GWDP
Q1 2019

PARAMETER	UNIT	Maximum Daily Limit for Downgradient Wells Only	QAL008A Feb 2019 02/11/19 (Downgradient)	Q	QAL008D Feb 2019 02/11/19 (Downgradient)	Q	QAL025D Feb 2019 02/12/19	Q	QAL026A Feb 2019 02/12/19	Q	QAL026D Feb 2019 02/12/19	Q	QAL029A Feb 2019 02/12/19	Q	QAL029D Feb 2019 02/12/19	Q	QAL050A Feb 2019 02/12/19 (Downgradient)	Q	QAL051A Feb 2019 02/11/19 (Downgradient)	Q	QAL051D Feb 2019 02/11/19 (Downgradient)	Q	QAL052A Feb 2019 02/11/19 (Downgradient)	Q	QAL053A Feb 2019 02/12/19	Q	QAL055A Feb 2019 02/11/19	Q	QAL056A Feb 2019 02/11/19	Q	QAL057A Feb 2019 02/11/19 (Downgradient)	Q	QAL057D Feb 2019 02/11/19 (Downgradient)	Q	QAL075A Feb 2019 02/12/19 (Downgradient)	Q	QAL075D Feb 2019 02/12/19 (Downgradient)	Q
Field																																						
D.O.	ppm	NA	8.5		6.5		4.5		10		11		nm		10		10		11		4.2		5.1		2.7		9.3		10		10		6.9		10		0.7	
ORP	mV	NA	31		41		147		183		155		nm		172		24		133		70		217		19		81		48		35		35		34		6	
pH	SU	6.5-9.7	9.3		8.7		9.0		6.9		9.2		nm		6.9		8.8		9.0		8.8		8.6		8.5		8.4		9.1		8.9		8.4		8.9		8.5	
Specific Conductance	µS/cm @ 25°C	NA	80		112		100		138		66		nm		700		162		93		112		118		127		643		73		133		268		93		133	
Temperature	°C	NA	14		10		7.1		6.2		7.4		nm		7.2		12		7.1		8.8		9		8		9.5		14		11		10		8.2		8.1	
Turbidity	NTU	NA	<1		<1		<1		<1		<1		nm		<1		<1		<1		<1		<1		<1		<1		<1		<1		<1		<1		<1	
Water Elevation	ft MSL	NA	1392.87		1354.81		1412.85		1416.43		1409.67		1455.85		1406.96		1365.70		1367.11		1367.06		1353.52		1386.93		1366.75		1394.00		1364.35		1364.40		1349.47		1350.96	
Metals																																						
Aluminum	ug/L	150	<50.0		<50.0		<50.0		<50.0		<50.0		ns		<50.0		<50.0		53.0		<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		ns		<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		3.2		3.0		<1.0		<1.0		ns		<1.0		<1.0		1.2		4.9		1.4		7.9		<1.0		<1.0		<1.0		2.6		1.2		2.0	
Barium	ug/L	1000	<5.0	e	7.7	e	5.7	e	8.8	e	<5.0	e	ns		23.1	e	8.0	e	<5.0	e	13.5	e	6.2	e	8.1	e	37.1	e	<5.0	e	6.4	e	11.6	e	5.6	e	5.8	e
Beryllium	ug/L	3.0	<1.0		<1.0		<1.0		<1.0		<1.0		ns		<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	24.6	e	<20.0	e	<20.0	e	<20.0	e	<20.0	e	ns		<20.0	e	<20.0	e	<20.0	e	21.8	e	20.8	e	34.4	e	<20.0	e	<20.0	e	<20.0	e	22.8	e	<20.0	e	20.8	e
Cadmium	ug/L	3.0	<0.20		<0.20		<0.20		<0.20		<0.20		ns		<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		2.1		<1.0		<1.0		<1.0		ns		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		3.3		<1.0		<1.0		<1.0		<1.0		<1.0	
Cobalt	ug/L	23	<15.0		<15.0		<15.0		<15.0		<15.0		ns		<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		<1.0		<1.0		<1.0		<1.0		ns		1.3		<1.0		<1.0		<1.0		2.1		<1.0		<1.0		1.0		<1.0		<1.0		<1.0		3.4	
Iron	ug/L	NA	<50.0	e	<50.0	e	<50.0	e	<50.0	e	<50.0	e	ns		<50.0	e	<50.0	e	<50.0	e	<50.0	e	190	e	<50.0	e	<50.0	e	<50.0	e	<50.0	e	<50.0	e	<50.0	e	<50.0	e
