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Air/Toxics & Inspection Coordination Branch 6EN-A

VALERO

February 26, 2014

CERTIFIED MAIL 7011 2970 0000 3522 2650

Director, Multimedia Planning and Permitting Division
Air Toxics Program
U.S. EPA Region 6
1445 Ross Avenue
Dallas, TX 75202-2733

Re: ***Refinery MACT Notification of Compliance Status Update***
Refinery MACT Periodic Reports 40 CFR §63.655(g)
TCEQ Account No. HG-0130-C
Operating Permit Nos. O1381
Regulated Entity No. RN100219310
Valero Refining – Texas, L.P., Houston Refinery

Dear Sir or Madam:

Valero Refining– Texas, L.P. (Valero) owns and operates a petroleum refinery at 9701 Manchester Avenue in Houston, Texas. This petroleum refinery is affected by 40 CFR Part 63, Subparts A and CC.

In accordance with §63.655(g) (1)–(6), Valero is submitting the semi-annual periodic reports affected by Subpart CC for the period of July 1, 2013 through December 31 2013. An updated report of the Notification of Compliance Status is also included with this submission. A Certification by the Responsible Official (RO) (Form OP-CRO1), signed by the RO, certifying this report is also enclosed.

Should you have any questions regarding these reports, please contact Preethi Joseph of my staff at 713-923-3345.

Sincerely,
VALERO REFINING - TEXAS, L.P.

Matthew Lindquist
Manager Environmental Engineering
Attachments

cc:
Mr. Andy Goodridge, Air Section Manager, TCEQ – Region 12, 7011 2970 0000 3522 2667
Mr. Richard Hyde, Executive Director, TCEQ Austin, 7011 2970 0000 3522 2674

Form OP-CRO1
Certification by Responsible Official
Federal Operating Permit Program

All initial permit application, revision, renewal, and reopening submittals requiring certification must be addressed using this form. Updates to site operating permit (SOP) and temporary operating permit (TOP) applications, other than public notice verification materials, must be certified prior to authorization of public notice or start of public announcement. Updates to general operating permit (GOP) applications must be certified prior to receiving an authorization to operate under a GOP.

I. IDENTIFYING INFORMATION

A. RN: RN100219310	B. CN: CN600127468	C. Account No.: HG-0130-C
D. Permit No.: O1381	E. Project No.:	
F. Area Name: Houston Refinery		
G. Company Name: Valero Refining – Texas, L.P.		

II. CERTIFICATION TYPE *(Please mark the appropriate box)*

A. ☒ Responsible Official:	B. ☐ Duly Authorized Representative:

III. SUBMITTAL TYPE *(Place an "X" in the appropriate box) (Only one response can be accepted per form)*

☐ SOP/TOP Initial Permit Application	☐ Update to Permit Application
☐ GOP Initial Permit Application	☐ Permit Revision, Renewal, or Reopening
☒ Other: Semiannual Report	

IV. CERTIFICATION OF TRUTH

This certification does not extend to information which is designated by the TCEQ as information for reference only.

I, Robert E. Moore certify that I am the RO for this application
(Certifier Name printed or typed) *(RO or DAR)*

and that, based on information and belief formed after reasonable inquiry, the statements and information dated during the time period in Section IV.A below, or on the specific date(s) in Section IV.B below, are true, accurate, and complete:

Note: Enter EITHER a Time Period OR Specific Date(s) for each certification. This section must be completed. The certification is not valid without documentation date(s).

A. Time Period: From _____ to _____
*Start Date** *End Date**

OR

B. Specific Dates: 2/26/2014 _____ _____ _____ _____ _____ _____ _____
*Date 1** *Date 2** *Date 3** *Date 4** *Date 5** *Date 6** *Date 7** *Date 8**

**The Time Period option may only be used when the "Submittal Type" is 'Update to Permit Application' and there are multiple uncertified submittals; or a submittal package has multiple dates recorded in the documentation. Do not use the Time Period option if the "Submittal Type" is 'Other.'*

Signature: Robert E Moore Signature Date: 2/26/14

Title: Vice-President & General Manager

VALERO

VALERO HOUSTON REFINERY - HOUSTON, TEXAS
40 CFR 63, SUBPART CC
NOTIFICATION OF COMPLIANCE STATUS REPORT
DATE: 2/26/2014

I. Storage Vessels – 63.655(f)(1)(i)

A. Group 1 Storage Vessels – Existing Sources

Storage Vessel ID	Compliance Method
90FB001	IFR
90FB002	EFR
90FB003	EFR
90FB004	EFR
90FB005	EFR
90FB205	EFR
90FB225	EFR
90FB226	EFR
90FB227	IFR
90FB228	EFR
90FB230	EFR
90FB505	EFR
90FB506	EFR
90FB507	EFR
90FB511	EFR
90FB210	EFR
91FB370	IFR
91FB371	IFR
91FB901	EFR
91FB911	EFR
91FB912	IFR
91FB913	IFR
91FB922	IFR
91FB924	IFR
91FB931	EFR
91FB920	IFR
91FB921	IFR

B. Group 1 Storage Vessels – Applicability Changes/Updates?

☐ No ☒ **Yes**

1. New EFR tank 90FB507- start of service 07/25/2013
2. Demolished tanks 91FB370 and 91FB371- 09/20/2013

C. **Group 2 Storage Vessels – Existing Sources**

Storage Vessel ID		
42FB2802	90FB224	91FB916
45FB7401	90FB231	91FB917
45FB7402	90FB232	91FB918
45FB7403	90FB233	91FB927
47FB321	90FB234	
47FB323	90FB735	
90FB006	91FB907	
90FB213	91FB909	
90FB215	92FA4001	
90FB216	92FA4002	

D. **Group 2 Storage Vessels – Applicability Changes/Updates?**

☒ No ☐ **Yes** –Please describe below.

E. **Deviations:** No deviations occurred during the reporting period.

II. Process Vents – 64.655(f)(1)(ii)

A. **Miscellaneous Process Vents**

None

B. **Miscellaneous Process Vents – Applicability Changes/Updates?**

☒ No ☐ **Yes**

III. Flare Operating Parameters – 63.11(b)(5) – Applicability Changes/Updates?

☒ No ☐ **Yes** – Please describe below.

IV Heat Exchange System – 64.655 (f)(vi) –Existing sources

EPN	Type
22CWT3	Cooling Tower
23CWT7	Cooling Tower
27CWT2	Cooling Tower
42CWT10	Cooling Tower
44CWT9	Cooling Tower
40CWT11	Cooling Tower

V. Heat Exchange System – 64.655 (f)(vi) – Applicability Changes/Updates?

☒ No ☐ **Yes** – Please describe below.

Semi-Annual Report for Refinery MACT
40 CFR §63.654(g)(1)-(9)
07/01/2013 – 12/31/2013

63.654(g)(1) For Storage vessels: Periodic report information is included in sections 63.654(g)(2) through g(5)

63.654(g)(2) Internal Floating Roof Tanks

	Yes	No
Were inspections and/or seal gap measurements performed during the previous six months?	X	
Were any failures[2] noted during inspections?		X
If yes, complete the following table for tanks in which a deficiency was detected.		

Tank Number	Date of Inspection	Description of Deficiency	Type of Repair Made	Date of Repair or Emptying	Extension of Time Requested?[1]

[1]If yes, attach documentation.
[2]A failure is defined as any time in which the internal floating roof is not resting on the surface of the liquid; there is liquid on the floating roof; the seal is detached from the roof; there are holes, tears or other openings in the seal or seal fabric; there are visible gaps between the seal and the wall of the tank. For tanks part of a new source, a failure is, in addition to the above, gaskets that no longer close off the liquid surface from the atmosphere; slotted membrane that has more than a 10% open area.

63.654(g)(3) External Floating Roof Tanks

	Yes	No
Were inspections and/or seal gap measurements performed during the previous six months?	X	
Were any failures noted during inspections? [3]	X	
If yes, complete the following table for tanks in which a deficiency was detected.		

Tank Number	Date of Seal Gap Measurement[4]	Description of Deficiency or Exceeded Parameters	Type of Repair Made	Date of Repair or Emptying	Extension of Time Requested?[5]
47FB504	11/15/2013	Tears were discovered on the fabric seal	Repaired seal.	12/17/2013	No

[3]A failure is defined as a seal gap exceedance; holes, tears or openings in the seal system; defects in the floating roof; holes or other openings in the primary seal or seal fabric; holes, tears or other openings in the seal or seal fabric of the secondary seal. For tanks part of a new source, a failure is, in addition to the above, gaskets that no longer close off the liquid surface from the atmosphere; slotted membrane that has more than 10% open area.

[4]Attach raw data obtained in seal gap measurements, plus calculations described in §63.120(b)(3) and (4).

[5]If yes, attach documentation.

63.654(g)(4) EFR converted to an IFR

	Yes	No
Any external floating roof converted to an internal floating?		X
If yes, comply with the periodic reporting requirements of paragraph (g)(2) of this section.		

Semi-Annual Report for Refinery MACT
40 CFR §63.654(g)(1)-(9)
07/01/2013 – 12/31/2013

63.654(g)(5) Closed Vent System and Control Device

	Yes	No
Any closed vent system and control devices subject to standard?		X
Answer the following questions for all closed vent systems with control devices.		
1. Was routine maintenance performed on the control device during the past six months? *If yes, complete the table below.*		
2. Is routine maintenance planned for the control device during the next six months?		
3. Will the routine maintenance cause the control device to NOT reduce inlet emissions by 95% (or by 90% if installed before 12/31/92)?		

Maintenance Performed in Past Six Months					
Control Device ID	Date of Maintenance Performed	Description of Maintenance Performed	Frequency of Maintenance Performed	Length of Maintenance	Total Hours Control Device Did Not Meet Requirements

63.654(g)(6) Miscellaneous process vents

	Yes	No
Any miscellaneous vents subject to standard?		X
(i) If yes, any periods of excess emission?		
(ii) If yes, excess emissions shall be reported for the operating parameters specified in table 10 of this subpart unless other site-specific parameter(s) have been approved by the operating permit authority.		

63.654(g)(7) New EPN or an EPN that changed from Group 2 to Group 1

	Yes	No
Any new emission point or for an emission point that has changed from Group 2 to Group 1?		X
If yes, any performance test for determination of compliance?		
If yes, is the performance test included in the Periodic Report.		

63.654(g)(8) Emission Averaging

	Yes	No
Is emission averaging used?		X

Semi-Annual Report for Refinery MACT
40 CFR §63.654(g)(1)-(9)
07/01/2013 – 12/31/2013

63.654(g)(9) Heat Exchange Systems

	Yes	No
Any Heat exchangers subject to the standard?	X	
If Yes, number of heat exchange systems in HAP service. 6 cooling towers		
Heat exchangers leaking?	X	
The number of heat exchange systems in HAP service found to be leaking? 1 cooling towers		
If yes, summary of the monitoring data that indicate a leak, including the number of leaks determined to be equal to or greater than the leak definitions specified in §63.654(c)(2)		

EPN	Leak identified date	Source identified date	Date of repair	Summary of Delayed repair (if any)	Reason for delay	If applicable, VOC emissions for each delayed repair
42CWT10	10/16/2013	10/26/2013	10/26/2013	NA	NA	NA

Semi-Annual Report for Refinery MACT
40 CFR §63.655(h)
07/01/2013 – 12/31/2013

Additional reporting requirements

63.655(h) (1) –Degassing activities occurred at tanks 91FB370, 91FB371and 91FB922 during the reporting period and no excess emissions occurred.

63.655(h) (2) - For storage vessels, the Administrator was notified in writing at least 30 calendar days prior to filling and refilling of each storage vessel that was emptied and degassed.

63.655(h) (3) Emission averaging method is **not applicable.**

63.655(h) (4) Requests for approval to monitor a different parameter than those listed in §63.644 for miscellaneous process vents or who is required by §63.653(a)(8) to establish a site-specific monitoring parameter for a point in an emissions average is **not applicable.**

63.655(h) (5) Alternatives to the continuous operating parameter monitoring and recordkeeping provisions is **not applicable.**

63.655(h) (6) An updated Notice of compliance status is submitted with this report.

Tank Inspection Reports

VALERO

Certified Mail No.: 7011 2970 0000 3522 4890

December 13, 2013

Mr. Zak Covar
Executive Director
Texas Commission on Environmental Quality (TCEQ)
P.O. Box 13087
Austin, Texas 78711-3087

Re: External Floating Roof Tank Seal Gap Measurement Report:
Tank 47FB504 – Permit by Rule (PBR) Registration No.: 33383
Valero Refining-Texas, L.P. (Valero)
Houston Refinery, Harris County
TCEQ Account No. HG-0130-C; Federal Operating Permit No. O-01381
TCEQ Customer No. CN600127468 ; TCEQ Regulated Entity No. RN100219310

Dear Mr. Covar:

Valero hereby provides the results of the external floating roof seal gap measurement for Tank 47FB504. Tears were discovered on the fabric seal as specified by 40 CFR § 60.113b(b)(4) on 11/15/2013.

Valero plans to complete the repair on 47FB504 on or before 12/30/2013.

Tank 47FB504 is affected by the provisions of 40 Code of Federal Regulations (CFR) 60, Subpart Kb, Texas Administrative Code (TAC) §30 TAC 115, and PBR 33383.

If you have any questions, please contact me at (713) 923-3379.

Sincerely,

Vinh H. Do
Senior Environmental Engineer

Enclosures:
Attachment A: 47FB504 Seal Gap Measurement Report, Attachment B: Raw Data and Calculations, and Attachment C: Seal Gap Inspection

cc: Ms. Ashley Wadick, Regional Director, TCEQ Region XII, Houston, Texas
Certified Mail No.: 7011 2970 0000 3522 4906

Mr. Arturo Blanco, Bureau Chief of Pollution Control & Prevention,
Environmental Health Division, Houston, TX
Certified Mail No.: 7011 2970 0000 3522 4913

Mr. Bob Allen, Director, Harris County Pollution Control Services Department, Pasadena, TX
Certified Mail No.: 7011 2970 0000 3522 4920

Attachment A: Seal Gap Measurement Report
Storage Vessel ID: 47FB504
40 CFR § 60.115b(b)4

Description	Reference	Notes
The date of the seal gap inspection.	40 CFR § 60.115b(b)(2)(i) &	November 15, 2013
Raw data obtained and calculations performed.	40 CFR § 60.115b(b)(2)(ii), 40 CFR § 60.115b(b)(2)(iii).	November 15, 2013 – Please see Attachment B: Raw Data & Calculations.
Description of any conditions specified by subpart not met.	40 CFR § 63.122(e)(1)(iii)	Tears were discovered on the fabric seal.
Description of the nature of and date repair was made or the date the storage vessel was emptied.	40 CFR § 63.122(e)(1)(iv)	Valero plans to repair the tears by December 30, 2013. The final repair date will be supplied in the report specified by 40 CFR § 60.115b(b)(2) due 60 days after the initial inspection.

Attachment B: Raw Data and Calculations
Storage Vessel ID: 47FB504

Date of Inspection: November 15, 2013

Gap	Diameter of Storage Vessel *(m)*	Gap Width *(cm)*	Gap Length *(cm)*	Gap Area *(cm^2)*	Seal Gap Area Ratio *(cm^2/m)*
A	36.58	15.24	15.24	116.13	6.35
Accumulated Seal Gap Area Ratio					**6.35**

ACR-116
Valero Refining – Texas, L.P.; Houston Refinery
EFR - Seal Gap Measurement of Secondary Seals

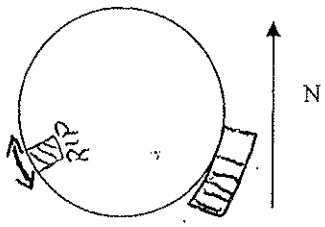
Inspector Shaun White Tank ID 47FB504 Date 11/15/2013

Tank Diameter 120 ft

Secondary Seal Rim Mounted? Yes X No ___
Any location where gap exceeds 1/2 inch? Yes X No ___
Accumulated area of seal gaps? 0.3 in²/ft tank diameter. Less than 1 in²/ft? Yes X No ___
Any holes, tears or openings in shoe, seal fabric or seal envelope? Yes X No ___

	Gap (in)	Length (in) or (ft)
A.	6"	6"
B.		
C.		
D.		
E.		
F.		

Drawing



Tank Fitting Criteria – An answer of "No" is a deficiency that must be repaired. It is also a deviation that must be reported to your supervisor.

	Yes	No	N/A
Are all automatic bleeder vents closed?	X		
Are all rim vents closed?			X
Are all roof drains covered with slotted fabric covering >90% of opening?			X
Do all openings have a below-liquid projection or covered (except rim vents and bleeder vents).	X		

1. Wherever the seal gap is 1/8 in or more, measure the gap and circumferential distance and show location of gap on drawing. Calculate seal gap measurements by summing the product of the gap and length for each gap (corrected to square inches) and divide by tank diameter.

2. For secondary seal gaps greater than or equal to 1/8" where the accumulated area of such gaps is greater than 1.0 square inch per foot of tank diameter, the excess emission calculation in 30 TAC §115.116(a)(2) must be calculated and reported on the TCEQ Emissions Inventory. Use Table 3-6a to perform and document this calculation.

3. For tanks that have deficiencies or seal gaps greater than the applicable standard, the following actions must be taken:
   - Complete a First Report of Incident. The deficiency must be repaired or the tank must be taken out of service within a) 30 days for NSPS QQQ tanks, b) 45 days for NSPS Kb and MACT CC tanks, c) 60 days for TCEQ Reg. V tanks, or
   - If the above steps cannot be taken, an extension may apply if the repair involves emptying the tank and no additional storage is available. Two-30 day extensions are available for TCEQ Reg. V and MACT CC tanks, one extension is available for NSPS Kb tanks. No extension is available for NSPS QQQ tanks.
   - If a corrective action is needed or if a repair extension is needed, this information can be included in the next MACT CC semi-annual report.

bcc: HS&E Library Files:

- AI-16-03/ 2013 Tank Notifications (Notifications-Tanks)
- Hard copies at 47FB504

VALERO

Certified U.S. Mail No. 7011 2970 0000 3522 4951

December 20, 2013

Mr. John Blevins, Division Director
Air/Toxics and Inspection Coordination Branch (MC 6EN-A)
U.S. Environmental Protection Agency Region 6
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

Re: External Floating Roof Tank Seal Gap Supplemental Report for Tank 47FB504
Permit by Rule (PBR): 33383
Valero Refining-Texas, L.P. (Valero)
Houston Refinery, Harris County
TCEQ Account No. HG-0130-C
Federal Operating Permit No. O-01381
TCEQ Customer No. CN600127468
TCEQ Regulated Entity No. RN100219310

Dear Mr. Blevins:

On November 15, 2013, Valero provided the results of the external floating roof seal gap measurements for Tank 47FB504 as required under 40 Code of Federal Regulations (CFR) § 60.115b(b)(2).

As referenced in the December 13, 2013 submittal, external floating roof seal gap measurements detected deficiencies associated with the secondary seal exceeding limitations as specified by 40 CFR § 60.113b(b)(4)(i).

Valero repaired the deficiencies associated with the secondary seal on December 17, 2013 to comply with the 45-day deadline as specified by 40 CFR § 60.113b(b)(4).

Tank 47FB504 is affected by the provisions of 40 CFR Part 60 (NSPS) Subpart Kb and Texas Administrative Code (TAC) § 30 TAC 115.

Should you have any questions or need additional information, please contact the undersigned at (713) 923-3379.

Sincerely,

Vinh H. Do
Senior Environmental Engineer

cc: Mr. Zak Covar, Executive Director, TCEQ, Austin
Certified Mail No. 7011 2970 0000 3522 4968

Ms. Ashley Wadick, Regional Director, TCEQ Region XII, Houston, Texas
Certified Mail No. 7011 2970 0000 3522 4975

Mr. Arturo Blanco, Bureau Chief of Pollution Control & Prevention, Environmental Health Division, Houston, TX
Certified Mail No.7011 2970 0000 3522 4982

Mr. Bob Allen, Director, Harris County Pollution Control Services Department, Pasadena, TX
Certified Mail No. 7011 2970 0000 3522 4999

bcc: HS&E Library Files: AI-16-03/ 2013 Tank Notifications (Notifications-Tanks)

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MAR 2 1 2014

Air/Toxics & Inspection
Coordination Branch
6EN-A

Via U.S. Certified Mail No. 7011 2970 0000 3522 6719

March 27, 2014

Ashley Wadick
Regional Director
TCEQ-Region 12
5425 Polk Street, Suite H
Houston, Texas 77023-1486

Re: Tank 90FB204 Initial Fill Notification
Permit-by-Rule (PBR): 111267
Valero Refining-Texas, L.P. (Valero)
Houston Refinery, Harris County
TCEQ Account No. HG-0130-C
Federal Operating Permit No. O-01381
TCEQ Customer No. CN600127468
TCEQ Regulated Entity No. RN100219310

Dear Ms. Wadick:

As required by NSPS Kb 40 CFR §60.113b(b), it is anticipated that the new external floating roof tank 90FB204 will be visually inspected, tank filled, and placed in service on or after April 26, 2014. This notification satisfies the 30 days filling requirement as specified in §60.113b(b)(5) and (6)(ii).

The tank is subject to the provisions of 40 CFR 60 Subparts A and Kb, 40 CFR 63 Subpart 63 Subpart CC, and 30 Texas Administrative Code (TAC) 115.

Should you have any questions or need additional information, please contact me at (713) 923-3379.

Sincerely,

Vinh H. Do

Vinh H. Do
Senior Environmental Engineer

VALERO

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Air/Toxics & Inspection
Coordination Branch
6EN-A

Via U.S. Certified Mail No. 7011 2970 0000 3522 6818

March 28, 2014

Ashley Wadick
Regional Director
TCEQ-Region 12
5425 Polk Street, Suite H
Houston, Texas 77023-1486

Re: Tank 90FB227 Request for two (2) 30-Day Extensions for Repair
Permit Number: 106909
Valero Refining-Texas, L.P. (Valero)
Houston Refinery, Harris County
TCEQ Account No. HG-0130-C
Federal Operating Permit No. O-01381
TCEQ Customer No. CN600127468
TCEQ Regulated Entity No. RN100219310

Dear Ms. Wadick:

The purpose of this letter is to respectfully request two (2) 30-day extensions as allowed under 30 Texas Administrative Code (TAC) §115.114(a)(1)(B) to empty Tank 90FB227 and take it out of service in order to conduct required maintenance and repairs. Upon approval of this extension request, the compliance date for Tank 90FB227 will be May 31, 2014.

Tank 90FB227 is an internal floating roof tank that entered service on June 6, 2013. Tank 90FB227 is equipped with a mechanical shoe primary seal. A certification of control was submitted to your office on June 14, 2013. The tank is subject to the provisions of 40 CFR 60 Subparts A and Kb, 40 CFR 63 Subpart 63, and 30 Texas Administrative Code (TAC) 115. However, Tank 90FB227 is currently storing FCCU Feed, which has a RVP of 0.0002 psia.

The facility believes Tank 90FB227 is currently exempt from the requirements of this subpart due to the low vapor pressure material stored. In abundance of caution, the facility is formally requesting two (2) extensions from your office. Please note that Tank 90FB227 has been storing FCCU Feed since entering service.

The tank is approximately 150 ft in diameter and 55 ft high with a nominal capacity of 173,000 barrels. The tank is permitted to store distillate fluid naphtha with a RVP of 3.0 psia and FCCU Feed with a RVP of 0.0002 psia.

On January 31, 2014, the facility conducted a monthly tank level gauging activity on Tank 90FB227. During this gauging activity, it was discovered that low vapor pressure FCCU Feed liquids had accumulated on top of the floating roof. It was also discovered that approximately 25% of the support cables along the perimeter of the internal floating roof had failed.

The tank inspection provisions in 30 TAC §115.114(a)(1)(A) allow for a 60-day period in which repairs must be completed or the tank must be taken out of service (April 1, 2014). After a thorough inspection, there is concern that the internal floating roof may not be structurally sound to land due to the loss of support cables for the internal floating roof.

Tank 90FB227 is not being actively used during this time. Further complicating efforts in emptying the tank contents is that the material has hardened and cannot be removed by conventional means such as pumping, without permanently damaging the floating roof and potentially resulting in adverse safety and environmental concerns. This has resulted in significant and extensive planning, which may involve putting personnel on top of the internal floating roof, to ensure no adverse safety and environmental incidents occur.

Therefore, Valero may not be able to empty the contents of Tank 90FB227 within the 60-day compliance timeframe specified in §115.114(a)(1). Please note that the majority of the FCCU feed was pumped out after the discovery of material accumulation.

To satisfy the 30-day extension request provisions of 30 TAC §115.114(a)(1)(B), Valero is providing the following information:

1) Unavailability of Alternative Storage Capacity: It appears that there is limited availability of alternative storage capacity and as noted above, the FCCU feed material has hardened and cannot be removed by conventional means. Removing the material may risk the loss of the internal roof and further safety and environmental concerns.

2) Schedule to Place Tank 90FB227 Out-of-Service: There are approximately 20,000 bbls of FCCU feed remaining in Tank 90FB227. In order to empty Tank 90FB227, the contents need to be gradually emptied from the tank and the floating roof pontoons. This gradual emptying of the tank contents along with the difficulty of accessing and emptying liquid from the tank floating roof pontoons cannot be completed within the current deadline of April 1, 2014. However, it is anticipated that the contents of Tank 90FB227 along with the contents of the floating roof pontoons can be removed and the tank taken out of service by May 31, 2014. Valero will ensure that Tank 90FB227 will be taken out-of-service as soon as practicable with consideration given to ensuring no safety incidents and minimizing environmental impacts.

Valero would appreciate an expedited response to this request. Should you have any questions or need additional information, please contact me at (713) 923-3379.

Sincerely,

Vinh H. Do
Senior Environmental Engineer

cc: Director, Air, Pesticides, and Toxics Division, U.S. EPA, Dallas, TX
Certified Mail No. 7011 2970 0000 3522 6672

Mr. Richard Hyde, Executive Director, TCEQ, Austin
Certified Mail No. 7011 2970 0000 3522 6689

Mr. Arturo Blanco, Pollution Chief, BAQC – City of Houston, Houston, TX
Certified Mail No. 7011 2970 0000 3522 6696

Mr. Bob Allen, Director, Pollution Control Division, HCPCD, Pasadena, TX
Certified Mail No. 7011 2970 0000 3522 6702

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VALERO

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MAY 1 - 2014

Air/Toxics & Inspection
Coordination Branch
6EN-A

Certified Mail No. 7011 2970 0000 3522 6894

April 29, 2014

Mr. Richard Hyde
Executive Director - TCEQ
P.O. Box 13087
Austin, Texas 78711-3087

Re: Title V Deviation Report, Reporting Period: 10/1/2013 through 03/31/2014
Valero Refining-Texas, L.P. (Valero)
Houston Refinery, Harris County
TCEQ Account No. HG-0130-C
Federal Operating Permit (FOP) No. O-01381
TCEQ Customer No. CN600127468
TCEQ Regulated Entity No. RN100219310

Dear Mr. Hyde:

Valero hereby provides the Title V Deviation Report for the above referenced FOP #O-01381 as required by FOP No. O-01381, 30 TAC §122.145 (2), §122.146 (1), & §122.165 (b-c) for the reporting period of October 1, 2013 through March 31, 2014. With the possible exception of the deviations in the enclosed report form, Valero-Houston was in continuous compliance with all the terms and conditions of the permit during the reporting period.

In accordance with the provisions in 30 TAC §122.165(a)(7-8), a Certification by Responsible Official (OP-CRO1) Form signed by the Responsible Official certifying the information contained in this report is enclosed. Also enclosed is the Permit Compliance Certification (PCC) Form.

If you have any questions, please contact me at 713-923-3378 or Preethi Joseph at 713-923-3345.

Sincerely,

Matt Lindquist

Matthew Lindquist
Manager, Environmental Engineering

Enclosures

cc: US-EPA Region 6, Air Enforcement 6EN-A, 1445 Ross Ave, Ste. 1200, Dallas, Texas, 75202
Certified Mail No. 7011 2970 0000 3522 6900(In Duplicate)

Ms. Ashley Wadick, Regional Director, TCEQ Region 12, Houston, TX
Certified Mail No. 7011 2970 0000 3522 6917

Mr. Arturo Blanco, Pollution Chief, BAQC – City of Houston, Houston, TX
Certified Mail No. 7011 2970 0000 3522 6924

Mr. Michael Shaffer, Director, Pollution Control Division, HCPCD, Pasadena, TX
Certified Mail No. 7011 2970 0000 3522 6931

Texas Commission on Environmental Quality
Federal Operating Permit Form
Permit Compliance Certification - PCC (Part 1)

AIR CO/ HG0130C /RP

Permit Holder Name	Valero Refining - Texas L.P.	**Customer Number /CN**	CN 600127468
Area Name	Houston Refinery	**Account Number**	HG-0130-C
Operating Permit Number	0 -01381	**Report Submittal Date**	Apr 29, 2014
Certification Period Start Date	Oct 1, 2013	**End Date**	Mar 31, 2014

I. Certification of Continuous Compliance with Permit Terms and Conditions (Indicate response by placing a 'X' in the appropriate column for each of the following questions)	**Response:**
With the possible exception of those permit terms and conditions identified in the 'Summary of Deviations' found using, at a minimum, but not limited to, the continuous or intermittent compliance method data from monitoring, recordkeeping, reporting, or testing required by the permit and any other credible evidence or information, was the permit holder in continuous compliance with all the terms and conditions of the permit over the Certification Period?	☒ Yes ☐ No

II. Summary of Deviations (Indicate response by placing a 'x' in the appropriate column for each of the following questions)	**Response:**
A. Were there any deviations from any permit requirements during the Certification Period that have *previously* been reported to the agency? If the answer to this question is 'Yes', please complete and attach Part 2 to this submittal. Important Note: If previously submitted reports did not contain specific information on monitoring methods, frequency and the total number of deviations experienced over the entire certification period, then use form DevRep to provide that information.	☒ Yes ☐ No
B. Were there any deviations from any terms or conditions of the permit during the Certification Period that are *currently* being submitted to the agency? If the answer to this questions is 'Yes', please include the relevant reports along with this page.	☒ Yes ☐ No

Texas Commission on Environmental Quality
Federal Operating Permit Form
Permit Compliance Certification - PCC (Part 2)

AIR CO/ HG0130C /RP

Permit Holder Name	Valero Refining - Texas L.P.	**Customer Number /CN**	CN 600127468
Area Name	Houston Refinery	**Account Number**	HG-0130-C
Operating Permit Number	O -01381	**Report Submittal Date**	Apr 29, 2014
Certification Period Start Date	Oct 1, 2013	**End Date**	Mar 31, 2014

Identification of Deviation Reports Submitted During the Certification Period
(Note: All reports must be certified to truth, accuracy, and completeness by the Responsible Official)

Report Date	Report Description (Name of Unit, Name of Rule, Driver for Report, etc.)	Report Submitted To	Report Previously Certified?
Apr 29, 2014	Semiannual Title V deviation report- 10/1/2013 through 03/31/2014	Houston TCEQ	☐ Yes ☒ No
10/29, 1/29	Quarterly NESHAP FF Report (3rd Qtr 2013);Quarterly NESHAP FF Report (4th Qtr 2013)	Houston TCEQ, US EPA	☒ Yes ☐ No
Apr 28, 2014	MACT GGGGG Semiannual Compliance Report, Semiannual Excess Emissions & CMS Downtime Report (2nd Half 2013), NSPS QQQ Semiannual Report (July 1, 2013 to December 31, 2013),	Houston TCEQ, US EPA	☒ Yes ☐ No
Jan 29, 2014	Fugitive Emissions Monitoring Report (July 1, 2013 to December 31, 2013),	Houston TCEQ, US EPA	☒ Yes ☐ No
02/27,01/29	MACT CC/UUU SSM Report (July 1, 2013 to December 31, 2013), CEMS, Db,	Houston TCEQ, US EPA	☒ Yes ☐ No
03/27, 03/26,	Annual MECT Annual Compliance Report, Annual GHG Inventory,Annual HECT Compliance Report, Annual Emissions Inventory.	Houston TCEQ, USEPA	☒ Yes ☐ No

Texas Commission on Environmental Quality
Federal Operating Permit Form
PCC - Monitoring Options Selected (Part 3)

AIR CO/HG0130C/RP

Permit Holder Name		Customer Number	CN
Area Name		Account Number	
Operating Permit Number	0	Report Submittal Date	
Certification Period Start Date		End Date	

ID Number		Regulatory Requirement (Rule or Permit No. and Prov.)	Pollutant Monitored	SOP or GOP Index Number	Monitoring Option Used	Date		Description/Comments
Unit ID	Group ID GRPXXXXXXX				Specification Citation	Begin	End	

Reset Form

Form OP-CRO1
Certification by Responsible Official
Federal Operating Permit Program

All initial permit application, revision, renewal, and reopening submittals requiring certification must be addressed using this form. Updates to site operating permit (SOP) and temporary operating permit (TOP) applications, other than public notice verification materials, must be certified prior to authorization of public notice or start of public announcement. Updates to general operating permit (GOP) applications must be certified prior to receiving an authorization to operate under a GOP.

I. IDENTIFYING INFORMATION

A. RN: 100219310	B. CN: 600127468	C. Account No.: HG-0130-C
D. Permit No.: O-01381	E. Project No.:	
F. Area Name: Houston Refinery		
G. Company Name: Valero Refining – Texas, L.P.		

II. CERTIFICATION TYPE *(Please mark the appropriate box)*

A. ☒ Responsible Official:	B. ☐ Duly Authorized Representative:

III. SUBMITTAL TYPE *(Place an "X" in the appropriate box) (Only one response can be accepted per form)*

☐ SOP/TOP Initial Permit Application	☐ Update to Permit Application
☐ GOP Initial Permit Application	☐ Permit Revision, Renewal, or Reopening
☒ Other: Semi-Annual Title V deviation Report	

IV. CERTIFICATION OF TRUTH

This certification does not extend to information which is designated by the TCEQ as information for reference only.

I, Robert E. Moore, certify that I am the RO for this application
(Certifier Name printed or typed) *(RO or DAR)*

and that, based on information and belief formed after reasonable inquiry, the statements and information dated during the time period in Section IV.A below, or on the specific date(s) in Section IV.B below, are true, accurate, and complete:

Note: Enter EITHER a Time Period OR Specific Date(s) for each certification. This section must be completed. The certification is not valid without documentation date(s).

A. Time Period: From _____ to _____
*Start Date** *End Date**

OR

B. Specific Dates: 4/29/2014 _____ _____ _____ _____ _____ _____ _____
*Date 1** *Date 2** *Date 3** *Date 4** *Date 5** *Date 6** *Date 7** *Date 8**

**The Time Period option may only be used when the "Submittal Type" is 'Update to Permit Application' and there are multiple uncertified submittals; or a submittal package has multiple dates recorded in the documentation. Do not use the Time Period option if the "Submittal Type" is 'Other.'*

Signature: _____ Signature Date: 4/29/14

Title: Vice President & General Manager

Texas Commission On Environmental Quality
Federal Operating Permit Deviation Report Form
Form Dev Rep (Part 1)

Air CO/HG0130C/RP

Company Name/ Permit Holder Name	Valero Refining - Texas L.P.	Regulated Entity No.	RN100219310	Customer Reference No..	CN600127468
Area Name	Houston Refinery	Account No.	HG-0130-C	Operating Permit No.	O-01381
Report Period Began on	10/1/2013	And Ended on	3/31/2014	Report Submittal Date	4/29/2014

Details of Deviations from Above Referenced Requirement
(Note: All elements, except Event No. are Required for Each Period of Deviation)

ID Number		Title V Term & Condition No.	Pollutant	Regulatory Requirement Citation	Type of Requirement	SOP or GOP Index Number	Monitoring Method	Monitoring Frequency	Dev Item No.	STEERS Incident No.	Deviation Period				No. of Dev	Cause of Deviation	Corrective Action Taken To Remedy or Mitigate Deviation Situation
											Start		End				
Unit ID	Group ID										Date	Time	Date	Time			
42CWT10	N/A	NSR Permit #2501A MAERT, FOP SC 19	VOC	NSR Permit #2501A MAERT, FOP SC 19	Standard	N/A	Permit	Continuous		N/A	10/16/2013	12:00 AM	10/26/13	1:00 PM	1	A leak was identified in cooling tower 10 heat exchange system (tube bundle). This resulted in VOC lb/hr exceedance.	The leaking exchanger was identified and isolated for repairs. The repairs were performed before returning the exchanger back to service.
27AFUG	N/A	NSR Permit #2501A, SC# 4E, FOP SC 1A, 19, 115.352(4), & 60.482-6	VOC	NSR Permit #2501A, SC# 4E, FOP SC 1A, 19, 115.352(4), & 60.482-6	Standard	R5780-FUG, R5352-FUG, 63CC-FUG	N/A	N/A		N/A	10/18/2013	8:00 AM	10/18/2013	12:00 PM	1	An OEL(Open ended line) was discovered in the C-Unifiner unit.	Necessary caps were installed to minimize the duration of the deviation.
27AFUG	N/A	101.201(b), FOP SC 2	VOC	101.201(b), FOP SC 2	Standard	N/A	N/A	N/A		N/A	10/22/2013	9:35 AM	10/22/2013	10:15 AM	1	A third party contractor cut into an out of service line having residual hydrocarbons.	Emergency response team responded and mitigated the release.
44AFUG	N/A	101.201(b), FOP SC 2	VOC	101.201(b), FOP SC 2	Standard	N/A	N/A	N/A		N/A	10/31/2013	3:00 PM	11/1/13	12:00 PM	1	A small pin hole leak was discovered on the sat gas compressor bleeder.	The Sat Gas Compressor was shutdown to perform repairs.
90AFUG	N/A	101.201(b), FOP SC 2	VOC	101.201(b), FOP SC 2	Standard	N/A	N/A	N/A		N/A	12/5/2013	12:00 AM	12/9/13	7:13 AM	1	Approximately 1 gallon crude oil was observed floating on top of water in the tank farm area.	The area was excavated to find the source of the leak. An underground crude pipeline was slowly dripping at the flange. Necessary repairs were performed and the spill was cleaned up.
50BF03	N/A	Permit Number 19637 MAERT limit	CO	Permit Number 19637 MAERT limit	Standard	N/A	Permit	Continuous		N/A	12/7/2013	6:00 PM	12/7/2013	7:00 PM	1	The steam pressure increased resulting in lower steam make and excess CO lb/hr emissions.	Steam production was quickly increased in other boilers to compensate steam demand bringing the boiler back in compliance with the permit limits.
42CB2201	N/A	Standard Permit 50232; MAERT limit. NSR permit 2501A, SC 3.	SO2 CO	Standard Permit 50232; MAERT limit. NSR permit 2501A, SC 3.	Monitoring	N/A	Permit	Continuous		N/A	12/9/2013	11:00 PM	12/10/2013	8:00 AM	2	The slide valve failed resulting in a FCC unit shutdown. This resulted in CO and SO2 exceedances at the FCC scrubber.	The unit was orderly started up to minimize any exceedances.
50BF03	N/A	Permit Number 19637 MAERT limit	CO	Permit Number 19637 MAERT limit	Standard	N/A	Permit	Continuous		N/A	12/9/2013	4:00 AM	12/9/2013	6:00 AM	1	The slide valve failed resulting in FCC unit shutdown. The boiler had CO exceedance during this time.	The unit was orderly started up to minimize any exceedances.
30FL1	N/A	101.201(b), FOP SC 2	VOC, NOx, CO, H_2S, & SO_2	101.201(b), FOP SC 2	Standard	N/A	Permit	Continuous		N/A	12/10/2013	12:48 AM	12/10/13	8:07 AM	1	The slide valve failed resulting in FCC unit shutdown. During startup of the unit, intermittent flaring was observed at 30FL1.	The unit was orderly started up to minimize any exceedances.
23FUG	N/A	101.201(b), FOP SC 2	VOC	101.201(b), FOP SC 2	Standard	N/A	N/A	N/A		N/A	12/22/2013	8:00 AM	12/22/2013	2:00 PM	1	The Debutanizer reboiler had developed a tube leak allowing hydrocarbon to contaminate the condensate drum that vents to the atmosphere	The condensate drum was quickly routed to the flare gas recovery unit and recycled back into the process. Repairs were performed as quickly and safely as possible.
22CWT3	N/A	NSR Permit #2501A MAERT, FOP SC 19	VOC	NSR Permit #2501A MAERT, FOP SC 19	Standard	N/A	Permit	Continuous		N/A	1/2/2014	5:00 AM	1/4/14	10:00 AM	1	A leak was identified in cooling tower 3 heat exchange system (tube bundle). This resulted in a VOC lb/hr exceedance.	The leaking exchanger was identified and isolated for repairs. The repairs were performed before returning the exchanger back to service.
40FUG	N/A	101.201(b), FOP SC 2	VOC	101.201(b), FOP SC 2	Standard	N/A	N/A	N/A		N/A	1/8/2014	9:00 AM	3/31/14	11:59 PM	1	A very small pinhole leak was observed in the EA1009A Feed/Reactor Effluent Exchanger.	The leak is monitored daily. To perform the work safely, the repairs will be performed during the next unit shutdown. The shutdown is planned for third quarter 2014.
30FL1	N/A	101.201(b), FOP SC 2	VOC, NOx, CO, H_2S, & SO_2	101.201(b), FOP SC 2	Standard	N/A	Permit	Continuous		N/A	1/24/2014	11:32 AM	1/24/2014	11:36 AM	1	Extreme cold weather caused plugging between the pressure control valve and gas balance drum resulting in minor flaring.	The plugging melted and pressure control system returned to normal. In addition, steam tracing was added to all pressure drop points to help reduce freezing.
39FUG	N/A	101.201(b), FOP SC 2	VOC	101.201(b), FOP SC 2	Standard	N/A	N/A	N/A		N/A	1/25/2014	12:00 AM	3/31/14	11:59 PM	1	A pinhole leak was detected on SWS Charge Tank 45FB7403 insulated vent line to Incinerator.	Temporary repairs were performed to the insulated line. This line will be re-evaluated for additional repairs during the next unit shutdown.
39CB2001	N/A	NSR Permit 2507A SC 9E	SO2	NSR Permit 2507A SC 9E	Monitoring	N/A	Permit	Continuous		N/A	2/1/2014	5:00 AM	2/1/2014	6:00 AM	1	The control valve for sour water stripper gas to SRU-C train failed resulting in SO2 ppm exceedance.	The control valve was manually controlled to minimize the exceedance.
23FUG	N/A	101.201(b), FOP SC 2	VOC	101.201(b), FOP SC 2	Standard	N/A	N/A	N/A		N/A	2/12/2014	12:00 AM	3/31/14	11:59 PM	1	A small pinhole leak was observed in the crude unit atmospheric tower.	To perform the work safely, the repairs will be performed during the next unit shutdown. This shutdown is planned for thrid quarter 2014.
47AD5401	N/A	101.201(b), FOP SC 2	VOC	101.201(b), FOP SC 2	Standard	N/A	N/A	N/A		N/A	2/19/2014	9:00 AM	2/19/2014	12:00 PM	1	A small leak formed on the discharge piping (mainly water) at the diversion pit.	The spill was cleaned up and a clamp was installed to repair the leak.
46CB6301	N/A	NSR Permit 80493 SC 11B	SO2	NSR Permit 80493 SC 11B	Monitoring	N/A	Permit	Continuous		N/A	2/20/2014	5:00 PM	2/21/14	12:00 AM	1	During the start up of SRU B, SO2 ppm exceeded permit limits.	The SRU unit was safely started up to minimize any exceedances
21FUG	N/A	NSR Permit #2501A, SC# 4E, FOP SC 1A, 19, 115.352(4), & 60.482-6	VOC	NSR Permit #2501A, SC# 4E, FOP SC 1A, 19, 115.352(4), & 60.482-6	Standard	R5780-FUG, R5352-FUG, 63CC-FUG	N/A	N/A		N/A	2/28/2014	8:00 AM	2/28/2014	12:00 PM	1	An OEL was discovered in the alky unit.	Necessary caps were installed to minimize the duration of the deviation.

Texas Commission On Environmental Quality
Federal Operating Permit Deviation Report Form
Form Dev Rep (Part 1)

Air CO/HG0130C/RP

Company Name/ Permit Holder Name	Valero Refining - Texas L.P.	Regulated Entity No.	RN100219310	Customer Reference No..	CN600127468
Area Name	Houston Refinery	Account No.	HG-0130-C	Operating Permit No.	O-01381
Report Period Began on	10/1/2013	And Ended on	3/31/2014	Report Submittal Date	4/29/2014

Details of Deviations from Above Referenced Requirement
(Note: All elements, except Event No. are Required for Each Period of Deviation)

ID Number		Title V Term & Condition No.	Pollutant	Regulatory Requirement Citation	Type of Requirement	SOP or GOP Index Number	Monitoring Method	Monitoring Frequency	Dev Item No.	STEERS Incident No.	Deviation Period				No. of Dev	Cause of Deviation	Corrective Action Taken To Remedy or Mitigate Deviation Situation
											Start		End				
Unit ID	Group ID										Date	Time	Date	Time			
42CWT10	N/A	NSR Permit #2501A MAERT, FOP SC 19	VOC	NSR Permit #2501A MAERT, FOP SC 19	Standard	N/A	Permit	Continuous		N/A	3/2/2014	6:00 AM	3/11/2014	5:00 AM	1	A leak was identified in cooling tower 10 heat exchange system (tube bundle). This resulted in VOC lb/hr exceedance.	The leaking exchanger was identified and isolated for repairs. The repairs were performed before returning the exchanger back to service.
30FL1	N/A	101.201(b), FOP SC 2	VOC, NOx, CO, H_2S, & SO_2	101.201(b), FOP SC 2	Standard	N/A	Permit	Continuous		N/A	3/10/2014	2:44 PM	3/10/2014	2:47 PM	1	The Flare gas recovery unit shutdown due to instrumentation issues. Minimal flaring occurred.	The charge rates to units were reduced in order to minimize flaring. The FGRU was started up.
30FUG	N/A	NSR Permit #2501A, SC# 4E, FOP SC 1A, 19, 115.352(4), & 60.482-6	VOC	NSR Permit #2501A, SC# 4E, FOP SC 1A, 19, 115.352(4), & 60.482-6	Standard	R5780-FUG, R5352-FUG, 63CC-FUG	N/A	N/A		N/A	3/12/2014	8:00 AM	3/12/2014	12:00 PM	1	An OEL was discovered in the Flare unit.	Necessary caps were installed to minimize the duration of the deviation.
23FUG	N/A	NSR Permit #2501A, SC# 4E, FOP SC 1A, 19, 115.352(4), & 60.482-6	VOC	NSR Permit #2501A, SC# 4E, FOP SC 1A, 19, 115.352(4), & 60.482-6	Standard	R5780-FUG, R5352-FUG, 63CC-FUG	N/A	N/A		N/A	3/19/2014	8:00 AM	3/19/2014	12:00 PM	1	An OEL was discovered in the crude unit.	Necessary caps were installed to minimize the duration of the deviation.
46CB6301	N/A	NSR Permit 2507A SC 14	N/A	NSR Permit 2507A SC 14	Monitoring	N/A	Permit	Continuous		N/A	3/20/2014	9:24 AM	3/20/2014	9:30 AM	1	When troubleshooting PLC issues the instrument air supply valve was accidently shutdown resulting in one 6-minute average temperature deviation.	The instrument air supply was opened quickly and temperature was increased to meet permit requirements.
50BF03	N/A	Permit Number 19637 MAERT limit	CO	Permit Number 19637 MAERT limit	Standard	N/A	Permit	Continuous		N/A	3/26/2014	8:00 AM	3/26/2014	9:00 AM	1	Steam swing on the boiler resulted in 1 hour CO permit limit exceedance.	The firing rate on the boiler was reduced quickly to minimize exceedance.
42AFUG	N/A	101.201(b)	VOC	101.201(b)	Standard	N/A	Permit	Continuous		N/A	10/1/13	12:00 AM	3/31/14	12:00 AM	1	Waste Heat Cooler has a leak due to corrosion.	Repairs were performed on the waste heat cooler. Additional evaluations will be performed during the next unit turnaround/shutdown activity.
44FUG	N/A	60.692-2(a)(1)	VOC	60.692-2(a)(1)	Standard	N/A	Permit	Continuous		N/A	11/8/13	1:40 PM	11/8/13	2:45 PM	1	During the monthly process drain inspection, it was observed that one of the drain inserts was missing a cap ensuring a water seal.	The cap was set in the drain and water was added as required.
Plantwide	N/A	111.111(a)(1)(A)	PM	111.111(a)(1)(A)	Standard	N/A	Permit	Continuous		N/A	10/1/13	12:00 AM	12/10/13	12:00 AM	1	Internal review of the quarterly visible emission log showed some missing minor sources such as compressors etc	The quarterly opacity inspection log was updated to include all sources.
													Total Number of Deviations		29	Is there a Part 2 Miscellaneous Monitoring/Credible Evidence form supporting this deviation report	Yes ☑ No

AI/AI/CS

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VALERO

July 16, 2014

CERTIFIED MAIL 7011 2970 0000 3525 8574

RECEIVE

JUL 22 2014

Air/Toxics & Inspection Coordination Branch 6EN-A

Ron Curry
Regional Administrator
U.S. EPA Region VI
1445 Ross Avenue
Dallas, TX 75202-2733

RE: Semi-Annual Compliance Report - January 1 through June 30, 2014
40 CFR 63, subpart GGGGG (site remediation MACT 5G)
Valero Refining – Texas, L.P. (CN601566144)
Houston Refinery (RN100219310)
TCEQ Account Number: HG-0130-C; SWR (30520)

Dear Regional Administrator Curry:

The Valero Houston Refinery is conducting certain remediation activities subject to 40 CFR 63, subpart GGGGG - National Emissions Standards for Hazardous Air Pollutants. This standard requires control of Hazardous Air Pollutant (HAP) emissions from each new and existing process vent according to emissions limitations and work practice standards (§ 63.7890):

The refinery is in compliance with facility-wide emissions option, using a combination of controlled or uncontrolled process vent streams (§ 63.7893):

> ***(b)*** *For your affected process vents, you must meet one of the facility-wide emission limit options specified in paragraphs (b)(1) through (4) of this section. If you have multiple affected process vent streams, you may comply with this paragraph using a combination of controlled and uncontrolled process vent streams that achieve the facility-wide emission limit that applies to you.*
>
> > ***(1)*** *Reduce from all affected process vents the total emissions of the HAP listed in Table 1 of this subpart to a level less than 1.4 kilograms per hour (kg/hr) and 2.8 Mg/yr (3.0 pounds per hour (lb/hr) and 3.1 tpy);*

The process vents are associated with soil vapor extraction (SVE) systems that are designed to help remediate contaminated groundwater and soils. The measured HAP levels for each process vent are below the applicable facility wide emission limits of 1.4 kg/hr and 2.8 Mg/yr (3.0 lb/hr and 3.1 ton/yr).

In accordance with the provisions of § 63.7951(b)(2), a signed by the Responsible Official certification is enclosed.

If you have any questions or comments regarding this information, please contact Chris Hendrix of my staff at 713-923-3359.

Sincerely,

Matthew Lindquist
Manager Environmental Engineering

cc: Regional Director TCEQ Region 12
Mr. Charles Brigance, TCEQ Austin

7011 2970 0000 3525 8642

Form OP-CRO1
Certification by Responsible Official
Federal Operating Permit Program

All initial permit application, revision, renewal, and reopening submittals requiring certification must be addressed using this form. Updates to site operating permit (SOP) and temporary operating permit (TOP) applications, other than public notice verification materials, must be certified prior to authorization of public notice or start of public announcement. Updates to general operating permit (GOP) applications must be certified prior to receiving an authorization to operate under a GOP.

I. IDENTIFYING INFORMATION		
A. RN: RN100219310	B. CN: CN600127468	C. Account No.: HG-0130-C
D. Permit No.: O1381	E. Project No.:	
F. Area Name: Houston Refinery		
G. Company Name: Valero Refining – Texas, L.P.		

II. CERTIFICATION TYPE *(Please mark the appropriate box)*

A. ☒ Responsible Official:	B. ☐ Duly Authorized Representative:

III. SUBMITTAL TYPE *(Place an "X" in the appropriate box) (Only one response can be accepted per form)*

☐ SOP/TOP Initial Permit Application	☐ Update to Permit Application
☐ GOP Initial Permit Application	☐ Permit Revision, Renewal, or Reopening

☒ Other: Semi-annual Report: **40 CFR 63, SUBPART GGGGG** (NESHAP MACT 5G, JANUARY TO JUNE 2014)

IV. CERTIFICATION OF TRUTH

This certification does not extend to information which is designated by the TCEQ as information for reference only.

I, Robert E. Moore, certify that I am the RO for this application
(Certifier Name printed or typed) *(RO or DAR)*

and that, based on information and belief formed after reasonable inquiry, the statements and information dated during the time period in Section IV.A below, or on the specific date(s) in Section IV.B below, are true, accurate, and complete:

Note: Enter EITHER a Time Period OR Specific Date(s) for each certification. This section must be completed. The certification is not valid without documentation date(s).

A. Time Period: From _____ to _____
*Start Date** *End Date**

OR

B. Specific Dates: 7/16/2014 _____ _____ _____ _____ _____ _____ _____
*Date 1** *Date 2** *Date 3** *Date 4** *Date 5** *Date 6** *Date 7** *Date 8**

**The Time Period option may only be used when the "Submittal Type" is 'Update to Permit Application' and there are multiple uncertified submittals; or a submittal package has multiple dates recorded in the documentation. Do not use the Time Period option if the "Submittal Type" is 'Other.'*

Signature: [signature] Signature Date: 7/16/14

Title: Vice-President & General Manager

VALERO

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CERTIFIED MAIL 7011 2970 0000 3522 7556

RECEIVE

AUG - 7 2014

Air Toxics & Inspection Coordination Branch 6EN-A

July 29, 2014

Director, Compliance Assurance and Enforcement Division
U.S. EPA Region 6
1445 Ross Avenue, Suite 1200
Dallas, Texas 75202

Re: ***Semi-Annual Compliance Reports***
January 1, 2014 through June 30, 2014
NSPS Subpart A CEMS Reports
NSPS Subpart Db Reports
NSPS Subpart J Reports
MACT Subpart UUU Reports
30 TAC Chapter 117 Monitoring System Reports
NSR Permit Reports
TCEQ Account No. HG-0130-C
Operating Permit No. O1381
Regulated Entity No. RN100219310
Valero Refining – Texas, L.P., Houston Refinery

Dear Sir or Madam:

Valero Refining– Texas, L.P. (Valero) operates a petroleum refinery located at 9701 Manchester Street, in Houston, Texas. This petroleum refinery is subject to the requirements found at 40 Code of Federal Regulations (CFR) Part 60 (New Source Performance Standards [NSPS]), Subparts A, Db, J, as well as Part 63 (National Emission Standards for Hazardous Air Pollutants for Source Categories (NESHAPs) - Maximum Achievable Control Technology (MACT) Standards), Subpart UUU. In addition to these requirements, the Refinery is subject to the 30 Texas Administrative Code (TAC) Chapter 117 and New Source Review (NSR) permit requirements.

As required by these regulations, Valero submits the attached semi-annual reports for the reporting period beginning January 1, 2014 and ending June 30, 2014. A Certification by Responsible Official (OP-CRO1 Form), certifying the information contained in the semi-annual reports is included in Appendix A of this submittal.

NSPS Subpart A, Excess Emissions and Summary CEMS Reports
The sources presented in the table below are subject to various 40 CFR Part 60 Subparts. As such, these sources must be equipped with a Continuous Emissions Monitoring System (CEMS) and the reporting provisions at 40 CFR §60.7(c) and 40 CFR §60.7(d) must be followed.

Equipment Name	Emission Point Number (EPN)	Applicable NSPS Subpart
Fluid Catalytic Cracking Unit (FCCU)	42CB2201	J
Package Boiler No. 1	81BF01	Db
Package Boiler No. 2	50BF02	Db
Package Boiler No. 3	50BF03	Db
Refinery Fuel Gas System	N/A	J
Sulfur Recovery Unit (SRU) B Train TGI	46CB6301	J
Sulfur Recovery Unit (SRU) C Train TGI	39CB2001	J

Pursuant to 40 CFR §60.7(c) and 40 CFR §60.7(d), dates of monitor downtime and excess emissions are attached as Appendix B. For the units subject to NSPS Subpart Db, the periods of excess emissions are any calculated 30-day rolling average of NO_X emission rates that exceed the NO_X emission limit at 40 CFR §60.44b(l)(1).

For the units subject to NSPS Subpart J, the periods of excess emissions are determined as specified at 40 CFR §60.105(e) for the following CEMS: FCCU CO CEMS [40 CFR 60.105(e)(2)], Refinery Fuel Gas System H_2S CEMS [40 CFR 60.105(e)(3)(ii)], and Sulfur Recovery Units SO_2 CEMS [40 CFR 60.105(e)(4)(i)].

Please note that both the summary report and the excess emission report are submitted only for those units that experienced duration of excess emissions greater than 1% of the reporting period operating time or CEMS downtime greater than 5% of the reporting period operating time.

During the reporting period, no analyzer experienced a greater than 5% monitor downtime or duration of excess emissions greater than 1% of the reporting period. Please note that since the last reporting period there were no changes in the Continuous Monitoring Systems, process, or controls.

NSPS Subpart Db Reports
The sources presented in the table below are subject to 40 CFR Part 60 Subpart Db.

Equipment Name	Emission Point Number (EPN)
Package Boiler No. 1	81BF01
Package Boiler No. 2	50BF02
Package Boiler No. 3	50BF03

Per 40 CFR §60.49b(i), since the package boilers have to be monitored continuously for NO_X as required by 40 CFR §60.48b(b)(1), the semi-annual reports should contain the information listed at 40 CFR §60.49b(g), as detailed below:
40 CFR §60.49b(g)(1)

Calendar dates for each operating day are shown in Appendix C for each package boiler.

40 CFR §60.49b(g)(2)
The average hourly NO_X emission rates (lb/MMBtu heat input) measured is shown for each package boiler in Appendix C.

40 CFR §60.49b(g)(3)
The 30-day average NO_X emission rates (lb/MMBtu heat input) calculated at the end of each operating day, as the average of the measured hourly nitrogen oxide emission rates for the preceding 30 operating days, is shown in Appendix C for each package boiler.

40 CFR §60.49b(g)(4)
There were no operating days during the reporting period when the calculated 30-day average NO_X emission rates were in excess of the 0.2 lb/MMBtu NO_X emission standard at 40 CFR §60.44b(l)(1).

40 CFR §60.49b(g)(5)
The operating days in the reporting period for which NO_X data has not been obtained correspond to the analyzer downtime and are identified in Appendix C for each package boiler. The reasons for not obtaining data and a description of corrective actions taken are provided for each instance of analyzer downtime.

40 CFR §60.49b(g)(6)
For each package boiler, the times when emission data has been excluded from the calculation of average emission rates and the reasons for excluding data are presented in Appendix C.

40 CFR §60.49b(g)(7)
The "F" factor used for calculations, the method of determination (Method 19), and type of fuel combusted (refinery fuel gas, which may contain natural gas) is specified for each boiler. The average "F" factor measured during the reporting period was 8,474 dscf/MMBtu. No new types of fuel have been fired in the boilers.

40 CFR §60.49b(g)(8)
There were no instances in the reporting period when the NO_X concentration exceeded 500 ppm, the full span of the CEMS.

40 CFR §60.49b(g)(9)
No CEMS modifications that could affect the ability of the CEMS to comply with Performance Specification 2 occurred in the reporting period.

40 CFR §60.49b(g)(10)
The results of daily CEMS drift tests are included in Appendix C, for each boiler. The quarterly Cylinder Gas Audits, as required under Appendix F, Procedure 1, are included in Appendix F.

NSPS Subpart J Reports

The sources presented in the table below are subject to 40 CFR Part 60, Subpart J.

Equipment Name	Emission Point Number (EPN)
Fluid Catalytic Cracking Unit (FCCU)	42CB2201
Refinery Fuel Gas System	N/A
Sulfur Recovery Unit (SRU) B Train TGI	46CB6301
Sulfur Recovery Unit (SRU) C Train TGI	39CB2001

Please note that as required by Valero's global consent decree (Civil Action No. SA-05-CA-0569), on 11/23/2006 a wet gas scrubber was installed on the FCCU Regenerator stack. The condensation of stack gas moisture interferes with accurate measurement of opacity by the continuous opacity monitoring system (COMS) required by 40 CFR §60.105(a)(1). As such, Valero uses three (3) operating parameters in lieu of opacity monitoring:

- ▲ Water pressure across the filtering modules;
- ▲ Flue gas pressure drop across the filtering modules; and,
- ▲ Water pressure to the scrubber tower.

On October 4, 2005, Valero submitted an alternative monitoring plan, per 40 CFR §60.13(i), followed by a subsequent submittal on April 14, 2008.

The semi-annual report for sources subject to 40 CFR Part 60, Subpart J includes the following information:

40 CFR §60.105(e)

This requirement defines the periods of excess emissions for FCCU CO [40 CFR §60.105(e)(2)], Refinery Fuel Gas System H_2S CEMS [40 CFR §60.105(e)(3)(ii)], and Sulfur Recovery Units SO_2 CEMS [40 CFR §60.105(e)(4)(i)]. The periods of excess emissions for these units are included in Appendix B.

40 CFR §60.107(c)(1)

40 CFR §60.107(c)(1)(i)

There were no 7-day periods in the reporting period during which the average concentration of SO_2 on a dry and O_2-free basis in the gases discharged from the FCCU was above 50 ppmv, as measured by the CEMS.

40 CFR §60.107(c)(1)(ii)

These provisions do not apply, because the FCCU is equipped with a control device, thus the compliance option at 40 CFR §60.104(b)(2) is not used.

40 CFR §60.107(c)(1)(iii)

These provisions do not apply, because the FCCU is equipped with a control device, thus the compliance option at 40 CFR §60.104(b)(3) is not used.

40 CFR §60.107(c)(2)

There were no 30-day periods in the reporting period with less than 22 valid days [valid day is defined at 40 CFR §60.101(q)].

40 CFR §60.107(c)(3)
There were no 7-day periods in the reporting period during which the average concentration of SO_2 on a dry and O_2-free basis in the gases discharged from the FCCU was above 50 ppmv, as measured by the CEMS.

40 CFR §60.107(c)(4)
40 CFR §60.107(c)(4)(i)
These provisions do not apply, since the data is obtained at the outlet of the CEMS.
40 CFR §60.107(c)(4)(ii)
All days in the reporting period were valid days, as defined at 40 CFR §60.101(q).
40 CFR §60.107(c)(4)(iii)
There were no times during the reporting period when the hourly averages were obtained based on manual sampling.
40 CFR §60.107(c)(4)(iv)
There were no times during the reporting period when SO_2 pollutant concentration exceeded the CEMS span of 250 ppm.
40 CFR §60.107(c)(4)(v)
During the reporting period there were no modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 2.
40 CFR §60.107(c)(4)(vi)
The results of the SO_2 daily drift tests are included in Appendix D. The quarterly accuracy assessments are included in Appendix F.

40 CFR §60.107(c)(5)
These provisions do not apply, because the FCCU is equipped with a control device, thus the compliance option at 40 CFR §60.104(b)(2) is not used.

40 CFR §60.107(c)(6)
These provisions do not apply, because the FCCU is equipped with a control device, thus the compliance option at 40 CFR §60.104(b)(3) is not used.

40 CFR §60.107(d)
The periods for which SO_2 emission data was not available are presented in table 1st Half of 2014 FCCU SO_2 Analyzer Downtime Summary located in Appendix B. During the data unavailability periods, no changes were made in the operation of the emission control system which could affect the ability of the system to meet the applicable emission limit. There were no differences in the operations of the control systems among periods of data unavailability, periods before data unavailability, and periods following data unavailability.

MACT UUU Reports
The sources presented in the table below are subject to 40 CFR Part 63, Subpart UUU reporting requirements at 40 CFR §63.1575.

Equipment Name	Emission Point Number (EPN)
Fluid Catalytic Cracking Unit (FCCU)	42CB2201
Sulfur Recovery Unit (SRU) B Train TGI	46CB6301
Sulfur Recovery Unit (SRU) C Train TGI	39CB2001

At no time during the period was the flue gas from the SRU Tail Gas or from the catalytic cracking unit regenerator bypassed to atmosphere or any alternative control device.

The semi-annual report includes the following information:

40 CFR §63.1575(c)
63.1575(c)(1)
The company name and address in included on Form OP-CRO1.
40 CFR §63.1575(c)(2)
The responsible official statement is included on Form OP-CRO1.
40 CFR §63.1575(c)(3)
The semi-annual report is for the period of January 1, 2014 to June 30, 2014.
40 CFR §63.1575(c)(4)
These provisions do not apply.

40 CFR §63.1575(d)
40 CFR §63.1575(d)(1)
The total operating times for the sources listed in the table above are included in Appendix B.
40 CFR §63.1575(d)(2)
The number, duration, cause of deviations and the corrective actions taken are included in Appendix B.
40 CFR §63.1575(d)(3)
Information on the number, duration, and cause for monitor downtime incidents are included in Appendix B.

40 CFR §63.1575(f)
40 CFR §63.1575(f)(1)
There were no performance tests, as defined at 40 CFR §63.2, conducted in the reporting period.
40 CFR §63.1575(f)(2)
Valero does not request any changes in the applicability of any emission standards.

40 CFR §63.1575(h)
40 CFR §63.1575(h)(1)
All actions taken were consistent with the Startup, Shutdown, and Malfunction Plan.
40 CFR §63.1575(h)(2)
These provisions do not apply, because all actions taken to respond to MACT UUU exceedances were consistent with the Startup, Shutdown, and Malfunction Plan.

Since Valero complies with NSPS Subpart J to meet the requirements for FCCU and SRUs, the reports required by NSPS are used to ensure compliance with the MACT UUU reporting requirements.

30 TAC Chapter 117 Monitoring System Reports

The sources presented in the table below are subject to the reporting provisions of 30 TAC §117.345(d).

Equipment Name	Emission Point Number (EPN)
Crude Unit Atmospheric Tower Furnace	23BC201
Fluid Catalytic Cracking Unit (FCCU)	42CB2201
Package Boiler No. 1	81BF01
Package Boiler No. 2	50BF02
Package Boiler No. 3	50BF03

Since Valero is part of the Mass Emission Cap and Trade Program, no longer subject to 30 TAC §117.305 (related to Emission Specifications for Reasonably Available Control Technology), the semi-annual report is a monitoring system report that includes the information at 30 TAC §117.345(d)(2)-(d)(5). The date and time indentifying each period that the continuous monitoring system was inoperative are presented in Appendix B. No excess emissions were recorded during the reporting period.

NSR Permit Reports

The sources subject to various NSR Permit reporting requirements are listed in the table below.

Equipment Name	Emission Point Number (EPN)	Permit No.	Reporting Requirement (Special Condition No.)
Crude Unit Atmospheric Tower Furnace	23BC201	48982	16
Fluid Catalytic Cracking Unit (FCCU)	42CB2201	2501A	22.A
Package Boiler No. 1	81BF01	19637	15.A; 24
Package Boiler No. 2	50BF02	19637	15.A; 24
Package Boiler No. 3	50BF03	19637	15.A; 24
Sulfur Recovery Unit (SRU) B Train TGI	46CB6301	2507A	13.A, 13.B(1)
Sulfur Recovery Unit (SRU) C Train TGI	39CB2001	2507A	13.A, 13.B(1)

Permit No. 48982

Special Condition No. 16 of this permit requires EPN 23BC201 be equipped with the NO_X CEMS. This Special Condition references the NSPS Appendix B, Performance Specification 2,

Section 8.5, and Appendix F, Procedure 1, Section 7. The information required is presented in Appendix E.

Permit No. 2501A
Special Condition No. 22.A of this permit specifies that for EPN 42CB2201, the CEMS must meet the applicable reporting requirements in 40 CFR Part 60, Appendix B. The FCCU CEMS is subject to Performance Specification 2 (SO_2 and NO_X), Performance Specification 3 (O_2), and Performance Specification 4 (CO). Only the Performance Specification 2 has reporting requirements, and those reports are included in Appendix E.

Permit No. 19637
Special Condition Nos. 15.A and 24 require semi-annual reports as described in 40 CFR §60.7 for Package Boilers NO_X, CO, and O_2 CEMS. These reports are presented in Appendices B and E.

Permit No. 2507A
Special Condition No. 13 of this permit references the NSPS Appendix B, Performance Specification 2 and NSPS Appendix F, Procedure 1 reporting requirements. The information required is presented in Appendices B and E.

Should you have any questions or need additional information, please contact me at (713) 923-3378.

Sincerely,
VALERO REFINING - TEXAS, L.P.

Matthew Lindquist
Manager Environmental Engineering
Attachments

Cc: Executive Director, TCEQ Austin 7011 2970 0000 3522 7563
Air Section Manager, TCEQ Region 12, 7011 2970 0000 3522 7570
Bureau Chief of Air Quality Control, City of Houston 7011 2970 0000 3522 7587
Director, Harris County Public Health and Environmental Services, Pasadena 7011 2970 0000 3522 7594

Appendix A
OP-CR01
Responsible Official Certification

Form OP-CRO1
Certification by Responsible Official
Federal Operating Permit Program

All initial permit application, revision, renewal, and reopening submittals requiring certification must be addressed using this form. Updates to site operating permit (SOP) and temporary operating permit (TOP) applications, other than public notice verification materials, must be certified prior to authorization of public notice or start of public announcement. Updates to general operating permit (GOP) applications must be certified prior to receiving an authorization to operate under a GOP.

I. IDENTIFYING INFORMATION

RN: RN100219310	CN: CN600127468	Account No.: HG-0130-C
Permit No.: O1381	Project No.:	
Area Name: Valero Houston Refinery	Company Name: Valero Refining – Texas, L.P.	

II. CERTIFICATION TYPE *(Please mark the appropriate box)*

☒ Responsible Official ☐ Duly Authorized Representative

III. SUBMITTAL TYPE *(Please mark the appropriate box) (Only one response can be accepted per form)*

☐ SOP/TOP Initial Permit Application ☐ Update to Permit Application

☐ GOP Initial Permit Application ☐ Permit Revision, Renewal, or Reopening

☒ Other: Semi-Annual Reports

IV. CERTIFICATION OF TRUTH

This certification does not extend to information which is designated by the TCEQ as information for reference only.

I, Robert E. Moore *(Certifier Name printed or typed)* certify that I am the RO *(RO or DAR)*

and that, based on information and belief formed after reasonable inquiry, the statements and information dated during the time period or on the specific date(s) below, are true, accurate, and complete:

Note: Enter EITHER a Time Period OR Specific Date(s) for each certification. This section must be completed. The certification is not valid without documentation date(s).

Time Period: From _____ *Start Date* to _____ *End Date*

Specific Dates: 07/29/2014 *Date 1* _____ *Date 2* _____ *Date 3* _____ *Date 4* _____ *Date5* _____ *Date 6*

Signature: [signature] Signature Date: 07/29/2014

Title: Vice-President and General Manager

Appendix B

40 CFR §60.7 CEMS Summary Reports

30 TAC Chapter 117 Monitoring System Reports

40 CFR §60.7 CEMS Summary Reports

1st Half of 2014 FCCU CO Analyzer Summary Report

POLLUTANT CO **EMISSION POINT NUMBER:** 42CB2201

REPORTING PERIOD DATES **From:** 1/1/2014 **To:** 6/30/2014

COMPANY:	Valero Refining - Texas, L.P. 9701 Manchester Street Houston, Texas 77012
UNIT ID:	42CB2201
PROCESS UNIT:	Fluidized Catalytic Cracking Unit
EMISSIONS LIMITATION REQUIRED BY:	NSPS Subpart J/MACT UUU 40 CFR §60.103(a); 40 CFR §60.105(e)(2)
EMISSIONS LIMITATION:	500 ppmvd on a 1-hr average
TYPE OF REQUIREMENT:	Standard
MONITORING REQUIREMENT:	40 CFR §60.105(a)(2)
FREQUENCY:	1 hour
REPORT REQUIRED BY:	40 CFR §60.7(d)
MONITOR MANUFACTURER & MODEL NO:	TECO 48C
DATE OF LAST CEMS CERTIFICATION OR AUDIT:	5/8/2014 CGA
PROCESS UNIT DESCRIPTION	Fluidized Catalytic Cracking Unit Wet Gas Scrubber
OPERATING HOURS IN PERIOD	4,343 hours

EMISSIONS DATA SUMMARY

1. Duration of Excess Emission (hours) in Reporting Period Due To:

	500 ppmvd on a 1-hr average	
a) Startup/Shutdown	0.0	
b) Control Equipment Problems	0.0	
c) Process Problems	0.0	
d) Other Known Causes	0.0	
e) Unknown Causes	0.0	
2. Total Duration of Excess Emissions	0.0	hours
3. Percent Excess Emissions	0.0	%

CEMS PERFORMANCE SUMMARY

1. CEMS Downtime (hours) in Reporting Period Due To:

a) Monitor Equipment Malfunctions	0.0	
b) Non-Monitor Equipment Malfunctions	16.0	
c) Quality Assurance Calibrations	7.0	
d) Other Known Causes	38.0	
e) Unknown Causes	0.0	
2. Total CEMS Downtime	61.0	hours
3. Percent Downtime	1.4	%

The following summary details the magnitude and duration of monitor downtime at the FCCU CO CEMS
1st Semiannual Period of 2014

1st Half of 2014 FCCU CO Analyzer Downtime Summary

Event	Start Date/Time	End Date/Time	Duration, Hrs.	Dowatime Description	Corrective Action
1H14-FCC CO-001	1/6/14 7:41AM	1/6/14 8:25AM	2.0	Change all bottles and filters.	All bottles and filters were changed.
1H14-FCC CO-002	1/8/14 6:50AM	1/8/14 7:44AM	1.0	Exceeded two times the NOx calibration drift.	Replace solenoid and calibrate.
1H14-FCC CO-003	1/25/14 9:30AM	1/25/14 10AM	1.0	Exceeded one time the CEMS calibration drifts and two times the zero span for the flow meter.	Re-calibrate.
1H14-FCC CO-004	1/27/14 7:29AM	1/27/14 8:00AM	1.0	Exceed one time the O2 calibration drift.	Re-calibrate.
1H14-FCC CO-005	1/30/14 7:17AM	1/30/14 7:56AM	1.0	Exceeded one time the O2 calibration drift.	Re-calibrate.
1H14-FCC CO-006	1/31/14 7:25AM	1/31/14 8:50AM	2.0	Losing pressure and flow.	Change stack lid and filter.
1H14-FCC CO-007	2/6/14 7:18AM	2/6/14 8:25AM	2.0	O2 drifting.	Replace sensor and calibrate.
1H14-FCC CO-008	2/12/14 8:27AM	2/12/14 9:30AM	2.0	Change filters and replace flow sensor (O2 CEMS).	Change filters and replace flow sensor and calibrate.
1H14-FCC CO-009	3/7/14 8:30AM	3/7/14 12:00PM	4.0	Performed CGAs.	N/A
1H14-FCC CO-010	3/17/14 7:45AM	3/17/14 8:45AM	2.0	Change filters.	Calibrate.
1H14-FCC CO-011	4/16/14 7:00AM	4/16/14 8:00AM	25.0	Exceeded four times the CO calibration drift.	Replace diaphragm main sample pump.
1H14-FCC CO-012	5/8/14 10:30AM	5/8/14 12:14AM	3.0	Conduct CGAs.	N/A.
1H14-FCC CO-013	6/4/14 7:00AM	6/4/14 7:35AM	1.0	Exceeded four times the NOx calibration drift.	Re-calibrate.
1H14-FCC CO-014	6/4/14 12:28AM	6/4/14 3:20AM	4.0	Install new pump and both capillaries.	N/A.
1H14-FCC CO-015	6/12/14 7:35AM	6/12/14 8:19AM	2.0	Exceeded two times the NOx calibration drift.	Re-calibrate.
1H14-FCC CO-016	6/28/14 7:30 AM	6/28/14 2:30 AM	8.0	A/C Unit out.	Temporary Unit put in. Analyzer Re-Calibrated.
		Total Operating Hours for the Quarter	4,343		
		Period of Exceedences, %	1.4%		

1st Half of 2014 FCCU O2 Analyzer Summary Report
POLLUTANT O_2 **EMISSION POINT NUMBER:** 42CB2201

REPORTING PERIOD DATES **From:** 1/1/2014 **To:** 6/30/2014

COMPANY:	Valero Refining - Texas, L.P. 9701 Manchester Street Houston, Texas 77012
UNIT ID:	42CB2201
PROCESS UNIT:	Fluidized Catalytic Cracking Unit
EMISSIONS LIMITATION REQUIRED BY:	N/A
EMISSIONS LIMITATION:	N/A
TYPE OF REQUIREMENT:	Standard
MONITORING REQUIREMENT:	40 CFR §60.105(a)(10)
FREQUENCY:	N/A
REPORT REQUIRED BY:	40 CFR §60.7(d)
MONITOR MANUFACTURER & MODEL NO:	SERVOMEX 1440
DATE OF LAST CEMS CERTIFICATION OR AUDIT:	5/8/2014 CGA
PROCESS UNIT DESCRIPTION	Fluidized Catalytic Cracking Unit Wet Gas Scrubber
OPERATING HOURS IN PERIOD	4,343 hours

EMISSIONS DATA SUMMARY

There are no emission limitations for O_2.

CEMS PERFORMANCE SUMMARY

1. CEMS Downtime (hours) in Reporting Period Due To:

a) Monitor Equipment Malfunctions	0.0	
b) Non-Monitor Equipment Malfunctions	16.0	
c) Quality Assurance Calibrations	4.0	
d) Other Known Causes	17.0	
e) Unknown Causes	0.0	
2. Total CEMS Downtime	37.0	hours
3. Percent Downtime	0.9	%

The following summary details the magnitude and duration of monitor downtime at the FCCU CO CEMS
1st Semiannual Period of 2014

1st Half of 2014 FCCU O2 Analyzer Downtime Summary

Event	Start Date/Time	End Date/Time	Duration, Hrs.	Downtime Description	Corrective Action
1H14-FCC O2-001	1/6/14 7:41AM	1/6/14 8:25AM	2.0	Change all bottles and filters.	All bottles and filters were changed.
1H14-FCC O2-002	1/8/14 6:50AM	1/8/14 7:44AM	1.0	Exceeded two times the NOx calibration drift.	Replace solenoid and calibrate.
1H14-FCC O2-003	1/25/14 9:30AM	1/25/14 10AM	1.0	Exceeded one time the CEMS calibration drifts and two times the zero span for the flow meter.	Re-calibrate.
1H14-FCC O2-004	1/27/14 7:29AM	1/27/14 8:00AM	1.0	Exceed one time the O2 calibration drift.	Re-calibrate.
1H14-FCC O2-005	1/30/14 7:17AM	1/30/14 7:56AM	1.0	Exceeded one time the O2 calibration drift.	Re-calibrate.
1H14-FCC O2-006	1/31/14 7:25AM	1/31/14 8:50AM	2.0	Losing pressure and flow.	Change stack lid and filter.
1H14-FCC O2-007	2/6/14 7:18AM	2/6/14 8:25AM	2.0	O2 drifting.	Replace sensor and calibrate.
1H14-FCC O2-008	2/12/14 8:27AM	2/12/14 9:30AM	2.0	Change filters and replace flow sensor (O2 CEMS).	Change filters and replace flow sensor and calibrate.
1H14-FCC O2-009	3/7/14 8:30AM	3/7/14 12:00PM	4.0	Performed CGAs.	N/A
1H14-FCC O2-010	3/17/14 7:45AM	3/17/14 8:45AM	2.0	Change filters.	Calibrate.
1H14-FCC O2-011	4/16/14 7:00AM	4/16/14 8:00AM	1.0	Exceeded four times the CO calibration drift.	Replace diaphragm main sample pump.
1H14-FCC O2-012	5/8/14 10:30AM	5/8/14 12:14AM	3.0	Conduct CGAs.	N/A.
1H14-FCC O2-013	6/4/14 7:00AM	6/4/14 7:35AM	1.0	Exceeded four times the NOx calibration drift.	Re-calibrate.
1H14-FCC O2-014	6/4/14 12:28AM	6/4/14 3:20AM	4.0	Install new pump and both capillaries.	N/A.
1H14-FCC O2-015	6/12/14 7:35AM	6/12/14 8:19AM	2.0	Exceeded two times the NOx calibration drift.	Re-calibrate.
1H14-FCC O2-016	6/28/14 7:30 AM	6/28/14 2:30 AM	8.0	A/C Unit out.	Temporary Unit put in. Analyzer Re-Calibrated.
		Total Hours of Downtime	37.0		
		Total Operating Hours for the Quarter	4,343		
		Period of Exceedences, %	0.9%		

1st Half of 2014 FCCU SO2 Analyzer Summary Report

POLLUTANT SO_2 EMISSION POINT NUMBER: 42CB2201

REPORTING PERIOD DATES From: 1/1/2014 To: 6/30/2014

COMPANY:	Valero Refining - Texas, L.P. 9701 Manchester Street Houston, Texas 77012
UNIT ID:	42CB2201
PROCESS UNIT:	Fluidized Catalytic Cracking Unit
EMISSIONS LIMITATION REQUIRED BY:	NSPS Subpart J 40 CFR §60.104(b)(1)
EMISSIONS LIMITATION:	50 ppmvd on a 7-day rolling average
TYPE OF REQUIREMENT:	Standard
MONITORING REQUIREMENT:	40 CFR §60.105(a)(9)
FREQUENCY:	7-day rolling average
REPORT REQUIRED BY:	40 CFR §60.7(d)
MONITOR MANUFACTURER & MODEL NO:	CAL. ANALYTICAL ZRE
DATE OF LAST CEMS CERTIFICATION OR AUDIT:	5/8/2014 CGA
PROCESS UNIT DESCRIPTION	Fluidized Catalytic Cracking Unit Wet Gas Scrubber
OPERATING HOURS IN PERIOD	4,343 hours

EMISSIONS DATA SUMMARY

1. Duration of Excess Emission (hours) in Reporting Period Due To:

	50 ppmvd on a 7-day rolling average	
a) Startup/Shutdown	0.0	
b) Control Equipment Problems	0.0	
c) Process Problems	0.0	
d) Other Known Causes	0.0	
e) Unknown Causes	0.0	
2. Total Duration of Excess Emissions	0.0	hours
3. Percent Excess Emissions	0.0	%

CEMS PERFORMANCE SUMMARY

1. CEMS Downtime (hours) in Reporting Period Due To:

a) Monitor Equipment Malfunctions	0.0	
b) Non-Monitor Equipment Malfunctions	16.0	
c) Quality Assurance Calibrations	4.0	
d) Other Known Causes	17.0	
e) Unknown Causes	0.0	
2. Total CEMS Downtime	37.0	hours
3. Percent Downtime	0.9	%

The following summary details the magnitude and duration of monitor downtime at the FCCU SO_2 CEMS
1st Semiannual Period of 2014

1st Half of 2014 FCCU SO2 Analyzer Downtime Summary

Event	Start Date/Time	End Date/Time	Duration, Hrs.	Downtime Description	Corrective Action
1H14-FCC SO2-001	1/6/14 7:41AM	1/6/14 8:25AM	2.0	Change all bottles and filters.	All bottles and filters were changed.
1H14-FCC SO2-002	1/8/14 6:50AM	1/8/14 7:44AM	1.0	Exceeded two times the NOx calibration drift.	Replace solenoid and calibrate.
1H14-FCC SO2-003	1/25/14 9:30AM	1/25/14 10AM	1.0	Exceeded one time the CEMS calibration drifts and two times the zero span for the flow meter.	Re-calibrate.
1H14-FCC SO2-004	1/27/14 7:29AM	1/27/14 8:00AM	1.0	Exceed one time the O2 calibration drift.	Re-calibrate.
1H14-FCC SO2-005	1/30/14 7:17AM	1/30/14 7:56AM	1.0	Exceeded one time the O2 calibration drift.	Re-calibrate.
1H14-FCC SO2-006	1/31/14 7:25AM	1/31/14 8:50AM	2.0	Losing pressure and flow.	Change stack lid and filter.
1H14-FCC SO2-007	2/6/14 7:18AM	2/6/14 8:25AM	2.0	O2 drifting.	Replace sensor and calibrate.
1H14-FCC SO2-008	2/12/14 8:27AM	2/12/14 9:30AM	2.0	Change filters and replace flow sensor (O2 CEMS).	Change filters and replace flow sensor and calibrate.
1H14-FCC SO2-009	3/7/14 8:30AM	3/7/14 12:00PM	4.0	Performed CGAs.	N/A
1H14-FCC SO2-010	3/17/14 7:45AM	3/17/14 8:45AM	2.0	Change filters.	Calibrate.
1H14-FCC SO2-011	4/16/14 7:00AM	4/16/14 8:00AM	1.0	Exceeded four times the CO calibration drift.	Replace diaphragm main sample pump.
1H14-FCC SO2-012	5/8/14 10:30AM	5/8/14 12:14AM	3.0	Conduct CGAs.	N/A.
1H14-FCC SO2-013	6/4/14 7:00AM	6/4/14 7:35AM	1.0	Exceeded four times the NOx calibration drift.	Re-calibrate.
1H14-FCC SO2-014	6/4/14 12:28AM	6/4/14 3:20AM	4.0	Install new pump and both capillaries.	N/A.
1H14-FCC SO2-015	6/12/14 7:35AM	6/12/14 8:19AM	2.0	Exceeded two times the NOx calibration drift.	Re-calibrate.
1H14-FCC SO2-016	6/28/14 7:30 AM	6/28/14 2:30 AM	8.0	A/C Unit out.	Temporary Unit put in. Analyzer Re-Calibrated.
		Total Hours of Downtime	37.0		
		Total Operating Hours for the Quarter	4,343		
		Period of Exceedences, %	0.9%		

1st Half of 2014 Refinery Fuel Gas H2S Analyzer Summary Report

POLLUTANT H_2S EMISSION POINT NUMBER: N/A

REPORTING PERIOD DATES From: 1/1/2014 To: 6/30/2014

COMPANY:	Valero Refining - Texas, L.P. 9701 Manchester Street Houston, Texas 77012
UNIT ID:	N/A
PROCESS UNIT:	Refinery Fuel Gas System
EMISSIONS LIMITATION REQUIRED BY:	NSPS Subpart J 40 CFR §60.104(a)(1); 40 CFR §60.105(e)(3)(ii)
EMISSIONS LIMITATION:	0.1 gr/dscf (162 ppmv) on a 3-hour rolling average
TYPE OF REQUIREMENT:	Standard
MONITORING REQUIREMENT:	40 CFR §60.105(a)(4)
FREQUENCY:	3-hour rolling average
REPORT REQUIRED BY:	40 CFR §60.7(d)
MONITOR MANUFACTURER & MODEL NO:	SIEMENS, Maxum II
DATE OF LAST CEMS CERTIFICATION OR AUDIT:	5/7/2014 CGA
PROCESS UNIT DESCRIPTION	Refinery Fuel Gas System
OPERATING HOURS IN PERIOD	4,343 hours

EMISSIONS DATA SUMMARY

1. Duration of Excess Emission (hours) in Reporting Period Due To:

	0.1 gr/dscf (162 ppmv) on a 3-hour rolling average
a) Startup/Shutdown	0.0
b) Control Equipment Problems	0.0
c) Process Problems	0.0
d) Other Known Causes	0.0
e) Unknown Causes	0.0

2. Total Duration of Excess Emissions 0.0 hours

3. Percent Excess Emissions 0.0 %

CEMS PERFORMANCE SUMMARY

1. CEMS Downtime (hours) in Reporting Period Due To:

a) Monitor Equipment Malfunctions	0.0
b) Non-Monitor Equipment Malfunctions	0.0
c) Quality Assurance Calibrations	3.0
d) Other Known Causes	0.0
e) Unknown Causes	0.0

2. Total CEMS Downtime 3.0 hours

3. Percent Downtime 0.07 %

The following summary details the magnitude and duration of monitor downtime at the Fuel Gas H_2S CEMS
1st Half of 2014

1st Half of 2014 Fuel Gas H2S Analyzer Downtime Summary

Event	Start Date/Time	End Date/Time	Duration, Hrs.	Downtime Description	Corrective Action
1H14-FG H2S-001	2/20/14 1:00 PM	2/20/14 3:00 PM	2.0	Conduct quarterly CGAs.	N/A.
1H14-FG H2S-002	5/7/14 8:00 AM	5/7/14 9:00 AM	1.0	Conduct CGAs.	N/A.
Total Hours of Downtime			3.0		
Total Operating Hours for the Quarter			4,343		
Period of Exceedences, %			0.07%		

1st Half of 2014 SRU Unit 46 SO2 Analyzer Summary Report

POLLUTANT SO_2 EMISSION POINT NUMBER: 46CB6301

REPORTING PERIOD DATES From: 1/1/2014 To: 6/30/2014

COMPANY:	Valero Refining - Texas, L.P. 9701 Manchester Street Houston, Texas 77012
UNIT ID:	46CB6301
PROCESS UNIT:	Tail Gas Incinerator Unit 46 SRU
EMISSIONS LIMITATION REQUIRED BY:	NSPS Subpart J/MACT UUU 40 CFR §60.104(a)(2)(i); 40 CFR §60.105(e)(4)(i)
EMISSIONS LIMITATION:	250 ppm on a 12-hour rolling average
TYPE OF REQUIREMENT:	Standard
MONITORING REQUIREMENT:	40 CFR §60.105(a)(5)
FREQUENCY:	12-hour rolling average
REPORT REQUIRED BY:	40 CFR §60.7(c) and 40 CFR §60.7(d)
MONITOR MANUFACTURER & MODEL NO:	AMETEK, 921
DATE OF LAST CEMS CERTIFICATION OR AUDIT:	6/5/2014 CGA
PROCESS UNIT DESCRIPTION	Sulfur recovery unit tail gas incinerator
OPERATING HOURS IN PERIOD	2,845 hours

EMISSIONS DATA SUMMARY:

1. Duration of Excess Emission (hours) in Reporting Period Due To:

	250 ppm on a 12-hour rolling average
a) Startup/Shutdown	35.0
b) Control Equipment Problems	0.0
c) Process Problems	0.0
d) Other Known Causes	0.0
e) Unknown Causes	0.0

2. Total Duration of Excess Emissions 35.0 hours

3. Percent Excess Emissions N/A %

CEMS PERFORMANCE SUMMARY:

1. CEMS Downtime (hours) in Reporting Period Due To:

a) Monitor Equipment Malfunctions	0.0
b) Non-Monitor Equipment Malfunctions	8.0
c) Quality Assurance Calibrations	2.0
d) Other Known Causes	7.0
e) Unknown Causes	0.0

2. Total CEMS Downtime 17.0 hours

3. Percent Downtime 0.6 %

The following summary details the magnitude and duration of monitor downtime at the SRU Unit 46 SO_2 CEMS.
1st Half of 2014

1st Half of 2014 SRU Unit 46 SO2 Analyzer Downtime Summary

Event	Start Date/Time	End Date/Time	Duration, Hrs.	Downtime Description	Corrective Action
1H14-SRU B SO2-001	1/24/14 6:35AM	1/24/14 7AM	1.0	Exceeded two times the SO2 calibration drift.	Calibrated SO2 analyzer and reran the validation
1H14-SRU B SO2-002	2/7/14 7:30AM	2/7/14 8AM	1.0	Needed to calibrate O2.	Calibrated analyzer.
1H14-SRU B SO2-003	3/4/14 07:10	3/4/14 07:40	1.0	Checked and verify SO2 analyzer.	Analyzer OK.
1H14-SRU B SO2-004	5/21/14 7:38 AM	5/21/14 8:05 AM	1.0	Needed to calibrate O2.	Calibrated O2.
1H14-SRU B SO2-005	6/1/14 6:45AM	6/1/14 7:45AM	2.0	Low O2 analyzer flow.	Cleaned analyzer sensor assembly, calibrated and reran the validation.
1H14-SRU B SO2-006	6/5/14 9:15AM	6/5/14 10:55AM	2.0	Performed quarterly CGA.	N/A.
1H14-SRU B SO2-007	6/23/14 7:45AM	6/23/14 8:05AM	1.0	Empty SO2 cal gas bottle.	Hanged out empty cal gas bottle, calibrated SO2 analyzer, re-ran the validation.
1H14-SRU B SO2-008	6/24/14 5PM	6/24/14 10:30PM	6.0	O2 analyzer failure caused high SO2 average readings on corrected value.	Repaired O2 analyzer.
1H14-SRU B SO2-009	6/25/14 7AM	6/25/14 9AM	2.0	Exceeded one time the O2 span drift.	Calibrated O2 analyzer and reran validation.
		Total Hours of Downtime	17.0		
		Total Operating Hours for the Quarter	2,845		
		Period of Exceedences, %	0.60%		

1st Half of 2013 SRU Unit 46 O2 Analyzer Summary Report

POLLUTANT O_2 **EMISSION POINT NUMBER:** 46CB6301

REPORTING PERIOD DATES **From:** 1/1/2014 **To:** 6/30/2014

COMPANY:	Valero Refining - Texas, L.P. 9701 Manchester Street Houston, Texas 77012
UNIT ID:	46CB6301
PROCESS UNIT:	Tail Gas Incinerator Unit 46 SRU
EMISSIONS LIMITATION REQUIRED BY:	N/A
EMISSIONS LIMITATION:	N/A
TYPE OF REQUIREMENT:	Standard
MONITORING REQUIREMENT:	40 CFR §60.105(a)(5)
FREQUENCY:	N/A
REPORT REQUIRED BY:	40 CFR §60.7(d)
MONITOR MANUFACTURER & MODEL NO:	THERMOX CEM O2
DATE OF LAST CEMS CERTIFICATION OR AUDIT:	6/5/2014 CGA
PROCESS UNIT DESCRIPTION	Sulfur recovery unit tail gas incinerator
OPERATING HOURS IN PERIOD	2,845 hours

EMISSIONS DATA SUMMARY: N/A

There are no emission limitations for O_2.

CEMS PERFORMANCE SUMMARY

1. CEMS Downtime (hours) in Reporting Period Due To:

a) Monitor Equipment Malfunctions	0.0
b) Non-Monitor Equipment Malfunctions	8.0
c) Quality Assurance Calibrations	2.0
d) Other Known Causes	7.0
e) Unknown Causes	0.0

2. Total CEMS Downtime 17.0 hours

3. Percent Downtime 0.6 %

The following summary details the magnitude and duration of monitor downtime at the SRU Unit 46 O_2 CEMS.
1st Half of 2014

1st Half of 2014 SRU Unit 46 O2 Analyzer Downtime Summary

Event	Start Date/Time	End Date/Time	Duration, Hrs.	Downtime Description	Corrective Action
1H14-SRU B O2-001	1/24/14 6:35AM	1/24/14 7:00AM	1.0	Exceeded two times the SO2 calibration drift.	Calibrated SO2 analyzer and reran the validation
1H14-SRU B O2-002	2/7/14 7:30AM	2/7/14 8:00AM	1.0	Needed to calibrate O2.	Calibrated analyzer.
1H14-SRU B O2-003	3/4/14 07:10AM	3/4/14 07:40AM	1.0	Checked and verify SO2 analyzer.	Analyzer OK.
1H14-SRU B O2-004	5/21/14 7:38 AM	5/21/14 8:05 AM	1.0	Needed to calibrate O2.	Calibrated O2.
1H14-SRU B O2-005	6/1/14 6:45AM	6/1/14 7:45AM	2.0	Low O2 analyzer flow.	Cleaned analyzer sensor assembly, calibrated and reran the validation.
1H14-SRU B O2-006	6/5/14 9:15AM	6/5/14 10:55AM	2.0	Performed quarterly CGA.	N/A.
1H14-SRU B O2-007	6/23/14 7:45AM	6/23/14 8:05AM	1.0	Empty SO2 cal gas bottle.	Hanged out empty cal gas bottle, calibrated SO2 analyzer, re-ran the validation.
1H14-SRU B O2-008	6/24/14 5:00PM	6/24/14 10:30PM	6.0	O2 analyzer failure caused high SO2 average readings on corrected value.	reprogrammed o2 analyzer, it failed due to a power failure during lightning storm. calibrated and ran a validation
1H14-SRU B O2-009	6/25/14 7:00AM	6/25/14 9:00AM	2.0	Exceeded one time the O2 span drift.	Calibrated O2 analyzer and reran validation.
		Total Hours of Downtime	17.0		
		Total Operating Hours for the Quarter	2,845		
		Period of Exceedences, %	0.60%		

1st Half of 2014 SRU Unit 39 SO2 Analyzer Summary Report

POLLUTANT SO_2 EMISSION POINT NUMBER: 39CB2001

REPORTING PERIOD DATES From: 1/1/2014 To: 6/30/2014

COMPANY:	Valero Refining - Texas, L.P. 9701 Manchester Street Houston, Texas 77012
UNIT ID:	39CB2001
PROCESS UNIT:	Tail Gas Incinerator Unit 39 SRU
EMISSIONS LIMITATION REQUIRED BY:	NSPS Subpart J/MACT UUU 40 CFR §60.104(a)(2)(i); 40 CFR §60.105(e)(4)(i)
EMISSIONS LIMITATION:	250 ppm on a 12-hour rolling average
TYPE OF REQUIREMENT:	Standard
MONITORING REQUIREMENT:	40 CFR §60.105(a)(5)
FREQUENCY:	12-hour rolling average
REPORT REQUIRED BY:	40 CFR §60.7(d)
MONITOR MANUFACTURER & MODEL NO:	AMETEK, 921
DATE OF LAST CEMS CERTIFICATION OR AUDIT:	5/8/2014 CGA
PROCESS UNIT DESCRIPTION	Sulfur recovery unit tail gas incinerator
OPERATING HOURS IN PERIOD	4,343 hours

EMISSIONS DATA SUMMARY

1. Duration of Excess Emission (hours) in Reporting Period Due To:

	250 ppm on a 12-hour rolling average
a) Startup/Shutdown	0.0
b) Control Equipment Problems	0.0
c) Process Problems	0.0
d) Other Known Causes	0.0
e) Unknown Causes	0.0
2. Total Duration of Excess Emissions	0.0 hours
3. Percent Excess Emissions	0.0 %

CEMS PERFORMANCE SUMMARY

1. CEMS Downtime (hours) in Reporting Period Due To:

a) Monitor Equipment Malfunctions	0.0
b) Non-Monitor Equipment Malfunctions	9.0
c) Quality Assurance Calibrations	3.0
d) Other Known Causes	7.0
e) Unknown Causes	0.0
2. Total CEMS Downtime	19.0 hours
3. Percent Downtime	0.4 %

The following summary details the magnitude and duration of monitor downtime at the SRU Unit 39 SO_2 CEMS.
1st Half of 2014

1st Half of 2014 SRU Unit 39 SO2 Analyzer Downtime Summary

Event	Start Date/Time	End Date/Time	Duration, Hrs.	Downtime Description	Corrective Action
1H14-SRU C SO2-001	1/26/14 11AM	1/26/14 11:14AM	1.0	Exceed one time the SO2 calibration drift.	Re-calibrate.
1H14-SRU C SO2-002	3/14/14 09:00	3/14/14 10:00	1.0	Compound problems with O2 analyzer cell heating system.	Replaced sensor board & RTD.Cleaned & replaced O2 cell.
1H14-SRU C SO2-003	3/14/14 1:00 PM	3/14/14 3:00 PM	2.0	Compound problems with O2 analyzer cell heating system.	Replaced sensor board & RTD.Cleaned & replaced O2 cell.
1H14-SRU C SO2-004	3/15/14 6:00AM	3/15/14 12:00	6.0	Fault over temp/2x O2.	Replace power supply and calibrate.
1H14-SRU C SO2-005	4/27/14 7:05AM	4/27/14 7:30AM	1.0	Exceeded two times the SO2 calibration drift.	Re-calibrate.
1H14-SRU C SO2-006	5/8/14 7:30AM	5/8/14 9:30AM	3.0	Conduct CGAs.	N/A.
1H14-SRU C SO2-007	5/12/14 1:00 PM	5/12/14 2:00 PM	2.0	Checked SO2 calibration at Operations request.	No action taken.
1H14-SRU C SO2-008	6/7/14 6:40AM	6/7/14 8:20AM	3.0	Exceeded two times the SO2 calibration drift.	Install new process/cal solenoid in flow drawer.
		Total Hours of Downtime	19.0		
		Total Operating Hours for the Quarter	4,343		
		Period of Downtime, %	0.4%		

1st Half of 2014 SRU Unit 39 O2 Analyzer Summary Report

POLLUTANT O_2 **EMISSION POINT NUMBER:** 39CB2001

REPORTING PERIOD DATES **From:** 1/1/2014 **To:** 6/30/2014

COMPANY:	Valero Refining - Texas, L.P. 9701 Manchester Street Houston, Texas 77012
UNIT ID:	39CB2001
PROCESS UNIT:	Tail Gas Incinerator Unit 39 SRU
EMISSIONS LIMITATION REQUIRED BY:	N/A N/A
EMISSIONS LIMITATION:	N/A
TYPE OF REQUIREMENT:	Standard
MONITORING REQUIREMENT:	40 CFR §60.105(a)(5)
FREQUENCY:	N/A
REPORT REQUIRED BY:	40 CFR §60.7(d)
MONITOR MANUFACTURER & MODEL NO:	THERMOX CEM O2
DATE OF LAST CEMS CERTIFICATION OR AUDIT:	5/8/2014 CGA
PROCESS UNIT DESCRIPTION	Sulfur recovery unit tail gas incinerator
OPERATING HOURS IN PERIOD	4,343 hours

EMISSIONS DATA SUMMARY

There are no emission limitations for O_2.

