

GCC Energy Hydrologic Monitoring Data

		Hay Gulch Ditch Upgradient																				
Year		2021				2022				2023				2024				2025				2026
Quarter		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Month		2	6	9	11	3	6	9	12	3	5	8	11	2	6	8	11	2	6	8	11	2
Sample Date		2/22	6/3	9/1	11/15	3/24	6/20	9/13	12/20	3/27	5/18	8/24	11/29	2/26	6/20	8/20	11/25	2/8	6/16	8/18	11/6	2/5
Lab Analysis (Y/N)		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Field Parameters:																						
Flow Rate	cfs	0.06	0.16	NM	0.67	0.16	0.07	0.01	0.07	NM	0.74	0.89	0.64	0.44	0.66	1.85	0.11	0.03	1.40	0.05	0.69	2.21
Temperature	deg C	5.8	11.3	15.5	7.1	8.6	17.8	15.0	2.7	0.1	17.8	16.0	3.2	5.5	13.6	16.6	5.9	6.5	16.1	25.0	10.0	6.4
pH	SU	7.83	7.75	8.07	6.94	7.11	7.94	7.15	6.19	7.85	8.01	7.70	7.76	7.68	7.73	8.05	7.68	7.58	7.90	8.08	8.26	8.11
Specific Conductance	µS/cm	1024	189	280	252	553	832	570	708	1508	442	764	1013	1058	532	306	989	1237	434	1176	563	455
Oxygen Reduction Potential	mV	51.6	86.6	58.3	109.2	3.2	97.8	-108.9	-148.2	13.3	-8.6	-27.5	-76.4	-117.6	-9.7	21.4	-121.4	-91.3	140.1	-44.1	325.1	311.4
Dissolved Oxygen	mg/L	8.7	8.5	7.1	9.2	8.5	8.5	8.1	10.4	9.0	7.3	6.0	8.0	6.7	6.1	6.7	8.6	7.8	7.5	5.7	9.2	9.1
Lab Analytical Results:																						
Hardness as CaCO3	mg/L	588	93	131	120	280	383	273	336	697	293	342	434	458	245	141	460	532	204	533	255	203
pH (Lab)	SU	7.57	7.72	7.44	7.52	7.81	7.87	7.81	7.98	7.56	7.91	7.56	7.85	7.96	7.76	7.96	7.70	7.70	7.88	8.02	8.04	8.22
Total Dissolved Solids (Lab)	mg/L	685	210	185	140	380	520	355	410	955	380	480	600	615	295	150	600	685	225	790	325	310
Total Suspended Solids	mg/L	55.00	133.00	51.00	13.20	13.40	5.07	45.40	<2.50	121.00	38.00	9.79	<2.50	10.00	57.30	4.92	26.70	12.40	29.40	10.40	2.78	34.00
Calcium	mg/L	113.0	25.8	35.8	34.2	61.7	70.8	55.0	69.9	124.0	63.5	70.2	86.3	90.2	50.0	37.0	90.1	102.0	46.6	94.1	57.0	48.5
Magnesium	mg/L	74.3	6.9	10.1	8.4	30.5	50.1	33.1	39.2	93.9	32.6	40.5	53.0	56.6	29.1	11.8	57.1	67.5	21.2	72.3	27.3	19.8
Sodium	mg/L	34.30	2.71	3.97	3.53	13.80	19.30	12.40	15.10	36.80	18.10	20.60	31.60	30.50	16.90	5.13	21.80	25.50	9.71	33.60	11.50	8.83
Potassium	mg/L	4.74	<1.00	3.28	<1.00	3.39	3.58	2.18	2.82	6.20	2.79	2.97	6.33	4.89	3.32	1.30	4.39	6.08	1.48	4.64	2.01	1.62
Alkalinity, Total	mg/L	340	68	98	87	162	330	209	231	365	179	247	300	326	175	111	301	425	133	420	183	146
Alkalinity, Bicarbonate	mg/L	340	68	98	87	162	330	209	231	365	179	247	300	326	175	111	301	425	133	420	183	146
Alkalinity, Carbonate	mg/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Alkalinity, Hydroxide	mg/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Chloride	mg/L	85.90	3.17	5.23	3.44	32.30	33.60	21.90	29.20	108.00	36.10	41.70	45.80	51.20	21.60	7.84	55.70	65.80	18.30	82.80	24.70	15.60
Fluoride	mg/L	0.235	0.188	0.227	0.179	0.178	0.260	0.238	0.227	0.266	0.185	0.235	0.189	<0.200	0.223	0.215	0.271	0.303	0.205	0.270	0.227	0.199
Sulfate as SO4	mg/L	211.0	26.4	42.2	40.0	95.5	121.0	85.1	99.4	314.0	116.0	114.0	152.0	159.0	76.6	38.8	146.0	179.0	59.8	200.0	78.0	60.2
Total Organic Carbon (TOC)	mg/L	2.69	1.39	2.80	0.83	1.86	5.18	1.74	0.90	3.93	6.04	4.35	6.45	8.35	8.72	1.41	2.59	4.03	1.55	3.26	1.55	1.43
Oil & Grease	mg/L	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Nitrate/Nitrite as N	mg/L	0.282	0.049	0.026	<0.02	0.118	0.165	<0.02	0.066	0.850	0.133	0.298	0.113	0.038	0.085	0.024	0.070	0.082	0.107	0.069	0.035	0.020
Sodium Adsorption Ratio (SAR)	no unit	0.62	0.12	0.15	0.14	0.36	0.43	0.33	0.37	0.61	0.46	0.48	0.66	0.63	0.47	0.19	0.44	0.48	0.30	0.63	0.31	0.27
Aluminum	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.250	<0.050	<0.050	<0.100	<0.100	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Arsenic	mg/L	0.0012	<0.0005	0.0010	<0.0005	0.0005	0.0010	0.0007	0.0009	<0.0025	0.0006	0.0008	<0.0010	0.0011	<0.0010	<0.0010	<0.0010	0.0011	<0.0010	<0.0020	<0.0010	<0.0010
Cadmium	mg/L	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.0005	<0.0010	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0010	<0.0005	<0.0005
Copper	mg/L	0.0007	0.0009	0.0012	0.0006	0.0011	0.0011	0.0007	0.0069	0.0102	0.0036	0.0020	<0.0040	0.0031	0.0036	0.0053	0.0084	0.0186	0.0196	0.0095	0.0043	0.0105
Iron	mg/L	0.1030	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	0.2720	<0.0500	0.2370	<0.1000	0.5280	0.0810	<0.0500	0.4060	1.2100	<0.0500	<0.050	<0.050	<0.050
Lead	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.0005	<0.0010	<0.0005	<0.0005	<0.0005	0.0007	0.0015	0.0013	<0.0010	<0.0005	0.0007
Manganese	mg/L	0.1490	0.0042	0.0156	0.0074	0.0337	0.0761	0.0241	0.0398	0.4320	0.0989	0.1400	0.3170	0.7540	0.1020	0.0157	0.1720	0.5000	0.0113	0.0432	0.0144	0.0304
Mercury (total)	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Mercury (total low-level)	ng/L			<10.0	<10.0	<200	<100	<100	<100	<100	<100	<100	<100	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Molybdenum	mg/L	0.0007	0.0009	0.0011	0.0008	0.0009	0.0014	0.0012	0.0012	<0.0025	0.0008	0.0013	<0.0010	0.0009	0.0012	0.0010	0.0009	0.0010	0.0009	0.0012	0.0009	0.0009
Selenium	mg/L	0.0018	<0.0010	<0.0010	<0.001	<0.0010	0.0012	<0.001	0.0011	<0.0050	<0.0010	<0.0010	<0.0020	0.0013	0.0018	<0.0010	0.0013	0.0016	<0.0010	0.0031	0.0014	<0.0010
Silica (SiO2)	mg/L	13.40	7.18	9.33	8.95	9.73	13.90	10.60	11.30	12.30	12.00	11.90	14.00	13.20	10.50	9.51	12.00	12.80	9.78	12.40	9.73	8.66
Silicon	mg/L	6.26	3.36	4.36	4.18	4.55	6.49	4.96	5.30	5.77	5.61	5.59	6.53	6.19	4.90	4.44	5.61	5.99	4.57	5.78	4.55	4.05
Uranium	mg/L	0.0013	<0.0005	<0.0005	<0.0005	0.0005	0.0008	0.0006	0.0006	<0.0025	<0.0005	0.0010	<0.0010	0.0005	0.0005	<0.0005	0.0009	0.0011	<0.0005	0.0015	0.0005	<0.0005
Zinc	mg/L	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0050	<0.0100	0.0047	0.0022	<0.0040	0.0056	0.0095	0.0123	0.0116	0.0243	0.0249	0.0160	0.0139	0.0130

Notes & Definitions:

Historical data prior to 2021 can be found in earlier posted versions of this table

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|---|---|
| Y/N yes or no
gpm gallons per minute
deg C degrees Celsius
SU standard pH units
µS/cm microsiemens per centimeter
mV millivolts
mg/L milligram per liter
pCi/L picocuries per liter
NM not measured (field)
NA not analyzed (lab)
ng/L nanogram per liter | <ol style="list-style-type: none"> 1. "<" values denote that the quantification of that analyte is below the reporting level for the analytical laboratory, acceptable by environmental water quality laboratory industry standards. 2. Total alkalinity is measured by titration with hydrochloric acid to a set pH point, reporting this value as an equivalent amount of calcium carbonate. This value is then partitioned into bicarbonate, carbonate and hydroxide depending on the initial pH of the sample solution, each components reported as equivalent CaCO3. 3. Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table. |
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GCC Energy Hydrologic Monitoring Data

Hay Gulch Ditch Downgradient																						
Year		2021				2022				2023				2024				2025				2026
Quarter	Month	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Sample Date	Sample Date	2/22	6/3	9/1	11/15	3/24	6/20	9/13	12/20	3/27	5/18	8/18	11/21	2/26	6/20	8/20	11/25	2/8	6/16	8/18	11/6	2/5
Lab Analysis (Y/N)	Lab Analysis (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
		Field Parameters:																				
Flow Rate	cfs	0.00	0.40	NM	0.67	0.06	0.04	0.01	0.07	0.10	1.34	0.20	0.08	0.06	0.57	0.43	0.02	0.02	0.14	0.23	0.13	0.59
Temperature	deg C	10.4	13.4	10.5	4.0	9.2	17.7	18.0	4.1	4.5	15.5	14.5	7.4	5.9	15.0	14.5	8.4	6.8	12.6	20.0	10.0	4.5
pH	SU	7.76	8.12	8.26	7.00	7.22	7.53	6.50	6.42	8.43	8.30	7.68	8.29	8.23	8.35	8.14	8.00	8.01	8.12	7.90	7.96	8.25
Specific Conductance	µS/cm	815	131	184	311	636	150	248	292	891	762	835	976	984	358	378	845	1044	471	177	348	518
Oxygen Reduction Potential	mV	-26.5	85.1	119.5	122.7	-85.2	136.1	39.9	-132.7	66.9	79.6	-148.0	-29.4	-12.0	47.6	79.7	-28.0	21.1	146.3	-37.0	328.3	326.0
Dissolved Oxygen	mg/L	6.8	7.8	6.7	9.8	NM	7.2	7.0	9.7	10.2	6.8	7.3	9.0	9.8	7.2	6.8	7.7	9.3	7.8	6.3	8.3	9.9
		Lab Analytical Results:																				
Hardness as CaCO3	mg/L	419	65	91	143	346	66	96	138	433	337	497	467	439	180	184	411	461	227	78	163	255
pH (Lab)	SU	7.83	7.74	7.58	7.39	8.01	7.86	7.68	7.97	7.95	8.09	8.28	8.07	8.04	8.20	8.04	8.00	8.04	8.01	8.15	7.79	8.15
Total Dissolved Solids (Lab)	mg/L	435	175	90	120	410	30	90	225	555	475	625	575	570	195	225	545	565	250	100	215	365
Total Suspended Solids	mg/L	28.00	8.40	4.80	5.44	18.30	29.20	3.67	8.00	17.80	62.00	16.00	3.38	25.70	31.30	9.15	6.39	11.00	8.25	4.44	5.26	3.71
Calcium	mg/L	98.2	21.2	29.8	39.3	82.1	21.4	30.2	39.0	101.0	75.8	114.0	110.0	99.9	42.9	47.0	97.9	108.0	55.4	23.4	46.3	64.2
Magnesium	mg/L	42.2	2.9	3.9	11.0	34.2	3.0	5.0	9.7	43.8	35.8	51.9	47.1	46.0	17.6	16.3	40.4	46.7	21.6	4.7	11.6	23.0
Sodium	mg/L	15.80	1.14	1.75	4.71	16.40	1.58	2.04	4.08	18.60	18.50	29.60	21.70	21.60	8.83	6.83	19.90	23.00	10.90	3.26	5.67	11.10
Potassium	mg/L	3.75	<1.00	1.02	1.30	2.89	<1.00	<1.00	1.07	2.94	2.77	6.45	4.82	3.73	1.36	1.53	3.62	3.74	1.89	<1.00	1.33	1.92
Alkalinity, Total	mg/L	315	52	72	116	282	46	73	103	303	218	293	325	312	129	139	345	360	155	59	122	180
Alkalinity, Bicarbonate	mg/L	315	52	72	116	282	46	73	103	293	218	265	325	296	129	139	345	360	155	59	122	180
Alkalinity, Carbonate	mg/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	28.0	<10.0	16.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Alkalinity, Hydroxide	mg/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Chloride	mg/L	59.00	1.16	1.21	5.07	15.00	1.23	1.69	6.57	39.60	39.40	50.50	42.70	51.60	12.70	11.90	46.30	53.90	20.40	2.02	9.93	18.50
Fluoride	mg/L	0.246	0.195	0.216	0.185	0.257	0.191	0.221	0.213	0.274	0.202	0.231	0.201	0.201	0.216	0.223	0.273	0.287	0.201	0.225	0.226	0.222
Sulfate as SO4	mg/L	90.1	17.3	25.7	46.3	74.7	18.8	26.4	42.2	138.0	127.0	168.0	138.0	142.0	47.6	48.6	125.0	148.0	58.6	21.4	45.5	70.4
Total Organic Carbon (TOC)	mg/L	2.31	1.18	1.48	1.12	1.42	1.10	1.13	1.01	<5.00	6.19	6.17	4.04	3.74	2.01	2.35	2.43	2.13	1.63	1.46	1.55	1.32
Oil & Grease	mg/L	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00 ~	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00
Nitrate/Nitrite as N	mg/L	0.148	0.021	<0.020	<0.020	0.041	<0.02	<0.02	<0.02	0.361	0.170	0.078	<0.020	0.072	0.056	0.025	0.099	0.065	0.028	<0.020	<0.020	<0.020
Sodium Adsorption Ratio (SAR)	no unit	0.34	0.06	0.08	0.17	0.38	0.08	0.90	0.15	0.39	0.44	0.58	0.44	0.46	0.29	0.22	0.42	0.47	0.31	0.16	0.19	0.30
Aluminum	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.100	<0.050	<0.100	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Arsenic	mg/L	0.0013	<0.0005	0.0007	<0.0005	<0.0005	0.0010	0.0007	0.0005	<0.001	0.0009	<0.0010	<0.0005	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0010	<0.0010	<0.0010
Cadmium	mg/L	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.001	<0.0005	<0.0010	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Copper	mg/L	0.0006	0.0011	0.0010	0.0007	0.0009	0.0034	0.0010	0.0045	0.0070	0.0026	0.0029	0.0025	0.0028	0.0022	0.0194	0.0058	0.0051	0.0067	0.0083	0.0078	0.0022
Iron	mg/L	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.100	<0.050	<0.100	<0.050	<0.050	<0.050	<0.050	<0.250	<0.050	<0.050	<0.050	<0.050	<0.050
Lead	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0010	<0.0005	<0.0010	<0.0005	<0.0005	<0.0005	0.0016	<0.0005	0.0006	<0.0005	<0.0005	0.0007	<0.0005
Manganese	mg/L	0.1330	0.0011	0.0021	0.0124	0.0082	0.0024	0.0175	0.0315	0.0552	0.0233	0.0156	0.0490	0.0844	0.0055	0.0153	0.0428	0.0220	0.0143	0.0090	0.0110	0.0213
Mercury (total)	mg/L	<0.0002	<0.0002	<0.0002	0																	
Mercury (total low-level)	ng/L		<10.0	<10.0		<0.2	<100	<100	<100	<100	<100	<100	<100	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Molybdenum	mg/L	0.0009	0.0009	0.0010	0.0009	0.0010	0.0010	0.0011	0.0009	<0.001	0.0009	0.0010	0.0008	0.0009	0.0010	0.0009	0.0008	0.0008	0.0009	0.0010	0.0009	0.0009
Selenium	mg/L	0.0015	<0.0010	<0.0010	<0.0010	0.0010	0.0011	<0.0010	<0.0010	<0.0020	0.0010	<0.0020	0.0013	0.0014	0.0014	<0.0010	0.0014	0.0012	<0.0010	<0.0010	<0.0012	<0.0010
Silica (SiO2)	mg/L	12.90	6.68	8.84	9.38	12.00	6.98	7.96	8.75	11.30	11.80	13.40	13.80	11.30	9.03	9.95	12.60	12.10	9.69	4.67	9.20	9.42
Silicon	mg/L	6.01	3.12	4.13	4.38	5.59	3.26	3.72	4.09	5.26	5.50	6.25	6.47	5.27	4.22	4.65	5.90	5.64	4.53	2.18	4.30	4.40
Uranium	mg/L	0.0009	<0.0005	<0.0005	<0.0005	0.0008	<0.0005	<0.0005	<0.0005	0.0010	0.0007	0.0010	0.0009	0.0011	<0.0005	<0.0005	0.0011	0.0013	<0.0005	<0.0005	<0.0005	0.0006
Zinc	mg/L	<0.0020	<0.0020	<0.0020	<0.0020	0.0020	0.0022	<0.0020	0.0065	0.0042	<0.0020	<0.0040	0.0032	0.0026	0.0031	0.0260	0.0154	0.0328	0.0190	0.0166	0.0231	0.0050

Notes & Definitions:

Historical data prior to 2021 can be found in earlier posted versions of this table

~ re-sample on 12/19/23 following detection of 9.10 mg/L on 11/21/23

Y/N yes or no

gpm gallons per minute

deg C degrees Celsius

SU standard pH units

µS/cm microsiemens per centimeter

mV millivolts

mg/L milligram per liter

pCi/L picocuries per liter

NM not measured (field)

NA not analyzed (lab)

ng/L nanogram per liter

1. "<" values denote that the quantification of that analyte is below the reporting level for the analytical laboratory, acceptable by environmental water quality laboratory industry standards.

2. Total alkalinity is measured by titration with hydrochloric acid to a set pH point, reporting this value as an equivalent amount of calcium carbonate. This value is then partitioned into bicarbonate, carbonate and hydroxide depending on the initial pH of the sample solution, each components reported as equivalent CaCO3.

3. Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table.

GCC Energy Hydrologic Monitoring Data

Well #2 Downgradient																						
Year		2021				2022				2023				2024				2025				2026
Quarter		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Month		2	5	8	11	2	5	8	12	3	5	8	11	2	6	8	11	2	5	8	11	2
Sample Date		2/11	5/19	8/12	11/10	2/28	5/9	8/9	12/13	3/28	5/19	8/18	11/21	2/26	6/20	8/20	11/24	2/8	5/27	8/18	11/6	2/5
Lab Analysis (Y/N)		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Field Parameters:																						
Purge Flow Rate	gpm	0.5	0.3	0.3	0.3	0.3	0.3	0.3	0.0	0.3	0.6	0.3	0.2	0.2	0.4	0.2	0.4	0.2	0.3	0.5	0.3	0.4
Total Purged	gal	12	9	7	12	6	9	19	0	5	8	5	5	5	4	4	3	3	4	3	3	4
Depth to Water	ft bgs	8.10	8.70	8.32	8.75	9.14	9.70	10.25	9.65	8.55	8.65	8.95	10.07	9.70	10.50	11.75	12.78	12.70	11.20	12.70	13.10	11.91
Temperature	deg C	9.8	9.4	11.2	12.1	10.1	9.5	11.1	11.2	9.2	8.7	11.3	11.4	9.8	9.2	10.3	11.2	9.9	9.3	11.2	11.7	10.7
pH	SU	7.50	7.54	7.57	7.53	7.53	7.50	7.45	7.79	7.72	7.52	7.59	7.47	7.57	7.32	7.42	7.40	7.35	7.41	7.45	7.40	7.36
Specific Conductance	µS/cm	964	939	1038	1073	1050	1019	1063	1201	1193	1253	1184	1202	1139	1093	1109	1119	1184	1143	1174	1201	1184
Oxygen Reduction Potential	mV	-4.8	-48.3	-26.0	-33.5	-94.0	-13.3	-207.6	-266.7	15.1	2.1	-18.4	-115.3	-112.5	-67.6	-39.7	-78.7	34.8	53.5	-189.2	251.0	336.6
Lab Analytical Results:																						
Hardness as CaCO3	mg/L	624	529	503	521	500	527	551	557	503	641	646	582	500	540	553	555	532	539	570	599	607
pH (Lab)	SU	7.17	7.15	7.32	7.24	7.57	7.53	7.71	7.54	7.40	NA*	7.40	7.45	7.57	7.51	7.61	7.50	7.56	7.47	7.55	7.49	7.66
Total Dissolved Solids (Lab)	mg/L	660	655	685	655	605	645	680	695	770	775	855	745	660	670	680	690	660	725	740	745	715
Calcium	mg/L	97.9	81.2	76.8	80.1	76.0	79.1	84.6	84.1	76.4	101.0	98.9	88.3	73.4	80.4	84.3	82.6	78.6	78.0	82.7	89.5	89.3
Magnesium	mg/L	92.2	79.2	75.6	77.9	75.3	80.0	82.5	84.3	75.8	94.7	97.0	87.8	76.8	82.3	83.2	84.7	81.4	83.7	88.2	91.1	93.3
Sodium	mg/L	26.9	23.4	23.1	23.3	23.3	24.9	26.1	62.7	24.6	30.7	33.8	29.3	27.0	28.6	30.1	30.7	29.1	30.1	31.5	33.7	34.3
Potassium	mg/L	<5.00	1.94	<5.00	2.12	2.01	1.99	2.28	2.42	<2.00	2.51	2.80	2.26	2.02	2.07	2.30	2.39	2.27	2.51	2.38	2.85	2.79
Alkalinity, Total	mg/L	385	375	380	540	372	385	288	358	379	395	379	390	372	385	400	420	415	390	340	435	415
Alkalinity, Bicarbonate	mg/L	385	375	380	540	372	385	288	358	379	395	379	390	372	385	400	420	415	390	340	435	415
Alkalinity, Carbonate	mg/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Alkalinity, Hydroxide	mg/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Chloride	mg/L	46.00	45.90	37.00	44.30	41.10	38.10	41.90	53.10	49.20	54.40	52.00	46.90	43.00	44.10	43.40	41.30	46.10	50.70	52.00	53.30	53.20
Fluoride	mg/L	0.216	0.236	<0.500	0.210	0.251	0.217	0.229	0.268	0.262	0.210	0.220	<0.200	<0.200	0.236	0.234	0.244	0.268	0.222	0.217	0.231	0.219
Sulfate as SO4	mg/L	190.0	199.0	186.0	176.0	187.0	160.0	190.0	235.0	224.0	258.0	239.0	214.0	195.0	199.0	196.0	185.0	193.0	208.0	213.0	217.0	222.0
Total Organic Carbon (TOC)	mg/L	2.18	1.74	1.77	1.73	1.73	1.56	1.68	1.04	1.77	3.14	1.88	1.65	1.79	1.71	1.93	1.65	1.59	1.52	1.54	1.58	1.52
Nitrate/Nitrite as N	mg/L	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.029	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Aluminum	mg/L	<0.250	<0.050	<0.250	<0.050	<0.050	<0.050	<0.050	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.050	<0.050	<0.050	<0.050	<0.050	<0.100	<0.050
Arsenic	mg/L	<0.0025	0.0009	0.0012	<0.0025	0.0007	0.0005	0.0009	0.0015	<0.001	<0.001	<0.0010	<0.0010	0.0011	<0.0020	<0.0010	<0.0010	<0.0010	<0.0020	<0.0020	0.0010	<0.0010
Cadmium	mg/L	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.0005	<0.0005	<0.001	<0.001	<0.001	<0.0010	<0.0010	<0.0005	<0.0010	<0.0005	<0.0005	<0.0005	<0.0010	<0.0010	<0.0005	<0.0005
Copper	mg/L	<0.0025	0.0006	0.0005	<0.0025	<0.0005	0.0006	0.0006	0.0032	0.0050	0.0017	0.0215	0.0023	0.0025	<0.0020	0.0096	0.0044	0.0018	0.0053	0.0067	0.0073	0.0022
Iron	mg/L	<0.250	<0.050	<0.250	0.076	<0.050	0.069	0.054	0.134	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.050	<0.050	<0.050	<0.050	<0.050	<0.100	<0.050
Lead	mg/L	<0.0025	<0.0005	<0.0005	<0.0025	<0.0005	<0.0005	<0.0005	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0005	<0.0010	0.0008	<0.0005	<0.0005	<0.0010	<0.0010	0.0008	<0.0005
Manganese	mg/L	0.4220	0.4010	0.3890	0.4380	0.4030	0.3840	0.3970	0.4770	0.4310	0.2930	0.4160	0.4640	0.3990	0.4400	0.3730	0.3650	0.3310	0.3990	0.4210	0.3740	0.3790
Mercury (dissolved)	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002																
Mercury (dissolved low-level)	ng/L						<5	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Molybdenum	mg/L	0.0026	0.0026	0.0028	0.0027	0.0029	0.0029	0.0032	0.0033	0.0030	0.0027	0.0032	0.0032	0.0032	0.0032	0.0032	0.0029	0.0031	0.0031	0.0030	0.0030	0.0031
Selenium	mg/L	0.0069	0.0012	0.0012	<0.010	0.0013	<0.001	0.0013	<0.002	<0.002	<0.002	<0.0020	<0.0020	0.0013	0.0082	0.0019	0.0011	0.0010	<0.0020	0.0020	0.0061	0.0015
Silica (SiO2)	mg/L	11.20	10.90	11.30	12.20	11.10	11.30	12.30	11.70	9.61	11.40	12.50	12.20	10.40	11.00	11.70	11.80	11.20	11.00	11.70	11.20	11.00
Silicon	mg/L	5.24	5.09	5.30	5.72	5.17	5.29	5.76	5.46	4.49	5.35	5.85	5.70	4.84	5.12	5.47	5.52	5.22	5.12	5.45	5.24	5.14
Uranium	mg/L	<0.0025	0.0015	0.0015	<0.0025	0.0017	0.0016	0.0015	0.0017	0.0017	0.0022	0.0020	0.0019	0.0017	0.0018	0.0018	0.0018	0.0018	0.0019	0.0019	0.0018	0.0019
Zinc	mg/L	<0.0100	<0.0020	<0.0020	<0.0100	<0.0020	<0.0020	<0.0020	<0.0040	<0.0040	<0.0040	0.0198	<0.0040	<0.0020	<0.0040	0.0113	0.0119	0.0021	0.0133	0.0146	0.0138	<0.0020

Notes & Definitions:

- Historical data prior to 2021 can be found in earlier posted versions of this table
- * sample out of holding time
 - Y/N yes or no
 - gpm gallons per minute
 - deg C degrees Celsius
 - SU standard pH units
 - µS/cm microsiemens per centimeter
 - mV millivolts
 - mg/L milligram per liter
 - pCi/L picocuries per liter
 - NM not measured (field)
 - NA not analyzed (lab)
 - ng/L nanogram per liter
1. "<" values denote that the quantification of that analyte is below the reporting level for the analytical laboratory, acceptable by environmental water quality laboratory industry standards.
 2. Total alkalinity is measured by titration with hydrochloric acid to a set pH point, reporting this value as an equivalent amount of calcium carbonate. This value is then partitioned into bicarbonate, carbonate and hydroxide depending on the initial pH of the sample solution, each components reported as equivalent CaCO3.
 3. Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table.

