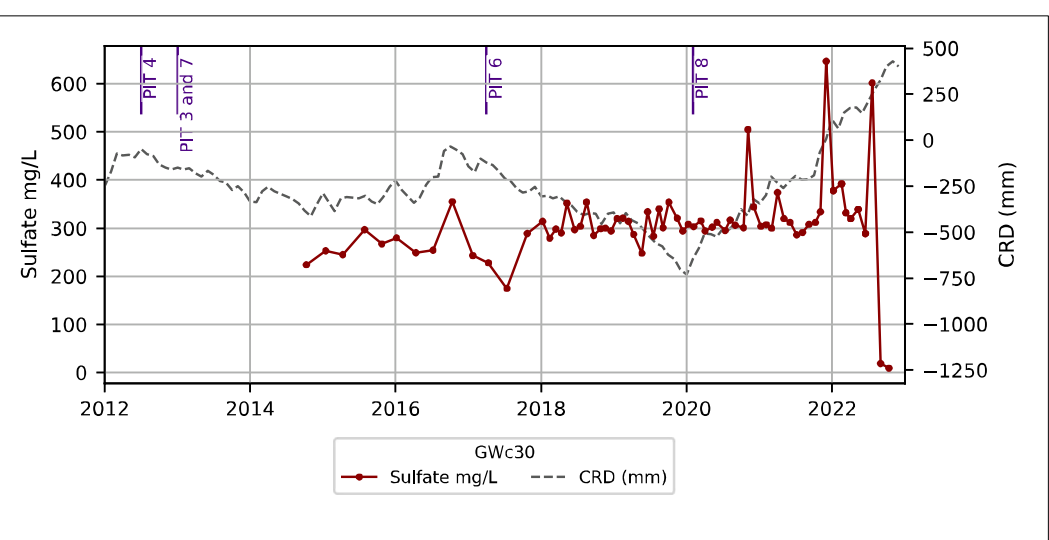
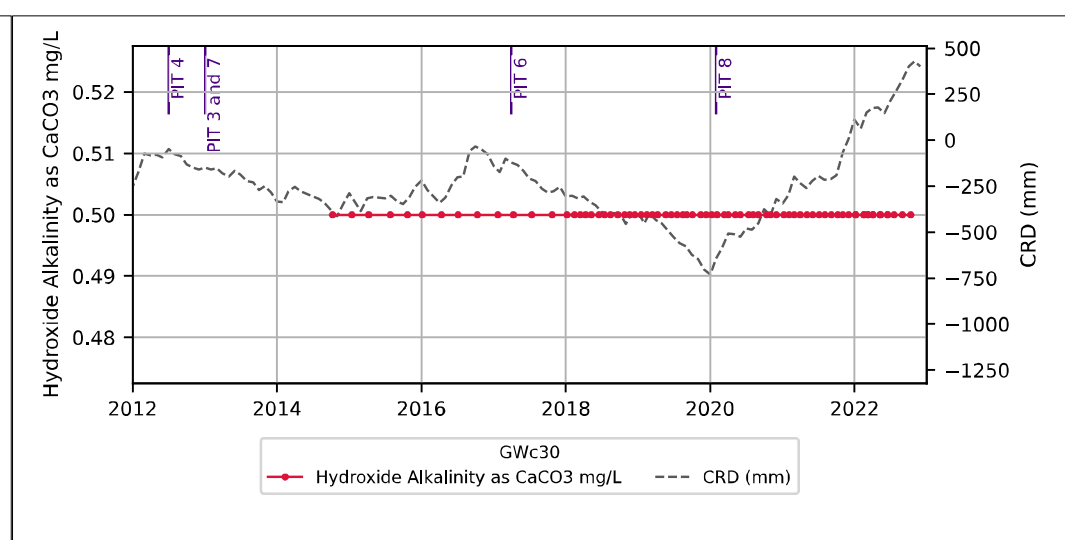
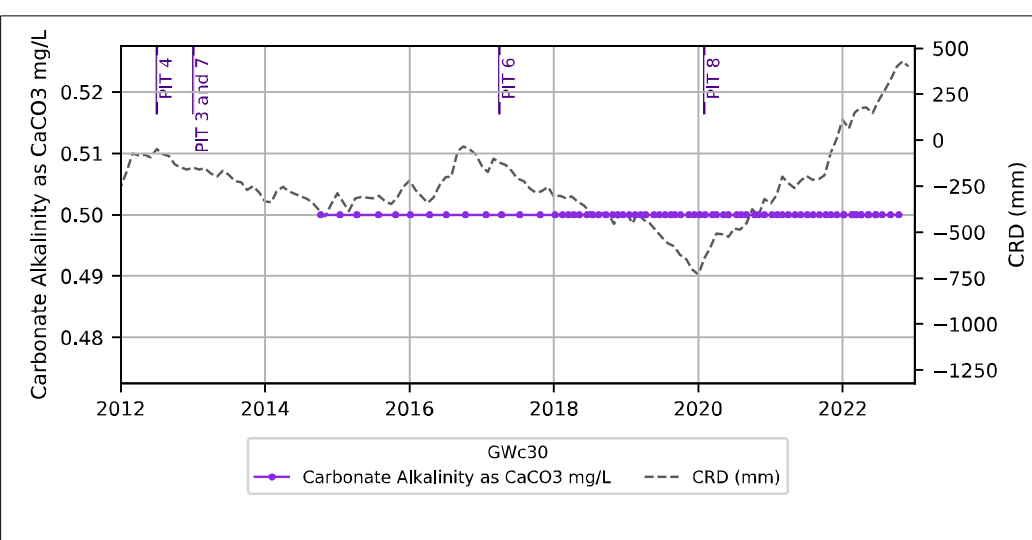
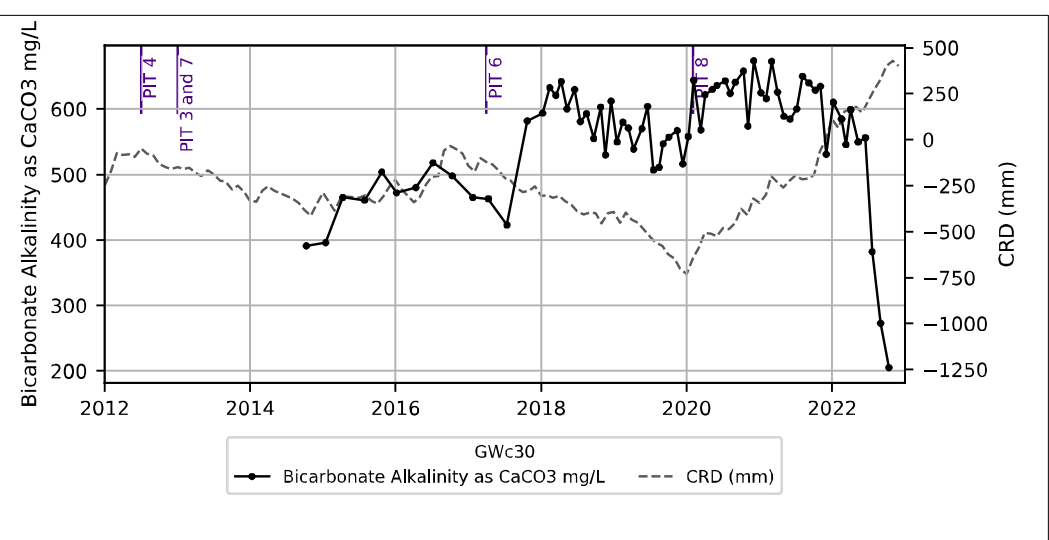
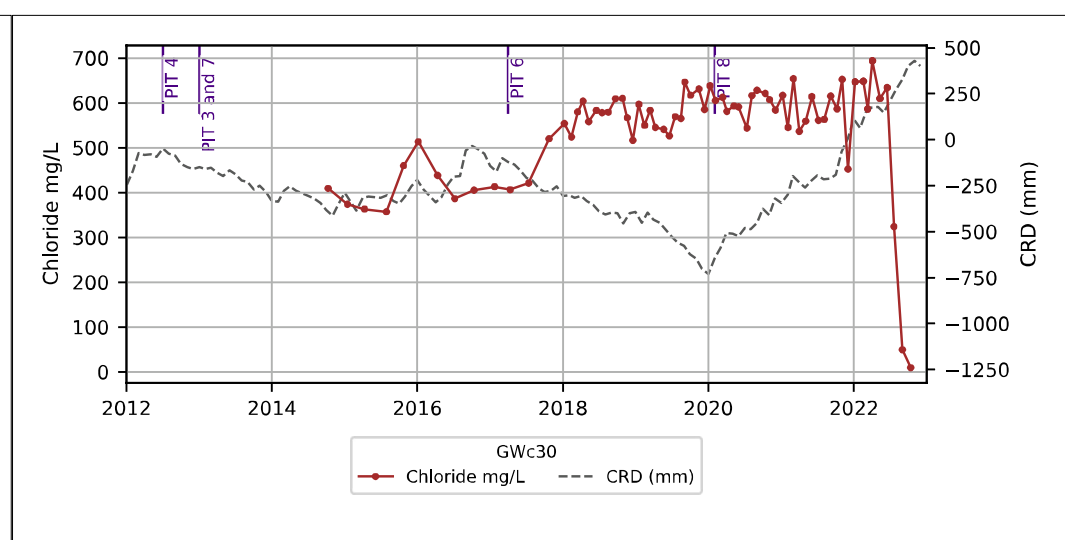
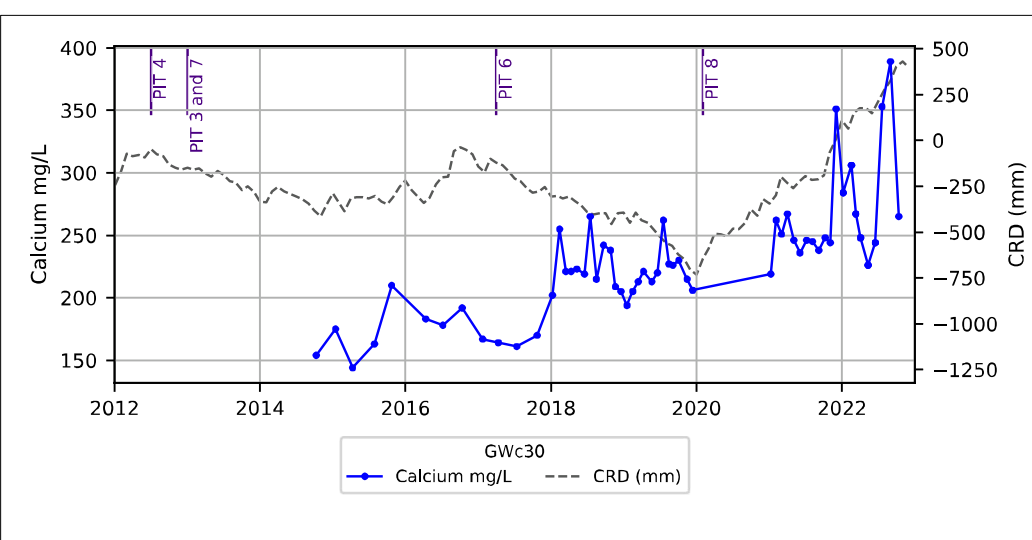
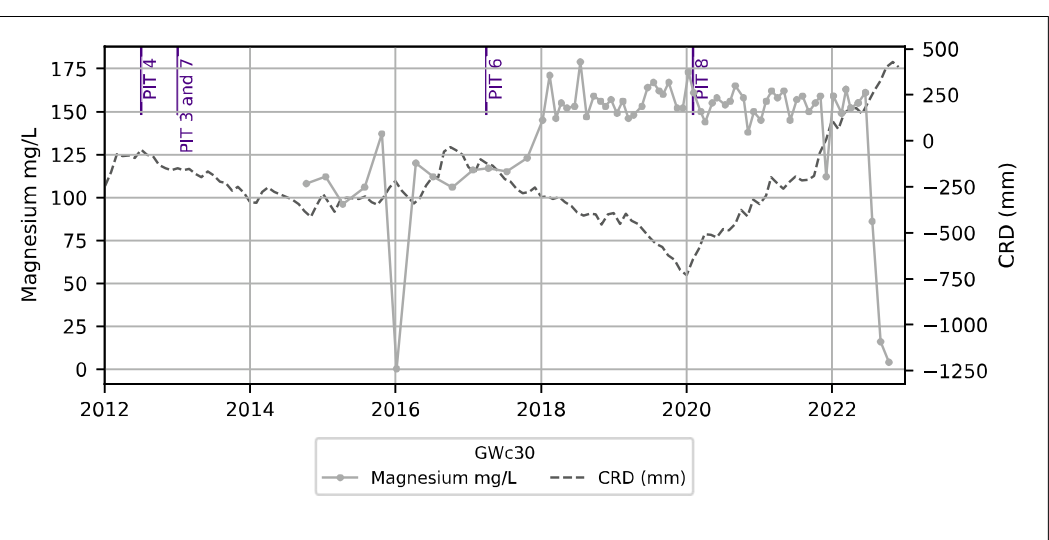
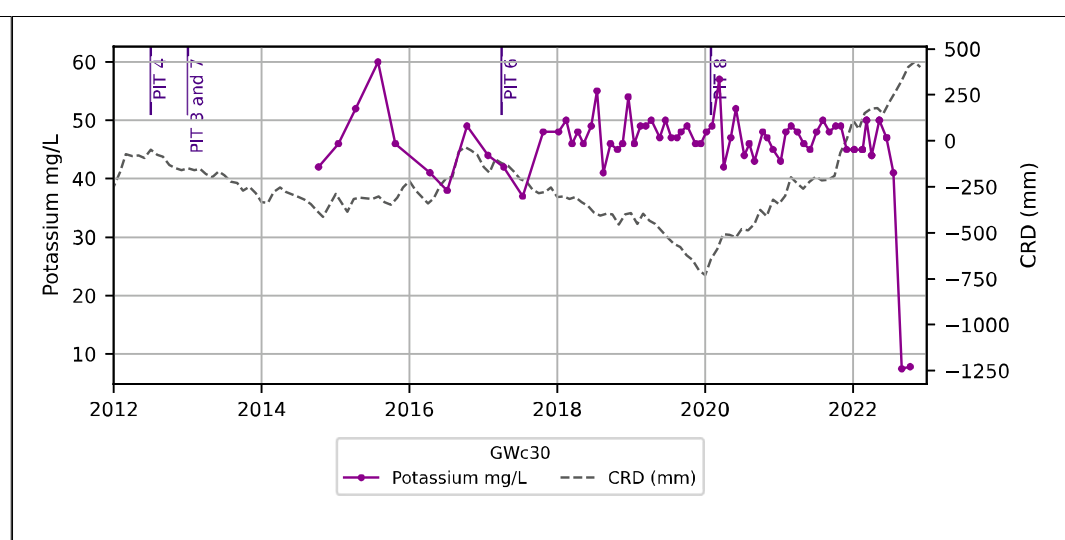
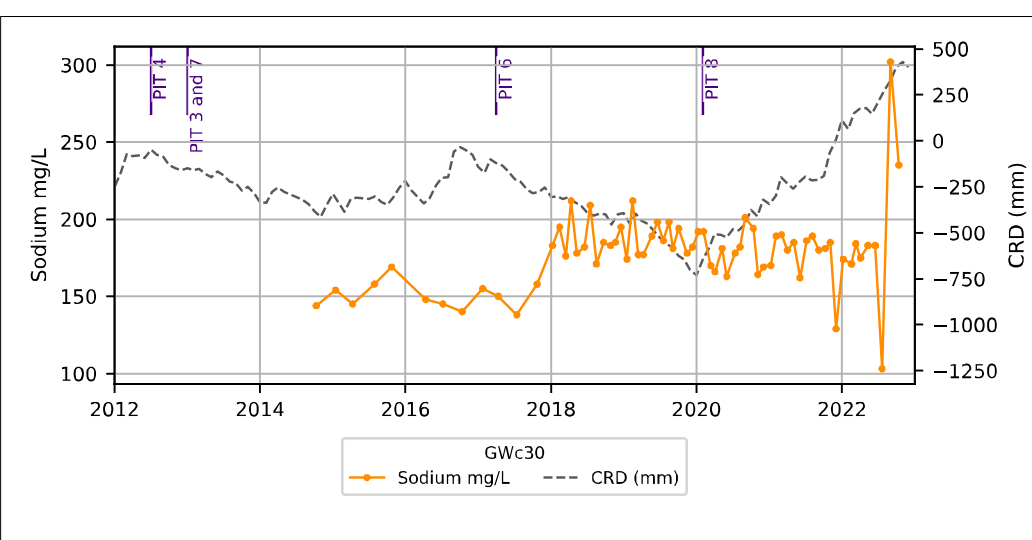
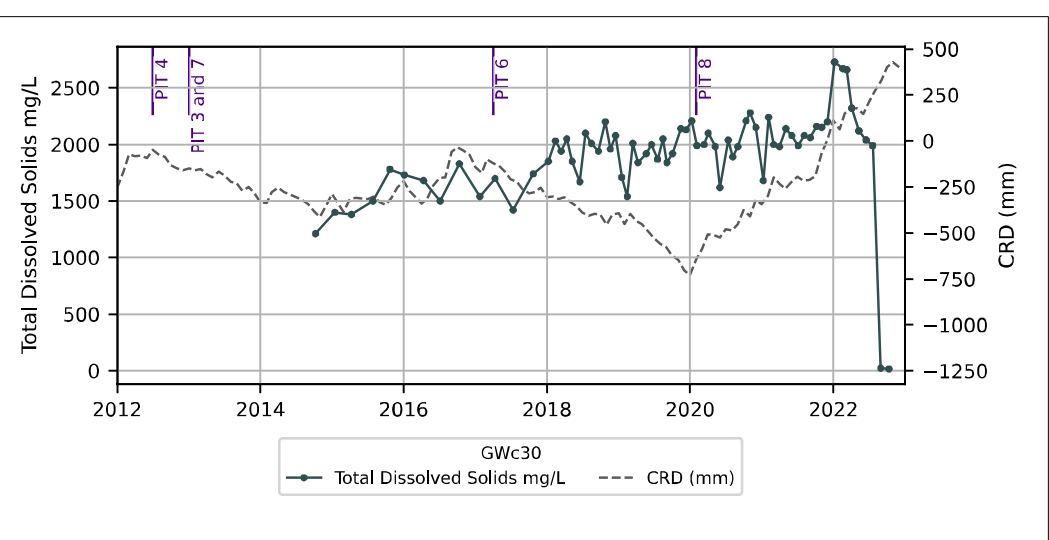
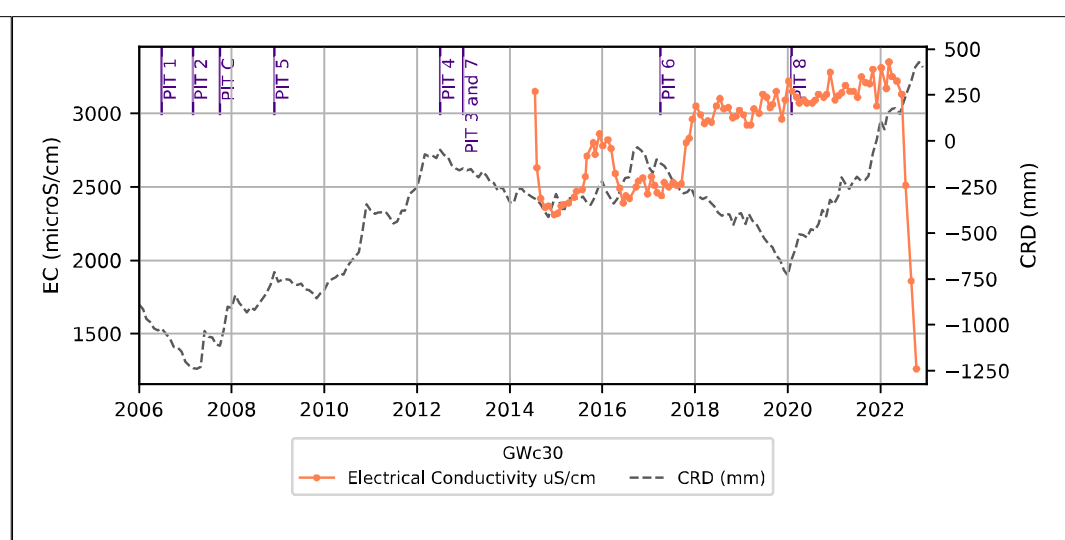
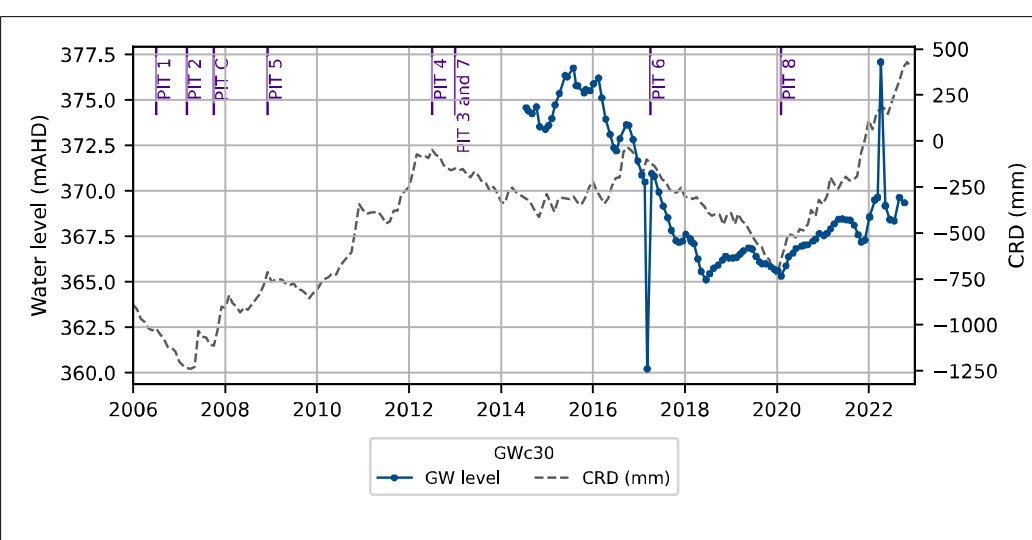


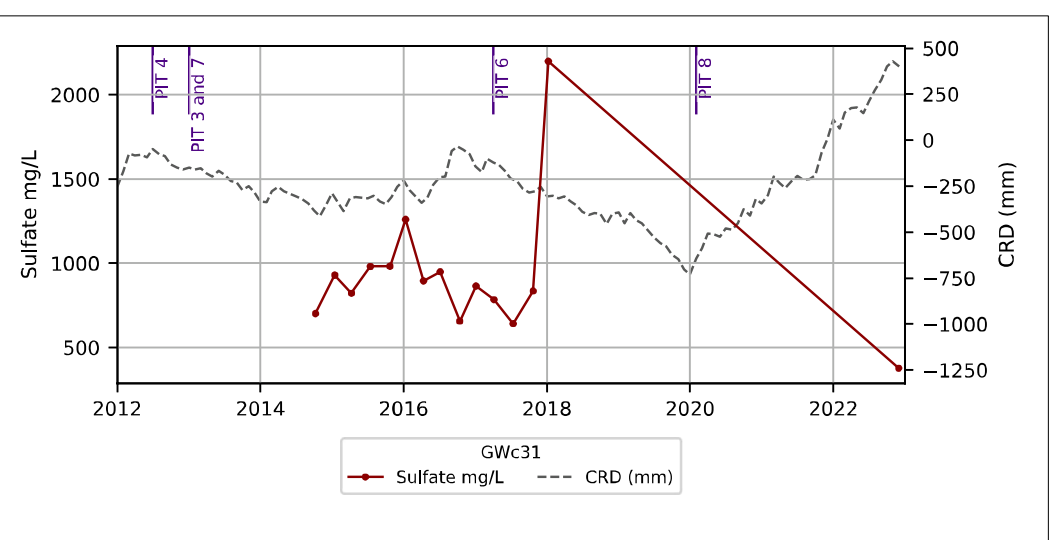
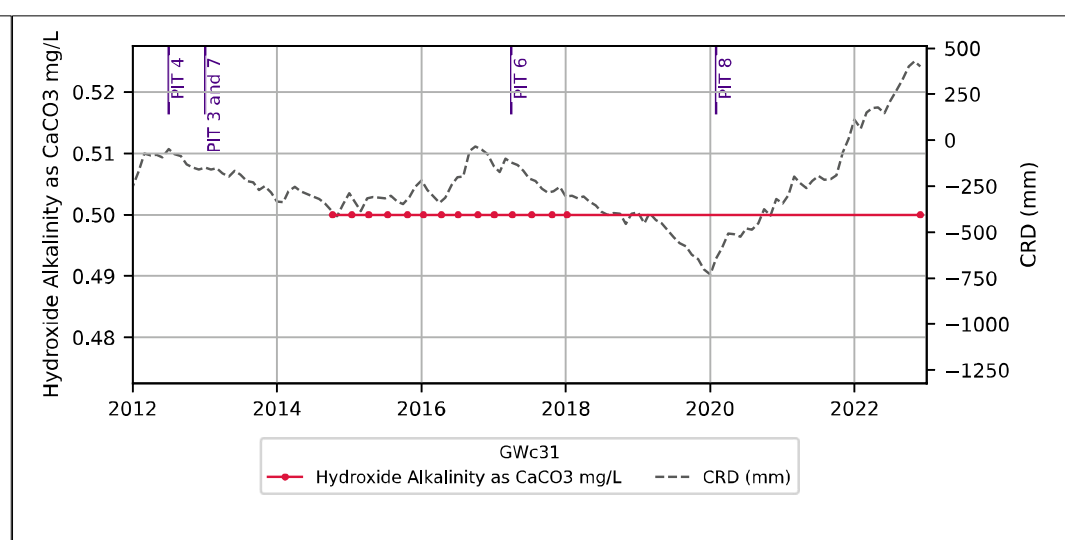
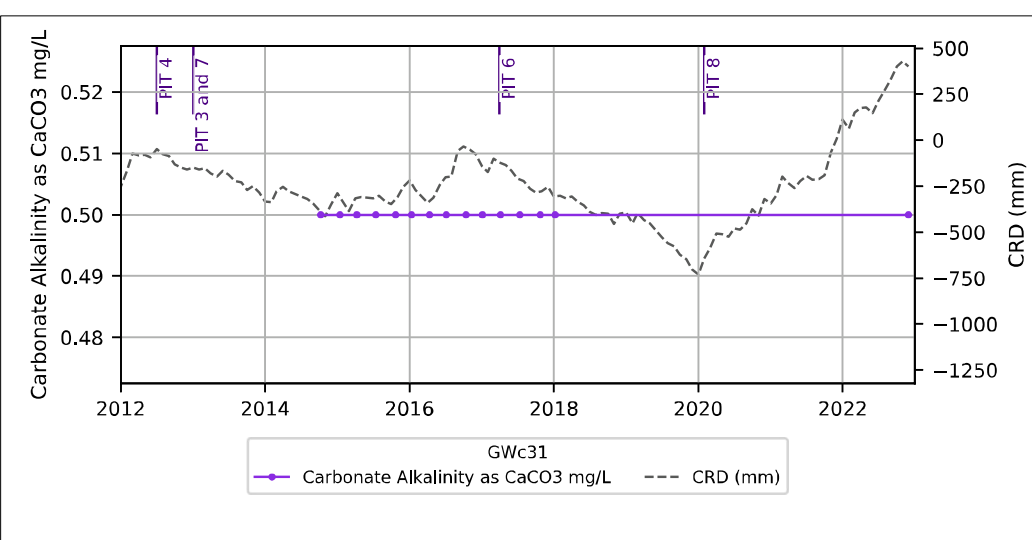
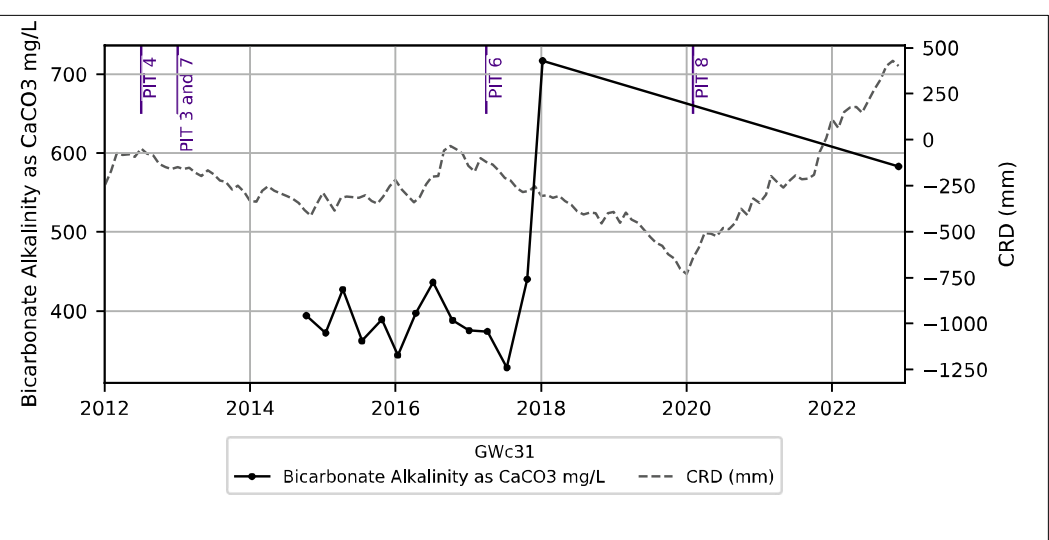
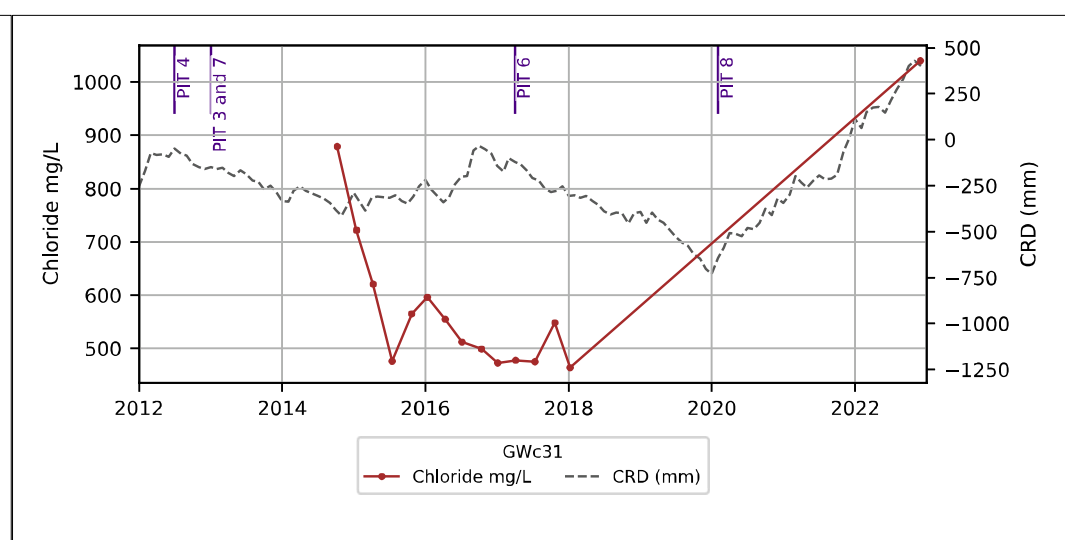
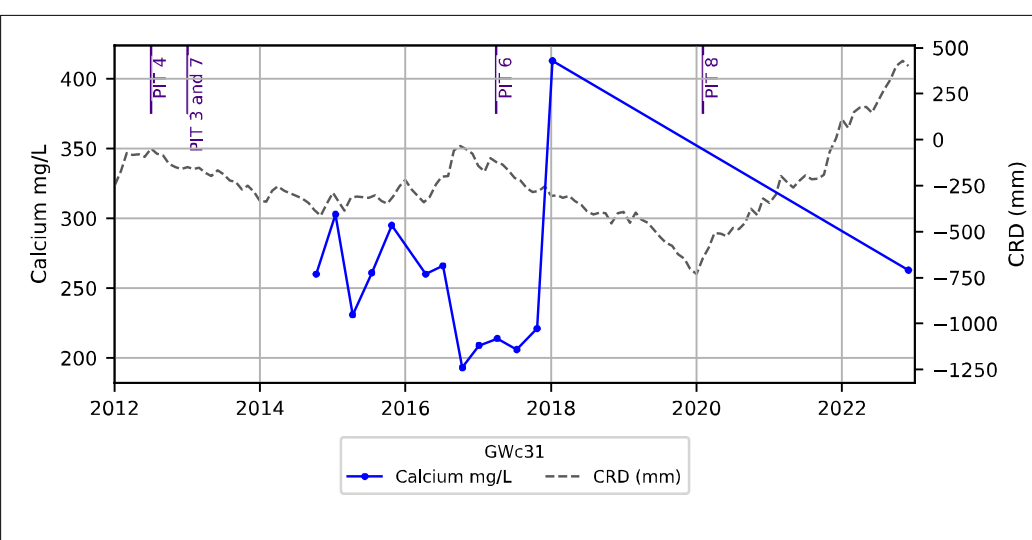
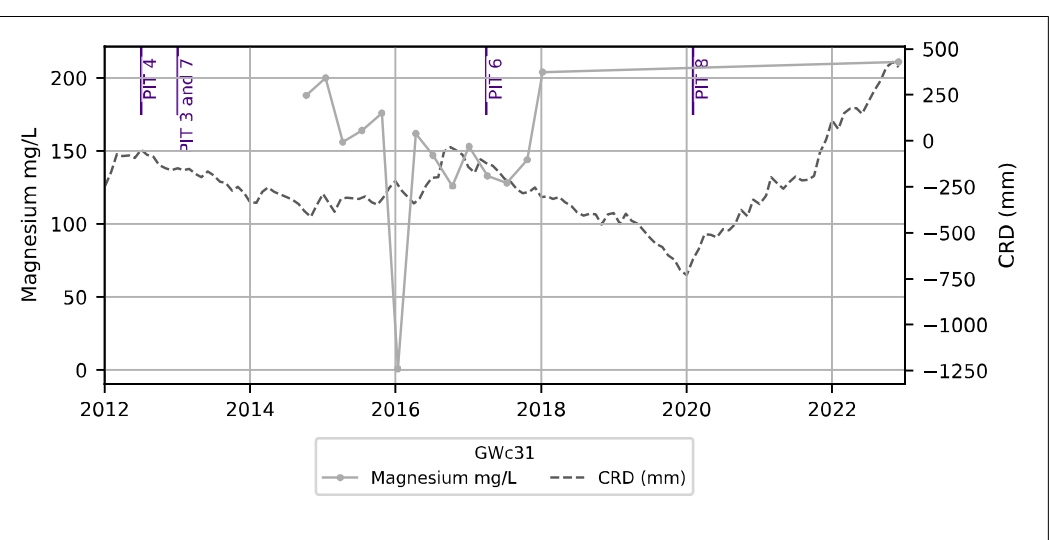
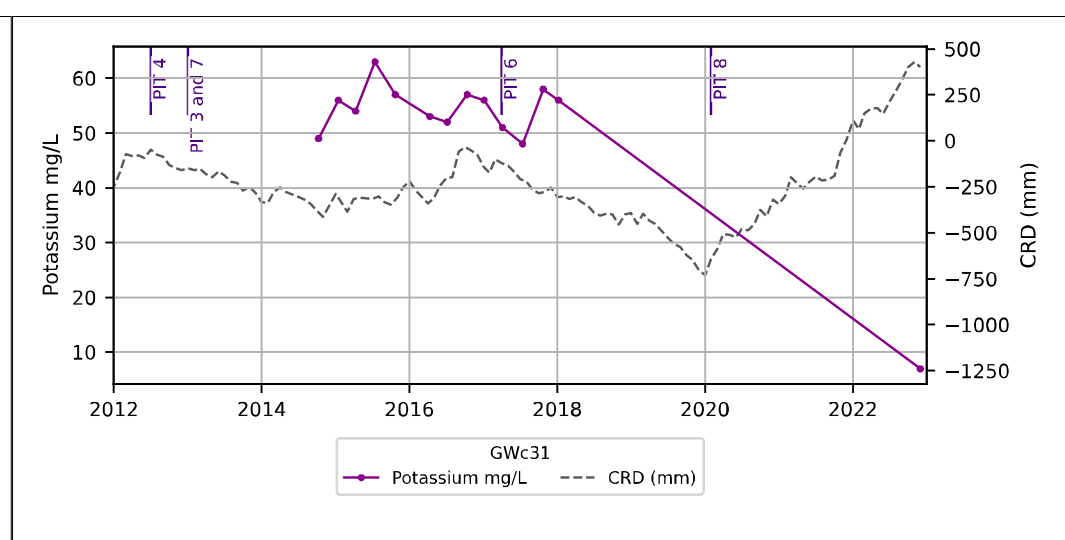
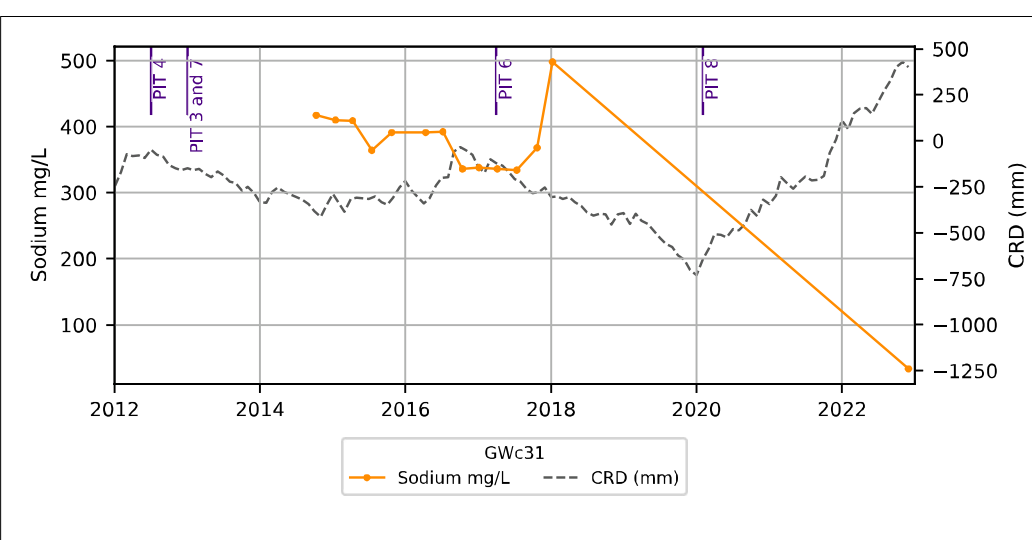
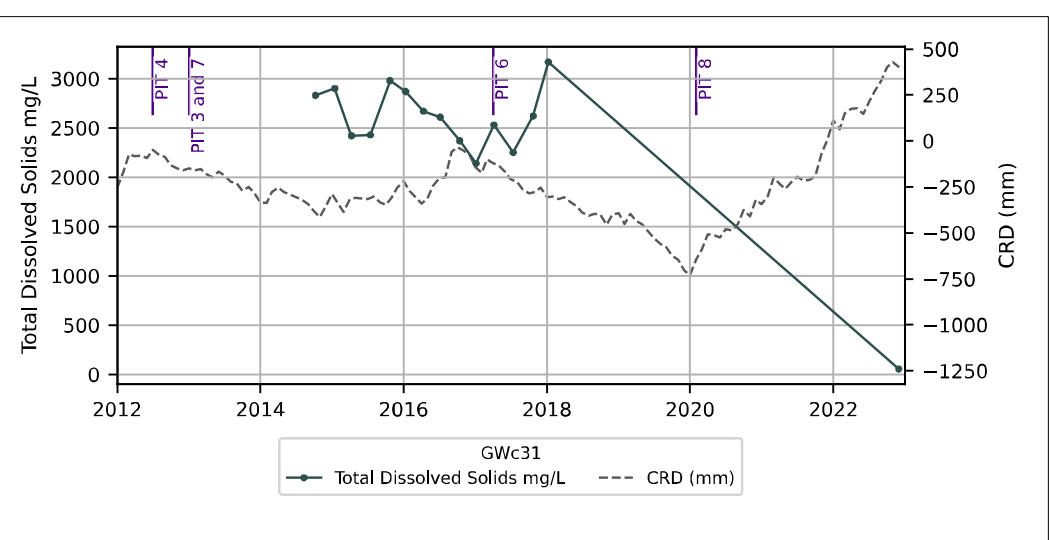
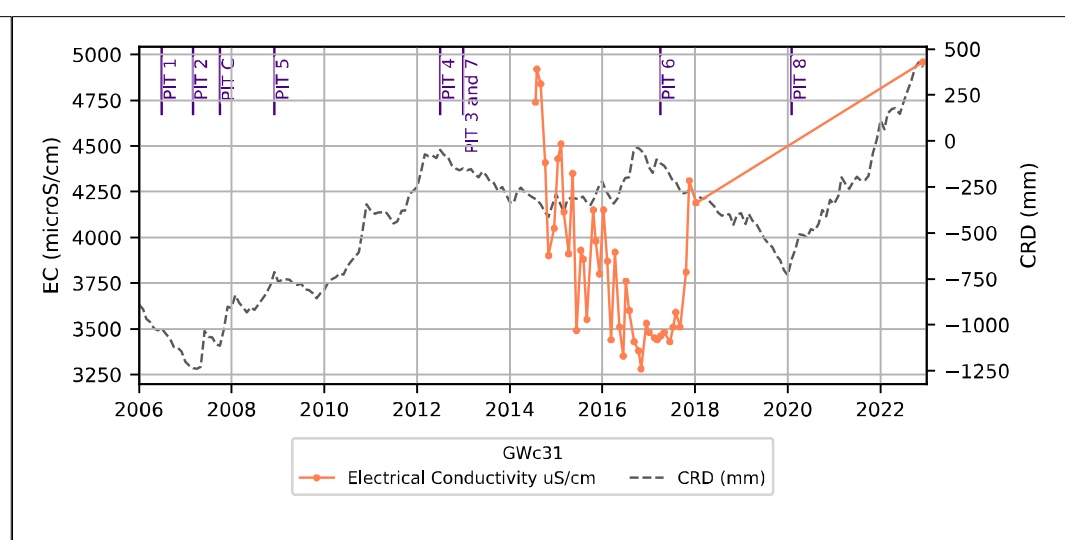
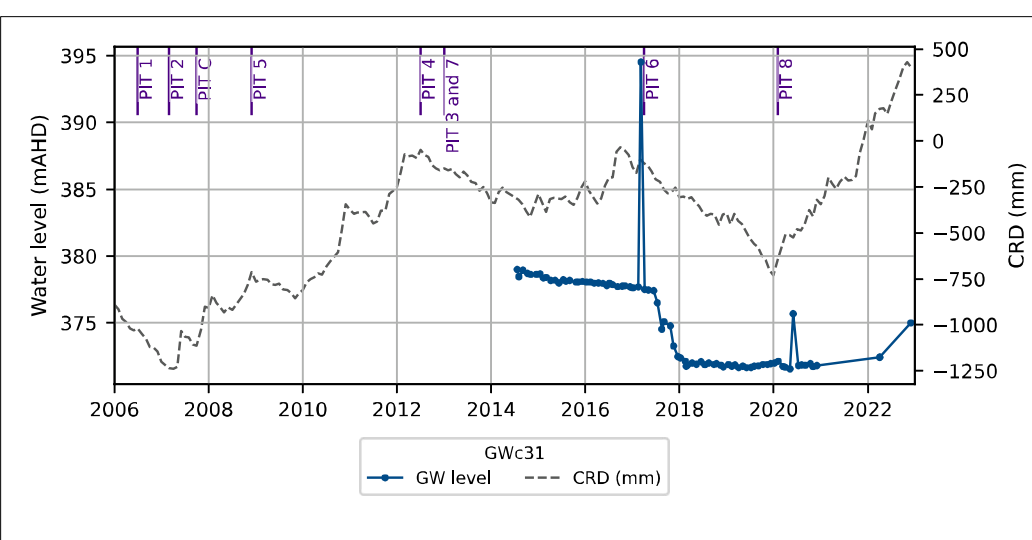


