PROVIDING MORE EPCOR

Gold Bar Wastewater Treatment Plant
Plant Performance Report
May 2023

Digested Sludge: Total Monthly Volume (ML)	76.5

Volume of Flow (ML)

DATE	Peak Flow (ML/D)	Influent INFs	Influent RAW	Effluent Non UV Disinfected OUTFALL 30	Effluent Non UV Disinfected OUTFALL 30	Effluent Non UV Disinfected MPW	Effluent UV Disinfected EPEPS	Effluent UV Disinfected OUTFALL 10 FEC	Effluent UV Disinfected OUTFALL 10 FE
Mon-01	329.9	0.0	268.2	0.0	0.0	9.3	0.0	258.9	258.9
Tue-02	313.8	0.0	262.8	0.0	0.0	9.4	0.0	253.4	253.4
Wed-03	322.1	0.0	263.0	0.0	0.0	8.4	0.0	254.6	254.6
Thu-04	325.8	0.0	263.9	0.0	0.0	7.6	0.0	256.3	256.3
Fri-05	337.6	0.0	267.9	0.0	0.0	7.2	0.0	260.7	260.7
Sat-06	343.2	0.0	254.5	0.0	0.0	7.2	0.0	247.3	247.3
Sun-07	344.6	0.0	270.5	0.0	0.0	9.9	0.0	260.6	260.6
Mon-08	1,654.9	17.0	499.3	223.0	1.0	10.7	0.0	264.6	264.6
Tue-09	333.4	0.0	315.4	7.8	0.0	10.6	0.0	297.0	297.0
Wed-10	326.8	0.0	271.0	0.0	0.0	10.0	0.0	261.0	261.0
Thu-11	1,163.2	0.0	342.9	57.7	0.0	10.4	0.0	274.8	274.8
Fri-12	400.2	0.0	296.4	5.0	0.0	9.6	0.0	281.8	281.8
Sat-13	315.4	0.0	265.6	0.0	0.0	9.7	0.0	255.9	255.9
Sun-14	337.0	0.0	282.7	0.0	0.0	10.5	0.0	272.2	272.2
Mon-15	346.1	0.0	286.3	0.0	0.0	10.3	0.0	276.0	276.0
Tue-16	309.8	0.0	268.4	0.0	0.0	10.4	0.0	258.0	258.0
Wed-17	310.5	0.0	266.1	0.0	0.0	10.3	0.0	255.8	255.8
Thu-18	302.0	0.0	270.2	0.0	0.0	10.6	0.0	259.6	259.6
Fri-19	312.5	0.0	267.7	0.0	0.0	10.1	0.0	257.6	257.6
Sat-20	326.9	0.0	252.2	0.0	0.0	10.5	0.0	241.7	241.7
Sun-21	330.8	0.0	249.4	0.0	0.0	10.1	0.0	239.3	239.3
Mon-22	368.6	0.0	258.3	0.0	0.0	10.3	0.0	248.0	248.0
Tue-23	773.9	0.0	331.3	31.7	0.0	10.3	0.0	289.3	289.3
Wed-24	323.1	0.0	266.8	0.0	0.0	10.5	0.0	256.3	256.3
Thu-25	306.6	0.0	263.9	0.0	0.0	10.9	0.0	253.0	253.0
Fri-26	297.9	0.0	298.1	0.0	0.0	10.9	0.0	287.2	287.2
Sat-27	312.4	0.0	324.2	0.0	0.0	10.8	0.0	313.4	313.4
Sun-28	344.2	0.0	325.2	0.0	0.0	10.8	0.0	314.4	314.4
Mon-29	815.3	0.0	340.2	33.6	0.0	10.6	0.0	296.0	296.0
Tue-30	703.2	0.0	313.3	46.2	0.0	10.8	0.0	256.3	256.3
Wed-31	1,880.1	8.0	433.6	162.2	0.1	10.8	0.0	259.9	259.9
Average	497.7	0.8	294.8	18.3	0.0	10.0	0.0	268.5	268.5
Minimum	297.9	0.0	249.4	0.0	0.0	7.2	0.0	239.3	239.3
Maximum	1,880.1	17.0	499.3	223.0	1.0	10.9	0.0	314.4	314.4
Geoffean	---	---	---	---	---	---	---	---	---
TOTAL	---	25	9,139	567	1	310	0	8,261	8,261

