PROVIDING MORE EPCOR

Gold Bar Wastewater Treatment Plant
Plant Performance Report
December 2017

Digested Sludge: Total Monthly Volume (ML)	62.39

Volume of Flow (ML)

DATE	Peak Flow (MLD)	Influent RAW	Effluent Non UV Disinfected OUTFALL 30	Effluent Non UV Disinfected OUTFALL 20	Effluent Non UV Disinfected MPW	Effluent UV Disinfected EPEPS	Effluent UV Disinfected OUTFALL 10 FEC	Effluent UV Disinfected OUTFALL 10 FE
Fri 01	319.65	238.16	0.00	0.00	11.78	0.00	226.38	226.38
Sat 02	337.30	241.48	0.00	0.00	11.95	0.00	229.53	229.53
Sun 03	347.57	240.16	0.00	0.00	11.25	0.00	228.91	228.91
Mon 04	324.29	241.51	0.00	0.00	11.06	0.00	230.45	230.45
Tue 05	312.58	236.31	0.00	0.00	11.03	0.00	225.28	225.28
Wed 06	354.95	236.45	0.00	0.00	10.94	0.00	225.51	225.51
Thu 07	327.84	239.81	0.00	0.00	11.04	0.00	228.77	228.77
Fri 08	290.83	239.20	0.00	0.00	11.05	0.00	228.15	228.15
Sat 09	321.55	236.61	0.00	0.00	11.41	0.00	225.20	225.20
Sun 10	365.35	247.26	0.00	0.00	11.45	0.00	235.81	235.81
Mon 11	352.80	249.00	0.00	0.00	11.35	0.00	237.65	237.65
Tue 12	340.86	254.12	0.00	0.00	10.96	0.00	243.16	243.16
Wed 13	337.62	251.72	0.00	0.00	10.56	0.00	241.16	241.16
Thu 14	313.64	245.72	0.00	0.00	10.72	0.00	235.00	235.00
Fri 15	329.18	254.95	0.00	0.00	10.89	0.00	244.06	244.06
Sat 16	323.04	238.19	0.00	0.00	10.84	0.00	227.35	227.35
Sun 17	321.28	228.42	0.00	0.00	10.88	0.00	217.54	217.54
Mon 18	317.90	242.88	0.00	0.00	10.89	0.00	231.99	231.99
Tue 19	311.24	241.21	0.00	0.00	11.27	0.00	229.94	229.94
Wed 20	313.21	239.56	0.00	0.00	11.25	0.00	228.31	228.31
Thu 21	307.50	237.76	0.00	0.00	11.33	0.00	226.43	226.43
Fri 22	305.28	240.03	0.00	0.00	11.06	0.00	228.97	228.97
Sat 23	312.25	235.62	0.00	0.00	10.66	0.00	224.96	224.96
Sun 24	313.47	234.86	0.00	0.00	11.13	0.00	223.73	223.73
Mon 25	325.67	222.50	0.00	0.00	11.13	0.00	211.37	211.37
Tue 26	368.68	219.15	0.00	0.00	10.98	0.00	208.17	208.17
Wed 27	318.54	231.00	0.00	0.00	11.50	0.00	219.50	219.50
Thu 28	319.62	239.72	0.00	0.00	11.70	0.00	228.02	228.02
Fri 29	319.92	237.71	0.00	0.00	12.01	0.00	225.70	225.70
Sat 30	321.18	234.82	0.00	0.00	12.25	0.00	222.57	222.57
Sun 31	334.42	237.91	0.00	0.00	11.77	0.00	226.14	226.14
Average	326.10	239.15	0.00	0.00	11.23	0.00	227.93	227.93
Minimum	290.83	219.15	0.00	0.00	10.56	0.00	208.17	208.17
Maximum	368.68	254.95	0.00	0.00	12.25	0.00	244.06	244.06
GeoMean	---	---	---	---	---	---	---	---
TOTAL	---	7,414	0	0	348	0	7,066	7,066