GCC Energy Hydrologic Monitoring Data

		Well #1 Upgradient																				
Year		2021				2022				2023				2024				2025				2026
Quarter	Month	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Sample Date	Month	2/11	5/19	8/12	11/12	3/1	6/2	8/17	12/16	3/29	5/19	8/21	11/21	2/26	6/20	8/20	11/25	2/8	5/27	8/18	11/6	2/5
Lab Analysis (Y/N)	Month	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Field Parameters:																						
Purge Flow Rate	gpm	8.0	8.0	8.0	4.0	8.0	5.0	9.0	6.0	7.1	10.2	8.8	6.1	8.1	8.7	4.8	6.5	6.4	7.4	7.8	0.1	8.4
Total Purged	gal	302	324	300	400	300	300	400	350	270	280	304	264	270	265	263	262	265	266	260	261	265
Depth to Water	ft bgs	6.48	5.82	7.25	6.55	6.47	6.80	6.80	6.30	4.92	4.42	6.15	6.40	5.70	6.10	6.40	6.70	6.00	5.91	7.10	6.90	6.05
Temperature	deg C	11.6	12.2	12.3	12.0	12.0	12.3	12.0	11.7	11.8	11.7	12.7	12.3	12.3	11.7	12.7	11.8	11.4	12.2	14.2	11.9	18.1
pH	SU	7.54	7.56	7.59	7.57	7.46	7.54	7.49	6.84	7.67	7.53	7.67	7.52	7.59	7.36	7.46	7.47	7.41	7.42	7.48	7.54	7.51
Specific Conductance	µS/cm	1142	1235	1212	1301	1235	1301	1235	1282	1313	1375	1201	1287	1312	1238	1265	1225	1361	1275	1237	1286	3
Oxygen Reduction Potential	mV	-153.4	-208.9	-202.5	-272.2	-306.3	-231.9	-351.0	-306.7	-162.0	-126.9	-157.9	-238.5	-260.6	-174.9	-212.8	-300.6	-211.5	-203.6	-227.8	-163.3	11.1
Lab Analytical Results:																						
Hardness as CaCO3	mg/L	298	313	236	286	271	311	281	317	334	561	301	303	330	304	321	301	316	350	288	324	474
pH (Lab)	SU	7.39	7.33	7.47	7.23	7.51	7.67	7.46	7.39	7.43	NA*	7.62	7.44	7.67	7.52	7.57	7.54	7.55	7.42	7.58	7.45	7.63
Total Dissolved Solids (Lab)	mg/L	755	785	750	745	725	790	735	745	765	835	740	755	745	750	730	730	640	770	730	765	775
Calcium	mg/L	58.1	60.9	45.4	54.8	53.3	60.3	52.1	60.2	64.2	107.0	58.1	58.1	61.3	58.9	61.4	57.6	59.3	64.2	53.6	59.2	89.5
Magnesium	mg/L	37.2	39.1	29.8	36.1	33.5	39.0	36.6	40.5	42.2	71.2	37.7	38.4	43.0	38.1	40.7	38.3	40.7	46.0	37.4	42.9	60.8
Sodium	mg/L	204.0	172.0	177.0	182.0	185.0	172.0	179.0	166.0	168.0	106.0	192.0	174.0	158.0	173.0	177.0	182.0	164.0	160.0	175.0	180.0	150.0
Potassium	mg/L	<5.00	3.00	<5.00	<5.00	2.93	3.09	2.94	<5.00	<5.00	3.04	<5.00	2.89	2.80	3.00	3.03	2.97	2.99	<5.00	3.01	3.39	3.43
Alkalinity, Total	mg/L	570	620	600	770	640	650	570	615	640	590	602	610	590	625	630	635	635	640	590	655	640
Alkalinity, Bicarbonate	mg/L	570	620	600	770	640	590	570	615	640	590	602	610	590	625	630	635	635	640	590	655	600
Alkalinity, Carbonate	mg/L	<10.0	<10.0	<10.0	<10.0	<10.0	60.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	40.0
Alkalinity, Hydroxide	mg/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Chloride	mg/L	4.27	4.91	4.89	4.93	4.46	4.50	4.75	4.78	4.77	6.43	4.76	4.83	5.05	5.38	4.84	4.71	4.87	4.86	4.63	5.01	5.00
Fluoride	mg/L	0.311	0.338	0.350	0.284	0.349	0.268	0.332	0.334	0.340	0.320	0.304	0.268	0.266	0.352	0.340	0.436	0.389	0.342	0.322	0.338	0.333
Sulfate as SO4	mg/L	102.0	110.0	98.5	122.0	96.4	114.0	103.0	114.0	122.0	174.0	90.8	102.0	117.0	108.0	112.0	101.0	120.0	130.0	100.0	115.0	158.0
Total Organic Carbon (TOC)	mg/L	3.26	3.27	3.23	3.23	3.04	3.46	3.45	1.82	3.36	4.62	3.17	2.99	5.09	3.46	3.44	3.46	3.59	3.35	3.16	3.33	3.78
Nitrate/Nitrite as N	mg/L	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.040	<0.020	<0.020	<0.020
Aluminum	mg/L	<0.250	<0.050	<0.250	<0.250	<0.050	<0.050	<0.050	<0.250	<0.250	<0.100	<0.250	<0.100	<0.100	<0.100	<0.050	<0.050	<0.050	<0.250	<0.050	<0.100	<0.050
Arsenic	mg/L	<0.0025	0.0005	<0.0005	<0.0025	<0.0005	0.0006	<0.0005	<0.0025	<0.0025	0.0013	<0.0010	<0.0010	<0.0020	<0.0020	<0.0010	<0.0020	<0.0050	<0.0020	<0.0020	0.0013	<0.0010
Cadmium	mg/L	<0.0005	<0.0005	<0.0005	<0.0025	<0.0005	<0.0005	<0.0005	<0.0025	<0.0025	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0005	<0.0010	<0.0025	<0.0010	<0.0010	<0.0005	<0.0005
Copper	mg/L	<0.0025	0.0039	0.0038	0.0059	0.0053	0.0067	0.0069	0.0067	0.0031	0.0022	0.0016	0.0035	0.0055	0.0067	0.0052	0.0112	0.0056	0.0058	0.0077	0.0062	0.0061
Iron	mg/L	1.660	1.690	1.190	1.430	1.250	1.650	1.320	2.070	1.700	4.630	1.560	1.810	2.030	1.650	2.010	1.690	1.880	0.454	1.790	1.880	2.940
Lead	mg/L	<0.0025	<0.0005	<0.0005	<0.0025	<0.0005	<0.0005	<0.0005	<0.0025	<0.0025	<0.0010	<0.0010	<0.0010	<0.0010	<0.0100	<0.0050	<0.0010	<0.0025	<0.0010	<0.0010	<0.0005	<0.0005
Manganese	mg/L	0.4140	0.3880	0.3080	0.3870	0.3250	0.4100	0.3490	0.5010	0.4710	0.9220	0.1620	0.4220	0.5170	0.4510	0.4020	0.4180	0.4660	0.5220	0.4390	0.3940	0.5970
Mercury (dissolved)	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002																
Mercury (dissolved low-level)	ng/L						<5	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Molybdenum	mg/L	<0.0025	<0.0005	<0.0005	<0.0025	<0.0005	<0.0005	0.0005	<0.0025	<0.0025	0.0013	<0.0010	<0.0010	<0.0010	<0.0010	<0.0005	<0.0010	<0.0025	<0.0010	<0.0010	0.0006	0.0009
Selenium	mg/L	0.0902	0.0324	0.0331	0.0439	0.0021	0.0089	0.0131	<0.005	0.0406	<0.002	0.0022	0.0113	0.0075	0.0640	0.0055	<0.0020	<0.0050	0.0160	0.0129	0.0321	0.0127
Silica (SiO2)	mg/L	13.00	13.90	12.50	13.20	14.20	13.30	13.40	12.90	13.20	14.40	14.00	13.90	12.90	13.30	13.60	13.60	13.10	2.58	13.40	12.50	13.20
Silicon	mg/L	6.10	6.50	5.84	6.17	6.62	6.21	6.28	6.01	6.17	6.74	6.55	6.51	6.05	6.22	6.34	6.37	6.14	1.20	6.26	5.82	6.15
Uranium	mg/L	<0.0025	<0.0005	<0.0005	<0.0025	<0.0005	<0.0005	<0.0005	<0.0025	<0.0025	<0.0010	<0.0010	<0.0010	<0.0010	<0.0100	<0.0050	<0.0010	<0.0025	<0.0010	<0.0010	<0.0005	<0.0005
Zinc	mg/L	<0.0100	<0.0020	<0.0020	<0.0100	<0.0020	<0.0020	<0.0020	<0.0100	<0.0100	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0020	0.0144	<0.0100	0.0086	<0.0040	0.0119	<0.0020

Notes & Definitions:

Historical data prior to 2021 can be found in earlier posted versions of this table

- * sample out of holding time
 - Y/N yes or no
 - gpm gallons per minute
 - deg C degrees Celsius
 - SU standard pH units
 - µS/cm microsiemens per centimeter
 - mV millivolts
 - mg/L milligram per liter
 - pCi/L picocuries per liter
 - NM not measured (field)
 - NA not analyzed (lab)
 - ng/L nanogram per liter
1. "<" values denote that the quantification of that analyte is below the reporting level for the analytical laboratory, acceptable by environmental water quality laboratory industry standards.
 2. Total alkalinity is measured by titration with hydrochloric acid to a set pH point, reporting this value as an equivalent amount of calcium carbonate. This value is then partitioned into bicarbonate, carbonate and hydroxide depending on the initial pH of the sample solution, each components reported as equivalent CaCO3.
 3. Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table.

GCC Energy Hydrologic Monitoring Data

Wiltse Well																						
Year	2021				2022				2023				2024				2025				2026	
	Quarter	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Month	2	5	8	11	3	6	8	11	3	5	8	11	2	6	8	11	2	5	8	11	2	2
Sample Date	2/24	5/21	8/11	11/3	3/1	6/1	8/10	11/26	3/28	5/19	8/18	11/29	2/23	6/21	8/20	11/25	2/11	5/30	8/19	11/7	2/9	
Lab Analysis (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Field Parameters:																						
Purge Flow Rate	gpm	15.0	12.5	8.5	24.0	18.0	25.0	25.0	16.7	34.8	38.5	46.9	14.3	19.2	11.5	11.8	10.8	19.4	23.6	18.1	11.6	14.9
Total Purged	gal	2920	3000	1800	2800	2900	2950	3000	3000	4000	4000	3100	2612	3753	3100	3199	3861	3678	3467	3044	3354	3489
Depth to Water	ft bgs	3.64	3.70	4.55	4.10	4.70	3.70	2.82	1.60	0.30	0.20	3.35	3.10	0.80	3.30	2.65	0.30	0.95	1.70	3.20	2.10	1.62
Temperature	deg C	8.9	9.9	11.3	10.8	9.5	10.8	12.4	9.7	7.2	9.0	11.3	11.9	7.3	10.5	11.9	8.5	7.7	10.3	11.1	9.8	7.6
pH	SU	7.25	7.23	7.33	7.23	7.17	7.21	7.14	7.07	7.46	7.26	7.22	7.12	7.20	6.96	6.99	7.07	6.87	7.08	7.30	7.23	6.87
Specific Conductance	µS/cm	1739	1789	2012	2038	1965	2039	2285	2268	2518	2449	2332	2571	2651	2336	2542	2368	2490	2140	2047	2263	2235
Oxygen Reduction Potential	mV	6.9	31.2	41.5	50.5	-26.1	32.4	-76.3	41.4	34.4	39.9	5.5	45.5	-30.9	12.7	10.7	-51.8	41.8	64.1	-142.2	218.7	247.3
Lab Analytical Results:																						
Hardness as CaCO3	mg/L	1090	1070	1080	1080	1070	1070	1300	1200	1330	1340	1380	1320	1340	1320	1350	1280	1210	1190	1070	1320	1190
pH (Lab)	SU	7.27	6.98	7.25	7.52	7.25	7.15	7.39	7.42	7.17	NA*	7.03	7.45	7.18	7.10	7.15	7.11	7.12	7.07	7.32	7.15	7.54
Total Dissolved Solids (Lab)	mg/L	1550	1500	1580	1640	1520	1580	1850	1740	2120	1980	1920	2050	2080	1900	2070	1880	1900	1700	1590	1810	1820
Calcium	mg/L	208.0	199.0	206.0	209.0	208.0	206.0	255.0	232.0	261.0	269.0	273.0	251.0	255.0	259.0	265.0	252.0	229.0	230.0	212.0	258.0	228.0
Magnesium	mg/L	138.0	140.0	136.0	136.0	133.0	135.0	160.0	151.0	164.0	162.0	170.0	168.0	170.0	163.0	167.0	157.0	155.0	149.0	130.0	164.0	150.0
Sodium	mg/L	65.1	61.1	61.6	63.6	61.0	60.1	77.8	71.6	99.0	94.2	82.4	78.9	87.4	66.5	73.9	72.9	63.1	61.4	55.4	70.9	66.0
Potassium	mg/L	<5.00	4.35	<5.00	4.41	4.42	4.41	4.92	4.20	5.43	5.12	5.74	5.31	4.52	4.98	5.29	4.85	<5.00	4.84	4.37	<5.00	4.95
Alkalinity, Total	mg/L	480	480	480	520	505	485	530	468	485	435	460	465	480	495	530	525	457	480	435	535	475
Alkalinity, Bicarbonate	mg/L	480	480	480	520	505	485	530	468	485	435	460	465	480	495	530	525	457	480	435	535	475
Alkalinity, Carbonate	mg/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Alkalinity, Hydroxide	mg/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Chloride	mg/L	54.80	52.30	49.00	52.40	49.80	45.70	57.50	52.20	79.00	73.00	59.00	62.20	70.50	57.20	59.10	48.60	48.30	44.90	44.10	47.40	43.30
Fluoride	mg/L	0.276	0.280	<0.500	0.280	0.286	0.240	0.288	0.288	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500	0.356	0.338	<0.500	0.276	0.302	0.251
Sulfate as SO4	mg/L	683.0	661.0	679.0	697.0	688.0	702.0	818.0	873.0	1070.0	1060.0	960.0	1020.0	1140.0	947.0	1040.0	930.0	1050.0	868.0	732.0	861.0	956.0
Total Organic Carbon (TOC)	mg/L	3.29	3.33	3.48	3.37	3.21	3.19	3.72	1.95	5.38	5.82	6.11	3.96	4.72	3.76	3.87	4.11	3.64	3.77	3.57	3.51	3.27
Nitrate/Nitrite as N	mg/L	1.820	1.490	2.060	1.870	1.690	1.530	1.160	1.010	0.469	0.619	2.320	2.850	2.090	0.469	1.530	1.100	1.470	1.090	1.320	1.050	0.846
Aluminum	mg/L	<0.250	<0.050	<0.250	<0.100	<0.050	<0.100	<0.100	<0.100	<0.250	<0.250	<0.250	<0.250	<0.150	<0.100	<0.050	<0.050	<0.250	<0.100	<0.100	<0.250	<0.050
Arsenic	mg/L	<0.0025	<0.0025	<0.0025	<0.0010	<0.0005	0.0007	<0.001	<0.001	<0.0025	<0.0025	<0.0025	<0.0025	<0.0050	<0.0020	<0.0010	<0.0020	<0.0050	<0.0020	<0.0010	<0.0020	<0.0010
Cadmium	mg/L	<0.0005	<0.0025	<0.0025	<0.001	<0.0005	<0.0005	<0.001	<0.001	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0010	<0.0005	<0.0010	<0.0025	<0.0010	<0.0005	<0.0010	<0.0005
Copper	mg/L	0.0028	<0.0025	<0.0025	0.0033	0.0031	0.0049	0.0038	0.0060	0.0119	0.0043	0.0035	<0.0100	0.0090	0.0052	0.0190	0.0216	<0.0050	<0.0040	0.0028	0.0029	0.0046
Iron	mg/L	<0.250	0.304	<0.250	0.154	0.129	0.212	0.161	0.178	0.255	0.252	<0.250	<0.250	<0.150	0.194	0.220	<0.250	<0.250	<0.100	<0.100	<0.250	0.137
Lead	mg/L	<0.0025	<0.0025	<0.0025	<0.0010	<0.0005	<0.0005	<0.001	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0010	0.0017	0.0013	<0.0025	<0.0010	<0.0005	<0.0010	<0.0005
Manganese	mg/L	1.2100	0.9800	1.4000	1.3400	1.2600	1.3500	0.9740	0.9820	0.5070	0.8420	1.6400	1.3300	0.6350	1.2200	1.1400	0.9630	1.0200	0.2780	1.4600	0.9740	0.6300
Mercury (dissolved)	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002																
Mercury (dissolved low-level)	ng/L						<5	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Molybdenum	mg/L	<0.0025	<0.0025	<0.0025	0.0017	0.0017	0.0018	0.0019	0.0017	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	0.0020	0.0022	0.0021	<0.0025	<0.0010	0.0028	0.0020	0.0016
Selenium	mg/L	<0.0050	<0.0050	<0.0050	<0.0020	0.0015	0.0019	0.0020	0.0029	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0020	0.0019	<0.0020	<0.0050	<0.0020	0.0028	0.0027	0.0016
Silica (SiO2)	mg/L	14.60	14.80	15.40	16.00	15.20	14.50	15.90	14.30	12.70	14.70	15.80	14.70	12.40	14.90	15.20	14.00	12.70	13.10	13.40	13.50	12.50
Silicon	mg/L	6.82	6.91	7.19	7.50	7.13	6.76	7.43	6.69	5.91	6.85	7.37	6.89	5.80	6.96	7.09	6.56	5.94	6.13	6.27	6.33	5.87
Uranium	mg/L	<0.0025	<0.0025	<0.0025	0.0025	0.0022	0.0025	0.0034	0.0035	0.0048	0.0036	0.0026	0.0030	0.0043	0.0031	0.0034	0.0039	0.0028	<0.0010	0.0026	0.0034	0.0032
Zinc	mg/L	0.0130	0.0116	0.0311	0.0276	0.0162	0.0180	0.0157	0.0157	0.0156	0.0152	0.0255	0.0164	0.0143	0.0173	0.0290	0.0391	0.0232	0.0070	0.0165	0.0125	0.0137

Notes & Definitions:

- Historical data prior to 2021 can be found in earlier posted versions of this table**
- | | |
|---|--|
| <p>Y/N yes or no</p> <p>gpm gallons per minute</p> <p>deg C degrees Celsius</p> <p>SU standard pH units</p> <p>µS/cm microsiemens per centimeter</p> <p>mV millivolts</p> <p>mg/L milligram per liter</p> <p>pCi/L picocuries per liter</p> <p>NM not measured (field)</p> <p>NA not analyzed (lab)</p> <p>ng/L nanogram per liter</p> | <ol style="list-style-type: none"> 1. "<" values denote that the quantification of that analyte is below the reporting level for the analytical laboratory, acceptable by environmental water quality laboratory industry standards. 2. Total alkalinity is measured by titration with hydrochloric acid to a set pH point, reporting this value as an equivalent amount of calcium carbonate. This value is then partitioned into bicarbonate, carbonate and hydroxide depending on the initial pH of the sample solution, each components reported as equivalent CaCO3. 3. Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table. |
|---|--|

GCC Energy Hydrologic Monitoring Data

MW-HGA-4																					
Year	2021				2022				2023				2024				2025				2026
	Quarter	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Month	2	5	8	11	2	5	8	12	3	5	8	11	2	6	8	11	2	5	8	11	2
Sample Date	2/22	5/19	8/12	11/12	2/28	5/9	8/9	12/16	3/28	5/18	8/18	11/29	2/26	6/20	8/20	11/24	2/8	5/30	8/18	11/6	2/5
Lab Analysis (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Field Parameters:																					
Purge Flow Rate	gpm	0.3	0.1	0.3	0.3	0.3	0.3	0.5	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.0
Total Purged	gal	21	21	20	22	21	21	22	1	0	1	0	0	0	0	0	0	0	0	0	0
Depth to Water	ft bgs	0.90	2.91	3.95	2.33	0.95	2.02	1.61	0.92	0.47	1.03	4.05	0.85	0.35	3.05	0.65	1.29	0.85	1.62	4.85	1.72
Temperature	deg C	7.8	8.2	8.9	9.2	8.3	8.1	9.2	9.1	8.2	10.0	11.5	8.3	8.8	10.0	13.5	8.9	9.0	11.6	12.6	9.7
pH	SU	7.29	7.34	7.37	7.31	7.25	7.28	7.19	6.93	7.62	7.45	7.53	7.49	7.49	7.26	7.29	7.32	7.21	7.24	7.49	7.54
Specific Conductance	µS/cm	975	1093	1108	1160	1197	1102	1198	970	1003	955	908	993	970	917	909	955	1005	876	930	1001
Oxygen Reduction Potential	mV	-67.9	-116.8	-104.9	-105.8	-185.5	-113.0	-273.0	-198.3	-129.2	-125.2	-165.3	-212.7	-216.3	-155.2	-167.8	-219.3	-156.2	-140.1	-238.5	-88.7
Lab Analytical Results:																					
Hardness as CaCO3	mg/L	630	582	515	627	598	574	653	328	423	448	467	424	410	430	438	446	432	460	416	434
pH (Lab)	SU	7.38	6.89	7.05	7.03	7.22	7.26	7.20	7.63	7.08	7.37	7.33	7.41	7.39	7.38	7.34	7.36	7.31	7.29	7.28	7.42
Total Dissolved Solids (Lab)	mg/L	685	680	735	790	790	785	745	400	555	545	525	555	570	525	575	535	505	290	555	570
Calcium	mg/L	126.0	114.0	98.7	125.0	119.0	110.0	130.0	65.8	78.5	84.9	88.1	79.3	75.3	81.1	81.7	83.6	81.2	84.8	77.4	81.7
Magnesium	mg/L	76.8	72.0	65.2	76.6	72.9	72.5	79.9	39.7	55.1	57.2	59.9	54.9	54.0	55.3	56.8	57.7	55.6	60.3	54.2	56.0
Sodium	mg/L	28.4	27.4	26.4	23.1	23.9	28.1	27.1	14.9	36.9	39.4	41.5	38.0	37.3	38.1	38.5	40.4	38.6	40.6	39.0	40.5
Potassium	mg/L	2.24	2.03	<5.00	<5.00	1.82	2.02	2.13	3.07	2.16	2.40	2.56	2.21	2.14	2.17	2.22	2.24	2.21	2.45	2.30	2.44
Alkalinity, Total	mg/L	475	465	470	580	470	435	500	245	460	420	361	370	390	410	425	410	415	410	355	415
Alkalinity, Bicarbonate	mg/L	475	465	470	580	470	435	500	245	460	420	361	370	390	410	425	410	415	410	355	415
Alkalinity, Carbonate	mg/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Alkalinity, Hydroxide	mg/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Chloride	mg/L	9.65	9.41	11.10	13.90	12.00	10.20	14.60	28.70	3.40	3.41	3.62	3.56	3.63	3.72	3.58	3.45	3.55	3.39	3.33	3.56
Fluoride	mg/L	0.424	0.434	<0.500	0.420	0.472	0.413	0.450	0.231	0.397	0.357	0.374	0.331	0.342	0.403	0.403	0.408	0.469	0.413	0.384	0.408
Sulfate as SO4	mg/L	191.0	184.0	194.0	199.0	216.0	183.0	215.0	99.5	150.0	161.0	158.0	143.0	142.0	146.0	145.0	151.0	155.0	152.0	136.0	146.0
Total Organic Carbon (TOC)	mg/L	4.31	4.36	4.55	4.84	5.47	4.21	4.64	0.96	4.32	6.87	4.55	3.84	4.98	4.00	4.52	4.12	4.72	3.88	4.08	4.05
Nitrate/Nitrite as N	mg/L	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.073	<0.020	<5.00	<0.100	<0.020	<0.020	0.423	<0.020	<0.100	<0.020	<0.020	<0.020	<0.020
Aluminum	mg/L	<0.050	<0.050	<0.250	<0.250	<0.050	<0.050	<0.050	<0.050	<0.100	<0.050	<0.100	<0.100	<0.050	<0.100	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Arsenic	mg/L	0.0036	0.0033	0.0034	0.0027	0.0036	0.0031	0.0034	0.0005	0.0041	0.0040	0.0040	0.0039	0.0040	0.0027	0.0039	0.0033	0.0031	0.0032	0.0031	0.0035
Cadmium	mg/L	<0.0001	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0010	<0.0005	<0.0010	<0.0010	<0.0005	<0.0010	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Copper	mg/L	0.0006	0.0007	0.0009	<0.0025	<0.0005	0.0010	0.0005	0.0068	<0.0010	0.0027	<0.0010	<0.0040	0.0018	<0.0020	0.0013	0.0023	0.0012	0.0027	0.0036	0.0011
Iron	mg/L	9.600	9.290	8.520	8.440	8.250	9.410	9.730	<0.05	9.760	10.500	9.390	9.530	9.070	9.600	10.400	9.060	9.530	9.380	9.470	9.650
Lead	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0010	<0.0005	<0.0010	<0.0010	<0.0005	<0.0010	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Manganese	mg/L	2.5400	2.5100	1.7900	2.8600	3.0300	2.2900	3.0000	0.0622	0.4790	0.4410	0.4220	0.4540	0.4160	0.4370	0.3920	0.3920	0.4120	0.3820	0.4070	0.3970
Mercury (dissolved)	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002															
Mercury (dissolved low-level)	ng/L						<5	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Molybdenum	mg/L	0.0027	0.0030	0.0033	0.0024	0.0026	0.0030	0.0030	0.0011	0.0054	0.0055	0.0057	0.0055	0.0058	0.0058	0.0054	0.0052	0.0056	0.0050	0.0050	0.0050
Selenium	mg/L	<0.0010	0.0010	0.0057	0.0017	0.0011	<0.0010	0.0010	0.0011	<0.0020	<0.0010	<0.0020	<0.0020	<0.0010	0.0024	<0.0010	<0.0010	<0.0010	0.0020	0.0014	0.0078
Silica (SiO2)	mg/L	16.90	16.30	14.30	17.70	16.70	16.00	17.80	11.70	12.60	14.10	14.00	13.00	12.50	12.70	13.00	12.80	12.60	13.00	12.70	12.00
Silicon	mg/L	7.88	7.61	6.68	8.29	7.81	7.50	8.34	5.48	5.89	6.59	6.57	6.06	5.85	5.95	6.10	5.99	5.88	6.09	5.96	5.60
Uranium	mg/L	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.0006	<0.0010	<0.0005	<0.0010	<0.0010	<0.0005	<0.0010	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Zinc	mg/L	<0.0020	<0.0020	<0.0020	<0.0100	<0.0020	<0.0020	<0.0020	0.0056	<0.0040	<0.0020	<0.0040	<0.0040	<0.0020	<0.0040	<0.0020	<0.0020	<0.0020	0.0113	0.0123	<0.0020

