Gold Bar Wastewater Treatment Plant
Plant Performance Report
July 2019

PROVIDING MORE EPCOR

Digested Sludge: Total Monthly Volume (ML)	64.2

Volume of Flow (ML) and pH@25°C

DATE	Peak Flow (MLD)	Influent RAW	Effluent Non UV Disinfected OUTFALL 30	Non UV Disinfected OUTFALL 20	Non UV Disinfected MPW	UV Disinfected EPEPS	UV Disinfected OUTFALL 10 FEC	UV Disinfected OUTFALL 10 FE	pH@25°C RAW	pH OUTFALL 30	pH OUTFALL 20	pH OUTFALL 10 FEC
Mon-01	827.7	374.1	74.3	0.0	11.0	0.0	288.8	288.8	7.6	7.5		7.6
Tue-02	399.8	320.3	0.9	0.0	10.7	0.0	308.7	308.7	7.6	7.9		7.5
Wed-03	483.4	319.6	18.7	0.0	10.4	0.0	290.5	290.5	7.6	7.7		7.6
Thu-04	442.1	307.0	3.5	0.0	10.4	0.0	293.1	293.1	7.6	8.0		7.6
Fri-05	438.0	302.8	17.6	0.0	10.3	0.0	274.9	274.9	7.7	7.6		7.7
Sat-06	495.1	296.5	3.4	0.0	10.3	0.0	282.8	282.8	7.7	8.1		7.5
Sun-07	546.9	329.8	25.5	0.0	10.5	0.0	293.8	293.8	7.6	7.6		7.6
Mon-08	543.1	379.1	14.9	0.0	10.1	0.0	354.1	354.1	7.4	7.3		7.1
Tue-09	378.5	302.8	0.0	0.0	10.7	0.0	292.1	292.1	7.8			7.6
Wed-10	370.2	292.2	0.0	0.0	10.7	0.0	281.5	281.5	7.7			7.7
Thu-11	344.5	290.6	0.0	0.0	10.7	0.0	279.9	279.9	7.7			7.7
Fri-12	354.6	296.0	0.0	0.0	10.6	0.0	285.4	285.4	7.5			7.7
Sat-13	1,249.1	402.2	70.4	0.0	10.9	0.0	320.9	320.9	7.7	7.6		7.6
Sun-14	448.6	293.9	4.2	0.0	11.6	0.0	278.1	278.1	7.7	7.9		7.6
Mon-15	422.4	296.9	0.0	0.0	11.5	0.0	285.4	285.4	7.7			7.7
Tue-16	789.0	322.1	24.6	0.0	11.6	0.0	285.9	285.9	7.7	7.7		7.6
Wed-17	1,892.8	461.3	149.6	0.4	11.4	0.0	299.9	299.9	7.7	7.5	7.7	7.6
Thu-18	1,449.0	571.9	220.7	0.1	5.1	0.0	346.0	346.0	7.7	7.5	7.8	7.5
Fri-19	1,447.2	653.2	303.0	0.4	10.4	0.0	339.4	339.4	7.6	7.8	7.7	7.6
Sat-20	1,209.2	508.9	155.7	0.0	10.0	0.0	343.2	343.2	7.7	7.8		7.6
Sun-21	481.1	371.7	33.7	0.0	9.8	0.0	328.2	328.2	7.7	7.6		7.7
Mon-22	431.1	346.0	4.3	0.0	10.0	0.0	331.7	331.7	7.8	7.9		7.7
Tue-23	498.4	338.0	0.0	0.0	10.3	0.0	327.7	327.7	7.7			7.7
Wed-24	525.1	349.3	14.9	0.0	10.2	0.0	324.2	324.2	7.7	7.7		7.7
Thu-25	612.5	380.3	32.0	0.0	10.0	0.0	338.3	338.3	7.7	7.8		7.6
Fri-26	387.2	313.2	0.0	0.0	10.1	0.0	303.1	303.1	7.7			7.7
Sat-27	1,488.5	502.9	202.2	0.7	9.8	0.0	290.2	290.2	7.4	7.4	7.8	7.7
Sun-28	943.8	432.1	68.2	0.0	9.8	0.0	354.1	354.1	7.6	7.6		7.5
Mon-29	633.1	383.3	51.6	0.0	10.2	0.0	321.5	321.5	7.6	7.6		7.6
Tue-30	405.9	332.5	2.3	0.0	10.3	0.0	319.9	319.9	7.7	8.1		7.6
Wed 31	382.0	319.2	0.0	0.0	11.0	0.0	308.2	308.2	7.7			7.7
Average	674.5	367.4	48.3	0.1	10.3	0.0	308.8	308.8	7.6	7.7	7.7	7.6
Minimum	344.5	290.6	0.0	0.0	5.1	0.0	274.9	274.9	7.4	7.3	7.7	7.1
Maximum	1,608.9	653.2	303.0	0.7	11.6	0.0	354.1	354.1	7.8	8.1	7.8	7.7
GeoMean	---	---	---	---	---	---	---	---	---	---	---	---
TOTAL	---	11,390	1,496	1.69	320	0	9,572	9,572	---	---	---	---

