



Report:

Mercury Emission Testing at the Clean Harbors Sarnia Facility (March 2020)

Date: March 23, 2020



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EXECUTIVE SUMMARY

ORTECH Consulting Inc. (ORTECH) was requested by Clean Harbors Canada Inc. (Clean Harbors) to conduct a mercury emission testing program at the incineration facility located in Corunna, Ontario.

Mercury emission tests were performed at the Incinerator Exhaust Stack following the procedures outlined in US EPA Method 30B, “*Determination of Total Vapour Phase Mercury Emissions from Coal-Fired Combustion Sources Using Carbon Sorbent Traps*” to determine the amount of total vapour phase mercury present in the gas stream.

The test method states that the recovery spike must be within 50 to 150 percent of the expected mass collected in the traps during sampling. Six pairs of tube samples were collected during one day of testing on March 5, 2020. To ensure that at least one of the spike concentrations would fall within the concentration range requirements of the test method one tube from each of the six pairs of adsorbent tubes were spiked with increasing amounts of mercury, ranging from 100 ng to 2600 ng, by the analytical laboratory prior to commencing the test program.

The results of three of the pairs of tubes, including the spike that best represented the mercury concentration in the stack gas at the time of testing, are reported.

The average combustion gas values for each test period were obtained from the plant continuous emission monitoring (CEM) system. The average oxygen concentration for each test was used to determine the dry reference concentration adjusted to 11% oxygen.

The average mercury emission data from the triplicate total vapour phase mercury tests reported is provided below:

Mercury Parameter	Average
Dry Reference Concentration ($\mu\text{g}/\text{Rm}^3$)*	6.66
Dry Adjusted Concentration ($\mu\text{g}/\text{Rm}^3$)**	5.91

* reference conditions are 25°C and 1 atmosphere

** at 25°C and 1 atmosphere, adjusted to 11% oxygen

During the emission testing program, the powdered activated carbon (PAC) injection rate was 25.2 lb/hr.

1. INTRODUCTION

ORTECH Consulting Inc. (ORTECH) was requested by Clean Harbors Canada Inc. (Clean Harbors) to conduct a mercury emission testing program at the incineration facility located in Corunna, Ontario.

Mercury emission tests were performed at the Incinerator Exhaust Stack following the procedures outlined in US EPA Method 30B to determine the amount of total vapour phase mercury present in the gas stream.

The average combustion gas values for each test period were obtained from the plant continuous emission monitoring (CEM) system. The average oxygen concentration for each test was used to determine the dry reference concentration adjusted to 11% oxygen.

Six pairs of adsorbent tubes were collected during one day of sampling on March 5, 2020. The spike tubes from each test pair were spiked with increasing amounts of mercury, ranging from 100 ng to 2600 ng, prior to commencing the test program to ensure that at least one of the spike concentrations would fall within the concentration range requirements of the test method. The test method states that the recovery spike must be within 50 to 150 percent of the expected mass collected in the traps during sampling. The results of three of the pairs of tubes, including the spike that best represented the mercury concentration in the stack gas at the time of testing, are reported.

All tables referenced herein are included in Appendix 1.

2. SAMPLING LOCATION

The Incinerator Exhaust Stack has an inside diameter of 1.52 meters at the sampling platform and 1.22 meters at the stack exit. The stack height above grade is 68.6 meters.

Mercury sampling was conducted at the breeching connecting the induced draft fan to the stack. Sampling was conducted at a single point in the center of the duct.

Previous testing programs conducted by ORTECH at the Clean Harbors Incinerator Exhaust Stack have shown that there is no stack gas stratification between the breeching connecting the induced draft fan to the stack and the stack sampling platform location.

3. SAMPLING METHODOLOGY

Mercury emission tests were performed following the procedures outlined in US EPA Method 30B, “Determination of Total Vapour Phase Mercury Emissions from Coal-Fired Combustion Sources Using Carbon Sorbent Traps”.

ORTECH used a dual probe assembly so that the mercury traps are positioned 1 to 2 inches apart. Each probe was heated to approximately 135°C to prevent condensation of the stack gas on the sampling media. The mercury traps used for sampling are specially designed for use at wet sources; each tube had an extended section of glass to allow for the heating of the stack gas before it came into contact with the sampling media.

The sampling methodology is briefly described as follows. Each sorbent trap was removed from the clean sorbent trap storage container, the end caps were removed from the traps and the traps were attached to the end of the sampling probe and leak checked. The probe was inserted into the stack and the sample pumps were started. Stack gas was drawn through the traps and into the sampling probe and the sampled gas stream then passed through a series of empty impingers followed by a silica gel trap to remove any remaining traces of moisture prior to the pump and dry gas meter.

A run consisted of paired mercury traps, identified as either A or B, sampled simultaneously. In each tube pair one of either the A or B tube was spiked with a known quantity of mercury. Due to the variability in the mercury concentration in the stack gas and the necessity to have the spiked tubes prepared at least two weeks in advance of the testing program, six pairs of tubes were used for the sampling program to ensure that at least one of the spike concentrations would fall within the concentration range requirements of the test method.

Each test run was approximately sixty minutes in duration at an approximate sampling rate of one liter per minute.

Throughout each test, the following information was measured and recorded for each sampling train:

- Elapsed sampling time
- Dry gas meter volume
- Dry gas meter temperatures
- Control module orifice pressure
- Sampling pump vacuum

At the start and finish of each sampling run the sampling trains were leak-checked. The leakage rate for each train must not exceed 4% of the average sampling rate for the collection period. If a trap pair did not have an acceptable initial leak check, the leak was found and repaired and/or the traps were replaced with a new pair until no leak was discernible. All the leak checks performed for the traps used showed no discernible leak through the test train.

Field testing data sheets for the mercury tests are provided in Appendix 2.

All of the sampling equipment used during the emission testing program was calibrated following the applicable reference method. Equipment calibration data is provided in Appendix 3.

4. ANALYSIS METHODOLOGY

At the end of each successful sampling run, the mercury traps were removed from the test train, capped and placed in their appropriate sample container. Each trap was labeled prior to being shipped to Ohio Lumex for analysis.

The traps were analyzed by thermal decomposition with atomic absorption following the procedures detailed in US EPA Method 7473 (direct thermal desorption with atomic absorption and no gold amalgamation). The method is applicable for total mercury “direct” testing of 40 CFR Part 75 Appendix K and EPA Method 30B sorbent traps.

The analysis is briefly described as follows. The sorbent trap tube end cap is removed; the glass wool plug closest to the appropriate carbon bed is carefully removed and separated from the carbon fraction. The sorbent is transferred into a quartz ladle and then covered with anhydrous sodium carbonate. The ladle is inserted into the heated analyzer thermo catalytic conversion chamber. Mercury is converted from a bound state to the atomic state by thermal decomposition in the furnace and is then detected by atomic absorption. The mercury concentration is measured and recorded using an automated data acquisition system. Both the glass wool plug and the sorbent of each bed are analyzed for the trap and the final mercury mass is the sum of the measurements.

The Ohio Lumex analytical report for total vapour phase mercury is provided in Appendix 4.

5. QUALITY ASSURANCE/QUALITY CONTROL PROGRAM

The analysis of samples for mercury was performed by thermal decomposition with atomic absorption. Specific analytical QC procedures for the mercury analysis are summarized below:

- Calibrations are performed on the day of the analysis.
- Three or more calibration points are used for the calibration curve.
- The field samples analyzed must fall within a calibrated range.
- For each calibration curve, $R^2 \geq 0.99$, and the analyzer response must be within $\pm 10\%$ for each standard used in the calibration.
- Following calibration, a second source standard is analyzed. The measured value of the independently prepared standard must be within $\pm 10\%$ of the expected value.
- A blank analysis is conducted prior to analyzing the samples and must be less than the method detection limit.
- At the end of each set of analysis, a calibration standard is tested which must be within $\pm 10\%$ of the expected value.

Six unspiked mercury traps and six pre-spiked mercury traps were ordered approximately two weeks before the field testing program from Ohio Lumex. The pre-spiked mercury traps were spiked with known quantities of mercury ranging from 100 ng to 2600 ng in order to ensure that at least one of the traps met the spiking criterion stated in the test method. The recovery spike must be within 50 to 150 percent of the expected mass collected in the traps during sampling according to the test method. The spiking levels for the field recovery traps was estimated using mercury emission data from previous testing programs conducted between 2014 and January 2019. The pre-spiked mercury trap for Test No. 2 (250 ng) and Test No. 3 (500 ng) were used for spike recovery determination as the concentrations best fit the requirements of the QA/QC criteria. The average mercury collected for Test No. 1, Test No. 2 and Test No. 3 (423 ng) was within $\pm 50\%$ of the Test No. 2 and Test No. 3 spike concentrations.

The field spike recovery provides specific verification of the performance of the combined sampling and analytical approach for the test program. Six sets of paired samples, one of each pair which is spiked with a known quantity of mercury, were collected. The samples were analyzed and the spike concentration for Test No. 2 and Test No. 3 fell within the spike range criterion stated in the test method. The spike recovery for Test No. 2 was 108.3% and the spike recover for Test No. 3 was 107.0%. US EPA Method 30B requires the spike recovery to be between 85% and 115%.

US EPA Method 30B requires the paired sorbent trap agreement to be $\leq 10\%$ relative deviation for mercury concentrations greater than $1 \mu\text{g}/\text{Rm}^3$ or $\leq 20\%$ relative deviation for mercury concentrations less than $1 \mu\text{g}/\text{Rm}^3$. If the paired trap agreement is greater than the above stated limits the run is not valid. All of the traps collected during the test program had concentrations greater than $1 \mu\text{g}/\text{Rm}^3$. The average dry adjusted mercury concentration ranged from a low of $5.77 \mu\text{g}/\text{Rm}^3$ (Tube Pair No. 3) to a high of $5.99 \mu\text{g}/\text{Rm}^3$ (Tube Pair No. 1) for the three tests reported. The paired trap agreement was 1.7% for Test No. 1, 2.2% for Test No. 2, and 4.2% for Test No. 3.

6. RESULTS

Six mercury test runs were collected during one day of sampling on March 5, 2020. A run consisted of paired mercury traps, identified as either A or B, sampled simultaneously. The spike tubes from each test pair were spiked with increasing amounts of mercury, ranging from 100 ng to 2600 ng, prior to commencing the test program to ensure that at least one of the spike concentrations would fall within the concentration range requirements of the test method. The results for Test No. 1, Test No. 2 and Test No. 3 are reported.

The sampling schedule is summarized in Table 1. This information includes test dates and times for each of the mercury test runs performed. All test times match plant time.

Mercury emission sample analyses for Test No. 1, Test No. 2 and Test No. 3 are provided in Table 2. Mercury was detected in Section 1 of each trap in quantities greater than the method detection limit (0.98 ng) in all of the traps. Mercury was also collected in Section 2 in five of the six traps in quantities greater than the method detection limit. However, the amount detected in Section 2 was less than 2.0% of the mercury collected in Section 1 in all traps except Test 1B, indicating that there was no breakthrough or potential loss of mercury. The mercury collected in Section 2 of Trap 1B was 16.1% of the mercury collected in Section 1. However, the dry adjusted concentration for the tube (5.89 $\mu\text{g}/\text{Rm}^3$) was similar to the concentrations calculated for the other eleven traps collected during the test program indicating that mercury was not lost. The average dry adjusted concentration for all of the tests performed ranged from 5.60 $\mu\text{g}/\text{Rm}^3$ (Tube Pair No. 5) to 6.74 $\mu\text{g}/\text{Rm}^3$ (Tube Pair No. 6) for the six tests. US EPA Method 30B recommends that $\leq 10\%$ of the total mercury collected should be collected in Section 2 for mercury concentrations greater than 1 $\mu\text{g}/\text{Rm}^3$ or $\leq 20\%$ of the total mercury collected should be collected in Section 2 for mercury concentrations less than 1 $\mu\text{g}/\text{Rm}^3$.

Included in Table 2 are the mercury concentration calculations for Test No. 1, Test No. 2 and Test No. 3. The average oxygen concentration measured by the Clean Harbors CEM system for each test was used to determine the dry reference concentration adjusted to 11% oxygen.

Six unspiked mercury traps and six pre-spiked mercury traps were ordered approximately two weeks before the field testing program from Ohio Lumex. The pre-spiked mercury traps were spiked with known quantities of mercury ranging from 100 ng to 2600 ng in order to ensure that at least one of the traps met the spiking criterion stated in the test method. The pre-spiked mercury trap for Test No. 2 (250 ng) and Test No. 3 (500 ng) were used for spike recovery determination as the concentrations best fit the requirements of the QA/QC criteria.

US EPA Method 30B states that it is acceptable to use the field recovery runs as test runs for emission testing as long as they meet the paired trap agreement criteria. The mass of the mercury spike initially present in each of the spiked traps was subtracted from the total mercury collected in Section 1 of the trap. The difference represents the amount of mercury in the stack gas.

The paired trap agreement was 1.7% for Test No. 1, 2.2% for Test No. 2, and 4.2% for Test No. 3. The mercury emission data from the total vapour phase mercury tests is provided below:

Mercury Parameter	Test 1	Test 2	Test 3	Average
Dry Reference Conc. ($\mu\text{g}/\text{Rm}^3$)*	6.36	6.92	6.71	6.66
Dry Adjusted Conc. ($\mu\text{g}/\text{Rm}^3$)**	5.99	5.96	5.77	5.91

* reference conditions are 25°C and 1 atmosphere

** at 25°C and 1 atmosphere, adjusted to 11% oxygen

The incinerator exhaust stack mercury concentration limit as stated in Environmental Compliance Approval No. 8-1030-94-006 (formerly Certificate of Approval (Air) No. 8-1030-94-006) is 50 $\mu\text{g}/\text{Rm}^3$ adjusted to 11% oxygen. The mercury concentrations were below this limit during the test program.

The spiked mercury trap recovery calculations are shown in Table 3; the spike recovery for Test No. 2 was 108.3% and the spike recovery for Test No. 3 was 107.0%. US EPA Method 30B requires the spike recovery to be between 85% and 115%.

7. FACILITY PROCESS DATA

Incinerator process data was supplied by Clean Harbors personnel for the emission test periods. The process data is provided in Appendix 5 as average values for each test for the following process parameters:

- incinerator feed rates (rich, lean, emulsion and alkaline streams)
- volumetric flowrates (secondary air and stack gases)
- temperatures (primary zone, secondary zone, spray dryer inlet and outlet, stack gases)
- pressures (burner, spray dryer outlet, baghouse differential)
- combustion gas stack concentrations (O_2 and SO_2)
- stack gas opacity
- carbon injection rate

During the emission testing program, the average powdered activated carbon (PAC) injection rate was 25.2 lb/hr.

APPENDIX 1

**Data Tables
(2 pages)**

Table 1: Mercury Test Schedule

Test Number	Test Date	Sampling Period		Sampling Time
		Start	Finish	min
1	March 5, 2020	9:55	10:55	60
2	March 5, 2020	11:07	12:13	66
3	March 5, 2020	12:25	13:25	60
4	March 5, 2020	13:36	14:36	60
5	March 5, 2020	14:45	15:45	60
6	March 5, 2020	15:55	16:55	60

Note: All test times match plant time.

Table 2: Mercury Emission Data

Test/Run No.	Tube ID	Mercury Collected			Dry Gas Volume Sampled Rm ^{3*}	Mercury Concentration		Paired Trap Agreement %
		Section 1 ng	Section 2 ng	Total ng		Dry Reference µg/Rm ^{3*}	Dry Adjusted µg/Rm ^{3**}	
1	A ***	353.5	9.0	363	0.0560	6.47	6.09	-
	B	319.2	51.5	371	0.0592	6.26	5.89	-
	Average					6.36	5.99	1.7
2	A	482.9	4.2	487	0.0719	6.77	5.83	-
	B***	476.7	3.9	481	0.0679	7.07	6.09	-
	Average					6.92	5.96	2.2
3	A***	425.8	5.3	431	0.0617	6.99	6.02	-
	B	404.7	<0.98	<406	0.0632	6.42	5.53	-
	Average					6.71	5.77	4.2
Average				423		6.66	5.91	

Note: Concentration data is only reported for three tests as required by US EPA Method 30B

* At 25°C and 1 atmosphere

** At 25°C and 1 atmosphere, adjusted to 11% oxygen

*** Spiked tube, mercury collected corrected for the original spike (100 ng for Test No. 1, 250 ng for Test No. 2, and 500 ng for Test No. 3).

Table 3: Mercury Spike Tube Recovery

Test No.	Total Collected	Spike Tube Volume Sampled	Mercury Concentration	Total Collected	Unspike Tube Volume Sampled	Mercury Concentration	Spike Concentration	Spike Recovery
	ng	Rm ^{3*}	ng/Rm ^{3*}	ng	Rm ^{3*}	ng/Rm ^{3*}	ng/Rm ^{3*}	%
1	462.5	0.0560	8258	370.7	0.0592	6257	2001	NA
2	730.6	0.0679	10755	487.1	0.0719	6770	3985	108.3
3	931.1	0.0617	15097	405.7	0.0632	6421	8676	107.0
Average								107.6

Note: The spike tubes were spiked with mercury by the analytical laboratory prior to sampling. The original spike concentrations were 100 ng for Test No. 1, 250 ng for Test No. 2, and 500 ng for Test No. 3.

"NA" Not Applicable. Spike recovery was not calculated as spike concentration was outside the range specified in US EPA Method 30B.

APPENDIX 2

**Mercury Field Data Sheets
(7 pages)**

**Clean Harbors, Sarnia
Mercury Tube Sampling Train
Sample Volume Corrections**

Incinerator Exhaust Stack

Test # - Tube (tube pair field ID)	DGMCF	Initial DGM Reading (L)	Final DGM Reading (L)	Actual Vol. Sampled (L)	Barometric Pressure (in Hg)	Average DGM Pressure del H (in H ₂ O)	Average DGM Temperature (°C)	Corrected Volume (L)*	Corrected Volume (Rm ³)*
T1A OL542339 (Spiked) T1B OL557418	0.994 0.992	7806.20 5613.00	7860.00 5670.10	53.80 57.10	29.5 29.5	1.6 2.4	8.3 9.2	56.01 59.25	0.0560 0.0592
T2A OL557287 T2B OL528922 (Spiked)	0.994 0.992	7861.30 5671.40	7931.20 5737.40	69.90 66.00	29.5 29.5	1.6 2.4	11.4 11.4	71.95 67.93	0.0719 0.0679
T3A OL543830 (Spiked) T3B OL557343	0.994 0.992	7931.60 5738.00	7991.90 5799.80	60.30 61.80	29.4 29.4	1.6 2.4	13.0 13.1	61.67 63.18	0.0617 0.0632
T4A OL557330 T4B OL528813 (Spiked)	0.994 0.992	7992.70 5800.30	8060.00 5862.20	67.30 61.90	29.4 29.4	1.6 2.4	12.9 12.8	68.79 63.30	0.0688 0.0633
T5A OL542288 (Spiked) T5B OL557440	0.994 0.992	8060.60 5863.00	8133.30 5926.30	72.70 63.30	29.4 29.4	1.6 2.4	12.6 12.5	74.30 64.72	0.0743 0.0647
T6A OL557299 T6B OL528970 (Spiked)	0.994 0.992	8133.90 5927.00	8203.70 5991.70	69.80 64.70	29.3 29.3	1.6 2.4	11.3 12.4	71.60 66.10	0.0716 0.0661

* dry at 25°C and 1 atmosphere

**ORTECH Environmental
Mercury Tube Data Sheet**

Plant:	Clean Harbors
Plant Location:	Corunna
Test No.:	1

Test location:	Stack Breeching
Date:	July 3, 2019 → <u>MARCH 5 2020</u>
Project No.:	21993

Train A

Tube Identification:	<u>OL542339</u> <u>S-275-B</u>	Spiked <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Spike Concentration	<u>100</u>	ng

Measuring Device	MII
Control Module	<u>6055</u> <u>COE 2001B</u>
Barometer	ENV. CAN.

