



# **Report:**

Mercury Emission Testing at the Clean Harbors Sarnia Facility (March 2017)

Date: April 5, 2017





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#### **EXECUTIVE SUMMARY**

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

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

The test method states that the recovery spike must be within 50 to 150 percent of the expected mass collected in the traps during sampling. Six pairs of tube samples were collected during one day of testing on March 9, 2017. To ensure that at least one of the spike concentrations would fall within the concentration range requirements of the test method one tube from each of the six pairs of adsorbent tubes were spiked with increasing amounts of mercury, ranging from 100 ng to 2600 ng, by the analytical laboratory prior to commencing the test program.

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

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

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

Mercury Parameter	Average
Dry Reference Concentration (µg/Rm <sup>3</sup> )*	5.85
Dry Adjusted Concentration (µg/Rm <sup>3</sup> )**	4.82

\* 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 23.1 lb/hr.



#### 1. INTRODUCTION

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

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

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

Six pairs of adsorbent tubes were collected during one day of sampling on March 9, 2017. The spike tubes from each test pair were spiked with increasing amounts of mercury, ranging from 100 ng to 2600 ng, prior to commencing the test program to ensure that at least one of the spike concentrations would fall within the concentration range requirements of the test method. The test method states that the recovery spike must be within 50 to 150 percent of the expected mass collected in the traps during sampling. The results of three of the pairs of tubes, including the spike that best represented the mercury concentration in the stack gas at the time of testing, are reported.

All tables referenced herein are included in Appendix 1.

#### 2. SAMPLING LOCATION

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

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

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



#### 3. SAMPLING METHODOLOGY

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

ORTECH used two probes in parallel so that the mercury traps were only 1 to 2 inches apart. Each probe was heated to approximately 135°C to prevent condensation of the stack gas on the sampling media. Each mercury trap was also specially designed for sampling at wet sources. Each tube had an extended section of glass to allow for the heating of the stack gas before it came into contact with the sampling media.

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

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

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

At approximately five minute time increments 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,  $R^2 \ge 0.99$ , and the analyzer response must be within ± 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 ± 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 ±10% of the expected value.

Six unspiked mercury traps and six pre-spiked mercury traps were ordered approximately two weeks before the field testing program from Ohio Lumex. The pre-spiked mercury traps were spiked with known quantities of mercury ranging from 100 ng to 2600 ng in order to ensure that at least one of the traps met the spiking criterion stated in the test method. The recovery spike must be within 50 to 150 percent of the expected mass collected in the traps during sampling according to the test method. The spiking levels for the field recovery traps was estimated using mercury emission data from previous testing programs conducted between 2014 and 2016. The pre-spiked mercury trap for Test No. 2 (250 ng) was used for spike recovery determination as the concentrations best fit the requirements of the QA/QC criteria (within ±50% of the expected concentration). The concentration in the Test No. 2 spiked tube (250 ng) was 68% of the average mercury collected for Test No. 1, Test No. 2 and Test No. 3 (365.3 ng).

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 100.7%. 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 µg/Rm<sup>3</sup> or  $\leq 20\%$  relative deviation for mercury concentrations less than 1 µg/Rm<sup>3</sup>. 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 µg/Rm<sup>3</sup>. The average dry adjusted mercury concentration ranged from a low of 3.16 µg/Rm<sup>3</sup> (Tube Pair No.4, not reported) to a high of 5.11 µg/Rm<sup>3</sup> for the six tests performed. The paired trap agreement was 1.4% for Test No. 1, 0.2% for Test No. 2, and 1.6% for Test No. 3.

#### 6. **RESULTS**

Six mercury runs were collected during one day of sampling on March 9, 2017. A run consisted of paired mercury traps, identified as either A or B, sampled simultaneously. The spike tubes from each test pair were spiked with increasing amounts of mercury, ranging from 100 ng to 2600 ng, prior to commencing the test program to ensure that at least one of the spike concentrations would fall within the concentration range requirements of the test method. The results for Test No. 1, Test No. 2 and Test No. 3 are reported.

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

Mercury emission sample analyses for Test No. 1, Test No. 2 and Test No. 3 are provided in Table 3. Mercury was detected in Section 1 of each trap in quantities greater than the method detection limit (1.1 ng) in all of the traps. Mercury was also collected in Section 2 in five of the six traps in quantities greater than or equal to the method detection limit. However, the amount detected in Section 2 was less than 0.5% of the mercury collected in Section 1, indicating that there was no breakthrough or potential loss of mercury. US EPA Method 30B states that  $\leq 10\%$  of the total mercury collected should be collected in Section 2 for mercury concentrations greater than 1 µg/Rm<sup>3</sup> or  $\leq 20\%$  of the total mercury 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. 3. The average oxygen concentration measured by the Clean Harbors CEM system for each test was used to determine the dry reference concentration adjusted to 11% oxygen.

Six unspiked mercury traps and six pre-spiked mercury traps were ordered approximately two weeks before the field testing program from Ohio Lumex. The pre-spiked mercury traps were spiked with known quantities of mercury ranging from 100 ng to 2600 ng in order to ensure that at least one of the traps met the spiking criterion stated in the test method. The pre-spiked mercury trap for Test No. 2 (250 ng) was used for spike recovery determination as the concentration best fit the requirements of the QA/QC criteria (within ±50% of the expected concentration).



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

The paired trap agreement was 1.4% for Test No. 1, 0.2% for Test No. 2, and 1.6% for Test No. 3. The mercury emission data from the total vapour phase mercury tests is provided below:

Mercury Parameter	Test 1	Test 2	Test 4	Average
Dry Reference Conc. (µg/Rm <sup>3</sup> )*	6.22	5.65	5.67	5.85
Dry Adjusted Conc. (μg/Rm <sup>3</sup> )**	5.11	4.66	4.70	4.82

- \* Reference conditions are 25°C and 1 atmosphere
- \*\* At 25°C and 1 atmosphere, adjusted to 11% oxygen

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

The spiked mercury trap recovery calculation for Test No. 2 is shown in Table 3; the spike recovery for Test No. 2 was 100.7%. 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 (CO, HCl, CO<sub>2</sub>, H<sub>2</sub>O, THC, O<sub>2</sub>, SO<sub>2</sub>)
- stack gas opacity
- carbon injection rate

During the emission testing program, the average powdered activated carbon (PAC) injection rate was 23.1 lb/hr.



**APPENDIX 1** 

Data Tables (2 pages)



Table 1: Mercury Test Schedule

Test Number	Test Date	Samplin	g Period	Sampling Time
Number		Start	Finish	min
1	March 9, 2017	9:27	10:27	60
2	March 9, 2017	10:41	11:41	60
3	March 9, 2017	11:53	12:53	60
4	March 9, 2017	13:07	14:07	60
5	March 9, 2017	14:20	15:20	60
6	March 9, 2017	15:34	16:34	60

Note: All test times match plant time (i.e. daylight savings time).



#### Table 2: Mercury Emission Data

Test/Run	Tube	N	Aercury Collected		Dry Gas	Mercury Co	ncentration	Paired
No.	ID	Section 1	Section 2	Total	Volume Sampled	Dry Reference	Dry Adjusted	Trap Agreemen
		ng	ng	ng	Rm <sup>3</sup> *	µg/Rm <sup>3</sup> *	µg/Rm <sup>3</sup> **	%
1	A ***	394.6	<1.1	396	0.0645	6.13	5.04	-
	В	371.5	1.8	373	0.0592	6.31	5.19	-
	Average					6.22	5.11	1.4
2	A	362.9	1.4	364	0.0646	5.64	4.65	-
	B ***	348.3	2.3	351	0.0619	5.66	4.67	-
	Average					5.65	4.66	0.2
3	A	356.5	1.1	358	0.0641	5.58	4.62	-
	B***	348.2	2.3	351	0.0609	5.76	4.77	-
	Average					5.67	4.70	1.6
Average				365		5.85	4.82	

Note: Concentration data is only report 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, 500 ng for Test No. 3).

#### Table 3: Mercury Spike Tube Recovery

Test		Spike Tube			Unspike Tube	•	Spike	Spike
No.	Total Collected	Volume Sampled	Mercury Concentration	Total Collected	Volume Sampled	Mercury Concentration	Concentration	Recovery
	ng	Rm <sup>3</sup> *	ng/Rm <sup>3</sup> *	ng	Rm <sup>3</sup> *	ng/Rm <sup>3</sup> *	ng/Rm <sup>3</sup> *	%
1	496	0.0645	7682	373.3	0.0592	6307	1375	NA
2	601	0.0619	9700	364.3	0.0646	5635	4065	100.7
3	851	0.0641	13264	357.6	0.0609	5874	7390	NA
Average								100.7

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

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



**APPENDIX 2** 

Mercury Field Data Sheets (7 pages) Clean Harbors, Sarnia Mercury Tube Sampling Train Sample Volume Corrections

# Incinerator Exhaust Stack

Test # - Tube (tube pair field ID)	DGMCF	Initial DGM Reading	Final DGM Reading	Actual Vol. Sampled	Barometric Pressure	Average DGM Pressure	Average DGM Temperature	Corrected Volume	Corrected Volume (Rm <sup>3</sup> )*
		(1)		(r)	/8u III)		51		
T1A OL376102 Spiked	1.021	1.40	62.80	61.40	29.5	0.9	13.1	64.52	0.0645
T1B OLC033962	1.001	70.10	126.70	56.60	29.5	1.5	9.3	59.19	0.0592
								,	
T2A OLC033918	1.021	64.40	127.40	63.00	29.5	6.0	20.1	64.65	0.0646
T2B OLC331424 Spiked	1.001	28.40	88.70	60.30	29.5	1.5	14.6	61.92	0.0619
en and Frank									
T3A OLC033947	1.021	28.60	91.30	62.70	29.5	0.9	20.9	64.12	0.0641
T3B OL313733 Spiked	1.001	90.30	150.00	59.70	29.5	1.5	16.4	60.88	0.0609
T4A OL331361 Spiked	1.021	92.60	151.00	58.40	29.5	0.9	18.1	60.26	0.0603
T4B OLC033931	1.001	52.20	114.30	62.10	29.5	1.5	12.0	64.26	0.0643
T5A OLC033567	1.021	53.00	110.40	57.40	29.5	0.9	17.5	59.31	0.0593
T5B OL338693 Spiked	1.001	17.00	72.40	55.40	29.5	1.5	13.5	56.99	0.0570
TAB OL331398 Spiked	1.021	12.20	71.40	59.20	29.5	0.9	14.0	61.91	0.0619
T6B OLC033938	1.001	83.20	140.10	56.90	29.5	1.5	13.5	58.53	0.0585
									\$

 $^{st}$  dry at 25 $^{
m o}$ C and 1 atmosphere

Plant: Clean Habors
Plant Location: Corunna, Ontario
Test No.:

Train A		~
Tube Identification:	01376102	Spiked (Yes) No
Spike Concentration	1 <i>00</i> ng	

Test location:	Stack Breeching
Date: M	ARCH 9, 2017
Project No.:	2/142

Measuring Device	MII
Control Module	A11542
Barometer	FAN CAN

Barometric Pressure 29.50

Clock	Dry Gas	Me	Meter Temperature		Pump
Time	Meter	Outlet °C	- <del>Inlet</del> - AVG- °C	Pressure A H H <sub>2</sub> O	Vacuum "Hg Gauge
0	1,4			0.9	3
5	6.5		8	0.9	8
10	11.9			0.9	q
15	17.2	a ser e de la serie		A.G.	10
20	37.3		12	0.9	10
25	77.4		13	6.9	10
30	32.5		14	m.G	10
35	37.6		15	n.G	10
40	47.7		16	n.G	10
45	47.8	집 유민이는 이가 관계 같은	17	6.9	10
50	52.8		17	n.G	10
55	57.8		79	D.G	10
60	62.9			0.9	10

Start Time: Q 2	Initial Leak Check < 🔌 Lpm@ 22"Hg	DGMCF: 1.021
Finish Time: 10' 27	Final Leak Check 🖉 📣 Lpm@15 "Hg	Sample Volume: 61.4
		Average DGM Temp: 13.1
		Average DGM Δ H: D.O

Tube Identification: 🕻	NC033962	Spiked Yes (No		Measuring Device	MII
Spike Concentration	· · · · · · · · · · · · · · · · · · ·	g		Control Module	LUE 200FB
Clock	Dry Gas	Meter Te	mperature	Meter	Pump
Time	Meter	Outlet °C	- <del>Inlet</del> AVG- ℃	Pressure Δ H H <sub>2</sub> O	Vacuum "Hg Gauge
0	70.1		4	1.5	3
5	75.0		6	1.0	Ŕ
10	1 -19.7			1.2	1 4
15	44.Z	3 전 2 2 2 3 3 2 2 2 2 2 2 2 2 2 2 2 2 2	4	1.5	3
20	1 445.T	이 가지는 것이 같은 방법을 받는 것	\$	1.5	9
25	93.7-		6	1.5	- A
30	1 07,7		G	1.5	I g
35	102.2		10	1.5	- G
40	ING.7		$\langle \gamma \rangle$	1.5	9
45	111.2		17.	1.5	9
50	1 115.7		13	1.5	G G
55	1 170.2		13	1.5	g
60	126.4			1.5	<u> </u>
Start Time: 9		Initial Leak Check 🖉	C( Lpm@ ) / Hg	DGMCF:	1.001
Finish Time:	21	Final Leak Check		Sample Volume:	56.6
		- Croat		Average DGM Temp	: 9,3
Operator:	). / 1L			Average DGM Δ H:	1.5

Plant:	<b>Clean Habors</b>
Plant Location:	Corunna, Ontario
Test No.:	2

#### Train A

Tube Identification: 📿	203391	5	Spiked	Yes No
Spike Concentration	Specificity-	ng		A CONTRACTOR OF THE OWNER

Test location:	Stack Breeching
Date: MARCH	19201
Project No.: 71	742
Measuring Device	MIL
Control Module	A11542

**Barometric Pressure** 

Barometer

29.5

CA

ENV

Clock	Dry Gas	Meter Ten	nperature	Meter	Pump
<b>Time</b>	Meter	Outlet °C	Ave- °C	Pressure Δ Η ¨H <sub>2</sub> Ο	Vacuum "Hg Gauge
0	144	(	13	09	5
5	69.2		16	0.9	9.5
10	74.6		17	0.9	109
15	-79.9		18	6.91	
20	94.9		19	6.5	12
25	90.3		20	0.9	12
30	95.7		U	0.9	n
35	700.9		れ	0.4	n
40	106.3		23	0.9	12
45	I II. G		23	09	n
50	116.9		95	ñ. G	n
55	122,2		23	ð G	2
60	127.4		23	04	n

Start Time: 10 4 (	Initial Leak Check Z. 01 Lpm@ (< "Hg	DGMCF: 102
Finish Time:	Final Leak Check 2, 31 Lpm@ 16"Hg	Sample Volume: 63.0
		Average DGM Temp: 20,
		Average DGM Δ H:

Train B

Train B		~			
Tube Identification: 🕐	1331424	Spiked Yes No		Measuring Device	MII
Spike Concentration	250 ng			Control Module	CUEZOUG
Clock	Dry Gas	Meter T	emperature	Meter	Pump
Time	Meter	Outlet	Ave	Pressure	Vacuum
		<b>~</b>		ΔH	"Hg
	e di Briele, di Composito de la			"H <sub>2</sub> U	Gauge
0	29.4		12	1.5	
· · · · · · · · · · · · · · · · · · ·	33.7	Na Sang ang ang ang ang ang ang ang ang ang	17	1.5	9
10	20 0	▲ うちかん かたり 道上 ちかかた たちかん	a 100%	1 Care	0

15 43 C 20 46, C 25 53 C		<u>N</u> to	40 10
25 33 6	<u> </u>	15	10
23: 0	15	12	
			/0
30 54 4	16	15	10
35 63 9	16	1.5	70
40 63.7	16	1.5	10
45 73.8	'iv	1.5	10
50 76.7	16	1.5	10
55 62 7	112	1.5	10
60 <b>3 3 3</b>	16	15	10

Start Time:	WY1	Initial Leak Check Z. Ch. Lpm@ [5"Hg	DGMCF: 1.0 01
Finish Time:	TUI	Final Leak Check Z 0 Lpm@ S"Hg	Sample Volume: 60.3
			Average DGM Temp: 14,6
Operator:	D'JIK		Average DGM $\Delta$ H: 1.5

Plant:	Clean Habors		
Plant Location:	Corunna, Ontario		
Test No.:	$\mathbf{Z}$		

#### Train A

II all M					and a second	P
Tube Identification:	0103394	S IS	piked	Yes	No	Л
Spike Concentration	with the second s	ng		1.11.11	C.	

Test location:	Stack Breeching
Date: MAR	ert 9,2017
Project No.:	21742

MI
A11542
ENV-CAN

**Barometric Pressure** 

29.49

Clock	Dry Gas	Meter T	emperature	Meter	Pump
Time	Meter	Outlet °C	Ave- c	Pressure A H H <sub>2</sub> O	Vacuum "Hg Gauge
0	25.6		19	0.9	5
5	176 F		21	ż	9
10	FZUG		21		10
15	24.9		21		13
20	453		21		14
25	50.5		21		1Ú
30	CAT I		21		1Ú
35	Tro.g		21		14
40	1 44. V		21		14
45	41.3		21		14
50	769		21		14
55	3-7 46	7	22		M
60	913		21	V I	14

Start Time: 1153	Initial Leak Check 201 Lpm@ 16"	Hg DGMCF: 1.02
Finish Time: 1253	Final Leak Check 🗾 🖉 Lpm@   😚 "	Hg Sample Volume: 62.7
		Average DGM Temp: 20.9
	$ < \gamma$ ,	$\sim$ Average DGM $\Delta$ H: $\bigcirc$ $\bigcirc$
	$\mathcal{L}$	

1		100		
ा	12	in	B	
. <b>.</b> .	1.54		ີພ	

Train B			1	(Partie and		
Tube Identification: 0L31373	S	piked	1.(	Yes	No	
Spike Concentration Sod ng		No.				

Measuring Device MII **Control Module** COEZOURY

Clock	Dry Gas Meter Temperature		perature	Meter	Pump	
Time	Meter L	Outlet °C	-Inter AVG- °C	Pressure Δ H H <sub>2</sub> O	Vacuum "Hg Gauge	
0	90.3		16	1.5	5	
5 A A A A A A A A A A A A A A A A A A A	95.3		18		10	
10	100.3		iq		12	
15	105.2		17		13	
20	110.2		16		13	
25	115.2		iß		13	
30	120.2		16		13	
35	1 25.1		10		13	
40	1201	· 23 전 4 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	10	김 그는 사람을 물었다. 한 관계	13	
45	125.1		16		13	
50	100.0		16	이 그는 이 가는 것을 가지가는 것을	13	
55	1 14'501		110	A ANALAS AN ANALAS	13	
60	150-0		<u> </u>	V	13	
art Time:	1152	Initial Leak Check Z.	ን Lpm@ (ና"Hg	DGMCF:	1.001	
nish Time:	1253	Final Leak Check 🖉	OILpm@ 16 "Hg	Sample Volume:	39.7	
				Average DGM Temp:	16.4	
perator:	M-0112		이 가슴이 힘들었다.	Average DGM Δ H:	1.5	

Plant:		Clean Habors
Plant Local	tion:	Corunna, Ontario
Test No.:		φ Alexandra III

Train A

Tube Identification:	06-331361	Spiked (Yes	No
Spike Concentration	400 ng		
	· · · · · · · · · · · · · · · · · · ·		

Test location:	Stack Breeching
Date: MARC	H G ZOIT
Project No.: 2	1742
Moscuring Dovice	8,411

Measuring Device	IVIII
Control Module	A11547
Barometer	

Barometric Pressure

29.47

Clock	Dry Gas	Meter Te	emperature	Meter	Pump
Time	Meter	Outlet °C	-Inter AVC- °C	Pressure Δ H H₂O	Vacuum "Hg Gauge
0	92.0	ł		0.9	4
5	9715		16		
10	102.9		11		10
15	107.3		17		10
20	117.2		18		10
25	13.1		15		10
30	177.1		19		10
35	16.9		19		10
40	121.9		19		10
45	136.7		79		
50	141.6		19		io
55	146.5		79		10
60	13151.0		19	Ý	10

Start Time: 1307	Initial Leak Check 🖉 👔 Lpm@1<3"Hg	DGMCF: 1,021
Finish Time: 1401	Final Leak Check 🖉 🕂 Lpm@ 🦂 "Hg	Sample Volume: 584
		Average DGM Temp: 14
		Average DGM Δ H: Ö. 9

ra		

**Operator:** 

 $\bigcirc$ 

-1

Tube Identification:	04033931	Spiked Yes (No
Spike Concentration	Sementary ng	

Measuring DeviceMIIControl ModuleCOE ZOUIS

Average DGM Temp: Average DGM Δ H:

Clash	Dry Gas	BActor T		6 Actor 1	
Clock Time	Meter	Outlet	emperature Inlet AVC- °C	Meter Pressure Δ Η ¨H <sub>2</sub> O	Pump Vacuum "Hg Gauge
0	52.2	n na sea na shekara na An	12	1.<	4
5	57.4		12		2
10	62.6		in		13
15	61.0		12		13
20	1 729		12		13
25	13.1		12		18
30	63.2		12		13
35	46.9		12		12
40	636		12		13
45	CRA		12		13
50	103.9		12		13
55	1 70911		n		13
60	143		n-		
	an a				
Start Time: 120		Initial Leak Check 🚄	.01 Lpm@ 16 "Hg		1.001
Finish Time:		Final Leak Check	U Lpm@ 15"Hg	Sample Volume:	61

Plant:	Clean Habors
Plant Location:	Corunna, Ontario
Test No.:	<

Train A

Tube Identification:	010033561	Spiked	Yes (No
Spike Concentration	ne	5	

Test location:	Stack Breeching
Date:	MARCH 9 2017
Project No.:	2042

Measuring Device	MII
Control Module	AUSYZ
Barometer	ENV CAN

Barometric Pressure 🛛 💈

29.45

Clock	Dry Gas	Meter Ter	nperature	Meter	Pump
Time	Meter L	Outlet °C	-Inter AVC- °c	Pressure ∆ H H₂O	Vacuum "Hg Gauge
0	53.0		13	0.9	Lf
5	57,8		1Ú	1	
10	62.6		15		10
15	67.3		16		12
20	92.1		19		14
25	76.9		19		14
30	8117		19		14
35	86.5		19		14
40	91.3		19		14
45	96.0		19		M
50	100.8		19.		14
55	105.6		6		1L
60	110.4		19	$\mathbb{V}$	14'

Start Time: 1420	Initial Leak Check ∠, U Lpm@ 15"Hg	DGMCF: 1.02
Finish Time: 1520	Final Leak Check Z. // Lpm@ / S"Hg	Sample Volume: 57.4
		Average DGM Temp:
		Average DGM Δ H: 0.9