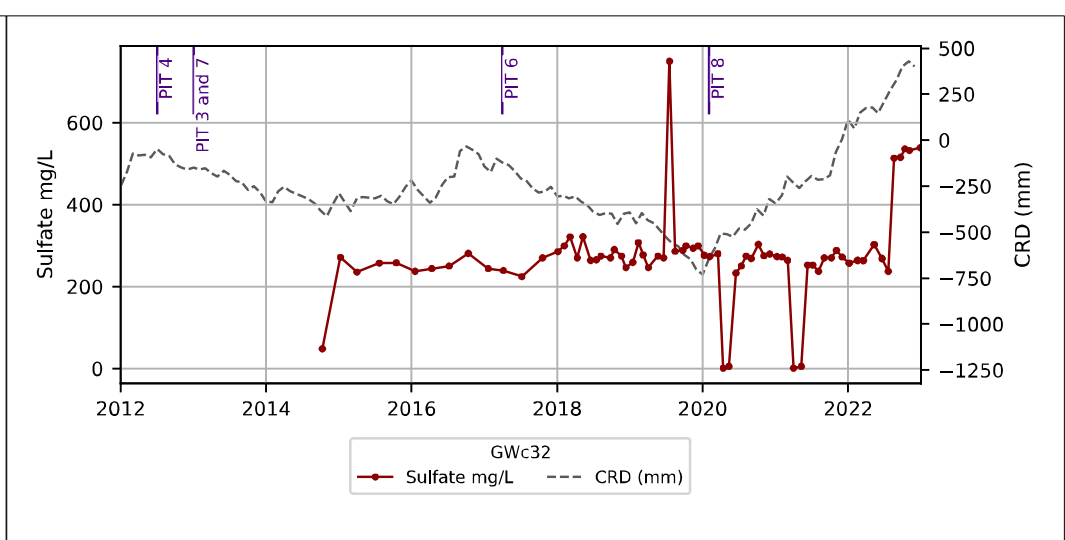
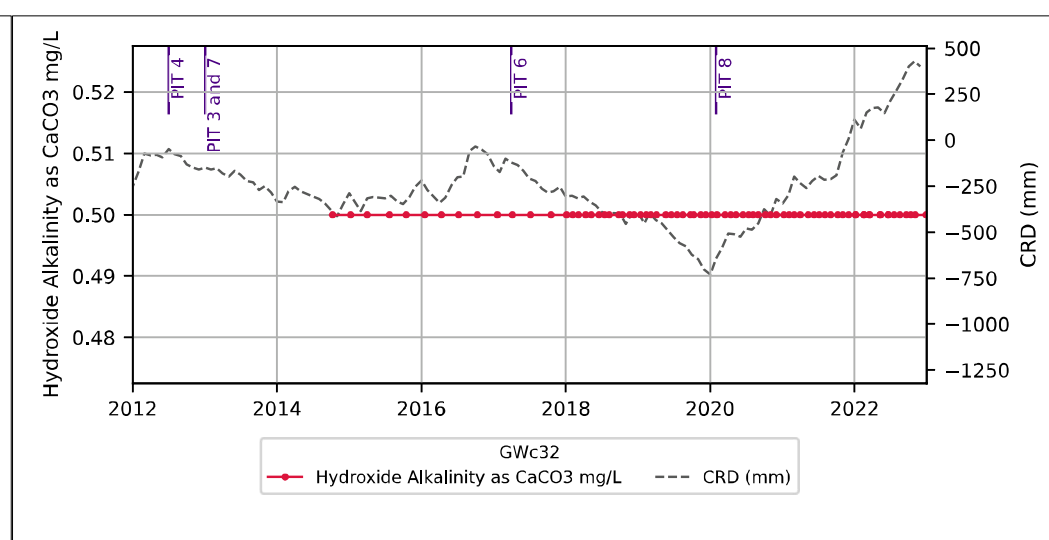
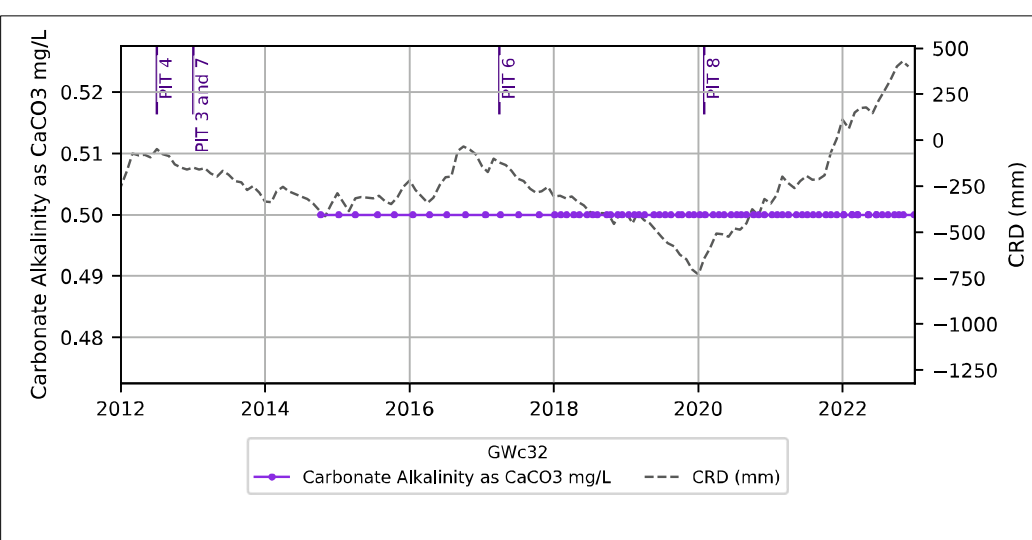
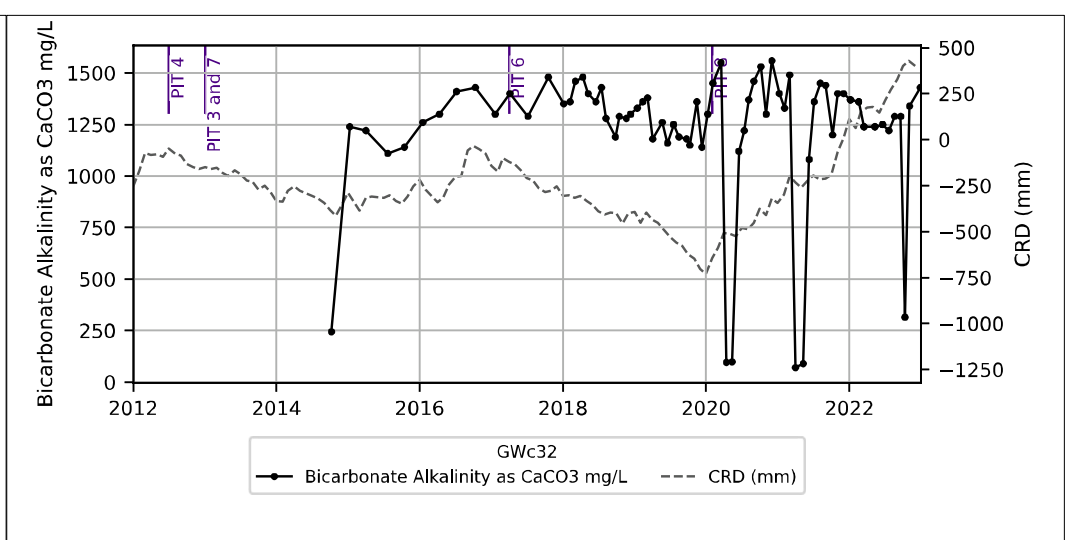
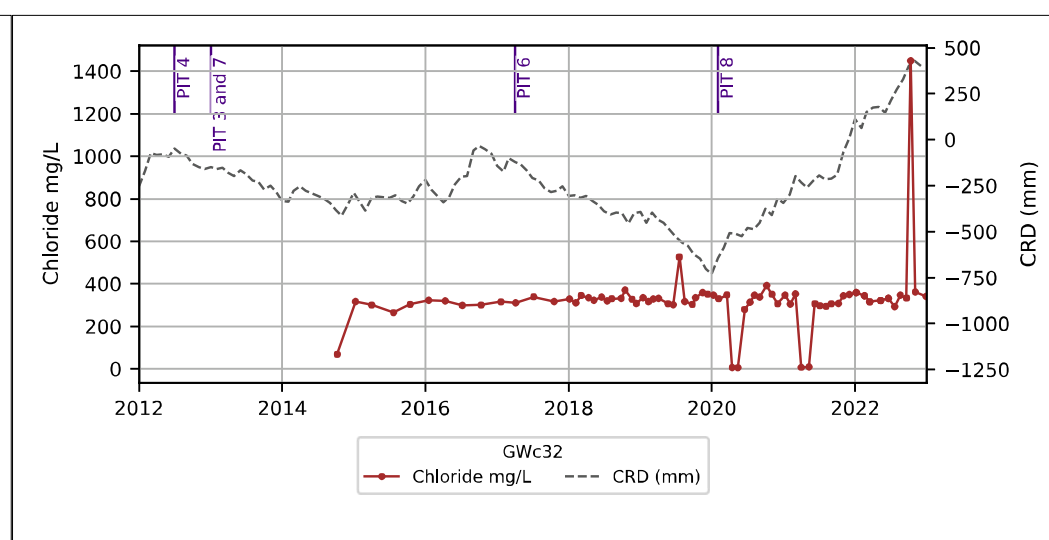
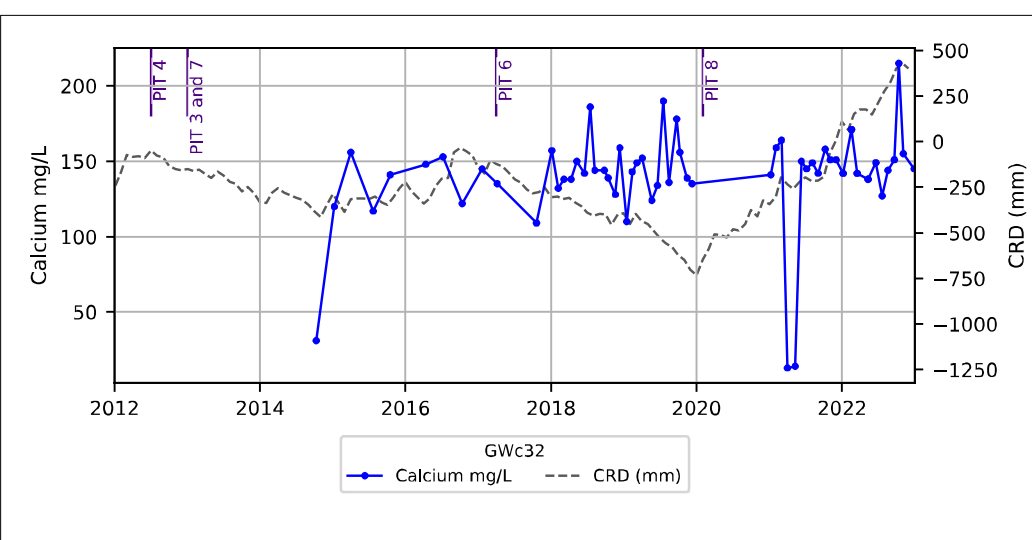
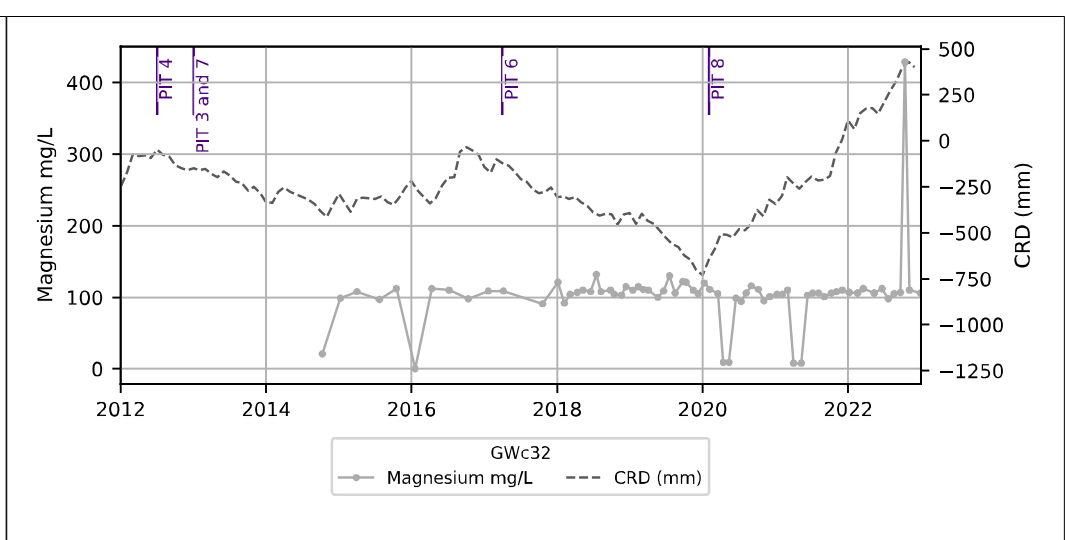
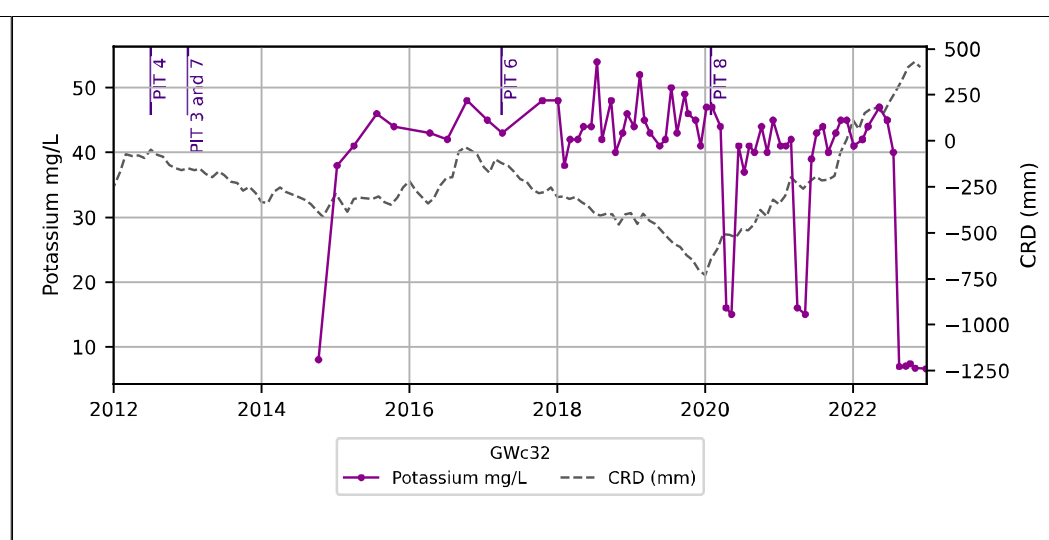
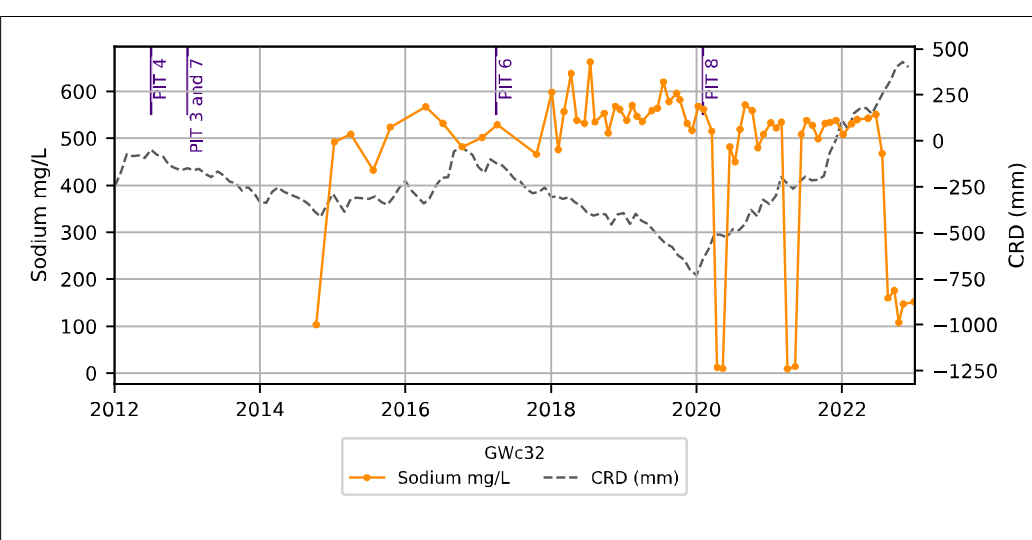
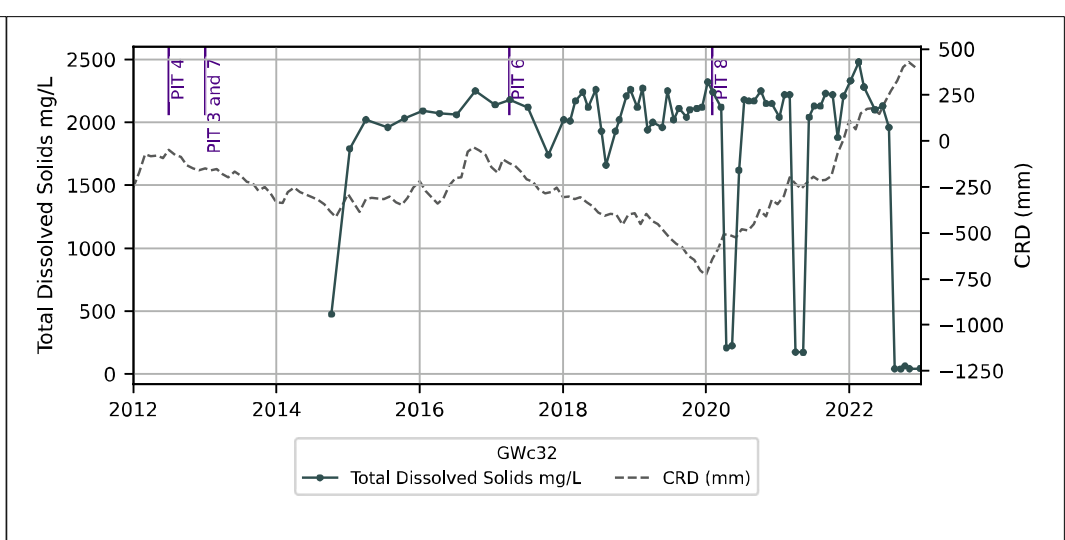
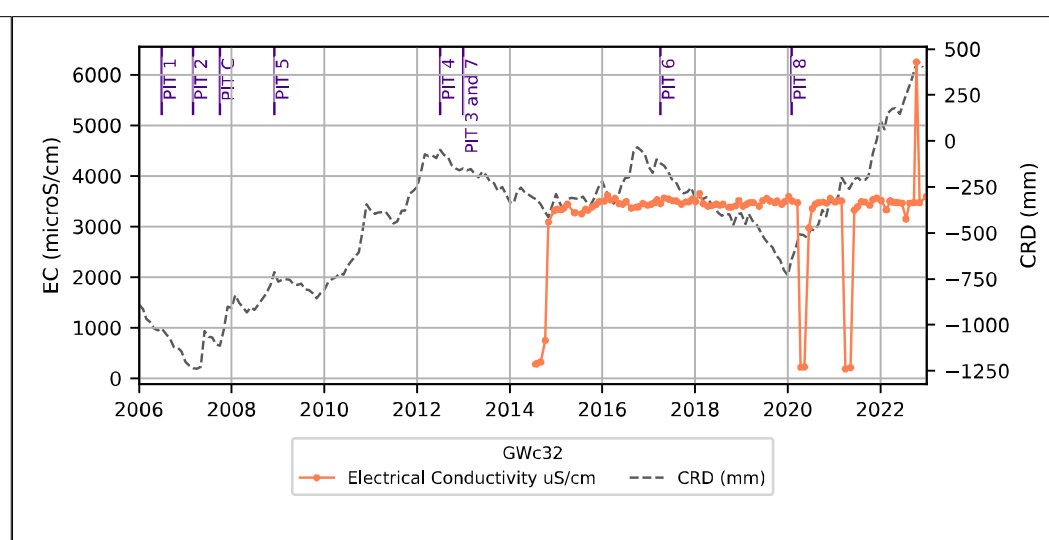
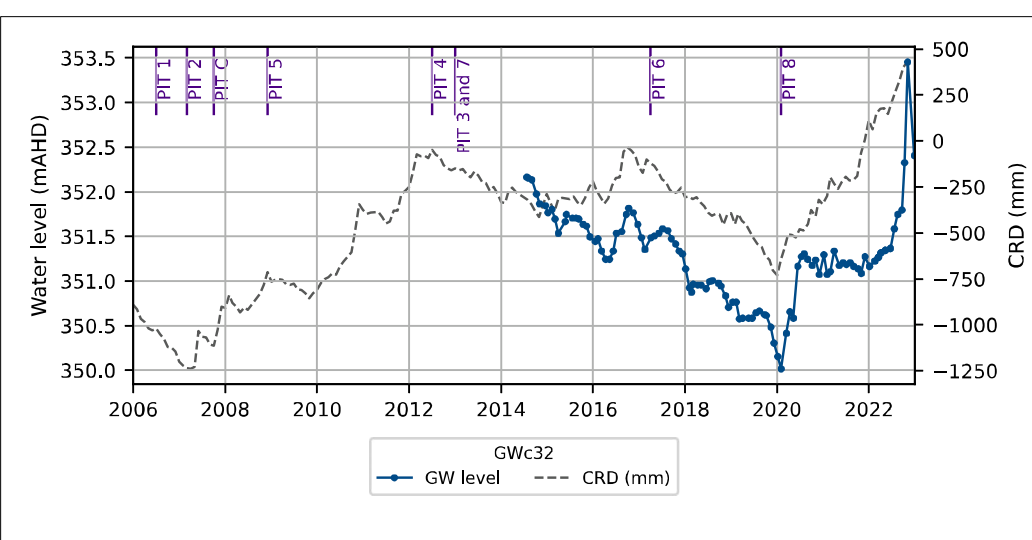


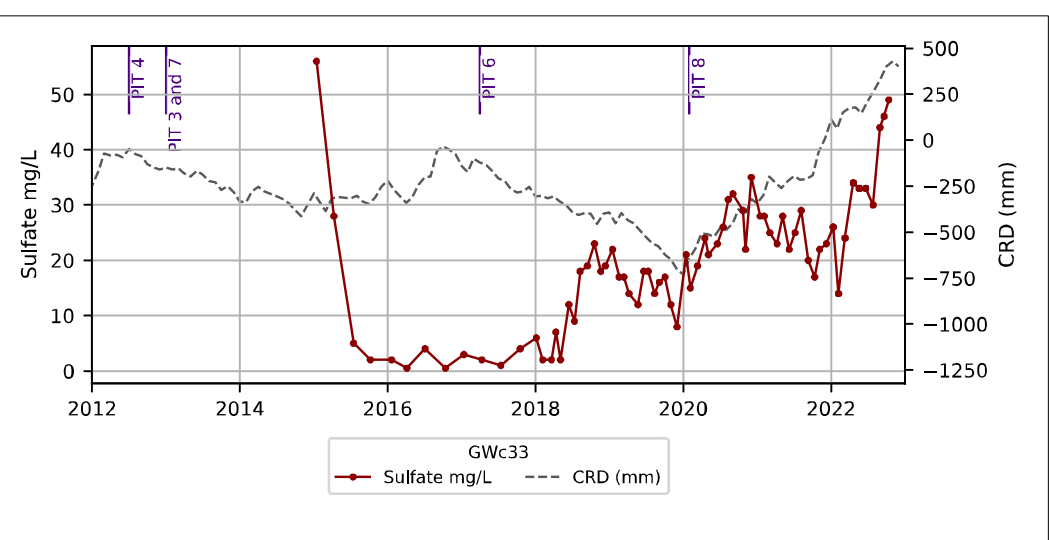
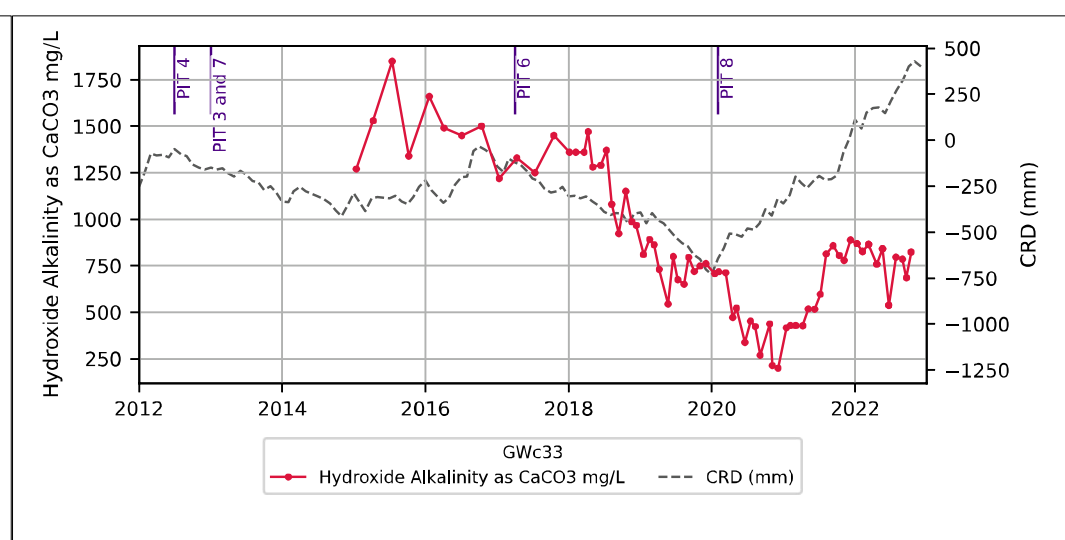
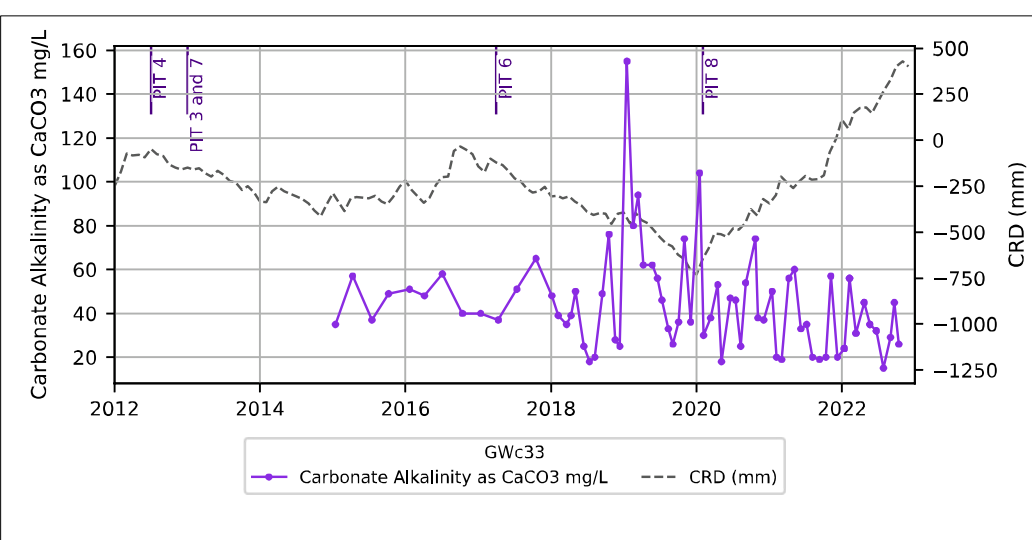
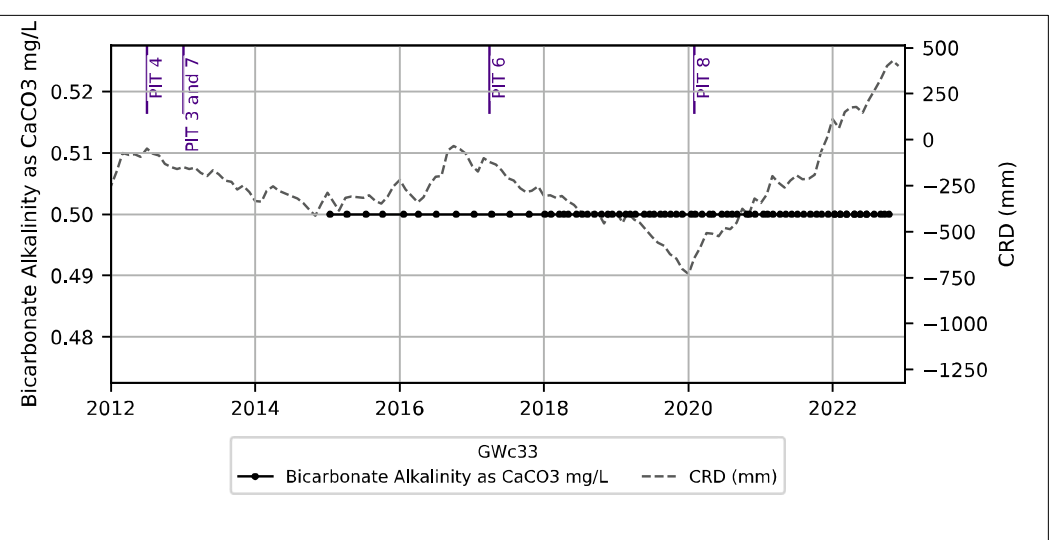
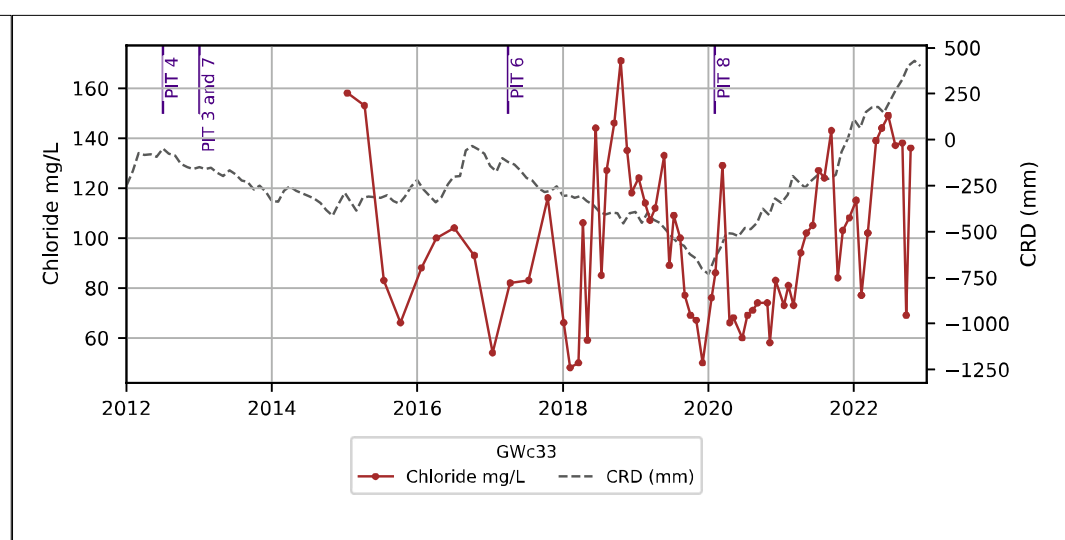
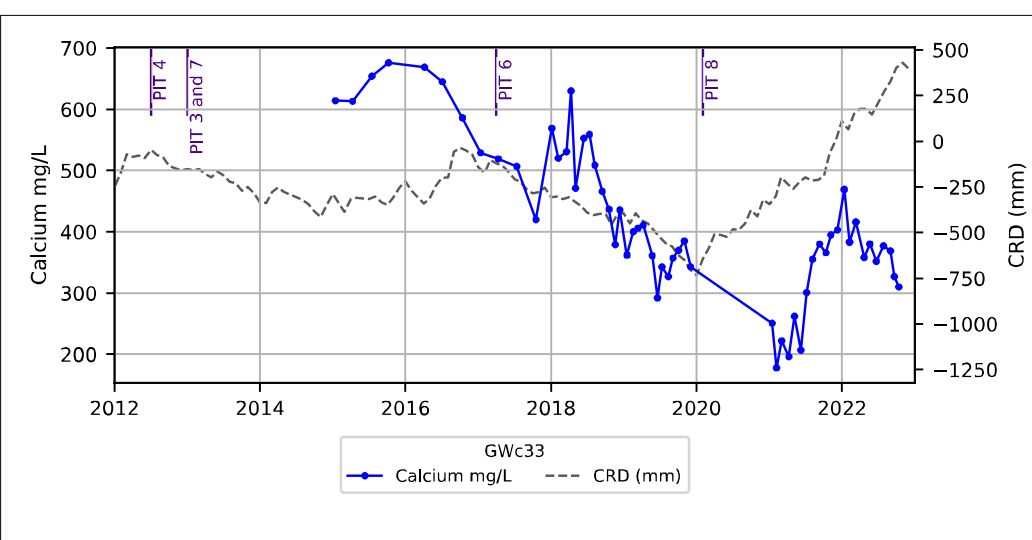
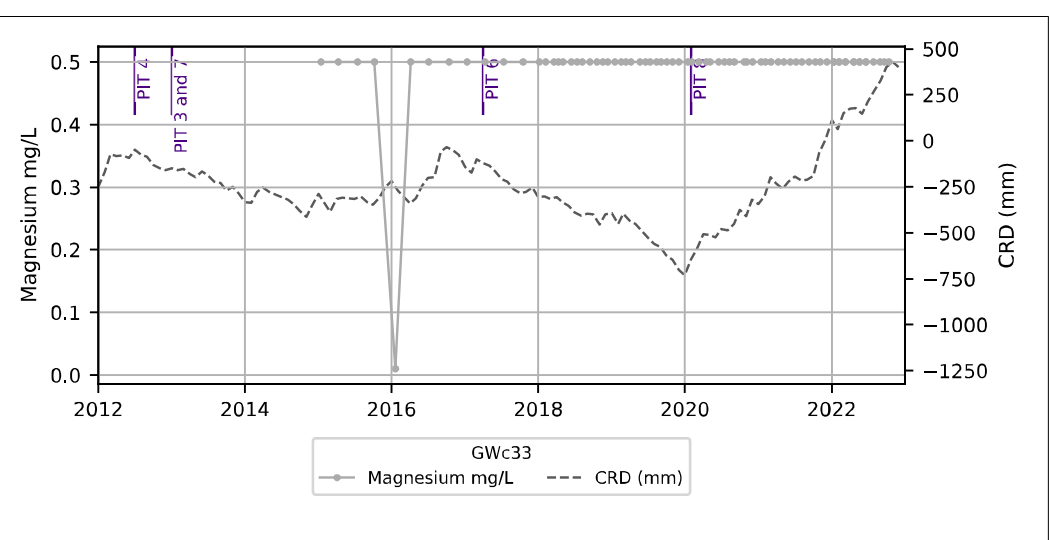
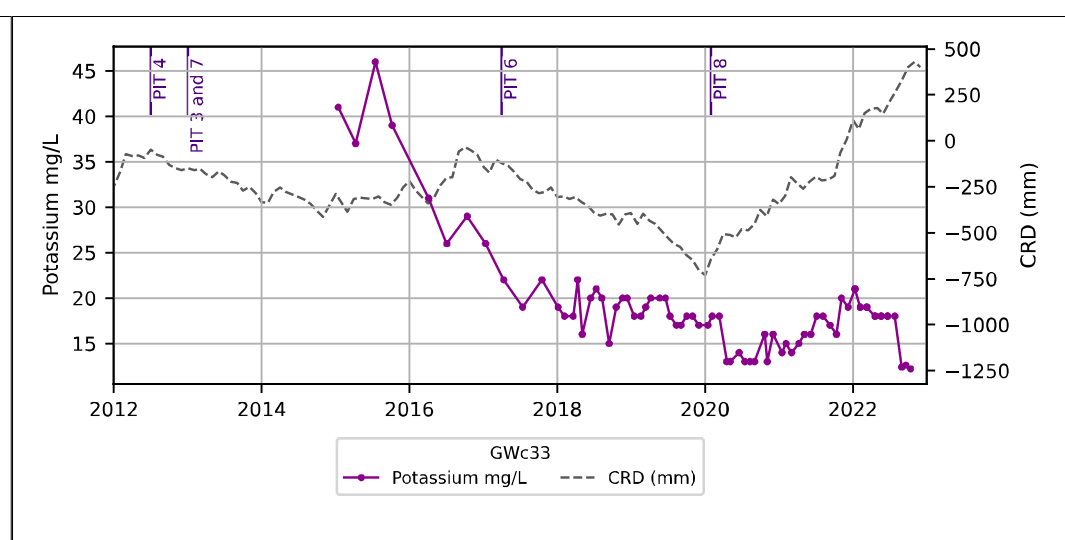
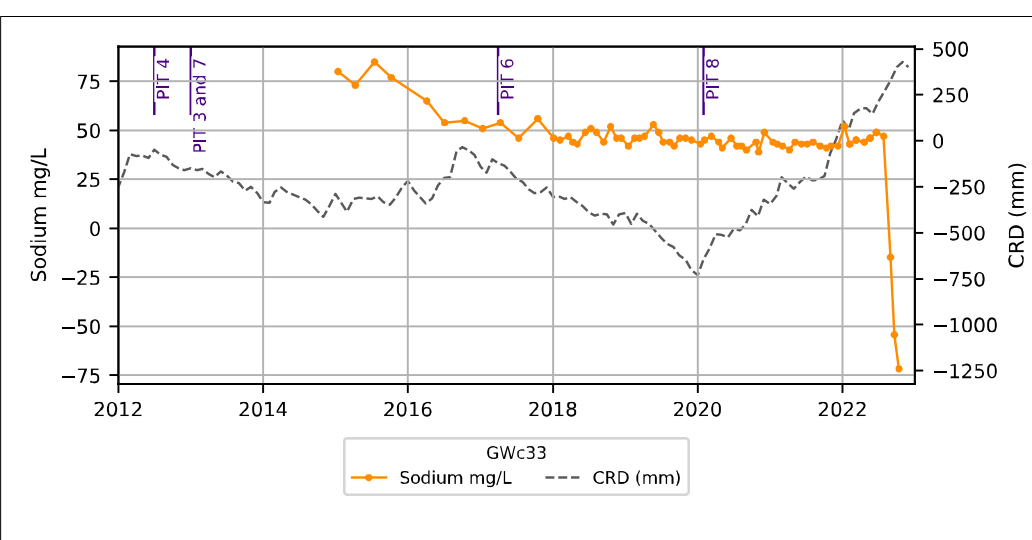
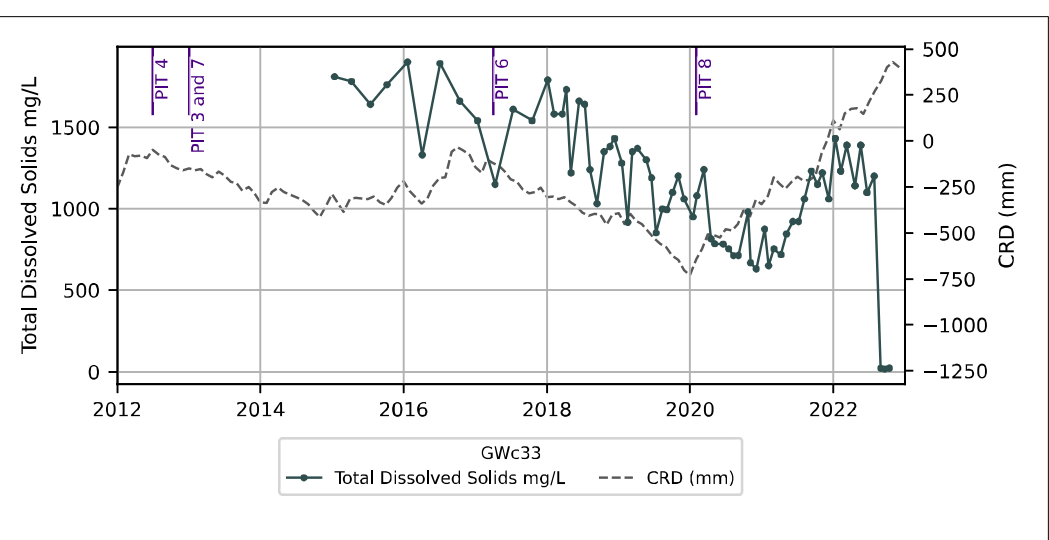
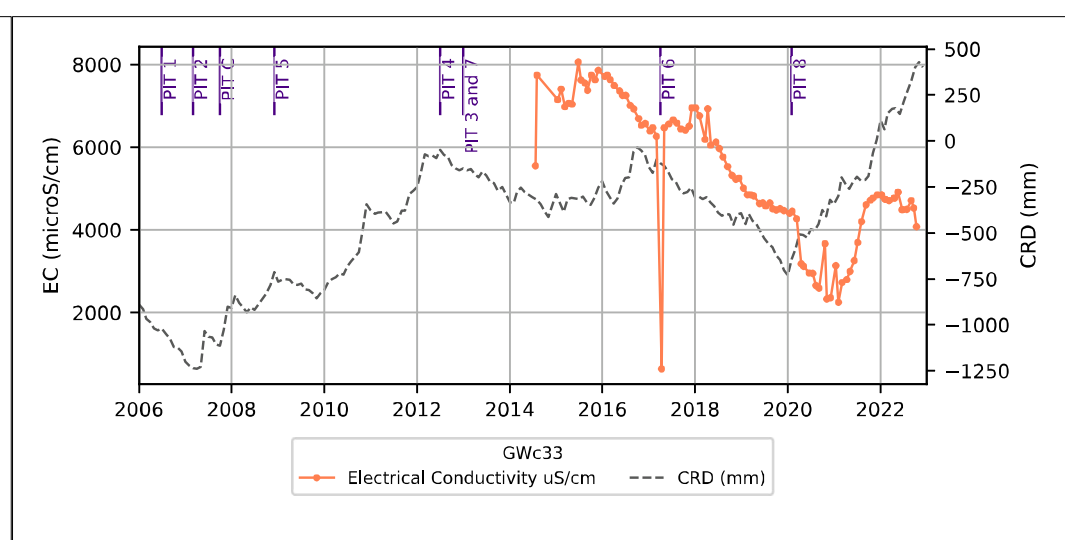
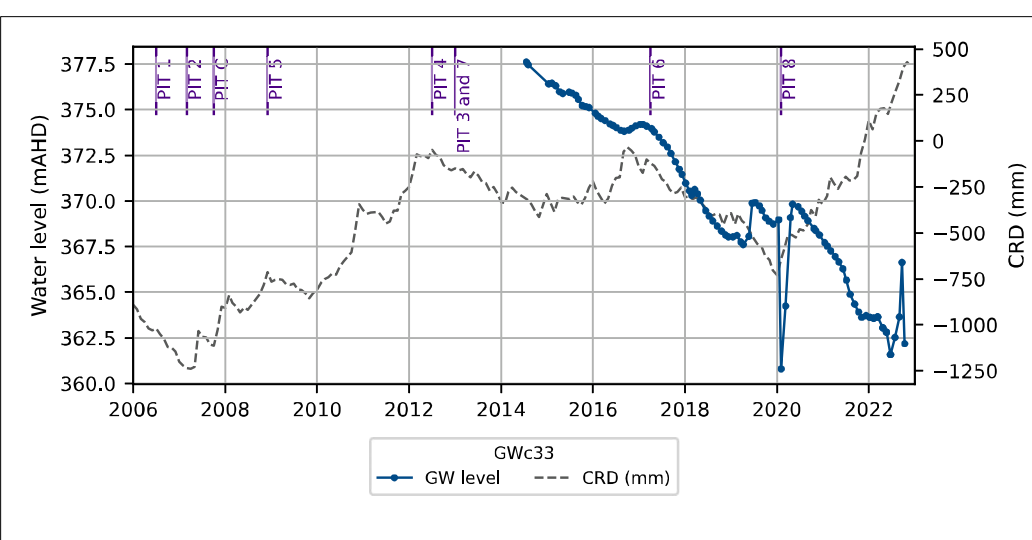


