PROVIDING MORE EPCOR

GOLD BAR WASTEWATER TREATMENT PLANT
PLANT PERFORMANCE REPORT
January 2015

Digested Sludge: Total Monthly Volume (ML)	65.19

Volume of Flow (ML)

DATE	Peak Flow (MLD)	Influent RAW	Effluent Non UV Disinfected BYPASS OUT-FAL 30	OUT-FAL 20 PRIM	OUT-FAL 20 SEC	Total	MPW	UV Disinfected OUT-FAL 10 EPE!	UV Disinfected OUT-FAL 10 FEC
Thu 01	371.34	228.14	0.00	0.00	0.00	0.00	10.87	0.00	217.27
Fri 02	347.38	235.58	0.00	0.00	0.00	0.00	11.22	0.00	224.36
Sat 03	365.12	236.87	0.00	0.00	0.00	0.00	10.94	0.00	225.93
Sun 04	373.12	244.24	0.00	0.00	0.00	0.00	10.73	0.00	233.51
Mon 05	343.61	249.86	0.00	0.00	0.00	0.00	11.27	0.00	238.59
Tue 06	344.00	243.85	0.00	0.00	0.00	0.00	10.73	0.00	233.12
Wed 07	346.61	244.27	0.00	0.00	0.00	0.00	12.05	0.00	232.22
Thu 08	343.54	243.13	0.00	0.00	0.00	0.00	10.67	0.00	232.46
Fri 09	342.18	248.64	0.00	0.00	0.00	0.00	10.83	0.00	237.81
Sat 10	366.96	244.48	0.00	0.00	0.00	0.00	11.30	0.00	233.18
Sun 11	367.83	246.93	0.00	0.00	0.00	0.00	8.91	0.00	238.02
Mon 12	347.31	249.61	0.00	0.00	0.00	0.00	9.88	0.00	239.73
Tue 13	341.87	250.42	0.00	0.00	0.00	0.00	10.57	0.00	239.85
Wed 14	366.08	262.28	0.00	0.00	0.00	0.00	9.55	0.00	252.73
Thu 15	360.23	254.80	0.00	0.00	0.00	0.00	8.83	0.00	245.97
Fri 16	418.53	250.16	0.00	0.00	0.00	0.00	9.75	0.00	240.41
Sat 17	379.53	248.75	0.00	0.00	0.00	0.00	10.12	0.00	238.63
Sun 18	397.20	250.36	0.00	0.00	0.00	0.00	8.90	0.00	241.46
Mon 19	371.03	256.37	0.00	0.00	0.00	0.00	8.82	0.00	247.55
Tue 20	365.46	252.49	0.00	0.00	0.00	0.00	9.41	0.00	243.08
Wed 21	368.56	246.81	0.00	0.00	0.00	0.00	9.43	0.00	237.38
Thu 22	541.72	312.28	43.57	0.00	0.00	43.57	9.66	0.00	259.05
Fri 23	643.54	281.98	13.72	0.00	0.00	13.72	11.72	0.00	256.54
Sat 24	641.39	386.34	78.10	0.00	0.00	78.10	12.15	0.00	296.09
Sun 25	668.44	356.11	81.35	0.00	0.00	81.35	10.97	0.00	263.79
Mon 26	458.72	317.09	5.98	0.00	0.00	5.98	10.72	0.00	300.39
Tue 27	455.09	292.75	0.00	0.00	0.00	0.00	12.40	0.00	280.35
Wed 28	393.53	266.29	0.00	0.00	0.00	0.00	11.12	0.00	255.17
Thu 29	356.78	252.55	0.00	0.00	0.00	0.00	11.57	0.00	240.98
Fri 30	355.80	249.72	0.00	0.00	0.00	0.00	11.13	0.00	238.59
Sat 31	372.21	246.06	0.00	0.00	0.00	0.00	10.72	0.00	235.34
Average	403.70	262.88	7.18	0.00	0.00	7.18	10.55	0.00	245.15
Minimum	341.87	228.14	0.00	0.00	0.00	0.00	8.82	0.00	217.27
Maximum	668.44	386.34	81.35	0.00	0.00	81.35	12.40	0.00	300.39
GeoMean	---	---	---	---	---	---	---	---	---
TOTAL	---	8,149	222.72	0.00	0.00	222.72	326.94	0.00	7,600

