

TEST REPORT

COMPLIANCE EMISSION TEST PROGRAM

SRU NO. 2 TAILGAS INCINERATOR: EPN SRU2-INCIN

TCEQ AIR PERMIT NO. 2937 AND PSD-TX-1023M1

TCEQ ACCOUNT NO. NE-0043-A

REGULATED ENTITY NO. RN100211663

VALERO REFINING – TEXAS, L.P. CORPUS CHRISTI, TEXAS

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Valero P.O. No. 4501908488
Test Dates: May 6 and 7, 2010



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REPORT CERTIFICATION

STATEMENT OF CONFORMANCE AND TEST REPORT CERTIFICATION

I certify, to the best of my knowledge, that this test program was conducted in a manner conforming to the criteria set forth in ASTM D 7036-04: Standard Practice for Competence of Air Emission Testing Bodies, and that project management and supervision of all project related activities were performed by qualified individuals as defined by this practice.

I further certify that this test report and all attachments were prepared under my direction or supervision in accordance with the ARI Environmental, Inc. quality management system designed to ensure that qualified personnel gathered and evaluated the test information submitted. Based on my inquiry of the person or persons who performed the sampling and analysis relating to this performance test, the information submitted in this test report is, to the best of my knowledge and belief, true, accurate, and complete.

A handwritten signature in cursive script, appearing to read 'Bill Pearce', is written above a horizontal line.

Bill Pearce, QSTI
Senior Project Manager, Source Testing Division
ARI Environmental, Inc.

A handwritten signature in cursive script, appearing to read 'Greg Burch', is written above a horizontal line.

Greg Burch, QSTI
South Central Regional Manager, Source Testing Division
ARI Environmental, Inc.



SECTION ONE

Introduction and Summary

ARI Environmental, Inc. (ARI) was retained by Valero Refining - Texas, L.P. (Valero) to conduct a compliance emission test program on the SRU No. 2 Tailgas Incinerator at the East Plant of Valero's Bill Greehey Refinery located in Corpus Christi, Texas.

Compliance testing at the SRU No. 2 Tailgas Incinerator exhaust was conducted to determine the concentrations and mass emission rates of particulate matter (PM), sulfur dioxide (SO₂), nitrogen oxides (NO_x), carbon monoxide (CO), hydrogen sulfide (H₂S), carbonyl sulfide (COS), carbon disulfide (CS₂) and reduced sulfur compounds (RSC) as H₂S. The test program followed the regulatory requirements and sampling procedures listed below:

- Code of Federal Regulations, Title 40, Part 51 (40 CFR 51), Appendix M, Method 205.
- 40 CFR 60, Appendix A, Methods 1-5, 6C, 7E, 10 and 15.
- 40 CFR 60, Subpart J, Standards of Performance for Petroleum Refineries.
- Quality Assurance Handbook for Air Pollution Measurement Systems, Volume III, Stationary Source Specific Methods.
- Texas Commission on Environmental Quality (TCEQ) Sampling Procedures Manual.
- TCEQ Laboratory Methods Manual, Method 23

Under the direction of Mr. Bill Pearce, the ARI field test team consisted of Messrs. Zack McCain, Brian Johnson and Jeff Goldfine. Mr. Ralph Horton of Valero coordinated the test activities with plant operations and provided process data to ARI for inclusion in this report. The test program was performed on May 6 and 7, 2010. Each run consisted of the following parameters:

- One - 180-minute run for moisture, volumetric flow and PM
- One - 240-minute run for H₂S and RSC
- Four - 60-minute runs for O₂, CO₂, SO₂, NO_x and CO

The first run was considered invalid due to equipment failure, therefore four test runs were performed.

The results of the compliance test program are summarized in Table 1-1.



SECTION ONE

Introduction and Summary

TABLE 1-1. SUMMARY OF SRU NO. 2 TAILGAS INCINERATOR COMPLIANCE TEST RESULTS

RUN NO. :	SRU2-2	SRU2-3	SRU2-4		
TEST DATE :	5/6/2010	5/6/2010	5/7/2010	<u>Average</u>	<u>Allowable</u>
TEST TIME :	<u>13:15 - 17:21</u>	<u>17:55 - 21:55</u>	<u>08:20 - 12:28</u>		
Particulate Matter lb/hr	1.25	1.15	0.99	1.13	
Sulfur Dioxide lb/hr	5.983	5.597	5.635	5.738	
Nitrogen Oxides as NO₂ lb/hr	0.585	0.501	0.549	0.545	
Carbon Monoxide lb/hr	0.849	0.044	0.717	0.537	
Hydrogen Sulfide lb/hr	< 0.043	< 0.042	< 0.044	< 0.043	
Carbonyl Sulfide lb/hr	< 0.040	< 0.038	< 0.040	< 0.039	
Carbon Disulfide lb/hr	< 0.048	< 0.047	< 0.050	< 0.048	
RSC as H₂S ppmv db @ 3% O ₂	< 1.90	< 1.84	< 1.79	< 1.84	5
lb/hr	< 0.108	< 0.105	< 0.111	< 0.108	
Firebox Temperature °F	1,471	1,487.2	1,516.8	1,491.7	>1,200
Stack Oxygen Content % by vol db	2.83	2.36	2.23	2.47	>3.0

Values represented as less than are calculated by using the analytical detection limit. If these constituents were present in the exhaust gas stream, they existed at concentrations and mass emission rates below the reported values.



SECTION TWO

Testing and Analytical Procedures

2.1 OVERVIEW

ARI conducted a compliance emission test on the SRU No. 2 Tailgas Incinerator exhaust at Valero's East Plant of the Bill Greehey Refinery located in Corpus Christi, Texas. The purpose of the test program was to determine various pollutant concentrations and mass emission rates to atmosphere. Three 4-hour test runs were conducted on May 6 and 7, 2010.

Test methods followed those as detailed in 40 CFR 60, Appendix A, Methods 1-5, 6C, 7E, 10 and 15; and 40 CFR 51, Appendix M, Method 205 as detailed in Table 2-1.

TABLE 2-1. USEPA TEST METHODS

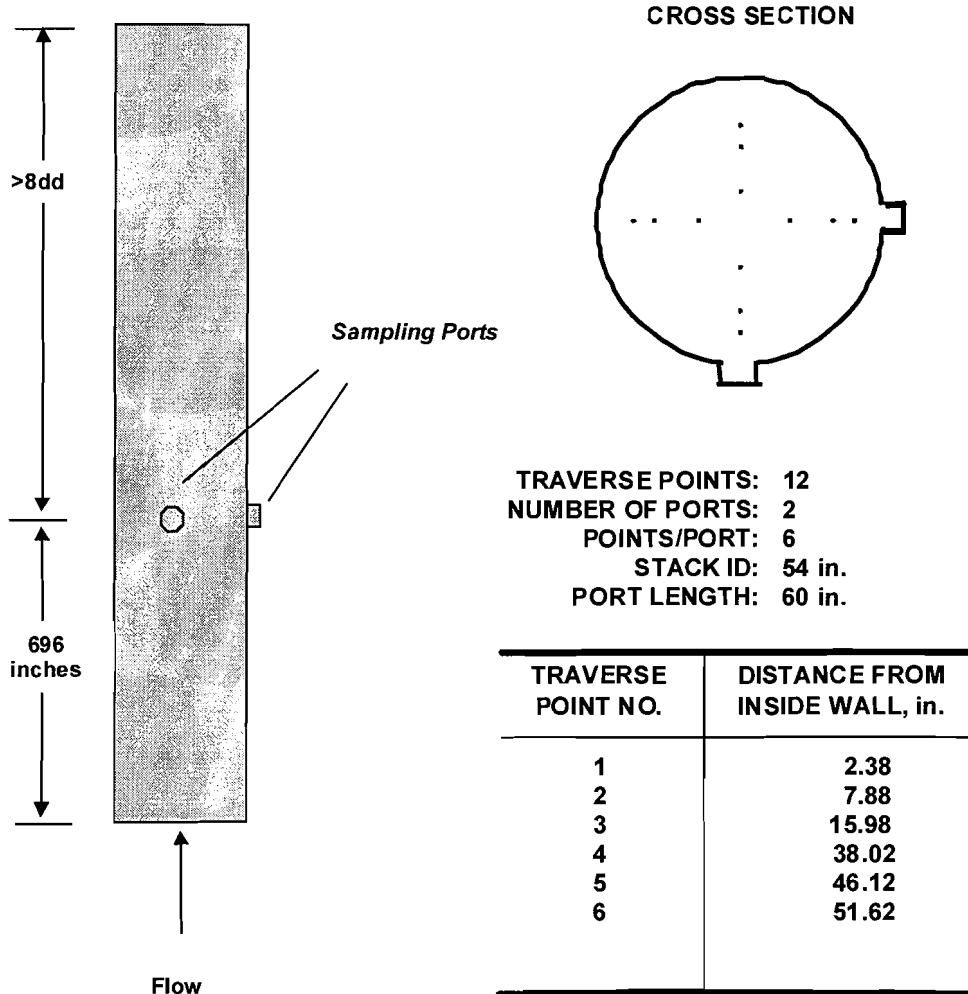
USEPA Method	Description
1	Sample and Velocity Traverses for Stationary Sources
2	Determination of Stack Gas Velocity and Volumetric Flow Rate (Type S Pitot Tube)
3A	Determination of Oxygen and Carbon Dioxide Concentrations in Emissions from Stationary Sources (Instrumental Analyzer Procedure)
4	Determination of Moisture Content in Stack Gases
5	Determination of Particulate Matter Emissions from Stationary Sources
6C	Determination of Sulfur Dioxide Emissions from Stationary Sources (Instrumental Analyzer Procedure)
7E	Determination of Nitrogen Oxides Emissions from Stationary Sources (Instrumental Analyzer Procedure)
10	Determination of Carbon Monoxide Emissions from Stationary Sources
15	Determination of Hydrogen Sulfide, Carbonyl Sulfide and Carbon Disulfide Emissions from Stationary Sources
205	Verification of Gas Dilution Systems for Field Instrument Calibrations

2.2 USEPA METHOD 1 - SAMPLE AND VELOCITY TRAVERSE LOCATIONS

Sampling at the incinerator exhaust was conducted using the two 4-inch diameter sampling ports provided on the exhaust duct. The sampling port locations on the 54-inch diameter duct are located more than 8 duct diameters upstream and approximately 696 inches (12.9 duct diameters) downstream from the nearest flow disturbances. The sampling point locations were determined following USEPA Method 1 procedures. Specifically, six sampling points were used for each sample port for a total of twelve sampling points as presented in Figure 2-1. A pre-test cyclonic flow check was performed prior to the pollutant sampling and the average angle of flow was measured at less than 20 degrees.

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**FIGURE 2-1. VALERO REFINING – TEXAS L.P.
 SRU NO. 2 TAILGAS INCINERATOR EXHAUST SAMPLING LOCATION**



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2.3 USEPA METHOD 2 – VELOCITY AND VOLUMETRIC FLOW RATE DETERMINATION

Velocity traverses were performed using a Type “S” Pitot tube with the velocity head pressure measured on a Dwyer oil gauge inclined manometer to the nearest 0.01 in. H₂O. Temperature measurements in the ducts were performed with a Chromel-Alumel thermocouple connected to a digital direct read-out potentiometer.

2.4 USEPA METHOD 3A - CO₂, O₂ AND MOLECULAR WEIGHT DETERMINATION

The molecular weight of the stack gas was determined following USEPA Method 3A. Specifically, for each sampling run, the exhaust gas was analyzed for carbon dioxide (CO₂), oxygen (O₂) and nitrogen (N₂) (by difference) using the analyzers described in Subsection 2.7.

2.5 USEPA METHOD 4 – STACK GAS MOISTURE CONTENT

Stack gas moisture determination was conducted in accordance with USEPA Method 4 procedures and in conjunction with the USEPA Method 5 sampling train. Specifically, stack gas was extracted at an isokinetic rate through a series of chilled impingers. The first two impingers contained deionized/distilled water, the third was initially empty and the final impinger contained silica gel for final water vapor removal. Total moisture collected was determined based upon the weight gains of impingers one through four. Stack gas moisture was determined from the weight of water vapor condensed from the stack gas and the standard volume of gas sampled.

2.6 USEPA METHOD 5/TCEQ 23 - PARTICULATE MATTER DETERMINATION

The sampling procedures for this test program were those described in USEPA Method 5 and TCEQ Method 23. The front half filter catch was analyzed for particulate in accordance with USEPA Method 5 and TCEQ 23 using an Apex Instruments, Inc. particulate sampling train. The back half impinger catch was analyzed for particulate in accordance with TCEQ Method 23 procedures for condensible particulate determination. Analysis of the collected samples was performed by ARI's laboratory located in Wauconda, Illinois (Texas NELAP Certificate No. T104704428-08A-TX). Three 180-minute sample runs were conducted.

2.6.1 Sampling Apparatus

The particulate sampling train, as shown in Figure 2-2, used at the exit stack during the test program met the design specifications established by the USEPA. The sample train consisted of the following:

Nozzle – Inconel (300 grade) with sharp, tapered, leading edge and accurately measured round opening.

Probe – Inconel (300 grade) outer sheath with a 5/8-in. O.D. titanium inner liner for sample transport.

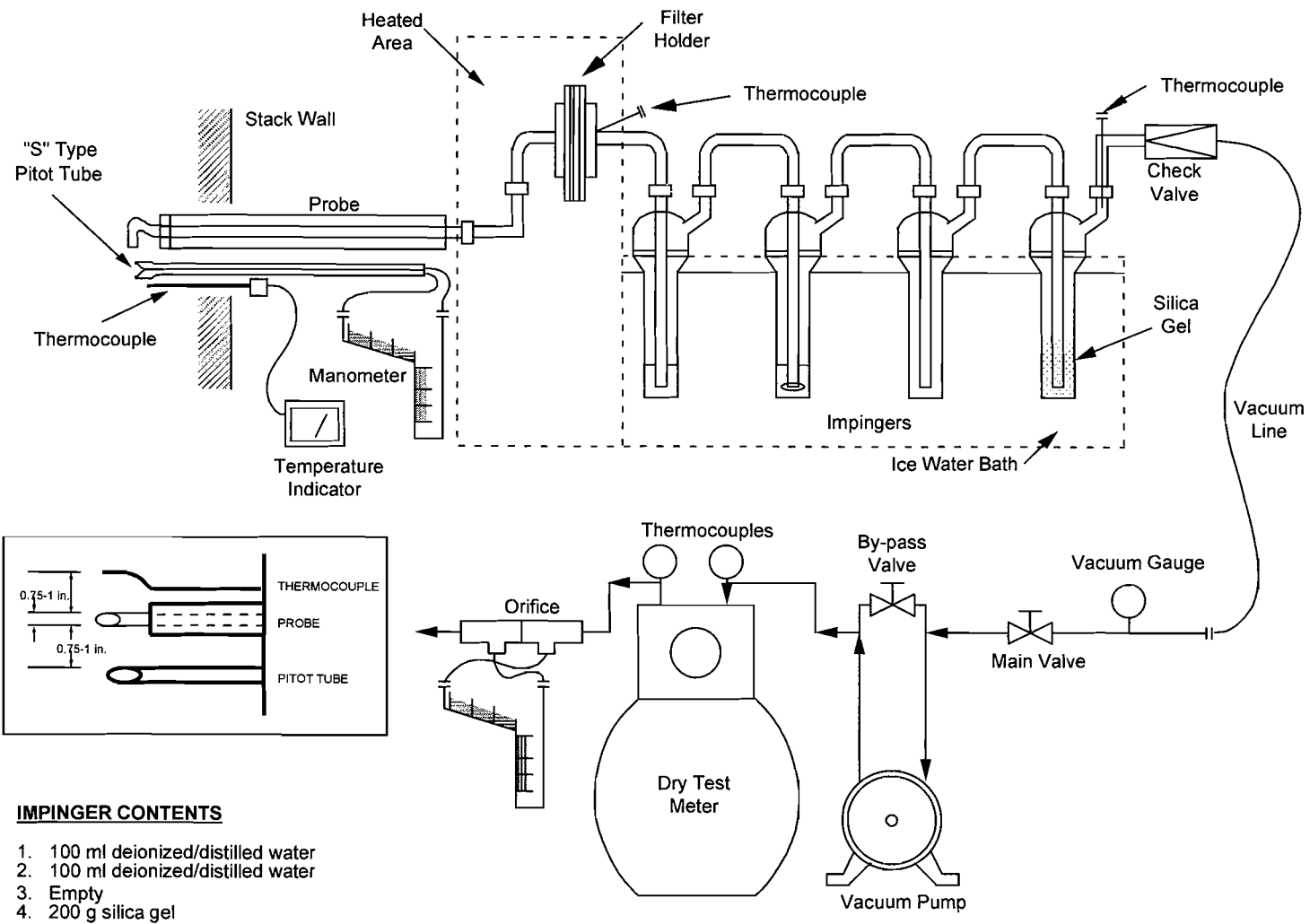


FIGURE 2-2. USEPA METHOD 5/TCEQ 23 PARTICULATE MATTER SAMPLING TRAIN



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Pitot Tube - A Type-S Pitot tube that meets all geometric standards; attached to the probe to monitor stack gas velocity.

Filter Holder - Borosilicate glass with a heating system capable of maintaining a filter temperature of $248^{\circ}\text{F} \pm 25^{\circ}\text{F}$. A thermocouple is placed in the back-half of the filter support in direct contact with the sample stream.

Filter - Fisher Brand G6 quartz-fiber, 4-in. diameter.

Draft Gauge - A dual-inclined manometer made by Dwyer with a readability of 0.01 in. H_2O in the 0 to 1-in. range and 0.1 in. H_2O in the 1 to 10-in. range.

Impingers - Four impingers connected in series with glass ball joints. The second impinger was of the Greenburg-Smith design. The first, third and fourth impingers were of the Greenburg-Smith design but modified by replacing the tip with a 1/2-in. i.d. glass tube extending to 1/2-in. from the bottom of the flask.

Metering System - Vacuum gauge, leak-free pump, thermometers capable of measuring temperature to within 5°F , dry gas meter with 2 percent accuracy, and related equipment to maintain an isokinetic sampling rate and to determine sample volume.

Barometer - Aneroid type to measure atmospheric pressure to ± 0.1 in. Hg.

2.6.2 Sampling Procedures

The sample train was assembled as shown in Figure 2-2. Glass-fiber filters were initially desiccated for at least 24 hours and weighed to the nearest 0.1 mg on an analytical balance. One hundred milliliters (mL) of deionized/distilled water were placed in each of the first two impingers; the third impinger was initially empty; and the fourth impinger contained approximately 200 grams of silica gel. The sampling train was leak-checked at the sampling site prior to each test run by plugging the inlet to the nozzle and pulling a 15-in. Hg vacuum; and at the conclusion of the test, by plugging the inlet to the nozzle and pulling a vacuum equal to at least the highest vacuum reached during the test run.

The pitot tube and lines were leak-checked at the test site prior to and at the conclusion of each test run. The check was made by blowing into the impact opening of the pitot tube until 3 or more inches of water was recorded on the manometer and then capping the impact opening and holding it for 15 seconds to assure it was leak-free. The negative pressure side of the pitot tube was leak-checked by the same procedure, except suction was used to obtain the 3-in. H_2O manometer reading. Crushed ice was placed around the impingers to keep the temperature of the gases leaving the last impinger at 68°F or less.

During sampling, stack gas and sampling train data were recorded and isokinetic sampling rates were set at each sampling point. All sampling data was recorded on the field data sheets provided in Appendix B.

The sample ports were located on a circular horizontal duct that required the sampling probe to access the duct horizontally from the side and vertically from the top. This required the probe and



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filter holder assembly to be disassembled and reassembled at port change. A port change sample train leak check was performed prior to disassembly and again after reassembly.

2.6.3 Sample Recovery Procedures

After sampling was completed, the sampling train was then moved carefully from the test site to the recovery area. The sample fractions were recovered as follows:

Container 1 - The filter holder was sealed.

Container 2 - Loose particulate and acetone washings from all sample-exposed surfaces prior to the filter were placed in a glass bottle, sealed, and labeled. Particulate was removed from the probe with the aid of a brush and acetone rinsing. The liquid level was marked after the container was sealed.

Container 3 - The contents of the first three impingers were measured volumetrically and recorded on the field data sheet. The contents and subsequent H₂O rinse of the impingers and connecting glassware were placed in a polyethylene jar.

The silica gel from the fourth impinger was weighed, and this value was recorded on the field data sheet. An unused filter, acetone and distilled water were taken as blanks.

2.6.4 Analytical Procedures

The analytical procedures followed were those described in USEPA Method 5 and TCEQ 23.

Container 1 - The filter and any loose PM from this sample container were placed in a tared glass weighing dish, placed in a desiccator for 24 hours and weighed to a constant weight to the nearest 0.1 mg.

Container 2 - The acetone washings were transferred to a tared beaker and evaporated to dryness at ambient temperature and pressure. The contents were placed in a desiccator for 24 hours and weighed to a constant weight to the nearest 0.1 mg.

Container 3 - The impinger contents and associated rinse were transferred to a tared beaker and evaporated to dryness on a hot plate by heating to 95°C. Once dryness was achieved, the beaker and the contents were placed in a desiccator for 24 hours and weighed to a constant weight to the nearest 0.1 mg.

The filter, acetone and water blanks were analyzed in the same way as their respective sample fractions.

The term "constant weight" means a difference of no more than 0.5 mg or 1 percent of the total weight less tare weight, whichever is greater between two consecutive readings, with no less than 6 hours of desiccation between weighings.



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2.7 USEPA METHODS 3A, 6C, 7E AND 10 - O₂, CO₂, SO₂, NO_x AND CO

Sampling for O₂, CO₂, SO₂, NO_x and CO was performed following procedures from USEPA Methods 3A, 6C, 7E and 10. ARI's gaseous reference method (RM) sampling system consisted of a heated probe with an in-stack filter followed by a calibration tee connected to a heated Teflon sample line. The Teflon sample line was used to transport sample to an electronic sample conditioner (Universal Analyzer Model No. 3082) to condition the sample by cooling and removing moisture. A sample manifold was connected to the exhaust side of the sample conditioner with intake lines for ARI's O₂, CO₂, SO₂, NO_x and CO analyzers as presented in Figure 2-3.

USEPA Method 3A was used for RM sampling of O₂ and CO₂ using ARI's Servomex Model 1440 combination analyzer. For the analysis of O₂ in the sample stream, a paramagnetic detector was utilized. For the measurement of CO₂, a non-dispersive infrared detector was utilized. USEPA Method 6C was used for RM sampling of SO₂ using ARI's Bovar Western Research Model 721-ATM non-dispersive ultraviolet SO₂ analyzer. USEPA Method 7E was used for RM sampling of NO_x using ARI's California Analytical Instruments Model 600 chemiluminescent analyzer. USEPA Method 10 was used for CO analysis of the sample stream using ARI's Thermo Environmental Instruments, Inc. Model 48i gas filter correlation infrared analyzer.

Prior to the test, initial calibration error checks were performed for each constituent using zero gas (N₂), followed by high and mid level standards prepared from an EPA Protocol standard diluted with N₂ following the procedures from USEPA Method 205 as detailed in Subsection 2.9. The analyzer response for each calibration gas introduced was less than 2% of the corresponding span value as determined by the span gas concentration.

Following the calibration error test and prior to sampling, a NO₂ converter test was performed using a certified NO₂ standard of approximately 50 ppm. The results were within 10% of the cylinder certified concentration.

Immediately before and after each test run, system bias checks were performed for each RM analyzer. This bias check consisted of introducing calibration gases into the sample system at a calibration tee placed between the sample probe and the heated sample line. The sample gas was introduced at a rate slightly higher than the sample rate to ensure excess gas flows out the tip of the probe, preventing stack gas from entering the sample system during calibrations. System bias checks were performed using a zero gas and either the mid or span level calibration gas (whichever is closer to the actual stack gas concentrations).

The pre-test and post-test system bias results were within the 5% of span allowed for each calibration gas. The system bias results were also used to calculate system drift during each run. The drift test results were within the 3% of span allowed for each test run.

Prior to the first run, response times were determined upscale and downscale for each analyzer. The start of each run was delayed for a period of at least twice the length of the longest response time following calibrations.

Data was recorded and archived on ARI's data acquisition system consisting of a data recorder/logger linked to a computer for digital data archives and reduction. All calibration data,

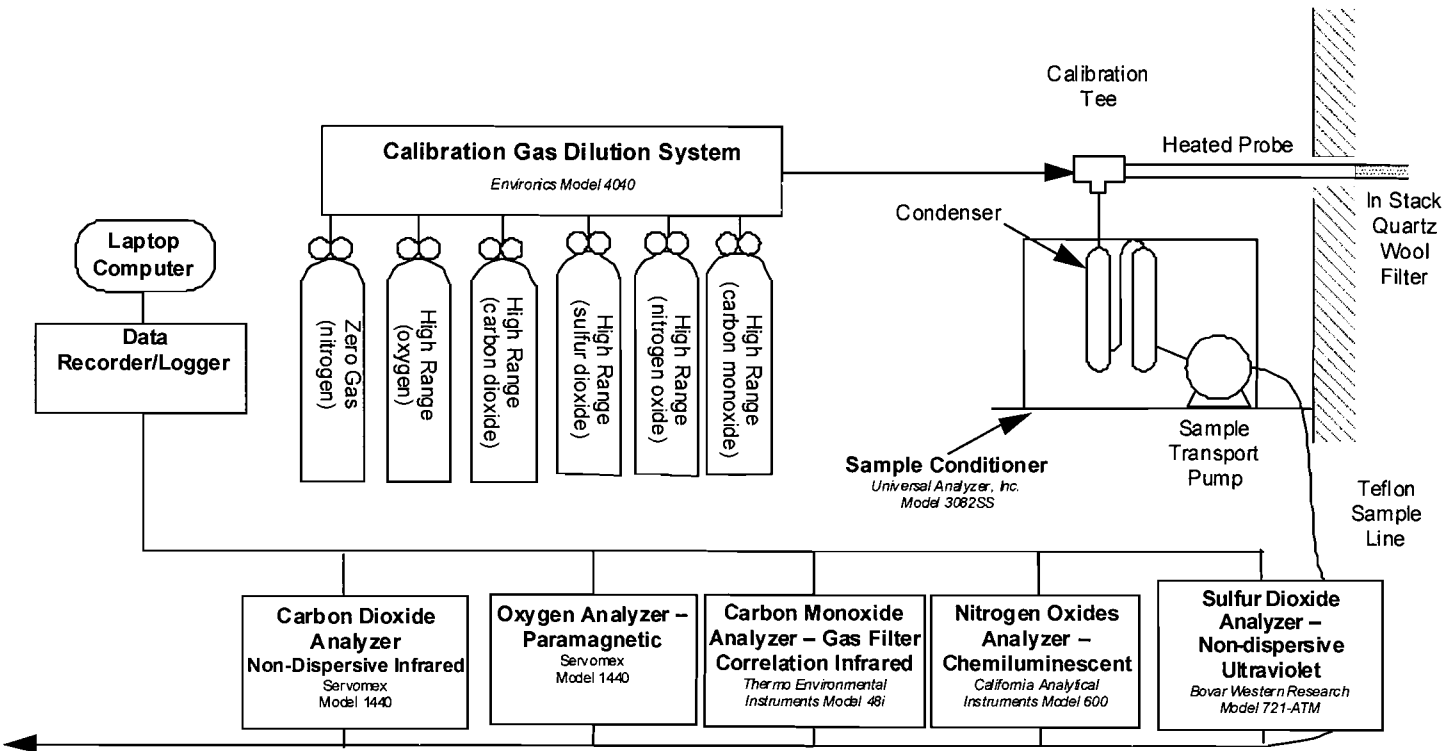


FIGURE 2-3. ARI REFERENCE METHOD O₂, CO₂, SO₂, NO_x AND CO SAMPLING SYSTEM



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including calibration gas specifications, calibration span values, recorded responses, and certifications relevant to this test program are presented in the appendices of this report.

All calibration gases were certified by USEPA Protocol 1 procedures. ARI's Environics Model 4040 Gas Dilution System introduced calibration gases to the analyzers. The gas dilution system was determined to be acceptable following the procedures described in USEPA Method 205. The procedures and results are discussed in Subsection 2.9.

2.8 USEPA METHOD 15 – COS, CS₂ AND H₂S

Determination of RSC was conducted in accordance with USEPA Method 15 using a gas chromatograph (GC) for separation of sulfur compounds and measurement by a flame photometric detector (FPD).

Modifications and improvements to USEPA Method 15 during the testing included the following:

1. No sample dilution was required (GC range ~50 ppm RSC)
2. USEPA Protocol 1 calibration gases were used to calibrate the GC (no permeation tubes used)
3. During pre and post-test calibrations, gas standards were injected through the entire sample transport system. Therefore, a line loss study was not applicable.

The RSC gas sampling system consisted of a heated glass lined probe connected to a heated Teflon sampling line. The exhaust gas was then conveyed through a series of Teflon impingers located on the sampling platform containing a citrate buffer solution to remove SO₂ from the sample stream.

A Teflon lined sample pump transported the sample through 0.375-inch OD Teflon tubing to the ARI monitoring trailer located at grade approximately 25 feet from the sampling location. The sample was transported to a manifold system at a flow rate of approximately 3 liters per minute from which a sample was introduced to the GC-FPD.

The GC-FPD system consisted of an SRI Model 9300B field GC containing a heated gas sampling valve, column oven and detector. A computer based integrator utilizing Peak Simple W95 software was used for data acquisition and integration.

The GC-FPD was calibrated with a USEPA Protocol 1 RSC gas standard obtained from Specialty Gas Products. The gas standard was generated using an Environics Model 4040 Gas Dilution System. The dilution system was verified onsite in accordance with USEPA Method 205 (see Subsection 2.9).

The RSC results were converted to equivalent H₂S concentration in parts per million (ppmv) using the following equation:

$$\sum H_2S = COS + H_2S + 2CS_2$$

During each compliance test run, there were 18 injections to the GC-FPD.



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2.9 USEPA METHOD 205 - GAS DILUTION SYSTEM VERIFICATION

All diluted calibration standards were prepared using an Environics Model 4040 Gas Dilution System, which was verified by a field evaluation at the job site prior to testing following the requirements of USEPA Method 205.

ARI's Servomex Model 1440 paramagnetic O₂ gas analyzer was calibrated following USEPA Method 3A procedures. After the calibration procedure was complete, diluted mid and high range standards and a mid-range USEPA Protocol 1 standard were alternately introduced in triplicate and an average instrument response was calculated for each standard. No single response differed by more than $\pm 2\%$ from the average response for each standard.

The difference between the instrument average and the predicted concentration was less than $\pm 2\%$ for each diluted standard. The difference between the certified gas concentration and the average instrument response for the mid-range USEPA Protocol 1 standard was less than $\pm 2\%$. Complete documentation of the USEPA Method 205 Gas Dilution System Verification is presented in Appendix E.



SECTION THREE

Results

The data collected for the compliance emission testing on the SRU No. 2 Tailgas Incinerator exhaust is presented in Table 3-1.

Appendix A presents example calculations and computer generated printouts of calculated values from the field data. Appendix B presents the field data. The analytical data is presented in Appendix C. Appendix D contains the 15-second interval data recorded from each of ARI's reference method analyzers. Appendix E presents the calibration data and cylinder gas certification sheets. The data supplied by plant personnel for the process operating levels are presented in Appendix F. Appendix G presents test program qualifications. Appendix H presents the compliance tables.

It should be noted that the post test NO_x system bias on Run No. SRU2-4 did not meet the accepted QA/QC specification criteria. ARI believes this was not a mechanical issue with the analyzer or sample transport system. ARI believes operator error was involved with the amount of time allocated to the injection of calibration gas. Reviewing the reference method monitoring data, the NO_x analyzer data shows the analyzer had not yet stabilized. Data presented in Table 3-1 reflects data using actual pre and post system bias data. Data is also calculated and presented in Appendix A using only the post cal data. SRU2-4 NO_x results are consistent with the previous two 4-hour runs. The average NO_x emission is 0.545 lbs/hr. The projected permitted limit is 2.2 lbs/hr.



SECTION THREE

Results

TABLE 3-1. SRU NO. 2 TAILGAS INCINERATOR TEST RESULTS

Company :	Valero Refining - Texas, L.P.			
Location :	Corpus Christi, Texas			
Source :	SRU No. 2 Tailgas Incinerator			
Operators :	B. Pearce, J. Goldfine, Z. McCain, B. Johnson			
Test Run :	SRU2-2	SRU2-3	SRU2-4	
Test Date :	5/6/2010	5/6/2010	5/7/2010	
Test Time :	<u>13:15 - 17:21</u>	<u>17:55 - 21:55</u>	<u>08:20 - 12:28</u>	<u>Average</u>

PROCESS DATA

TGI Firebox Temperature, °F	1,471.0	1,487.2	1,516.8	1,491.7
Sulfur Production, ltpd (calculated)	187.9	187.9	191.0	188.9

STACK GAS PARAMETERS

Temperature, av. °F	1,437.0	1,445.2	1,501.6	1,461.3
Velocity, ft/sec	47.89	46.91	50.68	48.49
Volume flow, acfm	45,696	44,768	48,364	46,276
Volume flow, scfh	756,497	737,954	775,612	756,688
Volume flow, dscfh	653,102	634,999	668,932	652,345
Moisture, % vol	13.67	13.95	13.75	13.79
CO ₂ , % vol, db	5.46	5.46	6.13	5.68
O ₂ , % vol, db	3.43	2.82	2.29	2.84

PARTICULATE MATTER

Sample Volume, dscf	128.830	125.503	131.548	
% Isokinetic	100.2	100.1	99.6	
Filterable Particulate, mg	30.4	10.8	12.3	
Condensable Particulate, mg	81.4	92.2	75.8	
Total Particulate, mg	111.8	102.9	88.0	
Total Concentration				
gr/dscf	0.013	0.013	0.010	0.012
lb/dscf x 10 ⁻⁶	1.914	1.809	1.475	1.733
Total Emission rate				
lb/hr	1.25	1.15	0.99	1.13

NITROGEN OXIDES as NO₂

Concentration				
ppmv db	7.5	6.6	6.9	7.0
lb/dscf x 10 ⁻⁶	0.896	0.789	0.821	0.835
Emission rate				
lb/hr	0.585	0.501	0.549	0.545



SECTION THREE

Results

TABLE 3-1 (CONTINUED). SRU NO. 2 TAILGAS INCINERATOR TEST RESULTS

Test Run	:	SRU2-2	SRU2-3	SRU2-4	
Test Date	:	5/6/2010	5/6/2010	5/7/2010	
Test Time	:	<u>13:15 - 17:21</u>	<u>17:55 - 21:55</u>	<u>08:20 - 12:28</u>	<u>Average</u>
<u>CARBON MONOXIDE</u>					
Concentration					
ppmv db		17.9	1.0	14.8	11.2
lb/dscf x 10 ⁻⁶		1.299	0.070	1.072	0.814
Emission rate					
lb/hr		0.849	0.044	0.717	0.537
<u>SULFUR DIOXIDE</u>					
Concentration					
ppmv db		55.1	53.0	50.7	52.9
lb/dscf x 10 ⁻⁶		9.160	8.814	8.424	8.799
Emission rate					
lb/hr		5.983	5.597	5.635	5.738
<u>CARBONYL SULFIDE</u>					
Concentration					
ppmv db		< 0.39	< 0.39	< 0.39	< 0.39
lb/dscf x 10 ⁻⁶		< 0.060	< 0.060	< 0.060	< 0.060
Emission rate					
lb/hr		< 0.040	< 0.038	< 0.040	< 0.039
<u>CARBON DISULFIDE</u>					
Concentration					
ppmv db		< 0.38	< 0.38	< 0.38	< 0.38
lb/dscf x 10 ⁻⁶		< 0.074	< 0.074	< 0.074	< 0.074
Emission rate					
lb/hr		< 0.048	< 0.047	< 0.050	< 0.048
<u>HYDROGEN SULFIDE</u>					
Concentration					
ppmv db		< 0.74	< 0.74	< 0.74	< 0.74
lb/dscf x 10 ⁻⁶		< 0.065	< 0.065	< 0.065	< 0.065
Emission rate					
lb/hr		< 0.043	< 0.042	< 0.044	< 0.043
<u>RSC as H₂S</u>					
Concentration					
ppmv db @ 3% O ₂		< 1.90	< 1.84	< 1.79	< 1.84
ppmv db		< 1.88	< 1.88	< 1.88	< 1.88
lb/dscf x 10 ⁻⁶		< 0.166	< 0.166	< 0.166	< 0.166
Emission rate					
lb/hr		< 0.108	< 0.105	< 0.111	< 0.108



Valero Refining - Texas L.P.
Source: SRU No. 2 Tailgas Incinerator
Test Dates: May 6 and 7, 2010

APPENDIX A

Calculation Summaries

MONITOR DATA SUMMARY

COMPANY : Valero Refining - Texas, L.P.
SOURCE : SRU No. 2 TGI Exhaust
REPETITION : SRU-2
TEST DATE : 5/6/2010
START TIME : 13:15
END TIME : 17:21

GAS ANALYZER

NO_x

SCALE : 0 - 90.0 ppm
AVERAGE CAL. BIAS (C_m): 44.56
AVERAGE ZERO BIAS (C_o): 0.31

CALIBRATION GAS: EPA Protocol NO_x
CALIBRATION PPM (C_{ma}): 45.0
PPM CORRECTED (C_{gas}): 7.5

GAS ANALYZER

CO

SCALE : 0 - 88.3 ppm
AVERAGE CAL. BIAS (C_m): 43.57
AVERAGE ZERO BIAS (C_o): 1.60

CALIBRATION GAS: EPA Protocol CO
CALIBRATION PPM (C_{ma}): 44.2
PPM CORRECTED (C_{gas}): 17.9

GAS ANALYZER

O₂

SCALE : 0 - 10.00 %
AVERAGE CAL. BIAS (C_m): 4.930
AVERAGE ZERO BIAS (C_o): 0.006

CALIBRATION GAS: EPA Protocol O₂
CALIBRATION PPM (C_{ma}): 5.00
PPM CORRECTED (C_{gas}): 3.43

GAS ANALYZER

CO₂

SCALE : 0 - 8.65 %
AVERAGE CAL. BIAS (C_m): 4.265
AVERAGE ZERO BIAS (C_o): 0.049

CALIBRATION GAS: EPA Protocol CO₂
CALIBRATION % (C_{ma}): 4.32
% CORRECTED (C_{gas}): 5.46

GAS ANALYZER

SO₂

SCALE : 0 - 90.0 ppm
AVERAGE CAL. BIAS (C_m): 43.37
AVERAGE ZERO BIAS (C_o): 2.32

CALIBRATION GAS: EPA Protocol SO₂
CALIBRATION ppm (C_{ma}): 45.0
PPM CORRECTED (C_{gas}): 55.08

Example Calculation =

$$C_{gas} = \left(\bar{C} - C_o \right) \frac{C_{ma}}{C_m - C_o}$$

NO_x, ppm @ 0% O₂ = 9.0
CO, ppm @ 0% O₂ = 21.4
SO₂, ppm @ 0% O₂ = 65.9

$$C_{gas} @ 0\% O_2 = C_{gas} \frac{20.9}{20.9 - O_2}$$

CLOCK TIME	ELAPSED TIME	Uncorrected				
		O ₂ % vol db	CO ₂ % vol db	SO ₂ ppmv db	NO _x ppmv db	CO ppmv db
13:15	0	-----	-----	-----	-----	-----
13:16	1	3.13	5.59	52.61	7.77	1.98
13:17	2	3.21	5.57	53.33	7.74	0.39
13:18	3	3.27	5.49	53.29	7.68	0.67
13:19	4	3.36	5.40	52.06	7.57	3.27
13:20	5	3.37	5.39	52.12	7.82	5.15
13:21	6	3.22	5.58	52.28	7.71	0.44
13:22	7	3.17	5.57	54.38	8.42	0.14
13:23	8	3.22	5.53	54.99	7.53	0.92
13:24	9	3.27	5.47	53.44	7.40	1.79
13:25	10	3.41	5.34	52.86	7.32	14.90
13:26	11	3.48	5.37	52.75	7.45	22.83
13:27	12	3.38	5.36	52.30	7.40	14.01
13:28	13	3.43	5.37	53.49	7.58	22.90
13:29	14	3.29	5.51	52.92	7.52	6.65
13:30	15	3.41	5.37	53.14	7.39	10.73
13:31	16	3.45	5.41	52.91	7.47	18.30
13:32	17	3.38	5.32	52.67	7.64	14.21
13:33	18	3.25	5.49	53.80	7.42	10.80
13:34	19	3.61	5.30	52.85	7.23	65.89
13:35	20	3.56	5.27	52.93	7.27	88.35
13:36	21	3.73	5.18	55.71	8.08	102.90
13:37	22	3.53	5.37	61.91	7.64	87.86
13:38	23	3.44	5.37	57.36	7.36	45.31
13:39	24	3.67	5.27	53.31	7.48	74.64
13:40	25	3.42	5.46	53.30	7.57	22.85
13:41	26	3.32	5.45	52.18	7.57	7.72
13:42	27	3.38	5.45	52.75	7.66	11.40
13:43	28	3.34	5.52	52.88	7.66	5.39
13:44	29	3.32	5.49	52.00	7.61	1.55
13:45	30	3.33	5.48	52.82	7.33	5.71
13:46	31	3.49	5.40	52.55	7.60	15.50
13:47	32	3.35	5.51	52.22	7.60	3.92
13:48	33	3.33	5.48	52.33	7.71	1.12
13:49	34	3.39	5.51	52.33	7.67	0.63
13:50	35	3.42	5.45	52.49	7.50	1.17
13:51	36	3.52	5.37	52.34	7.50	9.21
13:52	37	3.36	5.45	52.77	7.66	9.25
13:53	38	3.33	5.49	52.86	7.63	1.78
13:54	39	3.36	5.57	53.56	7.64	0.88
13:55	40	3.37	5.42	53.58	7.46	1.58
13:56	41	3.44	5.41	54.32	7.67	5.88
13:57	42	3.32	5.57	54.78	7.66	2.62
13:58	43	3.27	5.49	54.07	7.46	1.11
13:59	44	3.38	5.42	54.33	7.56	7.14
14:00	45	3.32	5.53	55.34	7.48	5.96
14:01	46	3.39	5.38	53.94	7.56	3.46
14:02	47	3.32	5.47	54.52	7.70	2.30
14:03	48	3.46	5.50	54.59	7.68	3.34
14:04	49	3.50	5.35	55.21	7.66	7.03
14:05	50	3.34	5.50	54.99	7.57	4.97
14:06	51	3.46	5.47	55.35	7.50	6.54
14:07	52	3.45	5.35	54.82	7.97	14.11
14:08	53	3.39	5.45	59.46	8.52	12.58
14:09	54	3.38	5.49	89.83	9.23	4.72
14:10	55	3.23	5.47	92.01	7.77	2.07
14:11	56	3.30	5.49	70.38	8.15	5.48
14:12	57	3.33	5.54	63.90	7.91	3.68
14:13	58	3.33	5.45	59.12	8.25	1.79
14:14	59	3.34	5.54	65.08	8.06	2.47
14:15	60	3.45	5.44	62.37	7.72	9.84
14:16	61	3.33	5.45	59.16	7.83	10.12
14:17	62	3.35	5.56	58.91	7.66	0.97
14:18	63	3.35	5.51	56.23	7.55	0.62
14:19	64	3.38	5.45	56.32	7.52	2.04
14:20	65	3.44	5.43	55.73	7.41	6.03
14:21	66	3.46	5.38	55.68	7.61	11.27
14:22	67	3.39	5.41	57.01	7.42	11.61
14:23	68	3.55	5.33	55.85	7.30	28.15
14:24	69	3.66	5.30	56.45	7.44	55.21
14:25	70	3.60	5.30	55.69	7.46	50.01
14:26	71	3.53	5.36	56.23	7.81	36.31
14:27	72	3.38	5.50	56.31	7.81	10.79
14:28	73	3.39	5.51	56.65	7.71	1.38
14:29	74	3.40	5.52	58.43	8.13	2.10
14:30	75	3.46	5.45	63.33	7.92	4.84
14:31	76	3.38	5.49	64.06	7.98	3.79
14:32	77	3.34	5.52	62.09	7.73	1.15
14:33	78	3.42	5.46	60.39	7.65	2.01
14:34	79	3.41	5.45	59.27	7.64	2.44
14:35	80	3.37	5.49	58.73	7.49	2.19
14:36	81	3.42	5.42	57.43	7.61	3.77
14:37	82	3.42	5.47	57.41	7.44	6.29
14:38	83	3.56	5.31	58.59	8.01	30.05
14:39	84	3.34	5.53	63.10	7.89	8.30
14:40	85	3.39	5.48	62.64	7.67	2.81
14:41	86	3.33	5.48	60.76	7.80	2.53
14:42	87	3.26	5.56	62.11	7.97	0.97
14:43	88	3.35	5.48	61.24	7.55	1.10
14:44	89	3.44	5.42	59.42	7.58	9.64
14:45	90	3.63	5.30	62.42	7.61	39.26

CLOCK TIME	ELAPSED TIME	O ₂ % vol db	CO ₂ % vol db	SO ₂ ppmv db	NO _x ppmv db	CO ppmv db
14:46	91	3.34	5.52	60.34	7.96	6.89
14:47	92	3.33	5.48	61.09	7.63	1.47
14:48	93	3.25	5.54	59.16	7.57	1.02
14:49	94	3.28	5.49	57.02	7.44	1.25
14:50 / 14:56	95	3.37	5.43	55.95	7.35	5.33
14:57	96	3.37	5.46	100.84	8.18	4.96
14:58	97	3.50	5.38	90.30	8.17	4.65
14:59	98	3.51	5.33	73.71	8.13	11.42
15:00	99	3.55	5.30	63.18	8.21	21.95
15:01	100	3.34	5.46	57.63	8.14	5.28
15:02	101	3.53	5.33	53.63	8.14	9.17
15:03	102	3.42	5.42	53.06	8.11	6.48
15:04	103	3.68	5.18	49.81	8.02	69.75
15:05	104	3.70	5.21	48.23	7.96	95.03
15:06	105	3.41	5.46	47.40	8.11	12.48
15:07	106	3.45	5.35	47.25	8.13	2.92
15:08	107	3.49	5.41	46.53	8.05	3.30
15:09	108	3.55	5.37	45.43	8.18	5.28
15:10	109	3.60	5.27	44.59	7.83	19.46
15:11	110	3.78	5.16	44.14	7.83	85.97
15:12	111	3.56	5.29	43.70	7.84	46.72
15:13	112	3.55	5.29	43.89	7.73	18.82
15:14	113	3.37	5.41	44.85	7.79	8.07
15:15	114	3.40	5.38	45.08	7.73	5.78
15:16	115	3.50	5.33	45.19	8.02	10.24
15:17	116	3.34	5.44	47.45	7.94	4.27
15:18	117	3.41	5.41	46.84	7.83	2.25
15:19	118	3.58	5.30	46.41	7.78	12.00
15:20	119	3.66	5.23	45.63	7.77	24.37
15:21	120	3.45	5.36	45.80	7.74	13.86
15:22	121	3.56	5.32	46.06	7.83	19.92
15:23	122	3.52	5.28	45.89	8.02	12.65
15:24	123	3.45	5.41	47.75	7.79	8.01
15:25	124	3.46	5.43	48.07	7.81	2.35
15:26	125	3.37	5.46	48.45	7.77	1.41
15:27	126	3.49	5.40	47.51	7.69	3.05
15:28	127	3.54	5.35	47.65	7.74	5.69
15:29	128	3.36	5.44	47.23	7.67	2.29
15:30	129	3.48	5.35	47.00	7.68	4.19
15:31	130	3.58	5.28	47.34	7.62	13.37
15:32	131	3.59	5.25	47.37	7.60	20.86
15:33	132	3.39	5.41	47.58	7.67	8.56
15:34	133	3.55	5.30	47.68	7.61	10.45
15:35	134	3.58	5.25	47.32	7.56	27.15
15:36	135	3.65	5.26	47.62	7.65	47.30
15:37	136	3.43	5.38	47.74	7.64	15.94
15:38	137	3.66	5.24	47.53	7.64	51.87
15:39	138	3.60	5.22	47.87	7.63	43.55
15:40	139	3.38	5.44	48.06	7.75	7.35
15:41	140	3.50	5.40	48.06	7.61	5.66
15:42	141	3.54	5.30	48.04	7.57	12.50
15:43	142	3.75	5.21	46.95	7.64	40.59
15:44	143	3.44	5.47	48.53	7.67	9.72
15:45	144	3.53	5.30	47.49	7.59	4.19
15:46	145	3.56	5.34	46.48	7.62	9.03
15:47	146	3.67	5.28	47.08	7.67	17.51
15:48	147	3.32	5.42	48.55	7.55	6.76
15:49	148	3.46	5.33	48.29	7.48	23.73
15:50	149	3.72	5.20	47.01	7.47	70.83
15:51	150	3.78	5.13	47.64	7.78	104.68
15:52	151	3.83	5.10	47.84	7.66	116.58
15:53	152	3.58	5.27	48.60	7.73	80.70
15:54	153	3.49	5.36	48.33	7.64	10.20
15:55	154	3.61	5.26	47.59	7.54	11.15
15:56	155	3.71	5.22	47.17	7.59	23.61
15:57	156	3.75	5.19	46.74	7.55	35.69
15:58	157	3.66	5.22	47.06	7.56	32.53
15:59	158	3.61	5.27	46.71	7.49	35.23
16:00	159	3.76	5.13	46.19	7.66	104.24
16:01	160	3.66	5.20	46.95	7.44	63.38
16:02	161	3.70	5.21	47.18	7.48	57.25
16:03	162	3.46	5.35	47.23	7.53	17.45
16:04	163	3.55	5.31	47.15	7.48	12.19
16:05	164	3.68	5.22	47.35	7.49	25.04
16:06	165	3.74	5.20	46.05	7.59	27.23
16:07	166	3.68	5.20	46.77	7.45	25.71
16:08	167	3.57	5.31	47.22	7.59	10.44
16:09	168	3.51	5.30	47.88	7.80	6.30
16:10	169	3.42	5.40	48.75	7.50	2.66
16:11	170	3.55	5.34	47.53	7.56	3.65
16:12	171	3.71	5.22	47.64	7.54	16.36
16:13	172	3.76	5.19	47.16	7.38	43.28
16:14	173	3.56	5.28	46.58	7.51	22.68
16:15	174	3.54	5.28	46.52	7.59	7.83
16:16	175	3.55	5.27	47.31	7.57	10.21
16:17	176	3.58	5.16	47.43	7.56	22.12
16:18	177	3.72	5.14	46.97	7.51	77.95
16:19	178	3.56	5.27	47.91	7.64	48.74
16:20	179	3.41	5.31	48.17	7.37	32.52
16:21	180	3.60	5.21	48.17	7.19	51.48
16:22	181	3.54	5.22	48.72	6.99	39.22
16:23	182	3.69	5.14	50.85	8.70	75.02
16:24	183	3.53	5.25	55.52	7.14	38.82

CLOCK TIME	ELAPSED TIME	O ₂ % vol db	CO ₂ % vol db	SO ₂ ppmv db	NO _x ppmv db	CO ppmv db
16:25	184	3.43	5.30	52.97	7.32	7.84
16:26	185	3.49	5.27	51.44	6.93	13.34
16:27	186	3.54	5.24	49.65	7.10	28.11
16:28	187	3.70	5.11	49.72	6.99	97.97
16:29	188	3.51	5.25	49.65	7.17	68.83
16:30	189	3.76	5.08	50.42	7.65	106.48
16:31	190	3.29	5.34	51.05	7.26	52.66
16:32	191	3.33	5.29	48.67	7.30	12.65
16:33	192	3.41	5.25	48.40	7.29	26.35
16:34	193	3.58	5.13	47.10	7.25	98.83
16:35	194	3.50	5.17	46.76	7.25	102.96
16:36	195	3.63	5.09	46.72	7.56	113.65
16:37	196	3.46	5.18	48.90	7.48	97.34
16:38	197	3.41	5.21	48.48	7.52	39.78
16:39	198	3.22	5.35	49.34	7.47	24.42
16:40	199	3.03	5.38	49.26	7.33	14.81
16:41	200	3.04	5.38	49.44	8.02	17.35
16:42	201	2.75	5.59	49.91	8.10	1.58
16:43	202	2.86	5.53	51.12	7.99	0.52
16:44	203	2.75	5.57	50.36	7.64	0.22
16:45	204	2.93	5.45	49.64	7.88	0.40
16:46	205	3.02	5.38	49.41	7.56	0.87
16:47	206	3.04	5.42	48.95	7.56	1.17
16:48	207	3.06	5.37	49.16	7.73	1.46
16:49	208	3.08	5.36	48.51	7.61	1.76
16:50	209	3.11	5.35	48.67	7.51	2.38
16:51	210	3.15	5.24	48.49	7.53	3.53
16:52	211	3.09	5.37	48.24	7.74	3.49
16:53	212	2.87	5.60	48.96	8.10	0.36
16:54	213	2.93	5.46	50.45	7.98	0.13
16:55	214	3.01	5.40	49.69	7.89	0.76
16:56	215	2.88	5.60	50.30	8.40	0.31
16:57	216	2.90	5.44	50.47	7.62	0.21
16:58	217	3.17	5.33	49.52	7.68	4.39
16:59	218	2.90	5.49	49.69	8.50	4.23
17:00	219	2.74	5.50	51.14	8.15	0.14
17:01	220	2.87	5.53	50.20	8.06	0.09
17:02	221	3.01	5.39	49.46	7.60	0.54
17:03	222	3.06	5.38	49.74	7.68	1.35
17:04	223	2.84	5.59	50.61	7.66	0.49
17:05	224	2.85	5.44	49.70	7.44	0.10
17:06	225	3.01	5.43	49.51	7.75	0.33
17:07	226	2.86	5.57	49.80	7.73	0.17
17:08	227	2.95	5.38	49.06	7.28	0.56
17:09	228	3.09	5.34	49.13	7.92	2.00
17:10	229	2.91	5.48	49.65	7.95	1.00
17:11	230	3.02	5.32	50.91	8.02	0.92
17:12	231	3.00	5.47	51.37	7.98	1.19
17:13	232	2.97	5.45	52.15	10.09	0.82
17:14	233	2.99	5.32	65.89	8.73	1.31
17:15	234	3.07	5.36	64.31	8.04	2.03
17:16	235	3.11	5.30	58.34	7.30	2.46
17:17	236	2.89	5.45	54.93	7.20	0.93
17:18	237	2.96	5.46	52.39	7.03	0.63
17:19	238	2.99	5.32	51.15	7.10	0.71
17:20	239	2.85	5.51	51.79	7.28	0.53
17:21	240	2.83	5.59	51.14	7.36	0.23
Uncorrected Average =		3.38	5.38	52.56	7.68	18.58

**ARI ENVIRONMENTAL, INC.
MOISTURE CALCULATION SUMMARY**

COMPANY: Valero Refining - Texas, L.P.
LOCATION: Corpus Christi, TX
SOURCE: SRU No. 2 TGI Exhaust
TEST DATE: 5/6/2010
RUN NUMBER: SRU2-2

γ FACTOR:	0.995	STACK DIAM:	54.0 inches
BAROMETRIC:	29.80 in. Hg	METER VOLUME:	140.090 ft ³
STATIC PRES:	-1.90 in.H ₂ O	METER TEMP:	111.5 °F
STACK TEMP:	1437.0 °F	LIQUID COLL:	433.3 milliliters
SQ.RT ΔP:	0.4373 in.H ₂ O	CO₂:	5.46 % by volume
ΔH:	1.79 in.H ₂ O	O₂:	3.43 % by volume

**ENGLISH UNITS
(29.92 in.Hg & 68 °F)**

<p>VOLUME OF SAMPLE @ STANDARD CONDITIONS, DRY BASIS</p> $V_{mstd} = \left(\frac{528}{29.92} \right) \times V_m \times \gamma \left[\frac{P_{bar} + \frac{\Delta H}{13.6}}{T_m} \right] = 128.830 \text{ dscf}$ <p style="text-align: center;">$\gamma = 0.995$</p>
<p>VOLUME OF WATER IN SAMPLE @ STANDARD CONDITIONS</p> $V_{wstd} = 0.04707 \times V_{lc} = 20.395 \text{ scf}$ <p style="text-align: center;">$V_{lc} = 433.3 \text{ mL}$</p>
<p>FRACTIONAL MOISTURE CONTENT OF STACK GAS AS MEASURED</p> $B_{ws} = \frac{V_{wstd}}{V_{wstd} + V_{mstd}} = 0.1367$
<p>FRACTIONAL MOISTURE CONTENT OF STACK GAS @ SATURATION</p> $MF = \frac{\left(10^{\left[8.361 - \left(\frac{1893.5}{T - 27.65} \right) \right]} \right) - 0.5}{P} = 1.000$ <p style="text-align: center;">$T = 1053.6 \text{ °K}$ $P = 753.4 \text{ mmHg}$</p>
<p>FRACTIONAL MOISTURE CONTENT USED IN CALCULATIONS</p> <p style="text-align: right;">$B_{ws} = 0.1367$</p>

ARI ENVIRONMENTAL, INC.
FLOW RATE CALCULATION SUMMARY

COMPANY: Valero Refining - Texas
LOCATION: Corpus Christi, TX
RUN NUMBER: SRU2-2

SOURCE: SRU No. 2 TGI Exhaust
TEST DATE: 5/6/2010

BAROMETRIC:	29.80 in. Hg	STACK DIAM:	54.0 inches
STATIC PRES:	-1.9 in.H ₂ O	CO₂:	5.46 % by volume
STACK TEMP:	1437 °F	O₂:	3.43 % by volume
SQ.RT ΔP:	0.4373 in.H ₂ O		

DRY MOLECULAR WEIGHT OF STACK GAS			
$M_d = 0.44(\%CO_2) + 0.32(\%O_2) + 0.28(\%N_2 + \%CO)$	=	29.01	lb/lb-mole
MOLECULAR WEIGHT OF STACK GAS, wet basis			
$M_s = M_d(1 - B_{ws}) + 18B_{ws}$	=	27.51	lb/lb-mole
PITOT TUBE COEFFICIENT			
C_p (from calibration curve or geometric specifications)	=	0.84	
AVERAGE VELOCITY HEAD OF STACK GAS, in. H₂O			
$\sqrt{\Delta P} = \frac{1}{n} \sum_{i=1}^n \sqrt{\Delta p_i}$	=	0.4373	in. H ₂ O
AVERAGE ABSOLUTE STACK GAS TEMPERATURE			
$T_s = 1437.0 \text{ °F} + 460$	=	1,897.0	°R
ABSOLUTE STACK GAS PRESSURE			
$P_s = P_{bar} + \frac{P_{static}}{13.6}$	=	29.66	in.Hg
STACK GAS VELOCITY			
$V_s = (85.49)(C_p)(\text{avg}\sqrt{\Delta P})\sqrt{\frac{T_s}{(P_s)(M_s)}}$	=	47.886	ft/sec
STACK GAS VOLUMETRIC FLOW RATE, actual			
$Q_s = 60 \times V_s \times A_s$	=	45,696	acfm
Stack Area =		15.9043 ft ²	
STACK GAS VOLUMETRIC FLOW RATE, standard conditions, wet basis			
$Q_{stdw} = \left(\frac{528}{29.92}\right)(Q_s)\left(\frac{P_s}{T_s}\right)$	=	12,608.3	scfm, wb
		756,497	scfh, wb
STACK GAS VOLUMETRIC FLOW RATE, standard conditions, dry basis			
$Q_{std} = \left(\frac{528}{29.92}\right)(Q_s)\left(\frac{P_s}{T_s}\right)(1 - B_{ws})$	=	10,885.0	dscfm
		653,102	dscfh

ARI ENVIRONMENTAL, INC.
TOTAL PARTICULATE CALCULATION SUMMARY

COMPANY: Valero Refining - Texas, L.P.
LOCATION: Corpus Christi, TX
SOURCE: SRU No. 2 TGI Exhaust
TEST DATE: 5/6/2010
RUN NUMBER: SRU2-2

INPUT

V_m:	140.09	ft ³	Q_s:	10,885	dscfm
γ FACTOR:	0.995		T_s:	1437	°F
P_{bar}:	29.8	in.Hg	Runtime:	180	minutes
ΔH:	1.79	in.H ₂ O	V_s:	47.886	ft/sec
T_m:	111.5	°F	P_s:	29.66	in.Hg
V_{lc}:	433.3	mL	Noz. diam:	0.4375	inches
M_n front:	30.44	mg			
M_n back:	81.40	mg			

ENGLISH UNITS
(29.92 in.Hg & 68 °F)

VOLUME OF SAMPLE @ STANDARD CONDITIONS, DRY BASIS					
$V_{mstd} = \left(\frac{528}{29.92} \right) \times V_m \times \gamma \left(\frac{P_{bar} + \frac{\Delta H}{13.6}}{T_m} \right)$		=	128.830	dscf	
γ = 0.995					
VOLUME OF WATER IN SAMPLE @ STANDARD CONDITIONS					
$V_{wstd} = 0.04707 \times V_{lc}$		=	20.395	scf	
FRACTIONAL MOISTURE CONTENT OF STACK GAS					
$B_{ws} = \frac{V_{wstd}}{V_{wstd} + V_{mstd}} \times 100$		=	13.67	%	
PARTICULATE CONCENTRATION IN STACK GAS ON A DRY BASIS					
$C_s = (0.01543) \left(\frac{M_n}{V_{mstd}} \right)$		Front	=	0.0036458	gr/dscf
		Back	=	0.0097493	gr/dscf
		Total	=	0.0133951	gr/dscf
$C'_s = (2.205 \times 10^{-6}) \left(\frac{M_n}{V_{mstd}} \right)$		C's Front	=	0.52100	x 10 ⁻⁶ lbs/dscf
		C's Back	=	1.39321	x 10 ⁻⁶ lbs/dscf
		C's Total	=	1.91421	x 10 ⁻⁶ lbs/dscf
EMISSION RATE					
$pmr = \left(\frac{C_s}{7000} \right) (Q_{std})(60)$		Front	=	0.34016	lbs/hr
		Back	=	0.90961	lbs/hr
		Total	=	1.24977	lbs/hr
ISOKINETIC SAMPLING RATE					
$\%ISO = \frac{(100)(T_s) \left[(0.002669 \times V_{lc}) + \left(\frac{V_m}{T_m} \right) (\gamma) \left(P_{bar} + \left(\frac{\Delta H}{13.6} \right) \right) \right]}{(60)(\theta)(V_s)(P_s)(A_n)}$		=	100.18	%	
A _n = 0.00104396 ft ²		Runtime =	180	minutes	

SO₂ CALCULATION DATA SHEET
USEPA METHOD 6C

COMPANY: Valero Refining - Texas, L.P.
LOCATION: Corpus Christi, TX
SOURCE: SRU No. 2 TGI Exhaust
MONITOR ID: California Analytical Instruments Model 600
RUN NO: SRU2-2
TEST DATE: 5/6/2010

INPUT

SO₂ AVERAGE READING (C): 55.1 ppmv

STACK GAS VOLUMETRIC FLOW RATE (Q_{std}): 653,102 dscfh

CALCULATIONS

STACK SO₂ CONCENTRATION

SO₂ CONC.(lbs/dscf) =

$$C_{\text{gas,lb/dscf}} = (C_{\text{gas,ppm}}) \left(\frac{64.07 \text{ lb/lb-mole}}{385.26 \times 10^6 \text{ ft}^3/\text{lb-mole}} \right) = 9.1603 \times 10^{-6} \text{ lbs/dscf}$$

SO₂ EMISSION RATE:

STACK GAS VOLUMETRIC FLOW RATE = 653,102 dscfh

STACK SO₂ EMISSION RATE =

$$\text{SO}_{2\text{pmr}} = (C_{\text{gas,lb/dscf}})(Q_{\text{std}}) = 5.9826 \text{ lbs/hr}$$

$$= 26.204 \text{ ton/yr}$$

**NO_x CALCULATION DATA SHEET
USEPA METHOD 7E**

COMPANY: Valero Refining - Texas, L.P.
LOCATION: Corpus Christi, TX
SOURCE: SRU No. 2 TGI Exhaust
MONITOR ID: California Analytical Instruments Model 600
RUN NO: SRU2-2
TEST DATE: 5/6/2010

INPUT

NO_x AVERAGE READING (C): 7.5 ppmv

STACK GAS VOLUMETRIC FLOW RATE (Q_{std}): 653,102 dscfh

CALCULATIONS

STACK NO_x CONCENTRATION

NO_x CONC.(lbs/dscf) =

$$C_{\text{gas,lb/dscf}} = (C_{\text{gas,ppm}}) \left(\frac{46\text{lb/lb-mole}}{385.26 \times 10^6 \text{ft}^3/\text{lb-mole}} \right) = 0.8958 \times 10^{-6} \text{ lbs/dscf}$$

NO_x EMISSION RATE:

STACK GAS VOLUMETRIC FLOW RATE = 653,102 dscfh

STACK NO_x EMISSION RATE =

$$\text{NO}_{x\text{pmr}} = (C_{\text{gas,lb/dscf}})(Q_{\text{std}}) = 0.5851 \text{ lbs/hr}$$

$$= 2.563 \text{ ton/yr}$$

**CO CALCULATION DATA SHEET
USEPA METHOD 10**

COMPANY: Valero Refining - Texas, L.P.
LOCATION: Corpus Christi, TX
SOURCE: SRU No. 2 TGI Exhaust
MONITOR ID: Thermo Environmental Model 48i
RUN NO: SRU2-2
TEST DATE: 5/6/2010

INPUT

CO AVERAGE READING (C): 17.9 ppmv

STACK GAS VOLUMETRIC FLOW RATE (Q_{std}): 653,102 dscfh

CALCULATIONS

STACK CO CONCENTRATION

CO CONC.(lbs/dscf) =

$$C_{gas,lb/dscf} = (C_{gas,ppm}) \left(\frac{28lb / lb - mole}{385.26 \times 10^6 ft^3 / lb - mole} \right) = 1.2994 \times 10^{-6} \text{ lbs/dscf}$$

CO EMISSION RATE:

STACK GAS VOLUMETRIC FLOW RATE = 653,102 dscfh

STACK CO EMISSION RATE =

$$CO_{pmr} = (C_{gas,lb/dscf})(Q_{std}) = 0.8486 \text{ lbs/hr}$$

$$= 3.717 \text{ ton/yr}$$

**CARBONYL SULFIDE EMISSION RATE CALCULATION SHEET
USEPA METHOD 15**

COMPANY: Valero Refining - Texas, L.P.
LOCATION: Corpus Christi, TX
SOURCE: SRU No. 2 TGI Exhaust
MONITOR ID: SRI-9300B: GC-FPD
RUN NO: SRU2-2
TEST DATE: 5/6/2010

INPUT

COS CONCENTRATION (C): < 0.39 ppmv
 STACK GAS VOLUMETRIC FLOW RATE (Q_{std}): 653,102 dscfh

CALCULATIONS

STACK COS AVERAGE CHART READING = < 0.39 ppmv

COS CONCENTRATION (lbs/dscf) =

$$C_{\text{gas,lb/dscf}} = (C_{\text{gas,ppm}}) \left(\frac{60.07 \text{ lb / lb - mole}}{385.26 \times 10^{-6} \text{ ft}^3 \text{ / lb - mole}} \right) = < 0.060 \times 10^{-6} \text{ lbs/dscf}$$

COS EMISSION RATE:

STACK GAS VOLUMETRIC FLOW RATE = 653,102 dscfh

STACK COS EMISSION RATE =

$$\text{COS}_{\text{pmr}} = (C_{\text{gas,lb/dscf}})(Q_{\text{std}}) = < 0.0395 \text{ lbs/hr} \\ = < 0.173 \text{ ton/yr}$$

HYDROGEN SULFIDE EMISSION RATE CALCULATION SHEET USEPA METHOD 15

COMPANY: Valero Refining - Texas, L.P.
LOCATION: Corpus Christi, TX
SOURCE: SRU No. 2 TGI Exhaust
MONITOR ID: SRI-9300B: GC-FPD
RUN NO: SRU2-2
TEST DATE: 5/6/2010

INPUT

H₂S CONCENTRATION (C): < 0.74 ppmv
 STACK GAS VOLUMETRIC FLOW RATE (Q_{std}): 653,102 dscfh

CALCULATIONS

STACK H₂S AVERAGE CHART READING = < 0.74 ppmv

H₂S CONCENTRATION (lbs/dscf) =

$$C_{\text{gas,lb/dscf}} = (C_{\text{gas,ppm}}) \left(\frac{34.08 \text{ lb / lb - mole}}{385.26 \times 10^{-6} \text{ ft}^3 / \text{lb - mole}} \right) = < 0.065 \times 10^{-6} \text{ lbs/dscf}$$

H₂S EMISSION RATE:

STACK GAS VOLUMETRIC FLOW RATE = 653,102 dscfh

STACK H₂S EMISSION RATE =

$$H_2S_{\text{pmr}} = (C_{\text{gas,lb/dscf}})(Q_{\text{std}}) = < 0.0427 \text{ lbs/hr}$$

$$= < 0.187 \text{ ton/yr}$$

**CARBON DISULFIDE EMISSION RATE CALCULATION SHEET
USEPA METHOD 15**

COMPANY: Valero Refining - Texas, L.P.
LOCATION: Corpus Christi, TX
SOURCE: SRU No. 2 TGI Exhaust
MONITOR ID: SRI-9300B: GC-FPD
RUN NO: SRU2-2
TEST DATE: 5/6/2010

INPUT

CS₂ CONCENTRATION (C): < 0.38 ppmv
 STACK GAS VOLUMETRIC FLOW RATE (Q_{std}): 653,102 dscfh

CALCULATIONS

STACK CS₂ AVERAGE CHART READING = < 0.38 ppmv

CS₂ CONCENTRATION (lbs/dscf) =

$$C_{\text{gas,lb/dscf}} = (C_{\text{gas,ppm}}) \left(\frac{76.1 \text{ lb / lb - mole}}{385.26 \times 10^{-6} \text{ ft}^3 \text{ / lb - mole}} \right) = < 0.074 \times 10^{-6} \text{ lbs/dscf}$$

CS₂ EMISSION RATE:

STACK GAS VOLUMETRIC FLOW RATE = 653,102 dscfh

STACK CS₂ EMISSION RATE =

$$CS_{2\text{pmr}} = (C_{\text{gas,lb/dscf}})(Q_{\text{std}}) = < 0.0484 \text{ lbs/hr}$$

$$= < 0.212 \text{ ton/yr}$$

**RSC as H₂S EMISSION RATE CALCULATION SHEET
USEPA METHOD 15**

COMPANY: Valero Refining - Texas, L.P.
LOCATION: Corpus Christi, TX
SOURCE: SRU No. 2 TGI Exhaust
MONITOR ID: SRI-9300B: GC-FPD
RUN NO: SRU2-2
TEST DATE: 5/6/2010

INPUT

COS CONCENTRATION (C): < 0.39 ppmv
 CS₂ CONCENTRATION (C): < 0.38 ppmv
 H₂S CONCENTRATION (C): < 0.74 ppmv
 STACK GAS VOLUMETRIC FLOW RATE (Q_{std}): 653,102 dscfh
 STACK OXYGEN CONTENT (%O₂): 3.43 %

CALCULATIONS

AVERAGE STACK RSC as H₂S = < 1.88 ppmv

AVERAGE STACK RSC as H₂S @ 3% O₂

$$C_{\text{gas,ppm@3\%O}_2} = (C_{\text{gas,ppm}}) \left(\frac{17.9}{20.9 - \%O_2} \right) = < 1.90 \text{ ppmv @ 3\% O}_2$$

RSC as H₂S CONCENTRATION (lbs/dscf) =

$$C_{\text{gas,lb/dscf}} = (C_{\text{gas,ppm}}) \left(\frac{34.08 \text{ lb/lb - mole}}{385.26 \times 10^{-6} \text{ ft}^3 / \text{lb - mole}} \right) = < 0.166 \times 10^{-6} \text{ lbs/dscf}$$

RSC as H₂S EMISSION RATE:

STACK GAS VOLUMETRIC FLOW RATE = 653,102 dscfh

STACK RSC as H₂S EMISSION RATE =

$$RSC_{\text{pmr}} = (C_{\text{gas,lb/dscf}}) (Q_{\text{std}}) = < 0.1084 \text{ lbs/hr}$$

$$= < 0.475 \text{ ton/yr}$$

MONITOR DATA SUMMARY

COMPANY : Valero Refining - Texas, L.P
 SOURCE : SRU No. 2 TGI Exhaust
 REPETITION : SRU2-3
 TEST DATE : 5/6/2010
 START TIME : 17:50
 END TIME : 21:55

GAS ANALYZER NO_x

SCALE : 0 - 90.0 ppm
 AVERAGE CAL. BIAS (C_m): 44.42
 AVERAGE ZERO BIAS (C_o): 0.09
 CALIBRATION GAS: EPA Protocol NO_x
 CALIBRATION PPM (C_{ma}): 45.0
 PPM CORRECTED (C_{gas}): 6.6

GAS ANALYZER CO

SCALE : 0 - 88.3 ppm
 AVERAGE CAL. BIAS (C_m): 43.77
 AVERAGE ZERO BIAS (C_o): 0.81
 CALIBRATION GAS: EPA Protocol CO
 CALIBRATION PPM (C_{ma}): 44.2
 PPM CORRECTED (C_{gas}): 1.0

GAS ANALYZER O₂

SCALE : 0 - 10.00 %
 AVERAGE CAL. BIAS (C_m): 4.967
 AVERAGE ZERO BIAS (C_o): 0.007
 CALIBRATION GAS: EPA Protocol O₂
 CALIBRATION PPM (C_{ma}): 5.00
 PPM CORRECTED (C_{gas}): 2.82

GAS ANALYZER CO₂

SCALE : 0 - 8.65 %
 AVERAGE CAL. BIAS (C_m): 4.305
 AVERAGE ZERO BIAS (C_o): 0.048
 CALIBRATION GAS: EPA Protocol CO₂
 CALIBRATION % (C_{ma}): 4.32
 % CORRECTED (C_{gas}): 5.46

GAS ANALYZER SO₂

SCALE : 0 - 90.0 ppm
 AVERAGE CAL. BIAS (C_m): 43.50
 AVERAGE ZERO BIAS (C_o): 2.53
 CALIBRATION GAS: EPA Protocol SO₂
 CALIBRATION ppm (C_{ma}): 45.00
 PPM CORRECTED (C_{gas}): 53.00

Example Calculation =
$$C_{gas} = (\bar{C} - C_o) \frac{C_{ma}}{C_m - C_o}$$

NO_x, ppm @ 0% O₂ = 7.6
 CO, ppm @ 0% O₂ = 1.1
 SO₂, ppm @ 0% O₂ = 61.3

$$C_{gas} @ 0\% O_2 = C_{gas} \frac{20.9}{20.9 - O_2}$$

CLOCK TIME	ELAPSED TIME	Uncorrected				
		O ₂ % vol db	CO ₂ % vol db	SO ₂ ppmv db	NO _x ppmv db	CO ppmv db
17:50	0	-----	-----	-----	-----	-----
17:51	1	2.88	5.49	50.66	7.51	0.44
17:52	2	2.68	5.60	49.26	7.55	-0.17
17:53	3	2.77	5.50	48.77	7.47	-0.22
17:54	4	2.83	5.49	48.38	7.28	-0.10
17:55	5	2.99	5.30	48.35	7.28	0.12
17:56	6	2.87	5.47	48.47	8.10	0.16
17:57	7	2.79	5.53	48.30	7.27	0.04
17:58	8	2.90	5.41	48.61	7.52	0.68
17:59	9	2.69	5.56	48.54	7.58	-0.23
18:00	10	2.85	5.45	48.59	7.47	-0.22
18:01	11	2.87	5.47	48.32	7.64	-0.16
18:02	12	2.82	5.49	48.72	7.34	-0.25
18:03	13	2.89	5.42	47.66	7.16	0.02
18:04	14	3.00	5.32	47.43	7.08	0.62
18:05	15	2.93	5.40	47.73	7.75	0.72
18:06	16	2.87	5.46	47.75	7.45	0.05
18:07	17	2.82	5.46	48.92	8.18	0.06
18:08	18	2.75	5.53	48.52	7.49	-0.09
18:09	19	2.97	5.39	47.96	7.09	0.13
18:10	20	2.93	5.41	48.15	7.01	0.28
18:11	21	3.19	5.24	47.65	6.93	3.56
18:12	22	2.98	5.37	47.49	7.08	1.69
18:13	23	3.06	5.33	47.02	6.96	1.81
18:14	24	3.02	5.28	47.22	6.71	2.86
18:15	25	3.18	5.16	47.17	6.71	12.71
18:16	26	2.89	5.47	47.97	6.88	4.33
18:17	27	2.87	5.40	47.87	6.57	0.83
18:18	28	3.03	5.32	47.94	6.68	1.96
18:19	29	2.95	5.34	47.99	6.51	1.17
18:20	30	3.06	5.26	47.71	6.66	2.05
18:21	31	2.79	5.55	48.51	6.68	0.59
18:22	32	2.73	5.48	49.41	6.93	0.01
18:23	33	2.93	5.38	50.58	6.48	0.60
18:24	34	3.05	5.27	50.22	6.42	2.48
18:25	35	3.00	5.27	49.64	6.34	2.98
18:26	36	3.04	5.36	49.32	6.39	2.18
18:27	37	3.01	5.25	49.04	6.52	2.17
18:28	38	3.05	5.22	48.84	6.56	7.79
18:29	39	3.06	5.41	48.96	7.08	11.30
18:30	40	2.69	5.53	49.68	6.92	0.78
18:31	41	2.81	5.46	49.99	6.79	0.07
18:32	42	2.90	5.42	49.63	7.01	0.82
18:33	43	3.09	5.17	48.43	7.01	8.27
18:34	44	2.85	5.47	49.95	7.27	5.26
18:35	45	2.84	5.49	49.65	7.12	0.21
18:36	46	2.75	5.34	50.78	7.02	0.09
18:37	47	2.87	5.43	51.25	7.94	0.58
18:38	48	3.07	5.33	51.15	7.10	3.91
18:39	49	2.78	5.44	54.48	9.30	1.63
18:40	50	2.79	5.47	60.33	7.26	0.19
18:41	51	2.92	5.35	55.92	6.88	0.84
18:42	52	3.03	5.25	52.57	6.59	4.75
18:43	53	3.21	5.22	50.69	6.67	12.94
18:44	54	3.03	5.26	49.75	6.64	5.90
18:45	55	3.08	5.34	50.19	6.62	7.45
18:46	56	2.72	5.54	50.67	6.56	0.90
18:47	57	2.87	5.36	49.63	6.50	2.31
18:48	58	2.95	5.40	49.37	6.96	3.98
18:49	59	2.62	5.51	51.00	6.96	0.40
18:50	60	2.73	5.51	50.71	6.61	0.13
18:51	61	2.79	5.51	51.67	6.40	0.40
18:52	62	3.02	5.24	49.34	6.39	6.34
18:53	63	2.92	5.42	50.12	6.49	4.53
18:54	64	2.82	5.41	50.50	6.45	0.65
18:55	65	2.89	5.33	50.09	6.46	0.96
18:56	66	3.02	5.34	49.88	6.48	3.59
18:57	67	2.94	5.29	49.55	6.69	3.87
18:58	68	3.07	5.22	49.13	6.83	6.93
18:59	69	3.03	5.33	48.82	7.07	5.75
19:00	70	2.78	5.44	50.76	7.06	0.61
19:01	71	2.90	5.42	50.05	6.88	0.81
19:02	72	2.92	5.35	49.86	7.03	1.22
19:03	73	2.86	5.36	49.69	7.56	0.85
19:04	74	2.74	5.55	49.62	7.03	0.24
19:05	75	2.88	5.36	49.81	7.06	0.62
19:06	76	2.84	5.40	49.48	7.06	0.74
19:07	77	2.92	5.39	50.07	6.97	0.75
19:08	78	2.81	5.38	51.05	6.76	0.36
19:09	79	2.87	5.49	50.49	7.46	0.39
19:10	80	2.74	5.60	50.38	6.96	0.12
19:11	81	2.85	5.44	50.63	6.93	0.34
19:12	82	2.90	5.40	51.09	6.76	0.37
19:13	83	2.93	5.35	51.76	6.61	0.68
19:14	84	2.99	5.35	50.03	6.35	0.79
19:15	85	3.04	5.31	49.70	6.33	1.47
19:16	86	3.15	5.21	49.90	6.23	3.81
19:17	87	3.06	5.33	49.05	6.38	3.44
19:18	88	3.03	5.38	49.56	6.41	1.05
19:19	89	2.96	5.35	49.30	6.60	1.04
19:20	90	2.97	5.39	49.25	6.52	1.06

CLOCK TIME	ELAPSED TIME	O ₂ % vol db	CO ₂ % vol db	SO ₂ ppmv db	NO _x ppmv db	CO ppmv db
19:21	91	2.87	5.39	48.99	6.55	0.79
19:22	92	2.95	5.38	49.66	7.12	0.71
19:23	93	2.85	5.50	49.81	6.85	0.31
19:24	94	2.88	5.41	49.87	6.76	0.27
19:25	95	2.84	5.48	50.92	8.76	0.33
19:26	96	2.76	5.47	55.94	7.61	-0.02
19:27	97	2.94	5.38	54.43	7.16	0.39
19:28	98	2.91	5.44	53.29	6.82	0.63
19:29	99	3.14	5.16	50.61	6.70	3.66
19:30	100	3.09	5.28	50.76	6.86	4.59
19:31	101	3.06	5.42	50.68	7.28	2.25
19:32	102	2.94	5.29	49.46	6.71	0.52
19:33	103	2.96	5.34	48.88	7.09	1.04
19:34	104	2.93	5.54	48.78	6.69	0.67
19:35	105	3.13	5.30	48.35	6.38	1.78
19:36	106	3.08	5.18	49.29	6.29	1.82
19:37	107	3.07	5.36	48.08	6.47	1.97
19:38	108	2.92	5.55	48.92	6.28	1.11
19:39	109	3.14	5.23	47.90	6.24	13.53
19:40	110	3.33	5.12	47.95	6.25	43.70
19:41	111	3.26	5.17	48.08	6.17	34.14
19:42	112	2.95	5.27	48.46	6.36	6.86
19:43 / 19:48	113	2.87	5.42	48.42	6.32	1.13
19:49	114	2.70	5.51	62.83	6.54	1.00
19:50	115	2.89	5.33	55.43	6.16	3.06
19:51	116	3.00	5.22	50.53	6.26	8.18
19:52	117	2.96	5.27	48.47	6.34	7.52
19:53	118	2.85	5.36	47.62	6.62	3.61
19:54	119	2.75	5.42	48.00	6.78	0.82
19:55	120	2.71	5.47	48.52	6.66	0.53
19:56	121	2.66	5.48	48.81	6.71	0.29
19:57	122	2.69	5.43	48.93	6.37	1.62
19:58	123	2.84	5.34	48.22	6.41	3.08
19:59	124	2.75	5.39	48.31	6.47	1.50
20:00	125	2.72	5.42	52.57	9.22	0.67
20:01	126	2.62	5.49	68.47	6.64	0.42
20:02	127	2.81	5.37	61.25	6.19	0.94
20:03	128	2.86	5.33	55.17	6.03	1.69
20:04	129	2.94	5.28	51.68	5.92	3.22
20:05	130	3.01	5.24	49.48	5.92	5.96
20:06	131	2.95	5.30	48.94	5.94	5.53
20:07	132	2.88	5.35	47.47	6.03	2.05
20:08	133	2.73	5.45	47.12	7.39	1.16
20:09	134	2.73	5.43	72.14	6.78	0.80
20:10	135	2.63	5.54	64.27	6.87	0.22
20:11	136	2.73	5.48	80.29	8.24	0.34
20:12	137	2.56	5.58	85.85	6.44	0.09
20:13	138	2.78	5.45	72.98	6.31	0.21
20:14	139	2.76	5.45	60.25	6.38	0.17
20:15	140	2.77	5.41	54.99	6.66	0.38
20:16	141	2.68	5.49	51.96	6.96	0.24
20:17	142	2.63	5.53	52.75	7.48	0.07
20:18	143	2.70	5.47	53.31	7.16	0.11
20:19	144	2.85	5.37	56.91	7.13	0.63
20:20	145	3.00	5.27	55.55	6.38	3.29
20:21	146	2.93	5.37	52.14	6.16	2.00
20:22	147	3.04	5.23	50.63	6.24	4.88
20:23	148	2.93	5.31	49.73	5.95	4.72
20:24	149	2.93	5.24	48.79	6.02	6.91
20:25	150	2.76	5.44	48.01	6.11	1.88
20:26	151	2.75	5.45	48.04	6.27	0.62
20:27	152	2.83	5.37	48.31	6.02	1.43
20:28	153	2.65	5.57	48.12	6.49	0.91
20:29	154	2.65	5.52	50.30	6.54	0.17
20:30	155	2.59	5.56	51.55	6.18	0.12
20:31	156	2.84	5.40	50.60	6.36	0.68
20:32	157	2.70	5.50	51.85	5.95	0.37
20:33	158	2.84	5.41	50.07	5.88	0.51
20:34	159	2.72	5.47	49.73	6.19	0.41
20:35	160	2.67	5.53	49.66	6.78	0.11
20:36	161	2.65	5.58	50.12	6.32	-0.17
20:37	162	2.84	5.37	49.90	6.03	0.23
20:38	163	2.74	5.44	49.37	6.13	0.42
20:39	164	2.78	5.44	47.86	6.41	0.55
20:40	165	2.74	5.38	48.47	6.27	0.72
20:41	166	2.73	5.48	48.83	6.31	0.59
20:42	167	2.71	5.47	49.08	6.61	0.26
20:43	168	2.57	5.47	50.16	6.35	0.03
20:44	169	2.59	5.57	50.41	6.78	-0.06
20:45	170	2.55	5.54	49.99	6.40	-0.10
20:46	171	2.62	5.42	49.77	6.76	-0.04
20:47	172	2.55	5.57	49.86	6.43	0.03
20:48	173	2.66	5.48	50.34	6.62	0.19
20:49	174	2.42	5.65	51.03	6.46	-0.06
20:50	175	2.50	5.56	51.29	6.17	-0.03
20:51	176	2.63	5.47	50.63	5.83	0.13
20:52	177	2.77	5.42	50.31	5.89	0.47
20:53	178	2.69	5.42	49.20	5.71	0.53
20:54	179	2.92	5.32	49.12	5.85	2.80
20:55	180	2.78	5.38	49.21	5.79	1.80
20:56	181	2.80	5.25	48.63	5.83	1.24
20:57	182	2.67	5.55	48.51	6.16	0.60
20:58	183	2.47	5.65	52.06	5.88	0.10

CLOCK TIME	ELAPSED TIME	O ₂ % vol db	CO ₂ % vol db	SO ₂ ppmv db	NO _x ppmv db	CO ppmv db
20:59	184	2.49	5.57	51.45	6.22	-0.02
21:00	185	2.41	5.71	52.23	6.22	-0.19
21:01	186	2.48	5.57	51.35	6.42	-0.22
21:02	187	2.35	5.70	52.32	6.62	-0.06
21:03	188	2.53	5.61	52.01	5.95	-0.10
21:04	189	2.76	5.33	50.66	6.02	0.59
21:05	190	2.72	5.47	50.11	6.04	0.62
21:06	191	2.87	5.35	49.81	6.00	1.71
21:07	192	2.93	5.28	49.19	6.13	2.95
21:08	193	2.86	5.37	49.43	6.12	2.46
21:09	194	2.93	5.30	48.75	6.43	4.58
21:10	195	2.63	5.52	48.22	6.84	1.26
21:11	196	2.47	5.68	49.89	6.94	0.11
21:12	197	2.55	5.45	50.24	6.55	-0.04
21:13	198	2.52	5.54	50.48	6.47	0.00
21:14	199	2.50	5.68	50.50	6.49	-0.05
21:15	200	2.49	5.59	51.13	6.40	0.05
21:16	201	2.69	5.48	51.38	6.25	0.11
21:17	202	2.57	5.59	51.77	6.32	-0.09
21:18	203	2.57	5.55	51.35	6.47	0.03
21:19	204	2.56	5.63	50.52	6.27	0.05
21:20	205	2.66	5.47	50.78	5.84	0.09
21:21	206	2.75	5.39	50.36	5.92	0.66
21:22	207	2.72	5.52	50.10	5.83	0.66
21:23	208	2.69	5.45	50.28	5.83	0.48
21:24	209	2.70	5.46	50.23	5.80	0.61
21:25	210	2.76	5.47	49.64	6.06	0.88
21:26	211	2.49	5.59	50.49	6.29	-0.01
21:27	212	2.50	5.64	51.58	6.18	-0.19
21:28	213	2.67	5.53	49.88	6.17	-0.02
21:29	214	2.69	5.45	49.79	6.13	0.17
21:30	215	2.72	5.52	49.27	6.64	0.15
21:31	216	2.58	5.51	50.11	6.24	-0.04
21:32	217	2.69	5.46	50.02	6.20	-0.09
21:33	218	2.76	5.51	49.64	6.25	0.13
21:34	219	2.69	5.52	50.09	6.16	0.18
21:35	220	2.63	5.51	50.32	6.33	0.10
21:36	221	2.48	5.63	50.59	6.43	0.01
21:37	222	2.47	5.63	50.70	6.54	-0.19
21:38	223	2.39	5.68	51.99	6.43	-0.23
21:39	224	2.50	5.59	51.23	6.17	-0.17
21:40	225	2.65	5.48	50.87	6.08	0.13
21:41	226	2.56	5.55	50.41	5.95	0.00
21:42	227	2.62	5.48	50.62	5.99	0.18
21:43	228	2.66	5.50	50.25	5.75	0.40
21:44	229	2.74	5.42	50.05	5.68	0.79
21:45	230	2.76	5.44	49.99	6.16	0.98
21:46	231	2.54	5.59	51.50	6.33	0.37
21:47	232	2.60	5.52	51.73	5.64	0.82
21:48	233	2.67	5.56	51.52	5.76	0.65
21:49	234	2.54	5.54	50.71	5.80	0.00
21:50	235	2.49	5.66	50.80	5.86	-0.08
21:51	236	2.62	5.52	50.43	5.95	0.12
21:52	237	2.64	5.53	50.38	5.72	0.18
21:53	238	2.65	5.57	50.62	5.87	0.16
21:54	239	2.61	5.53	50.30	5.86	0.08
21:55	240	2.53	5.60	52.38	6.82	-0.18
Uncorrected Average =		2.80	5.43	50.78	6.60	1.75

**ARI ENVIRONMENTAL, INC.
MOISTURE CALCULATION SUMMARY**

COMPANY: Valero Refining - Texas, L.P.
LOCATION: Corpus Christi, TX
SOURCE: SRU No. 2 TGI Exhaust
TEST DATE: 5/6/2010
RUN NUMBER: SRU2-3

γ FACTOR:	0.995	STACK DIAM:	54.0 inches
BAROMETRIC:	29.80 in. Hg	METER VOLUME:	134.425 ft ³
STATIC PRES:	-1.90 in.H ₂ O	METER TEMP:	102.8 °F
STACK TEMP:	1445.2 °F	LIQUID COLL:	432.3 milliliters
SQ.RT ΔP:	0.4271 in.H ₂ O	CO₂:	5.46 % by volume
ΔH:	1.70 in.H ₂ O	O₂:	2.82 % by volume

**ENGLISH UNITS
(29.92 in.Hg & 68 °F)**

VOLUME OF SAMPLE @ STANDARD CONDITIONS, DRY BASIS	
$V_{mstd} = \left(\frac{528}{29.92} \right) \times V_m \times \gamma \left[\frac{P_{bar} + \frac{\Delta H}{13.6}}{T_m} \right]$	= 125.503 dscf
γ = 0.995	
VOLUME OF WATER IN SAMPLE @ STANDARD CONDITIONS	
$V_{wstd} = 0.04707 \times V_{lc}$	= 20.348 scf
V _{lc} = 432.3 mL	
FRACTIONAL MOISTURE CONTENT OF STACK GAS AS MEASURED	
$B_{ws} = \frac{V_{wstd}}{V_{wstd} + V_{mstd}}$	= 0.1395
FRACTIONAL MOISTURE CONTENT OF STACK GAS @ SATURATION	
$MF = \frac{\left(10^{\left[8.361 - \left(\frac{1893.5}{T - 27.65} \right) \right]} \right)^{-0.5}}{P}$	= 1.000
T = 1058.1 °K	
P = 753.4 mmHg	
FRACTIONAL MOISTURE CONTENT USED IN CALCULATIONS	
	B _{ws} = 0.1395

ARI ENVIRONMENTAL, INC.
FLOW RATE CALCULATION SUMMARY

COMPANY: Valero Refining - Texas
LOCATION: Corpus Christi, TX
RUN NUMBER: SRU2-3

SOURCE: SRU No. 2 TGI Exhaust
TEST DATE: 5/6/2010

BAROMETRIC:	29.80 in. Hg	STACK DIAM:	54.0 inches
STATIC PRES:	-1.9 in.H ₂ O	CO₂:	5.46 % by volume
STACK TEMP:	1445.2 °F	O₂:	2.82 % by volume
SQ.RT ΔP:	0.4271 in.H ₂ O		

DRY MOLECULAR WEIGHT OF STACK GAS			
$M_d = 0.44(\%CO_2) + 0.32(\%O_2) + 0.28(\%N_2 + \%CO)$	=	28.99	lb/lb-mole
MOLECULAR WEIGHT OF STACK GAS, wet basis			
$M_s = M_d(1 - B_{ws}) + 18B_{ws}$	=	27.45	lb/lb-mole
PITOT TUBE COEFFICIENT			
C_p (from calibration curve or geometric specifications)	=	0.84	
AVERAGE VELOCITY HEAD OF STACK GAS, in. H₂O			
$\sqrt{\Delta P} = \frac{1}{n} \sum_{i=1}^n \sqrt{\Delta p_i}$	=	0.4271	in. H ₂ O
AVERAGE ABSOLUTE STACK GAS TEMPERATURE			
$T_s = 1445.2 \text{ °F} + 460$	=	1,905.2	°R
ABSOLUTE STACK GAS PRESSURE			
$P_s = P_{bar} + \frac{P_{static}}{13.6}$	=	29.66	in.Hg
STACK GAS VELOCITY			
$V_s = (85.49)(C_p)(\text{avg}\sqrt{\Delta P})\sqrt{\frac{T_s}{(P_s)(M_s)}}$	=	46.914	ft/sec
STACK GAS VOLUMETRIC FLOW RATE, actual			
$Q_s = 60 \times V_s \times A_s$	=	44,768	acfm
Stack Area =		15.9043 ft ²	
STACK GAS VOLUMETRIC FLOW RATE, standard conditions, wet basis			
$Q_{stdw} = \left(\frac{528}{29.92}\right)(Q_s)\left(\frac{P_s}{T_s}\right)$	=	12,299.2	scfm, wb
		737,954	scfh, wb
STACK GAS VOLUMETRIC FLOW RATE, standard conditions, dry basis			
$Q_{std} = \left(\frac{528}{29.92}\right)(Q_s)\left(\frac{P_s}{T_s}\right)(1 - B_{ws})$	=	10,583.3	dscfm
		634,999	dscfh

ARI ENVIRONMENTAL, INC.
TOTAL PARTICULATE CALCULATION SUMMARY

COMPANY: Valero Refining - Texas, L.P.
LOCATION: Corpus Christi, TX
SOURCE: SRU No. 2 TGI Exhaust
TEST DATE: 5/6/2010
RUN NUMBER: SRU2-3

INPUT

V_m:	134.425	ft ³	Q_s:	10,583	dscfm
γ FACTOR:	0.995		T_s:	1445.2	°F
P_{bar}:	29.8	in.Hg	Runtime:	180	minutes
ΔH:	1.7	in.H ₂ O	V_s:	46.914	ft/sec
T_m:	102.8	°F	P_s:	29.66	in.Hg
V_{lc}:	432.3	mL	Noz. diam:	0.438	inches
M_n front:	10.79	mg			
M_n back:	92.15	mg			

ENGLISH UNITS
(29.92 in.Hg & 68 °F)

VOLUME OF SAMPLE @ STANDARD CONDITIONS, DRY BASIS					
$V_{mstd} = \left(\frac{528}{29.92} \right) \times V_m \times \gamma \left(\frac{P_{bar} + \frac{\Delta H}{13.6}}{T_m} \right) = 125.503 \text{ dscf}$					
$\gamma = 0.995$					
VOLUME OF WATER IN SAMPLE @ STANDARD CONDITIONS					
$V_{wstd} = 0.04707 \times V_{lc} = 20.348 \text{ scf}$					
FRACTIONAL MOISTURE CONTENT OF STACK GAS					
$B_{ws} = \frac{V_{wstd}}{V_{wstd} + V_{mstd}} \times 100 = 13.95 \%$					
PARTICULATE CONCENTRATION IN STACK GAS ON A DRY BASIS					
$C_s = (0.01543) \left(\frac{M_n}{V_{mstd}} \right)$					
	Front	=	0.0013266	gr/dscf	
	Back	=	0.0113294	gr/dscf	
	Total	=	0.0126559	gr/dscf	
$C'_s = (2.205 \times 10^{-6}) \left(\frac{M_n}{V_{mstd}} \right)$					
	C's Front	=	0.18957	x 10 ⁻⁶ lbs/dscf	
	C's Back	=	1.61901	x 10 ⁻⁶ lbs/dscf	
	C's Total	=	1.80858	x 10 ⁻⁶ lbs/dscf	
EMISSION RATE					
$pmr = \left(\frac{C_s}{7000} \right) (Q_{std})(60)$					
	Front	=	0.12034	lbs/hr	
	Back	=	1.02773	lbs/hr	
	Total	=	1.14807	lbs/hr	
ISOKINETIC SAMPLING RATE					
$\%ISO = \frac{(100)(T_s) \left[(0.002669 \times V_{lc}) + \left(\frac{V_m}{T_m} \right) (\gamma) \left(P_{bar} + \left(\frac{\Delta H}{13.6} \right) \right) \right]}{(60)(\theta)(V_s)(P_s)(A_n)} = 100.15 \%$					
	A _n =	0.00104635	ft ²	Runtime =	180 minutes

SO₂ CALCULATION DATA SHEET
USEPA METHOD 6C

COMPANY: Valero Refining - Texas, L.P.
LOCATION: Corpus Christi, TX
SOURCE: SRU No. 2 TGI Exhaust
MONITOR ID: California Analytical Instruments Model 600
RUN NO: SRU2-3
TEST DATE: 5/6/2010

INPUT

SO₂ AVERAGE READING (C): 53.0 ppmv

STACK GAS VOLUMETRIC FLOW RATE (Q_{std}): 634,999 dscfh

CALCULATIONS

STACK SO₂ CONCENTRATION

SO₂ CONC.(lbs/dscf) =

$$C_{\text{gas,lb/dscf}} = (C_{\text{gas,ppm}}) \left(\frac{64.07 \text{ lb/lb-mole}}{385.26 \times 10^6 \text{ ft}^3/\text{lb-mole}} \right) = 8.8135 \times 10^{-6} \text{ lbs/dscf}$$

SO₂ EMISSION RATE:

STACK GAS VOLUMETRIC FLOW RATE = 634,999 dscfh

STACK SO₂ EMISSION RATE =

$$\begin{aligned} \text{SO}_{2\text{pmr}} &= (C_{\text{gas,lb/dscf}})(Q_{\text{std}}) &= & 5.5966 \text{ lbs/hr} \\ & &= & 24.513 \text{ ton/yr} \end{aligned}$$

**NO_x CALCULATION DATA SHEET
USEPA METHOD 7E**

COMPANY: Valero Refining - Texas, L.P.
LOCATION: Corpus Christi, TX
SOURCE: SRU No. 2 TGI Exhaust
MONITOR ID: California Analytical Instruments Model 600
RUN NO: SRU2-3
TEST DATE: 5/6/2010

INPUT

NO_x AVERAGE READING (C): 6.6 ppmv

STACK GAS VOLUMETRIC FLOW RATE (Q_{std}): 634,999 dscfh

CALCULATIONS

STACK NO_x CONCENTRATION

NO_x CONC.(lbs/dscf) =

$$C_{\text{gas,lb/dscf}} = (C_{\text{gas,ppm}}) \left(\frac{46\text{lb/lb-mole}}{385.26 \times 10^6 \text{ft}^3/\text{lb-mole}} \right) = 0.7888 \times 10^{-6} \text{ lbs/dscf}$$

NO_x EMISSION RATE:

STACK GAS VOLUMETRIC FLOW RATE = 634,999 dscfh

STACK NO_x EMISSION RATE =

$$\text{NO}_{x\text{pmr}} = (C_{\text{gas,lb/dscf}})(Q_{\text{std}}) = 0.5009 \text{ lbs/hr}$$

$$= 2.194 \text{ ton/yr}$$

**CO CALCULATION DATA SHEET
USEPA METHOD 10**

COMPANY: Valero Refining - Texas, L.P.
LOCATION: Corpus Christi, TX
SOURCE: SRU No. 2 TGI Exhaust
MONITOR ID: Thermo Environmental Model 48i
RUN NO: SRU2-3
TEST DATE: 5/6/2010

INPUT

CO AVERAGE READING (C): 1.0 ppmv

STACK GAS VOLUMETRIC FLOW RATE (Q_{std}): 634,999 dscfh

CALCULATIONS

STACK CO CONCENTRATION

CO CONC.(lbs/dscf) =

$$C_{gas,lb/dscf} = (C_{gas,ppm}) \left(\frac{28lb / lb - mole}{385.26 \times 10^6 ft^3 / lb - mole} \right) = 0.0697 \times 10^{-6} \text{ lbs/dscf}$$

CO EMISSION RATE:

STACK GAS VOLUMETRIC FLOW RATE = 634,999 dscfh

STACK CO EMISSION RATE =

$$CO_{pmr} = (C_{gas,lb/dscf})(Q_{std}) = 0.0443 \text{ lbs/hr}$$

$$= 0.194 \text{ ton/yr}$$

**CARBONYL SULFIDE EMISSION RATE CALCULATION SHEET
USEPA METHOD 15**

COMPANY: Valero Refining - Texas, L.P.
LOCATION: Corpus Christi, TX
SOURCE: SRU No. 2 TGI Exhaust
MONITOR ID: SRI-9300B: GC-FPD
RUN NO: SRU2-3
TEST DATE: 5/6/2010

INPUT

COS CONCENTRATION (C): < 0.39 ppmv
 STACK GAS VOLUMETRIC FLOW RATE (Q_{std}): 634,999 dscfh

CALCULATIONS

STACK COS AVERAGE CHART READING = < 0.39 ppmv

COS CONCENTRATION (lbs/dscf) =

$$C_{\text{gas,lb/dscf}} = (C_{\text{gas,ppm}}) \left(\frac{60.07 \text{ lb / lb - mole}}{385.26 \times 10^{-6} \text{ ft}^3 / \text{lb - mole}} \right) = < 0.060 \times 10^{-6} \text{ lbs/dscf}$$

COS EMISSION RATE:

STACK GAS VOLUMETRIC FLOW RATE = 634,999 dscfh

STACK COS EMISSION RATE =

$$\text{COS}_{\text{pmr}} = (C_{\text{gas,lb/dscf}})(Q_{\text{std}}) = < 0.0384 \text{ lbs/hr}$$

$$= < 0.168 \text{ ton/yr}$$

**HYDROGEN SULFIDE CALIBRATION CORRECTION DATA SHEET
USEPA METHOD 15**

COMPANY: Valero Refining - Texas, L.P.
LOCATION: Corpus Christi, TX
SOURCE: SRU No. 2 TGI Exhaust
MONITOR ID: SRI-9300B: GC-FPD
RUN NO: SRU2-3
TEST DATE: 5/6/2010

INPUT

H₂S CONCENTRATION (C): < 0.74 ppmv
 STACK GAS VOLUMETRIC FLOW RATE (Q_{std}): 634,999 dscfh

CALCULATIONS

STACK H₂S AVERAGE CHART READING = < 0.74 ppmv

H₂S CONCENTRATION (lbs/dscf) =

$$C_{\text{gas,lb/dscf}} = (C_{\text{gas,ppm}}) \left(\frac{34.08 \text{ lb / lb - mole}}{385.26 \times 10^{-6} \text{ ft}^3 / \text{lb - mole}} \right) = < 0.065 \times 10^{-6} \text{ lbs/dscf}$$

H₂S EMISSION RATE:

STACK GAS VOLUMETRIC FLOW RATE = 634,999 dscfh

STACK H₂S EMISSION RATE =

$$H_2S_{\text{pmr}} = (C_{\text{gas,lb/dscf}})(Q_{\text{std}}) = < 0.0415 \text{ lbs/hr} \\ = < 0.182 \text{ ton/yr}$$

**CARBON DISULFIDE EMISSION RATE CALCULATION SHEET
USEPA METHOD 15**

COMPANY: Valero Refining - Texas, L.P.
LOCATION: Corpus Christi, TX
SOURCE: SRU No. 2 TGI Exhaust
MONITOR ID: SRI-9300B: GC-FPD
RUN NO: SRU2-3
TEST DATE: 5/6/2010

INPUT

CS₂ CONCENTRATION (C): < 0.38 ppmv
 STACK GAS VOLUMETRIC FLOW RATE (Q_{std}): 634,999 dscfh

CALCULATIONS

STACK CS₂ AVERAGE CHART READING = < 0.38 ppmv

CS₂ CONCENTRATION (lbs/dscf) =

$$C_{\text{gas,lb/dscf}} = (C_{\text{gas,ppm}}) \left(\frac{76.1\text{ lb / lb - mole}}{385.26 \times 10^{-6} \text{ ft}^3 / \text{lb - mole}} \right) = < 0.074 \times 10^{-6} \text{ lbs/dscf}$$

CS₂ EMISSION RATE:

STACK GAS VOLUMETRIC FLOW RATE = 634,999 dscfh

STACK CS₂ EMISSION RATE =

$$CS_{2\text{pmr}} = (C_{\text{gas,lb/dscf}})(Q_{\text{std}}) = < 0.0470 \text{ lbs/hr} \\ = < 0.206 \text{ ton/yr}$$

**RSC as H₂S EMISSION RATE CALCULATION SHEET
USEPA METHOD 15**

COMPANY: Valero Refining - Texas, L.P.
LOCATION: Corpus Christi, TX
SOURCE: SRU No. 2 TGI Exhaust
MONITOR ID: SRI-9300B: GC-FPD
RUN NO: SRU2-3
TEST DATE: 5/6/2010

INPUT

COS CONCENTRATION (C): < 0.39 ppmv
 CS₂ CONCENTRATION (C): < 0.38 ppmv
 H₂S CONCENTRATION (C): < 0.74 ppmv
 STACK GAS VOLUMETRIC FLOW RATE (Q_{std}): 634,999 dscfh
 STACK OXYGEN CONTENT (%O₂): 2.82 %

CALCULATIONS

AVERAGE STACK RSC as H₂S = < 1.88 ppmv

AVERAGE STACK RSC as H₂S @ 3% O₂

$$C_{\text{gas,ppm@3\%O}_2} = (C_{\text{gas,ppm}}) \left(\frac{17.9}{20.9 - \%O_2} \right) = < 1.84 \text{ ppmv @ 3\% O}_2$$

RSC as H₂S CONCENTRATION (lbs/dscf) =

$$C_{\text{gas,lb/dscf}} = (C_{\text{gas,ppm}}) \left(\frac{34.08\text{lb/lb - mole}}{385.26 \times 10^{-6} \text{ft}^3 / \text{lb - mole}} \right) = < 0.166 \times 10^{-6} \text{ lbs/dscf}$$

RSC as H₂S EMISSION RATE:

STACK GAS VOLUMETRIC FLOW RATE = 634,999 dscfh

STACK RSC as H₂S EMISSION RATE =

$$RSC_{\text{pmr}} = (C_{\text{gas,lb/dscf}})(Q_{\text{std}}) = < 0.1054 \text{ lbs/hr}$$

$$= < 0.462 \text{ ton/yr}$$

MONITOR DATA SUMMARY

COMPANY : Valero Refining - Texas, L.P
 SOURCE : SRU No 2 TGI Exhaust
 REPETITION : SRU2-4
 TEST DATE : 5/7/2010
 START TIME : 8:20
 END TIME : 12:28

GAS ANALYZER NO_x

SCALE : 0 - 90.0 ppm
 AVERAGE CAL. BIAS (C_m): 41.24
 AVERAGE ZERO BIAS (C_o): 0.12
 CALIBRATION GAS: EPA Protocol NO_x
 CALIBRATION PPM (C_{ma}): 45.0
 PPM CORRECTED (C_{gas}): 6.9

GAS ANALYZER CO

SCALE : 0 - 88.3 ppm
 AVERAGE CAL. BIAS (C_m): 45.56
 AVERAGE ZERO BIAS (C_o): 1.00
 CALIBRATION GAS: EPA Protocol CO
 CALIBRATION PPM (C_{ma}): 44.2
 PPM CORRECTED (C_{gas}): 14.8

GAS ANALYZER O₂

SCALE : 0 - 10.00 %
 AVERAGE CAL. BIAS (C_m): 4.914
 AVERAGE ZERO BIAS (C_o): 0.001
 CALIBRATION GAS: EPA Protocol O₂
 CALIBRATION PPM (C_{ma}): 5.00
 PPM CORRECTED (C_{gas}): 2.29

GAS ANALYZER CO₂

SCALE : 0 - 8.65 %
 AVERAGE CAL. BIAS (C_m): 4.304
 AVERAGE ZERO BIAS (C_o): 0.053
 CALIBRATION GAS: EPA Protocol CO₂
 CALIBRATION % (C_{ma}): 4.32
 % CORRECTED (C_{gas}): 6.13

GAS ANALYZER SO₂

SCALE : 0 - 90.0 ppm
 AVERAGE CAL. BIAS (C_m): 42.67
 AVERAGE ZERO BIAS (C_o): 2.03
 CALIBRATION GAS: EPA Protocol SO₂
 CALIBRATION ppm (C_{ma}): 45.00
 PPM CORRECTED (C_{gas}): 50.66

