PROVIDING MORE EPCOR

Gold Bar Wastewater Treatment Plant
Plant Performance Report
March 2017

Digested Sludge: Total Monthly Volume (ML)	65.36

Volume of Flow (ML) and Liquid Stream Quality (pH, TSS, BOD₅/cBOD₅)

DATE	Peak Flow (MLD)	Influent RAW	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	pH@25°C RAW	pH@25°C OUTFALL 30	pH@25°C OUTFALL 10 FEC	TSS (mg/L) RAW	TSS (mg/L) OUTFALL 30	TSS (mg/L) EPEPS	TSS (mg/L) OUTFALL 10 FEC	TSS (mg/L) OUTFALL 10 FE	BOD_5/$cBOD_5$ (mg/L) RAW BOD_5	OUTFALL 30 BOD_5	EPEPS BOD_5	OUTFALL 10 FEC $cBOD_5$	OUTFALL 10 FE $cBOD_5$
Wed 01	388.71	244.52	0.00	10.09	0.00	234.43	234.43	7.7		7.5	323			5.3	5.3	319			4	4
Thu 02	354.64	244.46	0.00	10.59	0.00	233.87	233.87	7.6		7.5	252			5.5	5.5	294			3	3
Fri 03	388.89	255.53	0.00	10.27	0.00	245.26	245.26	7.7		7.5	304			5.6	5.6	357			4	4
Sat 04	373.71	242.97	0.00	10.77	0.00	232.20	232.20	7.6		7.4	396			5.0	5.0	351			3	3
Sun 05	358.73	243.34	0.00	10.04	0.00	233.30	233.30	7.5		7.5	312			4.7	4.7	316			3	3
Mon 06	354.25	244.64	0.00	10.29	0.00	234.35	234.35	7.6		7.5	256			6.3	6.3	327			4	4
Tue 07	332.86	240.64	0.00	10.85	0.00	229.79	229.79	7.6		7.4	244			5.4	5.4	291			3	3
Wed 08	332.65	239.66	0.00	10.12	0.00	229.54	229.54	7.8		7.5	314			4.7	4.7	314			3	3
Thu 09	339.70	244.54	0.00	10.16	0.00	234.38	234.38	7.5		7.4	312			5.8	5.8	362			4	4
Fri 10	372.80	241.71	0.00	9.93	0.00	231.78	231.78	7.8		7.7	329			5.9	5.9	364			4	4
Sat 11	352.11	241.42	0.00	10.30	0.00	231.12	231.12	7.6		7.5	266			6.8	6.8	382			4	4
Sun 12	555.32	232.74	1.40	9.42	0.00	221.92	221.92	7.7	7.4	7.5	292	70		7.1	7.1	382	202		5	5
Mon 13	343.31	243.48	0.00	10.29	0.00	233.19	233.19	7.7		7.5	317			7.0	7.0	316			3	3
Tue 14	359.14	247.40	0.00	9.60	0.00	237.80	237.80	7.6		7.5	335			6.7	6.7	370			4	4
Wed 15	566.09	314.60	29.60	9.43	0.00	275.57	275.57	7.5	7.4	7.6	605	102		6.9	6.9	374	154		4	4
Thu 16	656.52	294.00	7.34	10.49	0.00	276.17	276.17	7.7	7.7	7.4	316	121		8.3	8.3	251	138		4	4
Fri 17	703.68	353.84	63.02	9.71	0.00	281.11	281.11	7.5	7.6	7.5	384	92		6.8	6.8	266	134		4	4
Sat 18	830.91	410.26	142.05	10.08	0.00	258.13	258.13	7.5	7.6	7.4	354	226		6.1	6.1	200	157		4	4
Sun 19	547.71	351.85	63.33	10.09	0.00	278.43	278.43	7.6	8.0	7.4	182	85		7.0	7.0	211	154		4	4
Mon 20	392.89	267.79	0.00	10.25	0.00	257.54	257.54	7.5		7.5	248			5.5	5.5	256			5	5
Tue 21	343.02	250.27	0.00	10.34	0.00	239.93	239.93	7.6		7.5	244			5.5	5.5	276			3	3
Wed 22	335.13	240.15	0.00	10.13	0.00	230.02	230.02	7.6		7.5	297			5.7	5.7	278			4	4
Thu 23	387.29	263.15	0.00	9.70	0.00	253.45	253.45	7.6		7.6	376			6.4	6.4	334			4	4
Fri 24	379.39	270.47	0.00	9.80	0.00	260.67	260.67	7.6		7.5	288			5.9	5.9	331			4	4
Sat 25	679.25	330.61	48.50	9.69	0.00	272.42	272.42	7.6	7.6	7.5	344	151		5.6	5.6	156	143		4	4
Sun 26	568.82	329.96	33.92	9.61	0.00	286.43	286.43	7.7	7.6	7.4	229	103		4.2	4.2	247	137		4	4
Mon 27	415.66	299.56	0.00	9.77	0.00	289.79	289.79	7.6		7.4	262			5.1	5.1	240			3	3
Tue 28	401.31	291.48	0.00	9.18	0.00	282.30	282.30	7.6		7.4	251			4.8	4.8	326			3	3
Wed 29	576.55	282.31	0.00	9.07	0.00	273.24	273.24	7.6		7.5	246			4.9	4.9	221			3	3
Thu 30	423.34	273.21	0.00	10.58	0.00	262.63	262.63	7.5		7.5	316			4.6	4.6	325			3	3
Fri 31	458.96	271.22	0.00	9.14	0.00	262.08	262.08	7.6		7.5	283			4.5	4.5	314			3	3
Average	447.53	273.87	12.55	9.99	0.00	251.70	251.70	7.6	7.6	7.5	306	119	---	5.8	5.8	302	152	---	4	4
Minimum	332.65	232.74	0.00	9.07	0.00	221.92	221.92	7.5	7.4	7.4	182	70	---	4.2	4.2	156	134	---	3	3
Maximum	830.91	410.26	142.05	10.85	0.00	289.79	289.79	7.8	8.0	7.7	605	226	---	8.3	8.3	382	202	---	5	5
GeoMean	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
TOTAL	---	8,502	389	310	0	7,803	7,803	---	---	---	---	---	---	---	---	---	---	---	---	---