Liquid Stream Quality

DATE	TSS (mg/L) RAW	TSS OUTFALL 30	TSS OUTFALL 20	TSS EPEPS	TSS OUTFALL 10 FEC	TSS OUTFALL 10 FE	BOD_5/$cBOD_5$ (mg/L) RAW BOD_5	OUTFALL 30 BOD_5	OUTFALL 20 BOD_5	EPEPS BOD_5	OUTFALL 10 FEC $cBOD_5$	OUTFALL 10 FE $cBOD_5$
Mon-01	188	46			3.2	3.2	135	63			2.0	2.0
Tue-02	236	35			2.9	2.9	204	50			2.0	2.0
Wed-03	353	50			4.1	4.1	200	117			3.0	3.0
Thu-04	248	30			3.4	3.4	254	55			2.0	2.0
Fri-05	278	41			3.6	3.6	233	85			2.0	2.0
Sat-06	320	92			3.7	3.7	253	146			3.0	3.0
Sun-07	266	47			4.6	4.6	266	89			5.0	5.0
Mon-08	323	23			4.0	4.0	210	48			2.0	2.0
Tue-09	257				8.5	8.5	229				< 1.0	< 1.0
Wed-10	252				6.7	6.7	215				3.0	3.0
Thu-11	260				7.2	7.2	203				3.0	3.0
Fri-12	303				4.6	4.6	247				3.0	3.0
Sat-13	548	82			4.6	4.6	187	63			< 1.0	< 1.0
Sun-14	264	162			12.9	12.9	211	123			3.0	3.0
Mon-15	225				7.0	7.0	226				3.0	3.0
Tue-16	368	72			6.7	6.7	210	83			2.0	2.0
Wed-17	700	203	724		4.6	4.6	154	67	63		3.0	3.0
Thu-18	260	45	310		4.5	4.5	110	29	60		< 1.0	< 1.0
Fri-19	176	73	256		4.7	4.7	77	25	52		< 1.0	< 1.0
Sat-20	164	22			4.8	4.8	108	27			< 1.0	< 1.0
Sun-21	163	45			4.9	4.9	134	48			2.0	2.0
Mon-22	198	31			4.6	4.6	178	48			3.0	3.0
Tue-23	214				4.6	4.6	163				2.0	2.0
Wed-24	364	38			5.1	5.1	221	87			3.0	3.0
Thu-25	246	40			4.6	4.6	180	61			2.0	2.0
Fri-26	277				3.5	3.5	205				2.0	2.0
Sat-27	356	103	328		3.3	3.3	166	245	65		3.0	3.0
Sun-28	212	34			3.9	3.9	139	42			2.0	2.0
Mon-29	246	41			3.7	3.7	188	46			2.0	2.0
Tue-30	224	29			4.0	4.0	209	44			2.0	2.0
Wed 31	390				3.8	3.8	265				3.0	3.0
Average	286	60	405	---	4.9	4.9	193	74	60	---	2.2	2.2
Minimum	163	22	256	---	2.9	2.9	77	25	52	---	< 1.0	< 1.0
Maximum	700	203	724	---	12.9	12.9	266	245	65	---	5.0	5.0
GeoMean	---	---	---	---	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---	---	---