CEMS PERFORMANCE SUMMARY

1. CEMS Downtime (hours) in Reporting Period Due To:

a) Monitor Equipment Malfunctions	0.0
b) Non-Monitor Equipment Malfunctions	3.0
c) Quality Assurance Calibrations	3.0
d) Other Known Causes	9.0
e) Unknown Causes	0.0

2. Total CEMS Downtime 15.0 hours

3. Percent Downtime 0.3 %

The following summary details the magnitude and duration of monitor downtime at the SRU Unit 39 O_2 CEMS.
1st Half of 2014

1st Half of 2014 SRU Unit 39 O2 Analyzer Downtime Summary

Event	Start Date/Time	End Date/Time	Duration, Hrs.	Downtime Description	Corrective Action
1H14-SRU C O2-001	1/26/14 11AM	1/26/14 11:14AM	1.0	Exceed one time the SO2 calibration drift.	Re-calibrate.
1H14-SRU C O2-002	3/14/14 09:00	3/14/14 10:00	1.0	Compound problems with O2 analyzer cell heating system.	Replaced sensor board & RTD.Cleaned & replaced O2 cell.
1H14-SRU C O2-003	3/14/14 1:00 PM	3/14/14 3:00 PM	2.0	Compound problems with O2 analyzer cell heating system.	Replaced sensor board & RTD.Cleaned & replaced O2 cell.
1H14-SRU C O2-004	3/15/14 10:00AM	3/15/14 12:00	2.0	Fault over temp/2x O2.	Replace power supply and calibrate.
1H14-SRU C O2-005	4/27/14 7:05AM	4/27/14 7:30AM	1.0	Exceeded two times the SO2 calibration drift.	Re-calibrate.
1H14-SRU C O2-006	5/8/14 7:30AM	5/8/14 9:30AM	3.0	Conduct CGAs.	N/A.
1H14-SRU C O2-007	5/12/14 1:00 PM	5/12/14 2:00 PM	2.0	Checked SO2 calibration at Operations request.	No action taken.
1H14-SRU C O2-006	6/7/14 6:40AM	6/7/14 8:20AM	3.0	Exceeded two times the SO2 calibration drift.	Install new process/cal solenoid in flow drawer.
Total Hours of Downtime			15.0		
Total Operating Hours for the Quarter			4,343		
Period of Downtime, %			0.3%		

1st Half of 2014 Package Boiler No. 1 NOx Analyzer Summary Report

POLLUTANT NOx EMISSION POINT NUMBER: 81BF01

REPORTING PERIOD DATES From: 1/1/2014 To: 6/30/2014

COMPANY:	Valero Refining - Texas, L.P. 9701 Manchester Street Houston, Texas 77012
UNIT ID:	81BF01
PROCESS UNIT:	Package Boiler No. 1
EMISSIONS LIMITATION REQUIRED BY:	NSPS Subpart Db 40 CFR §60.44b(l)(1); 40 CFR §60.44(b)(i)
EMISSIONS LIMITATION:	0.2 lb/MMBtu on a 30-day rolling average
TYPE OF REQUIREMENT:	Standard
MONITORING REQUIREMENT:	40 CFR §60.48b(b)(1)
FREQUENCY:	30-day rolling average
REPORT REQUIRED BY:	40 CFR §60.7(d)
MONITOR MANUFACTURER & MODEL NO:	TECO 42C LOW SOURCE
DATE OF LAST CEMS CERTIFICATION OR AUDIT:	5/5/2014 CGA
PROCESS UNIT DESCRIPTION	Package Boiler
OPERATING HOURS IN PERIOD	4,343 hours

EMISSIONS DATA SUMMARY

1. Duration of Excess Emission (hours) in Reporting Period Due To:

	0.2 lb/MMBtu on a 30-day rolling average
a) Startup/Shutdown	0.0
b) Control Equipment Problems	0.0
c) Process Problems	0.0
d) Other Known Causes	0.0
e) Unknown Causes	0.0

2. Total Duration of Excess Emissions 0.0 hours

3. Percent Excess Emissions 0.0 %

CEMS PERFORMANCE SUMMARY

1. CEMS Downtime (hours) in Reporting Period Due To:

a) Monitor Equipment Malfunctions	0.0
b) Non-Monitor Equipment Malfunctions	0.0
c) Quality Assurance Calibrations	3.0
d) Other Known Causes	10.0
e) Unknown Causes	0.0

2. Total CEMS Downtime 13.0 hours

3. Percent Downtime 0.3 %

The following summary details the magnitude and duration of monitor downtime at the Package Boiler No. 1 NOx CEMS.

1st Half of 2014

1st Half of 2014 Package Boiler No. 1 NOx Analyzer Downtime Summary

Event	Start Date/Time	End Date/Time	Duration, Hrs.	Downtime Description	Corrective Action
1H14-PB1 NOx-001	1/14/14 7:07AM	1/14/14 8:04AM	1.0	Preventive maintenance.	Install two new parastolic pump and motors with tubing complete and calibrate.
1H14-PB1 NOx-002	3/3/14 10AM	3/3/14 11:25AM	2.0	Performed CGAs.	N/A.
1H14-PB1 NOx-003	3/25/14 6:45AM	3/25/14 10:00AM	4.0	Exceeded two times the NOx calibration drift.	Install new internal NOx pump, change stack filter,cl5 filters, switched to new sample line calibrated, installed new solenoid sample drawer.
1H14-PB1 NOx-004	3/26/14 6:40AM	3/26/14 7:10AM	1.0	Exceeded two times the NOx calibration drift.	Re-calibrate.
1H14-PB1 NOx-005	3/27/14 7:05AM	3/27/14 7:20AM	1.0	Exceeded one time the NOx calibration drift.	Re-calibrate.
1H14-PB1 NOx-006	5/5/14 7:55AM	5/5/14 8:14AM	1.0	Exceeded two times the O2 calibration drift and conduct CGAs	Re-calibrate and conduct the CGAs.
1H14-PB1 NOx-007	5/5/14 12:01PM	5/5/14 1:30PM	2.0	Exceeded two times the O2 calibration drift and conduct CGAs	Re-calibrate and conduct the CGAs.
1H14-PB1 NOx-008	5/21/14 10:00AM	5/21/14 10:26AM	1.0	Replace chiller and calibrate.	Replace chiller.
		Total Hours of Downtime	13.0		
		Total Operating Hours for the Quarter	4,343		
		Period of Downtime, %	0.3%		

1st Half of 2014 Package Boiler No. 2 NOx Analyzer Summary Report

POLLUTANT NOx EMISSION POINT NUMBER: 50BF02

REPORTING PERIOD DATES From: 1/1/2014 To: 6/30/2014

COMPANY:	Valero Refining - Texas, L.P. 9701 Manchester Street Houston, Texas 77012
UNIT ID:	50BF02
PROCESS UNIT:	Package Boiler No. 2
EMISSIONS LIMITATION REQUIRED BY:	NSPS Subpart Db 40 CFR §60.44b(l)(1); 40 CFR §60.44(b)(i)
EMISSIONS LIMITATION:	0.2 lb/MMBtu on a 30-day rolling average
TYPE OF REQUIREMENT:	Standard
MONITORING REQUIREMENT:	40 CFR §60.48b(b)(1)
FREQUENCY:	30-day rolling average
REPORT REQUIRED BY:	40 CFR §60.7(d)
MONITOR MANUFACTURER & MODEL NO:	TECO 42C LOW SOURCE
DATE OF LAST CEMS CERTIFICATION OR AUDIT:	5/6/2014 CGA
PROCESS UNIT DESCRIPTION	Package Boiler
OPERATING HOURS IN PERIOD	4,266 hours

EMISSIONS DATA SUMMARY

1. Duration of Excess Emission (hours) in Reporting Period Due To:

	0.2 lb/MMBtu on a 30-day rolling average
a) Startup/Shutdown	0.0
b) Control Equipment Problems	0.0
c) Process Problems	0.0
d) Other Known Causes	0.0
e) Unknown Causes	0.0

2. Total Duration of Excess Emissions 0.0 hours

3. Percent Excess Emissions 0.0 %

CEMS PERFORMANCE SUMMARY

1. CEMS Downtime (hours) in Reporting Period Due To:

a) Monitor Equipment Malfunctions	0.0
b) Non-Monitor Equipment Malfunctions	5.0
c) Quality Assurance Calibrations	3.0
d) Other Known Causes	6.0
e) Unknown Causes	0.0

2. Total CEMS Downtime 14.0 hours

3. Percent Downtime 0.3 %

The following summary details the magnitude and duration of monitor downtime at the Package Boiler No. 2 NOx CEMS.

1st Half of 2014

1st Half of 2014 Package Boiler No. 2 NOx Analyzer Downtime Summary

Event	Start Date/Time	End Date/Time	Duration, Hrs.	Downtime Description	Corrective Action
1H14-PB2 NOx-001	2/28/14 6:30 AM	2/28/14 7:00 AM	1.0	Exceeded four times the CO span drift.	Replaced internal pump, calibrated analyzer and reran the validation.
1H14-PB2 NOx-002	3/3/14 11:50	3/3/14 13:50	2.0	Performed CGAs.	N/A.
1H14-PB2 NOx-003	3/5/14 8:30AM	3/5/14 8:49AM	1.0	Exceeded one time the NOx calibration drift.	Calibrated NOx span and reran the validation.
1H14-PB2 NOx-004	4/9/14 7AM	4/9/14 7:25AM	1.0	Exceeded one time the NOx calibration drift.	Calibrated span and reran the validation.
1H14-PB2 NOx-005	4/11/14 5:05 AM	4/11/14 8:20 AM	4.0	Failed NOx and CO validations due to faulted sample pump.	Replaced sample pump.
1H14-PB2 NOx-006	5/6/14 9:00AM	5/6/14 10:12AM	1.0	Conduct CGAs.	N/A.
1H14-PB2 NOx-007	5/13/14 8AM	5/13/14 9:20AM	1.0	Low AGC intensity alarm at the CO analyzer.	Replaced light source and recalibrated analyzer.
1H14-PB2 NOx-008	6/6/14 7:30AM	6/6/14 8:30AM	2.0	Exceeded one time the NOx calibration drift.	Calibrated NOx analyzer and ran the validation again.
1H14-PB2 NOx-009	6/20/14 7AM	6/20/14 7:20AM	1.0	Exceeded one time the NOx calibration drift.	Calibrated span and reran the validation.
		Total Hours of Downtime	14.0		
		Total Operating Hours for the Quarter	4,266		
		Period of Downtime, %	0.3%		

1st Half of 2014 Package Boiler No. 3 NOx Analyzer Summary Report

POLLUTANT NOx EMISSION POINT NUMBER: 50BF03

REPORTING PERIOD DATES From: 1/1/2014 To: 6/30/2014

COMPANY:	Valero Refining - Texas, L.P. 9701 Manchester Street Houston, Texas 77012
UNIT ID:	50BF03
PROCESS UNIT:	Package Boiler No. 3
EMISSIONS LIMITATION REQUIRED BY:	NSPS Subpart Db 40 CFR §60.44b(l)(1); 40 CFR §60.44(b)(i)
EMISSIONS LIMITATION:	0.2 lb/MMBtu on a 30-day rolling average
TYPE OF REQUIREMENT:	Standard
MONITORING REQUIREMENT:	40 CFR §60.48b(b)(1)
FREQUENCY:	30-day rolling average
REPORT REQUIRED BY:	40 CFR §60.7(d)
MONITOR MANUFACTURER & MODEL NO:	TECO 42C LOW SOURCE
DATE OF LAST CEMS CERTIFICATION OR AUDIT:	5/6/2014 CGA
PROCESS UNIT DESCRIPTION	Package Boiler
OPERATING HOURS IN PERIOD	4,253 hours

EMISSIONS DATA SUMMARY

1. Duration of Excess Emission (hours) in Reporting Period Due To:

	0.2 lb/MMBtu on a 30-day rolling average
a) Startup/Shutdown	0.0
b) Control Equipment Problems	0.0
c) Process Problems	0.0
d) Other Known Causes	0.0
e) Unknown Causes	0.0

2. Total Duration of Excess Emissions 0.0 hours

3. Percent Excess Emissions 0.0 %

CEMS PERFORMANCE SUMMARY

1. CEMS Downtime (hours) in Reporting Period Due To:

a) Monitor Equipment Malfunctions	0.0
b) Non-Monitor Equipment Malfunctions	0.0
c) Quality Assurance Calibrations	2.0
d) Other Known Causes	1.0
e) Unknown Causes	0.0

2. Total CEMS Downtime 3.0 hours

3. Percent Downtime 0.1 %

The following summary details the magnitude and duration of monitor downtime at the Package Boiler No. 3 NOx CEMS.
1st Half of 2014

1st Half of 2014 Package Boiler No. 3 NOx Analyzer Downtime Summary

Event	Start Date/Time	End Date/Time	Duration, Hrs.	Downtime Description	Corrective Action
1H14-PB3 NOx-001	3/3/14 1:50PM	3/3/14 3:10PM	1.0	Performed CGAs.	N/A.
1H14-PB3 NOx-002	3/20/14 7:30AM	3/20/14 7:50AM	1.0	Exceeded one time the NOx calibration drift.	Calibrated span and reran validation for NOx analyzer.
1H14-PB3 NOx-003	5/6/14 10:10AM	5/6/14 11:10AM	1.0	Conduct CGAs.	N/A.
Total Hours of Downtime			3.0		
Total Operating Hours for the Quarter			4,266		
Period of Downtime, %			0.1%		

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CEMS Analyzer Downtime
1st Quarter 2014

Analyzer	Downtime Start Date	Downtime End Date	Downtime Hours	Downtime Cause Description	Downtime Repairs/Adjustments
FCC CO	1/6/14 7:41AM	1/6/14 8:25AM	2.0	Change all bottles and filters.	All bottles and filters were changed.
FCC NOX	1/6/14 7:41AM	1/6/14 8:25AM	2.0	Change all bottles and filters.	All bottles and filters were changed.
FCC O2	1/6/14 7:41AM	1/6/14 8:25AM	2.0	Change all bottles and filters.	All bottles and filters were changed.
FCC SO2	1/6/14 7:41AM	1/6/14 8:25AM	2.0	Change all bottles and filters.	All bottles and filters were changed.
FCC Stack Flow Meter	1/6/14 7:41AM	1/6/14 8:25AM	2.0	Change all bottles and filters.	All bottles and filters were changed.
FCC CO	1/8/14 6:50AM	1/8/14 7:44AM	1.0	Exceeded two times the NOx calibration drift.	Replace solenoid and calibrate.
FCC NOX	1/8/14 6:50AM	1/8/14 7:44AM	1.0	Exceeded two times the NOx calibration drift.	Replace solenoid and calibrate.
FCC O2	1/8/14 6:50AM	1/8/14 7:44AM	1.0	Exceeded two times the NOx calibration drift.	Replace solenoid and calibrate.
FCC SO2	1/8/14 6:50AM	1/8/14 7:44AM	1.0	Exceeded two times the NOx calibration drift.	Replace solenoid and calibrate.
FCC Stack Flow Meter	1/8/14 6:50AM	1/8/14 7:44AM	1.0	Exceeded two times the NOx calibration drift.	Replace solenoid and calibrate.
Boiler No. 1 CO	1/14/14 7:07AM	1/14/14 8:04AM	1.0	Preventive maintenance.	Install two new parastolic pump and motors with tubing complete and calibrate.
Boiler No. 1 NOx	1/14/14 7:07AM	1/14/14 8:04AM	1.0	Preventive maintenance.	Install two new parastolic pump and motors with tubing complete and calibrate.
Boiler No. 1 O2	1/14/14 7:07AM	1/14/14 8:04AM	1.0	Preventive maintenance.	Install two new parastolic pump and motors with tubing complete and calibrate.
FCC Stack Flow Meter	1/17/14 6:35AM	1/17/14 6:45AM	1.0	Exceeded two times the calibration drift.	Re-calibrate.
SRU B O2	1/24/14 6:35AM	1/24/14 7AM	1.0	Exceeded two times the SO2 calibration drift.	Calibrated SO2 analyzer and reran the validation
SRU B SO2	1/24/14 6:35AM	1/24/14 7AM	1.0	Exceeded two times the SO2 calibration drift.	Calibrated SO2 analyzer and reran the validation
FCC CO	1/25/14 9:30AM	1/25/14 10AM	1.0	Exceeded one time the CEMS calibration drifts and two times the zero span for the flow meter.	Re-calibrate.
FCC NOX	1/25/14 9:30AM	1/25/14 10AM	1.0	Exceeded one time the CEMS calibration drifts and two times the zero span for the flow meter.	Re-calibrate.
FCC O2	1/25/14 9:30AM	1/25/14 10AM	1.0	Exceeded one time the CEMS calibration drifts and two times the zero span for the flow meter.	Re-calibrate.

CEMS Analyzer Downtime
1st Quarter 2014

Analyzer	Downtime Start Date	Downtime End Date	Downtime Hours	Downtime Cause Description	Downtime Repairs/Adjustments
FCC SO2	1/25/14 9:30AM	1/25/14 10AM	1.0	Exceeded one time the CEMS calibration drifts and two times the zero span for the flow meter.	Re-calibrate.
FCC Stack Flow Meter	1/25/14 9:30AM	1/25/14 10AM	1.0	Exceeded one time the CEMS calibration drifts and two times the zero span for the flow meter.	Re-calibrate.
SRU C O2	1/26/14 11AM	1/26/14 11:14AM	1.0	Exceed one time the SO2 calibration drift.	Re-calibrate.
SRU C SO2	1/26/14 11AM	1/26/14 11:14AM	1.0	Exceed one time the SO2 calibration drift.	Re-calibrate.
FCC CO	1/27/14 7:29AM	1/27/14 8:00AM	1.0	Exceed one time the O2 calibration drift.	Re-calibrate.
FCC NOX	1/27/14 7:29AM	1/27/14 8:00AM	1.0	Exceed one time the O2 calibration drift.	Re-calibrate.
FCC O2	1/27/14 7:29AM	1/27/14 8:00AM	1.0	Exceed one time the O2 calibration drift.	Re-calibrate.
FCC SO2	1/27/14 7:29AM	1/27/14 8:00AM	1.0	Exceed one time the O2 calibration drift.	Re-calibrate.
FCC CO	1/30/14 7:17AM	1/30/14 7:56AM	1.0	Exceeded one time the O2 calibration drift.	Re-calibrate.
FCC NOX	1/30/14 7:17AM	1/30/14 7:56AM	1.0	Exceeded one time the O2 calibration drift.	Re-calibrate.
FCC O2	1/30/14 7:17AM	1/30/14 7:56AM	1.0	Exceeded one time the O2 calibration drift.	Re-calibrate.
FCC SO2	1/30/14 7:17AM	1/30/14 7:56AM	1.0	Exceeded one time the O2 calibration drift.	Re-calibrate.
FCC Stack Flow Meter	1/30/14 7:17AM	1/30/14 7:56AM	1.0	Exceeded one time the O2 calibration drift.	Re-calibrate.
FCC CO	1/31/14 7:25AM	1/31/14 8:50AM	2.0	Losing pressure and flow.	Change stack lid and filter.
FCC NOX	1/31/14 7:25AM	1/31/14 8:50AM	2.0	Losing pressure and flow.	Change stack lid and filter.
FCC O2	1/31/14 7:25AM	1/31/14 8:50AM	2.0	Losing pressure and flow.	Change stack lid and filter.
FCC SO2	1/31/14 7:25AM	1/31/14 8:50AM	2.0	Losing pressure and flow.	Change stack lid and filter.
FCC Stack Flow Meter	1/31/14 7:25AM	1/31/14 8:50AM	2.0	Losing pressure and flow.	Change stack lid and filter.
FCC CO	2/6/14 7:18AM	2/6/14 8:25AM	2.0	O2 drifting.	Replace sensor and calibrate.
FCC NOX	2/6/14 7:18AM	2/6/14 8:25AM	2.0	O2 drifting.	Replace sensor and calibrate.
FCC O2	2/6/14 7:18AM	2/6/14 8:25AM	2.0	O2 drifting.	Replace sensor and calibrate.
FCC SO2	2/6/14 7:18AM	2/6/14 8:25AM	2.0	O2 drifting.	Replace sensor and calibrate.
FCC Stack Flow Meter	2/6/14 7:18AM	2/6/14 8:25AM	2.0	O2 drifting.	Replace sensor and calibrate.
SRU B O2	2/7/14 7:30AM	2/7/14 8AM	1.0	Needed to calibrate O2.	Calibrated analyzer.
SRU B SO2	2/7/14 7:30AM	2/7/14 8AM	1.0	Needed to calibrate O2.	Calibrated analyzer.
FCC CO	2/12/14 8:27AM	2/12/14 9:30AM	2.0	Change filters and replace flow sensor (O2 CEMS).	Change filters and replace flow sensor and calibrate.

CEMS Analyzer Downtime
1st Quarter 2014

Analyzer	Downtime Start Date	Downtime End Date	Downtime Hours	Downtime Cause Description	Downtime Repairs/Adjustments
FCC NOX	2/12/14 8:27AM	2/12/14 9:30AM	2.0	Change filters and replace flow sensor (O2 CEMS).	Change filters and replace flow sensor and calibrate.
FCC O2	2/12/14 8:27AM	2/12/14 9:30AM	2.0	Change filters and replace flow sensor (O2	Change filters and replace flow sensor and calibrate.
FCC SO2	2/12/14 8:27AM	2/12/14 9:30AM	2.0	Change filters and replace flow sensor (O2	Change filters and replace flow sensor and calibrate.
FCC Stack Flow Meter	2/12/14 8:27AM	2/12/14 9:30AM	2.0	Change filters and replace flow sensor (O2 CEMS).	Change filters and replace flow sensor and calibrate.
Boiler No. 2 CO	2/27/14 6:15 AM	2/28/14 7:00 AM	25.0	Exceeded four times the CO span drift.	Replaced internal pump, calibrated analyzer and reran the validation.
Boiler No. 2 NOx	2/28/14 6:30 AM	2/28/14 7:00 AM	1.0	Exceeded four times the CO span drift.	Replaced internal pump, calibrated analyzer and reran the validation.
Boiler No. 2 O2	2/28/14 6:30 AM	2/28/14 7:00 AM	1.0	Exceeded four times the CO span drift.	Replaced internal pump, calibrated analyzer and reran the validation.
Boiler No. 1 CO	3/3/14 10AM	3/3/14 11:25AM	2.0	Performed CGAs.	N/A.
Boiler No. 1 NOx	3/3/14 10AM	3/3/14 11:25AM	2.0	Performed CGAs.	N/A.
Boiler No. 1 O2	3/3/14 10AM	3/3/14 11:25AM	2.0	Performed CGAs.	N/A.
Boiler No. 2 CO	3/3/14 11:50	3/3/14 13:50	2.0	Performed CGAs.	N/A.
Boiler No. 2 NOx	3/3/14 11:50	3/3/14 13:50	2.0	Performed CGAs.	N/A.
Boiler No. 2 O2	3/3/14 11:50	3/3/14 13:50	2.0	Performed CGAs.	N/A.
Boiler No. 3 CO	3/3/14 13:50	3/3/14 3:10PM	1.0	Performed CGAs.	N/A.
Boiler No. 3 NOx	3/3/14 1:50PM	3/3/14 3:10PM	1.0	Performed CGAs.	N/A.
Boiler No. 3 O2	3/3/14 13:50	3/3/14 3:10PM	1.0	Performed CGAs.	N/A.
SRU B O2	3/4/14 07:10	3/4/14 07:40	1.0	Checked and verify SO2 analyzer.	Analyzer OK.
SRU B SO2	3/4/14 07:10	3/4/14 07:40	1.0	Checked and verify SO2 analyzer.	Analyzer OK.
Atm. Htr. CO	3/4/14 10AM	3/4/14 3PM	5.0	Performed CGAs.	N/A
Atm. Htr. NOx	3/4/14 10AM	3/4/14 3PM	5.0	Performed CGAs.	N/A
Atm. Htr. O2	3/4/14 10AM	3/4/14 3PM	5.0	Performed CGAs.	N/A
Boiler No. 2 CO	3/5/14 8:30AM	3/5/14 8:49AM	1.0	Exceeded one time the NOx calibration drift.	Calibrated NOx span and reran the validation.
Boiler No. 2 NOx	3/5/14 8:30AM	3/5/14 8:49AM	1.0	Exceeded one time the NOx calibration drift.	Calibrated NOx span and reran the validation.
Boiler No. 2 O2	3/5/14 8:30AM	3/5/14 8:49AM	1.0	Exceeded one time the NOx calibration drift.	Calibrated NOx span and reran the validation.
FCC CO	3/7/14 8:30AM	3/7/14 12:00PM	4.0	Performed CGAs.	N/A
FCC NOX	3/7/14 8:30AM	3/7/14 12:00PM	4.0	Performed CGAs.	N/A
FCC O2	3/7/14 8:30AM	3/7/14 12:00PM	4.0	Performed CGAs.	N/A
FCC SO2	3/7/14 8:30AM	3/7/14 12:00PM	4.0	Performed CGAs.	N/A
SRU C O2	3/14/14 09:00	3/14/14 10:00	1.0	Compound problems with O2 analyzer cell heating system.	Replaced sensor board & RTD.Cleaned & replaced O2 cell.
SRU C SO2	3/14/14 09:00	3/14/14 10:00	1.0	Compound problems with O2 analyzer cell heating system.	Replaced sensor board & RTD.Cleaned & replaced O2 cell.
SRU C O2	3/14/14 1:00 PM	3/14/14 3:00 PM	2.0	Compound problems with O2 analyzer cell heating system.	Replaced sensor board & RTD.Cleaned & replaced O2 cell.
SRU C SO2	3/14/14 1:00 PM	3/14/14 3:00 PM	2.0	Compound problems with O2 analyzer cell heating system.	Replaced sensor board & RTD.Cleaned & replaced O2 cell.

CEMS Analyzer Downtime
1st Quarter 2014

Analyzer	Downtime Start Date	Downtime End Date	Downtime Hours	Downtime Cause Description	Downtime Repairs/Adjustments
SRU C O2	3/15/14 10:00AM	3/15/14 12:00	2.0	Fault over temp/2x O2.	Replace power supply and calibrate.
SRU C SO2	3/15/14 6:00AM	3/15/14 12:00	6.0	Fault over temp/2x O2.	Replace power supply and calibrate.
FCC CO	3/17/14 7:45AM	3/17/14 8:45AM	2.00	Change filters.	Calibrate.
FCC NOX	3/17/14 7:45AM	3/17/14 8:45AM	2.00	Change filters.	Calibrate.
FCC O2	3/17/14 7:45AM	3/17/14 8:45AM	2.00	Change filters.	Calibrate.
FCC SO2	3/17/14 7:45AM	3/17/14 8:45AM	2.00	Change filters.	Calibrate.
FCC Stack Flow Meter	3/17/14 7:45AM	3/17/14 8:45AM	2.00	Change filters.	Calibrate.
Boiler No. 3 CO	3/20/14 7:30AM	3/20/14 7:50AM	1.00	Exceeded one time the NOx calibration drift.	Calibrated span and reran validation for NOx analyzer.
Boiler No. 3 NOx	3/20/14 7:30AM	3/20/14 7:50AM	1.00	Exceeded one time the NOx calibration drift.	Calibrated span and reran validation for NOx analyzer.
Boiler No. 3 O2	3/20/14 7:30AM	3/20/14 7:50AM	1.00	Exceeded one time the NOx calibration drift.	Calibrated span and reran validation for NOx analyzer.
Boiler No. 1 CO	3/25/14 6:45AM	3/25/14 10:00AM	4.00	Exceeded two times the NOx calibration drift.	Install new internal NOx pump, change stack filter,cl5 filters, switched to new sample line calibrated, installed new solenoid sample drawer.
Boiler No. 1 NOx	3/25/14 6:45AM	3/25/14 10:00AM	4.00	Exceeded two times the NOx calibration drift.	Install new internal NOx pump, change stack filter,cl5 filters, switched to new sample line calibrated, installed new solenoid sample drawer.
Boiler No. 1 O2	3/25/14 6:45AM	3/25/14 10:00AM	4.00	Exceeded two times the NOx calibration drift.	Install new internal NOx pump, change stack filter,cl5 filters, switched to new sample line calibrated, installed new solenoid sample drawer.
Boiler No. 1 CO	3/26/14 6:40AM	3/26/14 7:10AM	1.00	Exceeded two times the NOx calibration drift.	Re-calibrate.
Boiler No. 1 NOx	3/26/14 6:40AM	3/26/14 7:10AM	1.00	Exceeded two times the NOx calibration drift.	Re-calibrate.
Boiler No. 1 O2	3/26/14 6:40AM	3/26/14 7:10AM	1.00	Exceeded two times the NOx calibration drift.	Re-calibrate.
Boiler No. 1 CO	3/27/14 7:05AM	3/27/14 7:20AM	1.00	Exceeded one time the NOx calibration drift.	Re-calibrate.
Boiler No. 1 NOx	3/27/14 7:05AM	3/27/14 7:20AM	1.00	Exceeded one time the NOx calibration drift.	Re-calibrate.
Boiler No. 1 O2	3/27/14 7:05AM	3/27/14 7:20AM	1.00	Exceeded one time the NOx calibration drift.	Re-calibrate.
Fuel Gas H2S	2/20/14 1:00 PM	2/20/14 3:00 PM	2.00	Conduct quarterly CGAs.	N/A.

CEMS Analyzer Downtime
2nd Quarter 2014

Analyzer	Downtime Start Date	Downtime End Date	Downtime Hours	Downtime Cause Description	Downtime Repairs/Adjustments
FCC Stack Flow Meter	4/7/14 9:56AM	4/7/14 10:30AM	1.0	Check and test.	Working; no action needed.
Boiler No. 2 CO	4/9/14 7AM	4/9/14 7:25AM	1.0	Exceeded one time the NOx calibration drift.	Calibrated span and reran the validation.
Boiler No. 2 NOx	4/9/14 7AM	4/9/14 7:25AM	1.0	Exceeded one time the NOx calibration drift.	Calibrated span and reran the validation.
Boiler No. 2 O2	4/9/14 7AM	4/9/14 7:25AM	1.0	Exceeded one time the NOx calibration drift.	Calibrated span and reran the validation.
FCC Stack Flow Meter	4/10/14 1:55AM	4/10/14 2:05 AM	1.0	Exceeded two times the calibration drift.	Re-calibrate.
Boiler No. 2 CO	4/11/14 5:05 AM	4/11/14 8:20 AM	4.0	Failed NOx and CO validations due to faulted sample pump.	Replaced sample pump.
Boiler No. 2 NOx	4/11/14 5:05 AM	4/11/14 8:20 AM	4.0	Failed NOx and CO validations due to faulted sample pump.	Replaced sample pump.
Boiler No. 2 O2	4/11/14 5:05 AM	4/11/14 8:20 AM	4.0	Failed NOx and CO validations due to faulted sample pump.	Replaced sample pump.
FCC CO	4/16/14 7:00AM	4/16/14 8:00AM	25.0	Exceeded four times the CO calibration drift.	Replace diaphragm main sample pump.
FCC NOX	4/16/14 7:00AM	4/16/14 8:00AM	1.0	Exceeded four times the CO calibration drift.	Replace diaphragm main sample pump.
FCC O2	4/16/14 7:00AM	4/16/14 8:00AM	1.0	Exceeded four times the CO calibration drift.	Replace diaphragm main sample pump.
FCC SO2	4/16/14 7:00AM	4/16/14 8:00AM	1.0	Exceeded four times the CO calibration drift.	Replace diaphragm main sample pump.
FCC Stack Flow Meter	4/16/14 7:00AM	4/16/14 8:00AM	1.0	Exceeded four times the CO calibration drift.	Replace diaphragm main sample pump.
FCC Stack Flow Meter	4/23/14 7:05AM	4/23/14 7:17AM	1.0	Exceeded two times the calibration drift.	Re-calibrate.
SRU C O2	4/27/14 7:05AM	4/27/14 7:30AM	1.0	Exceeded two times the SO2 calibration drift.	Re-calibrate.
SRU C SO2	4/27/14 7:05AM	4/27/14 7:30AM	1.0	Exceeded two times the SO2 calibration drift.	Re-calibrate.
Boiler No. 1 CO	5/5/14 7:55AM	5/5/14 8:14AM	1.0	Exceeded two times the O2 calibration drift and conduct CGAs	Re-calibrate and conduct the CGAs.
Boiler No. 1 NOx	5/5/14 7:55AM	5/5/14 8:14AM	1.0	Exceeded two times the O2 calibration drift and conduct CGAs	Re-calibrate and conduct the CGAs.
Boiler No. 1 O2	5/5/14 7:55AM	5/5/14 8:14AM	1.0	Exceeded two times the O2 calibration drift and conduct CGAs	Re-calibrate and conduct the CGAs.
Boiler No. 1 CO	5/5/14 12:01AM	5/5/14 1:30AM	2.0	Exceeded two times the O2 calibration drift and conduct CGAs	Re-calibrate and conduct the CGAs.
Boiler No. 1 NOx	5/5/14 12:01PM	5/5/14 1:30PM	2.0	Exceeded two times the O2 calibration drift and conduct CGAs	Re-calibrate and conduct the CGAs.
Boiler No. 1 O2	5/5/14 12:01AM	5/5/14 1:30AM	2.0	Exceeded two times the O2 calibration drift and conduct CGAs	Re-calibrate and conduct the CGAs.
Boiler No. 2 CO	5/6/14 9:00AM	5/6/14 10:12AM	1.0	Conduct CGAs.	N/A.
Boiler No. 2 NOx	5/6/14 9:00AM	5/6/14 10:12AM	1.0	Conduct CGAs.	N/A.
Boiler No. 2 O2	5/6/14 9:00AM	5/6/14 10:12AM	1.0	Conduct CGAs.	N/A.
Boiler No. 3 CO	5/6/14 10:10AM	5/6/14 11:10AM	1.0	Conduct CGAs.	N/A.
Boiler No. 3 NOx	5/6/14 10:10AM	5/6/14 11:10AM	1.0	Conduct CGAs.	N/A.
Boiler No. 3 O2	5/6/14 10:10AM	5/6/14 11:10AM	1.0	Conduct CGAs.	N/A.

CEMS Analyzer Downtime
2nd Quarter 2014

Analyzer	Downtime Start Date	Downtime End Date	Downtime Hours	Downtime Cause Description	Downtime Repairs/Adjustments
Fuel Gas H2S	5/7/14 8:00 AM	5/7/14 9:00 AM	1.0	Conduct CGAs.	N/A.
Atm. Htr. CO	5/7/14 10:30 AM	5/7/14 1:30 AM	4.0	Conduct CGAs.	N/A.
Atm. Htr. NOx	5/7/14 10:30 AM	5/7/14 1:30 AM	4.0	Conduct CGAs.	N/A.
Atm. Htr. O2	5/7/14 10:30 AM	5/7/14 1:30 AM	4.0	Conduct CGAs.	N/A.
FCC CO	5/8/14 10:30AM	5/8/14 12:14AM	3.0	Conduct CGAs.	N/A.
FCC NOX	5/8/14 10:30AM	5/8/14 12:14AM	3.0	Conduct CGAs.	N/A.
FCC O2	5/8/14 10:30AM	5/8/14 12:14AM	3.0	Conduct CGAs.	N/A.
FCC SO2	5/8/14 10:30AM	5/8/14 12:14AM	3.0	Conduct CGAs.	N/A.
SRU C O2	5/8/14 7:30AM	5/8/14 9:30AM	3.0	Conduct CGAs.	N/A.
SRU C SO2	5/8/14 7:30AM	5/8/14 9:30AM	3.0	Conduct CGAs.	N/A.
SRU C O2	5/12/14 1:00 PM	5/12/14 2:00 PM	2.0	Checked SO2 calibration at Operations request.	No action taken.
SRU C SO2	5/12/14 1:00 PM	5/12/14 2:00 PM	2.0	Checked SO2 calibration at Operations request.	No action taken.
Boiler No. 2 CO	5/13/14 8AM	5/13/14 9;20AM	1.0	Low AGC intensity alarm at the CO analyzer.	Replaced light source and recalibrated analyzer.
Boiler No. 2 NOx	5/13/14 8AM	5/13/14 9:20AM	1.0	Low AGC intensity alarm at the CO analyzer.	Replaced light source and recalibrated analyzer.
Boiler No. 2 O2	5/13/14 8AM	5/13/14 9;20AM	1.0	Low AGC intensity alarm at the CO analyzer.	Replaced light source and recalibrated analyzer.
SRU B O2	5/21/14 7:38 AM	5/21/14 8:05 AM	1.0	Needed to calibrate O2.	Calibrated O2.
SRU B SO2	5/21/14 7:38 AM	5/21/14 8:05 AM	1.0	Needed to calibrate O2.	Calibrated O2.
Boiler No. 1 CO	5/21/14 10:00AM	5/21/14 10:26AM	1.0	Replace chiller and calibrate.	Replace chiller.
Boiler No. 1 NOx	5/21/14 10:00AM	5/21/14 10:26AM	1.0	Replace chiller and calibrate.	Replace chiller.
Boiler No. 1 O2	5/21/14 10:00AM	5/21/14 10:26AM	1.0	Replace chiller and calibrate.	Replace chiller.
SRU B O2	6/1/14 6:45AM	6/1/14 7:45AM	2.0	Low O2 analyzer flow.	Cleaned analyzer sensor assembly, calibrated and reran the validation.
SRU B SO2	6/1/14 6:45AM	6/1/14 7:45AM	2.0	Low O2 analyzer flow.	Cleaned analyzer sensor assembly, calibrated and reran the validation.
FCC CO	6/4/14 7:00AM	6/4/14 7:35AM	1.0	Exceeded four times the NOx calibration drift.	Re-calibrate.
FCC NOX	6/4/14 7:00AM	6/4/14 7:35AM	25.0	Exceeded four times the NOx calibration drift.	Re-calibrate.
FCC O2	6/4/14 7:00AM	6/4/14 7:35AM	1.0	Exceeded four times the NOx calibration drift.	Re-calibrate.
FCC SO2	6/4/14 7:00AM	6/4/14 7:35AM	1.0	Exceeded four times the NOx calibration drift.	Re-calibrate.
FCC CO	6/4/14 12:28AM	6/4/14 3:20AM	4.0	Install new pump and both capillaries.	N/A.
FCC NOX	6/4/14 12:28AM	6/4/14 3:20AM	4.0	Install new pump and both capillaries.	N/A.
FCC O2	6/4/14 12:28AM	6/4/14 3:20AM	4.0	Install new pump and both capillaries.	N/A.
FCC SO2	6/4/14 12:28AM	6/4/14 3:20AM	4.0	Install new pump and both capillaries.	N/A.

CEMS Analyzer Downtime
2nd Quarter 2014

Analyzer	Downtime Start Date	Downtime End Date	Downtime Hours	Downtime Cause Description	Downtime Repairs/Adjustments
SRU B O2	6/5/14 9:15AM	6/5/14 10:55AM	2.0	Performed quarterly CGA.	N/A.
SRU B SO2	6/5/14 9:15AM	6/5/14 10:55AM	2.0	Performed quarterly CGA.	N/A.
Boiler No. 2 CO	6/6/14 7:30AM	6/6/14 8:30AM	2.0	Exceeded one time the NOx calibration drift.	Calibrated NOx analyzer and ran the validation again.
Boiler No. 2 NOx	6/6/14 7:30AM	6/6/14 8:30AM	2.0	Exceeded one time the NOx calibration drift.	Calibrated NOx analyzer and ran the validation again.
Boiler No. 2 O2	6/6/14 7:30AM	6/6/14 8:30AM	2.0	Exceeded one time the NOx calibration drift.	Calibrated NOx analyzer and ran the validation again.
SRU C O2	6/7/14 6:40AM	6/7/14 8:20AM	3.0	Exceeded two times the SO2 calibration drift.	Install new process/cal solenoid in flow drawer.
SRU C SO2	6/7/14 6:40AM	6/7/14 8:20AM	3.0	Exceeded two times the SO2 calibration drift.	Install new process/cal solenoid in flow drawer.
FCC Stack Flow Meter	6/11/14 6:45AM	6/11/14 7:59AM	2.0	Exceeded one time the calibration drift.	Re-calibrate.
FCC CO	6/12/14 7:35AM	6/12/14 8:19AM	2.0	Exceeded two times the NOx calibration drift.	Re-calibrate.
FCC NOX	6/12/14 7:35AM	6/12/14 8:19AM	2.0	Exceeded two times the NOx calibration drift.	Re-calibrate.
FCC O2	6/12/14 7:35AM	6/12/14 8:19AM	2.0	Exceeded two times the NOx calibration drift.	Re-calibrate.
FCC SO2	6/12/14 7:35AM	6/12/14 8:19AM	2.0	Exceeded two times the NOx calibration drift.	Re-calibrate.
Boiler No. 2 CO	6/20/14 7AM	6/20/14 7:20AM	1.0	Exceeded one time the NOx calibration drift.	Calibrated span and reran the validation.
Boiler No. 2 NOx	6/20/14 7AM	6/20/14 7:20AM	1.0	Exceeded one time the NOx calibration drift.	Calibrated span and reran the validation.
Boiler No. 2 O2	6/20/14 7AM	6/20/14 7:20AM	1.0	Exceeded one time the NOx calibration drift.	Calibrated span and reran the validation.
SRU B O2	6/23/14 7:45AM	6/23/14 8:05AM	1.0	Empty SO2 cal gas bottle.	Hanged out empty cal gas bottle, calibrated SO2 analyzer, re-ran the validation.
SRU B SO2	6/23/14 7:45AM	6/23/14 8:05AM	1.0	Empty SO2 cal gas bottle.	Hanged out empty cal gas bottle, calibrated SO2 analyzer, re-ran the validation.
SRU B O2	6/24/14 5:00PM	6/24/14 10:30PM	6.0	O2 analyzer failure caused high SO2 average readings on corrected value.	reprogrammed o2 analyzer, it failed due to a power failure during lightning storm. calibrated and ran a validation
SRU B SO2	6/24/14 5PM	6/24/14 10:30PM	6.0	O2 analyzer failure caused high SO2 average readings on corrected value.	Repaired O2 analyzer.
SRU B O2	6/25/14 7:00AM	6/25/14 9:00AM	2.0	Exceeded one time the O2 span drift.	Calibrated O2 analyzer and reran validation.
SRU B SO2	6/25/14 7AM	6/25/14 9AM	2.0	Exceeded one time the O2 span drift.	Calibrated O2 analyzer and reran validation.
FCC CO	6/28/14 7:30 AM	6/28/14 2:30 AM	8.00	A/C Unit out.	Temporary Unit put in. Analyzer Re-Calibrated.
FCC NOX	6/28/14 7:30 AM	6/28/14 2:30 AM	8.00	A/C Unit out.	Temporary Unit put in. Analyzer Re-Calibrated.
FCC O2	6/28/14 7:30 AM	6/28/14 2:30 AM	8.00	A/C Unit out.	Temporary Unit put in. Analyzer Re-Calibrated.
FCC SO2	6/28/14 7:30 AM	6/28/14 2:30 AM	8.00	A/C Unit out.	Temporary Unit put in. Analyzer Re-Calibrated.
FCC Stack Flow Meter	6/28/14 7:30 AM	6/28/14 2:30 AM	8.00	A/C Unit out.	Temporary Unit put in. Analyzer Re-Calibrated.

1st Half of 2014 FCCU Flow Meter Summary Report

POLLUTANT N/A (Flow Meter) **EMISSION POINT NUMBER:** 42CB2201

REPORTING PERIOD DATES **From:** 1/1/2014 **To:** 6/30/2014

COMPANY:	Valero Refining - Texas, L.P. 9701 Manchester Street Houston, Texas 77012
UNIT ID:	42CB2201
PROCESS UNIT:	Fluidized Catalytic Cracking Unit
EMISSIONS LIMITATION REQUIRED BY:	N/A
EMISSIONS LIMITATION:	N/A
TYPE OF REQUIREMENT:	Standard
MONITORING REQUIREMENT:	30 TAC §117.340(c)(1)(H)
FREQUENCY:	N/A
REPORT REQUIRED BY:	NSPS Performance Specification 6
MONITOR MANUFACTURER & MODEL NO:	EMRC, DP-75 Mark 2
DATE OF LAST CEMS CERTIFICATION OR AUDIT:	6/3/2014 RATA
PROCESS UNIT DESCRIPTION	Fluidized Catalytic Cracking Unit Wet Gas Scrubber
OPERATING HOURS IN PERIOD	4,343 hours

EMISSIONS DATA SUMMARY

There are no emission limitations for the flow meter.

CEMS PERFORMANCE SUMMARY

1. CEMS Downtime (hours) in Reporting Period Due To:

a) Monitor Equipment Malfunctions	0.0	
b) Non-Monitor Equipment Malfunctions	4.0	
c) Quality Assurance Calibrations	0.0	
d) Other Known Causes	24.0	
e) Unknown Causes	0.0	
2. Total CEMS Downtime	28.0	hours
3. Percent Downtime	0.6	%

The following summary details the magnitude and duration of monitor downtime at the FCCU Flue Gas Flow Meter.
1st Semiannual Period of 2014

1st Half of 2014 FCCU Flue Gas Flow Meter Downtime Summary

Event	Start Date/Time	End Date/Time	Duration, Hrs.	Downtime Description	Corrective Action
1H14-FCC FLOW-001	1/6/14 7:41AM	1/6/14 8:25AM	2.0	Change all bottles and filters.	All bottles and filters were changed.
1H14-FCC FLOW-002	1/8/14 6:50AM	1/8/14 7:44AM	1.0	Exceeded two times the NOx calibration drift.	Replace solenoid and calibrate.
1H14-FCC FLOW-003	1/17/14 6:35AM	1/17/14 6:45AM	1.0	Exceeded two times the calibration drift.	Re-calibrate.
1H14-FCC FLOW-004	1/25/14 9:30AM	1/25/14 10AM	1.0	Exceeded one time the CEMS calibration drifts and two times the	Re-calibrate.
1H14-FCC FLOW-005	1/30/14 7:17AM	1/30/14 7:56AM	1.0	Exceeded one time the O2 calibration drift.	Re-calibrate.
1H14-FCC FLOW-006	1/31/14 7:25AM	1/31/14 8:50AM	2.0	Losing pressure and flow.	Change stack lid and filter.
1H14-FCC FLOW-007	2/6/14 7:18AM	2/6/14 8:25AM	2.0	O2 drifting.	Replace sensor and calibrate.
1H14-FCC FLOW-008	2/12/14 8:27AM	2/12/14 9:30AM	2.0	Change filters and replace flow sensor (O2 CEMS).	Change filters and replace flow sensor and calibrate.
1H14-FCC FLOW-009	3/17/14 7:45AM	3/17/14 8:45AM	2.0	Change filters.	Calibrate.
1H14-FCC FLOW-010	4/7/14 9:56AM	4/7/14 10:30AM	1.0	Check and test.	Working; no action needed.
1H14-FCC FLOW-011	4/10/14 1:55AM	4/10/14 2:05 AM	1.0	Exceeded two times the calibration drift.	Re-calibrate.
1H14-FCC FLOW-012	4/16/14 7:00AM	4/16/14 8:00AM	1.0	Exceeded four times the CO calibration drift.	Replace diaphragm main sample pump.
1H14-FCC FLOW-013	4/23/14 7:05AM	4/23/14 7:17AM	1.0	Exceeded two times the calibration drift.	Re-calibrate.
1H14-FCC FLOW-014	6/11/14 6:45AM	6/11/14 7:59AM	2.0	Exceeded one time the calibration drift.	Re-calibrate.
1H14-FCC FLOW-015	6/28/14 7:30 AM	6/28/14 2:30 AM	8.0	A/C Unit out.	Temporary Unit put in. Analyzer Re-Calibrated.
		Total Hours of Downtime	28.0		
		Total Operating Hours for the Quarter	4,343		
		Period of Exceedences, %	0.6%		

