PROVIDING MORE EPCOR

GOLD BAR WASTEWATER TREATMENT PLANT
PLANT PERFORMANCE REPORT
February 2015

Digested Sludge: Total Monthly Volume (ML)	66.58

Volume of Flow (ML) / Liquid Stream Quality: pH, TSS

DATE	Peak Flow (MLD)	Influent RAW	Effluent – Non UV Disinfected – BYPASS OUT-FAL 30	BYPASS OUT-FAL 20 PRIM	BYPASS OUT-FAL 20 SEC	BYPASS Total	MPW	UV Disinfected OUT-FAL 10 EPE!	UV Disinfected OUT-FAL 10 FEC	pH@25°C OUT-FAL 30	pH@25°C OUT-FAL 20	pH@25°C OUT-FAL 10	TSS (mg/L) RAW	TSS (mg/L) OUT-FAL30	TSS (mg/L) OUT-FAL20	TSS (mg/L) OUT-FAL 10
Sun 01	379.07	246.11	0.00	0.00	0.00	0.00	10.12	0.00	235.99	-	-	7.5	192	-	-	15.3
Mon 02	347.60	249.90	0.00	0.00	0.00	0.00	10.28	0.00	239.62	-	-	7.4	276	-	-	94.3
Tue 03	350.19	246.73	0.00	0.00	0.00	0.00	11.85	0.00	234.88	-	-	7.5	340	-	-	26.0
Wed 04	354.89	248.03	0.00	0.00	0.00	0.00	12.02	0.00	236.01	-	-	7.5	* 269	-	-	* 8.0
Thu 05	342.88	245.30	0.00	0.00	0.00	0.00	10.63	0.00	234.67	-	-	7.5	208	-	-	7.2
Fri 06	337.03	243.68	0.00	0.00	0.00	0.00	11.63	0.00	232.05	-	-	7.7	353	-	-	9.2
Sat 07	376.68	244.46	0.00	0.00	0.00	0.00	10.65	0.00	233.81	-	-	7.6	327	-	-	7.8
Sun 08	377.51	245.45	0.00	0.00	0.00	0.00	11.12	0.00	234.33	-	-	7.4	369	-	-	9.8
Mon 09	350.28	250.24	0.00	0.00	0.00	0.00	10.85	0.00	239.39	-	-	7.4	488	-	-	8.8
Tue 10	349.77	248.21	0.00	0.00	0.00	0.00	11.08	0.00	237.13	-	-	7.3	360	-	-	9.8
Wed 11	346.12	245.70	0.00	0.00	0.00	0.00	10.83	0.00	234.87	-	-	7.4	500	-	-	8.9
Thu 12	359.61	249.38	0.00	0.00	0.00	0.00	11.05	0.00	238.33	-	-	7.5	444	-	-	9.8
Fri 13	411.07	273.10	0.00	0.00	0.00	0.00	10.45	0.00	262.65	-	-	7.4	404	-	-	6.4
