



Stericycle®

**2020 Q3
INCINERATION
REPORT**



Stericycle, ULC

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October 19, 2020

District Manager
Ministry of the Environment, Conservation and Parks
Halton-Peel District Office
300-4145 North Service Road
Burlington, ON
L7L 6A3

Dear District Manger,

**Re: Stericycle, ULC.
Certificate of Approval for a Waste Disposal Site No. A680324**

As required by Condition 52 of the above-mentioned Certificate of Approval, please find attached the incinerator quarterly report for the third quarter of 2020.

This is the fourth quarterly incineration report under the new performance conditions. During July 2020 there were 5 occurrences of the 4-hour CO alarm & 0 occurrences of the 12-hour CO alarm. In August 2020 there were 13 occurrences of the 4-hour CO alarm and 5 occurrences of the 12-hour CO alarm. In September 2020 there were 17 occurrences of the 4-hour CO alarm and 3 occurrences of the 12-hour CO alarm. Stericycle will continue to work with the incinerator operators to further reduce the number of CO alarms.

In August of 2020 there were 3 occurrences of the 24-hour NOX alarm and 5 occurrences of the 24-hour NOx alarm in September 2020.

Details on the above noted alarms are available in the body of the attached report.

THIRD QUARTER 2020 INCINERATOR QUARTERLY REPORT - SUPPLEMENTAL INFORMATION

- The Emergency Bypass stack was not used during Q3 2020.
- Throughout the quarter, minor issues with either the waste feed or the proper operation of certain pieces of equipment caused alarm conditions. In all cases, the problems were fixed, and normal operations resumed. Corrective actions included adjustments to the waste feed mix and rate and corrective maintenance on affected systems.
- Throughout the third quarter of 2020, the incinerator was run by trained Stericycle operators Emilio Perez, Gyasi Krobea & John Amissiah.
- There were no complaints received regarding the operation of the incinerator during the third quarter of 2020.
- Stericycle Inc. operated the incinerator on the following days during the third quarter:

Start-up	Shut Down
6/29/2020 @ 09:08	7/16/2020 @ 23:40
8/1/2020 @ 09:59	8/6/2020 @ 15:43
8/8/2020 @ 07:28	9/24/2020 @13:49
9/24/2020 @ 17:17	9/30/2020 @ 18:58

During Q3 of 2020 routine maintenance was performed on the incinerator during the scheduled shutdowns along with the following additional repairs:

- Replacement of the upper and lower rams in the primary chamber of the incinerator.
- Replacement of the floors in the primary chamber of the incinerator.
- Switch from Urea to Ammonia in the SNCR to regulate NOx levels. Studies found that Urea was adding 3-4ppm of CO to the emissions.

CO Alarm Chart Q3 2020

Month	4 Hour CO average alarms	12 Hour CO average alarms
July 2019	22	9
August 2019	12	1
September 2019	13	0
October 2019	2	0
November 2019	12	4
December 2019	11	0
January	3	1
February	6	1
March	14	1
April	4	0
May	19	4
June	4	2
July	5	0
August	13	5
September	17.	3

Stericycle warrants that it has exercised best efforts to adhere to all the applicable Terms & Conditions of its Waste Disposal Site Certificate of Approval including all inspection and reporting requirements through Q1 of 2020.

Stericycle is very committed to the full compliance with all conditions of its Provisional Certificate of Approval, throughout the year, whenever a situation of possible non-compliance was identified; immediate actions were taken to ensure full compliance. Stericycle has mechanisms in place to ensure full compliance at all times. Employees are aware of their responsibilities and are trained appropriately.

Stericycle believes that the current monitoring program is sufficient and enables both Stericycle and the MECF to have a good understanding of the Site operations and to assess its compliance with the Certificate of Approval and all the relevant regulations.

However, Stericycle is very committed to looking for ways to improve its operations through better procedures, training, inspections and monitoring programs and will continue to do so.

I trust that this is the information required and that it meets with your approval. Should you have any questions or require additional information, please do not hesitate to contact me accordingly.

Regards,

A handwritten signature in black ink, appearing to be 'DK' with a stylized flourish extending from the 'K'.

Dan Kokol

ESH Specialist

Phone: 905-595-8532

Email: dkokol@stericycle.com



July 2020 Incineration Averages

TheDate		OX6min	COmin	NOXmin	PrimTemp°C	SecTemp°C	SNCR	DemTemp°C	CarbTemp°C	DiffTemp	IDFanTemp°C	QuenchPH	CondPH	AtomPH	AtomA	AtomB	HEPADP	OpMode
7/1/2020	Average	11.73	2.33	49.33	920.88	1024.35	6.97	36.25	44.97	8.72	41.22	8.73	7.62	7.06	41.92	41.99	0.55	NORMAL(ON)
	Min	8.31	0.00	16.78	790.31	982.83	6.71	32.13	32.18	-1.75	37.87	7.38	6.83	6.79	41.83	41.85	0.00	
	Max	14.40	538.94	139.15	1072.66	1076.96	7.16	40.96	51.71	18.56	45.00	9.67	8.10	7.31	41.98	42.06	1.00	
7/2/2020	Average	11.09	2.93	45.42	1049.60	1025.91	7.02	35.67	51.30	15.63	45.44	8.92	7.03	6.93	42.00	42.22	0.98	NORMAL(ON)
	Min	9.02	0.00	-1.76	994.82	1017.84	6.68	31.90	50.30	13.41	41.54	8.56	6.41	6.61	41.76	41.99	0.00	
	Max	14.61	578.42	268.87	1082.15	1094.43	7.31	38.64	52.29	19.00	47.89	9.43	7.58	7.14	42.30	42.51	1.00	
7/3/2020	Average	11.74	3.19	52.70	1002.21	1027.24	7.17	39.36	52.59	13.23	47.31	9.08	7.17	6.84	42.17	42.26	1.02	NORMAL(ON)
	Min	9.31	0.00	20.44	855.97	990.33	6.77	33.50	50.21	10.92	44.28	8.61	6.47	6.51	42.08	42.14	1.00	
	Max	14.76	503.37	257.90	1078.41	1138.02	7.49	44.61	56.28	16.80	50.76	9.42	8.00	7.41	42.30	42.36	2.00	
7/4/2020	Average	11.33	2.95	53.48	1026.06	1025.65	6.72	34.37	50.54	16.17	44.36	9.08	7.72	7.10	42.20	42.28	1.00	NORMAL(ON)
	Min	8.92	0.00	20.48	876.35	1004.03	6.59	31.26	50.20	12.71	42.37	8.68	6.90	6.76	42.08	42.10	1.00	
	Max	14.52	381.43	202.02	1097.97	1062.26	7.06	37.73	51.08	19.29	45.52	9.39	8.06	7.93	42.32	42.49	1.00	
7/5/2020	Average	11.54	2.86	43.63	1080.66	1028.30	6.75	35.51	50.72	15.21	44.98	9.22	8.11	7.16	42.15	42.18	1.80	NORMAL(ON)
	Min	8.91	0.00	16.82	1019.45	1018.83	6.60	32.81	49.99	12.13	42.82	8.80	7.82	7.04	42.03	41.90	1.00	
	Max	14.49	202.41	141.71	1121.67	1092.01	7.10	39.05	51.35	18.06	47.24	9.84	8.40	7.24	42.32	42.45	2.00	
7/6/2020	Average	11.55	3.75	47.11	1055.64	1025.50	7.05	37.28	51.20	13.92	45.73	8.98	7.90	7.11	42.02	41.94	1.89	NORMAL(ON)
	Min	7.79	0.00	12.49	1018.76	769.32	6.87	34.31	50.08	11.25	43.60	8.33	7.45	6.94	41.91	41.82	1.00	
	Max	17.37	644.95	220.93	1110.67	1105.83	7.32	43.04	54.37	16.58	49.87	9.45	8.22	7.21	42.11	42.03	2.00	
7/7/2020	Average	11.62	4.00	50.03	1011.89	1027.61	7.17	39.17	51.98	12.80	46.19	8.91	7.83	7.07	42.03	41.79	1.89	NORMAL(ON)
	Min	9.24	0.00	15.55	847.34	1002.78	6.79	37.28	51.00	10.15	43.55	7.97	7.17	6.86	41.95	41.69	0.00	
	Max	14.61	732.83	222.49	1091.62	1065.72	7.51	41.87	53.12	14.73	48.20	9.69	8.21	7.31	42.12	41.91	3.00	
7/8/2020	Average	11.09	3.84	61.55	1034.76	1030.23	7.48	40.33	53.82	13.50	45.97	8.93	7.88	6.95	41.96	41.83	0.19	NORMAL(ON)
	Min	8.96	0.00	15.05	973.94	1018.77	7.36	37.09	50.39	8.62	43.24	8.48	7.25	6.38	41.89	41.70	0.00	
	Max	18.41	623.71	216.12	1083.28	1118.58	7.64	46.14	56.63	16.19	49.59	9.38	9.91	7.69	42.07	41.96	1.00	
7/9/2020	Average	10.78	3.71	70.15	1058.04	1034.61	7.37	41.18	54.12	12.94	47.78	9.09	7.82	7.23	41.85	41.74	0.14	NORMAL(ON)
	Min	8.90	0.00	20.21	980.66	1018.82	6.95	36.91	52.31	10.16	44.50	8.53	7.19	6.99	41.52	41.24	0.00	
	Max	12.54	373.85	192.82	1095.03	1068.98	7.63	44.81	56.33	15.44	50.93	9.56	8.34	8.11	42.10	42.04	1.00	
7/10/2020	Average	11.22	2.36	54.23	1079.45	1028.70	7.63	43.01	54.82	11.81	49.16	9.04	7.65	7.14	41.64	41.40	0.46	NORMAL(ON)
	Min	8.73	0.00	17.23	917.54	1018.91	7.33	40.09	52.57	7.63	46.11	7.20	5.83	6.82	40.29	40.83	0.00	
	Max	13.86	384.34	198.74	1107.26	1059.79	11.35	61.71	69.44	13.12	64.29	10.41	8.60	7.63	42.08	41.78	1.00	
7/11/2020	Average	11.61	2.88	37.44	974.73	986.67	7.36	38.33	51.56	13.23	46.29	8.22	6.71	6.64	42.48	41.59	0.43	NORMAL(ON)
	Min	6.55	0.00	-2.42	812.56	836.14	7.07	30.44	49.55	9.39	43.01	5.71	4.50	4.48	41.50	41.23	0.00	
	Max	14.79	575.10	168.88	1062.79	1051.17	7.78	43.88	55.32	19.13	50.74	9.78	7.89	7.39	44.04	42.21	1.00	
7/12/2020	Average	10.98	3.67	63.18	1038.45	1030.77	6.94	37.22	51.16	13.93	44.70	8.86	7.26	7.00	41.72	41.33	0.63	NORMAL(ON)
	Min	9.23	0.00	20.41	986.94	1001.37	6.71	33.18	50.29	9.47	42.23	8.13	6.82	6.72	41.51	41.09	0.00	
	Max	13.40	603.48	236.19	1074.31	1099.63	7.18	42.38	52.83	17.81	48.22	9.40	7.62	7.18	41.85	41.61	1.00	
7/13/2020	Average	11.42	3.43	60.55	1049.77	1024.43	6.77	36.61	50.82	14.21	44.15	8.95	7.40	7.04	41.77	41.37	1.00	NORMAL(ON)
	Min	8.87	0.30	20.92	963.26	1017.58	6.62	34.11	50.18	12.42	42.92	7.94	6.74	6.74	41.55	41.11	1.00	
	Max	14.07	424.50	154.42	1090.87	1060.36	6.91	38.33	51.60	16.72	44.91	9.58	7.92	7.26	41.91	41.56	1.00	
7/14/2020	Average	11.27	3.34	54.56	1040.36	1027.40	6.76	35.71	51.00	15.29	44.14	8.97	8.04	7.24	41.72	41.32	1.00	NORMAL(ON)
	Min	8.51	0.29	20.78	962.38	1017.61	6.60	33.78	50.32	12.15	42.87	8.26	7.34	6.93	41.58	41.16	1.00	
	Max	14.19	413.00	158.28	1086.46	1058.77	6.94	40.07	52.29	17.38	47.36	9.37	8.39	7.38	41.82	41.45	1.00	
7/15/2020	Average	11.11	3.54	79.46	1053.31	1034.77	7.04	40.58	52.65	12.07	46.88	8.77	7.45	7.12	41.85	41.34	1.00	NORMAL(ON)
	Min	9.31	0.86	25.97	1018.58	1018.78	6.80	36.21	49.58	8.55	43.58	8.20	6.50	6.85	41.67	41.15	1.00	
	Max	13.31	275.40	279.23	1074.32	1090.54	7.24	48.32	56.87	15.05	52.21	9.43	8.00	7.27	42.10	41.60	1.00	
7/16/2020	Average	11.17	5.57	87.54	1060.82	1034.57	7.43	43.44	54.57	11.13	48.30	8.77	7.38	6.98	41.76	41.22	1.00	NORMAL(ON)/SHUT-DOWN
	Min	9.59	0.83	29.07	1026.33	901.66	7.23	38.90	52.16	8.27	44.49	8.21	7.17	6.77	41.67	41.10	1.00	
	Max	13.83	575.09	234.22	1078.98	1110.38	7.73	48.56	56.98	13.73	52.24	9.10	7.62	7.19	41.86	41.33	1.00	
7/17/2020	Average	19.08	101.00	30.40	832.28	494.98	7.39	54.15	45.10	-9.05	34.11	8.85	8.04	8.10	21.30	21.00	0.40	SHUT-DOWN/OFF
	Min	11.95	0.00	0.00	521.78	271.99	7.06	27.33	36.38	-42.57	24.85	8.24	7.19	6.90	0.10	0.00	0.00	
	Max	20.39	1510.30	166.63	1091.23	899.19	7.70	80.10	55.48	22.87	50.49	9.83	8.70	9.00	41.80	41.34	1.00	
7/18/2020	Average	20.25	0.00	0.00	525.52	273.73	7.64	70.48	36.46	-34.02	26.01	9.35	8.70	9.00	0.10	0.00	0.00	OFF
	Min	20.19	0.00	0.00	521.78	271.99	7.64	69.73	36.38	-34.68	25.90	9.35	8.69	9.00	0.10	0.00	0.00	
	Max	20.33	0.00	0.00	529.30	275.90	7.65	71.23	36.55	-33.36	26.12	9.36	8.70	9.00	0.10	0.00	0.00	