Liquid Stream Quality

DATE	pH@25°C RAW	pH@25°C OUTFALL 30	pH@25°C OUTFALL 10 FEC	TSS (mg/L) RAW	TSS OUTFALL 30	TSS OUTFALL 30	TSS EPEPS	TSS OUTFALL 10 FEC	TSS OUTFALL 10 FE
Mon-01	7.5		7.6	388				5.2	5.2
Tue-02	7.5		7.6	304				10.2	10.2
Wed-03	7.4		7.6	396				20.0	20.0
Thu-04	7.5		7.6	332				13.7	13.7
Fri-05	7.5		7.7	316				7.4	7.4
Sat-06	7.5		7.7	312				7.2	7.2
Sun-07	7.5		7.6	372				8.0	8.0
Mon-08	7.3	7.3	7.2	1070	420	652		8.3	8.3
Tue-09	7.5	7.6		320	58			5.2	5.2
Wed-10	7.4		7.6	332				6.0	6.0
Thu-11	7.5	7.6	7.6	480	113			6.3	6.3
Fri-12	7.6	7.6	7.6	380	38			4.5	4.5
Sat-13	7.5		7.5	356				4.6	4.6
Sun-14	7.4		7.6	388				5.3	5.3
Mon-15	7.4		7.6	332				6.2	6.2
Tue-16	7.4		7.7	304				5.7	5.7
Wed-17	7.5		7.6	284				6.4	6.4
Thu-18	7.4		7.6	292				8.4	8.4
Fri-19	7.5		7.6	332				5.3	5.3
Sat-20	7.5		7.7	296				4.3	4.3
Sun-21	7.5		7.7	288				4.8	4.8
Mon-22	7.4		7.6	328				5.1	5.1
Tue-23	7.4	7.6	7.6	505	57			4.5	4.5
Wed-24	7.5		7.7	388				5.5	5.5
Thu-25	7.5		7.5	288				5.5	5.5
Fri-26	7.4		7.6	296				5.1	5.1
Sat-27	7.5		7.6	288				4.8	4.8
Sun-28	7.5		7.6	304				6.5	6.5
Mon-29	7.4	7.5	7.6	560	74			4.3	4.3
Tue-30	7.5	7.6	7.6	396	79			3.3	3.3
Wed-31	7.5	7.5	7.4	560	104	200		3.1	3.1
Average	7.4	7.6	7.3	380	116	426	---	6.5	6.5
Minimum	7.3	7.3	7.2	284	38	200	---	3.1	3.1
Maximum	7.6	7.8	7.4	1,070	420	652	---	20.0	20.0
Geoffean	---	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---

DATE	BOD_5/$cBOD_5$ (mg/L) RAW	BOD_5 OUTFALL 30	BOD_5 OUTFALL 30	BOD_5 EPEPS	BOD_5 OUTFALL 10 FEC	BOD_5 OUTFALL 10 FE
Mon-01	341				3	3
Tue-02	310				3	3
Wed-03	329				5	5
Thu-04	340				4	4
Fri-05	335				3	3
Sat-06	349				3	3
Sun-07	327				3	3
Mon-08	305	138	124		3	3
Tue-09	266	76			3	3
Wed-10	339				3	3
Thu-11	282	108			3	3
Fri-12	344	64			2	2
Sat-13	334				3	3
Sun-14	424				3	3
Mon-15	331				3	3
Tue-16	376				3	3
Wed-17	423				2	2
Thu-18	321				3	3
Fri-19	310				3	3
Sat-20	333				3	3
Sun-21	320				3	3
Mon-22	252				3	3
Tue-23	381	148			3	3
Wed-24	320				3	3
Thu-25	322				2	2
Fri-26	399				3	3
Sat-27	296				4	4
Sun-28	298				3	3
Mon-29	414	167			3	3
Tue-30	305	182			2	2
Wed-31	244	96	97		< 2	2
Average	331	122	111	---	3.0	3.0
Minimum	244	64	97	---	2	2
Maximum	424	182	124	---	5	5
Geoffean	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---

DATE	TP (mg/L) RAW	TP OUTFALL 30	TP OUTFALL 30	TP EPEPS	TP OUTFALL 10 FEC	TP OUTFALL 10 FE
Mon-01	9.46				0.32	0.32
Tue-02	8.72				0.50	0.50
Wed-03	37.5				0.97	0.97
Thu-04	40.0				0.69	0.69
Fri-05	39.1				0.40	0.40
Sat-06	40.0				0.42	0.42
Sun-07	40.8				0.42	0.42
Mon-08	20.7	20.9	13.3		0.44	0.44
Tue-09	32.8	23.6			0.26	0.26
Wed-10	37.7				0.32	0.32
Thu-11	28.0	21.4			0.33	0.33
Fri-12	34.0	24.8			0.30	0.30
Sat-13	30.8				0.27	0.27
Sun-14	33.4				0.31	0.31
Mon-15	33.5				0.38	0.38
Tue-16	35.1				0.37	0.37
Wed-17	36.3				0.40	0.40
Thu-18	36.4				0.49	0.49
Fri-19	36.4				0.34	0.34
Sat-20	34.9				0.35	0.35
Sun-21	35.5				0.34	0.34
Mon-22	36.6				0.30	0.30
Tue-23	28.8	27.3			0.29	0.29
Wed-24	29.6				0.33	0.33
Thu-25	37.4				0.32	0.32
Fri-26	35.3				0.32	0.32
Sat-27	33.4				0.34	0.34
Sun-28	37.4				0.34	0.34
Mon-29	31.1	34.1			0.30	0.30
Tue-30	31.0	32.2			0.23	0.23
Wed-31	21.6	21.6	12.3		0.23	0.23
Average	34.4	25.7	12.8	---	0.37	0.37
Minimum	20.7	20.8	12.3	---	0.86	0.86
Maximum	42.1	34.1	13.3	---	6.24	6.24
Geoffean	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---