Tube Identification: Spike Concentration	01-3356693 1400 r	Spiked (Yes) No		Measuring Device Control Module	MII COE ZONS
Clock	Dry Gas	Meter Te	mperature	Meter	Pump
Time	Meter	Outlet °C	Intet AUC- °C	Pressure Δ H H <sub>2</sub> U	Vacuum "Hg Gauge
0	1 17.0			1.5	T U
5	21.6		12		7
10	26.2		13		10
15	30.8		iú		12
20	35.5		14		14
25	20.1		1Ú		13
30	44.1		14		1 K
35	UQ.3	na na sua ana atao atao	iΫ		1 15
40	539		M		1 75
45	3815		iù		R
50	63.2	na sere sere sere sere sere sere sere ser	14		is
55	61.5		14		16
60	724	en e	iut	V	l (A
Start Time: 👔	420	Initial Leak Check 🖉	201Lpm@15"Hg	DGMCF:	7.001
Finish Time:	570	Final Leak Check	ULpm@15"Hg	Sample Volume:	55.4
				Average DGM Temp	13.5
Operator:	· 0 UZA			Average DGM Δ H:	1.5

Plant:	Clean Habors	
Plant Location:	Corunna, Ontario	1
Test No.:	6	
Train A		~
Tube Identification:	01331398	Spiked (Yes) No
Spike Concentration	2600 ni	

Test location:	Stack Breeching
Date: MARC	H9,2017
Project No.: 7	4742

Measuring Device	MII
Control Module	A11542
Barometer	EN CAN

**Barometric Pressure** 29.4

Clock	Dry Gas	Meter Tem	perature	Meter	Pump
Time	Meter	Outlet	Inter	Pressure Δ H	Vacuum
	L	°C	°C	H <sub>2</sub> U	"Hg Gauge
N	12.2	1	IU	0.9	Ų
5	17.1		14		ana
10	22.1		M		9
15	26.9	a a tha the second s	14	na servez dala se era dala	10
20	31.9		14		12
25	36.9		14	na lina dalah na	n
30	út. 43		14		n
35	46.2		14		12
40	51.6		19		n
45	56.6		19		in
50	61.5		14		12
55	Un.5		Kef		N
60			1CI	V	$\square n$

tart Time:	15 34	Initial Leak Check C, O Lpm@ 5"Hg	DGMCF: 1.02
inish Time:	16 34	Final Leak Check 🔨 Lpm@ 🇲 "Hg	Sample Volume: 59.2
			Average DGM Temp: 14.0
			Average DGM $\Delta$ H:

ube Identification: 👌	COSPAS	Spiked Yes No		Measuring Device	MII
pike Concentration	ng			Control Module	CUE ZUIS
Clock	Dry Gas	Meter Tem	perature	Meter	Pump
Time	Meter L	Outlet °C	Hater AUC- °C	Pressure Δ Η - H <sub>2</sub> O	Vacuum "Hg Gauge
0	53.2		13	1.5	<
5.000	31.9		13		1
10	92.7		13		8
15	91.4		13	집 이 이 이 이 것을 가지 않는	IO IO
20	102.2	이 이야지 않는 것이 가지 않는 것이 같이 하는 것이 않아. 않아 않아 않아 않아 않아 않아. 않아 않아 않아 않아 않아 않아 않아. 않아 않아 않아 않아 않아 않아 않아 않아. 않아 않아 않아 않아 않아 않아 않아 않아. 않아 않아 않아 않아 않아 않아. 않아 않아 않아 않아 않아. 않아 않아 않아 않아 않아 않아. 않아 않아 않아 않아 않아 않아 않아 않아. 않아 않아 않아 않아 않아 않아 않아. 않아 않아 않아 않아 않아 않아. 않아 않아 않아 않아 않아 않아 않아. 않아 않아 않아 않아 않아 않아. 않아 않아 않아 않아 않아 않아 않아 않아. 않아 않아 않아 않아 않아 않아. 않아 않아 않아 않아 않아. 않아 않아 않아 않아 않아 않아. 않아 않아 않아 않아 않아. 않아 않아 않아 않아 않아. 않아 않아 않아 않아 않아 않아. 않아 않아 않아 않아 않아. 않아 않아 않아 않아 않아 않아. 않아 않아 않아 않아 않아 않아 않아 않아. 않아 않아 않아 않아 않아. 않아 않아 않아 않아 않아. 않아 않아 않아 않아 않아 않아. 않아 않아 않아 않아 않아 않아 않아. 않아 않아 않아 않아 않아 않아. 않아 않아 않아 않아 않아. 않아 않아 않아 않아 않아. 않아 않아 않아 않아. 않아 않아 않아 않아 않아. 않아 않아	:3		10
25	106.9		13		10
30	111.6		14		112
35	116.4	<u>अन्तरायम्</u> स्टब्स् स्ट्	14		1 10
40	121.1		M		10
45	1259		14		10
50	130.6		14	er og som en state som en s	10
55	135.4		14		118
60	140.1			<b>V</b>	16
itart Time: 👔	=- V	Initial Leak Check	Lpm@i <"Hg	DGMCF:	1.001
inish Time:	and -	Final Leak Check 🧹 🖉	Lpm@j< "Hg	Sample Volume: Average DGM Temp	56.9

ORTECH



**APPENDIX 3** 

ORTECH Equipment Calibration Data (4 pages) **ORTECH Environmental** Dry Gas Meter Calibration Data

Calibration Procedure	03-J004
Meter Number	Vost 4
Date	December 12, 2016
<b>Barometric Pressure</b>	29.50
System Leak Check	0.01 lpm @ 22 "Hg

 $ft^3 = cm^* 1.332$  litres per cm/28.3168 litres per  $ft^3$ 

Pbar (in. Hg)	(Pbar in. Hg+DGMPressure/13.6)
Tdgm °F+460	Tstd °F+460
Vstd ft <sup>3</sup>	Vdgm ft <sup>3</sup>
DGMCF=	

MII NUMBERS	A11542	A01463	COE 20028	
MIIN	DGM	Gasometer	Barometer	Automatical and a second se

Τ 

Calibrated By Andrew Saikaley Signature Reviewed and Accepted By CMUL & MOL
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cm         Volume         Temperature         Pressure         Outlet         C           Final         cm $ft^3$ °C         Initial         Final         Temperature         Pressure         Outlet         0           45.60         36.50         1.717         22.0         2744.14         2793.43         1.741         34.0         2.3         34.0           46.40         35.50         1.670         22.0         2744.14         2793.43         1.741         34.0         2.3         34.0           46.40         35.50         1.670         22.0         2744.14         2793.43         1.741         34.0         2.3         34.0           46.00         37.40         1.759         22.0         2842.54         1.734         37.0         2.3         37.0           46.00         37.40         1.759         22.0         2842.54         1.734         37.0         2.3         41.0           46.00         37.40         1.759         22.0         2842.54         1.734         37.0         2.3         41.0           40.90         20.00         0.941         23.0         292.5         2956.50         0945         33.0         0.9	Gas	Gasometer Reading	ding	Gasometer	Gasometer	DGM I	DGM Reading	DGM	DGM Average	DGM	DGM	DGM	Time	Flow
Finalcm $\mathbf{fr}^3$ °CInitialFinal $\mathbf{fr}^3$ °Cin. $\mathbf{H}_3\mathbf{O}$ °C45.6036.501.71722.02744.142793.431.741 $34.0$ $2.3$ $34.0$ 46.4035.501.67022.02793.432842.541.734 $37.0$ $2.3$ $37.0$ 46.0037.401.75922.02842.541.734 $37.0$ $2.3$ $41.0$ 46.0037.401.75922.02842.54 $284.58$ $1.838$ $41.0$ $2.3$ $41.0$ 46.0037.401.75922.0293.63 $3023.54$ $0.924$ $40.0$ $0.9$ $40.0$ 40.9020.000.94123.0 $3023.55$ $2950.50$ $0.945$ $33.0$ $0.9$ $40.0$ 40.9020.000.94123.0 $2920.50$ $2976.46$ $0.917$ $38.0$ $0.9$ $36.0$ 40.905.600.5600.560 $2976.46$ $0.917$ $38.0$ $0.9$ $38.0$ 48.905.600.26323.0 $3071.16$ $3078.95$ $0.275$ $43.0$ $0.6$ $43.0$ 60.8010.00 $0.470$ 23.0 $3078.95$ $3062.51$ $0.494$ $43.0$ $0.5$ $43.0$ 60.8110.00 $0.386$ 23.0 $3078.95$ $3078.95$ $0.275$ $43.0$ $0.5$ $43.0$ 60.800.900.820 $0.7895$ $3078.95$ $0.775$ $43.0$ $0.5$ $43.0$ 60.800.00 <th></th> <th>cm</th> <th>)</th> <th>Volume</th> <th>Temperature</th> <th>_</th> <th><u>ر</u></th> <th>Volume</th> <th>Temperature</th> <th>Pressure</th> <th>Outlet</th> <th>Calibration</th> <th></th> <th>Rate</th>		cm	)	Volume	Temperature	_	<u>ر</u>	Volume	Temperature	Pressure	Outlet	Calibration		Rate
45.60 $36.50$ $1.717$ $22.0$ $2744.14$ $2793.43$ $1.741$ $34.0$ $2.3$ $34.0$ $2.3$ $34.0$ $46.40$ $35.50$ $1.670$ $22.0$ $2793.43$ $2842.54$ $1.734$ $37.0$ $2.3$ $37.0$ $37.0$ $46.00$ $37.40$ $1.759$ $22.0$ $2793.43$ $2842.54$ $1.734$ $37.0$ $2.3$ $41.0$ $46.00$ $37.40$ $1.759$ $22.0$ $2842.54$ $2894.58$ $1.838$ $41.0$ $2.3$ $41.0$ $45.80$ $18.80$ $0.884$ $23.0$ $2802.38$ $3028.54$ $0.924$ $40.0$ $0.9$ $40.0$ $40.90$ $20.00$ $0.941$ $23.0$ $29250.50$ $2976.46$ $0.945$ $33.0$ $0.9$ $33.0$ $40.90$ $20.00$ $0.941$ $23.0$ $2976.46$ $0.917$ $33.0$ $0.9$ $33.0$ $48.90$ $5.60$ $0.263$ $2976.46$ $0.917$ $38.0$ $0.9$ $38.0$ $0.9$ $48.90$ $5.60$ $0.263$ $2376.46$ $0.917$ $38.0$ $0.9$ $38.0$ $0.9$ $40.70$ $8.20$ $0.263$ $2376.46$ $0.917$ $38.0$ $0.9$ $38.0$ $0.9$ $40.70$ $8.20$ $0.263$ $2376.46$ $0.917$ $38.0$ $0.9$ $38.0$ $0.9$ $40.70$ $8.20$ $0.826$ $2976.46$ $0.917$ $38.0$ $0.9$ $38.0$ $0.9$ $40.70$ $8.20$ $0.826$ $2976.50$ $0.945$ $0.91$	Initial	Final	cm	ft <sup>3</sup>	°C	Initial		ft <sup>3</sup>	с,	in. H <sub>2</sub> O	°C	Factor	min.	lpm
46.40         35.50         1.670         22.0         2793.43         2842.54         1.734         37.0         2.3         37.0           46.00         37.40         1.759         22.0         2842.54         2894.58         1.838         41.0         2.3         41.0           45.00         37.40         1.759         22.0         2842.54         2894.58         1.838         41.0         2.3         41.0           45.80         18.80         0.884         23.0         2842.54         2894.58         1.838         41.0         2.3         41.0           45.80         18.80         0.884         23.0         2925.50         0.945         33.0         0.9         40.0           40.90         20.00         0.941         23.0         2955.50         2976.46         0.917         38.0         0.9         33.0           21.80         19.10         0.898         23.0         2976.46         0.917         38.0         0.9         43.0         14.0           48.90         5.60         0.263         2376.55         2976.46         0.917         38.0         0.9         43.0         14.0           60.80         10.00         0.23	82.10	45.60	36.50	1.717	22.0	2744.14	2793.43	1.741	34.0	2.3	34.0	1.021	25	2.0
46.00         37.40         1.759         22.0         2842.54         2894.58         1.838         41.0         2.3         41.0         2.3         41.0         41.0         2.3         41.0         41.0         41.0         41.0 <td>81.90</td> <td>46.40</td> <td>35.50</td> <td>1.670</td> <td>22.0</td> <td>2793.43</td> <td>2842.54</td> <td>1.734</td> <td>37.0</td> <td>2.3</td> <td>37.0</td> <td>1.006</td> <td>25</td> <td>2.0</td>	81.90	46.40	35.50	1.670	22.0	2793.43	2842.54	1.734	37.0	2.3	37.0	1.006	25	2.0
45.80         18.80         0.884         23.0         3002.38         3028.54         0.924         40.0         0.9         40.0           40.90         20.00         0.941         23.0         2950.50         0.945         33.0         0.9         40.0           21.80         19.10         0.898         23.0         2950.50         0.945         33.0         0.9         33.0           48.90         5.60         0.263         2976.46         0.917         38.0         0.9         38.0           48.90         5.60         0.263         2976.46         0.917         38.0         0.9         38.0           60.80         10.00         0.470         23.0         3071.16         3078.95         0.275         43.0         0.6         43.0           40.70         8.20         0.348.52         3062.51         0.494         43.0         0.5         43.0	83.40	46.00	37.40	1.759	22.0	2842.54	2894.58	1.838	41.0	2.3	41.0	1.013	25	2.1
40.90         20.00         0.941         23.0         2923.75         2950.50         0.945         33.0         0.9         33.0         30.0         30.0	64.60	45.80	18.80	0.884	23.0	3002.38	3028.54	0.924	40.0	0.9	40.0	1.010	25	1.0
21.80         19.10         0.898         23.0         2950.50         2976.46         0.917         38.0         0.9         38.0         38.0         38.0         10.9         38.0         38.0         10.9         38.0         10.9         38.0         10.9         38.0         10.9         38.0         10.9         38.0         10.9         38.0         10.9         38.0         10.9         38.0         10.0         10.6         13.0         10.6         43.0         0.05         43.0         10.6         43.0         10.6         43.0         10.5         43.0         10.5         43.0         10.5         43.0         10.5         43.0         10.5         43.0         10.5         43.0         10.5         43.0         10.5         43.0         10.5         43.0         10.5         43.0         10.5         43.0         10.5         43.0         10.5         43.0         10.5	06 09	40.90	20.00	0.941	23.0	2923.75	2950.50	0.945	33.0	0.9	33.0	1.027	25	1.1
48.90         5.60         0.263         23.0         3071.16         3078.95         0.275         43.0         0.6         43.0           60.80         10.00         0.470         23.0         3048.52         3062.51         0.494         43.0         0.5         43.0           40.70         8.20         0.386         23.0         3078.95         3090.30         0.401         43.0         0.5         43.0	40.90	21.80	19.10	0.898	23.0	2950.50	2976.46	0.917	38.0	0.9	38.0	1.027	25	1.0
60.80         10.00         0.470         23.0         3048.52         3062.51         0.494         43.0         0.5         43.0           40.70         8.20         0.386         23.0         3078.95         3090.30         0.401         43.0         0.5         43.0	54 50	48.90	5.60	0.263	23.0	3071.16	3078.95	0.275	43.0	0.6	43.0	1.021	25	0.3
40.70 8.20 0.386 23.0 3078.95 3090.30 0.401 43.0 0.5 43.0	70.80	60.80	10.00	0.470	23.0	3048.52	3062.51	0.494	43.0	0.5	43.0	1.015	25	0.6
	48.90	40.70	8.20	0.386	23.0	3078.95	3090.30	0.401	43.0	0.5	43.0	1.026	25	0.5

Acceptance Criteria:

otherwise the meter must be repaired and/or adjusted as necessary and recalibrated prior to use. 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, (Environment Canada Reference Method EPS 1/RM/8, Section 6)

DGMCF AVERAGE 1.013 1.021 2Lpm llpm

1.021 0.5Lpm Revision June 5, 2007

#### **ORTECH Environmental** Trendicator Calibration

Calibration Procedure	03-J005
Trendicator Type	Nutech
MII	A11542
Date	December 12, 2016
Calibrated By	Andrew Saikaley
Signature	, Sain
Reviewed and Accepted By	Murle Nolan

Fluke Calibrator Output	Tredicator D	isplay Value	Percent Difference
(COE 20024)	Before Adjustment	After Adjustment	
(°C)	(°C)	(°C)	(%)
0	0	AG	0.0
20	20		0.0
50	50		0.0
100	100		0.0
150	151		-0.7
200	200		0.0
300	300		0.0
400	401		-0.3
500	501		-0.2
600	602	V	-0.3

#### % Difference = (<u>micromite - after adjustment reading</u>)x 100 micromite

#### Acceptance Criteria:

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

**ORTECH Environmental** Dry Gas Meter Calibration Data

Calibration Procedure	re 03-J004
Meter Number	Vost 5
Date	February 16, 2017
Barometric Pressure	29.35
System Leak Check	<0.01 lpm @ 23.5 "Hg

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

Phar (in. Hg)	(Pbar in. Hg+DGMPressure/13.6)
Tdgm °F+460	Tstd °F+460
Vstd ft <sup>3</sup>	Vdgm ft <sup>3</sup>
DGMCF=	

Calibrated By	Signature	Reviewed and Accepted By
*********		

Barometer	COE 20028
Calibrated By	David Utley
Signature	X) O. C I
Raviawad and Accented Rv	

COE 20018

**MII NUMBERS** 

A01463

Gasometer DGM

Gas	Gasometer Reading	ding	Gasometer	Gasometer	DGM	<b>JGM Reading</b>	DGM	DGM Average	DGM	DGM	DGM	Time	Flow
	CIN	)	Volume	Temperature		Ľ	Volume	Temperature	Pressure	Outlet	Calibration		Rate
Initial	Final	cm	ft <sup>3</sup>	°C	Initial	Final	ft <sup>3</sup>	°,	in. H <sub>2</sub> O	°C	Factor	min.	lpm
60.90	35.60	25.30	1.190	22.0	33.36	66.90	1.184	24.0	1.5	24.0	1.008	31	1,1
68.60	46.20	22.40	1.054	22.0	69.53	99.21	1.048	23.0	1.4	22.0	1.005	32	0.9
86.20	60.90	25.30	1.190	22.0	99.21	133.36	1.206	24.0	1.5	24.0	066.0	32	1.1

# Acceptance Criteria:

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) If not the calibration must be repeated. Also, the DGMCF average value must be  $1.00 \pm 0.05$ , Individual values of DGM calibration factor must be within  $\pm$  1.5% of the average value.

DGMCF AVERAGE 1.001 llpm Revision June 5, 2007

#### **ORTECH Environmental** Trendicator Calibration

Calibration Procedure	03-J005
Trendicator Type	Jenco 765
МП	COE 20018
Date	February 16, 2017
Calibrated By	David Utley
Signature	Dille
Reviewed and Accepted By	112

Fluke Calibrator Output	Tredicator D	isplay Value	Percent Difference
(COE 20024) (°C)	Before Adjustment (°C)	After Adjustment (°C)	(%)
0	1	0	0.0
10	11	10	0.0
20	21	20	0.0
50	51	50	0.0
75	76	75	0.0
100	101	100	0.0
125	126	125	0.0
150	151	151	-0.7
200	201	200	0.0
300	301	300	0.0
400	401	400	0.0
500	501	500	0.0
600	601	600	0.0

% Difference = (<u>micromite - after adjustment reading</u>)x 100 micromite

#### Acceptance Criteria:

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

ORTECH Environmental



**APPENDIX 4** 

Mercury Analytical Report (1 page)

Sorbent Trap Analysis Report

Project Number: 2009761

Turn-around: Standard

1

FP

0

E E

Contact:David UtleyPhone:(905)-822-4120\*235Email:dutley@ortech.ca

**ORTECH Environmental** 

Plant:

 Date:
 2017-03-22

 Analyst(s):
 Alexandra Shuey

 Method
 EPA 7473

 Method Uncertainty:
 ± 10%

Trap ID AG	AGS Mass (ng)	Section 1 Mass (ng)	Section 2 Mass (ng)	Total Mass (ng) <sup>1</sup> Section : (ng	3 Mass	Spike Level (ng)	Breakthrough (%) <sup>2</sup>	Spike Recovery (%) <sup>3</sup>	Source	Notes
A 01376102		494.6	6.0	495.5		100	0.18%		Incinerator	Trap Broken/Sorbent Sections Intact
OLC033962		371.5	1.8	373.3			0.48%		Incinerator	
A OLC033918		362.9	1.4	364.3			0.39%		Incinerator	
S 01331424		598.3	2.3	600.6		250	0.38%		Incinerator	
A OLC033947		356.5	1.1	357.6			0.31%		Incinerator	
01313733		848.2	2.3	850.5		500	0.27%		Incinerator	
OL331361		993.9	2.5	996.4		800	0.25%		Incinerator	
OLC033931		270.5	2.4	272.9			0.89%		Incinerator	
S.AOLC033567		271.9	1.2	273.1			0.44%		Incinerator	
56 <b>01338693</b>		1640	1.4	1641		1400	0.09%		Incinerator	
<u></u> 0L331398		2984	5.8	2990		2600	0.19%		Incinerator	
A OLC033938		314.5	1.4	315.9			0.45%		Incinerator	

P

MDL = 1.1 ng LOQ = 5 ng

<sup>1</sup> Total Mass = PF+AGS+S1+S2

<sup>2</sup>Breakthrough = S2 / (PF+AGS+S1)

<sup>3</sup> Spike Recovery = S3 / Spike Level

*For PS-12B Only* R = Data invalidation qualifier. Refer to notes

*OHIGALMEX* 



**APPENDIX 5** 

Clean Harbors Process Data (12 pages)