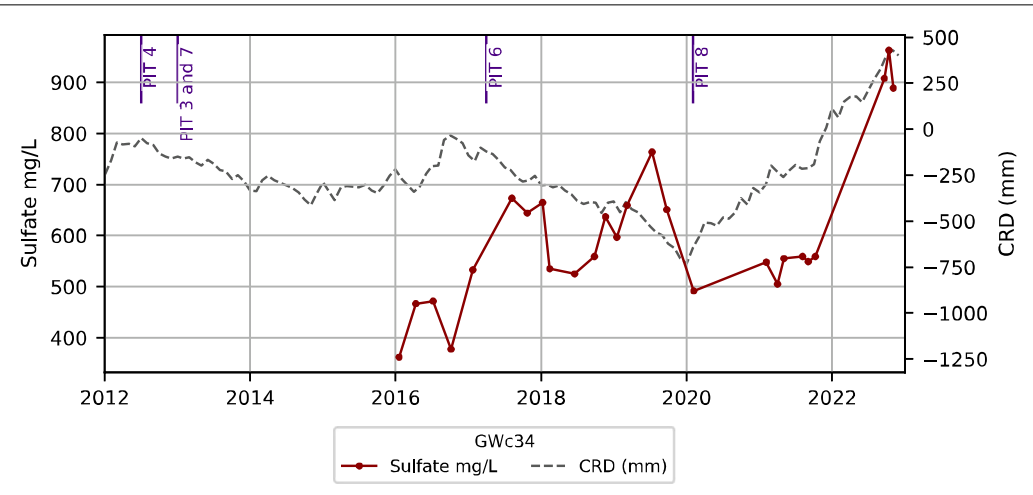
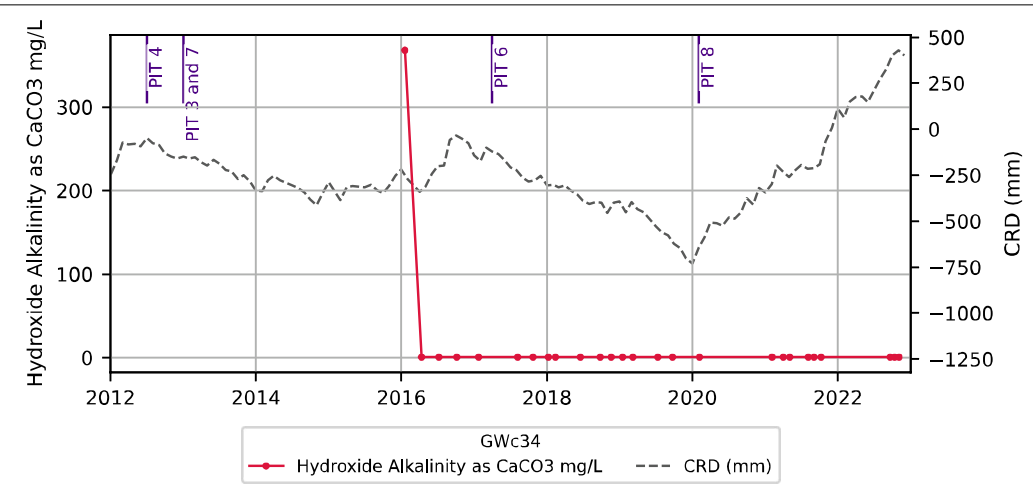
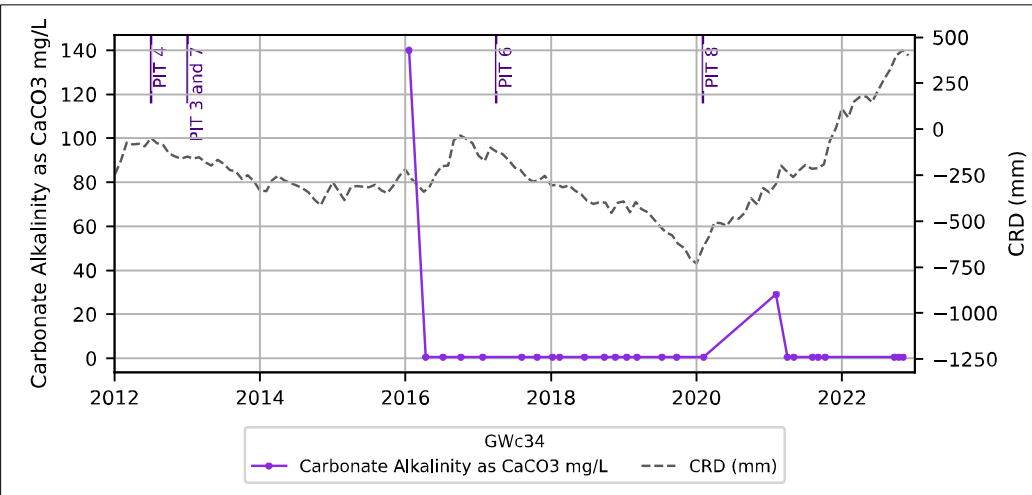
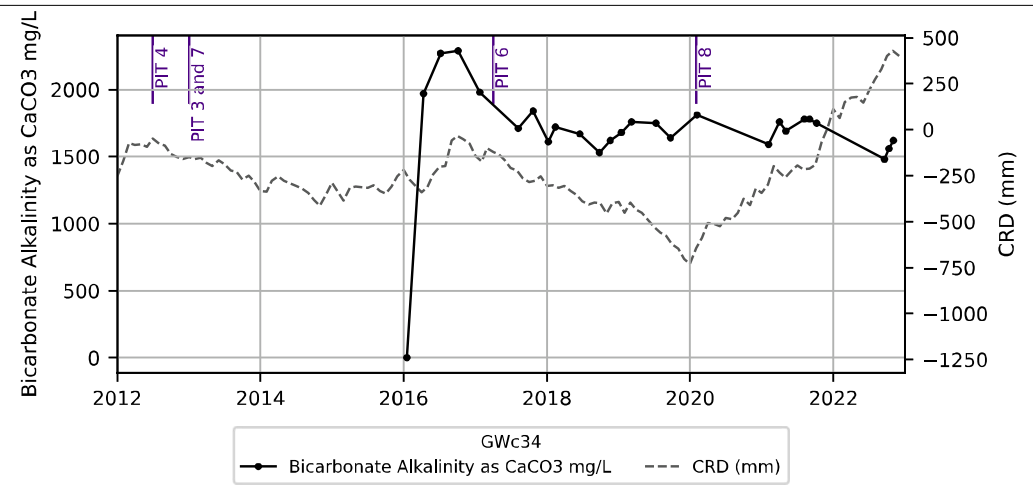
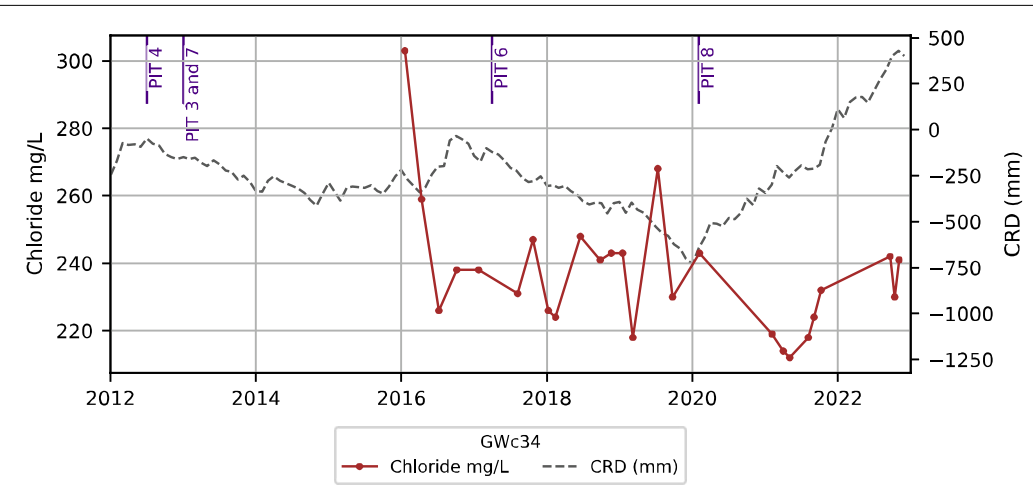
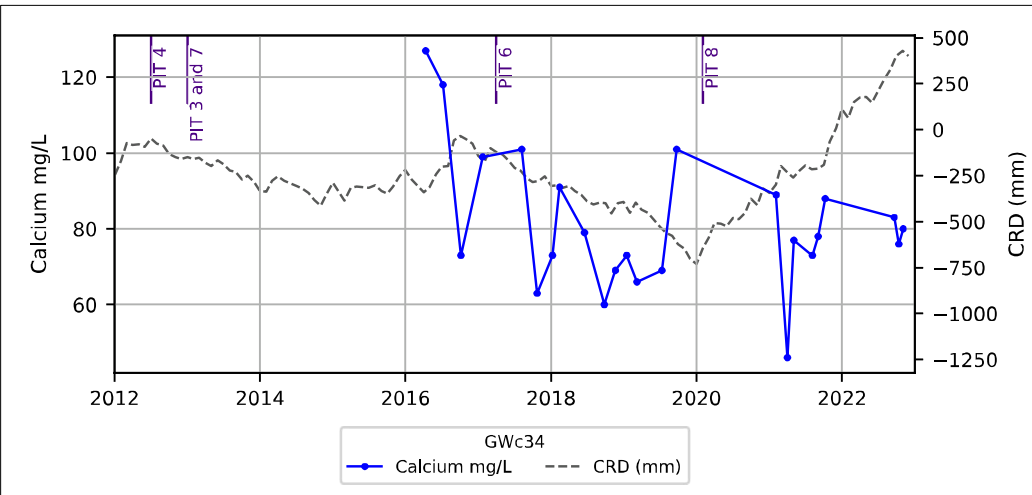
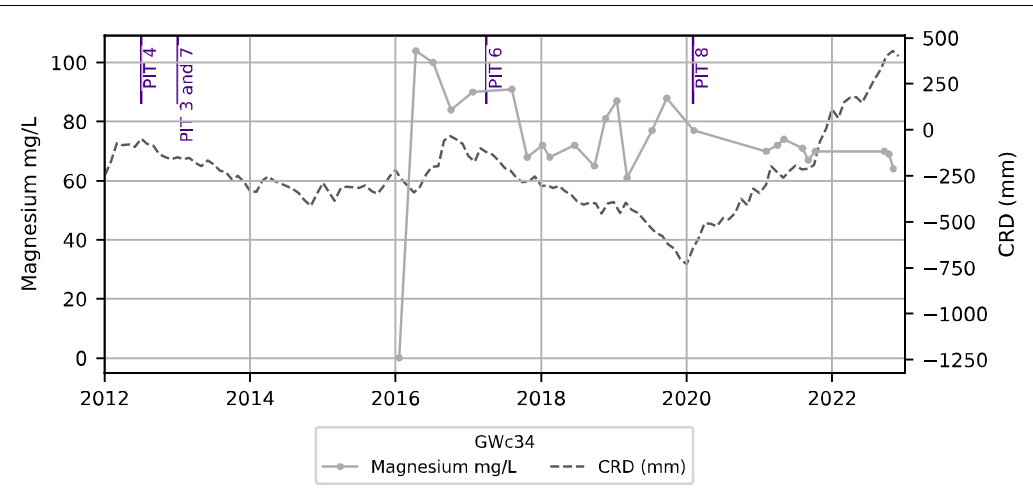
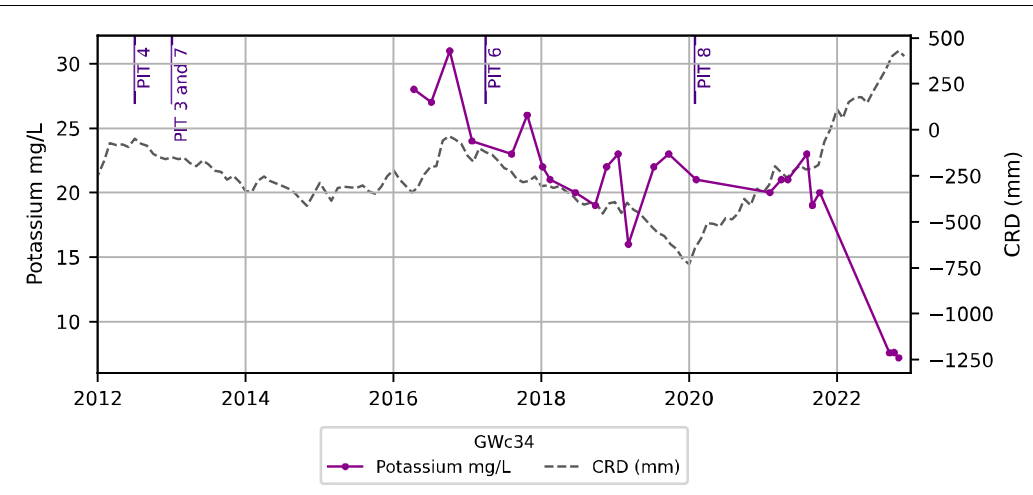
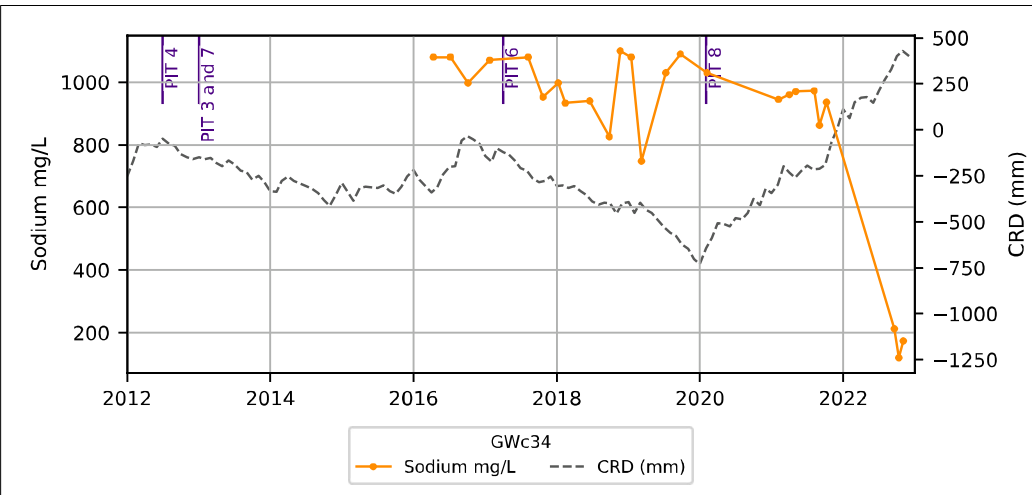
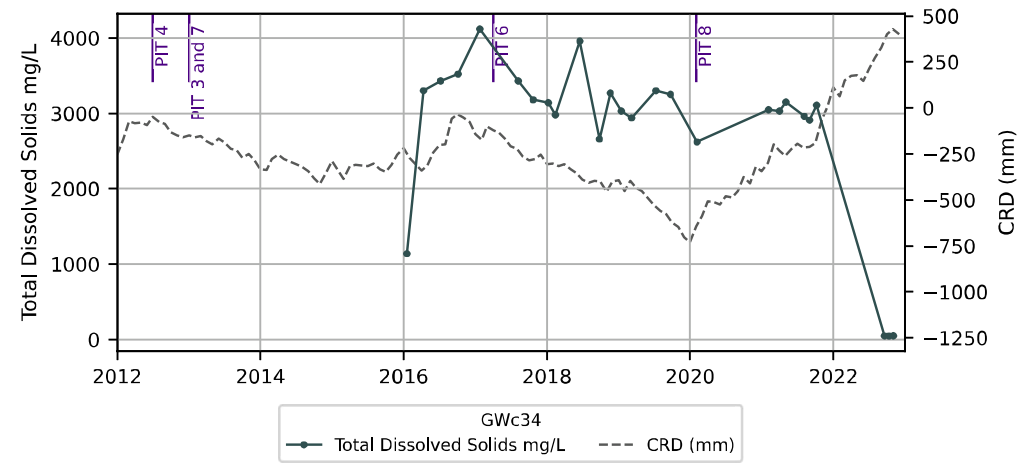
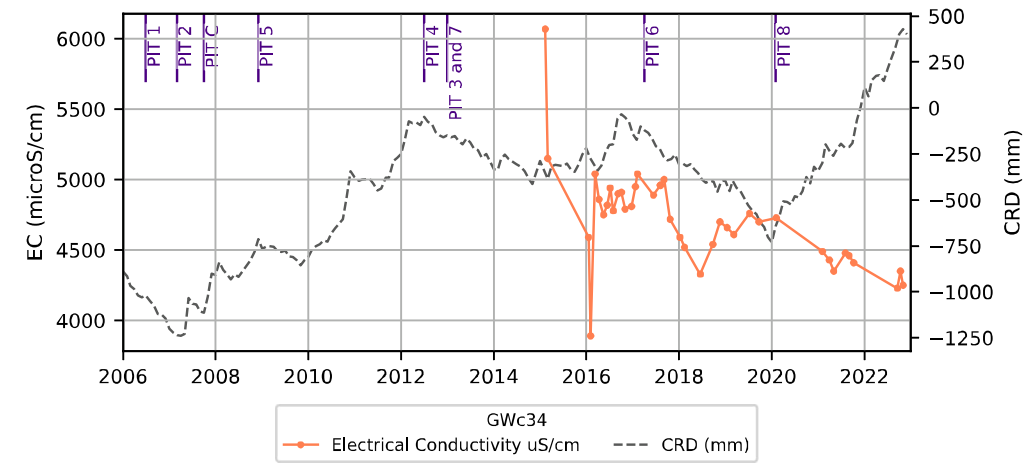
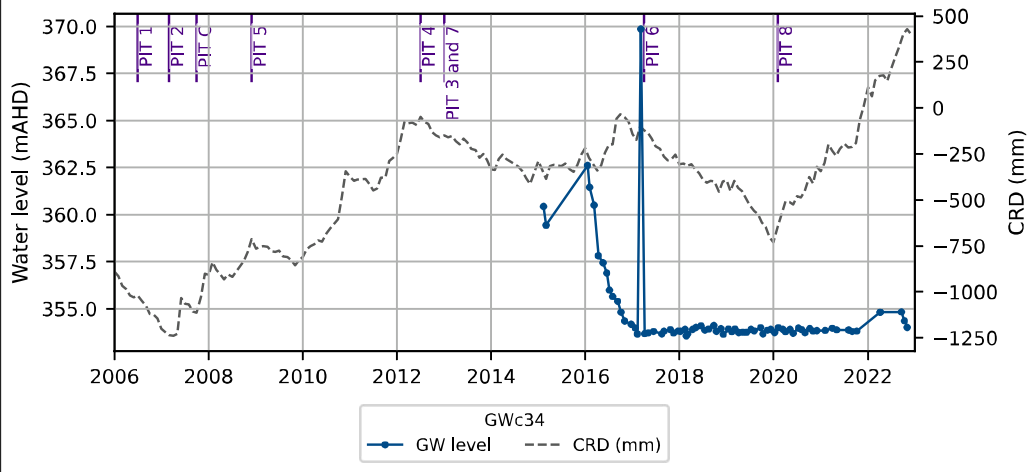


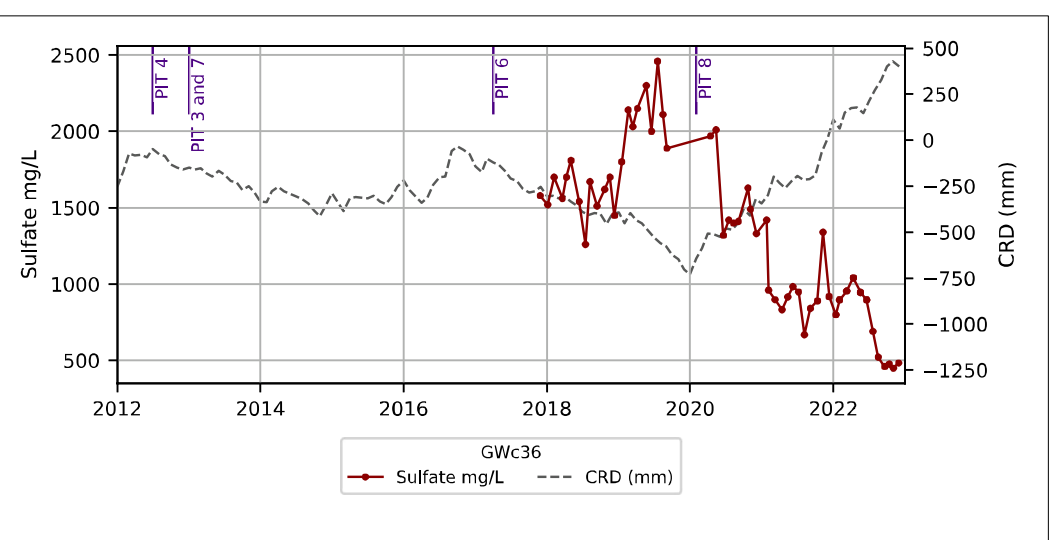
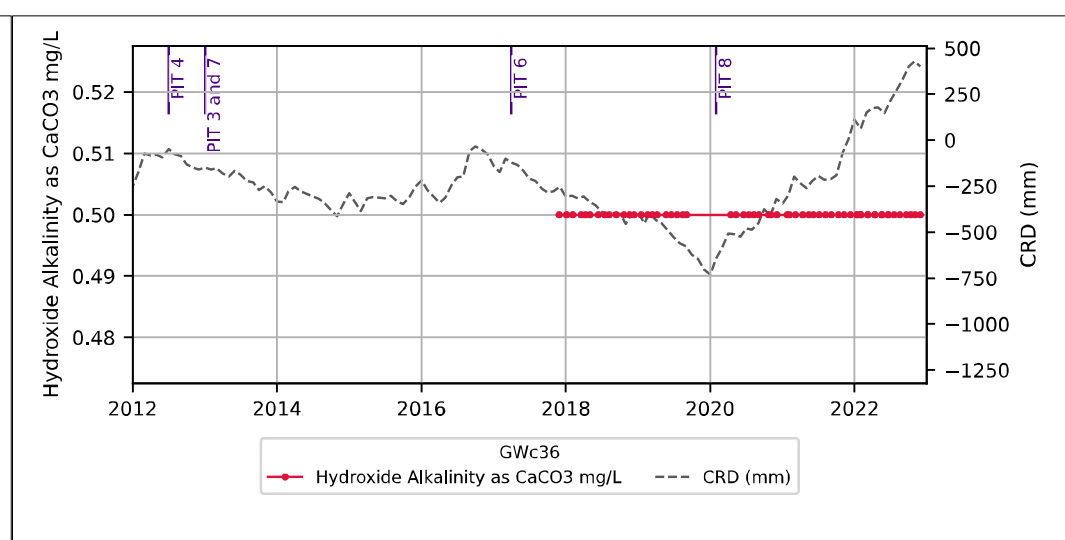
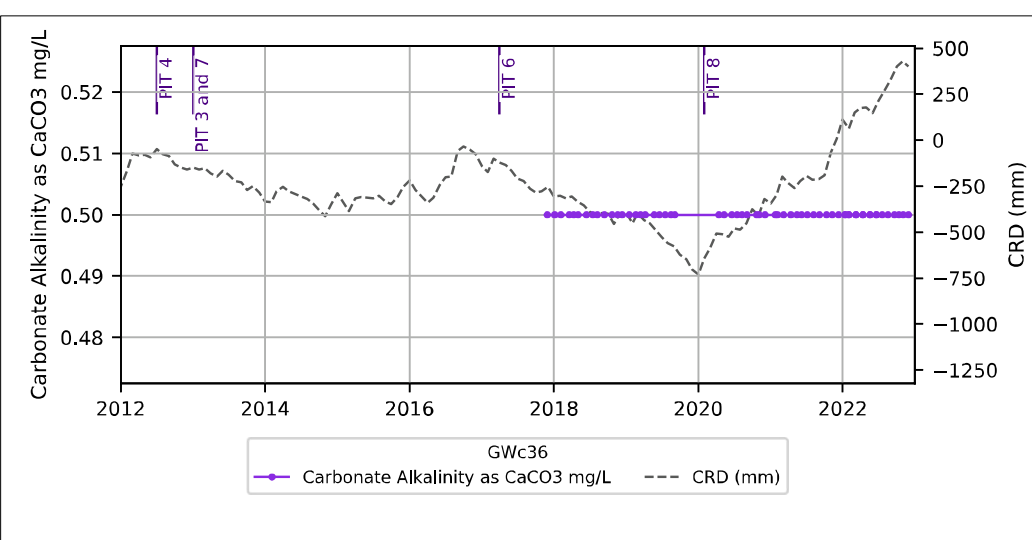
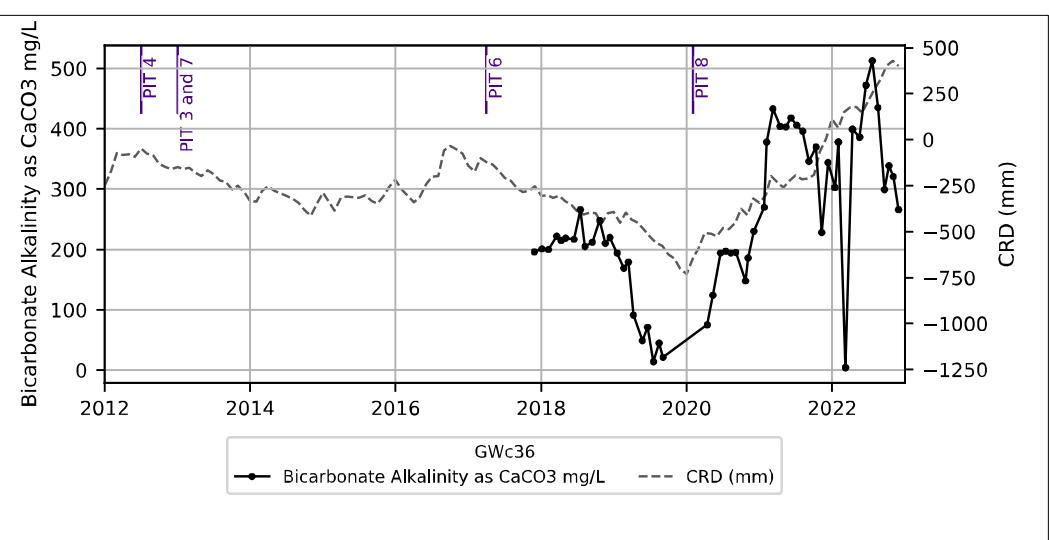
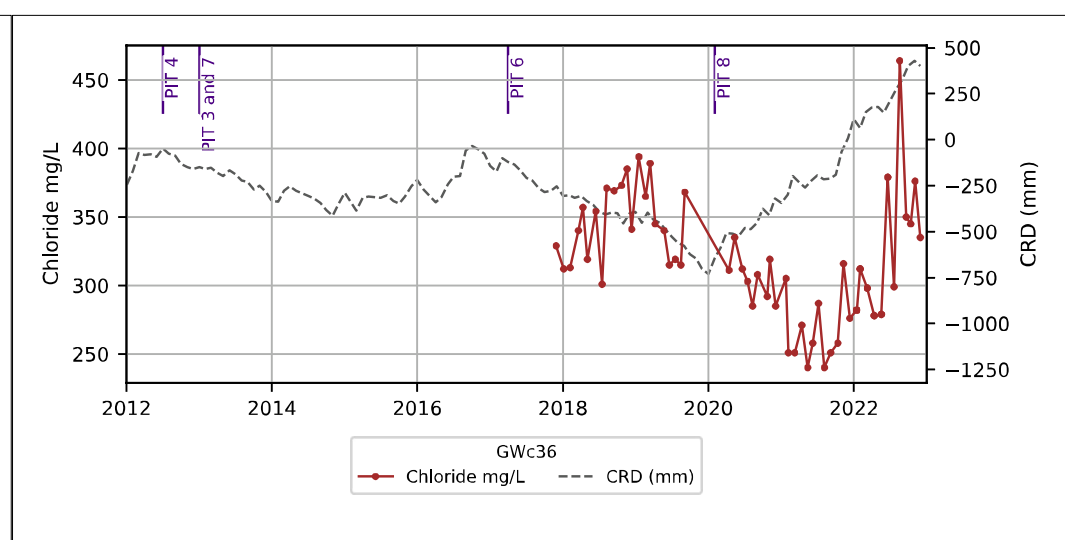
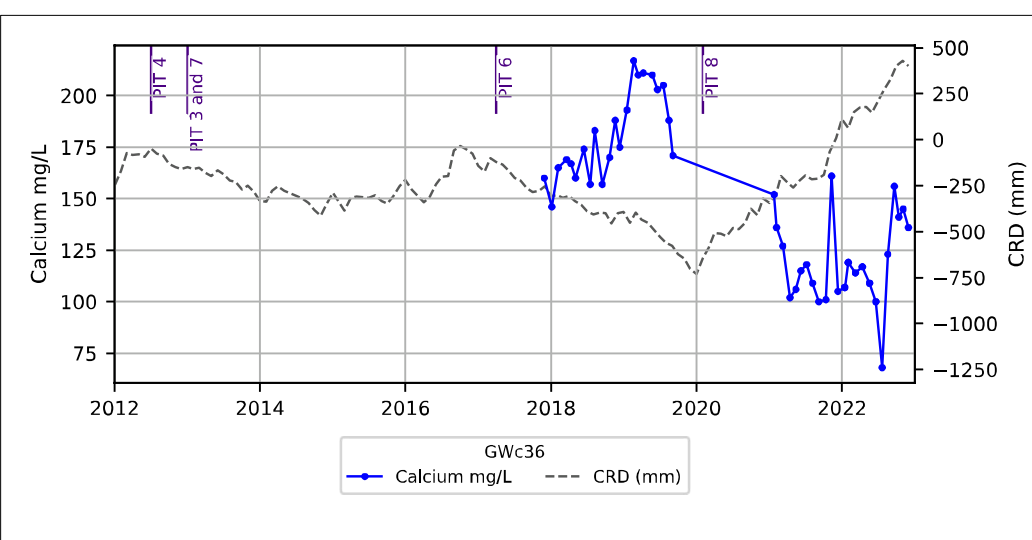
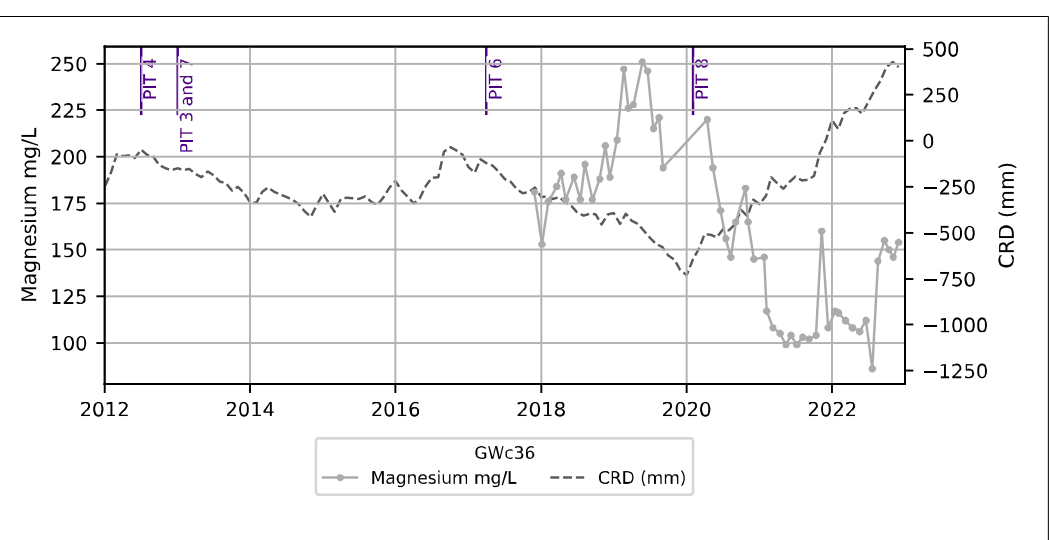
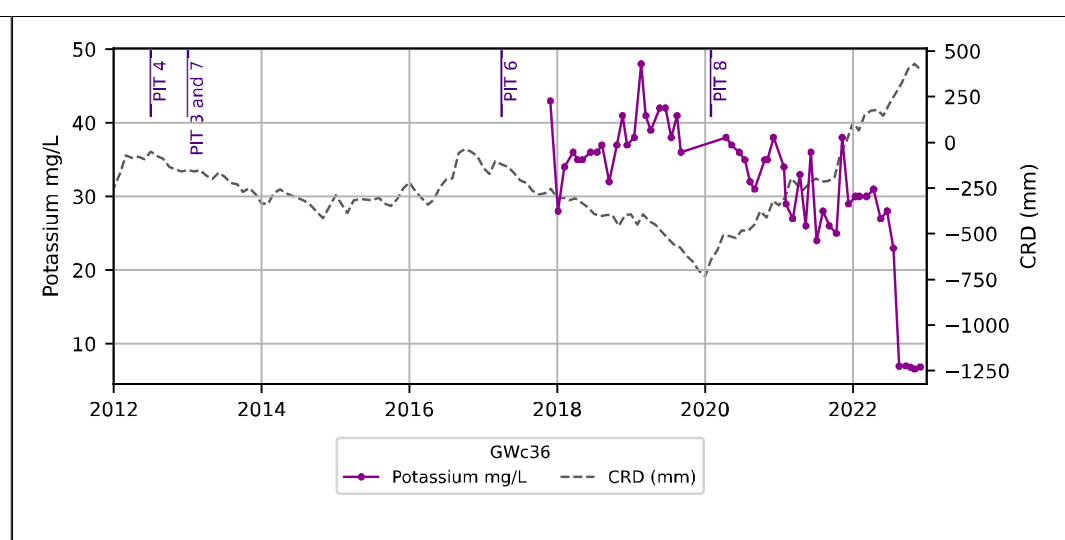
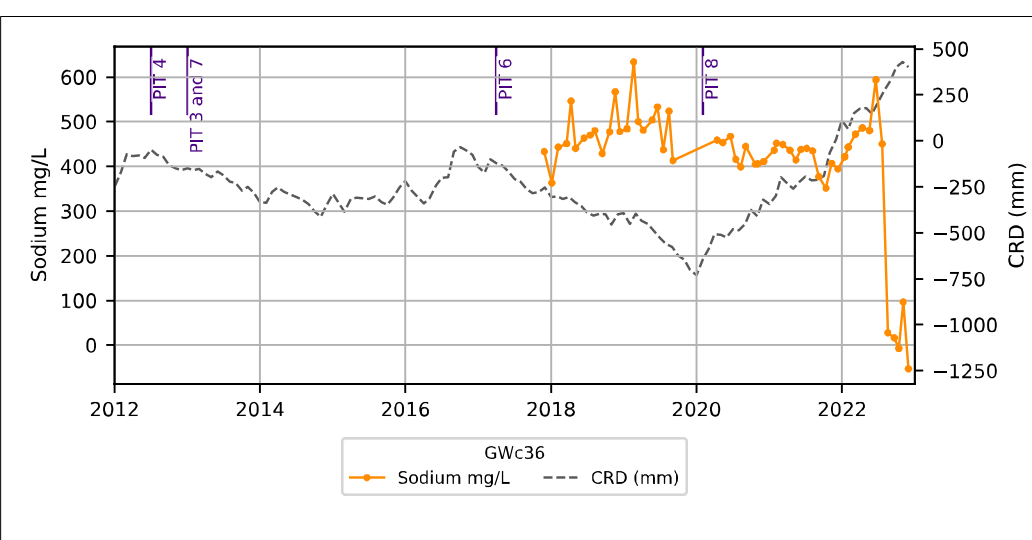
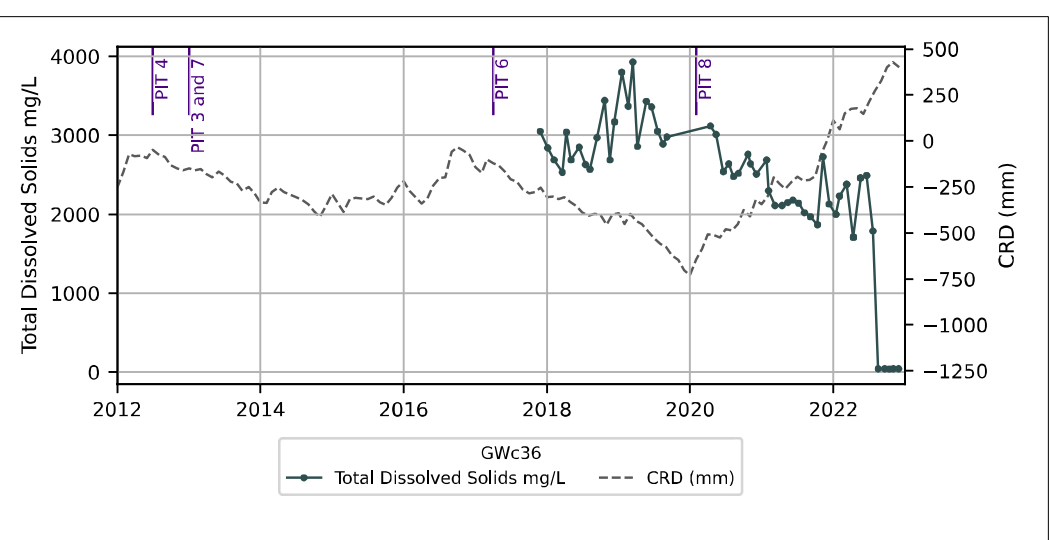
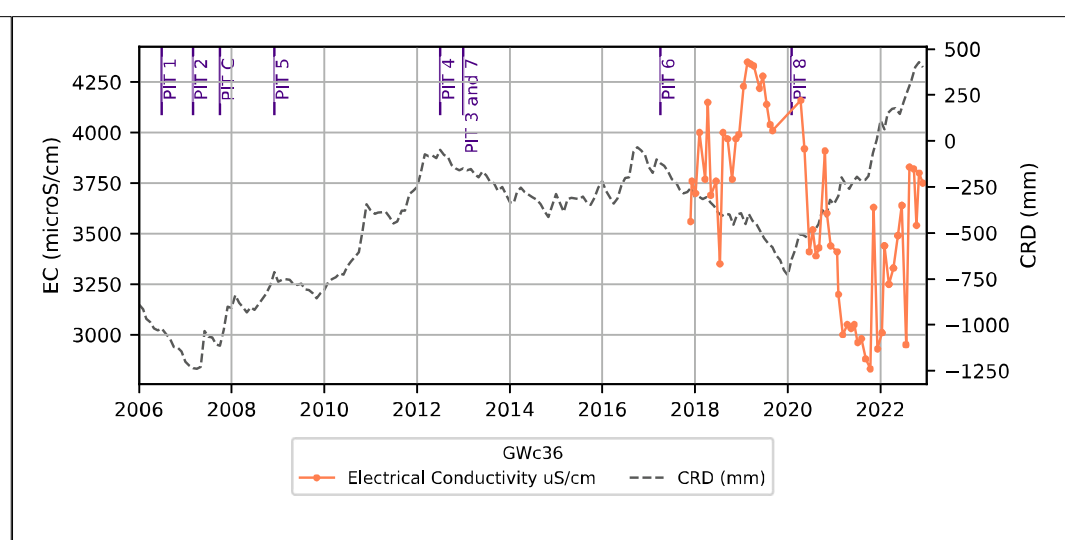
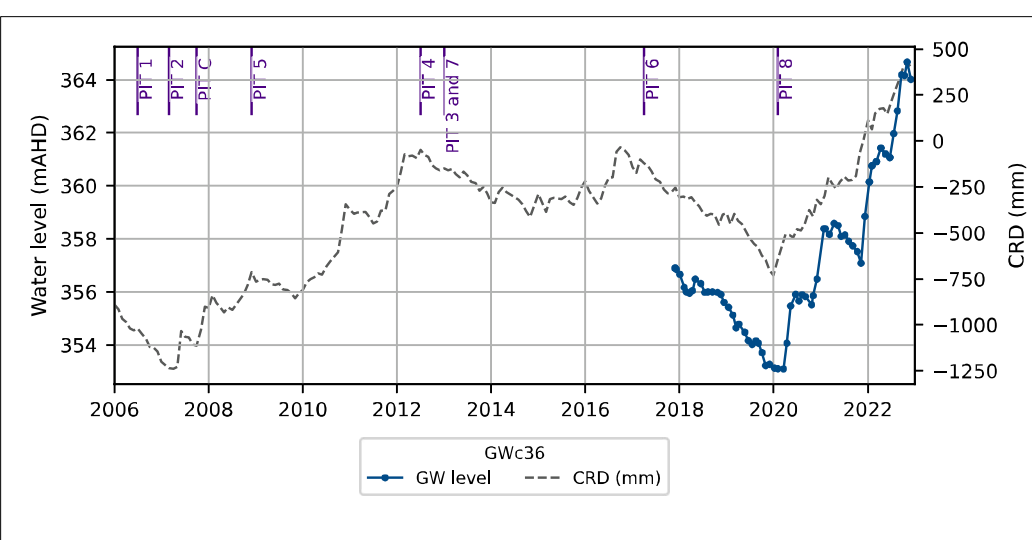