Appendix C
Boiler NSPS Db Reports

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
1/1/2014 0:00	0.0070	0.0071	1/1/2014 0:00	0.0092	0.0093	1/1/2014 0:00	0.0092	0.0081
1/1/2014 1:00	0.0070	--	1/1/2014 1:00	0.0092	--	1/1/2014 1:00	0.0092	--
1/1/2014 2:00	0.0070	--	1/1/2014 2:00	0.0092	--	1/1/2014 2:00	0.0092	--
1/1/2014 3:00	0.0070	--	1/1/2014 3:00	0.0092	--	1/1/2014 3:00	0.0092	--
1/1/2014 4:00	0.0069	--	1/1/2014 4:00	0.0092	--	1/1/2014 4:00	0.0092	--
1/1/2014 5:00	0.0068	--	1/1/2014 5:00	0.0092	--	1/1/2014 5:00	0.0092	--
1/1/2014 6:00	0.0074	--	1/1/2014 6:00	0.0103	--	1/1/2014 6:00	0.0103	--
1/1/2014 7:00	DOWNTIME	--	1/1/2014 7:00	0.0094	--	1/1/2014 7:00	0.0094	--
1/1/2014 8:00	0.0070	--	1/1/2014 8:00	0.0093	--	1/1/2014 8:00	0.0093	--
1/1/2014 9:00	0.0071	--	1/1/2014 9:00	0.0092	--	1/1/2014 9:00	0.0092	--
1/1/2014 10:00	0.0071	--	1/1/2014 10:00	0.0092	--	1/1/2014 10:00	0.0092	--
1/1/2014 11:00	0.0071	--	1/1/2014 11:00	0.0092	--	1/1/2014 11:00	0.0092	--
1/1/2014 12:00	0.0071	--	1/1/2014 12:00	0.0093	--	1/1/2014 12:00	0.0093	--
1/1/2014 13:00	0.0070	--	1/1/2014 13:00	0.0092	--	1/1/2014 13:00	0.0092	--
1/1/2014 14:00	0.0070	--	1/1/2014 14:00	0.0092	--	1/1/2014 14:00	0.0092	--
1/1/2014 15:00	0.0070	--	1/1/2014 15:00	0.0091	--	1/1/2014 15:00	0.0091	--
1/1/2014 16:00	0.0070	--	1/1/2014 16:00	0.0092	--	1/1/2014 16:00	0.0092	--
1/1/2014 17:00	0.0070	--	1/1/2014 17:00	0.0092	--	1/1/2014 17:00	0.0092	--
1/1/2014 18:00	0.0070	--	1/1/2014 18:00	0.0092	--	1/1/2014 18:00	0.0092	--
1/1/2014 19:00	0.0070	--	1/1/2014 19:00	0.0092	--	1/1/2014 19:00	0.0092	--
1/1/2014 20:00	0.0070	--	1/1/2014 20:00	0.0093	--	1/1/2014 20:00	0.0093	--
1/1/2014 21:00	0.0071	--	1/1/2014 21:00	0.0093	--	1/1/2014 21:00	0.0093	--
1/1/2014 22:00	0.0071	--	1/1/2014 22:00	0.0092	--	1/1/2014 22:00	0.0092	--
1/1/2014 23:00	0.0072	--	1/1/2014 23:00	0.0094	--	1/1/2014 23:00	0.0094	--
1/2/2014 0:00	0.0071	0.0071	1/2/2014 0:00	0.0092	0.0093	1/2/2014 0:00	0.0092	0.0081
1/2/2014 1:00	0.0070	--	1/2/2014 1:00	0.0091	--	1/2/2014 1:00	0.0091	--
1/2/2014 2:00	0.0070	--	1/2/2014 2:00	0.0093	--	1/2/2014 2:00	0.0093	--
1/2/2014 3:00	0.0070	--	1/2/2014 3:00	0.0093	--	1/2/2014 3:00	0.0093	--
1/2/2014 4:00	0.0072	--	1/2/2014 4:00	0.0094	--	1/2/2014 4:00	0.0094	--
1/2/2014 5:00	0.0073	--	1/2/2014 5:00	0.0096	--	1/2/2014 5:00	0.0096	--
1/2/2014 6:00	0.0079	--	1/2/2014 6:00	0.0087	--	1/2/2014 6:00	0.0087	--
1/2/2014 7:00	0.0073	--	1/2/2014 7:00	0.0093	--	1/2/2014 7:00	0.0093	--
1/2/2014 8:00	0.0072	--	1/2/2014 8:00	0.0094	--	1/2/2014 8:00	0.0094	--
1/2/2014 9:00	0.0073	--	1/2/2014 9:00	0.0098	--	1/2/2014 9:00	0.0098	--
1/2/2014 10:00	0.0072	--	1/2/2014 10:00	0.0095	--	1/2/2014 10:00	0.0095	--
1/2/2014 11:00	0.0072	--	1/2/2014 11:00	0.0094	--	1/2/2014 11:00	0.0094	--
1/2/2014 12:00	0.0071	--	1/2/2014 12:00	0.0094	--	1/2/2014 12:00	0.0094	--
1/2/2014 13:00	0.0071	--	1/2/2014 13:00	0.0094	--	1/2/2014 13:00	0.0094	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
1/2/2014 14:00	0.0072	--	1/2/2014 14:00	0.0094	--	1/2/2014 14:00	0.0094	--
1/2/2014 15:00	0.0071	--	1/2/2014 15:00	0.0093	--	1/2/2014 15:00	0.0093	--
1/2/2014 16:00	0.0070	--	1/2/2014 16:00	0.0092	--	1/2/2014 16:00	0.0092	--
1/2/2014 17:00	0.0070	--	1/2/2014 17:00	0.0094	--	1/2/2014 17:00	0.0094	--
1/2/2014 18:00	0.0069	--	1/2/2014 18:00	0.0093	--	1/2/2014 18:00	0.0093	--
1/2/2014 19:00	0.0069	--	1/2/2014 19:00	0.0093	--	1/2/2014 19:00	0.0093	--
1/2/2014 20:00	0.0069	--	1/2/2014 20:00	0.0093	--	1/2/2014 20:00	0.0093	--
1/2/2014 21:00	0.0070	--	1/2/2014 21:00	0.0093	--	1/2/2014 21:00	0.0093	--
1/2/2014 22:00	0.0069	--	1/2/2014 22:00	0.0093	--	1/2/2014 22:00	0.0093	--
1/2/2014 23:00	0.0070	--	1/2/2014 23:00	0.0094	--	1/2/2014 23:00	0.0094	--
1/3/2014 0:00	0.0069	0.0071	1/3/2014 0:00	0.0093	0.0093	1/3/2014 0:00	0.0093	0.0082
1/3/2014 1:00	0.0071	--	1/3/2014 1:00	0.0093	--	1/3/2014 1:00	0.0093	--
1/3/2014 2:00	0.0071	--	1/3/2014 2:00	0.0094	--	1/3/2014 2:00	0.0094	--
1/3/2014 3:00	0.0069	--	1/3/2014 3:00	0.0093	--	1/3/2014 3:00	0.0093	--
1/3/2014 4:00	0.0069	--	1/3/2014 4:00	0.0093	--	1/3/2014 4:00	0.0093	--
1/3/2014 5:00	0.0071	--	1/3/2014 5:00	0.0095	--	1/3/2014 5:00	0.0095	--
1/3/2014 6:00	0.0073	--	1/3/2014 6:00	0.0096	--	1/3/2014 6:00	0.0096	--
1/3/2014 7:00	0.0072	--	1/3/2014 7:00	0.0097	--	1/3/2014 7:00	0.0097	--
1/3/2014 8:00	0.0072	--	1/3/2014 8:00	0.0094	--	1/3/2014 8:00	0.0094	--
1/3/2014 9:00	0.0072	--	1/3/2014 9:00	0.0094	--	1/3/2014 9:00	0.0094	--
1/3/2014 10:00	0.0072	--	1/3/2014 10:00	0.0094	--	1/3/2014 10:00	0.0094	--
1/3/2014 11:00	0.0073	--	1/3/2014 11:00	0.0094	--	1/3/2014 11:00	0.0094	--
1/3/2014 12:00	0.0071	--	1/3/2014 12:00	0.0094	--	1/3/2014 12:00	0.0094	--
1/3/2014 13:00	0.0071	--	1/3/2014 13:00	0.0095	--	1/3/2014 13:00	0.0095	--
1/3/2014 14:00	0.0070	--	1/3/2014 14:00	0.0092	--	1/3/2014 14:00	0.0092	--
1/3/2014 15:00	0.0070	--	1/3/2014 15:00	0.0092	--	1/3/2014 15:00	0.0092	--
1/3/2014 16:00	0.0069	--	1/3/2014 16:00	0.0093	--	1/3/2014 16:00	0.0093	--
1/3/2014 17:00	0.0069	--	1/3/2014 17:00	0.0091	--	1/3/2014 17:00	0.0091	--
1/3/2014 18:00	0.0069	--	1/3/2014 18:00	0.0092	--	1/3/2014 18:00	0.0092	--
1/3/2014 19:00	0.0069	--	1/3/2014 19:00	0.0092	--	1/3/2014 19:00	0.0092	--
1/3/2014 20:00	0.0070	--	1/3/2014 20:00	0.0093	--	1/3/2014 20:00	0.0093	--
1/3/2014 21:00	0.0070	--	1/3/2014 21:00	0.0093	--	1/3/2014 21:00	0.0093	--
1/3/2014 22:00	0.0071	--	1/3/2014 22:00	0.0093	--	1/3/2014 22:00	0.0093	--
1/3/2014 23:00	0.0070	--	1/3/2014 23:00	0.0093	--	1/3/2014 23:00	0.0093	--
1/4/2014 0:00	0.0071	0.0071	1/4/2014 0:00	0.0092	0.0092	1/4/2014 0:00	0.0092	0.0082
1/4/2014 1:00	0.0070	--	1/4/2014 1:00	0.0092	--	1/4/2014 1:00	0.0092	--
1/4/2014 2:00	0.0071	--	1/4/2014 2:00	0.0094	--	1/4/2014 2:00	0.0094	--
1/4/2014 3:00	0.0074	--	1/4/2014 3:00	0.0097	--	1/4/2014 3:00	0.0097	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
1/4/2014 4:00	0.0071	--	1/4/2014 4:00	0.0093	--	1/4/2014 4:00	0.0093	--
1/4/2014 5:00	0.0071	--	1/4/2014 5:00	0.0093	--	1/4/2014 5:00	0.0093	--
1/4/2014 6:00	0.0072	--	1/4/2014 6:00	0.0099	--	1/4/2014 6:00	0.0099	--
1/4/2014 7:00	0.0071	--	1/4/2014 7:00	0.0092	--	1/4/2014 7:00	0.0092	--
1/4/2014 8:00	0.0071	--	1/4/2014 8:00	0.0092	--	1/4/2014 8:00	0.0092	--
1/4/2014 9:00	0.0072	--	1/4/2014 9:00	0.0093	--	1/4/2014 9:00	0.0093	--
1/4/2014 10:00	0.0072	--	1/4/2014 10:00	0.0094	--	1/4/2014 10:00	0.0094	--
1/4/2014 11:00	0.0071	--	1/4/2014 11:00	0.0099	--	1/4/2014 11:00	0.0099	--
1/4/2014 12:00	0.0071	--	1/4/2014 12:00	0.0095	--	1/4/2014 12:00	0.0095	--
1/4/2014 13:00	0.0070	--	1/4/2014 13:00	0.0092	--	1/4/2014 13:00	0.0092	--
1/4/2014 14:00	0.0071	--	1/4/2014 14:00	0.0093	--	1/4/2014 14:00	0.0093	--
1/4/2014 15:00	0.0070	--	1/4/2014 15:00	0.0091	--	1/4/2014 15:00	0.0091	--
1/4/2014 16:00	0.0070	--	1/4/2014 16:00	0.0092	--	1/4/2014 16:00	0.0092	--
1/4/2014 17:00	0.0070	--	1/4/2014 17:00	0.0093	--	1/4/2014 17:00	0.0093	--
1/4/2014 18:00	0.0070	--	1/4/2014 18:00	0.0093	--	1/4/2014 18:00	0.0093	--
1/4/2014 19:00	0.0071	--	1/4/2014 19:00	0.0092	--	1/4/2014 19:00	0.0092	--
1/4/2014 20:00	0.0069	--	1/4/2014 20:00	0.0092	--	1/4/2014 20:00	0.0092	--
1/4/2014 21:00	0.0070	--	1/4/2014 21:00	0.0092	--	1/4/2014 21:00	0.0092	--
1/4/2014 22:00	0.0071	--	1/4/2014 22:00	0.0093	--	1/4/2014 22:00	0.0093	--
1/4/2014 23:00	0.0070	--	1/4/2014 23:00	0.0092	--	1/4/2014 23:00	0.0092	--
1/5/2014 0:00	0.0071	0.0071	1/5/2014 0:00	0.0093	0.0092	1/5/2014 0:00	0.0093	0.0082
1/5/2014 1:00	0.0071	--	1/5/2014 1:00	0.0093	--	1/5/2014 1:00	0.0093	--
1/5/2014 2:00	0.0071	--	1/5/2014 2:00	0.0093	--	1/5/2014 2:00	0.0093	--
1/5/2014 3:00	0.0070	--	1/5/2014 3:00	0.0093	--	1/5/2014 3:00	0.0093	--
1/5/2014 4:00	0.0070	--	1/5/2014 4:00	0.0093	--	1/5/2014 4:00	0.0093	--
1/5/2014 5:00	0.0070	--	1/5/2014 5:00	0.0092	--	1/5/2014 5:00	0.0092	--
1/5/2014 6:00	0.0074	--	1/5/2014 6:00	0.0108	--	1/5/2014 6:00	0.0108	--
1/5/2014 7:00	0.0072	--	1/5/2014 7:00	0.0100	--	1/5/2014 7:00	0.0100	--
1/5/2014 8:00	0.0069	--	1/5/2014 8:00	0.0092	--	1/5/2014 8:00	0.0092	--
1/5/2014 9:00	0.0072	--	1/5/2014 9:00	0.0095	--	1/5/2014 9:00	0.0095	--
1/5/2014 10:00	0.0072	--	1/5/2014 10:00	0.0098	--	1/5/2014 10:00	0.0098	--
1/5/2014 11:00	0.0076	--	1/5/2014 11:00	0.0101	--	1/5/2014 11:00	0.0101	--
1/5/2014 12:00	0.0078	--	1/5/2014 12:00	0.0096	--	1/5/2014 12:00	0.0096	--
1/5/2014 13:00	0.0072	--	1/5/2014 13:00	0.0095	--	1/5/2014 13:00	0.0095	--
1/5/2014 14:00	0.0070	--	1/5/2014 14:00	0.0091	--	1/5/2014 14:00	0.0091	--
1/5/2014 15:00	0.0071	--	1/5/2014 15:00	0.0092	--	1/5/2014 15:00	0.0092	--
1/5/2014 16:00	0.0070	--	1/5/2014 16:00	0.0092	--	1/5/2014 16:00	0.0092	--
1/5/2014 17:00	0.0070	--	1/5/2014 17:00	0.0094	--	1/5/2014 17:00	0.0094	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
1/5/2014 18:00	0.0070	--	1/5/2014 18:00	0.0093	--	1/5/2014 18:00	0.0093	--
1/5/2014 19:00	0.0071	--	1/5/2014 19:00	0.0093	--	1/5/2014 19:00	0.0093	--
1/5/2014 20:00	0.0070	--	1/5/2014 20:00	0.0093	--	1/5/2014 20:00	0.0093	--
1/5/2014 21:00	0.0071	--	1/5/2014 21:00	0.0094	--	1/5/2014 21:00	0.0094	--
1/5/2014 22:00	0.0071	--	1/5/2014 22:00	0.0093	--	1/5/2014 22:00	0.0093	--
1/5/2014 23:00	0.0080	--	1/5/2014 23:00	0.0094	--	1/5/2014 23:00	0.0094	--
1/6/2014 0:00	0.0075	0.0071	1/6/2014 0:00	0.0093	0.0092	1/6/2014 0:00	0.0093	0.0083
1/6/2014 1:00	0.0073	--	1/6/2014 1:00	0.0094	--	1/6/2014 1:00	0.0094	--
1/6/2014 2:00	0.0072	--	1/6/2014 2:00	0.0094	--	1/6/2014 2:00	0.0094	--
1/6/2014 3:00	0.0071	--	1/6/2014 3:00	0.0094	--	1/6/2014 3:00	0.0094	--
1/6/2014 4:00	0.0069	--	1/6/2014 4:00	0.0093	--	1/6/2014 4:00	0.0093	--
1/6/2014 5:00	0.0071	--	1/6/2014 5:00	0.0094	--	1/6/2014 5:00	0.0094	--
1/6/2014 6:00	0.0076	--	1/6/2014 6:00	0.0100	--	1/6/2014 6:00	0.0100	--
1/6/2014 7:00	0.0073	--	1/6/2014 7:00	0.0087	--	1/6/2014 7:00	0.0087	--
1/6/2014 8:00	0.0072	--	1/6/2014 8:00	0.0093	--	1/6/2014 8:00	0.0093	--
1/6/2014 9:00	0.0074	--	1/6/2014 9:00	0.0095	--	1/6/2014 9:00	0.0095	--
1/6/2014 10:00	0.0070	--	1/6/2014 10:00	0.0093	--	1/6/2014 10:00	0.0093	--
1/6/2014 11:00	0.0073	--	1/6/2014 11:00	0.0094	--	1/6/2014 11:00	0.0094	--
1/6/2014 12:00	0.0073	--	1/6/2014 12:00	0.0093	--	1/6/2014 12:00	0.0093	--
1/6/2014 13:00	0.0069	--	1/6/2014 13:00	0.0093	--	1/6/2014 13:00	0.0093	--
1/6/2014 14:00	0.0071	--	1/6/2014 14:00	0.0093	--	1/6/2014 14:00	0.0093	--
1/6/2014 15:00	0.0069	--	1/6/2014 15:00	0.0097	--	1/6/2014 15:00	0.0097	--
1/6/2014 16:00	0.0071	--	1/6/2014 16:00	0.0095	--	1/6/2014 16:00	0.0095	--
1/6/2014 17:00	0.0070	--	1/6/2014 17:00	0.0093	--	1/6/2014 17:00	0.0093	--
1/6/2014 18:00	0.0071	--	1/6/2014 18:00	0.0102	--	1/6/2014 18:00	0.0102	--
1/6/2014 19:00	0.0072	--	1/6/2014 19:00	0.0095	--	1/6/2014 19:00	0.0095	--
1/6/2014 20:00	0.0072	--	1/6/2014 20:00	0.0095	--	1/6/2014 20:00	0.0095	--
1/6/2014 21:00	0.0072	--	1/6/2014 21:00	0.0093	--	1/6/2014 21:00	0.0093	--
1/6/2014 22:00	0.0070	--	1/6/2014 22:00	0.0093	--	1/6/2014 22:00	0.0093	--
1/6/2014 23:00	0.0071	--	1/6/2014 23:00	0.0094	--	1/6/2014 23:00	0.0094	--
1/7/2014 0:00	0.0073	0.0071	1/7/2014 0:00	0.0095	0.0092	1/7/2014 0:00	0.0095	0.0083
1/7/2014 1:00	0.0072	--	1/7/2014 1:00	0.0094	--	1/7/2014 1:00	0.0094	--
1/7/2014 2:00	0.0070	--	1/7/2014 2:00	0.0092	--	1/7/2014 2:00	0.0092	--
1/7/2014 3:00	0.0069	--	1/7/2014 3:00	0.0093	--	1/7/2014 3:00	0.0093	--
1/7/2014 4:00	0.0070	--	1/7/2014 4:00	0.0093	--	1/7/2014 4:00	0.0093	--
1/7/2014 5:00	0.0069	--	1/7/2014 5:00	0.0093	--	1/7/2014 5:00	0.0093	--
1/7/2014 6:00	0.0074	--	1/7/2014 6:00	0.0097	--	1/7/2014 6:00	0.0097	--
1/7/2014 7:00	0.0068	--	1/7/2014 7:00	0.0093	--	1/7/2014 7:00	0.0093	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
1/7/2014 8:00	0.0068	--	1/7/2014 8:00	0.0092	--	1/7/2014 8:00	0.0092	--
1/7/2014 9:00	0.0067	--	1/7/2014 9:00	0.0098	--	1/7/2014 9:00	0.0098	--
1/7/2014 10:00	0.0069	--	1/7/2014 10:00	0.0087	--	1/7/2014 10:00	0.0087	--
1/7/2014 11:00	0.0069	--	1/7/2014 11:00	0.0089	--	1/7/2014 11:00	0.0089	--
1/7/2014 12:00	0.0067	--	1/7/2014 12:00	0.0089	--	1/7/2014 12:00	0.0089	--
1/7/2014 13:00	0.0061	--	1/7/2014 13:00	0.0088	--	1/7/2014 13:00	0.0088	--
1/7/2014 14:00	0.0067	--	1/7/2014 14:00	0.0092	--	1/7/2014 14:00	0.0092	--
1/7/2014 15:00	0.0068	--	1/7/2014 15:00	0.0091	--	1/7/2014 15:00	0.0091	--
1/7/2014 16:00	0.0068	--	1/7/2014 16:00	0.0092	--	1/7/2014 16:00	0.0092	--
1/7/2014 17:00	0.0068	--	1/7/2014 17:00	0.0092	--	1/7/2014 17:00	0.0092	--
1/7/2014 18:00	0.0071	--	1/7/2014 18:00	0.0093	--	1/7/2014 18:00	0.0093	--
1/7/2014 19:00	0.0069	--	1/7/2014 19:00	0.0092	--	1/7/2014 19:00	0.0092	--
1/7/2014 20:00	0.0071	--	1/7/2014 20:00	0.0093	--	1/7/2014 20:00	0.0093	--
1/7/2014 21:00	0.0070	--	1/7/2014 21:00	0.0092	--	1/7/2014 21:00	0.0092	--
1/7/2014 22:00	0.0072	--	1/7/2014 22:00	0.0093	--	1/7/2014 22:00	0.0093	--
1/7/2014 23:00	0.0071	--	1/7/2014 23:00	0.0092	--	1/7/2014 23:00	0.0092	--
1/8/2014 0:00	0.0070	0.0071	1/8/2014 0:00	0.0092	0.0092	1/8/2014 0:00	0.0092	0.0084
1/8/2014 1:00	0.0070	--	1/8/2014 1:00	0.0092	--	1/8/2014 1:00	0.0092	--
1/8/2014 2:00	0.0070	--	1/8/2014 2:00	0.0092	--	1/8/2014 2:00	0.0092	--
1/8/2014 3:00	0.0071	--	1/8/2014 3:00	0.0092	--	1/8/2014 3:00	0.0092	--
1/8/2014 4:00	0.0070	--	1/8/2014 4:00	0.0092	--	1/8/2014 4:00	0.0092	--
1/8/2014 5:00	0.0070	--	1/8/2014 5:00	0.0092	--	1/8/2014 5:00	0.0092	--
1/8/2014 6:00	0.0073	--	1/8/2014 6:00	0.0100	--	1/8/2014 6:00	0.0100	--
1/8/2014 7:00	0.0071	--	1/8/2014 7:00	0.0093	--	1/8/2014 7:00	0.0093	--
1/8/2014 8:00	0.0072	--	1/8/2014 8:00	0.0093	--	1/8/2014 8:00	0.0093	--
1/8/2014 9:00	0.0071	--	1/8/2014 9:00	0.0093	--	1/8/2014 9:00	0.0093	--
1/8/2014 10:00	0.0071	--	1/8/2014 10:00	0.0093	--	1/8/2014 10:00	0.0093	--
1/8/2014 11:00	0.0070	--	1/8/2014 11:00	0.0092	--	1/8/2014 11:00	0.0092	--
1/8/2014 12:00	0.0071	--	1/8/2014 12:00	0.0093	--	1/8/2014 12:00	0.0093	--
1/8/2014 13:00	0.0071	--	1/8/2014 13:00	0.0093	--	1/8/2014 13:00	0.0093	--
1/8/2014 14:00	0.0071	--	1/8/2014 14:00	0.0093	--	1/8/2014 14:00	0.0093	--
1/8/2014 15:00	0.0071	--	1/8/2014 15:00	0.0092	--	1/8/2014 15:00	0.0092	--
1/8/2014 16:00	0.0071	--	1/8/2014 16:00	0.0092	--	1/8/2014 16:00	0.0092	--
1/8/2014 17:00	0.0070	--	1/8/2014 17:00	0.0092	--	1/8/2014 17:00	0.0092	--
1/8/2014 18:00	0.0070	--	1/8/2014 18:00	0.0092	--	1/8/2014 18:00	0.0092	--
1/8/2014 19:00	0.0069	--	1/8/2014 19:00	0.0092	--	1/8/2014 19:00	0.0092	--
1/8/2014 20:00	0.0071	--	1/8/2014 20:00	0.0092	--	1/8/2014 20:00	0.0092	--
1/8/2014 21:00	0.0070	--	1/8/2014 21:00	0.0092	--	1/8/2014 21:00	0.0092	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
1/8/2014 22:00	0.0071	--	1/8/2014 22:00	0.0092	--	1/8/2014 22:00	0.0092	--
1/8/2014 23:00	0.0070	--	1/8/2014 23:00	0.0092	--	1/8/2014 23:00	0.0092	--
1/9/2014 0:00	0.0071	0.0071	1/9/2014 0:00	0.0093	0.0092	1/9/2014 0:00	0.0093	0.0084
1/9/2014 1:00	0.0071	--	1/9/2014 1:00	0.0093	--	1/9/2014 1:00	0.0093	--
1/9/2014 2:00	0.0071	--	1/9/2014 2:00	0.0092	--	1/9/2014 2:00	0.0092	--
1/9/2014 3:00	0.0071	--	1/9/2014 3:00	0.0092	--	1/9/2014 3:00	0.0092	--
1/9/2014 4:00	0.0071	--	1/9/2014 4:00	0.0092	--	1/9/2014 4:00	0.0092	--
1/9/2014 5:00	0.0070	--	1/9/2014 5:00	0.0092	--	1/9/2014 5:00	0.0092	--
1/9/2014 6:00	0.0078	--	1/9/2014 6:00	0.0105	--	1/9/2014 6:00	0.0105	--
1/9/2014 7:00	0.0104	--	1/9/2014 7:00	0.0057	--	1/9/2014 7:00	0.0057	--
1/9/2014 8:00	0.0077	--	1/9/2014 8:00	0.0080	--	1/9/2014 8:00	0.0080	--
1/9/2014 9:00	0.0031	--	1/9/2014 9:00	0.0098	--	1/9/2014 9:00	0.0098	--
1/9/2014 10:00	0.0040	--	1/9/2014 10:00	0.0092	--	1/9/2014 10:00	0.0092	--
1/9/2014 11:00	0.0066	--	1/9/2014 11:00	0.0083	--	1/9/2014 11:00	0.0083	--
1/9/2014 12:00	0.0070	--	1/9/2014 12:00	0.0094	--	1/9/2014 12:00	0.0094	--
1/9/2014 13:00	0.0071	--	1/9/2014 13:00	0.0096	--	1/9/2014 13:00	0.0096	--
1/9/2014 14:00	0.0071	--	1/9/2014 14:00	0.0095	--	1/9/2014 14:00	0.0095	--
1/9/2014 15:00	0.0069	--	1/9/2014 15:00	0.0094	--	1/9/2014 15:00	0.0094	--
1/9/2014 16:00	0.0069	--	1/9/2014 16:00	0.0096	--	1/9/2014 16:00	0.0096	--
1/9/2014 17:00	0.0070	--	1/9/2014 17:00	0.0094	--	1/9/2014 17:00	0.0094	--
1/9/2014 18:00	0.0070	--	1/9/2014 18:00	0.0093	--	1/9/2014 18:00	0.0093	--
1/9/2014 19:00	0.0070	--	1/9/2014 19:00	0.0094	--	1/9/2014 19:00	0.0094	--
1/9/2014 20:00	0.0071	--	1/9/2014 20:00	0.0096	--	1/9/2014 20:00	0.0096	--
1/9/2014 21:00	0.0071	--	1/9/2014 21:00	0.0097	--	1/9/2014 21:00	0.0097	--
1/9/2014 22:00	0.0071	--	1/9/2014 22:00	0.0086	--	1/9/2014 22:00	0.0086	--
1/9/2014 23:00	0.0071	--	1/9/2014 23:00	0.0093	--	1/9/2014 23:00	0.0093	--
1/10/2014 0:00	0.0071	0.0071	1/10/2014 0:00	0.0096	0.0092	1/10/2014 0:00	0.0096	0.0085
1/10/2014 1:00	0.0071	--	1/10/2014 1:00	0.0096	--	1/10/2014 1:00	0.0096	--
1/10/2014 2:00	0.0070	--	1/10/2014 2:00	0.0098	--	1/10/2014 2:00	0.0098	--
1/10/2014 3:00	0.0070	--	1/10/2014 3:00	0.0093	--	1/10/2014 3:00	0.0093	--
1/10/2014 4:00	0.0071	--	1/10/2014 4:00	0.0092	--	1/10/2014 4:00	0.0092	--
1/10/2014 5:00	0.0070	--	1/10/2014 5:00	0.0094	--	1/10/2014 5:00	0.0094	--
1/10/2014 6:00	0.0075	--	1/10/2014 6:00	0.0087	--	1/10/2014 6:00	0.0087	--
1/10/2014 7:00	0.0071	--	1/10/2014 7:00	0.0084	--	1/10/2014 7:00	0.0084	--
1/10/2014 8:00	0.0071	--	1/10/2014 8:00	0.0070	--	1/10/2014 8:00	0.0070	--
1/10/2014 9:00	0.0071	--	1/10/2014 9:00	0.0080	--	1/10/2014 9:00	0.0080	--
1/10/2014 10:00	0.0071	--	1/10/2014 10:00	0.0092	--	1/10/2014 10:00	0.0092	--
1/10/2014 11:00	0.0071	--	1/10/2014 11:00	0.0092	--	1/10/2014 11:00	0.0092	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
1/10/2014 12:00	0.0071	--	1/10/2014 12:00	0.0092	--	1/10/2014 12:00	0.0092	--
1/10/2014 13:00	0.0070	--	1/10/2014 13:00	0.0095	--	1/10/2014 13:00	0.0095	--
1/10/2014 14:00	0.0070	--	1/10/2014 14:00	0.0070	--	1/10/2014 14:00	0.0070	--
1/10/2014 15:00	0.0071	--	1/10/2014 15:00	0.0085	--	1/10/2014 15:00	0.0085	--
1/10/2014 16:00	0.0071	--	1/10/2014 16:00	0.0080	--	1/10/2014 16:00	0.0080	--
1/10/2014 17:00	0.0069	--	1/10/2014 17:00	0.0093	--	1/10/2014 17:00	0.0093	--
1/10/2014 18:00	0.0071	--	1/10/2014 18:00	0.0092	--	1/10/2014 18:00	0.0092	--
1/10/2014 19:00	0.0070	--	1/10/2014 19:00	0.0098	--	1/10/2014 19:00	0.0098	--
1/10/2014 20:00	0.0070	--	1/10/2014 20:00	0.0096	--	1/10/2014 20:00	0.0096	--
1/10/2014 21:00	0.0071	--	1/10/2014 21:00	0.0102	--	1/10/2014 21:00	0.0102	--
1/10/2014 22:00	0.0074	--	1/10/2014 22:00	0.0096	--	1/10/2014 22:00	0.0096	--
1/10/2014 23:00	0.0072	--	1/10/2014 23:00	0.0093	--	1/10/2014 23:00	0.0093	--
1/11/2014 0:00	0.0071	0.0070	1/11/2014 0:00	0.0094	0.0091	1/11/2014 0:00	0.0094	0.0085
1/11/2014 1:00	0.0071	--	1/11/2014 1:00	0.0100	--	1/11/2014 1:00	0.0100	--
1/11/2014 2:00	0.0072	--	1/11/2014 2:00	0.0103	--	1/11/2014 2:00	0.0103	--
1/11/2014 3:00	0.0072	--	1/11/2014 3:00	0.0093	--	1/11/2014 3:00	0.0093	--
1/11/2014 4:00	0.0071	--	1/11/2014 4:00	0.0086	--	1/11/2014 4:00	0.0086	--
1/11/2014 5:00	0.0071	--	1/11/2014 5:00	0.0074	--	1/11/2014 5:00	0.0074	--
1/11/2014 6:00	0.0068	--	1/11/2014 6:00	0.0070	--	1/11/2014 6:00	0.0070	--
1/11/2014 7:00	0.0069	--	1/11/2014 7:00	0.0075	--	1/11/2014 7:00	0.0075	--
1/11/2014 8:00	0.0070	--	1/11/2014 8:00	0.0086	--	1/11/2014 8:00	0.0086	--
1/11/2014 9:00	0.0071	--	1/11/2014 9:00	0.0080	--	1/11/2014 9:00	0.0080	--
1/11/2014 10:00	0.0075	--	1/11/2014 10:00	0.0078	--	1/11/2014 10:00	0.0078	--
1/11/2014 11:00	0.0076	--	1/11/2014 11:00	0.0085	--	1/11/2014 11:00	0.0085	--
1/11/2014 12:00	0.0075	--	1/11/2014 12:00	0.0079	--	1/11/2014 12:00	0.0079	--
1/11/2014 13:00	0.0072	--	1/11/2014 13:00	0.0087	--	1/11/2014 13:00	0.0087	--
1/11/2014 14:00	0.0072	--	1/11/2014 14:00	0.0082	--	1/11/2014 14:00	0.0082	--
1/11/2014 15:00	0.0071	--	1/11/2014 15:00	0.0086	--	1/11/2014 15:00	0.0086	--
1/11/2014 16:00	0.0071	--	1/11/2014 16:00	0.0088	--	1/11/2014 16:00	0.0088	--
1/11/2014 17:00	0.0070	--	1/11/2014 17:00	0.0080	--	1/11/2014 17:00	0.0080	--
1/11/2014 18:00	0.0071	--	1/11/2014 18:00	0.0077	--	1/11/2014 18:00	0.0077	--
1/11/2014 19:00	0.0071	--	1/11/2014 19:00	0.0081	--	1/11/2014 19:00	0.0081	--
1/11/2014 20:00	0.0071	--	1/11/2014 20:00	0.0070	--	1/11/2014 20:00	0.0070	--
1/11/2014 21:00	0.0066	--	1/11/2014 21:00	0.0078	--	1/11/2014 21:00	0.0078	--
1/11/2014 22:00	0.0068	--	1/11/2014 22:00	0.0081	--	1/11/2014 22:00	0.0081	--
1/11/2014 23:00	0.0067	--	1/11/2014 23:00	0.0087	--	1/11/2014 23:00	0.0087	--
1/12/2014 0:00	0.0069	0.0070	1/12/2014 0:00	0.0083	0.0091	1/12/2014 0:00	0.0083	0.0085
1/12/2014 1:00	0.0069	--	1/12/2014 1:00	0.0084	--	1/12/2014 1:00	0.0084	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
1/12/2014 2:00	0.0070	--	1/12/2014 2:00	0.0083	--	1/12/2014 2:00	0.0083	--
1/12/2014 3:00	0.0070	--	1/12/2014 3:00	0.0082	--	1/12/2014 3:00	0.0082	--
1/12/2014 4:00	0.0070	--	1/12/2014 4:00	0.0085	--	1/12/2014 4:00	0.0085	--
1/12/2014 5:00	0.0071	--	1/12/2014 5:00	0.0083	--	1/12/2014 5:00	0.0083	--
1/12/2014 6:00	0.0076	--	1/12/2014 6:00	0.0085	--	1/12/2014 6:00	0.0085	--
1/12/2014 7:00	0.0074	--	1/12/2014 7:00	0.0088	--	1/12/2014 7:00	0.0088	--
1/12/2014 8:00	0.0072	--	1/12/2014 8:00	0.0086	--	1/12/2014 8:00	0.0086	--
1/12/2014 9:00	0.0073	--	1/12/2014 9:00	0.0078	--	1/12/2014 9:00	0.0078	--
1/12/2014 10:00	0.0074	--	1/12/2014 10:00	0.0084	--	1/12/2014 10:00	0.0084	--
1/12/2014 11:00	0.0072	--	1/12/2014 11:00	0.0092	--	1/12/2014 11:00	0.0092	--
1/12/2014 12:00	0.0070	--	1/12/2014 12:00	0.0084	--	1/12/2014 12:00	0.0084	--
1/12/2014 13:00	0.0069	--	1/12/2014 13:00	0.0071	--	1/12/2014 13:00	0.0071	--
1/12/2014 14:00	0.0070	--	1/12/2014 14:00	0.0076	--	1/12/2014 14:00	0.0076	--
1/12/2014 15:00	0.0069	--	1/12/2014 15:00	0.0082	--	1/12/2014 15:00	0.0082	--
1/12/2014 16:00	0.0069	--	1/12/2014 16:00	0.0084	--	1/12/2014 16:00	0.0084	--
1/12/2014 17:00	0.0068	--	1/12/2014 17:00	0.0080	--	1/12/2014 17:00	0.0080	--
1/12/2014 18:00	0.0069	--	1/12/2014 18:00	0.0079	--	1/12/2014 18:00	0.0079	--
1/12/2014 19:00	0.0069	--	1/12/2014 19:00	0.0081	--	1/12/2014 19:00	0.0081	--
1/12/2014 20:00	0.0070	--	1/12/2014 20:00	0.0083	--	1/12/2014 20:00	0.0083	--
1/12/2014 21:00	0.0069	--	1/12/2014 21:00	0.0083	--	1/12/2014 21:00	0.0083	--
1/12/2014 22:00	0.0069	--	1/12/2014 22:00	0.0080	--	1/12/2014 22:00	0.0080	--
1/12/2014 23:00	0.0070	--	1/12/2014 23:00	0.0082	--	1/12/2014 23:00	0.0082	--
1/13/2014 0:00	0.0071	0.0071	1/13/2014 0:00	0.0079	0.0091	1/13/2014 0:00	0.0079	0.0083
1/13/2014 1:00	0.0070	--	1/13/2014 1:00	0.0084	--	1/13/2014 1:00	0.0084	--
1/13/2014 2:00	0.0070	--	1/13/2014 2:00	0.0080	--	1/13/2014 2:00	0.0080	--
1/13/2014 3:00	0.0088	--	1/13/2014 3:00	0.0064	--	1/13/2014 3:00	0.0064	--
1/13/2014 4:00	0.0088	--	1/13/2014 4:00	0.0095	--	1/13/2014 4:00	0.0095	--
1/13/2014 5:00	0.0080	--	1/13/2014 5:00	0.0096	--	1/13/2014 5:00	0.0096	--
1/13/2014 6:00	0.0079	--	1/13/2014 6:00	0.0305	--	1/13/2014 6:00	0.0305	--
1/13/2014 7:00	0.0079	--	1/13/2014 7:00	SOURCE DOWN	--	1/13/2014 7:00	0.0000	--
1/13/2014 8:00	0.0076	--	1/13/2014 8:00	SOURCE DOWN	--	1/13/2014 8:00	0.0000	--
1/13/2014 9:00	0.0078	--	1/13/2014 9:00	SOURCE DOWN	--	1/13/2014 9:00	0.0000	--
1/13/2014 10:00	0.0080	--	1/13/2014 10:00	SOURCE DOWN	--	1/13/2014 10:00	0.0000	--
1/13/2014 11:00	0.0081	--	1/13/2014 11:00	SOURCE DOWN	--	1/13/2014 11:00	0.0000	--
1/13/2014 12:00	0.0078	--	1/13/2014 12:00	SOURCE DOWN	--	1/13/2014 12:00	0.0000	--
1/13/2014 13:00	0.0077	--	1/13/2014 13:00	SOURCE DOWN	--	1/13/2014 13:00	0.0000	--
1/13/2014 14:00	0.0077	--	1/13/2014 14:00	SOURCE DOWN	--	1/13/2014 14:00	0.0000	--
1/13/2014 15:00	0.0077	--	1/13/2014 15:00	SOURCE DOWN	--	1/13/2014 15:00	0.0000	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
1/13/2014 16:00	0.0081	--	1/13/2014 16:00	SOURCE DOWN	--	1/13/2014 16:00	0.0000	--
1/13/2014 17:00	0.0092	--	1/13/2014 17:00	SOURCE DOWN	--	1/13/2014 17:00	0.0000	--
1/13/2014 18:00	0.0095	--	1/13/2014 18:00	SOURCE DOWN	--	1/13/2014 18:00	0.0000	--
1/13/2014 19:00	0.0095	--	1/13/2014 19:00	SOURCE DOWN	--	1/13/2014 19:00	0.0000	--
1/13/2014 20:00	0.0090	--	1/13/2014 20:00	SOURCE DOWN	--	1/13/2014 20:00	0.0000	--
1/13/2014 21:00	0.0090	--	1/13/2014 21:00	SOURCE DOWN	--	1/13/2014 21:00	0.0000	--
1/13/2014 22:00	0.0093	--	1/13/2014 22:00	SOURCE DOWN	--	1/13/2014 22:00	0.0000	--
1/13/2014 23:00	0.0090	--	1/13/2014 23:00	SOURCE DOWN	--	1/13/2014 23:00	0.0000	--
1/14/2014 0:00	0.0088	0.0071	1/14/2014 0:00	SOURCE DOWN	0.0091	1/14/2014 0:00	0.0000	0.0080
1/14/2014 1:00	0.0084	--	1/14/2014 1:00	SOURCE DOWN	--	1/14/2014 1:00	0.0000	--
1/14/2014 2:00	0.0084	--	1/14/2014 2:00	SOURCE DOWN	--	1/14/2014 2:00	0.0000	--
1/14/2014 3:00	0.0083	--	1/14/2014 3:00	SOURCE DOWN	--	1/14/2014 3:00	0.0000	--
1/14/2014 4:00	0.0083	--	1/14/2014 4:00	SOURCE DOWN	--	1/14/2014 4:00	0.0000	--
1/14/2014 5:00	0.0083	--	1/14/2014 5:00	SOURCE DOWN	--	1/14/2014 5:00	0.0000	--
1/14/2014 6:00	0.0088	--	1/14/2014 6:00	SOURCE DOWN	--	1/14/2014 6:00	0.0000	--
1/14/2014 7:00	0.0085	--	1/14/2014 7:00	SOURCE DOWN	--	1/14/2014 7:00	0.0000	--
1/14/2014 8:00	0.0090	--	1/14/2014 8:00	SOURCE DOWN	--	1/14/2014 8:00	0.0000	--
1/14/2014 9:00	0.0091	--	1/14/2014 9:00	SOURCE DOWN	--	1/14/2014 9:00	0.0000	--
1/14/2014 10:00	0.0093	--	1/14/2014 10:00	SOURCE DOWN	--	1/14/2014 10:00	0.0000	--
1/14/2014 11:00	0.0094	--	1/14/2014 11:00	SOURCE DOWN	--	1/14/2014 11:00	0.0000	--
1/14/2014 12:00	0.0096	--	1/14/2014 12:00	SOURCE DOWN	--	1/14/2014 12:00	0.0000	--
1/14/2014 13:00	0.0094	--	1/14/2014 13:00	SOURCE DOWN	--	1/14/2014 13:00	0.0000	--
1/14/2014 14:00	0.0093	--	1/14/2014 14:00	SOURCE DOWN	--	1/14/2014 14:00	0.0000	--
1/14/2014 15:00	0.0094	--	1/14/2014 15:00	SOURCE DOWN	--	1/14/2014 15:00	0.0000	--
1/14/2014 16:00	0.0093	--	1/14/2014 16:00	SOURCE DOWN	--	1/14/2014 16:00	0.0000	--
1/14/2014 17:00	0.0093	--	1/14/2014 17:00	SOURCE DOWN	--	1/14/2014 17:00	0.0000	--
1/14/2014 18:00	0.0092	--	1/14/2014 18:00	SOURCE DOWN	--	1/14/2014 18:00	0.0000	--
1/14/2014 19:00	0.0090	--	1/14/2014 19:00	SOURCE DOWN	--	1/14/2014 19:00	0.0000	--
1/14/2014 20:00	0.0088	--	1/14/2014 20:00	SOURCE DOWN	--	1/14/2014 20:00	0.0011	--
1/14/2014 21:00	0.0087	--	1/14/2014 21:00	SOURCE DOWN	--	1/14/2014 21:00	0.0013	--
1/14/2014 22:00	0.0086	--	1/14/2014 22:00	SOURCE DOWN	--	1/14/2014 22:00	0.0014	--
1/14/2014 23:00	0.0089	--	1/14/2014 23:00	SOURCE DOWN	--	1/14/2014 23:00	0.0017	--
1/15/2014 0:00	0.0088	0.0072	1/15/2014 0:00	SOURCE DOWN	0.0093	1/15/2014 0:00	0.0027	0.0083
1/15/2014 1:00	0.0089	--	1/15/2014 1:00	SOURCE DOWN	--	1/15/2014 1:00	0.0054	--
1/15/2014 2:00	0.0091	--	1/15/2014 2:00	SOURCE DOWN	--	1/15/2014 2:00	0.0000	--
1/15/2014 3:00	0.0090	--	1/15/2014 3:00	SOURCE DOWN	--	1/15/2014 3:00	-0.0109	--
1/15/2014 4:00	0.0092	--	1/15/2014 4:00	SOURCE DOWN	--	1/15/2014 4:00	0.0000	--
1/15/2014 5:00	0.0092	--	1/15/2014 5:00	SOURCE DOWN	--	1/15/2014 5:00	0.0000	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
1/15/2014 6:00	0.0096	--	1/15/2014 6:00	SOURCE DOWN	--	1/15/2014 6:00	0.0000	--
1/15/2014 7:00	0.0096	--	1/15/2014 7:00	SOURCE DOWN	--	1/15/2014 7:00	0.0000	--
1/15/2014 8:00	0.0099	--	1/15/2014 8:00	SOURCE DOWN	--	1/15/2014 8:00	0.0000	--
1/15/2014 9:00	0.0099	--	1/15/2014 9:00	SOURCE DOWN	--	1/15/2014 9:00	0.0000	--
1/15/2014 10:00	0.0100	--	1/15/2014 10:00	SOURCE DOWN	--	1/15/2014 10:00	0.0000	--
1/15/2014 11:00	0.0100	--	1/15/2014 11:00	SOURCE DOWN	--	1/15/2014 11:00	0.0465	--
1/15/2014 12:00	0.0104	--	1/15/2014 12:00	SOURCE DOWN	--	1/15/2014 12:00	0.0515	--
1/15/2014 13:00	0.0102	--	1/15/2014 13:00	SOURCE DOWN	--	1/15/2014 13:00	0.0503	--
1/15/2014 14:00	0.0091	--	1/15/2014 14:00	SOURCE DOWN	--	1/15/2014 14:00	0.0509	--
1/15/2014 15:00	0.0092	--	1/15/2014 15:00	0.0517	--	1/15/2014 15:00	0.0517	--
1/15/2014 16:00	0.0092	--	1/15/2014 16:00	0.0610	--	1/15/2014 16:00	0.0610	--
1/15/2014 17:00	0.0070	--	1/15/2014 17:00	0.0223	--	1/15/2014 17:00	0.0223	--
1/15/2014 18:00	0.0089	--	1/15/2014 18:00	SOURCE DOWN	--	1/15/2014 18:00	0.0376	--
1/15/2014 19:00	0.0090	--	1/15/2014 19:00	SOURCE DOWN	--	1/15/2014 19:00	0.0000	--
1/15/2014 20:00	0.0090	--	1/15/2014 20:00	SOURCE DOWN	--	1/15/2014 20:00	0.0000	--
1/15/2014 21:00	0.0090	--	1/15/2014 21:00	SOURCE DOWN	--	1/15/2014 21:00	0.0004	--
1/15/2014 22:00	0.0090	--	1/15/2014 22:00	SOURCE DOWN	--	1/15/2014 22:00	0.0004	--
1/15/2014 23:00	0.0088	--	1/15/2014 23:00	SOURCE DOWN	--	1/15/2014 23:00	0.0004	--
1/16/2014 0:00	0.0089	0.0072	1/16/2014 0:00	SOURCE DOWN	0.0094	1/16/2014 0:00	0.0000	0.0087
1/16/2014 1:00	0.0089	--	1/16/2014 1:00	SOURCE DOWN	--	1/16/2014 1:00	0.0000	--
1/16/2014 2:00	0.0086	--	1/16/2014 2:00	SOURCE DOWN	--	1/16/2014 2:00	0.0000	--
1/16/2014 3:00	0.0085	--	1/16/2014 3:00	SOURCE DOWN	--	1/16/2014 3:00	0.0004	--
1/16/2014 4:00	0.0079	--	1/16/2014 4:00	SOURCE DOWN	--	1/16/2014 4:00	0.0004	--
1/16/2014 5:00	0.0084	--	1/16/2014 5:00	SOURCE DOWN	--	1/16/2014 5:00	0.0004	--
1/16/2014 6:00	0.0086	--	1/16/2014 6:00	SOURCE DOWN	--	1/16/2014 6:00	0.0622	--
1/16/2014 7:00	0.0084	--	1/16/2014 7:00	SOURCE DOWN	--	1/16/2014 7:00	0.0000	--
1/16/2014 8:00	0.0084	--	1/16/2014 8:00	SOURCE DOWN	--	1/16/2014 8:00	0.0000	--
1/16/2014 9:00	0.0084	--	1/16/2014 9:00	SOURCE DOWN	--	1/16/2014 9:00	0.0000	--
1/16/2014 10:00	0.0084	--	1/16/2014 10:00	SOURCE DOWN	--	1/16/2014 10:00	0.0000	--
1/16/2014 11:00	0.0084	--	1/16/2014 11:00	SOURCE DOWN	--	1/16/2014 11:00	0.0472	--
1/16/2014 12:00	0.0087	--	1/16/2014 12:00	SOURCE DOWN	--	1/16/2014 12:00	0.0479	--
1/16/2014 13:00	0.0085	--	1/16/2014 13:00	SOURCE DOWN	--	1/16/2014 13:00	0.0553	--
1/16/2014 14:00	0.0084	--	1/16/2014 14:00	SOURCE DOWN	--	1/16/2014 14:00	0.0599	--
1/16/2014 15:00	0.0089	--	1/16/2014 15:00	0.0620	--	1/16/2014 15:00	0.0620	--
1/16/2014 16:00	0.0069	--	1/16/2014 16:00	0.0552	--	1/16/2014 16:00	0.0552	--
1/16/2014 17:00	0.0032	--	1/16/2014 17:00	0.0063	--	1/16/2014 17:00	0.0063	--
1/16/2014 18:00	0.0038	--	1/16/2014 18:00	0.0076	--	1/16/2014 18:00	0.0076	--
1/16/2014 19:00	0.0051	--	1/16/2014 19:00	0.0081	--	1/16/2014 19:00	0.0081	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
1/16/2014 20:00	0.0060	--	1/16/2014 20:00	0.0081	--	1/16/2014 20:00	0.0081	--
1/16/2014 21:00	0.0067	--	1/16/2014 21:00	0.0081	--	1/16/2014 21:00	0.0081	--
1/16/2014 22:00	0.0071	--	1/16/2014 22:00	0.0082	--	1/16/2014 22:00	0.0082	--
1/16/2014 23:00	0.0071	--	1/16/2014 23:00	0.0083	--	1/16/2014 23:00	0.0083	--
1/17/2014 0:00	0.0073	0.0072	1/17/2014 0:00	0.0081	0.0094	1/17/2014 0:00	0.0081	0.0087
1/17/2014 1:00	0.0072	--	1/17/2014 1:00	0.0083	--	1/17/2014 1:00	0.0083	--
1/17/2014 2:00	0.0072	--	1/17/2014 2:00	0.0083	--	1/17/2014 2:00	0.0083	--
1/17/2014 3:00	0.0071	--	1/17/2014 3:00	0.0081	--	1/17/2014 3:00	0.0081	--
1/17/2014 4:00	0.0072	--	1/17/2014 4:00	0.0083	--	1/17/2014 4:00	0.0083	--
1/17/2014 5:00	0.0073	--	1/17/2014 5:00	0.0083	--	1/17/2014 5:00	0.0083	--
1/17/2014 6:00	0.0076	--	1/17/2014 6:00	0.0094	--	1/17/2014 6:00	0.0094	--
1/17/2014 7:00	0.0073	--	1/17/2014 7:00	0.0084	--	1/17/2014 7:00	0.0084	--
1/17/2014 8:00	0.0073	--	1/17/2014 8:00	0.0083	--	1/17/2014 8:00	0.0083	--
1/17/2014 9:00	0.0074	--	1/17/2014 9:00	0.0085	--	1/17/2014 9:00	0.0085	--
1/17/2014 10:00	0.0073	--	1/17/2014 10:00	0.0083	--	1/17/2014 10:00	0.0083	--
1/17/2014 11:00	0.0071	--	1/17/2014 11:00	0.0085	--	1/17/2014 11:00	0.0085	--
1/17/2014 12:00	0.0074	--	1/17/2014 12:00	0.0083	--	1/17/2014 12:00	0.0083	--
1/17/2014 13:00	0.0073	--	1/17/2014 13:00	0.0084	--	1/17/2014 13:00	0.0084	--
1/17/2014 14:00	0.0073	--	1/17/2014 14:00	0.0082	--	1/17/2014 14:00	0.0082	--
1/17/2014 15:00	0.0072	--	1/17/2014 15:00	0.0086	--	1/17/2014 15:00	0.0086	--
1/17/2014 16:00	0.0072	--	1/17/2014 16:00	0.0083	--	1/17/2014 16:00	0.0083	--
1/17/2014 17:00	0.0072	--	1/17/2014 17:00	0.0082	--	1/17/2014 17:00	0.0082	--
1/17/2014 18:00	0.0072	--	1/17/2014 18:00	0.0082	--	1/17/2014 18:00	0.0082	--
1/17/2014 19:00	0.0071	--	1/17/2014 19:00	0.0082	--	1/17/2014 19:00	0.0082	--
1/17/2014 20:00	0.0072	--	1/17/2014 20:00	0.0082	--	1/17/2014 20:00	0.0082	--
1/17/2014 21:00	0.0071	--	1/17/2014 21:00	0.0082	--	1/17/2014 21:00	0.0082	--
1/17/2014 22:00	0.0071	--	1/17/2014 22:00	0.0082	--	1/17/2014 22:00	0.0082	--
1/17/2014 23:00	0.0072	--	1/17/2014 23:00	0.0081	--	1/17/2014 23:00	0.0081	--
1/18/2014 0:00	0.0070	0.0073	1/18/2014 0:00	0.0082	0.0093	1/18/2014 0:00	0.0082	0.0087
1/18/2014 1:00	0.0071	--	1/18/2014 1:00	0.0082	--	1/18/2014 1:00	0.0082	--
1/18/2014 2:00	0.0073	--	1/18/2014 2:00	0.0082	--	1/18/2014 2:00	0.0082	--
1/18/2014 3:00	0.0071	--	1/18/2014 3:00	0.0082	--	1/18/2014 3:00	0.0082	--
1/18/2014 4:00	0.0072	--	1/18/2014 4:00	0.0082	--	1/18/2014 4:00	0.0082	--
1/18/2014 5:00	0.0072	--	1/18/2014 5:00	0.0083	--	1/18/2014 5:00	0.0083	--
1/18/2014 6:00	0.0073	--	1/18/2014 6:00	0.0086	--	1/18/2014 6:00	0.0086	--
1/18/2014 7:00	0.0071	--	1/18/2014 7:00	0.0082	--	1/18/2014 7:00	0.0082	--
1/18/2014 8:00	0.0072	--	1/18/2014 8:00	0.0083	--	1/18/2014 8:00	0.0083	--
1/18/2014 9:00	0.0075	--	1/18/2014 9:00	0.0086	--	1/18/2014 9:00	0.0086	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
1/18/2014 10:00	0.0075	--	1/18/2014 10:00	0.0085	--	1/18/2014 10:00	0.0085	--
1/18/2014 11:00	0.0074	--	1/18/2014 11:00	0.0084	--	1/18/2014 11:00	0.0084	--
1/18/2014 12:00	0.0075	--	1/18/2014 12:00	0.0084	--	1/18/2014 12:00	0.0084	--
1/18/2014 13:00	0.0074	--	1/18/2014 13:00	0.0083	--	1/18/2014 13:00	0.0083	--
1/18/2014 14:00	0.0072	--	1/18/2014 14:00	0.0081	--	1/18/2014 14:00	0.0081	--
1/18/2014 15:00	0.0072	--	1/18/2014 15:00	0.0081	--	1/18/2014 15:00	0.0081	--
1/18/2014 16:00	0.0071	--	1/18/2014 16:00	0.0080	--	1/18/2014 16:00	0.0080	--
1/18/2014 17:00	0.0071	--	1/18/2014 17:00	0.0080	--	1/18/2014 17:00	0.0080	--
1/18/2014 18:00	0.0072	--	1/18/2014 18:00	0.0081	--	1/18/2014 18:00	0.0081	--
1/18/2014 19:00	0.0072	--	1/18/2014 19:00	0.0082	--	1/18/2014 19:00	0.0082	--
1/18/2014 20:00	0.0072	--	1/18/2014 20:00	0.0082	--	1/18/2014 20:00	0.0082	--
1/18/2014 21:00	0.0072	--	1/18/2014 21:00	0.0082	--	1/18/2014 21:00	0.0082	--
1/18/2014 22:00	0.0072	--	1/18/2014 22:00	0.0082	--	1/18/2014 22:00	0.0082	--
1/18/2014 23:00	0.0072	--	1/18/2014 23:00	0.0082	--	1/18/2014 23:00	0.0082	--
1/19/2014 0:00	0.0072	0.0073	1/19/2014 0:00	0.0082	0.0093	1/19/2014 0:00	0.0082	0.0087
1/19/2014 1:00	0.0072	--	1/19/2014 1:00	0.0082	--	1/19/2014 1:00	0.0082	--
1/19/2014 2:00	0.0073	--	1/19/2014 2:00	0.0081	--	1/19/2014 2:00	0.0081	--
1/19/2014 3:00	0.0074	--	1/19/2014 3:00	0.0078	--	1/19/2014 3:00	0.0078	--
1/19/2014 4:00	0.0074	--	1/19/2014 4:00	0.0083	--	1/19/2014 4:00	0.0083	--
1/19/2014 5:00	0.0074	--	1/19/2014 5:00	0.0083	--	1/19/2014 5:00	0.0083	--
1/19/2014 6:00	0.0078	--	1/19/2014 6:00	0.0093	--	1/19/2014 6:00	0.0093	--
1/19/2014 7:00	0.0074	--	1/19/2014 7:00	0.0084	--	1/19/2014 7:00	0.0084	--
1/19/2014 8:00	0.0076	--	1/19/2014 8:00	0.0084	--	1/19/2014 8:00	0.0084	--
1/19/2014 9:00	0.0076	--	1/19/2014 9:00	0.0086	--	1/19/2014 9:00	0.0086	--
1/19/2014 10:00	0.0077	--	1/19/2014 10:00	0.0085	--	1/19/2014 10:00	0.0085	--
1/19/2014 11:00	0.0075	--	1/19/2014 11:00	0.0084	--	1/19/2014 11:00	0.0084	--
1/19/2014 12:00	0.0075	--	1/19/2014 12:00	0.0084	--	1/19/2014 12:00	0.0084	--
1/19/2014 13:00	0.0073	--	1/19/2014 13:00	0.0083	--	1/19/2014 13:00	0.0083	--
1/19/2014 14:00	0.0073	--	1/19/2014 14:00	0.0082	--	1/19/2014 14:00	0.0082	--
1/19/2014 15:00	0.0074	--	1/19/2014 15:00	0.0084	--	1/19/2014 15:00	0.0084	--
1/19/2014 16:00	0.0075	--	1/19/2014 16:00	0.0083	--	1/19/2014 16:00	0.0083	--
1/19/2014 17:00	0.0074	--	1/19/2014 17:00	0.0081	--	1/19/2014 17:00	0.0081	--
1/19/2014 18:00	0.0072	--	1/19/2014 18:00	0.0080	--	1/19/2014 18:00	0.0080	--
1/19/2014 19:00	0.0067	--	1/19/2014 19:00	0.0078	--	1/19/2014 19:00	0.0078	--
1/19/2014 20:00	0.0068	--	1/19/2014 20:00	0.0080	--	1/19/2014 20:00	0.0080	--
1/19/2014 21:00	0.0073	--	1/19/2014 21:00	0.0084	--	1/19/2014 21:00	0.0084	--
1/19/2014 22:00	0.0073	--	1/19/2014 22:00	0.0083	--	1/19/2014 22:00	0.0083	--
1/19/2014 23:00	0.0072	--	1/19/2014 23:00	0.0082	--	1/19/2014 23:00	0.0082	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
1/20/2014 0:00	0.0072	0.0073	1/20/2014 0:00	0.0081	0.0093	1/20/2014 0:00	0.0081	0.0087
1/20/2014 1:00	0.0072	--	1/20/2014 1:00	0.0081	--	1/20/2014 1:00	0.0081	--
1/20/2014 2:00	0.0072	--	1/20/2014 2:00	0.0082	--	1/20/2014 2:00	0.0082	--
1/20/2014 3:00	0.0072	--	1/20/2014 3:00	0.0082	--	1/20/2014 3:00	0.0082	--
1/20/2014 4:00	0.0073	--	1/20/2014 4:00	0.0082	--	1/20/2014 4:00	0.0082	--
1/20/2014 5:00	0.0072	--	1/20/2014 5:00	0.0082	--	1/20/2014 5:00	0.0082	--
1/20/2014 6:00	0.0075	--	1/20/2014 6:00	0.0088	--	1/20/2014 6:00	0.0088	--
1/20/2014 7:00	0.0072	--	1/20/2014 7:00	0.0083	--	1/20/2014 7:00	0.0083	--
1/20/2014 8:00	0.0073	--	1/20/2014 8:00	0.0082	--	1/20/2014 8:00	0.0082	--
1/20/2014 9:00	0.0071	--	1/20/2014 9:00	0.0085	--	1/20/2014 9:00	0.0085	--
1/20/2014 10:00	0.0074	--	1/20/2014 10:00	0.0087	--	1/20/2014 10:00	0.0087	--
1/20/2014 11:00	0.0078	--	1/20/2014 11:00	0.0087	--	1/20/2014 11:00	0.0087	--
1/20/2014 12:00	0.0076	--	1/20/2014 12:00	0.0084	--	1/20/2014 12:00	0.0084	--
1/20/2014 13:00	0.0075	--	1/20/2014 13:00	0.0083	--	1/20/2014 13:00	0.0083	--
1/20/2014 14:00	0.0074	--	1/20/2014 14:00	0.0082	--	1/20/2014 14:00	0.0082	--
1/20/2014 15:00	0.0074	--	1/20/2014 15:00	0.0080	--	1/20/2014 15:00	0.0080	--
1/20/2014 16:00	0.0071	--	1/20/2014 16:00	0.0076	--	1/20/2014 16:00	0.0076	--
1/20/2014 17:00	0.0071	--	1/20/2014 17:00	0.0079	--	1/20/2014 17:00	0.0079	--
1/20/2014 18:00	0.0074	--	1/20/2014 18:00	0.0081	--	1/20/2014 18:00	0.0081	--
1/20/2014 19:00	0.0072	--	1/20/2014 19:00	0.0080	--	1/20/2014 19:00	0.0080	--
1/20/2014 20:00	0.0072	--	1/20/2014 20:00	0.0080	--	1/20/2014 20:00	0.0080	--
1/20/2014 21:00	0.0072	--	1/20/2014 21:00	0.0081	--	1/20/2014 21:00	0.0081	--
1/20/2014 22:00	0.0072	--	1/20/2014 22:00	0.0082	--	1/20/2014 22:00	0.0082	--
1/20/2014 23:00	0.0074	--	1/20/2014 23:00	0.0082	--	1/20/2014 23:00	0.0082	--
1/21/2014 0:00	0.0074	0.0073	1/21/2014 0:00	0.0082	0.0093	1/21/2014 0:00	0.0082	0.0087
1/21/2014 1:00	0.0075	--	1/21/2014 1:00	0.0085	--	1/21/2014 1:00	0.0085	--
1/21/2014 2:00	0.0077	--	1/21/2014 2:00	0.0086	--	1/21/2014 2:00	0.0086	--
1/21/2014 3:00	0.0077	--	1/21/2014 3:00	0.0085	--	1/21/2014 3:00	0.0085	--
1/21/2014 4:00	0.0075	--	1/21/2014 4:00	0.0083	--	1/21/2014 4:00	0.0083	--
1/21/2014 5:00	0.0074	--	1/21/2014 5:00	0.0082	--	1/21/2014 5:00	0.0082	--
1/21/2014 6:00	0.0078	--	1/21/2014 6:00	0.0098	--	1/21/2014 6:00	0.0098	--
1/21/2014 7:00	0.0070	--	1/21/2014 7:00	0.0087	--	1/21/2014 7:00	0.0087	--
1/21/2014 8:00	0.0073	--	1/21/2014 8:00	0.0083	--	1/21/2014 8:00	0.0083	--
1/21/2014 9:00	0.0074	--	1/21/2014 9:00	0.0084	--	1/21/2014 9:00	0.0084	--
1/21/2014 10:00	0.0074	--	1/21/2014 10:00	0.0083	--	1/21/2014 10:00	0.0083	--
1/21/2014 11:00	0.0074	--	1/21/2014 11:00	0.0082	--	1/21/2014 11:00	0.0082	--
1/21/2014 12:00	0.0073	--	1/21/2014 12:00	0.0083	--	1/21/2014 12:00	0.0083	--
1/21/2014 13:00	0.0073	--	1/21/2014 13:00	0.0083	--	1/21/2014 13:00	0.0083	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
1/21/2014 14:00	0.0073	--	1/21/2014 14:00	0.0078	--	1/21/2014 14:00	0.0078	--
1/21/2014 15:00	0.0073	--	1/21/2014 15:00	0.0078	--	1/21/2014 15:00	0.0078	--
1/21/2014 16:00	0.0073	--	1/21/2014 16:00	0.0082	--	1/21/2014 16:00	0.0082	--
1/21/2014 17:00	0.0073	--	1/21/2014 17:00	0.0081	--	1/21/2014 17:00	0.0081	--
1/21/2014 18:00	0.0072	--	1/21/2014 18:00	0.0082	--	1/21/2014 18:00	0.0082	--
1/21/2014 19:00	0.0072	--	1/21/2014 19:00	0.0081	--	1/21/2014 19:00	0.0081	--
1/21/2014 20:00	0.0073	--	1/21/2014 20:00	0.0081	--	1/21/2014 20:00	0.0081	--
1/21/2014 21:00	0.0073	--	1/21/2014 21:00	0.0082	--	1/21/2014 21:00	0.0082	--
1/21/2014 22:00	0.0073	--	1/21/2014 22:00	0.0082	--	1/21/2014 22:00	0.0082	--
1/21/2014 23:00	0.0073	--	1/21/2014 23:00	0.0082	--	1/21/2014 23:00	0.0082	--
1/22/2014 0:00	0.0073	0.0073	1/22/2014 0:00	0.0082	0.0093	1/22/2014 0:00	0.0082	0.0087
1/22/2014 1:00	0.0072	--	1/22/2014 1:00	0.0082	--	1/22/2014 1:00	0.0082	--
1/22/2014 2:00	0.0073	--	1/22/2014 2:00	0.0082	--	1/22/2014 2:00	0.0082	--
1/22/2014 3:00	0.0072	--	1/22/2014 3:00	0.0082	--	1/22/2014 3:00	0.0082	--
1/22/2014 4:00	0.0073	--	1/22/2014 4:00	0.0082	--	1/22/2014 4:00	0.0082	--
1/22/2014 5:00	0.0074	--	1/22/2014 5:00	0.0082	--	1/22/2014 5:00	0.0082	--
1/22/2014 6:00	0.0076	--	1/22/2014 6:00	0.0089	--	1/22/2014 6:00	0.0089	--
1/22/2014 7:00	0.0073	--	1/22/2014 7:00	0.0083	--	1/22/2014 7:00	0.0083	--
1/22/2014 8:00	0.0074	--	1/22/2014 8:00	0.0080	--	1/22/2014 8:00	0.0080	--
1/22/2014 9:00	0.0074	--	1/22/2014 9:00	0.0095	--	1/22/2014 9:00	0.0095	--
1/22/2014 10:00	0.0076	--	1/22/2014 10:00	0.0071	--	1/22/2014 10:00	0.0071	--
1/22/2014 11:00	0.0075	--	1/22/2014 11:00	0.0082	--	1/22/2014 11:00	0.0082	--
1/22/2014 12:00	0.0075	--	1/22/2014 12:00	0.0083	--	1/22/2014 12:00	0.0083	--
1/22/2014 13:00	0.0074	--	1/22/2014 13:00	0.0082	--	1/22/2014 13:00	0.0082	--
1/22/2014 14:00	0.0073	--	1/22/2014 14:00	0.0082	--	1/22/2014 14:00	0.0082	--
1/22/2014 15:00	0.0072	--	1/22/2014 15:00	0.0080	--	1/22/2014 15:00	0.0080	--
1/22/2014 16:00	0.0071	--	1/22/2014 16:00	0.0079	--	1/22/2014 16:00	0.0079	--
1/22/2014 17:00	0.0071	--	1/22/2014 17:00	0.0079	--	1/22/2014 17:00	0.0079	--
1/22/2014 18:00	0.0071	--	1/22/2014 18:00	0.0080	--	1/22/2014 18:00	0.0080	--
1/22/2014 19:00	0.0072	--	1/22/2014 19:00	0.0081	--	1/22/2014 19:00	0.0081	--
1/22/2014 20:00	0.0072	--	1/22/2014 20:00	0.0082	--	1/22/2014 20:00	0.0082	--
1/22/2014 21:00	0.0072	--	1/22/2014 21:00	0.0081	--	1/22/2014 21:00	0.0081	--
1/22/2014 22:00	0.0073	--	1/22/2014 22:00	0.0082	--	1/22/2014 22:00	0.0082	--
1/22/2014 23:00	0.0072	--	1/22/2014 23:00	0.0081	--	1/22/2014 23:00	0.0081	--
1/23/2014 0:00	0.0073	0.0073	1/23/2014 0:00	0.0082	0.0092	1/23/2014 0:00	0.0082	0.0088
1/23/2014 1:00	0.0074	--	1/23/2014 1:00	0.0082	--	1/23/2014 1:00	0.0082	--
1/23/2014 2:00	0.0072	--	1/23/2014 2:00	0.0081	--	1/23/2014 2:00	0.0081	--
1/23/2014 3:00	0.0073	--	1/23/2014 3:00	0.0082	--	1/23/2014 3:00	0.0082	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
1/23/2014 4:00	0.0074	--	1/23/2014 4:00	0.0082	--	1/23/2014 4:00	0.0082	--
1/23/2014 5:00	0.0073	--	1/23/2014 5:00	0.0082	--	1/23/2014 5:00	0.0082	--
1/23/2014 6:00	0.0077	--	1/23/2014 6:00	0.0091	--	1/23/2014 6:00	0.0091	--
1/23/2014 7:00	0.0074	--	1/23/2014 7:00	0.0083	--	1/23/2014 7:00	0.0083	--
1/23/2014 8:00	0.0075	--	1/23/2014 8:00	0.0086	--	1/23/2014 8:00	0.0086	--
1/23/2014 9:00	0.0077	--	1/23/2014 9:00	0.0088	--	1/23/2014 9:00	0.0088	--
1/23/2014 10:00	0.0076	--	1/23/2014 10:00	0.0083	--	1/23/2014 10:00	0.0083	--
1/23/2014 11:00	0.0075	--	1/23/2014 11:00	0.0082	--	1/23/2014 11:00	0.0082	--
1/23/2014 12:00	0.0070	--	1/23/2014 12:00	0.0079	--	1/23/2014 12:00	0.0079	--
1/23/2014 13:00	0.0071	--	1/23/2014 13:00	0.0080	--	1/23/2014 13:00	0.0080	--
1/23/2014 14:00	0.0070	--	1/23/2014 14:00	0.0081	--	1/23/2014 14:00	0.0081	--
1/23/2014 15:00	0.0072	--	1/23/2014 15:00	0.0080	--	1/23/2014 15:00	0.0080	--
1/23/2014 16:00	0.0073	--	1/23/2014 16:00	0.0081	--	1/23/2014 16:00	0.0081	--
1/23/2014 17:00	0.0074	--	1/23/2014 17:00	0.0081	--	1/23/2014 17:00	0.0081	--
1/23/2014 18:00	0.0075	--	1/23/2014 18:00	0.0082	--	1/23/2014 18:00	0.0082	--
1/23/2014 19:00	0.0075	--	1/23/2014 19:00	0.0082	--	1/23/2014 19:00	0.0082	--
1/23/2014 20:00	0.0073	--	1/23/2014 20:00	0.0080	--	1/23/2014 20:00	0.0080	--
1/23/2014 21:00	0.0073	--	1/23/2014 21:00	0.0083	--	1/23/2014 21:00	0.0083	--
1/23/2014 22:00	0.0073	--	1/23/2014 22:00	0.0081	--	1/23/2014 22:00	0.0081	--
1/23/2014 23:00	0.0072	--	1/23/2014 23:00	0.0080	--	1/23/2014 23:00	0.0080	--
1/24/2014 0:00	0.0072	0.0073	1/24/2014 0:00	0.0080	0.0092	1/24/2014 0:00	0.0080	0.0088
1/24/2014 1:00	0.0073	--	1/24/2014 1:00	0.0081	--	1/24/2014 1:00	0.0081	--
1/24/2014 2:00	0.0074	--	1/24/2014 2:00	0.0081	--	1/24/2014 2:00	0.0081	--
1/24/2014 3:00	0.0072	--	1/24/2014 3:00	0.0080	--	1/24/2014 3:00	0.0080	--
1/24/2014 4:00	0.0072	--	1/24/2014 4:00	0.0080	--	1/24/2014 4:00	0.0080	--
1/24/2014 5:00	0.0072	--	1/24/2014 5:00	0.0080	--	1/24/2014 5:00	0.0080	--
1/24/2014 6:00	0.0075	--	1/24/2014 6:00	0.0083	--	1/24/2014 6:00	0.0083	--
1/24/2014 7:00	0.0072	--	1/24/2014 7:00	0.0080	--	1/24/2014 7:00	0.0080	--
1/24/2014 8:00	0.0073	--	1/24/2014 8:00	0.0081	--	1/24/2014 8:00	0.0081	--
1/24/2014 9:00	0.0072	--	1/24/2014 9:00	0.0082	--	1/24/2014 9:00	0.0082	--
1/24/2014 10:00	0.0073	--	1/24/2014 10:00	0.0082	--	1/24/2014 10:00	0.0082	--
1/24/2014 11:00	0.0073	--	1/24/2014 11:00	0.0082	--	1/24/2014 11:00	0.0082	--
1/24/2014 12:00	0.0074	--	1/24/2014 12:00	0.0082	--	1/24/2014 12:00	0.0082	--
1/24/2014 13:00	0.0072	--	1/24/2014 13:00	0.0079	--	1/24/2014 13:00	0.0079	--
1/24/2014 14:00	0.0073	--	1/24/2014 14:00	0.0081	--	1/24/2014 14:00	0.0081	--
1/24/2014 15:00	0.0073	--	1/24/2014 15:00	0.0081	--	1/24/2014 15:00	0.0081	--
1/24/2014 16:00	0.0072	--	1/24/2014 16:00	0.0081	--	1/24/2014 16:00	0.0081	--
1/24/2014 17:00	0.0072	--	1/24/2014 17:00	0.0081	--	1/24/2014 17:00	0.0081	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
1/24/2014 18:00	0.0072	--	1/24/2014 18:00	0.0081	--	1/24/2014 18:00	0.0081	--
1/24/2014 19:00	0.0072	--	1/24/2014 19:00	0.0081	--	1/24/2014 19:00	0.0081	--
1/24/2014 20:00	0.0072	--	1/24/2014 20:00	0.0081	--	1/24/2014 20:00	0.0081	--
1/24/2014 21:00	0.0072	--	1/24/2014 21:00	0.0081	--	1/24/2014 21:00	0.0081	--
1/24/2014 22:00	0.0072	--	1/24/2014 22:00	0.0081	--	1/24/2014 22:00	0.0081	--
1/24/2014 23:00	0.0071	--	1/24/2014 23:00	0.0081	--	1/24/2014 23:00	0.0081	--
1/25/2014 0:00	0.0072	0.0073	1/25/2014 0:00	0.0080	0.0091	1/25/2014 0:00	0.0080	0.0088
1/25/2014 1:00	0.0073	--	1/25/2014 1:00	0.0082	--	1/25/2014 1:00	0.0082	--
1/25/2014 2:00	0.0073	--	1/25/2014 2:00	0.0081	--	1/25/2014 2:00	0.0081	--
1/25/2014 3:00	0.0071	--	1/25/2014 3:00	0.0081	--	1/25/2014 3:00	0.0081	--
1/25/2014 4:00	0.0073	--	1/25/2014 4:00	0.0082	--	1/25/2014 4:00	0.0082	--
1/25/2014 5:00	0.0073	--	1/25/2014 5:00	0.0081	--	1/25/2014 5:00	0.0081	--
1/25/2014 6:00	0.0074	--	1/25/2014 6:00	0.0086	--	1/25/2014 6:00	0.0086	--
1/25/2014 7:00	0.0072	--	1/25/2014 7:00	0.0081	--	1/25/2014 7:00	0.0081	--
1/25/2014 8:00	0.0073	--	1/25/2014 8:00	0.0081	--	1/25/2014 8:00	0.0081	--
1/25/2014 9:00	0.0074	--	1/25/2014 9:00	0.0082	--	1/25/2014 9:00	0.0082	--
1/25/2014 10:00	0.0074	--	1/25/2014 10:00	0.0082	--	1/25/2014 10:00	0.0082	--
1/25/2014 11:00	0.0074	--	1/25/2014 11:00	0.0082	--	1/25/2014 11:00	0.0082	--
1/25/2014 12:00	0.0074	--	1/25/2014 12:00	0.0082	--	1/25/2014 12:00	0.0082	--
1/25/2014 13:00	0.0074	--	1/25/2014 13:00	0.0081	--	1/25/2014 13:00	0.0081	--
1/25/2014 14:00	0.0073	--	1/25/2014 14:00	0.0079	--	1/25/2014 14:00	0.0079	--
1/25/2014 15:00	0.0071	--	1/25/2014 15:00	0.0076	--	1/25/2014 15:00	0.0076	--
1/25/2014 16:00	0.0072	--	1/25/2014 16:00	0.0078	--	1/25/2014 16:00	0.0078	--
1/25/2014 17:00	0.0071	--	1/25/2014 17:00	0.0079	--	1/25/2014 17:00	0.0079	--
1/25/2014 18:00	0.0070	--	1/25/2014 18:00	0.0079	--	1/25/2014 18:00	0.0079	--
1/25/2014 19:00	0.0071	--	1/25/2014 19:00	0.0079	--	1/25/2014 19:00	0.0079	--
1/25/2014 20:00	0.0073	--	1/25/2014 20:00	0.0079	--	1/25/2014 20:00	0.0079	--
1/25/2014 21:00	0.0072	--	1/25/2014 21:00	0.0080	--	1/25/2014 21:00	0.0080	--
1/25/2014 22:00	0.0071	--	1/25/2014 22:00	0.0079	--	1/25/2014 22:00	0.0079	--
1/25/2014 23:00	0.0071	--	1/25/2014 23:00	0.0079	--	1/25/2014 23:00	0.0079	--
1/26/2014 0:00	0.0071	0.0073	1/26/2014 0:00	0.0079	0.0091	1/26/2014 0:00	0.0079	0.0088
1/26/2014 1:00	0.0072	--	1/26/2014 1:00	0.0080	--	1/26/2014 1:00	0.0080	--
1/26/2014 2:00	0.0073	--	1/26/2014 2:00	0.0080	--	1/26/2014 2:00	0.0080	--
1/26/2014 3:00	0.0072	--	1/26/2014 3:00	0.0080	--	1/26/2014 3:00	0.0080	--
1/26/2014 4:00	0.0072	--	1/26/2014 4:00	0.0080	--	1/26/2014 4:00	0.0080	--
1/26/2014 5:00	0.0073	--	1/26/2014 5:00	0.0080	--	1/26/2014 5:00	0.0080	--
1/26/2014 6:00	0.0077	--	1/26/2014 6:00	0.0091	--	1/26/2014 6:00	0.0091	--
1/26/2014 7:00	0.0074	--	1/26/2014 7:00	0.0081	--	1/26/2014 7:00	0.0081	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
1/26/2014 8:00	0.0073	--	1/26/2014 8:00	0.0081	--	1/26/2014 8:00	0.0081	--
1/26/2014 9:00	0.0075	--	1/26/2014 9:00	0.0083	--	1/26/2014 9:00	0.0083	--
1/26/2014 10:00	0.0076	--	1/26/2014 10:00	0.0083	--	1/26/2014 10:00	0.0083	--
1/26/2014 11:00	0.0076	--	1/26/2014 11:00	0.0081	--	1/26/2014 11:00	0.0081	--
1/26/2014 12:00	0.0072	--	1/26/2014 12:00	0.0081	--	1/26/2014 12:00	0.0081	--
1/26/2014 13:00	0.0074	--	1/26/2014 13:00	0.0080	--	1/26/2014 13:00	0.0080	--
1/26/2014 14:00	0.0074	--	1/26/2014 14:00	0.0080	--	1/26/2014 14:00	0.0080	--
1/26/2014 15:00	0.0073	--	1/26/2014 15:00	0.0080	--	1/26/2014 15:00	0.0080	--
1/26/2014 16:00	0.0073	--	1/26/2014 16:00	0.0080	--	1/26/2014 16:00	0.0080	--
1/26/2014 17:00	0.0070	--	1/26/2014 17:00	0.0077	--	1/26/2014 17:00	0.0077	--
1/26/2014 18:00	0.0072	--	1/26/2014 18:00	0.0078	--	1/26/2014 18:00	0.0078	--
1/26/2014 19:00	0.0071	--	1/26/2014 19:00	0.0077	--	1/26/2014 19:00	0.0077	--
1/26/2014 20:00	0.0071	--	1/26/2014 20:00	0.0079	--	1/26/2014 20:00	0.0079	--
1/26/2014 21:00	0.0072	--	1/26/2014 21:00	0.0080	--	1/26/2014 21:00	0.0080	--
1/26/2014 22:00	0.0071	--	1/26/2014 22:00	0.0080	--	1/26/2014 22:00	0.0080	--
1/26/2014 23:00	0.0072	--	1/26/2014 23:00	0.0080	--	1/26/2014 23:00	0.0080	--
1/27/2014 0:00	0.0072	0.0073	1/27/2014 0:00	0.0080	0.0091	1/27/2014 0:00	0.0080	0.0088
1/27/2014 1:00	0.0071	--	1/27/2014 1:00	0.0080	--	1/27/2014 1:00	0.0080	--
1/27/2014 2:00	0.0072	--	1/27/2014 2:00	0.0080	--	1/27/2014 2:00	0.0080	--
1/27/2014 3:00	0.0072	--	1/27/2014 3:00	0.0081	--	1/27/2014 3:00	0.0081	--
1/27/2014 4:00	0.0074	--	1/27/2014 4:00	0.0082	--	1/27/2014 4:00	0.0082	--
1/27/2014 5:00	0.0073	--	1/27/2014 5:00	0.0080	--	1/27/2014 5:00	0.0080	--
1/27/2014 6:00	0.0075	--	1/27/2014 6:00	0.0099	--	1/27/2014 6:00	0.0099	--
1/27/2014 7:00	0.0073	--	1/27/2014 7:00	0.0083	--	1/27/2014 7:00	0.0083	--
1/27/2014 8:00	0.0074	--	1/27/2014 8:00	0.0082	--	1/27/2014 8:00	0.0082	--
1/27/2014 9:00	0.0074	--	1/27/2014 9:00	0.0082	--	1/27/2014 9:00	0.0082	--
1/27/2014 10:00	0.0073	--	1/27/2014 10:00	0.0081	--	1/27/2014 10:00	0.0081	--
1/27/2014 11:00	0.0074	--	1/27/2014 11:00	0.0083	--	1/27/2014 11:00	0.0083	--
1/27/2014 12:00	0.0074	--	1/27/2014 12:00	0.0082	--	1/27/2014 12:00	0.0082	--
1/27/2014 13:00	0.0074	--	1/27/2014 13:00	0.0081	--	1/27/2014 13:00	0.0081	--
1/27/2014 14:00	0.0074	--	1/27/2014 14:00	0.0082	--	1/27/2014 14:00	0.0082	--
1/27/2014 15:00	0.0076	--	1/27/2014 15:00	0.0084	--	1/27/2014 15:00	0.0084	--
1/27/2014 16:00	0.0075	--	1/27/2014 16:00	0.0081	--	1/27/2014 16:00	0.0081	--
1/27/2014 17:00	0.0074	--	1/27/2014 17:00	0.0081	--	1/27/2014 17:00	0.0081	--
1/27/2014 18:00	0.0074	--	1/27/2014 18:00	0.0081	--	1/27/2014 18:00	0.0081	--
1/27/2014 19:00	0.0073	--	1/27/2014 19:00	0.0081	--	1/27/2014 19:00	0.0081	--
1/27/2014 20:00	0.0073	--	1/27/2014 20:00	0.0081	--	1/27/2014 20:00	0.0081	--
1/27/2014 21:00	0.0073	--	1/27/2014 21:00	0.0081	--	1/27/2014 21:00	0.0081	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
1/27/2014 22:00	0.0074	--	1/27/2014 22:00	0.0082	--	1/27/2014 22:00	0.0082	--
1/27/2014 23:00	0.0073	--	1/27/2014 23:00	0.0081	--	1/27/2014 23:00	0.0081	--
1/28/2014 0:00	0.0073	0.0074	1/28/2014 0:00	0.0082	0.0091	1/28/2014 0:00	0.0082	0.0088
1/28/2014 1:00	0.0074	--	1/28/2014 1:00	0.0083	--	1/28/2014 1:00	0.0083	--
1/28/2014 2:00	0.0073	--	1/28/2014 2:00	0.0081	--	1/28/2014 2:00	0.0081	--
1/28/2014 3:00	0.0072	--	1/28/2014 3:00	0.0081	--	1/28/2014 3:00	0.0081	--
1/28/2014 4:00	0.0072	--	1/28/2014 4:00	0.0081	--	1/28/2014 4:00	0.0081	--
1/28/2014 5:00	0.0072	--	1/28/2014 5:00	0.0081	--	1/28/2014 5:00	0.0081	--
1/28/2014 6:00	0.0078	--	1/28/2014 6:00	0.0096	--	1/28/2014 6:00	0.0096	--
1/28/2014 7:00	0.0074	--	1/28/2014 7:00	0.0082	--	1/28/2014 7:00	0.0082	--
1/28/2014 8:00	0.0071	--	1/28/2014 8:00	0.0080	--	1/28/2014 8:00	0.0080	--
1/28/2014 9:00	0.0072	--	1/28/2014 9:00	0.0081	--	1/28/2014 9:00	0.0081	--
1/28/2014 10:00	0.0074	--	1/28/2014 10:00	0.0082	--	1/28/2014 10:00	0.0082	--
1/28/2014 11:00	0.0073	--	1/28/2014 11:00	0.0081	--	1/28/2014 11:00	0.0081	--
1/28/2014 12:00	0.0070	--	1/28/2014 12:00	0.0079	--	1/28/2014 12:00	0.0079	--
1/28/2014 13:00	0.0074	--	1/28/2014 13:00	0.0083	--	1/28/2014 13:00	0.0083	--
1/28/2014 14:00	0.0076	--	1/28/2014 14:00	0.0085	--	1/28/2014 14:00	0.0085	--
1/28/2014 15:00	0.0074	--	1/28/2014 15:00	0.0082	--	1/28/2014 15:00	0.0082	--
1/28/2014 16:00	0.0074	--	1/28/2014 16:00	0.0083	--	1/28/2014 16:00	0.0083	--
1/28/2014 17:00	0.0077	--	1/28/2014 17:00	0.0087	--	1/28/2014 17:00	0.0087	--
1/28/2014 18:00	0.0074	--	1/28/2014 18:00	0.0084	--	1/28/2014 18:00	0.0084	--
1/28/2014 19:00	0.0074	--	1/28/2014 19:00	0.0082	--	1/28/2014 19:00	0.0082	--
1/28/2014 20:00	0.0074	--	1/28/2014 20:00	0.0081	--	1/28/2014 20:00	0.0081	--
1/28/2014 21:00	0.0074	--	1/28/2014 21:00	0.0081	--	1/28/2014 21:00	0.0081	--
1/28/2014 22:00	0.0073	--	1/28/2014 22:00	0.0081	--	1/28/2014 22:00	0.0081	--
1/28/2014 23:00	0.0073	--	1/28/2014 23:00	0.0081	--	1/28/2014 23:00	0.0081	--
1/29/2014 0:00	0.0072	0.0074	1/29/2014 0:00	0.0081	0.0090	1/29/2014 0:00	0.0081	0.0087
1/29/2014 1:00	0.0072	--	1/29/2014 1:00	0.0081	--	1/29/2014 1:00	0.0081	--
1/29/2014 2:00	0.0073	--	1/29/2014 2:00	0.0082	--	1/29/2014 2:00	0.0082	--
1/29/2014 3:00	0.0073	--	1/29/2014 3:00	0.0082	--	1/29/2014 3:00	0.0082	--
1/29/2014 4:00	0.0072	--	1/29/2014 4:00	0.0080	--	1/29/2014 4:00	0.0080	--
1/29/2014 5:00	0.0070	--	1/29/2014 5:00	0.0080	--	1/29/2014 5:00	0.0080	--
1/29/2014 6:00	0.0076	--	1/29/2014 6:00	0.0079	--	1/29/2014 6:00	0.0079	--
1/29/2014 7:00	0.0075	--	1/29/2014 7:00	0.0081	--	1/29/2014 7:00	0.0081	--
1/29/2014 8:00	0.0074	--	1/29/2014 8:00	0.0082	--	1/29/2014 8:00	0.0082	--
1/29/2014 9:00	0.0073	--	1/29/2014 9:00	0.0081	--	1/29/2014 9:00	0.0081	--
1/29/2014 10:00	0.0071	--	1/29/2014 10:00	0.0079	--	1/29/2014 10:00	0.0079	--
1/29/2014 11:00	0.0073	--	1/29/2014 11:00	0.0081	--	1/29/2014 11:00	0.0081	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
1/29/2014 12:00	0.0073	--	1/29/2014 12:00	0.0081	--	1/29/2014 12:00	0.0081	--
1/29/2014 13:00	0.0073	--	1/29/2014 13:00	0.0081	--	1/29/2014 13:00	0.0081	--
1/29/2014 14:00	0.0074	--	1/29/2014 14:00	0.0082	--	1/29/2014 14:00	0.0082	--
1/29/2014 15:00	0.0073	--	1/29/2014 15:00	0.0080	--	1/29/2014 15:00	0.0080	--
1/29/2014 16:00	0.0073	--	1/29/2014 16:00	0.0080	--	1/29/2014 16:00	0.0080	--
1/29/2014 17:00	0.0072	--	1/29/2014 17:00	0.0080	--	1/29/2014 17:00	0.0080	--
1/29/2014 18:00	0.0070	--	1/29/2014 18:00	0.0078	--	1/29/2014 18:00	0.0078	--
1/29/2014 19:00	0.0071	--	1/29/2014 19:00	0.0080	--	1/29/2014 19:00	0.0080	--
1/29/2014 20:00	0.0071	--	1/29/2014 20:00	0.0080	--	1/29/2014 20:00	0.0080	--
1/29/2014 21:00	0.0073	--	1/29/2014 21:00	0.0081	--	1/29/2014 21:00	0.0081	--
1/29/2014 22:00	0.0072	--	1/29/2014 22:00	0.0080	--	1/29/2014 22:00	0.0080	--
1/29/2014 23:00	0.0072	--	1/29/2014 23:00	0.0080	--	1/29/2014 23:00	0.0080	--
1/30/2014 0:00	0.0072	0.0074	1/30/2014 0:00	0.0081	0.0090	1/30/2014 0:00	0.0081	0.0087
1/30/2014 1:00	0.0073	--	1/30/2014 1:00	0.0081	--	1/30/2014 1:00	0.0081	--
1/30/2014 2:00	0.0072	--	1/30/2014 2:00	0.0080	--	1/30/2014 2:00	0.0080	--
1/30/2014 3:00	0.0073	--	1/30/2014 3:00	0.0080	--	1/30/2014 3:00	0.0080	--
1/30/2014 4:00	0.0073	--	1/30/2014 4:00	0.0081	--	1/30/2014 4:00	0.0081	--
1/30/2014 5:00	0.0071	--	1/30/2014 5:00	0.0079	--	1/30/2014 5:00	0.0079	--
1/30/2014 6:00	0.0076	--	1/30/2014 6:00	0.0091	--	1/30/2014 6:00	0.0091	--
1/30/2014 7:00	0.0073	--	1/30/2014 7:00	0.0082	--	1/30/2014 7:00	0.0082	--
1/30/2014 8:00	0.0074	--	1/30/2014 8:00	0.0081	--	1/30/2014 8:00	0.0081	--
1/30/2014 9:00	0.0074	--	1/30/2014 9:00	0.0082	--	1/30/2014 9:00	0.0082	--
1/30/2014 10:00	0.0074	--	1/30/2014 10:00	0.0082	--	1/30/2014 10:00	0.0082	--
1/30/2014 11:00	0.0074	--	1/30/2014 11:00	0.0081	--	1/30/2014 11:00	0.0081	--
1/30/2014 12:00	0.0073	--	1/30/2014 12:00	0.0081	--	1/30/2014 12:00	0.0081	--
1/30/2014 13:00	0.0072	--	1/30/2014 13:00	0.0080	--	1/30/2014 13:00	0.0080	--
1/30/2014 14:00	0.0072	--	1/30/2014 14:00	0.0080	--	1/30/2014 14:00	0.0080	--
1/30/2014 15:00	0.0072	--	1/30/2014 15:00	0.0080	--	1/30/2014 15:00	0.0080	--
1/30/2014 16:00	0.0072	--	1/30/2014 16:00	0.0079	--	1/30/2014 16:00	0.0079	--
1/30/2014 17:00	0.0071	--	1/30/2014 17:00	0.0079	--	1/30/2014 17:00	0.0079	--
1/30/2014 18:00	0.0071	--	1/30/2014 18:00	0.0079	--	1/30/2014 18:00	0.0079	--
1/30/2014 19:00	0.0073	--	1/30/2014 19:00	0.0080	--	1/30/2014 19:00	0.0080	--
1/30/2014 20:00	0.0072	--	1/30/2014 20:00	0.0080	--	1/30/2014 20:00	0.0080	--
1/30/2014 21:00	0.0072	--	1/30/2014 21:00	0.0080	--	1/30/2014 21:00	0.0080	--
1/30/2014 22:00	0.0073	--	1/30/2014 22:00	0.0080	--	1/30/2014 22:00	0.0080	--
1/30/2014 23:00	0.0072	0.0074	1/30/2014 23:00	0.0080	0.0090	1/30/2014 23:00	0.0080	0.0087
1/31/2014 0:00	0.0072	--	1/31/2014 0:00	0.0080	--	1/31/2014 0:00	0.0080	--
1/31/2014 1:00	0.0072	--	1/31/2014 1:00	0.0080	--	1/31/2014 1:00	0.0080	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
1/31/2014 2:00	0.0072	--	1/31/2014 2:00	0.0081	--	1/31/2014 2:00	0.0081	--
1/31/2014 3:00	0.0072	--	1/31/2014 3:00	0.0081	--	1/31/2014 3:00	0.0081	--
1/31/2014 4:00	0.0072	--	1/31/2014 4:00	0.0080	--	1/31/2014 4:00	0.0080	--
1/31/2014 5:00	0.0073	--	1/31/2014 5:00	0.0076	--	1/31/2014 5:00	0.0076	--
1/31/2014 6:00	0.0074	--	1/31/2014 6:00	0.0081	--	1/31/2014 6:00	0.0081	--
1/31/2014 7:00	0.0069	--	1/31/2014 7:00	0.0078	--	1/31/2014 7:00	0.0078	--
1/31/2014 8:00	0.0070	--	1/31/2014 8:00	0.0079	--	1/31/2014 8:00	0.0079	--
1/31/2014 9:00	0.0073	--	1/31/2014 9:00	0.0080	--	1/31/2014 9:00	0.0080	--
1/31/2014 10:00	0.0073	--	1/31/2014 10:00	0.0081	--	1/31/2014 10:00	0.0081	--
1/31/2014 11:00	0.0073	--	1/31/2014 11:00	0.0081	--	1/31/2014 11:00	0.0081	--
1/31/2014 12:00	0.0073	--	1/31/2014 12:00	0.0081	--	1/31/2014 12:00	0.0081	--
1/31/2014 13:00	0.0073	--	1/31/2014 13:00	0.0080	--	1/31/2014 13:00	0.0080	--
1/31/2014 14:00	0.0072	--	1/31/2014 14:00	0.0079	--	1/31/2014 14:00	0.0079	--
1/31/2014 15:00	0.0073	--	1/31/2014 15:00	0.0080	--	1/31/2014 15:00	0.0080	--
1/31/2014 16:00	0.0073	--	1/31/2014 16:00	0.0079	--	1/31/2014 16:00	0.0079	--
1/31/2014 17:00	0.0073	--	1/31/2014 17:00	0.0080	--	1/31/2014 17:00	0.0080	--
1/31/2014 18:00	0.0072	--	1/31/2014 18:00	0.0079	--	1/31/2014 18:00	0.0079	--
1/31/2014 19:00	0.0073	--	1/31/2014 19:00	0.0080	--	1/31/2014 19:00	0.0080	--
1/31/2014 20:00	0.0073	--	1/31/2014 20:00	0.0080	--	1/31/2014 20:00	0.0080	--
1/31/2014 21:00	0.0073	--	1/31/2014 21:00	0.0080	--	1/31/2014 21:00	0.0080	--
1/31/2014 22:00	0.0073	--	1/31/2014 22:00	0.0080	--	1/31/2014 22:00	0.0080	--
1/31/2014 23:00	0.0073	0.0074	1/31/2014 23:00	0.0080	0.0089	1/31/2014 23:00	0.0080	0.0087
2/1/2014 0:00	0.0073	--	2/1/2014 0:00	0.0080	--	2/1/2014 0:00	0.0080	--
2/1/2014 1:00	0.0073	--	2/1/2014 1:00	0.0080	--	2/1/2014 1:00	0.0080	--
2/1/2014 2:00	0.0072	--	2/1/2014 2:00	0.0080	--	2/1/2014 2:00	0.0080	--
2/1/2014 3:00	0.0072	--	2/1/2014 3:00	0.0080	--	2/1/2014 3:00	0.0080	--
2/1/2014 4:00	0.0073	--	2/1/2014 4:00	0.0080	--	2/1/2014 4:00	0.0080	--
2/1/2014 5:00	0.0072	--	2/1/2014 5:00	0.0080	--	2/1/2014 5:00	0.0080	--
2/1/2014 6:00	0.0070	--	2/1/2014 6:00	0.0083	--	2/1/2014 6:00	0.0083	--
2/1/2014 7:00	0.0069	--	2/1/2014 7:00	0.0076	--	2/1/2014 7:00	0.0076	--
2/1/2014 8:00	0.0072	--	2/1/2014 8:00	0.0080	--	2/1/2014 8:00	0.0080	--
2/1/2014 9:00	0.0073	--	2/1/2014 9:00	0.0080	--	2/1/2014 9:00	0.0080	--
2/1/2014 10:00	0.0072	--	2/1/2014 10:00	0.0081	--	2/1/2014 10:00	0.0081	--
2/1/2014 11:00	0.0071	--	2/1/2014 11:00	0.0081	--	2/1/2014 11:00	0.0081	--
2/1/2014 12:00	0.0072	--	2/1/2014 12:00	0.0080	--	2/1/2014 12:00	0.0080	--
2/1/2014 13:00	0.0073	--	2/1/2014 13:00	0.0081	--	2/1/2014 13:00	0.0081	--
2/1/2014 14:00	0.0073	--	2/1/2014 14:00	0.0081	--	2/1/2014 14:00	0.0081	--
2/1/2014 15:00	0.0073	--	2/1/2014 15:00	0.0080	--	2/1/2014 15:00	0.0080	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
2/1/2014 16:00	0.0072	--	2/1/2014 16:00	0.0079	--	2/1/2014 16:00	0.0079	--
2/1/2014 17:00	0.0072	--	2/1/2014 17:00	0.0077	--	2/1/2014 17:00	0.0077	--
2/1/2014 18:00	0.0073	--	2/1/2014 18:00	0.0080	--	2/1/2014 18:00	0.0080	--
2/1/2014 19:00	0.0073	--	2/1/2014 19:00	0.0080	--	2/1/2014 19:00	0.0080	--
2/1/2014 20:00	0.0073	--	2/1/2014 20:00	0.0080	--	2/1/2014 20:00	0.0080	--
2/1/2014 21:00	0.0073	--	2/1/2014 21:00	0.0080	--	2/1/2014 21:00	0.0080	--
2/1/2014 22:00	0.0073	--	2/1/2014 22:00	0.0080	--	2/1/2014 22:00	0.0080	--
2/1/2014 23:00	0.0071	0.0074	2/1/2014 23:00	0.0080	0.0089	2/1/2014 23:00	0.0080	0.0086
2/2/2014 0:00	0.0072	--	2/2/2014 0:00	0.0080	--	2/2/2014 0:00	0.0080	--
2/2/2014 1:00	0.0072	--	2/2/2014 1:00	0.0080	--	2/2/2014 1:00	0.0080	--
2/2/2014 2:00	0.0073	--	2/2/2014 2:00	0.0080	--	2/2/2014 2:00	0.0080	--
2/2/2014 3:00	0.0072	--	2/2/2014 3:00	0.0080	--	2/2/2014 3:00	0.0080	--
2/2/2014 4:00	0.0071	--	2/2/2014 4:00	0.0080	--	2/2/2014 4:00	0.0080	--
2/2/2014 5:00	0.0071	--	2/2/2014 5:00	0.0076	--	2/2/2014 5:00	0.0076	--
2/2/2014 6:00	0.0075	--	2/2/2014 6:00	0.0093	--	2/2/2014 6:00	0.0093	--
2/2/2014 7:00	0.0072	--	2/2/2014 7:00	0.0080	--	2/2/2014 7:00	0.0080	--
2/2/2014 8:00	0.0073	--	2/2/2014 8:00	0.0080	--	2/2/2014 8:00	0.0080	--
2/2/2014 9:00	0.0074	--	2/2/2014 9:00	0.0085	--	2/2/2014 9:00	0.0085	--
2/2/2014 10:00	0.0076	--	2/2/2014 10:00	0.0086	--	2/2/2014 10:00	0.0086	--
2/2/2014 11:00	0.0075	--	2/2/2014 11:00	0.0083	--	2/2/2014 11:00	0.0083	--
2/2/2014 12:00	0.0074	--	2/2/2014 12:00	0.0081	--	2/2/2014 12:00	0.0081	--
2/2/2014 13:00	0.0072	--	2/2/2014 13:00	0.0081	--	2/2/2014 13:00	0.0081	--
2/2/2014 14:00	0.0069	--	2/2/2014 14:00	0.0081	--	2/2/2014 14:00	0.0081	--
2/2/2014 15:00	0.0071	--	2/2/2014 15:00	0.0080	--	2/2/2014 15:00	0.0080	--
2/2/2014 16:00	0.0072	--	2/2/2014 16:00	0.0080	--	2/2/2014 16:00	0.0080	--
2/2/2014 17:00	0.0071	--	2/2/2014 17:00	0.0080	--	2/2/2014 17:00	0.0080	--
2/2/2014 18:00	0.0073	--	2/2/2014 18:00	0.0081	--	2/2/2014 18:00	0.0081	--
2/2/2014 19:00	0.0073	--	2/2/2014 19:00	0.0081	--	2/2/2014 19:00	0.0081	--
2/2/2014 20:00	0.0073	--	2/2/2014 20:00	0.0081	--	2/2/2014 20:00	0.0081	--
2/2/2014 21:00	0.0074	--	2/2/2014 21:00	0.0081	--	2/2/2014 21:00	0.0081	--
2/2/2014 22:00	0.0073	--	2/2/2014 22:00	0.0081	--	2/2/2014 22:00	0.0081	--
2/2/2014 23:00	0.0073	0.0074	2/2/2014 23:00	0.0081	0.0088	2/2/2014 23:00	0.0081	0.0086
2/3/2014 0:00	0.0073	--	2/3/2014 0:00	0.0081	--	2/3/2014 0:00	0.0081	--
2/3/2014 1:00	0.0073	--	2/3/2014 1:00	0.0080	--	2/3/2014 1:00	0.0080	--
2/3/2014 2:00	0.0072	--	2/3/2014 2:00	0.0080	--	2/3/2014 2:00	0.0080	--
2/3/2014 3:00	0.0072	--	2/3/2014 3:00	0.0078	--	2/3/2014 3:00	0.0078	--
2/3/2014 4:00	0.0072	--	2/3/2014 4:00	0.0081	--	2/3/2014 4:00	0.0081	--
2/3/2014 5:00	0.0072	--	2/3/2014 5:00	0.0081	--	2/3/2014 5:00	0.0081	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
2/3/2014 6:00	0.0076	--	2/3/2014 6:00	0.0089	--	2/3/2014 6:00	0.0089	--
2/3/2014 7:00	0.0074	--	2/3/2014 7:00	0.0081	--	2/3/2014 7:00	0.0081	--
2/3/2014 8:00	0.0072	--	2/3/2014 8:00	0.0080	--	2/3/2014 8:00	0.0080	--
2/3/2014 9:00	0.0073	--	2/3/2014 9:00	0.0081	--	2/3/2014 9:00	0.0081	--
2/3/2014 10:00	0.0072	--	2/3/2014 10:00	0.0081	--	2/3/2014 10:00	0.0081	--
2/3/2014 11:00	0.0073	--	2/3/2014 11:00	0.0081	--	2/3/2014 11:00	0.0081	--
2/3/2014 12:00	0.0073	--	2/3/2014 12:00	0.0081	--	2/3/2014 12:00	0.0081	--
2/3/2014 13:00	0.0073	--	2/3/2014 13:00	0.0081	--	2/3/2014 13:00	0.0081	--
2/3/2014 14:00	0.0073	--	2/3/2014 14:00	0.0081	--	2/3/2014 14:00	0.0081	--
2/3/2014 15:00	0.0073	--	2/3/2014 15:00	0.0081	--	2/3/2014 15:00	0.0081	--
2/3/2014 16:00	0.0071	--	2/3/2014 16:00	0.0079	--	2/3/2014 16:00	0.0079	--
2/3/2014 17:00	0.0074	--	2/3/2014 17:00	0.0084	--	2/3/2014 17:00	0.0084	--
2/3/2014 18:00	0.0073	--	2/3/2014 18:00	0.0081	--	2/3/2014 18:00	0.0081	--
2/3/2014 19:00	0.0072	--	2/3/2014 19:00	0.0080	--	2/3/2014 19:00	0.0080	--
2/3/2014 20:00	0.0073	--	2/3/2014 20:00	0.0080	--	2/3/2014 20:00	0.0080	--
2/3/2014 21:00	0.0072	--	2/3/2014 21:00	0.0080	--	2/3/2014 21:00	0.0080	--
2/3/2014 22:00	0.0072	--	2/3/2014 22:00	0.0080	--	2/3/2014 22:00	0.0080	--
2/3/2014 23:00	0.0072	0.0074	2/3/2014 23:00	0.0080	0.0088	2/3/2014 23:00	0.0080	0.0085
2/4/2014 0:00	0.0071	--	2/4/2014 0:00	0.0079	--	2/4/2014 0:00	0.0079	--
2/4/2014 1:00	0.0071	--	2/4/2014 1:00	0.0080	--	2/4/2014 1:00	0.0080	--
2/4/2014 2:00	0.0072	--	2/4/2014 2:00	0.0080	--	2/4/2014 2:00	0.0080	--
2/4/2014 3:00	0.0069	--	2/4/2014 3:00	0.0077	--	2/4/2014 3:00	0.0077	--
2/4/2014 4:00	0.0071	--	2/4/2014 4:00	0.0080	--	2/4/2014 4:00	0.0080	--
2/4/2014 5:00	0.0072	--	2/4/2014 5:00	0.0080	--	2/4/2014 5:00	0.0080	--
2/4/2014 6:00	0.0076	--	2/4/2014 6:00	0.0096	--	2/4/2014 6:00	0.0096	--
2/4/2014 7:00	0.0075	--	2/4/2014 7:00	0.0084	--	2/4/2014 7:00	0.0084	--
2/4/2014 8:00	0.0075	--	2/4/2014 8:00	0.0082	--	2/4/2014 8:00	0.0082	--
2/4/2014 9:00	0.0073	--	2/4/2014 9:00	0.0081	--	2/4/2014 9:00	0.0081	--
2/4/2014 10:00	0.0073	--	2/4/2014 10:00	0.0081	--	2/4/2014 10:00	0.0081	--
2/4/2014 11:00	0.0073	--	2/4/2014 11:00	0.0081	--	2/4/2014 11:00	0.0081	--
2/4/2014 12:00	0.0073	--	2/4/2014 12:00	0.0081	--	2/4/2014 12:00	0.0081	--
2/4/2014 13:00	0.0073	--	2/4/2014 13:00	0.0081	--	2/4/2014 13:00	0.0081	--
2/4/2014 14:00	0.0073	--	2/4/2014 14:00	0.0081	--	2/4/2014 14:00	0.0081	--
2/4/2014 15:00	0.0073	--	2/4/2014 15:00	0.0081	--	2/4/2014 15:00	0.0081	--
2/4/2014 16:00	0.0073	--	2/4/2014 16:00	0.0081	--	2/4/2014 16:00	0.0081	--
2/4/2014 17:00	0.0073	--	2/4/2014 17:00	0.0080	--	2/4/2014 17:00	0.0080	--
2/4/2014 18:00	0.0073	--	2/4/2014 18:00	0.0080	--	2/4/2014 18:00	0.0080	--
2/4/2014 19:00	0.0069	--	2/4/2014 19:00	0.0080	--	2/4/2014 19:00	0.0080	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
2/4/2014 20:00	0.0072	--	2/4/2014 20:00	0.0081	--	2/4/2014 20:00	0.0081	--
2/4/2014 21:00	0.0072	--	2/4/2014 21:00	0.0081	--	2/4/2014 21:00	0.0081	--
2/4/2014 22:00	0.0072	--	2/4/2014 22:00	0.0080	--	2/4/2014 22:00	0.0080	--
2/4/2014 23:00	0.0072	0.0074	2/4/2014 23:00	0.0081	0.0087	2/4/2014 23:00	0.0081	0.0085
2/5/2014 0:00	0.0072	--	2/5/2014 0:00	0.0081	--	2/5/2014 0:00	0.0081	--
2/5/2014 1:00	0.0072	--	2/5/2014 1:00	0.0081	--	2/5/2014 1:00	0.0081	--
2/5/2014 2:00	0.0072	--	2/5/2014 2:00	0.0081	--	2/5/2014 2:00	0.0081	--
2/5/2014 3:00	0.0072	--	2/5/2014 3:00	0.0081	--	2/5/2014 3:00	0.0081	--
2/5/2014 4:00	0.0072	--	2/5/2014 4:00	0.0081	--	2/5/2014 4:00	0.0081	--
2/5/2014 5:00	0.0072	--	2/5/2014 5:00	0.0081	--	2/5/2014 5:00	0.0081	--
2/5/2014 6:00	0.0077	--	2/5/2014 6:00	0.0092	--	2/5/2014 6:00	0.0092	--
2/5/2014 7:00	0.0075	--	2/5/2014 7:00	0.0082	--	2/5/2014 7:00	0.0082	--
2/5/2014 8:00	0.0073	--	2/5/2014 8:00	0.0081	--	2/5/2014 8:00	0.0081	--
2/5/2014 9:00	0.0072	--	2/5/2014 9:00	0.0081	--	2/5/2014 9:00	0.0081	--
2/5/2014 10:00	0.0073	--	2/5/2014 10:00	0.0081	--	2/5/2014 10:00	0.0081	--
2/5/2014 11:00	0.0074	--	2/5/2014 11:00	0.0082	--	2/5/2014 11:00	0.0082	--
2/5/2014 12:00	0.0073	--	2/5/2014 12:00	0.0082	--	2/5/2014 12:00	0.0082	--
2/5/2014 13:00	0.0074	--	2/5/2014 13:00	0.0082	--	2/5/2014 13:00	0.0082	--
2/5/2014 14:00	0.0073	--	2/5/2014 14:00	0.0081	--	2/5/2014 14:00	0.0081	--
2/5/2014 15:00	0.0072	--	2/5/2014 15:00	0.0081	--	2/5/2014 15:00	0.0081	--
2/5/2014 16:00	0.0073	--	2/5/2014 16:00	0.0081	--	2/5/2014 16:00	0.0081	--
2/5/2014 17:00	0.0073	--	2/5/2014 17:00	0.0080	--	2/5/2014 17:00	0.0080	--
2/5/2014 18:00	0.0072	--	2/5/2014 18:00	0.0080	--	2/5/2014 18:00	0.0080	--
2/5/2014 19:00	0.0072	--	2/5/2014 19:00	0.0080	--	2/5/2014 19:00	0.0080	--
2/5/2014 20:00	0.0072	--	2/5/2014 20:00	0.0080	--	2/5/2014 20:00	0.0080	--
2/5/2014 21:00	0.0071	--	2/5/2014 21:00	0.0080	--	2/5/2014 21:00	0.0080	--
2/5/2014 22:00	0.0072	--	2/5/2014 22:00	0.0081	--	2/5/2014 22:00	0.0081	--
2/5/2014 23:00	0.0072	0.0074	2/5/2014 23:00	0.0080	0.0087	2/5/2014 23:00	0.0080	0.0085
2/6/2014 0:00	0.0072	--	2/6/2014 0:00	0.0081	--	2/6/2014 0:00	0.0081	--
2/6/2014 1:00	0.0072	--	2/6/2014 1:00	0.0081	--	2/6/2014 1:00	0.0081	--
2/6/2014 2:00	0.0072	--	2/6/2014 2:00	0.0081	--	2/6/2014 2:00	0.0081	--
2/6/2014 3:00	0.0072	--	2/6/2014 3:00	0.0080	--	2/6/2014 3:00	0.0080	--
2/6/2014 4:00	0.0072	--	2/6/2014 4:00	0.0080	--	2/6/2014 4:00	0.0080	--
2/6/2014 5:00	0.0072	--	2/6/2014 5:00	0.0081	--	2/6/2014 5:00	0.0081	--
2/6/2014 6:00	0.0091	--	2/6/2014 6:00	0.0078	--	2/6/2014 6:00	0.0078	--
2/6/2014 7:00	0.0107	--	2/6/2014 7:00	0.0065	--	2/6/2014 7:00	0.0065	--
2/6/2014 8:00	0.0115	--	2/6/2014 8:00	0.0080	--	2/6/2014 8:00	0.0080	--
2/6/2014 9:00	0.0053	--	2/6/2014 9:00	0.0110	--	2/6/2014 9:00	0.0110	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
2/6/2014 10:00	0.0055	--	2/6/2014 10:00	0.0094	--	2/6/2014 10:00	0.0094	--
2/6/2014 11:00	0.0066	--	2/6/2014 11:00	0.0088	--	2/6/2014 11:00	0.0088	--
2/6/2014 12:00	0.0071	--	2/6/2014 12:00	0.0086	--	2/6/2014 12:00	0.0086	--
2/6/2014 13:00	0.0074	--	2/6/2014 13:00	0.0085	--	2/6/2014 13:00	0.0085	--
2/6/2014 14:00	0.0075	--	2/6/2014 14:00	0.0088	--	2/6/2014 14:00	0.0088	--
2/6/2014 15:00	0.0075	--	2/6/2014 15:00	0.0088	--	2/6/2014 15:00	0.0088	--
2/6/2014 16:00	0.0075	--	2/6/2014 16:00	0.0085	--	2/6/2014 16:00	0.0085	--
2/6/2014 17:00	0.0071	--	2/6/2014 17:00	0.0082	--	2/6/2014 17:00	0.0082	--
2/6/2014 18:00	0.0071	--	2/6/2014 18:00	0.0084	--	2/6/2014 18:00	0.0084	--
2/6/2014 19:00	0.0074	--	2/6/2014 19:00	0.0085	--	2/6/2014 19:00	0.0085	--
2/6/2014 20:00	0.0075	--	2/6/2014 20:00	0.0086	--	2/6/2014 20:00	0.0086	--
2/6/2014 21:00	0.0076	--	2/6/2014 21:00	0.0085	--	2/6/2014 21:00	0.0085	--
2/6/2014 22:00	0.0075	--	2/6/2014 22:00	0.0085	--	2/6/2014 22:00	0.0085	--
2/6/2014 23:00	0.0075	0.0074	2/6/2014 23:00	0.0086	0.0086	2/6/2014 23:00	0.0086	0.0084
2/7/2014 0:00	0.0075	--	2/7/2014 0:00	0.0085	--	2/7/2014 0:00	0.0085	--
2/7/2014 1:00	0.0075	--	2/7/2014 1:00	0.0085	--	2/7/2014 1:00	0.0085	--
2/7/2014 2:00	0.0075	--	2/7/2014 2:00	0.0085	--	2/7/2014 2:00	0.0085	--
2/7/2014 3:00	0.0075	--	2/7/2014 3:00	0.0085	--	2/7/2014 3:00	0.0085	--
2/7/2014 4:00	0.0076	--	2/7/2014 4:00	0.0085	--	2/7/2014 4:00	0.0085	--
2/7/2014 5:00	0.0075	--	2/7/2014 5:00	0.0085	--	2/7/2014 5:00	0.0085	--
2/7/2014 6:00	0.0076	--	2/7/2014 6:00	0.0090	--	2/7/2014 6:00	0.0090	--
2/7/2014 7:00	0.0075	--	2/7/2014 7:00	0.0085	--	2/7/2014 7:00	0.0085	--
2/7/2014 8:00	0.0075	--	2/7/2014 8:00	0.0085	--	2/7/2014 8:00	0.0085	--
2/7/2014 9:00	0.0076	--	2/7/2014 9:00	0.0086	--	2/7/2014 9:00	0.0086	--
2/7/2014 10:00	0.0076	--	2/7/2014 10:00	0.0085	--	2/7/2014 10:00	0.0085	--
2/7/2014 11:00	0.0076	--	2/7/2014 11:00	0.0085	--	2/7/2014 11:00	0.0085	--
2/7/2014 12:00	0.0074	--	2/7/2014 12:00	0.0085	--	2/7/2014 12:00	0.0085	--
2/7/2014 13:00	0.0074	--	2/7/2014 13:00	0.0084	--	2/7/2014 13:00	0.0084	--
2/7/2014 14:00	0.0074	--	2/7/2014 14:00	0.0085	--	2/7/2014 14:00	0.0085	--
2/7/2014 15:00	0.0075	--	2/7/2014 15:00	0.0085	--	2/7/2014 15:00	0.0085	--
2/7/2014 16:00	0.0075	--	2/7/2014 16:00	0.0085	--	2/7/2014 16:00	0.0085	--
2/7/2014 17:00	0.0075	--	2/7/2014 17:00	0.0086	--	2/7/2014 17:00	0.0086	--
2/7/2014 18:00	0.0077	--	2/7/2014 18:00	0.0087	--	2/7/2014 18:00	0.0087	--
2/7/2014 19:00	0.0075	--	2/7/2014 19:00	0.0083	--	2/7/2014 19:00	0.0083	--
2/7/2014 20:00	0.0075	--	2/7/2014 20:00	0.0084	--	2/7/2014 20:00	0.0084	--
2/7/2014 21:00	0.0075	--	2/7/2014 21:00	0.0085	--	2/7/2014 21:00	0.0085	--
2/7/2014 22:00	0.0074	--	2/7/2014 22:00	0.0082	--	2/7/2014 22:00	0.0082	--
2/7/2014 23:00	0.0075	0.0074	2/7/2014 23:00	0.0084	0.0086	2/7/2014 23:00	0.0084	0.0084

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
2/8/2014 0:00	0.0075	--	2/8/2014 0:00	0.0085	--	2/8/2014 0:00	0.0085	--
2/8/2014 1:00	0.0076	--	2/8/2014 1:00	0.0085	--	2/8/2014 1:00	0.0085	--
2/8/2014 2:00	0.0075	--	2/8/2014 2:00	0.0085	--	2/8/2014 2:00	0.0085	--
2/8/2014 3:00	0.0072	--	2/8/2014 3:00	0.0079	--	2/8/2014 3:00	0.0079	--
2/8/2014 4:00	0.0075	--	2/8/2014 4:00	0.0084	--	2/8/2014 4:00	0.0084	--
2/8/2014 5:00	0.0075	--	2/8/2014 5:00	0.0085	--	2/8/2014 5:00	0.0085	--
2/8/2014 6:00	0.0080	--	2/8/2014 6:00	0.0094	--	2/8/2014 6:00	0.0094	--
2/8/2014 7:00	0.0077	--	2/8/2014 7:00	0.0086	--	2/8/2014 7:00	0.0086	--
2/8/2014 8:00	0.0076	--	2/8/2014 8:00	0.0085	--	2/8/2014 8:00	0.0085	--
2/8/2014 9:00	0.0074	--	2/8/2014 9:00	0.0080	--	2/8/2014 9:00	0.0080	--
2/8/2014 10:00	0.0075	--	2/8/2014 10:00	0.0085	--	2/8/2014 10:00	0.0085	--
2/8/2014 11:00	0.0075	--	2/8/2014 11:00	0.0085	--	2/8/2014 11:00	0.0085	--
2/8/2014 12:00	0.0076	--	2/8/2014 12:00	0.0086	--	2/8/2014 12:00	0.0086	--
2/8/2014 13:00	0.0075	--	2/8/2014 13:00	0.0085	--	2/8/2014 13:00	0.0085	--
2/8/2014 14:00	0.0072	--	2/8/2014 14:00	0.0085	--	2/8/2014 14:00	0.0085	--
2/8/2014 15:00	0.0068	--	2/8/2014 15:00	0.0084	--	2/8/2014 15:00	0.0084	--
2/8/2014 16:00	0.0071	--	2/8/2014 16:00	0.0085	--	2/8/2014 16:00	0.0085	--
2/8/2014 17:00	0.0071	--	2/8/2014 17:00	0.0084	--	2/8/2014 17:00	0.0084	--
2/8/2014 18:00	0.0070	--	2/8/2014 18:00	0.0083	--	2/8/2014 18:00	0.0083	--
2/8/2014 19:00	0.0071	--	2/8/2014 19:00	0.0084	--	2/8/2014 19:00	0.0084	--
2/8/2014 20:00	0.0071	--	2/8/2014 20:00	0.0085	--	2/8/2014 20:00	0.0085	--
2/8/2014 21:00	0.0072	--	2/8/2014 21:00	0.0085	--	2/8/2014 21:00	0.0085	--
2/8/2014 22:00	0.0071	--	2/8/2014 22:00	0.0085	--	2/8/2014 22:00	0.0085	--
2/8/2014 23:00	0.0071	0.0074	2/8/2014 23:00	0.0084	0.0086	2/8/2014 23:00	0.0084	0.0084
2/9/2014 0:00	0.0071	--	2/9/2014 0:00	0.0085	--	2/9/2014 0:00	0.0085	--
2/9/2014 1:00	0.0072	--	2/9/2014 1:00	0.0085	--	2/9/2014 1:00	0.0085	--
2/9/2014 2:00	0.0072	--	2/9/2014 2:00	0.0085	--	2/9/2014 2:00	0.0085	--
2/9/2014 3:00	0.0071	--	2/9/2014 3:00	0.0084	--	2/9/2014 3:00	0.0084	--
2/9/2014 4:00	0.0071	--	2/9/2014 4:00	0.0084	--	2/9/2014 4:00	0.0084	--
2/9/2014 5:00	0.0072	--	2/9/2014 5:00	0.0085	--	2/9/2014 5:00	0.0085	--
2/9/2014 6:00	0.0072	--	2/9/2014 6:00	0.0101	--	2/9/2014 6:00	0.0101	--
2/9/2014 7:00	0.0071	--	2/9/2014 7:00	0.0087	--	2/9/2014 7:00	0.0087	--
2/9/2014 8:00	0.0073	--	2/9/2014 8:00	0.0088	--	2/9/2014 8:00	0.0088	--
2/9/2014 9:00	0.0072	--	2/9/2014 9:00	0.0085	--	2/9/2014 9:00	0.0085	--
2/9/2014 10:00	0.0071	--	2/9/2014 10:00	0.0085	--	2/9/2014 10:00	0.0085	--
2/9/2014 11:00	0.0072	--	2/9/2014 11:00	0.0085	--	2/9/2014 11:00	0.0085	--
2/9/2014 12:00	0.0073	--	2/9/2014 12:00	0.0087	--	2/9/2014 12:00	0.0087	--
2/9/2014 13:00	0.0072	--	2/9/2014 13:00	0.0087	--	2/9/2014 13:00	0.0087	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
2/9/2014 14:00	0.0073	--	2/9/2014 14:00	0.0087	--	2/9/2014 14:00	0.0087	--
2/9/2014 15:00	0.0073	--	2/9/2014 15:00	0.0086	--	2/9/2014 15:00	0.0086	--
2/9/2014 16:00	0.0070	--	2/9/2014 16:00	0.0083	--	2/9/2014 16:00	0.0083	--
2/9/2014 17:00	0.0071	--	2/9/2014 17:00	0.0083	--	2/9/2014 17:00	0.0083	--
2/9/2014 18:00	0.0071	--	2/9/2014 18:00	0.0083	--	2/9/2014 18:00	0.0083	--
2/9/2014 19:00	0.0071	--	2/9/2014 19:00	0.0084	--	2/9/2014 19:00	0.0084	--
2/9/2014 20:00	0.0071	--	2/9/2014 20:00	0.0084	--	2/9/2014 20:00	0.0084	--
2/9/2014 21:00	0.0072	--	2/9/2014 21:00	0.0085	--	2/9/2014 21:00	0.0085	--
2/9/2014 22:00	0.0072	--	2/9/2014 22:00	0.0085	--	2/9/2014 22:00	0.0085	--
2/9/2014 23:00	0.0071	0.0074	2/9/2014 23:00	0.0085	0.0086	2/9/2014 23:00	0.0085	0.0084
2/10/2014 0:00	0.0071	--	2/10/2014 0:00	0.0085	--	2/10/2014 0:00	0.0085	--
2/10/2014 1:00	0.0072	--	2/10/2014 1:00	0.0085	--	2/10/2014 1:00	0.0085	--
2/10/2014 2:00	0.0071	--	2/10/2014 2:00	0.0085	--	2/10/2014 2:00	0.0085	--
2/10/2014 3:00	0.0071	--	2/10/2014 3:00	0.0084	--	2/10/2014 3:00	0.0084	--
2/10/2014 4:00	0.0072	--	2/10/2014 4:00	0.0085	--	2/10/2014 4:00	0.0085	--
2/10/2014 5:00	0.0072	--	2/10/2014 5:00	0.0085	--	2/10/2014 5:00	0.0085	--
2/10/2014 6:00	0.0078	--	2/10/2014 6:00	0.0100	--	2/10/2014 6:00	0.0100	--
2/10/2014 7:00	0.0074	--	2/10/2014 7:00	0.0089	--	2/10/2014 7:00	0.0089	--
2/10/2014 8:00	0.0071	--	2/10/2014 8:00	0.0085	--	2/10/2014 8:00	0.0085	--
2/10/2014 9:00	0.0073	--	2/10/2014 9:00	0.0086	--	2/10/2014 9:00	0.0086	--
2/10/2014 10:00	0.0073	--	2/10/2014 10:00	0.0086	--	2/10/2014 10:00	0.0086	--
2/10/2014 11:00	0.0073	--	2/10/2014 11:00	0.0087	--	2/10/2014 11:00	0.0087	--
2/10/2014 12:00	0.0073	--	2/10/2014 12:00	0.0086	--	2/10/2014 12:00	0.0086	--
2/10/2014 13:00	0.0072	--	2/10/2014 13:00	0.0086	--	2/10/2014 13:00	0.0086	--
2/10/2014 14:00	0.0071	--	2/10/2014 14:00	0.0085	--	2/10/2014 14:00	0.0085	--
2/10/2014 15:00	0.0072	--	2/10/2014 15:00	0.0085	--	2/10/2014 15:00	0.0085	--
2/10/2014 16:00	0.0073	--	2/10/2014 16:00	0.0086	--	2/10/2014 16:00	0.0086	--
2/10/2014 17:00	0.0070	--	2/10/2014 17:00	0.0084	--	2/10/2014 17:00	0.0084	--
2/10/2014 18:00	0.0073	--	2/10/2014 18:00	0.0086	--	2/10/2014 18:00	0.0086	--
2/10/2014 19:00	0.0072	--	2/10/2014 19:00	0.0085	--	2/10/2014 19:00	0.0085	--
2/10/2014 20:00	0.0072	--	2/10/2014 20:00	0.0086	--	2/10/2014 20:00	0.0086	--
2/10/2014 21:00	0.0072	--	2/10/2014 21:00	0.0086	--	2/10/2014 21:00	0.0086	--
2/10/2014 22:00	0.0072	--	2/10/2014 22:00	0.0085	--	2/10/2014 22:00	0.0085	--
2/10/2014 23:00	0.0072	0.0075	2/10/2014 23:00	0.0086	0.0086	2/10/2014 23:00	0.0086	0.0084
2/11/2014 0:00	0.0071	--	2/11/2014 0:00	0.0088	--	2/11/2014 0:00	0.0088	--
2/11/2014 1:00	0.0072	--	2/11/2014 1:00	0.0086	--	2/11/2014 1:00	0.0086	--
2/11/2014 2:00	0.0072	--	2/11/2014 2:00	0.0086	--	2/11/2014 2:00	0.0086	--
2/11/2014 3:00	0.0071	--	2/11/2014 3:00	0.0086	--	2/11/2014 3:00	0.0086	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
2/11/2014 4:00	0.0072	--	2/11/2014 4:00	0.0086	--	2/11/2014 4:00	0.0086	--
2/11/2014 5:00	0.0072	--	2/11/2014 5:00	0.0085	--	2/11/2014 5:00	0.0085	--
2/11/2014 6:00	0.0074	--	2/11/2014 6:00	0.0075	--	2/11/2014 6:00	0.0075	--
2/11/2014 7:00	0.0071	--	2/11/2014 7:00	0.0080	--	2/11/2014 7:00	0.0080	--
2/11/2014 8:00	0.0072	--	2/11/2014 8:00	0.0085	--	2/11/2014 8:00	0.0085	--
2/11/2014 9:00	0.0071	--	2/11/2014 9:00	0.0085	--	2/11/2014 9:00	0.0085	--
2/11/2014 10:00	0.0072	--	2/11/2014 10:00	0.0085	--	2/11/2014 10:00	0.0085	--
2/11/2014 11:00	0.0072	--	2/11/2014 11:00	0.0086	--	2/11/2014 11:00	0.0086	--
2/11/2014 12:00	0.0072	--	2/11/2014 12:00	0.0085	--	2/11/2014 12:00	0.0085	--
2/11/2014 13:00	0.0071	--	2/11/2014 13:00	0.0084	--	2/11/2014 13:00	0.0084	--
2/11/2014 14:00	0.0071	--	2/11/2014 14:00	0.0085	--	2/11/2014 14:00	0.0085	--
2/11/2014 15:00	0.0070	--	2/11/2014 15:00	0.0083	--	2/11/2014 15:00	0.0083	--
2/11/2014 16:00	0.0072	--	2/11/2014 16:00	0.0085	--	2/11/2014 16:00	0.0085	--
2/11/2014 17:00	0.0072	--	2/11/2014 17:00	0.0085	--	2/11/2014 17:00	0.0085	--
2/11/2014 18:00	0.0071	--	2/11/2014 18:00	0.0085	--	2/11/2014 18:00	0.0085	--
2/11/2014 19:00	0.0071	--	2/11/2014 19:00	0.0085	--	2/11/2014 19:00	0.0085	--
2/11/2014 20:00	0.0071	--	2/11/2014 20:00	0.0085	--	2/11/2014 20:00	0.0085	--
2/11/2014 21:00	0.0072	--	2/11/2014 21:00	0.0085	--	2/11/2014 21:00	0.0085	--
2/11/2014 22:00	0.0072	--	2/11/2014 22:00	0.0085	--	2/11/2014 22:00	0.0085	--
2/11/2014 23:00	0.0071	0.0075	2/11/2014 23:00	0.0085	0.0086	2/11/2014 23:00	0.0085	0.0084
2/12/2014 0:00	0.0073	--	2/12/2014 0:00	0.0086	--	2/12/2014 0:00	0.0086	--
2/12/2014 1:00	0.0070	--	2/12/2014 1:00	0.0084	--	2/12/2014 1:00	0.0084	--
2/12/2014 2:00	0.0071	--	2/12/2014 2:00	0.0085	--	2/12/2014 2:00	0.0085	--
2/12/2014 3:00	0.0071	--	2/12/2014 3:00	0.0086	--	2/12/2014 3:00	0.0086	--
2/12/2014 4:00	0.0072	--	2/12/2014 4:00	0.0085	--	2/12/2014 4:00	0.0085	--
2/12/2014 5:00	0.0075	--	2/12/2014 5:00	0.0086	--	2/12/2014 5:00	0.0086	--
2/12/2014 6:00	0.0076	--	2/12/2014 6:00	0.0095	--	2/12/2014 6:00	0.0095	--
2/12/2014 7:00	0.0074	--	2/12/2014 7:00	0.0086	--	2/12/2014 7:00	0.0086	--
2/12/2014 8:00	0.0076	--	2/12/2014 8:00	0.0087	--	2/12/2014 8:00	0.0087	--
2/12/2014 9:00	0.0074	--	2/12/2014 9:00	0.0088	--	2/12/2014 9:00	0.0088	--
2/12/2014 10:00	0.0076	--	2/12/2014 10:00	0.0087	--	2/12/2014 10:00	0.0087	--
2/12/2014 11:00	0.0075	--	2/12/2014 11:00	0.0087	--	2/12/2014 11:00	0.0087	--
2/12/2014 12:00	0.0075	--	2/12/2014 12:00	0.0087	--	2/12/2014 12:00	0.0087	--
2/12/2014 13:00	0.0074	--	2/12/2014 13:00	0.0086	--	2/12/2014 13:00	0.0086	--
2/12/2014 14:00	0.0074	--	2/12/2014 14:00	0.0086	--	2/12/2014 14:00	0.0086	--
2/12/2014 15:00	0.0074	--	2/12/2014 15:00	0.0085	--	2/12/2014 15:00	0.0085	--
2/12/2014 16:00	0.0073	--	2/12/2014 16:00	0.0085	--	2/12/2014 16:00	0.0085	--
2/12/2014 17:00	0.0073	--	2/12/2014 17:00	0.0084	--	2/12/2014 17:00	0.0084	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
2/12/2014 18:00	0.0073	--	2/12/2014 18:00	0.0084	--	2/12/2014 18:00	0.0084	--
2/12/2014 19:00	0.0073	--	2/12/2014 19:00	0.0084	--	2/12/2014 19:00	0.0084	--
2/12/2014 20:00	0.0072	--	2/12/2014 20:00	0.0085	--	2/12/2014 20:00	0.0085	--
2/12/2014 21:00	0.0072	--	2/12/2014 21:00	0.0084	--	2/12/2014 21:00	0.0084	--
2/12/2014 22:00	0.0072	--	2/12/2014 22:00	0.0084	--	2/12/2014 22:00	0.0084	--
2/12/2014 23:00	0.0073	0.0074	2/12/2014 23:00	0.0085	0.0086	2/12/2014 23:00	0.0085	0.0086
2/13/2014 0:00	0.0073	--	2/13/2014 0:00	0.0085	--	2/13/2014 0:00	0.0085	--
2/13/2014 1:00	0.0072	--	2/13/2014 1:00	0.0084	--	2/13/2014 1:00	0.0084	--
2/13/2014 2:00	0.0072	--	2/13/2014 2:00	0.0085	--	2/13/2014 2:00	0.0085	--
2/13/2014 3:00	0.0072	--	2/13/2014 3:00	0.0085	--	2/13/2014 3:00	0.0085	--
2/13/2014 4:00	0.0072	--	2/13/2014 4:00	0.0085	--	2/13/2014 4:00	0.0085	--
2/13/2014 5:00	0.0071	--	2/13/2014 5:00	0.0084	--	2/13/2014 5:00	0.0084	--
2/13/2014 6:00	0.0071	--	2/13/2014 6:00	0.0099	--	2/13/2014 6:00	0.0099	--
2/13/2014 7:00	0.0072	--	2/13/2014 7:00	0.0087	--	2/13/2014 7:00	0.0087	--
2/13/2014 8:00	0.0073	--	2/13/2014 8:00	0.0086	--	2/13/2014 8:00	0.0086	--
2/13/2014 9:00	0.0074	--	2/13/2014 9:00	0.0087	--	2/13/2014 9:00	0.0087	--
2/13/2014 10:00	0.0074	--	2/13/2014 10:00	0.0087	--	2/13/2014 10:00	0.0087	--
2/13/2014 11:00	0.0074	--	2/13/2014 11:00	0.0086	--	2/13/2014 11:00	0.0086	--
2/13/2014 12:00	0.0073	--	2/13/2014 12:00	0.0086	--	2/13/2014 12:00	0.0086	--
2/13/2014 13:00	0.0073	--	2/13/2014 13:00	0.0085	--	2/13/2014 13:00	0.0085	--
2/13/2014 14:00	0.0070	--	2/13/2014 14:00	0.0083	--	2/13/2014 14:00	0.0083	--
2/13/2014 15:00	0.0071	--	2/13/2014 15:00	0.0081	--	2/13/2014 15:00	0.0081	--
2/13/2014 16:00	0.0072	--	2/13/2014 16:00	0.0083	--	2/13/2014 16:00	0.0083	--
2/13/2014 17:00	0.0071	--	2/13/2014 17:00	0.0083	--	2/13/2014 17:00	0.0083	--
2/13/2014 18:00	0.0068	--	2/13/2014 18:00	0.0081	--	2/13/2014 18:00	0.0081	--
2/13/2014 19:00	0.0070	--	2/13/2014 19:00	0.0083	--	2/13/2014 19:00	0.0083	--
2/13/2014 20:00	0.0072	--	2/13/2014 20:00	0.0084	--	2/13/2014 20:00	0.0084	--
2/13/2014 21:00	0.0072	--	2/13/2014 21:00	0.0084	--	2/13/2014 21:00	0.0084	--
2/13/2014 22:00	0.0072	--	2/13/2014 22:00	0.0084	--	2/13/2014 22:00	0.0084	--
2/13/2014 23:00	0.0072	0.0074	2/13/2014 23:00	0.0083	0.0086	2/13/2014 23:00	0.0083	0.0088
2/14/2014 0:00	0.0072	--	2/14/2014 0:00	0.0085	--	2/14/2014 0:00	0.0085	--
2/14/2014 1:00	0.0072	--	2/14/2014 1:00	0.0084	--	2/14/2014 1:00	0.0084	--
2/14/2014 2:00	0.0072	--	2/14/2014 2:00	0.0084	--	2/14/2014 2:00	0.0084	--
2/14/2014 3:00	0.0072	--	2/14/2014 3:00	0.0084	--	2/14/2014 3:00	0.0084	--
2/14/2014 4:00	0.0072	--	2/14/2014 4:00	0.0084	--	2/14/2014 4:00	0.0084	--
2/14/2014 5:00	0.0072	--	2/14/2014 5:00	0.0085	--	2/14/2014 5:00	0.0085	--
2/14/2014 6:00	0.0074	--	2/14/2014 6:00	0.0084	--	2/14/2014 6:00	0.0084	--
2/14/2014 7:00	0.0069	--	2/14/2014 7:00	0.0061	--	2/14/2014 7:00	0.0061	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
2/14/2014 8:00	0.0073	--	2/14/2014 8:00	0.0086	--	2/14/2014 8:00	0.0086	--
2/14/2014 9:00	0.0075	--	2/14/2014 9:00	0.0100	--	2/14/2014 9:00	0.0100	--
2/14/2014 10:00	0.0072	--	2/14/2014 10:00	0.0109	--	2/14/2014 10:00	0.0109	--
2/14/2014 11:00	0.0055	--	2/14/2014 11:00	0.0112	--	2/14/2014 11:00	0.0112	--
2/14/2014 12:00	0.0070	--	2/14/2014 12:00	0.0058	--	2/14/2014 12:00	0.0058	--
2/14/2014 13:00	0.0079	--	2/14/2014 13:00	0.0034	--	2/14/2014 13:00	0.0034	--
2/14/2014 14:00	0.0076	--	2/14/2014 14:00	0.0063	--	2/14/2014 14:00	0.0063	--
2/14/2014 15:00	0.0073	--	2/14/2014 15:00	0.0078	--	2/14/2014 15:00	0.0078	--
2/14/2014 16:00	0.0075	--	2/14/2014 16:00	0.0086	--	2/14/2014 16:00	0.0086	--
2/14/2014 17:00	0.0073	--	2/14/2014 17:00	0.0098	--	2/14/2014 17:00	0.0098	--
2/14/2014 18:00	0.0071	--	2/14/2014 18:00	0.0075	--	2/14/2014 18:00	0.0075	--
2/14/2014 19:00	0.0074	--	2/14/2014 19:00	0.0079	--	2/14/2014 19:00	0.0079	--
2/14/2014 20:00	0.0075	--	2/14/2014 20:00	0.0075	--	2/14/2014 20:00	0.0075	--
2/14/2014 21:00	0.0074	--	2/14/2014 21:00	0.0086	--	2/14/2014 21:00	0.0086	--
2/14/2014 22:00	0.0074	--	2/14/2014 22:00	0.0079	--	2/14/2014 22:00	0.0079	--
2/14/2014 23:00	0.0074	0.0073	2/14/2014 23:00	0.0084	0.0084	2/14/2014 23:00	0.0084	0.0086
2/15/2014 0:00	0.0073	--	2/15/2014 0:00	0.0083	--	2/15/2014 0:00	0.0083	--
2/15/2014 1:00	0.0074	--	2/15/2014 1:00	0.0088	--	2/15/2014 1:00	0.0088	--
2/15/2014 2:00	0.0071	--	2/15/2014 2:00	0.0080	--	2/15/2014 2:00	0.0080	--
2/15/2014 3:00	0.0073	--	2/15/2014 3:00	0.0083	--	2/15/2014 3:00	0.0083	--
2/15/2014 4:00	0.0073	--	2/15/2014 4:00	0.0086	--	2/15/2014 4:00	0.0086	--
2/15/2014 5:00	0.0073	--	2/15/2014 5:00	0.0086	--	2/15/2014 5:00	0.0086	--
2/15/2014 6:00	0.0078	--	2/15/2014 6:00	0.0088	--	2/15/2014 6:00	0.0088	--
2/15/2014 7:00	0.0076	--	2/15/2014 7:00	0.0087	--	2/15/2014 7:00	0.0087	--
2/15/2014 8:00	0.0075	--	2/15/2014 8:00	0.0093	--	2/15/2014 8:00	0.0093	--
2/15/2014 9:00	0.0076	--	2/15/2014 9:00	0.0089	--	2/15/2014 9:00	0.0089	--
2/15/2014 10:00	0.0075	--	2/15/2014 10:00	0.0085	--	2/15/2014 10:00	0.0085	--
2/15/2014 11:00	0.0075	--	2/15/2014 11:00	0.0084	--	2/15/2014 11:00	0.0084	--
2/15/2014 12:00	0.0074	--	2/15/2014 12:00	0.0082	--	2/15/2014 12:00	0.0082	--
2/15/2014 13:00	0.0074	--	2/15/2014 13:00	0.0090	--	2/15/2014 13:00	0.0090	--
2/15/2014 14:00	0.0073	--	2/15/2014 14:00	0.0093	--	2/15/2014 14:00	0.0093	--
2/15/2014 15:00	0.0071	--	2/15/2014 15:00	0.0077	--	2/15/2014 15:00	0.0077	--
2/15/2014 16:00	0.0073	--	2/15/2014 16:00	0.0084	--	2/15/2014 16:00	0.0084	--
2/15/2014 17:00	0.0070	--	2/15/2014 17:00	0.0087	--	2/15/2014 17:00	0.0087	--
2/15/2014 18:00	0.0070	--	2/15/2014 18:00	0.0073	--	2/15/2014 18:00	0.0073	--
2/15/2014 19:00	0.0070	--	2/15/2014 19:00	0.0079	--	2/15/2014 19:00	0.0079	--
2/15/2014 20:00	0.0071	--	2/15/2014 20:00	0.0083	--	2/15/2014 20:00	0.0083	--
2/15/2014 21:00	0.0073	--	2/15/2014 21:00	0.0081	--	2/15/2014 21:00	0.0081	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
2/15/2014 22:00	0.0072	--	2/15/2014 22:00	0.0083	--	2/15/2014 22:00	0.0083	--
2/15/2014 23:00	0.0072	0.0073	2/15/2014 23:00	0.0085	0.0083	2/15/2014 23:00	0.0085	0.0083
2/16/2014 0:00	0.0073	--	2/16/2014 0:00	0.0086	--	2/16/2014 0:00	0.0086	--
2/16/2014 1:00	0.0072	--	2/16/2014 1:00	0.0083	--	2/16/2014 1:00	0.0083	--
2/16/2014 2:00	0.0073	--	2/16/2014 2:00	0.0084	--	2/16/2014 2:00	0.0084	--
2/16/2014 3:00	0.0072	--	2/16/2014 3:00	0.0085	--	2/16/2014 3:00	0.0085	--
2/16/2014 4:00	0.0072	--	2/16/2014 4:00	0.0087	--	2/16/2014 4:00	0.0087	--
2/16/2014 5:00	0.0073	--	2/16/2014 5:00	0.0086	--	2/16/2014 5:00	0.0086	--
2/16/2014 6:00	0.0073	--	2/16/2014 6:00	0.0099	--	2/16/2014 6:00	0.0099	--
2/16/2014 7:00	0.0072	--	2/16/2014 7:00	0.0083	--	2/16/2014 7:00	0.0083	--
2/16/2014 8:00	0.0071	--	2/16/2014 8:00	0.0085	--	2/16/2014 8:00	0.0085	--
2/16/2014 9:00	0.0073	--	2/16/2014 9:00	0.0086	--	2/16/2014 9:00	0.0086	--
2/16/2014 10:00	0.0074	--	2/16/2014 10:00	0.0091	--	2/16/2014 10:00	0.0091	--
2/16/2014 11:00	0.0075	--	2/16/2014 11:00	0.0090	--	2/16/2014 11:00	0.0090	--
2/16/2014 12:00	0.0074	--	2/16/2014 12:00	0.0087	--	2/16/2014 12:00	0.0087	--
2/16/2014 13:00	0.0073	--	2/16/2014 13:00	0.0084	--	2/16/2014 13:00	0.0084	--
2/16/2014 14:00	0.0072	--	2/16/2014 14:00	0.0088	--	2/16/2014 14:00	0.0088	--
2/16/2014 15:00	0.0072	--	2/16/2014 15:00	0.0086	--	2/16/2014 15:00	0.0086	--
2/16/2014 16:00	0.0072	--	2/16/2014 16:00	0.0085	--	2/16/2014 16:00	0.0085	--
2/16/2014 17:00	0.0072	--	2/16/2014 17:00	0.0088	--	2/16/2014 17:00	0.0088	--
2/16/2014 18:00	0.0072	--	2/16/2014 18:00	0.0081	--	2/16/2014 18:00	0.0081	--
2/16/2014 19:00	0.0072	--	2/16/2014 19:00	0.0082	--	2/16/2014 19:00	0.0082	--
2/16/2014 20:00	0.0072	--	2/16/2014 20:00	0.0081	--	2/16/2014 20:00	0.0081	--
2/16/2014 21:00	0.0073	--	2/16/2014 21:00	0.0086	--	2/16/2014 21:00	0.0086	--
2/16/2014 22:00	0.0074	--	2/16/2014 22:00	0.0087	--	2/16/2014 22:00	0.0087	--
2/16/2014 23:00	0.0074	0.0073	2/16/2014 23:00	0.0084	0.0083	2/16/2014 23:00	0.0084	0.0083
2/17/2014 0:00	0.0074	--	2/17/2014 0:00	0.0084	--	2/17/2014 0:00	0.0084	--
2/17/2014 1:00	0.0073	--	2/17/2014 1:00	0.0086	--	2/17/2014 1:00	0.0086	--
2/17/2014 2:00	0.0075	--	2/17/2014 2:00	0.0084	--	2/17/2014 2:00	0.0084	--
2/17/2014 3:00	0.0074	--	2/17/2014 3:00	0.0085	--	2/17/2014 3:00	0.0085	--
2/17/2014 4:00	0.0073	--	2/17/2014 4:00	0.0083	--	2/17/2014 4:00	0.0083	--
2/17/2014 5:00	0.0073	--	2/17/2014 5:00	0.0084	--	2/17/2014 5:00	0.0084	--
2/17/2014 6:00	0.0075	--	2/17/2014 6:00	0.0082	--	2/17/2014 6:00	0.0082	--
2/17/2014 7:00	0.0073	--	2/17/2014 7:00	0.0080	--	2/17/2014 7:00	0.0080	--
2/17/2014 8:00	0.0073	--	2/17/2014 8:00	0.0084	--	2/17/2014 8:00	0.0084	--
2/17/2014 9:00	0.0074	--	2/17/2014 9:00	0.0087	--	2/17/2014 9:00	0.0087	--
2/17/2014 10:00	0.0074	--	2/17/2014 10:00	0.0089	--	2/17/2014 10:00	0.0089	--
2/17/2014 11:00	0.0074	--	2/17/2014 11:00	0.0090	--	2/17/2014 11:00	0.0090	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
2/17/2014 12:00	0.0074	--	2/17/2014 12:00	0.0085	--	2/17/2014 12:00	0.0085	--
2/17/2014 13:00	0.0075	--	2/17/2014 13:00	0.0084	--	2/17/2014 13:00	0.0084	--
2/17/2014 14:00	0.0073	--	2/17/2014 14:00	0.0085	--	2/17/2014 14:00	0.0085	--
2/17/2014 15:00	0.0071	--	2/17/2014 15:00	0.0088	--	2/17/2014 15:00	0.0088	--
2/17/2014 16:00	0.0072	--	2/17/2014 16:00	0.0080	--	2/17/2014 16:00	0.0080	--
2/17/2014 17:00	0.0073	--	2/17/2014 17:00	0.0087	--	2/17/2014 17:00	0.0087	--
2/17/2014 18:00	0.0071	--	2/17/2014 18:00	0.0082	--	2/17/2014 18:00	0.0082	--
2/17/2014 19:00	0.0074	--	2/17/2014 19:00	0.0081	--	2/17/2014 19:00	0.0081	--
2/17/2014 20:00	0.0071	--	2/17/2014 20:00	0.0083	--	2/17/2014 20:00	0.0083	--
2/17/2014 21:00	0.0072	--	2/17/2014 21:00	0.0086	--	2/17/2014 21:00	0.0086	--
2/17/2014 22:00	0.0072	--	2/17/2014 22:00	0.0085	--	2/17/2014 22:00	0.0085	--
2/17/2014 23:00	0.0073	0.0073	2/17/2014 23:00	0.0085	0.0083	2/17/2014 23:00	0.0085	0.0083
2/18/2014 0:00	0.0073	--	2/18/2014 0:00	0.0084	--	2/18/2014 0:00	0.0084	--
2/18/2014 1:00	0.0074	--	2/18/2014 1:00	0.0084	--	2/18/2014 1:00	0.0084	--
2/18/2014 2:00	0.0073	--	2/18/2014 2:00	0.0085	--	2/18/2014 2:00	0.0085	--
2/18/2014 3:00	0.0073	--	2/18/2014 3:00	0.0083	--	2/18/2014 3:00	0.0083	--
2/18/2014 4:00	0.0073	--	2/18/2014 4:00	0.0085	--	2/18/2014 4:00	0.0085	--
2/18/2014 5:00	0.0074	--	2/18/2014 5:00	0.0087	--	2/18/2014 5:00	0.0087	--
2/18/2014 6:00	0.0077	--	2/18/2014 6:00	0.0101	--	2/18/2014 6:00	0.0101	--
2/18/2014 7:00	0.0074	--	2/18/2014 7:00	0.0087	--	2/18/2014 7:00	0.0087	--
2/18/2014 8:00	0.0071	--	2/18/2014 8:00	0.0084	--	2/18/2014 8:00	0.0084	--
2/18/2014 9:00	0.0065	--	2/18/2014 9:00	0.0077	--	2/18/2014 9:00	0.0077	--
2/18/2014 10:00	0.0068	--	2/18/2014 10:00	0.0082	--	2/18/2014 10:00	0.0082	--
2/18/2014 11:00	0.0068	--	2/18/2014 11:00	0.0080	--	2/18/2014 11:00	0.0080	--
2/18/2014 12:00	0.0070	--	2/18/2014 12:00	0.0084	--	2/18/2014 12:00	0.0084	--
2/18/2014 13:00	0.0070	--	2/18/2014 13:00	0.0089	--	2/18/2014 13:00	0.0089	--
2/18/2014 14:00	0.0070	--	2/18/2014 14:00	0.0087	--	2/18/2014 14:00	0.0087	--
2/18/2014 15:00	0.0068	--	2/18/2014 15:00	0.0080	--	2/18/2014 15:00	0.0080	--
2/18/2014 16:00	0.0068	--	2/18/2014 16:00	0.0080	--	2/18/2014 16:00	0.0080	--
2/18/2014 17:00	0.0068	--	2/18/2014 17:00	0.0085	--	2/18/2014 17:00	0.0085	--
2/18/2014 18:00	0.0068	--	2/18/2014 18:00	0.0085	--	2/18/2014 18:00	0.0085	--
2/18/2014 19:00	0.0068	--	2/18/2014 19:00	0.0080	--	2/18/2014 19:00	0.0080	--
2/18/2014 20:00	0.0068	--	2/18/2014 20:00	0.0080	--	2/18/2014 20:00	0.0080	--
2/18/2014 21:00	0.0069	--	2/18/2014 21:00	0.0086	--	2/18/2014 21:00	0.0086	--
2/18/2014 22:00	0.0069	--	2/18/2014 22:00	0.0085	--	2/18/2014 22:00	0.0085	--
2/18/2014 23:00	0.0069	0.0073	2/18/2014 23:00	0.0080	0.0083	2/18/2014 23:00	0.0080	0.0083
2/19/2014 0:00	0.0069	--	2/19/2014 0:00	0.0086	--	2/19/2014 0:00	0.0086	--
2/19/2014 1:00	0.0069	--	2/19/2014 1:00	0.0080	--	2/19/2014 1:00	0.0080	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
2/19/2014 2:00	0.0069	--	2/19/2014 2:00	0.0079	--	2/19/2014 2:00	0.0079	--
2/19/2014 3:00	0.0069	--	2/19/2014 3:00	0.0092	--	2/19/2014 3:00	0.0092	--
2/19/2014 4:00	0.0070	--	2/19/2014 4:00	0.0085	--	2/19/2014 4:00	0.0085	--
2/19/2014 5:00	0.0071	--	2/19/2014 5:00	0.0081	--	2/19/2014 5:00	0.0081	--
2/19/2014 6:00	0.0073	--	2/19/2014 6:00	0.0063	--	2/19/2014 6:00	0.0063	--
2/19/2014 7:00	0.0071	--	2/19/2014 7:00	0.0067	--	2/19/2014 7:00	0.0067	--
2/19/2014 8:00	0.0069	--	2/19/2014 8:00	0.0074	--	2/19/2014 8:00	0.0074	--
2/19/2014 9:00	0.0070	--	2/19/2014 9:00	0.0076	--	2/19/2014 9:00	0.0076	--
2/19/2014 10:00	0.0070	--	2/19/2014 10:00	0.0080	--	2/19/2014 10:00	0.0080	--
2/19/2014 11:00	0.0070	--	2/19/2014 11:00	0.0084	--	2/19/2014 11:00	0.0084	--
2/19/2014 12:00	0.0066	--	2/19/2014 12:00	0.0048	--	2/19/2014 12:00	0.0048	--
2/19/2014 13:00	0.0069	--	2/19/2014 13:00	0.0066	--	2/19/2014 13:00	0.0066	--
2/19/2014 14:00	0.0069	--	2/19/2014 14:00	0.0085	--	2/19/2014 14:00	0.0085	--
2/19/2014 15:00	0.0069	--	2/19/2014 15:00	0.0088	--	2/19/2014 15:00	0.0088	--
2/19/2014 16:00	0.0069	--	2/19/2014 16:00	0.0088	--	2/19/2014 16:00	0.0088	--
2/19/2014 17:00	0.0069	--	2/19/2014 17:00	0.0088	--	2/19/2014 17:00	0.0088	--
2/19/2014 18:00	0.0068	--	2/19/2014 18:00	0.0085	--	2/19/2014 18:00	0.0085	--
2/19/2014 19:00	0.0068	--	2/19/2014 19:00	0.0085	--	2/19/2014 19:00	0.0085	--
2/19/2014 20:00	0.0068	--	2/19/2014 20:00	0.0085	--	2/19/2014 20:00	0.0085	--
2/19/2014 21:00	0.0069	--	2/19/2014 21:00	0.0087	--	2/19/2014 21:00	0.0087	--
2/19/2014 22:00	0.0069	--	2/19/2014 22:00	0.0088	--	2/19/2014 22:00	0.0088	--
2/19/2014 23:00	0.0068	0.0073	2/19/2014 23:00	0.0088	0.0083	2/19/2014 23:00	0.0088	0.0083
2/20/2014 0:00	0.0069	--	2/20/2014 0:00	0.0090	--	2/20/2014 0:00	0.0090	--
2/20/2014 1:00	0.0069	--	2/20/2014 1:00	0.0088	--	2/20/2014 1:00	0.0088	--
2/20/2014 2:00	0.0069	--	2/20/2014 2:00	0.0089	--	2/20/2014 2:00	0.0089	--
2/20/2014 3:00	0.0069	--	2/20/2014 3:00	0.0087	--	2/20/2014 3:00	0.0087	--
2/20/2014 4:00	0.0068	--	2/20/2014 4:00	0.0087	--	2/20/2014 4:00	0.0087	--
2/20/2014 5:00	0.0069	--	2/20/2014 5:00	0.0090	--	2/20/2014 5:00	0.0090	--
2/20/2014 6:00	0.0069	--	2/20/2014 6:00	0.0100	--	2/20/2014 6:00	0.0100	--
2/20/2014 7:00	0.0069	--	2/20/2014 7:00	0.0093	--	2/20/2014 7:00	0.0093	--
2/20/2014 8:00	0.0069	--	2/20/2014 8:00	0.0091	--	2/20/2014 8:00	0.0091	--
2/20/2014 9:00	0.0070	--	2/20/2014 9:00	0.0091	--	2/20/2014 9:00	0.0091	--
2/20/2014 10:00	0.0070	--	2/20/2014 10:00	0.0094	--	2/20/2014 10:00	0.0094	--
2/20/2014 11:00	0.0070	--	2/20/2014 11:00	0.0097	--	2/20/2014 11:00	0.0097	--
2/20/2014 12:00	0.0070	--	2/20/2014 12:00	0.0098	--	2/20/2014 12:00	0.0098	--
2/20/2014 13:00	0.0069	--	2/20/2014 13:00	0.0093	--	2/20/2014 13:00	0.0093	--
2/20/2014 14:00	0.0070	--	2/20/2014 14:00	0.0095	--	2/20/2014 14:00	0.0095	--
2/20/2014 15:00	0.0066	--	2/20/2014 15:00	0.0091	--	2/20/2014 15:00	0.0091	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
2/20/2014 16:00	0.0066	--	2/20/2014 16:00	0.0089	--	2/20/2014 16:00	0.0089	--
2/20/2014 17:00	0.0068	--	2/20/2014 17:00	0.0085	--	2/20/2014 17:00	0.0085	--
2/20/2014 18:00	0.0072	--	2/20/2014 18:00	0.0094	--	2/20/2014 18:00	0.0094	--
2/20/2014 19:00	0.0070	--	2/20/2014 19:00	0.0103	--	2/20/2014 19:00	0.0103	--
2/20/2014 20:00	0.0074	--	2/20/2014 20:00	0.0110	--	2/20/2014 20:00	0.0110	--
2/20/2014 21:00	0.0073	--	2/20/2014 21:00	0.0104	--	2/20/2014 21:00	0.0104	--
2/20/2014 22:00	0.0071	--	2/20/2014 22:00	0.0097	--	2/20/2014 22:00	0.0097	--
2/20/2014 23:00	0.0070	0.0073	2/20/2014 23:00	0.0095	0.0083	2/20/2014 23:00	0.0095	0.0083
2/21/2014 0:00	0.0070	--	2/21/2014 0:00	0.0092	--	2/21/2014 0:00	0.0092	--
2/21/2014 1:00	0.0068	--	2/21/2014 1:00	0.0093	--	2/21/2014 1:00	0.0093	--
2/21/2014 2:00	0.0068	--	2/21/2014 2:00	0.0095	--	2/21/2014 2:00	0.0095	--
2/21/2014 3:00	0.0068	--	2/21/2014 3:00	0.0093	--	2/21/2014 3:00	0.0093	--
2/21/2014 4:00	0.0068	--	2/21/2014 4:00	0.0092	--	2/21/2014 4:00	0.0092	--
2/21/2014 5:00	0.0068	--	2/21/2014 5:00	0.0093	--	2/21/2014 5:00	0.0093	--
2/21/2014 6:00	0.0071	--	2/21/2014 6:00	0.0111	--	2/21/2014 6:00	0.0111	--
2/21/2014 7:00	0.0069	--	2/21/2014 7:00	0.0099	--	2/21/2014 7:00	0.0099	--
2/21/2014 8:00	0.0070	--	2/21/2014 8:00	0.0096	--	2/21/2014 8:00	0.0096	--
2/21/2014 9:00	0.0071	--	2/21/2014 9:00	0.0079	--	2/21/2014 9:00	0.0079	--
2/21/2014 10:00	0.0070	--	2/21/2014 10:00	0.0087	--	2/21/2014 10:00	0.0087	--
2/21/2014 11:00	0.0070	--	2/21/2014 11:00	0.0086	--	2/21/2014 11:00	0.0086	--
2/21/2014 12:00	0.0070	--	2/21/2014 12:00	0.0085	--	2/21/2014 12:00	0.0085	--
2/21/2014 13:00	0.0070	--	2/21/2014 13:00	0.0085	--	2/21/2014 13:00	0.0085	--
2/21/2014 14:00	0.0068	--	2/21/2014 14:00	0.0084	--	2/21/2014 14:00	0.0084	--
2/21/2014 15:00	0.0069	--	2/21/2014 15:00	0.0084	--	2/21/2014 15:00	0.0084	--
2/21/2014 16:00	0.0068	--	2/21/2014 16:00	0.0088	--	2/21/2014 16:00	0.0088	--
2/21/2014 17:00	0.0068	--	2/21/2014 17:00	0.0086	--	2/21/2014 17:00	0.0086	--
2/21/2014 18:00	0.0068	--	2/21/2014 18:00	0.0085	--	2/21/2014 18:00	0.0085	--
2/21/2014 19:00	0.0068	--	2/21/2014 19:00	0.0084	--	2/21/2014 19:00	0.0084	--
2/21/2014 20:00	0.0067	--	2/21/2014 20:00	0.0083	--	2/21/2014 20:00	0.0083	--
2/21/2014 21:00	0.0068	--	2/21/2014 21:00	0.0083	--	2/21/2014 21:00	0.0083	--
2/21/2014 22:00	0.0068	--	2/21/2014 22:00	0.0084	--	2/21/2014 22:00	0.0084	--
2/21/2014 23:00	0.0068	0.0072	2/21/2014 23:00	0.0084	0.0083	2/21/2014 23:00	0.0084	0.0083
2/22/2014 0:00	0.0069	--	2/22/2014 0:00	0.0083	--	2/22/2014 0:00	0.0083	--
2/22/2014 1:00	0.0068	--	2/22/2014 1:00	0.0084	--	2/22/2014 1:00	0.0084	--
2/22/2014 2:00	0.0068	--	2/22/2014 2:00	0.0083	--	2/22/2014 2:00	0.0083	--
2/22/2014 3:00	0.0066	--	2/22/2014 3:00	0.0083	--	2/22/2014 3:00	0.0083	--
2/22/2014 4:00	0.0067	--	2/22/2014 4:00	0.0084	--	2/22/2014 4:00	0.0084	--
2/22/2014 5:00	0.0068	--	2/22/2014 5:00	0.0084	--	2/22/2014 5:00	0.0084	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
2/22/2014 6:00	0.0071	--	2/22/2014 6:00	0.0079	--	2/22/2014 6:00	0.0079	--
2/22/2014 7:00	0.0068	--	2/22/2014 7:00	0.0075	--	2/22/2014 7:00	0.0075	--
2/22/2014 8:00	0.0069	--	2/22/2014 8:00	0.0083	--	2/22/2014 8:00	0.0083	--
2/22/2014 9:00	0.0069	--	2/22/2014 9:00	0.0087	--	2/22/2014 9:00	0.0087	--
2/22/2014 10:00	0.0069	--	2/22/2014 10:00	0.0086	--	2/22/2014 10:00	0.0086	--
2/22/2014 11:00	0.0069	--	2/22/2014 11:00	0.0086	--	2/22/2014 11:00	0.0086	--
2/22/2014 12:00	0.0068	--	2/22/2014 12:00	0.0085	--	2/22/2014 12:00	0.0085	--
2/22/2014 13:00	0.0068	--	2/22/2014 13:00	0.0083	--	2/22/2014 13:00	0.0083	--
2/22/2014 14:00	0.0068	--	2/22/2014 14:00	0.0084	--	2/22/2014 14:00	0.0084	--
2/22/2014 15:00	0.0069	--	2/22/2014 15:00	0.0084	--	2/22/2014 15:00	0.0084	--
2/22/2014 16:00	0.0069	--	2/22/2014 16:00	0.0084	--	2/22/2014 16:00	0.0084	--
2/22/2014 17:00	0.0068	--	2/22/2014 17:00	0.0084	--	2/22/2014 17:00	0.0084	--
2/22/2014 18:00	0.0069	--	2/22/2014 18:00	0.0084	--	2/22/2014 18:00	0.0084	--
2/22/2014 19:00	0.0068	--	2/22/2014 19:00	0.0084	--	2/22/2014 19:00	0.0084	--
2/22/2014 20:00	0.0068	--	2/22/2014 20:00	0.0084	--	2/22/2014 20:00	0.0084	--
2/22/2014 21:00	0.0069	--	2/22/2014 21:00	0.0084	--	2/22/2014 21:00	0.0084	--
2/22/2014 22:00	0.0068	--	2/22/2014 22:00	0.0084	--	2/22/2014 22:00	0.0084	--
2/22/2014 23:00	0.0068	0.0072	2/22/2014 23:00	0.0084	0.0083	2/22/2014 23:00	0.0084	0.0083
2/23/2014 0:00	0.0068	--	2/23/2014 0:00	0.0083	--	2/23/2014 0:00	0.0083	--
2/23/2014 1:00	0.0068	--	2/23/2014 1:00	0.0084	--	2/23/2014 1:00	0.0084	--
2/23/2014 2:00	0.0068	--	2/23/2014 2:00	0.0085	--	2/23/2014 2:00	0.0085	--
2/23/2014 3:00	0.0068	--	2/23/2014 3:00	0.0085	--	2/23/2014 3:00	0.0085	--
2/23/2014 4:00	0.0069	--	2/23/2014 4:00	0.0085	--	2/23/2014 4:00	0.0085	--
2/23/2014 5:00	0.0069	--	2/23/2014 5:00	0.0085	--	2/23/2014 5:00	0.0085	--
2/23/2014 6:00	0.0072	--	2/23/2014 6:00	0.0099	--	2/23/2014 6:00	0.0099	--
2/23/2014 7:00	0.0070	--	2/23/2014 7:00	0.0088	--	2/23/2014 7:00	0.0088	--
2/23/2014 8:00	0.0069	--	2/23/2014 8:00	0.0085	--	2/23/2014 8:00	0.0085	--
2/23/2014 9:00	0.0069	--	2/23/2014 9:00	0.0085	--	2/23/2014 9:00	0.0085	--
2/23/2014 10:00	0.0069	--	2/23/2014 10:00	0.0085	--	2/23/2014 10:00	0.0085	--
2/23/2014 11:00	0.0069	--	2/23/2014 11:00	0.0086	--	2/23/2014 11:00	0.0086	--
2/23/2014 12:00	0.0069	--	2/23/2014 12:00	0.0087	--	2/23/2014 12:00	0.0087	--
2/23/2014 13:00	0.0069	--	2/23/2014 13:00	0.0085	--	2/23/2014 13:00	0.0085	--
2/23/2014 14:00	0.0069	--	2/23/2014 14:00	0.0087	--	2/23/2014 14:00	0.0087	--
2/23/2014 15:00	0.0070	--	2/23/2014 15:00	0.0087	--	2/23/2014 15:00	0.0087	--
2/23/2014 16:00	0.0070	--	2/23/2014 16:00	0.0082	--	2/23/2014 16:00	0.0082	--
2/23/2014 17:00	0.0068	--	2/23/2014 17:00	0.0081	--	2/23/2014 17:00	0.0081	--
2/23/2014 18:00	0.0069	--	2/23/2014 18:00	0.0083	--	2/23/2014 18:00	0.0083	--
2/23/2014 19:00	0.0071	--	2/23/2014 19:00	0.0087	--	2/23/2014 19:00	0.0087	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
2/23/2014 20:00	0.0069	--	2/23/2014 20:00	0.0084	--	2/23/2014 20:00	0.0084	--
2/23/2014 21:00	0.0068	--	2/23/2014 21:00	0.0084	--	2/23/2014 21:00	0.0084	--
2/23/2014 22:00	0.0069	--	2/23/2014 22:00	0.0085	--	2/23/2014 22:00	0.0085	--
2/23/2014 23:00	0.0068	0.0072	2/23/2014 23:00	0.0085	0.0083	2/23/2014 23:00	0.0085	0.0083
2/24/2014 0:00	0.0068	--	2/24/2014 0:00	0.0084	--	2/24/2014 0:00	0.0084	--
2/24/2014 1:00	0.0068	--	2/24/2014 1:00	0.0084	--	2/24/2014 1:00	0.0084	--
2/24/2014 2:00	0.0068	--	2/24/2014 2:00	0.0084	--	2/24/2014 2:00	0.0084	--
2/24/2014 3:00	0.0069	--	2/24/2014 3:00	0.0085	--	2/24/2014 3:00	0.0085	--
2/24/2014 4:00	0.0068	--	2/24/2014 4:00	0.0084	--	2/24/2014 4:00	0.0084	--
2/24/2014 5:00	0.0069	--	2/24/2014 5:00	0.0086	--	2/24/2014 5:00	0.0086	--
2/24/2014 6:00	0.0071	--	2/24/2014 6:00	0.0095	--	2/24/2014 6:00	0.0095	--
2/24/2014 7:00	0.0069	--	2/24/2014 7:00	0.0086	--	2/24/2014 7:00	0.0086	--
2/24/2014 8:00	0.0069	--	2/24/2014 8:00	0.0085	--	2/24/2014 8:00	0.0085	--
2/24/2014 9:00	0.0069	--	2/24/2014 9:00	0.0085	--	2/24/2014 9:00	0.0085	--
2/24/2014 10:00	0.0069	--	2/24/2014 10:00	0.0085	--	2/24/2014 10:00	0.0085	--
2/24/2014 11:00	0.0069	--	2/24/2014 11:00	0.0085	--	2/24/2014 11:00	0.0085	--
2/24/2014 12:00	0.0069	--	2/24/2014 12:00	0.0085	--	2/24/2014 12:00	0.0085	--
2/24/2014 13:00	0.0068	--	2/24/2014 13:00	0.0084	--	2/24/2014 13:00	0.0084	--
2/24/2014 14:00	0.0069	--	2/24/2014 14:00	0.0085	--	2/24/2014 14:00	0.0085	--
2/24/2014 15:00	0.0070	--	2/24/2014 15:00	0.0086	--	2/24/2014 15:00	0.0086	--
2/24/2014 16:00	0.0068	--	2/24/2014 16:00	0.0083	--	2/24/2014 16:00	0.0083	--
2/24/2014 17:00	0.0066	--	2/24/2014 17:00	0.0079	--	2/24/2014 17:00	0.0079	--
2/24/2014 18:00	0.0069	--	2/24/2014 18:00	0.0083	--	2/24/2014 18:00	0.0083	--
2/24/2014 19:00	0.0068	--	2/24/2014 19:00	0.0084	--	2/24/2014 19:00	0.0084	--
2/24/2014 20:00	0.0068	--	2/24/2014 20:00	0.0085	--	2/24/2014 20:00	0.0085	--
2/24/2014 21:00	0.0069	--	2/24/2014 21:00	0.0084	--	2/24/2014 21:00	0.0084	--
2/24/2014 22:00	0.0068	--	2/24/2014 22:00	0.0085	--	2/24/2014 22:00	0.0085	--
2/24/2014 23:00	0.0068	0.0072	2/24/2014 23:00	0.0085	0.0084	2/24/2014 23:00	0.0085	0.0084
2/25/2014 0:00	0.0069	--	2/25/2014 0:00	0.0085	--	2/25/2014 0:00	0.0085	--
2/25/2014 1:00	0.0069	--	2/25/2014 1:00	0.0084	--	2/25/2014 1:00	0.0084	--
2/25/2014 2:00	0.0069	--	2/25/2014 2:00	0.0085	--	2/25/2014 2:00	0.0085	--
2/25/2014 3:00	0.0069	--	2/25/2014 3:00	0.0085	--	2/25/2014 3:00	0.0085	--
2/25/2014 4:00	0.0070	--	2/25/2014 4:00	0.0085	--	2/25/2014 4:00	0.0085	--
2/25/2014 5:00	0.0070	--	2/25/2014 5:00	0.0085	--	2/25/2014 5:00	0.0085	--
2/25/2014 6:00	0.0068	--	2/25/2014 6:00	0.0103	--	2/25/2014 6:00	0.0103	--
2/25/2014 7:00	0.0068	--	2/25/2014 7:00	0.0083	--	2/25/2014 7:00	0.0083	--
2/25/2014 8:00	0.0069	--	2/25/2014 8:00	0.0081	--	2/25/2014 8:00	0.0081	--
2/25/2014 9:00	0.0069	--	2/25/2014 9:00	0.0083	--	2/25/2014 9:00	0.0083	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
2/25/2014 10:00	0.0069	--	2/25/2014 10:00	0.0082	--	2/25/2014 10:00	0.0082	--
2/25/2014 11:00	0.0067	--	2/25/2014 11:00	0.0082	--	2/25/2014 11:00	0.0082	--
2/25/2014 12:00	0.0056	--	2/25/2014 12:00	0.0083	--	2/25/2014 12:00	0.0083	--
2/25/2014 13:00	0.0049	--	2/25/2014 13:00	0.0076	--	2/25/2014 13:00	0.0076	--
2/25/2014 14:00	0.0048	--	2/25/2014 14:00	0.0080	--	2/25/2014 14:00	0.0080	--
2/25/2014 15:00	0.0052	--	2/25/2014 15:00	0.0082	--	2/25/2014 15:00	0.0082	--
2/25/2014 16:00	0.0052	--	2/25/2014 16:00	0.0082	--	2/25/2014 16:00	0.0082	--
2/25/2014 17:00	0.0055	--	2/25/2014 17:00	0.0081	--	2/25/2014 17:00	0.0081	--
2/25/2014 18:00	0.0059	--	2/25/2014 18:00	0.0082	--	2/25/2014 18:00	0.0082	--
2/25/2014 19:00	0.0059	--	2/25/2014 19:00	0.0081	--	2/25/2014 19:00	0.0081	--
2/25/2014 20:00	0.0060	--	2/25/2014 20:00	0.0082	--	2/25/2014 20:00	0.0082	--
2/25/2014 21:00	0.0060	--	2/25/2014 21:00	0.0082	--	2/25/2014 21:00	0.0082	--
2/25/2014 22:00	0.0067	--	2/25/2014 22:00	0.0084	--	2/25/2014 22:00	0.0084	--
2/25/2014 23:00	0.0069	0.0072	2/25/2014 23:00	0.0085	0.0084	2/25/2014 23:00	0.0085	0.0084
2/26/2014 0:00	0.0069	--	2/26/2014 0:00	0.0084	--	2/26/2014 0:00	0.0084	--
2/26/2014 1:00	0.0068	--	2/26/2014 1:00	0.0082	--	2/26/2014 1:00	0.0082	--
2/26/2014 2:00	0.0069	--	2/26/2014 2:00	0.0083	--	2/26/2014 2:00	0.0083	--
2/26/2014 3:00	0.0068	--	2/26/2014 3:00	0.0082	--	2/26/2014 3:00	0.0082	--
2/26/2014 4:00	0.0068	--	2/26/2014 4:00	0.0082	--	2/26/2014 4:00	0.0082	--
2/26/2014 5:00	0.0069	--	2/26/2014 5:00	0.0083	--	2/26/2014 5:00	0.0083	--
2/26/2014 6:00	0.0071	--	2/26/2014 6:00	0.0092	--	2/26/2014 6:00	0.0092	--
2/26/2014 7:00	0.0068	--	2/26/2014 7:00	0.0080	--	2/26/2014 7:00	0.0080	--
2/26/2014 8:00	0.0069	--	2/26/2014 8:00	0.0080	--	2/26/2014 8:00	0.0080	--
2/26/2014 9:00	0.0069	--	2/26/2014 9:00	0.0081	--	2/26/2014 9:00	0.0081	--
2/26/2014 10:00	0.0072	--	2/26/2014 10:00	0.0082	--	2/26/2014 10:00	0.0082	--
2/26/2014 11:00	0.0071	--	2/26/2014 11:00	0.0083	--	2/26/2014 11:00	0.0083	--
2/26/2014 12:00	0.0070	--	2/26/2014 12:00	0.0081	--	2/26/2014 12:00	0.0081	--
2/26/2014 13:00	0.0071	--	2/26/2014 13:00	0.0080	--	2/26/2014 13:00	0.0080	--
2/26/2014 14:00	0.0067	--	2/26/2014 14:00	0.0080	--	2/26/2014 14:00	0.0080	--
2/26/2014 15:00	0.0069	--	2/26/2014 15:00	0.0080	--	2/26/2014 15:00	0.0080	--
2/26/2014 16:00	0.0070	--	2/26/2014 16:00	0.0080	--	2/26/2014 16:00	0.0080	--
2/26/2014 17:00	0.0070	--	2/26/2014 17:00	0.0080	--	2/26/2014 17:00	0.0080	--
2/26/2014 18:00	0.0070	--	2/26/2014 18:00	0.0081	--	2/26/2014 18:00	0.0081	--
2/26/2014 19:00	0.0071	--	2/26/2014 19:00	0.0081	--	2/26/2014 19:00	0.0081	--
2/26/2014 20:00	0.0070	--	2/26/2014 20:00	0.0080	--	2/26/2014 20:00	0.0080	--
2/26/2014 21:00	0.0070	--	2/26/2014 21:00	0.0081	--	2/26/2014 21:00	0.0081	--
2/26/2014 22:00	0.0070	--	2/26/2014 22:00	0.0080	--	2/26/2014 22:00	0.0080	--
2/26/2014 23:00	0.0070	0.0072	2/26/2014 23:00	0.0080	0.0084	2/26/2014 23:00	0.0080	0.0084