09/03/2017       9:32:00       262.95       12.62       188.5725       174.555       2.8225       169.35       19.5375       25497.42       15494.44       94908       1355.75       866.9       491.9       202.5       193.8       -3.2       244.95       94.925       2294         09/03/2017       9:33:00       25.98       13.16       188.145       174.15       2.7425       164.55       9.5375       25622.36       15606.8       97622       1352.5       860.1       493.2       202.5       194.9       -18.2       64.6       -115.05       273.5625         09/03/2017       9:34:00       25.95       13.615       188.1707       17.388       2.8275       172.35       195.375       2684.06       15477.59       94729       1352.5       865.1       493.4       204.5       195.9       -1.66       60.09       111.825       258.75         09/03/2017       9:36:00       25.95       13.52       188.017       177.88       2.8775       170.25       19.5375       2602.69       1355.76       868.2       493.8       204.5       195.9       -7.1       -5.17       -10.05       256.75         09/03/2017       9:38:00       25.935       12.64       189.392       1355.75 <th>Test No. 1</th> <th></th>	Test No. 1																				
Stee         Time         Prode         Trace         T									Leachate	Primary	Secondary	Stack	Primary	Secondary	Quench	SDA	Stack	Incinerator	SDA Inlet	BH inlet	BH dP
owncorr         97.00         24.00         19.01         19.0201         19.0	142	A						*****		Contractor in the Contractor of Contractor	AND ADDRESS OF ADDRESS				AND PATRON AND ADDRESS	And the owner water and the second second	COLOR STREET,	ACCORDED AND ADDRESS OF ADDRESS O		where party days and the second	
00000000																					
opymorp         issue         <																					
opergrand         asso	09/03/2017	9:30:00	26.61	13.645	188.28	176.535					15303.43	94389									
0990/2007              4950              4560              4521              4550              4522              5523              4553              5553              4563              5553              5553              4553              5553              4553              5553              4553              5553              4553              5553              4553              4553              4553              5553              5553        5553	promotion and the second second							149.55									195.1	-12.9	-61.25	-105.75	283.875
operior         issue         <																					
operation         operation <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>																					
990/071         984.00         984.0																					
model																					
Operation         9:000         8:28         13:38         18:88:88         17:45         2:38:25         13:29:25         19:27         19:27:25         19:27:25         19:27         19:27:25         19:27:25         19:27         19:27:25         19:27         19:27:25         19:27         19:27:25         19:27         19:27:25         19:27        19:27        19:27     <		9:37:00																			
Operation         9 + 4000         2 + 443         1 3 ab         1 3 bit	09/03/2017	9:38:00	26.145	13.745	188.9437	176.805	2.98	178.8	20.5875	25504.34	15449.5	94279	1356.75	868	493.8	204.5	195.6	-5.95	-52.65	-97.425	288.125
9990/201         941.00         58.43         12.42         18.888         17.12         19.4427         222.28         18.40.56         9981         19.8427         88.86         49.40         20.45         19.5         10.5         53.5         10.41         12.27         19.4427         12.28         12.8428         18.58         10.842         13.84         10.5         13.53         10.8         13.53         10.8         13.53         10.8         13.53         10.8         13.72         12.8428         13.83         10.7         13.843         13.8         10.7         13.28         13.8         10.8         10.7         13.843         13.8         10.8         10.7         13.842         14.845         14.8																					283.1875
9990/2017       94200       25.1       1355       197.596       295375       177.257       124621       285588       1589.39       9903       1386.375       694.3       2045       1365																					
Op/07/2017         94.800         25.95         13041         180407         173.32         28975         124.622         281.552         285.375         897.6         494.6         204.5         130.43         183.18         157.11         25.4522           09/07/2017         94.500         125.255         132.25         186.425         174.85         189.075         186.37         188.45         495.2         205.5         106.1         0.97.55         0.93.37         58.86         495.0         205.5         106.1         0.97.55         0.93.37         58.86         495.2         205.5         106.1         0.97.55         0.97.2         106.2         25.87         107.55         186.1         197.6         146.25         282.46         115.98.57         69.55         505         196.4         25.99         107.82         104.62         120.55         197.1         146.25         149.37         149.55         197.1         149.55         197.1         149.55         197.1         149.55         197.1         149.55         197.1         149.55         197.1         149.55         197.1         149.55         197.1         149.55         197.1         149.55         197.1         149.55         197.1         149.55         197.	1 · · · · · · · · · · · · · · · · · · ·																				
09/07/071         9.44         0.24         0.303         139.72         17.46         0.3057         18.46.29         9586         188.75         98.86         94.90         20.4         197.2         40.0         5.16         99.3327         72.4           09/07/071         9.4500         25.351         13.265         138.65         138.67         98.86         495.2         205         167.1         5.58         49         75.7         75.7         75.7         75.7         75.7         75.7         15.7         23.77         17.7         18.4625         25.72         95.00         138.675         86.81         495         205         196.7         2.265         49.7         197.65         27.75         197.25         197.67         197.2         19.462         25.267         195.0         196.7         40.55         105.7         197.8         17.465         29.77         12.725         198.67         197.1         10.757         197.6         12.85         197.7         10.355         107.8         10.355         107.8         12.26         10.97         10.355         10.78         17.76         10.755         10.72         10.775         10.785         12.85         10.471         10.757         12.855 <td></td>																					
99(3)2(2)       945:00       25.95       13.22       188.605       174.51       2.775       105.41       127.58       127.58       128.61       138.675       128.61       88.5       495.2       205.1       195.1       97.75       127.5<																		1			
9993/2017       94400       254       1306       198.09       175.8       293       177.1       19462       258.06       157.0       195.0       293.3       71.0       205.3       283.32																					
999,372017         94800         26.055         12655         188.19         174.75         194.625         2529.461         12529.72         955,102         1955         249.5         249.5         249.5         1997         1255.1         1998.87         197.1255         1998.97         197.1255         1998.97         1998.57         197.12         159.19         126.5         1997.1255         1997.1255         1997.12         197.12         159.19         126.15         197.17         137.175         137.075         184.75         187.01         158.379         158.379         158.175         187.01         1495.2         197.1         158.175         197.175         157.77         137.87         187.462         158.47         198.064         158.7         198.645         177.6         49.452         124.441         158.77         198.452         124.441         158.77         198.452         124.441         158.77         198.452         128.441.47         158.77         198.452         128.441.47         158.77         198.452         128.441.47         158.77         198.452         128.441.47         158.77         198.452         128.45         198.64         127.5         188.57         197.6         128.5         148.58         148.57         138.57 <td>09/03/2017</td> <td>9:46:00</td> <td>26.4</td> <td>13.06</td> <td>189.09</td> <td>175.86</td> <td>2.95</td> <td>177</td> <td>19.4625</td> <td>25684.06</td> <td>15370.85</td> <td>95013</td> <td>1362.125</td> <td>868.5</td> <td>495</td> <td>204.5</td> <td>197.2</td> <td>-5.05</td> <td></td> <td></td> <td>288</td>	09/03/2017	9:46:00	26.4	13.06	189.09	175.86	2.95	177	19.4625	25684.06	15370.85	95013	1362.125	868.5	495	204.5	197.2	-5.05			288
999302017         99490         25.92         13.27         188.6625         177.25         19.4625         2002.77         1555.02         96307         495.5         205.         196.7.7         495.5         205.         196.7.7         495.5         205.5         196.7.7         495.5         205.5         196.7.7         495.5         105.1         495.5         105.5         196.7.7         40.5         205.5         197.7         10.3         35.7         10.7.13         20.007.201         19.50         22.625         13.49         19.70         10.33         19.452         25.944.47         15.33.97         19.847.7         495.0         10.64         496.7         405.5         198         -6.55         1.52.7         49.93.12         15.26.07         10.05.8         198         -6.55         1.52.6         40.05.8         198.7         15.5         20.00.10.8         19.83.12         15.26.0         10.05.8         19.87.7         15.25.2         19.92.7         15.5.0         40.00.5         19.07.7         15.94.2         10.05.8         19.05.7         13.05.8         10.05.8         10.07.8         10.05.8         10.05.7         10.05.8         10.05.7         10.05.8         10.05.8         10.05.8         10.05.8         10.05.8												+		\$*************************************			196.9		-51.7		
99.99/2007         93.00         26.16         12.50         188.345         17.44         288         12.86         19.465         252715         1553.89         93.70         156.875         97.01         4955         205         1967         10.718         277.0025           99.99/2007         93.00         25.32         13.46         13.0075         184.72         19.4625         257.64         4963         10.84.75         497.6         40.55         197.7         10.4525         27.15         197.7         10.4525         27.16         40.64         20.55         197.7         10.452         27.16         40.64         40.55         197.6         40.65         52.25         99.997.17         197.82         19.462         12.44         158.475         40.4625         47.16         40.645         52.55         13.76         53.15         50.44         18.87         19.432         10.8425         40.64         40.77         10.75         14.442         13.837         10.70.14         10.833         10.8435         10.8435         10.8435         10.8435         10.8435         10.8435         10.8435         10.8435         10.8435         10.8435         10.8435         10.8435         10.8435         10.8455         10.8455																· · · · · · · · · · · · · · · · · · ·	1 · · · ·				
999/32/017         951:00         25.89         126.8         189.725         194.725																		1			
99/08/2017         9.9.200         2.5.2         3.3.9         187.66         2.5.2         3.3.9         187.66         2.5.2         3.8.7         3.6.7         495.9         20.5.5         198         -7.6         -5.4.2         49.8.172         275.627         99070/2017         9.9.2001         2.5.7         13.65         13.66         13.65         13.65         13.65         13.66         13.65         13.65         13.65         13.65         13.65         13.65         13.65         13.65         13.65         13.65         13.65         13.65         13.65         13.65         13.65         1																				*****	
99072017         933300         26.255         13.48         190.08         17.57         294252         17.15         19.4625         25.14.47         15.175         99007         1201         4895         405.0         108         6.65         52.25         99.937         176.45         15.50         4002         23.938         123.45         137.59         22.775         176.75         12.847         170.65         15.55         24.867         137.57         12.8475         170.65         22.55         157.66         13.05         18.8988         17.55         2.8497         170.65         22.55         25.56         85.46         13.16         88.81         14.18         27.55         156         12.66         18.82         11.08         27.56         20.55         13.56         88.25         13.98         22.44         40.01         13.16         88.81         11.48         22.86         13.57         13.51         13.0025         13.0025         13.003         13.53         13.66         33.75         13.51         10.066         13.66         20.55         13.67         42.82         12.75         13.83         13.85         13.66         13.83         13.85         13.85         13.85         13.85         13.85																					
9990/2017         954.00         26.325         12.44         18.757         19.46/2         241.447         18.877         9422         19.84.15         869.6         49.67         20.55         19.76         -5.15         5.04         1.06.538         29757         17.67         19.75         19.462         25.875         19.77         19.75         24.937         17.65         25.97         18.05         19.77         19.77         19.77         19.77         19.77         19.77         19.77         19.77         19.77         19.77         19.77         19.87         19.77         19.77         19.77         19.77         19.77         19.87         19.77         19.77         19.77         19.77         19.77         19.77         19.77         19.77         19.77         19.77         19.77         19.78         19.77         19.78         19.																					
99902/027         95600         25.575         12.975         188.00         17.725         28.4375         170.625         2924.025         29700         16.07         192.05         192.6<	09/03/2017	9:54:00	26.325	12.84	187.9537	176.445	3.0875	185.25	19.4625	25414.47	15387.7	94232	1368.125	869.6	496.7	205.5	197.6	-5.15			
99/90/2017         957:00         266/7         13.05         18.9.787         175.5         2.8075         168.225         2567.15         15427.03         9604         1366.625         872.         495.5         206         198.4         -10.3         -54.95         -10.3         -54.95         -10.3         -54.95         -10.3         -54.95         -10.3         -54.95         -10.3         -54.95         -10.3         -54.95         -10.3         -54.95         -10.3         -54.95         -10.28         -54.95         -10.28         -54.95         -10.28         -54.95         -10.28         -54.95         -10.28         -54.95         -10.28         -54.95         -10.28         -54.95         -10.28         -54.95         -10.28         -54.95         -10.28         -10.28         -54.95         -10.28					188.8988	175.59	2.97875	178.725	19.4625	25504.34	15393.32	94625	1366.875	870.1	497.3	205.5	197.6	-5.95	-48.85	-97.95	285.75
09/03/2017         958:00         25.89         13.16         188.5162         177.58         30.0025         199.37         20.55         25677.10         15415.79         90.0466         1366.625         872.7         496.8         205.5         197.65         80.05         53.75         101.288         188.9437         174.42         33.88         241.5375         2593.92         115415.79         95175         1365.375         872.2         496.2         206         197.6         8.80         53.75         101.288         247.812           99(03/2017         100:0:00         26.05         13.33         188.9437         174.42         3.38         162.75         195.375         2502.07         13558         171.6         493.8         205         198.3         204.8         13.63         886.122.22         243.72         99.03/2017         100:0:00         26.37         13.63         188.042         173.56         27.4462         144.77         195.375         2502.91         1365         971.6         493.8         204.137.37         204.137.37         203.93         204.5         197.7         203.1         103.10         103.10         103.10         103.10         103.10         103.10         103.10         103.10         100.10																		+			
099/02/017         95.900         26.265         12.88         199.848         174.825         249.75         170.85         195.375         577.01         154.15.79         951.75         1366.35         872.2         495.2         205.5         197.6         -8.05         43.31         1369.375         1577.01         154.15.79         1366.35         869.8         495.4         205.5         197.6         -8.06         43.7         127.77         156.16         997.17         1366.35         869.8         495.4         205.5         197.2         -5.85         5.1.4         997.12         2.5.85         137.2         5.6.85         147.3         107.25         2.5.85         147.37         107.25         2.5.85         147.37         107.25         2.5.85         147.37         107.25         2.5.85         147.37         107.37         157.15         1363.35         107.2         -5.85         147.37         107.37																					
09/03/2017         10:0:00         26:055         13:33         128:4371         174:42         3:38         20:38         19:375         29:99:32         159:93:22         10:942         13:65         66:08         49:5.4         20:5.5         197:6         -2:8.4         80:7         12:92:22         27:37:2           09/03/2017         10:0:00         26:01         13:235         188:437         17:7.45         2.77:12         56:6.75         19:5.37         25:64:06         13:35         87:1.6         494:8         20:5         197.9         -5.05         -5.09         95:322         28:5.5           09/03/2017         10:0:0:00         26:31         12:44         19:3:36         27:46:25         16:4:75         19:5:37         25:0:2:69         13:4:15         49:4:2         20:5         197.7         -2:0:1         8:1:0:0:1:2:7         13:3:1:3:3:1         13:3:1:3:3:1         13:3:1:3:3:1         13:3:1:3:3:1:3:3:1:3:3:1:3:3:1:3:3:1:3:3:3:1:3:3:3:1:3:3:3:1:3:3:3:1:3:3:3:1:3:3:1:3:3:1:3:3:1:3:3:1:3:3:1:3:3:1:3:3:1:3:3:1:3:3:1:3:3:1:3:3:1:3:3:1:3:3:1:																					
09/03/2017       10.01.00       26.16       12.725       189       176.04       2.1125       126.75       19.5375       2668.06       1530.3.43       95537       1366       871.5       494.9       205.5       197.2       5.85       5.14.5       97.6125       282.2125         99/03/2017       10.00:00       26.01       13.235       188.2942       177.245       162.775       15.5375       25504.34       157.98       977.1       1365.75       872.6       494.2       2005       197.9       5.05       5.09       95.325       253.375       299.375       25504.34       157.98       977.7       1369       872.6       494.5       205       197.7       2.91       +81.06       133.235       188.6625       176.4       3.21       192       19.3575       25856.88       1550.68       961.20       184.375       872.6       494.5       2005       197.5       -32.75       86.46       135.188       234.6675       197.01       10.350       26.357       197.2       3.86.45       135.188       234.6675       109.02       2.755       12.92       187.437       197.2       5.435       100.208       25.825       197.5       32.75       86.46       135.188       234.6675       99.03/2017														t				+			
09/03/2017         10:02:00         26.01         33.235         188.9437         173.745         2.77.25         166.275         19.5375         25004.34         1517.98         9712         136.5         871.6         493.8         205         193.7         5.5.5         5.0														·····							
09/03/2017       10.04:00       26.43       12.445       199.18       174.375       2.84       170.4       19.5375       26029.69       15460.74       99957       1369       872.4       493.7       204.5       197.7       -9.1       481.05       -132.375       239.375         09/03/2017       10.05:00       26.37       13.653       188.6625       176.4       3.2       102       19.5375       232.672       232.872       239.375       886.81       1550.68       96120       1864.375       872.6       494.5       205.5       197.5       -3.275       86.45.1       138.234.627       138.83       173.18       238.828       173.02       20.622       2677.01       15410.17       96304       1362.625       872.7       493.7       20.45       197.6       -9.9       54.95       -102.08       258.25       269/03/2017       10.08:00       25.32       13.09       189.075       174.33       3.1787       190.725       2642.34       1646.13       99207       163.125       872.4       492.6       204       198.7       8.812       235.1625       09/03/2017       10.100.00       25.35       12.7       189.68       31.8787       170.272       19.6125       256413.13       100068       1363.75												+		·····					···· · · · · · · · · · · · · · · · · ·		
09/03/2012       10:05:00       26.37       13.635       188.6625       176.4       3.2       192       19.5375       25856.88       15505.68       96120       1364.375       872.6       494.5       205       197.5       -10.35       -56.9       -103.725       272.125         09/03/2017       100:00:00       25.765       12.28       187.852       175.185       2.8837       173.025       20.625       2677.011       154.101       96304       1362.625       872.7       492.6       204       196.7       -33.65       86       -135.75       251.625         09/03/2017       10:08:00       25.32       13.09       189.6075       174.33       3.17875       190.725       19.6125       250.434       1540.56       992.07       1363.125       872.7       492.6       204       198       -7.8       51.88       98.81.38       86       -138.075       251.625       09/03/2017       101:000       25.235       12.77       188.01       174.33       3.17625       190.575       19.6125       25414.47       1547.197       94669       1360.75       872.2       491.5       203.5       197.4       -4.45       46.8       -96.15       287.5         09/03/2017       101:100       25.4					189.2362		2.74625		19.5375	25504.34	15179.84		1363.75	872.6	494.2	205	197.9	-5.05	-50.9	-95.325	286.5
09/03/2017       10.06:00       25.725       12.925       187.8525       175.185       2.88375       173.025       20.625       26472.09       15578.71       99056       1367       871.7       493.8       204.5       197.5       -32.75       86.45       -135.188       234.6875         09/03/2017       10.07:00       25.655       12.8       188.705       175.59       3.14125       186.412       52623.36       1564613       92071       1563.125       872.7       493.6       204       196.7       -33.65       +86.45       -135.75       2151.625       25023.61       1564613       92071       1563.125       187.87       492.6       204       196.7       -33.65       +86.48       -135.75       2151.625       26472.09       1551.13       100068       1365.75       872.4       491.6       203.5       198.8       -36.86.8       481.032       247.12       294.91       204.5       198.7       44.5       46.84       96.15       287.7       491.5       203.5       197.4       45.4       46.8       96.15       287.7       491.5       203.5       197.4       45.4       46.8       481.03       287.7       491.5       203.5       197.4       45.4       46.8       481.03       2																					
09/03/2017       10:07:00       25.665       12.8       188.7075       175.59       3.14125       188.475       19.6125       25767.01       15410.17       96304       1362.625       872.7       493.7       204.5       197.6       9.9       54.95       -102.038       228.25         09/03/2017       10:08:00       25.245       13.065       188.0471       76.355       289125       173.475       19.6125       26792.36       15646.13       99207       1383.125       872.7       492.6       204       196.7       -33.65       86.8       -135.75       251.625         09/03/2017       10:1:00       25.245       13.235       188.1       173.115       2.84875       170.925       19.6125       26472.09       15511.3       100068       1363.75       872.4       491.6       203.5       197.5       -4.45.8       -66.15       287.5         09/03/2017       10:1:00       25.455       13.83       174.195       2.87875       19.6125       26472.09       1551.33       190.675       872.2       491.6       203.5       197.7       4.18.8       63.1       105.038       273.0491.8       203.5       197.7       4.18.8       65.1       105.038       273.052.8       197.7       4.18.5 <td></td> <td>····</td> <td></td>		····																			
09/03/2017         10:08:00         25.32         13.09         189:6075         174.33         3.17875         190.725         19:6125         26292.36         15646.13         99207         1363.125         872.7         492.6         204         196.7         -3.3.65         -86         135.75         251.625           09/03/2017         10:00:00         25.215         12.375         188.1         173.115         2.84875         170.925         19:6125         2540.441         1541.95         872.8         491.6         203.5         198.8         -35         86.8         138.038         247.12         29:012         10:11:00         25.315         12.77         189.09         175.365         3.17625         190.575         19:6125         2647.209         15531.33         19669         1360.75         872.2         491.5         203.5         197.5         44.5         46.8         -61.5         287.5           09/03/2017         10:1:00         25.755         12.6         138.837         174.195         2.87875         19:7.12         19:6125         2647.209         15533.39         99409         13:66.25         872.5         490.8         203         197.4         -11.8         61         150.5 82         282.127         09																					
09/03/2017         10:09:00         25.245         13.685         188.0437         176.355         2.89125         173.475         19.6125         25504.34         15404.56         95435         1362.375         872.8         492.4         204         198         -7.8         51.85         98.8125         282.5           09/03/2017         10:10:00         25.245         12.375         188.1         173.115         2.84875         170.255         12.617         189.09         175.365         3.17625         196.125         2417.47         1547.197         4469         120.5         197.5         4.445         -46.8         -96.15         287.5           09/03/2017         10:12:00         25.755         12.6         188.8537         174.195         2.2875         193.725         196.125         2647.09         1533.35         871.3         490.8         203.5         197.4         -11.8         -61.         105.088         273.0625           09/03/2017         10:13:00         25.41         13.325         174.24         3.07875         184.75         1546125         2656.15         15488.83         95266         1353.617         91.1         203.5         197.4         -11.8         -65.1         105.075         56.910.207.7											£	£									
09/03/2017       10:10:00       25.215       12.375       188.1       173.115       2.84875       170.925       196.125       26472.09       1551.3       100068       1363.75       872       491.6       203.5       198.8       -35       -86.8       -138.038       247.125         09/03/2017       10:11:00       25.35       12.77       189.09       175.865       3.17625       190.575       19.6125       2541.47       1547.197       94669       1360.75       872.2       491.6       203.5       197.5       -4.45       46.8       -96.15       287.5         09/03/2017       10:1:00       25.41       13.22       189.462       174.195       228755       19.6125       26472.09       15539.39       99409       1356.625       871.3       490.8       203.5       197.4       -11.8       69.03       10.08       24.945       12.00       189.142       174.143       3.0755       19.6125       26561.95       15488.33       95296       1353.875       871.1       491       203.5       197.4       -11.8       69.35       12.12       256.875         09/03/2017       10:15:00       25.56       13.335       187.908       174.51       3.33125       199.475       19.6125       26																					
09/03/2017       10:12:00       25.755       12.6       188.8537       174.195       2.87875       172.725       19.6125       26472.09       15539.39       99409       1356.625       872.5       490.8       203       197.2       -33.25       -85.5       -136.838       244.75         09/03/2017       10:13:00       25.41       13.22       189.4162       174.015       3.22875       193.725       19.6125       2651.95       15480.74       96163       1353.625       871.1       490.8       203.5       197.4       -23.35       693.5       121.2       252.667       39.939       99409       1356.625       871.3       490.8       203.5       197.4       -23.35       695.5       1.1.8       661       105.038       273.0625         09/03/2017       10:15:00       25.55       13.33       187.088       175.51       18.8975       113.925       196.125       2685.68       1357.647       95043       1351.125       870.4       490.6       203.5       197.4       -15.5       56.8       10.275       259.1875       10.155       56.8       10.275       259.1875       196.125       2697.462       1548.45       1355.375       87.9       490.0       203.5       197.4       -15.5 <t< td=""><td></td><td></td><td></td><td>12.375</td><td>188.1</td><td></td><td></td><td></td><td>19.6125</td><td>26472.09</td><td>15511.3</td><td>100068</td><td>1363.75</td><td>872</td><td>491.6</td><td>203.5</td><td>198.8</td><td></td><td></td><td></td><td></td></t<>				12.375	188.1				19.6125	26472.09	15511.3	100068	1363.75	872	491.6	203.5	198.8				
09/03/2017       10:13:00       25.41       13.22       189.4162       174.015       3.22875       193.725       196.125       26119.55       15460.74       96163       1353.625       871.3       490.8       203.5       197.4       -11.8       -61       -105.038       273.0625         09/03/2017       10:14:00       24.945       12.605       189.135       174.24       3.07875       184.725       19.6125       2566.195       15488.83       95296       1353.875       871.1       491       203.5       197.4       -11.8       -61       -105.038       273.0625         09/03/2017       10:15:00       25.56       13.335       187.9088       174.51       3.33125       199.875       19.6125       2502.905       1552.86       971.4       490.6       203.5       197.4       -15.55       662.15       -111.6       276.125         09/03/2017       10:17:00       25.95       13.11       188.312       174.735       2.7625       165.75       19.6125       2699.22       1562.66       96191       1356.5       871.8       489.9       202.5       197.1       -15.1       57.7       -111.68       277.625         09/03/2017       10:19:00       25.955       13.11       188.312 </td <td></td>																					
09/03/2017       10:14:00       24.945       12.605       189.135       174.24       3.07875       184.725       19.6125       26561.95       15488.83       95296       1353.875       871.1       491       203.5       197.4       -23.35       69.35       112.12       252.6875         09/03/2017       10:15:00       25.56       13.335       187.908       174.51       3.33125       19.9875       113.925       2602.969       15623.66       94719       1352       871.4       490.6       203.5       197.4       -15.55       -62.15       -111.6       76.23       99.03/2017         09/03/2017       10:17:00       25.77       13.355       187.908       175.54       3.29125       197.452       19.6125       26497.42       15449.5       94001       135.57       87.5       490       203.5       197       -9.1       -54.3       99.225       281.1875         09/03/2017       10:18:00       25.95       13.11       188.3812       174.73       2.7625       165.75       19.6125       2699.27       1563.66       96191       1356.5       871.8       489.9       202.5       197.1       -15.1       -57.7       111.63       277.625         09/03/2017       10:19:00																					
09/03/2017         10:15:00         25.56         13.335         187.9088         174.51         3.33125         199.875         19.6125         25856.88         15376.47         95043         1351.125         870.5         491.1         203.5         197.5         -11.55         -56.8         -102.075         259.1875           09/03/2017         10:16:00         25.695         12.77         189.09         175.05         1.89875         11.3252         196.125         2602.69         15623.66         94719         1352         871.4         490.6         203.5         197.4         -54.3         99.225         131.1         167.55         -54.15         -111.6         277.625           09/03/2017         10:17:00         25.595         13.11         188.312         174.73         2.7625         165.75         19.6125         2549.27         15623.66         96191         1356.5         871.8         489.9         202.5         197.1         -15.1         -57.7         -111.62         277.625           09/03/2017         10:19:00         25.55         13.38         189.045         175.68         3.135         188.1         19.6125         2549.49         1355.35         872.9         489.5         202.5         195.6 <t< td=""><td>punces commissions and</td><td></td><td></td><td>for an and the second second</td><td>*****</td><td>h</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>+</td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	punces commissions and			for an and the second second	*****	h									+						
09/03/2017         10:16:00         25.695         12.75         189.09         175.05         18.9875         113.925         19.6125         26029.69         15623.66         94719         1352         871.4         490.6         203.5         197.4         -15.55         -62.15         -111.6         276.125           09/03/2017         10:17:00         25.77         13.355         187.908         175.545         3.29125         197.475         19.6125         25497.42         15449.5         94080         1355.375         875.9         490         203.5         197         -9.1         -54.3         99.225         281.1875           09/03/2017         10:18:00         25.55         13.11         188.3812         174.73         2.7625         167.75         19.6125         2549.27         15632.66         96191         1355.5         872.9         489.9         202.5         197.1         -51.5         -77.7         -111.26         276.25         287.75         19.6125         2574.41         1556.6         96151         1358.57         872.9         489.9         202.5         195.6         -99.5         1.97.17         256.26         287.41         250.062         29.05         195.5         1.91.15         257.025         288															*******						
09/03/2017         10:17:00         25.77         13.355         187.908         175.545         3.29125         197.475         19.6125         2547.42         1544.55         9400         1355.375         875.9         490         203.5         197         -9.1         -543         -99.225         281.1875           09/03/2017         10:18:00         25.95         13.11         188.3812         174.735         2.7625         165.75         19.6125         26299.27         1562.56         96191         1356.5         871.8         489.9         202.5         197.1         -15.1         -57.7         -111.263         277.625           09/03/2017         10:19:00         25.55         13.18         189.045         175.68         2.79625         158.71         19.6125         254.41         1537.05         99485         1358.57         872.9         489.5         202.5         195.5         -79.6         -131.175         262.0252         288.75           09/03/2017         10:21:00         25.44         13.245         188.01         19.6125         2549.94         1535.39         96816         1355.75         872.7         490.3         202.5         196.8         -9.9         -55.8         10.4663         278.875														+				4.			
09/03/2017         10:18:00         25.95         13.11         188.3812         174.735         2.7625         165.75         19.6125         26299.27         1562.66         96191         1356.5         871.8         489.9         202.5         197.1         -15.1         -57.7         111.263         277.625           09/03/2017         10:19:00         25.695         13.18         189.045         175.68         2.79625         167.775         19.6125         25694.34         1537.68         93485         1356.5         872.9         489.5         202.5         195.5         -1.95         47.1         -92.5125         288.75           09/03/2017         10:21:00         25.44         13.245         188.6175         176.58         3.145         188.7         19.6125         25849.96         1555.75         872.7         490.3         202.5         196.8         -9.9         -55.8         1.04.663         278.875           09/03/2017         10:22:00         25.5         12.51         189.18         175.05         3.01625         180.975         19.6125         25849.91         1555.75         872.7         490.3         202.5         196.8         -9.9         -55.8         1.04.663         278.875           09/03																					
09/03/2017         10:19:00         25.65         13.18         189.045         17.568         2.79625         167.775         19.6125         25504.34         15370.85         93485         1356.5         872.9         489.5         202.5         19.55         -1.95         47.1         92.5125         288.75           09/03/2017         10:2:00         25.575         12.955         188.045         17.668         3.135         188.1         19.6125         2544.67         15696.69         96815         1358.375         869.6         489.6         202.5         196.8         -9.955         -7.16.6         -7.16.75         262.052         7.86         -7.16         -7.16.6         27.87.87           09/03/2017         10:2:00         25.54         12.51         188.17         17.658         3.145         188.7         19.6125         2549.91         1355.375         869.6         490.5         202.5         19.63         -8.5.25         -11.172         27.0625           09/03/2017         10:2:00         25.15         12.72         187.715         17.5.23         3.18375         19.6125         25994.2         1544.38         96166         1355.75         870.3         490.8         202.5         19.5.5         10.05 <td< td=""><td>09/03/2017</td><td>10:18:00</td><td>25.95</td><td>13.11</td><td>188.3812</td><td></td><td></td><td></td><td></td><td>26299.27</td><td></td><td></td><td>1356.5</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>	09/03/2017	10:18:00	25.95	13.11	188.3812					26299.27			1356.5								
09/03/2017         10:21:00         25.44         13.245         188.6175         176.58         3.145         188.7         19.6125         25849.96         1535.399         96168         1355.75         872.7         490.3         202.5         196.8         -9.9         -55.8         -104.663         278.875           09/03/2017         10:22:00         25.5         12.51         189.18         175.095         3.01625         180.975         19.6125         2509.41         15640.51         96397         1355.375         869.6         490.5         202.5         196.3         -18.15         -65.25         -112.75         257.0625           09/03/2017         10:23:00         25.55         12.72         187.717         175.23         3.18375         19.025         2594.2         1543.88         96166         1355.75         870.3         490.8         202.5         195.7         -14.25         -50.05         -100.5         264.75           09/03/2017         10:24:00         25.56         13.28         188.6625         174.33         3.095         185.75         15348.38         96512         1355.75         871.6         490.7         202.5         195.7         -14.25         -61.4         -06.8         280.4375																202.5	195.5				
09/03/2017         10:22:00         25.5         12.51         189.18         175.095         3.01625         19.6125         26209.41         15640.51         96397         1355.375         869.6         490.5         202.5         196.3         -18.15         -65.25         -112.72         257.0625           09/03/2017         10:23:00         25.15         12.72         187.175         175.23         3.18375         191.025         25594.2         15443.88         96166         1355.75         870.3         490.8         202.5         197.5         -7.35         -52.05         -100.5         264.35           09/03/2017         10:24:00         25.56         13.28         188.6625         174.33         3.095         187.5         15348.38         96152         1355.75         871.6         490.7         202.5         195.7         -14.2         54.05         280.4375           09/03/2017         10:25:00         25.66         13.57         189.175.68         3.12375         187.425         19.6125         2520.41         141.017         9457.8         1357.7         490.4         202.5         195.7         -7         51.3         96.6525         287.375           09/03/2017         10:26:00         25.44 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>+· · · · · · · · · · · · · · · · · · ·</td><td></td><td></td><td></td><td></td><td></td></td<>																+· · · · · · · · · · · · · · · · · · ·					
09/03/2017         10:23:00         25.125         12.72         187.7175         175.23         3.18375         191.025         19.6125         25594.2         15443.88         96166         1355.75         870.3         490.8         202.5         197.5         -7.35         52.05         -100.5         264.5           09/03/2017         10:24:00         25.56         13.28         188.6625         174.33         3.095         185.7         19.6125         25148.38         96512         1355.75         871.6         490.7         202.5         195.7         -14.25         -61.4         -106.8         280.4375           09/03/2017         10:25:00         25.605         13.57         189         175.68         3.12375         187.425         19.6125         25324.61         1541.017         94578         1357         869.9         490.4         202.5         195.7         -7         -51.3         -96.5625         287.375           09/03/2017         10:26:00         25.44         12.83         19.235         19.6125         262.09.41         1540.674         94712         1354.75         872.4         490.4         202.5         196.4         -12.2         -56.6         104.963         284.6875           09/03/2017																					
09/03/2017 10:24:00 25.56 13.28 188.6625 174.33 3.095 185.7 19.6125 2619.55 15348.38 96512 1355.75 871.6 490.7 202.5 195.7 -14.25 -61.4 -106.8 280.4375 09/03/2017 10:25:00 25.605 13.57 189 175.68 3.12375 187.425 19.6125 25324.61 15410.17 94578 1357 869.9 490.4 202.5 195.7 -7 -51.3 -96.5625 287.375 09/03/2017 10:26:00 25.44 12.83 189.2813 173.88 3.12375 187.425 19.6125 26209.41 15460.74 94712 1354.875 872.4 490.4 202.5 196.4 -12.2 -56.6 -104.963 284.6875																					
09/03/2017 10:25:00 25.605 13.57 189 175.68 3.12375 187.425 19.6125 25324.61 15410.17 94578 1357 869.9 490.4 202.5 195.7 -7 -51.3 9.65.625 287.375 09/03/2017 10:26:00 25.44 12.83 189.2813 173.88 3.12375 187.425 19.6125 26209.41 15460.74 94712 1354.875 872.4 490.4 202.5 196.4 -12.2 -56.6 -104.963 284.6875	- · · · · · · · · · · · · · · · · · · ·																				
09/03/2017 10:26:00 25.44 12.83 189.2813 173.88 3.12375 187.425 19.6125 26209.41 15460.74 94712 1354.875 872.4 490.4 202.5 196.4 -12.2 -56.6 -104.963 284.6875																					
	+									*****					2						
	09/03/2017	10:27:00	25.515	12.555	189.135	175.275	3.1325	187.95	19.6125	25504.34	15365.23	94430	1359.125	871	490.8	203	3 196	-3.05	-47.7	-91.4625	

