The Corporation of the City of Kawartha Lakes

Agenda

Lindsay-Ops Landfill Public Review Committee Meeting

2020-162

Wednesday, August 26, 2020

Electronic Participation starts at 1:00pm. To access zoom link contact ksnoddy@kawarthalakes.ca

Public Works and Engineering Boardroom

322 Kent Street West

Lindsay, ON K9V 4T7

Members:

Councillor Pat Dunn
Chris Appleton
Karen Buckley
Barry Hodgson
Lloyd Robertson
Larry Scrivens
Ken Trodd

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The Corporation of the City of Kawartha Lakes

Minutes

Lindsay-Ops Landfill Public Review Committee Meeting

2020-161
Wednesday, March 11, 2020
3:00 P.M.
Weldon Room
City Hall
26 Francis Street, Lindsay, Ontario K9V 5R8

Members:
Chris Appleton
Karen Buckley
Barry Hodgson
Lloyd Robertson
Larry Scrivens

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1. Call to Order

The Chair called the meeting to order at 3:00pm.

2. Adoption of Agenda

Moved By L. Scrivens
Seconded By B. Hodgson

Carried

3. Disclosures of Pecuniary Interest

There were no declarations of pecuniary interest disclosed.

4. Approval of the Minutes of the Previous Meeting

Moved By B. Hodgson
Seconded By K. Buckley

Carried

5. Reports

5.1 PRC Activity Summary Spreadsheet

6. Public Comment Period

None.

7. Landfill Complaints

No complaints.

8. Leachate Outbreaks

No leachate outbreaks.

9. Other New Business

9.1 Public Education and Communication Strategy

Staff outlined the Public Education and Communications Strategy which is part of a Waste Strategy Initiative to improve public education on waste management in the City of Kawartha Lakes which will go to council for approval. The PRC provided comments and asked questions.

Moved By C. Appleton
Seconded By K. Buckley

Resolved that the PRC receive and support the Public Education and Communications draft Strategy.

Carried

9.2 Peterborough Green Bin Program

As requested by the PRC, Kerri provided an update on the Peterborough green bin program and how staff in Peterborough received council support. Kerri spoke with the Manager of Waste Management in Peterborough who provided the following information. The council in Peterborough is a very green and supportive council. There are lots of residents from the GTA who have since moved to Peterborough who had a green bin program and this provided support from the public. The landfill site in Peterborough has approximately 13-15 years left of capacity and the green bin program will help sustain the landfill. The City also received funding support from the federal government. The City will be building it's own composting facility, purchasing trucks, and purchasing and giving out bins to the public to use. The facility will be designed with capacity available for surrounding communities. The facility still needs approvals from the MECP. The program is set to begin in 2023.

Moved By C. Appleton
Seconded By L. Scrivens

Resolved that the PRC receive the update on the Peterborough green bin program.

Carried

9.3 Soil removal and placement Lindsay Ops cell construction

As requested by the PRC Kerri provided an update on the berm area to the south of the landfill. This berm was created as part of a capital project during the construction of cell 4/5. Clay was taken from the borrow area for the liner underneath the new cell, and excess soil from the excavation of the new cell was backfilled into this borrow area. This is the same process that has been completed for past cell construction projects. The soil from the excavation was

tested prior to being moved and results were sent to the MECP through required reporting during construction.

10. Next Meeting

The next meeting will be Wednesday, August 19 at 3:00 p.m. on Zoom.

