Gold Bar Wastewater Treatment Plant
Plant Performance Report
March 2021

Digested Sludge: Total Monthly Volume (ML)	66.3

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
Mon-01	499.6	0.0	254.5	0.0	0.0	11.2	0.0	243.3	243.3
Tue-02	355.6	0.0	259.9	0.0	0.0	12.0	0.0	247.9	247.9
Wed-03	447.4	0.0	274.7	10.7	0.0	12.0	0.0	252.0	252.0
Thu-04	499.5	0.0	284.1	13.4	0.0	11.5	0.0	259.2	259.2
Fri-05	601.4	0.0	320.2	51.4	0.0	11.7	0.0	257.1	257.1
Sat-06	419.8	0.0	272.6	0.2	0.0	12.2	0.0	260.2	260.2
Sun-07	470.8	0.0	275.9	18.7	0.0	11.7	0.0	245.5	245.5
Mon-08	344.4	0.0	265.4	0.0	0.0	11.5	0.0	253.9	253.9
Tue-09	397.3	0.0	254.8	0.0	0.0	11.6	0.0	243.2	243.2
Wed-10	308.5	0.0	249.2	0.0	0.0	11.7	0.0	237.5	237.5
Thu-11	307.8	0.0	249.4	0.0	0.0	11.1	0.0	238.3	238.3
Fri-12	486.0	0.0	279.8	22.2	0.0	11.2	0.0	246.4	246.4
Sat-13	602.6	0.0	318.1	60.7	0.0	10.4	0.0	247.0	247.0
Sun-14	476.4	0.0	284.9	32.0	0.0	10.0	0.0	242.9	242.9
Mon-15	354.9	0.0	271.3	0.0	0.0	10.5	0.0	260.8	260.8
Tue-16	323.7	0.0	258.7	0.0	0.0	10.8	0.0	247.9	247.9
Wed-17	336.9	0.0	263.6	0.0	0.0	11.5	0.0	252.1	252.1
Thu-18	316.4	0.0	260.7	0.0	0.0	11.5	0.0	249.2	249.2
Fri-19	328.6	0.0	263.8	0.0	0.0	11.5	0.0	252.3	252.3
Sat-20	318.0	0.0	251.9	0.0	0.0	11.2	0.0	240.7	240.7
Sun-21	315.6	0.0	251.0	0.0	0.0	11.2	0.0	239.8	239.8
Mon-22	309.4	0.0	263.9	0.0	0.0	10.8	0.0	253.1	253.1
Tue-23	307.4	0.0	249.1	0.0	0.0	10.8	0.0	238.3	238.3
Wed-24	482.1	0.0	263.7	11.7	0.0	11.0	0.0	241.0	241.0
Thu-25	313.9	0.0	246.2	0.0	0.0	10.9	0.0	235.3	235.3
Fri-26	319.7	0.0	252.3	0.0	0.0	11.0	0.0	241.3	241.3
Sat-27	318.1	0.0	245.4	0.0	0.0	10.8	0.0	234.6	234.6
Sun-28	310.3	0.0	246.1	0.0	0.0	10.6	0.0	235.5	235.5
Mon-29	306.5	0.0	254.3	0.0	0.0	10.5	0.0	243.8	243.8
Tue-30	305.2	0.0	247.3	0.0	0.0	11.0	0.0	236.3	236.3
Wed 31	308.5	0.0	242.9	0.0	0.0	11.1	0.0	231.8	231.8
Average	380.4	0.0	263.7	7.1	0.0	11.2	0.0	245.4	245.4
Minimum	305.2	0.0	242.9	0.0	0.0	10.0	0.0	231.8	231.8
Maximum	602.6	0.0	320.2	60.7	0.0	12.2	0.0	260.8	260.8
GeoMean	---	---	---	---	---	---	---	---	---
TOTAL	---	0	8,176	221	0	347	0	7,608	7,608