March 9/2017	Waste Flor	₩S					**********************	Air Flows		****	Temperatu	ires	****			Pressures		AW	*****
	Rich	Emulsion	Lean	Alkaline	TDU Flow	TDU Flow	Leachate	Primary	Secondary	Stack	Primary	Secondary	Quench	SprayDrye	Stack	Incinerator	SDA Inlet	SD Outlet	Baghouse
Test 1	FT-229	FT-219C	FT-223	PV-207	FT-313B	FT-313	PV-211	PV-236	PV-209c	FT-260c	TE-240	TE-241	TE-203	TE-204	TE-258	PT-242A	PT-249	PT-615	PDT-622
Max	26.7	13.7	190.1	177.7	3.4	202.8	20.6	26741.7	15696.7	101942.0	1372.8	875.9	497.5	206.0	198.8	-2.0	-45.0	-91.5	295.1
Min	24.9	12.4	187.6	173.1	1.9	113.9	19.4	25324.6	15179.8	93485.0	1344.6	865.5	489.5	202.0	193.8	-35.0	-86.8	-138.0	234.7
Average	25.9	13.1	188.8	175.2	2.9	173.5	19.6	25866.6	15450.9	96132.0	1358.8	870.2	493.2	204.0	196.6	-12.9	-59.5	-107.5	270.2
Variance	0.156687	0.120213	0.329957	0.768543	0.089067	320.6416	0.098383	122854.7	10158.35	3041335	39.0841	4.176907	5.262907	1.370765	1.601333	76.0287	128.195	154.1401	263.5774

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Test No. 1				period and a second second						
		CO	HCI	CO2	H2O	тнс	02	Opacity	SO3	PAC
galitäkkeistöllekinninaisaisa on on on opposi		PPM	PPM	%	%	PPM	%	%	PPM	Lbs/h
\$Date	\$Time	AT-205corr	AT-213A	AT-213B	AT-213C	AT-259corp	AT-261	AT-263	AT-264	SC-PAC-FT
09/03/2017	9:27:00	39.9	61.97	9.2	47.17	10	9.02	0.27	354.2	23.1525
09/03/2017	9:28:00	39.9	61.76	9.16	47.2	10.3	9.12	0.33	352.5	23.59875
09/03/2017	9:29:00	40.1	61.73	9.23	47.48	10.1	9.14	0.88	352.5	22.4175
09/03/2017	9:30:00	40.3	61.3	9.3	47.51	10.7	9.01	0.86	352.5	23.415
09/03/2017	9:31:00	40.3	60.89	9.29	47.52	10.1	8.96	1.08	352.5	23.28375
09/03/2017	9:32:00	40.4	59.46	9.26	47.42	10.6	8.87	1.11	355.1	23.70375
09/03/2017	9:33:00	40	59.04	9.27	47.45	10.3	8.9	0.86	358.5	23.23125
09/03/2017	9:34:00	38.3	59.66	9.3	47.42	9.9	8.79	0.96	362.3	22.33875
09/03/2017	9:35:00	37.9	58.86	9.24	47.06	9.5	8.9	0.01	364.4	22.60125
09/03/2017	9:36:00	37.7	58.86	9.24	47.06	10.2	9	0.17	364.4	23.5725
09/03/2017	9:37:00	37.2	60.44	9.26	47.26	9.7	8.99	0.73	364.6	22.54875
09/03/2017	9:38:00	37.2	60.47	9.29	47.38	11	8.95	1.11	367	23.49375
09/03/2017	9:39:00	37.8	60.42	9.37	47.58	9.4	8.86	1.17	370.2	23.70375
09/03/2017	9:40:00	37.6	59.71	9.34	47.6	10.7	8.77	1.11	368.3	23.59875
09/03/2017	9:41:00	38.2	58.9	9.33	47.64	9.8	8.81	0.82	370.4	22.4175
09/03/2017	9:42:00	38.3	58.44	9.34	47.63	9.9	8.79	0.83	370.4	22.3125
09/03/2017	9:43:00	37.1	58.39	9.29	47.41	9	8.85	0.02	368.1	23.28375
09/03/2017	9:44:00	36.7	58.56		47.4	9.8	8.94	0.23	364.8	22.8375
09/03/2017	9:45:00	36.1	58.68		47.41	9.2	8.92	0.82	364.8	
09/03/2017	9:46:00	35.9	59.29	f	47.54	10.6	h	0.88	366.5	22.49625
09/03/2017	9:47:00	36.5	59.3		47.66	9.3	8.77	1.11	371.9	
09/03/2017	9:48:00	35.6	58.64	<u> </u>	47.52	11	8.8	1.28		<u>  </u>
09/03/2017	9:49:00	37	58.29		47.69	9	8.79	0.71	*****	
09/03/2017	9:50:00	37.7	58.34	·	47.6	10.3	8.67	0.71		
09/03/2017	9:51:00	36.4	57.87		+			0.15		
09/03/2017	9:52:00	37.7	58.34	÷	47.48	11	8.91	0.13		
09/03/2017	9:53:00	39.2	58.26		47.48	9.7	8.87	0.85	+	
09/03/2017	9:54:00	39.4	58.28	+	47.73	11.2		1.05		
09/03/2017	9:55:00		57.69	· ·····		+		1.03	+	
				+				}	<b>.</b>	f
09/03/2017	9:56:00	39.8	<u> </u>	+						
09/03/2017	9:57:00			+	****	8.4		0.61	+	· · · · · · · · · · · · · · · · · · ·
09/03/2017		{		÷	47.93			1.08	+	
09/03/2017	÷			·• • • • • • • • • • • • • • • • • • •	*****	+		0.07		
09/03/2017	10:00:00	38.3			47.63	10.1		1.05		
09/03/2017	10:01:00	37.8			*****			0.9		
09/03/2017	10:02:00					10.5		1		
09/03/2017				+	÷		+	+	+	
09/03/2017	÷	+	+	÷		+	. <del>•</del> •••••	1.57		
09/03/2017	10:05:00		56.67	+	·	·		0.9		
09/03/2017	10:06:00		56.21		+			1		
09/03/2017	10:07:00		+	· • • • • • • • • • • • • • • • • • • •	÷			0.12	+	
09/03/2017			55.86		1				+	
09/03/2017			4	·····	+		+			
09/03/2017	1		55.42		+					+
09/03/2017	+									
09/03/2017					·····			+	-f	
09/03/2017			÷	+		+				
09/03/2017		······	+		- <b>j</b>					
09/03/2017		+	+			10.3				
09/03/2017		40.4	54.48	9.23	47.45	10.2	9.01	1.38	372.3	23.12625
09/03/2017		41	53.69	9.25	47.46	10.4	8.97			
09/03/2017	10:18:00	41	53.37	9.3	47.66	10.3	8.94	1.02	370.3	
09/03/2017	10:19:00	41	53.05	9.28	47.85	10.5	8.85	1.23	370.3	22.4175
09/03/2017	10:20:00	41.3	51.42	9.29	47.72	10.4	8.86	0.77	370.3	22.365
09/03/2017	10:21:00	42.1	50.44	9.31	47.74	9.6	8.73	0.67	370.3	22.4175
09/03/2017	10:22:00	41.5	50.38	9.26	47.55	9.7	8.81	0.48	370.3	23.44125
09/03/2017	10:23:00	40.5	50.6	9.23	47.55	9.9	9	0.3	367.9	23.2575
09/03/2017			49.9			10.5	8.98	0.98	367.9	
09/03/2017								- f		
09/03/2017		+	· · · · · · · · · · · · · · · · · · ·		+					
			4			-				

March 9/2017	Analyzers								Flows
	СО	HCI	CO2	H2O	ТНС	02	Opacity		PACFlow
Test 1		AT-213A	AT-213B	AT-213C			AT-263	AT-264	SC-PAC-FT
Max	42.1	62.0	9.5	48.0	11.5	9.1	1.7	388.5	23.7
Min	35.6	49.7	9.2	47.1	8.4	8.6	0.0	352.5	22.3
Average	38.8	56.8	9.3	47.6	10.0	8.9	0.8	370.2	23.0
Variance	2.454208	10.83183	0.00335	0.042288	0.370721	0.012356	0.15164	58.65354	0.2483679