Liquid Stream Quality

DATE	pH@25°C OUT-FAL 30	pH OUT-FAL 20	pH OUT-FAL 10	TSS (mg/L) RAW	TSS OUT-FAL30	TSS OUT-FAL20	TSS OUT-FAL 10	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
Thu 01	---	---	7.5	324	---	---	4.4	358	---	---	---	---	3	5.62	---	---	0.51
Fri 02	---	---	7.5	292	---	---	5.1	275	---	---	---	---	3	6.51	---	---	0.28
Sat 03	---	---	7.4	269	---	---	5.0	328	---	---	---	---	3	6.33	---	---	0.30
Sun 04	---	---	7.7	320	---	---	7.6	346	---	---	---	---	3	6.74	---	---	0.40
Mon 05	---	---	7.4	324	---	---	9.7	309	---	---	---	---	4	7.00	---	---	0.54
Tue 06	---	---	7.5	303	---	---	9.3	338	---	---	---	---	4	6.98	---	---	0.56
Wed 07	---	---	7.6	313	---	---	16.3	340	---	---	---	---	2	7.26	---	---	0.73
Thu 08	---	---	7.4	268	---	---	12.3	285	---	---	---	---	4	6.59	---	---	0.52
Fri 09	---	---	7.4	296	---	---	8.8	384	---	---	---	---	6	6.96	---	---	0.98
Sat 10	---	---	7.4	317	---	---	17.5	396	---	---	---	---	* 6	7.02	---	---	0.80
Sun 11	---	---	7.7	260	---	---	29.6	322	---	---	---	---	9	8.20	---	---	1.74
Mon 12	---	---	7.5	309	---	---	48.0	402	---	---	---	---	13	8.03	---	---	2.79
Tue 13	---	---	7.5	360	---	---	25.9	304	---	---	---	---	9	7.94	---	---	0.77
Wed 14	---	---	7.9	275	---	---	13.9	260	---	---	---	---	7	5.93	---	---	0.62
Thu 15	---	---	7.6	383	---	---	13.8	430	---	---	---	---	6	7.77	---	---	0.58
Fri 16	---	---	7.3	356	---	---	14.5	314	---	---	---	---	5	8.44	---	---	0.57
Sat 17	---	---	7.4	297	---	---	21.5	339	---	---	---	---	6	7.95	---	---	0.77
Sun 18	---	---	7.7	319	---	---	12.2	* 340	---	---	---	---	* 6	7.59	---	---	0.62
Mon 19	---	---	7.5	327	---	---	11.3	383	---	---	---	---	8	8.97	---	---	0.53
Tue 20	---	---	7.5	231	---	---	13.5	* 365	---	---	---	---	* 6	9.77	---	---	0.54
Wed 21	---	---	7.6	322	---	---	10.8	414	---	---	---	---	7	7.05	---	---	0.50
Thu 22	---	---	7.5	427	181	---	15.7	289	116	163	---	---	6	6.52	7.70	---	0.57
Fri 23	---	---	7.4	440	---	---	9.5	263	---	---	---	---	4	6.96	---	---	0.44
Sat 24	---	---	7.4	324	214	---	5.9	214	124	132	---	---	3	5.05	6.86	---	0.33
Sun 25	---	---	7.4	308	188	---	6.5	239	148	152	---	---	3	5.12	6.82	---	0.30
Mon 26	---	---	7.3	317	69.0	---	6.4	242	131	* 139	---	---	4	5.14	5.30	---	0.28
Tue 27	---	---	7.4	304	---	---	6.5	245	---	---	---	---	4	5.82	---	---	0.40
Wed 28	---	---	7.3	288	---	---	7.1	313	---	---	---	---	5	6.40	---	---	0.32
Thu 29	---	---	7.5	354	---	---	8.0	369	---	---	---	---	4	6.51	---	---	0.36
Fri 30	---	---	7.6	288	---	---	6.8	366	---	---	---	---	4	6.54	---	---	0.37
Sat 31	---	---	7.6	248	---	---	7.7	370	---	---	---	---	4	6.48	---	---	0.38
Average	---	---	7.5	315	163	---	12.6	327	130	147	---	---	5	6.94	6.67	---	0.63
Minimum	---	---	7.3	231	69	---	4.4	214	116	132	---	---	2	5.05	5.30	---	0.28
Maximum	---	---	7.9	440	214	---	48.0	430	148	163	---	---	13	9.77	7.70	---	2.79
GeoMean	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

