



# Report:

## Mercury Emission Testing at the Clean Harbors Sarnia Facility (February 2021)

Date: March 24, 2021



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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 February 24, 2021. 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 2000 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 ( $\mu\text{g}/\text{Rm}^3$ )*	5.75
Dry Adjusted Concentration ( $\mu\text{g}/\text{Rm}^3$ )**	4.74

\* 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 29.7 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 February 24, 2021. The spike tubes from each test pair were spiked with increasing amounts of mercury, ranging from 100 ng to 2000 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 comes 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 2000 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 2020. The pre-spiked mercury trap for Test No. 2 (250 ng) was used for spike recovery determination as the concentration best fit the requirements of the QA/QC criteria. The average mercury collected for Test No. 1, Test No. 2 and Test No. 4 (339 ng) was within  $\pm 50\%$  of the Test No. 2 spike concentration.

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 fell within the spike range criterion stated in the test method. The spike recovery for Test No. 2 was 102.5%. 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  $3.26 \mu\text{g}/\text{Rm}^3$  (Tube Pair No. 4) to a high of  $6.14 \mu\text{g}/\text{Rm}^3$  (Tube Pair No. 1) for the three tests reported. The paired trap agreement was 0.6% for Test No. 1, 1.0% for Test No. 2, and 2.3% for Test No. 4.

## 6. RESULTS

Six mercury test runs were collected during one day of sampling on February 24, 2021. 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 2000 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. 4 are reported. Note Test No. 3 was excluded as the paired trap agreement (9.8%) was significantly higher than the other tests indicating there may have been a problem during sampling or analysis.

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. 4 are provided in Table 2. Mercury was detected in Section 1 of each trap in quantities greater than the method detection limit (0.42 ng) in all of the traps. Mercury was also collected in Section 2 in four of the six traps in quantities greater than the method detection limit. However, the amount detected in Section 2 was less than 0.9% of the mercury collected in Section 1 in all traps, indicating that there was no breakthrough or potential loss of mercury. US EPA Method 30B recommends that ≤10% of the total mercury collected should be collected in Section 2 for mercury concentrations greater than 1 µg/Rm<sup>3</sup> or ≤20% of the total mercury collected should be collected in Section 2 for mercury concentrations less than 1 µg/Rm<sup>3</sup>.

Included in Table 2 are the mercury concentration calculations for Test No. 1, Test No. 2 and Test No. 4. 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 2000 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) was used for spike recovery determination as the concentration 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 0.6% for Test No. 1, 1.0% for Test No. 2, and 2.3% for Test No. 4. The mercury emission data from the total vapour phase mercury tests is provided below:

Mercury Parameter	Test 1	Test 2	Test 4	Average
Dry Reference Conc. (µg/Rm <sup>3</sup> )*	7.49	5.89	3.85	5.75
Dry Adjusted Conc. (µg/Rm <sup>3</sup> )**	6.14	4.81	3.26	4.74

\* 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 µg/Rm<sup>3</sup> 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 102.5%. 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 29.7 lb/hr.

## APPENDIX 1

### Data Tables (2 pages)

**Table 1: Mercury Test Schedule**

Test Number	Test Date	Sampling Period		Sampling Time min
		Start	Finish	
1	February 24, 2021	10:21	11:21	60
2	February 24, 2021	11:38	12:38	60
3	February 24, 2021	13:07	14:07	60
4	February 24, 2021	14:17	15:17	60
5	February 24, 2021	15:33	16:33	60
6	February 24, 2021	16:43	17:43	60

Note: All test times match plant time.

**Table 2: Mercury Emission Data**

Test/Run No.	Tube ID	Mercury Collected			Dry Gas Volume Sampled Rm³*	Mercury Concentration Dry Reference µg/Rm³*	Mercury Concentration Dry Adjusted µg/Rm³**	Paired Trap Agreement %
		Section 1 ng	Section 2 ng	Total ng				
1	A ***	496.4	5.2	502	0.0665	7.54	6.18	-
	B	436.0	2.6	439	0.0589	7.45	6.10	-
	Average					7.49	6.14	0.6
2	A	329.5	<0.42	330	0.0565	5.83	4.76	-
	B***	303.2	1.8	305	0.0512	5.95	4.85	-
	Average					5.89	4.81	1.0
4	A	230.2	<0.42	230	0.0612	3.76	3.18	-
	B***	225.6	2.5	228	0.0579	3.94	3.33	-
	Average					3.85	3.26	2.3
Average				339		5.75	4.74	

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 600 ng for Test No. 4).

**Table 3: Mercury Spike Tube Recovery**

Test No.	Total Collected ng	Spike Tube Volume Sampled Rm³*	Mercury Concentration ng/Rm³*	Total Collected ng	Unspike Tube Volume Sampled Rm³*	Mercury Concentration ng/Rm³*	Spike Concentration ng/Rm³*	Spike Recovery %
1	602	0.0665	9045	439	0.0589	7448	1598	NA
2	555	0.0512	10832	330	0.0565	5833	4999	102.5
4	828	0.0579	14299	230	0.0612	3762	10537	NA
Average								102.5

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 600 ng for Test No. 4.

"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)

**ORTECH**  
**Mercury Tube Data Sheet**

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

Test location:	Stack Breeching
Date:	February 24, 2021
Project No.:	22076

Train A

Tube Identification: OL 542323 Spiked Yes No  
Spike Concentration 100 ng

Measuring Device	MII
Control Module	<u>COE 200 1G</u>
Barometer	ENV. CAN.
Barometric Pressure	<u>38.97</u>

Clock Time	Dry Gas Meter L	Average Meter Temperature °C	Meter Pressure Δ H "H <sub>2</sub> O	Pump Vacuum "Hg Gauge
0	26.45	9	1.5	3
5	30.5	9	1.5	5
10	35.5	8	1.5	7
15	41.0	9	1.5	7
20	46.6	10	1.5	7
25	52.1	10	1.5	7
30	57.6	11	1.5	7
35	63.2	11	1.5	8
40	68.7	12	1.5	8
45	74.3	13	1.5	8
50	79.8	14	1.5	8
55	85.4	15	1.5	8
60	91.15	15	1.5	8

Start Time: <u>1021</u>	Initial Leak Check <u>2.01</u> LPM@ <u>22</u> "Hg	DGMCF: <u>1.014</u>
Finish Time: <u>1121</u>	Final Leak Check <u>2.01</u> LPM@ <u>22</u> "Hg	Sample Volume: <u>64.3</u>
		Average DGM Temp: <u>70.9</u>
		Average DGM Δ H: <u>1.5</u>

Train B

Tube Identification: OL 582472 Spiked Yes No  
Spike Concentration 100 ng

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

Clock Time	Dry Gas Meter L	Average Meter Temperature °C	Meter Pressure Δ H "H <sub>2</sub> O	Pump Vacuum "Hg Gauge
0	77.97	9	2.5	2
5	83.1	13	2.5	5
10	87.9	15	2.5	6
15	92.9	216	2.5	6
20	97.5	17	2.5	7
25	102.9	19	2.5	7
30	107.8	20	2.5	7
35	112.9	20	2.5	7
40	117.9	20	2.5	7
45	122.9	20	2.5	7
50	127.9	20	2.5	7
55	132.9	20	2.5	7
60	138.1	20	2.5	7

Start Time: <u>1021</u>	Initial Leak Check <u>2.01</u> LPM@ <u>23</u> "Hg	DGMCF: <u>0.980</u>
Finish Time: <u>1121</u>	Final Leak Check <u>2.01</u> LPM@ <u>21</u> "Hg	Sample Volume: <u>60.3173</u>
Operator: <u>QH</u>		Average DGM Temp: <u>77.5</u>
		Average DGM Δ H: <u>1.5</u>

**ORTECH**  
**Mercury Tube Data Sheet**

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

Test location:	Stack Breeching
Date:	February 24, 2021
Project No.:	22076

Train A

Tube Identification:	OL 582387	Spiked Yes <input checked="" type="radio"/>
Spike Concentration	ng	

Measuring Device	MII
Control Module	CO2 ZAU R8
Barometer	ENV. CAN.
Barometric Pressure	28.95

Clock Time	Dry Gas Meter L	Average Meter Temperature °C	Meter Pressure Δ H "H <sub>2</sub> O	Pump Vacuum "Hg Gauge
0	92.36	13	1.5	2
5	97.0	12	1.5	6
10	101.6	15	1.5	7
15	106.1	16	1.5	7
20	110.1	17	1.5	7
25	115.2	17	1.5	7
30	119.56	17	1.5	7
35	124.4	17	1.5	7
40	126.9	17	1.5	7
45	133.5	17	1.5	7
50	138.1	17	1.5	7
55	142.6	17	1.5	7
60	148.0	17	1.5	7

Start Time:	11356	Initial Leak Check L.01 LPM@ 20 "Hg	DGMCF:	1.014
Finish Time:	12356	Final Leak Check L.01 LPM@ 17 "Hg	Sample Volume:	55.4
			Average DGM Temp:	16.1
			Average DGM Δ H:	1.5

Train B

Tube Identification:	OL 528843	Spiked Yes <input checked="" type="radio"/>
Spike Concentration	250 ng	

Measuring Device	MII
Control Module	10117

Clock Time	Dry Gas Meter L	Average Meter Temperature °C	Meter Pressure Δ H "H <sub>2</sub> O	Pump Vacuum "Hg Gauge
0	39.32	13	2.5	2
5	44.3	14	2.5	5
10	46.5	19	2.5	7
15	52.7	20	2.5	7
20	56.9	20	2.5	7
25	61.7	20	2.5	7
30	65.4	20	2.5	7
35	69.7	21	2.5	7
40	73.9	21	2.5	7
45	76.1	21	2.5	7
50	82.3	21	2.5	7
55	86.6	21	2.5	7
60	92.0	21	2.5	7

Start Time:	11356	Initial Leak Check L.01 LPM@ 18 "Hg	DGMCF:	0.980
Finish Time:	12356	Final Leak Check L.01 LPM@ "Hg	Sample Volume:	52.60
Operator:	12-1		Average DGM Temp:	19.4

+94.25

**ORTECH**  
**Mercury Tube Data Sheet**

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

Test location:	Stack Breeching
Date:	February 24, 2021
Project No.:	22076

Train A

Tube Identification:	OL 544317
Spike Concentration	400 ng

Spiked  Yes  No

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

Barometric Pressure 28.93

Clock Time	Dry Gas Meter L	Average Meter Temperature °C	Meter Pressure Δ H "H <sub>2</sub> O	Pump Vacuum "Hg Gauge
0	53.19	15	1.48	2
5	58.9	14.16	1.48	4
10	64.3	16	1.48	6
15	68.8	17	1.48	6
20	73.5	17	1.48	6
25	78.0	18	1.48	6
30	82.6	18	1.48	6
35	87.2	19	1.48	6
40	91.8	19	1.48	6
45	96.4	21	1.48	6
50	100.4	22	1.48	6
55	105.5	22	1.48	6
60	110.10	22	1.48	6

Start Time: 1307	Initial Leak Check 6.01 LPM@ 17 "Hg	DGMCF: 1.014
Finish Time: 1407	Final Leak Check 6.01 LPM@ 20 "Hg	Sample Volume: 56.92
		Average DGM Temp: 18.6
		Average DGM Δ H: 1.48

Train B

Tube Identification:	OL 582363
Spike Concentration	ng

Spiked  Yes  No

Measuring Device	MII
Control Module	10117

Clock Time	Dry Gas Meter L	Average Meter Temperature °C	Meter Pressure Δ H "H <sub>2</sub> O	Pump Vacuum "Hg Gauge
0	97.10	15	2.5	2
5	102.1	18	2.5	5
10	107.0	20	2.5	5
15	111.1	21	2.5	5
20	115.2	22	2.5	5
25	119.3	23	2.5	5
30	123.4	24	2.5	5
35	127.6	25	2.5	5
40	131.6	26	2.5	5
45	135.8	27	2.5	5
50	139.8	27	2.5	5
55	143.9	27	2.5	5
60	148.12	27	2.5	5

Start Time: 1307	Initial Leak Check 6.01 LPM@ 20 "Hg	DGMCF: 0.980
Finish Time: 1407	Final Leak Check 6.01 LPM@ 19 "Hg	Sample Volume: 51.02
Operator: DM		Average DGM Temp: 23.2
		Average DGM Δ H: 2.5

**ORTECH**  
**Mercury Tube Data Sheet**

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

Test location:	Stack Breeching
Date:	February 24, 2021
Project No.:	22076

Train A

Tube Identification:	OLS582447	Spiked Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Spike Concentration	ng		

Measuring Device	MII
Control Module	COE 20018
Barometer	ENV. CAN.
Barometric Pressure	38.95

Clock Time	Dry Gas Meter L	Average Meter Temperature °C	Meter Pressure Δ H "H <sub>2</sub> O	Pump Vacuum "Hg Gauge
0	10.55	22	1.9	3
5	15.5	22	1.9	3
10	20.4	20	1.9	3
15	25.8	20	1.9	3
20	20.5	20	1.9	3
25	35.6	20	1.9	3
30	40.4	20	1.9	3
35	45.4	20	1.9	3
40	50.7	20	1.9	3
45	56.1	19	1.9	3
50	61.3	19	1.9	3
55	66.6	19	1.9	3
60	71.6	19	1.9	3

Start Time: 1427	Initial Leak Check L.01	LPM@ 20 "Hg	DGMCF: 1.014
Finish Time: 1527	Final Leak Check L.01	LPM@ 17 "Hg	Sample Volume: 61.05
1517			Average DGM Temp: 20.0
			Average DGM Δ H: 1.9

Train B

Tube Identification:	OLS535361	Spiked Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
Spike Concentration	600 ng		

Measuring Device	MII
Control Module	

Clock Time	Dry Gas Meter L	Average Meter Temperature °C	Meter Pressure Δ H "H <sub>2</sub> O	Pump Vacuum "Hg Gauge
0	48.49	23	2.5	2
5	53.1	23	2.5	2
10	58.6	22	2.5	2
15	63.7	22	2.5	2
20	68.7	22	2.5	2
25	73.4	22	2.5	2
30	76.1	22	2.5	2
35	83.4	22	2.5	2
40	88.6	22	2.5	2
45	93.6	22	2.5	2
50	98.4	22	2.5	2
55	103.6	22	2.5	2
60	108.6	22	2.5	2

Start Time: 1427	Initial Leak Check L.01	LPM@ 20 "Hg	DGMCF: 0.990
Finish Time: 1527	Final Leak Check L.01	LPM@ 17 "Hg	Sample Volume: 60.11
1517			Average DGM Temp: 22.2
Operator: BM			Average DGM Δ H: 2.5

**ORTECH**  
**Mercury Tube Data Sheet**

Plant:	Clean Harbors
Plant Location:	Corunna
Test No.:	5

Test location:	Stack Breaching
Date:	February 24, 2021
Project No.:	22076

Train A

Tube Identification:	0LS18321
Spike Concentration	500 ng

Spiked  Yes  No

Measuring Device	MII
Control Module	CO2 TWIG
Barometer	ENV. CAN.
Barometric Pressure	29.00

Clock Time	Dry Gas Meter L	Average Meter Temperature °C	Meter Pressure Δ H "H <sub>2</sub> O	Pump Vacuum "Hg Gauge
0	755	18	1.8	3
5	774	18	1.8	3
10	824	17	1.8	3
15	815	16	1.8	3
20	825	15	1.8	3
25	975	15	1.8	3
30	1026	15	1.8	3
35	1076	15	1.8	3
40	1126	15	1.8	3
45	1177	15	1.8	3
50	1227	15	1.8	3
55	1277	14	1.8	3
60	1327	14	1.8	3

Start Time: 1533	Initial Leak Check 2.01 LPM@ 78 "Hg	DGMCF: 6.014
Finish Time: 1633	Final Leak Check 2.01 LPM@ 78 "Hg	Sample Volume: 60.15
		Average DGM Temp: 15.5
		Average DGM Δ H: 1.8

Train B

Tube Identification:	0LS19477
Spike Concentration	ng

Spiked  Yes  No

Measuring Device	MII
Control Module	10117

Clock Time	Dry Gas Meter L	Average Meter Temperature °C	Meter Pressure Δ H "H <sub>2</sub> O	Pump Vacuum "Hg Gauge
0	977	17	2.5	2
5	148	18	2.5	2
10	190	18	2.5	2
15	222	18	2.5	2
20	274	17	2.5	2
25	317	17	2.5	2
30	358	17	2.5	2
35	401	17	2.5	2
40	443	17	2.5	2
45	485	17	2.5	2
50	528	17	2.5	2
55	570	16	2.5	2
60	628	16	2.5	2

Start Time: 1533	Initial Leak Check 2.01 LPM@ 19 "Hg	DGMCF: 0.990
Finish Time: 1633	Final Leak Check 2.01 LPM@ 16 "Hg	Sample Volume: 52.3
		Average DGM Temp: 17.1
		Average DGM Δ H: 2.5

Operator: QM

**ORTECH**  
**Mercury Tube Data Sheet**

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

Test location:	Stack Breeching
Date:	February 24, 2021
Project No.:	22076

Train A

Tube Identification:	0L587468
Spike Concentration	ng

Measuring Device	MII
Control Module	COE 2001g
Barometer	ENV. CAN.

Barometric Pressure 39.46

Clock Time	Dry Gas Meter L	Average Meter Temperature °C	Meter Pressure Δ H "H <sub>2</sub> O	Pump Vacuum "Hg Gauge
0	33.50	12	1.6	2
5	36.4	11	1.6	7
10	43.33	11	1.6	7
15	48.3	11	1.6	7
20	53.2	11	1.6	7
25	58.2	11	1.6	7
30	63.1	11	1.6	7
35	67.9	11	1.6	7
40	72.9	11	1.6	7
45	77.8	11	1.6	7
50	82.8	11	1.6	7
55	87.7	10	1.6	7
60	93.00	10	1.6	7

Start Time: 1643	Initial Leak Check 2.01 LPM@ 19 "Hg	DGMCF: 1.014
Finish Time: 1743	Final Leak Check 2.01 LPM@ 17 "Hg	Sample Volume: 59.5
		Average DGM Temp: 10.9
		Average DGM Δ H: 1.6

Train B

Tube Identification:	0L569516
Spike Concentration	2000 ng

Spiked Yes	No	Measuring Device	MII
		Control Module	10117

Clock Time	Dry Gas Meter L	Average Meter Temperature °C	Meter Pressure Δ H "H <sub>2</sub> O	Pump Vacuum "Hg Gauge
0	63.25	13	2.5	2
5	67.6	14	2.5	7
10	71.9	14	2.5	7
15	76.3	14	2.5	7
20	80.6	14	2.5	7
25	84.9	14	2.5	7
30	89.3	14	2.5	7
35	93.6	14	2.5	7
40	97.9	14	2.5	7
45	102.3	14	2.5	7
50	106.7	14	2.5	7
55	111.0	15	2.5	7
60	116.80	15	2.5	7

Start Time: 1643	Initial Leak Check 2.01 LPM@ 19 "Hg	DGMCF: 0.980
Finish Time: 1743	Final Leak Check 2.01 LPM@ 20 "Hg	Sample Volume: 52.75
		Average DGM Temp: 14.1
Operator: Qm		Average DGM Δ H: 2.5

## ORTECH Consulting Inc. Sample Log

Mercury Tube Samples

Incinerator Exhaust Stack

Job/Report Number: 22076  
Received By: David Utley  
Job Assigned To: Ohio Lumex  
PO #: 22076-J2746

Tube ID	Spiked?	Sample Date	Sample Description	Approx. Sample Volume m³	Sample Analysis
OL542323	Yes	February 24, 2021	Test 1 Tube A	0.06	Hg
OL282472	No	February 24, 2021	Test 1 Tube B	0.06	Hg
OL582387	No	February 24, 2021	Test 2 Tube A	0.06	Hg
OL528843	Yes	February 24, 2021	Test 2 Tube B	0.06	Hg
OL544317	Yes	February 24, 2021	Test 3 Tube A	0.06	Hg
OL582363	No	February 24, 2021	Test 3 Tube B	0.06	Hg
OL582447	No	February 24, 2021	Test 4 Tube A	0.06	Hg
OL535361	Yes	February 24, 2021	Test 4 Tube B	0.06	Hg
OL528821	Yes	February 24, 2021	Test 5 Tube A	0.06	Hg
OL579477	No	February 24, 2021	Test 5 Tube B	0.06	Hg
OL582468	No	February 24, 2021	Test 6 Tube A	0.06	Hg
OL569516	Yes	February 24, 2021	Test 6 Tube B	0.06	Hg

All tubes sampled at approximately 1 litre/minute for 60 minutes.