11. Adjournment

Moved By B. Hodgson
Seconded By L. Scrivens

Carried

Lindsay Ops Landfill Public Review Commitee
Action List

Meeting Date of Activity	Action	Responsilibity	Action Item Date:	Status
15-May-13	PRC requested operational updates on the Landfill Gas Electricity Generation.	CKL	Monthly	**August 19 Meeting**: Cover has been placed in well area. Feasibility Study completed. Have seen increases in KWH produced since new wells have been installed.
15-Jan-14	That the PRC is copied on Staff Reports to Council regarding the Lindsay Ops Landfill	CKL	As Available	**August 19 Meeting:** C&D Pilot Study Report to council July 28th was approved to extend pilot to Dec 31 2021.
21-Jan-15	Provide update on quarterly PCB testing (SW3/ SW13)	CKL	Quarterly	**August 19 Meeting:** Two sampling events completed (April 30, June 24). No PCBs detected. Next event to occur before October 1, 2020.
17-Jun-15	MECP Comments	CKL	As Available	**August 19 Meeting:** No comments. ECA ammendment submitted for compost pond.
23-Nov-16	Biomonitoring	CKL	As Available	**August 19 Meeting:** Biomonitoring Report for 2020 complete, sent to PRC.
21-Jan-19	Leachate Water Quality Results	CKL	As Available	**August 19 Meeting:** See attached spreadsheet.
17-May-17	Waste Management Advisory Committee Update	CKL	As Available	**August 19 Meeting:** Met July 6th. Discussed Public Education and Communication Strategy, C&D Pilot, and Waste Strategy progress.
17-Jan-17	Updates on Blue Box markets and Legislation	CKL	As Available	**August 19 Meeting:** Date for transition to producer responsibility of the blue box has been set for 2023-2025. Council approved staff recommentations for preferred transition in 2023.
16-May-18	Construction and Demolition Update	CKL	As Available	**August 19 Meeting:** Mixed C&D program going well. Have diverted 33 tonnes in June and Ju;ly
8-Jan-20	Update on Implementation of Waste Strategy Iniatives	CKL	As Available	**August 19 Meeting:** On track to achieve Initiatives set out for 2020.
20-Jun-18	Lindsay Ops EA Process Update	CKL	As Available	**August 19 Meeting:** RFP went out for Future Options Study. Has closed. Study to be completed by June 30, 2021.