Notes & Definitions:

Historical data prior to 2021 can be found in earlier posted versions of this table

- | | | |
|---|---|---|
| Y/N
gpm
deg C
SU
µS/cm
mV
mg/L
pCi/L
NM
NA
ng/L | yes or no
gallons per minute
degrees Celsius
standard pH units
microsiemens per centimeter
millivolts
milligram per liter
picocuries per liter
not measured (field)
not analyzed (lab)
nanogram per liter | <ol style="list-style-type: none"> 1. "<" values denote that the quantification of that analyte is below the reporting level for the analytical laboratory, acceptable by environmental water quality laboratory industry standards. 2. Total alkalinity is measured by titration with hydrochloric acid to a set pH point, reporting this value as an equivalent amount of calcium carbonate. This value is then partitioned into bicarbonate, carbonate and hydroxide depending on the initial pH of the sample solution, each components reported as equivalent CaCO3. 3. Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table. |
|---|---|---|

GCC Energy Hydrologic Monitoring Data

MW-1-A																						
Year		2021				2022				2023				2024				2025				2026
Quarter		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Month		2	5	8	11	3	6	9	12	3	6	8	11	3	6	8	11	1	5	8	11	2
Sample Date		2/15	5/20	8/23	11/17	3/17	6/14	9/12	12/4	3/18	6/14	8/16	11/14	3/17	6/19	8/6	11/18	1/25	5/13	8/15	11/4	2/6
Lab Analysis (Y/N)		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Field Parameters:																						
Purge Flow Rate	gpm	0.1	0.1	0.3	0.3	0.3	0.3	0.2	0.3	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.1	0.1
Total Purged	gal	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Depth to Water	ft bgs	215.60	215.53	215.71	215.65	215.55	216.15	215.65	215.70	215.60	215.20	215.35	215.30	215.25	215.15	215.55	215.23	215.22	214.70	215.45	215.55	215.55
Temperature	deg C	8.4	9.6	10.1	9.2	9.5	10.2	10.5	9.0	8.6	10.8	11.0	9.0	7.8	10.4	10.0	8.8	8.1	10.0	13.5	10.7	8.6
pH	SU	7.19	7.30	7.35	7.17	7.22	7.31	7.29	6.82	7.34	7.49	7.37	7.54	7.60	6.97	7.14	7.05	7.15	7.22	7.35	6.61	6.90
Specific Conductance	µS/cm	1550	1647	1691	1792	1707	1717	1770	1733	1780	1676	1745	1738	1754	1656	1722	1710	1785	1436	1388	1690	1708
Oxygen Reduction Potential	mV	23.8	-13.4	-6.5	38.2	-110.5	-51.9	-159.7	-29.9	4.8	93.8	4.0	-32.1	-63.1	-27.3	-59.6	-64.5	-11.5	-32.8	94.2	242.1	163.9
Lab Analytical Results:																						
Hardness as CaCO3	mg/L	168	150	158	157	152	149	146	172	174	158	150	166	160	171	161	154	163	167	159	151	162
pH (Lab)	SU	7.22	7.13	7.10	7.05	7.30	7.15	7.36	7.37	7.01	7.20	7.38	7.39	6.95	7.24	7.32	7.27	7.34	7.18	7.35	7.26	7.29
Total Dissolved Solids (Lab)	mg/L	1250	1150	1190	1150	1140	1140	1150	1050	1150	1180	1200	1110	1120	1110	1100	1060	1100	990	1100	1150	1170
Calcium	mg/L	32.1	28.3	29.9	30.0	28.5	28.0	27.4	32.6	33.2	29.9	27.7	31.2	30.4	33.0	30.6	28.8	30.8	31.5	29.8	28.8	30.0
Magnesium	mg/L	21.4	19.2	20.3	20.0	19.7	19.2	18.7	21.9	22.0	20.2	19.6	21.3	20.3	21.5	20.6	19.9	20.9	21.4	20.5	19.3	21.2
Sodium	mg/L	357.0	314.0	333.0	340.0	321.0	319.0	318.0	361.0	351.0	345.0	333.0	324.0	336.0	358.0	327.0	341.0	331.0	333.0	335.0	340.0	389.0
Potassium	mg/L	<5.00	2.18	<5.00	2.34	2.23	2.01	2.12	2.11	<5.00	2.15	<5.00	<2.00	2.14	2.22	2.35	2.15	<5.00	<5.00	2.31	2.27	3.12
Alkalinity, Total	mg/L	400	400	370	440	405	425	410	361	372	391	368	375	370	385	410	420	425	387	360	435	420
Alkalinity, Bicarbonate	mg/L	400	400	370	440	405	425	410	361	372	391	368	375	370	385	410	420	425	387	360	435	420
Alkalinity, Carbonate	mg/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Alkalinity, Hydroxide	mg/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Chloride	mg/L	2.73	2.34	2.78	<5.00	2.80	2.46	2.59	2.40	2.49	2.71	2.55	2.50	2.57	2.59	<5.00	2.52	<5.00	2.45	2.35	2.70	2.52
Fluoride	mg/L	0.212	0.223	0.240	<0.5	<0.200	0.250	0.254	0.246	0.262	0.198	0.224	<0.200	0.250	0.248	<0.500	0.290	<0.500	0.227	0.231	0.232	0.230
Sulfate as SO4	mg/L	553.0	531.0	507.0	458.0	503.0	516.0	532.0	517.0	562.0	607.0	587.0	510.0	557.0	552.0	493.0	477.0	537.0	507.0	465.0	482.0	515.0
Total Organic Carbon (TOC)	mg/L	1.58	1.49	1.57	1.51	1.56	1.41	1.39	1.41	1.63	1.76	1.55	1.55	1.66	1.53	1.49	1.61	1.83	1.46	1.90	1.67	1.56
Nitrate/Nitrite as N	mg/L	<0.020	<0.020	0.036	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.040	<0.020	<0.020	<0.020	<0.020	0.722	<0.020	<0.020	<0.020	<0.020	0.033	<0.020
Aluminum	mg/L	<0.250	<0.050	<0.250	<0.100	<0.050	<0.050	<0.100	<0.100	<0.250	<0.250	<0.250	<0.100	<0.100	<0.100	<0.050	<0.050	<0.250	<0.250	<0.050	<0.050	<0.050
Arsenic	mg/L	<0.0015	<0.0015	<0.0025	<0.001	<0.0005	<0.0005	<0.001	<0.001	<0.0025	<0.0025	<0.0025	<0.0010	<0.0020	<0.0020	<0.0010	<0.0010	<0.0050	<0.0020	<0.0020	<0.0020	<0.0010
Cadmium	mg/L	<0.0003	<0.0015	<0.0025	<0.001	<0.0005	<0.0005	<0.001	<0.001	<0.0025	<0.0025	<0.0025	<0.0010	<0.0010	<0.0010	<0.0005	<0.0005	<0.0025	<0.0010	<0.0010	<0.0010	<0.0005
Copper	mg/L	0.0026	0.0059	0.0068	0.0086	0.0145	0.0112	0.0096	0.0078	0.0121	0.0193	0.0046	0.0079	0.0130	0.0149	0.0142	0.0201	0.0164	0.0154	0.0254	0.0168	0.0143
Iron	mg/L	0.572	0.610	0.592	0.647	0.533	0.544	0.451	0.406	<0.250	<0.250	<0.250	0.437	0.155	0.412	<0.050	0.319	<0.250	0.440	0.396	<0.050	0.467
Lead	mg/L	<0.0015	<0.0015	<0.0025	<0.0010	<0.0005	<0.0005	<0.001	<0.001	<0.0025	<0.0025	<0.0025	<0.0010	<0.0010	<0.0010	<0.0005	0.0007	<0.0025	<0.0010	0.0010	<0.0010	<0.0005
Manganese	mg/L	0.0367	0.0316	0.0328	0.0287	0.0289	0.0295	0.0359	0.0260	0.0149	0.0027	0.0128	0.0400	0.0125	0.0306	0.0009	0.0297	0.0219	0.0507	0.0316	<0.0010	0.0327
Mercury (dissolved)	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002																
Mercury (dissolved low-level)	ng/L						<5	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Molybdenum	mg/L	<0.0015	<0.0015	<0.0025	<0.0010	<0.0005	<0.0005	<0.0010	<0.0010	<0.0025	<0.0025	<0.0025	<0.0010	<0.0010	<0.0010	<0.0005	<0.0005	<0.0025	<0.0010	<0.0010	<0.0010	<0.0005
Selenium	mg/L	<0.0030	<0.0030	<0.0050	<0.0020	<0.0010	<0.0010	<0.0020	<0.0020	<0.0050	<0.0050	<0.0050	<0.0020	<0.0020	<0.0020	<0.0010	<0.0010	<0.0050	<0.0020	<0.0020	<0.0020	<0.0010
Silica (SiO2)	mg/L	11.30	10.70	10.70	11.60	11.20	10.80	10.40	11.20	10.60	10.60	9.44	11.30	10.50	10.80	10.80	10.20	10.60	10.70	11.30	9.96	10.60
Silicon	mg/L	5.27	5.00	5.01	5.42	5.25	5.07	4.85	5.24	4.94	4.95	4.41	5.28	4.89	5.05	5.07	4.79	4.94	5.00	5.27	4.66	4.94
Uranium	mg/L	<0.0015	<0.0015	<0.0025	<0.0010	<0.0005	<0.0005	<0.0010	<0.0010	<0.0025	<0.0025	<0.0025	<0.0010	<0.0010	<0.0010	<0.0010	<0.0005	<0.0025	<0.0010	<0.0010	<0.0010	<0.0005
Zinc	mg/L	<0.0060	<0.0060	<0.0100	<0.0040	<0.0020	<0.0020	<0.0040	<0.0040	<0.0100	0.0051	<0.0100	<0.0040	0.0043	<0.0040	<0.0020	0.0179	0.0143	0.0161	0.0204	0.0131	<0.0020

Notes & Definitions:

Historical data prior to 2021 can be found in earlier posted versions of this table

- | | | |
|---|---|---|
| Y/N
gpm
deg C
SU
µS/cm
mV
mg/L
pCi/L
NM
NA
ng/L | yes or no
gallons per minute
degrees Celsius
standard pH units
microsiemens per centimeter
millivolts
milligram per liter
picocuries per liter
not measured (field)
not analyzed (lab)
nanogram per liter | <ol style="list-style-type: none"> 1. "<" values denote that the quantification of that analyte is below the reporting level for the analytical laboratory, acceptable by environmental water quality laboratory industry standards. 2. Total alkalinity is measured by titration with hydrochloric acid to a set pH point, reporting this value as an equivalent amount of calcium carbonate. This value is then partitioned into bicarbonate, carbonate and hydroxide depending on the initial pH of the sample solution, each components reported as equivalent CaCO3. 3. Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table. |
|---|---|---|

GCC Energy Hydrologic Monitoring Data

		MW-1-MI																				
Year		2021				2022				2023				2024				2025				2026
Quarter		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Month		2	5	8	11	3	6	9	12	3	6	8	11	3	6	8	11	1	5	8	11	2
Sample Date		2/15	5/20	8/23	11/17	3/17	6/14	9/12	12/4	3/18	6/14	8/16	11/14	3/17	6/19	8/6	11/18	1/25	5/13	8/15	11/4	2/
Lab Analysis (Y/N)		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Field Parameters:																						
Purge Flow Rate	gpm																					
Total Purged	gal																					
Depth to Water	ft bgs																					
Temperature	deg C	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry
pH	SU																					
Specific Conductance	µS/cm																					
Oxygen Reduction Potential	mV																					
Lab Analytical Results:																						
Hardness as CaCO3	mg/L																					
pH (Lab)	SU																					
Total Dissolved Solids (Lab)	mg/L																					
Calcium	mg/L																					
Magnesium	mg/L																					
Sodium	mg/L																					
Potassium	mg/L																					
Alkalinity, Total	mg/L																					
Alkalinity, Bicarbonate	mg/L																					
Alkalinity, Carbonate	mg/L																					
Alkalinity, Hydroxide	mg/L																					
Chloride	mg/L																					
Fluoride	mg/L																					
Sulfate as SO4	mg/L																					
Total Organic Carbon (TOC)	mg/L																					
Nitrate/Nitrite as N	mg/L																					
Aluminum	mg/L																					
Arsenic	mg/L																					
Cadmium	mg/L																					
Copper	mg/L																					
Iron	mg/L																					
Lead	mg/L																					
Manganese	mg/L																					
Mercury (dissolved)	mg/L																					
Mercury (dissolved low-level)	ng/L																					
Molybdenum	mg/L																					
Selenium	mg/L																					
Silica (SiO2)	mg/L																					
Silicon	mg/L																					
Uranium	mg/L																					
Zinc	mg/L																					

Notes & Definitions:

Historical data prior to 2021 can be found in earlier posted versions of this table

- | | | |
|-------|-----------------------------|--|
| Y/N | yes or no | 1. "<" values denote that the quantification of that analyte is below the reporting level for the analytical laboratory, acceptable by environmental water quality laboratory industry standards. |
| gpm | gallons per minute | |
| deg C | degrees Celsius | |
| SU | standard pH units | 2. Total alkalinity is measured by titration with hydrochloric acid to a set pH point, reporting this value as an equivalent amount of calcium carbonate. This value is then partitioned into bicarbonate, carbonate and hydroxide depending on the initial pH of the sample solution, each components reported as equivalent CaCO3. |
| µS/cm | microsiemens per centimeter | |
| mV | millivolts | |
| mg/L | milligram per liter | |
| pCi/L | picocuries per liter | 3. Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table. |
| NM | not measured (field) | |
| NA | not analyzed (lab) | |
| ng/L | nanogram per liter | |

GCC Energy Hydrologic Monitoring Data

		MW-1-C																				
Year		2021				2022				2023				2024				2025				2026
Quarter	Month	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Sample Date	Lab Analysis (Y/N)	2/15	5/20	8/23	11/17	3/17	6/14	9/12	12/4	3/19	6/14	8/16	11/14	3/17	6/19	8/6	11/18	1/25	5/13	8/15	11/4	2/
Lab Analysis (Y/N)	Lab Analysis (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	N	N	N	N	N	N	N	N	N
Field Parameters:																						
Purge Flow Rate	gpm	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.2													
Total Purged	gal	1	2	1	1	1	1	1	1													
Depth to Water	ft bgs	216.66	216.66	216.66	216.66	216.66	216.66	216.66	216.04	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry
Temperature	deg C	7.0	10.7	12.1	10.1	7.7	12.3	12.7	7.4													
pH	SU	7.40	7.18	7.16	7.15	7.12	7.20	7.23	6.67													
Specific Conductance	µS/cm	2410	2249	2290	2554	2223	2362	2278	2104													
Oxygen Reduction Potential	mV	57.5	-16.8	0.0	-7.0	-92.9	-49.3	-191.8	-77.0													
Lab Analytical Results:																						
Hardness as CaCO3	mg/L	1320	953	975	920	750	766	638	640													
pH (Lab)	SU	7.08	6.86	7.04	6.89	7.22	7.06	7.40	6.98													
Total Dissolved Solids (Lab)	mg/L	2330	1910	1850	1840	1680	1770	1640	1490													
Calcium	mg/L	241.0	175.0	178.0	168.0	142.0	137.0	113.0	117.0													
Magnesium	mg/L	173.0	126.0	129.0	122.0	95.7	103.0	86.6	84.4													
Sodium	mg/L	206.0	196.0	214.0	234.0	229.0	240.0	261.0	266.0													
Potassium	mg/L	<5.00	2.68	<5.00	<3.00	2.68	2.48	<5.00	2.27													
Alkalinity, Total	mg/L	580	480	485	640	510	530	570	454													
Alkalinity, Bicarbonate	mg/L	580	480	485	640	510	530	570	454													
Alkalinity, Carbonate	mg/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0													
Alkalinity, Hydroxide	mg/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0													
Chloride	mg/L	7.13	5.30	5.04	7.12	4.87	5.55	5.59	4.32													
Fluoride	mg/L	0.804	0.654	0.716	0.755	0.712	1.040	1.240	0.916													
Sulfate as SO4	mg/L	1150.0	940.0	872.0	886.0	805.0	908.0	821.0	728.0													
Total Organic Carbon (TOC)	mg/L	2.26	1.92	1.93	1.91	1.79	1.80	1.74	1.77													
Nitrate/Nitrite as N	mg/L	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020													
Aluminum	mg/L	<0.250	<0.100	<0.250	<0.150	<0.050	<0.100	<0.250	<0.100													
Arsenic	mg/L	<0.0025	<0.0025	<0.0025	<0.0010	0.0009	0.0024	0.0028	<0.0010													
Cadmium	mg/L	<0.0005	<0.0025	<0.0025	<0.0010	<0.0005	<0.001	<0.0025	<0.0010													
Copper	mg/L	<0.0025	0.0042	0.0043	0.0064	0.0093	0.0086	0.0104	0.0120													
Iron	mg/L	0.769	0.552	0.573	0.724	0.630	0.671	0.679	<0.100													
Lead	mg/L	<0.0025	<0.0025	<0.0025	<0.0010	<0.0005	<0.0010	<0.0025	<0.0010													
Manganese	mg/L	0.0482	0.0419	0.0383	0.0346	0.0362	0.0342	0.0304	0.0295													
Mercury (dissolved)	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002																
Mercury (dissolved low-level)	ng/L						<5	<100	<100													
Molybdenum	mg/L	<0.0025	<0.0025	<0.0025	<0.0010	<0.0005	<0.0010	<0.0025	<0.0010													
Selenium	mg/L	<0.0050	<0.0050	<0.0050	<0.0020	<0.0010	<0.0020	<0.005	<0.002													
Silica (SiO2)	mg/L	14.40	15.00	14.50	14.80	14.20	13.00	11.70	13.40													
Silicon	mg/L	6.75	7.00	6.79	6.94	6.66	6.07	5.47	6.26													
Uranium	mg/L	<0.0025	<0.0025	<0.0025	0.0010	0.0008	<0.0010	<0.0025	<0.0010													
Zinc	mg/L	<0.0100	<0.0100	<0.0100	<0.0040	0.0021	<0.0040	<0.0100	0.0071													

Notes & Definitions:

Historical data prior to 2021 can be found in earlier posted versions of this table

- | | |
|--|---|
| <ul style="list-style-type: none"> ^ one-time analysis Y/N yes or no gpm gallons per minute deg C degrees Celsius SU standard pH units µS/cm microsiemens per centimeter mV millivolts mg/L milligram per liter pCi/L picocuries per liter NM not measured (field) NA not analyzed (lab) ng/L nanogram per liter | <ol style="list-style-type: none"> 1. "<" values denote that the quantification of that analyte is below the reporting level for the analytical laboratory, acceptable by environmental water quality laboratory industry standards. 2. Total alkalinity is measured by titration with hydrochloric acid to a set pH point, reporting this value as an equivalent amount of calcium carbonate. This value is then partitioned into bicarbonate, carbonate and hydroxide depending on the initial pH of the sample solution, each components reported as equivalent CaCO3. 3. Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table. |
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GCC Energy Hydrologic Monitoring Data

		MW-2-A																				
Year		2021				2022				2023				2024				2025				2026
Quarter		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Month		2	5	8	11	3	6	9	12	3	6	8	11	3	6	8	11	1	5	8	11	2
Sample Date		2/15	5/20	8/24	11/17	3/23	6/14	9/8	12/4	3/31	6/14	8/18	11/13	3/17	6/19	8/6	11/18	1/25	5/12	8/15	11/1	2/
Lab Analysis (Y/N)		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Field Parameters:																						
Purge Flow Rate	gpm																					
Total Purged	gal																					
Depth to Water	ft bgs																					
Temperature	deg C	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry
pH	SU																					
Specific Conductance	µS/cm																					
Oxygen Reduction Potential	mV																					
Lab Analytical Results:																						
Hardness as CaCO3	mg/L																					
pH (Lab)	SU																					
Total Dissolved Solids (Lab)	mg/L																					
Calcium	mg/L																					
Magnesium	mg/L																					
Sodium	mg/L																					
Potassium	mg/L																					
Alkalinity, Total	mg/L																					
Alkalinity, Bicarbonate	mg/L																					
Alkalinity, Carbonate	mg/L																					
Alkalinity, Hydroxide	mg/L																					
Chloride	mg/L																					
Fluoride	mg/L																					
Sulfate as SO4	mg/L																					
Total Organic Carbon (TOC)	mg/L																					
Nitrate/Nitrite as N	mg/L																					
Aluminum	mg/L																					
Arsenic	mg/L																					
Cadmium	mg/L																					
Copper	mg/L																					
Iron	mg/L																					
Lead	mg/L																					
Manganese	mg/L																					
Mercury (dissolved)	mg/L																					
Mercury (dissolved low-level)	ng/L																					
Molybdenum	mg/L																					
Selenium	mg/L																					
Silica (SiO2)	mg/L																					
Silicon	mg/L																					
Uranium	mg/L																					
Zinc	mg/L																					

Notes & Definitions:

Historical data prior to 2021 can be found in earlier posted versions of this table

- | | | |
|-------|-----------------------------|--|
| Y/N | yes or no | |
| gpm | gallons per minute | |
| deg C | degrees Celsius | |
| SU | standard pH units | |
| µS/cm | microsiemens per centimeter | |
| mV | millivolts | |
| mg/L | milligram per liter | |
| pCi/L | picocuries per liter | |
| NM | not measured (field) | |
| NA | not analyzed (lab) | |
| ng/L | nanogram per liter | |
1. "<" values denote that the quantification of that analyte is below the reporting level for the analytical laboratory, acceptable by environmental water quality laboratory industry standards.
 2. Total alkalinity is measured by titration with hydrochloric acid to a set pH point, reporting this value as an equivalent amount of calcium carbonate. This value is then partitioned into bicarbonate, carbonate and hydroxide depending on the initial pH of the sample solution, each components reported as equivalent CaCO3.
 3. Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table.

