PROVIDING MORE EPCOR

Gold Bar Wastewater Treatment Plant
Plant Performance Report
May 2022

Digested Sludge: Total Monthly Volume (ML)	69.2

Volume of Flow (ML)

DATE	Peak Flow (ML/D)	Influent: INFs	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
Sun-01	486.7	0.0	276.1	10.5	0.0	9.4	0.0	256.2	256.2
Mon-02	439.6	0.0	283.5	4.7	0.0	9.4	0.0	269.4	269.4
Tue-03	332.6	0.0	266.5	0.0	0.0	9.9	0.0	256.6	256.6
Wed-04	677.2	0.0	267.8	0.0	0.0	10.6	0.0	257.2	257.2
Thu-05	682.5	0.0	266.9	0.0	0.0	10.1	0.0	256.8	256.8
Fri-06	492.9	0.0	288.1	11.9	0.0	10.2	0.0	266.0	266.0
Sat-07	342.7	0.0	264.8	0.0	0.0	9.8	0.0	255.0	255.0
Sun-08	360.9	0.0	261.8	0.0	0.0	10.7	0.0	251.1	251.1
Mon-09	343.4	0.0	265.9	0.0	0.0	9.5	0.0	256.4	256.4
Tue-10	346.4	0.0	263.1	0.0	0.0	10.1	0.0	253.0	253.0
Wed-11	320.9	0.0	260.5	0.0	0.0	11.2	0.0	249.3	249.3
Thu-12	301.8	0.0	259.7	0.0	0.0	10.8	0.0	248.9	248.9
Fri-13	307.9	0.0	262.3	0.0	0.0	10.5	0.0	251.8	251.8
Sat-14	363.9	0.0	274.3	0.0	0.0	10.6	0.0	263.7	263.7
Sun-15	326.7	0.0	257.0	0.0	0.0	10.7	0.0	246.3	246.3
Mon-16	363.2	0.0	265.4	0.0	0.0	9.8	0.0	255.6	255.6
Tue-17	344.6	0.0	261.2	0.0	0.0	10.7	0.0	250.5	250.5
Wed-18	349.7	0.0	254.3	0.0	0.0	11.7	0.0	242.6	242.6
Thu-19	1,137.9	0.0	421.0	127.1	0.0	11.0	0.0	282.9	282.9
Fri-20	416.1	0.0	303.7	1.3	0.0	9.6	0.0	292.8	292.8
Sat-21	345.3	0.0	259.8	0.0	0.0	10.8	0.0	249.0	249.0
Sun-22	309.3	0.0	254.1	0.0	0.0	11.1	0.0	243.0	243.0
Mon-23	332.6	0.0	259.4	0.0	0.0	11.0	0.0	248.4	248.4
Tue-24	321.1	0.0	269.9	0.0	0.0	10.6	0.0	259.3	259.3
Wed-25	1,209.4	0.0	306.4	38.5	0.0	10.7	0.0	257.2	257.2
Thu-26	942.3	0.0	322.8	37.5	0.0	10.8	0.0	274.5	274.5
Fri-27	1,002.8	0.0	302.1	34.0	0.0	10.9	0.0	257.2	257.2
Sat-28	696.2	0.0	303.3	16.3	0.0	10.7	0.0	276.3	276.3
Sun-29	333.5	0.0	264.3	0.0	0.0	10.9	0.0	253.4	253.4
Mon-30	333.9	0.0	269.6	0.0	0.0	8.3	0.0	261.3	261.3
Tue-31	306.7	0.0	262.1	0.0	0.0	11.2	0.0	250.9	250.9
Average	479.7	0.0	277.3	9.1	0.0	10.4	0.0	257.8	257.8
Minimum	301.8	0.0	254.1	0.0	0.0	8.3	0.0	242.6	242.6
Maximum	1,209.4	0.0	421.0	127.1	0.0	11.7	0.0	292.8	292.8
GeoMean	---	---	---	---	---	---	---	---	---
TOTAL	---	0	8,598	282	0	323	0	7,993	7,993

