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GOLD BAR WASTEWATER TREATMENT PLANT
PLANT PERFORMANCE REPORT
March 2015

Digested Sludge: Total Monthly Volume (ML)	63.70

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!	OUT-FAL 10 FEC
Sun 01	390.82	252.14	0.00	0.00	0.00	0.00	10.41	0.00	241.73
Mon 02	369.97	252.14	0.00	0.00	0.00	0.00	10.76	0.00	241.38
Tue 03	376.63	251.18	0.00	0.00	0.00	0.00	11.20	0.00	239.98
Wed 04	368.34	249.69	0.00	0.00	0.00	0.00	10.66	0.00	239.03
Thu 05	419.10	265.43	0.00	0.00	0.00	0.00	10.39	0.00	255.04
Fri 06	680.22	356.14	78.78	0.00	0.00	78.78	10.45	0.00	266.91
Sat 07	626.58	338.20	63.60	0.00	0.00	63.60	10.38	0.00	264.22
Sun 08	752.50	376.86	112.98	0.00	0.00	112.98	11.04	0.00	252.84
Mon 09	887.81	476.05	158.90	0.00	0.00	158.90	10.31	0.00	306.84
Tue 10	542.78	360.85	53.42	0.00	0.00	53.42	10.54	0.00	296.89
Wed 11	527.86	326.83	26.31	0.00	0.00	26.31	10.77	0.00	289.75
Thu 12	645.86	350.66	56.13	0.00	0.00	56.13	11.61	0.00	282.92
Fri 13	680.38	396.67	85.80	0.00	0.00	85.80	10.53	0.00	300.34
Sat 14	593.63	377.97	70.40	0.00	0.00	70.40	10.52	0.00	297.05
Sun 15	436.64	309.86	2.74	0.00	0.00	2.74	10.80	0.00	296.32
Mon 16	391.20	286.90	0.00	0.00	0.00	0.00	11.95	0.00	274.95
Tue 17	390.92	279.78	0.00	0.00	0.00	0.00	10.67	0.00	269.11
Wed 18	385.87	280.40	0.00	0.00	0.00	0.00	10.68	0.00	269.72
Thu 19	374.52	271.54	0.00	0.00	0.00	0.00	11.12	0.00	260.42
Fri 20	562.18	292.56	9.05	0.00	0.00	9.05	10.18	0.00	273.33
Sat 21	427.44	265.94	0.00	0.00	0.00	0.00	10.34	0.00	255.60
Sun 22	521.19	272.41	6.13	0.00	0.00	6.13	11.54	0.00	254.74
Mon 23	372.61	278.34	0.00	0.00	0.00	0.00	10.31	0.00	268.03
Tue 24	494.11	320.76	31.84	0.00	0.00	31.84	10.60	0.00	278.32
Wed 25	647.88	355.99	70.06	0.00	0.00	70.06	11.95	0.00	273.98
Thu 26	665.46	405.96	101.13	0.00	0.00	101.13	11.95	0.00	292.88
Fri 27	514.03	377.39	47.42	0.00	0.00	47.42	12.00	0.00	317.97
Sat 28	528.52	336.08	37.41	0.00	0.00	37.41	11.84	0.00	286.83
Sun 29	515.88	302.45	18.60	0.00	0.00	18.60	12.09	0.00	271.76
Mon 30	392.97	288.56	0.00	0.00	0.00	0.00	11.92	0.00	276.64
Tue 31	759.70	331.87	38.00	0.00	0.00	38.00	12.31	0.00	281.56
Average	523.99	318.95	34.47	0.00	0.00	34.47	11.03	0.00	273.45
Minimum	368.34	249.69	0.00	0.00	0.00	0.00	10.18	0.00	239.03
Maximum	887.81	476.05	158.90	0.00	0.00	158.90	12.31	0.00	317.97
GeoMean	---	---	---	---	---	---	---	---	---
TOTAL	---	9,888	1,068.69	0.00	0.00	1,068.69	341.82	0.00	8,477