July 2020 Incineration Averages

TheDate		OX6min	COmin	NOXmin	PrimTemp°C	SecTemp°C	SNCR	DemTemp°C	CarbTemp°C	DiffTemp	IDFanTemp°C	QuenchPH	CondPH	AtomPH	AtomA	AtomB	HEPADP	OpMode
7/19/2020	Average	20.23	0.00	0.00	524.49	273.18	7.64	70.28	36.44	-33.84	26.04	9.35	8.70	9.00	0.10	0.00	0.00	OFF
	Min	20.19	0.00	0.00	521.78	271.99	7.64	69.73	36.38	-34.32	25.96	9.35	8.69	9.00	0.10	0.00	0.00	
	Max	20.27	0.00	0.00	527.22	274.37	7.65	70.82	36.50	-33.36	26.12	9.36	8.70	9.00	0.10	0.00	0.00	
7/20/2020	Average	20.21	0.00	0.00	26.37	28.83	7.90	50.00	34.44	-15.56	32.22	8.70	8.60	8.90	0.10	0.00	0.00	OFF
	Min	20.19	0.00	0.00	24.44	26.11	7.90	50.00	34.44	-15.56	32.22	8.70	8.60	8.90	0.10	0.00	0.00	
	Max	20.23	0.00	0.00	27.39	30.56	7.90	50.00	34.44	-15.56	32.22	8.70	8.60	8.90	0.10	0.00	0.00	
7/21/2020	Average	20.21	0.00	0.00	26.38	28.84	7.90	50.00	34.44	-15.56	32.22	8.70	8.60	8.90	0.10	0.00	0.00	OFF
	Min	20.20	0.00	0.00	24.44	26.11	7.90	50.00	34.44	-15.56	32.22	8.70	8.60	8.90	0.10	0.00	0.00	
	Max	20.23	0.00	0.00	27.39	30.56	7.90	50.00	34.44	-15.56	32.22	8.70	8.60	8.90	0.10	0.00	0.00	
7/22/2020	Average	20.24	0.00	0.00	26.38	28.84	7.90	50.00	34.44	-15.56	32.22	8.70	8.60	8.90	0.10	0.00	0.00	OFF
	Min	20.19	0.00	0.00	24.44	26.11	7.90	50.00	34.44	-15.56	32.22	8.70	8.60	8.90	0.10	0.00	0.00	
	Max	20.33	0.00	0.00	27.39	30.56	7.90	50.00	34.44	-15.56	32.22	8.70	8.60	8.90	0.10	0.00	0.00	
7/23/2020	Average	20.22	0.00	0.00	26.39	28.85	7.90	50.00	34.44	-15.56	32.22	8.70	8.60	8.90	0.10	0.00	0.00	OFF
	Min	20.19	0.00	0.00	24.44	26.11	7.90	50.00	34.44	-15.56	32.22	8.70	8.60	8.90	0.10	0.00	0.00	
	Max	20.27	0.00	0.00	27.39	30.56	7.90	50.00	34.44	-15.56	32.22	8.70	8.60	8.90	0.10	0.00	0.00	
7/24/2020	Average	20.21	0.00	0.00	26.39	28.86	7.90	50.00	34.44	-15.56	32.22	8.70	8.60	8.90	0.10	0.00	0.00	OFF
	Min	20.19	0.00	0.00	24.44	26.11	7.90	50.00	34.44	-15.56	32.22	8.70	8.60	8.90	0.10	0.00	0.00	
	Max	20.23	0.00	0.00	27.39	30.56	7.90	50.00	34.44	-15.56	32.22	8.70	8.60	8.90	0.10	0.00	0.00	
7/25/2020	Average	20.23	0.00	0.00	26.40	28.86	7.90	50.00	34.44	-15.56	32.22	8.70	8.60	8.90	0.10	0.00	0.00	OFF
	Min	20.19	0.00	0.00	24.44	26.11	7.90	50.00	34.44	-15.56	32.22	8.70	8.60	8.90	0.10	0.00	0.00	
	Max	20.33	0.00	0.00	27.39	30.56	7.90	50.00	34.44	-15.56	32.22	8.70	8.60	8.90	0.10	0.00	0.00	
7/26/2020	Average	20.24	0.00	0.00	26.40	28.86	7.90	50.00	34.44	-15.56	32.22	8.70	8.60	8.90	0.10	0.00	0.00	OFF
	Min	20.19	0.00	0.00	24.44	26.11	7.90	50.00	34.44	-15.56	32.22	8.70	8.60	8.90	0.10	0.00	0.00	
	Max	20.33	0.00	0.00	27.39	30.56	7.90	50.00	34.44	-15.56	32.22	8.70	8.60	8.90	0.10	0.00	0.00	
7/27/2020	Average	20.22	0.00	0.00	26.40	28.87	7.90	50.00	34.44	-15.56	32.22	8.70	8.60	8.90	0.10	0.00	0.00	OFF
	Min	20.19	0.00	0.00	24.44	26.11	7.90	50.00	34.44	-15.56	32.22	8.70	8.60	8.90	0.10	0.00	0.00	
	Max	20.27	0.00	0.00	27.39	30.56	7.90	50.00	34.44	-15.56	32.22	8.70	8.60	8.90	0.10	0.00	0.00	
7/28/2020	Average	20.23	0.00	0.00	26.41	28.88	7.90	50.00	34.44	-15.56	32.22	8.70	8.60	8.90	0.10	0.00	0.00	OFF
	Min	20.19	0.00	0.00	24.44	26.11	7.90	50.00	34.44	-15.56	32.22	8.70	8.60	8.90	0.10	0.00	0.00	
	Max	20.33	0.00	0.00	27.39	30.56	7.90	50.00	34.44	-15.56	32.22	8.70	8.60	8.90	0.10	0.00	0.00	
7/29/2020	Average	20.25	0.00	0.00	26.41	28.89	7.90	50.00	34.44	-15.56	32.22	8.70	8.60	8.90	0.10	0.00	0.00	OFF
	Min	20.19	0.00	0.00	24.44	26.11	7.90	50.00	34.44	-15.56	32.22	8.70	8.60	8.90	0.10	0.00	0.00	
	Max	20.33	0.00	0.00	27.39	30.56	7.90	50.00	34.44	-15.56	32.22	8.70	8.60	8.90	0.10	0.00	0.00	
7/30/2020	Average	20.24	0.00	0.00	26.41	28.89	7.90	50.00	34.44	-15.56	32.22	8.70	8.60	8.90	0.10	0.00	0.00	OFF
	Min	20.19	0.00	0.00	24.44	26.11	7.90	50.00	34.44	-15.56	32.22	8.70	8.60	8.90	0.10	0.00	0.00	
	Max	20.33	0.00	0.00	27.39	30.56	7.90	50.00	34.44	-15.56	32.22	8.70	8.60	8.90	0.10	0.00	0.00	
7/31/2020	Average	20.24	0.00	0.00	26.41	28.89	7.90	50.00	34.44	-15.56	32.22	8.70	8.60	8.90	0.10	0.00	0.00	OFF
	Min	20.07	0.00	0.00	24.44	26.11	7.90	50.00	34.44	-15.56	32.22	8.70	8.60	8.90	0.10	0.00	0.00	
	Max	20.41	0.00	0.00	27.39	30.56	7.90	50.00	34.44	-15.56	32.22	8.70	8.60	8.90	0.10	0.00	0.00	