Liquid Stream Quality

DATE	pH@25°C RAW	pH@25°C OUTFALL 30	pH@25°C OUTFALL 20	pH@25°C OUTFALL 10 FEC	TSS (mg/L) RAW	TSS (mg/L) OUTFALL 30	TSS (mg/L) OUTFALL 20	TSS (mg/L) EPEPS	TSS (mg/L) OUTFALL 10 FEC	TSS (mg/L) OUTFALL 10 FE
Fri 01	7.5			7.6	392				2.8	2.8
Sat 02	7.6			7.6	311				3.6	3.6
Sun 03	7.6			7.5	368				3.3	3.3
Mon 04	7.7			7.6	368				2.9	2.9
Tue 05	7.6			7.5	280				3.5	3.5
Wed 06	7.6			7.5	404				2.8	2.8
Thu 07	7.5			7.5	304				3.7	3.7
Fri 08	7.6			7.6	308				3.6	3.6
Sat 09	7.5			7.4	284				4.2	4.2
Sun 10	7.5			7.5	300				3.8	3.8
Mon 11	7.5			7.5	268				4.0	4.0
Tue 12	7.5			7.5	288				4.1	4.1
Wed 13	7.5			7.4	268				3.9	3.9
Thu 14	7.5			7.4	288				3.7	3.7
Fri 15	7.6			7.5	332				3.5	3.5
Sat 16	7.5			7.5	172				4.2	4.2
Sun 17	7.6			7.5	324				7.0	7.0
Mon 18	7.6			7.6	332				4.9	4.9
Tue 19	7.5			7.5	292				4.7	4.7
Wed 20	7.5			7.4	280				4.4	4.4
Thu 21	7.5			7.5	372				4.9	4.9
Fri 22	7.5			7.5	332				5.1	5.1
Sat 23	7.6			7.5	380				4.6	4.6
Sun 24	7.6			7.5	384				5.0	5.0
Mon 25	7.6			7.5	380				4.9	4.9
Tue 26	7.6			7.5	396				4.0	4.0
Wed 27	7.6			7.6	352				5.0	5.0
Thu 28	7.5			7.4	324				3.9	3.9
Fri 29	7.8			7.6	360				4.3	4.3
Sat 30	7.7			7.4	326				4.7	4.7
Sun 31	7.6			7.5	264				5.0	5.0
Average	7.6	---	---	7.5	324	---	---	---	4.2	4.2
Minimum	7.5	---	---	7.4	172	---	---	---	2.8	2.8
Maximum	7.8	---	---	7.6	404	---	---	---	7.0	7.0
GeoMean	---	---	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---

DATE	BOD_5/$cBOD_5$ (mg/L) RAW	BOD_5 OUTFALL 30	BOD_5 OUTFALL 20	BOD_5 EPEPS	OUTFALL 10 FEC	OUTFALL 10 FE	TP (mg/L) RAW	TP OUTFALL 30	TP OUTFALL 20	TP EPEPS	TP OUTFALL 10 FEC	TP OUTFALL 10 FE
Fri 01	285				< 2	< 2	8.13				0.18	0.18
Sat 02	394				3	3	6.76				0.19	0.19
Sun 03	346				2	2	5.92				0.19	0.19
Mon 04	485				3	3	7.41				0.18	0.18
Tue 05	281				2	2	7.38				0.20	0.20
Wed 06	350				2	2	9.12				0.19	0.19
Thu 07	382				3	3	7.79				0.20	0.20
Fri 08	321				3	3	8.05				0.10	0.10
Sat 09	320				3	3	6.57				0.22	0.22
Sun 10	403				3	3	11.3				0.21	0.21
Mon 11	352				3	3	7.58				0.22	0.22
Tue 12	347				3	3	7.98				0.23	0.23
Wed 13	314				3	3	7.87				0.23	0.23
Thu 14	345				4	4	7.49				0.29	0.29
Fri 15	311				4	4	7.06				0.29	0.29
Sat 16	214				4	4	5.54				0.27	0.27
Sun 17	318				5	5	6.80				0.25	0.25
Mon 18	331				4	4	7.15				0.33	0.33
Tue 19	306				4	4	7.59				0.33	0.33
Wed 20	337				3	3	9.48				0.26	0.26
Thu 21	272				3	3	8.45				0.24	0.24
Fri 22	424				3	3	8.72				0.30	0.30
Sat 23	411				3	3	8.03				0.26	0.26
Sun 24	471				3	3	8.30				0.25	0.25
Mon 25	368				2	2	8.37				0.24	0.24
Tue 26	360				3	3	7.98				0.23	0.23
Wed 27	343				3	3	7.86				0.25	0.25
Thu 28	349				3	3	8.28				0.25	0.25
Fri 29	354				4	4	7.82				0.25	0.25
Sat 30	326				3	3	9.09				0.26	0.26
Sun 31	347				3	3	9.54				0.26	0.26
Average	347	---	---	---	3.1	3.1	7.92	---	---	---	0.24	0.24
Minimum	214	---	---	---	< 2.0	< 2.0	5.54	---	---	---	0.10	0.10
Maximum	485	---	---	---	5.0	5.0	11.3	---	---	---	0.33	0.33
GeoMean	---	---	---	---	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---	---	---