Sat 14	373.04	243.72	0.00	0.00	0.00	0.00	11.36	0.00	232.36	-	-	7.5	444	-	-	8.3
Sun 15	415.48	255.44	0.00	0.00	0.00	0.00	11.07	0.00	244.37	-	-	7.5	380	-	-	6.2
Mon 16	386.06	253.20	0.00	0.00	0.00	0.00	10.46	0.00	242.74	-	-	7.5	256	-	-	9.8
Tue 17	349.82	249.95	0.00	0.00	0.00	0.00	9.58	0.00	240.37	-	-	7.4	320	-	-	8.5
Wed 18	360.03	256.01	0.00	0.00	0.00	0.00	11.20	0.00	244.81	-	-	7.4	320	-	-	7.5
Thu 19	786.40	369.71	95.65	0.00	0.00	95.65	9.98	0.00	264.08	-	-	7.4	375	224	-	7.4
Fri 20	467.86	308.91	6.70	0.00	0.00	6.70	10.60	0.00	291.61	-	-	7.3	293	49	-	9.2
Sat 21	377.31	248.78	0.00	0.00	0.00	0.00	11.22	0.00	237.56	-	-	7.5	138	-	-	8.4
Sun 22	430.37	253.64	0.00	0.00	0.00	0.00	11.83	0.00	241.81	-	-	7.4	271	-	-	9.2
Mon 23	644.17	329.78	58.85	0.00	0.00	58.85	12.16	0.00	258.77	-	-	7.2	360	90	-	6.5
Tue 24	559.02	324.09	29.99	0.00	0.00	29.99	10.50	0.00	283.60	-	-	7.2	340	42	-	8.0
Wed 25	378.51	259.62	0.00	0.00	0.00	0.00	10.89	0.00	248.73	-	-	7.3	372	-	-	7.4
Thu 26	342.86	251.62	0.00	0.00	0.00	0.00	10.98	0.00	240.64	-	-	7.3	343	-	-	8.3
Fri 27	343.50	251.74	0.00	0.00	0.00	0.00	10.79	0.00	240.95	-	-	7.4	328	-	-	8.2
Sat 28	383.44	248.37	0.00	0.00	0.00	0.00	10.85	0.00	237.52	-	-	7.3	348	-	-	8.3
Average	402.88	262.17	6.83	0.00	0.00	6.83	10.93	0.00	244.42	---	---	7.4	336	101	---	12.2
Minimum	337.03	243.68	0.00	0.00	0.00	0.00	9.58	0.00	232.05	---	---	7.2	138	42	---	6.2
Maximum	786.40	369.71	95.65	0.00	0.00	95.65	12.16	0.00	291.61	---	---	7.7	500	224	---	94.3
GeoMean	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
TOTAL	---	7,341	191.19	0.00	0.00	191.19	306.03	0.00	6,844	---	---	---	---	---	---	---

