PROVIDING MORE EPCOR

Gold Bar Wastewater Treatment Plant
Plant Performance Report
October 2020

Digested Sludge: Total Monthly Volume (ML)	94.8

Volume of Flow (ML)

DATE	Peak Flow (MLD)	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
Thu-01	311.3	0.0	246.8	0.0	0.0	12.1	0.0	234.7	234.7
Fri-02	377.9	0.0	249.0	0.0	0.0	11.6	0.0	237.4	237.4
Sat-03	411.7	0.0	238.4	0.0	0.0	11.4	0.0	227.0	227.0
Sun-04	346.9	0.0	252.9	0.0	0.0	11.3	0.0	241.6	241.6
Mon-05	344.0	0.0	256.4	0.0	0.0	11.6	0.0	244.8	244.8
Tue-06	317.6	0.0	250.7	0.0	0.0	11.3	0.0	239.4	239.4
Wed-07	330.5	0.0	250.0	0.0	0.0	10.8	0.0	239.2	239.2
Thu-08	350.8	0.0	250.0	0.0	0.0	11.4	0.0	238.6	238.6
Fri-09	325.0	0.0	251.2	0.0	0.0	11.7	0.0	239.5	239.5
Sat-10	456.3	0.0	251.7	0.9	0.0	10.7	0.0	240.1	240.1
Sun-11	875.0	0.0	349.2	59.0	0.0	11.7	0.0	278.5	278.5
Mon-12	370.7	0.0	251.5	0.0	0.0	10.9	0.0	240.6	240.6
Tue-13	334.0	0.0	256.5	0.0	0.0	11.0	0.0	245.5	245.5
Wed-14	326.8	0.0	251.1	0.0	0.0	11.1	0.0	240.0	240.0
Thu-15	325.9	0.0	250.6	0.0	0.0	11.5	0.0	239.1	239.1
Fri-16	322.7	0.0	253.8	0.0	0.0	11.4	0.0	242.4	242.4
Sat-17	347.3	0.0	251.1	0.0	0.0	10.5	0.0	240.6	240.6
Sun-18	371.8	0.0	255.2	0.0	0.0	11.2	0.0	244.0	244.0
Mon-19	352.7	0.0	260.9	0.0	0.0	10.5	0.0	250.4	250.4
Tue-20	335.2	0.0	255.7	0.0	0.0	11.3	0.0	244.4	244.4
Wed-21	350.4	0.0	255.2	0.0	0.0	12.4	0.0	242.8	242.8
Thu-22	361.8	0.0	254.5	0.0	0.0	12.4	0.0	242.1	242.1
Fri-23	347.4	0.0	251.6	0.0	0.0	12.3	0.0	239.3	239.3
Sat-24	357.2	0.0	250.8	0.0	0.0	12.5	0.0	238.3	238.3
Sun-25	425.0	0.0	254.3	0.0	0.0	12.5	0.0	241.8	241.8
Mon-26	409.1	0.0	260.7	0.0	0.0	12.4	0.0	248.3	248.3
Tue-27	448.3	0.0	257.7	0.0	0.0	11.7	0.0	246.0	246.0
Wed-28	343.0	0.0	250.6	0.0	0.0	11.4	0.0	239.2	239.2
Thu-29	332.1	0.0	249.0	0.0	0.0	10.9	0.0	238.1	238.1
Fri-30	456.1	0.0	270.0	7.0	0.0	12.0	0.0	251.0	251.0
Sat 31	363.1	0.0	247.9	0.0	0.0	12.5	0.0	235.4	235.4
Average	378.3	0.0	256.0	2.2	0.0	11.5	0.0	242.3	242.3
Minimum	311.3	0.0	238.4	0.0	0.0	10.5	0.0	227.0	227.0
Maximum	875.0	0.0	349.2	59.0	0.0	12.5	0.0	278.5	278.5
GeoMean	---	---	---	---	---	---	---	---	---
TOTAL	---	0	7,935	67	0	358	0	7,510	7,510