Lindsay Ops Leachate 2019

Exceeds Bylaw Value
Exceeds PWQO Value

Parameters	CKL Sewer Bylaw Limits (mg/L)	Provincial Water Quality Objectives (mg/L)	Jan. Results (mg/L)	Feb. Results (mg/L)	Mar. Results (mg/L)	April. Results (mg/L)	April. Results (mg/L) new cell	May Results (mg/L)	June Results (mg/L)	July Results (mg/L)	August Results (mg/L)	September Results (mg/L)	October. Results (mg/L) new cell	Oct Results (mg/L)	Nov Results (mg/L)	Dec Results (mg/L)
Hardness (CaCO3)	N/A	N/A	593	596	544	653	925	557	475	628	649	664	1090	666	610	580
Alkalinity (CaCO3)	N/A	N/A	609	599	601	482	1270	528	531	693	773	759	2380	731	610	543
Biochemical Oxygen Demand (BOD)	300	N/A	<3	19	8	7	262	4	3	5	4	n/a	62	< 3	5	5
TDS	N/A	N/A	991	1005	972	928	1550	796	743	1045	1144	1258	4318	1226	1017	868
Dissolved Organic Carbon	N/A	N/A	13.1	13.4	13.5	12.9	207	14.8	12.1	16.1	18.5	1.3	130	11.4	10	8.2
COD	N/A	N/A	73	62	63	56	644	40	38	76	78	112	692	87	59	50
Chloride	N/A	N/A	176	199	198	127	27.5	107	106	138	202	307	887	278	201	146
Ammonia (N) - Total	N/A	**1.11**	17.6	17.6	16.9	14.1	10	9.71	10.5	20.9	26.6	28.4	350	27.9	17.4	11.8
Fluoride	**10**	N/A	0.2	0.1	< 0.1	< 0.1	0.8	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 3	< 0.1	< 0.1	< 0.1
Phenolic, 4AAP	**1**	**0.001**	0.012	<0.002	< 0.002	< 0.002	0.14	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Sulphate	N/A	N/A	45	42	48	139	10	38	34	33	22	15	121	17	49	50
Nitrite	N/A	N/A	<0.05	<0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 1	< 0.05	< 0.05	< 0.05
Nitrate	N/A	N/A	0.08	0.15	0.18	0.16	< 0.05	0.42	0.32	< 0.05	< 0.05	< 0.05	< 1	< 0.05	0.21	0.49
Kjeldahl Nitrogen - Total	**50**	N/A	19.7	20.5	20.8	17.6	104	10.9	10.5	25.2	30.7	35.8	364	35.3	18	14.9
Aluminum - Total	**50**	**0.075***	0.27	0.12	0.12	0.68	0.13	0.1	0.08	0.15	0.1	0.07	0.62	0.1	0.11	0.11
Antimony - Total	**5**	**0.02**	<0.0005	<0.0001	< 0.0005	0.0006	0.0022	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.002	< 0.0005	< 0.0005	< 0.0005
Arsenic - Total	**1**	**0.1**	0.0024	0.0013	0.0008	0.0013	0.0107	0.0013	0.0009	0.0026	0.0012	0.0014	0.0189	0.0013	0.0015	0.0012
Barium	N/A	N/A	0.331	0.297	0.253	0.245	0.362	0.211	0.159	0.394	0.382	0.471	0.82	0.462	0.313	0.226
Beryllium	N/A	**1.1****	<0.002	<0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Boron	N/A	0.2	0.382	0.426	0.37	0.299	2.95	0.281	0.278	0.509	0.54	0.632	9.68	0.605	0.411	0.3
Cadmium - Total	**0.7**	**0.0002**	<0.00007	<0.000015	< 0.000070	< 0.000070	< 0.000070	< 0.000070	< 0.000070	< 0.000070	< 0.000070	< 0.000070	< 0.000070	< 0.000070	< 0.000070	< 0.000070
Calcium	N/A	N/A	179	175	160	211	273	184	154	184	186	180	267	182	184	185
Chromium - Total	**2.8**	**0.0099**	0.017	0.011	0.012	0.161	0.013	0.004	0.001	0.013	< 0.001	0.004	0.037	0.003	0.01	0.004
Cobalt - Total	**5**	**0.0009**	0.0013	0.007	0.0013	0.0025	0.0052	0.0009	0.0011	0.0015	0.001	0.0011	0.0159	0.0013	0.001	0.0008
Copper - Total	**2**	**0.005**	0.0042	0.0011	0.0011	0.0062	0.011	0.001	0.0015	0.0021	< 0.0005	< 0.0005	0.008	< 0.0005	0.0006	0.0011
Iron	N/A	**0.3**	27.7	11	5.64	21	7.96	20.9	10.8	45.5	14.4	15.1	59.6	11.8	13.9	13
Lead - Total	1	**0.005**	0.0025	0.00012	0.0002	0.0016	0.0016	0.0004	0.0001	0.0005	< 0.0001	< 0.0001	0.0013	0.0002	0.0005	0.0002
Magnesium	N/A	N/A	35.3	38.6	35.1	30.6	59.1	23.6	21.9	40.9	44.8	52	104	51.3	36.6	28.5
Manganese - Total	5	N/A	0.45	0.363	0.355	0.618	0.63	0.439	0.35	0.447	0.379	0.299	0.837	0.272	0.404	0.416
Mercury - Total	**0.01**	**0.0002**	<0.00002	<0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002
Molybdenum - Total	**5**	**0.04**	<0.0005	0.0002	< 0.0005	0.0022	0.0009	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.0021	< 0.0005	0.0007	< 0.0005
Nickel - Total	**2**	**0.025**	0.01	0.01	0.01	0.07	0.03	< 0.01	< 0.01	0.01	< 0.01	0.01	0.09	0.01	0.01	< 0.01
Potassium	N/A	N/A	18.1	21.3	19.1	14.5	139	11.7	10.8	24	27.4	28.9	260	31.5	19	12.8
Phosphorus	N/A	N/A	<0.1	<0.1	< 0.1	0.1	0.3	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	3.3	< 0.1	< 0.1	< 0.1
Phosphorus - Total	**10**	**0.01**	0.05	0.03	0.03	0.1	0.29	0.05	0.02	0.05	0.03	0.03	3.21	0.06	0.02	0.04
Selenium - Total	**1**	**0.1**	<0.005	<0.0001	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.012	< 0.005	< 0.005	< 0.005
Silver - Total	**0.4**	**0.0001**	<0.0001	<0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	0.0002	< 0.0001	< 0.0001	< 0.0001	< 0.0001
Sodium	N/A	N/A	121	136	123	97.6	257	81.6	73	136	149	168	740	179	124	91.6
Strontium	N/A	**10 bq/L**	0.64 mg/L	0.715 mg/L	0.622	0.678	1.35	0.572	0.515	0.774	0.732	0.794	2.73	82.80%	0.679	0.6
Thallium	N/A	**0.0003**	<0.0003	<0.00005	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
Vanadium	N/A	**0.006**	0.0018	0.0009	0.0008	0.0025	0.0074	0.0009	0.0005	0.0018	0.0007	0.001	0.0239	0.001	0.001	0.0007
Zinc - Total	**2**	**0.03**	0.023	0.009	0.03	0.035	0.034	0.009	< 0.005	0.006	< 0.005	0.005	0.185	< 0.005	0.018	< 0.005
Benzene	**0.01**	**0.1**	0.0023	0.0007	0.0006	< 0.5	0.0007	< 0.0005	<0.0016	0.0006	< 0.0005	0.0018		0.0017	0.0015	0.0019
Toluene	**0.02**	**0.0008**	<0.0005	<0.0005	<0.0005	< 0.0005	0.0126	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005		< 0.0005	< 0.0005	< 0.0005
Ethylbenzene	**0.06**	**0.008**	0.0027	<0.0005	<0.0005	< 0.0005	0.0006	< 0.0005	<0.0011	< 0.0005	< 0.0005	< 0.0005		< 0.0005	< 0.0005	0.0008
Xylene, m, p -	N/A	N/A	0.0042	<0.001	<0.001	< 0.001	0.0012	<0.001	<0.0011	<0.001	<0.001	<0.001		<0.001	<0.001	<0.001
Xylene, o -	N/A	**0.04**	0.0005	<0.0005	<0.0005	<0.0005	0.0006	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005		<0.0005	<0.0005	<0.0005
Xylene, m, p, o -	N/A	N/A	0.0042	<0.0011	<0.0011	<0.0011	0.0018	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011		<0.0011	<0.0011	<0.0011