July 2020 Incineration Feed Data

TheDate	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DailySum	Monthly Sum
01-Jul-20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	435.50	431.50	432.00	434.00	433.50	432.50	434.00	440.00	433.50	453.00	220.00	68.50	200.80	136.80	137.30	0.00	5122.9	124292.9
02-Jul-20	121.10	264.60	376.00	311.00	303.60	0.00	246.80	460.00	443.50	460.00	467.00	439.00	462.00	469.50	433.00	455.50	462.50	462.00	480.60	431.00	429.50	352.40	431.40	442.70	9204.7	
03-Jul-20	0.00	430.20	61.50	433.50	487.50	434.50	423.50	455.90	439.10	502.90	9.00	0.00	0.00	18.00	84.80	475.00	445.00	444.00	446.10	309.80	435.80	307.20	433.90	437.70	7514.9	
04-Jul-20	0.00	450.90	0.00	0.00	0.00	0.00	0.00	431.50	451.20	435.30	438.40	439.00	441.00	438.00	443.00	440.40	442.10	496.10	46.20	218.00	329.90	306.40	366.10	315.70	6929.2	
05-Jul-20	0.00	308.10	0.00	324.50	366.80	0.00	208.60	436.20	466.50	433.60	444.40	433.10	430.30	435.10	431.00	436.40	433.50	452.00	207.60	340.40	321.90	10.00	445.60	227.80	7593.4	
06-Jul-20	0.00	0.00	377.20	334.60	355.90	0.00	127.40	414.00	434.00	100.40	433.20	432.60	438.10	443.80	430.70	0.00	452.80	491.00	460.40	411.70	517.70	426.70	76.20	389.30	7547.7	
07-Jul-20	0.00	221.00	405.90	360.30	339.40	107.50	252.30	461.70	0.00	0.00	0.00	447.00	467.60	431.80	482.40	444.60	462.60	511.60	207.80	432.30	434.40	431.00	434.90	7336.1		
08-Jul-20	0.00	430.30	431.30	533.80	456.00	230.60	0.00	452.90	478.60	428.40	452.60	432.40	439.20	460.20	486.90	490.10	481.00	454.50	469.70	214.20	430.50	314.60	0.00	431.50	8999.3	
09-Jul-20	0.00	435.00	436.70	434.20	467.00	500.40	304.00	430.60	438.40	434.40	431.10	436.10	465.30	430.20	431.80	439.40	430.10	432.90	200.00	371.80	402.30	591.70	230.90	533.60	9707.9	
10-Jul-20	0.00	0.00	273.20	613.40	0.00	314.60	226.10	432.50	438.00	457.80	430.20	448.40	435.80	430.60	437.10	440.80	436.60	439.30	174.30	383.40	489.90	0.00	0.00	67.80	7369.8	
11-Jul-20	0.00	140.70	218.80	29.20	0.00	0.00	0.00	450.70	451.60	475.30	469.90	418.00	436.00	439.30	492.00	454.10	442.90	437.40	445.20	53.70	179.90	177.80	0.00	591.10	6803.6	
12-Jul-20	0.00	186.40	273.70	403.80	380.70	28.30	319.10	447.50	460.60	454.20	455.70	452.80	471.80	532.80	475.80	447.70	462.60	452.30	0.00	7.40	314.80	300.80	290.60	0.00	7619.4	
13-Jul-20	0.00	411.90	251.60	278.20	259.80	402.00	223.00	457.90	530.90	383.90	434.50	435.50	477.60	454.00	0.00	274.70	258.30	322.60	616.60	0.00	466.10	226.80	106.00	10.40	7282.3	
14-Jul-20	0.00	253.50	212.60	209.70	0.00	246.00	200.80	176.00	275.00	413.30	429.60	424.80	436.60	437.90	331.80	305.20	438.50	438.00	214.50	340.50	451.10	349.20	471.90	386.70	7443.2	
15-Jul-20	0.00	660.60	14.90	506.90	516.70	0.00	358.20	440.20	473.10	474.60	498.80	460.00	436.00	435.20	430.60	438.70	430.40	0.00	391.20	297.00	411.70	415.70	244.10	323.10	8657.7	
16-Jul-20	0.00	156.40	535.50	614.00	613.60	0.00	250.30	459.50	450.10	451.50	487.20	526.50	540.90	536.10	450.80	0.00	560.40	471.10	440.80	353.90	432.80	362.30	467.10	0.00	9160.8	
17-Jul-20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0	
18-Jul-20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0	
19-Jul-20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0	
20-Jul-20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0	
21-Jul-20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0	
22-Jul-20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0	
23-Jul-20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0	
24-Jul-20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0	
25-Jul-20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0	
26-Jul-20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0	
27-Jul-20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0	
28-Jul-20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0	
29-Jul-20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0	
30-Jul-20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0	
31-Jul-20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0	

O2 < 7.5

O2 < 7.5

	Start	Stop		Op.	Stack		Actions
Date	Time	Time	Duration	Mode	O2 %	Explanation	Taken
7/11/2020	7:32	7:38	0:06	Normal	6.90	Flameport setpoint adjusted too low when reheating secondary after sitting idle	No waste was fed until the O2 levels returned to the normal operating range.

Carbon Monoxide > 8ppm 4 hour alarm



Carbon Monoxide > 8ppm 4 hour alarm

	Start	Stop		Op.	Stack CO	Stack CO		Actions
Date	Time	Time	Duration	Mode	@ 11% O2	as mg/m ³	Explanation	Taken
7/7/2020	3:30	9:00	5:30	Normal	9.22	10.6	CO spikes occurred after the operator charged waste into the incinerator.	The operator reduced his feed rate until the CO levels returned to the normal operating range.
7/8/2020	8:00	14:00	6:00	Normal	8.39	9.7	CO spikes occurred after the operator charged waste into the incinerator.	The operator reduced his feed rate until the CO levels returned to the normal operating range.
7/12/2020	7:00	11:00	4:00	Normal	8.26	9.5	CO spikes occurred after the operator charged waste into the incinerator.	The operator reduced his feed rate until the CO levels returned to the normal operating range.
7/16/2020	6:00	10:00	4:00	Normal	8.08	9.3	CO spikes occurred after the operator charged waste into the incinerator.	The operator reduced his feed rate until the CO levels returned to the normal operating range.
7/16/2020	23:00	4:00	5:00	Normal	103.86	119.9	CO spikes occurred during shut-down of the incinerator.	No waste was fed during this period.

Secondary Chamber Temperature < 1000°C

Date	Start Time	Stop Time	Duration	Op. Mode	Temp. °C	Explanation	Actions Taken
7/1/2020	4:55	6:27	1:32	Normal	991	Machine sat Idle for maintenance	. No waste was fed until the upper chamber temperature returned to the normal operating range.
7/3/2020	14:08	14:43	0:35	Normal	996	Machine sat Idle for maintenance	. No waste was fed until the upper chamber temperature returned to the normal operating range.
7/6/2020	14:58	15:37	0:39	Normal	878	Machine sat Idle for maintenance	. No waste was fed until the upper chamber temperature returned to the normal operating range.
7/11/2020	0:19	7:30	7:11	Normal	901	Machine sat Idle for maintenance	. No waste was fed until the upper chamber temperature returned to the normal operating range.
7/16/2020	23:16	3:36	4:20	Shut-Down	836	Low upper chamber temperatures occurred during shut-down process.	No waste was fed during this period.

Quench pH out of Range (<6.4pH / >10.4pH)



Quench pH out of Range (<6.4pH / >10.4pH)

	Start	Stop		Op.	Quench		Action
Date	Time	Time	Duration	Mode	pH	Explanation	Taken
7/11/2020	3:07	5:57	2:50	Normal	6	Low pH caused by pH probe error.	Maintenance recalibrated the pH probe.

Condenser pH out of range (<6.4pH / >10.4pH)



Condenser pH out of range (<6.4pH / >10.4pH)

	Start	Stop		Op.	Condenser		Action
Date	Time	Time	Duration	Mode	pH	Explanation	Taken
7/11/2020	1:36	5:04	3:28	Normal	4.8	Low pH caused by pH probe error.	Maintenance recalibrated the pH probe.

Atomizer pH out of Range (<6.4pH / > 10.4pH)



Atomizer pH out of Range (<6.4pH / > 10.4pH)

[illegible]

Differential from Demister < 10 C



Differential from Demister < 10°C

	Start	Stop		Op.	Differential Temp		Actions
Date	Time	Time	Duration	Mode	Outlet °C	Explanation	Taken
7/8/2020	4:32	6:53	2:21	Normal	9.9	Low differential teamperatures caused by high lower chamber temperatures transferring heat through the APC system.	Maintenance monitored until the differential temperature returned to the normal operating range.