GCC Energy Hydrologic Monitoring Data

MW-2-MI																						
Year		2021				2022				2023				2024				2025				2026
Quarter		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Month		2	5	8	11	3	6	9	12	3	6	8	11	3	6	8	11	1	5	8	11	2
Sample Date		2/15	5/20	8/24	11/17	3/23	6/14	9/8	12/4	3/31	6/14	8/18	11/13	3/17	6/19	8/6	11/18	1/25	5/12	8/15	11/1	2/
Lab Analysis (Y/N)		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Field Parameters:																						
Purge Flow Rate	gpm																					
Total Purged	gal																					
Depth to Water	ft bgs																					
Temperature	deg C	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	
pH	SU																					
Specific Conductance	µS/cm																					
Oxygen Reduction Potential	mV																					
Lab Analytical Results:																						
Hardness as CaCO3	mg/L																					
pH (Lab)	SU																					
Total Dissolved Solids (Lab)	mg/L																					
Calcium	mg/L																					
Magnesium	mg/L																					
Sodium	mg/L																					
Potassium	mg/L																					
Alkalinity, Total	mg/L																					
Alkalinity, Bicarbonate	mg/L																					
Alkalinity, Carbonate	mg/L																					
Alkalinity, Hydroxide	mg/L																					
Chloride	mg/L																					
Fluoride	mg/L																					
Sulfate as SO4	mg/L																					
Total Organic Carbon (TOC)	mg/L																					
Nitrate/Nitrite as N	mg/L																					
Aluminum	mg/L																					
Arsenic	mg/L																					
Cadmium	mg/L																					
Copper	mg/L																					
Iron	mg/L																					
Lead	mg/L																					
Manganese	mg/L																					
Mercury (dissolved)	mg/L																					
Mercury (dissolved low-level)	ng/L																					
Molybdenum	mg/L																					
Selenium	mg/L																					
Silica (SiO2)	mg/L																					
Silicon	mg/L																					
Uranium	mg/L																					
Zinc	mg/L																					

Notes & Definitions:

Historical data prior to 2021 can be found in earlier posted versions of this table

- | | | |
|-------|-----------------------------|--|
| Y/N | yes or no | |
| gpm | gallons per minute | |
| deg C | degrees Celsius | |
| SU | standard pH units | |
| µS/cm | microsiemens per centimeter | |
| mV | millivolts | |
| mg/L | milligram per liter | |
| pCi/L | picocuries per liter | |
| NM | not measured (field) | |
| NA | not analyzed (lab) | |
| ng/L | nanogram per liter | |
1. "<" values denote that the quantification of that analyte is below the reporting level for the analytical laboratory, acceptable by environmental water quality laboratory industry standards.
 2. Total alkalinity is measured by titration with hydrochloric acid to a set pH point, reporting this value as an equivalent amount of calcium carbonate. This value is then partitioned into bicarbonate, carbonate and hydroxide depending on the initial pH of the sample solution, each components reported as equivalent CaCO3.
 3. Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table.

GCC Energy Hydrologic Monitoring Data

		MW-2-C																				
Year		2021				2022				2023				2024				2025				2026
Quarter		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Month		2	5	8	11	3	6	9	12	3	6	8	11	3	6	8	11	1	5	8	11	2
Sample Date		2/15	5/20	8/24	11/17	3/23	6/14	9/8	12/4	3/31	6/14	8/18	11/13	3/17	6/19	8/6	11/18	1/25	5/12	8/15	11/1	2/
Lab Analysis (Y/N)		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Field Parameters:																						
Purge Flow Rate	gpm																					
Total Purged	gal																					
Depth to Water	ft bgs																					
Temperature	deg C	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry
pH	SU																					
Specific Conductance	µS/cm																					
Oxygen Reduction Potential	mV																					
Lab Analytical Results:																						
Hardness as CaCO3	mg/L																					
pH (Lab)	SU																					
Total Dissolved Solids (Lab)	mg/L																					
Calcium	mg/L																					
Magnesium	mg/L																					
Sodium	mg/L																					
Potassium	mg/L																					
Alkalinity, Total	mg/L																					
Alkalinity, Bicarbonate	mg/L																					
Alkalinity, Carbonate	mg/L																					
Alkalinity, Hydroxide	mg/L																					
Chloride	mg/L																					
Fluoride	mg/L																					
Sulfate as SO4	mg/L																					
Total Organic Carbon (TOC)	mg/L																					
Nitrate/Nitrite as N	mg/L																					
Aluminum	mg/L																					
Arsenic	mg/L																					
Cadmium	mg/L																					
Copper	mg/L																					
Iron	mg/L																					
Lead	mg/L																					
Manganese	mg/L																					
Mercury (dissolved)	mg/L																					
Mercury (dissolved low-level)	ng/L																					
Molybdenum	mg/L																					
Selenium	mg/L																					
Silica (SiO2)	mg/L																					
Silicon	mg/L																					
Uranium	mg/L																					
Zinc	mg/L																					

Notes & Definitions:

Historical data prior to 2021 can be found in earlier posted versions of this table

- | | | |
|-------|-----------------------------|--|
| Y/N | yes or no | |
| gpm | gallons per minute | |
| deg C | degrees Celsius | |
| SU | standard pH units | |
| µS/cm | microsiemens per centimeter | |
| mV | millivolts | |
| mg/L | milligram per liter | |
| pCi/L | picocuries per liter | |
| NM | not measured (field) | |
| NA | not analyzed (lab) | |
| ng/L | nanogram per liter | |
1. "<" values denote that the quantification of that analyte is below the reporting level for the analytical laboratory, acceptable by environmental water quality laboratory industry standards.
 2. Total alkalinity is measured by titration with hydrochloric acid to a set pH point, reporting this value as an equivalent amount of calcium carbonate. This value is then partitioned into bicarbonate, carbonate and hydroxide depending on the initial pH of the sample solution, each components reported as equivalent CaCO3.
 3. Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table.

GCC Energy Hydrologic Monitoring Data

MW-3-A																						
Year	2021				2022				2023				2024				2025				2026	
Quarter	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	
Month	2	5	8	11	2	5	9	11	3	6	8	11	2	6	8	11	2	5	8	11	2	
Sample Date	2/10	5/18	8/10	11/9	2/24	5/11	9/6	11/18	3/16	6/15	8/8	11/16	2/21	6/20	8/13	11/24	2/7	5/14	8/17	11/3	2/3	
Lab Analysis (Y/N)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	
Field Parameters:																						
Purge Flow Rate	gpm	0.1	0.1	0.2	0.1	0.3	0.3	0.1	0.0	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	
Total Purged	gal	1	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	
Depth to Water	ft bgs	296.97	296.72	297.47	297.46	296.67	296.74	296.96	296.62	295.59	295.32	295.97	295.81	295.22	295.07	295.12	294.87	294.57	294.34	294.97	294.67	294.32
Temperature	deg C	12.1	12.4	13.6	12.2	11.4	13.0	15.6	12.2	11.8	12.7	15.2	11.8	11.8	14.0	13.3	11.7	12.3	13.0	14.5	11.6	11.7
pH	SU	8.53	8.46	8.42	8.47	8.35	8.21	8.12	8.66	8.06	7.97	8.63	8.50	8.48	8.37	8.48	8.58	8.60	8.56	6.69	8.85	8.53
Specific Conductance	µS/cm	1930	1525	2091	2127	2121	2055	2066	2057	2094	2050	1374	903	937	560	748	899	1670	1552	1898	1000	809
Oxygen Reduction Potential	mV	-101.3	-157.1	-149.0	-156.8	-221.2	-124.2	-269.9	-199.6	-43.5	-91.0	-162.4	-256.7	-162.8	-151.5	-172.6	-267.5	-198.5	-151.2	-248.3	-183.7	-69.7
Lab Analytical Results:																						
Hardness as CaCO3	mg/L	11	8	9	9	9	9	9	8	8	9	6	9	8	9	9	8	7	8	7	9	5
pH (Lab)	SU	8.13	8.22	8.21	8.19	8.17	8.28	8.09	8.15	7.63	7.97	8.40	8.37	8.20	8.44	8.50	8.23	8.42	8.48	6.66	6.78	8.44
Total Dissolved Solids (Lab)	mg/L	1410	1350	1420	1360	1220	1400	1320	1280	1390	1310	1300	1290	1320	1280	1340	1190	1260	1260	1250	1200	1150
Calcium	mg/L	3.1	2.5	2.6	2.5	2.4	2.6	2.6	2.2	2.4	2.5	2.4	2.6	2.3	2.5	2.6	2.3	1.9	2.0	2.0	2.6	1.6
Magnesium	mg/L	0.7	0.5	0.6	0.6	0.6	0.6	0.7	0.5	0.6	0.6	< 0.500	0.7	0.6	0.6	0.7	0.6	0.5	0.7	0.5	0.7	0.4
Sodium	mg/L	536.0	471.0	462.0	448.0	462.0	473.0	476.0	420.0	440.0	456.0	450.0	459.0	436.0	458.0	454.0	455.0	454.0	438.0	457.0	456.0	441.0
Potassium	mg/L	<5.00	<3.00	<5.00	<2.00	1.34	<2.00	<2.00	<5.00	<5.00	<5.00	<5.00	<3.00	<3.00	<2.00	1.36	1.34	<5.00	<5.00	1.46	<2.00	<2.00
Alkalinity, Total	mg/L	520	530	465	485	495	560	500	400	454	458	447	465	465	510	580	520	525	510	510	575	585
Alkalinity, Bicarbonate	mg/L	520	530	465	435	455	480	500	400	454	458	415	455	465	510	580	520	485	330	510	575	505
Alkalinity, Carbonate	mg/L	<10.0	<10.0	<10.0	50.0	40.0	80.0	<10.0	<10.0	<10.0	<10.0	32.0	<10.0	<10.0	<10.0	<10.0	<10.0	40.0	180.0	<10.0	<10.0	80.0
Alkalinity, Hydroxide	mg/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Chloride	mg/L	13.50	14.00	14.10	14.60	14.20	14.20	15.90	15.40	16.00	16.10	16.90	16.20	17.30	17.50	18.20	17.60	20.10	20.60	22.90	22.10	26.50
Fluoride	mg/L	0.336	0.352	0.366	0.314	0.356	0.324	0.362	<0.500	<0.500	0.316	<0.500	0.284	<0.500	0.368	0.390	0.388	0.446	<0.500	0.395	0.413	0.440
Sulfate as SO4	mg/L	600.0	601.0	599.0	515.0	584.0	555.0	557.0	565.0	571.0	573.0	560.0	552.0	545.0	545.0	525.0	520.0	512.0	441.0	417.0	486.0	362.0
Total Organic Carbon (TOC)	mg/L	3.16	3.18	3.01	3.02	2.96	2.84	3.02	1.54	3.04	<2.5	4.44	2.93	3.25	2.96	3.93	2.94	2.89	2.86	3.89	3.40	3.01
Nitrate/Nitrite as N	mg/L	<0.020	0.024	<0.020	<0.020	0.022	0.030	<0.020	<0.020	0.117	0.061	<0.020	<0.020	<0.020	<0.020	0.060	<0.020	<0.020	<0.020	<0.020	<0.020	0.089
Aluminum	mg/L	<0.250	<0.150	<0.250	<0.100	<0.050	<0.100	<0.100	<0.250	<0.250	<0.250	<0.250	<0.150	<0.150	<0.100	<0.050	<0.050	<0.250	<0.250	<0.050	<0.100	<0.100
Arsenic	mg/L	0.0026	0.0006	0.0010	0.0018	0.0009	<0.0010	<0.0010	<0.0010	<0.0025	<0.0025	<0.0025	<0.0025	<0.0020	<0.0020	<0.0010	<0.0010	0.0010	<0.0020	<0.0020	<0.0020	0.0013
Cadmium	mg/L	<0.0005	<0.0005	<0.0010	<0.0010	<0.0005	<0.0010	<0.0010	<0.0010	<0.0025	<0.0025	<0.0025	<0.0025	<0.0010	<0.0010	<0.0005	<0.0005	<0.0005	<0.0010	<0.0010	<0.0010	<0.0005
Copper	mg/L	0.0037	0.0157	0.0156	0.0113	0.0088	0.0114	0.0189	0.0106	0.0155	0.0196	0.0065	0.0096	0.0159	0.0180	0.0255	0.0203	0.0176	0.0135	0.0208	0.0152	0.0165
Iron	mg/L	<0.250	<0.150	<0.250	<0.100	<0.050	<0.100	<0.100	<0.250	<0.250	<0.250	<0.150	<0.150	<0.150	<0.100	<0.050	<0.050	<0.250	<0.250	<0.050	0.114	<0.100
Lead	mg/L	<0.0025	<0.001	<0.0010	<0.0010	<0.0005	<0.001	<0.002	<0.0010	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0010	<0.0005	<0.0005	<0.0010	<0.0010	<0.0010	<0.0010	<0.0005
Manganese	mg/L	0.0128	0.0121	0.0096	0.0101	0.0113	0.0100	0.0097	0.0108	0.0119	0.0096	0.0098	0.0091	<0.0010	0.0091	0.0076	0.0069	0.0071	0.0069	0.0088	0.0157	0.0060
Mercury (dissolved)	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002																
Mercury (dissolved low-level)	ng/L						<5	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Molybdenum	mg/L	<0.0025	0.0015	0.0013	<0.001	0.0012	<0.001	0.0017	0.0012	<0.0025	<0.0025	<0.0025	<0.0025	0.0018	0.0016	0.0009	0.0024	0.0009	<0.0010	0.0010	0.0013	0.0005
Selenium	mg/L	0.1290	0.0276	0.0167	0.0855	0.0162	0.0029	0.0106	<0.0020	0.0236	0.0174	<0.0050	0.0094	0.0063	0.0427	<0.0010	<0.0010	0.0194	0.0350	0.0042	0.0219	0.0298
Silica (SiO2)	mg/L	11.30	10.10	10.70	10.90	10.80	10.70	11.10	9.39	9.32	9.89	9.16	10.90	9.34	10.10	10.10	10.30	10.20	10.40	10.40	9.99	9.58
Silicon	mg/L	5.28	4.73	4.98	5.11	5.07	5.01	5.19	4.39	4.36	4.63	4.28	5.09	4.36	4.73	4.72	4.83	4.78	4.87	4.84	4.67	4.48
Uranium	mg/L	<0.0025	<0.0010	<0.0010	<0.0010	0.0005	<0.0010	<0.0010	<0.0010	<0.0025	<0.0025	<0.0025	<0.0025	<0.0010	<0.0010	<0.0005	<0.0005	<0.0010	<0.0010	<0.0010	<0.0010	<0.0005
Zinc	mg/L	<0.0100	<0.0020	<0.0040	<0.0040	<0.0020	<0.0040	<0.0040	0.0041	<0.0100	<0.0100	<0.0100	<0.0100	<0.0040	<0.0040	0.0028	0.0042	0.0032	0.0092	0.0096	0.0054	<0.0020

Notes & Definitions:

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- | | | |
|---|---|---|
| Y/N
gpm
deg C
SU
µS/cm
mV
mg/L
pCi/L
NM
NA
ng/L | yes or no
gallons per minute
degrees Celsius
standard pH units
microsiemens per centimeter
millivolts
milligram per liter
picocuries per liter
not measured (field)
not analyzed (lab)
nanogram per liter | <ol style="list-style-type: none"> 1. "<" values denote that the quantification of that analyte is below the reporting level for the analytical laboratory, acceptable by environmental water quality laboratory industry standards. 2. Total alkalinity is measured by titration with hydrochloric acid to a set pH point, reporting this value as an equivalent amount of calcium carbonate. This value is then partitioned into bicarbonate, carbonate and hydroxide depending on the initial pH of the sample solution, each components reported as equivalent CaCO3. 3. Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table. |
|---|---|---|

GCC Energy Hydrologic Monitoring Data

MW-3-MI																						
Year		2021				2022				2023				2024				2025				2026
Quarter		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Month		2	5	8	11	2	5	9	11	3	6	8	11	2	6	8	11	2	5	8	11	2
Sample Date		2/10	5/18	8/10	11/9	2/24	5/11	9/6	11/18	3/16	6/15	8/8	11/16	2/21	6/20	8/13	11/24	2/7	5/14	8/17	11/3	2/3
Lab Analysis (Y/N)		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Field Parameters:																						
Purge Flow Rate	gpm	0.1	0.1	0.1	0.3	0.3	0.3	0.2	0.1	0.1	0.1	0.3	0.3	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	
Total Purged	gal	1	2	2	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Depth to Water	ft bgs	243.93	244.25	244.28	244.15	242.90	244.05	244.65	244.30	243.83	249.55	242.86	242.65	242.35	242.40	242.35	242.90	242.27	242.27	242.45	252.65	242.50
Temperature	deg C	11.5	12.8	13.0	11.9	11.4	13.2	13.7	11.6	11.7	12.5	13.1	12.3	11.7	13.1	12.5	11.6	11.9	11.7	16.1	12.3	11.8
pH	SU	9.03	9.06	9.13	9.11	9.07	9.04	9.03	8.81	9.06	9.03	9.00	8.89	8.97	8.80	8.73	8.89	8.91	8.90	7.01	7.50	7.80
Specific Conductance	µS/cm	1519	1232	1647	1765	1705	1686	1720	1739	1609	1737	1702	1784	1788	1704	1753	1764	1860	1738	1725	1704	1748
Oxygen Reduction Potential	mV	-94.6	-120.4	-142.9	-163.3	-207.2	-104.2	-184.3	-158.9	-186.8	-192.3	-213.0	-263.6	-279.2	-222.1	-156.7	-213.9	-136.5	-94.5	-236.2	22.9	-60.0
Lab Analytical Results:																						
Hardness as CaCO3	mg/L	7	5	5	5	5	5	<3.31	<3.31	<3.31	<3.31	5	4	5	6	5	5	5	5	16	20	
pH (Lab)	SU	8.72	8.84	8.81	8.88	8.78	8.87	8.76	8.78	8.63	8.71	8.84	8.85	8.76	8.76	8.71	8.79	8.87	8.78	8.69	6.94	7.50
Total Dissolved Solids (Lab)	mg/L	1120	1110	1180	1130	1070	1140	1080	1070	1140	1100	1070	1050	1120	1060	1120	1100	1060	1110	1070	1100	1150
Calcium	mg/L	1.7	1.3	1.3	1.3	1.3	1.3	1.1	1.2	1.2	1.1	1.1	1.3	1.1	1.3	1.4	1.2	1.3	1.2	1.2	4.8	6.3
Magnesium	mg/L	0.6	0.5	0.5	0.5	0.5	0.4	<0.500	<0.500	<0.500	<0.500	<0.500	0.4	0.3	0.5	0.5	0.5	0.4	0.5	0.4	1.0	1.0
Sodium	mg/L	468.0	410.0	403.0	390.0	413.0	415.0	374.0	389.0	397.0	408.0	398.0	405.0	388.0	413.0	411.0	413.0	436.0	408.0	431.0	468.0	482.0
Potassium	mg/L	<5.00	<2.00	<2.00	<2.00	1.27	<2.00	<5.00	<5.00	<5.00	<5.00	<5.00	<2.00	<2.00	<2.00	1.23	1.25	1.49	<5.00	1.35	<2.00	1.63
Alkalinity, Total	mg/L	690	690	705	705	740	740	780	760	680	700	660	630	670	730	700	685	720	650	670	695	740
Alkalinity, Bicarbonate	mg/L	450	550	555	565	580	580	480	540	620	572	590	510	590	630	670	555	600	450	670	695	740
Alkalinity, Carbonate	mg/L	240.0	140.0	150.0	140.0	160.0	160.0	300.0	220.0	60.0	128.0	70.0	120.0	80.0	100.0	30.0	130.0	120.0	200.0	<10.0	<10.0	<10.0
Alkalinity, Hydroxide	mg/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Chloride	mg/L	9.84	10.50	10.40	10.40	10.60	10.20	11.20	10.70	10.90	10.80	10.80	10.70	10.70	10.60	10.30	9.63	10.20	10.30	9.92	9.29	9.34
Fluoride	mg/L	1.030	1.090	1.070	0.980	1.100	0.982	1.110	1.080	1.100	1.020	0.862	0.924	0.940	1.120	1.090	1.110	1.180	1.040	1.000	0.912	0.950
Sulfate as SO4	mg/L	223.0	227.0	228.0	230.0	233.0	213.0	240.0	238.0	240.0	243.0	242.0	241.0	245.0	255.0	247.0	239.0	256.0	239.0	236.0	241.0	255.0
Total Organic Carbon (TOC)	mg/L	5.34	5.33	5.40	5.26	5.14	4.94	5.06	2.89	5.14	4.22	4.72	4.52	5.37	4.49	4.50	4.32	4.33	3.86	4.82	3.97	3.75
Nitrate/Nitrite as N	mg/L	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	2.420	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.038	<0.020	<0.020
Aluminum	mg/L	<0.250	<0.100	<0.100	<0.100	<0.050	<0.100	<0.250	<0.250	<0.250	<0.250	<0.250	<0.100	<0.100	<0.100	<0.050	<0.050	<0.050	<0.250	<0.050	<0.100	<0.050
Arsenic	mg/L	0.0083	0.0091	0.0091	0.0078	0.0095	0.0082	0.0084	0.0085	0.0078	0.0094	0.0076	0.0084	0.0067	0.0049	0.0040	0.0041	0.0044	0.0036	0.0035	0.0021	0.0022
Cadmium	mg/L	<0.0005	<0.0005	<0.0010	<0.0010	<0.0005	<0.0010	<0.0010	<0.0010	<0.0025	<0.0025	<0.0025	<0.0010	<0.0010	<0.0010	<0.0005	<0.0005	<0.0005	<0.0010	<0.0010	<0.0010	<0.0005
Copper	mg/L	0.0031	0.0131	0.0143	0.0097	0.0072	0.0126	0.0170	0.0089	0.0143	0.0187	0.0080	0.0081	0.0136	0.0167	0.0243	0.0197	0.0181	0.0135	0.0199	0.0153	0.0160
Iron	mg/L	<0.250	<0.100	<0.100	<0.100	<0.050	<0.100	<0.250	<0.250	<0.250	<0.250	<0.100	<0.100	<0.100	<0.100	<0.050	<0.050	<0.050	<0.250	<0.050	1.520	0.795
Lead	mg/L	<0.0025	<0.0005	<0.0010	<0.0010	<0.0005	<0.0010	<0.0020	<0.0010	<0.0025	<0.0025	<0.0025	<0.0010	<0.0025	<0.0010	<0.0005	<0.0005	<0.0010	<0.0010	<0.0010	<0.0010	<0.0005
Manganese	mg/L	0.0069	0.0057	0.0058	0.0054	0.0051	0.0049	0.0047	0.0058	0.0063	0.0058	0.0055	0.0059	0.0057	0.0066	0.0064	0.0058	0.0061	0.0062	0.0062	0.0346	0.0376
Mercury (dissolved)	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002																
Mercury (dissolved low-level)	ng/L						<5	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Molybdenum	mg/L	0.0162	0.0160	0.0149	0.0140	0.0148	0.0143	0.0150	0.0150	0.0136	0.0143	0.0125	0.0139	0.0130	0.0135	0.0126	0.0117	0.0117	0.0109	0.0114	0.0073	0.0081
Selenium	mg/L	0.0462	0.0033	<0.0020	0.0091	0.0018	<0.0020	<0.0020	<0.0020	<0.0050	<0.005	<0.0050	0.0032	0.0023	0.0155	<0.0010	<0.0010	0.0049	0.0111	0.0025	0.0078	0.0030
Silica (SiO2)	mg/L	9.64	8.11	8.77	8.82	9.04	8.63	7.45	7.80	7.62	7.81	7.47	9.17	7.98	8.30	8.86	9.24	9.59	9.21	9.35	9.61	9.89
Silicon	mg/L	4.51	3.79	4.10	4.12	4.22	4.03	3.48	3.65	3.56	3.65	3.49	4.29	3.73	3.88	4.14	4.32	4.48	4.30	4.37	4.49	4.62
Uranium	mg/L	0.0049	0.0043	0.0041	0.0033	0.0035	0.0032	0.0034	0.0032	0.0025	<0.0025	<0.0025	0.0026	0.0021	0.0030	0.0022	0.0020	0.0023	0.0018	0.0019	<0.0010	0.0012
Zinc	mg/L	<0.0100	<0.0020	<0.0040	<0.0040	<0.0020	<0.0040	<0.0040	<0.0040	<0.0100	<0.0100	<0.0100	<0.0040	<0.0040	0.0078	<0.0020	0.0023	0.0106	0.0106	0.0086	0.0146	<0.0020

Notes & Definitions:

Historical data prior to 2021 can be found in earlier posted versions of this table

- | | | |
|---|---|---|
| Y/N
gpm
deg C
SU
µS/cm
mV
mg/L
pCi/L
NM
NA
ng/L | yes or no
gallons per minute
degrees Celsius
standard pH units
microsiemens per centimeter
millivolts
milligram per liter
picocuries per liter
not measured (field)
not analyzed (lab)
nanogram per liter | <ol style="list-style-type: none"> 1. "<" values denote that the quantification of that analyte is below the reporting level for the analytical laboratory, acceptable by environmental water quality laboratory industry standards. 2. Total alkalinity is measured by titration with hydrochloric acid to a set pH point, reporting this value as an equivalent amount of calcium carbonate. This value is then partitioned into bicarbonate, carbonate and hydroxide depending on the initial pH of the sample solution, each components reported as equivalent CaCO3. 3. Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table. |
|---|---|---|