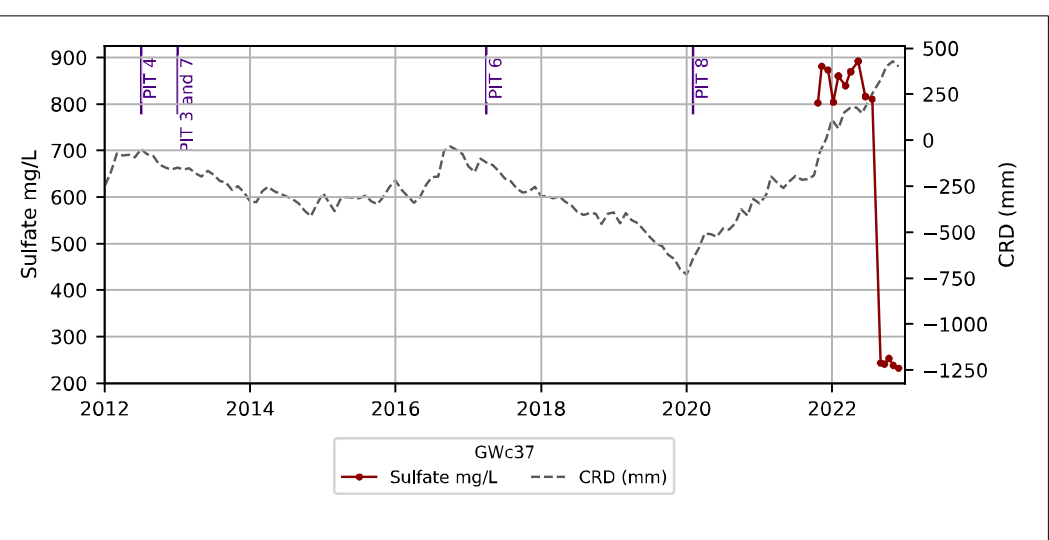
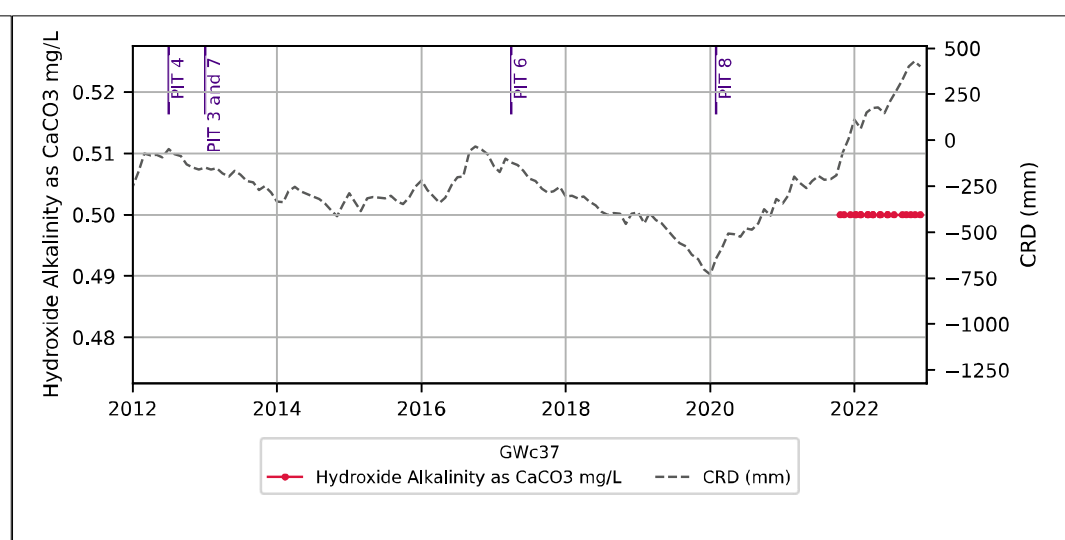
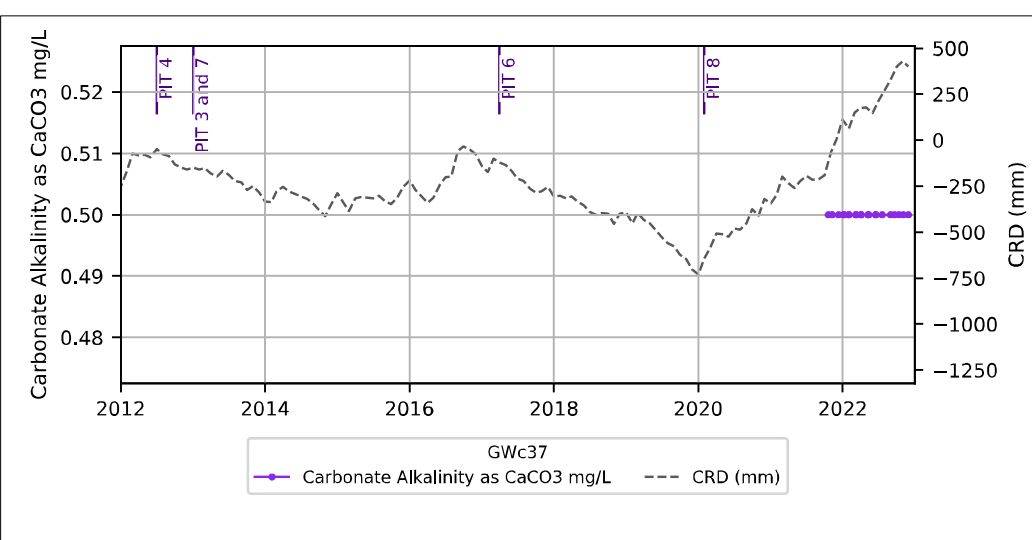
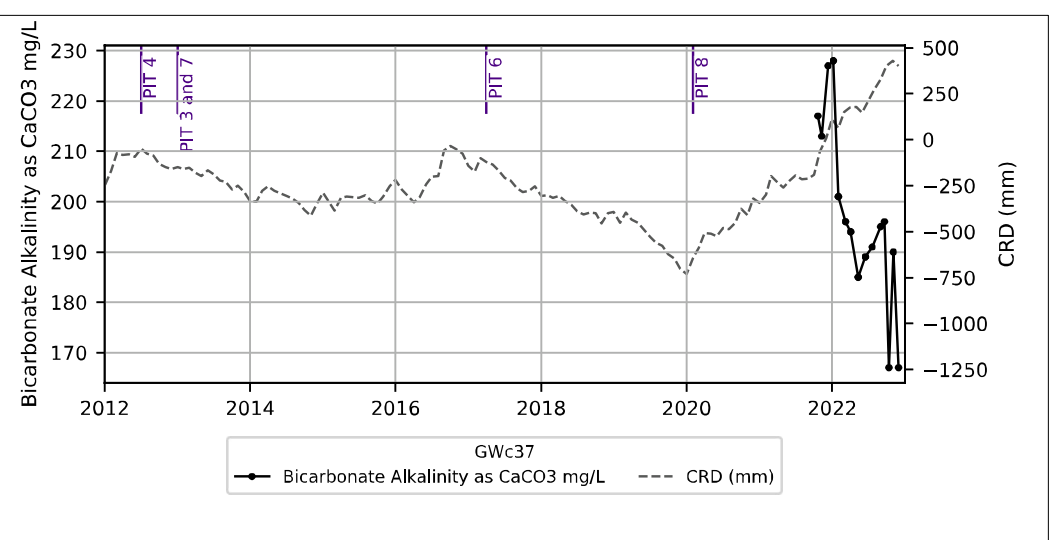
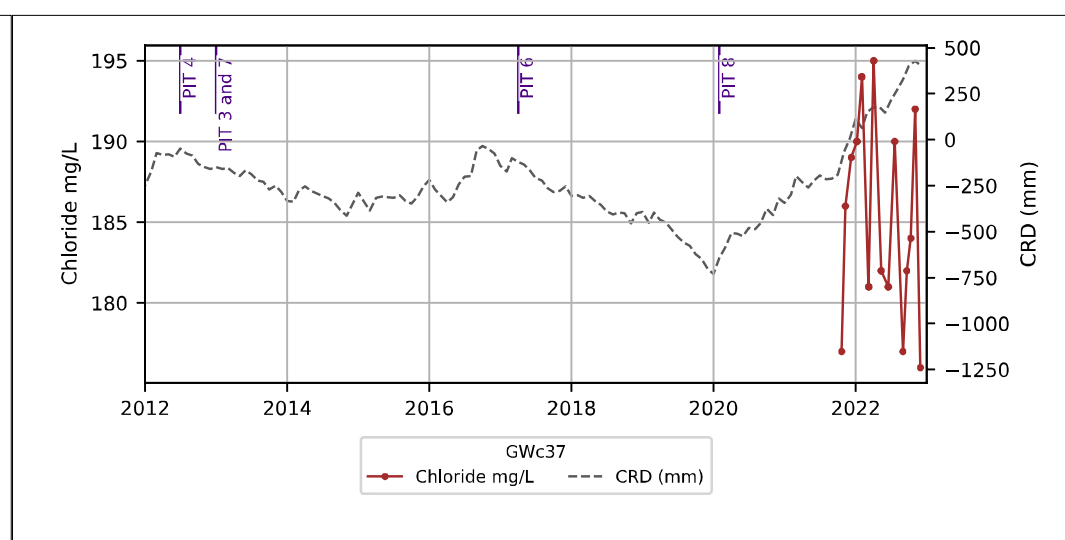
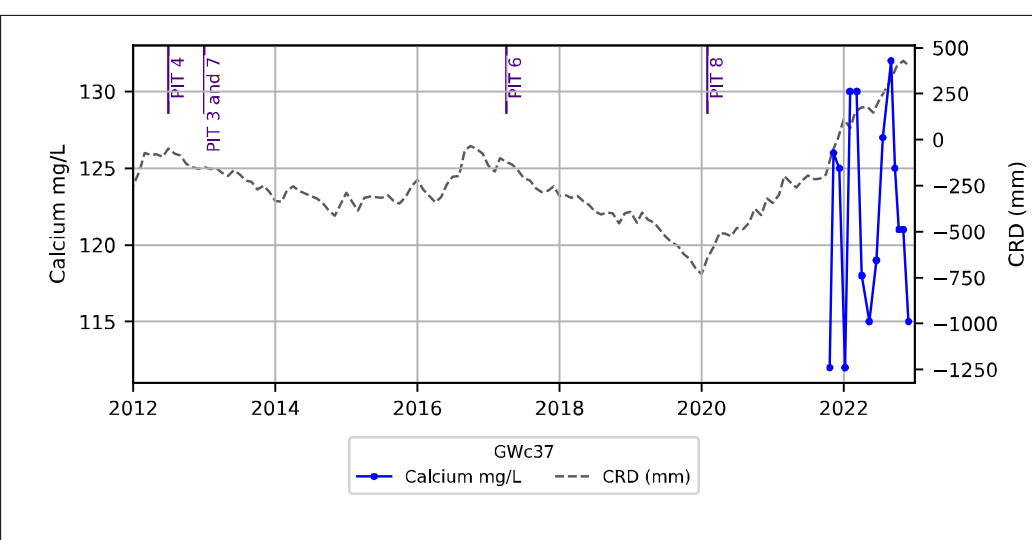
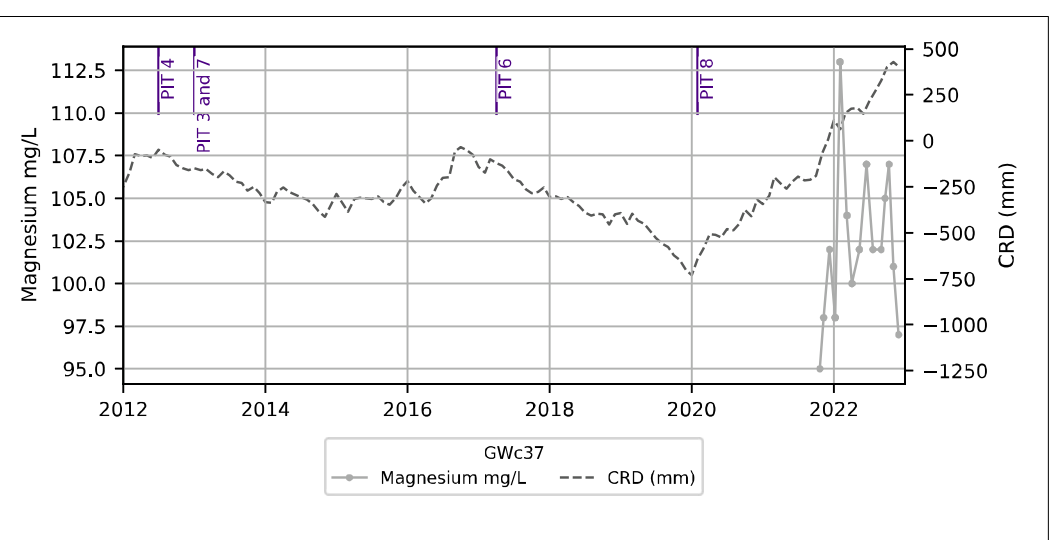
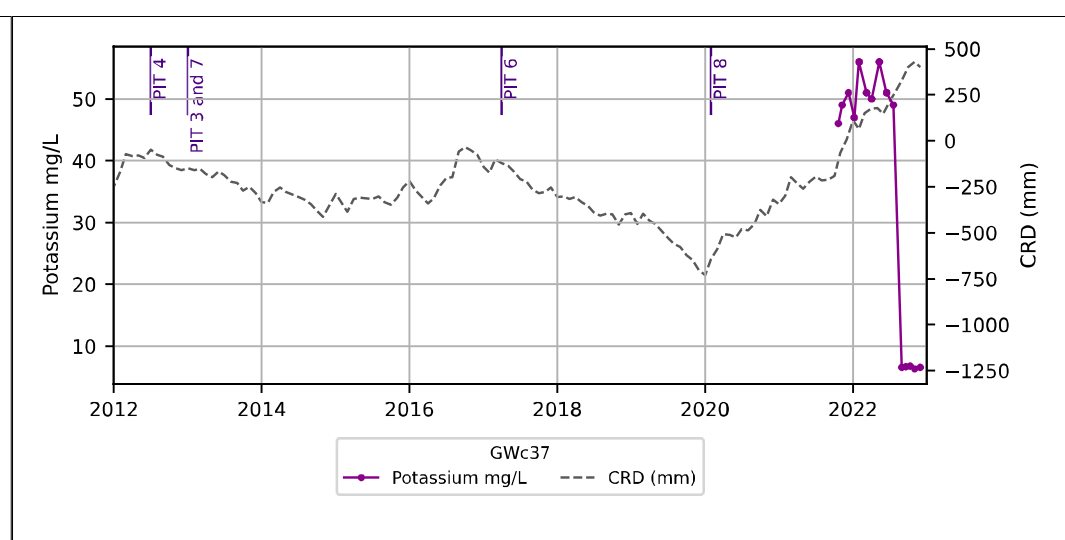
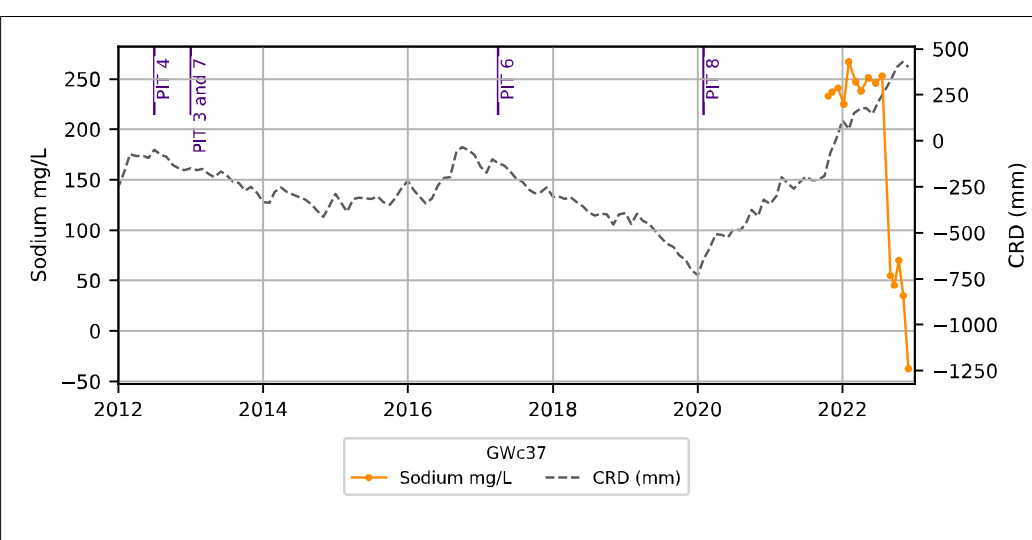
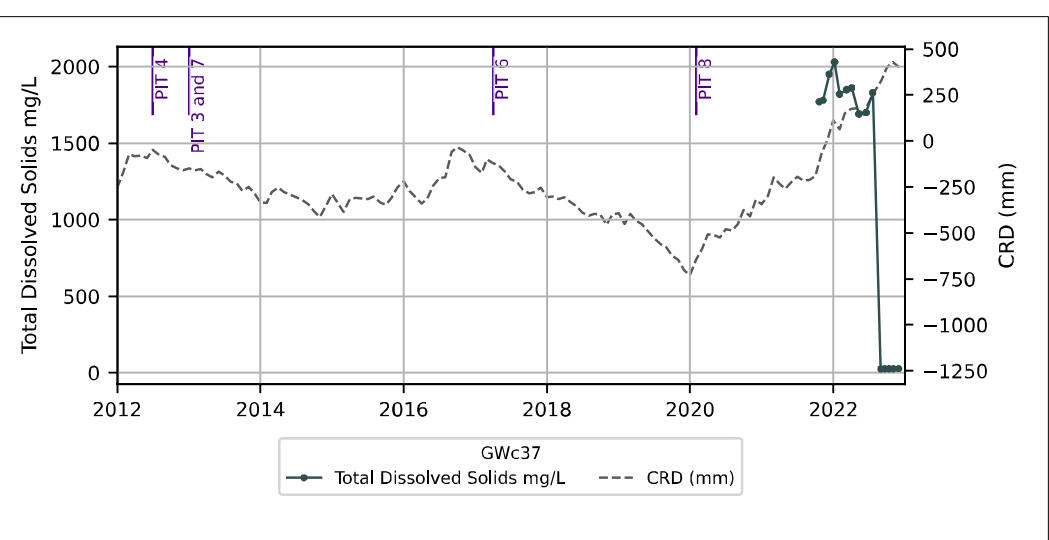
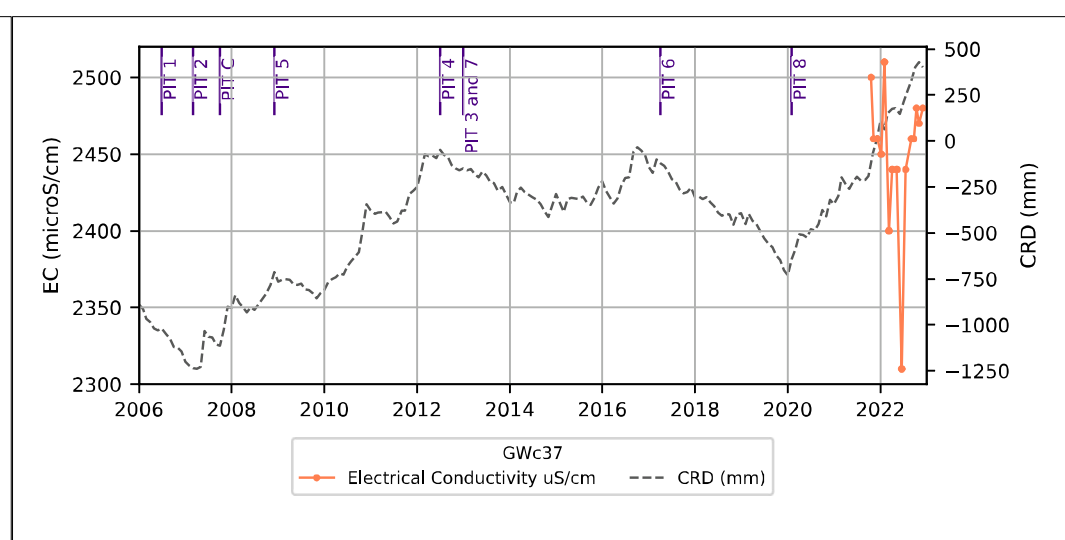
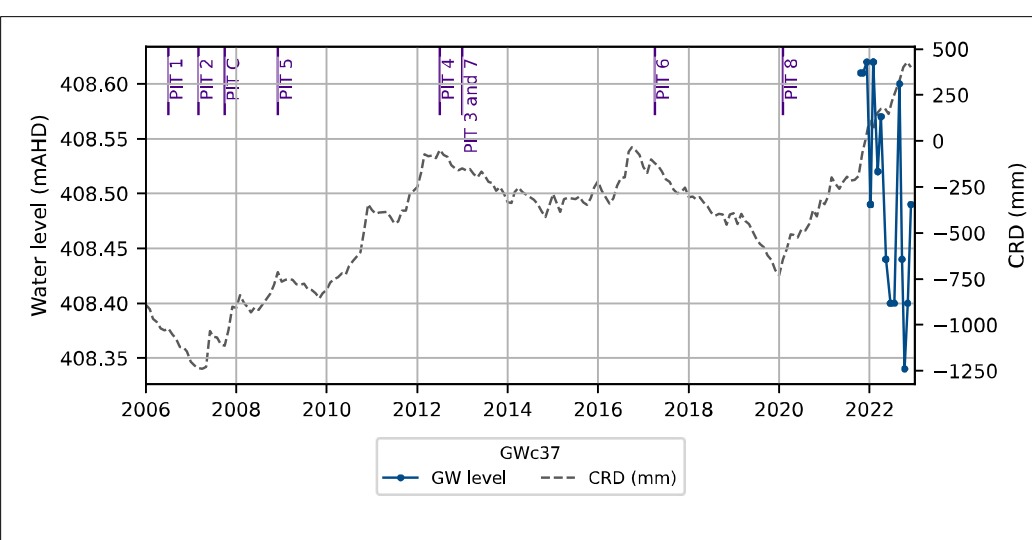


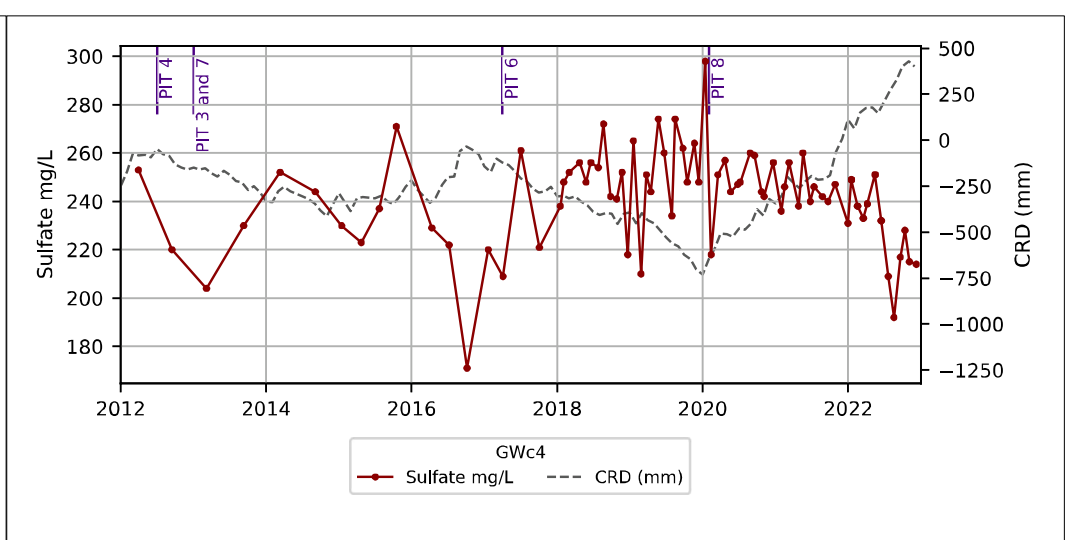
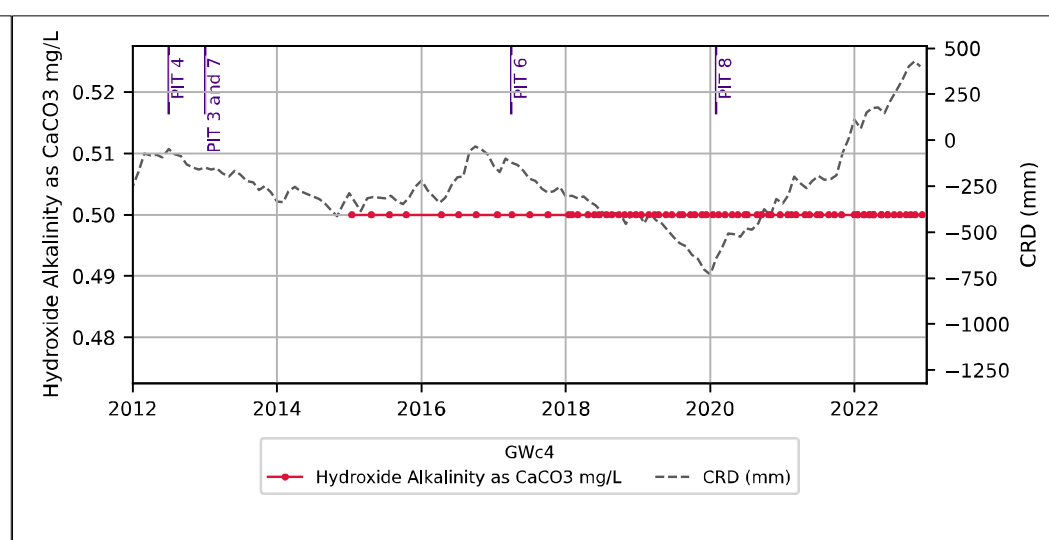
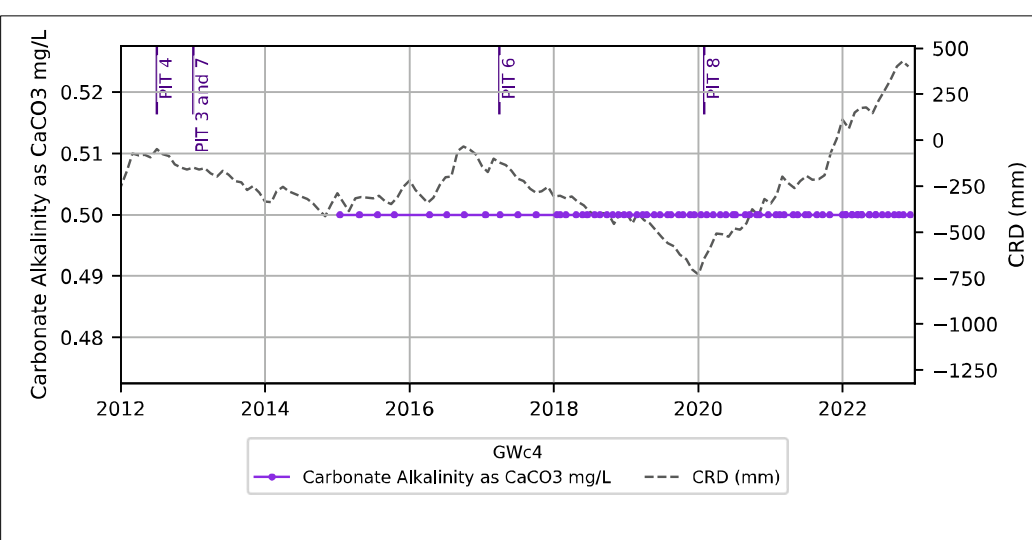
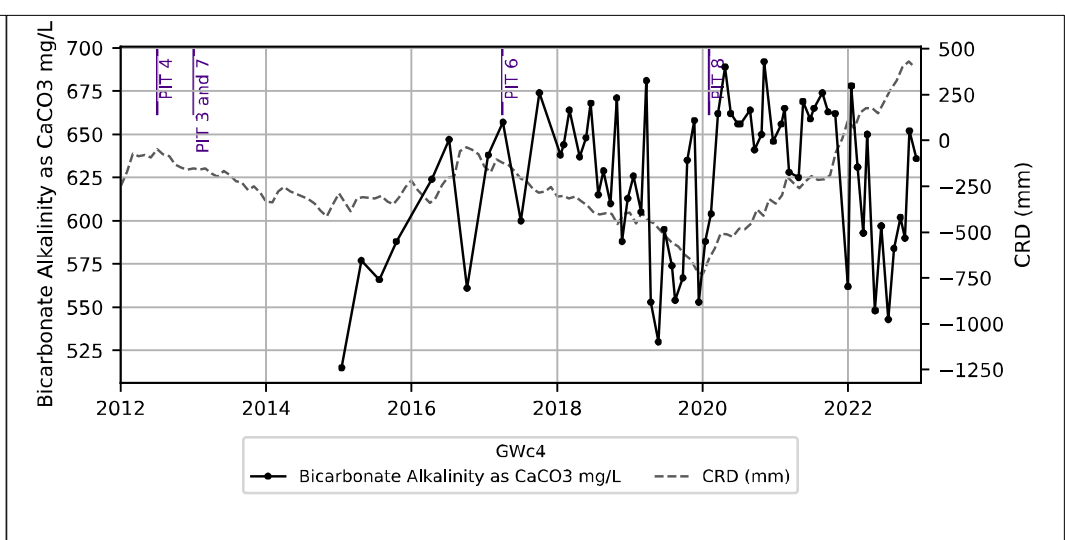
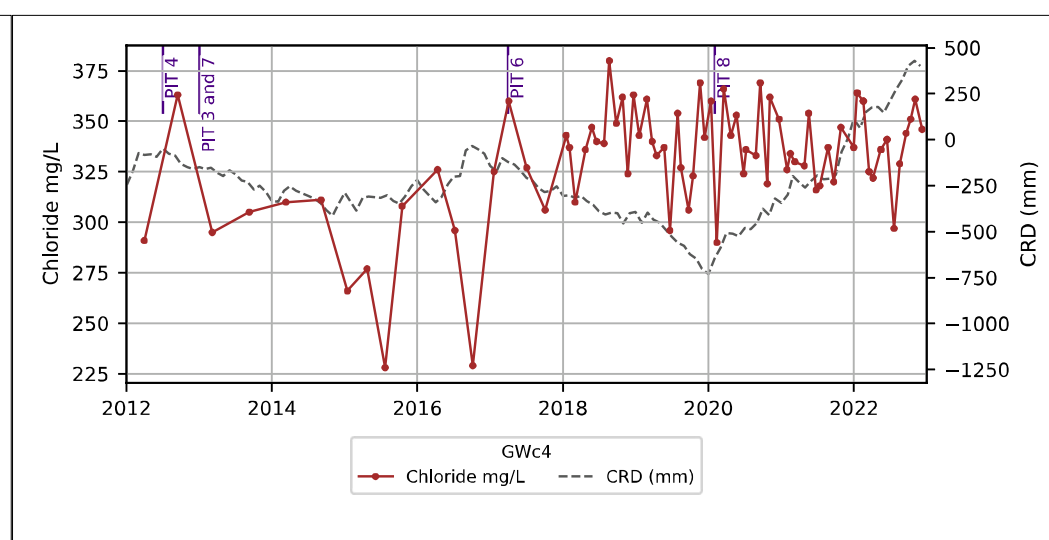
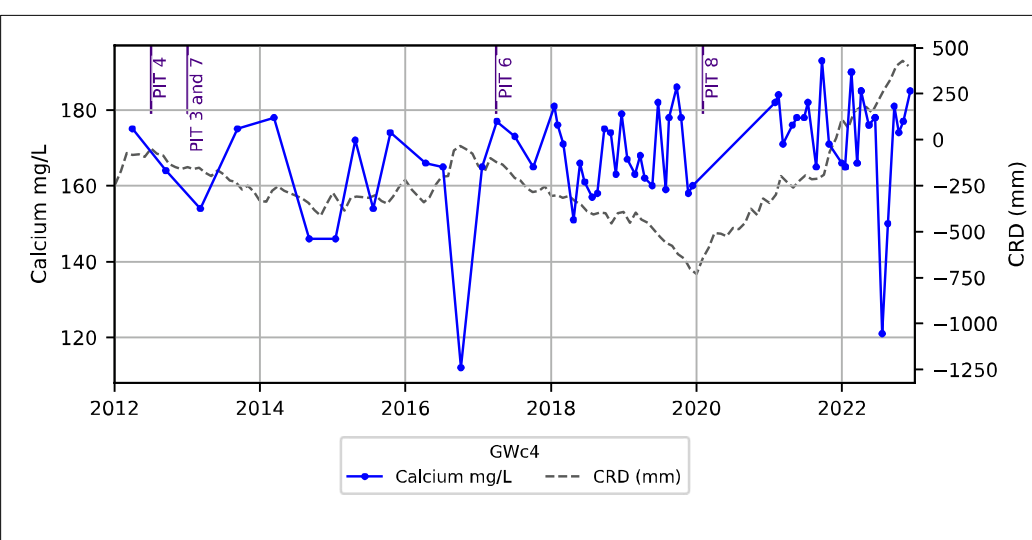
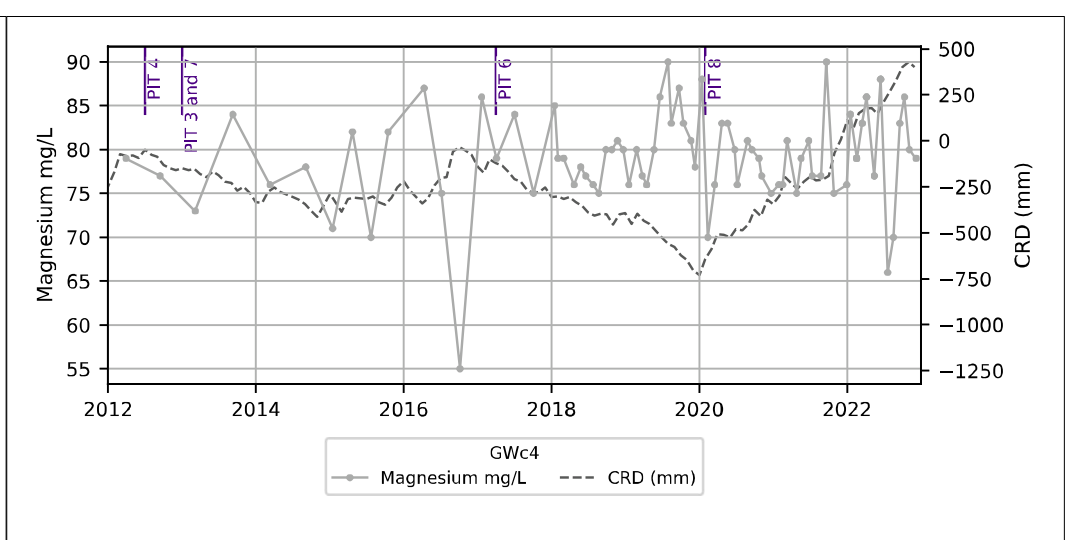
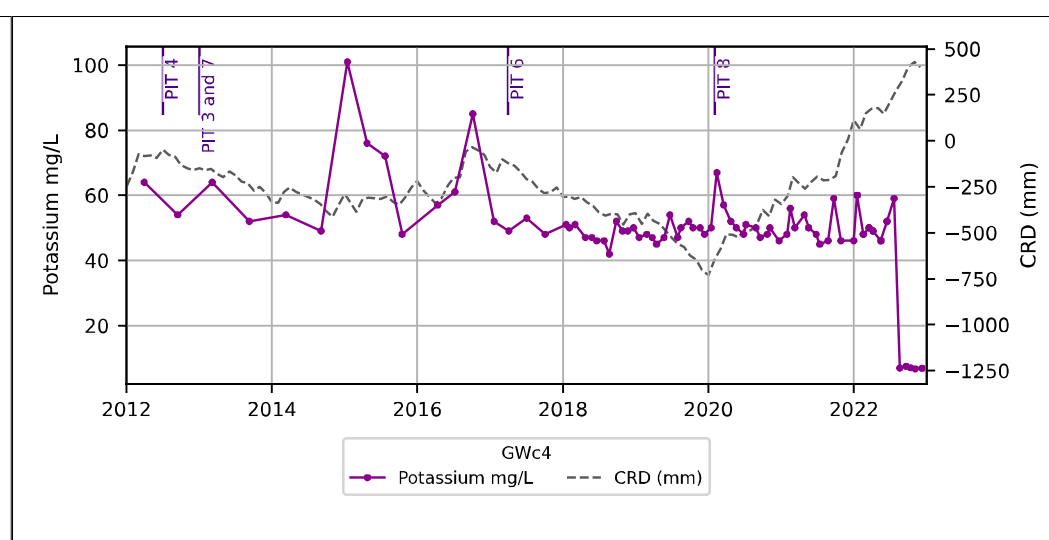
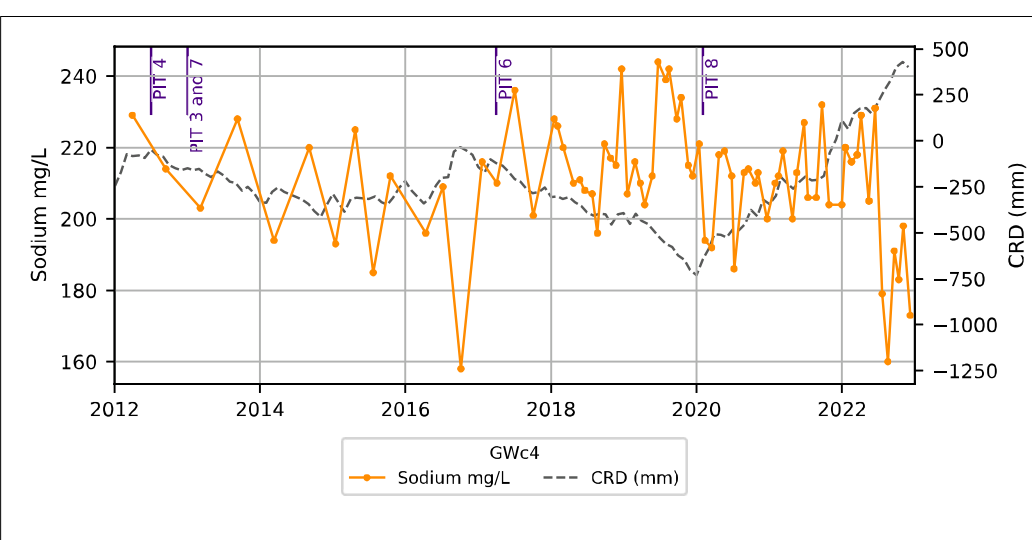
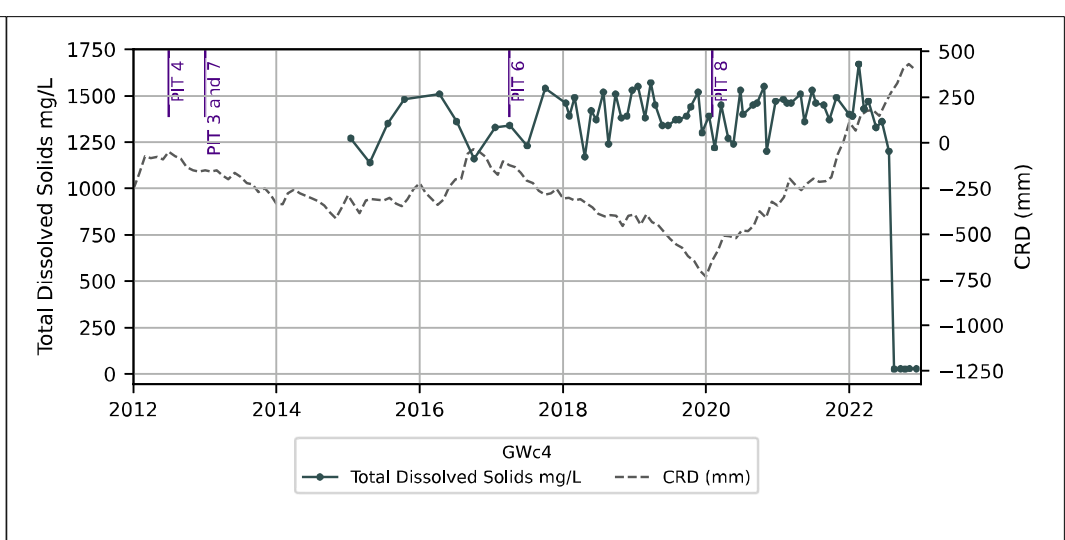
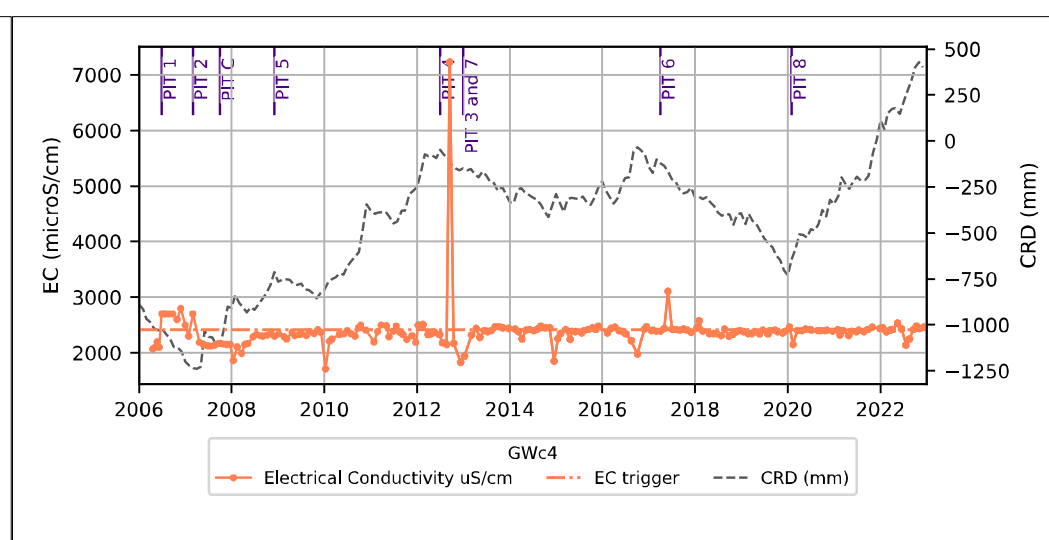
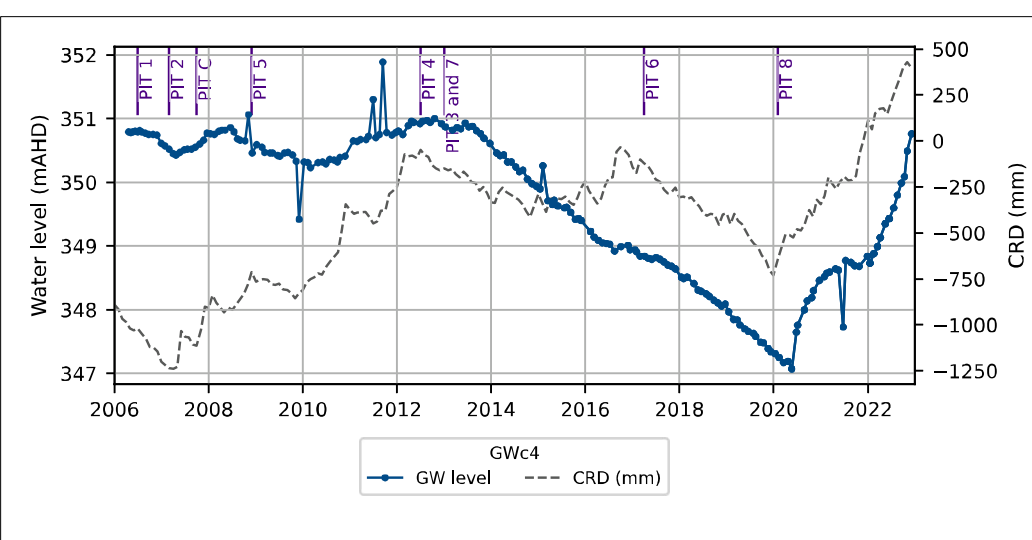