Parameters	Limits	Provincial Water Quality Objectives	Jan. Results	Feb. Results	Mar. Results	April. Results	Apr. Results New Cell	May. Results	June. Results	July. Results	Aug. Results	Sept. Results	Oct. Results New Cell	Oct Results	Nov Results	Dec Results
pH (at 25 ºC)	6.0 - 9.5	6.5 - 8.5	7.34	7.68	7.6	7.34	7.74	7.13	7.35	6.95	7.4	7.28	7.87	7.66	7.6	7.37
Conductivity (at 25 ºC)	N/A	N/A	1750 µm ho/cm	1780 µm ho/cm	1790 µmho/cm	1590 µmho/cm	3490 µmho/cm	1370 µmho/cm	1350 µmho/cm	1860 µmho/cm	2000 µmho/cm	2160 µmho/cm	7050 µmho/cm	2110 µmho/cm	1750 µmho/cm	1540 µmho/cm
Conductivity (calculated)	N/A	N/A	1650 µm ho/cm	1720 µm ho/cm	1664 µmho/cm	1563 µmho/cm	2403 µmho/cm	1344 µmho/cm	1267 µmho/cm	1692 µmho/cm	1928 µmho/cm	2141 µmho/cm	6453 µmho/cm	2103 µmho/cm	1725 µmho/cm	1479 µmho/cm
Anion Sum	N/A	N/A	18.1 meq/L	18.5 meq/L	18.6 meq/L	16.1 meq/L	26.4 meq/L	14.4 meq/L	14.3 meq/L	18.4 meq/L	21.6 meq/L	24.1 meq/L	75.1 meq/L	22.8 meq/L	18.9 meq/L	16 meq/L
Cation Sum	N/A	N/A	20.3 meq/L	20.2 meq/L	18.2 meq/L	18.7 meq/L	34.4 meq/L	16.8 meq/L	14.3 meq/L	23 meq/L	22.8 meq/L	24.1 meq/L	88.5 meq/L	24.5 meq/L	20.1 meq/L	17.4 meq/L
% Difference	N/A	N/A	5.77%	4.51%	1.09%	7.29%	13.10%	7.78%	0.18%	11.00%	2.68%	0.02%	8.17%	3.55%	2.94%	415.00%
Ion Ratio (AS/CS)	N/A	N/A	0.891	0.914	1.02	0.864	0.769	0.856	1	0.801	0.948	1	0.849	0.931	0.943	0.92
Sodium Adsorption Ratio	N/A	N/A	2.16	2.42	2.29	1.66	3.68	1.5	1.46	2.36	2.54	2.84	9.73	3.02	2.18	1.66
TDS (calc.) / EC (actual)	N/A	N/A	0.567	0.565	0.542	0.585	0.444	0.58	0.551	0.561	0.572	0.582	0.612	0.581	0.582	0.562
Langelier Index (at 25ºC)	N/A	N/A	0.875	1.19	1.08	0.845	1.77	0.635	0.78	0.543	1.05	0.903	2.12	1.27	1.14	0.88