Example Calculation =
$$C_{gas} = \frac{(\bar{C} - C_o) C_{ma}}{C_m - C_o}$$

NO_x, ppm @ 0% O₂ = 7.7
 CO, ppm @ 0% O₂ = 16.6
 SO₂, ppm @ 0% O₂ = 56.9

$$C_{gas} @ 0\% O_2 = C_{gas} \frac{20.9}{20.9 - O_2}$$

CLOCK TIME	ELAPSED TIME	Uncorrected				
		O ₂ % vol db	CO ₂ % vol db	SO ₂ ppmv db	NO _x ppmv db	CO ppmv db
8:20	0	-----	-----	-----	-----	-----
8:21	1	2.22	5.90	33.47	6.08	2.47
8:22	2	2.27	5.82	33.56	6.10	2.52
8:23	3	2.13	5.94	34.73	6.15	1.76
8:24	4	2.24	5.84	41.86	6.41	3.95
8:25	5	2.61	5.65	50.07	5.88	14.30
8:26	6	2.69	5.64	58.13	5.73	14.97
8:27	7	2.58	5.68	66.28	6.42	10.37
8:28	8	2.42	5.89	74.97	6.19	3.19
8:29	9	2.45	5.77	81.12	5.93	28.92
8:30	10	2.74	5.52	91.04	5.97	85.69
8:31	11	2.55	5.73	95.80	5.84	27.59
8:32	12	2.42	5.75	100.83	6.35	4.33
8:33	13	2.42	5.83	100.83	6.15	2.99
8:34	14	2.49	5.75	100.83	5.82	3.74
8:35	15	2.36	5.83	100.83	6.37	3.04
8:36	16	2.24	5.91	81.23	5.97	1.48
8:37	17	2.07	5.91	55.21	6.29	1.17
8:38	18	1.99	6.02	49.76	6.11	1.08
8:39	19	2.39	5.76	45.69	5.97	2.60
8:40	20	2.43	5.76	44.58	6.11	4.22
8:41	21	2.19	5.94	44.91	6.22	1.51
8:42	22	2.19	5.90	44.06	6.10	1.39
8:43	23	2.51	5.71	44.15	6.37	3.69
8:44	24	2.10	5.97	44.33	6.25	1.94
8:45	25	2.15	5.89	43.83	6.26	1.39
8:46	26	2.00	6.04	42.75	6.08	1.02
8:47	27	2.25	5.79	40.21	5.80	1.82
8:48	28	2.46	5.74	38.71	5.92	2.51
8:49	29	2.12	5.94	40.26	5.81	1.32
8:50	30	2.32	5.80	45.89	6.17	1.56
8:51	31	2.38	5.86	60.37	6.32	1.35
8:52	32	2.51	5.72	69.49	5.79	1.90
8:53	33	2.57	5.69	79.18	5.75	3.39
8:54	34	2.39	5.77	86.78	5.78	2.07
8:55	35	2.49	5.69	93.49	5.66	3.24
8:56	36	2.65	5.61	94.32	5.62	13.33
8:57	37	2.50	5.67	88.83	5.80	8.44
8:58	38	2.37	5.81	88.83	5.83	2.02
8:59	39	2.39	5.81	88.83	6.39	1.66
9:00	40	2.54	5.70	88.83	5.92	4.88
9:01	41	2.67	5.63	88.83	6.04	21.31
9:02	42	2.70	5.52	84.41	6.15	57.09
9:03	43	2.40	5.72	60.55	6.12	17.78
9:04	44	2.48	5.62	51.11	6.13	9.42
9:05	45	2.36	5.75	47.97	6.33	5.29
9:06	46	2.08	5.97	46.41	6.17	1.94
9:07	47	2.30	5.78	44.92	6.22	2.14
9:08	48	2.01	6.03	45.86	6.41	1.26
9:09	49	2.00	5.95	45.16	5.82	1.89
9:10	50	2.61	5.62	43.55	5.90	8.39
9:11	51	2.21	5.89	43.79	5.77	3.66
9:12	52	2.55	5.64	41.88	5.74	4.77
9:13	53	2.48	5.74	41.14	5.79	4.15
9:14	54	2.40	5.67	41.00	5.74	2.53
9:15	55	2.64	5.61	41.38	5.71	22.94
9:16	56	2.40	5.74	42.07	5.87	24.97
9:17	57	2.16	5.86	42.06	5.88	2.21
9:18	58	2.18	5.94	41.68	5.87	1.37
9:19	59	2.27	5.81	41.20	5.82	1.42
9:20	60	2.24	5.85	41.30	6.24	1.56
9:21	61	2.02	6.03	42.06	6.10	1.00
9:22	62	2.36	5.69	40.96	6.02	1.20
9:23	63	2.60	5.68	40.22	6.02	4.74
9:24	64	2.69	5.66	40.68	6.20	11.99
9:25	65	2.40	5.82	41.74	6.23	2.87
9:26	66	2.35	5.88	41.88	6.11	1.44
9:27	67	2.49	5.76	41.55	6.11	2.49
9:28	68	2.47	5.76	41.97	6.40	1.93
9:29	69	1.96	6.10	43.44	6.33	1.07
9:30	70	2.32	5.80	42.24	6.07	1.84
9:31	71	2.62	5.67	42.22	6.08	3.83
9:32	72	2.40	5.80	42.73	5.97	2.35
9:33	73	2.46	5.73	43.02	5.97	2.15
9:34	74	2.30	5.90	43.35	5.81	1.52
9:35	75	2.44	5.82	42.80	5.86	1.56
9:36	76	2.37	5.86	43.20	5.77	1.37
9:37	77	2.38	5.83	43.37	5.78	1.39
9:38	78	2.44	5.80	42.76	5.69	1.49
9:39	79	2.63	5.70	43.17	5.83	2.78
9:40	80	2.22	5.96	44.14	5.82	1.56
9:41	81	2.30	5.90	43.86	5.76	1.17
9:42	82	2.34	5.87	44.34	5.72	1.15
9:43	83	2.35	5.82	44.44	5.70	1.36
9:44	84	2.60	5.68	44.44	5.76	3.05
9:45	85	2.47	5.77	44.69	5.88	2.70
9:46	86	2.49	5.73	44.74	5.92	1.86
9:47	87	2.44	5.79	44.90	6.00	1.89
9:48	88	2.47	5.72	44.85	6.03	2.15
9:49	89	2.41	5.77	44.81	6.08	1.86
9:50	90	2.39	5.79	45.13	6.07	1.48

CLOCK TIME	ELAPSED	O ₂	CO ₂	SO ₂	NO _x	CO
	TIME	% vol db	% vol db	ppmv db	ppmv db	ppmv db
9:51	91	2.51	5.71	45.28	6.03	2.44
9:52	92	2.48	5.76	46.06	6.53	2.71
9:53	93	2.39	5.76	45.79	6.07	2.34
9:54	94	2.60	5.70	45.94	6.15	4.52
9:55	95	2.47	5.80	46.23	6.13	2.85
9:56	96	2.55	5.74	46.33	6.03	3.58
9:57	97	2.66	5.73	46.12	6.12	7.29
9:58	98	2.50	5.78	46.01	5.96	3.41
9:59	99	2.65	5.67	45.89	5.81	7.18
10:00	100	2.72	5.63	46.65	5.83	29.69
10:01	101	2.29	5.89	47.26	5.97	10.95
10:02	102	2.12	6.00	47.40	5.81	1.21
10:03	103	2.39	5.81	46.78	5.75	1.41
10:04	104	2.30	5.90	47.07	5.84	1.45
10:05	105	2.36	5.88	47.49	5.70	1.15
10:06	106	2.46	5.81	46.92	5.58	1.55
10:07 / 10:15	107	2.59	5.76	46.86	5.53	3.13
10:16	108	2.57	5.73	40.50	6.35	25.12
10:17	109	2.58	5.75	40.35	6.42	66.34
10:18	110	2.42	5.94	40.76	6.55	55.41
10:19	111	2.31	5.91	41.35	6.58	2.87
10:20	112	2.35	6.02	41.17	6.36	1.78
10:21	113	2.51	5.96	50.04	6.70	2.55
10:22	114	2.27	6.03	47.75	6.34	2.17
10:23	115	2.73	5.82	40.15	6.36	33.93
10:24	116	2.90	5.62	39.59	6.36	111.70
10:25	117	2.65	5.81	38.64	6.39	31.89
10:26	118	2.69	5.88	38.57	6.40	9.71
10:27	119	2.55	5.89	38.17	6.39	4.93
10:28	120	2.68	5.86	38.49	6.36	33.66
10:29	121	2.80	5.87	38.93	6.41	108.16
10:30	122	2.57	5.92	38.34	6.46	25.86
10:31	123	2.41	6.09	38.69	6.61	3.46
10:32	124	2.43	6.07	38.75	6.57	1.99
10:33	125	2.47	6.00	38.41	6.54	2.01
10:34	126	2.63	5.97	36.92	6.54	4.17
10:35	127	2.53	6.03	36.84	6.68	3.44
10:36	128	2.30	6.11	36.82	6.53	1.71
10:37	129	2.57	6.05	36.76	6.52	2.60
10:38	130	2.61	5.94	36.17	6.44	3.17
10:39	131	2.83	5.80	35.09	6.48	12.44
10:40	132	2.76	5.90	35.24	6.48	11.16
10:41	133	2.71	5.85	34.71	6.52	4.04
10:42	134	2.62	5.95	34.54	6.54	3.28
10:43	135	2.66	5.86	34.66	6.58	3.77
10:44	136	2.59	5.89	34.04	6.81	4.04
10:45	137	2.37	6.18	34.63	6.84	1.55
10:46	138	2.39	6.06	34.26	6.69	1.31
10:47	139	2.44	6.09	34.35	7.11	1.20
10:48	140	2.20	6.27	35.20	6.94	1.12
10:49	141	2.21	6.18	35.53	7.03	1.13
10:50	142	2.25	6.22	34.83	6.78	1.13
10:51	143	2.50	6.12	34.62	6.94	1.21
10:52	144	2.39	6.10	34.13	6.71	1.43
10:53	145	2.63	5.99	34.22	6.80	1.59
10:54	146	2.32	6.22	34.36	6.82	1.22
10:55	147	2.42	6.07	34.08	6.67	1.21
10:56	148	2.55	6.02	33.76	6.78	1.33
10:57	149	2.38	6.12	34.68	6.76	1.26
10:58	150	2.43	6.07	34.65	6.71	1.28
10:59	151	2.45	6.10	34.50	6.64	1.27
11:00	152	2.70	5.89	33.41	6.72	1.56
11:01	153	2.54	6.04	33.86	6.77	1.45
11:02	154	2.44	6.10	33.39	6.79	1.27
11:03	155	2.40	6.12	33.83	6.82	1.21
11:04	156	2.40	6.12	34.52	6.89	1.34
11:05	157	2.17	6.27	36.02	7.05	1.25
11:06	158	2.04	6.31	37.58	7.26	1.31
11:07	159	2.03	6.36	37.76	7.00	1.42
11:08	160	2.24	6.21	37.08	6.82	1.38
11:09	161	2.51	6.11	35.78	6.67	1.61
11:10	162	2.80	5.91	34.17	6.61	1.88
11:11	163	2.74	5.93	35.42	6.64	2.07
11:12	164	2.62	6.02	36.62	6.76	1.64
11:13	165	2.39	6.14	37.14	6.73	1.41
11:14	166	2.55	6.06	36.70	6.90	1.44
11:15	167	2.20	6.30	38.63	6.75	1.25
11:16	168	2.48	6.13	37.53	6.63	1.39
11:17	169	2.61	6.04	36.49	6.52	1.62
11:18	170	2.84	5.90	37.06	6.61	5.02
11:19	171	2.73	5.90	37.23	6.66	11.14
11:20	172	2.47	6.11	37.05	6.60	2.68
11:21	173	2.56	6.09	37.91	6.61	1.65
11:22	174	2.59	6.04	38.02	6.54	1.66
11:23	175	2.45	6.17	38.22	6.82	1.50
11:24	176	2.21	6.28	37.63	6.91	1.33
11:25	177	2.46	6.20	38.83	6.73	1.43
11:26	178	2.48	6.15	39.38	6.59	1.46
11:27	179	2.74	5.94	38.05	6.57	1.79
11:28	180	2.57	6.12	37.30	6.67	1.69
11:29	181	2.42	6.22	37.21	6.65	1.45
11:30	182	2.42	6.20	37.02	6.67	1.35
11:31	183	2.40	6.22	37.10	6.71	1.36

CLOCK TIME	ELAPSED	O ₂	CO ₂	SO ₂	NO _x	CO
	TIME	% vol db	% vol db	ppmv db	ppmv db	ppmv db
11:32	184	2.25	6.29	38.48	6.76	1.37
11:33	185	2.28	6.28	39.10	6.72	1.33
11:34	186	2.28	6.29	38.94	6.70	1.39
11:35	187	2.43	6.21	38.74	6.73	1.40
11:36	188	2.32	6.30	39.36	6.89	1.47
11:37	189	2.33	6.27	39.74	7.08	1.46
11:38	190	2.41	6.24	39.54	6.81	1.55
11:39	191	2.08	6.43	40.23	6.50	1.71
11:40	192	2.27	6.32	41.15	7.19	1.53
11:41	193	2.35	6.30	44.32	6.76	1.52
11:42	194	1.83	6.63	46.87	6.73	2.43
11:43	195	1.89	6.57	49.53	6.61	6.62
11:44	196	2.32	6.31	46.36	6.37	5.08
11:45	197	2.32	6.32	44.58	6.55	1.58
11:46	198	2.29	6.34	43.85	6.51	1.66
11:47	199	2.27	6.34	42.42	6.51	1.90
11:48	200	1.90	6.60	51.03	7.11	74.43
11:49	201	0.91	7.06	52.82	6.79	116.57
11:50	202	1.47	6.83	50.01	6.61	54.66
11:51	203	1.70	6.71	49.61	6.62	63.79
11:52	204	1.74	6.67	49.65	6.58	87.11
11:53	205	1.85	6.58	49.23	6.51	38.08
11:54	206	1.91	6.55	48.81	6.64	11.30
11:55	207	1.46	6.76	52.03	6.64	105.49
11:56	208	1.59	6.74	51.15	6.68	107.43
11:57	209	1.55	6.74	50.96	6.54	48.23
11:58	210	1.75	6.66	50.65	6.75	28.33
11:59	211	1.38	6.82	52.94	6.76	114.31
12:00	212	1.69	6.61	50.19	6.58	65.90
12:01	213	2.25	6.37	48.47	6.64	10.39
12:02	214	1.74	6.65	48.90	7.37	21.12
12:03	215	1.68	6.65	50.89	7.46	18.37
12:04	216	1.56	6.73	53.71	7.85	36.31
12:05	217	1.64	6.71	52.39	6.94	56.39
12:06	218	1.41	6.82	50.97	6.67	37.50
12:07	219	1.84	6.63	51.08	6.83	38.63
12:08	220	1.30	6.91	54.98	7.52	88.75
12:09	221	1.25	6.93	58.10	7.12	101.05
12:10	222	1.06	7.00	61.27	6.93	98.80
12:11	223	1.15	6.96	59.71	6.64	87.40
12:12	224	1.25	6.94	58.30	6.67	85.04
12:13	225	1.12	6.99	62.62	6.86	86.57
12:14	226	0.76	7.18	69.51	7.05	86.57
12:15	227	0.62	7.26	72.08	6.73	86.57
12:16	228	0.97	7.07	68.85	6.77	86.57
12:17	229	1.00	7.08	65.93	6.80	86.57
12:18	230	1.07	7.04	65.31	6.95	86.57
12:19	231	0.70	7.21	70.73	7.23	86.57
12:20	232	1.24	6.94	65.87	7.30	86.57
12:21	233	1.33	6.94	62.34	7.07	86.57
12:22	234	1.00	7.12	64.35	6.71	72.24
12:23	235	1.35	6.95	60.22	6.76	15.37
12:24	236	1.41	6.93	57.35	6.77	12.00
12:25	237	1.45	6.93	56.70	6.70	5.43
12:26	238	1.53	6.88	55.99	6.52	3.37
12:27	239	1.67	6.81	54.62	6.46	0.70
12:28	240	1.94	6.70	53.44	6.66	0.34
Uncorrected Average =		2.25	6.09	47.78	6.40	15.87

**ARI ENVIRONMENTAL, INC.
MOISTURE CALCULATION SUMMARY**

COMPANY: Valero Refining - Texas, L.P.
LOCATION: Corpus Christi, TX
SOURCE: SRU No. 2 TGI Exhaust
TEST DATE: 5/7/2010
RUN NUMBER: SRU2-4

γ FACTOR:	0.995	STACK DIAM:	54.0 inches
BAROMETRIC:	29.85 in. Hg	METER VOLUME:	141.645 ft ³
STATIC PRES:	-1.90 in.H ₂ O	METER TEMP:	107.0 °F
STACK TEMP:	1501.6 °F	LIQUID COLL:	445.7 milliliters
SQ.RT ΔP:	0.4559 in.H ₂ O	CO₂:	6.13 % by volume
ΔH:	1.90 in.H ₂ O	O₂:	2.29 % by volume

**ENGLISH UNITS
(29.92 in.Hg & °F)**

<p>VOLUME OF SAMPLE @ STANDARD CONDITIONS, DRY BASIS</p> $V_{mstd} = \left(\frac{528}{29.92} \right) \times V_m \times \gamma \left[\frac{P_{bar} + \frac{\Delta H}{13.6}}{T_m} \right] = 131.548 \text{ dscf}$ <p style="text-align: center;">$\gamma = 0.995$</p>
<p>VOLUME OF WATER IN SAMPLE @ STANDARD CONDITIONS</p> $V_{wstd} = 0.04707 \times V_{lc} = 20.979 \text{ scf}$ <p style="text-align: center;">$V_{lc} = 445.7 \text{ mL}$</p>
<p>FRACTIONAL MOISTURE CONTENT OF STACK GAS AS MEASURED</p> $B_{ws} = \frac{V_{wstd}}{V_{wstd} + V_{mstd}} = 0.1375$
<p>FRACTIONAL MOISTURE CONTENT OF STACK GAS @ SATURATION</p> $MF = \frac{\left(10^{\left[8.361 - \left(\frac{1893.5}{T - 27.65} \right) \right]} \right)^{-0.5}}{P} = 1.000$ <p style="text-align: center;"> $T = 1089.4 \text{ °K}$ $P = 754.6 \text{ mmHg}$ </p>
<p>FRACTIONAL MOISTURE CONTENT USED IN CALCULATIONS</p> <p style="text-align: right;">$B_{ws} = 0.1375$</p>

ARI ENVIRONMENTAL, INC.
FLOW RATE CALCULATION SUMMARY

COMPANY: Valero Refining - Texas
LOCATION: Corpus Christi, TX
RUN NUMBER: SRU2-4

SOURCE: SRU No. 2 TGI Exhaust
TEST DATE: 5/7/2010

BAROMETRIC:	29.85 in. Hg	STACK DIAM:	54.0 inches
STATIC PRES:	-1.9 in.H ₂ O	CO₂:	6.13 % by volume
STACK TEMP:	1501.6 °F	O₂:	2.29 % by volume
SQ.RT ΔP:	0.4559 in.H ₂ O		

DRY MOLECULAR WEIGHT OF STACK GAS			
$M_d = 0.44(\%CO_2) + 0.32(\%O_2) + 0.28(\%N_2 + \%CO)$	=	29.07	lb/lb-mole
MOLECULAR WEIGHT OF STACK GAS, wet basis			
$M_s = M_d(1 - B_{ws}) + 18B_{ws}$	=	27.55	lb/lb-mole
PITOT TUBE COEFFICIENT			
C_p (from calibration curve or geometric specifications)	=	0.84	
AVERAGE VELOCITY HEAD OF STACK GAS, in. H₂O			
$\sqrt{\Delta P} = \frac{1}{n} \sum_{i=1}^n \sqrt{\Delta p_i}$	=	0.4559	in. H ₂ O
AVERAGE ABSOLUTE STACK GAS TEMPERATURE			
$T_s = 1501.6 \text{ °F} + 460$	=	1,961.6	°R
ABSOLUTE STACK GAS PRESSURE			
$P_s = P_{bar} + \frac{P_{static}}{13.6}$	=	29.71	in.Hg
STACK GAS VELOCITY			
$V_s = (85.49)(C_p)(avg \sqrt{\Delta P}) \sqrt{\frac{T_s}{(P_s)(M_s)}}$	=	50.683	ft/sec
STACK GAS VOLUMETRIC FLOW RATE, actual			
$Q_s = 60 \times V_s \times A_s$	=	48,364	acfm
Stack Area =		15.9043 ft ²	
STACK GAS VOLUMETRIC FLOW RATE, standard conditions, wet basis			
$Q_{stdw} = \left(\frac{528}{29.92}\right)(Q_s) \left(\frac{P_s}{T_s}\right)$	=	12,926.9	scfm, wb
		775,612	scfh, wb
STACK GAS VOLUMETRIC FLOW RATE, standard conditions, dry basis			
$Q_{std} = \left(\frac{528}{29.92}\right)(Q_s) \left(\frac{P_s}{T_s}\right) (1 - B_{ws})$	=	11,148.9	dscfm
		668,932	dscfh

ARI ENVIRONMENTAL, INC.
TOTAL PARTICULATE CALCULATION SUMMARY

COMPANY: Valero Refining - Texas, L.P.
LOCATION: Corpus Christi, TX
SOURCE: SRU No. 2 TGI Exhaust
TEST DATE: 5/7/2010
RUN NUMBER: SRU2-4

INPUT

V_m:	141.645	ft ³	Q_s:	11,149	dscfm
γ FACTOR:	0.995		T_s:	1501.6	°F
P_{bar}:	29.85	in.Hg	Runtime:	180	minutes
ΔH:	1.9	in.H ₂ O	V_s:	50.683	ft/sec
T_m:	107.0	°F	P_s:	29.71	in.Hg
V_{ic}:	445.7	mL	Noz. diam:	0.438	inches
M_n front:	12.27	mg			
M_n back:	75.75	mg			

ENGLISH UNITS
(29.92 in.Hg & 68 °F)

VOLUME OF SAMPLE @ STANDARD CONDITIONS, DRY BASIS

$$V_{mstd} = \left(\frac{528}{29.92} \right) \times V_m \times \gamma \left(\frac{P_{bar} + \frac{\Delta H}{13.6}}{T_m} \right) = 131.548 \text{ dscf}$$

$\gamma = 0.995$

VOLUME OF WATER IN SAMPLE @ STANDARD CONDITIONS

$$V_{wstd} = 0.04707 \times V_{ic} = 20.979 \text{ scf}$$

FRACTIONAL MOISTURE CONTENT OF STACK GAS

$$B_{ws} = \frac{V_{wstd}}{V_{wstd} + V_{mstd}} \times 100 = 13.75 \%$$

PARTICULATE CONCENTRATION IN STACK GAS ON A DRY BASIS

$$C_s = (0.01543) \left(\frac{M_n}{V_{mstd}} \right)$$

Front	=	0.0014392	gr/dscf
Back	=	0.0088851	gr/dscf
Total	=	0.0103243	gr/dscf

$$C'_s = (2.205 \times 10^{-6}) \left(\frac{M_n}{V_{mstd}} \right)$$

C's Front	=	0.20567	x 10 ⁻⁶ lbs/dscf
C's Back	=	1.26971	x 10 ⁻⁶ lbs/dscf
C's Total	=	1.47538	x 10 ⁻⁶ lbs/dscf

EMISSION RATE

$$pmr = \left(\frac{C_s}{7000} \right) (Q_{std})(60)$$

Front	=	0.13753	lbs/hr
Back	=	0.84908	lbs/hr
Total	=	0.98661	lbs/hr

ISOKINETIC SAMPLING RATE

$$\%ISO = \frac{(100)(T_s) \left[(0.002669 \times V_{ic}) + \left(\frac{V_m}{T_m} \right) (\gamma) \left(P_{bar} + \left(\frac{\Delta H}{13.6} \right) \right) \right]}{(60)(\theta)(V_s)(P_s)(A_n)} = 99.65 \%$$

$A_n = 0.00104635 \text{ ft}^2$ Runtime = 180 minutes

SO₂ CALCULATION DATA SHEET
USEPA METHOD 6C

COMPANY: Valero Refining - Texas, L.P.
LOCATION: Corpus Christi, TX
SOURCE: SRU No. 2 TGI Exhaust
MONITOR ID: California Analytical Instruments Model 600
RUN NO: SRU2-4
TEST DATE: 5/7/2010

INPUT

SO₂ AVERAGE READING (C): 50.7 ppmv

STACK GAS VOLUMETRIC FLOW RATE (Q_{std}): 668,932 dscfh

CALCULATIONS

STACK SO₂ CONCENTRATION

SO₂ CONC.(lbs/dscf) =

$$C_{\text{gas,lb/dscf}} = (C_{\text{gas,ppm}}) \left(\frac{64.07 \text{ lb/lb-mole}}{385.26 \times 10^6 \text{ ft}^3/\text{lb-mole}} \right) = 8.4244 \times 10^{-6} \text{ lbs/dscf}$$

SO₂ EMISSION RATE:

STACK GAS VOLUMETRIC FLOW RATE = 668,932 dscfh

STACK SO₂ EMISSION RATE =

$$\text{SO}_{2\text{pmr}} = (C_{\text{gas,lb/dscf}})(Q_{\text{std}}) = 5.6353 \text{ lbs/hr}$$
$$= 24.683 \text{ ton/yr}$$

**NO_x CALCULATION DATA SHEET
USEPA METHOD 7E**

COMPANY: Valero Refining - Texas, L.P.
LOCATION: Corpus Christi, TX
SOURCE: SRU No. 2 TGI Exhaust
MONITOR ID: California Analytical Instruments Model 600
RUN NO: SRU2-4
TEST DATE: 5/7/2010

INPUT

NO_x AVERAGE READING (C): 6.9 ppmv

STACK GAS VOLUMETRIC FLOW RATE (Q_{std}): 668,932 dscfh

CALCULATIONS

STACK NO_x CONCENTRATION

NO_x CONC.(lbs/dscf) =

$$C_{\text{gas,lb/dscf}} = (C_{\text{gas,ppm}}) \left(\frac{46\text{lb/lb - mole}}{385.26 \times 10^6 \text{ft}^3 / \text{lb - mole}} \right) = 0.8205 \times 10^{-6} \text{ lbs/dscf}$$

NO_x EMISSION RATE:

STACK GAS VOLUMETRIC FLOW RATE = 668,932 dscfh

STACK NO_x EMISSION RATE =

$$\text{NO}_{x\text{pmr}} = (C_{\text{gas,lb/dscf}})(Q_{\text{std}}) = 0.5489 \text{ lbs/hr}$$

$$= 2.404 \text{ ton/yr}$$

**CO CALCULATION DATA SHEET
USEPA METHOD 10**

COMPANY: Valero Refining - Texas, L.P.
LOCATION: Corpus Christi, TX
SOURCE: SRU No. 2 TGI Exhaust
MONITOR ID: Thermo Environmental Model 48i
RUN NO: SRU2-4
TEST DATE: 5/7/2010

INPUT

CO AVERAGE READING (C): 14.8 ppmv

STACK GAS VOLUMETRIC FLOW RATE (Q_{std}): 668,932 dscfh

CALCULATIONS

STACK CO CONCENTRATION

$$C_{gas,lb/dscf} = (C_{gas,ppm}) \left(\frac{28lb/lb - mole}{385.26 \times 10^6 ft^3 / lb - mole} \right) = 1.0721 \times 10^{-6} \text{ lbs/dscf}$$

CO EMISSION RATE:

STACK GAS VOLUMETRIC FLOW RATE = 668,932 dscfh

STACK CO EMISSION RATE =

$$CO_{pmr} = (C_{gas,lb/dscf})(Q_{std}) = 0.7171 \text{ lbs/hr} = 3.141 \text{ ton/yr}$$

**CARBONYL SULFIDE EMISSION RATE CALCULATION SHEET
USEPA METHOD 15**

COMPANY: Valero Refining - Texas, L.P.
LOCATION: Corpus Christi, TX
SOURCE: SRU No. 2 TGI Exhaust
MONITOR ID: SRI-9300B: GC-FPD
RUN NO: SRU2-4
TEST DATE: 5/7/2010

INPUT

COS CONCENTRATION (C): < 0.39 ppmv
 STACK GAS VOLUMETRIC FLOW RATE (Q_{std}): 668,932 dscfh

CALCULATIONS

STACK COS AVERAGE CHART READING = < 0.39 ppmv

COS CONCENTRATION (lbs/dscf) =

$$C_{\text{gas,lb/dscf}} = (C_{\text{gas,ppm}}) \left(\frac{60.07 \text{ lb / lb - mole}}{385.26 \times 10^{-6} \text{ ft}^3 \text{ / lb - mole}} \right) = < 0.060 \times 10^{-6} \text{ lbs/dscf}$$

COS EMISSION RATE:

STACK GAS VOLUMETRIC FLOW RATE = 668,932 dscfh

STACK COS EMISSION RATE =

$$\text{COS}_{\text{pmr}} = (C_{\text{gas,lb/dscf}})(Q_{\text{std}}) = < 0.0405 \text{ lbs/hr} \\ = < 0.177 \text{ ton/yr}$$

**HYDROGEN SULFIDE CALIBRATION CORRECTION DATA SHEET
USEPA METHOD 15**

COMPANY: Valero Refining - Texas, L.P.
LOCATION: Corpus Christi, TX
SOURCE: SRU No. 2 TGI Exhaust
MONITOR ID: SRI-9300B: GC-FPD
RUN NO: SRU2-4
TEST DATE: 5/7/2010

INPUT

H₂S CONCENTRATION (C): < 0.74 ppmv
STACK GAS VOLUMETRIC FLOW RATE (Q_{std}): 668,932 dscfh

CALCULATIONS

STACK H₂S AVERAGE CHART READING = < 0.74 ppmv

H₂S CONCENTRATION (lbs/dscf) =

$$C_{\text{gas,lb/dscf}} = (C_{\text{gas,ppm}}) \left(\frac{34.08 \text{ lb / lb - mole}}{385.26 \times 10^{-6} \text{ ft}^3 / \text{lb - mole}} \right) = < 0.065 \times 10^{-6} \text{ lbs/dscf}$$

H₂S EMISSION RATE:

STACK GAS VOLUMETRIC FLOW RATE = 668,932 dscfh

STACK H₂S EMISSION RATE =

$$H_2S_{\text{pmr}} = (C_{\text{gas,lb/dscf}})(Q_{\text{std}}) = < 0.0437 \text{ lbs/hr} \\ = < 0.192 \text{ ton/yr}$$

**CARBON DISULFIDE EMISSION RATE CALCULATION SHEET
USEPA METHOD 15**

COMPANY: Valero Refining - Texas, L.P.
LOCATION: Corpus Christi, TX
SOURCE: SRU No. 2 TGI Exhaust
MONITOR ID: SRI-9300B: GC-FPD
RUN NO: SRU2-4
TEST DATE: 5/7/2010

INPUT

CS₂ CONCENTRATION (C): < 0.38 ppmv
 STACK GAS VOLUMETRIC FLOW RATE (Q_{std}): 668,932 dscfh

CALCULATIONS

STACK CS₂ AVERAGE CHART READING = < 0.38 ppmv

CS₂ CONCENTRATION (lbs/dscf) =

$$C_{\text{gas,lb/dscf}} = (C_{\text{gas,ppm}}) \left(\frac{76.1 \text{ lb / lb - mole}}{385.26 \times 10^{-6} \text{ ft}^3 / \text{lb - mole}} \right) = < 0.074 \times 10^{-6} \text{ lbs/dscf}$$

CS₂ EMISSION RATE:

STACK GAS VOLUMETRIC FLOW RATE = 668,932 dscfh

STACK CS₂ EMISSION RATE =

$$CS_{2\text{pmr}} = (C_{\text{gas,lb/dscf}})(Q_{\text{std}}) = < 0.0496 \text{ lbs/hr}$$

$$= < 0.217 \text{ ton/yr}$$

**RSC as H₂S EMISSION RATE CALCULATION SHEET
USEPA METHOD 15**

COMPANY: Valero Refining - Texas, L.P.
LOCATION: Corpus Christi, TX
SOURCE: SRU No. 2 TGI Exhaust
MONITOR ID: SRI-9300B: GC-FPD
RUN NO: SRU2-4
TEST DATE: 5/7/2010

INPUT

COS CONCENTRATION (C): < 0.39 ppmv
 CS₂ CONCENTRATION (C): < 0.38 ppmv
 H₂S CONCENTRATION (C): < 0.74 ppmv
 STACK GAS VOLUMETRIC FLOW RATE (Q_{std}): 668,932 dscfh
 STACK OXYGEN CONTENT (%O₂): 2.29 %

CALCULATIONS

AVERAGE STACK RSC as H₂S = < 1.88 ppmv

AVERAGE STACK RSC as H₂S @ 3% O₂

$$C_{\text{gas, ppm @ 3\% O}_2} = (C_{\text{gas, ppm}}) \left(\frac{17.9}{20.9 - \%O_2} \right) = < 1.79 \text{ ppmv @ 3\% O}_2$$

RSC as H₂S CONCENTRATION (lbs/dscf) =

$$C_{\text{gas, lb / dscf}} = (C_{\text{gas, ppm}}) \left(\frac{34.08 \text{ lb / lb - mole}}{385.26 \times 10^{-6} \text{ ft}^3 \text{ / lb - mole}} \right) = < 0.166 \times 10^{-6} \text{ lbs/dscf}$$

RSC as H₂S EMISSION RATE:

STACK GAS VOLUMETRIC FLOW RATE = 668,932 dscfh

STACK RSC as H₂S EMISSION RATE =

$$RSC_{\text{pmr}} = (C_{\text{gas, lb / dscf}})(Q_{\text{std}}) = < 0.1111 \text{ lbs/hr}$$

$$= < 0.486 \text{ ton/yr}$$

**NO_x CALCULATION DATA SHEET
USEPA METHOD 7E**

COMPANY: Valero Refining - Texas, L.P.
LOCATION: Corpus Christi, TX
SOURCE: SRU No. 2 TGI Exhaust
MONITOR ID: California Analytical Instruments Model 600
RUN NO: SRU2-4
TEST DATE: 5/7/2010

INPUT

NO_x AVERAGE READING (C): 7.4 ppmv

STACK GAS VOLUMETRIC FLOW RATE (Q_{std}): 668,932 dscfh

CALCULATIONS

STACK NO_x CONCENTRATION

NO_x CONC.(lbs/dscf) =

$$C_{\text{gas,lb/dscf}} = (C_{\text{gas,ppm}}) \left(\frac{46\text{lb/lb-mole}}{385.26 \times 10^6 \text{ft}^3/\text{lb-mole}} \right) = 0.8837 \times 10^{-6} \text{ lbs/dscf}$$

NO_x EMISSION RATE:

STACK GAS VOLUMETRIC FLOW RATE = 668,932 dscfh

STACK NO_x EMISSION RATE =

$$\text{NO}_{\text{xpmr}} = (C_{\text{gas,lb/dscf}})(Q_{\text{std}}) = 0.5912 \text{ lbs/hr}$$

$$= 2.589 \text{ ton/yr}$$



Valero Refining - Texas L.P.
Source: SRU No. 2 Tailgas Incinerator
Test Dates: May 6 and 7, 2010

APPENDIX B

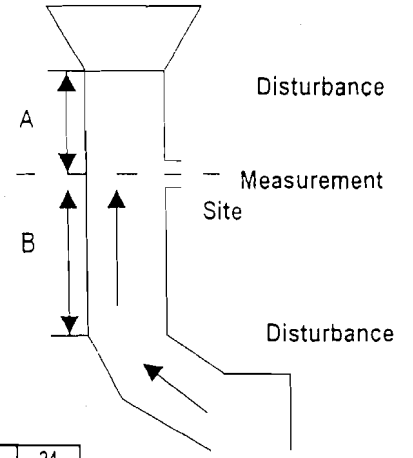
Field Data

TRAVERSE POINT LOCATION FOR CIRCULAR AND RECTANGULAR DUCTS

Plant: VALERO
 Date: 5-6-10
 Sampling Location: SARV #2
 Inside Of Far Wall To: 114"
 Outside Of Port (Distance C)
 Inside Of Near Wall To: 60"
 Outside Of Port (Distance D)
 Stack Id: 54"
 Distance Upstream From Disturbance (A): Greater Than 2 ft
 Distance Downstream From Disturbance (B): 59" (6.96')
 Calculator: ZM

Location of Traverse Points in Rectangular Stacks

	2	3	4	5	6	7	8	9	10	11	12
1	25.0	16.7	12.5	10.0	8.3	7.1	6.3	5.6	5.0	4.5	4.2
2	75.0	50.0	37.5	30.0	25.0	21.4	18.8	16.7	15.0	13.6	12.5
3		83.3	62.5	50.0	41.7	35.7	31.3	27.8	25.0	22.7	20.8
4			87.5	70.0	58.3	50.0	43.8	38.9	35.0	31.8	29.2
5				90.0	75.0	64.3	56.3	50.0	45.0	40.9	37.5
6					91.7	78.6	68.8	61.1	55.0	50.0	45.8
7						92.9	81.3	72.2	65.0	59.1	54.2
8							93.8	83.3	75.0	68.2	62.5
9								94.4	85.0	77.3	70.8
10									95.0	86.4	79.2
11										95.5	87.5
12											95.8



Rectangular Duct Equivalent Diameter Determination

$$\frac{2 \times L \times W}{L + W}$$

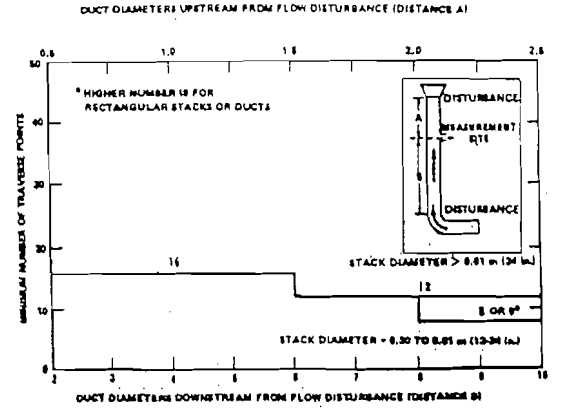
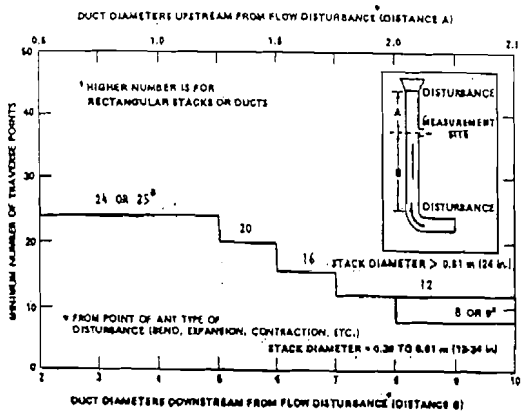
Equivalent Diameters From Upstream Disturbance (B): 12.89
 Equivalent Diameters From Downstream Disturbance (A): Greater Than 2

LOCATION OF TRAVERSE POINTS ON CIRCULAR STACKS

	4	6	8	10	12	14	16	18	20	22	24							
1	6.7	4.4	3.2	2.6	2.1	1.8	1.6	1.4	1.3	1.1	1.1							
2	25.0	14.6	10.5	8.2	6.7	5.7	4.9	4.4	3.9	3.5	3.2							
3	75.0	29.6	19.4	14.6	11.8	9.9	8.5	7.5	6.7	6.0	5.5							
4	93.3	70.4	32.3	22.6	17.7	14.6	12.5	10.9	9.7	8.7	7.9							
5		85.4	67.7	34.2	25.0	20.1	16.9	14.6	12.9	11.6	10.5							
6		95.6	80.6	65.8	35.6	26.9	22.0	18.8	16.5	14.6	13.2							
7			89.5	77.4	64.4	36.6	28.3	23.6	20.4	18.0	16.1							
8			96.8	85.4	75.0	63.4	37.5	29.6	25.0	21.8	19.4							
9				91.8	82.3	73.1	62.5	38.2	30.6	26.2	23.0							
10					97.4	88.2	79.9	71.7	61.8	38.8	31.5	27.2						
11						93.3	85.4	78.0	70.4	61.2	39.3	32.3						
12							97.9	90.1	83.1	76.4	69.4	39.8						
13								94.3	87.5	81.2	75.0	68.5	60.2					
14								98.2	91.5	85.4	79.6	73.8	67.7					
15									95.1	89.1	83.5	78.2	72.8					
16										98.4	92.5	87.1	82.0	77.0				
17											95.6	90.3	85.4	80.6				
18												98.6	93.3	88.4	83.9			
19													96.1	91.3	86.8			
20														98.7	94.0	89.5		
21															96.5	92.1		
22																98.9	94.5	
23																	96.8	
24																		98.9

TRAVERSE POINT NUMBER	FRACTION OF STACK I.D.	STACK I.D.	PRODUCT OF COLUMNS 1 AND 2 (TO NEAREST 1/8 INCH)	DISTANCE D (PORT DEPTH)	TRAVERSE POINT LOCATION FROM OUTSIDE OF PORT (SUM OF COLUMNS 3 AND 4)
1	0.044	54"	2.376	60"	62.376
2	0.146		7.884		67.884
3	0.296		15.984		75.984
4	0.704		38.016		98.016
5	0.854		46.116		106.116
6	0.956		51.624		111.624
7					
8					
9					
10					
11					
12					
13					

Note: For Stacks / Ducts 12 - 24 inches ID - No traverse Point shall be located within 0.5 inches of the Stack wall.
 For Stacks / Ducts > 24 inches ID - No traverse Point shall be located within 1.0 inch of the Stack wall.



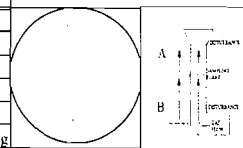


FIELD DATA

PLANT VALAND AMBIENT TEMPERATURE 88
 DATE 5-6-10 BAROMETRIC PRESSURE 29.80
 LOCATION CORPUS Christi, TX ASSUMED MOISTURE % 13%
 OPERATOR M, G, B PROBE LENGTH, in. _____
 STACK NO. 5022 NOZZLE DIAMETER, in. 7/8
 RUN NO. 2 STACK DIAMETER, in. 54"
 SAMPLE BOX NO. N/A MINUTES PER POINT 15
 METER BOX NO. 604180 NUMBER OF POINTS 12
 START TIME 1315 NUMBER OF PORTS 2

PROBE HEATER SETTING N/A
 HEATER BOX SETTING 250
 METER H₂O 1.8
 C₂ FACTOR 0.84
 Y₂ FACTOR 0.995
 PITOT/THERM # P108

WEIGHT OF PARTICULATE, mg	
Filter No.	
Sample	
Final wt	
Tare wt	
Wt. gain	
TOTAL _____ mg	



CLOCK TIME	TRAVERSE POINT NUMBER	SAMPLING TIME (⊙) min.	STATIC PRESSURE (in. H ₂ O)	STACK TEMP (T _s) °F	VELOCITY HEAD		PRESSURE DIFFERENTIAL ACROSS ORIFICE METER (ΔH) in. H ₂ O		GAS SAMPLE VOLUME (V _m) ft ³	GAS SAMPLE TEMP AT DRY GAS METER		Filter SAMPLE BOX TEMP °F	AUX COND. EXIT TEMP °F	SORBENT MODULE TEMP. °F	LAST IMPINGER OUTLET TEMP. °F	PUMP VACUUM in. Hg
					(ΔP _s)	(√ ΔP _s)	ACTUAL	DESIRED		INLET (T _{in}) °F	OUTLET (T _{out}) °F					
1315	N-1	0	-1.90	1480	0.21		1.95	1.94	525.066	113	102	255	249		60	4
1330	2	15		1466	0.25		2.10	2.12	536.87	116	103	271	263	N/A	56	4
1345	3	30		1460	0.20		1.85	1.84	549.58	117	103	271	294		50	4
1400	4	45		1449	0.19		1.75	1.75	561.10	117	104	270	286		53	4
1415	5	60		1354	0.15		1.40	1.38	572.81	116	105	271	255		55	4
1430	6	75		1328	0.11		1.10	1.02	583.58	116	105	265	245		56	4
1445	E 1	90		1456	0.15		1.40	1.38	593.10	115	106	269	244		57	4
1455	2	105		1447	0.18		1.65	1.66	603.60	119	107	271	280		54	4
1526	3	120		1467	0.20		1.85	1.84	614.55	117	108	271	282		61	4
1541	4	135		1456	0.22		2.00	2.02	627.12	120	108	270	282		60	4
1556	5	150		1440	0.24		2.20	2.21	639.42	120	107	271	274		62	4
1611	6	165		1441	0.24		2.20	2.21	652.24	120	109	271	268		63	4
1626		180							665.156							
AVERAGE			-1.90	1437.0	0.438	1.79	140.090	11.5								

VOLUME OR WEIGHT OF LIQUID	IMPINGER				SILICA GEL WEIGHT
	VOLUME (ml) OR WEIGHT (g)				
WATER COLLECTED	#1	#2	#3	#4	g
FINAL INITIAL LIQUID COLLECTED	see imp recovery sheet				
TOTAL	COLLECTED (specify ml or g)				

ORSAT DATA	TIME	CO ₂	O ₂
TRIAL 2			
TRIAL 3			
Average			

LEAK CHECK	
SYSTEM PRE:	0.000 CFM@15"Hg
POST:	0.000 CFM@15"Hg
PITOT PRE:	✓ @ > 3" H ₂ O
POST:	✓ @ > 3" H ₂ O

IMPINGER RECOVERY DATA SHEET



Company:	<u>Valero CC</u>	Date Set-up:	<u>5/6/10</u>
Location:	<u>Corpus Christi, TX</u>	Test Date:	<u>5/6/10</u>
Source:	<u>SRU No. 2</u>	Date Recovered:	<u>5/6/10</u>
Run No.:	<u>SRU2-2</u>	USEPA Method:	<u>5/TCEQ-23</u>
		Corresponding Filter No:	<u>38250</u>
		Filter Container No:	<u>38250</u>
			<u>Tare</u>

Measurement Method: Weight or Volume

<u>Impinger No.</u>	<u>Impinger Contents</u>	<u>Initial wt/vol g/mL</u>	<u>Final wt/vol g/mL</u>	<u>Difference wt/vol g/mL</u>	<u>Sample Container No.</u>
1	<u>100 ml DI H₂O</u>	<u>715.5</u>	<u>964.5</u>	<u>249.0</u>	
2	<u>100 ml DI H₂O</u>	<u>674.4</u>	<u>828.2 BP</u> <u>910.1</u>	<u>153.8</u>	
3	<u>empty</u>	<u>597.5</u>	<u>606.0</u>	<u>8.5</u>	
4	<u>Silica Gel</u>	<u>805.8</u>	<u>827.8</u>	<u>22.0</u>	
5					
6					

433.3

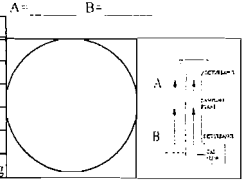


FIELD DATA

PLANT VALERO AMBIENT TEMPERATURE 88
 DATE 3-6-10 BAROMETRIC PRESSURE 29.80
 LOCATION CORPUS CHRISTI TX ASSUMED MOISTURE, % 1.70
 OPERATOR ZM, BS PROBE LENGTH, in. _____
 STACK NO. SRV 2 NOZZLE DIAMETER, in. _____
 RUN NO. 3 STACK DIAMETER, in. _____
 SAMPLE BOX NO. N/A MINUTES PER POINT 15
 METER BOX NO. 604180 NUMBER OF POINTS 12
 START TIME 1810 NUMBER OF PORTS 2

PROBE HEATER SETTING N/A
 HEATER BOX SETTING 250
 METER H₂O 1.81
 C_p FACTOR 0.82
 V₀ FACTOR 0.999
 PITOT/THERM # P108

WEIGHT OF PARTICULATE, mg	
Filter No.	
Sample	
Final wt	
Tare wt	
Wt. gain	
TOTAL _____ mg	



CLOCK TIME	TRAVERSE POINT NUMBER	SAMPLING TIME (⊙) min.	STATIC PRESSURE (in. H ₂ O)	STACK TEMP (T _s) 'F	VELOCITY HEAD		PRESSURE DIFFERENTIAL ACROSS ORIFICE METER (ΔH) in. H ₂ O		GAS SAMPLE VOLUME (Vm) (l)	GAS SAMPLE TEMP AT DRY GAS METER		Filter SAMPLE BOX TEMP 'F	AVG COND. EXIT TEMP 'F	SORBENT MODULE TEMP 'F	LAST IMPINGER OUTLET TEMP. 'F	PUMP VACUUM in. Hg
					(ΔPs)	(√ΔPs)	ACTUAL	DESIRED		INLET (T _{m1}) 'F	OUTLET (T _{m2}) 'F					
1810	E-1	0	-1.90	1450	0.15		1.40	1.38	665.357	106	102	267	249	N/A	56	2
1825	2	15		1452	0.17		1.60	1.57	675.61	114	103	269	234		57	2
1840	3	30		1460	0.20		1.85	1.84	686.16	115	104	272	257		58	2
1855	4	45		1445	0.22		2.00	2.03	697.96	112	103	270	263		60	2
1910	5	60		1444	0.19		1.75	1.76	710.38	110	101	269	245		61	2
1925	6	75		1419	0.16		1.50	1.48	721.96	111	100	266	240		62	2
1940/1948	N-1	90		1450	0.20		1.85	1.85	734.03	107	95	266	271		63	2
2003	2	105		1456	0.20		1.85	1.85	745.45	105	94	260	291		51	2
2018	3	120		1464	0.22		2.00	2.03	756.19	104	92	267	288		51	2
2033	4	135		1458	0.19		1.75	1.76	768.83	105	91	269	290		49	2
2048	5	150		1423	0.16		1.50	1.48	779.26	105	91	264	270		53	2
2103	6	165		1412	0.14		1.30	1.29	790.04	105	91	268	257		54	2
2118		180		-	-		-	-	799.782	-	-	-	-		-	-
AVERAGE				-1.90	1446.2	0.4271	1.70		134.425	102.8						

VOLUME OR WEIGHT OF LIQUID WATER COLLECTED	IMPINGER VOLUME (ml) OR WEIGHT (g)				SILICA GEL WEIGHT
	#1	#2	#3	#4	
FINAL					
INITIAL					
LIQUID COLLECTED					
TOTAL	COLLECTED (specify ml or g)				

ORSAT DATA	TIME	CO ₂	O ₂
TRIAL 2			
TRIAL 3			
Average			

LEAK CHECK	
SYSTEM PRE:	0.000 CFM@15" Hg
POST:	0.000 CFM@15" Hg
PITOT PRE:	✓
POST:	✓

IMPINGER RECOVERY DATA SHEET



Company: Valero CC
 Location: Corpus Christi, TX
 Source: SRJ No. 2
 Run No.: SRJ2-3

Date Set-up: 5/6/10
 Test Date: 5/6/10
 Date Recovered: 5/6/10
 USEPA Method: USEPA 5 / TLEA-23
 Corresponding Filter No: 38265
 Filter Container No: 779.4
 Tare

Measurement Method: Weight or Volume

<u>Impinger No.</u>	<u>Impinger Contents</u>	<u>Initial wt/vol g/mL</u>	<u>Final wt/vol g/mL</u>	<u>Difference wt/vol g/mL</u>	<u>Sample Container No.</u>
1	<u>100 ml DI H₂O</u>	<u>715.5</u>	<u>990.7</u>	<u>275.2</u>	
2	<u>100 ml DI H₂O</u>	<u>679.5</u>	<u>804.9</u>	<u>126.4</u>	
3	<u>empty</u>	<u>589.4</u>	<u>600.5</u>	<u>11.1</u>	
4	<u>Silica Gel</u>	<u>741.0</u>	<u>760.6</u>	<u>19.6</u>	
5					
6					

432.3

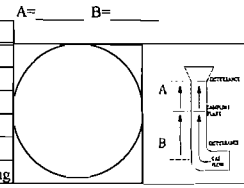


FIELD DATA

PLANT Valeo AMBIENT TEMPERATURE 86
 DATE 5-9-10 BAROMETRIC PRESSURE 29.85
 LOCATION CORPUS CHANL, TX ASSUMED MOISTURE, % 13%
 OPERATOR Z.M. BJ PROBE LENGTH, in. _____
 STACK NO. SAV 2 NOZZLE DIAMETER, in. 7/16
 RUN NO. 4 STACK DIAMETER, in. 54"
 SAMPLE BOX NO. _____ MINUTES PER POINT 15
 METER BOX NO. 604130 NUMBER OF POINTS 12
 START TIME 835 NUMBER OF PORTS 2

PROBE HEATER SETTING N/A
 HEATER BOX SETTING 250
 METER H₂O 1.81
 C₁ FACTOR 0.84
 V₁ FACTOR 0.995
 PITOT/THERM # P108

WEIGHT OF PARTICULATE, mg	
Filter No.	
Sample	
Final wt	
Tare wt	
Wt. gain	
TOTAL _____ mg	



CLOCK TIME	TRAVERSE POINT NUMBER	SAMPLING TIME (⊖) min.	STATIC PRESSURE (in. H ₂ O)	STACK TEMP (T _s) 'F	VELOCITY HEAD		PRESSURE DIFFERENTIAL ACROSS ORIFICE METER (ΔH) in. H ₂ O		GAS SAMPLE VOLUME (Vm) ft ³	GAS SAMPLE TEMP AT DRY GAS METER		Filter SAMPLE BOX TEMP. 'F	AUX COND. EXIT TEMP 'F	SORBENT MODULE TEMP 'F	LAST IMPINGER OUTLET TEMP. 'F	PUMP VACUUM in. Hg
					(ΔPs)	(√ΔPs)	ACTUAL	DESIRED		INLET (T _{m_{in}}) 'F	OUTLET (T _{m_{out}}) 'F					
835	N-1	0	1.90	1475	0.25		2.30	2.31	810.686	104	92	270	254	N/A	57	4
850	2	15		1502	0.24		2.20	2.22	823.88	112	95	271	282		58	4
905	3	30		1494	0.22		2.00	2.00	836.69	113	98	273	294		58	4
920	4	45		1490	0.20		1.80	1.82	848.42	114	100	272	280		59	4
935	5	60		1464	0.15		1.35	1.36	860.50	114	101	272	259		58	4
950	6	75		1469	0.16		1.45	1.45	870.78	113	102	271	246		59	4
1005/1015	E 1	90		1505	0.23		2.10	2.09	881.02	111	101	268	250		60	4
1030	2	105		1516	0.17		1.55	1.54	893.07	115	102	270	271		59	4
1045	3	120		1526	0.21		1.90	1.91	904.07	116	103	270	264		59	4
1100	4	135		1525	0.24		2.20	2.19	915.90	116	104	270	262		60	4
1115	5	150		1526	0.23		2.10	2.09	928.50	117	104	271	255		60	4
1130	6	165		1520	0.21		1.90	1.91	941.02	117	105	269	245		61	4
11:45		180							952.331							
AVERAGE			-1.90	1501.6	0.4559	1.90	141.645	1070								4

VOLUME OR WEIGHT OF LIQUID WATER COLLECTED	IMPINGER VOLUME (ml) OR WEIGHT (g)				SILICA GEL WEIGHT
	#1	#2	#3	#4	
FINAL					
INITIAL					
LIQUID COLLECTED					
_____ g COLLECTED (specify ml or g)					

ORSAT DATA	TIME	CO ₂	O ₂
TRIAL 1			
TRIAL 2			
TRIAL 3			
Average			

LEAK CHECK	
SYSTEM PRE:	0.000 CFM@15"Hg
POST:	0.000 CFM@15"Hg
PITOT PRE:	✓ @ > 3"H ₂ O
POST:	✓ @ > 3"H ₂ O

IMPINGER RECOVERY DATA SHEET



Company:	<u>Valero CC</u>	Date Set-up:	<u>5/6/10</u>
Location:	<u>Corpus Christi, TX</u>	Test Date:	<u>5/7/10</u>
Source:	<u>SRJ No. 2</u>	Date Recovered:	<u>5/7/10</u>
Run No.:	<u>SRJ2-4</u>	USEPA Method:	<u>5 / TCEQ-23</u>
		Corresponding Filter No:	<u>38266</u>
		Filter Container No:	<u>776.3</u>

Measurement Method: Weight or Volume

<u>Impinger No.</u>	<u>Impinger Contents</u>	<u>Initial wt/vol g/mL</u>	<u>Final wt/vol g/mL</u>	<u>Difference wt/vol g/mL</u>	<u>Sample Container No.</u>
1	<u>100 ml DI H₂O</u>	<u>712.0</u>	<u>957.8</u>	<u>245.8</u>	
2	<u>100 ml DI H₂O</u>	<u>669.9</u>	<u>833.3</u>	<u>163.4</u>	
3	<u>empty</u>	<u>600.0</u>	<u>605.9</u>	<u>5.9</u>	
4	<u>Silica Gel</u>	<u>818.3</u>	<u>848.9</u>	<u>30.6</u>	
5					
6					

445.7



Valero Refining - Texas L.P.
Source: SRU No. 2 Tailgas Incinerator
Test Dates: May 6 and 7, 2010

APPENDIX C

Analytical Data

ANALYTICAL SUMMARY

CLIENT: Valero
LOCATION: Corpus Christi, TX
SOURCE: SRU No. 2
SAMPLE DATE: 5/6 & 5/7/2010
ANALYSIS: Particulates
METHOD: USEPA M5/TCEQ M23

Run		Mass (g)	Tare (mg)	WT 1 (mg)	WT 2 (mg)	<u>WT 1 - Wt 2</u> (mg)	Particulate (mg)	Blank Corrected WT (mg)
SRU2-2	Filter	-	783.4	788.6	788.7	-0.1	5.25	
SRU2-3	Filter	-	779.4	785.8	785.5	0.3	6.25	
SRU2-4	Filter	-	776.3	781.7	781.4	0.3	5.25	
SRU2-2	PW	150.0	111235.3	111266.4	111266.6	-0.2	31.20	30.44
SRU2-3	PW	209.8	97661.6	97673.3	97673.6	-0.3	11.85	10.79
SRU2-4	PW	135.0	117708.8	117722.0	117721.5	0.5	12.95	12.27
Acetone Blank	PW	118.3	112015.0	112015.7	112015.5	0.2	0.60	
SRU2-2	Imps	684	112632.3	112713.9	112713.5	0.4	81.40	
SRU2-3	Imps	695	111669.1	111761.4	111761.1	0.3	92.15	
SRU2-4	Imps	666	108458.1	108533.9	108533.8	0.1	75.75	
DI Water Blank	Imps	308	114546.1	114548.3	114548.0	0.3	2.05	
Beaker Blank	Imps	0	109887.8	109888.1	109887.8	0.3	0.15	

Analyst: E. Vogt
 Date: 05/30/10



TRS STANDARDS PRETEST DATA

Client: Valero CC
Location: Corpus Christi, TX
Source: SRU No. 2
Date sampled: 5/6/2010
Run Number: Run 2 & 3
Compound Analyzed: TRS
Method: USEPA Method 15
Instrument: SRI-9300B
Detector: GC-FPD
Units of Detection: ppm

Carbonyl Sulfide Standards			
Standard No	Concentration	Area	Sq Rt Area Counts
1	0.0	0.0	0.0
2	25.0	2919.34	54.0
3	50.0	9120.80	95.5
4	75.0	15,015.2	122.5

Hydrogen Sulfide Standards			
Standard No	Concentration	Area	Sq Rt Area Counts
1	0.0	0.0	0.0
2	25.0	1,905.8	43.7
3	50.0	6,704.8	81.9
4	75.0	12,143.3	110.2

Carbon Disulfide Standards			
Standard No	Concentration	Area	Sq Rt Area Counts
1	0.0	0.0	0.0
2	25.0	6,194.8	78.7
3	50.0	17,367.2	131.8
4	75.0	27,742.5	166.6



Analytical Calculation Summary
Calibration Standards Area Linear Regression Fit

Client: Valero CC
Location: Corpus Christi, TX
Source: SRU No. 2
Date sampled: 5/6/2010
Run Number: Run 2 & 3
Compound Analyzed: Hydrogen Sulfide
Method: USEPA Method 15
Instrument: SRI-9300B
Detector: GC-FPD
Units of Detection: ppm

Calibration Standards

Statistical Analysis Summary

Standard #	Standard Peak Area (mv)	Square Root Peak Area (mv)	Standard Concentration (ppm)	
1	0.0	0.0	0.0	$\Sigma xy:$ 13450.3
2	1,905.8	43.7	25.0	$\Sigma x:$ 235.7
3	6,704.8	81.9	50.0	$\Sigma y:$ 150.0
4	12,143.3	110.2	75.0	$\Sigma x^2:$ 20754
				$\Sigma(x)^2:$ 55571
				N: 4
				m: 0.67193
				b: -2.09941



Analytical Calculation Summary

Calibration Standards Area Linear Regression Fit

Client: Valero CC
Location: Corpus Christi, TX
Source: SRU No. 2
Date sampled: 5/6/2010
Run Number: Run 2 & 3
Compound Analyzed: Carbonyl Sulfide
Method: USEPA Method 15
Instrument: SRI-9300B
Detector: GC-FPD
Units of Detection: ppm

Calibration Standards

Statistical Analysis Summary

<u>Standard #</u>	<u>Standard Peak Area (mv)</u>	<u>Square Root Peak Area (mv)</u>	<u>Standard Concentration (ppm)</u>	
1	0.0	0.0	0.0	$\Sigma xy:$ 15316.2
2	2,919.3	54.0	25.0	$\Sigma x:$ 272.1
3	9,120.8	95.5	50.0	$\Sigma y:$ 150.0
4	15,015.2	122.5	75.0	$\Sigma x^2:$ 27055
				$\Sigma(x)^2:$ 74022
				N: 4
				m: 0.59809
				b: -3.1805



Analytical Calculation Summary

Calibration Standards Area Linear Regression Fit

Client: Valero CC
Location: Corpus Christi, TX
Source: SRU No. 2
Date sampled: 5/6/2010
Run Number: Run 2 & 3
Compound Analyzed: Carbon Disulfide
Method: USEPA Method 15
Instrument: SRI-9300B
Detector: GC-FPD
Units of Detection: ppm

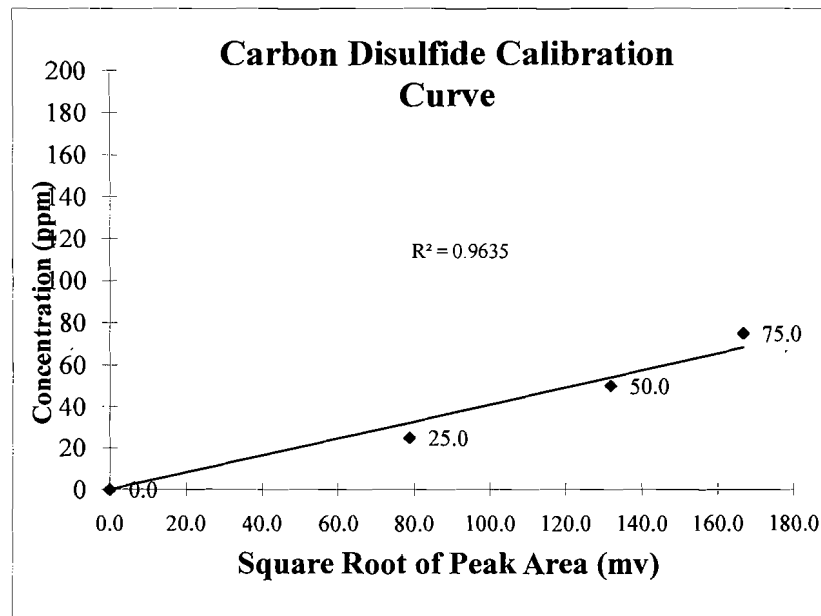
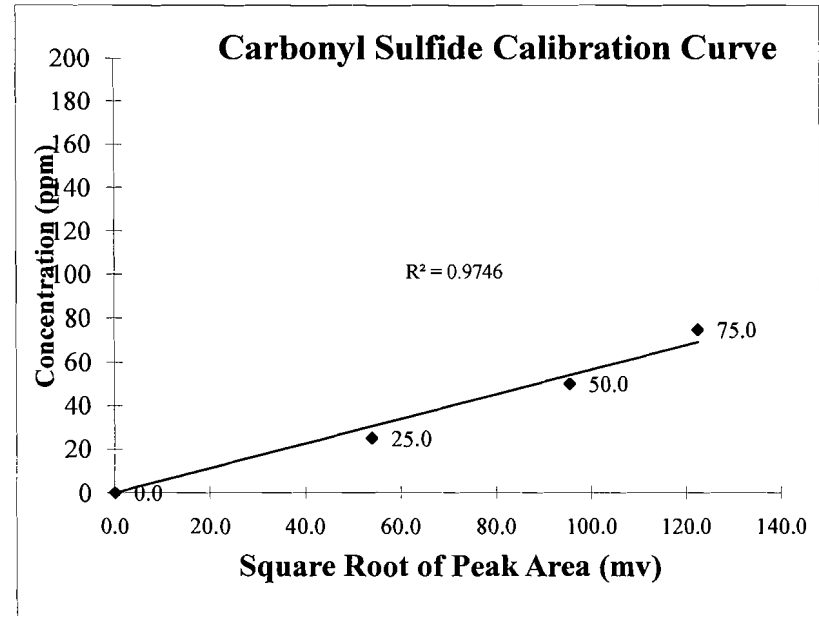
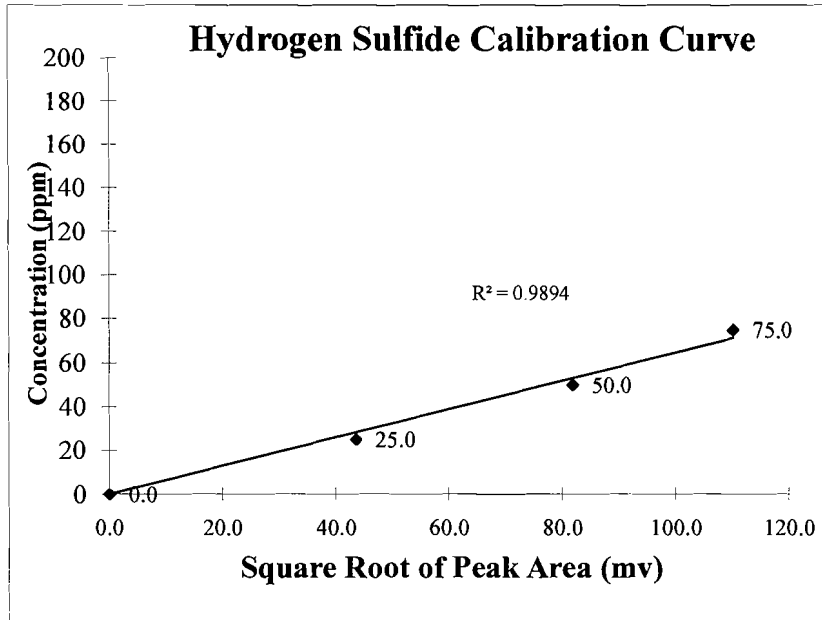
Calibration Standards

Statistical Analysis Summary

Standard #	Standard Peak Area (mv)	Square Root Peak Area (mv)	Standard Concentration (ppm)	
1	0.0	0.0	0.0	$\Sigma xy:$ 21049
2	6,194.8	78.7	25.0	$\Sigma x:$ 377.1
3	17,367.2	131.8	50.0	$\Sigma y:$ 150.0
4	27,742.5	166.6	75.0	$\Sigma x^2:$ 51304
				$\Sigma(x)^2:$ 142168
				N: 4
				m: 0.43836
				b: -3.82069

Calibration Curves

May 6, 2010





TRS STANDARDS POSTTEST DATA

Client: Valero CC
Location: Corpus Christi, TX
Source: SRU No. 2
Date sampled: 5/6/2010
Run Number: Run 2 & 3
Compound Analyzed: TRS
Method: USEPA Method 15
Instrument: SRI-9300B
Detector: GC-FPD
Units of Detection: ppm

Carbonyl Sulfide Standards				Drift %
Standard No	Concentration	Area	Sq Rt Area Counts	
1	0.0	0.0	0.0	0.0
2	25.0	3,233.4	56.9	-5.2
3	50.0	8,944.7	94.6	1.0
4	75.0	14,899.2	122.1	0.4

Hydrogen Sulfide Standards				Drift %
Standard No	Concentration	Area	Sq Rt Area Counts	
1	0.0	0.0	0.0	0.0
2	25.0	2,182.5	46.7	-7.0
3	50.0	6,764.1	82.2	-0.4
4	75.0	11,817.2	108.7	1.4

Carbon Disulfide Standards				Drift %
Standard No	Concentration	Area	Sq Rt Area Counts	
1	0.0	0.0	0.0	0.0
2	25.0	6,302.0	79.4	-0.9
3	50.0	16,860.7	129.8	1.5
4	75.0	26,668.0	163.3	2.0

SUMMARY OF TOTAL REDUCED SULFUR COMPOUNDS

Company: Valero CC
 Location: Corpus Christi, TX
 Source: SRU No. 2
 Date: 5/6/10
 Run No.: SRU1-1

Line Loss Ratios

COS= 1.000
 H2S= 1.000
 CS2= 1.000

Run	Date	Time	COS Area (mV)	COS Conc (ppm v db)	H2S Area (mV)	H2S Conc (ppm v db)	CS2 Area (mV)	CS2 Conc (ppm v db)	Injection
Valero204.CHR	5/6/2010	13:10:01	<50.00	<1.05	<20.00	<0.91	<115.00	<0.88	1-1
Valero205.CHR	5/6/2010	13:20:01	<50.00	<1.05	<20.00	<0.91	<115.00	<0.88	1-2
Valero206.CHR	5/6/2010	13:30:02	<50.00	<1.05	<20.00	<0.91	<115.00	<0.88	1-3
Valero207.CHR	5/6/2010	13:40:02	<50.00	<1.05	<20.00	<0.91	<115.00	<0.88	1-4
Valero208.CHR	5/6/2010	13:50:02	<50.00	<1.05	<20.00	<0.91	<115.00	<0.88	1-5
Valero209.CHR	5/6/2010	14:00:02	<50.00	<1.05	<20.00	<0.91	<115.00	<0.88	1-6
Valero210.CHR	5/6/2010	14:10:02	<50.00	<1.05	<20.00	<0.91	<115.00	<0.88	1-7
Valero211.CHR	5/6/2010	14:20:02	<50.00	<1.05	<20.00	<0.91	<115.00	<0.88	1-8
Valero212.CHR	5/6/2010	14:30:02	<50.00	<1.05	<20.00	<0.91	<115.00	<0.88	1-9
Valero213.CHR	5/6/2010	14:40:02	<50.00	<1.05	<20.00	<0.91	<115.00	<0.88	1-10
Valero214.CHR	5/6/2010	14:50:02	<50.00	<1.05	<20.00	<0.91	<115.00	<0.88	1-11
Valero215.CHR	5/6/2010	15:00:02	<50.00	<1.05	<20.00	<0.91	<115.00	<0.88	1-12
Valero216.CHR	5/6/2010	15:10:02	<50.00	<1.05	<20.00	<0.91	<115.00	<0.88	1-13
Valero217.CHR	5/6/2010	15:20:02	<50.00	<1.05	<20.00	<0.91	<115.00	<0.88	1-14
Valero218.CHR	5/6/2010	15:30:03	<50.00	<1.05	<20.00	<0.91	<115.00	<0.88	1-15
Valero219.CHR	5/6/2010	15:40:03	<50.00	<1.05	<20.00	<0.91	<115.00	<0.88	1-16
Valero220.CHR	5/6/2010	15:50:03	<50.00	<1.05	<20.00	<0.91	<115.00	<0.88	1-17
Valero221.CHR	5/6/2010	16:00:03	<50.00	<1.05	<20.00	<0.91	<115.00	<0.88	1-18
Valero222.CHR	5/6/2010	16:10:03	<50.00	<1.05	<20.00	<0.91	<115.00	<0.88	1-19
Valero223.CHR	5/6/2010	16:20:03	<50.00	<1.05	<20.00	<0.91	<115.00	<0.88	1-20
Valero224.CHR	5/6/2010	16:30:03	<50.00	<1.05	<20.00	<0.91	<115.00	<0.88	1-21
Valero225.CHR	5/6/2010	16:40:03	<50.00	<1.05	<20.00	<0.91	<115.00	<0.88	1-22
Valero226.CHR	5/6/2010	16:50:03	<50.00	<1.05	<20.00	<0.91	<115.00	<0.88	1-23
Average Values				<1.05		<0.91		<0.88	

SUMMARY OF TOTAL REDUCED SULFUR COMPOUNDS



Company: Valero CC
 Location: Corpus Christi, TX
 Source: SRU No. 2
 Date: 5/6/2010
 Run No.: SRU1-2

Line Loss Ratios
 COS= 1.000
 H2S= 1.000
 CS2= 1.000

Run	Date	Time	COS Area (mV)	COS Conc (ppm v db)	H2S Area (mV)	H2S Conc (ppm v db)	CS2 Area (mV)	Injection
Valero227.CHR	5/6/2010	17:51:00	<50.00	<1.05	<20.00	<0.91	<115.00	2-1
Valero228.CHR	5/6/2010	18:01:00	<50.00	<1.05	<20.00	<0.91	<115.00	2-2
Valero229.CHR	5/6/2010	18:11:00	<50.00	<1.05	<20.00	<0.91	<115.00	2-3
Valero230.CHR	5/6/2010	18:21:00	<50.00	<1.05	<20.00	<0.91	<115.00	2-4
Valero231.CHR	5/6/2010	18:31:00	<50.00	<1.05	<20.00	<0.91	<115.00	2-5
Valero232.CHR	5/6/2010	18:41:00	<50.00	<1.05	<20.00	<0.91	<115.00	2-6
Valero233.CHR	5/6/2010	18:51:00	<50.00	<1.05	<20.00	<0.91	<115.00	2-7
Valero234.CHR	5/6/2010	19:01:00	<50.00	<1.05	<20.00	<0.91	<115.00	2-8
Valero235.CHR	5/6/2010	19:11:00	<50.00	<1.05	<20.00	<0.91	<115.00	2-9
Valero236.CHR	5/6/2010	19:21:00	<50.00	<1.05	<20.00	<0.91	<115.00	2-10
Valero237.CHR	5/6/2010	19:31:00	<50.00	<1.05	<20.00	<0.91	<115.00	2-11
Valero238.CHR	5/6/2010	19:41:00	<50.00	<1.05	<20.00	<0.91	<115.00	2-12
Valero239.CHR	5/6/2010	19:51:00	<50.00	<1.05	<20.00	<0.91	<115.00	2-13
Valero240.CHR	5/6/2010	20:01:00	<50.00	<1.05	<20.00	<0.91	<115.00	2-14
Valero241.CHR	5/6/2010	20:11:00	<50.00	<1.05	<20.00	<0.91	<115.00	2-15
Valero242.CHR	5/6/2010	20:21:01	<50.00	<1.05	<20.00	<0.91	<115.00	2-16
Valero243.CHR	5/6/2010	20:31:01	<50.00	<1.05	<20.00	<0.91	<115.00	2-17
Valero244.CHR	5/6/2010	20:41:01	<50.00	<1.05	<20.00	<0.91	<115.00	2-18
Valero245.CHR	5/6/2010	20:51:01	<50.00	<1.05	<20.00	<0.91	<115.00	2-19
Valero246.CHR	5/6/2010	21:01:01	<50.00	<1.05	<20.00	<0.91	<115.00	2-20
Valero247.CHR	5/6/2010	21:11:01	<50.00	<1.05	<20.00	<0.91	<115.00	2-21
Valero248.CHR	5/6/2010	21:21:01	<50.00	<1.05	<20.00	<0.91	<115.00	2-22
Valero249.CHR	5/6/2010	21:31:01	<50.00	<1.05	<20.00	<0.91	<115.00	2-23
Valero250.CHR	5/6/2010	21:41:01	<50.00	<1.05	<20.00	<0.91	<0.00	2-24
Average Values				<1.05		<0.91		



TRS STANDARDS PRETEST DATA

Client: Valero CC
Location: Corpus Christi, TX
Source: SRU No. 2
Date sampled: 5/7/2010
Run Number: Run 4
Compound Analyzed: TRS
Method: USEPA Method 15
Instrument: SRI-9300B
Detector: GC-FPD
Units of Detection: ppm

Carbonyl Sulfide Standards			
Standard No	Concentration	Area	Sq Rt Area Counts
1	0.0	0.0	0.0
2	25.0	3068.56	55.4
3	50.0	9205.95	95.9
4	75.0	15,171.2	123.2

Hydrogen Sulfide Standards			
Standard No	Concentration	Area	Sq Rt Area Counts
1	0.0	0.0	0.0
2	25.0	1,882.7	43.4
3	50.0	6,783.2	82.4
4	75.0	11,937.9	109.3

Carbon Disulfide Standards			
Standard No	Concentration	Area	Sq Rt Area Counts
1	0.0	0.0	0.0
2	25.0	5,866.4	76.6
3	50.0	16,290.2	127.6
4	75.0	25,413.9	159.4



Analytical Calculation Summary

Calibration Standards Area Linear Regression Fit

Client: Valero CC
Location: Corpus Christi, TX
Source: SRU No. 2
Date sampled: 5/7/2010
Run Number: Run 4
Compound Analyzed: Hydrogen Sulfide
Method: USEPA Method 15
Instrument: SRI-9300B
Detector: GC-FPD
Units of Detection: ppm

Calibration Standards

Statistical Analysis Summary

Standard #	Standard Peak Area (mv)	Square Root Peak Area (mv)	Standard Concentration (ppm)
1	0.0	0.0	0.0
2	1,882.7	43.4	25.0
3	6,783.2	82.4	50.0
4	11,937.9	109.3	75.0

Σxy : 13397.3
 Σx : 235.0
 Σy : 150.0
 Σx^2 : 20604
 $\Sigma (x)^2$: 55230
N: 4
m: 0.67455
b: -2.13158



Analytical Calculation Summary

Calibration Standards Area Linear Regression Fit

Client: Valero CC
Location: Corpus Christi, TX
Source: SRU No. 2
Date sampled: 5/7/2010
Run Number: Run 4
Compound Analyzed: Carbonyl Sulfide
Method: USEPA Method 15
Instrument: SRI-9300B
Detector: GC-FPD
Units of Detection: ppm

Calibration Standards

Statistical Analysis Summary

<u>Standard #</u>	<u>Standard Peak Area (mv)</u>	<u>Square Root Peak Area (mv)</u>	<u>Standard Concentration (ppm)</u>	
1	0.0	0.0	0.0	$\Sigma xy:$ 15420.1
2	3,068.6	55.4	25.0	$\Sigma x:$ 274.5
3	9,205.9	95.9	50.0	$\Sigma y:$ 150.0
4	15,171.2	123.2	75.0	$\Sigma x^2:$ 27446
				$\Sigma(x)^2:$ 75358
				N: 4
				m: 0.59559
				b: -3.37463



Analytical Calculation Summary

Calibration Standards Area Linear Regression Fit

Client: Valero CC
Location: Corpus Christi, TX
Source: SRU No. 2
Date sampled: 5/7/2010
Run Number: Run 4
Compound Analyzed: Carbon Disulfide
Method: USEPA Method 15
Instrument: SRI-9300B
Detector: GC-FPD
Units of Detection: ppm

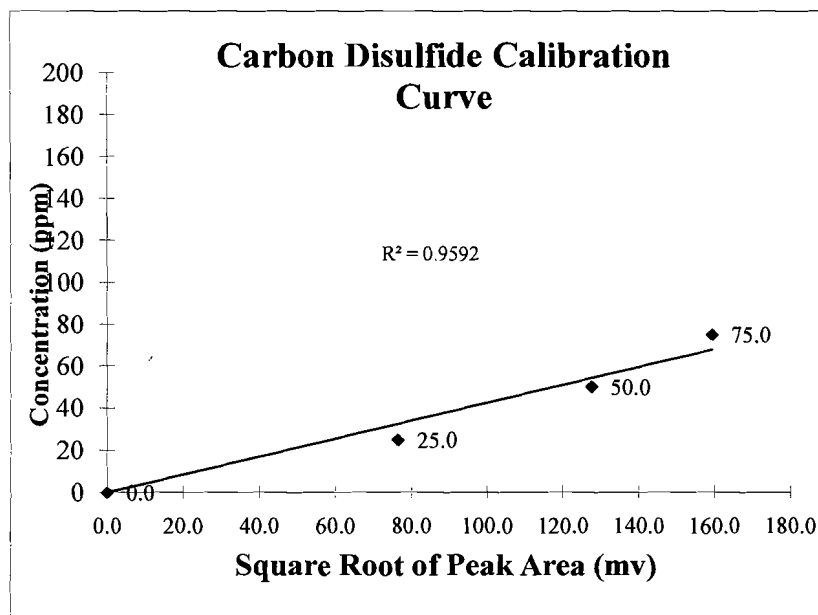
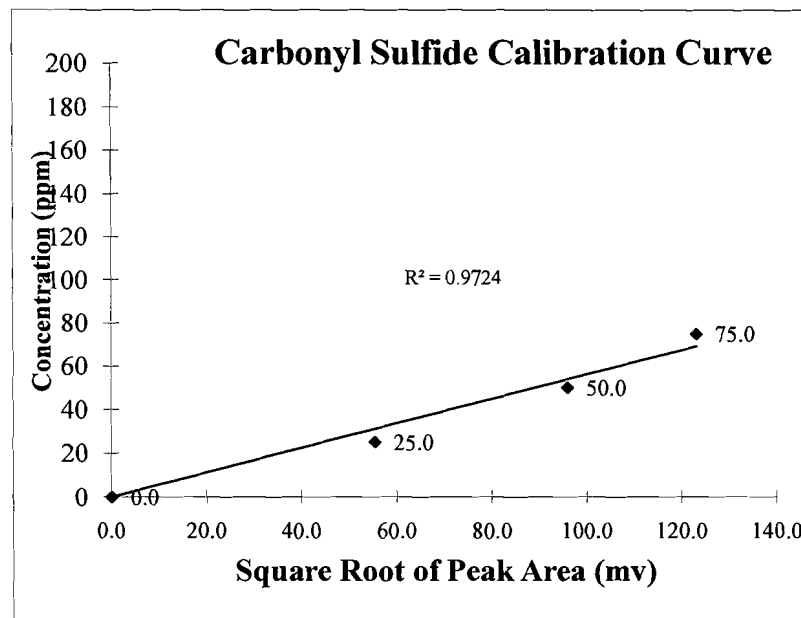
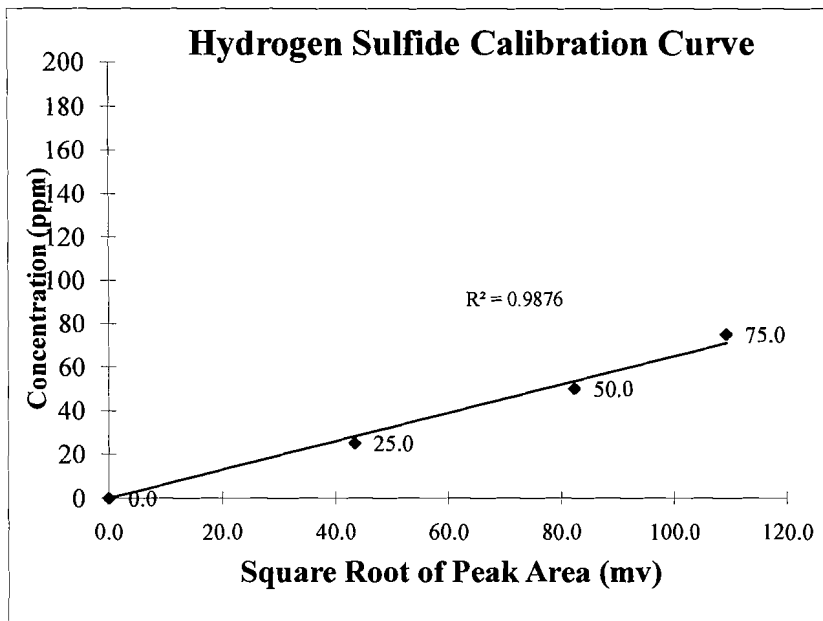
Calibration Standards

Statistical Analysis Summary

Standard #	Standard Peak Area (mv)	Square Root Peak Area (mv)	Standard Concentration (ppm)	
1	0.0	0.0	0.0	$\Sigma xy:$ 20252.8
2	5,866.4	76.6	25.0	$\Sigma x:$ 363.6
3	16,290.2	127.6	50.0	$\Sigma y:$ 150.0
4	25,413.9	159.4	75.0	$\Sigma x^2:$ 47571
				$\Sigma(x)^2:$ 132236
				N: 4
				m: 0.45593
				b: -3.94863

Calibration Curves

May 7, 2010





TRS STANDARDS POSTTEST DATA

Client: Valero CC
Location: Corpus Christi, TX
Source: SRU No. 2
Date sampled: 5/7/2010
Run Number: Run 4
Compound Analyzed: TRS
Method: USEPA Method 15
Instrument: SRI-9300B
Detector: GC-FPD
Units of Detection: ppm

Carbonyl Sulfide Standards				Drift %
Standard No	Concentration	Area	Sq Rt Area Counts	
1	0.0	0.0	0.0	0.0
2	25.0	3,034.9	55.1	0.6
3	50.0	8,414.2	91.7	4.4
4	75.0	14,540.1	120.6	2.1

Hydrogen Sulfide Standards				Drift %
Standard No	Concentration	Area	Sq Rt Area Counts	
1	0.0	0.0	0.0	0.0
2	25.0	2,169.3	46.6	-7.3
3	50.0	6,312.9	79.5	3.5
4	75.0	8,418.6	91.8	16.0

Carbon Disulfide Standards				Drift %
Standard No	Concentration	Area	Sq Rt Area Counts	
1	0.0	0.0	0.0	0.0
2	25.0	6,025.7	77.6	-1.3
3	50.0	15,782.8	125.6	1.6
4	75.0	25,627.6	160.1	-0.4

SUMMARY OF TOTAL REDUCED SULFUR COMPOUNDS

Company: Valero CC
Location: Corpus Christi, TX
Source: SRU No. 2
Date: 5/7/10
Run No.: SRU1-3

Line Loss Ratios

COS= 1.000
 H2S= 1.000
 CS2= 1.000

Run	Date	Time	COS Area (mV)	COS Conc (ppm v db)	H2S Area (mV)	H2S Conc (ppm v db)	CS2 Area (mV)	CS2 Conc (ppm v db)	Injection
Valero264.CHR	5/7/2010	8:19:59	<50.00	<0.84	<20.00	<0.89	<115.00	<0.94	1-1
Valero265.CHR	5/7/2010	8:29:59	<50.00	<0.84	<20.00	<0.89	<115.00	<0.94	1-2
Valero266.CHR	5/7/2010	8:40:00	<50.00	<0.84	<20.00	<0.89	<115.00	<0.94	1-3
Valero267.CHR	5/7/2010	8:50:00	<50.00	<0.84	<20.00	<0.89	<115.00	<0.94	1-4
Valero268.CHR	5/7/2010	9:00:00	<50.00	<0.84	<20.00	<0.89	<115.00	<0.94	1-5
Valero269.CHR	5/7/2010	9:10:00	<50.00	<0.84	<20.00	<0.89	<115.00	<0.94	1-6
Valero270.CHR	5/7/2010	9:20:00	<50.00	<0.84	<20.00	<0.89	<115.00	<0.94	1-7
Valero271.CHR	5/7/2010	9:30:00	<50.00	<0.84	<20.00	<0.89	<115.00	<0.94	1-8
Valero272.CHR	5/7/2010	9:40:00	<50.00	<0.84	<20.00	<0.89	<115.00	<0.94	1-9
Valero273.CHR	5/7/2010	9:50:00	<50.00	<0.84	<20.00	<0.89	<115.00	<0.94	1-10
Valero274.CHR	5/7/2010	10:00:00	<50.00	<0.84	<20.00	<0.89	<115.00	<0.94	1-11
Valero275.CHR	5/7/2010	10:10:00	<50.00	<0.84	<20.00	<0.89	<115.00	<0.94	1-12
Valero276.CHR	5/7/2010	10:20:00	<50.00	<0.84	<20.00	<0.89	<115.00	<0.94	1-13
Valero277.CHR	5/7/2010	10:30:00	<50.00	<0.84	<20.00	<0.89	<115.00	<0.94	1-14
Valero278.CHR	5/7/2010	10:40:00	<50.00	<0.84	<20.00	<0.89	<115.00	<0.94	1-15
Valero279.CHR	5/7/2010	10:50:01	<50.00	<0.84	<20.00	<0.89	<115.00	<0.94	1-16
Valero280.CHR	5/7/2010	11:00:01	<50.00	<0.84	<20.00	<0.89	<115.00	<0.94	1-17
Valero281.CHR	5/7/2010	11:10:01	<50.00	<0.84	<20.00	<0.89	<115.00	<0.94	1-18
Valero282.CHR	5/7/2010	11:20:01	<50.00	<0.84	<20.00	<0.89	<115.00	<0.94	1-19
Valero283.CHR	5/7/2010	11:30:01	<50.00	<0.84	<20.00	<0.89	<115.00	<0.94	1-20
Valero284.CHR	5/7/2010	11:40:01	<50.00	<0.84	<20.00	<0.89	<115.00	<0.94	1-21
Valero285.CHR	5/7/2010	11:50:00	<50.00	<0.84	<20.00	<0.89	<115.00	<0.94	1-22
Valero286.CHR	5/7/2010	12:00:00	<50.00	<0.84	<20.00	<0.89	<115.00	<0.94	1-23
Valero287.CHR	5/7/2010	12:10:00	<50.00	<0.84	<20.00	<0.89	<115.00	<0.94	1-24
Average Values				<0.84		<0.89		<0.94	

Reference Monitor Detection Limits



Monitor: GC
Manufacturer: SRI
Model: 8610C
S/N: N7350
Condition: Instrument Only
Date: 4/29/2010
Operator: B. Pearce
Compound: Hydrogen Sulfide

Target Concentration, ppm v 5.0

Repetition	Average Reading (ppm v)
1	3.450
2	3.580
3	3.640
4	3.680
5	3.570
6	3.730
7	3.630
8	3.760
9	
10	
11	
12	
13	
14	

Total Population	8
t-Test Population (n-1)	7
Average RM reading	3.63
Standard Deviation	0.099
Student t- Test Value	2.998

LOD	0.295
LOQ (2.5 times LOD)	0.739

The USEPA defines MDL as "the minimum concentration that can be determined with 99% confidence that the true concentration is greater than zero." This procedure is outlined in 40CFR 136 and TTN EMC.
The NELAC Standard (TNI) define detection limits as limit of detection - LOD and limit of quantification - LOQ. These terms were historically known as method detection limit - MDL and practical quantification limit - PQL.

LOD = Student's t value x the standard deviation
LOQ = LOD x 2.5

Student t-Test Values	
t-Test Population	t-Test Value
7	2.998
8	2.896
9	2.821
10	2.764
11	2.718
12	2.681

Reference Monitor Detection Limits



Monitor: GC
Manufacturer: SRI
Model: 8610C
S/N: N7350
Condition: Instrument Only
Date: 4/29/2010
Operator: B. Pearce
Compound: Carbonyl Sulfide

Target Concentration, ppm v 5.0

Repetition	Average Reading (ppm v)
1	3.640
2	3.700
3	3.710
4	3.730
5	3.640
6	3.770
7	3.670
8	3.770
9	
10	
11	
12	
13	
14	

Total Population	8
t-Test Population (n-1)	7
Average RM reading	3.70
Standard Deviation	0.052
Student t- Test Value	2.998

LOD	0.155
LOQ (2.5 times LOD)	0.388

The USEPA defines MDL as "the minimum concentration that can be determined with 99% confidence that the true concentration is greater than zero." This procedure is outlined in 40CFR 136 and TTN EMC.
The NELAC Standard (TNI) define detection limits as limit of detection - LOD and limit of quantification - LOQ. These terms were historically known as method detection limit - MDL and practical quantification limit - PQL.

LOD = Student's t value x the standard deviation
 LOQ = LOD x 2.5

Student t-Test Values	
t-Test Population	t-Test Value
7	2.998
8	2.896
9	2.821
10	2.764
11	2.718
12	2.681

Reference Monitor Detection Limits



Monitor: GC
Manufacturer: SRI
Model: 8610C
S/N: N7350
Condition: Instrument Only
Date: 4/29/2010
Operator: B. Pearce
Compound: Carbon Disulfide

Target Concentration, ppm v 5.0

Repetition	Average Reading (ppm v)
1	3.880
2	3.950
3	3.960
4	3.990
5	3.910
6	4.040
7	3.940
8	3.990
9	
10	
11	
12	
13	
14	

Total Population	8
t-Test Population (n-1)	7
Average RM reading	3.96
Standard Deviation	0.050
Student t- Test Value	2.998

LOD	0.150
LOQ (2.5 times LOD)	0.375

*The USEPA defines MDL as "the minimum concentration that can be determined with 99% confidence that the true concentration is greater than zero." This procedure is outlined in 40CFR 136 and TTN EMC.
 The NELAC Standard (TNI) define detection limits as limit of detection - LOD and limit of quantification - LOQ.
 These terms were historically known as method detection limit - MDL and practical quantification limit - PQL.*

LOD = Student's t value x the standard deviation
 LOQ = LOD x 2.5

Student t-Test Values	
t-Test Population	t-Test Value
7	2.998
8	2.896
9	2.821
10	2.764
11	2.718
12	2.681



TRS STANDARDS PRETEST DATA

Client: Valero CC
Location: Corpus Christi, TX
Source: SRU #2
Date sampled: 4/29/2010
Run Number: MDL Study
Compound Analyzed: TRS
Method: USEPA Method 15
Instrument: SRI-9300B
Detector: GC-FPD
Units of Detection: ppm

Carbonyl Sulfide Standards			
Standard No	Concentration	Area	Sq Rt Area Counts
1	0.0	0.0	0.0
2	25.0	3090.59	55.6
3	50.0	8878.04	94.2
4	75.0	15,279.7	123.6

Hydrogen Sulfide Standards			
Standard No	Concentration	Area	Sq Rt Area Counts
1	0.0	0.0	0.0
2	25.0	1,919.7	43.8
3	50.0	6,797.9	82.4
4	75.0	12,252.2	110.7

Carbon Disulfide Standards			
Standard No	Concentration	Area	Sq Rt Area Counts
1	0.0	0.0	0.0
2	25.0	6,005.6	77.5
3	50.0	15,838.0	125.8
4	75.0	25,105.4	158.4



Analytical Calculation Summary

Calibration Standards Area Linear Regression Fit

Client: Valero CC
Location: Corpus Christi, TX
Source: SRU #2
Date sampled: 4/29/2010
Run Number: MDL Study
Compound Analyzed: Hydrogen Sulfide
Method: USEPA Method 15
Instrument: SRI-9300B
Detector: GC-FPD
Units of Detection: ppm

Calibration Standards

Statistical Analysis Summary

Standard #	Standard Peak Area (mv)	Square Root Peak Area (mv)	Standard Concentration (ppm)	
1	0.0	0.0	0.0	$\Sigma xy:$ 13519.6
2	1,919.7	43.8	25.0	$\Sigma x:$ 237.0
3	6,797.9	82.4	50.0	$\Sigma y:$ 150
4	12,252.2	110.7	75.0	$\Sigma x^2:$ 20970
				$\Sigma(x)^2:$ 56147
				N: 4
				m: 0.66836
				b: -2.0927



Analytical Calculation Summary

Calibration Standards Area Linear Regression Fit

Client: Valero CC
Location: Corpus Christi, TX
Source: SRU #2
Date sampled: 4/29/2010
Run Number: MDL Study
Compound Analyzed: Carbonyl Sulfide
Method: USEPA Method 15
Instrument: SRI-9300B
Detector: GC-FPD
Units of Detection: ppm

Calibration Standards

Statistical Analysis Summary

<u>Standard #</u>	<u>Standard Peak Area (mv)</u>	<u>Square Root Peak Area (mv)</u>	<u>Standard Concentration (ppm)</u>	
1	0.0	0.0	0.0	$\Sigma xy:$ 15371.8
2	3,090.6	55.6	25.0	$\Sigma x:$ 273.4
3	8,878.0	94.2	50.0	$\Sigma y:$ 150.0
4	15,279.7	123.6	75.0	$\Sigma x^2:$ 27248
				$\Sigma(x)^2:$ 74763
				N: 4
				m: 0.59809
				b: -3.38381



Analytical Calculation Summary

Calibration Standards Area Linear Regression Fit

Client: Valero CC
Location: Corpus Christi, TX
Source: SRU #2
Date sampled: 4/29/2010
Run Number: MDL Study
Compound Analyzed: Carbon Disulfide
Method: USEPA Method 15
Instrument: SRI-9300B
Detector: GC-FPD
Units of Detection: ppm

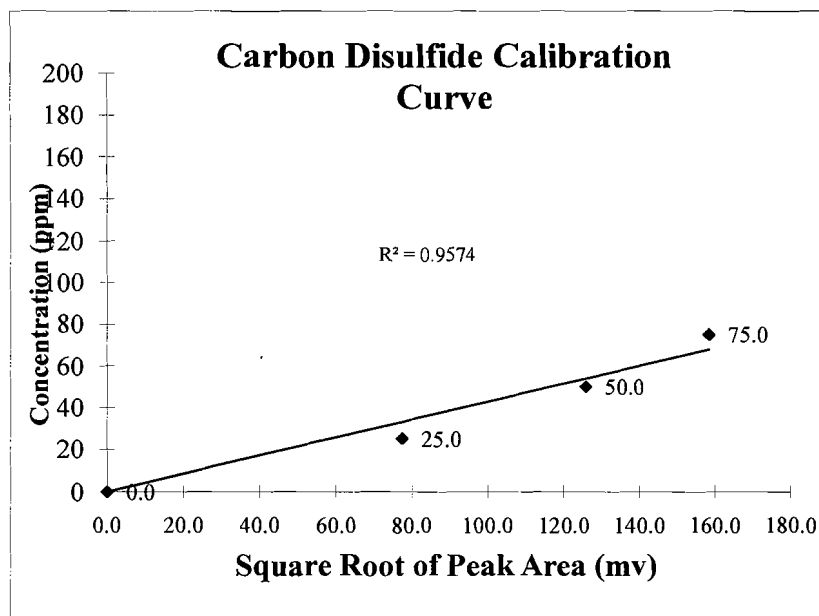
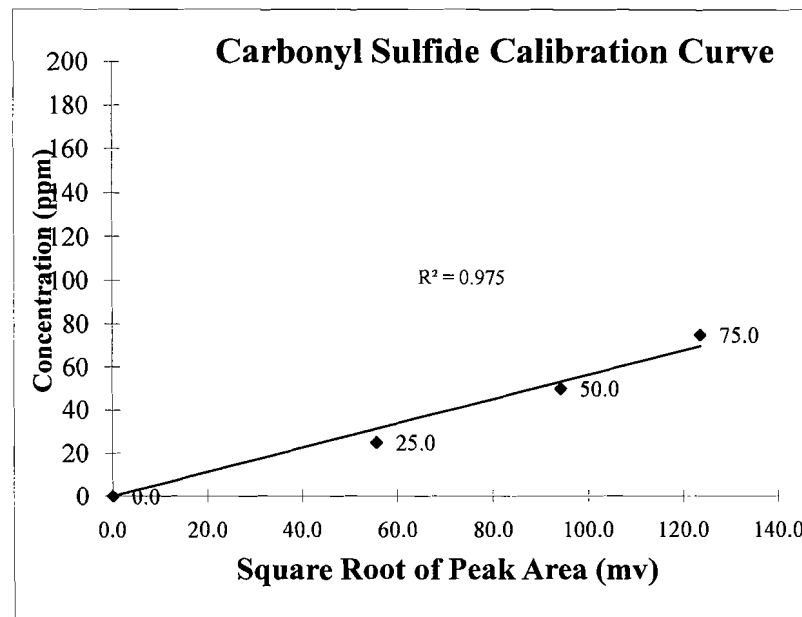
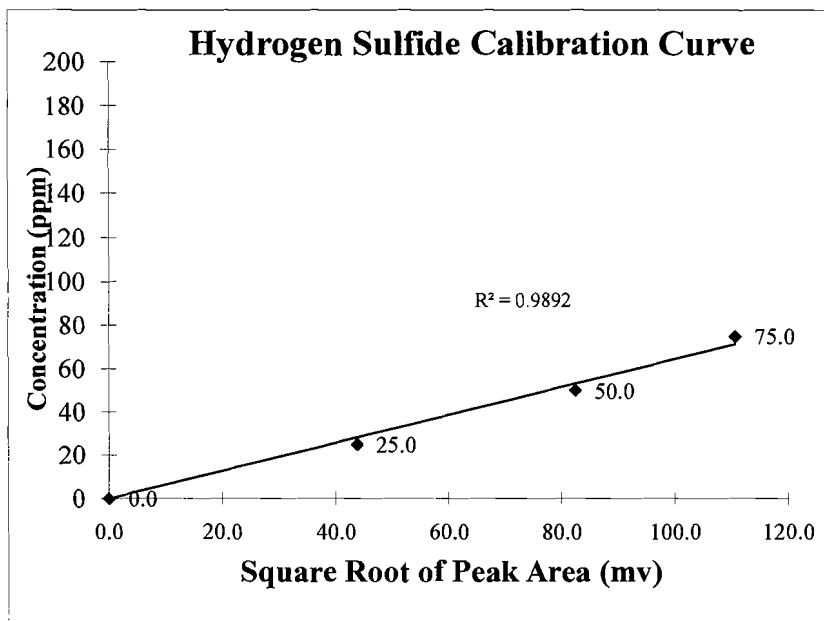
Calibration Standards

Statistical Analysis Summary

<u>Standard #</u>	<u>Standard Peak Area (mv)</u>	<u>Square Root Peak Area (mv)</u>	<u>Standard Concentration (ppm)</u>	
1	0.0	0.0	0.0	$\Sigma xy:$ 20113.4
2	6,005.6	77.5	25.0	$\Sigma x:$ 361.8
3	15,838.0	125.8	50.0	$\Sigma y:$ 150.0
4	25,105.4	158.4	75.0	$\Sigma x^2:$ 46949
				$\Sigma(x)^2:$ 130893
				N: 4
				m: 0.46017
				b: -4.12108

Calibration Curves

April 29, 2010



SUMMARY OF TOTAL REDUCED SULFUR COMPOUNDS

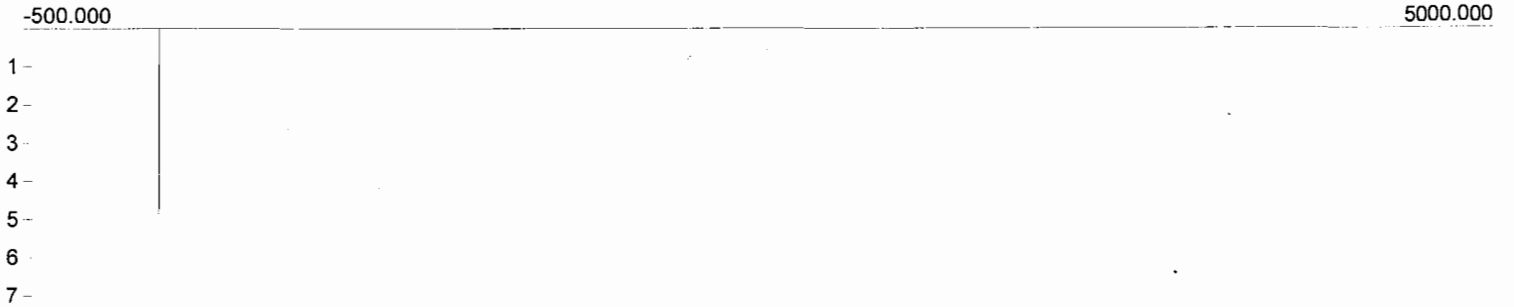


Company: Valero CC
 Location: Corpus Christi, TX
 Source: SRU No. 1 & 2
 Date: 4/29/10
 Run No.: MDL Study

Line Loss Ratios
 COS= 1.000
 H2S= 1.000
 CS2= 1.000

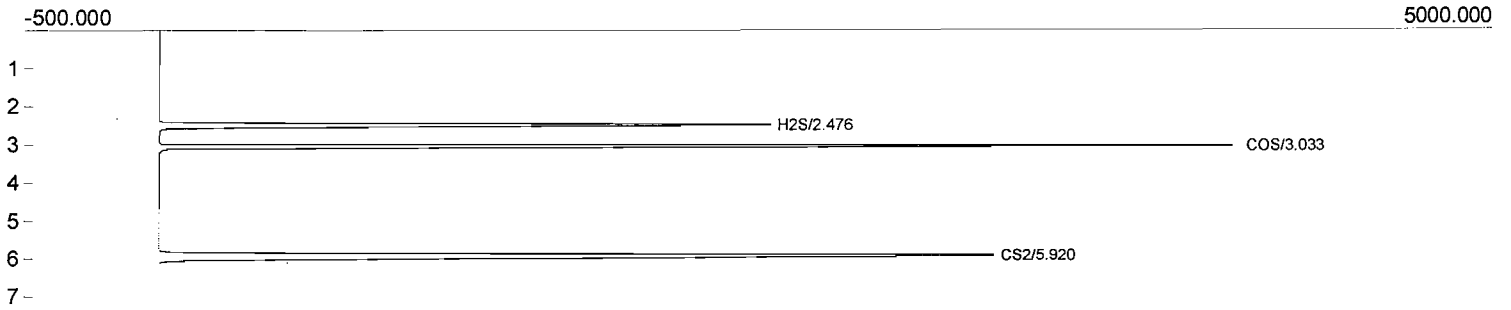
Run	Date	Time	COS Area (mV)	COS Conc (ppm v db)	H2S Area (mV)	H2S Conc (ppm v db)	CS2 Area (mV)	CS2 Conc (ppm v db)	TRS Conc (as SO ₂)	Injection
Valero155.CHR	4/29/2010	12:11:02	<138.04	<3.64	<68.81	<3.45	<302.21	<3.88	<7.09	1-1
Valero156.CHR	4/29/2010	12:20:02	<140.37	<3.70	<72.13	<3.58	<307.44	<3.95	<7.29	1-2
Valero157.CHR	4/29/2010	12:29:02	<140.57	<3.71	<73.58	<3.64	<308.70	<3.96	<7.35	1-3
Valero158.CHR	4/29/2010	12:38:02	<141.42	<3.73	<74.67	<3.68	<311.00	<3.99	<7.41	1-4
Valero159.CHR	4/29/2010	12:47:02	<137.82	<3.64	<71.68	<3.57	<304.86	<3.91	<7.20	1-5
Valero160.CHR	4/29/2010	12:56:02	<143.26	<3.77	<75.97	<3.73	<314.59	<4.04	<7.51	1-6
Valero161.CHR	4/29/2010	13:05:02	<139.07	<3.67	<73.34	<3.63	<307.23	<3.94	<7.30	1-7
Valero162.CHR	4/29/2010	13:14:02	<143.12	<3.77	<76.56	<3.76	<310.52	<3.99	<7.53	1-8

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/29/2010 06:30:53
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero142.CHR (C:\Valero SRU1)
Sample: 0 ppm pre test
Operator: BP



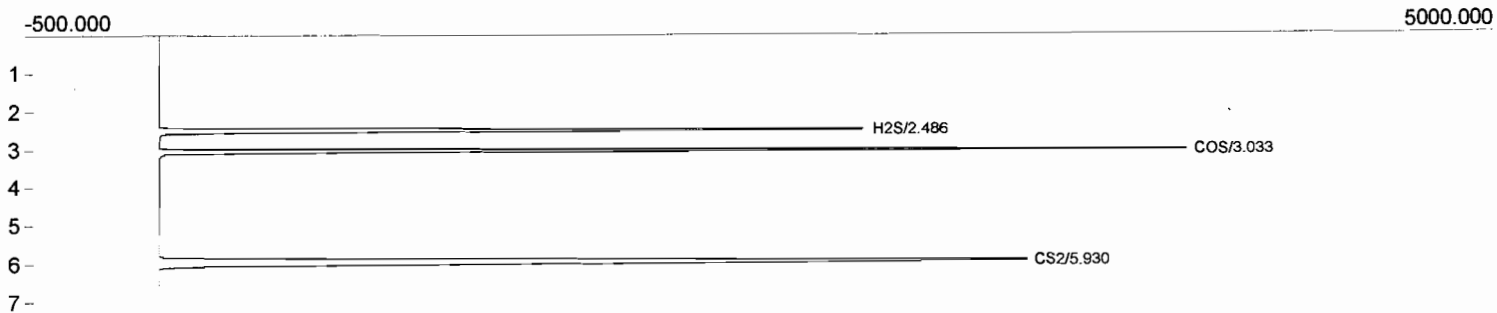
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/29/2010 06:39:04
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero143.CHR (C:\Valero SRU1)
Sample: 75 ppm pre test
Operator: BP



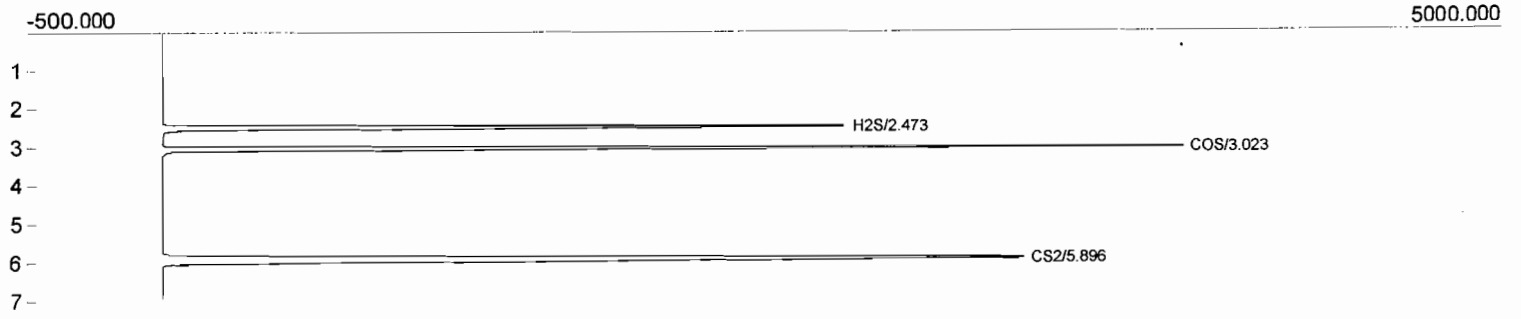
Component	Area
H2S	11717.5165
COS	15215.9312
CS2	24549.9172
	51483.3649