GCC Energy Hydrologic Monitoring Data

MW-3-C																						
Year		2021				2022				2023				2024				2025				2026
Quarter		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Month		2	5	8	11	2	5	9	12	3	6	8	11	2	6	8	11	2	5	8	11	2
Sample Date		2/10	5/18	8/10	11/10	2/24	5/11	9/6	12/13	3/29	6/15	8/8	11/16	2/21	6/20	8/13	11/24	2/7	5/14	8/17	11/3	2/3
Lab Analysis (Y/N)		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Field Parameters:																						
Purge Flow Rate	gpm	0.1	0.1	0.1	0.1	0.2	0.1	0.2	0.0	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
Total Purged	gal	1	2	1	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	
Depth to Water	ft bgs	295.97	295.25	295.70	295.68	294.45	295.11	295.45	295.10	294.25	293.70	294.46	294.41	293.85	293.66	293.60	293.43	293.15	292.93	293.20	292.45	292.80
Temperature	deg C	9.9	12.3	15.6	9.6	9.4	13.2	14.4	1.9	13.2	12.9	14.6	11.7	12.7	13.8	12.1	11.7	11.9	12.4	14.8	11.6	12.6
pH	SU	8.71	8.50	8.71	8.85	8.62	8.43	8.29	9.15	8.44	8.42	8.37	8.26	8.24	8.17	8.24	8.25	8.24	8.23	8.46	7.61	8.21
Specific Conductance	µS/cm	4426	3755	4571	5244	4564	4694	5306	2397	5300	5353	5283	5584	2560	5377	5484	5498	5799	5361	5232	5447	5362
Oxygen Reduction Potential	mV	-202.7	-149.6	-255.3	-227.4	-325.6	-223.4	-307.9	-277.2	57.8	-199.5	-202.4	-275.0	-231.2	-199.2	-210.9	-266.8	-206.2	-211.1	-178.1	-82.8	-143.1
Lab Analytical Results:																						
Hardness as CaCO3	mg/L	19	15	17	17	16	17	20	16	17	14	16	18	16	19	19	19	18	20	18	20	19
pH (Lab)	SU	8.43	8.38	8.47	8.87	8.44	8.47	8.18	8.49	8.81	8.29	8.21	8.27	8.39	8.20	8.26	8.23	8.30	8.21	8.25	8.48	8.15
Total Dissolved Solids (Lab)	mg/L	3200	3230	3300	3200	3270	3250	3280	3140	3150	2310	3220	3300	3360	3270	3390	3340	3350	3350	3400	3380	3400
Calcium	mg/L	4.3	3.6	3.8	3.8	3.7	4.1	4.5	3.7	3.9	3.3	3.6	4.0	3.7	4.3	4.3	4.4	4.1	4.5	4.0	4.4	4.1
Magnesium	mg/L	1.9	1.4	1.8	1.8	1.7	1.7	2.2	1.8	1.8	1.3	1.7	1.9	1.7	2.0	2.0	2.0	1.9	2.1	1.9	2.1	2.1
Sodium	mg/L	1360.0	1220.0	1220.0	1170.0	1200.0	1260.0	1360.0	1170.0	1260.0	906.0	1240.0	1270.0	1240.0	1300.0	1320.0	1310.0	1360.0	1340.0	1340.0	1420.0	1390.0
Potassium	mg/L	<10.0	<6.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<10.0	<5.00	<10.0	<10.0	<6.00	<10.0	3.97	4.42	<5.00	<5.00	4.26	<5.00	<5.00
Alkalinity, Total	mg/L	2170	2130	2140	2230	2180	2170	2110	2120	2220	1410	2140	2140	2180	2280	2160	2190	2170	2130	2060	2070	2150
Alkalinity, Bicarbonate	mg/L	1710	1910	1950	1950	1820	1870	1990	2120	1920	1410	2070	2060	2060	2040	2000	1930	1970	1770	1880	1950	1960
Alkalinity, Carbonate	mg/L	460.0	220.0	190.0	280.0	360.0	300.0	120.0	<10.0	300.0	<10.0	70.0	80.0	120.0	240.0	160.0	260.0	200.0	360.0	180.0	120.0	190.0
Alkalinity, Hydroxide	mg/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Chloride	mg/L	574.00	577.00	582.00	462.00	608.00	605.00	613.00	604.00	622.00	360.00	639.00	644.00	646.00	649.00	634.00	628.00	664.00	593.00	661.00	658.00	632.00
Fluoride	mg/L	3.370	3.340	3.360	3.160	3.370	3.060	3.510	3.250	3.380	1.960	2.590	2.910	3.140	3.590	3.390	3.570	3.930	3.160	3.230	3.020	3.440
Sulfate as SO4	mg/L	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<10.0	252.0	<10.0	<10.0	<5.00	2.4	<10.0	<5.00	<5.00	<10.0	<5.00	<5.00	<5.00
Total Organic Carbon (TOC)	mg/L	15.70	16.30	15.70	16.40	17.90	16.20	16.10	10.40	19.20	5.72	18.90	19.20	20.50	19.90	19.90	21.40	19.60	15.10	20.00	20.90	21.10
Nitrate/Nitrite as N	mg/L	<0.020	<0.020	<0.020	<0.040	<0.020	<0.020	<0.100	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Aluminum	mg/L	<0.500	<0.300	<0.250	<0.250	<0.250	<0.250	<0.250	<0.250	<0.500	<0.250	<0.500	<0.500	<0.300	<0.500	<0.050	<0.050	<0.250	<0.250	<0.150	<0.250	<0.250
Arsenic	mg/L	0.0113	0.0163	0.0195	0.0170	0.0157	0.0130	0.0151	0.0146	0.0194	0.0206	0.0149	0.0170	0.0171	0.0211	0.0204	0.0205	0.0193	0.0210	0.0223	0.0181	0.0246
Cadmium	mg/L	<0.0010	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.005	<0.0035	<0.0050	<0.0050	<0.0025	<0.0050	0.0007	<0.0015	<0.0025	<0.0025	<0.0050	<0.0025	0.0006
Copper	mg/L	0.0102	0.0499	0.0434	0.0323	0.0287	0.0347	0.0555	0.0268	0.0220	0.0571	0.0185	0.0293	0.0460	0.0522	0.0742	0.0784	0.0534	0.0540	0.0747	0.0492	0.0522
Iron	mg/L	<0.500	<0.300	0.464	0.310	0.260	0.305	0.427	<0.250	<0.500	<0.25	<0.500	<0.500	<0.300	<0.500	0.293	0.238	<0.250	0.333	0.301	0.513	0.390
Lead	mg/L	<0.0050	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.005	<0.0025	<0.005	<0.0035	<0.0050	<0.0050	<0.0050	<0.0050	0.0016	<0.0015	<0.0025	<0.0025	<0.0050	<0.0025	<0.0005
Manganese	mg/L	0.0052	0.0046	0.0034	0.0032	0.0028	0.0040	0.0025	0.0034	0.0054	0.0065	<0.0050	<0.0050	<0.0025	<0.0050	0.0023	0.0027	<0.0025	<0.0025	<0.0050	0.0072	0.0027
Mercury (dissolved)	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002																
Mercury (dissolved low-level)	ng/L						<5	<500	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Molybdenum	mg/L	0.0080	0.0069	0.0061	0.0061	0.0059	0.0065	0.0058	0.0056	0.0111	0.0093	0.0065	0.0059	0.0057	<0.0050	0.0052	0.0042	0.0043	0.0037	<0.0050	0.0073	0.0045
Selenium	mg/L	0.0270	0.0411	0.0372	0.0319	0.0335	0.0185	0.0247	0.0199	0.0259	0.0396	0.0242	0.0282	0.0241	0.0580	0.0355	0.0305	0.0368	0.0475	0.0459	0.0407	0.0439
Silica (SiO2)	mg/L	<10.7	7.48	8.40	8.33	7.79	7.59	8.75	7.04	<10.7	8.03	<10.7	<10.7	7.28	<10.7	7.65	8.69	8.55	8.57	7.89	7.77	8.19
Silicon	mg/L	<5.00	3.50	3.93	3.89	3.64	3.55	4.09	3.29	<5.00	3.75	<5.00	<5.00	3.41	<5.00	3.58	4.06	4.00	4.01	3.69	3.63	3.83
Uranium	mg/L	<0.0050	0.0025	0.0025	<0.0025	<0.0025	<0.0025	0.0025	0.0025	0.0051	0.0044	<0.0050	<0.0050	<0.0025	<0.0050	0.0029	0.0025	<0.0025	<0.0025	<0.0050	<0.0025	0.0024
Zinc	mg/L	0.0294	0.0363	0.0347	0.0377	0.0404	0.0181	0.0385	0.0228	<0.0200	0.0229	<0.0200	<0.0200	<0.0100	<0.0200	0.0161	0.0258	<0.0100	0.0256	0.0215	0.0173	0.0140

Notes & Definitions:

- Historical data prior to 2021 can be found in earlier posted versions of this table
- | | |
|---|---|
| Y/N yes or no
gpm gallons per minute
deg C degrees Celsius
SU standard pH units
µS/cm microsiemens per centimeter
mV millivolts
mg/L milligram per liter
pCi/L picocuries per liter
NM not measured (field)
NA not analyzed (lab)
ng/L nanogram per liter | <ol style="list-style-type: none"> 1. "<" values denote that the quantification of that analyte is below the reporting level for the analytical laboratory, acceptable by environmental water quality laboratory industry standards. 2. Total alkalinity is measured by titration with hydrochloric acid to a set pH point, reporting this value as an equivalent amount of calcium carbonate. This value is then partitioned into bicarbonate, carbonate and hydroxide depending on the initial pH of the sample solution, each components reported as equivalent CaCO3. 3. Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table. |
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GCC Energy Hydrologic Monitoring Data

MW-4-A																						
Year		2021				2022				2023				2024				2025				2026
Quarter		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Month		2	5	8	11	2	5	9	11	3	6	8	11	2	6	8	11	2	5	8	11	2
Sample Date		2/10	5/18	8/10	11/10	2/23	5/11	9/1	11/17	3/9	6/15	8/7	11/16	2/12	6/20	8/13	11/22	2/7	5/14	8/17	11/3	2/2
Lab Analysis (Y/N)		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Field Parameters:																						
Purge Flow Rate	gpm	0.1	0.1	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.0	0.1	0.7	0.1	0.1	0.1	0.1	0.1
Total Purged	gal	1	1	2	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Depth to Water	ft bgs	335.46	335.72	335.93	336.16	336.01	336.31	336.74	337.16	337.66	330.46	335.36	335.49	335.38	335.96	335.81	337.98	337.81	337.86	337.87	337.73	337.41
Temperature	deg C	10.3	11.2	12.1	11.6	9.4	12.4	15.6	12.4	11.6	15.0	15.2	12.4	10.9	14.1	12.8	12.3	11.4	12.2	17.0	15.0	11.8
pH	SU	8.25	8.30	8.38	8.38	8.35	8.34	8.33	8.77	8.41	8.38	8.33	8.25	8.25	8.12	7.18	7.43	8.01	8.06	8.11	7.84	8.15
Specific Conductance	µS/cm	2052	1618	2205	2268	2294	2244	2236	2236	2090	2246	2171	2298	2291	2212	2249	2261	2394	2220	2269	2168	2241
Oxygen Reduction Potential	mV	29.0	-63.4	-48.7	-77.3	-153.2	-78.6	-203.9	-66.6	35.8	-41.9	-76.5	-167.0	-207.3	-80.1	4.7	-93.1	-37.0	-16.9	-156.9	265.7	211.7
Lab Analytical Results:																						
Hardness as CaCO3	mg/L	9	7	6	8	8	8	8	7	8	8	7	7	8	9	8	8	7	8	7	8	7
pH (Lab)	SU	8.04	8.15	8.09	8.21	8.24	8.24	8.50	8.29	8.10	8.12	8.23	8.30	8.07	8.21	7.62	7.92	8.03	8.05	8.02	7.99	8.17
Total Dissolved Solids (Lab)	mg/L	1370	1430	1510	1470	1400	1540	1480	1430	1390	1480	1480	1400	1350	1430	1500	1470	1420	1470	1230	1470	1420
Calcium	mg/L	2.0	1.7	1.4	1.8	1.9	1.9	2.0	1.7	1.7	1.8	1.6	1.8	1.8	2.1	2.0	1.9	1.6	1.6	1.5	1.7	1.5
Magnesium	mg/L	0.9	0.7	0.6	0.8	0.9	0.8	0.9	0.8	0.8	0.8	0.6	0.8	0.8	0.9	0.9	0.8	0.8	0.9	0.8	0.8	0.8
Sodium	mg/L	565.0	507.0	411.0	488.0	504.0	523.0	520.0	482.0	559.0	535.0	503.0	509.0	538.0	520.0	564.0	513.0	525.0	508.0	513.0	563.0	537.0
Potassium	mg/L	<5.00	<3.00	<5.00	<2.00	<2.00	<2.00	<2.00	<5.00	<5.00	1.24	<5.00	<5.00	<3.00	<2.00	1.53	1.53	<5.00	<5.00	<2.00	<2.00	<2.00
Alkalinity, Total	mg/L	620	590	580	670	535	605	590	480	569	579	562	515	555	585	615	590	590	555	530	590	505
Alkalinity, Bicarbonate	mg/L	620	530	580	670	485	455	590	480	531	579	524	515	545	585	615	590	590	465	530	590	495
Alkalinity, Carbonate	mg/L	<10.0	60.0	<10.0	<10.0	50.0	150.0	<10.0	<10.0	38.0	<10.0	38.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	90.0	<10.0	<10.0	<10.0
Alkalinity, Hydroxide	mg/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Chloride	mg/L	8.79	9.15	9.17	9.04	9.04	8.97	9.89	9.61	9.72	10.30	10.60	10.30	11.30	<25.0	10.10	10.10	10.00	10.10	9.57	9.97	9.69
Fluoride	mg/L	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.500	<0.500	0.165	<0.500	<0.500	<1.00	<2.50	<0.500	<0.500	<0.200	<0.500	<0.200	<0.200	<0.200
Sulfate as SO4	mg/L	561.0	577.0	593.0	551.0	581.0	525.0	580.0	590.0	602.0	594.0	571.0	583.0	586.0	576.0	586.0	570.0	592.0	552.0	535.0	543.0	545.0
Total Organic Carbon (TOC)	mg/L	3.42	3.42	3.23	3.28	3.31	3.32	3.40	1.99	3.78	3.35	3.44	2.86	3.69	3.34	3.53	3.47	3.34	3.13	3.51	3.21	3.34
Nitrate/Nitrite as N	mg/L	<0.020	<0.020	<0.020	<0.020	<0.020	0.255	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.025	<0.020	<0.020	<0.020	<0.020	0.050	0.423	<0.020
Aluminum	mg/L	<0.250	<0.150	<0.250	<0.100	<0.100	<0.100	<0.100	<0.250	<0.250	<0.250	<0.250	<0.250	<0.150	<0.100	<0.050	<0.050	<0.250	<0.250	<0.100	<0.100	<0.100
Arsenic	mg/L	<0.0025	0.0005	<0.0010	<0.0010	0.0008	<0.0010	<0.001	<0.001	<0.0025	<0.0025	<0.0025	<0.0025	<0.0050	<0.0020	<0.0010	<0.0020	<0.0020	<0.0020	<0.0050	<0.0020	<0.0020
Cadmium	mg/L	<0.0005	<0.0005	<0.0010	<0.0010	<0.0005	<0.0010	<0.001	<0.001	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0010	<0.0005	<0.0010	<0.0010	<0.0010	<0.0025	<0.0010	<0.0010
Copper	mg/L	0.0036	0.0135	0.0161	0.0126	0.0097	0.0133	0.0215	0.0213	0.0207	0.0201	0.0044	0.0108	0.0185	0.0204	0.0290	0.0303	0.0339	0.0273	0.0367	0.0236	0.0199
Iron	mg/L	<0.250	<0.150	<0.250	<0.100	<0.100	<0.100	<0.100	<0.250	<0.250	<0.250	<0.250	<0.250	<0.150	<0.100	<0.050	<0.050	<0.250	<0.250	<0.100	<0.100	<0.100
Lead	mg/L	<0.0025	<0.0005	<0.0010	<0.0010	<0.0005	<0.001	<0.002	<0.0010	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0010	<0.0005	<0.0010	<0.0025	0.0015	<0.0025	<0.0010	<0.0010
Manganese	mg/L	0.0029	0.0029	0.0030	0.0030	0.0032	0.0033	0.0035	0.0031	0.0036	0.0030	0.0032	0.0029	0.0029	0.0029	0.0027	0.0046	0.0029	0.0026	0.0030	0.0012	0.0025
Mercury (dissolved)	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002																
Mercury (dissolved low-level)	ng/L						<5	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Molybdenum	mg/L	<0.0025	<0.0005	<0.0010	<0.0010	<0.0005	<0.0010	<0.0010	<0.0010	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0010	<0.0005	<0.0010	<0.0010	<0.0010	<0.0025	<0.0010	<0.0010
Selenium	mg/L	<0.0050	<0.0010	<0.0020	<0.0040	0.0010	<0.0020	<0.0020	<0.0020	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0020	<0.0010	<0.0020	<0.0020	<0.0020	<0.0050	0.0023	<0.0020
Silica (SiO2)	mg/L	10.40	8.98	8.57	10.00	9.75	9.80	10.30	8.80	10.30	9.55	8.45	9.58	9.79	9.45	9.93	9.87	9.94	9.71	9.37	9.32	9.71
Silicon	mg/L	4.87	4.20	4.01	4.67	4.56	4.58	4.80	4.11	4.82	4.46	3.95	4.48	4.58	4.42	4.64	4.62	4.64	4.54	4.38	4.36	4.54
Uranium	mg/L	<0.0025	<0.0005	<0.0010	<0.0010	<0.0005	<0.0010	<0.0010	<0.0010	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0010	<0.0005	<0.0010	<0.0025	<0.0010	<0.0025	<0.0010	<0.0010
Zinc	mg/L	<0.0100	0.0021	<0.0040	<0.0040	<0.0020	<0.0040	<0.0040	<0.0040	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	0.0088	0.0058	0.0224	0.0323	0.0262	0.0290	0.0518	0.0097

Notes & Definitions:

- Historical data prior to 2021 can be found in earlier posted versions of this table
- | | |
|---|---|
| Y/N yes or no
gpm gallons per minute
deg C degrees Celsius
SU standard pH units
µS/cm microsiemens per centimeter
mV millivolts
mg/L milligram per liter
pCi/L picocuries per liter
NM not measured (field)
NA not analyzed (lab)
ng/L nanogram per liter | <ol style="list-style-type: none"> 1. "<" values denote that the quantification of that analyte is below the reporting level for the analytical laboratory, acceptable by environmental water quality laboratory industry standards. 2. Total alkalinity is measured by titration with hydrochloric acid to a set pH point, reporting this value as an equivalent amount of calcium carbonate. This value is then partitioned into bicarbonate, carbonate and hydroxide depending on the initial pH of the sample solution, each components reported as equivalent CaCO3. 3. Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table. |
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GCC Energy Hydrologic Monitoring Data

		MW-4-MI																				
Year		2021				2022				2023				2024				2025				2026
Quarter		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Month		2	5	8	11	2	5	9	11	3	5	8	11	2	6	8	11	2	5	8	11	2
Sample Date		2/10	5/18	8/10	11/10	2/23	5/11	9/1	11/17	3/9	5/31	8/7	11/16	2/12	6/20	8/13	11/22	2/7	5/14	8/17	11/3	2/2
Lab Analysis (Y/N)		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Field Parameters:																						
Purge Flow Rate	gpm	0.1	0.1	0.3	0.3	0.3	0.3	0.2	0.1	0.2	0.1	0.9	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
Total Purged	gal	2	1	2	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Depth to Water	ft bgs	333.22	329.27	333.57	333.65	333.45	333.80	334.22	334.15	334.35	334.85	335.30	335.55	335.18	335.80	335.72	335.30	335.00	334.71	334.76	334.40	
Temperature	deg C	10.8	11.6	12.1	11.7	11.0	12.0	13.0	11.5	11.5	12.9	12.5	12.1	10.9	12.5	12.7	12.4	11.2	11.7	15.0	12.7	
pH	SU	8.57	8.60	8.59	8.59	8.46	8.56	8.51	7.87	8.62	8.62	8.62	8.53	8.08	7.63	7.61	8.20	8.49	8.56	8.31	8.31	
Specific Conductance	µS/cm	1605	1258	1711	1761	1745	1727	1718	1749	1673	1728	1710	1791	1784	1695	1712	1780	1866	1726	1419	1649	
Oxygen Reduction Potential	mV	-53.9	-105.9	-97.8	-118.1	-141.5	-128.8	-247.1	-131.9	85.0	-139.7	-81.2	-267.6	-266.9	-140.8	-93.9	-157.0	-182.8	-142.8	-308.6	21.8	
Lab Analytical Results:																						
Hardness as CaCO3	mg/L	5	4	5	5	4	4	5	<3.31	4	4	<3.31	4	4	5	5	5	5	<3.31	4	5	
pH (Lab)	SU	8.21	8.38	8.28	8.59	8.35	8.42	8.68	8.48	8.25	8.41	8.44	8.59	7.39	8.23	8.26	8.37	8.49	8.40	8.18	7.94	
Total Dissolved Solids (Lab)	mg/L	1130	1100	1130	1090	1100	1140	1070	1060	1030	1030	1060	1050	1000	1030	1120	1070	1030	1110	1060	1070	
Calcium	mg/L	2.0	1.1	1.2	1.1	1.1	1.1	1.1	1.0	1.0	1.0	0.8	1.0	1.0	1.4	1.3	1.4	1.3	1.2	1.1	1.3	
Magnesium	mg/L	<0.500	0.3	0.4	0.4	0.4	0.3	0.4	<0.500	0.3	0.4	<0.500	0.4	0.3	0.4	0.4	0.4	0.4	<0.500	0.4	0.4	
Sodium	mg/L	476.0	431.0	427.0	418.0	430.0	443.0	448.0	384.0	468.0	427.0	428.0	424.0	439.0	427.0	440.0	450.0	466.0	443.0	462.0	487.0	
Potassium	mg/L	<5.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<5.00	<2.00	<2.00	<5.00	<2.00	<2.00	<2.00	1.39	1.33	1.81	<5.00	1.45	<2.00	
Alkalinity, Total	mg/L	990	1020	985	1140	935	1020	1180	920	1040	965	955	985	975	1040	1070	1090	1020	980	960	1030	
Alkalinity, Bicarbonate	mg/L	910	900	865	1020	825	870	1040	720	980	865	907	945	975	995	1020	905	920	840	940	1030	
Alkalinity, Carbonate	mg/L	80.0	120.0	120.0	120.0	110.0	150.0	140.0	200.0	60.0	100.0	48.0	40.0	<10.0	40.0	50.0	180.0	100.0	140.0	20.0	<10.0	
Alkalinity, Hydroxide	mg/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	
Chloride	mg/L	4.89	4.85	4.91	4.98	4.55	4.36	4.29	<5.00	25.40	3.91	<5.00	3.62	<5.00	3.46	3.36	<5.00	3.25	<5.00	3.14	3.23	
Fluoride	mg/L	4.920	5.030	5.200	4.780	5.160	4.730	5.420	5.130	5.420	5.310	4.320	4.830	5.080	5.660	5.570	5.740	5.810	5.180	5.000	4.620	
Sulfate as SO4	mg/L	17.1	16.1	16.4	13.7	13.4	12.4	12.7	11.7	21.8	10.1	<5.00	8.2	8.5	9.0	8.9	9.3	9.4	8.4	7.8	6.4	
Total Organic Carbon (TOC)	mg/L	5.78	5.36	5.29	5.09	4.80	4.28	4.73	2.31	4.82	4.52	4.06	4.05	4.07	3.57	3.53	3.66	3.51	3.14	4.49	3.69	
Nitrate/Nitrite as N	mg/L	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	
Aluminum	mg/L	<0.250	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.250	<0.100	<0.100	<0.250	<0.100	<0.100	<0.100	<0.050	<0.050	<0.050	<0.250	<0.050	<0.100	
Arsenic	mg/L	0.0088	0.0110	0.0099	0.0093	0.0120	0.0092	0.0094	0.0090	0.0100	0.0074	0.0090	0.0101	0.0079	0.0082	0.0078	0.0088	0.0093	0.0059	0.0074	0.0059	
Cadmium	mg/L	<0.0005	<0.0005	<0.0010	<0.0010	<0.0005	<0.0010	<0.0010	<0.0010	<0.0010	<0.0025	<0.0025	<0.0010	<0.0010	<0.0010	<0.0005	<0.0005	<0.0005	<0.0010	<0.0010	<0.0010	
Copper	mg/L	0.0040	0.0103	0.0134	0.0107	0.0116	0.0107	0.0177	0.0177	0.0196	0.0049	0.0039	0.0086	0.0159	0.0165	0.0258	0.0191	0.0147	0.0146	0.0207	0.0169	
Iron	mg/L	<0.250	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.250	<0.100	<0.100	<0.250	<0.100	<0.100	<0.100	<0.050	<0.050	<0.050	<0.250	<0.050	<0.100	
Lead	mg/L	<0.0025	<0.0005	<0.0010	<0.0010	<0.0005	<0.0010	<0.002	<0.0010	<0.001	<0.0025	<0.0025	<0.0010	<0.0010	<0.0010	<0.0005	<0.0005	<0.0010	<0.0010	<0.0010	<0.0010	
Manganese	mg/L	0.0094	0.0073	0.0075	0.0077	0.0076	0.0080	0.0078	0.0084	0.0076	0.0077	0.0079	0.0074	0.0080	0.0116	0.0079	0.0103	0.0093	0.0086	0.0116	0.0117	
Mercury (dissolved)	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002																
Mercury (dissolved low-level)	ng/L						<5	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	
Molybdenum	mg/L	0.0082	0.0076	0.0068	0.0065	0.0065	0.0062	0.0064	0.0064	0.0060	0.0052	0.0051	0.0050	0.0048	0.0046	0.0045	0.0041	0.0043	0.0043	0.0354	0.0183	
Selenium	mg/L	0.0143	<0.0010	<0.0020	<0.0040	<0.0010	<0.0020	<0.0020	<0.0020	<0.0020	<0.0050	<0.0050	<0.0020	<0.0020	<0.0020	<0.0010	<0.0010	0.0023	<0.0020	<0.0020	0.0153	
Silica (SiO2)	mg/L	9.26	7.82	8.69	8.54	8.49	8.30	8.76	6.89	9.27	8.23	6.72	8.64	8.09	8.08	8.97	9.45	9.81	9.23	8.81	8.56	
Silicon	mg/L	4.33	3.66	4.06	3.99	3.97	3.88	4.09	3.22	4.34	3.85	3.14	4.04	3.78	3.78	4.20	4.42	4.59	4.31	4.12	4.00	
Uranium	mg/L	0.0137	0.0115	0.0112	0.0097	0.0089	0.0086	0.0084	0.0088	0.0075	0.0063	0.0063	0.0070	0.0079	0.0051	0.0065	0.0052	0.0052	0.0050	0.0045	0.0035	
Zinc	mg/L	<0.0100	<0.0020	<0.0040	<0.0040	<0.0020	<0.0040	<0.0040	<0.0040	0.0044	<0.0100	<0.0100	<0.0040	<0.0040	<0.0040	<0.0020	0.0036	<0.0020	0.0085	0.0094	0.0117	

Notes & Definitions:

- Historical data prior to 2021 can be found in earlier posted versions of this table*
- | | | | |
|-------|-----------------------------|----|---|
| Y/N | yes or no | 1. | "<" values denote that the quantification of that analyte is below the reporting level for the analytical laboratory, acceptable by environmental water quality laboratory industry standards. |
| gpm | gallons per minute | 2. | Total alkalinity is measured by titration with hydrochloric acid to a set pH point, reporting this value as an equivalent amount of calcium carbonate. This value is then partitioned into bicarbonate, carbonate and hydroxide depending on the initial pH of the sample solution, each components reported as equivalent CaCO3. |
| deg C | degrees Celsius | 3. | Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table. |
| SU | standard pH units | | |
| µS/cm | microsiemens per centimeter | | |
| mV | millivolts | | |
| mg/L | milligram per liter | | |
| pCi/L | picocuries per liter | | |
| NM | not measured (field) | | |
| NA | not analyzed (lab) | | |
| ng/L | nanogram per liter | | |

GCC Energy Hydrologic Monitoring Data

MW-4-C																						
Year		2021				2022				2023				2024				2025				2026
Quarter		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Month		2	5	8	11	2	5	9	11	3	5	8	11	2	6	8	11	2	5	8	11	2
Sample Date		2/10	5/18	8/10	11/10	2/23	5/11	9/1	11/17	3/9	5/31	8/18	11/16	2/12	6/20	8/13	11/22	2/7	5/14	8/18	11/3	2/24
Lab Analysis (Y/N)		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Field Parameters:																						
Purge Flow Rate	gpm	0.1	0.1	0.1	0.1	0.3	0.3	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
Total Purged	gal	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Depth to Water	ft bgs	308.65	308.58	309.32	309.90	309.80	311.45	310.88	311.37	310.15	311.45	311.85	311.55	311.35	310.24	311.74	311.77	312.30	311.85	312.05	312.60	313.50
Temperature	deg C	10.0	11.4	12.3	11.7	10.3	12.2	13.8	12.1	11.1	13.8	13.7	12.4	11.0	12.8	12.7	11.3	11.1	12.1	15.6	11.9	11.9
pH	SU	8.02	8.05	8.12	8.11	8.06	8.05	8.06	8.28	8.15	8.09	8.17	8.02	8.00	7.91	7.98	7.96	7.90	7.96	8.15	8.09	7.89
Specific Conductance	µS/cm	5106	4047	5454	5687	5698	5645	5589	5649	5116	5678	5560	5842	5792	5580	5751	5761	6075	5662	5619	5468	5642
Oxygen Reduction Potential	mV	-106.2	-100.6	-142.3	-173.0	-255.6	-178.7	-278.7	-161.3	-158.1	-168.9	-182.7	-255.3	-250.2	-190.4	-194.8	-231.9	-182.9	-190.8	-93.6	-134.6	-83.6
Lab Analytical Results:																						
Hardness as CaCO3	mg/L	26	20	22	21	22	21	26	20	21	21	24	22	24	21	24	24	22	23	23	24	20
pH (Lab)	SU	7.96	7.97	7.96	8.08	8.01	8.07	8.19	8.15	7.98	8.12	8.04	8.13	7.65	8.01	8.05	7.94	7.99	7.97	8.13	8.11	8.16
Total Dissolved Solids (Lab)	mg/L	3720	3540	3600	3630	3520	3580	3670	3530	3620	3450	3390	3560	3420	3490	3590	3510	3500	3510	3570	3590	3620
Calcium	mg/L	6.0	4.6	5.1	4.8	5.0	5.1	6.0	4.7	4.8	4.8	5.7	5.2	5.5	4.9	5.5	5.6	5.2	5.2	5.3	5.6	4.6
Magnesium	mg/L	2.6	2.0	2.3	2.2	2.3	2.1	2.7	2.1	2.2	2.2	2.5	2.2	2.4	2.1	2.4	2.4	2.2	2.4	2.3	2.5	2.1
Sodium	mg/L	1520.0	1310.0	1340.0	1270.0	1360.0	1350.0	1530.0	1290.0	1410.0	1360.0	1440.0	1360.0	1410.0	1370.0	1480.0	1370.0	1440.0	1370.0	1390.0	1560.0	1300.0
Potassium	mg/L	<10.0	<6.00	<5.00	<5.00	<5.00	<5.00	<5.00	<10.0	<10.0	<10.0	<10.0	<10.0	<6.00	4.13	4.32	4.71	<5.00	<5.00	4.33	<5.00	<5.00
Alkalinity, Total	mg/L	2470	2500	2410	2630	2360	2500	2430	2250	2580	2240	2460	2460	2350	2580	2620	2410	2460	2420	2470	2440	2550
Alkalinity, Bicarbonate	mg/L	2430	2360	2290	2410	2180	2300	2430	2250	2490	2240	2330	2420	2330	2380	2280	2410	2320	2160	2310	2340	2390
Alkalinity, Carbonate	mg/L	40.0	140.0	120.0	220.0	180.0	200.0	<10.0	<10.0	90.0	<10.0	130.0	40.0	20.0	200.0	340.0	<10.0	140.0	260.0	160.0	100.0	160.0
Alkalinity, Hydroxide	mg/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Chloride	mg/L	557.00	553.00	572.00	561.00	562.00	563.00	570.00	583.00	576.00	581.00	566.00	586.00	575.00	579.00	573.00	548.00	597.00	515.00	571.00	586.00	571.00
Fluoride	mg/L	2.210	2.160	2.280	2.040	2.260	2.020	2.340	2.220	2.230	2.150	2.100	2.020	1.750	2.740	2.370	3.200	2.730	2.230	2.290	2.200	2.240
Sulfate as SO4	mg/L	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<10.0	<10.0	<5.00	<10.0	<10.0	11.1	<10.0	<10.0	<2.00	<5.00	<10.0	<5.00	<5.00	<5.00
Total Organic Carbon (TOC)	mg/L	4.57	4.92	4.81	4.70	5.93	4.91	4.39	3.19	4.75	5.54	7.10	19.60	6.25	5.89	6.08	6.76	6.52	4.21	6.16	5.76	7.59
Nitrate/Nitrite as N	mg/L	<0.020	<0.020	<0.020	<0.020	<0.040	<0.020	<0.100	<0.020	<0.020	<0.020	<0.020	<0.020	0.252	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Aluminum	mg/L	<0.500	<0.300	<0.250	<0.250	<0.250	<0.250	<0.250	<0.500	<0.500	<0.500	<0.500	<0.500	<0.300	<0.100	<0.050	<0.050	<0.250	<0.250	0.541	0.342	<0.250
Arsenic	mg/L	0.0177	0.0212	0.0248	0.0213	0.0213	0.0172	0.0219	0.0207	0.0218	0.0155	0.0237	0.0179	0.0181	0.0221	0.0215	0.0211	0.0221	0.0202	0.0255	0.0259	0.0261
Cadmium	mg/L	<0.0010	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0008	<0.0015	<0.0025	<0.0025	<0.0050	<0.0025	0.0008
Copper	mg/L	0.0111	0.0464	0.0499	0.0370	0.0302	0.0371	0.0618	0.0573	0.0606	0.0160	0.0731	0.0292	0.0487	0.0566	0.0641	0.0624	0.0656	0.0492	0.0612	0.0580	0.0544
Iron	mg/L	0.837	0.355	0.793	0.551	0.598	0.801	0.795	<0.500	0.731	0.572	0.630	0.604	<0.300	0.604	0.682	0.722	0.551	0.579	0.234	0.446	0.337
Lead	mg/L	<0.0050	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0050	<0.0025	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0005	<0.0015	<0.0025	<0.0025	<0.0050	<0.0025	<0.0005
Manganese	mg/L	0.0059	0.0063	0.0050	0.0047	0.0051	0.0046	0.0049	0.0046	<0.0050	<0.0050	<0.0050	<0.0050	0.0067	<0.0050	0.0034	0.0081	0.0041	0.0034	0.0064	0.0059	0.0030
Mercury (dissolved)	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002																
Mercury (dissolved low-level)	ng/L						<5	<500	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Molybdenum	mg/L	<0.0050	0.0037	0.0031	0.0031	0.0033	0.0031	0.0036	0.0034	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0028	0.0035	0.0027	<0.0025	0.0118	0.0112	0.0029
Selenium	mg/L	<0.0100	0.0186	0.0280	0.0269	0.0219	0.0146	0.0218	0.0256	0.0258	0.0194	0.0119	0.0216	0.0271	0.0303	0.0276	0.0274	0.0250	0.0377	0.0397	0.0353	0.0338
Silica (SiO2)	mg/L	10.80	8.35	9.54	9.37	9.28	8.56	10.40	<10.7	<10.7	<10.7	<10.7	<10.7	9.10	8.50	10.90	9.87	9.77	9.37	11.20	12.20	8.56
Silicon	mg/L	5.06	3.91	4.46	4.38	4.34	4.00	4.87	<5.00	<5.00	<5.00	<5.00	<5.00	4.24	3.95	5.10	4.61	4.57	4.38	5.23	5.68	4.00
Uranium	mg/L	<0.0050	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	0.0009	<0.0015	<0.0025	<0.0025	<0.0050	<0.0025	0.0007
Zinc	mg/L	<0.0200	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0020	<0.0060	0.0183	<0.0100	0.0205	0.0157	<0.0020

Notes & Definitions:

- | | |
|--|---|
| <p>Y/N yes or no</p> <p>gpm gallons per minute</p> <p>deg C degrees Celsius</p> <p>SU standard pH units</p> <p>µS/cm microsiemens per centimeter</p> <p>mV millivolts</p> <p>mg/L milligram per liter</p> <p>pCi/L picocuries per liter</p> <p>NM not measured (field)</p> <p>NA not analyzed (lab)</p> <p>ng/L nanogram per liter</p> | <p style="color: red; font-weight: bold;">Historical data prior to 2021 can be found in earlier posted versions of this table</p> <ol style="list-style-type: none"> 1. "<" values denote that the quantification of that analyte is below the reporting level for the analytical laboratory, acceptable by environmental water quality laboratory industry standards. 2. Total alkalinity is measured by titration with hydrochloric acid to a set pH point, reporting this value as an equivalent amount of calcium carbonate. This value is then partitioned into bicarbonate, carbonate and hydroxide depending on the initial pH of the sample solution, each components reported as equivalent CaCO3. 3. Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table. |
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GCC Energy Hydrologic Monitoring Data

		MW-6-A																				
Year		2021				2022				2023				2024				2025				2026
Quarter		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Month		2	5	8	11	2	5	8	11	3	5	8	11	2	6	8	11	2	5	8	11	2
Sample Date		2/9	5/17	8/9	11/9	2/15	5/10	8/31	11/25	3/13	5/18	8/8	11/16	2/5	6/19	8/13	11/21	2/7	5/14	8/17	11/3	2/24
Lab Analysis (Y/N)		Y	Y	Y	Y	Y	Y	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Field Parameters:																						
Purge Flow Rate	gpm	0.1	0.0	0.1	0.0	0.1	0.1															
Total Purged	gal	1	1	1	1	1	1															
Depth to Water	ft bgs	319.66	319.66	319.64	319.66	320.30	320.68	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	
Temperature	deg C	9.7	12.6	19.4	10.7	11.5	17.3															
pH	SU	7.03	7.10	7.11	7.11	7.02	7.05															
Specific Conductance	µS/cm	4051	3198	4238	4465	4486	4477															
Oxygen Reduction Potential	mV	73.5	83.5	5.2	26.5	-56.1	2.4															
Lab Analytical Results:																						
Hardness as CaCO3	mg/L	2660	2550	2740	2510	2440	2490															
pH (Lab)	SU	7.20	6.93	7.10	6.98	7.19	7.26															
Total Dissolved Solids (Lab)	mg/L	4480	4390	4440	4310	4440	4450															
Calcium	mg/L	398.0	378.0	415.0	370.0	359.0	365.0															
Magnesium	mg/L	404.0	390.0	413.0	385.0	374.0	383.0															
Sodium	mg/L	272.0	266.0	263.0	254.0	257.0	268.0															
Potassium	mg/L	11.10	10.70	11.00	10.40	10.70	10.60															
Alkalinity, Total	mg/L	245	290	255	295	285	270															
Alkalinity, Bicarbonate	mg/L	245	290	255	295	285	270															
Alkalinity, Carbonate	mg/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0															
Alkalinity, Hydroxide	mg/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0															
Chloride	mg/L	24.90	25.80	26.00	26.60	26.20	26.10															
Fluoride	mg/L	<0.500	<0.500	<0.500	<0.500	<0.500	<0.500															
Sulfate as SO4	mg/L	2620.0	2740.0	2780.0	2790.0	2870.0	2820.0															
Total Organic Carbon (TOC)	mg/L	1.71	3.82	3.33	3.25	3.26	3.14															
Nitrate/Nitrite as N	mg/L	0.039	0.156	0.118	0.096	0.131	0.103															
Aluminum	mg/L	<0.250	<0.250	<0.250	<0.250	<0.250	<0.250															
Arsenic	mg/L	<0.0025	<0.0025	<0.0025	<0.0025	<0.0020	<0.0025															
Cadmium	mg/L	<0.0005	<0.0025	<0.0025	<0.0025	<0.0020	<0.0025															
Copper	mg/L	<0.0025	0.0068	0.0082	0.0063	0.0065	0.0093															
Iron	mg/L	1.170	0.890	1.480	1.150	1.410	1.370															
Lead	mg/L	<0.0025	<0.0025	<0.0025	<0.0025	<0.0020	<0.0025															
Manganese	mg/L	0.4370	0.3970	0.4070	0.3910	0.4200	0.4310															
Mercury (dissolved)	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002															
Mercury (dissolved low-level)	ng/L						<5.00															
Molybdenum	mg/L	<0.0025	<0.0025	<0.0025	<0.0025	<0.0020	<0.0025															
Selenium	mg/L	<0.0050	<0.0050	<0.0050	<0.0100	<0.0040	<0.0050															
Silica (SiO2)	mg/L	11.90	13.20	14.30	13.60	12.70	12.30															
Silicon	mg/L	5.58	6.17	6.67	6.36	5.96	5.73															
Uranium	mg/L	<0.0025	<0.0025	<0.0025	<0.0025	<0.0020	<0.0025															
Zinc	mg/L	<0.0100	<0.0100	<0.0100	<0.0100	<0.0080	<0.0100															

Notes & Definitions:

Historical data prior to 2021 can be found in earlier posted versions of this table

- * Anomalous value under review
- Y/N yes or no
- gpm gallons per minute
- deg C degrees Celsius
- SU standard pH units
- µS/cm microsiemens per centimeter
- mV millivolts
- mg/L milligram per liter
- pCi/L picocuries per liter
- NM not measured (field)
- NA not analyzed (lab)
- ng/L nanogram per liter

1. "<" values denote that the quantification of that analyte is below the reporting level for the analytical laboratory, acceptable by environmental water quality laboratory industry standards.
2. Total alkalinity is measured by titration with hydrochloric acid to a set pH point, reporting this value as an equivalent amount of calcium carbonate. This value is then partitioned into bicarbonate, carbonate and hydroxide depending on the initial pH of the sample solution, each components reported as equivalent CaCO3.
3. Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table.

GCC Energy Hydrologic Monitoring Data

		MW-6-MI																				
Year		2021				2022				2023				2024				2025				2026
Quarter		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Month		2	5	8	11	2	5	8	11	3	5	8	11	2	6	8	11	2	5	8	11	2
Sample Date		2/9	5/17	8/9	11/9	2/15	5/10	8/1	11/25	3/13	5/31	8/8	11/16	2/5	6/19	8/13	11/21	2/7	5/14	8/17	11/3	2/24
Lab Analysis (Y/N)		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Field Parameters:																						
Purge Flow Rate	gpm																					
Total Purged	gal																					
Depth to Water	ft bgs																					
Temperature	deg C	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry	dry
pH	SU																					
Specific Conductance	µS/cm																					
Oxygen Reduction Potential	mV																					
Lab Analytical Results:																						
Hardness as CaCO3	mg/L																					
pH (Lab)	SU																					
Total Dissolved Solids (Lab)	mg/L																					
Calcium	mg/L																					
Magnesium	mg/L																					
Sodium	mg/L																					
Potassium	mg/L																					
Alkalinity, Total	mg/L																					
Alkalinity, Bicarbonate	mg/L																					
Alkalinity, Carbonate	mg/L																					
Alkalinity, Hydroxide	mg/L																					
Chloride	mg/L																					
Fluoride	mg/L																					
Sulfate as SO4	mg/L																					
Total Organic Carbon (TOC)	mg/L																					
Nitrate/Nitrite as N	mg/L																					
Aluminum	mg/L																					
Arsenic	mg/L																					
Cadmium	mg/L																					
Copper	mg/L																					
Iron	mg/L																					
Lead	mg/L																					
Manganese	mg/L																					
Mercury (dissolved)	mg/L																					
Mercury (dissolved low-level)	ng/L																					
Molybdenum	mg/L																					
Selenium	mg/L																					
Silica (SiO2)	mg/L																					
Silicon	mg/L																					
Uranium	mg/L																					
Zinc	mg/L																					

Notes & Definitions:

Historical data prior to 2021 can be found in earlier posted versions of this table

- | | | |
|-------|-----------------------------|--|
| Y/N | yes or no | |
| gpm | gallons per minute | |
| deg C | degrees Celsius | |
| SU | standard pH units | |
| µS/cm | microsiemens per centimeter | |
| mV | millivolts | |
| mg/L | milligram per liter | |
| pCi/L | picocuries per liter | |
| NM | not measured (field) | |
| NA | not analyzed (lab) | |
| ng/L | nanogram per liter | |
1. "<" values denote that the quantification of that analyte is below the reporting level for the analytical laboratory, acceptable by environmental water quality laboratory industry standards.
 2. Total alkalinity is measured by titration with hydrochloric acid to a set pH point, reporting this value as an equivalent amount of calcium carbonate. This value is then partitioned into bicarbonate, carbonate and hydroxide depending on the initial pH of the sample solution, each components reported as equivalent CaCO3.
 3. Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table.

GCC Energy Hydrologic Monitoring Data

		MW-6-C																				
Year		2021				2022				2023				2024				2025				2026
Quarter		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Month		2	5	8	11	2	5	8	11	3	5	8	11	2	6	8	11	2	5	8	11	2
Sample Date		2/9	5/17	8/9	11/9	2/15	5/10	8/1	11/25	3/13	5/18	8/8	11/16	2/5	6/19	8/13	11/21	2/7	5/14	8/17	11/3	2/2
Lab Analysis (Y/N)		N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N	N
Field Parameters:																						
Purge Flow Rate	gpm																					
Total Purged	gal																					
Depth to Water	ft bgs																					
Temperature	deg C																					
pH	SU																					
Specific Conductance	µS/cm																					
Oxygen Reduction Potential	mV																					
Lab Analytical Results:																						
Hardness as CaCO3	mg/L																					
pH (Lab)	SU																					
Total Dissolved Solids (Lab)	mg/L																					
Calcium	mg/L																					
Magnesium	mg/L																					
Sodium	mg/L																					
Potassium	mg/L																					
Alkalinity, Total	mg/L																					
Alkalinity, Bicarbonate	mg/L																					
Alkalinity, Carbonate	mg/L																					
Alkalinity, Hydroxide	mg/L																					
Chloride	mg/L																					
Fluoride	mg/L																					
Sulfate as SO4	mg/L																					
Total Organic Carbon (TOC)	mg/L																					
Nitrate/Nitrite as N	mg/L																					
Aluminum	mg/L																					
Arsenic	mg/L																					
Cadmium	mg/L																					
Copper	mg/L																					
Iron	mg/L																					
Lead	mg/L																					
Manganese	mg/L																					
Mercury (dissolved)	mg/L																					
Mercury (dissolved low-level)	ng/L																					
Molybdenum	mg/L																					
Selenium	mg/L																					
Silica (SiO2)	mg/L																					
Silicon	mg/L																					
Uranium	mg/L																					
Zinc	mg/L																					

Notes & Definitions:

Historical data prior to 2021 can be found in earlier posted versions of this table

- | | | |
|-------|-----------------------------|--|
| Y/N | yes or no | |
| gpm | gallons per minute | |
| deg C | degrees Celsius | |
| SU | standard pH units | |
| µS/cm | microsiemens per centimeter | |
| mV | millivolts | |
| mg/L | milligram per liter | |
| pCi/L | picocuries per liter | |
| NM | not measured (field) | |
| NA | not analyzed (lab) | |
| ng/L | nanogram per liter | |
1. "<" values denote that the quantification of that analyte is below the reporting level for the analytical laboratory, acceptable by environmental water quality laboratory industry standards.
 2. Total alkalinity is measured by titration with hydrochloric acid to a set pH point, reporting this value as an equivalent amount of calcium carbonate. This value is then partitioned into bicarbonate, carbonate and hydroxide depending on the initial pH of the sample solution, each components reported as equivalent CaCO3.
 3. Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table.

GCC Energy Hydrologic Monitoring Data

		MW-6-LM																				
Year		2021				2022				2023				2024				2025				2026
Quarter	Month	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Sample Date	Month	2/9	5/17	8/9	11/9	2/15	5/10	8/31	11/25	3/13	5/31	8/8	11/16	2/12	6/19	8/13	11/21	2/7	5/14	8/17	11/3	2/2
Lab Analysis (Y/N)	Month	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Field Parameters:																						
Purge Flow Rate	gpm	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.0	0.1	0.1	0.2	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.1
Total Purged	gal	2	2	2	2	1	2	1	1	1	2	1	1	1	1	1	1	1	1	1	1	1
Depth to Water	ft bgs	539.78	540.20	541.25	541.34	541.00	541.30	542.20	541.30	541.37	541.50	541.88	541.85	541.65	541.65	541.97	542.05	541.85	541.80	542.10	542.10	542.00
Temperature	deg C	10.2	11.6	14.4	11.1	11.0	11.8	13.1	10.4	8.7	14.4	13.5	10.9	8.7	12.2	16.0	9.3	11.0	11.5	14.8	13.0	11.3
pH	SU	7.44	7.54	7.52	7.49	7.46	7.56	7.64	7.70	7.77	7.58	7.67	7.55	7.65	7.36	7.49	7.48	7.57	7.39	7.72	7.50	7.50
Specific Conductance	µS/cm	2136	1629	2531	2478	2362	2297	2053	1889	1599	1321	1525	1655	1498	1153	1030	997	886	770	729	718	771
Oxygen Reduction Potential	mV	3.5	-188.8	-2.6	-36.6	-135.8	-112.6	-181.6	-132.5	-80.3	-41.7	-75.3	-173.0	-249.9	-122.1	-77.2	-229.4	-157.6	-62.9	-261.4	91.6	78.5
Lab Analytical Results:																						
Hardness as CaCO3	mg/L	1120	1010	1280	1130	1030	954	971	870	687	456	573	621	535	414	335	282	213	200	190	174	211
pH (Lab)	SU	7.49	7.45	7.37	7.57	7.54	7.60	7.90	7.60	7.75	7.58	7.79	7.76	7.48	7.24	7.73	7.54	7.65	7.82	7.90	7.71	7.66
Total Dissolved Solids (Lab)	mg/L	1990	1830	2290	2050	1990	1840	1870	1620	1290	940	1030	1060	940	755	680	575	440	445	425	410	400
Calcium	mg/L	176.0	154.0	201.0	174.0	159.0	145.0	152.0	133.0	109.0	76.8	91.5	99.1	86.9	70.5	58.1	49.2	39.8	38.2	35.6	33.1	42.0
Magnesium	mg/L	166.0	152.0	189.0	170.0	154.0	144.0	143.0	131.0	101.0	64.2	83.5	90.6	77.2	57.8	46.2	38.6	27.5	25.4	24.5	22.1	25.7
Sodium	mg/L	188.0	169.0	177.0	166.0	162.0	158.0	163.0	150.0	139.0	125.0	128.0	132.0	131.0	123.0	122.0	119.0	115.0	105.0	102.0	106.0	92.5
Potassium	mg/L	5.96	5.22	5.69	4.99	5.22	<5.00	4.84	4.34	4.04	3.14	<5.00	3.34	3.47	3.11	2.89	2.63	2.48	2.55	2.94	2.65	3.53
Alkalinity, Total	mg/L	336	346	330	380	365	365	337	310	368	470	390	355	355	360	430	410	440	405	400	410	360
Alkalinity, Bicarbonate	mg/L	336	346	330	380	365	365	337	310	368	470	390	355	355	360	430	410	440	405	400	410	360
Alkalinity, Carbonate	mg/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Alkalinity, Hydroxide	mg/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Chloride	mg/L	11.00	10.50	12.60	11.10	10.50	10.90	10.70	9.29	6.75	5.09	5.75	6.09	6.04	4.47	3.61	3.06	2.18	<1.00	2.08	2.06	2.23
Fluoride	mg/L	0.318	0.340	0.418	0.306	0.328	<0.500	0.310	0.322	0.328	0.254	<0.200	0.240	<0.500	0.306	0.316	0.335	0.344	<0.100	0.259	0.266	0.227
Sulfate as SO4	mg/L	1020.0	978.0	1300.0	1100.0	555.0	931.0	1010.0	848.0	563.0	366.0	500.0	534.0	451.0	298.0	209.0	144.0	63.0	8.5	46.3	30.2	56.0
Total Organic Carbon (TOC)	mg/L	3.17	1.81	1.91	1.94	1.83	1.74	2.08	1.29	2.13	<2.5	1.66	0.76	1.70	1.74	1.36	1.36	1.13	1.21	1.28	1.35	1.14
Nitrate/Nitrite as N	mg/L	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.022	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.026	0.031
Aluminum	mg/L	<0.250	<0.150	<0.100	<0.100	<0.250	<0.250	<0.100	<0.100	<0.100	<0.100	<0.250	<0.100	<0.100	<0.100	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Arsenic	mg/L	0.0038	0.0038	0.0039	0.0038	0.0042	0.0034	0.0034	0.0043	0.0054	0.0030	<0.0025	0.0040	0.0052	0.0030	0.0030	0.0030	0.0027	0.0020	0.0017	0.0015	0.0032
Cadmium	mg/L	<0.0005	<0.0015	<0.0010	<0.0010	<0.0010	<0.0025	<0.001	<0.0010	<0.0025	<0.0010	<0.0025	<0.0010	<0.0010	<0.0010	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Copper	mg/L	<0.0025	0.0042	0.0046	0.0040	0.0044	0.0038	0.0054	0.0030	0.0100	0.0016	<0.0025	0.0032	0.0060	0.0050	0.0135	0.0088	0.0106	0.0031	0.0232	0.0074	0.0031
Iron	mg/L	<0.250	<0.150	<0.100	<0.100	<0.250	<0.250	<0.100	<0.100	0.152	<0.1	<0.250	<0.100	<0.100	<0.100	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Lead	mg/L	<0.0025	<0.0015	<0.0010	<0.0010	<0.0010	<0.0025	<0.001	<0.0010	<0.0025	<0.001	<0.0025	<0.0010	<0.0025	<0.0010	<0.0005	0.0008	0.0011	<0.0005	0.0021	<0.0005	<0.0005
Manganese	mg/L	0.2530	0.2030	0.2570	0.2630	0.3390	0.2490	0.1740	0.2200	0.2210	0.0961	0.1110	0.0727	0.2150	0.0820	0.0359	0.0719	0.0411	0.0302	<0.0010	0.0009	0.0315
Mercury (dissolved)	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002																
Mercury (dissolved low-level)	ng/L						<5	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Molybdenum	mg/L	<0.0025	<0.0015	0.0016	0.0013	0.0013	<0.0025	0.0014	0.0011	<0.0025	<0.0010	<0.0025	<0.0010	<0.0010	<0.0010	0.0007	0.0005	<0.0005	<0.0005	0.0005	<0.0005	0.0005
Selenium	mg/L	0.0151	<0.0030	<0.0020	<0.0040	<0.0020	<0.0050	0.0028	0.0026	0.0060	0.0028	<0.0050	0.0031	<0.0020	0.0241	<0.0010	<0.0010	0.0132	0.0244	<0.0010	<0.0010	0.0034
Silica (SiO2)	mg/L	15.60	16.40	16.80	16.60	16.00	15.50	17.30	16.70	16.80	17.40	16.30	17.20	16.40	17.20	18.20	16.90	17.70	18.00	19.10	17.00	18.90
Silicon	mg/L	7.30	7.68	7.85	7.75	7.49	7.24	8.07	7.80	7.84	8.12	7.64	8.06	7.68	8.02	8.52	7.92	8.27	8.42	8.91	7.93	8.81
Uranium	mg/L	0.0039	0.0030	0.0037	0.0032	0.0028	0.0025	0.0026	0.0025	<0.0025	0.0011	<0.0025	0.0020	<0.0025	0.0012	0.0009	0.0006	<0.0010	<0.0005	<0.0005	<0.0005	<0.0005
Zinc	mg/L	<0.0100	<0.0060	<0.0040	<0.0040	<0.0040	<0.0100	<0.0040	<0.0040	<0.0100	<0.0040	<0.0100	<0.0040	<0.0040	<0.0040	<0.0020	0.0160	0.0217	0.0080	0.0181	0.0122	<0.0020