Liquid Stream Quality: BOD_5/$cBOD_5$, TP, NH3-N, un-ioned ammonia

DATE	BOD_5/$cBOD_5$ (mg/L) RAW BOD_5	OUT-FAL30 $cBOD_5$	OUT-FAL30 BOD_5	OUT-FAL20 $cBOD_5$	OUT-FAL20 BOD_5	OUT-FAL 10 $cBOD_5$	TP (mg/L) RAW	TP OUT-FAL30	TP OUT-FAL20	TP OUT-FAL 10	NH3-N (mg/L) RAW	NH3-N OUT-FAL30	NH3-N OUT-FAL20	NH3-N OUT-FAL 10	un-ioned ammonia (mg/L) OUT-FAL 10
Sun 01	363	-	-	-	-	6	5.19	-	-	0.730	35.1	-	-	4.24	0.048
Mon 02	416	-	-	-	-	22	6.53	-	-	2.990	37.2	-	-	4.36	0.024
Tue 03	376	-	-	-	-	8	6.51	-	-	1.090	34.3	-	-	3.23	-
Wed 04	332	-	-	-	-	6	6.30	-	-	0.480	30.1	-	-	3.26	0.024
Thu 05	326	-	-	-	-	5	5.79	-	-	0.350	36.2	-	-	1.98	0.016
Fri 06	367	-	-	-	-	5	6.76	-	-	0.430	40.0	-	-	1.61	0.029
Sat 07	334	-	-	-	-	6	6.17	-	-	0.360	37.7	-	-	4.12	0.043
Sun 08	290	-	-	-	-	5	5.86	-	-	0.350	41.3	-	-	5.14	0.033
Mon 09	283	-	-	-	-	5	5.51	-	-	0.380	34.4	-	-	3.32	0.062
Tue 10	320	-	-	-	-	5	7.04	-	-	0.510	37.0	-	-	3.61	0.019
Wed 11	351	-	-	-	-	4	7.66	-	-	0.400	35.8	-	-	3.17	0.023
Thu 12	325	-	-	-	-	* 6	7.28	-	-	0.430	36.1	-	-	3.21	0.020
Fri 13	317	-	-	-	-	7	7.09	-	-	0.410	32.6	-	-	4.95	0.024
Sat 14	328	-	-	-	-	6	7.03	-	-	0.400	35.1	-	-	4.45	0.021
Sun 15	278	-	-	-	-	6	7.03	-	-	0.400	34.8	-	-	4.89	0.038
Mon 16	287	-	-	-	-	6	8.76	-	-	0.480	34.6	-	-	5.35	0.066
Tue 17	353	-	-	-	-	7	7.64	-	-	0.500	32.8	-	-	5.48	-
Wed 18	424	-	-	-	-	6	7.68	-	-	0.420	34.2	-	-	4.15	0.017
Thu 19	292	143	189	-	-	5	5.72	5.64	-	0.420	25.6	27.9	-	3.67	0.011
Fri 20	240	60	69	-	-	4	5.62	2.26	-	0.330	28.2	25.4	-	2.83	0.011
Sat 21	214	-	-	-	-	5	4.82	-	-	0.380	33.4	-	-	5.43	0.008
Sun 22	353	-	-	-	-	5	6.44	-	-	0.400	35.2	-	-	5.77	0.031
Mon 23	284	101	120	-	-	5	5.69	4.13	-	0.350	36.6	38.9	-	4.34	0.030
Tue 24	322	92	106	-	-	5	5.69	4.09	-	0.330	32.6	43.5	-	2.75	-
Wed 25	305	-	-	-	-	5	6.68	-	-	0.330	47.0	-	-	4.44	0.028
Thu 26	293	-	-	-	-	5	7.35	-	-	0.380	28.6	-	-	3.31	0.023
Fri 27	302	-	-	-	-	5	7.12	-	-	0.400	35.4	-	-	3.44	0.021
Sat 28	357	-	-	-	-	4	7.00	-	-	0.370	37.9	-	-	4.58	0.023
Average	323	99	121	---	---	6	6.57	4.03	---	0.53	35.0	33.9	---	3.97	0.028
Minimum	214	60	69	---	---	4	4.82	2.26	---	0.33	25.6	25.4	---	1.61	0.008
Maximum	424	143	189	---	---	22	8.76	5.64	---	2.99	47.0	43.5	---	5.77	0.066
GeoMean	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Liquid Stream Quality: TKN, NO_2+NO_3, Chloride, E.Coli