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/29/2010 06:47:36
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero144.CHR (C:\Valero SRU1)
Sample: 75 ppm pre test
Operator: BP



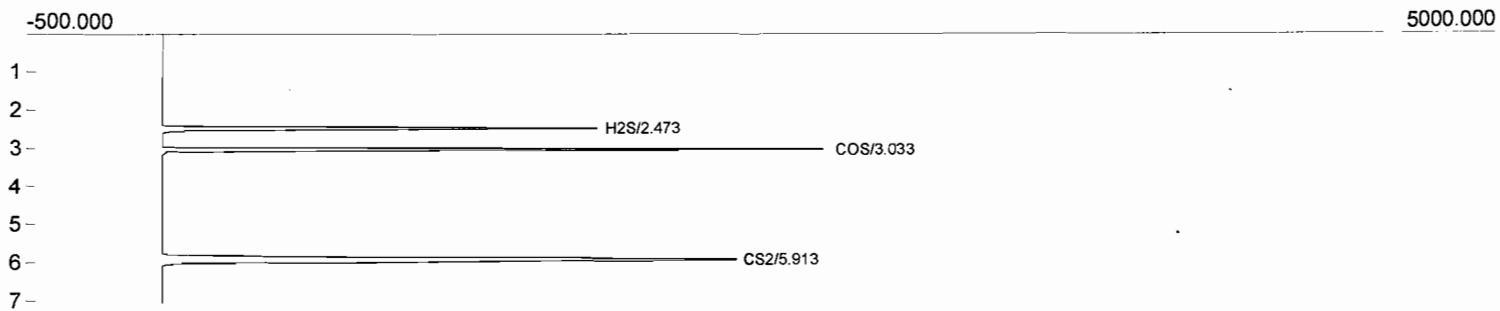
Component	Area
H2S	12599.8298
COS	15406.1960
CS2	25593.8829
	53599.9087

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/29/2010 06:56:54
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero145.CHR (C:\Valero SRU1)
Sample: 75 ppm pre test
Operator: BP



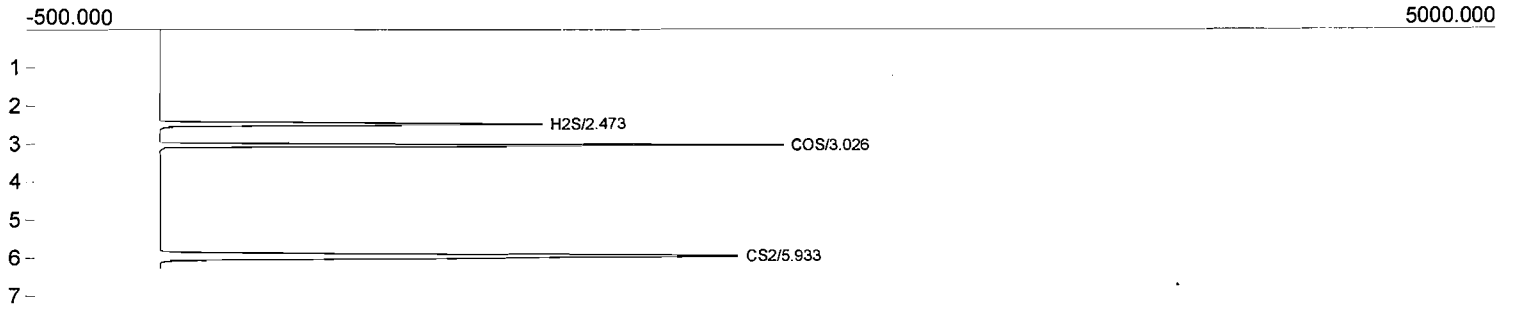
Component	Area
H2S	12439.3261
COS	15217.0058
CS2	25172.3209
	52828.6528

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/29/2010 07:14:10
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero147.CHR (C:\Valero SRU1)
Sample: 50 ppm pre test
Operator: BP



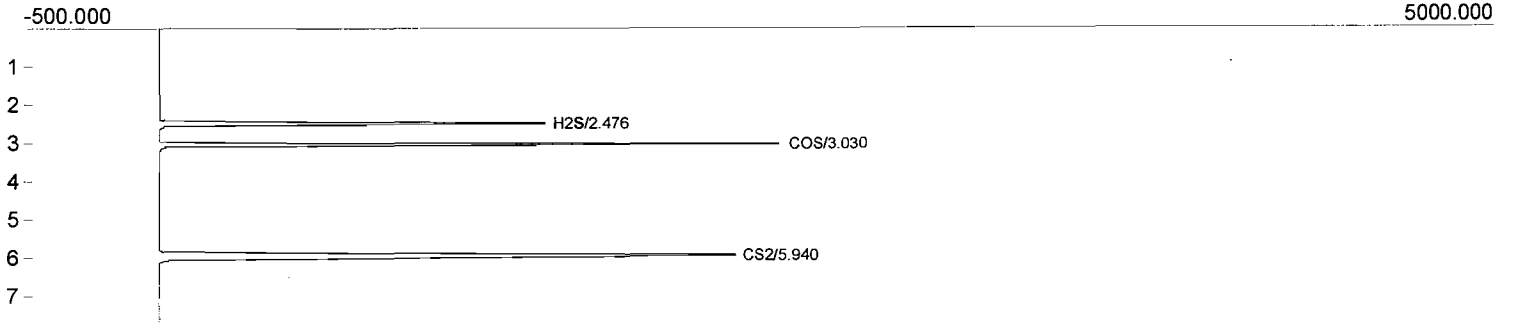
Component	Area
H2S	7001.7029
COS	9030.0040
CS2	15789.9198
	31821.6267

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/29/2010 07:23:23
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero148.CHR (C:\Valero SRU1)
Sample: 50 ppm pre test
Operator: BP



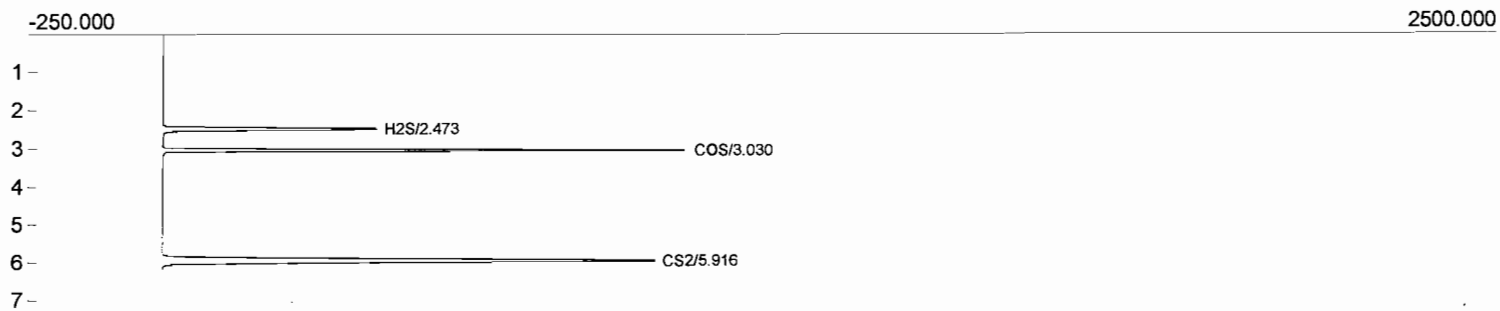
Component	Area
H2S	6681.2301
COS	8798.7692
CS2	15835.9598
	31315.9591

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/29/2010 07:32:52
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero149.CHR (C:\Valero SRU1)
Sample: 50 ppm pre test
Operator: BP



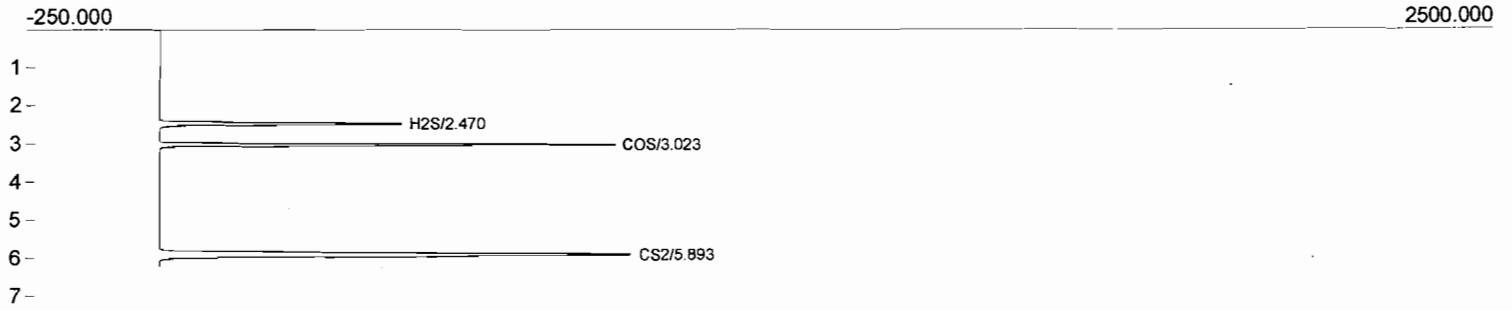
Component	Area
H2S	6710.7666
COS	8805.3392
CS2	15888.0966
	31404.2024

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/29/2010 07:41:02
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero150.CHR (C:\Valero SRU1)
Sample: 25 ppm pre test
Operator: BP



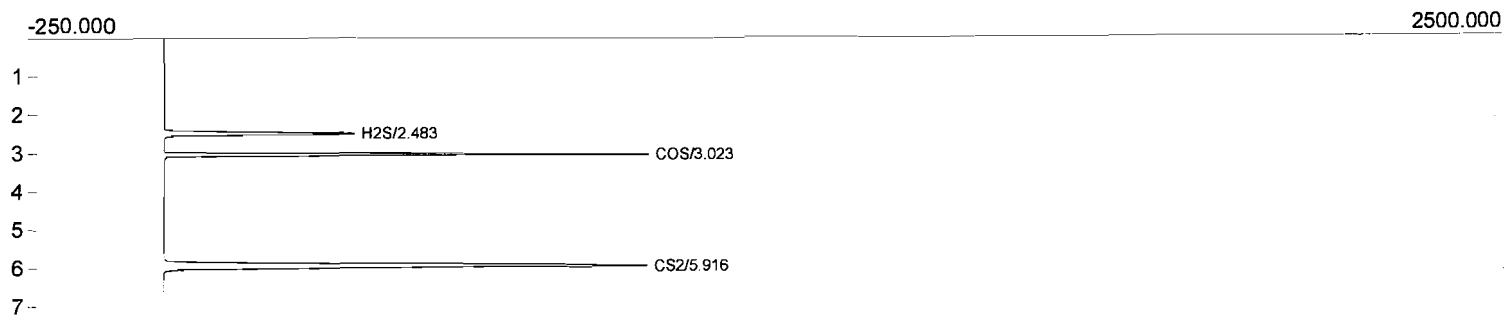
Component	Area
H2S	1947.8779
COS	3236.3992
CS2	6143.7903
	11328.0674

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/29/2010 07:50:06
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero151.CHR (C:\Valero SRU1)
Sample: 25 ppm pre test
Operator: BP



Component	Area
H2S	1984.0518
COS	2970.1072
CS2	5877.4202
	10831.5792

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/29/2010 07:58:22
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero152.CHR (C:\Valero SRU1)
Sample: 25 ppm pre test
Operator: BP



Component	Area
H2S	1827.2254
COS	3065.2531
CS2	5995.6950
	10888.1735

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/29/2010 12:11:02
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero155.CHR (C:\Valero SRU1)
Sample: 5 ppm
Operator: BP



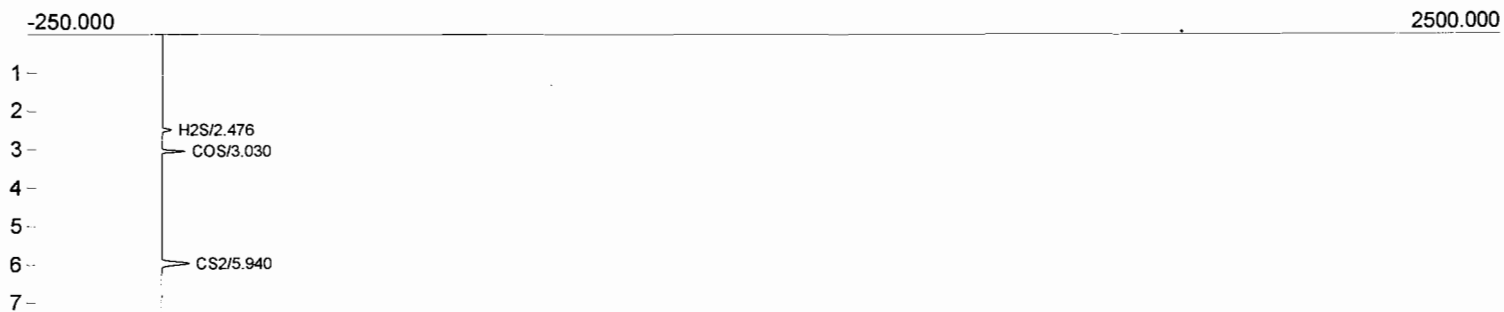
Component	Area
H2S	68.8146
COS	138.0442
CS2	302.3489
	509.2077

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/29/2010 12:20:02
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero156.CHR (C:\Valero SRU1)
Sample: 5 ppm
Operator: BP



Component	Area
H2S	72.1258
COS	140.3714
CS2	307.4404
	519.9376

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/29/2010 12:29:02
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero157.CHR (C:\Valero SRU1)
Sample: 5 ppm
Operator: BP



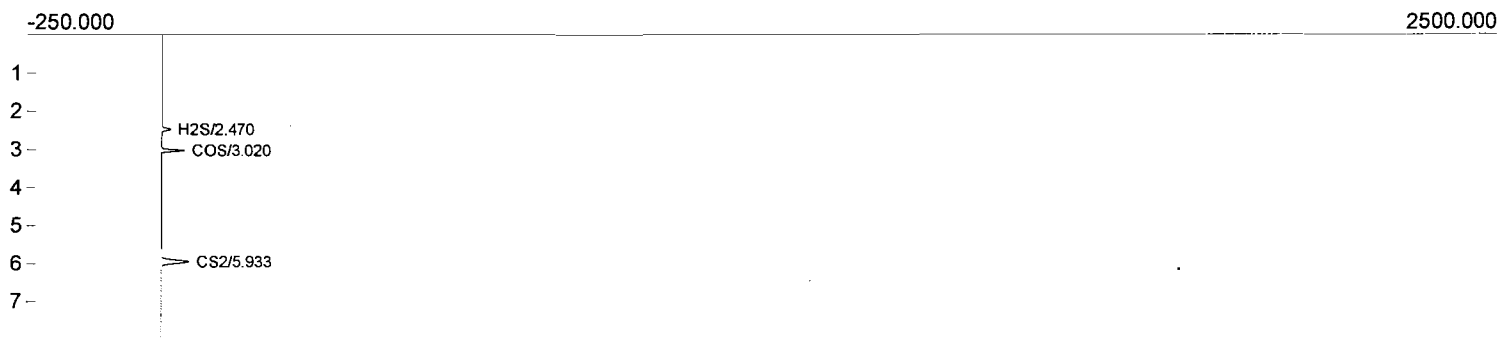
Component	Area
H2S	73.5783
COS	140.5684
CS2	308.6964
	522.8431

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/29/2010 12:38:02
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero158.CHR (C:\Valero SRU1)
Sample: 5 ppm
Operator: BP



Component	Area
H2S	74.6666
COS	141.4237
CS2	311.0040
	527.0943

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/29/2010 12:47:02
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero159.CHR (C:\Valero SRU1)
Sample: 5 ppm
Operator: BP



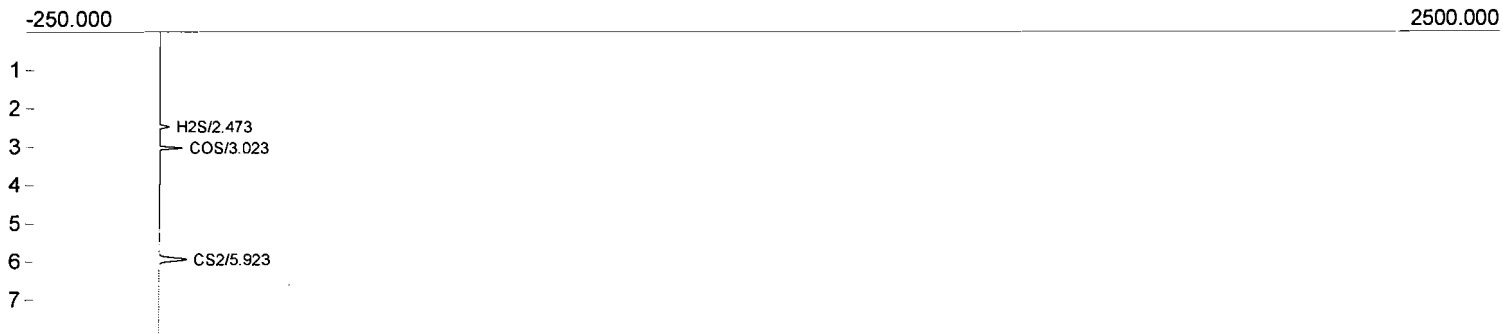
Component	Area
H2S	71.6775
COS	137.8189
CS2	304.8562
	514.3526

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/29/2010 12:56:02
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero160.CHR (C:\Valero SRU1)
Sample: 5 ppm
Operator: BP



Component	Area
H2S	75.9684
COS	143.2620
CS2	314.5891
	533.8195

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/29/2010 13:05:02
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero161.CHR (C:\Valero SRU1)
Sample: 5 ppm
Operator: BP



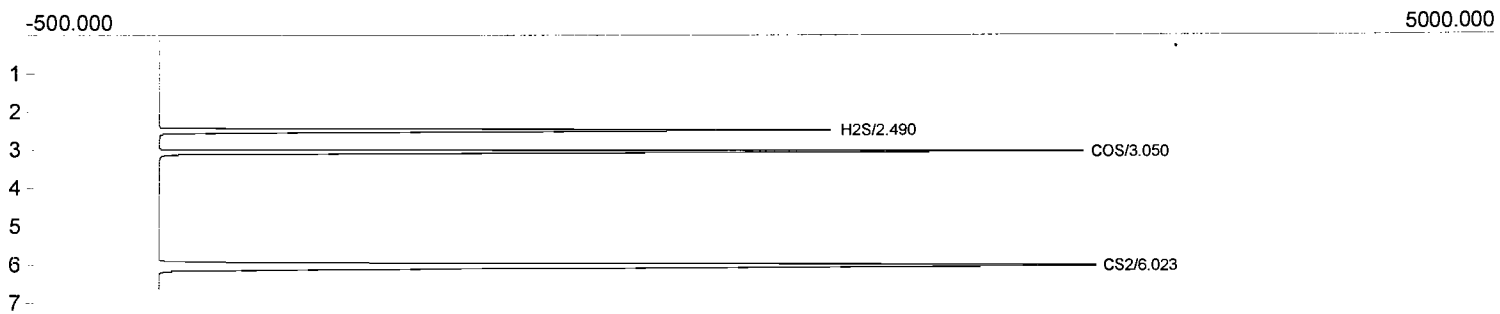
Component	Area
H2S	73.3371
COS	139.0728
CS2	307.2321
	519.6420

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 1
Analysis date: 04/29/2010 13:14:02
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero162.CHR (C:\Valero SRU1)
Sample: 5 ppm
Operator: BP



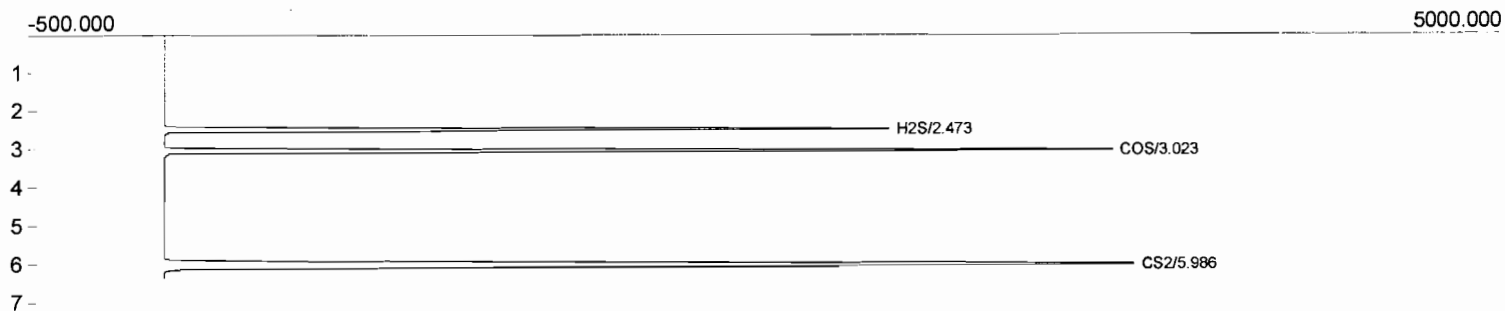
Component	Area
H2S	76.5587
COS	143.1168
CS2	310.5242
	530.1997

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. ~~1~~ 2
Analysis date: 05/06/2010 06:19:36
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero177.CHR (C:\Valero SRU1)
Sample: 75 ppm pre cal
Operator: BP
QC batch:



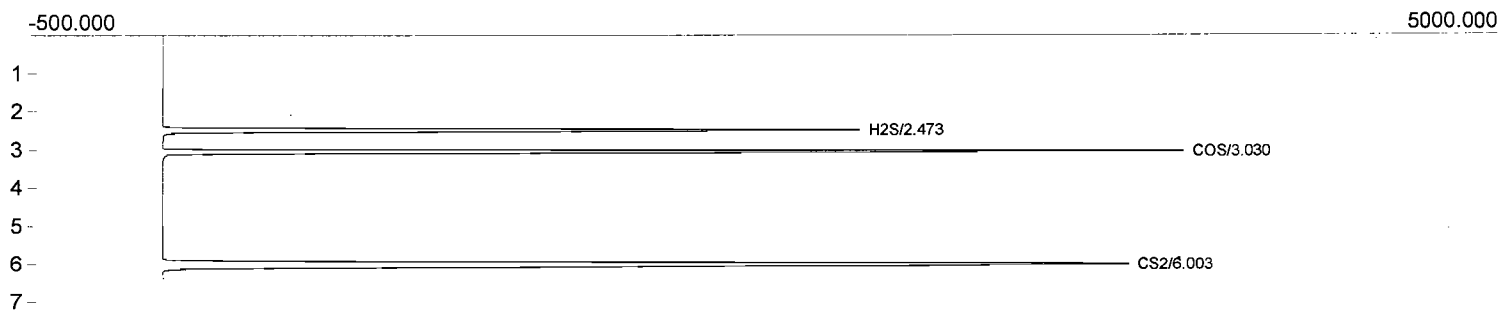
Component	Area
H2S	11530.9200
COS	14562.0882
CS2	26835.7134
	52928.7216

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. * 2
Analysis date: 05/06/2010 06:27:59
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero178.CHR (C:\Valero SRU1)
Sample: 75 ppm pre cal
Operator: BP
QC batch:



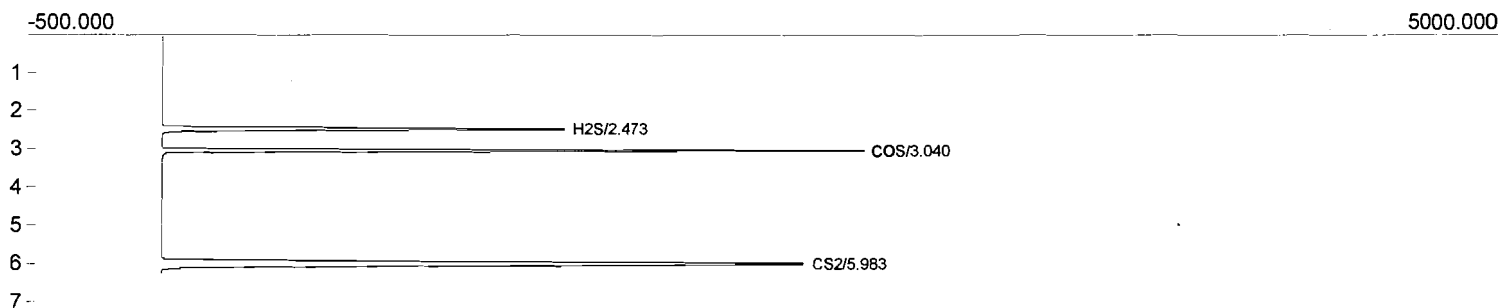
Component	Area
H2S	12389.6125
COS	15062.1425
CS2	28187.6186
	55639.3736

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. ~~K~~ 2
Analysis date: 05/06/2010 06:36:50
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero179.CHR (C:\Valero SRU1)
Sample: 75 ppm pre cal
Operator: BP
QC batch:



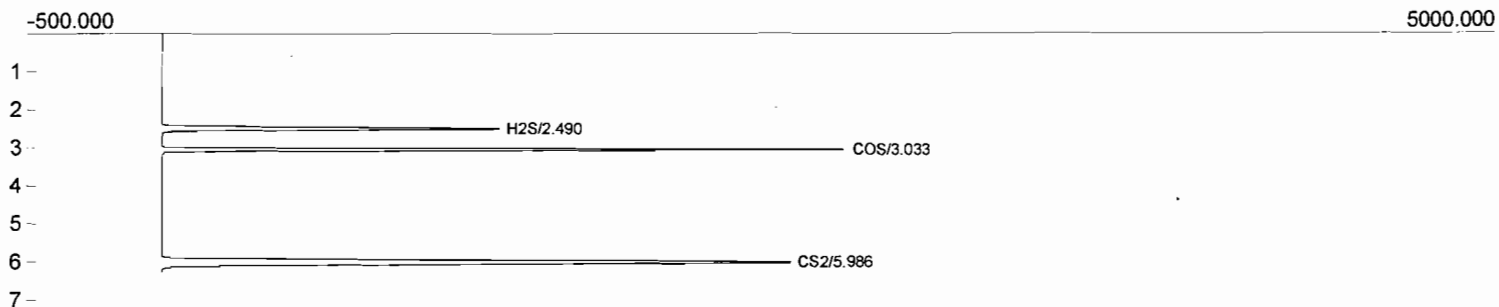
Component	Area
H2S	12509.5173
COS	15421.5106
CS2	28204.0254
	56135.0533

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/06/2010 06:44:54
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero180.CHR (C:\Valero SRU1)
Sample: 50 ppm pre cal
Operator: BP
QC batch:



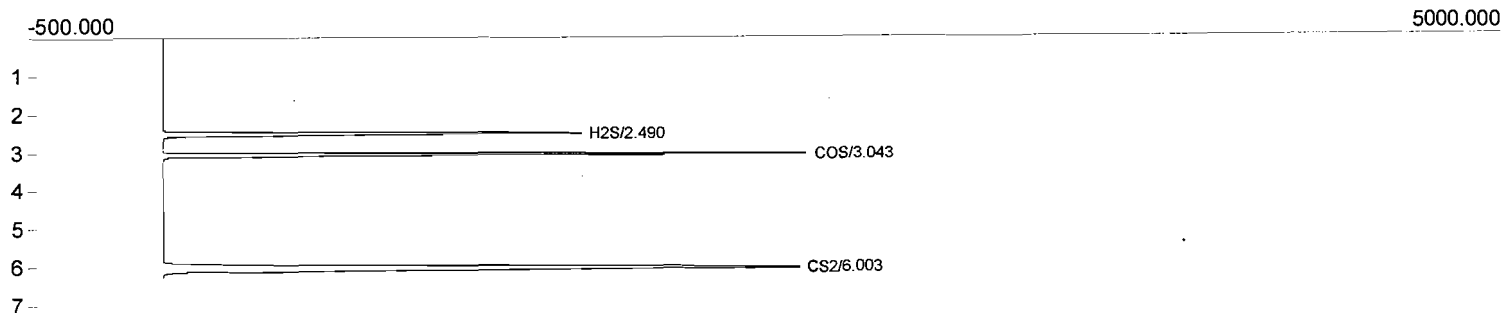
Component	Area
H2S	6730.6133
COS	9235.0860
CS2	17434.2902
	33399.9895

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/06/2010 06:53:05
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero181.CHR (C:\Valero SRU1)
Sample: 50 ppm pre cal
Operator: BP
QC batch:



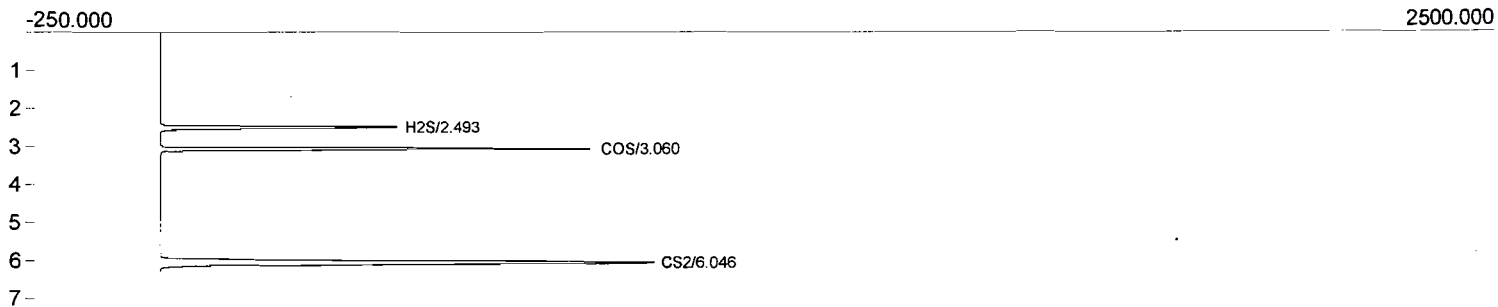
Component	Area
H2S	6444.9862
COS	9137.1796
CS2	17229.2012
	32811.3670

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/06/2010 07:01:26
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero182.CHR (C:\Valero SRU1)
Sample: 50 ppm pre cal
Operator: BP
QC batch:



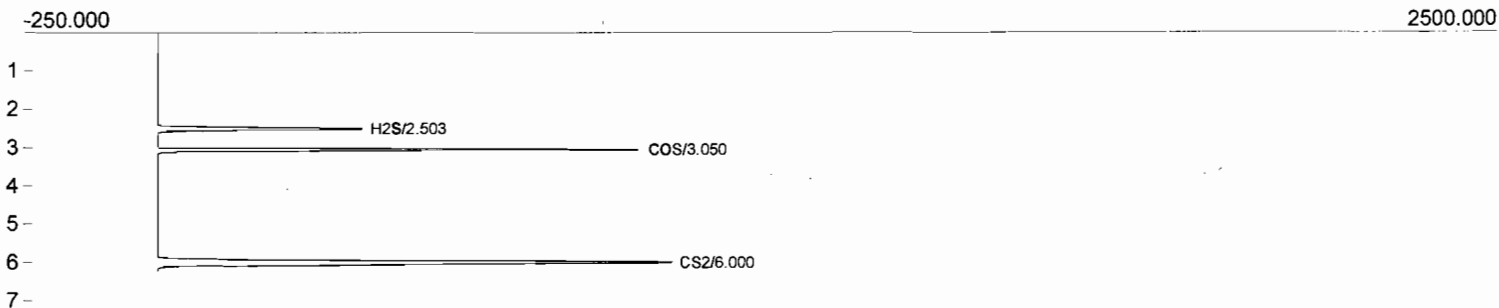
Component	Area
H2S	6938.8704
COS	8990.1356
CS2	17438.0640
	33367.0700

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/06/2010 07:11:48
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero183.CHR (C:\Valero SRU1)
Sample: 25 ppm pre cal
Operator: BP
QC batch:



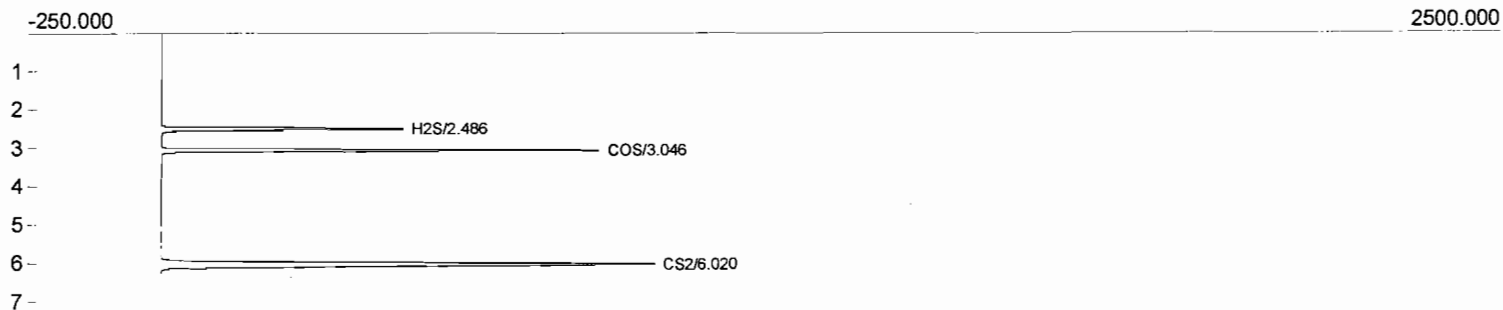
Component	Area
H2S	1920.6672
COS	2843.9399
CS2	6141.5047
	10906.1118

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/06/2010 07:19:58
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero184.CHR (C:\Valero SRU1)
Sample: 25 ppm pre cal
Operator: BP
QC batch:



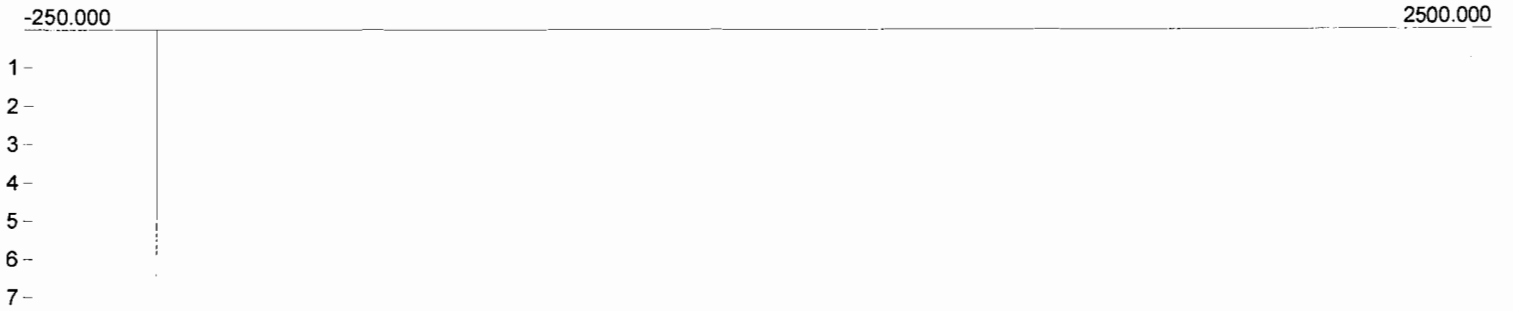
Component	Area
H2S	1853.4490
COS	3046.6842
CS2	6350.0784
	11250.2116

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/06/2010 07:30:13
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero185.CHR (C:\Valero SRU1)
Sample: 25 ppm pre cal
Operator: BP
QC batch:



Component	Area
H2S	1943.3967
COS	2867.3960
CS2	6092.8010
	10903.5937

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/06/2010 07:39:01
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero186.CHR (C:\Valero SRU1)
Sample: 0 ppm pre cal
Operator: BP
QC batch:



Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/06/2010 07:50:19
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero187.CHR (C:\Valero SRU1)
Sample: 0 ppm pre cal
Operator: BP
QC batch:



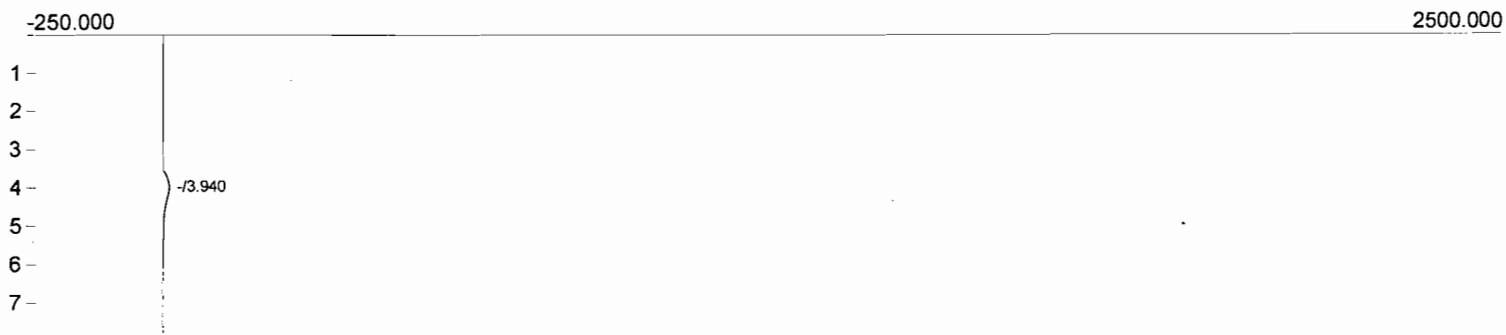
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/06/2010 08:01:04
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero188.CHR (C:\Valero SRU1)
Sample: 0 ppm pre cal
Operator: BP
QC batch:



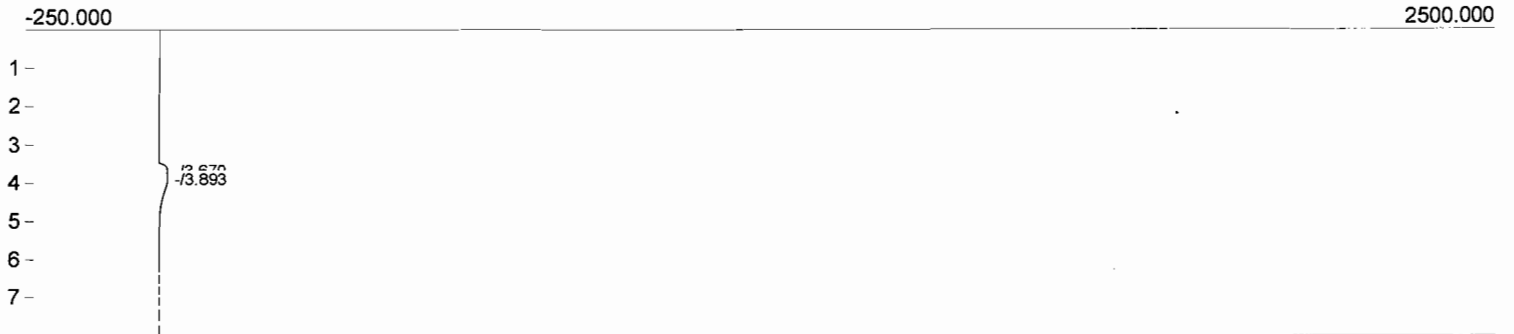
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/06/2010 13:10:01
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero204.CHR (C:\Valero SRU1)
Sample: SRU2-2
Operator: BP
QC batch:



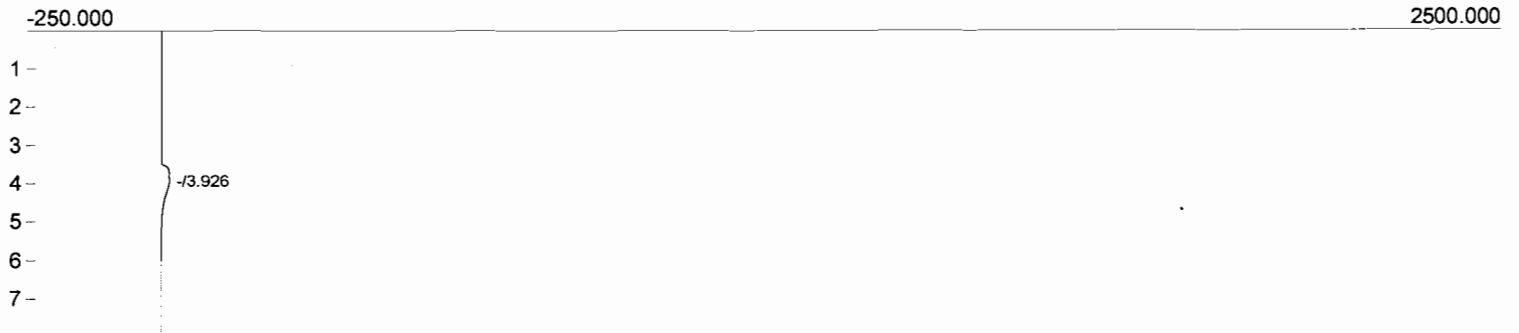
Component	Area
H2S	0.0000
COS	0.0000
-	490.2986
CS2	0.0000
	490.2986

Lab name: ARI Environmental, Inc
 Client: Valero CC
 Client ID: SRU No. 2
 Analysis date: 05/06/2010 13:20:01
 Method: USEPA Method 15
 Column: RESTEK Sulfur
 Carrier: Nitrogen
 Data file: Valero205.CHR (C:\Valero SRU1)
 Sample: SRU2-2
 Operator: BP
 QC batch:



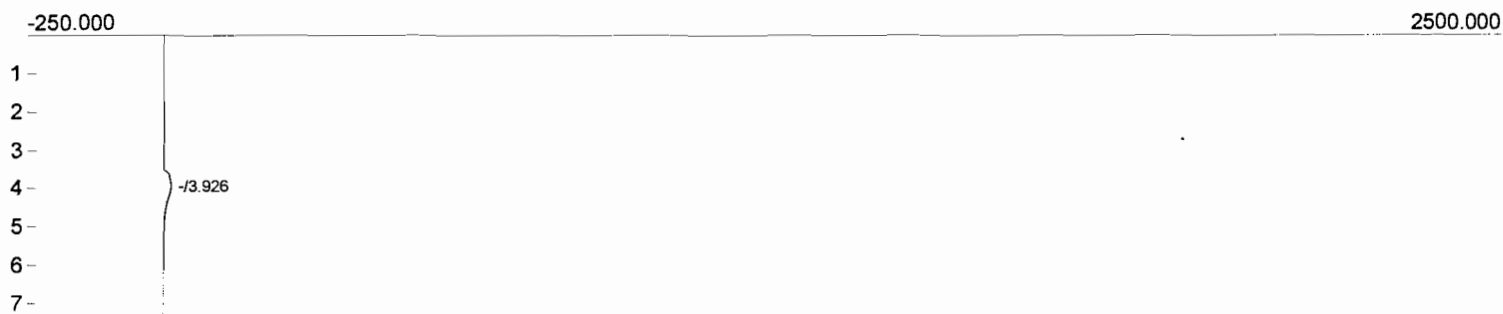
Component	Area
H2S	0.0000
COS	0.0000
-	159.1149
-	635.2716
CS2	0.0000
	794.3865

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/06/2010 13:30:02
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero206.CHR (C:\Valero SRU1)
Sample: SRU2-2
Operator: BP
QC batch:



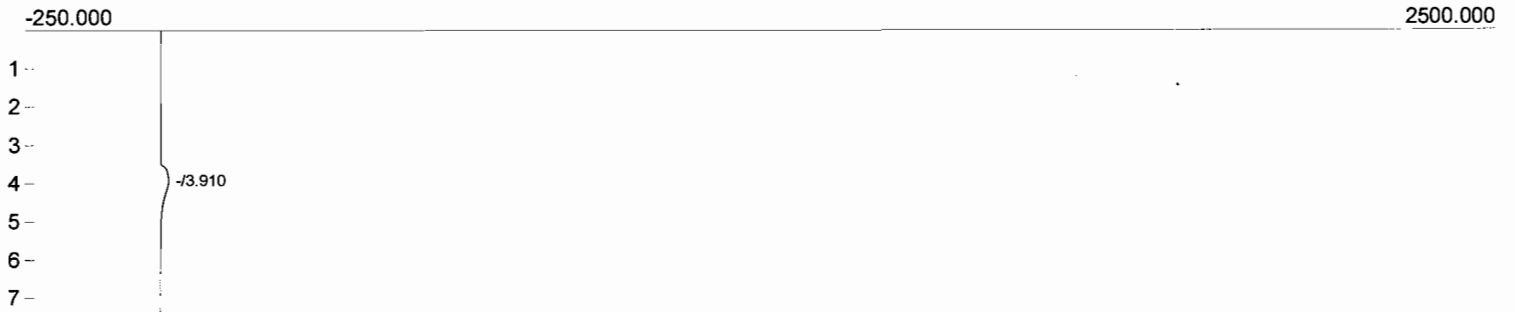
Component	Area
H2S	0.0000
COS	0.0000
-	751.4666
CS2	0.0000
	751.4666

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/06/2010 13:40:02
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero207.CHR (C:\Valero SRU1)
Sample: SRU2-2
Operator: BP
QC batch:



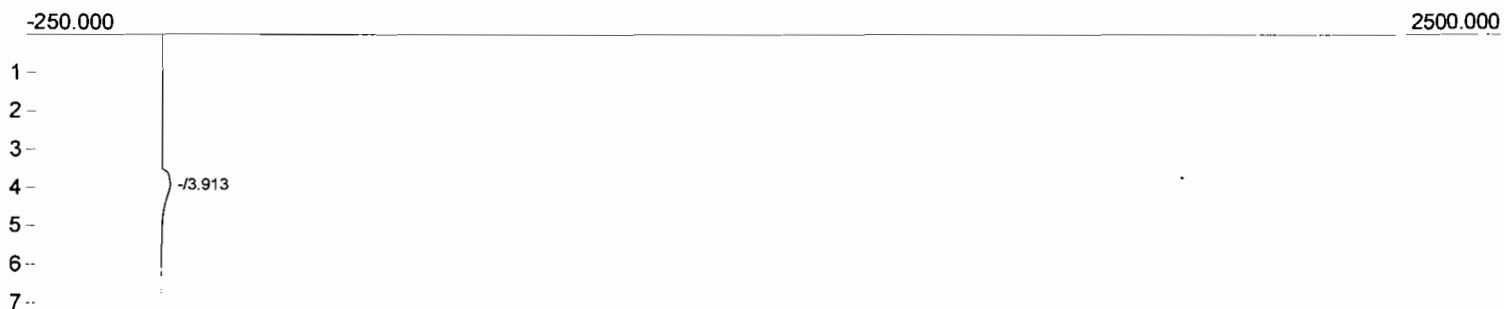
Component	Area
H2S	0.0000
COS	0.0000
-	690.9934
CS2	0.0000
	690.9934

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/06/2010 13:50:02
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero208.CHR (C:\Valero SRU1)
Sample: SRU2-2
Operator: BP
QC batch:



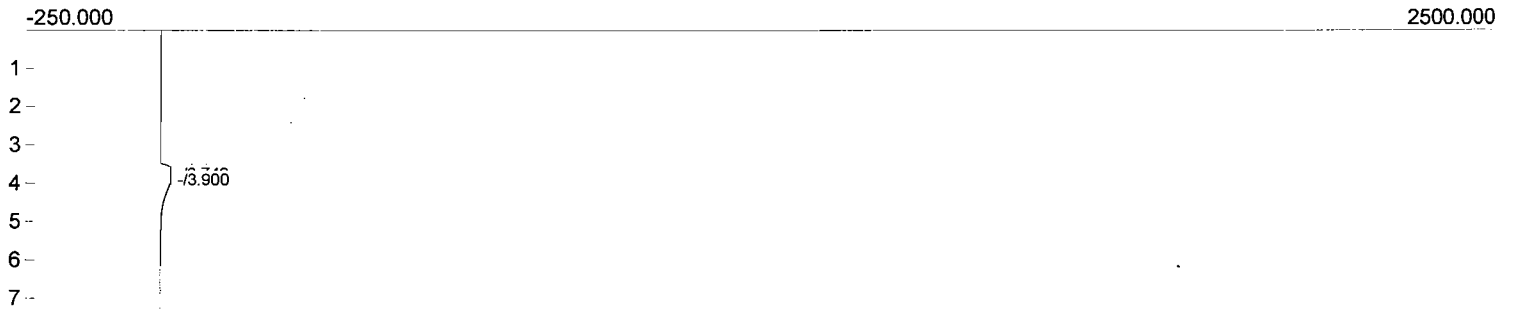
Component	Area
H2S	0.0000
COS	0.0000
-	730.8844
CS2	0.0000
	730.8844

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/06/2010 14:00:02
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero209.CHR (C:\Valero SRU1)
Sample: SRU2-2
Operator: BP
QC batch:



Component	Area
H2S	0.0000
COS	0.0000
-	739.1517
CS2	0.0000
	739.1517

Lab name: ARI Environmental, Inc
 Client: Valero CC
 Client ID: SRU No. 2
 Analysis date: 05/06/2010 14:10:02
 Method: USEPA Method 15
 Column: RESTEK Sulfur
 Carrier: Nitrogen
 Data file: Valero210.CHR (C:\Valero SRU1)
 Sample: SRU2-2
 Operator: BP
 QC batch:



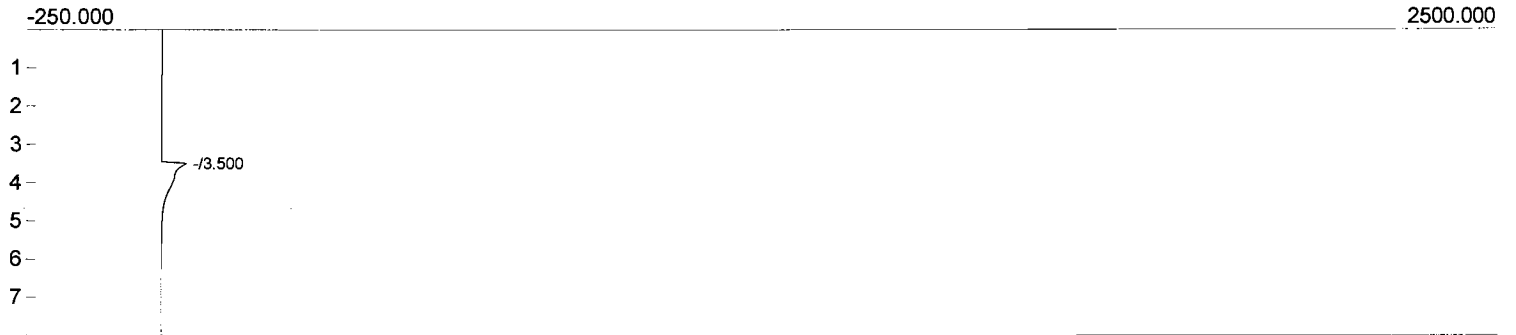
Component	Area
H2S	0.0000
COS	0.0000
-	214.6196
-	54.8512
-	637.2580
CS2	0.0000
	906.7288

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/06/2010 14:20:02
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero211.CHR (C:\Valero SRU1)
Sample: SRU2-2
Operator: BP
QC batch:



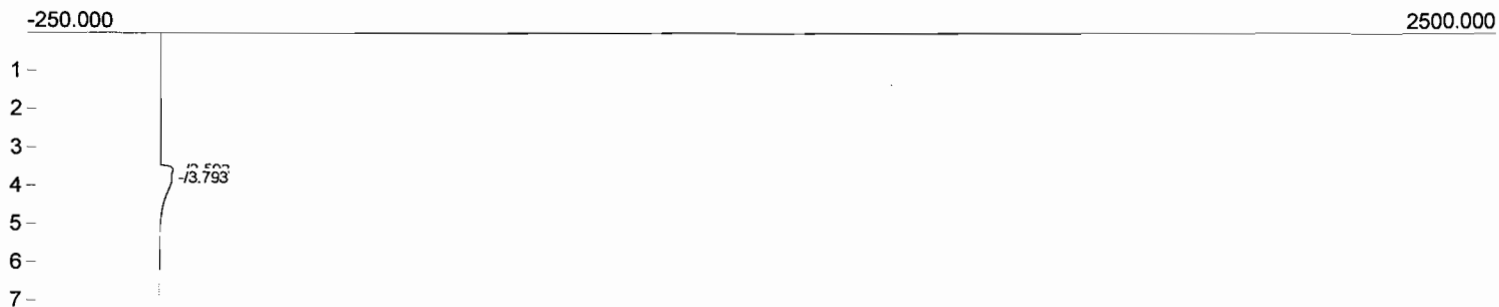
Component	Area
H2S	0.0000
COS	0.0000
-	1285.0398
CS2	0.0000
	1285.0398

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/06/2010 14:30:02
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero212.CHR (C:\Valero SRU1)
Sample: SRU2-2
Operator: BP
QC batch:



Component	Area
H2S	0.0000
COS	0.0000
-	1405.7578
CS2	0.0000
	1405.7578

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/06/2010 14:40:02
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero213.CHR (C:\Valero SRU1)
Sample: SRU2-2
Operator: BP
QC batch:



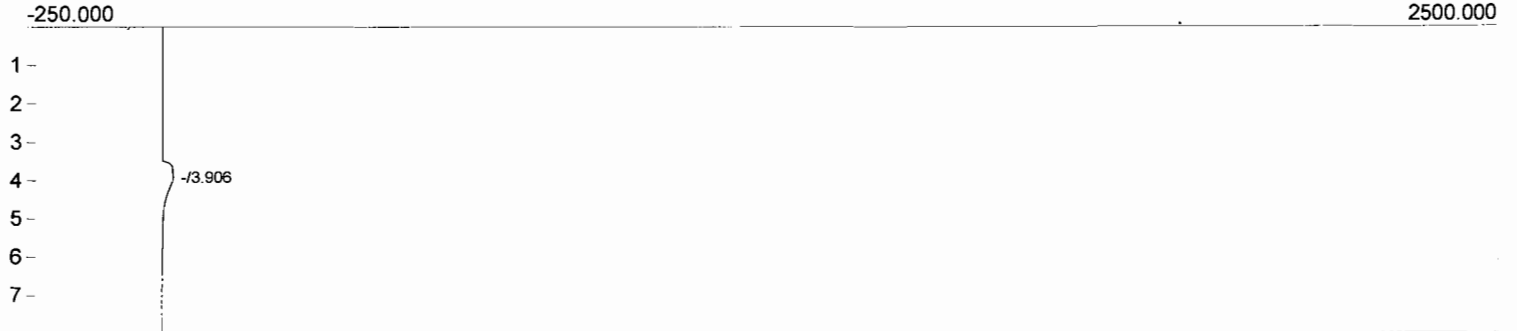
Component	Area
H2S	0.0000
COS	0.0000
-	388.1128
-	722.4700
CS2	0.0000
	1110.5828

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/06/2010 14:50:02
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero214.CHR (C:\Valero SRU1)
Sample: SRU2-2
Operator: BP
QC batch:



Component	Area
H2S	0.0000
COS	0.0000
-	930.0470
CS2	0.0000
	930.0470

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/06/2010 15:00:02
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero215.CHR (C:\Valero SRU1)
Sample: SRU2-2
Operator: BP
QC batch:



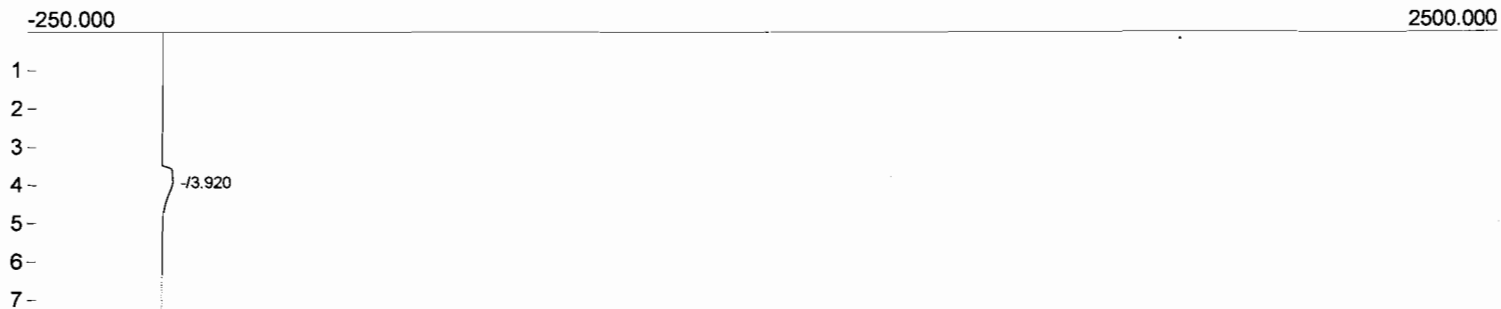
Component	Area
H2S	0.0000
COS	0.0000
-	958.1421
CS2	0.0000
	958.1421

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/06/2010 15:10:02
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero216.CHR (C:\Valero SRU1)
Sample: SRU2-2
Operator: BP
QC batch:



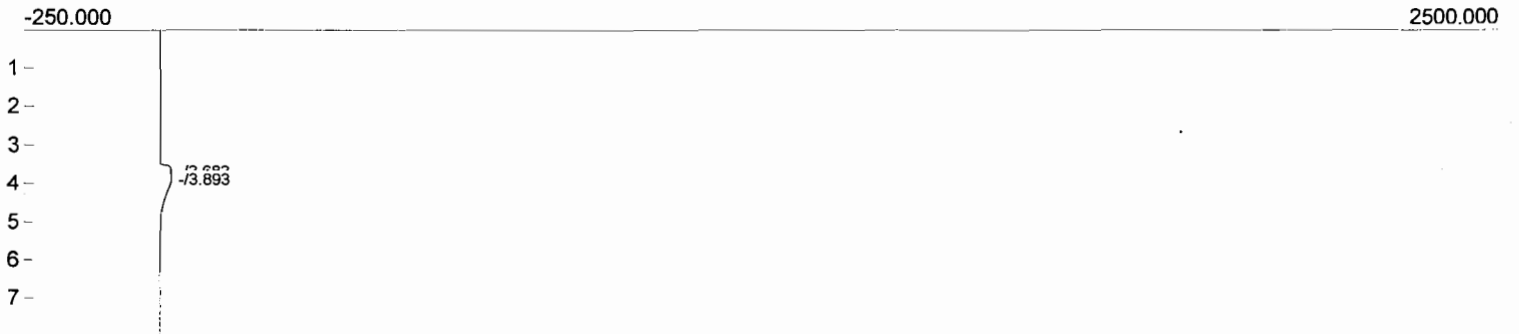
Component	Area
H2S	0.0000
COS	0.0000
-	957.9274
CS2	0.0000
	957.9274

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/06/2010 15:20:02
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero217.CHR (C:\Valero SRU1)
Sample: SRU2-2
Operator: BP
QC batch:



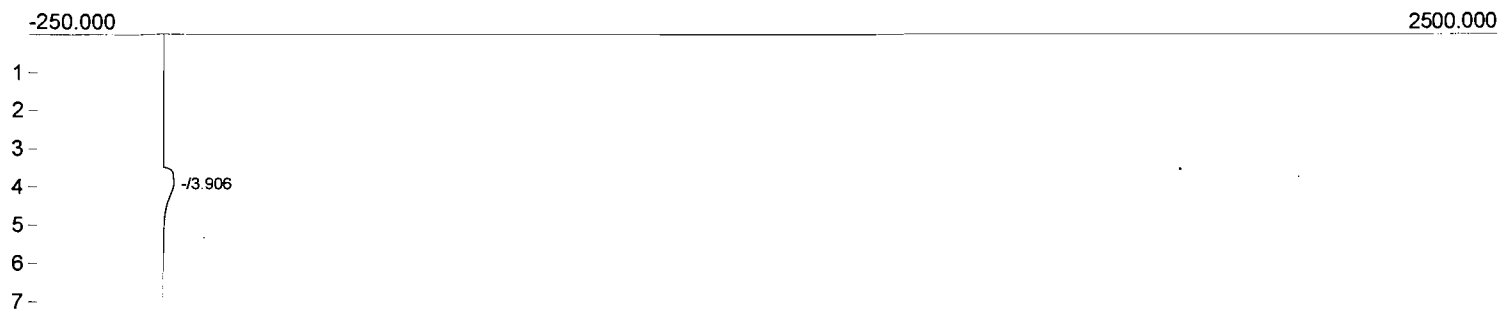
Component	Area
H2S	0.0000
COS	0.0000
-	445.9916
-	547.2652
CS2	0.0000
	993.2568

Lab name: ARI Environmental, Inc
 Client: Valero CC
 Client ID: SRU No. 2
 Analysis date: 05/06/2010 15:30:03
 Method: USEPA Method 15
 Column: RESTEK Sulfur
 Carrier: Nitrogen
 Data file: Valero218.CHR (C:\Valero SRU1)
 Sample: SRU2-2
 Operator: BP
 QC batch:



Component	Area
H2S	0.0000
COS	0.0000
-	211.1018
-	780.8302
CS2	0.0000
	991.9320

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/06/2010 15:40:03
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero219.CHR (C:\Valero SRU1)
Sample: SRU2-2
Operator: BP
QC batch:



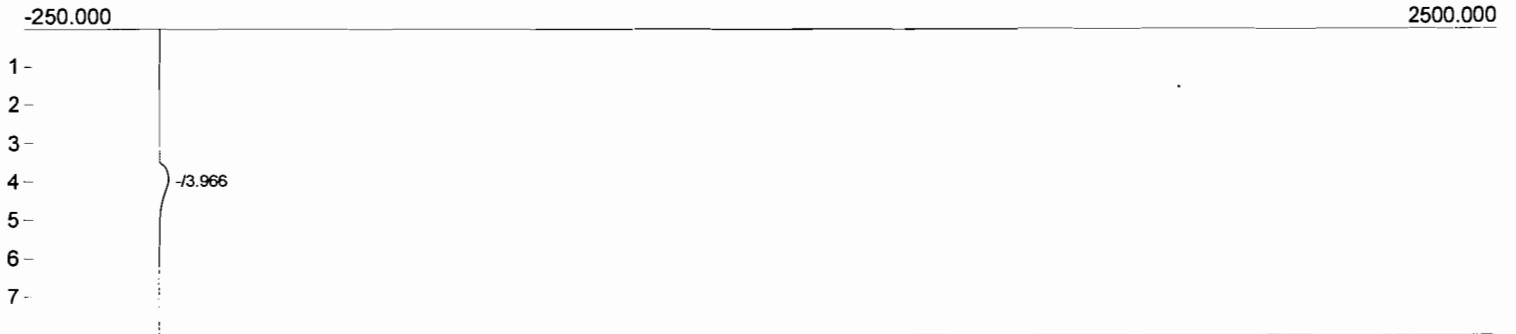
Component	Area
H2S	0.0000
COS	0.0000
-	973.3500
CS2	0.0000
	973.3500

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/06/2010 15:50:03
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero220.CHR (C:\Valero SRU1)
Sample: SRU2-2
Operator: BP
QC batch:



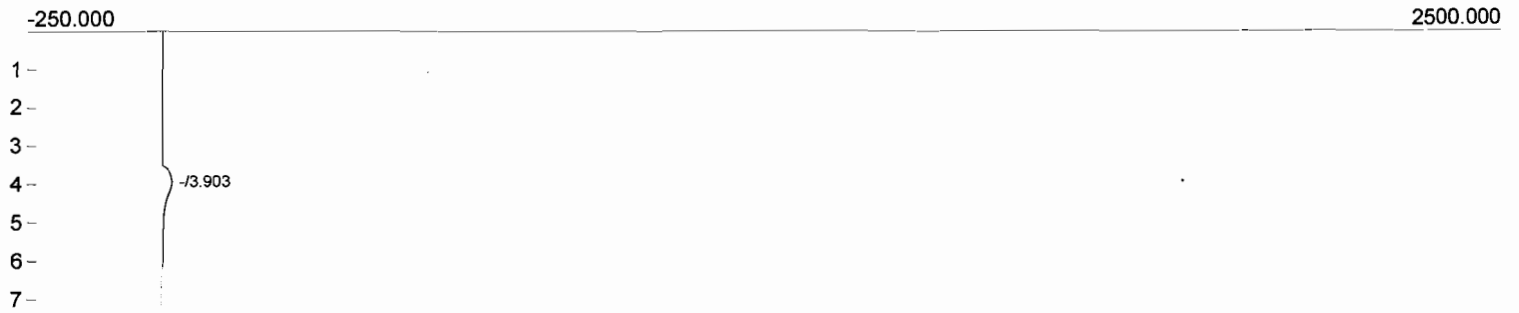
Component	Area
H2S	0.0000
COS	0.0000
-	906.9638
CS2	0.0000
	906.9638

Lab name: ARI Environmental, Inc
 Client: Valero CC
 Client ID: SRU No. 2
 Analysis date: 05/06/2010 16:00:03
 Method: USEPA Method 15
 Column: RESTEK Sulfur
 Carrier: Nitrogen
 Data file: Valero221.CHR (C:\Valero SRU1)
 Sample: SRU2-2
 Operator: BP
 QC batch:



Component	Area
H2S	0.0000
COS	0.0000
-	355.4624
-	463.1238
CS2	0.0000
	818.5862

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/06/2010 16:10:03
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero222.CHR (C:\Valero SRU1)
Sample: SRU2-2
Operator: BP
QC batch:



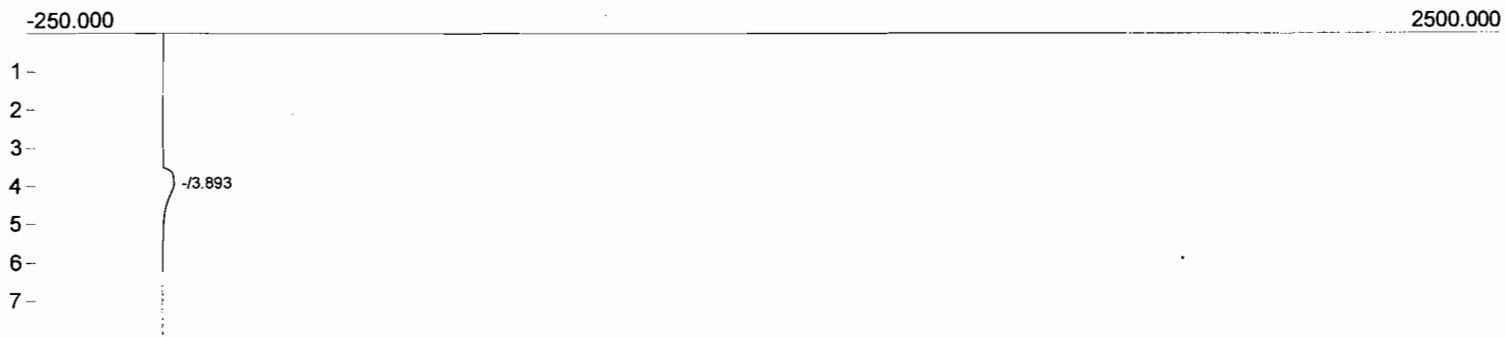
Component	Area
H2S	0.0000
COS	0.0000
-	821.1034
CS2	0.0000
	821.1034

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/06/2010 16:20:03
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero223.CHR (C:\Valero SRU1)
Sample: SRU2-2
Operator: BP
QC batch:



Component	Area
H2S	0.0000
COS	0.0000
-	870.0062
CS2	0.0000
	870.0062

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/06/2010 16:30:03
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero224.CHR (C:\Valero SRU1)
Sample: SRU2-2
Operator: BP
QC batch:



Component	Area
H2S	0.0000
COS	0.0000
-	949.3479
CS2	0.0000
	949.3479

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/06/2010 16:40:03
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero225.CHR (C:\Valero SRU1)
Sample: SRU2-2
Operator: BP
QC batch:



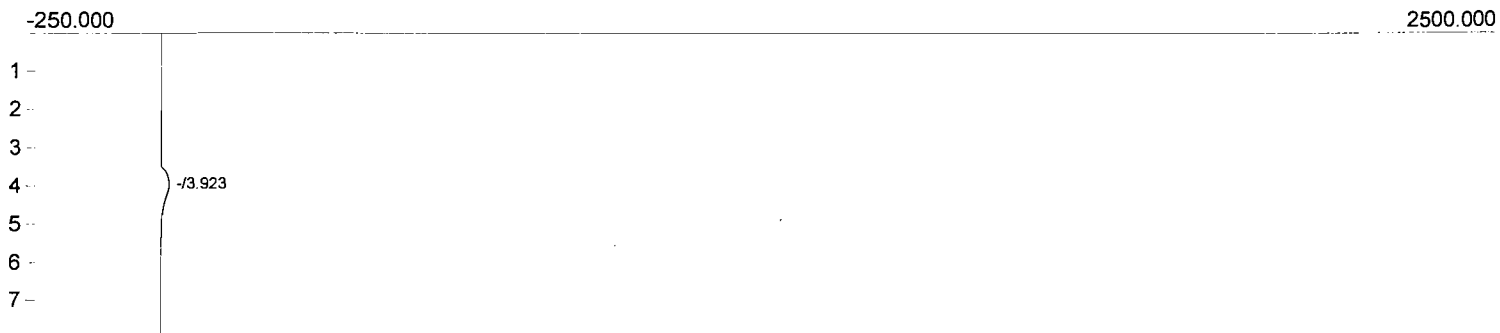
Component	Area
H2S	0.0000
COS	0.0000
-	841.9596
CS2	0.0000
	841.9596

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/06/2010 16:50:03
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero226.CHR (C:\Valero SRU1)
Sample: SRU2-2
Operator: BP
QC batch:



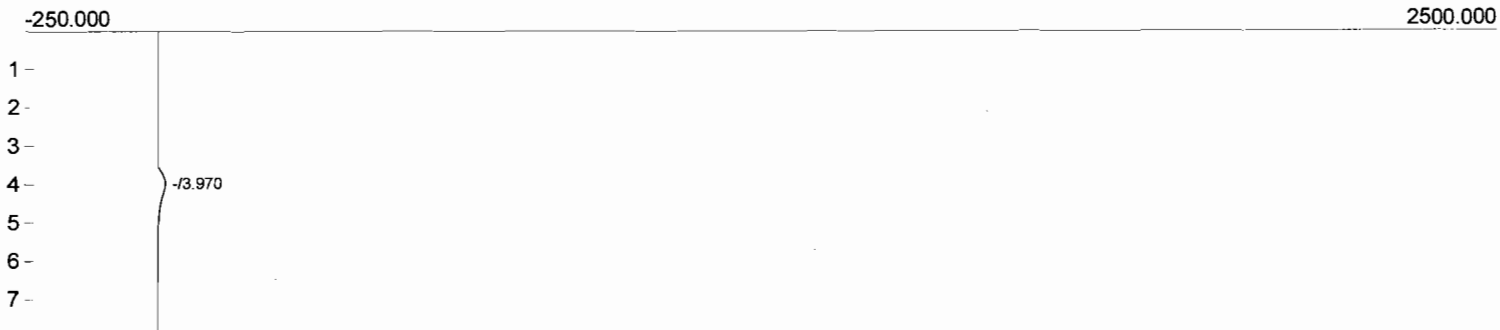
Component	Area
H2S	0.0000
COS	0.0000
-	283.3012
-	464.9716
CS2	0.0000
	748.2728

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/06/2010 17:51:00
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero227.CHR (C:\Valero SRU1)
Sample: SRU2-2
Operator: BP
QC batch:



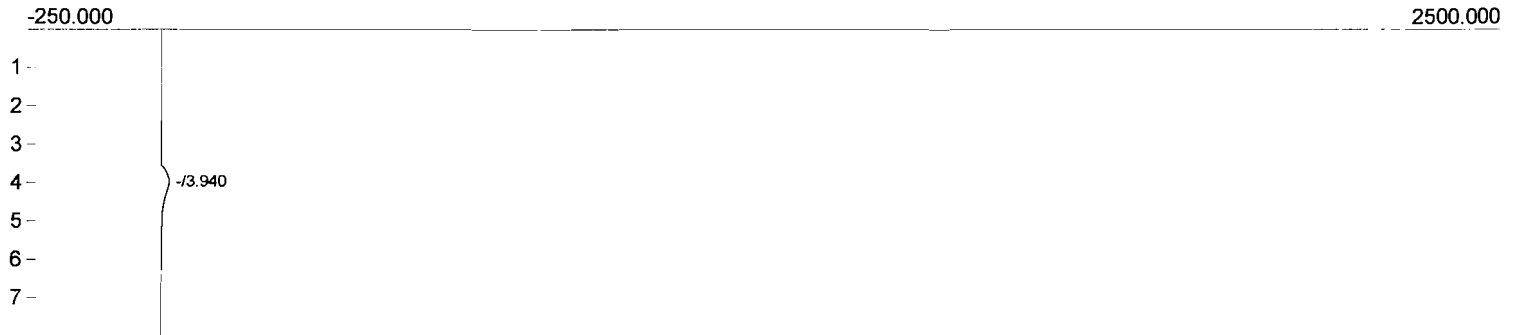
Component	Area
H2S	0.0000
COS	0.0000
-	726.6000
CS2	0.0000
	726.6000

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/06/2010 18:01:00
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero228.CHR (C:\Valero SRU1)
Sample: SRU2-2
Operator: BP
QC batch:



Component	Area
H2S	0.0000
COS	0.0000
-	609.4859
CS2	0.0000
	609.4859

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/06/2010 18:11:00
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero229.CHR (C:\Valero SRU1)
Sample: SRU2-2
Operator: BP
QC batch:



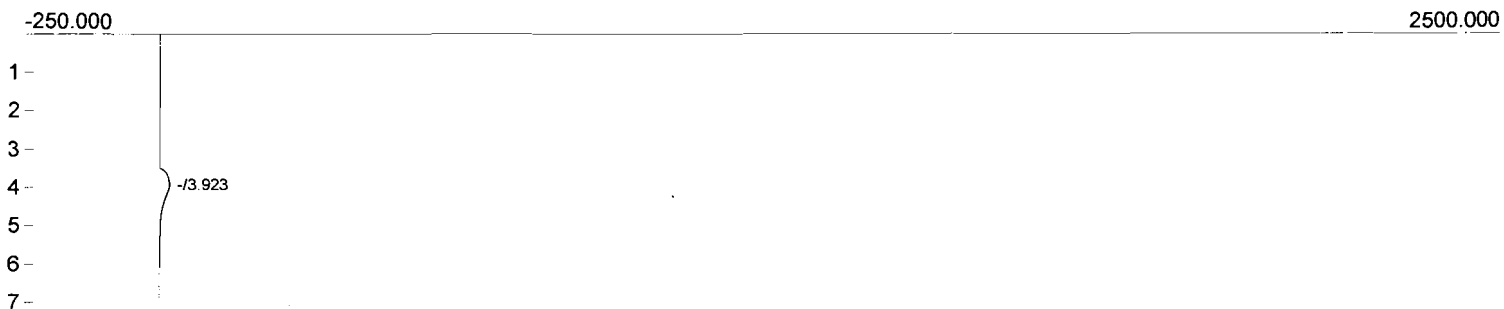
Component	Area
H2S	0.0000
COS	0.0000
-	676.4328
CS2	0.0000
	676.4328

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/06/2010 18:21:00
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero230.CHR (C:\Valero SRU1)
Sample: SRU2-2
Operator: BP
QC batch:



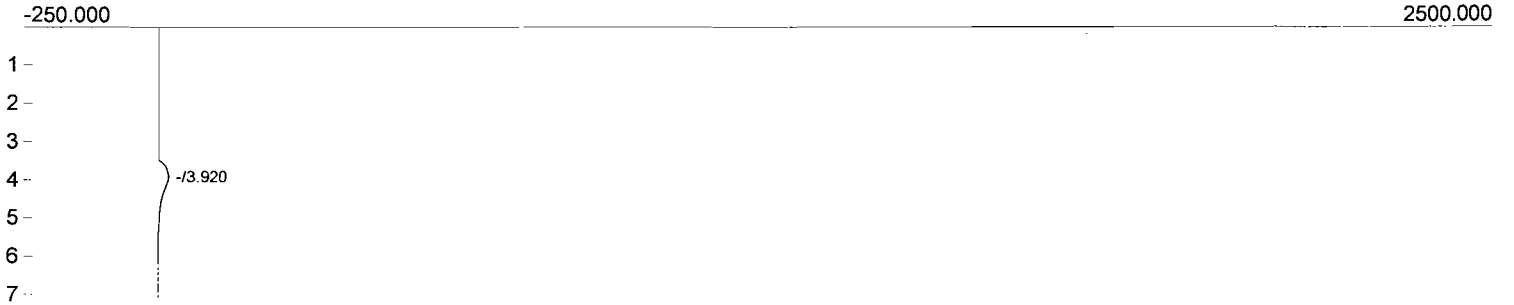
Component	Area
H2S	0.0000
COS	0.0000
-	760.6198
CS2	0.0000
	760.6198

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/06/2010 18:31:00
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero231.CHR (C:\Valero SRU1)
Sample: SRU2-2
Operator: BP
QC batch:



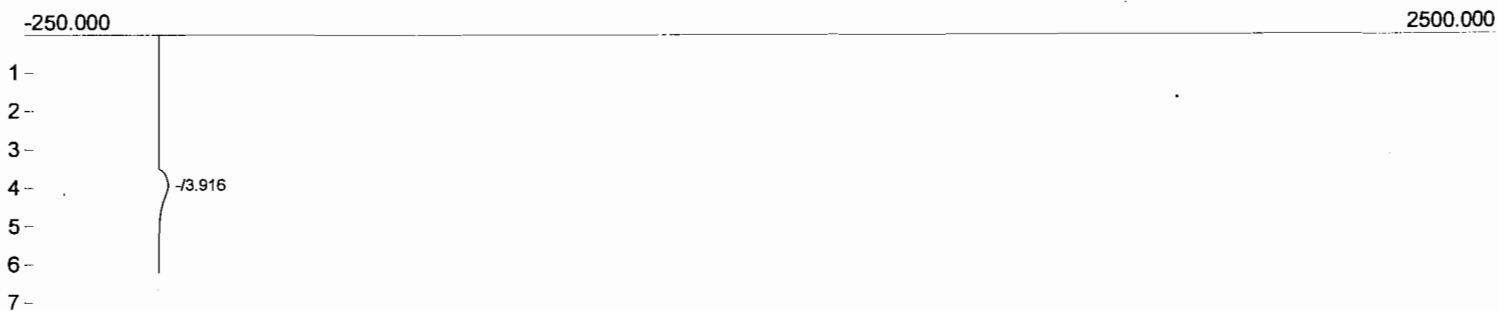
Component	Area
H2S	0.0000
COS	0.0000
-	842.8444
CS2	0.0000
	842.8444

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/06/2010 18:41:00
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero232.CHR (C:\Valero SRU1)
Sample: SRU2-2
Operator: BP
QC batch:



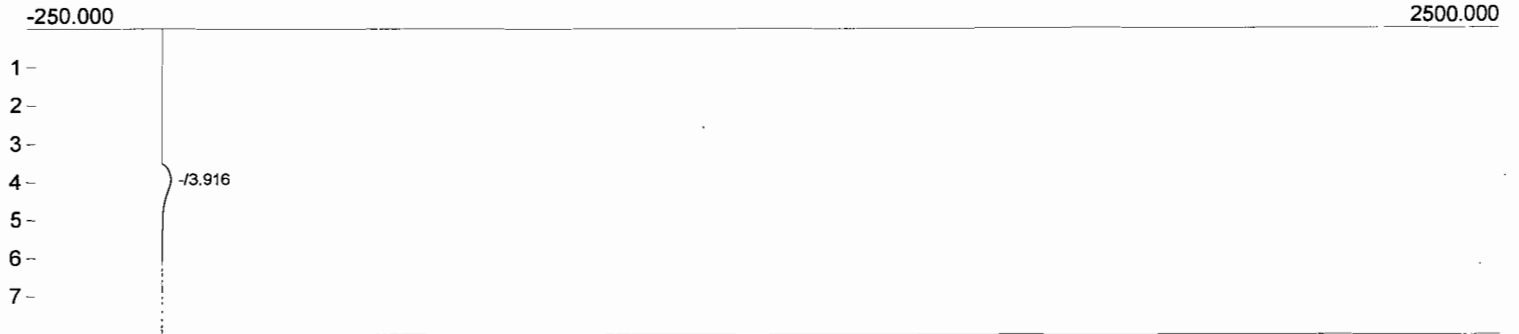
Component	Area
H2S	0.0000
COS	0.0000
-	848.3022
CS2	0.0000
	848.3022

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/06/2010 18:51:00
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero233.CHR (C:\Valero SRU1)
Sample: SRU2-2
Operator: BP
QC batch:



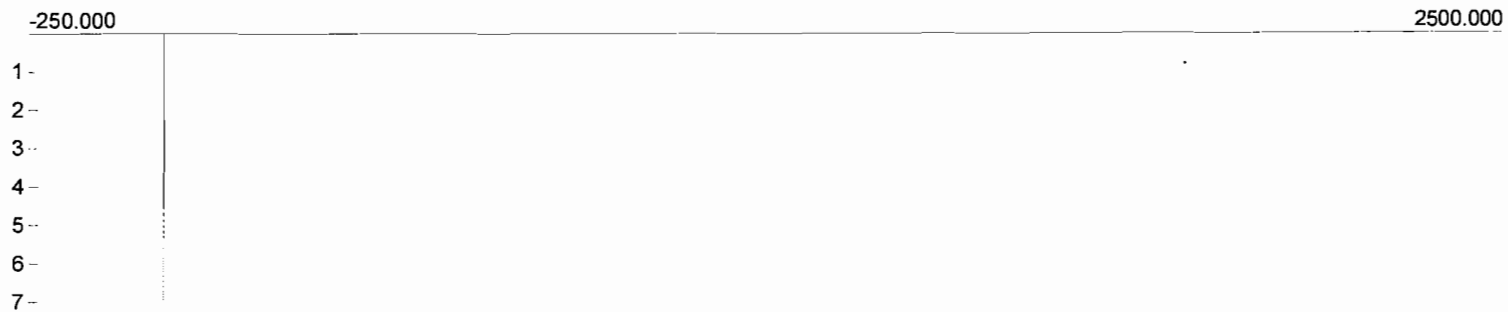
Component	Area
H2S	0.0000
COS	0.0000
-	827.2560
CS2	0.0000
	827.2560

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/06/2010 19:01:00
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero234.CHR (C:\Valero SRU1)
Sample: SRU2-2
Operator: BP
QC batch:



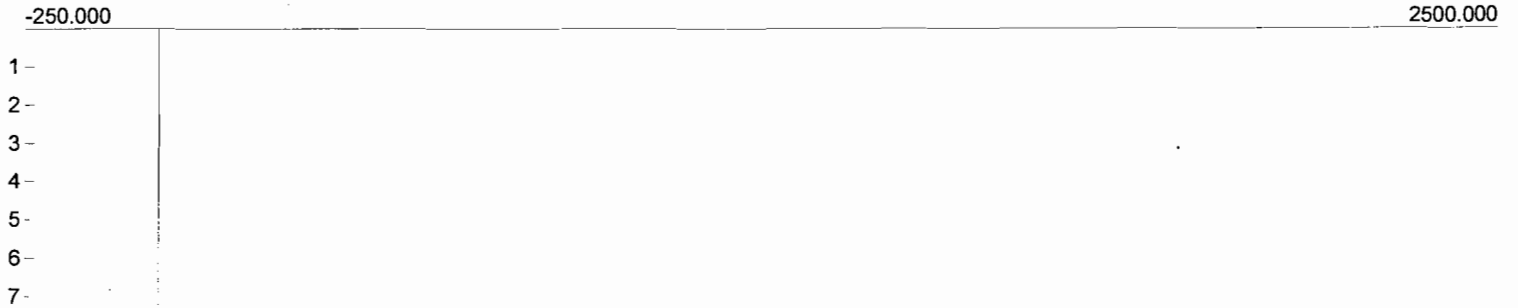
Component	Area
H2S	0.0000
COS	0.0000
-	815.1387
CS2	0.0000
	815.1387

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/06/2010 19:11:00
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero235.CHR (C:\Valero SRU1)
Sample: SRU2-2
Operator: BP
QC batch:



Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/06/2010 19:21:00
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero236.CHR (C:\Valero SRU1)
Sample: SRU2-2
Operator: BP
QC batch:



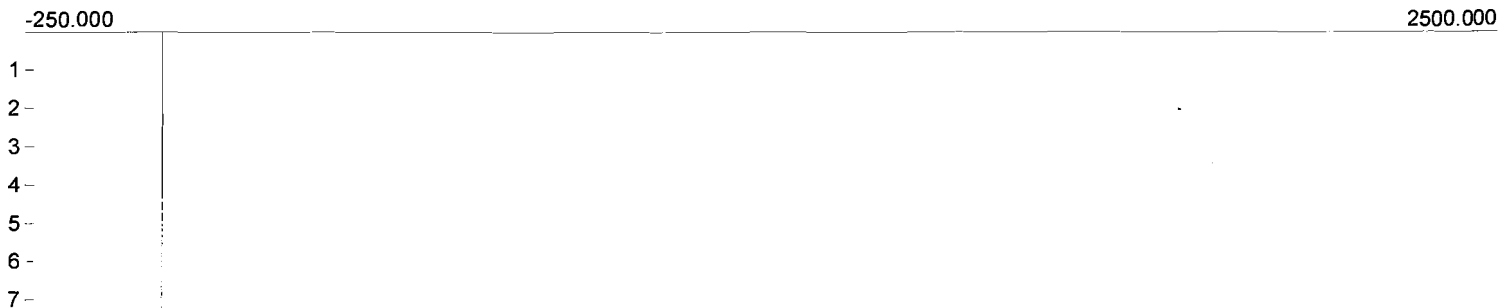
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/06/2010 19:31:00
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero237.CHR (C:\Valero SRU1)
Sample: SRU2-2
Operator: BP
QC batch:



Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/06/2010 19:41:00
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero238.CHR (C:\Valero SRU1)
Sample: SRU2-2
Operator: BP
QC batch:



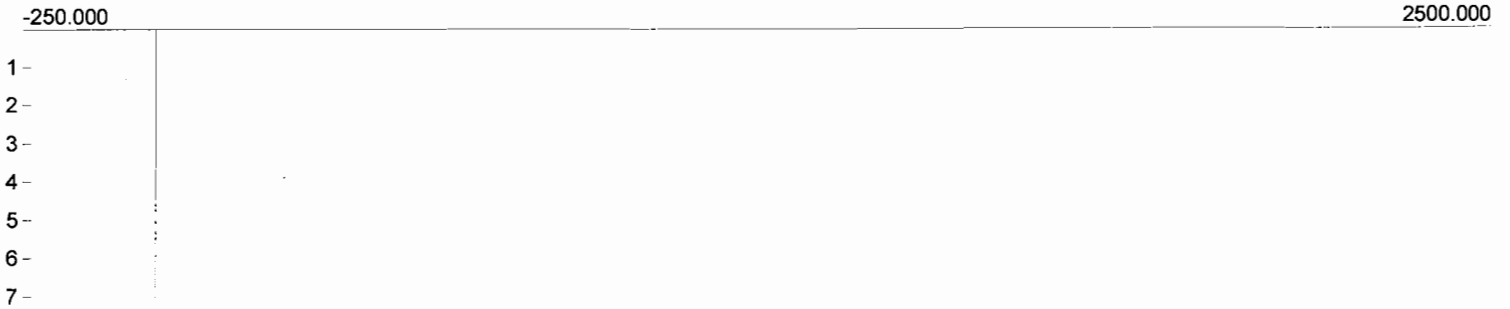
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/06/2010 19:51:00
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero239.CHR (C:\Valero SRU1)
Sample: SRU2-2
Operator: BP
QC batch:



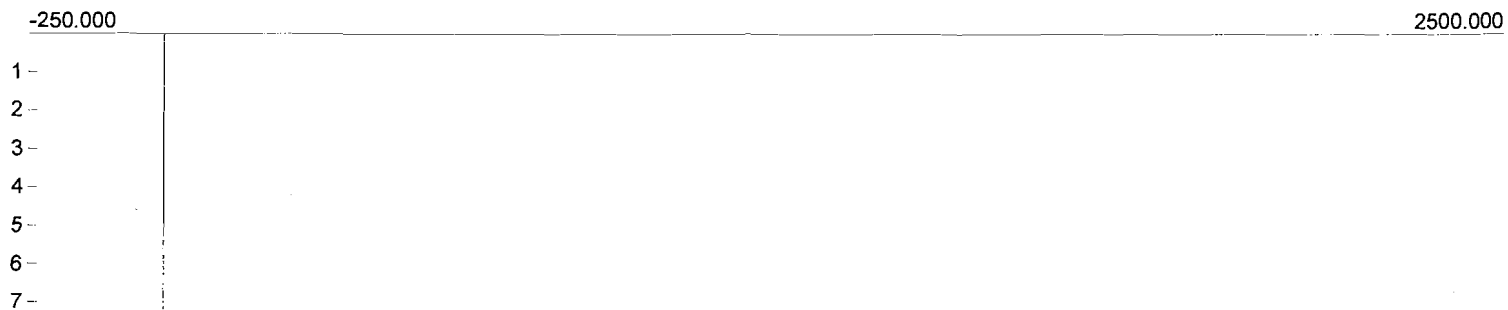
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/06/2010 20:01:00
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero240.CHR (C:\Valero SRU1)
Sample: SRU2-2
Operator: BP
QC batch:



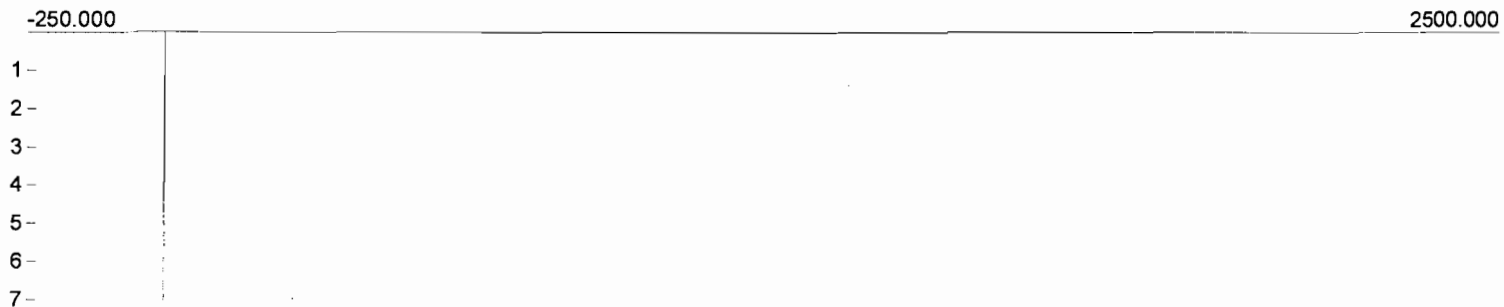
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/06/2010 20:11:00
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero241.CHR (C:\Valero SRU1)
Sample: SRU2-2
Operator: BP
QC batch:



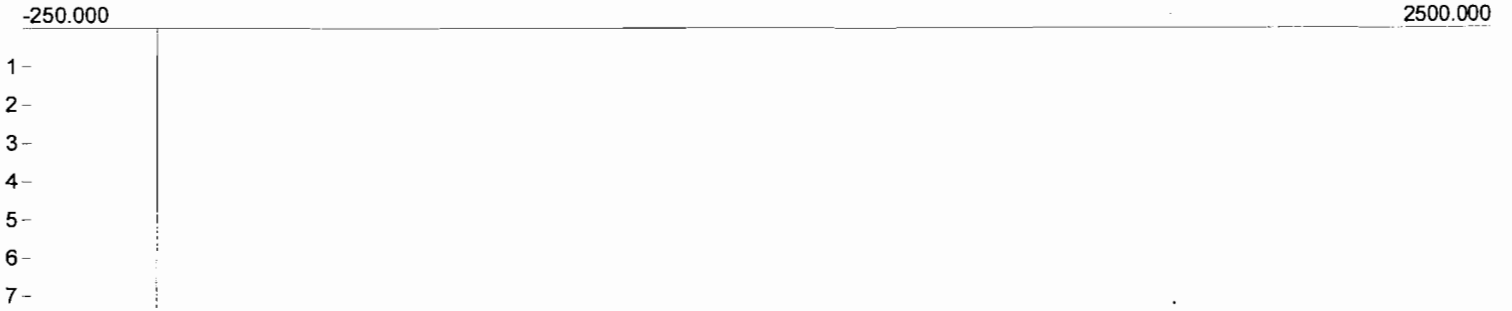
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/06/2010 20:21:01
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero242.CHR (C:\Valero SRU1)
Sample: SRU2-2
Operator: BP
QC batch:



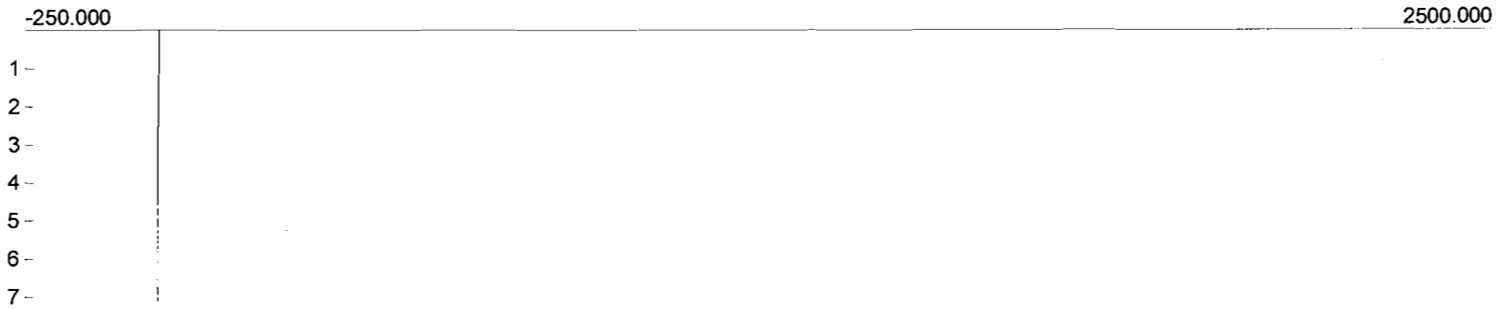
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/06/2010 20:31:01
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero243.CHR (C:\Valero SRU1)
Sample: SRU2-2
Operator: BP
QC batch:



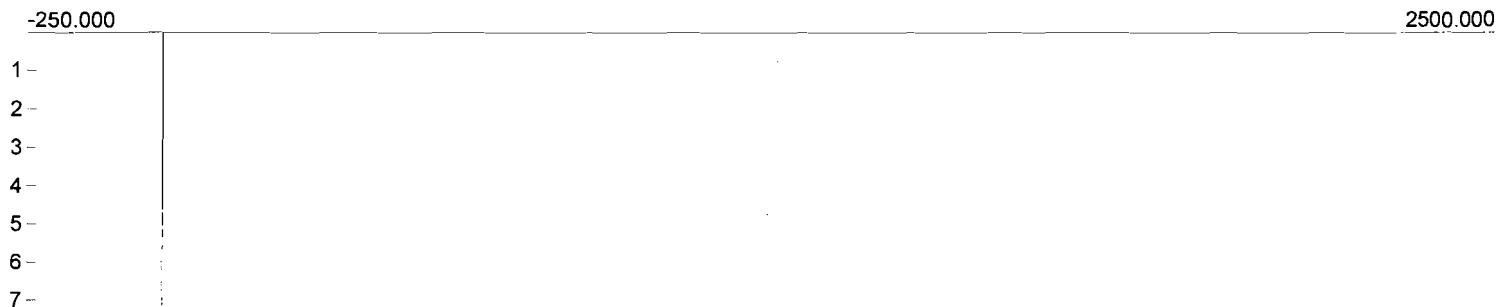
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/06/2010 20:41:01
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero244.CHR (C:\Valero SRU1)
Sample: SRU2-2
Operator: BP
QC batch:



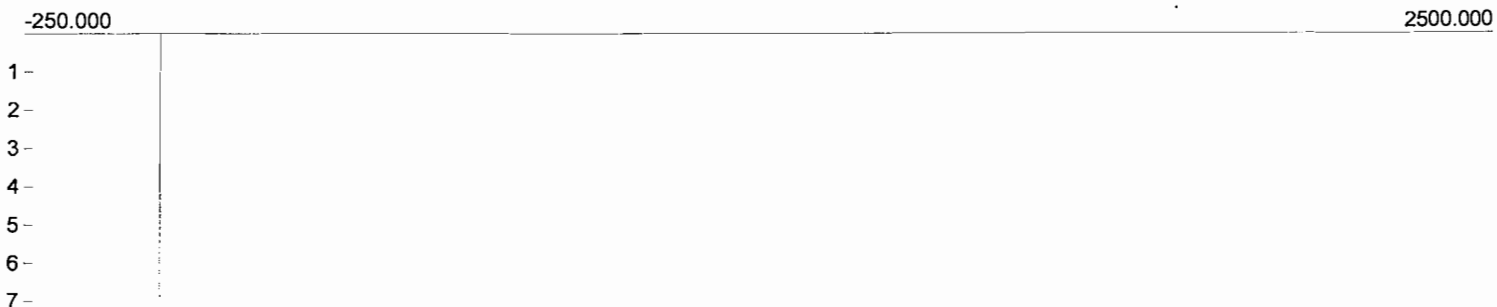
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/06/2010 20:51:01
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero245.CHR (C:\Valero SRU1)
Sample: SRU2-2
Operator: BP
QC batch:



Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/06/2010 21:01:01
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero246.CHR (C:\Valero SRU1)
Sample: SRU2-2
Operator: BP
QC batch:



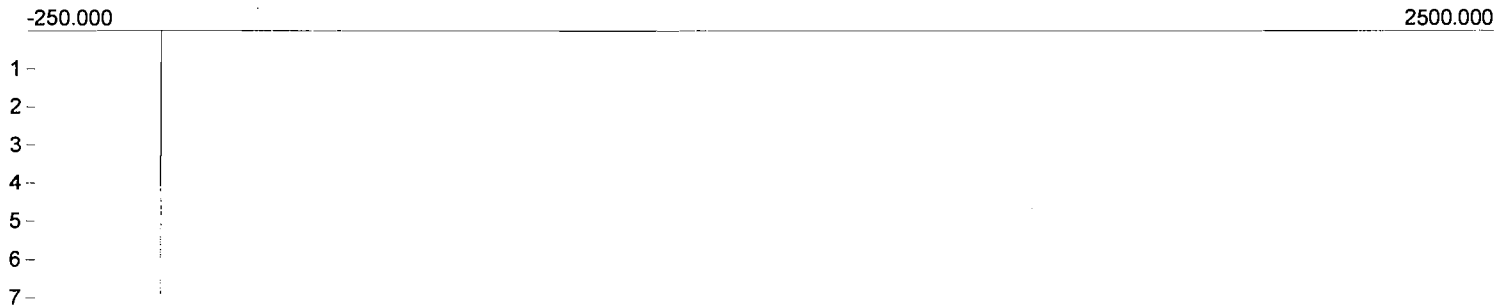
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/06/2010 21:11:01
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero247.CHR (C:\Valero SRU1)
Sample: SRU2-2
Operator: BP
QC batch:



Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/06/2010 21:21:01
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero248.CHR (C:\Valero SRU1)
Sample: SRU2-2
Operator: BP
QC batch:



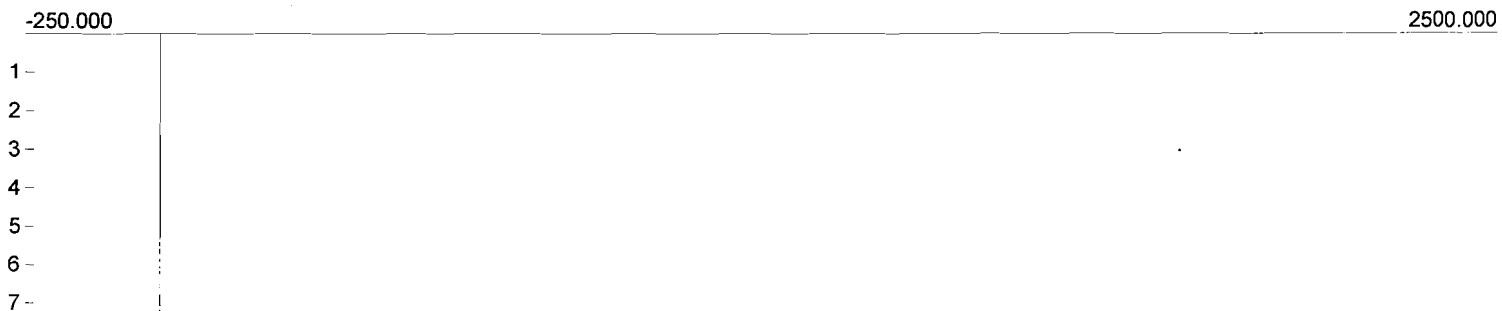
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/06/2010 21:31:01
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero249.CHR (C:\Valero SRU1)
Sample: SRU2-2
Operator: BP
QC batch:



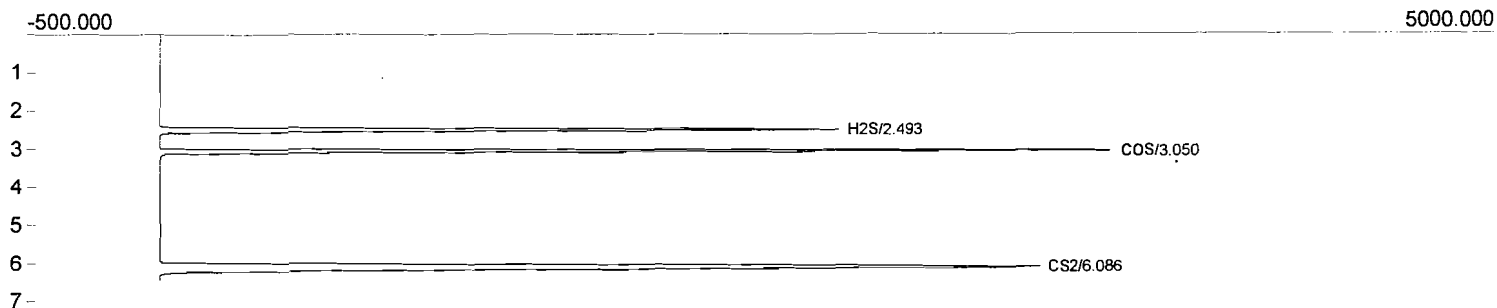
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/06/2010 21:41:01
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero250.CHR (C:\Valero SRU1)
Sample: SRU2-2
Operator: BP
QC batch:



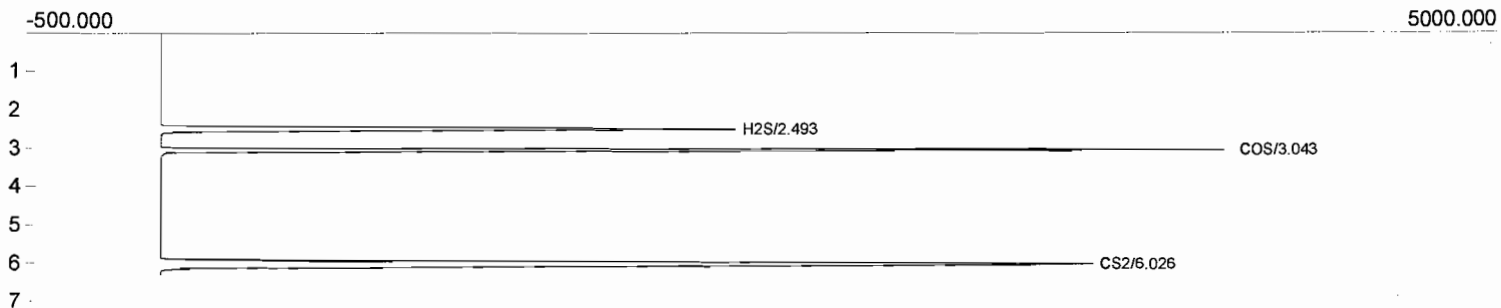
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/06/2010 10:32:29
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero251.CHR (C:\Valero SRU1)
Sample: 75 ppm post/pre cal
Operator: BP
QC batch:



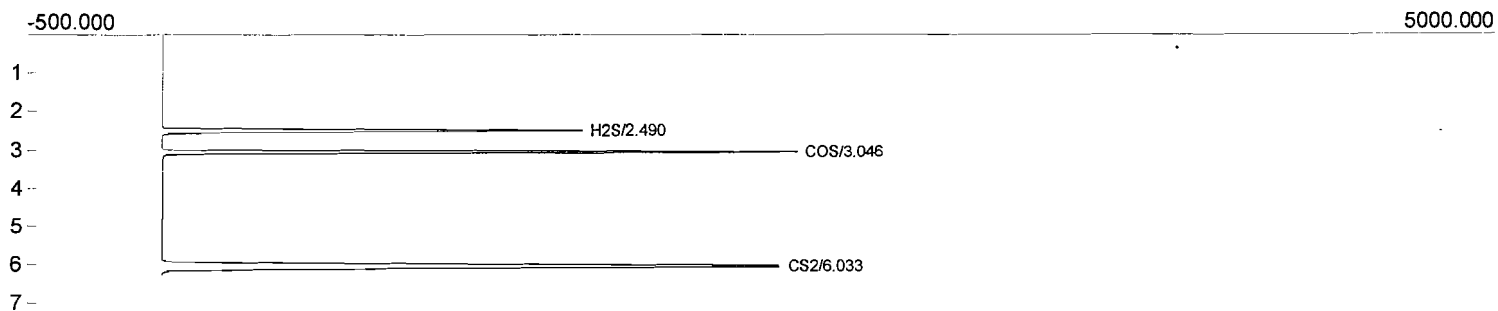
Component	Area
H2S	11774.1830
COS	14462.6572
CS2	26150.2449
	52387.0851

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/06/2010 10:50:04
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero253.CHR (C:\Valero SRU1)
Sample: 75 ppm post/pre cal
Operator: BP
QC batch:



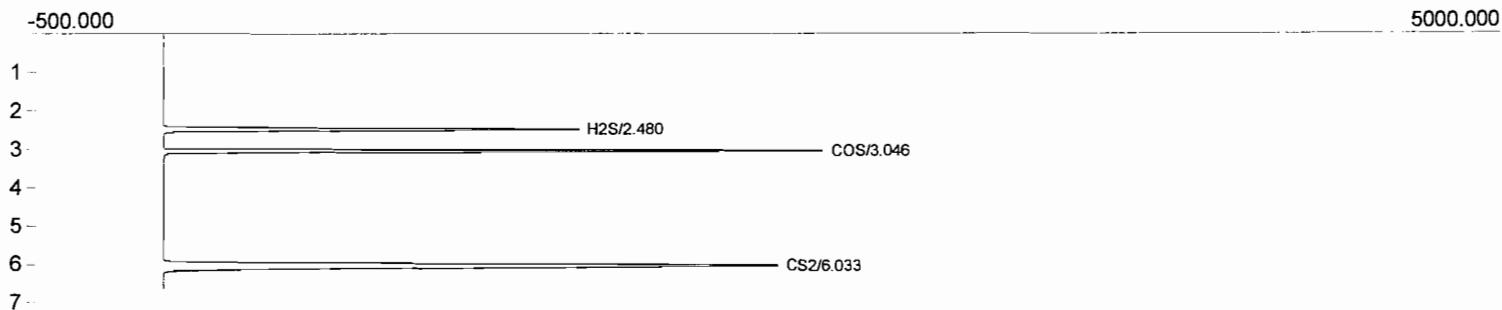
Component	Area
H2S	11860.2050
COS	15335.7986
CS2	27185.8458
	54381.8494

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/06/2010 10:58:25
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero254.CHR (C:\Valero SRU1)
Sample: 50 ppm post/pre cal
Operator: BP
QC batch:



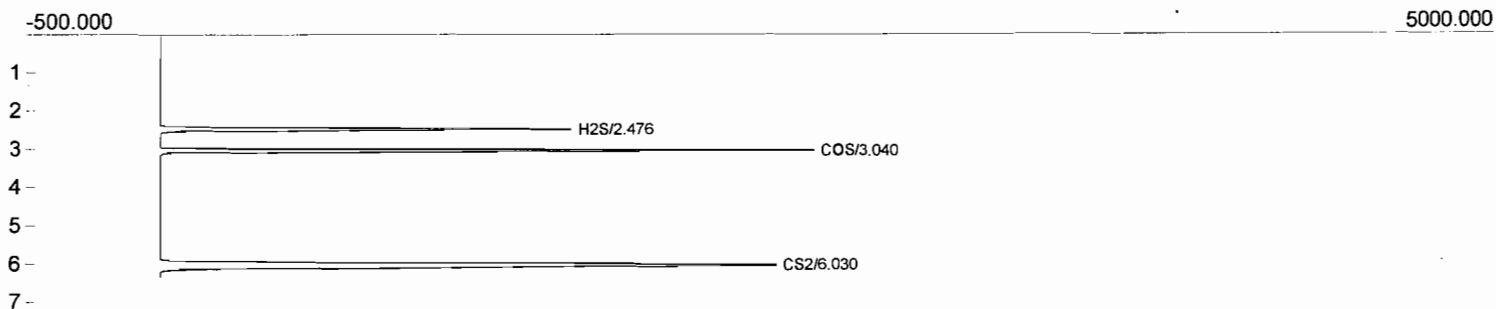
Component	Area
H2S	6887.3522
COS	8888.0608
CS2	16890.6026
	32666.0156