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
Mon-01	7.5			7.6	400				2.8	2.8
Tue-02	7.4			7.6	320				3.5	3.5
Wed-03	7.4	7.4		7.7	336	101			3.0	3.0
Thu-04	7.5	7.6		7.6	505	80			2.3	2.3
Fri-05	7.4	7.4		7.5	464	94			2.4	2.4
Sat-06	7.5	7.9		7.4	412	53			7.0	7.0
Sun-07	7.6	7.4		7.6	268	69			9.8	9.8
Mon-08	7.5			7.6	280				7.6	7.6
Tue-09	7.3			7.5	332				24.4	24.4
Wed-10	7.4			7.6	336				9.2	9.2
Thu-11	7.5			7.5	348				5.1	5.1
Fri-12	7.5	7.4		7.4	328	51			19.4	19.4
Sat-13	7.5	7.5		7.4	304	99			6.2	6.2
Sun-14	7.5	7.4		7.4	268	97			3.0	3.0
Mon-15	7.5			7.5	288				2.0	2.0
Tue-16	7.5			7.6	308				2.4	2.4
Wed-17	7.4			7.5	308				2.9	2.9
Thu-18	7.5			7.4	320				2.5	2.5
Fri-19	7.4			7.5	324				2.4	2.4
Sat-20	7.5			7.7	296				1.9	1.9
Sun-21	7.5			7.5	332				2.4	2.4
Mon-22	7.4			7.5	348				2.7	2.7
Tue-23	7.4			7.6	332				4.2	4.2
Wed-24	7.4	7.5		7.5	352	73			3.7	3.7
Thu-25	7.4			7.4	336				2.7	2.7
Fri-26	7.5			7.4	480				3.2	3.2
Sat-27	7.5			7.5	308				3.3	3.3
Sun-28	7.7			7.6	296				3.0	3.0
Mon-29	7.4			7.6	292				3.1	3.1
Tue-30	7.5			7.6	283				5.7	5.7
Wed 31	7.6			7.5	272				2.7	2.7
Average	7.5	7.5	---	7.5	335	80	---	---	5.0	5.0
Minimum	7.3	7.4	---	7.4	268	51	---	---	1.9	1.9
Maximum	7.7	7.9	---	7.7	505	101	---	---	24.4	24.4
GeoMean	---	---	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---