Expected concentrations are approximatley 100 - 400ng

Relinquished To:

Date:

Relinquished By:

Date:

 FEB 26/21

### APPENDIX 3

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

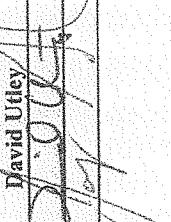
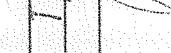
## ORITECH

## Dry Gas Meter Calibration Data

Calibration Procedure	03-J004		
Meter Number	Vost 2		
Date	January 27, 2021		
Barometric Pressure	29.71		
System Leak Check	<0.01 Lpm @ 22 "Hg		

ft<sup>3</sup> = cm<sup>3</sup> \* 1.332 litres per cm<sup>3</sup>/28.3168 litres per ft<sup>3</sup>

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

MII NUMBERS	
DGM	A10117
Gasometer	A01463
Barometer	COE20028
Calibrated By	David Utley
Signature	
Reviewed and Accepted By	

Gasometer Reading cm	Gasometer Volume ft <sup>3</sup>	Gasometer Temperature °C	DGM Reading		DGM Volume ft <sup>3</sup>	DGM Average Temperature °C	DGM Pressure in. H <sub>2</sub> O	DGM Outlet Temperature °C	DGM Calibration Factor	Time min.	Flow Rate lpm
			Initial	Final							
68.90	57.40	11.50	0.541	20.0	81.730	97.700	0.564	28.0	2.5	28.0	0.979
68.00	49.00	19.00	0.894	20.0	145.220	171.580	0.931	30.0	2.5	30.0	0.987
65.90	47.00	18.90	0.889	21.0	118.870	145.220	0.931	29.0	2.5	29.0	0.975

## Acceptance Criteria:

Individual values of DGM calibration factor must be within  $\pm 1.5\%$  of the average value.

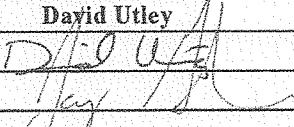
If not the calibration must be repeated. Also, the DGMCF average value must be  $1.00 \pm 0.05$ ,

otherwise the meter must be repaired and/or adjusted as necessary and recalibrated prior to use.

(Environment Canada Reference Method EPS 1/RM8, Section 6)

DGMCF AVERAGE  
1 lpm 

**ORTECH**  
**Trendicator Calibration**

Calibration Procedure	03-J005
Trendicator Type	Nutech
MII	A10117
Date	January 27, 2021
Calibrated By	David Utley
Signature	
Reviewed and Accepted By	

Fluke Calibrator Output (COE 20024) (°C)	Tredicator Display Value		Percent Difference (%)
	Before Adjustment (°C)	After Adjustment (°C)	
0	0	NA	0.0
20	20	20	0.0
50	50	50	0.0
100	101	100	-1.0
150	151	150	-0.7
200	201	200	-0.5
300	301	300	-0.3
400	401	400	-0.3
500	501	500	-0.2
600	601	600	-0.2

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

**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)

## ORITECH

## Dry Gas Meter Calibration Data

Calibration Procedure	03-J004	
Meter Number	Vost 5	
Date	January 29 2021	
Barometric Pressure	29.85	
System Leak Check	<0.01 lpm @ 22 "Hg	

ft<sup>3</sup> = cm \* 1.332 litres per cm/28.3168 litres per ft<sup>3</sup>

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

MII NUMBERS					
DGM					COE 20018
Gasometer					A01463
Barometer					COE 20028
Calibrated By					Jake Arthelo
Signature					
Reviewed and Accepted By					

Gasometer Reading cm	Gasometer Volume ft <sup>3</sup>	Gasometer Temperature °C	DGM Reading		DGM Volume ft <sup>3</sup>	DGM Average Temperature °C	DGM Pressure in. H <sub>2</sub> O	DGM Calibration Factor	Time min.	Flow Rate lpm
			Initial	Final						
64.60	54.30	10.30	0.485	20.0	756.75	770.32	0.479	21.0	1.5	21.0
67.20	57.20	10.00	0.470	20.0	797.29	810.60	0.470	23.0	1.5	23.0
57.20	46.80	10.40	0.489	20.0	810.60	824.22	0.481	23.0	1.5	23.0

DGMCF AVERAGE  
1 lpm      1.014

## Acceptance Criteria:

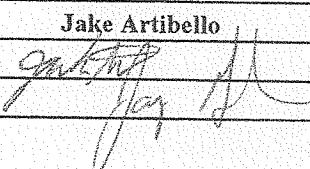
Individual values of DGM calibration factor must be within  $\pm 1.5\%$  of the average value.

If not the calibration must be repeated. Also, the DGMCF average value must be  $1.00 \pm 0.05$ ,

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)

**ORTECH**  
**Trendicator Calibration**

Calibration Procedure	03-J005
Trendicator Type	Jenco 765
MII	COE 20018
Date	January 29 2021
Calibrated By	Jake Artibello
Signature	
Reviewed and Accepted By	

Fluke Calibrator Output (COE 20024) (°C)	Tredicator Display Value		Percent Difference (%)
	Before Adjustment (°C)	After Adjustment (°C)	
0	0	0	0.0
20	19	20	0.0
50	49	50	0.0
100	100	100	0.0
150	150	150	0.0
200	200	200	0.0
300	300	300	0.0
400	400	400	0.0
500	502	500	0.0
600	602	600	0.0

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

**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	3/9/21	Company	Oritech
Analyst[s]	Joe Simon	Contact	Jay Grollman
Project	2024451	Phone	Not Provided
Turnaround	Standard	Email	jgrollman@ortech.ca

Trap ID	Pre-Filter Mass [ng]	AGS Mass [ng]	Section 1 Mass [ng]	Section 2 Mass [ng]	Total Mass [ng] <sup>1</sup>	Section 3 Mass [ng]	Spike Level [ng]	Breakthrough [%] <sup>2</sup>	Spike Recovery [%] <sup>3</sup>	Source	Notes	Affected Section
OL542323	596.4	5.2	601.6		100			0.9%	N/A	Test 1		
OL582472	436.0	2.6	438.6					0.6%		Test 1		
OL582387	329.5	0.0	329.5					0.0%		Test 2		
OL528843	553.2	1.8	555.0			250		0.3%	N/A	Test 2		
OL544317	653.5	0.5	654.0			400		0.1%	N/A	Test 3		
OL582363	263.0	1.4	264.4					0.5%		Test 3		
OL582447	230.2	0.0	230.2					0.0%		Test 4		
OL535361	825.6	2.5	828.1			600		0.3%	N/A	Test 4		
OL528821	1072	1.8	1074			800		0.2%	N/A	Test 5		
OL579477	215.4	0.6	216.0					0.3%		Test 5		
OL582468	240.7	1.0	241.7					0.4%		Test 6		
OL569516	2228	1.2	2229			2000		0.1%	N/A	Test 6		

<sup>1</sup> Total Mass = PF+AGS+S1+S2<sup>2</sup> Breakthrough = S2 / [PF+AGS+S1]<sup>3</sup> For PS12B only Spike Recovery = S3 / Spike Level<sup>b</sup>Data invalidation qualifier - refer to notes

ATTENTION: A response factor was used to calculate certain values on this report. Italicized masses appear on the report as rounded to the nearest tenth nanogram.



## APPENDIX 5

### Clean Harbors Process Data (12 pages)

	Rich	Emulsion	Lean	Alkaline	TDU Flow	TDU Flow	Leachate	Primary	Secondary	Stack Velocity	Stack Flow	Primary	Secondary	Quench	
SDate	STime	FT-229	FT-219C	FT-223	PV-207	FT-313B	FT-313	PV-211	PV-236	PV-209	FT-260-VEL	FT-260-REFDRY	Degrees C	Degrees C	
24/02/2021	10:21:00	33.47	12.59	164.45	193.77	3.76	225.75	5.74	17925	13624	29.99	67545	1531.2	1112.7	510.9
24/02/2021	10:22:00	34.22	12.38	164.27	194.36	3.78	226.73	5.81	18038	13663	30.54	68639	1530.7	1112.4	510.6
24/02/2021	10:23:00	34.28	12.80	164.32	193.77	3.75	224.70	5.78	17850	13551	30.52	68213	1535.6	1112.6	510.3
24/02/2021	10:24:00	33.92	12.22	165.31	194.36	3.82	229.28	5.81	18375	13669	32.14	71426	1533.1	1113.9	509.6
24/02/2021	10:25:00	35.03	12.70	166.21	194.36	3.66	219.30	5.81	18044	13528	30.66	68047	1533.8	1113.4	507.3
24/02/2021	10:26:00	34.56	12.64	165.31	194.63	3.71	222.53	5.70	18269	13624	31.55	70458	1533.3	1114.2	506.1
24/02/2021	10:27:00	35.70	12.81	165.50	196.25	3.72	223.28	5.70	17806	13528	31.20	69465	1532.3	1114.4	505.3
24/02/2021	10:28:00	34.44	12.87	164.55	194.40	3.70	222.00	6.26	18513	13663	31.58	70585	1533.6	1115.8	504.9
24/02/2021	10:29:00	34.70	12.62	165.84	195.71	3.74	224.55	6.11	17888	13663	31.04	69410	1530.9	1115.6	503.8
24/02/2021	10:30:00	34.46	12.95	164.55	194.67	3.91	234.75	5.89	18375	13669	31.56	70536	1533.2	1115.8	503.5
24/02/2021	10:31:00	35.12	12.49	164.70	194.36	3.90	233.93	5.93	17956	13562	29.86	66676	1535.6	1116.3	503.2
24/02/2021	10:32:00	34.53	13.07	164.94	194.18	3.73	223.95	5.44	17963	13562	32.81	73017	1543.2	1119.1	504.4
24/02/2021	10:33:00	34.65	13.05	163.98	195.71	3.77	226.20	5.44	17919	13584	30.82	68312	1536.6	1120.3	505.0
24/02/2021	10:34:00	34.50	12.69	163.32	194.22	3.78	226.50	5.44	17794	13483	30.90	68416	1540.6	1122.2	505.5
24/02/2021	10:35:00	34.14	13.05	164.75	194.76	3.70	222.08	5.51	18156	13584	31.54	70194	1535.4	1122.7	505.6
24/02/2021	10:36:00	34.77	13.02	164.98	195.53	3.72	223.20	5.51	17994	13584	30.28	67327	1534.9	1122.1	505.3
24/02/2021	10:37:00	34.44	13.31	165.84	195.84	3.69	221.33	5.33	18125	13567	31.03	69112	1531.8	1121.5	505.3
24/02/2021	10:38:00	35.42	13.25	165.41	196.20	3.82	229.13	5.33	17944	13567	31.08	69459	1535.1	1121.8	505.6
24/02/2021	10:39:00	34.17	13.21	164.45	195.80	3.89	233.18	5.14	17988	13551	31.49	70182	1535.8	1123.7	506.0
24/02/2021	10:40:00	34.28	13.01	164.88	195.48	3.82	228.90	5.14	17738	13562	30.33	67290	1539.7	1124.8	505.9
24/02/2021	10:41:00	34.76	13.09	165.26	194.85	3.74	224.25	5.44	18275	13506	31.65	70073	1538.6	1125.7	506.3
24/02/2021	10:42:00	34.73	13.13	164.64	194.63	3.68	220.58	5.48	17775	13523	31.18	68515	1537.4	1125.1	505.7
24/02/2021	10:43:00	34.88	13.25	165.22	195.17	3.76	225.30	6.86	18419	13646	31.23	69048	1536.8	1125.6	505.8
24/02/2021	10:44:00	34.17	13.05	164.98	194.63	3.80	227.70	5.59	18075	13607	30.57	67697	1534.4	1124.9	505.6
24/02/2021	10:45:00	34.32	13.31	165.26	195.35	3.86	231.60	6.00	18444	13702	32.32	71852	1534.8	1125.1	505.9
24/02/2021	10:46:00	33.80	12.63	164.64	194.67	3.85	231.23	5.40	17944	13590	30.99	69225	1532.4	1124.1	505.6
24/02/2021	10:47:00	34.88	13.18	164.55	195.62	3.84	230.55	5.40	18081	13590	32.02	71304	1535.9	1124.2	506.0
24/02/2021	10:48:00	35.09	13.48	165.84	196.74	3.94	236.10	5.51	17913	13596	30.75	67694	1537.3	1124.8	506.3
24/02/2021	10:49:00	34.56	13.33	164.36	196.43	3.93	235.88	5.51	17569	13478	30.86	67825	1545.9	1127.4	507.9
24/02/2021	10:50:00	34.95	13.13	164.94	196.47	3.89	233.33	5.51	17988	13601	29.94	65213	1542.2	1128.6	509.1
24/02/2021	10:51:00	34.67	13.22	164.64	195.53	3.85	231.08	5.66	17775	13624	29.81	64935	1544.4	1128.8	508.8
24/02/2021	10:52:00	34.41	13.38	164.27	195.57	3.98	238.58	5.85	18013	13641	31.18	68447	1539.3	1128.8	509.1
24/02/2021	10:53:00	34.38	13.19	164.51	195.84	3.87	232.20	4.84	17869	13433	30.81	67246	1540.8	1128.8	509.1
24/02/2021	10:54:00	34.83	13.15	166.25	195.48	3.90	234.00	5.66	18206	13663	31.81	70295	1539.3	1129.5	509.6
24/02/2021	10:55:00	34.37	12.69	164.45	196.20	3.89	233.40	5.66	17825	13556	30.96	68388	1541.9	1130.1	510.1
24/02/2021	10:56:00	35.36	13.09	168.24	196.02	3.93	235.95	5.44	18075	13539	30.23	66732	1540.9	1131.1	510.6
24/02/2021	10:57:00	34.86	13.08	164.88	197.19	3.79	227.48	5.44	17713	13444	30.76	67413	1545.9	1131.0	510.9
24/02/2021	10:58:00	34.14	12.92	164.17	195.80	4.04	242.10	5.36	18325	13567	31.35	68533	1547.4	1132.7	511.3
24/02/2021	10:59:00	33.92	13.28	165.17	197.37	3.93	235.80	5.55	17825	13472	31.04	67570	1546.2	1133.0	512.0
24/02/2021	11:00:00	33.84	12.92	164.60	200.88	3.84	230.48	5.55	18388	13551	31.51	68537	1543.8	1133.1	509.4
24/02/2021	11:01:00	33.71	13.36	165.45	205.20	3.85	231.15	5.66	18006	13539	31.15	67789	1537.6	1130.3	506.2
24/02/2021	11:02:00	33.60	12.90	163.08	204.03	3.88	232.88	5.40	18313	13685	32.55	71393	1536.1	1129.2	503.8
24/02/2021	11:03:00	32.57	13.07	165.12	204.75	3.87	231.90	5.44	18038	13556	30.74	67387	1530.1	1126.3	501.2
24/02/2021	11:04:00	33.56	12.97	165.03	204.44	3.82	229.05	5.66	17956	13691	32.30	71163	1529.7	1124.6	499.0
24/02/2021	11:05:00	33.11	13.48	165.07	204.03	3.84	230.40	5.96	17850	13590	31.17	68848	1527.8	1123.0	497.8
24/02/2021	11:06:00	32.93	13.00	167.40	203.63	3.76	225.38	5.96	17775	13618	30.18	66618	1532.8	1123.2	496.9
24/02/2021	11:07:00	33.32	12.77	164.98	204.57	3.92	235.43	5.25	18125	13612	30.92	67633	1526.9	1122.2	498.1
24/02/2021	11:08:00	32.93	13.29	165.03	203.63	3.88	232.95	5.25	17775	13489	30.32	66853	1526.9	1121.2	499.8
*24/02/2021	11:09:00	33.30	13.27	165.65	205.56	3.70	222.00	5.25	18375	13590	31.99	70910	1523.6	1120.5	500.8
24/02/2021	11:10:00	33.18	13.39	164.13	205.29	3.93	235.88	5.66	18119	13590	31.55	70188	1522.6	1115.1	501.3
24/02/2021	11:11:00	32.04	13.04	165.12	204.39	3.87	232.13	5.66	18163	13719	31.73	71022	1518.6	1112.1	501.7
24/02/2021	11:12:00	33.41	13.24	165.31	205.83	3.83	229.50	5.93	18031	13601	31.06	69634	1518.2	1108.9	502.5
24/02/2021	11:13:00	33.26	13.30	164.84	204.57	4.02	241.35	5.06	18175	13483	30.93	69878	1520.4	1115.9	504.9
24/02/2021	11:14:00	33.72	13.22	164.70	204.35	3.78	226.88	5.55	17788	13618	30.73	69143	1526.7	1116.5	507.2
24/02/2021	11:15:00	32.90	12.77	164.84	203.81	3.87	231.60	5.48	18525	13635	30.97	69178	1527.8	1118.4	508.9
24/02/2021	11:16:00	33.21	12.85	165.22	204.17	3.89	233.40	5.48	17969	13517	30.25	67389	1525.1	1117.2	509.1
24/02/2021	11:17:00	33.17	13.24	162.80	204.17	3.99	239.40	5.48	18556	13646	31.26	70136	1526.3	1117.6	509.6
24/02/2021	11:18:00	33.60	13.14	164.22	205.29	3.92	235.13	5.10	18200	13657	30.92	69433	1521.6	1116.2	509.7
24/02/2021	11:19:00	32.96	13.10	164.32	204.71	3.74	224.40	5.10	18206	13635	32.55	73427	1521.9	1115.9	510.0
24/02/2021	11:20:00	34.26	13.46	165.26	205.74	3.92	234.90	4.99	18200	13641	30.78	69415	1518.3	1114.6	510.0
24/02/2021	11:21:00	33.36	13.10	164.32	205.83	3.86	231.30	4.99	18100	13641	32.13	72648	1521.7		