Test No. 2																				
		Rich	Emulsion		Alkaline	TDU Flow			Primary	Secondary		Primary	Secondary			Stack	Incinerator			BH dP
		LPM		LPM	LPM	LPM	SCFM	LPM	m3/h	m3/h	m3/h	Degrees C		Degrees C		Degrees C	mmH2O	mmH2O	mmH2O	mmH2O
\$Date 09/03/2017	\$Time 10:41:00	FT-229 25.365	FT-219C 13.595	FT-223 189.9	PV-207 177.12	FT-313B 3.13125	FT-313 187.875	PV-211 19.6125	PV-236 25594.2	PV-209 15275.34	FT-260C 94319	TE-240 1351.625	TE-241 868.5	TE-203 493.4	TE-204 203.5	TE-258 195.7	PT-242A -4.5	PT-249 -49.5	PT-615 -94.8	PDT-622 290
09/03/2017	10:41:00	25.875	13.333	189.4725	176.58	3.08	187.873	19.6125	25773.92	15179.84	94005	1331.623	868.4	493.4	203.5	195.7	-7.3	-43.5	-100.125	290
09/03/2017	10:42:00	25.275	13.015	187.335	174.105	2.9625	177.75	19.6125	25421.39	15297.81	94373	1355.875	872.6	493.3	203.5	196.9	-3.3	-47.6	-92.7	297.25
09/03/2017	10:44:00	25.35	13.085	189.135	176.535	3.015	180.9	20.625	26119.55	15292.2	95994	1349.5	871.8	493.2	203.5	196.9	-14.4	-61.4	-110.7	276.9375
09/03/2017	10:45:00	25.14	12.95	188.7075	175.59	3.07125	184.275	19.575	25773.92	15370.85	94531	1349.125	870.7	492.9	203.5	196.9	-9.3	-55.6	-101.85	283.9375
09/03/2017	10:46:00	25.365	12.87	189.4162	176.4	3.05375	183.225	19.575	25684.06	15528.15	95527	1346.125	870.3	492.6	203.5	196.9	-12	-61.25	-106.388	261.25
09/03/2017	10:47:00	25.38	13.105	187.9988	174.735	2.87125	172.275	19.575	25594.2	15258.49	94886	1349.125	871.8	491.7	203.5	196.9	-9.55	-56	-100.425	271.0625
09/03/2017	10:48:00	25.35 24.735	12.605 12.845	189.09 188.3363	174.87	2.82125	169.275	19.575	25856.88	15488.83 15404.56	94006 95094	1344.125	871	491.7 491.5	203.5	196.5 196.6	-7.85 -5.3	-55.15	-100.988 -95.55	284.3125
09/03/2017	10:49:00	25.275	12.845	188.28	175.365 174.87	2.95125 2.98	177.075 178.8	19.575 19.575	25511.25 25504.34	15404.56	95094	1349.75 1345.5	871.3 870.6	491.3	203	196.6	-3.5	-46.05	-100.163	294.6875 289.375
09/03/2017	10:51:00	25.8	12.335	188.4262	176.535	2.85125	171.075	19.575		15280.96		1349.125	872.3	492.3	203.3	196.6	-4.3		-92.3625	296.625
09/03/2017	10:52:00	25.455	12.74		175.23	2.9925	179.55	19.575		15595.57	96158	1344	870.3	492.2	203.5	196.6	-13.3	-60.05	-106.65	275.0625
09/03/2017	10:53:00	25.095	13.01	188.0437	175.68	2.6875	161.25	19.575		15404.56	98081	1346.75	872.1	492.3	203.5	197.6	-13.1	-68.8	-108.45	246.375
09/03/2017	10:54:00	25.545	13.07	189.945	177.705	2.9925	179.55	19.575	25767.01	15584.33	95377	1343.75	871.3	492.5	203.5	196.9	-9.55	-56.65	-103.463	259.6875
09/03/2017	10:55:00	25.71	12.755	189.5175	174.96		173.475	19.575		15516.92	99498	1350.875	869.6	491.9	203	196.9	-25.25		-122.25	246.1875
09/03/2017	10:56:00	25.23	12.935	188.8088	177.435	3.13375	188.025	19.575	25684.06	15455.12	95233	1349	870.5	491.6	203	196.9	-6.85	-51.15	-98.7	280.1875
09/03/2017	10:57:00	25.635	12.975	189.045	175.905	3.1575	189.45	19.575		15438.26		1352.75	871.7	491.4			-25.35	****	-124.125	239.5625
09/03/2017	10:58:00	25.395	12.845 13.14	188.6175 188.7525	175.77 174.285	3.1325 3.0225	187.95 181.35	19.575 19.575	25504.34 26036.6	15365.23 15427.03	94114 100540	1351.125 1353.625	870.7	492 491.4	202.5	196.9 196.9	-7.25	-51	-96.3375 -130.763	282.0625
09/03/2017	11:00:00	25.68	13.435	188.7525	175.905	3.2125	192.75	19.575		15460.74		1345.125	871.6	491.4	202	196.6	-11.2	-57.5	-105.263	270.5625
09/03/2017	11:01:00	24.84	12.54	188.9437	173.835	3.085	185.1	19.575			¢	1346	870.3	490.5	202.5	196.8	-32.15		-133.35	233.9375
09/03/2017	11:02:00	25.56	12.765	189.5625	174.69	3.135	188.1	19.575		15511.3		1341.875	872.3	490.7	203	196.9	-9.8		-104.025	255.625
09/03/2017	11:03:00	25.26	12.88	188.3363	174.24	2.87375	172.425	19.575	26126.46	15511.3		1345.375	870.8	490.2	202.5	197.2	-32.7	-85.5	-134.25	244.25
09/03/2017	11:04:00	25.17	12.875	189.4725	173.79	2.765	165.9	19,575	25684.06	15314.67	94161	1345	868.8	490.7	203	196.1	-5.65	-50.7	- <del>9</del> 7.8	277.5
09/03/2017	11:05:00	24.825	12.95	189.045	175.14	3.175	190.5	19.575				1349.375	869.4	490.5	202.5	196.9	-31.9		-135.413	
09/03/2017	11:06:00	25.125	13.13	188.0437	176.4		187.575	19.575		15376.47	95326	1347.375	870.2	490.5	203		-4.1		-94.575	285.75
09/03/2017	11:07:00	25.485 25.365	12.935 12.985	187.8525 189.3262	175.32 175.95	3.235	194.1 166.2	19.575 19.575		15505.68	99280 96230	1354.875		490.6 491.4	202		-33.55		-136.463 -105.338	241.375 273.0625
09/03/2017		25.71	12.585				190.725	19.575	25001.11	<u>+</u>		1350.375		491.7	203		-33.15		-134.55	240.875
09/03/2017		25.38	12.875		176.85	3.235	194.1	19.575			94709	1348.125		491.9			-11.35	****	-103.013	260.0625
09/03/2017		25.74	12.395	189.4725	174.735	3.1875	191.25	19.575	26479		99046	1348.75		491.9	203		-30.3		-118.35	276.875
09/03/2017	11:12:00	24.975	12.95	188.6175	174.285	3.27875	196.725	19.575	25594.2	15314.67	94145	1349.625	869.2	492.2	203	197.4	-6.45		-97.3875	283.375
09/03/2017		24.855	12.84	188.19	173.925	2.9025	174.15	19.575				1354.875		492.1	203		-34		-127.8	270.75
09/03/2017		25.71	12.855	189.6075	174.735		196.125	19.575			94134	1352		492.6	203.5	196.5	-3.8		-96.0375	291
09/03/2017		25.035	12.83	188.7525	174.15	3.195	191.7	19.575			98473	1354.25		492.3	203 203.5		-34.25		-136.088	253.0625
09/03/2017 09/03/2017		25.26	13.11 12.885	189.135 189.18	175.275	3.26375 3.2375	195.825 194.25	19.575 19.575			95610 96166	1350.5 1350		491.9 491.6			-10.85		-114.788	278 258.25
09/03/2017		25.555	12.73	189.6075	175.77		181.275	19.575			96639	1352.25		491.3	203				-99.825	263.125
09/03/2017		24.9	12.78	188.8537	174.33	3.2025	192.15	19.575	26209.41		94755	1354.375		491.2			-13.4			283.8125
09/03/2017	11:20:00	25.155	12.835	189	176.22	3.27	196.2	19.575	25594.2	15314.67	94036	1355.375	870.1	490.8	202.5	196.8	-5.3	-49.75	-96.15	286.75
09/03/2017		25.5	13.01	189.4725	174.69		195.825	19.575	26209.41	15539.39	94853	1356.625		491					-109.538	283.9375
09/03/2017		25.125	12.645	188.6625	174.96		190.425	19.575			94373	1358.875		491.1			from the second se		-91.725	290
09/03/2017		25.185	13.025	188.6625	173.79		194.625	19.575		15629.28	97700	1358.625	871.8	491.2			-25		-123.525	268.125
09/03/2017		25.44	12.87 12.215	188.4262 188.6625	175.5 174.24	3.31 3.1375	198.6 188.25	19.575 19.575	25497.42	15359.61	95646 95700	1355.875 1351.875		491.4 491.4		· · · · · · · · · · · · · · · · · · ·	-10.85		-103.35	278.75 257.625
09/03/2017			12.215	188.5725	175.905		196.575	19.575			95700	1351.87		491.4			-11.45		-112.05	257.625
09/03/2017			12.56	189.4162	173.925	3.20875	192.525	19.575	26036.6	15314.67	96425	1351.875		491.5	203		-11.05		-105.113	280.75
09/03/2017			12.57	189.18	175.725	2.8875	173.25	19.575	25684.06	15303.43	95164	1354.375		491.6			-7.35		-97.575	287.25
09/03/2017	11:29:00	25.26	12.69	188.8537	174.915	2.66375	159.825	19.575	25946.74		93948	1354.5		491.5	202.5		-10.1		-103.988	284.6875
09/03/2017	+		12.505	187.8075	176.265		195.45	19.575				1358		490.8					-91.65	292.6875
09/03/2017			13.17	189.4725	175.185	3.26625	195.975	19.575	26216.32	15477.59	95260	1356.625		490.8	202		-18.75		-114.6	274.1875
09/03/2017			12.81	189.6525	177.165	2.94625	176.775	19.575			94926	1353.625		490.7			-11.55		-102.975	279.3125
09/03/2017			12.59 12.8	188.28 189.3713	176.085	3.3675 2.97125	202.05	19.575 19.575	26036.6			1350.375		491			-14.2		-107.438	255.5625
09/03/2017			12.8	189.3713	176.58	2.97125	178.275	19.575				1353.375	1							262.875
09/03/2017			12.69	189.09			193.5	19.575				1354.25		490.4						
09/03/2017			12.73	189.09			190.875	19.575	25767.01		94326	1351.25		490.6						
09/03/2017		24.87	12.74	189.2813	177.03		185.175	19.575	25414.47	15309.05		1356		489.8	201.5	196.6	-3.35	-50.55	-92.55	294.625
09/03/2017			12.94	188.7075	175.5	3.2975	197.85				94981	1350.375		490						273.5
09/03/2017		25.215		188.235	175.5		199.725	19.575				1349.875		490					-102.15	
09/03/2017	11:41:00	25.14	12.675	189.5175	176.76	2.84625	170.775	19.575	25946.74	15404.56	96968	1348.875	871.1	490.2	201.5	196.1	-12.8	-62.15	-105.638	256.375

March 9/2017	Waste Flo	WS	*****	*******	*******			Air Flows			Temperate	ures				Pressures			
	Rich	Emulsion	Lean	Alkaline	TDU Flow	TDU Flow	Leachate	Primary	Secondary	Stack	Primary	Secondary	Quench	SprayDryer	Stack	Incinerator	SDA Inlet	SD Outlet	Baghouse
Test 2	FT-229	FT-219C	FT-223	PV-207	FT-3138	FT-313	PV-211	PV-236	PV-209c	FT-260c	TE-240	TE-241	TE-203	TE-204	TE-258	PT-242A	PT-249	PT-615	PDT-622
Max	25.9	13.6	190.2	177.7	3.4	202.1	20.6	26479.0	15691.1	100540.0	1358.9	872.6	493.8	203.5	197.9	-3.3	-46.7	-91.7	297.3
Min	24.7	12.2	187.3	173.8	2.7	159.8	19.6	25414.5	15179.8	92779.0	1341.9	867.9	489.8	201.0	195.7	-34.3	-88.0	-136.5	233.9
Average	25.3	12.8	188.9	175.5	3.1	185.2	19.6	25820.2	15429.6	95905.8	1351.0	870.4	491.5	202.7	196.7	-13.7	-61.1	-107.4	271.8
Variance	0.075655	0.055211	0.357011	1.055399	0.029725	107.0105	0.018076	87917.36	14526.29	3816800	16.05425	1.159699	0.777634	0.435656	0.229825	86.79578	146.9254	160.5724	289.7987

		AND	100700000000000000000000000000000000000	CONTRACTOR CONTRA	Nonetherne-station constraints		Contract of the local data of		CONTRACTOR OF THE OWNER OWN	and a second
		СО	HCI	CO2	H2O	ТНС	02	Opacity	SO3	PAC
POSTAL AND		PPM	PPM	%	%	PPM	%	%	PPM	Lbs/h
\$Date	\$Time	AT-205corr	AT-213A	AT-213B	AT-213C	AT-259corr	AT-261	AT-263	AT-264	SC-PAC-FT
09/03/2017	10:41:00	42.9	50.87	9.25	47.41	11.1	8.96	0.9	376.8	22.44375
09/03/2017	10:42:00	45.6	50.99	9.32	47.81	9.4	8.94	0.98	382.1	23.70375
09/03/2017	10:43:00	45.2	51.63	9.29	47.58	11.3	8.92	1.2	380.9	22.44375
09/03/2017	10:44:00	44.5	51.07	9.3	47.64	9.7	8.92	0.86	383.1	23.17875
09/03/2017	10:45:00	42.7	50.21	9.29	47.66	11	8.85	0.86	380	22.49625
09/03/2017	10:46:00	43.2	50.6	9.25	47.57	9.5	8.95	0.15	380	22.96875
09/03/2017	10:47:00	44.6	51.01	9.26	47.61	11.1	9.02	0.11	376.8	23.205
09/03/2017	10:48:00	45.4	50.53	9.29	47.63	9.9	8.93	0.67	376.8	22.3125
09/03/2017	10:49:00	45	50.98	9.31	47.71	11.2	8.92	0.98	378	
09/03/2017	10:50:00	48	50.43	9.34	47.83	9.7	8.85	1.15	381.1	23.23125
09/03/2017	10:51:00	49.3	49.37	9.29	47.68	11.3	8.87	1.26	381.1	22.49625
09/03/2017	10:52:00	47.1	50.66	9.3	47.74	9.4	8.86	0.46	384.6	
09/03/2017	10:52:00	46.6	50.00	9.22	47.52	10.6	8.85	0.73	379.5	
09/03/2017	10:54:00	40.0	50.15	9.17	47.42	9.7	8.92	0.07	375.5	
		53.4	50.02	9.25	47.65	11.1	8.92	0.07	375.6	÷
09/03/2017	10:55:00								<u>{</u>	
09/03/2017	10:56:00	55.6	49.76	9.3	47.76	10.6	8.95	0.73	380.6	
09/03/2017	10:57:00	50.3	49.66	9.31	47.65	11.2	8.82	1.11	383.8	
09/03/2017	10:58:00	49	49.02	9.34	47.77	10.3	8.81	1.11	386.5	23.54625
09/03/2017	10:59:00	46.2	48.8	9.29	47.7	11.2	8.84	1.42	384.9	
09/03/2017	11:00:00	43.7	48.93	9.37	47.96	9.4	<b>.</b>	0.51	389.6	
09/03/2017	11:01:00	43.7	48.88	9.3	47.73	10.8	·	0.96	387.9	
09/03/2017	11:02:00	44.1	49.59	9.21	47.41	10.3	9.08	0.05	383	
09/03/2017	11:03:00	43.4	50.59	9.24	47.39	11.4	9.05	1.23	383	
09/03/2017	11:04:00	42.3	51.95	9.27	47.5	10.5	8.89	0.78	387.7	22.47
09/03/2017	11:05:00	42.3	52.83	9.31	47.7	11.6	8.88	1.17	390	22.39125
09/03/2017	11:06:00	43.9	53.28	9.31	47.75	10.6	8.82	1.23	390	22.39125
09/03/2017	11:07:00	45	52.27	9.31	47.79	11.7	8.87	1.45	390	23.12625
09/03/2017	11:08:00	46.8	52.11	9.4	48.04	9.7	8.85	0.57	391.6	22.785
09/03/2017	11:09:00	46.4	53.26	9.3	47.59	10.4	8.81	1.38	387.7	23.4675
09/03/2017	11:10:00	45	53.05	9.24	47.41	10.1	8.89	0.01	386.2	22.9425
09/03/2017	11:11:00	46.1	53.61	9.27	47.67	10	8.99	1.63	386.2	22.5225
09/03/2017	11:12:00	48.2	54.49	9.27	47.69	10.2	8.93	0.76	386.2	23.2575
09/03/2017	11:13:00	50.6	54.31			10.4	8.88	1.2	386.2	
09/03/2017	11:14:00	51.5		+	47.6	10.3	8.82	1.07	391.7	23.65125
09/03/2017	11:15:00	49.9	53.93	+	47.62	10.7				
09/03/2017	11:16:00	51.1	54.5		1			0.65	- <b>-</b>	
09/03/2017	11:17:00	50.6	53.78	+		9.8			·{	
09/03/2017	11:18:00	51.4	+			10.4		4		
09/03/2017	11:19:00	52.8	53.93					1.02		
09/03/2017	11:20:00	52.0	54.78		+	10.3	+	0.86		
09/03/2017	11:20:00	51.7	52.99		+					
09/03/2017	11:21:00	49.5	53.14	÷						
09/03/2017	11:22:00	÷	53.14					+		
09/03/2017	11:23:00	4	52.9		+			······		
09/03/2017	·····		f							
	11:25:00		54.17			·				
09/03/2017	11:26:00	+								
09/03/2017	11:27:00				+	+				
09/03/2017	11:28:00			4						
09/03/2017	11:29:00				1		+	+	+	
09/03/2017	11:30:00	+	+					+		
09/03/2017	11:31:00	·								
09/03/2017	11:32:00	+			• [					
09/03/2017	11:33:00	+								
09/03/2017		+								
09/03/2017			+							
09/03/2017	11:36:00	45.3	57.18	9.3	47.81	. 10.7	8.89	1.38	390.3	3 22.365
09/03/2017	11:37:00	45.3	57.42	9.28	47.76	9.7	8.89	0.11	. 388.7	7 23.31
09/03/2017	11:38:00	44.9	57.58	9.24	47.6	10.9	8.88	0.13	387.3	3 23.59875
09/03/2017	11:39:00	46.3	57.23	9.26	47.75	9.8	8.9	1.23	389.3	3 22.89
09/03/2017	11:40:00	46.7	56.57	9.24	47.66	10.8	8.81	1.23	387.7	23.59875
			+	9.18	47.41	9.7	8.96	0.55	383.5	

March 9/2017	Analyzers					********************			Flows
	СО	нсі	CO2	H2O	ТНС	02	Opacity	SO2	PACFlow
Test 2	AT-205	AT-213A	AT-213B	AT-213C	AT-259	AT-261	AT-263	AT-264	SC-PAC-FT
Max	55.6	57.6	9.4	48.0	11.7	9.1	1.6	395.5	23.7
Min	42.3	48.8	9.2	47.4	9.4	8.7	0.0	375.6	22.3
Average	46.8	52.9	9.3	47.7	10.4	8.9	0.9	386.0	23.0
Variance	9.107426	6.589938	0.001855	0.024669	0.364322	0.004787	0.190808	23.30067	0.19771425

Test No. 3																				
		Rich	Emulsion	Lean	Alkaline	TDU Flow	TDU Flow	Leachate	Primary	Secondary	Stack	Primary	Secondary	Quench	SDA	Stack	Incinerator	SDA Inlet	BH Inlet	BH dP
		LPM	LPM	LPM	LPM	LPM	SCFM	LPM	m3/h	m3/h	m3/h	Degrees C	Concernant Concernant Concernant	Degrees C		Degrees C	mmH2O	mmH2O	mmH2O	mmH2O
\$Date	\$Time	FT-229	FT-219C	FT-223	PV-207	FT-313B	FT-313	PV-211	PV-236	PV-209	FT-260C	TE-240	TE-241	TE-203	TE-204	TE-258		PT-249	PT-615	PDT-622
09/03/2017	11:53:00	25.395	12.91	<u> </u>	175.95	3.1975	191.85	19.575	25504.34		94309		871.8	489.9	201.5	195.8	-7.1	-53.25	-97.95	286.1875
09/03/2017	11:54:00	25.11	12.775	· · · · · · · · · · · · · · · · · · ·	175.14	2.90375	174.225	20.5875	25331.52	15275.34	99800	1356.625	871.4	489.9	201	195.8	-25.65	-81.05	-120.713	
09/03/2017	11:55:00	25.635	12.755		175.86		176.925	19.3875	26036.6	15494.44	96397	1351.875	871.7	490.6	201.5	195.8	-13.3	-59.3	-108	276
09/03/2017	11:56:00	25.53	13.095		176.76	3.29375	197.625	19.3875	25773.92	15455.12	99589	1353.875	870.5	490.8	201.5	195.8	-28.7	-82.6	-128.25	235
09/03/2017		24.99	12.865		177.075	3.25875	195.525	19.3875		15455.12	95908			491.3	202	195.8	-11.75	-58.85	-104.663	
09/03/2017	11:58:00	25.53	12.925		176.49	2.7675	166.05	20.4	26043.51	15550.62	100624	1355.75	871.8	491.6	201.5	196.1	-32	-85.2	-133.313	246.375
09/03/2017	11:59:00	25.485	12.805		175.23	3.3275	199.65	20.4			94383	1352.5	869.5	492.3	202	196.4	-8.15	-53.8	-101.4	
09/03/2017	12:00:00	25.41	12.615		173.655	3.085	185.1	20.4			99837	1357	869	491.1	201.5	196.3	-33.15	-85.05	-133.613	
09/03/2017	12:01:00	25.575 25.44	12.625 12.725		176.22	2.7725 3.0525	166.35 183.15	19.3875 19.3875	25594.2 26036.6	15415.79 15415.79	95391 99016	1354.5 1360.5	870	491.1 489.9	201.5	196.6 195.5	-4.55	-50.5	-94.5 -134.738	285.4375 244
09/03/2017	12:02:00	25.44	12.725	188.4262	175.725	3.40375	204.225	19.3875	25690.97	15393.32	99016	1360.5	870.3	489.9	201 201	195.2	-12.35	-61.05	-107.138	
09/03/2017	12:03:00 12:04:00	25.38			175.23	3.19125	191.475	19.3875	26216.32	15593.32				490.7	201	193.2	-12.55	-84.9	-137.063	
09/03/2017	12:04:00	25.755	12.705		175.25		191.475	19.3875			96068	+	869.9	490.3	201	196.2	-10.95	-58.65	-103.463	
09/03/2017	12:05:00	25.335	12.705		176.54		196.875	19.3873	26389.14	15612.42	99463	1355.875	869.8	491.4	201.5	196.2	-32.55	-38.03	-133.575	253.75
09/03/2017	12:07:00	25.095	13.015		170.38	3.165	194.175	19.35		1	95524	1355.873		491.1	201.5		-5.1	-50.6	-97.8	
09/03/2017	12:07:00	25.35	12.85		176.76		146.025	19.35	26389.14	1		1359.5	868.8	491.1	201.3		-32.45	-85.45	-135.225	
09/03/2017	12:09:00	25.845	12.83		178.245	3.06375	183.825	19.35	25601.11	4	-		867.5	491.2	201	195.9	-5.9	-51.55	-95.8125	
09/03/2017	12:10:00	25.305	12.72	188.235	175.86	2.9375	176.25	19.35	26479			1360.625	869.8	491.2	200.5		-34.65	-87.85	-136.613	248.375
09/03/2017	12:11:00	25.505	12.815	188.6175	175.58	2.90625	174.375	19.35	25594.2	15455.12		1357.25	870.5	491.7	200.0	195.3	-10.9	-58.55	-104.85	278.25
09/03/2017	12:12:00	25.65	12.45		175.23		186.75	19.35	26479				868.9	492.4	201			-70.1	-119.813	
09/03/2017	12:13:00	25.08	12.72	189.045	176.175		189.375	19.35		15275.34		1	869.7	492.5	202		-9.3	-55.4	-101.925	
09/03/2017	12:14:00	24,99	12.385	188.5725	176.67	2.93375	176.025	19.35			+	1353.375	868.5	492.4	201.5	+	-15.75	-64.45	-112.763	
09/03/2017	12:15:00	25.635	12.925	188.9437	179.01	3.34125	200.475	19.35	25594.2		95228	1352.5	869.1	492.4	202		-8.25	-54.6	-98.6625	
09/03/2017	12:16:00	25.08	12.72		178.515	2.9425	176.55	19.35			95632			492.2	201		-18.75	-64.25	-113.25	
09/03/2017	12:17:00	25.365	12.795	189.09	179.775	3.24625	194.775	19.35	+		94760	1356.125	869.3	491.9	200.5	194.8	-2.95	-47.3	-93.225	290.25
09/03/2017	12:18:00	25.455	12.645	188.28	178.425	3.29125	197.475	20.7375	26741.67	15696.69	97262	1356.875	871	491.7	200	195.2	-29.8	-80.95	-130.35	261.1875
09/03/2017	12:19:00	25.485	12.865	188.8988	180.09	4	196.425	19.6875	25594.2	15421.41	96294	1354.125	869.1	491.4	200	195.2	-11	-58.9	-104.138	276.1875
09/03/2017	ł	25.26	12.94		179.595		185.325	19.6875	26209.41	15522.53	96569	1354.25	869	491.2	199.5	195.1	-16.8	-62.2	-112.613	
09/03/2017		25.32	12.865		180.81	3.045	182.7	19.6875	25504.34	15410.17	95179	1354.375	868.5	491.2	199.5	195.1	-8.1	-54.25	-101.1	258.25
09/03/2017	12:22:00	25.92	12.56	187.9988	178.83	2.98	178.8	19.6875	26119.55	15516.92	96905	1355.625	869	491.2	199	195.3	-12.15	-61.1	-107.963	275.375
09/03/2017	12:23:00	25.125	12.715	189.2362	175.14	3.08875	185.325	19.6875	25331.52	15252.87	95102	1354.875	869.1	491.6	199	194.4	-8.25	-53,5	-101.1	284.8125
09/03/2017	12:24:00	25.335	12.69	188.6175	173.97	3.10125	186.075	19.6875	25953.65	15236.02	95370	1355	870.5	492.1	199.5	195	-13.75	-60.35	-107.663	281
09/03/2017	12:25:00	25.035	12.79	188.9437	175.32	3.01875	181.125	19.6875	25594.2	15168.6	93456	1357.25	867.1	492	200.5	195	-4.25	-48.85	-95.4375	290.3125
09/03/2017	12:26:00	25.44	12.57	189.5625	174.87	2.7475	164.85	19.6875	26568.86	15500.06	96780	1355.125	868	492	200.5	193.8	-21.45	-71.85	-120.9	274.875
09/03/2017	12:27:00	25.41	12.61	188.8088	175.59	3.15875	189.525	19.6875	25773.92	15292.2	95440	1353.625	871.4	492	201.5	195	-13.65	-60	-106.95	280.5625
09/03/2017	12:28:00	25.575	12.675	188.235	174.24	2.7475	164.85	19.6875	26299.27	15427.03	95420	1351.875	868.7	492.1	202	195.7	-17.35	-64.3	-112.913	257.5625
09/03/2017	12:29:00	25.425	13.2	188.7525	177.165	3.025	181.5	19.6875	25594.2	15427.03	94602	1350.875	868	492	202		-8.7	-55.3	-99.9375	263.3125
09/03/2017		24.915	13.18		174.825			19.6875					869.5	492	202		-11		-104.925	280.125
09/03/2017			12.665				169.425					1355.25		492			-8.2	-54.6	-99.075	288.5
09/03/2017		24.975	12.945			2.825	169.5	19.6875					868.6	492			-10.2		-103.875	
09/03/2017		25.71	12.955			2.79			4			1359.75	868.4	491.9	201.5				-92.3625	
09/03/2017		25.2	13.025		175.095	2.59		19.6875						492.1	201.5		-17.15	+	-114.45	
09/03/2017		25.215	12.555				144					1355.75		492.6	*		-9.45		-104.325	
09/03/2017		25.545	12.67				164.85	19.6875						493.1	202.5				-110.663	
09/03/2017		25.29	13.115				161.025						866.9	493.3	202.5		-10		-101.438	
09/03/2017		25.395	12.56		175.41	2.84125	170.475					1349.125		493.1	202.5		-11.6		-104.138	
09/03/2017		24.915	12.76				177							492.8	1				-98.475	+
09/03/2017		25.14 25.065	12.695 12.89		175.455	2.7875	167.25	19.6875		15269.72				493			-10.6		-103.125	284.8125
09/03/2017		25.065	12.89		174.65		161.25	19.6875				4		492.4					-114.488	
09/03/2017								19.6875						493					-114.488	
09/03/2017			12.745	187.2				19.6875						493	•				-103.95	
09/03/2017		25.335	12.725		175.86	2.54875	152.925	19.6875				1352.2		493.2		4	-10.45		-107.288	
09/03/2017	f	25.65	12.723	188.0437	176.265		144.525	19.6875				4		493.2	+	1	-10.43		-101.888	
09/03/2017			12.92		175.455			19.6875						492.4					-96.4875	
09/03/2017		25.29			175.14			20.7						492.5	202.5	1			-99.9	
09/03/2017		25.575			175.86			20.7						492.7		· · · · · · · · · · · · · · · · · · ·				
09/03/2017	1	25.35	12.78	· · · · · · · · · · · · · · · · · · ·	174.42		167.025	19.6129						492.9	1		-14.6			
09/03/2017		25.935	12.78				179.625					1356.7		493.5		+	4		-113.213	
09/03/2017	· ·	25.515			174.24		175.275	19.612						493.3			-12.15		-105.9	
09/03/2017		24.99								15219.16				493.4						
L	,					1	1	4							1					