Liquid Stream Quality

DATE	pH@25°C: RAW	pH@25°C: OUTFALL 30	pH@25°C: OUTFALL 20	pH@25°C: OUTFALL 10: FEC
Thu-01	7.7			7.6
Fri-02	7.8			7.6
Sat-03	7.7			7.6
Sun-04	6.9			7.5
Mon-05	7.6			7.7
Tue-06	7.6			7.6
Wed-07	7.5			7.6
Thu-08	7.6			7.7
Fri-09	7.4			7.5
Sat-10	7.5	7.6		7.5
Sun-11	7.5	8.0		7.5
Mon-12	7.5			7.6
Tue-13	7.5			7.6
Wed-14	7.6			7.7
Thu-15	7.6			7.7
Fri-16	7.5			7.6
Sat-17	7.8			7.6
Sun-18	7.6			7.6
Mon-19	7.6			7.6
Tue-20	7.6			7.5
Wed-21	7.6			7.5
Thu-22	7.6			7.5
Fri-23	7.6			7.7
Sat-24	7.5			7.7
Sun-25	7.6			7.5
Mon-26	7.7			7.6
Tue-27	7.4			7.4
Wed-28	7.4			7.5
Thu-29	7.6			7.6
Fri-30	7.5	7.7		7.5
Sat 31	7.6			7.6
Average	6.9	7.6	---	7.4
Minimum	7.6	7.6	---	7.4
Maximum	7.7	8.0	---	7.7
GeoMean	---	---	---	---
TOTAL	---	---	---	---

DATE	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
Thu-01	143				4.4	4.4
Fri-02	180				4.6	4.6
Sat-03	92				4.3	4.3
Sun-04	5900				4.3	4.3
Mon-05	355				4.4	4.4
Tue-06	336				4.0	4.0
Wed-07	324				4.2	4.2
Thu-08	540				3.9	3.9
Fri-09	532				5.5	5.5
Sat-10	376	36			2.9	2.9
Sun-11	460	160			2.8	2.8
Mon-12	436				4.4	4.4
Tue-13	396				4.3	4.3
Wed-14	300				3.5	3.5
Thu-15	296				3.8	3.8
Fri-16	384				3.7	3.7
Sat-17	608				3.6	3.6
Sun-18	448				4.4	4.4
Mon-19	328				3.6	3.6
Tue-20	300				3.3	3.3
Wed-21	284				4.0	4.0
Thu-22	292				3.6	3.6
Fri-23	276				3.7	3.7
Sat-24	336				3.6	3.6
Sun-25	260				4.2	4.2
Mon-26	292				4.2	4.2
Tue-27	340				3.9	3.9
Wed-28	316				3.5	3.5
Thu-29	300				3.4	3.4
Fri-30	380	107			2.9	2.9
Sat 31	256				4.2	4.2
Average	518	101	---	---	3.9	3.9
Minimum	92	36	---	---	2.8	2.8
Maximum	5900	160	---	---	5.5	5.5
GeoMean	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---

DATE	BOD_5/$cBOD_5$ (mg/L): RAW	BOD_5: OUTFALL 30	BOD_5: OUTFALL 20	BOD_5: EPEPS	OUTFALL 10: FEC $cBOD_5$	OUTFALL 10: FE $cBOD_5$
Thu-01	184				3.0	3.0
Fri-02	231				4.0	4.0
Sat-03	104				3.0	3.0
Sun-04	2750				3.0	3.0
Mon-05	373				3.0	3.0
Tue-06	292				3.0	3.0
Wed-07	266				3.0	3.0
Thu-08	283				3.0	3.0
Fri-09	275				2.0	2.0
Sat-10	265	80			4.0	4.0
Sun-11	218	119			4.0	4.0
Mon-12	324				3.0	3.0
Tue-13	263				3.0	3.0
Wed-14	308				3.0	3.0
Thu-15	302				3.0	3.0
Fri-16	291				3.0	3.0
Sat-17	507				2.0	2.0
Sun-18	329				2.0	2.0
Mon-19	274				2.0	2.0
Tue-20	271				2.0	2.0
Wed-21	331				3.0	3.0
Thu-22	310				3.0	3.0
Fri-23	326				3.0	3.0
Sat-24	300				3.0	3.0
Sun-25	334				3.0	3.0
Mon-26	353				3.0	3.0
Tue-27	331				3.0	3.0
Wed-28	344				< 2.0	< 2.0
Thu-29	380				2.0	2.0
Fri-30	368	134			2.0	2.0
Sat 31	285				2.0	2.0
Average	380	111	---	---	2.8	2.8
Minimum	104	80	---	---	< 2.0	< 2.0
Maximum	2750	134	---	---	4.0	4.0
GeoMean	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---