August 2020 Incineration Averages

TheDate		OX6min	COmin	NOXmin	PrimTemp°C	SecTemp°C	SNCR	DemTemp°C	CarbTemp°C	DiffTemp°C	IDFanTemp°C	QuenchPH	CondPH	AtomPH	AtomA	AtomB	HEPADP	OpMode
8/1/2020	Average	20.10	0.02	-5.11	186	204	8.01	50	34	-16	32	8.7	8.6	8.9	0.1	0.0	0.0	OFF/START-UP
	Min	20.00	0.00	-13.20	27	28	7.90	50	34	-16	32	8.7	8.6	8.9	0.1	0.0	0.0	
	Max	20.40	2.20	5.50	521	755	8.10	50	34	-16	32	8.7	8.6	8.9	0.1	0.0	0.0	
8/2/2020	Average	20.00	0.00	-10.41	604.54	373.78	7.73	46.29	33.80	-12.49	29.75	8.61	8.34	8.64	0.10	0.00	0.00	START-UP
	Min	20.00	0.00	-14.30	520.91	324.57	6.50	36.13	31.96	-15.56	22.94	6.15	5.69	5.87	0.09	0.00	0.00	
	Max	20.00	1.10	-5.50	651.64	672.76	8.20	50.00	34.44	-3.96	32.22	8.73	8.60	8.90	0.10	0.00	0.00	
8/3/2020	Average	11.84	7.38	42.45	809.38	985.01	7.12	34.88	50.85	15.97	42.25	3.26	3.99	5.66	38.05	41.50	0.48	START-UP/NORMAL
	Min	0.00	0.00	-11.00	-17.78	-17.78	0.00	-17.78	-17.78	-27.18	-17.78	0.00	0.00	0.00	0.00	0.00	0.00	
	Max	20.00	460.00	116.91	932.22	1034.04	7.30	56.58	51.80	17.85	46.42	8.14	8.09	8.20	41.73	45.88	1.00	
8/4/2020	Average	11.81	3.00	60.83	932.50	1015.89	7.17	33.31	51.51	18.19	45.59	4.68	4.41	5.86	41.71	45.32	0.29	NORMAL(ON)
	Min	8.51	0.00	27.09	812.56	963.47	6.92	30.57	51.16	15.61	43.79	1.07	2.35	3.77	41.18	42.98	0.00	
	Max	14.40	682.95	199.21	1022.28	1083.00	7.33	35.98	51.78	20.89	46.97	8.24	6.30	6.63	44.45	45.78	1.00	
8/5/2020	Average	11.50	2.76	95.66	1012.33	1028.70	6.64	32.84	51.08	18.24	44.64	7.79	6.24	6.37	42.48	41.05	0.80	NORMAL(ON)
	Min	8.94	0.00	38.39	952.41	990.39	6.59	28.74	50.87	15.95	42.06	7.38	5.32	6.21	40.99	35.16	0.00	
	Max	14.18	481.04	364.31	1049.40	1070.90	6.92	35.16	51.26	22.34	46.43	8.19	6.97	6.53	43.94	42.97	1.00	
8/6/2020	Average	13.14	0.81	71.56	939.95	930.04	6.64	33.23	50.21	16.98	42.43	7.77	6.92	6.52	38.92	39.26	0.54	NORMAL/SHUT-DOWN/OFF
	Min	9.15	0.00	0.00	561.75	334.62	6.59	27.89	34.86	-2.38	23.05	7.43	6.69	6.38	0.10	0.00	0.00	
	Max	20.37	127.37	283.55	1053.37	1071.89	6.78	40.11	51.83	23.28	47.15	8.21	8.16	7.09	43.96	44.23	1.00	
8/7/2020	Average	20.22	0.05	-1.29	283.52	133.56	6.78	37.74	30.38	-7.36	24.07	8.55	8.12	6.24	0.09	0.00	0.00	OFF
	Min	20.00	0.00	-13.20	129.48	54.48	6.41	33.66	26.94	-11.04	17.92	8.21	8.00	6.10	0.06	0.00	0.00	
	Max	20.41	3.30	0.00	561.00	334.29	7.29	43.75	34.81	-2.38	29.03	8.60	8.22	6.64	0.10	0.00	0.00	
8/8/2020	Average	15.58	1.68	27.06	365.08	592.37	7.05	34.94	43.74	8.80	35.66	7.86	7.35	6.48	25.90	25.31	0.58	OFF/START-UP
	Min	0.00	0.00	0.00	-17.78	-17.78	0.00	-17.78	-17.78	-12.95	-17.78	0.00	0.00	0.00	0.00	0.00	0.00	
	Max	20.42	96.78	47.83	656.29	1020.44	7.50	45.30	51.52	22.90	46.13	8.70	8.20	7.20	42.09	41.83	1.00	
8/9/2020	Average	11.53	1.03	64.25	888.46	1024.52	7.29	33.73	51.80	18.07	46.82	6.94	6.73	6.54	42.48	42.60	0.81	NORMAL(ON)
	Min	8.29	0.00	0.00	656.53	995.46	6.73	31.68	51.18	16.04	45.43	6.23	6.52	6.42	41.85	41.31	0.00	
	Max	14.09	425.45	168.89	1004.57	1051.80	7.74	36.13	52.31	19.54	48.71	8.15	7.02	6.70	42.58	42.73	1.00	
8/10/2020	Average	11.40	1.75	88.42	971.53	1034.93	7.61	37.05	51.87	14.82	48.10	6.31	6.29	6.28	41.77	42.16	0.87	START-UP/NORMAL
	Min	8.56	0.00	26.52	866.35	1017.80	7.37	31.70	51.26	8.55	44.09	4.72	4.51	5.19	41.43	41.85	0.00	
	Max	14.17	496.15	277.20	1014.06	1063.46	7.73	42.80	52.31	19.95	52.00	7.52	6.67	6.61	42.35	42.46	1.00	
8/11/2020	Average	11.56	1.96	76.57	987.17	1034.65	7.30	34.11	51.68	17.57	46.69	7.18	7.23	7.04	41.56	42.10	0.92	NORMAL(ON)
	Min	9.17	0.00	30.64	936.53	1017.72	6.65	30.17	50.93	13.14	44.01	4.42	6.35	6.24	39.78	41.94	0.00	
	Max	14.35	547.11	204.31	1049.18	1069.64	7.51	38.60	52.10	21.44	49.97	8.48	8.08	8.20	42.62	42.27	1.00	
8/12/2020	Average	12.11	6.44	90.67	1042.26	1037.47	6.80	35.45	51.18	15.73	46.61	8.34	7.86	7.41	40.27	42.16	1.00	NORMAL(ON)
	Min	8.40	0.00	16.45	936.53	1017.72	6.59	27.33	50.77	9.38	41.56	4.42	6.35	6.24	39.60	41.90	0.00	
	Max	14.98	547.11	370.20	1088.93	1081.77	7.51	41.95	52.10	23.51	50.51	8.64	8.23	8.30	42.62	42.56	1.00	
8/13/2020	Average	12.22	5.21	60.93	963.56	1031.54	7.00	36.42	51.66	15.24	46.56	8.56	7.63	6.83	40.63	42.11	1.00	NORMAL(ON)
	Min	8.40	0.00	16.45	730.81	1017.16	6.59	27.33	50.77	8.55	41.56	4.42	6.35	6.24	39.60	41.90	0.00	
	Max	15.06	688.96	370.20	1088.93	1081.77	7.51	43.25	52.10	23.51	51.33	9.04	8.40	8.30	42.62	42.56	1.00	
8/14/2020	Average	12.06	5.54	58.08	1037.13	1032.18	6.84	38.98	51.83	12.85	47.18	9.05	7.64	6.81	40.39	41.87	1.00	NORMAL(ON)
	Min	9.42	0.62	24.17	939.17	1017.30	6.70	34.44	51.26	7.86	43.70	8.98	7.28	6.76	39.73	41.51	1.00	
	Max	15.42	609.25	225.18	1090.92	1066.93	6.98	43.51	52.20	17.51	50.12	9.11	8.08	6.87	41.61	42.27	1.00	
8/15/2020	Average	12.18	2.85	70.68	926.81	1032.83	7.01	38.32	51.95	13.63	47.00	8.15	7.18	6.72	41.17	41.21	1.00	NORMAL(ON)
	Min	9.77	0.00	26.70	810.15	1012.80	6.60	35.03	51.54	7.94	44.45	6.89	6.90	6.64	40.93	40.83	1.00	
	Max	16.10	498.46	249.21	1078.38	1066.61	7.51	43.86	52.29	16.99	50.75	9.00	7.44	6.87	41.58	41.55	1.00	
8/16/2020	Average	11.68	5.99	87.14	973.41	1039.64	7.21	39.24	51.88	12.63	46.69	6.75	7.07	6.69	40.99	40.81	1.00	NORMAL(ON)
	Min	10.16	0.00	19.84	926.06	1017.80	6.91	34.81	51.42	9.44	44.94	6.60	6.84	6.64	40.80	40.60	1.00	
	Max	13.47	588.69	413.32	1022.31	1080.66	7.54	42.28	52.26	16.98	48.94	6.95	7.28	6.73	41.19	40.91	1.00	
8/17/2020	Average	12.36	5.84	46.41	1005.34	1033.36	6.85	35.52	51.55	16.03	45.38	6.63	7.20	6.67	43.01	41.97	1.23	NORMAL(ON)
	Min	9.98	0.81	17.73	865.49	1017.01	6.60	30.25	51.20	8.50	42.41	5.77	6.85	6.43	41.04	40.52	1.00	
	Max	14.99	525.69	168.85	1070.78	1084.62	7.09	43.27	51.87	21.00	51.10	7.21	7.50	6.85	45.54	43.99	2.00	
8/18/2020	Average	12.32	4.97	61.02	963.22	1030.24	6.64	32.14	51.20	19.05	44.53	7.67	7.22	6.65	41.88	42.36	1.24	NORMAL(ON)
	Min	9.13	0.32	24.11	824.50	1016.64	6.59	30.23	50.83	15.04	42.55	5.52	6.76	6.45	40.88	41.10	1.00	
	Max	14.95	576.86	227.10	1039.46	1093.24	6.79	36.04	51.62	21.15	47.35	9.68	9.02	6.78	42.49	43.07	2.00	