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
2/27/2014 0:00	0.0070	--	2/27/2014 0:00	0.0080	--	2/27/2014 0:00	0.0080	--
2/27/2014 1:00	0.0071	--	2/27/2014 1:00	0.0080	--	2/27/2014 1:00	0.0080	--
2/27/2014 2:00	0.0070	--	2/27/2014 2:00	0.0080	--	2/27/2014 2:00	0.0080	--
2/27/2014 3:00	0.0070	--	2/27/2014 3:00	0.0080	--	2/27/2014 3:00	0.0080	--
2/27/2014 4:00	0.0070	--	2/27/2014 4:00	0.0080	--	2/27/2014 4:00	0.0080	--
2/27/2014 5:00	0.0070	--	2/27/2014 5:00	0.0080	--	2/27/2014 5:00	0.0080	--
2/27/2014 6:00	0.0073	--	2/27/2014 6:00	0.0091	--	2/27/2014 6:00	0.0091	--
2/27/2014 7:00	0.0071	--	2/27/2014 7:00	0.0083	--	2/27/2014 7:00	0.0083	--
2/27/2014 8:00	0.0072	--	2/27/2014 8:00	0.0082	--	2/27/2014 8:00	0.0082	--
2/27/2014 9:00	0.0075	--	2/27/2014 9:00	0.0087	--	2/27/2014 9:00	0.0087	--
2/27/2014 10:00	0.0074	--	2/27/2014 10:00	0.0087	--	2/27/2014 10:00	0.0087	--
2/27/2014 11:00	0.0078	--	2/27/2014 11:00	0.0075	--	2/27/2014 11:00	0.0075	--
2/27/2014 12:00	0.0075	--	2/27/2014 12:00	0.0080	--	2/27/2014 12:00	0.0080	--
2/27/2014 13:00	0.0074	--	2/27/2014 13:00	0.0080	--	2/27/2014 13:00	0.0080	--
2/27/2014 14:00	0.0074	--	2/27/2014 14:00	0.0080	--	2/27/2014 14:00	0.0080	--
2/27/2014 15:00	0.0073	--	2/27/2014 15:00	0.0080	--	2/27/2014 15:00	0.0080	--
2/27/2014 16:00	0.0072	--	2/27/2014 16:00	0.0079	--	2/27/2014 16:00	0.0079	--
2/27/2014 17:00	0.0071	--	2/27/2014 17:00	0.0077	--	2/27/2014 17:00	0.0077	--
2/27/2014 18:00	0.0070	--	2/27/2014 18:00	0.0077	--	2/27/2014 18:00	0.0077	--
2/27/2014 19:00	0.0072	--	2/27/2014 19:00	0.0079	--	2/27/2014 19:00	0.0079	--
2/27/2014 20:00	0.0072	--	2/27/2014 20:00	0.0079	--	2/27/2014 20:00	0.0079	--
2/27/2014 21:00	0.0073	--	2/27/2014 21:00	0.0079	--	2/27/2014 21:00	0.0079	--
2/27/2014 22:00	0.0073	--	2/27/2014 22:00	0.0079	--	2/27/2014 22:00	0.0079	--
2/27/2014 23:00	0.0073	0.0072	2/27/2014 23:00	0.0080	0.0084	2/27/2014 23:00	0.0080	0.0084
2/28/2014 0:00	0.0073	--	2/28/2014 0:00	0.0079	--	2/28/2014 0:00	0.0079	--
2/28/2014 1:00	0.0072	--	2/28/2014 1:00	0.0080	--	2/28/2014 1:00	0.0080	--
2/28/2014 2:00	0.0072	--	2/28/2014 2:00	0.0079	--	2/28/2014 2:00	0.0079	--
2/28/2014 3:00	0.0073	--	2/28/2014 3:00	0.0079	--	2/28/2014 3:00	0.0079	--
2/28/2014 4:00	0.0072	--	2/28/2014 4:00	0.0079	--	2/28/2014 4:00	0.0079	--
2/28/2014 5:00	0.0073	--	2/28/2014 5:00	0.0079	--	2/28/2014 5:00	0.0079	--
2/28/2014 6:00	0.0077	--	2/28/2014 6:00	DOWNTIME	--	2/28/2014 6:00	0.0097	--
2/28/2014 7:00	0.0075	--	2/28/2014 7:00	0.0093	--	2/28/2014 7:00	0.0093	--
2/28/2014 8:00	0.0073	--	2/28/2014 8:00	0.0081	--	2/28/2014 8:00	0.0081	--
2/28/2014 9:00	0.0073	--	2/28/2014 9:00	0.0079	--	2/28/2014 9:00	0.0079	--
2/28/2014 10:00	0.0074	--	2/28/2014 10:00	0.0079	--	2/28/2014 10:00	0.0079	--
2/28/2014 11:00	0.0073	--	2/28/2014 11:00	0.0079	--	2/28/2014 11:00	0.0079	--
2/28/2014 12:00	0.0072	--	2/28/2014 12:00	0.0079	--	2/28/2014 12:00	0.0079	--
2/28/2014 13:00	0.0074	--	2/28/2014 13:00	0.0080	--	2/28/2014 13:00	0.0080	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
2/28/2014 14:00	0.0073	--	2/28/2014 14:00	0.0079	--	2/28/2014 14:00	0.0079	--
2/28/2014 15:00	0.0074	--	2/28/2014 15:00	0.0080	--	2/28/2014 15:00	0.0080	--
2/28/2014 16:00	0.0070	--	2/28/2014 16:00	0.0079	--	2/28/2014 16:00	0.0079	--
2/28/2014 17:00	0.0069	--	2/28/2014 17:00	0.0079	--	2/28/2014 17:00	0.0079	--
2/28/2014 18:00	0.0070	--	2/28/2014 18:00	0.0078	--	2/28/2014 18:00	0.0078	--
2/28/2014 19:00	0.0071	--	2/28/2014 19:00	0.0078	--	2/28/2014 19:00	0.0078	--
2/28/2014 20:00	0.0070	--	2/28/2014 20:00	0.0079	--	2/28/2014 20:00	0.0079	--
2/28/2014 21:00	0.0071	--	2/28/2014 21:00	0.0080	--	2/28/2014 21:00	0.0080	--
2/28/2014 22:00	0.0072	--	2/28/2014 22:00	0.0080	--	2/28/2014 22:00	0.0080	--
2/28/2014 23:00	0.0071	0.0072	2/28/2014 23:00	0.0080	0.0084	2/28/2014 23:00	0.0080	0.0084
3/1/2014 0:00	0.0070	--	3/1/2014 0:00	0.0079	--	3/1/2014 0:00	0.0079	--
3/1/2014 1:00	0.0071	--	3/1/2014 1:00	0.0079	--	3/1/2014 1:00	0.0079	--
3/1/2014 2:00	0.0070	--	3/1/2014 2:00	0.0079	--	3/1/2014 2:00	0.0079	--
3/1/2014 3:00	0.0072	--	3/1/2014 3:00	0.0079	--	3/1/2014 3:00	0.0079	--
3/1/2014 4:00	0.0073	--	3/1/2014 4:00	0.0079	--	3/1/2014 4:00	0.0079	--
3/1/2014 5:00	0.0071	--	3/1/2014 5:00	0.0080	--	3/1/2014 5:00	0.0080	--
3/1/2014 6:00	0.0072	--	3/1/2014 6:00	0.0091	--	3/1/2014 6:00	0.0091	--
3/1/2014 7:00	0.0070	--	3/1/2014 7:00	0.0079	--	3/1/2014 7:00	0.0079	--
3/1/2014 8:00	0.0071	--	3/1/2014 8:00	0.0079	--	3/1/2014 8:00	0.0079	--
3/1/2014 9:00	0.0071	--	3/1/2014 9:00	0.0080	--	3/1/2014 9:00	0.0080	--
3/1/2014 10:00	0.0072	--	3/1/2014 10:00	0.0080	--	3/1/2014 10:00	0.0080	--
3/1/2014 11:00	0.0072	--	3/1/2014 11:00	0.0081	--	3/1/2014 11:00	0.0081	--
3/1/2014 12:00	0.0072	--	3/1/2014 12:00	0.0081	--	3/1/2014 12:00	0.0081	--
3/1/2014 13:00	0.0071	--	3/1/2014 13:00	0.0080	--	3/1/2014 13:00	0.0080	--
3/1/2014 14:00	0.0072	--	3/1/2014 14:00	0.0080	--	3/1/2014 14:00	0.0080	--
3/1/2014 15:00	0.0069	--	3/1/2014 15:00	0.0077	--	3/1/2014 15:00	0.0077	--
3/1/2014 16:00	0.0070	--	3/1/2014 16:00	0.0078	--	3/1/2014 16:00	0.0078	--
3/1/2014 17:00	0.0070	--	3/1/2014 17:00	0.0078	--	3/1/2014 17:00	0.0078	--
3/1/2014 18:00	0.0070	--	3/1/2014 18:00	0.0077	--	3/1/2014 18:00	0.0077	--
3/1/2014 19:00	0.0070	--	3/1/2014 19:00	0.0077	--	3/1/2014 19:00	0.0077	--
3/1/2014 20:00	0.0070	--	3/1/2014 20:00	0.0079	--	3/1/2014 20:00	0.0079	--
3/1/2014 21:00	0.0071	--	3/1/2014 21:00	0.0079	--	3/1/2014 21:00	0.0079	--
3/1/2014 22:00	0.0071	--	3/1/2014 22:00	0.0080	--	3/1/2014 22:00	0.0080	--
3/1/2014 23:00	0.0071	0.0071	3/1/2014 23:00	0.0080	0.0084	3/1/2014 23:00	0.0080	0.0084
3/2/2014 0:00	0.0070	--	3/2/2014 0:00	0.0079	--	3/2/2014 0:00	0.0079	--
3/2/2014 1:00	0.0070	--	3/2/2014 1:00	0.0079	--	3/2/2014 1:00	0.0079	--
3/2/2014 2:00	0.0072	--	3/2/2014 2:00	0.0080	--	3/2/2014 2:00	0.0080	--
3/2/2014 3:00	0.0070	--	3/2/2014 3:00	0.0078	--	3/2/2014 3:00	0.0078	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
3/2/2014 4:00	0.0070	--	3/2/2014 4:00	0.0079	--	3/2/2014 4:00	0.0079	--
3/2/2014 5:00	0.0070	--	3/2/2014 5:00	0.0079	--	3/2/2014 5:00	0.0079	--
3/2/2014 6:00	0.0072	--	3/2/2014 6:00	0.0082	--	3/2/2014 6:00	0.0082	--
3/2/2014 7:00	0.0071	--	3/2/2014 7:00	0.0078	--	3/2/2014 7:00	0.0078	--
3/2/2014 8:00	0.0072	--	3/2/2014 8:00	0.0081	--	3/2/2014 8:00	0.0081	--
3/2/2014 9:00	0.0072	--	3/2/2014 9:00	0.0080	--	3/2/2014 9:00	0.0080	--
3/2/2014 10:00	0.0072	--	3/2/2014 10:00	0.0080	--	3/2/2014 10:00	0.0080	--
3/2/2014 11:00	0.0071	--	3/2/2014 11:00	0.0080	--	3/2/2014 11:00	0.0080	--
3/2/2014 12:00	0.0071	--	3/2/2014 12:00	0.0080	--	3/2/2014 12:00	0.0080	--
3/2/2014 13:00	0.0072	--	3/2/2014 13:00	0.0080	--	3/2/2014 13:00	0.0080	--
3/2/2014 14:00	0.0070	--	3/2/2014 14:00	0.0079	--	3/2/2014 14:00	0.0079	--
3/2/2014 15:00	0.0069	--	3/2/2014 15:00	0.0077	--	3/2/2014 15:00	0.0077	--
3/2/2014 16:00	0.0069	--	3/2/2014 16:00	0.0078	--	3/2/2014 16:00	0.0078	--
3/2/2014 17:00	0.0073	--	3/2/2014 17:00	0.0082	--	3/2/2014 17:00	0.0082	--
3/2/2014 18:00	0.0074	--	3/2/2014 18:00	0.0086	--	3/2/2014 18:00	0.0086	--
3/2/2014 19:00	0.0071	--	3/2/2014 19:00	0.0081	--	3/2/2014 19:00	0.0081	--
3/2/2014 20:00	0.0072	--	3/2/2014 20:00	0.0082	--	3/2/2014 20:00	0.0082	--
3/2/2014 21:00	0.0071	--	3/2/2014 21:00	0.0081	--	3/2/2014 21:00	0.0081	--
3/2/2014 22:00	0.0071	--	3/2/2014 22:00	0.0080	--	3/2/2014 22:00	0.0080	--
3/2/2014 23:00	0.0071	0.0071	3/2/2014 23:00	0.0081	0.0084	3/2/2014 23:00	0.0081	0.0084
3/3/2014 0:00	0.0070	--	3/3/2014 0:00	0.0080	--	3/3/2014 0:00	0.0080	--
3/3/2014 1:00	0.0071	--	3/3/2014 1:00	0.0080	--	3/3/2014 1:00	0.0080	--
3/3/2014 2:00	0.0069	--	3/3/2014 2:00	0.0079	--	3/3/2014 2:00	0.0079	--
3/3/2014 3:00	0.0073	--	3/3/2014 3:00	0.0080	--	3/3/2014 3:00	0.0080	--
3/3/2014 4:00	0.0072	--	3/3/2014 4:00	0.0080	--	3/3/2014 4:00	0.0080	--
3/3/2014 5:00	0.0069	--	3/3/2014 5:00	0.0080	--	3/3/2014 5:00	0.0080	--
3/3/2014 6:00	0.0075	--	3/3/2014 6:00	0.0091	--	3/3/2014 6:00	0.0091	--
3/3/2014 7:00	0.0071	--	3/3/2014 7:00	0.0082	--	3/3/2014 7:00	0.0082	--
3/3/2014 8:00	0.0070	--	3/3/2014 8:00	0.0080	--	3/3/2014 8:00	0.0080	--
3/3/2014 9:00	0.0075	--	3/3/2014 9:00	0.0080	--	3/3/2014 9:00	0.0080	--
3/3/2014 10:00	DOWNTIME	--	3/3/2014 10:00	0.0081	--	3/3/2014 10:00	0.0081	--
3/3/2014 11:00	DOWNTIME	--	3/3/2014 11:00	DOWNTIME	--	3/3/2014 11:00	0.0082	--
3/3/2014 12:00	0.0068	--	3/3/2014 12:00	DOWNTIME	--	3/3/2014 12:00	0.0327	--
3/3/2014 13:00	0.0070	--	3/3/2014 13:00	0.1602	--	3/3/2014 13:00	0.1602	--
3/3/2014 14:00	0.0070	--	3/3/2014 14:00	0.0076	--	3/3/2014 14:00	DOWNTIME	--
3/3/2014 15:00	0.0070	--	3/3/2014 15:00	0.0079	--	3/3/2014 15:00	0.0079	--
3/3/2014 16:00	0.0068	--	3/3/2014 16:00	0.0074	--	3/3/2014 16:00	0.0074	--
3/3/2014 17:00	0.0069	--	3/3/2014 17:00	0.0077	--	3/3/2014 17:00	0.0077	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
3/3/2014 18:00	0.0069	--	3/3/2014 18:00	0.0077	--	3/3/2014 18:00	0.0077	--
3/3/2014 19:00	0.0069	--	3/3/2014 19:00	0.0079	--	3/3/2014 19:00	0.0079	--
3/3/2014 20:00	0.0070	--	3/3/2014 20:00	0.0079	--	3/3/2014 20:00	0.0079	--
3/3/2014 21:00	0.0070	--	3/3/2014 21:00	0.0080	--	3/3/2014 21:00	0.0080	--
3/3/2014 22:00	0.0070	--	3/3/2014 22:00	0.0080	--	3/3/2014 22:00	0.0080	--
3/3/2014 23:00	0.0070	0.0071	3/3/2014 23:00	0.0080	0.0086	3/3/2014 23:00	0.0080	0.0086
3/4/2014 0:00	0.0070	--	3/4/2014 0:00	0.0079	--	3/4/2014 0:00	0.0079	--
3/4/2014 1:00	0.0070	--	3/4/2014 1:00	0.0079	--	3/4/2014 1:00	0.0079	--
3/4/2014 2:00	0.0070	--	3/4/2014 2:00	0.0079	--	3/4/2014 2:00	0.0079	--
3/4/2014 3:00	0.0070	--	3/4/2014 3:00	0.0079	--	3/4/2014 3:00	0.0079	--
3/4/2014 4:00	0.0071	--	3/4/2014 4:00	0.0080	--	3/4/2014 4:00	0.0080	--
3/4/2014 5:00	0.0071	--	3/4/2014 5:00	0.0079	--	3/4/2014 5:00	0.0079	--
3/4/2014 6:00	0.0074	--	3/4/2014 6:00	0.0073	--	3/4/2014 6:00	0.0073	--
3/4/2014 7:00	0.0071	--	3/4/2014 7:00	0.0078	--	3/4/2014 7:00	0.0078	--
3/4/2014 8:00	0.0071	--	3/4/2014 8:00	0.0080	--	3/4/2014 8:00	0.0080	--
3/4/2014 9:00	0.0071	--	3/4/2014 9:00	0.0080	--	3/4/2014 9:00	0.0080	--
3/4/2014 10:00	0.0071	--	3/4/2014 10:00	0.0080	--	3/4/2014 10:00	0.0080	--
3/4/2014 11:00	0.0070	--	3/4/2014 11:00	0.0082	--	3/4/2014 11:00	0.0082	--
3/4/2014 12:00	0.0071	--	3/4/2014 12:00	0.0081	--	3/4/2014 12:00	0.0081	--
3/4/2014 13:00	0.0071	--	3/4/2014 13:00	0.0078	--	3/4/2014 13:00	0.0078	--
3/4/2014 14:00	0.0071	--	3/4/2014 14:00	0.0079	--	3/4/2014 14:00	0.0079	--
3/4/2014 15:00	0.0071	--	3/4/2014 15:00	0.0080	--	3/4/2014 15:00	0.0080	--
3/4/2014 16:00	0.0071	--	3/4/2014 16:00	0.0080	--	3/4/2014 16:00	0.0080	--
3/4/2014 17:00	0.0070	--	3/4/2014 17:00	0.0080	--	3/4/2014 17:00	0.0080	--
3/4/2014 18:00	0.0070	--	3/4/2014 18:00	0.0080	--	3/4/2014 18:00	0.0080	--
3/4/2014 19:00	0.0070	--	3/4/2014 19:00	0.0080	--	3/4/2014 19:00	0.0080	--
3/4/2014 20:00	0.0070	--	3/4/2014 20:00	0.0080	--	3/4/2014 20:00	0.0080	--
3/4/2014 21:00	0.0070	--	3/4/2014 21:00	0.0080	--	3/4/2014 21:00	0.0080	--
3/4/2014 22:00	0.0071	--	3/4/2014 22:00	0.0079	--	3/4/2014 22:00	0.0079	--
3/4/2014 23:00	0.0070	0.0071	3/4/2014 23:00	0.0080	0.0086	3/4/2014 23:00	0.0080	0.0086
3/5/2014 0:00	0.0071	--	3/5/2014 0:00	0.0080	--	3/5/2014 0:00	0.0080	--
3/5/2014 1:00	0.0071	--	3/5/2014 1:00	0.0080	--	3/5/2014 1:00	0.0080	--
3/5/2014 2:00	0.0070	--	3/5/2014 2:00	0.0079	--	3/5/2014 2:00	0.0079	--
3/5/2014 3:00	0.0069	--	3/5/2014 3:00	0.0081	--	3/5/2014 3:00	0.0081	--
3/5/2014 4:00	0.0070	--	3/5/2014 4:00	0.0079	--	3/5/2014 4:00	0.0079	--
3/5/2014 5:00	0.0070	--	3/5/2014 5:00	0.0080	--	3/5/2014 5:00	0.0080	--
3/5/2014 6:00	0.0076	--	3/5/2014 6:00	0.0063	--	3/5/2014 6:00	0.0063	--
3/5/2014 7:00	0.0071	--	3/5/2014 7:00	0.0075	--	3/5/2014 7:00	0.0075	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
3/5/2014 8:00	0.0070	--	3/5/2014 8:00	DOWNTIME	--	3/5/2014 8:00	0.0756	--
3/5/2014 9:00	0.0069	--	3/5/2014 9:00	0.0074	--	3/5/2014 9:00	0.0074	--
3/5/2014 10:00	0.0071	--	3/5/2014 10:00	0.0075	--	3/5/2014 10:00	0.0075	--
3/5/2014 11:00	0.0072	--	3/5/2014 11:00	0.0070	--	3/5/2014 11:00	0.0070	--
3/5/2014 12:00	0.0070	--	3/5/2014 12:00	0.0074	--	3/5/2014 12:00	0.0074	--
3/5/2014 13:00	0.0070	--	3/5/2014 13:00	0.0082	--	3/5/2014 13:00	0.0082	--
3/5/2014 14:00	0.0077	--	3/5/2014 14:00	0.0042	--	3/5/2014 14:00	0.0042	--
3/5/2014 15:00	0.0061	--	3/5/2014 15:00	0.0048	--	3/5/2014 15:00	0.0048	--
3/5/2014 16:00	0.0057	--	3/5/2014 16:00	0.0078	--	3/5/2014 16:00	0.0078	--
3/5/2014 17:00	0.0066	--	3/5/2014 17:00	0.0078	--	3/5/2014 17:00	0.0078	--
3/5/2014 18:00	0.0069	--	3/5/2014 18:00	0.0079	--	3/5/2014 18:00	0.0079	--
3/5/2014 19:00	0.0071	--	3/5/2014 19:00	0.0079	--	3/5/2014 19:00	0.0079	--
3/5/2014 20:00	0.0070	--	3/5/2014 20:00	0.0079	--	3/5/2014 20:00	0.0079	--
3/5/2014 21:00	0.0070	--	3/5/2014 21:00	0.0079	--	3/5/2014 21:00	0.0079	--
3/5/2014 22:00	0.0070	--	3/5/2014 22:00	0.0079	--	3/5/2014 22:00	0.0079	--
3/5/2014 23:00	0.0070	0.0071	3/5/2014 23:00	0.0079	0.0085	3/5/2014 23:00	0.0079	0.0087
3/6/2014 0:00	0.0070	--	3/6/2014 0:00	0.0080	--	3/6/2014 0:00	0.0080	--
3/6/2014 1:00	0.0070	--	3/6/2014 1:00	0.0079	--	3/6/2014 1:00	0.0079	--
3/6/2014 2:00	0.0071	--	3/6/2014 2:00	0.0080	--	3/6/2014 2:00	0.0080	--
3/6/2014 3:00	0.0070	--	3/6/2014 3:00	0.0080	--	3/6/2014 3:00	0.0080	--
3/6/2014 4:00	0.0071	--	3/6/2014 4:00	0.0080	--	3/6/2014 4:00	0.0080	--
3/6/2014 5:00	0.0070	--	3/6/2014 5:00	0.0080	--	3/6/2014 5:00	0.0080	--
3/6/2014 6:00	0.0073	--	3/6/2014 6:00	0.0096	--	3/6/2014 6:00	0.0096	--
3/6/2014 7:00	0.0071	--	3/6/2014 7:00	0.0082	--	3/6/2014 7:00	0.0082	--
3/6/2014 8:00	0.0071	--	3/6/2014 8:00	0.0081	--	3/6/2014 8:00	0.0081	--
3/6/2014 9:00	0.0071	--	3/6/2014 9:00	0.0081	--	3/6/2014 9:00	0.0081	--
3/6/2014 10:00	0.0071	--	3/6/2014 10:00	0.0081	--	3/6/2014 10:00	0.0081	--
3/6/2014 11:00	0.0071	--	3/6/2014 11:00	0.0080	--	3/6/2014 11:00	0.0080	--
3/6/2014 12:00	0.0071	--	3/6/2014 12:00	0.0079	--	3/6/2014 12:00	0.0079	--
3/6/2014 13:00	0.0070	--	3/6/2014 13:00	0.0080	--	3/6/2014 13:00	0.0080	--
3/6/2014 14:00	0.0071	--	3/6/2014 14:00	0.0079	--	3/6/2014 14:00	0.0079	--
3/6/2014 15:00	0.0071	--	3/6/2014 15:00	0.0080	--	3/6/2014 15:00	0.0080	--
3/6/2014 16:00	0.0070	--	3/6/2014 16:00	0.0079	--	3/6/2014 16:00	0.0079	--
3/6/2014 17:00	0.0069	--	3/6/2014 17:00	0.0078	--	3/6/2014 17:00	0.0078	--
3/6/2014 18:00	0.0070	--	3/6/2014 18:00	0.0079	--	3/6/2014 18:00	0.0079	--
3/6/2014 19:00	0.0070	--	3/6/2014 19:00	0.0079	--	3/6/2014 19:00	0.0079	--
3/6/2014 20:00	0.0070	--	3/6/2014 20:00	0.0079	--	3/6/2014 20:00	0.0079	--
3/6/2014 21:00	0.0070	--	3/6/2014 21:00	0.0079	--	3/6/2014 21:00	0.0079	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
3/6/2014 22:00	0.0070	--	3/6/2014 22:00	0.0079	--	3/6/2014 22:00	0.0079	--
3/6/2014 23:00	0.0069	0.0071	3/6/2014 23:00	0.0079	0.0085	3/6/2014 23:00	0.0079	0.0087
3/7/2014 0:00	0.0071	--	3/7/2014 0:00	0.0080	--	3/7/2014 0:00	0.0080	--
3/7/2014 1:00	0.0069	--	3/7/2014 1:00	0.0079	--	3/7/2014 1:00	0.0079	--
3/7/2014 2:00	0.0071	--	3/7/2014 2:00	0.0079	--	3/7/2014 2:00	0.0079	--
3/7/2014 3:00	0.0070	--	3/7/2014 3:00	0.0080	--	3/7/2014 3:00	0.0080	--
3/7/2014 4:00	0.0070	--	3/7/2014 4:00	0.0080	--	3/7/2014 4:00	0.0080	--
3/7/2014 5:00	0.0069	--	3/7/2014 5:00	0.0079	--	3/7/2014 5:00	0.0079	--
3/7/2014 6:00	0.0073	--	3/7/2014 6:00	0.0091	--	3/7/2014 6:00	0.0091	--
3/7/2014 7:00	0.0072	--	3/7/2014 7:00	0.0081	--	3/7/2014 7:00	0.0081	--
3/7/2014 8:00	0.0071	--	3/7/2014 8:00	0.0080	--	3/7/2014 8:00	0.0080	--
3/7/2014 9:00	0.0071	--	3/7/2014 9:00	0.0081	--	3/7/2014 9:00	0.0081	--
3/7/2014 10:00	0.0072	--	3/7/2014 10:00	0.0082	--	3/7/2014 10:00	0.0082	--
3/7/2014 11:00	0.0071	--	3/7/2014 11:00	0.0081	--	3/7/2014 11:00	0.0081	--
3/7/2014 12:00	0.0071	--	3/7/2014 12:00	0.0076	--	3/7/2014 12:00	0.0076	--
3/7/2014 13:00	0.0071	--	3/7/2014 13:00	0.0080	--	3/7/2014 13:00	0.0080	--
3/7/2014 14:00	0.0069	--	3/7/2014 14:00	0.0078	--	3/7/2014 14:00	0.0078	--
3/7/2014 15:00	0.0070	--	3/7/2014 15:00	0.0079	--	3/7/2014 15:00	0.0079	--
3/7/2014 16:00	0.0070	--	3/7/2014 16:00	0.0079	--	3/7/2014 16:00	0.0079	--
3/7/2014 17:00	0.0070	--	3/7/2014 17:00	0.0079	--	3/7/2014 17:00	0.0079	--
3/7/2014 18:00	0.0069	--	3/7/2014 18:00	0.0080	--	3/7/2014 18:00	0.0080	--
3/7/2014 19:00	0.0070	--	3/7/2014 19:00	0.0080	--	3/7/2014 19:00	0.0080	--
3/7/2014 20:00	0.0070	--	3/7/2014 20:00	0.0079	--	3/7/2014 20:00	0.0079	--
3/7/2014 21:00	0.0070	--	3/7/2014 21:00	0.0079	--	3/7/2014 21:00	0.0079	--
3/7/2014 22:00	0.0071	--	3/7/2014 22:00	0.0080	--	3/7/2014 22:00	0.0080	--
3/7/2014 23:00	0.0071	0.0071	3/7/2014 23:00	0.0080	0.0085	3/7/2014 23:00	0.0080	0.0087
3/8/2014 0:00	0.0070	--	3/8/2014 0:00	0.0079	--	3/8/2014 0:00	0.0079	--
3/8/2014 1:00	0.0070	--	3/8/2014 1:00	0.0079	--	3/8/2014 1:00	0.0079	--
3/8/2014 2:00	0.0070	--	3/8/2014 2:00	0.0079	--	3/8/2014 2:00	0.0079	--
3/8/2014 3:00	0.0070	--	3/8/2014 3:00	0.0079	--	3/8/2014 3:00	0.0079	--
3/8/2014 4:00	0.0070	--	3/8/2014 4:00	0.0080	--	3/8/2014 4:00	0.0080	--
3/8/2014 5:00	0.0071	--	3/8/2014 5:00	0.0081	--	3/8/2014 5:00	0.0081	--
3/8/2014 6:00	0.0073	--	3/8/2014 6:00	0.0089	--	3/8/2014 6:00	0.0089	--
3/8/2014 7:00	0.0071	--	3/8/2014 7:00	0.0080	--	3/8/2014 7:00	0.0080	--
3/8/2014 8:00	0.0070	--	3/8/2014 8:00	0.0079	--	3/8/2014 8:00	0.0079	--
3/8/2014 9:00	0.0071	--	3/8/2014 9:00	0.0080	--	3/8/2014 9:00	0.0080	--
3/8/2014 10:00	0.0070	--	3/8/2014 10:00	0.0080	--	3/8/2014 10:00	0.0080	--
3/8/2014 11:00	0.0071	--	3/8/2014 11:00	0.0080	--	3/8/2014 11:00	0.0080	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
3/8/2014 12:00	0.0070	--	3/8/2014 12:00	0.0080	--	3/8/2014 12:00	0.0080	--
3/8/2014 13:00	0.0071	--	3/8/2014 13:00	0.0080	--	3/8/2014 13:00	0.0080	--
3/8/2014 14:00	0.0070	--	3/8/2014 14:00	0.0080	--	3/8/2014 14:00	0.0080	--
3/8/2014 15:00	0.0070	--	3/8/2014 15:00	0.0079	--	3/8/2014 15:00	0.0079	--
3/8/2014 16:00	0.0071	--	3/8/2014 16:00	0.0079	--	3/8/2014 16:00	0.0079	--
3/8/2014 17:00	0.0071	--	3/8/2014 17:00	0.0080	--	3/8/2014 17:00	0.0080	--
3/8/2014 18:00	0.0070	--	3/8/2014 18:00	0.0079	--	3/8/2014 18:00	0.0079	--
3/8/2014 19:00	0.0071	--	3/8/2014 19:00	0.0079	--	3/8/2014 19:00	0.0079	--
3/8/2014 20:00	0.0073	--	3/8/2014 20:00	0.0080	--	3/8/2014 20:00	0.0080	--
3/8/2014 21:00	0.0073	--	3/8/2014 21:00	0.0080	--	3/8/2014 21:00	0.0080	--
3/8/2014 22:00	0.0072	--	3/8/2014 22:00	0.0079	--	3/8/2014 22:00	0.0079	--
3/8/2014 23:00	0.0072	0.0071	3/8/2014 23:00	0.0079	0.0085	3/8/2014 23:00	0.0079	0.0087
3/9/2014 0:00	0.0072	--	3/9/2014 0:00	0.0080	--	3/9/2014 0:00	0.0080	--
3/9/2014 1:00	0.0070	--	3/9/2014 1:00	0.0080	--	3/9/2014 1:00	0.0080	--
3/9/2014 3:00	0.0071	--	3/9/2014 3:00	0.0080	--	3/9/2014 3:00	0.0080	--
3/9/2014 4:00	0.0070	--	3/9/2014 4:00	0.0080	--	3/9/2014 4:00	0.0080	--
3/9/2014 5:00	0.0072	--	3/9/2014 5:00	0.0080	--	3/9/2014 5:00	0.0080	--
3/9/2014 6:00	0.0074	--	3/9/2014 6:00	0.0074	--	3/9/2014 6:00	0.0074	--
3/9/2014 7:00	0.0071	--	3/9/2014 7:00	0.0079	--	3/9/2014 7:00	0.0079	--
3/9/2014 8:00	0.0071	--	3/9/2014 8:00	0.0080	--	3/9/2014 8:00	0.0080	--
3/9/2014 9:00	0.0071	--	3/9/2014 9:00	0.0080	--	3/9/2014 9:00	0.0080	--
3/9/2014 10:00	0.0071	--	3/9/2014 10:00	0.0080	--	3/9/2014 10:00	0.0080	--
3/9/2014 11:00	0.0071	--	3/9/2014 11:00	0.0080	--	3/9/2014 11:00	0.0080	--
3/9/2014 12:00	0.0072	--	3/9/2014 12:00	0.0080	--	3/9/2014 12:00	0.0080	--
3/9/2014 13:00	0.0071	--	3/9/2014 13:00	0.0080	--	3/9/2014 13:00	0.0080	--
3/9/2014 14:00	0.0071	--	3/9/2014 14:00	0.0080	--	3/9/2014 14:00	0.0080	--
3/9/2014 15:00	0.0071	--	3/9/2014 15:00	0.0080	--	3/9/2014 15:00	0.0080	--
3/9/2014 16:00	0.0071	--	3/9/2014 16:00	0.0080	--	3/9/2014 16:00	0.0080	--
3/9/2014 17:00	0.0072	--	3/9/2014 17:00	0.0080	--	3/9/2014 17:00	0.0080	--
3/9/2014 18:00	0.0071	--	3/9/2014 18:00	0.0080	--	3/9/2014 18:00	0.0080	--
3/9/2014 19:00	0.0071	--	3/9/2014 19:00	0.0079	--	3/9/2014 19:00	0.0079	--
3/9/2014 20:00	0.0071	--	3/9/2014 20:00	0.0079	--	3/9/2014 20:00	0.0079	--
3/9/2014 21:00	0.0071	--	3/9/2014 21:00	0.0079	--	3/9/2014 21:00	0.0079	--
3/9/2014 22:00	0.0071	--	3/9/2014 22:00	0.0079	--	3/9/2014 22:00	0.0079	--
3/9/2014 23:00	0.0071	--	3/9/2014 23:00	0.0080	--	3/9/2014 23:00	0.0080	--
3/10/2014 0:00	0.0071	0.0071	3/10/2014 0:00	0.0080	0.0085	3/10/2014 0:00	0.0080	0.0086
3/10/2014 1:00	0.0071	--	3/10/2014 1:00	0.0080	--	3/10/2014 1:00	0.0080	--
3/10/2014 2:00	0.0071	--	3/10/2014 2:00	0.0080	--	3/10/2014 2:00	0.0080	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
3/10/2014 3:00	0.0071	--	3/10/2014 3:00	0.0080	--	3/10/2014 3:00	0.0080	--
3/10/2014 4:00	0.0071	--	3/10/2014 4:00	0.0080	--	3/10/2014 4:00	0.0080	--
3/10/2014 5:00	0.0071	--	3/10/2014 5:00	0.0080	--	3/10/2014 5:00	0.0080	--
3/10/2014 6:00	0.0072	--	3/10/2014 6:00	0.0087	--	3/10/2014 6:00	0.0087	--
3/10/2014 7:00	0.0071	--	3/10/2014 7:00	0.0080	--	3/10/2014 7:00	0.0080	--
3/10/2014 8:00	0.0071	--	3/10/2014 8:00	0.0080	--	3/10/2014 8:00	0.0080	--
3/10/2014 9:00	0.0072	--	3/10/2014 9:00	0.0080	--	3/10/2014 9:00	0.0080	--
3/10/2014 10:00	0.0072	--	3/10/2014 10:00	0.0080	--	3/10/2014 10:00	0.0080	--
3/10/2014 11:00	0.0072	--	3/10/2014 11:00	0.0080	--	3/10/2014 11:00	0.0080	--
3/10/2014 12:00	0.0072	--	3/10/2014 12:00	0.0080	--	3/10/2014 12:00	0.0080	--
3/10/2014 13:00	0.0072	--	3/10/2014 13:00	0.0080	--	3/10/2014 13:00	0.0080	--
3/10/2014 14:00	0.0072	--	3/10/2014 14:00	0.0081	--	3/10/2014 14:00	0.0081	--
3/10/2014 15:00	0.0072	--	3/10/2014 15:00	0.0080	--	3/10/2014 15:00	0.0080	--
3/10/2014 16:00	0.0070	--	3/10/2014 16:00	0.0079	--	3/10/2014 16:00	0.0079	--
3/10/2014 17:00	0.0071	--	3/10/2014 17:00	0.0078	--	3/10/2014 17:00	0.0078	--
3/10/2014 18:00	0.0072	--	3/10/2014 18:00	0.0080	--	3/10/2014 18:00	0.0080	--
3/10/2014 19:00	0.0072	--	3/10/2014 19:00	0.0081	--	3/10/2014 19:00	0.0081	--
3/10/2014 20:00	0.0072	--	3/10/2014 20:00	0.0080	--	3/10/2014 20:00	0.0080	--
3/10/2014 21:00	0.0072	--	3/10/2014 21:00	0.0079	--	3/10/2014 21:00	0.0079	--
3/10/2014 22:00	0.0072	--	3/10/2014 22:00	0.0081	--	3/10/2014 22:00	0.0081	--
3/10/2014 23:00	0.0072	--	3/10/2014 23:00	0.0080	--	3/10/2014 23:00	0.0080	--
3/11/2014 0:00	0.0071	0.0071	3/11/2014 0:00	0.0079	0.0085	3/11/2014 0:00	0.0079	0.0086
3/11/2014 1:00	0.0072	--	3/11/2014 1:00	0.0079	--	3/11/2014 1:00	0.0079	--
3/11/2014 2:00	0.0072	--	3/11/2014 2:00	0.0080	--	3/11/2014 2:00	0.0080	--
3/11/2014 3:00	0.0071	--	3/11/2014 3:00	0.0079	--	3/11/2014 3:00	0.0079	--
3/11/2014 4:00	0.0071	--	3/11/2014 4:00	0.0079	--	3/11/2014 4:00	0.0079	--
3/11/2014 5:00	0.0072	--	3/11/2014 5:00	0.0079	--	3/11/2014 5:00	0.0079	--
3/11/2014 6:00	0.0072	--	3/11/2014 6:00	0.0080	--	3/11/2014 6:00	0.0080	--
3/11/2014 7:00	0.0071	--	3/11/2014 7:00	0.0077	--	3/11/2014 7:00	0.0077	--
3/11/2014 8:00	0.0071	--	3/11/2014 8:00	0.0079	--	3/11/2014 8:00	0.0079	--
3/11/2014 9:00	0.0072	--	3/11/2014 9:00	0.0080	--	3/11/2014 9:00	0.0080	--
3/11/2014 10:00	0.0073	--	3/11/2014 10:00	0.0081	--	3/11/2014 10:00	0.0081	--
3/11/2014 11:00	0.0072	--	3/11/2014 11:00	0.0080	--	3/11/2014 11:00	0.0080	--
3/11/2014 12:00	0.0073	--	3/11/2014 12:00	0.0081	--	3/11/2014 12:00	0.0081	--
3/11/2014 13:00	0.0072	--	3/11/2014 13:00	0.0080	--	3/11/2014 13:00	0.0080	--
3/11/2014 14:00	0.0072	--	3/11/2014 14:00	0.0080	--	3/11/2014 14:00	0.0080	--
3/11/2014 15:00	0.0072	--	3/11/2014 15:00	0.0080	--	3/11/2014 15:00	0.0080	--
3/11/2014 16:00	0.0072	--	3/11/2014 16:00	0.0079	--	3/11/2014 16:00	0.0079	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
3/11/2014 17:00	0.0072	--	3/11/2014 17:00	0.0078	--	3/11/2014 17:00	0.0078	--
3/11/2014 18:00	0.0074	--	3/11/2014 18:00	0.0082	--	3/11/2014 18:00	0.0082	--
3/11/2014 19:00	0.0070	--	3/11/2014 19:00	0.0077	--	3/11/2014 19:00	0.0077	--
3/11/2014 20:00	0.0071	--	3/11/2014 20:00	0.0078	--	3/11/2014 20:00	0.0078	--
3/11/2014 21:00	0.0071	--	3/11/2014 21:00	0.0079	--	3/11/2014 21:00	0.0079	--
3/11/2014 22:00	0.0071	--	3/11/2014 22:00	0.0079	--	3/11/2014 22:00	0.0079	--
3/11/2014 23:00	0.0070	--	3/11/2014 23:00	0.0077	--	3/11/2014 23:00	0.0077	--
3/12/2014 0:00	0.0071	0.0071	3/12/2014 0:00	0.0081	0.0085	3/12/2014 0:00	0.0081	0.0086
3/12/2014 1:00	0.0071	--	3/12/2014 1:00	0.0080	--	3/12/2014 1:00	0.0080	--
3/12/2014 2:00	0.0071	--	3/12/2014 2:00	0.0079	--	3/12/2014 2:00	0.0079	--
3/12/2014 3:00	0.0071	--	3/12/2014 3:00	0.0080	--	3/12/2014 3:00	0.0080	--
3/12/2014 4:00	0.0072	--	3/12/2014 4:00	0.0079	--	3/12/2014 4:00	0.0079	--
3/12/2014 5:00	0.0071	--	3/12/2014 5:00	0.0080	--	3/12/2014 5:00	0.0080	--
3/12/2014 6:00	0.0083	--	3/12/2014 6:00	0.0097	--	3/12/2014 6:00	0.0097	--
3/12/2014 7:00	0.0075	--	3/12/2014 7:00	0.0079	--	3/12/2014 7:00	0.0079	--
3/12/2014 8:00	0.0070	--	3/12/2014 8:00	0.0079	--	3/12/2014 8:00	0.0079	--
3/12/2014 9:00	0.0070	--	3/12/2014 9:00	0.0079	--	3/12/2014 9:00	0.0079	--
3/12/2014 10:00	0.0070	--	3/12/2014 10:00	0.0080	--	3/12/2014 10:00	0.0080	--
3/12/2014 11:00	0.0071	--	3/12/2014 11:00	0.0081	--	3/12/2014 11:00	0.0081	--
3/12/2014 12:00	0.0072	--	3/12/2014 12:00	0.0083	--	3/12/2014 12:00	0.0083	--
3/12/2014 13:00	0.0073	--	3/12/2014 13:00	0.0082	--	3/12/2014 13:00	0.0082	--
3/12/2014 14:00	0.0072	--	3/12/2014 14:00	0.0081	--	3/12/2014 14:00	0.0081	--
3/12/2014 15:00	0.0072	--	3/12/2014 15:00	0.0080	--	3/12/2014 15:00	0.0080	--
3/12/2014 16:00	0.0071	--	3/12/2014 16:00	0.0080	--	3/12/2014 16:00	0.0080	--
3/12/2014 17:00	0.0072	--	3/12/2014 17:00	0.0082	--	3/12/2014 17:00	0.0082	--
3/12/2014 18:00	0.0071	--	3/12/2014 18:00	0.0083	--	3/12/2014 18:00	0.0083	--
3/12/2014 19:00	0.0071	--	3/12/2014 19:00	0.0081	--	3/12/2014 19:00	0.0081	--
3/12/2014 20:00	0.0071	--	3/12/2014 20:00	0.0080	--	3/12/2014 20:00	0.0080	--
3/12/2014 21:00	0.0069	--	3/12/2014 21:00	0.0079	--	3/12/2014 21:00	0.0079	--
3/12/2014 22:00	0.0069	--	3/12/2014 22:00	0.0079	--	3/12/2014 22:00	0.0079	--
3/12/2014 23:00	0.0070	--	3/12/2014 23:00	0.0079	--	3/12/2014 23:00	0.0079	--
3/13/2014 0:00	0.0070	0.0071	3/13/2014 0:00	0.0079	0.0085	3/13/2014 0:00	0.0079	0.0086
3/13/2014 1:00	0.0068	--	3/13/2014 1:00	0.0077	--	3/13/2014 1:00	0.0077	--
3/13/2014 2:00	0.0071	--	3/13/2014 2:00	0.0079	--	3/13/2014 2:00	0.0079	--
3/13/2014 3:00	0.0071	--	3/13/2014 3:00	0.0080	--	3/13/2014 3:00	0.0080	--
3/13/2014 4:00	0.0070	--	3/13/2014 4:00	0.0080	--	3/13/2014 4:00	0.0080	--
3/13/2014 5:00	0.0071	--	3/13/2014 5:00	0.0079	--	3/13/2014 5:00	0.0079	--
3/13/2014 6:00	0.0074	--	3/13/2014 6:00	0.0087	--	3/13/2014 6:00	0.0087	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
3/13/2014 7:00	0.0071	--	3/13/2014 7:00	0.0080	--	3/13/2014 7:00	0.0080	--
3/13/2014 8:00	0.0073	--	3/13/2014 8:00	0.0080	--	3/13/2014 8:00	0.0080	--
3/13/2014 9:00	0.0071	--	3/13/2014 9:00	0.0082	--	3/13/2014 9:00	0.0082	--
3/13/2014 10:00	0.0074	--	3/13/2014 10:00	0.0084	--	3/13/2014 10:00	0.0084	--
3/13/2014 11:00	0.0073	--	3/13/2014 11:00	0.0082	--	3/13/2014 11:00	0.0082	--
3/13/2014 12:00	0.0072	--	3/13/2014 12:00	0.0082	--	3/13/2014 12:00	0.0082	--
3/13/2014 13:00	0.0070	--	3/13/2014 13:00	0.0080	--	3/13/2014 13:00	0.0080	--
3/13/2014 14:00	0.0070	--	3/13/2014 14:00	0.0080	--	3/13/2014 14:00	0.0080	--
3/13/2014 15:00	0.0068	--	3/13/2014 15:00	0.0077	--	3/13/2014 15:00	0.0077	--
3/13/2014 16:00	0.0069	--	3/13/2014 16:00	0.0078	--	3/13/2014 16:00	0.0078	--
3/13/2014 17:00	0.0070	--	3/13/2014 17:00	0.0079	--	3/13/2014 17:00	0.0079	--
3/13/2014 18:00	0.0069	--	3/13/2014 18:00	0.0078	--	3/13/2014 18:00	0.0078	--
3/13/2014 19:00	0.0068	--	3/13/2014 19:00	0.0078	--	3/13/2014 19:00	0.0078	--
3/13/2014 20:00	0.0069	--	3/13/2014 20:00	0.0078	--	3/13/2014 20:00	0.0078	--
3/13/2014 21:00	0.0068	--	3/13/2014 21:00	0.0076	--	3/13/2014 21:00	0.0076	--
3/13/2014 22:00	0.0069	--	3/13/2014 22:00	0.0079	--	3/13/2014 22:00	0.0079	--
3/13/2014 23:00	0.0070	--	3/13/2014 23:00	0.0079	--	3/13/2014 23:00	0.0079	--
3/14/2014 0:00	0.0070	0.0071	3/14/2014 0:00	0.0079	0.0084	3/14/2014 0:00	0.0079	0.0086
3/14/2014 1:00	0.0069	--	3/14/2014 1:00	0.0079	--	3/14/2014 1:00	0.0079	--
3/14/2014 2:00	0.0069	--	3/14/2014 2:00	0.0079	--	3/14/2014 2:00	0.0079	--
3/14/2014 3:00	0.0070	--	3/14/2014 3:00	0.0079	--	3/14/2014 3:00	0.0079	--
3/14/2014 4:00	0.0070	--	3/14/2014 4:00	0.0080	--	3/14/2014 4:00	0.0080	--
3/14/2014 5:00	0.0071	--	3/14/2014 5:00	0.0079	--	3/14/2014 5:00	0.0079	--
3/14/2014 6:00	0.0071	--	3/14/2014 6:00	0.0086	--	3/14/2014 6:00	0.0086	--
3/14/2014 7:00	0.0070	--	3/14/2014 7:00	0.0080	--	3/14/2014 7:00	0.0080	--
3/14/2014 8:00	0.0071	--	3/14/2014 8:00	0.0080	--	3/14/2014 8:00	0.0080	--
3/14/2014 9:00	0.0073	--	3/14/2014 9:00	0.0081	--	3/14/2014 9:00	0.0081	--
3/14/2014 10:00	0.0074	--	3/14/2014 10:00	0.0081	--	3/14/2014 10:00	0.0081	--
3/14/2014 11:00	0.0073	--	3/14/2014 11:00	0.0081	--	3/14/2014 11:00	0.0081	--
3/14/2014 12:00	0.0072	--	3/14/2014 12:00	0.0080	--	3/14/2014 12:00	0.0080	--
3/14/2014 13:00	0.0071	--	3/14/2014 13:00	0.0079	--	3/14/2014 13:00	0.0079	--
3/14/2014 14:00	0.0071	--	3/14/2014 14:00	0.0079	--	3/14/2014 14:00	0.0079	--
3/14/2014 15:00	0.0071	--	3/14/2014 15:00	0.0078	--	3/14/2014 15:00	0.0078	--
3/14/2014 16:00	0.0070	--	3/14/2014 16:00	0.0078	--	3/14/2014 16:00	0.0078	--
3/14/2014 17:00	0.0071	--	3/14/2014 17:00	0.0079	--	3/14/2014 17:00	0.0079	--
3/14/2014 18:00	0.0071	--	3/14/2014 18:00	0.0079	--	3/14/2014 18:00	0.0079	--
3/14/2014 19:00	0.0072	--	3/14/2014 19:00	0.0078	--	3/14/2014 19:00	0.0078	--
3/14/2014 20:00	0.0072	--	3/14/2014 20:00	0.0078	--	3/14/2014 20:00	0.0078	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
3/14/2014 21:00	0.0072	--	3/14/2014 21:00	0.0078	--	3/14/2014 21:00	0.0078	--
3/14/2014 22:00	0.0073	--	3/14/2014 22:00	0.0079	--	3/14/2014 22:00	0.0079	--
3/14/2014 23:00	0.0072	--	3/14/2014 23:00	0.0079	--	3/14/2014 23:00	0.0079	--
3/15/2014 0:00	0.0070	0.0071	3/15/2014 0:00	0.0078	0.0084	3/15/2014 0:00	0.0078	0.0085
3/15/2014 1:00	0.0070	--	3/15/2014 1:00	0.0079	--	3/15/2014 1:00	0.0079	--
3/15/2014 2:00	0.0071	--	3/15/2014 2:00	0.0079	--	3/15/2014 2:00	0.0079	--
3/15/2014 3:00	0.0071	--	3/15/2014 3:00	0.0079	--	3/15/2014 3:00	0.0079	--
3/15/2014 4:00	0.0072	--	3/15/2014 4:00	0.0080	--	3/15/2014 4:00	0.0080	--
3/15/2014 5:00	0.0071	--	3/15/2014 5:00	0.0079	--	3/15/2014 5:00	0.0079	--
3/15/2014 6:00	0.0071	--	3/15/2014 6:00	0.0075	--	3/15/2014 6:00	0.0075	--
3/15/2014 7:00	0.0070	--	3/15/2014 7:00	0.0077	--	3/15/2014 7:00	0.0077	--
3/15/2014 8:00	0.0070	--	3/15/2014 8:00	0.0079	--	3/15/2014 8:00	0.0079	--
3/15/2014 9:00	0.0070	--	3/15/2014 9:00	0.0079	--	3/15/2014 9:00	0.0079	--
3/15/2014 10:00	0.0070	--	3/15/2014 10:00	0.0079	--	3/15/2014 10:00	0.0079	--
3/15/2014 11:00	0.0071	--	3/15/2014 11:00	0.0080	--	3/15/2014 11:00	0.0080	--
3/15/2014 12:00	0.0071	--	3/15/2014 12:00	0.0080	--	3/15/2014 12:00	0.0080	--
3/15/2014 13:00	0.0070	--	3/15/2014 13:00	0.0077	--	3/15/2014 13:00	0.0077	--
3/15/2014 14:00	0.0071	--	3/15/2014 14:00	0.0080	--	3/15/2014 14:00	0.0080	--
3/15/2014 15:00	0.0071	--	3/15/2014 15:00	0.0080	--	3/15/2014 15:00	0.0080	--
3/15/2014 16:00	0.0071	--	3/15/2014 16:00	0.0080	--	3/15/2014 16:00	0.0080	--
3/15/2014 17:00	0.0071	--	3/15/2014 17:00	0.0079	--	3/15/2014 17:00	0.0079	--
3/15/2014 18:00	0.0073	--	3/15/2014 18:00	0.0081	--	3/15/2014 18:00	0.0081	--
3/15/2014 19:00	0.0069	--	3/15/2014 19:00	0.0078	--	3/15/2014 19:00	0.0078	--
3/15/2014 20:00	0.0070	--	3/15/2014 20:00	0.0079	--	3/15/2014 20:00	0.0079	--
3/15/2014 21:00	0.0070	--	3/15/2014 21:00	0.0079	--	3/15/2014 21:00	0.0079	--
3/15/2014 22:00	0.0070	--	3/15/2014 22:00	0.0079	--	3/15/2014 22:00	0.0079	--
3/15/2014 23:00	0.0070	--	3/15/2014 23:00	0.0079	--	3/15/2014 23:00	0.0079	--
3/16/2014 0:00	0.0071	0.0070	3/16/2014 0:00	0.0081	0.0084	3/16/2014 0:00	0.0081	0.0085
3/16/2014 1:00	0.0071	--	3/16/2014 1:00	0.0080	--	3/16/2014 1:00	0.0080	--
3/16/2014 2:00	0.0071	--	3/16/2014 2:00	0.0079	--	3/16/2014 2:00	0.0079	--
3/16/2014 3:00	0.0070	--	3/16/2014 3:00	0.0079	--	3/16/2014 3:00	0.0079	--
3/16/2014 4:00	0.0071	--	3/16/2014 4:00	0.0079	--	3/16/2014 4:00	0.0079	--
3/16/2014 5:00	0.0071	--	3/16/2014 5:00	0.0080	--	3/16/2014 5:00	0.0080	--
3/16/2014 6:00	0.0076	--	3/16/2014 6:00	0.0095	--	3/16/2014 6:00	0.0095	--
3/16/2014 7:00	0.0072	--	3/16/2014 7:00	0.0081	--	3/16/2014 7:00	0.0081	--
3/16/2014 8:00	0.0072	--	3/16/2014 8:00	0.0082	--	3/16/2014 8:00	0.0082	--
3/16/2014 9:00	0.0073	--	3/16/2014 9:00	0.0081	--	3/16/2014 9:00	0.0081	--
3/16/2014 10:00	0.0071	--	3/16/2014 10:00	0.0080	--	3/16/2014 10:00	0.0080	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
3/16/2014 11:00	0.0071	--	3/16/2014 11:00	0.0081	--	3/16/2014 11:00	0.0081	--
3/16/2014 12:00	0.0071	--	3/16/2014 12:00	0.0081	--	3/16/2014 12:00	0.0081	--
3/16/2014 13:00	0.0071	--	3/16/2014 13:00	0.0080	--	3/16/2014 13:00	0.0080	--
3/16/2014 14:00	0.0072	--	3/16/2014 14:00	0.0081	--	3/16/2014 14:00	0.0081	--
3/16/2014 15:00	0.0072	--	3/16/2014 15:00	0.0082	--	3/16/2014 15:00	0.0082	--
3/16/2014 16:00	0.0071	--	3/16/2014 16:00	0.0081	--	3/16/2014 16:00	0.0081	--
3/16/2014 17:00	0.0071	--	3/16/2014 17:00	0.0080	--	3/16/2014 17:00	0.0080	--
3/16/2014 18:00	0.0071	--	3/16/2014 18:00	0.0080	--	3/16/2014 18:00	0.0080	--
3/16/2014 19:00	0.0070	--	3/16/2014 19:00	0.0080	--	3/16/2014 19:00	0.0080	--
3/16/2014 20:00	0.0071	--	3/16/2014 20:00	0.0080	--	3/16/2014 20:00	0.0080	--
3/16/2014 21:00	0.0070	--	3/16/2014 21:00	0.0082	--	3/16/2014 21:00	0.0082	--
3/16/2014 22:00	0.0070	--	3/16/2014 22:00	0.0080	--	3/16/2014 22:00	0.0080	--
3/16/2014 23:00	0.0071	--	3/16/2014 23:00	0.0080	--	3/16/2014 23:00	0.0080	--
3/17/2014 0:00	0.0071	0.0070	3/17/2014 0:00	0.0080	0.0084	3/17/2014 0:00	0.0080	0.0085
3/17/2014 1:00	0.0070	--	3/17/2014 1:00	0.0080	--	3/17/2014 1:00	0.0080	--
3/17/2014 2:00	0.0071	--	3/17/2014 2:00	0.0080	--	3/17/2014 2:00	0.0080	--
3/17/2014 3:00	0.0071	--	3/17/2014 3:00	0.0080	--	3/17/2014 3:00	0.0080	--
3/17/2014 4:00	0.0071	--	3/17/2014 4:00	0.0080	--	3/17/2014 4:00	0.0080	--
3/17/2014 5:00	0.0071	--	3/17/2014 5:00	0.0080	--	3/17/2014 5:00	0.0080	--
3/17/2014 6:00	0.0073	--	3/17/2014 6:00	0.0073	--	3/17/2014 6:00	0.0073	--
3/17/2014 7:00	0.0070	--	3/17/2014 7:00	0.0076	--	3/17/2014 7:00	0.0076	--
3/17/2014 8:00	0.0071	--	3/17/2014 8:00	0.0080	--	3/17/2014 8:00	0.0080	--
3/17/2014 9:00	0.0071	--	3/17/2014 9:00	0.0080	--	3/17/2014 9:00	0.0080	--
3/17/2014 10:00	0.0072	--	3/17/2014 10:00	0.0081	--	3/17/2014 10:00	0.0081	--
3/17/2014 11:00	0.0072	--	3/17/2014 11:00	0.0081	--	3/17/2014 11:00	0.0081	--
3/17/2014 12:00	0.0071	--	3/17/2014 12:00	0.0080	--	3/17/2014 12:00	0.0080	--
3/17/2014 13:00	0.0071	--	3/17/2014 13:00	0.0080	--	3/17/2014 13:00	0.0080	--
3/17/2014 14:00	0.0071	--	3/17/2014 14:00	0.0080	--	3/17/2014 14:00	0.0080	--
3/17/2014 15:00	0.0071	--	3/17/2014 15:00	0.0080	--	3/17/2014 15:00	0.0080	--
3/17/2014 16:00	0.0070	--	3/17/2014 16:00	0.0080	--	3/17/2014 16:00	0.0080	--
3/17/2014 17:00	0.0071	--	3/17/2014 17:00	0.0080	--	3/17/2014 17:00	0.0080	--
3/17/2014 18:00	0.0071	--	3/17/2014 18:00	0.0079	--	3/17/2014 18:00	0.0079	--
3/17/2014 19:00	0.0071	--	3/17/2014 19:00	0.0078	--	3/17/2014 19:00	0.0078	--
3/17/2014 20:00	0.0070	--	3/17/2014 20:00	0.0078	--	3/17/2014 20:00	0.0078	--
3/17/2014 21:00	0.0070	--	3/17/2014 21:00	0.0080	--	3/17/2014 21:00	0.0080	--
3/17/2014 22:00	0.0069	--	3/17/2014 22:00	0.0080	--	3/17/2014 22:00	0.0080	--
3/17/2014 23:00	0.0069	--	3/17/2014 23:00	0.0079	--	3/17/2014 23:00	0.0079	--
3/18/2014 0:00	0.0068	0.0070	3/18/2014 0:00	0.0077	0.0084	3/18/2014 0:00	0.0077	0.0085