March 9/2017	Waste Flo	ws						Air Flows			Temperate	ires				Pressures			
	Rich	Emulsion	Lean	Alkaline	TDU Flow	TDU Flow	Leachate	Primary	Secondary	Stack	Primary	Secondary	Quench	SprayDryei	Stack	Incinerator	SDA Inlet	SD Outlet	Baghouse
Test 3	FT-229	FT-219C	FT-223	PV-207	FT-313B	FT-313	PV-211	PV-236	PV-209c	FT-260c	TE-240	TE-241	TE-203	TE-204	TE-258	PT-242A	PT-249	PT-615	PDT-622
Max	25.9	13.2	190.2	180.8	3.4	204.2	20.7	26741.7	15696.7	100624.0	1360.6	871.8	493.5	203.5	196.9	-2.0	-45.9	-92.4	295.8
Min	24.9	12.3	187.2	173.7	2.4	144.0	19.4	25248.6	15168.6	93456.0	1349.1	865.8	489.9	199.0	193.8	-34.7	-87.9	-137.1	235.0
Average	25.4	12.8	188.8	176.2	3.0	177.2	19.7	25834.8	15401.1	95962.8	1354.5	869.2	491.9	201.6	195.7	-14.2	-62.0	-109.1	270.2
Variance	0.062393	0.03413	0.421286	2.435475	0.057949	208.6162	0.126643	118700	12710.34	3210253	8.311638	1.495011	0.836344	1.162568	0.366115	77.17068	131.3799	155.0923	265.2781

Test	No.	3
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		СО	HCI	CO2	H2O	ТНС	02	Opacity	SO3	PAC
		PPM	PPM	%	%	PPM	%	%	PPM	Lbs/h
\$Date	\$Time	AT-205corf	AT-213A	AT-213B	AT-213C	AT-259core	AT-261	AT-263	AT-264	SC-PAC-FT
09/03/2017	11:53:00	48.7	58.32	9.27	47.7	9.9	8.88	0.42	396.5	23.67
09/03/2017	11:54:00	48.3	57.71	9.27	47.64	11.5	8.91	0.53	395.2	22.863
09/03/2017	11:55:00	49.6	57.45	9.32	47.74	9.6	8.87	1.51	395.2	22.811
09/03/2017	11:56:00	47.2	56.65	9.24	47.48	10.6	8.82	0.13	392.5	22.
09/03/2017	11:57:00	47.8	56.34	9.21	47.43	10	8.91	1.05	392.5	23.57
09/03/2017	11:58:00		56.94			10.9		1.5	\$	
09/03/2017	11:59:00						8.89	0.2	ŧ	
09/03/2017	12:00:00		57.82		47.81	10.9	<u>+</u>	0.48	Į	
09/03/2017	12:01:00				<u>+</u>	<u> </u>	ŧ	0.55		
09/03/2017			56.18		+			0.88		· · · · · · · · · · · · · · · · · · ·
09/03/2017	12:02:00		+				8.82	1.55	1	+
09/03/2017	12:03:00	<u> </u>	54.77				8.87	0.51	395.2	+
	12:04:00		54.27			·	9.07	1.1		
09/03/2017		f				}		0.35		+
09/03/2017	12:06:00									
09/03/2017				h				0.4		+
09/03/2017	12:08:00				ł	+		0.57		
09/03/2017	12:09:00		54.54	f				······		
09/03/2017								0.73		
09/03/2017		ţ	·			÷		f		
09/03/2017	12:12:00									
09/03/2017	12:13:00	47.5		÷		·}			+++++++++++++++++++++++++++++++++++++++	
09/03/2017	12:14:00	47.8	52.99	9.22	47.46	10.4	9.05	1.3	395.4	2
09/03/2017	12:15:00	47.2	53.65	9.27	47.54	10.3	8.97	0.35	398.8	23.4
09/03/2017	12:16:00	47.2	54.73	9.29	47.56	10.7	8.94	0.77	394.9	23.3
09/03/2017	12:17:00	48.5	54.65	9.26	47.68	10.7	8.92	0.58	390.6	23.38
09/03/2017	12:18:00	49.8	53.31	9.25	47.73	11.1	8.96	0.42	390.6	23.65
09/03/2017	12:19:00	50.4	52.2	9.31	47.88	10.6	8.85	0.33	390.6	23.65
09/03/2017	12:20:00	46.2	53.05	9.23	47.62	10.7	8.92	0.17	387.3	22
09/03/2017		f	53.7	9.22	47.61	11	9	1.36	387.3	23.33
09/03/2017							8.99			
09/03/2017				+		·!				
09/03/2017	<u> </u>		4				+			
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09/03/2017	+	+		+						
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09/03/2017	12:29:00	+		+		+				
09/03/2017										
09/03/2017		******			· <del> </del>					
09/03/2017			+							
09/03/2017	12:33:00	+	+			4		+		
09/03/2017	12:34:00			1	1			1		
09/03/2017	+	1	4	+						
09/03/2017	f									
09/03/2017		+								· · · · · · · · · · · · · · · · · · ·
09/03/2017	******									
09/03/2017	+		54.68	9.24	47.43			+	+	
09/03/2017	12:40:00	48.1	54.07	9.27	47.61	9.3	9.06			22.44
09/03/2017	12:41:00	47.9	53.52	9.23	47.48	11.2	8.97	1.76	409	23.6
09/03/2017	12:42:00	49.9	53.92	9.28	47.73	9.4	9	1.11	413.3	23.65
09/03/2017	12:43:00	47.7	54.29	9.25	47.57	10.1	. 8.88	1.36	412.2	2 23.65
09/03/2017	12:44:00	46.7	52.66	9.13	46.98	8.9	9	0.46	404.9	2
09/03/2017	********	·		********	47.28	10.2	9.09	0.67	404.9	22
09/03/2017	+						+			
09/03/2017		-t		-+						
09/03/2017	+									
09/03/2017		+								
09/03/2017	****									
09/03/2017						+				
		+								
09/03/2017								11-46		

March 9/2017	Analyzers	yay yang kang ng kanalang kang kang kang kang kang kang kang k							Flows
	со	HCI	CO2	H2O	THC	02	Opacity	SO2	PACFlow
Test 3	AT-205		AT-213B	AT-213C	AT-259	AT-261	AT-263	AT-264	SC-PAC-FT
Max	53.3	58.3	9.3	48.0	11.6	9.2	1.9	413.3	23.7
Min	42.9	49.3	9.1	47.0	8.9	8.8	0.1	387.3	22.3
Average	48.5	54.1	9.2	47.6	10.3	9.0	1.0	399.2	23.1
Variance	5.323126	4.444601	0.001921	0.046707	0.374727	0.007592	0.243042	54.56817	0.248844191

Test No. 4																				
		Rich	Emulsion	Lean	Alkaline	TDU Flow	TDU Flow	Leachate	Primary	Secondary	Stack	Primary	Secondary	Quench	SDA	Stack	Incinerator	SDA Inlet	BH Inlet	BH dP
		LPM	LPM	LPM	LPM	LPM	SCFM	LPM	m3/h	m3/h	m3/h	Degrees C	Degrees C	Degrees C	Degrees C	Degrees C	mmH2O	mmH2O	mmH2O	mmH2O
\$Date	\$Time	FT-229	FT-219C	FT-223	PV-207	FT-313B	FT-313	PV-211	PV-236	PV-209	FT-260C	TE-240	TE-241	TE-203	TE-204	TE-258	PT-242A	PT-249	PT-615	PDT-622
09/03/2017	13:07:00	25.605	12.66	188.3363	174.285	1.21375	72.825	19.6125	26479	15488.83	99289	1350.5	867.2	489.9	201.5	196.8	-36.05	-88.75	-138.15	251.125
09/03/2017			13.11	189.7538	175.68		71.25	19.6125		15398.94	95127	1347.375	869	489.7	201.5	196.5	-12.75	-58	-105.15	
09/03/2017		25.815	13.025	188.7525	174.465	1.43875	86.325	19.6125	26485.91	15505.68	96291	1347.875	870.4	488.7	201	195.4	-22.4	-67.75	-120.338	
09/03/2017	1	25.53	12.69	187.7625	175.95	1.105	66.3	19.6125	25511.25	15466.35	95962	1347.375	866.9	488.1	200.5	195.9	-10.6	-55.7	-101.438	
09/03/2017	13:11:00	25.65	12.8	190.1813	175.635	0.40125	24.075	19.6125	26568.86	15606.8	97762	1347.75	867.9	487.7	199.5	195.9	-30.75	-76.9	-128.963	277.625
09/03/2017	13:12:00	25.62	13.19	188.4262	175.41	0.55875	33.525	19.6125	25594.2	15398.94	94167	1345.75	865.9	486.9	199.5	195.7	-8.6		-98.25	292.375
09/03/2017	13:13:00	25.335	13.015	189.7087	174.465	0.60375	36.225	19.6125	26568.86	15556.24	98777	1344.625	867.5	486.1	198.5	195.6	-35.75	-86.6	-138.038	256.25
09/03/2017	13:14:00	25.41	12.86	189.09	175.05	0.89625	53.775	19.6125	25773.92	15455.12	95313	1337.5	864.1	486.3	198.5	194.4 194.4	-16.15	-63.05	-109.163	277.3125
09/03/2017	13:15:00 13:16:00	25.53 26.7	12.995 12.795	187.9088 188.1	174.555 175.5	0.26375	15.825 58.8	19.6125 19.6125	26306.19 25601.11	15516.92 15297.81	96142 95163	1336.625 1339.75	864.9 866.5	485 484.7	198 198	194.4	-24.85 -13.15	-73.25 -62.05	-122.1	258.9375 263
09/03/2017		26.625	12.755	188.8988	175.5	0.5425	32.55	19.6125	26036.6		95105	1344.875	864.4	464.7	198	194.8	-13.15	-66.8	-113.738	
09/03/2017		26.34	12.715	188.28	172.33	0.3423	42.45	19.6125	25511.25	15370.85	95692	1351.5	867.3	485.9	198.5	193.5	-10.45	-57.35	-100.238	
09/03/2017	f	26.505	12.685	188.9437	173.205		80.325	19.6125		15623.66	95243	1356.625	865.5	485.3	198.5	193.8	-17.75	-65.45	-112.688	
09/03/2017		27.105	12.003	188.145	176.4	0.81375	48.825	19.6125	25594.2	15219.16	94196	1359.75	863.2	486.9	198.5	193.8	-17.73	-05.45	-112.008	291.875
09/03/2017		26.7	12.71	187.7625	176.175		63.825	19.6125	26479	15488.83	97015	1358.875	865.2	486.8	198.5	194.1	-26.05		-124.763	
09/03/2017		26.58	12.905	190.4175	176.94		05.025	19.6125		15353.99		1358.875	864.8	487	198.5	194.1	-16.45	-62.6	-124.705	
09/03/2017		26.61	12.68	188.0437	175.455	- o	0		26485.91	15494.44	95327	1354.125	865.4	485.8	198		-22.75	-70.35	-117.9	257.75
09/03/2017		26.91	12.87	189.045	176.67	0	0		25856.88		94804	1352.25	863.9	484.2	197.5	194	-14.25	-60.4	-106.65	
09/03/2017		26.775	12.635	189.4162	175.725	0	0		26133.38	15449.5	95459	1348.25	863.3	483.2	196.5	193.6	-16.4	-61.85	-110.363	279
09/03/2017		26.25	12.815	189.8438		0	0		25773.92	15449.5	95188	1349.375	864.3	482.5	196	193.3	-11.85	-56.85	-102.375	285
09/03/2017	13:27:00	26.91	12.975	189.9	175.275	5.1175	307.05	19.3875	26036.6	15466.35	95112	1346.375	864	482.4	195.5	192.3	-12.85	-59.2	-108.563	284.5
09/03/2017	13:28:00	26.61	12.935	188.8088	176.4	4.02375	241.425	19.3875	25331.52	15325.9	93461	1351	862.5	484.9	196	192.8	-6.15	-50.95	-96.975	293.5625
09/03/2017	13:29:00	26.775	12.655	188.0437	174.69	3.93	235.8	19.3875	26216.32	15466.35	95193	1350.875	866,4	487.5	197	192.8	-23.1	-72.35	-121.125	276.8125
09/03/2017		26.355	12.81	187.6725	174.96		232.5	19.3875	25601.11	15286.58	95506	1351.75	863.6	489.1	198	193.5	-14.5	-60.6	-108.975	281.875
09/03/2017		26.79	12.68	189.3262	175.455		217.125	19.3875	25946.74	15415.79		1347.125	864.4	489.7	199		-17.3	-64.5	-114.45	
09/03/2017	13:32:00	26.985	12.975	189.99	176.985	3.2375	194.25	19.3875	25684.06	15269.72	95151	1348.625	866.2	490	199.5	193.2	-11.6		-104.663	265.375
09/03/2017	13:33:00	26.265	12.855	189.5625	175.815	3.08625	185.175	19.3875		15483.21	96693	1347.625	862.9	490.1	199.5	193	-13.85	-61.1	-106.35	278.75
09/03/2017		26.835	12.85	187.9537	177.615	4	184.125	20.4		· · · · · · · · ·	94369	1353.25	864.3	489.6		194.5	-8.6		-100.875	
09/03/2017		27.045	12.99		175.905		175.275	20.4		15376.47	95372	1349.875	863.8	489.4	199.5	193.8	-10.25	-56.9	-104.1	283.75
09/03/2017	13:36:00	26.685	13.02	189.6525	176.22		176.025	20.4			95239	1353.75	863.9	489	199		-4.45	-49.6	-95.475	
09/03/2017	13:37:00	26.295 26.835	12.78	189.2813	176.49		169.875	20.4		15528.15 15303.43	96459 95971	1349.625	862.7	489.1	199 199		-19.6		-115.35	
09/03/2017	13:38:00	26.835	12.745	188.8088 189.8438	·]		176.025 164.85	19.3125				1351.375 1347.5	863.4	488.8 488.9	*****		-12.1 -15.2		-106.463	
09/03/2017	13:39:00	26.715	12.92 12.545	189.8438	174.645		176.85	19.3125				1347.25	861.9	488.9	199	*****	-15.2		-105.713	258.3125
09/03/2017		26.625	12.343	189.7987	176.175		175.35	19.3125		*****		1347.23	854	488.2	199.5	· · · · · · · · · · · · · · · · · · ·	-12.2		-105.715	
09/03/2017				188.235			173.33	19.3125				1349.625	863.9	487.7	199				-101.438	
09/03/2017		26.535	13.065	189.99			172.95	19.3125			4	1347	+	486.9	198.5	A			-102.975	
09/03/2017		25.965	12.48	189.2362	174.015		172.875	20.325		15207.93		1353.25	861.8	486.1	198				-97.125	294.625
09/03/2017	13:45:00	27.135	12.82	188.4262	173.88		179.55	20.325		15376.47		1345.75	861.7	485.7	198				-113.325	
09/03/2017	13:46:00	26.97	12.715	189			174.375	20.325		15236.02	96084	1346.125	863	485.5	198		-13.3		-106.463	
09/03/2017			12.9	188.6625	175.905		170.7	20.325		15292.2	94892	1343.125	861.7	485.2	198				-109.8	256.625
09/03/2017		26.535	12.66	188.6175	175.185		171.825	20.1		15410.17	95462	1347.125	859.2	484.8	198		-12.1		-104.85	252.625
09/03/2017	13:49:00	26.97	12.84	187.5712	176.58		167.4	20.1	25684.06	15292.2	95033	1344.375	860.8	484.8	197.5	192.9	-14.8	-62.65	-106.913	279.875
09/03/2017		26.73	13.035	188.3363	175.635		172.8	20.1		15275.34	96869	1350.5	859.7	484.1	197.5	192.9	-15.05		-112.875	248.75
09/03/2017				190.08			175.125	20.1		15370.85			861.5	485	197.5	193.4			-102.75	285.5625
09/03/2017			13.225	187.8525	175.41		172.725	20.1		15247.25	99719	1354	862.8	485	197		-29.45		-127.425	244.875
09/03/2017				189.18	175.14		175.5	20.1		15376.47	95682	1345.375	860.8	485.9	1		-17.75		-112.013	
09/03/2017			13.955	189.3262	174.24		172.95	20.1		15359.61		1346.875	861.3	.487	198		-33.7		-135.825	234.75
09/03/2017							172.575					1343.5	859.7	488.5	199				-111.075	
09/03/2017			14.165	187.5712			173.025	20.1		15471.97			860.7	489			-35.25		-137.25	
09/03/2017			13.73				171.6			15196.69		1345		489.4	200		-10.55		-102.975	
09/03/2017			13.69	188.235	174.285		169.725	20.1				1347.5	864.5	488.9			-34.7		-136.8	
09/03/2017			14.27	190.6087	176.22		160.8 171.825	20.1				1348.5	862.3	488.9						
09/03/2017			13.99 14.19	186.8625 189.4725	174.33		1/1.825	20.1		15505.68 15359.61		1353.75 1346.375	862.5	488.7 489.3	200	194.2 194.1			-140.475	
09/03/2017			14.19	189.4725	177.075		149.775	20.1		15339.61		1346.375	863./	489.3					-110.7	
09/03/2017			13.93	188.5162	174.825		149.775	20.1		15337.14		1349.75	863.7	489.4		194.1			-140.888	
09/03/2017				188.7525	175.095		165.675	20.1		15342.76			862.7	488.7					-139.913	
09/03/2017			14.00	188.1	175.05		165.15	20.1		15314.67		1346.75	862.2	488.9					-103.313	
09/03/2017		26.79		190.1362	174.375		167.1	20.1		-		1350.375	862.2	488.7	200.5				-139.613	
09/03/2017							168.975	20.1				1350.5	860.7	489.1	200.5	+			-99.675	
		1. 20110	1						,	,	, , , , , , , , , , , , , , , , , , , ,				. 200.0		, 0.75	, 34.5		1 200.0020