Liquid Stream Quality (continued)

DATE	TP (mg/L) RAW	TP OUTFALL 30	TP EPEPS	TP OUTFALL 10 FEC	TP OUTFALL 10 FE	NH3-N (mg/L) RAW	NH3-N OUTFALL 30	NH3-N EPEPS	NH3-N OUTFALL 10 FEC	NH3-N OUTFALL 10 FE	TKN (mg/L) RAW	TKN OUTFALL 30	TKN OUTFALL 10 FEC	NO_2+NO_3 (mg/L) RAW	NO_2+NO_3 OUTFALL 30	NO_2+NO_3 OUTFALL 10 FEC	Chloride (mg/L) RAW	Chloride OUTFALL 30	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
Wed 01	8.84			0.28	0.28	53.8			1.39	1.39	68.8		3.39	0.01		9.34	99.9		111				4
Thu 02	9.08			0.28	0.28	45.5			1.44	1.44	66.4		3.56			8.20	97.4		101				6
Fri 03	8.47			0.30	0.30	42.8			1.65	1.65	63.2		3.64			8.98	117		99.4				5
Sat 04	9.12			0.29	0.29	40.7			1.82	1.82	70.5		3.87			8.75	97.5		109				5
Sun 05	10.10			0.28	0.28	39.5			2.13	2.13	73.6		4.32			10.6	76.6		94.4				9
Mon 06	8.70			0.29	0.29	34.8			1.93	1.93	64.8		4.05			8.52	91.0		83.0				10
Tue 07	7.51			0.28	0.28	33.7			0.61	0.61	56.5		2.43			8.59	89.7		94.7				4
Wed 08	7.85			0.26	0.26	35.7			0.16	0.16	54.7		1.58	0.02		7.58	86.2		95.1				4
Thu 09	8.64			0.31	0.31	41.6			1.97	1.97	67.0		3.93			8.69	88.0		101				7
Fri 10	7.62			0.30	0.30	33.2			3.67	3.67	62.6		7.51			9.25	157		101				9
Sat 11	7.34			0.32	0.32	32.5			3.15	3.15	60.2		5.92			10.6	80.6		97.2				6
Sun 12	7.66	5.49		0.32	0.32	42.0	29.2		2.62	2.62	62.1		4.99			9.60	75.3		86.0		2.2		350
Mon 13	7.69			0.33	0.33	40.0			2.68	2.68	62.0		4.82			9.08	88.7		79.7				9
Tue 14	8.03			0.31	0.31	41.2			1.32	1.32	64.4		3.33			9.76	175		98.6				3
Wed 15	9.54	5.60		0.33	0.33	44.4	44.8		3.24	3.24	71.4	50.4	5.79	0.05	0.07	9.82	421	546	173		2.0		8
Thu 16	7.09	4.43		0.31	0.31	41.4	36.0		5.32	5.32	59.9	45.4	7.16		0.20	7.66	267	441	311		1.7		5
Fri 17	6.38	4.64		0.32	0.32	34.3	31.1		5.00	5.00	50.5	45.4	7.45		0.03	6.63	293	383	305		1.9		21
Sat 18	5.75	4.36		0.30	0.30	28.4	25.1		3.84	3.84	44.9	35.5	5.39		0.34	5.20	166	205	265		2.2		22
Sun 19	4.98	4.35		0.28	0.28	33.0	33.1		2.66	2.66	43.0	42.5	4.46		1.33	4.50	177	188	190		1.6		29