August 2020 Incineration Averages

TheDate		OX6min	COmin	NOXmin	PrimTemp°C	SecTemp°C	SNCR	DemTemp°C	CarbTemp°C	DiffTemp°C	IDFanTemp°C	QuenchPH	CondPH	AtomPH	AtomA	AtomB	HEPADP	OpMode
8/19/2020	Average	12.27	2.78	76.56	1040.86	1035.99	6.60	33.60	51.02	17.42	44.32	7.64	6.86	6.72	41.64	41.87	1.88	NORMAL(ON)
	Min	10.96	0.47	24.78	1017.82	1017.47	6.59	31.21	50.75	15.33	42.56	7.24	6.56	6.65	41.41	41.57	1.00	
	Max	14.48	244.13	252.11	1065.06	1076.13	6.62	35.67	51.21	19.70	45.62	8.24	7.30	6.84	41.78	42.17	2.00	
8/20/2020	Average	12.14	6.78	91.32	1015.36	1041.07	6.78	34.36	51.18	16.83	45.12	7.53	6.76	6.69	41.79	41.85	1.98	NORMAL(ON)
	Min	9.46	0.00	15.47	981.55	1017.52	6.59	29.61	50.28	13.38	42.20	5.94	6.57	6.49	41.60	41.56	1.00	
	Max	15.50	665.93	342.65	1046.30	1074.47	7.12	37.94	51.62	21.66	48.43	8.70	6.99	6.81	41.93	42.02	3.00	
8/21/2020	Average	12.40	6.95	66.13	999.03	1033.74	7.04	34.08	51.46	17.38	45.68	8.35	6.79	6.79	41.82	42.24	2.05	NORMAL(ON)
	Min	9.91	1.13	25.01	871.24	1016.56	6.60	27.11	50.98	12.93	40.77	7.80	6.65	6.68	41.61	41.93	1.00	
	Max	14.79	708.69	245.57	1047.71	1107.06	7.43	38.97	52.00	24.05	48.93	8.89	6.94	6.95	42.03	42.51	3.00	
8/22/2020	Average	12.37	4.71	66.87	973.87	1028.07	7.25	33.62	51.66	18.03	46.64	8.40	6.98	6.69	41.84	42.28	2.20	NORMAL(ON)
	Min	9.98	1.75	26.50	771.35	991.32	6.98	30.53	51.43	14.12	44.31	7.77	6.60	6.45	41.58	41.97	2.00	
	Max	15.32	599.86	201.96	1056.20	1059.34	7.55	37.66	52.01	21.14	47.95	8.90	7.51	6.90	42.05	42.68	3.00	
8/23/2020	Average	11.98	4.11	85.77	1015.15	1034.38	7.33	36.72	51.36	14.64	42.29	8.30	6.69	6.71	41.61	41.97	1.09	NORMAL
	Min	9.74	1.60	26.26	955.32	1016.89	7.00	32.68	51.00	10.82	39.81	7.68	6.57	6.49	41.49	41.76	0.00	
	Max	15.36	55.96	290.19	1056.34	1070.84	7.56	40.63	51.64	18.72	47.00	8.86	6.92	6.87	41.81	42.23	3.00	
8/24/2020	Average	11.76	4.82	90.96	975.55	1040.83	7.43	37.83	51.57	13.74	44.35	7.68	6.79	6.76	41.72	41.94	0.94	NORMAL
	Min	9.75	1.89	27.90	904.56	1017.60	7.24	34.10	51.19	8.94	40.62	7.24	6.50	6.70	41.53	41.70	0.00	
	Max	13.30	512.81	281.59	1024.69	1121.47	7.67	42.29	52.06	17.32	48.28	8.84	7.19	6.82	41.90	42.17	1.00	
8/25/2020	Average	11.96	7.03	59.47	939.38	1033.15	7.18	35.75	51.41	15.67	44.86	7.48	6.81	6.80	41.60	41.95	0.92	NORMAL
	Min	9.71	1.86	20.87	802.75	989.28	6.75	30.83	50.83	10.68	42.26	7.30	6.69	6.70	41.39	41.60	0.00	
	Max	15.18	443.47	228.45	1020.95	1082.40	7.67	40.61	51.87	20.00	48.18	7.77	7.05	6.89	41.76	42.46	1.00	
8/26/2020	Average	11.70	7.38	55.28	971.30	1034.26	6.75	33.27	51.14	17.87	43.30	7.59	6.81	6.76	41.54	41.49	1.00	NORMAL
	Min	9.79	2.32	17.97	839.34	1016.31	6.59	29.13	50.82	12.97	40.72	7.34	6.70	6.65	41.37	41.36	1.00	
	Max	14.68	606.32	187.63	1059.64	1071.66	7.03	38.24	51.58	21.77	46.58	7.91	7.04	6.89	41.67	41.72	1.00	
8/27/2020	Average	11.77	5.41	63.12	916.17	1031.85	7.33	34.34	51.71	17.37	45.21	7.45	6.75	6.78	41.56	41.38	1.00	NORMAL
	Min	8.91	0.00	20.79	709.18	1008.74	7.00	30.20	51.20	11.76	42.36	7.20	6.54	6.67	41.41	41.05	1.00	
	Max	16.31	606.32	220.00	1059.64	1085.60	7.69	40.14	52.12	21.77	48.96	7.91	7.11	6.90	41.75	41.72	1.00	
8/28/2020	Average	12.04	4.72	106.87	1005.97	1040.62	6.97	34.76	51.51	16.76	44.97	7.53	6.56	6.74	41.56	41.04	1.09	NORMAL
	Min	10.53	0.90	28.70	963.22	1016.30	6.82	31.41	51.29	13.28	42.20	7.15	6.50	6.65	41.41	40.90	1.00	
	Max	14.54	606.32	334.98	1059.64	1085.60	7.69	40.14	52.12	21.77	48.96	8.32	7.11	6.90	41.75	41.72	2.00	
8/29/2020	Average	11.81	3.38	75.77	908.40	1029.28	7.05	32.14	51.69	19.55	44.04	7.49	6.69	6.75	41.63	40.98	1.00	NORMAL
	Min	9.61	0.42	21.91	819.59	1015.97	6.59	28.12	51.18	14.66	41.41	7.16	6.51	6.49	41.49	40.84	1.00	
	Max	14.46	285.30	354.11	988.33	1079.08	7.44	37.31	52.29	23.07	48.02	8.11	6.97	6.89	41.82	41.17	1.00	
8/30/2020	Average	12.26	6.50	65.58	979.43	1040.34	6.61	31.48	51.14	19.66	43.89	7.28	6.68	6.77	41.73	41.03	1.45	NORMAL
	Min	9.86	1.19	17.82	851.25	1015.06	6.59	27.29	50.67	14.76	40.07	7.13	6.60	6.69	41.67	40.90	1.00	
	Max	14.85	581.24	194.63	1021.02	1125.40	6.65	36.67	51.53	23.63	47.55	7.46	6.79	6.89	41.83	41.15	2.00	
8/31/2020	Average	12.27	6.24	71.64	985.31	1039.20	6.75	32.61	51.35	18.73	44.71	7.55	6.79	6.70	41.69	41.10	1.86	NORMAL
	Min	9.93	0.84	19.25	851.45	1015.98	6.59	28.47	50.97	14.58	41.34	7.34	6.70	6.33	41.61	40.77	1.00	
	Max	14.65	439.25	184.38	1043.35	1077.12	7.00	36.96	51.84	22.58	47.35	7.93	6.88	6.88	41.80	41.33	3.00	



August 2020 Incineration Feed Data

TheDate	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DailySum	Monthly Sum	
01-Aug-20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	208594.50
02-Aug-20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
03-Aug-20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	38.90	38.90	
04-Aug-20	0.00	371.10	337.00	400.90	376.40	0.00	231.00	0.00	0.00	0.00	246.00	367.50	272.80	298.60	326.70	538.40	451.40	485.40	515.20	357.60	87.00	80.50	297.50	119.00	6160.00	9127.30	
05-Aug-20	331.80	434.70	433.00	240.50	611.10	524.40	330.20	454.00	460.40	458.10	451.10	450.40	465.80	457.00	441.70	493.90	477.20	507.00	477.40	0.00	0.00	0.00	422.20	205.40	6968.80	9127.30	
06-Aug-20	643.80	468.50	451.20	487.30	463.40	439.20	306.30	441.50	566.20	459.20	442.70	441.70	444.80	455.80	457.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6968.80	
07-Aug-20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
08-Aug-20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
09-Aug-20	0.00	0.00	0.00	408.50	162.20	56.40	0.00	499.30	510.00	443.50	466.60	449.40	469.30	453.80	480.80	509.70	498.80	451.30	529.60	0.00	0.00	0.00	0.00	228.20	6617.40	8529.10	
10-Aug-20	0.00	476.00	463.50	440.20	483.10	538.20	241.20	468.00	470.90	447.00	471.20	507.00	520.90	459.60	307.70	503.90	502.00	475.40	414.80	0.00	0.00	273.50	65.00	0.00	8529.10		
11-Aug-20	0.00	470.20	442.20	454.00	0.00	431.60	161.80	189.00	382.60	310.70	0.00	442.90	450.60	450.30	477.90	441.40	448.60	452.60	227.70	467.20	478.30	362.70	448.30	504.70	8495.30		
12-Aug-20	0.00	391.60	185.10	320.60	599.90	234.90	362.40	430.20	479.20	91.90	0.00	257.60	441.60	463.80	511.60	510.50	72.70	503.20	373.60	509.30	434.80	395.60	90.80	0.00	7660.90		
13-Aug-20	0.00	0.00	0.00	320.70	569.80	0.00	354.70	503.70	503.80	500.10	502.30	0.00	492.80	520.80	570.20	511.00	152.30	590.20	444.90	125.30	125.40	367.40	57.40	0.00	7212.80		
14-Aug-20	0.00	352.60	452.20	405.20	423.00	443.80	311.80	523.20	487.80	518.00	130.70	0.00	0.00	505.60	523.60	488.30	522.50	464.40	511.40	242.80	511.00	271.20	119.00	0.00	8208.10		
15-Aug-20	0.00	0.00	263.20	144.40	0.00	0.00	84.20	494.70	523.10	511.80	505.00	502.90	506.10	505.50	495.00	501.70	498.00	423.60	225.00	432.90	568.90	508.90	67.20	512.40	8274.50		
16-Aug-20	0.00	509.50	37.40	506.80	543.00	10.60	541.00	485.80	520.00	492.40	499.40	491.90	485.10	482.80	496.50	494.30	490.10	497.80	175.40	510.00	516.80	509.90	0.00	77.00	9373.50		
17-Aug-20	0.00	293.60	0.00	0.00	0.00	105.80	663.30	356.30	496.70	495.20	462.40	104.80	254.80	509.40	493.40	494.20	498.90	438.90	0.00	0.00	34.40	502.40	0.00	0.00	6204.50		
18-Aug-20	0.00	516.30	0.00	506.80	0.00	0.00	0.00	499.70	65.70	271.50	502.20	150.50	509.70	539.50	504.70	500.60	505.30	505.30	507.20	0.00	0.00	0.00	256.40	101.60	6443.00		
19-Aug-20	0.00	434.60	436.10	440.50	460.90	493.00	229.80	505.90	517.10	511.10	519.30	514.80	507.60	521.00	505.30	536.10	456.40	244.70	431.80	502.60	503.90	292.30	0.00	0.00	9564.80		
20-Aug-20	0.00	77.10	605.60	565.40	553.10	597.60	232.40	503.20	502.00	500.20	504.40	502.50	478.20	0.00	506.20	499.80	501.80	498.30	216.20	501.80	512.10	377.50	276.00	436.70	9948.10		
21-Aug-20	0.00	536.00	23.50	165.50	0.00	0.00	0.00	0.00	499.50	0.00	214.00	498.80	510.00	499.60	495.30	495.00	497.00	501.60	254.30	400.70	451.80	509.80	262.50	506.90	7321.80		
22-Aug-20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	524.40	543.50	375.90	536.60	503.70	501.80	515.60	451.10	532.40	535.00	455.80	509.90	500.80	501.90	500.50	415.40	0.00	7904.30		
23-Aug-20	0.00	39.80	169.50	560.30	508.80	0.00	418.90	529.60	503.30	512.80	511.70	523.30	524.00	510.00	371.40	529.90	486.60	450.50	518.50	505.20	501.90	422.80	408.10	113.50	9620.40		
24-Aug-20	0.00	431.40	403.40	614.30	429.00	433.20	257.40	519.60	527.20	505.80	507.80	512.80	269.90	202.70	475.00	503.40	471.20	516.80	423.70	65.20	423.20	566.90	223.50	108.30	9391.70		
25-Aug-20	0.00	405.00	0.00	0.00	0.00	0.00	476.90	411.50	494.50	544.80	483.20	497.50	492.80	504.00	404.00	303.60	508.60	463.60	46.40	526.30	505.70	506.90	0.00	0.00	7575.30		
26-Aug-20	0.00	506.60	165.80	519.40	507.20	529.60	0.00	492.00	499.40	506.20	500.60	499.50	494.20	503.70	497.70	500.40	500.00	502.40	106.80	502.60	506.20	278.10	71.90	0.00	9190.30		
27-Aug-20	0.00	0.00	0.00	0.00	512.00	0.00	502.50	504.80	370.80	524.90	512.20	477.00	205.80	502.90	504.00	519.20	513.30	510.10	526.50	0.00	0.00	509.00	405.50	129.20	7729.70		
28-Aug-20	0.00	626.60	446.20	465.20	433.00	450.10	250.20	524.60	503.40	501.50	502.90	506.70	505.40	209.00	503.50	500.30	356.90	373.90	430.90	501.00	412.60	16.70	0.00	0.00	9020.60		
29-Aug-20	0.00	291.20	0.00	0.00	0.00	607.20	308.20	480.30	490.40	495.20	497.40	491.40	493.20	492.70	0.00	0.00	0.00	496.40	213.70	507.20	502.80	0.00	514.50	0.00	6881.80		
30-Aug-20	0.00	0.00	422.80	0.00	0.00	124.40	202.00	485.00	472.50	481.00	483.00	462.00	514.00	530.00	489.00	513.00	483.00	487.00	177.00	353.00	206.00	0.00	201.40	507.60	7593.70		
31-Aug-20	0.00	506.80	0.00	151.70	501.30	259.80	91.00	413.80	494.20	477.80	487.30	498.70	493.40	508.00	509.20	504.80	490.70	502.60	216.00	371.50	0.00	0.00	0.00	59.30	7537.90		