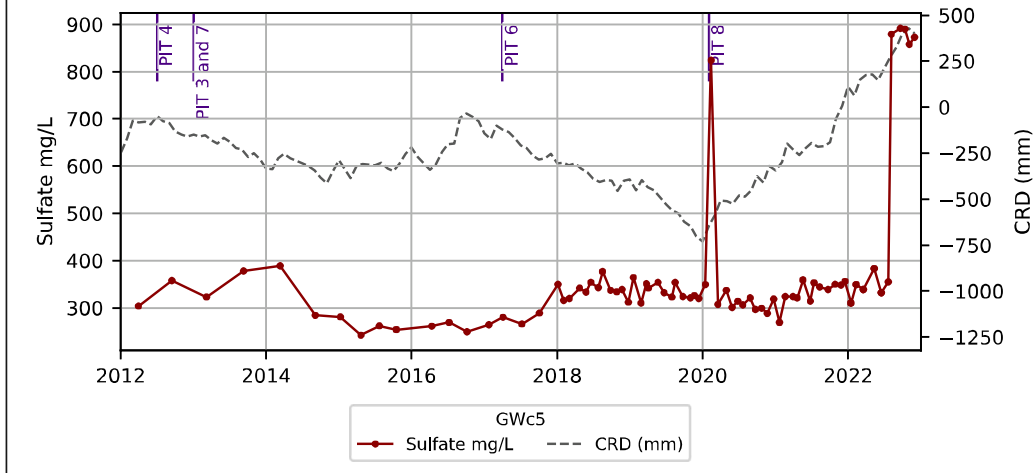
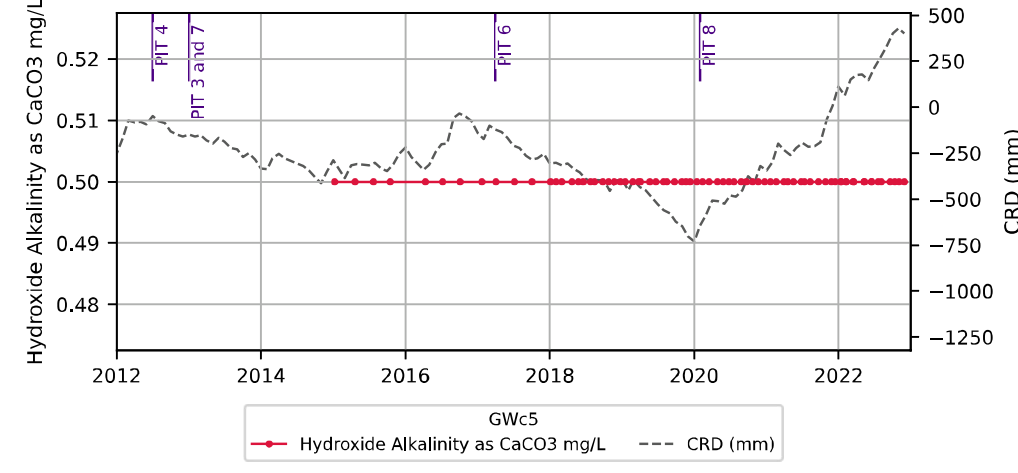
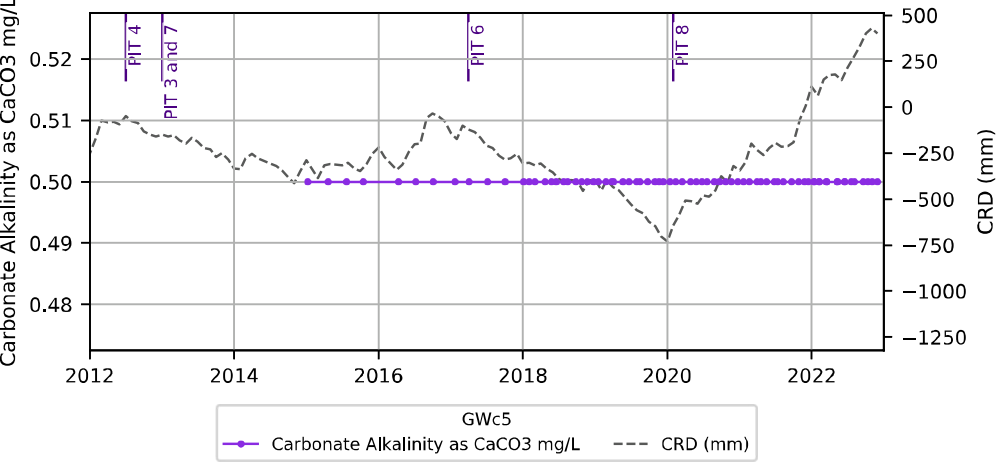
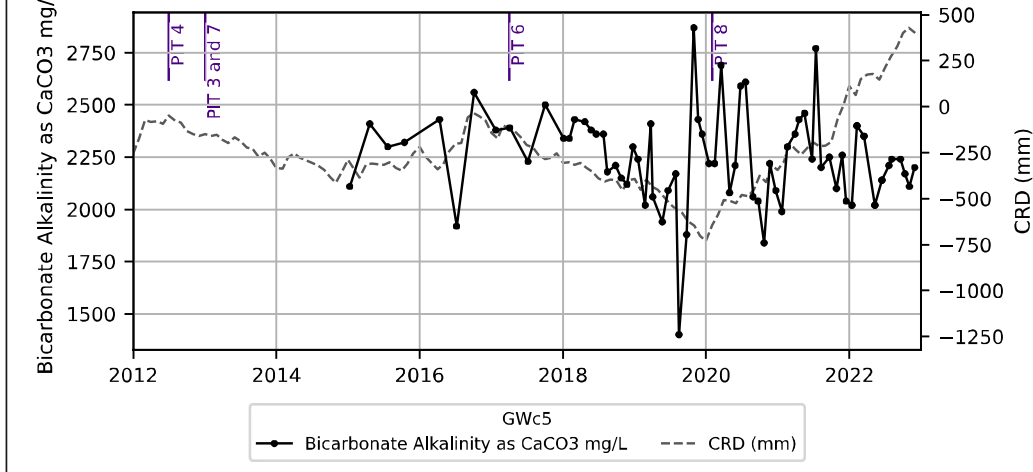
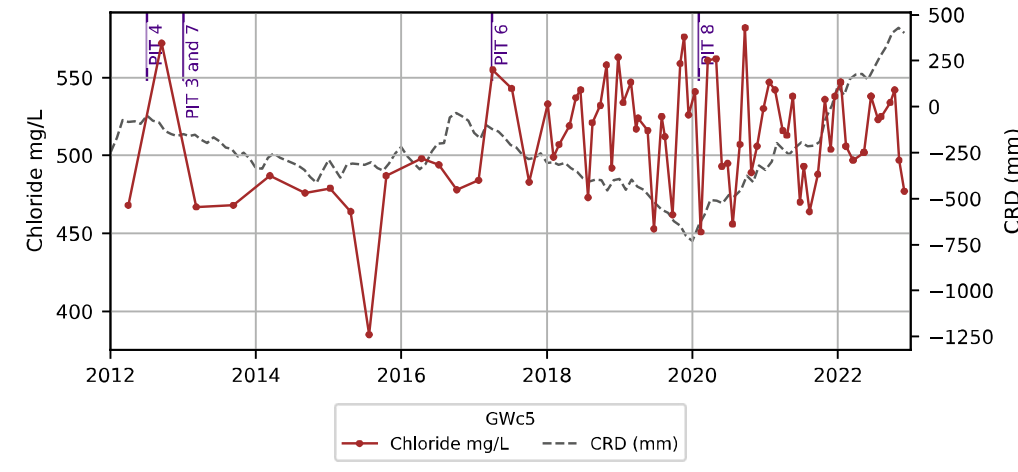
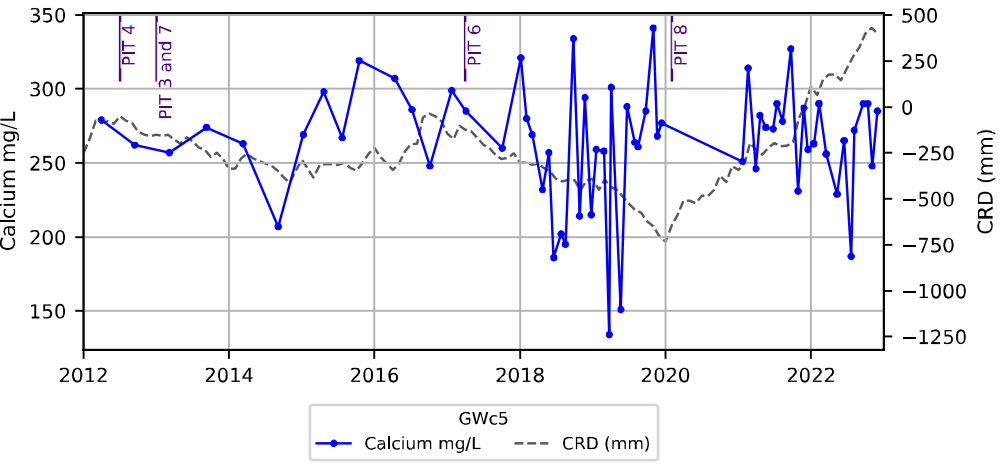
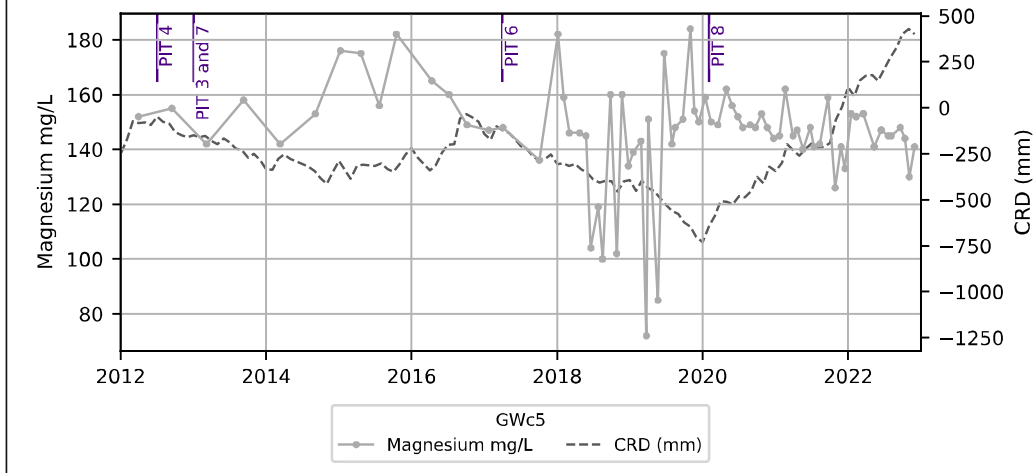
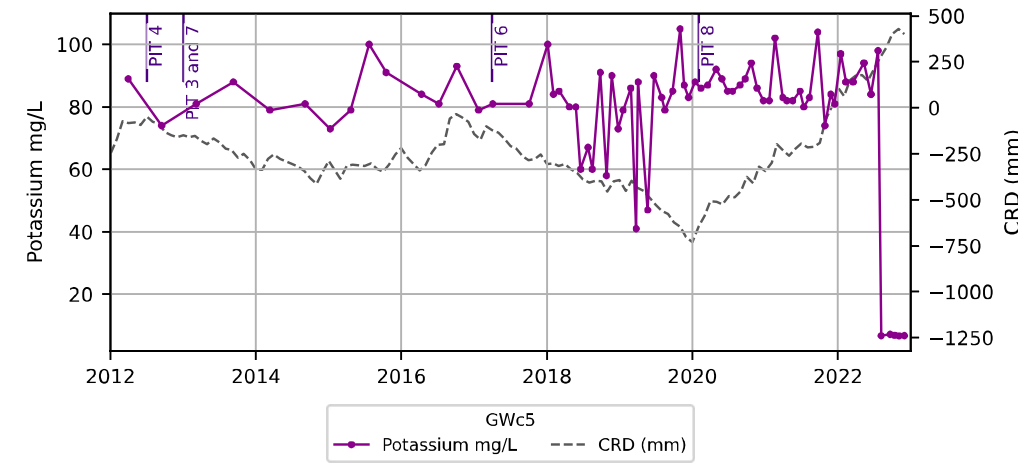
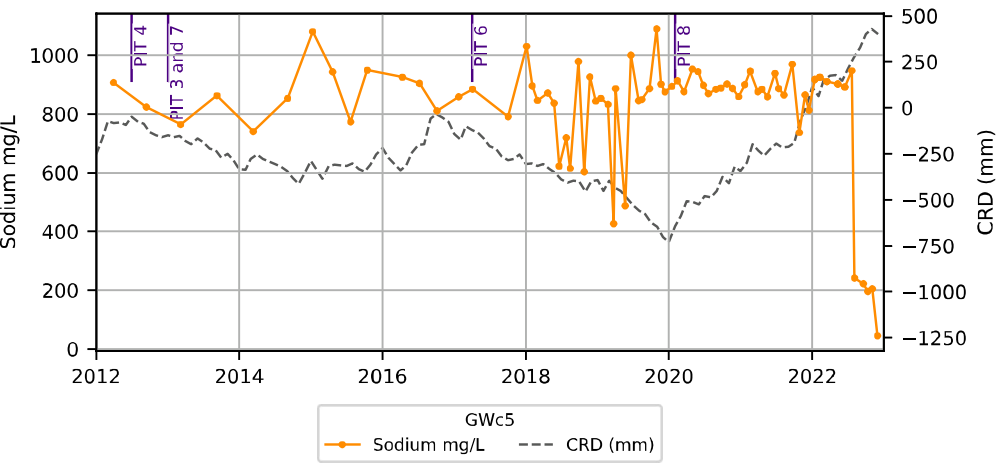
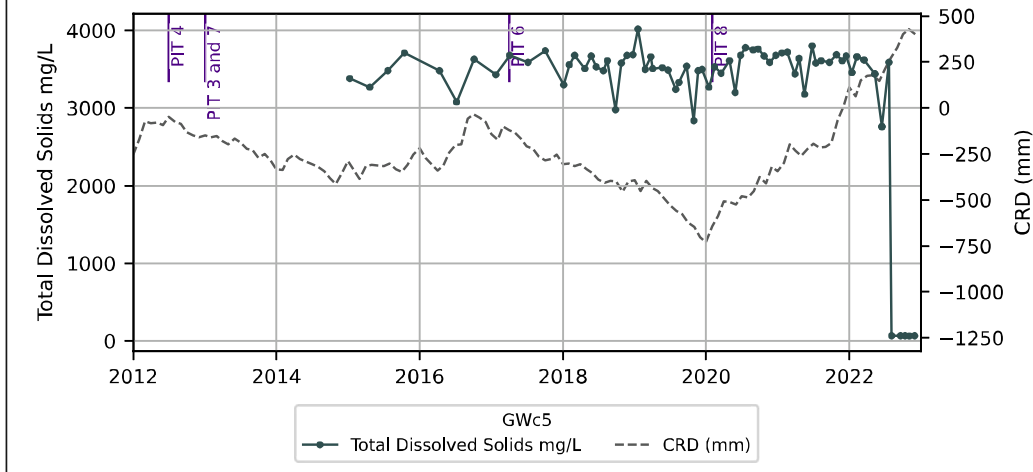
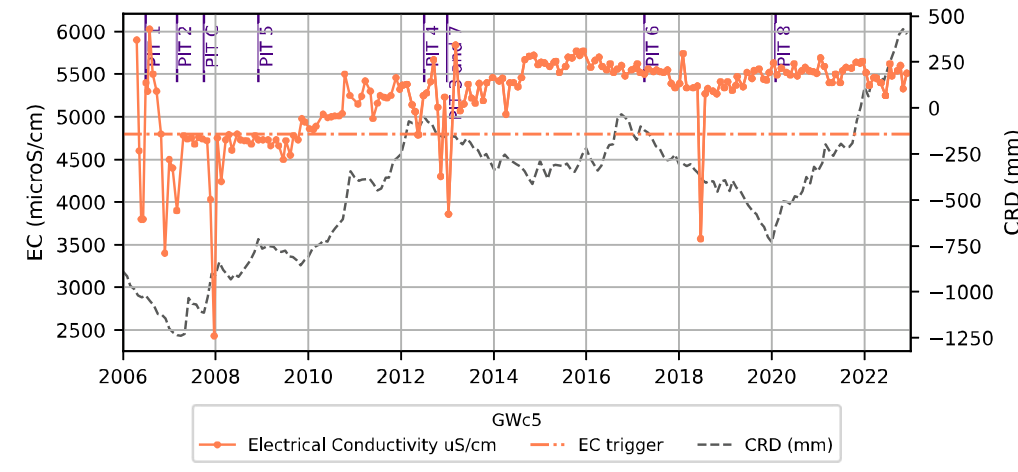
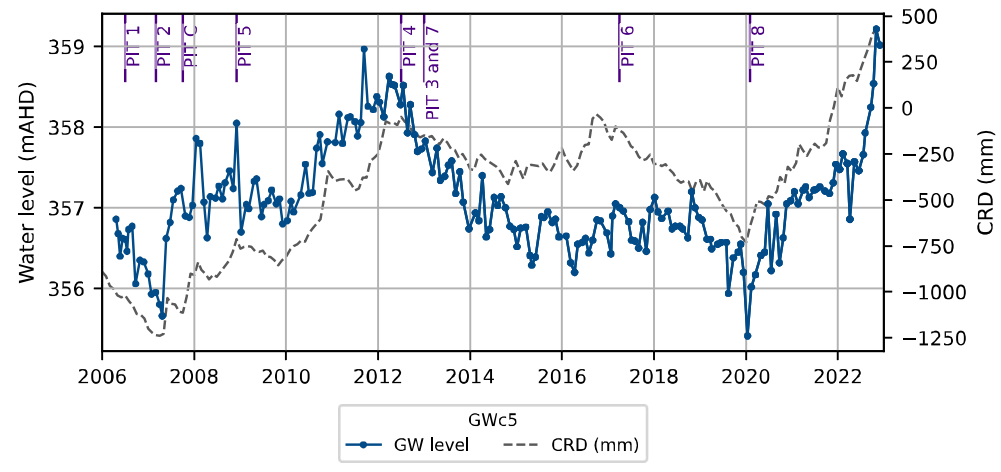


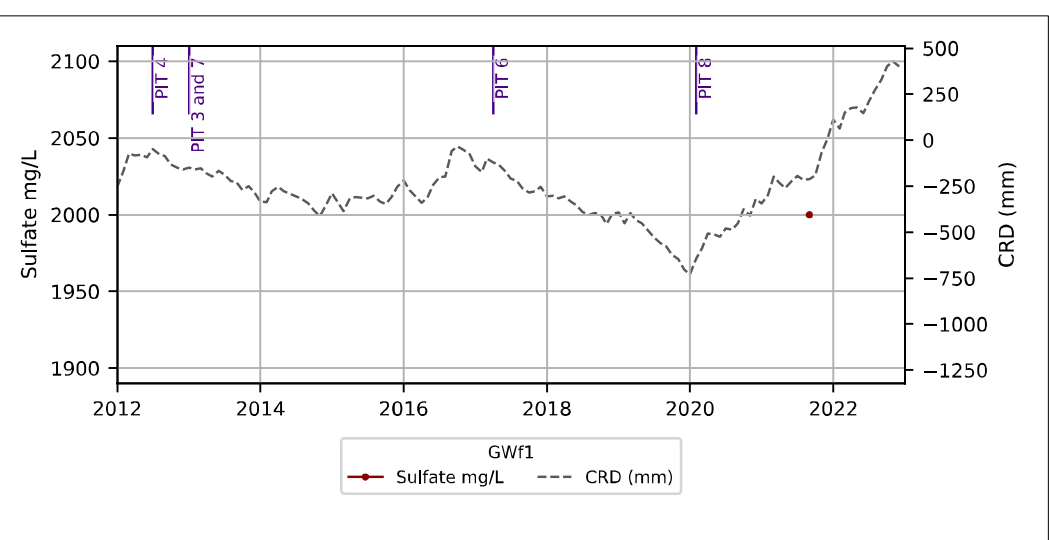
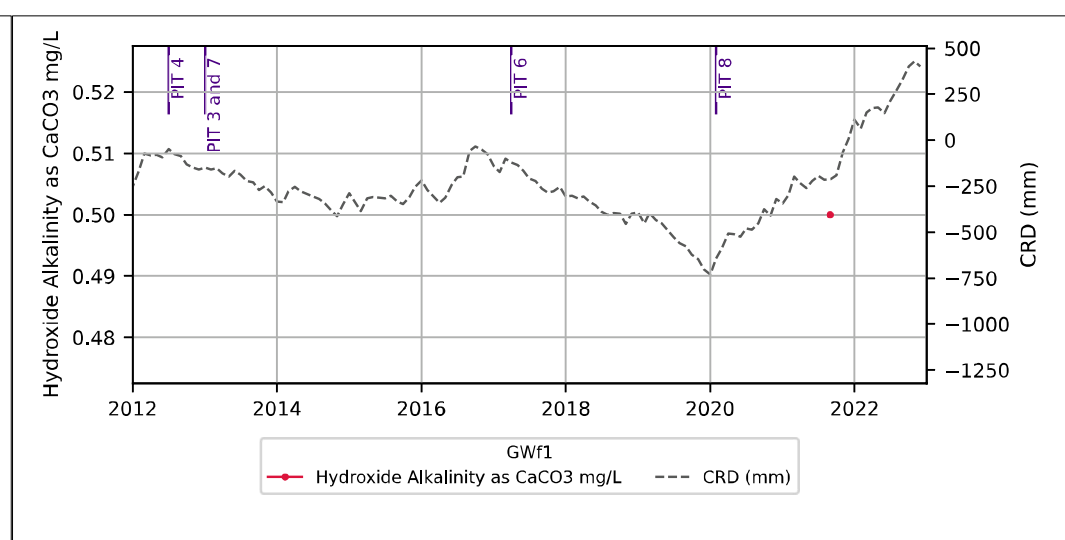
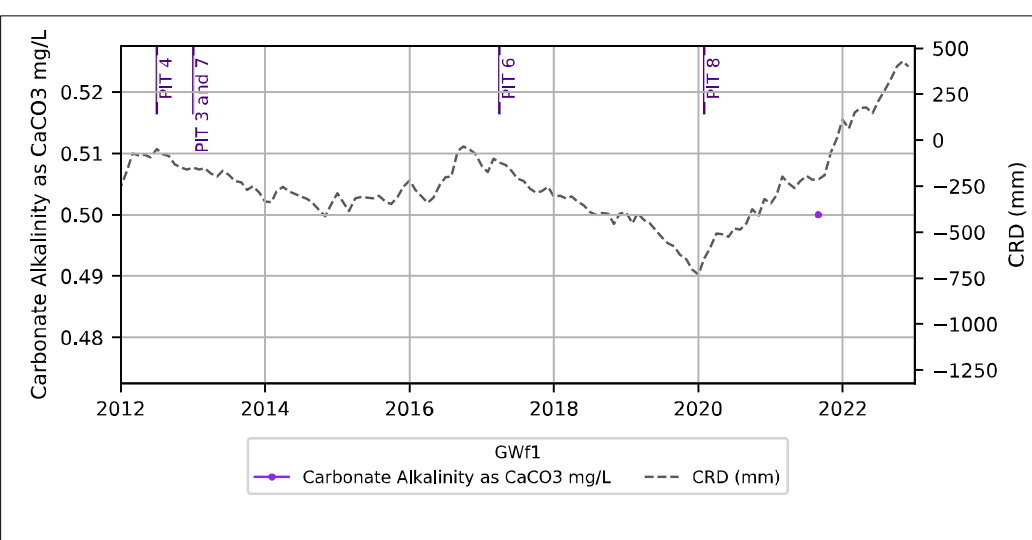
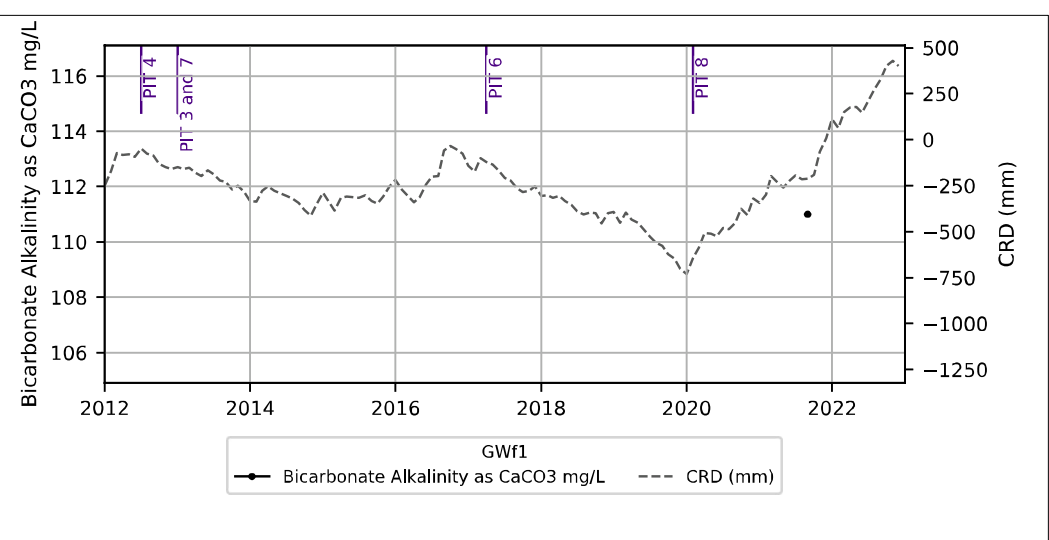
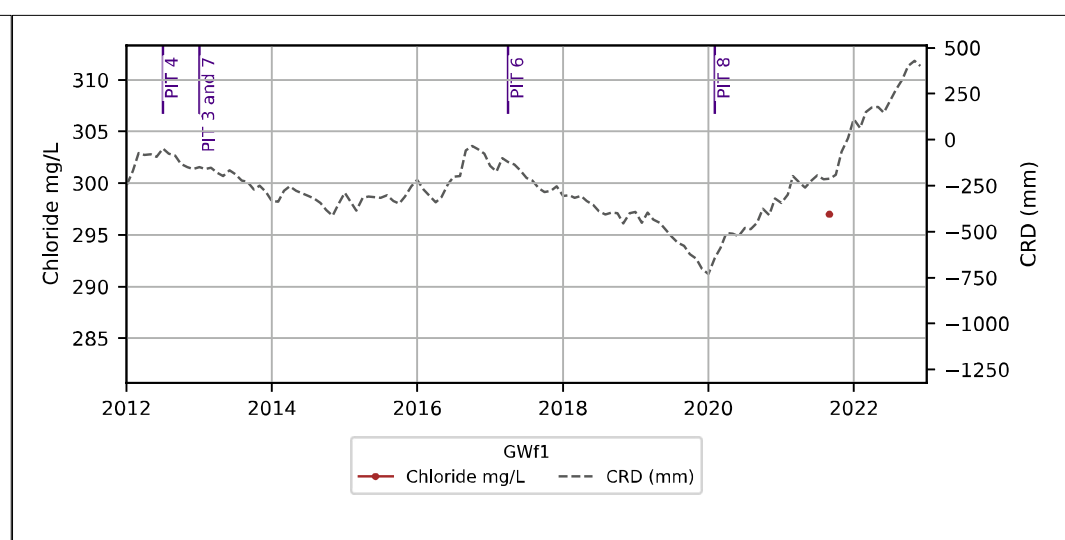
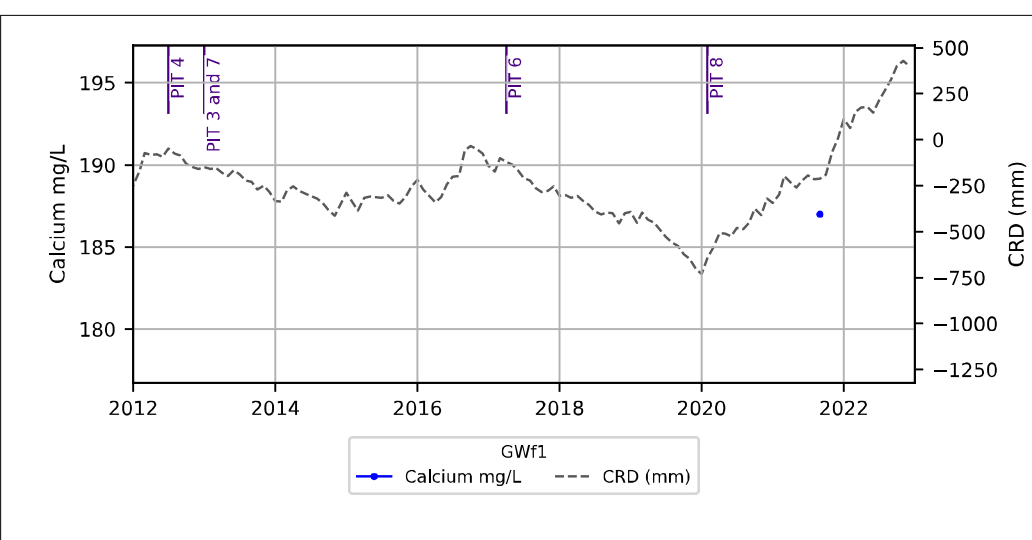
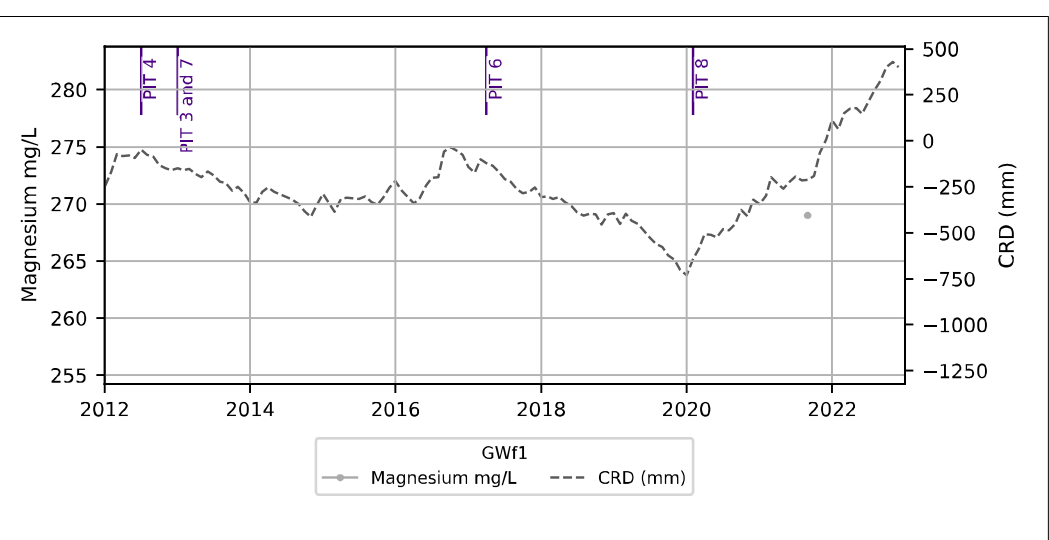
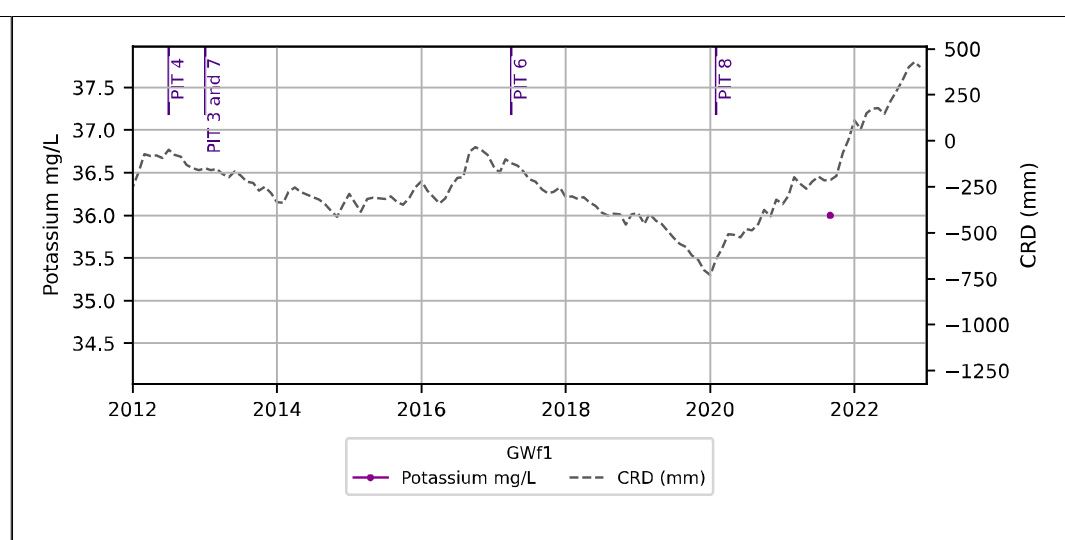
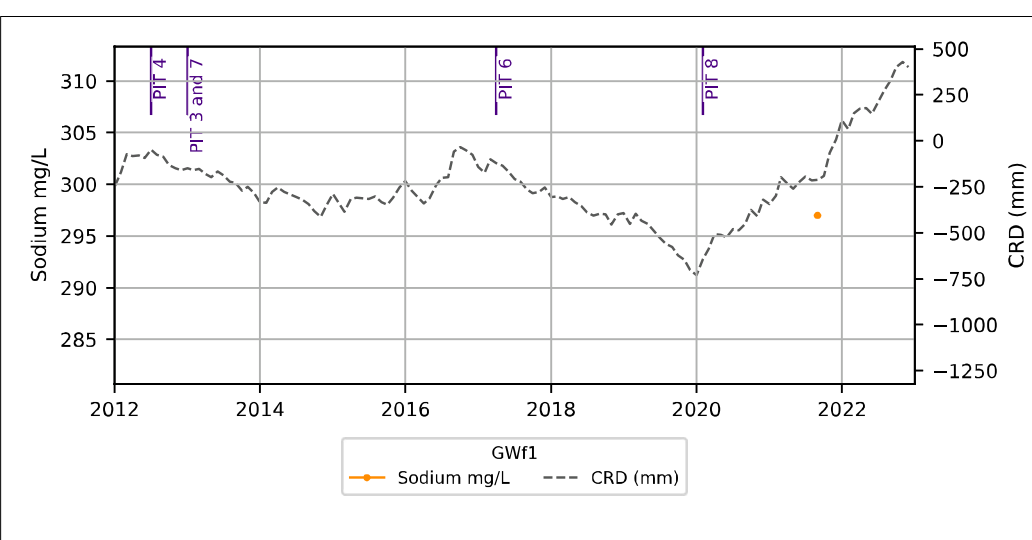
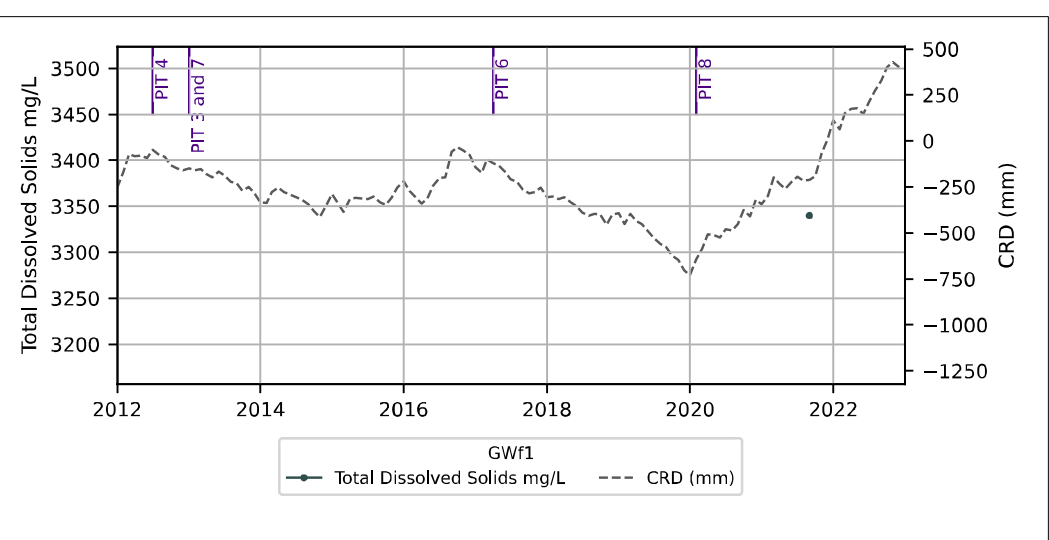
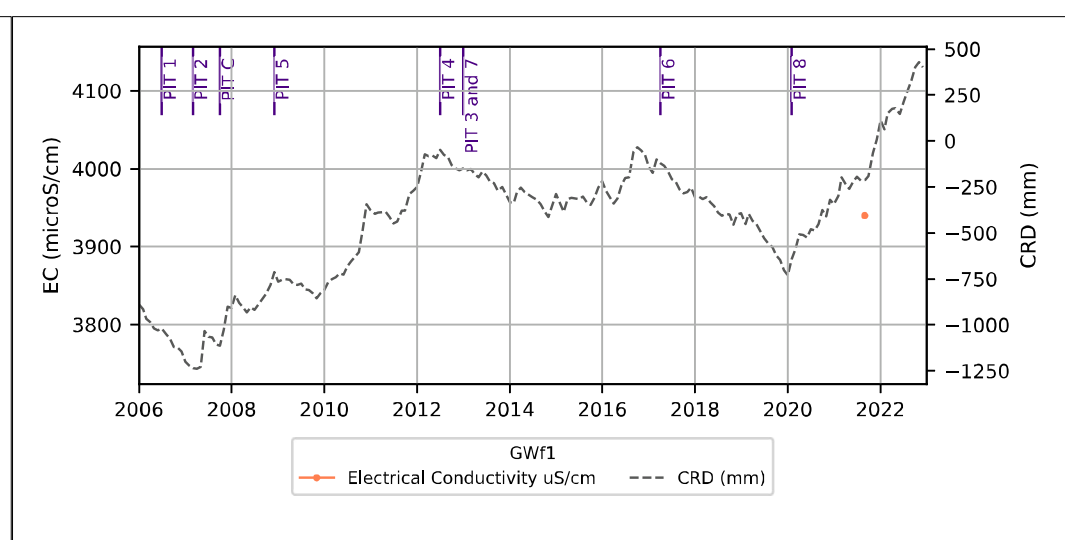
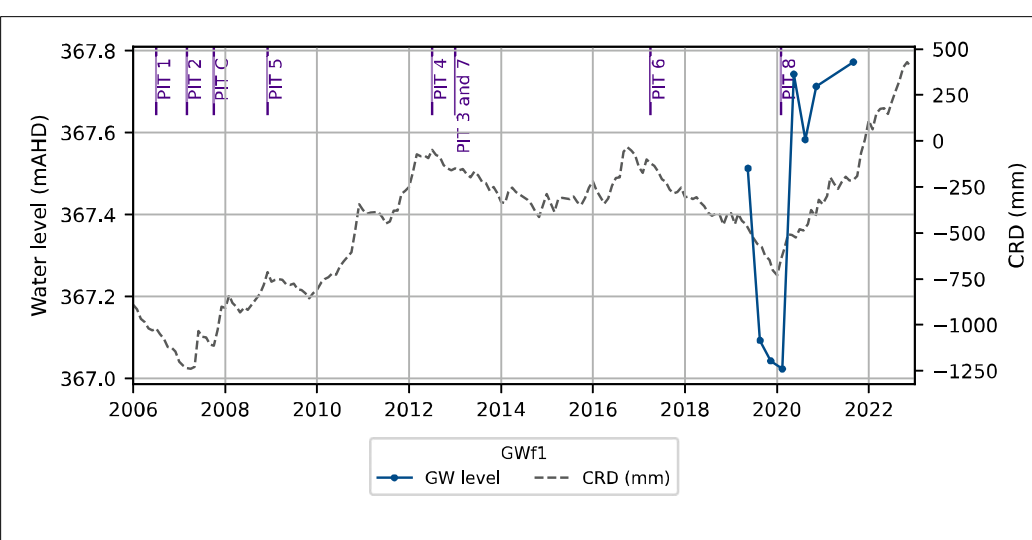