Barometric Pressure	<u>29.40</u>
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Clock Time	Dry Gas Meter L	Average Meter Temperature °C	Meter Pressure Δ H "H ₂ O	Pump Vacuum "Hg Gauge
0	<u>7806.2</u>	<u>7</u>	<u>1.6</u>	<u>10</u>
5		<u>7</u>	<u>1.6</u>	<u>10</u>
10		<u>7</u>	<u>1.6</u>	<u>10</u>
15	<u>7817.3</u>	<u>7</u>	<u>1.6</u>	<u>10</u>
20	<u>7820.7</u>	<u>7</u>	<u>1.6</u>	<u>10</u>
25	<u>7825.8</u>	<u>8</u>	<u>1.6</u>	<u>10</u>
30			<u>1.6</u>	<u>10</u>
35	<u>7836.0</u>	<u>9</u>	<u>1.6</u>	<u>10</u>
40	<u>7840.6</u>	<u>10</u>	<u>1.6</u>	<u>10</u>
45	<u>7845.6</u>	<u>10</u>	<u>1.6</u>	<u>10</u>
50				
55		<u>11</u>		
60	<u>7860</u>	<u>11</u>	<u>1.6</u>	<u>10</u>

Start Time:	<u>0955</u>	Initial Leak Check	<u>0.01</u> LPM@ <u>15</u> "Hg	DGMCF:	<u>0.994</u>
Finish Time:	<u>1055</u>	Final Leak Check	<u>0.01</u> LPM@ <u>15</u> "Hg	Sample Volume:	<u>53.8</u>
				Average DGM Temp:	<u>8.2</u>
				Average DGM Δ H:	<u>1.6</u>

Train B

Tube Identification:	<u>OL557418</u> <u>U-ETA</u>	Spiked <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Spike Concentration	<u>---</u>	ng

Measuring Device	MII
Control Module	<u>6052</u> <u>10117</u>

Clock Time	Dry Gas Meter L	Average Meter Temperature °C	Meter Pressure Δ H "H ₂ O	Pump Vacuum "Hg Gauge
0	<u>5613.0</u>	<u>7</u>	<u>2.4</u>	<u>6</u>
5		<u>9</u>	<u>2.4</u>	<u>6</u>
10		<u>9</u>	<u>2.4</u>	<u>6</u>
15	<u>5</u>	<u>9</u>	<u>2.4</u>	<u>6</u>
20	<u>5633.0</u>	<u>10</u>	<u>2.4</u>	<u>6</u>
25	<u>5633.5633.8</u>	<u>10</u>		
30				
35	<u>5646.6</u>	<u>11</u>	<u>2.4</u>	<u>10</u>
40	<u>5650.6</u>	<u>10</u>	<u>2.4</u>	<u>10</u>
45	<u>5655.7</u>	<u>10</u>	<u>2.4</u>	<u>10</u>
50				
55				
60	<u>5670.1</u>	<u>10</u>	<u>2.4</u>	<u>10</u>

Start Time:	<u>0955</u>	Initial Leak Check	<u>0.01</u> LPM@ <u>15</u> "Hg	DGMCF:	<u>0.997</u>
Finish Time:	<u>1055</u>	Final Leak Check	<u>0.01</u> LPM@ <u>15</u> "Hg	Sample Volume:	<u>57.1</u>
				Average DGM Temp:	<u>9.2</u>
				Average DGM Δ H:	<u>2.4</u>

Operator:	<u>JG</u>
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ORTECH Environmental Mercury Tube Data Sheet

Plant:	Clean Harbors
Plant Location:	Corunna
Test No.:	2

Test location:	Stack Breaching
Date:	July 3, 2019 MAR 2019 2020
Project No.:	21993

Train A

Tube Identification:	0455 7287	Spiked	Yes	No
Spike Concentration		ng		

Measuring Device	MII
Control Module	VOST 5
Barometer	CAF 2001B
	ENV. CAN.

Barometric Pressure	29.45
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Clock Time	Dry Gas Meter L	Average Meter Temperature °C	Meter Pressure Δ H "H ₂ O	Pump Vacuum "Hg Gauge
0	7861.3	10	1.6	7
5	7866.7	10	1.6	10
10	78	11	1.6	11
15	7876.6	11	1.6	12
20				
25				
30				
35	7898.4	11	1.6	14
40				
45	7909.0	12	1.6	14
50				
55	7920.3	13	1.6	14
60 65	7931.2	13	1.6	14

Start Time:	1107	Initial Leak Check	0.01 LPM@ 20 "Hg	DGMCF:	0.994
Finish Time:	1213	Final Leak Check	0.01 LPM@ 18 "Hg	Sample Volume:	69.9
				Average DGM Temp:	11.38
				Average DGM Δ H:	1.6

Train B

Tube Identification:	25049 01528927	Spiked	Yes	No
Spike Concentration	250	ng		

Measuring Device	MII
Control Module	VOST 2
	10117

Clock Time	Dry Gas Meter L	Average Meter Temperature °C	Meter Pressure Δ H "H ₂ O	Pump Vacuum "Hg Gauge
0	5671.4	9	2.4	6
5	5676.5	10	2.4	8
10		11	2.4	8
15	5686.0	11	2.4	10
20				
25				
30				
35	5706.5	12	2.4	11
40				
45	5716.9	12	2.4	11
50				
55	5727.1	13	2.4	11
60 65	5737.4	13	2.4	11

Start Time:	1102	Initial Leak Check	0.01 LPM@ 18 "Hg	DGMCF:	0.992
Finish Time:	1213	Final Leak Check	0.01 LPM@ 17 "Hg	Sample Volume:	66
				Average DGM Temp:	11.38
				Average DGM Δ H:	2.4

Operator:	JCF
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ORTECH Environmental Mercury Tube Data Sheet

Plant:	Clean Harbors
Plant Location:	Corunna
Test No.:	3

Test location:	Stack Breeching
Date:	July 3, 2019 - March 6, 2020
Project No.:	21993

Train A

Tube Identification:	04543830	Spiked	<input checked="" type="radio"/> Yes <input type="radio"/> No
Spike Concentration	500	ng	

Measuring Device	MII
Control Module	VOST6 COE 2006B
Barometer	ENV. CAN.

Barometric Pressure	29.43
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Clock Time	Dry Gas Meter L	Average Meter Temperature °C	Meter Pressure Δ H "H ₂ O	Pump Vacuum "Hg Gauge
0	7931.6	13	1.6	6
5	7936.9	13	1.6	9
10				
15				
20	7951.5	13	1.6	11
25				
30	7959.9	13	1.6	11
35				
40	7970.5	13	1.6	13
45				
50	7981.2	13	1.6	13
55				
60	7991.9	13	1.6	13

Start Time:	1225	Initial Leak Check	<.01 LPM@ 18 "Hg	DGMCF:	0.992 0.994
Finish Time:	1325	Final Leak Check	<.01 LPM@ 18 "Hg	Sample Volume:	60.3
				Average DGM Temp:	13
				Average DGM Δ H:	1.6

Train B

Tube Identification:	04557343	Spiked	<input type="radio"/> Yes <input checked="" type="radio"/> No
Spike Concentration	—	ng	

Measuring Device	MII
Control Module	VOST2 10117

Clock Time	Dry Gas Meter L	Average Meter Temperature °C	Meter Pressure Δ H "H ₂ O	Pump Vacuum "Hg Gauge
0	5238.0	12	2.4	7
5	5243.5	13	2.4	9
10				
15				
20	5758.0	14	2.4	12
25				
30	5767.4	14	2.4	12
35				
40	5778.1	13	2.4	13
45				
50	5788.9	13	2.4	13
55				
60	5799.8	13	2.4	13

Start Time:	1225	Initial Leak Check	<.01 LPM@ 18 "Hg	DGMCF:	0.992
Finish Time:	1325	Final Leak Check	<.01 LPM@ 18 "Hg	Sample Volume:	61.8
				Average DGM Temp:	13.14
				Average DGM Δ H:	2.4

Operator:	JLS
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**ORTECH Environmental
Mercury Tube Data Sheet**

Plant:	Clean Harbors
Plant Location:	Corunna
Test No.:	4

Test location:	Stack Breeching
Date:	July 3, 2019 MARCH 5 2020
Project No.:	21993

Train A

Tube Identification:	OL557330	Spiked	Yes	No
Spike Concentration		ng		

Measuring Device	MII
Control Module	V0585 COE 20018
Barometer	ENV. CAN.

Barometric Pressure	29.40
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Clock Time	Dry Gas Meter L	Average Meter Temperature °C	Meter Pressure Δ H "H ₂ O	Pump Vacuum "Hg Gauge
0	7992.2	17	1.6	6
5	7998.3	11	1.6	7
10				
15				
20	8013.2	13	1.6	13
25				
30	8025.6	13	1.6	13
35				
40	8027.5	13	1.6	13
45	8043.8	13	1.6	13
50				
55	8054.7	14	1.6	13
60	8060.0	14	1.6	13

Start Time:	1336	Initial Leak Check	L01	LPM@	18	"Hg	DGMCF:	0.994
Finish Time:	1436	Final Leak Check	L01	LPM@	21	"Hg	Sample Volume:	63.3
							Average DGM Temp:	12.88
							Average DGM Δ H:	1.6

Train B

Tube Identification:	OL528813	Spiked	Yes	No
Spike Concentration	800	ng		

Measuring Device	MII
Control Module	V0572 10117

Clock Time	Dry Gas Meter L	Average Meter Temperature °C	Meter Pressure Δ H "H ₂ O	Pump Vacuum "Hg Gauge
0	5800.3	11	2.4	9
5	5806.7	12	2.4	10
10				
15				
20	5820.4	12	2.4	17
25				
30	5831.3	13	2.4	17
35				
40	5842.3	13	2.4	17
45	5847.6	12	2.4	17
50				
55	5857.0	14	2.4	17
60	5862.2	14	2.4	17

Start Time:	1336	Initial Leak Check	L01	LPM@	15	"Hg	DGMCF:	0.992
Finish Time:	1436	Final Leak Check	L01	LPM@	18	"Hg	Sample Volume:	61.9
							Average DGM Temp:	12.75
							Average DGM Δ H:	

Operator:	JG
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**ORTECH Environmental
Mercury Tube Data Sheet**

Plant:	Clean Harbors
Plant Location:	Corunna
Test No.:	8

Test location:	Stack Breeching
Date:	July 3, 2019 MARCH 5, 2020
Project No.:	21993

Train A

Tube Identification:	02542288	Spiked	Yes <input checked="" type="checkbox"/> No
Spike Concentration	1400	ng	

Measuring Device	MII
Control Module	V6005
Barometer	ENV. CAN.

Barometric Pressure	29.37
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Clock Time	Dry Gas Meter L	Average Meter Temperature °C	Meter Pressure Δ H "H ₂ O	Pump Vacuum "Hg Gauge
0	8060.6	13	1.6	2
5	8066.9	13	1.6	3
10	8072.9	13	1.6	9
15				
20				
25	8090.5	12	1.6	4
30				
35				
40	8108.8	13	1.6	11
45				
50	8121.1	13	1.6	11
55		12	1.6	11
60	8133.3	12	1.6	11

Start Time:	1446	Initial Leak Check	1.01 LPM@ 22 "Hg	DGMCF:	0.994
Finish Time:	1546	Final Leak Check	1.01 LPM@ 22 "Hg	Sample Volume:	32.3
				Average DGM Temp:	12.63
				Average DGM Δ H:	1.6

Train B

Tube Identification:	02557440	Spiked	Yes <input checked="" type="checkbox"/> No
Spike Concentration		ng	

Measuring Device	MII
Control Module	V6002

Clock Time	Dry Gas Meter L	Average Meter Temperature °C	Meter Pressure Δ H "H ₂ O	Pump Vacuum "Hg Gauge
0	5863.0	12	2.4	10
5	5868.9	12	2.4	4
10	5874.7	13	2.4	13
15				
20				
25	5889.5	13	2.4	15
30				
35				
40	5905.30	13	2.4	15
45				
50	5915.9	13	2.4	15
55	59	12	2.4	15
60	5926.3	12	2.4	15

Start Time:	1446	Initial Leak Check	1.01 LPM@ 18 "Hg	DGMCF:	0.997
Finish Time:	1546	Final Leak Check	1.01 LPM@ 18 "Hg	Sample Volume:	63.3
				Average DGM Temp:	12.5
				Average DGM Δ H:	2.4

Operator:	JG
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**ORTECH Environmental
Mercury Tube Data Sheet**

Plant:	Clean Harbors
Plant Location:	Corunna
Test No.:	6

Test location:	Stack Breeching
Date:	July 3, 2019 MARCH 5, 2020
Project No.:	21993

Train A

Tube Identification:	02557299	Spiked	Yes	No <input checked="" type="checkbox"/>
Spike Concentration	/	ng		

Measuring Device	MII
Control Module	Vest 20019
Barometer	ENV. CAN.

Barometric Pressure	29.34
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Clock Time	Dry Gas Meter L	Average Meter Temperature °C	Meter Pressure Δ H "H ₂ O	Pump Vacuum "Hg Gauge
0	8133.9	12	1.6	9
5	8140.3	12	1.6	12
10				
15	8150.7	11	1.6	14
20				
25				
30	8168.1	11	1.6	14
35				
40	8179.8	11	1.6	14
45				
50	8191.6	11	1.6	14
55	8203.7			
60	8207.7	11	1.6	14

Start Time:	1555	Initial Leak Check	2.01 LPM@ 20 "Hg	DGMCF:	0.994
Finish Time:	1656	Final Leak Check	LPM@ "Hg	Sample Volume:	69.8
				Average DGM Temp:	11.29
				Average DGM Δ H:	1.6

Train B

Tube Identification:	02528930	Spiked	Yes	No <input checked="" type="checkbox"/>
Spike Concentration	2600	ng		

Measuring Device	MII
Control Module	Vest 2

Clock Time	Dry Gas Meter L	Average Meter Temperature °C	Meter Pressure Δ H "H ₂ O	Pump Vacuum "Hg Gauge
0	5927.0	11	2.4	7
5	5932.8	12	2.4	8
10				
15	5943.7	13	2.4	11
20				
25				
30	5959.5	12	2.4	11
35				
40	5970.2	13	2.4	11
45				
50	5980.9	13	2.4	11
55				
60	5991.7	13	2.4	11

Start Time:	1656	Initial Leak Check	2.01 LPM@ 19 "Hg	DGMCF:	0.992
Finish Time:	1656	Final Leak Check	LPM@ "Hg	Sample Volume:	64.7
				Average DGM Temp:	12.43
				Average DGM Δ H:	2.4

Operator:	JC
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APPENDIX 3

**ORTECH Equipment Calibration Data
(4 pages)**

ORTECH Environmental

Dry Gas Meter Calibration Data

Calibration Procedure	03-J004
Meter Number	Vost 5
Date	February 18, 2020
Barometric Pressure	29.41
System Leak Check	NDL @ 21.5 "Hg

MII NUMBERS	
DGM	COE 20018
Gasometer	A01463
Barometer	COE 20028

Calibrated By	David Utley
Signature	
Reviewed and Accepted By	

$\text{ft}^3 = \text{cm}^3 \times 1.352 \text{ litres per cm}^3 / 28.3168 \text{ litres per ft}^3$

$\text{DGMCF} = \frac{V_{\text{std}} \text{ ft}^3}{V_{\text{dgm}} \text{ ft}^3} \times \frac{T_{\text{dgm}} \text{ } ^\circ\text{F} + 460}{T_{\text{std}} \text{ } ^\circ\text{F} + 460} \times \frac{\text{Pbar (in. Hg)}}{\text{(Pbar in. Hg + DGM Pressure) / 13.6}}$


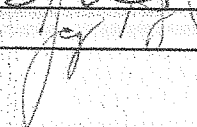
Gasometer Reading		Gasometer Volume	Gasometer Temperature	DGM Reading		DGM Volume	DGM Average Temperature	DGM Pressure	DGM Outlet	DGM Calibration Factor	Time	Flow Rate
Initial	Final			Initial	Final							
67.60	57.40	0.480	20.0	55.91	69.63	0.485	19.0	1.5	19.0	0.983	16.5	0.8
57.40	45.40	0.564	20.0	69.63	85.68	0.567	22.0	1.6	22.0	0.999	15.5	1.0
45.40	32.30	0.616	20.0	85.68	103.21	0.619	23.0	1.6	23.0	1.002	16.5	1.1

Acceptance Criteria:

Individual values of DGM calibration factor must be within $\pm 1.5\%$ of the average value. If not the calibration must be repeated. Also, the DGMCF average value must be 1.00 ± 0.05 , otherwise the meter must be repaired and/or adjusted as necessary and recalibrated prior to use. (Environment Canada Reference Method EPS 1/RM/8, Section 6)

DGMCF AVERAGE
 1 Lpm 0.994

ORTECH Environmental Trendicator Calibration

Calibration Procedure	03-J005
Trendicator Type	Jenco 765
MII	COE 20018
Date	February 18, 2020
Calibrated By	David Utley
Signature	
Reviewed and Accepted By	

Fluke Calibrator Output (COE 20024) (°C)	Trendicator Display Value		Percent Difference (%)
	Before Adjustment (°C)	After Adjustment (°C)	
0	0	NA	0.0
10	10	1	0.0
20	20		0.0
50	50		0.0
75	75		0.0
100	101		-1.0
125	126		-0.8
150	151		-0.7
200	200		0.0
300	299		0.3
400	399		0.3
500	500		0.0
600	600		0.0

$$\% \text{ Difference} = \frac{(\text{micromite} - \text{after adjustment reading}) \times 100}{\text{micromite}}$$

Acceptance Criteria:

Trendicator display must read within $\pm 1.5\%$ of the micromite value at each output. Otherwise, the Trendicator must be repaired and/or adjusted as necessary, and recalibrated prior to use. (MOE Source Testing Code, Version #2, Method 5)

ORTECH Environmental

Dry Gas Meter Calibration Data

Calibration Procedure	03-J004	MII NUMBERS
Meter Number	Vost 2	DGM A10117
Date	February 13, 2020	Gasometer A01463
Barometric Pressure	29.35	Barometer COE20028
System Leak Check	<0.01 @ 20.5" Hg	

Calibrated By	David Utley
Signature	<i>[Signature]</i>
Reviewed and Accepted By	<i>[Signature]</i>

$\text{ft}^3 = \text{cm}^3 \times 1.352 \text{ litres per cm}^3 / 28.3168 \text{ litres per ft}^3$

$$\text{DGMCF} = \frac{V_{\text{std}} \text{ ft}^3}{V_{\text{dgm}} \text{ ft}^3} \times \frac{T_{\text{dgm}} \text{ } ^\circ\text{F} + 460}{T_{\text{std}} \text{ } ^\circ\text{F} + 460} \times \frac{P_{\text{bar}} \text{ (in. Hg)}}{(P_{\text{bar}} \text{ in. Hg} + \text{DGM Pressure}) / 13.6}$$