SDA	Stack	Incinerator	SDA Inlet	BH Inlet	BH dP	CO	HCl	CO2	H2O	THC	Main O2	Opacity	SO2	PAC		
Degree C	Degrees C	mmH2O	mmH2O	mmH2O	mmH2O	PPM	PPM	%	%	PPM	%	%	PPM	Lbs/h		
\$Date	\$Time	TE-204	TE-258	PT-242A	PT-249	PT-615	PDT-622	AT-205-1NEW	AT-213A-1NEW	-213B-1NE	AT-213CB	T-259-1NEW	AT-261A-1NEW	AT-263	T-264-1NE	SC-PAC-FT
24/02/2021	10:21:00	199.0	193.9	-18.65	-56.55	-138.00	229.00	93.40	61.64	8.00	46.05	8.20	8.89	1.13	128.20	29.69
24/02/2021	10:22:00	199.5	193.9	-17.15	-53.15	-135.04	244.81	95.49	61.64	8.02	46.13	8.10	8.89	1.23	128.20	30.74
24/02/2021	10:23:00	199.0	194.9	-14.85	-48.75	-127.13	263.75	87.46	61.64	8.11	46.43	8.00	8.89	1.33	130.90	29.51
24/02/2021	10:24:00	199.0	194.9	-21.25	-63.70	-146.25	237.81	79.83	61.64	8.20	46.74	8.00	8.89	1.12	134.80	29.43
24/02/2021	10:25:00	198.5	194.9	-17.80	-55.65	-134.29	251.63	72.77	61.64	8.17	46.82	8.10	8.89	1.30	135.50	29.48
24/02/2021	10:26:00	198.0	194.9	-25.00	-65.65	-151.99	229.19	83.88	61.64	8.11	46.60	7.80	8.89	1.08	133.60	29.98
24/02/2021	10:27:00	198.0	194.9	-20.15	-59.85	-142.88	239.31	82.57	61.64	8.10	46.62	8.40	8.89	1.05	133.60	29.45
24/02/2021	10:28:00	198.0	194.9	-26.25	-70.95	-156.86	213.19	94.74	61.64	8.05	46.44	7.90	8.89	1.21	132.50	30.06
24/02/2021	10:29:00	198.0	194.9	-18.60	-56.45	-140.63	222.13	92.31	61.64	8.09	46.45	8.30	8.89	1.15	134.50	30.58
24/02/2021	10:30:00	197.5	194.9	-31.30	-77.15	-169.73	209.81	94.06	61.64	8.06	46.38	8.00	8.89	1.17	131.90	30.35
24/02/2021	10:31:00	197.5	194.9	-16.40	-53.25	-132.94	258.81	84.39	61.64	8.09	46.52	8.60	8.89	1.33	130.70	30.00
24/02/2021	10:32:00	197.0	194.9	-30.15	-79.55	-163.50	205.94	76.59	61.64	8.16	46.71	7.90	8.89	1.33	135.80	29.56
24/02/2021	10:33:00	197.0	194.9	-19.00	-58.10	-140.81	242.56	61.46	60.59	8.54	47.05	8.00	8.57	1.17	147.80	29.61
24/02/2021	10:34:00	197.5	194.9	-15.05	-53.10	-132.79	255.00	66.16	60.59	8.50	46.96	7.80	8.57	1.23	147.80	30.42
24/02/2021	10:35:00	197.5	194.9	-21.85	-62.50	-147.86	232.94	64.76	62.26	8.46	46.83	8.00	8.78	0.98	150.50	30.79
24/02/2021	10:36:00	197.5	194.9	-19.20	-55.70	-138.45	244.06	69.37	62.26	8.42	46.73	7.90	8.78	1.05	148.20	30.66
24/02/2021	10:37:00	198.0	194.9	-21.25	-62.25	-146.33	216.50	80.63	62.26	8.08	46.63	8.00	8.78	1.08	144.90	30.35
24/02/2021	10:38:00	198.0	194.9	-16.25	-54.80	-137.10	227.81	80.67	62.26	8.10	46.46	8.30	8.78	1.16	146.00	30.37
24/02/2021	10:39:00	198.0	194.9	-18.30	-56.40	-136.05	247.81	79.23	63.53	8.16	46.60	7.70	8.78	1.30	150.30	29.64
24/02/2021	10:40:00	197.5	194.9	-13.85	-48.70	-126.26	262.00	67.58	64.55	8.24	46.86	7.60	8.78	1.28	155.40	29.74
24/02/2021	10:41:00	197.5	194.9	-22.55	-62.15	-146.40	238.75	60.50	64.55	8.56	46.97	7.90	8.78	1.17	157.70	29.93
24/02/2021	10:42:00	197.5	194.9	-16.15	-53.75	-132.41	246.63	54.14	64.55	8.56	47.13	7.80	8.55	1.27	156.20	30.79
24/02/2021	10:43:00	197.0	194.9	-24.40	-67.05	-153.38	229.19	62.95	64.55	8.24	46.95	7.60	8.55	1.13	152.30	30.40
24/02/2021	10:44:00	197.5	194.9	-18.60	-58.45	-140.29	237.31	60.15	64.55	8.22	46.92	7.90	8.55	0.98	150.80	30.69
24/02/2021	10:45:00	197.5	194.9	-26.90	-69.85	-159.68	205.00	70.00	64.55	8.14	46.68	7.60	8.79	1.17	146.40	29.58
24/02/2021	10:46:00	198.0	194.9	-19.70	-59.85	-141.45	223.13	67.28	64.55	8.15	46.69	7.90	8.79	1.08	146.40	30.16
24/02/2021	10:47:00	198.0	194.9	-30.15	-79.60	-162.98	204.75	71.28	64.55	8.11	46.61	7.80	8.79	1.17	145.00	30.71
24/02/2021	10:48:00	198.0	194.9	-14.20	-50.75	-130.88	255.63	70.96	64.55	8.20	46.96	8.50	8.79	1.30	148.20	30.79
24/02/2021	10:49:00	197.5	194.9	-23.75	-72.75	-144.11	219.69	62.65	64.55	8.57	47.30	8.90	8.79	1.36	157.10	29.56
24/02/2021	10:50:00	198.0	194.9	-18.70	-58.20	-137.14	244.44	52.64	65.76	8.99	47.76	7.70	8.53	1.17	171.70	30.69
24/02/2021	10:51:00	198.0	194.9	-15.45	-50.20	-128.85	259.13	57.47	65.76	8.68	47.72	7.60	8.53	1.31	170.30	29.64
24/02/2021	10:52:00	198.0	194.9	-20.30	-62.25	-144.15	234.81	53.11	65.76	8.58	47.46	7.60	8.53	1.02	162.30	30.79
24/02/2021	10:53:00	198.5	194.9	-15.95	-54.40	-135.30	245.63	60.51	65.76	8.21	47.04	7.50	8.53	1.07	154.20	29.51
24/02/2021	10:54:00	198.5	195.9	-19.55	-58.90	-143.25	216.06	61.63	65.76	8.22	46.96	7.60	8.76	1.07	154.20	30.66
24/02/2021	10:55:00	199.0	195.9	-16.45	-54.45	-133.58	228.94	58.64	65.76	8.23	46.93	7.50	8.76	1.17	154.20	29.48
24/02/2021	10:56:00	199.0	195.9	-16.30	-53.95	-136.69	247.63	59.44	65.76	8.51	46.99	7.50	8.76	1.20	156.40	30.21
24/02/2021	10:57:00	199.0	195.9	-13.30	-49.30	-123.41	260.06	52.80	67.44	8.57	47.35	7.50	8.76	1.33	157.80	30.69
24/02/2021	10:58:00	199.0	195.9	-19.65	-60.85	-146.25	237.38	49.04	67.44	8.64	47.48	7.50	8.54	1.23	161.40	29.51
24/02/2021	10:59:00	199.0	195.9	-17.15	-54.30	-131.44	248.63	44.42	68.54	8.98	47.67	7.50	8.54	1.26	168.70	29.48
24/02/2021	11:00:00	198.5	195.9	-24.55	-67.70	-155.03	229.06	49.69	69.64	8.91	47.62	6.90	8.54	1.27	165.40	29.90
24/02/2021	11:01:00	198.0	195.9	-18.95	-58.05	-138.30	235.56	47.93	69.64	8.86	47.59	7.60	8.54	1.05	159.50	29.69
24/02/2021	11:02:00	196.5	195.9	-30.35	-78.50	-163.24	192.19	62.08	69.64	8.14	47.37	7.20	8.88	1.17	142.50	30.71
24/02/2021	11:03:00	195.0	194.7	-19.35	-57.20	-139.76	222.13	61.58	69.64	8.11	47.46	7.70	8.88	1.11	140.60	30.37
24/02/2021	11:04:00	194.0	193.6	-28.65	-73.45	-158.93	205.56	71.31	68.60	8.03	47.32	7.40	8.88	1.23	135.30	29.64
24/02/2021	11:05:00	192.5	193.6	-14.70	-51.00	-129.34	254.31	71.01	68.60	8.05	47.24	7.60	8.88	1.26	133.90	29.66
24/02/2021	11:06:00	191.0	192.6	-12.90	-45.50	-122.85	267.31	67.26	68.60	8.08	47.38	7.60	8.88	1.36	133.90	30.66
24/02/2021	11:07:00	190.5	191.6	-20.45	-59.35	-140.48	243.56	55.21	68.60	8.22	47.93	7.80	8.88	1.20	140.20	30.27
24/02/2021	11:08:00	190.0	191.6	-16.15	-51.05	-132.00	256.63	62.44	68.60	8.19	47.72	7.90	8.88	1.30	139.10	30.16
24/02/2021	11:09:00	190.0	191.6	-25.00	-69.35	-150.88	233.50	70.60	67.22	8.13	47.35	7.90	8.88	1.01	136.40	30.35
24/02/2021	11:10:00	190.0	190.2	-19.80	-56.65	-138.56	242.88	74.24	66.09	8.07	47.18	8.20	8.88	1.07	134.20	30.42
24/02/2021	11:11:00	189.5	190.2	-23.50	-64.75	-147.98	215.44	87.69	66.09	8.01	46.89	7.70	9.17	1.12	131.90	30.56
24/02/2021	11:12:00	189.5	190.2	-19.95	-57.60	-140.63	226.81	91.71	66.09	7.98	46.83	8.30	9.17	1.20	129.10	29.64
24/02/2021	11:13:00	189.5	190.2	-20.30	-60.45	-140.44	248.75	94.81	65.08	7.96	46.71	8.00	9.17	1.32	128.10	30.16
24/02/2021	11:14:00	190.0	190.2	-14.80	-51.45	-129.60	259.50	88.62	65.08	8.04	46.81	8.00	9.17	1.33	131.20	29.51
24/02/2021	11:15:00	190.0	190.2	-27.90	-71.95	-155.14	236.13	82.20	65.08	8.13	47.01	7.70	9.17	1.27	134.70	29.93
24/02/2021	11:16:00	190.0	190.2	-19.50	-59.15	-136.84	247.75	70.93	66.66	8.16	47.14	8.10	8.85	1.23	138.50	1.97
24/02/2021	11:17:00	190.5	190.2	-31.85	-76.55	-165.34	219.63	85.55	66.66	8.06	46.76	7.70	8.85	1.36	134.50	1.29
24/02/2021	11:18:00	190.5														

	Rich	Emulsion	Lean	Alkaline	TDU Flow	TDU Flow	Leachate	Primary	Secondary	Stack Velocity	Stack Flow	Primary	Secondary	Quench	
	LPM	LPM	LPM	LPM	SCFM	LPM	m3/h	m3/h	m/s	m3/s Ref Dry	Degrees C	Degrees C	Degrees C	Degrees C	
\$Date	\$Time	FT-229	FT-219C	FT-223	PV-207	FT-313B	FT-313	PV-211	PV-236	PV-209	FT-260-VEL	FT-260-REFDRY	TE-240	TE-241	TE-203
24/02/2021	11:38:00	34.92	13.10	165.84	205.07	3.77	226.13	5.51	17844	13607	30.76	68879	1540.7	1118.1	516.9
24/02/2021	11:39:00	34.70	13.06	165.93	205.70	3.72	223.35	5.51	17950	13607	30.70	68598	1540.9	1119.3	517.3
24/02/2021	11:40:00	35.34	12.93	164.13	205.38	3.83	229.50	5.51	17631	13500	30.28	67112	1547.8	1122.2	518.4
24/02/2021	11:41:00	35.63	13.32	164.64	206.46	3.69	221.48	5.51	18044	13635	31.02	68039	1545.9	1123.8	519.1
24/02/2021	11:42:00	35.79	13.48	164.98	206.42	3.69	221.33	5.51	17788	13523	30.24	66372	1549.7	1125.4	520.3
24/02/2021	11:43:00	35.45	12.95	164.55	205.79	3.87	232.13	5.51	18263	13624	31.66	69639	1547.4	1126.9	521.2
24/02/2021	11:44:00	35.39	13.21	165.12	206.91	3.82	229.05	5.51	18038	13466	31.32	68952	1547.8	1127.1	521.4
24/02/2021	11:45:00	34.49	13.51	164.41	206.06	3.72	223.35	5.51	18294	13590	30.86	68387	1547.2	1128.3	522.6
24/02/2021	11:46:00	35.58	13.51	169.48	208.26	3.82	229.43	5.51	17881	13461	31.03	68843	1548.3	1128.6	522.7
24/02/2021	11:47:00	36.24	12.90	157.64	206.33	3.84	230.10	5.29	18294	13567	30.53	67420	1551.6	1130.4	523.8
24/02/2021	11:48:00	36.20	13.10	165.65	206.33	3.57	214.35	5.29	17838	13590	30.91	67744	1556.8	1132.0	524.6
24/02/2021	11:49:00	36.21	13.24	165.74	206.46	3.53	212.03	5.29	18419	13584	31.95	69856	1562.2	1135.2	525.8
24/02/2021	11:50:00	36.00	13.30	165.03	207.45	3.82	228.90	5.74	17925	13590	30.43	66020	1561.2	1136.0	527.2
24/02/2021	11:51:00	34.85	12.71	165.12	205.29	3.82	229.13	5.74	18169	13590	33.57	72860	1559.6	1136.9	527.1
24/02/2021	11:52:00	35.21	12.97	163.18	205.52	3.69	221.10	5.74	18288	13618	31.14	67766	1550.1	1134.5	526.2
24/02/2021	11:53:00	34.01	12.80	165.54	205.25	3.79	227.48	4.73	18038	13506	32.23	71156	1548.4	1133.5	525.3
24/02/2021	11:54:00	35.16	13.05	164.27	206.24	3.64	218.18	5.36	18063	13607	30.54	67531	1542.8	1131.2	524.1
24/02/2021	11:55:00	34.71	12.99	165.07	206.10	3.74	224.40	5.70	17931	13612	30.96	68552	1544.8	1129.9	523.1
24/02/2021	11:56:00	34.64	13.29	165.22	206.46	3.72	222.98	5.51	17956	13612	31.08	68634	1543.1	1128.4	522.7
24/02/2021	11:57:00	34.83	13.30	164.79	205.92	3.85	230.78	5.51	17838	13500	30.37	66911	1548.8	1128.3	522.7
24/02/2021	11:58:00	34.86	12.84	164.45	206.28	3.73	223.50	5.55	18138	13534	31.06	67993	1543.6	1128.3	522.3
24/02/2021	11:59:00	34.25	13.19	164.94	205.70	3.57	213.98	5.63	17888	13534	30.26	66329	1544.6	1127.8	522.1
24/02/2021	12:00:00	34.62	13.14	164.75	206.15	3.66	219.60	5.63	18450	13539	31.41	69020	1540.9	1128.1	521.7
24/02/2021	12:01:00	34.38	13.28	164.84	206.60	3.73	223.65	5.63	18088	13657	31.73	69770	1539.4	1126.0	521.1
24/02/2021	12:02:00	34.37	12.84	164.17	205.83	3.86	231.75	5.63	18600	13629	31.33	69380	1537.6	1125.8	520.8
24/02/2021	12:03:00	34.74	13.32	164.27	206.96	3.70	222.00	5.70	18094	13607	31.25	69373	1537.4	1124.8	519.4
24/02/2021	12:04:00	34.02	13.21	164.70	205.56	3.76	225.45	5.70	18550	13725	30.92	69020	1538.6	1125.2	519.9
24/02/2021	12:05:00	33.72	13.04	163.85	206.01	3.76	225.38	5.36	17856	13607	30.53	67562	1540.9	1124.7	520.0
24/02/2021	12:06:00	34.44	12.96	164.64	205.97	3.58	215.03	5.18	18356	13624	33.24	73384	1544.3	1126.4	520.2
24/02/2021	12:07:00	34.22	13.26	164.45	206.51	3.70	222.08	5.25	17881	13455	30.81	67460	1540.1	1125.0	520.5
24/02/2021	12:08:00	34.91	13.17	163.08	205.79	3.75	224.85	5.21	18100	13556	33.21	72901	1545.3	1125.5	520.7
24/02/2021	12:09:00	35.12	12.97	164.98	207.05	3.69	221.55	5.66	18113	13674	31.88	70084	1539.4	1123.9	520.7
24/02/2021	12:10:00	34.08	13.02	165.07	205.83	3.95	236.85	5.14	18088	13562	30.88	68377	1538.4	1117.3	520.4
24/02/2021	12:11:00	34.41	13.19	164.84	206.69	3.80	228.08	5.21	18244	13567	32.14	71236	1532.6	1114.3	519.5
24/02/2021	12:12:00	33.80	12.87	164.13	206.37	3.72	223.28	5.66	18006	13567	30.96	68808	1535.1	1112.8	519.1
24/02/2021	12:13:00	35.21	12.77	164.32	206.37	3.77	225.98	5.55	18000	13562	30.81	68697	1535.1	1118.7	518.5
24/02/2021	12:14:00	35.04	13.03	164.45	206.87	3.76	225.75	5.40	17756	13539	30.92	68508	1540.1	1120.2	518.4
24/02/2021	12:15:00	35.01	13.15	164.88	207.27	3.80	228.08	5.40	18225	13579	31.54	69257	1540.7	1121.7	518.7
24/02/2021	12:16:00	35.90	13.18	163.27	206.15	3.95	236.78	5.36	17825	13472	30.36	66743	1545.3	1122.4	519.6
24/02/2021	12:17:00	34.70	13.27	164.51	206.69	3.83	229.50	5.36	18319	13567	31.66	69514	1544.7	1124.3	520.8
24/02/2021	12:18:00	35.01	13.10	161.94	207.14	3.86	231.30	5.36	18050	13567	31.94	70285	1543.2	1124.4	520.9
24/02/2021	12:19:00	34.44	13.18	164.22	206.37	3.77	226.28	5.36	18400	13567	31.53	69843	1541.8	1125.1	521.4
24/02/2021	12:20:00	35.03	12.98	164.36	206.42	3.73	223.95	5.10	17913	13562	30.78	68004	1542.2	1124.7	521.9
24/02/2021	12:21:00	34.83	12.95	164.64	205.70	3.92	235.28	5.70	18481	13663	31.30	69252	1543.7	1125.7	522.0
24/02/2021	12:22:00	33.90	13.24	163.70	206.10	3.89	233.10	4.69	17750	13663	30.50	67313	1544.4	1125.5	521.6
24/02/2021	12:23:00	34.19	13.16	164.94	205.88	3.93	235.95	5.78	18194	13590	32.80	72253	1549.1	1126.8	521.8
24/02/2021	12:24:00	34.25	13.29	165.03	207.41	3.98	238.88	5.74	18063	13528	31.23	68269	1544.7	1126.7	521.8
24/02/2021	12:25:00	34.89	13.09	164.60	207.45	3.90	234.08	5.74	17806	13506	31.48	68862	1548.4	1127.5	521.8
24/02/2021	12:26:00	34.29	13.07	165.07	206.64	3.86	231.30	5.74	18019	13478	31.85	69776	1542.6	1126.5	522.1
24/02/2021	12:27:00	34.74	13.15	166.68	207.77	3.55	213.23	5.48	18013	13483	31.18	68586	1543.7	1125.8	521.9
24/02/2021	12:28:00	35.61	13.13	165.12	206.55	3.91	234.45	5.51	18088	13702	31.12	68652	1540.9	1124.4	520.6
24/02/2021	12:29:00	35.04	13.09	165.31	207.09	3.84	230.48	5.59	17806	13612	30.87	67884	1544.9	1124.5	519.0
24/02/2021	12:30:00	34.44	12.84	165.26	206.96	3.84	230.33	5.59	17800	13528	31.56	69267	1545.3	1125.1	518.2
24/02/2021	12:31:00	34.73	13.26	164.79	205.65	3.83	229.73	5.59	17550	13523	30.86	67471	1550.9	1126.8	517.3
24/02/2021	12:32:00	34.91	13.24	164.55	205.92	3.66	219.60	5.59	18069	13635	31.33	67841	1549.4	1128.0	516.8
24/02/2021	12:33:00	34.61	13.32	164.60	206.96	3.84	230.10	5.66	17756	13427	29.68	64271	1550.2	1127.9	516.1
24/02/2021	12:34:00	35.45	13.06	164.88	207.45	3.88	232.88	5.66	18275	13461	31.83	69270	1549.3	1128.3	516.0
24/02/2021	12:35:00	35.97	13.30	165.60	207.50	3.69	221.63	5.66	17913	13573	31.84	69312	1547.4	1127.2	516.1
24/02/2021	12:36:00	34.73	13.21	163.74	207.32	3.93	235.58	5.81	18319	13556	32.31	70732	1547.6	1127.7	516.1
24/02/2021	12:37:00	34.25	13.20	165.03	206.42	3.82	228.90</td								