Notes & Definitions:

- Historical data prior to 2021 can be found in earlier posted versions of this table*
- Y/N yes or no
 - gpm gallons per minute
 - deg C degrees Celsius
 - SU standard pH units
 - µS/cm microsiemens per centimeter
 - mV millivolts
 - mg/L milligram per liter
 - pCi/L picocuries per liter
 - NM not measured (field)
 - NA not analyzed (lab)
 - ng/L nanogram per liter
1. "<" values denote that the quantification of that analyte is below the reporting level for the analytical laboratory, acceptable by environmental water quality laboratory industry standards.
 2. Total alkalinity is measured by titration with hydrochloric acid to a set pH point, reporting this value as an equivalent amount of calcium carbonate. This value is then partitioned into bicarbonate, carbonate and hydroxide depending on the initial pH of the sample solution, each components reported as equivalent CaCO3.
 3. Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table.

GCC Energy Hydrologic Monitoring Data

MW-7-EAA																						
Year		2021				2022				2023				2024				2025				2026
Quarter		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Month		2	5	8	11	3	6	9	11	3	6	8	11	3	6	8	11	1	5	8	11	2
Sample Date		2/16	5/24	8/24	11/30	3/23	6/7	9/8	11/28	3/18	6/14	8/8	11/13	3/17	6/19	8/6	11/18	1/25	5/12	8/15	11/1	2/6
Lab Analysis (Y/N)		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Field Parameters:																						
Purge Flow Rate	gpm	0.3	0.1	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.0	0.2	0.1	0.2	0.1	0.1
Total Purged	gal	15	17	17	18	18	17	17	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Depth to Water	ft bgs	36.20	35.33	36.91	35.92	35.90	35.70	36.71	36.40	35.85	29.10	28.40	25.60	27.45	25.40	26.30	25.00	25.00	23.10	28.10	28.10	27.50
Temperature	deg C	10.1	10.5	10.9	10.6	10.5	10.7	10.8	11.1	13.1	11.7	11.8	11.4	10.1	12.9	11.6	9.0	9.8	12.3	13.5	10.9	10.4
pH	SU	7.14	7.19	7.24	7.23	7.12	7.15	7.14	6.28	7.28	7.16	7.11	7.16	7.24	6.90	6.89	6.94	6.88	6.96	7.11	7.02	6.78
Specific Conductance	µS/cm	1672	1805	1814	1878	1882	1896	1880	1808	1754	1785	1831	1966	2082	1905	1932	2069	2062	1610	2977	1739	1927
Oxygen Reduction Potential	mV	2.2	-55.8	-41.9	-20.4	-133.6	-73.8	-196.7	-86.9	-10.9	-32.4	-60.3	-117.9	-133.9	-102.0	-59.0	-160.4	-70.9	-45.1	-190.6	73.4	96.0
Lab Analytical Results:																						
Hardness as CaCO3	mg/L	9	9	8	9	1040	958	916	962	1020	952	902	1010	1080	1080	1030	997	993	1110	952	939	932
pH (Lab)	SU	8.37	8.28	8.31	8.20	7.11	7.12	7.24	7.18	6.95	6.95	7.25	7.16	6.84	7.07	7.10	7.13	7.09	7.08	7.47	7.27	7.73
Total Dissolved Solids (Lab)	mg/L	955	945	1010	945	1500	1500	1490	1420	1500	1400	1450	1560	1570	1550	1550	1650	1540	1490	1490	1470	1360
Calcium	mg/L	2.4	2.3	2.1	2.3	173.0	166.0	154.0	165.0	174.0	161.0	151.0	173.0	184.0	186.0	177.0	170.0	169.0	185.0	161.0	162.0	161.0
Magnesium	mg/L	0.8	0.8	0.6	0.9	149.0	132.0	129.0	134.0	143.0	134.0	127.0	141.0	150.0	149.0	141.0	139.0	139.0	157.0	133.0	130.0	129.0
Sodium	mg/L	435.0	380.0	402.0	391.0	77.8	71.9	71.6	72.3	76.3	75.6	69.2	77.1	80.6	80.5	77.1	78.1	75.6	82.7	77.2	76.2	78.4
Potassium	mg/L	<3.00	1.16	<5.00	<2.00	3.88	3.59	3.71	3.66	<5.00	3.63	<5.00	3.46	3.62	3.84	3.78	3.65	<5.00	<5.00	3.91	3.91	4.36
Alkalinity, Total	mg/L	935	935	930	1000	425	425	400	310	378	410	437	425	440	455	437	460	440	430	390	435	415
Alkalinity, Bicarbonate	mg/L	825	825	820	920	425	425	400	310	378	410	437	425	440	455	437	460	440	430	390	435	415
Alkalinity, Carbonate	mg/L	110.0	110.0	110.0	80.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Alkalinity, Hydroxide	mg/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Chloride	mg/L	5.27	4.93	4.78	6.80	10.10	10.30	11.20	11.00	11.10	10.80	11.80	11.90	11.50	11.40	11.60	11.20	12.80	11.30	10.80	11.30	10.80
Fluoride	mg/L	0.250	0.272	0.304	<0.500	0.292	<0.200	0.310	0.306	0.340	0.262	<0.200	0.238	0.282	0.298	<0.500	0.314	<0.500	<0.500	0.300	0.313	0.297
Sulfate as SO4	mg/L	6.8	6.4	6.3	6.9	755.0	743.0	759.0	761.0	827.0	709.0	719.0	828.0	842.0	821.0	790.0	747.0	867.0	798.0	734.0	821.0	716.0
Total Organic Carbon (TOC)	mg/L	2.64	2.50	2.66	2.40	3.50	3.42	3.38	2.12	3.68	3.31	5.57	4.24	5.38	5.12	4.40	4.99	5.11	3.91	4.42	10.90	4.53
Nitrate/Nitrite as N	mg/L	<0.020	0.042	0.039	0.104	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.100	<0.020	<0.020	<0.020	<0.020
Aluminum	mg/L	<0.150	<0.050	<0.250	<0.100	<0.050	<0.050	<0.100	<0.100	<0.250	<0.250	<0.250	<0.100	<0.150	<0.100	<0.050	0.197	<0.250	<0.250	<0.050	<0.100	<0.050
Arsenic	mg/L	0.0143	0.0142	0.0117	0.0076	0.0009	0.0014	<0.0025	0.0013	<0.0025	<0.0025	<0.0025	0.0010	<0.0020	<0.0020	<0.0010	<0.0010	<0.0050	<0.0010	<0.0020	<0.0020	0.0016
Cadmium	mg/L	<0.0003	<0.0005	<0.0025	<0.0025	<0.0005	<0.0005	<0.0025	<0.0010	<0.0025	<0.0025	<0.0025	<0.0010	<0.0010	<0.0010	<0.0005	<0.0005	<0.0025	<0.0005	<0.0010	<0.0010	<0.0005
Copper	mg/L	0.0030	0.0088	0.0083	0.0095	0.0021	0.0036	<0.0025	0.0030	<0.0025	0.0028	0.0032	0.0018	0.0048	0.0044	0.0045	0.0186	<0.0050	0.0077	0.0108	0.0076	0.0098
Iron	mg/L	<0.150	<0.050	<0.250	<0.100	2.050	1.690	1.750	1.570	1.990	0.265	<0.250	0.251	0.259	0.421	0.379	0.404	1.750	1.900	2.740	2.230	2.680
Lead	mg/L	<0.0015	<0.0005	<0.0025	<0.0025	<0.0025	<0.0005	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0010	<0.0010	<0.0010	<0.0005	0.0015	<0.0025	0.0005	<0.0010	<0.0010	0.0008
Manganese	mg/L	0.0215	0.0188	0.0187	0.0181	4.4800	4.5800	4.6100	4.7500	4.6900	4.2200	4.4600	4.4000	4.6500	4.6100	4.6500	4.6900	4.4400	4.8100	4.6700	4.4700	4.6400
Mercury (dissolved)	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002																
Mercury (dissolved low-level)	ng/L						<5	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Molybdenum	mg/L	0.0006	<0.0025	<0.0025	<0.0010	0.0007	0.0007	<0.0025	<0.0010	<0.0025	<0.0025	<0.0025	<0.0010	<0.0010	<0.0010	0.0008	0.0007	<0.0025	<0.0005	<0.0010	<0.0010	0.0009
Selenium	mg/L	<0.0010	<0.0050	<0.0050	<0.0020	<0.0010	0.0012	<0.0050	<0.0020	<0.0050	<0.0050	<0.0050	<0.0020	<0.0020	<0.0020	0.0010	<0.0010	<0.0050	<0.0010	<0.0020	<0.0020	<0.0010
Silica (SiO2)	mg/L	17.70	17.10	16.70	17.20	18.30	16.80	16.10	16.90	17.50	17.00	15.20	16.50	16.30	17.10	16.50	16.70	15.80	17.30	17.20	15.10	15.60
Silicon	mg/L	8.28	7.97	7.81	8.03	8.57	7.86	7.54	7.92	8.16	7.95	7.11	7.72	7.60	8.00	7.70	7.80	7.41	8.09	8.02	7.08	7.32
Uranium	mg/L	0.0018	<0.0025	<0.0025	0.0015	<0.0025	0.0018	<0.0025	0.0016	<0.0025	0.0018	<0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	<0.0025	0.0010	0.0018	0.0018	0.0019
Zinc	mg/L	0.0022	<0.0100	<0.0100	<0.0040	<0.0020	0.0041	<0.0100	<0.0040	<0.0100	<0.0100	<0.0100	<0.0040	<0.0040	<0.0040	0.0033	0.0170	<0.0100	0.0123	0.0166	0.0092	0.0166

Notes & Definitions:

- Historical data prior to 2021 can be found in earlier posted versions of this table
- | | |
|---|---|
| Y/N yes or no
gpm gallons per minute
deg C degrees Celsius
SU standard pH units
µS/cm microsiemens per centimeter
mV millivolts
mg/L milligram per liter
pCi/L picocuries per liter
NM not measured (field)
NA not analyzed (lab)
ng/L nanogram per liter | <ol style="list-style-type: none"> 1. "<" values denote that the quantification of that analyte is below the reporting level for the analytical laboratory, acceptable by environmental water quality laboratory industry standards. 2. Total alkalinity is measured by titration with hydrochloric acid to a set pH point, reporting this value as an equivalent amount of calcium carbonate. This value is then partitioned into bicarbonate, carbonate and hydroxide depending on the initial pH of the sample solution, each components reported as equivalent CaCO3. 3. Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table. |
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GCC Energy Hydrologic Monitoring Data

		MW-8-EAA																				
Year		2021				2022				2023				2024				2025				2026
Quarter		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Month		2	5	8	11	3	6	9	11	3	6	8	11	3	6	8	11	1	5	8	11	2
Sample Date		2/16	5/24	8/24	11/30	3/23	6/7	9/8	11/28	3/18	6/14	8/8	11/13	3/17	6/19	8/6	11/21	1/25	5/13	8/15	11/1	2/6
Lab Analysis (Y/N)		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Field Parameters:																						
Purge Flow Rate	gpm	0.1	0.1	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.1	0.1	0.4	0.2	0.6	0.1	0.1	0.1	0.1	0.1	0.1	
Total Purged	gal	15	16	15	14	15	15	16	1	1	0	0	0	0	0	0	0	0	0	0	0	
Depth to Water	ft bgs	41.22	41.00	40.98	48.04	40.95	41.00	41.30	41.30	41.50	37.19	37.40	34.90	36.45	31.78	32.91	33.00	32.52	31.73	33.45	33.90	
Temperature	deg C	10.9	11.0	11.2	10.7	10.7	10.8	10.7	9.7	11.0	11.6	12.2	12.3	9.8	11.7	12.2	10.9	9.9	11.2	11.7	10.8	
pH	SU	7.20	7.27	7.31	7.30	7.18	7.23	7.23	6.59	7.20	7.27	7.23	7.07	7.35	6.97	7.02	7.06	6.92	7.11	7.24	7.15	
Specific Conductance	µS/cm	1570	1642	1671	1746	1750	1763	1763	1793	1665	1766	1742	1761	1955	1849	1851	1848	1971	1577	1752	1754	
Oxygen Reduction Potential	mV	-20.2	-63.3	-57.4	-37.2	-156.9	-111.7	-230.9	-23.9	182.6	-81.5	-86.6	-103.6	-175.8	-96.2	-99.4	-147.0	-73.2	-82.7	-162.9	73.0	
Lab Analytical Results:																						
Hardness as CaCO3	mg/L	914	838	859	859	937	867	831	871	940	932	887	901	962	975	957	936	918	960	872	897	
pH (Lab)	SU	7.03	6.97	7.06	6.81	7.19	7.16	7.27	7.25	7.05	7.03	7.33	7.43	7.02	7.20	7.17	7.30	7.19	7.10	7.25	7.19	
Total Dissolved Solids (Lab)	mg/L	1400	1320	1320	1340	1380	1330	1360	1300	1320	1350	1400	1430	1480	1420	1460	1470	1460	1230	1430	1390	
Calcium	mg/L	156.0	146.0	146.0	149.0	158.0	150.0	143.0	149.0	163.0	159.0	152.0	156.0	168.0	169.0	167.0	162.0	158.0	164.0	148.0	155.0	
Magnesium	mg/L	127.0	115.0	120.0	118.0	131.0	119.0	115.0	121.0	130.0	130.0	123.0	125.0	132.0	134.0	131.0	129.0	127.0	134.0	122.0	124.0	
Sodium	mg/L	80.9	76.1	75.8	74.9	81.2	75.0	75.0	75.3	80.5	79.8	75.5	77.4	79.4	80.3	78.8	81.2	77.7	80.3	75.4	79.1	
Potassium	mg/L	3.63	3.49	<5.00	3.36	3.65	3.35	3.45	3.42	<5.00	3.73	<5.00	3.24	3.58	3.61	3.69	3.70	<5.00	<5.00	<5.00	3.50	
Alkalinity, Total	mg/L	450	445	385	490	460	465	480	430	417	448	417	415	435	475	480	470	465	465	380	460	
Alkalinity, Bicarbonate	mg/L	450	445	385	490	460	465	480	430	417	448	417	415	435	475	480	470	465	465	380	460	
Alkalinity, Carbonate	mg/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	
Alkalinity, Hydroxide	mg/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	
Chloride	mg/L	10.40	10.20	10.30	10.50	10.50	10.60	11.70	11.40	11.60	11.80	12.20	12.20	12.30	11.80	12.20	12.50	12.60	12.00	11.90	13.90	
Fluoride	mg/L	0.292	0.306	0.350	0.272	0.304	0.204	0.332	0.316	0.358	0.284	<0.200	0.266	0.330	0.312	<0.500	<0.500	<0.500	0.315	0.308	0.345	
Sulfate as SO4	mg/L	609.0	595.0	615.0	599.0	608.0	597.0	627.0	619.0	686.0	675.0	685.0	748.0	768.0	731.0	713.0	697.0	732.0	693.0	673.0	787.0	
Total Organic Carbon (TOC)	mg/L	3.04	3.65	3.71	3.48	3.49	3.56	3.64	1.82	3.63	3.25	5.64	3.64	4.76	4.00	4.20	5.82	5.25	3.47	5.60	6.27	
Nitrate/Nitrite as N	mg/L	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	0.493	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	
Aluminum	mg/L	<0.150	<0.050	<0.250	<0.100	<0.050	<0.050	<0.100	<0.100	<0.250	<0.250	<0.250	<0.100	<0.100	<0.100	<0.050	<0.050	<0.250	<0.250	<0.050	<0.100	
Arsenic	mg/L	0.0018	0.0018	<0.0025	0.0017	0.0015	0.0019	<0.0025	0.0020	0.0027	<0.0025	<0.0025	0.0020	<0.0020	<0.0020	0.0015	0.0016	<0.0050	0.0025	<0.0050	0.0024	
Cadmium	mg/L	<0.0003	<0.0015	<0.0025	<0.0010	<0.0005	<0.0005	<0.0025	<0.0010	<0.0025	<0.0025	<0.0025	<0.0010	<0.0010	<0.0010	<0.0005	<0.0005	<0.0025	<0.0010	<0.0025	<0.0010	
Copper	mg/L	<0.0015	<0.0015	<0.0025	0.0017	0.0021	0.0031	<0.0025	0.0021	<0.0025	0.0084	<0.0025	0.0020	0.0048	0.0030	0.0033	0.0160	<0.0050	0.0146	0.0083	0.0165	
Iron	mg/L	2.330	2.250	2.200	2.220	2.520	2.220	2.280	2.270	2.430	2.430	2.190	2.240	2.340	2.370	2.320	2.230	2.230	2.300	2.590	2.850	
Lead	mg/L	<0.0015	<0.0015	<0.0025	<0.0010	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0010	<0.0010	<0.0010	<0.0005	0.0012	<0.0025	<0.0010	<0.0025	0.0019	
Manganese	mg/L	3.5500	3.5000	3.6000	3.6600	3.7700	3.7000	3.7700	3.8700	3.9800	3.8500	3.9100	4.1600	3.8800	4.2600	4.2300	4.2400	4.0400	4.3700	4.0100	3.7400	
Mercury (dissolved)	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002																
Mercury (dissolved low-level)	ng/L						<5	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	
Molybdenum	mg/L	<0.0015	<0.0015	<0.0025	<0.0010	0.0009	0.0009	<0.0025	<0.0010	<0.0025	<0.0025	<0.0025	<0.0010	<0.0010	<0.0010	0.0009	0.0009	<0.0025	<0.0010	<0.0025	<0.0010	
Selenium	mg/L	0.0046	<0.0030	<0.0050	0.0035	<0.0010	0.0015	<0.0050	<0.0020	<0.0050	<0.0050	<0.0050	<0.0020	<0.0020	0.0037	<0.0010	<0.0010	<0.0050	<0.0020	<0.0050	<0.0020	
Silica (SiO2)	mg/L	16.00	16.50	15.50	16.40	17.30	16.00	15.40	16.20	16.90	16.60	15.40	16.50	15.90	16.30	16.10	16.20	14.90	15.00	15.80	14.90	
Silicon	mg/L	7.48	7.72	7.24	7.68	8.10	7.47	7.18	7.60	7.89	7.75	7.22	7.72	7.44	7.61	7.54	7.56	6.97	7.02	7.40	6.99	
Uranium	mg/L	0.0016	0.0016	<0.0025	0.0015	<0.0025	<0.0025	<0.0025	0.0016	<0.0025	0.0017	<0.0025	0.0019	0.0019	0.0020	0.0021	0.0019	<0.0025	0.0018	<0.0025	0.0017	
Zinc	mg/L	<0.0060	<0.0060	<0.0100	<0.0040	<0.0020	0.0021	<0.0100	<0.0040	<0.0100	0.0063	<0.0100	<0.0040	<0.0040	<0.0040	0.0024	0.0227	<0.0100	0.0236	0.0174	0.0164	

Notes & Definitions:

Historical data prior to 2021 can be found in earlier posted versions of this table

- | | | |
|---|---|---|
| Y/N
gpm
deg C
SU
µS/cm
mV
mg/L
pCi/L
NM
NA
ng/L | yes or no
gallons per minute
degrees Celsius
standard pH units
microsiemens per centimeter
millivolts
milligram per liter
picocuries per liter
not measured (field)
not analyzed (lab)
nanogram per liter | <ol style="list-style-type: none"> 1. "<" values denote that the quantification of that analyte is below the reporting level for the analytical laboratory, acceptable by environmental water quality laboratory industry standards. 2. Total alkalinity is measured by titration with hydrochloric acid to a set pH point, reporting this value as an equivalent amount of calcium carbonate. This value is then partitioned into bicarbonate, carbonate and hydroxide depending on the initial pH of the sample solution, each components reported as equivalent CaCO3. 3. Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table. |
|---|---|---|