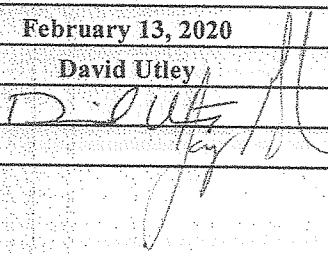
Gasometer Reading		Gasometer Volume		Gasometer Temperature		DGM Reading		DGM Volume		DGM Average Temperature		DGM Pressure		DGM Outlet		DGM Calibration		Flow Rate			
Initial	Final	cm	cm	ft ³	ft ³	°C	°C	L	L	Initial	Final	ft ³	ft ³	°C	°C	in. H ₂ O	in. H ₂ O	min.	min.	lpm	lpm
67.75	28.50	39.25	39.25	1.846	1.846	20.0	20.0	53.390	107.300	53.390	107.300	1.904	1.904	28.0	28.0	2.4	2.4	55	55	1.0	1.0
52.20	36.40	15.80	15.80	0.743	0.743	20.0	20.0	99.450	120.880	99.450	120.880	0.757	0.757	26.0	26.0	2.4	2.4	22	22	1.0	1.0
73.00	49.30	23.70	23.70	1.115	1.115	20.0	20.0	20.880	53.390	20.880	53.390	1.148	1.148	27.0	27.0	2.4	2.4	33	33	1.0	1.0

Acceptance Criteria:

Individual values of DGM calibration factor must be within $\pm 1.5\%$ of the average value. If not the calibration must be repeated. Also, the DGMCF average value must be 1.00 ± 0.05 , otherwise the meter must be repaired and/or adjusted as necessary and recalibrated prior to use. (Environment Canada Reference Method EPS 1/RM/8, Section 6)

DGMCF AVERAGE
1 Lpm 0.992

ORTECH Environmental Trendicator Calibration

Calibration Procedure	03-J005
Trendicator Type	Nutech
MII	A10117
Date	February 13, 2020
Calibrated By	David Utley
Signature	
Reviewed and Accepted By	

Fluke Calibrator Output (COE 20024) (°C)	Trendicator Display Value		Percent Difference (%)
	Before Adjustment (°C)	After Adjustment (°C)	
0	0	NA	0.0
10	10		0.0
20	20		0.0
50	50		0.0
75	75		0.0
100	100		0.0
125	126		-0.8
150	150		0.0
200	200		0.0
300	299		0.3
400	398		0.5
500	498		0.4
600	598	∇	0.3

$$\% \text{ Difference} = \frac{(\text{micromite} - \text{after adjustment reading}) \times 100}{\text{micromite}}$$

Acceptance Criteria:

Trendicator display must read within $\pm 1.5\%$ of the micromite value at each output. Otherwise, the Trendicator must be repaired and/or adjusted as necessary, and recalibrated prior to use. (MOE Source Testing Code, Version #2, Method 5)

APPENDIX 4

**Mercury Analytical Report
(1 page)**

Sorbent Trap Analysis Report

Date | 3/18/20
 Analyst[s] | Brett Dunbar
 Project | 2021147
 Turnaround | Standard

Company | ORTECH
 Contact | Jay Grollman
 Phone |
 Email | jgrollman@ortech.ca

Method | EPA 7473
 Method Uncertainty | ± 10%
 MDL | 0.98ng
 LOQ | 5ng

Trap ID	Pre-Filter Mass [ng]	AGS Mass [ng]	Section 1 Mass [ng]	Section 2 Mass [ng]	Total Mass [ng] ¹	Section 3 Mass [ng]	Spike Level [ng]	Breakthrough [%] ²	Spike Recovery [%] ³	Source	Notes	Affected Section
OL542339			453.5	9.0	462.5		100	2.0%		Clean Harbors R1		
OL557418			319.2	51.5	370.7			16.1%		Clean Harbors R1		
OL557287			482.9	4.2	487.1			0.9%		Clean Harbors R2		
OL528922			726.7	3.9	730.6		250	0.5%		Clean Harbors R2		
OL543830			925.8	5.3	931.1		500	0.6%		Clean Harbors R3		
OL557343			404.7	0.5	405.2			0.1%		Clean Harbors R3		
OL557330			404.9	2.5	407.4			0.6%		Clean Harbors R4		
OL528813			1285	5.9	1291		800	0.5%		Clean Harbors R4		
OL542288			1936	1.7	1938		1400	0.1%		Clean Harbors R5		
OL557440			372.5	0.0	372.5			0.0%		Clean Harbors R5		
OL557299			382.6	2.1	384.7			0.5%		Clean Harbors R6		
OL528970			3264	16.3	3280		2600	0.5%		Clean Harbors R6		

¹ Total Mass = PF+AGS+S1+S2

² Breakthrough = S2 / (PF+AGS+S1)

³ For PS12B only Spike Recovery = S3 / Spike Level

⁴ Data invalidation qualifier - refer to notes



APPENDIX 5

**Clean Harbors Process Data
(12 pages)**

\$Date	\$Time	Rich	Emulsion	Lean	Alkaline	TDU Flow	TDU Flow	Leachate	PAC	Primary	Secondary	Stack Velocity	Stack Flow
		LPM	LPM	LPM	LPM	LPM	SCFM	LPM	Lbs/h	m3/h	m3/h	m/s	Rm3/s
		FT-229	FT-219C	FT-223	PV-207	FT-313B	FT-313	PV-211	SC-PAC-FT	PV-236	PV-209	FT-260-VEL	FT-260-REFDRY
2020-03-05	9:55:00	32.00	11.95	185.58	190.04	4.04	242.18	42.08	25.38	19675	16017	30.01	18.07
2020-03-05	9:56:00	31.98	11.89	185.21	192.92	4.00	239.70	40.99	24.47	19075	15893	31.04	18.50
2020-03-05	9:57:00	31.94	11.77	185.02	194.72	3.98	238.95	41.48	25.36	19494	16000	30.79	18.41
2020-03-05	9:58:00	32.01	11.99	184.78	193.14	4.04	242.55	41.48	25.86	18838	15882	30.39	18.13
2020-03-05	9:59:00	32.06	11.99	185.06	200.43	3.99	237.98	41.18	24.96	19688	16202	30.64	18.36
2020-03-05	10:00:00	32.34	12.19	185.15	192.78	3.99	239.40	41.70	25.38	19463	15994	31.11	18.62
2020-03-05	10:01:00	32.06	11.63	185.11	190.71	4.08	245.48	41.81	25.44	19394	16006	31.73	18.82
2020-03-05	10:02:00	31.98	11.63	184.78	191.52	4.13	247.65	41.81	24.81	18931	15882	30.18	17.88
2020-03-05	10:03:00	31.95	11.70	183.97	190.89	4.16	249.45	41.40	25.46	18831	15775	31.71	18.88
2020-03-05	10:04:00	31.95	12.11	185.49	199.67	4.15	248.78	41.63	25.73	19506	16011	30.50	18.24
2020-03-05	10:05:00	31.71	11.65	184.78	192.74	4.18	250.50	41.48	25.04	19056	16011	29.87	17.94
2020-03-05	10:06:00	32.12	11.75	185.06	194.00	4.16	249.75	41.66	25.38	19125	15888	30.75	18.51
2020-03-05	10:07:00	32.19	11.84	183.84	192.74	4.25	254.78	41.81	25.73	18838	15888	30.26	18.56
2020-03-05	10:08:00	32.03	11.98	185.54	193.68	4.18	250.73	41.03	25.65	19350	15994	30.83	18.46
2020-03-05	10:09:00	31.92	11.96	184.64	196.97	4.17	250.20	41.25	25.70	19113	15882	30.52	18.09
2020-03-05	10:10:00	32.10	11.85	185.21	191.97	4.18	250.73	41.40	25.59	19069	15876	30.31	18.27
2020-03-05	10:11:00	32.09	12.01	185.15	192.11	4.19	251.40	41.70	25.23	18713	15876	29.49	17.52
2020-03-05	10:12:00	32.31	11.86	184.74	191.75	4.03	242.03	42.26	25.67	19713	15994	29.69	17.48
2020-03-05	10:13:00	32.45	11.90	184.68	193.86	4.10	245.85	40.84	24.94	19106	15893	30.06	17.87
2020-03-05	10:14:00	32.03	11.85	185.06	193.01	4.19	251.63	42.41	25.73	19388	15893	30.20	17.86
2020-03-05	10:15:00	32.28	11.70	185.30	192.51	4.18	250.80	41.96	24.65	18969	15910	30.33	18.01
2020-03-05	10:16:00	32.24	11.67	184.92	197.33	4.18	250.73	42.26	25.86	19656	15938	31.83	19.07
2020-03-05	10:17:00	32.27	12.06	184.78	194.31	4.15	249.15	42.00	25.83	19100	15961	29.78	17.68
2020-03-05	10:18:00	32.19	11.61	184.31	197.24	4.15	248.10	42.00	24.44	19288	15854	32.30	19.52
2020-03-05	10:19:00	32.40	12.32	184.31	193.10	4.10	246.15	41.06	24.47	18969	15843	30.07	18.32
2020-03-05	10:20:00	32.27	11.81	185.96	195.62	4.18	250.50	41.14	25.62	18713	15961	29.77	17.85
2020-03-05	10:21:00	32.49	12.21	184.55	201.51	4.17	249.98	42.19	24.86	19413	15978	31.15	18.81
2020-03-05	10:22:00	32.09	11.88	185.54	193.50	4.08	244.95	42.19	24.57	19063	15871	30.60	18.41
2020-03-05	10:23:00	32.07	12.12	185.68	194.04	4.10	245.93	41.81	24.52	18906	15860	30.75	18.12
2020-03-05	10:24:00	31.97	11.77	184.25	192.92	4.09	245.18	42.19	25.57	18925	15860	30.26	17.90
2020-03-05	10:25:00	31.95	11.87	185.06	191.84	4.13	247.58	41.29	25.41	19369	15899	30.18	17.94
2020-03-05	10:26:00	31.55	11.79	184.92	196.97	4.13	247.58	42.75	24.73	18981	15899	30.44	17.88
2020-03-05	10:27:00	32.00	11.96	184.59	197.46	4.31	258.53	41.21	24.47	19206	15916	30.27	17.61
2020-03-05	10:28:00	32.18	12.02	184.40	199.85	4.17	250.05	42.53	25.02	18944	15792	30.54	18.14
2020-03-05	10:29:00	31.46	11.82	184.68	192.87	4.28	256.73	42.08	25.75	19538	15933	31.06	18.40
2020-03-05	10:30:00	31.49	11.92	184.87	191.61	4.25	254.93	42.04	24.57	19181	15933	30.86	18.25
2020-03-05	10:31:00	31.59	12.02	184.83	195.66	4.22	253.28	41.44	24.96	19381	15927	30.19	17.74
2020-03-05	10:32:00	31.80	11.86	184.97	193.50	4.31	258.75	42.53	24.62	19150	15702	30.00	17.57
2020-03-05	10:33:00	31.58	11.52	184.64	196.56	4.29	256.28	41.33	25.44	19281	15921	31.42	18.90
2020-03-05	10:34:00	31.56	12.03	184.68	193.73	4.21	252.45	42.11	25.70	19263	15933	30.57	18.42
2020-03-05	10:35:00	31.61	12.78	184.78	191.52	4.22	253.35	41.74	25.80	19069	15832	32.15	19.39
2020-03-05	10:36:00	31.82	13.42	185.40	194.90	4.27	256.05	41.59	25.12	19113	15927	30.13	18.05
2020-03-05	10:37:00	31.50	12.95	185.77	193.95	4.28	256.80	41.85	25.83	18650	15714	29.78	17.94
2020-03-05	10:38:00	31.50	12.45	184.97	197.28	4.40	263.70	41.85	25.75	19369	15961	31.03	18.48
2020-03-05	10:39:00	31.41	12.16	184.92	192.87	4.39	263.48	42.26	24.99	19100	15860	30.10	17.82
2020-03-05	10:40:00	31.29	12.35	185.49	192.60	4.36	261.60	41.36	24.91	19138	15961	30.05	18.18
2020-03-05	10:41:00	31.43	12.11	185.02	191.97	4.32	259.28	42.30	25.67	19025	15860	30.10	18.18
2020-03-05	10:42:00	31.40	12.02	184.83	198.32	4.27	256.28	42.26	24.47	19400	15961	30.95	18.50
2020-03-05	10:43:00	31.49	12.21	185.68	191.48	4.27	256.80	42.15	24.94	19013	15826	29.83	18.17
2020-03-05	10:44:00	31.31	12.18	184.74	196.38	4.34	261.98	42.08	24.99	19413	15944	30.46	18.38
2020-03-05	10:45:00	31.49	11.95	185.15	194.31	4.35	260.78	42.08	24.52	18706	15832	29.84	17.82
2020-03-05	10:46:00	31.46	11.61	185.02	190.85	4.38	262.50	41.93	24.49	19775	15978	31.30	18.85
2020-03-05	10:47:00	31.23	11.66	184.83	197.64	4.32	258.98	41.93	25.78	19281	15854	30.38	18.35
2020-03-05	10:48:00	31.29	11.68	184.97	192.33	4.33	260.33	41.51	24.41	19469	15848	31.44	18.96
2020-03-05	10:49:00	31.38	11.79	185.11	190.67	4.31	258.30	40.99	24.99	18938	15747	29.51	17.87
2020-03-05	10:50:00	31.46	11.66	185.11	192.29	4.42	265.05	41.63	24.96	19038	15966	31.23	18.71
2020-03-05	10:51:00	31.08	11.31	185.30	191.79	4.45	266.70	42.94	24.78	19138	15803	30.89	18.44
2020-03-05	10:52:00	31.14	11.61	185.92	197.06	4.41	264.68	41.14	24.78	19119	15787	30.00	18.14
2020-03-05	10:53:00	31.22	11.75	185.30	196.02	4.35	261.15	41.40	24.96	19056	15910	30.83	18.54
2020-03-05	10:54:00	31.14	11.62	185.06	191.88	4.45	266.85	41.85	25.73	18856	15792	29.99	17.79
2020-03-05	10:55:00	31.43	11.93	185.40	192.38	4.39	263.55	41.85	25.65	19469	15933	30.15	17.92

Mar 13/2020	Waste Flows								Flows		Air Flows	
	Rich	Emulsion	Lean	Alkaline	TDU Flow	TDU Flow	Leachate	PACFlow	Primary	Secondary	Stack Velocity	Stack Flow
Test 1	FT-229	FT-219C	FT-223	PV-207	FT-313B	FT-313	PV-211	SC-PAC-FT	PV-236	PV-209	FT-260-VEL	FT-260-REFDRY
Units	LPM	LPM	LPM	LPM	LPM	SCFM	LPM	Lbs/h	m3/h	m3/h	m/s	Rm3/s
Max	32.49	13.42	185.96	201.51	4.45	266.85	42.94	25.86	19775	16202	32.30	19.52
Min	31.08	11.31	183.84	190.04	3.98	237.98	40.84	24.41	18650	15702	29.49	17.48
Average	31.80	11.94	185.00	194.10	4.21	252.88	41.77	25.18	19177	15902	30.53	18.25
Variance	0.15	0.11	0.19	7.13	0.02	56.02	0.22	0.23	73517	6924	0.41	0.19