DATE	NH_3-N (mg/L) RAW	NH_3-N OUTFALL 30	NH_3-N OUTFALL 30	NH_3-N EPEPS	NH_3-N OUTFALL 10 FEC	NH_3-N OUTFALL 10 FE
Mon-01	39.8				5.90	5.90
Tue-02	42.1				4.54	4.54
Wed-03	37.5				4.79	4.79
Thu-04	40.0				3.74	3.74
Fri-05	39.1				2.81	2.81
Sat-06	40.0				2.89	2.89
Sun-07	40.8				2.38	2.38
Mon-08	20.7	20.9	13.3		1.68	1.68
Tue-09	32.8	23.6			0.90	0.90
Wed-10	37.7				2.41	2.41
Thu-11	28.0	21.4			3.50	3.50
Fri-12	34.0	24.8			2.82	2.82
Sat-13	30.8				2.29	2.29
Sun-14	33.4				2.91	2.91
Mon-15	33.5				6.24	6.24
Tue-16	35.1				4.37	4.37
Wed-17	36.3				3.23	3.23
Thu-18	36.4				2.74	2.74
Fri-19	36.4				2.02	2.02
Sat-20	34.9				1.50	1.50
Sun-21	35.5				1.75	1.75
Mon-22	36.6				1.89	1.89
Tue-23	28.8	27.3			1.79	1.79
Wed-24	29.6				1.97	1.97
Thu-25	37.4				1.98	1.98
Fri-26	35.3				1.35	1.35
Sat-27	33.4				1.46	1.46
Sun-28	37.4				1.76	1.76
Mon-29	31.1	34.1			1.63	1.63
Tue-30	31.0	32.2			0.86	0.86
Wed-31	21.6	21.6	12.3		0.90	0.90
Average	34.4	25.7	12.8	---	2.61	2.61
Minimum	20.7	20.8	12.3	---	0.86	0.86
Maximum	42.1	34.1	13.3	---	6.24	6.24
Geoffean	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---

DATE	un-ionized NH_3-N (mg/L) OUTFALL 30	un-ionized NH_3-N OUTFALL 30	un-ionized NH_3-N OUTFALL 10
Mon-01			
Tue-02			
Wed-03			
Thu-04			
Fri-05			
Sat-06			
Sun-07			
Mon-08			
Tue-09			
Wed-10			
Thu-11			
Fri-12			
Sat-13			
Sun-14			
Mon-15			
Tue-16			
Wed-17			
Thu-18			
Fri-19			
Sat-20			
Sun-21			
Mon-22			
Tue-23			
Wed-24			
Thu-25			
Fri-26			
Sat-27			
Sun-28			
Mon-29			
Tue-30			
Wed-31			
Average	---	---	---
Minimum	---	---	---
Maximum	---	---	---
Geoffean	---	---	---
TOTAL	---	---	---

DATE	TKN (mg/L) RAW	TKN OUTFALL 30	TKN OUTFALL 30	TKN OUTFALL 10 FEC	TKN OUTFALL 10 FE
Mon-01	56.4			7.0	
Tue-02	51.5			5.4	
Wed-03	48.5			7.3	
Thu-04	49.4			5.4	
Fri-05	52.6			4.5	
Sat-06	54.4			4.6	
Sun-07	56.9			4.4	
Mon-08	37.8	30.0	25.5	3.4	
Tue-09	45.8	27.9		2.5	
Wed-10	52.7			3.9	
Thu-11	44.0	26.9		5.5	
Fri-12	51.6	29.1		5.6	
Sat-13	45.3			3.8	
Sun-14	50.7			4.5	
Mon-15	44.3			7.7	
Tue-16	50.9			5.9	
Wed-17	47.1			4.4	
Thu-18	46.6			4.5	
Fri-19	51.9			3.4	
Sat-20	47.3			3.0	
Sun-21	51.2			3.3	
Mon-22	61.4			3.3	
Tue-23	51.4	37.2		3.3	
Wed-24	56.6			3.6	
Thu-25	53.9			3.5	
Fri-26	55.2			3.0	
Sat-27	51.2			3.2	
Sun-28	51.1			3.5	
Mon-29	47.4	42.3		3.1	
Tue-30	39.3	34.2		2.0	
Wed-31	31.3	24.6	20.4	2.0	
Average	49.3	31.5	23.0	4.2	
Minimum	31.3	24.6	20.4	2.0	
Maximum	61.4	42.3	25.5	7.7	
Geoffean	---	---	---	---	
TOTAL	---	---	---	---	