Carbon Monoxide > 8ppm 4 hour alarm



Carbon Monoxide > 8ppm 4 hour alarm

	Start	Stop		Op.	Stack CO	Stack CO		Actions
Date	Time	Time	Duration	Mode	@ 11% O ₂	as mg/m ³	Explanation	Taken
8/12/2020	20:00	3:00	7:00	Normal	9.14	10.5	Large CO spikes after a load waste charged into the incinerator caused a high 4 hour average.	The operator reduced his feed rate until the CO levels returned to the normal operating range.
8/13/2020	14:00	18:00	4:00	Normal	9.02	10.4	CO spikes occurred after the operator charged waste into the incinerator.	The operator reduced his feed rate until the CO levels returned to the normal operating range.
8/16/2020	18:00	22:00	4:00	Normal	8.72	10.1	CO spikes occurred after the operator charged waste into the incinerator.	The operator reduced his feed rate until the CO levels returned to the normal operating range.
8/17/2020	12:00	16:00	4:00	Normal	8.28	9.6	CO spikes occurred after the operator charged waste into the incinerator.	The operator reduced his feed rate until the CO levels returned to the normal operating range.
8/18/2020	2:00	6:00	4:00	Normal	9.56	11.0	CO spikes occurred after the operator charged waste into the incinerator.	The operator reduced his feed rate until the CO levels returned to the normal operating range.
8/18/2020	13:00	17:00	4:00	Normal	8.6	9.9	CO spikes occurred after the operator charged waste into the incinerator.	The operator reduced his feed rate until the CO levels returned to the normal operating range.
8/20/2020	2:00	6:00	4:00	Normal	8.45	9.8	CO spikes occurred after the operator charged waste into the incinerator.	The operator reduced his feed rate until the CO levels returned to the normal operating range.
8/20/2020	7:00	11:00	4:00	Normal	8.32	9.6	CO spikes occurred after the operator charged waste into the incinerator.	The operator reduced his feed rate until the CO levels returned to the normal operating range.

Carbon Monoxide > 8ppm 4 hour alarm

8/20/2020	22:00	11:00	13:00	Normal	8.06	9.3	Waste buildup/piles due to feeding issues.	The operator reduced his feed rate until the CO levels returned to the normal operating range. Continued new operator training
8/21/2020	20:00	5:00	9:00	Normal	8.02	9.3	Waste buildup/piles due to feeding issues.	The operator reduced his feed rate until the CO levels returned to the normal operating range. Continued new operator training
8/25/2020	13:00	2:00	13:00	Normal	8.18	9.4	Waste buildup/piles due to feeding issues.	The operator reduced his feed rate until the CO levels returned to the normal operating range. Continued new operator training
8/26/2020	18:00	5:00	11:00	Normal	8.43	9.7	Waste buildup/piles due to feeding issues.	The operator reduced his feed rate until the CO levels returned to the normal operating range. Continued new operator training
8/30/2020	4:30	10:30	6:00	Normal	8.13	9.4	CO spikes occurred after the operator charged waste into the incinerator.	The operator reduced his feed rate until the CO levels returned to the normal operating range.

Carbon Monoxide > 8ppm 12 hour alarm



Carbon Monoxide > 8ppm 12 hour alarm

	Start	Stop		Op.	Stack CO	Stack CO		Actions
Date	Time	Time	Duration	Mode	@ 11% O2	as mg/m ³	Explanation	Taken
8/12/2020	22:00	2:00	4:00	Normal	8.2	9.5	High CO levels were the result of using the internal rams to knock over piles of waste that had built up in the lower chamber.	No waste was fed during this period.
8/21/2020	3:00	12:00	9:00	Normal	8.07	9.3	Waste buildup/piles due to feeding issues.	The operator reduced his feed rate until the CO levels returned to the normal operating range. Continued new operator training
8/25/2020	21:00	2:00	5:00	Normal	8.59	9.9	Waste buildup/piles due to feeding issues.	The operator reduced his feed rate until the CO levels returned to the normal operating range. Continued new operator training
8/26/2020	22:00	4:00	6:00	Normal	8.74	10.1	Waste buildup/piles due to feeding issues.	The operator reduced his feed rate until the CO levels returned to the normal operating range. Continued new operator training
8/31/2020	21:00	22:00	1:00	Normal	8.06	9.3	Waste buildup/piles due to feeding issues.	The operator reduced his feed rate until the CO levels returned to the normal operating range. Continued new operator training

Oxides of Nitrogen > 98ppm 24 hr average

	Start	Stop		Op.	Stack NOx	Stack NOx		Actions
Date	Time	Time	Duration	Mode	@ 11% O2	as mg/m ³	Explanation	Taken
8/16/2020	15:00	16:00	1:00	Normal	98.32	177.0	SNCR System issues	Operator stopped feeding and maintenance tech attempted to resolve the issue.
8/28/2020	21:00	5:00	8:00	Normal	104.08	187.3	SNCR System issues	Operator stopped feeding and maintenance tech attempted to resolve the issue.
8/29/2020	14:00	18:00	4:00	Normal	101.2	182.2	SNCR System issues	Operator stopped feeding and maintenance tech attempted to resolve the issue.

Quench pH out of Range (<6.4pH / >10.4pH)



Quench pH out of Range (<6.4pH / >10.4pH)

	Start	Stop		Op.	Quench		Action
Date	Time	Time	Duration	Mode	pH	Explanation	Taken
8/11/2020	6:28	12:42	6:14	Normal	5.6	Low pH caused by low levels of caustic in the holding tank	The operator reduced his feed rate during this period.
8/17/2020	17:38	20:41	3:03	Normal	6.1	Blockages in delivery system	Maintenance worked on clearing lines
8/18/2020	1:48	6:37	4:49	Normal	6.1	Blockages in delivery system	Maintenance worked on clearing lines

Atomizer pH out of Range (<6.4pH / > 10.4pH)



Atomizer pH out of Range (<6.4pH / > 10.4pH)

[illegible]