March 9/2017	Waste Flo	ws						Air Flows			Temperate	ures				Pressures			
	Rich	Emulsion	Lean	Alkaline	TDU Flow	TDU Flow	Leachate	Primary	Secondary	Stack	Primary	Secondary	Quench	SprayDrye	Stack	Incinerator	SDA Inlet	SD Outlet	Baghouse
Test 4	FT-229	FT-219C	FT-223	PV-207	FT-313B	FT-313	PV-211	PV-236	PV-209c	FT-260c	TE-240	TE-241	TE-203	TE-204	TE-258	PT-242A	PT-249	PT-615	PDT-622
Max	27.1	14.3	190.6	177.6	5.1	307.1	20.4	26568.9	15623.7	101391.0	1359.8	870.4	490.1	201.5	196.8	-4.5	-48.4	-95.5	294.6
Min	25.2	12.5	186.9	172.5	- 0.0	0.0	19.3	25158.7	15118.0	93461.0	1336.6	859.2	482.4	195.5	192.1	-37.0	-92.2	-140.9	234.8
Average	26.5	13.1	188.9	175.3	2.2	134.4	19.8	25886.0	15369.7	96163.8	1348.6	863.7	487.2	198.8	193.9	-17.6	-65.4	-112.7	271.3
Variance	0.232347	0.263839	0.708615	1.09942	1.472429	5300.944	0.134442	119496.8	12256.29	3522595	18.55136	5.173098	4.166208	1.76694	1.078508	84.02219	135.881	169.5701	258.1211

Test No. 4		pasateleastereast	percentration of the second						an and the second second	annan manan manan an
		со	HCI	CO2	H2O	тнс	02	Opacity	SO3	PAC
10000000000000000000000000000000000000		PPM	PPM	%	%	PPM	%	%	PPM	Lbs/h
\$Date	\$Time	AT-205corp	AT-213A	AT-213B	AT-213C	AT-259corr	AT-261	AT-263	AT-264	SC-PAC-FT
09/03/2017	13:07:00	54.1	48.76	9.13	47.45	10.3	9.1	1.07	407.2	23.73
09/03/2017	13:08:00	54.4	49	9.09	47.13	10.2	9.24	0.2	403.5	22.54875
09/03/2017	13:09:00	55.5	48.83	9.11	47.24	10.2	9.24	1.61	401.7	23.2575
09/03/2017	13:10:00	58.4	49.05	9.12	47.35	10.6	9.22	0.95	399.6	22.3125
09/03/2017	13:11:00	60.4	47.73	9.14	47.48	10.5	9.19	1.28	397.4	23.44125
09/03/2017	13:12:00	59.7	46.53	9.1	47.47	10.4	9.11	1.27	397.4	23.4675
09/03/2017	13:13:00	61.9	45.23	8.98	47.11	10.9	9.2	1.21	389.5	22.785
09/03/2017	13:14:00	67.2	45.01	9.04	47.28	10.1	9,14	0.73	390.7	22.44375
09/03/2017	13:15:00	67.5	44.13	8.99		10.4	9.27	0.67	388.3	22.91625
09/03/2017	13:16:00	69.8	43.77	8.95	47.04	10.6	9.47	0.26	385.2	23.70375
09/03/2017	13:17:00	69.5	44.42	8.99	47.11	10.6	9.41	1.12	388.3	22.4175
09/03/2017	13:18:00	67.2	44.37	9.11	47.31	10.0	9.21	0.88	401.8	22.33875
09/03/2017	13:19:00	64.1	43.31	9.22	47.5	10.1	9.07	1.07	411.3	23.54625
09/03/2017	13:20:00	62.9	42.85	9.22	47.43	10.1	9.02	1.07	411.3	23.0475
	13:20:00		42.83	9.22	47.53	10.3	9.1	1.03	411.3	23.0473
09/03/2017					+		<del>[</del>			
09/03/2017	13:22:00	63.7	43.18	9.22	47.74	9.7	9.05	0.71	412	23.23125
09/03/2017	13:23:00	62.9	42.67	9.08	47.36	9.6	9.21	0.32	397.3	23.65125
09/03/2017	13:24:00	65.9	42.36	8.97	47.18	10	9.37	0.13	387.8	22.5225
09/03/2017	13:25:00	74.8	41.88	8.92	47.16	9.9	9.49	0.71	380.6	23.49375
09/03/2017	13:26:00	81.5	41.91	8.96	47.28	10.1	9.4	0.98	379.3	23.2575
09/03/2017	13:27:00	82.6	41.66	8.98	47.29	10.4	9.39	1.07	377.9	22.65375
09/03/2017	13:28:00	76.8	40.18	8.99	47.1	11.5	9.37	1.2	383.9	
09/03/2017	13:29:00	70.7	39.89	9.05	47.1	11.1	9.24	0.76	396.1	23.73
09/03/2017	13:30:00	61.5	41.05	9.2	47.21	9.9	8.9	0.76	411.5	23.415
09/03/2017	13:31:00	53.2	42.99	9.12	47.03	9.9	9.1	0.05	410.4	23.44125
09/03/2017	13:32:00	54.3	43.28	9.1	46.87	10.7	9.18	0.35	410.4	23.07375
09/03/2017	13:33:00	58.3	44.24	9.14	47.08	9.8	9.17	0.71	412.8	23.75625
09/03/2017	13:34:00	59.2	45.41	9.2	47.15	11	9.13	0.92	411.3	23.59875
09/03/2017	13:35:00	64.2	44.23	9.22	47.39	9.6	9.09	1.05	411.3	23.1525
09/03/2017	13:36:00	64.7	43.71	9.16	47.2	10.9	9.03	1.21	407.7	23.65125
09/03/2017	13:37:00	66.9	46.13	9.18	47.3	10	9.14	0.61	408.3	22.47
09/03/2017	13:38:00	<b>+</b>	45.16	9.16	47.32	10.8	9.09	0.51	404.9	23.70375
09/03/2017	13:39:00	1		9.09						
09/03/2017	+	+		9.05		11				
09/03/2017	13:41:00	+		1		9.9		{	+	
09/03/2017	13:42:00		+			11		0.96		
09/03/2017	13:42:00			9.14		+			+	
09/03/2017	13:44:00	-f	- <b>j</b>				+		+	4
09/03/2017	13:45:00				+	+		+		
		+		+			÷		· · · · · · · · · · · · · · · · · · ·	
09/03/2017	13:46:00	*****				+				
09/03/2017	13:47:00		+				÷			
09/03/2017	13:48:00	+		+			+			
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09/03/2017			+				+			
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09/03/2017	+		+	+				·••	·	
09/03/2017				+			+			
09/03/2017			+			+			+	
09/03/2017								+		
09/03/2017	13:56:00	61	43.03	9.12	46.96	10.4	9.24	0.57	411.9	22.49625
09/03/2017		62.6	43.29	9.18	47.21	10.2	9.14	0.78	419.1	
09/03/2017	13:58:00	62.4	44.46	9.21	47.19	10.6	9.12	1.01	418.1	. 22.7325
09/03/2017	13:59:00	59.1	44.63	9.23	47.21	9.7	8.99	1.05	418.1	23.17875
09/03/2017	14:00:00	60.2	45.5	9.2	47.21	11.4	9.06	1.26	415.9	23.1525
09/03/2017				+						
09/03/2017										
09/03/2017				-f						
09/03/2017		-+								
09/03/2017										+
09/03/2017		+	+	+						
09/03/2017										
L05/05/2017	1 14:07:00	1 01.7	1 40.55	1 9.22	41.25	1 10.4	0.97	1 1.02	417.3	22.70

March 9/2017	Analyzers								Flows
	СО	HCI	CO2	H2O	ТНС	02	Opacity	SO2	PACFlow
Test 4	AT-205	AT-213A	AT-213B	AT-213C	AT-259	AT-261	AT-263	AT-264	SC-PAC-FT
Max	82.6	49.1	9.3	47.7	11.5	9.5	1.6	419.1	23.8
Min	53.2	39.9	8.9	46.8	9.5	8.9	0.1	377.9	22.3
Average	65.4	44.3	9.1	47.2	10.4	9.2	0.8	403.4	23.1
Variance	50.52984	4.08981	0.006872	0.030732	0.278721	0.016145	0.141254	108.5174	0.231453835

Test No. 5																				
		Rich	Emulsion	Lean	Alkaline				Primary	Secondary		Primary	Secondary	Quench	SDA	Stack	Incinerator		BH Inlet	BH dP
		LPM	LPM	LPM	LPM	LPM	SCFM	LPM	m3/h	m3/h	m3/h	Degrees C		Degrees C	Degrees C	Degrees C	mmH2O	mmH2O	mmH2O	mmH2O
\$Date	\$Time	FT-229	FT-219C	FT-223	PV-207	FT-313B	FT-313	PV-211	PV-236	PV-209	FT-260C	TE-240	TE-241	TE-203	TE-204	TE-258	PT-242A	PT-249	PT-615	PDT-622
09/03/2017	14:20:00	26.775	14.31	189.4162	174.285	2.73625	164.175	20.1	25773.92		95763	1355.625	865.4	492.8	202.5	194.9	-14.1	-62.45	-108.975	280.6875
09/03/2017	14:21:00	27.06	14.385	188.5162	176.085 174.42	2.8275 2.84375	169.65 170.625	20.1	25511.25	15213.54 15320.29	95045 94733	1357.125 1357.625	864 863.8	492.5 492.8	202.5 202.5	194.5 195.8	-7.25	-55.25 -60.15	-99.6375 -107.025	286.1875 285.375
09/03/2017	14:22:00	26.955 26.64	14.43 14.295	189 187.245	174.42	2.84375	170.625	20.1 20.1	26036.6 25248.57	15320.29	94733	1357.625	863.8	492.8	202.5	195.8	-11.35	-60.15	-107.025	
09/03/2017	14:23:00	20.04	14.295	189.045	173.93	2.84625	170.775	20.1	26133.38	15196.89	96911	1360.023	865.6	493.4	202.5	194.8	-21.15	-69.1	-121.05	275.75
09/03/2017	14:25:00	26.82	14.225	189.2362	175.68	2.86625	171.975	20.1	25684.06	15191.07	95656	1356.875	865.7	495.4	202.5		-12.05	-58.15	-107.7	281.875
09/03/2017	14:26:00	26.49	14.425		174.915	2.89125	173.475	20.1	25690.97	15247.25	96607	1354.625	862.9	494.6	203.5		-17.15	-65.85	-114.9	
09/03/2017	14:27:00	27.63	14.53		175.455	2.875	172.5	20.1	25511.25	15247.25	94998	1356.25	864.5	494.8	204		-8.7	-55.7	-102.638	
09/03/2017	14:28:00	26.43	14.52	190.4175	174.06	2.9725	178.35	20.1	25863.79	15207.93	95027	1354.625	864.3	495	204	195	-11.05	-58	-105.45	
09/03/2017	14:29:00	26.58	14.285	187.9988	176.4	2.84625	170.775	20.1	25241.66	15207.93	94783	1360.125	866.4	495.2	204.5	196.5	~6.45	-53.75	-98.1375	288.5625
09/03/2017	14:30:00	26.64	14.315	189.2362	176.265	2.86125	171.675	20.1	25684.06	15292.2	94779	1358.375	865.2	495.1	204	196.5	-9.4	-57.1	-102.713	285.3125
09/03/2017	14:31:00	26.865	14.54		177.3	2.86375	171.825	20.1	25248.57	15134.89	94524	1363.125	866	495.1	204		-3.95	-50.3	-93.15	294
09/03/2017	14:32:00	26.64	14.515	189	175.635	2.76125	165.675	20.1	26036.6	15303.43	96201	1362.5	863.9	495.5	203.5	195.8	-16.45	-64.8	-114.525	276.625
09/03/2017	14:33:00	26.73	14.7		177.975	2.6875	161.25	20.1	25504.34	15202.31	94749	1361.5	865.5	496.1	204		-10.25	-57.55	-102.975	281.875
09/03/2017	14:34:00	26.85	14.685	188.28	174.96	2.7825	166.95	20.1			94853	1360.75	866.5	496.7	204.5	196.6		-64.9	-111.45	******
09/03/2017	14:35:00	26.985	14.375		172.98	2.7825	166.95	20.1	25331.52	15297.81	95283	1361.375	865.9	496.2	204.5	196.6	-7.3	-54.15	-100.35	267.875
09/03/2017	14:36:00	26.61 27.225	14.695 14.395		176.265 174.96	2.92125 2.90875	175.275 174.525	20.1	25684.06 25338.44	15387.7 15269.72	94947 94548	1360.375 1364.5	865.4	496.1 495.4	204.5	196.1 196.3	-9.25	-56.5	-103.05	282.75 289.1875
09/03/2017	14:37:00	26.265	14.395	188.8537	174.96	2.90875	174.525 158.475	20.1		15269.72	94548	1364.5	867.3	495.4	204.5		-5.1		-101.363	289.1875
09/03/2017	14:38:00	25.44	14.425		178.4	1.9925	138.475	20.1		15230.4	92799	1359.625	867.6	493.3	204.5	197.5	-4.2		-95.2875	
09/03/2017	14:40:00	25.77	14.44		175.59		165.225	20.1		15404.56	95958	1353.125	867.2	493.6	203.5		-15.35		-111.488	
09/03/2017		26.715	14.38		176.04	2.93	175.8	20.1		15264.11	95667	1352.375	865.5	492.8	203		-10.8	-58.95	-103.8	
09/03/2017		26.37	14.335		177.165	3.25875	195.525	20.1	25690.97	15325.9	95608	1345.25	865.5	492.7	203	197.4	-13.35	-61.05	-108.15	261.0625
09/03/2017	14:43:00	26.4	14.79	188.6625	175.59	3.79	227.4	20.1	25690.97	15331.52	93566	1348	866.4	492.2	202.5	196.6	-9.3	-57.65	-100.388	268.625
09/03/2017	14:44:00	26.235	14.575	188.8088	176.805	3.92875	235.725	20.1	25780.84	15264.11	94867	1345.75	866.1	492.4	202.5	196.1	-10.6	-56.55	-104.85	282.5625
09/03/2017		26.37	14.445		174.42		237.825	20.1		15264.11	93441	1350.25	868	491.8	202			-51.75	-97.4625	287.875
09/03/2017		26.28	14.525		177.21		236.775	20.1		15410.17	94689	1346.5	866	492	202			1	-101.475	285.5
09/03/2017		25.905	14.435		175.77	3.9275	235.65	20.1		15191.07	93284	1355.5	866.3	491.5	201.5		-4.15	-50	-95.9625	
09/03/2017		26.67	14.635		175.455	3.9775	238.65	20.1			96712	1347.375	869.2	492.9	202		-12.5	-60.6	-107.475	
09/03/2017		25.71	14.15		174.735	3.94125	236.475	20.1				1352.75	865.6	493.7	202.5		-13.85		-114.188	
09/03/2017	14:50:00	26.835 25.875	14.4 14.315		175.095 175.635	3.91 3.84625	234.6 230.775	20.1		15224.78 15325.9	95415 99537	1350.625	868.4 867.7	495.2 495.9	203		-9.25	-57.7	-104.813	
09/03/2017	14:51:00	25.875	14.515		175.05	3.78	230.773	20.1	25421.39		95354	1	867.3	493.9		4	-25.03		-103.088	
09/03/2017		26.73	14.51	189.9	175.455		200.625	20.1			98844	1363.875		497.9					-127.35	
09/03/2017	14:55:00	26.295	14.725		175.275		203.25	20.1	25504.34	+		1362.25		498.2				-53.1	-97.2375	
09/03/2017	14:55:00	26.325	14.505		176.085		199.725	20.1	25690.97	15511.3	99605	1367.25		497.6				-81.75	-131.363	
09/03/2017		26.025	13.555		175.59		200.325	20.1	25684.06	15168.6	95000	1357.625	867.8	497	204.5	196.5	-11.25	-59.25	-105.188	273.25
09/03/2017		25.32	13.28		174.735	3.35375	201.225	20.1	25684.06	15331.52	98752	1355.75	869.3	494.8	203.5	197.9	-31.6	-84.25	-134.663	235.625
09/03/2017	14:58:00	25.095	13.36	187.9088	176.67	3.125	187.5	20.1	25601.11	15264.11	95754	1350.5	867.4	493.8	203.5	198.6	-11.25	-60.4	-102.563	257.875
09/03/2017	14:59:00	26.085	13.3		174.465	3.28	196.8	20.1	25863.79				868.3	491.8	202.5			-93.6	-138.45	
09/03/2017	15:00:00	26.295	13.475	186.435	174.69		193.575	20.1	25504.34					491	202			-57.75	-101.963	
09/03/2017		25.545	13.175	186.435	176.94		199.65	20.1		15483.21	98279			490.3	201.5					
09/03/2017		26.115	13.365	187.6725	177.03	• ···· ··· ··· ···	190.725	20.1	25511.25					491.2	201.5					
09/03/2017		26.265 25.41	13.435 13.335	188.1 189	175.5	3.01375 3.19125	180.825 191.475	20.1 19.0875	26299.27 25780.84	15427.03 15342.76				492.1 493.3	201					
09/03/2017 09/03/2017			13.335		177.255	3.19125	191.475	19.0875	26389.14						201.5					
09/03/2017		25.905	13.19	186.39		2.19625	131.775	20.1			94736		867	493.7	201.5					
09/03/2017		25.71	13.25		178.11		133.725	20.2875	26396.05	15707.93	96245	1357.125		492.9	201				-122.85	
09/03/2017			13.66		178.38	2.855	171.3	20.2875	25601.11	15286.58	95346			492.8	200.5				-99.7125	
09/03/2017		**************************************	13.19		177.3	2.4325	145.95	20.2875		15612.42	97811	1360.5		492.1	200				-131.25	
09/03/2017		26.145	13.555		178.11		152.025	20.2875	25248.57	15146.13	95035	1363.125	867	491.9	200	195.6	-4.95	-51.45	-96.825	290.6875
09/03/2017	15:11:00	26.76	13.17	188.1	177.165		143.925	20.2875	26313.1	15606.8	99365	1366.375		491.9					-138.038	
09/03/2017			13.185		177.165		163.2	20.2875			95605	1359.875		492.2	199.5		-15.35			
09/03/2017			13.18		176.58		169.65	19.2375		15505.68		1			200					********
09/03/2017		25.92	13.385		177.615		188.025	20.25		15320.29				494.9	200.5					
09/03/2017		26.07	13.255		176.085		167.775	20.25		15584.33		1358.125		496	201				-114.525	
09/03/2017			13.55		177.03		178.875	19.2375		15236.02		1361.375		496.1	201.5				-103.65	
09/03/2017			13.205		177.165		177.825			15488.83				495.9				+	-113.663	
09/03/2017		26.34	13.35 13.19		178.56		178.05 170.25	19.2375 20.3625	25255.49			4	<u> </u>	495.7	201					
09/03/2017				188.145			163.65			15370.85			1	· · · · · ·	200.5	1				
L03/05/2017	1 10.20.00	1 20.235	1 13.27	1 107.3000	1 110.245	1 2.12/3	103.03	15.05	1 2.5760.84	1.100.00	34052	1 1505.25	1 004.4	493.0	1 200.5	1	1 -14.0		1 205.013	1 201.23

March 9/2017	Waste Flow	WS	****					Air Flows			Temperatu	ures				Pressures			
	Rich	Emulsion	Lean	Alkaline	TDU Flow	TDU Flow	Leachate	Primary	Secondary	Stack	Primary	Secondary	Quench	SprayDrye	Stack	Incinerato	SDA Inlet	SD Outlet	Baghouse
Test 5	FT-229	FT-219C	FT-223	PV-207	FT-313B	FT-313	PV-211	PV-236	PV-209c	FT-260c	TE-240	TE-241	TE-203	TE-204	TE-258	PT-242A	PT-249	PT-615	PDT-622
Max	27.6	14.8	191.2	179.2	4.0	238.7	20.4	26568.9	15707.9	99605.0	1367.3	869.4	498.2	205.0	198.6	-4.0	-49.3	-93.2	298.3
Min	25.1	13.2	186.3	171.3	2.0	119.6	19.1	24889.1	15134.9	92799.0	1345.3	862.9	490.3	199.0	194.1	-36.5	-93.6	-139.9	235.6
Average	26.3	14.0	188.8	176.1	3.1	183.3	20.0	25694.6	15332.4	95727.6	1357.2	866.5	494.1	202.5	196.2	-14.9	-63.7	-110.2	273.4
Variance	0.269004	0.336196	1.163385	2.132202	0.219556	790.4012	0.101161	115996.4	16171.01	2762414	29.37141	2.330628	3.601847	2.35806	0.762191	90.34233	143.171	168.3949	261.1646