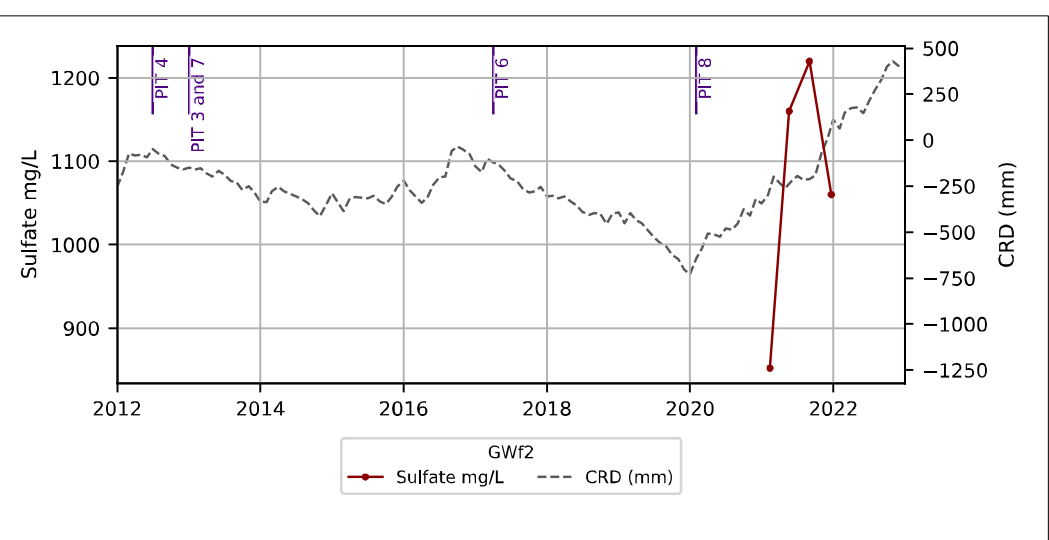
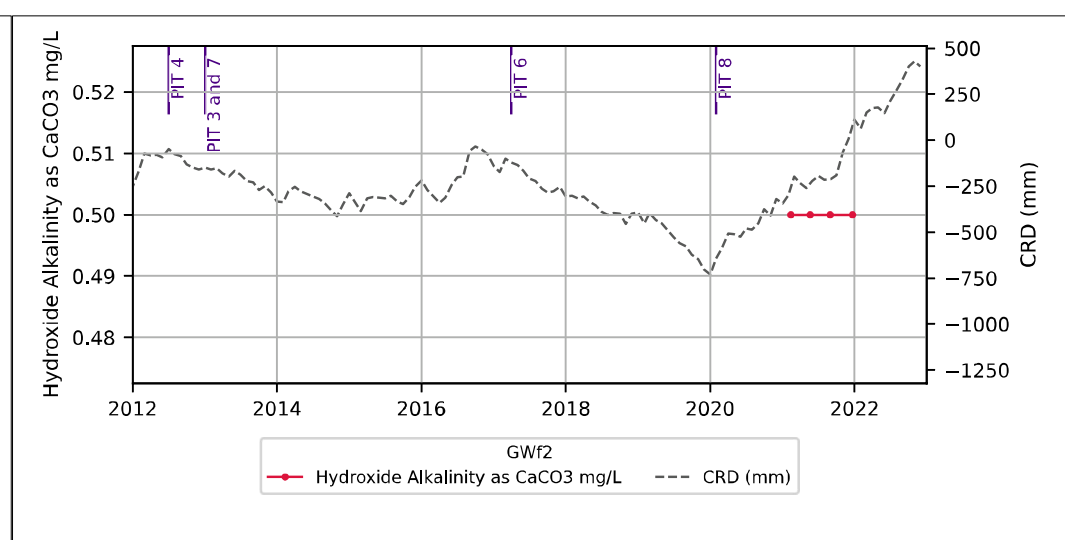
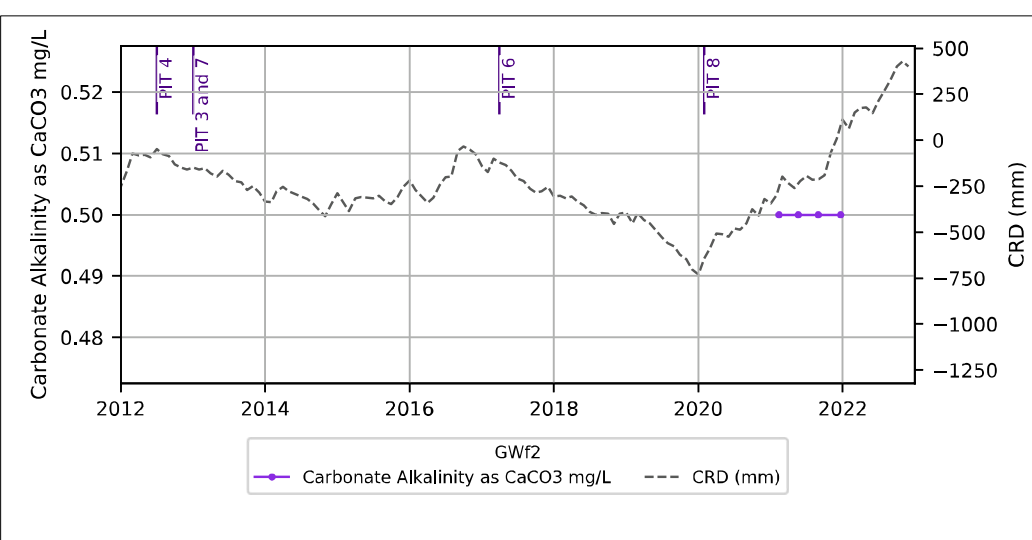
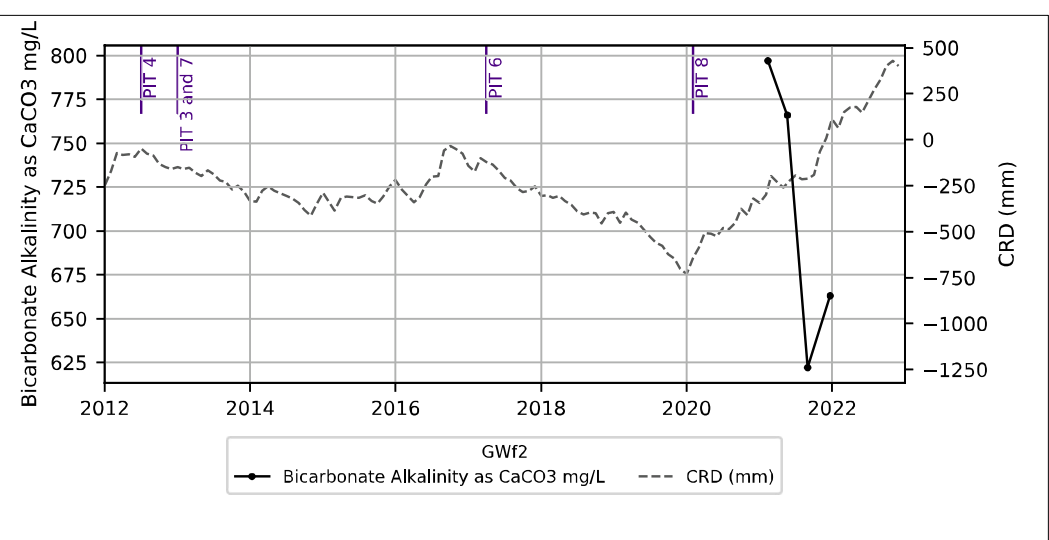
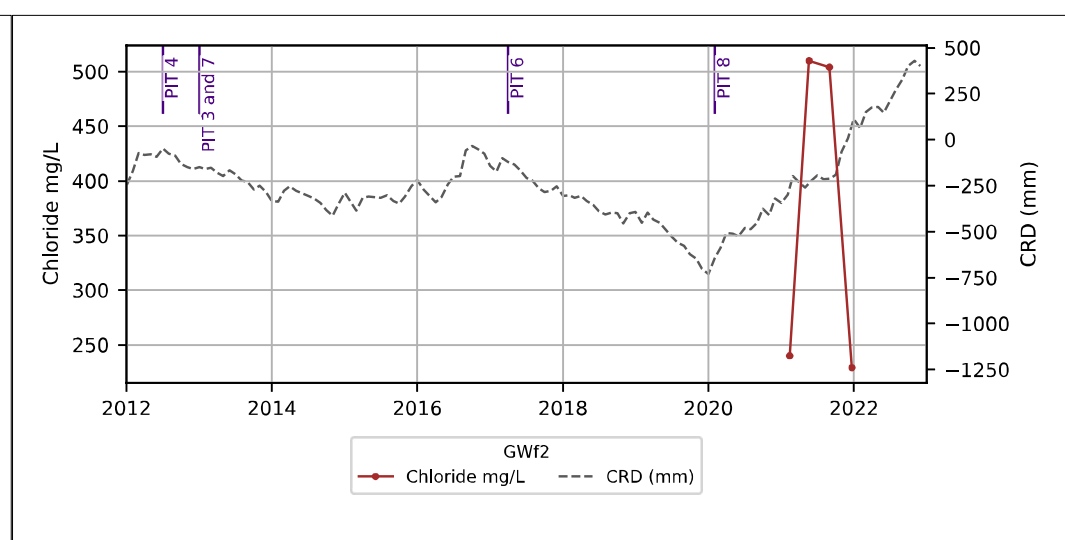
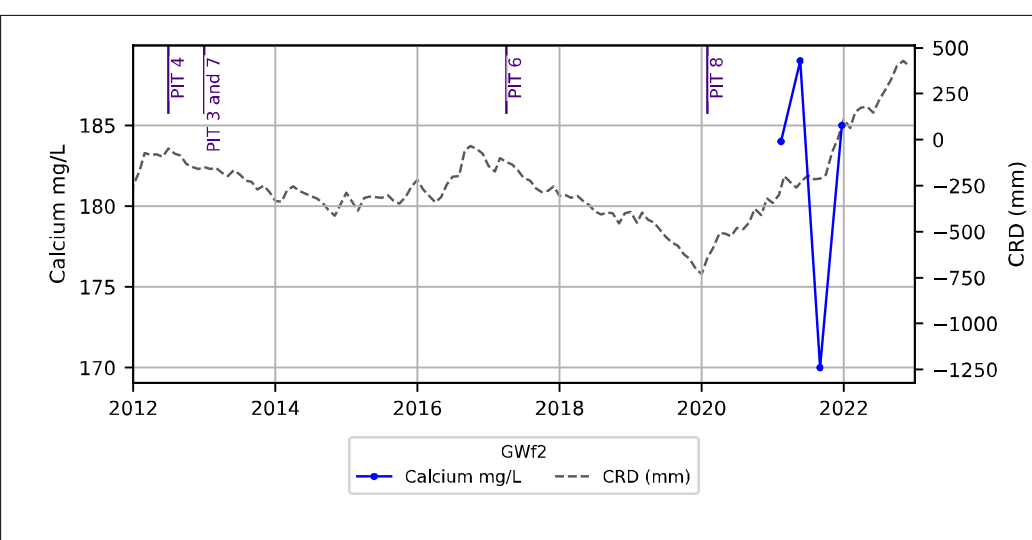
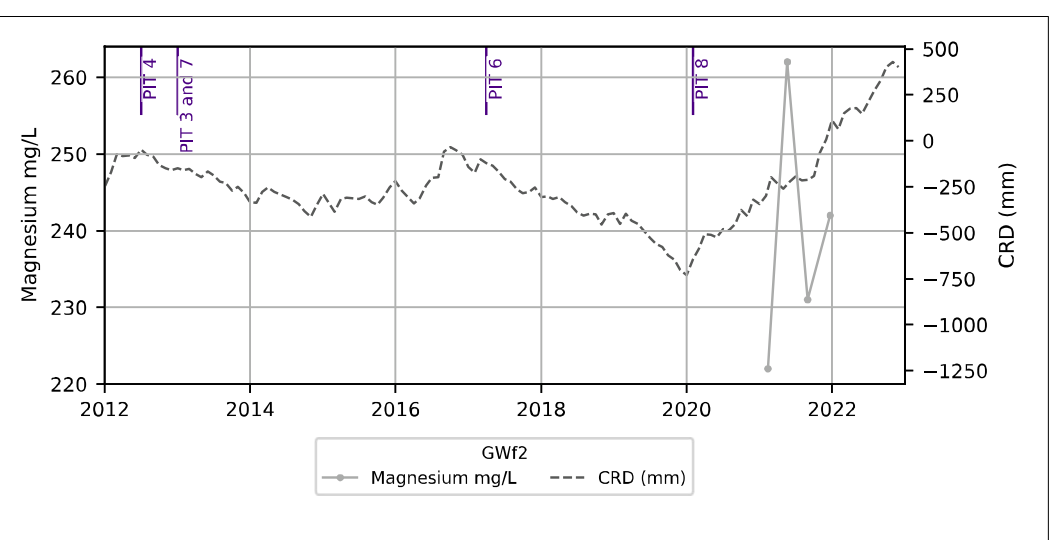
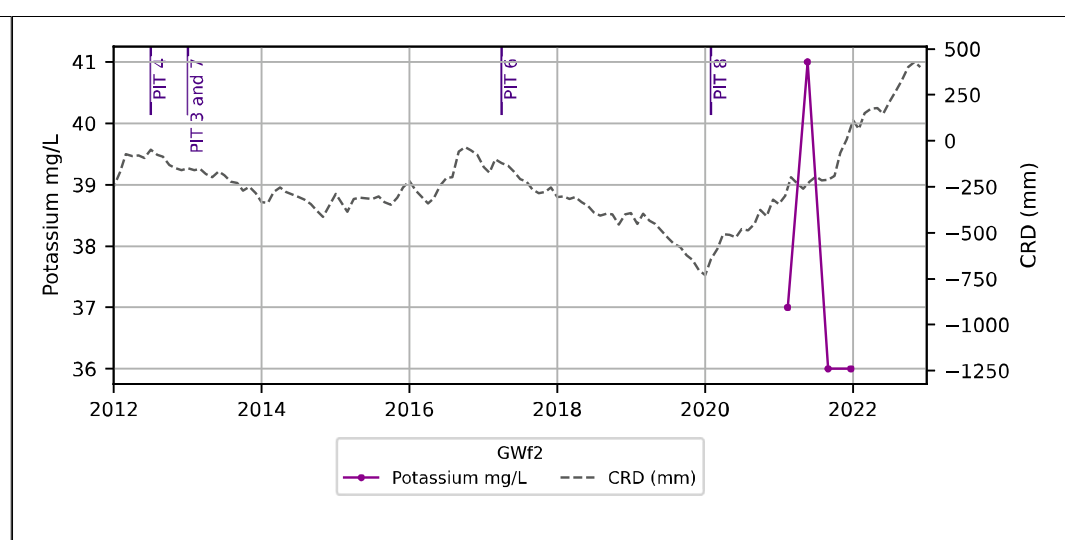
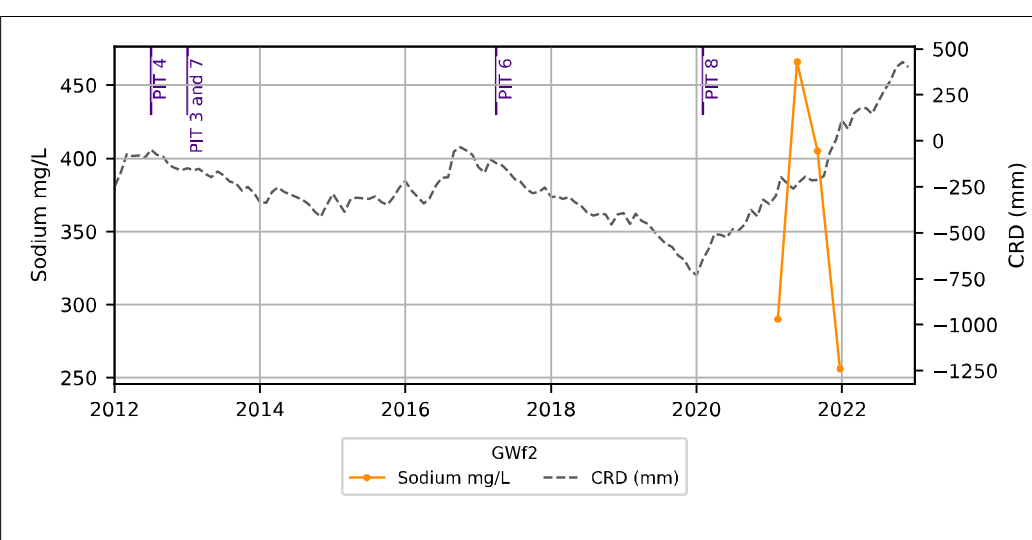
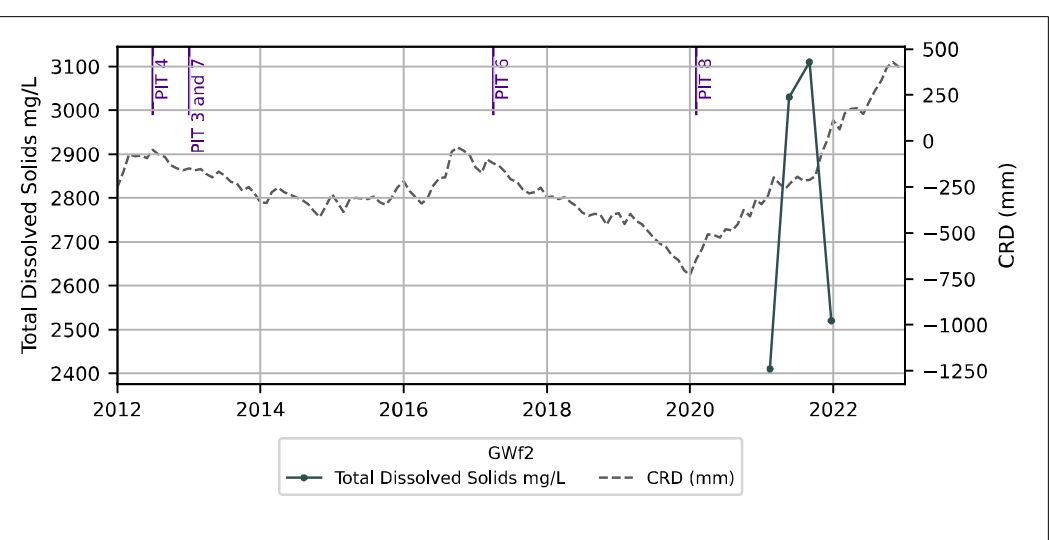
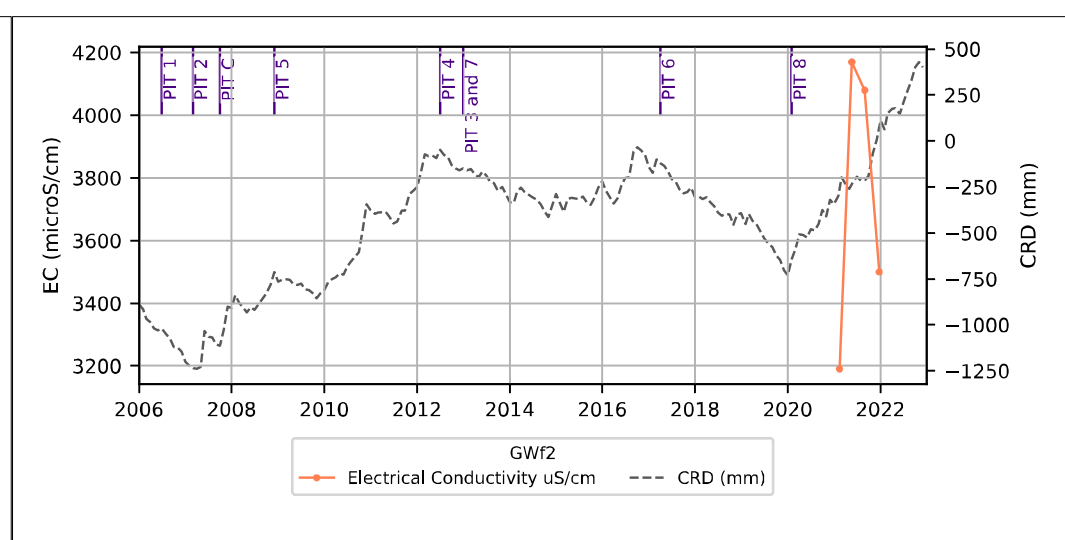
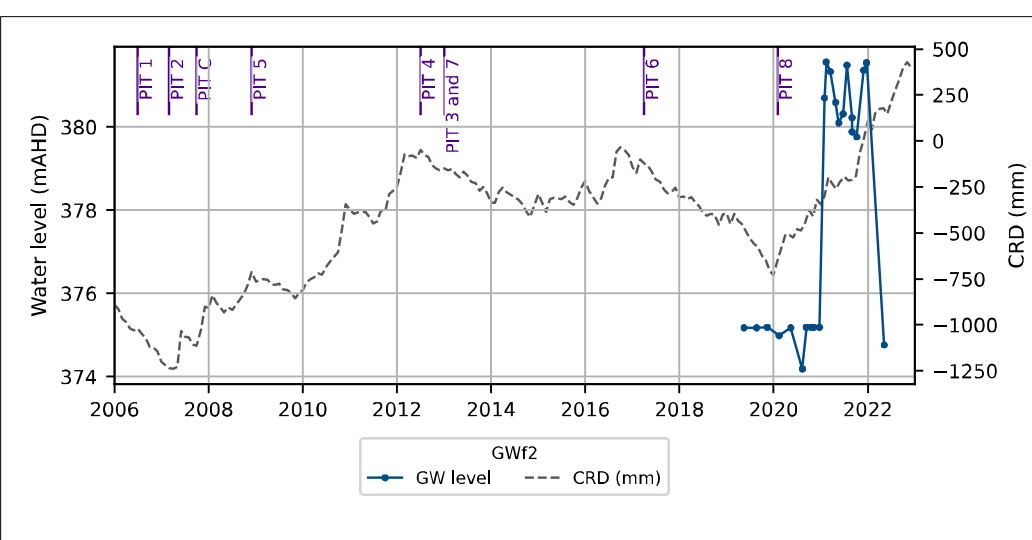


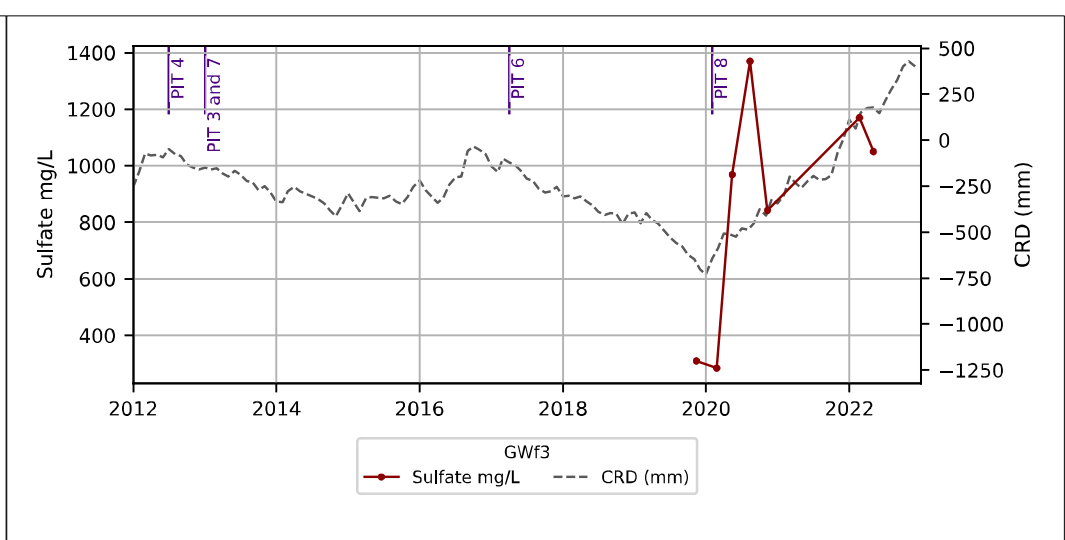
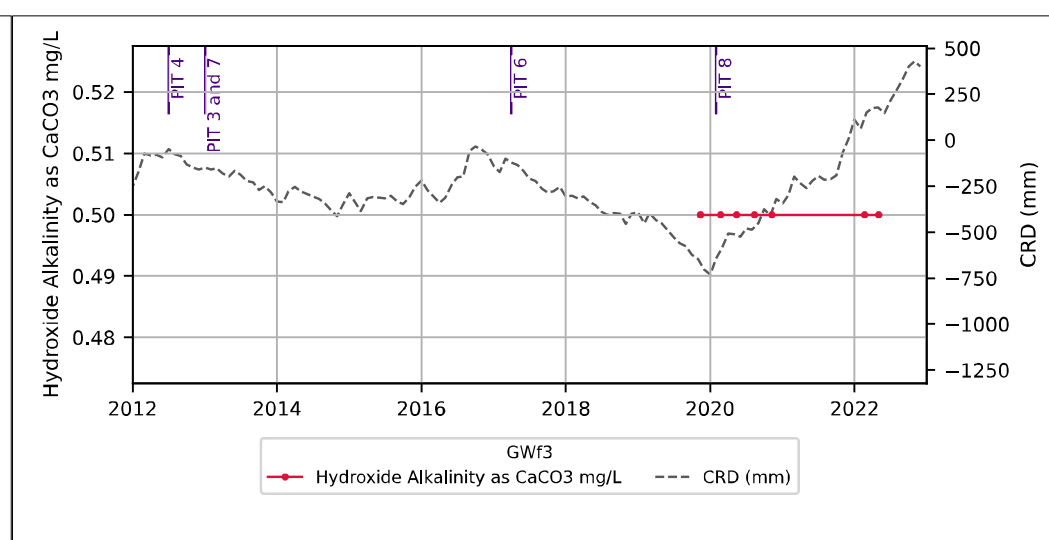
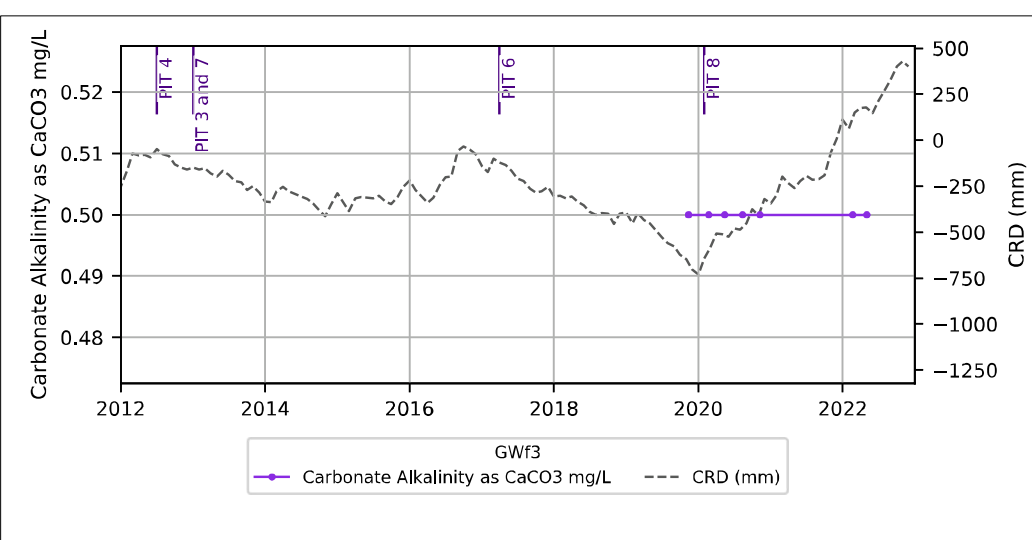
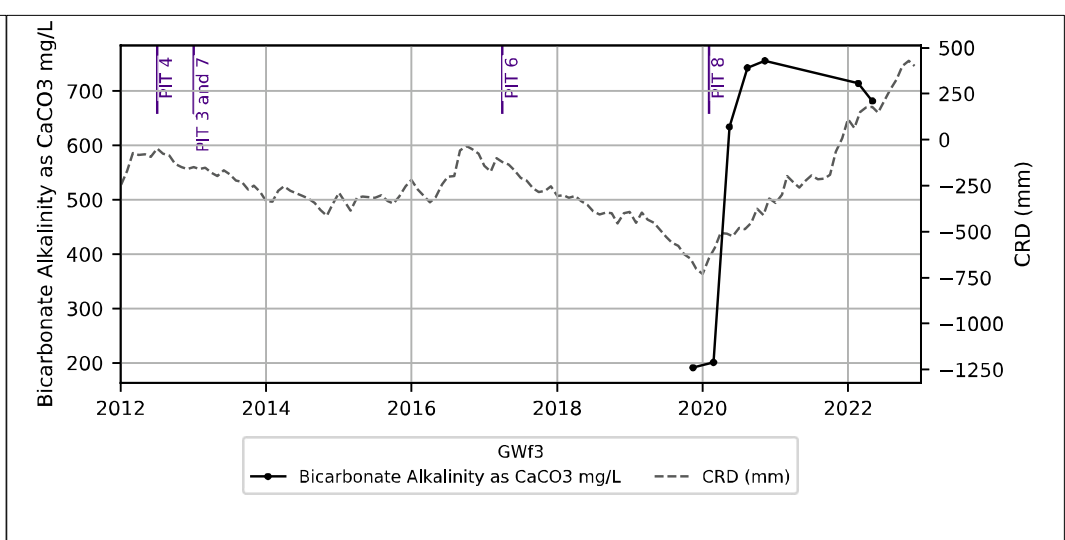
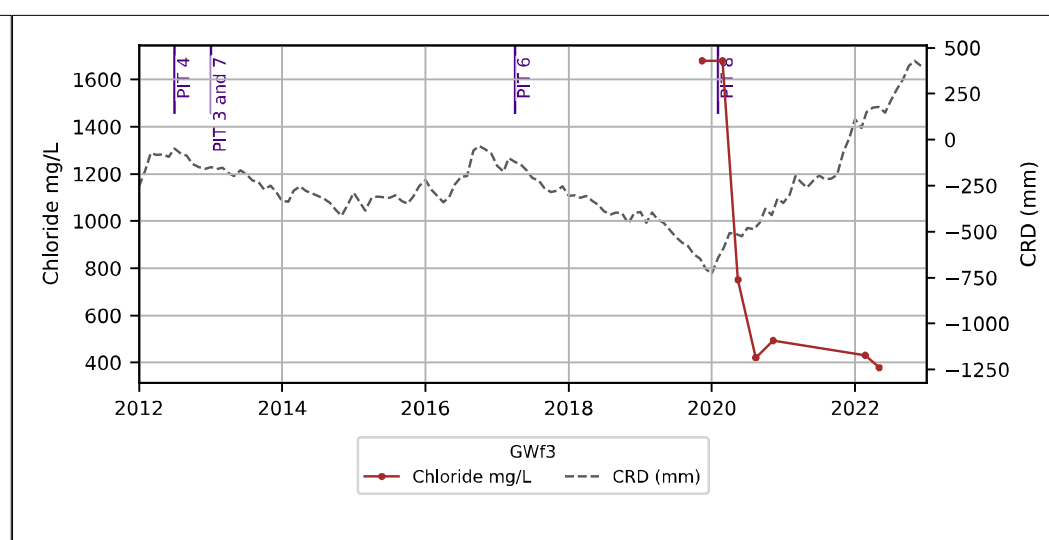
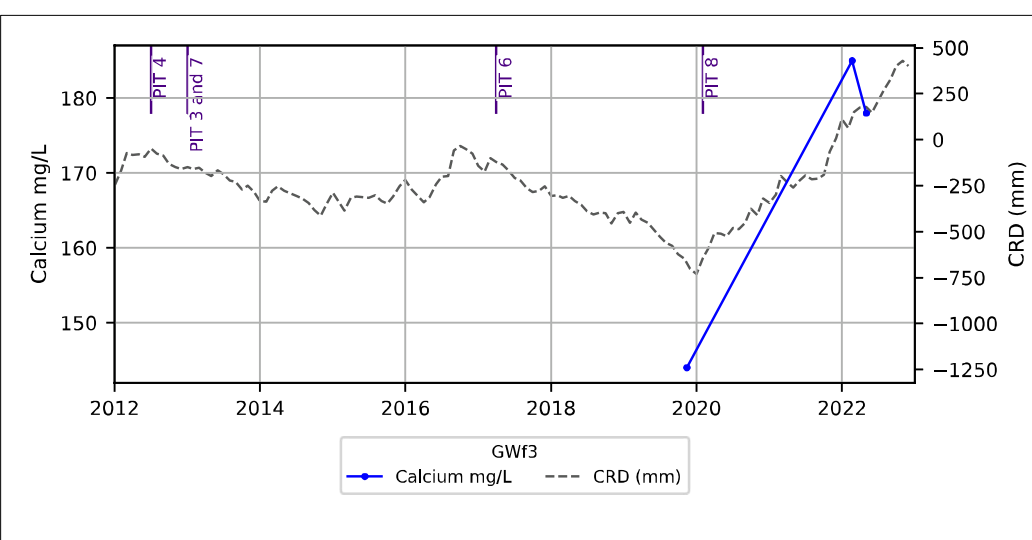
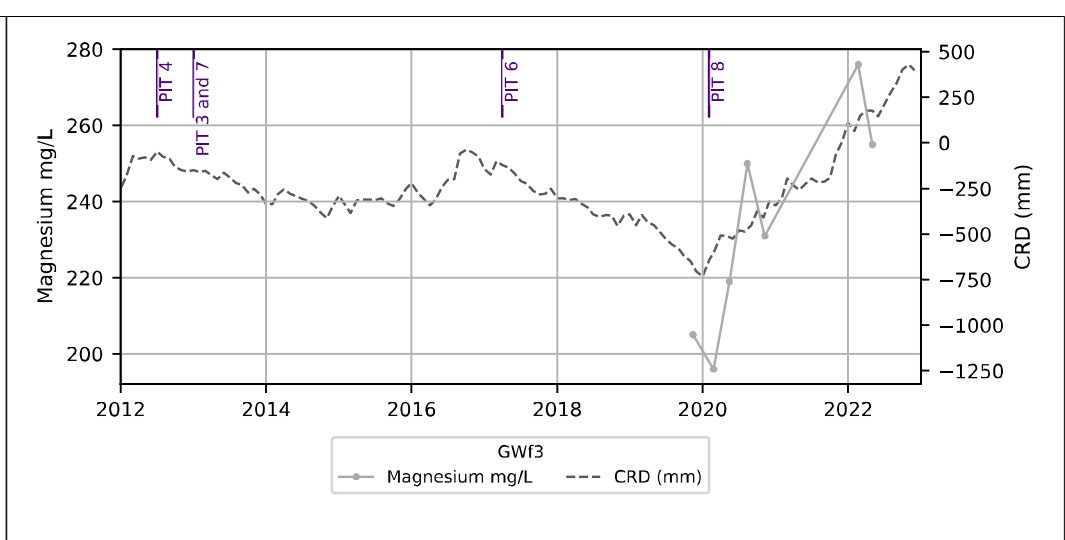
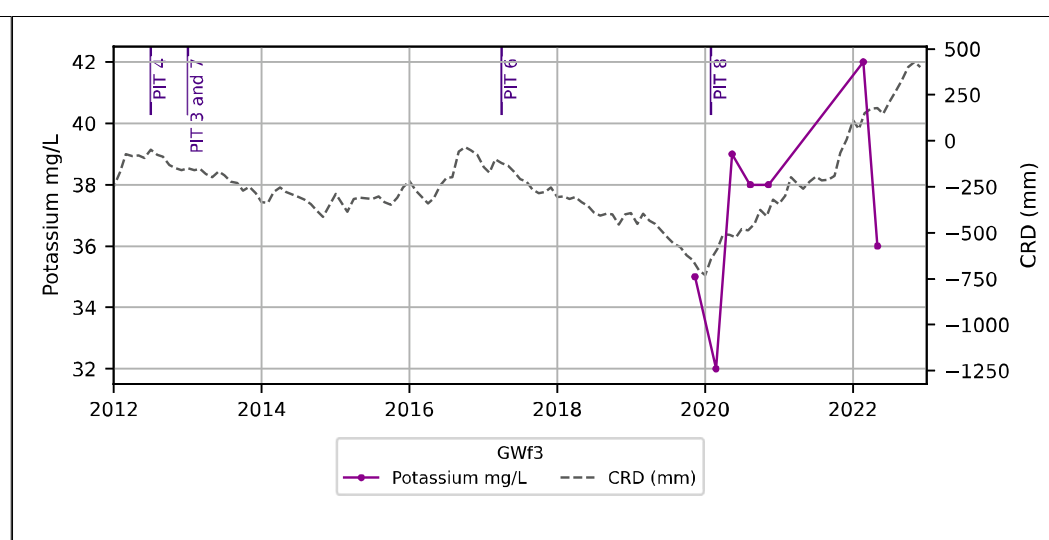
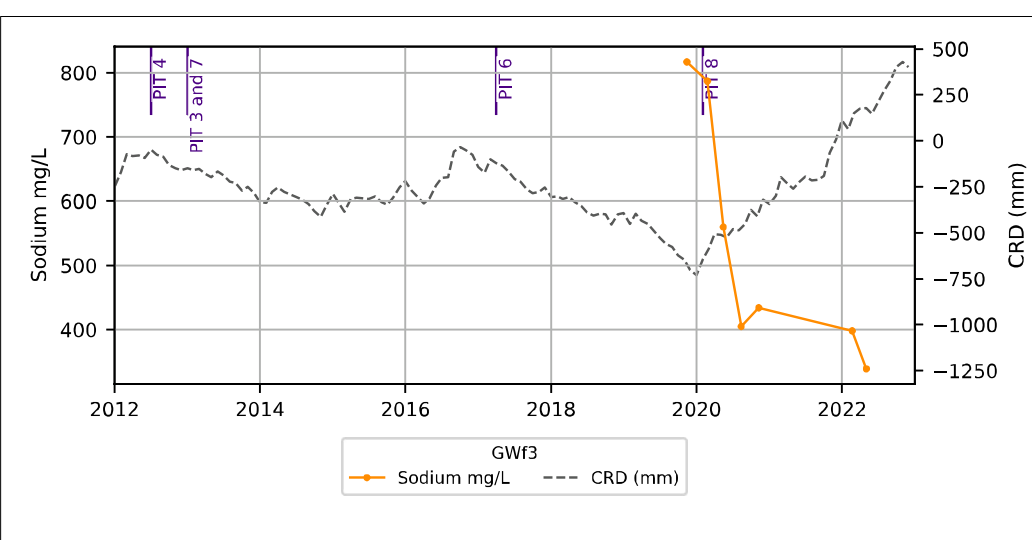
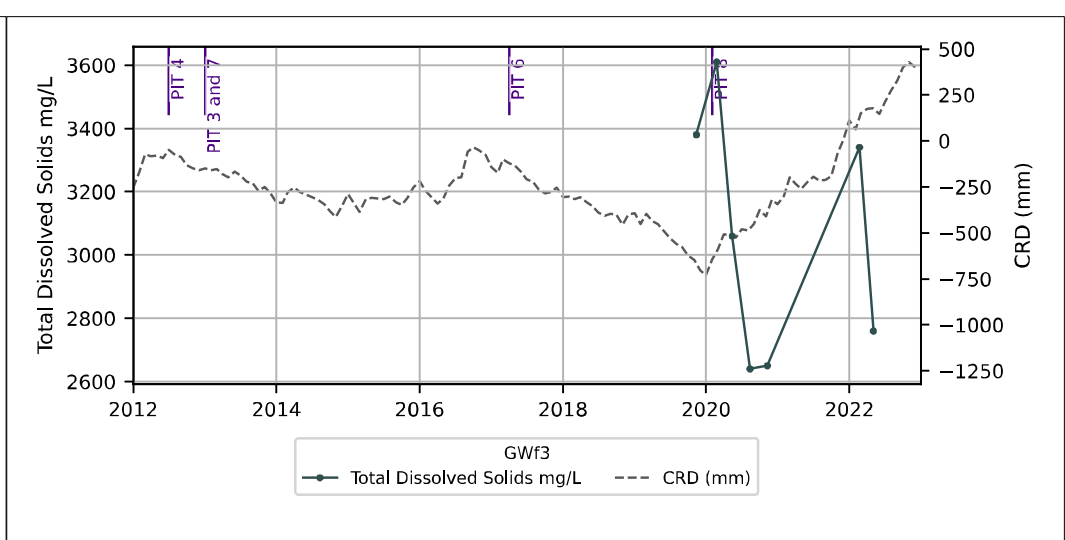
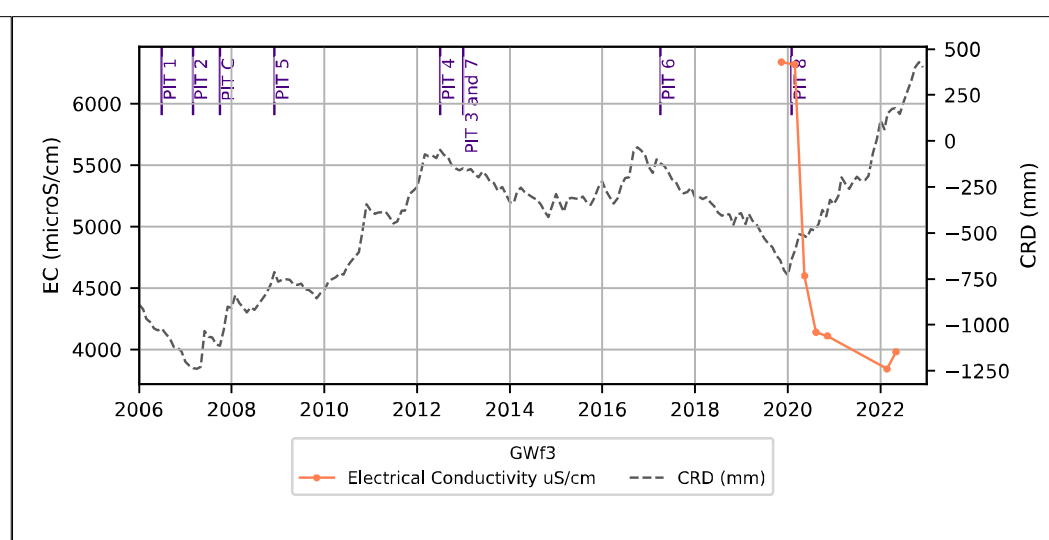
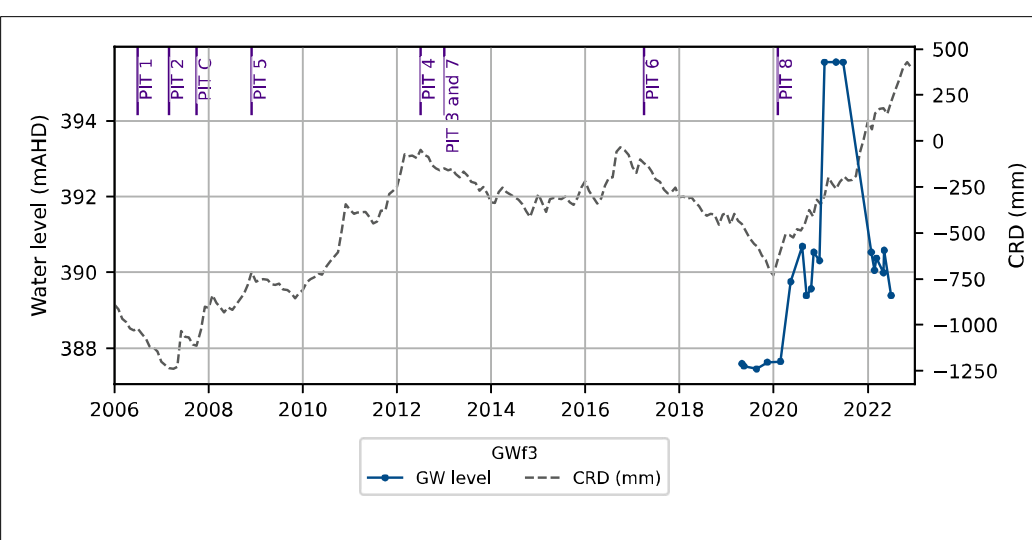