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/06/2010 11:07:01
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero255.CHR (C:\Valero SRU1)
Sample: 50 ppm post/pre cal
Operator: BP
QC batch:



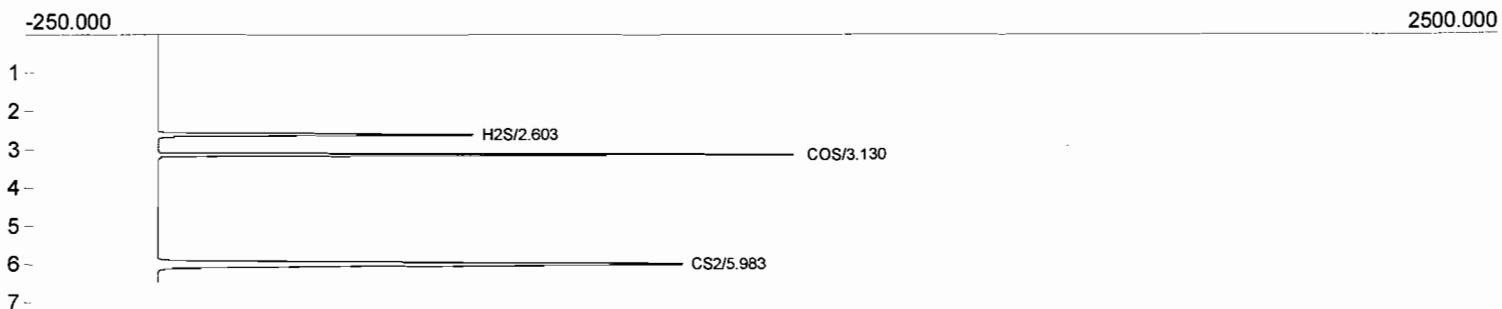
Component	Area
H2S	6745.2309
COS	9018.2384
CS2	16826.0140
	32589.4833

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/06/2010 11:15:42
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero256.CHR (C:\Valero SRU1)
Sample: 50 ppm post/pre cal
Operator: BP
QC batch:



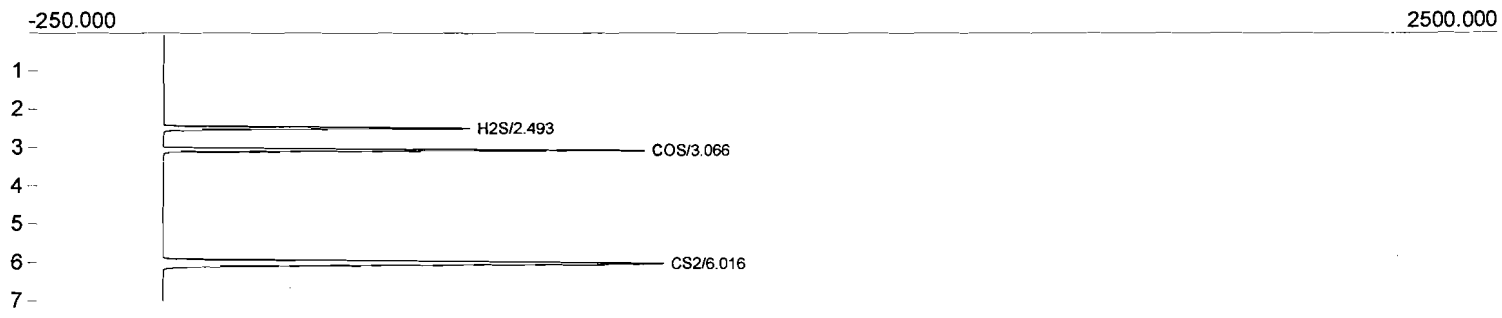
Component	Area
H2S	6659.6371
COS	8927.9126
CS2	16865.6320
	32453.1817

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/06/2010 11:30:45
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero258.CHR (C:\Valero SRU1)
Sample: 25 ppm post/pre cal
Operator: BP
QC batch:



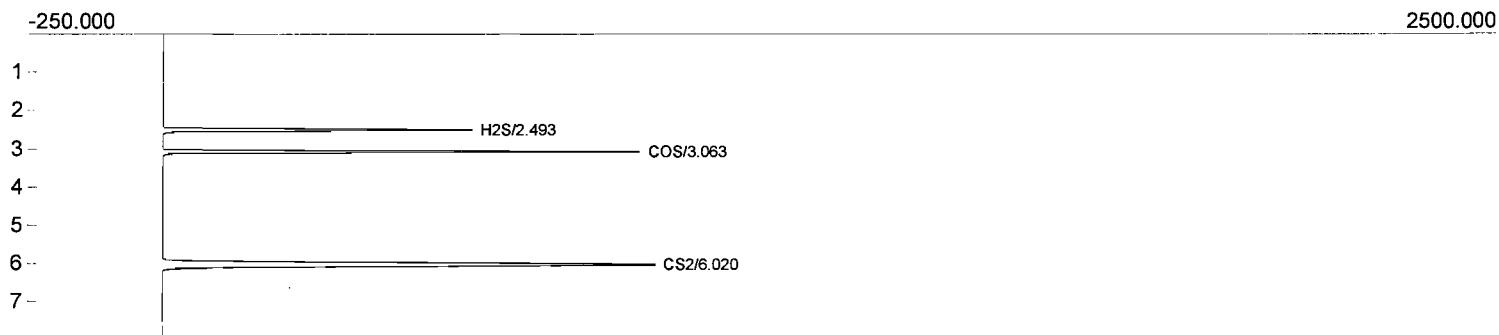
Component	Area
H2S	2235.7486
COS	3587.3528
CS2	6509.6484
	12332.7498

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/06/2010 11:38:45
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero259.CHR (C:\Valero SRU1)
Sample: 25 ppm post/pre cal
Operator: BP
QC batch:



Component	Area
H2S	2141.2404
COS	3054.6208
CS2	6211.8577
	11407.7189

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/06/2010 11:46:45
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero260.CHR (C:\Valero SRU1)
Sample: 25 ppm post/pre cal
Operator: BP
QC batch:



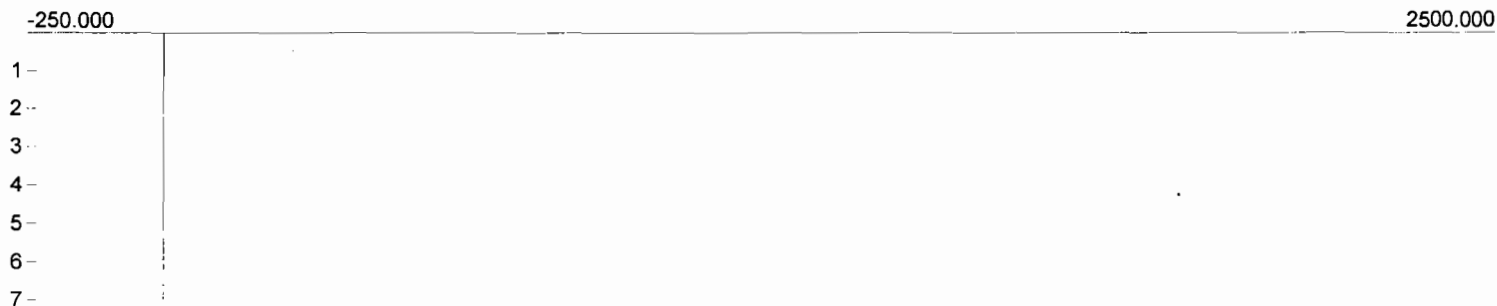
Component	Area
H2S	2170.4574
COS	3058.2494
CS2	6184.3698
	11413.0766

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/06/2010 11:56:18
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero261.CHR (C:\Valero SRU1)
Sample: 0 ppm post/pre cal
Operator: BP
QC batch:



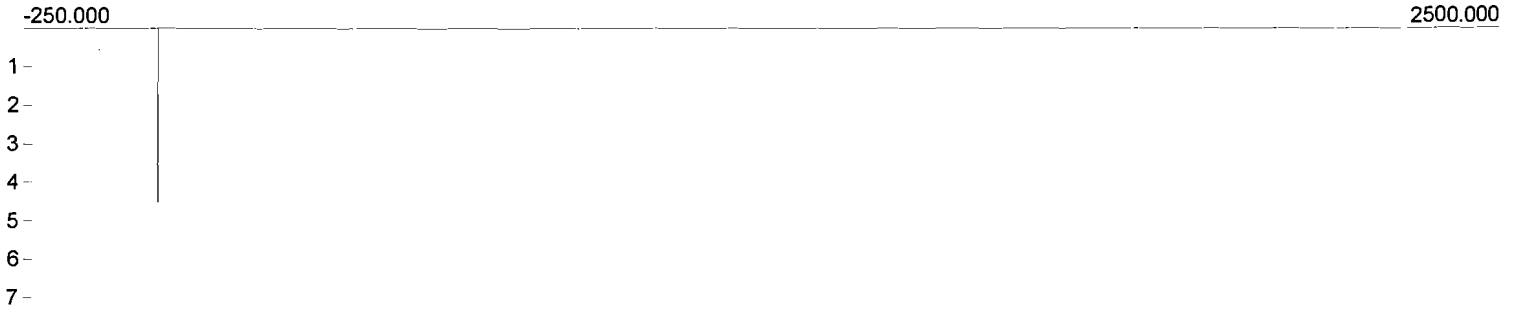
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/06/2010 12:05:39
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero262.CHR (C:\Valero SRU1)
Sample: 0 ppm post/pre cal
Operator: BP
QC batch:



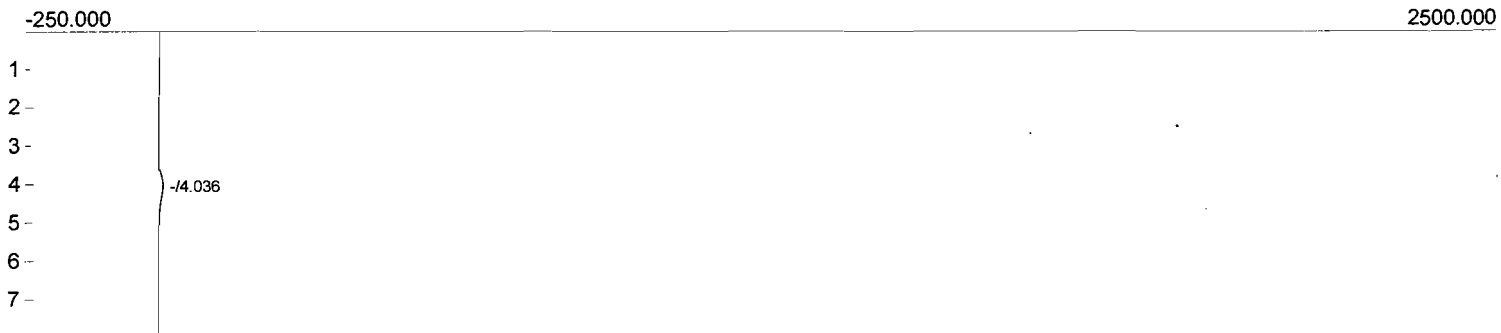
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/06/2010 12:13:17
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero263.CHR (C:\Valero SRU1)
Sample: 0 ppm post/pre cal
Operator: BP
QC batch:



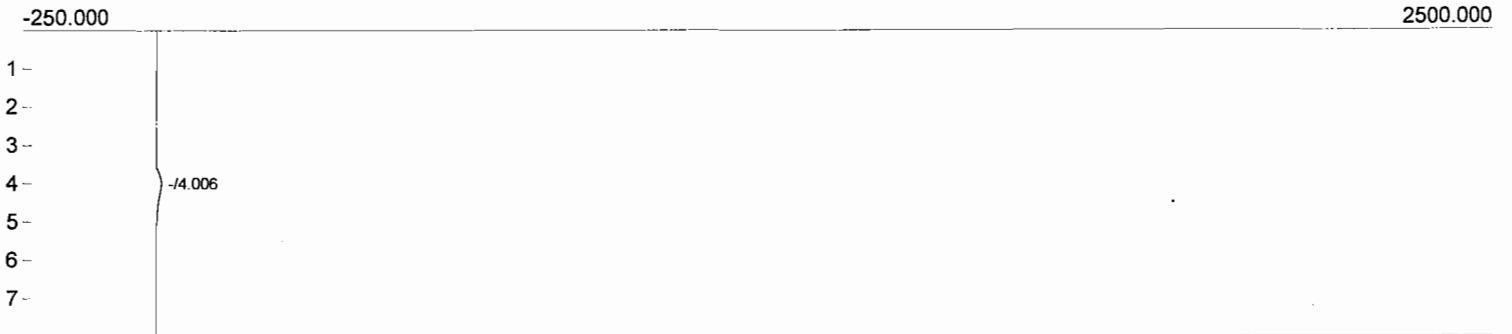
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/07/2010 08:19:59
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero264.CHR (C:\Valero SRU1)
Sample: SRU2-3
Operator: BP
QC batch:



Component	Area
H2S	0.0000
COS	0.0000
-	155.4544
-	215.9744
CS2	0.0000
	371.4288

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/07/2010 08:29:59
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero265.CHR (C:\Valero SRU1)
Sample: SRU2-3
Operator: BP
QC batch:



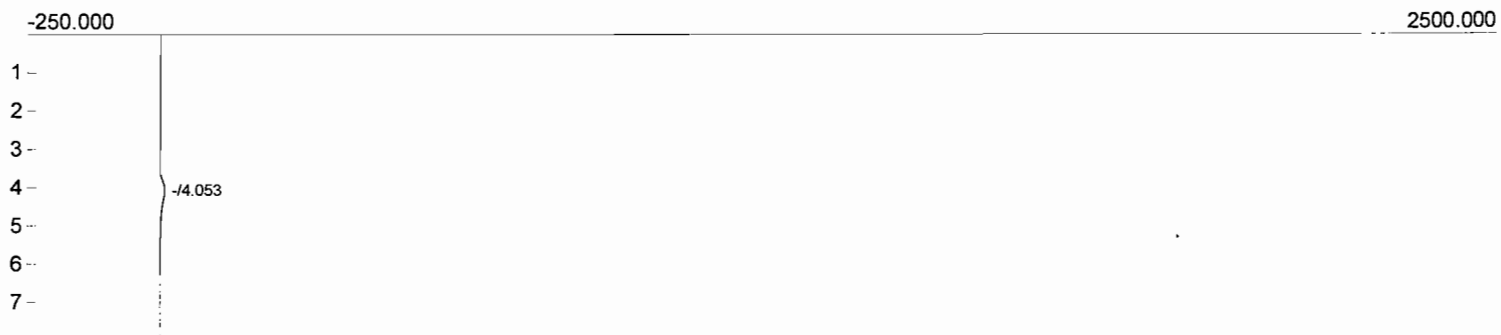
Component	Area
H2S	0.0000
COS	0.0000
-	411.8913
CS2	0.0000
	411.8913

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/07/2010 08:40:00
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero266.CHR (C:\Valero SRU1)
Sample: SRU2-3
Operator: BP
QC batch:



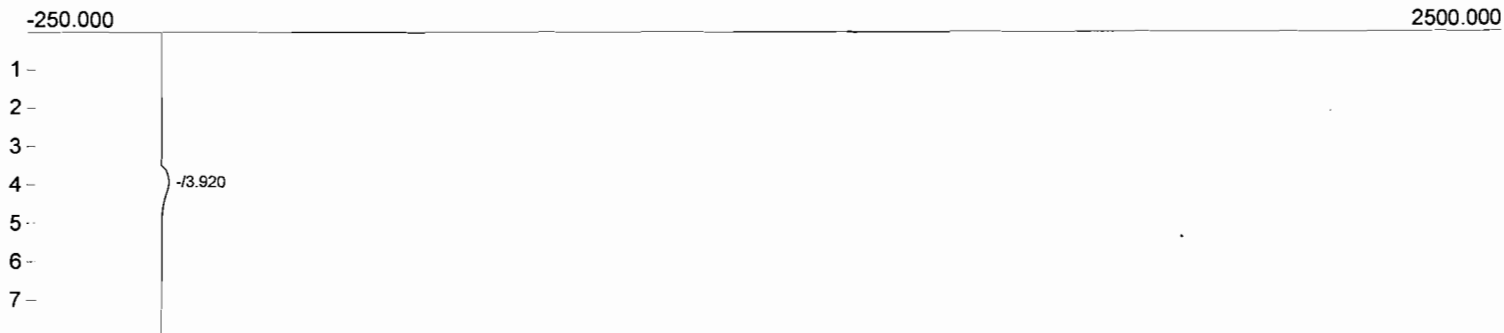
Component	Area
H2S	0.0000
COS	0.0000
-	686.3738
CS2	0.0000
	686.3738

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/07/2010 08:50:00
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero267.CHR (C:\Valero SRU1)
Sample: SRU2-3
Operator: BP
QC batch:



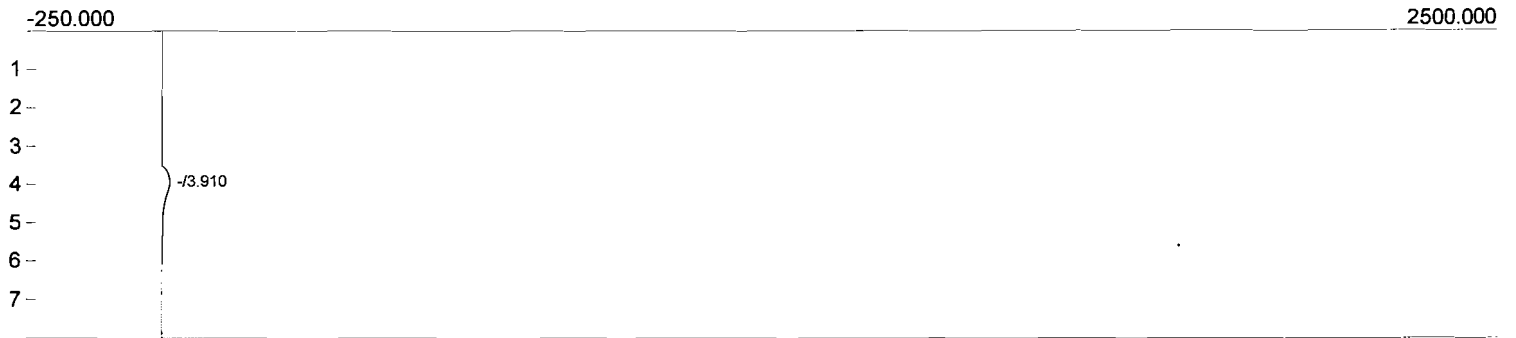
Component	Area
H2S	0.0000
COS	0.0000
-	345.9171
CS2	0.0000
	345.9171

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/07/2010 09:00:00
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero268.CHR (C:\Valero SRU1)
Sample: SRU2-3
Operator: BP
QC batch:



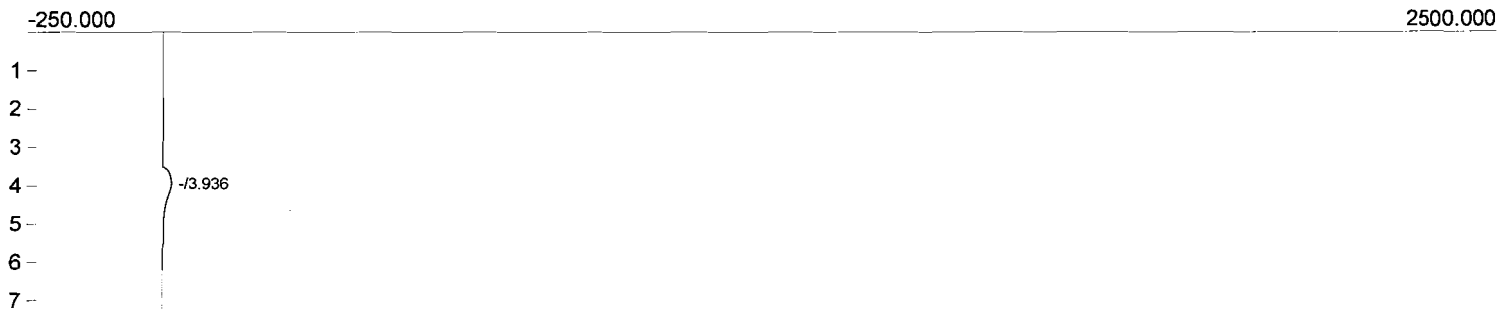
Component	Area
H2S	0.0000
COS	0.0000
-	694.7238
CS2	0.0000
	694.7238

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/07/2010 09:10:00
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero269.CHR (C:\Valero SRU1)
Sample: SRU2-3
Operator: BP
QC batch:



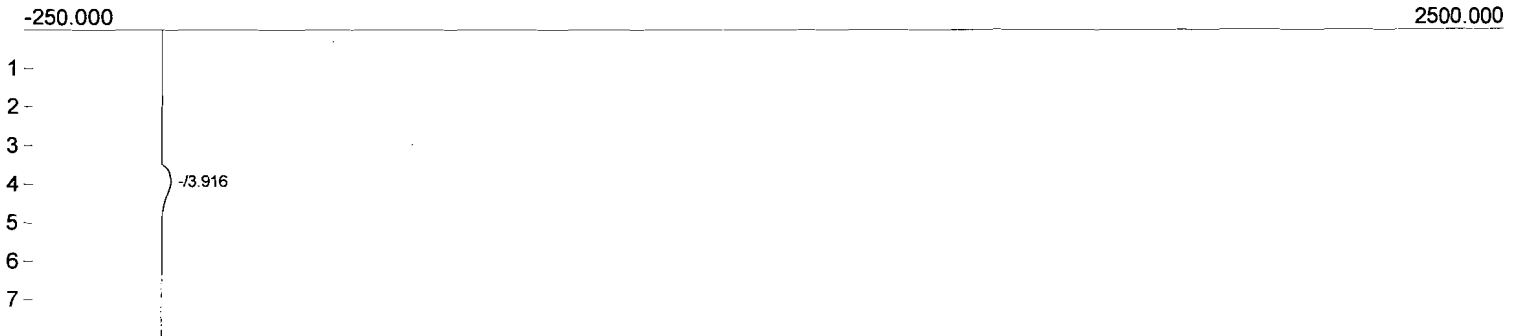
Component	Area
H2S	0.0000
COS	0.0000
-	675.8446
CS2	0.0000
	675.8446

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/07/2010 09:20:00
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero270.CHR (C:\Valero SRU1)
Sample: SRU2-3
Operator: BP
QC batch:



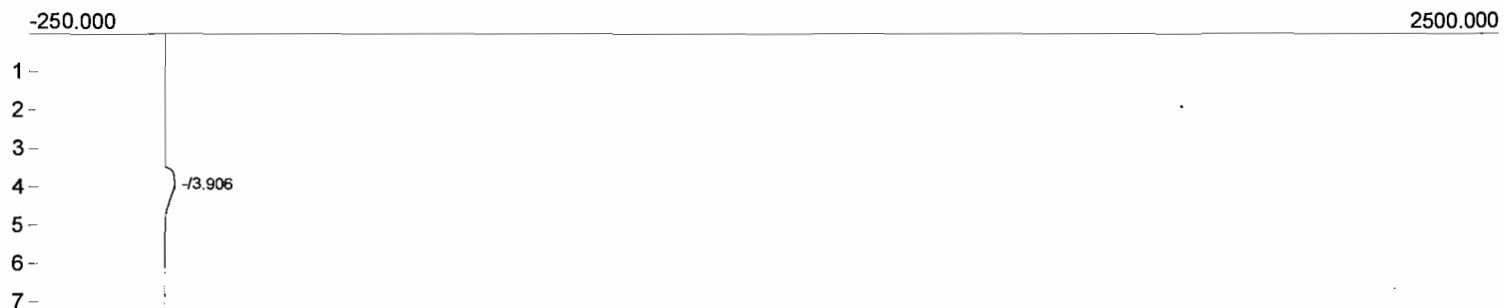
Component	Area
H2S	0.0000
COS	0.0000
-	776.6224
CS2	0.0000
	776.6224

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/07/2010 09:30:00
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero271.CHR (C:\Valero SRU1)
Sample: SRU2-3
Operator: BP
QC batch:



Component	Area
H2S	0.0000
COS	0.0000
-	802.0862
CS2	0.0000
	802.0862

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/07/2010 09:40:00
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero272.CHR (C:\Valero SRU1)
Sample: SRU2-3
Operator: BP
QC batch:



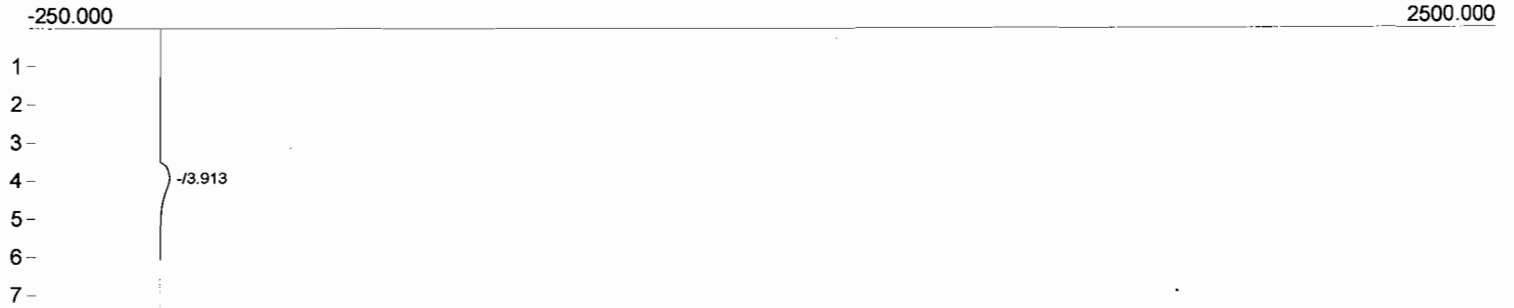
Component	Area
H2S	0.0000
COS	0.0000
-	899.6685
CS2	0.0000
	899.6685

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/07/2010 09:50:00
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero273.CHR (C:\Valero SRU1)
Sample: SRU2-3
Operator: BP
QC batch:



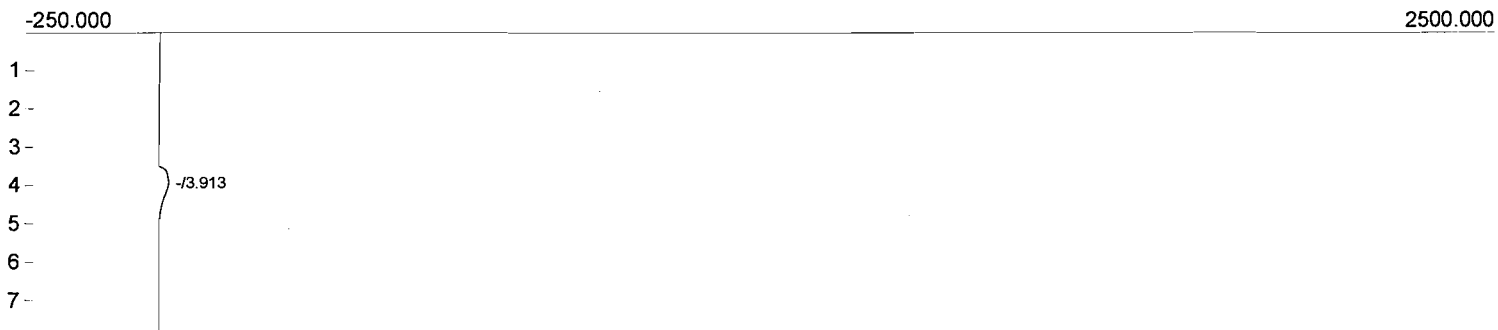
Component	Area
H2S	0.0000
COS	0.0000
-	874.5980
CS2	0.0000
	874.5980

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/07/2010 10:00:00
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero274.CHR (C:\Valero SRU1)
Sample: SRU2-3
Operator: BP
QC batch:



Component	Area
H2S	0.0000
COS	0.0000
-	853.5892
CS2	0.0000
	853.5892

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/07/2010 10:10:00
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero275.CHR (C:\Valero SRU1)
Sample: SRU2-3
Operator: BP
QC batch:



Component	Area
H2S	0.0000
COS	0.0000
-	900.9230
CS2	0.0000
	900.9230

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/07/2010 10:20:00
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero276.CHR (C:\Valero SRU1)
Sample: SRU2-3
Operator: BP
QC batch:



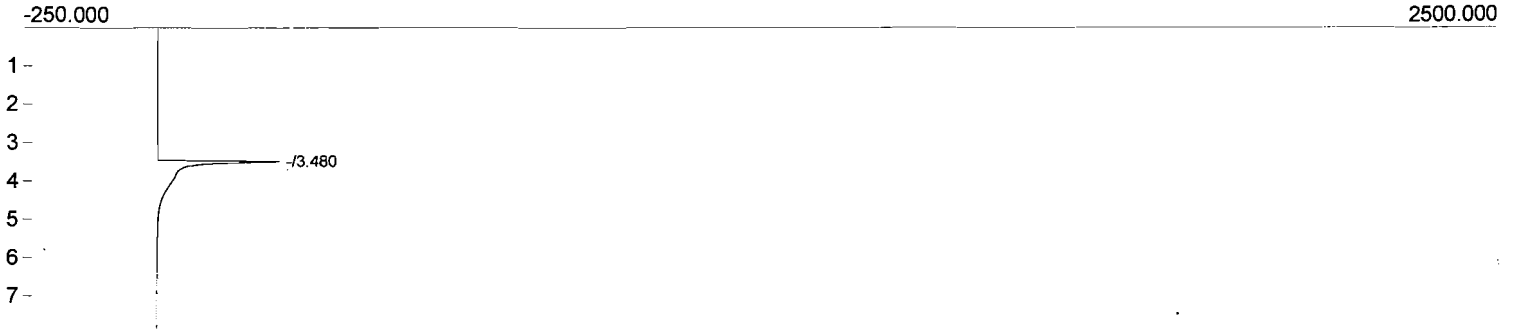
Component	Area
H2S	0.0000
COS	0.0000
-	403.3500
-	600.4612
CS2	0.0000
	1003.8112

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/07/2010 10:30:00
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero277.CHR (C:\Valero SRU1)
Sample: SRU2-3
Operator: BP
QC batch:



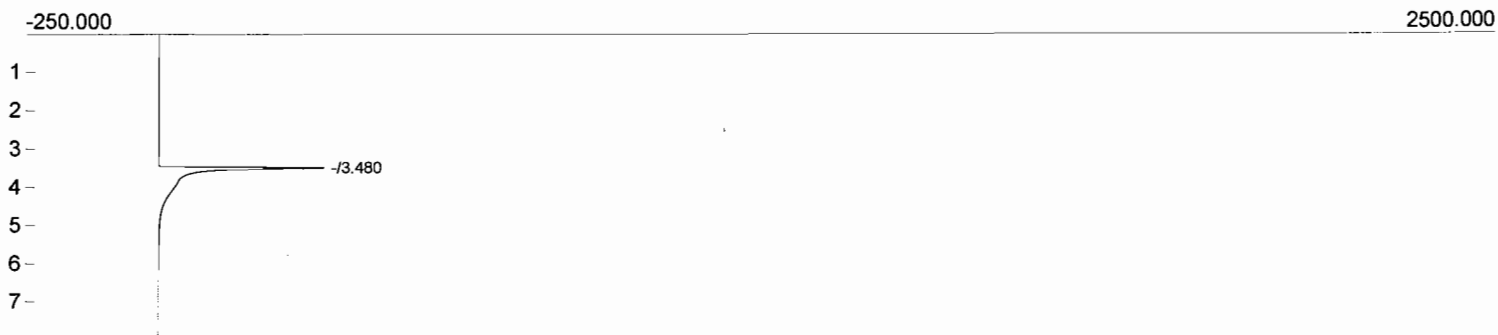
Component	Area
H2S	0.0000
COS	0.0000
-	381.7178
-	728.7008
CS2	0.0000
	1110.4186

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/07/2010 10:40:00
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero278.CHR (C:\Valero SRU1)
Sample: SRU2-3
Operator: BP
QC batch:



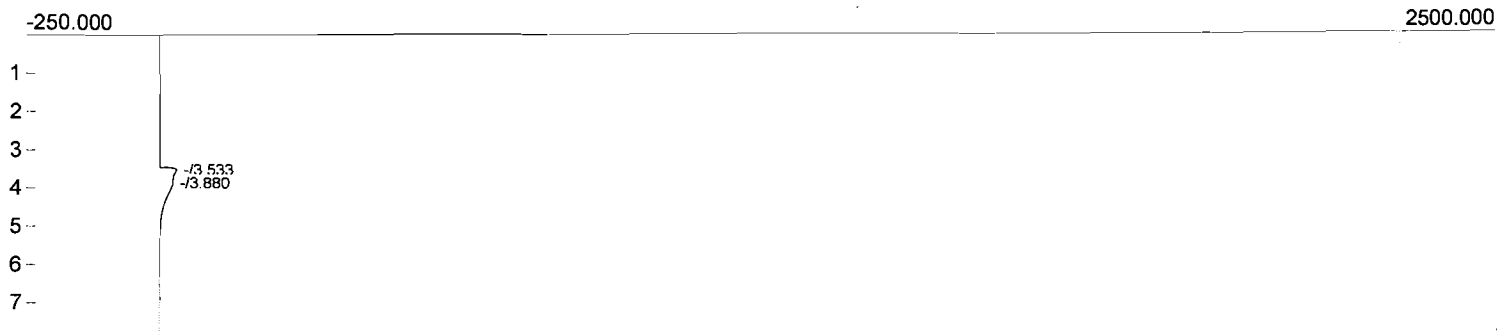
Component	Area
H2S	0.0000
COS	0.0000
-	2596.3698
CS2	0.0000
	2596.3698

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/07/2010 10:50:01
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero279.CHR (C:\Valero SRU1)
Sample: SRU2-3
Operator: BP
QC batch:



Component	Area
H2S	0.0000
COS	0.0000
-	3014.7808
CS2	0.0000
	3014.7808

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/07/2010 11:00:01
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero280.CHR (C:\Valero SRU1)
Sample: SRU2-3
Operator: BP
QC batch:



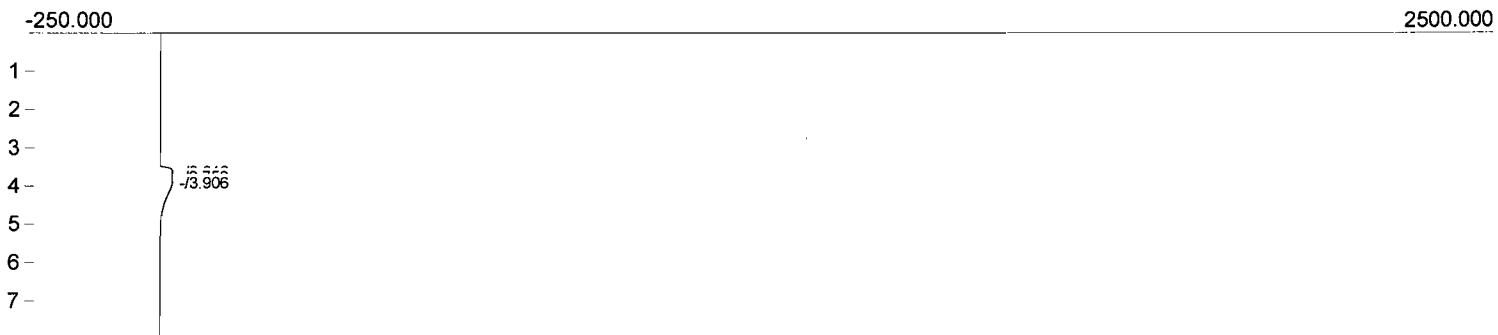
Component	Area
H2S	0.0000
COS	0.0000
-	643.4110
-	725.0190
CS2	0.0000
	1368.4300

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/07/2010 11:10:01
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero281.CHR (C:\Valero SRU1)
Sample: SRU2-3
Operator: BP
QC batch:



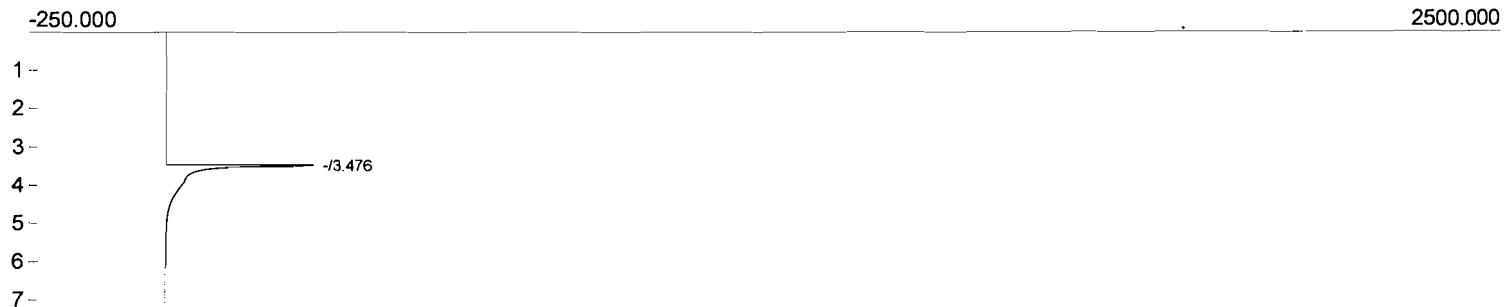
Component	Area
H2S	0.0000
COS	0.0000
-	457.4922
-	857.1055
CS2	0.0000
	1314.5977

Lab name: ARI Environmental, Inc
 Client: Valero CC
 Client ID: SRU No. 2
 Analysis date: 05/07/2010 11:20:01
 Method: USEPA Method 15
 Column: RESTEK Sulfur
 Carrier: Nitrogen
 Data file: Valero282.CHR (C:\Valero SRU1)
 Sample: SRU2-3
 Operator: BP
 QC batch:



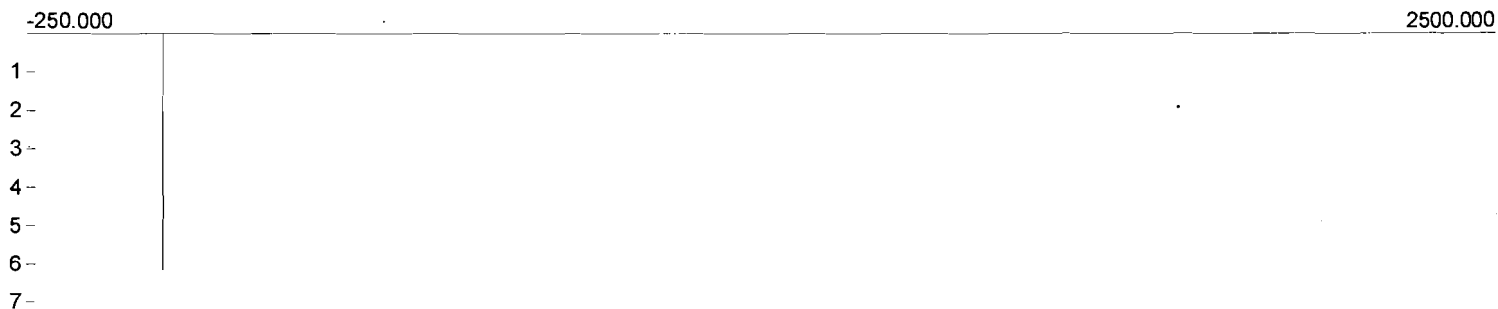
Component	Area
H2S	0.0000
COS	0.0000
-	318.0828
-	89.3118
-	795.7638
CS2	0.0000
	1203.1584

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/07/2010 11:30:01
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero283.CHR (C:\Valero SRU1)
Sample: SRU2-3
Operator: BP
QC batch:



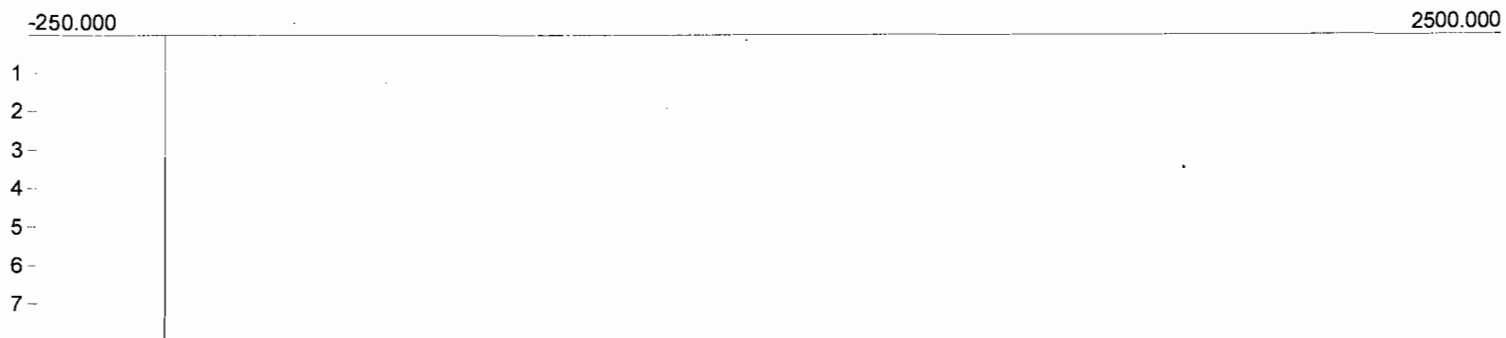
Component	Area
H2S	0.0000
COS	0.0000
-	2906.4162
CS2	0.0000
	2906.4162

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/07/2010 11:40:01
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero284.CHR (C:\Valero SRU1)
Sample: SRU2-3
Operator: BP
QC batch:



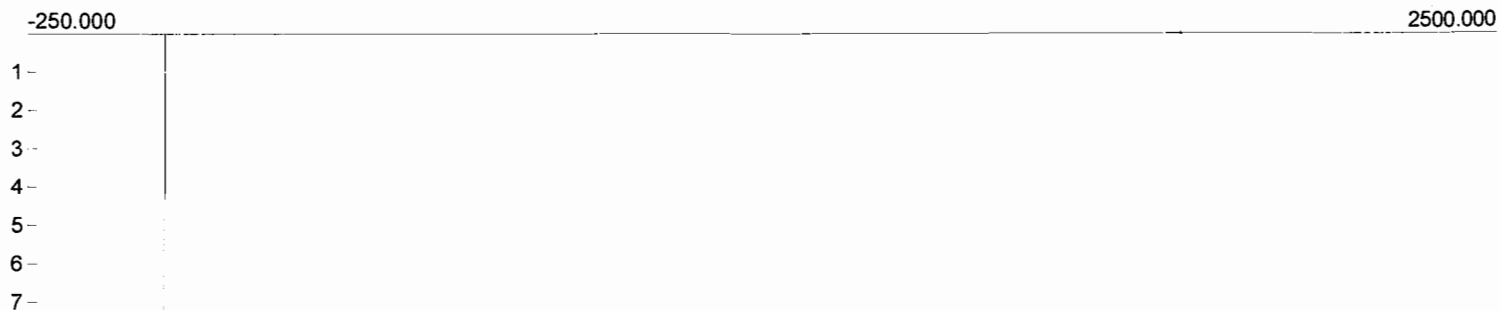
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/10/2010 11:50:00
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero285.CHR (C:\Valero SRU1)
Sample: SRU2-3
Operator: BP



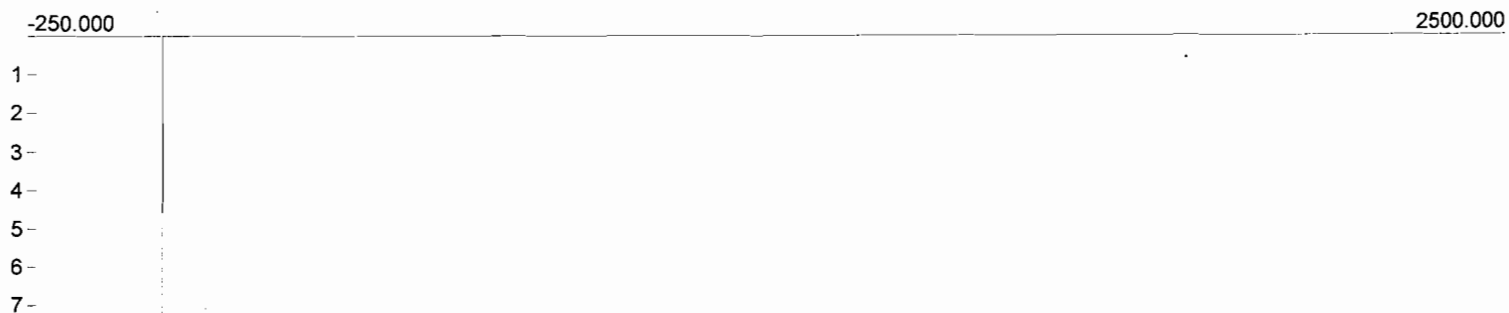
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/10/2010 12:00:00
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero286.CHR (C:\Valero SRU1)
Sample: SRU2-3
Operator: BP



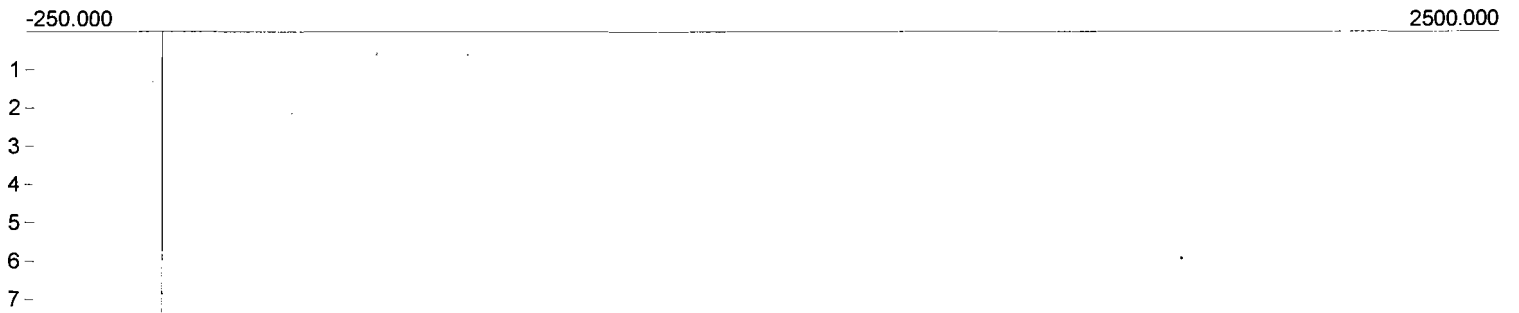
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/10/2010 12:10:00
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero287.CHR (C:\Valero SRU1)
Sample: SRU2-3
Operator: BP



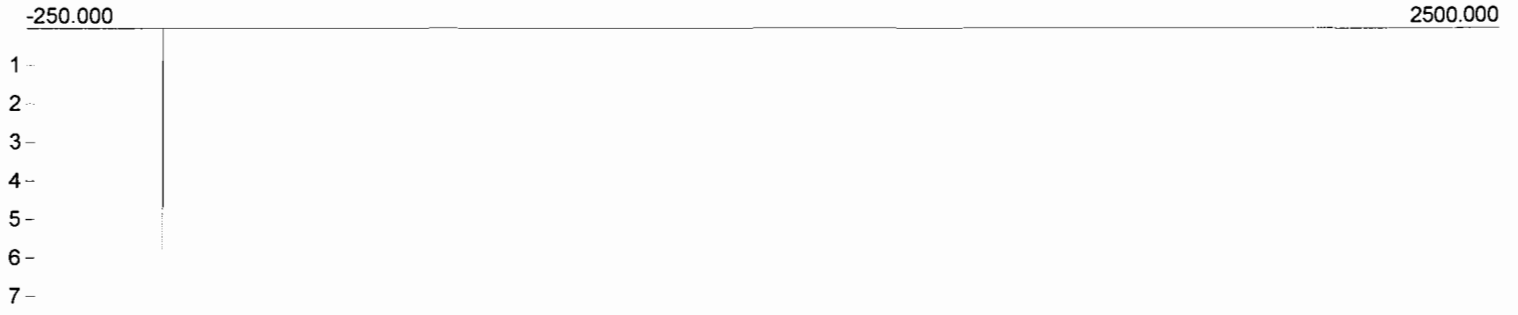
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/10/2010 12:28:34
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero289.CHR (C:\Valero SRU1)
Sample: 0 ppm post cal
Operator: BP



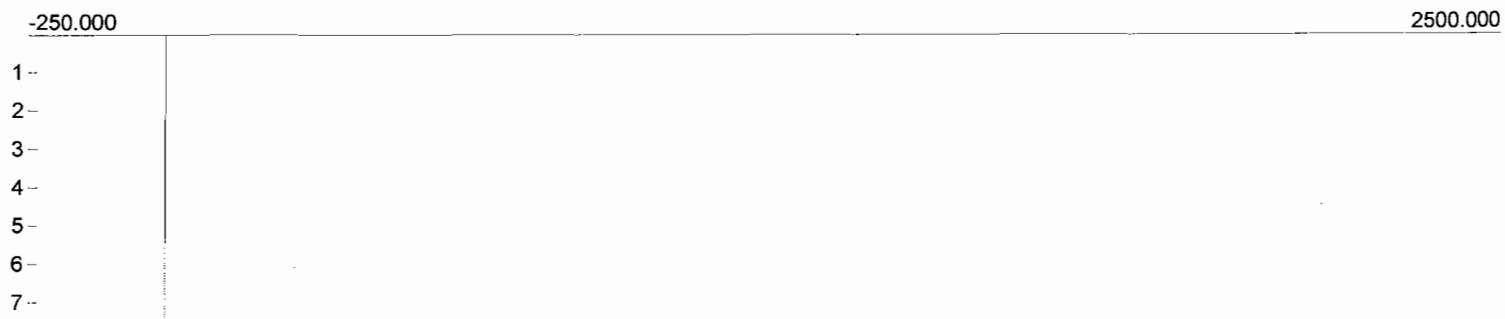
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/10/2010 12:38:25
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero290.CHR (C:\Valero SRU1)
Sample: 0 ppm post cal
Operator: BP



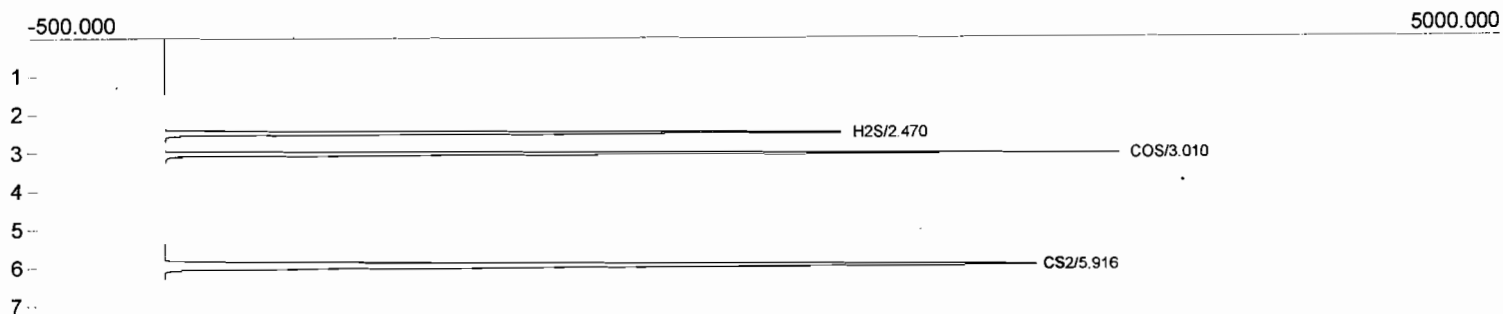
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/10/2010 12:47:26
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero291.CHR (C:\Valero SRU1)
Sample: 0 ppm post cal
Operator: BP



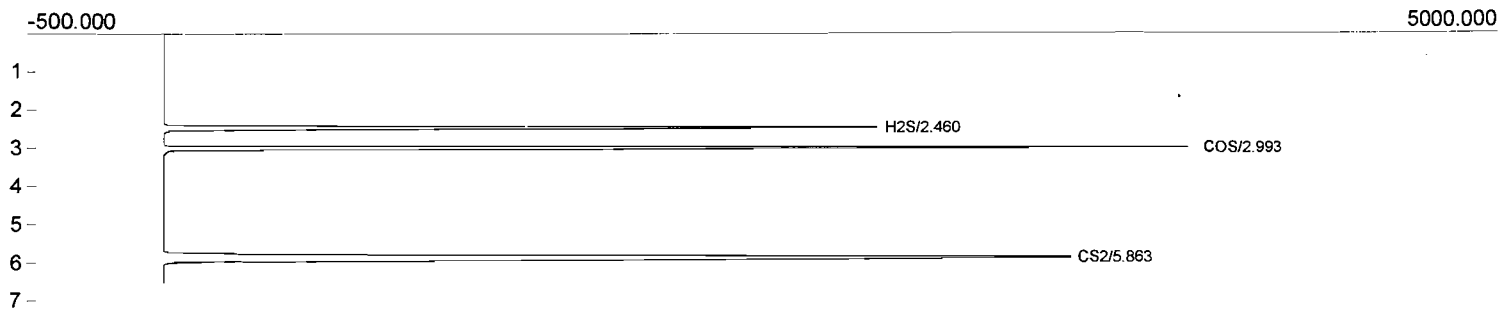
Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/07/2010 13:13:10
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero294.CHR (C:\Valero SRU1)
Sample: 75 ppm post cal
Operator: BP



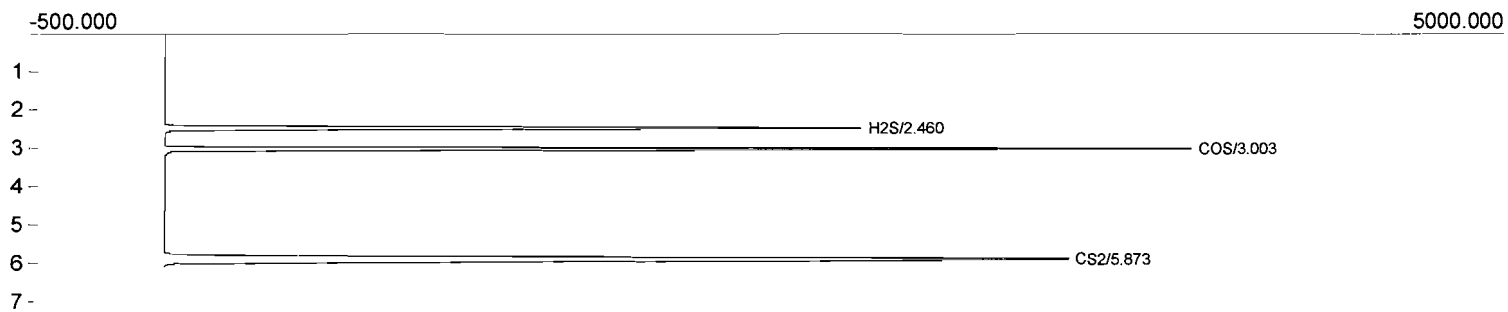
Component	Area
H2S	11566.7885
COS	14027.6265
CS2	24936.7793
	50531.1943

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/07/2010 13:21:36
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero295.CHR (C:\Valero SRU1)
Sample: 75 ppm post cal
Operator: BP



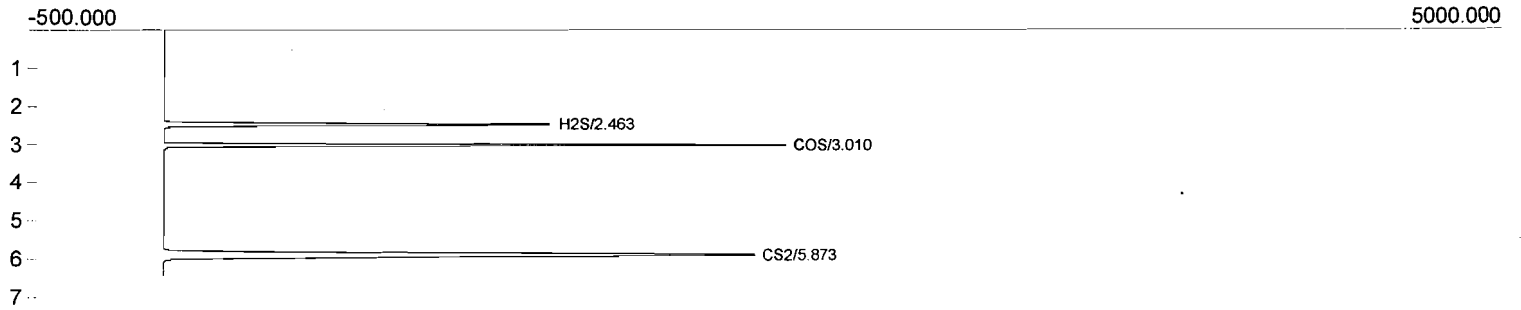
Component	Area
H2S	12237.5104
COS	14780.9090
CS2	25978.8531
	52997.2725

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/07/2010 13:30:26
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero296.chr (C:\Valero SRU1)
Sample: 75 ppm post cal
Operator: BP



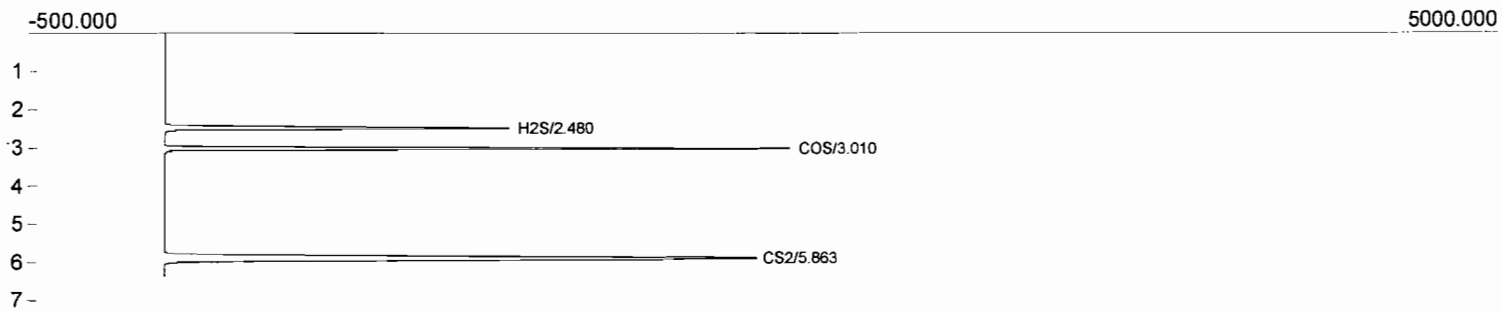
Component	Area
H2S	11861.5114
COS	14811.7584
CS2	25967.0981
	52640.3679

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/07/2010 13:39:13
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero297.chr (C:\Valero SRU1)
Sample: 50 ppm post cal
Operator: BP



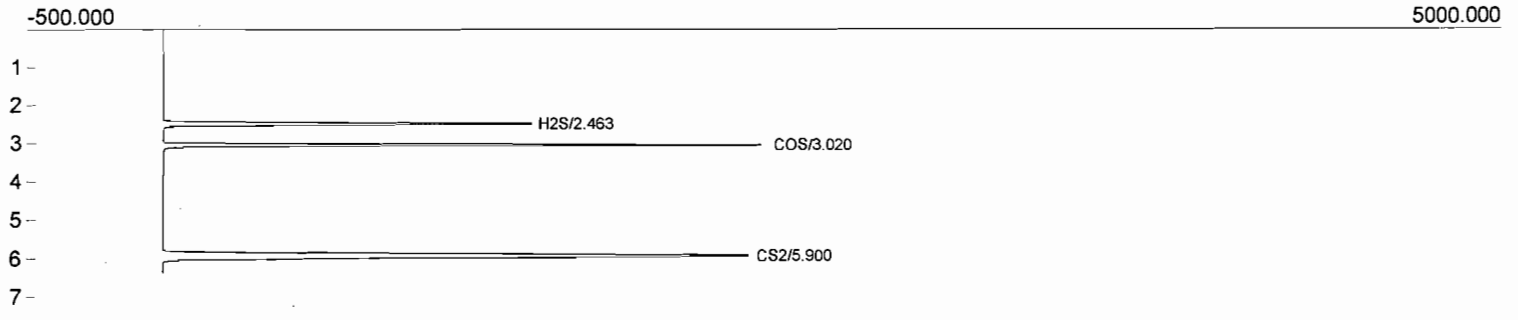
Component	Area
H2S	6209.0078
COS	8427.7333
CS2	15765.2066
	30401.9477

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/07/2010 13:47:31
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero298.CHR (C:\Valero SRU1)
Sample: 50 ppm post cal
Operator: BP



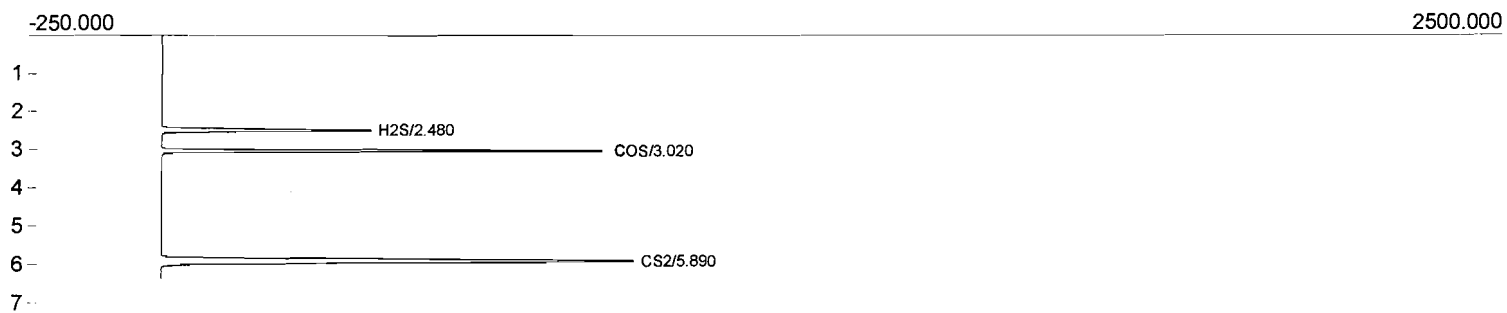
Component	Area
H2S	6586.0090
COS	8505.2886
CS2	15829.5050
	30920.8026

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/07/2010 13:56:42
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero299.CHR (C:\Valero SRU1)
Sample: 50 ppm post cal
Operator: BP



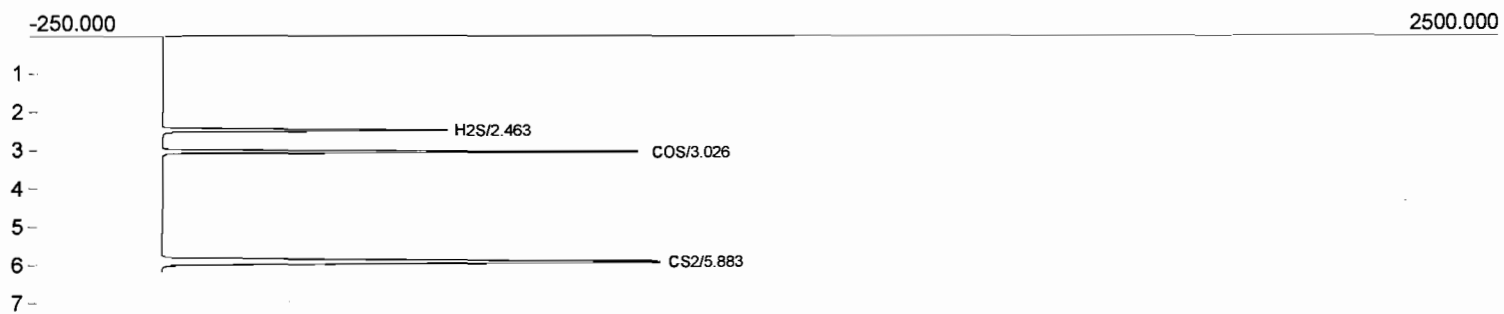
Component	Area
H2S	6143.6404
COS	8309.6630
CS2	15753.7446
	30207.0480

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/07/2010 14:05:00
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero300.CHR (C:\Valero SRU1)
Sample: 25 ppm post cal
Operator: BP



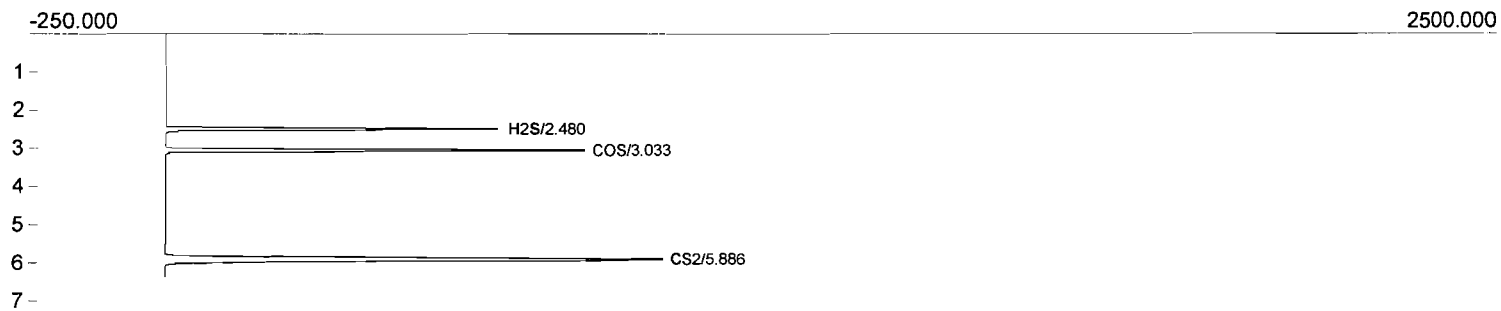
Component	Area
H2S	2149.5820
COS	3127.1594
CS2	5784.3514
	11061.0928

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/07/2010 14:13:05
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero301.CHR (C:\Valero SRU1)
Sample: 25 ppm post cal
Operator: BP



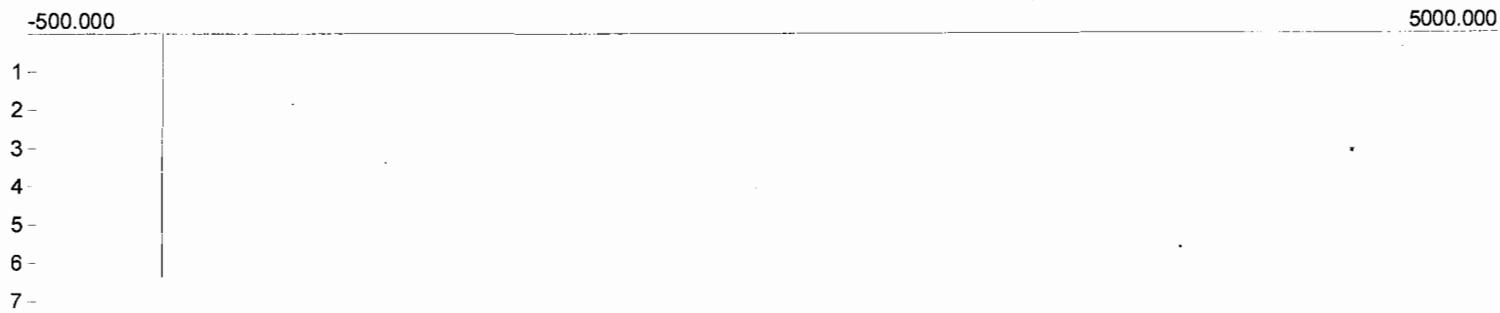
Component	Area
H2S	2087.8064
COS	3053.8050
CS2	6136.0363
	11277.6477

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/07/2010 14:21:03
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero302.CHR (C:\Valero SRU1)
Sample: 25 ppm post cal
Operator: BP



Component	Area
H2S	2270.4403
COS	2923.6060
CS2	6156.8208
	11350.8671

Lab name: ARI Environmental, Inc
Client: Valero CC
Client ID: SRU No. 2
Analysis date: 05/11/2010 05:35:32
Method: USEPA Method 15
Column: RESTEK Sulfur
Carrier: Nitrogen
Data file: Valero304.CHR (C:\Valero SRU1)
Sample: 25 ppm post cal
Operator: BP



Component	Area
H2S	0.0000
COS	0.0000
CS2	0.0000
	0.0000



Valero Refining - Texas L.P.
Source: SRU No. 2 Tailgas Incinerator
Test Dates: May 6 and 7, 2010

APPENDIX D

ARI Reference Method Monitoring Data

Valero Refining - Texas, L.P. - Corpus Christi, Texas
SRU No. 2 Tailgas Incinerator Exhaust
ARI Reference Method Monitoring Data

Date/Time	O ₂ % by vol db	CO ₂ % by vol db	SO ₂ ppmv db	NO _x ppmv db	CO ppmv db	Comments
5/6/10 11:11:30	20.91	0.07	-2.0	0.1	2.0	
5/6/10 11:11:45	20.96	0.07	-2.0	0.1	1.9	
5/6/10 11:12:00	20.57	0.07	-2.2	0.0	2.4	
5/6/10 11:12:15	15.13	0.06	-2.4	0.0	2.2	
5/6/10 11:12:30	6.76	0.04	-2.4	0.0	1.5	
5/6/10 11:12:45	1.63	0.03	-2.5	0.0	0.9	
5/6/10 11:13:00	0.25	0.03	-2.4	0.1	0.6	
5/6/10 11:13:15	0.04	0.03	-2.6	0.0	0.6	
5/6/10 11:13:30	0.01	0.03	-2.6	0.0	0.1	
5/6/10 11:13:45	0.00	0.03	-2.7	0.0	-0.1	Calibration Error
5/6/10 11:14:00	-0.01	0.03	-0.1	0.0	-0.1	-0.01 Zero O ₂
5/6/10 11:14:15	-0.01	0.03	0.0	0.0	0.4	0.03 Zero CO ₂
5/6/10 11:14:30	-0.01	0.03	0.1	0.0	0.2	0.03 Zero SO ₂
5/6/10 11:14:45	-0.01	0.03	0.1	0.0	0.3	0.0 Zero NO _x
5/6/10 11:15:00	-0.01	0.03	14.6	0.6	0.0	0.2 Zero CO
5/6/10 11:15:15	-0.02	0.03	16.9	1.5	0.7	
5/6/10 11:15:30	0.44	0.11	2.0	0.1	7.3	
5/6/10 11:15:45	4.08	1.66	0.3	0.1	20.6	
5/6/10 11:16:00	7.17	3.91	0.1	0.1	39.6	
5/6/10 11:16:15	8.74	5.58	0.1	0.1	61.3	
5/6/10 11:16:30	9.44	6.80	0.1	0.1	78.6	
5/6/10 11:16:45	9.73	7.66	-0.1	0.1	88.1	
5/6/10 11:17:00	9.88	8.17	-0.1	0.1	90.9	
5/6/10 11:17:15	9.94	8.37	-0.1	0.0	90.6	
5/6/10 11:17:30	9.96	8.44	-0.1	0.1	88.7	
5/6/10 11:17:45	9.97	8.48	-0.1	0.0	88.6	
5/6/10 11:18:00	9.98	8.58	-0.2	0.0	88.6	
5/6/10 11:18:15	9.99	8.61	-0.2	0.1	88.3	
5/6/10 11:18:30	9.99	8.62	-0.2	0.1	88.0	Calibration Error
5/6/10 11:18:45	10.00	8.63	-0.2	0.1	88.1	10.00 10.00% O ₂
5/6/10 11:19:00	10.00	8.64	-0.1	0.0	88.7	8.64 8.64% CO ₂
5/6/10 11:19:15	10.00	8.64	-0.2	0.1	88.7	
5/6/10 11:19:30	10.00	8.64	-0.1	0.0	88.4	
5/6/10 11:19:45	10.01	8.65	-0.2	0.0	88.3	88.5 88.3 ppm CO
5/6/10 11:20:00	10.01	8.65	-0.3	0.0	87.5	
5/6/10 11:20:15	9.96	8.54	-0.3	0.1	83.2	
5/6/10 11:20:30	8.72	7.18	-0.2	0.0	75.1	
5/6/10 11:20:45	6.60	5.47	-0.2	0.0	64.8	
5/6/10 11:21:00	5.33	4.57	-0.1	0.1	55.0	
5/6/10 11:21:15	4.98	4.36	-0.2	0.0	48.7	
5/6/10 11:21:30	4.93	4.33	-0.2	0.0	45.4	
5/6/10 11:21:45	4.92	4.33	-0.2	0.0	44.1	Calibration Error
5/6/10 11:22:00	4.92	4.33	-0.1	0.0	43.9	4.92 5.00% O ₂
5/6/10 11:22:15	4.92	4.33	-0.3	0.1	44.1	4.33 4.32% CO ₂
5/6/10 11:22:30	4.93	4.33	1.7	0.1	44.6	
5/6/10 11:22:45	4.92	4.33	12.8	10.8	44.3	
5/6/10 11:23:00	4.93	4.32	3.9	85.6	41.7	44.2 44.2 ppm CO
5/6/10 11:23:15	5.07	3.89	1.7	104.7	36.3	
5/6/10 11:23:30	3.82	2.19	0.3	96.2	27.8	
5/6/10 11:23:45	1.58	0.76	0.0	95.3	17.7	
5/6/10 11:24:00	0.33	0.19	-0.1	95.0	8.7	
5/6/10 11:24:15	0.04	0.07	-0.1	94.9	3.3	
5/6/10 11:24:30	-0.01	0.05	0.0	90.8	1.5	Calibration Error
5/6/10 11:24:45	-0.02	0.05	0.0	90.3	1.0	
5/6/10 11:25:00	-0.02	0.05	-0.1	90.1	0.6	
5/6/10 11:25:15	-0.03	0.05	-0.2	90.3	0.5	
5/6/10 11:25:30	-0.03	0.05	-0.1	90.3	0.6	90.2 90.0 ppm NO _x
5/6/10 11:25:45	-0.03	0.04	-0.1	77.0	1.0	
5/6/10 11:26:00	-0.03	0.04	-0.2	43.2	0.8	Calibration Error
5/6/10 11:26:15	-0.03	0.04	-0.2	45.5	0.4	
5/6/10 11:26:30	-0.03	0.04	-0.2	45.5	0.3	
5/6/10 11:26:45	-0.04	0.04	-0.4	45.4	0.6	
5/6/10 11:27:00	-0.04	0.04	-0.3	45.6	0.8	45.5 45.0 ppm NO _x
5/6/10 11:27:15	-0.04	0.04	0.1	37.4	0.6	
5/6/10 11:27:30	0.09	0.04	0.5	40.5	0.4	
5/6/10 11:27:45	4.48	0.04	0.5	42.4	0.5	
5/6/10 11:28:00	12.91	0.04	0.6	43.5	1.2	
5/6/10 11:28:15	18.61	0.04	0.5	44.1	1.4	
5/6/10 11:28:30	20.56	0.04	0.4	44.5	1.0	
5/6/10 11:28:45	20.91	0.04	0.5	44.8	0.6	
5/6/10 11:29:00	20.95	0.04	0.6	45.0	0.5	
5/6/10 11:29:15	20.96	0.04	0.7	45.1	0.9	
5/6/10 11:29:30	20.97	0.04	0.5	45.2	0.9	
5/6/10 11:29:45	20.97	0.04	0.5	45.3	0.6	
5/6/10 11:30:00	20.98	0.04	0.4	45.5	0.4	
5/6/10 11:30:15	20.98	0.04	0.4	45.6	0.6	
5/6/10 11:30:30	20.98	0.04	0.5	45.7	1.0	
5/6/10 11:30:45	20.98	0.04	0.5	45.7	0.9	
5/6/10 11:31:00	20.98	0.03	0.4	45.8	0.7	
5/6/10 11:31:15	20.99	0.03	0.4	45.8	0.6	
5/6/10 11:31:30	20.99	0.03	0.4	45.9	0.9	
5/6/10 11:31:45	20.99	0.03	0.4	46.0	1.1	
5/6/10 11:32:00	20.99	0.03	0.4	46.1	0.7	
5/6/10 11:32:15	21.00	0.03	0.5	46.2	0.5	
5/6/10 11:32:30	21.00	0.03	0.5	46.3	0.5	NO _x Converter Check
5/6/10 11:32:45	21.00	0.03	0.5	46.4	0.9	46.6 49.62 ppm NO _x
5/6/10 11:33:00	21.00	0.03	0.3	46.6	0.9	Cyl# ALM021775
5/6/10 11:33:15	21.00	0.03	0.4	46.7	0.7	
5/6/10 11:33:30	21.00	0.03	0.5	46.8	0.5	93.99 % Conversion
5/6/10 11:33:45	21.00	0.03	0.1	33.4	0.8	
5/6/10 11:34:00	20.99	0.03	-0.6	1.6	1.3	
5/6/10 11:34:15	19.73	0.03	-0.2	5.3	1.1	
5/6/10 11:34:30	12.25	0.03	1.2	1.1	0.9	
5/6/10 11:34:45	4.30	0.07	0.1	0.4	0.6	
5/6/10 11:35:00	0.92	0.11	-0.7	0.4	0.6	
5/6/10 11:35:15	0.26	0.07	-0.8	0.3	0.4	
5/6/10 11:35:30	0.05	0.04	-0.9	0.3	0.0	
5/6/10 11:35:45	-0.01	0.03	-0.7	0.3	-0.1	
5/6/10 11:36:00	-0.02	0.03	-0.8	0.2	0.3	
5/6/10 11:36:15	-0.02	0.03	-0.7	0.3	0.9	
5/6/10 11:36:30	-0.03	0.03	0.3	0.8	0.9	
5/6/10 11:36:45	-0.03	0.03	2.0	1.1	0.6	
5/6/10 11:37:00	0.01	0.04	30.2	1.3	0.0	
5/6/10 11:37:15	0.13	0.04	66.5	1.2	-0.3	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
 SRU No. 2 Tailgas Incinerator Exhaust
 ARI Reference Method Monitoring Data

Date/Time	O ₂ % by vol db	CO ₂ % by vol db	SO ₂ ppmv db	NO _x ppmv db	CO ppmv db	Comments
5/6/10 11:37:30	0.16	0.04	73.8	1.1	-0.5	
5/6/10 11:37:45	0.07	0.04	76.1	1.2	-0.8	
5/6/10 11:38:00	0.00	0.04	76.9	1.3	-0.5	
5/6/10 11:38:15	-0.02	0.04	76.9	1.5	0.2	
5/6/10 11:38:30	-0.03	0.04	76.7	1.8	0.9	
5/6/10 11:38:45	-0.03	0.04	76.2	2.3	1.0	
5/6/10 11:39:00	-0.03	0.04	75.6	2.6	0.8	
5/6/10 11:39:15	-0.04	0.04	75.1	3.1	0.7	
5/6/10 11:39:30	-0.04	0.04	74.4	3.5	1.0	
5/6/10 11:39:45	-0.04	0.04	73.7	3.9	1.1	
5/6/10 11:40:00	-0.04	0.03	73.2	4.3	0.9	
5/6/10 11:40:15	-0.04	0.03	72.6	4.6	0.7	
5/6/10 11:40:30	-0.04	0.03	85.8	4.9	0.8	
5/6/10 11:40:45	-0.04	0.03	95.3	10.2	1.2	
5/6/10 11:41:00	-0.05	0.03	100.8	8.2	1.0	
5/6/10 11:41:15	-0.04	0.05	96.2	5.9	0.8	
5/6/10 11:41:30	0.01	0.09	89.1	6.1	0.6	
5/6/10 11:41:45	-0.01	0.06	88.0	6.5	1.0	Calibration Error
5/6/10 11:42:00	-0.04	0.04	90.6	6.7	1.3	
5/6/10 11:42:15	-0.05	0.03	90.5	6.9	1.0	
5/6/10 11:42:30	-0.05	0.03	90.5	6.9	0.7	90.6 90.0 ppm SO ₂
5/6/10 11:42:45	-0.05	0.03	90.7	6.8	0.7	
5/6/10 11:43:00	-0.05	0.03	67.2	3.6	1.1	
5/6/10 11:43:15	-0.05	0.03	46.6	3.4	1.1	
5/6/10 11:43:30	-0.05	0.03	45.4	3.4	0.9	
5/6/10 11:43:45	-0.05	0.03	45.4	3.3	0.8	
5/6/10 11:44:00	-0.06	0.03	45.1	3.3	1.0	Calibration Error
5/6/10 11:44:15	-0.06	0.03	45.4	3.2	1.3	
5/6/10 11:44:30	-0.06	0.03	45.4	3.1	1.0	
5/6/10 11:44:45	-0.06	0.03	45.6	3.0	0.8	45.6 45.0 ppm SO ₂
5/6/10 11:45:00	-0.06	0.03	45.8	2.9	0.8	
5/6/10 11:45:15	-0.06	0.03	44.8	2.5	1.1	
5/6/10 11:45:30	-0.06	0.03	17.2	0.9	2.6	
5/6/10 11:45:45	0.21	0.03	2.2	0.6	8.4	
5/6/10 11:46:00	5.39	0.05	0.9	15.9	16.7	
5/6/10 11:46:15	13.34	0.07	25.9	17.9	24.3	
5/6/10 11:46:30	14.56	0.07	96.5	10.7	27.8	
5/6/10 11:46:45	7.56	0.05	100.8	5.3	23.6	
5/6/10 11:47:00	2.06	0.04	100.8	1.2	15.6	
5/6/10 11:47:15	0.34	0.03	100.8	0.4	8.5	
5/6/10 11:47:30	0.08	0.03	100.8	0.3	4.7	
5/6/10 11:47:45	0.04	0.03	100.8	0.3	3.1	
5/6/10 11:48:00	0.03	0.03	96.9	0.2	2.4	
5/6/10 11:48:15	0.02	0.03	77.9	0.2	2.2	
5/6/10 11:48:30	0.02	0.03	62.5	0.2	2.3	
5/6/10 11:48:45	0.01	0.03	51.0	0.2	2.6	
5/6/10 11:49:00	0.01	0.03	42.3	0.2	2.4	
5/6/10 11:49:15	0.01	0.03	35.9	0.2	2.1	
5/6/10 11:49:30	0.01	0.04	31.6	0.2	1.9	
5/6/10 11:49:45	0.01	0.04	27.2	0.2	2.3	
5/6/10 11:50:00	0.00	0.04	23.7	0.1	2.6	
5/6/10 11:50:15	0.00	0.04	20.9	0.1	2.4	
5/6/10 11:50:30	0.00	0.03	18.5	0.1	2.1	
5/6/10 11:50:45	0.00	0.03	16.7	0.1	2.1	
5/6/10 11:51:00	0.00	0.03	14.9	0.1	2.4	
5/6/10 11:51:15	0.00	0.03	13.7	0.1	2.4	
5/6/10 11:51:30	0.00	0.03	12.4	0.1	2.2	
5/6/10 11:51:45	0.00	0.03	11.4	0.1	2.0	
5/6/10 11:52:00	0.00	0.03	10.5	0.1	2.2	
5/6/10 11:52:15	0.00	0.03	9.8	0.1	2.4	
5/6/10 11:52:30	0.00	0.03	9.0	0.1	2.3	
5/6/10 11:52:45	0.00	0.03	8.3	0.1	2.0	
5/6/10 11:53:00	0.00	0.03	7.7	0.1	2.0	
5/6/10 11:53:15	0.00	0.03	7.2	0.1	2.4	
5/6/10 11:53:30	0.00	0.03	6.7	0.2	2.4	
5/6/10 11:53:45	0.00	0.03	11.5	3.2	2.2	
5/6/10 11:54:00	0.00	0.03	77.6	4.4	2.0	
5/6/10 11:54:15	0.01	0.03	100.8	7.8	2.3	
5/6/10 11:54:30	0.01	0.03	100.8	4.7	2.6	
5/6/10 11:54:45	0.00	0.03	100.8	1.6	2.5	
5/6/10 11:55:00	0.00	0.03	100.8	1.0	2.4	
5/6/10 11:55:15	0.00	0.03	100.8	0.9	2.3	
5/6/10 11:55:30	0.00	0.03	100.8	0.9	2.6	
5/6/10 11:55:45	0.00	0.03	100.8	0.8	2.6	
5/6/10 11:56:00	0.00	0.03	100.8	0.8	2.3	
5/6/10 11:56:15	0.00	0.03	100.8	0.8	2.2	
5/6/10 11:56:30	0.00	0.03	100.8	0.8	2.4	
5/6/10 11:56:45	0.00	0.03	100.8	0.9	2.7	
5/6/10 11:57:00	0.00	0.03	100.8	0.9	2.5	
5/6/10 11:57:15	0.00	0.03	100.8	0.9	2.2	
5/6/10 11:57:30	0.00	0.03	100.8	0.9	2.1	
5/6/10 11:57:45	0.00	0.03	100.8	0.9	2.5	
5/6/10 11:58:00	0.00	0.03	100.8	0.9	2.9	
5/6/10 11:58:15	0.00	0.03	100.8	0.9	2.6	
5/6/10 11:58:30	0.00	0.03	100.8	0.7	2.2	
5/6/10 11:58:45	-0.01	0.03	100.8	0.2	2.1	
5/6/10 11:59:00	0.00	0.03	100.8	0.2	2.5	
5/6/10 11:59:15	0.00	0.03	100.8	0.2	2.6	
5/6/10 11:59:30	0.00	0.03	100.8	0.2	2.5	
5/6/10 11:59:45	0.00	0.04	100.8	0.2	2.3	
5/6/10 12:00:00	0.00	0.04	100.8	0.2	2.5	
5/6/10 12:00:15	0.00	0.04	100.8	0.2	2.6	
5/6/10 12:00:30	0.00	0.04	95.1	0.2	2.3	
5/6/10 12:00:45	0.00	0.04	87.6	0.2	2.0	
5/6/10 12:01:00	0.00	0.04	81.4	0.2	1.9	
5/6/10 12:01:15	0.00	0.03	76.4	0.2	2.4	
5/6/10 12:01:30	0.00	0.03	72.9	0.2	2.7	
5/6/10 12:01:45	0.00	0.03	69.8	0.2	2.5	
5/6/10 12:02:00	0.00	0.03	67.3	0.2	2.2	
5/6/10 12:02:15	0.00	0.03	65.0	0.2	2.2	
5/6/10 12:02:30	0.00	0.03	63.2	0.2	2.5	
5/6/10 12:02:45	0.00	0.03	61.7	0.2	2.4	
5/6/10 12:03:00	0.00	0.03	80.5	0.2	2.2	
5/6/10 12:03:15	0.00	0.03	59.6	0.2	2.1	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
SRU No. 2 Tailgas Incinerator Exhaust
ARI Reference Method Monitoring Data

Date/Time	O ₂ % by vol db	CO ₂ % by vol db	SO ₂ ppmv db	NO _x ppmv db	CO ppmv db	Comments
5/6/10 12:03:30	0.00	0.03	58.6	0.2	2.4	
5/6/10 12:03:45	0.00	0.03	58.1	0.2	2.8	
5/6/10 12:04:00	0.00	0.03	58.4	0.2	2.4	
5/6/10 12:04:15	0.00	0.03	58.7	0.3	2.2	
5/6/10 12:04:30	0.00	0.03	59.8	0.3	2.2	SO ₂ Response Time - UP = 150 seconds
5/6/10 12:04:45	0.00	0.03	51.0	0.3	2.6	
5/6/10 12:05:00	0.00	0.03	47.9	0.4	2.6	
5/6/10 12:05:15	0.00	0.03	64.0	0.4	2.2	
5/6/10 12:05:30	0.00	0.03	43.2	0.4	2.0	
5/6/10 12:05:45	0.00	0.03	42.0	0.5	2.2	
5/6/10 12:06:00	0.00	0.03	42.5	0.5	2.5	
5/6/10 12:06:15	0.00	0.03	42.9	0.8	2.3	System Bias
5/6/10 12:06:30	0.02	0.03	42.9	0.6	2.1	
5/6/10 12:06:45	0.67	0.03	43.1	0.6	2.0	
5/6/10 12:07:00	2.16	0.03	43.2	0.5	2.5	43.1 45.0 ppm SO ₂
5/6/10 12:07:15	3.44	0.04	43.2	0.5	2.7	0.6 Zero NO _x
5/6/10 12:07:30	4.46	0.04	31.7	0.5	2.5	2.3 Zero CO
5/6/10 12:07:45	5.38	0.04	22.2	0.5	2.3	
5/6/10 12:08:00	6.25	0.04	22.6	0.6	2.2	SO ₂ Response Time - Down = 150 seconds
5/6/10 12:08:15	7.07	0.05	22.2	0.5	2.5	
5/6/10 12:08:30	7.86	0.05	21.9	0.5	2.5	
5/6/10 12:08:45	8.61	0.05	21.8	0.5	2.3	
5/6/10 12:09:00	9.33	0.05	21.1	0.5	2.1	
5/6/10 12:09:15	10.01	0.05	16.2	0.1	2.4	
5/6/10 12:09:30	10.74	0.06	13.2	0.1	2.9	
5/6/10 12:09:45	13.43	0.06	11.9	0.1	2.7	
5/6/10 12:10:00	17.76	0.07	7.1	0.1	2.2	
5/6/10 12:10:15	20.16	0.08	6.4	0.1	2.0	
5/6/10 12:10:30	20.80	0.08	3.3	0.1	2.2	
5/6/10 12:10:45	20.91	0.08	2.2	0.1	2.7	
5/6/10 12:11:00	20.94	0.08	2.5	0.1	2.5	
5/6/10 12:11:15	20.95	0.08	2.9	0.4	2.1	
5/6/10 12:11:30	20.95	0.08	2.6	0.3	2.1	
5/6/10 12:11:45	20.09	0.08	2.9	0.1	2.5	
5/6/10 12:12:00	13.12	0.06	2.2	0.1	2.9	
5/6/10 12:12:15	5.07	0.04	2.1	0.1	2.8	
5/6/10 12:12:30	1.04	0.04	8.3	0.1	2.4	
5/6/10 12:12:45	0.19	0.03	16.2	0.1	2.2	
5/6/10 12:13:00	0.07	0.03	14.4	0.1	1.2	
5/6/10 12:13:15	0.04	0.03	12.9	0.1	-0.2	
5/6/10 12:13:30	0.03	0.03	11.6	0.1	-0.4	
5/6/10 12:13:45	0.02	0.03	10.5	0.1	-0.5	
5/6/10 12:14:00	0.02	0.03	9.8	0.2	-0.2	
5/6/10 12:14:15	1.09	0.03	9.9	0.1	1.6	
5/6/10 12:14:30	4.09	0.32	9.7	0.1	6.2	
5/6/10 12:14:45	4.32	1.91	8.9	0.1	13.8	
5/6/10 12:15:00	4.49	3.37	8.1	0.1	23.6	
5/6/10 12:15:15	4.76	3.99	7.4	0.1	33.0	
5/6/10 12:15:30	4.86	4.11	6.9	0.1	39.1	CO ₂ Response Time - Up = 105 seconds
5/6/10 12:15:45	4.89	4.10	6.5	0.1	41.9	O ₂ Response Time - Up = 120 seconds
5/6/10 12:16:00	4.91	4.08	5.9	0.1	42.8	CO Response Time - Up = 120 seconds
5/6/10 12:16:15	4.91	4.09	5.4	0.1	43.4	
5/6/10 12:16:30	4.92	4.11	4.9	0.1	43.7	
5/6/10 12:16:45	4.92	4.18	4.6	0.1	43.5	System Bias
5/6/10 12:17:00	4.92	4.24	4.5	0.1	43.1	4.92 5.00% O ₂
5/6/10 12:17:15	4.92	4.27	4.4	0.1	42.9	4.27 4.32% CO ₂
5/6/10 12:17:30	4.92	4.29	4.1	0.1	43.2	
5/6/10 12:17:45	4.92	4.30	3.7	31.3	42.6	
5/6/10 12:18:00	4.96	4.27	3.8	110.5	39.8	43.0 45.0 ppm CO
5/6/10 12:18:15	6.86	3.57	3.6	110.5	34.1	
5/6/10 12:18:30	7.99	2.22	3.4	110.6	25.9	
5/6/10 12:18:45	3.94	1.01	3.3	42.3	16.9	
5/6/10 12:19:00	1.05	0.33	3.2	39.7	8.7	CO ₂ Response Time - Down = 105 seconds
5/6/10 12:19:15	0.18	0.12	3.2	45.0	3.2	O ₂ Response Time - Down = 120 seconds
5/6/10 12:19:30	0.05	0.08	3.2	44.6	0.7	CO Response Time - Down = 120 seconds
5/6/10 12:19:45	0.02	0.07	3.1	44.3	0.2	NO _x Response Time - Up = 105 seconds
5/6/10 12:20:00	0.01	0.06	3.1	44.1	0.2	
5/6/10 12:20:15	0.01	0.05	2.9	44.0	-0.2	System Bias
5/6/10 12:20:30	0.01	0.05	3.0	43.9	-0.4	0.00 Zero O ₂
5/6/10 12:20:45	0.00	0.05	2.6	43.7	-0.5	0.05 Zero CO ₂
5/6/10 12:21:00	0.00	0.05	2.2	43.8	0.0	2.5 Zero SO ₂
5/6/10 12:21:15	0.00	0.05	2.1	43.5	-0.1	43.7 45.0 ppm NO _x
5/6/10 12:21:30	3.00	0.05	2.3	25.8	-0.4	
5/6/10 12:21:45	0.00	0.05	2.2	13.2	-0.6	
5/6/10 12:22:00	2.04	0.05	2.3	19.6	-0.3	
5/6/10 12:22:15	8.89	0.06	2.9	1.4	0.5	
5/6/10 12:22:30	9.82	0.07	6.4	0.9	0.5	
5/6/10 12:22:45	4.23	0.07	11.6	0.7	0.1	NO _x Response Time - Down = 105 seconds
5/6/10 12:23:00	0.87	0.05	16.9	0.7	-0.2	
5/6/10 12:23:15	0.14	0.04	22.0	0.6	-0.1	
5/6/10 12:23:30	0.03	0.04	26.6	0.6	0.1	
5/6/10 12:23:45	0.01	0.04	32.4	5.0	-0.1	
5/6/10 12:24:00	0.00	0.04	87.5	4.5	-0.3	
5/6/10 12:24:15	0.00	0.04	100.8	4.9	-0.3	
5/6/10 12:24:30	0.01	0.04	100.8	2.3	0.2	
5/6/10 12:24:45	0.00	0.04	100.8	1.0	0.2	
5/6/10 12:25:00	0.00	0.04	100.8	0.4	-0.1	
5/6/10 12:25:15	0.00	0.03	100.8	0.2	-0.3	
5/6/10 12:25:30	0.00	0.03	100.8	0.2	-0.1	
5/6/10 12:25:45	-0.01	0.03	100.8	0.2	0.4	
5/6/10 12:26:00	-0.01	0.03	100.8	0.2	0.4	
5/6/10 12:26:15	0.00	0.03	100.8	0.2	0.1	
5/6/10 12:26:30	-0.01	0.03	98.9	0.2	-0.1	
5/6/10 12:26:45	-0.01	0.03	88.9	0.2	0.1	
5/6/10 12:27:00	-0.01	0.03	80.2	0.2	0.3	
5/6/10 12:27:15	-0.01	0.03	74.9	0.2	0.1	
5/6/10 12:27:30	-0.01	0.03	70.4	0.2	0.0	
5/6/10 12:27:45	-0.01	0.03	66.9	0.2	-0.1	
5/6/10 12:28:00	-0.01	0.03	64.5	0.2	0.3	
5/6/10 12:28:15	-0.01	0.03	62.2	0.2	0.3	
5/6/10 12:28:30	-0.01	0.03	60.5	0.2	0.0	
5/6/10 12:28:45	-0.01	0.03	59.2	0.2	-0.2	
5/6/10 12:29:00	-0.01	0.03	58.2	0.2	0.0	
5/6/10 12:29:15	-0.01	0.03	57.3	0.2	0.5	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
SRU No. 2 Tailgas Incinerator Exhaust
ARI Reference Method Monitoring Data

Date/Time	O ₂	CO ₂	SO ₂	NO _x	CO	Comments
	% by vol db	% by vol db	ppmv db	ppmv db	ppmv db	
5/6/10 12:29:30	-0.01	0.03	56.4	0.2	0.5	
5/6/10 12:29:45	-0.01	0.03	55.9	0.2	0.2	
5/6/10 12:30:00	-0.01	0.03	55.3	0.1	0.0	
5/6/10 12:30:15	-0.01	0.03	52.6	0.1	0.2	
5/6/10 12:30:30	-0.01	0.03	44.2	0.1	0.4	
5/6/10 12:30:45	-0.01	0.03	36.4	0.1	0.2	
5/6/10 12:31:00	-0.01	0.03	30.2	0.1	-0.1	
5/6/10 12:31:15	-0.01	0.04	25.6	0.1	-0.1	
5/6/10 12:31:30	-0.01	0.04	22.0	0.1	0.4	
5/6/10 12:31:45	-0.01	0.04	19.0	0.1	0.4	
5/6/10 12:32:00	-0.01	0.04	16.4	0.1	0.1	
5/6/10 12:32:15	-0.01	0.04	14.4	0.1	-0.1	
5/6/10 12:32:30	0.00	0.04	22.9	0.2	0.0	
5/6/10 12:32:45	0.85	0.04	54.8	0.3	0.3	
5/6/10 12:33:00	8.91	4.00	100.8	10.8	21.1	
5/6/10 12:33:15	5.36	4.79	100.8	10.5	28.9	
5/6/10 12:33:30	4.49	4.99	100.8	10.5	30.7	
5/6/10 12:33:45	4.32	5.04	100.8	11.1	26.7	
5/6/10 12:34:00	4.25	5.06	100.8	10.8	19.0	
5/6/10 12:34:15	4.25	5.06	100.8	11.1	11.5	
5/6/10 12:34:30	4.24	5.06	100.8	11.2	6.6	
5/6/10 12:34:45	4.23	5.06	100.8	11.0	4.3	
5/6/10 12:35:00	4.26	5.06	100.3	10.6	3.3	
5/6/10 12:35:15	4.17	5.12	90.6	10.7	2.2	
5/6/10 12:35:30	4.07	5.15	80.0	11.0	1.3	
5/6/10 12:35:45	4.13	5.12	72.1	10.7	0.8	
5/6/10 12:36:00	4.18	5.10	65.5	10.3	0.9	
5/6/10 12:36:15	4.18	5.09	60.0	10.6	0.9	
5/6/10 12:36:30	4.18	5.09	56.1	10.4	0.7	
5/6/10 12:36:45	4.17	5.10	52.8	10.6	0.5	
5/6/10 12:37:00	4.13	5.11	50.7	9.9	0.7	
5/6/10 12:37:15	4.12	5.12	46.8	10.0	1.1	
5/6/10 12:37:30	4.19	5.09	46.8	10.3	1.3	
5/6/10 12:37:45	4.24	5.07	45.6	10.2	1.5	
5/6/10 12:38:00	4.25	5.06	44.6	10.3	1.8	
5/6/10 12:38:15	4.26	5.06	43.5	10.0	2.5	
5/6/10 12:38:30	4.19	5.08	42.4	10.1	2.6	
5/6/10 12:38:45	4.18	5.09	41.6	10.3	2.2	
5/6/10 12:39:00	4.21	5.08	40.7	10.1	2.1	
5/6/10 12:39:15	4.23	5.05	39.1	10.1	2.4	
5/6/10 12:39:30	4.29	5.03	37.5	10.1	3.2	
5/6/10 12:39:45	4.30	5.03	36.2	10.2	3.3	
5/6/10 12:40:00	4.25	5.06	35.3	9.7	2.5	
5/6/10 12:40:15	4.21	5.08	34.1	9.7	1.8	
5/6/10 12:40:30	4.22	5.09	33.1	9.8	1.6	
5/6/10 12:40:45	4.24	5.07	31.6	10.0	2.2	
5/6/10 12:41:00	4.25	5.06	30.9	9.6	2.5	
5/6/10 12:41:15	4.25	5.08	30.6	9.9	2.7	
5/6/10 12:41:30	4.20	5.07	29.9	9.9	2.8	
5/6/10 12:41:45	4.15	5.09	29.4	9.7	3.0	
5/6/10 12:42:00	4.13	5.11	28.8	9.6	2.8	
5/6/10 12:42:15	4.13	5.11	28.4	9.8	2.7	
5/6/10 12:42:30	4.13	5.08	27.8	9.4	3.9	
5/6/10 12:42:45	4.22	5.03	26.9	10.0	7.2	
5/6/10 12:43:00	4.34	4.98	26.4	10.0	11.2	
5/6/10 12:43:15	4.39	4.95	26.4	9.9	13.3	
5/6/10 12:43:30	4.32	4.99	25.9	9.7	12.5	
5/6/10 12:43:45	4.20	5.06	26.0	9.9	9.6	
5/6/10 12:44:00	4.14	5.08	26.1	10.0	5.9	
5/6/10 12:44:15	4.12	5.08	26.0	10.2	3.5	
5/6/10 12:44:30	4.16	5.07	26.7	9.9	2.2	
5/6/10 12:44:45	4.18	5.09	26.9	10.0	1.5	
5/6/10 12:45:00	4.11	5.12	26.8	9.9	1.2	
5/6/10 12:45:15	4.11	5.13	26.2	9.7	1.3	
5/6/10 12:45:30	4.13	5.11	25.8	10.1	1.1	
5/6/10 12:45:45	4.13	5.10	25.5	10.2	0.7	
5/6/10 12:46:00	4.13	5.11	25.7	9.9	0.4	
5/6/10 12:46:15	4.09	5.15	26.0	9.8	0.5	
5/6/10 12:46:30	4.08	5.13	26.2	9.9	1.2	
5/6/10 12:46:45	4.17	5.08	26.5	10.1	1.5	
5/6/10 12:47:00	4.21	5.08	26.1	10.0	1.6	
5/6/10 12:47:15	4.16	5.11	25.7	10.1	1.6	
5/6/10 12:47:30	4.14	5.11	26.0	10.2	1.7	
5/6/10 12:47:45	4.18	5.11	26.2	10.2	1.5	
5/6/10 12:48:00	4.15	5.12	26.5	10.5	0.9	
5/6/10 12:48:15	4.10	5.14	26.9	10.7	0.5	
5/6/10 12:48:30	4.13	5.13	26.8	10.4	0.4	
5/6/10 12:48:45	4.16	5.11	26.9	11.0	0.8	
5/6/10 12:49:00	4.16	5.10	27.3	10.5	0.8	
5/6/10 12:49:15	4.16	5.11	27.2	10.2	0.5	
5/6/10 12:49:30	4.16	5.11	27.9	10.7	0.3	
5/6/10 12:49:45	4.13	5.12	27.9	10.3	0.5	
5/6/10 12:50:00	4.11	5.13	28.0	10.4	0.9	
5/6/10 12:50:15	4.16	5.11	28.5	10.2	0.8	
5/6/10 12:50:30	4.16	5.11	27.8	10.2	0.6	
5/6/10 12:50:45	4.15	5.12	27.8	10.2	0.6	
5/6/10 12:51:00	4.17	5.14	28.1	10.4	0.7	
5/6/10 12:51:15	4.15	5.15	27.7	10.5	0.6	
5/6/10 12:51:30	4.15	5.15	27.4	10.4	0.3	
5/6/10 12:51:45	4.17	5.15	27.8	10.3	0.2	
5/6/10 12:52:00	4.18	5.13	27.5	10.5	0.4	
5/6/10 12:52:15	4.17	5.12	27.6	10.3	0.5	
5/6/10 12:52:30	4.18	5.11	27.2	10.3	0.3	
5/6/10 12:52:45	4.19	5.11	27.2	10.7	0.3	
5/6/10 12:53:00	4.19	5.11	27.3	10.8	0.4	
5/6/10 12:53:15	4.24	5.09	28.4	10.3	0.9	
5/6/10 12:53:30	4.26	5.09	47.7	12.8	1.2	
5/6/10 12:53:45	4.21	5.11	100.8	15.9	2.7	
5/6/10 12:54:00	4.20	5.08	100.8	13.1	9.9	
5/6/10 12:54:15	4.22	5.07	100.8	11.8	18.9	
5/6/10 12:54:30	4.17	5.10	100.8	11.5	32.2	
5/6/10 12:54:45	4.15	5.11	100.8	10.9	37.9	
5/6/10 12:55:00	4.19	5.09	100.8	10.8	37.4	
5/6/10 12:55:15	4.24	5.05	100.8	10.7	31.9	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
SRU No. 2 Tailgas Incinerator Exhaust
ARI Reference Method Monitoring Data

Date/Time	O ₂ % by vol db	CO ₂ % by vol db	SO ₂ ppmv db	NO _x ppmv db	CO ppmv db	Comments
5/6/10 12:55:30	4.29	5.02	100.8	10.5	23.3	
5/6/10 12:55:45	4.36	5.00	100.8	10.6	18.5	
5/6/10 12:56:00	4.40	4.99	100.8	10.6	14.5	
5/6/10 12:56:15	4.34	5.00	100.8	10.9	13.2	
5/6/10 12:56:30	4.33	5.01	100.8	10.8	11.7	
5/6/10 12:56:45	4.30	5.03	100.8	10.7	10.6	
5/6/10 12:57:00	4.23	5.05	100.8	10.7	8.3	
5/6/10 12:57:15	4.18	5.07	95.7	10.6	6.7	
5/6/10 12:57:30	4.21	5.08	85.6	10.7	5.2	
5/6/10 12:57:45	4.18	5.07	78.4	10.9	4.8	
5/6/10 12:58:00	4.16	5.07	73.5	10.5	4.5	
5/6/10 12:58:15	4.17	5.06	70.4	11.0	4.0	
5/6/10 12:58:30	4.17	5.06	67.4	11.0	3.3	
5/6/10 12:58:45	4.13	5.06	64.5	10.6	3.1	
5/6/10 12:59:00	4.16	5.06	62.5	10.5	3.1	
5/6/10 12:59:15	4.16	5.07	60.9	11.1	2.8	
5/6/10 12:59:30	4.13	5.07	59.2	10.7	2.5	
5/6/10 12:59:45	4.16	5.06	57.6	11.0	2.5	
5/6/10 13:00:00	4.18	5.06	56.9	10.8	2.7	
5/6/10 13:00:15	4.13	5.08	56.2	10.7	2.6	
5/6/10 13:00:30	4.10	5.09	55.8	10.8	2.1	
5/6/10 13:00:45	4.09	5.10	55.4	10.7	1.8	
5/6/10 13:01:00	4.06	5.11	53.9	10.7	1.9	
5/6/10 13:01:15	4.08	5.10	53.1	10.6	2.2	
5/6/10 13:01:30	4.18	5.06	52.1	10.7	2.5	
5/6/10 13:01:45	4.23	5.03	51.2	10.2	2.9	
5/6/10 13:02:00	4.25	5.01	50.9	10.3	3.8	
5/6/10 13:02:15	4.25	5.02	50.4	10.3	4.5	
5/6/10 13:02:30	4.23	5.04	50.7	10.4	4.6	
5/6/10 13:02:45	4.19	5.06	50.1	10.1	4.2	
5/6/10 13:03:00	4.19	5.07	49.6	10.1	3.3	
5/6/10 13:03:15	4.22	5.07	49.7	10.5	3.0	
5/6/10 13:03:30	4.21	5.07	48.9	10.4	3.2	
5/6/10 13:03:45	4.18	5.07	48.7	10.3	3.0	
5/6/10 13:04:00	4.22	5.06	48.4	10.3	2.9	
5/6/10 13:04:15	4.23	5.06	47.7	10.4	3.5	
5/6/10 13:04:30	4.25	5.03	47.4	10.2	5.1	
5/6/10 13:04:45	4.34	5.00	47.9	10.8	6.0	
5/6/10 13:05:00	4.31	5.03	47.7	10.4	6.2	
5/6/10 13:05:15	4.20	5.08	47.3	10.2	5.5	
5/6/10 13:05:30	4.16	5.10	47.4	10.2	4.5	
5/6/10 13:05:45	4.20	5.08	46.8	10.5	4.3	
5/6/10 13:06:00	4.21	5.06	47.3	10.3	3.9	
5/6/10 13:06:15	4.20	5.06	46.8	10.5	3.7	
5/6/10 13:06:30	4.18	5.07	46.9	10.7	3.4	
5/6/10 13:06:45	4.15	5.06	47.2	10.9	3.4	
5/6/10 13:07:00	4.13	5.06	47.2	10.6	3.3	
5/6/10 13:07:15	4.14	5.08	47.3	11.0	2.8	
5/6/10 13:07:30	4.12	5.10	47.3	11.2	2.1	
5/6/10 13:07:45	3.30	5.32	100.8	8.0	7.5	
5/6/10 13:08:00	3.30	5.31	94.4	7.7	5.1	
5/6/10 13:08:15	3.30	5.36	84.2	7.8	3.7	
5/6/10 13:08:30	3.26	5.43	76.3	7.9	2.9	
5/6/10 13:08:45	3.24	5.49	69.9	8.2	2.6	
5/6/10 13:09:00	3.24	5.51	65.2	7.9	2.5	
5/6/10 13:09:15	3.27	5.54	61.2	9.1	2.3	
5/6/10 13:09:30	3.23	5.55	58.5	8.2	2.0	
5/6/10 13:09:45	3.28	5.38	65.2	7.8	1.5	
5/6/10 13:10:00	3.33	5.46	51.0	7.6	1.4	
5/6/10 13:10:15	3.29	5.51	50.6	7.7	1.3	
5/6/10 13:10:30	3.28	5.51	50.7	7.6	1.5	
5/6/10 13:10:45	3.30	5.46	51.6	7.7	1.6	
5/6/10 13:11:00	3.35	5.41	51.4	7.7	1.8	
5/6/10 13:11:15	3.39	5.42	52.8	7.8	1.9	
5/6/10 13:11:30	3.39	5.42	52.2	7.8	2.3	
5/6/10 13:11:45	3.33	5.44	51.8	7.7	2.3	
5/6/10 13:12:00	3.28	5.46	52.0	7.6	1.7	
5/6/10 13:12:15	3.28	5.48	52.0	8.1	1.3	
5/6/10 13:12:30	3.24	5.49	53.7	7.7	1.0	
5/6/10 13:12:45	3.25	5.48	59.2	7.7	1.3	
5/6/10 13:13:00	3.29	5.46	54.7	7.7	1.2	
5/6/10 13:13:15	3.30	5.45	53.7	7.6	1.0	
5/6/10 13:13:30	3.24	5.47	53.5	7.6	1.0	
5/6/10 13:13:45	3.21	5.46	54.6	7.5	1.7	
5/6/10 13:14:00	3.28	5.42	54.6	7.6	3.6	
5/6/10 13:14:15	3.38	5.34	53.7	7.7	4.8	
5/6/10 13:14:30	3.40	5.34	52.6	7.8	5.7	
5/6/10 13:14:45	3.28	5.44	52.3	7.8	5.5	Start MS
5/6/10 13:15:00	3.20	5.51	52.3	7.9	4.2	Start Run # SRU2-2
5/6/10 13:15:15	3.14	5.57	53.1	7.9	2.7	
5/6/10 13:15:30	3.09	5.62	52.6	7.7	0.9	
5/6/10 13:15:45	3.08	5.66	52.4	7.7	0.2	
5/6/10 13:16:00	3.13	5.64	52.9	7.6	0.2	
5/6/10 13:16:15	3.19	5.59	53.7	7.7	0.6	
5/6/10 13:16:30	3.23	5.54	54.2	7.7	0.5	
5/6/10 13:16:45	3.28	5.51	52.4	7.9	0.3	
5/6/10 13:17:00	3.32	5.48	53.2	7.8	0.3	
5/6/10 13:17:15	3.29	5.48	52.9	7.7	0.6	
5/6/10 13:17:30	3.22	5.50	53.2	7.6	0.9	
5/6/10 13:17:45	3.24	5.49	53.9	7.6	0.8	
5/6/10 13:18:00	3.29	5.48	53.3	7.6	0.9	
5/6/10 13:18:15	3.29	5.45	51.9	7.5	1.7	
5/6/10 13:18:30	3.36	5.39	51.5	7.6	4.4	
5/6/10 13:18:45	3.48	5.30	51.5	7.7	6.0	
5/6/10 13:19:00	3.49	5.28	51.9	7.8	6.9	
5/6/10 13:19:15	3.38	5.37	51.6	7.8	6.3	
5/6/10 13:19:30	3.31	5.43	52.1	7.9	4.4	
5/6/10 13:19:45	3.29	5.49	53.0	7.8	2.9	
5/6/10 13:20:00	3.24	5.56	52.2	7.8	1.1	
5/6/10 13:20:15	3.20	5.60	51.6	7.7	0.3	
5/6/10 13:20:30	3.22	5.59	52.8	7.7	0.0	
5/6/10 13:20:45	3.25	5.56	52.6	7.7	0.3	
5/6/10 13:21:00	3.21	5.56	51.7	9.3	0.5	
5/6/10 13:21:15	3.15	5.56	53.1	8.9	0.2	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
 SRU No. 2 Tailgas Incinerator Exhaust
 ARI Reference Method Monitoring Data