Lindsay Ops Leachate 2020

Exceeds Bylaw Value
Exceeds PWQO Value

Parameters	CKL Sewer Bylaw Limits (mg/L)	Provincial Water Quality Objectives (mg/L)	Jan. Results (mg/L)	Feb. Results (mg/L)	Mar. Results (mg/L)	April. Results (mg/L)	April. Results (mg/L) new cell	May Results (mg/L)	June Results (mg/L)	July Results (mg/L)	August Results (mg/L)	September Results (mg/L)	October. Results (mg/L) new cell	Oct Results (mg/L)	Nov Results (mg/L)	Dec Results (mg/L)
Hardness (CaCO3)	N/A	N/A	609	616	556	574	370	602	654	694						
Alkalinity (CaCO3)	N/A	N/A	579	560	529	603	442	626	697	710						
Biochemical Oxygen Demand (BOD)	300	N/A	5	5	< 3	4	4	3	5	5						
TDS	N/A	N/A	896	927	791	906	1095	936	1076	1148						
Dissolved Organic Carbon	N/A	N/A	11.1	12.9	10.9	10.6	34.4	12.4	11.6	15.8						
COD	N/A	N/A	44	51	35	73	104	54	63	80						
Chloride	N/A	N/A	135	162	116	136	274	142	185	215						
Ammonia (N) - Total	N/A	**1.11**	13.6	12.8	10.6	16.6	0.31	16.2	21.2	25.4						
Fluoride	**10**	N/A	< 0.1	0.4	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1						
Phenolic, 4AAP	**1**	**0.001**	< 0.002		< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002						
Sulphate	N/A	N/A	46	44	42	45	94	39	34	29						
Nitrite	N/A	N/A	< 0.05	< 0.05	< 0.05	< 0.05	0.07	0.06	< 0.05	< 0.05						
Nitrate	N/A	N/A	0.11	0.18	0.36	0.16	8.54	0.15	0.09	0.91						
Kjeldahl Nitrogen - Total	**50**	N/A	15.8	15.8	13.2	18	4.1	19.1	27.8	33.3						
Aluminum - Total	**50**	**0.075***	0.18	0.06	0.09	0.09	0.07	0.08	0.02	0.09						
Antimony - Total	**5**	**0.02**	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.0009	< 0.0005	0.0012	< 0.0005						
Arsenic - Total	**1**	**0.1**	0.0022	0.0016	0.0014	0.0012	0.0018	0.001	0.0055	0.0012						
Barium	N/A	N/A	0.299	0.27	0.213	0.23	0.076	0.255	0.353	0.427						
Beryllium	N/A	**1.1****	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002						
Boron	N/A	0.2	0.336	0.327	0.258	0.334	2.74	0.324	0.519	0.559						
Cadmium - Total	**0.7**	**0.0002**	< 0.000070	< 0.000070	< 0.000070	< 0.000070	< 0.000070	< 0.000070	< 0.000070	< 0.000070						
Calcium	N/A	N/A	192	196	182	179	83.3	188	194	202						
Chromium - Total	**2.8**	**0.0099**	0.023	0.048	0.001	0.004	0.004	0.001	0.003	0.001						
Cobalt - Total	**5**	**0.0009**	0.0008	0.0009	0.001	0.0009	0.0039	0.0008	0.0046	0.0012						
Copper - Total	**2**	**0.005**	0.0021	0.0006	0.0036	< 0.0005	0.0055	< 0.0005	0.0022	0.0006						
Iron	N/A	**0.3**	33.6	26	21.3	15.3	0.226	14.8	16.4	15.3						
Lead - Total	1	**0.005**	0.0005	0.0004	0.0002	< 0.0001	0.0002	< 0.0001	0.0006	0.0001						
Magnesium	N/A	N/A	31.4	30.7	24.5	30.9	39.4	32.1	41.2	45.9						
Manganese - Total	5	N/A	0.487	0.44	0.424	0.431	0.026	0.463	0.408	0.361						
Mercury - Total	**0.01**	**0.0002**	< 0.00002	< 0.00002	< 0.00002	< 0.00002	< 0.00002	0.00013	< 0.00002	< 0.00002						
Molybdenum - Total	**5**	**0.04**	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.0017	< 0.0005	0.0009	< 0.0005						
Nickel - Total	**2**	**0.025**	< 0.01	0.01	< 0.01	< 0.01	0.03	< 0.01	0.01	0.01						
Potassium	N/A	N/A	14.6	15.2	11.8	16.3	94.4	16.9	22.4	27.5						
Phosphorus	N/A	N/A	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.04						
Phosphorus - Total	**10**	**0.01**	0.03	0.03	0.02	0.01	0.05	0.02	0.02	< 0.1						
Selenium - Total	**1**	**0.1**	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	0.006	< 0.005						
Silver - Total	**0.4**	**0.0001**	< 0.0001	< 0.0001	< 0.0001	0.0001	0.0001	< 0.0001	< 0.0001	< 0.0001						
Sodium	N/A	N/A	95.8	100	75.4	99.5	244	107	137	155						
Strontium	N/A	**10 bq/L**	0.664	0.641	0.54	0.6	0.671	0.644	0.73	0.734						
Thallium	N/A	**0.0003**	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003						
Vanadium	N/A	**0.006**	0.0015	0.0007	0.0008	0.0006	0.0017	0.0006	0.0036	0.0008						
Zinc - Total	**2**	**0.03**	0.006	0.006	0.007	< 0.005	0.363	< 0.005	0.013	< 0.005						
Benzene	**0.01**	**0.1**	0.0014	0.001	0.0012	0.0015	<0.0005	0.0016	0.0013	0.0014						
Toluene	**0.02**	**0.0008**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005						
Ethylbenzene	**0.06**	**0.008**	0.0003	0.0006	0.0007	0.0007	<0.0005	0.0007	0.0006	<0.0005						
Xylene, m, p -	N/A	N/A	0.0019	<0.0001	<0.0001	0.001	<0.0001	<0.0001	<0.0001	<0.0001						
Xylene, o -	N/A	**0.04**	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005						
Xylene, m, p, o -	N/A	N/A	0.002	0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011						