DATE	TP (mg/L): RAW	TP (mg/L): OUTFALL 30	TP (mg/L): OUTFALL 20	TP (mg/L): EPEPS	TP (mg/L): OUTFALL 10: FEC	TP (mg/L): OUTFALL 10: FE
Thu-01	6.36				0.25	0.25
Fri-02	9.85				0.24	0.24
Sat-03	6.24				0.29	0.29
Sun-04	137				0.24	0.24
Mon-05	8.82				0.24	0.24
Tue-06	6.89				0.22	0.22
Wed-07	6.70				0.22	0.22
Thu-08	7.00				0.23	0.23
Fri-09	6.94				0.23	0.23
Sat-10	6.50	2.03			0.24	0.24
Sun-11	5.88	6.28			0.18	0.18
Mon-12	6.83				0.20	0.20
Tue-13	6.83				0.19	0.19
Wed-14	7.31				0.09	0.09
Thu-15	7.18				0.19	0.19
Fri-16	8.49				0.20	0.20
Sat-17	10.7				0.21	0.21
Sun-18	9.28				0.20	0.20
Mon-19	8.11				0.20	0.20
Tue-20	8.37				0.21	0.21
Wed-21	8.08				0.22	0.22
Thu-22	8.46				0.23	0.23
Fri-23	8.58				0.23	0.23
Sat-24	8.49				0.25	0.25
Sun-25	8.58				0.23	0.23
Mon-26	8.02				0.22	0.22
Tue-27	8.27				0.23	0.23
Wed-28	8.78				0.22	0.22
Thu-29	7.61				0.23	0.23
Fri-30	8.82	6.30			0.23	0.23
Sat 31	8.74				0.22	0.22
Average	12.1	4.87	---	---	0.22	0.22
Minimum	5.88	2.03	---	---	0.09	0.09
Maximum	137	6.30	---	---	0.29	0.29
GeoMean	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---

DATE	NH3-N (mg/L): RAW	NH3-N (mg/L): OUTFALL 30	NH3-N (mg/L): OUTFALL 20	NH3-N (mg/L): EPEPS	NH3-N (mg/L): OUTFALL 10: FEC	NH3-N (mg/L): OUTFALL 10: FE
Thu-01	32.5				0.44	0.44
Fri-02	17.5				0.48	0.48
Sat-03	5.81				0.43	0.43
Sun-04	20.7				0.68	0.68
Mon-05	34.3				0.62	0.62
Tue-06	33.4				0.40	0.40
Wed-07	27.9				0.51	0.51
Thu-08	33.8				0.51	0.51
Fri-09	33.1				0.99	0.99
Sat-10	32.5	13.5			0.87	0.87
Sun-11	21.8	32.3			1.17	1.17
Mon-12	35.9				1.70	1.70
Tue-13	33.9				1.56	1.56
Wed-14	35.2				2.01	2.01
Thu-15	29.7				2.00	2.00
Fri-16	36.8				2.30	2.30
Sat-17	34.0				2.49	2.49
Sun-18	42.4				2.81	2.81
Mon-19	37.9				2.50	2.50
Tue-20	37.7				1.84	1.84
Wed-21	37.4				1.42	1.42
Thu-22	38.1				2.00	2.00
Fri-23	37.0				1.10	1.10
Sat-24	39.5				1.22	1.22
Sun-25	38.9				1.52	1.52
Mon-26	29.3				1.40	1.40
Tue-27	38.4				0.70	0.70
Wed-28	37.1				0.41	0.41
Thu-29	37.2				0.32	0.32
Fri-30	38.8	42.8			0.50	0.50
Sat 31	40.1				1.00	1.00
Average	33.2	29.5	---	---	1.22	1.22
Minimum	5.81	13.5	---	---	0.32	0.32
Maximum	42.4	42.8	---	---	2.81	2.81
GeoMean	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---

DATE	TKN (mg/L): RAW	TKN (mg/L): OUTFALL 30	TKN (mg/L): OUTFALL 20	TKN (mg/L): OUTFALL 10: FEC
Thu-01	47.1			1.90
Fri-02	41.2			2.20
Sat-03	15.8			2.00
Sun-04	390			2.00
Mon-05	58.6			1.90
Tue-06	51.4			2.00
Wed-07	50.7			2.20
Thu-08	55.1			2.20
Fri-09	52.9			2.60
Sat-10	52.1	19.2		2.70
Sun-11	39.8	50.3		2.60
Mon-12	55.4			3.10
Tue-13	53.3			3.10
Wed-14	56.7			1.90
Thu-15	53.6			3.60
Fri-16	61.9			3.80
Sat-17	68.6			4.40
Sun-18	75.5			4.70
Mon-19	59.7			4.20
Tue-20	65.6			3.80
Wed-21	61.0			3.20
Thu-22	63.3			4.00
Fri-23	63.5			3.10
Sat-24	67.9			3.40
Sun-25	61.6			4.00
Mon-26	60.3			3.40
Tue-27	59.8			2.60
Wed-28	63.2			2.40
Thu-29	57.8			2.00
Fri-30	60.6	58.3		2.20
Sat 31	62.1			2.70
Average	67.3	42.6	---	2.90
Minimum	15.8	19.2	---	1.90
Maximum	390	58.3	---	4.70
GeoMean	---	---	---	---
TOTAL	---	---	---	---

