GWDP
Q1 2020

PARAMETER	UNIT	Maximum Daily Limit for Downgradient Wells Only	QAL008A Feb 2020 02/05/20 (Downgradient)	Q	QAL008D Feb 2020 02/05/20 (Downgradient)	Q	QAL025D Feb 2020 02/04/20	Q	QAL026A Feb 2020 02/04/20	Q	QAL026D Feb 2020 02/04/20	Q	QAL029A Feb 2020 02/05/20	Q	QAL029D Feb 2020 02/06/20	Q	QAL050A Feb 2020 02/04/20 (Downgradient)	Q	QAL051A Feb 2020 02/05/20 (Downgradient)	Q	QAL051D Feb 2020 02/06/20 (Downgradient)	Q	QAL052A Feb 2020 02/05/20 (Downgradient)	Q	QAL053A Feb 2020 02/04/20	Q	QAL055A Feb 2020 02/06/20	Q	QAL056A Feb 2020 02/05/20	Q	QAL057A Feb 2020 02/05/20 (Downgradient)	Q	QAL057D Feb 2020 02/05/20 (Downgradient)	Q	QAL075A Feb 2020 02/04/20 (Downgradient)	Q	QAL075D Feb 2020 02/04/20 (Downgradient)	Q
Field																																						
D.O.	ppm	NA	8.8		6.5		4.5		9.4		10		9.4		9.2		8.6		9.5		5.0		3.8		2.4		9.1		10		11		6.8		10		0.7	
ORP	mV	NA	112		113		282		321		276		285		253		227		247		97		231		228		84		107		113		93		96		95	
pH	SU	6.5-9.7	9.3		8.8		8.6		6.0		8.8		6.3		6.5		8.6		8.6		8.8		8.2		8.4		8.2		9.3		8.8		8.3		9.0		8.6	
Specific Conductance	µS/cm @ 25°C	NA	97		127		95		83		65		2951		429		145		100		113		115		115		875		79		196		354		101		133	
Temperature	°C	NA	13		10		7.0		6.1		7.3		7.7		6.5		11		7.9		8		5.7		8.8		9		12		11		10		7		8.0	
Turbidity	NTU	NA	<1		<1		<1		<1		<1		<1		<1		<1		<1		<1		<1		<1		<1		<1		<1		<1		<1		<1	
Water Elevation	ft MSL	NA	1393.70		1355.58		1413.26		1417.27		1410.07		1414.27		1407.47		1366.41		1368.11		1368.40		1354.25		1387.01		1368.67		1394.94		1365.84		1365.98		1349.80		1351.34	
Metals																																						
Aluminum	ug/L	150	<50.0		<50.0		<50.0		51.7		<50.0		<100		<50.0		<50.0		<50.0		<50.0		<50.0		<50.0		<50.0		<50.0		<50.0		<50.0		<50.0		<50.0	
Antimony	ug/L	5.0	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0	
Arsenic	ug/L	6.0	<1.0		2.8		3.1		<1.0		<1.0		<2.0		<1.0		<1.0		1.2		5.0		1.5		8.0		<1.0		<1.0		<1.0		1.7		1.0		1.9	
Barium	ug/L	1000	<5.0		8.0		5.3		6.9		<5.0		469		17.1		8.1		5.8		13.5		5.3		8.3		50.1		<5.0		10.5		15.4		6.2		5.6	
Beryllium	ug/L	3.0	<1.0		<1.0		<1.0		<1.0		<1.0		<2.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0	
Boron	ug/L	285	41.3	e	<20.0	e	<20.0	e	<20.0	e	<20.0	e	<40.0	e	<20.0	e	<20.0	e	<20.0	e	<20.0	e	<20.0	e	37.7	e	<20.0	e	<20.0	e	<20.0	e	20.9	e	<20.0	e	21.8	e
Cadmium	ug/L	3.0	<0.20		<0.20		<0.20		<0.20		<0.20		0.52		<0.20		<0.20		<0.20		<0.20		<0.20		<0.20		<0.20		<0.20		<0.20		<0.20		<0.20		<0.20	
Chromium	ug/L	52	<1.0		1.5		<1.0		1.1		<1.0		<2.0		5.9		<1.0		<1.0		<1.0		<1.0		<1.0		11.3		<1.0		<1.0		2.3		<1.0		<1.0	
Cobalt	ug/L	23	<15.0		<15.0		<15.0		<15.0		<15.0		<15.0		<15.0		<15.0		<15.0		<15.0		<15.0		<15.0		<15.0		<15.0		<15.0		<15.0		<15.0		<15.0	
Copper	ug/L	10	<1.0		1.3		<1.0		<1.0		<1.0		<1.0		1.4		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		1.0		<1.0		<1.0	
Iron	ug/L	NA	<50.0		<50.0		<50.0		113		<50.0		<50.0		77.6		<50.0		<50.0		<50.0		<50.0		<50.0		<50.0		<50.0		<50.0		<50.0		<50.0		<50.0	
Lead	ug/L	3.0	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0	
Lithium	ug/L	88	<8.0		<8.0		<8.0		<8.0		<8.0		<8.0		<8.0		<8.0		<8.0		<8.0		<8.0		<8.0		<8.0		<8.0		<8.0		<8.0		<8.0		<8.0	
Manganese	ug/L	50	<5.0	e	<5.0	e	<5.0	e	<5.0	e	<5.0	e	30.9	e	<5.0	e	<5.0	e	<5.0	e	<5.0	e	<5.0	e	<5.0	e	<5.0	e	<5.0	e	<5.0	e	<5.0	e	<5.0	e	<5.0	e
Mercury	ng/L	NA	<0.50		<0.50		<0.50		<0.50		<0.50		3.41		1.18		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