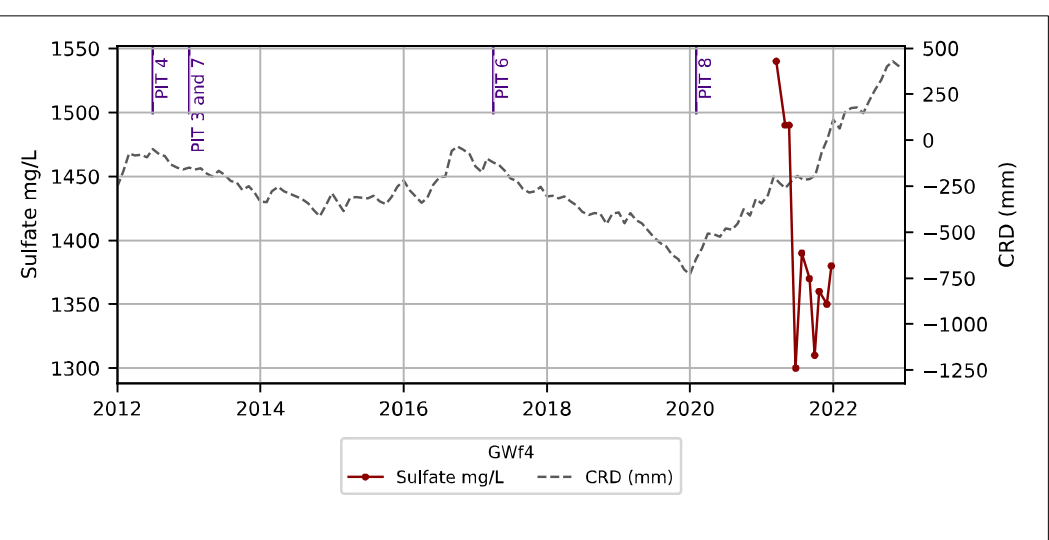
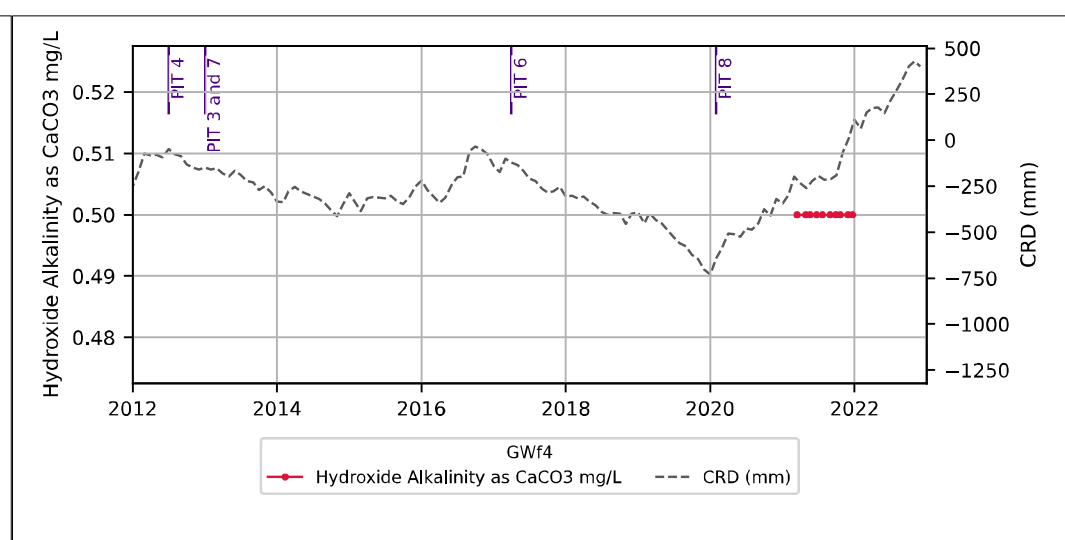
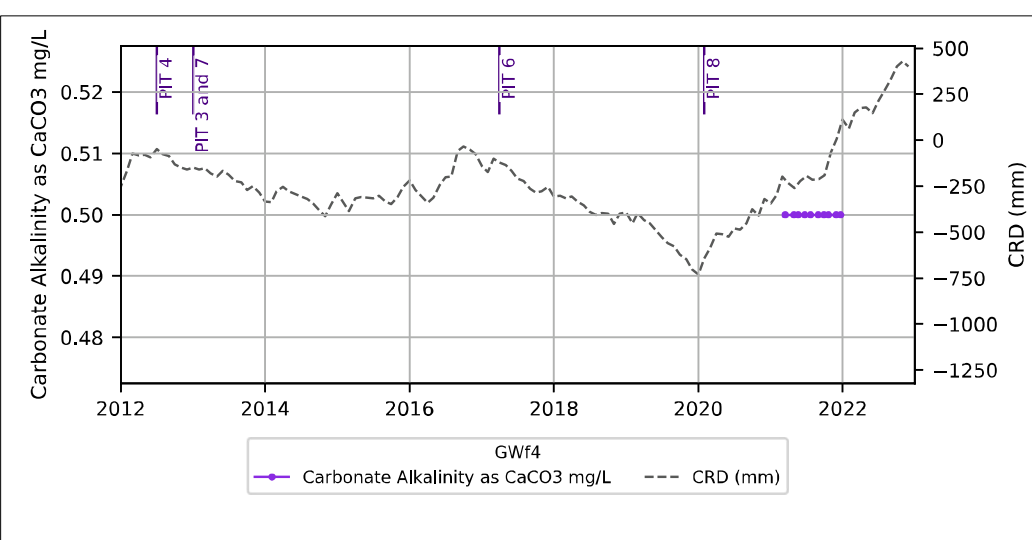
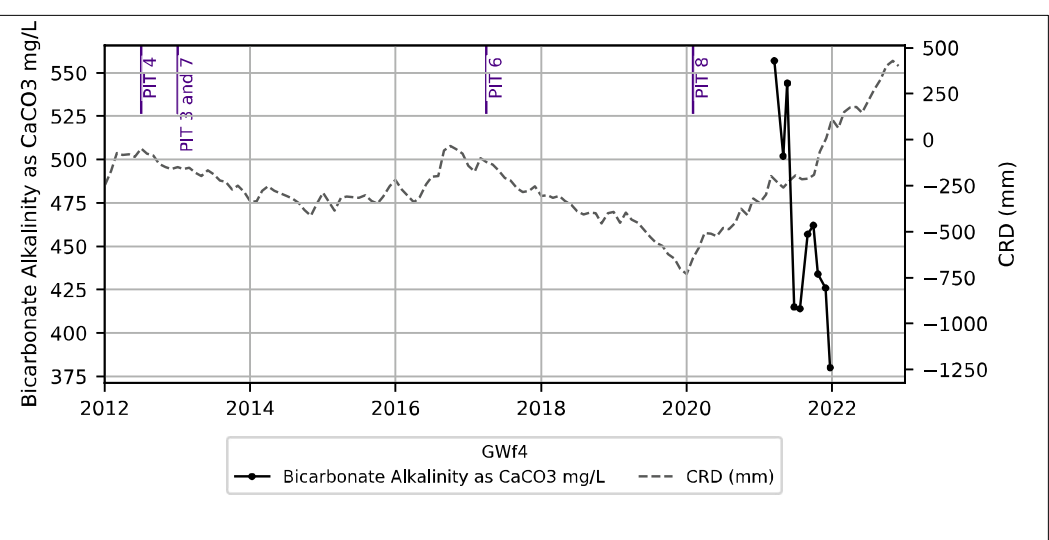
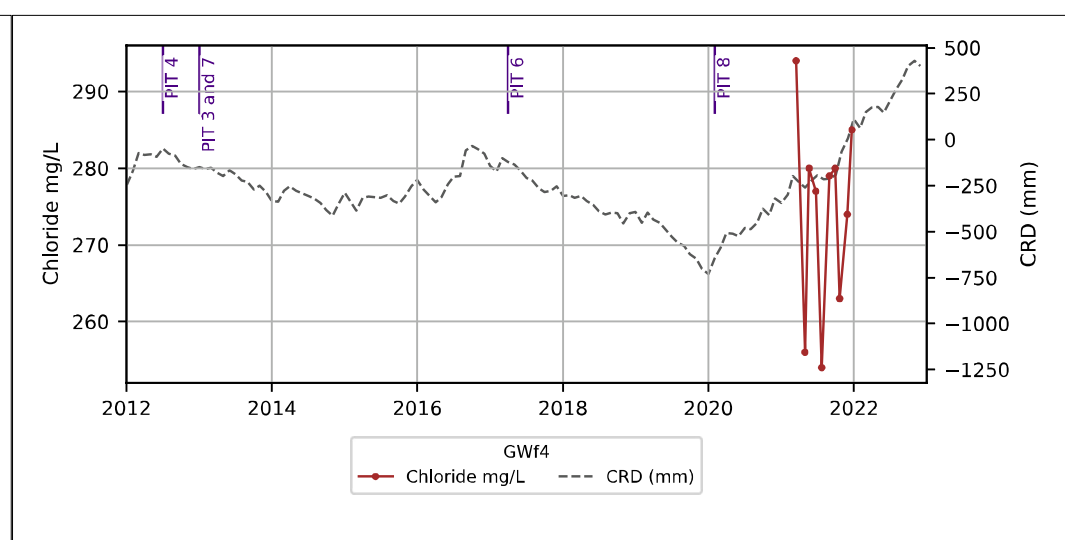
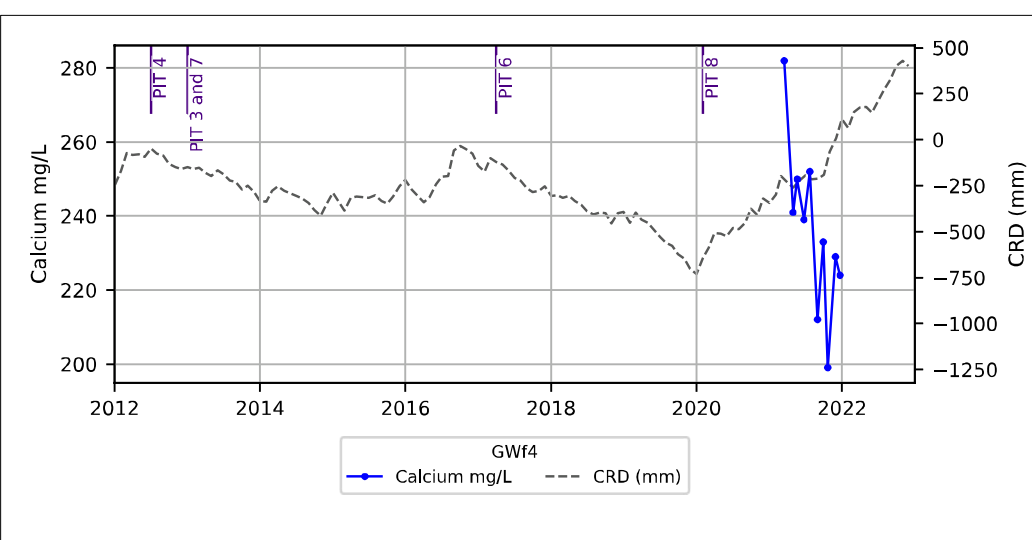
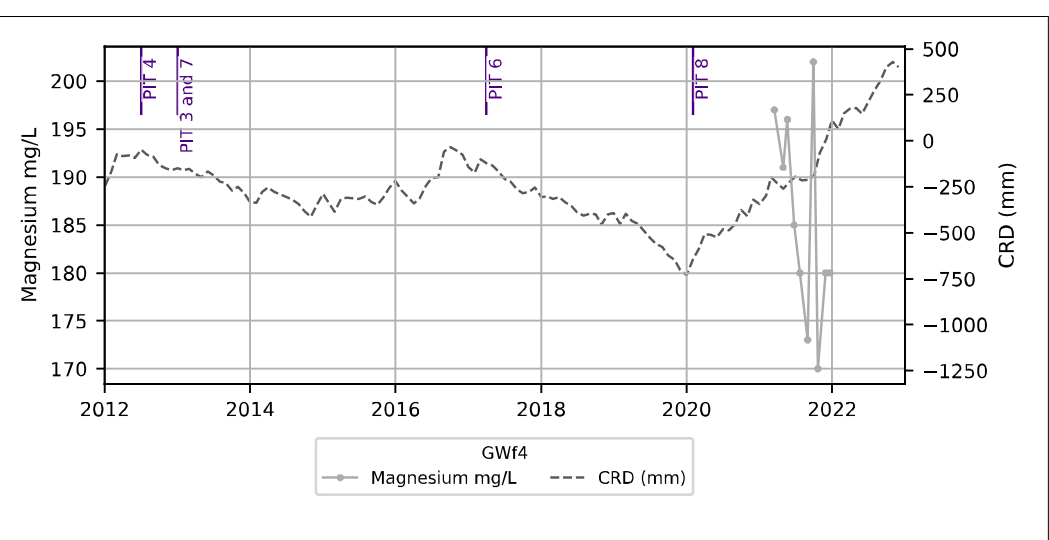
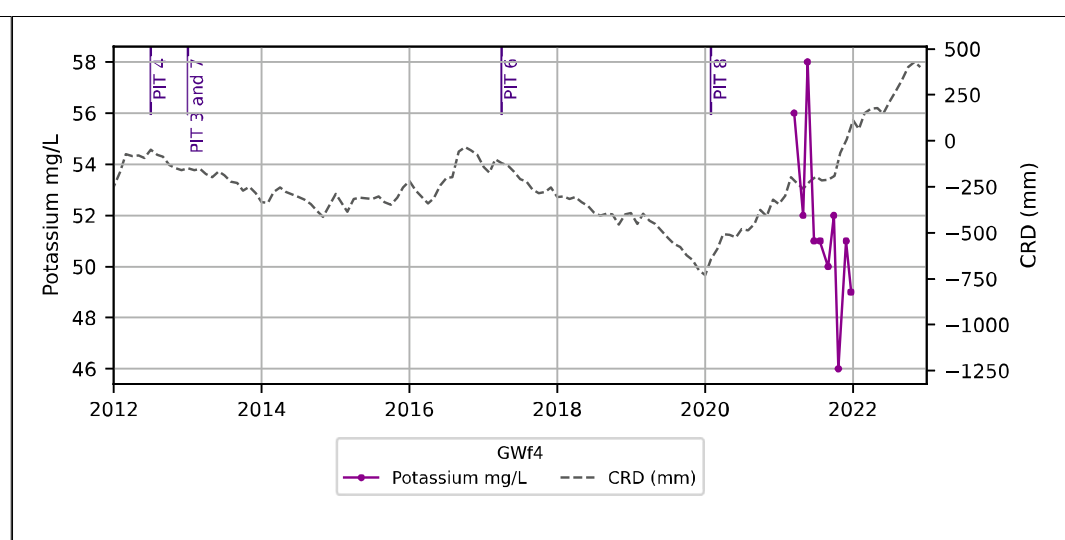
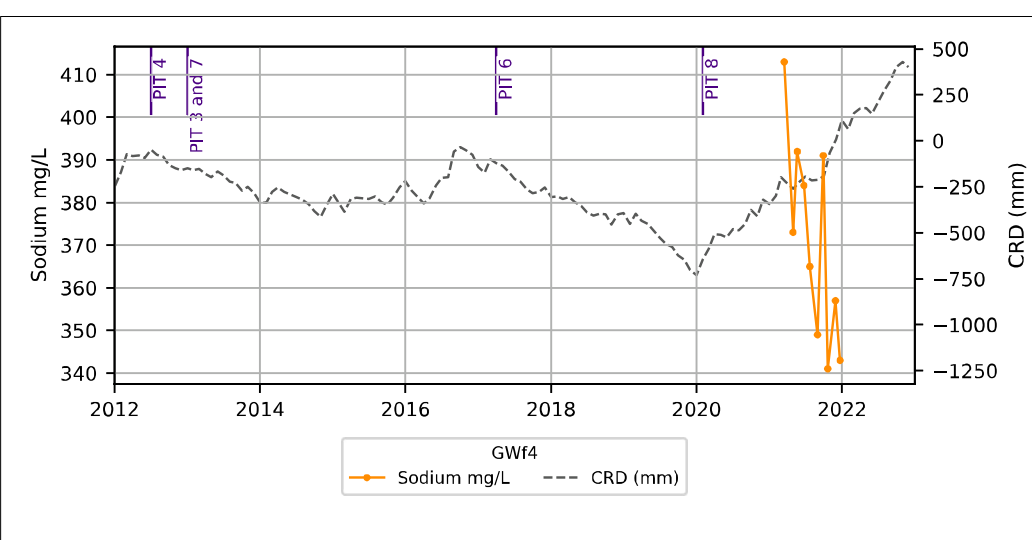
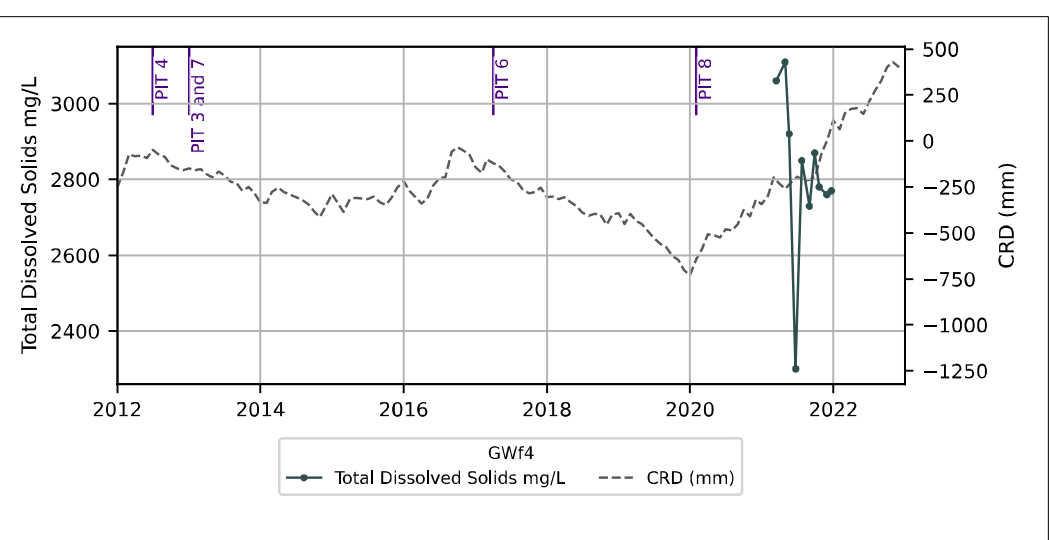
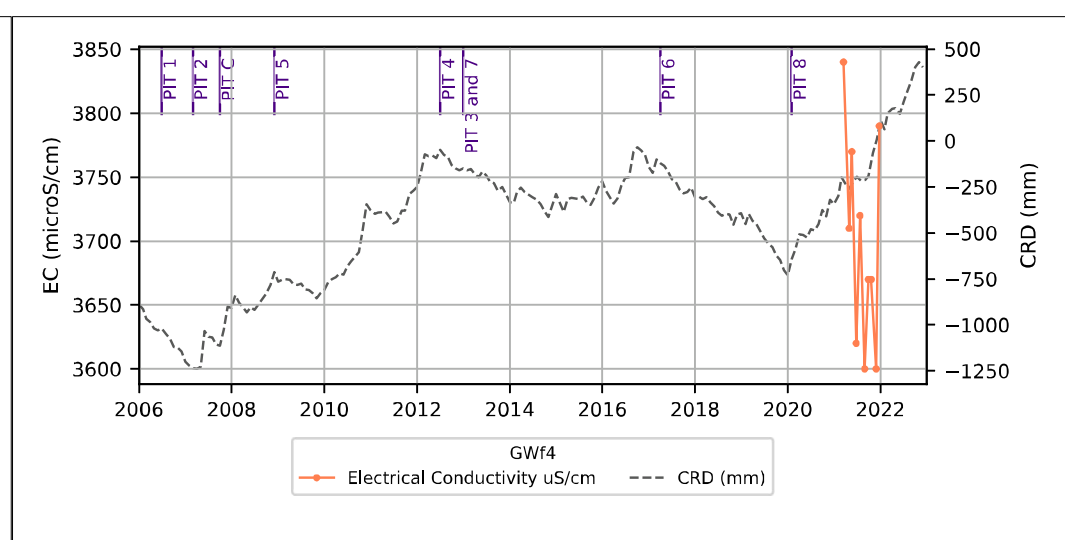
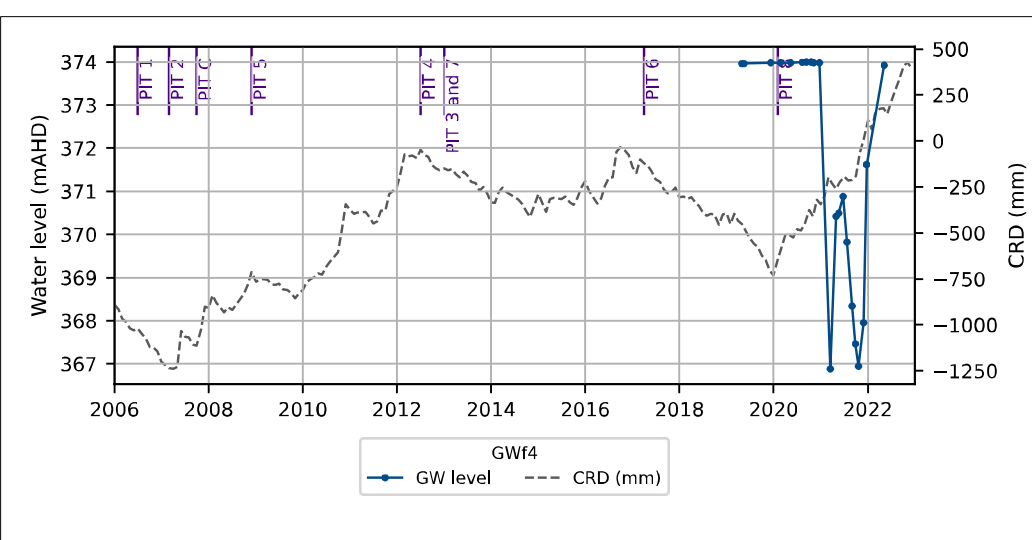