DATE	NO_3+NO_2 (mg/L): RAW	NO_3+NO_2: OUTFALL 30	NO_3+NO_2: OUTFALL 20	NO_3+NO_2: OUTFALL 10: FEC
Thu-01				7.91
Fri-02				8.66
Sat-03				7.91
Sun-04				7.37
Mon-05				6.31
Tue-06				6.58
Wed-07	0.08			7.74
Thu-08				7.25
Fri-09				6.08
Sat-10		0.34		6.42
Sun-11		3.27		5.15
Mon-12				5.78
Tue-13				6.16
Wed-14	< 0.01			7.71
Thu-15				8.09
Fri-16				7.44
Sat-17				7.97
Sun-18				9.02
Mon-19				8.82
Tue-20				9.40
Wed-21	< 0.01			10.5
Thu-22				11.7
Fri-23				10.6
Sat-24				8.98
Sun-25				9.28
Mon-26				8.33
Tue-27				8.85
Wed-28	0.04			10.2
Thu-29				11.7
Fri-30		0.02		12.1
Sat 31				12.0
Average	0.04	1.21	---	8.45
Minimum	< 0.01	0.02	---	5.15
Maximum	0.08	3.27	---	12.1
GeoMean	---	---	---	---
TOTAL	---	---	---	---

DATE	Chloride (mg/L): RAW	Chloride (mg/L): OUTFALL 30	Chloride (mg/L): OUTFALL 20	Chloride (mg/L): OUTFALL 10: FEC
Thu-01	79			82
Fri-02	80			82
Sat-03	79			80
Sun-04	78			78
Mon-05	78			76
Tue-06	100			82
Wed-07	86			83
Thu-08	79			84
Fri-09	76			84
Sat-10	75	43		88
Sun-11	58	53		73
Mon-12	70			72
Tue-13	73			75
Wed-14	78			85
Thu-15	76			83
Fri-16	83			83
Sat-17	67			80
Sun-18	69			75
Mon-19	73			73
Tue-20	84			83
Wed-21	76			87
Thu-22	77			86
Fri-23	76			86
Sat-24	73			85
Sun-25	69			77
Mon-26	84			75
Tue-27	97			95
Wed-28	85			93
Thu-29	78			93
Fri-30	82	104		88
Sat 31	73			92
Average	78	67	---	83
Minimum	58	43	---	72
Maximum	100	104	---	95
GeoMean	---	---	---	---
TOTAL	---	---	---	---

DATE	*E. coli* (Counts/100 mL): RAW	*E. coli*: OUTFALL 30	*E. coli*: OUTFALL 20	*E. coli*: OUTFALL 10: FEC
Thu-01				4
Fri-02				4
Sat-03				7
Sun-04				8
Mon-05				4
Tue-06				5
Wed-07				3
Thu-08	3.1			5
Fri-09				5
Sat-10		2.3		27
Sun-11		1.5		15
Mon-12				21
Tue-13				7
Wed-14				4
Thu-15	2.8			2
Fri-16				4
Sat-17				5
Sun-18				8
Mon-19				6
Tue-20				6
Wed-21				6
Thu-22				4
Fri-23				4
Sat-24				7
Sun-25				7
Mon-26				6
Tue-27				5
Wed-28				4
Thu-29				3
Fri-30		2.2		3
Sat 31				9
Average	---	---	---	---
Minimum	2.8	1.5	---	2
Maximum	3.1	2.3	---	27
GeoMean	2.9	2.0	---	6
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
10	10	100%	822	822	100%

Report Comments

1	OUTFALL 10 - October 11: Analysis of the sample exceeded the recommended hold time for BOD.
2	RAW - October 11: Analysis of the sample exceeded the recommended hold time for BOD.

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

Alfredo Suarez
Senior Manager, Operations

Steve Craik
Director, Quality Assurance and Environment