DATE	NH3-N (mg/L) RAW	NH3-N OUTFALL 30	NH3-N OUTFALL 20	NH3-N EPEPS	NH3-N OUTFALL 10 FEC	NH3-N OUTFALL 10 FE	TKN (mg/L) RAW	TKN OUTFALL 30	TKN OUTFALL 20	TKN OUTFALL 10 FEC	NO_2+NO_3 (mg/L) RAW	NO_2+NO_3 OUTFALL 30	NO_2+NO_3 OUTFALL 20	NO_2+NO_3 OUTFALL 10 FEC
Fri 01	27.8				0.394	0.394	59.0			1.87				9.55
Sat 02	34.8				0.788	0.788	54.5			2.39				8.23
Sun 03	32.3				0.970	0.970	50.9			2.49	< 0.01			9.41
Mon 04	35.2				0.990	0.990	60.6			2.44	< 0.01			7.57
Tue 05	40.2				0.396	0.396	58.5			1.74	0.03			6.60
Wed 06	36.8				0.800	0.800	66.5			2.41	0.01			9.31
Thu 07	40.7				1.30	1.30	61.1			2.85	0.02			10.4
Fri 08	41.8				1.01	1.01	58.5			2.44				10.7
Sat 09	41.9				0.997	0.997	58.2			2.59				10.9
Sun 10	44.7				1.48	1.48	83.5			3.04	0.07			12.1
Mon 11	38.4				1.52	1.52	56.6			2.88	0.08			10.2
Tue 12	40.1				1.22	1.22	56.4			2.71				10.1
Wed 13	41.2				1.58	1.58	54.4			2.80	0.02			9.83
Thu 14	34.0				1.30	1.30	54.5			3.10	0.06			11.5
Fri 15	34.0				0.347	0.347	50.7			2.10				9.25
Sat 16	37.5				0.337	0.337	50.0			1.91				7.98
Sun 17	38.7				0.615	0.615	54.9			2.05	0.01			8.10
Mon 18	37.4				0.461	0.461	56.5			1.92	0.02			7.20
Tue 19	39.2				0.566	0.566	59.8			2.22				10.1
Wed 20	41.8				1.25	1.25	66.9			2.94	0.03			9.66
Thu 21	41.8				1.49	1.49	67.4			2.81	0.09			9.42
Fri 22	42.5				1.99	1.99	66.7			3.82				9.78
Sat 23	42.6				2.65	2.65	64.6			4.32				9.14
Sun 24	41.5				2.90	2.90	67.8			4.88	0.03			8.95
Mon 25	46.9				3.02	3.02	71.0			4.98	0.03			8.28
Tue 26	45.6				4.43	4.43	69.1			6.16	0.03			9.26
Wed 27	43.6				5.96	5.96	63.6			7.75	0.02			8.86
Thu 28	38.3				5.67	5.67	65.6			7.35	0.21			8.80
Fri 29	44.9				4.95	4.95	64.2			6.58				8.40
Sat 30	48.4				5.88	5.88	67.6			7.24				8.60
Sun 31	52.9				6.05	6.05	72.0			7.61				8.73
Average	40.2	---	---	---	2.04	2.04	61.7	---	---	3.63	0.04	---	---	9.26
Minimum	27.8	---	---	---	0.337	0.337	50.0	---	---	1.74	< 0.01	---	---	6.60
Maximum	52.9	---	---	---	6.05	6.05	83.5	---	---	7.75	0.21	---	---	12.1
GeoMean	---	---	---	---	---	---	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---	---	---	---	---