\$Date	\$Time	Primary	Secondary	Quench	SDA	Stack	Incinerator	SDA Inlet	BH Inlet	BH dP	O2	Opacity	SO2
		Degrees C	Degrees C	Degrees C	Degrees C	Degrees C	mmH2O	mmH2O	mmH2O	mmH2O	%	%	PPM
		TE-240	TE-241	TE-203	TE-204	TE-258	PT-242A	PT-249	PT-615	PDT-622	AT-261A-2NEW	AT-263	AT-264-1NEW
2020-03-05	9:55:00	1392	1043	488	196	185	-35.05	-53.50	-111.6	206.3	10.23	1.3	479.6
2020-03-05	9:56:00	1387	1042	488	197	185	-28.30	-46.60	-101.0	214.3	10.23	1.3	483.8
2020-03-05	9:57:00	1384	1042	488	196	185	-31.00	-48.30	-106.0	223.1	10.23	1.3	477.3
2020-03-05	9:58:00	1388	1041	488	196	185	-24.55	-42.05	-95.0	230.3	10.23	1.2	472.8
2020-03-05	9:59:00	1389	1042	488	196	185	-41.00	-61.30	-120.5	189.1	10.43	1.3	475.6
2020-03-05	10:00:00	1386	1041	488	196	185	-28.25	-45.10	-102.1	197.9	10.43	1.3	479.8
2020-03-05	10:01:00	1388	1042	488	196	184	-45.30	-68.85	-122.6	185.1	10.64	1.3	480.6
2020-03-05	10:02:00	1386	1041	489	196	184	-23.55	-40.00	-94.7	232.3	10.64	1.3	483.9
2020-03-05	10:03:00	1390	1042	488	196	184	-40.55	-63.50	-107.4	177.7	10.64	1.3	483.9
2020-03-05	10:04:00	1383	1041	489	196	184	-33.50	-52.55	-110.5	209.4	10.85	1.3	485.0
2020-03-05	10:05:00	1382	1041	490	196	186	-29.05	-45.75	-100.7	218.3	10.85	1.3	479.2
2020-03-05	10:06:00	1380	1041	490	196	186	-28.60	-42.85	-101.7	224.3	10.85	1.3	473.0
2020-03-05	10:07:00	1388	1042	489	196	186	-23.85	-40.00	-94.5	232.3	10.85	1.3	463.5
2020-03-05	10:08:00	1385	1042	490	196	186	-31.10	-47.30	-106.4	193.7	11.06	1.3	485.2
2020-03-05	10:09:00	1388	1043	490	196	186	-25.15	-43.90	-98.4	205.4	11.06	1.3	489.7
2020-03-05	10:10:00	1388	1042	491	196	186	-25.60	-40.80	-99.1	230.0	11.06	1.3	483.7
2020-03-05	10:11:00	1393	1043	491	196	186	-21.20	-35.80	-92.0	238.8	11.06	1.3	489.2
2020-03-05	10:12:00	1393	1043	491	196	186	-36.35	-58.50	-113.7	204.6	11.06	1.3	497.0
2020-03-05	10:13:00	1392	1043	491	196	186	-29.10	-46.50	-102.1	211.9	11.06	1.3	498.2
2020-03-05	10:14:00	1393	1044	492	197	186	-29.60	-47.20	-108.8	221.7	11.06	1.3	493.6
2020-03-05	10:15:00	1393	1044	492	197	186	-25.00	-41.25	-96.3	230.7	11.06	1.3	486.9
2020-03-05	10:16:00	1397	1045	492	196	186	-47.85	-72.20	-127.6	177.7	11.06	1.3	488.2
2020-03-05	10:17:00	1393	1044	492	197	186	-27.65	-43.15	-101.9	198.1	11.06	1.3	497.2
2020-03-05	10:18:00	1395	1045	492	197	186	-45.30	-65.80	-120.5	185.8	11.06	1.3	483.0
2020-03-05	10:19:00	1395	1044	491	197	186	-24.30	-38.90	-98.0	231.4	10.86	1.3	477.2
2020-03-05	10:20:00	1398	1046	491	196	186	-23.15	-44.15	-96.1	202.9	10.86	1.3	486.3
2020-03-05	10:21:00	1394	1045	491	196	186	-31.10	-46.90	-109.5	206.7	10.86	1.3	490.6
2020-03-05	10:22:00	1392	1045	491	197	186	-26.25	-44.10	-100.1	215.9	10.86	1.3	489.1
2020-03-05	10:23:00	1393	1045	490	197	186	-25.20	-39.55	-98.0	218.9	10.65	1.3	491.6
2020-03-05	10:24:00	1395	1046	490	196	186	-23.30	-39.45	-94.2	232.6	10.65	1.2	490.2
2020-03-05	10:25:00	1392	1045	489	196	186	-32.00	-50.45	-107.2	192.2	10.65	1.3	496.0
2020-03-05	10:26:00	1392	1045	489	196	186	-26.70	-45.65	-98.1	203.4	10.65	1.3	497.1
2020-03-05	10:27:00	1391	1045	489	196	186	-24.50	-41.55	-98.5	224.2	10.44	1.3	501.4
2020-03-05	10:28:00	1396	1045	489	195	186	-19.80	-34.20	-90.7	234.6	10.44	1.2	494.6
2020-03-05	10:29:00	1397	1046	489	195	184	-37.40	-57.70	-115.3	205.4	10.44	1.2	497.2
2020-03-05	10:30:00	1390	1043	490	195	184	-29.20	-44.55	-105.0	209.1	10.23	1.3	503.9
2020-03-05	10:31:00	1387	1043	490	195	185	-35.30	-52.65	-115.9	221.3	10.23	1.2	499.8
2020-03-05	10:32:00	1389	1042	489	195	185	-25.90	-43.75	-97.8	227.5	10.23	1.3	490.5
2020-03-05	10:33:00	1389	1043	488	195	184	-45.00	-66.35	-123.3	170.6	10.23	1.3	478.6
2020-03-05	10:34:00	1387	1041	488	195	184	-28.80	-44.50	-103.5	195.4	10.23	1.3	481.4
2020-03-05	10:35:00	1387	1042	487	195	184	-38.70	-60.35	-111.2	182.4	10.02	1.3	478.1
2020-03-05	10:36:00	1387	1043	489	195	184	-23.95	-41.20	-97.2	233.3	10.02	1.3	484.6
2020-03-05	10:37:00	1393	1045	489	195	184	-19.30	-35.20	-90.1	241.9	10.02	1.3	488.3
2020-03-05	10:38:00	1389	1044	490	195	184	-34.05	-52.95	-109.8	206.3	10.02	1.3	507.0
2020-03-05	10:39:00	1386	1043	490	195	184	-29.70	-45.85	-103.2	216.1	10.02	1.3	503.9
2020-03-05	10:40:00	1384	1042	490	195	185	-27.70	-45.05	-102.0	221.3	10.02	1.3	481.2
2020-03-05	10:41:00	1386	1042	489	195	186	-22.90	-38.30	-94.1	227.2	9.82	1.3	481.2
2020-03-05	10:42:00	1386	1041	489	195	184	-34.10	-52.55	-111.3	192.1	9.82	1.3	486.5
2020-03-05	10:43:00	1384	1040	488	195	184	-27.20	-45.00	-101.9	202.9	9.82	1.3	472.0
2020-03-05	10:44:00	1380	1039	487	195	184	-28.00	-45.85	-105.9	230.8	9.82	1.4	473.4
2020-03-05	10:45:00	1383	1038	486	195	184	-20.60	-36.65	-92.5	235.6	9.82	1.3	473.5
2020-03-05	10:46:00	1384	1039	486	194	184	-39.30	-56.95	-121.5	204.4	9.82	1.4	469.8
2020-03-05	10:47:00	1380	1036	486	194	184	-31.45	-48.20	-106.7	210.5	9.82	1.3	471.0
2020-03-05	10:48:00	1379	1036	486	194	184	-41.00	-62.20	-118.2	194.9	9.82	1.3	459.6
2020-03-05	10:49:00	1381	1035	484	194	184	-25.20	-42.65	-96.9	223.5	9.61	1.3	452.2
2020-03-05	10:50:00	1384	1036	482	193	184	-44.15	-65.35	-114.9	167.5	9.61	1.4	455.2
2020-03-05	10:51:00	1378	1035	482	193	183	-30.00	-46.90	-103.4	193.8	9.61	0.5	459.6
2020-03-05	10:52:00	1378	1035	480	193	183	-26.85	-43.05	-98.0	195.4	9.61	0.5	451.0
2020-03-05	10:53:00	1375	1035	481	192	183	-26.25	-42.30	-99.3	229.4	9.61	45.0	455.4
2020-03-05	10:54:00	1381	1037	480	191	183	-21.40	-34.50	-92.6	239.1	9.61	21.7	465.4
2020-03-05	10:55:00	1374	1036	480	191	182	-35.55	-55.30	-111.3	201.4	9.61	21.7	473.7

Mar 13/2020	Temperatures					Pressures				Analyzers		
	Primary	Secondary	Quench	SprayDryer	Stack	Incinerator	SDA Inlet	SD Outlet	Baghouse	O2	Opacity	SO2
Test 1	TE-240	TE-241	TE-203	TE-204	TE-258	PT-242A	PT-249	PT-615	PDT-622	AT-261A-2NEW	AT-263	AT-264-1NEW
Units	Degrees C	Degrees C	Degrees C	Degrees C	Degrees C	mmH2O	mmH2O	mmH2O	mmH2O	%	%	PPM
Max	1398	1046	492	197	186	-19.30	-34.20	-90.1	241.9	11.06	45.0	507.0
Min	1374	1035	480	191	182	-47.85	-72.20	-127.6	167.5	9.61	0.5	451.0
Average	1388	1042	488	195	185	-30.19	-47.93	-104.4	211.2	10.38	2.6	482.3
Variance	33	9	9	2	1	49.72	82.84	83.1	345.8	0.25	43.9	172.8

\$Date	\$Time	Primary	Secondary	Quench	SDA	Stack	Incinerator	SDA Inlet	BH Inlet	BH dP	O ₂	Opacity	SO ₂
		Degrees C	Degrees C	Degrees C	Degrees C	Degrees C	mmH2O	mmH2O	mmH2O	mmH2O	%	%	PPM
		TE-240	TE-241	TE-203	TE-204	TE-258	PT-242A	PT-249	PT-615	PDT-622	AT-261A-2NEW	AT-263	AT-264-1NEW
2020-03-05	11:07:00	1379	1042	482	192	182	-39.30	-61.85	-109.7	166.8	9.40	1.3	472.7
2020-03-05	11:08:00	1377	1041	483	192	182	-30.45	-48.65	-104.4	192.9	9.40	1.3	483.9
2020-03-05	11:09:00	1380	1041	484	192	182	-25.80	-41.45	-99.8	204.9	9.40	1.3	491.5
2020-03-05	11:10:00	1376	1040	484	192	182	-25.90	-39.95	-99.3	229.8	9.40	1.3	490.4
2020-03-05	11:11:00	1381	1042	483	192	182	-20.60	-35.95	-91.4	239.8	9.40	1.3	486.0
2020-03-05	11:12:00	1379	1040	485	192	182	-34.85	-55.75	-114.1	207.9	9.40	1.3	502.6
2020-03-05	11:13:00	1377	1040	485	193	182	-27.70	-42.95	-104.0	211.3	9.40	1.3	499.7
2020-03-05	11:14:00	1377	1040	485	193	182	-30.30	-49.00	-104.1	221.1	9.40	1.4	475.2
2020-03-05	11:15:00	1379	1040	485	193	183	-24.15	-37.95	-97.7	229.7	9.40	1.4	468.0
2020-03-05	11:16:00	1380	1041	484	193	183	-33.70	-52.80	-114.0	191.1	9.40	1.4	490.9
2020-03-05	11:17:00	1378	1040	485	193	182	-28.80	-45.50	-103.2	202.8	9.40	1.4	488.7
2020-03-05	11:18:00	1376	1040	485	193	182	-31.40	-48.30	-109.3	228.6	9.40	1.4	483.5
2020-03-05	11:19:00	1380	1041	485	193	182	-21.20	-36.00	-94.5	234.9	9.40	1.3	478.1
2020-03-05	11:20:00	1385	1042	485	192	182	-52.05	-72.85	-131.4	188.0	9.40	1.4	476.6
2020-03-05	11:21:00	1378	1041	485	193	182	-32.45	-50.15	-109.5	211.7	9.40	1.4	499.3
2020-03-05	11:22:00	1381	1041	485	193	182	-38.45	-58.85	-110.6	183.2	9.40	1.4	487.1
2020-03-05	11:23:00	1382	1041	485	193	183	-23.75	-39.65	-98.2	222.0	9.40	1.3	476.7
2020-03-05	11:24:00	1387	1044	485	193	183	-22.30	-38.20	-94.9	203.6	9.40	1.3	476.7
2020-03-05	11:25:00	1384	1044	487	194	183	-29.75	-47.15	-105.3	194.3	9.40	1.4	488.1
2020-03-05	11:26:00	1387	1046	487	194	183	-26.00	-44.45	-97.5	206.4	9.40	1.4	494.9
2020-03-05	11:27:00	1386	1046	489	194	183	-23.50	-37.50	-95.8	226.2	9.40	1.3	485.5
2020-03-05	11:28:00	1394	1048	489	194	183	-21.25	-36.65	-92.9	239.6	9.40	1.3	499.3
2020-03-05	11:29:00	1392	1047	490	194	183	-32.90	-51.70	-111.5	205.4	9.40	1.3	513.8
2020-03-05	11:30:00	1389	1046	491	195	183	-27.05	-40.70	-102.8	216.8	9.40	1.4	507.0
2020-03-05	11:31:00	1389	1046	491	195	184	-27.05	-43.50	-103.1	220.1	9.40	1.4	495.9
2020-03-05	11:32:00	1391	1047	491	196	184	-21.10	-35.35	-94.8	228.4	9.40	1.4	483.0
2020-03-05	11:33:00	1394	1047	491	195	184	-35.05	-54.10	-112.9	191.1	9.40	1.4	490.7
2020-03-05	11:34:00	1390	1046	491	196	184	-27.45	-46.00	-100.1	199.5	9.40	1.4	499.1
2020-03-05	11:35:00	1389	1046	492	196	184	-32.60	-48.70	-117.1	221.1	9.40	1.4	492.3
2020-03-05	11:36:00	1388	1046	491	196	184	-21.95	-37.55	-92.9	228.5	9.40	1.4	492.0
2020-03-05	11:37:00	1394	1047	490	196	184	-47.60	-68.15	-125.0	174.9	9.40	1.3	493.2
2020-03-05	11:38:00	1388	1045	491	196	184	-29.50	-44.05	-106.3	203.8	9.40	1.3	503.3
2020-03-05	11:39:00	1387	1044	491	196	186	-22.35	-40.25	-96.2	201.6	9.40	1.3	490.0
2020-03-05	11:40:00	1383	1043	490	196	186	-23.35	-42.65	-94.0	217.0	9.40	1.3	485.1
2020-03-05	11:41:00	1386	1044	489	196	186	-22.35	-39.10	-93.4	229.9	9.40	1.4	487.3
2020-03-05	11:42:00	1382	1043	489	196	184	-29.35	-47.10	-103.6	189.9	9.40	1.4	497.8
2020-03-05	11:43:00	1383	1043	490	195	184	-24.65	-39.30	-96.2	200.3	9.40	1.4	492.7
2020-03-05	11:44:00	1380	1042	489	195	184	-24.80	-39.45	-96.7	225.4	9.40	1.3	488.7
2020-03-05	11:45:00	1386	1043	488	195	184	-21.95	-36.00	-91.7	237.6	9.40	1.3	491.7
2020-03-05	11:46:00	1381	1042	488	195	184	-33.20	-53.30	-110.3	202.5	9.40	1.3	486.2
2020-03-05	11:47:00	1381	1040	489	195	184	-29.60	-45.45	-102.5	211.1	9.40	1.4	475.3
2020-03-05	11:48:00	1379	1040	488	195	185	-28.40	-46.30	-103.1	220.0	9.40	1.4	459.4
2020-03-05	11:49:00	1379	1041	489	195	185	-22.50	-39.10	-96.0	225.6	9.40	1.3	450.9
2020-03-05	11:50:00	1380	1041	489	195	185	-35.20	-52.15	-114.1	190.4	9.40	1.4	457.6
2020-03-05	11:51:00	1376	1040	489	195	184	-28.65	-45.45	-100.9	202.3	9.40	1.4	462.7
2020-03-05	11:52:00	1376	1040	488	195	184	-44.10	-61.55	-123.0	214.5	9.40	1.4	460.6
2020-03-05	11:53:00	1378	1040	488	195	184	-20.25	-34.85	-92.6	236.1	9.40	1.3	463.6
2020-03-05	11:54:00	1381	1041	487	194	184	-47.55	-67.85	-116.4	178.6	9.40	1.4	464.7
2020-03-05	11:55:00	1375	1039	487	194	184	-31.35	-48.35	-106.5	207.9	9.40	1.4	465.1
2020-03-05	11:56:00	1377	1039	488	194	184	-27.10	-42.25	-99.6	213.1	9.40	1.3	458.4
2020-03-05	11:57:00	1374	1039	488	194	184	-27.10	-44.50	-100.5	224.1	9.40	1.4	460.1
2020-03-05	11:58:00	1370	1040	487	194	184	-23.05	-38.35	-93.5	231.1	9.40	1.4	464.1
2020-03-05	11:59:00	1368	1038	488	194	184	-30.15	-47.65	-104.1	190.5	9.40	1.4	471.7
2020-03-05	12:00:00	1369	1038	487	194	184	-27.30	-43.45	-97.1	202.8	9.40	1.4	470.9
2020-03-05	12:01:00	1367	1038	488	194	184	-25.95	-42.30	-98.7	226.5	9.40	1.4	471.5
2020-03-05	12:02:00	1372	1039	487	194	184	-19.80	-34.80	-89.0	239.1	9.40	1.3	462.2
2020-03-05	12:03:00	1369	1039	487	193	184	-35.65	-52.25	-111.3	206.6	9.40	1.4	466.0
2020-03-05	12:04:00	1367	1038	485	193	184	-28.65	-46.60	-101.8	212.4	9.40	1.4	464.4
2020-03-05	12:05:00	1365	1037	483	193	184	-27.90	-44.35	-104.9	218.9	9.40	1.3	458.9
2020-03-05	12:06:00	1367	1037	482	193	184	-24.85	-40.15	-96.1	228.1	9.40	1.4	459.2
2020-03-05	12:07:00	1368	1039	481	192	183	-39.60	-58.40	-118.6	187.4	9.40	1.3	456.0
2020-03-05	12:08:00	1367	1037	481	192	183	-27.65	-41.85	-99.5	194.9	9.40	1.4	465.4
2020-03-05	12:09:00	1366	1038	479	191	183	-45.05	-64.55	-122.2	183.3	9.40	1.4	465.4
2020-03-05	12:10:00	1365	1037	479	191	183	-22.35	-37.95	-93.3	229.6	9.40	1.3	463.2
2020-03-05	12:11:00	1369	1039	478	190	182	-42.05	-62.15	-109.4	174.3	9.40	1.3	465.0
2020-03-05	12:12:00	1365	1037	478	190	182	-31.10	-48.75	-105.8	203.1	9.40	1.4	467.0
2020-03-05	12:13:00	1367	1037	479	190	182	-28.25	-44.20	-100.3	214.1	9.40	1.3	458.1

Mar 13/2020	Temperatures					Pressures				Analyzers		
	Primary	Secondary	Quench	SprayDryer	Stack	Incinerator	SDA Inlet	SD Outlet	Baghouse	O ₂	Opacity	SO ₂
Test 1	TE-240	TE-241	TE-203	TE-204	TE-258	PT-242A	PT-249	PT-615	PDT-622	AT-261A-2NEW	AT-263	AT-264-1NEW
Units	Degrees C	Degrees C	Degrees C	Degrees C	Degrees C	mmH2O	mmH2O	mmH2O	mmH2O	%	%	PPM
Max	1394	1048	492	196	186	-19.80	-34.80	-89.0	239.8	9.40	1.4	513.8
Min	1365	1037	478	190	182	-52.05	-72.85	-131.4	166.8	9.40	1.3	450.9
Average	1379	1041	486	193	184	-29.39	-46.33	-103.4	210.4	9.40	1.3	479.0
Variance	66	10	12	2	1	51.99	77.98	82.2	321.1	0.00	0.00	235.8