DATE	NO_2+NO_3 (mg/L) RAW	NO_2+NO_3 OUTFALL 30	NO_2+NO_3 OUTFALL 30	NO_2+NO_3 OUTFALL 10 FEC
Mon-01				10.0
Tue-02				10.9
Wed-03	< 0.01			7.90
Thu-04				5.34
Fri-05				6.26
Sat-06				5.75
Sun-07				6.28
Mon-08		0.29	0.02	6.23
Tue-09		0.54		4.25
Wed-10	< 0.01			6.97
Thu-11		0.26		5.93
Fri-12		0.33		5.19
Sat-13				8.88
Sun-14				9.47
Mon-15				6.87
Tue-16				8.06
Wed-17	< 0.01			9.90
Thu-18				9.12
Fri-19				9.61
Sat-20				8.63
Sun-21				9.60
Mon-22				10.0
Tue-23		0.14		7.52
Wed-24	< 0.05			8.92
Thu-25				8.73
Fri-26				8.71
Sat-27				8.75
Sun-28				9.18
Mon-29		0.02		7.84
Tue-30		0.11		6.63
Wed-31	< 0.01	0.31	0.03	7.24
Average	< 0.02	0.25	0.03	7.86
Minimum	< 0.01	0.02	0.02	4.25
Maximum	< 0.05	0.54	0.03	10.9
Geoffean	---	---	---	---
TOTAL	---	---	---	---

DATE	Chloride (mg/L) RAW	Chloride OUTFALL 30	Chloride OUTFALL 30	Chloride OUTFALL 10 FEC
Mon-01	76.9			80.5
Tue-02	86.0			87.1
Wed-03	85.3			91.3
Thu-04	84.7			96.0
Fri-05	94.1			94.4
Sat-06	82.4			93.2
Sun-07	83.3			91.6
Mon-08	66.3	69.4	60.4	89.0
Tue-09	84.2	63.3		77.4
Wed-10	87.6			89.5
Thu-11	76.3	72.3		95.5
Fri-12	81.7	66.2		92.9
Sat-13	77.6			89.5
Sun-14	76.5			88.1
Mon-15	82.9			86.9
Tue-16	89.9			95.8
Wed-17	84.9			92.2
Thu-18	88.5			95.3
Fri-19	85.6			95.6
Sat-20	84.7			94.0
Sun-21	84.0			87.9
Mon-22	87.9			88.4
Tue-23	82.4	79.2		83.9
Wed-24	84.9			89.2
Thu-25	84.4			94.2
Fri-26	88.4			92.0
Sat-27	82.3			92.1
Sun-28	79.0			86.6
Mon-29	82.1	100		85.5
Tue-30	77.6	84.7		89.4
Wed-31	56.8	61.9	53.2	83.4
Average	82.3	74.6	56.8	89.9
Minimum	56.8	61.9	53.2	77.4
Maximum	94.1	100	60.4	96.0
Geoffean	---	---	---	---
TOTAL	---	---	---	---

DATE	*E. coli* (Counts/100 mL) RAW	*E. coli* X10^3	*E. coli* X10^3	*E. coli* X10^3 FEC
Mon-01				11
Tue-02				6
Wed-03				9
Thu-04				16
Fri-05				4
Sat-06				8
Sun-07				4
Mon-08		1.3	0.7	9
Tue-09		0.3		6
Wed-10	2.9			14
Thu-11		1.3		10
Fri-12		0.2		9
Sat-13				9
Sun-14				10
Mon-15				10
Tue-16	2.7			10
Wed-17				9
Thu-18				12
Fri-19				9
Sat-20				4
Sun-21				4
Mon-22				10
Tue-23		1.3		8
Wed-24				12
Thu-25				19
Fri-26				270
Sat-27				1
Sun-28				2
Mon-29		1.8		4
Tue-30		3.0		16
Wed-31		1.9	1.4	5
Average				
Minimum	2.7	0.2	0.7	1
Maximum	2.9	3.0	1.4	270
Geoffean	2.8	1.0	0.7	5.4
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
36	36	100%	155	155	100%

Report Comments

Note 1:	On May 26, 2023, the *E.coli* result (270 CFU/100mL) was due to the sample being taken during the UV light warm up period, immediately after a flow meter failure which caused all the UV channels to go into service. After the issue was resolved, a second sample was tested and the *E. coli* result was 5 CFU/100mL.

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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