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 OUTFALL 30	TSS OUTFALL 20	TSS EPEPS	TSS OUTFALL 10 FEC	TSS OUTFALL 10 FE
Sun-01	7.4	7.5		7.5	360	107			3.7	3.7
Mon-02	7.5			7.5	384				2.6	2.6
Tue-03	7.5			7.5	344				3.4	3.4
Wed-04	7.5			7.4	372				3.0	3.0
Thu-05	7.5			7.6	376				3.5	3.5
Fri-06	7.5	7.7		7.6	372	113			4.0	4.0
Sat-07	7.5			7.5	416				3.1	3.1
Sun-08	7.4			7.5	448				3.7	3.7
Mon-09	7.5			7.5	348				3.9	3.9
Tue-10	7.5			7.5	352				3.4	3.4
Wed-11	7.4			7.5	432				2.8	2.8
Thu-12	7.5			7.5	412				3.9	3.9
Fri-13	7.5			7.6	412				3.9	3.9
Sat-14	7.6			7.5	412				3.0	3.0
Sun-15	7.5			7.6	396				3.8	3.8
Mon-16	7.5			7.6	388				3.4	3.4
Tue-17	7.6			7.5	408				2.9	2.9
Wed-18	7.5			7.6	464				3.4	3.4
Thu-19	7.4	7.4		7.5	736	152			3.6	3.6
Fri-20	7.4	7.8		7.4	348	97			3.2	3.2
Sat-21	7.5			7.5	332				3.1	3.1
Sun-22	7.6			7.6	332				3.4	3.4
Mon-23	7.5			7.6	460				3.0	3.0
Tue-24	7.5			7.8	348				3.7	3.7
Wed-25	7.4	7.5		7.6	570	262			3.2	3.2
Thu-26	7.4	7.5		7.6	728	62			3.2	3.2
Fri-27	7.5	7.5		7.5	632	140			3.4	3.4
Sat-28	7.6	7.6		7.5	372	26			4.2	4.2
Sun-29	7.7			7.6	340				3.5	3.5
Mon-30	7.6			7.5	340				3.8	3.8
Tue-31	7.7			7.7	357				3.6	3.6
Average	7.5	7.6	---	7.5	419	120	---	---	3.4	3.4
Minimum	7.4	7.4	---	7.4	332	26	---	---	2.6	2.6
Maximum	7.7	7.8	---	7.8	736	262	---	---	4.2	4.2
GeoMean	---	---	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---