\$Date	\$Time	Rich	Emulsion	Lean	Alkaline	TDU Flow	TDU Flow	Leachate	PAC	Primary	Secondary	stack Velocity	Stack Flow
		LPM	LPM	LPM	LPM	LPM	SCFM	LPM	Lbs/h	m3/h	m3/h	m/s	Rm3/s
		FT-229	FT-219C	FT-223	PV-207	FT-313B	FT-313	PV-211	SC-PAC-FT	PV-236	PV-209	FT-260-VEL	FT-260-REFDRY
2020-03-05	12:25:00	31.07	12.06	184.87	200.52	4.75	284.85	42.41	25.67	18950	15775	30.00	18.06
2020-03-05	12:26:00	30.80	12.10	184.97	192.33	4.70	281.85	42.41	24.62	19213	15798	31.11	18.48
2020-03-05	12:27:00	30.92	11.86	184.78	191.12	4.68	280.80	41.48	25.02	18863	15787	29.52	17.89
2020-03-05	12:28:00	30.84	11.92	184.64	195.89	4.71	282.68	41.78	24.62	18575	15663	29.51	18.15
2020-03-05	12:29:00	31.02	11.85	185.02	193.28	4.35	260.78	42.64	24.57	19531	15787	30.45	18.37
2020-03-05	12:30:00	31.11	12.17	185.15	191.79	4.22	253.05	42.15	25.10	18944	15685	30.09	18.11
2020-03-05	12:31:00	31.55	12.24	185.02	194.36	4.59	275.40	43.01	24.89	19069	15680	30.42	18.32
2020-03-05	12:32:00	31.16	11.94	184.16	200.66	4.52	271.20	42.60	24.75	19006	15702	30.18	18.05
2020-03-05	12:33:00	31.11	11.88	185.25	193.14	4.46	267.60	41.70	25.75	19231	15730	30.29	18.12
2020-03-05	12:34:00	31.47	12.12	185.06	198.05	4.50	269.70	42.60	25.49	18825	15730	29.87	17.96
2020-03-05	12:35:00	31.05	12.22	184.12	200.97	4.47	268.43	41.70	25.17	19100	15702	30.07	18.00
2020-03-05	12:36:00	31.43	12.05	189.95	192.11	4.47	268.43	43.01	24.54	18675	15714	29.86	18.16
2020-03-05	12:37:00	31.37	11.99	186.63	196.29	4.58	274.80	41.96	25.78	19556	15950	30.61	18.23
2020-03-05	12:38:00	31.26	12.09	183.60	193.32	4.55	272.70	41.93	24.75	19194	15719	30.65	18.20
2020-03-05	12:39:00	30.95	12.05	180.56	193.32	4.62	277.35	42.26	25.70	19538	15820	30.13	18.02
2020-03-05	12:40:00	31.67	12.17	175.21	194.40	4.78	287.03	42.53	25.07	18963	15719	30.14	17.93
2020-03-05	12:41:00	31.44	11.82	182.64	192.69	5.22	312.90	42.49	25.86	19406	15826	31.09	18.66
2020-03-05	12:42:00	31.40	12.18	182.27	196.61	4.77	285.90	42.34	24.60	19144	15826	29.90	18.02
2020-03-05	12:43:00	31.32	11.81	182.41	193.14	5.19	311.63	42.49	25.20	18931	15719	32.11	19.45
2020-03-05	12:44:00	31.29	12.09	182.88	192.56	4.71	282.60	42.60	24.52	19025	15708	29.92	18.47
2020-03-05	12:45:00	31.32	12.32	182.13	193.46	5.10	305.93	42.60	25.46	18794	15708	29.31	18.05
2020-03-05	12:46:00	31.28	12.06	184.07	192.96	5.15	309.23	41.70	24.47	19325	15826	30.05	17.99
2020-03-05	12:47:00	31.16	11.94	185.06	192.69	5.15	308.78	42.38	25.78	18975	15826	30.31	18.18
2020-03-05	12:48:00	31.29	11.98	184.12	191.52	4.75	284.93	41.44	25.59	19094	15787	30.03	18.43
2020-03-05	12:49:00	31.22	12.05	183.74	191.70	4.74	284.25	42.34	25.07	18713	15680	29.49	17.82
2020-03-05	12:50:00	31.44	12.15	184.92	193.95	4.70	281.70	41.89	25.44	19344	15781	30.93	18.54
2020-03-05	12:51:00	31.55	11.89	185.02	193.46	4.68	280.80	42.68	24.91	19094	15685	29.90	18.13
2020-03-05	12:52:00	31.11	12.00	185.21	192.11	5.21	312.45	42.68	25.38	19063	15787	30.61	18.56
2020-03-05	12:53:00	31.38	12.30	185.02	191.88	5.16	309.68	41.85	25.59	18694	15652	29.67	17.72
2020-03-05	12:54:00	31.25	11.86	184.78	192.38	4.74	284.48	41.78	25.38	19700	15888	31.17	18.36
2020-03-05	12:55:00	31.26	11.97	184.74	198.32	4.75	284.70	41.48	25.78	18981	15764	29.85	17.88
2020-03-05	12:56:00	31.29	11.98	185.40	199.53	4.72	282.90	42.38	24.44	19613	15764	31.37	18.97
2020-03-05	12:57:00	31.25	12.23	184.92	192.96	4.74	284.33	42.38	24.65	18988	15685	30.67	18.55
2020-03-05	12:58:00	31.43	12.30	184.83	192.92	4.67	280.20	42.38	25.59	19269	15787	31.87	19.16
2020-03-05	12:59:00	31.49	12.04	185.54	191.39	5.17	310.20	42.38	24.47	19063	15685	29.80	17.81
2020-03-05	13:00:00	31.26	12.43	184.55	196.97	5.18	310.95	42.34	24.68	18813	15753	30.18	18.06
2020-03-05	13:01:00	31.80	12.21	185.06	193.05	5.20	311.93	41.96	24.96	18969	15635	30.25	18.04
2020-03-05	13:02:00	31.47	12.04	185.02	192.92	5.20	311.85	42.38	24.52	18581	15736	29.71	17.55
2020-03-05	13:03:00	31.43	12.37	184.44	194.85	5.18	311.03	42.38	24.47	19231	15747	30.98	18.25
2020-03-05	13:04:00	30.80	11.99	185.11	197.64	4.71	282.30	41.93	24.94	19181	15860	30.08	18.07
2020-03-05	13:05:00	30.69	11.87	185.11	192.96	5.18	310.88	42.71	25.70	19088	15753	30.32	18.34
2020-03-05	13:06:00	30.51	12.23	185.02	196.07	5.23	313.80	41.89	25.78	18725	15736	29.47	18.07
2020-03-05	13:07:00	30.45	11.93	185.02	193.10	5.20	311.85	42.34	25.70	19313	15730	30.49	18.55
2020-03-05	13:08:00	30.26	12.12	184.31	193.10	4.72	283.13	42.19	25.65	18813	15730	29.72	17.88
2020-03-05	13:09:00	30.44	12.25	184.68	200.12	5.18	310.88	42.41	25.65	19325	15719	29.98	18.28
2020-03-05	13:10:00	30.51	12.31	185.21	194.09	5.19	311.10	41.51	25.67	18775	15556	30.42	18.46
2020-03-05	13:11:00	30.24	12.41	184.55	198.05	5.24	314.55	40.76	25.67	19600	15854	31.35	18.48
2020-03-05	13:12:00	30.21	12.35	184.92	195.62	4.79	287.55	42.34	24.73	19131	15758	30.51	18.17
2020-03-05	13:13:00	30.50	12.14	185.25	191.30	4.79	287.48	43.16	25.88	19069	15753	31.84	19.34
2020-03-05	13:14:00	30.35	12.28	185.02	192.56	4.72	283.43	41.33	25.20	18694	15635	29.62	18.14
2020-03-05	13:15:00	30.20	12.32	184.87	193.46	4.72	283.20	42.34	25.04	18831	15714	31.61	19.23
2020-03-05	13:16:00	30.14	12.12	185.06	192.60	4.72	283.20	40.54	24.73	19125	15697	30.86	18.21
2020-03-05	13:17:00	30.62	11.97	185.73	193.55	4.69	281.63	42.41	25.59	18963	15697	29.91	17.87
2020-03-05	13:18:00	30.57	12.41	185.92	194.76	4.73	283.65	42.41	24.68	18969	15691	30.55	18.34
2020-03-05	13:19:00	30.54	12.44	185.06	200.48	4.67	279.98	42.75	25.38	18531	15691	29.98	18.01
2020-03-05	13:20:00	30.59	12.41	185.06	192.33	4.71	282.68	42.41	25.78	19400	15792	30.73	18.53
2020-03-05	13:21:00	30.48	12.12	184.55	191.84	4.67	280.28	42.56	24.47	18906	15798	30.03	17.87
2020-03-05	13:22:00	30.92	12.14	185.02	196.43	4.77	285.98	42.26	25.12	19113	15714	30.66	18.18
2020-03-05	13:23:00	30.93	12.43	185.49	193.41	4.71	282.53	41.89	25.59	18969	15714	30.62	18.50
2020-03-05	13:24:00	30.51	12.22	185.25	200.21	4.76	285.75	41.89	25.10	19306	15820	30.71	18.58
2020-03-05	13:25:00	30.86	11.80	185.02	200.30	4.68	280.88	43.16	25.65	19031	15618	30.29	17.89

Mar 13/2020	Waste Flows							Flows	Air Flows				
	Rich	Emulsion	Lean	Alkaline	TDU Flow	TDU Flow	Leachate		PACFlow	Primary	Secondary	stack Velocity	Stack Flow
Test 1	FT-229	FT-219C	FT-223	PV-207	FT-313B	FT-313	PV-211	SC-PAC-FT	PV-236	PV-209	FT-260-VEL	FT-260-REFDRY	
Units	LPM	LPM	LPM	LPM	LPM	SCFM	LPM	Lbs/h	m3/h	m3/h	m/s	Rm3/s	
Max	31.80	12.44	189.95	200.97	5.24	314.55	43.16	25.88	19700	15950	32.11	19.45	
Min	30.14	11.80	175.21	191.12	4.22	253.05	40.54	24.44	18531	15556	29.31	17.55	
Average	31.00	12.11	184.57	194.58	4.82	288.96	42.21	25.18	19064	15742	30.36	18.26	
Variance	0.19	0.03	2.92	8.19	0.07	247.88	0.26	0.23	73547	4708	0.39	0.15	

\$Date	\$Time	Primary	Secondary	Quench	SDA	Stack	Incinerator	SDA Inlet	BH Inlet	BH dP	O2	Opacity	SO2
		Degrees C	Degrees C	Degrees C	Degrees C	Degrees C	mmH2O	mmH2O	mmH2O	mmH2O	%	%	PPM
		TE-240	TE-241	TE-203	TE-204	TE-258	PT-242A	PT-249	PT-615	PDT-622	AT-261A-2NEV	AT-263	AT-264-1NEW
2020-03-05	12:25:00	1364	1035	477	188	180	-30.10	-47.10	-103.2	193.9	9.40	1.4	458.0
2020-03-05	12:26:00	1367	1036	477	187	180	-43.05	-65.05	-119.3	179.6	9.40	1.4	461.6
2020-03-05	12:27:00	1366	1036	477	188	180	-23.25	-37.75	-97.4	230.0	9.40	1.3	455.7
2020-03-05	12:28:00	1371	1038	477	187	180	-22.20	-42.05	-93.4	206.0	9.40	1.4	450.4
2020-03-05	12:29:00	1365	1035	477	188	180	-33.20	-49.30	-113.0	206.0	9.40	1.3	468.9
2020-03-05	12:30:00	1365	1034	477	188	180	-29.15	-45.05	-101.7	216.1	9.40	1.3	459.9
2020-03-05	12:31:00	1367	1034	477	188	180	-27.05	-44.05	-101.7	219.8	9.40	1.4	453.8
2020-03-05	12:32:00	1371	1037	477	188	180	-24.30	-38.65	-96.3	227.6	9.40	1.3	460.5
2020-03-05	12:33:00	1369	1038	478	188	180	-32.70	-50.40	-108.7	188.3	9.40	1.4	467.5
2020-03-05	12:34:00	1371	1038	479	188	180	-29.30	-46.60	-102.6	201.8	9.40	1.4	469.6
2020-03-05	12:35:00	1369	1038	479	188	180	-28.60	-42.30	-104.0	223.4	9.40	1.4	461.6
2020-03-05	12:36:00	1375	1040	479	188	180	-20.50	-35.20	-92.4	230.1	9.40	1.4	460.6
2020-03-05	12:37:00	1376	1040	481	188	180	-41.05	-60.65	-119.6	204.6	9.40	1.3	479.6
2020-03-05	12:38:00	1371	1038	482	189	180	-30.35	-46.45	-106.6	206.9	9.40	1.4	490.3
2020-03-05	12:39:00	1370	1038	481	189	181	-38.55	-54.60	-121.5	221.7	9.40	1.4	482.9
2020-03-05	12:40:00	1370	1038	480	190	181	-31.90	-48.10	-101.0	228.8	9.40	1.4	470.0
2020-03-05	12:41:00	1373	1039	479	189	181	-47.00	-67.75	-127.2	170.8	9.40	1.4	447.0
2020-03-05	12:42:00	1370	1039	480	189	181	-32.85	-50.50	-108.5	195.1	9.40	1.3	436.5
2020-03-05	12:43:00	1373	1040	480	189	180	-45.25	-67.35	-114.2	181.6	9.40	1.4	436.5
2020-03-05	12:44:00	1373	1039	481	190	180	-26.65	-44.50	-98.4	226.3	9.40	1.3	442.1
2020-03-05	12:45:00	1379	1042	482	190	181	-23.10	-39.10	-93.9	234.9	9.40	1.4	447.1
2020-03-05	12:46:00	1378	1040	484	190	181	-36.75	-57.00	-113.9	203.3	9.40	1.4	472.9
2020-03-05	12:47:00	1374	1040	484	191	181	-33.00	-49.75	-107.6	214.6	9.40	1.4	464.7
2020-03-05	12:48:00	1372	1040	485	191	181	-29.50	-46.60	-104.1	214.9	9.40	1.3	455.4
2020-03-05	12:49:00	1377	1041	485	192	182	-26.40	-42.05	-99.0	226.9	9.40	1.4	459.1
2020-03-05	12:50:00	1376	1041	487	192	182	-34.70	-49.65	-114.3	187.3	9.40	1.3	465.7
2020-03-05	12:51:00	1376	1041	488	193	182	-28.40	-42.95	-104.3	197.2	9.40	1.4	465.7
2020-03-05	12:52:00	1377	1040	488	193	182	-29.60	-45.00	-105.4	224.2	9.40	1.4	466.6
2020-03-05	12:53:00	1381	1041	488	193	182	-24.25	-36.55	-95.2	233.5	9.40	1.3	475.6
2020-03-05	12:54:00	1381	1043	488	193	182	-41.70	-58.50	-124.2	203.8	9.40	1.4	490.6
2020-03-05	12:55:00	1379	1041	490	194	182	-33.95	-52.20	-109.3	212.1	9.40	1.4	485.5
2020-03-05	12:56:00	1380	1041	489	194	183	-46.45	-67.65	-123.2	196.9	9.40	1.3	470.6
2020-03-05	12:57:00	1378	1041	490	194	183	-25.20	-41.15	-99.5	223.7	9.40	1.3	465.2
2020-03-05	12:58:00	1383	1043	490	194	183	-43.95	-66.70	-120.1	170.9	9.40	1.3	467.3
2020-03-05	12:59:00	1381	1043	491	195	183	-30.35	-46.15	-105.0	195.1	9.40	1.4	484.2
2020-03-05	13:00:00	1382	1044	491	195	183	-25.95	-38.80	-100.9	194.9	9.40	1.4	484.2
2020-03-05	13:01:00	1383	1044	491	195	184	-24.05	-40.65	-95.3	230.1	9.40	1.3	482.4
2020-03-05	13:02:00	1390	1046	491	195	184	-20.75	-34.95	-92.6	239.1	9.40	1.3	485.4
2020-03-05	13:03:00	1388	1045	491	195	184	-35.35	-54.35	-109.2	206.1	9.40	1.4	497.8
2020-03-05	13:04:00	1384	1043	491	196	184	-31.65	-48.05	-106.0	220.0	9.40	1.3	479.8
2020-03-05	13:05:00	1381	1042	490	196	185	-27.95	-43.45	-103.4	222.6	9.40	1.4	471.9
2020-03-05	13:06:00	1379	1042	489	195	185	-25.50	-40.60	-96.4	230.4	9.40	1.4	454.1
2020-03-05	13:07:00	1376	1041	487	195	185	-31.45	-49.05	-108.3	187.8	9.40	1.3	458.5
2020-03-05	13:08:00	1375	1040	486	194	184	-28.20	-46.15	-101.4	201.9	9.40	1.3	464.7
2020-03-05	13:09:00	1373	1040	486	194	184	-31.50	-47.30	-107.8	227.8	9.40	1.3	458.6
2020-03-05	13:10:00	1375	1040	485	193	184	-22.80	-37.95	-92.8	234.7	9.40	1.3	461.8
2020-03-05	13:11:00	1376	1040	484	193	184	-46.35	-62.60	-130.8	206.6	9.40	1.4	479.4
2020-03-05	13:12:00	1370	1038	485	193	183	-33.10	-50.85	-107.6	212.8	9.40	1.4	477.9
2020-03-05	13:13:00	1374	1038	483	192	184	-42.30	-62.50	-116.3	184.1	9.40	1.4	458.3
2020-03-05	13:14:00	1372	1038	483	192	183	-27.00	-41.55	-97.6	227.1	9.40	1.3	449.3
2020-03-05	13:15:00	1374	1038	483	192	183	-43.20	-63.90	-107.0	173.4	9.40	1.3	456.8
2020-03-05	13:16:00	1371	1037	483	192	183	-33.20	-47.30	-109.7	199.1	9.40	1.3	475.1
2020-03-05	13:17:00	1372	1037	482	192	183	-27.65	-44.70	-98.6	210.4	9.40	1.4	469.2
2020-03-05	13:18:00	1371	1036	482	192	183	-25.45	-40.55	-98.4	231.9	9.40	1.4	464.8
2020-03-05	13:19:00	1373	1038	481	191	183	-22.50	-35.95	-91.8	243.0	9.40	1.3	469.3
2020-03-05	13:20:00	1373	1037	483	191	182	-37.55	-56.20	-113.8	207.8	9.40	1.4	472.5
2020-03-05	13:21:00	1373	1037	485	191	183	-30.55	-46.00	-105.2	217.3	9.40	1.4	475.7
2020-03-05	13:22:00	1368	1037	485	192	183	-32.60	-47.65	-106.0	222.2	9.40	1.4	478.3
2020-03-05	13:23:00	1373	1038	485	192	183	-24.70	-41.95	-99.3	228.6	9.40	1.4	462.1
2020-03-05	13:24:00	1369	1038	485	192	183	-40.45	-60.85	-116.7	193.8	9.40	1.3	465.0
2020-03-05	13:25:00	1370	1037	485	192	183	-28.35	-43.85	-104.4	198.1	9.40	1.3	479.8

Mar 13/2020	Temperatures					Pressures				Analyzers		
	Primary	Secondary	Quench	SprayDryer	Stack	Incinerator	SDA Inlet	SD Outlet	Baghouse	O2	Opacity	SO2
Test 1	TE-240	TE-241	TE-203	TE-204	TE-258	PT-242A	PT-249	PT-615	PDT-622	AT-261A-2NEV	AT-263	AT-264-1NEW
Units	Degrees C	Degrees C	Degrees C	Degrees C	Degrees C	mmH2O	mmH2O	mmH2O	mmH2O	%	%	PPM
Max	1390	1046	491	196	185	-20.50	-34.95	-91.8	243.0	9.40	1.4	497.8
Min	1364	1034	477	187	180	-47.00	-67.75	-130.8	170.8	9.40	1.3	436.5
Average	1374	1039	484	191	182	-31.55	-48.40	-106.0	210.6	9.40	1.3	466.9
Variance	31	7	20	7	3	49.96	79.52	85.8	328.6	0.00	0.0	170.8