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
3/18/2014 1:00	0.0069	--	3/18/2014 1:00	0.0078	--	3/18/2014 1:00	0.0078	--
3/18/2014 2:00	0.0071	--	3/18/2014 2:00	0.0080	--	3/18/2014 2:00	0.0080	--
3/18/2014 3:00	0.0070	--	3/18/2014 3:00	0.0079	--	3/18/2014 3:00	0.0079	--
3/18/2014 4:00	0.0070	--	3/18/2014 4:00	0.0079	--	3/18/2014 4:00	0.0079	--
3/18/2014 5:00	0.0070	--	3/18/2014 5:00	0.0079	--	3/18/2014 5:00	0.0079	--
3/18/2014 6:00	0.0078	--	3/18/2014 6:00	0.0080	--	3/18/2014 6:00	0.0080	--
3/18/2014 7:00	0.0072	--	3/18/2014 7:00	0.0076	--	3/18/2014 7:00	0.0076	--
3/18/2014 8:00	0.0072	--	3/18/2014 8:00	0.0080	--	3/18/2014 8:00	0.0080	--
3/18/2014 9:00	0.0072	--	3/18/2014 9:00	0.0080	--	3/18/2014 9:00	0.0080	--
3/18/2014 10:00	0.0071	--	3/18/2014 10:00	0.0082	--	3/18/2014 10:00	0.0082	--
3/18/2014 11:00	0.0072	--	3/18/2014 11:00	0.0081	--	3/18/2014 11:00	0.0081	--
3/18/2014 12:00	0.0070	--	3/18/2014 12:00	0.0080	--	3/18/2014 12:00	0.0080	--
3/18/2014 13:00	0.0070	--	3/18/2014 13:00	0.0079	--	3/18/2014 13:00	0.0079	--
3/18/2014 14:00	0.0070	--	3/18/2014 14:00	0.0079	--	3/18/2014 14:00	0.0079	--
3/18/2014 15:00	0.0070	--	3/18/2014 15:00	0.0079	--	3/18/2014 15:00	0.0079	--
3/18/2014 16:00	0.0071	--	3/18/2014 16:00	0.0079	--	3/18/2014 16:00	0.0079	--
3/18/2014 17:00	0.0069	--	3/18/2014 17:00	0.0078	--	3/18/2014 17:00	0.0078	--
3/18/2014 18:00	0.0069	--	3/18/2014 18:00	0.0078	--	3/18/2014 18:00	0.0078	--
3/18/2014 19:00	0.0070	--	3/18/2014 19:00	0.0078	--	3/18/2014 19:00	0.0078	--
3/18/2014 20:00	0.0070	--	3/18/2014 20:00	0.0078	--	3/18/2014 20:00	0.0078	--
3/18/2014 21:00	0.0070	--	3/18/2014 21:00	0.0079	--	3/18/2014 21:00	0.0079	--
3/18/2014 22:00	0.0071	--	3/18/2014 22:00	0.0080	--	3/18/2014 22:00	0.0080	--
3/18/2014 23:00	0.0069	--	3/18/2014 23:00	0.0079	--	3/18/2014 23:00	0.0079	--
3/19/2014 0:00	0.0070	0.0070	3/19/2014 0:00	0.0079	0.0084	3/19/2014 0:00	0.0079	0.0085
3/19/2014 1:00	0.0071	--	3/19/2014 1:00	0.0080	--	3/19/2014 1:00	0.0080	--
3/19/2014 2:00	0.0071	--	3/19/2014 2:00	0.0080	--	3/19/2014 2:00	0.0080	--
3/19/2014 3:00	0.0070	--	3/19/2014 3:00	0.0080	--	3/19/2014 3:00	0.0080	--
3/19/2014 4:00	0.0070	--	3/19/2014 4:00	0.0079	--	3/19/2014 4:00	0.0079	--
3/19/2014 5:00	0.0070	--	3/19/2014 5:00	0.0079	--	3/19/2014 5:00	0.0079	--
3/19/2014 6:00	0.0077	--	3/19/2014 6:00	0.0093	--	3/19/2014 6:00	0.0093	--
3/19/2014 7:00	0.0072	--	3/19/2014 7:00	0.0081	--	3/19/2014 7:00	0.0081	--
3/19/2014 8:00	0.0071	--	3/19/2014 8:00	0.0080	--	3/19/2014 8:00	0.0080	--
3/19/2014 9:00	0.0070	--	3/19/2014 9:00	0.0080	--	3/19/2014 9:00	0.0080	--
3/19/2014 10:00	0.0071	--	3/19/2014 10:00	0.0080	--	3/19/2014 10:00	0.0080	--
3/19/2014 11:00	0.0071	--	3/19/2014 11:00	0.0080	--	3/19/2014 11:00	0.0080	--
3/19/2014 12:00	0.0071	--	3/19/2014 12:00	0.0080	--	3/19/2014 12:00	0.0080	--
3/19/2014 13:00	0.0071	--	3/19/2014 13:00	0.0080	--	3/19/2014 13:00	0.0080	--
3/19/2014 14:00	0.0071	--	3/19/2014 14:00	0.0080	--	3/19/2014 14:00	0.0080	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
3/19/2014 15:00	0.0072	--	3/19/2014 15:00	0.0080	--	3/19/2014 15:00	0.0080	--
3/19/2014 16:00	0.0072	--	3/19/2014 16:00	0.0080	--	3/19/2014 16:00	0.0080	--
3/19/2014 17:00	0.0070	--	3/19/2014 17:00	0.0079	--	3/19/2014 17:00	0.0079	--
3/19/2014 18:00	0.0071	--	3/19/2014 18:00	0.0080	--	3/19/2014 18:00	0.0080	--
3/19/2014 19:00	0.0073	--	3/19/2014 19:00	0.0082	--	3/19/2014 19:00	0.0082	--
3/19/2014 20:00	0.0069	--	3/19/2014 20:00	0.0079	--	3/19/2014 20:00	0.0079	--
3/19/2014 21:00	0.0069	--	3/19/2014 21:00	0.0078	--	3/19/2014 21:00	0.0078	--
3/19/2014 22:00	0.0072	--	3/19/2014 22:00	0.0081	--	3/19/2014 22:00	0.0081	--
3/19/2014 23:00	0.0073	--	3/19/2014 23:00	0.0082	--	3/19/2014 23:00	0.0082	--
3/20/2014 0:00	0.0072	0.0070	3/20/2014 0:00	0.0081	0.0083	3/20/2014 0:00	0.0081	0.0085
3/20/2014 1:00	0.0071	--	3/20/2014 1:00	0.0080	--	3/20/2014 1:00	0.0080	--
3/20/2014 2:00	0.0071	--	3/20/2014 2:00	0.0080	--	3/20/2014 2:00	0.0080	--
3/20/2014 3:00	0.0070	--	3/20/2014 3:00	0.0080	--	3/20/2014 3:00	0.0080	--
3/20/2014 4:00	0.0071	--	3/20/2014 4:00	0.0080	--	3/20/2014 4:00	0.0080	--
3/20/2014 5:00	0.0070	--	3/20/2014 5:00	0.0080	--	3/20/2014 5:00	0.0080	--
3/20/2014 6:00	0.0074	--	3/20/2014 6:00	0.0088	--	3/20/2014 6:00	0.0088	--
3/20/2014 7:00	0.0071	--	3/20/2014 7:00	0.0081	--	3/20/2014 7:00	DOWNTIME	--
3/20/2014 8:00	0.0072	--	3/20/2014 8:00	0.0080	--	3/20/2014 8:00	0.0080	--
3/20/2014 9:00	0.0070	--	3/20/2014 9:00	0.0080	--	3/20/2014 9:00	0.0080	--
3/20/2014 10:00	0.0071	--	3/20/2014 10:00	0.0081	--	3/20/2014 10:00	0.0081	--
3/20/2014 11:00	0.0071	--	3/20/2014 11:00	0.0080	--	3/20/2014 11:00	0.0080	--
3/20/2014 12:00	0.0071	--	3/20/2014 12:00	0.0080	--	3/20/2014 12:00	0.0080	--
3/20/2014 13:00	0.0071	--	3/20/2014 13:00	0.0080	--	3/20/2014 13:00	0.0080	--
3/20/2014 14:00	0.0071	--	3/20/2014 14:00	0.0080	--	3/20/2014 14:00	0.0080	--
3/20/2014 15:00	0.0071	--	3/20/2014 15:00	0.0080	--	3/20/2014 15:00	0.0080	--
3/20/2014 16:00	0.0071	--	3/20/2014 16:00	0.0080	--	3/20/2014 16:00	0.0080	--
3/20/2014 17:00	0.0071	--	3/20/2014 17:00	0.0080	--	3/20/2014 17:00	0.0080	--
3/20/2014 18:00	0.0069	--	3/20/2014 18:00	0.0078	--	3/20/2014 18:00	0.0078	--
3/20/2014 19:00	0.0069	--	3/20/2014 19:00	0.0078	--	3/20/2014 19:00	0.0078	--
3/20/2014 20:00	0.0068	--	3/20/2014 20:00	0.0077	--	3/20/2014 20:00	0.0077	--
3/20/2014 21:00	0.0070	--	3/20/2014 21:00	0.0079	--	3/20/2014 21:00	0.0079	--
3/20/2014 22:00	0.0069	--	3/20/2014 22:00	0.0078	--	3/20/2014 22:00	0.0078	--
3/20/2014 23:00	0.0068	--	3/20/2014 23:00	0.0077	--	3/20/2014 23:00	0.0077	--
3/21/2014 0:00	0.0069	0.0070	3/21/2014 0:00	0.0078	0.0083	3/21/2014 0:00	0.0078	0.0085
3/21/2014 1:00	0.0071	--	3/21/2014 1:00	0.0080	--	3/21/2014 1:00	0.0080	--
3/21/2014 2:00	0.0069	--	3/21/2014 2:00	0.0079	--	3/21/2014 2:00	0.0079	--
3/21/2014 3:00	0.0070	--	3/21/2014 3:00	0.0080	--	3/21/2014 3:00	0.0080	--
3/21/2014 4:00	0.0070	--	3/21/2014 4:00	0.0079	--	3/21/2014 4:00	0.0079	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
3/21/2014 5:00	0.0071	--	3/21/2014 5:00	0.0079	--	3/21/2014 5:00	0.0079	--
3/21/2014 6:00	0.0074	--	3/21/2014 6:00	0.0092	--	3/21/2014 6:00	0.0092	--
3/21/2014 7:00	0.0071	--	3/21/2014 7:00	0.0081	--	3/21/2014 7:00	0.0081	--
3/21/2014 8:00	0.0071	--	3/21/2014 8:00	0.0080	--	3/21/2014 8:00	0.0080	--
3/21/2014 9:00	0.0071	--	3/21/2014 9:00	0.0080	--	3/21/2014 9:00	0.0080	--
3/21/2014 10:00	0.0072	--	3/21/2014 10:00	0.0082	--	3/21/2014 10:00	0.0082	--
3/21/2014 11:00	0.0072	--	3/21/2014 11:00	0.0081	--	3/21/2014 11:00	0.0081	--
3/21/2014 12:00	0.0073	--	3/21/2014 12:00	0.0083	--	3/21/2014 12:00	0.0083	--
3/21/2014 13:00	0.0071	--	3/21/2014 13:00	0.0080	--	3/21/2014 13:00	0.0080	--
3/21/2014 14:00	0.0070	--	3/21/2014 14:00	0.0080	--	3/21/2014 14:00	0.0080	--
3/21/2014 15:00	0.0071	--	3/21/2014 15:00	0.0079	--	3/21/2014 15:00	0.0079	--
3/21/2014 16:00	0.0070	--	3/21/2014 16:00	0.0079	--	3/21/2014 16:00	0.0079	--
3/21/2014 17:00	0.0069	--	3/21/2014 17:00	0.0078	--	3/21/2014 17:00	0.0078	--
3/21/2014 18:00	0.0070	--	3/21/2014 18:00	0.0078	--	3/21/2014 18:00	0.0078	--
3/21/2014 19:00	0.0069	--	3/21/2014 19:00	0.0077	--	3/21/2014 19:00	0.0077	--
3/21/2014 20:00	0.0070	--	3/21/2014 20:00	0.0078	--	3/21/2014 20:00	0.0078	--
3/21/2014 21:00	0.0070	--	3/21/2014 21:00	0.0079	--	3/21/2014 21:00	0.0079	--
3/21/2014 22:00	0.0070	--	3/21/2014 22:00	0.0079	--	3/21/2014 22:00	0.0079	--
3/21/2014 23:00	0.0070	--	3/21/2014 23:00	0.0079	--	3/21/2014 23:00	0.0079	--
3/22/2014 0:00	0.0070	0.0070	3/22/2014 0:00	0.0079	0.0083	3/22/2014 0:00	0.0079	0.0085
3/22/2014 1:00	0.0070	--	3/22/2014 1:00	0.0079	--	3/22/2014 1:00	0.0079	--
3/22/2014 2:00	0.0071	--	3/22/2014 2:00	0.0079	--	3/22/2014 2:00	0.0079	--
3/22/2014 3:00	0.0070	--	3/22/2014 3:00	0.0079	--	3/22/2014 3:00	0.0079	--
3/22/2014 4:00	0.0070	--	3/22/2014 4:00	0.0079	--	3/22/2014 4:00	0.0079	--
3/22/2014 5:00	0.0071	--	3/22/2014 5:00	0.0079	--	3/22/2014 5:00	0.0079	--
3/22/2014 6:00	0.0073	--	3/22/2014 6:00	0.0082	--	3/22/2014 6:00	0.0082	--
3/22/2014 7:00	0.0069	--	3/22/2014 7:00	0.0079	--	3/22/2014 7:00	0.0079	--
3/22/2014 8:00	0.0070	--	3/22/2014 8:00	0.0080	--	3/22/2014 8:00	0.0080	--
3/22/2014 9:00	0.0071	--	3/22/2014 9:00	0.0079	--	3/22/2014 9:00	0.0079	--
3/22/2014 10:00	0.0071	--	3/22/2014 10:00	0.0080	--	3/22/2014 10:00	0.0080	--
3/22/2014 11:00	0.0071	--	3/22/2014 11:00	0.0080	--	3/22/2014 11:00	0.0080	--
3/22/2014 12:00	0.0071	--	3/22/2014 12:00	0.0080	--	3/22/2014 12:00	0.0080	--
3/22/2014 13:00	0.0071	--	3/22/2014 13:00	0.0080	--	3/22/2014 13:00	0.0080	--
3/22/2014 14:00	0.0071	--	3/22/2014 14:00	0.0080	--	3/22/2014 14:00	0.0080	--
3/22/2014 15:00	0.0071	--	3/22/2014 15:00	0.0078	--	3/22/2014 15:00	0.0078	--
3/22/2014 16:00	0.0071	--	3/22/2014 16:00	0.0079	--	3/22/2014 16:00	0.0079	--
3/22/2014 17:00	0.0069	--	3/22/2014 17:00	0.0078	--	3/22/2014 17:00	0.0078	--
3/22/2014 18:00	0.0069	--	3/22/2014 18:00	0.0079	--	3/22/2014 18:00	0.0079	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
3/22/2014 19:00	0.0069	--	3/22/2014 19:00	0.0078	--	3/22/2014 19:00	0.0078	--
3/22/2014 20:00	0.0071	--	3/22/2014 20:00	0.0079	--	3/22/2014 20:00	0.0079	--
3/22/2014 21:00	0.0072	--	3/22/2014 21:00	0.0081	--	3/22/2014 21:00	0.0081	--
3/22/2014 22:00	0.0070	--	3/22/2014 22:00	0.0079	--	3/22/2014 22:00	0.0079	--
3/22/2014 23:00	0.0070	--	3/22/2014 23:00	0.0079	--	3/22/2014 23:00	0.0079	--
3/23/2014 0:00	0.0070	0.0070	3/23/2014 0:00	0.0079	0.0083	3/23/2014 0:00	0.0079	0.0084
3/23/2014 1:00	0.0070	--	3/23/2014 1:00	0.0079	--	3/23/2014 1:00	0.0079	--
3/23/2014 2:00	0.0071	--	3/23/2014 2:00	0.0080	--	3/23/2014 2:00	0.0080	--
3/23/2014 3:00	0.0071	--	3/23/2014 3:00	0.0080	--	3/23/2014 3:00	0.0080	--
3/23/2014 4:00	0.0070	--	3/23/2014 4:00	0.0079	--	3/23/2014 4:00	0.0079	--
3/23/2014 5:00	0.0070	--	3/23/2014 5:00	0.0080	--	3/23/2014 5:00	0.0080	--
3/23/2014 6:00	0.0075	--	3/23/2014 6:00	0.0089	--	3/23/2014 6:00	0.0089	--
3/23/2014 7:00	0.0073	--	3/23/2014 7:00	0.0082	--	3/23/2014 7:00	0.0082	--
3/23/2014 8:00	0.0073	--	3/23/2014 8:00	0.0081	--	3/23/2014 8:00	0.0081	--
3/23/2014 9:00	0.0071	--	3/23/2014 9:00	0.0081	--	3/23/2014 9:00	0.0081	--
3/23/2014 10:00	0.0071	--	3/23/2014 10:00	0.0080	--	3/23/2014 10:00	0.0080	--
3/23/2014 11:00	0.0071	--	3/23/2014 11:00	0.0079	--	3/23/2014 11:00	0.0079	--
3/23/2014 12:00	0.0071	--	3/23/2014 12:00	0.0080	--	3/23/2014 12:00	0.0080	--
3/23/2014 13:00	0.0071	--	3/23/2014 13:00	0.0080	--	3/23/2014 13:00	0.0080	--
3/23/2014 14:00	0.0071	--	3/23/2014 14:00	0.0080	--	3/23/2014 14:00	0.0080	--
3/23/2014 15:00	0.0071	--	3/23/2014 15:00	0.0080	--	3/23/2014 15:00	0.0080	--
3/23/2014 16:00	0.0069	--	3/23/2014 16:00	0.0079	--	3/23/2014 16:00	0.0079	--
3/23/2014 17:00	0.0069	--	3/23/2014 17:00	0.0079	--	3/23/2014 17:00	0.0079	--
3/23/2014 18:00	0.0071	--	3/23/2014 18:00	0.0080	--	3/23/2014 18:00	0.0080	--
3/23/2014 19:00	0.0071	--	3/23/2014 19:00	0.0080	--	3/23/2014 19:00	0.0080	--
3/23/2014 20:00	0.0071	--	3/23/2014 20:00	0.0080	--	3/23/2014 20:00	0.0080	--
3/23/2014 21:00	0.0069	--	3/23/2014 21:00	0.0079	--	3/23/2014 21:00	0.0079	--
3/23/2014 22:00	0.0070	--	3/23/2014 22:00	0.0079	--	3/23/2014 22:00	0.0079	--
3/23/2014 23:00	0.0071	--	3/23/2014 23:00	0.0080	--	3/23/2014 23:00	0.0080	--
3/24/2014 0:00	0.0071	0.0070	3/24/2014 0:00	0.0080	0.0082	3/24/2014 0:00	0.0080	0.0084
3/24/2014 1:00	0.0071	--	3/24/2014 1:00	0.0081	--	3/24/2014 1:00	0.0081	--
3/24/2014 2:00	0.0070	--	3/24/2014 2:00	0.0080	--	3/24/2014 2:00	0.0080	--
3/24/2014 3:00	0.0071	--	3/24/2014 3:00	0.0081	--	3/24/2014 3:00	0.0081	--
3/24/2014 4:00	0.0071	--	3/24/2014 4:00	0.0080	--	3/24/2014 4:00	0.0080	--
3/24/2014 5:00	0.0070	--	3/24/2014 5:00	0.0080	--	3/24/2014 5:00	0.0080	--
3/24/2014 6:00	0.0073	--	3/24/2014 6:00	0.0090	--	3/24/2014 6:00	0.0090	--
3/24/2014 7:00	0.0070	--	3/24/2014 7:00	0.0081	--	3/24/2014 7:00	0.0081	--
3/24/2014 8:00	0.0070	--	3/24/2014 8:00	0.0080	--	3/24/2014 8:00	0.0080	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
3/24/2014 9:00	0.0071	--	3/24/2014 9:00	0.0080	--	3/24/2014 9:00	0.0080	--
3/24/2014 10:00	0.0070	--	3/24/2014 10:00	0.0079	--	3/24/2014 10:00	0.0079	--
3/24/2014 11:00	0.0070	--	3/24/2014 11:00	0.0079	--	3/24/2014 11:00	0.0079	--
3/24/2014 12:00	0.0070	--	3/24/2014 12:00	0.0080	--	3/24/2014 12:00	0.0080	--
3/24/2014 13:00	0.0070	--	3/24/2014 13:00	0.0079	--	3/24/2014 13:00	0.0079	--
3/24/2014 14:00	0.0071	--	3/24/2014 14:00	0.0080	--	3/24/2014 14:00	0.0080	--
3/24/2014 15:00	0.0070	--	3/24/2014 15:00	0.0079	--	3/24/2014 15:00	0.0079	--
3/24/2014 16:00	0.0070	--	3/24/2014 16:00	0.0080	--	3/24/2014 16:00	0.0080	--
3/24/2014 17:00	0.0070	--	3/24/2014 17:00	0.0081	--	3/24/2014 17:00	0.0081	--
3/24/2014 18:00	0.0071	--	3/24/2014 18:00	0.0080	--	3/24/2014 18:00	0.0080	--
3/24/2014 19:00	0.0070	--	3/24/2014 19:00	0.0080	--	3/24/2014 19:00	0.0080	--
3/24/2014 20:00	0.0070	--	3/24/2014 20:00	0.0079	--	3/24/2014 20:00	0.0079	--
3/24/2014 21:00	0.0070	--	3/24/2014 21:00	0.0079	--	3/24/2014 21:00	0.0079	--
3/24/2014 22:00	0.0070	--	3/24/2014 22:00	0.0079	--	3/24/2014 22:00	0.0079	--
3/24/2014 23:00	0.0069	--	3/24/2014 23:00	0.0079	--	3/24/2014 23:00	0.0079	--
3/25/2014 0:00	0.0070	0.0070	3/25/2014 0:00	0.0080	0.0082	3/25/2014 0:00	0.0080	0.0084
3/25/2014 1:00	0.0071	--	3/25/2014 1:00	0.0081	--	3/25/2014 1:00	0.0081	--
3/25/2014 2:00	0.0070	--	3/25/2014 2:00	0.0080	--	3/25/2014 2:00	0.0080	--
3/25/2014 3:00	0.0070	--	3/25/2014 3:00	0.0080	--	3/25/2014 3:00	0.0080	--
3/25/2014 4:00	0.0070	--	3/25/2014 4:00	0.0080	--	3/25/2014 4:00	0.0080	--
3/25/2014 5:00	0.0071	--	3/25/2014 5:00	0.0080	--	3/25/2014 5:00	0.0080	--
3/25/2014 6:00	DOWNTIME	--	3/25/2014 6:00	0.0090	--	3/25/2014 6:00	0.0090	--
3/25/2014 7:00	DOWNTIME	--	3/25/2014 7:00	0.0081	--	3/25/2014 7:00	0.0081	--
3/25/2014 8:00	DOWNTIME	--	3/25/2014 8:00	0.0080	--	3/25/2014 8:00	0.0080	--
3/25/2014 9:00	DOWNTIME	--	3/25/2014 9:00	0.0081	--	3/25/2014 9:00	0.0081	--
3/25/2014 10:00	0.0063	--	3/25/2014 10:00	0.0083	--	3/25/2014 10:00	0.0083	--
3/25/2014 11:00	0.0071	--	3/25/2014 11:00	0.0083	--	3/25/2014 11:00	0.0083	--
3/25/2014 12:00	0.0070	--	3/25/2014 12:00	0.0080	--	3/25/2014 12:00	0.0080	--
3/25/2014 13:00	0.0070	--	3/25/2014 13:00	0.0080	--	3/25/2014 13:00	0.0080	--
3/25/2014 14:00	0.0070	--	3/25/2014 14:00	0.0081	--	3/25/2014 14:00	0.0081	--
3/25/2014 15:00	0.0070	--	3/25/2014 15:00	0.0080	--	3/25/2014 15:00	0.0080	--
3/25/2014 16:00	0.0070	--	3/25/2014 16:00	0.0080	--	3/25/2014 16:00	0.0080	--
3/25/2014 17:00	0.0072	--	3/25/2014 17:00	0.0080	--	3/25/2014 17:00	0.0080	--
3/25/2014 18:00	0.0069	--	3/25/2014 18:00	0.0078	--	3/25/2014 18:00	0.0078	--
3/25/2014 19:00	0.0069	--	3/25/2014 19:00	0.0079	--	3/25/2014 19:00	0.0079	--
3/25/2014 20:00	0.0070	--	3/25/2014 20:00	0.0079	--	3/25/2014 20:00	0.0079	--
3/25/2014 21:00	0.0070	--	3/25/2014 21:00	0.0080	--	3/25/2014 21:00	0.0080	--
3/25/2014 22:00	0.0069	--	3/25/2014 22:00	0.0079	--	3/25/2014 22:00	0.0079	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
3/25/2014 23:00	0.0069	--	3/25/2014 23:00	0.0079	--	3/25/2014 23:00	0.0079	--
3/26/2014 0:00	0.0070	0.0070	3/26/2014 0:00	0.0079	0.0082	3/26/2014 0:00	0.0079	0.0083
3/26/2014 1:00	0.0070	--	3/26/2014 1:00	0.0080	--	3/26/2014 1:00	0.0080	--
3/26/2014 2:00	0.0069	--	3/26/2014 2:00	0.0079	--	3/26/2014 2:00	0.0079	--
3/26/2014 3:00	0.0070	--	3/26/2014 3:00	0.0080	--	3/26/2014 3:00	0.0080	--
3/26/2014 4:00	0.0069	--	3/26/2014 4:00	0.0079	--	3/26/2014 4:00	0.0079	--
3/26/2014 5:00	0.0070	--	3/26/2014 5:00	0.0079	--	3/26/2014 5:00	0.0079	--
3/26/2014 6:00	DOWNTIME	--	3/26/2014 6:00	0.0090	--	3/26/2014 6:00	0.0090	--
3/26/2014 7:00	0.0047	--	3/26/2014 7:00	0.0083	--	3/26/2014 7:00	0.0083	--
3/26/2014 8:00	0.0058	--	3/26/2014 8:00	0.0086	--	3/26/2014 8:00	0.0086	--
3/26/2014 9:00	0.0068	--	3/26/2014 9:00	0.0082	--	3/26/2014 9:00	0.0082	--
3/26/2014 10:00	0.0070	--	3/26/2014 10:00	0.0080	--	3/26/2014 10:00	0.0080	--
3/26/2014 11:00	0.0070	--	3/26/2014 11:00	0.0079	--	3/26/2014 11:00	0.0079	--
3/26/2014 12:00	0.0071	--	3/26/2014 12:00	0.0079	--	3/26/2014 12:00	0.0079	--
3/26/2014 13:00	0.0070	--	3/26/2014 13:00	0.0079	--	3/26/2014 13:00	0.0079	--
3/26/2014 14:00	0.0067	--	3/26/2014 14:00	0.0076	--	3/26/2014 14:00	0.0076	--
3/26/2014 15:00	0.0068	--	3/26/2014 15:00	0.0079	--	3/26/2014 15:00	0.0079	--
3/26/2014 16:00	0.0070	--	3/26/2014 16:00	0.0074	--	3/26/2014 16:00	0.0074	--
3/26/2014 17:00	0.0071	--	3/26/2014 17:00	0.0083	--	3/26/2014 17:00	0.0083	--
3/26/2014 18:00	0.0071	--	3/26/2014 18:00	0.0083	--	3/26/2014 18:00	0.0083	--
3/26/2014 19:00	0.0071	--	3/26/2014 19:00	0.0079	--	3/26/2014 19:00	0.0079	--
3/26/2014 20:00	0.0071	--	3/26/2014 20:00	0.0075	--	3/26/2014 20:00	0.0075	--
3/26/2014 21:00	0.0071	--	3/26/2014 21:00	0.0079	--	3/26/2014 21:00	0.0079	--
3/26/2014 22:00	0.0070	--	3/26/2014 22:00	0.0078	--	3/26/2014 22:00	0.0078	--
3/26/2014 23:00	0.0071	--	3/26/2014 23:00	0.0077	--	3/26/2014 23:00	0.0077	--
3/27/2014 0:00	0.0071	0.0070	3/27/2014 0:00	0.0080	0.0082	3/27/2014 0:00	0.0080	0.0083
3/27/2014 1:00	0.0071	--	3/27/2014 1:00	0.0080	--	3/27/2014 1:00	0.0080	--
3/27/2014 2:00	0.0070	--	3/27/2014 2:00	0.0079	--	3/27/2014 2:00	0.0079	--
3/27/2014 3:00	0.0071	--	3/27/2014 3:00	0.0082	--	3/27/2014 3:00	0.0082	--
3/27/2014 4:00	0.0071	--	3/27/2014 4:00	0.0079	--	3/27/2014 4:00	0.0079	--
3/27/2014 5:00	0.0070	--	3/27/2014 5:00	0.0083	--	3/27/2014 5:00	0.0083	--
3/27/2014 6:00	0.0077	--	3/27/2014 6:00	0.0093	--	3/27/2014 6:00	0.0093	--
3/27/2014 7:00	DOWNTIME	--	3/27/2014 7:00	0.0079	--	3/27/2014 7:00	0.0079	--
3/27/2014 8:00	0.0071	--	3/27/2014 8:00	0.0076	--	3/27/2014 8:00	0.0076	--
3/27/2014 9:00	0.0071	--	3/27/2014 9:00	0.0080	--	3/27/2014 9:00	0.0080	--
3/27/2014 10:00	0.0070	--	3/27/2014 10:00	0.0083	--	3/27/2014 10:00	0.0083	--
3/27/2014 11:00	0.0071	--	3/27/2014 11:00	0.0088	--	3/27/2014 11:00	0.0088	--
3/27/2014 12:00	0.0071	--	3/27/2014 12:00	0.0082	--	3/27/2014 12:00	0.0082	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
3/27/2014 13:00	0.0073	--	3/27/2014 13:00	0.0083	--	3/27/2014 13:00	0.0083	--
3/27/2014 14:00	0.0071	--	3/27/2014 14:00	0.0083	--	3/27/2014 14:00	0.0083	--
3/27/2014 15:00	0.0073	--	3/27/2014 15:00	0.0074	--	3/27/2014 15:00	0.0074	--
3/27/2014 16:00	0.0071	--	3/27/2014 16:00	0.0080	--	3/27/2014 16:00	0.0080	--
3/27/2014 17:00	0.0070	--	3/27/2014 17:00	0.0076	--	3/27/2014 17:00	0.0076	--
3/27/2014 18:00	0.0072	--	3/27/2014 18:00	0.0078	--	3/27/2014 18:00	0.0078	--
3/27/2014 19:00	0.0071	--	3/27/2014 19:00	0.0080	--	3/27/2014 19:00	0.0080	--
3/27/2014 20:00	0.0071	--	3/27/2014 20:00	0.0078	--	3/27/2014 20:00	0.0078	--
3/27/2014 21:00	0.0071	--	3/27/2014 21:00	0.0078	--	3/27/2014 21:00	0.0078	--
3/27/2014 22:00	0.0071	--	3/27/2014 22:00	0.0080	--	3/27/2014 22:00	0.0080	--
3/27/2014 23:00	0.0071	--	3/27/2014 23:00	0.0080	--	3/27/2014 23:00	0.0080	--
3/28/2014 0:00	0.0071	0.0071	3/28/2014 0:00	0.0078	0.0082	3/28/2014 0:00	0.0078	0.0083
3/28/2014 1:00	0.0071	--	3/28/2014 1:00	0.0080	--	3/28/2014 1:00	0.0080	--
3/28/2014 2:00	0.0071	--	3/28/2014 2:00	0.0081	--	3/28/2014 2:00	0.0081	--
3/28/2014 3:00	0.0071	--	3/28/2014 3:00	0.0080	--	3/28/2014 3:00	0.0080	--
3/28/2014 4:00	0.0070	--	3/28/2014 4:00	0.0078	--	3/28/2014 4:00	0.0078	--
3/28/2014 5:00	0.0072	--	3/28/2014 5:00	0.0077	--	3/28/2014 5:00	0.0077	--
3/28/2014 6:00	0.0075	--	3/28/2014 6:00	0.0090	--	3/28/2014 6:00	0.0090	--
3/28/2014 7:00	0.0071	--	3/28/2014 7:00	0.0080	--	3/28/2014 7:00	0.0080	--
3/28/2014 8:00	0.0071	--	3/28/2014 8:00	0.0080	--	3/28/2014 8:00	0.0080	--
3/28/2014 9:00	0.0071	--	3/28/2014 9:00	0.0078	--	3/28/2014 9:00	0.0078	--
3/28/2014 10:00	0.0072	--	3/28/2014 10:00	0.0077	--	3/28/2014 10:00	0.0077	--
3/28/2014 11:00	0.0072	--	3/28/2014 11:00	0.0079	--	3/28/2014 11:00	0.0079	--
3/28/2014 12:00	0.0073	--	3/28/2014 12:00	0.0084	--	3/28/2014 12:00	0.0084	--
3/28/2014 13:00	0.0074	--	3/28/2014 13:00	0.0085	--	3/28/2014 13:00	0.0085	--
3/28/2014 14:00	0.0072	--	3/28/2014 14:00	0.0084	--	3/28/2014 14:00	0.0084	--
3/28/2014 15:00	0.0070	--	3/28/2014 15:00	0.0076	--	3/28/2014 15:00	0.0076	--
3/28/2014 16:00	0.0069	--	3/28/2014 16:00	0.0082	--	3/28/2014 16:00	0.0082	--
3/28/2014 17:00	0.0070	--	3/28/2014 17:00	0.0080	--	3/28/2014 17:00	0.0080	--
3/28/2014 18:00	0.0071	--	3/28/2014 18:00	0.0079	--	3/28/2014 18:00	0.0079	--
3/28/2014 19:00	0.0070	--	3/28/2014 19:00	0.0076	--	3/28/2014 19:00	0.0076	--
3/28/2014 20:00	0.0073	--	3/28/2014 20:00	0.0081	--	3/28/2014 20:00	0.0081	--
3/28/2014 21:00	0.0072	--	3/28/2014 21:00	0.0080	--	3/28/2014 21:00	0.0080	--
3/28/2014 22:00	0.0072	--	3/28/2014 22:00	0.0078	--	3/28/2014 22:00	0.0078	--
3/28/2014 23:00	0.0071	--	3/28/2014 23:00	0.0079	--	3/28/2014 23:00	0.0079	--
3/29/2014 0:00	0.0071	0.0071	3/29/2014 0:00	0.0075	0.0082	3/29/2014 0:00	0.0075	0.0083
3/29/2014 1:00	0.0071	--	3/29/2014 1:00	0.0080	--	3/29/2014 1:00	0.0080	--
3/29/2014 2:00	0.0071	--	3/29/2014 2:00	0.0080	--	3/29/2014 2:00	0.0080	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
3/29/2014 3:00	0.0071	--	3/29/2014 3:00	0.0077	--	3/29/2014 3:00	0.0077	--
3/29/2014 4:00	0.0071	--	3/29/2014 4:00	0.0080	--	3/29/2014 4:00	0.0080	--
3/29/2014 5:00	0.0071	--	3/29/2014 5:00	0.0076	--	3/29/2014 5:00	0.0076	--
3/29/2014 6:00	0.0074	--	3/29/2014 6:00	0.0083	--	3/29/2014 6:00	0.0083	--
3/29/2014 7:00	0.0072	--	3/29/2014 7:00	0.0084	--	3/29/2014 7:00	0.0084	--
3/29/2014 8:00	0.0073	--	3/29/2014 8:00	0.0083	--	3/29/2014 8:00	0.0083	--
3/29/2014 9:00	0.0070	--	3/29/2014 9:00	0.0081	--	3/29/2014 9:00	0.0081	--
3/29/2014 10:00	0.0071	--	3/29/2014 10:00	0.0079	--	3/29/2014 10:00	0.0079	--
3/29/2014 11:00	0.0072	--	3/29/2014 11:00	0.0075	--	3/29/2014 11:00	0.0075	--
3/29/2014 12:00	0.0075	--	3/29/2014 12:00	0.0082	--	3/29/2014 12:00	0.0082	--
3/29/2014 13:00	0.0073	--	3/29/2014 13:00	0.0080	--	3/29/2014 13:00	0.0080	--
3/29/2014 14:00	0.0072	--	3/29/2014 14:00	0.0080	--	3/29/2014 14:00	0.0080	--
3/29/2014 15:00	0.0073	--	3/29/2014 15:00	0.0084	--	3/29/2014 15:00	0.0084	--
3/29/2014 16:00	0.0072	--	3/29/2014 16:00	0.0083	--	3/29/2014 16:00	0.0083	--
3/29/2014 17:00	0.0072	--	3/29/2014 17:00	0.0081	--	3/29/2014 17:00	0.0081	--
3/29/2014 18:00	0.0071	--	3/29/2014 18:00	0.0089	--	3/29/2014 18:00	0.0089	--
3/29/2014 19:00	0.0070	--	3/29/2014 19:00	0.0083	--	3/29/2014 19:00	0.0083	--
3/29/2014 20:00	0.0070	--	3/29/2014 20:00	0.0076	--	3/29/2014 20:00	0.0076	--
3/29/2014 21:00	0.0070	--	3/29/2014 21:00	0.0079	--	3/29/2014 21:00	0.0079	--
3/29/2014 22:00	0.0071	--	3/29/2014 22:00	0.0080	--	3/29/2014 22:00	0.0080	--
3/29/2014 23:00	0.0074	--	3/29/2014 23:00	0.0084	--	3/29/2014 23:00	0.0084	--
3/30/2014 0:00	0.0073	0.0071	3/30/2014 0:00	0.0082	0.0082	3/30/2014 0:00	0.0082	0.0083
3/30/2014 1:00	0.0072	--	3/30/2014 1:00	0.0078	--	3/30/2014 1:00	0.0078	--
3/30/2014 2:00	0.0072	--	3/30/2014 2:00	0.0077	--	3/30/2014 2:00	0.0077	--
3/30/2014 3:00	0.0072	--	3/30/2014 3:00	0.0077	--	3/30/2014 3:00	0.0077	--
3/30/2014 4:00	0.0071	--	3/30/2014 4:00	0.0078	--	3/30/2014 4:00	0.0078	--
3/30/2014 5:00	0.0071	--	3/30/2014 5:00	0.0078	--	3/30/2014 5:00	0.0078	--
3/30/2014 6:00	0.0070	--	3/30/2014 6:00	0.0080	--	3/30/2014 6:00	0.0080	--
3/30/2014 7:00	0.0068	--	3/30/2014 7:00	0.0073	--	3/30/2014 7:00	0.0073	--
3/30/2014 8:00	0.0070	--	3/30/2014 8:00	0.0076	--	3/30/2014 8:00	0.0076	--
3/30/2014 9:00	0.0072	--	3/30/2014 9:00	0.0082	--	3/30/2014 9:00	0.0082	--
3/30/2014 10:00	0.0075	--	3/30/2014 10:00	0.0087	--	3/30/2014 10:00	0.0087	--
3/30/2014 11:00	0.0074	--	3/30/2014 11:00	0.0082	--	3/30/2014 11:00	0.0082	--
3/30/2014 12:00	0.0073	--	3/30/2014 12:00	0.0081	--	3/30/2014 12:00	0.0081	--
3/30/2014 13:00	0.0074	--	3/30/2014 13:00	0.0075	--	3/30/2014 13:00	0.0075	--
3/30/2014 14:00	0.0072	--	3/30/2014 14:00	0.0077	--	3/30/2014 14:00	0.0077	--
3/30/2014 15:00	0.0073	--	3/30/2014 15:00	0.0077	--	3/30/2014 15:00	0.0077	--
3/30/2014 16:00	0.0072	--	3/30/2014 16:00	0.0082	--	3/30/2014 16:00	0.0082	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
3/30/2014 17:00	0.0071	--	3/30/2014 17:00	0.0087	--	3/30/2014 17:00	0.0087	--
3/30/2014 18:00	0.0072	--	3/30/2014 18:00	0.0080	--	3/30/2014 18:00	0.0080	--
3/30/2014 19:00	0.0071	--	3/30/2014 19:00	0.0076	--	3/30/2014 19:00	0.0076	--
3/30/2014 20:00	0.0071	--	3/30/2014 20:00	0.0073	--	3/30/2014 20:00	0.0073	--
3/30/2014 21:00	0.0071	--	3/30/2014 21:00	0.0073	--	3/30/2014 21:00	0.0073	--
3/30/2014 22:00	0.0071	--	3/30/2014 22:00	0.0074	--	3/30/2014 22:00	0.0074	--
3/30/2014 23:00	0.0071	--	3/30/2014 23:00	0.0079	--	3/30/2014 23:00	0.0079	--
3/31/2014 0:00	0.0071	0.0071	3/31/2014 0:00	0.0077	0.0082	3/31/2014 0:00	0.0077	0.0083
3/31/2014 1:00	0.0071	--	3/31/2014 1:00	0.0076	--	3/31/2014 1:00	0.0076	--
3/31/2014 2:00	0.0071	--	3/31/2014 2:00	0.0077	--	3/31/2014 2:00	0.0077	--
3/31/2014 3:00	0.0070	--	3/31/2014 3:00	0.0080	--	3/31/2014 3:00	0.0080	--
3/31/2014 4:00	0.0071	--	3/31/2014 4:00	0.0079	--	3/31/2014 4:00	0.0079	--
3/31/2014 5:00	0.0071	--	3/31/2014 5:00	0.0080	--	3/31/2014 5:00	0.0080	--
3/31/2014 6:00	0.0074	--	3/31/2014 6:00	0.0096	--	3/31/2014 6:00	0.0096	--
3/31/2014 7:00	0.0073	--	3/31/2014 7:00	0.0080	--	3/31/2014 7:00	0.0080	--
3/31/2014 8:00	0.0067	--	3/31/2014 8:00	0.0078	--	3/31/2014 8:00	0.0078	--
3/31/2014 9:00	0.0062	--	3/31/2014 9:00	0.0082	--	3/31/2014 9:00	0.0082	--
3/31/2014 10:00	0.0058	--	3/31/2014 10:00	0.0086	--	3/31/2014 10:00	0.0086	--
3/31/2014 11:00	0.0056	--	3/31/2014 11:00	0.0083	--	3/31/2014 11:00	0.0083	--
3/31/2014 12:00	0.0053	--	3/31/2014 12:00	0.0080	--	3/31/2014 12:00	0.0080	--
3/31/2014 13:00	0.0050	--	3/31/2014 13:00	0.0079	--	3/31/2014 13:00	0.0079	--
3/31/2014 14:00	0.0051	--	3/31/2014 14:00	0.0080	--	3/31/2014 14:00	0.0080	--
3/31/2014 15:00	0.0052	--	3/31/2014 15:00	0.0080	--	3/31/2014 15:00	0.0080	--
3/31/2014 16:00	0.0053	--	3/31/2014 16:00	0.0081	--	3/31/2014 16:00	0.0081	--
3/31/2014 17:00	0.0053	--	3/31/2014 17:00	0.0076	--	3/31/2014 17:00	0.0076	--
3/31/2014 18:00	0.0054	--	3/31/2014 18:00	0.0076	--	3/31/2014 18:00	0.0076	--
3/31/2014 19:00	0.0057	--	3/31/2014 19:00	0.0075	--	3/31/2014 19:00	0.0075	--
3/31/2014 20:00	0.0058	--	3/31/2014 20:00	0.0078	--	3/31/2014 20:00	0.0078	--
3/31/2014 21:00	0.0055	--	3/31/2014 21:00	0.0076	--	3/31/2014 21:00	0.0076	--
3/31/2014 22:00	0.0059	--	3/31/2014 22:00	0.0075	--	3/31/2014 22:00	0.0075	--
3/31/2014 23:00	0.0056	--	3/31/2014 23:00	0.0080	--	3/31/2014 23:00	0.0080	--
4/1/2014 0:00	0.0052	0.0070	4/1/2014 0:00	0.0079	0.0082	4/1/2014 0:00	0.0079	0.0083
4/1/2014 1:00	0.0050	--	4/1/2014 1:00	0.0081	--	4/1/2014 1:00	0.0081	--
4/1/2014 2:00	0.0047	--	4/1/2014 2:00	0.0083	--	4/1/2014 2:00	0.0083	--
4/1/2014 3:00	0.0047	--	4/1/2014 3:00	0.0079	--	4/1/2014 3:00	0.0079	--
4/1/2014 4:00	0.0049	--	4/1/2014 4:00	0.0079	--	4/1/2014 4:00	0.0079	--
4/1/2014 5:00	0.0055	--	4/1/2014 5:00	0.0078	--	4/1/2014 5:00	0.0078	--
4/1/2014 6:00	0.0068	--	4/1/2014 6:00	0.0096	--	4/1/2014 6:00	0.0096	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
4/1/2014 7:00	0.0070	--	4/1/2014 7:00	0.0083	--	4/1/2014 7:00	0.0083	--
4/1/2014 8:00	0.0070	--	4/1/2014 8:00	0.0082	--	4/1/2014 8:00	0.0082	--
4/1/2014 9:00	0.0070	--	4/1/2014 9:00	0.0077	--	4/1/2014 9:00	0.0077	--
4/1/2014 10:00	0.0070	--	4/1/2014 10:00	0.0078	--	4/1/2014 10:00	0.0078	--
4/1/2014 11:00	0.0071	--	4/1/2014 11:00	0.0076	--	4/1/2014 11:00	0.0076	--
4/1/2014 12:00	0.0071	--	4/1/2014 12:00	0.0081	--	4/1/2014 12:00	0.0081	--
4/1/2014 13:00	0.0072	--	4/1/2014 13:00	0.0086	--	4/1/2014 13:00	0.0086	--
4/1/2014 14:00	0.0070	--	4/1/2014 14:00	0.0087	--	4/1/2014 14:00	0.0087	--
4/1/2014 15:00	0.0071	--	4/1/2014 15:00	0.0081	--	4/1/2014 15:00	0.0081	--
4/1/2014 16:00	0.0069	--	4/1/2014 16:00	0.0083	--	4/1/2014 16:00	0.0083	--
4/1/2014 17:00	0.0070	--	4/1/2014 17:00	0.0081	--	4/1/2014 17:00	0.0081	--
4/1/2014 18:00	0.0070	--	4/1/2014 18:00	0.0078	--	4/1/2014 18:00	0.0078	--
4/1/2014 19:00	0.0070	--	4/1/2014 19:00	0.0078	--	4/1/2014 19:00	0.0078	--
4/1/2014 20:00	0.0073	--	4/1/2014 20:00	0.0078	--	4/1/2014 20:00	0.0078	--
4/1/2014 21:00	0.0071	--	4/1/2014 21:00	0.0071	--	4/1/2014 21:00	0.0071	--
4/1/2014 22:00	0.0070	--	4/1/2014 22:00	0.0081	--	4/1/2014 22:00	0.0081	--
4/1/2014 23:00	0.0072	--	4/1/2014 23:00	0.0070	--	4/1/2014 23:00	0.0070	--
4/2/2014 0:00	0.0072	0.0070	4/2/2014 0:00	0.0073	0.0082	4/2/2014 0:00	0.0073	0.0083
4/2/2014 1:00	0.0072	--	4/2/2014 1:00	0.0077	--	4/2/2014 1:00	0.0077	--
4/2/2014 2:00	0.0070	--	4/2/2014 2:00	0.0082	--	4/2/2014 2:00	0.0082	--
4/2/2014 3:00	0.0070	--	4/2/2014 3:00	0.0079	--	4/2/2014 3:00	0.0079	--
4/2/2014 4:00	0.0072	--	4/2/2014 4:00	0.0071	--	4/2/2014 4:00	0.0071	--
4/2/2014 5:00	0.0077	--	4/2/2014 5:00	0.0074	--	4/2/2014 5:00	0.0074	--
4/2/2014 6:00	0.0074	--	4/2/2014 6:00	0.0094	--	4/2/2014 6:00	0.0094	--
4/2/2014 7:00	0.0070	--	4/2/2014 7:00	0.0081	--	4/2/2014 7:00	0.0081	--
4/2/2014 8:00	0.0070	--	4/2/2014 8:00	0.0081	--	4/2/2014 8:00	0.0081	--
4/2/2014 9:00	0.0070	--	4/2/2014 9:00	0.0085	--	4/2/2014 9:00	0.0085	--
4/2/2014 10:00	0.0071	--	4/2/2014 10:00	0.0087	--	4/2/2014 10:00	0.0087	--
4/2/2014 11:00	0.0071	--	4/2/2014 11:00	0.0089	--	4/2/2014 11:00	0.0089	--
4/2/2014 12:00	0.0072	--	4/2/2014 12:00	0.0080	--	4/2/2014 12:00	0.0080	--
4/2/2014 13:00	0.0075	--	4/2/2014 13:00	0.0075	--	4/2/2014 13:00	0.0075	--
4/2/2014 14:00	0.0073	--	4/2/2014 14:00	0.0076	--	4/2/2014 14:00	0.0076	--
4/2/2014 15:00	0.0071	--	4/2/2014 15:00	0.0078	--	4/2/2014 15:00	0.0078	--
4/2/2014 16:00	0.0067	--	4/2/2014 16:00	0.0089	--	4/2/2014 16:00	0.0089	--
4/2/2014 17:00	0.0064	--	4/2/2014 17:00	0.0087	--	4/2/2014 17:00	0.0087	--
4/2/2014 18:00	0.0064	--	4/2/2014 18:00	0.0095	--	4/2/2014 18:00	0.0095	--
4/2/2014 19:00	0.0067	--	4/2/2014 19:00	0.0095	--	4/2/2014 19:00	0.0095	--
4/2/2014 20:00	0.0070	--	4/2/2014 20:00	0.0082	--	4/2/2014 20:00	0.0082	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
4/2/2014 21:00	0.0070	--	4/2/2014 21:00	0.0090	--	4/2/2014 21:00	0.0090	--
4/2/2014 22:00	0.0070	--	4/2/2014 22:00	0.0084	--	4/2/2014 22:00	0.0084	--
4/2/2014 23:00	0.0071	--	4/2/2014 23:00	0.0082	--	4/2/2014 23:00	0.0082	--
4/3/2014 0:00	0.0071	0.0070	4/3/2014 0:00	0.0081	0.0080	4/3/2014 0:00	0.0081	0.0081
4/3/2014 1:00	0.0071	--	4/3/2014 1:00	0.0084	--	4/3/2014 1:00	0.0084	--
4/3/2014 2:00	0.0071	--	4/3/2014 2:00	0.0082	--	4/3/2014 2:00	0.0082	--
4/3/2014 3:00	0.0071	--	4/3/2014 3:00	0.0082	--	4/3/2014 3:00	0.0082	--
4/3/2014 4:00	0.0070	--	4/3/2014 4:00	0.0087	--	4/3/2014 4:00	0.0087	--
4/3/2014 5:00	0.0069	--	4/3/2014 5:00	0.0096	--	4/3/2014 5:00	0.0096	--
4/3/2014 6:00	0.0070	--	4/3/2014 6:00	0.0100	--	4/3/2014 6:00	0.0100	--
4/3/2014 7:00	0.0069	--	4/3/2014 7:00	0.0093	--	4/3/2014 7:00	0.0093	--
4/3/2014 8:00	0.0037	--	4/3/2014 8:00	0.0098	--	4/3/2014 8:00	0.0098	--
4/3/2014 9:00	0.0037	--	4/3/2014 9:00	0.0085	--	4/3/2014 9:00	0.0085	--
4/3/2014 10:00	0.0034	--	4/3/2014 10:00	0.0083	--	4/3/2014 10:00	0.0083	--
4/3/2014 11:00	0.0034	--	4/3/2014 11:00	0.0081	--	4/3/2014 11:00	0.0081	--
4/3/2014 12:00	0.0034	--	4/3/2014 12:00	0.0078	--	4/3/2014 12:00	0.0078	--
4/3/2014 13:00	0.0034	--	4/3/2014 13:00	0.0077	--	4/3/2014 13:00	0.0077	--
4/3/2014 14:00	0.0032	--	4/3/2014 14:00	0.0077	--	4/3/2014 14:00	0.0077	--
4/3/2014 15:00	0.0033	--	4/3/2014 15:00	0.0078	--	4/3/2014 15:00	0.0078	--
4/3/2014 16:00	0.0032	--	4/3/2014 16:00	0.0080	--	4/3/2014 16:00	0.0080	--
4/3/2014 17:00	0.0030	--	4/3/2014 17:00	0.0080	--	4/3/2014 17:00	0.0080	--
4/3/2014 18:00	0.0040	--	4/3/2014 18:00	0.0067	--	4/3/2014 18:00	0.0067	--
4/3/2014 19:00	0.0073	--	4/3/2014 19:00	0.0033	--	4/3/2014 19:00	0.0033	--
4/3/2014 20:00	0.0073	--	4/3/2014 20:00	0.0056	--	4/3/2014 20:00	0.0056	--
4/3/2014 21:00	0.0071	--	4/3/2014 21:00	0.0076	--	4/3/2014 21:00	0.0076	--
4/3/2014 22:00	0.0071	--	4/3/2014 22:00	0.0080	--	4/3/2014 22:00	0.0080	--
4/3/2014 23:00	0.0071	--	4/3/2014 23:00	0.0080	--	4/3/2014 23:00	0.0080	--
4/4/2014 0:00	0.0070	0.0070	4/4/2014 0:00	0.0085	0.0080	4/4/2014 0:00	0.0085	0.0081
4/4/2014 1:00	0.0070	--	4/4/2014 1:00	0.0083	--	4/4/2014 1:00	0.0083	--
4/4/2014 2:00	0.0071	--	4/4/2014 2:00	0.0082	--	4/4/2014 2:00	0.0082	--
4/4/2014 3:00	0.0071	--	4/4/2014 3:00	0.0081	--	4/4/2014 3:00	0.0081	--
4/4/2014 4:00	0.0070	--	4/4/2014 4:00	0.0081	--	4/4/2014 4:00	0.0081	--
4/4/2014 5:00	0.0071	--	4/4/2014 5:00	0.0081	--	4/4/2014 5:00	0.0081	--
4/4/2014 6:00	0.0078	--	4/4/2014 6:00	0.0113	--	4/4/2014 6:00	0.0113	--
4/4/2014 7:00	0.0075	--	4/4/2014 7:00	0.0092	--	4/4/2014 7:00	0.0092	--
4/4/2014 8:00	0.0073	--	4/4/2014 8:00	0.0086	--	4/4/2014 8:00	0.0086	--
4/4/2014 9:00	0.0072	--	4/4/2014 9:00	0.0082	--	4/4/2014 9:00	0.0082	--
4/4/2014 10:00	0.0073	--	4/4/2014 10:00	0.0082	--	4/4/2014 10:00	0.0082	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
4/4/2014 11:00	0.0074	--	4/4/2014 11:00	0.0086	--	4/4/2014 11:00	0.0086	--
4/4/2014 12:00	0.0072	--	4/4/2014 12:00	0.0088	--	4/4/2014 12:00	0.0088	--
4/4/2014 13:00	0.0072	--	4/4/2014 13:00	0.0084	--	4/4/2014 13:00	0.0084	--
4/4/2014 14:00	0.0072	--	4/4/2014 14:00	0.0085	--	4/4/2014 14:00	0.0085	--
4/4/2014 15:00	0.0071	--	4/4/2014 15:00	0.0077	--	4/4/2014 15:00	0.0077	--
4/4/2014 16:00	0.0071	--	4/4/2014 16:00	0.0081	--	4/4/2014 16:00	0.0081	--
4/4/2014 17:00	0.0071	--	4/4/2014 17:00	0.0087	--	4/4/2014 17:00	0.0087	--
4/4/2014 18:00	0.0071	--	4/4/2014 18:00	0.0082	--	4/4/2014 18:00	0.0082	--
4/4/2014 19:00	0.0070	--	4/4/2014 19:00	0.0080	--	4/4/2014 19:00	0.0080	--
4/4/2014 20:00	0.0070	--	4/4/2014 20:00	0.0075	--	4/4/2014 20:00	0.0075	--
4/4/2014 21:00	0.0071	--	4/4/2014 21:00	0.0079	--	4/4/2014 21:00	0.0079	--
4/4/2014 22:00	0.0071	--	4/4/2014 22:00	0.0078	--	4/4/2014 22:00	0.0078	--
4/4/2014 23:00	0.0071	--	4/4/2014 23:00	0.0082	--	4/4/2014 23:00	0.0082	--
4/5/2014 0:00	0.0071	0.0070	4/5/2014 0:00	0.0078	0.0080	4/5/2014 0:00	0.0078	0.0080
4/5/2014 1:00	0.0070	--	4/5/2014 1:00	0.0077	--	4/5/2014 1:00	0.0077	--
4/5/2014 2:00	0.0072	--	4/5/2014 2:00	0.0083	--	4/5/2014 2:00	0.0083	--
4/5/2014 3:00	0.0070	--	4/5/2014 3:00	0.0081	--	4/5/2014 3:00	0.0081	--
4/5/2014 4:00	0.0070	--	4/5/2014 4:00	0.0078	--	4/5/2014 4:00	0.0078	--
4/5/2014 5:00	0.0070	--	4/5/2014 5:00	0.0081	--	4/5/2014 5:00	0.0081	--
4/5/2014 6:00	0.0071	--	4/5/2014 6:00	0.0095	--	4/5/2014 6:00	0.0095	--
4/5/2014 7:00	0.0070	--	4/5/2014 7:00	0.0087	--	4/5/2014 7:00	0.0087	--
4/5/2014 8:00	0.0071	--	4/5/2014 8:00	0.0087	--	4/5/2014 8:00	0.0087	--
4/5/2014 9:00	0.0075	--	4/5/2014 9:00	0.0078	--	4/5/2014 9:00	0.0078	--
4/5/2014 10:00	0.0071	--	4/5/2014 10:00	0.0083	--	4/5/2014 10:00	0.0083	--
4/5/2014 11:00	0.0070	--	4/5/2014 11:00	0.0082	--	4/5/2014 11:00	0.0082	--
4/5/2014 12:00	0.0071	--	4/5/2014 12:00	0.0082	--	4/5/2014 12:00	0.0082	--
4/5/2014 13:00	0.0071	--	4/5/2014 13:00	0.0065	--	4/5/2014 13:00	0.0065	--
4/5/2014 14:00	0.0070	--	4/5/2014 14:00	0.0082	--	4/5/2014 14:00	0.0082	--
4/5/2014 15:00	0.0070	--	4/5/2014 15:00	0.0081	--	4/5/2014 15:00	0.0081	--
4/5/2014 16:00	0.0069	--	4/5/2014 16:00	0.0084	--	4/5/2014 16:00	0.0084	--
4/5/2014 17:00	0.0068	--	4/5/2014 17:00	0.0078	--	4/5/2014 17:00	0.0078	--
4/5/2014 18:00	0.0069	--	4/5/2014 18:00	0.0081	--	4/5/2014 18:00	0.0081	--
4/5/2014 19:00	0.0070	--	4/5/2014 19:00	0.0079	--	4/5/2014 19:00	0.0079	--
4/5/2014 20:00	0.0070	--	4/5/2014 20:00	0.0081	--	4/5/2014 20:00	0.0081	--
4/5/2014 21:00	0.0071	--	4/5/2014 21:00	0.0079	--	4/5/2014 21:00	0.0079	--
4/5/2014 22:00	0.0070	--	4/5/2014 22:00	0.0085	--	4/5/2014 22:00	0.0085	--
4/5/2014 23:00	0.0069	--	4/5/2014 23:00	0.0080	--	4/5/2014 23:00	0.0080	--
4/6/2014 0:00	0.0069	0.0070	4/6/2014 0:00	0.0078	0.0080	4/6/2014 0:00	0.0078	0.0080

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
4/6/2014 1:00	0.0070	--	4/6/2014 1:00	0.0078	--	4/6/2014 1:00	0.0078	--
4/6/2014 2:00	0.0071	--	4/6/2014 2:00	0.0082	--	4/6/2014 2:00	0.0082	--
4/6/2014 3:00	0.0071	--	4/6/2014 3:00	0.0080	--	4/6/2014 3:00	0.0080	--
4/6/2014 4:00	0.0071	--	4/6/2014 4:00	0.0083	--	4/6/2014 4:00	0.0083	--
4/6/2014 5:00	0.0070	--	4/6/2014 5:00	0.0079	--	4/6/2014 5:00	0.0079	--
4/6/2014 6:00	0.0073	--	4/6/2014 6:00	0.0083	--	4/6/2014 6:00	0.0083	--
4/6/2014 7:00	0.0071	--	4/6/2014 7:00	0.0084	--	4/6/2014 7:00	0.0084	--
4/6/2014 8:00	0.0072	--	4/6/2014 8:00	0.0084	--	4/6/2014 8:00	0.0084	--
4/6/2014 9:00	0.0070	--	4/6/2014 9:00	0.0083	--	4/6/2014 9:00	0.0083	--
4/6/2014 10:00	0.0070	--	4/6/2014 10:00	0.0078	--	4/6/2014 10:00	0.0078	--
4/6/2014 11:00	0.0070	--	4/6/2014 11:00	0.0085	--	4/6/2014 11:00	0.0085	--
4/6/2014 12:00	0.0069	--	4/6/2014 12:00	0.0083	--	4/6/2014 12:00	0.0083	--
4/6/2014 13:00	0.0070	--	4/6/2014 13:00	0.0082	--	4/6/2014 13:00	0.0082	--
4/6/2014 14:00	0.0070	--	4/6/2014 14:00	0.0082	--	4/6/2014 14:00	0.0082	--
4/6/2014 15:00	0.0071	--	4/6/2014 15:00	0.0087	--	4/6/2014 15:00	0.0087	--
4/6/2014 16:00	0.0071	--	4/6/2014 16:00	0.0081	--	4/6/2014 16:00	0.0081	--
4/6/2014 17:00	0.0071	--	4/6/2014 17:00	0.0084	--	4/6/2014 17:00	0.0084	--
4/6/2014 18:00	0.0071	--	4/6/2014 18:00	0.0081	--	4/6/2014 18:00	0.0081	--
4/6/2014 19:00	0.0071	--	4/6/2014 19:00	0.0079	--	4/6/2014 19:00	0.0079	--
4/6/2014 20:00	0.0070	--	4/6/2014 20:00	0.0082	--	4/6/2014 20:00	0.0082	--
4/6/2014 21:00	0.0071	--	4/6/2014 21:00	0.0081	--	4/6/2014 21:00	0.0081	--
4/6/2014 22:00	0.0071	--	4/6/2014 22:00	0.0080	--	4/6/2014 22:00	0.0080	--
4/6/2014 23:00	0.0070	--	4/6/2014 23:00	0.0084	--	4/6/2014 23:00	0.0084	--
4/7/2014 0:00	0.0071	0.0070	4/7/2014 0:00	0.0081	0.0080	4/7/2014 0:00	0.0081	0.0080
4/7/2014 1:00	0.0072	--	4/7/2014 1:00	0.0082	--	4/7/2014 1:00	0.0082	--
4/7/2014 2:00	0.0070	--	4/7/2014 2:00	0.0082	--	4/7/2014 2:00	0.0082	--
4/7/2014 3:00	0.0070	--	4/7/2014 3:00	0.0084	--	4/7/2014 3:00	0.0084	--
4/7/2014 4:00	0.0071	--	4/7/2014 4:00	0.0080	--	4/7/2014 4:00	0.0080	--
4/7/2014 5:00	0.0071	--	4/7/2014 5:00	0.0083	--	4/7/2014 5:00	0.0083	--
4/7/2014 6:00	0.0071	--	4/7/2014 6:00	0.0093	--	4/7/2014 6:00	0.0093	--
4/7/2014 7:00	0.0070	--	4/7/2014 7:00	0.0079	--	4/7/2014 7:00	0.0079	--
4/7/2014 8:00	0.0071	--	4/7/2014 8:00	0.0080	--	4/7/2014 8:00	0.0080	--
4/7/2014 9:00	0.0071	--	4/7/2014 9:00	0.0083	--	4/7/2014 9:00	0.0083	--
4/7/2014 10:00	0.0072	--	4/7/2014 10:00	0.0081	--	4/7/2014 10:00	0.0081	--
4/7/2014 11:00	0.0071	--	4/7/2014 11:00	0.0086	--	4/7/2014 11:00	0.0086	--
4/7/2014 12:00	0.0072	--	4/7/2014 12:00	0.0084	--	4/7/2014 12:00	0.0084	--
4/7/2014 13:00	0.0072	--	4/7/2014 13:00	0.0081	--	4/7/2014 13:00	0.0081	--
4/7/2014 14:00	0.0071	--	4/7/2014 14:00	0.0078	--	4/7/2014 14:00	0.0078	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
4/7/2014 15:00	0.0071	--	4/7/2014 15:00	0.0084	--	4/7/2014 15:00	0.0084	--
4/7/2014 16:00	0.0071	--	4/7/2014 16:00	0.0081	--	4/7/2014 16:00	0.0081	--
4/7/2014 17:00	0.0071	--	4/7/2014 17:00	0.0081	--	4/7/2014 17:00	0.0081	--
4/7/2014 18:00	0.0070	--	4/7/2014 18:00	0.0084	--	4/7/2014 18:00	0.0084	--
4/7/2014 19:00	0.0069	--	4/7/2014 19:00	0.0084	--	4/7/2014 19:00	0.0084	--
4/7/2014 20:00	0.0069	--	4/7/2014 20:00	0.0082	--	4/7/2014 20:00	0.0082	--
4/7/2014 21:00	0.0069	--	4/7/2014 21:00	0.0079	--	4/7/2014 21:00	0.0079	--
4/7/2014 22:00	0.0070	--	4/7/2014 22:00	0.0077	--	4/7/2014 22:00	0.0077	--
4/7/2014 23:00	0.0072	--	4/7/2014 23:00	0.0074	--	4/7/2014 23:00	0.0074	--
4/8/2014 0:00	0.0070	0.0070	4/8/2014 0:00	0.0082	0.0080	4/8/2014 0:00	0.0082	0.0080
4/8/2014 1:00	0.0070	--	4/8/2014 1:00	0.0081	--	4/8/2014 1:00	0.0081	--
4/8/2014 2:00	0.0071	--	4/8/2014 2:00	0.0081	--	4/8/2014 2:00	0.0081	--
4/8/2014 3:00	0.0072	--	4/8/2014 3:00	0.0083	--	4/8/2014 3:00	0.0083	--
4/8/2014 4:00	0.0079	--	4/8/2014 4:00	0.0115	--	4/8/2014 4:00	0.0115	--
4/8/2014 5:00	0.0069	--	4/8/2014 5:00	0.0086	--	4/8/2014 5:00	0.0086	--
4/8/2014 6:00	0.0075	--	4/8/2014 6:00	0.0084	--	4/8/2014 6:00	0.0084	--
4/8/2014 7:00	0.0071	--	4/8/2014 7:00	0.0080	--	4/8/2014 7:00	0.0080	--
4/8/2014 8:00	0.0070	--	4/8/2014 8:00	0.0087	--	4/8/2014 8:00	0.0087	--
4/8/2014 9:00	0.0072	--	4/8/2014 9:00	0.0089	--	4/8/2014 9:00	0.0089	--
4/8/2014 10:00	0.0071	--	4/8/2014 10:00	0.0058	--	4/8/2014 10:00	0.0058	--
4/8/2014 11:00	0.0074	--	4/8/2014 11:00	0.0071	--	4/8/2014 11:00	0.0071	--
4/8/2014 12:00	0.0076	--	4/8/2014 12:00	0.0086	--	4/8/2014 12:00	0.0086	--
4/8/2014 13:00	0.0071	--	4/8/2014 13:00	0.0084	--	4/8/2014 13:00	0.0084	--
4/8/2014 14:00	0.0071	--	4/8/2014 14:00	0.0087	--	4/8/2014 14:00	0.0087	--
4/8/2014 15:00	0.0071	--	4/8/2014 15:00	0.0085	--	4/8/2014 15:00	0.0085	--
4/8/2014 16:00	0.0071	--	4/8/2014 16:00	0.0096	--	4/8/2014 16:00	0.0096	--
4/8/2014 17:00	0.0071	--	4/8/2014 17:00	0.0060	--	4/8/2014 17:00	0.0060	--
4/8/2014 18:00	0.0069	--	4/8/2014 18:00	0.0068	--	4/8/2014 18:00	0.0068	--
4/8/2014 19:00	0.0069	--	4/8/2014 19:00	0.0086	--	4/8/2014 19:00	0.0086	--
4/8/2014 20:00	0.0069	--	4/8/2014 20:00	0.0083	--	4/8/2014 20:00	0.0083	--
4/8/2014 21:00	0.0070	--	4/8/2014 21:00	0.0083	--	4/8/2014 21:00	0.0083	--
4/8/2014 22:00	0.0071	--	4/8/2014 22:00	0.0085	--	4/8/2014 22:00	0.0085	--
4/8/2014 23:00	0.0070	--	4/8/2014 23:00	0.0084	--	4/8/2014 23:00	0.0084	--
4/9/2014 0:00	0.0070	0.0070	4/9/2014 0:00	0.0087	0.0080	4/9/2014 0:00	0.0087	0.0080
4/9/2014 1:00	0.0069	--	4/9/2014 1:00	0.0088	--	4/9/2014 1:00	0.0088	--
4/9/2014 2:00	0.0068	--	4/9/2014 2:00	0.0085	--	4/9/2014 2:00	0.0085	--
4/9/2014 3:00	0.0069	--	4/9/2014 3:00	0.0093	--	4/9/2014 3:00	0.0093	--
4/9/2014 4:00	0.0069	--	4/9/2014 4:00	0.0085	--	4/9/2014 4:00	0.0085	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
4/9/2014 5:00	0.0069	--	4/9/2014 5:00	0.0089	--	4/9/2014 5:00	0.0089	--
4/9/2014 6:00	0.0073	--	4/9/2014 6:00	0.0088	--	4/9/2014 6:00	0.0088	--
4/9/2014 7:00	0.0071	--	4/9/2014 7:00	DOWNTIME	--	4/9/2014 7:00	0.0762	--
4/9/2014 8:00	0.0073	--	4/9/2014 8:00	0.0097	--	4/9/2014 8:00	0.0097	--
4/9/2014 9:00	0.0074	--	4/9/2014 9:00	0.0093	--	4/9/2014 9:00	0.0093	--
4/9/2014 10:00	0.0067	--	4/9/2014 10:00	0.0074	--	4/9/2014 10:00	0.0074	--
4/9/2014 11:00	0.0061	--	4/9/2014 11:00	0.0072	--	4/9/2014 11:00	0.0072	--
4/9/2014 12:00	0.0059	--	4/9/2014 12:00	0.0074	--	4/9/2014 12:00	0.0074	--
4/9/2014 13:00	0.0065	--	4/9/2014 13:00	0.0081	--	4/9/2014 13:00	0.0081	--
4/9/2014 14:00	0.0000	--	4/9/2014 14:00	0.0000	--	4/9/2014 14:00	0.0000	--
4/9/2014 15:00	0.0000	--	4/9/2014 15:00	0.0000	--	4/9/2014 15:00	0.0000	--
4/9/2014 16:00	0.0000	--	4/9/2014 16:00	0.0000	--	4/9/2014 16:00	0.0000	--
4/9/2014 17:00	0.0000	--	4/9/2014 17:00	0.0000	--	4/9/2014 17:00	0.0000	--
4/9/2014 18:00	0.0069	--	4/9/2014 18:00	0.0087	--	4/9/2014 18:00	0.0087	--
4/9/2014 19:00	0.0069	--	4/9/2014 19:00	0.0080	--	4/9/2014 19:00	0.0080	--
4/9/2014 20:00	0.0000	--	4/9/2014 20:00	0.0000	--	4/9/2014 20:00	0.0000	--
4/9/2014 21:00	0.0000	--	4/9/2014 21:00	0.0000	--	4/9/2014 21:00	0.0000	--
4/9/2014 22:00	0.0000	--	4/9/2014 22:00	0.0000	--	4/9/2014 22:00	0.0000	--
4/9/2014 23:00	0.0070	--	4/9/2014 23:00	0.0087	--	4/9/2014 23:00	0.0087	--
4/10/2014 0:00	0.0069	0.0069	4/10/2014 0:00	0.0084	0.0080	4/10/2014 0:00	0.0084	0.0081
4/10/2014 1:00	0.0070	--	4/10/2014 1:00	0.0086	--	4/10/2014 1:00	0.0086	--
4/10/2014 2:00	0.0000	--	4/10/2014 2:00	0.0000	--	4/10/2014 2:00	0.0000	--
4/10/2014 3:00	0.0000	--	4/10/2014 3:00	0.0000	--	4/10/2014 3:00	0.0000	--
4/10/2014 4:00	0.0000	--	4/10/2014 4:00	0.0000	--	4/10/2014 4:00	0.0000	--
4/10/2014 5:00	0.0000	--	4/10/2014 5:00	0.0000	--	4/10/2014 5:00	0.0000	--
4/10/2014 6:00	0.0000	--	4/10/2014 6:00	0.0000	--	4/10/2014 6:00	0.0000	--
4/10/2014 7:00	0.0000	--	4/10/2014 7:00	0.0000	--	4/10/2014 7:00	0.0000	--
4/10/2014 8:00	0.0070	--	4/10/2014 8:00	0.0091	--	4/10/2014 8:00	0.0091	--
4/10/2014 9:00	0.0000	--	4/10/2014 9:00	0.0000	--	4/10/2014 9:00	0.0000	--
4/10/2014 10:00	0.0071	--	4/10/2014 10:00	0.0087	--	4/10/2014 10:00	0.0087	--
4/10/2014 11:00	0.0072	--	4/10/2014 11:00	0.0089	--	4/10/2014 11:00	0.0089	--
4/10/2014 12:00	0.0071	--	4/10/2014 12:00	0.0087	--	4/10/2014 12:00	0.0087	--
4/10/2014 13:00	0.0000	--	4/10/2014 13:00	0.0000	--	4/10/2014 13:00	0.0000	--
4/10/2014 14:00	0.0000	--	4/10/2014 14:00	0.0000	--	4/10/2014 14:00	0.0000	--
4/10/2014 15:00	0.0000	--	4/10/2014 15:00	0.0000	--	4/10/2014 15:00	0.0000	--
4/10/2014 16:00	0.0000	--	4/10/2014 16:00	0.0000	--	4/10/2014 16:00	0.0000	--
4/10/2014 17:00	0.0000	--	4/10/2014 17:00	0.0000	--	4/10/2014 17:00	0.0000	--
4/10/2014 18:00	0.0070	--	4/10/2014 18:00	0.0087	--	4/10/2014 18:00	0.0087	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
4/10/2014 19:00	0.0000	--	4/10/2014 19:00	0.0000	--	4/10/2014 19:00	0.0000	--
4/10/2014 20:00	0.0000	--	4/10/2014 20:00	0.0000	--	4/10/2014 20:00	0.0000	--
4/10/2014 21:00	0.0000	--	4/10/2014 21:00	0.0000	--	4/10/2014 21:00	0.0000	--
4/10/2014 22:00	0.0070	--	4/10/2014 22:00	0.0086	--	4/10/2014 22:00	0.0086	--
4/10/2014 23:00	0.0000	--	4/10/2014 23:00	0.0000	--	4/10/2014 23:00	0.0000	--
4/11/2014 0:00	0.0069	0.0067	4/11/2014 0:00	0.0088	0.0078	4/11/2014 0:00	0.0088	0.0079
4/11/2014 1:00	0.0070	--	4/11/2014 1:00	0.0087	--	4/11/2014 1:00	0.0087	--
4/11/2014 2:00	0.0000	--	4/11/2014 2:00	0.0000	--	4/11/2014 2:00	0.0000	--
4/11/2014 3:00	0.0070	--	4/11/2014 3:00	0.0087	--	4/11/2014 3:00	0.0087	--
4/11/2014 4:00	0.0000	--	4/11/2014 4:00	0.0000	--	4/11/2014 4:00	0.0000	--
4/11/2014 5:00	0.0000	--	4/11/2014 5:00	DOWNTIME	--	4/11/2014 5:00	0.0000	--
4/11/2014 6:00	0.0000	--	4/11/2014 6:00	DOWNTIME	--	4/11/2014 6:00	0.0000	--
4/11/2014 7:00	0.0000	--	4/11/2014 7:00	DOWNTIME	--	4/11/2014 7:00	0.0000	--
4/11/2014 8:00	0.0000	--	4/11/2014 8:00	DOWNTIME	--	4/11/2014 8:00	0.0000	--
4/11/2014 9:00	0.0000	--	4/11/2014 9:00	0.0000	--	4/11/2014 9:00	0.0000	--
4/11/2014 10:00	0.0000	--	4/11/2014 10:00	0.0000	--	4/11/2014 10:00	0.0000	--
4/11/2014 11:00	0.0000	--	4/11/2014 11:00	0.0000	--	4/11/2014 11:00	0.0000	--
4/11/2014 12:00	0.0061	--	4/11/2014 12:00	0.0090	--	4/11/2014 12:00	0.0090	--
4/11/2014 13:00	0.0067	--	4/11/2014 13:00	0.0091	--	4/11/2014 13:00	0.0091	--
4/11/2014 14:00	0.0069	--	4/11/2014 14:00	0.0089	--	4/11/2014 14:00	0.0089	--
4/11/2014 15:00	0.0072	--	4/11/2014 15:00	0.0093	--	4/11/2014 15:00	0.0093	--
4/11/2014 16:00	0.0069	--	4/11/2014 16:00	0.0086	--	4/11/2014 16:00	0.0086	--
4/11/2014 17:00	0.0069	--	4/11/2014 17:00	0.0088	--	4/11/2014 17:00	0.0088	--
4/11/2014 18:00	0.0069	--	4/11/2014 18:00	0.0088	--	4/11/2014 18:00	0.0088	--
4/11/2014 19:00	0.0069	--	4/11/2014 19:00	0.0087	--	4/11/2014 19:00	0.0087	--
4/11/2014 20:00	0.0069	--	4/11/2014 20:00	0.0085	--	4/11/2014 20:00	0.0085	--
4/11/2014 21:00	0.0069	--	4/11/2014 21:00	0.0084	--	4/11/2014 21:00	0.0084	--
4/11/2014 22:00	0.0070	--	4/11/2014 22:00	0.0087	--	4/11/2014 22:00	0.0087	--
4/11/2014 23:00	0.0070	--	4/11/2014 23:00	0.0088	--	4/11/2014 23:00	0.0088	--
4/12/2014 0:00	0.0070	0.0066	4/12/2014 0:00	0.0087	0.0078	4/12/2014 0:00	0.0087	0.0078
4/12/2014 1:00	0.0070	--	4/12/2014 1:00	0.0087	--	4/12/2014 1:00	0.0087	--
4/12/2014 2:00	0.0070	--	4/12/2014 2:00	0.0089	--	4/12/2014 2:00	0.0089	--
4/12/2014 3:00	0.0070	--	4/12/2014 3:00	0.0087	--	4/12/2014 3:00	0.0087	--
4/12/2014 4:00	0.0070	--	4/12/2014 4:00	0.0088	--	4/12/2014 4:00	0.0088	--
4/12/2014 5:00	0.0070	--	4/12/2014 5:00	0.0087	--	4/12/2014 5:00	0.0087	--
4/12/2014 6:00	0.0045	--	4/12/2014 6:00	0.0110	--	4/12/2014 6:00	0.0110	--
4/12/2014 7:00	0.0066	--	4/12/2014 7:00	0.0093	--	4/12/2014 7:00	0.0093	--
4/12/2014 8:00	0.0070	--	4/12/2014 8:00	0.0087	--	4/12/2014 8:00	0.0087	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
4/12/2014 9:00	0.0071	--	4/12/2014 9:00	0.0091	--	4/12/2014 9:00	0.0091	--
4/12/2014 10:00	0.0069	--	4/12/2014 10:00	0.0098	--	4/12/2014 10:00	0.0098	--
4/12/2014 11:00	0.0058	--	4/12/2014 11:00	0.0092	--	4/12/2014 11:00	0.0092	--
4/12/2014 12:00	0.0046	--	4/12/2014 12:00	0.0091	--	4/12/2014 12:00	0.0091	--
4/12/2014 13:00	0.0039	--	4/12/2014 13:00	0.0090	--	4/12/2014 13:00	0.0090	--
4/12/2014 14:00	0.0037	--	4/12/2014 14:00	0.0090	--	4/12/2014 14:00	0.0090	--
4/12/2014 15:00	0.0045	--	4/12/2014 15:00	0.0088	--	4/12/2014 15:00	0.0088	--
4/12/2014 16:00	0.0056	--	4/12/2014 16:00	0.0091	--	4/12/2014 16:00	0.0091	--
4/12/2014 17:00	0.0066	--	4/12/2014 17:00	0.0087	--	4/12/2014 17:00	0.0087	--
4/12/2014 18:00	0.0064	--	4/12/2014 18:00	0.0089	--	4/12/2014 18:00	0.0089	--
4/12/2014 19:00	0.0069	--	4/12/2014 19:00	0.0088	--	4/12/2014 19:00	0.0088	--
4/12/2014 20:00	0.0070	--	4/12/2014 20:00	0.0084	--	4/12/2014 20:00	0.0084	--
4/12/2014 21:00	0.0070	--	4/12/2014 21:00	0.0083	--	4/12/2014 21:00	0.0083	--
4/12/2014 22:00	0.0070	--	4/12/2014 22:00	0.0088	--	4/12/2014 22:00	0.0088	--
4/12/2014 23:00	0.0070	--	4/12/2014 23:00	0.0092	--	4/12/2014 23:00	0.0092	--
4/13/2014 0:00	0.0070	0.0066	4/13/2014 0:00	0.0091	0.0078	4/13/2014 0:00	0.0091	0.0078
4/13/2014 1:00	0.0071	--	4/13/2014 1:00	0.0089	--	4/13/2014 1:00	0.0089	--
4/13/2014 2:00	0.0070	--	4/13/2014 2:00	0.0087	--	4/13/2014 2:00	0.0087	--
4/13/2014 3:00	0.0070	--	4/13/2014 3:00	0.0087	--	4/13/2014 3:00	0.0087	--
4/13/2014 4:00	0.0068	--	4/13/2014 4:00	0.0088	--	4/13/2014 4:00	0.0088	--
4/13/2014 5:00	0.0066	--	4/13/2014 5:00	0.0086	--	4/13/2014 5:00	0.0086	--
4/13/2014 6:00	0.0089	--	4/13/2014 6:00	0.0088	--	4/13/2014 6:00	0.0088	--
4/13/2014 7:00	0.0074	--	4/13/2014 7:00	0.0089	--	4/13/2014 7:00	0.0089	--
4/13/2014 8:00	0.0071	--	4/13/2014 8:00	0.0091	--	4/13/2014 8:00	0.0091	--
4/13/2014 9:00	0.0071	--	4/13/2014 9:00	0.0090	--	4/13/2014 9:00	0.0090	--
4/13/2014 10:00	0.0071	--	4/13/2014 10:00	0.0092	--	4/13/2014 10:00	0.0092	--
4/13/2014 11:00	0.0071	--	4/13/2014 11:00	0.0087	--	4/13/2014 11:00	0.0087	--
4/13/2014 12:00	0.0071	--	4/13/2014 12:00	0.0087	--	4/13/2014 12:00	0.0087	--
4/13/2014 13:00	0.0072	--	4/13/2014 13:00	0.0092	--	4/13/2014 13:00	0.0092	--
4/13/2014 14:00	0.0072	--	4/13/2014 14:00	0.0090	--	4/13/2014 14:00	0.0090	--
4/13/2014 15:00	0.0069	--	4/13/2014 15:00	0.0088	--	4/13/2014 15:00	0.0088	--
4/13/2014 16:00	0.0067	--	4/13/2014 16:00	0.0081	--	4/13/2014 16:00	0.0081	--
4/13/2014 17:00	0.0070	--	4/13/2014 17:00	0.0088	--	4/13/2014 17:00	0.0088	--
4/13/2014 18:00	0.0071	--	4/13/2014 18:00	0.0091	--	4/13/2014 18:00	0.0091	--
4/13/2014 19:00	0.0071	--	4/13/2014 19:00	0.0091	--	4/13/2014 19:00	0.0091	--
4/13/2014 20:00	0.0070	--	4/13/2014 20:00	0.0089	--	4/13/2014 20:00	0.0089	--
4/13/2014 21:00	0.0071	--	4/13/2014 21:00	0.0088	--	4/13/2014 21:00	0.0088	--
4/13/2014 22:00	0.0071	--	4/13/2014 22:00	0.0091	--	4/13/2014 22:00	0.0091	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
4/13/2014 23:00	0.0071	--	4/13/2014 23:00	0.0092	--	4/13/2014 23:00	0.0092	--
4/14/2014 0:00	0.0071	0.0066	4/14/2014 0:00	0.0094	0.0078	4/14/2014 0:00	0.0094	0.0079
4/14/2014 1:00	0.0071	--	4/14/2014 1:00	0.0086	--	4/14/2014 1:00	0.0086	--
4/14/2014 2:00	0.0071	--	4/14/2014 2:00	0.0087	--	4/14/2014 2:00	0.0087	--
4/14/2014 3:00	0.0071	--	4/14/2014 3:00	0.0087	--	4/14/2014 3:00	0.0087	--
4/14/2014 4:00	0.0071	--	4/14/2014 4:00	0.0088	--	4/14/2014 4:00	0.0088	--
4/14/2014 5:00	0.0071	--	4/14/2014 5:00	0.0086	--	4/14/2014 5:00	0.0086	--
4/14/2014 6:00	0.0071	--	4/14/2014 6:00	0.0092	--	4/14/2014 6:00	0.0092	--
4/14/2014 7:00	0.0070	--	4/14/2014 7:00	0.0085	--	4/14/2014 7:00	0.0085	--
4/14/2014 8:00	0.0070	--	4/14/2014 8:00	0.0088	--	4/14/2014 8:00	0.0088	--
4/14/2014 9:00	0.0070	--	4/14/2014 9:00	0.0085	--	4/14/2014 9:00	0.0085	--
4/14/2014 10:00	0.0069	--	4/14/2014 10:00	0.0082	--	4/14/2014 10:00	0.0082	--
4/14/2014 11:00	0.0068	--	4/14/2014 11:00	0.0084	--	4/14/2014 11:00	0.0084	--
4/14/2014 12:00	0.0068	--	4/14/2014 12:00	0.0091	--	4/14/2014 12:00	0.0091	--
4/14/2014 13:00	0.0068	--	4/14/2014 13:00	0.0070	--	4/14/2014 13:00	0.0070	--
4/14/2014 14:00	0.0068	--	4/14/2014 14:00	0.0070	--	4/14/2014 14:00	0.0070	--
4/14/2014 15:00	0.0068	--	4/14/2014 15:00	0.0068	--	4/14/2014 15:00	0.0068	--
4/14/2014 16:00	0.0067	--	4/14/2014 16:00	0.0082	--	4/14/2014 16:00	0.0082	--
4/14/2014 17:00	0.0068	--	4/14/2014 17:00	0.0078	--	4/14/2014 17:00	0.0078	--
4/14/2014 18:00	0.0069	--	4/14/2014 18:00	0.0084	--	4/14/2014 18:00	0.0084	--
4/14/2014 19:00	0.0068	--	4/14/2014 19:00	0.0086	--	4/14/2014 19:00	0.0086	--
4/14/2014 20:00	0.0067	--	4/14/2014 20:00	0.0078	--	4/14/2014 20:00	0.0078	--
4/14/2014 21:00	0.0066	--	4/14/2014 21:00	0.0084	--	4/14/2014 21:00	0.0084	--
4/14/2014 22:00	0.0067	--	4/14/2014 22:00	0.0081	--	4/14/2014 22:00	0.0081	--
4/14/2014 23:00	0.0069	--	4/14/2014 23:00	0.0082	--	4/14/2014 23:00	0.0082	--
4/15/2014 0:00	0.0068	0.0066	4/15/2014 0:00	0.0082	0.0078	4/15/2014 0:00	0.0082	0.0079
4/15/2014 1:00	0.0066	--	4/15/2014 1:00	0.0082	--	4/15/2014 1:00	0.0082	--
4/15/2014 2:00	0.0066	--	4/15/2014 2:00	0.0079	--	4/15/2014 2:00	0.0079	--
4/15/2014 3:00	0.0066	--	4/15/2014 3:00	0.0075	--	4/15/2014 3:00	0.0075	--
4/15/2014 4:00	0.0067	--	4/15/2014 4:00	0.0083	--	4/15/2014 4:00	0.0083	--
4/15/2014 5:00	0.0067	--	4/15/2014 5:00	0.0086	--	4/15/2014 5:00	0.0086	--
4/15/2014 6:00	0.0074	--	4/15/2014 6:00	0.0086	--	4/15/2014 6:00	0.0086	--
4/15/2014 7:00	0.0070	--	4/15/2014 7:00	0.0078	--	4/15/2014 7:00	0.0078	--
4/15/2014 8:00	0.0069	--	4/15/2014 8:00	0.0086	--	4/15/2014 8:00	0.0086	--
4/15/2014 9:00	0.0070	--	4/15/2014 9:00	0.0085	--	4/15/2014 9:00	0.0085	--
4/15/2014 10:00	0.0072	--	4/15/2014 10:00	0.0070	--	4/15/2014 10:00	0.0070	--
4/15/2014 11:00	0.0070	--	4/15/2014 11:00	0.0088	--	4/15/2014 11:00	0.0088	--
4/15/2014 12:00	0.0067	--	4/15/2014 12:00	0.0077	--	4/15/2014 12:00	0.0077	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
4/15/2014 13:00	0.0065	--	4/15/2014 13:00	0.0085	--	4/15/2014 13:00	0.0085	--
4/15/2014 14:00	0.0067	--	4/15/2014 14:00	0.0085	--	4/15/2014 14:00	0.0085	--
4/15/2014 15:00	0.0066	--	4/15/2014 15:00	0.0080	--	4/15/2014 15:00	0.0080	--
4/15/2014 16:00	0.0067	--	4/15/2014 16:00	0.0088	--	4/15/2014 16:00	0.0088	--
4/15/2014 17:00	0.0067	--	4/15/2014 17:00	0.0091	--	4/15/2014 17:00	0.0091	--
4/15/2014 18:00	0.0068	--	4/15/2014 18:00	0.0079	--	4/15/2014 18:00	0.0079	--
4/15/2014 19:00	0.0066	--	4/15/2014 19:00	0.0079	--	4/15/2014 19:00	0.0079	--
4/15/2014 20:00	0.0065	--	4/15/2014 20:00	0.0081	--	4/15/2014 20:00	0.0081	--
4/15/2014 21:00	0.0065	--	4/15/2014 21:00	0.0077	--	4/15/2014 21:00	0.0077	--
4/15/2014 22:00	0.0065	--	4/15/2014 22:00	0.0083	--	4/15/2014 22:00	0.0083	--
4/15/2014 23:00	0.0065	--	4/15/2014 23:00	0.0076	--	4/15/2014 23:00	0.0076	--
4/16/2014 0:00	0.0066	0.0066	4/16/2014 0:00	0.0079	0.0078	4/16/2014 0:00	0.0079	0.0079
4/16/2014 1:00	0.0067	--	4/16/2014 1:00	0.0080	--	4/16/2014 1:00	0.0080	--
4/16/2014 2:00	0.0066	--	4/16/2014 2:00	0.0081	--	4/16/2014 2:00	0.0081	--
4/16/2014 3:00	0.0067	--	4/16/2014 3:00	0.0071	--	4/16/2014 3:00	0.0071	--
4/16/2014 4:00	0.0067	--	4/16/2014 4:00	0.0086	--	4/16/2014 4:00	0.0086	--
4/16/2014 5:00	0.0067	--	4/16/2014 5:00	0.0084	--	4/16/2014 5:00	0.0084	--
4/16/2014 6:00	0.0070	--	4/16/2014 6:00	0.0061	--	4/16/2014 6:00	0.0061	--
4/16/2014 7:00	0.0066	--	4/16/2014 7:00	0.0079	--	4/16/2014 7:00	0.0079	--
4/16/2014 8:00	0.0067	--	4/16/2014 8:00	0.0083	--	4/16/2014 8:00	0.0083	--
4/16/2014 9:00	0.0067	--	4/16/2014 9:00	0.0075	--	4/16/2014 9:00	0.0075	--
4/16/2014 10:00	0.0067	--	4/16/2014 10:00	0.0079	--	4/16/2014 10:00	0.0079	--
4/16/2014 11:00	0.0068	--	4/16/2014 11:00	0.0086	--	4/16/2014 11:00	0.0086	--
4/16/2014 12:00	0.0068	--	4/16/2014 12:00	0.0081	--	4/16/2014 12:00	0.0081	--
4/16/2014 13:00	0.0067	--	4/16/2014 13:00	0.0079	--	4/16/2014 13:00	0.0079	--
4/16/2014 14:00	0.0067	--	4/16/2014 14:00	0.0080	--	4/16/2014 14:00	0.0080	--
4/16/2014 15:00	0.0067	--	4/16/2014 15:00	0.0079	--	4/16/2014 15:00	0.0079	--
4/16/2014 16:00	0.0066	--	4/16/2014 16:00	0.0083	--	4/16/2014 16:00	0.0083	--
4/16/2014 17:00	0.0066	--	4/16/2014 17:00	0.0081	--	4/16/2014 17:00	0.0081	--
4/16/2014 18:00	0.0066	--	4/16/2014 18:00	0.0083	--	4/16/2014 18:00	0.0083	--
4/16/2014 19:00	0.0066	--	4/16/2014 19:00	0.0082	--	4/16/2014 19:00	0.0082	--
4/16/2014 20:00	0.0066	--	4/16/2014 20:00	0.0081	--	4/16/2014 20:00	0.0081	--
4/16/2014 21:00	0.0066	--	4/16/2014 21:00	0.0087	--	4/16/2014 21:00	0.0087	--
4/16/2014 22:00	0.0066	--	4/16/2014 22:00	0.0078	--	4/16/2014 22:00	0.0078	--
4/16/2014 23:00	0.0067	--	4/16/2014 23:00	0.0076	--	4/16/2014 23:00	0.0076	--
4/17/2014 0:00	0.0067	0.0066	4/17/2014 0:00	0.0081	0.0078	4/17/2014 0:00	0.0081	0.0079
4/17/2014 1:00	0.0067	--	4/17/2014 1:00	0.0079	--	4/17/2014 1:00	0.0079	--
4/17/2014 2:00	0.0067	--	4/17/2014 2:00	0.0080	--	4/17/2014 2:00	0.0080	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
4/17/2014 3:00	0.0067	--	4/17/2014 3:00	0.0081	--	4/17/2014 3:00	0.0081	--
4/17/2014 4:00	0.0067	--	4/17/2014 4:00	0.0078	--	4/17/2014 4:00	0.0078	--
4/17/2014 5:00	0.0067	--	4/17/2014 5:00	0.0081	--	4/17/2014 5:00	0.0081	--
4/17/2014 6:00	0.0067	--	4/17/2014 6:00	0.0081	--	4/17/2014 6:00	0.0081	--
4/17/2014 7:00	0.0066	--	4/17/2014 7:00	0.0084	--	4/17/2014 7:00	0.0084	--
4/17/2014 8:00	0.0066	--	4/17/2014 8:00	0.0083	--	4/17/2014 8:00	0.0083	--
4/17/2014 9:00	0.0066	--	4/17/2014 9:00	0.0076	--	4/17/2014 9:00	0.0076	--
4/17/2014 10:00	0.0067	--	4/17/2014 10:00	0.0082	--	4/17/2014 10:00	0.0082	--
4/17/2014 11:00	0.0068	--	4/17/2014 11:00	0.0082	--	4/17/2014 11:00	0.0082	--
4/17/2014 12:00	0.0068	--	4/17/2014 12:00	0.0082	--	4/17/2014 12:00	0.0082	--
4/17/2014 13:00	0.0075	--	4/17/2014 13:00	0.0090	--	4/17/2014 13:00	0.0090	--
4/17/2014 14:00	0.0081	--	4/17/2014 14:00	0.0091	--	4/17/2014 14:00	0.0091	--
4/17/2014 15:00	0.0082	--	4/17/2014 15:00	0.0093	--	4/17/2014 15:00	0.0093	--
4/17/2014 16:00	0.0082	--	4/17/2014 16:00	0.0092	--	4/17/2014 16:00	0.0092	--
4/17/2014 17:00	0.0082	--	4/17/2014 17:00	0.0091	--	4/17/2014 17:00	0.0091	--
4/17/2014 18:00	0.0082	--	4/17/2014 18:00	0.0093	--	4/17/2014 18:00	0.0093	--
4/17/2014 19:00	0.0081	--	4/17/2014 19:00	0.0090	--	4/17/2014 19:00	0.0090	--
4/17/2014 20:00	0.0082	--	4/17/2014 20:00	0.0092	--	4/17/2014 20:00	0.0092	--
4/17/2014 21:00	0.0083	--	4/17/2014 21:00	0.0096	--	4/17/2014 21:00	0.0096	--
4/17/2014 22:00	0.0082	--	4/17/2014 22:00	0.0094	--	4/17/2014 22:00	0.0094	--
4/17/2014 23:00	0.0082	--	4/17/2014 23:00	0.0089	--	4/17/2014 23:00	0.0089	--
4/18/2014 0:00	0.0082	0.0066	4/18/2014 0:00	0.0090	0.0079	4/18/2014 0:00	0.0090	0.0079
4/18/2014 1:00	0.0082	--	4/18/2014 1:00	0.0091	--	4/18/2014 1:00	0.0091	--
4/18/2014 2:00	0.0082	--	4/18/2014 2:00	0.0092	--	4/18/2014 2:00	0.0092	--
4/18/2014 3:00	0.0082	--	4/18/2014 3:00	0.0091	--	4/18/2014 3:00	0.0091	--
4/18/2014 4:00	0.0082	--	4/18/2014 4:00	0.0087	--	4/18/2014 4:00	0.0087	--
4/18/2014 5:00	0.0082	--	4/18/2014 5:00	0.0090	--	4/18/2014 5:00	0.0090	--
4/18/2014 6:00	0.0086	--	4/18/2014 6:00	0.0090	--	4/18/2014 6:00	0.0090	--
4/18/2014 7:00	0.0083	--	4/18/2014 7:00	0.0094	--	4/18/2014 7:00	0.0094	--
4/18/2014 8:00	0.0083	--	4/18/2014 8:00	0.0094	--	4/18/2014 8:00	0.0094	--
4/18/2014 9:00	0.0084	--	4/18/2014 9:00	0.0097	--	4/18/2014 9:00	0.0097	--
4/18/2014 10:00	0.0084	--	4/18/2014 10:00	0.0097	--	4/18/2014 10:00	0.0097	--
4/18/2014 11:00	0.0082	--	4/18/2014 11:00	0.0096	--	4/18/2014 11:00	0.0096	--
4/18/2014 12:00	0.0083	--	4/18/2014 12:00	0.0093	--	4/18/2014 12:00	0.0093	--
4/18/2014 13:00	0.0083	--	4/18/2014 13:00	0.0092	--	4/18/2014 13:00	0.0092	--
4/18/2014 14:00	0.0082	--	4/18/2014 14:00	0.0092	--	4/18/2014 14:00	0.0092	--
4/18/2014 15:00	0.0084	--	4/18/2014 15:00	0.0096	--	4/18/2014 15:00	0.0096	--
4/18/2014 16:00	0.0081	--	4/18/2014 16:00	0.0092	--	4/18/2014 16:00	0.0092	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
4/18/2014 17:00	0.0083	--	4/18/2014 17:00	0.0091	--	4/18/2014 17:00	0.0091	--
4/18/2014 18:00	0.0083	--	4/18/2014 18:00	0.0082	--	4/18/2014 18:00	0.0082	--
4/18/2014 19:00	0.0083	--	4/18/2014 19:00	0.0094	--	4/18/2014 19:00	0.0094	--
4/18/2014 20:00	0.0083	--	4/18/2014 20:00	0.0091	--	4/18/2014 20:00	0.0091	--
4/18/2014 21:00	0.0081	--	4/18/2014 21:00	0.0089	--	4/18/2014 21:00	0.0089	--
4/18/2014 22:00	0.0080	--	4/18/2014 22:00	0.0087	--	4/18/2014 22:00	0.0087	--
4/18/2014 23:00	0.0081	--	4/18/2014 23:00	0.0083	--	4/18/2014 23:00	0.0083	--
4/19/2014 0:00	0.0082	0.0066	4/19/2014 0:00	0.0086	0.0079	4/19/2014 0:00	0.0086	0.0080
4/19/2014 1:00	0.0082	--	4/19/2014 1:00	0.0094	--	4/19/2014 1:00	0.0094	--
4/19/2014 2:00	0.0083	--	4/19/2014 2:00	0.0088	--	4/19/2014 2:00	0.0088	--
4/19/2014 3:00	0.0082	--	4/19/2014 3:00	0.0091	--	4/19/2014 3:00	0.0091	--
4/19/2014 4:00	0.0081	--	4/19/2014 4:00	0.0096	--	4/19/2014 4:00	0.0096	--
4/19/2014 5:00	0.0083	--	4/19/2014 5:00	0.0093	--	4/19/2014 5:00	0.0093	--
4/19/2014 6:00	0.0088	--	4/19/2014 6:00	0.0071	--	4/19/2014 6:00	0.0071	--
4/19/2014 7:00	0.0082	--	4/19/2014 7:00	0.0089	--	4/19/2014 7:00	0.0089	--
4/19/2014 8:00	0.0083	--	4/19/2014 8:00	0.0091	--	4/19/2014 8:00	0.0091	--
4/19/2014 9:00	0.0083	--	4/19/2014 9:00	0.0092	--	4/19/2014 9:00	0.0092	--
4/19/2014 10:00	0.0083	--	4/19/2014 10:00	0.0094	--	4/19/2014 10:00	0.0094	--
4/19/2014 11:00	0.0082	--	4/19/2014 11:00	0.0097	--	4/19/2014 11:00	0.0097	--
4/19/2014 12:00	0.0083	--	4/19/2014 12:00	0.0094	--	4/19/2014 12:00	0.0094	--
4/19/2014 13:00	0.0083	--	4/19/2014 13:00	0.0092	--	4/19/2014 13:00	0.0092	--
4/19/2014 14:00	0.0082	--	4/19/2014 14:00	0.0092	--	4/19/2014 14:00	0.0092	--
4/19/2014 15:00	0.0083	--	4/19/2014 15:00	0.0090	--	4/19/2014 15:00	0.0090	--
4/19/2014 16:00	0.0083	--	4/19/2014 16:00	0.0094	--	4/19/2014 16:00	0.0094	--
4/19/2014 17:00	0.0083	--	4/19/2014 17:00	0.0095	--	4/19/2014 17:00	0.0095	--
4/19/2014 18:00	0.0081	--	4/19/2014 18:00	0.0096	--	4/19/2014 18:00	0.0096	--
4/19/2014 19:00	0.0080	--	4/19/2014 19:00	0.0088	--	4/19/2014 19:00	0.0088	--
4/19/2014 20:00	0.0080	--	4/19/2014 20:00	0.0083	--	4/19/2014 20:00	0.0083	--
4/19/2014 21:00	0.0081	--	4/19/2014 21:00	0.0088	--	4/19/2014 21:00	0.0088	--
4/19/2014 22:00	0.0082	--	4/19/2014 22:00	0.0090	--	4/19/2014 22:00	0.0090	--
4/19/2014 23:00	0.0082	--	4/19/2014 23:00	0.0089	--	4/19/2014 23:00	0.0089	--
4/20/2014 0:00	0.0082	0.0067	4/20/2014 0:00	0.0090	0.0079	4/20/2014 0:00	0.0090	0.0080
4/20/2014 1:00	0.0082	--	4/20/2014 1:00	0.0091	--	4/20/2014 1:00	0.0091	--
4/20/2014 2:00	0.0082	--	4/20/2014 2:00	0.0091	--	4/20/2014 2:00	0.0091	--
4/20/2014 3:00	0.0082	--	4/20/2014 3:00	0.0086	--	4/20/2014 3:00	0.0086	--
4/20/2014 4:00	0.0082	--	4/20/2014 4:00	0.0078	--	4/20/2014 4:00	0.0078	--
4/20/2014 5:00	0.0082	--	4/20/2014 5:00	0.0086	--	4/20/2014 5:00	0.0086	--
4/20/2014 6:00	0.0086	--	4/20/2014 6:00	0.0066	--	4/20/2014 6:00	0.0066	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
4/20/2014 7:00	0.0083	--	4/20/2014 7:00	0.0052	--	4/20/2014 7:00	0.0052	--
4/20/2014 8:00	0.0083	--	4/20/2014 8:00	0.0088	--	4/20/2014 8:00	0.0088	--
4/20/2014 9:00	0.0084	--	4/20/2014 9:00	0.0092	--	4/20/2014 9:00	0.0092	--
4/20/2014 10:00	0.0088	--	4/20/2014 10:00	0.0096	--	4/20/2014 10:00	0.0096	--
4/20/2014 11:00	0.0087	--	4/20/2014 11:00	0.0100	--	4/20/2014 11:00	0.0100	--
4/20/2014 12:00	0.0087	--	4/20/2014 12:00	0.0096	--	4/20/2014 12:00	0.0096	--
4/20/2014 13:00	0.0085	--	4/20/2014 13:00	0.0089	--	4/20/2014 13:00	0.0089	--
4/20/2014 14:00	0.0083	--	4/20/2014 14:00	0.0092	--	4/20/2014 14:00	0.0092	--
4/20/2014 15:00	0.0088	--	4/20/2014 15:00	0.0095	--	4/20/2014 15:00	0.0095	--
4/20/2014 16:00	0.0085	--	4/20/2014 16:00	0.0090	--	4/20/2014 16:00	0.0090	--
4/20/2014 17:00	0.0084	--	4/20/2014 17:00	0.0088	--	4/20/2014 17:00	0.0088	--
4/20/2014 18:00	0.0084	--	4/20/2014 18:00	0.0085	--	4/20/2014 18:00	0.0085	--
4/20/2014 19:00	0.0082	--	4/20/2014 19:00	0.0083	--	4/20/2014 19:00	0.0083	--
4/20/2014 20:00	0.0081	--	4/20/2014 20:00	0.0086	--	4/20/2014 20:00	0.0086	--
4/20/2014 21:00	0.0082	--	4/20/2014 21:00	0.0087	--	4/20/2014 21:00	0.0087	--
4/20/2014 22:00	0.0083	--	4/20/2014 22:00	0.0089	--	4/20/2014 22:00	0.0089	--
4/20/2014 23:00	0.0084	--	4/20/2014 23:00	0.0090	--	4/20/2014 23:00	0.0090	--
4/21/2014 0:00	0.0084	0.0067	4/21/2014 0:00	0.0091	0.0080	4/21/2014 0:00	0.0091	0.0080
4/21/2014 1:00	0.0084	--	4/21/2014 1:00	0.0094	--	4/21/2014 1:00	0.0094	--
4/21/2014 2:00	0.0083	--	4/21/2014 2:00	0.0094	--	4/21/2014 2:00	0.0094	--
4/21/2014 3:00	0.0084	--	4/21/2014 3:00	0.0090	--	4/21/2014 3:00	0.0090	--
4/21/2014 4:00	0.0084	--	4/21/2014 4:00	0.0092	--	4/21/2014 4:00	0.0092	--
4/21/2014 5:00	0.0084	--	4/21/2014 5:00	0.0092	--	4/21/2014 5:00	0.0092	--
4/21/2014 6:00	0.0086	--	4/21/2014 6:00	0.0088	--	4/21/2014 6:00	0.0088	--
4/21/2014 7:00	0.0082	--	4/21/2014 7:00	0.0092	--	4/21/2014 7:00	0.0092	--
4/21/2014 8:00	0.0082	--	4/21/2014 8:00	0.0090	--	4/21/2014 8:00	0.0090	--
4/21/2014 9:00	0.0084	--	4/21/2014 9:00	0.0099	--	4/21/2014 9:00	0.0099	--
4/21/2014 10:00	0.0083	--	4/21/2014 10:00	0.0090	--	4/21/2014 10:00	0.0090	--
4/21/2014 11:00	0.0084	--	4/21/2014 11:00	0.0097	--	4/21/2014 11:00	0.0097	--
4/21/2014 12:00	0.0082	--	4/21/2014 12:00	0.0091	--	4/21/2014 12:00	0.0091	--
4/21/2014 13:00	0.0083	--	4/21/2014 13:00	0.0091	--	4/21/2014 13:00	0.0091	--
4/21/2014 14:00	0.0082	--	4/21/2014 14:00	0.0090	--	4/21/2014 14:00	0.0090	--
4/21/2014 15:00	0.0082	--	4/21/2014 15:00	0.0090	--	4/21/2014 15:00	0.0090	--
4/21/2014 16:00	0.0084	--	4/21/2014 16:00	0.0064	--	4/21/2014 16:00	0.0064	--
4/21/2014 17:00	0.0082	--	4/21/2014 17:00	0.0035	--	4/21/2014 17:00	0.0035	--
4/21/2014 18:00	0.0082	--	4/21/2014 18:00	0.0064	--	4/21/2014 18:00	0.0064	--
4/21/2014 19:00	0.0081	--	4/21/2014 19:00	0.0079	--	4/21/2014 19:00	0.0079	--
4/21/2014 20:00	0.0082	--	4/21/2014 20:00	0.0085	--	4/21/2014 20:00	0.0085	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
4/21/2014 21:00	0.0082	--	4/21/2014 21:00	0.0078	--	4/21/2014 21:00	0.0078	--
4/21/2014 22:00	0.0082	--	4/21/2014 22:00	0.0082	--	4/21/2014 22:00	0.0082	--
4/21/2014 23:00	0.0082	--	4/21/2014 23:00	0.0083	--	4/21/2014 23:00	0.0083	--
4/22/2014 0:00	0.0083	0.0068	4/22/2014 0:00	0.0085	0.0080	4/22/2014 0:00	0.0085	0.0080
4/22/2014 1:00	0.0082	--	4/22/2014 1:00	0.0087	--	4/22/2014 1:00	0.0087	--
4/22/2014 2:00	0.0082	--	4/22/2014 2:00	0.0085	--	4/22/2014 2:00	0.0085	--
4/22/2014 3:00	0.0082	--	4/22/2014 3:00	0.0086	--	4/22/2014 3:00	0.0086	--
4/22/2014 4:00	0.0086	--	4/22/2014 4:00	0.0091	--	4/22/2014 4:00	0.0091	--
4/22/2014 5:00	0.0082	--	4/22/2014 5:00	0.0085	--	4/22/2014 5:00	0.0085	--
4/22/2014 6:00	0.0085	--	4/22/2014 6:00	0.0097	--	4/22/2014 6:00	0.0097	--
4/22/2014 7:00	0.0079	--	4/22/2014 7:00	0.0085	--	4/22/2014 7:00	0.0085	--
4/22/2014 8:00	0.0078	--	4/22/2014 8:00	0.0084	--	4/22/2014 8:00	0.0084	--
4/22/2014 9:00	0.0076	--	4/22/2014 9:00	0.0082	--	4/22/2014 9:00	0.0082	--
4/22/2014 10:00	0.0076	--	4/22/2014 10:00	0.0084	--	4/22/2014 10:00	0.0084	--
4/22/2014 11:00	0.0076	--	4/22/2014 11:00	0.0088	--	4/22/2014 11:00	0.0088	--
4/22/2014 12:00	0.0077	--	4/22/2014 12:00	0.0084	--	4/22/2014 12:00	0.0084	--
4/22/2014 13:00	0.0078	--	4/22/2014 13:00	0.0076	--	4/22/2014 13:00	0.0076	--
4/22/2014 14:00	0.0077	--	4/22/2014 14:00	0.0085	--	4/22/2014 14:00	0.0085	--
4/22/2014 15:00	0.0078	--	4/22/2014 15:00	0.0084	--	4/22/2014 15:00	0.0084	--
4/22/2014 16:00	0.0079	--	4/22/2014 16:00	0.0092	--	4/22/2014 16:00	0.0092	--
4/22/2014 17:00	0.0077	--	4/22/2014 17:00	0.0080	--	4/22/2014 17:00	0.0080	--
4/22/2014 18:00	0.0077	--	4/22/2014 18:00	0.0093	--	4/22/2014 18:00	0.0093	--
4/22/2014 19:00	0.0072	--	4/22/2014 19:00	0.0079	--	4/22/2014 19:00	0.0079	--
4/22/2014 20:00	0.0073	--	4/22/2014 20:00	0.0081	--	4/22/2014 20:00	0.0081	--
4/22/2014 21:00	0.0075	--	4/22/2014 21:00	0.0088	--	4/22/2014 21:00	0.0088	--
4/22/2014 22:00	0.0076	--	4/22/2014 22:00	0.0084	--	4/22/2014 22:00	0.0084	--
4/22/2014 23:00	0.0076	--	4/22/2014 23:00	0.0084	--	4/22/2014 23:00	0.0084	--
4/23/2014 0:00	0.0077	0.0068	4/23/2014 0:00	0.0088	0.0080	4/23/2014 0:00	0.0088	0.0080
4/23/2014 1:00	0.0076	--	4/23/2014 1:00	0.0085	--	4/23/2014 1:00	0.0085	--
4/23/2014 2:00	0.0077	--	4/23/2014 2:00	0.0086	--	4/23/2014 2:00	0.0086	--
4/23/2014 3:00	0.0077	--	4/23/2014 3:00	0.0083	--	4/23/2014 3:00	0.0083	--
4/23/2014 4:00	0.0077	--	4/23/2014 4:00	0.0085	--	4/23/2014 4:00	0.0085	--
4/23/2014 5:00	0.0077	--	4/23/2014 5:00	0.0084	--	4/23/2014 5:00	0.0084	--
4/23/2014 6:00	0.0079	--	4/23/2014 6:00	0.0094	--	4/23/2014 6:00	0.0094	--
4/23/2014 7:00	0.0077	--	4/23/2014 7:00	0.0085	--	4/23/2014 7:00	0.0085	--
4/23/2014 8:00	0.0077	--	4/23/2014 8:00	0.0088	--	4/23/2014 8:00	0.0088	--
4/23/2014 9:00	0.0077	--	4/23/2014 9:00	0.0091	--	4/23/2014 9:00	0.0091	--
4/23/2014 10:00	0.0079	--	4/23/2014 10:00	0.0084	--	4/23/2014 10:00	0.0084	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
4/23/2014 11:00	0.0081	--	4/23/2014 11:00	0.0090	--	4/23/2014 11:00	0.0090	--
4/23/2014 12:00	0.0080	--	4/23/2014 12:00	0.0089	--	4/23/2014 12:00	0.0089	--
4/23/2014 13:00	0.0080	--	4/23/2014 13:00	0.0086	--	4/23/2014 13:00	0.0086	--
4/23/2014 14:00	0.0077	--	4/23/2014 14:00	0.0087	--	4/23/2014 14:00	0.0087	--
4/23/2014 15:00	0.0077	--	4/23/2014 15:00	0.0089	--	4/23/2014 15:00	0.0089	--
4/23/2014 16:00	0.0078	--	4/23/2014 16:00	0.0080	--	4/23/2014 16:00	0.0080	--
4/23/2014 17:00	0.0077	--	4/23/2014 17:00	0.0086	--	4/23/2014 17:00	0.0086	--
4/23/2014 18:00	0.0077	--	4/23/2014 18:00	0.0088	--	4/23/2014 18:00	0.0088	--
4/23/2014 19:00	0.0077	--	4/23/2014 19:00	0.0083	--	4/23/2014 19:00	0.0083	--
4/23/2014 20:00	0.0077	--	4/23/2014 20:00	0.0087	--	4/23/2014 20:00	0.0087	--
4/23/2014 21:00	0.0077	--	4/23/2014 21:00	0.0084	--	4/23/2014 21:00	0.0084	--
4/23/2014 22:00	0.0077	--	4/23/2014 22:00	0.0085	--	4/23/2014 22:00	0.0085	--
4/23/2014 23:00	0.0078	--	4/23/2014 23:00	0.0087	--	4/23/2014 23:00	0.0087	--
4/24/2014 0:00	0.0078	0.0068	4/24/2014 0:00	0.0082	0.0080	4/24/2014 0:00	0.0082	0.0081
4/24/2014 1:00	0.0078	--	4/24/2014 1:00	0.0085	--	4/24/2014 1:00	0.0085	--
4/24/2014 2:00	0.0078	--	4/24/2014 2:00	0.0085	--	4/24/2014 2:00	0.0085	--
4/24/2014 3:00	0.0077	--	4/24/2014 3:00	0.0085	--	4/24/2014 3:00	0.0085	--
4/24/2014 4:00	0.0077	--	4/24/2014 4:00	0.0086	--	4/24/2014 4:00	0.0086	--
4/24/2014 5:00	0.0077	--	4/24/2014 5:00	0.0090	--	4/24/2014 5:00	0.0090	--
4/24/2014 6:00	0.0079	--	4/24/2014 6:00	0.0085	--	4/24/2014 6:00	0.0085	--
4/24/2014 7:00	0.0076	--	4/24/2014 7:00	0.0085	--	4/24/2014 7:00	0.0085	--
4/24/2014 8:00	0.0077	--	4/24/2014 8:00	0.0086	--	4/24/2014 8:00	0.0086	--
4/24/2014 9:00	0.0078	--	4/24/2014 9:00	0.0089	--	4/24/2014 9:00	0.0089	--
4/24/2014 10:00	0.0077	--	4/24/2014 10:00	0.0089	--	4/24/2014 10:00	0.0089	--
4/24/2014 11:00	0.0076	--	4/24/2014 11:00	0.0083	--	4/24/2014 11:00	0.0083	--
4/24/2014 12:00	0.0077	--	4/24/2014 12:00	0.0088	--	4/24/2014 12:00	0.0088	--
4/24/2014 13:00	0.0073	--	4/24/2014 13:00	0.0088	--	4/24/2014 13:00	0.0088	--
4/24/2014 14:00	0.0069	--	4/24/2014 14:00	0.0089	--	4/24/2014 14:00	0.0089	--
4/24/2014 15:00	0.0070	--	4/24/2014 15:00	0.0087	--	4/24/2014 15:00	0.0087	--
4/24/2014 16:00	0.0073	--	4/24/2014 16:00	0.0078	--	4/24/2014 16:00	0.0078	--
4/24/2014 17:00	0.0071	--	4/24/2014 17:00	0.0083	--	4/24/2014 17:00	0.0083	--
4/24/2014 18:00	0.0076	--	4/24/2014 18:00	0.0086	--	4/24/2014 18:00	0.0086	--
4/24/2014 19:00	0.0075	--	4/24/2014 19:00	0.0082	--	4/24/2014 19:00	0.0082	--
4/24/2014 20:00	0.0075	--	4/24/2014 20:00	0.0086	--	4/24/2014 20:00	0.0086	--
4/24/2014 21:00	0.0076	--	4/24/2014 21:00	0.0086	--	4/24/2014 21:00	0.0086	--
4/24/2014 22:00	0.0076	--	4/24/2014 22:00	0.0083	--	4/24/2014 22:00	0.0083	--
4/24/2014 23:00	0.0076	--	4/24/2014 23:00	0.0083	--	4/24/2014 23:00	0.0083	--
4/25/2014 0:00	0.0076	0.0068	4/25/2014 0:00	0.0083	0.0080	4/25/2014 0:00	0.0083	0.0081