	SDA	Stack	Incinerator	SDA Inlet	BH Inlet	BH dP	CO	HCl	CO2	H2O	THC	Main O2	Opacity	SO2	PAC	
\$Date	\$Time	TE-204	TE-258	PT-242A	PT-249	PT-615	PDT-622	AT-205-1NEW	AT-213A-1NEW	T-213B-1NE	AT-213CB	T-259-1NE	AT-261A-1NEW	AT-263	T-264-1NE	SC-PAC-FT
24/02/2021	11:38:00	193.5	191.3	-17.50	-56.50	-135.79	224.19	84.18	67.21	8.15	46.71	8.90	8.89	1.17	144.90	29.64
24/02/2021	11:39:00	194.0	191.3	-16.50	-55.40	-132.49	245.81	78.40	68.35	8.22	46.96	8.10	8.89	1.21	149.20	30.63
24/02/2021	11:40:00	194.5	192.4	-12.15	-46.45	-125.14	257.56	73.17	68.35	8.27	47.16	8.20	8.89	1.33	151.60	30.14
24/02/2021	11:41:00	194.5	192.4	-19.45	-60.05	-139.95	234.19	58.19	69.48	8.94	47.69	7.70	8.66	1.10	160.90	29.56
24/02/2021	11:42:00	195.0	192.4	-15.50	-53.65	-132.30	246.69	61.17	69.48	8.93	47.63	7.70	8.66	1.23	160.90	30.11
24/02/2021	11:43:00	195.5	192.4	-22.65	-66.30	-148.01	224.13	62.34	69.48	8.92	47.46	7.50	8.66	0.96	160.80	30.63
24/02/2021	11:44:00	196.0	193.4	-17.05	-55.35	-138.00	233.31	60.10	69.48	8.88	47.38	7.70	8.66	0.95	160.80	29.43
24/02/2021	11:45:00	196.5	193.4	-21.10	-63.55	-146.74	206.31	66.49	69.48	8.50	46.99	7.60	8.66	1.08	154.10	29.51
24/02/2021	11:46:00	197.0	193.4	-16.95	-54.85	-136.01	218.94	63.31	70.52	8.52	47.03	8.00	8.66	1.11	155.40	30.71
24/02/2021	11:47:00	197.5	194.4	-18.95	-58.95	-139.61	237.31	64.99	70.52	8.26	47.16	7.70	8.66	1.21	157.30	29.51
24/02/2021	11:48:00	198.0	194.4	-12.15	-47.90	-124.88	251.56	57.10	71.54	8.91	47.49	8.20	8.66	1.30	167.20	29.53
24/02/2021	11:49:00	198.0	194.4	-24.20	-70.30	-156.90	216.06	52.54	73.24	9.26	47.62	8.80	8.45	1.20	173.80	30.69
24/02/2021	11:50:00	198.5	194.4	-15.45	-52.25	-134.44	239.69	47.86	73.24	9.43	47.97	8.40	8.16	1.25	184.20	30.79
24/02/2021	11:51:00	199.0	195.4	-33.25	-83.70	-168.60	204.25	50.00	73.24	9.36	47.87	7.40	8.16	1.30	180.30	30.74
24/02/2021	11:52:00	199.5	195.4	-21.95	-66.15	-145.99	236.00	46.85	73.24	9.01	47.71	7.50	8.16	1.05	173.50	30.03
24/02/2021	11:53:00	199.5	196.4	-24.15	-74.40	-148.99	204.75	62.94	73.24	8.13	46.92	7.30	8.79	0.98	151.90	30.50
24/02/2021	11:54:00	200.0	196.4	-21.95	-63.10	-145.61	218.25	65.93	73.24	8.10	46.85	7.70	8.99	1.02	149.20	30.27
24/02/2021	11:55:00	200.0	196.4	-18.30	-57.25	-137.14	231.00	70.12	74.48	8.08	46.72	7.50	8.99	1.11	145.60	29.72
24/02/2021	11:56:00	200.0	196.4	-16.35	-54.95	-136.16	250.38	70.25	74.48	8.15	46.89	8.00	8.99	1.20	149.40	29.48
24/02/2021	11:57:00	199.5	196.4	-14.60	-51.25	-127.69	265.19	68.40	75.96	8.17	47.01	7.70	8.99	1.27	151.60	29.87
24/02/2021	11:58:00	199.5	196.4	-20.75	-62.00	-144.15	240.38	54.36	75.96	8.54	47.37	7.70	8.76	1.10	155.40	29.72
24/02/2021	11:59:00	199.5	196.4	-17.15	-56.10	-135.98	253.94	58.80	75.96	8.51	47.24	7.60	8.76	1.25	152.50	30.35
24/02/2021	12:00:00	199.5	196.4	-23.85	-70.65	-152.81	231.69	68.57	77.31	8.20	47.11	7.60	8.76	0.96	149.50	30.79
24/02/2021	12:01:00	199.5	196.4	-19.95	-61.20	-142.09	241.56	74.43	77.31	8.13	47.09	7.90	8.76	1.05	145.00	30.69
24/02/2021	12:02:00	199.5	196.4	-25.25	-70.40	-152.81	214.31	81.97	77.31	8.06	46.68	7.60	9.08	1.07	142.60	30.37
24/02/2021	12:03:00	199.5	196.4	-19.40	-58.85	-141.94	225.06	80.39	77.31	8.05	46.60	8.00	9.08	1.11	142.60	30.82
24/02/2021	12:04:00	199.0	196.4	-20.75	-62.10	-145.73	246.06	81.39	78.32	8.05	46.53	7.70	9.08	1.20	142.60	29.51
24/02/2021	12:05:00	199.0	196.4	-17.05	-56.30	-131.10	258.06	76.34	78.32	8.13	46.76	7.70	9.08	1.31	144.10	30.53
24/02/2021	12:06:00	198.5	196.4	-31.65	-82.45	-169.61	208.69	70.51	78.32	8.17	46.93	7.40	9.08	1.30	147.10	30.42
24/02/2021	12:07:00	198.5	196.4	-18.15	-57.60	-136.88	248.38	54.98	78.32	8.54	47.33	7.80	8.85	1.17	151.70	30.74
24/02/2021	12:08:00	198.5	196.4	-31.55	-82.30	-164.81	204.94	70.39	79.68	8.20	47.17	7.70	8.85	1.33	150.20	29.90
24/02/2021	12:09:00	198.5	196.4	-21.15	-62.20	-146.21	239.81	66.50	79.68	8.20	47.10	7.90	8.85	1.05	151.30	30.14
24/02/2021	12:10:00	198.5	196.4	-18.05	-55.65	-138.26	250.81	75.56	78.26	8.09	46.72	7.70	8.85	1.02	144.60	29.58
24/02/2021	12:11:00	198.0	196.4	-22.05	-63.80	-147.30	221.69	82.20	78.26	8.06	46.74	8.00	9.07	1.11	140.90	29.66
24/02/2021	12:12:00	198.0	196.4	-18.90	-56.85	-137.74	232.94	88.61	79.40	7.99	46.56	8.00	9.07	1.17	134.60	30.61
24/02/2021	12:13:00	198.0	196.4	-17.35	-55.35	-136.50	250.44	83.13	78.15	8.06	46.63	7.80	9.07	1.23	137.40	30.37
24/02/2021	12:14:00	197.5	196.4	-13.35	-47.75	-125.96	263.75	76.62	79.18	8.10	46.77	7.80	9.07	1.38	140.60	30.14
24/02/2021	12:15:00	197.0	196.4	-21.40	-64.40	-144.53	242.06	57.33	79.18	8.25	47.25	7.70	8.74	1.17	150.70	29.87
24/02/2021	12:16:00	197.5	196.4	-15.75	-55.35	-134.93	255.44	57.33	79.18	8.26	47.28	8.20	8.74	1.26	150.70	30.77
24/02/2021	12:17:00	197.5	196.4	-23.60	-67.45	-152.14	233.31	66.06	79.18	8.56	47.25	7.70	8.74	1.05	155.60	30.21
24/02/2021	12:18:00	198.0	196.4	-18.50	-57.65	-141.41	242.56	64.64	77.90	8.52	47.10	7.80	8.74	1.00	155.90	30.87
24/02/2021	12:19:00	198.0	196.4	-24.30	-68.65	-153.49	217.88	68.74	77.90	8.16	46.86	7.70	8.74	1.11	152.80	30.56
24/02/2021	12:20:00	198.0	196.4	-20.30	-60.95	-142.09	227.94	69.19	77.90	8.16	46.90	8.30	8.74	1.11	154.20	30.19
24/02/2021	12:21:00	198.0	196.4	-21.15	-62.10	-153.49	243.69	69.38	79.43	8.16	46.81	7.50	8.74	1.27	155.90	29.51
24/02/2021	12:22:00	198.5	196.4	-15.45	-51.80	-129.60	260.94	67.38	80.55	8.21	46.92	7.90	8.74	1.27	158.20	29.90
24/02/2021	12:23:00	198.0	196.4	-30.00	-80.25	-167.25	208.25	57.92	80.55	8.58	47.08	7.80	8.74	1.33	163.10	29.58
24/02/2021	12:24:00	198.0	196.4	-18.65	-57.55	-140.10	249.31	50.93	79.06	8.15	46.90	8.00	8.75	1.10	152.20	29.82
24/02/2021	12:25:00	198.0	196.4	-27.05	-76.50	-147.45	210.00	56.88	80.55	8.57	47.37	8.00	8.53	1.21	167.30	30.77
24/02/2021	12:26:00	198.0	196.4	-20.65	-61.60	-145.88	236.13	53.93	80.55	8.57	47.31	7.90	8.53	1.02	164.40	29.40
24/02/2021	12:27:00	198.5	196.4	-17.70	-57.05	-138.60	247.75	60.35	79.06	8.18	46.91	7.80	8.75	1.05	155.70	30.77
24/02/2021	12:28:00	198.5	196.4	-20.20	-64.45	-144.45	217.38	65.45	79.06	8.15	46.90	8.00	8.75	1.10	152.20	29.82
24/02/2021	12:29:00	198.0	196.4	-17.05	-56.60	-135.41	229.69	69.03	79.06	8.18	47.09	8.10	8.75	1.17	150.80	30.58
24/02/2021	12:30:00	198.0	196.4	-16.40	-55.50	-134.51	251.44	65.93	79.06	8.26	47.23	7.90	8.75	1.23	165.50	30.29
24/02/2021	12:31:00	197.5	196.4	-13.25	-49.65	-123.23	264.25	61.24	80.47	8.29	47.44	7.80	8.75	1.30	158.80	29.51
24/02/2021	12:32:00	197.0	196.4	-22.65	-66.90	-144.30	243.13	47.97	80.47	8.97	47.99	7.50	8.75	1.13	164.30	29.69
24/02/2021	12:33:00	197.0	196.4	-15.95	-52.85	-131.63	253.94	47.43	80.47	8.95	47.96	7.80	8.48	1.20	164.30	30.32
24/02/2021	12:34:00	196.5	196.4	-23.70	-66.80	-151.09	232.50	55.13	80.47	8.57	47.72	7.60	8.48	1.07	160.70	29.51
24/02/2021	12:35:00	196.5	196.4	-19.30	-59.30	-142.54	242.69	58.47	80.47	8.51	47.64	7.90	8.72	1.07	157.10	30.77
24/02/2021	12:36:00	196.5	196.4	-27.20	-71.90</											

	Rich	Emulsion	Lean	Alkaline	TDU Flow	TDU Flow	Leachate	Primary	Secondary	Stack Velocity	Stack Flow	Primary	Secondary	Quench	
	LPM	LPM	LPM	LPM	SCFM	LPM	m3/h	m3/h	m/s	m3/s Ref Dry	Degrees C	Degrees C	Degrees C		
\$Date	\$Time	FT-229	FT-219C	FT-223	PV-207	FT-313B	FT-313	PV-211	PV-236	PV-209	FT-260-VEL	FT-260-REFDRY	TE-240	TE-241	TE-203
24/02/2021	13:07:00	35.00	13.38	164.98	208.40	3.82	229.20	5.63	17763	13483	30.81	67368	1549.7	1125.5	511.9
24/02/2021	13:08:00	34.38	13.21	162.71	208.17	3.86	231.75	5.63	18325	13472	31.44	69111	1550.3	1126.6	512.3
24/02/2021	13:09:00	34.91	13.14	168.35	207.14	3.84	230.48	5.63	17881	13494	31.43	69129	1546.2	1125.6	512.2
24/02/2021	13:10:00	33.38	13.20	164.32	207.05	3.62	217.13	5.63	18113	13612	32.48	72167	1546.8	1119.8	512.3
24/02/2021	13:11:00	33.80	13.08	165.88	207.32	3.93	235.50	5.63	18000	13494	30.96	68581	1543.8	1118.6	511.7
24/02/2021	13:12:00	34.01	13.19	165.22	208.22	3.83	229.65	5.25	17994	13393	32.77	72639	1545.3	1119.3	511.3
24/02/2021	13:13:00	34.82	13.26	164.98	208.08	3.82	228.90	5.25	17744	13494	29.68	65781	1546.2	1124.9	511.6
24/02/2021	13:14:00	34.50	12.87	163.74	207.63	4.02	241.05	5.25	17531	13393	30.16	66494	1555.3	1127.5	512.7
24/02/2021	13:15:00	35.28	12.90	167.92	208.94	3.88	232.50	5.25	17844	13421	30.57	66980	1550.6	1128.5	513.5
24/02/2021	13:16:00	35.13	13.03	164.55	208.67	3.87	232.05	5.25	17638	13523	30.38	66776	1553.9	1129.6	513.2
24/02/2021	13:17:00	34.88	13.03	165.50	208.62	3.97	238.28	5.25	18094	13528	31.23	68834	1550.1	1129.9	513.8
24/02/2021	13:18:00	34.70	13.39	165.69	207.72	3.91	234.53	5.25	17713	13427	31.56	69852	1551.4	1130.2	513.8
24/02/2021	13:19:00	34.88	12.91	163.85	207.99	3.98	238.80	5.70	18081	13567	31.53	69960	1548.2	1130.5	514.1
24/02/2021	13:20:00	35.60	12.96	163.23	207.45	3.96	237.30	5.70	17813	13562	30.30	67217	1550.1	1129.8	514.1
24/02/2021	13:21:00	34.76	12.93	164.27	207.54	3.88	232.80	5.63	18044	13348	31.27	69298	1551.3	1130.6	514.9
24/02/2021	13:22:00	35.46	13.05	162.99	207.99	3.97	238.13	5.63	17638	13365	30.11	66620	1554.9	1131.4	515.0
24/02/2021	13:23:00	35.28	12.88	165.93	207.95	4.04	242.18	5.78	18238	13601	31.38	68729	1556.2	1133.4	515.2
24/02/2021	13:24:00	35.06	13.16	165.84	208.49	3.79	227.63	5.78	17750	13461	30.94	67705	1554.7	1132.7	515.8
24/02/2021	13:25:00	35.72	12.98	165.12	207.59	3.64	218.40	6.04	18256	13579	32.00	70335	1557.8	1132.8	516.4
24/02/2021	13:26:00	35.10	13.55	165.17	208.71	3.92	235.20	4.88	17744	13478	31.11	68499	1555.9	1132.0	516.7
24/02/2021	13:27:00	33.57	13.23	162.99	208.67	3.95	236.78	5.96	18000	13478	32.09	70750	1557.4	1133.1	517.3
24/02/2021	13:28:00	34.29	13.32	165.54	208.35	3.91	234.75	4.88	17869	13461	31.04	68588	1548.7	1131.5	515.9
24/02/2021	13:29:00	33.95	13.04	163.80	207.23	3.74	224.18	5.44	17738	13567	32.30	71548	1548.2	1129.8	514.1
24/02/2021	13:30:00	34.67	13.17	164.27	207.77	3.72	222.98	5.51	17750	13444	31.43	69549	1544.9	1128.0	513.0
24/02/2021	13:31:00	33.86	13.06	163.70	208.13	3.76	225.75	6.04	17431	13326	30.74	67923	1552.7	1128.1	512.9
24/02/2021	13:32:00	33.41	12.96	163.04	207.63	3.86	231.53	5.74	17963	13455	30.99	67998	1547.8	1127.7	512.9
24/02/2021	13:33:00	33.63	13.33	164.51	208.80	3.88	232.88	5.74	17738	13545	30.39	67294	1549.7	1127.3	512.8
24/02/2021	13:34:00	33.35	13.14	166.25	208.17	3.79	227.25	5.74	18081	13472	32.06	70492	1544.9	1126.6	512.6
24/02/2021	13:35:00	34.43	13.39	166.64	208.76	3.93	235.88	5.66	17800	13360	30.20	66576	1543.7	1124.7	511.7
24/02/2021	13:36:00	34.61	13.11	164.13	207.81	3.93	235.58	5.63	18081	13590	31.34	69425	1542.6	1124.4	511.7
24/02/2021	13:37:00	34.11	13.16	165.65	208.76	3.89	233.25	5.63	17788	13483	30.84	68419	1543.8	1122.9	511.6
24/02/2021	13:38:00	33.81	13.24	164.22	207.45	3.81	228.45	5.59	17919	13472	32.18	71233	1542.2	1123.2	511.1
24/02/2021	13:39:00	33.92	13.21	164.79	207.90	3.99	239.63	5.59	17588	13466	30.33	67050	1545.7	1122.3	510.7
24/02/2021	13:40:00	33.68	12.74	162.28	207.45	3.79	227.25	5.59	18313	13596	31.08	68430	1545.9	1123.7	510.2
24/02/2021	13:41:00	33.56	12.78	164.79	207.86	3.97	238.20	5.59	17806	13494	31.59	69538	1542.8	1123.4	509.8
24/02/2021	13:42:00	33.72	13.17	163.98	207.77	4.03	241.88	5.55	18331	13494	32.86	72637	1543.7	1123.8	509.7
24/02/2021	13:43:00	34.04	12.96	165.07	208.62	3.98	239.03	5.55	17888	13489	31.61	69913	1539.4	1122.1	509.7
24/02/2021	13:44:00	34.23	13.13	164.17	208.26	3.96	237.30	5.55	18100	13489	33.21	73678	1540.3	1122.1	510.1
24/02/2021	13:45:00	34.32	13.34	166.55	208.98	4.04	242.55	5.44	17856	13483	30.86	68597	1537.6	1121.6	510.2
24/02/2021	13:46:00	34.31	13.28	163.55	209.12	4.05	242.70	5.44	17763	13388	30.38	67440	1542.1	1121.8	510.6
24/02/2021	13:47:00	33.89	13.14	163.55	209.03	4.03	241.65	5.44	17919	13455	30.55	67580	1541.8	1123.2	511.0
24/02/2021	13:48:00	34.28	13.23	162.99	208.67	4.02	240.98	5.44	17588	13472	30.16	66667	1548.2	1124.8	510.9
24/02/2021	13:49:00	34.71	13.13	165.88	208.80	3.93	235.73	5.48	17944	13478	31.73	69689	1544.2	1124.2	511.3
24/02/2021	13:50:00	33.53	12.83	164.88	209.43	3.96	237.60	5.55	17831	13478	30.52	67284	1545.9	1122.9	510.8
24/02/2021	13:51:00	34.55	13.09	163.23	208.35	3.56	213.53	5.33	18188	13421	31.75	70043	1542.3	1123.1	510.5
24/02/2021	13:52:00	33.80	13.21	163.14	208.58	3.91	234.75	6.38	17838	13315	30.52	67444	1542.6	1122.2	510.6
24/02/2021	13:53:00	34.17	12.99	164.98	208.67	4.01	240.83	5.55	18019	13669	31.14	69187	1541.1	1123.0	510.6
24/02/2021	13:54:00	33.87	12.98	162.99	208.71	3.94	236.55	5.44	17888	13579	30.66	68055	1540.3	1122.1	510.5
24/02/2021	13:55:00	33.33	13.04	164.17	208.04	3.91	234.30	5.40	18175	13562	31.28	69659	1540.1	1122.5	510.3
24/02/2021	13:56:00	34.19	12.95	165.22	209.61	3.89	233.33	5.40	17625	13455	30.07	66759	1543.4	1121.5	510.2
24/02/2021	13:57:00	34.34	13.00	163.46	208.58	3.89	233.25	5.40	18313	13556	31.95	70189	1546.9	1122.0	511.0
24/02/2021	13:58:00	34.47	13.37	166.25	209.48	3.92	235.35	5.40	17900	13455	31.24	68475	1543.7	1122.4	511.1
24/02/2021	13:59:00	34.35	12.85	162.33	208.26	4.08	244.65	5.40	18275	13551	33.45	73779	1547.1	1124.3	511.9
24/02/2021	14:00:00	34.13	13.01	163.51	209.48	3.87	232.43	5.40	18006	13449	31.05	68441	1542.2	1125.2	511.5
24/02/2021	14:01:00	33.57	12.69	165.93	208.62	3.95	237.23	5.40	17900	13449	31.40	69716	1543.4	1126.4	511.2
24/02/2021	14:02:00	33.80	13.20	163.94	208.40	4.02	240.90	5.40	18050	13551	31.78	70540	1537.8	1125.9	511.1
24/02/2021	14:03:00	33.17	12.98	164.45	209.03	3.88	232.80	5.40	18025	13551	30.48	67942	1537.9	1126.6	510.7
24/02/2021	14:04:00	34.31	13.05	163.23	208.35	3.94	236.40	5.40	17825	13461	31.30	69448	1537.9	1127.1	510.1
24/02/2021	14:05:00	34.22	13.30	150.77	209.84	3.86	231.30	5.40	17456	13444	30.29	67060	1545.7	1129.1	510.2
24/02/2021	14:06:00	33.84	13.16	171.52	208.94	3.98	239.03	5.44	1783						