DATE	Chloride (mg/L) RAW	Chloride OUTFALL 30	Chloride OUTFALL 20	Chloride OUTFALL 10 FEC	*E. coli* (Counts/100 mL) RAW X10^6	*E. coli* OUTFALL 30 X10^6	*E. coli* OUTFALL 20 X10^6	*E. coli* OUTFALL 10 FEC
Fri 01	93.1			103				10
Sat 02	78.8			99.6				8
Sun 03	71.1			89.1				8
Mon 04	81.8			77.1				5
Tue 05	83.6			88.0				4
Wed 06	75.7			91.9				5
Thu 07	80.1			91.6				2
Fri 08	75.2			89.7				4
Sat 09	67.3			87.6				5
Sun 10	91.4			84.9				4
Mon 11	91.6			99.7				5
Tue 12	122			97.6	2.9			7
Wed 13	95.1			126				6
Thu 14	82.5			102				9
Fri 15	156			123				5
Sat 16	76.7			136				10
Sun 17	76.2			91.3				5
Mon 18	82.1			84.6				6
Tue 19	81.6			89.0				13
Wed 20	78.0			87.4				15
Thu 21	83.1			91.0	3.1			27
Fri 22	73.2			93.0				45
Sat 23	81.4			92.4				33
Sun 24	96.1			91.8				42
Mon 25	91.6			100				26
Tue 26	77.8			92.9				29
Wed 27	79.5			85.4				20
Thu 28	82.5			97.2				10
Fri 29	88.4			94.8				14
Sat 30	70.1			91.4				9
Sun 31	65.6			77.7				8
Average	84.8	---	---	95.1	---	---	---	---
Minimum	65.6	---	---	77.1	2.9	---	---	2
Maximum	156	---	---	136	3.1	---	---	45
GeoMean	---	---	---	---	3.0	---	---	9
TOTAL	---	---	---	---	---	---	---	---

* contact Laboratory for information about the quality assurance associated with the results

Enhanced Primary Treatment (EPT) Usage					
Total Bypass (hrs)	EPT Usage (hrs)	%	Total Bypass YTD (hrs)	EPT Usage YTD	% Usage YTD
0	0	100%	501	501	100.00%

Report Comments

1.	Outfall 10 - December 01, 2017: This sample was retested for operational reasons. Therefore, the recommended holding time for cBOD5 was exceeded prior to analysis.

AEP Ref #**

** AEP - Alberta Environment & Parks

RAW	Untreated Influent into the plant
INF	Untreated Wastewater from collection system
INFs	Influent, screened at the Headworks Diversion Structure
PE	Primary Effluent from conventional primaries
PE 30	Primary Effluent from conventional primaries discharged via Outfall 30
EPT	Enhanced Primary Treatment
EPE	Enhanced Primary Effluent
EPEPS	Enhanced Primary Effluent and Pump Station
FE	Final Effluent from secondary treatment process (with biological nutrient removal).

FEC	Combined pre-UV disinfection (FE+EPEPS)
OUTFALL 10	UV-disinfected, discharged via OUTFALL 10
OUTFALL 20	Combined Bypass (RAW + PE + EPE)
OUTFALL 30	Combined Bypass (INF + INFS + PE30 + EPE)
MPW	Membrane Product Water (Effluent re-use water)
ML	Megalitre (1,000,000 Litre)
MPN	Most Probable Number
NR	No Result
NS	No Sample
INS	Insufficient Sample

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