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
4/25/2014 1:00	0.0076	--	4/25/2014 1:00	0.0090	--	4/25/2014 1:00	0.0090	--
4/25/2014 2:00	0.0077	--	4/25/2014 2:00	0.0088	--	4/25/2014 2:00	0.0088	--
4/25/2014 3:00	0.0076	--	4/25/2014 3:00	0.0085	--	4/25/2014 3:00	0.0085	--
4/25/2014 4:00	0.0075	--	4/25/2014 4:00	0.0087	--	4/25/2014 4:00	0.0087	--
4/25/2014 5:00	0.0076	--	4/25/2014 5:00	0.0095	--	4/25/2014 5:00	0.0095	--
4/25/2014 6:00	0.0082	--	4/25/2014 6:00	0.0100	--	4/25/2014 6:00	0.0100	--
4/25/2014 7:00	0.0078	--	4/25/2014 7:00	0.0088	--	4/25/2014 7:00	0.0088	--
4/25/2014 8:00	0.0079	--	4/25/2014 8:00	0.0089	--	4/25/2014 8:00	0.0089	--
4/25/2014 9:00	0.0077	--	4/25/2014 9:00	0.0091	--	4/25/2014 9:00	0.0091	--
4/25/2014 10:00	0.0077	--	4/25/2014 10:00	0.0084	--	4/25/2014 10:00	0.0084	--
4/25/2014 11:00	0.0076	--	4/25/2014 11:00	0.0086	--	4/25/2014 11:00	0.0086	--
4/25/2014 12:00	0.0065	--	4/25/2014 12:00	0.0088	--	4/25/2014 12:00	0.0088	--
4/25/2014 13:00	0.0058	--	4/25/2014 13:00	0.0077	--	4/25/2014 13:00	0.0077	--
4/25/2014 14:00	0.0066	--	4/25/2014 14:00	0.0084	--	4/25/2014 14:00	0.0084	--
4/25/2014 15:00	0.0072	--	4/25/2014 15:00	0.0084	--	4/25/2014 15:00	0.0084	--
4/25/2014 16:00	0.0074	--	4/25/2014 16:00	0.0083	--	4/25/2014 16:00	0.0083	--
4/25/2014 17:00	0.0075	--	4/25/2014 17:00	0.0085	--	4/25/2014 17:00	0.0085	--
4/25/2014 18:00	0.0072	--	4/25/2014 18:00	0.0086	--	4/25/2014 18:00	0.0086	--
4/25/2014 19:00	0.0074	--	4/25/2014 19:00	0.0084	--	4/25/2014 19:00	0.0084	--
4/25/2014 20:00	0.0076	--	4/25/2014 20:00	0.0084	--	4/25/2014 20:00	0.0084	--
4/25/2014 21:00	0.0076	--	4/25/2014 21:00	0.0082	--	4/25/2014 21:00	0.0082	--
4/25/2014 22:00	0.0076	--	4/25/2014 22:00	0.0081	--	4/25/2014 22:00	0.0081	--
4/25/2014 23:00	0.0076	--	4/25/2014 23:00	0.0084	--	4/25/2014 23:00	0.0084	--
4/26/2014 0:00	0.0076	0.0069	4/26/2014 0:00	0.0087	0.0081	4/26/2014 0:00	0.0087	0.0081
4/26/2014 1:00	0.0077	--	4/26/2014 1:00	0.0084	--	4/26/2014 1:00	0.0084	--
4/26/2014 2:00	0.0076	--	4/26/2014 2:00	0.0090	--	4/26/2014 2:00	0.0090	--
4/26/2014 3:00	0.0077	--	4/26/2014 3:00	0.0086	--	4/26/2014 3:00	0.0086	--
4/26/2014 4:00	0.0077	--	4/26/2014 4:00	0.0084	--	4/26/2014 4:00	0.0084	--
4/26/2014 5:00	0.0077	--	4/26/2014 5:00	0.0087	--	4/26/2014 5:00	0.0087	--
4/26/2014 6:00	0.0068	--	4/26/2014 6:00	0.0090	--	4/26/2014 6:00	0.0090	--
4/26/2014 7:00	0.0073	--	4/26/2014 7:00	0.0082	--	4/26/2014 7:00	0.0082	--
4/26/2014 8:00	0.0071	--	4/26/2014 8:00	0.0089	--	4/26/2014 8:00	0.0089	--
4/26/2014 9:00	0.0058	--	4/26/2014 9:00	0.0093	--	4/26/2014 9:00	0.0093	--
4/26/2014 10:00	0.0050	--	4/26/2014 10:00	0.0087	--	4/26/2014 10:00	0.0087	--
4/26/2014 11:00	0.0050	--	4/26/2014 11:00	0.0079	--	4/26/2014 11:00	0.0079	--
4/26/2014 12:00	0.0047	--	4/26/2014 12:00	0.0082	--	4/26/2014 12:00	0.0082	--
4/26/2014 13:00	0.0044	--	4/26/2014 13:00	0.0084	--	4/26/2014 13:00	0.0084	--
4/26/2014 14:00	0.0039	--	4/26/2014 14:00	0.0092	--	4/26/2014 14:00	0.0092	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
4/26/2014 15:00	0.0033	--	4/26/2014 15:00	0.0089	--	4/26/2014 15:00	0.0089	--
4/26/2014 16:00	0.0038	--	4/26/2014 16:00	0.0081	--	4/26/2014 16:00	0.0081	--
4/26/2014 17:00	0.0040	--	4/26/2014 17:00	0.0085	--	4/26/2014 17:00	0.0085	--
4/26/2014 18:00	0.0040	--	4/26/2014 18:00	0.0083	--	4/26/2014 18:00	0.0083	--
4/26/2014 19:00	0.0046	--	4/26/2014 19:00	0.0077	--	4/26/2014 19:00	0.0077	--
4/26/2014 20:00	0.0052	--	4/26/2014 20:00	0.0088	--	4/26/2014 20:00	0.0088	--
4/26/2014 21:00	0.0053	--	4/26/2014 21:00	0.0084	--	4/26/2014 21:00	0.0084	--
4/26/2014 22:00	0.0055	--	4/26/2014 22:00	0.0088	--	4/26/2014 22:00	0.0088	--
4/26/2014 23:00	0.0049	--	4/26/2014 23:00	0.0085	--	4/26/2014 23:00	0.0085	--
4/27/2014 0:00	0.0047	0.0068	4/27/2014 0:00	0.0086	0.0081	4/27/2014 0:00	0.0086	0.0081
4/27/2014 1:00	0.0049	--	4/27/2014 1:00	0.0087	--	4/27/2014 1:00	0.0087	--
4/27/2014 2:00	0.0056	--	4/27/2014 2:00	0.0090	--	4/27/2014 2:00	0.0090	--
4/27/2014 3:00	0.0055	--	4/27/2014 3:00	0.0088	--	4/27/2014 3:00	0.0088	--
4/27/2014 4:00	0.0054	--	4/27/2014 4:00	0.0087	--	4/27/2014 4:00	0.0087	--
4/27/2014 5:00	0.0055	--	4/27/2014 5:00	0.0080	--	4/27/2014 5:00	0.0080	--
4/27/2014 6:00	0.0069	--	4/27/2014 6:00	0.0098	--	4/27/2014 6:00	0.0098	--
4/27/2014 7:00	0.0070	--	4/27/2014 7:00	0.0090	--	4/27/2014 7:00	0.0090	--
4/27/2014 8:00	0.0070	--	4/27/2014 8:00	0.0087	--	4/27/2014 8:00	0.0087	--
4/27/2014 9:00	0.0069	--	4/27/2014 9:00	0.0091	--	4/27/2014 9:00	0.0091	--
4/27/2014 10:00	0.0074	--	4/27/2014 10:00	0.0090	--	4/27/2014 10:00	0.0090	--
4/27/2014 11:00	0.0072	--	4/27/2014 11:00	0.0090	--	4/27/2014 11:00	0.0090	--
4/27/2014 12:00	0.0066	--	4/27/2014 12:00	0.0085	--	4/27/2014 12:00	0.0085	--
4/27/2014 13:00	0.0066	--	4/27/2014 13:00	0.0079	--	4/27/2014 13:00	0.0079	--
4/27/2014 14:00	0.0069	--	4/27/2014 14:00	0.0083	--	4/27/2014 14:00	0.0083	--
4/27/2014 15:00	0.0073	--	4/27/2014 15:00	0.0083	--	4/27/2014 15:00	0.0083	--
4/27/2014 16:00	0.0074	--	4/27/2014 16:00	0.0080	--	4/27/2014 16:00	0.0080	--
4/27/2014 17:00	0.0075	--	4/27/2014 17:00	0.0084	--	4/27/2014 17:00	0.0084	--
4/27/2014 18:00	0.0077	--	4/27/2014 18:00	0.0083	--	4/27/2014 18:00	0.0083	--
4/27/2014 19:00	0.0078	--	4/27/2014 19:00	0.0086	--	4/27/2014 19:00	0.0086	--
4/27/2014 20:00	0.0077	--	4/27/2014 20:00	0.0089	--	4/27/2014 20:00	0.0089	--
4/27/2014 21:00	0.0079	--	4/27/2014 21:00	0.0085	--	4/27/2014 21:00	0.0085	--
4/27/2014 22:00	0.0078	--	4/27/2014 22:00	0.0085	--	4/27/2014 22:00	0.0085	--
4/27/2014 23:00	0.0077	--	4/27/2014 23:00	0.0084	--	4/27/2014 23:00	0.0084	--
4/28/2014 0:00	0.0079	0.0068	4/28/2014 0:00	0.0083	0.0081	4/28/2014 0:00	0.0083	0.0081
4/28/2014 1:00	0.0077	--	4/28/2014 1:00	0.0092	--	4/28/2014 1:00	0.0092	--
4/28/2014 2:00	0.0079	--	4/28/2014 2:00	0.0088	--	4/28/2014 2:00	0.0088	--
4/28/2014 3:00	0.0078	--	4/28/2014 3:00	0.0085	--	4/28/2014 3:00	0.0085	--
4/28/2014 4:00	0.0078	--	4/28/2014 4:00	0.0080	--	4/28/2014 4:00	0.0080	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
4/28/2014 5:00	0.0077	--	4/28/2014 5:00	0.0086	--	4/28/2014 5:00	0.0086	--
4/28/2014 6:00	0.0079	--	4/28/2014 6:00	0.0068	--	4/28/2014 6:00	0.0068	--
4/28/2014 7:00	0.0077	--	4/28/2014 7:00	0.0084	--	4/28/2014 7:00	0.0084	--
4/28/2014 8:00	0.0078	--	4/28/2014 8:00	0.0086	--	4/28/2014 8:00	0.0086	--
4/28/2014 9:00	0.0079	--	4/28/2014 9:00	0.0089	--	4/28/2014 9:00	0.0089	--
4/28/2014 10:00	0.0078	--	4/28/2014 10:00	0.0092	--	4/28/2014 10:00	0.0092	--
4/28/2014 11:00	0.0077	--	4/28/2014 11:00	0.0091	--	4/28/2014 11:00	0.0091	--
4/28/2014 12:00	0.0076	--	4/28/2014 12:00	0.0088	--	4/28/2014 12:00	0.0088	--
4/28/2014 13:00	0.0069	--	4/28/2014 13:00	0.0086	--	4/28/2014 13:00	0.0086	--
4/28/2014 14:00	0.0071	--	4/28/2014 14:00	0.0092	--	4/28/2014 14:00	0.0092	--
4/28/2014 15:00	0.0074	--	4/28/2014 15:00	0.0089	--	4/28/2014 15:00	0.0089	--
4/28/2014 16:00	0.0080	--	4/28/2014 16:00	0.0084	--	4/28/2014 16:00	0.0084	--
4/28/2014 17:00	0.0080	--	4/28/2014 17:00	0.0076	--	4/28/2014 17:00	0.0076	--
4/28/2014 18:00	0.0076	--	4/28/2014 18:00	0.0090	--	4/28/2014 18:00	0.0090	--
4/28/2014 19:00	0.0073	--	4/28/2014 19:00	0.0071	--	4/28/2014 19:00	0.0071	--
4/28/2014 20:00	0.0069	--	4/28/2014 20:00	0.0075	--	4/28/2014 20:00	0.0075	--
4/28/2014 21:00	0.0076	--	4/28/2014 21:00	0.0083	--	4/28/2014 21:00	0.0083	--
4/28/2014 22:00	0.0078	--	4/28/2014 22:00	0.0082	--	4/28/2014 22:00	0.0082	--
4/28/2014 23:00	0.0078	--	4/28/2014 23:00	0.0081	--	4/28/2014 23:00	0.0081	--
4/29/2014 0:00	0.0079	0.0068	4/29/2014 0:00	0.0083	0.0081	4/29/2014 0:00	0.0083	0.0082
4/29/2014 1:00	0.0078	--	4/29/2014 1:00	0.0087	--	4/29/2014 1:00	0.0087	--
4/29/2014 2:00	0.0078	--	4/29/2014 2:00	0.0086	--	4/29/2014 2:00	0.0086	--
4/29/2014 3:00	0.0079	--	4/29/2014 3:00	0.0086	--	4/29/2014 3:00	0.0086	--
4/29/2014 4:00	0.0078	--	4/29/2014 4:00	0.0088	--	4/29/2014 4:00	0.0088	--
4/29/2014 5:00	0.0078	--	4/29/2014 5:00	0.0086	--	4/29/2014 5:00	0.0086	--
4/29/2014 6:00	0.0082	--	4/29/2014 6:00	0.0092	--	4/29/2014 6:00	0.0092	--
4/29/2014 7:00	0.0078	--	4/29/2014 7:00	0.0084	--	4/29/2014 7:00	0.0084	--
4/29/2014 8:00	0.0078	--	4/29/2014 8:00	0.0086	--	4/29/2014 8:00	0.0086	--
4/29/2014 9:00	0.0078	--	4/29/2014 9:00	0.0089	--	4/29/2014 9:00	0.0089	--
4/29/2014 10:00	0.0078	--	4/29/2014 10:00	0.0089	--	4/29/2014 10:00	0.0089	--
4/29/2014 11:00	0.0079	--	4/29/2014 11:00	0.0086	--	4/29/2014 11:00	0.0086	--
4/29/2014 12:00	0.0076	--	4/29/2014 12:00	0.0090	--	4/29/2014 12:00	0.0090	--
4/29/2014 13:00	0.0078	--	4/29/2014 13:00	0.0095	--	4/29/2014 13:00	0.0095	--
4/29/2014 14:00	0.0079	--	4/29/2014 14:00	0.0090	--	4/29/2014 14:00	0.0090	--
4/29/2014 15:00	0.0079	--	4/29/2014 15:00	0.0084	--	4/29/2014 15:00	0.0084	--
4/29/2014 16:00	0.0078	--	4/29/2014 16:00	0.0088	--	4/29/2014 16:00	0.0088	--
4/29/2014 17:00	0.0077	--	4/29/2014 17:00	0.0088	--	4/29/2014 17:00	0.0088	--
4/29/2014 18:00	0.0077	--	4/29/2014 18:00	0.0086	--	4/29/2014 18:00	0.0086	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
4/29/2014 19:00	0.0076	--	4/29/2014 19:00	0.0081	--	4/29/2014 19:00	0.0081	--
4/29/2014 20:00	0.0076	--	4/29/2014 20:00	0.0087	--	4/29/2014 20:00	0.0087	--
4/29/2014 21:00	0.0077	--	4/29/2014 21:00	0.0083	--	4/29/2014 21:00	0.0083	--
4/29/2014 22:00	0.0076	--	4/29/2014 22:00	0.0086	--	4/29/2014 22:00	0.0086	--
4/29/2014 23:00	0.0076	--	4/29/2014 23:00	0.0086	--	4/29/2014 23:00	0.0086	--
4/30/2014 0:00	0.0078	0.0068	4/30/2014 0:00	0.0090	0.0081	4/30/2014 0:00	0.0090	0.0082
4/30/2014 1:00	0.0079	--	4/30/2014 1:00	0.0087	--	4/30/2014 1:00	0.0087	--
4/30/2014 2:00	0.0078	--	4/30/2014 2:00	0.0082	--	4/30/2014 2:00	0.0082	--
4/30/2014 3:00	0.0078	--	4/30/2014 3:00	0.0082	--	4/30/2014 3:00	0.0082	--
4/30/2014 4:00	0.0078	--	4/30/2014 4:00	0.0086	--	4/30/2014 4:00	0.0086	--
4/30/2014 5:00	0.0077	--	4/30/2014 5:00	0.0084	--	4/30/2014 5:00	0.0084	--
4/30/2014 6:00	0.0082	--	4/30/2014 6:00	0.0087	--	4/30/2014 6:00	0.0087	--
4/30/2014 7:00	0.0077	--	4/30/2014 7:00	0.0083	--	4/30/2014 7:00	0.0083	--
4/30/2014 8:00	0.0077	--	4/30/2014 8:00	0.0094	--	4/30/2014 8:00	0.0094	--
4/30/2014 9:00	0.0077	--	4/30/2014 9:00	0.0085	--	4/30/2014 9:00	0.0085	--
4/30/2014 10:00	0.0078	--	4/30/2014 10:00	0.0085	--	4/30/2014 10:00	0.0085	--
4/30/2014 11:00	0.0077	--	4/30/2014 11:00	0.0094	--	4/30/2014 11:00	0.0094	--
4/30/2014 12:00	0.0076	--	4/30/2014 12:00	0.0088	--	4/30/2014 12:00	0.0088	--
4/30/2014 13:00	0.0076	--	4/30/2014 13:00	0.0088	--	4/30/2014 13:00	0.0088	--
4/30/2014 14:00	0.0078	--	4/30/2014 14:00	0.0089	--	4/30/2014 14:00	0.0089	--
4/30/2014 15:00	0.0078	--	4/30/2014 15:00	0.0087	--	4/30/2014 15:00	0.0087	--
4/30/2014 16:00	0.0074	--	4/30/2014 16:00	0.0081	--	4/30/2014 16:00	0.0081	--
4/30/2014 17:00	0.0075	--	4/30/2014 17:00	0.0088	--	4/30/2014 17:00	0.0088	--
4/30/2014 18:00	0.0076	--	4/30/2014 18:00	0.0090	--	4/30/2014 18:00	0.0090	--
4/30/2014 19:00	0.0076	--	4/30/2014 19:00	0.0081	--	4/30/2014 19:00	0.0081	--
4/30/2014 20:00	0.0076	--	4/30/2014 20:00	0.0081	--	4/30/2014 20:00	0.0081	--
4/30/2014 21:00	0.0076	--	4/30/2014 21:00	0.0083	--	4/30/2014 21:00	0.0083	--
4/30/2014 22:00	0.0076	--	4/30/2014 22:00	0.0083	--	4/30/2014 22:00	0.0083	--
4/30/2014 23:00	0.0076	--	4/30/2014 23:00	0.0086	--	4/30/2014 23:00	0.0086	--
5/1/2014 0:00	0.0075	0.0069	5/1/2014 0:00	0.0084	0.0082	5/1/2014 0:00	0.0084	0.0082
5/1/2014 1:00	0.0076	--	5/1/2014 1:00	0.0089	--	5/1/2014 1:00	0.0089	--
5/1/2014 2:00	0.0075	--	5/1/2014 2:00	0.0087	--	5/1/2014 2:00	0.0087	--
5/1/2014 3:00	0.0076	--	5/1/2014 3:00	0.0083	--	5/1/2014 3:00	0.0083	--
5/1/2014 4:00	0.0076	--	5/1/2014 4:00	0.0083	--	5/1/2014 4:00	0.0083	--
5/1/2014 5:00	0.0076	--	5/1/2014 5:00	0.0086	--	5/1/2014 5:00	0.0086	--
5/1/2014 6:00	0.0078	--	5/1/2014 6:00	0.0079	--	5/1/2014 6:00	0.0079	--
5/1/2014 7:00	0.0077	--	5/1/2014 7:00	0.0074	--	5/1/2014 7:00	0.0074	--
5/1/2014 8:00	0.0077	--	5/1/2014 8:00	0.0087	--	5/1/2014 8:00	0.0087	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
5/1/2014 9:00	0.0078	--	5/1/2014 9:00	0.0093	--	5/1/2014 9:00	0.0093	--
5/1/2014 10:00	0.0079	--	5/1/2014 10:00	0.0089	--	5/1/2014 10:00	0.0089	--
5/1/2014 11:00	0.0078	--	5/1/2014 11:00	0.0091	--	5/1/2014 11:00	0.0091	--
5/1/2014 12:00	0.0077	--	5/1/2014 12:00	0.0089	--	5/1/2014 12:00	0.0089	--
5/1/2014 13:00	0.0075	--	5/1/2014 13:00	0.0084	--	5/1/2014 13:00	0.0084	--
5/1/2014 14:00	0.0076	--	5/1/2014 14:00	0.0078	--	5/1/2014 14:00	0.0078	--
5/1/2014 15:00	0.0076	--	5/1/2014 15:00	0.0085	--	5/1/2014 15:00	0.0085	--
5/1/2014 16:00	0.0078	--	5/1/2014 16:00	0.0084	--	5/1/2014 16:00	0.0084	--
5/1/2014 17:00	0.0076	--	5/1/2014 17:00	0.0088	--	5/1/2014 17:00	0.0088	--
5/1/2014 18:00	0.0077	--	5/1/2014 18:00	0.0089	--	5/1/2014 18:00	0.0089	--
5/1/2014 19:00	0.0077	--	5/1/2014 19:00	0.0088	--	5/1/2014 19:00	0.0088	--
5/1/2014 20:00	0.0078	--	5/1/2014 20:00	0.0088	--	5/1/2014 20:00	0.0088	--
5/1/2014 21:00	0.0077	--	5/1/2014 21:00	0.0083	--	5/1/2014 21:00	0.0083	--
5/1/2014 22:00	0.0077	--	5/1/2014 22:00	0.0083	--	5/1/2014 22:00	0.0083	--
5/1/2014 23:00	0.0077	--	5/1/2014 23:00	0.0088	--	5/1/2014 23:00	0.0088	--
5/2/2014 0:00	0.0077	0.0069	5/2/2014 0:00	0.0085	0.0082	5/2/2014 0:00	0.0085	0.0082
5/2/2014 1:00	0.0077	--	5/2/2014 1:00	0.0083	--	5/2/2014 1:00	0.0083	--
5/2/2014 2:00	0.0077	--	5/2/2014 2:00	0.0091	--	5/2/2014 2:00	0.0091	--
5/2/2014 3:00	0.0077	--	5/2/2014 3:00	0.0087	--	5/2/2014 3:00	0.0087	--
5/2/2014 4:00	0.0077	--	5/2/2014 4:00	0.0086	--	5/2/2014 4:00	0.0086	--
5/2/2014 5:00	0.0078	--	5/2/2014 5:00	0.0087	--	5/2/2014 5:00	0.0087	--
5/2/2014 6:00	0.0082	--	5/2/2014 6:00	0.0078	--	5/2/2014 6:00	0.0078	--
5/2/2014 7:00	0.0078	--	5/2/2014 7:00	0.0078	--	5/2/2014 7:00	0.0078	--
5/2/2014 8:00	0.0077	--	5/2/2014 8:00	0.0086	--	5/2/2014 8:00	0.0086	--
5/2/2014 9:00	0.0076	--	5/2/2014 9:00	0.0086	--	5/2/2014 9:00	0.0086	--
5/2/2014 10:00	0.0077	--	5/2/2014 10:00	0.0085	--	5/2/2014 10:00	0.0085	--
5/2/2014 11:00	0.0077	--	5/2/2014 11:00	0.0090	--	5/2/2014 11:00	0.0090	--
5/2/2014 12:00	0.0076	--	5/2/2014 12:00	0.0092	--	5/2/2014 12:00	0.0092	--
5/2/2014 13:00	0.0077	--	5/2/2014 13:00	0.0087	--	5/2/2014 13:00	0.0087	--
5/2/2014 14:00	0.0077	--	5/2/2014 14:00	0.0084	--	5/2/2014 14:00	0.0084	--
5/2/2014 15:00	0.0077	--	5/2/2014 15:00	0.0085	--	5/2/2014 15:00	0.0085	--
5/2/2014 16:00	0.0076	--	5/2/2014 16:00	0.0088	--	5/2/2014 16:00	0.0088	--
5/2/2014 17:00	0.0077	--	5/2/2014 17:00	0.0088	--	5/2/2014 17:00	0.0088	--
5/2/2014 18:00	0.0076	--	5/2/2014 18:00	0.0084	--	5/2/2014 18:00	0.0084	--
5/2/2014 19:00	0.0076	--	5/2/2014 19:00	0.0088	--	5/2/2014 19:00	0.0088	--
5/2/2014 20:00	0.0076	--	5/2/2014 20:00	0.0085	--	5/2/2014 20:00	0.0085	--
5/2/2014 21:00	0.0075	--	5/2/2014 21:00	0.0087	--	5/2/2014 21:00	0.0087	--
5/2/2014 22:00	0.0076	--	5/2/2014 22:00	0.0091	--	5/2/2014 22:00	0.0091	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
5/2/2014 23:00	0.0077	--	5/2/2014 23:00	0.0086	--	5/2/2014 23:00	0.0086	--
5/3/2014 0:00	0.0075	0.0069	5/3/2014 0:00	0.0081	0.0082	5/3/2014 0:00	0.0081	0.0082
5/3/2014 1:00	0.0077	--	5/3/2014 1:00	0.0084	--	5/3/2014 1:00	0.0084	--
5/3/2014 2:00	0.0078	--	5/3/2014 2:00	0.0086	--	5/3/2014 2:00	0.0086	--
5/3/2014 3:00	0.0076	--	5/3/2014 3:00	0.0086	--	5/3/2014 3:00	0.0086	--
5/3/2014 4:00	0.0078	--	5/3/2014 4:00	0.0075	--	5/3/2014 4:00	0.0075	--
5/3/2014 5:00	0.0078	--	5/3/2014 5:00	0.0076	--	5/3/2014 5:00	0.0076	--
5/3/2014 6:00	0.0077	--	5/3/2014 6:00	0.0104	--	5/3/2014 6:00	0.0104	--
5/3/2014 7:00	0.0077	--	5/3/2014 7:00	0.0085	--	5/3/2014 7:00	0.0085	--
5/3/2014 8:00	0.0079	--	5/3/2014 8:00	0.0090	--	5/3/2014 8:00	0.0090	--
5/3/2014 9:00	0.0080	--	5/3/2014 9:00	0.0092	--	5/3/2014 9:00	0.0092	--
5/3/2014 10:00	0.0079	--	5/3/2014 10:00	0.0089	--	5/3/2014 10:00	0.0089	--
5/3/2014 11:00	0.0078	--	5/3/2014 11:00	0.0088	--	5/3/2014 11:00	0.0088	--
5/3/2014 12:00	0.0079	--	5/3/2014 12:00	0.0086	--	5/3/2014 12:00	0.0086	--
5/3/2014 13:00	0.0078	--	5/3/2014 13:00	0.0083	--	5/3/2014 13:00	0.0083	--
5/3/2014 14:00	0.0078	--	5/3/2014 14:00	0.0083	--	5/3/2014 14:00	0.0083	--
5/3/2014 15:00	0.0077	--	5/3/2014 15:00	0.0086	--	5/3/2014 15:00	0.0086	--
5/3/2014 16:00	0.0078	--	5/3/2014 16:00	0.0085	--	5/3/2014 16:00	0.0085	--
5/3/2014 17:00	0.0078	--	5/3/2014 17:00	0.0085	--	5/3/2014 17:00	0.0085	--
5/3/2014 18:00	0.0076	--	5/3/2014 18:00	0.0087	--	5/3/2014 18:00	0.0087	--
5/3/2014 19:00	0.0073	--	5/3/2014 19:00	0.0083	--	5/3/2014 19:00	0.0083	--
5/3/2014 20:00	0.0072	--	5/3/2014 20:00	0.0081	--	5/3/2014 20:00	0.0081	--
5/3/2014 21:00	0.0074	--	5/3/2014 21:00	0.0083	--	5/3/2014 21:00	0.0083	--
5/3/2014 22:00	0.0075	--	5/3/2014 22:00	0.0082	--	5/3/2014 22:00	0.0082	--
5/3/2014 23:00	0.0075	--	5/3/2014 23:00	0.0081	--	5/3/2014 23:00	0.0081	--
5/4/2014 0:00	0.0076	0.0070	5/4/2014 0:00	0.0083	0.0082	5/4/2014 0:00	0.0083	0.0083
5/4/2014 1:00	0.0077	--	5/4/2014 1:00	0.0085	--	5/4/2014 1:00	0.0085	--
5/4/2014 2:00	0.0077	--	5/4/2014 2:00	0.0083	--	5/4/2014 2:00	0.0083	--
5/4/2014 3:00	0.0077	--	5/4/2014 3:00	0.0086	--	5/4/2014 3:00	0.0086	--
5/4/2014 4:00	0.0077	--	5/4/2014 4:00	0.0086	--	5/4/2014 4:00	0.0086	--
5/4/2014 5:00	0.0077	--	5/4/2014 5:00	0.0088	--	5/4/2014 5:00	0.0088	--
5/4/2014 6:00	0.0082	--	5/4/2014 6:00	0.0089	--	5/4/2014 6:00	0.0089	--
5/4/2014 7:00	0.0077	--	5/4/2014 7:00	0.0088	--	5/4/2014 7:00	0.0088	--
5/4/2014 8:00	0.0078	--	5/4/2014 8:00	0.0084	--	5/4/2014 8:00	0.0084	--
5/4/2014 9:00	0.0080	--	5/4/2014 9:00	0.0091	--	5/4/2014 9:00	0.0091	--
5/4/2014 10:00	0.0081	--	5/4/2014 10:00	0.0088	--	5/4/2014 10:00	0.0088	--
5/4/2014 11:00	0.0079	--	5/4/2014 11:00	0.0087	--	5/4/2014 11:00	0.0087	--
5/4/2014 12:00	0.0078	--	5/4/2014 12:00	0.0085	--	5/4/2014 12:00	0.0085	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
5/4/2014 13:00	0.0080	--	5/4/2014 13:00	0.0089	--	5/4/2014 13:00	0.0089	--
5/4/2014 14:00	0.0078	--	5/4/2014 14:00	0.0083	--	5/4/2014 14:00	0.0083	--
5/4/2014 15:00	0.0078	--	5/4/2014 15:00	0.0083	--	5/4/2014 15:00	0.0083	--
5/4/2014 16:00	0.0077	--	5/4/2014 16:00	0.0082	--	5/4/2014 16:00	0.0082	--
5/4/2014 17:00	0.0077	--	5/4/2014 17:00	0.0087	--	5/4/2014 17:00	0.0087	--
5/4/2014 18:00	0.0077	--	5/4/2014 18:00	0.0089	--	5/4/2014 18:00	0.0089	--
5/4/2014 19:00	0.0076	--	5/4/2014 19:00	0.0083	--	5/4/2014 19:00	0.0083	--
5/4/2014 20:00	0.0076	--	5/4/2014 20:00	0.0080	--	5/4/2014 20:00	0.0080	--
5/4/2014 21:00	0.0074	--	5/4/2014 21:00	0.0079	--	5/4/2014 21:00	0.0079	--
5/4/2014 22:00	0.0074	--	5/4/2014 22:00	0.0077	--	5/4/2014 22:00	0.0077	--
5/4/2014 23:00	0.0075	--	5/4/2014 23:00	0.0085	--	5/4/2014 23:00	0.0085	--
5/5/2014 0:00	0.0076	0.0070	5/5/2014 0:00	0.0082	0.0082	5/5/2014 0:00	0.0082	0.0083
5/5/2014 1:00	0.0076	--	5/5/2014 1:00	0.0082	--	5/5/2014 1:00	0.0082	--
5/5/2014 2:00	0.0077	--	5/5/2014 2:00	0.0083	--	5/5/2014 2:00	0.0083	--
5/5/2014 3:00	0.0076	--	5/5/2014 3:00	0.0087	--	5/5/2014 3:00	0.0087	--
5/5/2014 4:00	0.0076	--	5/5/2014 4:00	0.0092	--	5/5/2014 4:00	0.0092	--
5/5/2014 5:00	0.0077	--	5/5/2014 5:00	0.0089	--	5/5/2014 5:00	0.0089	--
5/5/2014 6:00	0.0075	--	5/5/2014 6:00	0.0097	--	5/5/2014 6:00	0.0097	--
5/5/2014 7:00	DOWNTIME	--	5/5/2014 7:00	0.0088	--	5/5/2014 7:00	0.0088	--
5/5/2014 8:00	0.0738	--	5/5/2014 8:00	0.0095	--	5/5/2014 8:00	0.0095	--
5/5/2014 9:00	0.0084	--	5/5/2014 9:00	0.0082	--	5/5/2014 9:00	0.0082	--
5/5/2014 10:00	0.0077	--	5/5/2014 10:00	0.0086	--	5/5/2014 10:00	0.0086	--
5/5/2014 11:00	0.0078	--	5/5/2014 11:00	0.0087	--	5/5/2014 11:00	0.0087	--
5/5/2014 12:00	DOWNTIME	--	5/5/2014 12:00	0.0085	--	5/5/2014 12:00	0.0085	--
5/5/2014 13:00	DOWNTIME	--	5/5/2014 13:00	0.0081	--	5/5/2014 13:00	0.0081	--
5/5/2014 14:00	0.0059	--	5/5/2014 14:00	0.0077	--	5/5/2014 14:00	0.0077	--
5/5/2014 15:00	0.0042	--	5/5/2014 15:00	0.0089	--	5/5/2014 15:00	0.0089	--
5/5/2014 16:00	0.0041	--	5/5/2014 16:00	0.0082	--	5/5/2014 16:00	0.0082	--
5/5/2014 17:00	0.0042	--	5/5/2014 17:00	0.0082	--	5/5/2014 17:00	0.0082	--
5/5/2014 18:00	0.0045	--	5/5/2014 18:00	0.0089	--	5/5/2014 18:00	0.0089	--
5/5/2014 19:00	0.0061	--	5/5/2014 19:00	0.0086	--	5/5/2014 19:00	0.0086	--
5/5/2014 20:00	0.0065	--	5/5/2014 20:00	0.0086	--	5/5/2014 20:00	0.0086	--
5/5/2014 21:00	0.0074	--	5/5/2014 21:00	0.0088	--	5/5/2014 21:00	0.0088	--
5/5/2014 22:00	0.0075	--	5/5/2014 22:00	0.0103	--	5/5/2014 22:00	0.0103	--
5/5/2014 23:00	0.0074	--	5/5/2014 23:00	0.0089	--	5/5/2014 23:00	0.0089	--
5/6/2014 0:00	0.0080	0.0071	5/6/2014 0:00	0.0086	0.0082	5/6/2014 0:00	0.0086	0.0083
5/6/2014 1:00	0.0072	--	5/6/2014 1:00	0.0086	--	5/6/2014 1:00	0.0086	--
5/6/2014 2:00	0.0084	--	5/6/2014 2:00	0.0086	--	5/6/2014 2:00	0.0086	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
5/6/2014 3:00	0.0087	--	5/6/2014 3:00	0.0083	--	5/6/2014 3:00	0.0083	--
5/6/2014 4:00	0.0099	--	5/6/2014 4:00	0.0083	--	5/6/2014 4:00	0.0083	--
5/6/2014 5:00	0.0095	--	5/6/2014 5:00	0.0082	--	5/6/2014 5:00	0.0082	--
5/6/2014 6:00	0.0087	--	5/6/2014 6:00	0.0098	--	5/6/2014 6:00	0.0098	--
5/6/2014 7:00	0.0078	--	5/6/2014 7:00	0.0087	--	5/6/2014 7:00	0.0087	--
5/6/2014 8:00	0.0077	--	5/6/2014 8:00	0.0088	--	5/6/2014 8:00	0.0088	--
5/6/2014 9:00	0.0077	--	5/6/2014 9:00	DOWNTIME	--	5/6/2014 9:00	0.1263	--
5/6/2014 10:00	0.0076	--	5/6/2014 10:00	0.0437	--	5/6/2014 10:00	DOWNTIME	--
5/6/2014 11:00	0.0073	--	5/6/2014 11:00	0.0089	--	5/6/2014 11:00	0.0089	--
5/6/2014 12:00	0.0046	--	5/6/2014 12:00	0.0096	--	5/6/2014 12:00	0.0096	--
5/6/2014 13:00	0.0049	--	5/6/2014 13:00	0.0107	--	5/6/2014 13:00	0.0107	--
5/6/2014 14:00	0.0093	--	5/6/2014 14:00	0.0047	--	5/6/2014 14:00	0.0047	--
5/6/2014 15:00	0.0066	--	5/6/2014 15:00	0.0065	--	5/6/2014 15:00	0.0065	--
5/6/2014 16:00	0.0073	--	5/6/2014 16:00	0.0079	--	5/6/2014 16:00	0.0079	--
5/6/2014 17:00	0.0075	--	5/6/2014 17:00	0.0086	--	5/6/2014 17:00	0.0086	--
5/6/2014 18:00	0.0075	--	5/6/2014 18:00	0.0086	--	5/6/2014 18:00	0.0086	--
5/6/2014 19:00	0.0075	--	5/6/2014 19:00	0.0080	--	5/6/2014 19:00	0.0080	--
5/6/2014 20:00	0.0075	--	5/6/2014 20:00	0.0085	--	5/6/2014 20:00	0.0085	--
5/6/2014 21:00	0.0075	--	5/6/2014 21:00	0.0084	--	5/6/2014 21:00	0.0084	--
5/6/2014 22:00	0.0075	--	5/6/2014 22:00	0.0087	--	5/6/2014 22:00	0.0087	--
5/6/2014 23:00	0.0076	--	5/6/2014 23:00	0.0086	--	5/6/2014 23:00	0.0086	--
5/7/2014 0:00	0.0075	0.0071	5/7/2014 0:00	0.0088	0.0083	5/7/2014 0:00	0.0088	0.0084
5/7/2014 1:00	0.0076	--	5/7/2014 1:00	0.0083	--	5/7/2014 1:00	0.0083	--
5/7/2014 2:00	0.0076	--	5/7/2014 2:00	0.0086	--	5/7/2014 2:00	0.0086	--
5/7/2014 3:00	0.0076	--	5/7/2014 3:00	0.0086	--	5/7/2014 3:00	0.0086	--
5/7/2014 4:00	0.0076	--	5/7/2014 4:00	0.0086	--	5/7/2014 4:00	0.0086	--
5/7/2014 5:00	0.0076	--	5/7/2014 5:00	0.0088	--	5/7/2014 5:00	0.0088	--
5/7/2014 6:00	0.0082	--	5/7/2014 6:00	0.0083	--	5/7/2014 6:00	0.0083	--
5/7/2014 7:00	0.0077	--	5/7/2014 7:00	0.0085	--	5/7/2014 7:00	0.0085	--
5/7/2014 8:00	0.0077	--	5/7/2014 8:00	0.0091	--	5/7/2014 8:00	0.0091	--
5/7/2014 9:00	0.0078	--	5/7/2014 9:00	0.0082	--	5/7/2014 9:00	0.0082	--
5/7/2014 10:00	0.0057	--	5/7/2014 10:00	0.0074	--	5/7/2014 10:00	0.0074	--
5/7/2014 11:00	0.0079	--	5/7/2014 11:00	0.0089	--	5/7/2014 11:00	0.0089	--
5/7/2014 12:00	0.0077	--	5/7/2014 12:00	0.0087	--	5/7/2014 12:00	0.0087	--
5/7/2014 13:00	0.0068	--	5/7/2014 13:00	0.0076	--	5/7/2014 13:00	0.0076	--
5/7/2014 14:00	0.0059	--	5/7/2014 14:00	0.0077	--	5/7/2014 14:00	0.0077	--
5/7/2014 15:00	0.0061	--	5/7/2014 15:00	0.0083	--	5/7/2014 15:00	0.0083	--
5/7/2014 16:00	0.0063	--	5/7/2014 16:00	0.0086	--	5/7/2014 16:00	0.0086	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
5/7/2014 17:00	0.0058	--	5/7/2014 17:00	0.0083	--	5/7/2014 17:00	0.0083	--
5/7/2014 18:00	0.0062	--	5/7/2014 18:00	0.0082	--	5/7/2014 18:00	0.0082	--
5/7/2014 19:00	0.0065	--	5/7/2014 19:00	0.0083	--	5/7/2014 19:00	0.0083	--
5/7/2014 20:00	0.0071	--	5/7/2014 20:00	0.0082	--	5/7/2014 20:00	0.0082	--
5/7/2014 21:00	0.0072	--	5/7/2014 21:00	0.0088	--	5/7/2014 21:00	0.0088	--
5/7/2014 22:00	0.0070	--	5/7/2014 22:00	0.0086	--	5/7/2014 22:00	0.0086	--
5/7/2014 23:00	0.0068	--	5/7/2014 23:00	0.0084	--	5/7/2014 23:00	0.0084	--
5/8/2014 0:00	0.0070	0.0071	5/8/2014 0:00	0.0088	0.0083	5/8/2014 0:00	0.0088	0.0085
5/8/2014 1:00	0.0071	--	5/8/2014 1:00	0.0089	--	5/8/2014 1:00	0.0089	--
5/8/2014 2:00	0.0073	--	5/8/2014 2:00	0.0074	--	5/8/2014 2:00	0.0074	--
5/8/2014 3:00	0.0078	--	5/8/2014 3:00	0.0088	--	5/8/2014 3:00	0.0088	--
5/8/2014 4:00	0.0073	--	5/8/2014 4:00	0.0087	--	5/8/2014 4:00	0.0087	--
5/8/2014 5:00	0.0075	--	5/8/2014 5:00	0.0090	--	5/8/2014 5:00	0.0090	--
5/8/2014 6:00	0.0077	--	5/8/2014 6:00	0.0076	--	5/8/2014 6:00	0.0076	--
5/8/2014 7:00	0.0076	--	5/8/2014 7:00	0.0082	--	5/8/2014 7:00	0.0082	--
5/8/2014 8:00	0.0072	--	5/8/2014 8:00	0.0088	--	5/8/2014 8:00	0.0088	--
5/8/2014 9:00	0.0067	--	5/8/2014 9:00	0.0089	--	5/8/2014 9:00	0.0089	--
5/8/2014 10:00	0.0055	--	5/8/2014 10:00	0.0093	--	5/8/2014 10:00	0.0093	--
5/8/2014 11:00	0.0057	--	5/8/2014 11:00	0.0085	--	5/8/2014 11:00	0.0085	--
5/8/2014 12:00	0.0057	--	5/8/2014 12:00	0.0090	--	5/8/2014 12:00	0.0090	--
5/8/2014 13:00	0.0063	--	5/8/2014 13:00	0.0085	--	5/8/2014 13:00	0.0085	--
5/8/2014 14:00	0.0065	--	5/8/2014 14:00	0.0086	--	5/8/2014 14:00	0.0086	--
5/8/2014 15:00	0.0060	--	5/8/2014 15:00	0.0091	--	5/8/2014 15:00	0.0091	--
5/8/2014 16:00	0.0060	--	5/8/2014 16:00	0.0087	--	5/8/2014 16:00	0.0087	--
5/8/2014 17:00	0.0060	--	5/8/2014 17:00	0.0086	--	5/8/2014 17:00	0.0086	--
5/8/2014 18:00	0.0062	--	5/8/2014 18:00	0.0083	--	5/8/2014 18:00	0.0083	--
5/8/2014 19:00	0.0060	--	5/8/2014 19:00	0.0085	--	5/8/2014 19:00	0.0085	--
5/8/2014 20:00	0.0060	--	5/8/2014 20:00	0.0086	--	5/8/2014 20:00	0.0086	--
5/8/2014 21:00	0.0061	--	5/8/2014 21:00	0.0087	--	5/8/2014 21:00	0.0087	--
5/8/2014 22:00	0.0060	--	5/8/2014 22:00	0.0086	--	5/8/2014 22:00	0.0086	--
5/8/2014 23:00	0.0061	--	5/8/2014 23:00	0.0088	--	5/8/2014 23:00	0.0088	--
5/9/2014 0:00	0.0059	0.0071	5/9/2014 0:00	0.0085	0.0083	5/9/2014 0:00	0.0085	0.0085
5/9/2014 1:00	0.0064	--	5/9/2014 1:00	0.0086	--	5/9/2014 1:00	0.0086	--
5/9/2014 2:00	0.0064	--	5/9/2014 2:00	0.0088	--	5/9/2014 2:00	0.0088	--
5/9/2014 3:00	0.0063	--	5/9/2014 3:00	0.0086	--	5/9/2014 3:00	0.0086	--
5/9/2014 4:00	0.0061	--	5/9/2014 4:00	0.0090	--	5/9/2014 4:00	0.0090	--
5/9/2014 5:00	0.0062	--	5/9/2014 5:00	0.0086	--	5/9/2014 5:00	0.0086	--
5/9/2014 6:00	0.0064	--	5/9/2014 6:00	0.0081	--	5/9/2014 6:00	0.0081	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
5/9/2014 7:00	0.0066	--	5/9/2014 7:00	0.0085	--	5/9/2014 7:00	0.0085	--
5/9/2014 8:00	0.0069	--	5/9/2014 8:00	0.0085	--	5/9/2014 8:00	0.0085	--
5/9/2014 9:00	0.0066	--	5/9/2014 9:00	0.0089	--	5/9/2014 9:00	0.0089	--
5/9/2014 10:00	0.0064	--	5/9/2014 10:00	0.0093	--	5/9/2014 10:00	0.0093	--
5/9/2014 11:00	0.0061	--	5/9/2014 11:00	0.0092	--	5/9/2014 11:00	0.0092	--
5/9/2014 12:00	0.0060	--	5/9/2014 12:00	0.0087	--	5/9/2014 12:00	0.0087	--
5/9/2014 13:00	0.0060	--	5/9/2014 13:00	0.0089	--	5/9/2014 13:00	0.0089	--
5/9/2014 14:00	0.0066	--	5/9/2014 14:00	0.0086	--	5/9/2014 14:00	0.0086	--
5/9/2014 15:00	0.0070	--	5/9/2014 15:00	0.0089	--	5/9/2014 15:00	0.0089	--
5/9/2014 16:00	0.0078	--	5/9/2014 16:00	0.0087	--	5/9/2014 16:00	0.0087	--
5/9/2014 17:00	0.0076	--	5/9/2014 17:00	0.0085	--	5/9/2014 17:00	0.0085	--
5/9/2014 18:00	0.0076	--	5/9/2014 18:00	0.0077	--	5/9/2014 18:00	0.0077	--
5/9/2014 19:00	0.0077	--	5/9/2014 19:00	0.0075	--	5/9/2014 19:00	0.0075	--
5/9/2014 20:00	0.0077	--	5/9/2014 20:00	0.0093	--	5/9/2014 20:00	0.0093	--
5/9/2014 21:00	0.0077	--	5/9/2014 21:00	0.0091	--	5/9/2014 21:00	0.0091	--
5/9/2014 22:00	0.0078	--	5/9/2014 22:00	0.0080	--	5/9/2014 22:00	0.0080	--
5/9/2014 23:00	0.0077	--	5/9/2014 23:00	0.0083	--	5/9/2014 23:00	0.0083	--
5/10/2014 0:00	0.0076	0.0072	5/10/2014 0:00	0.0080	0.0084	5/10/2014 0:00	0.0080	0.0085
5/10/2014 1:00	0.0076	--	5/10/2014 1:00	0.0089	--	5/10/2014 1:00	0.0089	--
5/10/2014 2:00	0.0077	--	5/10/2014 2:00	0.0084	--	5/10/2014 2:00	0.0084	--
5/10/2014 3:00	0.0075	--	5/10/2014 3:00	0.0087	--	5/10/2014 3:00	0.0087	--
5/10/2014 4:00	0.0076	--	5/10/2014 4:00	0.0081	--	5/10/2014 4:00	0.0081	--
5/10/2014 5:00	0.0077	--	5/10/2014 5:00	0.0088	--	5/10/2014 5:00	0.0088	--
5/10/2014 6:00	0.0080	--	5/10/2014 6:00	0.0084	--	5/10/2014 6:00	0.0084	--
5/10/2014 7:00	0.0076	--	5/10/2014 7:00	0.0086	--	5/10/2014 7:00	0.0086	--
5/10/2014 8:00	0.0077	--	5/10/2014 8:00	0.0085	--	5/10/2014 8:00	0.0085	--
5/10/2014 9:00	0.0071	--	5/10/2014 9:00	0.0080	--	5/10/2014 9:00	0.0080	--
5/10/2014 10:00	0.0062	--	5/10/2014 10:00	0.0091	--	5/10/2014 10:00	0.0091	--
5/10/2014 11:00	0.0058	--	5/10/2014 11:00	0.0092	--	5/10/2014 11:00	0.0092	--
5/10/2014 12:00	0.0055	--	5/10/2014 12:00	0.0088	--	5/10/2014 12:00	0.0088	--
5/10/2014 13:00	0.0052	--	5/10/2014 13:00	0.0086	--	5/10/2014 13:00	0.0086	--
5/10/2014 14:00	0.0053	--	5/10/2014 14:00	0.0082	--	5/10/2014 14:00	0.0082	--
5/10/2014 15:00	0.0047	--	5/10/2014 15:00	0.0090	--	5/10/2014 15:00	0.0090	--
5/10/2014 16:00	0.0048	--	5/10/2014 16:00	0.0091	--	5/10/2014 16:00	0.0091	--
5/10/2014 17:00	0.0050	--	5/10/2014 17:00	0.0090	--	5/10/2014 17:00	0.0090	--
5/10/2014 18:00	0.0052	--	5/10/2014 18:00	0.0085	--	5/10/2014 18:00	0.0085	--
5/10/2014 19:00	0.0059	--	5/10/2014 19:00	0.0084	--	5/10/2014 19:00	0.0084	--
5/10/2014 20:00	0.0066	--	5/10/2014 20:00	0.0081	--	5/10/2014 20:00	0.0081	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
5/10/2014 21:00	0.0064	--	5/10/2014 21:00	0.0083	--	5/10/2014 21:00	0.0083	--
5/10/2014 22:00	0.0059	--	5/10/2014 22:00	0.0086	--	5/10/2014 22:00	0.0086	--
5/10/2014 23:00	0.0063	--	5/10/2014 23:00	0.0088	--	5/10/2014 23:00	0.0088	--
5/11/2014 0:00	0.0061	0.0073	5/11/2014 0:00	0.0085	0.0086	5/11/2014 0:00	0.0085	0.0086
5/11/2014 1:00	0.0062	--	5/11/2014 1:00	0.0087	--	5/11/2014 1:00	0.0087	--
5/11/2014 2:00	0.0065	--	5/11/2014 2:00	0.0087	--	5/11/2014 2:00	0.0087	--
5/11/2014 3:00	0.0065	--	5/11/2014 3:00	0.0086	--	5/11/2014 3:00	0.0086	--
5/11/2014 4:00	0.0068	--	5/11/2014 4:00	0.0086	--	5/11/2014 4:00	0.0086	--
5/11/2014 5:00	0.0068	--	5/11/2014 5:00	0.0086	--	5/11/2014 5:00	0.0086	--
5/11/2014 6:00	0.0069	--	5/11/2014 6:00	0.0083	--	5/11/2014 6:00	0.0083	--
5/11/2014 7:00	0.0066	--	5/11/2014 7:00	0.0087	--	5/11/2014 7:00	0.0087	--
5/11/2014 8:00	0.0062	--	5/11/2014 8:00	0.0090	--	5/11/2014 8:00	0.0090	--
5/11/2014 9:00	0.0060	--	5/11/2014 9:00	0.0092	--	5/11/2014 9:00	0.0092	--
5/11/2014 10:00	0.0063	--	5/11/2014 10:00	0.0091	--	5/11/2014 10:00	0.0091	--
5/11/2014 11:00	0.0061	--	5/11/2014 11:00	0.0089	--	5/11/2014 11:00	0.0089	--
5/11/2014 12:00	0.0053	--	5/11/2014 12:00	0.0093	--	5/11/2014 12:00	0.0093	--
5/11/2014 13:00	0.0047	--	5/11/2014 13:00	0.0087	--	5/11/2014 13:00	0.0087	--
5/11/2014 14:00	0.0052	--	5/11/2014 14:00	0.0090	--	5/11/2014 14:00	0.0090	--
5/11/2014 15:00	0.0057	--	5/11/2014 15:00	0.0087	--	5/11/2014 15:00	0.0087	--
5/11/2014 16:00	0.0055	--	5/11/2014 16:00	0.0082	--	5/11/2014 16:00	0.0082	--
5/11/2014 17:00	0.0053	--	5/11/2014 17:00	0.0085	--	5/11/2014 17:00	0.0085	--
5/11/2014 18:00	0.0053	--	5/11/2014 18:00	0.0089	--	5/11/2014 18:00	0.0089	--
5/11/2014 19:00	0.0057	--	5/11/2014 19:00	0.0083	--	5/11/2014 19:00	0.0083	--
5/11/2014 20:00	0.0060	--	5/11/2014 20:00	0.0084	--	5/11/2014 20:00	0.0084	--
5/11/2014 21:00	0.0061	--	5/11/2014 21:00	0.0089	--	5/11/2014 21:00	0.0089	--
5/11/2014 22:00	0.0061	--	5/11/2014 22:00	0.0087	--	5/11/2014 22:00	0.0087	--
5/11/2014 23:00	0.0061	--	5/11/2014 23:00	0.0085	--	5/11/2014 23:00	0.0085	--
5/12/2014 0:00	0.0060	0.0074	5/12/2014 0:00	0.0085	0.0086	5/12/2014 0:00	0.0085	0.0088
5/12/2014 1:00	0.0061	--	5/12/2014 1:00	0.0089	--	5/12/2014 1:00	0.0089	--
5/12/2014 2:00	0.0064	--	5/12/2014 2:00	0.0088	--	5/12/2014 2:00	0.0088	--
5/12/2014 3:00	0.0062	--	5/12/2014 3:00	0.0092	--	5/12/2014 3:00	0.0092	--
5/12/2014 4:00	0.0064	--	5/12/2014 4:00	0.0087	--	5/12/2014 4:00	0.0087	--
5/12/2014 5:00	0.0063	--	5/12/2014 5:00	0.0088	--	5/12/2014 5:00	0.0088	--
5/12/2014 6:00	0.0061	--	5/12/2014 6:00	0.0091	--	5/12/2014 6:00	0.0091	--
5/12/2014 7:00	0.0057	--	5/12/2014 7:00	0.0089	--	5/12/2014 7:00	0.0089	--
5/12/2014 8:00	0.0061	--	5/12/2014 8:00	0.0085	--	5/12/2014 8:00	0.0085	--
5/12/2014 9:00	0.0060	--	5/12/2014 9:00	0.0090	--	5/12/2014 9:00	0.0090	--
5/12/2014 10:00	0.0057	--	5/12/2014 10:00	0.0088	--	5/12/2014 10:00	0.0088	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
5/12/2014 11:00	0.0054	--	5/12/2014 11:00	0.0087	--	5/12/2014 11:00	0.0087	--
5/12/2014 12:00	0.0051	--	5/12/2014 12:00	0.0088	--	5/12/2014 12:00	0.0088	--
5/12/2014 13:00	0.0054	--	5/12/2014 13:00	0.0088	--	5/12/2014 13:00	0.0088	--
5/12/2014 14:00	0.0055	--	5/12/2014 14:00	0.0087	--	5/12/2014 14:00	0.0087	--
5/12/2014 15:00	0.0059	--	5/12/2014 15:00	0.0087	--	5/12/2014 15:00	0.0087	--
5/12/2014 16:00	0.0059	--	5/12/2014 16:00	0.0088	--	5/12/2014 16:00	0.0088	--
5/12/2014 17:00	0.0063	--	5/12/2014 17:00	0.0089	--	5/12/2014 17:00	0.0089	--
5/12/2014 18:00	0.0063	--	5/12/2014 18:00	0.0089	--	5/12/2014 18:00	0.0089	--
5/12/2014 19:00	0.0065	--	5/12/2014 19:00	0.0086	--	5/12/2014 19:00	0.0086	--
5/12/2014 20:00	0.0063	--	5/12/2014 20:00	0.0087	--	5/12/2014 20:00	0.0087	--
5/12/2014 21:00	0.0062	--	5/12/2014 21:00	0.0087	--	5/12/2014 21:00	0.0087	--
5/12/2014 22:00	0.0058	--	5/12/2014 22:00	0.0087	--	5/12/2014 22:00	0.0087	--
5/12/2014 23:00	0.0057	--	5/12/2014 23:00	0.0086	--	5/12/2014 23:00	0.0086	--
5/13/2014 0:00	0.0058	0.0074	5/13/2014 0:00	0.0086	0.0086	5/13/2014 0:00	0.0086	0.0087
5/13/2014 1:00	0.0061	--	5/13/2014 1:00	0.0087	--	5/13/2014 1:00	0.0087	--
5/13/2014 2:00	0.0074	--	5/13/2014 2:00	0.0077	--	5/13/2014 2:00	0.0077	--
5/13/2014 3:00	0.0076	--	5/13/2014 3:00	0.0085	--	5/13/2014 3:00	0.0085	--
5/13/2014 4:00	0.0077	--	5/13/2014 4:00	0.0070	--	5/13/2014 4:00	0.0070	--
5/13/2014 5:00	0.0077	--	5/13/2014 5:00	0.0073	--	5/13/2014 5:00	0.0073	--
5/13/2014 6:00	0.0081	--	5/13/2014 6:00	0.0087	--	5/13/2014 6:00	0.0087	--
5/13/2014 7:00	0.0078	--	5/13/2014 7:00	0.0094	--	5/13/2014 7:00	0.0094	--
5/13/2014 8:00	0.0077	--	5/13/2014 8:00	DOWNTIME	--	5/13/2014 8:00	0.0936	--
5/13/2014 9:00	0.0079	--	5/13/2014 9:00	0.0407	--	5/13/2014 9:00	0.0407	--
5/13/2014 10:00	0.0078	--	5/13/2014 10:00	0.0077	--	5/13/2014 10:00	0.0077	--
5/13/2014 11:00	0.0078	--	5/13/2014 11:00	0.0085	--	5/13/2014 11:00	0.0085	--
5/13/2014 12:00	0.0076	--	5/13/2014 12:00	0.0087	--	5/13/2014 12:00	0.0087	--
5/13/2014 13:00	0.0076	--	5/13/2014 13:00	0.0092	--	5/13/2014 13:00	0.0092	--
5/13/2014 14:00	0.0076	--	5/13/2014 14:00	0.0089	--	5/13/2014 14:00	0.0089	--
5/13/2014 15:00	0.0076	--	5/13/2014 15:00	0.0085	--	5/13/2014 15:00	0.0085	--
5/13/2014 16:00	0.0077	--	5/13/2014 16:00	0.0088	--	5/13/2014 16:00	0.0088	--
5/13/2014 17:00	0.0078	--	5/13/2014 17:00	0.0087	--	5/13/2014 17:00	0.0087	--
5/13/2014 18:00	0.0077	--	5/13/2014 18:00	0.0091	--	5/13/2014 18:00	0.0091	--
5/13/2014 19:00	0.0077	--	5/13/2014 19:00	0.0085	--	5/13/2014 19:00	0.0085	--
5/13/2014 20:00	0.0077	--	5/13/2014 20:00	0.0084	--	5/13/2014 20:00	0.0084	--
5/13/2014 21:00	0.0077	--	5/13/2014 21:00	0.0083	--	5/13/2014 21:00	0.0083	--
5/13/2014 22:00	0.0076	--	5/13/2014 22:00	0.0088	--	5/13/2014 22:00	0.0088	--
5/13/2014 23:00	0.0075	--	5/13/2014 23:00	0.0094	--	5/13/2014 23:00	0.0094	--
5/14/2014 0:00	0.0078	0.0074	5/14/2014 0:00	0.0078	0.0087	5/14/2014 0:00	0.0078	0.0089

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
5/14/2014 1:00	0.0077	--	5/14/2014 1:00	0.0082	--	5/14/2014 1:00	0.0082	--
5/14/2014 2:00	0.0077	--	5/14/2014 2:00	0.0089	--	5/14/2014 2:00	0.0089	--
5/14/2014 3:00	0.0077	--	5/14/2014 3:00	0.0090	--	5/14/2014 3:00	0.0090	--
5/14/2014 4:00	0.0077	--	5/14/2014 4:00	0.0087	--	5/14/2014 4:00	0.0087	--
5/14/2014 5:00	0.0077	--	5/14/2014 5:00	0.0087	--	5/14/2014 5:00	0.0087	--
5/14/2014 6:00	0.0079	--	5/14/2014 6:00	0.0104	--	5/14/2014 6:00	0.0104	--
5/14/2014 7:00	0.0077	--	5/14/2014 7:00	0.0093	--	5/14/2014 7:00	0.0093	--
5/14/2014 8:00	0.0078	--	5/14/2014 8:00	0.0087	--	5/14/2014 8:00	0.0087	--
5/14/2014 9:00	0.0078	--	5/14/2014 9:00	0.0088	--	5/14/2014 9:00	0.0088	--
5/14/2014 10:00	0.0077	--	5/14/2014 10:00	0.0091	--	5/14/2014 10:00	0.0091	--
5/14/2014 11:00	0.0077	--	5/14/2014 11:00	0.0092	--	5/14/2014 11:00	0.0092	--
5/14/2014 12:00	0.0078	--	5/14/2014 12:00	0.0082	--	5/14/2014 12:00	0.0082	--
5/14/2014 13:00	0.0069	--	5/14/2014 13:00	0.0089	--	5/14/2014 13:00	0.0089	--
5/14/2014 14:00	0.0070	--	5/14/2014 14:00	0.0086	--	5/14/2014 14:00	0.0086	--
5/14/2014 15:00	0.0074	--	5/14/2014 15:00	0.0086	--	5/14/2014 15:00	0.0086	--
5/14/2014 16:00	0.0076	--	5/14/2014 16:00	0.0089	--	5/14/2014 16:00	0.0089	--
5/14/2014 17:00	0.0076	--	5/14/2014 17:00	0.0082	--	5/14/2014 17:00	0.0082	--
5/14/2014 18:00	0.0077	--	5/14/2014 18:00	0.0085	--	5/14/2014 18:00	0.0085	--
5/14/2014 19:00	0.0077	--	5/14/2014 19:00	0.0085	--	5/14/2014 19:00	0.0085	--
5/14/2014 20:00	0.0076	--	5/14/2014 20:00	0.0084	--	5/14/2014 20:00	0.0084	--
5/14/2014 21:00	0.0076	--	5/14/2014 21:00	0.0084	--	5/14/2014 21:00	0.0084	--
5/14/2014 22:00	0.0076	--	5/14/2014 22:00	0.0083	--	5/14/2014 22:00	0.0083	--
5/14/2014 23:00	0.0077	--	5/14/2014 23:00	0.0084	--	5/14/2014 23:00	0.0084	--
5/15/2014 0:00	0.0077	0.0074	5/15/2014 0:00	0.0087	0.0087	5/15/2014 0:00	0.0087	0.0089
5/15/2014 1:00	0.0075	--	5/15/2014 1:00	0.0088	--	5/15/2014 1:00	0.0088	--
5/15/2014 2:00	0.0076	--	5/15/2014 2:00	0.0092	--	5/15/2014 2:00	0.0092	--
5/15/2014 3:00	0.0076	--	5/15/2014 3:00	0.0087	--	5/15/2014 3:00	0.0087	--
5/15/2014 4:00	0.0077	--	5/15/2014 4:00	0.0083	--	5/15/2014 4:00	0.0083	--
5/15/2014 5:00	0.0076	--	5/15/2014 5:00	0.0082	--	5/15/2014 5:00	0.0082	--
5/15/2014 6:00	0.0080	--	5/15/2014 6:00	0.0108	--	5/15/2014 6:00	0.0108	--
5/15/2014 7:00	0.0077	--	5/15/2014 7:00	0.0095	--	5/15/2014 7:00	0.0095	--
5/15/2014 8:00	0.0078	--	5/15/2014 8:00	0.0093	--	5/15/2014 8:00	0.0093	--
5/15/2014 9:00	0.0078	--	5/15/2014 9:00	0.0087	--	5/15/2014 9:00	0.0087	--
5/15/2014 10:00	0.0078	--	5/15/2014 10:00	0.0087	--	5/15/2014 10:00	0.0087	--
5/15/2014 11:00	0.0078	--	5/15/2014 11:00	0.0086	--	5/15/2014 11:00	0.0086	--
5/15/2014 12:00	0.0077	--	5/15/2014 12:00	0.0085	--	5/15/2014 12:00	0.0085	--
5/15/2014 13:00	0.0078	--	5/15/2014 13:00	0.0089	--	5/15/2014 13:00	0.0089	--
5/15/2014 14:00	0.0077	--	5/15/2014 14:00	0.0089	--	5/15/2014 14:00	0.0089	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
5/15/2014 15:00	0.0077	--	5/15/2014 15:00	0.0091	--	5/15/2014 15:00	0.0091	--
5/15/2014 16:00	0.0077	--	5/15/2014 16:00	0.0086	--	5/15/2014 16:00	0.0086	--
5/15/2014 17:00	0.0077	--	5/15/2014 17:00	0.0079	--	5/15/2014 17:00	0.0079	--
5/15/2014 18:00	0.0076	--	5/15/2014 18:00	0.0087	--	5/15/2014 18:00	0.0087	--
5/15/2014 19:00	0.0076	--	5/15/2014 19:00	0.0089	--	5/15/2014 19:00	0.0089	--
5/15/2014 20:00	0.0072	--	5/15/2014 20:00	0.0089	--	5/15/2014 20:00	0.0089	--
5/15/2014 21:00	0.0074	--	5/15/2014 21:00	0.0083	--	5/15/2014 21:00	0.0083	--
5/15/2014 22:00	0.0078	--	5/15/2014 22:00	0.0084	--	5/15/2014 22:00	0.0084	--
5/15/2014 23:00	0.0075	--	5/15/2014 23:00	0.0082	--	5/15/2014 23:00	0.0082	--
5/16/2014 0:00	0.0077	0.0074	5/16/2014 0:00	0.0087	0.0087	5/16/2014 0:00	0.0087	0.0089
5/16/2014 1:00	0.0077	--	5/16/2014 1:00	0.0085	--	5/16/2014 1:00	0.0085	--
5/16/2014 2:00	0.0075	--	5/16/2014 2:00	0.0086	--	5/16/2014 2:00	0.0086	--
5/16/2014 3:00	0.0075	--	5/16/2014 3:00	0.0088	--	5/16/2014 3:00	0.0088	--
5/16/2014 4:00	0.0076	--	5/16/2014 4:00	0.0085	--	5/16/2014 4:00	0.0085	--
5/16/2014 5:00	0.0076	--	5/16/2014 5:00	0.0084	--	5/16/2014 5:00	0.0084	--
5/16/2014 6:00	0.0079	--	5/16/2014 6:00	0.0089	--	5/16/2014 6:00	0.0089	--
5/16/2014 7:00	0.0077	--	5/16/2014 7:00	0.0088	--	5/16/2014 7:00	0.0088	--
5/16/2014 8:00	0.0078	--	5/16/2014 8:00	0.0090	--	5/16/2014 8:00	0.0090	--
5/16/2014 9:00	0.0078	--	5/16/2014 9:00	0.0097	--	5/16/2014 9:00	0.0097	--
5/16/2014 10:00	0.0079	--	5/16/2014 10:00	0.0092	--	5/16/2014 10:00	0.0092	--
5/16/2014 11:00	0.0078	--	5/16/2014 11:00	0.0088	--	5/16/2014 11:00	0.0088	--
5/16/2014 12:00	0.0078	--	5/16/2014 12:00	0.0087	--	5/16/2014 12:00	0.0087	--
5/16/2014 13:00	0.0077	--	5/16/2014 13:00	0.0089	--	5/16/2014 13:00	0.0089	--
5/16/2014 14:00	0.0077	--	5/16/2014 14:00	0.0086	--	5/16/2014 14:00	0.0086	--
5/16/2014 15:00	0.0076	--	5/16/2014 15:00	0.0088	--	5/16/2014 15:00	0.0088	--
5/16/2014 16:00	0.0079	--	5/16/2014 16:00	0.0082	--	5/16/2014 16:00	0.0082	--
5/16/2014 17:00	0.0077	--	5/16/2014 17:00	0.0087	--	5/16/2014 17:00	0.0087	--
5/16/2014 18:00	0.0076	--	5/16/2014 18:00	0.0088	--	5/16/2014 18:00	0.0088	--
5/16/2014 19:00	0.0076	--	5/16/2014 19:00	0.0089	--	5/16/2014 19:00	0.0089	--
5/16/2014 20:00	0.0074	--	5/16/2014 20:00	0.0079	--	5/16/2014 20:00	0.0079	--
5/16/2014 21:00	0.0074	--	5/16/2014 21:00	0.0079	--	5/16/2014 21:00	0.0079	--
5/16/2014 22:00	0.0074	--	5/16/2014 22:00	0.0077	--	5/16/2014 22:00	0.0077	--
5/16/2014 23:00	0.0076	--	5/16/2014 23:00	0.0091	--	5/16/2014 23:00	0.0091	--
5/17/2014 0:00	0.0076	0.0075	5/17/2014 0:00	0.0088	0.0087	5/17/2014 0:00	0.0088	0.0090
5/17/2014 1:00	0.0077	--	5/17/2014 1:00	0.0089	--	5/17/2014 1:00	0.0089	--
5/17/2014 2:00	0.0077	--	5/17/2014 2:00	0.0086	--	5/17/2014 2:00	0.0086	--
5/17/2014 3:00	0.0077	--	5/17/2014 3:00	0.0086	--	5/17/2014 3:00	0.0086	--
5/17/2014 4:00	0.0076	--	5/17/2014 4:00	0.0085	--	5/17/2014 4:00	0.0085	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
5/17/2014 5:00	0.0076	--	5/17/2014 5:00	0.0086	--	5/17/2014 5:00	0.0086	--
5/17/2014 6:00	0.0079	--	5/17/2014 6:00	0.0097	--	5/17/2014 6:00	0.0097	--
5/17/2014 7:00	0.0077	--	5/17/2014 7:00	0.0088	--	5/17/2014 7:00	0.0088	--
5/17/2014 8:00	0.0077	--	5/17/2014 8:00	0.0089	--	5/17/2014 8:00	0.0089	--
5/17/2014 9:00	0.0077	--	5/17/2014 9:00	0.0089	--	5/17/2014 9:00	0.0089	--
5/17/2014 10:00	0.0078	--	5/17/2014 10:00	0.0077	--	5/17/2014 10:00	0.0077	--
5/17/2014 11:00	0.0079	--	5/17/2014 11:00	0.0089	--	5/17/2014 11:00	0.0089	--
5/17/2014 12:00	0.0078	--	5/17/2014 12:00	0.0090	--	5/17/2014 12:00	0.0090	--
5/17/2014 13:00	0.0068	--	5/17/2014 13:00	0.0090	--	5/17/2014 13:00	0.0090	--
5/17/2014 14:00	0.0070	--	5/17/2014 14:00	0.0093	--	5/17/2014 14:00	0.0093	--
5/17/2014 15:00	0.0067	--	5/17/2014 15:00	0.0088	--	5/17/2014 15:00	0.0088	--
5/17/2014 16:00	0.0073	--	5/17/2014 16:00	0.0084	--	5/17/2014 16:00	0.0084	--
5/17/2014 17:00	0.0066	--	5/17/2014 17:00	0.0082	--	5/17/2014 17:00	0.0082	--
5/17/2014 18:00	0.0072	--	5/17/2014 18:00	0.0085	--	5/17/2014 18:00	0.0085	--
5/17/2014 19:00	0.0075	--	5/17/2014 19:00	0.0083	--	5/17/2014 19:00	0.0083	--
5/17/2014 20:00	0.0075	--	5/17/2014 20:00	0.0087	--	5/17/2014 20:00	0.0087	--
5/17/2014 21:00	0.0076	--	5/17/2014 21:00	0.0086	--	5/17/2014 21:00	0.0086	--
5/17/2014 22:00	0.0075	--	5/17/2014 22:00	0.0088	--	5/17/2014 22:00	0.0088	--
5/17/2014 23:00	0.0077	--	5/17/2014 23:00	0.0086	--	5/17/2014 23:00	0.0086	--
5/18/2014 0:00	0.0077	0.0075	5/18/2014 0:00	0.0086	0.0087	5/18/2014 0:00	0.0086	0.0090
5/18/2014 1:00	0.0076	--	5/18/2014 1:00	0.0081	--	5/18/2014 1:00	0.0081	--
5/18/2014 2:00	0.0077	--	5/18/2014 2:00	0.0087	--	5/18/2014 2:00	0.0087	--
5/18/2014 3:00	0.0077	--	5/18/2014 3:00	0.0087	--	5/18/2014 3:00	0.0087	--
5/18/2014 4:00	0.0076	--	5/18/2014 4:00	0.0086	--	5/18/2014 4:00	0.0086	--
5/18/2014 5:00	0.0080	--	5/18/2014 5:00	0.0093	--	5/18/2014 5:00	0.0093	--
5/18/2014 6:00	0.0078	--	5/18/2014 6:00	0.0072	--	5/18/2014 6:00	0.0072	--
5/18/2014 7:00	0.0076	--	5/18/2014 7:00	0.0078	--	5/18/2014 7:00	0.0078	--
5/18/2014 8:00	0.0075	--	5/18/2014 8:00	0.0088	--	5/18/2014 8:00	0.0088	--
5/18/2014 9:00	0.0073	--	5/18/2014 9:00	0.0094	--	5/18/2014 9:00	0.0094	--
5/18/2014 10:00	0.0071	--	5/18/2014 10:00	0.0092	--	5/18/2014 10:00	0.0092	--
5/18/2014 11:00	0.0067	--	5/18/2014 11:00	0.0089	--	5/18/2014 11:00	0.0089	--
5/18/2014 12:00	0.0060	--	5/18/2014 12:00	0.0087	--	5/18/2014 12:00	0.0087	--
5/18/2014 13:00	0.0059	--	5/18/2014 13:00	0.0084	--	5/18/2014 13:00	0.0084	--
5/18/2014 14:00	0.0057	--	5/18/2014 14:00	0.0088	--	5/18/2014 14:00	0.0088	--
5/18/2014 15:00	0.0058	--	5/18/2014 15:00	0.0089	--	5/18/2014 15:00	0.0089	--
5/18/2014 16:00	0.0062	--	5/18/2014 16:00	0.0086	--	5/18/2014 16:00	0.0086	--
5/18/2014 17:00	0.0058	--	5/18/2014 17:00	0.0088	--	5/18/2014 17:00	0.0088	--
5/18/2014 18:00	0.0062	--	5/18/2014 18:00	0.0084	--	5/18/2014 18:00	0.0084	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
5/18/2014 19:00	0.0074	--	5/18/2014 19:00	0.0083	--	5/18/2014 19:00	0.0083	--
5/18/2014 20:00	0.0074	--	5/18/2014 20:00	0.0084	--	5/18/2014 20:00	0.0084	--
5/18/2014 21:00	0.0065	--	5/18/2014 21:00	0.0090	--	5/18/2014 21:00	0.0090	--
5/18/2014 22:00	0.0069	--	5/18/2014 22:00	0.0081	--	5/18/2014 22:00	0.0081	--
5/18/2014 23:00	0.0076	--	5/18/2014 23:00	0.0089	--	5/18/2014 23:00	0.0089	--
5/19/2014 0:00	0.0074	0.0074	5/19/2014 0:00	0.0084	0.0087	5/19/2014 0:00	0.0084	0.0089
5/19/2014 1:00	0.0071	--	5/19/2014 1:00	0.0086	--	5/19/2014 1:00	0.0086	--
5/19/2014 2:00	0.0077	--	5/19/2014 2:00	0.0091	--	5/19/2014 2:00	0.0091	--
5/19/2014 3:00	0.0076	--	5/19/2014 3:00	0.0085	--	5/19/2014 3:00	0.0085	--
5/19/2014 4:00	0.0077	--	5/19/2014 4:00	0.0088	--	5/19/2014 4:00	0.0088	--
5/19/2014 5:00	0.0076	--	5/19/2014 5:00	0.0084	--	5/19/2014 5:00	0.0084	--
5/19/2014 6:00	0.0077	--	5/19/2014 6:00	0.0078	--	5/19/2014 6:00	0.0078	--
5/19/2014 7:00	0.0076	--	5/19/2014 7:00	0.0087	--	5/19/2014 7:00	0.0087	--
5/19/2014 8:00	0.0073	--	5/19/2014 8:00	0.0084	--	5/19/2014 8:00	0.0084	--
5/19/2014 9:00	0.0073	--	5/19/2014 9:00	0.0088	--	5/19/2014 9:00	0.0088	--
5/19/2014 10:00	0.0068	--	5/19/2014 10:00	0.0090	--	5/19/2014 10:00	0.0090	--
5/19/2014 11:00	0.0064	--	5/19/2014 11:00	0.0088	--	5/19/2014 11:00	0.0088	--
5/19/2014 12:00	0.0060	--	5/19/2014 12:00	0.0086	--	5/19/2014 12:00	0.0086	--
5/19/2014 13:00	0.0054	--	5/19/2014 13:00	0.0089	--	5/19/2014 13:00	0.0089	--
5/19/2014 14:00	0.0052	--	5/19/2014 14:00	0.0091	--	5/19/2014 14:00	0.0091	--
5/19/2014 15:00	0.0053	--	5/19/2014 15:00	0.0087	--	5/19/2014 15:00	0.0087	--
5/19/2014 16:00	0.0051	--	5/19/2014 16:00	0.0087	--	5/19/2014 16:00	0.0087	--
5/19/2014 17:00	0.0055	--	5/19/2014 17:00	0.0083	--	5/19/2014 17:00	0.0083	--
5/19/2014 18:00	0.0057	--	5/19/2014 18:00	0.0088	--	5/19/2014 18:00	0.0088	--
5/19/2014 19:00	0.0065	--	5/19/2014 19:00	0.0086	--	5/19/2014 19:00	0.0086	--
5/19/2014 20:00	0.0066	--	5/19/2014 20:00	0.0086	--	5/19/2014 20:00	0.0086	--
5/19/2014 21:00	0.0066	--	5/19/2014 21:00	0.0087	--	5/19/2014 21:00	0.0087	--
5/19/2014 22:00	0.0068	--	5/19/2014 22:00	0.0087	--	5/19/2014 22:00	0.0087	--
5/19/2014 23:00	0.0068	--	5/19/2014 23:00	0.0087	--	5/19/2014 23:00	0.0087	--
5/20/2014 0:00	0.0067	0.0074	5/20/2014 0:00	0.0087	0.0087	5/20/2014 0:00	0.0087	0.0089
5/20/2014 1:00	0.0068	--	5/20/2014 1:00	0.0088	--	5/20/2014 1:00	0.0088	--
5/20/2014 2:00	0.0073	--	5/20/2014 2:00	0.0085	--	5/20/2014 2:00	0.0085	--
5/20/2014 3:00	0.0072	--	5/20/2014 3:00	0.0085	--	5/20/2014 3:00	0.0085	--
5/20/2014 4:00	0.0073	--	5/20/2014 4:00	0.0087	--	5/20/2014 4:00	0.0087	--
5/20/2014 5:00	0.0068	--	5/20/2014 5:00	0.0088	--	5/20/2014 5:00	0.0088	--
5/20/2014 6:00	0.0071	--	5/20/2014 6:00	0.0099	--	5/20/2014 6:00	0.0099	--
5/20/2014 7:00	0.0068	--	5/20/2014 7:00	0.0090	--	5/20/2014 7:00	0.0090	--
5/20/2014 8:00	0.0071	--	5/20/2014 8:00	0.0087	--	5/20/2014 8:00	0.0087	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
5/20/2014 9:00	0.0071	--	5/20/2014 9:00	0.0086	--	5/20/2014 9:00	0.0086	--
5/20/2014 10:00	0.0071	--	5/20/2014 10:00	0.0094	--	5/20/2014 10:00	0.0094	--
5/20/2014 11:00	0.0074	--	5/20/2014 11:00	0.0088	--	5/20/2014 11:00	0.0088	--
5/20/2014 12:00	0.0065	--	5/20/2014 12:00	0.0090	--	5/20/2014 12:00	0.0090	--
5/20/2014 13:00	0.0060	--	5/20/2014 13:00	0.0085	--	5/20/2014 13:00	0.0085	--
5/20/2014 14:00	0.0055	--	5/20/2014 14:00	0.0090	--	5/20/2014 14:00	0.0090	--
5/20/2014 15:00	0.0057	--	5/20/2014 15:00	0.0089	--	5/20/2014 15:00	0.0089	--
5/20/2014 16:00	0.0055	--	5/20/2014 16:00	0.0087	--	5/20/2014 16:00	0.0087	--
5/20/2014 17:00	0.0056	--	5/20/2014 17:00	0.0084	--	5/20/2014 17:00	0.0084	--
5/20/2014 18:00	0.0059	--	5/20/2014 18:00	0.0091	--	5/20/2014 18:00	0.0091	--
5/20/2014 19:00	0.0072	--	5/20/2014 19:00	0.0080	--	5/20/2014 19:00	0.0080	--
5/20/2014 20:00	0.0075	--	5/20/2014 20:00	0.0086	--	5/20/2014 20:00	0.0086	--
5/20/2014 21:00	0.0077	--	5/20/2014 21:00	0.0088	--	5/20/2014 21:00	0.0088	--
5/20/2014 22:00	0.0075	--	5/20/2014 22:00	0.0081	--	5/20/2014 22:00	0.0081	--
5/20/2014 23:00	0.0076	--	5/20/2014 23:00	0.0086	--	5/20/2014 23:00	0.0086	--
5/21/2014 0:00	0.0077	0.0073	5/21/2014 0:00	0.0090	0.0087	5/21/2014 0:00	0.0090	0.0089
5/21/2014 1:00	0.0077	--	5/21/2014 1:00	0.0085	--	5/21/2014 1:00	0.0085	--
5/21/2014 2:00	0.0076	--	5/21/2014 2:00	0.0089	--	5/21/2014 2:00	0.0089	--
5/21/2014 3:00	0.0075	--	5/21/2014 3:00	0.0092	--	5/21/2014 3:00	0.0092	--
5/21/2014 4:00	0.0076	--	5/21/2014 4:00	0.0086	--	5/21/2014 4:00	0.0086	--
5/21/2014 5:00	0.0077	--	5/21/2014 5:00	0.0086	--	5/21/2014 5:00	0.0086	--
5/21/2014 6:00	0.0079	--	5/21/2014 6:00	0.0089	--	5/21/2014 6:00	0.0089	--
5/21/2014 7:00	0.0076	--	5/21/2014 7:00	0.0087	--	5/21/2014 7:00	0.0087	--
5/21/2014 8:00	0.0074	--	5/21/2014 8:00	0.0091	--	5/21/2014 8:00	0.0091	--
5/21/2014 9:00	0.0077	--	5/21/2014 9:00	0.0092	--	5/21/2014 9:00	0.0092	--
5/21/2014 10:00	DOWNTIME	--	5/21/2014 10:00	0.0091	--	5/21/2014 10:00	0.0091	--
5/21/2014 11:00	0.0066	--	5/21/2014 11:00	0.0088	--	5/21/2014 11:00	0.0088	--
5/21/2014 12:00	0.0058	--	5/21/2014 12:00	0.0084	--	5/21/2014 12:00	0.0084	--
5/21/2014 13:00	0.0052	--	5/21/2014 13:00	0.0088	--	5/21/2014 13:00	0.0088	--
5/21/2014 14:00	0.0051	--	5/21/2014 14:00	0.0085	--	5/21/2014 14:00	0.0085	--
5/21/2014 15:00	0.0054	--	5/21/2014 15:00	0.0088	--	5/21/2014 15:00	0.0088	--
5/21/2014 16:00	0.0054	--	5/21/2014 16:00	0.0086	--	5/21/2014 16:00	0.0086	--
5/21/2014 17:00	0.0054	--	5/21/2014 17:00	0.0086	--	5/21/2014 17:00	0.0086	--
5/21/2014 18:00	0.0057	--	5/21/2014 18:00	0.0084	--	5/21/2014 18:00	0.0084	--
5/21/2014 19:00	0.0066	--	5/21/2014 19:00	0.0083	--	5/21/2014 19:00	0.0083	--
5/21/2014 20:00	0.0068	--	5/21/2014 20:00	0.0083	--	5/21/2014 20:00	0.0083	--
5/21/2014 21:00	0.0073	--	5/21/2014 21:00	0.0083	--	5/21/2014 21:00	0.0083	--
5/21/2014 22:00	0.0074	--	5/21/2014 22:00	0.0087	--	5/21/2014 22:00	0.0087	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
5/21/2014 23:00	0.0076	--	5/21/2014 23:00	0.0083	--	5/21/2014 23:00	0.0083	--
5/22/2014 0:00	0.0074	0.0073	5/22/2014 0:00	0.0088	0.0087	5/22/2014 0:00	0.0088	0.0089
5/22/2014 1:00	0.0074	--	5/22/2014 1:00	0.0087	--	5/22/2014 1:00	0.0087	--
5/22/2014 2:00	0.0074	--	5/22/2014 2:00	0.0086	--	5/22/2014 2:00	0.0086	--
5/22/2014 3:00	0.0076	--	5/22/2014 3:00	0.0089	--	5/22/2014 3:00	0.0089	--
5/22/2014 4:00	0.0075	--	5/22/2014 4:00	0.0086	--	5/22/2014 4:00	0.0086	--
5/22/2014 5:00	0.0075	--	5/22/2014 5:00	0.0087	--	5/22/2014 5:00	0.0087	--
5/22/2014 6:00	0.0078	--	5/22/2014 6:00	0.0099	--	5/22/2014 6:00	0.0099	--
5/22/2014 7:00	0.0075	--	5/22/2014 7:00	0.0089	--	5/22/2014 7:00	0.0089	--
5/22/2014 8:00	0.0075	--	5/22/2014 8:00	0.0090	--	5/22/2014 8:00	0.0090	--
5/22/2014 9:00	0.0076	--	5/22/2014 9:00	0.0089	--	5/22/2014 9:00	0.0089	--
5/22/2014 10:00	0.0069	--	5/22/2014 10:00	0.0091	--	5/22/2014 10:00	0.0091	--
5/22/2014 11:00	0.0068	--	5/22/2014 11:00	0.0092	--	5/22/2014 11:00	0.0092	--
5/22/2014 12:00	0.0062	--	5/22/2014 12:00	0.0090	--	5/22/2014 12:00	0.0090	--
5/22/2014 13:00	0.0060	--	5/22/2014 13:00	0.0089	--	5/22/2014 13:00	0.0089	--
5/22/2014 14:00	0.0064	--	5/22/2014 14:00	0.0087	--	5/22/2014 14:00	0.0087	--
5/22/2014 15:00	0.0060	--	5/22/2014 15:00	0.0083	--	5/22/2014 15:00	0.0083	--
5/22/2014 16:00	0.0058	--	5/22/2014 16:00	0.0087	--	5/22/2014 16:00	0.0087	--
5/22/2014 17:00	0.0059	--	5/22/2014 17:00	0.0088	--	5/22/2014 17:00	0.0088	--
5/22/2014 18:00	0.0059	--	5/22/2014 18:00	0.0086	--	5/22/2014 18:00	0.0086	--
5/22/2014 19:00	0.0072	--	5/22/2014 19:00	0.0084	--	5/22/2014 19:00	0.0084	--
5/22/2014 20:00	0.0077	--	5/22/2014 20:00	0.0081	--	5/22/2014 20:00	0.0081	--
5/22/2014 21:00	0.0076	--	5/22/2014 21:00	0.0082	--	5/22/2014 21:00	0.0082	--
5/22/2014 22:00	0.0074	--	5/22/2014 22:00	0.0083	--	5/22/2014 22:00	0.0083	--
5/22/2014 23:00	0.0073	--	5/22/2014 23:00	0.0086	--	5/22/2014 23:00	0.0086	--
5/23/2014 0:00	0.0075	0.0073	5/23/2014 0:00	0.0087	0.0087	5/23/2014 0:00	0.0087	0.0089
5/23/2014 1:00	0.0071	--	5/23/2014 1:00	0.0088	--	5/23/2014 1:00	0.0088	--
5/23/2014 2:00	0.0073	--	5/23/2014 2:00	0.0082	--	5/23/2014 2:00	0.0082	--
5/23/2014 3:00	0.0073	--	5/23/2014 3:00	0.0090	--	5/23/2014 3:00	0.0090	--
5/23/2014 4:00	0.0073	--	5/23/2014 4:00	0.0087	--	5/23/2014 4:00	0.0087	--
5/23/2014 5:00	0.0076	--	5/23/2014 5:00	0.0087	--	5/23/2014 5:00	0.0087	--
5/23/2014 6:00	0.0077	--	5/23/2014 6:00	0.0067	--	5/23/2014 6:00	0.0067	--
5/23/2014 7:00	0.0075	--	5/23/2014 7:00	0.0082	--	5/23/2014 7:00	0.0082	--
5/23/2014 8:00	0.0072	--	5/23/2014 8:00	0.0089	--	5/23/2014 8:00	0.0089	--
5/23/2014 9:00	0.0067	--	5/23/2014 9:00	0.0089	--	5/23/2014 9:00	0.0089	--
5/23/2014 10:00	0.0066	--	5/23/2014 10:00	0.0089	--	5/23/2014 10:00	0.0089	--
5/23/2014 11:00	0.0066	--	5/23/2014 11:00	0.0093	--	5/23/2014 11:00	0.0093	--
5/23/2014 12:00	0.0061	--	5/23/2014 12:00	0.0090	--	5/23/2014 12:00	0.0090	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
5/23/2014 13:00	0.0061	--	5/23/2014 13:00	0.0084	--	5/23/2014 13:00	0.0084	--
5/23/2014 14:00	0.0061	--	5/23/2014 14:00	0.0088	--	5/23/2014 14:00	0.0088	--
5/23/2014 15:00	0.0060	--	5/23/2014 15:00	0.0090	--	5/23/2014 15:00	0.0090	--
5/23/2014 16:00	0.0066	--	5/23/2014 16:00	0.0087	--	5/23/2014 16:00	0.0087	--
5/23/2014 17:00	0.0066	--	5/23/2014 17:00	0.0088	--	5/23/2014 17:00	0.0088	--
5/23/2014 18:00	0.0072	--	5/23/2014 18:00	0.0089	--	5/23/2014 18:00	0.0089	--
5/23/2014 19:00	0.0073	--	5/23/2014 19:00	0.0084	--	5/23/2014 19:00	0.0084	--
5/23/2014 20:00	0.0076	--	5/23/2014 20:00	0.0084	--	5/23/2014 20:00	0.0084	--
5/23/2014 21:00	0.0077	--	5/23/2014 21:00	0.0082	--	5/23/2014 21:00	0.0082	--
5/23/2014 22:00	0.0075	--	5/23/2014 22:00	0.0087	--	5/23/2014 22:00	0.0087	--
5/23/2014 23:00	0.0066	--	5/23/2014 23:00	0.0090	--	5/23/2014 23:00	0.0090	--
5/24/2014 0:00	0.0068	0.0072	5/24/2014 0:00	0.0089	0.0087	5/24/2014 0:00	0.0089	0.0089
5/24/2014 1:00	0.0066	--	5/24/2014 1:00	0.0083	--	5/24/2014 1:00	0.0083	--
5/24/2014 2:00	0.0066	--	5/24/2014 2:00	0.0086	--	5/24/2014 2:00	0.0086	--
5/24/2014 3:00	0.0064	--	5/24/2014 3:00	0.0085	--	5/24/2014 3:00	0.0085	--
5/24/2014 4:00	0.0064	--	5/24/2014 4:00	0.0086	--	5/24/2014 4:00	0.0086	--
5/24/2014 5:00	0.0068	--	5/24/2014 5:00	0.0085	--	5/24/2014 5:00	0.0085	--
5/24/2014 6:00	0.0066	--	5/24/2014 6:00	0.0103	--	5/24/2014 6:00	0.0103	--
5/24/2014 7:00	0.0063	--	5/24/2014 7:00	0.0088	--	5/24/2014 7:00	0.0088	--
5/24/2014 8:00	0.0060	--	5/24/2014 8:00	0.0089	--	5/24/2014 8:00	0.0089	--
5/24/2014 9:00	0.0056	--	5/24/2014 9:00	0.0091	--	5/24/2014 9:00	0.0091	--
5/24/2014 10:00	0.0054	--	5/24/2014 10:00	0.0086	--	5/24/2014 10:00	0.0086	--
5/24/2014 11:00	0.0051	--	5/24/2014 11:00	0.0090	--	5/24/2014 11:00	0.0090	--
5/24/2014 12:00	0.0049	--	5/24/2014 12:00	0.0090	--	5/24/2014 12:00	0.0090	--
5/24/2014 13:00	0.0047	--	5/24/2014 13:00	0.0089	--	5/24/2014 13:00	0.0089	--
5/24/2014 14:00	0.0046	--	5/24/2014 14:00	0.0085	--	5/24/2014 14:00	0.0085	--
5/24/2014 15:00	0.0041	--	5/24/2014 15:00	0.0087	--	5/24/2014 15:00	0.0087	--
5/24/2014 16:00	0.0043	--	5/24/2014 16:00	0.0090	--	5/24/2014 16:00	0.0090	--
5/24/2014 17:00	0.0046	--	5/24/2014 17:00	0.0082	--	5/24/2014 17:00	0.0082	--
5/24/2014 18:00	0.0048	--	5/24/2014 18:00	0.0086	--	5/24/2014 18:00	0.0086	--
5/24/2014 19:00	0.0055	--	5/24/2014 19:00	0.0084	--	5/24/2014 19:00	0.0084	--
5/24/2014 20:00	0.0060	--	5/24/2014 20:00	0.0081	--	5/24/2014 20:00	0.0081	--
5/24/2014 21:00	0.0061	--	5/24/2014 21:00	0.0082	--	5/24/2014 21:00	0.0082	--
5/24/2014 22:00	0.0064	--	5/24/2014 22:00	0.0089	--	5/24/2014 22:00	0.0089	--
5/24/2014 23:00	0.0059	--	5/24/2014 23:00	0.0087	--	5/24/2014 23:00	0.0087	--
5/25/2014 0:00	0.0060	0.0072	5/25/2014 0:00	0.0085	0.0087	5/25/2014 0:00	0.0085	0.0090
5/25/2014 1:00	0.0060	--	5/25/2014 1:00	0.0084	--	5/25/2014 1:00	0.0084	--
5/25/2014 2:00	0.0057	--	5/25/2014 2:00	0.0089	--	5/25/2014 2:00	0.0089	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
5/25/2014 3:00	0.0055	--	5/25/2014 3:00	0.0088	--	5/25/2014 3:00	0.0088	--
5/25/2014 4:00	0.0055	--	5/25/2014 4:00	0.0089	--	5/25/2014 4:00	0.0089	--
5/25/2014 5:00	0.0057	--	5/25/2014 5:00	0.0086	--	5/25/2014 5:00	0.0086	--
5/25/2014 6:00	0.0060	--	5/25/2014 6:00	0.0107	--	5/25/2014 6:00	0.0107	--
5/25/2014 7:00	0.0056	--	5/25/2014 7:00	0.0087	--	5/25/2014 7:00	0.0087	--
5/25/2014 8:00	0.0052	--	5/25/2014 8:00	0.0090	--	5/25/2014 8:00	0.0090	--
5/25/2014 9:00	0.0051	--	5/25/2014 9:00	0.0087	--	5/25/2014 9:00	0.0087	--
5/25/2014 10:00	0.0046	--	5/25/2014 10:00	0.0092	--	5/25/2014 10:00	0.0092	--
5/25/2014 11:00	0.0040	--	5/25/2014 11:00	0.0093	--	5/25/2014 11:00	0.0093	--
5/25/2014 12:00	0.0035	--	5/25/2014 12:00	0.0091	--	5/25/2014 12:00	0.0091	--
5/25/2014 13:00	0.0035	--	5/25/2014 13:00	0.0084	--	5/25/2014 13:00	0.0084	--
5/25/2014 14:00	0.0035	--	5/25/2014 14:00	0.0087	--	5/25/2014 14:00	0.0087	--
5/25/2014 15:00	0.0035	--	5/25/2014 15:00	0.0089	--	5/25/2014 15:00	0.0089	--
5/25/2014 16:00	0.0045	--	5/25/2014 16:00	0.0086	--	5/25/2014 16:00	0.0086	--
5/25/2014 17:00	0.0047	--	5/25/2014 17:00	0.0083	--	5/25/2014 17:00	0.0083	--
5/25/2014 18:00	0.0046	--	5/25/2014 18:00	0.0083	--	5/25/2014 18:00	0.0083	--
5/25/2014 19:00	0.0047	--	5/25/2014 19:00	0.0086	--	5/25/2014 19:00	0.0086	--
5/25/2014 20:00	0.0047	--	5/25/2014 20:00	0.0083	--	5/25/2014 20:00	0.0083	--
5/25/2014 21:00	0.0048	--	5/25/2014 21:00	0.0083	--	5/25/2014 21:00	0.0083	--
5/25/2014 22:00	0.0050	--	5/25/2014 22:00	0.0084	--	5/25/2014 22:00	0.0084	--
5/25/2014 23:00	0.0050	--	5/25/2014 23:00	0.0088	--	5/25/2014 23:00	0.0088	--
5/26/2014 0:00	0.0051	0.0071	5/26/2014 0:00	0.0085	0.0087	5/26/2014 0:00	0.0085	0.0090
5/26/2014 1:00	0.0046	--	5/26/2014 1:00	0.0087	--	5/26/2014 1:00	0.0087	--
5/26/2014 2:00	0.0046	--	5/26/2014 2:00	0.0087	--	5/26/2014 2:00	0.0087	--
5/26/2014 3:00	0.0046	--	5/26/2014 3:00	0.0086	--	5/26/2014 3:00	0.0086	--
5/26/2014 4:00	0.0046	--	5/26/2014 4:00	0.0086	--	5/26/2014 4:00	0.0086	--
5/26/2014 5:00	0.0045	--	5/26/2014 5:00	0.0088	--	5/26/2014 5:00	0.0088	--
5/26/2014 6:00	0.0046	--	5/26/2014 6:00	0.0088	--	5/26/2014 6:00	0.0088	--
5/26/2014 7:00	0.0044	--	5/26/2014 7:00	0.0086	--	5/26/2014 7:00	0.0086	--
5/26/2014 8:00	0.0041	--	5/26/2014 8:00	0.0086	--	5/26/2014 8:00	0.0086	--
5/26/2014 9:00	0.0041	--	5/26/2014 9:00	0.0090	--	5/26/2014 9:00	0.0090	--
5/26/2014 10:00	0.0041	--	5/26/2014 10:00	0.0092	--	5/26/2014 10:00	0.0092	--
5/26/2014 11:00	0.0041	--	5/26/2014 11:00	0.0088	--	5/26/2014 11:00	0.0088	--
5/26/2014 12:00	0.0041	--	5/26/2014 12:00	0.0084	--	5/26/2014 12:00	0.0084	--
5/26/2014 13:00	0.0043	--	5/26/2014 13:00	0.0088	--	5/26/2014 13:00	0.0088	--
5/26/2014 14:00	0.0045	--	5/26/2014 14:00	0.0085	--	5/26/2014 14:00	0.0085	--
5/26/2014 15:00	0.0047	--	5/26/2014 15:00	0.0085	--	5/26/2014 15:00	0.0085	--
5/26/2014 16:00	0.0048	--	5/26/2014 16:00	0.0089	--	5/26/2014 16:00	0.0089	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
5/26/2014 17:00	0.0036	--	5/26/2014 17:00	0.0085	--	5/26/2014 17:00	0.0085	--
5/26/2014 18:00	0.0065	--	5/26/2014 18:00	0.0072	--	5/26/2014 18:00	0.0072	--
5/26/2014 19:00	0.0060	--	5/26/2014 19:00	0.0082	--	5/26/2014 19:00	0.0082	--
5/26/2014 20:00	0.0057	--	5/26/2014 20:00	0.0079	--	5/26/2014 20:00	0.0079	--
5/26/2014 21:00	0.0055	--	5/26/2014 21:00	0.0083	--	5/26/2014 21:00	0.0083	--
5/26/2014 22:00	0.0052	--	5/26/2014 22:00	0.0082	--	5/26/2014 22:00	0.0082	--
5/26/2014 23:00	0.0049	--	5/26/2014 23:00	0.0084	--	5/26/2014 23:00	0.0084	--
5/27/2014 0:00	0.0044	0.0070	5/27/2014 0:00	0.0087	0.0087	5/27/2014 0:00	0.0087	0.0090
5/27/2014 1:00	0.0046	--	5/27/2014 1:00	0.0089	--	5/27/2014 1:00	0.0089	--
5/27/2014 2:00	0.0046	--	5/27/2014 2:00	0.0088	--	5/27/2014 2:00	0.0088	--
5/27/2014 3:00	0.0045	--	5/27/2014 3:00	0.0083	--	5/27/2014 3:00	0.0083	--
5/27/2014 4:00	0.0047	--	5/27/2014 4:00	0.0092	--	5/27/2014 4:00	0.0092	--
5/27/2014 5:00	0.0044	--	5/27/2014 5:00	0.0087	--	5/27/2014 5:00	0.0087	--
5/27/2014 6:00	0.0048	--	5/27/2014 6:00	0.0089	--	5/27/2014 6:00	0.0089	--
5/27/2014 7:00	0.0060	--	5/27/2014 7:00	0.0084	--	5/27/2014 7:00	0.0084	--
5/27/2014 8:00	0.0074	--	5/27/2014 8:00	0.0078	--	5/27/2014 8:00	0.0078	--
5/27/2014 9:00	0.0076	--	5/27/2014 9:00	0.0090	--	5/27/2014 9:00	0.0090	--
5/27/2014 10:00	0.0077	--	5/27/2014 10:00	0.0084	--	5/27/2014 10:00	0.0084	--
5/27/2014 11:00	0.0076	--	5/27/2014 11:00	0.0086	--	5/27/2014 11:00	0.0086	--
5/27/2014 12:00	0.0077	--	5/27/2014 12:00	0.0086	--	5/27/2014 12:00	0.0086	--
5/27/2014 13:00	0.0066	--	5/27/2014 13:00	0.0091	--	5/27/2014 13:00	0.0091	--
5/27/2014 14:00	0.0064	--	5/27/2014 14:00	0.0096	--	5/27/2014 14:00	0.0096	--
5/27/2014 15:00	0.0071	--	5/27/2014 15:00	0.0083	--	5/27/2014 15:00	0.0083	--
5/27/2014 16:00	0.0063	--	5/27/2014 16:00	0.0089	--	5/27/2014 16:00	0.0089	--
5/27/2014 17:00	0.0059	--	5/27/2014 17:00	0.0089	--	5/27/2014 17:00	0.0089	--
5/27/2014 18:00	0.0052	--	5/27/2014 18:00	0.0087	--	5/27/2014 18:00	0.0087	--
5/27/2014 19:00	0.0059	--	5/27/2014 19:00	0.0082	--	5/27/2014 19:00	0.0082	--
5/27/2014 20:00	0.0067	--	5/27/2014 20:00	0.0088	--	5/27/2014 20:00	0.0088	--
5/27/2014 21:00	0.0060	--	5/27/2014 21:00	0.0087	--	5/27/2014 21:00	0.0087	--
5/27/2014 22:00	0.0056	--	5/27/2014 22:00	0.0088	--	5/27/2014 22:00	0.0088	--
5/27/2014 23:00	0.0054	--	5/27/2014 23:00	0.0086	--	5/27/2014 23:00	0.0086	--
5/28/2014 0:00	0.0047	0.0070	5/28/2014 0:00	0.0091	0.0087	5/28/2014 0:00	0.0091	0.0090
5/28/2014 1:00	0.0048	--	5/28/2014 1:00	0.0089	--	5/28/2014 1:00	0.0089	--
5/28/2014 2:00	0.0046	--	5/28/2014 2:00	0.0085	--	5/28/2014 2:00	0.0085	--
5/28/2014 3:00	0.0043	--	5/28/2014 3:00	0.0086	--	5/28/2014 3:00	0.0086	--
5/28/2014 4:00	0.0070	--	5/28/2014 4:00	0.0091	--	5/28/2014 4:00	0.0091	--
5/28/2014 5:00	0.0077	--	5/28/2014 5:00	0.0071	--	5/28/2014 5:00	0.0071	--
5/28/2014 6:00	0.0060	--	5/28/2014 6:00	0.0075	--	5/28/2014 6:00	0.0075	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
5/28/2014 7:00	0.0059	--	5/28/2014 7:00	0.0084	--	5/28/2014 7:00	0.0084	--
5/28/2014 8:00	0.0065	--	5/28/2014 8:00	0.0087	--	5/28/2014 8:00	0.0087	--
5/28/2014 9:00	0.0049	--	5/28/2014 9:00	0.0092	--	5/28/2014 9:00	0.0092	--
5/28/2014 10:00	0.0045	--	5/28/2014 10:00	0.0087	--	5/28/2014 10:00	0.0087	--
5/28/2014 11:00	0.0041	--	5/28/2014 11:00	0.0092	--	5/28/2014 11:00	0.0092	--
5/28/2014 12:00	0.0039	--	5/28/2014 12:00	0.0087	--	5/28/2014 12:00	0.0087	--
5/28/2014 13:00	0.0033	--	5/28/2014 13:00	0.0082	--	5/28/2014 13:00	0.0082	--
5/28/2014 14:00	0.0030	--	5/28/2014 14:00	0.0090	--	5/28/2014 14:00	0.0090	--
5/28/2014 15:00	0.0029	--	5/28/2014 15:00	0.0093	--	5/28/2014 15:00	0.0093	--
5/28/2014 16:00	0.0028	--	5/28/2014 16:00	0.0088	--	5/28/2014 16:00	0.0088	--
5/28/2014 17:00	0.0055	--	5/28/2014 17:00	0.0094	--	5/28/2014 17:00	0.0094	--
5/28/2014 18:00	0.0098	--	5/28/2014 18:00	0.0090	--	5/28/2014 18:00	0.0090	--
5/28/2014 19:00	0.0088	--	5/28/2014 19:00	0.0086	--	5/28/2014 19:00	SOURCE DOWN	--
5/28/2014 20:00	0.0083	--	5/28/2014 20:00	0.0083	--	5/28/2014 20:00	SOURCE DOWN	--
5/28/2014 21:00	0.0081	--	5/28/2014 21:00	0.0090	--	5/28/2014 21:00	SOURCE DOWN	--
5/28/2014 22:00	0.0077	--	5/28/2014 22:00	0.0088	--	5/28/2014 22:00	SOURCE DOWN	--
5/28/2014 23:00	0.0073	--	5/28/2014 23:00	0.0092	--	5/28/2014 23:00	SOURCE DOWN	--
5/29/2014 0:00	0.0074	0.0070	5/29/2014 0:00	0.0088	0.0087	5/29/2014 0:00	SOURCE DOWN	0.0090
5/29/2014 1:00	0.0075	--	5/29/2014 1:00	0.0091	--	5/29/2014 1:00	SOURCE DOWN	--
5/29/2014 2:00	0.0075	--	5/29/2014 2:00	0.0090	--	5/29/2014 2:00	SOURCE DOWN	--
5/29/2014 3:00	0.0076	--	5/29/2014 3:00	0.0092	--	5/29/2014 3:00	SOURCE DOWN	--
5/29/2014 4:00	0.0076	--	5/29/2014 4:00	0.0089	--	5/29/2014 4:00	SOURCE DOWN	--
5/29/2014 5:00	0.0076	--	5/29/2014 5:00	0.0087	--	5/29/2014 5:00	SOURCE DOWN	--
5/29/2014 6:00	0.0081	--	5/29/2014 6:00	0.0095	--	5/29/2014 6:00	SOURCE DOWN	--
5/29/2014 7:00	0.0077	--	5/29/2014 7:00	0.0089	--	5/29/2014 7:00	SOURCE DOWN	--
5/29/2014 8:00	0.0077	--	5/29/2014 8:00	0.0086	--	5/29/2014 8:00	SOURCE DOWN	--
5/29/2014 9:00	0.0078	--	5/29/2014 9:00	0.0092	--	5/29/2014 9:00	SOURCE DOWN	--
5/29/2014 10:00	0.0080	--	5/29/2014 10:00	0.0094	--	5/29/2014 10:00	SOURCE DOWN	--
5/29/2014 11:00	0.0079	--	5/29/2014 11:00	0.0091	--	5/29/2014 11:00	SOURCE DOWN	--
5/29/2014 12:00	0.0080	--	5/29/2014 12:00	0.0093	--	5/29/2014 12:00	SOURCE DOWN	--
5/29/2014 13:00	0.0077	--	5/29/2014 13:00	0.0087	--	5/29/2014 13:00	SOURCE DOWN	--
5/29/2014 14:00	0.0079	--	5/29/2014 14:00	0.0091	--	5/29/2014 14:00	SOURCE DOWN	--
5/29/2014 15:00	0.0077	--	5/29/2014 15:00	0.0086	--	5/29/2014 15:00	SOURCE DOWN	--
5/29/2014 16:00	0.0075	--	5/29/2014 16:00	0.0088	--	5/29/2014 16:00	SOURCE DOWN	--
5/29/2014 17:00	0.0076	--	5/29/2014 17:00	0.0088	--	5/29/2014 17:00	SOURCE DOWN	--
5/29/2014 18:00	0.0075	--	5/29/2014 18:00	0.0090	--	5/29/2014 18:00	SOURCE DOWN	--
5/29/2014 19:00	0.0081	--	5/29/2014 19:00	0.0093	--	5/29/2014 19:00	SOURCE DOWN	--
5/29/2014 20:00	0.0075	--	5/29/2014 20:00	0.0088	--	5/29/2014 20:00	SOURCE DOWN	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
5/29/2014 21:00	0.0070	--	5/29/2014 21:00	0.0081	--	5/29/2014 21:00	SOURCE DOWN	--
5/29/2014 22:00	0.0069	--	5/29/2014 22:00	0.0084	--	5/29/2014 22:00	SOURCE DOWN	--
5/29/2014 23:00	0.0072	--	5/29/2014 23:00	0.0084	--	5/29/2014 23:00	SOURCE DOWN	--
5/30/2014 0:00	0.0072	0.0069	5/30/2014 0:00	0.0089	0.0087	5/30/2014 0:00	SOURCE DOWN	0.0090
5/30/2014 1:00	0.0073	--	5/30/2014 1:00	0.0087	--	5/30/2014 1:00	SOURCE DOWN	--
5/30/2014 2:00	0.0070	--	5/30/2014 2:00	0.0091	--	5/30/2014 2:00	SOURCE DOWN	--
5/30/2014 3:00	0.0073	--	5/30/2014 3:00	0.0088	--	5/30/2014 3:00	SOURCE DOWN	--
5/30/2014 4:00	0.0075	--	5/30/2014 4:00	0.0086	--	5/30/2014 4:00	SOURCE DOWN	--
5/30/2014 5:00	0.0075	--	5/30/2014 5:00	0.0090	--	5/30/2014 5:00	SOURCE DOWN	--
5/30/2014 6:00	0.0077	--	5/30/2014 6:00	0.0093	--	5/30/2014 6:00	SOURCE DOWN	--
5/30/2014 7:00	0.0076	--	5/30/2014 7:00	0.0089	--	5/30/2014 7:00	SOURCE DOWN	--
5/30/2014 8:00	0.0078	--	5/30/2014 8:00	0.0089	--	5/30/2014 8:00	SOURCE DOWN	--
5/30/2014 9:00	0.0076	--	5/30/2014 9:00	0.0090	--	5/30/2014 9:00	SOURCE DOWN	--
5/30/2014 10:00	0.0079	--	5/30/2014 10:00	0.0091	--	5/30/2014 10:00	SOURCE DOWN	--
5/30/2014 11:00	0.0081	--	5/30/2014 11:00	0.0092	--	5/30/2014 11:00	SOURCE DOWN	--
5/30/2014 12:00	0.0078	--	5/30/2014 12:00	0.0088	--	5/30/2014 12:00	SOURCE DOWN	--
5/30/2014 13:00	0.0073	--	5/30/2014 13:00	0.0086	--	5/30/2014 13:00	SOURCE DOWN	--
5/30/2014 14:00	0.0075	--	5/30/2014 14:00	0.0085	--	5/30/2014 14:00	SOURCE DOWN	--
5/30/2014 15:00	0.0081	--	5/30/2014 15:00	0.0093	--	5/30/2014 15:00	SOURCE DOWN	--
5/30/2014 16:00	0.0081	--	5/30/2014 16:00	0.0085	--	5/30/2014 16:00	SOURCE DOWN	--
5/30/2014 17:00	0.0076	--	5/30/2014 17:00	0.0087	--	5/30/2014 17:00	SOURCE DOWN	--
5/30/2014 18:00	0.0075	--	5/30/2014 18:00	0.0088	--	5/30/2014 18:00	SOURCE DOWN	--
5/30/2014 19:00	0.0072	--	5/30/2014 19:00	0.0080	--	5/30/2014 19:00	SOURCE DOWN	--
5/30/2014 20:00	0.0073	--	5/30/2014 20:00	0.0087	--	5/30/2014 20:00	SOURCE DOWN	--
5/30/2014 21:00	0.0076	--	5/30/2014 21:00	0.0091	--	5/30/2014 21:00	SOURCE DOWN	--
5/30/2014 22:00	0.0075	--	5/30/2014 22:00	0.0090	--	5/30/2014 22:00	SOURCE DOWN	--
5/30/2014 23:00	0.0074	--	5/30/2014 23:00	0.0082	--	5/30/2014 23:00	SOURCE DOWN	--
5/31/2014 0:00	0.0074	0.0069	5/31/2014 0:00	0.0091	0.0088	5/31/2014 0:00	SOURCE DOWN	0.0090
5/31/2014 1:00	0.0074	--	5/31/2014 1:00	0.0086	--	5/31/2014 1:00	SOURCE DOWN	--
5/31/2014 2:00	0.0074	--	5/31/2014 2:00	0.0089	--	5/31/2014 2:00	SOURCE DOWN	--
5/31/2014 3:00	0.0074	--	5/31/2014 3:00	0.0089	--	5/31/2014 3:00	SOURCE DOWN	--
5/31/2014 4:00	0.0074	--	5/31/2014 4:00	0.0088	--	5/31/2014 4:00	SOURCE DOWN	--
5/31/2014 5:00	0.0074	--	5/31/2014 5:00	0.0089	--	5/31/2014 5:00	SOURCE DOWN	--
5/31/2014 6:00	0.0075	--	5/31/2014 6:00	0.0103	--	5/31/2014 6:00	SOURCE DOWN	--
5/31/2014 7:00	0.0066	--	5/31/2014 7:00	0.0094	--	5/31/2014 7:00	SOURCE DOWN	--
5/31/2014 8:00	0.0073	--	5/31/2014 8:00	0.0090	--	5/31/2014 8:00	SOURCE DOWN	--
5/31/2014 9:00	0.0073	--	5/31/2014 9:00	0.0089	--	5/31/2014 9:00	SOURCE DOWN	--
5/31/2014 10:00	0.0076	--	5/31/2014 10:00	0.0089	--	5/31/2014 10:00	SOURCE DOWN	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
5/31/2014 11:00	0.0077	--	5/31/2014 11:00	0.0089	--	5/31/2014 11:00	SOURCE DOWN	--
5/31/2014 12:00	0.0079	--	5/31/2014 12:00	0.0087	--	5/31/2014 12:00	SOURCE DOWN	--
5/31/2014 13:00	0.0078	--	5/31/2014 13:00	0.0089	--	5/31/2014 13:00	SOURCE DOWN	--
5/31/2014 14:00	0.0074	--	5/31/2014 14:00	0.0088	--	5/31/2014 14:00	SOURCE DOWN	--
5/31/2014 15:00	0.0073	--	5/31/2014 15:00	0.0089	--	5/31/2014 15:00	SOURCE DOWN	--
5/31/2014 16:00	0.0076	--	5/31/2014 16:00	0.0087	--	5/31/2014 16:00	SOURCE DOWN	--
5/31/2014 17:00	0.0072	--	5/31/2014 17:00	0.0087	--	5/31/2014 17:00	SOURCE DOWN	--
5/31/2014 18:00	0.0082	--	5/31/2014 18:00	0.0088	--	5/31/2014 18:00	SOURCE DOWN	--
5/31/2014 19:00	0.0075	--	5/31/2014 19:00	0.0089	--	5/31/2014 19:00	SOURCE DOWN	--
5/31/2014 20:00	0.0078	--	5/31/2014 20:00	0.0087	--	5/31/2014 20:00	SOURCE DOWN	--
5/31/2014 21:00	0.0079	--	5/31/2014 21:00	0.0083	--	5/31/2014 21:00	SOURCE DOWN	--
5/31/2014 22:00	0.0076	--	5/31/2014 22:00	0.0085	--	5/31/2014 22:00	SOURCE DOWN	--
5/31/2014 23:00	0.0076	--	5/31/2014 23:00	0.0089	--	5/31/2014 23:00	SOURCE DOWN	--
6/1/2014 0:00	0.0076	0.0069	6/1/2014 0:00	0.0087	0.0088	6/1/2014 0:00	SOURCE DOWN	0.0090
6/1/2014 1:00	0.0075	--	6/1/2014 1:00	0.0086	--	6/1/2014 1:00	SOURCE DOWN	--
6/1/2014 2:00	0.0075	--	6/1/2014 2:00	0.0090	--	6/1/2014 2:00	SOURCE DOWN	--
6/1/2014 3:00	0.0075	--	6/1/2014 3:00	0.0088	--	6/1/2014 3:00	SOURCE DOWN	--
6/1/2014 4:00	0.0075	--	6/1/2014 4:00	0.0087	--	6/1/2014 4:00	SOURCE DOWN	--
6/1/2014 5:00	0.0075	--	6/1/2014 5:00	0.0089	--	6/1/2014 5:00	SOURCE DOWN	--
6/1/2014 6:00	0.0077	--	6/1/2014 6:00	0.0092	--	6/1/2014 6:00	SOURCE DOWN	--
6/1/2014 7:00	0.0075	--	6/1/2014 7:00	0.0091	--	6/1/2014 7:00	SOURCE DOWN	--
6/1/2014 8:00	0.0075	--	6/1/2014 8:00	0.0092	--	6/1/2014 8:00	SOURCE DOWN	--
6/1/2014 9:00	0.0076	--	6/1/2014 9:00	0.0094	--	6/1/2014 9:00	SOURCE DOWN	--
6/1/2014 10:00	0.0077	--	6/1/2014 10:00	0.0087	--	6/1/2014 10:00	SOURCE DOWN	--
6/1/2014 11:00	0.0079	--	6/1/2014 11:00	0.0088	--	6/1/2014 11:00	SOURCE DOWN	--
6/1/2014 12:00	0.0081	--	6/1/2014 12:00	0.0092	--	6/1/2014 12:00	SOURCE DOWN	--
6/1/2014 13:00	0.0080	--	6/1/2014 13:00	0.0089	--	6/1/2014 13:00	0.0089	--
6/1/2014 14:00	0.0077	--	6/1/2014 14:00	0.0090	--	6/1/2014 14:00	0.0090	--
6/1/2014 15:00	0.0034	--	6/1/2014 15:00	0.0053	--	6/1/2014 15:00	0.0053	--
6/1/2014 16:00	0.0039	--	6/1/2014 16:00	0.0078	--	6/1/2014 16:00	0.0078	--
6/1/2014 17:00	0.0042	--	6/1/2014 17:00	0.0088	--	6/1/2014 17:00	0.0088	--
6/1/2014 18:00	0.0046	--	6/1/2014 18:00	0.0087	--	6/1/2014 18:00	0.0087	--
6/1/2014 19:00	0.0047	--	6/1/2014 19:00	0.0085	--	6/1/2014 19:00	0.0085	--
6/1/2014 20:00	0.0060	--	6/1/2014 20:00	0.0088	--	6/1/2014 20:00	0.0088	--
6/1/2014 21:00	0.0058	--	6/1/2014 21:00	0.0082	--	6/1/2014 21:00	0.0082	--
6/1/2014 22:00	0.0056	--	6/1/2014 22:00	0.0086	--	6/1/2014 22:00	0.0086	--
6/1/2014 23:00	0.0053	--	6/1/2014 23:00	0.0083	--	6/1/2014 23:00	0.0083	--
6/2/2014 0:00	0.0053	0.0069	6/2/2014 0:00	0.0087	0.0088	6/2/2014 0:00	0.0087	0.0090