Molybdenum	ug/L	22	<5.0		<5.0		<5.0		<5.0		<5.0		<10.0		<5.0		<5.0		<5.0		<5.0		<5.0		<5.0		<5.0		<5.0		<5.0		<5.0		<5.0		<5.0	
Nickel	ug/L	57	<2.0		<2.0		<2.0		<2.0		<2.0		<2.0		<2.0		<2.0		<2.0		<2.0		<2.0		<2.0		3.5		<2.0		<2.0		3.6		<2.0		<2.0	
Selenium	ug/L	5.0	<1.0		<1.0		<1.0		<1.0		<1.0		<2.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0	
Silver	ug/L	0.40	<0.20		<0.20		<0.20		<0.20		<0.20		<0.20		<0.20		<0.20		<0.20		<0.20		<0.20		<0.20		<0.20		<0.20		<0.20		<0.20		<0.20		<0.20	
Strontium	ug/L	2300	11.4	e	43.9	e	31.9	e	28.3	e	11.3	e	639	e	30.0	e	34.6	e	20.7	e	80.5	e	46.9	e	80.0	e	172	e	10.5	e	32.5	e	158	e	20.4	e	53.7	e
Thallium	ug/L	1.0	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0	
Uranium	ug/L	NA	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0	
Vanadium	ug/L	3.1	1.3		1.9		4.0		<1.0		<1.0		<2.0		<1.0		1.1		3.7		3.2		1.8		1.5		<1.0		1.1		<1.0		<1.0		2.7		1.6	
Zinc	ug/L	1200	<10.0	e	<10.0	e	<10.0	e	<10.0	e	<10.0	e	<10.0	e	<10.0	e	<10.0	e	<10.0	e	<10.0	e	<10.0	e	<10.0	e	<10.0	e	<10.0	e	<10.0	e	<10.0	e	<10.0	e	<10.0	e
Major Anions																																						
Alkalinity, Bicarbonate	mg/L	NA	34.0		45.2		41.8		41.9		31.0		26.0		93.2		51.1		30.8		47.0		49.7		55.7		87.7		27.4		50.7		80.2		42.4		59.0	
Chloride	mg/L	NA	2.7		7.3		<1.0		<1.0		<1.0		822		67.3		10.3		1.9		1.7		1.8		<1.0		176		1.1		23.0		50.3		<1.0		<1.0	
Fluoride	mg/L	1.0	<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	
Nitrogen, Ammonia	mg/L	10	<0.020	e	<0.020	e	<0.020	e	<0.020	e	<0.020	e	<0.020	e	<0.020	e	<0.020	e	<0.020	e	<0.020	e	<0.020	e	<0.020	e	<0.020	e	<0.020	e	<0.020	e	<0.020	e	<0.020	e	<0.020	e
Nitrogen, Nitrate	mg/L	10	1.3	e	0.20	e	0.11	e	0.44	e	0.11	e	9.3	e	0.59	e	0.73	e	3.0	e	0.56	e	0.38	e	0.078	e	0.91	e	1.0	e	0.97	e	0.54	e	1.3	e	0.059	e
Nitrogen, Nitrite	mg/L	NA	<0.050		<0.050		<0.050		<0.050		<0.050		<0.050		<0.050		<0.050		<0.050		<0.050		<0.050		<0.050		<0.050		<0.050		<0.050		<0.050		<0.050		<0.050	
Nitrogen, Total Inorganic	mg/L	10	1.3		0.20		0.11		0.45		0.12		9.3		0.59		0.73		3.0		0.56		0.38		0.080		0.91		1.0		0.97		0.54		1.3		0.061	
Phosphorus, Total	mg/L	NA	<0.050		<0.050		<0.050		<0.050		<0.050		<0.050		<0.050		<0.050		<0.050		<0.050		<0.050		<0.050		<0.050		<0.050		<0.050		<0.050		<0.050		<0.050	
Sulfate	mg/L	250	<1.0		4.0		4.8		2.0		1.9		24.6		7.0		3.8		1.5		3.2		4.2		6.0		9.0		<1.0		1.3		3.9		1.5		6.1	
Major Cations																																						
Calcium	mg/L	NA	9.2	e	18.4	e	12.4	e	13.0	e	10.5	e	140	e	11.4	e	19.8	e	14.5	e	14.8	e	17.1	e	15.8	e	64.7	e	8.9	e	26.1	e	46.3	e	13.8	e	18.2	e
Magnesium	mg/L	NA	1.2		3.7		2.8		2.1		1.5		21.4		4.2		3.8		2.5		3.1		3.8		3.9		15.8		1.4		4.7		9.0		2.7		4.1	
Potassium	mg/L	NA	0.94	e	0.98	e	0.70	e	1.1	e	0.51	e	9.3	e	1.5	e	0.96	e	0.67	e	1.1	e	1.1	e	1.3	e	2.6	e	0.90	e	1.1	e	1.9	e	0.71	e	1.1	e
Sodium	mg/L	NA	8.9		1.4		3.7		1.4		<1.0		422		76.5		3.7		1.5		2.5		1.6		2.0		78.0		5.2		5.6		7.3		1.4		1.5	
General																																						
Hardness	mg/L	NA	27.92		61		42		41		32		438		46		65		47		50		58		55		227		28		85		153		46		62	

Notes:
e: estimated value. The laboratory statement of data qualifications indicates that a quality control limit for this parameter was exceeded.
nm: not measured. ns: not sampled.
*The 3.1 ug/L MDL for vanadium does not apply to monitoring wells QAL008A and QAL051A.
Value is outside of maximum daily limit as stipulated in Permit GW1810162 for compliance monitoring locations.