Georgia Power

Plant McManus

Prepared by: TETRA TECH

Monthly Dewatering Results[1]

March 2019

Parameter	Units	Effluent Concentration		Permit Limits		
		Minimum	Maximum	Daily Avg		Daily Max
Flow	MGD	0.0	0.72	***		***
pH	SU	6.7	7.8	6.0 - 9.0		
Total Suspended Solids	mg/L	6.2	23.0	30.0		100.0
Oil and Grease	mg/L	ND[2]	ND	15.0		20.0

Parameter	Units	Measured Effluent			
		3/7/2019	3/12/2019	3/20/2019	3/26/2019
Turbidity	NTU	3.4	4.8	4.3	5.2
Total Dissolved Solids	mg/L	4,100	6,100	5,700	6,100
Ammonia	mg/L	0.72	ND	0.98	ND
Total Kjeldahl Nitrogen	mg/L	1.2	1.2	1.5	2.9
Nitrate-Nitrite	mg/L	0.07	ND	ND	ND
Organic Nitrogen	mg/L	0.5	1.2	0.5	2.9
Phosphorus	mg/L	ND	ND	ND	ND
Ortho-Phosphorus	mg/L	ND	ND	ND	ND
Biological Oxygen Demand	mg/L	2.2	5.1	5.4	5.8
Hardness	mg/L	190	300	310	280

Parameter	Units	Effluent Concentration[3]				Calculated River Value[3]				Water Quality Standard[4]
		3/7/2019	3/12/2019	3/20/2019	3/26/2019	3/7/2019	3/12/2019	3/20/2019	3/26/2019	
Arsenic	µg/L	16.0	45.0	16.0	11.0	9.0	21.2	8.5	5.7	69
Cadmium	µg/L	ND	ND	ND	ND	***	***	***	***	40
Chromium[5]	µg/L	ND	ND	ND	ND	***	***	***	***	1100
Copper	µg/L	ND	ND	ND	ND	***	***	***	***	4.8
Lead	µg/L	ND	ND	ND	ND	***	***	***	***	210
Nickel	µg/L	ND	ND	ND	ND	***	***	***	***	74
Selenium	µg/L	ND	ND	ND	ND	***	***	***	***	290
Zinc	µg/L	ND	ND	ND	ND	***	***	***	***	90
Mercury	ng/L	0.86	1.10	ND	ND	0.2628	0.3790	***	***	1800

1 Tetra Tech verifies the correct laboratory analysis methods were used, any applicable permit limits have been met and other results are protective of Georgia EPD's water quality standards.

2 ND = Not Detected.

3 Calculated River Value shows what the total effluent concentration looks like once it has fully mixed in the receiving waterbody. This value is calculated as a dissolved concentration for an appropriate comparison to the numeric water quality criteria, which are also in the dissolved form. Consistent with Georgia EPD, non-detectable effluent concentrations are not translated into calculated river values.

4 Numeric Water Quality Criteria is the maximum concentration of a parameter established for the receving waterbody that will be protective of the designated use per Georgia EPD's rules and regulations. Calculated River Values less than these criteria are protective of the waterbody.

5 Numeric water quality criterion shown is for Hexavalent Chromium.

*** = Not Applicable

mg/L = milligrams per liter = parts per million; µg/L = micrograms per liter = parts per billion; ng/L = nanograms per liter = parts per trillion; SU = Standard Units; MGD = Million Gallons Day

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Monthly Instream Results[1]

March 2019

Parameter[3]	Units	Burnett Creek[2]			
		3/7/2019 Upstream	*3/7/2019* Downstream	*3/20/2019* Upstream	*3/20/2019* Downstream
pH	**SU**	7.25	7.12	7.58	7.72
TSS	**mg/L**	7.6	6.8	8.8	9.7
O&G	**mg/L**	ND	ND	ND	ND
Turbidity	**NTU**	5.2	5.5	5.4	6.4
TDS	**mg/L**	16000	17000	16000	17000
BOD	**mg/L**	ND	ND	ND	ND
Arsenic	**µg/L**	5.2	5.1	ND	ND
Cadmium	**µg/L**	ND	ND	ND	ND
Chromium	**µg/L**	ND	ND	ND	ND
Copper	**µg/L**	ND	ND	ND	ND
Lead	**µg/L**	ND	ND	ND	ND
Mercury	**ng/L**	5.7	5.3	4.6	4.9
Nickel	**µg/L**	ND	ND	ND	ND
Selenium	**µg/L**	ND	ND	ND	ND
Zinc	**µg/L**	ND	ND	ND	ND
Ammonia	**mg/L**	ND	ND	ND	ND
TKN	**mg/L**	0.45	0.42	0.35	0.45
Nitrate-Nitrite	**mg/L**	ND	ND	ND	ND
Organic Nitrogen	**mg/L**	0.45	0.42	0.35	0.45
Phosphorus	**mg/L**	ND	ND	0.13	0.14
Ortho-phosphorus	**mg/L**	ND	0.077	ND	ND
Hardness	**mg/L**	470	500	540	550

1 Tetra Tech verifies the correct laboratory analysis methods were used.

2 Burnett Creek measured 1000ft upstream and 1000ft downstream of the Final Outfall 02.

3 Metals results are total recoverable.

4 ND = Non-detect

mg/L = milligrams per liter = parts per million; µg/L = micrograms per liter = parts per billion;

ng/L = nanograms per liter = parts per trillion; SU = Standard Units; MGD = Million Gallons Day