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
6/2/2014 1:00	0.0053	--	6/2/2014 1:00	0.0086	--	6/2/2014 1:00	0.0086	--
6/2/2014 2:00	0.0053	--	6/2/2014 2:00	0.0087	--	6/2/2014 2:00	0.0087	--
6/2/2014 3:00	0.0053	--	6/2/2014 3:00	0.0087	--	6/2/2014 3:00	0.0087	--
6/2/2014 4:00	0.0050	--	6/2/2014 4:00	0.0093	--	6/2/2014 4:00	0.0093	--
6/2/2014 5:00	0.0041	--	6/2/2014 5:00	0.0091	--	6/2/2014 5:00	0.0091	--
6/2/2014 6:00	0.0047	--	6/2/2014 6:00	0.0096	--	6/2/2014 6:00	0.0096	--
6/2/2014 7:00	0.0041	--	6/2/2014 7:00	0.0090	--	6/2/2014 7:00	0.0090	--
6/2/2014 8:00	0.0043	--	6/2/2014 8:00	0.0089	--	6/2/2014 8:00	0.0089	--
6/2/2014 9:00	0.0041	--	6/2/2014 9:00	0.0090	--	6/2/2014 9:00	0.0090	--
6/2/2014 10:00	0.0044	--	6/2/2014 10:00	0.0086	--	6/2/2014 10:00	0.0086	--
6/2/2014 11:00	0.0042	--	6/2/2014 11:00	0.0092	--	6/2/2014 11:00	0.0092	--
6/2/2014 12:00	0.0041	--	6/2/2014 12:00	0.0087	--	6/2/2014 12:00	0.0087	--
6/2/2014 13:00	0.0041	--	6/2/2014 13:00	0.0087	--	6/2/2014 13:00	0.0087	--
6/2/2014 14:00	0.0039	--	6/2/2014 14:00	0.0087	--	6/2/2014 14:00	0.0087	--
6/2/2014 15:00	0.0036	--	6/2/2014 15:00	0.0086	--	6/2/2014 15:00	0.0086	--
6/2/2014 16:00	0.0035	--	6/2/2014 16:00	0.0087	--	6/2/2014 16:00	0.0087	--
6/2/2014 17:00	0.0037	--	6/2/2014 17:00	0.0086	--	6/2/2014 17:00	0.0086	--
6/2/2014 18:00	0.0037	--	6/2/2014 18:00	0.0087	--	6/2/2014 18:00	0.0087	--
6/2/2014 19:00	0.0042	--	6/2/2014 19:00	0.0087	--	6/2/2014 19:00	0.0087	--
6/2/2014 20:00	0.0045	--	6/2/2014 20:00	0.0084	--	6/2/2014 20:00	0.0084	--
6/2/2014 21:00	0.0046	--	6/2/2014 21:00	0.0084	--	6/2/2014 21:00	0.0084	--
6/2/2014 22:00	0.0046	--	6/2/2014 22:00	0.0085	--	6/2/2014 22:00	0.0085	--
6/2/2014 23:00	0.0044	--	6/2/2014 23:00	0.0084	--	6/2/2014 23:00	0.0084	--
6/3/2014 0:00	0.0046	0.0068	6/3/2014 0:00	0.0085	0.0088	6/3/2014 0:00	0.0085	0.0090
6/3/2014 1:00	0.0046	--	6/3/2014 1:00	0.0089	--	6/3/2014 1:00	0.0089	--
6/3/2014 2:00	0.0046	--	6/3/2014 2:00	0.0088	--	6/3/2014 2:00	0.0088	--
6/3/2014 3:00	0.0047	--	6/3/2014 3:00	0.0088	--	6/3/2014 3:00	0.0088	--
6/3/2014 4:00	0.0044	--	6/3/2014 4:00	0.0089	--	6/3/2014 4:00	0.0089	--
6/3/2014 5:00	0.0041	--	6/3/2014 5:00	0.0086	--	6/3/2014 5:00	0.0086	--
6/3/2014 6:00	0.0043	--	6/3/2014 6:00	0.0095	--	6/3/2014 6:00	0.0095	--
6/3/2014 7:00	0.0041	--	6/3/2014 7:00	0.0090	--	6/3/2014 7:00	0.0090	--
6/3/2014 8:00	0.0038	--	6/3/2014 8:00	0.0091	--	6/3/2014 8:00	0.0091	--
6/3/2014 9:00	0.0036	--	6/3/2014 9:00	0.0091	--	6/3/2014 9:00	0.0091	--
6/3/2014 10:00	0.0036	--	6/3/2014 10:00	0.0093	--	6/3/2014 10:00	0.0093	--
6/3/2014 11:00	0.0035	--	6/3/2014 11:00	0.0087	--	6/3/2014 11:00	0.0087	--
6/3/2014 12:00	0.0035	--	6/3/2014 12:00	0.0087	--	6/3/2014 12:00	0.0087	--
6/3/2014 13:00	0.0035	--	6/3/2014 13:00	0.0088	--	6/3/2014 13:00	0.0088	--
6/3/2014 14:00	0.0035	--	6/3/2014 14:00	0.0085	--	6/3/2014 14:00	0.0085	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
6/3/2014 15:00	0.0035	--	6/3/2014 15:00	0.0088	--	6/3/2014 15:00	0.0088	--
6/3/2014 16:00	0.0035	--	6/3/2014 16:00	0.0083	--	6/3/2014 16:00	0.0083	--
6/3/2014 17:00	0.0035	--	6/3/2014 17:00	0.0086	--	6/3/2014 17:00	0.0086	--
6/3/2014 18:00	0.0035	--	6/3/2014 18:00	0.0088	--	6/3/2014 18:00	0.0088	--
6/3/2014 19:00	0.0038	--	6/3/2014 19:00	0.0085	--	6/3/2014 19:00	0.0085	--
6/3/2014 20:00	0.0041	--	6/3/2014 20:00	0.0082	--	6/3/2014 20:00	0.0082	--
6/3/2014 21:00	0.0041	--	6/3/2014 21:00	0.0087	--	6/3/2014 21:00	0.0087	--
6/3/2014 22:00	0.0041	--	6/3/2014 22:00	0.0086	--	6/3/2014 22:00	0.0086	--
6/3/2014 23:00	0.0041	--	6/3/2014 23:00	0.0086	--	6/3/2014 23:00	0.0086	--
6/4/2014 0:00	0.0041	0.0067	6/4/2014 0:00	0.0086	0.0088	6/4/2014 0:00	0.0086	0.0090
6/4/2014 1:00	0.0041	--	6/4/2014 1:00	0.0089	--	6/4/2014 1:00	0.0089	--
6/4/2014 2:00	0.0045	--	6/4/2014 2:00	0.0088	--	6/4/2014 2:00	0.0088	--
6/4/2014 3:00	0.0043	--	6/4/2014 3:00	0.0084	--	6/4/2014 3:00	0.0084	--
6/4/2014 4:00	0.0043	--	6/4/2014 4:00	0.0090	--	6/4/2014 4:00	0.0090	--
6/4/2014 5:00	0.0042	--	6/4/2014 5:00	0.0085	--	6/4/2014 5:00	0.0085	--
6/4/2014 6:00	0.0046	--	6/4/2014 6:00	0.0097	--	6/4/2014 6:00	0.0097	--
6/4/2014 7:00	0.0043	--	6/4/2014 7:00	0.0088	--	6/4/2014 7:00	0.0088	--
6/4/2014 8:00	0.0040	--	6/4/2014 8:00	0.0088	--	6/4/2014 8:00	0.0088	--
6/4/2014 9:00	0.0041	--	6/4/2014 9:00	0.0092	--	6/4/2014 9:00	0.0092	--
6/4/2014 10:00	0.0039	--	6/4/2014 10:00	0.0092	--	6/4/2014 10:00	0.0092	--
6/4/2014 11:00	0.0038	--	6/4/2014 11:00	0.0089	--	6/4/2014 11:00	0.0089	--
6/4/2014 12:00	0.0036	--	6/4/2014 12:00	0.0089	--	6/4/2014 12:00	0.0089	--
6/4/2014 13:00	0.0035	--	6/4/2014 13:00	0.0089	--	6/4/2014 13:00	0.0089	--
6/4/2014 14:00	0.0037	--	6/4/2014 14:00	0.0085	--	6/4/2014 14:00	0.0085	--
6/4/2014 15:00	0.0035	--	6/4/2014 15:00	0.0087	--	6/4/2014 15:00	0.0087	--
6/4/2014 16:00	0.0035	--	6/4/2014 16:00	0.0088	--	6/4/2014 16:00	0.0088	--
6/4/2014 17:00	0.0035	--	6/4/2014 17:00	0.0088	--	6/4/2014 17:00	0.0088	--
6/4/2014 18:00	0.0035	--	6/4/2014 18:00	0.0088	--	6/4/2014 18:00	0.0088	--
6/4/2014 19:00	0.0037	--	6/4/2014 19:00	0.0086	--	6/4/2014 19:00	0.0086	--
6/4/2014 20:00	0.0041	--	6/4/2014 20:00	0.0082	--	6/4/2014 20:00	0.0082	--
6/4/2014 21:00	0.0041	--	6/4/2014 21:00	0.0084	--	6/4/2014 21:00	0.0084	--
6/4/2014 22:00	0.0041	--	6/4/2014 22:00	0.0085	--	6/4/2014 22:00	0.0085	--
6/4/2014 23:00	0.0041	--	6/4/2014 23:00	0.0086	--	6/4/2014 23:00	0.0086	--
6/5/2014 0:00	0.0041	0.0065	6/5/2014 0:00	0.0086	0.0088	6/5/2014 0:00	0.0086	0.0090
6/5/2014 1:00	0.0041	--	6/5/2014 1:00	0.0081	--	6/5/2014 1:00	0.0081	--
6/5/2014 2:00	0.0042	--	6/5/2014 2:00	0.0089	--	6/5/2014 2:00	0.0089	--
6/5/2014 3:00	0.0041	--	6/5/2014 3:00	0.0086	--	6/5/2014 3:00	0.0086	--
6/5/2014 4:00	0.0041	--	6/5/2014 4:00	0.0085	--	6/5/2014 4:00	0.0085	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
6/5/2014 5:00	0.0041	--	6/5/2014 5:00	0.0087	--	6/5/2014 5:00	0.0087	--
6/5/2014 6:00	0.0046	--	6/5/2014 6:00	0.0096	--	6/5/2014 6:00	0.0096	--
6/5/2014 7:00	0.0043	--	6/5/2014 7:00	0.0087	--	6/5/2014 7:00	0.0087	--
6/5/2014 8:00	0.0040	--	6/5/2014 8:00	0.0089	--	6/5/2014 8:00	0.0089	--
6/5/2014 9:00	0.0033	--	6/5/2014 9:00	0.0090	--	6/5/2014 9:00	0.0090	--
6/5/2014 10:00	0.0029	--	6/5/2014 10:00	0.0080	--	6/5/2014 10:00	0.0080	--
6/5/2014 11:00	0.0029	--	6/5/2014 11:00	0.0087	--	6/5/2014 11:00	0.0087	--
6/5/2014 12:00	0.0029	--	6/5/2014 12:00	0.0085	--	6/5/2014 12:00	0.0085	--
6/5/2014 13:00	0.0028	--	6/5/2014 13:00	0.0086	--	6/5/2014 13:00	0.0086	--
6/5/2014 14:00	0.0027	--	6/5/2014 14:00	0.0092	--	6/5/2014 14:00	0.0092	--
6/5/2014 15:00	0.0029	--	6/5/2014 15:00	0.0087	--	6/5/2014 15:00	0.0087	--
6/5/2014 16:00	0.0029	--	6/5/2014 16:00	0.0083	--	6/5/2014 16:00	0.0083	--
6/5/2014 17:00	0.0031	--	6/5/2014 17:00	0.0090	--	6/5/2014 17:00	0.0090	--
6/5/2014 18:00	0.0035	--	6/5/2014 18:00	0.0089	--	6/5/2014 18:00	0.0089	--
6/5/2014 19:00	0.0035	--	6/5/2014 19:00	0.0084	--	6/5/2014 19:00	0.0084	--
6/5/2014 20:00	0.0036	--	6/5/2014 20:00	0.0083	--	6/5/2014 20:00	0.0083	--
6/5/2014 21:00	0.0038	--	6/5/2014 21:00	0.0083	--	6/5/2014 21:00	0.0083	--
6/5/2014 22:00	0.0035	--	6/5/2014 22:00	0.0084	--	6/5/2014 22:00	0.0084	--
6/5/2014 23:00	0.0037	--	6/5/2014 23:00	0.0085	--	6/5/2014 23:00	0.0085	--
6/6/2014 0:00	0.0035	0.0063	6/6/2014 0:00	0.0089	0.0087	6/6/2014 0:00	0.0089	0.0089
6/6/2014 1:00	0.0036	--	6/6/2014 1:00	0.0086	--	6/6/2014 1:00	0.0086	--
6/6/2014 2:00	0.0038	--	6/6/2014 2:00	0.0087	--	6/6/2014 2:00	0.0087	--
6/6/2014 3:00	0.0036	--	6/6/2014 3:00	0.0085	--	6/6/2014 3:00	0.0085	--
6/6/2014 4:00	0.0039	--	6/6/2014 4:00	0.0088	--	6/6/2014 4:00	0.0088	--
6/6/2014 5:00	0.0039	--	6/6/2014 5:00	0.0086	--	6/6/2014 5:00	0.0086	--
6/6/2014 6:00	0.0041	--	6/6/2014 6:00	0.0079	--	6/6/2014 6:00	0.0079	--
6/6/2014 7:00	0.0037	--	6/6/2014 7:00	DOWNTIME	--	6/6/2014 7:00	0.0086	--
6/6/2014 8:00	0.0036	--	6/6/2014 8:00	DOWNTIME	--	6/6/2014 8:00	0.0708	--
6/6/2014 9:00	0.0035	--	6/6/2014 9:00	0.0100	--	6/6/2014 9:00	0.0100	--
6/6/2014 10:00	0.0035	--	6/6/2014 10:00	0.0092	--	6/6/2014 10:00	0.0092	--
6/6/2014 11:00	0.0035	--	6/6/2014 11:00	0.0089	--	6/6/2014 11:00	0.0089	--
6/6/2014 12:00	0.0035	--	6/6/2014 12:00	0.0088	--	6/6/2014 12:00	0.0088	--
6/6/2014 13:00	0.0035	--	6/6/2014 13:00	0.0090	--	6/6/2014 13:00	0.0090	--
6/6/2014 14:00	0.0035	--	6/6/2014 14:00	0.0087	--	6/6/2014 14:00	0.0087	--
6/6/2014 15:00	0.0035	--	6/6/2014 15:00	0.0088	--	6/6/2014 15:00	0.0088	--
6/6/2014 16:00	0.0035	--	6/6/2014 16:00	0.0086	--	6/6/2014 16:00	0.0086	--
6/6/2014 17:00	0.0035	--	6/6/2014 17:00	0.0090	--	6/6/2014 17:00	0.0090	--
6/6/2014 18:00	0.0035	--	6/6/2014 18:00	0.0094	--	6/6/2014 18:00	0.0094	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
6/6/2014 19:00	0.0035	--	6/6/2014 19:00	0.0090	--	6/6/2014 19:00	0.0090	--
6/6/2014 20:00	0.0041	--	6/6/2014 20:00	0.0085	--	6/6/2014 20:00	0.0085	--
6/6/2014 21:00	0.0044	--	6/6/2014 21:00	0.0086	--	6/6/2014 21:00	0.0086	--
6/6/2014 22:00	0.0043	--	6/6/2014 22:00	0.0083	--	6/6/2014 22:00	0.0083	--
6/6/2014 23:00	0.0046	--	6/6/2014 23:00	0.0082	--	6/6/2014 23:00	0.0082	--
6/7/2014 0:00	0.0046	0.0062	6/7/2014 0:00	0.0084	0.0088	6/7/2014 0:00	0.0084	0.0090
6/7/2014 1:00	0.0047	--	6/7/2014 1:00	0.0086	--	6/7/2014 1:00	0.0086	--
6/7/2014 2:00	0.0048	--	6/7/2014 2:00	0.0085	--	6/7/2014 2:00	0.0085	--
6/7/2014 3:00	0.0051	--	6/7/2014 3:00	0.0086	--	6/7/2014 3:00	0.0086	--
6/7/2014 4:00	0.0047	--	6/7/2014 4:00	0.0089	--	6/7/2014 4:00	0.0089	--
6/7/2014 5:00	0.0050	--	6/7/2014 5:00	0.0087	--	6/7/2014 5:00	0.0087	--
6/7/2014 6:00	0.0052	--	6/7/2014 6:00	0.0097	--	6/7/2014 6:00	0.0097	--
6/7/2014 7:00	0.0047	--	6/7/2014 7:00	0.0087	--	6/7/2014 7:00	0.0087	--
6/7/2014 8:00	0.0045	--	6/7/2014 8:00	0.0087	--	6/7/2014 8:00	0.0087	--
6/7/2014 9:00	0.0046	--	6/7/2014 9:00	0.0092	--	6/7/2014 9:00	0.0092	--
6/7/2014 10:00	0.0045	--	6/7/2014 10:00	0.0090	--	6/7/2014 10:00	0.0090	--
6/7/2014 11:00	0.0042	--	6/7/2014 11:00	0.0089	--	6/7/2014 11:00	0.0089	--
6/7/2014 12:00	0.0041	--	6/7/2014 12:00	0.0088	--	6/7/2014 12:00	0.0088	--
6/7/2014 13:00	0.0040	--	6/7/2014 13:00	0.0089	--	6/7/2014 13:00	0.0089	--
6/7/2014 14:00	0.0040	--	6/7/2014 14:00	0.0086	--	6/7/2014 14:00	0.0086	--
6/7/2014 15:00	0.0039	--	6/7/2014 15:00	0.0087	--	6/7/2014 15:00	0.0087	--
6/7/2014 16:00	0.0034	--	6/7/2014 16:00	0.0087	--	6/7/2014 16:00	0.0087	--
6/7/2014 17:00	0.0035	--	6/7/2014 17:00	0.0087	--	6/7/2014 17:00	0.0087	--
6/7/2014 18:00	0.0040	--	6/7/2014 18:00	0.0087	--	6/7/2014 18:00	0.0087	--
6/7/2014 19:00	0.0042	--	6/7/2014 19:00	0.0087	--	6/7/2014 19:00	0.0087	--
6/7/2014 20:00	0.0046	--	6/7/2014 20:00	0.0083	--	6/7/2014 20:00	0.0083	--
6/7/2014 21:00	0.0047	--	6/7/2014 21:00	0.0086	--	6/7/2014 21:00	0.0086	--
6/7/2014 22:00	0.0047	--	6/7/2014 22:00	0.0086	--	6/7/2014 22:00	0.0086	--
6/7/2014 23:00	0.0046	--	6/7/2014 23:00	0.0085	--	6/7/2014 23:00	0.0085	--
6/8/2014 0:00	0.0046	0.0062	6/8/2014 0:00	0.0086	0.0088	6/8/2014 0:00	0.0086	0.0090
6/8/2014 1:00	0.0047	--	6/8/2014 1:00	0.0089	--	6/8/2014 1:00	0.0089	--
6/8/2014 2:00	0.0047	--	6/8/2014 2:00	0.0085	--	6/8/2014 2:00	0.0085	--
6/8/2014 3:00	0.0047	--	6/8/2014 3:00	0.0086	--	6/8/2014 3:00	0.0086	--
6/8/2014 4:00	0.0048	--	6/8/2014 4:00	0.0088	--	6/8/2014 4:00	0.0088	--
6/8/2014 5:00	0.0048	--	6/8/2014 5:00	0.0087	--	6/8/2014 5:00	0.0087	--
6/8/2014 6:00	0.0049	--	6/8/2014 6:00	0.0101	--	6/8/2014 6:00	0.0101	--
6/8/2014 7:00	0.0046	--	6/8/2014 7:00	0.0088	--	6/8/2014 7:00	0.0088	--
6/8/2014 8:00	0.0045	--	6/8/2014 8:00	0.0088	--	6/8/2014 8:00	0.0088	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
6/8/2014 9:00	0.0043	--	6/8/2014 9:00	0.0089	--	6/8/2014 9:00	0.0089	--
6/8/2014 10:00	0.0042	--	6/8/2014 10:00	0.0094	--	6/8/2014 10:00	0.0094	--
6/8/2014 11:00	0.0043	--	6/8/2014 11:00	0.0090	--	6/8/2014 11:00	0.0090	--
6/8/2014 12:00	0.0041	--	6/8/2014 12:00	0.0091	--	6/8/2014 12:00	0.0091	--
6/8/2014 13:00	0.0045	--	6/8/2014 13:00	0.0091	--	6/8/2014 13:00	0.0091	--
6/8/2014 14:00	0.0042	--	6/8/2014 14:00	0.0084	--	6/8/2014 14:00	0.0084	--
6/8/2014 15:00	0.0046	--	6/8/2014 15:00	0.0085	--	6/8/2014 15:00	0.0085	--
6/8/2014 16:00	0.0044	--	6/8/2014 16:00	0.0087	--	6/8/2014 16:00	0.0087	--
6/8/2014 17:00	0.0042	--	6/8/2014 17:00	0.0086	--	6/8/2014 17:00	0.0086	--
6/8/2014 18:00	0.0044	--	6/8/2014 18:00	0.0090	--	6/8/2014 18:00	0.0090	--
6/8/2014 19:00	0.0049	--	6/8/2014 19:00	0.0086	--	6/8/2014 19:00	0.0086	--
6/8/2014 20:00	0.0053	--	6/8/2014 20:00	0.0084	--	6/8/2014 20:00	0.0084	--
6/8/2014 21:00	0.0054	--	6/8/2014 21:00	0.0083	--	6/8/2014 21:00	0.0083	--
6/8/2014 22:00	0.0053	--	6/8/2014 22:00	0.0086	--	6/8/2014 22:00	0.0086	--
6/8/2014 23:00	0.0053	--	6/8/2014 23:00	0.0085	--	6/8/2014 23:00	0.0085	--
6/9/2014 0:00	0.0053	0.0061	6/9/2014 0:00	0.0087	0.0088	6/9/2014 0:00	0.0087	0.0090
6/9/2014 1:00	0.0052	--	6/9/2014 1:00	0.0086	--	6/9/2014 1:00	0.0086	--
6/9/2014 2:00	0.0053	--	6/9/2014 2:00	0.0087	--	6/9/2014 2:00	0.0087	--
6/9/2014 3:00	0.0054	--	6/9/2014 3:00	0.0087	--	6/9/2014 3:00	0.0087	--
6/9/2014 4:00	0.0054	--	6/9/2014 4:00	0.0088	--	6/9/2014 4:00	0.0088	--
6/9/2014 5:00	0.0052	--	6/9/2014 5:00	0.0086	--	6/9/2014 5:00	0.0086	--
6/9/2014 6:00	0.0055	--	6/9/2014 6:00	0.0090	--	6/9/2014 6:00	0.0090	--
6/9/2014 7:00	0.0055	--	6/9/2014 7:00	0.0087	--	6/9/2014 7:00	0.0087	--
6/9/2014 8:00	0.0051	--	6/9/2014 8:00	0.0089	--	6/9/2014 8:00	0.0089	--
6/9/2014 9:00	0.0053	--	6/9/2014 9:00	0.0092	--	6/9/2014 9:00	0.0092	--
6/9/2014 10:00	0.0054	--	6/9/2014 10:00	0.0091	--	6/9/2014 10:00	0.0091	--
6/9/2014 11:00	0.0057	--	6/9/2014 11:00	0.0078	--	6/9/2014 11:00	0.0078	--
6/9/2014 12:00	0.0051	--	6/9/2014 12:00	0.0089	--	6/9/2014 12:00	0.0089	--
6/9/2014 13:00	0.0054	--	6/9/2014 13:00	0.0089	--	6/9/2014 13:00	0.0089	--
6/9/2014 14:00	0.0054	--	6/9/2014 14:00	0.0086	--	6/9/2014 14:00	0.0086	--
6/9/2014 15:00	0.0058	--	6/9/2014 15:00	0.0081	--	6/9/2014 15:00	0.0081	--
6/9/2014 16:00	0.0066	--	6/9/2014 16:00	0.0085	--	6/9/2014 16:00	0.0085	--
6/9/2014 17:00	0.0056	--	6/9/2014 17:00	0.0083	--	6/9/2014 17:00	0.0083	--
6/9/2014 18:00	0.0049	--	6/9/2014 18:00	0.0088	--	6/9/2014 18:00	0.0088	--
6/9/2014 19:00	0.0049	--	6/9/2014 19:00	0.0085	--	6/9/2014 19:00	0.0085	--
6/9/2014 20:00	0.0053	--	6/9/2014 20:00	0.0090	--	6/9/2014 20:00	0.0090	--
6/9/2014 21:00	0.0054	--	6/9/2014 21:00	0.0087	--	6/9/2014 21:00	0.0087	--
6/9/2014 22:00	0.0053	--	6/9/2014 22:00	0.0087	--	6/9/2014 22:00	0.0087	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
6/9/2014 23:00	0.0052	--	6/9/2014 23:00	0.0087	--	6/9/2014 23:00	0.0087	--
6/10/2014 0:00	0.0053	0.0060	6/10/2014 0:00	0.0087	0.0088	6/10/2014 0:00	0.0087	0.0090
6/10/2014 1:00	0.0052	--	6/10/2014 1:00	0.0085	--	6/10/2014 1:00	0.0085	--
6/10/2014 2:00	0.0050	--	6/10/2014 2:00	0.0085	--	6/10/2014 2:00	0.0085	--
6/10/2014 3:00	0.0052	--	6/10/2014 3:00	0.0086	--	6/10/2014 3:00	0.0086	--
6/10/2014 4:00	0.0053	--	6/10/2014 4:00	0.0088	--	6/10/2014 4:00	0.0088	--
6/10/2014 5:00	0.0053	--	6/10/2014 5:00	0.0087	--	6/10/2014 5:00	0.0087	--
6/10/2014 6:00	0.0061	--	6/10/2014 6:00	0.0121	--	6/10/2014 6:00	0.0121	--
6/10/2014 7:00	0.0067	--	6/10/2014 7:00	0.0093	--	6/10/2014 7:00	0.0093	--
6/10/2014 8:00	0.0066	--	6/10/2014 8:00	0.0088	--	6/10/2014 8:00	0.0088	--
6/10/2014 9:00	0.0059	--	6/10/2014 9:00	0.0085	--	6/10/2014 9:00	0.0085	--
6/10/2014 10:00	0.0053	--	6/10/2014 10:00	0.0091	--	6/10/2014 10:00	0.0091	--
6/10/2014 11:00	0.0053	--	6/10/2014 11:00	0.0091	--	6/10/2014 11:00	0.0091	--
6/10/2014 12:00	0.0058	--	6/10/2014 12:00	0.0092	--	6/10/2014 12:00	0.0092	--
6/10/2014 13:00	0.0055	--	6/10/2014 13:00	0.0088	--	6/10/2014 13:00	0.0088	--
6/10/2014 14:00	0.0057	--	6/10/2014 14:00	0.0086	--	6/10/2014 14:00	0.0086	--
6/10/2014 15:00	0.0057	--	6/10/2014 15:00	0.0085	--	6/10/2014 15:00	0.0085	--
6/10/2014 16:00	0.0056	--	6/10/2014 16:00	0.0087	--	6/10/2014 16:00	0.0087	--
6/10/2014 17:00	0.0054	--	6/10/2014 17:00	0.0083	--	6/10/2014 17:00	0.0083	--
6/10/2014 18:00	0.0053	--	6/10/2014 18:00	0.0088	--	6/10/2014 18:00	0.0088	--
6/10/2014 19:00	0.0058	--	6/10/2014 19:00	0.0082	--	6/10/2014 19:00	0.0082	--
6/10/2014 20:00	0.0062	--	6/10/2014 20:00	0.0088	--	6/10/2014 20:00	0.0088	--
6/10/2014 21:00	0.0069	--	6/10/2014 21:00	0.0081	--	6/10/2014 21:00	0.0081	--
6/10/2014 22:00	0.0070	--	6/10/2014 22:00	0.0087	--	6/10/2014 22:00	0.0087	--
6/10/2014 23:00	0.0067	--	6/10/2014 23:00	0.0091	--	6/10/2014 23:00	0.0091	--
6/11/2014 0:00	0.0069	0.0060	6/11/2014 0:00	0.0088	0.0088	6/11/2014 0:00	0.0088	0.0090
6/11/2014 1:00	0.0070	--	6/11/2014 1:00	0.0084	--	6/11/2014 1:00	0.0084	--
6/11/2014 2:00	0.0071	--	6/11/2014 2:00	0.0088	--	6/11/2014 2:00	0.0088	--
6/11/2014 3:00	0.0070	--	6/11/2014 3:00	0.0085	--	6/11/2014 3:00	0.0085	--
6/11/2014 4:00	0.0068	--	6/11/2014 4:00	0.0086	--	6/11/2014 4:00	0.0086	--
6/11/2014 5:00	0.0070	--	6/11/2014 5:00	0.0091	--	6/11/2014 5:00	0.0091	--
6/11/2014 6:00	0.0073	--	6/11/2014 6:00	0.0085	--	6/11/2014 6:00	0.0085	--
6/11/2014 7:00	0.0068	--	6/11/2014 7:00	0.0087	--	6/11/2014 7:00	0.0087	--
6/11/2014 8:00	0.0062	--	6/11/2014 8:00	0.0086	--	6/11/2014 8:00	0.0086	--
6/11/2014 9:00	0.0061	--	6/11/2014 9:00	0.0087	--	6/11/2014 9:00	0.0087	--
6/11/2014 10:00	0.0058	--	6/11/2014 10:00	0.0086	--	6/11/2014 10:00	0.0086	--
6/11/2014 11:00	0.0054	--	6/11/2014 11:00	0.0088	--	6/11/2014 11:00	0.0088	--
6/11/2014 12:00	0.0054	--	6/11/2014 12:00	0.0089	--	6/11/2014 12:00	0.0089	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
6/11/2014 13:00	0.0054	--	6/11/2014 13:00	0.0077	--	6/11/2014 13:00	0.0077	--
6/11/2014 14:00	0.0050	--	6/11/2014 14:00	0.0082	--	6/11/2014 14:00	0.0082	--
6/11/2014 15:00	0.0050	--	6/11/2014 15:00	0.0086	--	6/11/2014 15:00	0.0086	--
6/11/2014 16:00	0.0046	--	6/11/2014 16:00	0.0088	--	6/11/2014 16:00	0.0088	--
6/11/2014 17:00	0.0047	--	6/11/2014 17:00	0.0086	--	6/11/2014 17:00	0.0086	--
6/11/2014 18:00	0.0051	--	6/11/2014 18:00	0.0084	--	6/11/2014 18:00	0.0084	--
6/11/2014 19:00	0.0049	--	6/11/2014 19:00	0.0081	--	6/11/2014 19:00	0.0081	--
6/11/2014 20:00	0.0054	--	6/11/2014 20:00	0.0084	--	6/11/2014 20:00	0.0084	--
6/11/2014 21:00	0.0057	--	6/11/2014 21:00	0.0089	--	6/11/2014 21:00	0.0089	--
6/11/2014 22:00	0.0058	--	6/11/2014 22:00	0.0085	--	6/11/2014 22:00	0.0085	--
6/11/2014 23:00	0.0057	--	6/11/2014 23:00	0.0087	--	6/11/2014 23:00	0.0087	--
6/12/2014 0:00	0.0058	0.0060	6/12/2014 0:00	0.0089	0.0088	6/12/2014 0:00	0.0089	0.0090
6/12/2014 1:00	0.0058	--	6/12/2014 1:00	0.0087	--	6/12/2014 1:00	0.0087	--
6/12/2014 2:00	0.0059	--	6/12/2014 2:00	0.0088	--	6/12/2014 2:00	0.0088	--
6/12/2014 3:00	0.0058	--	6/12/2014 3:00	0.0088	--	6/12/2014 3:00	0.0088	--
6/12/2014 4:00	0.0061	--	6/12/2014 4:00	0.0088	--	6/12/2014 4:00	0.0088	--
6/12/2014 5:00	0.0060	--	6/12/2014 5:00	0.0090	--	6/12/2014 5:00	0.0090	--
6/12/2014 6:00	0.0064	--	6/12/2014 6:00	0.0089	--	6/12/2014 6:00	0.0089	--
6/12/2014 7:00	0.0057	--	6/12/2014 7:00	0.0086	--	6/12/2014 7:00	0.0086	--
6/12/2014 8:00	0.0055	--	6/12/2014 8:00	0.0094	--	6/12/2014 8:00	0.0094	--
6/12/2014 9:00	0.0056	--	6/12/2014 9:00	0.0090	--	6/12/2014 9:00	0.0090	--
6/12/2014 10:00	0.0053	--	6/12/2014 10:00	0.0091	--	6/12/2014 10:00	0.0091	--
6/12/2014 11:00	0.0052	--	6/12/2014 11:00	0.0086	--	6/12/2014 11:00	0.0086	--
6/12/2014 12:00	0.0048	--	6/12/2014 12:00	0.0086	--	6/12/2014 12:00	0.0086	--
6/12/2014 13:00	0.0046	--	6/12/2014 13:00	0.0087	--	6/12/2014 13:00	0.0087	--
6/12/2014 14:00	0.0042	--	6/12/2014 14:00	0.0090	--	6/12/2014 14:00	0.0090	--
6/12/2014 15:00	0.0041	--	6/12/2014 15:00	0.0083	--	6/12/2014 15:00	0.0083	--
6/12/2014 16:00	0.0047	--	6/12/2014 16:00	0.0088	--	6/12/2014 16:00	0.0088	--
6/12/2014 17:00	0.0056	--	6/12/2014 17:00	0.0085	--	6/12/2014 17:00	0.0085	--
6/12/2014 18:00	0.0057	--	6/12/2014 18:00	0.0088	--	6/12/2014 18:00	0.0088	--
6/12/2014 19:00	0.0052	--	6/12/2014 19:00	0.0084	--	6/12/2014 19:00	0.0084	--
6/12/2014 20:00	0.0055	--	6/12/2014 20:00	0.0082	--	6/12/2014 20:00	0.0082	--
6/12/2014 21:00	0.0056	--	6/12/2014 21:00	0.0080	--	6/12/2014 21:00	0.0080	--
6/12/2014 22:00	0.0055	--	6/12/2014 22:00	0.0086	--	6/12/2014 22:00	0.0086	--
6/12/2014 23:00	0.0055	--	6/12/2014 23:00	0.0087	--	6/12/2014 23:00	0.0087	--
6/13/2014 0:00	0.0054	0.0060	6/13/2014 0:00	0.0089	0.0087	6/13/2014 0:00	0.0089	0.0088
6/13/2014 1:00	0.0056	--	6/13/2014 1:00	0.0091	--	6/13/2014 1:00	0.0091	--
6/13/2014 2:00	0.0055	--	6/13/2014 2:00	0.0086	--	6/13/2014 2:00	0.0086	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
6/13/2014 3:00	0.0056	--	6/13/2014 3:00	0.0085	--	6/13/2014 3:00	0.0085	--
6/13/2014 4:00	0.0056	--	6/13/2014 4:00	0.0085	--	6/13/2014 4:00	0.0085	--
6/13/2014 5:00	0.0056	--	6/13/2014 5:00	0.0088	--	6/13/2014 5:00	0.0088	--
6/13/2014 6:00	0.0058	--	6/13/2014 6:00	0.0111	--	6/13/2014 6:00	0.0111	--
6/13/2014 7:00	0.0055	--	6/13/2014 7:00	0.0089	--	6/13/2014 7:00	0.0089	--
6/13/2014 8:00	0.0055	--	6/13/2014 8:00	0.0088	--	6/13/2014 8:00	0.0088	--
6/13/2014 9:00	0.0052	--	6/13/2014 9:00	0.0094	--	6/13/2014 9:00	0.0094	--
6/13/2014 10:00	0.0052	--	6/13/2014 10:00	0.0089	--	6/13/2014 10:00	0.0089	--
6/13/2014 11:00	0.0048	--	6/13/2014 11:00	0.0084	--	6/13/2014 11:00	0.0084	--
6/13/2014 12:00	0.0057	--	6/13/2014 12:00	0.0088	--	6/13/2014 12:00	0.0088	--
6/13/2014 13:00	0.0065	--	6/13/2014 13:00	0.0086	--	6/13/2014 13:00	0.0086	--
6/13/2014 14:00	0.0057	--	6/13/2014 14:00	0.0091	--	6/13/2014 14:00	0.0091	--
6/13/2014 15:00	0.0047	--	6/13/2014 15:00	0.0088	--	6/13/2014 15:00	0.0088	--
6/13/2014 16:00	0.0047	--	6/13/2014 16:00	0.0090	--	6/13/2014 16:00	0.0090	--
6/13/2014 17:00	0.0040	--	6/13/2014 17:00	0.0090	--	6/13/2014 17:00	0.0090	--
6/13/2014 18:00	0.0041	--	6/13/2014 18:00	0.0089	--	6/13/2014 18:00	0.0089	--
6/13/2014 19:00	0.0043	--	6/13/2014 19:00	0.0085	--	6/13/2014 19:00	0.0085	--
6/13/2014 20:00	0.0044	--	6/13/2014 20:00	0.0085	--	6/13/2014 20:00	0.0085	--
6/13/2014 21:00	0.0049	--	6/13/2014 21:00	0.0084	--	6/13/2014 21:00	0.0084	--
6/13/2014 22:00	0.0048	--	6/13/2014 22:00	0.0086	--	6/13/2014 22:00	0.0086	--
6/13/2014 23:00	0.0049	--	6/13/2014 23:00	0.0090	--	6/13/2014 23:00	0.0090	--
6/14/2014 0:00	0.0048	0.0059	6/14/2014 0:00	0.0088	0.0087	6/14/2014 0:00	0.0088	0.0088
6/14/2014 1:00	0.0047	--	6/14/2014 1:00	0.0085	--	6/14/2014 1:00	0.0085	--
6/14/2014 2:00	0.0049	--	6/14/2014 2:00	0.0088	--	6/14/2014 2:00	0.0088	--
6/14/2014 3:00	0.0048	--	6/14/2014 3:00	0.0086	--	6/14/2014 3:00	0.0086	--
6/14/2014 4:00	0.0050	--	6/14/2014 4:00	0.0087	--	6/14/2014 4:00	0.0087	--
6/14/2014 5:00	0.0050	--	6/14/2014 5:00	0.0089	--	6/14/2014 5:00	0.0089	--
6/14/2014 6:00	0.0051	--	6/14/2014 6:00	0.0080	--	6/14/2014 6:00	0.0080	--
6/14/2014 7:00	0.0049	--	6/14/2014 7:00	0.0087	--	6/14/2014 7:00	0.0087	--
6/14/2014 8:00	0.0043	--	6/14/2014 8:00	0.0089	--	6/14/2014 8:00	0.0089	--
6/14/2014 9:00	0.0041	--	6/14/2014 9:00	0.0089	--	6/14/2014 9:00	0.0089	--
6/14/2014 10:00	0.0043	--	6/14/2014 10:00	0.0089	--	6/14/2014 10:00	0.0089	--
6/14/2014 11:00	0.0041	--	6/14/2014 11:00	0.0089	--	6/14/2014 11:00	0.0089	--
6/14/2014 12:00	0.0041	--	6/14/2014 12:00	0.0088	--	6/14/2014 12:00	0.0088	--
6/14/2014 13:00	0.0037	--	6/14/2014 13:00	0.0087	--	6/14/2014 13:00	0.0087	--
6/14/2014 14:00	0.0038	--	6/14/2014 14:00	0.0086	--	6/14/2014 14:00	0.0086	--
6/14/2014 15:00	0.0035	--	6/14/2014 15:00	0.0091	--	6/14/2014 15:00	0.0091	--
6/14/2014 16:00	0.0035	--	6/14/2014 16:00	0.0086	--	6/14/2014 16:00	0.0086	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
6/14/2014 17:00	0.0036	--	6/14/2014 17:00	0.0087	--	6/14/2014 17:00	0.0087	--
6/14/2014 18:00	0.0038	--	6/14/2014 18:00	0.0085	--	6/14/2014 18:00	0.0085	--
6/14/2014 19:00	0.0041	--	6/14/2014 19:00	0.0085	--	6/14/2014 19:00	0.0085	--
6/14/2014 20:00	0.0045	--	6/14/2014 20:00	0.0085	--	6/14/2014 20:00	0.0085	--
6/14/2014 21:00	0.0045	--	6/14/2014 21:00	0.0083	--	6/14/2014 21:00	0.0083	--
6/14/2014 22:00	0.0045	--	6/14/2014 22:00	0.0085	--	6/14/2014 22:00	0.0085	--
6/14/2014 23:00	0.0041	--	6/14/2014 23:00	0.0087	--	6/14/2014 23:00	0.0087	--
6/15/2014 0:00	0.0041	0.0058	6/15/2014 0:00	0.0087	0.0087	6/15/2014 0:00	0.0087	0.0088
6/15/2014 1:00	0.0040	--	6/15/2014 1:00	0.0089	--	6/15/2014 1:00	0.0089	--
6/15/2014 2:00	0.0042	--	6/15/2014 2:00	0.0085	--	6/15/2014 2:00	0.0085	--
6/15/2014 3:00	0.0041	--	6/15/2014 3:00	0.0089	--	6/15/2014 3:00	0.0089	--
6/15/2014 4:00	0.0040	--	6/15/2014 4:00	0.0086	--	6/15/2014 4:00	0.0086	--
6/15/2014 5:00	0.0040	--	6/15/2014 5:00	0.0085	--	6/15/2014 5:00	0.0085	--
6/15/2014 6:00	0.0042	--	6/15/2014 6:00	0.0074	--	6/15/2014 6:00	0.0074	--
6/15/2014 7:00	0.0041	--	6/15/2014 7:00	0.0086	--	6/15/2014 7:00	0.0086	--
6/15/2014 8:00	0.0039	--	6/15/2014 8:00	0.0091	--	6/15/2014 8:00	0.0091	--
6/15/2014 9:00	0.0037	--	6/15/2014 9:00	0.0086	--	6/15/2014 9:00	0.0086	--
6/15/2014 10:00	0.0037	--	6/15/2014 10:00	0.0092	--	6/15/2014 10:00	0.0092	--
6/15/2014 11:00	0.0036	--	6/15/2014 11:00	0.0088	--	6/15/2014 11:00	0.0088	--
6/15/2014 12:00	0.0035	--	6/15/2014 12:00	0.0088	--	6/15/2014 12:00	0.0088	--
6/15/2014 13:00	0.0035	--	6/15/2014 13:00	0.0090	--	6/15/2014 13:00	0.0090	--
6/15/2014 14:00	0.0033	--	6/15/2014 14:00	0.0086	--	6/15/2014 14:00	0.0086	--
6/15/2014 15:00	0.0031	--	6/15/2014 15:00	0.0087	--	6/15/2014 15:00	0.0087	--
6/15/2014 16:00	0.0032	--	6/15/2014 16:00	0.0085	--	6/15/2014 16:00	0.0085	--
6/15/2014 17:00	0.0032	--	6/15/2014 17:00	0.0086	--	6/15/2014 17:00	0.0086	--
6/15/2014 18:00	0.0033	--	6/15/2014 18:00	0.0081	--	6/15/2014 18:00	0.0081	--
6/15/2014 19:00	0.0035	--	6/15/2014 19:00	0.0085	--	6/15/2014 19:00	0.0085	--
6/15/2014 20:00	0.0035	--	6/15/2014 20:00	0.0088	--	6/15/2014 20:00	0.0088	--
6/15/2014 21:00	0.0035	--	6/15/2014 21:00	0.0088	--	6/15/2014 21:00	0.0088	--
6/15/2014 22:00	0.0030	--	6/15/2014 22:00	0.0084	--	6/15/2014 22:00	0.0084	--
6/15/2014 23:00	0.0030	--	6/15/2014 23:00	0.0089	--	6/15/2014 23:00	0.0089	--
6/16/2014 0:00	0.0029	0.0056	6/16/2014 0:00	0.0088	0.0087	6/16/2014 0:00	0.0088	0.0088
6/16/2014 1:00	0.0029	--	6/16/2014 1:00	0.0087	--	6/16/2014 1:00	0.0087	--
6/16/2014 2:00	0.0030	--	6/16/2014 2:00	0.0091	--	6/16/2014 2:00	0.0091	--
6/16/2014 3:00	0.0029	--	6/16/2014 3:00	0.0083	--	6/16/2014 3:00	0.0083	--
6/16/2014 4:00	0.0029	--	6/16/2014 4:00	0.0095	--	6/16/2014 4:00	0.0095	--
6/16/2014 5:00	0.0029	--	6/16/2014 5:00	0.0088	--	6/16/2014 5:00	0.0088	--
6/16/2014 6:00	0.0034	--	6/16/2014 6:00	0.0108	--	6/16/2014 6:00	0.0108	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
6/16/2014 7:00	0.0030	--	6/16/2014 7:00	0.0089	--	6/16/2014 7:00	0.0089	--
6/16/2014 8:00	0.0030	--	6/16/2014 8:00	0.0087	--	6/16/2014 8:00	0.0087	--
6/16/2014 9:00	0.0029	--	6/16/2014 9:00	0.0094	--	6/16/2014 9:00	0.0094	--
6/16/2014 10:00	0.0030	--	6/16/2014 10:00	0.0083	--	6/16/2014 10:00	0.0083	--
6/16/2014 11:00	0.0031	--	6/16/2014 11:00	0.0093	--	6/16/2014 11:00	0.0093	--
6/16/2014 12:00	0.0029	--	6/16/2014 12:00	0.0089	--	6/16/2014 12:00	0.0089	--
6/16/2014 13:00	0.0029	--	6/16/2014 13:00	0.0090	--	6/16/2014 13:00	0.0090	--
6/16/2014 14:00	0.0029	--	6/16/2014 14:00	0.0091	--	6/16/2014 14:00	0.0091	--
6/16/2014 15:00	0.0029	--	6/16/2014 15:00	0.0092	--	6/16/2014 15:00	0.0092	--
6/16/2014 16:00	0.0029	--	6/16/2014 16:00	0.0089	--	6/16/2014 16:00	0.0089	--
6/16/2014 17:00	0.0029	--	6/16/2014 17:00	0.0082	--	6/16/2014 17:00	0.0082	--
6/16/2014 18:00	0.0029	--	6/16/2014 18:00	0.0087	--	6/16/2014 18:00	0.0087	--
6/16/2014 19:00	0.0029	--	6/16/2014 19:00	0.0084	--	6/16/2014 19:00	0.0084	--
6/16/2014 20:00	0.0029	--	6/16/2014 20:00	0.0079	--	6/16/2014 20:00	0.0079	--
6/16/2014 21:00	0.0029	--	6/16/2014 21:00	0.0087	--	6/16/2014 21:00	0.0087	--
6/16/2014 22:00	0.0029	--	6/16/2014 22:00	0.0086	--	6/16/2014 22:00	0.0086	--
6/16/2014 23:00	0.0029	--	6/16/2014 23:00	0.0082	--	6/16/2014 23:00	0.0082	--
6/17/2014 0:00	0.0029	0.0055	6/17/2014 0:00	0.0088	0.0087	6/17/2014 0:00	0.0088	0.0088
6/17/2014 1:00	0.0029	--	6/17/2014 1:00	0.0086	--	6/17/2014 1:00	0.0086	--
6/17/2014 2:00	0.0029	--	6/17/2014 2:00	0.0086	--	6/17/2014 2:00	0.0086	--
6/17/2014 3:00	0.0029	--	6/17/2014 3:00	0.0082	--	6/17/2014 3:00	0.0082	--
6/17/2014 4:00	0.0029	--	6/17/2014 4:00	0.0087	--	6/17/2014 4:00	0.0087	--
6/17/2014 5:00	0.0029	--	6/17/2014 5:00	0.0087	--	6/17/2014 5:00	0.0087	--
6/17/2014 6:00	0.0032	--	6/17/2014 6:00	0.0079	--	6/17/2014 6:00	0.0079	--
6/17/2014 7:00	0.0029	--	6/17/2014 7:00	0.0087	--	6/17/2014 7:00	0.0087	--
6/17/2014 8:00	0.0029	--	6/17/2014 8:00	0.0092	--	6/17/2014 8:00	0.0092	--
6/17/2014 9:00	0.0033	--	6/17/2014 9:00	0.0088	--	6/17/2014 9:00	0.0088	--
6/17/2014 10:00	0.0032	--	6/17/2014 10:00	0.0092	--	6/17/2014 10:00	0.0092	--
6/17/2014 11:00	0.0029	--	6/17/2014 11:00	0.0087	--	6/17/2014 11:00	0.0087	--
6/17/2014 12:00	0.0029	--	6/17/2014 12:00	0.0078	--	6/17/2014 12:00	0.0078	--
6/17/2014 13:00	0.0027	--	6/17/2014 13:00	0.0098	--	6/17/2014 13:00	0.0098	--
6/17/2014 14:00	0.0025	--	6/17/2014 14:00	0.0087	--	6/17/2014 14:00	0.0087	--
6/17/2014 15:00	0.0025	--	6/17/2014 15:00	0.0083	--	6/17/2014 15:00	0.0083	--
6/17/2014 16:00	0.0029	--	6/17/2014 16:00	0.0089	--	6/17/2014 16:00	0.0089	--
6/17/2014 17:00	0.0029	--	6/17/2014 17:00	0.0088	--	6/17/2014 17:00	0.0088	--
6/17/2014 18:00	0.0029	--	6/17/2014 18:00	0.0088	--	6/17/2014 18:00	0.0088	--
6/17/2014 19:00	0.0029	--	6/17/2014 19:00	0.0077	--	6/17/2014 19:00	0.0077	--
6/17/2014 20:00	0.0029	--	6/17/2014 20:00	0.0083	--	6/17/2014 20:00	0.0083	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
6/17/2014 21:00	0.0029	--	6/17/2014 21:00	0.0084	--	6/17/2014 21:00	0.0084	--
6/17/2014 22:00	0.0029	--	6/17/2014 22:00	0.0088	--	6/17/2014 22:00	0.0088	--
6/17/2014 23:00	0.0029	--	6/17/2014 23:00	0.0087	--	6/17/2014 23:00	0.0087	--
6/18/2014 0:00	0.0029	0.0053	6/18/2014 0:00	0.0086	0.0087	6/18/2014 0:00	0.0086	0.0088
6/18/2014 1:00	0.0029	--	6/18/2014 1:00	0.0089	--	6/18/2014 1:00	0.0089	--
6/18/2014 2:00	0.0029	--	6/18/2014 2:00	0.0085	--	6/18/2014 2:00	0.0085	--
6/18/2014 3:00	0.0029	--	6/18/2014 3:00	0.0087	--	6/18/2014 3:00	0.0087	--
6/18/2014 4:00	0.0029	--	6/18/2014 4:00	0.0086	--	6/18/2014 4:00	0.0086	--
6/18/2014 5:00	0.0029	--	6/18/2014 5:00	0.0083	--	6/18/2014 5:00	0.0083	--
6/18/2014 6:00	0.0031	--	6/18/2014 6:00	0.0097	--	6/18/2014 6:00	0.0097	--
6/18/2014 7:00	0.0029	--	6/18/2014 7:00	0.0089	--	6/18/2014 7:00	0.0089	--
6/18/2014 8:00	0.0029	--	6/18/2014 8:00	0.0090	--	6/18/2014 8:00	0.0090	--
6/18/2014 9:00	0.0029	--	6/18/2014 9:00	0.0093	--	6/18/2014 9:00	0.0093	--
6/18/2014 10:00	0.0029	--	6/18/2014 10:00	0.0087	--	6/18/2014 10:00	0.0087	--
6/18/2014 11:00	0.0032	--	6/18/2014 11:00	0.0087	--	6/18/2014 11:00	0.0087	--
6/18/2014 12:00	0.0034	--	6/18/2014 12:00	0.0084	--	6/18/2014 12:00	0.0084	--
6/18/2014 13:00	0.0032	--	6/18/2014 13:00	0.0086	--	6/18/2014 13:00	0.0086	--
6/18/2014 14:00	0.0031	--	6/18/2014 14:00	0.0087	--	6/18/2014 14:00	0.0087	--
6/18/2014 15:00	0.0032	--	6/18/2014 15:00	0.0093	--	6/18/2014 15:00	0.0093	--
6/18/2014 16:00	0.0030	--	6/18/2014 16:00	0.0097	--	6/18/2014 16:00	0.0097	--
6/18/2014 17:00	0.0035	--	6/18/2014 17:00	0.0086	--	6/18/2014 17:00	0.0086	--
6/18/2014 18:00	0.0031	--	6/18/2014 18:00	0.0089	--	6/18/2014 18:00	0.0089	--
6/18/2014 19:00	0.0032	--	6/18/2014 19:00	0.0083	--	6/18/2014 19:00	0.0083	--
6/18/2014 20:00	0.0035	--	6/18/2014 20:00	0.0084	--	6/18/2014 20:00	0.0084	--
6/18/2014 21:00	0.0035	--	6/18/2014 21:00	0.0082	--	6/18/2014 21:00	0.0082	--
6/18/2014 22:00	0.0035	--	6/18/2014 22:00	0.0087	--	6/18/2014 22:00	0.0087	--
6/18/2014 23:00	0.0035	--	6/18/2014 23:00	0.0085	--	6/18/2014 23:00	0.0085	--
6/19/2014 0:00	0.0035	0.0052	6/19/2014 0:00	0.0086	0.0087	6/19/2014 0:00	0.0086	0.0088
6/19/2014 1:00	0.0035	--	6/19/2014 1:00	0.0086	--	6/19/2014 1:00	0.0086	--
6/19/2014 2:00	0.0035	--	6/19/2014 2:00	0.0088	--	6/19/2014 2:00	0.0088	--
6/19/2014 3:00	0.0035	--	6/19/2014 3:00	0.0089	--	6/19/2014 3:00	0.0089	--
6/19/2014 4:00	0.0035	--	6/19/2014 4:00	0.0079	--	6/19/2014 4:00	0.0079	--
6/19/2014 5:00	0.0037	--	6/19/2014 5:00	0.0084	--	6/19/2014 5:00	0.0084	--
6/19/2014 6:00	0.0038	--	6/19/2014 6:00	0.0078	--	6/19/2014 6:00	0.0078	--
6/19/2014 7:00	0.0036	--	6/19/2014 7:00	0.0086	--	6/19/2014 7:00	0.0086	--
6/19/2014 8:00	0.0037	--	6/19/2014 8:00	0.0088	--	6/19/2014 8:00	0.0088	--
6/19/2014 9:00	0.0036	--	6/19/2014 9:00	0.0091	--	6/19/2014 9:00	0.0091	--
6/19/2014 10:00	0.0036	--	6/19/2014 10:00	0.0093	--	6/19/2014 10:00	0.0093	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
6/19/2014 11:00	0.0035	--	6/19/2014 11:00	0.0092	--	6/19/2014 11:00	0.0092	--
6/19/2014 12:00	0.0034	--	6/19/2014 12:00	0.0089	--	6/19/2014 12:00	0.0089	--
6/19/2014 13:00	0.0033	--	6/19/2014 13:00	0.0090	--	6/19/2014 13:00	0.0090	--
6/19/2014 14:00	0.0034	--	6/19/2014 14:00	0.0087	--	6/19/2014 14:00	0.0087	--
6/19/2014 15:00	0.0029	--	6/19/2014 15:00	0.0087	--	6/19/2014 15:00	0.0087	--
6/19/2014 16:00	0.0029	--	6/19/2014 16:00	0.0084	--	6/19/2014 16:00	0.0084	--
6/19/2014 17:00	0.0030	--	6/19/2014 17:00	0.0087	--	6/19/2014 17:00	0.0087	--
6/19/2014 18:00	0.0033	--	6/19/2014 18:00	0.0097	--	6/19/2014 18:00	0.0097	--
6/19/2014 19:00	0.0035	--	6/19/2014 19:00	0.0085	--	6/19/2014 19:00	0.0085	--
6/19/2014 20:00	0.0036	--	6/19/2014 20:00	0.0081	--	6/19/2014 20:00	0.0081	--
6/19/2014 21:00	0.0035	--	6/19/2014 21:00	0.0086	--	6/19/2014 21:00	0.0086	--
6/19/2014 22:00	0.0036	--	6/19/2014 22:00	0.0089	--	6/19/2014 22:00	0.0089	--
6/19/2014 23:00	0.0037	--	6/19/2014 23:00	0.0089	--	6/19/2014 23:00	0.0089	--
6/20/2014 0:00	0.0036	0.0051	6/20/2014 0:00	0.0090	0.0087	6/20/2014 0:00	0.0090	0.0088
6/20/2014 1:00	0.0036	--	6/20/2014 1:00	0.0085	--	6/20/2014 1:00	0.0085	--
6/20/2014 2:00	0.0036	--	6/20/2014 2:00	0.0085	--	6/20/2014 2:00	0.0085	--
6/20/2014 3:00	0.0036	--	6/20/2014 3:00	0.0086	--	6/20/2014 3:00	0.0086	--
6/20/2014 4:00	0.0036	--	6/20/2014 4:00	0.0088	--	6/20/2014 4:00	0.0088	--
6/20/2014 5:00	0.0035	--	6/20/2014 5:00	0.0088	--	6/20/2014 5:00	0.0088	--
6/20/2014 6:00	0.0039	--	6/20/2014 6:00	0.0105	--	6/20/2014 6:00	0.0105	--
6/20/2014 7:00	0.0035	--	6/20/2014 7:00	DOWNTIME	--	6/20/2014 7:00	0.0183	--
6/20/2014 8:00	0.0035	--	6/20/2014 8:00	0.0086	--	6/20/2014 8:00	0.0086	--
6/20/2014 9:00	0.0036	--	6/20/2014 9:00	0.0088	--	6/20/2014 9:00	0.0088	--
6/20/2014 10:00	0.0037	--	6/20/2014 10:00	0.0087	--	6/20/2014 10:00	0.0087	--
6/20/2014 11:00	0.0035	--	6/20/2014 11:00	0.0090	--	6/20/2014 11:00	0.0090	--
6/20/2014 12:00	0.0035	--	6/20/2014 12:00	0.0088	--	6/20/2014 12:00	0.0088	--
6/20/2014 13:00	0.0037	--	6/20/2014 13:00	0.0085	--	6/20/2014 13:00	0.0085	--
6/20/2014 14:00	0.0042	--	6/20/2014 14:00	0.0084	--	6/20/2014 14:00	0.0084	--
6/20/2014 15:00	0.0034	--	6/20/2014 15:00	0.0093	--	6/20/2014 15:00	0.0093	--
6/20/2014 16:00	0.0035	--	6/20/2014 16:00	0.0083	--	6/20/2014 16:00	0.0083	--
6/20/2014 17:00	0.0035	--	6/20/2014 17:00	0.0087	--	6/20/2014 17:00	0.0087	--
6/20/2014 18:00	0.0035	--	6/20/2014 18:00	0.0087	--	6/20/2014 18:00	0.0087	--
6/20/2014 19:00	0.0036	--	6/20/2014 19:00	0.0081	--	6/20/2014 19:00	0.0081	--
6/20/2014 20:00	0.0036	--	6/20/2014 20:00	0.0083	--	6/20/2014 20:00	0.0083	--
6/20/2014 21:00	0.0038	--	6/20/2014 21:00	0.0089	--	6/20/2014 21:00	0.0089	--
6/20/2014 22:00	0.0036	--	6/20/2014 22:00	0.0085	--	6/20/2014 22:00	0.0085	--
6/20/2014 23:00	0.0036	--	6/20/2014 23:00	0.0087	--	6/20/2014 23:00	0.0087	--
6/21/2014 0:00	0.0035	0.0050	6/21/2014 0:00	0.0086	0.0087	6/21/2014 0:00	0.0086	0.0088

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
6/21/2014 1:00	0.0038	--	6/21/2014 1:00	0.0085	--	6/21/2014 1:00	0.0085	--
6/21/2014 2:00	0.0036	--	6/21/2014 2:00	0.0089	--	6/21/2014 2:00	0.0089	--
6/21/2014 3:00	0.0041	--	6/21/2014 3:00	0.0089	--	6/21/2014 3:00	0.0089	--
6/21/2014 4:00	0.0041	--	6/21/2014 4:00	0.0086	--	6/21/2014 4:00	0.0086	--
6/21/2014 5:00	0.0041	--	6/21/2014 5:00	0.0086	--	6/21/2014 5:00	0.0086	--
6/21/2014 6:00	0.0042	--	6/21/2014 6:00	0.0110	--	6/21/2014 6:00	0.0110	--
6/21/2014 7:00	0.0040	--	6/21/2014 7:00	0.0094	--	6/21/2014 7:00	0.0094	--
6/21/2014 8:00	0.0035	--	6/21/2014 8:00	0.0090	--	6/21/2014 8:00	0.0090	--
6/21/2014 9:00	0.0042	--	6/21/2014 9:00	0.0090	--	6/21/2014 9:00	0.0090	--
6/21/2014 10:00	0.0041	--	6/21/2014 10:00	0.0089	--	6/21/2014 10:00	0.0089	--
6/21/2014 11:00	0.0035	--	6/21/2014 11:00	0.0088	--	6/21/2014 11:00	0.0088	--
6/21/2014 12:00	0.0035	--	6/21/2014 12:00	0.0085	--	6/21/2014 12:00	0.0085	--
6/21/2014 13:00	0.0034	--	6/21/2014 13:00	0.0089	--	6/21/2014 13:00	0.0089	--
6/21/2014 14:00	0.0039	--	6/21/2014 14:00	0.0078	--	6/21/2014 14:00	0.0078	--
6/21/2014 15:00	0.0039	--	6/21/2014 15:00	0.0081	--	6/21/2014 15:00	0.0081	--
6/21/2014 16:00	0.0034	--	6/21/2014 16:00	0.0074	--	6/21/2014 16:00	0.0074	--
6/21/2014 17:00	0.0029	--	6/21/2014 17:00	0.0076	--	6/21/2014 17:00	0.0076	--
6/21/2014 18:00	0.0032	--	6/21/2014 18:00	0.0085	--	6/21/2014 18:00	0.0085	--
6/21/2014 19:00	0.0035	--	6/21/2014 19:00	0.0082	--	6/21/2014 19:00	0.0082	--
6/21/2014 20:00	0.0035	--	6/21/2014 20:00	0.0086	--	6/21/2014 20:00	0.0086	--
6/21/2014 21:00	0.0035	--	6/21/2014 21:00	0.0084	--	6/21/2014 21:00	0.0084	--
6/21/2014 22:00	0.0035	--	6/21/2014 22:00	0.0087	--	6/21/2014 22:00	0.0087	--
6/21/2014 23:00	0.0035	--	6/21/2014 23:00	0.0087	--	6/21/2014 23:00	0.0087	--
6/22/2014 0:00	0.0035	0.0049	6/22/2014 0:00	0.0089	0.0087	6/22/2014 0:00	0.0089	0.0088
6/22/2014 1:00	0.0036	--	6/22/2014 1:00	0.0088	--	6/22/2014 1:00	0.0088	--
6/22/2014 2:00	0.0036	--	6/22/2014 2:00	0.0088	--	6/22/2014 2:00	0.0088	--
6/22/2014 3:00	0.0036	--	6/22/2014 3:00	0.0086	--	6/22/2014 3:00	0.0086	--
6/22/2014 4:00	0.0035	--	6/22/2014 4:00	0.0087	--	6/22/2014 4:00	0.0087	--
6/22/2014 5:00	0.0035	--	6/22/2014 5:00	0.0088	--	6/22/2014 5:00	0.0088	--
6/22/2014 6:00	0.0038	--	6/22/2014 6:00	0.0090	--	6/22/2014 6:00	0.0090	--
6/22/2014 7:00	0.0036	--	6/22/2014 7:00	0.0086	--	6/22/2014 7:00	0.0086	--
6/22/2014 8:00	0.0035	--	6/22/2014 8:00	0.0089	--	6/22/2014 8:00	0.0089	--
6/22/2014 9:00	0.0035	--	6/22/2014 9:00	0.0088	--	6/22/2014 9:00	0.0088	--
6/22/2014 10:00	0.0035	--	6/22/2014 10:00	0.0091	--	6/22/2014 10:00	0.0091	--
6/22/2014 11:00	0.0037	--	6/22/2014 11:00	0.0092	--	6/22/2014 11:00	0.0092	--
6/22/2014 12:00	0.0038	--	6/22/2014 12:00	0.0092	--	6/22/2014 12:00	0.0092	--
6/22/2014 13:00	0.0035	--	6/22/2014 13:00	0.0086	--	6/22/2014 13:00	0.0086	--
6/22/2014 14:00	0.0039	--	6/22/2014 14:00	0.0087	--	6/22/2014 14:00	0.0087	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
6/22/2014 15:00	0.0040	--	6/22/2014 15:00	0.0087	--	6/22/2014 15:00	0.0087	--
6/22/2014 16:00	0.0041	--	6/22/2014 16:00	0.0089	--	6/22/2014 16:00	0.0089	--
6/22/2014 17:00	0.0041	--	6/22/2014 17:00	0.0084	--	6/22/2014 17:00	0.0084	--
6/22/2014 18:00	0.0041	--	6/22/2014 18:00	0.0085	--	6/22/2014 18:00	0.0085	--
6/22/2014 19:00	0.0041	--	6/22/2014 19:00	0.0082	--	6/22/2014 19:00	0.0082	--
6/22/2014 20:00	0.0041	--	6/22/2014 20:00	0.0088	--	6/22/2014 20:00	0.0088	--
6/22/2014 21:00	0.0043	--	6/22/2014 21:00	0.0088	--	6/22/2014 21:00	0.0088	--
6/22/2014 22:00	0.0041	--	6/22/2014 22:00	0.0082	--	6/22/2014 22:00	0.0082	--
6/22/2014 23:00	0.0042	--	6/22/2014 23:00	0.0085	--	6/22/2014 23:00	0.0085	--
6/23/2014 0:00	0.0042	0.0048	6/23/2014 0:00	0.0084	0.0087	6/23/2014 0:00	0.0084	0.0088
6/23/2014 1:00	0.0042	--	6/23/2014 1:00	0.0085	--	6/23/2014 1:00	0.0085	--
6/23/2014 2:00	0.0043	--	6/23/2014 2:00	0.0089	--	6/23/2014 2:00	0.0089	--
6/23/2014 3:00	0.0041	--	6/23/2014 3:00	0.0087	--	6/23/2014 3:00	0.0087	--
6/23/2014 4:00	0.0038	--	6/23/2014 4:00	0.0091	--	6/23/2014 4:00	0.0091	--
6/23/2014 5:00	0.0037	--	6/23/2014 5:00	0.0088	--	6/23/2014 5:00	0.0088	--
6/23/2014 6:00	0.0041	--	6/23/2014 6:00	0.0089	--	6/23/2014 6:00	0.0089	--
6/23/2014 7:00	0.0037	--	6/23/2014 7:00	0.0085	--	6/23/2014 7:00	0.0085	--
6/23/2014 8:00	0.0037	--	6/23/2014 8:00	0.0086	--	6/23/2014 8:00	0.0086	--
6/23/2014 9:00	0.0035	--	6/23/2014 9:00	0.0091	--	6/23/2014 9:00	0.0091	--
6/23/2014 10:00	0.0035	--	6/23/2014 10:00	0.0088	--	6/23/2014 10:00	0.0088	--
6/23/2014 11:00	0.0035	--	6/23/2014 11:00	0.0088	--	6/23/2014 11:00	0.0088	--
6/23/2014 12:00	0.0035	--	6/23/2014 12:00	0.0087	--	6/23/2014 12:00	0.0087	--
6/23/2014 13:00	0.0037	--	6/23/2014 13:00	0.0085	--	6/23/2014 13:00	0.0085	--
6/23/2014 14:00	0.0059	--	6/23/2014 14:00	0.0078	--	6/23/2014 14:00	0.0078	--
6/23/2014 15:00	0.0057	--	6/23/2014 15:00	0.0087	--	6/23/2014 15:00	0.0087	--
6/23/2014 16:00	0.0050	--	6/23/2014 16:00	0.0086	--	6/23/2014 16:00	0.0086	--
6/23/2014 17:00	0.0043	--	6/23/2014 17:00	0.0087	--	6/23/2014 17:00	0.0087	--
6/23/2014 18:00	0.0041	--	6/23/2014 18:00	0.0087	--	6/23/2014 18:00	0.0087	--
6/23/2014 19:00	0.0037	--	6/23/2014 19:00	0.0088	--	6/23/2014 19:00	0.0088	--
6/23/2014 20:00	0.0040	--	6/23/2014 20:00	0.0087	--	6/23/2014 20:00	0.0087	--
6/23/2014 21:00	0.0041	--	6/23/2014 21:00	0.0089	--	6/23/2014 21:00	0.0089	--
6/23/2014 22:00	0.0042	--	6/23/2014 22:00	0.0086	--	6/23/2014 22:00	0.0086	--
6/23/2014 23:00	0.0042	--	6/23/2014 23:00	0.0087	--	6/23/2014 23:00	0.0087	--
6/24/2014 0:00	0.0042	0.0047	6/24/2014 0:00	0.0087	0.0087	6/24/2014 0:00	0.0087	0.0088
6/24/2014 1:00	0.0042	--	6/24/2014 1:00	0.0083	--	6/24/2014 1:00	0.0083	--
6/24/2014 2:00	0.0042	--	6/24/2014 2:00	0.0088	--	6/24/2014 2:00	0.0088	--
6/24/2014 3:00	0.0044	--	6/24/2014 3:00	0.0087	--	6/24/2014 3:00	0.0087	--
6/24/2014 4:00	0.0042	--	6/24/2014 4:00	0.0087	--	6/24/2014 4:00	0.0087	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
6/24/2014 5:00	0.0045	--	6/24/2014 5:00	0.0087	--	6/24/2014 5:00	0.0087	--
6/24/2014 6:00	0.0049	--	6/24/2014 6:00	0.0091	--	6/24/2014 6:00	0.0091	--
6/24/2014 7:00	0.0044	--	6/24/2014 7:00	0.0086	--	6/24/2014 7:00	0.0086	--
6/24/2014 8:00	0.0042	--	6/24/2014 8:00	0.0087	--	6/24/2014 8:00	0.0087	--
6/24/2014 9:00	0.0038	--	6/24/2014 9:00	0.0090	--	6/24/2014 9:00	0.0090	--
6/24/2014 10:00	0.0037	--	6/24/2014 10:00	0.0091	--	6/24/2014 10:00	0.0091	--
6/24/2014 11:00	0.0035	--	6/24/2014 11:00	0.0090	--	6/24/2014 11:00	0.0090	--
6/24/2014 12:00	0.0036	--	6/24/2014 12:00	0.0088	--	6/24/2014 12:00	0.0088	--
6/24/2014 13:00	0.0035	--	6/24/2014 13:00	0.0094	--	6/24/2014 13:00	0.0094	--
6/24/2014 14:00	0.0049	--	6/24/2014 14:00	0.0084	--	6/24/2014 14:00	0.0084	--
6/24/2014 15:00	0.0071	--	6/24/2014 15:00	0.0072	--	6/24/2014 15:00	0.0072	--
6/24/2014 16:00	0.0074	--	6/24/2014 16:00	0.0067	--	6/24/2014 16:00	0.0067	--
6/24/2014 17:00	0.0075	--	6/24/2014 17:00	0.0084	--	6/24/2014 17:00	0.0084	--
6/24/2014 18:00	0.0074	--	6/24/2014 18:00	0.0087	--	6/24/2014 18:00	0.0087	--
6/24/2014 19:00	0.0069	--	6/24/2014 19:00	0.0087	--	6/24/2014 19:00	0.0087	--
6/24/2014 20:00	0.0070	--	6/24/2014 20:00	0.0089	--	6/24/2014 20:00	0.0089	--
6/24/2014 21:00	0.0071	--	6/24/2014 21:00	0.0086	--	6/24/2014 21:00	0.0086	--
6/24/2014 22:00	0.0068	--	6/24/2014 22:00	0.0086	--	6/24/2014 22:00	0.0086	--
6/24/2014 23:00	0.0064	--	6/24/2014 23:00	0.0086	--	6/24/2014 23:00	0.0086	--
6/25/2014 0:00	0.0065	0.0048	6/25/2014 0:00	0.0089	0.0087	6/25/2014 0:00	0.0089	0.0088
6/25/2014 1:00	0.0061	--	6/25/2014 1:00	0.0085	--	6/25/2014 1:00	0.0085	--
6/25/2014 2:00	0.0063	--	6/25/2014 2:00	0.0089	--	6/25/2014 2:00	0.0089	--
6/25/2014 3:00	0.0061	--	6/25/2014 3:00	0.0087	--	6/25/2014 3:00	0.0087	--
6/25/2014 4:00	0.0059	--	6/25/2014 4:00	0.0089	--	6/25/2014 4:00	0.0089	--
6/25/2014 5:00	0.0062	--	6/25/2014 5:00	0.0092	--	6/25/2014 5:00	0.0092	--
6/25/2014 6:00	0.0074	--	6/25/2014 6:00	0.0123	--	6/25/2014 6:00	0.0123	--
6/25/2014 7:00	0.0077	--	6/25/2014 7:00	0.0029	--	6/25/2014 7:00	0.0029	--
6/25/2014 8:00	0.0076	--	6/25/2014 8:00	0.0068	--	6/25/2014 8:00	0.0068	--
6/25/2014 9:00	0.0069	--	6/25/2014 9:00	0.0084	--	6/25/2014 9:00	0.0084	--
6/25/2014 10:00	0.0062	--	6/25/2014 10:00	0.0091	--	6/25/2014 10:00	0.0091	--
6/25/2014 11:00	0.0062	--	6/25/2014 11:00	0.0088	--	6/25/2014 11:00	0.0088	--
6/25/2014 12:00	0.0066	--	6/25/2014 12:00	0.0081	--	6/25/2014 12:00	0.0081	--
6/25/2014 13:00	0.0067	--	6/25/2014 13:00	0.0082	--	6/25/2014 13:00	0.0082	--
6/25/2014 14:00	0.0067	--	6/25/2014 14:00	0.0084	--	6/25/2014 14:00	0.0084	--
6/25/2014 15:00	0.0067	--	6/25/2014 15:00	0.0088	--	6/25/2014 15:00	0.0088	--
6/25/2014 16:00	0.0066	--	6/25/2014 16:00	0.0088	--	6/25/2014 16:00	0.0088	--
6/25/2014 17:00	0.0069	--	6/25/2014 17:00	0.0088	--	6/25/2014 17:00	0.0088	--
6/25/2014 18:00	0.0069	--	6/25/2014 18:00	0.0085	--	6/25/2014 18:00	0.0085	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
6/25/2014 19:00	0.0062	--	6/25/2014 19:00	0.0087	--	6/25/2014 19:00	0.0087	--
6/25/2014 20:00	0.0061	--	6/25/2014 20:00	0.0086	--	6/25/2014 20:00	0.0086	--
6/25/2014 21:00	0.0059	--	6/25/2014 21:00	0.0088	--	6/25/2014 21:00	0.0088	--
6/25/2014 22:00	0.0063	--	6/25/2014 22:00	0.0087	--	6/25/2014 22:00	0.0087	--
6/25/2014 23:00	0.0066	--	6/25/2014 23:00	0.0084	--	6/25/2014 23:00	0.0084	--
6/26/2014 0:00	0.0063	0.0048	6/26/2014 0:00	0.0087	0.0087	6/26/2014 0:00	0.0087	0.0088
6/26/2014 1:00	0.0068	--	6/26/2014 1:00	0.0091	--	6/26/2014 1:00	0.0091	--
6/26/2014 2:00	0.0064	--	6/26/2014 2:00	0.0088	--	6/26/2014 2:00	0.0088	--
6/26/2014 3:00	0.0061	--	6/26/2014 3:00	0.0085	--	6/26/2014 3:00	0.0085	--
6/26/2014 4:00	0.0064	--	6/26/2014 4:00	0.0091	--	6/26/2014 4:00	0.0091	--
6/26/2014 5:00	0.0062	--	6/26/2014 5:00	0.0085	--	6/26/2014 5:00	0.0085	--
6/26/2014 6:00	0.0061	--	6/26/2014 6:00	0.0104	--	6/26/2014 6:00	0.0104	--
6/26/2014 7:00	0.0057	--	6/26/2014 7:00	0.0087	--	6/26/2014 7:00	0.0087	--
6/26/2014 8:00	0.0054	--	6/26/2014 8:00	0.0086	--	6/26/2014 8:00	0.0086	--
6/26/2014 9:00	0.0048	--	6/26/2014 9:00	0.0086	--	6/26/2014 9:00	0.0086	--
6/26/2014 10:00	0.0047	--	6/26/2014 10:00	0.0092	--	6/26/2014 10:00	0.0092	--
6/26/2014 11:00	0.0051	--	6/26/2014 11:00	0.0087	--	6/26/2014 11:00	0.0087	--
6/26/2014 12:00	0.0054	--	6/26/2014 12:00	0.0087	--	6/26/2014 12:00	0.0087	--
6/26/2014 13:00	0.0052	--	6/26/2014 13:00	0.0089	--	6/26/2014 13:00	0.0089	--
6/26/2014 14:00	0.0054	--	6/26/2014 14:00	0.0087	--	6/26/2014 14:00	0.0087	--
6/26/2014 15:00	0.0055	--	6/26/2014 15:00	0.0087	--	6/26/2014 15:00	0.0087	--
6/26/2014 16:00	0.0055	--	6/26/2014 16:00	0.0088	--	6/26/2014 16:00	0.0088	--
6/26/2014 17:00	0.0062	--	6/26/2014 17:00	0.0087	--	6/26/2014 17:00	0.0087	--
6/26/2014 18:00	0.0062	--	6/26/2014 18:00	0.0087	--	6/26/2014 18:00	0.0087	--
6/26/2014 19:00	0.0065	--	6/26/2014 19:00	0.0085	--	6/26/2014 19:00	0.0085	--
6/26/2014 20:00	0.0062	--	6/26/2014 20:00	0.0089	--	6/26/2014 20:00	0.0089	--
6/26/2014 21:00	0.0065	--	6/26/2014 21:00	0.0087	--	6/26/2014 21:00	0.0087	--
6/26/2014 22:00	0.0063	--	6/26/2014 22:00	0.0085	--	6/26/2014 22:00	0.0085	--
6/26/2014 23:00	0.0066	--	6/26/2014 23:00	0.0091	--	6/26/2014 23:00	0.0091	--
6/27/2014 0:00	0.0075	0.0048	6/27/2014 0:00	0.0085	0.0087	6/27/2014 0:00	0.0085	0.0088
6/27/2014 1:00	0.0069	--	6/27/2014 1:00	0.0087	--	6/27/2014 1:00	0.0087	--
6/27/2014 2:00	0.0064	--	6/27/2014 2:00	0.0088	--	6/27/2014 2:00	0.0088	--
6/27/2014 3:00	0.0058	--	6/27/2014 3:00	0.0086	--	6/27/2014 3:00	0.0086	--
6/27/2014 4:00	0.0060	--	6/27/2014 4:00	0.0087	--	6/27/2014 4:00	0.0087	--
6/27/2014 5:00	0.0059	--	6/27/2014 5:00	0.0086	--	6/27/2014 5:00	0.0086	--
6/27/2014 6:00	0.0060	--	6/27/2014 6:00	0.0093	--	6/27/2014 6:00	0.0093	--
6/27/2014 7:00	0.0055	--	6/27/2014 7:00	0.0085	--	6/27/2014 7:00	0.0085	--
6/27/2014 8:00	0.0049	--	6/27/2014 8:00	0.0089	--	6/27/2014 8:00	0.0089	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
6/27/2014 9:00	0.0044	--	6/27/2014 9:00	0.0087	--	6/27/2014 9:00	0.0087	--
6/27/2014 10:00	0.0041	--	6/27/2014 10:00	0.0085	--	6/27/2014 10:00	0.0085	--
6/27/2014 11:00	0.0041	--	6/27/2014 11:00	0.0094	--	6/27/2014 11:00	0.0094	--
6/27/2014 12:00	0.0044	--	6/27/2014 12:00	0.0091	--	6/27/2014 12:00	0.0091	--
6/27/2014 13:00	0.0042	--	6/27/2014 13:00	0.0088	--	6/27/2014 13:00	0.0088	--
6/27/2014 14:00	0.0042	--	6/27/2014 14:00	0.0087	--	6/27/2014 14:00	0.0087	--
6/27/2014 15:00	0.0042	--	6/27/2014 15:00	0.0086	--	6/27/2014 15:00	0.0086	--
6/27/2014 16:00	0.0043	--	6/27/2014 16:00	0.0083	--	6/27/2014 16:00	0.0083	--
6/27/2014 17:00	0.0044	--	6/27/2014 17:00	0.0083	--	6/27/2014 17:00	0.0083	--
6/27/2014 18:00	0.0054	--	6/27/2014 18:00	0.0084	--	6/27/2014 18:00	0.0084	--
6/27/2014 19:00	0.0050	--	6/27/2014 19:00	0.0090	--	6/27/2014 19:00	0.0090	--
6/27/2014 20:00	0.0054	--	6/27/2014 20:00	0.0087	--	6/27/2014 20:00	0.0087	--
6/27/2014 21:00	0.0053	--	6/27/2014 21:00	0.0085	--	6/27/2014 21:00	0.0085	--
6/27/2014 22:00	0.0053	--	6/27/2014 22:00	0.0089	--	6/27/2014 22:00	0.0089	--
6/27/2014 23:00	0.0052	--	6/27/2014 23:00	0.0087	--	6/27/2014 23:00	0.0087	--
6/28/2014 0:00	0.0053	0.0048	6/28/2014 0:00	0.0088	0.0087	6/28/2014 0:00	0.0088	0.0088
6/28/2014 1:00	0.0053	--	6/28/2014 1:00	0.0086	--	6/28/2014 1:00	0.0086	--
6/28/2014 2:00	0.0057	--	6/28/2014 2:00	0.0084	--	6/28/2014 2:00	0.0084	--
6/28/2014 3:00	0.0053	--	6/28/2014 3:00	0.0088	--	6/28/2014 3:00	0.0088	--
6/28/2014 4:00	0.0053	--	6/28/2014 4:00	0.0087	--	6/28/2014 4:00	0.0087	--
6/28/2014 5:00	0.0053	--	6/28/2014 5:00	0.0088	--	6/28/2014 5:00	0.0088	--
6/28/2014 6:00	0.0056	--	6/28/2014 6:00	0.0084	--	6/28/2014 6:00	0.0084	--
6/28/2014 7:00	0.0052	--	6/28/2014 7:00	0.0085	--	6/28/2014 7:00	0.0085	--
6/28/2014 8:00	0.0050	--	6/28/2014 8:00	0.0089	--	6/28/2014 8:00	0.0089	--
6/28/2014 9:00	0.0049	--	6/28/2014 9:00	0.0088	--	6/28/2014 9:00	0.0088	--
6/28/2014 10:00	0.0051	--	6/28/2014 10:00	0.0088	--	6/28/2014 10:00	0.0088	--
6/28/2014 11:00	0.0050	--	6/28/2014 11:00	0.0084	--	6/28/2014 11:00	0.0084	--
6/28/2014 12:00	0.0055	--	6/28/2014 12:00	0.0085	--	6/28/2014 12:00	0.0085	--
6/28/2014 13:00	0.0054	--	6/28/2014 13:00	0.0084	--	6/28/2014 13:00	0.0084	--
6/28/2014 14:00	0.0060	--	6/28/2014 14:00	0.0088	--	6/28/2014 14:00	0.0088	--
6/28/2014 15:00	0.0054	--	6/28/2014 15:00	0.0082	--	6/28/2014 15:00	0.0082	--
6/28/2014 16:00	0.0044	--	6/28/2014 16:00	0.0092	--	6/28/2014 16:00	0.0092	--
6/28/2014 17:00	0.0046	--	6/28/2014 17:00	0.0093	--	6/28/2014 17:00	0.0093	--
6/28/2014 18:00	0.0047	--	6/28/2014 18:00	0.0088	--	6/28/2014 18:00	0.0088	--
6/28/2014 19:00	0.0053	--	6/28/2014 19:00	0.0091	--	6/28/2014 19:00	0.0091	--
6/28/2014 20:00	0.0055	--	6/28/2014 20:00	0.0086	--	6/28/2014 20:00	0.0086	--
6/28/2014 21:00	0.0055	--	6/28/2014 21:00	0.0085	--	6/28/2014 21:00	0.0085	--
6/28/2014 22:00	0.0054	--	6/28/2014 22:00	0.0080	--	6/28/2014 22:00	0.0080	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
6/28/2014 23:00	0.0055	--	6/28/2014 23:00	0.0091	--	6/28/2014 23:00	0.0091	--
6/29/2014 0:00	0.0058	0.0047	6/29/2014 0:00	0.0086	0.0087	6/29/2014 0:00	0.0086	0.0088
6/29/2014 1:00	0.0047	--	6/29/2014 1:00	0.0087	--	6/29/2014 1:00	0.0087	--
6/29/2014 2:00	0.0041	--	6/29/2014 2:00	0.0089	--	6/29/2014 2:00	0.0089	--
6/29/2014 3:00	0.0036	--	6/29/2014 3:00	0.0087	--	6/29/2014 3:00	0.0087	--
6/29/2014 4:00	0.0035	--	6/29/2014 4:00	0.0089	--	6/29/2014 4:00	0.0089	--
6/29/2014 5:00	0.0035	--	6/29/2014 5:00	0.0086	--	6/29/2014 5:00	0.0086	--
6/29/2014 6:00	0.0037	--	6/29/2014 6:00	0.0094	--	6/29/2014 6:00	0.0094	--
6/29/2014 7:00	0.0035	--	6/29/2014 7:00	0.0091	--	6/29/2014 7:00	0.0091	--
6/29/2014 8:00	0.0035	--	6/29/2014 8:00	0.0086	--	6/29/2014 8:00	0.0086	--
6/29/2014 9:00	0.0036	--	6/29/2014 9:00	0.0091	--	6/29/2014 9:00	0.0091	--
6/29/2014 10:00	0.0035	--	6/29/2014 10:00	0.0086	--	6/29/2014 10:00	0.0086	--
6/29/2014 11:00	0.0034	--	6/29/2014 11:00	0.0086	--	6/29/2014 11:00	0.0086	--
6/29/2014 12:00	0.0035	--	6/29/2014 12:00	0.0081	--	6/29/2014 12:00	0.0081	--
6/29/2014 13:00	0.0030	--	6/29/2014 13:00	0.0090	--	6/29/2014 13:00	0.0090	--
6/29/2014 14:00	0.0031	--	6/29/2014 14:00	0.0091	--	6/29/2014 14:00	0.0091	--
6/29/2014 15:00	0.0029	--	6/29/2014 15:00	0.0083	--	6/29/2014 15:00	0.0083	--
6/29/2014 16:00	0.0030	--	6/29/2014 16:00	0.0087	--	6/29/2014 16:00	0.0087	--
6/29/2014 17:00	0.0030	--	6/29/2014 17:00	0.0090	--	6/29/2014 17:00	0.0090	--
6/29/2014 18:00	0.0030	--	6/29/2014 18:00	0.0084	--	6/29/2014 18:00	0.0084	--
6/29/2014 19:00	0.0038	--	6/29/2014 19:00	0.0091	--	6/29/2014 19:00	0.0091	--
6/29/2014 20:00	0.0041	--	6/29/2014 20:00	0.0084	--	6/29/2014 20:00	0.0084	--
6/29/2014 21:00	0.0038	--	6/29/2014 21:00	0.0088	--	6/29/2014 21:00	0.0088	--
6/29/2014 22:00	0.0035	--	6/29/2014 22:00	0.0086	--	6/29/2014 22:00	0.0086	--
6/29/2014 23:00	0.0036	--	6/29/2014 23:00	0.0088	--	6/29/2014 23:00	0.0088	--
6/30/2014 0:00	0.0035	0.0046	6/30/2014 0:00	0.0087	0.0087	6/30/2014 0:00	0.0087	0.0088
6/30/2014 1:00	0.0035	--	6/30/2014 1:00	0.0088	--	6/30/2014 1:00	0.0088	--
6/30/2014 2:00	0.0035	--	6/30/2014 2:00	0.0088	--	6/30/2014 2:00	0.0088	--
6/30/2014 3:00	0.0035	--	6/30/2014 3:00	0.0085	--	6/30/2014 3:00	0.0085	--
6/30/2014 4:00	0.0035	--	6/30/2014 4:00	0.0089	--	6/30/2014 4:00	0.0089	--
6/30/2014 5:00	0.0035	--	6/30/2014 5:00	0.0088	--	6/30/2014 5:00	0.0088	--
6/30/2014 6:00	0.0040	--	6/30/2014 6:00	0.0093	--	6/30/2014 6:00	0.0093	--
6/30/2014 7:00	0.0035	--	6/30/2014 7:00	0.0087	--	6/30/2014 7:00	0.0087	--
6/30/2014 8:00	0.0035	--	6/30/2014 8:00	0.0088	--	6/30/2014 8:00	0.0088	--
6/30/2014 9:00	0.0035	--	6/30/2014 9:00	0.0091	--	6/30/2014 9:00	0.0091	--
6/30/2014 10:00	0.0035	--	6/30/2014 10:00	0.0089	--	6/30/2014 10:00	0.0089	--
6/30/2014 11:00	0.0035	--	6/30/2014 11:00	0.0091	--	6/30/2014 11:00	0.0091	--
6/30/2014 12:00	0.0035	--	6/30/2014 12:00	0.0089	--	6/30/2014 12:00	0.0089	--

Package Boiler No. 1 EPN 81BF01			Package Boiler No. 2 EPN 50BF02			Package Boiler No. 3 EPN 50BF03		
Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average	Date	NO_X (lb/MMBtu)	NO_X (lb/MMBtu) 30-day* Rolling Average
6/30/2014 13:00	0.0035	--	6/30/2014 13:00	0.0089	--	6/30/2014 13:00	0.0089	--
6/30/2014 14:00	0.0030	--	6/30/2014 14:00	0.0085	--	6/30/2014 14:00	0.0085	--
6/30/2014 15:00	0.0029	--	6/30/2014 15:00	0.0086	--	6/30/2014 15:00	0.0086	--
6/30/2014 16:00	0.0029	--	6/30/2014 16:00	0.0087	--	6/30/2014 16:00	0.0087	--
6/30/2014 17:00	0.0030	--	6/30/2014 17:00	0.0085	--	6/30/2014 17:00	0.0085	--
6/30/2014 18:00	0.0032	--	6/30/2014 18:00	0.0080	--	6/30/2014 18:00	0.0080	--
6/30/2014 19:00	0.0035	--	6/30/2014 19:00	0.0083	--	6/30/2014 19:00	0.0083	--
6/30/2014 20:00	0.0035	--	6/30/2014 20:00	0.0085	--	6/30/2014 20:00	0.0085	--
6/30/2014 21:00	0.0035	--	6/30/2014 21:00	0.0088	--	6/30/2014 21:00	0.0088	--
6/30/2014 22:00	0.0035	--	6/30/2014 22:00	0.0087	--	6/30/2014 22:00	0.0087	--
6/30/2014 23:00	0.0035	--	6/30/2014 23:00	0.0083	--	6/30/2014 23:00	0.0083	--

Note:

* For the first month of the reporting period, 30-day rolling averages include hourly data reported part of the previous compliance period.