Mon 20	6.77			0.48	0.48	37.8			4.59	4.59	56.9		6.65			5.15	119		150	1.7			68
Tue 21	8.93			0.30	0.30	41.1			5.35	5.35	68.5		7.11			6.06	98.5		122	2.7			23
Wed 22	7.68			0.30	0.30	48.6			4.72	4.72	59.7		6.63	< 0.01		7.28	95.3		110				20
Thu 23	8.05			0.41	0.41	42.8			4.61	4.61	61.6		6.94			7.89	103		110				34
Fri 24	7.17			0.29	0.29	40.0			4.46	4.46	55.9		6.15			7.30	96.5		109				16
Sat 25	6.65	4.96		0.32	0.32	36.4	31.7		4.11	4.11	47.5	40.5	6.16		0.01	9.01	89.8	107	111		2.0		53
Sun 26	5.71	4.95		0.26	0.26	32.3	33.2		3.70	3.70	44.5	42.6	5.92		0.03	6.07	78.7	75.1	105		2.0		500
Mon 27	6.13			0.27	0.27	33.2			3.92	3.92	51.7		6.10			6.40	84.3		89.4				63
Tue 28	6.42			0.28	0.28	35.5			3.87	3.87	53.8		6.46			6.59	84.5		91.1				94
Wed 29	6.49			0.27	0.27	37.8			4.12	4.12	52.0		5.74	< 0.01		6.60	85.6		95.0				26
Thu 30	6.73			0.24	0.24	34.3			3.51	3.51	52.5		5.29			7.22	88.2		93.2				36
Fri 31	7.02			0.22	0.22	35.4			3.13	3.13	57.0		5.41			7.86	87.1		92.9				18
Average	7.55	4.85	---	0.30	0.30	38.5	33.0	---	3.12	3.12	59.0	43.2	5.23	0.02	0.29	7.90	124	278	125	---	---	---	---
Minimum	4.98	4.35	---	0.22	0.22	28.4	25.1	---	0.16	0.16	43.0	35.5	1.58	< 0.01	0.01	4.50	75.3	75.1	79.7	1.7	1.6	---	3
Maximum	10.1	5.60	---	0.48	0.48	53.8	44.8	---	5.35	5.35	73.6	50.4	7.51	0.05	1.33	10.6	421	546	311	2.7	2.2	---	500
GeoMean	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2.1	1.9	---	17
TOTAL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

* contact Laboratory for information about the quality assurance associated with the result

Enhanced Primary Treatment (EPT) Usage					
Total Bypass (hrs)	EPT Usage (hrs)	%	Total Bypass YTD (hrs)	EPT Usage	% Usage YTD
56	56	100%	91	91	100.00%

Report Comments

1	Outfall 30 - March 12: No auto-sampler available. Tests performed on grab sample.

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

Abhishek Bhargava 4/28/2017
Senior Manager, Operations

Shane Harnish 4/28/2017
Senior Manager, Analytical Operations