	SDA	Stack	Incinerator	SDA Inlet	BH Inlet	BH dP	CO	HCl	CO2	H2O	THC	Main O2	Opacity	SO2	PAC	
\$Date	\$Time	TE-204	TE-258	PT-242A	PT-249	PT-615	PDT-622	AT-205-1NEW	AT-213A-1NEW	T-213B-1NE	AT-213CB	AT-259-1NEW	AT-261A-1NEW	AT-263	T-264-1NEW	SC-PAC-FT
Degrees C	Degrees C	mmH2O	mmH2O	mmH2O	mmH2O	mmH2O	PPM	PPM	%	%	PPM	%	%	%	PPM	Lbs/h
24/02/2021	13:07:00	193.5	194.3	-17.80	-54.25	-136.58	259.06	53.62	67.25	8.60	47.73	8.20	8.62	1.17	158.00	29.66
24/02/2021	13:08:00	193.5	194.3	-27.85	-73.80	-158.06	239.81	62.42	67.25	8.53	47.44	7.60	8.62	1.17	156.70	29.98
24/02/2021	13:09:00	193.5	194.3	-21.10	-61.95	-144.08	246.88	59.81	67.25	8.47	47.40	8.20	8.62	1.01	152.10	30.69
24/02/2021	13:10:00	193.5	193.9	-32.95	-80.75	-169.50	202.81	64.72	67.25	8.13	46.94	7.70	8.91	1.15	147.00	29.74
24/02/2021	13:11:00	193.5	193.9	-20.60	-56.85	-144.75	228.13	70.01	67.25	8.13	47.06	8.30	8.91	1.13	145.80	29.48
24/02/2021	13:12:00	193.5	193.9	-31.85	-81.20	-163.80	214.81	73.47	67.25	8.10	47.03	8.00	8.91	1.16	144.40	29.69
24/02/2021	13:13:00	193.5	193.9	-16.55	-53.30	-132.53	261.06	72.04	67.25	8.14	47.04	8.60	8.91	1.25	142.70	29.72
24/02/2021	13:14:00	193.0	193.9	-14.50	-50.95	-126.94	275.81	62.03	65.92	8.54	47.31	9.30	8.91	1.36	150.00	30.00
24/02/2021	13:15:00	193.0	193.9	-19.10	-59.95	-140.89	249.63	54.21	65.92	8.90	47.65	7.90	8.56	1.11	158.30	30.82
24/02/2021	13:16:00	193.5	193.9	-16.75	-54.70	-132.60	262.31	60.35	64.68	8.54	47.47	8.00	8.56	1.26	154.20	30.71
24/02/2021	13:17:00	193.5	193.9	-23.90	-67.25	-148.20	238.88	60.35	64.68	8.52	47.30	7.90	8.56	0.95	153.10	30.77
24/02/2021	13:18:00	193.5	193.9	-18.75	-58.80	-139.35	248.88	60.28	64.68	8.46	47.09	8.00	8.56	1.02	150.90	30.87
24/02/2021	13:19:00	194.0	193.9	-21.65	-64.80	-147.60	219.06	63.65	64.68	8.22	46.94	7.90	8.89	1.05	148.50	30.79
24/02/2021	13:20:00	194.0	193.9	-18.75	-58.60	-137.89	231.25	66.75	64.68	8.17	46.95	8.30	8.89	1.20	148.50	29.72
24/02/2021	13:21:00	194.0	193.9	-20.40	-60.55	-139.13	251.94	67.90	64.68	8.46	46.99	8.20	8.89	1.23	147.80	30.27
24/02/2021	13:22:00	194.0	193.9	-15.15	-50.55	-128.55	262.81	63.82	64.68	8.52	47.17	8.00	8.89	1.27	150.20	29.66
24/02/2021	13:23:00	194.0	193.9	-25.15	-69.35	-152.96	242.06	52.37	64.68	8.90	47.62	8.20	8.64	1.21	156.70	30.82
24/02/2021	13:24:00	194.5	193.9	-16.85	-54.95	-135.86	253.38	46.70	64.68	8.92	47.67	8.30	8.64	1.23	159.20	29.69
24/02/2021	13:25:00	194.5	193.9	-27.20	-73.85	-163.91	227.75	57.25	64.68	8.56	47.38	8.50	8.64	1.27	157.30	29.79
24/02/2021	13:26:00	195.0	193.9	-20.55	-61.95	-142.99	241.88	58.12	64.68	8.86	47.32	8.30	8.64	1.01	157.30	30.11
24/02/2021	13:27:00	195.0	193.9	-33.55	-81.55	-170.40	196.06	60.41	64.68	8.55	47.18	8.30	8.64	1.08	155.80	29.85
24/02/2021	13:28:00	195.5	193.9	-20.60	-60.45	-141.64	221.88	60.42	63.33	8.23	47.08	8.00	8.64	1.11	153.00	30.42
24/02/2021	13:29:00	195.0	193.9	-27.35	-76.00	-153.08	211.06	62.29	63.33	8.16	46.94	8.00	8.91	1.07	147.00	30.16
24/02/2021	13:30:00	194.5	193.9	-16.60	-53.05	-132.68	251.31	62.89	65.10	8.11	47.05	8.00	8.91	1.20	139.90	29.85
24/02/2021	13:31:00	194.0	193.9	-14.10	-48.85	-124.76	269.19	61.37	66.10	8.19	47.13	8.50	8.91	1.30	143.00	29.85
24/02/2021	13:32:00	194.0	193.9	-21.75	-62.55	-144.41	245.56	54.04	66.10	8.54	47.49	8.30	8.91	1.15	148.50	30.66
24/02/2021	13:33:00	194.0	193.9	-17.35	-54.85	-131.48	257.94	58.58	64.51	8.49	47.29	8.80	8.62	1.23	146.30	30.84
24/02/2021	13:34:00	194.0	193.9	-23.75	-67.00	-148.73	235.19	62.37	64.51	8.21	47.37	8.30	8.82	0.90	146.30	29.79
24/02/2021	13:35:00	194.0	193.9	-20.35	-60.15	-140.96	244.44	63.85	63.39	8.16	47.26	8.60	8.82	1.00	141.60	29.69
24/02/2021	13:36:00	194.0	193.9	-24.25	-67.60	-149.63	215.06	70.97	63.39	8.09	47.01	8.50	9.09	1.03	137.40	30.74
24/02/2021	13:37:00	194.0	193.9	-21.35	-62.50	-140.36	228.75	75.32	63.39	8.09	46.93	8.70	9.09	1.13	139.10	29.48
24/02/2021	13:38:00	193.5	193.9	-21.55	-61.70	-141.34	248.56	77.54	64.77	8.14	47.08	8.20	9.09	1.20	140.50	30.48
24/02/2021	13:39:00	193.5	193.9	-16.35	-54.20	-130.24	260.38	73.79	64.77	8.14	47.17	8.60	9.09	1.30	140.50	30.56
24/02/2021	13:40:00	193.0	193.9	-27.70	-71.80	-156.83	232.00	64.20	64.77	8.20	47.39	8.10	8.86	1.23	143.10	29.72
24/02/2021	13:41:00	192.5	193.9	-18.75	-58.20	-137.55	249.63	55.91	64.77	8.22	47.40	8.80	8.86	1.10	143.10	30.84
24/02/2021	13:42:00	192.5	193.9	-34.55	-85.15	-171.26	204.75	67.14	63.48	8.11	47.21	7.90	8.86	1.23	138.20	30.77
24/02/2021	13:43:00	192.5	193.9	-21.00	-62.45	-144.00	236.06	66.92	63.48	8.13	47.18	8.50	8.86	0.96	136.80	30.19
24/02/2021	13:44:00	192.5	193.9	-32.80	-82.55	-166.58	193.44	71.95	63.48	8.07	47.01	8.40	8.86	1.11	134.90	30.74
24/02/2021	13:45:00	192.5	193.9	-21.00	-61.60	-145.05	218.50	79.64	63.48	8.06	47.03	8.60	9.15	1.07	135.90	30.40
24/02/2021	13:46:00	193.0	193.9	-17.30	-55.35	-136.61	230.31	81.35	63.48	8.07	47.01	8.60	9.15	1.16	135.90	30.69
24/02/2021	13:47:00	193.0	192.8	-17.95	-56.15	-133.80	252.25	76.23	64.96	8.16	47.19	8.10	9.15	1.23	141.00	30.48
24/02/2021	13:48:00	192.5	192.8	-14.10	-49.45	-125.59	266.75	62.84	66.00	8.23	47.43	8.60	8.89	1.33	146.40	30.84
24/02/2021	13:49:00	192.5	192.8	-20.70	-61.20	-142.76	242.69	54.58	66.00	8.28	47.60	8.00	8.89	1.10	150.10	30.71
24/02/2021	13:50:00	192.5	192.8	-17.15	-54.55	-133.58	257.38	60.25	66.00	8.21	47.41	8.40	8.64	1.23	147.20	29.53
24/02/2021	13:51:00	192.0	192.8	-26.00	-68.25	-150.94	233.50	65.65	66.00	8.20	47.43	8.10	8.64	0.98	146.00	30.79
24/02/2021	13:52:00	192.5	192.8	-20.50	-60.75	-139.65	245.06	65.08	66.00	8.13	47.26	8.40	8.95	0.98	140.20	30.74
24/02/2021	13:53:00	192.5	192.8	-25.60	-70.30	-153.75	217.00	70.51	64.98	8.07	47.01	8.30	8.95	1.01	136.70	29.61
24/02/2021	13:54:00	192.5	192.8	-19.60	-59.75	-139.28	224.38	71.83	64.98	8.09	47.03	8.30	8.95	1.15	136.70	29.58
24/02/2021	13:55:00	192.5	192.8	-24.05	-65.70	-146.55	246.56	75.13	66.22	8.10	46.98	8.20	8.95	1.21	137.80	30.82
24/02/2021	13:56:00	192.5	192.8	-16.55	-53.60	-129.49	256.13	72.53	67.79	8.11	47.03	8.60	8.95	1.33	137.80	30.24
24/02/2021	13:57:00	192.0	192.8	-29.30	-75.55	-163.58	223.88	67.80	67.79	8.22	47.56	8.20	8.95	1.23	146.00	30.82
24/02/2021	13:58:00	192.0	192.8	-18.70	-57.90	-136.16	243.63	58.34	67.79	8.28	47.71	8.60	8.95	1.23	149.60	30.00
24/02/2021	13:59:00	192.0	192.8	-34.00	-84.50	-169.28	202.00	62.07	67.79	8.18	47.36	8.00	8.95	1.33	145.90	30.58
24/02/2021	14:00:00	192.5	192.8	-22.80	-64.15	-149.14	235.56	59.68	67.79	8.16	47.20	8.40	8.95	0.98	145.90	30.11
24/02/2021	14:01:00	192.5	192.8	-29.45	-80.20	-151.84	198.19	64.19	67.79	8.09	47.00	8.20	8.95	1.02	141.20	30.37
24/02/2021	14:02:00	192.5	192.8	-21.75	-62.75	-145.43	217.13	68.63	67.79	8.08	46.94	8.60	9.18	1.10	138.90	30.56
24/02/2021	14:03:00	192.5	192.8	-20.45	-60.75	-139.69	232.00	71.26	67.79	8.04	46.79	8.10	9.18	1.13	137.10	29.5

	Rich	Emulsion	Lean	Alkaline	TDU Flow	TDU Flow	Leachate	Primary	Secondary	Stack Velocity	Stack Flow	Primary	Secondary	Quench	
	LPM	LPM	LPM	LPM	SCFM	LPM	m3/h	m3/h		m/s	m3/s Ref Dry	Degrees C	Degrees C	Degrees C	
\$Date	\$Time	FT-229	FT-219C	FT-223	PV-207	FT-313B	FT-313	PV-211	PV-236	PV-209	FT-260-VEL	FT-260-REFDRY	TE-240	TE-241	TE-203
24/02/2021	14:17:00	33.47	13.28	166.31	209.25	3.90	233.93	5.36	17819	13461	31.42	70370	1536.3	1128.3	508.6
24/02/2021	14:18:00	33.32	13.39	162.37	208.40	3.94	236.10	5.74	17475	13461	31.38	70566	1537.7	1128.7	507.8
24/02/2021	14:19:00	33.32	13.07	165.03	208.71	3.85	231.23	5.74	17856	13472	30.41	68561	1533.4	1127.9	506.9
24/02/2021	14:20:00	34.19	13.13	162.18	208.44	3.73	224.03	5.74	17675	13461	30.76	69626	1533.6	1127.5	505.9
24/02/2021	14:21:00	34.07	13.03	167.96	209.52	3.75	224.78	5.33	17744	13461	30.96	70207	1532.2	1127.3	505.0
24/02/2021	14:22:00	34.35	13.05	166.87	208.67	3.82	229.35	5.93	17494	13461	30.58	69599	1539.7	1128.3	505.4
24/02/2021	14:23:00	34.13	12.99	163.70	209.21	3.68	220.50	6.30	17906	13478	30.80	69427	1537.9	1130.2	506.3
24/02/2021	14:24:00	34.38	12.83	165.31	210.20	3.62	217.13	5.33	17419	13472	30.67	68817	1539.7	1131.4	506.3
24/02/2021	14:25:00	33.65	12.99	163.42	208.44	3.59	215.48	5.33	18006	13573	31.59	71199	1537.2	1132.7	506.7
24/02/2021	14:26:00	34.56	13.50	162.09	209.61	3.72	223.20	5.66	18138	13573	31.28	70996	1534.9	1131.9	506.3
24/02/2021	14:27:00	34.22	13.21	166.64	209.21	3.64	218.25	5.40	18306	13573	31.50	71671	1533.8	1132.5	506.8
24/02/2021	14:28:00	33.99	13.09	163.74	209.79	3.66	219.68	5.40	18175	13573	30.94	70434	1533.7	1131.7	507.2
24/02/2021	14:29:00	34.23	13.09	165.41	209.07	3.68	220.58	5.40	18669	13584	31.99	72778	1534.7	1132.4	507.4
24/02/2021	14:30:00	34.41	12.96	164.60	209.25	3.75	224.93	5.40	17731	13584	30.66	69598	1536.3	1132.2	507.6
24/02/2021	14:31:00	34.46	12.99	162.65	208.31	3.59	215.10	5.63	18169	13629	32.51	73137	1541.6	1133.5	507.6
24/02/2021	14:32:00	33.87	13.12	163.46	209.16	3.83	229.73	5.63	18131	13523	30.71	68830	1535.3	1132.6	508.0
24/02/2021	14:33:00	33.21	12.86	161.62	209.16	3.88	232.80	5.70	17894	13523	32.58	73465	1537.9	1133.0	507.8
24/02/2021	14:34:00	33.96	13.36	164.22	209.88	3.81	228.83	5.70	18331	13478	30.75	69502	1531.3	1131.8	507.9
24/02/2021	14:35:00	33.36	13.11	165.88	209.84	3.83	229.80	5.70	17950	13624	30.34	68633	1533.9	1131.9	507.6
24/02/2021	14:36:00	33.92	13.11	165.93	210.15	3.82	229.28	5.70	18331	13674	31.39	71538	1528.8	1130.8	507.6
24/02/2021	14:37:00	33.47	13.05	162.33	209.70	3.77	226.20	6.04	18038	13635	30.70	69701	1530.7	1130.2	507.7
24/02/2021	14:38:00	34.26	12.98	164.08	208.17	3.77	226.35	6.04	18063	13618	31.13	70639	1529.2	1129.9	507.6
24/02/2021	14:39:00	34.37	13.20	164.64	208.13	3.75	225.08	5.59	17806	13528	29.43	66681	1534.9	1130.9	507.3
24/02/2021	14:40:00	34.44	13.00	161.81	208.40	3.81	228.45	5.59	18331	13781	31.55	71233	1533.2	1132.5	507.5
24/02/2021	14:41:00	33.80	13.30	167.54	208.89	3.69	221.55	5.59	17888	13545	30.19	68247	1533.2	1132.6	507.3
24/02/2021	14:42:00	33.72	12.99	159.67	208.67	3.84	230.10	5.59	18688	13663	31.69	71800	1530.7	1133.0	507.2
24/02/2021	14:43:00	34.47	13.14	162.37	208.94	3.89	233.33	5.59	18263	13562	30.80	70079	1527.6	1130.6	505.3
24/02/2021	14:44:00	34.25	13.06	161.04	208.89	3.81	228.45	5.74	18663	13669	31.74	72710	1528.3	1129.7	505.1
24/02/2021	14:45:00	34.31	13.35	170.85	210.29	3.93	235.50	5.74	18244	13601	31.68	72393	1527.3	1127.3	504.7
24/02/2021	14:46:00	34.25	13.07	162.65	210.02	4.00	239.85	5.70	18325	13708	32.53	74243	1530.9	1125.9	505.0
24/02/2021	14:47:00	34.26	13.24	166.31	209.39	3.93	235.50	5.66	17688	13562	30.02	68548	1532.9	1125.1	504.4
24/02/2021	14:48:00	33.90	13.29	161.57	208.35	3.89	233.25	5.66	17881	13702	33.20	75615	1541.1	1126.2	504.7
24/02/2021	14:49:00	33.83	13.28	166.40	209.03	3.94	236.18	5.70	17938	13483	31.06	70689	1535.7	1124.8	504.4
24/02/2021	14:50:00	34.29	12.82	162.84	208.94	3.99	239.25	5.85	17706	13489	30.70	69906	1537.9	1124.2	503.8
24/02/2021	14:51:00	34.16	13.17	163.61	209.25	3.80	227.78	5.48	17938	13579	31.40	71721	1533.4	1123.0	503.5
24/02/2021	14:52:00	33.47	13.17	162.00	209.52	3.93	235.58	5.51	17969	13562	30.23	69333	1533.8	1122.3	502.8
24/02/2021	14:53:00	34.01	13.10	165.26	209.30	3.96	237.68	5.48	18331	13567	32.42	74215	1529.7	1122.0	502.9
24/02/2021	14:54:00	34.07	12.96	164.45	209.52	3.87	232.35	5.48	18219	13573	30.73	70810	1530.7	1121.1	502.4
24/02/2021	14:55:00	34.26	12.90	162.18	210.29	3.92	234.90	5.18	18125	13573	30.52	70697	1529.8	1121.0	502.7
24/02/2021	14:56:00	34.40	13.44	165.88	211.10	3.70	222.00	5.18	17806	13489	31.04	71578	1535.3	1122.7	502.8
24/02/2021	14:57:00	33.65	13.17	164.84	209.61	3.87	232.35	5.18	18388	13584	31.43	71957	1535.7	1124.3	503.7
24/02/2021	14:58:00	33.11	13.41	161.10	209.79	3.97	238.43	5.18	17844	13579	30.72	70189	1532.8	1123.6	503.0
24/02/2021	14:59:00	33.45	12.68	160.14	208.17	3.89	233.40	5.18	18731	13719	31.05	71336	1531.9	1124.1	502.4
24/02/2021	15:00:00	33.21	13.00	177.24	209.79	3.95	237.23	5.18	18019	13618	31.44	72393	1529.4	1122.7	503.1
24/02/2021	15:01:00	34.65	12.84	169.01	209.16	3.95	236.93	6.19	18756	13618	32.82	75930	1529.2	1121.4	504.8
24/02/2021	15:02:00	34.25	13.08	165.31	210.69	3.97	238.20	5.03	18181	13517	30.82	70745	1527.8	1120.4	505.1
24/02/2021	15:03:00	34.28	12.74	166.64	209.21	3.88	233.03	5.03	18363	13758	32.36	74676	1530.9	1119.8	504.9
24/02/2021	15:04:00	34.82	13.21	163.98	211.14	3.83	229.95	6.11	17875	13528	30.93	71349	1532.6	1116.9	504.1
24/02/2021	15:05:00	34.04	13.01	164.75	209.48	3.89	233.18	5.06	17300	13466	32.63	74838	1541.1	1116.9	504.3
24/02/2021	15:06:00	34.82	13.26	161.90	209.79	3.72	223.20	6.26	17794	13601	30.70	70062	1537.2	1117.7	504.2
24/02/2021	15:07:00	33.38	12.74	165.78	209.07	3.82	229.35	6.23	17869	13601	30.93	70729	1538.2	1119.7	502.9
24/02/2021	15:08:00	33.63	13.33	164.17	210.38	3.67	220.35	5.10	18406	13579	31.73	72779	1531.9	1116.0	501.5
24/02/2021	15:09:00	33.23	13.15	163.23	207.99	3.63	217.58	5.10	17869	13579	30.90	71365	1531.1	1111.7	500.2
24/02/2021	15:10:00	33.39	13.01	164.75	210.29	3.72	223.20	5.25	18444	13573	31.40	72398	1523.9	1104.2	499.3
24/02/2021	15:11:00	34.25	13.06	161.38	210.33	3.69	221.48	5.18	18319	13573	30.67	71016	1526.1	1099.8	497.8
24/02/2021	15:12:00	34.94	13.48	163.18	210.24	3.57	214.35	5.78	18088	13567	30.87	71421	1528.2	1103.3	498.4
24/02/2021	15:13:00	35.46	13.48	164.79	211.19	3.58	214.95	5.78	17763	13584	30.98	71446	1537.2	1111.6	498.9
24/02/2021	15:14:00	35.15	13.32	165.60	209.93	3.55	212.78	5.81	18288	13685	30.84	70838	1541.6	1114.5	501.1
24/02/2021	15:15:00	35.57	13.32	163.94	209.48	3.60	215.70	5.25	18125	13596	30.70	70264	1541.8	1114.5	501.8
24/02/2021	15:16:00	35.30	13.19	163.94	209.70	3.54	212.18	5.59</							