DATE	$BOD_5/cBOD_5$ (mg/L) RAW BOD_5	OUTFALL 30 BOD_5	OUTFALL 20 BOD_5	EPEPS BOD_5	OUTFALL 10 FEC $cBOD_5$	OUTFALL 10 FE $cBOD_5$	TP (mg/L) RAW	TP OUTFALL 30	TP OUTFALL 20	TP EPEPS	TP OUTFALL 10 FEC	TP OUTFALL 10 FE
Sun-01	320	188			2	2	6.77	0.68			0.22	0.22
Mon-02	289				3	3	7.91				0.76	0.76
Tue-03	254				3	3	7.12				0.21	0.21
Wed-04	385				3	3	7.62				0.22	0.22
Thu-05	397				3	3	6.61				0.24	0.24
Fri-06	211	117			3	3	7.30	4.32			0.25	0.25
Sat-07	279				2	2	7.62				0.21	0.21
Sun-08	303				3	3	7.52				0.24	0.24
Mon-09	312				3	3	7.30				0.25	0.25
Tue-10	310				3	3	6.98				0.27	0.27
Wed-11	361				3	3	7.54				0.28	0.28
Thu-12	329				3	3	7.90				0.25	0.25
Fri-13	355				2	2	8.24				0.27	0.27
Sat-14	335				3	3	7.67				0.27	0.27
Sun-15	328				2	2	7.53				0.26	0.26
Mon-16	334				3	3	6.72				0.20	0.20
Tue-17	326				2	2	7.38				0.23	0.23
Wed-18	302				3	3	7.52				0.25	0.25
Thu-19	353	111			2	2	5.97	2.65			0.26	0.26
Fri-20	281	84			3	3	5.90	3.17			0.20	0.20
Sat-21	300				2	2	5.91				0.28	0.28
Sun-22	324				< 2	2	5.92				0.23	0.23
Mon-23	293				2	2	7.00				0.21	0.21
Tue-24	298				2	2	6.74				0.22	0.22
Wed-25	406	164			3	3	7.47	4.62			0.22	0.22
Thu-26	259	49			2	2	6.55	1.06			0.20	0.20
Fri-27	269	136			2	2	6.47	3.78			0.21	0.21
Sat-28	281	44			3	3	6.04	0.91			0.24	0.24
Sun-29	296				3	3	6.63				0.21	0.21
Mon-30	315				3	3	6.58				0.22	0.22
Tue-31	297				3	3	6.53				0.23	0.23
Average	313	112	---	---	2.6	2.6	7.00	2.65	---	---	0.25	0.25
Minimum	211	44	---	---	< 2	2	5.90	0.68	---	---	0.20	0.20
Maximum	406	188	---	---	3	3	8.24	4.62	---	---	0.76	0.76
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	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
Sun-01	31.2	33.1			2.56	2.56	54.1	6.6		5.2		0.22		8.92	87.6	103		92.8		1.7		1
Mon-02	25.1				2.85	2.85	57.5			4.2				8.74	86.9			94.0		0.5		2
Tue-03	34.3				2.11	2.11	59.4			4.1				9.57	90.9			96.5				6
Wed-04	35.6				1.69	1.69	60.2			3.4	< 0.01			10.0	88.7			97.0				6
Thu-05	34.7				1.37	1.37	58.4			4.2				10.4	88.8			104				4
Fri-06	33.9	44.9			1.42	1.42	58.1	59.4		3.1		1.06		10.7	94.6	116		105		1.1		4
Sat-07	37.0				1.23	1.23	61.5			2.9				10.8	85.3			100				3
Sun-08	37.5				1.71	1.71	66.3			3.3				11.8	80.0			95.4				3
Mon-09	35.4				2.36	2.36	63.8			4.3				11.1	88.6			93.5				3
Tue-10	35.2				1.95	1.95	60.5			3.9				9.81	86.9			99.7				1
Wed-11	36.8				2.32	2.32	56.1			4.0	< 0.01			8.77	89.6			103				1
Thu-12	32.2				1.10	1.10	62.7			3.1				10.9	88.7			104				1
Fri-13	32.9				0.93	0.93	70.9			2.8				10.7	95.5			99.7				3
Sat-14	35.0				0.78	0.78	61.4			2.4				9.45	82.6			99.5				3
Sun-15	35.2				1.14	1.14	65.4			3.2				8.99	81.4			93.0				2
Mon-16	35.8				1.58	1.58	61.4			3.7				8.93	88.3			92.1				4
Tue-17	33.5				1.31	1.31	62.8			3.1				9.36	88.0			97.0				2
Wed-18	34.1				0.38	0.38	62.7			2.4	< 0.01			9.78	86.6			96.7	2.4			5
Thu-19	18.9	25.7			0.77	0.77	42.7	36.3		2.5		0.57		7.47	62.0	72.7		98.8		0.7		4
Fri-20	16.1	23.1			1.08	1.08	53.0	38.2		2.7		0.56		6.19	80.2	79.5		79.4		0.3		3
Sat-21	34.7				1.80	1.80	58.1			4.0				7.39	97.1			90.7				2
Sun-22	26.6				1.66	1.66	56.5			3.5				8.13	98.0			97.4				3
Mon-23	35.5				1.11	1.11	62.1			3.8				10.4	79.1			95.8				4
Tue-24	39.3				1.19	1.19	60.8			3.3				8.21	85.1			89.8	2.0			3
Wed-25	37.7	30.6			0.46	0.46	60.4	43.9		3.2	< 0.01	2.24		7.62	86.1	80.8		94.5		0.5		8
Thu-26	26.9	21.0			1.13	1.13	52.7	27.4		2.9		0.52		7.07	81.3	75.7		91.0		0.6		8
Fri-27	30.6	29.9			1.06	1.06	50.2	39.8		2.6		0.32		9.59	80.5	80.7		95.7		2.3		3
Sat-28	32.1	19.3			0.89	0.89	49.3	21.8		2.6		0.79		8.82	76.6	66.3		89.8		0.3		3
Sun-29	40.0				1.20	1.20	58.1			2.5				9.93	79.9			87.3				4
Mon-30	33.9				0.83	0.83	58.2			2.6				10.8	88.0			89.0				1
Tue-31	32.9				0.32	0.32	54.0			2.2				9.62	86.2			97.4				4
Average	32.9	28.5	---	---	1.36	1.36	58.7	34.2	---	3.3	< 0.0	0.79	---	9.35	85.8	84.3	---	95.5		---		
Minimum	16.1	19.3	---	---	0.32	0.32	42.7	6.6	---	2.2	< 0.01	0.22	---	6.19	62.0	66.3	---	79.4	2.0	0.3	---	1
Maximum	40.0	44.9	---	---	2.85	2.85	70.9	59.4	---	5.2	< 0.01	2.24	---	11.8	98.0	116	---	105	2.4	2.3	---	8
GeoMean	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2.2	0.7	---	3
TOTAL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

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

Enhanced Primary Treatment (EPT) Usage					
Total Bypass (hr)	EPT Usage (hr)	% Usage	Total Bypass YTD (hr)	EPT Usage YTD (hr)	% Usage YTD
30	30	100%	359	359	100%

Report Comments

AEP Ref #

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 Pump Station
FE	Final Effluent from secondary treatment process (with biological nutrient removal). Pre-Ultraviolet disinfection

FEC	Combined post-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
AEP	Alberta Environment & Parks

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