September 2020 Incineration Averages

TheDate		OX6min	COmin	NOXmin	PrimTemp°C	SecTemp°C	SNCR	DemTemp°C	CarbTemp°C	DiffTemp°C	IDFanTemp°C	QuenchPH	CondPH	AtomPH	AtomA	AtomB	HEPADP	OpMode
9/1/2020	Average	11.94	4.08	96.26	946.45	1038.65	7.23	35.51	51.64	16.13	45.77	7.90	6.70	6.68	41.59	41.12	2.08	NORMAL
	Min	9.07	0.68	23.10	816.08	1016.80	6.76	29.40	51.19	11.89	41.52	7.35	6.60	5.85	41.49	40.95	1.00	
	Max	14.78	286.17	296.88	1026.15	1073.29	7.49	39.69	52.03	22.14	48.64	8.15	6.80	6.88	41.70	41.27	3.00	
9/2/2020	Average	11.51	5.73	75.92	979.33	1035.07	7.29	33.56	51.86	18.30	39.32	7.69	6.62	6.68	41.59	40.91	0.34	NORMAL
	Min	9.49	0.33	16.07	944.19	1016.64	6.78	30.11	51.47	13.51	36.84	7.42	6.57	5.88	41.42	40.78	0.00	
	Max	14.12	603.26	402.82	1032.65	1062.84	7.55	38.19	52.27	21.44	42.49	7.88	6.70	6.80	41.75	41.18	1.00	
9/3/2020	Average	11.98	5.98	53.18	875.37	1028.27	6.87	32.11	51.43	19.32	40.89	7.90	6.69	6.76	41.64	41.16	0.59	NORMAL
	Min	8.03	1.22	20.33	662.59	998.23	6.60	27.42	50.37	11.86	36.18	7.26	6.58	6.65	41.52	40.80	0.00	
	Max	14.94	579.51	208.06	974.16	1071.99	7.28	39.35	53.70	23.99	47.72	8.64	6.80	6.90	41.97	41.40	1.00	
9/4/2020	Average	12.13	5.43	83.24	933.83	1036.38	6.61	32.89	51.35	18.46	42.28	7.82	6.65	6.59	41.69	41.26	1.00	NORMAL
	Min	7.75	0.00	24.65	867.17	1015.81	6.59	29.30	51.12	13.79	39.43	7.54	6.60	6.17	41.51	41.15	1.00	
	Max	15.09	535.71	353.24	999.67	1077.54	6.82	37.66	51.71	21.85	45.50	8.65	6.80	6.79	41.85	41.38	1.00	
9/5/2020	Average	12.23	5.01	85.58	927.21	1031.03	6.62	32.53	51.54	19.02	44.11	7.73	6.63	6.67	41.67	41.11	1.00	NORMAL
	Min	9.80	1.85	24.75	818.91	998.93	6.59	28.52	51.22	15.50	41.26	7.44	6.59	6.47	41.58	40.95	1.00	
	Max	15.09	535.71	353.24	999.67	1077.54	6.82	37.66	51.88	22.97	46.55	8.65	6.80	6.79	41.85	41.38	1.00	
9/6/2020	Average	12.04	5.74	96.53	979.24	1035.76	6.60	31.89	51.28	19.39	43.39	7.70	6.60	6.66	41.63	41.07	1.10	NORMAL
	Min	10.02	1.46	24.38	909.04	1016.09	6.59	28.65	51.00	16.52	41.65	7.51	6.54	6.54	41.54	40.92	1.00	
	Max	14.55	511.25	366.62	1013.97	1065.24	6.62	34.95	51.52	22.78	45.31	7.92	6.69	6.76	41.78	41.15	2.00	
9/7/2020	Average	11.91	4.82	76.93	968.96	1032.92	6.95	34.47	51.63	17.16	44.77	7.56	6.62	6.67	41.60	41.11	1.01	NORMAL
	Min	10.05	1.31	25.52	903.99	1015.99	6.60	29.09	51.20	11.17	41.75	7.34	6.57	6.55	41.40	40.88	1.00	
	Max	14.74	337.37	279.54	1001.15	1065.46	7.35	40.07	52.04	22.16	47.85	7.90	6.70	6.81	41.73	41.27	2.00	
9/8/2020	Average	12.07	4.99	83.75	985.42	1038.04	6.60	33.13	51.37	18.25	42.75	7.43	6.61	6.67	41.48	40.74	1.29	NORMAL
	Min	10.42	1.50	25.24	971.83	1015.92	6.59	28.99	51.17	11.93	40.23	7.35	6.59	6.48	41.38	40.48	1.00	
	Max	14.33	185.95	225.78	1003.32	1071.92	6.60	39.66	51.61	22.26	46.39	7.54	6.66	6.76	41.58	41.08	2.00	
9/9/2020	Average	12.06	5.71	77.32	954.74	1038.81	6.61	34.63	51.48	16.85	42.66	7.36	6.65	6.67	41.38	40.46	1.63	NORMAL
	Min	10.26	0.94	14.97	894.39	1015.74	6.59	29.84	51.03	12.32	38.98	7.22	6.56	6.55	41.28	40.38	1.00	
	Max	15.02	475.78	227.69	988.60	1069.23	6.67	39.42	51.79	21.55	45.86	7.47	6.70	6.74	41.47	40.61	2.00	
9/10/2020	Average	12.34	5.55	91.55	976.77	1037.35	6.68	34.08	51.09	17.01	43.43	7.50	6.68	6.59	41.44	40.46	1.92	NORMAL
	Min	8.89	1.02	23.62	832.69	1016.01	6.59	28.43	48.33	12.52	39.46	7.28	6.60	6.17	41.35	40.17	1.00	
	Max	17.17	601.28	272.34	1031.12	1067.91	6.86	39.04	51.85	20.60	46.61	8.20	6.86	6.78	41.61	40.63	3.00	
9/11/2020	Average	12.39	5.58	56.44	924.26	1029.33	6.60	31.62	51.04	19.42	38.73	7.29	6.89	6.20	41.88	40.87	0.88	NORMAL
	Min	9.12	1.49	20.96	830.09	1008.28	6.59	28.91	48.66	13.72	35.82	7.20	6.57	5.19	41.38	40.20	0.00	
	Max	15.25	491.11	164.97	1037.60	1075.51	6.61	37.54	51.39	22.07	43.55	7.37	7.18	6.81	42.45	41.19	1.00	
9/12/2020	Average	11.75	4.57	89.15	964.14	1048.07	6.62	35.43	51.45	16.02	43.04	7.24	6.90	6.26	42.30	41.17	1.35	NORMAL
	Min	9.66	1.23	18.37	839.48	1017.76	6.60	30.42	50.99	11.04	40.07	7.17	6.71	5.72	42.19	41.04	1.00	
	Max	13.98	405.19	210.99	1045.47	1102.04	6.79	40.82	51.90	20.75	45.81	7.30	7.04	6.49	42.41	41.27	2.00	
9/13/2020	Average	11.55	5.41	74.33	981.13	1038.24	6.87	34.90	51.79	16.89	43.76	7.11	6.86	5.85	42.32	41.21	1.29	NORMAL
	Min	9.05	1.11	19.13	902.51	1016.52	6.59	27.80	51.30	11.22	39.51	7.08	6.59	4.70	42.21	41.08	1.00	
	Max	14.17	270.24	236.36	1036.04	1082.92	7.25	41.06	52.35	23.82	46.98	7.20	7.35	6.39	42.47	41.31	2.00	
9/14/2020	Average	11.95	5.79	93.59	1019.06	1042.23	6.60	36.88	51.64	14.76	43.56	7.51	7.05	6.15	42.26	41.22	1.86	NORMAL
	Min	10.25	2.09	22.42	979.55	1017.79	6.60	30.41	51.31	10.58	39.76	7.11	6.80	5.12	42.18	41.08	1.00	
	Max	14.51	523.49	235.86	1057.13	1070.97	6.61	41.26	51.89	21.05	47.20	8.29	7.44	6.80	42.40	41.32	2.00	
9/15/2020	Average	12.23	6.35	78.75	1005.86	1034.19	6.60	32.55	51.50	18.94	42.76	7.41	6.97	6.46	42.35	41.34	2.19	NORMAL
	Min	8.91	1.17	21.72	824.66	1015.46	6.59	27.95	51.22	15.15	40.43	7.26	6.60	6.31	42.17	41.05	2.00	
	Max	15.41	720.26	321.30	1071.08	1079.41	6.61	36.43	51.66	23.70	44.81	7.55	7.12	6.80	42.53	41.61	3.00	
9/16/2020	Average	11.71	5.69	54.32	947.11	1028.70	6.61	30.29	51.34	21.05	44.40	7.34	7.04	6.38	42.48	41.54	2.47	NORMAL
	Min	9.13	0.96	22.55	793.22	1012.76	6.59	28.12	51.08	16.64	39.01	7.19	6.77	6.22	42.23	41.37	0.00	
	Max	15.78	518.45	185.21	997.73	1067.53	6.66	34.79	51.62	23.26	47.28	7.69	7.34	6.57	42.67	41.67	4.00	
9/17/2020	Average	12.01	5.32	76.80	978.05	1037.43	6.60	34.94	51.58	16.64	40.94	7.38	6.93	6.35	42.25	41.52	0.96	NORMAL
	Min	8.59	1.78	17.25	839.39	1016.36	6.59	28.88	51.43	11.13	37.18	5.27	6.48	6.16	42.08	41.39	0.00	
	Max	15.03	459.50	288.24	1024.81	1073.84	6.61	40.62	51.86	22.66	44.30	8.21	7.79	6.76	42.40	41.72	1.00	
9/18/2020	Average	12.11	7.13	64.97	981.87	1032.50	6.60	31.95	51.45	19.50	42.52	7.81	6.87	6.81	42.39	41.56	1.00	NORMAL
	Min	9.13	1.94	19.64	864.35	1013.33	6.59	26.83	50.86	13.00	39.09	6.98	6.68	6.76	42.24	41.44	1.00	
	Max	15.15	640.76	233.35	1041.45	1066.90	6.61	38.64	51.70	24.07	47.50	8.44	7.06	6.86	42.53	41.62	1.00	