DATE	TP (mg/L) RAW	TP OUTFALL 30	TP OUTFALL 20	TP EPEPS	TP OUTFALL 10 FEC	TP OUTFALL 10 FE	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
Mon-01	5.47	2.75			0.29	0.29	27.0	26.9			0.68	0.68
Tue-02	6.68	1.94			0.28	0.28	39.4	30.4			1.03	1.03
Wed-03	7.66	4.74			0.38	0.38	39.5	41.9			1.64	1.64
Thu-04	8.55	1.89			0.37	0.37	44.0	32.2			1.85	1.85
Fri-05	7.33	3.48			0.31	0.31	42.0	41.1			2.42	2.42
Sat-06	7.98	5.87			0.41	0.41	42.4	40.5			1.85	1.85
Sun-07	7.22	3.92			0.64	0.64	39.9	39.6			1.99	1.99
Mon-08	6.64	2.61			0.46	0.46	35.5	30.0			1.08	1.08
Tue-09	7.75				0.81	0.81	46.3				1.45	1.45
Wed-10	8.28				0.68	0.68	45.5				0.99	0.99
Thu-11	7.92				0.60	0.60	46.7				1.16	1.16
Fri-12	8.59				0.42	0.42	45.3				1.61	1.61
Sat-13	6.83	2.60			0.29	0.29	30.2	21.1			1.58	1.58
Sun-14	7.42	5.41			0.38	0.38	42.9	40.4			2.03	2.03
Mon-15	7.68				0.40	0.40	42.1				2.08	2.08
Tue-16	7.08	3.57			0.40	0.40	38.5	31.6			2.18	2.18
Wed-17	6.27	2.44	3.32		0.25	0.25	23.0	14.2	9.4		1.84	1.84
Thu-18	4.15	1.26	2.54		0.22	0.22	17.5	17.9	10.8		0.33	0.33
Fri-19	2.90	1.10	2.29		0.20	0.20	15.4	17.9	6.3		0.07	0.07
Sat-20	3.64	0.93			0.19	0.19	19.6	20.9			0.22	0.22
Sun-21	4.94	1.82			0.20	0.20	28.3	28.5			1.10	1.10
Mon-22	5.40	1.04			0.27	0.27	28.9	27.5			2.13	2.13
Tue-23	6.36				0.32	0.32	30.7				3.33	3.33
Wed-24	5.63	3.52			0.26	0.26	23.3	38.2			3.24	3.24
Thu-25	4.41	1.91			0.19	0.19	21.4	24.7			3.02	3.02
Fri-26	6.22				0.22	0.22	24.9				3.86	3.86
Sat-27	3.77	2.14	2.74		0.24	0.24	13.5	13.0	9.6		2.55	2.55
Sun-28	3.59	1.47			0.18	0.18	15.2	19.7			0.95	0.95
Mon-29	4.38	2.11			0.18	0.18	21.3	30.1			2.09	2.09
Tue-30	5.36	2.15			0.19	0.19	24.1	30.5			2.86	2.86
Wed 31	6.16				0.22	0.22	25.8				4.36	4.36
Average	6.20	2.64	2.72	---	0.34	0.34	31.6	28.6	9.0	---	1.86	1.86
Minimum	2.90	0.93	2.29	---	0.18	0.18	13.5	13.0	6.3	---	0.07	0.07
Maximum	8.59	5.87	3.32	---	0.81	0.81	46.7	41.9	10.8	---	4.36	4.36
GeoMean	---	---	---	---	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---	---	---