Date/Time	O ₂ % by vol db	CO ₂ % by vol db	SO ₂ ppmv db	NO _x ppmv db	CO ppmv db	Comments
5/6/10 13:21:30	3.18	5.57	56.2	7.8	-0.1	
5/6/10 13:21:45	3.12	5.60	56.5	7.7	0.0	
5/6/10 13:22:00	3.11	5.60	55.6	7.5	0.5	
5/6/10 13:22:15	3.18	5.56	55.2	7.6	0.7	
5/6/10 13:22:30	3.28	5.50	54.6	7.5	1.0	
5/6/10 13:22:45	3.32	5.44	54.5	7.4	1.4	
5/6/10 13:23:00	3.28	5.45	53.7	7.5	2.0	
5/6/10 13:23:15	3.25	5.47	53.1	7.4	2.2	
5/6/10 13:23:30	3.27	5.49	53.3	7.4	1.7	
5/6/10 13:23:45	3.28	5.49	53.7	7.4	1.2	
5/6/10 13:24:00	3.27	5.47	53.5	7.3	3.1	
5/6/10 13:24:15	3.30	5.42	52.4	7.3	8.7	
5/6/10 13:24:30	3.44	5.30	52.8	7.4	20.1	
5/6/10 13:24:45	3.65	5.17	52.8	7.3	27.7	
5/6/10 13:25:00	3.67	6.22	52.1	7.4	31.9	
5/6/10 13:25:15	3.53	5.35	52.3	7.5	28.7	
5/6/10 13:25:30	3.40	5.44	53.0	7.5	18.7	
5/6/10 13:25:45	3.32	5.46	53.7	7.5	12.1	
5/6/10 13:26:00	3.31	5.42	52.3	7.3	8.6	
5/6/10 13:26:15	3.37	5.37	51.6	7.3	10.3	
5/6/10 13:26:30	3.41	5.33	52.5	7.5	16.3	
5/6/10 13:26:45	3.43	5.30	52.8	7.5	20.9	
5/6/10 13:27:00	3.45	5.31	53.9	7.5	25.0	
5/6/10 13:27:15	3.45	5.35	52.8	7.6	25.7	
5/6/10 13:27:30	3.45	5.39	53.7	7.6	22.6	
5/6/10 13:27:45	3.39	5.44	53.6	7.6	18.3	
5/6/10 13:28:00	3.31	5.51	53.0	7.6	11.6	
5/6/10 13:28:15	3.28	5.54	52.7	7.4	7.4	
5/6/10 13:28:30	3.27	5.52	53.3	7.6	4.1	
5/6/10 13:28:45	3.29	5.46	52.8	7.5	3.4	
5/6/10 13:29:00	3.33	5.41	52.4	7.5	4.8	
5/6/10 13:29:15	3.39	5.37	53.1	7.4	7.4	
5/6/10 13:29:30	3.43	5.35	53.8	7.3	13.1	
5/6/10 13:29:45	3.49	5.33	53.3	7.4	17.6	
5/6/10 13:30:00	3.56	5.33	52.7	7.5	21.0	
5/6/10 13:30:15	3.54	5.38	53.5	7.4	20.8	
5/6/10 13:30:30	3.38	5.46	52.8	7.5	17.2	
5/6/10 13:30:45	3.31	5.46	52.7	7.4	14.2	
5/6/10 13:31:00	3.35	5.41	52.7	7.3	12.3	
5/6/10 13:31:15	3.35	5.34	52.4	7.7	13.0	
5/6/10 13:31:30	3.40	5.26	52.8	7.6	15.3	
5/6/10 13:31:45	3.44	5.26	52.8	7.9	16.2	
5/6/10 13:32:00	3.38	5.35	54.2	7.5	14.6	
5/6/10 13:32:15	3.26	5.49	54.6	7.4	11.3	
5/6/10 13:32:30	3.16	5.57	53.7	7.5	7.8	
5/6/10 13:32:45	3.21	5.55	52.7	7.2	9.5	
5/6/10 13:33:00	3.37	5.45	52.6	7.2	25.7	
5/6/10 13:33:15	3.54	5.33	53.2	7.2	48.0	
5/6/10 13:33:30	3.70	5.23	52.8	7.2	84.5	
5/6/10 13:33:45	3.83	5.16	52.8	7.4	105.4	
5/6/10 13:34:00	3.73	5.22	53.2	7.4	111.5	
5/6/10 13:34:15	3.55	5.26	53.0	7.3	98.9	
5/6/10 13:34:30	3.47	5.30	53.0	7.2	75.6	
5/6/10 13:34:45	3.51	5.27	52.5	7.2	67.4	
5/6/10 13:35:00	3.59	5.21	52.6	7.5	78.8	
5/6/10 13:35:15	3.74	5.16	53.9	7.6	99.7	
5/6/10 13:35:30	3.82	5.16	55.3	9.5	116.6	
5/6/10 13:35:45	3.76	5.20	61.0	7.7	116.5	
5/6/10 13:36:00	3.66	5.26	63.7	7.7	116.6	
5/6/10 13:36:15	3.58	5.32	62.5	7.8	109.3	
5/6/10 13:36:30	3.51	5.40	61.4	7.6	74.2	
5/6/10 13:36:45	3.37	5.50	60.1	7.4	51.4	
5/6/10 13:37:00	3.28	5.52	60.5	7.3	35.1	
5/6/10 13:37:15	3.40	5.42	58.0	7.4	34.9	
5/6/10 13:37:30	3.52	5.31	55.9	7.3	48.1	
5/6/10 13:37:45	3.57	5.24	55.1	7.4	63.2	
5/6/10 13:38:00	3.68	5.20	54.0	7.6	79.5	
5/6/10 13:38:15	3.76	5.21	53.2	7.4	83.5	
5/6/10 13:38:30	3.68	5.29	53.1	7.5	74.6	
5/6/10 13:38:45	3.57	5.37	52.9	7.4	60.8	
5/6/10 13:39:00	3.48	5.45	53.4	7.5	38.9	
5/6/10 13:39:15	3.43	5.48	53.6	7.6	25.9	
5/6/10 13:39:30	3.41	5.46	53.1	7.6	15.1	
5/6/10 13:39:45	3.37	5.46	53.1	7.5	11.5	
5/6/10 13:40:00	3.34	5.46	53.0	7.6	9.1	
5/6/10 13:40:15	3.31	5.45	52.7	7.5	7.9	
5/6/10 13:40:30	3.29	5.43	51.9	7.5	6.8	
5/6/10 13:40:45	3.35	5.44	51.2	7.7	7.1	
5/6/10 13:41:00	3.37	5.46	51.9	7.7	9.4	
5/6/10 13:41:15	3.35	5.45	52.5	7.6	11.3	
5/6/10 13:41:30	3.37	5.43	53.0	7.7	12.7	
5/6/10 13:41:45	3.43	5.44	53.7	7.6	12.2	
5/6/10 13:42:00	3.41	5.50	54.2	7.6	9.5	
5/6/10 13:42:15	3.31	5.55	52.4	7.8	6.8	
5/6/10 13:42:30	3.29	5.53	52.1	7.7	3.4	
5/6/10 13:42:45	3.35	5.49	52.8	7.6	1.9	
5/6/10 13:43:00	3.36	5.48	52.3	7.6	1.3	
5/6/10 13:43:15	3.30	5.49	51.5	7.6	1.4	
5/6/10 13:43:30	3.30	5.49	51.7	7.5	1.7	
5/6/10 13:43:45	3.33	5.48	52.5	7.7	1.8	
5/6/10 13:44:00	3.29	5.49	52.4	7.5	2.4	
5/6/10 13:44:15	3.26	5.51	52.7	7.2	3.5	
5/6/10 13:44:30	3.34	5.50	53.2	7.3	6.8	
5/6/10 13:44:45	3.45	5.43	52.9	7.4	10.2	
5/6/10 13:45:00	3.54	5.37	52.0	7.5	15.1	
5/6/10 13:45:15	3.53	5.36	52.1	7.5	17.3	
5/6/10 13:45:30	3.48	5.41	53.2	7.6	16.5	
5/6/10 13:45:45	3.41	5.46	52.9	7.8	13.2	
5/6/10 13:46:00	3.33	5.51	52.2	7.6	7.5	
5/6/10 13:46:15	3.35	5.52	51.6	7.6	4.3	
5/6/10 13:46:30	3.35	5.52	52.8	7.6	2.2	
5/6/10 13:46:45	3.36	5.49	52.3	7.5	1.6	
5/6/10 13:47:00	3.34	5.47	51.7	7.7	1.1	
5/6/10 13:47:15	3.37	5.46	52.0	7.7	1.0	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
 SRU No. 2 Tailgas Incinerator Exhaust
 ARI Reference Method Monitoring Data

Date/Time	O ₂ % by vol db	CO ₂ % by vol db	SO ₂ ppmv db	NO _x ppmv db	CO ppmv db	Comments
5/6/10 13:47:30	3.34	5.47	52.6	7.8	1.1	
5/6/10 13:47:45	3.27	5.50	53.0	7.6	1.2	
5/6/10 13:48:00	3.32	5.53	52.7	7.7	0.9	
5/6/10 13:48:15	3.42	5.53	52.3	7.6	0.5	
5/6/10 13:48:30	3.43	5.51	52.5	7.7	0.4	
5/6/10 13:48:45	3.38	5.49	51.9	7.7	0.7	
5/6/10 13:49:00	3.38	5.47	52.0	7.6	0.9	
5/6/10 13:49:15	3.43	5.46	53.3	7.5	0.9	
5/6/10 13:49:30	3.45	5.43	52.7	7.4	1.1	
5/6/10 13:49:45	3.41	5.44	52.1	7.4	1.8	
5/6/10 13:50:00	3.44	5.43	52.2	7.4	4.5	
5/6/10 13:50:15	3.49	5.40	52.3	7.5	7.2	
5/6/10 13:50:30	3.56	5.35	52.3	7.5	11.5	
5/6/10 13:50:45	3.59	5.32	52.5	7.6	13.7	
5/6/10 13:51:00	3.55	5.36	52.8	7.6	14.0	
5/6/10 13:51:15	3.41	5.43	52.7	7.6	11.9	
5/6/10 13:51:30	3.26	5.48	52.4	7.6	7.0	
5/6/10 13:51:45	3.22	5.52	53.1	7.8	4.1	
5/6/10 13:52:00	3.28	5.52	53.0	7.5	2.0	
5/6/10 13:52:15	3.33	5.48	53.4	7.7	1.9	
5/6/10 13:52:30	3.35	5.47	52.5	7.7	1.7	
5/6/10 13:52:45	3.36	5.48	52.5	7.6	1.5	
5/6/10 13:53:00	3.40	5.51	54.3	7.8	1.2	
5/6/10 13:53:15	3.38	5.55	53.0	7.7	1.1	
5/6/10 13:53:30	3.33	5.60	53.4	7.5	0.8	
5/6/10 13:53:45	3.32	5.62	53.5	7.6	0.5	
5/6/10 13:54:00	3.32	5.57	53.6	7.4	0.5	
5/6/10 13:54:15	3.35	5.45	53.5	7.4	0.8	
5/6/10 13:54:30	3.39	5.35	54.0	7.3	2.0	
5/6/10 13:54:45	3.43	5.33	53.2	7.6	3.0	
5/6/10 13:55:00	3.47	5.33	53.5	7.7	4.7	
5/6/10 13:55:15	3.48	5.36	54.6	7.8	5.8	
5/6/10 13:55:30	3.41	5.43	54.4	7.6	6.7	
5/6/10 13:55:45	3.38	5.49	54.8	7.6	6.2	
5/6/10 13:56:00	3.34	5.55	54.6	7.8	4.4	
5/6/10 13:56:15	3.31	5.58	55.1	7.7	2.9	
5/6/10 13:56:30	3.31	5.58	54.9	7.6	1.8	
5/6/10 13:56:45	3.32	5.56	54.5	7.5	1.5	
5/6/10 13:57:00	3.30	5.54	54.4	7.5	1.0	
5/6/10 13:57:15	3.27	5.49	53.9	7.4	0.8	
5/6/10 13:57:30	3.25	5.46	54.0	7.4	0.9	
5/6/10 13:57:45	3.25	5.46	54.0	7.5	1.8	
5/6/10 13:58:00	3.28	5.43	54.0	7.6	4.0	
5/6/10 13:58:15	3.38	5.40	55.0	7.5	6.0	
5/6/10 13:58:30	3.43	5.41	54.0	7.5	8.7	
5/6/10 13:58:45	3.45	5.45	54.3	7.6	9.8	
5/6/10 13:59:00	3.37	5.50	55.1	7.6	8.9	
5/6/10 13:59:15	3.30	5.54	55.1	7.5	6.9	
5/6/10 13:59:30	3.28	5.57	55.9	7.4	4.4	
5/6/10 13:59:45	3.33	5.50	55.3	7.5	3.7	
5/6/10 14:00:00	3.39	5.41	54.6	7.5	3.9	
5/6/10 14:00:15	3.40	5.37	53.8	7.6	3.9	
5/6/10 14:00:30	3.39	5.37	53.8	7.6	3.4	
5/6/10 14:00:45	3.38	5.37	53.5	7.5	2.7	
5/6/10 14:01:00	3.31	5.42	53.5	7.5	2.2	
5/6/10 14:01:15	3.25	5.48	54.1	7.7	2.2	
5/6/10 14:01:30	3.31	5.50	55.0	7.8	2.3	
5/6/10 14:01:45	3.41	5.48	55.3	7.7	2.5	
5/6/10 14:02:00	3.46	5.48	54.1	7.7	2.9	
5/6/10 14:02:15	3.44	5.51	54.4	7.6	3.3	
5/6/10 14:02:30	3.46	5.52	54.8	7.9	3.5	
5/6/10 14:02:45	3.48	5.50	55.1	7.5	3.6	
5/6/10 14:03:00	3.52	5.42	55.2	7.6	5.2	
5/6/10 14:03:15	3.53	5.33	55.7	7.7	6.8	
5/6/10 14:03:30	3.53	5.29	55.1	7.8	8.2	
5/6/10 14:03:45	3.44	5.35	54.8	7.6	8.0	
5/6/10 14:04:00	3.34	5.44	54.7	7.4	6.1	
5/6/10 14:04:15	3.28	5.51	55.3	7.5	4.7	
5/6/10 14:04:30	3.32	5.53	55.2	7.7	4.4	
5/6/10 14:04:45	3.40	5.51	54.7	7.7	4.7	
5/6/10 14:05:00	3.47	5.47	55.9	7.4	5.6	
5/6/10 14:05:15	3.46	5.47	55.9	7.5	6.2	
5/6/10 14:05:30	3.44	5.47	54.9	7.6	6.9	
5/6/10 14:05:45	3.46	5.45	54.7	7.5	7.4	
5/6/10 14:06:00	3.42	5.42	54.9	7.4	9.3	
5/6/10 14:06:15	3.37	5.37	54.5	7.5	12.0	
5/6/10 14:06:30	3.47	5.30	54.8	7.6	16.4	
5/6/10 14:06:45	3.55	5.29	55.0	9.4	18.8	
5/6/10 14:07:00	3.46	5.36	55.8	10.1	18.0	
5/6/10 14:07:15	3.35	5.44	59.7	7.9	15.0	
5/6/10 14:07:30	3.35	5.49	61.8	7.8	9.9	
5/6/10 14:07:45	3.38	5.50	60.6	8.2	7.4	
5/6/10 14:08:00	3.38	5.49	61.6	11.4	5.7	
5/6/10 14:08:15	3.37	5.50	96.0	8.9	5.1	
5/6/10 14:08:30	3.39	5.49	100.8	8.5	4.4	
5/6/10 14:08:45	3.37	5.48	100.8	8.1	3.7	
5/6/10 14:09:00	3.29	5.46	100.8	7.9	2.6	
5/6/10 14:09:15	3.21	5.45	97.1	7.7	2.0	
5/6/10 14:09:30	3.21	5.48	88.0	7.8	1.6	
5/6/10 14:09:45	3.23	5.51	82.1	7.6	2.0	
5/6/10 14:10:00	3.25	5.51	77.8	7.7	3.8	
5/6/10 14:10:15	3.28	5.49	71.4	7.8	5.1	
5/6/10 14:10:30	3.32	5.48	67.5	8.7	6.4	
5/6/10 14:10:45	3.35	5.49	64.9	8.4	6.6	
5/6/10 14:11:00	3.33	5.52	64.5	8.2	6.0	
5/6/10 14:11:15	3.33	5.54	65.1	7.8	4.8	
5/6/10 14:11:30	3.34	5.55	63.6	7.8	2.6	
5/6/10 14:11:45	3.34	5.54	62.4	7.8	1.4	
5/6/10 14:12:00	3.29	5.52	50.8	7.7	0.7	
5/6/10 14:12:15	3.26	5.47	58.7	7.6	1.3	
5/6/10 14:12:30	3.33	5.42	58.0	7.7	2.3	
5/6/10 14:12:45	3.44	5.38	59.0	10.0	2.8	
5/6/10 14:13:00	3.40	5.45	61.4	9.2	3.0	
5/6/10 14:13:15	3.32	5.54	66.4	7.8	2.9	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
 SRU No. 2 Tailgas Incinerator Exhaust
 ARI Reference Method Monitoring Data

Date/Time	O ₂ % by vol db	CO ₂ % by vol db	SO ₂ ppmv db	NO _x ppmv db	CO ppmv db	Comments
5/6/10 14:13:30	3.30	5.58	67.1	7.6	2.3	
5/6/10 14:13:45	3.32	5.59	65.4	7.6	1.7	
5/6/10 14:14:00	3.32	5.58	64.8	7.4	3.0	
5/6/10 14:14:15	3.37	5.52	61.7	7.8	6.6	
5/6/10 14:14:30	3.51	5.37	60.8	7.8	13.1	
5/6/10 14:14:45	3.60	5.29	62.3	7.8	16.6	
5/6/10 14:15:00	3.46	5.35	60.6	7.9	16.6	
5/6/10 14:15:15	3.33	5.41	59.3	7.7	13.0	
5/6/10 14:15:30	3.29	5.48	58.4	8.1	7.1	
5/6/10 14:15:45	3.25	5.66	58.4	7.7	3.9	
5/6/10 14:16:00	3.24	5.60	59.0	7.6	1.6	
5/6/10 14:16:15	3.34	5.57	60.2	7.6	0.9	
5/6/10 14:16:30	3.43	5.53	58.8	7.7	0.6	
5/6/10 14:16:45	3.38	5.54	57.7	7.7	0.8	
5/6/10 14:17:00	3.34	5.53	56.4	7.6	0.9	
5/6/10 14:17:15	3.33	5.52	56.4	7.6	0.7	
5/6/10 14:17:30	3.26	5.50	55.8	7.5	0.4	
5/6/10 14:17:45	3.39	5.47	56.3	7.5	0.5	
5/6/10 14:18:00	3.38	5.45	56.6	7.7	1.4	
5/6/10 14:18:15	3.36	5.45	55.9	7.4	1.7	
5/6/10 14:18:30	3.38	5.45	56.6	7.5	2.2	
5/6/10 14:18:45	3.39	5.46	56.1	7.4	2.8	
5/6/10 14:19:00	3.38	5.47	56.0	7.4	4.1	
5/6/10 14:19:15	3.41	5.46	55.3	7.4	5.2	
5/6/10 14:19:30	3.47	5.42	56.0	7.5	6.8	
5/6/10 14:19:45	3.50	5.38	55.6	7.4	8.1	
5/6/10 14:20:00	3.47	5.38	54.6	7.7	10.2	
5/6/10 14:20:15	3.49	5.37	55.2	7.6	11.7	
5/6/10 14:20:30	3.48	5.38	56.8	7.6	11.9	
5/6/10 14:20:45	3.40	5.41	56.1	7.5	11.2	
5/6/10 14:21:00	3.26	5.42	56.1	7.5	10.0	
5/6/10 14:21:15	3.39	5.42	56.9	7.5	9.9	
5/6/10 14:21:30	3.39	5.41	58.3	7.4	11.9	
5/6/10 14:21:45	3.41	5.39	56.8	7.4	14.7	
5/6/10 14:22:00	3.47	5.36	56.0	7.3	21.1	
5/6/10 14:22:15	3.54	5.33	55.7	7.3	26.3	
5/6/10 14:22:30	3.59	5.31	55.9	7.3	31.6	
5/6/10 14:22:45	3.59	5.33	55.8	7.2	33.6	
5/6/10 14:23:00	3.55	5.37	56.5	7.4	40.2	
5/6/10 14:23:15	3.61	5.34	57.1	7.5	48.9	
5/6/10 14:23:30	3.73	5.25	56.4	7.5	62.6	
5/6/10 14:23:45	3.77	5.22	55.8	7.5	69.2	
5/6/10 14:24:00	3.68	5.27	55.6	7.4	65.2	
5/6/10 14:24:15	3.62	5.30	55.6	7.5	55.6	
5/6/10 14:24:30	3.57	5.31	56.4	7.4	42.2	
5/6/10 14:24:45	3.53	5.32	55.3	7.4	37.1	
5/6/10 14:25:00	3.52	5.34	55.3	7.8	37.4	
5/6/10 14:25:15	3.55	5.33	56.6	7.9	38.5	
5/6/10 14:25:30	3.56	5.35	56.7	7.8	36.9	
5/6/10 14:25:45	3.49	5.43	56.3	7.7	32.5	
5/6/10 14:26:00	3.44	5.47	57.2	7.9	21.7	
5/6/10 14:26:15	3.38	5.49	56.7	7.8	13.5	
5/6/10 14:26:30	3.34	5.51	55.9	7.7	5.4	
5/6/10 14:26:45	3.36	5.52	55.4	7.9	2.5	
5/6/10 14:27:00	3.43	5.51	56.1	7.7	1.6	
5/6/10 14:27:15	3.43	5.50	56.6	7.6	1.5	
5/6/10 14:27:30	3.35	5.52	56.2	7.7	1.3	
5/6/10 14:27:45	3.37	5.52	57.7	7.8	1.2	
5/6/10 14:28:00	3.42	5.53	57.2	7.9	1.4	
5/6/10 14:28:15	3.40	5.54	57.7	8.3	1.7	
5/6/10 14:28:30	3.37	5.52	59.8	8.3	2.3	
5/6/10 14:28:45	3.42	5.47	59.0	8.1	3.0	
5/6/10 14:29:00	3.45	5.44	61.4	8.5	4.1	
5/6/10 14:29:15	3.45	5.44	63.5	7.7	4.9	
5/6/10 14:29:30	3.46	5.45	64.8	7.6	5.3	
5/6/10 14:29:45	3.45	5.47	63.7	7.8	5.1	
5/6/10 14:30:00	3.44	5.46	63.4	8.4	4.5	
5/6/10 14:30:15	3.36	5.48	64.2	8.1	4.3	
5/6/10 14:30:30	3.33	5.50	64.3	7.9	3.7	
5/6/10 14:30:45	3.38	5.52	64.4	7.6	2.6	
5/6/10 14:31:00	3.35	5.56	63.4	7.7	1.3	
5/6/10 14:31:15	3.26	5.58	61.6	7.9	0.8	
5/6/10 14:31:30	3.33	5.51	61.7	7.5	1.1	
5/6/10 14:31:45	3.42	5.45	61.6	7.8	1.5	
5/6/10 14:32:00	3.40	5.44	61.9	7.6	2.0	
5/6/10 14:32:15	3.41	5.44	60.3	7.6	2.1	
5/6/10 14:32:30	3.45	5.46	59.7	7.7	2.1	
5/6/10 14:32:45	3.42	5.49	59.7	7.6	2.0	
5/6/10 14:33:00	3.38	5.48	60.9	7.6	1.8	
5/6/10 14:33:15	3.38	5.46	60.0	7.5	2.0	
5/6/10 14:33:30	3.45	5.43	58.3	7.7	2.7	
5/6/10 14:33:45	3.43	5.44	57.9	7.7	3.3	
5/6/10 14:34:00	3.39	5.46	59.5	7.6	3.0	
5/6/10 14:34:15	3.39	5.49	59.2	7.5	2.3	
5/6/10 14:34:30	3.38	5.51	58.2	7.3	1.6	
5/6/10 14:34:45	3.33	5.51	58.0	7.5	1.9	
5/6/10 14:35:00	3.37	5.45	58.2	7.5	3.1	
5/6/10 14:35:15	3.44	5.40	57.2	7.6	3.8	
5/6/10 14:35:30	3.46	5.41	56.8	7.7	4.2	
5/6/10 14:35:45	3.42	5.45	57.5	7.8	4.0	
5/6/10 14:36:00	3.37	5.50	58.6	7.6	3.3	
5/6/10 14:36:15	3.37	5.52	57.0	7.4	3.0	
5/6/10 14:36:30	3.43	5.48	57.0	7.4	6.1	
5/6/10 14:36:45	3.50	5.38	57.1	7.4	12.7	
5/6/10 14:37:00	3.58	5.29	57.2	7.8	25.3	
5/6/10 14:37:15	3.64	5.25	59.2	7.7	32.5	
5/6/10 14:37:30	3.57	5.31	59.2	7.7	34.0	
5/6/10 14:37:45	3.45	5.39	58.8	8.8	28.4	
5/6/10 14:38:00	3.37	5.47	62.1	8.5	16.8	
5/6/10 14:38:15	3.34	5.53	62.7	7.9	9.8	
5/6/10 14:38:30	3.31	5.57	64.1	7.5	4.1	
5/6/10 14:38:45	3.32	5.55	63.5	7.6	2.5	
5/6/10 14:39:00	3.40	5.49	61.8	7.6	2.3	
5/6/10 14:39:15	3.48	5.44	62.6	7.7	2.7	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
 SRU No. 2 Tailgas Incinerator Exhaust
 ARI Reference Method Monitoring Data

Date/Time	O ₂ % by vol db	CO ₂ % by vol db	SO ₂ ppmv db	NO _x ppmv db	CO ppmv db	Comments
5/6/10 14:39:30	3.41	5.47	63.2	7.8	3.3	
5/6/10 14:39:45	3.29	5.52	82.9	7.5	3.0	
5/6/10 14:40:00	3.29	5.50	61.2	7.6	2.4	
5/6/10 14:40:15	3.34	5.47	60.6	7.5	2.3	
5/6/10 14:40:30	3.35	5.46	61.0	8.1	2.7	
5/6/10 14:40:45	3.33	5.48	60.2	7.9	2.8	
5/6/10 14:41:00	3.30	5.52	61.1	7.9	1.9	
5/6/10 14:41:15	3.29	5.56	61.8	8.5	1.1	
5/6/10 14:41:30	3.23	5.59	62.4	7.6	0.4	
5/6/10 14:41:45	3.22	5.58	63.1	7.8	0.5	
5/6/10 14:42:00	3.28	5.54	61.8	7.6	0.6	
5/6/10 14:42:15	3.35	5.48	60.8	7.5	0.8	
5/6/10 14:42:30	3.38	5.45	62.1	7.5	1.2	
5/6/10 14:42:45	3.40	5.44	60.3	7.5	1.7	
5/6/10 14:43:00	3.43	5.45	60.3	7.6	2.7	
5/6/10 14:43:15	3.40	5.46	59.4	7.3	3.7	
5/6/10 14:43:30	3.41	5.42	58.6	7.3	10.8	
5/6/10 14:43:45	3.52	5.36	59.4	8.1	21.4	
5/6/10 14:44:00	3.65	5.26	62.9	7.7	37.6	
5/6/10 14:44:15	3.74	5.22	63.7	7.7	45.0	
5/6/10 14:44:30	3.64	5.31	62.0	7.6	42.3	
5/6/10 14:44:45	3.48	5.43	61.1	7.5	32.1	
5/6/10 14:45:00	3.37	5.52	60.7	7.5	16.2	Stop M5 for port change
5/6/10 14:45:15	3.30	5.55	89.7	7.7	8.0	
5/6/10 14:45:30	3.32	5.52	60.1	8.9	2.4	
5/6/10 14:45:45	3.35	5.51	60.9	7.8	1.1	
5/6/10 14:46:00	3.33	5.50	61.6	7.6	0.9	
5/6/10 14:46:15	3.33	5.47	62.9	7.6	1.4	
5/6/10 14:46:30	3.35	5.46	60.4	7.7	1.9	
5/6/10 14:46:45	3.32	5.48	59.5	7.6	1.7	
5/6/10 14:47:00	3.24	5.52	60.1	7.5	1.2	
5/6/10 14:47:15	3.23	5.54	59.8	7.6	1.0	
5/6/10 14:47:30	3.27	5.54	58.8	7.6	1.0	
5/6/10 14:47:45	3.26	5.54	57.9	7.6	0.8	
5/6/10 14:48:00	3.25	5.51	57.0	7.4	0.7	
5/6/10 14:48:15	3.27	5.49	56.8	7.6	0.8	
5/6/10 14:48:30	3.29	5.49	56.9	7.4	1.5	
5/6/10 14:48:45	3.32	5.48	57.3	7.3	2.0	
5/6/10 14:49:00	3.30	5.47	56.9	7.2	2.8	
5/6/10 14:49:15	3.32	5.46	66.2	7.2	4.0	
5/6/10 14:49:30	3.39	5.42	55.9	7.4	6.5	
5/6/10 14:49:45	3.48	5.37	54.8	7.5	8.0	
5/6/10 14:50:00	3.50	5.37	54.4	7.1	8.2	
5/6/10 14:50:15	3.38	5.43	53.8	3.1	7.4	
5/6/10 14:50:30	3.32	5.41	87.2	0.4	7.2	
5/6/10 14:50:45	4.59	4.79	100.8	0.6	9.0	
5/6/10 14:51:00	11.23	2.56	100.8	0.3	15.6	
5/6/10 14:51:15	18.11	0.72	100.8	0.1	20.3	
5/6/10 14:51:30	20.30	0.27	100.8	0.1	22.9	
5/6/10 14:51:45	20.73	0.17	100.8	4.7	21.4	
5/6/10 14:52:00	20.86	0.14	100.8	55.9	17.4	
5/6/10 14:52:15	19.92	0.68	100.8	100.4	18.5	
5/6/10 14:52:30	13.23	3.05	100.8	25.0	24.4	
5/6/10 14:52:45	6.49	4.69	100.8	11.6	29.3	
5/6/10 14:53:00	4.23	5.18	100.8	9.6	30.7	
5/6/10 14:53:15	3.79	5.29	100.8	9.2	25.1	
5/6/10 14:53:30	3.57	5.36	100.8	8.6	14.0	
5/6/10 14:53:45	3.37	5.44	100.8	8.5	7.4	
5/6/10 14:54:00	3.29	5.49	100.8	8.4	3.2	
5/6/10 14:54:15	3.28	5.49	100.8	8.4	2.6	
5/6/10 14:54:30	3.32	5.45	100.8	8.3	4.2	
5/6/10 14:54:45	3.42	5.40	100.8	8.3	7.9	
5/6/10 14:55:00	3.58	5.31	100.8	8.4	14.4	
5/6/10 14:55:15	3.67	5.27	100.8	8.4	18.2	
5/6/10 14:55:30	3.58	5.34	100.8	8.3	18.7	
5/6/10 14:55:45	3.48	5.42	100.8	8.2	14.9	Re-start M5
5/6/10 14:56:00	3.40	5.47	100.8	8.0	8.2	
5/6/10 14:56:15	3.34	5.49	100.8	8.3	4.7	
5/6/10 14:56:30	3.34	5.46	100.8	8.1	3.4	
5/6/10 14:56:45	3.39	5.42	100.8	8.2	3.5	
5/6/10 14:57:00	3.47	5.38	99.5	8.0	3.9	
5/6/10 14:57:15	3.52	5.36	93.0	8.3	4.3	
5/6/10 14:57:30	3.53	5.37	86.7	8.2	4.9	
5/6/10 14:57:45	3.48	5.40	82.1	8.2	5.5	
5/6/10 14:58:00	3.42	5.40	78.8	8.3	6.1	
5/6/10 14:58:15	3.41	5.37	75.8	8.2	7.5	
5/6/10 14:58:30	3.55	5.30	72.3	8.0	13.1	
5/6/10 14:58:45	3.66	5.25	68.0	8.0	19.0	
5/6/10 14:59:00	3.88	5.22	65.1	8.1	25.3	
5/6/10 14:59:15	3.62	5.24	63.1	8.2	25.1	
5/6/10 14:59:30	3.51	5.33	63.0	8.3	21.5	
5/6/10 14:59:45	3.41	5.43	61.6	8.2	14.8	
5/6/10 15:00:00	3.29	5.51	59.3	8.1	7.9	
5/6/10 15:00:15	3.27	5.51	58.3	8.1	4.5	
5/6/10 15:00:30	3.36	5.45	57.4	8.1	3.8	
5/6/10 15:00:45	3.46	5.37	55.5	8.3	4.9	
5/6/10 15:01:00	3.52	5.33	54.0	8.1	7.7	
5/6/10 15:01:15	3.55	5.32	53.5	8.1	9.6	
5/6/10 15:01:30	3.56	5.32	53.5	8.2	10.1	
5/6/10 15:01:45	3.49	5.36	53.5	8.2	9.3	
5/6/10 15:02:00	3.44	5.40	53.8	8.0	7.4	
5/6/10 15:02:15	3.41	5.44	53.3	8.3	5.8	
5/6/10 15:02:30	3.40	5.45	53.5	8.1	4.8	
5/6/10 15:02:45	3.42	5.41	51.7	8.0	7.9	
5/6/10 15:03:00	3.47	5.33	50.6	8.1	24.4	
5/6/10 15:03:15	3.64	5.20	49.7	8.0	48.9	
5/6/10 15:03:30	3.79	5.11	49.7	8.0	90.6	
5/6/10 15:03:45	3.83	5.08	46.2	8.0	114.2	
5/6/10 15:04:00	3.80	5.10	49.3	7.9	116.6	
5/6/10 15:04:15	3.75	5.16	48.8	7.9	116.6	
5/6/10 15:04:30	3.66	5.24	47.3	8.1	90.8	
5/6/10 15:04:45	3.59	5.32	47.5	8.0	56.2	
5/6/10 15:05:00	3.52	5.41	48.4	8.0	27.7	
5/6/10 15:05:15	3.40	5.49	47.5	7.9	13.2	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
 SRU No. 2 Tailgas Incinerator Exhaust
 ARI Reference Method Monitoring Data

Date/Time	O ₂ % by vol db	CO ₂ % by vol db	SO ₂ ppmv db	NO _x ppmv db	CO ppmv db	Comments
5/6/10 15:05:30	3.34	5.50	47.1	8.0	5.6	
5/6/10 15:05:45	3.38	5.44	46.6	8.5	3.4	
5/6/10 15:06:00	3.44	5.38	47.5	8.5	2.7	
5/6/10 15:06:15	3.46	5.34	47.9	8.0	2.7	
5/6/10 15:06:30	3.44	5.33	47.1	8.0	2.9	
5/6/10 15:06:45	3.46	5.34	46.5	8.0	3.3	
5/6/10 15:07:00	3.50	5.38	46.7	7.9	3.3	
5/6/10 15:07:15	3.48	5.42	46.7	8.2	3.1	
5/6/10 15:07:30	3.47	5.43	46.6	8.2	3.1	
5/6/10 15:07:45	3.52	5.42	46.1	7.9	3.7	
5/6/10 15:08:00	3.57	5.40	46.2	7.9	4.5	
5/6/10 15:08:15	3.55	5.39	45.2	9.0	5.0	
5/6/10 15:08:30	3.53	5.36	44.7	8.2	5.4	
5/6/10 15:08:45	3.55	5.33	45.6	7.7	6.2	
5/6/10 15:09:00	3.58	5.31	45.4	7.8	8.3	
5/6/10 15:09:15	3.56	5.30	44.6	7.9	12.0	
5/6/10 15:09:30	3.58	5.26	44.6	7.8	20.7	
5/6/10 15:09:45	3.66	5.22	43.9	7.8	36.9	
5/6/10 15:10:00	3.77	5.16	43.8	7.9	61.1	
5/6/10 15:10:15	3.81	5.14	44.0	7.9	86.4	
5/6/10 15:10:30	3.80	5.15	44.4	7.8	100.3	
5/6/10 15:10:45	3.74	5.21	44.4	7.8	96.1	
5/6/10 15:11:00	3.63	5.27	44.0	7.8	76.7	
5/6/10 15:11:15	3.55	5.29	43.7	7.9	52.8	
5/6/10 15:11:30	3.64	5.29	43.3	7.8	33.9	
5/6/10 15:11:45	3.55	5.31	43.8	7.8	23.5	
5/6/10 15:12:00	3.54	5.30	43.7	7.8	19.7	
5/6/10 15:12:15	3.53	5.28	43.4	7.6	19.3	
5/6/10 15:12:30	3.64	5.28	44.1	7.7	19.2	
5/6/10 15:12:45	3.57	5.29	44.4	7.7	17.0	
5/6/10 15:13:00	3.49	5.34	44.3	7.8	13.3	
5/6/10 15:13:15	3.36	5.40	45.4	7.8	8.9	
5/6/10 15:13:30	3.33	5.44	45.1	7.8	5.8	
5/6/10 15:13:45	3.31	5.45	44.6	7.8	4.3	
5/6/10 15:14:00	3.32	5.41	45.0	7.7	4.0	
5/6/10 15:14:15	3.38	5.37	45.0	7.6	4.7	
5/6/10 15:14:30	3.45	5.36	45.5	7.8	6.2	
5/6/10 15:14:45	3.47	5.35	44.7	7.8	8.2	
5/6/10 15:15:00	3.45	5.34	44.8	7.9	9.7	
5/6/10 15:15:15	3.47	5.31	45.3	7.7	10.7	
5/6/10 15:15:30	3.54	5.31	45.0	7.9	10.7	
5/6/10 15:15:45	3.52	5.34	45.6	8.7	9.7	
5/6/10 15:16:00	3.42	5.40	46.5	8.2	7.6	
5/6/10 15:16:15	3.32	5.45	47.0	7.9	4.9	
5/6/10 15:16:30	3.30	5.46	48.3	7.9	2.8	
5/6/10 15:16:45	3.32	5.45	48.0	7.8	1.8	
5/6/10 15:17:00	3.30	5.45	47.6	7.9	2.0	
5/6/10 15:17:15	3.35	5.43	46.6	7.9	2.1	
5/6/10 15:17:30	3.47	5.38	46.4	7.8	2.3	
5/6/10 15:17:45	3.53	5.37	46.7	7.8	2.6	
5/6/10 15:18:00	3.48	5.38	46.5	7.9	4.4	
5/6/10 15:18:15	3.51	5.35	46.6	7.9	8.7	
5/6/10 15:18:30	3.62	5.26	46.2	7.7	14.4	
5/6/10 15:18:45	3.70	5.21	46.3	7.6	20.6	
5/6/10 15:19:00	3.69	5.21	45.7	7.7	25.4	
5/6/10 15:19:15	3.69	5.21	45.2	7.7	27.2	
5/6/10 15:19:30	3.68	5.22	45.7	7.8	26.0	
5/6/10 15:19:45	3.59	5.28	46.0	7.9	19.9	
5/6/10 15:20:00	3.46	5.36	45.9	7.8	14.4	
5/6/10 15:20:15	3.43	5.39	45.9	7.7	11.2	
5/6/10 15:20:30	3.44	5.37	46.3	7.7	12.6	
5/6/10 15:20:45	3.49	5.32	45.1	7.7	17.2	
5/6/10 15:21:00	3.61	5.27	45.8	7.9	21.8	
5/6/10 15:21:15	3.65	5.28	45.9	7.8	23.2	
5/6/10 15:21:30	3.55	5.35	46.5	7.8	20.1	
5/6/10 15:21:45	3.42	5.40	46.0	7.9	14.6	
5/6/10 15:22:00	3.38	5.37	45.3	7.9	11.1	
5/6/10 15:22:15	3.50	5.28	46.0	7.9	11.2	
5/6/10 15:22:30	3.61	5.22	46.0	8.3	13.4	
5/6/10 15:22:45	3.59	5.27	46.3	8.0	14.9	
5/6/10 15:23:00	3.54	5.33	47.2	7.9	13.1	
5/6/10 15:23:15	3.47	5.40	48.2	7.8	9.3	
5/6/10 15:23:30	3.39	5.46	47.8	7.8	5.7	
5/6/10 15:23:45	3.42	5.45	47.8	7.7	3.8	
5/6/10 15:24:00	3.49	5.42	48.5	7.7	3.0	
5/6/10 15:24:15	3.50	5.40	48.6	7.8	2.5	
5/6/10 15:24:30	3.45	5.43	47.7	7.8	2.1	
5/6/10 15:24:45	3.40	5.47	47.6	7.9	1.9	
5/6/10 15:25:00	3.42	5.46	48.7	7.9	1.9	
5/6/10 15:25:15	3.42	5.43	48.6	7.7	1.5	
5/6/10 15:25:30	3.34	5.47	48.3	7.8	1.2	
5/6/10 15:25:45	3.32	5.49	48.3	7.7	1.0	
5/6/10 15:26:00	3.38	5.47	47.8	7.7	1.6	
5/6/10 15:26:15	3.44	5.42	47.3	7.6	2.5	
5/6/10 15:26:30	3.53	5.37	47.4	7.7	3.5	
5/6/10 15:26:45	3.61	5.33	47.6	7.7	4.7	
5/6/10 15:27:00	3.61	5.31	48.7	7.8	5.7	
5/6/10 15:27:15	3.55	5.34	47.0	7.7	6.5	
5/6/10 15:27:30	3.51	5.37	47.1	7.8	6.0	
5/6/10 15:27:45	3.49	5.39	47.7	7.7	4.5	
5/6/10 15:28:00	3.38	5.44	47.5	7.7	3.2	
5/6/10 15:28:15	3.31	5.47	47.1	7.7	2.3	
5/6/10 15:28:30	3.35	5.45	47.0	7.7	2.0	
5/6/10 15:28:45	3.40	5.40	47.4	7.7	1.7	
5/6/10 15:29:00	3.41	5.39	47.3	7.6	1.9	
5/6/10 15:29:15	3.43	5.37	47.2	7.8	2.9	
5/6/10 15:29:30	3.52	5.34	46.7	7.7	4.9	
5/6/10 15:29:45	3.67	5.30	46.8	7.6	7.1	
5/6/10 15:30:00	3.57	5.31	47.5	7.6	9.3	
5/6/10 15:30:15	3.57	5.31	47.8	7.6	11.7	
5/6/10 15:30:30	3.60	5.28	47.0	7.6	14.6	
5/6/10 15:30:45	3.60	5.25	47.0	7.6	17.8	
5/6/10 15:31:00	3.58	5.24	47.3	7.5	20.4	
5/6/10 15:31:15	3.60	5.24	46.9	7.7	22.1	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
 SRU No. 2 Tailgas Incinerator Exhaust
 ARI Reference Method Monitoring Data

Date/Time	O ₂ % by vol db	CO ₂ % by vol db	SO ₂ ppmv db	NO _x ppmv db	CO ppmv db	Comments
5/6/10 15:31:30	3.61	5.24	47.4	7.7	21.6	
5/6/10 15:31:45	3.55	5.28	47.8	7.5	19.2	
5/6/10 15:32:00	3.44	5.37	47.7	7.6	14.7	
5/6/10 15:32:15	3.41	5.42	47.4	7.7	9.2	
5/6/10 15:32:30	3.37	5.44	47.8	7.7	5.4	
5/6/10 15:32:45	3.33	5.43	47.5	7.6	4.8	
5/6/10 15:33:00	3.46	5.35	47.0	7.7	6.9	
5/6/10 15:33:15	3.60	5.27	47.7	7.7	9.6	
5/6/10 15:33:30	3.59	5.27	48.1	7.6	11.9	
5/6/10 15:33:45	3.53	5.29	47.9	7.5	13.4	
5/6/10 15:34:00	3.54	5.29	47.4	7.6	15.9	
5/6/10 15:34:15	3.67	5.27	47.6	7.5	20.4	
5/6/10 15:34:30	3.69	5.24	47.3	7.6	29.8	
5/6/10 15:34:45	3.63	5.22	47.0	7.5	42.6	
5/6/10 15:35:00	3.74	5.18	47.6	7.7	52.8	
5/6/10 15:35:15	3.75	5.21	47.5	7.6	56.7	
5/6/10 15:35:30	3.62	5.29	47.6	7.7	47.7	
5/6/10 15:35:45	3.51	5.35	47.7	7.6	33.0	
5/6/10 15:36:00	3.47	5.39	47.7	7.6	19.1	
5/6/10 15:36:15	3.40	5.41	47.7	7.7	11.4	
5/6/10 15:36:30	3.38	5.38	48.0	7.6	12.4	
5/6/10 15:36:45	3.46	5.32	47.6	7.6	20.9	
5/6/10 15:37:00	3.60	5.26	47.5	7.7	33.9	
5/6/10 15:37:15	3.66	5.24	47.6	7.6	48.6	
5/6/10 15:37:30	3.68	5.26	47.5	7.6	60.3	
5/6/10 15:37:45	3.69	5.23	47.5	7.7	64.6	
5/6/10 15:38:00	3.68	5.20	47.3	7.7	61.3	
5/6/10 15:38:15	3.62	5.18	47.5	7.6	51.2	
5/6/10 15:38:30	3.58	5.21	48.3	7.6	37.7	
5/6/10 15:38:45	3.50	5.30	48.4	7.6	24.1	
5/6/10 15:39:00	3.40	5.40	48.4	7.6	13.2	
5/6/10 15:39:15	3.34	5.45	48.5	7.8	6.9	
5/6/10 15:39:30	3.35	5.47	47.6	7.8	4.5	
5/6/10 15:39:45	3.43	5.45	47.7	7.8	4.8	
5/6/10 15:40:00	3.47	5.41	48.8	7.7	5.5	
5/6/10 15:40:15	3.50	5.39	47.8	7.6	5.9	
5/6/10 15:40:30	3.52	5.41	47.4	7.6	5.8	
5/6/10 15:40:45	3.52	5.40	48.3	7.5	5.4	
5/6/10 15:41:00	3.47	5.38	48.5	7.5	5.1	
5/6/10 15:41:15	3.42	5.37	48.7	7.5	6.6	
5/6/10 15:41:30	3.56	5.27	47.5	7.6	13.2	
5/6/10 15:41:45	3.73	5.18	47.6	7.6	25.1	
5/6/10 15:42:00	3.80	5.15	48.6	7.7	38.3	
5/6/10 15:42:15	3.80	5.17	47.2	7.7	48.1	
5/6/10 15:42:30	3.76	5.23	47.1	7.6	44.2	
5/6/10 15:42:45	3.67	5.31	47.0	7.7	33.8	
5/6/10 15:43:00	3.67	5.39	48.5	7.7	21.3	
5/6/10 15:43:15	3.48	5.48	48.7	7.7	11.0	
5/6/10 15:43:30	3.38	5.51	48.9	7.8	4.7	
5/6/10 15:43:45	3.33	5.51	48.0	7.6	1.9	
5/6/10 15:44:00	3.36	5.45	47.4	7.6	1.6	
5/6/10 15:44:15	3.48	5.32	48.0	7.6	3.0	
5/6/10 15:44:30	3.61	5.22	47.7	7.6	5.1	
5/6/10 15:44:45	3.66	5.20	46.9	7.6	7.1	
5/6/10 15:45:00	3.67	5.24	48.3	7.6	8.2	
5/6/10 15:45:15	3.58	5.33	46.5	7.5	8.3	
5/6/10 15:45:30	3.49	5.39	46.7	7.7	8.6	
5/6/10 15:45:45	3.52	5.38	46.4	7.7	11.0	
5/6/10 15:46:00	3.68	5.28	46.6	7.6	14.9	
5/6/10 15:46:15	3.72	5.25	46.6	7.7	18.7	
5/6/10 15:46:30	3.66	5.28	47.2	7.7	19.8	
5/6/10 15:46:45	3.62	5.29	47.9	7.8	16.6	
5/6/10 15:47:00	3.58	5.29	48.6	7.7	11.8	
5/6/10 15:47:15	3.46	5.34	48.4	7.6	7.4	
5/6/10 15:47:30	3.19	5.50	48.5	7.5	4.7	
5/6/10 15:47:45	3.08	5.54	48.8	7.4	3.2	
5/6/10 15:48:00	3.20	5.45	49.1	7.4	3.6	
5/6/10 15:48:15	3.37	5.38	48.6	7.4	12.0	
5/6/10 15:48:30	3.54	5.29	47.5	7.6	29.4	
5/6/10 15:48:45	3.74	5.19	47.9	7.5	49.9	
5/6/10 15:49:00	3.79	5.18	47.2	7.3	65.7	
5/6/10 15:49:15	3.70	5.22	46.6	7.5	71.6	
5/6/10 15:49:30	3.67	5.21	47.1	7.5	71.7	
5/6/10 15:49:45	3.72	5.17	47.2	7.6	74.3	
5/6/10 15:50:00	3.76	5.16	47.0	7.6	84.2	
5/6/10 15:50:15	3.75	5.14	47.7	7.5	101.4	
5/6/10 15:50:30	3.79	5.13	47.3	7.9	116.6	
5/6/10 15:50:45	3.83	5.11	48.5	8.1	116.6	
5/6/10 15:51:00	3.83	5.10	48.4	7.6	116.6	
5/6/10 15:51:15	3.82	5.09	47.3	7.6	116.6	
5/6/10 15:51:30	3.85	5.09	47.5	7.7	116.6	
5/6/10 15:51:45	3.83	5.11	48.1	7.7	116.6	
5/6/10 15:52:00	3.69	5.17	48.7	7.8	116.6	
5/6/10 15:52:15	3.67	5.25	48.6	7.7	105.1	
5/6/10 15:52:30	3.96	5.31	48.7	7.7	65.8	
5/6/10 15:52:45	3.82	5.35	48.4	7.7	34.4	
5/6/10 15:53:00	3.48	5.37	48.3	7.7	17.3	
5/6/10 15:53:15	3.50	5.36	48.4	7.7	10.1	
5/6/10 15:53:30	3.51	5.35	48.2	7.6	7.2	
5/6/10 15:53:45	3.47	5.36	48.4	7.5	6.2	
5/6/10 15:54:00	3.50	5.32	48.2	7.5	6.6	
5/6/10 15:54:15	3.60	5.27	47.8	7.5	9.0	
5/6/10 15:54:30	3.65	5.24	47.2	7.6	12.8	
5/6/10 15:54:45	3.70	5.21	47.2	7.6	16.2	
5/6/10 15:55:00	3.72	5.22	47.6	7.6	19.2	
5/6/10 15:55:15	3.71	5.23	47.4	7.7	21.9	
5/6/10 15:55:30	3.70	5.23	46.8	7.5	25.0	
5/6/10 15:55:45	3.70	5.22	46.9	7.6	28.4	
5/6/10 15:56:00	3.73	5.21	46.4	7.6	31.7	
5/6/10 15:56:15	3.74	5.20	47.1	7.6	34.9	
5/6/10 15:56:30	3.75	5.18	48.9	7.5	37.3	
5/6/10 15:56:45	3.77	5.17	46.6	7.5	38.8	
5/6/10 15:57:00	3.73	5.19	47.0	7.5	38.2	
5/6/10 15:57:15	3.68	5.20	47.3	7.6	35.2	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
 SRU No. 2 Tailgas Incinerator Exhaust
 ARI Reference Method Monitoring Data

Date/Time	O ₂ % by vol db	CO ₂ % by vol db	SO ₂ ppmv db	NO _x ppmv db	CO ppmv db	Comments
5/6/10 15:57:30	3.61	5.24	46.6	7.6	30.8	
5/6/10 15:57:45	3.62	5.26	47.4	7.6	25.9	
5/6/10 15:58:00	3.62	5.28	47.0	7.5	21.7	
5/6/10 15:58:15	3.59	5.29	47.0	7.5	22.0	
5/6/10 15:58:30	3.58	5.28	46.5	7.5	35.2	
5/6/10 15:58:45	3.66	5.21	46.3	7.5	62.0	
5/6/10 15:59:00	3.81	5.11	46.1	7.5	92.4	
5/6/10 15:59:15	3.82	5.10	45.8	8.1	114.0	
5/6/10 15:59:30	3.74	5.13	46.2	7.5	114.3	
5/6/10 15:59:45	3.68	5.17	46.7	7.4	96.3	
5/6/10 16:00:00	3.61	5.21	47.3	7.5	74.8	
5/6/10 16:00:15	3.62	5.20	47.1	7.5	60.4	
5/6/10 16:00:30	3.70	5.19	46.6	7.3	57.3	
5/6/10 16:00:45	3.73	5.19	46.8	7.4	61.0	
5/6/10 16:01:00	3.73	5.19	46.9	7.5	64.9	
5/6/10 16:01:15	3.71	5.20	47.3	7.4	63.9	
5/6/10 16:01:30	3.71	5.20	47.0	7.5	56.2	
5/6/10 16:01:45	3.66	5.24	47.5	7.5	44.0	
5/6/10 16:02:00	3.54	5.29	47.4	7.6	30.8	
5/6/10 16:02:15	3.45	5.35	47.4	7.6	19.5	
5/6/10 16:02:30	3.43	5.38	47.1	7.6	11.7	
5/6/10 16:02:45	3.44	5.38	47.0	7.4	7.8	
5/6/10 16:03:00	3.47	5.36	47.6	7.4	7.5	
5/6/10 16:03:15	3.54	5.34	47.3	7.5	10.1	
5/6/10 16:03:30	3.59	5.29	46.5	7.6	13.5	
5/6/10 16:03:45	3.62	5.25	47.2	7.5	17.6	
5/6/10 16:04:00	3.63	5.23	47.6	7.4	21.9	
5/6/10 16:04:15	3.68	5.21	47.6	7.5	25.5	
5/6/10 16:04:30	3.71	5.21	47.7	7.5	26.9	
5/6/10 16:04:45	3.69	5.23	46.6	7.6	25.9	
5/6/10 16:05:00	3.69	5.24	46.3	7.5	24.6	
5/6/10 16:05:15	3.75	5.21	46.0	7.5	25.2	
5/6/10 16:05:30	3.76	5.18	46.0	7.5	28.1	
5/6/10 16:05:45	3.74	5.16	45.9	7.9	31.1	
5/6/10 16:06:00	3.74	5.16	47.0	7.4	31.4	
5/6/10 16:06:15	3.71	5.18	46.8	7.5	28.5	
5/6/10 16:06:30	3.64	5.22	46.4	7.5	24.0	
5/6/10 16:06:45	3.63	5.23	46.8	7.4	18.9	
5/6/10 16:07:00	3.61	5.28	47.9	7.7	14.3	
5/6/10 16:07:15	3.56	5.31	47.1	7.6	10.9	
5/6/10 16:07:30	3.56	5.31	47.4	7.6	8.6	
5/6/10 16:07:45	3.54	5.34	46.5	7.5	7.9	
5/6/10 16:08:00	3.50	5.34	47.1	7.7	7.4	
5/6/10 16:08:15	3.52	5.29	47.3	8.5	6.8	
5/6/10 16:08:30	3.53	5.28	48.0	7.5	6.0	
5/6/10 16:08:45	3.50	5.31	49.1	7.5	5.0	
5/6/10 16:09:00	3.44	5.37	46.7	7.6	4.0	
5/6/10 16:09:15	3.36	5.41	49.4	7.5	2.7	
5/6/10 16:09:30	3.39	5.42	46.8	7.5	2.0	
5/6/10 16:09:45	3.50	5.38	48.1	7.4	1.9	
5/6/10 16:10:00	3.53	5.37	47.7	7.4	2.5	
5/6/10 16:10:15	3.61	5.37	47.3	7.5	3.2	
5/6/10 16:10:30	3.54	5.35	47.5	7.4	3.9	
5/6/10 16:10:45	3.62	5.28	47.6	7.9	5.0	
5/6/10 16:11:00	3.66	5.25	47.9	7.9	7.3	
5/6/10 16:11:15	3.68	5.24	47.6	7.5	12.5	
5/6/10 16:11:30	3.72	5.21	47.8	7.5	19.1	
5/6/10 16:11:45	3.77	5.17	47.1	7.3	26.5	
5/6/10 16:12:00	3.75	5.19	47.0	7.4	35.7	
5/6/10 16:12:15	3.77	5.19	47.7	7.4	43.9	
5/6/10 16:12:30	3.80	5.18	47.5	7.3	47.7	
5/6/10 16:12:45	3.74	5.20	46.4	7.3	45.8	
5/6/10 16:13:00	3.63	5.24	46.2	7.4	37.8	
5/6/10 16:13:15	3.61	5.26	48.8	7.4	26.5	
5/6/10 16:13:30	3.58	5.30	46.9	7.5	16.5	
5/6/10 16:13:45	3.45	5.33	46.5	7.7	10.0	
5/6/10 16:14:00	3.47	5.30	46.4	7.6	7.2	
5/6/10 16:14:15	3.56	5.27	46.4	7.6	7.0	
5/6/10 16:14:30	3.58	5.27	46.7	7.5	8.1	
5/6/10 16:14:45	3.56	5.28	46.6	7.6	9.1	
5/6/10 16:15:00	3.56	5.28	46.8	7.5	9.4	
5/6/10 16:15:15	3.57	5.27	47.4	7.4	9.4	
5/6/10 16:15:30	3.53	5.27	47.3	7.7	10.2	
5/6/10 16:15:45	3.53	5.24	47.7	7.6	11.8	
5/6/10 16:16:00	3.61	5.18	48.3	7.5	13.5	
5/6/10 16:16:15	3.59	5.16	47.5	7.5	16.4	
5/6/10 16:16:30	3.53	5.16	47.3	7.6	22.6	
5/6/10 16:16:45	3.58	5.16	46.6	7.7	36.0	
5/6/10 16:17:00	3.68	5.14	47.2	7.5	54.6	
5/6/10 16:17:15	3.73	5.13	47.4	7.5	75.0	
5/6/10 16:17:30	3.73	5.14	47.0	7.5	90.3	
5/6/10 16:17:45	3.74	5.14	48.3	7.5	91.9	
5/6/10 16:18:00	3.75	5.17	46.5	7.6	79.6	
5/6/10 16:18:15	3.62	5.24	48.4	7.5	58.6	
5/6/10 16:18:30	3.48	5.30	47.8	7.5	36.6	
5/6/10 16:18:45	3.41	5.36	48.8	8.0	20.2	
5/6/10 16:19:00	3.26	5.46	48.7	7.8	17.0	
5/6/10 16:19:15	3.23	5.41	48.0	7.2	24.9	
5/6/10 16:19:30	3.49	5.22	48.0	7.1	38.0	
5/6/10 16:19:45	3.66	5.15	48.1	7.3	50.2	
5/6/10 16:20:00	3.65	5.18	48.4	7.2	54.9	
5/6/10 16:20:15	3.58	5.22	48.1	7.2	53.6	
5/6/10 16:20:30	3.66	5.24	48.0	7.2	50.2	
5/6/10 16:20:45	3.60	5.22	48.1	7.1	47.3	
5/6/10 16:21:00	3.59	5.21	48.4	7.1	43.9	
5/6/10 16:21:15	3.54	5.22	48.5	7.0	38.6	
5/6/10 16:21:30	3.51	5.24	49.5	6.9	35.3	
5/6/10 16:21:45	3.54	5.22	48.5	7.0	39.1	
5/6/10 16:22:00	3.63	5.17	48.4	6.9	53.2	
5/6/10 16:22:15	3.68	5.14	47.9	12.4	73.9	
5/6/10 16:22:30	3.71	5.12	51.7	8.1	87.4	
5/6/10 16:22:45	3.72	5.14	55.3	7.4	85.6	
5/6/10 16:23:00	3.61	5.20	56.2	7.2	68.7	
5/6/10 16:23:15	3.52	5.25	55.5	7.1	45.4	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
 SRU No. 2 Tailgas Incinerator Exhaust
 ARI Reference Method Monitoring Data

Date/Time	O ₂ % by vol db	CO ₂ % by vol db	SO ₂ ppmv db	NO _x ppmv db	CO ppmv db	Comments
5/6/10 16:23:30	3.51	5.27	55.3	7.1	26.4	
5/6/10 16:23:45	3.48	5.28	55.2	7.1	14.7	
5/6/10 16:24:00	3.43	5.30	53.4	7.2	9.0	
5/6/10 16:24:15	3.42	5.31	52.4	7.7	7.0	
5/6/10 16:24:30	3.43	5.30	53.1	7.2	6.9	
5/6/10 16:24:45	3.46	5.28	53.0	7.1	8.5	
5/6/10 16:25:00	3.47	5.28	51.8	7.0	10.4	
5/6/10 16:25:15	3.49	5.27	51.7	6.9	12.2	
5/6/10 16:25:30	3.51	5.26	51.7	6.9	14.3	
5/6/10 16:25:45	3.50	5.26	50.6	7.0	16.5	
5/6/10 16:28:00	3.50	5.27	50.1	6.8	18.7	End M5
5/6/10 16:28:15	3.54	5.26	49.8	6.8	21.5	
5/6/10 16:28:30	3.54	5.25	49.6	7.0	28.3	
5/6/10 16:28:45	3.67	5.19	49.0	7.8	43.9	
5/6/10 16:29:00	3.64	5.14	49.6	6.9	69.0	
5/6/10 16:29:15	3.74	5.09	49.1	6.9	96.7	
5/6/10 16:29:30	3.75	5.09	50.3	6.9	114.5	
5/6/10 16:29:45	3.66	5.13	49.6	7.2	111.7	
5/6/10 16:28:00	3.58	5.19	49.1	7.3	90.9	
5/6/10 16:28:15	3.52	5.25	50.2	7.2	63.8	
5/6/10 16:28:30	3.46	5.29	50.1	7.0	51.9	
5/6/10 16:28:45	3.48	5.25	49.2	7.2	68.7	
5/6/10 16:29:00	3.65	5.13	50.2	7.1	105.4	
5/6/10 16:29:15	3.84	5.03	50.2	8.9	113.4	
5/6/10 16:29:30	3.86	5.03	50.6	7.3	106.6	
5/6/10 16:29:45	3.70	5.11	50.7	7.3	100.6	
5/6/10 16:30:00	3.49	6.23	51.0	7.2	90.8	
5/6/10 16:30:15	3.29	5.33	52.4	7.3	69.7	
5/6/10 16:30:30	3.19	5.39	50.7	7.3	34.0	
5/6/10 16:30:45	3.17	5.40	50.1	7.2	16.1	
5/6/10 16:31:00	3.27	5.34	49.6	7.2	11.0	
5/6/10 16:31:15	3.36	5.28	48.8	7.3	11.5	
5/6/10 16:31:30	3.35	5.27	48.3	7.4	13.4	
5/6/10 16:31:45	3.33	5.28	48.0	7.3	14.7	
5/6/10 16:32:00	3.35	5.28	48.1	7.3	16.5	
5/6/10 16:32:15	3.40	5.26	48.2	7.3	20.6	
5/6/10 16:32:30	3.44	5.23	48.9	7.4	27.3	
5/6/10 16:32:45	3.46	5.22	48.4	7.2	40.9	
5/6/10 16:33:00	3.50	5.20	47.8	7.2	64.4	
5/6/10 16:33:15	3.58	5.15	46.9	7.3	97.8	
5/6/10 16:33:30	3.62	5.10	46.2	7.3	116.6	
5/6/10 16:33:45	3.61	5.09	47.4	7.2	116.6	
5/6/10 16:34:00	3.58	5.12	46.7	7.3	116.6	
5/6/10 16:34:15	3.50	5.17	46.6	7.2	114.8	
5/6/10 16:34:30	3.45	5.20	47.4	7.2	93.3	
5/6/10 16:34:45	3.49	5.19	46.3	7.3	87.2	
5/6/10 16:35:00	3.57	5.14	46.3	7.2	104.9	
5/6/10 16:35:15	3.63	5.08	46.9	7.2	116.6	
5/6/10 16:35:30	3.65	5.06	47.4	7.3	116.6	
5/6/10 16:35:45	3.65	5.07	46.3	8.6	116.6	
5/6/10 16:36:00	3.63	5.06	47.2	7.6	116.6	
5/6/10 16:36:15	3.54	5.13	48.9	7.5	116.6	
5/6/10 16:36:30	3.37	5.22	50.6	7.4	96.7	
5/6/10 16:36:45	3.30	5.28	49.0	7.6	59.5	
5/6/10 16:37:00	3.35	5.25	48.2	7.5	40.3	
5/6/10 16:37:15	3.40	5.20	48.1	7.6	36.9	
5/6/10 16:37:30	3.45	5.17	48.3	7.6	40.3	
5/6/10 16:37:45	3.44	5.20	49.3	7.3	41.6	
5/6/10 16:38:00	3.38	5.26	49.2	7.6	36.5	
5/6/10 16:38:15	3.28	5.32	48.4	7.7	27.7	
5/6/10 16:38:30	3.17	6.38	49.7	7.4	19.6	
5/6/10 16:38:45	3.06	5.43	50.0	7.3	13.8	
5/6/10 16:39:00	2.96	5.46	49.8	7.3	11.0	
5/6/10 16:39:15	2.93	5.42	48.9	7.2	11.5	
5/6/10 16:39:30	3.05	5.35	49.5	7.4	16.7	
5/6/10 16:39:45	3.16	5.30	48.8	7.5	21.0	
5/6/10 16:40:00	3.18	5.27	48.5	7.9	23.4	
5/6/10 16:40:15	3.09	5.32	49.3	8.1	21.5	
5/6/10 16:40:30	2.99	5.42	49.6	8.2	15.6	
5/6/10 16:40:45	2.87	5.53	50.3	7.9	9.0	
5/6/10 16:41:00	2.73	5.62	50.6	7.7	3.9	
5/6/10 16:41:15	2.67	5.64	49.7	7.8	1.3	
5/6/10 16:41:30	2.75	5.58	49.8	8.3	0.5	
5/6/10 16:41:45	2.85	5.51	49.7	8.6	0.6	
5/6/10 16:42:00	2.87	5.49	50.1	8.4	0.8	
5/6/10 16:42:15	2.89	5.60	52.5	7.8	0.6	
5/6/10 16:42:30	2.90	5.54	51.0	7.7	0.4	
5/6/10 16:42:45	2.80	5.58	50.9	8.2	0.2	
5/6/10 16:43:00	2.69	5.60	51.6	7.6	0.5	
5/6/10 16:43:15	2.71	5.59	49.8	7.7	0.4	
5/6/10 16:43:30	2.78	5.66	50.3	7.6	0.1	
5/6/10 16:43:45	2.83	5.52	49.8	7.6	-0.1	
5/6/10 16:44:00	2.88	5.48	49.7	7.8	0.1	
5/6/10 16:44:15	2.94	5.46	49.9	8.2	0.6	
5/6/10 16:44:30	2.95	5.45	49.6	7.7	0.5	
5/6/10 16:44:45	2.96	5.42	49.4	7.7	0.3	
5/6/10 16:45:00	3.01	5.40	49.6	7.6	0.3	
5/6/10 16:45:15	3.00	5.39	49.6	7.6	0.8	
5/6/10 16:45:30	3.02	5.37	48.9	7.5	1.2	
5/6/10 16:45:45	3.07	5.35	49.5	7.6	1.2	
5/6/10 16:46:00	3.08	5.37	49.3	7.7	1.0	
5/6/10 16:46:15	3.07	5.40	48.9	7.6	1.0	
5/6/10 16:46:30	3.02	5.44	48.5	7.5	1.3	
5/6/10 16:46:45	2.97	5.47	49.2	7.4	1.4	
5/6/10 16:47:00	3.01	5.43	49.1	7.5	1.2	
5/6/10 16:47:15	3.08	5.37	48.8	8.1	1.2	
5/6/10 16:47:30	3.06	5.35	49.7	7.7	1.6	
5/6/10 16:47:45	3.07	5.35	49.1	7.6	1.9	
5/6/10 16:48:00	3.08	5.35	48.6	7.6	1.7	
5/6/10 16:48:15	3.10	5.35	48.5	7.6	1.5	
5/6/10 16:48:30	3.08	5.35	48.3	7.7	1.6	
5/6/10 16:48:45	3.05	5.38	48.5	7.6	2.2	
5/6/10 16:49:00	3.07	5.38	48.5	7.6	2.6	
5/6/10 16:49:15	3.11	5.35	48.1	7.5	2.4	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
 SRU No. 2 Tailgas Incinerator Exhaust
 ARI Reference Method Monitoring Data

Date/Time	O ₂ % by vol db	CO ₂ % by vol db	SO ₂ ppmv db	NO _x ppmv db	CO ppmv db	Comments
5/6/10 16:49:30	3.12	5.35	49.1	7.6	2.3	
5/6/10 16:49:45	3.15	5.34	49.0	7.4	2.3	
5/6/10 16:50:00	3.15	5.33	49.1	7.5	2.8	
5/6/10 16:50:15	3.10	5.28	49.0	7.4	3.2	
5/6/10 16:50:30	3.13	5.21	48.0	7.5	3.7	
5/6/10 16:50:45	3.23	5.16	47.9	7.7	4.4	
5/6/10 16:51:00	3.26	5.19	47.3	7.8	4.9	
5/6/10 16:51:15	3.14	5.30	48.1	7.7	4.5	
5/6/10 16:51:30	3.02	5.43	48.9	7.7	3.1	
5/6/10 16:51:45	2.92	5.55	48.6	7.8	1.6	
5/6/10 16:52:00	2.87	5.59	48.4	8.3	0.6	
5/6/10 16:52:15	2.86	5.60	48.5	8.2	0.5	
5/6/10 16:52:30	2.84	5.62	48.9	7.6	0.3	
5/6/10 16:52:45	2.90	5.58	50.0	8.3	0.0	
5/6/10 16:53:00	2.98	5.51	49.5	9.2	-0.1	
5/6/10 16:53:15	2.94	5.47	50.2	7.6	0.1	
5/6/10 16:53:30	2.90	5.44	50.9	7.5	0.3	
5/6/10 16:53:45	2.91	5.41	51.2	7.6	0.3	
5/6/10 16:54:00	2.95	5.38	50.2	7.5	0.3	
5/6/10 16:54:15	2.98	5.39	49.9	7.5	0.6	
5/6/10 16:54:30	3.04	5.40	49.5	7.9	1.1	
5/6/10 16:54:45	3.06	5.44	49.2	8.7	1.0	
5/6/10 16:55:00	3.00	5.49	49.6	8.9	0.6	
5/6/10 16:55:15	2.91	5.69	50.9	8.8	0.1	
5/6/10 16:55:30	2.83	5.66	50.3	8.1	0.2	
5/6/10 16:55:45	2.79	5.65	50.4	7.9	0.3	
5/6/10 16:56:00	2.76	5.58	50.5	7.5	0.0	
5/6/10 16:56:15	2.83	5.48	50.5	7.5	-0.1	
5/6/10 16:56:30	2.96	5.38	50.4	7.9	0.0	
5/6/10 16:56:45	3.06	5.34	50.5	7.6	0.9	
5/6/10 16:57:00	3.09	5.35	50.6	7.4	1.8	
5/6/10 16:57:15	3.13	5.35	49.7	7.6	3.4	
5/6/10 16:57:30	3.19	5.32	49.2	7.5	5.4	
5/6/10 16:57:45	3.24	5.28	48.5	8.2	7.0	
5/6/10 16:58:00	3.16	5.36	48.4	8.4	7.4	
5/6/10 16:58:15	2.97	5.50	49.1	7.9	5.6	
5/6/10 16:58:30	2.78	5.58	50.0	8.4	2.9	
5/6/10 16:58:45	2.68	5.56	51.4	9.4	1.1	
5/6/10 16:59:00	2.65	5.54	51.1	8.7	0.3	
5/6/10 16:59:15	2.70	5.52	51.8	7.7	0.3	
5/6/10 16:59:30	2.77	5.49	51.0	7.8	0.0	
5/6/10 16:59:45	2.85	5.45	50.7	8.4	-0.1	
5/6/10 17:00:00	2.91	5.46	50.5	8.5	0.0	
5/6/10 17:00:15	2.89	5.52	50.3	8.3	0.3	
5/6/10 17:00:30	2.83	5.58	49.7	7.7	0.1	
5/6/10 17:00:45	2.86	5.55	50.3	7.7	-0.1	
5/6/10 17:01:00	2.97	5.47	49.8	7.8	-0.1	
5/6/10 17:01:15	2.98	5.42	49.8	7.4	0.3	
5/6/10 17:01:30	3.01	5.37	49.0	7.5	0.9	
5/6/10 17:01:45	3.10	5.31	49.2	7.7	1.1	
5/6/10 17:02:00	3.12	5.30	49.5	7.6	1.2	
5/6/10 17:02:15	3.04	5.39	50.0	7.7	1.4	
5/6/10 17:02:30	3.01	5.41	49.6	7.8	1.5	
5/6/10 17:02:45	3.07	5.41	49.9	7.6	1.2	
5/6/10 17:03:00	3.01	5.50	50.3	7.9	0.7	
5/6/10 17:03:15	2.85	5.61	51.1	7.8	0.4	
5/6/10 17:03:30	2.73	5.66	51.1	7.5	0.4	
5/6/10 17:03:45	2.75	5.60	50.0	7.5	0.4	
5/6/10 17:04:00	2.82	5.50	49.8	7.6	0.1	
5/6/10 17:04:15	2.86	5.43	49.5	7.5	-0.1	
5/6/10 17:04:30	2.84	5.41	49.1	7.3	0.1	
5/6/10 17:04:45	2.87	5.43	50.3	7.3	0.4	
5/6/10 17:05:00	2.96	5.43	49.5	7.4	0.3	
5/6/10 17:05:15	3.01	5.43	48.9	7.6	0.2	
5/6/10 17:05:30	3.02	5.43	49.8	7.9	0.2	
5/6/10 17:05:45	3.04	5.44	50.0	8.2	0.5	
5/6/10 17:06:00	2.97	5.51	49.8	8.3	0.5	
5/6/10 17:06:15	2.85	5.59	50.0	7.7	0.2	
5/6/10 17:06:30	2.80	5.61	49.7	7.4	-0.1	
5/6/10 17:06:45	2.82	5.55	49.7	7.5	0.0	
5/6/10 17:07:00	2.83	5.47	49.1	7.3	0.5	
5/6/10 17:07:15	2.90	5.38	49.5	7.2	0.5	
5/6/10 17:07:30	3.02	5.33	49.0	7.2	0.5	
5/6/10 17:07:45	3.04	5.34	48.6	7.3	0.8	
5/6/10 17:08:00	3.06	5.32	48.2	7.2	1.7	
5/6/10 17:08:15	3.07	5.33	48.7	7.8	2.2	
5/6/10 17:08:30	3.10	5.35	50.3	8.2	2.2	
5/6/10 17:08:45	3.13	5.37	49.3	8.5	1.9	
5/6/10 17:09:00	3.06	5.43	48.8	8.2	1.5	
5/6/10 17:09:15	2.92	5.51	49.5	7.6	1.4	
5/6/10 17:09:30	2.85	5.51	49.6	7.5	0.8	
5/6/10 17:09:45	2.82	5.45	50.8	8.5	0.4	
5/6/10 17:10:00	2.83	5.39	50.2	8.8	0.3	
5/6/10 17:10:15	2.97	5.32	50.8	8.0	0.7	
5/6/10 17:10:30	3.13	5.26	51.6	7.5	1.3	
5/6/10 17:10:45	3.15	5.30	51.1	7.7	1.4	
5/6/10 17:11:00	3.06	5.39	50.4	8.0	1.4	
5/6/10 17:11:15	2.99	5.47	50.7	8.4	1.3	
5/6/10 17:11:30	2.99	5.50	51.3	8.1	1.2	
5/6/10 17:11:45	2.97	5.53	53.1	7.4	0.8	
5/6/10 17:12:00	2.92	5.56	52.3	7.5	0.5	
5/6/10 17:12:15	2.95	5.51	51.9	8.3	0.5	
5/6/10 17:12:30	2.99	5.42	52.0	9.1	1.1	
5/6/10 17:12:45	3.01	5.33	52.5	15.4	1.2	
5/6/10 17:13:00	3.01	5.30	58.6	11.4	1.1	
5/6/10 17:13:15	3.02	5.31	67.9	8.3	1.0	
5/6/10 17:13:30	2.98	5.34	68.8	7.7	1.3	
5/6/10 17:13:45	2.96	5.35	68.2	7.6	1.8	
5/6/10 17:14:00	3.01	5.35	68.8	7.9	1.9	
5/6/10 17:14:15	3.10	5.34	64.7	7.9	1.9	
5/6/10 17:14:30	3.10	5.36	62.6	7.8	2.0	
5/6/10 17:14:45	3.08	5.38	61.2	8.6	2.4	
5/6/10 17:15:00	3.11	5.35	60.3	7.3	2.7	
5/6/10 17:15:15	3.17	5.27	59.0	7.2	2.6	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
SRU No. 2 Taiigas Incinerator Exhaust
ARI Reference Method Monitoring Data

Date/Time	O ₂ % by vol db	CO ₂ % by vol db	SO ₂ ppmv db	NO _x ppmv db	CO ppmv db	Comments
5/6/10 17:16:30	3.11	5.26	57.7	7.2	2.4	
5/6/10 17:16:45	3.04	5.29	56.3	7.6	2.1	
5/6/10 17:16:00	3.00	5.35	55.2	7.3	1.7	
5/6/10 17:16:15	2.88	5.46	55.4	7.1	1.1	
5/6/10 17:16:30	2.81	5.52	54.9	7.2	0.5	
5/6/10 17:16:45	2.88	5.48	54.2	7.2	0.4	
5/6/10 17:17:00	2.98	5.45	52.8	7.1	0.8	
5/6/10 17:17:15	2.98	5.47	52.6	7.1	0.9	
5/6/10 17:17:30	2.93	5.49	52.3	7.0	0.6	
5/6/10 17:17:45	2.96	5.44	51.9	6.9	0.3	
5/6/10 17:18:00	3.02	5.37	51.6	7.0	0.4	
5/6/10 17:18:15	2.98	5.33	50.8	7.1	0.8	
5/6/10 17:18:30	2.96	5.29	50.7	7.1	0.9	
5/6/10 17:18:45	3.01	5.29	51.4	7.2	0.7	
5/6/10 17:19:00	2.98	5.38	51.5	7.3	0.5	
5/6/10 17:19:15	2.85	5.50	51.9	7.1	0.6	
5/6/10 17:19:30	2.75	5.58	52.4	7.2	0.6	
5/6/10 17:19:45	2.80	5.59	51.4	7.6	0.4	
5/6/10 17:20:00	2.88	5.55	51.1	7.7	0.0	
5/6/10 17:20:15	2.86	5.57	51.8	7.6	0.0	
5/6/10 17:20:30	2.77	5.62	51.0	7.1	0.4	
5/6/10 17:20:45	2.79	5.60	50.7	7.1	0.4	
5/5/10 17:21:00	2.83	5.51	50.6	7.0	0.2	End Run # SRU2-2
5/6/10 17:21:15	2.84	5.45	50.1	6.9	0.1	
5/6/10 17:21:30	2.89	5.42	49.7	8.5	0.6	
5/6/10 17:21:45	2.96	5.37	52.8	7.2	1.2	
5/6/10 17:22:00	3.05	5.31	57.3	7.3	2.0	
5/6/10 17:22:15	3.13	5.28	57.4	7.2	2.4	
5/6/10 17:22:30	3.16	5.31	57.1	7.8	2.8	
5/6/10 17:22:45	3.05	5.43	57.3	7.8	2.9	
5/6/10 17:23:00	2.87	5.56	56.2	7.2	2.0	
5/6/10 17:23:15	2.83	5.59	53.9	7.0	1.1	
5/6/10 17:23:30	2.94	5.49	52.6	7.0	0.5	
5/6/10 17:23:45	3.06	5.35	52.5	7.0	0.6	
5/6/10 17:24:00	3.09	5.27	53.4	7.1	1.0	
5/6/10 17:24:15	3.06	5.26	52.4	7.3	0.8	
5/6/10 17:24:30	3.03	5.31	52.4	7.3	0.4	
5/6/10 17:24:45	2.93	5.42	51.9	7.1	0.3	
5/6/10 17:25:00	2.87	5.52	51.4	7.1	0.6	
5/6/10 17:25:15	2.91	5.52	50.6	7.2	0.8	
5/6/10 17:25:30	3.00	5.48	51.0	7.1	0.8	
5/6/10 17:25:45	3.04	5.46	51.9	7.4	0.8	
5/6/10 17:26:00	3.07	5.45	50.3	7.1	1.3	
5/6/10 17:26:15	3.09	5.45	49.1	7.2	2.0	
5/6/10 17:26:30	3.11	5.40	49.2	10.2	2.8	
5/6/10 17:26:45	3.14	5.29	50.1	4.8	4.1	
5/6/10 17:27:00	3.15	5.17	48.7	2.8	9.0	
5/6/10 17:27:15	3.61	4.81	43.4	0.2	13.4	
5/6/10 17:27:30	6.01	2.91	36.9	0.2	17.5	
5/6/10 17:27:45	4.49	1.33	30.9	0.1	17.1	
5/6/10 17:28:00	1.61	0.48	25.7	0.1	12.0	
5/6/10 17:28:15	0.35	0.17	21.1	0.1	7.5	
5/6/10 17:28:30	0.10	0.11	17.8	0.1	3.2	
5/6/10 17:28:45	0.06	0.09	15.3	0.1	1.8	
5/6/10 17:29:00	0.05	0.08	13.3	0.1	0.9	
5/6/10 17:29:15	0.04	0.08	11.7	0.1	0.7	
5/6/10 17:29:30	0.04	0.07	9.9	0.1	0.8	
5/6/10 17:29:45	0.03	0.07	8.7	0.3	1.2	
5/6/10 17:30:00	0.03	0.07	7.8	0.2	2.5	
5/6/10 17:30:15	0.22	0.50	7.1	0.1	5.7	
5/6/10 17:30:30	1.69	2.25	6.3	0.1	13.9	
5/6/10 17:30:45	3.49	3.58	5.8	0.1	22.0	
5/6/10 17:31:00	4.55	4.13	5.4	0.1	33.2	
5/6/10 17:31:15	4.86	4.25	4.8	0.1	38.5	
5/6/10 17:31:30	4.91	4.26	4.2	0.1	42.4	
5/6/10 17:31:45	4.93	4.26	4.2	0.1	43.5	
5/6/10 17:32:00	4.93	4.26	4.0	0.1	44.3	System Bias
5/6/10 17:32:15	4.93	4.25	3.6	0.0	44.3	4.94 5.00% O ₂
5/6/10 17:32:30	4.94	4.26	3.4	0.1	44.1	4.26 4.32% CO ₂
5/6/10 17:32:45	4.94	4.26	3.3	0.0	44.0	
5/6/10 17:33:00	4.94	4.27	3.3	0.1	44.3	0.0 Zero NO _x
5/6/10 17:33:15	4.94	4.27	3.2	4.8	44.4	44.2 45.0 ppm CO
5/6/10 17:33:30	4.94	4.28	3.3	59.1	41.6	
5/6/10 17:33:45	4.82	4.42	4.5	96.5	37.7	
5/6/10 17:34:00	4.17	4.54	5.0	36.7	29.0	
5/6/10 17:34:15	2.94	3.02	4.8	34.0	21.8	
5/6/10 17:34:30	1.34	1.25	4.6	40.8	12.2	
5/6/10 17:34:45	0.36	0.36	4.1	41.1	6.8	
5/6/10 17:35:00	0.09	0.14	3.8	41.6	2.6	
5/6/10 17:35:15	0.05	0.10	3.5	41.9	1.5	
5/6/10 17:35:30	0.04	0.08	3.4	42.2	1.4	
5/6/10 17:35:45	0.03	0.08	3.2	42.5	1.1	
5/6/10 17:36:00	0.03	0.07	3.1	42.7	0.7	
5/6/10 17:36:15	0.03	0.07	2.7	42.9	0.6	
5/6/10 17:36:30	0.03	0.06	2.8	43.3	0.9	
5/6/10 17:36:45	0.02	0.06	2.2	43.7	1.1	
5/6/10 17:37:00	0.02	0.06	2.2	44.1	0.9	
5/6/10 17:37:15	0.02	0.06	2.0	44.5	0.7	System Bias
5/6/10 17:37:30	0.02	0.06	2.2	44.9	0.8	
5/6/10 17:37:45	0.02	0.05	2.2	45.3	1.1	
5/6/10 17:38:00	0.02	0.05	2.0	45.6	1.0	2.2 Zero SO ₂
5/6/10 17:38:15	0.02	0.05	2.2	45.9	0.8	45.4 45.0 ppm NO _x
5/6/10 17:38:30	0.02	0.05	2.1	45.5	0.8	
5/6/10 17:38:45	0.02	0.05	2.2	28.5	1.0	
5/6/10 17:39:00	0.17	0.47	22.5	4.1	1.1	
5/6/10 17:39:15	0.65	0.99	86.8	3.5	1.0	
5/6/10 17:39:30	0.55	0.82	100.8	3.2	0.9	
5/6/10 17:39:45	0.18	0.20	100.8	2.2	1.0	
5/6/10 17:40:00	0.05	0.08	100.8	2.6	1.3	
5/6/10 17:40:15	0.02	0.06	100.8	6.5	1.1	
5/6/10 17:40:30	0.02	0.06	100.8	0.5	0.8	
5/6/10 17:40:45	0.01	0.05	100.8	0.3	0.8	
5/6/10 17:41:00	0.01	0.05	100.8	0.3	1.2	
5/6/10 17:41:15	0.01	0.05	100.8	0.3	1.3	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
 SRU No. 2 Tailgas Incinerator Exhaust
 ARI Reference Method Monitoring Data

Date/Time	O ₂ % by vol db	CO ₂ % by vol db	SO ₂ ppmv db	NO _x ppmv db	CO ppmv db	Comments
5/6/10 17:41:30	0.01	0.05	100.8	0.2	1.0	
5/6/10 17:41:45	0.01	0.05	100.8	0.2	0.8	
5/6/10 17:42:00	0.01	0.05	100.8	0.2	0.9	
5/6/10 17:42:15	0.01	0.05	95.4	0.2	1.3	
5/6/10 17:42:30	0.01	0.05	86.4	0.2	1.2	
5/6/10 17:42:45	0.01	0.05	69.3	0.2	0.9	
5/6/10 17:43:00	0.01	0.05	54.0	0.2	0.7	
5/6/10 17:43:15	0.01	0.05	43.0	0.2	1.0	System Bias
5/6/10 17:43:30	0.01	0.05	43.5	0.2	1.2	0.01 Zero O ₂
5/6/10 17:43:45	0.01	0.05	43.6	0.2	1.0	0.05 Zero CO ₂
5/6/10 17:44:00	0.01	0.05	43.7	0.2	0.7	43.7 45.0 ppm SO ₂
5/6/10 17:44:15	0.01	0.05	43.9	3.5	0.7	
5/6/10 17:44:30	0.01	0.05	43.3	7.9	1.0	0.9 Zero CO
5/6/10 17:44:45	0.20	0.71	48.8	7.6	0.8	
5/6/10 17:45:00	1.16	2.71	59.5	7.1	-0.2	
5/6/10 17:45:15	2.12	4.27	68.3	7.7	-0.7	
5/6/10 17:45:30	2.62	5.13	66.2	7.2	-0.8	
5/6/10 17:45:45	2.74	5.40	64.0	7.0	-0.4	
5/6/10 17:46:00	2.81	5.40	62.2	7.1	-0.1	
5/6/10 17:46:15	2.88	5.31	59.9	6.7	0.1	
5/6/10 17:46:30	2.92	5.19	57.7	6.8	0.7	
5/6/10 17:46:45	3.03	5.13	56.3	6.8	1.4	
5/6/10 17:47:00	3.11	5.16	55.4	6.9	2.0	
5/6/10 17:47:15	3.02	5.27	54.0	6.8	2.1	
5/6/10 17:47:30	3.00	5.30	52.9	6.8	2.2	
5/6/10 17:47:45	3.09	5.30	52.2	7.0	2.3	
5/6/10 17:48:00	3.08	5.36	51.8	7.5	2.4	
5/6/10 17:48:15	2.95	5.46	51.4	7.0	1.9	
5/6/10 17:48:30	2.82	5.53	51.2	7.0	0.9	
5/6/10 17:48:45	2.80	5.54	50.6	6.8	0.3	
5/6/10 17:49:00	2.81	5.48	50.0	6.6	0.5	
5/6/10 17:49:15	2.87	5.37	49.8	6.9	0.8	
5/6/10 17:49:30	2.96	5.29	49.5	7.3	0.8	
5/6/10 17:49:45	3.04	5.32	49.6	7.6	0.7	Start Run # SRU2-3
5/6/10 17:50:00	2.97	5.41	50.7	7.2	0.7	
5/6/10 17:50:15	2.91	5.46	50.8	7.5	0.8	
5/6/10 17:50:30	2.86	5.52	50.6	7.7	0.4	
5/6/10 17:50:45	2.79	5.57	50.5	7.7	0.0	
5/6/10 17:51:00	2.70	5.61	49.8	7.8	-0.4	
5/6/10 17:51:15	2.66	5.62	49.2	7.5	-0.2	
5/6/10 17:51:30	2.65	5.61	48.9	7.6	0.0	
5/6/10 17:51:45	2.69	5.57	49.1	7.4	-0.1	
5/6/10 17:52:00	2.73	5.52	49.3	7.4	-0.4	
5/6/10 17:52:15	2.75	5.51	49.5	7.5	-0.4	
5/6/10 17:52:30	2.78	5.50	48.3	7.3	-0.1	
5/6/10 17:52:45	2.83	5.48	47.9	7.6	-0.1	
5/6/10 17:53:00	2.85	5.48	48.5	7.1	-0.3	
5/6/10 17:53:15	2.81	5.51	49.1	7.2	-0.3	
5/6/10 17:53:30	2.83	5.51	48.0	7.5	0.0	
5/6/10 17:53:45	2.84	5.46	47.9	7.2	0.2	
5/6/10 17:54:00	2.86	5.40	47.9	7.0	0.0	
5/6/10 17:54:15	2.96	5.30	48.4	6.9	-0.1	
5/6/10 17:54:30	3.06	5.25	48.2	7.3	0.1	
5/6/10 17:54:45	3.08	5.24	49.0	7.9	0.6	
5/6/10 17:55:00	3.04	5.29	49.2	7.9	0.7	
5/6/10 17:55:15	2.95	5.41	48.0	8.2	0.3	
5/6/10 17:55:30	2.81	5.54	48.2	8.4	-0.2	
5/6/10 17:55:45	2.70	5.63	48.6	7.8	-0.2	
5/6/10 17:56:00	2.63	5.66	49.3	7.2	0.1	
5/6/10 17:56:15	2.70	5.61	48.6	7.3	-0.1	
5/6/10 17:56:30	2.86	5.49	47.3	7.3	0.0	
5/6/10 17:56:45	2.96	5.37	48.0	7.3	0.2	
5/6/10 17:57:00	3.05	5.30	48.5	7.4	0.9	
5/6/10 17:57:15	3.02	5.35	48.1	7.5	1.2	
5/6/10 17:57:30	2.84	5.47	49.0	7.7	0.6	
5/6/10 17:57:45	2.70	5.54	48.9	7.5	0.0	
5/6/10 17:58:00	2.65	5.58	48.7	7.3	-0.3	
5/6/10 17:58:15	2.66	5.59	48.5	7.7	-0.1	
5/6/10 17:58:30	2.72	5.56	48.5	7.9	-0.1	
5/6/10 17:58:45	2.76	5.52	48.3	7.4	-0.3	
5/6/10 17:59:00	2.81	5.49	49.3	7.6	-0.4	
5/6/10 17:59:15	2.84	5.46	48.9	7.6	-0.2	
5/6/10 17:59:30	2.85	5.43	48.0	7.4	-0.1	
5/6/10 17:59:45	2.90	5.42	48.2	7.3	-0.2	
5/6/10 18:00:00	2.94	5.42	47.9	7.5	-0.4	
5/6/10 18:00:15	2.94	5.43	48.7	7.5	-0.3	
5/6/10 18:00:30	2.85	5.49	48.3	7.7	0.1	
5/6/10 18:00:45	2.75	5.55	48.5	7.9	-0.1	
5/6/10 18:01:00	2.74	5.55	48.5	7.4	-0.4	
5/6/10 18:01:15	2.63	5.48	48.1	7.4	-0.5	
5/6/10 18:01:30	2.86	5.46	48.8	7.2	-0.2	
5/6/10 18:01:45	2.84	5.46	49.5	7.4	0.1	
5/6/10 18:02:00	2.89	5.43	46.4	7.3	0.0	
5/6/10 18:02:15	2.88	5.42	47.9	7.2	-0.1	
5/6/10 18:02:30	2.87	5.41	47.3	7.1	0.0	
5/6/10 18:02:45	2.91	5.40	47.0	7.0	0.2	
5/6/10 18:03:00	2.94	5.39	48.2	7.0	0.3	
5/6/10 18:03:15	2.97	5.34	47.3	7.0	0.3	
5/6/10 18:03:30	3.02	5.30	47.4	7.1	0.7	
5/6/10 18:03:45	3.06	5.27	46.8	7.1	1.2	
5/6/10 18:04:00	3.09	5.28	47.1	7.2	1.5	
5/6/10 18:04:15	2.99	5.37	48.0	7.3	1.1	
5/6/10 18:04:30	2.84	5.46	48.0	8.0	0.3	
5/6/10 18:04:45	2.80	5.50	47.8	8.4	-0.1	
5/6/10 18:05:00	2.78	5.53	47.2	7.3	0.1	
5/6/10 18:05:15	2.78	5.51	48.6	7.3	0.1	
5/6/10 18:05:30	2.89	5.43	47.8	7.6	0.0	
5/6/10 18:05:45	3.01	5.35	47.4	7.6	0.0	
5/6/10 18:06:00	3.01	5.35	48.2	8.1	0.3	
5/6/10 18:06:15	2.84	5.43	49.4	8.4	0.4	
5/6/10 18:06:30	2.72	5.50	48.7	8.1	0.0	
5/6/10 18:06:45	2.70	5.57	49.3	8.2	-0.4	
5/6/10 18:07:00	2.64	5.63	48.7	7.7	-0.5	
5/6/10 18:07:15	2.61	5.62	48.8	7.3	-0.1	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
 SRU No. 2 Tailgas Incinerator Exhaust
 ARI Reference Method Monitoring Data

Date/Time	O ₂ % by vol db	CO ₂ % by vol db	SO ₂ ppmv db	NO _x ppmv db	CO ppmv db	Comments
5/6/10 18:07:30	2.77	5.50	48.5	7.6	0.1	
5/6/10 18:07:45	2.98	5.39	48.1	7.3	0.0	
5/6/10 18:08:00	3.03	5.37	47.8	7.1	-0.1	
5/6/10 18:08:15	2.98	5.39	48.2	7.1	0.1	
5/6/10 18:08:30	2.95	5.40	47.9	7.0	0.4	
5/6/10 18:08:45	2.94	5.42	48.0	7.2	0.2	
5/6/10 18:09:00	2.88	5.45	48.2	7.2	-0.3	
5/6/10 18:09:15	2.84	5.46	48.7	7.1	-0.3	
5/6/10 18:09:30	2.92	5.41	48.5	6.8	0.4	
5/6/10 18:09:45	3.07	5.34	47.3	6.9	1.3	Start M5
5/6/10 18:10:00	3.17	5.27	47.6	6.9	2.5	
5/6/10 18:10:15	3.20	5.23	47.8	6.9	3.3	
5/6/10 18:10:30	3.21	5.22	47.1	7.0	4.2	
5/6/10 18:10:45	3.19	5.24	48.1	7.0	4.2	
5/6/10 18:11:00	3.09	5.30	47.8	7.0	3.1	
5/6/10 18:11:15	2.96	5.37	47.4	7.0	1.9	
5/6/10 18:11:30	2.93	5.40	47.8	7.1	0.8	
5/6/10 18:11:45	2.95	5.40	47.0	7.3	0.9	
5/6/10 18:12:00	2.97	5.37	46.7	6.9	1.4	
5/6/10 18:12:15	3.03	5.34	46.6	6.9	1.7	
5/6/10 18:12:30	3.10	5.31	47.0	6.9	2.0	
5/6/10 18:12:45	3.13	5.31	47.7	7.1	2.1	
5/6/10 18:13:00	3.06	5.33	48.1	6.9	2.3	
5/6/10 18:13:15	2.96	5.34	47.0	6.6	2.0	
5/6/10 18:13:30	3.00	5.27	46.7	6.6	2.5	
5/6/10 18:13:45	3.06	5.18	47.1	6.7	4.7	
5/6/10 18:14:00	3.13	5.12	46.6	6.7	9.7	
5/6/10 18:14:15	3.24	5.10	46.5	6.7	13.1	
5/6/10 18:14:30	3.24	5.16	48.4	6.7	14.8	
5/6/10 18:14:45	3.13	5.26	47.2	6.8	13.2	
5/6/10 18:15:00	3.01	5.36	47.5	6.8	8.8	
5/6/10 18:15:15	2.94	5.44	47.8	7.0	5.6	
5/6/10 18:15:30	2.86	5.53	48.7	7.0	2.1	
5/6/10 18:15:45	2.76	5.56	48.0	6.8	0.8	
5/6/10 18:16:00	2.72	5.53	47.5	6.6	0.2	
5/6/10 18:16:15	2.80	5.43	48.1	6.6	0.6	
5/6/10 18:16:30	2.96	5.33	48.3	6.5	1.2	
5/6/10 18:16:45	3.01	5.30	47.6	6.5	1.4	
5/6/10 18:17:00	3.01	5.30	48.5	6.5	1.7	
5/6/10 18:17:15	3.04	5.29	48.1	6.6	2.0	
5/6/10 18:17:30	3.06	5.31	47.5	6.8	2.3	
5/6/10 18:17:45	3.00	5.38	47.7	6.8	1.9	
5/6/10 18:18:00	2.93	5.42	47.8	6.6	1.0	
5/6/10 18:18:15	2.92	5.40	47.7	6.4	0.7	
5/6/10 18:18:30	2.95	5.32	48.4	6.5	1.2	
5/6/10 18:18:45	3.00	5.23	48.1	6.5	1.8	
5/6/10 18:19:00	3.07	5.20	47.4	6.4	2.0	
5/6/10 18:19:15	3.04	5.26	48.1	6.7	2.0	
5/6/10 18:19:30	3.06	5.27	47.6	6.8	2.0	
5/6/10 18:19:45	3.07	5.30	47.7	6.7	2.1	
5/6/10 18:20:00	2.99	5.41	47.7	6.8	1.6	
5/6/10 18:20:15	2.82	5.55	48.0	6.6	0.9	
5/6/10 18:20:30	2.68	5.62	48.3	6.7	0.0	
5/6/10 18:20:45	2.67	5.60	49.9	6.6	-0.1	
5/6/10 18:21:00	2.72	5.55	51.0	6.5	0.2	
5/6/10 18:21:15	2.73	5.50	49.3	6.5	0.1	
5/6/10 18:21:30	2.70	5.46	48.4	6.9	-0.1	
5/6/10 18:21:45	2.76	5.42	48.9	7.9	-0.1	
5/6/10 18:22:00	2.86	5.39	50.9	6.5	0.3	
5/6/10 18:22:15	2.94	5.38	50.7	6.6	0.6	
5/6/10 18:22:30	2.97	5.37	50.5	6.4	0.7	
5/6/10 18:22:45	2.97	5.37	50.2	6.3	0.8	
5/6/10 18:23:00	3.01	5.35	50.2	6.3	1.4	
5/6/10 18:23:15	3.06	5.30	50.6	6.4	2.2	
5/6/10 18:23:30	3.05	5.24	50.6	6.6	3.0	
5/6/10 18:23:45	3.07	5.16	49.5	6.4	3.3	
5/6/10 18:24:00	3.09	5.18	49.4	6.3	3.5	
5/6/10 18:24:15	3.03	5.23	49.6	6.3	3.6	
5/6/10 18:24:30	2.96	5.31	49.8	6.3	2.8	
5/6/10 18:24:45	2.93	5.37	49.8	6.4	2.2	
5/6/10 18:25:00	3.00	5.37	49.5	6.4	1.8	
5/6/10 18:25:15	3.06	5.35	49.9	6.5	2.1	
5/6/10 18:25:30	3.04	5.35	48.9	6.3	2.5	
5/6/10 18:25:45	3.04	5.37	49.0	6.3	2.3	
5/6/10 18:26:00	3.02	5.37	49.4	6.4	1.8	
5/6/10 18:26:15	3.01	5.30	49.1	6.4	1.6	
5/6/10 18:26:30	3.01	5.19	49.2	6.4	2.3	
5/6/10 18:26:45	3.01	5.14	48.5	6.9	3.0	
5/6/10 18:27:00	3.01	5.16	49.5	6.7	4.1	
5/6/10 18:27:15	3.03	5.19	48.8	6.5	5.5	
5/6/10 18:27:30	3.06	5.26	48.4	6.5	9.2	
5/6/10 18:27:45	3.11	5.29	48.7	6.6	12.3	
5/6/10 18:28:00	3.19	5.28	48.0	6.9	14.6	
5/6/10 18:28:15	3.15	5.34	48.4	7.2	14.0	
5/6/10 18:28:30	3.02	5.46	49.2	7.0	10.1	
5/6/10 18:28:45	2.88	5.56	50.2	7.2	6.6	
5/6/10 18:29:00	2.74	5.59	49.7	7.1	2.5	
5/6/10 18:29:15	2.65	5.57	49.4	6.8	0.8	
5/6/10 18:29:30	2.65	5.52	49.5	6.8	-0.1	
5/6/10 18:29:45	2.73	5.45	50.0	7.1	-0.1	
5/6/10 18:30:00	2.79	5.43	50.3	6.8	0.3	
5/6/10 18:30:15	2.80	5.45	50.2	6.7	0.2	
5/6/10 18:30:30	2.79	5.49	49.8	6.7	-0.1	
5/6/10 18:30:45	2.86	5.47	49.7	6.9	-0.1	
5/6/10 18:31:00	2.93	5.45	49.4	6.9	0.5	
5/6/10 18:31:15	2.91	5.46	49.8	7.2	0.8	
5/6/10 18:31:30	2.86	5.43	49.8	7.2	0.8	
5/6/10 18:31:45	2.88	5.36	49.6	6.7	1.2	
5/6/10 18:32:00	2.95	5.26	48.9	6.9	3.7	
5/6/10 18:32:15	3.04	5.16	48.5	6.9	7.0	
5/6/10 18:32:30	3.18	5.10	48.1	7.1	10.8	
5/6/10 18:32:45	3.19	5.16	48.3	7.1	11.7	
5/6/10 18:33:00	3.00	5.34	48.7	7.3	9.8	
5/6/10 18:33:15	2.83	5.47	49.6	7.4	6.9	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
 SRU No. 2 Tailgas Incinerator Exhaust
 ARI Reference Method Monitoring Data