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 $cBOD_5$
Sun 01	---	---	7.2	303	---	---	7.0	326	---	---	---	---	5
Mon 02	---	---	7.4	352	---	---	11.0	316	---	---	---	---	6
Tue 03	---	---	7.3	340	---	---	11.9	304	---	---	---	---	6
Wed 04	---	---	7.3	323	---	---	9.4	295	---	---	---	---	6
Thu 05	---	---	7.2	408	---	---	6.6	340	---	---	---	---	4
Fri 06	---	---	7.2	452	78	---	7.2	276	69	105	---	---	4
Sat 07	---	---	7.2	330	59	---	8.2	253	64	88	---	---	4
Sun 08	---	---	7.7	263	79	---	6.4	221	91	113	---	---	4
Mon 09	---	---	7.2	380	144	---	6.9	183	65	98	---	---	3
Tue 10	---	---	7.1	289	48	---	5.6	221	71	90	---	---	4
Wed 11	---	---	7.1	313	52	---	6.7	304	98	99	---	---	4
Thu 12	---	---	7.2	326	45	---	6.6	292	77	94	---	---	4
Fri 13	---	---	7.2	312	64	---	4.0	186	92	101	---	---	5
Sat 14	---	---	7.2	324	75	---	4.9	221	86	115	---	---	4
Sun 15	---	---	7.3	242	61	---	5.7	242	60	69	---	---	4
Mon 16	---	---	7.3	303	---	---	5.6	350	---	---	---	---	5
Tue 17	---	---	7.3	367	---	---	7.2	316	---	---	---	---	5
Wed 18	---	---	7.4	297	---	---	11.0	311	---	---	---	---	5
Thu 19	---	---	7.8	370	---	---	11.0	322	---	---	---	---	4
Fri 20	---	---	7.5	388	93	---	8.4	301	126	125	---	---	4
Sat 21	---	---	7.5	316	---	---	6.7	320	---	---	---	---	5
Sun 22	---	---	7.6	344	84	---	8.7	368	140	147	---	---	4
Mon 23	---	---	7.5	407	---	---	9.0	335	---	---	---	---	5
Tue 24	---	---	7.3	510	47	---	8.2	308	89	99	---	---	6
Wed 25	---	---	7.3	352	84	---	6.8	215	62	96	---	---	4
Thu 26	---	---	7.2	320	96	---	6.3	221	71	92	---	---	5
Fri 27	---	---	7.2	344	78	---	6.7	211	88	101	---	---	5
Sat 28	---	---	7.2	158	55	---	5.5	168	106	117	---	---	5
Sun 29	---	---	7.2	215	74	---	6.2	296	128	143	---	---	5
Mon 30	---	---	7.4	228	---	---	5.6	238	---	---	---	---	4
Tue 31	---	---	7.6	396	177	---	5.4	305	115	131	---	---	3
Average	---	---	7.3	331	79	---	7.3	276	89	106	---	---	5
Minimum	---	---	7.1	158	45	---	4.0	168	60	69	---	---	3
Maximum	---	---	7.8	510	177	---	11.9	368	140	147	---	---	6
GeoMean	---	---	---	---	---	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---	---	---	---

DATE	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	TKN (mg/L) RAW	TKN OUT-FAL30	TKN OUT-FAL20	TKN OUT-FAL 10
Sun 01	6.63	---	---	0.39	37.4	---	---	4.02	0.022	56.4	---	---	7.18
Mon 02	6.82	---	---	0.49	36.8	---	---	4.36	0.030	54.0	---	---	7.02
Tue 03	6.91	---	---	0.49	31.3	---	---	3.12	---	53.2	---	---	5.90
Wed 04	6.70	---	---	0.44	36.5	---	---	3.65	0.021	48.9	---	---	5.98
Thu 05	6.38	---	---	0.40	32.4	---	---	3.59	0.019	52.9	---	---	5.60
Fri 06	5.96	3.11	---	0.40	25.4	30.0	---	2.42	0.010	44.8	41.4	---	4.86
Sat 07	5.40	2.92	---	0.29	30.7	30.4	---	2.47	0.011	44.3	36.3	---	3.94
Sun 08	5.36	3.15	---	0.34	26.6	22.9	---	1.41	0.009	38.9	31.2	---	3.08
Mon 09	5.05	4.66	---	0.26	18.9	23.6	---	1.26	0.004	35.0	37.7	---	3.04
Tue 10	5.20	4.14	---	0.26	23.7	34.0	---	3.53	---	40.9	41.8	---	5.40
Wed 11	5.41	3.98	---	0.26	29.0	34.8	---	7.03	0.033	42.2	41.7	---	9.51
Thu 12	5.32	2.28	---	0.24	24.4	22.6	---	4.21	0.012	41.2	29.9	---	6.70
Fri 13	4.95	3.07	---	0.21	24.6	18.9	---	3.58	0.014	37.4	28.2	---	4.59
Sat 14	4.97	5.81	---	0.23	25.1	40.7	---	3.35	0.014	38.3	48.9	---	5.86
Sun 15	5.19	3.48	---	0.22	28.7	34.8	---	4.58	0.021	44.1	37.4	---	8.12
Mon 16	6.36	---	---	0.26	32.5	---	---	7.33	0.043	50.1	---	---	8.33
Tue 17	6.32	---	---	0.30	30.6	---	---	5.73	---	49.7	---	---	9.94
Wed 18	6.38	---	---	0.34	32.5	---	---	4.32	0.031	51.5	---	---	8.86
Thu 19	6.60	---	---	0.32	37.8	---	---	5.49	0.055	51.2	---	---	8.63
Fri 20	6.20	6.90	---	0.32	30.5	46.9	---	7.24	0.056	48.5	59.6	---	9.84
Sat 21	6.35	---	---	0.34	34.3	---	---	7.24	0.042	52.8	---	---	9.64
Sun 22	5.97	8.41	---	0.35	32.7	54.3	---	8.29	0.047	50.2	68.5	---	10.80
Mon 23	6.49	---	---	0.40	32.9	---	---	6.86	0.054	51.9	---	---	9.59
Tue 24	6.64	3.54	---	0.39	29.8	35.3	---	5.82	---	50.2	45.2	---	7.98
Wed 25	5.60	4.36	---	0.27	25.3	32.5	---	2.93	0.016	43.8	41.3	---	5.30
Thu 26	4.64	6.07	---	0.27	25.4	31.9	---	2.55	0.009	37.3	55.4	---	4.52
Fri 27	5.19	4.44	---	0.25	23.7	31.9	---	2.66	0.011	39.9	40.4	---	4.51
Sat 28	4.44	8.03	---	0.34	26.0	35.4	---	1.92	0.007	39.8	58.2	---	5.21
Sun 29	5.44	8.94	---	0.30	29.2	52.6	---	2.20	0.012	45.4	65.9	---	5.21
Mon 30	6.00	---	---	0.30	30.6	---	---	5.52	0.037	45.5	---	---	7.76
Tue 31	5.51	4.65	---	0.27	26.0	25.9	---	5.54	---	37.7	33.5	---	7.90
Average	5.82	4.84	---	0.32	29.4	33.7	---	4.33	0.025	45.7	44.3	---	6.80
Minimum	4.44	2.28	---	0.21	18.9	18.9	---	1.26	0.004	35.0	28.2	---	3.04
Maximum	6.91	8.94	---	0.49	37.8	54.3	---	8.29	0.056	56.4	68.5	---	10.80
GeoMean	---	---	---	---	---	---	---	---	---	---	---	---	---
TOTAL	---	---	---	---	---	---	---	---	---	---	---	---	---