\$Date	\$Time	Rich	Emulsion	Lean	Alkaline	TDU Flow	TDU Flow	Leachate	PAC	Primary	Secondary	tack Velocit	Stack Flow
		LPM	LPM	LPM	LPM	LPM	SCFM	LPM	Lbs/h	m3/h	m3/h	m/s	Rm3/s
		FT-229	FT-219C	FT-223	PV-207	FT-313B	FT-313	PV-211	SC-PAC-FT	PV-236	PV-209	FT-260-VEL	FT-260-REFDRY
2020-03-05	13:36:00	30.57	12.13	184.59	192.38	4.76	285.53	42.19	25.62	18669	15556	29.96	17.83
2020-03-05	13:37:00	30.75	12.25	185.45	192.38	4.77	285.98	41.66	24.83	19438	15787	30.79	18.58
2020-03-05	13:38:00	30.54	12.17	185.02	200.66	4.75	285.00	42.08	24.70	19231	15663	29.98	18.11
2020-03-05	13:39:00	30.56	12.14	184.78	192.69	4.74	284.40	42.60	24.54	19225	15770	29.76	17.89
2020-03-05	13:40:00	30.72	12.14	185.06	198.23	4.75	284.93	42.23	25.67	18825	15652	30.36	18.20
2020-03-05	13:41:00	30.51	12.24	184.97	191.21	4.75	284.93	42.23	25.70	19294	15781	30.78	18.23
2020-03-05	13:42:00	30.95	12.53	184.97	194.49	4.76	285.83	43.05	24.52	19000	15680	30.39	17.94
2020-03-05	13:43:00	30.86	12.09	184.78	199.31	4.74	284.40	42.49	25.02	19419	15899	30.18	17.82
2020-03-05	13:44:00	30.95	12.14	184.87	196.97	4.72	282.98	42.79	25.88	18813	15669	30.23	18.06
2020-03-05	13:45:00	30.66	12.20	185.45	192.06	4.72	283.20	42.83	24.41	19250	15815	31.74	19.17
2020-03-05	13:46:00	30.90	11.99	185.11	200.66	4.74	284.48	42.71	25.78	19106	15685	30.14	17.95
2020-03-05	13:47:00	30.81	12.01	184.97	193.59	4.78	286.50	41.70	25.94	18763	15787	30.68	18.28
2020-03-05	13:48:00	30.99	12.21	185.40	199.53	4.73	283.65	41.85	24.70	18850	15652	30.25	18.19
2020-03-05	13:49:00	31.02	12.01	185.06	193.32	4.63	277.80	41.66	25.67	18875	15663	30.18	17.94
2020-03-05	13:50:00	31.16	12.38	185.21	191.97	4.71	281.33	41.63	24.54	19050	15792	30.62	18.13
2020-03-05	13:51:00	31.19	12.43	185.96	191.30	4.79	287.25	42.68	24.49	18819	15579	30.12	17.75
2020-03-05	13:52:00	31.28	12.55	184.78	192.69	4.74	284.33	42.83	24.57	18881	15579	30.29	18.19
2020-03-05	13:53:00	31.20	12.42	185.02	198.36	4.73	283.65	42.41	24.65	18663	15579	29.75	17.87
2020-03-05	13:54:00	31.02	12.37	185.34	192.29	4.75	284.78	42.41	25.12	19356	15809	30.71	18.38
2020-03-05	13:55:00	30.87	12.61	185.34	192.42	4.69	281.63	42.60	25.65	19069	15691	30.50	18.18
2020-03-05	13:56:00	30.90	11.78	185.40	193.23	4.70	282.15	42.60	25.78	18988	15708	29.96	17.73
2020-03-05	13:57:00	30.84	12.17	184.74	197.55	4.71	282.60	42.60	25.80	18700	15646	30.48	17.91
2020-03-05	13:58:00	30.99	12.03	185.54	192.87	4.73	283.95	42.30	24.41	19519	15798	30.44	17.81
2020-03-05	13:59:00	30.93	12.08	185.45	193.19	4.74	284.33	42.45	24.86	18975	15584	30.49	17.79
2020-03-05	14:00:00	30.87	12.23	185.54	199.85	4.72	283.13	42.45	25.80	19631	15702	31.20	18.94
2020-03-05	14:01:00	31.32	12.54	185.06	200.97	4.68	280.50	42.45	25.17	18856	15584	29.96	18.24
2020-03-05	14:02:00	31.40	11.90	184.68	191.75	4.92	295.20	42.19	24.62	18869	15702	31.42	19.17
2020-03-05	14:03:00	31.08	12.09	184.64	191.84	4.69	281.25	42.86	24.54	19075	15702	29.85	18.28
2020-03-05	14:04:00	31.28	12.08	184.78	192.20	4.73	283.58	42.19	24.83	18825	15714	30.50	18.68
2020-03-05	14:05:00	31.62	12.31	184.83	192.74	4.66	279.30	42.26	24.86	19069	15601	30.43	18.37
2020-03-05	14:06:00	31.29	12.26	184.87	192.42	4.62	277.20	42.26	24.65	18838	15601	29.67	17.92
2020-03-05	14:07:00	31.25	12.75	184.64	192.56	4.70	282.00	42.26	24.62	19613	15730	30.26	18.27
2020-03-05	14:08:00	31.46	12.39	185.68	193.01	4.78	286.65	42.11	25.75	18900	15612	29.92	17.82
2020-03-05	14:09:00	31.58	12.82	185.02	198.09	4.72	283.05	42.23	24.44	19131	15618	30.21	17.89
2020-03-05	14:10:00	31.64	12.62	185.45	193.95	4.72	283.13	42.68	24.89	18775	15646	29.54	17.43
2020-03-05	14:11:00	31.61	12.77	185.45	192.60	4.71	282.83	42.56	25.46	19456	15770	30.10	17.87
2020-03-05	14:12:00	31.61	12.61	185.02	197.60	4.66	279.45	42.41	25.52	19019	15674	29.90	17.84
2020-03-05	14:13:00	31.25	12.38	183.03	190.85	4.64	278.55	41.59	24.68	19219	15685	29.97	18.20
2020-03-05	14:14:00	31.28	12.53	183.50	199.35	4.67	280.20	42.75	24.75	18969	15562	29.61	18.06
2020-03-05	14:15:00	31.52	12.86	183.93	199.98	4.70	282.00	42.34	25.62	19800	15657	30.55	18.52
2020-03-05	14:16:00	31.52	12.90	184.44	194.67	4.69	281.63	43.35	24.47	19044	15652	30.12	17.98
2020-03-05	14:17:00	30.99	12.42	183.84	195.48	4.71	282.75	42.15	24.65	19319	15652	31.15	18.62
2020-03-05	14:18:00	31.49	12.95	183.84	193.68	4.66	279.38	42.11	25.10	18731	15534	30.64	18.45
2020-03-05	14:19:00	31.05	12.23	183.93	193.10	4.69	281.33	42.15	25.07	18856	15534	31.18	18.80
2020-03-05	14:20:00	31.29	12.66	183.84	191.43	4.69	281.40	43.24	25.80	19244	15753	30.41	17.99
2020-03-05	14:21:00	31.25	12.61	184.12	200.39	4.71	282.75	42.11	24.75	19113	15646	29.88	17.54
2020-03-05	14:22:00	31.26	12.46	183.45	190.71	4.74	284.55	42.56	24.73	19113	15646	30.23	17.84
2020-03-05	14:23:00	31.23	12.62	183.50	192.24	4.72	282.98	42.64	25.80	18981	15523	30.05	17.83
2020-03-05	14:24:00	31.37	12.69	183.93	192.87	4.71	281.63	43.13	25.59	19313	15674	29.83	18.15
2020-03-05	14:25:00	31.28	12.79	183.93	197.60	4.67	279.98	42.49	25.88	18844	15551	29.75	18.38
2020-03-05	14:26:00	31.13	12.83	184.35	195.80	4.68	280.88	42.56	25.86	18825	15556	30.06	18.07
2020-03-05	14:27:00	31.37	12.74	184.44	196.61	4.65	278.85	42.86	25.23	18569	15444	30.74	18.21
2020-03-05	14:28:00	31.04	12.71	183.41	191.84	4.62	277.13	42.86	25.73	19406	15758	30.85	18.14
2020-03-05	14:29:00	31.31	12.73	183.78	192.20	4.60	275.85	42.26	25.15	19150	15657	29.73	17.64
2020-03-05	14:30:00	31.05	12.45	183.84	191.84	4.65	279.00	42.26	25.62	19419	15635	30.45	18.19
2020-03-05	14:31:00	31.20	12.54	184.07	193.59	4.65	278.33	43.20	25.83	18781	15635	29.91	17.78
2020-03-05	14:32:00	31.29	12.57	183.54	196.65	4.70	282.00	43.09	25.04	19450	15742	30.83	18.63
2020-03-05	14:33:00	31.61	12.96	183.88	194.94	4.67	280.20	43.16	25.28	19050	15612	29.83	17.54
2020-03-05	14:34:00	31.83	12.60	183.74	197.15	4.63	277.95	42.45	25.70	19325	15635	30.96	18.13
2020-03-05	14:35:00	31.89	12.86	184.21	193.73	4.58	274.95	42.71	25.67	18950	15624	30.09	17.81
2020-03-05	14:36:00	31.61	12.49	184.07	193.23	4.60	276.53	42.34	25.57	18725	15517	30.05	17.56

Mar 13/2020		Waste Flows							Flows		Air Flows			
	Test 1	Rich	Emulsion	Lean	Alkaline	TDU Flow	TDU Flow	Leachate	PACFlow	Primary	Secondary	tack Velocit	Stack Flow	
Units		LPM	LPM	LPM	LPM	LPM	SCFM	LPM	Lbs/h	m3/h	m3/h	m/s	Rm3/s	
Max		31.89	12.96	185.96	200.97	4.92	295.20	43.35	25.94	19800	15899	31.74	19.17	
Min		30.51	11.78	183.03	190.71	4.58	274.95	41.59	24.41	18569	15444	29.54	17.43	
Average		31.17	12.42	184.61	194.63	4.70	282.19	42.46	25.17	19066	15662	30.30	18.11	
Variance		0.10	0.09	0.49	9.18	0.00	10.90	0.17	0.27	76067	7729	0.22	0.14	

Date	Time	Primary	Secondary	Quench	SDA	Stack	Incinerator	SDA Inlet	BH Inlet	BH dP	O2	Opacity	SO2
		Degrees C	Degrees C	Degrees C	Degrees C	Degrees C	mmH2O	mmH2O	mmH2O	mmH2O	%	%	PPM
\$Date	\$Time	TE-240	TE-241	TE-203	TE-204	TE-258	PT-242A	PT-249	PT-615	PDT-622	AT-261A-2NEV	AT-263	AT-264-1NEV
2020-03-05	13:36:00	1375	1039	485	192	182	-21.40	-32.85	-92.4	237.4	9.40	1.3	476.5
2020-03-05	13:37:00	1374	1039	486	192	182	-36.45	-53.85	-110.9	203.6	9.40	1.4	476.5
2020-03-05	13:38:00	1372	1038	486	192	182	-31.90	-48.00	-107.3	212.6	9.40	1.4	472.6
2020-03-05	13:39:00	1370	1037	486	192	183	-31.20	-47.90	-106.2	217.9	9.40	1.4	474.6
2020-03-05	13:40:00	1373	1037	485	192	183	-27.10	-44.70	-98.5	227.3	9.40	1.3	469.9
2020-03-05	13:41:00	1374	1037	485	192	183	-36.55	-54.45	-116.8	186.6	9.40	1.3	476.1
2020-03-05	13:42:00	1371	1037	484	192	183	-29.15	-43.30	-103.4	197.3	9.40	1.4	478.3
2020-03-05	13:43:00	1375	1037	483	192	182	-36.95	-52.40	-119.4	223.8	9.40	1.3	480.6
2020-03-05	13:44:00	1374	1038	483	192	182	-25.05	-38.45	-96.2	231.4	9.40	1.3	476.7
2020-03-05	13:45:00	1380	1040	482	191	182	-47.80	-67.90	-122.7	173.1	9.40	1.3	478.7
2020-03-05	13:46:00	1376	1039	482	191	182	-32.95	-50.95	-108.0	206.1	9.40	1.3	488.0
2020-03-05	13:47:00	1374	1039	482	191	182	-27.55	-44.20	-98.3	209.7	9.40	1.4	482.9
2020-03-05	13:48:00	1373	1039	481	191	183	-29.35	-43.85	-101.6	222.2	9.40	1.3	473.9
2020-03-05	13:49:00	1378	1040	481	191	182	-23.60	-39.30	-95.7	232.6	9.40	1.3	480.4
2020-03-05	13:50:00	1377	1040	482	191	182	-30.90	-47.05	-110.4	195.3	9.40	1.3	490.1
2020-03-05	13:51:00	1380	1041	482	191	182	-26.10	-43.45	-100.2	206.8	9.40	1.3	490.1
2020-03-05	13:52:00	1377	1042	483	191	182	-28.55	-43.90	-101.7	232.2	9.40	1.2	483.7
2020-03-05	13:53:00	1384	1044	483	191	182	-21.10	-34.55	-94.8	239.9	9.40	1.3	486.2
2020-03-05	13:54:00	1385	1043	482	190	182	-34.50	-53.55	-112.4	203.2	9.40	1.3	497.6
2020-03-05	13:55:00	1385	1042	483	191	182	-28.30	-42.65	-101.7	213.6	9.40	1.3	494.8
2020-03-05	13:56:00	1384	1042	483	191	182	-31.00	-46.45	-106.9	220.3	9.40	1.3	491.5
2020-03-05	13:57:00	1384	1041	482	191	182	-26.80	-44.15	-98.8	228.6	9.40	1.3	483.6
2020-03-05	13:58:00	1385	1040	480	190	182	-38.10	-55.65	-119.9	189.5	9.40	1.3	483.6
2020-03-05	13:59:00	1381	1039	480	190	182	-29.60	-44.00	-105.7	198.7	9.40	1.3	481.7
2020-03-05	14:00:00	1383	1038	479	190	182	-46.15	-65.05	-128.6	207.8	9.40	1.3	458.2
2020-03-05	14:01:00	1384	1038	479	190	182	-24.20	-36.70	-97.2	230.3	9.40	1.3	449.2
2020-03-05	14:02:00	1391	1040	479	189	181	-47.40	-66.50	-120.9	172.1	9.40	1.3	450.2
2020-03-05	14:03:00	1384	1038	480	189	181	-34.25	-53.20	-110.0	207.3	9.40	1.3	453.0
2020-03-05	14:04:00	1385	1038	481	189	181	-30.35	-46.35	-108.4	214.8	9.40	1.3	446.5
2020-03-05	14:05:00	1383	1037	480	189	181	-26.15	-40.75	-100.3	217.8	9.40	1.3	445.0
2020-03-05	14:06:00	1386	1038	479	189	181	-24.00	-39.25	-97.0	229.6	9.40	1.3	445.0
2020-03-05	14:07:00	1388	1038	481	189	181	-30.90	-46.90	-109.0	189.5	9.40	1.3	451.3
2020-03-05	14:08:00	1387	1039	481	190	181	-26.20	-42.65	-98.3	200.4	9.40	1.3	460.6
2020-03-05	14:09:00	1388	1041	482	190	181	-26.25	-43.20	-98.8	222.0	9.40	1.3	471.2
2020-03-05	14:10:00	1392	1043	482	190	181	-18.35	-33.00	-88.7	228.3	9.40	1.3	476.2
2020-03-05	14:11:00	1391	1043	483	190	181	-34.00	-54.35	-112.0	201.3	9.40	1.3	486.3
2020-03-05	14:12:00	1390	1043	485	190	181	-27.35	-45.55	-102.9	209.9	9.40	1.3	482.5
2020-03-05	14:13:00	1388	1044	485	191	182	-29.30	-46.05	-105.4	213.4	9.40	1.3	468.1
2020-03-05	14:14:00	1390	1044	486	191	182	-25.90	-39.80	-99.3	225.0	9.40	1.3	458.5
2020-03-05	14:15:00	1395	1045	486	191	182	-40.95	-58.70	-124.8	184.9	9.40	1.3	460.7
2020-03-05	14:16:00	1394	1045	487	192	182	-28.55	-46.05	-104.6	197.2	9.40	1.3	474.6
2020-03-05	14:17:00	1395	1046	487	192	182	-44.80	-65.05	-122.4	183.0	9.40	1.3	471.0
2020-03-05	14:18:00	1397	1045	487	192	182	-22.75	-40.50	-91.9	228.1	9.40	1.3	468.3
2020-03-05	14:19:00	1400	1047	487	192	182	-40.10	-64.15	-107.7	177.9	9.40	1.3	469.1
2020-03-05	14:20:00	1396	1044	487	192	182	-31.85	-48.80	-107.2	204.4	9.40	1.3	482.1
2020-03-05	14:21:00	1394	1044	487	192	182	-30.20	-48.10	-104.9	216.3	9.40	1.3	481.2
2020-03-05	14:22:00	1391	1044	489	193	183	-25.65	-41.35	-99.8	218.4	9.40	1.3	467.9
2020-03-05	14:23:00	1395	1045	488	193	183	-23.30	-37.65	-96.6	229.1	9.40	1.2	467.9
2020-03-05	14:24:00	1389	1044	489	193	183	-30.45	-47.65	-109.9	191.0	9.40	1.3	462.2
2020-03-05	14:25:00	1392	1044	490	194	183	-26.85	-42.65	-102.4	203.4	9.40	1.4	455.7
2020-03-05	14:26:00	1392	1044	490	194	183	-24.70	-39.15	-101.2	229.7	9.40	1.4	468.5
2020-03-05	14:27:00	1396	1046	488	193	183	-21.05	-31.95	-95.3	238.1	9.40	1.3	476.9
2020-03-05	14:28:00	1392	1046	487	193	183	-38.20	-52.60	-114.2	206.8	9.40	1.4	489.5
2020-03-05	14:29:00	1389	1044	488	193	183	-29.00	-47.40	-98.6	214.1	9.40	1.4	479.6
2020-03-05	14:30:00	1391	1044	487	193	183	-27.85	-44.85	-105.7	219.4	9.40	1.3	469.4
2020-03-05	14:31:00	1390	1044	487	193	183	-24.25	-36.10	-93.2	223.8	9.40	1.4	465.5
2020-03-05	14:32:00	1394	1046	487	192	183	-44.90	-65.50	-124.5	173.2	9.40	1.4	459.5
2020-03-05	14:33:00	1390	1046	488	193	183	-28.05	-43.65	-104.6	201.3	9.40	1.4	483.4
2020-03-05	14:34:00	1395	1047	488	193	183	-43.80	-65.65	-122.3	187.1	9.40	1.3	488.8
2020-03-05	14:35:00	1396	1047	489	193	183	-21.30	-33.70	-97.1	232.9	9.40	1.3	482.0
2020-03-05	14:36:00	1402	1049	489	193	183	-19.75	-30.75	-92.3	205.1	9.40	1.4	488.9

Mar 13/2020	Temperatures					Pressures				Analyzers		
	Primary	Secondary	Quench	SprayDryer	Stack	Incinerator	SDA Inlet	SD Outlet	Baghouse	O2	Opacity	SO2
Test 1	TE-240	TE-241	TE-203	TE-204	TE-258	PT-242A	PT-249	PT-615	PDT-622	AT-261A-2NEV	AT-263	AT-264-1NEV
Units	Degrees C	Degrees C	Degrees C	Degrees C	Degrees C	mmH2O	mmH2O	mmH2O	mmH2O	%	%	PPM
Max	1402	1049	490	194	183	-18.35	-30.75	-88.7	239.9	9.40	1.4	497.6
Min	1370	1037	479	189	181	-47.80	-67.90	-128.6	172.1	9.40	1.2	445.0
Average	1386	1042	484	191	182	-30.34	-46.70	-105.4	210.6	9.40	1.3	473.5
Variance	66	11	10	2	1	51.07	84.96	89.3	310.4	0.00	0.0	172.7

