PROVIDING MORE EPCOR

GOLD BAR WASTEWATER TREATMENT PLANT
PLANT PERFORMANCE REPORT
May 2014

Digested Sludge: Total Monthly Volume (ML)	82.72

Volume of Flow (ML)

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
1-May-14	358.65	271.62	0.00	0.00	0.00	0.00	8.30	0.00	263.32
2-May-14	362.92	269.29	0.00	0.00	0.00	0.00	9.95	0.00	259.34
3-May-14	374.47	262.83	0.00	0.00	0.00	0.00	9.86	0.00	252.97
4-May-14	424.03	272.12	0.00	0.00	0.00	0.00	8.57	0.00	263.55
5-May-14	419.50	277.55	0.00	0.00	0.00	0.00	9.43	0.00	268.12
6-May-14	364.23	264.70	0.00	0.00	0.00	0.00	9.75	0.00	254.95
7-May-14	500.94	266.06	0.00	0.00	0.00	0.00	8.81	0.00	257.25
8-May-14	403.66	261.79	0.00	0.00	0.00	0.00	8.91	0.00	252.88
9-May-14	387.59	264.50	0.00	0.00	0.00	0.00	10.54	0.00	253.96
10-May-14	369.83	261.91	0.00	0.00	0.00	0.00	9.13	0.00	252.78
11-May-14	373.91	258.55	0.00	0.00	0.00	0.00	8.87	0.00	249.68
12-May-14	396.19	269.06	0.00	0.00	0.00	0.00	10.19	0.00	258.87
13-May-14	453.71	264.59	0.00	0.00	0.00	0.00	8.87	0.00	255.72
14-May-14	379.76	267.96	0.00	0.00	0.00	0.00	9.64	0.00	258.32
15-May-14	355.75	266.29	0.00	0.00	0.00	0.00	10.58	0.00	255.71
16-May-14	346.12	258.18	0.00	0.00	0.00	0.00	8.93	0.00	249.25
17-May-14	354.14	248.26	0.00	0.00	0.00	0.00	9.49	0.00	238.77
18-May-14	357.71	246.73	0.00	0.00	0.00	0.00	9.84	0.00	236.89
19-May-14	368.25	256.72	0.00	0.00	0.00	0.00	8.26	0.00	248.46
20-May-14	377.63	271.59	0.00	0.00	0.00	0.00	9.37	0.00	262.22
21-May-14	349.72	263.17	0.00	0.00	0.00	0.00	9.75	0.00	253.42
22-May-14	349.89	267.70	0.00	0.00	0.00	0.00	8.74	0.00	258.96
23-May-14	358.54	263.53	0.00	0.00	0.00	0.00	9.26	0.00	254.27
24-May-14	369.71	261.71	0.00	0.00	0.00	0.00	10.02	0.00	251.69
25-May-14	992.67	379.87	104.28	0.00	0.00	104.28	9.99	0.00	265.60
26-May-14	937.54	460.34	131.74	0.00	0.00	131.74	10.06	0.00	318.54
27-May-14	445.16	319.84	8.29	0.00	0.00	8.29	6.49	0.00	305.06
28-May-14	862.60	363.59	73.24	0.00	0.00	73.24	10.79	0.00	279.56
29-May-14	841.70	453.42	120.65	0.00	0.00	120.65	10.72	0.00	322.05
30-May-14	659.23	374.88	27.82	0.00	0.00	27.82	10.63	0.00	336.43
31-May-14	457.79	312.76	15.81	0.00	0.00	15.81	10.82	0.00	286.13
Average	463.02	290.36	15.54	0.00	0.00	15.54	9.50	0.00	265.31
Minimum	346.12	246.73	0.00	0.00	0.00	0.00	6.49	0.00	236.89
Maximum	992.67	460.34	131.74	0.00	0.00	131.74	10.82	0.00	336.43
GeoMean	---	---	---	---	---	---	---	---	---
TOTAL	---	9,001	481.83	0.00	0.00	481.83	294.56	0.00	8,225