GCC Energy Hydrologic Monitoring Data

		MW-8-MI																				
Year		2021				2022				2023				2024				2025				2026
Quarter		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Month		2	5	8	11	3	6	9	11	3	6	8	11	3	6	8	11	1	5	8	11	2
Sample Date		2/16	5/24	8/24	11/30	3/23	6/7	9/8	11/28	3/18	6/14	8/8	11/13	3/17	6/19	8/6	11/21	1/25	5/13	8/15	11/1	2/6
Lab Analysis (Y/N)		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Field Parameters:																						
Purge Flow Rate	gpm	0.3	0.1	0.3	0.3	0.3	0.1	0.2	0.5	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.2	0.0	0.3	0.1
Total Purged	gal	2	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Depth to Water	ft bgs	46.38	46.54	47.27	46.84	47.69	48.00	48.00	48.25	47.75	44.65	44.52	42.85	43.51	39.90	40.52	40.62	40.25	39.60	50.94	41.42	41.36
Temperature	deg C	10.0	11.6	11.9	11.1	10.9	12.5	14.3	9.9	11.7	11.5	11.9	12.1	10.3	12.3	12.6	11.2	10.4	12.0	11.5	11.0	11.0
pH	SU	7.47	7.59	7.55	7.56	7.41	7.54	7.59	6.92	7.52	7.54	7.51	7.52	7.66	7.33	7.28	7.35	7.21	7.41	7.57	7.44	7.18
Specific Conductance	µS/cm	1468	1616	1554	1629	1596	1575	1505	1631	1632	1607	1538	1544	1642	1526	1580	1578	1673	1327	158	1534	1597
Oxygen Reduction Potential	mV	-72.0	-131.9	-123.1	-115.9	-195.3	-150.6	-262.2	-172.4	-79.7	-134.6	-148.3	-178.2	-22.8	-160.5	-118.0	-249.6	-122.3	-173.2	-244.0	4.7	33.2
Lab Analytical Results:																						
Hardness as CaCO3	mg/L	376	288	377	317	406	378	374	390	405	388	363	361	366	388	389	386	389	394	340	377	393
pH (Lab)	SU	7.33	7.36	7.31	7.06	7.36	7.38	7.70	7.45	7.30	7.36	7.67	7.66	7.11	7.47	7.44	7.48	7.42	7.31	7.54	7.40	7.51
Total Dissolved Solids (Lab)	mg/L	1060	1040	1000	1100	1050	1040	1050	990	1050	995	1060	1050	995	985	1030	995	1040	895	1020	965	1050
Calcium	mg/L	69.7	54.0	70.3	59.8	75.5	71.2	69.2	72.3	76.0	72.1	67.4	66.3	68.4	72.9	73.5	71.3	70.3	72.1	61.0	69.5	73.4
Magnesium	mg/L	49.1	37.2	48.9	40.8	52.7	48.7	48.8	50.8	52.3	50.4	47.1	47.5	47.4	50.1	50.0	50.6	51.9	52.0	45.6	49.3	51.0
Sodium	mg/L	237.0	256.0	229.0	238.0	226.0	220.0	213.0	210.0	230.0	236.0	216.0	215.0	219.0	221.0	228.0	217.0	207.0	220.0	208.0	220.0	237.0
Potassium	mg/L	5.88	5.05	5.69	5.14	5.98	5.47	5.59	5.63	5.44	6.18	5.09	5.12	5.38	5.65	5.73	5.73	5.70	6.00	5.58	5.59	1.53
Alkalinity, Total	mg/L	590	575	570	605	590	590	500	540	550	568	553	560	555	595	580	610	585	590	540	590	595
Alkalinity, Bicarbonate	mg/L	590	575	570	605	590	590	500	540	550	568	553	560	555	595	580	610	585	590	540	590	595
Alkalinity, Carbonate	mg/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Alkalinity, Hydroxide	mg/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Chloride	mg/L	7.96	8.07	7.85	7.91	7.70	8.36	8.88	8.60	8.56	8.39	8.80	8.35	8.67	8.73	9.13	8.77	9.71	8.39	8.08	8.61	8.19
Fluoride	mg/L	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	<0.200	0.112	<0.200	<0.200	<0.200	<0.200	<0.500	<0.500	<0.500	0.118	0.123	0.127	0.119
Sulfate as SO4	mg/L	326.0	314.0	324.0	312.0	325.0	322.0	352.0	351.0	335.0	327.0	323.0	320.0	329.0	329.0	356.0	319.0	378.0	336.0	312.0	360.0	318.0
Total Organic Carbon (TOC)	mg/L	2.60	2.74	2.97	2.66	2.77	2.77	2.96	1.66	2.75	2.62	4.25	2.76	3.44	2.70	2.80	2.93	3.02	2.60	3.31	2.63	2.69
Nitrate/Nitrite as N	mg/L	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Aluminum	mg/L	<0.150	<0.050	<0.250	<0.100	<0.050	<0.050	<0.100	<0.100	<0.250	<0.250	<0.250	<0.100	<0.100	<0.100	<0.050	<0.050	<0.250	<0.250	<0.050	<0.100	<0.250
Arsenic	mg/L	<0.0015	<0.0015	<0.0025	<0.0010	<0.0005	0.0006	<0.0025	0.0010	<0.0025	<0.0025	<0.0025	<0.0010	<0.0020	<0.0020	<0.0010	<0.0010	<0.0050	<0.0020	<0.0050	<0.0020	<0.0010
Cadmium	mg/L	<0.0003	<0.0015	<0.0025	<0.0010	<0.0005	<0.0005	<0.0025	<0.0010	<0.0025	<0.0025	<0.0025	<0.0010	<0.0010	<0.0010	<0.0005	<0.0005	<0.0025	<0.0010	<0.0025	<0.0010	<0.0005
Copper	mg/L	0.0015	0.0046	0.0047	0.0054	0.0055	0.0087	0.0038	0.0044	0.0025	0.0104	0.0031	0.0044	0.0088	0.0083	0.0081	0.0086	0.0083	0.0089	0.0080	0.0094	0.0093
Iron	mg/L	<0.150	0.113	<0.250	0.168	0.113	0.090	<0.100	<0.100	<0.250	0.082	<0.250	<0.100	0.135	0.127	0.078	0.051	<0.250	<0.250	<0.050	<0.100	<0.250
Lead	mg/L	<0.0015	<0.0015	<0.0025	<0.0010	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0025	<0.0010	<0.0010	<0.0010	<0.0005	<0.0005	<0.0025	<0.0010	<0.0025	<0.0010	<0.0005
Manganese	mg/L	0.0579	0.0412	0.0544	0.0443	0.0603	0.0553	0.0597	0.0693	0.0569	0.0560	0.0562	0.0562	0.0595	0.0632	0.0521	0.0578	0.0619	0.0623	0.0610	0.0577	0.0550
Mercury (dissolved)	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002																
Mercury (dissolved low-level)	ng/L						<5	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Molybdenum	mg/L	<0.0015	<0.0015	<0.0025	<0.0010	<0.0005	<0.0005	<0.0025	<0.0010	<0.0025	<0.0025	<0.0025	<0.0010	<0.0010	<0.0010	<0.0005	<0.0005	<0.0025	<0.0010	<0.0025	<0.0010	<0.0005
Selenium	mg/L	0.0425	0.0037	0.0072	0.0264	0.0016	0.0040	<0.0050	0.0183	0.0119	0.0049	0.0050	0.0076	0.0057	0.0274	0.0023	<0.0010	<0.0050	0.0099	<0.0050	0.0080	0.0076
Silica (SiO2)	mg/L	13.50	13.20	13.60	13.70	15.20	14.00	13.60	14.00	13.70	13.90	12.50	13.80	13.20	13.80	14.00	13.70	13.50	13.30	13.50	12.60	2.53
Silicon	mg/L	6.32	6.17	6.35	6.39	7.08	6.57	6.35	6.52	6.42	6.48	5.85	6.45	6.16	6.45	6.54	6.38	6.29	6.22	6.30	5.87	1.18
Uranium	mg/L	<0.0015	<0.0015	<0.0025	<0.0010	<0.0025	<0.0025	<0.0025	<0.0010	<0.0025	<0.0025	<0.0025	<0.0010	<0.0010	<0.0010	<0.0005	<0.0005	<0.0025	<0.0010	<0.0025	<0.0010	<0.0005
Zinc	mg/L	<0.0060	<0.0060	<0.0100	<0.0040	<0.0020	<0.0020	<0.0100	<0.0040	<0.0100	0.0047	<0.0100	<0.0040	<0.0040	<0.0040	<0.0020	<0.0020	<0.0100	0.0199	0.0109	0.0095	0.0060

Notes & Definitions:

Historical data prior to 2021 can be found in earlier posted versions of this table

- | | |
|---|--|
| <p>Y/N yes or no</p> <p>gpm gallons per minute</p> <p>deg C degrees Celsius</p> <p>SU standard pH units</p> <p>µS/cm microsiemens per centimeter</p> <p>mV millivolts</p> <p>mg/L milligram per liter</p> <p>pCi/L picocuries per liter</p> <p>NM not measured (field)</p> <p>NA not analyzed (lab)</p> <p>ng/L nanogram per liter</p> | <ol style="list-style-type: none"> "<" values denote that the quantification of that analyte is below the reporting level for the analytical laboratory, acceptable by environmental water quality laboratory industry standards. Total alkalinity is measured by titration with hydrochloric acid to a set pH point, reporting this value as an equivalent amount of calcium carbonate. This value is then partitioned into bicarbonate, carbonate and hydroxide depending on the initial pH of the sample solution, each components reported as equivalent CaCO3. Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table. |
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GCC Energy Hydrologic Monitoring Data

MW-8-LM																						
Year		2021				2022				2023				2024				2025				2026
Quarter		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Month		2	5	8	11	3	6	9	11	3	6	8	11	3	6	8	11	1	5	8	11	2
Sample Date		2/16	5/24	8/24	11/30	3/23	6/7	9/8	11/28	3/18	6/14	8/8	11/13	3/17	6/19	8/6	11/21	1/25	5/13	8/15	11/1	2/6
Lab Analysis (Y/N)		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Field Parameters:																						
Purge Flow Rate	gpm	0.1	0.1	0.3	0.3	0.3	0.3	0.2	NM	0.1	0.0	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.1	0.1	0.1	0.1
Total Purged	gal	2	2	1	1	1	1	1	NM	1	1	1	1	1	1	1	1	1	1	1	1	1
Depth to Water	ft bgs	126.72	126.13	125.25	123.55	124.10	123.75	126.81	NM	126.10	125.80	126.12	125.92	124.95	125.05	125.12	125.05	126.05	127.25	127.80	128.20	128.90
Temperature	deg C	12.1	12.8	13.5	12.5	12.3	14.1	13.4	11.9	12.7	13.0	13.1	13.2	11.5	12.8	13.8	12.3	10.4	12.6	13.5	12.1	12.1
pH	SU	8.82	8.90	8.90	8.91	8.79	8.84	8.82	8.29	8.88	8.88	8.83	8.84	8.94	8.66	8.67	8.44	8.62	8.71	8.83	8.82	8.66
Specific Conductance	µS/cm	1132	1121	1196	1262	1260	1232	1255	1276	1233	1252	1241	1224	1305	1229	1227	1261	1365	1255	1215	1227	1269
Oxygen Reduction Potential	mV	-87.8	-164.1	-106.1	-99.3	-241.3	-149.4	-247.4	-66.9	-58.6	-137.0	-147.9	-210.0	-26.4	-149.5	-106.3	-179.2	-77.9	-71.2	-176.4	15.6	132.4
Lab Analytical Results:																						
Hardness as CaCO3	mg/L	7	7	5	7	7	7	6	6	4	6	4	7	7	7	8	7	6	7	6	7	7
pH (Lab)	SU	8.54	8.57	8.48	8.31	8.61	8.63	8.99	8.59	8.47	8.51	8.71	8.84	8.42	8.66	8.70	8.73	8.64	8.60	8.71	8.21	8.69
Total Dissolved Solids (Lab)	mg/L	795	720	740	760	740	795	755	685	765	745	805	755	755	760	760	750	775	740	760	775	775
Calcium	mg/L	1.9	1.9	1.9	1.9	2.0	1.8	1.7	1.7	1.6	1.7	1.6	1.9	1.8	1.8	2.1	1.8	1.6	1.9	1.7	1.8	1.9
Magnesium	mg/L	0.6	0.6	<0.500	0.6	0.6	0.5	0.5	0.5	<0.500	0.5	<0.500	0.6	0.5	0.6	0.7	0.5	0.5	0.7	0.5	0.6	0.6
Sodium	mg/L	319.0	315.0	308.0	291.0	316.0	298.0	298.0	301.0	287.0	315.0	289.0	299.0	304.0	311.0	304.0	310.0	300.0	312.0	291.0	316.0	359.0
Potassium	mg/L	<3.00	2.24	<5.00	2.12	2.31	2.06	<2.00	2.12	<5.00	1.85	<5.00	2.07	2.00	2.13	2.22	2.07	<5.00	<5.00	2.08	2.08	3.30
Alkalinity, Total	mg/L	730	755	750	770	780	765	760	750	714	732	714	700	690	760	745	765	740	740	730	730	750
Alkalinity, Bicarbonate	mg/L	630	645	650	620	640	655	580	510	666	732	646	620	640	640	665	665	670	600	630	640	600
Alkalinity, Carbonate	mg/L	100.0	110.0	100.0	150.0	140.0	110.0	180.0	240.0	48.0	<10.0	68.0	80.0	50.0	120.0	80.0	100.0	70.0	140.0	100.0	90.0	150.0
Alkalinity, Hydroxide	mg/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Chloride	mg/L	2.50	2.48	2.55	2.47	2.47	2.49	2.64	2.65	2.66	2.76	2.67	2.75	2.66	2.64	2.57	<5.00	<5.00	2.50	2.41	2.72	2.55
Fluoride	mg/L	3.580	3.480	3.670	3.400	3.440	3.250	3.790	3.730	3.840	3.650	3.150	3.420	3.930	3.940	3.860	3.920	4.130	3.800	3.710	3.630	3.700
Sulfate as SO4	mg/L	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<2.00	<2.00	<2.00	0.9	<2.00	<2.00	<2.00	<2.00	<2.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00
Total Organic Carbon (TOC)	mg/L	1.20	1.71	1.79	1.60	1.70	1.72	1.77	1.13	1.73	1.43	1.89	1.70	2.43	1.70	1.72	1.61	1.94	1.49	1.74	1.80	1.57
Nitrate/Nitrite as N	mg/L	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Aluminum	mg/L	<0.150	<0.050	<0.250	<0.100	<0.050	<0.050	<0.100	<0.050	<0.250	<0.250	<0.250	<0.050	<0.100	<0.100	<0.050	<0.050	<0.250	<0.250	<0.050	<0.100	<0.050
Arsenic	mg/L	<0.0015	<0.0015	<0.0025	<0.0010	0.0008	0.0008	<0.0025	<0.0005	<0.0025	<0.0015	<0.0025	<0.0010	<0.0020	<0.0020	<0.0010	<0.0010	<0.0010	<0.0020	<0.0020	<0.0010	<0.0010
Cadmium	mg/L	<0.0003	<0.0015	<0.0025	<0.0010	<0.0005	<0.0005	<0.0025	<0.0005	<0.0025	<0.0015	<0.0025	<0.0010	<0.0010	<0.0010	<0.0005	<0.0005	<0.0005	<0.0010	<0.0010	<0.0005	<0.0005
Copper	mg/L	0.0025	0.0057	0.0068	0.0065	0.0075	0.0167	0.0052	0.0079	0.0043	0.0155	0.0040	0.0068	0.0128	0.0132	0.0130	0.0143	0.0130	0.0128	0.0139	0.0142	0.0126
Iron	mg/L	<0.150	<0.050	<0.250	<0.100	<0.050	<0.050	<0.100	<0.050	<0.250	<0.250	<0.250	<0.050	<0.100	<0.100	<0.050	<0.050	<0.250	<0.250	<0.050	<0.100	<0.050
Lead	mg/L	<0.0015	<0.0015	<0.0025	<0.0010	<0.0025	<0.0025	<0.0025	<0.0005	<0.0025	0.0002	<0.0025	<0.0010	<0.0010	<0.0010	<0.0005	<0.0005	<0.0005	<0.0010	<0.0010	0.0005	<0.0005
Manganese	mg/L	0.0024	0.0021	0.0025	0.0023	0.0022	0.0027	<0.0025	0.0027	0.0028	0.0027	0.0028	0.0027	0.0034	0.0031	0.0029	0.0027	0.0022	0.0024	0.0023	0.0023	0.0025
Mercury (dissolved)	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002																
Mercury (dissolved low-level)	ng/L						<5	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Molybdenum	mg/L	<0.0015	<0.0015	<0.0025	<0.0010	<0.0005	<0.0005	<0.0025	<0.0005	<0.0025	<0.0015	<0.0025	<0.0010	<0.0010	<0.0010	<0.0005	<0.0005	<0.0005	<0.0010	<0.0010	0.0005	0.0006
Selenium	mg/L	0.0031	<0.0030	<0.0050	<0.0020	<0.0010	<0.0010	<0.0050	<0.0010	<0.0050	<0.0030	<0.0050	<0.0020	<0.0020	<0.0020	0.0013	<0.0010	<0.0010	<0.0020	<0.0020	<0.0010	<0.0010
Silica (SiO2)	mg/L	8.17	8.21	7.82	8.28	8.44	8.13	7.63	8.45	6.83	7.53	6.17	8.14	7.52	7.80	7.80	8.31	8.23	8.27	7.35	7.67	8.60
Silicon	mg/L	3.82	3.84	3.66	3.87	3.95	3.80	3.56	3.95	3.19	3.52	2.89	3.80	3.51	3.65	3.65	3.89	3.85	3.87	3.44	3.59	4.02
Uranium	mg/L	<0.0015	<0.0015	<0.0025	<0.0010	<0.0025	<0.0025	<0.0025	<0.0005	<0.0025	<0.0015	<0.0025	<0.0010	<0.0010	<0.0010	<0.0010	<0.0005	<0.0005	<0.0010	<0.0010	<0.0005	<0.0005
Zinc	mg/L	<0.0060	<0.0060	<0.0100	<0.0040	<0.0020	0.0079	<0.0100	0.0022	<0.0100	0.0032	<0.0100	<0.0040	<0.0040	<0.0040	<0.0020	0.0107	0.0089	0.0135	0.0120	0.0108	<0.0020

Notes & Definitions:

- Historical data prior to 2021 can be found in earlier posted versions of this table*
- Y/N yes or no
 - gpm gallons per minute
 - deg C degrees Celsius
 - SU standard pH units
 - µS/cm microsiemens per centimeter
 - mV millivolts
 - mg/L milligram per liter
 - pCi/L picocuries per liter
 - NM not measured (field)
 - NA not analyzed (lab)
 - ng/L nanogram per liter
1. "<" values denote that the quantification of that analyte is below the reporting level for the analytical laboratory, acceptable by environmental water quality laboratory industry standards.
 2. Total alkalinity is measured by titration with hydrochloric acid to a set pH point, reporting this value as an equivalent amount of calcium carbonate. This value is then partitioned into bicarbonate, carbonate and hydroxide depending on the initial pH of the sample solution, each components reported as equivalent CaCO3.
 3. Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table.

GCC Energy Hydrologic Monitoring Data

MW-8-PL																						
Year		2021				2022				2023				2024				2025				2026
Quarter		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Month		2	5	8	11	3	6	9	11	3	6	8	11	3	6	8	11	1	5	8	11	2
Sample Date		2/16	5/24	8/24	11/30	3/23	6/7	9/8	11/28	3/18	6/14	8/8	11/13	3/17	6/19	8/6	11/21	1/25	5/13	8/15	11/1	2/6
Lab Analysis (Y/N)		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Field Parameters:																						
Purge Flow Rate	gpm	0.8	0.3	0.3	0.3	0.3	0.3	0.1	1.0	0.2	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	
Total Purged	gal	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	
Depth to Water	ft bgs	127.50	127.83	127.89	127.90	128.30	128.40	128.53	128.75	128.10	128.05	128.48	128.50	128.25	128.19	128.36	128.10	127.75	127.80	128.06	128.05	127.90
Temperature	deg C	12.9	14.6	14.8	13.4	14.1	14.1	14.3	12.8	13.2	14.2	13.4	13.3	12.2	13.1	13.5	12.6	11.8	13.2	14.3	13.0	13.0
pH	SU	7.53	7.58	7.55	7.57	7.43	7.49	7.44	7.67	7.61	7.56	7.53	7.57	7.69	7.33	7.34	7.38	7.24	7.37	7.53	7.55	7.29
Specific Conductance	µS/cm	760	813	816	836	817	826	822	848	853	825	814	815	854	813	824	830	880	822	792	803	838
Oxygen Reduction Potential	mV	-11.5	-76.6	-64.4	-53.5	-161.9	-94.6	-215.9	-104.0	-36.3	-87.6	-113.8	-140.3	-210.9	-141.2	-101.5	-189.8	-90.2	-93.1	-204.7	4.2	97.9
Lab Analytical Results:																						
Hardness as CaCO3	mg/L	281	283	280	272	292	276	275	274	303	282	274	269	279	282	296	281	268	292	266	276	295
pH (Lab)	SU	7.36	7.41	7.29	7.16	7.42	7.47	7.88	7.39	7.33	7.36	7.51	7.70	7.26	7.52	7.56	7.55	7.54	7.47	7.55	7.54	7.65
Total Dissolved Solids (Lab)	mg/L	525	505	475	465	485	505	500	430	500	465	540	505	460	490	480	490	450	275	490	475	475
Calcium	mg/L	52.2	53.3	53.0	51.1	55.7	53.1	52.4	52.0	57.9	53.3	52.4	51.4	53.5	55.1	57.7	53.4	50.6	54.8	50.0	52.3	55.7
Magnesium	mg/L	36.6	36.5	35.9	35.0	37.1	34.9	35.1	34.9	38.4	36.1	34.8	34.1	35.4	35.2	36.9	35.9	34.4	37.7	34.2	35.2	38.0
Sodium	mg/L	78.6	79.7	77.8	73.7	80.8	75.4	76.3	75.0	81.7	77.4	75.3	75.1	76.0	78.2	77.5	78.1	74.0	78.4	73.4	78.3	84.0
Potassium	mg/L	1.78	1.73	<2.00	1.54	1.71	1.48	1.53	1.55	<2.00	1.59	<2.00	1.46	1.54	<2.00	1.67	1.61	<5.00	1.64	1.55	1.57	2.26
Alkalinity, Total	mg/L	370	385	360	385	362	380	356	410	350	388	350	335	370	375	375	405	365	390	360	395	375
Alkalinity, Bicarbonate	mg/L	370	385	360	385	362	380	340	410	338	388	350	335	370	375	375	405	365	390	360	395	375
Alkalinity, Carbonate	mg/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	16.0	<10.0	12.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Alkalinity, Hydroxide	mg/L	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0	<10.0
Chloride	mg/L	3.39	3.30	3.33	3.38	3.33	3.34	3.66	3.51	3.70	3.61	3.67	3.58	3.56	3.56	3.48	3.37	3.62	3.52	3.46	3.86	3.54
Fluoride	mg/L	0.219	0.200	0.222	0.196	0.195	0.159	0.198	0.187	0.218	0.175	0.126	0.159	0.206	0.201	0.211	0.233	0.215	0.202	0.201	0.207	0.195
Sulfate as SO4	mg/L	101.0	96.3	102.0	98.4	100.0	94.7	106.0	107.0	107.0	106.0	104.0	104.0	106.0	107.0	106.0	102.0	108.0	108.0	105.0	105.0	102.0
Total Organic Carbon (TOC)	mg/L	0.93	1.42	1.54	1.40	1.54	1.36	1.60	0.77	1.44	1.15	1.59	<1.00	1.45	1.46	1.40	1.47	1.50	1.26	1.35	1.44	1.36
Nitrate/Nitrite as N	mg/L	<0.020	<0.020	<0.020	<0.020	0.052	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Aluminum	mg/L	<0.050	<0.050	<0.100	<0.050	<0.050	<0.050	<0.050	<0.050	<0.100	<0.050	<0.100	<0.050	<0.050	<0.100	<0.050	<0.050	<0.250	<0.050	<0.050	<0.050	<0.050
Arsenic	mg/L	0.0074	0.0055	0.0017	0.0051	0.0046	0.0047	0.0042	0.0037	0.0033	0.0036	0.0029	0.0030	0.0029	0.0029	0.0030	0.0026	0.0026	0.0025	<0.0020	0.0022	0.0021
Cadmium	mg/L	<0.0001	<0.0010	<0.0010	<0.0005	<0.0005	<0.0005	<0.0010	<0.0005	<0.0025	<0.0005	<0.0010	<0.0005	<0.0005	<0.0010	<0.0005	<0.0005	<0.0005	<0.0005	<0.0010	<0.0005	<0.0005
Copper	mg/L	0.0005	0.0013	<0.0010	0.0015	0.0023	0.0040	0.0014	0.0015	0.0028	0.0027	0.0020	0.0026	0.0030	0.0038	0.0039	0.0052	0.0029	0.0051	0.0070	0.0046	0.0073
Iron	mg/L	<0.050	<0.050	<0.100	0.070	0.079	<0.050	0.063	0.057	<0.100	0.062	<0.100	0.051	0.066	<0.100	0.064	0.051	<0.250	0.063	0.056	0.075	0.136
Lead	mg/L	<0.0005	<0.0010	<0.0010	<0.0005	<0.0005	<0.0025	<0.0010	<0.0025	<0.0025	<0.0005	<0.0010	<0.0005	<0.0005	<0.0010	<0.0005	<0.0005	<0.0005	<0.0005	<0.0010	<0.0005	0.0007
Manganese	mg/L	0.1960	0.1750	0.0772	0.1610	0.1630	0.1500	0.1450	0.1340	0.1220	0.1110	0.1200	0.1050	0.0976	0.1110	0.0906	0.0880	0.0822	0.0767	0.0769	0.0669	0.0675
Mercury (dissolved)	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002																
Mercury (dissolved low-level)	ng/L						<5	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Molybdenum	mg/L	<0.0005	<0.0010	<0.0010	<0.0005	<0.0005	<0.0005	<0.0010	<0.0005	<0.0025	<0.0005	<0.0010	<0.0005	<0.0005	<0.0010	<0.0005	<0.0005	<0.0005	<0.0005	<0.0010	<0.0005	<0.0005
Selenium	mg/L	0.0038	<0.0020	<0.0020	0.0031	<0.0010	0.0014	<0.0020	0.0012	<0.0050	0.0006	<0.0020	<0.0010	0.0019	<0.0020	0.0026	<0.0010	<0.0010	0.0014	<0.0020	0.0016	<0.0010
Silica (SiO2)	mg/L	20.10	21.50	20.00	20.80	22.20	20.40	20.80	20.90	22.60	21.50	20.60	20.80	20.40	20.00	20.50	20.10	18.90	20.10	20.40	19.00	19.10
Silicon	mg/L	9.40	10.00	9.37	9.71	10.40	9.54	9.75	9.75	10.60	10.00	9.61	9.71	9.55	9.36	9.59	9.41	8.83	9.39	9.54	8.90	8.91
Uranium	mg/L	<0.0005	<0.001	<0.0010	<0.0005	<0.0005	<0.0025	<0.0010	<0.0005	<0.0025	0.0001	<0.0010	<0.0005	<0.0005	<0.0010	<0.0010	<0.0005	<0.0005	<0.0005	<0.0010	<0.0005	<0.0005
Zinc	mg/L	<0.0020	<0.004	<0.0040	<0.0020	<0.0020	<0.0020	<0.0040	<0.0020	<0.0100	0.0009	<0.0040	<0.0020	0.0046	<0.0040	<0.0020	0.0039	<0.0020	0.0128	0.0104	0.0106	0.0107

Notes & Definitions:

Historical data prior to 2021 can be found in earlier posted versions of this table

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| <p>Y/N yes or no</p> <p>gpm gallons per minute</p> <p>deg C degrees Celsius</p> <p>SU standard pH units</p> <p>µS/cm microsiemens per centimeter</p> <p>mV millivolts</p> <p>mg/L milligram per liter</p> <p>pCi/L picocuries per liter</p> <p>NM not measured (field)</p> <p>NA not analyzed (lab)</p> <p>ng/L nanogram per liter</p> | <ol style="list-style-type: none"> 1. "<" values denote that the quantification of that analyte is below the reporting level for the analytical laboratory, acceptable by environmental water quality laboratory industry standards. 2. Total alkalinity is measured by titration with hydrochloric acid to a set pH point, reporting this value as an equivalent amount of calcium carbonate. This value is then partitioned into bicarbonate, carbonate and hydroxide depending on the initial pH of the sample solution, each components reported as equivalent CaCO3. 3. Industry standard Quality Assurance/Quality Control (QA/QC) protocol are followed for this hydrologic monitoring program by both GCC Energy and the contracted environmental water quality analytical laboratories. QA/QC results are not shown in this table. |
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