	SDA	Stack	Incinerator	SDA Inlet	BH Inlet	BH dP	CO	HCl	CO2	H2O	THC	Main O2	Opacity	SO2	PAC	
DDate	STime	TE-204	TE-258	PT-242A	PT-249	PT-615	PDT-622	AT-205-1NEW	AT-213A-1NEW	F-213B-1NE	AT-213CB	T-259-1NEW	AT-261A-1NEW	AT-263	T-264-1INF	SC-PAC-FT
Degrees C	Degrees C	mmH2O	mmH2O	mmH2O	mmH2O	mmH2O	PPM	PPM	%	%	PPM	%	%	PPM	Lbs/h	
24/02/2021	14:17:00	191.0	191.8	-25.80	-65.95	-149.81	239.88	67.55	62.58	8.07	46.70	8.80	8.91	1.00	135.80	30.50
24/02/2021	14:18:00	191.0	191.8	-23.30	-62.40	-144.53	251.88	73.18	62.58	8.03	46.46	8.90	8.91	1.07	133.00	30.79
24/02/2021	14:19:00	191.0	191.8	-26.35	-66.40	-152.81	221.00	86.04	61.48	7.98	46.32	8.70	9.25	1.10	130.10	29.51
24/02/2021	14:20:00	191.0	191.8	-22.35	-61.25	-142.95	230.31	90.28	61.48	7.95	46.13	8.90	9.25	1.15	126.90	29.79
24/02/2021	14:21:00	190.5	191.8	-20.65	-58.25	-137.89	248.88	90.28	59.38	7.95	46.05	8.90	9.25	1.22	124.60	30.69
24/02/2021	14:22:00	190.0	191.8	-16.00	-49.65	-129.00	265.06	84.13	58.18	8.02	46.28	8.90	9.25	1.36	127.30	30.45
24/02/2021	14:23:00	190.0	190.8	-26.95	-65.90	-149.89	242.69	75.54	58.18	8.09	46.43	8.40	9.25	1.13	134.30	29.98
24/02/2021	14:24:00	190.0	190.8	-22.45	-59.30	-141.15	255.69	68.04	56.17	8.11	46.47	8.90	8.90	1.27	137.50	29.48
24/02/2021	14:25:00	190.0	190.8	-26.75	-67.70	-156.60	229.06	75.23	56.17	8.11	46.42	8.30	8.90	1.03	137.50	30.66
24/02/2021	14:26:00	190.0	190.8	-21.00	-60.20	-144.41	238.00	75.84	54.49	8.05	46.18	8.60	8.90	1.00	134.40	30.79
24/02/2021	14:27:00	190.0	190.8	-25.95	-68.40	-154.35	208.88	77.05	53.24	7.96	45.93	8.20	9.20	1.11	129.50	29.56
24/02/2021	14:28:00	190.0	190.8	-23.30	-64.15	-143.36	222.44	72.86	53.24	7.95	45.93	8.30	9.20	1.15	129.50	29.56
24/02/2021	14:29:00	190.0	190.8	-28.25	-66.70	-156.71	239.44	71.90	53.24	7.99	45.95	8.00	9.20	1.20	130.80	29.95
24/02/2021	14:30:00	190.0	190.8	-18.95	-55.90	-134.48	257.69	68.38	53.24	8.05	46.29	8.50	9.20	1.27	132.10	30.77
24/02/2021	14:31:00	190.0	190.8	-35.95	-87.50	-172.69	206.19	64.16	53.24	8.09	46.58	7.90	9.20	1.32	134.50	30.77
24/02/2021	14:32:00	190.0	190.8	-21.20	-62.15	-142.01	247.13	56.17	53.24	8.16	46.77	8.20	8.99	1.20	136.80	30.37
24/02/2021	14:33:00	190.0	190.8	-28.80	-80.35	-151.69	206.38	62.17	53.24	8.08	46.42	8.10	8.99	1.23	133.60	30.21
24/02/2021	14:34:00	190.0	190.8	-24.95	-65.70	-148.05	230.69	63.34	52.21	8.05	46.34	8.30	8.99	0.95	132.20	30.61
24/02/2021	14:35:00	190.0	190.8	-19.05	-58.65	-141.26	241.94	67.19	52.21	7.99	46.25	8.50	9.22	1.01	130.00	29.53
24/02/2021	14:36:00	190.0	190.8	-24.75	-68.90	-150.71	215.44	71.23	50.94	7.99	46.12	8.60	9.22	1.05	129.60	30.61
24/02/2021	14:37:00	190.0	190.8	-21.20	-63.50	-143.59	226.50	75.87	50.94	7.96	46.06	8.40	9.22	1.16	129.60	30.61
24/02/2021	14:38:00	190.5	190.8	-21.50	-62.55	-140.66	247.50	80.04	51.94	7.96	45.98	8.50	9.22	1.20	128.40	30.77
24/02/2021	14:39:00	190.0	190.8	-17.75	-54.75	-130.46	261.88	73.97	51.94	8.02	46.22	8.30	9.22	1.30	129.40	29.48
24/02/2021	14:40:00	189.5	190.8	-25.60	-69.15	-150.94	239.38	67.38	51.94	8.09	46.39	8.30	9.22	1.13	133.50	30.77
24/02/2021	14:41:00	189.5	190.8	-21.00	-60.05	-139.61	250.38	57.34	50.87	8.08	46.32	8.40	9.02	1.23	134.30	30.50
24/02/2021	14:42:00	189.5	190.8	-29.50	-74.50	-162.49	229.50	61.27	50.87	8.04	46.22	8.00	9.02	1.11	132.30	29.58
24/02/2021	14:43:00	189.5	190.8	-24.30	-66.75	-147.64	235.81	55.95	50.87	7.97	46.01	8.20	9.02	1.01	126.40	30.03
24/02/2021	14:44:00	189.0	190.8	-31.10	-78.95	-165.34	209.56	54.37	49.15	7.88	45.75	8.20	9.36	1.12	122.00	30.37
24/02/2021	14:45:00	189.5	190.8	-22.55	-66.80	-149.48	219.81	51.44	49.15	7.90	45.78	8.40	9.36	1.07	122.00	29.53
24/02/2021	14:46:00	189.0	189.8	-38.15	-87.45	-174.86	204.19	53.59	48.19	8.03	45.69	8.30	9.36	1.15	124.90	30.53
24/02/2021	14:47:00	189.0	189.8	-19.55	-55.20	-137.78	249.75	53.59	50.33	7.97	45.84	8.20	9.36	1.20	127.10	30.71
24/02/2021	14:48:00	188.5	189.8	-35.85	-85.25	-168.08	204.06	51.79	50.33	8.05	46.00	8.30	9.36	1.30	133.30	30.21
24/02/2021	14:49:00	188.5	189.8	-25.40	-66.95	-144.19	243.94	47.29	50.33	8.11	46.08	8.20	9.04	1.07	136.90	30.11
24/02/2021	14:50:00	188.0	189.8	-21.55	-58.95	-136.69	258.81	50.50	49.24	8.07	46.03	8.10	9.04	1.13	133.70	29.77
24/02/2021	14:51:00	188.0	189.8	-26.65	-71.45	-155.06	234.19	50.56	48.19	8.03	45.88	8.30	9.04	0.96	130.30	30.32
24/02/2021	14:52:00	188.0	189.8	-22.30	-64.20	-144.00	242.44	50.70	48.19	8.00	45.70	8.20	9.32	0.92	127.20	29.61
24/02/2021	14:53:00	188.0	188.8	-25.80	-68.70	-152.44	210.00	54.37	47.18	7.96	45.58	8.00	9.32	0.95	124.80	29.95
24/02/2021	14:54:00	188.0	188.8	-23.20	-64.85	-144.94	226.00	54.59	47.18	7.92	45.49	8.60	9.32	1.11	123.80	29.98
24/02/2021	14:55:00	188.0	188.8	-24.40	-64.10	-143.40	245.75	54.57	47.18	7.91	45.43	8.70	9.32	1.12	122.30	29.66
24/02/2021	14:56:00	188.0	188.8	-19.05	-57.35	-134.03	263.63	51.81	45.98	7.99	45.66	8.60	9.32	1.21	125.40	29.45
24/02/2021	14:57:00	187.5	188.8	-27.90	-70.70	-153.08	234.06	48.03	45.98	8.05	45.88	8.70	9.32	1.13	131.40	30.00
24/02/2021	14:58:00	187.5	188.8	-23.45	-63.95	-142.69	247.00	50.02	45.98	8.05	45.96	8.70	9.07	1.10	134.60	30.66
24/02/2021	14:59:00	187.5	188.8	-32.30	-77.85	-164.33	225.56	54.01	45.98	8.00	45.84	8.40	9.07	1.05	131.60	29.90
24/02/2021	15:00:00	187.5	188.8	-24.75	-68.35	-151.54	237.19	50.05	45.98	7.91	45.54	14.20	9.31	0.98	126.60	30.50
24/02/2021	15:01:00	188.0	188.8	-32.95	-79.40	-172.84	203.50	57.13	44.86	7.89	45.34	8.90	9.31	1.07	124.70	30.82
24/02/2021	15:02:00	188.5	188.8	-25.30	-69.25	-150.38	215.81	72.25	44.86	7.98	45.70	8.70	9.31	1.03	124.70	30.42
24/02/2021	15:03:00	188.5	188.8	-36.50	-87.70	-175.43	201.13	55.52	43.70	7.96	45.40	8.30	9.31	1.10	124.70	30.79
24/02/2021	15:04:00	189.0	188.8	-19.65	-60.10	-139.54	249.81	50.80	43.70	7.98	45.40	8.80	9.31	1.21	126.10	29.45
24/02/2021	15:05:00	188.5	188.8	-27.35	-80.80	-150.11	217.31	48.20	43.70	8.04	45.74	8.50	9.31	1.30	130.40	30.03
24/02/2021	15:06:00	188.5	188.8	-27.05	-69.25	-150.34	244.19	41.21	43.70	8.11	46.05	8.00	9.00	1.07	138.80	30.63
24/02/2021	15:07:00	188.0	188.8	-21.10	-59.25	-138.83	255.06	42.53	43.70	8.05	45.90	8.50	9.00	1.13	136.90	30.74
24/02/2021	15:08:00	188.0	188.8	-26.35	-71.25	-153.64	228.94	49.44	43.70	7.96	45.74	8.50	9.28	0.90	131.50	30.21
24/02/2021	15:09:00	187.5	188.8	-24.25	-64.90	-147.30	241.63	51.61	43.70	7.87	45.53	9.10	9.28	0.88	125.80	30.56
24/02/2021	15:10:00	187.0	187.8	-27.70	-69.00	-154.05	212.38	59.60	43.70	7.79	45.35	8.30	9.57	1.02	118.00	30.00
24/02/2021	15:11:00	186.5	187.8	-24.00	-65.50	-145.28	227.50	62.21	43.70	7.77	45.36	8.50	9.57	1.11	115.20	30.53
24/02/2021	15:12:00	186.0	187.8	-23.75	-64.20	-146.93	244.06	59.64	43.70	7.78	45.42	8.40	9.57	1.13	112.80	30.32
24/02/2021	15:13:00	186.0	187.8	-17.40	-54.45	-135.60	261.19	55.05	43.70	7.91	45.61	10.60	9.57	1.26	122.60	30.66</