Parameters	Limits	Provincial Water Quality Objectives	Jan. Results	Feb. Results	Mar. Results	April. Results	Apr. Results New Cell	May. Results	June. Results	July. Results	Aug. Results	Sept. Results	Oct. Results New Cell	Oct Results	Nov Results	Dec Results
pH (at 25 ºC)	6.0 - 9.5	6.5 - 8.5	7.27	7.6	7.29	8.00	8.54	7.53	7.31	7.36						
Conductivity (at 25 ºC)	N/A	N/A	1590	1590	1430	1600	2010	1650	1840	2010						
Conductivity (calculated)	N/A	N/A	1448	1557	1309	1530	1852	1584	1814	1954						
Anion Sum	N/A	N/A	16.3	16.7	14.7	16.8	19.1	17.3	19.9	20.9						
Cation Sum	N/A	N/A	18.5	19.4	15.8	18.2	20.5	19.1	22	23.9						
% Difference	N/A	N/A	6.32%	7.33%	3.62%	3.96%	3.34%	4.76%	5.07%	671.00%						
Ion Ratio (AS/CS)	N/A	N/A	0.881	0.863	0.93	0.924	0.935	0.909	0.903	0.874						
Sodium Adsorption Ratio	N/A	N/A	1.69	1.75	1.39	1.81	5.52	1.9	2.33	2.56						
TDS (calc.) / EC (actual)	N/A	N/A	0.564	0.582	0.554	0.568	0.545	0.567	0.584	0.571						
Langelier Index (at 25ºC)	N/A	N/A	0.823	1.14	0.791	1.53	1.59	1.1	0.929	1						