Date	Time	Rich	Emulsion	Lean	Alkaline	TDU Flow	TDU Flow	Leachate	PAC	Primary	Secondary	Stack Velocity	Stack Flow
		LPM	LPM	LPM	LPM	LPM	SCFM	LPM	Lbs/h	m3/h	m3/h	m/s	Rm3/s
\$Date	\$Time	FT-229	FT-219C	FT-223	PV-207	FT-313B	FT-313	PV-211	SC-PAC-FT	PV-236	PV-209	FT-260-VEL	FT-260-REFDRY
2020-03-05	14:45:00	31.62	12.69	183.54	193.82	4.61	277.05	42.41	25.86	19494	15697	30.53	18.18
2020-03-05	14:46:00	31.94	12.85	183.03	194.81	4.62	276.83	42.60	25.41	19006	15596	29.80	17.64
2020-03-05	14:47:00	31.02	12.51	182.98	200.34	4.56	273.53	42.79	24.75	19413	15697	30.37	17.95
2020-03-05	14:48:00	31.43	12.61	183.12	192.42	4.58	274.95	41.96	24.52	18913	15584	30.26	17.98
2020-03-05	14:49:00	30.95	12.64	182.51	199.04	4.57	274.35	42.60	25.70	19131	15697	31.05	18.52
2020-03-05	14:50:00	31.22	12.72	182.94	201.74	4.63	277.95	44.29	25.62	19125	15680	29.89	17.66
2020-03-05	14:51:00	31.07	12.70	183.26	194.76	4.64	278.48	42.86	24.96	18838	15680	31.30	18.59
2020-03-05	14:52:00	31.29	12.66	184.78	193.95	4.61	275.85	43.20	25.36	18844	15652	30.02	17.66
2020-03-05	14:53:00	30.96	12.51	184.16	193.32	4.58	274.80	42.79	25.02	18775	15551	29.52	17.24
2020-03-05	14:54:00	31.13	11.76	183.78	201.87	4.61	276.60	42.68	24.57	19156	15669	30.73	18.24
2020-03-05	14:55:00	30.92	12.09	183.50	193.32	4.67	280.20	42.75	25.83	19206	15556	29.62	17.77
2020-03-05	14:56:00	30.80	12.30	183.84	194.22	4.75	285.00	42.08	25.80	18938	15669	29.87	17.58
2020-03-05	14:57:00	30.71	11.89	183.74	194.18	4.67	279.98	41.78	25.33	18656	15573	29.81	17.61
2020-03-05	14:58:00	30.92	12.58	183.93	195.17	4.65	279.00	42.86	24.47	19144	15680	30.24	18.31
2020-03-05	14:59:00	30.84	12.06	184.16	197.42	4.64	278.25	42.86	24.68	18931	15567	29.89	17.91
2020-03-05	15:00:00	30.59	12.09	183.03	193.19	4.70	281.85	42.86	25.67	19138	15714	29.76	17.68
2020-03-05	15:01:00	30.74	12.09	182.84	193.46	5.15	308.70	42.75	25.54	18744	15596	29.73	17.57
2020-03-05	15:02:00	30.59	12.15	184.16	200.07	4.73	283.50	42.53	24.57	19575	15798	30.05	17.45
2020-03-05	15:03:00	30.48	12.11	184.02	193.68	4.71	282.68	43.09	25.52	19150	15624	30.03	17.88
2020-03-05	15:04:00	30.29	11.76	183.74	193.59	4.70	282.00	42.15	24.54	19219	15753	30.81	18.34
2020-03-05	15:05:00	30.65	11.34	183.93	196.47	4.67	280.43	42.04	25.28	18956	15629	30.11	17.78
2020-03-05	15:06:00	30.53	11.82	184.25	199.35	4.66	279.83	42.64	25.75	18963	15618	31.11	18.50
2020-03-05	15:07:00	30.57	11.74	184.21	198.54	4.78	286.80	42.26	24.52	19156	15624	30.16	18.24
2020-03-05	15:08:00	30.44	11.66	183.78	200.57	5.18	310.80	42.68	24.75	18956	15612	29.88	17.92
2020-03-05	15:09:00	31.17	11.66	183.17	194.81	5.20	311.93	42.86	25.78	19038	15624	29.49	17.70
2020-03-05	15:10:00	30.99	11.33	184.12	200.52	4.54	272.25	42.00	25.65	18594	15652	29.60	17.82
2020-03-05	15:11:00	31.28	11.50	183.93	192.38	4.51	270.38	42.30	24.57	19294	15764	30.72	18.53
2020-03-05	15:12:00	31.41	11.51	183.93	198.23	4.48	268.65	42.34	25.78	18919	15545	30.20	18.22
2020-03-05	15:13:00	31.94	11.84	184.40	194.04	4.53	271.50	42.53	25.15	19075	15545	29.77	18.04
2020-03-05	15:14:00	32.10	11.84	183.88	198.77	4.50	269.70	41.81	25.15	18844	15354	30.06	18.41
2020-03-05	15:15:00	32.36	11.82	184.25	195.08	4.58	275.03	42.90	25.75	19338	15360	30.37	18.00
2020-03-05	15:16:00	32.24	12.08	184.44	200.61	4.49	269.10	42.23	25.12	18856	15472	29.57	17.44
2020-03-05	15:17:00	32.13	11.57	184.44	193.14	4.56	273.68	42.23	24.52	19150	15478	30.11	18.14
2020-03-05	15:18:00	31.95	11.26	183.84	193.28	4.70	281.70	41.89	24.47	18744	15337	29.56	17.72
2020-03-05	15:19:00	31.71	11.44	184.59	193.41	4.74	284.63	41.85	25.65	19700	15669	30.21	17.85
2020-03-05	15:20:00	31.65	11.49	184.40	195.93	5.00	300.00	41.21	25.44	19175	15674	30.51	18.06
2020-03-05	15:21:00	31.73	11.23	183.45	200.66	5.17	310.28	42.56	24.81	18963	15567	31.21	18.55
2020-03-05	15:22:00	32.06	11.41	183.31	193.10	4.68	280.73	41.66	24.91	18906	15253	29.82	17.65
2020-03-05	15:23:00	31.89	11.38	183.84	200.52	4.70	282.00	42.15	25.15	18863	15253	31.03	18.48
2020-03-05	15:24:00	32.07	11.89	183.88	194.76	4.63	277.58	42.23	25.78	18944	15236	30.45	18.06
2020-03-05	15:25:00	31.65	11.62	183.78	197.06	4.68	280.88	42.11	25.04	18738	15247	30.58	18.13
2020-03-05	15:26:00	31.56	11.89	183.50	193.41	4.67	280.05	42.75	25.15	18969	15281	30.07	17.93
2020-03-05	15:27:00	31.79	12.17	183.78	192.56	4.67	280.43	41.63	25.80	18388	15511	29.80	17.80
2020-03-05	15:28:00	31.76	12.03	182.98	196.52	4.72	283.28	43.65	25.59	19156	15657	30.90	18.24
2020-03-05	15:29:00	31.71	11.88	184.35	194.63	5.15	309.15	42.15	25.83	18919	15657	30.15	18.07
2020-03-05	15:30:00	31.34	12.66	184.31	196.74	4.73	288.00	42.26	24.54	18906	15657	30.60	18.15
2020-03-05	15:31:00	31.08	12.66	183.60	191.93	5.18	310.73	42.15	25.67	18819	15551	29.90	17.68
2020-03-05	15:32:00	31.34	12.45	184.07	194.45	5.15	309.90	42.15	25.17	19194	15753	30.52	18.20
2020-03-05	15:33:00	31.71	12.88	184.68	195.53	4.74	283.58	42.53	25.49	18681	15652	30.29	18.06
2020-03-05	15:34:00	31.44	12.13	183.84	201.20	4.72	283.20	41.96	25.38	19319	15803	29.79	17.36
2020-03-05	15:35:00	30.87	12.95	188.38	192.06	4.72	283.43	42.04	24.54	18663	15590	29.14	16.93
2020-03-05	15:36:00	30.74	12.60	179.47	191.93	4.70	282.23	42.04	24.52	19438	15820	30.93	18.45
2020-03-05	15:37:00	30.75	12.75	184.31	198.86	4.74	284.48	41.51	24.62	19050	15719	30.18	18.22
2020-03-05	15:38:00	30.68	12.28	182.94	194.76	5.17	310.20	42.26	24.83	18925	15607	30.57	18.31
2020-03-05	15:39:00	30.59	12.39	182.70	200.70	5.11	306.75	41.81	24.81	18844	15579	29.99	17.59
2020-03-05	15:40:00	30.90	12.33	183.78	194.22	5.14	308.25	41.63	25.83	18688	15579	29.39	17.17
2020-03-05	15:41:00	31.25	12.57	183.88	196.11	5.13	307.58	41.59	25.73	18944	15708	29.86	17.48
2020-03-05	15:42:00	30.81	12.09	183.88	195.17	5.11	306.45	41.63	25.25	18819	15607	29.91	17.43
2020-03-05	15:43:00	30.78	12.00	184.74	193.73	4.71	282.90	42.38	24.44	18800	15573	29.88	17.61
2020-03-05	15:44:00	30.77	11.95	183.74	192.83	4.68	280.58	42.26	25.49	18719	15579	29.26	17.40
2020-03-05	15:45:00	30.84	12.26	184.12	194.36	4.65	278.85	43.24	24.49	19425	15685	30.43	18.10

Mar 13/2020		Waste Flows								Flows		Air Flows	
Test 1	Units	Rich	Emulsion	Lean	Alkaline	TDU Flow	TDU Flow	Leachate	PACFlow	Primary	Secondary	Stack Velocity	Stack Flow
		FT-229	FT-219C	FT-223	PV-207	FT-313B	FT-313	PV-211	SC-PAC-FT	PV-236	PV-209	FT-260-VEL	FT-260-REFDRY
		LPM	LPM	LPM	LPM	LPM	SCFM	LPM	Lbs/h	m3/h	m3/h	m/s	Rm3/s
Max		32.36	12.95	188.38	201.87	5.20	311.93	44.29	25.86	19700	15820	31.30	18.59
Min		30.29	11.23	179.47	191.93	4.48	268.65	41.21	24.44	18388	15236	29.14	16.93
Average		31.22	12.08	183.80	195.85	4.75	285.23	42.36	25.18	19004	15592	30.15	17.92
Variance		0.29	0.22	0.94	8.76	0.05	168.61	0.29	0.24	64657	19619	0.24	0.15

		Primary	Secondary	Quench	SDA	Stack	Incinerator	SDA Inlet	BH Inlet	BH dP	O2	Opacity	SO2
		Degrees C	Degrees C	Degrees C	Degrees C	Degrees C	mmH2O	mmH2O	mmH2O	mmH2O	%	%	PPM
\$Date	\$Time	TE-240	TE-241	TE-203	TE-204	TE-258	PT-242A	PT-249	PT-615	PDT-622	AT-261A-2NEV	AT-263	AT-264-1NEW
2020-03-05	14:45:00	1402	1049	491	193	184	-37.65	-58.25	-117.1	207.2	9.40	1.3	479.7
2020-03-05	14:46:00	1396	1048	492	194	184	-28.65	-45.55	-103.7	216.1	9.40	1.3	472.4
2020-03-05	14:47:00	1396	1048	492	194	184	-33.70	-48.90	-117.3	217.9	9.40	1.3	462.8
2020-03-05	14:48:00	1394	1047	492	195	184	-23.95	-40.40	-98.6	227.9	9.40	1.3	446.4
2020-03-05	14:49:00	1395	1047	491	194	184	-45.25	-66.40	-119.6	172.2	9.40	1.4	442.2
2020-03-05	14:50:00	1391	1046	491	195	184	-29.65	-45.30	-102.9	198.0	9.40	1.3	449.6
2020-03-05	14:51:00	1396	1047	491	194	184	-35.20	-58.35	-103.1	182.3	9.40	1.4	442.0
2020-03-05	14:52:00	1395	1047	490	194	184	-19.95	-32.70	-91.5	225.3	9.40	1.3	447.8
2020-03-05	14:53:00	1396	1048	490	194	184	-18.35	-33.65	-90.2	235.5	9.40	1.3	455.9
2020-03-05	14:54:00	1389	1046	489	194	184	-34.35	-51.45	-112.0	206.4	9.40	1.3	454.7
2020-03-05	14:55:00	1388	1044	489	194	184	-26.75	-41.20	-100.4	213.5	9.40	1.3	445.3
2020-03-05	14:56:00	1386	1043	488	194	184	-26.65	-41.40	-101.3	217.3	9.40	1.4	441.0
2020-03-05	14:57:00	1388	1043	486	193	184	-21.65	-34.45	-94.5	224.6	9.40	1.3	434.9
2020-03-05	14:58:00	1388	1042	485	193	184	-32.55	-49.60	-108.2	189.1	9.40	1.3	428.4
2020-03-05	14:59:00	1388	1042	485	192	184	-28.35	-44.95	-100.2	199.5	9.40	1.3	435.7
2020-03-05	15:00:00	1385	1041	485	192	183	-27.85	-42.40	-102.8	222.9	9.40	1.3	441.3
2020-03-05	15:01:00	1387	1042	484	192	183	-23.05	-38.05	-93.6	237.0	9.40	1.3	450.3
2020-03-05	15:02:00	1386	1042	483	191	183	-41.65	-60.85	-121.0	205.1	9.40	1.4	453.3
2020-03-05	15:03:00	1382	1040	484	191	183	-30.75	-45.05	-105.5	209.6	9.40	1.3	443.1
2020-03-05	15:04:00	1383	1040	483	190	183	-44.80	-64.20	-120.9	181.5	9.40	1.2	436.4
2020-03-05	15:05:00	1380	1039	482	190	183	-28.30	-43.00	-100.7	223.0	9.40	1.3	434.8
2020-03-05	15:06:00	1380	1039	480	190	182	-44.10	-62.55	-120.8	168.8	9.40	1.3	430.9
2020-03-05	15:07:00	1376	1037	482	190	182	-32.80	-48.70	-108.5	195.0	9.40	1.3	421.5
2020-03-05	15:08:00	1377	1037	484	190	182	-27.10	-39.55	-99.7	193.3	9.40	1.3	425.7
2020-03-05	15:09:00	1378	1038	485	190	182	-26.00	-39.90	-101.4	227.9	9.40	1.3	428.4
2020-03-05	15:10:00	1384	1039	485	190	182	-25.80	-39.85	-95.6	237.9	9.40	1.3	430.2
2020-03-05	15:11:00	1376	1037	484	189	182	-36.00	-52.60	-112.9	201.7	9.40	1.3	436.1
2020-03-05	15:12:00	1378	1037	485	190	182	-30.50	-48.90	-108.1	212.9	9.40	1.2	429.8
2020-03-05	15:13:00	1378	1037	485	190	182	-29.15	-45.00	-103.4	217.3	9.40	1.3	422.4
2020-03-05	15:14:00	1386	1040	486	190	182	-25.35	-42.10	-97.8	225.9	9.40	1.3	422.4
2020-03-05	15:15:00	1389	1041	486	190	182	-31.70	-49.10	-109.2	186.3	9.40	1.3	448.0
2020-03-05	15:16:00	1391	1043	488	191	182	-28.05	-45.35	-99.9	199.1	9.40	1.3	452.5
2020-03-05	15:17:00	1391	1044	488	191	182	-26.95	-42.45	-104.7	223.2	9.40	1.3	445.0
2020-03-05	15:18:00	1396	1045	488	191	182	-21.10	-33.95	-94.7	233.6	9.40	1.3	447.7
2020-03-05	15:19:00	1396	1046	489	191	182	-44.30	-59.35	-128.5	199.2	9.40	1.3	459.2
2020-03-05	15:20:00	1393	1044	490	192	182	-31.75	-48.30	-109.0	207.9	9.40	1.4	460.3
2020-03-05	15:21:00	1395	1044	490	192	183	-42.75	-62.75	-113.6	178.9	9.40	1.3	457.4
2020-03-05	15:22:00	1395	1044	489	193	183	-27.55	-41.00	-101.3	222.2	9.40	1.3	451.3
2020-03-05	15:23:00	1398	1046	489	192	183	-43.15	-65.80	-111.9	171.1	9.40	1.3	445.2
2020-03-05	15:24:00	1396	1045	489	193	183	-30.90	-47.15	-107.2	193.1	9.40	1.3	454.8
2020-03-05	15:25:00	1399	1046	489	193	183	-26.60	-43.95	-99.1	204.6	9.40	1.3	455.8
2020-03-05	15:26:00	1396	1046	490	193	183	-24.40	-39.00	-97.1	228.5	9.40	1.4	452.8
2020-03-05	15:27:00	1402	1049	490	193	183	-21.65	-34.30	-93.9	237.4	9.40	1.2	453.8
2020-03-05	15:28:00	1402	1049	491	193	183	-32.90	-50.85	-114.5	204.4	9.40	1.2	467.0
2020-03-05	15:29:00	1401	1050	492	194	184	-25.05	-41.25	-101.7	213.1	9.40	1.3	462.4
2020-03-05	15:30:00	1403	1050	492	194	184	-28.00	-42.75	-105.0	220.7	9.40	1.3	460.0
2020-03-05	15:31:00	1405	1051	492	194	184	-21.45	-35.80	-95.4	229.0	9.40	1.3	460.0
2020-03-05	15:32:00	1405	1052	493	194	184	-30.00	-47.25	-107.8	188.4	9.40	1.3	462.2
2020-03-05	15:33:00	1408	1053	493	194	184	-23.85	-39.85	-98.1	200.2	9.40	1.3	463.7
2020-03-05	15:34:00	1410	1054	494	194	184	-29.30	-44.45	-107.1	228.0	9.40	1.3	475.2
2020-03-05	15:35:00	1410	1053	493	194	184	-15.25	-29.30	-87.6	230.5	9.40	1.3	472.3
2020-03-05	15:36:00	1412	1054	492	194	184	-48.75	-68.30	-127.8	186.2	9.40	1.3	454.8
2020-03-05	15:37:00	1404	1052	492	194	184	-27.55	-44.10	-100.3	207.8	9.40	1.3	444.5
2020-03-05	15:38:00	1403	1052	491	194	184	-36.85	-58.60	-106.5	183.8	9.40	1.3	452.9
2020-03-05	15:39:00	1399	1051	491	194	184	-24.40	-36.65	-100.5	224.4	9.40	1.3	455.4
2020-03-05	15:40:00	1402	1051	490	193	184	-20.65	-36.90	-92.1	226.3	9.40	1.3	458.0
2020-03-05	15:41:00	1400	1050	490	193	184	-29.15	-45.05	-103.8	193.0	9.40	1.3	461.1
2020-03-05	15:42:00	1402	1050	490	193	184	-26.80	-43.15	-99.9	205.8	9.40	1.3	462.9
2020-03-05	15:43:00	1399	1049	490	193	184	-23.60	-40.70	-96.9	226.2	9.40	1.3	459.5
2020-03-05	15:44:00	1399	1049	489	193	184	-20.00	-33.65	-89.8	237.2	9.40	1.3	454.4
2020-03-05	15:45:00	1396	1048	489	193	184	-35.95	-52.35	-112.1	204.1	9.40	1.3	456.7

Mar 13/2020	Temperatures					Pressures				Analyzers		
Test 1	Primary	Secondary	Quench	SprayDryer	Stack	Incinerator	SDA Inlet	SD Outlet	Baghouse	O2	Opacity	SO2
Units	Degrees C	Degrees C	Degrees C	Degrees C	Degrees C	mmH2O	mmH2O	mmH2O	mmH2O	%	%	PPM
Max	1412	1054	494	195	184	-15.25	-29.30	-87.6	237.9	9.40	1.4	479.7
Min	1376	1037	480	189	182	-48.75	-68.30	-128.5	168.8	9.40	1.2	421.5
Average	1393	1045	488	192	183	-29.77	-46.04	-104.4	209.6	9.40	1.3	449.4
Variance	85	23	11	3	1	54.60	86.59	84.9	342.3	0.00	0.0	185.5