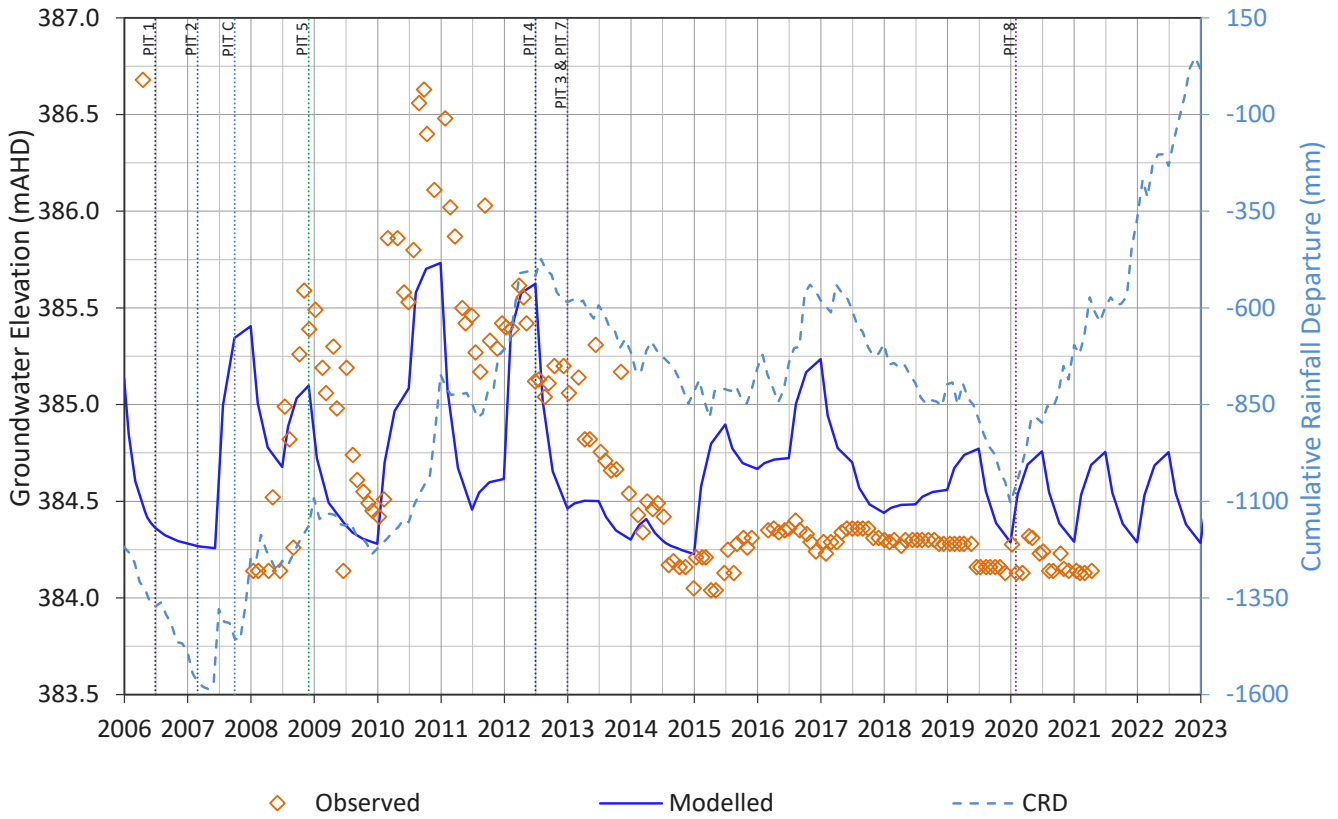




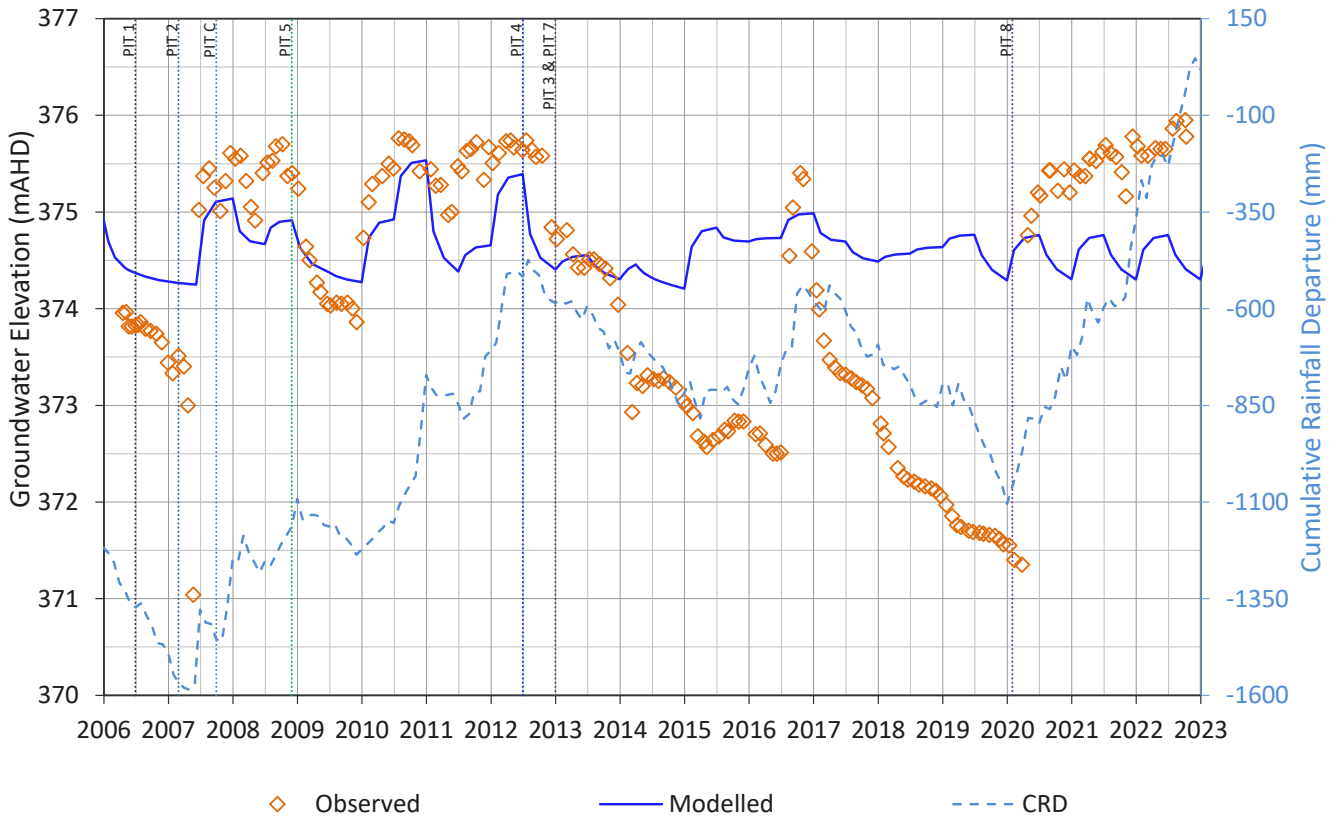




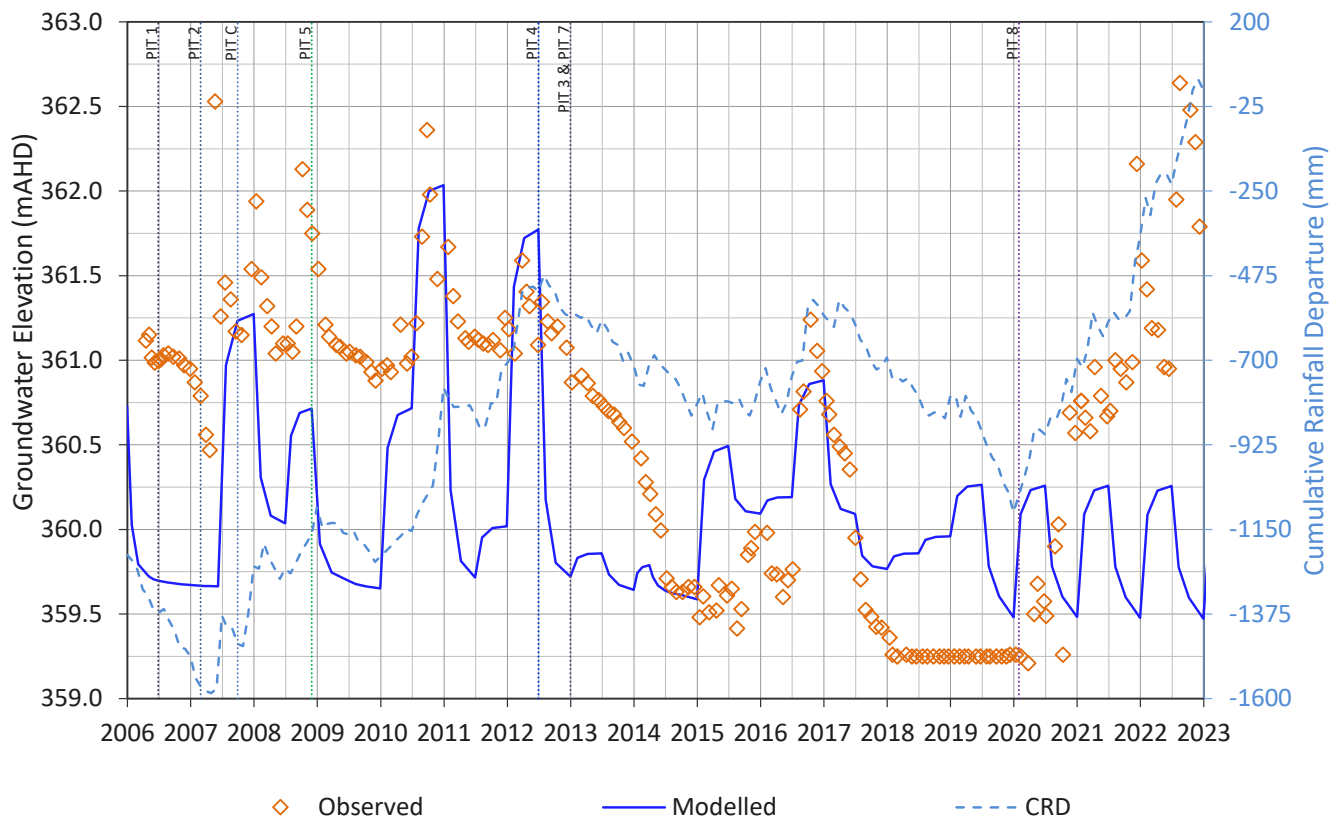
GWa1 Model Performance



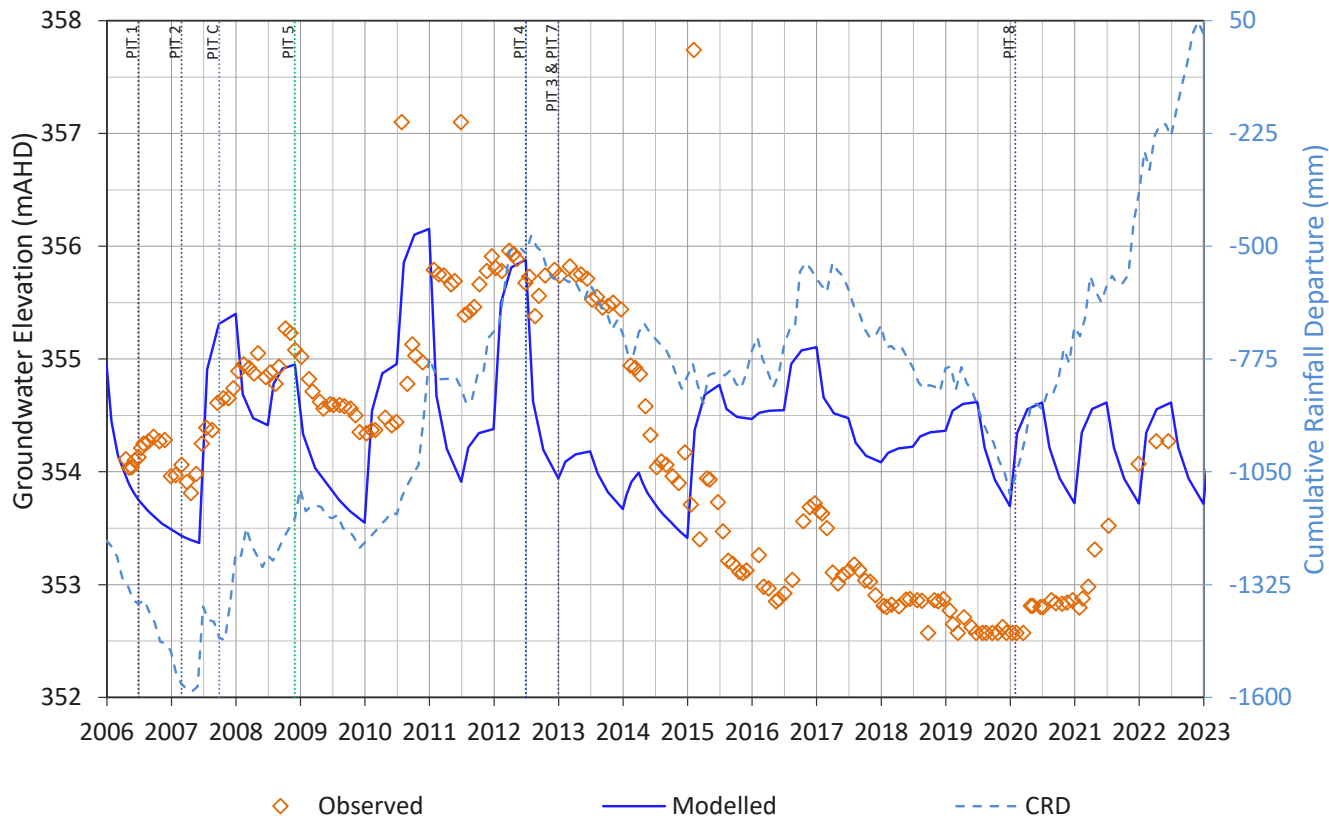
GWa2 Model Performance



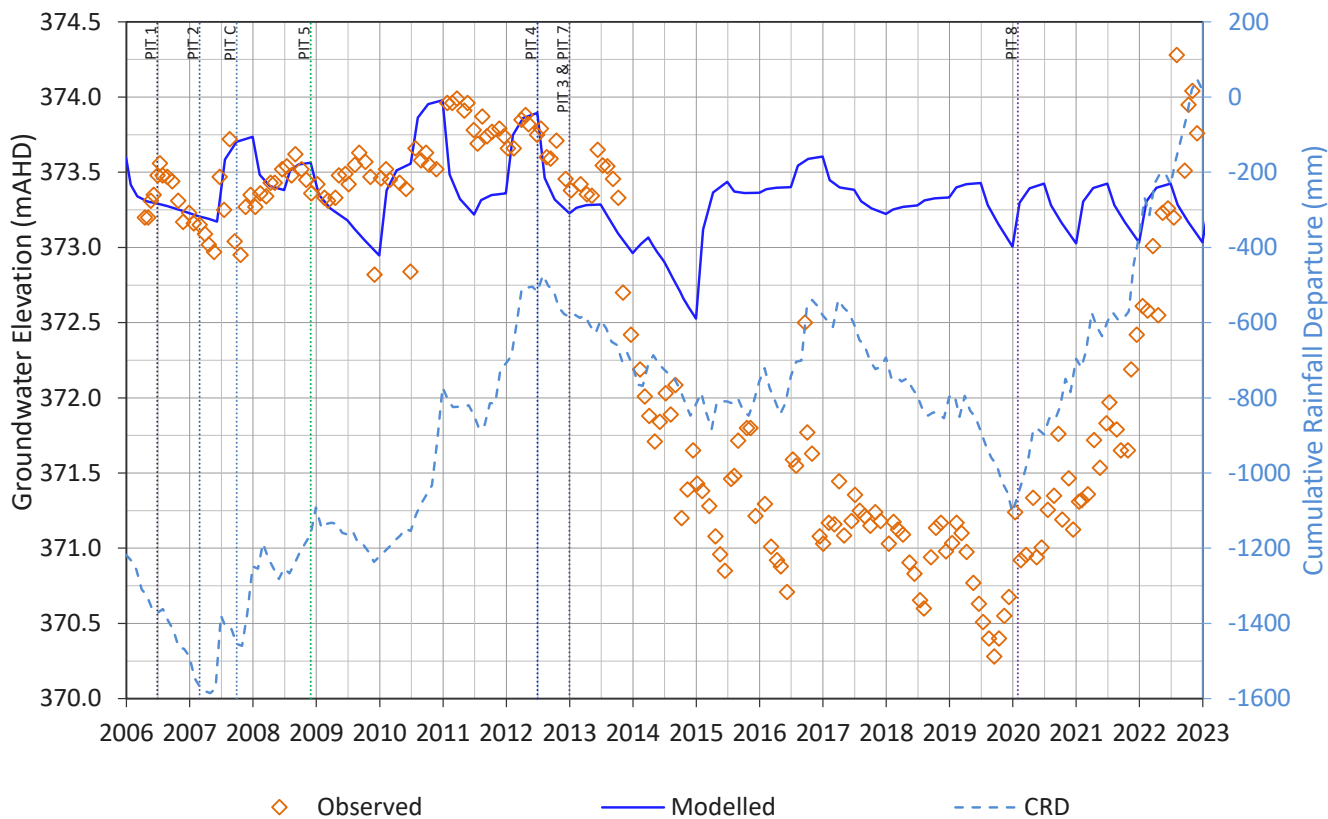
GWa3 Model Performance



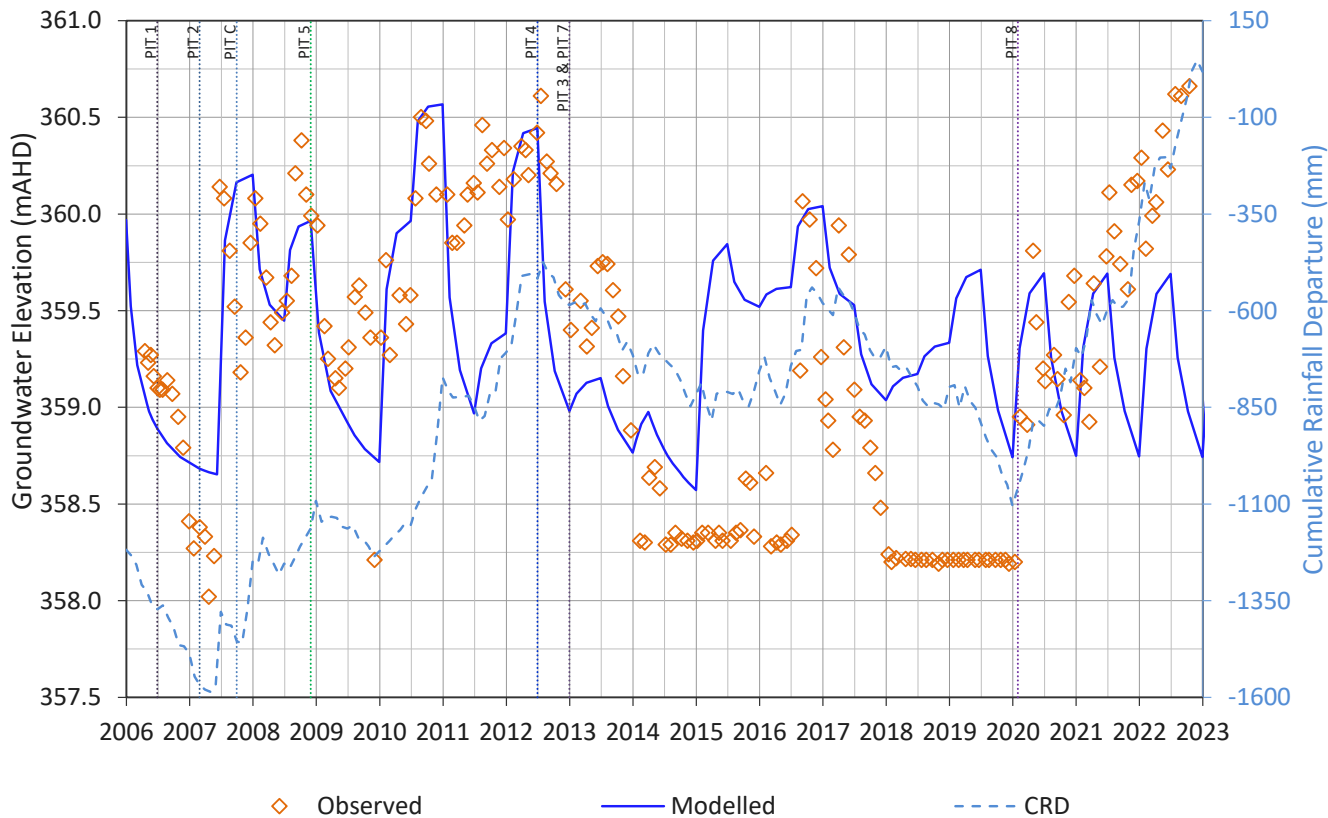
GWa4 Model Performance



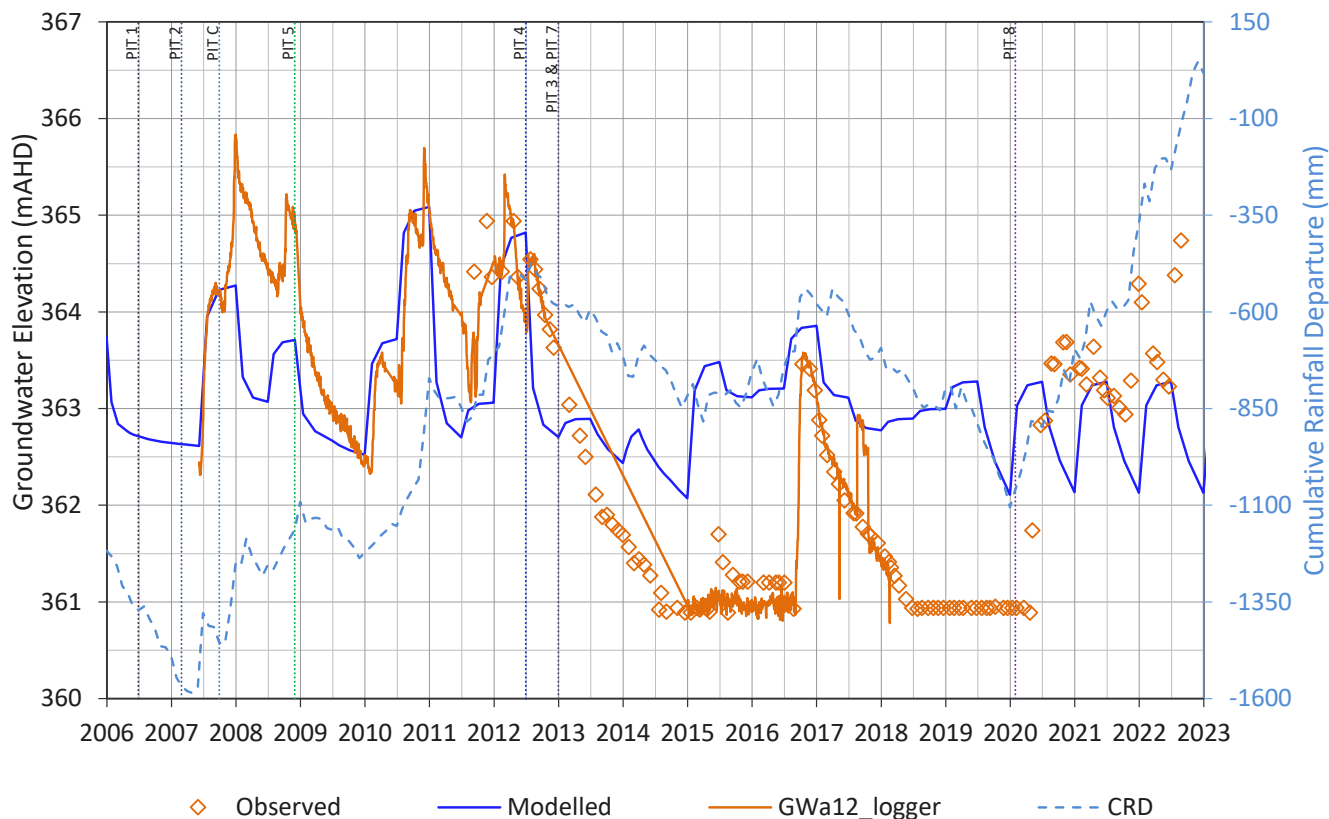
GWa5 Model Performance



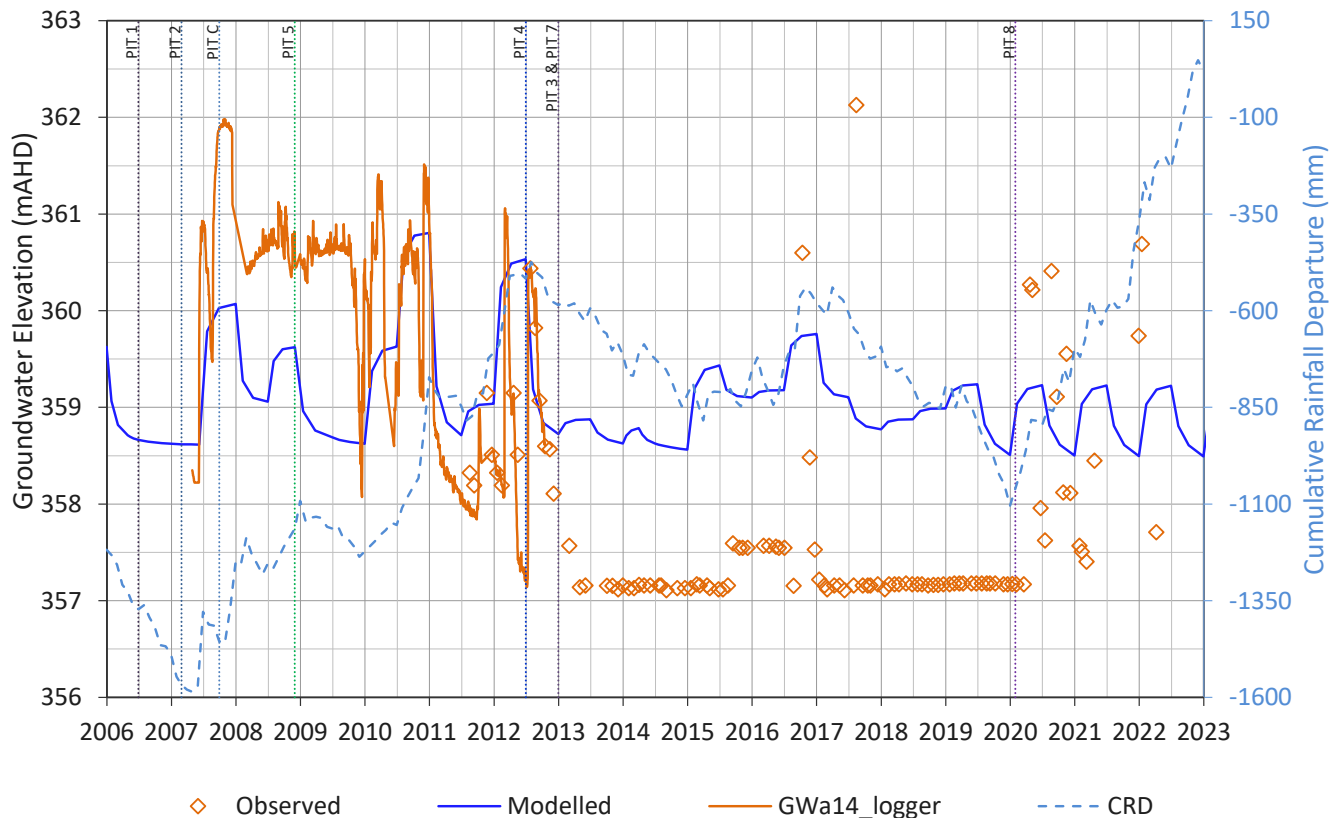
GWa6 Model Performance



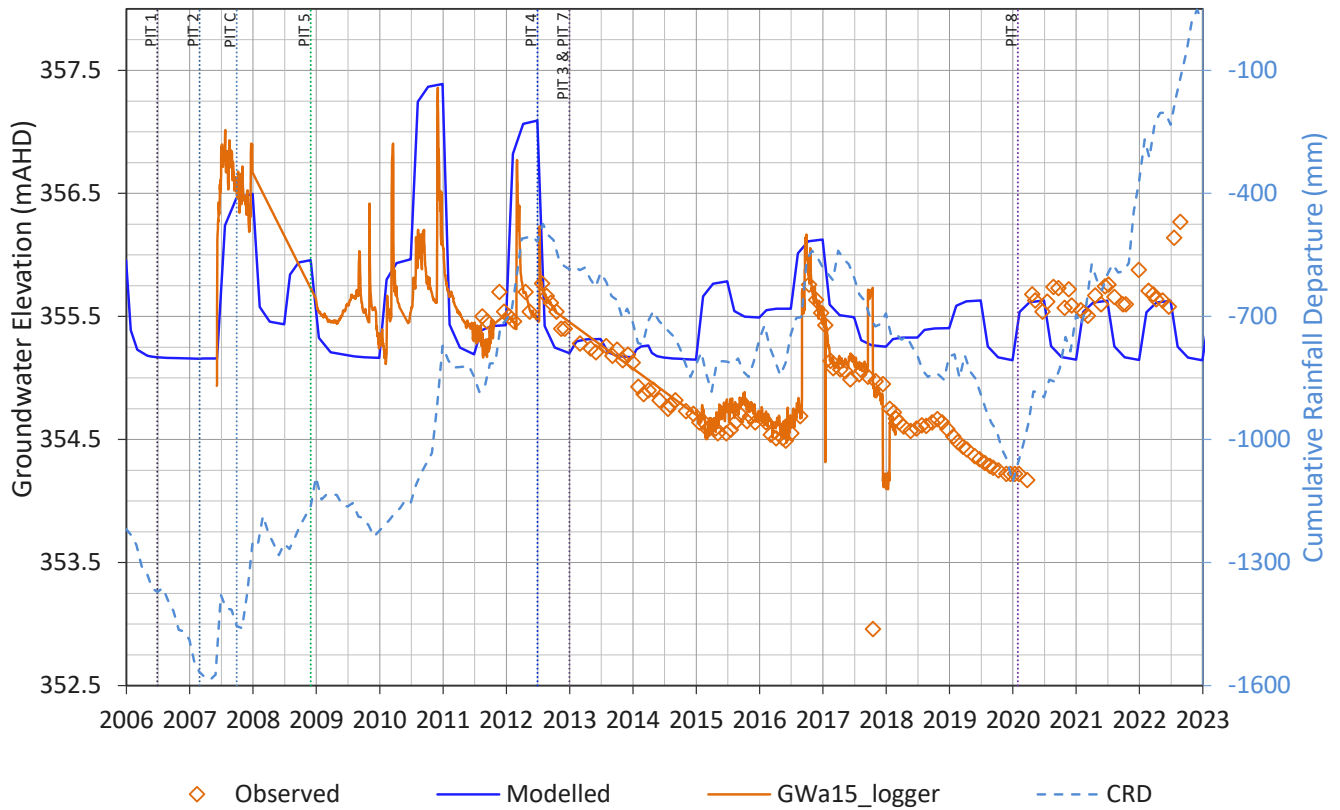
GWa12 Model Performance



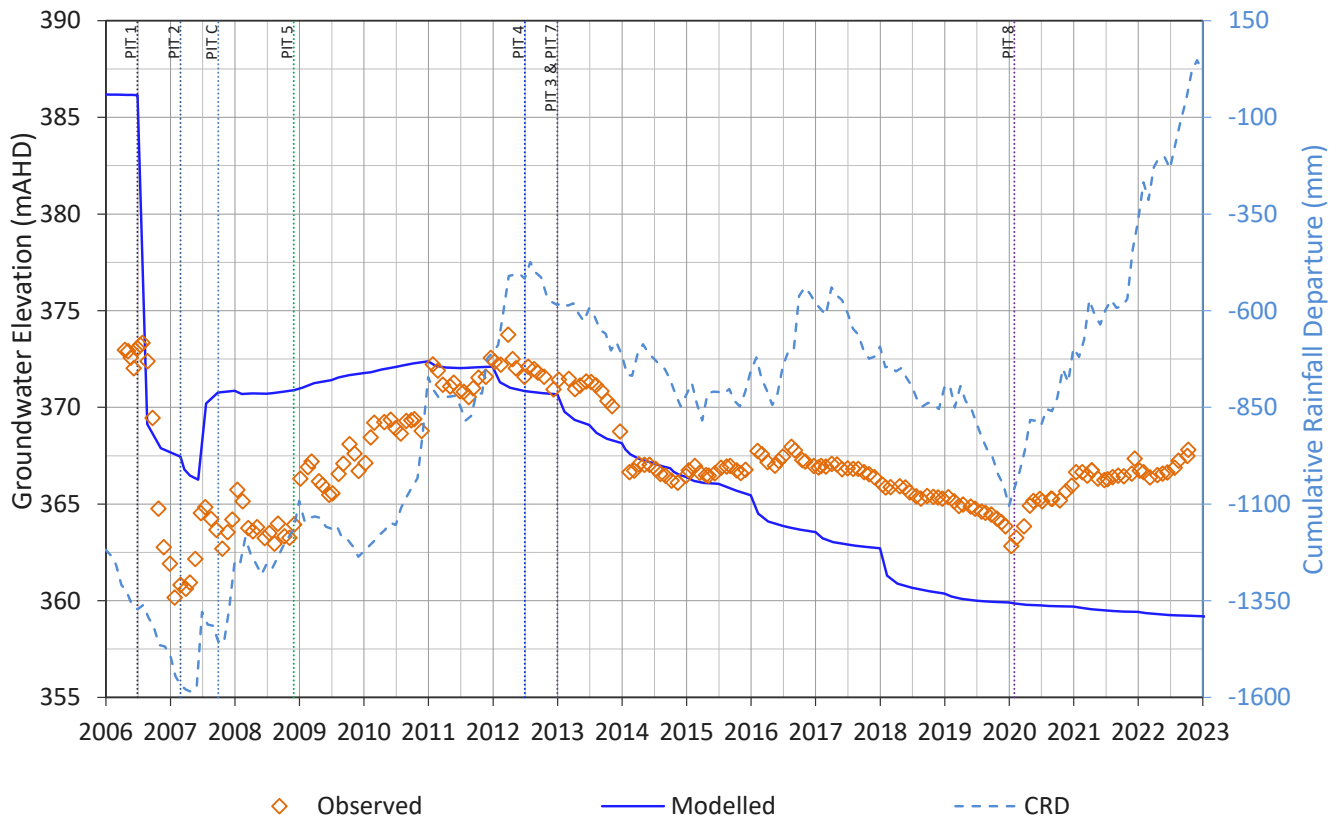
GWa14 Model Performance



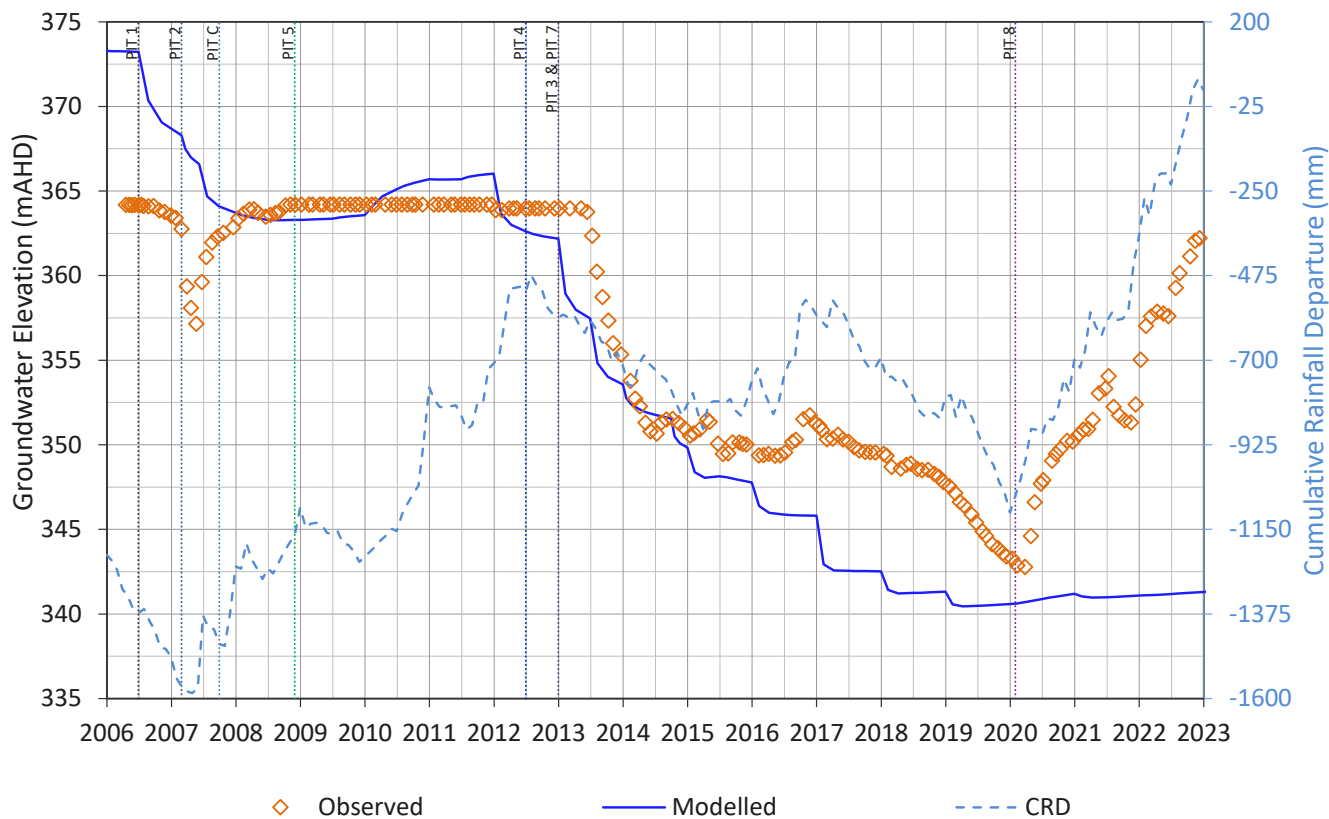
GWa15 Model Performance



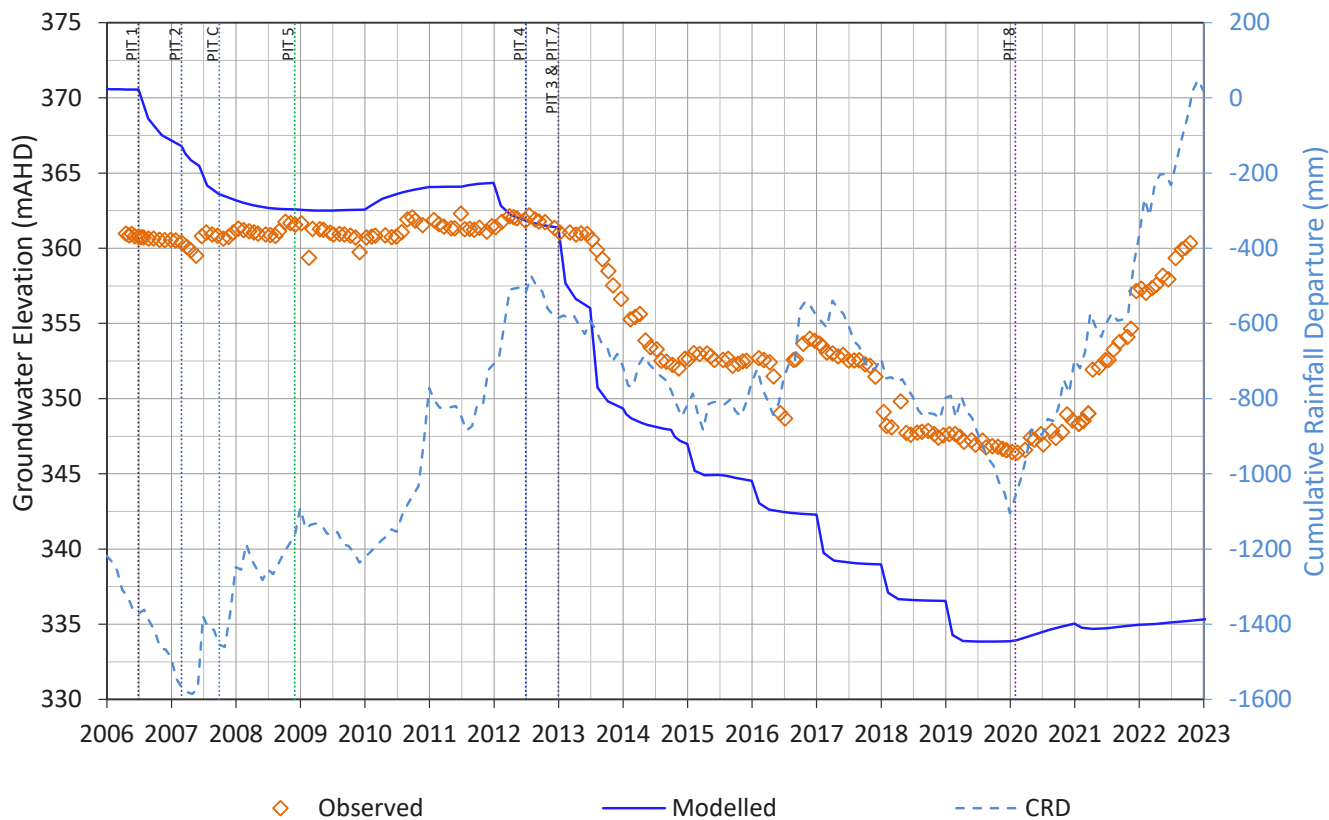
GWc1 Model Performance



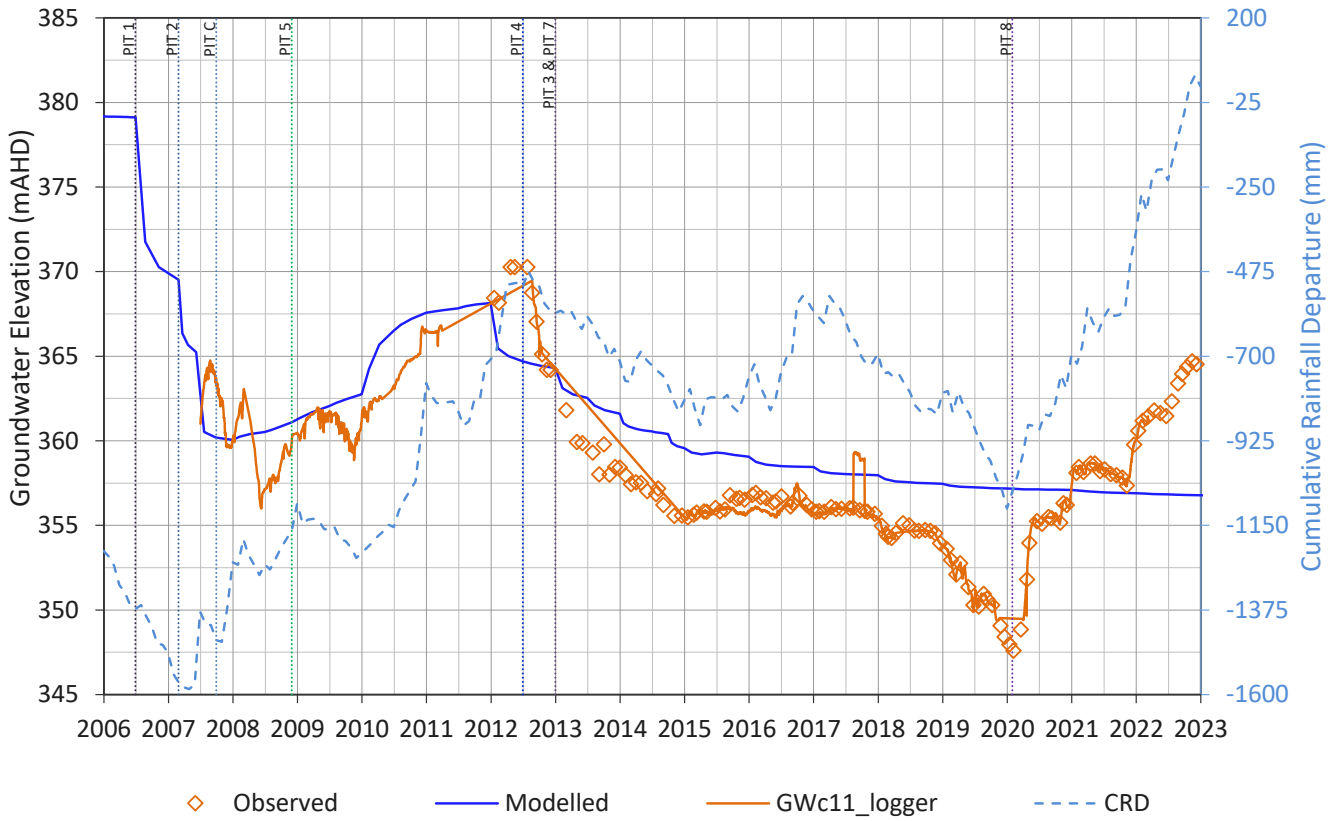
GWc2 Model Performance



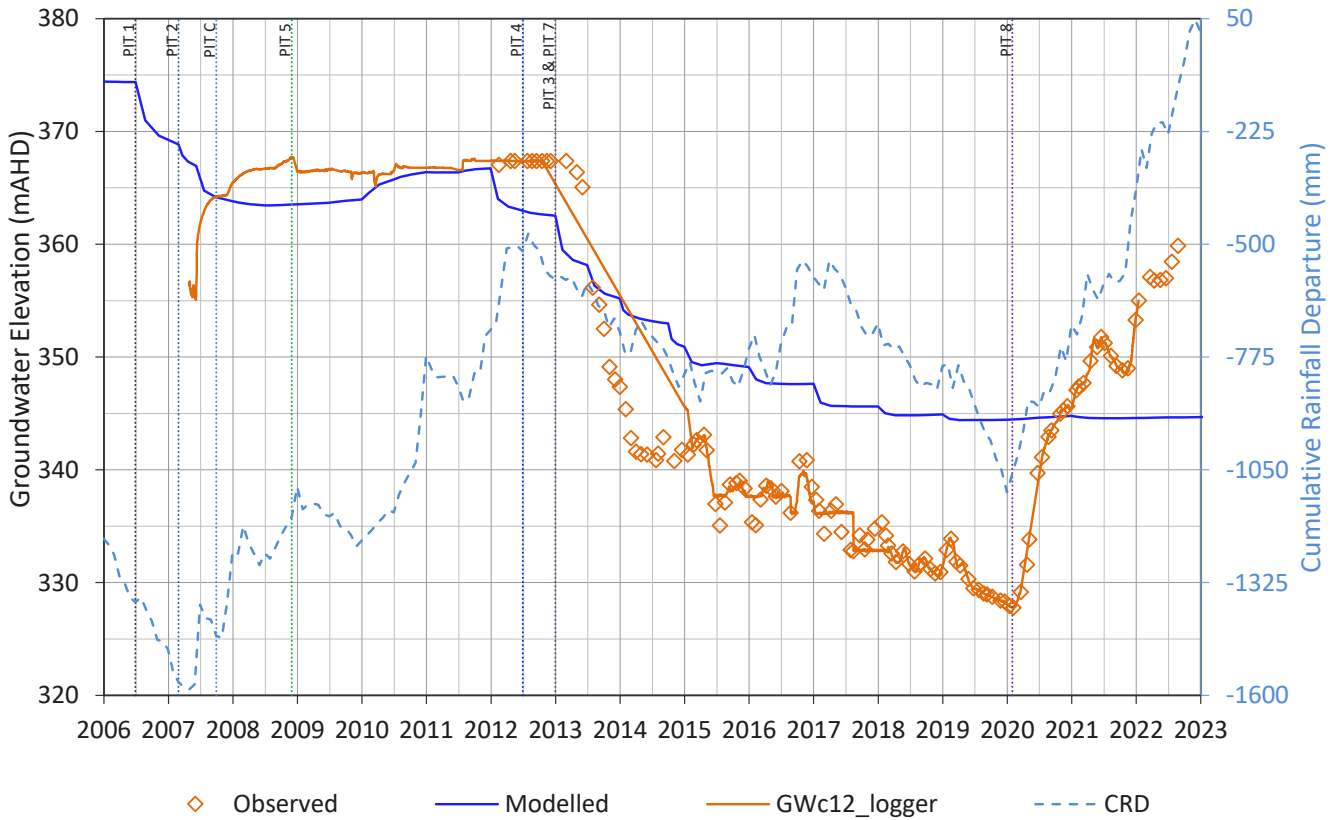
GWc3 Model Performance



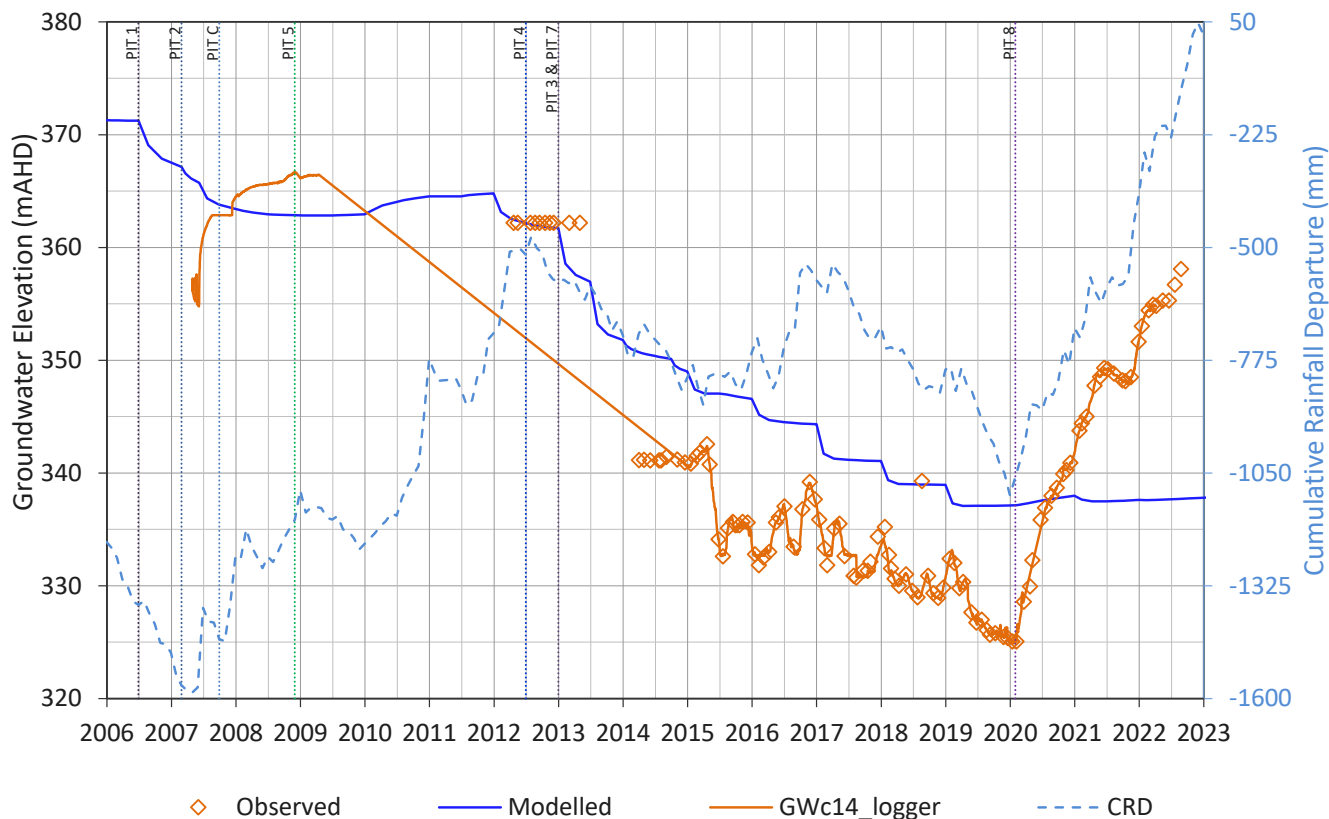
GWc11 Model Performance



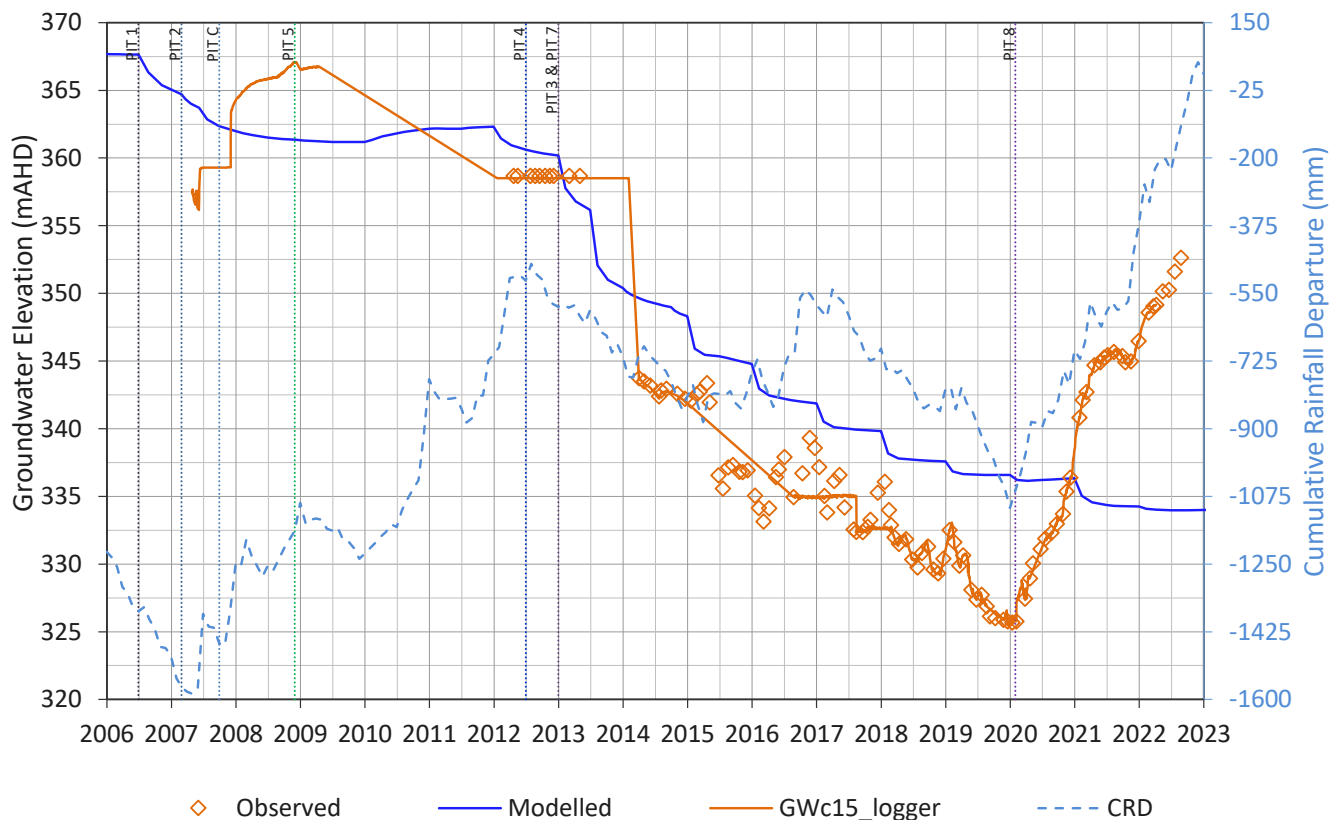
GWc12 Model Performance



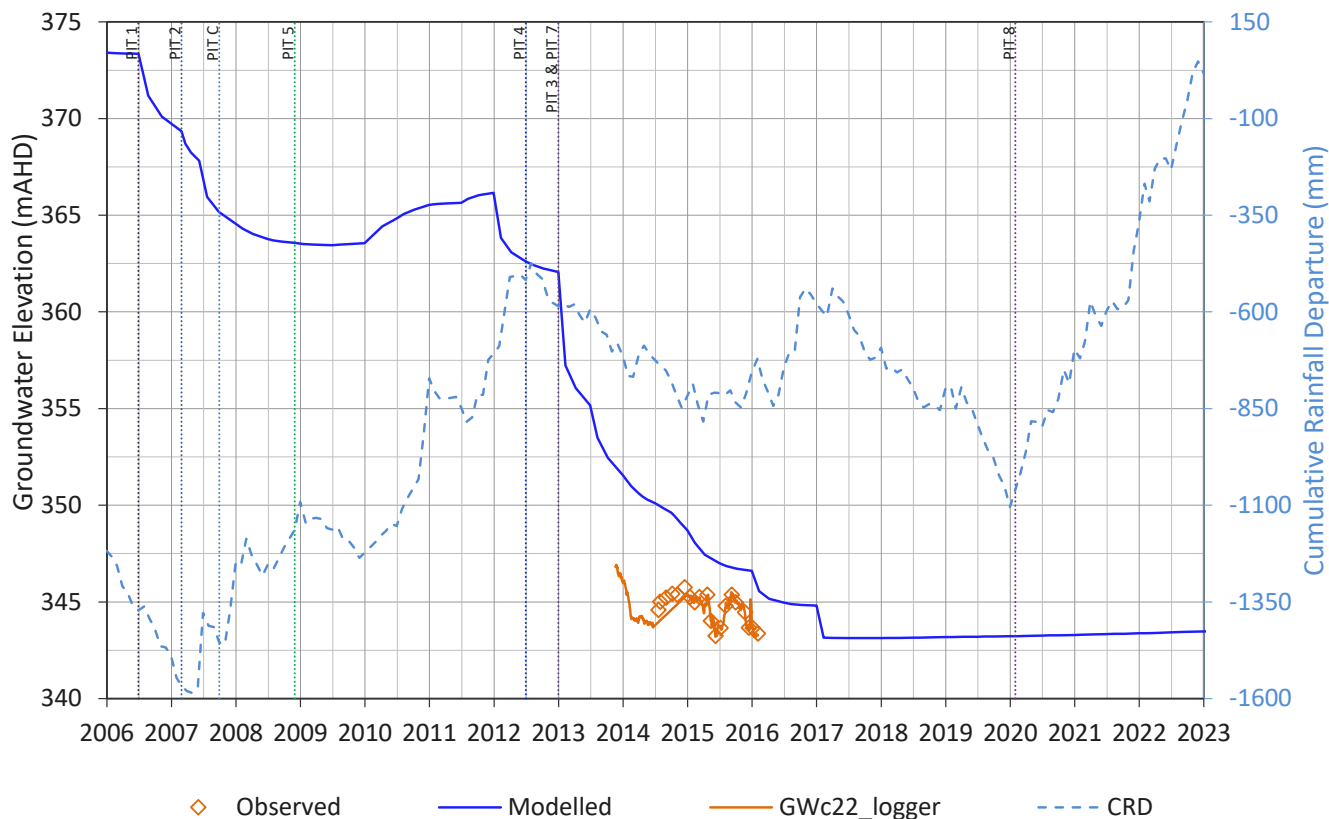
GWc14 Model Performance



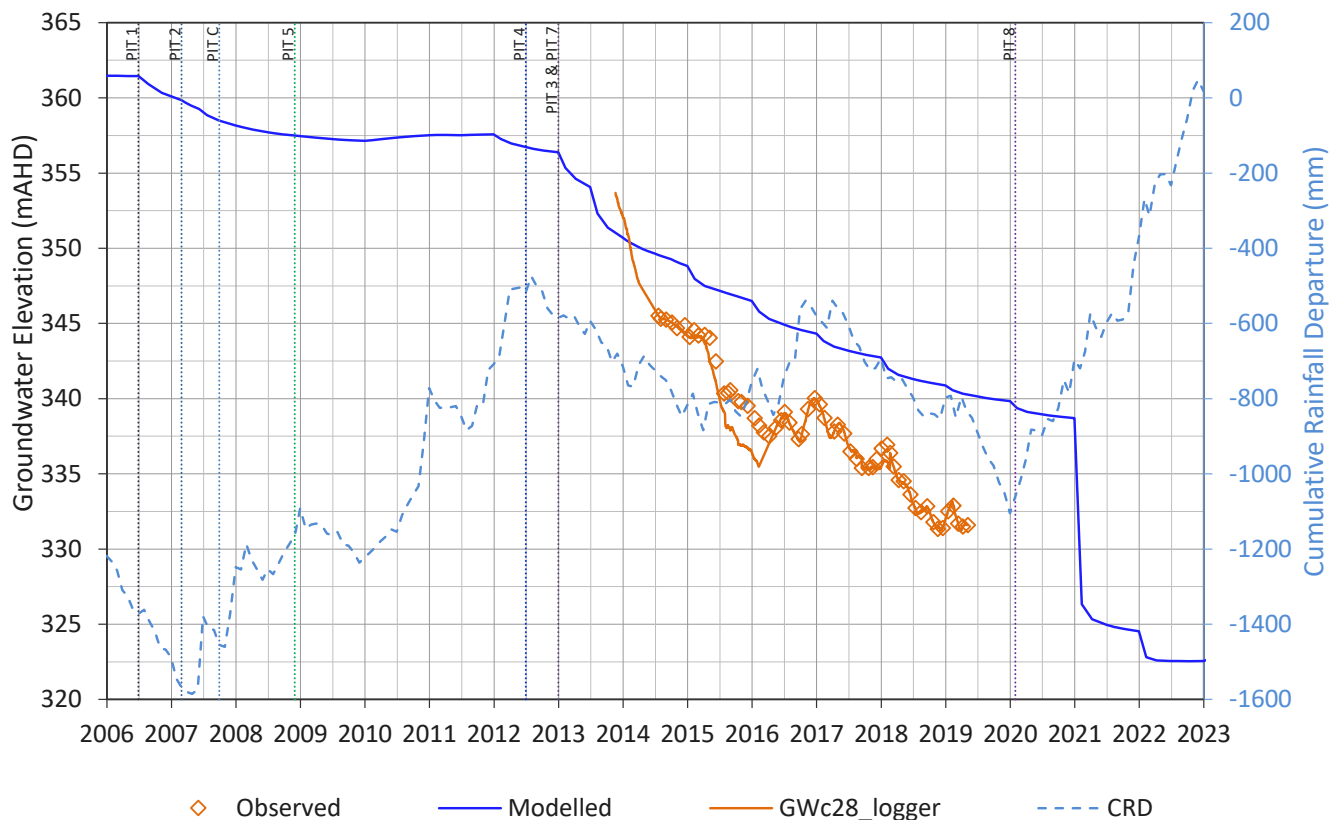
GWc15 Model Performance



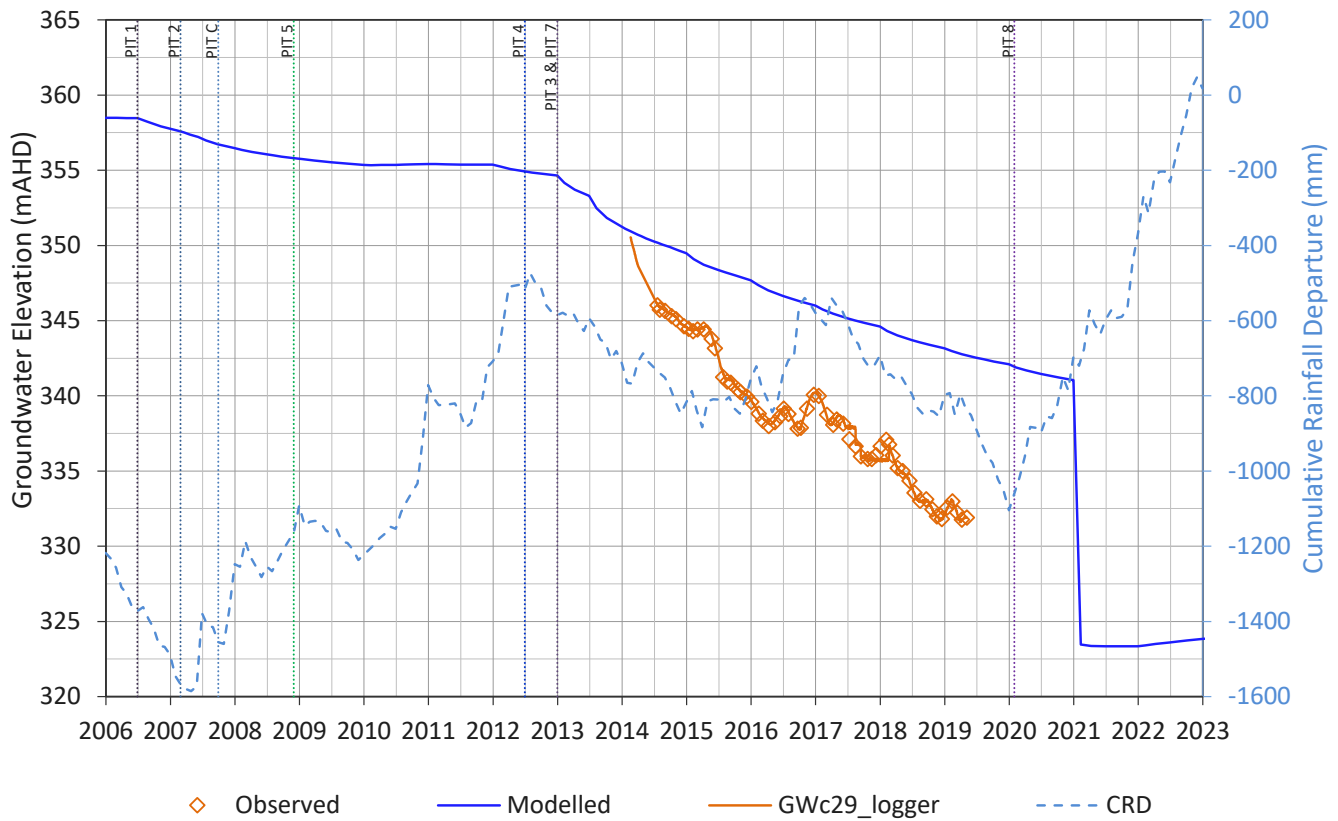
GWc22 Model Performance



GWc28 Model Performance



GWc29 Model Performance



Groundwater Elevation (mAHD)