DATE	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	---	---	---	9.7	84	---	---	94	---	---	---	5
Mon 02	---	---	---	9.3	80	---	---	96	---	---	---	4
Tue 03	< 0.15	---	---	10.3	79	---	---	93	---	---	---	3
Wed 04	---	---	---	10.7	67	---	---	95	---	---	---	6
Thu 05	---	---	---	10.1	163	---	---	93	---	---	---	4
Fri 06	---	0.466	---	11.0	189	480	---	218	---	1.63	---	8
Sat 07	---	0.685	---	8.2	137	179	---	198	---	1.18	---	3
Sun 08	---	0.464	---	8.3	97	136	---	131	---	2.22	---	1
Mon 09	---	0.424	---	7.0	91	107	---	106	---	0.69	---	4
Tue 10	0.22	0.344	---	5.6	84	102	---	98	---	0.95	---	6
Wed 11	---	0.36	---	6.5	90	109	---	95	3.4	0.94	---	4
Thu 12	---	0.235	---	3.1	85	99	---	97	---	2.93	---	10
Fri 13	---	0.709	---	6.8	85	100	---	92	---	1.81	---	3
Sat 14	---	0.636	---	6.1	83	91	---	91	---	1.65	---	3
Sun 15	---	0.479	---	6.9	74	87	---	85	---	2.45	---	3
Mon 16	---	---	---	7.5	78	---	---	79	---	---	---	9
Tue 17	< 0.01	---	---	7.9	79	---	---	84	---	---	---	12
Wed 18	---	---	---	6.5	79	---	---	88	---	---	---	< 1
Thu 19	---	---	---	6.3	80	---	---	87	---	---	---	7
Fri 20	---	0.715	---	6.3	268	535	---	141	---	2.63	---	10
Sat 21	---	---	---	7.2	112	---	---	228	---	---	---	5
Sun 22	---	0.119	---	7.2	271	388	---	162	---	4.60	---	3
Mon 23	---	---	---	6.9	165	---	---	251	---	---	---	4
Tue 24	0.14	1.130	---	6.2	163	163	---	245	---	0.80	---	1200
Wed 25	---	0.536	---	6.2	111	148	---	160	---	3.05	---	5
Thu 26	---	1.350	---	5.4	93	100	---	123	---	3.08	---	3
Fri 27	---	0.311	---	5.7	88	93	---	102	---	2.42	---	2
Sat 28	---	1.450	---	7.3	87	91	---	97	---	3.57	---	4
Sun 29	---	1.640	---	7.3	77	82	---	91	---	5.32	---	8
Mon 30	---	---	---	7.4	87	---	---	86	---	---	---	2
Tue 31	0.04	0.140	---	6.6	104	164	---	90	---	3.41	---	18
Average	0.11	0.64	---	7.3	111	171	---	122	---	---	---	---
Minimum	< 0.01	0.12	---	3.1	67	82	---	79	3.44	0.69	---	< 1
Maximum	0.22	1.64	---	11.0	271	535	---	251	3.44	5.32	---	1200
GeoMean	---	---	---	---	---	---	---	---	3.44	2.05	---	5
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.

Abbreviation		Meaning
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 #

* AESRD - Alberta Environment & Sustainable Resource and Development

Abhishek Bhargava
Senior Manager,
Plant Operations

05/05/2015
Date (mm/dd/yyyy)

Debra Long
Senior Manager,
Analytical Ops

05/05/2015
Date (mm/dd/yyyy)