	Waste Flows												
	Rich LPM	Emulsion LPM	Lean LPM	Alkaline LPM	TDU Flow LPM	TDU Flow SCFM	Leachate LPM	PAC Lbs/h	Primary m3/h	Secondary m3/h	Stack Velocity m/s	Stack Flow Rm3/s	
\$Date	\$Time	FT-229	FT-219C	FT-223	PV-207	FT-313B	FT-313	PV-211	SC-PAC-FT	PV-236	PV-209	FT-260-VEL	FT-260-REFDRY
2020-03-05	15:55:00	30.56	12.11	183.41	192.92	4.65	279.08	41.89	24.78	18925	15523	30.58	18.12
2020-03-05	15:56:00	30.81	12.05	184.02	192.96	4.59	275.33	40.73	24.49	18875	15652	29.68	17.65
2020-03-05	15:57:00	30.86	12.26	183.97	200.16	4.64	278.25	42.19	24.96	18875	15641	29.91	17.79
2020-03-05	15:58:00	31.05	12.25	183.65	193.64	4.63	277.73	41.96	24.44	19181	15641	30.32	17.73
2020-03-05	15:59:00	31.19	11.97	183.17	198.68	4.63	277.95	42.53	24.62	19056	15539	29.75	17.48
2020-03-05	16:00:00	31.16	12.28	184.97	201.02	4.66	280.73	41.48	25.70	18744	15691	30.08	17.78
2020-03-05	16:01:00	31.19	12.14	184.50	194.22	5.14	308.63	42.38	24.94	18556	15590	28.82	17.14
2020-03-05	16:02:00	30.98	12.19	184.02	199.17	5.10	306.98	42.49	24.89	19294	15708	30.65	18.24
2020-03-05	16:03:00	31.17	11.94	183.93	193.41	5.13	307.95	42.41	24.68	18963	15708	30.28	17.72
2020-03-05	16:04:00	30.99	12.29	184.07	193.14	5.13	307.05	42.08	25.73	19206	15607	30.21	17.95
2020-03-05	16:05:00	30.86	12.08	184.25	193.73	5.09	305.63	42.15	25.62	18700	15624	30.16	17.92
2020-03-05	16:06:00	30.96	12.03	184.12	201.87	5.09	305.18	43.20	25.36	19388	15725	30.25	17.99
2020-03-05	16:07:00	31.17	12.42	184.02	194.09	4.68	280.58	40.84	25.41	18963	15618	29.66	17.79
2020-03-05	16:08:00	30.96	12.24	182.94	196.47	4.67	279.98	43.16	25.07	19444	15747	30.69	18.32
2020-03-05	16:09:00	30.93	11.92	182.79	193.77	4.68	280.65	42.49	25.31	18613	15635	29.84	17.84
2020-03-05	16:10:00	31.08	12.23	182.60	194.04	4.63	277.65	42.00	25.65	18794	15787	31.25	18.60
2020-03-05	16:11:00	31.26	11.92	183.35	192.56	4.67	280.35	42.34	25.70	19181	15685	30.04	25.55
2020-03-05	16:12:00	31.10	12.06	183.50	194.22	4.71	282.30	42.64	25.52	19069	15567	28.96	26.17
2020-03-05	16:13:00	31.20	12.47	183.45	194.63	4.63	277.80	42.30	24.65	18775	15584	29.52	19.35
2020-03-05	16:14:00	31.01	12.06	183.54	193.68	4.69	281.25	42.30	24.52	18669	15584	29.51	17.95
2020-03-05	16:15:00	31.11	12.09	183.22	200.39	4.60	275.93	41.93	25.86	19019	15601	30.04	17.87
2020-03-05	16:16:00	30.92	12.05	183.26	195.35	4.61	276.30	41.93	24.54	18769	15506	29.40	17.62
2020-03-05	16:17:00	30.72	12.21	182.98	200.21	4.71	282.60	41.93	24.62	18725	15663	29.65	17.76
2020-03-05	16:18:00	30.59	11.86	183.74	197.55	4.68	280.88	41.93	25.23	18606	15551	29.43	17.71
2020-03-05	16:19:00	30.47	12.09	183.93	193.14	5.17	308.55	41.33	25.78	19456	15798	30.64	18.38
2020-03-05	16:20:00	30.06	12.08	183.45	197.82	4.69	281.55	41.63	24.65	19106	15590	30.45	18.10
2020-03-05	16:21:00	30.11	12.01	174.74	193.73	4.70	281.93	42.75	25.54	19175	15697	29.89	17.61
2020-03-05	16:22:00	30.26	11.95	186.24	193.14	5.11	306.30	42.98	24.54	18900	15545	29.37	18.03
2020-03-05	16:23:00	30.12	12.00	183.78	193.28	4.68	280.50	41.96	25.33	19363	15764	30.47	18.43
2020-03-05	16:24:00	30.14	11.83	182.60	198.23	5.16	309.53	41.70	25.46	18975	15652	29.67	17.61
2020-03-05	16:25:00	30.12	12.00	183.26	193.37	5.13	307.73	42.56	25.80	19388	15730	30.96	18.55
2020-03-05	16:26:00	30.41	12.07	184.68	197.24	4.90	294.08	42.68	24.60	18700	15624	30.19	18.01
2020-03-05	16:27:00	30.15	11.93	184.07	193.28	4.70	282.08	41.55	24.65	18938	15624	31.35	18.79
2020-03-05	16:28:00	30.63	11.97	183.35	194.94	4.69	281.48	42.64	24.60	19325	15635	29.72	17.51
2020-03-05	16:29:00	29.84	11.63	184.97	194.45	5.11	306.45	41.66	25.83	18969	15635	28.58	16.80
2020-03-05	16:30:00	30.29	11.86	183.97	194.40	5.15	309.00	41.40	24.65	18894	15657	30.00	17.87
2020-03-05	16:31:00	30.38	11.75	185.02	194.18	5.17	310.35	41.66	24.70	18656	15556	29.51	17.39
2020-03-05	16:32:00	30.33	11.83	185.02	193.28	5.15	309.08	41.89	25.65	19069	15669	30.58	18.36
2020-03-05	16:33:00	30.35	11.82	185.15	201.33	5.14	308.18	41.96	25.20	18744	15674	29.41	17.72
2020-03-05	16:34:00	30.41	11.81	184.64	200.39	5.16	309.68	42.00	24.52	19000	15669	30.31	18.37
2020-03-05	16:35:00	30.47	12.02	184.97	194.90	4.68	305.85	42.53	25.10	18650	15567	29.82	17.89
2020-03-05	16:36:00	30.23	11.93	185.02	198.86	5.13	309.83	43.05	24.60	19488	15663	30.26	17.99
2020-03-05	16:37:00	30.30	11.89	183.74	201.51	5.15	308.85	41.93	25.57	19213	15669	30.49	17.63
2020-03-05	16:38:00	29.99	11.70	184.97	192.51	5.15	308.85	41.93	25.70	19294	15669	29.98	17.94
2020-03-05	16:39:00	30.27	12.01	184.16	194.94	5.11	306.45	42.11	24.78	18906	15545	29.67	18.17
2020-03-05	16:40:00	30.81	11.58	184.35	194.49	4.70	281.85	41.74	25.62	19481	15832	30.79	18.74
2020-03-05	16:41:00	30.86	11.80	184.68	197.87	5.14	308.48	42.34	24.91	19019	15725	30.45	18.33
2020-03-05	16:42:00	30.95	11.63	185.45	192.92	5.14	308.10	42.23	25.10	19156	15685	30.74	18.51
2020-03-05	16:43:00	30.93	12.00	185.02	194.00	5.43	325.80	42.19	25.49	18800	15573	30.02	17.85
2020-03-05	16:44:00	30.77	11.69	185.73	194.81	5.52	331.20	40.99	25.17	18706	15573	29.61	17.43
2020-03-05	16:45:00	30.80	11.84	184.68	193.77	5.58	333.68	42.19	25.12	19138	15691	30.56	18.20
2020-03-05	16:46:00	30.41	11.51	185.77	191.75	5.59	335.40	42.08	25.73	19144	15691	30.11	17.94
2020-03-05	16:47:00	30.86	11.85	184.87	192.24	3.99	238.28	41.89	25.86	19175	15764	30.28	17.98
2020-03-05	16:48:00	30.99	11.73	185.25	198.00	5.61	336.45	41.78	25.73	18831	15551	29.28	17.39
2020-03-05	16:49:00	31.07	11.90	185.02	193.91	5.58	334.50	41.78	24.57	19200	15758	31.28	18.79
2020-03-05	16:50:00	30.98	11.72	185.25	192.20	5.58	334.65	42.26	24.68	18875	15657	29.73	17.61
2020-03-05	16:51:00	31.10	11.85	186.01	194.67	5.58	334.80	42.34	24.44	19088	15663	30.37	18.25
2020-03-05	16:52:00	30.89	11.99	185.34	193.46	5.59	335.10	42.11	25.15	18706	15562	29.91	17.75
2020-03-05	16:53:00	30.56	11.79	185.49	192.83	5.58	334.95	42.15	24.89	19056	15798	30.46	17.99
2020-03-05	16:54:00	30.80	11.84	184.97	201.38	5.58	334.50	42.34	24.52	19156	15697	30.74	18.26
2020-03-05	16:55:00	30.87	12.11	185.92	193.23	5.58	334.50	40.95	25.36	19300	15697	30.11	18.11

Mar 13/2020		Waste Flows								Flows		Air Flows		
	Test 1	Rich LPM	Emulsion LPM	Lean LPM	Alkaline LPM	TDU Flow LPM	TDU Flow SCFM	Leachate LPM	PACFlow Lbs/h	Primary m3/h	Secondary m3/h	Stack Velocity m/s	Stack Flow Rm3/s	
	Units	FT-229	FT-219C	FT-223	PV-207	FT-313B	FT-313	PV-211	SC-PAC-FT	PV-236	PV-209	FT-260-VEL	FT-260-REFDRY	
	Max	31.26	12.47	186.24	201.87	5.61	336.45	43.20	25.86	19506	15832	31.35	26.17	
	Min	29.84	11.51	174.74	191.75	3.99	238.28	40.73	24.44	18556	15506	28.58	16.80	
	Average	30.70	11.97	184.15	195.45	5.00	300.58	42.07	25.11	19014	15651	30.07	18.23	
	Variance	0.14	0.04	2.32	8.40	0.14	483.88	0.27	0.22	66856	5679	0.33	2.19	

\$Date	\$Time	Primary	Secondary	Quench	SDA	Stack	Incinerator	SDA Inlet	BH Inlet	BH dP	O2	Opacity	SO2
		Degrees C	Degrees C	Degrees C	Degrees C	Degrees C	mmH2O	mmH2O	mmH2O	mmH2O	%	%	PPM
		TE-240	TE-241	TE-203	TE-204	TE-258	PT-242A	PT-249	PT-615	PDT-622	AT-261A-2NEW	AT-263	AT-264-1NEW
2020-03-05	15:55:00	1393	1048	490	192	183	-26.00	-44.35	-99.7	211.4	9.40	1.3	461.7
2020-03-05	15:56:00	1391	1048	490	193	183	-25.30	-41.15	-98.7	221.3	9.40	1.3	456.7
2020-03-05	15:57:00	1395	1050	490	192	183	-24.55	-39.35	-94.1	233.1	9.40	1.3	458.0
2020-03-05	15:58:00	1392	1049	491	193	183	-30.20	-45.95	-104.9	190.0	9.40	1.3	476.2
2020-03-05	15:59:00	1393	1050	491	193	183	-24.65	-39.70	-97.5	199.2	9.40	1.3	474.6
2020-03-05	16:00:00	1392	1051	492	193	183	-25.85	-40.35	-96.8	223.4	9.40	1.3	477.4
2020-03-05	16:01:00	1397	1053	492	193	183	-20.35	-34.25	-90.5	234.4	9.40	1.3	475.0
2020-03-05	16:02:00	1394	1052	493	193	183	-35.65	-54.45	-113.1	202.0	9.40	1.2	480.2
2020-03-05	16:03:00	1393	1051	494	194	183	-27.45	-43.55	-100.2	210.0	9.40	1.3	491.4
2020-03-05	16:04:00	1393	1052	494	194	184	-28.20	-45.50	-102.6	216.8	9.40	1.3	474.5
2020-03-05	16:05:00	1395	1053	495	194	184	-23.15	-38.35	-95.9	228.1	9.40	1.2	474.5
2020-03-05	16:06:00	1397	1053	496	194	184	-38.70	-57.85	-119.0	191.3	9.40	1.3	480.6
2020-03-05	16:07:00	1394	1053	498	195	184	-25.75	-41.55	-100.5	197.2	9.40	1.3	476.7
2020-03-05	16:08:00	1397	1054	498	196	184	-45.60	-66.35	-122.4	194.3	9.40	1.3	475.0
2020-03-05	16:09:00	1398	1054	497	196	184	-20.45	-34.15	-91.8	227.9	9.40	1.2	477.8
2020-03-05	16:10:00	1404	1056	494	195	184	-43.20	-64.05	-117.7	173.7	9.40	1.3	481.7
2020-03-05	16:11:00	1397	1054	494	195	184	-25.25	-41.35	-103.2	202.2	9.40	1.3	223.3
2020-03-05	16:12:00	1399	1055	493	195	185	-25.35	-41.15	-99.5	213.1	9.40	1.3	155.9
2020-03-05	16:13:00	1396	1054	493	195	185	-24.70	-39.85	-97.0	219.8	9.40	1.3	395.1
2020-03-05	16:14:00	1399	1056	493	195	185	-21.40	-35.20	-90.5	228.5	9.40	1.2	452.4
2020-03-05	16:15:00	1396	1054	492	194	185	-28.65	-47.35	-103.9	193.0	9.40	1.3	476.9
2020-03-05	16:16:00	1397	1055	491	194	184	-22.05	-37.55	-96.8	202.4	9.40	1.3	470.3
2020-03-05	16:17:00	1397	1054	491	194	184	-24.15	-38.85	-97.5	229.2	9.40	1.3	470.3
2020-03-05	16:18:00	1398	1054	490	193	184	-19.35	-31.10	-89.0	235.3	9.40	1.3	468.0
2020-03-05	16:19:00	1394	1053	489	193	184	-36.20	-54.40	-111.6	207.1	9.40	1.3	470.5
2020-03-05	16:20:00	1389	1052	489	193	184	-29.30	-45.20	-103.8	213.6	9.40	1.3	473.8
2020-03-05	16:21:00	1386	1050	488	193	184	-36.90	-53.80	-108.7	220.4	9.40	1.3	461.2
2020-03-05	16:22:00	1386	1049	486	192	184	-23.30	-37.95	-95.4	223.6	9.40	1.3	444.8
2020-03-05	16:23:00	1383	1050	486	192	184	-43.40	-63.05	-121.1	185.8	9.40	1.2	448.4
2020-03-05	16:24:00	1382	1048	485	192	183	-27.75	-41.65	-103.1	193.1	9.40	1.3	459.3
2020-03-05	16:25:00	1383	1049	484	191	183	-44.80	-65.75	-121.5	181.7	9.40	1.3	455.6
2020-03-05	16:26:00	1383	1048	484	191	183	-25.85	-41.75	-96.2	228.3	9.40	1.3	460.1
2020-03-05	16:27:00	1385	1049	483	190	182	-40.00	-62.95	-103.2	171.9	9.40	1.2	462.4
2020-03-05	16:28:00	1380	1046	484	190	182	-33.15	-50.75	-107.8	203.1	9.40	1.3	477.4
2020-03-05	16:29:00	1380	1046	484	190	182	-28.80	-46.65	-100.6	215.1	9.40	1.3	477.4
2020-03-05	16:30:00	1377	1045	483	190	182	-26.10	-42.00	-99.0	214.7	9.40	1.3	464.4
2020-03-05	16:31:00	1379	1045	482	190	182	-21.80	-36.05	-91.7	223.9	9.40	1.3	458.6
2020-03-05	16:32:00	1378	1045	482	189	182	-30.30	-48.50	-104.2	185.8	9.40	1.3	462.8
2020-03-05	16:33:00	1381	1045	482	189	181	-24.20	-39.80	-97.7	195.9	9.40	1.3	463.6
2020-03-05	16:34:00	1379	1044	482	189	181	-24.05	-36.70	-97.0	218.3	9.40	1.3	462.1
2020-03-05	16:35:00	1380	1046	483	189	181	-20.65	-35.50	-89.1	227.9	9.40	1.3	467.5
2020-03-05	16:36:00	1382	1046	483	188	181	-37.50	-55.30	-113.9	198.9	9.40	1.3	478.2
2020-03-05	16:37:00	1377	1044	483	189	181	-32.00	-46.95	-107.3	211.4	9.40	1.3	496.5
2020-03-05	16:38:00	1375	1043	483	189	181	-35.55	-52.80	-112.2	217.7	9.40	1.2	466.1
2020-03-05	16:39:00	1375	1043	483	189	181	-27.95	-42.05	-100.2	225.9	9.40	1.3	446.1
2020-03-05	16:40:00	1378	1044	483	189	181	-49.40	-70.80	-128.1	171.9	9.40	1.3	454.4
2020-03-05	16:41:00	1374	1044	484	189	181	-32.00	-49.80	-107.1	196.8	9.40	1.3	465.5
2020-03-05	16:42:00	1377	1044	484	190	181	-45.80	-64.65	-121.2	181.6	9.40	1.3	465.7
2020-03-05	16:43:00	1379	1044	485	190	181	-21.90	-33.45	-96.8	228.3	9.40	1.3	478.8
2020-03-05	16:44:00	1383	1047	485	189	181	-22.30	-42.70	-93.1	230.6	9.40	1.3	480.0
2020-03-05	16:45:00	1377	1046	485	190	181	-35.60	-53.35	-113.4	207.9	9.40	1.3	485.1
2020-03-05	16:46:00	1378	1046	485	191	181	-28.30	-47.40	-105.5	214.4	9.40	1.3	481.9
2020-03-05	16:47:00	1375	1046	485	191	181	-28.50	-42.95	-104.2	217.6	9.40	1.3	474.0
2020-03-05	16:48:00	1378	1047	484	191	181	-24.95	-42.35	-98.3	230.2	9.40	1.3	469.3
2020-03-05	16:49:00	1378	1047	486	191	181	-31.70	-49.80	-108.8	186.3	9.40	1.3	471.1
2020-03-05	16:50:00	1379	1048	487	191	181	-27.05	-42.25	-101.9	200.4	9.40	1.3	481.7
2020-03-05	16:51:00	1376	1048	488	192	181	-30.35	-46.95	-105.5	225.3	9.40	1.3	474.4
2020-03-05	16:52:00	1379	1049	488	192	182	-21.00	-33.80	-95.9	234.4	9.40	1.3	482.0
2020-03-05	16:53:00	1378	1049	488	192	182	-36.75	-55.55	-118.5	201.4	9.40	1.3	489.9
2020-03-05	16:54:00	1376	1047	489	192	182	-31.90	-48.05	-108.4	210.7	9.40	1.3	487.6
2020-03-05	16:55:00	1378	1047	489	193	183	-32.70	-49.25	-114.5	213.4	9.40	1.3	471.3

Mar 13/2020	Temperatures					Pressures				Analyzers		
	Primary	Secondary	Quench	SprayDryer	Stack	Incinerator	SDA Inlet	SD Outlet	Baghouse	O2	Opacity	SO2
Test 1	TE-240	TE-241	TE-203	TE-204	TE-258	PT-242A	PT-249	PT-615	PDT-622	AT-261A-2NEW	AT-263	AT-264-1NEW
Units	Degrees C	Degrees C	Degrees C	Degrees C	Degrees C	mmH2O	mmH2O	mmH2O	mmH2O	%	%	PPM
Max	1404	1056	498	196	185	-19.35	-31.10	-89.0	235.3	9.40	1.3	496.5
Min	1374	1043	482	188	181	-49.40	-70.80	-128.1	171.9	9.40	1.2	155.9
Average	1386	1049	488	192	183	-29.60	-46.16	-103.8	209.7	9.40	1.3	460.2
Variance	74	14	21	4	2	53.52	87.34	86.7	292.9	0.00	0.0	2774.8