September 2020 Incineration Averages

September 2020 Incineration Feed Data

TheDate	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	DailySum	Comment
01-Sep-20	0.00	21.50	512.40	507.10	508.70	177.90	364.70	526.30	502.60	501.50	546.20	486.60	515.50	507.70	526.90	504.60	503.70	471.10	509.90	504.70	205.60	526.60	0.00	0.00	9431.80	233896.10
02-Sep-20	0.00	439.60	437.00	340.80	0.00	0.00	349.20	506.80	505.00	502.20	490.80	544.20	526.40	526.40	512.10	439.60	0.00	516.20	523.30	402.80	354.80	302.60	300.00	220.80	8740.60	
03-Sep-20	0.00	36.70	0.00	352.20	0.00	0.00	222.80	0.00	305.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	917.40	
04-Sep-20	508.40	501.80	0.00	0.00	522.60	157.20	393.60	495.30	491.90	495.50	500.50	500.80	499.30	494.50	0.00	501.60	430.20	501.20	204.40	512.70	195.90	4.40	167.80	0.00	8079.60	
05-Sep-20	57.80	0.00	0.00	0.00	524.20	507.90	456.10	502.20	505.30	522.30	495.30	419.70	508.60	526.00	462.40	509.90	501.80	518.60	538.60	0.00	150.70	0.00	0.00	0.00	7707.40	
06-Sep-20	425.40	521.00	518.40	354.00	504.40	311.00	36.10	479.40	530.20	533.40	501.70	513.40	505.20	502.50	514.70	427.70	448.50	525.90	525.40	503.80	503.20	314.40	0.00	0.00	9999.70	
07-Sep-20	500.40	500.60	0.00	0.00	501.40	500.90	348.80	524.40	529.60	503.00	527.00	510.20	499.80	517.90	68.00	516.00	523.80	502.00	504.90	526.20	513.80	400.00	481.10	0.00	9999.80	
08-Sep-20	434.00	451.90	279.00	459.80	0.00	132.60	298.60	511.30	493.70	493.00	497.80	500.30	484.60	507.20	501.30	485.20	459.00	500.50	92.40	522.80	506.20	511.00	510.50	364.80	9997.50	
09-Sep-20	507.40	505.60	509.40	516.90	542.40	516.00	222.80	473.10	0.00	303.90	493.40	503.70	494.60	497.40	494.40	490.20	0.00	509.50	201.00	501.50	505.90	257.60	502.50	402.30	9951.50	
10-Sep-20	504.00	500.80	505.60	531.40	503.70	0.00	508.50	471.80	504.60	506.20	7.00	505.40	541.40	504.30	181.40	148.50	513.40	502.10	522.60	222.40	0.00	0.00	0.00	0.00	8185.10	
11-Sep-20	471.60	249.00	16.20	434.40	488.00	441.40	492.70	0.00	0.00	0.00	509.80	504.70	0.00	0.00	512.40	514.80	514.70	234.90	0.00	0.00	0.00	0.00	0.00	151.20	5535.80	
12-Sep-20	578.10	445.40	455.70	437.20	430.20	435.80	227.90	546.00	496.00	590.00	0.00	508.00	508.00	528.00	495.00	495.00	659.00	219.00	161.00	0.00	502.00	514.00	272.90	238.60	9742.80	
13-Sep-20	391.20	508.40	134.90	507.40	510.40	515.50	0.00	150.00	503.40	515.10	455.40	491.80	503.60	545.80	79.00	0.00	0.00	504.60	208.40	507.40	507.20	552.00	505.50	503.40	9100.40	
14-Sep-20	503.40	512.40	501.10	502.50	499.70	520.80	118.20	499.90	31.50	498.40	495.80	494.20	500.70	498.50	511.70	495.90	496.20	492.40	207.80	503.80	501.90	504.00	0.00	0.00	9890.80	
15-Sep-20	506.90	225.60	503.20	366.40	505.00	259.60	200.90	510.10	503.50	506.60	509.90	502.10	522.40	513.40	509.90	516.40	437.00	0.00	0.00	0.00	0.00	326.50	0.00	19.80	7945.20	
16-Sep-20	536.10	305.00	0.00	454.70	0.00	475.50	0.00	504.40	379.90	0.00	0.00	330.20	503.70	502.70	508.90	514.10	525.80	533.40	534.40	0.00	0.00	557.80	425.40	0.00	7592.00	
17-Sep-20	497.60	443.00	460.20	503.40	464.60	433.40	312.50	0.00	0.00	509.80	504.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4129.00	
18-Sep-20	0.00	0.00	0.00	0.00	0.00	0.00	311.40	491.00	506.50	496.40	498.80	502.50	498.80	492.40	507.40	501.20	498.10	501.40	157.00	0.00	38.20	507.60	0.00	0.00	6508.70	
19-Sep-20	0.00	0.00	0.00	68.80	0.00	141.10	11.00	510.90	511.60	513.40	535.80	520.90	528.40	522.40	526.50	523.60	525.90	523.10	468.40	410.50	0.00	300.60	442.50	0.00	7585.40	
20-Sep-20	324.00	504.30	508.20	251.30	505.90	506.90	0.00	506.60	69.30	0.00	204.70	237.30	514.80	0.00	0.00	0.00	0.00	285.30	343.20	0.00	0.00	337.00	214.50	0.00	5313.30	
21-Sep-20	464.20	445.40	442.80	434.60	666.40	488.60	226.00	519.80	521.70	507.30	506.90	503.30	536.20	517.40	0.00	0.00	331.50	516.50	225.40	0.00	0.00	0.00	0.00	0.00	7854.00	
22-Sep-20	657.90	332.90	616.50	377.80	327.10	635.30	232.60	494.60	472.40	497.20	435.50	501.80	506.00	548.40	449.10	501.60	499.30	448.10	177.40	273.90	507.60	507.00	0.00	0.00	10000.00	
23-Sep-20	0.00	0.00	0.00	508.60	538.30	515.90	514.40	494.60	490.20	489.50	494.40	0.00	366.60	495.70	499.20	500.40	487.80	165.60	350.80	181.40	503.20	502.60	503.40	500.30	9102.90	
24-Sep-20	514.40	0.00	510.60	272.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	501.80	362.50	418.40	2580.30	
25-Sep-20	488.70	439.40	488.80	664.70	437.40	313.60	291.80	502.40	518.00	508.70	670.00	293.00	369.00	515.20	119.60	555.00	509.40	508.90	541.20	269.90	537.80	200.10	0.00	0.00	9742.60	
26-Sep-20	620.50	539.80	578.30	452.80	527.40	509.40	500.40	471.60	472.80	493.60	499.00	502.80	501.00	499.80	0.00	0.00	0.00	0.00	0.00	436.20	503.80	501.80	0.00	507.10	9118.10	
27-Sep-20	503.00	0.00	505.00	507.00	94.20	504.00	0.00	468.80	495.60	499.80	474.20	457.70	380.60	410.20	305.20	226.20	136.80	160.60	0.00	504.80	500.80	0.00	513.40	0.00	7647.90	
28-Sep-20	505.70	0.00	500.20	424.70	522.20	140.50	0.00	138.60	0.00	392.70	406.00	407.20	437.20	418.40	452.20	430.40	435.80	490.40	200.20	503.60	508.30	0.00	529.70	511.30	8355.30	
29-Sep-20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	512.60	521.90	500.40	536.00	146.20	451.90	503.50	508.20	501.60	515.60	517.50	517.80	0.00	0.00	0.00	0.00	210.40	5943.60	
30-Sep-20	507.00	648.00	654.00	607.90	585.30	321.80	85.80	61.50	561.40	605.90	588.80	221.40	567.90	585.80	595.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7197.60	

September 2020 CEM Calibration Data

[illegible]

Carbon Monoxide > 8ppm 4 hour alarm



Carbon Monoxide > 8ppm 4 hour alarm

	Start	Stop		Op.	Stack CO	Stack CO		Actions
Date	Time	Time	Duration	Mode	@ 11% O2	as mg/m ³	Explanation	Taken
9/2/2020	19:00	2:00	7:00	Normal	10.34	11.9	Waste buildup/piles due to feeding issues.	The operator reduced his feed rate until the CO levels returned to the normal operating range. Continued new operator training
9/3/2020	7:00	12:00	5:00	Normal	8.92	10.3	Waste buildup/piles due to feeding issues.	The operator reduced his feed rate until the CO levels returned to the normal operating range. Continued new operator training
9/6/2020	19:00	23:00	4:00	Normal	9.06	10.5	CO spikes occurred after the operator charged waste into the incinerator.	The operator reduced his feed rate until the CO levels returned to the normal operating range.
9/9/2020	19:30	23:30	4:00	Normal	9.17	10.6	CO spikes occurred after the operator charged waste into the incinerator.	The operator reduced his feed rate until the CO levels returned to the normal operating range.
9/11/2020	10:00	14:00	4:00	Normal	9.42	10.9	CO spikes occurred after the operator charged waste into the incinerator.	The operator reduced his feed rate until the CO levels returned to the normal operating range.
9/14/2020	8:00	12:00	4:00	Normal	8.2	9.5	CO spikes occurred after the operator charged waste into the incinerator.	The operator reduced his feed rate until the CO levels returned to the normal operating range.
9/15/2020	7:00	15:00	8:00	Normal	8.41	9.7	Waste buildup/piles due to feeding issues.	The operator reduced his feed rate until the CO levels returned to the normal operating range. Continued new operator training

Carbon Monoxide > 8ppm 4 hour alarm

9/15/2020	22:00	2:00	4:00	Normal	9.08	10.5	Waste buildup/piles due to feeding issues.	The operator reduced his feed rate until the CO levels returned to the normal operating range. Continued new operator training
9/16/2020	8:00	12:00	4:00	Normal	8.98	10.4	CO spikes occurred after the operator charged waste into the incinerator.	The operator reduced his feed rate until the CO levels returned to the normal operating range.
9/17/2020	23:30	3:30	4:00	Normal	8.23	9.5	CO spikes occurred after the operator charged waste into the incinerator.	The operator reduced his feed rate until the CO levels returned to the normal operating range.
9/18/2020	3:30	7:30	4:00	Normal	8.18	9.4	Dirty filters causing flow restrictions in system	The operator reduced his feed rate until the CO levels returned to the normal operating range. Setpoints adjusted to compensate
9/18/2020	15:30	19:30	4:00	Normal	8.57	9.9	Dirty filters causing flow restrictions in system	The operator reduced his feed rate until the CO levels returned to the normal operating range. Setpoints adjusted to compensate
9/18/2020	21:00	2:00	5:00	Normal	8.56	9.9	Dirty filters causing flow restrictions in system	The operator reduced his feed rate until the CO levels returned to the normal operating range. Setpoints adjusted to compensate
9/20/2020	5:30	10:30	5:00	Normal	8.64	10.0	Dirty filters causing flow restrictions in system	The operator reduced his feed rate until the CO levels returned to the normal operating range. Setpoints adjusted to compensate
9/21/2020	17:30	0:00	6:30	Normal	8.49	9.8	Dirty filters causing flow restrictions in system	The operator reduced his feed rate until the CO levels returned to the normal operating range. Setpoints adjusted to compensate

Carbon Monoxide > 8ppm 4 hour alarm

9/24/2020	3:30	7:30	4:00	Normal	9.58	11.1	Dirty filters causing flow restrictions in system	The operator reduced his feed rate until the CO levels returned to the normal operating range. Setpoints adjusted to compensate
9/30/2020	0:30	5:30	5:00	Normal	8.49	9.8	Dirty filters causing flow restrictions in system	The operator reduced his feed rate until the CO levels returned to the normal operating range. Setpoints adjusted to compensate. Machine Shutdown.

Carbon Monoxide > 8ppm 12 hour alarm



Carbon Monoxide > 8ppm 12 hour alarm

	Start	Stop		Op.	Stack CO	Stack CO		Actions
Date	Time	Time	Duration	Mode	@ 11% O2	as mg/m ³	Explanation	Taken
9/15/2020	18:00	19:00	1:00	Normal	8.14	9.4	Piles of waste in incinerator	The operator reduced his feed rate until the CO levels returned to the normal operating range.
9/18/2020	21:00	1:00	4:00	Normal	8.52	9.8	Dirty filters causing flow restrictions.	The operator reduced his feed rate until the CO levels returned to the normal operating range. Adjustments made to compensate
9/21/2020	19:00	21:00	2:00	Normal	8.14	9.4	Dirty filters causing flow restrictions.	The operator reduced his feed rate until the CO levels returned to the normal operating range. Adjustments made to compensate

Oxides of Nitrogen > 98ppm 24 hr average

	Start	Stop		Op.	Stack NOx	Stack NOx		Actions
Date	Time	Time	Duration	Mode	@ 11% O2	as mg/m ³	Explanation	Taken
9/2/2020	3:00	6:00	3:00	Normal	98.9	178.0	SNCR System issues	Operator stopped feeding and maintenance tech attempted to resolve the issue.
9/9/2020	8:00	9:00	1:00	Normal	98.43	177.2	SNCR System issues	Operator stopped feeding and maintenance tech attempted to resolve the issue.
9/26/2020	14:00	19:00	5:00	Normal	99.97	179.9	SNCR System issues	Operator stopped feeding and maintenance tech attempted to resolve the issue.
9/29/2020	0:00	6:00	6:00	Normal	101.01	181.8	SNCR System issues	Operator stopped feeding and maintenance tech attempted to resolve the issue.
9/29/2020	11:00	12:00	1:00	Normal	98.42	177.2	SNCR System issues	Operator stopped feeding and maintenance tech attempted to resolve the issue.

Atomizer pH out of Range (<6.4pH / > 10.4pH)



Atomizer pH out of Range (<6.4pH / > 10.4pH)

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