Date/Time	O ₂ % by vol db	CO ₂ % by vol db	SO ₂ ppmv db	NO _x ppmv db	CO ppmv db	Comments
5/6/10 18:33:30	2.79	5.52	50.7	7.1	3.1	
5/6/10 18:33:45	2.77	5.56	50.8	7.3	1.2	
5/6/10 18:34:00	2.78	5.55	49.7	7.1	0.1	
5/6/10 18:34:15	2.82	5.50	49.0	7.1	0.0	
5/6/10 18:34:30	2.88	5.45	50.0	7.1	0.4	
5/6/10 18:34:45	2.87	5.43	49.9	7.1	0.3	
5/6/10 18:35:00	2.77	5.40	50.0	7.0	0.0	
5/6/10 18:35:15	2.71	5.33	50.0	7.0	-0.2	
5/6/10 18:35:30	2.75	5.30	51.8	6.8	0.1	
5/6/10 18:35:45	2.77	5.34	51.4	7.2	0.4	
5/6/10 18:36:00	2.77	5.39	50.2	7.6	0.3	
5/6/10 18:36:15	2.84	5.42	49.7	8.8	0.2	
5/6/10 18:36:30	2.92	5.45	52.1	7.9	0.5	
5/6/10 18:36:45	2.95	5.45	52.9	7.6	1.3	
5/6/10 18:37:00	2.97	5.41	52.0	7.0	2.8	
5/6/10 18:37:15	3.07	5.35	50.7	7.1	3.7	
5/6/10 18:37:30	3.17	5.28	50.7	7.0	4.6	
5/6/10 18:37:45	3.05	5.30	51.2	7.3	4.6	
5/6/10 18:38:00	2.85	5.39	51.9	7.2	3.6	
5/6/10 18:38:15	2.76	5.43	51.2	12.4	2.2	
5/6/10 18:38:30	2.76	5.46	55.0	9.7	0.6	
5/6/10 18:38:45	2.73	5.49	59.9	7.9	0.2	
5/6/10 18:39:00	2.71	5.50	61.4	7.8	0.3	
5/6/10 18:39:15	2.74	5.49	61.1	7.2	0.2	
5/6/10 18:39:30	2.82	5.46	60.5	7.1	0.1	
5/6/10 18:39:45	2.89	5.41	58.3	6.9	0.2	
5/6/10 18:40:00	2.91	5.38	57.9	6.9	0.7	
5/6/10 18:40:15	2.93	5.36	56.2	6.9	1.0	
5/6/10 18:40:30	2.93	5.34	55.2	6.8	0.9	
5/6/10 18:40:45	2.90	5.32	54.3	6.9	0.8	
5/6/10 18:41:00	2.89	5.30	53.9	6.7	1.5	
5/6/10 18:41:15	2.96	5.27	52.3	6.6	3.0	
5/6/10 18:41:30	3.09	5.23	52.3	6.5	5.9	
5/6/10 18:41:45	3.17	5.21	51.9	6.5	8.7	
5/6/10 18:42:00	3.20	5.20	50.6	6.7	12.7	
5/6/10 18:42:15	3.26	5.19	50.5	6.8	14.3	
5/6/10 18:42:30	3.25	5.22	50.8	6.6	13.8	
5/6/10 18:42:45	3.12	5.27	50.9	6.6	11.0	
5/6/10 18:43:00	3.01	5.29	50.7	6.7	6.4	
5/6/10 18:43:15	2.99	5.28	49.4	6.9	4.6	
5/6/10 18:43:30	3.02	5.24	49.2	6.5	5.4	
5/6/10 18:43:45	3.08	5.21	49.8	6.5	7.2	
5/6/10 18:44:00	3.16	5.22	49.8	6.6	8.9	
5/6/10 18:44:15	3.19	5.27	49.6	6.6	8.8	
5/6/10 18:44:30	3.08	5.37	50.8	6.6	6.9	
5/6/10 18:44:45	2.89	5.90	50.5	6.7	5.1	
5/6/10 18:45:00	2.77	5.88	49.8	6.7	2.4	
5/6/10 18:45:15	2.72	5.88	49.6	6.6	1.0	
5/6/10 18:45:30	2.70	5.53	52.0	6.5	0.1	
5/6/10 18:45:45	2.68	5.49	51.2	6.4	0.2	
5/6/10 18:46:00	2.67	5.46	50.2	6.4	1.0	
5/6/10 18:46:15	2.79	5.40	49.2	6.5	1.5	
5/6/10 18:46:30	2.95	5.32	48.9	6.5	2.8	
5/6/10 18:46:45	3.06	5.27	50.3	6.6	4.0	
5/6/10 18:47:00	3.13	5.26	49.3	7.1	5.4	
5/6/10 18:47:15	3.07	5.34	49.1	6.8	5.3	
5/6/10 18:47:30	2.88	5.47	49.3	6.8	3.4	
5/6/10 18:47:45	2.72	5.55	49.8	7.1	1.9	
5/6/10 18:48:00	2.59	5.57	50.1	7.4	0.5	
5/6/10 18:48:15	2.60	5.51	51.7	6.8	0.6	
5/6/10 18:48:30	2.63	5.48	51.9	6.9	0.4	
5/6/10 18:48:45	2.66	5.49	50.3	6.8	0.1	
5/6/10 18:49:00	2.68	5.51	50.9	6.6	-0.1	
5/6/10 18:49:15	2.72	5.52	50.9	6.6	0.0	
5/6/10 18:49:30	2.74	5.51	50.4	6.7	0.4	
5/6/10 18:49:45	2.77	5.49	50.6	6.5	0.3	
5/6/10 18:50:00	2.81	5.50	52.4	6.6	0.1	
5/6/10 18:50:15	2.80	5.53	51.9	6.4	0.1	
5/6/10 18:50:30	2.76	5.53	51.9	6.3	0.5	
5/6/10 18:50:45	2.78	5.48	50.5	6.3	1.0	
5/6/10 18:51:00	2.85	5.38	49.7	6.5	2.8	
5/6/10 18:51:15	2.99	5.23	49.2	6.4	5.0	
5/6/10 18:51:30	3.12	5.15	46.9	6.3	8.1	
5/6/10 18:51:45	3.14	5.19	49.6	6.4	9.4	
5/6/10 18:52:00	3.05	5.28	49.2	6.6	8.2	
5/6/10 18:52:15	3.00	5.34	49.2	6.5	5.6	
5/6/10 18:52:30	2.91	5.45	50.2	6.4	2.9	
5/6/10 18:52:45	2.74	5.59	51.8	6.4	1.5	
5/6/10 18:53:00	2.67	5.59	50.9	6.5	0.9	
5/6/10 18:53:15	2.76	5.47	50.9	6.4	0.6	
5/6/10 18:53:30	2.89	5.34	50.0	6.8	0.5	
5/6/10 18:53:45	2.96	5.25	50.2	6.4	0.6	
5/6/10 18:54:00	2.96	5.23	50.1	6.4	1.2	
5/6/10 18:54:15	2.92	5.28	50.4	6.4	1.2	
5/6/10 18:54:30	2.84	5.37	50.2	6.7	0.8	
5/6/10 18:54:45	2.82	5.42	49.6	6.4	0.7	
5/6/10 18:55:00	2.87	5.41	49.9	6.3	1.7	
5/6/10 18:55:15	2.97	5.36	49.5	6.4	3.1	
5/6/10 18:55:30	3.10	5.30	49.6	6.5	4.5	
5/6/10 18:55:45	3.12	5.28	49.7	6.6	5.1	
5/6/10 18:56:00	3.03	5.29	49.1	6.7	4.9	
5/6/10 18:56:15	2.96	5.30	49.4	6.9	4.4	
5/6/10 18:56:30	2.89	5.30	49.5	6.6	3.5	
5/6/10 18:56:45	2.88	5.28	50.3	6.6	2.8	
5/6/10 18:57:00	2.93	5.25	49.1	6.7	3.8	
5/6/10 18:57:15	3.06	5.20	49.4	6.7	5.7	
5/6/10 18:57:30	3.15	5.19	49.7	6.8	8.6	
5/6/10 18:57:45	3.13	5.22	46.2	7.0	9.7	
5/6/10 18:58:00	3.09	5.28	46.0	6.7	8.8	
5/6/10 18:58:15	3.07	5.33	46.1	6.7	6.8	
5/6/10 18:58:30	3.01	5.35	49.0	7.4	4.6	
5/6/10 18:58:45	2.95	5.36	50.1	7.4	2.9	
5/6/10 18:59:00	2.88	5.39	50.5	7.0	1.3	
5/6/10 18:59:15	2.78	5.44	51.2	7.2	0.5	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
 SRU No. 2 Tailgas Incinerator Exhaust
 ARI Reference Method Monitoring Data

Date/Time	O ₂ % by vol db	CO ₂ % by vol db	SO ₂ ppmv db	NO _x ppmv db	CO ppmv db	Comments
5/6/10 18:59:30	2.71	5.46	50.6	7.1	0.2	
5/6/10 18:59:45	2.74	5.46	50.8	6.8	0.5	
5/6/10 19:00:00	2.83	5.45	51.0	6.8	0.8	
5/6/10 19:00:15	2.91	5.43	49.9	6.9	0.8	
5/6/10 19:00:30	2.93	5.41	49.1	6.9	0.8	
5/6/10 19:00:45	2.94	5.40	50.1	6.9	0.9	
5/6/10 19:01:00	2.94	5.42	49.7	6.9	1.2	
5/6/10 19:01:15	2.90	5.40	49.5	6.9	1.2	
5/6/10 19:01:30	2.88	5.33	50.5	7.0	1.2	
5/6/10 19:01:45	2.95	5.25	49.7	7.4	1.3	
5/6/10 19:02:00	2.97	5.24	50.3	7.2	1.4	
5/6/10 19:02:15	2.90	5.31	49.7	7.6	1.2	
5/6/10 19:02:30	2.81	5.41	49.1	7.8	0.6	
5/6/10 19:02:45	2.76	5.50	49.6	7.8	0.2	
5/6/10 19:03:00	2.72	5.58	49.9	7.4	0.2	
5/6/10 19:03:15	2.67	5.61	49.6	6.9	0.4	
5/6/10 19:03:30	2.73	5.56	49.6	6.9	0.2	
5/6/10 19:03:45	2.86	5.46	49.4	6.9	0.1	
5/6/10 19:04:00	2.89	5.38	50.8	7.1	0.3	
5/6/10 19:04:15	2.89	5.33	49.9	7.0	0.8	
5/6/10 19:04:30	2.88	5.34	49.8	7.0	0.8	
5/6/10 19:04:45	2.84	5.38	48.7	7.1	0.5	
5/6/10 19:05:00	2.79	5.40	49.1	7.3	0.3	
5/6/10 19:05:15	2.81	5.39	49.7	7.1	0.6	
5/6/10 19:05:30	2.67	5.39	49.3	6.9	1.0	
5/6/10 19:05:45	2.88	5.42	49.8	6.9	1.1	
5/6/10 19:06:00	2.90	5.41	49.7	7.0	0.8	
5/6/10 19:06:15	2.96	5.37	49.2	7.1	0.5	
5/6/10 19:06:30	2.86	5.38	50.3	6.9	0.8	
5/6/10 19:06:45	2.87	5.41	51.1	6.9	0.9	
5/6/10 19:07:00	2.76	5.42	51.7	6.9	0.6	
5/6/10 19:07:15	2.77	5.39	50.8	6.9	0.2	
5/6/10 19:07:30	2.84	5.36	50.7	6.6	0.2	
5/6/10 19:07:45	2.88	5.37	51.0	6.6	0.5	
5/6/10 19:08:00	2.87	5.42	50.1	7.0	0.6	
5/6/10 19:08:15	2.93	5.44	50.3	7.3	0.4	
5/6/10 19:08:30	2.91	5.50	50.9	7.6	0.2	
5/6/10 19:08:45	2.76	5.61	50.7	7.9	0.3	
5/6/10 19:09:00	2.68	5.67	50.5	6.9	0.4	
5/6/10 19:09:15	2.73	5.63	50.3	7.1	0.2	
5/6/10 19:09:30	2.78	5.56	50.1	6.9	0.0	
5/6/10 19:09:45	2.76	5.53	50.6	6.9	-0.1	
5/6/10 19:10:00	2.80	5.49	51.0	7.2	0.2	
5/6/10 19:10:15	2.86	5.45	51.3	6.8	0.5	
5/6/10 19:10:30	2.87	5.42	50.5	6.9	0.4	
5/6/10 19:10:45	2.89	5.40	49.7	6.8	0.2	
5/6/10 19:11:00	2.91	5.38	50.2	7.3	0.3	
5/6/10 19:11:15	2.93	5.38	50.8	6.7	0.5	
5/6/10 19:11:30	2.89	5.40	51.4	6.6	0.4	
5/6/10 19:11:45	2.87	5.41	51.9	6.4	0.2	
5/6/10 19:12:00	2.90	5.39	52.2	6.4	0.2	
5/6/10 19:12:15	2.96	5.34	52.3	6.6	0.7	
5/6/10 19:12:30	2.94	5.33	51.6	7.0	1.0	
5/6/10 19:12:45	2.93	5.34	50.9	6.5	0.8	
5/6/10 19:13:00	2.99	5.33	50.0	6.5	0.6	
5/6/10 19:13:15	3.01	5.33	49.8	6.4	0.7	
5/6/10 19:13:30	2.98	5.36	50.3	6.4	0.9	
5/6/10 19:13:45	2.98	5.38	50.1	6.2	0.9	
5/6/10 19:14:00	2.96	5.38	49.9	6.4	0.8	
5/6/10 19:14:15	3.00	5.34	49.2	6.4	1.0	
5/6/10 19:14:30	3.09	5.28	49.4	6.3	1.7	
5/6/10 19:14:45	3.11	5.26	50.4	6.2	2.4	
5/6/10 19:15:00	3.07	5.26	50.7	6.1	2.6	
5/6/10 19:15:15	3.11	5.23	50.5	6.2	3.2	
5/6/10 19:15:30	3.19	5.19	49.2	6.3	4.2	
5/6/10 19:15:45	3.22	5.17	49.2	6.3	5.2	
5/6/10 19:16:00	3.14	5.22	48.9	6.5	5.2	
5/6/10 19:16:15	3.06	5.31	49.0	6.3	4.1	
5/6/10 19:16:30	3.02	5.38	49.2	6.3	2.7	
5/6/10 19:16:45	3.00	5.41	49.1	6.4	1.7	
5/6/10 19:17:00	3.02	5.40	51.3	6.3	1.4	
5/6/10 19:17:15	3.06	5.37	49.4	6.3	1.1	
5/6/10 19:17:30	3.05	5.37	48.7	6.5	0.9	
5/6/10 19:17:45	2.97	5.36	48.8	6.6	0.8	
5/6/10 19:18:00	2.93	5.36	49.3	6.3	1.1	
5/6/10 19:18:15	2.93	5.37	50.2	6.3	1.2	
5/6/10 19:18:30	2.99	5.34	48.8	6.8	1.0	
5/6/10 19:18:45	3.00	5.34	48.9	6.9	0.9	
5/6/10 19:19:00	2.96	5.40	48.7	6.2	0.9	
5/6/10 19:19:15	2.93	5.44	49.3	6.6	1.2	
5/6/10 19:19:30	2.96	5.40	48.8	6.8	1.1	
5/6/10 19:19:45	3.01	5.34	50.1	6.5	1.0	
5/6/10 19:20:00	2.96	5.38	49.3	6.4	0.9	
5/6/10 19:20:15	2.87	5.41	49.4	6.5	1.0	
5/6/10 19:20:30	2.81	5.41	48.8	6.7	0.8	
5/6/10 19:20:45	2.82	5.38	48.4	6.6	0.5	
5/6/10 19:21:00	2.94	5.34	49.3	6.8	0.5	
5/6/10 19:21:15	3.01	5.32	49.9	7.1	0.7	
5/6/10 19:21:30	2.98	5.37	49.5	7.4	1.0	
5/6/10 19:21:45	2.87	5.49	49.9	7.2	0.8	
5/6/10 19:22:00	2.84	5.53	49.8	6.7	0.3	
5/6/10 19:22:15	2.85	5.53	49.3	7.3	0.1	
5/6/10 19:22:30	2.83	5.50	50.0	6.8	0.4	
5/6/10 19:22:45	2.88	5.43	50.1	6.5	0.5	
5/6/10 19:23:00	2.94	5.39	50.4	6.7	0.3	
5/6/10 19:23:15	2.88	5.41	50.3	6.9	0.1	
5/6/10 19:23:30	2.83	5.43	49.3	6.8	0.2	
5/6/10 19:23:45	2.87	5.42	49.5	6.7	0.6	
5/6/10 19:24:00	2.94	5.41	50.1	7.0	0.6	
5/6/10 19:24:15	2.89	5.45	50.3	7.7	0.3	
5/6/10 19:24:30	2.80	5.52	51.2	8.5	0.2	
5/6/10 19:24:45	2.75	5.56	52.1	11.8	0.2	
5/6/10 19:25:00	2.76	5.53	55.8	7.7	0.2	
5/6/10 19:25:15	2.74	5.48	56.3	7.6	0.0	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
 SRU No. 2 Tailgas Incinerator Exhaust
 ARI Reference Method Monitoring Data

Date/Time	O ₂ % by vol db	CO ₂ % by vol db	SO ₂ ppmv db	NO _x ppmv db	CO ppmv db	Comments
5/6/10 19:25:30	2.75	5.44	55.9	7.3	-0.2	
5/6/10 19:25:45	2.81	5.41	55.7	7.8	-0.1	
5/6/10 19:26:00	2.87	5.38	54.8	7.1	0.4	
5/6/10 19:26:15	2.94	5.36	54.9	7.1	0.6	
5/6/10 19:26:30	2.99	5.37	54.7	7.3	0.4	
5/6/10 19:26:45	2.96	5.42	53.4	7.1	0.2	
5/6/10 19:27:00	2.87	5.49	53.7	6.9	0.4	
5/6/10 19:27:15	2.86	5.50	54.5	6.7	0.6	
5/6/10 19:27:30	2.92	5.45	53.3	7.0	0.6	
5/6/10 19:27:45	2.99	5.33	51.7	6.7	1.0	
5/6/10 19:28:00	3.07	5.21	51.0	6.8	1.9	
5/6/10 19:28:15	3.16	5.14	50.7	6.6	3.4	
5/6/10 19:28:30	3.20	5.12	50.4	6.7	4.4	
5/6/10 19:28:45	3.14	5.15	50.3	6.6	4.9	
5/6/10 19:29:00	3.09	5.22	50.4	6.6	4.9	
5/6/10 19:29:15	3.08	5.29	51.5	6.7	4.8	
5/6/10 19:29:30	3.08	5.31	51.3	6.8	4.8	
5/6/10 19:29:45	3.11	5.30	49.9	7.2	4.1	
5/6/10 19:30:00	3.15	5.33	50.9	7.3	3.3	
5/6/10 19:30:15	3.10	5.40	50.2	7.4	2.5	
5/6/10 19:30:30	3.03	5.46	50.2	7.3	2.0	
5/6/10 19:30:45	2.94	5.50	51.4	7.2	1.2	
5/6/10 19:31:00	2.90	5.46	49.7	6.7	0.5	
5/6/10 19:31:15	2.90	5.35	49.6	6.8	0.2	
5/6/10 19:31:30	2.96	5.20	49.9	6.7	0.5	
5/6/10 19:31:45	3.01	5.15	48.6	6.7	0.9	
5/6/10 19:32:00	3.03	5.18	48.3	6.6	1.0	
5/6/10 19:32:15	2.96	5.30	48.2	6.7	0.9	
5/6/10 19:32:30	2.92	5.41	49.4	7.4	1.0	
5/6/10 19:32:45	2.95	5.47	49.7	7.6	1.2	
5/6/10 19:33:00	2.97	5.51	49.5	7.3	1.0	
5/6/10 19:33:15	2.92	5.96	48.3	6.6	0.6	
5/6/10 19:33:30	2.89	5.58	48.2	6.4	0.4	
5/6/10 19:33:45	2.95	5.51	49.1	6.5	0.7	
5/6/10 19:34:00	3.06	5.38	48.7	6.3	1.4	
5/6/10 19:34:15	3.14	5.30	48.1	6.4	1.8	
5/6/10 19:34:30	3.16	5.28	48.2	6.5	2.0	
5/6/10 19:34:45	3.17	5.25	48.4	6.3	2.0	
5/6/10 19:35:00	3.11	5.23	48.8	6.3	2.1	
5/6/10 19:35:15	3.05	5.19	49.8	6.3	1.9	
5/6/10 19:35:30	3.09	5.15	49.5	6.3	1.7	
5/6/10 19:35:45	3.07	5.17	49.1	6.3	1.6	
5/6/10 19:36:00	3.07	5.22	48.5	6.4	2.0	
5/6/10 19:36:15	3.07	5.32	47.6	6.3	2.4	
5/6/10 19:36:30	3.08	5.42	48.0	6.6	2.0	
5/6/10 19:36:45	3.04	5.48	48.3	6.6	1.5	
5/6/10 19:37:00	2.94	5.55	48.9	6.6	1.1	
5/6/10 19:37:15	2.91	5.69	49.5	6.3	1.0	
5/6/10 19:37:30	2.91	5.57	48.9	6.1	1.0	
5/6/10 19:37:45	2.93	5.50	48.5	6.1	1.4	
5/6/10 19:38:00	3.01	5.38	48.5	6.2	3.4	
5/6/10 19:38:15	3.12	5.26	47.6	6.0	7.9	
5/6/10 19:38:30	3.19	5.17	47.5	6.6	16.2	
5/6/10 19:38:45	3.25	5.12	47.9	6.1	26.7	
5/6/10 19:39:00	3.32	5.10	48.4	6.1	36.8	
5/6/10 19:39:15	3.36	5.11	48.2	6.1	44.2	
5/6/10 19:39:30	3.34	5.13	47.7	6.7	47.1	
5/6/10 19:39:45	3.30	5.15	47.4	6.1	46.7	
5/6/10 19:40:00	3.33	5.15	48.4	6.0	43.6	Stop M5 for port change
5/6/10 19:40:15	3.33	5.15	48.0	6.1	38.7	
5/6/10 19:40:30	3.26	5.17	47.5	6.3	31.5	
5/6/10 19:40:45	3.14	5.22	48.4	6.2	22.7	
5/6/10 19:41:00	3.02	5.27	49.3	6.2	13.9	
5/6/10 19:41:15	2.94	5.27	48.5	6.2	7.2	
5/6/10 19:41:30	2.92	5.25	47.9	6.4	3.9	
5/6/10 19:41:45	2.92	5.29	48.1	6.6	2.4	
5/6/10 19:42:00	2.92	5.35	48.8	6.3	1.7	
5/6/10 19:42:15	2.89	5.41	48.0	6.4	1.1	
5/6/10 19:42:30	2.85	5.45	47.7	6.3	0.8	
5/6/10 19:42:45	2.84	5.47	49.2	6.3	1.0	
5/6/10 19:43:00	2.86	5.46	49.1	6.2	1.4	
5/6/10 19:43:15	2.91	5.41	48.1	6.2	1.5	
5/6/10 19:43:30	2.96	5.35	63.8	3.7	12.2	
5/6/10 19:43:45	2.99	5.28	100.8	0.2	41.2	
5/6/10 19:44:00	6.15	4.03	100.8	0.3	75.8	
5/6/10 19:44:15	14.68	1.57	100.8	4.9	102.1	
5/6/10 19:44:30	19.45	0.46	100.8	6.4	99.9	
5/6/10 19:44:45	19.08	0.97	100.8	7.2	72.8	
5/6/10 19:45:00	11.73	3.36	100.8	6.4	42.2	
5/6/10 19:45:15	5.37	4.81	100.8	6.4	20.7	
5/6/10 19:45:30	3.33	5.25	100.8	6.7	12.4	
5/6/10 19:45:45	2.86	5.40	100.8	6.9	8.0	
5/6/10 19:46:00	2.72	5.47	100.8	6.7	4.8	
5/6/10 19:46:15	2.63	5.51	99.6	6.6	2.8	
5/6/10 19:46:30	2.56	5.55	92.7	6.7	2.0	
5/6/10 19:46:45	2.46	5.55	86.0	6.9	1.4	
5/6/10 19:47:00	2.48	5.49	80.5	6.7	1.1	
5/6/10 19:47:15	2.55	5.44	75.4	6.5	1.1	
5/6/10 19:47:30	2.64	5.41	71.6	6.7	1.2	
5/6/10 19:47:45	2.72	5.41	68.6	6.4	1.2	Re-start M5
5/6/10 19:48:00	2.75	5.45	65.9	6.7	1.0	
5/6/10 19:48:15	2.72	5.50	64.1	6.6	0.9	
5/6/10 19:48:30	2.68	5.53	61.4	6.7	1.0	
5/6/10 19:48:45	2.65	5.54	59.0	6.1	1.1	
5/6/10 19:49:00	2.72	5.49	57.9	6.1	1.3	
5/6/10 19:49:15	2.88	5.37	55.7	6.1	2.0	
5/6/10 19:49:30	2.96	5.27	54.6	6.2	3.5	
5/6/10 19:49:45	3.03	5.21	53.5	6.2	5.4	
5/6/10 19:50:00	3.05	5.21	52.5	6.2	6.8	
5/6/10 19:50:15	3.00	5.23	51.1	6.2	7.9	
5/6/10 19:50:30	2.95	5.23	49.4	6.4	8.6	
5/6/10 19:50:45	3.00	5.22	49.0	6.3	9.3	
5/6/10 19:51:00	3.01	5.24	48.7	6.3	9.2	
5/6/10 19:51:15	2.97	5.26	49.3	6.3	8.1	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
 SRU No. 2 Tailgas Incinerator Exhaust
 ARI Reference Method Monitoring Data

Date/Time	O ₂ % by vol db	CO ₂ % by vol db	SO ₂ ppmv db	NO _x ppmv db	CO ppmv db	Comments
5/6/10 19:51:30	2.90	5.30	48.3	6.4	6.9	
5/6/10 19:51:45	2.95	5.28	47.5	6.4	5.9	
5/6/10 19:52:00	2.96	5.29	47.6	6.5	5.3	
5/6/10 19:52:15	2.87	5.34	48.4	6.6	4.4	
5/6/10 19:52:30	2.82	5.38	47.6	6.7	3.0	
5/6/10 19:52:45	2.76	5.42	46.9	6.6	1.8	
5/6/10 19:53:00	2.72	5.43	47.2	6.8	1.2	
5/6/10 19:53:15	2.73	5.43	47.4	6.7	1.0	
5/6/10 19:53:30	2.78	5.41	48.8	6.8	0.7	
5/6/10 19:53:45	2.78	5.42	48.7	6.9	0.4	
5/6/10 19:54:00	2.73	5.44	48.2	6.7	0.4	
5/6/10 19:54:15	2.73	5.45	48.8	6.7	0.7	
5/6/10 19:54:30	2.73	5.47	49.2	6.6	0.6	
5/6/10 19:54:45	2.67	5.50	47.9	6.6	0.4	
5/6/10 19:55:00	2.65	5.49	48.2	6.7	0.2	
5/6/10 19:55:15	2.70	5.46	49.6	6.9	0.3	
5/6/10 19:55:30	2.87	5.47	49.1	6.7	0.4	
5/6/10 19:55:45	2.60	5.51	48.3	6.5	0.2	
5/6/10 19:56:00	2.56	5.54	48.1	6.4	0.2	
5/6/10 19:56:15	2.61	5.49	49.6	6.4	0.8	
5/6/10 19:56:30	2.73	5.38	49.0	6.3	2.2	
5/6/10 19:56:45	2.87	5.30	49.0	6.4	3.2	
5/6/10 19:57:00	2.87	5.33	48.6	6.4	3.5	
5/6/10 19:57:15	2.83	5.35	47.5	6.5	3.2	
5/6/10 19:57:30	2.82	5.35	48.3	6.4	2.9	
5/6/10 19:57:45	2.84	5.35	48.5	6.3	2.7	
5/6/10 19:58:00	2.83	5.35	48.5	6.7	2.1	
5/6/10 19:58:15	2.80	5.36	48.0	6.5	1.6	
5/6/10 19:58:30	2.70	5.41	48.7	6.2	1.2	
5/6/10 19:58:45	2.67	5.44	48.1	6.4	1.1	
5/6/10 19:59:00	2.68	5.43	47.9	6.2	1.0	
5/6/10 19:59:15	2.70	5.41	48.8	8.0	0.7	
5/6/10 19:59:30	2.74	5.41	51.2	15.0	0.5	
5/6/10 19:59:45	2.74	5.44	62.4	7.7	0.5	
5/6/10 20:00:00	2.63	5.51	68.8	6.7	0.7	
5/6/10 20:00:15	2.56	5.54	70.1	6.7	0.5	
5/6/10 20:00:30	2.60	5.50	68.6	6.5	0.3	
5/6/10 20:00:45	2.70	5.43	66.4	6.7	0.2	
5/6/10 20:01:00	2.76	5.39	64.8	6.3	0.7	
5/6/10 20:01:15	2.81	5.37	62.3	6.2	1.2	
5/6/10 20:01:30	2.85	5.36	59.8	6.3	1.0	
5/6/10 20:01:45	2.82	5.37	58.2	6.0	0.8	
5/6/10 20:02:00	2.77	5.38	57.1	6.0	1.0	
5/6/10 20:02:15	2.86	5.34	56.0	6.0	1.6	
5/6/10 20:02:30	2.91	5.31	54.6	6.1	2.0	
5/6/10 20:02:45	2.91	5.29	53.0	6.1	2.2	
5/6/10 20:03:00	2.92	5.28	54.2	6.1	2.5	
5/6/10 20:03:15	2.94	5.29	51.9	5.8	3.0	
5/6/10 20:03:30	2.93	5.29	50.4	5.9	3.6	
5/6/10 20:03:45	2.95	5.27	50.1	5.8	3.8	
5/6/10 20:04:00	3.01	5.27	49.8	5.8	4.2	
5/6/10 20:04:15	2.98	5.27	49.9	5.9	5.1	
5/6/10 20:04:30	3.00	5.23	49.1	6.1	6.7	
5/6/10 20:04:45	3.07	5.19	49.2	6.0	7.9	
5/6/10 20:05:00	3.04	5.23	49.9	6.0	7.5	
5/6/10 20:05:15	2.98	5.27	49.4	5.9	6.3	
5/6/10 20:05:30	2.92	5.32	48.5	5.9	4.7	
5/6/10 20:05:45	2.87	5.37	48.0	5.9	3.6	
5/6/10 20:06:00	2.85	5.39	47.3	6.1	2.7	
5/6/10 20:06:15	2.82	5.37	47.6	5.9	2.0	
5/6/10 20:06:30	2.91	5.32	47.3	6.0	1.7	
5/6/10 20:06:45	2.94	5.33	47.7	6.0	1.7	
5/6/10 20:07:00	2.84	5.40	46.7	6.1	1.9	
5/6/10 20:07:15	2.70	5.47	46.3	6.0	1.5	
5/6/10 20:07:30	2.69	5.47	46.3	6.1	0.8	
5/6/10 20:07:45	2.70	5.45	49.3	11.4	0.4	
5/6/10 20:08:00	2.71	5.42	64.8	7.3	0.7	
5/6/10 20:08:15	2.77	5.39	75.1	6.5	1.1	
5/6/10 20:08:30	2.76	5.42	75.8	6.5	0.9	
5/6/10 20:08:45	2.66	5.47	72.9	6.8	0.5	
5/6/10 20:09:00	2.62	5.52	68.4	6.9	0.3	
5/6/10 20:09:15	2.59	5.57	65.1	6.3	0.3	
5/6/10 20:09:30	2.61	5.56	62.8	6.3	0.2	
5/6/10 20:09:45	2.69	5.50	60.8	7.9	0.0	
5/6/10 20:10:00	2.78	5.45	78.6	11.3	0.0	
5/6/10 20:10:15	2.79	5.44	80.8	7.5	0.3	
5/6/10 20:10:30	2.71	5.48	80.8	7.2	0.7	
5/6/10 20:10:45	2.62	5.54	80.8	6.9	0.5	
5/6/10 20:11:00	2.56	5.58	80.8	6.6	0.1	
5/6/10 20:11:15	2.53	5.60	80.8	6.5	-0.1	
5/6/10 20:11:30	2.53	5.60	95.6	6.4	0.1	
5/6/10 20:11:45	2.61	5.55	86.1	6.2	0.2	
5/6/10 20:12:00	2.69	5.51	80.6	6.1	0.1	
5/6/10 20:12:15	2.73	5.48	75.6	6.3	0.0	
5/6/10 20:12:30	2.82	5.41	69.6	6.4	0.2	
5/6/10 20:12:45	2.88	5.39	66.1	6.3	0.7	
5/6/10 20:13:00	2.82	5.42	64.4	6.3	0.5	
5/6/10 20:13:15	2.76	5.45	61.2	6.5	0.1	
5/6/10 20:13:30	2.75	5.46	58.4	6.3	-0.1	
5/6/10 20:13:45	2.70	5.46	57.0	6.4	0.1	
5/6/10 20:14:00	2.70	5.43	56.4	6.7	0.6	
5/6/10 20:14:15	2.79	5.40	55.6	6.8	0.6	
5/6/10 20:14:30	2.85	5.37	53.9	6.8	0.3	
5/6/10 20:14:45	2.75	5.44	54.1	6.4	0.1	
5/6/10 20:15:00	2.62	5.52	62.8	6.6	0.3	
5/6/10 20:15:15	2.64	5.50	51.3	6.6	0.5	
5/6/10 20:15:30	2.72	5.46	52.0	7.3	0.2	
5/6/10 20:15:45	2.73	5.46	51.7	7.3	-0.1	
5/6/10 20:16:00	2.71	5.50	51.3	7.0	0.0	
5/6/10 20:16:15	2.64	5.52	51.8	9.1	0.2	
5/6/10 20:16:30	2.59	5.54	53.4	7.2	0.2	
5/6/10 20:16:45	2.59	5.55	54.5	6.6	-0.1	
5/6/10 20:17:00	2.63	5.53	54.0	6.6	-0.2	
5/6/10 20:17:15	2.66	5.49	52.6	7.3	0.0	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
 SRU No. 2 Tailgas Incinerator Exhaust
 ARI Reference Method Monitoring Data

Date/Time	O ₂ % by vol db	CO ₂ % by vol db	SO ₂ ppmv db	NO _x ppmv db	CO ppmv db	Comments
5/6/10 20:17:30	2.73	5.45	53.3	6.7	0.4	
5/6/10 20:17:45	2.80	5.42	53.4	8.1	0.3	
5/6/10 20:18:00	2.80	5.41	53.7	8.9	0.1	
5/6/10 20:18:15	2.80	5.39	56.8	7.0	0.1	
5/6/10 20:18:30	2.86	5.36	58.1	6.3	0.7	
5/6/10 20:18:45	2.91	5.32	59.0	6.3	1.6	
5/6/10 20:19:00	2.95	5.26	57.2	6.3	2.5	
5/6/10 20:19:15	3.00	5.24	56.0	6.4	3.4	
5/6/10 20:19:30	3.04	5.26	54.7	6.5	3.8	
5/6/10 20:19:45	2.99	5.32	54.3	6.3	3.5	
5/6/10 20:20:00	2.91	5.40	54.6	6.2	2.5	
5/6/10 20:20:15	2.91	5.41	52.2	6.1	1.6	
5/6/10 20:20:30	2.93	5.37	51.0	6.3	1.6	
5/6/10 20:20:45	2.97	5.30	50.8	6.1	2.3	
5/6/10 20:21:00	3.04	5.25	51.2	6.1	3.4	
5/6/10 20:21:15	3.07	5.22	51.3	6.2	4.6	
5/6/10 20:21:30	3.05	5.21	50.5	6.1	5.5	
5/6/10 20:21:45	3.00	5.24	49.5	6.5	6.0	
5/6/10 20:22:00	3.01	5.28	49.9	6.0	5.3	
5/6/10 20:22:15	2.92	5.35	49.7	6.0	4.1	
5/6/10 20:22:30	2.86	5.35	49.4	5.9	4.1	
5/6/10 20:22:45	2.94	5.25	49.9	5.9	5.4	
5/6/10 20:23:00	2.99	5.17	48.7	6.1	7.2	
5/6/10 20:23:15	3.00	5.17	48.8	6.1	8.1	
5/6/10 20:23:30	2.92	5.25	48.5	6.0	7.1	
5/6/10 20:23:45	2.82	5.36	49.1	5.9	5.2	
5/6/10 20:24:00	2.71	5.44	48.5	6.1	3.5	
5/6/10 20:24:15	2.72	5.43	48.3	6.1	2.1	
5/6/10 20:24:30	2.83	5.41	47.6	6.1	1.2	
5/6/10 20:24:45	2.77	5.46	47.7	6.1	0.8	
5/6/10 20:25:00	2.73	5.47	47.7	6.2	0.7	
5/6/10 20:25:15	2.81	5.43	48.2	6.6	0.8	
5/6/10 20:25:30	2.79	5.44	48.3	6.2	0.6	
5/6/10 20:25:45	2.67	5.47	48.0	6.1	0.3	
5/6/10 20:26:00	2.66	5.46	48.7	5.9	0.5	
5/6/10 20:26:15	2.78	5.38	48.3	5.8	1.4	
5/6/10 20:26:30	2.92	5.30	48.3	6.0	1.9	
5/6/10 20:26:45	2.95	5.32	48.0	6.4	1.9	
5/6/10 20:27:00	2.87	5.42	48.0	6.5	1.4	
5/6/10 20:27:15	2.71	5.55	48.2	6.5	0.9	
5/6/10 20:27:30	2.55	5.64	48.2	6.1	0.8	
5/6/10 20:27:45	2.47	5.68	48.1	6.9	0.6	
5/6/10 20:28:00	2.54	5.60	49.0	6.1	0.1	
5/6/10 20:28:15	2.62	5.52	50.2	6.1	-0.1	
5/6/10 20:28:30	2.71	5.48	50.2	6.6	0.1	
5/6/10 20:28:45	2.75	5.47	51.7	7.3	0.5	
5/6/10 20:29:00	2.64	5.53	52.1	6.9	0.3	
5/6/10 20:29:15	2.56	5.57	51.8	6.1	0.0	
5/6/10 20:29:30	2.58	5.57	51.2	5.9	-0.1	
5/6/10 20:29:45	2.60	5.57	51.0	5.8	0.3	
5/6/10 20:30:00	2.66	5.50	50.4	5.9	0.7	
5/6/10 20:30:15	2.85	5.38	50.5	5.9	0.7	
5/6/10 20:30:30	2.96	5.33	49.8	7.3	0.7	
5/6/10 20:30:45	2.88	5.38	51.7	6.3	0.7	
5/6/10 20:31:00	2.80	5.45	53.7	6.1	0.8	
5/6/10 20:31:15	2.72	5.61	52.5	6.0	0.6	
5/6/10 20:31:30	2.64	5.53	50.8	6.9	0.1	
5/6/10 20:31:45	2.65	5.50	50.3	5.8	-0.1	
5/6/10 20:32:00	2.76	5.45	50.2	5.8	0.3	
5/6/10 20:32:15	2.83	5.41	50.1	5.9	0.7	
5/6/10 20:32:30	2.86	5.39	49.9	5.9	0.6	
5/6/10 20:32:45	2.91	5.40	50.1	6.9	0.4	
5/6/10 20:33:00	2.82	5.46	51.1	6.2	0.4	
5/6/10 20:33:15	2.68	5.48	49.2	6.1	0.6	
5/6/10 20:33:30	2.67	5.47	49.4	6.1	0.5	
5/6/10 20:33:45	2.69	5.49	49.2	6.3	0.2	
5/6/10 20:34:00	2.68	5.50	49.0	6.8	-0.1	
5/6/10 20:34:15	2.68	5.51	49.5	7.0	0.0	
5/6/10 20:34:30	2.66	5.55	49.3	6.6	0.3	
5/6/10 20:34:45	2.64	5.57	50.8	6.7	0.1	
5/6/10 20:35:00	2.65	5.58	51.4	6.9	-0.2	
5/6/10 20:35:15	2.66	5.59	50.0	6.5	-0.4	
5/6/10 20:35:30	2.66	5.59	50.0	6.0	-0.1	
5/6/10 20:35:45	2.65	5.55	49.2	5.9	0.1	
5/6/10 20:36:00	2.73	5.45	50.0	6.0	0.0	
5/6/10 20:36:15	2.86	5.37	49.8	6.0	0.0	
5/6/10 20:36:30	2.91	5.32	50.1	6.0	0.2	
5/6/10 20:36:45	2.86	5.35	49.7	6.1	0.7	
5/6/10 20:37:00	2.78	5.40	49.3	6.1	0.7	
5/6/10 20:37:15	2.74	5.44	49.6	6.0	0.4	
5/6/10 20:37:30	2.70	5.48	49.6	6.1	0.2	
5/6/10 20:37:45	2.73	5.45	49.1	6.4	0.4	
5/6/10 20:38:00	2.84	5.40	48.0	6.5	0.7	
5/6/10 20:38:15	2.84	5.42	48.2	6.3	0.7	
5/6/10 20:38:30	2.73	5.47	47.9	6.6	0.5	
5/6/10 20:38:45	2.69	5.46	47.3	6.3	0.3	
5/6/10 20:39:00	2.70	5.43	47.8	6.1	0.6	
5/6/10 20:39:15	2.70	5.38	46.5	6.2	0.8	
5/6/10 20:39:30	2.77	5.33	48.7	6.5	0.8	
5/6/10 20:39:45	2.81	5.36	48.8	6.3	0.7	
5/6/10 20:40:00	2.75	5.44	48.1	6.3	0.7	
5/6/10 20:40:15	2.69	5.50	49.6	6.3	0.8	
5/6/10 20:40:30	2.71	5.50	48.7	6.3	0.5	
5/6/10 20:40:45	2.76	5.48	48.9	6.4	0.3	
5/6/10 20:41:00	2.79	5.46	48.7	6.5	0.2	
5/6/10 20:41:15	2.73	5.50	49.0	6.7	0.4	
5/6/10 20:41:30	2.66	5.50	49.3	6.5	0.3	
5/6/10 20:41:45	2.65	5.44	49.3	6.8	0.1	
5/6/10 20:42:00	2.59	5.43	49.8	6.5	-0.1	
5/6/10 20:42:15	2.53	5.46	50.5	6.3	0.1	
5/6/10 20:42:30	2.57	5.47	50.0	6.2	0.1	
5/6/10 20:42:45	2.60	5.50	50.3	6.4	0.0	
5/6/10 20:43:00	2.63	5.52	50.7	7.0	-0.2	
5/6/10 20:43:15	2.66	5.54	49.5	6.8	-0.2	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
 SRU No. 2 Tailgas Incinerator Exhaust
 ARI Reference Method Monitoring Data

Date/Time	O ₂ % by vol db	CO ₂ % by vol db	SO ₂ ppmv db	NO _x ppmv db	CO ppmv db	Comments
5/6/10 20:43:30	2.60	5.58	49.8	6.8	0.1	
5/6/10 20:43:45	2.48	5.64	51.6	6.5	0.1	
5/6/10 20:44:00	2.48	5.64	50.8	6.4	-0.2	
5/6/10 20:44:15	2.51	5.58	49.8	6.4	-0.3	
5/6/10 20:44:30	2.58	5.50	49.5	6.4	-0.1	
5/6/10 20:44:45	2.64	5.44	49.8	6.5	0.2	
5/6/10 20:45:00	2.65	5.39	50.0	6.9	0.0	
5/6/10 20:45:15	2.61	5.39	48.9	6.7	-0.2	
5/6/10 20:45:30	2.58	5.44	49.7	6.6	-0.2	
5/6/10 20:45:45	2.62	5.48	49.4	6.9	0.2	
5/6/10 20:46:00	2.64	5.51	49.6	6.9	0.3	
5/6/10 20:46:15	2.56	5.57	49.8	6.4	0.0	
5/6/10 20:46:30	2.49	5.63	50.1	6.2	-0.2	
5/6/10 20:46:45	2.52	5.59	49.9	6.2	0.0	
5/6/10 20:47:00	2.65	5.47	49.9	6.2	0.4	
5/6/10 20:47:15	2.72	5.44	50.4	6.4	0.4	
5/6/10 20:47:30	2.69	5.48	50.2	6.8	0.1	
5/6/10 20:47:45	2.59	5.54	50.8	7.0	-0.2	
5/6/10 20:48:00	2.51	5.59	50.8	6.7	-0.1	
5/6/10 20:48:15	2.44	5.65	50.6	6.8	0.1	
5/6/10 20:48:30	2.37	5.69	51.2	6.3	0.0	
5/6/10 20:48:45	2.35	5.68	51.5	6.2	-0.3	
5/6/10 20:49:00	2.41	5.62	51.0	6.1	-0.3	
5/6/10 20:49:15	2.53	5.55	50.9	6.4	0.1	
5/6/10 20:49:30	2.57	5.53	51.4	6.2	0.1	
5/6/10 20:49:45	2.60	5.54	51.8	6.0	-0.1	
5/6/10 20:50:00	2.54	5.51	51.8	5.9	-0.2	
5/6/10 20:50:15	2.63	5.47	51.3	5.8	0.0	
5/6/10 20:50:30	2.64	5.46	50.0	5.9	0.4	
5/6/10 20:50:45	2.70	5.43	49.5	5.8	0.3	
5/6/10 20:51:00	2.81	5.40	49.8	5.8	0.1	
5/6/10 20:51:15	2.81	5.42	49.3	5.9	0.1	
5/6/10 20:51:30	2.73	5.44	50.8	5.9	0.6	
5/6/10 20:51:45	2.74	5.42	51.2	6.0	1.1	
5/6/10 20:52:00	2.74	5.41	49.4	5.8	0.7	
5/6/10 20:52:15	2.68	5.44	49.4	5.8	0.3	
5/6/10 20:52:30	2.64	5.44	49.0	5.7	0.2	
5/6/10 20:52:45	2.71	5.40	49.0	5.7	0.9	
5/6/10 20:53:00	2.81	5.35	49.0	5.8	1.9	
5/6/10 20:53:15	2.92	5.29	49.4	5.9	2.8	
5/6/10 20:53:30	3.00	5.28	49.5	5.9	3.2	
5/6/10 20:53:45	2.96	5.35	48.6	5.8	3.2	
5/6/10 20:54:00	2.79	5.45	48.7	5.7	2.9	
5/6/10 20:54:15	2.72	5.46	49.7	5.8	2.0	
5/6/10 20:54:30	2.79	5.37	49.9	5.6	1.3	
5/6/10 20:54:45	2.83	5.26	48.5	5.8	1.0	
5/6/10 20:55:00	2.81	5.20	48.0	5.9	1.2	
5/6/10 20:55:15	2.79	5.21	48.2	5.8	1.5	
5/6/10 20:55:30	2.80	5.26	48.4	5.8	1.3	
5/6/10 20:55:45	2.79	5.35	49.9	5.8	0.9	
5/6/10 20:56:00	2.75	5.45	48.4	5.9	0.8	
5/6/10 20:56:15	2.72	5.52	48.0	6.0	0.8	
5/6/10 20:56:30	2.66	5.58	48.1	6.4	0.6	
5/6/10 20:56:45	2.55	5.65	49.5	6.3	0.2	
5/6/10 20:57:00	2.51	5.68	52.4	5.9	-0.1	
5/6/10 20:57:15	2.48	5.68	53.4	5.9	0.1	
5/6/10 20:57:30	2.43	5.65	51.5	6.2	0.3	
5/6/10 20:57:45	2.46	5.68	51.0	5.9	0.1	
5/6/10 20:58:00	2.52	5.55	51.7	6.0	-0.1	
5/6/10 20:58:15	2.50	5.54	51.7	6.0	-0.2	
5/6/10 20:58:30	2.47	5.57	51.0	6.3	0.1	
5/6/10 20:58:45	2.49	5.61	51.4	6.6	0.2	
5/6/10 20:59:00	2.49	5.65	51.1	6.6	-0.1	
5/6/10 20:59:15	2.39	5.72	52.4	6.1	-0.4	
5/6/10 20:59:30	2.35	5.75	53.4	6.0	-0.4	
5/6/10 20:59:45	2.39	5.72	52.0	6.2	0.1	
5/6/10 21:00:00	2.44	5.64	51.4	6.4	0.0	
5/6/10 21:00:15	2.49	5.56	51.1	6.1	-0.3	
5/6/10 21:00:30	2.50	5.54	51.4	6.5	-0.5	
5/6/10 21:00:45	2.48	5.55	51.4	6.7	-0.1	
5/6/10 21:01:00	2.40	5.63	52.6	6.6	0.3	
5/6/10 21:01:15	2.31	5.73	53.4	6.6	0.0	
5/6/10 21:01:30	2.31	5.75	51.6	6.6	-0.2	
5/6/10 21:01:45	2.38	5.72	51.7	6.6	-0.3	
5/6/10 21:02:00	2.44	5.70	52.6	6.1	-0.1	
5/6/10 21:02:15	2.49	5.67	53.6	5.9	0.0	
5/6/10 21:02:30	2.55	5.60	51.3	5.9	-0.1	
5/6/10 21:02:45	2.64	5.46	50.6	5.9	-0.1	
5/6/10 21:03:00	2.75	5.33	50.8	5.9	0.2	
5/6/10 21:03:15	2.80	5.26	50.9	6.0	0.8	
5/6/10 21:03:30	2.77	5.30	50.7	6.1	0.8	
5/6/10 21:03:45	2.73	5.41	50.2	6.1	0.4	
5/6/10 21:04:00	2.68	5.49	50.2	6.2	0.2	
5/6/10 21:04:15	2.65	5.51	49.7	6.0	0.5	
5/6/10 21:04:30	2.72	5.47	49.7	6.0	0.8	
5/6/10 21:04:45	2.82	5.42	50.8	6.1	1.0	
5/6/10 21:05:00	2.84	5.38	49.5	6.0	1.1	
5/6/10 21:05:15	2.86	5.35	49.8	6.0	1.6	
5/6/10 21:05:30	2.89	5.34	49.7	6.0	2.0	
5/6/10 21:05:45	2.88	5.32	50.3	6.0	2.2	
5/6/10 21:06:00	2.88	5.29	49.8	6.0	2.4	
5/6/10 21:06:15	2.93	5.27	49.3	6.1	2.8	
5/6/10 21:06:30	2.96	5.27	48.8	6.2	3.3	
5/6/10 21:06:45	2.94	5.29	48.8	6.3	3.4	
5/6/10 21:07:00	2.85	5.35	49.0	6.2	2.7	
5/6/10 21:07:15	2.88	5.36	49.8	6.0	1.9	
5/6/10 21:07:30	2.88	5.39	50.1	6.0	1.9	
5/6/10 21:07:45	2.84	5.39	48.8	6.2	3.3	
5/6/10 21:08:00	2.93	5.32	47.7	6.2	4.4	
5/6/10 21:08:15	3.01	5.25	49.6	6.4	5.1	
5/6/10 21:08:30	2.96	5.26	48.8	6.8	4.9	
5/6/10 21:08:45	2.83	5.35	49.0	6.3	3.9	
5/6/10 21:09:00	2.72	5.47	49.0	6.3	2.9	
5/6/10 21:09:15	2.58	5.56	47.7	6.6	1.4	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
 SRU No. 2 Tailgas Incinerator Exhaust
 ARI Reference Method Monitoring Data

Date/Time	O ₂ % by vol db	CO ₂ % by vol db	SO ₂ ppmv db	NO _x ppmv db	CO ppmv db	Comments
5/6/10 21:09:30	2.66	5.54	47.6	7.2	0.6	
5/6/10 21:09:45	2.86	5.51	48.6	7.3	0.2	
5/6/10 21:10:00	2.68	5.55	49.8	7.1	0.3	
5/6/10 21:10:15	2.52	5.66	49.8	7.1	0.3	
5/6/10 21:10:30	2.35	5.77	49.7	6.8	0.0	
5/6/10 21:10:45	2.32	5.76	50.3	6.8	-0.3	
5/6/10 21:11:00	2.44	5.61	50.6	6.5	-0.2	
5/6/10 21:11:15	2.55	5.45	50.8	6.7	0.2	
5/6/10 21:11:30	2.59	5.37	49.6	6.7	0.1	
5/6/10 21:11:45	2.61	5.35	49.9	6.4	-0.2	
5/6/10 21:12:00	2.56	5.42	51.0	6.4	-0.3	
5/6/10 21:12:15	2.51	5.51	51.1	6.3	0.1	
5/6/10 21:12:30	2.52	5.59	50.4	6.3	0.2	
5/6/10 21:12:45	2.49	5.66	49.4	6.9	0.0	
5/6/10 21:13:00	2.52	5.65	49.1	6.8	-0.2	
5/6/10 21:13:15	2.57	5.64	51.5	6.4	-0.1	
5/6/10 21:13:30	2.49	5.70	51.3	6.5	0.1	
5/6/10 21:13:45	2.41	5.72	50.1	6.2	0.0	
5/6/10 21:14:00	2.42	5.70	50.3	6.9	-0.1	
5/6/10 21:14:15	2.44	5.64	51.9	6.2	-0.1	
5/6/10 21:14:30	2.48	5.56	51.0	6.0	0.2	
5/6/10 21:14:45	2.61	5.46	51.3	6.6	0.3	
5/6/10 21:15:00	2.71	5.43	51.7	6.2	0.1	
5/6/10 21:15:15	2.68	5.46	51.0	6.1	-0.1	
5/6/10 21:15:30	2.67	5.49	50.9	6.4	0.0	
5/6/10 21:15:45	2.69	5.53	51.9	6.3	0.4	
5/6/10 21:16:00	2.58	5.63	51.4	6.2	0.2	
5/6/10 21:16:15	2.49	5.66	51.4	6.2	-0.2	
5/6/10 21:16:30	2.57	5.58	52.6	6.3	-0.4	
5/6/10 21:16:45	2.64	5.51	51.7	6.5	0.0	
5/6/10 21:17:00	2.58	5.51	50.7	6.3	0.4	
5/6/10 21:17:15	2.53	5.54	50.7	6.3	0.1	
5/6/10 21:17:30	2.57	5.56	51.6	6.5	-0.1	
5/6/10 21:17:45	2.60	5.58	52.3	6.8	-0.2	
5/6/10 21:18:00	2.60	5.59	50.5	6.5	0.1	End MS
5/6/10 21:18:15	2.56	5.65	49.9	6.2	0.3	
5/6/10 21:18:30	2.50	5.67	50.5	6.1	0.1	
5/6/10 21:18:45	2.58	5.60	51.1	6.3	-0.2	
5/6/10 21:19:00	2.67	5.52	51.0	6.0	-0.1	
5/6/10 21:19:15	2.66	5.50	52.0	5.8	0.2	
5/6/10 21:19:30	2.62	5.46	50.3	5.8	0.2	
5/6/10 21:19:45	2.68	5.37	49.8	5.8	0.1	
5/6/10 21:20:00	2.77	5.31	50.5	6.0	0.1	
5/6/10 21:20:15	2.77	5.35	49.9	6.0	0.7	
5/6/10 21:20:30	2.73	5.43	50.1	5.8	0.9	
5/6/10 21:20:45	2.73	5.46	50.9	5.9	0.8	
5/6/10 21:21:00	2.77	5.47	50.2	5.8	0.7	
5/6/10 21:21:15	2.77	5.49	50.5	5.9	0.7	
5/6/10 21:21:30	2.69	5.55	50.3	5.8	0.7	
5/6/10 21:21:45	2.63	5.58	49.5	5.8	0.5	
5/6/10 21:22:00	2.65	5.52	49.5	5.8	0.3	
5/6/10 21:22:15	2.70	5.43	50.9	5.9	0.3	
5/6/10 21:22:30	2.71	5.41	50.0	5.8	0.7	
5/6/10 21:22:45	2.68	5.44	50.8	5.9	0.7	
5/6/10 21:23:00	2.61	5.49	50.6	6.0	0.4	
5/6/10 21:23:15	2.60	5.50	50.2	5.7	0.2	
5/6/10 21:23:30	2.73	5.45	49.3	5.8	0.5	
5/6/10 21:23:45	2.85	5.40	50.8	5.7	1.3	
5/6/10 21:24:00	2.84	5.40	50.5	6.0	1.4	
5/6/10 21:24:15	2.80	5.44	49.2	6.1	1.0	
5/6/10 21:24:30	2.76	5.49	49.3	6.1	0.6	
5/6/10 21:24:45	2.66	5.55	49.6	6.0	0.6	
5/6/10 21:25:00	2.54	5.59	49.7	6.4	0.6	
5/6/10 21:25:15	2.49	5.59	50.0	6.3	0.1	
5/6/10 21:25:30	2.48	5.57	50.7	6.3	-0.3	
5/6/10 21:25:45	2.45	5.60	51.6	6.2	-0.4	
5/6/10 21:26:00	2.46	5.62	50.8	6.4	-0.1	
5/6/10 21:26:15	2.48	5.64	51.2	6.1	0.0	
5/6/10 21:26:30	2.49	5.65	52.5	6.1	-0.2	
5/6/10 21:26:45	2.57	5.63	51.8	6.2	-0.4	
5/6/10 21:27:00	2.68	5.58	50.9	6.2	-0.3	
5/6/10 21:27:15	2.68	5.55	49.8	6.1	0.1	
5/6/10 21:27:30	2.65	5.51	49.6	6.2	0.1	
5/6/10 21:27:45	2.65	5.47	49.2	6.2	0.0	
5/6/10 21:28:00	2.66	5.43	49.7	6.1	0.0	
5/6/10 21:28:15	2.66	5.44	49.6	6.1	0.3	
5/6/10 21:28:30	2.69	5.46	49.6	6.1	0.3	
5/6/10 21:28:45	2.74	5.47	50.2	6.2	0.1	
5/6/10 21:29:00	2.77	5.46	49.7	6.4	0.0	
5/6/10 21:29:15	2.77	5.47	49.5	6.8	0.1	
5/6/10 21:29:30	2.73	5.53	48.9	7.0	0.4	
5/6/10 21:29:45	2.59	5.51	49.0	6.4	0.1	
5/6/10 21:30:00	2.54	5.61	49.1	6.2	-0.2	
5/6/10 21:30:15	2.55	5.56	50.0	6.3	-0.3	
5/6/10 21:30:30	2.58	5.48	51.0	6.2	0.0	
5/6/10 21:30:45	2.65	5.41	50.3	6.2	0.3	
5/6/10 21:31:00	2.71	5.38	49.6	6.2	0.0	
5/6/10 21:31:15	2.73	5.42	50.0	6.2	-0.3	
5/6/10 21:31:30	2.66	5.50	50.6	6.2	-0.3	
5/6/10 21:31:45	2.64	5.55	50.0	6.1	0.2	
5/6/10 21:32:00	2.71	5.54	49.7	6.2	0.2	
5/6/10 21:32:15	2.76	5.51	50.1	6.3	0.1	
5/6/10 21:32:30	2.79	5.49	49.5	6.2	0.0	
5/6/10 21:32:45	2.78	5.52	49.2	6.3	0.3	
5/6/10 21:33:00	2.75	5.53	50.6	6.2	0.5	
5/6/10 21:33:15	2.69	5.52	51.3	6.3	0.3	
5/6/10 21:33:30	2.67	5.51	49.4	6.1	0.0	
5/6/10 21:33:45	2.66	5.53	49.0	6.0	-0.1	
5/6/10 21:34:00	2.59	5.55	50.2	6.1	0.1	
5/6/10 21:34:15	2.60	5.52	51.0	6.0	0.2	
5/6/10 21:34:30	2.67	5.48	50.7	6.4	0.1	
5/6/10 21:34:45	2.68	5.49	49.3	6.7	0.0	
5/6/10 21:35:00	2.63	5.54	49.4	6.5	0.2	
5/6/10 21:35:15	2.50	5.65	51.7	6.3	0.3	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
SRU No. 2 Tailgas Incinerator Exhaust
ARI Reference Method Monitoring Data

Date/Time	O ₂ % by vol db	CO ₂ % by vol db	SO ₂ ppmv db	NO _x ppmv db	CO ppmv db	Comments
5/6/10 21:35:30	2.38	5.71	50.9	6.5	0.0	
5/6/10 21:35:45	2.42	5.63	50.4	6.4	-0.4	
5/6/10 21:36:00	2.55	5.55	50.0	6.4	-0.4	
5/6/10 21:36:15	2.53	5.61	50.0	6.4	0.0	
5/6/10 21:36:30	2.43	5.66	51.2	6.7	0.0	
5/6/10 21:36:45	2.37	5.69	51.7	6.6	-0.3	
5/6/10 21:37:00	2.38	5.69	52.2	6.4	-0.5	
5/6/10 21:37:15	2.39	5.69	51.1	6.6	-0.3	
5/6/10 21:37:30	2.37	5.69	51.6	6.3	0.0	
5/6/10 21:37:45	2.44	5.64	53.1	6.4	-0.1	
5/6/10 21:38:00	2.54	5.57	51.7	6.3	-0.3	
5/6/10 21:38:15	2.51	5.57	51.1	6.2	-0.4	
5/6/10 21:38:30	2.46	5.61	51.5	6.1	-0.1	
5/6/10 21:38:45	2.48	5.60	50.5	6.1	0.2	
5/6/10 21:39:00	2.55	5.53	50.9	6.0	0.1	
5/6/10 21:39:15	2.67	5.46	51.2	6.0	0.0	
5/6/10 21:39:30	2.70	5.46	50.7	6.0	0.1	
5/6/10 21:39:45	2.66	5.48	50.6	6.3	0.4	
5/6/10 21:40:00	2.63	5.61	50.5	6.1	0.2	
5/6/10 21:40:15	2.60	5.55	50.5	5.9	-0.1	
5/6/10 21:40:30	2.52	5.58	50.4	5.9	-0.2	
5/6/10 21:40:45	2.48	5.57	50.3	5.8	0.2	
5/6/10 21:41:00	2.53	5.52	51.2	6.0	0.4	
5/6/10 21:41:15	2.68	5.45	50.9	6.0	0.2	
5/6/10 21:41:30	2.66	5.47	50.4	5.8	0.0	
5/6/10 21:41:45	2.62	5.49	49.9	6.1	0.2	
5/6/10 21:42:00	2.67	5.48	50.1	5.9	0.6	
5/6/10 21:42:15	2.65	5.51	50.8	5.8	0.5	
5/6/10 21:42:30	2.64	5.52	50.3	5.7	0.3	
5/6/10 21:42:45	2.70	5.49	49.8	5.6	0.2	
5/6/10 21:43:00	2.69	5.47	51.3	5.6	0.4	
5/6/10 21:43:15	2.69	5.43	50.4	5.7	1.0	
5/6/10 21:43:30	2.75	5.39	49.2	5.6	1.0	
5/6/10 21:43:45	2.81	5.38	49.4	5.8	0.8	
5/6/10 21:44:00	2.76	5.43	51.0	5.9	0.7	
5/6/10 21:44:15	2.75	5.45	50.6	5.7	1.1	
5/6/10 21:44:30	2.78	5.44	49.1	5.7	1.2	
5/6/10 21:44:45	2.75	5.45	49.2	7.2	0.9	
5/6/10 21:45:00	2.69	5.47	50.3	6.8	0.6	
5/6/10 21:45:15	2.64	5.53	50.8	6.7	0.3	
5/6/10 21:45:30	2.54	5.61	52.2	6.1	0.4	
5/6/10 21:45:45	2.29	5.76	52.7	5.7	0.2	
5/6/10 21:46:00	2.19	5.77	52.1	5.6	0.1	
5/6/10 21:46:15	2.52	5.55	51.3	5.5	0.5	
5/6/10 21:46:30	2.81	5.38	52.0	5.7	1.1	
5/6/10 21:46:45	2.86	5.38	51.4	5.8	1.6	
5/6/10 21:47:00	2.86	5.42	51.2	5.9	1.3	
5/6/10 21:47:15	2.82	5.49	51.5	5.9	0.6	
5/6/10 21:47:30	2.59	5.63	51.4	5.7	0.2	
5/6/10 21:47:45	2.40	5.71	51.9	5.6	0.4	
5/6/10 21:48:00	2.41	5.64	50.6	5.8	0.4	
5/6/10 21:48:15	2.51	5.53	49.9	5.7	0.0	
5/6/10 21:48:30	2.59	5.48	50.8	5.8	-0.2	
5/6/10 21:48:45	2.63	5.52	51.5	5.9	-0.1	
5/6/10 21:49:00	2.55	5.60	51.2	5.9	0.3	
5/6/10 21:49:15	2.48	5.65	50.7	5.8	0.1	
5/6/10 21:49:30	2.46	5.69	50.7	5.9	-0.2	
5/6/10 21:49:45	2.47	5.68	50.6	5.9	-0.4	
5/6/10 21:50:00	2.50	5.63	50.3	5.8	-0.1	
5/6/10 21:50:15	2.61	5.53	49.8	6.0	0.6	
5/6/10 21:50:30	2.71	5.46	50.3	6.2	0.3	
5/6/10 21:50:45	2.67	5.47	51.3	5.8	-0.1	
5/6/10 21:51:00	2.64	5.51	50.2	5.6	-0.3	
5/6/10 21:51:15	2.64	5.55	50.8	5.6	0.2	
5/6/10 21:51:30	2.61	5.56	50.4	5.9	0.5	
5/6/10 21:51:45	2.68	5.50	50.1	5.7	0.3	
5/6/10 21:52:00	2.77	5.48	49.8	5.7	0.0	
5/6/10 21:52:15	2.73	5.54	50.8	5.9	-0.1	
5/6/10 21:52:30	2.58	5.63	51.0	5.8	0.2	
5/6/10 21:52:45	2.54	5.65	50.9	6.1	0.5	
5/6/10 21:53:00	2.62	5.60	50.6	5.8	0.3	
5/6/10 21:53:15	2.60	5.55	51.1	5.7	-0.1	
5/6/10 21:53:30	2.61	5.50	50.2	5.7	-0.1	
5/6/10 21:53:45	2.63	5.47	49.3	6.3	0.2	
5/6/10 21:54:00	2.61	5.49	49.5	6.6	0.2	
5/6/10 21:54:15	2.57	5.56	52.0	6.4	-0.2	
5/6/10 21:54:30	2.49	5.65	54.7	6.3	-0.5	
5/6/10 21:54:45	2.44	5.70	53.3	6.0	-0.2	
5/6/10 21:55:00	2.42	5.70	52.8	0.3	0.2	End Run # SRU1-3
5/6/10 21:55:15	2.48	5.66	52.4	73.6	0.2	
5/6/10 21:55:30	2.57	5.61	52.6	110.6	-0.1	
5/6/10 21:55:45	2.59	5.54	52.4	110.6	-0.3	
5/6/10 21:56:00	2.58	5.52	52.1	100.4	0.3	
5/6/10 21:56:15	2.51	5.57	61.5	43.1	3.1	
5/6/10 21:56:30	3.24	4.87	19.0	42.0	5.0	
5/6/10 21:56:45	4.69	2.52	10.8	42.4	6.7	
5/6/10 21:57:00	2.68	0.93	2.8	42.0	6.9	
5/6/10 21:57:15	0.75	0.29	2.8	42.6	5.1	System Bias
5/6/10 21:57:30	0.15	0.12	2.8	43.5	3.3	
5/6/10 21:57:45	0.06	0.09	2.8	43.4	1.2	
5/6/10 21:58:00	0.04	0.09	2.8	43.4	0.6	
5/6/10 21:58:15	0.03	0.08	23.9	43.4	0.6	43.4 45.0 ppm NO _x
5/6/10 21:58:30	0.03	0.08	70.3	43.3	1.0	
5/6/10 21:58:45	0.02	0.07	97.7	24.1	0.9	
5/6/10 21:59:00	0.02	0.07	88.5	24.3	0.7	
5/6/10 21:59:15	0.02	0.07	80.4	1.5	0.6	
5/6/10 21:59:30	0.02	0.07	74.1	0.2	0.8	
5/6/10 21:59:45	0.02	0.06	70.8	0.1	0.9	
5/6/10 22:00:00	0.02	0.06	67.1	0.1	0.8	
5/6/10 22:00:15	0.01	0.06	63.2	0.1	0.6	
5/6/10 22:00:30	0.01	0.06	60.5	0.1	0.7	
5/6/10 22:00:45	0.01	0.06	59.3	0.1	1.0	
5/6/10 22:01:00	0.01	0.06	58.2	0.2	0.9	
5/6/10 22:01:15	0.01	0.06	57.8	0.1	0.6	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
 SRU No. 2 Tailgas Incinerator Exhaust
 ARI Reference Method Monitoring Data

Date/Time	O ₂ % by vol db	CO ₂ % by vol db	SO ₂ ppmv db	NO _x ppmv db	CO ppmv db	Comments
5/6/10 22:01:30	0.01	0.06	47.2	0.1	0.6	
5/6/10 22:01:45	0.01	0.06	46.5	0.1	0.9	
5/6/10 22:02:00	0.01	0.05	45.4	0.1	1.1	
5/6/10 22:02:15	0.01	0.05	44.6	0.1	0.8	
5/6/10 22:02:30	0.00	0.05	43.8	0.1	0.7	
5/6/10 22:02:45	0.01	0.05	43.6	0.1	0.7	
5/6/10 22:03:00	0.00	0.05	43.5	0.1	1.0	System Bias
5/6/10 22:03:15	0.00	0.05	43.3	0.1	0.9	0.00 Zero O ₂
5/6/10 22:03:30	0.01	0.05	43.7	0.1	0.7	0.05 Zero CO ₂
5/6/10 22:03:45	0.01	0.05	43.2	0.2	0.6	43.3 45.0 ppm SO ₂
5/6/10 22:04:00	0.00	0.05	43.2	66.4	0.8	
5/6/10 22:04:15	0.63	0.05	44.6	110.5	1.0	0.7 Zero CO
5/6/10 22:04:30	4.33	0.06	40.2	110.5	13.2	
5/6/10 22:04:45	4.37	2.66	33.6	82.4	30.8	
5/6/10 22:05:00	5.00	4.15	22.4	0.0	44.1	
5/6/10 22:05:15	4.99	4.35	10.4	0.1	43.0	
5/6/10 22:05:30	4.99	4.35	3.4	0.1	42.7	
5/6/10 22:05:45	4.99	4.35	2.6	0.1	43.2	System Bias
5/6/10 22:06:00	4.99	4.35	2.5	0.0	43.6	5.00 5.00% O ₂
5/6/10 22:06:15	4.99	4.35	2.5	0.0	43.1	4.35 4.32% CO ₂
5/6/10 22:06:30	5.00	4.35	3.5	0.1	43.4	2.9 Zero SO ₂
5/6/10 22:06:45	5.00	4.35	3.1	0.3	43.3	0.1 Zero NO _x
						43.4 45.0 ppm CO

Valero Refining - Texas, L.P. - Corpus Christi, Texas
SRU No. 2 Tailgas Incinerator Exhaust
ARI Reference Method Monitoring Data

Date/Time	O ₂ % by vol db	CO ₂ % by vol db	SO ₂ ppmv db	NO _x ppmv db	CO ppmv db	Comments
5/7/10 7:42:15	20.97	0.08	1.2	0.1	0.7	
5/7/10 7:42:30	20.97	0.08	1.1	0.3	5.9	
5/7/10 7:42:45	20.97	0.08	1.1	0.7	22.2	
5/7/10 7:43:00	20.74	0.16	1.3	0.0	48.0	
5/7/10 7:43:15	17.90	0.28	1.3	0.0	62.2	
5/7/10 7:43:30	9.80	0.17	1.3	0.0	65.7	
5/7/10 7:43:45	3.21	0.08	1.2	0.0	50.4	
5/7/10 7:44:00	0.67	0.04	1.2	0.1	25.0	
5/7/10 7:44:15	0.23	0.03	0.9	0.0	11.2	
5/7/10 7:44:30	0.15	0.03	1.1	0.1	2.5	
5/7/10 7:44:45	0.12	0.03	1.2	0.0	1.1	
5/7/10 7:45:00	0.11	0.03	0.9	0.0	0.9	
5/7/10 7:45:15	0.09	0.03	0.5	0.0	0.4	
5/7/10 7:45:30	0.03	0.03	0.6	0.0	-0.8	Calibration Error
5/7/10 7:45:45	-0.02	0.03	0.6	0.0	-1.6	-0.03 Zero O ₂
5/7/10 7:46:00	-0.03	0.03	0.3	0.0	-2.1	0.03 Zero CO ₂
5/7/10 7:46:15	-0.03	0.03	0.5	0.0	0.1	0.55 Zero SO ₂
5/7/10 7:46:30	-0.03	0.03	0.8	0.0	-0.1	0.0 Zero NO _x
5/7/10 7:46:45	-0.03	0.03	19.8	1.3	-0.3	-0.9 Zero CO
5/7/10 7:47:00	-0.04	0.03	13.7	0.9	1.7	
5/7/10 7:47:15	0.77	0.32	2.0	0.2	8.7	
5/7/10 7:47:30	4.52	2.50	0.8	0.1	25.9	
5/7/10 7:47:45	7.34	4.68	0.5	0.1	42.4	
5/7/10 7:48:00	8.89	6.15	0.3	0.1	65.5	
5/7/10 7:48:15	9.52	6.70	0.4	0.1	79.2	
5/7/10 7:48:30	9.69	7.21	0.7	0.1	89.1	
5/7/10 7:48:45	9.82	7.88	0.5	0.1	90.9	
5/7/10 7:49:00	9.90	8.30	0.4	0.1	89.9	
5/7/10 7:49:15	9.93	8.66	0.5	0.1	88.7	Calibration Error
5/7/10 7:49:30	9.94	8.59	0.5	0.1	88.0	9.95 10.00% O ₂
5/7/10 7:49:45	9.95	8.59	0.2	0.1	88.0	8.59 8.64% CO ₂
5/7/10 7:50:00	9.95	8.59	0.3	0.1	87.8	
5/7/10 7:50:15	9.95	8.59	0.4	0.1	87.6	
5/7/10 7:50:30	9.96	8.59	0.3	0.1	85.9	87.8 88.3 ppm CO
5/7/10 7:50:45	9.90	8.45	0.2	0.1	82.1	
5/7/10 7:51:00	8.59	7.05	0.4	0.1	72.5	
5/7/10 7:51:15	6.48	5.35	0.3	0.0	63.7	
5/7/10 7:51:30	5.26	4.51	0.3	0.1	52.4	
5/7/10 7:51:45	4.94	4.32	0.3	0.0	47.4	
5/7/10 7:52:00	4.90	4.30	0.3	0.0	44.4	Calibration Error
5/7/10 7:52:15	4.89	4.30	0.2	0.0	43.6	4.89 5.00% O ₂
5/7/10 7:52:30	4.89	4.30	0.3	0.0	43.2	4.30 4.32% CO ₂
5/7/10 7:52:45	4.89	4.29	3.2	0.0	43.4	
5/7/10 7:53:00	4.90	4.29	34.6	14.8	43.8	
5/7/10 7:53:15	4.89	4.29	26.2	110.5	41.8	43.5 44.2 ppm CO
5/7/10 7:53:30	5.99	4.01	4.0	66.3	36.4	
5/7/10 7:53:45	6.84	2.72	0.9	78.0	29.8	
5/7/10 7:54:00	3.74	1.19	0.5	78.1	18.9	
5/7/10 7:54:15	1.01	0.34	0.5	78.2	11.5	
5/7/10 7:54:30	0.10	0.08	0.5	81.1	4.0	
5/7/10 7:54:45	-0.02	0.05	0.4	89.8	1.1	Calibration Error
5/7/10 7:55:00	-0.04	0.04	0.5	90.2	-0.2	
5/7/10 7:55:15	-0.04	0.04	0.2	90.3	0.0	
5/7/10 7:55:30	-0.05	0.04	0.4	90.0	0.1	
5/7/10 7:55:45	-0.05	0.04	0.1	90.0	-0.1	90.1 90.0 ppm NO _x
5/7/10 7:56:00	-0.05	0.04	0.1	58.2	-0.4	Calibration Error
5/7/10 7:56:15	-0.05	0.03	0.2	44.4	-0.3	
5/7/10 7:56:30	-0.05	0.03	0.3	44.5	0.3	
5/7/10 7:56:45	-0.05	0.03	0.2	44.5	0.2	
5/7/10 7:57:00	-0.05	0.03	0.2	44.5	-0.2	44.5 45.0 ppm NO _x
5/7/10 7:57:15	-0.05	0.03	0.3	36.5	-0.4	
5/7/10 7:57:30	-0.05	0.03	55.4	52.4	-0.1	
5/7/10 7:57:45	-0.04	0.03	100.8	3.5	0.2	
5/7/10 7:58:00	0.85	0.05	100.8	9.5	0.0	
5/7/10 7:58:15	1.48	0.06	100.8	8.4	-0.1	
5/7/10 7:58:30	0.54	0.04	100.8	0.8	-0.1	
5/7/10 7:58:45	0.96	0.04	100.7	0.7	0.2	
5/7/10 7:59:00	-0.04	0.04	100.8	0.6	0.2	
5/7/10 7:59:15	-0.06	0.04	100.8	0.6	0.0	
5/7/10 7:59:30	-0.06	0.04	100.8	0.5	-0.2	
5/7/10 7:59:45	-0.06	0.04	100.8	0.5	-0.1	
5/7/10 8:00:00	-0.06	0.04	100.8	0.4	0.4	
5/7/10 8:00:15	-0.06	0.04	100.8	0.4	0.2	
5/7/10 8:00:30	-0.06	0.04	95.8	0.4	-0.2	Calibration Error
5/7/10 8:00:45	-0.06	0.04	90.8	0.4	-0.3	
5/7/10 8:01:00	-0.06	0.04	90.9	0.4	0.1	
5/7/10 8:01:15	-0.06	0.04	91.0	0.4	0.5	91.0 90.0 ppm SO ₂
5/7/10 8:01:30	-0.06	0.04	91.3	0.4	0.2	
5/7/10 8:01:45	-0.07	0.04	88.3	0.3	0.0	
5/7/10 8:02:00	-0.07	0.03	55.9	0.2	-0.1	
5/7/10 8:02:15	-0.07	0.03	46.6	0.2	0.3	Calibration Error
5/7/10 8:02:30	-0.07	0.03	46.1	0.3	0.4	
5/7/10 8:02:45	-0.07	0.03	46.2	0.2	0.2	
5/7/10 8:03:00	-0.07	0.03	46.4	0.2	0.0	46.2 45.0 ppm SO ₂
5/7/10 8:03:15	-0.07	0.03	46.3	0.2	0.0	
5/7/10 8:03:30	-0.07	0.03	41.3	0.4	0.3	
5/7/10 8:03:45	-0.07	0.03	12.8	1.3	1.8	
5/7/10 8:04:00	-0.06	0.03	3.4	2.8	10.8	
5/7/10 8:04:15	0.48	0.08	3.3	4.4	23.3	
5/7/10 8:04:30	5.00	0.17	12.4	0.5	37.7	
5/7/10 8:04:45	10.15	0.40	16.3	0.3	44.6	
5/7/10 8:05:00	7.09	0.41	15.9	0.3	39.5	
5/7/10 8:05:15	2.32	0.18	14.6	0.2	27.5	
5/7/10 8:05:30	0.45	0.06	13.5	0.2	15.5	
5/7/10 8:05:45	0.10	0.04	12.3	0.2	5.7	
5/7/10 8:06:00	0.05	0.03	11.2	2.5	2.2	
5/7/10 8:06:15	0.03	0.04	12.5	1.7	1.2	
5/7/10 8:06:30	0.16	0.53	29.6	0.3	0.9	
5/7/10 8:06:45	0.44	0.98	45.1	0.3	1.2	
5/7/10 8:07:00	0.28	0.54	45.8	0.2	1.4	
5/7/10 8:07:15	0.07	0.15	44.8	0.2	1.0	System Bias
5/7/10 8:07:30	0.02	0.06	44.2	0.2	0.6	
5/7/10 8:07:45	0.01	0.04	43.6	0.2	0.4	
5/7/10 8:08:00	0.00	0.04	43.6	0.7	0.6	43.7 45.0 ppm SO ₂

Valero Refining - Texas, L.P. - Corpus Christi, Texas
SRU No. 2 Tailgas Incinerator Exhaust
ARI Reference Method Monitoring Data

Date/Time	O ₂ % by vol db	CO ₂ % by vol db	SO ₂ ppmv db	NO _x ppmv db	CO ppmv db	Comments
5/7/10 8:08:15	-0.01	0.04	43.4	21.1	0.6	
5/7/10 8:08:30	0.02	0.22	56.1	95.8	0.3	0.5 Zero CO
5/7/10 8:08:45	0.50	1.49	49.7	44.6	0.1	
5/7/10 8:09:00	0.86	1.83	40.5	44.2	0.2	
5/7/10 8:09:15	0.44	0.79	32.8	44.1	0.4	System Bias
5/7/10 8:09:30	0.00	0.02	27.1	44.1	0.1	0.00 Zero O ₂
5/7/10 8:09:45	0.00	0.07	22.7	43.9	-0.2	0.04 Zero CO ₂
5/7/10 8:10:00	-0.01	0.05	19.4	43.8	-0.4	
5/7/10 8:10:15	-0.01	0.04	16.5	43.6	-0.1	43.8 45.0 ppm NO _x
5/7/10 8:10:30	-0.01	0.04	14.3	39.9	0.0	
5/7/10 8:10:45	-0.01	0.04	15.0	25.3	-0.1	
5/7/10 8:11:00	0.03	0.24	17.4	14.5	0.4	
5/7/10 8:11:15	0.45	1.20	15.6	0.9	5.3	
5/7/10 8:11:30	1.20	1.97	13.1	0.5	11.9	
5/7/10 8:11:45	2.92	3.06	11.5	0.4	20.4	
5/7/10 8:12:00	4.25	3.86	7.0	0.3	29.8	
5/7/10 8:12:15	4.74	4.13	5.7	0.3	37.7	
5/7/10 8:12:30	4.85	4.18	4.6	0.2	42.3	
5/7/10 8:12:45	4.88	4.18	3.8	0.2	44.7	
5/7/10 8:13:00	4.89	4.18	3.1	0.2	45.1	
5/7/10 8:13:15	4.90	4.19	2.6	0.2	45.2	
5/7/10 8:13:30	4.91	4.22	2.1	0.2	45.3	
5/7/10 8:13:45	4.91	4.25	1.8	0.2	45.5	System Bias
5/7/10 8:14:00	4.91	4.28	1.4	0.1	45.2	
5/7/10 8:14:15	4.91	4.28	1.1	0.1	44.8	4.91 5.00% O ₂
5/7/10 8:14:30	4.92	4.29	0.7	0.2	44.6	4.29 4.32% CO ₂
5/7/10 8:14:45	4.92	4.30	0.6	0.2	44.5	0.9 Zero SO ₂
5/7/10 8:15:00	4.92	4.30	2.9	6.1	42.0	0.2 Zero NO _x
5/7/10 8:15:15	4.63	4.56	8.2	6.3	35.9	44.6 45.0 ppm CO
5/7/10 8:15:30	3.46	5.23	17.0	6.1	26.7	
5/7/10 8:15:45	2.57	5.67	21.9	6.1	17.0	
5/7/10 8:16:00	2.27	5.78	26.2	6.2	9.8	
5/7/10 8:16:15	2.19	5.82	29.4	6.3	5.3	
5/7/10 8:16:30	2.15	5.87	31.9	6.6	3.3	
5/7/10 8:16:45	2.08	5.96	33.9	6.5	2.3	
5/7/10 8:17:00	1.90	6.09	35.3	6.5	2.1	
5/7/10 8:17:15	1.76	6.19	36.7	6.3	2.2	
5/7/10 8:17:30	1.80	6.16	36.1	6.1	1.9	
5/7/10 8:17:45	1.86	6.10	35.0	6.2	1.5	
5/7/10 8:18:00	1.98	5.99	34.1	6.1	1.5	
5/7/10 8:18:15	2.20	5.87	34.2	6.0	2.0	
5/7/10 8:18:30	2.32	5.79	33.5	6.1	2.5	
5/7/10 8:18:45	2.33	5.77	33.0	6.1	2.8	
5/7/10 8:19:00	2.36	5.75	33.2	6.1	3.0	
5/7/10 8:19:15	2.43	5.74	32.9	6.2	3.2	
5/7/10 8:19:30	2.30	5.83	32.8	6.1	3.6	
5/7/10 8:19:45	2.19	5.92	32.8	6.2	3.3	Start Run # SRU2-4
5/7/10 8:20:00	2.20	5.94	33.2	6.1	2.6	
5/7/10 8:20:15	2.19	5.94	33.2	6.1	2.1	
5/7/10 8:20:30	2.20	5.89	33.5	6.1	2.4	
5/7/10 8:20:45	2.28	5.83	34.0	6.1	2.8	
5/7/10 8:21:00	2.30	5.83	33.8	6.1	2.8	
5/7/10 8:21:15	2.28	5.81	33.2	6.1	2.5	
5/7/10 8:21:30	2.26	5.81	33.4	6.1	2.3	
5/7/10 8:21:45	2.25	5.84	33.8	6.1	2.4	
5/7/10 8:22:00	2.19	5.89	34.2	6.1	2.3	
5/7/10 8:22:15	2.12	5.93	33.8	6.3	1.8	
5/7/10 8:22:30	2.13	5.95	34.6	6.1	1.5	
5/7/10 8:22:45	2.08	5.99	36.3	6.1	1.4	
5/7/10 8:23:00	2.04	5.97	39.2	6.6	1.8	
5/7/10 8:23:15	2.14	5.89	41.5	6.5	2.5	
5/7/10 8:23:30	2.29	5.80	42.4	6.4	4.2	
5/7/10 8:23:45	2.48	5.69	44.4	6.1	7.3	
5/7/10 8:24:00	2.60	5.62	47.0	5.7	11.6	
5/7/10 8:24:15	2.67	5.61	48.7	5.9	14.8	
5/7/10 8:24:30	2.61	5.68	51.1	6.1	15.5	
5/7/10 8:24:45	2.86	5.70	53.4	5.7	15.2	
5/7/10 8:25:00	2.63	5.67	54.8	5.9	14.6	
5/7/10 8:25:15	2.73	5.65	56.9	5.7	14.7	
5/7/10 8:25:30	2.70	5.65	59.0	5.6	15.4	
5/7/10 8:25:45	2.69	5.61	61.8	5.7	15.1	
5/7/10 8:26:00	2.64	5.62	64.8	6.2	13.8	
5/7/10 8:26:15	2.89	5.65	66.2	6.4	11.8	
5/7/10 8:26:30	2.86	5.69	66.2	6.3	9.3	
5/7/10 8:26:45	2.50	5.75	67.9	6.8	6.5	
5/7/10 8:27:00	2.48	5.82	72.0	5.9	4.3	
5/7/10 8:27:15	2.46	5.88	73.4	6.0	3.0	
5/7/10 8:27:30	2.40	5.92	76.0	6.4	2.8	
5/7/10 8:27:45	2.34	5.94	78.5	6.4	2.6	
5/7/10 8:28:00	2.31	5.95	78.6	6.5	3.7	
5/7/10 8:28:15	2.37	5.85	78.7	6.2	12.4	
5/7/10 8:28:30	2.50	5.71	81.6	5.5	35.4	
5/7/10 8:28:45	2.62	5.69	85.6	5.5	64.2	
5/7/10 8:29:00	2.72	5.49	88.3	5.6	88.6	
5/7/10 8:29:15	2.77	5.47	90.5	6.2	98.5	
5/7/10 8:29:30	2.75	5.53	91.4	5.8	87.5	
5/7/10 8:29:45	2.71	5.61	94.0	6.2	68.1	
5/7/10 8:30:00	2.64	5.68	92.5	6.0	48.3	
5/7/10 8:30:15	2.55	5.75	93.8	5.9	32.0	
5/7/10 8:30:30	2.53	5.76	96.6	5.7	19.4	
5/7/10 8:30:45	2.50	5.75	100.3	5.7	10.6	
5/7/10 8:31:00	2.43	5.75	100.8	6.0	6.5	
5/7/10 8:31:15	2.40	5.75	100.8	6.3	4.5	
5/7/10 8:31:30	2.42	5.75	100.8	6.7	3.5	
5/7/10 8:31:45	2.43	5.75	100.8	6.5	2.9	
5/7/10 8:32:00	2.46	5.78	100.8	6.2	2.8	
5/7/10 8:32:15	2.42	5.83	100.8	6.3	3.2	
5/7/10 8:32:30	2.38	5.87	100.8	6.3	3.2	
5/7/10 8:32:45	2.41	5.86	100.8	5.8	2.9	
5/7/10 8:33:00	2.43	5.84	100.8	5.6	3.0	
5/7/10 8:33:15	2.46	5.78	100.8	5.6	3.5	
5/7/10 8:33:30	2.64	5.70	100.8	5.7	4.2	
5/7/10 8:33:45	2.64	5.69	100.8	6.3	4.3	
5/7/10 8:34:00	2.51	5.71	100.8	6.5	3.8	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
 SRU No. 2 Tailgas Incinerator Exhaust
 ARI Reference Method Monitoring Data

Date/Time	O ₂ % by vol db	CO ₂ % by vol db	SO ₂ ppmv db	NO _x ppmv db	CO ppmv db	Comments
5/7/10 8:34:15	2.43	5.78	100.8	6.7	3.1	
5/7/10 8:34:30	2.30	5.88	100.8	6.3	2.8	
5/7/10 8:34:45	2.19	5.96	100.8	5.9	2.4	Start MS
5/7/10 8:35:00	2.16	5.99	100.0	5.9	1.8	
5/7/10 8:35:15	2.25	5.93	85.9	5.9	1.3	
5/7/10 8:35:30	2.29	5.88	73.9	6.0	1.3	
5/7/10 8:35:45	2.26	5.85	65.1	6.1	1.5	
5/7/10 8:36:00	2.22	5.84	60.0	6.3	1.4	
5/7/10 8:36:15	2.12	5.88	56.7	6.2	1.1	
5/7/10 8:36:30	1.99	5.95	53.1	6.5	1.0	
5/7/10 8:36:45	1.95	5.99	52.1	6.2	1.1	
5/7/10 8:37:00	1.94	6.03	50.6	6.4	1.3	
5/7/10 8:37:15	1.86	6.09	51.1	6.1	1.1	
5/7/10 8:37:30	1.99	6.03	49.5	6.0	0.9	
5/7/10 8:37:45	2.18	5.94	47.8	6.0	1.1	
5/7/10 8:38:00	2.22	5.88	46.4	6.0	1.6	
5/7/10 8:38:15	2.34	5.78	46.1	6.0	2.1	
5/7/10 8:38:30	2.47	5.70	45.4	5.9	2.8	
5/7/10 8:38:45	2.53	5.66	44.7	6.0	3.8	
5/7/10 8:39:00	2.54	5.65	44.3	6.0	4.8	
5/7/10 8:39:15	2.51	5.70	44.5	6.2	5.1	
5/7/10 8:39:30	2.40	5.80	44.8	6.1	4.2	
5/7/10 8:39:45	2.27	5.88	44.7	6.1	2.8	
5/7/10 8:40:00	2.19	5.93	45.1	6.2	1.9	
5/7/10 8:40:15	2.22	5.94	44.9	6.2	1.7	
5/7/10 8:40:30	2.19	5.95	44.5	6.2	1.4	
5/7/10 8:40:45	2.15	5.95	46.1	6.3	1.1	
5/7/10 8:41:00	2.17	5.93	44.8	6.2	0.9	
5/7/10 8:41:15	2.18	5.93	44.1	6.1	1.1	
5/7/10 8:41:30	2.15	5.91	43.6	6.0	1.6	
5/7/10 8:41:45	2.25	5.83	43.8	6.1	2.1	
5/7/10 8:42:00	2.47	5.71	43.7	6.2	2.9	
5/7/10 8:42:15	2.61	5.63	44.3	6.3	3.7	
5/7/10 8:42:30	2.57	5.67	43.8	6.5	4.3	
5/7/10 8:42:45	2.38	5.81	44.8	6.5	3.9	
5/7/10 8:43:00	2.21	5.94	44.7	6.3	2.8	
5/7/10 8:43:15	2.03	6.03	44.2	6.2	1.8	
5/7/10 8:43:30	2.01	6.01	44.6	6.2	1.5	
5/7/10 8:43:45	2.16	5.88	43.8	6.3	1.6	
5/7/10 8:44:00	2.29	5.77	43.5	6.3	1.4	
5/7/10 8:44:15	2.24	5.81	44.0	6.3	1.3	
5/7/10 8:44:30	2.08	5.94	43.9	6.3	1.3	
5/7/10 8:44:45	2.01	6.02	43.9	6.1	1.5	
5/7/10 8:45:00	1.93	6.09	43.2	6.2	1.3	
5/7/10 8:45:15	1.92	6.08	43.4	6.1	0.9	
5/7/10 8:45:30	2.07	6.01	42.5	6.1	0.8	
5/7/10 8:45:45	2.08	5.98	42.0	5.9	1.1	
5/7/10 8:46:00	2.07	5.93	41.4	5.8	1.5	
5/7/10 8:46:15	2.15	5.86	40.2	5.8	1.6	
5/7/10 8:46:30	2.32	5.73	40.0	5.8	1.9	
5/7/10 8:46:45	2.44	5.64	39.3	5.8	2.3	
5/7/10 8:47:00	2.46	5.67	38.4	5.8	2.8	
5/7/10 8:47:15	2.51	5.70	38.9	5.9	2.9	
5/7/10 8:47:30	2.49	5.75	38.7	6.0	2.4	
5/7/10 8:47:45	2.37	5.84	38.8	6.0	1.8	
5/7/10 8:48:00	2.22	5.93	40.1	5.9	1.6	
5/7/10 8:48:15	2.11	5.96	40.5	5.8	1.6	
5/7/10 8:48:30	2.07	5.95	40.4	5.7	1.2	
5/7/10 8:48:45	2.08	5.92	39.9	5.8	0.9	
5/7/10 8:49:00	2.20	5.85	41.0	5.9	1.0	
5/7/10 8:49:15	2.32	5.78	43.0	6.0	1.5	
5/7/10 8:49:30	2.37	5.77	47.7	6.4	2.0	
5/7/10 8:49:45	2.40	5.81	51.9	6.4	1.7	
5/7/10 8:50:00	2.39	5.86	56.5	6.0	1.3	
5/7/10 8:50:15	2.41	5.86	59.8	6.5	1.1	
5/7/10 8:50:30	2.39	5.86	61.7	6.5	1.4	
5/7/10 8:50:45	2.34	5.86	64.5	6.3	1.5	
5/7/10 8:51:00	2.38	5.81	66.1	6.3	1.4	
5/7/10 8:51:15	2.46	5.75	67.5	5.7	1.4	
5/7/10 8:51:30	2.58	5.67	70.8	5.6	1.9	
5/7/10 8:51:45	2.65	5.63	73.6	5.7	2.8	
5/7/10 8:52:00	2.63	5.62	75.8	5.6	3.3	
5/7/10 8:52:15	2.62	5.64	78.0	5.8	3.5	
5/7/10 8:52:30	2.64	5.72	80.5	5.9	3.4	
5/7/10 8:52:45	2.47	5.78	82.4	5.7	3.3	
5/7/10 8:53:00	2.41	5.80	84.6	5.7	2.7	
5/7/10 8:53:15	2.37	5.78	86.1	6.0	2.0	
5/7/10 8:53:30	2.39	5.77	87.7	5.8	1.7	
5/7/10 8:53:45	2.38	5.75	88.7	5.6	1.9	
5/7/10 8:54:00	2.46	5.69	91.4	5.7	2.4	
5/7/10 8:54:15	2.90	5.69	93.0	5.8	2.6	
5/7/10 8:54:30	2.49	5.71	94.6	5.5	3.2	
5/7/10 8:54:45	2.81	5.69	95.0	5.6	4.7	
5/7/10 8:55:00	2.61	5.63	96.5	5.6	8.4	
5/7/10 8:55:15	2.67	5.60	99.3	5.6	13.1	
5/7/10 8:55:30	2.69	5.60	92.7	5.6	15.7	
5/7/10 8:55:45	2.64	5.62	88.8	5.6	16.1	
5/7/10 8:56:00	2.54	5.65	88.8	5.7	13.6	
5/7/10 8:56:15	2.53	5.64	88.8	6.0	9.9	
5/7/10 8:56:30	2.50	5.67	88.8	5.8	6.5	
5/7/10 8:56:45	2.42	5.71	88.8	5.8	3.8	
5/7/10 8:57:00	2.39	5.76	88.8	5.7	2.5	
5/7/10 8:57:15	2.37	5.80	88.8	5.8	1.9	
5/7/10 8:57:30	2.36	5.82	88.8	5.8	2.0	
5/7/10 8:57:45	2.38	5.84	88.8	6.0	1.8	
5/7/10 8:58:00	2.38	5.85	88.8	6.6	1.4	
5/7/10 8:58:15	2.37	5.84	88.8	6.6	1.2	
5/7/10 8:58:30	2.38	5.80	88.8	6.2	1.6	
5/7/10 8:58:45	2.41	5.75	88.8	6.2	2.4	
5/7/10 8:59:00	2.51	5.69	88.8	5.9	3.3	
5/7/10 8:59:15	2.57	5.67	88.8	6.0	4.2	
5/7/10 8:59:30	2.56	5.69	88.8	5.8	5.3	
5/7/10 8:59:45	2.53	5.73	88.8	5.9	6.7	
5/7/10 9:00:00	2.69	5.71	88.8	5.9	8.8	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
 SRU No. 2 Tailgas Incinerator Exhaust
 ARI Reference Method Monitoring Data

Date/Time	O ₂ % by vol db	CO ₂ % by vol db	SO ₂ ppmv db	NO _x ppmv db	CO ppmv db	Comments
5/7/10 9:00:15	2.65	5.67	88.8	5.9	13.5	
5/7/10 9:00:30	2.69	5.61	88.8	5.2	23.6	
5/7/10 9:00:45	2.75	5.54	88.8	6.2	39.3	
5/7/10 9:01:00	2.79	5.49	88.8	6.1	55.4	
5/7/10 9:01:15	2.75	5.48	87.2	6.1	64.5	
5/7/10 9:01:30	2.67	5.52	86.0	6.1	60.8	
5/7/10 9:01:45	2.58	5.59	75.6	6.4	47.6	
5/7/10 9:02:00	2.46	5.67	67.0	6.1	31.5	
5/7/10 9:02:15	2.34	5.75	61.8	6.1	18.6	
5/7/10 9:02:30	2.35	5.74	58.1	6.1	11.9	
5/7/10 9:02:45	2.46	5.70	55.2	6.1	9.2	
5/7/10 9:03:00	2.46	5.67	53.9	6.1	9.2	
5/7/10 9:03:15	2.47	5.62	51.2	6.1	9.6	
5/7/10 9:03:30	2.50	5.59	50.4	6.1	9.7	
5/7/10 9:03:45	2.47	5.60	49.0	6.1	9.0	
5/7/10 9:04:00	2.44	5.63	48.2	6.2	7.5	
5/7/10 9:04:15	2.41	5.70	48.3	6.3	6.0	
5/7/10 9:04:30	2.37	5.78	48.0	6.4	4.5	
5/7/10 9:04:45	2.23	5.88	47.3	6.4	3.1	
5/7/10 9:05:00	2.11	5.97	47.5	6.3	2.2	
5/7/10 9:05:15	2.04	6.03	46.9	6.2	1.7	
5/7/10 9:05:30	2.02	6.01	45.6	6.1	1.9	
5/7/10 9:05:45	2.13	5.86	45.5	6.1	2.0	
5/7/10 9:06:00	2.28	5.76	45.4	6.1	2.0	
5/7/10 9:06:15	2.35	5.74	44.7	6.2	2.0	
5/7/10 9:06:30	2.34	5.77	44.7	6.3	2.3	
5/7/10 9:06:45	2.24	5.85	44.9	6.3	2.3	
5/7/10 9:07:00	2.13	5.96	45.2	6.3	1.7	
5/7/10 9:07:15	2.05	6.03	46.3	6.6	1.1	
5/7/10 9:07:30	1.97	6.05	46.2	6.4	0.9	
5/7/10 9:07:45	1.89	6.07	45.7	6.4	1.3	
5/7/10 9:08:00	1.86	6.07	46.0	5.9	1.5	
5/7/10 9:08:15	1.86	6.06	45.6	5.6	1.2	
5/7/10 9:08:30	1.97	5.94	44.9	5.8	1.6	
5/7/10 9:08:45	2.29	5.75	44.1	5.8	3.3	
5/7/10 9:09:00	2.54	5.62	43.9	5.8	6.4	
5/7/10 9:09:15	2.66	5.57	43.5	5.8	9.0	
5/7/10 9:09:30	2.65	5.59	43.4	6.0	9.7	
5/7/10 9:09:45	2.58	5.67	43.3	6.0	8.4	
5/7/10 9:10:00	2.41	5.81	44.0	6.0	6.1	
5/7/10 9:10:15	2.19	5.93	44.4	5.8	4.0	
5/7/10 9:10:30	2.08	5.95	43.4	5.7	2.5	
5/7/10 9:10:45	2.17	5.86	43.4	5.6	1.9	
5/7/10 9:11:00	2.35	5.72	43.2	5.7	2.6	
5/7/10 9:11:15	2.52	5.63	41.8	5.7	4.3	
5/7/10 9:11:30	2.62	5.59	41.3	5.8	5.8	
5/7/10 9:11:45	2.68	5.60	41.3	5.8	6.3	
5/7/10 9:12:00	2.64	5.66	40.7	5.8	5.6	
5/7/10 9:12:15	2.52	5.74	41.0	5.8	4.5	
5/7/10 9:12:30	2.40	5.79	41.9	5.8	3.6	
5/7/10 9:12:45	2.36	5.76	40.9	5.8	2.9	
5/7/10 9:13:00	2.40	5.68	41.2	5.8	2.3	
5/7/10 9:13:15	2.38	5.65	41.2	5.8	2.0	
5/7/10 9:13:30	2.37	5.67	40.6	5.7	2.4	
5/7/10 9:13:45	2.45	5.68	41.0	5.6	3.4	
5/7/10 9:14:00	2.50	5.68	41.4	5.6	6.9	
5/7/10 9:14:15	2.55	5.66	41.2	5.7	16.3	
5/7/10 9:14:30	2.69	5.59	41.1	5.7	29.1	
5/7/10 9:14:45	2.81	5.53	41.8	5.8	39.5	
5/7/10 9:15:00	2.70	5.58	41.5	6.0	40.6	
5/7/10 9:15:15	2.47	5.70	41.9	5.8	32.0	
5/7/10 9:15:30	2.28	5.82	43.0	5.8	18.9	
5/7/10 9:15:45	2.16	5.87	41.9	5.9	8.4	
5/7/10 9:16:00	2.16	5.83	41.7	6.0	3.9	
5/7/10 9:16:15	2.22	5.80	41.9	5.9	2.2	
5/7/10 9:16:30	2.15	5.88	42.7	5.8	1.5	
5/7/10 9:16:45	2.10	5.93	42.0	5.8	1.2	
5/7/10 9:17:00	2.12	5.96	41.9	5.9	1.4	
5/7/10 9:17:15	2.16	5.95	42.1	5.9	1.6	
5/7/10 9:17:30	2.22	5.93	41.4	5.9	1.4	
5/7/10 9:17:45	2.21	5.91	41.3	5.9	1.2	
5/7/10 9:18:00	2.22	5.88	41.1	5.8	1.2	
5/7/10 9:18:15	2.24	5.86	41.5	5.8	1.4	
5/7/10 9:18:30	2.26	5.80	41.6	5.8	1.5	
5/7/10 9:18:45	2.35	5.71	40.6	5.9	1.5	
5/7/10 9:19:00	2.38	5.71	40.9	6.2	1.6	
5/7/10 9:19:15	2.31	5.79	41.2	6.2	1.8	
5/7/10 9:19:30	2.22	5.89	41.2	6.2	1.7	
5/7/10 9:19:45	2.05	6.02	41.8	6.3	1.3	
5/7/10 9:20:00	2.03	6.05	42.2	6.2	0.9	
5/7/10 9:20:15	2.01	6.07	42.2	6.1	0.9	
5/7/10 9:20:30	1.97	6.05	42.1	6.1	1.1	
5/7/10 9:20:45	2.07	5.93	41.8	6.0	1.1	
5/7/10 9:21:00	2.23	5.80	41.0	6.1	0.9	
5/7/10 9:21:15	2.33	5.70	41.0	6.0	0.9	
5/7/10 9:21:30	2.41	5.64	41.0	6.0	1.3	
5/7/10 9:21:45	2.47	5.64	40.9	6.0	1.8	
5/7/10 9:22:00	2.55	5.67	40.4	6.0	1.9	
5/7/10 9:22:15	2.57	5.71	40.0	6.0	2.7	
5/7/10 9:22:30	2.58	5.71	40.1	6.0	5.2	
5/7/10 9:22:45	2.72	5.64	40.4	6.1	9.1	
5/7/10 9:23:00	2.81	5.60	40.6	6.2	12.5	
5/7/10 9:23:15	2.75	5.63	40.6	6.2	13.9	
5/7/10 9:23:30	2.63	5.69	40.4	6.2	12.4	
5/7/10 9:23:45	2.55	5.73	41.1	6.2	9.2	
5/7/10 9:24:00	2.48	5.77	41.7	6.1	5.9	
5/7/10 9:24:15	2.38	5.83	41.2	6.3	3.0	
5/7/10 9:24:30	2.34	5.84	42.4	6.3	1.6	
5/7/10 9:24:45	2.38	5.84	41.7	6.2	1.0	
5/7/10 9:25:00	2.31	5.89	41.4	6.1	1.2	
5/7/10 9:25:15	2.29	5.91	41.7	6.1	1.5	
5/7/10 9:25:30	2.36	5.89	42.2	6.1	1.4	
5/7/10 9:25:45	2.44	5.83	42.3	6.2	1.6	
5/7/10 9:26:00	2.50	5.77	41.4	6.1	2.1	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
 SRU No. 2 Tailgas Incinerator Exhaust
 ARI Reference Method Monitoring Data

Date/Time	O ₂ % by vol db	CO ₂ % by vol db	SO ₂ ppmv db	NO _x ppmv db	CO ppmv db	Comments
5/7/10 9:26:15	2.51	5.75	41.2	6.2	2.7	
5/7/10 9:26:30	2.50	5.75	41.7	6.1	2.7	
5/7/10 9:26:45	2.47	5.75	41.8	6.0	2.4	
5/7/10 9:27:00	2.45	5.75	41.2	6.1	2.1	
5/7/10 9:27:15	2.48	5.72	41.7	6.4	2.1	
5/7/10 9:27:30	2.62	5.75	42.3	6.5	2.0	
5/7/10 9:27:45	2.42	5.84	42.6	6.6	1.6	
5/7/10 9:28:00	2.17	6.00	43.2	6.7	1.1	
5/7/10 9:28:15	1.92	6.14	43.7	6.5	0.9	
5/7/10 9:28:30	1.85	6.16	43.6	6.1	1.1	
5/7/10 9:28:45	1.88	6.10	43.3	6.1	1.1	
5/7/10 9:29:00	2.00	5.98	42.6	6.1	1.0	
5/7/10 9:29:15	2.30	5.80	42.2	6.1	1.2	
5/7/10 9:29:30	2.47	5.72	42.5	6.0	2.1	
5/7/10 9:29:45	2.50	5.89	41.7	6.1	3.0	
5/7/10 9:30:00	2.60	5.65	41.9	6.1	3.6	
5/7/10 9:30:15	2.69	5.64	42.5	6.1	3.6	
5/7/10 9:30:30	2.65	5.68	42.3	6.0	3.9	
5/7/10 9:30:45	2.54	5.73	42.2	6.1	4.0	
5/7/10 9:31:00	2.50	5.76	42.3	6.1	3.3	
5/7/10 9:31:15	2.43	5.81	43.2	6.0	2.5	
5/7/10 9:31:30	2.33	5.84	42.9	5.9	1.8	
5/7/10 9:31:45	2.35	5.80	42.6	5.9	1.8	
5/7/10 9:32:00	2.42	5.73	42.8	6.0	2.2	
5/7/10 9:32:15	2.49	5.69	42.7	6.0	2.3	
5/7/10 9:32:30	2.60	5.71	43.1	6.0	2.2	
5/7/10 9:32:45	2.41	5.80	43.4	5.9	2.0	
5/7/10 9:33:00	2.31	5.90	43.4	5.9	1.9	
5/7/10 9:33:15	2.26	5.95	43.2	5.8	1.6	
5/7/10 9:33:30	2.26	5.91	43.6	5.7	1.3	
5/7/10 9:33:45	2.38	5.63	43.1	5.8	1.2	
5/7/10 9:34:00	2.50	5.77	42.7	5.9	1.5	
5/7/10 9:34:15	2.52	5.77	42.9	5.9	1.9	
5/7/10 9:34:30	2.42	5.84	42.6	5.9	1.6	
5/7/10 9:34:45	2.32	5.91	42.9	5.8	1.2	
5/7/10 9:35:00	2.29	5.93	43.5	5.7	1.0	
5/7/10 9:35:15	2.33	5.89	43.2	5.7	1.3	
5/7/10 9:35:30	2.41	5.82	42.8	5.8	1.6	
5/7/10 9:35:45	2.46	5.80	43.3	5.8	1.5	
5/7/10 9:36:00	2.44	5.81	43.4	5.8	1.3	
5/7/10 9:36:15	2.36	5.84	43.5	5.8	1.3	
5/7/10 9:36:30	2.32	5.85	43.2	5.8	1.5	
5/7/10 9:36:45	2.38	5.82	43.4	5.8	1.5	
5/7/10 9:37:00	2.46	5.79	42.9	5.8	1.2	
5/7/10 9:37:15	2.43	5.80	42.9	5.7	1.0	
5/7/10 9:37:30	2.40	5.82	42.9	5.6	1.4	
5/7/10 9:37:45	2.46	5.80	42.3	5.6	2.3	
5/7/10 9:38:00	2.58	5.72	42.5	5.6	2.7	
5/7/10 9:38:15	2.67	5.66	43.2	5.7	2.8	
5/7/10 9:38:30	2.69	5.66	43.3	5.9	2.8	
5/7/10 9:38:45	2.69	5.74	43.7	6.0	2.8	
5/7/10 9:39:00	2.38	5.87	44.2	5.9	2.5	
5/7/10 9:39:15	2.21	5.97	43.6	5.8	1.8	
5/7/10 9:39:30	2.13	6.02	44.3	5.8	1.1	
5/7/10 9:39:45	2.17	5.98	44.6	5.7	0.9	
5/7/10 9:40:00	2.21	5.94	43.8	5.7	1.2	
5/7/10 9:40:15	2.26	5.91	43.7	5.8	1.4	
5/7/10 9:40:30	2.36	5.86	43.6	5.8	1.1	
5/7/10 9:40:45	2.36	5.88	44.4	5.7	0.9	
5/7/10 9:41:00	2.30	5.89	44.1	5.7	0.9	
5/7/10 9:41:15	2.36	5.87	44.7	5.7	1.3	
5/7/10 9:41:30	2.35	5.88	44.4	5.7	1.3	
5/7/10 9:41:45	2.37	5.83	44.1	5.8	1.1	
5/7/10 9:42:00	2.40	5.79	44.4	5.8	1.0	
5/7/10 9:42:15	2.38	5.80	44.5	5.7	1.3	
5/7/10 9:42:30	2.33	5.84	44.4	5.7	1.6	
5/7/10 9:42:45	2.30	5.84	44.5	5.6	1.6	
5/7/10 9:43:00	2.39	5.79	44.5	5.7	1.7	
5/7/10 9:43:15	2.56	5.70	44.1	5.7	2.4	
5/7/10 9:43:30	2.72	5.62	44.3	5.8	3.6	
5/7/10 9:43:45	2.73	5.63	44.9	5.9	4.4	
5/7/10 9:44:00	2.63	5.69	44.7	5.9	4.0	
5/7/10 9:44:15	2.48	5.77	44.6	5.9	2.9	
5/7/10 9:44:30	2.40	5.81	44.5	5.9	2.1	
5/7/10 9:44:45	2.37	5.81	45.0	5.9	1.8	
5/7/10 9:45:00	2.39	5.78	44.3	5.9	1.7	
5/7/10 9:45:15	2.48	5.73	44.3	5.9	1.7	
5/7/10 9:45:30	2.55	5.69	45.3	5.9	1.8	
5/7/10 9:45:45	2.53	5.71	45.0	6.0	2.1	
5/7/10 9:46:00	2.49	5.75	44.6	6.0	2.3	
5/7/10 9:46:15	2.46	5.79	44.9	6.0	2.0	
5/7/10 9:46:30	2.40	5.83	44.8	6.0	1.6	
5/7/10 9:46:45	2.43	5.80	45.3	6.0	1.7	
5/7/10 9:47:00	2.46	5.75	44.8	6.0	2.1	
5/7/10 9:47:15	2.49	5.72	44.6	6.0	2.3	
5/7/10 9:47:30	2.48	5.71	44.7	6.0	2.2	
5/7/10 9:47:45	2.46	5.71	45.3	6.0	2.0	
5/7/10 9:48:00	2.45	5.73	45.3	6.1	2.1	
5/7/10 9:48:15	2.46	5.73	44.8	6.1	2.2	
5/7/10 9:48:30	2.42	5.78	44.8	6.0	1.8	
5/7/10 9:48:45	2.32	5.84	44.4	6.1	1.3	
5/7/10 9:49:00	2.35	5.82	45.0	6.1	1.1	
5/7/10 9:49:15	2.42	5.76	45.7	6.1	1.4	
5/7/10 9:49:30	2.41	5.76	45.1	6.0	1.7	
5/7/10 9:49:45	2.39	5.77	44.8	6.0	1.7	
5/7/10 9:50:00	2.46	5.74	45.2	6.0	1.7	
5/7/10 9:50:15	2.53	5.71	45.1	6.0	2.1	
5/7/10 9:50:30	2.51	5.71	45.3	6.0	2.8	
5/7/10 9:50:45	2.63	5.68	45.5	6.1	3.1	
5/7/10 9:51:00	2.69	5.67	45.2	6.2	3.0	
5/7/10 9:51:15	2.52	5.74	45.5	7.3	2.8	
5/7/10 9:51:30	2.43	5.79	46.7	6.4	2.6	
5/7/10 9:51:45	2.37	5.83	46.9	6.2	2.4	
5/7/10 9:52:00	2.30	5.86	46.3	6.1	2.0	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
 SRU No. 2 Tailgas Incinerator Exhaust
 ARI Reference Method Monitoring Data