Test No. 5		00				-		<b>.</b>		DAG 1
		CO	HCI		H2O	THC	02	Opacity	SO3	PAC
14 Day	مەرمەر بەرمەر	PPM	PPM	%	%	PPM	%	%	PPM	Lbs/h
\$Date	\$Time	AT-205corr		AT-213B	AT-213C	AT-259corp		AT-263	AT-264	SC-PAC-FT
09/03/2017	14:20:00	54.5	46.35	9.29	47.34	9.8	8.97	0.92	430.9 430.9	22.7325 23.70375
09/03/2017	14:21:00 14:22:00	53.3	47.12 46.83	9.34 9.35	47.47 47.59	10.1 9.9	8.88 8.84	0.73	430.9	22.70625
09/03/2017	14:22:00	51.3 49.2	46.83	9.33	47.59	9.9	8.78	0.98	431.7	23.33625
09/03/2017	14:23:00	<u>49.2</u> 52.1	46.72	9.31	47.47	10.3	8.85	0.98	432.6	23.53625
09/03/2017	14:25:00	54.5	46.51	9.32	47.63	9.6		0.62	432.0	
09/03/2017	14:25:00	52.1	46.49	9.25	47.03	9.8	8.97	0.03	434.8	23.6775
09/03/2017	14:27:00	49.5	48.38	9.23	47.12	10.5	9.02	0.02	434.8	23.70375
09/03/2017	14:28:00	48.2	48.28	9.27	47.12	9.7	8.95	0.71	431	23.65125
09/03/2017	14:29:00	49.2	50.09	9.33	47.27	10.7	8.91	0.86	431	23.52
09/03/2017	14:30:00	48.1	51.33	9.32	47.34	9.5	8.88	0.93	432.2	ł
09/03/2017	14:31:00	44.4		9.28	47.38	10.8	8.82	1.15	435.9	
09/03/2017	14:32:00	43.6	51.44	9.3	47.53	10.1	8.85	0.57	435.9	
09/03/2017	14:33:00	44.2	51.25	9.39	47.65	9.9	8.7	0.57	437.9	
09/03/2017	14:34:00	41.6	51.84	9.26	47.27	9.5	8.84	1.48	433.2	
09/03/2017	14:35:00	41.6	52.83	9.29	47.32	10.3	8.93	0.13	437	
09/03/2017	14:36:00	39.8	54.56	9.34	47.49	9.6	ł	0.61	444.4	
09/03/2017	14:37:00	39.5	54.41	9.33	47.52	10.8	ł	0.8		
09/03/2017	14:38:00	42	55.52	9.37	47.64	••••••••••••••••		0.92	÷	
09/03/2017	14:39:00	45.3	55.55	9.3	47.48	10.9	8.86	1.15	440.9	23.52
09/03/2017	14:40:00	49.2	55.29	9.29	47.57	9.5		0.52	438.8	
09/03/2017	14:41:00	52.9	54.04	9.23	47.37	10.5	8.95	0.71	423.8	22.54875
09/03/2017	14:42:00	52.7	53.88	9.21	47.26	9.9	9.07	1.48	419.6	23.4675
09/03/2017	14:43:00	55.4	54.12	9.22	47.5	11	9.12	0.2	420.8	22.785
09/03/2017	14:44:00	57.4	51.96	9.27	47.62	10	8.97	0.7	422.6	22.365
09/03/2017	14:45:00	57.9	51.84	9.28	47.59	10.8	8.94	0.86	422.6	23.4675
09/03/2017	14:46:00	60.2	52.99	9.31	47.51	9.8	8.83	0.95	422.9	23.4675
09/03/2017	14:47:00	58.2	51.47	9.27	47.39	11.5	8.88	1.3	421.4	23.6775
09/03/2017	14:48:00	67.1	48.96	9.35	47.72	9.8	8.88	0.5	431	22.4175
09/03/2017	14:49:00	68.7	47.59	9.35	47.64	10.3	8.75	0.83	433.9	22.575
09/03/2017	14:50:00	58.5	48.03	9.27	47.13	9.7	8.82	0.01	435.5	22.3125
09/03/2017	14:51:00	55	49.15	9.33	47.39	10.1	8.84	0.45	442.2	23.625
09/03/2017	14:52:00		÷			10.3	+	0.8		
09/03/2017	14:53:00	50.2	51.48	9.4	47.64	10.8	8.74	0.95	-f	···
09/03/2017	14:54:00	+	+					1.11		
09/03/2017	14:55:00	<del>{</del>	÷	9.37		10.5				
09/03/2017	14:56:00	4	4	9.41	+			4		
09/03/2017	14:57:00			9.29						
09/03/2017	14:58:00		-{	9.13	+		+	+		
09/03/2017	14:59:00			9.17	· {······					
09/03/2017	15:00:00	·••	÷	9.17	47.51	+	+			·
09/03/2017				+	+	+	+			
09/03/2017	15:02:00								+	
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09/03/2017		+			+	+				
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	+	+	+	÷		+				
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09/03/2017					+					
09/03/2017										
L05/05/201/	1 10.20.00	1 50.4	40.92	1 3.10		<u> </u>	1 0.55	· · · · · · · · · · · · · · · · · · ·	1 427.2	-1 22,040/0

March 9/2017	Analyzers								Flows
	CO	HCI	CO2	H2O	тнс	02	Opacity	SO2	PACFlow
Test 5	AT-205	AT-213A	AT-213B	AT-213C	AT-259	AT-261	AT-263	AT-264	SC-PAC-FT
Max	68.7	55.6	9.4	47.8	11.5	9.2	1.5	457.6	23.7
Min	39.5	45.2	9.1	47.0	8.6	8.6	0.0	413.7	22.3
Average	53.0	49.7	9.3	47.4	10.0	8.9	0.8	430.2	23.0
Variance	46.34613	7.468455	0.006962	0.037186	0.299612	0.016198	0.120619	97.16318	0.256617418

Test No. 6																			
	Rich	Emulsion	Lean	Alkaline	TDU Flow	TDU Flow	Leachate	Primary	Secondary	Stack	Primary	Secondary	Quench	SDA	Stack	Incinerator	SDA Inlet	BH Inlet	BH dP
	LPM	LPM	LPM	LPM	LPM	SCFM	LPM	m3/h	m3/h	m3/h		Degrees C		Degrees C			mmH2O	mmH2O	mmH2O
\$Date \$Time	FT-229		FT-223		FT-313B	FT-313	PV-211	PV-235	PV-209	FT-260C	TE-240	TE-241	TE-203	TE-204	TE-258	PT-242A	PT-249	PT-615	PDT-622
09/03/2017 15:34:00	25.62	13.32	190.08	179.64	3.08125	184.875	20.1	25068.85	15365.23	94003	1372.625	868	495.3	200.5	194.4	-4.5	-48.3	-96.6	292.25
09/03/2017 15:35:00	26.13	13.175	189.7538	177.03	2.98125	178.875	20.1	26299.27	15556.24	97103	1366.875	864.2	496.1	200.5	193.8	-15.95	-64.5	-111.713	
09/03/2017 15:36:00	25.575	12.95	188.145	178.065	3.0625	183.75	20.1	25428.3	15415.79		1368	865.4	497.1	201	194.9	-12.95	-61.85	-106.65	
09/03/2017 15:37:00	26.13	13.14	190.6987	178.425	3.14375	188.625	20.1	25953.65	15342.76	95493 94214	1363.75	865.8	497.4 498	201.5	194.6	-13.55	-63.05	-112.763	256.75
09/03/2017 15:38:00	25.62	13.215 13.2	188.4262 189.2813	176.94 177.165	3.2025	192.15 183.6	20.1	25511.25 25511.25	15230.4 15331.52	95376	1366 1365.875	865.8 865.7	498	202 202.5	195.8 195.7	-10.35	-57.15 -61.05	-104.288	
09/03/2017 15:39:00	26.22	13.2	189.2813	177.165	3.14375	183.625	20.1	25338.44			1365.875	862.5	498.6	202.5	195.7	-12.2	-52.1	-105.338	
09/03/2017 15:41:00	26.01	13.133	190.035	176.13	3.14373	189.825	20.1	25338.44	15224.78	95068	1370.123	866.6	499.4	202.5	195.4	-5.85	-52.75	-99.15	
09/03/2017 15:42:00	25.395	13.275	190.4175	178.38	3.0425	182.55	20.1	25241.66		92954	1374.375	867	499.6	202.5	196.2	-2.75	-48.65	-94.3125	
09/03/2017 15:43:00	26.13	13.325	189.4162	178.335	3.35	201	20.1		15382.08	96494	1369.75	866.8	500.6	202.3	194.9		-48.05	-110.325	
09/03/2017 15:44:00	26.025	13.445	189.99	179.325	3.2225	193.35	20.1	25511.25	15303.43	93992	1371.75	865.5	500.5	203.5	197	-9.4	-58.2	-103.463	
09/03/2017 15:45:00	25.665	13.37	188.145	179.145	3.18	190.8	20.1	25511.25	15533.77	95319	1371.375	865.3	500.8	203.5	195.5	-13.25	-62.65	-108.225	
09/03/2017 15:46:00	26.01	13.185	186.1987	179.235	3.2875	197.25	20.1	25428.3	15314.67	93786	1375.5	866.2	500.8	203.5	196.4	-7.65	-53.95	-101.513	
09/03/2017 15:47:00	25.26	12.975	191.4525	177.615		196.725	20.1	25248.57	15292.2	94356	1372.75	867.4	500.9	203.5	195.4	-7.05	-55.8		
09/03/2017 15:48:00	25.605	13.015	190.3163	177.66	3.20375	192.225	20.1	25248.57	15258.49	94919	1378.75	866.9	501.3	203.5	197.2	-2.55	-48.85	-109.125	
09/03/2017 15:49:00	26.01	13.1	185.8163	177.795	3.22	193.2	20.1	25594.2	15230.4	93945	1374.25	867.2	502.5	204	196	-7.05	-53.3	-100.313	
09/03/2017 15:50:00	25.68	12.94	190.98	176.76	3.27875	196.725	20.1	25248.57	15241.63	96063	1381.375	868	501.9	204	197.3	-13.15	-70.75	-120.75	
09/03/2017 15:51:00	25.665	13.205	190.035	177.615		201.375	20.1	25856.88	15398.94	95267	1376.625	866.6	503.4	204.5	196.1	-12.75	-61.7	-108.263	
09/03/2017 15:52:00	25.35	13.2	186.8175	176.13	3.22875	193.725	20.1	25504.34	15224.78	100218	1378	865.2	503.3	205	197.4	-27.9	-84.5	-129.938	237.75
09/03/2017 15:53:00	25.635	13.075	189.6075	177.525	3.205	192.3	20.1	25511.25	15314.67	95076	1373.875	868.4	504	205.5	197.4	-10.5	-60.2	-105.413	
09/03/2017 15:54:00	25.995	13.045	187.9988	177.075	3.38875	203.325	20.1	25773.92	15370.85	99217	1377.625	865.5	504.5	205.5	197.4	-30.6	-85.75	-135.225	250.6875
09/03/2017 15:55:00	25.32	13.28	188.0437	178.155	f	202.425	20.1	25511.25	15241.63	93344	1373.75	÷	505.1	206	196.6		-55.45	-100.05	283.625
09/03/2017 15:56:00	25.485	13.175	188.235	176.04	3.23375	194.025	20.1	25780.84			1378.75	869.5	504.8	206	197.4		·····	-136.125	
09/03/2017 15:57:00	25.68	13.12	189.7087	177.885	3.405	204.3	20.1	25511.25	15264.11	93717	1378.875	866.7	505.5	206.5	199.6		-49.5	-96.4125	
09/03/2017 15:58:00	25.32	13	186.39	176.535	3.3275	199.65	20.1	26133.38	15528.15		1385.875	865.6	505.1	206	197.4		-86.8	-135.375	
09/03/2017 15:59:00	25.44		188.6175	179.325	3.4275	205.65	20.1	25511.25	15280.96		1378.5		505.3	206	197.7	-10.9		-106.35	
09/03/2017 16:00:00	25.995	13.09		176.67	3.37375	202.425	20.1	26133.38	15511.3		1378.875	863.5	504.5	206	198.2		-88.2	-134.925	
09/03/2017 16:01:00	24.99	13.31	191.9812	178.425	3.42875	205.725	20.1	25594.2	15421.41	96248	1379.625	865.6	504.1	206	198.5	-4.95	-54.15	-100.763	
09/03/2017 16:02:00	25.56	12.905	189.2362	177.075	3.40375	204.225	20.1	26133.38	15511.3		1381.375	867.4	504.1	205.5	198.9	******		-136.05	
09/03/2017 16:03:00	25.44	13.425	186.7163	178.74	3.49625	209.775	20.1	25511.25	15325.9	f	1381.875	866.2	503.8 503.1	205.5	199.4			-100.013	
09/03/2017 16:04:00	25.8 25.29	13.155 13.125	189.7087 190.4175	177.795 179.46	3.39625 3.34875	203.775 200.925	20.1	26133.38 25241.66			1383.875 1383.125	866.5	503.1	205	198.2 198.7		-88.25	-137.063	
09/03/2017 16:05:00	25.29	13.125	189.3713	179.46	3.34875	200.925	20.1	25241.66	15595.57	96836	1385.125	*****	503.8		198.7				
09/03/2017 16:07:00	24.075	13.12	188.9437	178.065	3.455	201.073	20.1	25421.39	15460.74		1375.625		503.2	205	196.8				
09/03/2017 16:08:00	24.615	12.84	187.1437	177.21	3.14375	188.625	20.1	26126.46		95253	1370.5		503.2	205.5	199.2		-69.45	-103.43	
09/03/2017 16:09:00	24.45	13.335	190.2262	179.28	3.5325	211.95	20.1	25511.25	15382.08		1366.5		500.9		198.2	-9.25		-102.075	
09/03/2017 16:10:00	24.735	12.66	186.5812	178.02	3.29375	197.625	20.1	25863.79	15494.44		1363.875		500.2	204	197.7	-17.05		-113.738	
09/03/2017 16:11:00		13.27	186.0525	177.525	3.3225	199.35	20.1	25421.39	15106.8		1364.125		499.4	203.5	197.9				
09/03/2017 16:12:00		12.845	185.535	176.04	3.3325	199.95	20.1				1361.875		498.5	203	197.3		- f		
09/03/2017 16:13:00		12.95	189.6525	178.29	3.47	208.2	20.1	25151.8		93104	1359.5		498	203	197.3				
09/03/2017 16:14:00	23.805	13.055	185.3438	176.4	3.4575	207.45	20.1	26575.77	15589.95	97926	1360	869.9	497.6	202	198	-35.7	-89.7	-133.313	264.8125
09/03/2017 16:15:00	24.495	13.22	184.3088	178.515		201.225	20.1	25863.79			1355.25		497.5	202.5	197.7				
09/03/2017 16:16:00	23.52	13.13	182.7	178.02	3.2225	193.35	20.1	26043.51	15629.28	96415	1351.75	869.6	497	202	196.2	-21.75	-71.45	-116.625	257.625
09/03/2017 16:17:00	24.66	13.155	187.6725	177.975	3.1975	191.85	20.1	25601.11	15337.14		1350.875	866.3	495.7	202	197.6			-104.55	261.8125
09/03/2017 16:18:00	24.57	12.975	185.4	177.12	3.235	194.1	20.1	25946.74	15455.12	95203	1351.25	868	495.5	201.5	196.5	-16.95	-65.8	-109.238	276.625
09/03/2017 16:19:00		13.19	<u> </u>	177.525	3.20625	192.375	20.1	25421.39			1352.875	867.4	495.4	201	196.3				
09/03/2017 16:20:00		12.935	186.5812	176.31	3.2425	194.55	20.1				1350.5	866.6	495.2	201	197			-108.525	
09/03/2017 16:21:00	24.3	13.47		178.965	3.1475	188.85	f	25248.57	15359.61		1351.75		494.6	201	196.5			-96.5625	
09/03/2017 16:22:00	24.84	13.13	187.4363	176.58	3.385	203.1	20.1	26306.19	15522.53		1350.75		494.6	*	195.1			-118.463	
09/03/2017 16:23:00		13.35	188.3363	179.1	3.33875	200.325		25594.2	15359.61		1346.5		494.6	200.5	195.5			-107.85	
09/03/2017 16:24:00	24.24	13.485	191.745	177.615		201.375		26036.6	15398.94		1345.5	866.6	494.9		195.6			-110.625	
09/03/2017 16:25:00	24.21	13.395	189.6525	179.64	3.205	192.3	20.1375	25684.06	15292.2		1344.125		495.7	200.5	195.7			-102.075	
09/03/2017 16:26:00	23.745	13.355	190.2262	178.11	3.355	201.3	20.1375	25863.79			1345.125	1	495.4		196.8	+		-107.025	
09/03/2017 16:27:00	23.865	13.4	189.9	178.11		203.925	20.1375	25511.25	15398.94		1349		495.2	200.5	195.9			-98.8875	
09/03/2017 16:28:00	24.57	13.475	186.5812	178.92		191.775	20.1375	25780.84	15500.06		1348.25		495.6		195.7				
09/03/2017 16:29:00	24.195	13.2	187.7175	178.74		187.05	20.1375	25248.57	15168.6		1351.25		495	200.5	195.5				
09/03/2017 16:30:00	23.985	13.12	192.8363	177.795		196.425	20.1375	26036.6	15449.5		1346.625			200	194.8				
09/03/2017 16:31:00	23.97	13.015	187.4363	178.02		195.225		25684.06	15264.11	93832	1345				196				
09/03/2017 16:32:00	24.255	13.24	188.8088	177.21	3.2125	192.75	20.2125	25601.11	15522.53		1341.875				195.9				
09/03/2017 16:33:00		13.185 13.255	187.245 186.0525	178.695 177.885		194.025		25601.11 25773.92		95407 95423		+	495.1	201	195.7				
05/05/2017) 10:34:00	24.265	1. 13.235	1 100.0525	1 1/1.885	3.20875	192.525	10.9/5	1 23113.92	1 10449.5	95425	1340.575	1 805.2	1	1 201	1.94.3	-14.4	-61.95	-107.813	278.5

March 9/2017	Waste Flo	NS			********			Air Flows			Temperatu	ıres				Pressures			
	Rich	Emulsion	Lean	Alkaline	TDU Flow	TDU Flow	Leachate	Primary	Secondary	Stack	Primary	Secondary	Quench	SprayDryer	Stack	Incinerator	SDA Inlet	SD Outlet	Baghouse
Test 6	FT-229	FT-219C	FT-223	PV-207	FT-3138	FT-313	PV-211	PV-236	PV-209c	FT-260c	TE-240	TE-241	TE-203	TE-204	TE-258	PT-242A	PT-249	PT-615	PDT-622
Max	26.2	13.5	192.8	179.6	3.5	212.0	20.2	26575.8	15629.3	100218.0	1389.8	869.9	505.5	206.5	199.6	-2.6	-48.3	-94.1	294.1
Min	23.5	12.7	182.7	176.0	3.0	178.9	19.0	25068.9	15106.8	92663.0	1340.4	862.5	494.6	200.0	193.8	-35.7	-89.7	-137.7	237.8
Average	25.0	13.2	188.4	177.9	3.3	196.5	20.1	25675.8	15391.0	95419.4	1365.1	866.7	499.4	203.0	196.6	-14.2	-63.0	-110.0	270.2
Variance	0.647374	0.030186	4.065921	0.954911	0.014591	52.52848	0.021849	110494.4	15234.26	2828479	186.119	2.245115	13.58063	4.070765	1.759093	79.66449	133.2066	149.9039	227.6824

		pogeneration and a state of the						-	personal conversion coordinates	
		СО	HCI	CO2	H2O	тнс	02	Opacity	SO3	PAC
		PPM	PPM	%	%	PPM	%	%	PPM	Lbs/h
\$Date	\$Time	AT-205corr	AT-213A	AT-213B	AT-213C	AT-259corp	AT-261	AT-263	AT-264	SC-PAC-FT
09/03/2017	15:34:00	51.1	52.13	9.21	47.31	9.8	8.99	1.15	435.5	23.1525
09/03/2017	15:35:00	49.3	53.66	9.27	47.46	8.9	8.94	0.51	436	22.365
09/03/2017	15:36:00	47.1	52.92	9.25	47.4	9.5	8.85	0.51	433.9	22.365
09/03/2017	15:37:00	45.1	52.42	9.16	47.05	8.6	8.96	1.38	435.3	23.75625
09/03/2017	15:38:00	45.7	52.51	9.17	47.1	9.5	9.07	0.13	438	23.65125
09/03/2017	15:39:00	44.4	53.75	9.22	47.26	8.7	9.06	0.57	442.1	23.65125
09/03/2017	15:40:00	44.5	54.88	9.27	47.41	9.5	8.97	0.63	448.8	23.70375
09/03/2017	15:41:00	44.7	55.42	9.3	47.48	8.4	8.93	0.92	451.6	22.54875
09/03/2017	15:42:00	43.7	55.97	9.27	47.3	10.4	8.94	1.05	450.1	22.49625
09/03/2017	15:43:00	47.6	56.94	9.34	47.59	8.3	8.94	0.48	458.2	23.07375
09/03/2017	15:44:00	48.7	57.33	9.37	47.65	9.3	8.79	0.67	455.7	22,4175
09/03/2017	15:45:00	45	56.84	9.31	47.43	8.1	8.87	1.42	450.6	22.96875
09/03/2017	15:46:00	43	56.91	9.27	47.34	9.4	9		448.9	
09/03/2017	15:47:00	43	57.61	9.32	47.47	9	8.86	0.55	453	
09/03/2017	15:48:00	43.6	57.2	9.34	47.58	8.9		0.67	454.8	
09/03/2017	15:49:00	43.6	56.24	9.35	47.72	9.4		1.02	461.2	
09/03/2017	15:50:00	44.5	56.48	9.37	47.72	10.2			·····	
09/03/2017	15:51:00	44.5	57.18	9.42	47.72	8.7	8.8	0.38		
09/03/2017	15:52:00	45.1	57.68	<u> </u>	47.44	9.4	÷	0.48	462.2	
09/03/2017	15:53:00	41.8	<b>*</b>	9.27	47.35	8.9	÷	1.32	+	+
09/03/2017	15:53:00		58.89	9.27	47.35	10		0.68		
09/03/2017	15:55:00	47.9	59.91	9.32	47.52	8.2	+	0.58	1	
	15:56:00	ł	60.06	9.4		8.5	8.76		472.1	
09/03/2017		48.3	60.08	9.42	47.82	8.3	8.70	0.86		
09/03/2017	15:57:00			+	47.82			+		
09/03/2017	15:58:00	46.3				9.4				······
09/03/2017	15:59:00	48.4			47.81	7.6	÷	+	f	
09/03/2017	16:00:00	47	60.02	9.37	47.69	8				
09/03/2017	16:01:00			9.26	47.3			1.48		
09/03/2017	16:02:00			9.31	47.53	•	+		ł	
09/03/2017	16:03:00			9.34		8.2				
09/03/2017	16:04:00		61.57	9.32	47.68	9			÷	
09/03/2017	16:05:00		ł	9.33	47.69				+	
09/03/2017	16:06:00		f			9.8				
09/03/2017	16:07:00	+			47.98				+	
09/03/2017	16:08:00	+	+	+						
09/03/2017	16:09:00			9.16		9.2		+	+	*****
09/03/2017	16:10:00	4		+			+			
09/03/2017	16:11:00									
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09/03/2017	16:28:00							+	+	
09/03/2017	16:29:00	52.7	59.23	9.18	47.32	9.2	8.92	0.98	3 452	2 23.73
09/03/2017	16:30:00	51.2	58.9	9.17	47.43	8.5	9.01	0.57	451.1	23.54625
09/03/2017	16:31:00	48.3	59.79	9.15	47.35	9.8	9.07	0.55	452.5	23.38875
09/03/2017	16:32:00	48.6	59.69	9.14	47.21	. 8.9	9.13	1.37	455.3	3 23.31
09/03/2017	16:33:00	48.7	59.05	9.11	47.13	9.9	9.2	1.48	455.3	3 22.81125
09/03/2017	16:34:00	46.3	59.6	9.09	47.07	8.9	9.21	0.62	452	2 22.49625

March 9/2017	Analyzers	Analyzers							
	CO	HCI	CO2	H2O	тнс	02	Opacity	SO2	PACFlow
Test 6	AT-205	AT-213A	AT-213B	AT-213C	AT-259	AT-261	AT-263	AT-264	SC-PAC-FT
Max	53.4	62.1	9.5	48.0	10.4	9.3	1.6	483.8	23.8
Min	40.9	52.1	9.0	47.0	7.6	8.7	0.1	433.2	22.3
Average	46.6	58.8	9.2	47.4	9.0	8.9	0.8	453.5	23.1
Variance	9.40894	6.668703	0.011235	0.047451	0.353279	0.024849	0.135633	143.4818	0.21887826