	Rich	Emulsion	Lean	Alkaline	TDU Flow	TDU Flow	Leachate	Primary	Secondary	Stack Velocity	Stack Flow	Primary	Secondary	Quench	
	LPM	LPM	LPM	LPM	SCFM	LPM	m3/h	m3/h		m/s	m3/s Ref Dry	Degrees C	Degrees C	Degrees C	
\$Date	\$Time	FT-229	FT-219C	FT-223	PV-207	FT-313B	FT-313	PV-211	PV-236	PV-209	FT-260-VEL	FT-260-REFDRY	TE-240	TE-241	TE-203
24/02/2021	15:33:00	35.40	12.80	165.17	209.88	3.58	214.80	4.99	18819	13747	32.40	74566	1550.7	1126.5	506.0
24/02/2021	15:34:00	35.51	13.04	164.32	209.88	3.71	222.53	5.10	18431	13596	31.38	72285	1546.8	1126.9	506.3
24/02/2021	15:35:00	34.65	13.41	164.84	209.52	3.66	219.60	5.10	18456	13803	33.13	76296	1547.4	1127.6	506.1
24/02/2021	15:36:00	34.61	13.30	165.84	209.66	3.82	229.35	5.03	18281	13674	31.60	73011	1543.2	1127.0	506.2
24/02/2021	15:37:00	35.22	13.12	165.03	209.70	3.85	230.93	5.36	18163	13674	32.37	74779	1544.9	1127.4	506.5
24/02/2021	15:38:00	34.95	12.99	166.35	209.03	3.77	226.20	5.48	18113	13567	31.24	71883	1544.4	1127.3	506.9
24/02/2021	15:39:00	34.79	13.19	164.32	209.16	3.69	221.33	5.40	17888	13567	31.26	71705	1550.2	1128.3	507.9
24/02/2021	15:40:00	34.17	13.36	165.45	208.89	3.74	224.48	5.40	18456	13674	31.48	71903	1543.7	1128.4	508.0
24/02/2021	15:41:00	35.33	13.46	167.54	209.88	3.58	214.80	5.40	17906	13674	29.92	68904	1544.9	1128.4	507.3
24/02/2021	15:42:00	35.64	13.50	165.88	210.96	3.38	202.50	5.40	18569	13669	31.23	71812	1542.8	1127.8	508.1
24/02/2021	15:43:00	35.09	13.05	164.17	210.51	3.71	222.30	5.55	18231	13803	31.71	72614	1543.7	1126.8	509.0
24/02/2021	15:44:00	34.41	13.24	167.54	209.39	3.53	211.58	5.48	18550	13702	31.34	72192	1541.2	1125.4	508.9
24/02/2021	15:45:00	34.76	13.09	166.16	209.70	3.57	214.05	5.48	18200	13708	31.12	71801	1540.3	1122.0	508.8
24/02/2021	15:46:00	35.27	13.16	165.88	208.98	3.64	218.33	5.51	18506	13708	30.82	70928	1539.7	1121.2	509.0
24/02/2021	15:47:00	35.79	12.93	165.50	210.42	3.64	218.55	5.51	17775	13584	30.58	69863	1543.2	1120.8	508.1
24/02/2021	15:48:00	35.12	13.21	163.42	209.43	3.67	220.43	5.51	18538	13719	31.58	72245	1546.9	1122.8	508.9
24/02/2021	15:49:00	35.12	13.34	166.25	209.88	3.62	217.20	5.51	18119	13618	31.05	70825	1543.7	1122.2	508.9
24/02/2021	15:50:00	35.21	13.31	165.31	209.70	3.68	221.03	5.51	18575	13719	33.00	75483	1546.6	1122.7	509.0
24/02/2021	15:51:00	35.28	13.26	165.84	210.47	3.73	224.03	5.70	18206	13798	31.82	72769	1542.4	1122.5	509.4
24/02/2021	15:52:00	35.72	13.40	164.36	210.42	3.48	208.73	5.48	18069	13714	33.81	77355	1545.7	1124.2	509.6
24/02/2021	15:53:00	34.92	13.62	169.62	210.65	3.79	227.18	5.10	18394	13714	31.98	73488	1542.2	1124.3	510.0
24/02/2021	15:54:00	35.13	13.47	165.26	209.61	3.71	222.30	5.25	18075	13714	30.65	70387	1545.7	1124.3	510.8
24/02/2021	15:55:00	34.73	13.18	166.50	209.39	3.78	226.88	5.25	18100	13697	30.23	69421	1544.4	1124.5	511.0
24/02/2021	15:56:00	34.61	13.13	165.60	209.34	3.73	224.03	4.20	18013	13584	29.58	67411	1549.8	1125.2	510.6
24/02/2021	15:57:00	35.45	13.07	166.21	209.93	3.77	226.13	5.25	18206	13607	31.45	71440	1544.9	1125.0	511.0
24/02/2021	15:58:00	35.06	13.17	165.78	209.07	3.77	226.20	5.25	18081	13601	30.87	70390	1547.1	1125.0	510.7
24/02/2021	15:59:00	34.35	13.22	164.13	209.07	3.81	228.45	5.25	18488	13685	31.79	72686	1542.7	1124.9	510.5
24/02/2021	16:00:00	34.82	13.52	165.65	209.97	3.48	208.73	5.93	18169	13584	30.45	69759	1540.9	1124.2	509.8
24/02/2021	16:01:00	34.76	13.20	165.31	210.02	3.85	230.93	5.89	18713	13747	31.87	73237	1538.2	1124.2	509.5
24/02/2021	16:02:00	35.39	13.28	165.12	210.60	3.89	233.55	4.84	18188	13607	30.98	71316	1537.8	1124.1	509.2
24/02/2021	16:03:00	35.24	13.04	164.41	208.80	3.92	234.98	5.48	18656	13787	31.67	73116	1537.9	1125.6	510.0
24/02/2021	16:04:00	34.70	13.26	165.45	210.65	3.82	229.20	5.48	18125	13815	30.69	70585	1542.2	1127.3	510.0
24/02/2021	16:05:00	34.17	12.97	164.84	209.12	3.72	222.90	5.36	18781	13820	32.15	73715	1544.9	1130.0	510.6
24/02/2021	16:06:00	35.45	13.12	164.22	209.43	3.86	231.75	5.36	18294	13702	30.44	69253	1540.9	1130.6	510.0
24/02/2021	16:07:00	35.78	13.22	164.27	208.80	3.93	236.03	6.38	18550	13697	32.78	74560	1545.6	1132.2	510.4
24/02/2021	16:08:00	34.16	13.02	165.22	209.12	3.78	227.03	5.44	18269	13803	31.44	71446	1539.9	1132.9	511.4
24/02/2021	16:09:00	34.64	13.09	164.88	209.79	3.75	224.70	5.63	18363	13657	31.29	71435	1539.9	1133.1	511.0
24/02/2021	16:10:00	34.01	13.56	165.65	209.57	3.88	233.03	5.63	17975	13736	31.59	72154	1533.4	1127.3	511.0
24/02/2021	16:11:00	34.11	13.40	164.55	210.15	3.84	230.10	5.63	18088	13736	30.82	70525	1534.7	1126.4	510.5
24/02/2021	16:12:00	33.96	13.08	165.84	210.02	3.92	234.90	5.63	18138	13714	30.58	69914	1534.4	1125.2	509.9
24/02/2021	16:13:00	34.56	13.09	164.79	208.71	3.88	232.95	5.70	17869	13708	30.53	69930	1540.9	1132.2	510.4
24/02/2021	16:14:00	34.83	13.41	164.60	208.71	3.92	235.35	5.70	18506	13820	31.36	71749	1537.8	1132.3	510.2
24/02/2021	16:15:00	34.77	13.04	161.81	209.34	3.72	223.28	5.33	18181	13708	30.66	69892	1539.7	1131.3	508.6
24/02/2021	16:16:00	35.28	13.07	163.74	210.15	3.84	230.33	5.55	18644	13837	31.93	72441	1538.4	1131.7	508.5
24/02/2021	16:17:00	35.10	13.09	165.31	210.29	3.74	224.48	5.51	18300	13736	31.10	71046	1537.6	1130.7	507.5
24/02/2021	16:18:00	35.22	12.91	165.41	208.98	3.89	233.48	5.51	18681	13854	32.05	73894	1536.2	1130.8	507.3
24/02/2021	16:19:00	35.46	13.49	165.54	210.33	3.93	235.80	5.51	18306	13691	31.14	71576	1536.6	1130.5	506.5
24/02/2021	16:20:00	35.69	13.30	165.17	208.49	3.71	222.45	5.51	18700	13691	31.24	72160	1538.2	1131.8	507.1
24/02/2021	16:21:00	35.10	13.05	164.60	209.70	3.69	221.48	5.63	17756	13674	29.99	68930	1540.9	1132.2	506.7
24/02/2021	16:22:00	34.38	12.82	163.98	209.70	3.89	233.40	5.51	18638	13809	32.56	74897	1547.2	1134.2	507.1
24/02/2021	16:23:00	34.91	13.45	164.60	209.79	3.84	230.63	5.48	18388	13708	31.20	71169	1540.8	1134.0	506.7
24/02/2021	16:24:00	35.03	13.29	166.31	209.21	3.82	229.28	6.11	18363	13708	33.11	75843	1542.8	1134.2	506.3
24/02/2021	16:25:00	34.55	13.55	165.84	210.42	3.74	224.40	5.25	18481	13562	31.99	72983	1535.9	1133.5	506.7
24/02/2021	16:26:00	33.95	13.04	165.74	209.84	3.88	231.90	5.25	18225	13674	30.79	71009	1536.2	1132.8	506.1
24/02/2021	16:27:00	35.00	13.14	164.41	209.43	3.76	225.30	5.63	18406	13787	32.30	74423	1531.9	1131.3	505.5
24/02/2021	16:28:00	34.73	13.23	164.17	209.12	3.64	218.25	5.63	18363	13674	30.39	70346	1534.1	1131.3	505.0
24/02/2021	16:29:00	34.71	13.31	165.84	210.47	3.74	224.25	5.63	18150	13669	30.16	69868	1535.3	1131.5	505.3
24/02/2021	16:30:00	34.98	13.29	165.93	210.42	3.80	227.93	5.74	17763	13669	30.28	69979	1541.7	1132.7	505.5
24/02/2021	16:31:00	34.50	13.28	165.35	209.57	3.82	229.05	5.06	17950	13714	31.50	72071	1540.8	1134.5	505.8
24/02/2021	16:32:00	34.94	13.42	164.79	210.47	3.81	228.45	6.08	18019	13714	31.05	71188	1542.1	1134.0	505.1
24/02/2021	16:33:00	34.79	13.20	164.32	208.85	3.77	226.0								

	SDA	Stack	Incinerator	SDA Inlet	BH Inlet	BH dP	CO	HCl	CO2	H2O	THC	Main O2	Opacity	SO2	PAC	
SDate	STime	TE-204	TE-258	PT-242A	PT-249	PT-615	PDT-622	AT-205-1NEW	AT-213A-1NEW	E-213B-1NE	AT-213CB	T-259-1NEW	AT-261A-1NEW	AT-263	T-264-1NEW	SC-PAC-FT
Degrees C	Degrees C	mmH2O	mmH2O	mmH2O	mmH2O	mmH2O	PPM	PPM	%	%	PPM	%	%	PPM	Lbs/h	
24/02/2021	15:33:00	187.0	186.8	-34.55	-83.20	-174.83	222.19	75.08	46.51	8.04	45.69	8.00	9.10	1.27	134.30	30.11
24/02/2021	15:34:00	187.5	186.8	-25.65	-69.15	-150.98	235.19	72.81	45.15	8.03	45.64	8.30	9.10	1.05	138.20	30.32
24/02/2021	15:35:00	188.0	187.9	-35.65	-88.45	-174.75	188.19	76.79	45.15	7.98	45.40	7.80	9.35	4.30	134.90	30.48
24/02/2021	15:36:00	188.5	187.9	-25.10	-70.40	-152.74	216.13	74.72	45.15	7.98	45.45	8.30	9.35	1.13	133.40	30.79
24/02/2021	15:37:00	188.5	187.9	-32.40	-84.70	-158.33	206.63	79.95	45.15	7.95	45.46	8.00	9.35	1.21	130.10	30.03
24/02/2021	15:38:00	188.5	187.9	-20.40	-60.40	-142.58	250.94	79.95	45.15	8.02	45.61	8.10	9.35	1.23	131.30	29.61
24/02/2021	15:39:00	188.5	187.9	-18.15	-56.40	-133.16	264.44	69.67	45.15	8.07	45.80	8.00	9.35	1.30	134.70	29.69
24/02/2021	15:40:00	189.0	187.9	-25.20	-69.60	-151.46	237.88	57.65	46.56	8.13	45.99	7.80	9.08	1.12	140.70	30.56
24/02/2021	15:41:00	189.0	187.9	-19.05	-59.65	-140.10	248.69	62.35	46.56	8.07	45.82	8.00	9.08	1.23	137.70	30.74
24/02/2021	15:42:00	189.0	187.9	-28.60	-77.35	-159.90	229.25	67.31	46.56	8.03	45.64	7.50	9.08	0.97	134.60	29.48
24/02/2021	15:43:00	189.5	188.9	-24.55	-68.00	-149.10	237.94	63.88	46.56	8.02	45.65	7.60	9.08	0.97	134.60	29.61
24/02/2021	15:44:00	190.0	188.9	-25.50	-71.80	-155.74	207.13	61.53	46.56	8.01	45.62	7.50	9.33	1.03	134.60	29.95
24/02/2021	15:45:00	190.0	188.9	-22.10	-62.90	-146.93	220.75	62.00	46.56	7.98	45.56	7.80	9.33	1.15	134.60	30.24
24/02/2021	15:46:00	190.0	188.9	-22.60	-65.65	-150.23	245.25	65.59	46.56	7.93	45.58	7.80	9.33	1.16	130.00	30.29
24/02/2021	15:47:00	190.0	188.9	-17.65	-55.95	-135.90	257.56	60.71	46.56	8.00	45.70	8.20	9.33	1.27	131.10	29.64
24/02/2021	15:48:00	190.0	188.9	-32.05	-82.05	-167.03	231.31	56.12	46.56	8.06	45.86	7.80	9.33	1.20	133.30	30.63
24/02/2021	15:49:00	190.0	188.9	-21.25	-61.30	-142.01	245.88	49.31	46.56	8.11	45.98	8.00	9.03	1.15	137.30	29.72
24/02/2021	15:50:00	190.0	188.9	-35.30	-90.70	-175.99	196.50	52.53	46.56	8.09	45.81	7.60	9.03	1.30	137.30	29.51
24/02/2021	15:51:00	190.0	188.9	-24.50	-68.85	-151.54	235.50	51.06	45.47	8.09	45.82	8.00	9.03	1.00	137.30	30.84
24/02/2021	15:52:00	190.5	189.9	-33.55	-88.10	-173.21	190.31	55.68	45.47	8.00	45.50	7.90	9.25	1.02	133.80	30.71
24/02/2021	15:53:00	190.5	189.9	-24.95	-68.10	-152.74	217.38	56.07	45.47	8.04	45.54	7.70	9.25	1.03	135.20	29.58
24/02/2021	15:54:00	191.0	189.9	-21.10	-61.00	-143.40	228.56	56.42	45.47	8.03	45.54	8.00	9.25	1.16	136.30	29.90
24/02/2021	15:55:00	191.0	189.9	-18.55	-60.90	-140.96	249.50	56.94	45.47	8.07	45.68	7.80	9.25	1.23	138.80	29.56
24/02/2021	15:56:00	191.0	189.9	-15.45	-55.80	-130.61	264.31	52.34	45.47	8.14	45.93	7.70	9.04	1.23	140.30	30.71
24/02/2021	15:57:00	191.0	189.9	-24.30	-67.85	-149.29	239.25	47.56	47.15	8.45	46.06	7.70	9.04	1.16	142.20	30.82
24/02/2021	15:58:00	191.0	189.9	-19.55	-59.35	-140.33	252.06	44.34	47.15	8.43	46.07	7.80	9.04	1.25	141.20	30.11
24/02/2021	15:59:00	191.0	189.9	-26.40	-73.60	-155.78	224.81	47.70	45.90	8.10	45.73	7.70	9.04	0.98	139.20	30.82
24/02/2021	16:00:00	191.0	189.9	-25.30	-69.00	-152.55	242.06	50.03	45.90	8.05	45.62	7.80	9.04	0.98	136.20	30.53
24/02/2021	16:01:00	191.0	189.9	-27.90	-73.50	-159.41	211.25	58.64	45.90	7.96	45.47	7.60	9.32	1.11	130.60	30.27
24/02/2021	16:02:00	191.5	189.9	-22.60	-66.10	-147.86	221.38	58.47	45.90	7.95	45.36	7.80	9.32	1.10	130.60	30.69
24/02/2021	16:03:00	191.0	189.9	-22.85	-66.05	-148.99	242.88	60.31	45.90	7.97	45.21	7.30	9.32	1.20	133.10	30.03
24/02/2021	16:04:00	191.5	189.9	-18.25	-55.90	-134.81	255.31	54.76	45.90	8.04	45.42	7.60	9.32	1.23	136.90	29.51
24/02/2021	16:05:00	191.0	189.9	-29.90	-79.25	-168.64	222.19	48.77	45.90	8.10	45.62	7.10	9.11	1.25	139.30	29.51
24/02/2021	16:06:00	191.0	189.9	-20.30	-63.50	-143.10	243.63	40.72	45.90	8.15	46.00	7.60	9.11	1.17	143.20	29.43
24/02/2021	16:07:00	191.0	189.9	-35.55	-91.75	-175.95	200.81	44.70	45.90	8.11	46.02	7.20	9.11	1.28	141.70	29.95
24/02/2021	16:08:00	191.0	189.9	-23.95	-68.45	-152.36	235.06	44.55	47.03	8.09	46.04	7.50	9.11	0.96	143.10	29.58
24/02/2021	16:09:00	191.5	189.9	-31.05	-87.80	-159.04	204.94	52.71	47.03	8.00	45.75	7.60	9.11	1.05	137.70	29.74
24/02/2021	16:10:00	192.0	191.2	-26.05	-68.45	-152.55	216.19	56.16	47.03	8.01	45.78	8.30	9.11	1.11	136.20	29.51
24/02/2021	16:11:00	192.0	191.2	-21.70	-64.15	-142.76	228.81	68.09	47.03	7.95	45.64	8.30	9.34	1.21	132.10	30.61
24/02/2021	16:12:00	191.5	191.2	-20.95	-61.05	-141.11	253.06	70.88	47.03	7.97	45.67	8.00	9.34	1.26	132.10	30.00
24/02/2021	16:13:00	191.5	191.2	-16.40	-55.40	-132.49	266.00	61.87	47.03	8.04	45.63	8.00	9.34	1.36	133.30	29.58
24/02/2021	16:14:00	191.0	191.2	-22.60	-65.35	-148.13	238.50	45.78	47.03	8.42	45.96	7.80	9.07	1.13	138.50	30.71
24/02/2021	16:15:00	191.0	191.2	-19.05	-62.05	-137.93	252.25	48.64	47.03	8.39	45.90	7.80	9.07	1.25	137.30	30.24
24/02/2021	16:16:00	191.0	190.1	-25.05	-70.50	-154.91	227.94	52.39	47.03	8.11	45.96	7.70	9.07	0.98	135.40	30.03
24/02/2021	16:17:00	191.0	190.1	-22.40	-66.35	-149.85	241.75	52.15	45.80	8.09	45.93	7.90	9.07	1.01	135.40	29.82
24/02/2021	16:18:00	191.0	190.1	-28.25	-75.10	-159.60	211.50	61.09	45.80	8.03	45.56	7.90	9.28	1.08	131.10	29.58
24/02/2021	16:19:00	191.0	190.1	-23.40	-68.60	-149.10	221.50	61.73	45.80	8.02	45.46	8.10	9.28	1.10	131.10	29.48
24/02/2021	16:20:00	190.5	190.1	-22.55	-64.40	-152.29	242.69	67.74	44.69	7.99	45.18	7.80	9.28	1.23	131.20	29.93
24/02/2021	16:21:00	190.5	190.1	-19.90	-60.65	-139.24	255.94	60.81	44.69	8.07	45.50	7.80	9.28	1.23	136.20	30.56
24/02/2021	16:22:00	190.0	190.1	-36.60	-94.40	-179.21	205.19	55.04	46.19	8.10	45.57	7.50	9.28	1.23	137.80	30.74
24/02/2021	16:23:00	190.0	190.1	-20.60	-66.10	-144.86	242.19	45.09	44.85	8.46	45.75	7.70	8.97	1.16	143.50	30.79
24/02/2021	16:24:00	190.0	190.1	-31.70	-86.80	-168.41	196.31	47.53	44.85	8.43	45.71	7.40	8.97	1.26	141.80	30.74
24/02/2021	16:25:00	190.0	190.1	-24.75	-70.15	-155.70	229.44	45.89	44.85	8.08	45.65	7.70	8.97	0.98	135.20	30.61
24/02/2021	16:26:00	190.0	190.1	-21.70	-64.85	-144.79	240.69	50.85	44.85	7.97	45.84	7.40	9.26	0.95	129.30	30.56
24/02/2021	16:27:00	190.0	190.1	-24.55	-71.25	-152.18	213.00	52.30	46.12	7.97	45.41	7.70	9.26	1.07	129.30	30.69
24/02/2021	16:28:00	190.0	190.1	-22.40	-65.75	-149.16	226.81	54.66	46.12	7.92	45.14	7.40	9.26	1.11	128.10	30.79
24/02/2021	16:29:00	190.0	190.1	-19.45	-60.65	-142.88	250.13	54.66	46.12	7.94	45.15	7.70	9.26	1.23	128.10	29.51