Date/Time	O ₂ % by vol db	CO ₂ % by vol db	SO ₂ ppmv db	NO _x ppmv db	CO ppmv db	Comments
5/7/10 9:52:15	2.29	5.81	45.7	6.1	1.8	
5/7/10 9:52:30	2.42	5.71	45.8	6.1	2.2	
5/7/10 9:52:45	2.53	5.68	45.4	8.0	3.4	
5/7/10 9:53:00	2.60	5.67	45.6	6.1	4.4	
5/7/10 9:53:15	2.62	5.68	46.6	6.1	4.8	
5/7/10 9:53:30	2.62	5.70	46.1	6.1	4.7	
5/7/10 9:53:45	2.57	5.75	45.5	6.2	4.3	
5/7/10 9:54:00	2.52	5.78	46.0	8.2	3.8	
5/7/10 9:54:15	2.48	5.80	46.5	6.1	2.9	
5/7/10 9:54:30	2.41	5.82	48.3	6.2	2.4	
5/7/10 9:54:45	2.45	5.78	48.2	6.1	2.3	
5/7/10 9:55:00	2.50	5.75	46.9	6.0	2.6	
5/7/10 9:55:15	2.52	5.74	46.3	6.0	3.2	
5/7/10 9:55:30	2.56	5.74	46.0	6.0	3.7	
5/7/10 9:55:45	2.63	5.73	46.1	6.0	4.8	
5/7/10 9:56:00	2.68	5.71	46.1	6.1	6.4	
5/7/10 9:56:15	2.72	5.69	48.2	6.1	8.2	
5/7/10 9:56:30	2.70	5.73	46.0	6.1	8.0	
5/7/10 9:56:45	2.56	5.81	46.2	6.1	6.5	
5/7/10 9:57:00	2.44	5.85	46.3	6.0	4.7	
5/7/10 9:57:15	2.45	5.82	45.7	6.0	3.2	
5/7/10 9:57:30	2.52	5.76	46.3	6.0	2.8	
5/7/10 9:57:45	2.89	5.69	45.8	5.9	3.0	
5/7/10 9:58:00	2.60	5.67	46.3	5.9	3.7	
5/7/10 9:58:15	2.63	5.67	45.9	5.8	5.2	
5/7/10 9:58:30	2.68	5.67	45.8	5.8	7.0	
5/7/10 9:58:45	2.70	5.67	45.8	5.8	12.9	
5/7/10 9:59:00	2.73	5.63	45.9	5.8	21.1	
5/7/10 9:59:15	2.78	5.59	46.5	5.8	30.7	
5/7/10 9:59:30	2.75	5.60	47.3	5.8	38.0	
5/7/10 9:59:45	2.62	5.68	46.9	5.9	31.9	
5/7/10 10:00:00	2.47	5.76	46.7	6.1	23.8	
5/7/10 10:00:15	2.37	5.85	47.6	6.1	11.6	
5/7/10 10:00:30	2.25	5.94	47.7	5.9	5.8	
5/7/10 10:00:45	2.07	6.02	47.0	5.9	2.6	
5/7/10 10:01:00	2.07	6.00	47.0	6.1	1.7	
5/7/10 10:01:15	2.19	5.96	47.6	5.7	1.1	
5/7/10 10:01:30	2.17	6.01	48.2	5.7	0.9	
5/7/10 10:01:45	2.05	6.05	46.9	5.7	1.2	
5/7/10 10:02:00	2.20	5.93	46.7	5.6	1.4	
5/7/10 10:02:15	2.40	5.82	46.5	5.7	1.4	
5/7/10 10:02:30	2.49	5.74	47.1	5.8	1.3	
5/7/10 10:02:45	2.49	5.73	46.8	5.9	1.4	
5/7/10 10:03:00	2.41	5.80	46.8	6.0	1.8	
5/7/10 10:03:15	2.36	5.87	47.1	5.9	1.7	
5/7/10 10:03:30	2.26	5.95	47.5	5.8	1.3	
5/7/10 10:03:45	2.17	5.98	46.9	5.7	0.9	
5/7/10 10:04:00	2.23	5.94	47.1	5.8	1.0	
5/7/10 10:04:15	2.39	5.86	47.3	5.7	1.3	
5/7/10 10:04:30	2.44	5.83	47.8	5.7	1.3	
5/7/10 10:04:45	2.39	5.87	47.7	5.6	1.1	
5/7/10 10:05:00	2.38	5.88	47.0	5.6	1.0	Stop M5 for port change
5/7/10 10:05:15	2.42	5.84	47.2	5.6	1.4	
5/7/10 10:05:30	2.48	5.78	47.1	5.6	1.7	
5/7/10 10:05:45	2.54	5.74	46.5	5.6	2.0	
5/7/10 10:06:00	2.60	5.72	47.7	5.5	2.3	
5/7/10 10:06:15	2.62	5.75	46.9	5.6	2.9	
5/7/10 10:06:30	2.55	5.80	46.5	5.5	3.6	
5/7/10 10:06:45	2.58	5.77	46.3	5.5	3.7	
5/7/10 10:07:00	2.62	5.75	46.8	5.7	3.6	
5/7/10 10:07:15	2.63	5.73	46.7	5.7	3.4	
5/7/10 10:07:30	2.57	5.76	47.4	5.8	3.4	
5/7/10 10:07:45	2.43	5.81	47.7	5.5	3.1	
5/7/10 10:08:00	2.32	5.87	45.2	1.6	2.4	
5/7/10 10:08:15	2.23	5.89	39.4	0.1	2.2	
5/7/10 10:08:30	4.04	4.93	29.9	0.1	2.4	
5/7/10 10:08:45	12.43	2.20	22.2	0.4	3.5	
5/7/10 10:09:00	18.81	0.58	18.9	3.1	4.4	
5/7/10 10:09:15	20.54	0.22	35.5	13.9	5.3	
5/7/10 10:09:30	20.14	0.58	100.8	7.8	6.8	
5/7/10 10:09:45	13.83	2.99	100.8	6.2	9.3	
5/7/10 10:10:00	6.33	4.91	100.8	6.2	10.7	
5/7/10 10:10:15	3.46	5.54	100.8	6.2	10.2	
5/7/10 10:10:30	2.84	5.68	100.8	6.4	8.0	
5/7/10 10:10:45	2.69	5.75	100.8	6.3	5.0	
5/7/10 10:11:00	2.53	5.86	100.8	6.3	3.6	
5/7/10 10:11:15	2.35	5.96	100.8	6.3	2.9	
5/7/10 10:11:30	2.31	5.98	97.3	6.4	2.4	
5/7/10 10:11:45	2.43	5.91	83.0	6.4	1.9	
5/7/10 10:12:00	2.47	5.90	72.4	6.5	1.6	
5/7/10 10:12:15	2.38	5.94	65.2	6.5	1.9	
5/7/10 10:12:30	2.35	5.93	59.9	6.6	2.1	
5/7/10 10:12:45	2.36	5.93	55.5	6.5	1.7	
5/7/10 10:13:00	2.25	5.97	51.7	6.4	1.3	
5/7/10 10:13:15	2.15	5.99	49.2	6.3	1.3	
5/7/10 10:13:30	2.23	5.92	47.0	6.4	1.8	
5/7/10 10:13:45	2.40	5.85	45.7	6.4	2.3	
5/7/10 10:14:00	2.47	5.84	43.5	6.4	2.2	
5/7/10 10:14:15	2.47	5.85	42.3	6.4	2.1	
5/7/10 10:14:30	2.47	5.87	42.1	6.4	2.1	
5/7/10 10:14:45	2.45	5.88	41.8	6.3	4.9	Re-start M5
5/7/10 10:15:00	2.45	5.83	41.8	6.3	10.4	
5/7/10 10:15:15	2.52	5.74	40.7	6.3	22.0	
5/7/10 10:15:30	2.65	5.68	40.1	6.5	30.2	
5/7/10 10:15:45	2.67	5.68	40.1	6.3	37.9	
5/7/10 10:16:00	2.57	5.75	40.4	6.3	41.5	
5/7/10 10:16:15	2.51	5.78	40.4	6.4	57.1	
5/7/10 10:16:30	2.59	5.74	39.8	6.5	74.0	
5/7/10 10:16:45	2.67	5.72	40.7	6.5	92.8	
5/7/10 10:17:00	2.60	5.81	41.2	6.6	94.3	
5/7/10 10:17:15	2.47	5.92	40.4	6.6	68.7	
5/7/10 10:17:30	2.36	6.00	40.7	6.5	43.1	
5/7/10 10:17:45	2.24	6.02	40.7	6.5	15.5	
5/7/10 10:18:00	2.22	5.98	41.4	6.5	5.9	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
 SRU No. 2 Tailgas Incinerator Exhaust
 ARI Reference Method Monitoring Data

Date/Time	O ₂ % by vol db	CO ₂ % by vol db	SO ₂ ppmv db	NO _x ppmv db	CO ppmv db	Comments
5/7/10 10:18:15	2.31	5.90	41.0	6.6	2.4	
5/7/10 10:18:30	2.39	5.86	41.5	6.7	1.9	
5/7/10 10:18:45	2.33	5.93	41.4	6.6	1.4	
5/7/10 10:19:00	2.25	6.05	40.7	6.1	1.2	
5/7/10 10:19:15	2.21	6.11	40.5	6.3	1.5	
5/7/10 10:19:30	2.35	6.02	41.2	6.4	2.0	
5/7/10 10:19:45	2.60	5.89	42.2	6.6	2.4	
5/7/10 10:20:00	2.66	5.88	45.1	6.7	2.6	
5/7/10 10:20:15	2.67	5.94	47.7	6.9	2.6	
5/7/10 10:20:30	2.47	6.98	52.8	6.7	2.7	
5/7/10 10:20:45	2.33	6.04	54.5	6.5	2.4	
5/7/10 10:21:00	2.09	6.15	52.2	6.4	2.1	
5/7/10 10:21:15	2.11	6.10	49.9	6.3	1.9	
5/7/10 10:21:30	2.32	5.99	45.8	6.3	2.2	
5/7/10 10:21:45	2.55	5.88	43.0	6.4	2.5	
5/7/10 10:22:00	2.70	5.85	42.0	6.4	2.4	
5/7/10 10:22:15	2.69	5.89	40.4	6.4	12.2	
5/7/10 10:22:30	2.67	5.86	39.0	6.4	35.3	
5/7/10 10:22:45	2.86	5.70	39.3	6.3	85.8	
5/7/10 10:23:00	2.98	5.59	39.3	6.4	112.8	
5/7/10 10:23:15	2.92	5.61	39.7	6.4	116.6	
5/7/10 10:23:30	2.87	5.62	39.6	6.4	116.6	
5/7/10 10:23:45	2.80	5.66	39.7	6.4	100.9	
5/7/10 10:24:00	2.72	5.72	38.8	6.4	66.9	
5/7/10 10:24:15	2.65	5.80	38.4	6.4	31.7	
5/7/10 10:24:30	2.59	6.87	38.6	6.4	17.9	
5/7/10 10:24:45	2.62	5.87	38.7	6.4	11.0	
5/7/10 10:25:00	2.71	5.83	39.0	6.4	10.8	
5/7/10 10:25:15	2.75	5.83	38.1	6.4	11.2	
5/7/10 10:25:30	2.70	5.90	38.3	6.4	9.9	
5/7/10 10:25:45	2.62	5.96	38.9	6.4	7.0	
5/7/10 10:26:00	2.54	5.97	37.7	6.4	5.1	
5/7/10 10:26:15	2.49	5.93	37.7	6.4	4.4	
5/7/10 10:26:30	2.55	5.86	38.4	6.4	4.6	
5/7/10 10:26:45	2.61	5.81	39.0	6.4	5.6	
5/7/10 10:27:00	2.64	5.81	38.3	6.3	7.3	
5/7/10 10:27:15	2.64	5.86	38.2	6.4	16.7	
5/7/10 10:27:30	2.67	5.90	38.8	6.4	34.4	
5/7/10 10:27:45	2.76	5.87	38.6	6.3	76.2	
5/7/10 10:28:00	2.80	5.84	38.5	6.4	109.1	
5/7/10 10:28:15	2.84	5.84	38.5	6.4	116.6	
5/7/10 10:28:30	2.84	5.89	39.6	6.4	116.6	
5/7/10 10:28:45	2.73	5.92	39.1	6.4	90.4	
5/7/10 10:29:00	2.60	5.94	38.7	6.5	58.1	
5/7/10 10:29:15	2.53	5.94	38.2	6.4	25.3	
5/7/10 10:29:30	2.57	5.90	38.3	6.5	13.2	
5/7/10 10:29:45	2.58	5.90	38.1	6.5	6.8	
5/7/10 10:30:00	2.51	5.97	39.0	6.7	5.0	
5/7/10 10:30:15	2.46	6.05	38.7	6.7	3.6	
5/7/10 10:30:30	2.40	6.13	38.9	6.6	2.8	
5/7/10 10:30:45	2.28	6.21	38.2	6.5	2.5	
5/7/10 10:31:00	2.28	6.19	38.7	6.5	2.2	
5/7/10 10:31:15	2.41	6.10	39.5	6.5	1.9	
5/7/10 10:31:30	2.50	6.03	38.5	6.7	1.8	
5/7/10 10:31:45	2.53	5.99	38.3	6.6	2.0	
5/7/10 10:32:00	2.49	5.99	39.0	6.6	2.2	
5/7/10 10:32:15	2.49	5.99	38.5	6.6	2.0	
5/7/10 10:32:30	2.48	5.99	38.0	6.5	1.8	
5/7/10 10:32:45	2.44	6.03	38.0	6.5	2.1	
5/7/10 10:33:00	2.49	6.02	37.3	6.6	3.1	
5/7/10 10:33:15	2.63	5.96	36.5	6.6	4.2	
5/7/10 10:33:30	2.71	5.94	36.9	6.5	4.6	
5/7/10 10:33:45	2.68	5.97	37.0	6.6	4.8	
5/7/10 10:34:00	2.67	6.98	36.6	6.6	4.6	
5/7/10 10:34:15	2.61	6.02	36.6	6.6	4.0	
5/7/10 10:34:30	2.46	6.07	36.6	6.8	3.2	
5/7/10 10:34:45	2.38	6.07	37.4	6.8	2.0	
5/7/10 10:35:00	2.35	6.08	36.8	6.5	1.5	
5/7/10 10:35:15	2.23	6.15	36.9	6.5	1.6	
5/7/10 10:35:30	2.23	6.15	37.2	6.6	1.8	
5/7/10 10:35:45	2.41	6.08	36.4	6.5	1.9	
5/7/10 10:36:00	2.57	6.04	36.4	6.5	2.0	
5/7/10 10:36:15	2.66	6.06	36.5	6.5	2.5	
5/7/10 10:36:30	2.56	6.05	37.3	6.6	3.0	
5/7/10 10:36:45	2.59	6.05	36.9	6.4	2.9	
5/7/10 10:37:00	2.56	6.04	36.2	6.4	2.5	
5/7/10 10:37:15	2.56	5.98	36.4	6.4	2.3	
5/7/10 10:37:30	2.62	5.89	36.3	6.4	2.7	
5/7/10 10:37:45	2.69	5.85	35.8	6.5	5.1	
5/7/10 10:38:00	2.78	5.80	35.8	6.5	7.2	
5/7/10 10:38:15	2.87	5.78	35.3	6.4	11.3	
5/7/10 10:38:30	2.84	5.81	34.6	6.5	14.4	
5/7/10 10:38:45	2.83	5.82	34.7	6.5	16.9	
5/7/10 10:39:00	2.87	5.83	35.5	6.5	16.5	
5/7/10 10:39:15	2.81	5.89	35.1	6.4	12.7	
5/7/10 10:39:30	2.69	5.95	35.1	6.5	9.4	
5/7/10 10:39:45	2.67	5.93	35.3	6.5	6.0	
5/7/10 10:40:00	2.70	5.87	34.5	6.6	4.8	
5/7/10 10:40:15	2.72	5.83	34.4	6.5	4.0	
5/7/10 10:40:30	2.72	5.83	35.2	6.5	3.8	
5/7/10 10:40:45	2.68	5.89	34.7	6.5	3.6	
5/7/10 10:41:00	2.62	5.94	34.1	6.5	3.7	
5/7/10 10:41:15	2.59	5.96	34.3	6.5	3.6	
5/7/10 10:41:30	2.64	5.96	34.4	6.6	3.1	
5/7/10 10:41:45	2.64	5.96	35.4	6.5	2.7	
5/7/10 10:42:00	2.61	5.97	35.0	6.6	2.7	
5/7/10 10:42:15	2.60	5.92	34.8	6.6	3.6	
5/7/10 10:42:30	2.69	5.81	34.6	6.6	4.1	
5/7/10 10:42:45	2.76	5.73	34.2	6.6	4.6	
5/7/10 10:43:00	2.75	5.72	34.0	6.8	4.7	
5/7/10 10:43:15	2.67	5.80	33.9	6.7	4.6	
5/7/10 10:43:30	2.53	5.96	33.8	6.7	4.1	
5/7/10 10:43:45	2.40	6.10	34.5	7.1	2.7	
5/7/10 10:44:00	2.40	6.14	34.4	7.0	1.9	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
 SRU No. 2 Tailgas Incinerator Exhaust
 ARI Reference Method Monitoring Data

Date/Time	O ₂ % by vol db	CO ₂ % by vol db	SO ₂ ppmv db	NO _x ppmv db	CO ppmv db	Comments
5/7/10 10:44:15	2.40	6.18	34.5	6.8	1.4	
5/7/10 10:44:30	2.35	6.20	34.7	6.8	1.5	
5/7/10 10:44:45	2.34	6.19	35.0	6.8	1.4	
5/7/10 10:45:00	2.36	6.15	35.0	6.7	1.2	
5/7/10 10:45:15	2.34	6.11	34.1	6.6	1.1	
5/7/10 10:45:30	2.37	6.05	33.8	6.7	1.3	
5/7/10 10:45:45	2.50	5.95	34.1	6.8	1.5	
5/7/10 10:46:00	2.59	5.93	33.8	7.1	1.4	
5/7/10 10:46:15	2.49	6.04	33.9	7.1	1.1	
5/7/10 10:46:30	2.38	6.15	34.8	7.2	1.1	
5/7/10 10:46:45	2.31	6.23	34.9	7.1	1.3	
5/7/10 10:47:00	2.17	6.32	35.1	6.8	1.2	
5/7/10 10:47:15	2.05	6.37	35.1	6.9	1.0	
5/7/10 10:47:30	2.20	6.27	35.6	7.0	1.0	
5/7/10 10:47:45	2.38	6.14	35.1	7.1	1.2	
5/7/10 10:48:00	2.38	6.10	35.1	7.2	1.3	
5/7/10 10:48:15	2.27	6.13	35.3	7.1	1.1	
5/7/10 10:48:30	2.16	6.20	35.8	7.0	1.0	
5/7/10 10:48:45	2.05	6.27	35.9	6.8	1.1	
5/7/10 10:49:00	2.04	6.29	35.3	6.8	1.3	
5/7/10 10:49:15	2.16	6.25	34.8	6.8	1.2	
5/7/10 10:49:30	2.35	6.19	34.6	6.8	1.0	
5/7/10 10:49:45	2.47	6.16	34.6	6.8	1.0	
5/7/10 10:50:00	2.61	6.14	34.5	7.0	1.2	
5/7/10 10:50:15	2.50	6.13	34.4	6.8	1.3	
5/7/10 10:50:30	2.51	6.11	34.7	6.9	1.2	
5/7/10 10:50:45	2.48	6.11	34.9	7.1	1.1	
5/7/10 10:51:00	2.45	6.09	34.8	6.8	1.2	
5/7/10 10:51:15	2.35	6.14	34.5	6.6	1.6	
5/7/10 10:51:30	2.29	6.14	33.8	6.7	1.5	
5/7/10 10:51:45	2.46	6.01	33.5	6.7	1.4	
5/7/10 10:52:00	2.69	5.87	33.4	6.7	1.3	
5/7/10 10:52:15	2.74	5.90	34.2	6.8	1.8	
5/7/10 10:52:30	2.61	6.03	34.6	6.9	1.8	
5/7/10 10:52:45	2.50	6.14	34.7	6.8	1.4	
5/7/10 10:53:00	2.36	6.23	34.4	6.9	1.1	
5/7/10 10:53:15	2.27	6.26	34.6	6.8	1.2	
5/7/10 10:53:30	2.29	6.23	34.6	6.7	1.3	
5/7/10 10:53:45	2.34	6.16	33.9	6.8	1.2	
5/7/10 10:54:00	2.40	6.08	33.9	6.7	1.1	
5/7/10 10:54:15	2.44	6.06	33.9	6.7	1.1	
5/7/10 10:54:30	2.42	6.08	34.2	6.6	1.3	
5/7/10 10:54:45	2.41	6.08	34.3	6.6	1.4	
5/7/10 10:55:00	2.46	6.03	34.1	6.6	1.3	
5/7/10 10:55:15	2.55	6.00	33.4	6.8	1.2	
5/7/10 10:55:30	2.60	6.00	33.7	6.8	1.3	
5/7/10 10:55:45	2.60	6.02	33.9	6.8	1.5	
5/7/10 10:56:00	2.46	6.10	34.7	6.7	1.3	
5/7/10 10:56:15	2.34	6.16	34.6	6.8	1.1	
5/7/10 10:56:30	2.32	6.15	34.9	6.8	1.1	
5/7/10 10:56:45	2.38	6.10	34.6	6.7	1.5	
5/7/10 10:57:00	2.38	6.08	35.0	6.6	1.6	
5/7/10 10:57:15	2.39	6.06	34.5	6.7	1.3	
5/7/10 10:57:30	2.45	6.06	34.6	6.7	1.1	
5/7/10 10:57:45	2.50	6.07	34.5	6.7	1.2	
5/7/10 10:58:00	2.44	6.12	35.3	6.7	1.4	
5/7/10 10:58:15	2.39	6.14	34.8	6.7	1.3	
5/7/10 10:58:30	2.42	6.11	34.2	6.6	1.1	
5/7/10 10:58:45	2.54	6.02	33.7	6.6	1.3	
5/7/10 10:59:00	2.64	5.93	33.3	6.6	1.6	
5/7/10 10:59:15	2.73	5.85	33.4	6.7	1.7	
5/7/10 10:59:30	2.76	5.86	33.3	6.8	1.5	
5/7/10 10:59:45	2.66	5.94	33.7	6.8	1.4	
5/7/10 11:00:00	2.60	5.99	33.7	6.7	1.5	
5/7/10 11:00:15	2.55	6.03	33.8	6.7	1.7	
5/7/10 11:00:30	2.50	6.07	34.1	6.7	1.5	
5/7/10 11:00:45	2.51	6.06	33.8	6.9	1.1	
5/7/10 11:01:00	2.53	6.06	33.7	6.8	1.0	
5/7/10 11:01:15	2.46	6.09	33.6	6.8	1.4	
5/7/10 11:01:30	2.38	6.13	33.4	6.8	1.5	
5/7/10 11:01:45	2.38	6.13	32.9	6.7	1.2	
5/7/10 11:02:00	2.42	6.10	33.5	6.9	1.1	
5/7/10 11:02:15	2.46	6.07	33.8	6.8	1.1	
5/7/10 11:02:30	2.42	6.11	33.8	6.8	1.3	
5/7/10 11:02:45	2.30	6.19	34.3	6.8	1.3	
5/7/10 11:03:00	2.28	6.20	34.8	6.7	1.3	
5/7/10 11:03:15	2.32	6.16	34.0	6.8	1.3	
5/7/10 11:03:30	2.45	6.08	34.0	7.0	1.5	
5/7/10 11:03:45	2.55	6.05	35.3	7.2	1.4	
5/7/10 11:04:00	2.47	6.11	35.7	7.1	1.2	
5/7/10 11:04:15	2.25	6.22	35.8	7.1	1.0	
5/7/10 11:04:30	2.02	6.35	36.1	7.0	1.2	
5/7/10 11:04:45	1.94	6.40	36.6	7.0	1.5	
5/7/10 11:05:00	2.00	6.36	36.9	6.9	1.4	
5/7/10 11:05:15	2.01	6.32	37.3	7.8	1.1	
5/7/10 11:05:30	2.05	6.29	38.0	7.2	1.1	
5/7/10 11:05:45	2.12	6.28	36.1	7.2	1.6	
5/7/10 11:06:00	2.09	6.32	37.9	7.2	1.7	
5/7/10 11:06:15	1.98	6.39	38.0	6.9	1.4	
5/7/10 11:06:30	1.98	6.39	37.6	6.9	1.3	
5/7/10 11:06:45	2.07	6.33	37.5	7.0	1.4	
5/7/10 11:07:00	2.19	6.23	37.4	7.0	1.5	
5/7/10 11:07:15	2.22	6.21	37.7	6.8	1.4	
5/7/10 11:07:30	2.22	6.21	36.9	6.7	1.3	
5/7/10 11:07:45	2.33	6.18	36.3	6.8	1.3	
5/7/10 11:08:00	2.41	6.16	35.9	6.8	1.7	
5/7/10 11:08:15	2.47	6.14	36.0	6.7	1.8	
5/7/10 11:08:30	2.54	6.09	36.2	6.7	1.6	
5/7/10 11:08:45	2.62	6.05	35.0	6.5	1.4	
5/7/10 11:09:00	2.65	6.01	34.2	6.5	1.5	
5/7/10 11:09:15	2.75	5.93	34.2	6.6	2.0	
5/7/10 11:09:30	2.85	5.87	34.1	6.7	2.0	
5/7/10 11:09:45	2.93	5.83	34.1	6.6	2.0	
5/7/10 11:10:00	2.84	5.88	34.7	6.7	2.1	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
 SRU No. 2 Tailgas Incinerator Exhaust
 ARI Reference Method Monitoring Data

Date/Time	O ₂ % by vol db	CO ₂ % by vol db	SO ₂ ppmv db	NO _x ppmv db	CO ppmv db	Comments
5/7/10 11:10:15	2.73	5.93	35.1	6.7	2.3	
5/7/10 11:10:30	2.71	5.94	35.7	6.6	2.2	
5/7/10 11:10:45	2.69	5.96	36.2	6.6	1.7	
5/7/10 11:11:00	2.63	6.00	36.0	6.7	1.5	
5/7/10 11:11:15	2.61	6.01	36.6	6.7	1.6	
5/7/10 11:11:30	2.64	6.01	37.0	6.8	1.9	
5/7/10 11:11:45	2.59	6.05	36.9	6.9	1.6	
5/7/10 11:12:00	2.44	6.12	37.1	6.8	1.4	
5/7/10 11:12:15	2.35	6.16	37.1	6.8	1.3	
5/7/10 11:12:30	2.33	6.16	37.2	6.6	1.5	
5/7/10 11:12:45	2.42	6.10	37.1	6.6	1.5	
5/7/10 11:13:00	2.47	6.06	36.0	6.8	1.4	
5/7/10 11:13:15	2.55	6.01	36.6	6.9	1.3	
5/7/10 11:13:30	2.63	6.03	36.8	7.0	1.4	
5/7/10 11:13:45	2.53	6.13	37.4	6.9	1.6	
5/7/10 11:14:00	2.33	6.24	38.2	6.9	1.4	
5/7/10 11:14:15	2.16	6.32	38.8	6.7	1.1	
5/7/10 11:14:30	2.11	6.34	38.9	6.7	1.0	
5/7/10 11:14:45	2.22	6.29	38.6	6.7	1.5	
5/7/10 11:15:00	2.37	6.20	38.3	6.7	1.6	
5/7/10 11:15:15	2.47	6.14	37.6	6.6	1.4	
5/7/10 11:15:30	2.50	6.11	37.1	6.6	1.2	
5/7/10 11:15:45	2.56	6.09	37.1	6.6	1.3	
5/7/10 11:16:00	2.56	6.09	36.7	6.5	1.6	
5/7/10 11:16:15	2.56	6.07	36.7	6.5	1.6	
5/7/10 11:16:30	2.61	6.02	36.6	6.6	1.6	
5/7/10 11:16:45	2.72	5.96	36.1	6.5	1.7	
5/7/10 11:17:00	2.78	5.95	36.3	6.5	2.3	
5/7/10 11:17:15	2.79	5.94	37.2	6.6	3.4	
5/7/10 11:17:30	2.86	5.88	37.0	6.7	5.2	
5/7/10 11:17:45	2.93	5.83	37.7	6.6	9.1	
5/7/10 11:18:00	2.91	5.81	38.0	6.6	11.9	
5/7/10 11:18:15	2.77	6.85	37.5	6.6	13.3	
5/7/10 11:18:30	2.66	5.92	36.6	6.7	11.8	
5/7/10 11:18:45	2.59	6.00	36.8	6.7	7.6	
5/7/10 11:19:00	2.47	6.09	37.0	6.6	4.7	
5/7/10 11:19:15	2.38	6.14	37.3	6.6	2.6	
5/7/10 11:19:30	2.45	6.12	36.9	6.5	1.9	
5/7/10 11:19:45	2.58	6.08	37.0	6.6	1.5	
5/7/10 11:20:00	2.64	6.06	37.3	6.7	1.5	
5/7/10 11:20:15	2.61	6.07	38.2	6.6	1.7	
5/7/10 11:20:30	2.63	6.09	38.2	6.6	1.8	
5/7/10 11:20:45	2.46	6.13	38.0	6.5	1.6	
5/7/10 11:21:00	2.47	6.11	38.2	6.5	1.5	
5/7/10 11:21:15	2.57	6.05	37.8	6.5	1.6	
5/7/10 11:21:30	2.66	6.00	38.1	6.5	1.9	
5/7/10 11:21:45	2.66	6.02	38.0	6.6	1.7	
5/7/10 11:22:00	2.59	6.09	37.9	6.8	1.5	
5/7/10 11:22:15	2.55	6.13	38.0	6.9	1.3	
5/7/10 11:22:30	2.44	6.19	38.5	6.9	1.5	
5/7/10 11:22:45	2.24	6.29	38.4	6.8	1.7	
5/7/10 11:23:00	2.10	6.34	37.7	6.9	1.4	
5/7/10 11:23:15	2.16	6.31	38.1	6.7	1.2	
5/7/10 11:23:30	2.27	6.25	37.4	7.0	1.2	
5/7/10 11:23:45	2.32	6.22	37.3	7.1	1.5	
5/7/10 11:24:00	2.38	6.21	38.4	6.8	1.5	
5/7/10 11:24:15	2.48	6.18	38.7	6.8	1.3	
5/7/10 11:24:30	2.52	6.18	38.9	6.7	1.3	
5/7/10 11:24:45	2.46	6.23	39.3	6.6	1.6	
5/7/10 11:25:00	2.40	6.26	40.0	6.7	1.6	
5/7/10 11:25:15	2.44	6.21	39.5	6.6	1.4	
5/7/10 11:25:30	2.52	6.12	39.3	6.5	1.3	
5/7/10 11:25:45	2.55	6.04	38.7	6.5	1.6	
5/7/10 11:26:00	2.61	5.96	38.2	6.5	1.9	
5/7/10 11:26:15	2.74	5.92	37.9	6.5	1.8	
5/7/10 11:26:30	2.83	5.91	37.8	6.6	1.7	
5/7/10 11:26:45	2.79	5.95	38.3	6.7	1.7	
5/7/10 11:27:00	2.70	6.03	37.6	6.7	2.0	
5/7/10 11:27:15	2.61	6.10	37.0	6.7	1.9	
5/7/10 11:27:30	2.52	6.17	37.2	6.7	1.6	
5/7/10 11:27:45	2.45	6.21	37.4	6.7	1.2	
5/7/10 11:28:00	2.43	6.21	37.3	6.6	1.3	
5/7/10 11:28:15	2.44	6.20	37.8	6.7	1.7	
5/7/10 11:28:30	2.42	6.22	37.2	6.6	1.6	
5/7/10 11:28:45	2.38	6.24	36.5	6.6	1.3	
5/7/10 11:29:00	2.38	6.23	37.2	6.7	1.2	
5/7/10 11:29:15	2.40	6.21	36.8	6.7	1.4	
5/7/10 11:29:30	2.42	6.19	37.2	6.7	1.5	
5/7/10 11:29:45	2.49	6.15	36.9	6.6	1.3	
5/7/10 11:30:00	2.46	6.17	37.1	6.7	1.3	
5/7/10 11:30:15	2.39	6.22	37.0	6.7	1.3	
5/7/10 11:30:30	2.39	6.23	37.0	6.7	1.5	
5/7/10 11:30:45	2.37	6.24	37.3	6.7	1.4	
5/7/10 11:31:00	2.33	6.26	37.9	6.8	1.3	
5/7/10 11:31:15	2.26	6.29	38.5	6.8	1.3	
5/7/10 11:31:30	2.22	6.30	39.1	6.7	1.5	
5/7/10 11:31:45	2.18	6.32	38.4	6.7	1.4	
5/7/10 11:32:00	2.21	6.31	38.8	6.7	1.3	
5/7/10 11:32:15	2.30	6.27	38.9	6.8	1.2	
5/7/10 11:32:30	2.33	6.26	39.0	6.7	1.4	
5/7/10 11:32:45	2.29	6.29	39.8	6.7	1.5	
5/7/10 11:33:00	2.29	6.29	39.5	6.7	1.4	
5/7/10 11:33:15	2.29	6.28	38.8	6.7	1.2	
5/7/10 11:33:30	2.25	6.30	38.7	6.7	1.3	
5/7/10 11:33:45	2.29	6.28	38.8	6.7	1.7	
5/7/10 11:34:00	2.42	6.23	38.9	6.7	1.5	
5/7/10 11:34:15	2.43	6.22	38.5	6.8	1.3	
5/7/10 11:34:30	2.43	6.20	38.7	6.7	1.2	
5/7/10 11:34:45	2.45	6.20	38.8	6.7	1.5	
5/7/10 11:35:00	2.38	6.26	39.4	6.8	1.6	
5/7/10 11:35:15	2.35	6.29	39.4	6.7	1.5	
5/7/10 11:35:30	2.30	6.32	39.2	6.7	1.3	
5/7/10 11:35:45	2.24	6.34	39.4	7.4	1.5	
5/7/10 11:36:00	2.25	6.31	39.5	8.4	1.6	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
SRU No. 2 Tailgas Incinerator Exhaust
ARI Reference Method Monitoring Data

Date/Time	O ₂ % by vol db	CO ₂ % by vol db	SO ₂ ppmv db	NO _x ppmv db	CO ppmv db	Comments
5/7/10 11:36:15	2.30	6.29	40.5	6.7	1.4	
5/7/10 11:36:30	2.33	6.28	39.7	6.6	1.3	
5/7/10 11:36:45	2.43	6.21	39.2	6.7	1.5	
5/7/10 11:37:00	2.53	6.16	39.4	6.7	1.8	
5/7/10 11:37:15	2.49	6.19	39.6	6.9	1.7	
5/7/10 11:37:30	2.37	6.27	39.5	6.8	1.4	
5/7/10 11:37:45	2.25	6.35	39.6	6.9	1.3	
5/7/10 11:38:00	2.12	6.43	40.4	6.6	1.6	
5/7/10 11:38:15	2.03	6.48	40.1	6.5	2.0	
5/7/10 11:38:30	2.01	6.46	40.1	6.5	1.8	
5/7/10 11:38:45	2.16	6.36	40.3	6.4	1.5	
5/7/10 11:39:00	2.26	6.31	41.1	6.4	1.3	
5/7/10 11:39:15	2.24	6.33	41.0	6.4	1.7	
5/7/10 11:39:30	2.28	6.32	40.6	6.8	1.7	
5/7/10 11:39:45	2.30	6.30	41.9	9.1	1.4	
5/7/10 11:40:00	2.32	6.29	43.8	6.7	1.3	
5/7/10 11:40:15	2.39	6.27	44.1	6.7	1.5	
5/7/10 11:40:30	2.40	6.28	44.1	6.8	1.7	
5/7/10 11:40:45	2.28	6.38	45.3	6.8	1.6	
5/7/10 11:41:00	2.03	6.53	46.2	6.8	1.8	
5/7/10 11:41:15	1.82	6.64	46.4	6.7	2.3	
5/7/10 11:41:30	1.70	6.69	46.9	6.7	2.8	
5/7/10 11:41:45	1.75	6.65	47.9	6.8	2.8	
5/7/10 11:42:00	1.87	6.58	48.7	6.8	3.4	
5/7/10 11:42:15	1.97	6.53	51.1	6.8	5.7	
5/7/10 11:42:30	1.90	6.57	49.9	6.5	7.8	
5/7/10 11:42:45	1.84	6.59	48.5	6.4	9.6	
5/7/10 11:43:00	2.03	6.48	48.2	6.3	8.8	
5/7/10 11:43:15	2.30	6.34	46.8	6.3	5.7	
5/7/10 11:43:30	2.43	6.24	45.5	6.4	3.6	
5/7/10 11:43:45	2.53	6.19	44.9	6.4	2.3	
5/7/10 11:44:00	2.50	6.21	44.8	6.5	1.9	
5/7/10 11:44:15	2.34	6.30	44.6	6.9	1.5	
5/7/10 11:44:30	2.25	6.35	44.6	6.5	1.3	
5/7/10 11:44:45	2.20	6.41	44.3	6.3	1.6	
5/7/10 11:45:00	2.14	6.43	44.1	6.4	2.0	End M6
5/7/10 11:45:15	2.23	6.36	44.2	6.4	1.8	
5/7/10 11:45:30	2.39	6.28	43.9	6.7	1.5	
5/7/10 11:45:45	2.41	6.28	43.3	6.5	1.3	
5/7/10 11:46:00	2.37	6.30	43.0	6.7	1.7	
5/7/10 11:46:15	2.25	6.37	42.9	6.6	2.2	
5/7/10 11:46:30	2.20	6.37	41.9	6.3	2.0	
5/7/10 11:46:45	2.26	6.33	41.9	6.5	1.7	
5/7/10 11:47:00	2.30	6.32	43.7	7.0	3.4	
5/7/10 11:47:15	2.30	6.37	49.4	7.1	65.8	
5/7/10 11:47:30	1.91	6.67	55.0	7.3	112.0	
5/7/10 11:47:45	1.11	7.05	56.0	7.0	116.6	
5/7/10 11:48:00	0.60	7.18	54.2	6.9	116.6	
5/7/10 11:48:15	0.60	7.08	53.7	6.9	116.6	
5/7/10 11:48:30	1.07	7.00	52.3	6.7	116.6	
5/7/10 11:48:45	1.17	6.95	51.1	6.6	116.6	
5/7/10 11:49:00	1.32	6.90	51.3	6.6	116.6	
5/7/10 11:49:15	1.43	6.85	49.8	6.6	58.8	
5/7/10 11:49:30	1.53	6.80	50.1	6.6	30.5	
5/7/10 11:49:45	1.61	6.76	48.9	6.6	14.8	
5/7/10 11:50:00	1.69	6.72	49.6	6.6	11.6	
5/7/10 11:50:15	1.73	6.70	49.8	6.6	44.4	
5/7/10 11:50:30	1.77	6.69	49.6	6.6	82.5	
5/7/10 11:50:45	1.62	6.73	49.5	6.6	116.6	
5/7/10 11:51:00	1.62	6.73	49.4	6.6	116.6	
5/7/10 11:51:15	1.72	6.70	49.6	6.6	104.9	
5/7/10 11:51:30	1.78	6.64	50.0	6.6	76.8	
5/7/10 11:51:45	1.82	6.61	49.6	6.5	50.2	
5/7/10 11:52:00	1.76	6.64	49.1	6.5	45.0	
5/7/10 11:52:15	1.75	6.62	49.2	6.5	44.7	
5/7/10 11:52:30	1.90	6.54	49.5	6.5	38.4	
5/7/10 11:52:45	1.99	6.51	49.1	6.5	24.3	
5/7/10 11:53:00	1.94	6.54	49.3	6.5	13.1	
5/7/10 11:53:15	1.89	6.56	48.0	6.7	6.1	
5/7/10 11:53:30	1.92	6.54	48.5	6.8	5.8	
5/7/10 11:53:45	1.89	6.58	49.4	6.7	20.1	
5/7/10 11:54:00	1.70	6.67	51.5	6.7	72.2	
5/7/10 11:54:15	1.51	6.75	53.0	6.7	116.6	
5/7/10 11:54:30	1.32	6.80	51.7	6.6	116.6	
5/7/10 11:54:45	1.32	6.80	51.9	6.6	116.6	
5/7/10 11:55:00	1.45	6.80	51.1	6.6	116.6	
5/7/10 11:55:15	1.54	6.77	51.2	6.7	116.6	
5/7/10 11:55:30	1.66	6.71	51.3	6.7	116.6	
5/7/10 11:55:45	1.71	6.69	51.1	6.7	80.0	
5/7/10 11:56:00	1.62	6.73	51.6	6.6	60.7	
5/7/10 11:56:15	1.53	6.75	51.0	6.5	52.9	
5/7/10 11:56:30	1.51	6.76	50.7	6.5	45.0	
5/7/10 11:56:45	1.55	6.72	50.5	6.5	34.3	
5/7/10 11:57:00	1.74	6.83	50.4	6.7	22.9	
5/7/10 11:57:15	1.88	6.60	50.0	6.8	15.5	
5/7/10 11:57:30	1.78	6.66	50.7	6.7	19.7	
5/7/10 11:57:45	1.60	6.75	51.5	6.8	55.2	
5/7/10 11:58:00	1.44	6.82	53.2	6.7	107.5	
5/7/10 11:58:15	1.35	6.84	52.4	6.7	116.6	
5/7/10 11:58:30	1.35	6.82	53.4	6.7	116.6	
5/7/10 11:58:45	1.38	6.81	52.7	7.0	116.6	
5/7/10 11:59:00	1.31	6.82	51.1	6.7	113.2	
5/7/10 11:59:15	1.47	6.71	51.4	6.7	76.5	
5/7/10 11:59:30	1.84	6.54	49.9	6.4	46.8	
5/7/10 11:59:45	2.13	6.40	48.4	6.5	27.1	
5/7/10 12:00:00	2.24	6.32	48.3	6.4	14.3	
5/7/10 12:00:15	2.31	6.31	48.0	6.9	7.8	
5/7/10 12:00:30	2.29	6.37	48.1	6.7	7.5	
5/7/10 12:00:45	2.14	6.48	49.6	6.5	12.0	
5/7/10 12:01:00	1.89	6.61	48.6	6.5	17.7	
5/7/10 12:01:15	1.65	6.70	48.8	6.9	21.7	
5/7/10 12:01:30	1.66	6.88	48.8	8.6	23.5	
5/7/10 12:01:45	1.77	6.62	49.3	7.4	21.6	
5/7/10 12:02:00	1.78	6.60	50.4	6.8	18.1	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
 SRU No. 2 Tailgas Incinerator Exhaust
 ARI Reference Method Monitoring Data

Date/Time	O ₂ % by vol db	CO ₂ % by vol db	SO ₂ ppmv db	NO _x ppmv db	CO ppmv db	Comments
5/7/10 12:02:15	1.72	6.63	50.5	6.8	16.9	
5/7/10 12:02:30	1.65	6.66	50.8	6.7	17.4	
5/7/10 12:02:45	1.58	6.72	51.8	9.4	22.1	
5/7/10 12:03:00	1.45	6.77	53.2	10.6	29.9	
5/7/10 12:03:15	1.47	6.76	54.2	7.1	35.4	
5/7/10 12:03:30	1.59	6.71	54.2	7.0	36.0	
5/7/10 12:03:45	1.72	6.68	53.3	6.7	43.9	
5/7/10 12:04:00	1.68	6.70	52.4	6.8	52.0	
5/7/10 12:04:15	1.59	6.71	53.1	7.0	58.8	
5/7/10 12:04:30	1.66	6.69	52.4	7.0	61.5	
5/7/10 12:04:45	1.62	6.75	51.7	7.0	53.3	
5/7/10 12:05:00	1.44	6.83	52.3	6.8	44.2	
5/7/10 12:05:15	1.36	6.86	51.7	6.5	38.9	
5/7/10 12:05:30	1.35	6.85	50.2	6.6	36.1	
5/7/10 12:05:45	1.50	6.75	49.6	6.7	30.8	
5/7/10 12:06:00	1.79	6.63	49.3	7.0	22.4	
5/7/10 12:06:15	1.87	6.60	50.8	6.8	16.7	
5/7/10 12:06:30	1.90	6.61	51.6	6.8	36.4	
5/7/10 12:06:45	1.78	6.69	52.6	6.8	79.1	
5/7/10 12:07:00	1.45	6.86	53.0	6.7	80.9	
5/7/10 12:07:15	1.24	6.94	54.0	8.7	67.6	
5/7/10 12:07:30	1.24	6.93	55.6	7.5	92.0	
5/7/10 12:07:45	1.25	6.90	57.4	7.2	94.3	
5/7/10 12:08:00	1.29	6.88	56.7	7.8	97.0	
5/7/10 12:08:15	1.28	6.90	57.4	7.0	102.0	
5/7/10 12:08:30	1.24	6.94	58.2	6.9	103.1	
5/7/10 12:08:45	1.18	6.98	60.1	6.8	102.1	
5/7/10 12:09:00	1.11	7.00	61.8	7.0	100.5	
5/7/10 12:09:15	1.02	7.01	60.2	7.2	99.1	
5/7/10 12:09:30	1.01	7.01	60.1	6.9	97.5	
5/7/10 12:09:45	1.11	6.99	63.0	6.7	98.1	
5/7/10 12:10:00	1.14	6.98	62.1	6.6	91.1	
5/7/10 12:10:15	1.09	6.97	59.8	6.7	86.7	
5/7/10 12:10:30	1.16	6.95	59.4	6.6	86.1	
5/7/10 12:10:45	1.22	6.95	57.5	6.6	85.7	
5/7/10 12:11:00	1.28	6.93	57.9	6.6	85.1	
5/7/10 12:11:15	1.33	6.91	58.4	6.6	84.5	
5/7/10 12:11:30	1.23	6.95	58.1	6.7	84.0	
5/7/10 12:11:45	1.16	6.98	58.8	6.7	86.6	
5/7/10 12:12:00	1.19	6.99	60.2	6.8	86.6	
5/7/10 12:12:15	1.13	7.01	61.4	6.8	86.6	
5/7/10 12:12:30	1.06	6.98	63.5	6.9	86.6	
5/7/10 12:12:45	1.08	6.98	65.4	7.0	86.6	
5/7/10 12:13:00	0.96	7.06	66.5	6.9	86.6	
5/7/10 12:13:15	0.78	7.14	68.8	7.4	86.6	
5/7/10 12:13:30	0.71	7.22	71.1	6.9	86.6	
5/7/10 12:13:45	0.60	7.30	71.6	6.9	86.6	
5/7/10 12:14:00	0.56	7.32	71.7	6.8	86.6	
5/7/10 12:14:15	0.59	7.29	72.7	6.7	86.6	
5/7/10 12:14:30	0.67	7.24	73.1	6.7	86.6	
5/7/10 12:14:45	0.67	7.21	70.8	6.7	86.6	
5/7/10 12:15:00	0.76	7.16	69.8	6.7	86.6	
5/7/10 12:15:15	0.98	7.09	69.0	6.7	86.6	
5/7/10 12:15:30	1.08	7.03	68.1	6.8	86.6	
5/7/10 12:15:45	1.08	7.01	68.5	6.9	86.6	
5/7/10 12:16:00	1.07	7.04	67.0	6.8	86.6	
5/7/10 12:16:15	0.97	7.09	66.7	6.8	86.6	
5/7/10 12:16:30	0.95	7.10	65.9	6.9	86.6	
5/7/10 12:16:45	1.02	7.08	64.1	6.7	86.6	
5/7/10 12:17:00	1.08	7.06	63.7	6.8	86.6	
5/7/10 12:17:15	1.11	7.04	65.0	6.9	86.6	
5/7/10 12:17:30	1.10	7.04	66.0	6.9	86.6	
5/7/10 12:17:45	1.01	7.01	66.5	7.2	86.6	
5/7/10 12:18:00	0.87	7.07	71.4	7.9	86.6	
5/7/10 12:18:15	0.69	7.22	72.8	7.0	86.6	
5/7/10 12:18:30	0.64	7.32	70.5	7.0	86.6	
5/7/10 12:18:45	0.69	7.24	68.2	7.0	86.6	
5/7/10 12:19:00	1.05	7.04	67.3	7.1	86.6	
5/7/10 12:19:15	1.27	6.92	66.4	6.8	86.6	
5/7/10 12:19:30	1.34	6.87	65.1	7.6	86.6	
5/7/10 12:19:45	1.29	6.91	64.7	7.7	86.6	
5/7/10 12:20:00	1.29	6.95	63.6	6.7	86.6	
5/7/10 12:20:15	1.28	6.98	61.8	7.4	86.6	
5/7/10 12:20:30	1.34	6.93	61.2	7.2	86.6	
5/7/10 12:20:45	1.44	6.91	62.8	7.0	86.6	
5/7/10 12:21:00	1.26	7.03	65.6	6.9	86.6	
5/7/10 12:21:15	0.91	7.20	66.3	6.7	86.6	
5/7/10 12:21:30	0.69	7.26	64.1	6.6	80.7	
5/7/10 12:21:45	1.16	6.96	61.4	6.7	35.1	
5/7/10 12:22:00	1.41	6.92	60.9	6.7	21.1	
5/7/10 12:22:15	1.36	6.97	60.4	6.6	14.9	
5/7/10 12:22:30	1.28	6.99	59.8	6.8	12.1	
5/7/10 12:22:45	1.37	6.94	59.7	6.9	13.4	
5/7/10 12:23:00	1.42	6.94	58.5	6.9	14.8	
5/7/10 12:23:15	1.30	6.97	57.2	6.6	14.0	
5/7/10 12:23:30	1.39	6.93	57.0	6.9	11.0	
5/7/10 12:23:45	1.51	6.88	56.7	6.7	6.1	
5/7/10 12:24:00	1.55	6.88	56.2	6.8	5.5	
5/7/10 12:24:15	1.47	6.92	57.7	6.6	5.0	
5/7/10 12:24:30	1.43	6.95	56.9	6.6	5.5	
5/7/10 12:24:45	1.35	6.96	55.9	6.9	5.7	
5/7/10 12:25:00	1.47	6.92	56.7	6.5	5.1	
5/7/10 12:25:15	1.50	6.92	56.3	6.5	4.0	
5/7/10 12:25:30	1.51	6.88	55.9	6.6	2.6	
5/7/10 12:25:45	1.63	6.82	55.0	6.5	1.8	
5/7/10 12:26:00	1.67	6.82	56.2	6.7	1.1	
5/7/10 12:26:15	1.59	6.87	55.3	6.4	0.7	
5/7/10 12:26:30	1.60	6.84	54.0	6.3	0.5	
5/7/10 12:26:45	1.81	6.71	53.1	6.5	0.5	
5/7/10 12:27:00	1.99	6.63	53.5	6.9	0.4	
5/7/10 12:27:15	2.00	6.66	54.1	6.7	0.3	
5/7/10 12:27:30	1.92	6.73	53.1	6.5	0.3	
5/7/10 12:27:45	1.83	6.78	53.0	6.6	0.3	
5/7/10 12:28:00	1.87	6.74	53.7	6.5	0.7	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
SRU No. 2 Tailgas Incinerator Exhaust
ARI Reference Method Monitoring Data

Date/Time	O ₂ % by vol db	CO ₂ % by vol db	SO ₂ ppmv db	NO _x ppmv db	CO ppmv db	Comments
5/7/10 12:28:15	1.88	6.73	54.2	6.4	1.2	
5/7/10 12:28:30	1.79	6.75	53.6	6.5	1.9	
5/7/10 12:28:45	1.78	6.77	53.2	6.5	2.2	
5/7/10 12:29:00	1.87	6.74	53.3	6.8	2.0	
5/7/10 12:29:15	1.95	6.72	53.8	6.8	1.6	
5/7/10 12:29:30	1.93	6.71	54.9	6.7	1.4	
5/7/10 12:29:45	1.85	6.72	55.6	7.1	1.5	
5/7/10 12:30:00	1.80	6.72	54.4	6.9	2.0	
5/7/10 12:30:15	1.76	6.72	54.4	6.8	2.2	
5/7/10 12:30:30	1.87	6.66	55.2	6.6	2.5	
5/7/10 12:30:45	1.94	6.66	55.4	6.6	2.7	
5/7/10 12:31:00	1.78	6.72	56.0	6.5	3.3	
5/7/10 12:31:15	1.72	6.74	55.3	6.7	3.4	
5/7/10 12:31:30	1.72	6.76	54.4	6.5	3.1	
5/7/10 12:31:45	1.73	6.79	54.9	6.5	2.7	
5/7/10 12:32:00	1.73	6.79	54.2	6.4	1.7	
5/7/10 12:32:15	1.81	6.75	54.3	6.4	1.1	
5/7/10 12:32:30	1.85	6.75	54.0	6.6	0.6	
5/7/10 12:32:45	1.86	6.77	54.2	6.3	0.7	
5/7/10 12:33:00	1.77	6.80	54.8	7.4	1.6	
5/7/10 12:33:15	1.85	6.69	54.7	8.2	2.9	
5/7/10 12:33:30	2.09	6.55	55.1	7.1	5.8	
5/7/10 12:33:45	2.04	6.61	56.3	6.9	53.2	
5/7/10 12:34:00	1.74	6.75	56.8	6.7	116.6	
5/7/10 12:34:15	1.55	6.84	56.1	2.5	116.6	
5/7/10 12:34:30	1.48	6.87	48.9	1.0	116.6	
5/7/10 12:34:45	3.10	5.60	35.1	0.2	116.6	
5/7/10 12:35:00	5.95	3.71	26.2	0.2	116.6	
5/7/10 12:35:15	5.61	3.68	20.5	0.1	104.7	
5/7/10 12:35:30	5.07	4.01	16.2	0.1	67.0	
5/7/10 12:35:45	4.93	4.07	13.0	0.1	52.6	
5/7/10 12:36:00	4.89	4.00	10.5	0.1	47.2	
5/7/10 12:36:15	4.88	3.95	8.4	0.1	46.8	
5/7/10 12:36:30	4.88	4.32	7.1	0.1	47.2	
5/7/10 12:36:45	4.89	4.34	6.2	0.1	47.3	
5/7/10 12:37:00	4.90	4.32	5.3	0.1	46.9	System Bias
5/7/10 12:37:15	4.91	4.32	4.7	0.0	46.4	4.92 5.00% O ₂
5/7/10 12:37:30	4.92	4.32	4.0	0.1	46.0	4.32 4.32% CO ₂
5/7/10 12:37:45	4.93	4.33	3.7	0.1	46.1	0.1 Zero NO _x
5/7/10 12:38:00	4.93	4.28	3.3	3.6	47.3	46.3 46.0 ppm CO
5/7/10 12:38:15	4.93	4.30	5.5	6.5	52.8	
5/7/10 12:38:30	4.78	4.54	13.9	3.9	65.5	
5/7/10 12:38:45	3.67	5.50	18.6	3.3	74.4	
5/7/10 12:39:00	2.53	6.08	18.2	22.1	76.8	
5/7/10 12:39:15	2.29	4.26	19.6	34.8	66.8	
5/7/10 12:39:30	1.47	2.07	12.1	28.3	43.2	
5/7/10 12:39:45	0.56	0.64	10.7	31.2	26.1	
5/7/10 12:40:00	0.16	0.20	5.9	33.2	10.8	
5/7/10 12:40:15	0.06	0.11	4.4	35.1	5.5	
5/7/10 12:40:30	0.03	0.09	3.3	37.0	2.7	
5/7/10 12:40:45	0.02	0.08	3.1	38.0	2.1	System Bias
5/7/10 12:41:00	0.02	0.08	3.0	38.3	2.2	
5/7/10 12:41:15	0.01	0.07	3.0	38.8	2.4	3.1 Zero SO ₂
5/7/10 12:41:30	0.01	0.07	3.3	39.4	2.2	38.6 45.0 ppm NO _x
5/7/10 12:41:45	0.01	0.07	3.8	22.6	2.1	
5/7/10 12:42:00	0.01	0.07	3.4	16.3	2.1	
5/7/10 12:42:15	0.01	0.06	40.0	5.2	2.4	
5/7/10 12:42:30	0.01	0.06	10.2	1.1	2.4	
5/7/10 12:42:45	0.01	0.06	33.6	0.2	2.1	
5/7/10 12:43:00	0.01	0.06	40.8	0.2	1.9	
5/7/10 12:43:15	0.01	0.06	41.1	0.2	2.1	System Bias
5/7/10 12:43:30	0.01	0.06	41.4	0.2	2.4	0.01 Zero O ₂
5/7/10 12:43:45	0.01	0.06	41.7	0.2	2.3	0.06 Zero CO ₂
5/7/10 12:44:00	0.00	0.06	42.8	3.8	3.5	41.8 45.0 ppm SO ₂
5/7/10 12:44:15	0.01	0.08	50.8	6.4	10.1	2.6 Zero CO
5/7/10 12:44:30	0.21	1.34	57.7	6.4	23.0	
5/7/10 12:44:45	0.85	3.68	60.1	6.5	31.3	
5/7/10 12:45:00	1.40	5.38	61.1	6.6	41.8	
5/7/10 12:45:15	1.74	6.37	61.9	10.8	45.2	
5/7/10 12:45:30	1.87	6.62	64.6	8.7	54.0	
5/7/10 12:45:45	1.91	6.66	65.7	8.1	71.8	
5/7/10 12:46:00	1.87	6.87	66.1	9.2	107.4	
5/7/10 12:46:15	1.88	6.65	66.5	7.4	116.6	
5/7/10 12:46:30	1.90	6.66	65.8	9.8	116.6	
5/7/10 12:46:45	1.87	6.71	66.5	14.3	112.0	
5/7/10 12:47:00	1.79	6.77	71.6	9.8	68.9	
5/7/10 12:47:15	1.71	6.82	72.6	7.5	38.5	
5/7/10 12:47:30	1.72	6.83	71.6	7.2	13.0	
5/7/10 12:47:45	1.74	6.82	68.9	7.1	5.6	
5/7/10 12:48:00	1.75	6.82	65.4	6.9	2.9	
5/7/10 12:48:15	1.78	6.81	64.5	7.0	2.2	
5/7/10 12:48:30	1.82	6.79	62.9	7.0	2.0	
5/7/10 12:48:45	1.88	6.76	61.5	7.3	2.2	
5/7/10 12:49:00	1.93	6.73	60.9	7.1	2.8	
5/7/10 12:49:15	1.89	6.76	60.1	6.7	3.1	
5/7/10 12:49:30	1.80	6.79	58.9	6.9	2.7	
5/7/10 12:49:45	1.80	6.80	58.7	6.7	2.2	
5/7/10 12:50:00	1.77	6.84	58.2	6.6	2.1	
5/7/10 12:50:15	1.71	6.84	56.9	7.0	3.4	
5/7/10 12:50:30	1.83	6.75	57.0	9.4	5.8	
5/7/10 12:50:45	1.95	6.69	58.6	9.6	7.4	
5/7/10 12:51:00	1.97	6.69	61.3	8.6	8.3	
5/7/10 12:51:15	1.88	6.78	60.9	6.9	7.8	
5/7/10 12:51:30	1.72	6.88	60.4	9.3	5.6	
5/7/10 12:51:45	1.60	6.94	60.8	8.7	3.6	
5/7/10 12:52:00	1.63	6.90	62.1	6.6	2.0	
5/7/10 12:52:15	1.82	6.79	61.2	6.4	1.6	
5/7/10 12:52:30	1.89	6.77	61.6	6.3	1.9	



Valero Refining - Texas L.P.
Source: SRU No. 2 Tailgas Incinerator
Test Dates: May 6 and 7, 2010

APPENDIX E

Calibration Data

CEMS CALIBRATION DATA

Plant Name	Valero Refining - Texas, L.P.
Sampling Location	SRU No. 2 TGI Exhaust
Date	5/6/2010
Run Number	SRU2-2
Start Time	13:15
Stop Time	17:26

Plant Rep.	Ralph Horton
Team Leader	Bill Pearce
CEM Operator	Bill Pearce

Analyzer Span Values (% or ppm)	
CO	88.3 ppm
CO ₂	8.65 %
O ₂	10.00 %
SO ₂	90.0
NO _x	90.0 ppm

	CALIBRATION ERROR - 11:14 hrs				SYSTEM BIAS CHECK					Calibration Correction Factors
	Cylinder Value (% or ppm)	Cylinder Number	Analyzer Calibration Response	Difference (% of Span)	Pretest: 12:06		Posttest: 17:32 hrs			
					System Response	Syst. Bias (% of Span)	System Response	Syst. Bias (% of Span)	Drift (% of Span)	
CO Zero	0.0	EB0014177	0.2	0.2	2.3	2.4	0.9	0.8	-1.6	Co=
CO Low		Diluted from								1.60
CO Mid	44.2	CC16839	44.2	0.0	43.0	-1.4	44.2	0.0	1.4	Cm=
CO High	88.3	201.2 ppm	88.5	0.2						43.57
CO ₂ Zero	0.00	EB0014177	0.03	0.3	0.05	0.3	0.05	0.2	0.0	Co=
CO ₂ Low		Diluted from								0.049
CO ₂ Mid	4.32	CC16839	4.33	0.1	4.27	-0.6	4.26	-0.8	-0.1	Cm=
CO ₂ High	8.65	19.70 %	8.64	-0.2						4.265
O ₂ Zero	0.00	EB0014177	-0.01	-0.1	0.00	0.1	0.01	0.2	0.1	Co=
O ₂ Low		Diluted from								0.006
O ₂ Mid	5.00	CC16839	4.92	-0.8	4.92	0.0	4.94	0.1	0.2	Cm=
O ₂ High	10.00	22.78 %	10.00	0.0						4.930
SO ₂ Zero	0.0	EB0014177	0.0	0.0	2.5	2.7	2.2	2.4	-0.4	Co=
SO ₂ Low		Diluted from								2.32
SO ₂ Mid	45.0	ALM056952	45.6	0.6	43.1	-2.8	43.7	-2.1	0.6	Cm=
SO ₂ High	90.0	1,010 ppm	90.6	0.7						43.37
NO _x Zero	0.0	EB0014177	0.0	0.0	0.6	0.6	0.0	0.0	-0.6	Co=
NO _x Low		Diluted from								0.31
NO _x Mid	45.0	CC233372	45.5	0.6	43.7	-2.0	45.4	-0.1	1.9	Cm=
NO _x High	90.0	1,001 ppm	90.2	0.3						44.56

CEMS CALIBRATION DATA

Plant Name	Valero Refining - Texas, L.P.
Sampling Location	SRU No. 2 TGI Exhaust
Date	5/6/2010
Run Number	SRU2-3
Start Time	17:50
Stop Time	21:55

Plant Rep.	Ralph Horton
Team Leader	Bill Pearce
CEM Operator	Bill Pearce

Analyzer Span Values (% or ppm)	
CO	88.3 ppm
CO ₂	8.65 %
O ₂	10.00 %
SO ₂	90.0
NO _x	90.0 ppm

	CALIBRATION ERROR - 11:14 hrs				SYSTEM BIAS CHECK					Calibration Correction Factors
	Cylinder Value (% or ppm)	Cylinder Number	Analyzer Calibration Response	Difference (% of Span)	Pretest: 17:32		Posttest: 21:57		Drift (% of Span)	
					System Response	Syst. Bias (% of Span)	System Response	(% of Span)		
CO Zero	0.0	EB0014177	0.2	0.2	0.9	0.8	0.7	0.6	-0.1	Co=
CO Low		Diluted from								0.81
CO Mid	44.2	CC16839	44.2	0.0	44.2	0.0	43.4	-0.9	-0.9	Cm=
CO High	88.3	201.2 ppm	88.5	0.2						43.77
CO ₂ Zero	0.00	EB0014177	0.03	0.3	0.05	0.2	0.05	0.2	0.0	Co=
CO ₂ Low		Diluted from								0.048
CO ₂ Mid	4.32	CC16839	4.33	0.1	4.26	-0.8	4.35	0.3	1.1	Cm=
CO ₂ High	8.65	19.70 %	8.64	-0.2						4.305
O ₂ Zero	0.00	EB0014177	-0.01	-0.1	0.01	0.2	0.00	0.2	-0.1	Co=
O ₂ Low		Diluted from								0.007
O ₂ Mid	5.00	CC16839	4.92	-0.8	4.94	0.1	5.00	0.7	0.6	Cm=
O ₂ High	10.00	22.78 %	10.00	0.0						4.967
SO ₂ Zero	0.0	EB0014177	0.0	0.0	2.2	2.4	2.9	3.2	0.8	Co=
SO ₂ Low		Diluted from								2.53
SO ₂ Mid	45.0	ALM056952	45.6	0.6	43.7	-2.1	43.3	-2.5	-0.4	Cm=
SO ₂ High	90.0	1,010 ppm	90.6	0.7						43.50
NO _x Zero	0.0	EB0014177	0.0	0.0	0.0	0.0	0.1	0.1	0.1	Co=
NO _x Low		Diluted from								0.09
NO _x Mid	45.0	CC233372	45.5	0.6	45.4	-0.1	43.4	-2.3	-2.3	Cm=
NO _x High	90.0	1,001 ppm	90.2	0.3						44.42

CEMS CALIBRATION DATA

Plant Name	Valero Refining - Texas, L.P.
Sampling Location	SRU No. 2 TGI Exhaust
Date	5/7/2010
Run Number	SRU2-4
Start Time	8:20
Stop Time	12:33

Plant Rep.	Ralph Horton
Team Leader	Bill Pearce
CEM Operator	Bill Pearce

Analyzer Span Values (% or ppm)	
CO	88.3 ppm
CO ₂	8.65 %
O ₂	10.00 %
	90.0
NO _x	90.0 ppm

	CALIBRATION ERROR - 7:45 hrs				SYSTEM BIAS CHECK					Calibration Correction Factors
	Cylinder Value (% or ppm)	Cylinder Number	Analyzer Calibration Response	Difference (% of Span)	Pretest: 8:07		Posttest: 12:37 hrs			
					System Response	Syst. Bias (% of Span)	System Response	(% of Span)	Drift (% of Span)	
CO Zero	0.0	EB0014177	-0.9	-1.1	0.5	1.7	1.5	2.7	1.1	Co=
CO Low		Diluted from								1.00
CO Mid	44.2	CC16839	43.5	-0.8	44.8	1.5	46.3	3.2	1.8	Cm=
CO High	88.3	201.2 ppm	87.8	-0.5						45.56
CO ₂ Zero	0.00	EB0014177	0.03	0.3	0.04	0.2	0.06	0.4	0.2	Co=
CO ₂ Low		Diluted from								0.053
CO ₂ Mid	4.32	CC16839	4.30	-0.3	4.29	-0.1	4.32	0.3	0.4	Cm=
CO ₂ High	8.65	19.70 %	8.59	-0.7						4.304
O ₂ Zero	0.00	EB0014177	-0.03	-0.3	0.00	0.2	0.01	0.3	0.1	Co=
O ₂ Low		Diluted from								0.001
O ₂ Mid	5.00	CC16839	4.89	-1.1	4.91	0.2	4.92	0.2	0.0	Cm=
O ₂ High	10.00	22.78 %	9.95	-0.5						4.914
SO ₂ Zero	0.0	EB0014177	0.5	0.6	0.9	0.4	3.1	2.9	2.4	Co=
SO ₂ Low		Diluted from								2.03
SO ₂ Mid	45.0	ALM056952	46.2	1.4	43.6	-2.9	41.8	-5.0	-2.0	Cm=
SO ₂ High	90.0	1,010 ppm	91.0	1.1						42.67
NO _x Zero	0.0	EB0014177	0.0	0.0	0.2	0.2	0.1	0.1	-0.1	Co=
NO _x Low		Diluted from								0.12
NO _x Mid	45.0	CC233372	44.5	-0.6	43.8	-0.7	38.6	-6.5	-5.8	Cm=
NO _x High	90.0	1,001 ppm	90.1	0.2						41.24



Model 600 HCLD NO Interference Data

Interference Response

Date of Test 7/26/2006
 Analyzer Type NO
 Model No. 600-HCLD
 Serial No. S050301
 Calibration Span 3000ppm

Test Gas Type	Concentration (ppm)	Analyzer Response	
		Wet	Dry
H2O	2.5%	0	0
CO2	5%	0	0
CO2	15%	0	0
CO	50	0	0
CH4	50	0	0
SO2	N/A	N/A	N/A
NH3	15	0	0
NO	N/A	N/A	N/A
N2O	9	0	0
NO2	N/A	N/A	N/A

Interference Response

Analyzer Type: Oxygen (O₂)
 Manufacturer: Servomex
 Detector Type: Paramagnetic
 Model No.: 1440
 Serial No.: 1420C/2765
 Calibration Span (%): 11.27

Test Gas	Test Gas Conc.	High Standard			Zero			Maximum % Interference
		O ₂ without interferent	O ₂ with interferent	% Interference	Zero without interferent	Zero with interferent	% Interference	
NH ₃	10 ppm	11.27	11.27	0.00	0.03	0.01	0.18	0.18
SO ₂	20 ppm	11.25	11.25	0.00	0.01	0.01	0.00	0.00
CH ₄	50 ppm	11.24	11.25	0.09	0.02	0.04	-0.18	0.18
CO	50 ppm	11.23	11.24	0.09	0.00	0.01	-0.09	0.09
CO ₂	5%	11.23	11.26	0.27	0.00	-0.01	0.09	0.27
CO ₂	12.55%	11.25	11.27	0.18	0.03	-0.02	0.44	0.44
NO ₂	15 ppm	11.22	11.24	0.18	0.01	0.00	0.09	0.18
NO _x	15 ppm	11.22	11.25	0.27	0.01	0.01	0.00	0.27
H ₂	1,020 ppm	11.24	11.23	-0.09	0.02	0.01	0.09	0.09
HCl	10 ppm	11.29	11.31	0.18	0.00	-0.01	0.09	0.18

Sum of the highest absolute value obtained with and without the pollutant present: 1.88 %
 Allowable interference response: 2.5 %

Certification Date: 8/9/2006

Operator: 

Interference Response

Analyzer Type: Carbon Dioxide (CO₂)
 Manufacturer: Servomex
 Detector Type: NDIR
 Model No.: 1440
 Serial No.: 1415C
 Calibration Span (%): 11.41

Test Gas	Test Gas Conc.	High Standard			Zero			Maximum % Interference
		CO ₂ without interferent	CO ₂ with interferent	% Interference	Zero without interferent	Zero with interferent	% Interference	
NH ₃	10 ppm	11.41	11.39	-0.18	0.01	0.01	0.00	0.18
SO ₂	20 ppm	11.37	11.37	0.00	0.01	0.01	0.00	0.00
CH ₄	50 ppm	11.37	11.37	0.00	0.01	0.01	0.00	0.00
CO	50 ppm	11.41	11.41	0.00	0.01	0.01	0.00	0.00
NO ₂	15 ppm	11.37	11.37	0.00	0.01	0.01	0.00	0.00
NO _x	15 ppm	11.37	11.37	0.00	0.01	0.01	0.00	0.00
H ₂	1,020 ppm	11.37	11.37	0.00	0.01	0.01	0.00	0.00
HCl	10 ppm	11.41	11.38	-0.26	0.01	0.01	0.00	0.26

Sum of the highest absolute value obtained with and without the pollutant present: 0.44 %
 Allowable interference response: 2.5 %

Certification Date: 8/9/2006

Operator: 

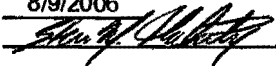
Interference Response

Analyzer Type: Sulfur Dioxide (SO₂)
 Manufacturer: Bovar Engineered Products (Western Research)
 Detector Type: Pulsed Fluorescence
 Model No.: 721-ATM
 Serial No.: 92-721ATM-7947-1-1
 Calibration Span (%): 100

Test Gas	Test Gas Conc.	High Standard			Zero			Maximum % Interference
		SO ₂ without interferent	SO ₂ with interferent	% Interference	Zero without interferent	Zero with interferent	% Interference	
NH ₃	10 ppm	100.1	100.1	0.0	0.1	0.1	0.0	0.0
CH ₄	50 ppm	102.6	103.1	0.5	0.1	0.3	0.2	0.5
CO	50 ppm	100.5	100.5	0.0	0.3	0.3	0.0	0.0
CO ₂	5%	100.9	101.1	0.2	0.1	0.1	0.0	0.2
CO ₂	12.55%	100.9	101.2	0.3	0.1	0.2	0.1	0.3
NO ₂	15 ppm	101.6	102.2	0.6	0.3	0.5	0.2	0.6
NO _x	15 ppm	101.4	101.4	0.0	0.3	0.3	0.0	0.0
H ₂	1020 ppm	100.6	100.6	0.0	0.4	0.4	0.0	0.0
HCl	10 ppm	100.8	100.6	-0.2	0.1	0.3	0.2	0.2

Sum of the highest absolute value obtained with and without the pollutant present: 1.80 %
 Allowable interference response: 2.5 %

Certification Date: 8/9/2006

Operator: 

Interference Response

Analyzer Type: Carbon Monoxide (CO)
 Manufacturer: Thermo Environmental Instruments Inc.
 Detector Type: Non-Dispersive Infrared (NDIR)
 Model No.: 48H
 Serial No.: 000632
 Calibration Span (ppm): 100

Test Gas	Test Gas Conc.	High Standard			Zero			Maximum % Interference
		CO without interferent	CO with interferent	% Interference	Zero without interferent	Zero with interferent	% Interference	
NH ₃	10 ppm	101.5	101.7	0.2	1.6	1.5	-0.1	0.2
SO ₂	20 ppm	101.5	101.6	0.1	1.6	1.9	0.3	0.3
CH ₄	50 ppm	101.5	101.6	0.1	1.6	1.8	0.2	0.2
CO ₂	5%	101.5	101.4	-0.1	1.6	1.6	0.0	0.1
CO ₂	12.55%	101.5	101.1	-0.4	1.6	1.4	-0.2	0.4
NO ₂	15 ppm	101.5	101.6	0.1	1.6	1.6	0.0	0.1
NO _x	15 ppm	101.5	101.8	0.3	1.6	1.9	0.3	0.3
H ₂	1,020 ppm	101.5	101.7	0.2	1.6	1.8	0.2	0.2
HCl	10 ppm	101.5	101.6	0.1	1.6	1.8	0.2	0.2

Sum of the highest absolute value obtained with and without the pollutant present: 2.0 %
 Allowable interference response: 2.5 %

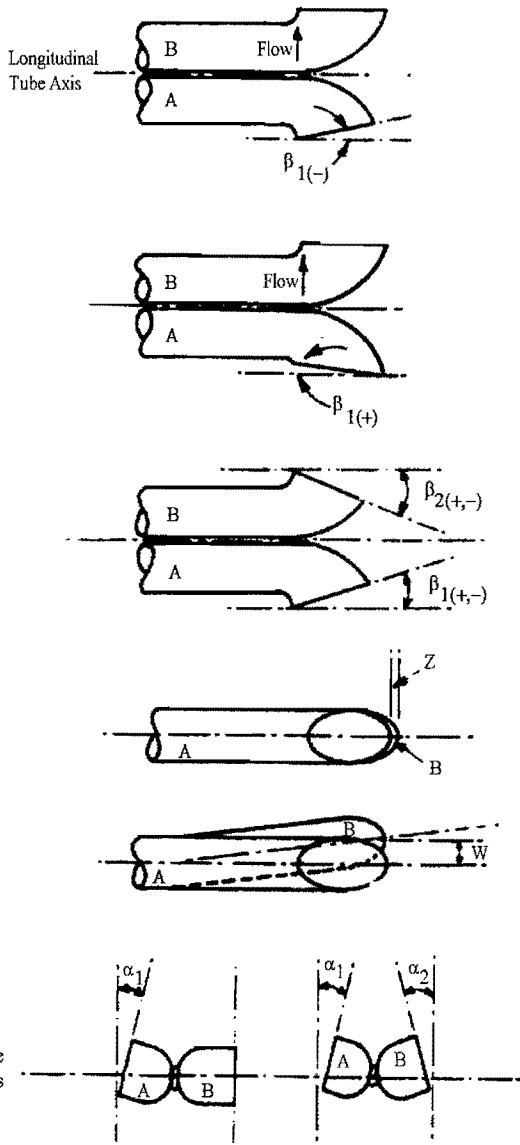
Certification Date: 8-9-06
 Operator: [Signature]

Pitot Tube Inspection Data

Client Name: Valero cc

Date: 9/18/2009

Date: 6/4/2010



y	level?	y
n	obstructions?	n
n	damaged?	n
2	$-10^\circ < \alpha_1 < +10^\circ$	2
2	$-10^\circ < \alpha_2 < +10^\circ$	2
1	$-5^\circ < \beta_1 < +5^\circ$	1
0	$-5^\circ < \beta_2 < +5^\circ$	0
1	γ	1
0	θ	0
0.600	A	0.65
0.325	$0.27825 < P_A < 0.3975$	0.322
0.325	$0.27825 < P_B < 0.3975$	0.322
0.265	$0.1875 \leq D_t \leq 0.375$	0.265
0.010	$A \tan \gamma < 0.125''$	0.011
0.00000	$A \tan \theta < 0.03125''$	0.00000
TRUE	$P_A = P_B \pm 0.063$	TRUE
PASS	PASS/FAIL	PASS

Comments:

Pitot tube/probe number P108 meets or exceeds all specifications and criteria and/or applicable design features (per 40CFR60 Appendix A; Method 2) and is hereby assigned a pitot tube calibration factor of 0.84.

Signature:
Date:

[Signature]
6/4/10

**ARI Environmental Inc.
Thermocouple Calibration Data Form**



Calibrator: ZRM ZRM
Thermocouple ID. P108 P108
 pretest **posttest**
Date: 9/18/2009 6/4/2010
Barometric: 29.80 29.74
Reference Thermometer = Mercury in glass

	Reference Point Number	Source	Reference Thermometer Temperature	Meter Readout Temperature	Difference (%)
Pre-Test	T.C	Ice Water	41.0	40.0	0.20
		Ambient	86.0	85.0	0.18
		Hot Water	138.0	138.0	0.00
Post-Test	T.C	Ice Water	42.0	41.0	0.20
		Ambient	78.0	77.0	0.19
		Hot Water			0.00

$$a \text{ (temp. diff.)} = (\text{ref. temp} + 460) - (\text{Thermo. temp.} + 460) / (\text{ref. temp.} + 460) \times 100$$

Where $-1.5 < a < 1.5$

ARI Environmental, Inc.
EPA METHOD 5
Initial Meter Box Calibration

Model No: Apex 522
 Serial No. 604180

Operator: ZRM
 Date: 10/26/2009

Pre-Test, Orifice Method
 English Units

Barometric Pressure: 29.65 in.Hg

ΔH in. H2O	Time Minutes Seconds		DRY GAS METER VOLUME Initial Final Total ¹			METER TEMPERATURE		ORIFICE Number K factor		VAC. in. Hg ²	AMBIENT TEMPERATURE		
						INLET	OUTLET				Initial	Final	Initial
	Initial	Final	Final	Final	Final	Final							
0.53	10	16	351.722	355.963	4.241	73	73	AJ47	0.3164	19.0	71	71	71.0
0.97	10	10	355.963	361.754	5.791	73	73	AJ55	0.4303	18.0	71	71	71.0
1.70	10	20	392.007	399.610	7.603	76	74	AJ63	0.5482	18.0	72	72	72.0
3.20	10	26	369.642	380.154	10.512	79	75	AJ73	0.7621	12.5	72	72	72.0
4.60	10	23	399.610	412.244	12.634	86	77	AJ81	0.9339	10.0	72	72	72.0

METER FLOW (cubic feet)	ORIFICE FLOW (cubic feet)	METER CALIBRATION FACTOR, Yc ³	DH @ ⁴
4.169	4.180	1.0026	1.772
5.688	5.629	0.9896	1.754
7.453	7.282	0.9770	1.897
10.281	10.221	0.9942	1.850
12.319	12.465	1.0119	1.772

AVG. PRETEST METER CALIBRATION FACTOR: Y⁵ = 0.995	ΔH@⁶ = 1.81
---	-------------------------------

E-11

¹ Must pull at least 5 cubic feet per orifice
² Vacuum must be 15" of Hg or greater
³ Individual Ys can not vary from +/-0.02Y of the average

⁴ Delta H@ can not be more than +/- 0.15 of average delta H
⁵ Ideal Y is 1.000 and can vary no more than +/- 0.05
⁶ Ideal Delta H@ is 1.84 and should not vary more than 0.2!

ARI ENVIRONMENTAL, INC.
EPA METHOD 5
THERMOCOUPLE DIGITAL INDICATOR CALIBRATION DATA SHEET

Operator: ZRM
 Date: 10/26/2009

Meterbox No.: 604180
 Calibrator No.: CL-300-21001

Calibrato Setting	Digital Temperature Readout									
	PROBE		STACK		FILTER		EXIT		AUX	
° F	Acutal	Diff.	Acutal	Diff.	Acutal	Diff.	Acutal	Diff.	Acutal	Diff.
0	-1	0.22	-1	0.22	-2	0.43	-2	0.43	-1	0.22
200	199	0.15	199	0.15	199	0.15	199	0.15	199	0.15
400	395	0.58	396	0.47	395	0.58	395	0.58	396	0.47
600	599	0.09	599	0.09	598	0.19	598	0.19	599	0.09
800	800	0.00	800	0.00	799	0.08	800	0.00	800	0.00
1000	999	0.07	999	0.07	999	0.07	999	0.07	1000	0.00
1200	1197	0.18	1197	0.18	1197	0.18	1197	0.18	1197	0.18
1400	1396	0.22	1396	0.22	1395	0.27	1395	0.27	1396	0.22
1600	1599	0.05	1599	0.05	1599	0.05	1599	0.05	1600	0.00
1800	1797	0.13	1798	0.09	1797	0.13	1798	0.09	1798	0.09

Actual Maximum Difference = 0.58 %
 Allowable Maximum Difference = 1.50 %

ARI Environmental, Inc.
EPA METHOD 5
Post-test Meter Box Calibration

Model #: Apex 522
 Serial #: 604180
 Pretest Y: 0.995
 Pretest $\Delta H@$: 1.81

Operator: ZRM
 Date: 5/11/2010

Post-Test, Orifice Method
 English Units

Barometric Pressure: 29.88 in.Hg

ΔH	Time		DRY GAS METER VOLUME			METER TEMPERATURE		ORIFICE		VAC.	AMBIENT TEMPERATURE		
						INLET	OUTLET						
	Minutes	Seconds	Initial	Final	Total ¹	Initial	Initial	Number	K factor	in. Hg ²	Initial	Final	Avg.
1.70	10	46	977.800	985.803	8.003	91	80	AJ63	0.5482	21.0	80	81	80.5
					93	81							
1.70	14	0	985.803	996.236	10.433	91	82	AJ63	0.5482	21.0	81	81	81.0
					93	82							
1.70	12	31	996.236	1005.574	9.338	93	82	AJ63	0.5482	21.0	81	81	81.0
					94	85							

METER FLOW (cubic feet)	ORIFICE FLOW (cubic feet)	METER CALIBRATION FACTOR, Yc ³	DH @ ⁴
7.758	7.586	0.9779	1.877
10.099	9.859	0.9763	1.876
9.015	8.815	0.9778	1.871

. POST-TEST METER CALIBRATION FACTOR =	0.977	1.87
---	--------------	-------------

PERCENT DIFFERENCE FROM PRETEST Y= 1.78
MAXIMUM ALLOWABLE DIFFERENCE= 5.00

¹ Must pull at least 5 cubic feet per orifice

² Vacuum must be 15" of Hg or greater

³ Individual Ys can not vary from +/-0.02Y of the average

⁴ Delta H@ can not be more than +/- 0.15 of average dealta H

ARI ENVIRONMENTAL, INC.
EPA METHOD 5
THERMOCOUPLE DIGITAL INDICATOR CALIBRATION DATA SHEET

Operator: ZRM
 Date: 5/11/2010

Meterbox No.: 604180
 Calibrator No.: CL-300-21001

Calibrator Setting ° F	Digital Temperature Readout									
	PROBE		STACK		FILTER		EXIT		AUX	
	Acutal	Diff.	Acutal	Diff.	Acutal	Diff.	Acutal	Diff.	Acutal	Diff.
0	0	0.00	0	0.00	-1	0.22	-1	0.22	2	0.43
200	200	0.00	200	0.00	199	0.15	199	0.15	203	0.45
400	396	0.47	396	0.47	396	0.47	396	0.47	399	0.12
600	599	0.09	599	0.09	599	0.09	599	0.09	603	0.28
800	800	0.00	801	0.08	800	0.00	800	0.00	803	0.24
1000	1000	0.00	1000	0.00	999	0.07	999	0.07	1003	0.21
1200	1198	0.12	1197	0.18	1197	0.18	1197	0.18	1201	0.06
1400	1396	0.22	1395	0.27	1395	0.27	1396	0.22	1399	0.05
1600	1599	0.05	1599	0.05	1599	0.05	1599	0.05	1602	0.10
1800	1798	0.09	1798	0.09	1797	0.13	1796	0.18	1802	0.09

Actual Maximum Difference = 0.47 %
 Allowable Maximum Difference = 1.50 %



Air Liquide America
Specialty Gases LLC



RATA CLASS
Dual-Analyzed Calibration Standard

11426 FAIRMONT PKWY, LA PORTE, TX 77571

Phone: 800-248-1427

Fax: 281-474-8419

CERTIFICATE OF ACCURACY: Interference Free Multi-Component EPA Protocol Gas

Assay Laboratory

AIR LIQUIDE AMERICA SPECIALTY GASES LLC
11426 FAIRMONT PKWY
LA PORTE, TX 77571

P.O. No.: 03-127-09
Project No.: 04-77649-001

Customer

ARI ENVIRONMENTAL, INC.
03-127-09
1710 C PRESTON RD
PASADENA TX 77503

ANALYTICAL INFORMATION

This certification was performed according to EPA Traceability Protocol For Assay & Certification of Gaseous Calibration Standards; Procedure G-1; September, 1997.

Cylinder Number: CC16839 **Certification Date:** 06Nov2009 **Exp. Date:** 06Nov2012
Cylinder Pressure*:** 1800 PSIG **Batch No:** LAP0004096

COMPONENT	CERTIFIED CONCENTRATION (Moles)	ACCURACY**	TRACEABILITY
CARBON DIOXIDE	19.70 %	+/- 1%	Direct NIST and VSL
CARBON MONOXIDE	201.2 PPM	+/- 1%	Direct NIST and VSL
OXYGEN	22.78 %	+/- 1%	Direct NIST and VSL
NITROGEN	BALANCE		

*** Do not use when cylinder pressure is below 150 psig.

** Analytical accuracy is based on the requirements of EPA Protocol Procedure G1, September 1997.

REFERENCE STANDARD

TYPE/SRM NO.	EXPIRATION DATE	CYLINDER NUMBER	CONCENTRATION	COMPONENT
NTRM 1800	01Mar2013	K017950	17.87 %	CARBON DIOXIDE
NTRM 1679	02Oct2010	KAL003168	101.0 PPM	CARBON MONOXIDE
NTRM-2350	01Apr2012	A6820	23.51 %	OXYGEN

INSTRUMENTATION

INSTRUMENT/MODEL/SERIAL#	DATE LAST CALIBRATED	ANALYTICAL PRINCIPLE
FTIR//MG-09-149	05Nov2009	FTIR
SIEMENS CO/ULTRAMAT 6E-HIGH/WO355	11Nov2009	NDIR
BIG SERVOMEX/1101-4605C/4605C	16Oct2009	PARAMAGNETIC

ANALYZER READINGS

(Z=Zero Gas R=Reference Gas T=Test Gas r=Correlation Coefficient)

First Triad Analysis

Second Triad Analysis

Calibration Curve

CARBON DIOXIDE

Date: 06Nov2009 Response Unit: %
Z1 = 0.00040 R1 = 17.79400 T1 = 19.64096
R2 = 17.84108 Z2 = 0.00067 T2 = 19.64872
Z3 = 0.00086 T3 = 19.67736 R3 = 17.84841
Avg. Concentration: 19.70 %

Concentration = A + Bx + Cx2 + Dx3 + Ex4
r = 9.99996E-1
Constants: A = 0.00000E+0
B = 7.87997E-1 C = 8.61000E-3
D = 0.00000E+0 E = 0.00000E+0

CARBON MONOXIDE

Date: 04Nov2009 Response Unit: PPM
Z1 = 0.00000 R1 = 101.0000 T1 = 201.7000
R2 = 101.0000 Z2 = 0.00000 T2 = 201.8000
Z3 = 0.00000 T3 = 201.8000 R3 = 101.1000
Avg. Concentration: 201.3 PPM

Date: 11Nov2009 Response Unit: PPM
Z1 = 0.00000 R1 = 101.1000 T1 = 201.8000
R2 = 101.2000 Z2 = 0.00000 T2 = 201.9000
Z3 = 0.00000 T3 = 201.8000 R3 = 101.2000
Avg. Concentration: 201.2 PPM

Concentration = A + Bx + Cx2 + Dx3 + Ex4
r = 0.9999973
Constants: A = 0.680333084
B = 1.000164866 C =
D = E =

OXYGEN

Date: 09Nov2009 Response Unit: %
Z1 = 0.00000 R1 = 23.54000 T1 = 22.81000
R2 = 23.53000 Z2 = 0.01000 T2 = 22.81000
Z3 = 0.00000 T3 = 22.81000 R3 = 23.52000
Avg. Concentration: 22.78 %

Concentration = A + Bx + Cx2 + Dx3 + Ex4
r = 0.9999997
Constants: A = -0.00811775
B = 1.000029704 C =
D = E =

Special Notes:

Doc# 35079594

APPROVED BY:

DAVID KELLY



Air Liquide America
Specialty Gases LLC



RATA CLASS

Dual-Analyzed Calibration Standard

9810 BAY AREA BLVD, PASADENA, TX 77507

Phone: 281-474-5800

Fax: 281-474-5857

CERTIFICATE OF ACCURACY: EPA Protocol Gas

Assay Laboratory

AIR LIQUIDE AMERICA SPECIALTY GASES LLC
9810 BAY AREA BLVD
PASADENA, TX 77507

P.O. No.: 03-048-09

Project No.: 04-73756-003

Customer

ARI ENVIRONMENTAL, INC.
03-048-09
1710 C PRESTON RD
PASADENA TX 77503

ANALYTICAL INFORMATION

This certification was performed according to EPA Traceability Protocol For Assay & Certification of Gaseous Calibration Standards; Procedure G-1; September, 1997.

Cylinder Number: ALM056952 **Certification Date:** 03Jun2009 **Exp. Date:** 03Jun2012

Cylinder Pressure*:** 1933 PSIG

COMPONENT

CERTIFIED CONCENTRATION (Moles)

ANALYTICAL ACCURACY**

TRACEABILITY

COMPONENT	CERTIFIED CONCENTRATION (Moles)	ANALYTICAL ACCURACY**	TRACEABILITY
SULFUR DIOXIDE *	1,010 PPM	+/- 1%	Direct NIST and NMI
NITROGEN	BALANCE		

*** Do not use when cylinder pressure is below 150 psig.

** Analytical accuracy is based on the requirements of EPA Protocol Procedure G1, September 1997.

* This Protocol has been certified using corrected NIST SO2 standard values, per EPA guidance dated 7/24/96 and will not correlate with uncorrected Pro

REFERENCE STANDARD

TYPE/SRM NO.	EXPIRATION DATE	CYLINDER NUMBER	CONCENTRATION	COMPONENT
NTRM 1662	15May2010	KAL003254	975.0 PPM	SULFUR DIOXIDE

INSTRUMENTATION

INSTRUMENT/MODEL/SERIAL#	DATE LAST CALIBRATED	ANALYTICAL PRINCIPLE
FTIR//000929060	14May2009	FTIR

ANALYZER READINGS

(Z=Zero Gas R=Reference Gas T=Test Gas r=Correlation Coefficient)

First Triad Analysis

Second Triad Analysis

Calibration Curve

SULFUR DIOXIDE *

Date:	Response Unit: PPM		
27May2009	R1=976.5903	T1=1009.681	Z1=0.00463
	R2=977.5889	T2=1009.961	Z2=1.35491
	R3=978.0646	T3=1010.578	Z3=1.48178
Avg. Concentration:	1008.	PPM	

Date:	Response Unit: PPM		
03Jun2009	R1=976.5912	T1=1009.184	Z1=-0.32369
	R2=977.3916	T2=1009.625	Z2=1.06236
	R3=978.1589	T3=1010.600	Z3=1.24748
Avg. Concentration:	1007.	PPM	

Concentration = A + Bx + Cx ² + Dx ³ + Ex ⁴	
r = 9.99991E-1	
Constants:	A = 0.00000E+0
	B = 1.00180E+0
	C = 3.00000E-6
	D = 0.00000E+0
	E = 0.00000E+0

APPROVED BY: _____

Ramien JR



AIR LIQUIDE

Air Liquide America
Specialty Gases LLC



SCOTT™

RATA CLASS

Dual-Analyzed Calibration Standard

11426 FAIRMONT PKWY, LA PORTE, TX 77571

Phone: 800-248-1427

Fax: 281-474-8419

CERTIFICATE OF ACCURACY: EPA Protocol Gas

Assay Laboratory

P.O. No.: 03-127-09
AIR LIQUIDE AMERICA SPECIALTY GASES LLC Project No.: 04-77649-002
11426 FAIRMONT PKWY
LA PORTE, TX 77571

Customer

ARI ENVIRONMENTAL, INC.
03-127-09
1710 C PRESTON RD
PASADENA TX 77503

ANALYTICAL INFORMATION

This certification was performed according to EPA Traceability Protocol For Assay & Certification of Gaseous Calibration Standards; Procedure G-1; September, 1997.

Cylinder Number: CC233372 Certification Date: 26Oct2009 Exp. Date: 26Oct2011
Cylinder Pressure***: 1899 PSIG Batch No: LAP0003013

COMPONENT	CERTIFIED CONCENTRATION (Moles)		ANALYTICAL ACCURACY**	TRACEABILITY
NITRIC OXIDE	1,001	PPM	+/- 1%	Direct NIST and VSL
NITROGEN - OXYGEN FREE		BALANCE		
TOTAL OXIDES OF NITROGEN	1,001.	PPM		Reference Value Only

*** Do not use when cylinder pressure is below 150 psig.

** Analytical accuracy is based on the requirements of EPA Protocol Procedure G1, September 1997.

REFERENCE STANDARD

TYPE/SRM NO.	EXPIRATION DATE	CYLINDER NUMBER	CONCENTRATION	COMPONENT
NTRM 1687	02Oct2012	AAL070258	970.3 PPM	NITRIC OXIDE

INSTRUMENTATION

INSTRUMENT/MODEL/SERIAL#	DATE LAST CALIBRATED	ANALYTICAL PRINCIPLE
FTIR//MG-09-149	03Oct2009	FTIR

ANALYZER READINGS

(Z = Zero Gas R = Reference Gas T = Test Gas r = Correlation Coefficient)

First Triad Analysis

Second Triad Analysis

Calibration Curve

NITRIC OXIDE

Date: 19Oct2009 Response Unit: PPM
 Z1=0.10391 R1=963.4393 T1=990.8702
 R2=964.2099 Z2=0.26809 T2=992.5639
 Z3=0.68769 T3=992.6357 R3=964.7170
 Avg. Concentration: 998.4 PPM

Date: 26Oct2009 Response Unit: PPM
 Z1=-0.04780 R1=956.1792 T1=991.3544
 R2=959.2399 Z2=0.07077 T2=992.1119
 Z3=0.32406 T3=992.5748 R3=963.0286
 Avg. Concentration: 1003. PPM

Concentration = A + Bx + Cx² + Dx³ + Ex⁴
 r = 9.99987E-1
 Constants: A = 0.00000E+0
 B = 9.87888E-1 C = 2.04000E-4
 D = 0.00000E+0 E = 0.00000E+0

APPROVED BY: _____

Ramien JR



AIR LIQUIDE

Air Liquide America
Specialty Gases LLC



SCOTT™

RATA CLASS

Dual-Analyzed Calibration Standard

9810 BAY AREA BLVD, PASADENA, TX 77507

Phone: 281-474-5800

Fax: 281-474-5857

CERTIFICATE OF ACCURACY: EPA Protocol Gas

Assay Laboratory

AIR LIQUIDE AMERICA SPECIALTY GASES LLC
9810 BAY AREA BLVD
PASADENA, TX 77507

P.O. No.: 03-029-09

Project No.: 04-72137-006

Customer

ARI ENVIRONMENTAL, INC.

1710 C PRESTON RD
PASADENA TX 77503

ANALYTICAL INFORMATION

This certification was performed according to EPA Traceability Protocol For Assay & Certification of Gaseous Calibration Standards; Procedure G-1; September, 1997.

Cylinder Number: ALM013030 Certification Date: 26Mar2009 Exp. Date: 26Mar2012
Cylinder Pressure***: 1950 PSIG

COMPONENT	CERTIFIED CONCENTRATION (Moles)	ANALYTICAL ACCURACY**	TRACEABILITY
OXYGEN	7.57 %	+/- 1%	Direct NIST and NMI
NITROGEN	BALANCE		

*** Do not use when cylinder pressure is below 150 psig.

** Analytical accuracy is based on the requirements of EPA Protocol Procedure G1, September 1997.

REFERENCE STANDARD

TYPE/SRM NO.	EXPIRATION DATE	CYLINDER NUMBER	CONCENTRATION	COMPONENT
NTRM 2350	01Apr2012	A6820	23.51 %	OXYGEN

INSTRUMENTATION

INSTRUMENT/MODEL/SERIAL#	DATE LAST CALIBRATED	ANALYTICAL PRINCIPLE
SERVOMEX/MODEL 244A/701/716	23Mar2009	PARAMAGNETIC

ANALYZER READINGS

(Z=Zero Gas R=Reference Gas T=Test Gas r=Correlation Coefficient)

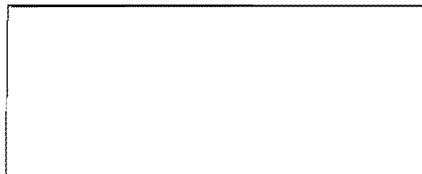
First Triad Analysis

Second Triad Analysis

Calibration Curve

OXYGEN

Date: 26Mar2009	Response Unit: VOLTS	
Z1=0.00000	R1=0.99000	T1=0.31950
R2=0.98970	Z2=0.00000	T2=0.31910
Z3=0.00000	T3=0.31900	R3=0.98950
Avg. Concentration:	7.567	%



Concentration = A + Bx + Cx ² + Dx ³ + Ex ⁴	
r = 0.999978	
Constants:	A = -0.00703813
B = 23.71576885	C =
D =	E =

APPROVED BY:

DAVID KELLY



AIR LIQUIDE

Air Liquide America
Specialty Gases LLC



SCOTT™

COMPLIANCE CLASS

Dual-Analyzed Calibration Standard

500 WEAVER PARK RD, LONGMONT, CO 80501

Phone: 888-253-1635

Fax: 303-772-7673

CERTIFICATE OF ACCURACY: EPA Protocol Gas

Assay Laboratory

AIR LIQUIDE AMERICA SPECIALTY GASES LLC
500 WEAVER PARK RD
LONGMONT, CO 80501

P.O. No.: 03-142-09

Project No.: 08-83148-007

Customer

ARI ENVIRONMENTAL, INC.
PO# 03-142-09
1710 C PRESTON RD
PASADENA TX 77503

ANALYTICAL INFORMATION

This certification was performed according to EPA Traceability Protocol For Assay & Certification of Gaseous Calibration Standards; Procedure G-1; September, 1997.