Lead	ug/L	3.0	<1.0		<1.0		<1.0		<1.0		<1.0		ns		<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		ns		<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	ns		<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	<0.500		<0.500		0.720		0.750		<0.500		ns		1.94		<0.500		0.720		<0.500		0.530		<0.500		<0.500		<0.500		<0.500		<0.500		<0.500		<0.500	
Molybdenum	ug/L	22	<5.0		<5.0		<5.0		<5.0		<5.0		ns		<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		ns		<2.0		<2.0		<2.0		<2.0		<2.0		<2.0		<2.0		<2.0		<2.0		<2.0		<2.0		<2.0	
Selenium	ug/L	5.0	<1.0		<1.0		<1.0		<1.0		<1.0		ns		<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		ns		<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	11.1	e	42.1	e	33.2	e	32.4	e	11.6	e	ns		36.7	e	38.3	e	18.4	e	82.8	e	50.4	e	81.5	e	141	e	10.4	e	21.2	e	102	e	17.9	e	54.7	e
Thallium	ug/L	1.0	<1.0		<1.0		<1.0		<1.0		<1.0		ns		<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		ns		<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	1.6		2.2		4.1		<1.0		<1.0		ns		<1.0		1.1		3.9		2.0		1.7		1.5		<1.0		1.2		<1.0		<1.0		3.1		1.5	
Zinc	ug/L	1200	<10.0	e	<10.0	e	<10.0	e	<10.0	e	<10.0	e	ns		<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	33.7	s	44.6	s	43.8	s	69.2	s	29.9	s	ns		92.7	s	39.5	s	30.5	s	48.0	s	51.6	s	54.1	s	259		29.4	s	41.4	s	72.2	s	36.8	s	56.9	s
Chloride	mg/L	NA	<1.0	e	2.3	e	<1.0	e	<1.0	e	<1.0	e	ns		164	e	18.3	e	1.6	e	1.0	e	1.1	e	<1.0	e	152	e	<1.0	e	11.5	e	29.6	e	<1.0	e	<1.0	e
Fluoride	mg/L	1.0	<0.10		<0.10		<0.10		<0.10		<0.10		ns		<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	<0.040	e	<0.020	e	<0.020	e	<0.020	e	ns		<0.020	e	<0.020	e	<0.020	e	<0.040	e	<0.020	e	<0.020	e	<0.040	e	<0.020	e	<0.020	e	<0.040	e	<0.020	e	<0.020	e
Nitrogen, Nitrate	mg/L	10	0.56	e	0.15	e	0.099	e	0.72	e	0.15	e	ns		1.0	e	0.74	e	2.7	e	0.52	e	0.26	e	<0.050	e	0.86	e	1.2	e	1.0	e	0.37	e	1.0	e	0.059	e
Nitrogen, Nitrite	mg/L	NA	<0.050		<0.050		<0.050		<0.050		<0.050		ns		<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	0.57		0.15		0.10		0.72		0.15		ns		1.0		0.75		2.7		0.52		0.27		0.052		0.87		1.2		1.0		0.37		1.0		0.068	
Phosphorus, Total	mg/L	NA	<0.050		<0.050		<0.050		<0.050		<0.050		ns		<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		5.1		2.1		1.9		ns		10.4		3.4		1.5		3.6		4.5		5.9		7.5		<1.0		<1.0		3.7		1.3		6.1	
Major Cations																																						
Calcium	mg/L	NA	8.0		14.9		11.8		20.1		10.1		ns		13.8		19.1		12.7		14.4		16.1		15.4		58.9		7.8		16.5		33.6		11.7		17.4	
Magnesium	mg/L	NA	1.2		3.2		2.7		2.9		1.4		ns		5.2		3.7		2.3		3.1		3.8		3.8		13.8		1.2		3.0		7.2		2.4		3.9	
Potassium	mg/L	NA	0.94		0.98		0.61		1.2		<0.50		ns		1.7		0.88		0.66		1.2		1.2		1.2		2.2		1.2		0.88		1.6		0.62		1.1	
Sodium	mg/L	NA	5.6		1.3		3.4		1.5		<1.0		ns		114		2.8		1.3		2.6		1.6		1.9		38.7		4.8		3.0		2.5		1.2		1.4	
General																																						
Hardness	mg/L	NA	25		50		41		62		31		ns		56		63		41		49		56		54		204		24		54		114		39		59	

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.