DATE	$BOD_5/cBOD_5$ (mg/L) RAW BOD_5	BOD_5 OUTFALL 30 BOD_5	BOD_5 OUTFALL 20 BOD_5	BOD_5 EPEPS BOD_5	BOD_5 OUTFALL 10 FEC $cBOD_5$	BOD_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
Mon-01	307				2.0	2.0	6.38				0.20	0.20
Tue-02	281				2.0	2.0	6.54				0.23	0.23
Wed-03	300	154			3.0	3.0	6.81	4.20			0.19	0.19
Thu-04	368	145			< 2.0	2.0	8.11	3.96			0.19	0.19
Fri-05	349	143			< 2.0	2.0	6.44	3.71			0.18	0.18
Sat-06	299	120			4.0	4.0	5.96	2.33			0.33	0.33
Sun-07	367	179			4.0	4.0	5.85	4.01			0.47	0.47
Mon-08	310				4.0	4.0	5.96				0.44	0.44
Tue-09	328				7.0	7.0	5.96				0.90	0.90
Wed-10	281				4.0	4.0	5.85				0.47	0.47
Thu-11	298				2.0	2.0	7.12				0.26	0.26
Fri-12	325	133			6.0	6.0	6.18	3.81			0.67	0.67
Sat-13	293	127			< 2.0	2.0	6.20	4.33			0.28	0.28
Sun-14	244	152			< 2.0	2.0	5.81	4.70			0.15	0.15
Mon-15	281				< 2.0	2.0	6.36				0.18	0.18
Tue-16	313				2.0	2.0	7.01				0.20	0.20
Wed-17	317				< 2.0	2.0	6.47				0.16	0.16
Thu-18	315				2.0	2.0	6.68				0.18	0.18
Fri-19	348				< 2.0	2.0	7.58				0.18	0.18
Sat-20	274				< 2.0	2.0	7.16				0.19	0.19
Sun-21	326				2.0	2.0	7.14				0.19	0.19
Mon-22	316				< 2.0	2.0	7.30				0.18	0.18
Tue-23	317				3.0	3.0	7.5				0.27	0.27
Wed-24	318	180			2.0	2.0	7.56	5.47			0.22	0.22
Thu-25	296				2.0	2.0	7.17				0.24	0.24
Fri-26	338				< 2.0	2.0	8.50				0.19	0.19
Sat-27	300				2.0	2.0	7.43				0.18	0.18
Sun-28	291				2.0	2.0	7.47				0.20	0.20
Mon-29	311				3.0	3.0	7.29				0.22	0.22
Tue-30	340				2.0	2.0	8.62				0.20	0.20
Wed 31	332				4.0	4.0	7.29				0.20	0.20
Average	312	148	---	---	2.7	2.7	6.89	4.06	---	---	0.27	0.27
Minimum	244	120	---	---	< 2.0	2.0	5.81	2.33	---	---	0.15	0.15
Maximum	368	180	---	---	7.0	7.0	8.6	5.47	---	---	0.90	0.90
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_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
Mon-01	34.2				3.96	3.96	51.4			5.40				5.06
Tue-02	33.5				3.64	3.64	46.4			5.60				4.78
Wed-03	32.7	36.3			3.39	3.39	49.5	46.3		5.50	0.03	0.14		4.8
Thu-04	33.0	36.6			4.02	4.02	58.3	41.0		5.10		0.09		4.4
Fri-05	29.8	30.2			4.27	4.27	48.8	33.9		5.40		0.18		4.2
Sat-06	32.1	26.0			4.08	4.08	48.7	29.4		5.60		0.11		3.7
Sun-07	33.2	28.4			5.64	5.64	46.0	38.7		7.30		0.02		4.14
Mon-08	36.1				4.50	4.50	48.6			7.50				4.52
Tue-09	34.2				6.29	6.29	48.5			10.0				3.3
Wed-10	31.4				5.84	5.84	45.4			8.30	0.04			3.77
Thu-11	37.3				5.52	5.52	54.8			6.90				6.0
Fri-12	26.5	33.7			3.04	3.04	50.3	41.8		6.80		0.18		8.4
Sat-13	29.1	28.8			3.45	3.45	48.9	39.2		5.40		0.27		7.4
Sun-14	23.3	31.8			2.96	2.96	47.9	44.6		4.30		0.24		7.54
Mon-15	32.7				4.10	4.10	51.2			5.40				8.48
Tue-16	33.8				4.92	4.92	55.0			6.20				9.49
Wed-17	32.2				2.50	2.50	51.8			4.40	0.06			9.6
Thu-18	32.8				2.78	2.78	50.9			4.10				10.2
Fri-19	32.3				3.22	3.22	58.1			4.80				10.8
Sat-20	17.8				2.77	2.77	58.3			4.40				11.0
Sun-21	36.3				2.75	2.75	60.5			4.20				11.4
Mon-22	34.6				3.97	3.97	58.5			5.60				11.0
Tue-23	12.3				5.44	5.44	57.2			7.20				10.6
Wed-24	33.7	41.6			5.49	5.49	58.6	51.5		6.70	0.31	2.12		9.8
Thu-25	35.3				4.44	4.44	55.0			5.80				9.1
Fri-26	29.1				4.59	4.59	65.6			6.60				10.2
Sat-27	36.4				3.78	3.78	56.7			5.80				8.8
Sun-28	35.7				3.34	3.34	60.1			5.00				9.4
Mon-29	34.5				3.43	3.43	55.9			5.30				9.01
Tue-30	34.5				2.93	2.93	67.6			4.80				8.31
Wed 31	7.9				2.32	2.32	58.0			4.20	0.03			7.85
Average	30.9	32.6	---	---	3.98	3.98	54.0	40.7	---	5.79	0.09	0.37	---	7.6
Minimum	7.9	26.0	---	---	2.32	2.32	45.4	29.4	---	4.10	0.03	0.02	---	3.30
Maximum	37.3	41.6	---	---	6.29	6.29	67.6	51.5	---	10.00	0.31	2.12	---	11.4
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
Mon-01	394			162				10
Tue-02	234			366				10
Wed-03	177	298		301		1.2		11
Thu-04	163	229		178	2.2	25.1		7
Fri-05	183	228		187		15.4		9
Sat-06	132	185		191		0.7		4
Sun-07	108	141		153		1.1		5
Mon-08	106			125				5
Tue-09	106			116				13
Wed-10	96			119				9
Thu-11	105			106				8
Fri-12	114	155		102		0.9		6
Sat-13	119	136		118		1.0		4
Sun-14	118	143		121		1.9		1
Mon-15	100			120				1
Tue-16	90			107				5
Wed-17	87			100				2
Thu-18	88			100	1.1			2
Fri-19	90			104				4
Sat-20	77			105				7
Sun-21	78			94				6
Mon-22	69			86				3
Tue-23	75			88				7
Wed-24	124	230		95		2.3		7
Thu-25	98			140	1.4			20
Fri-26	87			107				8
Sat-27	82			97				11
Sun-28	78			89				6
Mon-29	95			92				3
Tue-30	82			98				9
Wed 31	89			94				11
Average	118	194	---	131	---	---	---	---
Minimum	69	136	---	86	1.1	0.7	---	1
Maximum	394	298	---	366	2.2	25.1	---	20
GeoMean	---	---	---	---	1.5	2.2	---	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
51	51	100%	59	59	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

Alfredo Suarez M.Sc.; P.Eng.
Senior Manager, Operations

Daniel Calcines B.Sc., P. Chem
Manager, Laboratory Customer Relations