Cylinder Number: ALM021775 **Certification Date:** 21Dec2009 **Exp. Date:** 21Jun2010
Cylinder Pressure*:** 2015 PSIG

COMPONENT

NITROGEN DIOXIDE
AIR

CERTIFIED CONCENTRATION (Moles)

49.62 PPM
BALANCE

ANALYTICAL

ACCURACY**

+/- 2%

TRACEABILITY

VSL and NIST

*** Do not use when cylinder pressure is below 150 psig.

** Analytical accuracy is based on the requirements of EPA Protocol procedures, September 1997.

REFERENCE STANDARD

TYPE/SRM NO.	EXPIRATION DATE	CYLINDER NUMBER	CONCENTRATION	COMPONENT
NMI-PRM	23Jun2010	289178	50.00 PPM	NITROGEN DIOXIDE

INSTRUMENTATION

INSTRUMENT/MODEL/SERIAL#	DATE LAST CALIBRATED	ANALYTICAL PRINCIPLE
HORIBA/CLA-220/D000423P	14Dec2009	CHEMILUMINESCENCE

APPROVED BY:

SAM BENNETT

**ARI REFERENCE METHOD CEMS DATA
USEPA METHOD 205
DILUTION SYSTEM VERIFICATION**

Company: Valero Refining - Texas, L.P.
Location: Corpus Christi, TX
Source: SRU No. 2
Dilution System ID: 4352
Dilution Flow Rate: 5.0 Lpm
Verification date: 4/28/2010

Analyzer Info
Monitor type: O₂
Monitor range: 22.78 %
Monitor Serial No.: 01440D1/4143

Initial Calibration Data

<u>Calibration Concentration</u>	<u>Calibration results</u>	<u>% Difference</u>
Zero: <u>0.00</u>	Zero: <u>0.02</u>	Zero: <u>0.08%</u>
Low: <u> </u>	Low: <u> </u>	Low: <u> </u>
Mid: <u>11.50</u>	Mid: <u>11.52</u>	Mid: <u>0.10%</u>
High: <u>22.78</u>	High: <u>22.81</u>	High: <u>0.14%</u>

Dilution System Verification

Mid level gas type: <u>EPA Protocol 1</u>	High level dilution gas type: <u>O₂/N₂</u>
Mid level concentration: <u>7.57 %</u>	High level concentration: <u>22.78%</u>
Mid level tank serial #: <u>ALM013030</u>	High level tank serial #: <u>CC16839</u>
	Target concentration No. 1: <u>7.50</u>
	Target concentration No. 2: <u>15.00</u>

Dilution System Results

<u>Target Concentration No. 1</u>		<u>Target Concentration No. 2</u>	
<u>Instrument Response</u>	<u>% difference from average*</u>	<u>Instrument Response</u>	<u>% difference from average*</u>
Trial No. 1: <u>7.46</u>	<u>0.10</u>	Trial No. 1: <u>15.01</u>	<u>0.04</u>
Trial No. 2: <u>7.46</u>	<u>0.05</u>	Trial No. 2: <u>15.00</u>	<u>0.00</u>
Trial No. 3: <u>7.44</u>	<u>0.14</u>	Trial No. 3: <u>14.99</u>	<u>0.04</u>
Average: <u>7.452</u>		Average: <u>14.999</u>	

% Difference from target concentration: 0.64% % Difference from target concentration: 0.00%

Mid Level Calibration Gas Results

<u>Instrument Response</u>	
Trial No. 1: <u>7.62</u>	Mid Level calibration gas concentration: <u>7.57 %</u>
Trial No. 2: <u>7.62</u>	Average analyzer response: <u>7.62</u>
Trial No. 3: <u>7.62</u>	Percent difference: <u>0.62</u> *

* Must be less than 2 %

Valero Refining - Texas, L.P. - Corpus Christi, Texas
ARI Reference Method 205 - Gas Dilution System Verification - 15 Second Data

O ₂		
Date/Time	% by vol db	Comments
4/28/10 16:41:30	0.09	
4/28/10 16:41:45	0.04	
4/28/10 16:42:00	0.01	
4/28/10 16:42:15	0.01	Calibration Error
4/28/10 16:42:30	0.01	0.02 Zero O ₂
4/28/10 16:42:45	0.02	
4/28/10 16:43:00	0.02	
4/28/10 16:43:15	0.01	
4/28/10 16:43:30	1.65	
4/28/10 16:43:45	7.79	
4/28/10 16:44:00	13.09	
4/28/10 16:44:15	17.01	
4/28/10 16:44:30	19.81	
4/28/10 16:44:45	21.61	
4/28/10 16:45:00	22.51	
4/28/10 16:45:15	22.77	
4/28/10 16:45:30	22.81	
4/28/10 16:45:45	22.82	
4/28/10 16:46:00	22.83	
4/28/10 16:46:15	22.83	
4/28/10 16:46:30	22.84	
4/28/10 16:46:45	22.84	
4/28/10 16:47:00	22.84	
4/28/10 16:47:15	22.85	
4/28/10 16:47:30	22.85	
4/28/10 16:47:45	22.85	
4/28/10 16:48:00	22.86	
4/28/10 16:48:15	22.86	
4/28/10 16:48:30	22.86	
4/28/10 16:48:45	22.86	
4/28/10 16:49:00	22.86	
4/28/10 16:49:15	22.87	
4/28/10 16:49:30	22.87	
4/28/10 16:49:45	22.87	
4/28/10 16:50:00	22.87	
4/28/10 16:50:15	22.87	
4/28/10 16:50:30	22.87	
4/28/10 16:50:45	22.82	
4/28/10 16:51:00	22.80	
4/28/10 16:51:15	22.80	
4/28/10 16:51:30	22.80	
4/28/10 16:51:45	22.80	
4/28/10 16:52:00	22.80	
4/28/10 16:52:15	22.81	
4/28/10 16:52:30	22.81	
4/28/10 16:52:45	22.81	
4/28/10 16:53:00	22.81	
4/28/10 16:53:15	22.81	
4/28/10 16:53:30	22.81	
4/28/10 16:53:45	22.81	Calibration Error
4/28/10 16:54:00	22.81	22.81 22.78% O ₂
4/28/10 16:54:15	22.81	
4/28/10 16:54:30	22.81	
4/28/10 16:54:45	22.81	
4/28/10 16:55:00	21.68	
4/28/10 16:55:15	18.18	
4/28/10 16:55:30	14.95	
4/28/10 16:55:45	12.82	
4/28/10 16:56:00	11.82	
4/28/10 16:56:15	11.59	
4/28/10 16:56:30	11.55	
4/28/10 16:56:45	11.54	
4/28/10 16:57:00	11.54	Calibration Error
4/28/10 16:57:15	11.53	11.52 11.50% O ₂
4/28/10 16:57:30	11.52	
4/28/10 16:57:45	11.52	
4/28/10 16:58:00	11.52	
4/28/10 16:58:15	11.50	
4/28/10 16:58:30	10.82	
4/28/10 16:58:45	9.12	
4/28/10 16:59:00	7.93	
4/28/10 16:59:15	7.54	
4/28/10 16:59:30	7.48	
4/28/10 16:59:45	7.47	
4/28/10 17:00:00	7.47	
4/28/10 17:00:15	7.46	Target Concentration #1; Trial #1
4/28/10 17:00:30	7.46	7.46 7.50% O ₂
4/28/10 17:00:45	7.46	
4/28/10 17:01:00	7.46	
4/28/10 17:01:15	7.46	
4/28/10 17:01:30	7.62	
4/28/10 17:01:45	9.53	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
ARI Reference Method 205 - Gas Dilution System Verification - 15 Second Data

4/28/10 17:02:00	12.02	
4/28/10 17:02:15	13.82	
4/28/10 17:02:30	14.72	
4/28/10 17:02:45	14.96	
Target Concentration #2; Trial #1		
4/28/10 17:03:00	15.00	15.01 15.00% O ₂
4/28/10 17:03:15	15.00	
4/28/10 17:03:30	15.01	
4/28/10 17:03:45	15.02	
4/28/10 17:04:00	14.88	
4/28/10 17:04:15	12.71	
4/28/10 17:04:30	9.85	
4/28/10 17:04:45	8.24	
4/28/10 17:05:00	7.66	
4/28/10 17:05:15	7.60	
4/28/10 17:05:30	7.61	
Mid-Level Concentration; Trial #1		
4/28/10 17:05:45	7.62	7.62 7.57% O ₂
4/28/10 17:06:00	7.62	
4/28/10 17:06:15	7.62	
4/28/10 17:06:30	7.62	
4/28/10 17:06:45	7.71	
4/28/10 17:07:00	7.46	
4/28/10 17:07:15	6.99	
4/28/10 17:07:30	7.14	
4/28/10 17:07:45	7.36	
4/28/10 17:08:00	7.43	
4/28/10 17:08:15	7.45	
Target Concentration #1; Trial #2		
4/28/10 17:08:30	7.46	7.46 7.50% O ₂
4/28/10 17:08:45	7.46	
4/28/10 17:09:00	7.46	
4/28/10 17:09:15	7.46	
4/28/10 17:09:30	7.52	
4/28/10 17:09:45	9.09	
4/28/10 17:10:00	11.64	
4/28/10 17:10:15	13.57	
4/28/10 17:10:30	14.62	
4/28/10 17:10:45	14.94	
4/28/10 17:11:00	14.99	
Target Concentration #2; Trial #2		
4/28/10 17:11:15	15.00	15.00 15.00% O ₂
4/28/10 17:11:30	15.00	
4/28/10 17:11:45	15.00	
4/28/10 17:12:00	15.00	
4/28/10 17:12:15	14.88	
4/28/10 17:12:30	13.29	
4/28/10 17:12:45	10.95	
4/28/10 17:13:00	9.14	
4/28/10 17:13:15	8.08	
4/28/10 17:13:30	7.69	
4/28/10 17:13:45	7.63	
Mid-Level Concentration; Trial #2		
4/28/10 17:14:00	7.62	7.62 7.57% O ₂
4/28/10 17:14:15	7.62	
4/28/10 17:14:30	7.62	
4/28/10 17:14:45	7.62	
4/28/10 17:15:00	7.61	
4/28/10 17:15:15	7.81	
4/28/10 17:15:30	11.16	
4/28/10 17:15:45	15.91	
4/28/10 17:16:00	16.60	
4/28/10 17:16:15	15.54	
4/28/10 17:16:30	15.88	
4/28/10 17:16:45	15.96	
4/28/10 17:17:00	14.64	
4/28/10 17:17:15	15.79	
4/28/10 17:17:30	18.18	
4/28/10 17:17:45	19.58	
4/28/10 17:18:00	20.13	
4/28/10 17:18:15	20.24	
4/28/10 17:18:30	20.12	
4/28/10 17:18:45	16.61	
4/28/10 17:19:00	9.91	
4/28/10 17:19:15	7.73	
4/28/10 17:19:30	7.42	
4/28/10 17:19:45	7.42	
4/28/10 17:20:00	7.43	
Target Concentration #1; Trial #3		
4/28/10 17:20:15	7.44	7.44 7.50% O ₂
4/28/10 17:20:30	7.44	
4/28/10 17:20:45	7.44	
4/28/10 17:21:00	7.45	
4/28/10 17:21:15	7.51	
4/28/10 17:21:30	9.05	
4/28/10 17:21:45	11.60	
4/28/10 17:22:00	13.55	
4/28/10 17:22:15	14.61	
4/28/10 17:22:30	14.93	
4/28/10 17:22:45	14.99	
Target Concentration #2; Trial #3		
4/28/10 17:23:00	14.99	14.99 15.00% O ₂
4/28/10 17:23:15	14.99	

Valero Refining - Texas, L.P. - Corpus Christi, Texas
ARI Reference Method 205 - Gas Dilution System Verification - 15 Second Data

4/28/10 17:23:30	14.99	
4/28/10 17:23:45	14.99	
4/28/10 17:24:00	14.82	
4/28/10 17:24:15	13.08	
4/28/10 17:24:30	10.77	
4/28/10 17:24:45	9.02	
4/28/10 17:25:00	8.02	
4/28/10 17:25:15	7.68	
4/28/10 17:25:30	7.62	Mid-Level Concentration; Trial #3
4/28/10 17:26:45	7.62	7.62 7.67% O ₂
4/28/10 17:26:00	7.62	
4/28/10 17:26:15	7.61	
4/28/10 17:26:30	7.62	
4/28/10 17:26:45	7.60	



Valero Refining - Texas L.P.
Source: SRU No. 2 Tailgas Incinerator
Test Dates: May 6 and 7, 2010

APPENDIX F

Process Data

Date & Time	195TC867.PV	195FC863.PV			
	INCINERATOR	FUEL GAS TO			
	TEMPERATURE	INCIN BURNER			
	minue averages	minute averages			
	Deg F	mscfh			
5/6/10 13:15	1493.3	9.3	Run #1 Average TGI Firebox Temperature	=	1471.0 Deg F
5/6/10 13:16	1491.9	9.3	Run #2 Average TGI Firebox Temperature	=	1487.2 Deg F
5/6/10 13:17	1487.6	9.3	Run #3 Average TGI Firebox Temperature	=	1516.8 Deg F
5/6/10 13:18	1490.7	9.3			
5/6/10 13:19	1495.4	9.3			
5/6/10 13:20	1498.9	9.3	Run #1 Average TGI Fuel Gas Flow	=	9.22 mscfh
5/6/10 13:21	1494.8	9.3	Run #2 Average TGI Fuel Gas Flow	=	8.38 mscfh
5/6/10 13:22	1489.2	9.3	Run #3 Average TGI Fuel Gas Flow	=	6.47 mscfh
5/6/10 13:23	1479.9	9.3			
5/6/10 13:24	1476.1	9.3	Run #1 Average Sulfur Production	=	187.9 LTD @ 99.95% efficiency
5/6/10 13:25	1470.9	9.3	Run #2 Average Sulfur Production	=	187.9 LTD @ 99.95% efficiency
5/6/10 13:26	1471.8	9.3	Run #3 Average Sulfur Production	=	191.0 LTD @ 99.95% efficiency
5/6/10 13:27	1473.5	9.3			
5/6/10 13:28	1470.2	9.3			
5/6/10 13:29	1467.8	9.3			
5/6/10 13:30	1468	9.3			
5/6/10 13:31	1465.4	9.3			
5/6/10 13:32	1456.7	9.3			
5/6/10 13:33	1421.8	9.3			
5/6/10 13:34	1448.4	9.3			
5/6/10 13:35	1441	9.3			
5/6/10 13:36	1443.7	9.3			
5/6/10 13:37	1444.2	9.3			
5/6/10 13:38	1445	9.3			
5/6/10 13:39	1454	9.3			
5/6/10 13:40	1459.9	9.3			
5/6/10 13:41	1465.4	9.3			
5/6/10 13:42	1471.3	9.3			
5/6/10 13:43	1473.8	9.3			
5/6/10 13:44	1471	9.3			
5/6/10 13:45	1472.8	9.3			
5/6/10 13:46	1476.9	9.2			
5/6/10 13:47	1481.1	9.2			
5/6/10 13:48	1482.9	9.2			
5/6/10 13:49	1479.8	9.2			
5/6/10 13:50	1475.7	9.3			
5/6/10 13:51	1476.9	9.3			
5/6/10 13:52	1479.9	9.2			
5/6/10 13:53	1483.6	9.2			
5/6/10 13:54	1481	9.2			
5/6/10 13:55	1479.9	9.2			
5/6/10 13:56	1481.6	9.2			
5/6/10 13:57	1480.2	9.2			
5/6/10 13:58	1477.5	9.2			
5/6/10 13:59	1476.6	9.2			
5/6/10 14:00	1477.7	9.3			
5/6/10 14:01	1477.9	9.2			
5/6/10 14:02	1476.7	9.3			
5/6/10 14:03	1476.2	9.3			
5/6/10 14:04	1474.7	9.3			
5/6/10 14:05	1471.6	9.3			
5/6/10 14:06	1468.8	9.3			
5/6/10 14:07	1469.6	9.3			
5/6/10 14:08	1472.9	9.3			
5/6/10 14:09	1474.1	9.3			
5/6/10 14:10	1474.9	9.3			
5/6/10 14:11	1478.6	9.2			
5/6/10 14:12	1480.4	9.2			

Date & Time	195TC867.PV	195FC863.PV
	INCINERATOR	FUEL GAS TO
	TEMPERATURE	INCIN BURNER
	minue averages	minute averages
	Deg F	mscfh
5/6/10 14:13	1480.1	9.2
5/6/10 14:14	1477.1	9.2
5/6/10 14:15	1479.6	9.2
5/6/10 14:16	1482.5	9.2
5/6/10 14:17	1483.3	9.2
5/6/10 14:18	1480	9.2
5/6/10 14:19	1474.8	9.3
5/6/10 14:20	1470.9	9.3
5/6/10 14:21	1465.9	9.3
5/6/10 14:22	1460.2	9.4
5/6/10 14:23	1454.8	9.4
5/6/10 14:24	1452.8	9.4
5/6/10 14:25	1455.7	9.3
5/6/10 14:26	1466.6	9.3
5/6/10 14:27	1472.6	9.3
5/6/10 14:28	1473.6	9.3
5/6/10 14:29	1474.1	9.3
5/6/10 14:30	1477.7	9.2
5/6/10 14:31	1479	9.2
5/6/10 14:32	1479.1	9.2
5/6/10 14:33	1479.4	9.2
5/6/10 14:34	1478.7	9.2
5/6/10 14:35	1478.5	9.2
5/6/10 14:36	1472.6	9.3
5/6/10 14:37	1472.3	9.3
5/6/10 14:38	1474.9	9.3
5/6/10 14:39	1476.7	9.3
5/6/10 14:40	1480	9.2
5/6/10 14:41	1482.7	9.2
5/6/10 14:42	1481	9.2
5/6/10 14:43	1472.8	9.3
5/6/10 14:44	1473.9	9.3
5/6/10 14:45	1477.2	9.2
5/6/10 14:46	1480.1	9.2
5/6/10 14:47	1481.9	9.2
5/6/10 14:48	1480.3	9.2
5/6/10 14:49	1477.6	9.2
5/6/10 14:50	1477.4	9.2
5/6/10 14:51	1478.5	9.2
5/6/10 14:52	1478.3	9.2
5/6/10 14:53	1480.4	9.2
5/6/10 14:54	1477.3	9.2
5/6/10 14:55	1479.1	9.2
5/6/10 14:56	1479.7	9.2
5/6/10 14:57	1477.7	9.2
5/6/10 14:58	1473	9.3
5/6/10 14:59	1475.3	9.3
5/6/10 15:00	1474.6	9.3
5/6/10 15:01	1475	9.3
5/6/10 15:02	1468.5	9.3
5/6/10 15:03	1458.5	9.3
5/6/10 15:04	1460.6	9.2
5/6/10 15:05	1467.9	9.2
5/6/10 15:06	1472.2	9.2
5/6/10 15:07	1472.9	9.2
5/6/10 15:08	1470	9.2
5/6/10 15:09	1460.1	9.3
5/6/10 15:10	1455.9	9.3
5/6/10 15:11	1456.2	9.3

	195TC867.PV	195FC863.PV
	INCINERATOR	FUEL GAS TO
	TEMPERATURE	INCIN BURNER
	minue averages	minute averages
Date & Time	Deg F	mscfh
5/6/10 15:12	1459.4	9.3
5/6/10 15:13	1465.9	9.3
5/6/10 15:14	1467.2	9.3
5/6/10 15:15	1471.3	9.2
5/6/10 15:16	1475.9	9.2
5/6/10 15:17	1475.1	9.2
5/6/10 15:18	1469.7	9.3
5/6/10 15:19	1468.2	9.3
5/6/10 15:20	1466.3	9.3
5/6/10 15:21	1466.3	9.3
5/6/10 15:22	1467.9	9.3
5/6/10 15:23	1472	9.3
5/6/10 15:24	1476.5	9.2
5/6/10 15:25	1478.5	9.2
5/6/10 15:26	1476.9	9.2
5/6/10 15:27	1478	9.2
5/6/10 15:28	1477.4	9.2
5/6/10 15:29	1473.1	9.2
5/6/10 15:30	1468.5	9.3
5/6/10 15:31	1469.8	9.3
5/6/10 15:32	1470.1	9.3
5/6/10 15:33	1466.8	9.3
5/6/10 15:34	1461.8	9.3
5/6/10 15:35	1463.7	9.3
5/6/10 15:36	1460.4	9.3
5/6/10 15:37	1458	9.3
5/6/10 15:38	1462.4	9.3
5/6/10 15:39	1466.8	9.3
5/6/10 15:40	1468.7	9.3
5/6/10 15:41	1464.6	9.3
5/6/10 15:42	1468.9	9.3
5/6/10 15:43	1472.9	9.3
5/6/10 15:44	1472.3	9.3
5/6/10 15:45	1469	9.3
5/6/10 15:46	1472.3	9.2
5/6/10 15:47	1473	9.2
5/6/10 15:48	1464.1	9.3
5/6/10 15:49	1452.6	9.4
5/6/10 15:50	1440.5	9.3
5/6/10 15:51	1438.7	9.3
5/6/10 15:52	1446.9	9.3
5/6/10 15:53	1455.5	9.3
5/6/10 15:54	1456.9	9.3
5/6/10 15:55	1454.9	9.3
5/6/10 15:56	1454	9.3
5/6/10 15:57	1454	9.3
5/6/10 15:58	1448.9	9.3
5/6/10 15:59	1446.3	9.4
5/6/10 16:00	1445.9	9.4
5/6/10 16:01	1450.1	9.3
5/6/10 16:02	1455.9	9.3
5/6/10 16:03	1456.4	9.3
5/6/10 16:04	1455.6	9.3
5/6/10 16:05	1455.1	9.3
5/6/10 16:06	1457.7	9.3
5/6/10 16:07	1461.6	9.2
5/6/10 16:08	1467.1	9.2
5/6/10 16:09	1469.9	9.2
5/6/10 16:10	1467.7	9.2

	195TC867.PV INCINERATOR TEMPERATURE minue averages	195FC863.PV FUEL GAS TO INCIN BURNER minute averages
Date & Time	Deg F	mscfh
5/6/10 16:11	1461.5	9.2
5/6/10 16:12	1460.9	9.3
5/6/10 16:13	1462.9	9.3
5/6/10 16:14	1463.7	9.3
5/6/10 16:15	1462	9.3
5/6/10 16:16	1455.1	9.3
5/6/10 16:17	1452.8	9.3
5/6/10 16:18	1456.9	9.3
5/6/10 16:19	1454.6	9.3
5/6/10 16:20	1453.5	9.3
5/6/10 16:21	1450	9.3
5/6/10 16:22	1451.9	9.3
5/6/10 16:23	1457.3	9.3
5/6/10 16:24	1459.8	9.3
5/6/10 16:25	1459.1	9.3
5/6/10 16:26	1451.9	9.3
5/6/10 16:27	1449.8	9.3
5/6/10 16:28	1442.4	9.4
5/6/10 16:29	1444.4	9.4
5/6/10 16:30	1447.7	9.3
5/6/10 16:31	1453.2	9.3
5/6/10 16:32	1447.3	9.4
5/6/10 16:33	1443.4	9.4
5/6/10 16:34	1437.3	9.4
5/6/10 16:35	1433.9	9.4
5/6/10 16:36	1436	9.5
5/6/10 16:37	1447.1	9.4
5/6/10 16:38	1448.9	9.4
5/6/10 16:39	1457.9	9.4
5/6/10 16:40	1467.6	9.3
5/6/10 16:41	1474.1	9.3
5/6/10 16:42	1481.6	9.3
5/6/10 16:43	1484.7	9.3
5/6/10 16:44	1483.4	0
5/6/10 16:45	1481.8	9.3
5/6/10 16:46	1480	9.3
5/6/10 16:47	1478.4	9.3
5/6/10 16:48	1476.4	9.3
5/6/10 16:49	1474.1	9.3
5/6/10 16:50	1472.4	9.3
5/6/10 16:51	1478.8	9.3
5/6/10 16:52	1485.3	9.2
5/6/10 16:53	1485.9	9.2
5/6/10 16:54	1486.3	9.2
5/6/10 16:55	1491.6	9.2
5/6/10 16:56	1486	9.2
5/6/10 16:57	1484.1	9.3
5/6/10 16:58	1491.5	9.2
5/6/10 16:59	1495.9	9.2
5/6/10 17:00	1494.2	9.1
5/6/10 17:01	1489.8	9.1
5/6/10 17:02	1490.1	9.2
5/6/10 17:03	1495.9	9.2
5/6/10 17:04	1494.9	9.1
5/6/10 17:05	1497.5	9.1
5/6/10 17:06	1496	9.1
5/6/10 17:07	1490.1	9.1
5/6/10 17:08	1487.1	9.2
5/6/10 17:09	1489.7	9.2

	195TC867.PV INCINERATOR TEMPERATURE minue averages	195FC863.PV FUEL GAS TO INCIN BURNER minute averages
Date & Time	Deg F	mscfh
5/6/10 17:10	1488.5	9.2
5/6/10 17:11	1488.6	9.1
5/6/10 17:12	1486.8	9.1
5/6/10 17:13	1484	9.1
5/6/10 17:14	1480	9.1
5/6/10 17:15	1481.3	9.2
5/6/10 17:16	1486.5	9.2
5/6/10 17:17	1487.9	9.1
5/6/10 17:18	1488.9	9.1
5/6/10 17:19	1493.2	9.1
5/6/10 17:20	1496	9
5/6/10 17:21	1490.4	9
5/6/10 17:22	1491.6	9.1
5/6/10 17:23	1489.9	9.1
5/6/10 17:24	1491.4	9.1
5/6/10 17:25	1487.1	9.1
5/6/10 17:26	1478.4	9.1
5/6/10 17:50	1494.9	9
5/6/10 17:51	1500.6	9
5/6/10 17:52	1501.1	8.9
5/6/10 17:53	1497.1	8.9
5/6/10 17:54	1495.3	9
5/6/10 17:55	1498.1	8.9
5/6/10 17:56	1496	8.9
5/6/10 17:57	1501.7	8.9
5/6/10 17:58	1503	8.9
5/6/10 17:59	1504.1	8.9
5/6/10 18:00	1504.2	8.9
5/6/10 18:01	1501.6	8.8
5/6/10 18:02	1495.8	8.8
5/6/10 18:03	1492.2	8.9
5/6/10 18:04	1495.4	8.9
5/6/10 18:05	1496.4	8.9
5/6/10 18:06	1500.8	8.8
5/6/10 18:07	1499.5	8.4
5/6/10 18:08	1496.1	8.4
5/6/10 18:09	1489.5	8.4
5/6/10 18:10	1484.1	8.5
5/6/10 18:11	1484.7	8.5
5/6/10 18:12	1482.5	8.5
5/6/10 18:13	1475.2	8.5
5/6/10 18:14	1481	8.5
5/6/10 18:15	1479.6	8.5
5/6/10 18:16	1479.5	8.5
5/6/10 18:17	1481.6	8.5
5/6/10 18:18	1479.9	8.5
5/6/10 18:19	1488.8	8.5
5/6/10 18:20	1492.9	8.5
5/6/10 18:21	1491.9	8.4
5/6/10 18:22	1486.4	8.4
5/6/10 18:23	1479.3	8.5
5/6/10 18:24	1477.1	8.5
5/6/10 18:25	1476.9	8.5
5/6/10 18:26	1474.8	8.5
5/6/10 18:27	1477.3	8.5
5/6/10 18:28	1483.2	8.5
5/6/10 18:29	1483.7	8.5
5/6/10 18:30	1484	8.5
5/6/10 18:31	1479.3	8.5

	195TC867.PV INCINERATOR TEMPERATURE minue averages	195FC863.PV FUEL GAS TO INCIN BURNER minute averages
Date & Time	Deg F	mscfh
5/6/10 18:32	1480.6	8.5
5/6/10 18:33	1484	8.5
5/6/10 18:34	1486.2	8.4
5/6/10 18:35	1488.4	8.4
5/6/10 18:36	1482.7	8.4
5/6/10 18:37	1485.6	8.4
5/6/10 18:38	1486.4	8.4
5/6/10 18:39	1485.4	8.4
5/6/10 18:40	1483.3	8.4
5/6/10 18:41	1475.3	8.4
5/6/10 18:42	1471.1	8.5
5/6/10 18:43	1477.9	8.5
5/6/10 18:44	1483.1	8.4
5/6/10 18:45	1482	8.5
5/6/10 18:46	1482.7	8.5
5/6/10 18:47	1489.4	8.4
5/6/10 18:48	1494.2	8.4
5/6/10 18:49	1494.6	8.4
5/6/10 18:50	1487.6	8.4
5/6/10 18:51	1484.3	8.4
5/6/10 18:52	1486.8	8.5
5/6/10 18:53	1484.7	8.4
5/6/10 18:54	1482.9	8.4
5/6/10 18:55	1477.8	8.5
5/6/10 18:56	1474.4	8.5
5/6/10 18:57	1476.4	8.5
5/6/10 18:58	1481.3	8.5
5/6/10 18:59	1480.3	8.5
5/6/10 19:00	1480.7	8.5
5/6/10 19:01	1485.5	8.4
5/6/10 19:02	1488.3	8.4
5/6/10 19:03	1488.9	8.4
5/6/10 19:04	1489.1	8.4
5/6/10 19:05	1486.9	8.4
5/6/10 19:06	1488.6	8.4
5/6/10 19:07	1491.4	8.4
5/6/10 19:08	1495.7	8.4
5/6/10 19:09	1497.9	8.4
5/6/10 19:10	1496.5	8.3
5/6/10 19:11	1493.4	8.3
5/6/10 19:12	1490.9	8.4
5/6/10 19:13	1487.2	8.4
5/6/10 19:14	1480.9	8.4
5/6/10 19:15	1477.9	8.4
5/6/10 19:16	1479.2	8.4
5/6/10 19:17	1479.7	8.4
5/6/10 19:18	1481	8.4
5/6/10 19:19	1485.1	8.4
5/6/10 19:20	1486	8.4
5/6/10 19:21	1487.2	8.4
5/6/10 19:22	1492.2	8.4
5/6/10 19:23	1491.7	8.4
5/6/10 19:24	1495.9	8.3
5/6/10 19:25	1495.1	8.3
5/6/10 19:26	1492.3	8.3
5/6/10 19:27	1485.6	8.3
5/6/10 19:28	1478.5	8.4
5/6/10 19:29	1481.5	8.4
5/6/10 19:30	1481.2	8.4

	195TC867.PV INCINERATOR TEMPERATURE minue averages	195FC863.PV FUEL GAS TO INCIN BURNER minute averages
Date & Time	Deg F	mscfh
5/6/10 19:31	1482	8.4
5/6/10 19:32	1485.7	8.4
5/6/10 19:33	1482.6	8.4
5/6/10 19:34	1478.6	8.4
5/6/10 19:35	1478.7	8.4
5/6/10 19:36	1481.6	8.4
5/6/10 19:37	1475.6	8.4
5/6/10 19:38	1466.4	8.4
5/6/10 19:39	1462.7	8.5
5/6/10 19:40	1470.7	8.5
5/6/10 19:41	1474	8.4
5/6/10 19:42	1474	8.4
5/6/10 19:43	1477.8	8.4
5/6/10 19:44	1479.4	8.4
5/6/10 19:45	1486.3	8.4
5/6/10 19:46	1487.2	8.4
5/6/10 19:47	1489.4	8.4
5/6/10 19:48	1483.8	8.4
5/6/10 19:49	1473.8	8.4
5/6/10 19:50	1468.2	8.5
5/6/10 19:51	1474	8.4
5/6/10 19:52	1476.5	8.4
5/6/10 19:53	1479.9	8.4
5/6/10 19:54	1483.8	8.4
5/6/10 19:55	1484.5	8.4
5/6/10 19:56	1480	8.4
5/6/10 19:57	1477.7	8.4
5/6/10 19:58	1480.8	8.4
5/6/10 19:59	1480.8	8.4
5/6/10 20:00	1480.4	8.4
5/6/10 20:01	1480.2	8.4
5/6/10 20:02	1471.2	8.4
5/6/10 20:03	1466.1	8.5
5/6/10 20:04	1468.3	8.5
5/6/10 20:05	1473.8	8.5
5/6/10 20:06	1474.9	8.4
5/6/10 20:07	1479.1	8.4
5/6/10 20:08	1482.1	8.4
5/6/10 20:09	1487.3	8.4
5/6/10 20:10	1490.9	8.4
5/6/10 20:11	1491.7	8.3
5/6/10 20:12	1491.1	8.3
5/6/10 20:13	1486.6	8.3
5/6/10 20:14	1487.8	8.4
5/6/10 20:15	1491.9	8.4
5/6/10 20:16	1494	8.3
5/6/10 20:17	1489.2	8.3
5/6/10 20:18	1481	8.3
5/6/10 20:19	1479.3	8.4
5/6/10 20:20	1472.2	8.3
5/6/10 20:21	1466.9	8.4
5/6/10 20:22	1468.8	8.4
5/6/10 20:23	1472.9	8.4
5/6/10 20:24	1476.5	8.4
5/6/10 20:25	1477.8	8.4
5/6/10 20:26	1483.9	8.4
5/6/10 20:27	1485.3	8.3
5/6/10 20:28	1490	8.3
5/6/10 20:29	1487.4	8.3

Date & Time	195TC867.PV INCINERATOR TEMPERATURE minue averages	195FC863.PV FUEL GAS TO INCIN BURNER minute averages
	Deg F	mscfh
5/6/10 20:30	1489.6	8.4
5/6/10 20:31	1486.6	8.3
5/6/10 20:32	1487.3	8.3
5/6/10 20:33	1490.7	8.3
5/6/10 20:34	1495	8.3
5/6/10 20:35	1491	8.3
5/6/10 20:36	1488	8.3
5/6/10 20:37	1485.9	8.3
5/6/10 20:38	1483.7	8.3
5/6/10 20:39	1483.4	8.3
5/6/10 20:40	1485.7	8.3
5/6/10 20:41	1486.7	8.3
5/6/10 20:42	1489.1	8.3
5/6/10 20:43	1493.9	8.3
5/6/10 20:44	1491.2	8.3
5/6/10 20:45	1493.1	8.3
5/6/10 20:46	1493.3	8.3
5/6/10 20:47	1497.2	8.2
5/6/10 20:48	1501	8.2
5/6/10 20:49	1499	8.3
5/6/10 20:50	1494.5	8.3
5/6/10 20:51	1489.8	8.3
5/6/10 20:52	1481.7	8.3
5/6/10 20:53	1478.4	8.3
5/6/10 20:54	1479	8.3
5/6/10 20:55	1483.6	8.3
5/6/10 20:56	1488.6	8.3
5/6/10 20:57	1494	8.3
5/6/10 20:58	1497.8	8.2
5/6/10 20:59	1501.6	8.2
5/6/10 21:00	1507.6	8.2
5/6/10 21:01	1504.7	8.2
5/6/10 21:02	1498.2	8.2
5/6/10 21:03	1491.3	8.2
5/6/10 21:04	1484.9	8.3
5/6/10 21:05	1475.7	8.3
5/6/10 21:06	1471.6	8.3
5/6/10 21:07	1474.8	8.4
5/6/10 21:08	1482.4	8.3
5/6/10 21:09	1489.3	8.3
5/6/10 21:10	1490.6	8.3
5/6/10 21:11	1493.1	8.3
5/6/10 21:12	1495.6	8.2
5/6/10 21:13	1498.6	8.2
5/6/10 21:14	1494.6	8.2
5/6/10 21:15	1495.4	8.2
5/6/10 21:16	1497.3	8.2
5/6/10 21:17	1501.5	8.2
5/6/10 21:18	1498.9	8.1
5/6/10 21:19	1493.7	8.2
5/6/10 21:20	1487.6	8.2
5/6/10 21:21	1484.7	8.2
5/6/10 21:22	1481.9	8.2
5/6/10 21:23	1487.8	8.2
5/6/10 21:24	1494.7	8.2
5/6/10 21:25	1496.1	8.1
5/6/10 21:26	1499.3	8.1
5/6/10 21:27	1496.5	8.1
5/6/10 21:28	1492.6	8.1

Date & Time	195TC867.PV	195FC863.PV
	INCINERATOR	FUEL GAS TO
	TEMPERATURE	INCIN BURNER
	minue averages	minute averages
	Deg F	mscfh
5/6/10 21:29	1495.3	8.1
5/6/10 21:30	1495.2	8.1
5/6/10 21:31	1490.3	8.1
5/6/10 21:32	1488.7	8.1
5/6/10 21:33	1490.7	8.2
5/6/10 21:34	1494.5	8.1
5/6/10 21:35	1500.7	8.1
5/6/10 21:36	1506.3	8.1
5/6/10 21:37	1506.7	8.1
5/6/10 21:38	1502.7	8.1
5/6/10 21:39	1500.4	8.1
5/6/10 21:40	1495.7	8.1
5/6/10 21:41	1492.8	8.1
5/6/10 21:42	1486.6	8.1
5/6/10 21:43	1487.7	8.1
5/6/10 21:44	1495.4	8.1
5/6/10 21:45	1492.2	8.1
5/6/10 21:46	1492.7	8.1
5/6/10 21:47	1494.7	8.1
5/6/10 21:48	1498.9	8.1
5/6/10 21:49	1498.1	8.1
5/6/10 21:50	1496	8.1
5/6/10 21:51	1493.4	8.1
5/6/10 21:52	1493	8.1
5/6/10 21:53	1496	8.1
5/6/10 21:54	1498	8
5/6/10 21:55	1501.1	8
5/7/10 8:20	1471.1	6.9
5/7/10 8:21	1475.4	6.9
5/7/10 8:22	1473.1	6.9
5/7/10 8:23	1461.8	6.9
5/7/10 8:24	1449.5	6.9
5/7/10 8:25	1447.7	6.9
5/7/10 8:26	1456.1	6.9
5/7/10 8:27	1448.9	6.9
5/7/10 8:28	1433.8	6.9
5/7/10 8:29	1437.2	6.9
5/7/10 8:30	1446.8	7
5/7/10 8:31	1457.4	7
5/7/10 8:32	1460.6	7
5/7/10 8:33	1467.8	7
5/7/10 8:34	1475.7	7
5/7/10 8:35	1486	6.9
5/7/10 8:36	1493	6.9
5/7/10 8:37	1478.6	6.9
5/7/10 8:38	1479	6.9
5/7/10 8:39	1483.9	6.9
5/7/10 8:40	1481.8	6.9
5/7/10 8:41	1481.2	6.9
5/7/10 8:42	1487.1	6.9
5/7/10 8:43	1492.6	6.9
5/7/10 8:44	1503.6	6.9
5/7/10 8:45	1488.5	6.9
5/7/10 8:46	1488.3	6.9
5/7/10 8:47	1495.3	6.9
5/7/10 8:48	1494.1	6.9
5/7/10 8:49	1499.3	6.9
5/7/10 8:50	1488.9	6.9
5/7/10 8:51	1485.6	6.9

	195TC867.PV INCINERATOR TEMPERATURE minue averages	195FC863.PV FUEL GAS TO INCIN BURNER minute averages
Date & Time	Deg F	mscfh
5/7/10 8:52	1482.8	6.9
5/7/10 8:53	1470.1	6.9
5/7/10 8:54	1456.9	6.9
5/7/10 8:55	1455.7	6.9
5/7/10 8:56	1463.4	6.9
5/7/10 8:57	1468.6	6.9
5/7/10 8:58	1462.2	6.9
5/7/10 8:59	1440	6.9
5/7/10 9:00	1423.4	6.9
5/7/10 9:01	1420.6	6.9
5/7/10 9:02	1421.7	6.9
5/7/10 9:03	1435.1	6.9
5/7/10 9:04	1450.2	6.9
5/7/10 9:05	1461.1	6.9
5/7/10 9:06	1478.8	7
5/7/10 9:07	1481.7	6.9
5/7/10 9:08	1473.5	7
5/7/10 9:09	1473.9	6.9
5/7/10 9:10	1466.6	6.9
5/7/10 9:11	1465.8	7
5/7/10 9:12	1462.5	6.9
5/7/10 9:13	1449.3	7
5/7/10 9:14	1454.8	7.2
5/7/10 9:15	1468.8	7.2
5/7/10 9:16	1479.5	7.2
5/7/10 9:17	1486.7	7.2
5/7/10 9:18	1491.4	7.2
5/7/10 9:19	1503.3	7
5/7/10 9:20	1494.3	7.1
5/7/10 9:21	1479.7	7.1
5/7/10 9:22	1473.4	7
5/7/10 9:23	1478.1	7
5/7/10 9:24	1484.1	7
5/7/10 9:25	1483.1	7
5/7/10 9:26	1483.4	7
5/7/10 9:27	1496.2	7.1
5/7/10 9:28	1486.4	7
5/7/10 9:29	1479.5	7
5/7/10 9:30	1481.2	7
5/7/10 9:31	1480	7
5/7/10 9:32	1485.6	7
5/7/10 9:33	1488.3	7
5/7/10 9:34	1495.6	7
5/7/10 9:35	1497	7
5/7/10 9:36	1486.4	7
5/7/10 9:37	1485.6	7
5/7/10 9:38	1496	7
5/7/10 9:39	1501.5	7
5/7/10 9:40	1503.1	7.1
5/7/10 9:41	1496.1	7.1
5/7/10 9:42	1489.5	7
5/7/10 9:43	1491.8	7.1
5/7/10 9:44	1488.6	7
5/7/10 9:45	1486.9	7
5/7/10 9:46	1484.9	7
5/7/10 9:47	1482.1	7.1
5/7/10 9:48	1486.3	7.1
5/7/10 9:49	1475.4	7
5/7/10 9:50	1479	7.1

Date & Time	195TC867.PV INCINERATOR TEMPERATURE minue averages	195FC863.PV FUEL GAS TO INCIN BURNER minute averages
	Deg F	mscfh
5/7/10 9:51	1468.8	7
5/7/10 9:52	1469	7
5/7/10 9:53	1470.4	7
5/7/10 9:54	1462.4	7.1
5/7/10 9:55	1461	7
5/7/10 9:56	1459.1	7
5/7/10 9:57	1451	7
5/7/10 9:58	1448.7	7
5/7/10 9:59	1463.8	7
5/7/10 10:00	1479.1	7
5/7/10 10:01	1483.6	7
5/7/10 10:02	1494.2	7
5/7/10 10:03	1500.1	6.9
5/7/10 10:04	1488.9	6.9
5/7/10 10:05	1478.1	7
5/7/10 10:06	1479.9	7
5/7/10 10:07	1485.5	7
5/7/10 10:08	1499.2	7
5/7/10 10:09	1500.8	6.8
5/7/10 10:10	1510.1	6.9
5/7/10 10:11	1513.8	6.7
5/7/10 10:12	1505.8	6.7
5/7/10 10:13	1493.4	6.7
5/7/10 10:14	1478.6	6.7
5/7/10 10:15	1466.2	6.7
5/7/10 10:16	1472.4	6.7
5/7/10 10:17	1482.2	6.7
5/7/10 10:18	1486.9	6.7
5/7/10 10:19	1494.7	6.6
5/7/10 10:20	1500.5	6.6
5/7/10 10:21	1470.7	6.6
5/7/10 10:22	1455.9	6.6
5/7/10 10:23	1452.1	6.7
5/7/10 10:24	1456.9	6.7
5/7/10 10:25	1457.7	6.7
5/7/10 10:26	1443.6	6.7
5/7/10 10:27	1438.9	6.7
5/7/10 10:28	1447.2	6.8
5/7/10 10:29	1465.2	6.8
5/7/10 10:30	1477	6.8
5/7/10 10:31	1482.1	6.7
5/7/10 10:32	1479.8	6.7
5/7/10 10:33	1489.5	6.7
5/7/10 10:34	1500.1	6.7
5/7/10 10:35	1500.5	6.7
5/7/10 10:36	1486	6.8
5/7/10 10:37	1472	6.7
5/7/10 10:38	1469.8	6.8
5/7/10 10:39	1472	6.7
5/7/10 10:40	1477.9	6.7
5/7/10 10:41	1477.1	6.8
5/7/10 10:42	1486.9	6.7
5/7/10 10:43	1502.8	6.8
5/7/10 10:44	1512.8	6.8
5/7/10 10:45	1523.9	6.7
5/7/10 10:46	1532.5	6.7
5/7/10 10:47	1537	6.7
5/7/10 10:48	1534.1	6.7
5/7/10 10:49	1533.8	6.7

	195TC867.PV INCINERATOR TEMPERATURE minue averages	195FC863.PV FUEL GAS TO INCIN BURNER minute averages
Date & Time	Deg F	mscfh
5/7/10 10:50	1529.7	6.7
5/7/10 10:51	1534.2	6.7
5/7/10 10:52	1536.2	6.7
5/7/10 10:53	1534.1	6.7
5/7/10 10:54	1536.2	6.7
5/7/10 10:55	1538	6.7
5/7/10 10:56	1537.6	6.7
5/7/10 10:57	1531.4	6.7
5/7/10 10:58	1532.6	6.7
5/7/10 10:59	1535.8	6.7
5/7/10 11:00	1536.8	6.6
5/7/10 11:01	1539.9	6.7
5/7/10 11:02	1547.6	6.7
5/7/10 11:03	1556	6.7
5/7/10 11:04	1562.2	6.5
5/7/10 11:05	1562.7	6.4
5/7/10 11:06	1559.5	6.3
5/7/10 11:07	1555.3	6.4
5/7/10 11:08	1543	6.3
5/7/10 11:09	1538.4	6.3
5/7/10 11:10	1545.8	6.3
5/7/10 11:11	1549.2	6.3
5/7/10 11:12	1555.7	6.2
5/7/10 11:13	1555.2	6.1
5/7/10 11:14	1551.6	6.2
5/7/10 11:15	1537.9	6.2
5/7/10 11:16	1511.7	6.1
5/7/10 11:17	1510.5	6.1
5/7/10 11:18	1517.2	6.2
5/7/10 11:19	1527.9	6.2
5/7/10 11:20	1532.7	6.2
5/7/10 11:21	1542.9	6.2
5/7/10 11:22	1547.5	6.2
5/7/10 11:23	1549	6.2
5/7/10 11:24	1537.3	6.2
5/7/10 11:25	1535.8	6.2
5/7/10 11:26	1542.8	6.2
5/7/10 11:27	1546.1	6.2
5/7/10 11:28	1545.9	6.2
5/7/10 11:29	1553.2	6.2
5/7/10 11:30	1558.1	6.2
5/7/10 11:31	1555	6.2
5/7/10 11:32	1554.6	6
5/7/10 11:33	1560.6	6
5/7/10 11:34	1560.4	6.1
5/7/10 11:35	1554.9	6.1
5/7/10 11:36	1557.6	6
5/7/10 11:37	1559.8	6
5/7/10 11:38	1561	6
5/7/10 11:39	1573.4	5.9
5/7/10 11:40	1578.8	5.9
5/7/10 11:41	1581.4	5.8
5/7/10 11:42	1572.1	5.8
5/7/10 11:43	1569.9	5.8
5/7/10 11:44	1568.9	5.8
5/7/10 11:45	1577.4	5.8
5/7/10 11:46	1601.2	5.8
5/7/10 11:47	1610.7	5.9
5/7/10 11:48	1612.5	5.6

	195TC867.PV INCINERATOR TEMPERATURE minue averages	195FC863.PV FUEL GAS TO INCIN BURNER minute averages
Date & Time	Deg F	mscfh
5/7/10 11:49	1611.9	5.5
5/7/10 11:50	1604.2	5.4
5/7/10 11:51	1599.9	5.5
5/7/10 11:52	1604.4	5.4
5/7/10 11:53	1605.1	5.4
5/7/10 11:54	1608.3	5.4
5/7/10 11:55	1609.7	5.4
5/7/10 11:56	1613.6	5.4
5/7/10 11:57	1618.7	5.4
5/7/10 11:58	1604.1	5.3
5/7/10 11:59	1599.5	5.4
5/7/10 12:00	1600.2	5.4
5/7/10 12:01	1604.9	5.4
5/7/10 12:02	1609.5	5.4
5/7/10 12:03	1614.5	5.4
5/7/10 12:04	1609.5	5.2
5/7/10 12:05	1614.9	5.3
5/7/10 12:06	1618.9	5.3
5/7/10 12:07	1624	5.2
5/7/10 12:08	1628	5.2
5/7/10 12:09	1627.3	5.2
5/7/10 12:10	1628.5	5.2
5/7/10 12:11	1636.8	5.2
5/7/10 12:12	1646.4	5.2
5/7/10 12:13	1649	5.2
5/7/10 12:14	1646.1	5.2
5/7/10 12:15	1649.2	5.2
5/7/10 12:16	1645.6	5.2
5/7/10 12:17	1646.4	5.2
5/7/10 12:18	1635.2	5.2
5/7/10 12:19	1639.3	5.2
5/7/10 12:20	1636.4	5.2
5/7/10 12:21	1633.2	5.2
5/7/10 12:22	1629.7	5.2
5/7/10 12:23	1627.9	5.1
5/7/10 12:24	1624.4	5.2
5/7/10 12:25	1612.3	5.2
5/7/10 12:26	1603.5	5.2
5/7/10 12:27	1585.5	5.2
5/7/10 12:28	1544.9	5.2
5/7/10 12:29	1486.1	5.3
5/7/10 12:30	1476.1	5.7
5/7/10 12:31	1477	5.5
5/7/10 12:32	1431.5	5.5
5/7/10 12:33	1440.4	5.7

East Plant SRU #2 Incinerator Stack Test/RATA
 May 06 & 07 , 2010

Date & Time	195AX874B.PV	195AX874A.PV	195AI874A.PV	195AI875.PV
	Incin SO2 Emission Rate Minute Averages	SO2 Corrected to 0% O2 Minute Averages	95H-48 INCIN RAW SO2 Minute Averages	% O2 RAW Minute Averages
	lbs/hr	ppmv	ppmv	vol %
5/6/10 12:59	7.3	70.5	54.5	2.7
5/6/10 13:00	7.3	71.3	55.2	2.83
5/6/10 13:01	6.9	68.3	52.6	2.79
5/6/10 13:02	6.9	66.7	51.2	2.8
5/6/10 13:03	7.1	69.6	52.6	3.08
5/6/10 13:04	6.9	67.4	51.8	2.81
5/6/10 13:05	6.6	65.7	50.5	2.8
5/6/10 13:06	6.6	66.1	50.7	2.86
5/6/10 13:07	6.8	66.2	51.1	2.86
5/6/10 13:08	6.7	66.6	51.3	2.83
5/6/10 13:09	7	69.2	52.7	2.95
5/6/10 13:10	6.8	66.3	51.3	2.71
5/6/10 13:11	6.8	69.1	53.3	2.77
5/6/10 13:12	6.8	66.8	51	2.87
5/6/10 13:13	6.8	65.9	51.5	2.59
5/6/10 13:14	6.9	67.4	51.9	2.78
5/6/10 13:15	7.1	68	52.6	2.74
5/6/10 13:16	6.8	66.8	51	2.95
5/6/10 13:17	6.7	66.4	51.1	2.85
5/6/10 13:18	7.1	67.4	51.9	2.77
5/6/10 13:19	6.8	64.9	50.4	2.71
5/6/10 13:20	6.9	69.8	53.5	2.84
5/6/10 13:21	7.1	67.5	51.9	2.83
5/6/10 13:22	7	66.9	50.9	3.12
5/6/10 13:23	6.9	66.9	51.3	2.86
5/6/10 13:24	6.7	65.5	50	2.96
5/6/10 13:25	6.9	68.3	52.1	2.99
5/6/10 13:26	6.8	66.8	51.7	2.78
5/6/10 13:27	7.2	67.8	52	3.02
5/6/10 13:28	6.6	65	50.3	2.8
5/6/10 13:29	6.7	64.6	49.4	2.95
5/6/10 13:30	6.9	66.8	51.9	2.71
5/6/10 13:31	6.6	66.9	50	3.34
5/6/10 13:32	6.7	65.9	50.1	3.04
5/6/10 13:33	6.8	69.2	51.9	3.28
5/6/10 13:34	8.4	86	63.1	2.98
5/6/10 13:35	6.7	68.7	52	3.05
5/6/10 13:36	6.5	66.2	50.1	3.1
5/6/10 13:37	6.7	66.3	50.6	2.98
5/6/10 13:38	6.4	65.3	50	2.93
5/6/10 13:39	6.8	68.2	52.4	3.03
5/6/10 13:40	6.7	66	50.7	2.86
5/6/10 13:41	6.8	67.2	51.6	2.86
5/6/10 13:42	6.9	67.8	51.9	2.97
5/6/10 13:43	6.8	67.1	51.1	3.01
5/6/10 13:44	6.3	63.4	48.8	2.87
5/6/10 13:45	6.7	66.1	51.1	2.74
5/6/10 13:46	6.4	65.2	50.1	2.87

	195AX874B.PV Incin SO2 Emission Rate Minute Averages	195AX874A.PV SO2 Corrected to 0% O2 Minute Averages	195AI874A.PV 95H-48 INCIN RAW SO2 Minute Averages	195AI875.PV % O2 RAW Minute Averages
Date & Time	lbs/hr	ppmv	ppmv	vol %
5/6/10 13:47	6.9	66.8	51.4	2.9
5/6/10 13:48	6.5	66.6	50.4	3.12
5/6/10 13:49	6.6	65.5	50.5	2.76
5/6/10 13:50	6.7	66.5	50.9	2.88
5/6/10 13:51	6.5	65.2	50.2	2.85
5/6/10 13:52	6.9	69.1	53	2.94
5/6/10 13:53	7.1	69.4	53.5	2.95
5/6/10 13:54	6.8	67.6	52.1	2.84
5/6/10 13:55	6.9	68.3	52.6	2.81
5/6/10 13:56	7.1	69.6	53.4	3.02
5/6/10 13:57	6.7	69.2	52.9	2.84
5/6/10 13:58	6.7	66.6	50.7	2.9
5/6/10 13:59	6.8	67.4	51.6	2.92
5/6/10 14:00	7.1	70.4	53.6	3
5/6/10 14:01	7.2	70.7	53.7	2.98
5/6/10 14:02	7.1	68.8	52.7	2.89
5/6/10 14:03	6.9	69.5	52.7	3.01
5/6/10 14:04	6.9	69.4	52.6	3.11
5/6/10 14:05	8.7	84.2	66.2	2.9
5/6/10 14:06	15.6	110.9	116.6	2.92
5/6/10 14:07	8.6	85.3	63.5	2.77
5/6/10 14:08	7.3	71	54.2	2.9
5/6/10 14:09	7.7	74.4	56.7	2.9
5/6/10 14:10	7.2	70.6	53.8	2.97
5/6/10 14:11	10.6	100.1	79	2.89
5/6/10 14:12	7	71.8	53.8	3.21
5/6/10 14:13	7.3	71	54.3	2.8
5/6/10 14:14	7.4	73.3	55.9	2.89
5/6/10 14:15	6.5	67.4	51.8	2.87
5/6/10 14:16	6.9	68.6	53	2.91
5/6/10 14:17	6.8	67.5	51.4	3.08
5/6/10 14:18	7.1	70.5	54.3	2.93
5/6/10 14:19	6.8	69.7	53.4	2.93
5/6/10 14:20	7	69.2	52.3	3.16
5/6/10 14:21	6.8	69.4	52.3	3.34
5/6/10 14:22	7	70.8	54.1	3.05
5/6/10 14:23	7	69.8	53.2	2.98
5/6/10 14:24	7	69.9	53.9	2.89
5/6/10 14:25	7.3	73.2	56	2.93
5/6/10 14:26	7.5	73.1	56.3	2.94
5/6/10 14:27	9.2	89.7	69.6	2.95
5/6/10 14:28	8.3	80.3	62.5	2.95
5/6/10 14:29	7.3	72.9	55.5	3.01
5/6/10 14:30	7.2	72.9	55.6	2.89
5/6/10 14:31	7.1	70.6	53.8	2.93
5/6/10 14:32	7.2	70.2	54	2.86
5/6/10 14:33	7.2	69.9	53.7	2.89
5/6/10 14:34	7.3	72	55.2	3
5/6/10 14:35	7.2	71.1	54.5	3.02
5/6/10 14:36	8.6	84.6	65.5	2.84
5/6/10 14:37	7.5	73.6	56.9	2.75

	195AX874B.PV Incin SO2 Emission Rate Minute Averages	195AX874A.PV SO2 Corrected to 0% O2 Minute Averages	195AI874A.PV 95H-48 INCIN RAW SO2 Minute Averages	195AI875.PV % O2 RAW Minute Averages
Date & Time	lbs/hr	ppmv	ppmv	vol %
5/6/10 14:38	7.5	73.8	56.6	2.84
5/6/10 14:39	7.5	73.2	56.6	2.74
5/6/10 14:40	7.6	74.4	57.1	2.92
5/6/10 14:41	7.4	73.3	56.1	3.08
5/6/10 14:42	8.2	81.3	61.2	3
5/6/10 14:43	7.2	71.2	54.6	2.87
5/6/10 14:44	7.5	76.4	58.4	2.82
5/6/10 14:45	7.3	70.5	54.6	2.71
5/6/10 14:46	7.2	71.3	54.9	2.9
5/6/10 14:47	7.4	71.9	54.8	3.04
5/6/10 14:48	6.9	69.8	53.6	2.84
5/6/10 14:49	6.9	69.4	53.5	2.77
5/6/10 14:50	7.2	72.6	56.1	2.82
5/6/10 14:51	8.4	81.9	63.7	2.71
5/6/10 14:52	7	71.2	54.8	2.83
5/6/10 14:53	7.2	72.9	55.9	2.9
5/6/10 14:54	7.1	70.8	54.3	2.86
5/6/10 14:55	7.1	70.6	54	2.88
5/6/10 14:56	7.3	70.5	53.5	3.1
5/6/10 14:57	6.9	68.7	52.7	2.85
5/6/10 14:58	7	68.9	52.9	2.88
5/6/10 14:59	7	72.5	55.5	2.8
5/6/10 15:00	6.9	71.2	54.4	2.82
5/6/10 15:01	7.1	71.8	54.1	3.27
5/6/10 15:02	6.7	70	53.4	2.96
5/6/10 15:03	6.9	69	53.1	2.84
5/6/10 15:04	7.2	72.5	55.6	2.85
5/6/10 15:05	6.8	70.2	53.5	2.93
5/6/10 15:06	6.8	68.8	52.6	3
5/6/10 15:07	7.1	71.3	54.3	3.04
5/6/10 15:08	6.7	69.8	52.9	3.14
5/6/10 15:09	6.7	68.8	52.6	2.9
5/6/10 15:10	6.9	68.5	52.5	2.9
5/6/10 15:11	6.5	67.9	52.3	2.74
5/6/10 15:12	6.7	69	53	2.86
5/6/10 15:13	7.1	70.3	54	2.9
5/6/10 15:14	7.7	76.4	58.9	2.71
5/6/10 15:15	7	71.2	54.3	2.93
5/6/10 15:16	7.2	72.3	54.7	3.09
5/6/10 15:17	7	69.8	53.4	2.96
5/6/10 15:18	6.8	70	53.6	2.88
5/6/10 15:19	6.9	68.3	52.7	2.79
5/6/10 15:20	6.8	70.1	53.6	2.91
5/6/10 15:21	7	72.8	55.6	2.89
5/6/10 15:22	6.9	68.8	52.7	2.88
5/6/10 15:23	6.9	71.2	54.7	2.89
5/6/10 15:24	6.9	70.4	53.7	2.97
5/6/10 15:25	7	69.1	52.8	2.9
5/6/10 15:26	6.9	69.2	53.2	2.86
5/6/10 15:27	6.7	69.1	52.8	2.98
5/6/10 15:28	6.9	70.2	53.3	3.05

	195AX874B.PV Incin SO2 Emission Rate Minute Averages	195AX874A.PV SO2 Corrected to 0% O2 Minute Averages	195AI874A.PV 95H-48 INCIN RAW SO2 Minute Averages	195AI875.PV % O2 RAW Minute Averages
Date & Time	lbs/hr	ppmv	ppmv	vol %
5/6/10 15:29	6.8	68.9	52.8	2.87
5/6/10 15:30	6.7	68.2	52.9	2.74
5/6/10 15:31	6.7	68.2	52.1	2.86
5/6/10 15:32	6.7	68.2	51.9	3.03
5/6/10 15:33	6.7	68.2	52.6	2.87
5/6/10 15:34	6.8	68.7	52.8	2.97
5/6/10 15:35	6.8	69.7	52.7	3.12
5/6/10 15:36	6.8	67.6	51.8	2.84
5/6/10 15:37	6.8	67	51.6	2.82
5/6/10 15:38	6.5	67	51.2	2.96
5/6/10 15:39	6.6	66.3	50.3	3.18
5/6/10 15:40	6.5	66.8	51.1	2.94
5/6/10 15:41	6.5	67	51.4	2.86
5/6/10 15:42	6.5	65.6	50.1	3.05
5/6/10 15:43	6.6	66.8	51.1	3.03
5/6/10 15:44	6.7	67.9	51.8	2.99
5/6/10 15:45	7	67.4	52.4	2.73
5/6/10 15:46	6.8	69.3	51.9	3.27
5/6/10 15:47	6.8	68.7	51.7	3.24
5/6/10 15:48	6.9	69.6	52.3	3.3
5/6/10 15:49	7.3	73.5	55.1	3.2
5/6/10 15:50	6.4	67.4	51.8	2.84
5/6/10 15:51	6.6	67.5	51.7	2.9
5/6/10 15:52	6.7	67.7	51.5	3.1
5/6/10 15:53	6.8	69.4	53	3.07
5/6/10 15:54	6.7	67.8	51.7	3.03
5/6/10 15:55	6.7	67.3	51.4	3.02
5/6/10 15:56	6.6	67.8	51.1	3.14
5/6/10 15:57	7	67.7	52.2	2.95
5/6/10 15:58	6.7	67.6	50.8	3.15
5/6/10 15:59	6.7	66.6	51	3
5/6/10 16:00	6.6	67	51.7	2.83
5/6/10 16:01	6.4	67.5	51.3	2.96
5/6/10 16:02	6.4	65.3	49.6	3.04
5/6/10 16:03	6.3	66.5	50.3	3.15
5/6/10 16:04	6.9	70.3	53.3	3.02
5/6/10 16:05	6.9	68.5	52.5	2.89
5/6/10 16:06	6.9	69.3	53.7	2.83
5/6/10 16:07	7	69.4	53.1	2.99
5/6/10 16:08	6.9	68.8	52.6	3.05
5/6/10 16:09	7	70.8	53.3	3.19
5/6/10 16:10	6.6	66.6	50.7	3.11
5/6/10 16:11	6.4	66.5	51.4	2.82
5/6/10 16:12	6.8	68.4	52.5	2.92
5/6/10 16:13	6.8	68.8	52.6	2.96
5/6/10 16:14	6.4	67.7	51.1	3.11
5/6/10 16:15	6.7	68.9	51.8	3.18
5/6/10 16:16	6.8	68.2	52.4	2.8
5/6/10 16:17	7	71.2	53.8	3.04
5/6/10 16:18	6.9	70.5	53.8	3.02
5/6/10 16:19	6.9	70.5	54.1	2.96

	195AX874B.PV Incin SO2 Emission Rate Minute Averages	195AX874A.PV SO2 Corrected to 0% O2 Minute Averages	195AI874A.PV 95H-48 INCIN RAW SO2 Minute Averages	195AI875.PV % O2 RAW Minute Averages
Date & Time	lbs/hr	ppmv	ppmv	vol %
5/6/10 16:20	9.1	82	69.5	2.93
5/6/10 16:21	7.5	76.5	58.6	2.77
5/6/10 16:22	7.3	73.2	56.9	2.83
5/6/10 16:23	7.2	71.2	54.7	2.81
5/6/10 16:24	6.7	69.1	52.8	2.95
5/6/10 16:25	7.1	72.2	54.5	3.1
5/6/10 16:26	7.5	74.3	57.2	2.99
5/6/10 16:27	7.3	74.7	58.1	2.95
5/6/10 16:28	6.9	71.5	55.4	2.69
5/6/10 16:29	6.8	68.9	53.5	2.71
5/6/10 16:30	6.7	67.3	51.7	2.87
5/6/10 16:31	6.6	69.2	52.8	2.96
5/6/10 16:32	6.8	68.8	52.6	2.98
5/6/10 16:33	6.4	68.1	51.6	3.06
5/6/10 16:34	6.9	72.4	55.5	2.73
5/6/10 16:35	6.7	69.1	53.3	2.73
5/6/10 16:36	6.8	71	56	2.36
5/6/10 16:37	6.6	69.5	54.3	2.63
5/6/10 16:38	6.7	68.4	54.8	2.13
5/6/10 16:39	6.7	68.7	54.4	2.31
5/6/10 16:40	6.6	68.9	54.9	2.1
5/6/10 16:41	6.8	70.1	55.4	2.3
5/6/10 16:42	6.5	69.3	54.5	2.46
5/6/10 16:43	6.8	69.8	54.8	2.48
5/6/10 16:44	0	0	0	0
5/6/10 16:45	6.3	68.6	54	2.44
5/6/10 16:46	6.5	67.5	53.3	2.55
5/6/10 16:47	6.6	69.6	54.5	2.5
5/6/10 16:48	6.6	68.6	53.2	2.6
5/6/10 16:49	6.5	67.5	52.4	2.71
5/6/10 16:50	6.5	67	53.4	2.25
5/6/10 16:51	6.6	67.7	53.4	2.46
5/6/10 16:52	7.2	75.8	59.2	2.37
5/6/10 16:53	6.5	69.1	54.5	2.35
5/6/10 16:54	7.1	72.7	58.3	2.17
5/6/10 16:55	6.6	70.4	55.5	2.44
5/6/10 16:56	6.4	67.6	52.7	2.53
5/6/10 16:57	7	69.5	55.5	2.11
5/6/10 16:58	7.1	76.2	59.3	2.4
5/6/10 16:59	6.8	71.2	56.1	2.44
5/6/10 17:00	6.3	69.6	54.4	2.56
5/6/10 17:01	7.1	71.8	56.5	2.41
5/6/10 17:02	6.7	68.7	54.4	2.25
5/6/10 17:03	6.4	67.4	53	2.43
5/6/10 17:04	6.5	67.8	53.7	2.39
5/6/10 17:05	6.8	70.2	55.7	2.21
5/6/10 17:06	6.7	68.6	53.8	2.49
5/6/10 17:07	6.4	67.4	52.9	2.46
5/6/10 17:08	6.7	70.2	55.8	2.22
5/6/10 17:09	7.4	79.1	61.6	2.42
5/6/10 17:10	7.3	74.1	59.1	2.33

	195AX874B.PV Incin SO2 Emission Rate Minute Averages	195AX874A.PV SO2 Corrected to 0% O2 Minute Averages	195AI874A.PV 95H-48 INCIN RAW SO2 Minute Averages	195AI875.PV % O2 RAW Minute Averages
Date & Time	lbs/hr	ppmv	ppmv	vol %
5/6/10 17:11	7.1	70.7	57.6	2.37
5/6/10 17:12	11.3	126.8	94.2	2.44
5/6/10 17:13	7.8	81.9	63.9	2.5
5/6/10 17:14	7.3	75.2	58.7	2.38
5/6/10 17:15	6.9	72.1	56.5	2.47
5/6/10 17:16	6.5	69.1	54.2	2.46
5/6/10 17:17	6.7	68.5	54.3	2.36
5/6/10 17:18	6.8	69.8	55.1	2.32
5/6/10 17:19	6.8	69.2	55.4	2.18
5/6/10 17:20	6.6	68.5	53.9	2.45
AVERAGE	6.98	70.22	54.16	2.83
5/6/10 17:21	7.2	77.1	60.2	2.2
5/6/10 17:22	6.8	70	54.7	2.52
5/6/10 17:23	6.5	67.8	53.9	2.25
5/6/10 17:24	6.6	69.7	54.9	2.47
5/6/10 17:25	6.7	69.2	54	2.54
5/6/10 17:26	7.2	76.3	59.7	2.5
5/6/10 17:27	6.8	71.1	55.4	2.39
5/6/10 17:28	6.6	69	54.3	2.36
5/6/10 17:29	6.7	71.9	56.1	2.5
5/6/10 17:30	6.5	68.1	53.1	2.58
5/6/10 17:31	6.3	66.1	51.9	2.43
5/6/10 17:32	6.3	67.1	52.5	2.51
5/6/10 17:33	6.2	65.9	51.4	2.55
5/6/10 17:34	6.3	66.4	52.7	2.27
5/6/10 17:35	6.4	67.2	53.4	2.27
5/6/10 17:36	6.5	67	52.4	2.42
5/6/10 17:37	6	66.7	52.2	2.56
5/6/10 17:38	6.5	67.8	53.8	2.28
5/6/10 17:39	6.5	66.6	53.9	2.05
5/6/10 17:40	6.8	71.5	56.4	2.32
5/6/10 17:41	6.3	66.3	52.8	2.21
5/6/10 17:42	6.6	67.1	54.1	2.08
5/6/10 17:43	6.8	71.7	55.9	2.4
5/6/10 17:44	6.3	68.3	53.9	2.34
5/6/10 17:45	6.2	66.9	52.3	2.57
5/6/10 17:46	6.6	68.5	53.7	2.5
5/6/10 17:47	6.6	69	54.8	2.34
5/6/10 17:48	6.3	67.2	52.8	2.41
5/6/10 17:49	6.5	68	54.7	2.09
5/6/10 17:50	6.7	69	54.7	2.28
5/6/10 17:51	6.4	69.1	54.7	2.34
5/6/10 17:52	6.4	67.9	53.7	2.31
5/6/10 17:53	6.2	67.3	52.8	2.47
5/6/10 17:54	6.2	65.9	52.6	2.14
5/6/10 17:55	6.3	67.6	52.4	2.6
5/6/10 17:56	6.4	67.6	54.1	2.18
5/6/10 17:57	6.4	67.4	53.3	2.28
5/6/10 17:58	6.7	67.4	53.1	2.43
5/6/10 17:59	6.5	67.2	53.6	2.22
5/6/10 18:00	6.3	66.2	52.3	2.37

	195AX874B.PV Incin SO2 Emission Rate Minute Averages	195AX874A.PV SO2 Corrected to 0% O2 Minute Averages	195AI874A.PV 95H-48 INCIN RAW SO2 Minute Averages	195AI875.PV % O2 RAW Minute Averages
Date & Time	lbs/hr	ppmv	ppmv	vol %
5/6/10 18:01	6.4	66.9	52.9	2.41
5/6/10 18:02	6.4	68.4	53.4	2.54
5/6/10 18:03	6.2	66	52.7	2.17
5/6/10 18:04	6.2	66.9	52.3	2.42
5/6/10 18:05	6.7	68.2	55.4	1.96
5/6/10 18:06	6.5	69	54	2.43
5/6/10 18:07	6.5	67	53.2	2.31
5/6/10 18:08	6.3	69	53.7	2.63
5/6/10 18:09	6.2	67.2	52.8	2.46
5/6/10 18:10	6.4	68.3	53.9	2.45
5/6/10 18:11	6.3	68.3	53.8	2.42
5/6/10 18:12	6.2	66.9	52.1	2.58
5/6/10 18:13	6.4	66.9	52.9	2.42
5/6/10 18:14	6.3	66.5	53	2.22
5/6/10 18:15	6.3	67.5	52.5	2.52
5/6/10 18:16	6.3	66.6	52.5	2.41
5/6/10 18:17	6.1	67.2	52.5	2.52
5/6/10 18:18	6.1	64.5	50.7	2.28
5/6/10 18:19	6.3	66.8	52.9	2.3
5/6/10 18:20	6.3	67.1	52.6	2.42
5/6/10 18:21	6.6	70.2	54.6	2.61
5/6/10 18:22	6.3	69.4	54.3	2.52
5/6/10 18:23	6.3	67.7	52.8	2.51
5/6/10 18:24	6.4	68.9	54	2.49
5/6/10 18:25	6.2	68.1	53.3	2.55
5/6/10 18:26	6.5	68.5	53.2	2.63
5/6/10 18:27	6.3	66.5	53.2	2.15
5/6/10 18:28	6.5	66.9	53	2.26
5/6/10 18:29	6.2	65.4	51.4	2.49
5/6/10 18:30	6.4	68.5	53.5	2.52
5/6/10 18:31	6.3	65.3	51.9	2.25
5/6/10 18:32	6.3	66.5	52.6	2.37
5/6/10 18:33	6.3	66.9	53.3	2.21
5/6/10 18:34	6.4	66.2	52.4	2.34
5/6/10 18:35	7.7	82.2	64.5	2.48
5/6/10 18:36	6.8	70.3	56	2.24
5/6/10 18:37	11.9	120.1	100.8	2.18
5/6/10 18:38	7.6	79.6	61.4	2.52
5/6/10 18:39	6.7	71.3	56.4	2.35
5/6/10 18:40	6.6	71.5	55.5	2.7
5/6/10 18:41	6.3	69	53.8	2.52
5/6/10 18:42	6.5	70.7	54.6	2.68
5/6/10 18:43	6.4	67.8	53.7	2.27
5/6/10 18:44	6.5	67.8	53.7	2.25
5/6/10 18:45	6.4	70	54.3	2.62
5/6/10 18:46	6.5	68.5	54.7	2.17
5/6/10 18:47	6.4	68.3	54.1	2.25
5/6/10 18:48	6.5	67.9	53.7	2.34
5/6/10 18:49	6.2	67.6	53.1	2.46
5/6/10 18:50	6.3	67.3	52.9	2.49
5/6/10 18:51	6.5	68.2	54.1	2.24

	195AX874B.PV Incin SO2 Emission Rate Minute Averages	195AX874A.PV SO2 Corrected to 0% O2 Minute Averages	195AI874A.PV 95H-48 INCIN RAW SO2 Minute Averages	195AI875.PV % O2 RAW Minute Averages
Date & Time	lbs/hr	ppmv	ppmv	vol %
5/6/10 18:52	6.3	67.4	53	2.4
5/6/10 18:53	6.2	67.7	53.4	2.4
5/6/10 18:54	6.4	67.4	53	2.39
5/6/10 18:55	6.3	67.4	52.9	2.48
5/6/10 18:56	6.4	68.2	53.4	2.55
5/6/10 18:57	6.3	67.8	54	2.29
5/6/10 18:58	6.7	70.2	55.3	2.34
5/6/10 18:59	6.2	67.4	53.1	2.41
5/6/10 19:00	6.2	67.8	53.6	2.37
5/6/10 19:01	6.6	67.7	54.2	2.12
5/6/10 19:02	6.5	68.4	54	2.34
5/6/10 19:03	6.2	67.7	53.4	2.37
5/6/10 19:04	6.4	69.2	54.1	2.55
5/6/10 19:05	6.5	68.5	54.4	2.29
5/6/10 19:06	6.5	68.5	53.5	2.42
5/6/10 19:07	6.6	68.3	54.7	2.22
5/6/10 19:08	6.5	69.6	55.1	2.29
5/6/10 19:09	6.6	69.4	54.4	2.42
5/6/10 19:10	6.6	70.7	55.5	2.46
5/6/10 19:11	6.3	67	52.4	2.49
5/6/10 19:12	6.1	67	52.7	2.46
5/6/10 19:13	6.4	68.9	53.9	2.59
5/6/10 19:14	6.4	69.1	54.1	2.5
5/6/10 19:15	6.4	68	53.4	2.52
5/6/10 19:16	6.2	65.8	51.7	2.4
5/6/10 19:17	6.1	66.3	52	2.46
5/6/10 19:18	6.7	68.8	54.5	2.3
5/6/10 19:19	6.3	67.1	52.4	2.53
5/6/10 19:20	6.2	68	53.9	2.34
5/6/10 19:21	6.5	70	55.5	2.35
5/6/10 19:22	6.5	68.5	54	2.38
5/6/10 19:23	6.5	68.2	54.3	2.17
5/6/10 19:24	7.1	76.6	59.5	2.42
5/6/10 19:25	6.9	73.5	58.7	2.21
5/6/10 19:26	6.5	71.5	55.9	2.61
5/6/10 19:27	6.4	69.4	54	2.56
5/6/10 19:28	6.4	68.9	53.7	2.55
5/6/10 19:29	6.6	68.9	54.2	2.36
5/6/10 19:30	6.2	67.8	53.4	2.45
5/6/10 19:31	6.3	65.9	51.9	2.37
5/6/10 19:32	6.5	69.1	53.8	2.63
5/6/10 19:33	6.4	68.1	53.3	2.5
5/6/10 19:34	6.2	67.5	52.8	2.49
5/6/10 19:35	6.4	67.2	53	2.36
5/6/10 19:36	6.3	67.4	52.6	2.51
5/6/10 19:37	6.7	69	54.3	2.75
5/6/10 19:38	6.6	70	54.6	2.79
5/6/10 19:39	6.3	67.3	52.9	2.47
5/6/10 19:40	6.4	68	53.5	2.33
5/6/10 19:41	6.5	67.5	53.1	2.42
5/6/10 19:42	6.2	66.3	52.7	2.29

Date & Time	195AX874B.PV	195AX874A.PV	195A1874A.PV	195A1875.PV
	Incin SO2 Emission Rate Minute Averages	SO2 Corrected to 0% O2 Minute Averages	95H-48 INCIN RAW SO2 Minute Averages	% O2 RAW Minute Averages
	lbs/hr	ppmv	ppmv	vol %
5/6/10 19:43	7.1	74.3	59.4	2.37
5/6/10 19:44	6.5	68.6	54.3	2.24
5/6/10 19:45	6.6	68.6	54.5	2.2
5/6/10 19:46	6.3	67.8	53.7	2.33
5/6/10 19:47	6.4	68.9	53.8	2.57
5/6/10 19:48	6.3	67.3	52.5	2.62
5/6/10 19:49	6.3	65.8	51.4	2.56
5/6/10 19:50	6.3	66.9	52.7	2.45
5/6/10 19:51	6.2	66.3	52.6	2.3
5/6/10 19:52	6.5	67.7	53.5	2.36
5/6/10 19:53	6.4	67.4	53.1	2.37
5/6/10 19:54	6.3	65.9	52.5	2.25
5/6/10 19:55	6.4	66.6	52.4	2.48
5/6/10 19:56	6.4	67.1	52.7	2.42
5/6/10 19:57	6.4	67.9	53.6	2.32
5/6/10 19:58	13.7	141.1	115.9	2.21
5/6/10 19:59	7.4	79.1	61.6	2.46
5/6/10 20:00	6.8	73.3	57	2.59
5/6/10 20:01	6.6	68.5	53.3	2.6
5/6/10 20:02	6.4	68.9	54	2.54
5/6/10 20:03	6.5	68.4	53.6	2.59
5/6/10 20:04	6.6	66.5	52.5	2.39
5/6/10 20:05	6.5	67.1	53.3	2.26
5/6/10 20:06	6.9	68.4	55.9	2.44
5/6/10 20:07	7.4	79.3	61.2	2.21
5/6/10 20:08	6.7	71.1	55.7	2.38
5/6/10 20:09	11	128.7	93.2	2.17
5/6/10 20:10	6.8	73.1	57.7	2.31
5/6/10 20:11	6.7	69	54.5	2.38
5/6/10 20:12	6.5	68.5	53.8	2.44
5/6/10 20:13	6.6	67.7	53.7	2.36
5/6/10 20:14	6.6	66.6	53.4	2.26
5/6/10 20:15	7.4	78	61.2	2.27
5/6/10 20:16	6.4	69.6	54.7	2.39
5/6/10 20:17	7.1	76	58	2.61
5/6/10 20:18	6.4	66.8	52.2	2.5
5/6/10 20:19	6.7	69.7	54.4	2.67
5/6/10 20:20	6.4	68.3	53.6	2.41
5/6/10 20:21	6.3	66.6	51.9	2.59
5/6/10 20:22	6.1	64.4	50.7	2.4
5/6/10 20:23	6.2	64.8	50.8	2.49
5/6/10 20:24	6.3	65.5	51.8	2.47
5/6/10 20:25	6.3	65.3	51.8	2.28
5/6/10 20:26	6.2	65.7	52.1	2.26
5/6/10 20:27	6.8	68.2	54.9	2.23
5/6/10 20:28	6.2	67.4	52.4	2.62
5/6/10 20:29	7.4	75.7	60.9	2.29
5/6/10 20:30	6.3	66.2	51.8	2.46
5/6/10 20:31	6.4	64.5	51	2.28
5/6/10 20:32	6.2	64.4	50.9	2.31
5/6/10 20:33	6.6	68.6	54.3	2.3

	195AX874B.PV Incin SO2 Emission Rate Minute Averages	195AX874A.PV SO2 Corrected to 0% O2 Minute Averages	195AI874A.PV 95H-48 INCIN RAW SO2 Minute Averages	195AI875.PV % O2 RAW Minute Averages
Date & Time	lbs/hr	ppmv	ppmv	vol %
5/6/10 20:34	6.3	66.1	51.8	2.49
5/6/10 20:35	6.4	65.3	51.8	2.34
5/6/10 20:36	6.2	64.2	50.3	2.43
5/6/10 20:37	6.2	64.7	51.4	2.34
5/6/10 20:38	6.2	66.2	52.4	2.31
5/6/10 20:39	6.4	66.2	52.4	2.28
5/6/10 20:40	6.3	64.6	51.8	2.18
5/6/10 20:41	6.3	66	52.3	2.31
5/6/10 20:42	6.5	66.6	53.2	2.2
5/6/10 20:43	6.4	65.7	52.4	2.19
5/6/10 20:44	6.5	65.6	52.6	2.14
5/6/10 20:45	6.4	65.8	52	2.31
5/6/10 20:46	6.6	65.9	53.1	2.02
5/6/10 20:47	6.3	67.4	53.6	2.23
5/6/10 20:48	6.5	67.3	53.3	2.28
5/6/10 20:49	6.3	66.2	52.2	2.39
5/6/10 20:50	6.3	65	51.4	2.31
5/6/10 20:51	6.1	65	50.7	2.59
5/6/10 20:52	6	65.1	51.2	2.41
5/6/10 20:53	6.2	65.5	51.5	2.4
5/6/10 20:54	6.2	63.9	50.7	2.35
5/6/10 20:55	7.7	75.3	61.7	2.12
5/6/10 20:56	6.3	64.5	51.7	2.12
5/6/10 20:57	6.3	65.4	52.9	1.96
5/6/10 20:58	6.5	66.5	53.1	2.17
5/6/10 20:59	6.6	66.6	53.8	1.95
5/6/10 21:00	6.3	66.5	52.8	2.2
5/6/10 21:01	6.3	65.5	51.2	2.46
5/6/10 21:02	6.2	66.6	52.7	2.37
5/6/10 21:03	6	65.2	51	2.49
5/6/10 21:04	6.2	65.4	50.9	2.55
5/6/10 21:05	6.3	65.3	51	2.57
5/6/10 21:06	6.1	64.5	50.1	2.62
5/6/10 21:07	6.1	63.7	50.8	2.14
5/6/10 21:08	6.3	63.1	50.6	2.02
5/6/10 21:09	6.3	66	52.6	2.21
5/6/10 21:10	6.2	63.4	50.4	2.2
5/6/10 21:11	6.3	64.7	51.4	2.21
5/6/10 21:12	6.5	65.7	52.8	2.1
5/6/10 21:13	6.2	66.2	52.6	2.32
5/6/10 21:14	6.4	66	52.5	2.21
5/6/10 21:15	6.4	65.9	52.4	2.22
5/6/10 21:16	6.3	65.8	52.7	2.12
5/6/10 21:17	6.2	65.9	52.3	2.26
5/6/10 21:18	6.1	65.4	51.5	2.4
5/6/10 21:19	6.2	64.5	51	2.34
5/6/10 21:20	6.2	64.5	50.8	2.33
5/6/10 21:21	6.1	65	51.5	2.33
5/6/10 21:22	6.2	64.8	51	2.43
5/6/10 21:23	6.2	64.3	51.3	2.15
5/6/10 21:24	6.3	64.9	51.9	2.15

	195AX874B.PV Incin SO2 Emission Rate Minute Averages	195AX874A.PV SO2 Corrected to 0% O2 Minute Averages	195AI874A.PV 95H-48 INCIN RAW SO2 Minute Averages	195AI875.PV % O2 RAW Minute Averages
Date & Time	lbs/hr	ppmv	ppmv	vol %
5/6/10 21:25	6.1	64.3	51.1	2.24
5/6/10 21:26	6.1	64.6	51.2	2.33
5/6/10 21:27	6.1	64.3	50.7	2.41
5/6/10 21:28	6.3	63.7	50.9	2.17
5/6/10 21:29	6.4	65.6	52.1	2.33
5/6/10 21:30	6	63.9	50.2	2.39
5/6/10 21:31	6.1	64.2	50.8	2.29
5/6/10 21:32	6.3	63.7	50.4	2.31
5/6/10 21:33	6.4	63.5	51.2	2.03
5/6/10 21:34	6.3	63.1	50.6	2.09
5/6/10 21:35	6.3	64.4	52	1.99
5/6/10 21:36	6.2	63.6	51	2.09
5/6/10 21:37	6.1	63	49.7	2.33
5/6/10 21:38	6.1	63.1	50.4	2.15
5/6/10 21:39	6.3	65.3	51.7	2.26
5/6/10 21:40	6.2	63.4	50.6	2.23
5/6/10 21:41	6	64.2	50.6	2.37
5/6/10 21:42	5.8	62.6	49.3	2.39
5/6/10 21:43	6.5	64.9	52.3	2.24
5/6/10 21:44	6.3	66.3	51.9	2.46
5/6/10 21:45	6.1	63.1	50.1	2.24
5/6/10 21:46	6	64.5	51.2	2.25
5/6/10 21:47	6.2	63	50.6	2.11
5/6/10 21:48	6.1	64.2	50.8	2.37
5/6/10 21:49	6.2	63.8	50.6	2.23
5/6/10 21:50	5.9	62.9	49.7	2.27
5/6/10 21:51	6.2	62.8	49.9	2.24
5/6/10 21:52	6.1	62	49.5	2.13
5/6/10 21:53	6.3	65.7	51.9	2.24
5/6/10 21:54	6.4	64	51.3	2.06
AVERAGE	6.47	68.06	53.75	2.36
5/6/10 21:55	6	62.9	49.6	2.35
5/6/10 21:56	6.2	64.2	51.5	2.08
5/6/10 21:57	6.6	67.2	53	2.26
5/6/10 21:58	6.5	66.9	53.7	2.2
5/6/10 21:59	6.2	64.7	51.3	2.28
5/6/10 22:00	6.4	65.9	53.1	2.11
5/6/10 22:01	6	62.3	49.6	2.29
5/6/10 22:02	6.1	63.7	50.5	2.28
5/6/10 22:03	6.4	64.6	51.8	2.07
5/6/10 22:04	6.1	63.1	50	2.37
5/6/10 22:05	5.9	62.7	49.9	2.29
5/6/10 22:06	6	62.4	49.5	2.27
5/6/10 22:07	6	62	48.9	2.36
5/6/10 22:08	6.3	63	50.7	2.07
5/6/10 22:09	6.3	63.9	50.3	2.35
5/6/10 22:10	6.1	62.8	50.4	2.05
5/6/10 22:11	5.9	62.4	49.8	2.18
5/6/10 22:12	6.1	63	50.6	2.14
5/6/10 22:13	6	62.1	49.4	2.27
5/6/10 22:14	6.1	62.2	49.4	2.19

	195AX874B.PV	195AX874A.PV	195AI874A.PV	195AI875.PV
	Incin SO2 Emission Rate	SO2 Corrected to 0% O2	95H-48 INCIN RAW SO2	% O2 RAW
	Minute Averages	Minute Averages	Minute Averages	Minute Averages
Date & Time	lbs/hr	ppmv	ppmv	vol %
5/7/10 7:36	11.2	109.1	87.6	2.15
5/7/10 7:37	12.2	118.7	94.8	2.25
5/7/10 7:38	12.1	122	98.5	1.97
5/7/10 7:39	13.6	129.6	105.5	1.96
5/7/10 7:40	14.2	140.7	111.7	2.3
5/7/10 7:41	14.2	139	112.1	2.02
5/7/10 7:42	14.8	153.8	121.1	2.33
5/7/10 7:43	16.1	156.8	125.8	2.21
5/7/10 7:44	16.2	163.2	129.8	2.21
5/7/10 7:45	13.7	143	107.1	2.12
5/7/10 7:46	6.4	64.7	51.5	2.09
5/7/10 7:47	6.6	63.6	52.2	1.66
5/7/10 7:48	6.4	61.5	50.3	1.77
5/7/10 7:49	6.2	61.8	49.8	2.06
5/7/10 7:50	6.1	61	49.2	2.02
5/7/10 7:51	6.1	62.1	49.2	2.25
5/7/10 7:52	6.2	60.7	48.7	1.99
5/7/10 7:53	6.2	60.6	48.2	2.24
5/7/10 7:54	6.3	60.3	49.3	1.63
5/7/10 7:55	6.1	59.1	47.4	2.02
5/7/10 7:56	6.2	59.6	48.8	1.71
5/7/10 7:57	6.1	59.9	48.6	1.77
5/7/10 7:58	6.9	67.5	55.4	2
5/7/10 7:59	9.1	88.1	70.9	2.15
5/7/10 8:00	9.8	95.3	75.7	2.35
5/7/10 8:01	9.6	97.9	78.6	2.05
5/7/10 8:02	10.9	108.5	85.4	2.43
5/7/10 8:03	12	123.4	98.2	2.21
5/7/10 8:04	12.1	119	96.5	1.93
5/7/10 8:05	13.6	134.1	107.3	2.12
5/7/10 8:06	14.1	139.5	111.2	2.24
5/7/10 8:07	15.3	154.5	123.9	2.18
5/7/10 8:08	15.3	156.3	125.3	2.15
5/7/10 8:09	16.2	158.7	126.3	2.33
5/7/10 8:10	8.6	93	68.5	2.3
5/7/10 8:11	6.7	65.3	52	2.15
5/7/10 8:12	6.5	63.7	51.3	2
5/7/10 8:13	6.3	62	49.8	2.01
5/7/10 8:14	6.3	63.4	51.2	1.94
5/7/10 8:15	6.3	61.3	50.5	1.51
5/7/10 8:16	6.3	62.1	49.8	2.03
5/7/10 8:17	6	60.4	48.1	2.17
5/7/10 8:18	6.1	60.5	49	1.93
5/7/10 8:19	6.3	60.6	48.8	1.99
5/7/10 8:20	6.2	60.2	48.9	1.83
5/7/10 8:21	6.7	65.2	53.8	1.91
5/7/10 8:22	8.3	83.6	66.1	2.39
5/7/10 8:23	9.3	93.2	73.3	2.49
5/7/10 8:24	10.4	100.7	80.2	2.28
5/7/10 8:25	10.4	103.2	82.3	2.18
5/7/10 8:26	11.4	113.7	91.1	2.08

	195AX874B.PV Incin SO2 Emission Rate Minute Averages	195AX874A.PV SO2 Corrected to 0% O2 Minute Averages	195AI874A.PV 95H-48 INCIN RAW SO2 Minute Averages	195AI875.PV % O2 RAW Minute Averages
Date & Time	lbs/hr	ppmv	ppmv	vol %
5/7/10 8:27	12.8	125.7	99.7	2.43
5/7/10 8:28	12.8	130.1	103.6	2.15
5/7/10 8:29	13.6	136.4	110.1	2.07
5/7/10 8:30	13.5	139.3	111.7	2.08
5/7/10 8:31	15.2	149	118.6	2.24
5/7/10 8:32	15.9	156.8	125.3	2.1
5/7/10 8:33	14.6	148.2	117.2	2.07
5/7/10 8:34	6.5	64.3	51.6	1.85
5/7/10 8:35	6.3	62.5	51.6	1.52
5/7/10 8:36	6	61.8	49.5	2.09
5/7/10 8:37	6.1	59.8	47.5	2.22
5/7/10 8:38	6.1	59.9	48.1	2.02
5/7/10 8:39	6.1	60.4	48.8	1.91
5/7/10 8:40	6	60.4	47.8	2.32
5/7/10 8:41	6.1	59.1	48.4	1.74
5/7/10 8:42	6	58.7	47.4	1.93
5/7/10 8:43	6	58.8	47.9	1.71
5/7/10 8:44	5.8	59.1	47.7	1.91
5/7/10 8:45	6.1	59	47.1	2.22
5/7/10 8:46	6.2	60	49	1.78
5/7/10 8:47	6.3	61.2	49.2	2.07
5/7/10 8:48	9.5	91.9	73.9	2.12
5/7/10 8:49	10.3	99.2	79.5	2.17
5/7/10 8:50	11.4	109.6	86.9	2.33
5/7/10 8:51	2.7	185.2	20.9	18.08
5/7/10 8:52	0.6	183.3	5	20.32
5/7/10 8:53	0.8	331.4	6	20.53
5/7/10 8:54	28.1	242.1	211.7	1.69
5/7/10 8:55	33.8	307	271.4	0.15
5/7/10 8:56	34.7	310.5	274.5	0.15
5/7/10 8:57	8.1	213.1	62.2	12.53
5/7/10 8:58	1.1	27	8.5	13.46
5/7/10 8:59	1.3	31.6	9.9	13.57
5/7/10 9:00	1.4	34.8	10.9	13.6
5/7/10 9:01	10.2	101.2	78.6	2.84
5/7/10 9:02	8.1	80.9	63.8	2.21
5/7/10 9:03	7.2	71.4	57.8	1.82
5/7/10 9:04	6.4	66.2	52.5	2.11
5/7/10 9:05	6.6	63.9	51.8	1.84
5/7/10 9:06	6.9	65.1	53.7	1.59
5/7/10 9:07	6.3	63.2	49.9	2.36
5/7/10 9:08	6.2	61.8	50.1	1.8
5/7/10 9:09	6.4	62.5	49.8	2.24
5/7/10 9:10	6.3	62.4	49.6	2.2
5/7/10 9:11	6.3	61.2	49.1	2.06
5/7/10 9:12	6.2	61.2	48.5	2.21
5/7/10 9:13	6.1	61.2	49.1	2.13
5/7/10 9:14	6.1	60.2	48.2	2.01
5/7/10 9:15	6.5	60.5	48.9	1.97
5/7/10 9:16	6.2	59.6	48	1.93
5/7/10 9:17	6	58.4	47.1	1.98

	195AX874B.PV Incin SO2 Emission Rate Minute Averages	195AX874A.PV SO2 Corrected to 0% O2 Minute Averages	195AI874A.PV 95H-48 INCIN RAW SO2 Minute Averages	195AI875.PV % O2 RAW Minute Averages
Date & Time	lbs/hr	ppmv	ppmv	vol %
5/7/10 9:18	6.3	60.6	49.5	1.7
5/7/10 9:19	6.4	61.7	49.6	2.03
5/7/10 9:20	6.2	61.6	48.9	2.18
5/7/10 9:21	6.3	61.1	48.2	2.36
5/7/10 9:22	6.3	60.4	48.7	2.03
5/7/10 9:23	6.3	60.7	48.5	2.03
5/7/10 9:24	6.4	61.6	49.2	2.17
5/7/10 9:25	6.7	63.1	50.1	2.18
5/7/10 9:26	6.3	60.5	49.6	1.53
5/7/10 9:27	6.3	60.6	48.1	2.18
5/7/10 9:28	6.5	62	48.8	2.38
5/7/10 9:29	6.1	59.5	47.8	2.04
5/7/10 9:30	6.3	61.9	49.1	2.22
5/7/10 9:31	6.4	61.3	49.5	1.95
5/7/10 9:32	6.4	62.1	49.3	2.16
5/7/10 9:33	6.4	62.6	50	2.1
5/7/10 9:34	6.4	62.3	50.1	2.07
5/7/10 9:35	6.4	62	49.7	2.04
5/7/10 9:36	6.3	62.7	49.7	2.33
5/7/10 9:37	6.4	62.5	50.8	1.9
5/7/10 9:38	6.3	61.8	49.6	2.04
5/7/10 9:39	6.3	61.4	49.1	2.09
5/7/10 9:40	6.4	61.3	49.1	2.11
5/7/10 9:41	6.4	62.6	49.4	2.4
5/7/10 9:42	6.2	61.4	49.1	2.12
5/7/10 9:43	6.2	61.9	49.1	2.24
5/7/10 9:44	6.5	62.3	49.6	2.1
5/7/10 9:45	6.4	61.3	48.7	2.19
5/7/10 9:46	6.3	61.5	48.9	2.21
5/7/10 9:47	6.4	60.9	48.5	2.1
5/7/10 9:48	6.5	61.6	49.2	2.21
5/7/10 9:49	6.5	62.2	49.7	2.12
5/7/10 9:50	6.7	63.6	50.6	2.09
5/7/10 9:51	6.9	63.5	50.6	2.28
5/7/10 9:52	6.3	61.5	49.1	2.09
5/7/10 9:53	6.3	63	50.3	2.22
5/7/10 9:54	6.2	62.6	49.3	2.41
5/7/10 9:55	6.5	63	50.1	2.18
5/7/10 9:56	6.4	62.4	49.1	2.42
5/7/10 9:57	6.4	63.2	49.6	2.43
5/7/10 9:58	6.5	62.5	50.3	2.03
5/7/10 9:59	6.3	61.3	49.3	1.97
5/7/10 10:00	6.5	62.9	50.1	2.18
5/7/10 10:01	6.3	61.3	49.2	2.05
5/7/10 10:02	6.4	63.7	50.9	2.17
5/7/10 10:03	6.4	61.7	49.3	2.15
5/7/10 10:04	6.2	61	48.5	2.23
5/7/10 10:05	6.3	62.1	49.4	2.29
5/7/10 10:06	6.5	61.5	49.4	2.05
5/7/10 10:07	6.7	62	50.4	1.86
5/7/10 10:08	6.5	62.2	49.8	2.1

	195AX874B.PV Incin SO2 Emission Rate Minute Averages	195AX874A.PV SO2 Corrected to 0% O2 Minute Averages	195AI874A.PV 95H-48 INCIN RAW SO2 Minute Averages	195AI875.PV % O2 RAW Minute Averages
Date & Time	lbs/hr	ppmv	ppmv	vol %
5/7/10 10:09	6.5	63.6	51.8	1.77
5/7/10 10:10	6.8	63.2	51.4	1.86
5/7/10 10:11	6.7	63.1	51.1	1.89
5/7/10 10:12	6.9	62.6	50.1	2.13
5/7/10 10:13	7	64.3	50.9	2.32
5/7/10 10:14	7.5	64.7	51.5	2.25
5/7/10 10:15	7.2	63.4	50.7	2.09
5/7/10 10:16	6.9	62	49.6	2.09
5/7/10 10:17	6.1	63.4	51.2	1.97
5/7/10 10:18	5.8	63	50.8	2
5/7/10 10:19	6.6	64.4	52.3	1.85
5/7/10 10:20	6.7	62.5	50.3	2.04
5/7/10 10:21	7	64.2	50.8	2.32
5/7/10 10:22	6.6	64	51.5	2.05
5/7/10 10:23	6.6	62.7	49.9	2.17
5/7/10 10:24	6.8	62.6	50.1	2.05
5/7/10 10:25	6.7	63.3	50.7	2.12
5/7/10 10:26	6.8	64.4	51	2.29
5/7/10 10:27	6.9	63.3	50.7	2.09
5/7/10 10:28	6.8	63.1	50.7	1.97
5/7/10 10:29	6.9	64.3	51.9	1.89
5/7/10 10:30	6.6	63.6	50.9	2.08
5/7/10 10:31	6.7	64.3	51.1	2.21
5/7/10 10:32	6.8	63.8	51.5	1.91
5/7/10 10:33	6.8	63.7	52.5	1.62
5/7/10 10:34	6.9	64.2	51.5	2.08
5/7/10 10:35	6.7	64	51.3	2.09
5/7/10 10:36	6.6	65.2	51.5	2.28
5/7/10 10:37	6.8	63.3	50.9	2.08
5/7/10 10:38	6.6	63.9	50.7	2.15
5/7/10 10:39	6.7	62.7	50.2	2.14
5/7/10 10:40	6.6	62.7	49.8	2.19
5/7/10 10:41	6.3	61.2	49.2	1.98
5/7/10 10:42	6.5	61.9	50.5	1.83
5/7/10 10:43	6.4	60.8	49.3	1.86
5/7/10 10:44	6.4	62.9	51	1.86
5/7/10 10:45	6.9	66.1	54.3	1.65
5/7/10 10:46	6.8	64.6	52.9	1.62
5/7/10 10:47	6.9	65.7	52.6	1.98
5/7/10 10:48	6.7	64	51.1	1.99
5/7/10 10:49	6.9	65	53.2	1.76
5/7/10 10:50	6.9	64.5	51.7	1.98
5/7/10 10:51	6.8	64.2	51.9	1.76
5/7/10 10:52	6.8	64	52	1.77
5/7/10 10:53	7	64	51.4	2.02
5/7/10 10:54	6.9	64.4	52.8	1.72
5/7/10 10:55	7	65.1	52.3	1.93
5/7/10 10:56	7	66.2	53.4	1.91
5/7/10 10:57	6.6	64.1	50.8	2.21
5/7/10 10:58	7	66	53.3	1.89
5/7/10 10:59	7.1	65.5	53.3	1.77

	195AX874B.PV Incin SO2 Emission Rate Minute Averages	195AX874A.PV SO2 Corrected to 0% O2 Minute Averages	195AI874A.PV 95H-48 INCIN RAW SO2 Minute Averages	195AI875.PV % O2 RAW Minute Averages
Date & Time	lbs/hr	ppmv	ppmv	vol %
5/7/10 11:00	6.9	63.9	51.9	1.81
5/7/10 11:01	6.9	64.2	52.1	1.88
5/7/10 11:02	7.3	65.4	54.9	1.29
5/7/10 11:03	7.4	66.6	54.7	1.5
5/7/10 11:04	7.2	68.2	56.3	1.47
5/7/10 11:05	7.6	68.2	56.2	1.59
5/7/10 11:06	7.2	67	53.7	2.09
5/7/10 11:07	7.2	66.3	52.5	2.18
5/7/10 11:08	7.3	67.1	53.8	2.09
5/7/10 11:09	7.2	67.6	54.4	1.99
5/7/10 11:10	7.7	67.2	54.9	1.71
5/7/10 11:11	7.6	68.7	55.5	1.96
5/7/10 11:12	7.4	68.6	56.6	1.55
5/7/10 11:13	7.9	68.6	55.5	1.87
5/7/10 11:14	7.3	67.8	54.6	2.06
5/7/10 11:15	7.2	68.1	53.9	2.32
5/7/10 11:16	7.2	67.2	53.8	2.09
5/7/10 11:17	7.4	68	55.2	1.9
5/7/10 11:18	7.6	67	54.1	1.92
5/7/10 11:19	7.5	66.5	53.5	2.05
5/7/10 11:20	7.2	66.2	54	1.69
5/7/10 11:21	7.3	66.2	54.2	1.68
5/7/10 11:22	7.8	72.7	58.8	1.9
5/7/10 11:23	7.6	68.2	54.9	1.94
5/7/10 11:24	7.5	67.6	53.6	2.27
5/7/10 11:25	7.5	68.1	54.9	1.96
5/7/10 11:26	7.5	67.7	55.3	1.76
5/7/10 11:27	7.5	67.3	54.6	1.87
5/7/10 11:28	7.5	66.6	54.2	1.84
5/7/10 11:29	7.6	68.1	55.7	1.71
5/7/10 11:30	7.6	68.2	55.6	1.71
5/7/10 11:31	7.6	68.2	56.3	1.63
5/7/10 11:32	7.5	69.3	56.1	1.87
5/7/10 11:33	7.8	67.9	55.8	1.63
5/7/10 11:34	8.2	71.5	60	1.71
5/7/10 11:35	7.4	68	55.1	1.74
5/7/10 11:36	7.4	68.3	56.4	1.58
5/7/10 11:37	7.5	66.6	54.7	1.73
5/7/10 11:38	8.9	80	65.3	1.8
5/7/10 11:39	8.6	72.9	61	1.25
5/7/10 11:40	8.1	72.2	60.7	1.24
5/7/10 11:41	7.9	71.5	57.6	1.91
5/7/10 11:42	7.9	69.8	57	1.75
5/7/10 11:43	8	70.1	56.9	1.76
5/7/10 11:44	7.9	69.9	57.1	1.76
5/7/10 11:45	8.3	69.3	59.6	0.96
5/7/10 11:46	12.5	99.1	84	0.74
5/7/10 11:47	9.9	85.6	71.2	1.25
5/7/10 11:48	9.3	79.1	65.2	1.49
5/7/10 11:49	9.5	80.6	66.5	1.56
5/7/10 11:50	9	78.1	63.9	1.62

	195AX874B.PV Incin SO2 Emission Rate Minute Averages	195AX874A.PV SO2 Corrected to 0% O2 Minute Averages	195AI874A.PV 95H-48 INCIN RAW SO2 Minute Averages	195AI875.PV % O2 RAW Minute Averages
Date & Time	lbs/hr	ppmv	ppmv	vol %
5/7/10 11:51	8.5	76.1	62.4	1.56
5/7/10 11:52	9.7	81	69.3	1.12
5/7/10 11:53	9.3	78.5	64.9	1.41
5/7/10 11:54	9.8	80.8	68.1	1.21
5/7/10 11:55	9	77.2	64.2	1.27
5/7/10 11:56	10.2	83.6	70.9	1.19
5/7/10 11:57	8.8	82.8	67.4	1.68
5/7/10 11:58	9.3	76.8	62.7	1.68
5/7/10 11:59	9.6	77.5	64.8	1.35
5/7/10 12:00	10.2	84.3	70	1.24
5/7/10 12:01	12.5	99.6	86.5	1.45
5/7/10 12:02	10.6	84.4	70.2	1.23
5/7/10 12:03	10.4	85.8	72.9	0.98
5/7/10 12:04	9.4	82.2	68.2	1.48
5/7/10 12:05	10.2	88.6	75.3	0.99
5/7/10 12:06	11.4	93.5	79.2	0.99
5/7/10 12:07	11.3	96.7	82	0.98
5/7/10 12:08	12.5	102.5	86.9	0.92
5/7/10 12:09	12.2	95.7	81.7	0.94
5/7/10 12:10	13.1	101.7	87.3	0.98
5/7/10 12:11	18.4	139.7	123.1	0.34
5/7/10 12:12	18.4	142.4	123.9	0.51
5/7/10 12:13	14.6	117.4	98.4	0.93
5/7/10 12:14	14.6	116.9	100.4	0.68
5/7/10 12:15	14.4	109.7	94.4	0.86
5/7/10 12:16	22.6	176.9	160.3	0.16
5/7/10 12:17	16.6	131.5	111.7	0.99
5/7/10 12:18	14.4	116.9	97	1.21
5/7/10 12:19	16.1	126.9	109.8	0.63
5/7/10 12:20	13.2	104.6	88.7	0.95
5/7/10 12:21	12.6	101.2	85.6	1.01
5/7/10 12:22	12.4	99.2	83.1	1.18
5/7/10 12:23	12	95.8	81.1	1.05
5/7/10 12:24	11.6	93.6	78.4	1.28
5/7/10 12:25	10.9	88.1	72.5	1.46
5/7/10 12:26	10.8	85.6	70.8	1.38
5/7/10 12:27	8.9	86.7	71.3	1.6
AVERAGE	8.16	78.13	61.05	2.23
5/7/10 12:28	9	90	74.5	1.5
5/7/10 12:29	10.5	88.8	73.3	1.43
5/7/10 12:30	11.1	87.4	72.3	1.46
5/7/10 12:31	9.2	86.7	71.6	1.77
5/7/10 12:32	11.8	94	78.2	1.21
5/7/10 12:33	11	89.2	74.8	1.3
5/7/10 12:34	10.7	85.1	69.9	1.53
5/7/10 12:35	10.7	82.8	68.7	1.46
5/7/10 12:36	10.4	84.8	69	1.77
5/7/10 12:37	10.4	86.2	71.1	1.56
5/7/10 12:38	8.8	85.5	69.1	1.89
5/7/10 12:39	12.6	99.8	87.4	1.57
5/7/10 12:40	11.7	98.8	80.5	1.48



Valero Refining - Texas L.P.
Source: SRU No. 2 Tailgas Incinerator
Test Dates: May 6 and 7, 2010

APPENDIX G

Test Program Qualifications

ARI Environmental's offices in Wauconda, Illinois and Pasadena, Texas specialize in conducting stack emission, fugitive leak detection, ambient air and in-plant OSHA type testing for industrial clients.

ARI is organized so that its facilities and resources meet the requirements of ASTM D7036, Standard Practice for Competence of Air Emission Testing Bodies. ARI's laboratories in Pasadena, Texas and Wauconda, Illinois hold TCEQ NELAP Certificate No. T104704428-8A-TX.

During the past 25 years, ARI personnel have conducted over 5,000 separate stack emission tests for a variety of industrial clients throughout North America for the determination of degree of source compliance and to yield emissions data and control equipment performance data for in-house engineering purposes.

ARI presently has over 80 trained personnel for conducting source emission sampling, fugitive leak detection monitoring, ambient air monitoring and OSHA sampling programs. All test programs are supervised and conducted by onsite Qualified Individuals (QI) and/or Qualified Source Testing Individuals (QSTI) pursuant to ASTM D7036.

The key personnel involved in the test program were as follows:

Greg Burch

Mr. Burch is ARI's Source Testing Division South Central Regional Manager and is responsible for planning and managing sampling programs, sample analysis, data reduction, QA/QC reviews, and reporting activity for the regional office. He is certified as a QSTI through the Source Evaluation Society. Mr. Burch has been involved with source testing since 1990. He has accumulated extensive experience in flow stream characterization for engineering purposes; emissions sampling for regulatory compliance demonstration and emissions sampling for system audit requirements of CEMS and PEMS.

William Pearce

Mr. Pearce is a Project Manager with ARI. His experience since 2000 includes emission compliance and CEM certification testing for a wide variety of industries including petrochemical, steel mills, electric utilities, cement plants, asphalt plants and general manufacturing plants.

Mr. Pearce is presently certified as a QSTI by the Source Evaluation Society pursuant to the regulations of ASTM D7036-04.

Zack McCain

Mr. McCain is a Source Sampling Field Technician. Mr. McCain is well versed in the operation and maintenance of manual source sampling equipment and has performed these functions on numerous tests for various clients.

Mr. McCain's responsibilities include field sampling, sample analysis, data reduction and interpretation, and maintenance and calibration of continuous and manual source sampling equipment.

Brian Johnson

Mr. Johnson is a Source Sampling Field Technician. Mr. Johnson is well versed in the operation and maintenance of manual source sampling equipment and has performed these functions on numerous tests for various clients.

Mr. Johnson's responsibilities include field sampling, sample analysis, data reduction and interpretation, and maintenance and calibration of continuous and manual source sampling equipment.

Jeff Goldfine

Mr. Goldfine is a field technician specializing in sampling equipment preparation, maintenance and calibration, equipment setup, field sampling, sample recovery, and posttest equipment clean up. Mr. Goldfine has over 5 years experience in conducting various source emission test programs. Mr. Goldfine is presently certified as a Qualified Individual (QI) by the Source Evaluation Society (SES) pursuant to the requirements of ASTM D7036-04.

SOURCE EVALUATION SOCIETY



Qualified Source Test Individual

LET IT BE KNOWN THAT

GREG D. BURCH

HAS SUCCESSFULLY PASSED A COMPREHENSIVE EXAMINATION AND SATISFIED
EXPERIENCE REQUIREMENTS IN ACCORDANCE WITH THE GUIDELINES
ISSUED BY THE SES QUALIFIED SOURCE TEST INDIVIDUAL REVIEW BOARD FOR

BASIC KNOWLEDGE AND MANUAL PARTICULATE SAMPLING METHODS

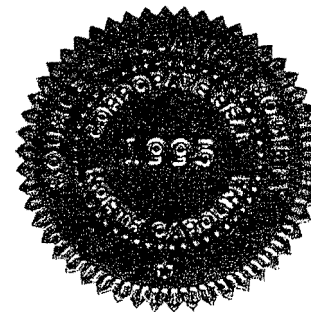
ISSUED THIS 20TH DAY OF APRIL 2006 AND EFFECTIVE UNTIL APRIL 19TH, 2011

Peter R. Westlin
QSTI Review Board

Leroy F. Owens
QSTI Review Board

Glenn C. England
QSTI Review Board

APPLICATION NO. 2006-027



SOURCE EVALUATION SOCIETY



Qualified Source Test Individual

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MANUAL GAS SOURCE SAMPLING METHODS

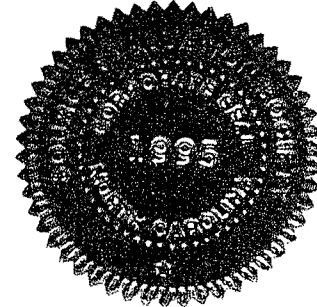
ISSUED THIS 8TH DAY OF JUNE 2006 AND EFFECTIVE UNTIL JUNE 7TH, 2011

Peter R. Westlin
QSTI Review Board

LeRoy F. Owens
QSTI Review Board

Glenn C. England
QSTI Review Board

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EXPERIENCE REQUIREMENTS IN ACCORDANCE WITH THE GUIDELINES
ISSUED BY THE SES QUALIFIED SOURCE TEST INDIVIDUAL REVIEW BOARD FOR

INSTRUMENTAL METHODS

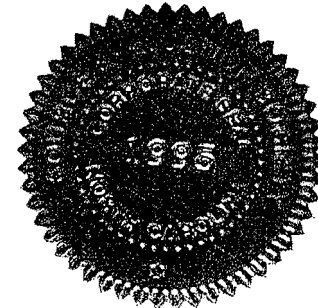
ISSUED THIS 8TH DAY OF JUNE 2006 AND EFFECTIVE UNTIL JUNE 7TH, 2011

Peter R. Westlin
QSTI Review Board

LeRoy F. Owens
QSTI Review Board

Glenn C. England
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HAZARDOUS METALS MEASUREMENT SAMPLING METHODS

ISSUED THIS 8TH DAY OF JULY 2009 AND EFFECTIVE UNTIL JULY 7TH 2014

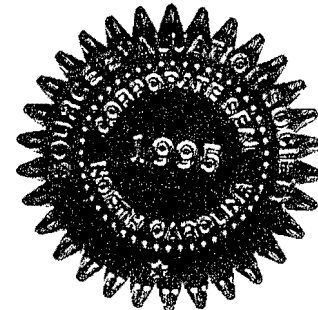
Peter R. Westlin, QSTI/QSTO Review Board

C. David Bagweff, QSTI/QSTO Review Board

Karen D. Kajlya-Mills, QSTI/QSTO Review Board

John R. Smith, QSTI/QSTO Review Board

APPLICATION
NO.
2006-027



SOURCE EVALUATION SOCIETY



Qualified Source Testing Individual


LET IT BE KNOWN THAT

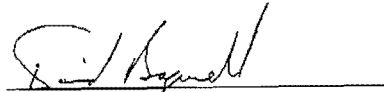
WILLIAM H. PEARCE

HAS SUCCESSFULLY PASSED A COMPREHENSIVE EXAMINATION AND SATISFIED
EXPERIENCE REQUIREMENTS IN ACCORDANCE WITH THE GUIDELINES
ISSUED BY THE SES QUALIFIED SOURCE TEST INDIVIDUAL REVIEW BOARD FOR


MANUAL GAS VOLUME MEASUREMENTS AND ISOKINETIC PARTICULATE SAMPLING METHODS

ISSUED THIS 5TH DAY OF NOVEMBER 2008 AND EFFECTIVE UNTIL NOVEMBER 4TH, 2013

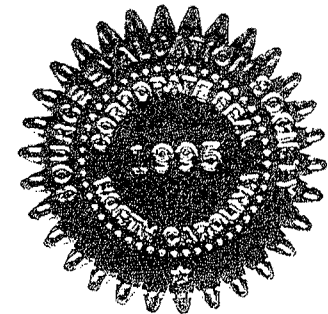

Peter R. Westlin, QSTI/QSTO Review Board


C. David Bagwell, QSTI/QSTO Review Board

APPLICATION
NO.
2008-221


Peter S. Pakalnis, QSTI/QSTO Review Board


John R. Smith, QSTI/QSTO Review Board



SOURCE EVALUATION SOCIETY



Qualified Source Testing Individual

LET IT BE KNOWN THAT

WILLIAM H. PEARCE

HAS SUCCESSFULLY PASSED A COMPREHENSIVE EXAMINATION AND SATISFIED EXPERIENCE REQUIREMENTS IN ACCORDANCE WITH THE GUIDELINES ISSUED BY THE SES QUALIFIED SOURCE TEST INDIVIDUAL REVIEW BOARD FOR

MANUAL GASEOUS POLLUTANTS SOURCE SAMPLING METHODS

ISSUED THIS 5TH DAY OF NOVEMBER 2008 AND EFFECTIVE UNTIL NOVEMBER 4TH, 2013

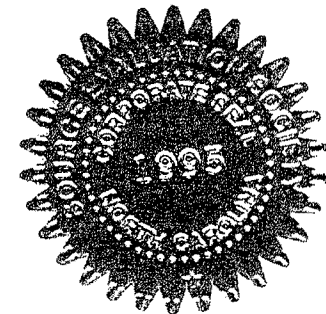
Peter R. Westlin, QSTI/QSTO Review Board

C. David Bagwell, QSTI/QSTO Review Board

Peter S. Pakainis, QSTI/QSTO Review Board

John R. Smith, QSTI/QSTO Review Board

APPLICATION
NO.
2008-221



SOURCE EVALUATION SOCIETY



Qualified Source Testing Individual

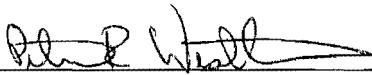
LET IT BE KNOWN THAT

WILLIAM H. PEARCE


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EXPERIENCE REQUIREMENTS IN ACCORDANCE WITH THE GUIDELINES
ISSUED BY THE SES QUALIFIED SOURCE TEST INDIVIDUAL REVIEW BOARD FOR


GASEOUS POLLUTANTS INSTRUMENTAL SAMPLING METHODS

ISSUED THIS 5TH DAY OF NOVEMBER 2008 AND EFFECTIVE UNTIL NOVEMBER 4^H, 2013

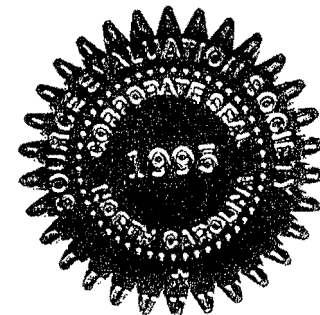

Peter R. Westlin, QSTI/QSTO Review Board


C. David Bagwell, QSTI/QSTO Review Board


Peter S. Pakalnis, QSTI/QSTO Review Board


John R. Smith, QSTI/QSTO Review Board

APPLICATION
NO.
2008-221



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Qualified Source Testing Individual

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WILLIAM H. PEARCE

HAS SUCCESSFULLY PASSED A COMPREHENSIVE EXAMINATION AND SATISFIED EXPERIENCE REQUIREMENTS IN ACCORDANCE WITH THE GUIDELINES ISSUED BY THE SES QUALIFIED SOURCE TEST INDIVIDUAL REVIEW BOARD FOR

HAZARDOUS METALS MEASUREMENT SAMPLING METHODS

ISSUED THIS 6TH DAY OF JANUARY 2010 AND EFFECTIVE UNTIL JANUARY 5TH, 2015

Peter R. Westlin, QSTI/QSTO Review Board

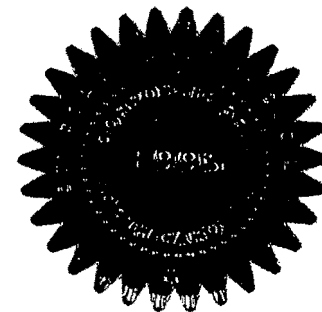
C. David Bagweff, QSTI/QSTO Review Board

Peter S. Pakalns, QSTI/QSTO Review Board

Karen D. Kajlya-Mills, QSTI/QSTO Review Board

Glenn C. England, QSTI/QSTO Review Board

APPLICATION
NO.
2008-221





Valero Refining - Texas L.P.
Source: SRU No. 2 Tailgas Incinerator
Test Dates: May 6 and 7, 2010

APPENDIX H

Compliance Tables