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 $cBOD_5$
1-May-14			7.5	332	-		4.5	* 386	-	-			* 3.0
2-May-14			7.5	330	-		4.0	320	-	-			4.0
3-May-14			7.4	276	-		4.5	343	-	-			3.0
4-May-14			7.5	336	-		5.8	331	-	-			4.0
5-May-14			7.5	336	-		4.3	330	-	-			4.0
6-May-14			7.4	348	-		5.5	281	-	-			4.0
7-May-14			7.5	348	-		4.3	* 246	-	-			* 4.0
8-May-14			7.5	311	-		4.5	326	-	-			4.0
9-May-14			7.5	364	-		6.7	332	-	-			4.0
10-May-14			7.5	300	-		4.3	334	-	-			4.0
11-May-14			7.5	316	-		3.8	304	-	-			4.0
12-May-14			7.5	234	-		5.9	279	-	-			5.0
13-May-14			7.6	412	-		4.1	329	-	-			4.0
14-May-14			7.5	352	-		5.6	331	-	-			4.0
15-May-14			7.5	309	-		6.6	279	-	-			3.0
16-May-14			7.6	332	-		6.1	313	-	-			4.0
17-May-14			7.6	308	-		6.2	269	-	-			3.0
18-May-14			7.7	297	-		6.2	220	-	-			4.0
19-May-14			7.5	272	-		5.5	275	-	-			4.0
20-May-14			7.6	320	-		6.1	311	-	-			4.0
21-May-14			7.5	260	-		5.6	287	-	-			4.0
22-May-14			7.6	284	-		3.8	265	-	-			5.0
23-May-14			7.6	300	-		6.5	318	-	-			5.0
24-May-14			7.7	292	-		8.5	296	-	-			4.0
25-May-14			7.5	468	87.0		10.2	271	84	93			5.0
26-May-14			7.3	357	92.0		9.3	180	46	65			4.0
27-May-14			7.3	ns	* 15.8		7.4	ns	* 40	* 47			4.0
28-May-14			7.4	280	68.0		6.3	204	56	64			3.0
29-May-14			7.2	175	40.0		4.1	137	53	57			2.0
30-May-14			7.4	288	* 105		4.6	251	* 59	* 61			2.0
31-May-14			7.5	324	71.0		5.9	253	107	120			3.0
Average	---	---	7.5	315	68.4	---	5.7	287	64	72	---	---	4
Minimum	---	---	7.2	175	15.8	---	3.8	137	40	47	---	---	2
Maximum	---	---	7.7	468	105.0	---	10.2	386	107	120	---	---	5
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
1-May-14	6.96	-		0.20	30.2	-		3.32	0.051	47.4	-		4.78
2-May-14	7.10	-		0.22	32.9	-		3.95	0.046	49.2	-		5.48
3-May-14	7.05	-		0.22	32.8	-		3.86	0.030	48.2	-		5.17
4-May-14	6.64	-		0.28	34.2	-		4.01	0.030	51.8	-		5.99
5-May-14	6.62	-		0.27	30.8	-		3.68	0.035	50.4	-		5.73
6-May-14	5.80	-		0.19	32.3	-		2.78	0.022	50.1	-		4.81
7-May-14	5.30	-		0.24	31.5	-		2.98	0.021	39.6	-		4.94
8-May-14	6.69	-		0.25	31.6	-		2.78	0.030	49.4	-		4.74
9-May-14	6.68	-		0.25	32.5	-		2.34	0.025	50.1	-		3.87
10-May-14	6.66	-		0.24	33.2	-		2.70	0.030	50.9	-		4.38
11-May-14	6.63	-		0.24	33.9	-		3.05	0.028	51.6	-		5.00
12-May-14	5.87	-		0.28	30.3	-		2.80	0.031	45.0	-		5.08
13-May-14	7.81	-		0.25	32.3	-		2.06	0.018	55.7	-		4.04
14-May-14	7.27	-		0.28	32.7	-		1.37	0.016	51.8	-		3.34
15-May-14	7.33	-		0.31	31.8	-		1.42	0.018	53.1	-		3.47
16-May-14	6.59	-		0.42	30.5	-		0.38	0.001	50.0	-		2.22
17-May-14	6.72	-		0.29	29.0	-		0.15	0.001	49.0	-		1.94
18-May-14	6.51	-		0.39	28.7	-		0.24	0.006	48.5	-		2.06
19-May-14	6.30	-		0.28	24.9	-		0.38	0.003	57.4	-		2.92
20-May-14	7.32	-		0.32	29.2	-		0.41	0.004	64.6	-		3.23
21-May-14	6.54	-		0.29	30.3	-		1.23	0.011	56.1	-		4.08
22-May-14	6.83	-		0.28	31.1	-		1.66	0.025	53.1	-		3.91
23-May-14	6.69	-		0.35	31.0	-		1.45	0.018	48.4	-		3.37
24-May-14	9.04	-		0.40	28.9	-		1.48	0.021	67.0	-		3.58
25-May-14	6.77	2.42		0.40	24.9	22.7		0.86	0.008	43.2	29.4		2.83
26-May-14	4.71	1.61		0.36	18.9	23.0		0.10	0.001	32.0	26.1		1.96
27-May-14	ns	* 0.24		0.34	ns	* 19.0		0.11	0.001	ns	* 23.4		1.77