DATE	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	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
Mon-01	43.9	36.6		2.16		0.75		11.6	69.0	64.6		79		1.4		5
Tue-02	56.6	33.2		1.97		0.57		11.0	89.2	70.9		75		1.0		5
Wed-03	61.7	51.8		3.14	0.44	0.33		11.8	86.7	90.2		85		1.3		5
Thu-04	67.3	39.6		3.64		0.34		11.5	100.0	78.8		87		2.1		5
Fri-05	61.5	46.8		4.42		0.20		12.0	87.3	85.0		93		0.9		5
Sat-06	65.2	51.5		3.70		0.35		13.2	86.2	83.0		89		3.9		5
Sun-07	57.1	47.1		3.98		0.28		15.2	78.0	71.3		85				3
Mon-08	48.9	35.9		2.95		0.60		11.3	72.6	64.5		74				5
Tue-09	61.1			3.81				11.5	89.2			79				8
Wed-10	64.3			2.95	< 0.01			11.7	85.2			84				7
Thu-11	59.1			3.06				10.0	80.8			87		2.9		14
Fri-12	63.5			3.29				10.7	85.6			91	24	3.2		10
Sat-13	49.6	28.2		2.93		0.86		6.6	58.8	49.9		75			0.9	8
Sun-14	65.9	50.2		4.24		0.28		9.7	73.2	67.4		73		1.3		5
Mon-15	64.7			4.16				9.7	83.0			76		8.6		10
Tue-16	55.0	41.1		4.26		1.30		8.4	74.9	65.0		81		2.5		4
Wed-17	43.7	20.9	19.5	3.92	0.01	0.75	0.05	8.3	58.8	38.7	33.0	79	3	8.6	1.0	6
Thu-18	30.4	23.4	20.8	1.89		4.79	1.70	4.4	53.6	52.2	37.6	61		2.5	1.9	3
Fri-19	23.5	22.6	13.1	1.23		2.20	1.32	4.3	51.5	54.2	30.2	54		8.6	1.3	3
Sat-20	25.5	23.2		1.38		4.42		4.8	66.9	63.5		52		3.2		5
Sun-21	41.5	36.2		3.11		1.46		8.7	77.1	78.8		75		6.8		6
Mon-22	42.8	31.3		4.42		0.80		7.8	86.7	74.5		81		4.6		7
Tue-23	46.3			5.24				6.5	80.6			82				10
Wed-24	38.0	43.8		4.82	< 0.01	0.03		6.4	73.7	87.4		87		1.2		5
Thu-25	35.0	30.2		4.68		0.71		6.8	67.6	73.6		81		3.4		5
Fri-26	43.3			6.68				8.1	76.2			81				5
Sat-27	28.5	20.4	19.3	4.80		0.67	0.51	8.0	44.5	37.1	29.5	86		1.6	3.8	4
Sun-28	32.1	25.9		2.70		1.42		4.8	51.7	47.2		56		3.5		4
Mon-29	34.5	35.0		3.82		0.70		7.2	71.4	71.5		66		1.2		7
Tue-30	38.6	35.1		4.55		0.97		7.2	77.3	74.0		77		8.6		8
Wed 31	42.4			5.96	< 0.01			7.4	76.3			82				10
Average	48.1	35.2	18.2	3.67	0.09	1.08	0.89	8.9	74.6	67.1	32.6	77.8	---	---	---	---
Minimum	23.5	36.6	13.1	1.23	< 0.01	0.03	0.05	4.3	44.5	37.1	29.5	52.3	2.9	0.9	0.9	3
Maximum	67.3	51.8	20.8	6.68	0.44	4.79	1.70	15.2	100.0	90.2	37.6	93.0	24.0	8.6	3.8	14
GeoMean	---	---	---	---	---	---	---	---	---	---	---	---	8	3	2	6
TOTAL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

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

Enhanced Primary Treatment (EPT) Usage					
Total Bypass (hrs)	EPT Usage (hrs)	% Usage	Total Bypass YTD (hrs)	EPT Usage YTD (hrs)	% Usage
196	196	100%	520	520	100.00%

Report Comments

1	OUTFALL 30 - July 3: Analysis of the sample exceeded the recommended hold time for BOD.
2	OUTFALL 30 - July 3: Analysis of the sample exceeded the recommended incubation time for E.coli.
3	OUTFALL 30 - July 4: Analysis of the sample exceeded the recommended incubation time for E.coli.
4	OUTFALL 30 - July 6: Analysis of the sample exceeded the recommended hold time for BOD and pH.

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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