	Rich	Emulsion	Lean	Alkaline	TDU Flow	TDU Flow	Leachate	Primary	Secondary	Stack Velocity	Stack Flow	Primary	Secondary	Quench	
\$Date	\$Time	FT-229	FT-219C	FT-223	PV-207	FT-313B	FT-313	PV-211	PV-236	PV-209	FT-260-VEL	FT-260-REFDRY	Degrees C	Degrees C	Degrees C
LPM	LPM	LPM	LPM	LPM	LPM	SCFM	LPM	m3/h	m3/h	m/s	m3/s Ref Dry	Degrees C	Degrees C	Degrees C	
24/02/2021	16:43:00	33.15	13.17	164.98	209.48	3.71	222.38	5.21	18169	13624	30.57	71187	1522.7	1118.9	498.1
24/02/2021	16:44:00	34.61	12.93	165.88	208.85	3.89	233.48	5.21	18344	13865	31.57	73594	1520.1	1118.0	497.9
24/02/2021	16:45:00	33.92	13.29	164.36	209.52	3.78	227.03	5.18	18356	13685	31.20	73031	1522.8	1118.0	497.9
24/02/2021	16:46:00	34.58	12.90	166.25	209.88	3.78	227.03	5.25	18138	13635	31.24	72878	1522.8	1118.1	498.3
24/02/2021	16:47:00	34.53	13.20	165.84	209.61	3.75	224.85	5.25	18019	13528	30.76	71342	1529.3	1119.0	499.8
24/02/2021	16:48:00	34.32	13.19	165.45	209.57	3.64	218.18	5.18	18450	13770	31.44	72727	1527.6	1120.0	500.6
24/02/2021	16:49:00	34.22	13.12	165.35	209.30	3.88	233.03	5.48	17938	13663	30.93	71325	1527.7	1119.5	500.2
24/02/2021	16:50:00	34.11	13.04	165.65	209.07	3.72	222.90	5.74	18881	13674	32.33	74677	1527.2	1120.7	500.5
24/02/2021	16:51:00	34.25	13.30	165.50	209.12	3.83	229.88	5.18	18319	13798	31.91	73851	1524.8	1120.2	500.8
24/02/2021	16:52:00	35.36	13.13	163.70	209.30	3.71	222.75	5.36	18600	13787	30.59	71386	1526.2	1122.1	501.4
24/02/2021	16:53:00	34.41	13.12	164.64	210.38	3.70	222.23	5.14	18344	13680	31.52	73404	1526.1	1122.8	501.5
24/02/2021	16:54:00	33.75	13.37	164.51	209.66	3.52	211.43	5.06	18669	13826	33.24	77065	1527.8	1123.5	501.8
24/02/2021	16:55:00	34.91	12.85	167.45	209.93	3.58	214.50	6.08	18025	13691	30.70	71407	1526.8	1122.5	501.4
24/02/2021	16:56:00	33.68	13.13	164.22	208.35	3.54	212.10	6.04	18075	13730	33.53	78007	1534.6	1123.8	501.0
24/02/2021	16:57:00	33.57	13.24	163.65	209.57	3.64	218.10	4.91	18400	13618	30.63	70560	1528.8	1123.5	501.3
24/02/2021	16:58:00	33.63	13.23	164.60	208.40	3.47	208.35	5.59	18056	13523	30.22	69425	1529.7	1122.5	500.5
24/02/2021	16:59:00	34.43	13.14	165.41	209.79	3.57	214.28	5.14	18575	13787	31.70	73282	1523.4	1121.0	500.0
24/02/2021	17:00:00	34.14	12.99	164.79	209.93	3.53	211.80	5.14	18431	13781	30.84	71651	1523.1	1119.9	499.7
24/02/2021	17:01:00	33.36	13.35	164.51	208.98	3.43	205.95	4.95	18575	13803	31.18	72492	1518.4	1118.6	499.4
24/02/2021	17:02:00	34.02	12.97	165.22	208.58	3.55	213.08	5.48	18294	13590	30.55	71138	1519.7	1117.5	499.0
24/02/2021	17:03:00	34.02	13.05	164.70	209.16	3.50	210.08	5.29	18394	13618	31.13	72486	1518.1	1117.1	498.6
24/02/2021	17:04:00	33.75	13.27	164.60	209.12	3.62	216.98	6.38	17738	13629	30.41	70803	1523.2	1117.1	498.4
24/02/2021	17:05:00	34.31	13.10	164.60	209.30	3.68	220.95	4.88	18556	13848	32.03	74003	1522.7	1118.4	499.0
24/02/2021	17:06:00	33.00	13.14	165.50	209.03	3.68	220.73	5.59	18119	13747	31.47	72804	1521.9	1118.0	498.3
24/02/2021	17:07:00	34.07	12.98	165.65	210.42	3.72	223.20	5.48	18894	13803	31.93	74188	1520.9	1118.3	499.0
24/02/2021	17:08:00	34.14	13.15	163.89	210.20	3.63	217.65	5.51	18294	13787	32.10	74691	1517.4	1117.1	498.4
24/02/2021	17:09:00	33.78	13.05	163.85	210.29	3.72	223.43	5.51	18975	13888	32.00	74993	1517.3	1117.7	498.0
24/02/2021	17:10:00	33.50	13.18	165.78	211.46	3.81	228.83	5.51	18594	13764	31.34	73643	1513.8	1109.8	497.4
24/02/2021	17:11:00	33.53	13.21	164.04	209.79	3.62	217.35	6.23	18594	13888	32.94	77408	1516.3	1111.1	497.2
24/02/2021	17:12:00	33.92	12.94	163.94	209.84	3.77	226.43	5.21	18094	13730	30.52	71405	1516.6	1112.6	497.3
24/02/2021	17:13:00	33.98	13.33	164.04	211.01	3.62	216.98	5.21	17800	13618	31.29	73218	1525.1	1120.1	497.5
24/02/2021	17:14:00	34.08	12.98	164.22	210.65	3.92	235.20	5.44	18400	13747	30.13	70127	1522.2	1121.3	498.5
24/02/2021	17:15:00	33.48	13.13	164.75	210.56	3.82	228.90	5.33	18163	13747	30.84	71777	1525.3	1122.0	499.4
24/02/2021	17:16:00	33.69	13.11	164.27	210.78	3.64	218.55	5.33	18656	13708	32.16	74808	1521.9	1121.7	499.7
24/02/2021	17:17:00	34.47	13.26	164.32	210.11	3.82	228.98	5.33	18281	13708	31.14	72863	1522.3	1121.3	500.0
24/02/2021	17:18:00	33.54	13.03	164.88	210.87	3.71	222.83	5.40	18419	13702	31.65	74198	1519.2	1121.7	500.2
24/02/2021	17:19:00	33.93	13.03	165.65	211.01	3.73	223.65	5.44	18025	13820	31.16	72813	1520.1	1121.8	500.1
24/02/2021	17:20:00	33.38	13.38	160.57	210.29	3.83	229.50	5.55	18475	13685	30.98	72943	1519.1	1122.1	500.2
24/02/2021	17:21:00	33.50	13.23	166.74	211.10	3.61	216.75	5.55	18231	13691	30.21	70837	1524.7	1122.5	500.5
24/02/2021	17:22:00	33.05	13.10	166.07	209.84	3.82	229.05	5.36	18688	13921	31.71	74227	1525.1	1122.9	501.8
24/02/2021	17:23:00	33.26	12.99	165.60	211.46	3.57	214.35	5.66	18281	13685	30.85	71968	1522.9	1120.9	501.7
24/02/2021	17:24:00	34.47	13.10	165.78	210.20	3.65	218.70	4.39	18638	13803	31.58	73648	1523.8	1120.2	501.6
24/02/2021	17:25:00	33.81	13.67	164.64	212.22	3.67	219.98	5.40	18575	13803	31.82	74384	1520.4	1118.5	501.3
24/02/2021	17:26:00	33.44	13.19	165.35	210.38	3.66	219.83	5.40	18700	13770	32.59	77120	1520.4	1117.9	501.3
24/02/2021	17:27:00	33.60	13.16	164.88	211.14	3.69	221.25	5.36	18481	13730	30.84	72789	1515.6	1116.3	500.3
24/02/2021	17:28:00	33.24	12.83	165.07	211.64	3.55	212.85	4.39	18313	13871	33.06	78023	1517.6	1116.3	499.7
24/02/2021	17:29:00	33.48	13.07	165.60	210.29	3.65	218.70	4.35	18250	13753	31.26	73862	1517.4	1115.7	499.1
24/02/2021	17:30:00	34.25	13.16	165.60	210.96	3.69	221.40	5.10	18213	13753	30.27	71454	1524.7	1116.8	499.3
24/02/2021	17:31:00	33.87	13.44	165.78	211.19	3.52	211.20	5.03	18481	13764	31.27	72825	1520.7	1116.5	499.6
24/02/2021	17:32:00	34.43	13.14	164.55	210.29	3.72	223.35	5.25	18350	13764	31.10	72540	1522.9	1116.4	499.7
24/02/2021	17:33:00	33.96	12.95	162.80	210.74	3.60	215.85	6.53	18894	13865	31.96	74689	1519.4	1116.9	499.9
24/02/2021	17:34:00	33.68	13.07	162.99	210.78	3.52	211.43	5.44	18475	13758	30.58	71812	1519.2	1117.4	499.1
24/02/2021	17:35:00	34.49	13.29	164.32	210.56	3.62	217.35	5.66	18825	13876	31.86	75039	1516.3	1118.0	498.1
24/02/2021	17:36:00	33.77	13.34	165.12	211.41	3.56	213.53	6.15	18500	13876	31.19	73219	1518.2	1118.3	497.9
24/02/2021	17:37:00	34.41	13.24	164.75	210.42	3.60	216.23	5.70	18688	13775	31.82	74624	1517.4	1119.2	498.8
24/02/2021	17:38:00	33.99	13.26	164.55	210.29	3.51	210.68	5.81	18256	13775	30.86	71999	1521.2	1120.0	498.3
24/02/2021	17:39:00	33.35	13.27	164.27	210.51	3.64	218.25	5.21	18969	13876	31.73	73807	1523.4	1122.4	498.4
24/02/2021	17:40:00	33.54	13.37	165.35	210.65	3.67	219.98	5.29	18506	13747	30.92	72101	1521.6	1122.3	498.3
24/02/2021	17:41:00	33.63	13.02	164.17	210.69	3.54	212.63	5.29	19163	13848	32.79	76527	1521.9	1123.3	498.3
24/02/2021	17:42:00	34.17	12.93	165.54	211.14	3.70	221.93	5.29							

	SDA	Stack	Incinerator	SDA Inlet	BH Inlet	BH dP	CO	HCl	CO2	H2O	THC	Main O2	Opacity	SO2	PAC	
	Degrees C	Degrees C	mmH2O	mmH2O	mmH2O	mmH2O	PPM	PPM	%	%	PPM	%	%	PPM	Lbs/h	
SDate	STime	TE-204	TE-258	PT-242A	PT-249	PT-615	PDT-622	AT-205-1NEW	AT-213A-1NEW	T-213B-1NE	AT-213CB	T-259-1NEW	AT-261A-1NEW	AT-263	T-264-1NEW	SC-PAC-FT
24/02/2021	16:43:00	186.5	187.1	-22.80	-64.25	-145.80	239.56	70.13	44.70	7.82	45.06	8.00	9.35	0.96	115.40	29.45
24/02/2021	16:44:00	186.5	187.1	-26.00	-72.00	-156.64	213.00	74.57	44.70	7.81	45.05	8.20	9.63	1.05	115.40	30.35
24/02/2021	16:45:00	186.5	187.1	-22.35	-66.70	-148.16	226.50	78.48	44.70	7.83	44.88	7.90	9.63	1.17	115.40	29.56
24/02/2021	16:46:00	186.5	187.1	-21.75	-65.70	-145.13	248.00	78.32	44.70	7.86	44.85	8.00	9.63	1.23	116.80	29.43
24/02/2021	16:47:00	186.0	187.1	-15.90	-56.00	-134.89	263.06	66.53	44.70	7.94	45.28	7.80	9.43	1.30	121.30	30.63
24/02/2021	16:48:00	186.0	187.1	-24.70	-70.70	-155.85	245.81	51.10	44.70	8.07	45.69	7.90	9.08	1.15	129.90	30.87
24/02/2021	16:49:00	186.0	187.1	-20.60	-63.80	-142.95	254.44	56.30	44.70	8.03	45.72	8.20	9.08	1.25	128.10	29.53
24/02/2021	16:50:00	186.0	187.1	-29.75	-78.20	-161.59	232.63	67.92	44.70	8.00	45.63	7.70	9.28	1.07	126.10	30.03
24/02/2021	16:51:00	186.5	187.1	-22.55	-67.95	-148.69	239.63	61.63	44.70	8.00	45.47	7.90	9.28	1.00	126.10	29.51
24/02/2021	16:52:00	186.5	187.1	-28.50	-78.15	-165.08	211.75	64.82	44.70	7.89	45.05	7.70	9.28	1.15	121.80	30.56
24/02/2021	16:53:00	187.0	187.1	-23.60	-67.50	-150.64	224.69	63.85	44.70	7.92	45.13	7.70	9.28	1.13	123.20	30.77
24/02/2021	16:54:00	187.0	187.1	-37.10	-92.85	-179.33	210.06	61.81	44.70	7.94	45.15	7.60	9.28	1.21	124.70	29.45
24/02/2021	16:55:00	187.0	187.1	-19.00	-58.90	-138.75	252.88	61.22	45.76	7.93	45.20	7.70	9.28	1.25	123.20	30.35
24/02/2021	16:56:00	187.0	187.1	-33.20	-89.65	-172.50	203.88	59.69	45.76	7.94	45.23	7.50	9.28	1.35	123.20	30.71
24/02/2021	16:57:00	187.0	187.1	-23.80	-69.10	-147.08	244.13	49.79	45.76	8.09	45.76	7.50	9.28	1.15	130.70	29.53
24/02/2021	16:58:00	186.5	187.1	-18.95	-60.60	-139.95	257.50	52.58	45.76	8.06	45.75	7.60	9.28	1.27	129.50	30.79
24/02/2021	16:59:00	186.5	187.1	-25.05	-70.85	-155.14	231.44	56.62	44.51	7.94	45.52	7.70	9.28	0.96	122.60	30.71
24/02/2021	17:00:00	186.5	187.1	-22.35	-65.30	-146.78	243.63	61.92	44.51	7.84	45.24	7.70	9.50	1.06	117.50	30.71
24/02/2021	17:01:00	186.5	187.1	-26.75	-74.60	-156.26	214.31	64.88	44.51	7.84	45.25	7.70	9.50	1.06	117.50	29.69
24/02/2021	17:02:00	186.5	187.1	-23.00	-68.50	-148.84	228.44	66.36	45.81	7.80	45.17	7.90	9.50	1.11	116.40	30.37
24/02/2021	17:03:00	186.5	187.1	-21.40	-65.60	-145.99	247.56	68.60	45.81	7.82	45.20	8.00	9.50	1.18	116.40	30.74
24/02/2021	17:04:00	186.0	187.1	-18.85	-59.25	-137.14	261.44	64.78	45.81	7.88	45.30	8.10	9.50	1.30	116.40	29.51
24/02/2021	17:05:00	186.0	186.1	-25.35	-70.90	-156.04	238.56	54.14	45.81	7.99	45.62	7.80	9.29	1.17	121.40	29.51
24/02/2021	17:06:00	186.0	186.1	-20.80	-60.75	-140.96	247.69	55.00	45.81	7.96	45.58	8.00	9.29	1.21	122.60	30.77
24/02/2021	17:07:00	185.5	186.1	-30.40	-79.30	-166.31	230.00	64.18	45.81	7.91	45.33	7.70	9.29	1.17	122.60	30.53
24/02/2021	17:08:00	186.0	186.1	-25.55	-71.55	-153.04	240.75	61.89	45.81	7.90	45.25	8.10	9.29	0.98	121.00	29.66
24/02/2021	17:09:00	185.5	186.1	-34.90	-87.15	-177.45	209.63	71.29	45.81	7.79	44.86	8.00	9.49	1.20	114.30	29.74
24/02/2021	17:10:00	185.5	186.1	-24.95	-69.25	-152.48	219.44	74.47	45.81	7.78	44.78	8.20	9.49	1.11	114.30	30.03
24/02/2021	17:11:00	185.0	186.1	-36.75	-89.00	-177.49	207.94	75.60	44.55	7.76	44.71	8.00	9.69	1.21	112.10	29.66
24/02/2021	17:12:00	184.5	185.1	-21.25	-60.40	-143.36	257.75	70.35	44.55	7.83	45.05	8.30	9.69	1.32	112.10	30.08
24/02/2021	17:13:00	184.0	185.1	-30.20	-85.70	-157.73	217.56	66.66	43.36	7.87	45.10	8.00	9.48	1.40	112.10	29.66
24/02/2021	17:14:00	183.5	185.1	-23.85	-68.50	-149.78	242.75	55.40	43.36	7.99	45.44	8.10	9.25	1.20	118.10	30.79
24/02/2021	17:15:00	183.5	185.1	-18.65	-61.50	-139.95	257.88	56.35	43.36	7.98	45.42	8.00	9.25	1.33	120.30	29.45
24/02/2021	17:16:00	183.5	185.1	-28.10	-76.65	-159.60	235.13	55.52	43.36	7.96	45.47	7.90	9.25	1.00	121.50	30.74
24/02/2021	17:17:00	184.0	185.1	-22.45	-67.70	-149.18	244.00	59.65	43.36	7.86	45.14	8.60	9.25	1.05	118.00	29.56
24/02/2021	17:18:00	184.0	185.1	-27.40	-73.45	-157.61	211.50	67.00	43.36	7.83	45.03	8.10	9.54	1.07	116.60	29.58
24/02/2021	17:19:00	184.0	185.1	-24.20	-68.80	-150.79	226.69	72.84	43.36	7.83	45.00	8.40	9.54	1.16	116.60	30.74
24/02/2021	17:20:00	184.0	185.1	-24.40	-68.00	-152.81	247.88	74.54	43.36	7.84	44.99	8.20	9.54	1.17	116.60	29.48
24/02/2021	17:21:00	184.5	185.1	-17.00	-58.25	-137.96	259.25	74.07	43.36	7.90	45.06	8.40	9.54	1.40	118.40	30.66
24/02/2021	17:22:00	184.0	185.1	-28.05	-74.75	-162.08	237.75	62.10	43.36	8.02	45.20	8.10	9.20	1.23	126.50	29.51
24/02/2021	17:23:00	184.5	185.1	-21.40	-65.20	-145.43	247.06	61.71	43.36	8.02	45.46	8.00	9.20	1.23	126.50	29.90
24/02/2021	17:24:00	184.5	185.1	-31.25	-83.20	-171.49	228.25	70.80	43.36	7.92	45.26	8.00	9.20	1.23	121.90	30.11
24/02/2021	17:25:00	184.5	185.1	-26.05	-74.85	-155.59	236.69	66.73	43.36	7.89	45.17	8.40	9.20	1.08	120.80	29.43
24/02/2021	17:26:00	185.0	185.1	-37.65	-92.90	-184.01	194.81	75.23	43.36	7.81	44.65	8.20	9.42	1.21	116.80	30.35
24/02/2021	17:27:00	185.0	185.1	-27.75	-73.45	-157.05	220.00	78.17	43.36	7.82	44.64	8.60	9.42	1.12	114.10	30.35
24/02/2021	17:28:00	185.0	185.1	-37.75	-93.90	-176.05	207.69	81.04	43.36	7.78	44.63	8.10	9.63	1.23	113.00	30.66
24/02/2021	17:29:00	185.0	185.1	-20.30	-61.85	-143.33	252.75	78.94	43.36	7.80	44.62	8.50	9.63	1.33	113.00	29.58
24/02/2021	17:30:00	184.5	185.1	-16.80	-59.50	-134.93	267.38	75.25	41.90	7.84	44.63	8.30	9.63	1.32	114.60	29.93
24/02/2021	17:31:00	184.5	185.1	-25.65	-71.75	-153.23	243.38	62.47	43.07	8.00	45.22	8.40	9.41	1.13	120.40	30.79
24/02/2021	17:32:00	184.5	185.1	-20.20	-64.65	-141.11	255.56	66.90	43.07	7.94	45.29	8.30	9.41	1.26	119.40	30.42
24/02/2021	17:33:00	184.5	185.1	-28.95	-76.20	-162.26	230.00	67.27	43.07	7.93	45.23	8.00	9.41	1.02	119.40	29.56
24/02/2021	17:34:00	184.5	185.1	-23.55	-69.00	-149.25	240.00	68.60	43.07	7.81	44.94	8.00	9.41	1.02	114.90	30.21
24/02/2021	17:35:00	184.0	185.1	-26.45	-73.15	-158.81	209.31	73.26	43.07	7.77	44.83	7.90	9.66	1.08	112.60	30.11
24/02/2021	17:36:00	184.0	185.1	-23.40	-69.05	-150.64	225.81	72.25	43.07	7.80	44.98	8.00	9.66	1.13	112.60	30.69
24/02/2021	17:37:00	184.0	184.1	-25.50	-67.55	-150.75	249.56	71.75	43.07	7.79	45.03	8.00	9.66	1.21	113.70	30.24
24/02/2021	17:38:00	184.0	184.1	-19.10	-55.70	-138.98	263.88	73.74	44.53	7.85	45.33	8.30	9.66	1.33	115.10	29.98
24/02/2021	17:39:00	183.5	184.1	-31.70	-81.00	-167.18	239.63	70.01	44.53	7.93	45.52	8.00	9.41	1.26	117.50	30.03
24/02/2021																