28-May-14	6.25	7.42		0.24	30.3	20.6		0.16	0.001	47.2	26.2		1.67
29-May-14	4.60	2.75		0.20	17.7	23.1		0.15	0.002	27.3	31.8		1.39
30-May-14	5.59	* 3.06		0.20	25.2	* 27.1		1.87	0.015	40.8	* 34.8		3.44
31-May-14	5.84	5.89		0.40	26.3	35.7		3.63	0.040	42.7	45.2		5.55
Average	6.56	3.34	---	0.29	29.7	24.4	---	1.85	0.019	49.1	31.0	---	3.77
Minimum	4.60	0.24	---	0.19	17.7	19.0	---	0.10	0.001	27.3	23.4	---	1.39
Maximum	9.0	7.42	---	0.42	34.2	35.7	---	4.01	0.051	67.0	45.2	---	5.99
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
1-May-14	-	-		10.3	76	-		84	-	-		3
2-May-14	-	-		9.2	79	-		82	-	-		27
3-May-14	-	-		10.1	67	-		81	-	-		8
4-May-14	-	-		8.9	73	-		81	-	-		4
5-May-14	-	-		7.8	69	-		76	-	-		22
6-May-14	-	-		10.3	69	-		77	-	-		4
7-May-14	-	-		9.2	73	-		81	-	-		8
8-May-14	-	-		9.1	74	-		81	-	-		13
9-May-14	-	-		9.4	72	-		84	3.3	-		15
10-May-14	-	-		10.4	68	-		76	-	-		5
11-May-14	-	-		9.8	64	-		71	-	-		3
12-May-14	-	-		11.6	60	-		71	-	-		11
13-May-14	12.5	-		10.8	66	-		77	-	-		13
14-May-14	-	-		11.2	74	-		78	-	-		5
15-May-14	-	-		12.2	68	-		79	-	-		7
16-May-14	-	-		10.8	66	-		79	-	-		4
17-May-14	-	-		7.3	66	-		76	-	-		3
18-May-14	-	-		7.4	65	-		71	-	-		3
19-May-14	-	-		7.8	62	-		70	-	-		6
20-May-14	0.04	-		6.7	68	-		69	-	-		7
21-May-14	-	-		8.6	65	-		73	-	-		5
22-May-14	-	-		10.8	74	-		77	-	-		13
23-May-14	-	-		12.1	73	-		79	3.3	-		7
24-May-14	-	-		12.3	70	-		79	-	-		9
25-May-14	-	0.709		12.1	62	57		76	-	0.20		5
26-May-14	-	0.565		8.6	55	60		60	-	0.80		14
27-May-14	ns	* 0.150		8.4	ns	* 60		60	-	0.06		5
28-May-14	-	0.516		9.4	71	211		77	-	1.6		3
29-May-14	-	0.660		7.9	55	58		86	-	0.8		4
30-May-14	-	* 0.590		10.1	71	* 54		68	-	4.8		6
31-May-14	-	-		11.4	71	74		78	-	2.4		5
Average	6.27	0.53	---	9.7	68	82	---	76	---	---	---	---
Minimum	0.04	0.15	---	6.70	55	54	---	60	3.26	0.06	---	3
Maximum	12.5	0.71	---	12.3	79	211	---	86	3.26	4.80	---	27
GeoMean	---	---	---	---	---	---	---	---	3.26	0.75	---	7
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)	nr	⇨	No Result
PRIM	⇨	Primary	EPEPS	⇨	Enhanced Primary Effluent and Pump St.	OUT FAL 20	⇨	Combined Bypass (RAW + PE + EPE)	MPN	⇨	Most Probable Number	ns	⇨	No Sample
SEC	⇨	Secondary	MPW	⇨	Membrane Product Water (Effluent re-use water)	OUT FAL 30	⇨	Combined Bypass (INF + INFS + PE30 + EPE)	E	⇨	Estimated Value	ws	⇨	Wrong Sample
									A	⇨	Average			

Report Comments

ESRD Ref #	
---	Standard Method Code C - %Range of sample replicate not within acceptable QC limits
---	Standard Method Code H - Sample overaged (>48 hours from final sample collection time).
---	Standard Method Code C - %Range of sample replicate not within acceptable QC limits
---	Standard Method Code K - Reported mean when no values fall within the 29% acceptance range.
285097	Autosampler malfunction. Results are grab samples averages that have been weight adjusted for flow.

* ESRD - Alberta Environment & Sustainable Resource and Development

[signature] 07/11/2014
Geoff Heise Date (mm/dd/yyyy)
Senior Manager, Operations

[signature] 07/10/2014
Debra Long Date (mm/dd/yyyy)
Senior Manager, Analytical Operations