DATE	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	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
Thu 01	26.5	---	---	2.28	0.019	45.8	---	---	3.65	---	---	---	10.5	113	---	---	91	---	---	---	< 1
Fri 02	36.7	---	---	1.19	0.008	54.6	---	---	2.69	---	---	---	14.8	93	---	---	123	---	---	---	2
Sat 03	35.3	---	---	1.09	0.005	53.9	---	---	2.63	---	---	---	13.5	75	---	---	99	---	---	---	2
Sun 04	37.0	---	---	1.65	0.008	54.6	---	---	3.67	---	---	---	14.0	65	---	---	79	---	---	---	7
Mon 05	33.0	---	---	2.25	0.143	52.9	---	---	4.18	---	---	---	14.4	84	---	---	72	---	---	---	5
Tue 06	35.6	---	---	1.64	---	48.8	---	---	3.77	0.06	---	---	13.0	78	---	---	91	---	---	---	5
Wed 07	36.7	---	---	0.44	0.003	51.4	---	---	2.77	---	---	---	13.5	74	---	---	86	---	---	---	2
Thu 08	34.5	---	---	0.19	0.001	53.1	---	---	2.41	---	---	---	13.4	71	---	---	87	---	---	---	2
Fri 09	36.2	---	---	0.42	0.004	55.7	---	---	3.45	---	---	---	12.9	80	---	---	88	---	---	---	2
Sat 10	33.8	---	---	1.46	0.022	56.0	---	---	4.10	---	---	---	14.7	72	---	---	88	---	---	---	2
Sun 11	41.4	---	---	6.98	0.052	63.0	---	---	10.5	---	---	---	7.9	69	---	---	78	---	---	---	4
Mon 12	41.0	---	---	10.7	0.140	61.8	---	---	16.7	---	---	---	6.6	88	---	---	81	---	---	---	31
Tue 13	41.8	---	---	0.53	---	65.9	---	---	3.69	< 0.01	---	---	7.7	101	---	---	103	---	---	---	14
Wed 14	33.1	---	---	0.45	0.005	49.6	---	---	2.96	---	---	---	6.3	157	---	---	128	---	---	---	4
Thu 15	40.5	---	---	0.57	0.004	56.2	---	---	2.70	---	---	---	6.5	122	---	---	193	---	---	---	29
Fri 16	39.8	---	---	0.69	< 0.001	61.0	---	---	2.92	---	---	---	7.9	120	---	---	130	---	---	---	3
Sat 17	33.4	---	---	2.02	0.012	57.8	---	---	4.67	---	---	---	9.3	89	---	---	145	---	---	---	4
Sun 18	37.6	---	---	4.06	0.021	57.9	---	---	6.14	---	---	---	9.7	74	---	---	100	---	---	---	1
Mon 19	46.1	---	---	3.57	0.062	67.8	---	---	5.95	---	---	---	10.6	116	---	---	85	---	---	---	4
Tue 20	50.3	---	---	1.84	---	67.6	---	---	4.21	0.12	---	---	9.9	92	---	---	119	---	---	---	7
Wed 21	31.5	---	---	2.05	0.023	51.8	---	---	4.24	---	---	---	11.5	82	---	---	113	---	---	---	2
Thu 22	28.2	41.2	---	1.40	0.017	49.4	57.8	---	3.74	---	0.922	---	11.4	332	558	---	127	4.9	6.2	---	11
Fri 23	32.5	---	---	0.71	0.005	50.1	---	---	2.68	---	---	---	10.1	199	---	---	287	---	---	---	5
Sat 24	24.8	30.5	---	1.05	0.010	40.7	46.7	---	3.66	---	2.720	---	8.4	250	357	---	260	---	2.6	---	5
Sun 25	26.5	37.3	---	1.00	0.008	41.1	47.9	---	2.81	---	4.180	---	9.6	214	245	---	243	---	3.4	---	3
Mon 26	29.7	30.3	---	0.92	0.003	42.8	39.3	---	2.40	---	0.032	---	7.4	122	175	---	198	---	3.6	---	8
Tue 27	25.5	---	---	3.64	0.021	46.9	---	---	5.56	---	---	---	7.6	124	---	---	144	---	---	---	7
Wed 28	29.4	---	---	4.18	0.025	48.7	---	---	6.23	< 0.01	---	---	8.3	120	---	---	141	2.9	---	---	7
Thu 29	35.0	---	---	3.37	0.027	52.3	---	---	5.51	---	---	---	9.4	86	---	---	112	---	---	---	10
Fri 30	35.3	---	---	2.85	0.026	52.3	---	---	5.02	---	---	---	8.4	84	---	---	101	---	---	---	17
Sat 31	35.6	---	---	3.13	0.032	52.6	---	---	5.39	---	---	---	10.1	78	---	---	97	---	---	---	2
Average	35.0	34.8	---	2.20	0.025	53.7	47.9	---	4.55	0.05	1.96	---	10.3	114	334	---	125	---	---	---	---
Minimum	24.8	30.3	---	0.19	< 0.001	40.7	39.3	---	2.40	< 0.01	0.03	---	6.3	65	175	---	72	2.9	2.6	---	< 1
Maximum	50.3	41.2	---	10.7	0.143	67.8	57.8	---	16.7	0.12	4.18	---	14.8	332	558	---	287	4.9	6.2	---	31
GeoMean	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	3.8	3.7	---	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)
PRIM ➩ Primary
SEC ➩ Secondary
EPT ➩ Enhanced Primary Treatment
EPEPS ➩ Enhanced Primary Effluent and Pump St.
MPW ➩ Membrane Product Water (Effluent re-use water)
OUT FAL 10 ➩ Combined, UV-disinfected (FE +EPEPS)
OUT FAL 20 ➩ Combined Bypass (RAW + PE + EPE)
OUT FAL 30 ➩ Combined Bypass (INF + INFS + PE30 + EPE)
ML ➩ Megalitres (1,000,000 Litres)
MPN ➩ Most Probable Number
E ➩ Estimated Value
A ➩ Average
nr ➩ No Result
ns ➩ No Sample
ws ➩ Wrong Sample

Report Comments

AESRD Ref #

03/09/2015

Abhishek Bhargava — **Date (mm/dd/yyyy)**

Senior Manager, Plant Operations

03/09/2015

Debra Long — **Date (mm/dd/yyyy)**

Senior Manager, Analytical Ops

* AESRD - Alberta Environment & Sustainable Resource and Development