DATE	TKN (mg/L) RAW	TKN OUT-FAL30	TKN OUT-FAL20	TKN OUT-FAL 10	NO_2+NO_3 (mg/L) RAW	NO_2+NO_3 OUT-FAL30	NO_2+NO_3 OUT-FAL20	NO_2+NO_3 OUT-FAL 10	Chloride (mg/L) RAW	Chloride OUT-FAL30	Chloride OUT-FAL20	Chloride OUT-FAL 10	E.Coli (Counts/100 mL) RAW X10^6	E.Coli OUT-FAL30 X10^6	E.Coli OUT-FAL20 X10^6	E.Coli OUT-FAL 10
Sun 01	49.8	-	-	7.04	-	-	-	10.1	75	-	-	86	-	-	-	3
Mon 02	47.9	-	-	12.2	-	-	-	9.8	84	-	-	78	-	-	-	2
Tue 03	50.3	-	-	6.95	0.06	-	-	8.9	79	-	-	86	-	-	-	4
Wed 04	52.8	-	-	5.37	-	-	-	8.0	75	-	-	87	-	-	-	8
Thu 05	55.7	-	-	3.96	-	-	-	8.8	83	-	-	90	-	-	-	3
Fri 06	58.8	-	-	3.30	-	-	-	8.1	85	-	-	92	-	-	-	4
Sat 07	53.8	-	-	5.65	-	-	-	9.3	73	-	-	89	-	-	-	5
Sun 08	53.1	-	-	7.13	-	-	-	9.1	74	-	-	80	-	-	-	5
Mon 09	46.3	-	-	6.99	-	-	-	8.6	75	-	-	75	-	-	-	5
Tue 10	58.0	-	-	6.09	0.33	-	-	7.6	82	-	-	85	5.8	-	-	5
Wed 11	58.7	-	-	5.51	-	-	-	8.1	75	-	-	107	-	-	-	6
Thu 12	56.5	-	-	6.84	-	-	-	8.1	97	-	-	87	-	-	-	9
Fri 13	53.3	-	-	7.44	-	-	-	7.6	214	-	-	133	-	-	-	4
Sat 14	57.4	-	-	7.07	-	-	-	8.1	112	-	-	197	-	-	-	2
Sun 15	57.5	-	-	9.00	-	-	-	8.3	267	-	-	168	-	-	-	6
Mon 16	68.4	-	-	8.97	-	-	-	9.2	88	-	-	275	-	-	-	4
Tue 17	59.0	-	-	8.41	0.09	-	-	7.2	86	-	-	162	-	-	-	7
Wed 18	57.4	-	-	6.87	-	-	-	7.5	170	-	-	114	-	-	-	2
Thu 19	44.9	44.0	-	6.10	-	0.420	-	9.0	354	519	-	255	-	0.17	-	2
Fri 20	45.1	31.7	-	4.59	-	1.29	-	7.3	164	357	-	308	-	0.96	-	2
Sat 21	43.7	-	-	8.16	-	-	-	9.6	84	-	-	147	-	-	-	4
Sun 22	56.1	-	-	8.26	-	-	-	9.8	74	-	-	101	-	-	-	8
Mon 23	47.1	42.4	-	6.81	-	1.87	-	9.5	168	296	-	102	3.5	0.98	-	9
Tue 24	43.7	49.3	-	4.50	< 0.10	0.976	-	7.5	160	236	-	165	-	2.1	-	6
Wed 25	54.4	-	-	6.63	-	-	-	9.2	134	-	-	170	-	-	-	1
Thu 26	58.0	-	-	6.17	-	-	-	8.9	93	-	-	124	-	-	-	7
Fri 27	56.1	-	-	6.23	-	-	-	10.2	82	-	-	119	-	-	-	3
Sat 28	57.2	-	-	7.05	-	-	-	9.8	82	-	-	97	-	-	-	11
Average	53.6	41.9	---	6.76	0.15	1.14	---	8.7	117	352	---	131	---	---	---	---
Minimum	43.7	31.7	---	3.30	0.06	0.42	---	7.2	73	236	---	75	3.45	0.17	---	1
Maximum	68.4	49.3	---	12.2	0.33	1.87	---	10.2	354	519	---	308	5.79	2.08	---	11
GeoMean	---	---	---	---	---	---	---	---	---	---	---	---	4.47	0.76	---	4
TOTAL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

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

! The values in EPE (flow) column indicate wet weather events, then the OUT FAL 10 Average calculation exclude numbers for that day (grey/italics)

x - analysis performed at an ISO 17025 Accredited external laboratory.

RAW	⇨	Plant Influent (Untreated Wastewater)	EPT	⇨	Enhanced Primary Treatment	OUT FAL 10	⇨	Combined, UV-disinfected (FE +EPEPS)	ML	⇨	Megalitres (1,000,000 Litres)
PRIM	⇨	Primary	EPEPS	⇨	Enhanced Primary Effluent and Pump St.	OUT FAL 20	⇨	Combined Bypass (RAW + PE + EPE)	MPN	⇨	Most Probable Number
SEC	⇨	Secondary	MPW	⇨	Membrane Product Water (Effluent re-use water)	OUT FAL 30	⇨	Combined Bypass (INF + INFS + PE30 + EPE)	E	⇨	Estimated Value
									A	⇨	Average

nr	⇨	No Result
ns	⇨	No Sample
ws	⇨	Wrong Sample

Report Comments

AESRD Ref #

* AESRD - Alberta Environment & Sustainable Resource and Development

04/08/2015

Abhishek Bhargava
Senior Manager, Plant Operations

Date (mm/dd/yyyy)

Debra Long
Senior Manager, Analytical Ops

Date (mm/dd/yyyy)