Package Boiler No. 1 EPN 81BF01 Daily NO_X CEMS Drift Tests						
Date/Time	**Component**	**Type**	**Reference**	**Measurement**	**Difference**	**Pass/Fail**
1/1/2014 6:04	NOX	S	407.1	398.0	9	Passed
1/1/2014 6:04	NOX	Z	0.0	0.0	0	Passed
1/2/2014 6:04	NOX	S	407.1	397.0	10	Passed
1/2/2014 6:04	NOX	Z	0.0	0.0	0	Passed
1/3/2014 6:04	NOX	S	407.1	394.0	13	Passed
1/3/2014 6:04	NOX	Z	0.0	0.0	0	Passed
1/4/2014 6:04	NOX	S	407.1	397.0	10	Passed
1/4/2014 6:04	NOX	Z	0.0	0.0	0	Passed
1/5/2014 6:04	NOX	S	407.1	399.0	8	Passed
1/5/2014 6:04	NOX	Z	0.0	0.0	0	Passed
1/6/2014 6:04	NOX	S	407.1	392.0	15	Passed
1/6/2014 6:04	NOX	Z	0.0	0.0	0	Passed
1/7/2014 6:04	NOX	S	407.1	392.0	15	Passed
1/7/2014 6:04	NOX	Z	0.0	0.0	0	Passed
1/8/2014 6:05	NOX	S	407.1	392.0	15	Passed
1/8/2014 6:05	NOX	Z	0.0	0.0	0	Passed
1/8/2014 8:41	NOX	S	407.1	411.0	4	Passed
1/8/2014 8:41	NOX	Z	0.0	0.0	0	Passed
1/9/2014 6:04	NOX	S	407.1	408.0	1	Passed
1/9/2014 6:04	NOX	Z	0.0	0.0	0	Passed
1/10/2014 6:04	NOX	S	407.1	409.0	2	Passed
1/10/2014 6:04	NOX	Z	0.0	0.0	0	Passed
1/11/2014 6:04	NOX	S	407.1	409.0	2	Passed
1/11/2014 6:04	NOX	Z	0.0	0.0	0	Passed
1/12/2014 6:04	NOX	S	407.1	407.0	0	Passed
1/12/2014 6:04	NOX	Z	0.0	0.0	0	Passed
1/13/2014 6:04	NOX	S	407.1	409.0	2	Passed
1/13/2014 6:04	NOX	Z	0.0	0.0	0	Passed
1/14/2014 6:04	NOX	S	407.1	406.0	1	Passed
1/14/2014 6:04	NOX	Z	0.0	0.0	0	Passed
1/14/2014 7:57	NOX	S	407.1	408.0	1	Passed
1/14/2014 7:57	NOX	Z	0.0	0.0	0	Passed
1/15/2014 6:04	NOX	S	407.1	403.0	4	Passed
1/15/2014 6:04	NOX	Z	0.0	0.0	0	Passed
1/16/2014 6:04	NOX	S	407.1	407.0	0	Passed
1/16/2014 6:04	NOX	Z	0.0	0.0	0	Passed
1/17/2014 6:05	NOX	S	407.1	407.0	0	Passed
1/17/2014 6:05	NOX	Z	0.0	0.0	0	Passed
1/18/2014 6:04	NOX	S	407.1	405.0	2	Passed
1/18/2014 6:04	NOX	Z	0.0	0.0	0	Passed
1/19/2014 6:04	NOX	S	407.1	404.0	3	Passed
1/19/2014 6:04	NOX	Z	0.0	0.0	0	Passed
1/20/2014 6:04	NOX	S	407.1	405.0	2	Passed
1/20/2014 6:04	NOX	Z	0.0	0.0	0	Passed

Package Boiler No. 1 EPN 81BF01 Daily NO_X CEMS Drift Tests						
Date/Time	**Component**	**Type**	**Reference**	**Measurement**	**Difference**	**Pass/Fail**
1/21/2014 6:04	NOX	S	407.1	404.0	3	Passed
1/21/2014 6:04	NOX	Z	0.0	0.0	0	Passed
1/22/2014 6:04	NOX	S	407.1	404.0	3	Passed
1/22/2014 6:04	NOX	Z	0.0	0.0	0	Passed
1/23/2014 6:04	NOX	S	407.1	401.0	6	Passed
1/23/2014 6:04	NOX	Z	0.0	0.0	0	Passed
1/24/2014 6:04	NOX	S	407.1	397.0	10	Passed
1/24/2014 6:04	NOX	Z	0.0	0.0	0	Passed
1/25/2014 6:04	NOX	S	407.1	403.0	4	Passed
1/25/2014 6:04	NOX	Z	0.0	0.0	0	Passed
1/26/2014 6:05	NOX	S	407.1	403.0	4	Passed
1/26/2014 6:05	NOX	Z	0.0	0.0	0	Passed
1/27/2014 6:04	NOX	S	407.1	402.0	5	Passed
1/27/2014 6:04	NOX	Z	0.0	0.0	0	Passed
1/28/2014 6:04	NOX	S	407.1	400.0	7	Passed
1/28/2014 6:04	NOX	Z	0.0	0.0	0	Passed
1/29/2014 6:04	NOX	S	407.1	395.0	12	Passed
1/29/2014 6:04	NOX	Z	0.0	0.0	0	Passed
1/30/2014 6:04	NOX	S	407.1	399.0	8	Passed
1/30/2014 6:04	NOX	Z	0.0	0.0	0	Passed
1/31/2014 6:04	NOX	S	407.1	408.0	1	Passed
1/31/2014 6:04	NOX	Z	0.0	0.0	0	Passed
2/1/2014 6:04	NOX	S	407.1	408.0	1	Passed
2/1/2014 6:04	NOX	Z	0.0	0.0	0	Passed
2/2/2014 6:04	NOX	S	407.1	408.0	1	Passed
2/2/2014 6:04	NOX	Z	0.0	0.0	0	Passed
2/3/2014 6:04	NOX	S	407.1	403.0	4	Passed
2/3/2014 6:04	NOX	Z	0.0	0.0	0	Passed
2/4/2014 6:05	NOX	S	407.1	408.0	1	Passed
2/4/2014 6:05	NOX	Z	0.0	0.0	0	Passed
2/5/2014 6:04	NOX	S	407.1	402.0	5	Passed
2/5/2014 6:04	NOX	Z	0.0	0.0	0	Passed
2/6/2014 6:04	NOX	S	407.1	400.0	7	Passed
2/6/2014 6:04	NOX	Z	0.0	0.0	0	Passed
2/7/2014 6:04	NOX	S	407.1	400.0	7	Passed
2/7/2014 6:04	NOX	Z	0.0	0.0	0	Passed
2/8/2014 6:04	NOX	S	407.1	401.0	6	Passed
2/8/2014 6:04	NOX	Z	0.0	0.0	0	Passed
2/9/2014 6:04	NOX	S	407.1	401.0	6	Passed
2/9/2014 6:04	NOX	Z	0.0	0.0	0	Passed
2/10/2014 6:04	NOX	S	407.1	401.0	6	Passed
2/10/2014 6:04	NOX	Z	0.0	0.0	0	Passed
2/11/2014 6:04	NOX	S	407.1	403.0	4	Passed
2/11/2014 6:04	NOX	Z	0.0	0.0	0	Passed

Package Boiler No. 1 EPN 81BF01 Daily NO_X CEMS Drift Tests						
Date/Time	**Component**	**Type**	**Reference**	**Measurement**	**Difference**	**Pass/Fail**
2/12/2014 6:04	NOX	S	407.1	402.0	5	Passed
2/12/2014 6:04	NOX	Z	0.0	0.0	0	Passed
2/13/2014 6:05	NOX	S	407.1	401.0	6	Passed
2/13/2014 6:05	NOX	Z	0.0	0.0	0	Passed
2/14/2014 6:04	NOX	S	407.1	403.0	4	Passed
2/14/2014 6:04	NOX	Z	0.0	0.0	0	Passed
2/15/2014 6:04	NOX	S	407.1	402.0	5	Passed
2/15/2014 6:04	NOX	Z	0.0	0.0	0	Passed
2/16/2014 6:04	NOX	S	407.1	397.0	10	Passed
2/16/2014 6:04	NOX	Z	0.0	0.0	0	Passed
2/17/2014 6:04	NOX	S	407.1	401.0	6	Passed
2/17/2014 6:04	NOX	Z	0.0	0.0	0	Passed
2/18/2014 6:04	NOX	S	407.1	400.0	7	Passed
2/18/2014 6:04	NOX	Z	0.0	0.0	0	Passed
2/19/2014 6:04	NOX	S	407.1	399.0	8	Passed
2/19/2014 6:04	NOX	Z	0.0	0.0	0	Passed
2/20/2014 6:04	NOX	S	407.1	404.0	3	Passed
2/20/2014 6:04	NOX	Z	0.0	0.0	0	Passed
2/21/2014 6:04	NOX	S	407.1	401.0	6	Passed
2/21/2014 6:04	NOX	Z	0.0	0.0	0	Passed
2/22/2014 6:05	NOX	S	407.1	401.0	6	Passed
2/22/2014 6:05	NOX	Z	0.0	0.0	0	Passed
2/23/2014 6:04	NOX	S	407.1	400.0	7	Passed
2/23/2014 6:04	NOX	Z	0.0	0.0	0	Passed
2/24/2014 6:04	NOX	S	407.1	397.0	10	Passed
2/24/2014 6:04	NOX	Z	0.0	0.0	0	Passed
2/25/2014 6:04	NOX	S	407.1	397.0	10	Passed
2/25/2014 6:04	NOX	Z	0.0	0.0	0	Passed
2/26/2014 6:04	NOX	S	407.1	399.0	8	Passed
2/26/2014 6:04	NOX	Z	0.0	0.0	0	Passed
2/27/2014 6:04	NOX	S	407.1	395.0	12	Passed
2/27/2014 6:04	NOX	Z	0.0	0.0	0	Passed
2/28/2014 6:04	NOX	S	407.1	397.0	10	Passed
2/28/2014 6:04	NOX	Z	0.0	0.0	0	Passed
3/1/2014 6:04	NOX	S	407.1	393.0	14	Passed
3/1/2014 6:04	NOX	Z	0.0	0.0	0	Passed
3/2/2014 6:04	NOX	S	407.1	394.0	13	Passed
3/2/2014 6:04	NOX	Z	0.0	0.0	0	Passed
3/3/2014 6:05	NOX	S	407.1	393.0	14	Passed
3/3/2014 6:05	NOX	Z	0.0	0.0	0	Passed
3/3/2014 9:47	NOX	S	407.1	410.0	3	Passed
3/3/2014 9:47	NOX	Z	0.0	0.0	0	Passed
3/4/2014 6:04	NOX	S	407.1	405.0	2	Passed
3/4/2014 6:04	NOX	Z	0.0	0.0	0	Passed

Package Boiler No. 1 EPN 81BF01 Daily NO_X CEMS Drift Tests						
Date/Time	**Component**	**Type**	**Reference**	**Measurement**	**Difference**	**Pass/Fail**
3/5/2014 6:04	NOX	S	407.1	403.0	4	Passed
3/5/2014 6:04	NOX	Z	0.0	0.0	0	Passed
3/6/2014 6:04	NOX	S	407.1	400.0	7	Passed
3/6/2014 6:04	NOX	Z	0.0	0.0	0	Passed
3/7/2014 6:04	NOX	S	407.1	404.0	3	Passed
3/7/2014 6:04	NOX	Z	0.0	0.0	0	Passed
3/8/2014 6:04	NOX	S	407.1	402.0	5	Passed
3/8/2014 6:04	NOX	Z	0.0	0.0	0	Passed
3/9/2014 5:04	NOX	S	407.1	400.0	7	Passed
3/9/2014 5:04	NOX	Z	0.0	0.0	0	Passed
3/10/2014 5:04	NOX	S	407.1	400.0	7	Passed
3/10/2014 5:04	NOX	Z	0.0	0.0	0	Passed
3/11/2014 5:04	NOX	S	407.1	404.0	3	Passed
3/11/2014 5:04	NOX	Z	0.0	0.0	0	Passed
3/12/2014 5:04	NOX	S	407.1	400.0	7	Passed
3/12/2014 5:04	NOX	Z	0.0	0.0	0	Passed
3/13/2014 5:04	NOX	S	407.1	397.0	10	Passed
3/13/2014 5:04	NOX	Z	0.0	0.0	0	Passed
3/14/2014 5:04	NOX	S	407.1	400.0	7	Passed
3/14/2014 5:04	NOX	Z	0.0	0.0	0	Passed
3/15/2014 5:04	NOX	S	407.1	398.0	9	Passed
3/15/2014 5:04	NOX	Z	0.0	0.0	0	Passed
3/16/2014 5:04	NOX	S	407.1	399.0	8	Passed
3/16/2014 5:04	NOX	Z	0.0	0.0	0	Passed
3/17/2014 5:04	NOX	S	407.1	397.0	10	Passed
3/17/2014 5:04	NOX	Z	0.0	0.0	0	Passed
3/18/2014 5:04	NOX	S	407.1	400.0	7	Passed
3/18/2014 5:04	NOX	Z	0.0	0.0	0	Passed
3/19/2014 5:04	NOX	S	407.1	395.0	12	Passed
3/19/2014 5:04	NOX	Z	0.0	0.0	0	Passed
3/20/2014 5:04	NOX	S	407.1	395.0	12	Passed
3/20/2014 5:04	NOX	Z	0.0	0.0	0	Passed
3/21/2014 5:04	NOX	S	407.1	396.0	11	Passed
3/21/2014 5:04	NOX	Z	0.0	0.0	0	Passed
3/22/2014 5:04	NOX	S	407.1	396.0	11	Passed
3/22/2014 5:04	NOX	Z	0.0	0.0	0	Passed
3/23/2014 5:04	NOX	S	407.1	393.0	14	Passed
3/23/2014 5:04	NOX	Z	0.0	0.0	0	Passed
3/24/2014 5:04	NOX	S	407.1	394.0	13	Passed
3/24/2014 5:04	NOX	Z	0.0	0.0	0	Passed
3/25/2014 5:04	NOX	S	414.7	369.0	46	Failed
3/25/2014 5:04	NOX	Z	0.0	0.0	0	Passed
3/25/2014 8:39	NOX	S	414.7	414.0	1	Passed
3/25/2014 8:39	NOX	Z	0.0	1.0	1	Passed

Package Boiler No. 1 EPN 81BF01 Daily NO_X CEMS Drift Tests						
Date/Time	**Component**	**Type**	**Reference**	**Measurement**	**Difference**	**Pass/Fail**
3/26/2014 5:04	NOX	S	414.7	459.0	44	Failed
3/26/2014 5:04	NOX	Z	0.0	0.0	0	Passed
3/26/2014 5:51	NOX	S	414.7	416.0	1	Passed
3/26/2014 5:51	NOX	Z	0.0	1.0	1	Passed
3/27/2014 5:04	NOX	S	414.7	429.0	14	Passed
3/27/2014 5:04	NOX	Z	0.0	0.0	0	Passed
3/27/2014 6:10	NOX	S	414.7	418.0	3	Passed
3/27/2014 6:10	NOX	Z	0.0	0.0	0	Passed
3/28/2014 5:04	NOX	S	414.7	423.0	8	Passed
3/28/2014 5:04	NOX	Z	0.0	0.0	0	Passed
3/29/2014 5:04	NOX	S	414.7	422.0	7	Passed
3/29/2014 5:04	NOX	Z	0.0	0.0	0	Passed
3/30/2014 5:05	NOX	S	414.7	423.0	8	Passed
3/30/2014 5:05	NOX	Z	0.0	0.0	0	Passed
3/31/2014 5:04	NOX	S	414.7	425.0	10	Passed
3/31/2014 5:04	NOX	Z	0.0	0.0	0	Passed
4/1/2014 5:04	NOX	S	414.7	421.0	6	Passed
4/1/2014 5:04	NOX	Z	0.0	0.0	0	Passed
4/2/2014 5:04	NOX	S	414.7	422.0	7	Passed
4/2/2014 5:04	NOX	Z	0.0	0.0	0	Passed
4/3/2014 5:04	NOX	S	414.7	424.0	9	Passed
4/3/2014 5:04	NOX	Z	0.0	0.0	0	Passed
4/4/2014 5:04	NOX	S	414.7	423.0	8	Passed
4/4/2014 5:04	NOX	Z	0.0	0.0	0	Passed
4/5/2014 5:04	NOX	S	414.7	422.0	7	Passed
4/5/2014 5:04	NOX	Z	0.0	0.0	0	Passed
4/6/2014 5:04	NOX	S	414.7	424.0	9	Passed
4/6/2014 5:04	NOX	Z	0.0	0.0	0	Passed
4/7/2014 5:04	NOX	S	414.7	426.0	11	Passed
4/7/2014 5:04	NOX	Z	0.0	0.0	0	Passed
4/8/2014 5:04	NOX	S	414.7	423.0	8	Passed
4/8/2014 5:04	NOX	Z	0.0	0.0	0	Passed
4/9/2014 5:04	NOX	S	414.7	421.0	6	Passed
4/9/2014 5:04	NOX	Z	0.0	0.0	0	Passed
4/10/2014 5:04	NOX	S	414.7	424.0	9	Passed
4/10/2014 5:04	NOX	Z	0.0	0.0	0	Passed
4/11/2014 5:04	NOX	S	414.7	424.0	9	Passed
4/11/2014 5:04	NOX	Z	0.0	0.0	0	Passed
4/12/2014 5:04	NOX	S	414.7	424.0	9	Passed
4/12/2014 5:04	NOX	Z	0.0	4.0	4	Passed
4/13/2014 5:04	NOX	S	414.7	425.0	10	Passed
4/13/2014 5:04	NOX	Z	0.0	1.0	1	Passed
4/14/2014 5:04	NOX	S	414.7	426.0	11	Passed
4/14/2014 5:04	NOX	Z	0.0	1.0	1	Passed

Package Boiler No. 1 EPN 81BF01 Daily NO_X CEMS Drift Tests						
Date/Time	**Component**	**Type**	**Reference**	**Measurement**	**Difference**	**Pass/Fail**
4/15/2014 5:04	NOX	S	414.7	421.0	6	Passed
4/15/2014 5:04	NOX	Z	0.0	0.0	0	Passed
4/16/2014 5:04	NOX	S	414.7	424.0	9	Passed
4/16/2014 5:04	NOX	Z	0.0	0.0	0	Passed
4/17/2014 5:05	NOX	S	414.7	424.0	9	Passed
4/17/2014 5:05	NOX	Z	0.0	0.0	0	Passed
4/18/2014 5:04	NOX	S	414.7	423.0	8	Passed
4/18/2014 5:04	NOX	Z	0.0	0.0	0	Passed
4/19/2014 5:04	NOX	S	414.7	424.0	9	Passed
4/19/2014 5:04	NOX	Z	0.0	0.0	0	Passed
4/20/2014 5:04	NOX	S	414.7	424.0	9	Passed
4/20/2014 5:04	NOX	Z	0.0	0.0	0	Passed
4/21/2014 5:04	NOX	S	414.7	426.0	11	Passed
4/21/2014 5:04	NOX	Z	0.0	0.0	0	Passed
4/22/2014 5:04	NOX	S	414.7	426.0	11	Passed
4/22/2014 5:04	NOX	Z	0.0	0.0	0	Passed
4/23/2014 5:04	NOX	S	414.7	427.0	12	Passed
4/23/2014 5:04	NOX	Z	0.0	0.0	0	Passed
4/24/2014 5:04	NOX	S	414.7	430.0	15	Passed
4/24/2014 5:04	NOX	Z	0.0	0.0	0	Passed
4/25/2014 5:04	NOX	S	414.7	428.0	13	Passed
4/25/2014 5:04	NOX	Z	0.0	0.0	0	Passed
4/26/2014 5:05	NOX	S	414.7	427.0	12	Passed
4/26/2014 5:05	NOX	Z	0.0	2.0	2	Passed
4/27/2014 5:04	NOX	S	414.7	431.0	16	Passed
4/27/2014 5:04	NOX	Z	0.0	0.0	0	Passed
4/28/2014 5:04	NOX	S	414.7	432.0	17	Passed
4/28/2014 5:04	NOX	Z	0.0	0.0	0	Passed
4/29/2014 5:04	NOX	S	414.7	433.0	18	Passed
4/29/2014 5:04	NOX	Z	0.0	0.0	0	Passed
4/29/2014 6:39	NOX	S	414.7	419.0	4	Passed
4/29/2014 6:39	NOX	Z	0.0	0.0	0	Passed
4/30/2014 5:04	NOX	S	414.7	416.0	1	Passed
4/30/2014 5:04	NOX	Z	0.0	0.0	0	Passed
5/1/2014 5:04	NOX	S	414.7	414.0	1	Passed
5/1/2014 5:04	NOX	Z	0.0	0.0	0	Passed
5/2/2014 5:04	NOX	S	414.7	416.0	1	Passed
5/2/2014 5:04	NOX	Z	0.0	0.0	0	Passed
5/3/2014 5:04	NOX	S	414.7	415.0	0	Passed
5/3/2014 5:04	NOX	Z	0.0	0.0	0	Passed
5/4/2014 5:04	NOX	S	414.7	414.0	1	Passed
5/4/2014 5:04	NOX	Z	0.0	0.0	0	Passed
5/5/2014 5:04	NOX	S	414.7	414.0	1	Passed
5/5/2014 5:04	NOX	Z	0.0	0.0	0	Passed

Package Boiler No. 1 EPN 81BF01 Daily NO_X CEMS Drift Tests						
Date/Time	**Component**	**Type**	**Reference**	**Measurement**	**Difference**	**Pass/Fail**
5/6/2014 5:04	NOX	S	414.7	417.0	2	Passed
5/6/2014 5:04	NOX	Z	0.0	0.0	0	Passed
5/7/2014 5:05	NOX	S	414.7	416.0	1	Passed
5/7/2014 5:05	NOX	Z	0.0	0.0	0	Passed
5/8/2014 5:04	NOX	S	414.7	415.0	0	Passed
5/8/2014 5:04	NOX	Z	0.0	0.0	0	Passed
5/9/2014 5:04	NOX	S	414.7	415.0	0	Passed
5/9/2014 5:04	NOX	Z	0.0	0.0	0	Passed
5/10/2014 5:04	NOX	S	414.7	416.0	1	Passed
5/10/2014 5:04	NOX	Z	0.0	0.0	0	Passed
5/11/2014 5:04	NOX	S	414.7	416.0	1	Passed
5/11/2014 5:04	NOX	Z	0.0	0.0	0	Passed
5/12/2014 5:04	NOX	S	414.7	414.0	1	Passed
5/12/2014 5:04	NOX	Z	0.0	0.0	0	Passed
5/13/2014 5:04	NOX	S	414.7	413.0	2	Passed
5/13/2014 5:04	NOX	Z	0.0	0.0	0	Passed
5/14/2014 5:05	NOX	S	414.7	411.0	4	Passed
5/14/2014 5:05	NOX	Z	0.0	0.0	0	Passed
5/15/2014 5:04	NOX	S	414.7	410.0	5	Passed
5/15/2014 5:04	NOX	Z	0.0	0.0	0	Passed
5/16/2014 5:05	NOX	S	414.7	411.0	4	Passed
5/16/2014 5:05	NOX	Z	0.0	0.0	0	Passed
5/17/2014 5:04	NOX	S	414.7	413.0	2	Passed
5/17/2014 5:04	NOX	Z	0.0	0.0	0	Passed
5/18/2014 5:04	NOX	S	414.7	410.0	5	Passed
5/18/2014 5:04	NOX	Z	0.0	0.0	0	Passed
5/19/2014 5:04	NOX	S	414.7	410.0	5	Passed
5/19/2014 5:04	NOX	Z	0.0	0.0	0	Passed
5/20/2014 5:04	NOX	S	414.7	410.0	5	Passed
5/20/2014 5:04	NOX	Z	0.0	0.0	0	Passed
5/21/2014 5:04	NOX	S	414.7	410.0	5	Passed
5/21/2014 5:04	NOX	Z	0.0	0.0	0	Passed
5/21/2014 9:16	NOX	S	414.7	416.0	1	Passed
5/21/2014 9:16	NOX	Z	0.0	0.0	0	Passed
5/22/2014 5:04	NOX	S	414.7	418.0	3	Passed
5/22/2014 5:04	NOX	Z	0.0	0.0	0	Passed
5/23/2014 5:05	NOX	S	414.7	422.0	7	Passed
5/23/2014 5:05	NOX	Z	0.0	0.0	0	Passed
5/24/2014 5:04	NOX	S	414.7	421.0	6	Passed
5/24/2014 5:04	NOX	Z	0.0	0.0	0	Passed
5/25/2014 5:04	NOX	S	414.7	421.0	6	Passed
5/25/2014 5:04	NOX	Z	0.0	0.0	0	Passed
5/26/2014 5:04	NOX	S	414.7	420.0	5	Passed
5/26/2014 5:04	NOX	Z	0.0	0.0	0	Passed

Package Boiler No. 1 EPN 81BF01 Daily NO_X CEMS Drift Tests						
Date/Time	**Component**	**Type**	**Reference**	**Measurement**	**Difference**	**Pass/Fail**
5/27/2014 5:04	NOX	S	414.7	421.0	6	Passed
5/27/2014 5:04	NOX	Z	0.0	0.0	0	Passed
5/28/2014 5:04	NOX	S	414.7	424.0	9	Passed
5/28/2014 5:04	NOX	Z	0.0	0.0	0	Passed
5/29/2014 5:04	NOX	S	414.7	422.0	7	Passed
5/29/2014 5:04	NOX	Z	0.0	0.0	0	Passed
5/30/2014 5:04	NOX	S	414.7	422.0	7	Passed
5/30/2014 5:04	NOX	Z	0.0	0.0	0	Passed
5/31/2014 5:04	NOX	S	414.7	420.0	5	Passed
5/31/2014 5:04	NOX	Z	0.0	0.0	0	Passed
6/1/2014 5:04	NOX	S	414.7	419.0	4	Passed
6/1/2014 5:04	NOX	Z	0.0	0.0	0	Passed
6/2/2014 5:04	NOX	S	414.7	418.0	3	Passed
6/2/2014 5:04	NOX	Z	0.0	0.0	0	Passed
6/3/2014 5:05	NOX	S	414.7	418.0	3	Passed
6/3/2014 5:05	NOX	Z	0.0	0.0	0	Passed
6/4/2014 5:04	NOX	S	414.7	419.0	4	Passed
6/4/2014 5:04	NOX	Z	0.0	0.0	0	Passed
6/5/2014 5:04	NOX	S	414.7	421.0	6	Passed
6/5/2014 5:04	NOX	Z	0.0	0.0	0	Passed
6/6/2014 5:04	NOX	S	414.7	419.0	4	Passed
6/6/2014 5:04	NOX	Z	0.0	0.0	0	Passed
6/7/2014 5:04	NOX	S	414.7	420.0	5	Passed
6/7/2014 5:04	NOX	Z	0.0	0.0	0	Passed
6/8/2014 5:04	NOX	S	414.7	418.0	3	Passed
6/8/2014 5:04	NOX	Z	0.0	0.0	0	Passed
6/9/2014 5:04	NOX	S	414.7	420.0	5	Passed
6/9/2014 5:04	NOX	Z	0.0	0.0	0	Passed

Package Boiler No. 1 EPN 81BF01 Daily NO_X CEMS Drift Tests						
Date/Time	**Component**	**Type**	**Reference**	**Measurement**	**Difference**	**Pass/Fail**
6/10/2014 5:04	NOX	S	414.7	421.0	6	Passed
6/10/2014 5:04	NOX	Z	0.0	0.0	0	Passed
6/11/2014 5:04	NOX	S	414.7	422.0	7	Passed
6/11/2014 5:04	NOX	Z	0.0	0.0	0	Passed
6/12/2014 5:05	NOX	S	414.7	419.0	4	Passed
6/12/2014 5:05	NOX	Z	0.0	0.0	0	Passed
6/13/2014 5:04	NOX	S	414.7	419.0	4	Passed
6/13/2014 5:04	NOX	Z	0.0	0.0	0	Passed
6/14/2014 5:04	NOX	S	414.7	417.0	2	Passed
6/14/2014 5:04	NOX	Z	0.0	0.0	0	Passed
6/15/2014 5:04	NOX	S	414.7	418.0	3	Passed
6/15/2014 5:04	NOX	Z	0.0	0.0	0	Passed
6/16/2014 5:04	NOX	S	414.7	417.0	2	Passed
6/16/2014 5:04	NOX	Z	0.0	0.0	0	Passed
6/17/2014 5:04	NOX	S	414.7	417.0	2	Passed
6/17/2014 5:04	NOX	Z	0.0	0.0	0	Passed
6/18/2014 5:04	NOX	S	414.7	418.0	3	Passed
6/18/2014 5:04	NOX	Z	0.0	0.0	0	Passed
6/19/2014 5:04	NOX	S	414.7	417.0	2	Passed
6/19/2014 5:04	NOX	Z	0.0	0.0	0	Passed
6/20/2014 5:04	NOX	S	414.7	416.0	1	Passed
6/20/2014 5:04	NOX	Z	0.0	0.0	0	Passed
6/21/2014 5:05	NOX	S	414.7	417.0	2	Passed
6/21/2014 5:05	NOX	Z	0.0	0.0	0	Passed
6/22/2014 5:04	NOX	S	414.7	417.0	2	Passed
6/22/2014 5:04	NOX	Z	0.0	0.0	0	Passed
6/23/2014 5:04	NOX	S	414.7	419.0	4	Passed
6/23/2014 5:04	NOX	Z	0.0	0.0	0	Passed
6/24/2014 5:04	NOX	S	403.7	402.0	2	Passed
6/24/2014 5:04	NOX	Z	0.0	0.0	0	Passed
6/25/2014 5:04	NOX	S	403.7	405.0	1	Passed
6/25/2014 5:04	NOX	Z	0.0	0.0	0	Passed
6/26/2014 5:04	NOX	S	403.7	405.0	1	Passed
6/26/2014 5:04	NOX	Z	0.0	0.0	0	Passed
6/27/2014 5:04	NOX	S	403.7	407.0	3	Passed
6/27/2014 5:04	NOX	Z	0.0	0.0	0	Passed
6/28/2014 5:04	NOX	S	403.7	407.0	3	Passed
6/28/2014 5:04	NOX	Z	0.0	0.0	0	Passed
6/29/2014 5:04	NOX	S	403.7	406.0	2	Passed
6/29/2014 5:04	NOX	Z	0.0	0.0	0	Passed
6/30/2014 5:05	NOX	S	403.7	406.0	2	Passed
6/30/2014 5:05	NOX	Z	0.0	0.0	0	Passed

Package Boiler No. 2 EPN 50BF02 Daily NO_X CEMS Drift Tests						
Date/Time	**Component**	**Type**	**Reference**	**Measurement**	**Difference**	**Pass/Fail**
1/1/2014 6:06	NOX	S	407.4	408	1	Passed
1/1/2014 6:06	NOX	Z	0	0	0	Passed
1/2/2014 6:05	NOX	S	407.4	407	0	Passed
1/2/2014 6:05	NOX	Z	0	0	0	Passed
1/3/2014 6:06	NOX	S	407.4	406	1	Passed
1/3/2014 6:06	NOX	Z	0	0	0	Passed
1/4/2014 6:05	NOX	S	407.4	407	0	Passed
1/4/2014 6:05	NOX	Z	0	0	0	Passed
1/5/2014 6:05	NOX	S	407.4	413	6	Passed
1/5/2014 6:05	NOX	Z	0	0	0	Passed
1/6/2014 6:06	NOX	S	407.4	408	1	Passed
1/6/2014 6:06	NOX	Z	0	0	0	Passed
1/7/2014 6:05	NOX	S	407.4	407	0	Passed
1/7/2014 6:05	NOX	Z	0	0	0	Passed
1/8/2014 6:06	NOX	S	407.4	399	8	Passed
1/8/2014 6:06	NOX	Z	0	0	0	Passed
1/9/2014 6:05	NOX	S	407.4	404	3	Passed
1/9/2014 6:05	NOX	Z	0	0	0	Passed
1/10/2014 6:06	NOX	S	407.4	408	1	Passed
1/10/2014 6:06	NOX	Z	0	0	0	Passed
1/11/2014 6:05	NOX	S	407.4	410	3	Passed
1/11/2014 6:05	NOX	Z	0	0	0	Passed
1/12/2014 6:06	NOX	S	407.4	405	2	Passed
1/12/2014 6:06	NOX	Z	0	0	0	Passed
1/13/2014 6:06	NOX	S	407.4	410	3	Passed
1/13/2014 6:06	NOX	Z	0	0	0	Passed
1/14/2014 6:05	NOX	S	407.4	414	7	Passed
1/14/2014 6:05	NOX	Z	0	0	0	Passed
1/15/2014 6:06	NOX	S	407.4	412	5	Passed
1/15/2014 6:06	NOX	Z	0	0	0	Passed
1/16/2014 6:05	NOX	S	407.4	419	12	Passed
1/16/2014 6:05	NOX	Z	0	0	0	Passed
1/17/2014 6:06	NOX	S	407.4	408	1	Passed
1/17/2014 6:06	NOX	Z	0	0	0	Passed
1/18/2014 6:05	NOX	S	407.4	407	0	Passed
1/18/2014 6:05	NOX	Z	0	0	0	Passed
1/19/2014 6:05	NOX	S	407.4	406	1	Passed
1/19/2014 6:05	NOX	Z	0	0	0	Passed
1/20/2014 6:06	NOX	S	407.4	411	4	Passed
1/20/2014 6:06	NOX	Z	0	0	0	Passed
1/21/2014 6:05	NOX	S	407.4	405	2	Passed
1/21/2014 6:05	NOX	Z	0	0	0	Passed
1/22/2014 6:06	NOX	S	407.4	405	2	Passed
1/22/2014 6:06	NOX	Z	0	0	0	Passed

Package Boiler No. 2 EPN 50BF02 Daily NO_X CEMS Drift Tests						
Date/Time	**Component**	**Type**	**Reference**	**Measurement**	**Difference**	**Pass/Fail**
1/23/2014 6:05	NOX	S	407.4	405	2	Passed
1/23/2014 6:05	NOX	Z	0	0	0	Passed
1/24/2014 6:05	NOX	S	407.4	402	5	Passed
1/24/2014 6:05	NOX	Z	0	0	0	Passed
1/25/2014 6:06	NOX	S	407.4	414	7	Passed
1/25/2014 6:06	NOX	Z	0	0	0	Passed
1/26/2014 6:05	NOX	S	407.4	410	3	Passed
1/26/2014 6:05	NOX	Z	0	0	0	Passed
1/27/2014 6:06	NOX	S	407.4	413	6	Passed
1/27/2014 6:06	NOX	Z	0	0	0	Passed
1/28/2014 6:05	NOX	S	407.4	404	3	Passed
1/28/2014 6:05	NOX	Z	0	0	0	Passed
1/29/2014 6:06	NOX	S	407.4	405	2	Passed
1/29/2014 6:06	NOX	Z	0	0	0	Passed
1/30/2014 6:05	NOX	S	407.4	408	1	Passed
1/30/2014 6:05	NOX	Z	0	0	0	Passed
1/31/2014 6:05	NOX	S	407.4	411	4	Passed
1/31/2014 6:05	NOX	Z	0	0	0	Passed
2/1/2014 6:06	NOX	S	407.4	412	5	Passed
2/1/2014 6:06	NOX	Z	0	0	0	Passed
2/2/2014 6:05	NOX	S	407.4	410	3	Passed
2/2/2014 6:05	NOX	Z	0	0	0	Passed
2/3/2014 6:06	NOX	S	407.4	405	2	Passed
2/3/2014 6:06	NOX	Z	0	0	0	Passed
2/4/2014 6:05	NOX	S	407.4	409	2	Passed
2/4/2014 6:05	NOX	Z	0	0	0	Passed
2/5/2014 6:06	NOX	S	407.4	401	6	Passed
2/5/2014 6:06	NOX	Z	0	0	0	Passed
2/6/2014 6:06	NOX	S	407.4	398	9	Passed
2/6/2014 6:06	NOX	Z	0	0	0	Passed
2/7/2014 6:05	NOX	S	407.4	402	5	Passed
2/7/2014 6:05	NOX	Z	0	0	0	Passed
2/8/2014 6:06	NOX	S	407.4	401	6	Passed
2/8/2014 6:06	NOX	Z	0	0	0	Passed
2/9/2014 6:05	NOX	S	407.4	402	5	Passed
2/9/2014 6:05	NOX	Z	0	0	0	Passed
2/10/2014 6:06	NOX	S	407.4	405	2	Passed
2/10/2014 6:06	NOX	Z	0	0	0	Passed
2/11/2014 6:05	NOX	S	407.4	404	3	Passed
2/11/2014 6:05	NOX	Z	0	0	0	Passed
2/12/2014 6:06	NOX	S	407.4	406	1	Passed
2/12/2014 6:06	NOX	Z	0	0	0	Passed
2/13/2014 6:05	NOX	S	407.4	406	1	Passed
2/13/2014 6:05	NOX	Z	0	0	0	Passed

Package Boiler No. 2 EPN 50BF02 Daily NO_X CEMS Drift Tests						
Date/Time	**Component**	**Type**	**Reference**	**Measurement**	**Difference**	**Pass/Fail**
2/14/2014 6:05	NOX	S	407.4	404	3	Passed
2/14/2014 6:05	NOX	Z	0	0	0	Passed
2/15/2014 6:06	NOX	S	407.4	398	9	Passed
2/15/2014 6:06	NOX	Z	0	0	0	Passed
2/16/2014 6:05	NOX	S	407.4	399	8	Passed
2/16/2014 6:05	NOX	Z	0	0	0	Passed
2/17/2014 6:06	NOX	S	407.4	401	6	Passed
2/17/2014 6:06	NOX	Z	0	0	0	Passed
2/18/2014 6:05	NOX	S	407.4	398	9	Passed
2/18/2014 6:05	NOX	Z	0	0	0	Passed
2/19/2014 6:06	NOX	S	407.4	400	7	Passed
2/19/2014 6:06	NOX	Z	0	0	0	Passed
2/20/2014 6:06	NOX	S	407.4	404	3	Passed
2/20/2014 6:06	NOX	Z	0	0	0	Passed
2/21/2014 6:05	NOX	S	407.4	399	8	Passed
2/21/2014 6:05	NOX	Z	0	0	0	Passed
2/22/2014 6:06	NOX	S	407.4	400	7	Passed
2/22/2014 6:06	NOX	Z	0	0	0	Passed
2/23/2014 6:05	NOX	S	407.4	403	4	Passed
2/23/2014 6:05	NOX	Z	0	0	0	Passed
2/24/2014 6:06	NOX	S	407.4	399	8	Passed
2/24/2014 6:06	NOX	Z	0	0	0	Passed
2/25/2014 6:05	NOX	S	405.8	399	7	Passed
2/25/2014 6:05	NOX	Z	0	0	0	Passed
2/26/2014 6:06	NOX	S	405.8	395	11	Passed
2/26/2014 6:06	NOX	Z	0	0	0	Passed
2/27/2014 6:06	NOX	S	405.8	397	9	Passed
2/27/2014 6:06	NOX	Z	0	0	0	Passed
2/28/2014 6:05	NOX	S	405.8	401	5	Passed
2/28/2014 6:05	NOX	Z	0	0	0	Passed
2/28/2014 6:53	NOX	S	405.8	396	10	Passed
2/28/2014 6:53	NOX	Z	0	0	0	Passed
3/1/2014 6:06	NOX	S	405.8	393	13	Passed
3/1/2014 6:06	NOX	Z	0	0	0	Passed
3/2/2014 6:05	NOX	S	405.8	393	13	Passed
3/2/2014 6:05	NOX	Z	0	0	0	Passed
3/3/2014 6:06	NOX	S	405.8	390	16	Passed
3/3/2014 6:06	NOX	Z	0	0	0	Passed
3/3/2014 11:57	NOX	S	405.8	408	2	Passed
3/3/2014 11:57	NOX	Z	0	0	0	Passed
3/4/2014 6:05	NOX	S	405.8	421	15	Passed
3/4/2014 6:05	NOX	Z	0	0	0	Passed
3/5/2014 6:05	NOX	S	405.8	421	15	Passed
3/5/2014 6:05	NOX	Z	0	0	0	Passed

Package Boiler No. 2 EPN 50BF02 Daily NO_X CEMS Drift Tests						
Date/Time	**Component**	**Type**	**Reference**	**Measurement**	**Difference**	**Pass/Fail**
3/5/2014 8:40	NOX	S	405.8	408	2	Passed
3/5/2014 8:40	NOX	Z	0	1	1	Passed
3/6/2014 6:06	NOX	S	405.8	402	4	Passed
3/6/2014 6:06	NOX	Z	0	0	0	Passed
3/7/2014 6:05	NOX	S	405.8	404	2	Passed
3/7/2014 6:05	NOX	Z	0	0	0	Passed
3/8/2014 6:06	NOX	S	405.8	407	1	Passed
3/8/2014 6:06	NOX	Z	0	0	0	Passed
3/9/2014 5:05	NOX	S	405.8	400	6	Passed
3/9/2014 5:05	NOX	Z	0	0	0	Passed
3/10/2014 5:06	NOX	S	405.8	401	5	Passed
3/10/2014 5:06	NOX	Z	0	0	0	Passed
3/11/2014 5:05	NOX	S	405.8	410	4	Passed
3/11/2014 5:05	NOX	Z	0	0	0	Passed
3/12/2014 5:05	NOX	S	405.8	408	2	Passed
3/12/2014 5:05	NOX	Z	0	0	0	Passed
3/13/2014 5:06	NOX	S	405.8	397	9	Passed
3/13/2014 5:06	NOX	Z	0	0	0	Passed
3/14/2014 5:05	NOX	S	405.8	400	6	Passed
3/14/2014 5:05	NOX	Z	0	0	0	Passed
3/15/2014 5:06	NOX	S	405.8	405	1	Passed
3/15/2014 5:06	NOX	Z	0	0	0	Passed
3/16/2014 5:05	NOX	S	405.8	409	3	Passed
3/16/2014 5:05	NOX	Z	0	0	0	Passed
3/17/2014 5:06	NOX	S	405.8	404	2	Passed
3/17/2014 5:06	NOX	Z	0	0	0	Passed
3/18/2014 5:05	NOX	S	405.8	408	2	Passed
3/18/2014 5:05	NOX	Z	0	0	0	Passed
3/19/2014 5:05	NOX	S	405.8	402	4	Passed
3/19/2014 5:05	NOX	Z	0	0	0	Passed
3/20/2014 5:06	NOX	S	405.8	398	8	Passed
3/20/2014 5:06	NOX	Z	0	0	0	Passed
3/21/2014 5:05	NOX	S	405.8	400	6	Passed
3/21/2014 5:05	NOX	Z	0	0	0	Passed
3/22/2014 5:06	NOX	S	405.8	402	4	Passed
3/22/2014 5:06	NOX	Z	0	0	0	Passed
3/23/2014 5:05	NOX	S	405.8	399	7	Passed
3/23/2014 5:05	NOX	Z	0	0	0	Passed
3/24/2014 5:06	NOX	S	405.8	395	11	Passed
3/24/2014 5:06	NOX	Z	0	0	0	Passed
3/25/2014 5:06	NOX	S	405.8	393	13	Passed
3/25/2014 5:06	NOX	Z	0	0	0	Passed
3/26/2014 5:05	NOX	S	405.8	394	12	Passed
3/26/2014 5:05	NOX	Z	0	0	0	Passed

Package Boiler No. 2 EPN 50BF02 Daily NO_X CEMS Drift Tests						
Date/Time	**Component**	**Type**	**Reference**	**Measurement**	**Difference**	**Pass/Fail**
3/27/2014 5:06	NOX	S	405.8	399	7	Passed
3/27/2014 5:06	NOX	Z	0	0	0	Passed
3/28/2014 5:05	NOX	S	405.8	403	3	Passed
3/28/2014 5:05	NOX	Z	0	0	0	Passed
3/29/2014 5:06	NOX	S	405.8	395	11	Passed
3/29/2014 5:06	NOX	Z	0	0	0	Passed
3/30/2014 5:05	NOX	S	405.8	391	15	Passed
3/30/2014 5:05	NOX	Z	0	0	0	Passed
3/31/2014 5:05	NOX	S	405.8	396	10	Passed
3/31/2014 5:05	NOX	Z	0	0	0	Passed
4/1/2014 5:06	NOX	S	405.8	397	9	Passed
4/1/2014 5:06	NOX	Z	0	0	0	Passed
4/2/2014 5:05	NOX	S	405.8	398	8	Passed
4/2/2014 5:05	NOX	Z	0	0	0	Passed
4/3/2014 5:06	NOX	S	405.8	399	7	Passed
4/3/2014 5:06	NOX	Z	0	0	0	Passed
4/4/2014 5:05	NOX	S	405.8	397	9	Passed
4/4/2014 5:05	NOX	Z	0	0	0	Passed
4/5/2014 5:06	NOX	S	405.8	394	12	Passed
4/5/2014 5:06	NOX	Z	0	0	0	Passed
4/6/2014 5:05	NOX	S	405.8	398	8	Passed
4/6/2014 5:05	NOX	Z	0	0	0	Passed
4/7/2014 5:05	NOX	S	405.8	396	10	Passed
4/7/2014 5:05	NOX	Z	0	0	0	Passed
4/8/2014 5:06	NOX	S	405.8	391	15	Passed
4/8/2014 5:06	NOX	Z	0	0	0	Passed
4/9/2014 5:05	NOX	S	405.8	387	19	Passed
4/9/2014 5:05	NOX	Z	0	0	0	Passed
4/9/2014 6:13	NOX	S	405.8	411	5	Passed
4/9/2014 6:13	NOX	Z	0	1	1	Passed
4/10/2014 5:06	NOX	S	405.8	412	6	Passed
4/10/2014 5:06	NOX	Z	0	0	0	Passed
4/11/2014 5:05	NOX	S	405.8	342	64	Failed
4/11/2014 5:05	NOX	Z	0	0	0	Passed
4/11/2014 7:31	NOX	S	405.8	412	6	Passed
4/11/2014 7:31	NOX	Z	0	0	0	Passed
4/11/2014 8:19	NOX	S	405.8	408	2	Passed
4/11/2014 8:19	NOX	Z	0	1	1	Passed
4/12/2014 5:05	NOX	S	405.8	408	2	Passed
4/12/2014 5:05	NOX	Z	0	0	0	Passed
4/13/2014 5:06	NOX	S	405.8	411	5	Passed
4/13/2014 5:06	NOX	Z	0	0	0	Passed
4/14/2014 5:05	NOX	S	405.8	415	9	Passed
4/14/2014 5:05	NOX	Z	0	0	0	Passed

Package Boiler No. 2 EPN 50BF02 Daily NO_X CEMS Drift Tests						
Date/Time	**Component**	**Type**	**Reference**	**Measurement**	**Difference**	**Pass/Fail**
4/15/2014 5:06	NOX	S	405.8	405	1	Passed
4/15/2014 5:06	NOX	Z	0	0	0	Passed
4/16/2014 5:05	NOX	S	405.8	404	2	Passed
4/16/2014 5:05	NOX	Z	0	0	0	Passed
4/17/2014 5:06	NOX	S	405.8	406	0	Passed
4/17/2014 5:06	NOX	Z	0	0	0	Passed
4/18/2014 5:05	NOX	S	405.8	400	6	Passed
4/18/2014 5:05	NOX	Z	0	0	0	Passed
4/19/2014 5:05	NOX	S	405.8	402	4	Passed
4/19/2014 5:05	NOX	Z	0	0	0	Passed
4/20/2014 5:06	NOX	S	405.8	401	5	Passed
4/20/2014 5:06	NOX	Z	0	0	0	Passed
4/21/2014 5:05	NOX	S	405.8	403	3	Passed
4/21/2014 5:05	NOX	Z	0	0	0	Passed
4/22/2014 5:06	NOX	S	405.8	402	4	Passed
4/22/2014 5:06	NOX	Z	0	0	0	Passed
4/23/2014 5:05	NOX	S	405.8	407	1	Passed
4/23/2014 5:05	NOX	Z	0	0	0	Passed
4/24/2014 5:06	NOX	S	405.8	410	4	Passed
4/24/2014 5:06	NOX	Z	0	0	0	Passed
4/25/2014 5:06	NOX	S	405.8	407	1	Passed
4/25/2014 5:06	NOX	Z	0	0	0	Passed
4/26/2014 5:05	NOX	S	405.8	409	3	Passed
4/26/2014 5:05	NOX	Z	0	0	0	Passed
4/27/2014 5:06	NOX	S	405.8	412	6	Passed
4/27/2014 5:06	NOX	Z	0	0	0	Passed
4/28/2014 5:05	NOX	S	405.8	415	9	Passed
4/28/2014 5:05	NOX	Z	0	0	0	Passed
4/29/2014 5:06	NOX	S	405.8	416	10	Passed
4/29/2014 5:06	NOX	Z	0	0	0	Passed
4/30/2014 5:05	NOX	S	405.8	406	0	Passed
4/30/2014 5:05	NOX	Z	0	0	0	Passed
5/1/2014 5:06	NOX	S	405.8	402	4	Passed
5/1/2014 5:06	NOX	Z	0	0	0	Passed
5/2/2014 5:06	NOX	S	405.8	403	3	Passed
5/2/2014 5:06	NOX	Z	0	0	0	Passed
5/3/2014 5:05	NOX	S	405.8	402	4	Passed
5/3/2014 5:05	NOX	Z	0	0	0	Passed
5/4/2014 5:06	NOX	S	405.8	396	10	Passed
5/4/2014 5:06	NOX	Z	0	0	0	Passed
5/5/2014 5:05	NOX	S	405.8	399	7	Passed
5/5/2014 5:05	NOX	Z	0	0	0	Passed
5/6/2014 5:06	NOX	S	405.8	395	11	Passed
5/6/2014 5:06	NOX	Z	0	0	0	Passed

Package Boiler No. 2 EPN 50BF02 Daily NO_X CEMS Drift Tests						
Date/Time	**Component**	**Type**	**Reference**	**Measurement**	**Difference**	**Pass/Fail**
5/7/2014 5:05	NOX	S	405.8	407	1	Passed
5/7/2014 5:05	NOX	Z	0	0	0	Passed
5/8/2014 5:06	NOX	S	405.8	407	1	Passed
5/8/2014 5:06	NOX	Z	0	0	0	Passed
5/9/2014 5:06	NOX	S	405.8	406	0	Passed
5/9/2014 5:06	NOX	Z	0	0	0	Passed
5/10/2014 5:05	NOX	S	405.8	407	1	Passed
5/10/2014 5:05	NOX	Z	0	0	0	Passed
5/11/2014 5:06	NOX	S	405.8	406	0	Passed
5/11/2014 5:06	NOX	Z	0	0	0	Passed
5/12/2014 5:05	NOX	S	405.8	407	1	Passed
5/12/2014 5:05	NOX	Z	0	0	0	Passed
5/13/2014 5:06	NOX	S	405.8	399	7	Passed
5/13/2014 5:06	NOX	Z	0	0	0	Passed
5/13/2014 8:09	NOX	S	406.2	407	1	Passed
5/13/2014 8:09	NOX	Z	0	1	1	Passed
5/14/2014 5:06	NOX	S	406.2	400	6	Passed
5/14/2014 5:06	NOX	Z	0	0	0	Passed
5/15/2014 5:05	NOX	S	406.2	397	9	Passed
5/15/2014 5:05	NOX	Z	0	0	0	Passed
5/16/2014 5:06	NOX	S	406.2	400	6	Passed
5/16/2014 5:06	NOX	Z	0	0	0	Passed
5/17/2014 5:05	NOX	S	406.2	406	0	Passed
5/17/2014 5:05	NOX	Z	0	0	0	Passed
5/18/2014 5:06	NOX	S	406.2	402	4	Passed
5/18/2014 5:06	NOX	Z	0	0	0	Passed
5/19/2014 5:05	NOX	S	406.2	403	3	Passed
5/19/2014 5:05	NOX	Z	0	0	0	Passed
5/20/2014 5:06	NOX	S	406.2	402	4	Passed
5/20/2014 5:06	NOX	Z	0	0	0	Passed
5/21/2014 5:06	NOX	S	406.2	404	2	Passed
5/21/2014 5:06	NOX	Z	0	0	0	Passed
5/22/2014 5:05	NOX	S	406.2	401	5	Passed
5/22/2014 5:05	NOX	Z	0	0	0	Passed
5/23/2014 5:06	NOX	S	406.2	402	4	Passed
5/23/2014 5:06	NOX	Z	0	0	0	Passed
5/24/2014 5:05	NOX	S	406.2	402	4	Passed
5/24/2014 5:05	NOX	Z	0	0	0	Passed
5/25/2014 5:06	NOX	S	406.2	403	3	Passed
5/25/2014 5:06	NOX	Z	0	0	0	Passed
5/26/2014 5:05	NOX	S	406.2	402	4	Passed
5/26/2014 5:05	NOX	Z	0	0	0	Passed
5/27/2014 5:06	NOX	S	406.2	404	2	Passed
5/27/2014 5:06	NOX	Z	0	0	0	Passed

Package Boiler No. 2 EPN 50BF02 Daily NO_X CEMS Drift Tests						
Date/Time	**Component**	**Type**	**Reference**	**Measurement**	**Difference**	**Pass/Fail**
5/28/2014 5:06	NOX	S	406.2	404	2	Passed
5/28/2014 5:06	NOX	Z	0	0	0	Passed
5/29/2014 5:05	NOX	S	406.2	404	2	Passed
5/29/2014 5:05	NOX	Z	0	0	0	Passed
5/30/2014 5:06	NOX	S	406.2	405	1	Passed
5/30/2014 5:06	NOX	Z	0	0	0	Passed
5/31/2014 5:05	NOX	S	406.2	403	3	Passed
5/31/2014 5:05	NOX	Z	0	0	0	Passed
6/1/2014 5:06	NOX	S	406.2	401	5	Passed
6/1/2014 5:06	NOX	Z	0	0	0	Passed
6/2/2014 5:05	NOX	S	406.2	400	6	Passed
6/2/2014 5:05	NOX	Z	0	0	0	Passed
6/3/2014 5:05	NOX	S	406.2	398	8	Passed
6/3/2014 5:05	NOX	Z	0	0	0	Passed
6/4/2014 5:06	NOX	S	406.2	400	6	Passed
6/4/2014 5:06	NOX	Z	0	0	0	Passed
6/5/2014 5:05	NOX	S	406.2	401	5	Passed
6/5/2014 5:05	NOX	Z	0	0	0	Passed
6/6/2014 5:06	NOX	S	406.2	394	12	Passed
6/6/2014 5:06	NOX	Z	0	0	0	Passed
6/6/2014 7:22	NOX	S	406.2	405	1	Passed
6/6/2014 7:22	NOX	Z	0	1	1	Passed
6/7/2014 5:05	NOX	S	406.2	407	1	Passed
6/7/2014 5:05	NOX	Z	0	0	0	Passed
6/8/2014 5:06	NOX	S	406.2	404	2	Passed
6/8/2014 5:06	NOX	Z	0	0	0	Passed
6/9/2014 5:05	NOX	S	406.2	408	2	Passed
6/9/2014 5:05	NOX	Z	0	0	0	Passed

Package Boiler No. 2 EPN 50BF02 Daily NO_X CEMS Drift Tests						
Date/Time	**Component**	**Type**	**Reference**	**Measurement**	**Difference**	**Pass/Fail**
6/10/2014 5:05	NOX	S	406.2	408	2	Passed
6/10/2014 5:05	NOX	Z	0	0	0	Passed
6/11/2014 5:06	NOX	S	406.2	404	2	Passed
6/11/2014 5:06	NOX	Z	0	0	0	Passed
6/12/2014 5:05	NOX	S	406.2	407	1	Passed
6/12/2014 5:05	NOX	Z	0	0	0	Passed
6/13/2014 5:06	NOX	S	406.2	404	2	Passed
6/13/2014 5:06	NOX	Z	0	0	0	Passed
6/14/2014 5:05	NOX	S	406.2	400	6	Passed
6/14/2014 5:05	NOX	Z	0	0	0	Passed
6/15/2014 5:06	NOX	S	406.2	402	4	Passed
6/15/2014 5:06	NOX	Z	0	0	0	Passed
6/16/2014 5:05	NOX	S	406.2	397	9	Passed
6/16/2014 5:05	NOX	Z	0	0	0	Passed
6/17/2014 5:05	NOX	S	406.2	397	9	Passed
6/17/2014 5:05	NOX	Z	0	0	0	Passed
6/18/2014 5:06	NOX	S	406.2	396	10	Passed
6/18/2014 5:06	NOX	Z	0	0	0	Passed
6/19/2014 5:05	NOX	S	406.2	395	11	Passed
6/19/2014 5:05	NOX	Z	0	0	0	Passed
6/20/2014 5:06	NOX	S	406.2	392	14	Passed
6/20/2014 5:06	NOX	Z	0	0	0	Passed
6/20/2014 6:10	NOX	S	406.2	405	1	Passed
6/20/2014 6:10	NOX	Z	0	0	0	Passed
6/21/2014 5:05	NOX	S	406.2	406	0	Passed
6/21/2014 5:05	NOX	Z	0	0	0	Passed
6/22/2014 5:05	NOX	S	406.2	410	4	Passed
6/22/2014 5:05	NOX	Z	0	0	0	Passed
6/23/2014 5:06	NOX	S	406.2	411	5	Passed
6/23/2014 5:06	NOX	Z	0	0	0	Passed
6/24/2014 5:05	NOX	S	406.2	406	0	Passed
6/24/2014 5:05	NOX	Z	0	0	0	Passed
6/25/2014 5:06	NOX	S	406.2	405	1	Passed
6/25/2014 5:06	NOX	Z	0	0	0	Passed
6/26/2014 5:05	NOX	S	406.2	403	3	Passed
6/26/2014 5:05	NOX	Z	0	0	0	Passed
6/27/2014 5:06	NOX	S	406.2	404	2	Passed
6/27/2014 5:06	NOX	Z	0	0	0	Passed
6/28/2014 5:05	NOX	S	406.2	406	0	Passed
6/28/2014 5:05	NOX	Z	0	0	0	Passed
6/29/2014 5:05	NOX	S	406.2	403	3	Passed
6/29/2014 5:05	NOX	Z	0	0	0	Passed
6/30/2014 5:06	NOX	S	406.2	403	3	Passed
6/30/2014 5:06	NOX	Z	0	0	0	Passed

Package Boiler No. 3 EPN 50BF03 Daily NO_X CEMS Drift Tests						
Date/Time	**Component**	**Type**	**Reference**	**Measurement**	**Difference**	**Pass/Fail**
1/1/2014 6:06	NOX	S	407.4	405	2	Passed
1/1/2014 6:06	NOX	Z	0	0	0	Passed
1/2/2014 6:05	NOX	S	407.4	406	1	Passed
1/2/2014 6:05	NOX	Z	0	0	0	Passed
1/3/2014 6:06	NOX	S	407.4	409	2	Passed
1/3/2014 6:06	NOX	Z	0	0	0	Passed
1/4/2014 6:06	NOX	S	407.4	408	1	Passed
1/4/2014 6:06	NOX	Z	0	0	0	Passed
1/5/2014 6:05	NOX	S	407.4	411	4	Passed
1/5/2014 6:05	NOX	Z	0	0	0	Passed
1/6/2014 6:06	NOX	S	407.4	411	4	Passed
1/6/2014 6:06	NOX	Z	0	0	0	Passed
1/7/2014 6:05	NOX	S	407.4	410	3	Passed
1/7/2014 6:05	NOX	Z	0	0	0	Passed
1/8/2014 6:06	NOX	S	407.4	402	5	Passed
1/8/2014 6:06	NOX	Z	0	0	0	Passed
1/9/2014 6:05	NOX	S	407.4	406	1	Passed
1/9/2014 6:05	NOX	Z	0	0	0	Passed
1/10/2014 6:06	NOX	S	407.4	407	0	Passed
1/10/2014 6:06	NOX	Z	0	0	0	Passed
1/11/2014 6:05	NOX	S	407.4	408	1	Passed
1/11/2014 6:05	NOX	Z	0	0	0	Passed
1/12/2014 6:05	NOX	S	407.4	406	1	Passed
1/12/2014 6:05	NOX	Z	0	0	0	Passed
1/13/2014 6:06	NOX	S	407.4	408	1	Passed
1/13/2014 6:06	NOX	Z	0	0	0	Passed
1/14/2014 6:05	NOX	S	407.4	405	2	Passed
1/14/2014 6:05	NOX	Z	0	0	0	Passed
1/15/2014 6:06	NOX	S	407.4	403	4	Passed
1/15/2014 6:06	NOX	Z	0	0	0	Passed
1/16/2014 6:06	NOX	S	407.4	405	2	Passed
1/16/2014 6:06	NOX	Z	0	0	0	Passed
1/17/2014 6:05	NOX	S	407.4	404	3	Passed
1/17/2014 6:05	NOX	Z	0	0	0	Passed
1/18/2014 6:06	NOX	S	407.4	404	3	Passed
1/18/2014 6:06	NOX	Z	0	0	0	Passed
1/19/2014 6:05	NOX	S	407.4	403	4	Passed
1/19/2014 6:05	NOX	Z	0	0	0	Passed
1/20/2014 6:06	NOX	S	407.4	407	0	Passed
1/20/2014 6:06	NOX	Z	0	0	0	Passed
1/21/2014 6:06	NOX	S	407.4	404	3	Passed
1/21/2014 6:06	NOX	Z	0	0	0	Passed
1/22/2014 6:05	NOX	S	407.4	404	3	Passed
1/22/2014 6:05	NOX	Z	0	0	0	Passed

Package Boiler No. 3 EPN 50BF03 Daily NO_X CEMS Drift Tests						
Date/Time	**Component**	**Type**	**Reference**	**Measurement**	**Difference**	**Pass/Fail**
1/23/2014 6:06	NOX	S	407.4	404	3	Passed
1/23/2014 6:06	NOX	Z	0	0	0	Passed
1/23/2014 7:05	NOX	S	407.4	402	5	Passed
1/23/2014 7:05	NOX	Z	0	0	0	Passed
1/24/2014 6:05	NOX	S	407.4	404	3	Passed
1/24/2014 6:05	NOX	Z	0	0	0	Passed
1/25/2014 6:06	NOX	S	407.4	412	5	Passed
1/25/2014 6:06	NOX	Z	0	0	0	Passed
1/26/2014 6:05	NOX	S	407.4	405	2	Passed
1/26/2014 6:05	NOX	Z	0	0	0	Passed
1/27/2014 6:05	NOX	S	407.4	407	0	Passed
1/27/2014 6:05	NOX	Z	0	0	0	Passed
1/28/2014 6:06	NOX	S	407.4	403	4	Passed
1/28/2014 6:06	NOX	Z	0	0	0	Passed
1/29/2014 6:05	NOX	S	407.4	406	1	Passed
1/29/2014 6:05	NOX	Z	0	0	0	Passed
1/30/2014 6:06	NOX	S	407.4	408	1	Passed
1/30/2014 6:06	NOX	Z	0	0	0	Passed
1/31/2014 6:05	NOX	S	407.4	405	2	Passed
1/31/2014 6:05	NOX	Z	0	0	0	Passed
2/1/2014 6:06	NOX	S	407.4	406	1	Passed
2/1/2014 6:06	NOX	Z	0	0	0	Passed
2/2/2014 6:06	NOX	S	407.4	406	1	Passed
2/2/2014 6:06	NOX	Z	0	0	0	Passed
2/3/2014 6:05	NOX	S	407.4	403	4	Passed
2/3/2014 6:05	NOX	Z	0	0	0	Passed
2/4/2014 6:06	NOX	S	407.4	404	3	Passed
2/4/2014 6:06	NOX	Z	0	0	0	Passed
2/5/2014 6:05	NOX	S	407.4	401	6	Passed
2/5/2014 6:05	NOX	Z	0	0	0	Passed
2/6/2014 6:06	NOX	S	407.4	402	5	Passed
2/6/2014 6:06	NOX	Z	0	0	0	Passed
2/7/2014 6:05	NOX	S	407.4	402	5	Passed
2/7/2014 6:05	NOX	Z	0	0	0	Passed
2/8/2014 6:05	NOX	S	407.4	401	6	Passed
2/8/2014 6:05	NOX	Z	0	0	0	Passed
2/9/2014 6:06	NOX	S	407.4	400	7	Passed
2/9/2014 6:06	NOX	Z	0	0	0	Passed
2/10/2014 6:05	NOX	S	407.4	402	5	Passed
2/10/2014 6:05	NOX	Z	0	0	0	Passed
2/11/2014 6:06	NOX	S	407.4	403	4	Passed
2/11/2014 6:06	NOX	Z	0	0	0	Passed
2/12/2014 6:05	NOX	S	407.4	407	0	Passed
2/12/2014 6:05	NOX	Z	0	0	0	Passed

Package Boiler No. 3 EPN 50BF03 Daily NO_X CEMS Drift Tests						
Date/Time	**Component**	**Type**	**Reference**	**Measurement**	**Difference**	**Pass/Fail**
2/13/2014 6:06	NOX	S	407.4	405	2	Passed
2/13/2014 6:06	NOX	Z	0	0	0	Passed
2/14/2014 6:05	NOX	S	407.4	403	4	Passed
2/14/2014 6:05	NOX	Z	0	0	0	Passed
2/15/2014 6:05	NOX	S	407.4	401	6	Passed
2/15/2014 6:05	NOX	Z	0	0	0	Passed
2/16/2014 6:06	NOX	S	407.4	402	5	Passed
2/16/2014 6:06	NOX	Z	0	0	0	Passed
2/17/2014 6:05	NOX	S	407.4	402	5	Passed
2/17/2014 6:05	NOX	Z	0	0	0	Passed
2/18/2014 6:06	NOX	S	407.4	401	6	Passed
2/18/2014 6:06	NOX	Z	0	0	0	Passed
2/19/2014 6:05	NOX	S	407.4	403	4	Passed
2/19/2014 6:05	NOX	Z	0	0	0	Passed
2/20/2014 6:05	NOX	S	407.4	405	2	Passed
2/20/2014 6:05	NOX	Z	0	0	0	Passed
2/21/2014 6:06	NOX	S	407.4	401	6	Passed
2/21/2014 6:06	NOX	Z	0	0	0	Passed
2/22/2014 6:05	NOX	S	407.4	402	5	Passed
2/22/2014 6:05	NOX	Z	0	0	0	Passed
2/23/2014 6:06	NOX	S	407.4	403	4	Passed
2/23/2014 6:06	NOX	Z	0	0	0	Passed
2/24/2014 6:05	NOX	S	407.4	402	5	Passed
2/24/2014 6:05	NOX	Z	0	0	0	Passed
2/25/2014 6:06	NOX	S	407.4	402	5	Passed
2/25/2014 6:06	NOX	Z	0	0	0	Passed
2/26/2014 6:05	NOX	S	407.4	401	6	Passed
2/26/2014 6:05	NOX	Z	0	0	0	Passed
2/27/2014 6:05	NOX	S	407.4	404	3	Passed
2/27/2014 6:05	NOX	Z	0	0	0	Passed
2/28/2014 6:06	NOX	S	407.4	404	3	Passed
2/28/2014 6:06	NOX	Z	0	0	0	Passed
3/1/2014 6:05	NOX	S	407.4	401	6	Passed
3/1/2014 6:05	NOX	Z	0	0	0	Passed
3/2/2014 6:06	NOX	S	407.4	402	5	Passed
3/2/2014 6:06	NOX	Z	0	0	0	Passed
3/3/2014 6:05	NOX	S	407.4	405	2	Passed
3/3/2014 6:05	NOX	Z	0	0	0	Passed
3/4/2014 6:05	NOX	S	407.4	406	1	Passed
3/4/2014 6:05	NOX	Z	0	0	0	Passed
3/5/2014 6:06	NOX	S	407.4	402	5	Passed
3/5/2014 6:06	NOX	Z	0	0	0	Passed
3/6/2014 6:05	NOX	S	415.8	404	12	Passed
3/6/2014 6:05	NOX	Z	0	0	0	Passed

Package Boiler No. 3 EPN 50BF03 Daily NO_X CEMS Drift Tests						
Date/Time	**Component**	**Type**	**Reference**	**Measurement**	**Difference**	**Pass/Fail**
3/7/2014 6:06	NOX	S	415.8	407	9	Passed
3/7/2014 6:06	NOX	Z	0	0	0	Passed
3/8/2014 6:05	NOX	S	415.8	407	9	Passed
3/8/2014 6:05	NOX	Z	0	0	0	Passed
3/9/2014 5:06	NOX	S	415.8	404	12	Passed
3/9/2014 5:06	NOX	Z	0	0	0	Passed
3/10/2014 5:06	NOX	S	415.8	404	12	Passed
3/10/2014 5:06	NOX	Z	0	0	0	Passed
3/11/2014 5:05	NOX	S	415.8	408	8	Passed
3/11/2014 5:05	NOX	Z	0	0	0	Passed
3/12/2014 5:06	NOX	S	415.8	408	8	Passed
3/12/2014 5:06	NOX	Z	0	0	0	Passed
3/13/2014 5:05	NOX	S	415.8	402	14	Passed
3/13/2014 5:05	NOX	Z	0	0	0	Passed
3/14/2014 5:06	NOX	S	415.8	405	11	Passed
3/14/2014 5:06	NOX	Z	0	0	0	Passed
3/15/2014 5:05	NOX	S	415.8	406	10	Passed
3/15/2014 5:05	NOX	Z	0	0	0	Passed
3/16/2014 5:05	NOX	S	415.8	408	8	Passed
3/16/2014 5:05	NOX	Z	0	0	0	Passed
3/17/2014 5:06	NOX	S	415.8	405	11	Passed
3/17/2014 5:06	NOX	Z	0	0	0	Passed
3/18/2014 5:05	NOX	S	415.8	408	8	Passed
3/18/2014 5:05	NOX	Z	0	0	0	Passed
3/19/2014 5:06	NOX	S	415.8	405	11	Passed
3/19/2014 5:06	NOX	Z	0	0	0	Passed
3/20/2014 5:05	NOX	S	415.8	403	13	Passed
3/20/2014 5:05	NOX	Z	0	0	0	Passed
3/20/2014 6:38	NOX	S	415.8	414	2	Passed
3/20/2014 6:38	NOX	Z	0	1	1	Passed
3/21/2014 5:06	NOX	S	415.8	417	1	Passed
3/21/2014 5:06	NOX	Z	0	0	0	Passed
3/22/2014 5:05	NOX	S	415.8	419	3	Passed
3/22/2014 5:05	NOX	Z	0	0	0	Passed
3/23/2014 5:05	NOX	S	415.8	418	2	Passed
3/23/2014 5:05	NOX	Z	0	0	0	Passed
3/24/2014 5:06	NOX	S	415.8	416	0	Passed
3/24/2014 5:06	NOX	Z	0	0	0	Passed
3/25/2014 5:05	NOX	S	415.8	416	0	Passed
3/25/2014 5:05	NOX	Z	0	0	0	Passed
3/26/2014 5:06	NOX	S	415.8	416	0	Passed
3/26/2014 5:06	NOX	Z	0	0	0	Passed
3/27/2014 5:05	NOX	S	415.8	416	0	Passed
3/27/2014 5:05	NOX	Z	0	0	0	Passed

Package Boiler No. 3 EPN 50BF03 Daily NO_X CEMS Drift Tests						
Date/Time	**Component**	**Type**	**Reference**	**Measurement**	**Difference**	**Pass/Fail**
3/28/2014 5:05	NOX	S	415.8	416	0	Passed
3/28/2014 5:05	NOX	Z	0	0	0	Passed
3/29/2014 5:06	NOX	S	415.8	414	2	Passed
3/29/2014 5:06	NOX	Z	0	0	0	Passed
3/30/2014 5:05	NOX	S	415.8	413	3	Passed
3/30/2014 5:05	NOX	Z	0	0	0	Passed
3/31/2014 5:06	NOX	S	415.8	415	1	Passed
3/31/2014 5:06	NOX	Z	0	0	0	Passed
4/1/2014 5:05	NOX	S	415.8	414	2	Passed
4/1/2014 5:05	NOX	Z	0	0	0	Passed
4/2/2014 5:05	NOX	S	415.8	415	1	Passed
4/2/2014 5:05	NOX	Z	0	0	0	Passed
4/3/2014 5:05	NOX	S	415.8	417	1	Passed
4/3/2014 5:05	NOX	Z	0	0	0	Passed
4/4/2014 5:05	NOX	S	415.8	415	1	Passed
4/4/2014 5:05	NOX	Z	0	0	0	Passed
4/5/2014 5:06	NOX	S	415.8	413	3	Passed
4/5/2014 5:06	NOX	Z	0	0	0	Passed
4/6/2014 5:05	NOX	S	415.8	416	0	Passed
4/6/2014 5:05	NOX	Z	0	0	0	Passed
4/7/2014 5:06	NOX	S	415.8	415	1	Passed
4/7/2014 5:06	NOX	Z	0	0	0	Passed
4/8/2014 5:05	NOX	S	415.8	412	4	Passed
4/8/2014 5:05	NOX	Z	0	0	0	Passed
4/9/2014 5:05	NOX	S	415.8	410	6	Passed
4/9/2014 5:05	NOX	Z	0	0	0	Passed
4/10/2014 5:06	NOX	S	415.8	411	5	Passed
4/10/2014 5:06	NOX	Z	0	0	0	Passed
4/11/2014 5:05	NOX	S	415.8	411	5	Passed
4/11/2014 5:05	NOX	Z	0	0	0	Passed
4/12/2014 5:06	NOX	S	415.8	412	4	Passed
4/12/2014 5:06	NOX	Z	0	0	0	Passed
4/13/2014 5:05	NOX	S	415.8	412	4	Passed
4/13/2014 5:05	NOX	Z	0	0	0	Passed
4/14/2014 5:06	NOX	S	415.8	413	3	Passed
4/14/2014 5:06	NOX	Z	0	0	0	Passed
4/15/2014 5:06	NOX	S	415.8	408	8	Passed
4/15/2014 5:06	NOX	Z	0	0	0	Passed
4/16/2014 5:05	NOX	S	415.8	408	8	Passed
4/16/2014 5:05	NOX	Z	0	0	0	Passed
4/17/2014 5:06	NOX	S	415.8	409	7	Passed
4/17/2014 5:06	NOX	Z	0	0	0	Passed
4/18/2014 5:05	NOX	S	415.8	407	9	Passed
4/18/2014 5:05	NOX	Z	0	0	0	Passed

Package Boiler No. 3 EPN 50BF03 Daily NO_X CEMS Drift Tests						
Date/Time	**Component**	**Type**	**Reference**	**Measurement**	**Difference**	**Pass/Fail**
4/19/2014 5:06	NOX	S	415.8	408	8	Passed
4/19/2014 5:06	NOX	Z	0	0	0	Passed
4/20/2014 5:05	NOX	S	415.8	407	9	Passed
4/20/2014 5:05	NOX	Z	0	0	0	Passed
4/21/2014 5:05	NOX	S	415.8	407	9	Passed
4/21/2014 5:05	NOX	Z	0	0	0	Passed
4/22/2014 5:06	NOX	S	415.8	403	13	Passed
4/22/2014 5:06	NOX	Z	0	0	0	Passed
4/23/2014 5:05	NOX	S	415.8	405	11	Passed
4/23/2014 5:05	NOX	Z	0	0	0	Passed
4/24/2014 5:06	NOX	S	415.8	404	12	Passed
4/24/2014 5:06	NOX	Z	0	0	0	Passed
4/25/2014 5:05	NOX	S	415.8	404	12	Passed
4/25/2014 5:05	NOX	Z	0	0	0	Passed
4/26/2014 5:05	NOX	S	415.8	409	7	Passed
4/26/2014 5:05	NOX	Z	0	0	0	Passed
4/27/2014 5:06	NOX	S	415.8	408	8	Passed
4/27/2014 5:06	NOX	Z	0	0	0	Passed
4/28/2014 5:05	NOX	S	415.8	407	9	Passed
4/28/2014 5:05	NOX	Z	0	0	0	Passed
4/29/2014 5:06	NOX	S	415.8	407	9	Passed
4/29/2014 5:06	NOX	Z	0	0	0	Passed
4/30/2014 5:05	NOX	S	415.8	402	14	Passed
4/30/2014 5:05	NOX	Z	0	0	0	Passed
5/1/2014 5:06	NOX	S	415.8	400	16	Passed
5/1/2014 5:06	NOX	Z	0	0	0	Passed
5/2/2014 5:05	NOX	S	415.8	401	15	Passed
5/2/2014 5:05	NOX	Z	0	0	0	Passed
5/2/2014 8:32	NOX	S	415.8	413	3	Passed
5/2/2014 8:32	NOX	Z	0	1	1	Passed
5/3/2014 5:05	NOX	S	415.8	414	2	Passed
5/3/2014 5:05	NOX	Z	0	0	0	Passed
5/4/2014 5:06	NOX	S	415.8	413	3	Passed
5/4/2014 5:06	NOX	Z	0	0	0	Passed
5/5/2014 5:05	NOX	S	415.8	415	1	Passed
5/5/2014 5:05	NOX	Z	0	0	0	Passed
5/6/2014 5:06	NOX	S	415.8	418	2	Passed
5/6/2014 5:06	NOX	Z	0	0	0	Passed
5/7/2014 5:05	NOX	S	415.8	417	1	Passed
5/7/2014 5:05	NOX	Z	0	0	0	Passed
5/8/2014 5:06	NOX	S	415.8	418	2	Passed
5/8/2014 5:06	NOX	Z	0	0	0	Passed
5/9/2014 5:05	NOX	S	415.8	417	1	Passed
5/9/2014 5:05	NOX	Z	0	0	0	Passed

Package Boiler No. 3 EPN 50BF03 Daily NO_X CEMS Drift Tests						
Date/Time	**Component**	**Type**	**Reference**	**Measurement**	**Difference**	**Pass/Fail**
5/10/2014 5:05	NOX	S	415.8	417	1	Passed
5/10/2014 5:05	NOX	Z	0	0	0	Passed
5/11/2014 5:06	NOX	S	415.8	418	2	Passed
5/11/2014 5:06	NOX	Z	0	0	0	Passed
5/12/2014 5:05	NOX	S	415.8	417	1	Passed
5/12/2014 5:05	NOX	Z	0	0	0	Passed
5/13/2014 5:06	NOX	S	415.8	415	1	Passed
5/13/2014 5:06	NOX	Z	0	0	0	Passed
5/14/2014 5:05	NOX	S	415.8	413	3	Passed
5/14/2014 5:05	NOX	Z	0	0	0	Passed
5/15/2014 5:05	NOX	S	415.8	410	6	Passed
5/15/2014 5:05	NOX	Z	0	0	0	Passed
5/16/2014 5:06	NOX	S	415.8	412	4	Passed
5/16/2014 5:06	NOX	Z	0	0	0	Passed
5/17/2014 5:05	NOX	S	415.8	413	3	Passed
5/17/2014 5:05	NOX	Z	0	0	0	Passed
5/18/2014 5:06	NOX	S	415.8	412	4	Passed
5/18/2014 5:06	NOX	Z	0	0	0	Passed
5/19/2014 5:05	NOX	S	415.8	413	3	Passed
5/19/2014 5:05	NOX	Z	0	0	0	Passed
5/20/2014 5:06	NOX	S	415.8	413	3	Passed
5/20/2014 5:06	NOX	Z	0	0	0	Passed
5/21/2014 5:06	NOX	S	415.8	413	3	Passed
5/21/2014 5:06	NOX	Z	0	0	0	Passed
5/22/2014 5:05	NOX	S	397.5	395	2	Passed
5/22/2014 5:05	NOX	Z	0	0	0	Passed
5/23/2014 5:06	NOX	S	397.5	397	0	Passed
5/23/2014 5:06	NOX	Z	0	0	0	Passed
5/24/2014 5:05	NOX	S	397.5	398	0	Passed
5/24/2014 5:05	NOX	Z	0	0	0	Passed
5/25/2014 5:06	NOX	S	397.5	398	0	Passed
5/25/2014 5:06	NOX	Z	0	0	0	Passed
5/26/2014 5:05	NOX	S	397.5	397	0	Passed
5/26/2014 5:05	NOX	Z	0	0	0	Passed
5/27/2014 5:05	NOX	S	397.5	404	6	Passed
5/27/2014 5:05	NOX	Z	0	0	0	Passed
5/28/2014 5:06	NOX	S	397.5	405	8	Passed
5/28/2014 5:06	NOX	Z	0	0	0	Passed
5/29/2014 5:05	NOX	S	397.5	410	12	Passed
5/29/2014 5:05	NOX	Z	0	0	0	Passed
5/30/2014 5:06	NOX	S	397.5	416	18	Passed
5/30/2014 5:06	NOX	Z	0	0	0	Passed
5/31/2014 5:05	NOX	S	397.5	417	20	Passed
5/31/2014 5:05	NOX	Z	0	0	0	Passed

Package Boiler No. 3 EPN 50BF03 Daily NO_X CEMS Drift Tests						
Date/Time	**Component**	**Type**	**Reference**	**Measurement**	**Difference**	**Pass/Fail**
5/31/2014 6:26	NOX	S	397.5	397	0	Passed
5/31/2014 6:26	NOX	Z	0	0	0	Passed
6/1/2014 5:06	NOX	S	397.5	408	10	Passed
6/1/2014 5:06	NOX	Z	0	0	0	Passed
6/2/2014 5:06	NOX	S	397.5	408	10	Passed
6/2/2014 5:06	NOX	Z	0	0	0	Passed
6/3/2014 5:05	NOX	S	397.5	402	4	Passed
6/3/2014 5:05	NOX	Z	0	0	0	Passed
6/4/2014 5:06	NOX	S	397.5	400	2	Passed
6/4/2014 5:06	NOX	Z	0	0	0	Passed
6/5/2014 5:05	NOX	S	397.5	399	2	Passed
6/5/2014 5:05	NOX	Z	0	0	0	Passed
6/6/2014 5:06	NOX	S	397.5	398	0	Passed
6/6/2014 5:06	NOX	Z	0	0	0	Passed
6/7/2014 5:05	NOX	S	397.5	396	2	Passed
6/7/2014 5:05	NOX	Z	0	0	0	Passed
6/8/2014 5:05	NOX	S	397.5	372	26	Failed
6/8/2014 5:05	NOX	Z	0	0	0	Passed
6/8/2014 5:59	NOX	S	397.5	398	0	Passed
6/8/2014 5:59	NOX	Z	0	0	0	Passed
6/9/2014 5:06	NOX	S	397.5	405	8	Passed
6/9/2014 5:06	NOX	Z	0	0	0	Passed
6/10/2014 5:05	NOX	S	397.5	406	8	Passed
6/10/2014 5:05	NOX	Z	0	0	0	Passed
6/11/2014 5:06	NOX	S	397.5	406	8	Passed
6/11/2014 5:06	NOX	Z	0	0	0	Passed
6/12/2014 5:05	NOX	S	397.5	407	10	Passed
6/12/2014 5:05	NOX	Z	0	0	0	Passed

Package Boiler No. 3 EPN 50BF03 Daily NO_X CEMS Drift Tests						
Date/Time	**Component**	**Type**	**Reference**	**Measurement**	**Difference**	**Pass/Fail**
6/13/2014 5:05	NOX	S	397.5	406	8	Passed
6/13/2014 5:05	NOX	Z	0	0	0	Passed
6/14/2014 5:06	NOX	S	397.5	406	8	Passed
6/14/2014 5:06	NOX	Z	0	0	0	Passed
6/15/2014 5:05	NOX	S	397.5	407	10	Passed
6/15/2014 5:05	NOX	Z	0	0	0	Passed
6/16/2014 5:06	NOX	S	397.5	407	10	Passed
6/16/2014 5:06	NOX	Z	0	0	0	Passed
6/17/2014 5:05	NOX	S	397.5	407	10	Passed
6/17/2014 5:05	NOX	Z	0	0	0	Passed
6/18/2014 5:06	NOX	S	397.5	407	10	Passed
6/18/2014 5:06	NOX	Z	0	0	0	Passed
6/19/2014 5:05	NOX	S	397.5	407	10	Passed
6/19/2014 5:05	NOX	Z	0	0	0	Passed
6/20/2014 5:05	NOX	S	397.5	407	10	Passed
6/20/2014 5:05	NOX	Z	0	0	0	Passed
6/21/2014 5:06	NOX	S	397.5	406	8	Passed
6/21/2014 5:06	NOX	Z	0	0	0	Passed
6/22/2014 5:05	NOX	S	397.5	408	10	Passed
6/22/2014 5:05	NOX	Z	0	0	0	Passed
6/23/2014 5:06	NOX	S	397.5	409	12	Passed
6/23/2014 5:06	NOX	Z	0	0	0	Passed
6/24/2014 5:05	NOX	S	397.5	406	8	Passed
6/24/2014 5:05	NOX	Z	0	0	0	Passed
6/25/2014 5:05	NOX	S	397.5	406	8	Passed
6/25/2014 5:05	NOX	Z	0	0	0	Passed
6/26/2014 5:06	NOX	S	397.5	406	8	Passed
6/26/2014 5:06	NOX	Z	0	0	0	Passed
6/27/2014 5:05	NOX	S	397.5	407	10	Passed
6/27/2014 5:05	NOX	Z	0	0	0	Passed
6/28/2014 5:06	NOX	S	397.5	406	8	Passed
6/28/2014 5:06	NOX	Z	0	0	0	Passed
6/29/2014 5:05	NOX	S	397.5	406	8	Passed
6/29/2014 5:05	NOX	Z	0	0	0	Passed
6/30/2014 5:06	NOX	S	397.5	406	8	Passed
6/30/2014 5:06	NOX	Z	0	0	0	Passed

Appendix D
FCCU SO_2 Calibration Drift Reports

Fluid Catalytic Cracking Unit (FCCU) EPN 42CB2201 Daily SO_2 CEMS Drift Tests						
Date/Time	**Component**	**Type**	**Reference**	**Measurement**	**Difference**	**Pass/Fail**
1/1/2014 6:05	SO2	S	208.40	206	2.00	Passed
1/1/2014 6:05	SO2	Z	0.00	-4	4.00	Passed
1/2/2014 6:04	SO2	S	208.40	206	2.00	Passed
1/2/2014 6:04	SO2	Z	0.00	-4	4.00	Passed
1/3/2014 6:05	SO2	S	208.40	204	4.00	Passed
1/3/2014 6:05	SO2	Z	0.00	-5	5.00	Passed
1/4/2014 6:05	SO2	S	208.40	203	5.00	Passed
1/4/2014 6:05	SO2	Z	0.00	-5	5.00	Passed
1/5/2014 6:04	SO2	S	208.40	201	7.00	Passed
1/5/2014 6:04	SO2	Z	0.00	-6	6.00	Passed
1/6/2014 6:05	SO2	S	208.40	203	5.00	Passed
1/6/2014 6:05	SO2	Z	0.00	-7	7.00	Passed
1/6/2014 7:49	SO2	S	201.50	188	14.00	Passed
1/6/2014 7:49	SO2	Z	0.00	0	0.00	Passed
1/6/2014 8:15	SO2	S	201.50	204	2.00	Passed
1/6/2014 8:15	SO2	Z	0.00	0	0.00	Passed
1/7/2014 6:05	SO2	S	201.50	201	0.00	Passed
1/7/2014 6:05	SO2	Z	0.00	1	1.00	Passed
1/8/2014 6:04	SO2	S	201.50	201	0.00	Passed
1/8/2014 6:04	SO2	Z	0.00	4	4.00	Passed
1/9/2014 6:05	SO2	S	201.50	202	0.00	Passed
1/9/2014 6:05	SO2	Z	0.00	5	5.00	Passed
1/10/2014 6:04	SO2	S	201.50	198	4.00	Passed
1/10/2014 6:04	SO2	Z	0.00	3	3.00	Passed
1/11/2014 6:04	SO2	S	201.50	198	4.00	Passed
1/11/2014 6:04	SO2	Z	0.00	2	2.00	Passed
1/12/2014 6:05	SO2	S	201.50	198	4.00	Passed
1/12/2014 6:05	SO2	Z	0.00	2	2.00	Passed
1/13/2014 6:04	SO2	S	201.50	195	6.00	Passed
1/13/2014 6:04	SO2	Z	0.00	0	0.00	Passed
1/14/2014 6:05	SO2	S	201.50	201	0.00	Passed
1/14/2014 6:05	SO2	Z	0.00	1	1.00	Passed
1/15/2014 6:04	SO2	S	201.50	198	4.00	Passed
1/15/2014 6:04	SO2	Z	0.00	0	0.00	Passed
1/16/2014 6:05	SO2	S	201.50	197	4.00	Passed
1/16/2014 6:05	SO2	Z	0.00	-2	2.00	Passed
1/17/2014 6:05	SO2	S	201.50	197	4.00	Passed
1/17/2014 6:05	SO2	Z	0.00	0	0.00	Passed
1/18/2014 6:04	SO2	S	201.50	198	4.00	Passed
1/18/2014 6:04	SO2	Z	0.00	1	1.00	Passed
1/19/2014 6:05	SO2	S	201.50	201	0.00	Passed
1/19/2014 6:05	SO2	Z	0.00	1	1.00	Passed

Fluid Catalytic Cracking Unit (FCCU) EPN 42CB2201 Daily SO_2 CEMS Drift Tests						
Date/Time	**Component**	**Type**	**Reference**	**Measurement**	**Difference**	**Pass/Fail**
1/20/2014 6:04	SO2	S	201.50	197	4.00	Passed
1/20/2014 6:04	SO2	Z	0.00	0	0.00	Passed
1/21/2014 6:04	SO2	S	201.50	195	6.00	Passed
1/21/2014 6:04	SO2	Z	0.00	-1	1.00	Passed
1/22/2014 6:05	SO2	S	201.50	199	2.00	Passed
1/22/2014 6:05	SO2	Z	0.00	3	3.00	Passed
1/23/2014 6:04	SO2	S	201.50	195	6.00	Passed
1/23/2014 6:04	SO2	Z	0.00	0	0.00	Passed
1/24/2014 6:05	SO2	S	201.50	199	2.00	Passed
1/24/2014 6:05	SO2	Z	0.00	-2	2.00	Passed
1/25/2014 6:05	SO2	S	201.50	191	10.00	Passed
1/25/2014 6:05	SO2	Z	0.00	-2	2.00	Passed
1/25/2014 9:36	SO2	S	201.50	204	2.00	Passed
1/25/2014 9:36	SO2	Z	0.00	1	1.00	Passed
1/26/2014 6:04	SO2	S	201.50	207	6.00	Passed
1/26/2014 6:04	SO2	Z	0.00	3	3.00	Passed
1/27/2014 6:05	SO2	S	201.50	206	4.00	Passed
1/27/2014 6:05	SO2	Z	0.00	3	3.00	Passed
1/28/2014 6:04	SO2	S	201.50	208	6.00	Passed
1/28/2014 6:04	SO2	Z	0.00	2	2.00	Passed
1/29/2014 6:05	SO2	S	201.50	208	6.00	Passed
1/29/2014 6:05	SO2	Z	0.00	0	0.00	Passed
1/30/2014 6:05	SO2	S	201.50	206	4.00	Passed
1/30/2014 6:05	SO2	Z	0.00	0	0.00	Passed
1/30/2014 7:42	SO2	S	201.50	203	2.00	Passed
1/30/2014 7:42	SO2	Z	0.00	1	1.00	Passed
1/31/2014 6:04	SO2	S	201.50	196	6.00	Passed
1/31/2014 6:04	SO2	Z	0.00	3	3.00	Passed
1/31/2014 8:26	SO2	S	201.50	202	0.00	Passed
1/31/2014 8:26	SO2	Z	0.00	5	5.00	Passed
2/1/2014 6:05	SO2	S	201.50	206	4.00	Passed
2/1/2014 6:05	SO2	Z	0.00	1	1.00	Passed
2/2/2014 6:04	SO2	S	201.50	209	8.00	Passed
2/2/2014 6:04	SO2	Z	0.00	1	1.00	Passed
2/2/2014 6:58	SO2	S	201.50	202	0.00	Passed
2/2/2014 6:58	SO2	Z	0.00	0	0.00	Passed
2/3/2014 6:05	SO2	S	201.50	203	2.00	Passed
2/3/2014 6:05	SO2	Z	0.00	-1	1.00	Passed
2/4/2014 6:05	SO2	S	201.50	204	2.00	Passed
2/4/2014 6:05	SO2	Z	0.00	-1	1.00	Passed
2/5/2014 6:04	SO2	S	201.50	207	6.00	Passed
2/5/2014 6:04	SO2	Z	0.00	0	0.00	Passed

Fluid Catalytic Cracking Unit (FCCU) EPN 42CB2201 Daily SO_2 CEMS Drift Tests						
Date/Time	**Component**	**Type**	**Reference**	**Measurement**	**Difference**	**Pass/Fail**
2/6/2014 6:05	SO2	S	201.50	204	2.00	Passed
2/6/2014 6:05	SO2	Z	0.00	-2	2.00	Passed
2/7/2014 6:04	SO2	S	201.50	205	4.00	Passed
2/7/2014 6:04	SO2	Z	0.00	-1	1.00	Passed
2/8/2014 6:05	SO2	S	201.50	209	8.00	Passed
2/8/2014 6:05	SO2	Z	0.00	1	1.00	Passed
2/9/2014 6:05	SO2	S	201.50	205	4.00	Passed
2/9/2014 6:05	SO2	Z	0.00	0	0.00	Passed
2/10/2014 6:04	SO2	S	201.50	207	6.00	Passed
2/10/2014 6:04	SO2	Z	0.00	1	1.00	Passed
2/11/2014 6:05	SO2	S	201.50	206	4.00	Passed
2/11/2014 6:05	SO2	Z	0.00	0	0.00	Passed
2/12/2014 6:05	SO2	S	201.50	203	2.00	Passed
2/12/2014 6:05	SO2	Z	0.00	-2	2.00	Passed
2/12/2014 9:11	SO2	S	201.50	197	4.00	Passed
2/12/2014 9:11	SO2	Z	0.00	1	1.00	Passed
2/13/2014 6:04	SO2	S	201.50	225	24.00	Passed
2/13/2014 6:04	SO2	Z	0.00	1	1.00	Passed
2/13/2014 6:48	SO2	S	201.50	202	0.00	Passed
2/13/2014 6:48	SO2	Z	0.00	1	1.00	Passed
2/14/2014 6:05	SO2	S	201.50	198	4.00	Passed
2/14/2014 6:05	SO2	Z	0.00	3	3.00	Passed
2/15/2014 6:04	SO2	S	201.50	203	2.00	Passed
2/15/2014 6:04	SO2	Z	0.00	1	1.00	Passed
2/16/2014 6:05	SO2	S	201.50	199	2.00	Passed
2/16/2014 6:05	SO2	Z	0.00	1	1.00	Passed
2/17/2014 6:05	SO2	S	201.50	197	4.00	Passed
2/17/2014 6:05	SO2	Z	0.00	0	0.00	Passed
2/18/2014 6:04	SO2	S	201.50	196	6.00	Passed
2/18/2014 6:04	SO2	Z	0.00	0	0.00	Passed
2/19/2014 6:05	SO2	S	201.50	188	14.00	Passed
2/19/2014 6:05	SO2	Z	0.00	-1	1.00	Passed
2/19/2014 9:55	SO2	S	201.50	203	2.00	Passed
2/19/2014 9:55	SO2	Z	0.00	-1	1.00	Passed
2/20/2014 6:04	SO2	S	201.50	202	0.00	Passed
2/20/2014 6:04	SO2	Z	0.00	-1	1.00	Passed
2/21/2014 6:05	SO2	S	201.50	206	4.00	Passed
2/21/2014 6:05	SO2	Z	0.00	-2	2.00	Passed
2/22/2014 6:05	SO2	S	201.50	204	2.00	Passed
2/22/2014 6:05	SO2	Z	0.00	-3	3.00	Passed
2/23/2014 6:04	SO2	S	201.50	203	2.00	Passed
2/23/2014 6:04	SO2	Z	0.00	-3	3.00	Passed

Fluid Catalytic Cracking Unit (FCCU) EPN 42CB2201 Daily SO_2 CEMS Drift Tests						
Date/Time	**Component**	**Type**	**Reference**	**Measurement**	**Difference**	**Pass/Fail**
2/24/2014 6:05	SO2	S	201.50	205	4.00	Passed
2/24/2014 6:05	SO2	Z	0.00	-3	3.00	Passed
2/25/2014 6:04	SO2	S	201.50	202	0.00	Passed
2/25/2014 6:04	SO2	Z	0.00	0	0.00	Passed
2/26/2014 6:04	SO2	S	201.50	206	4.00	Passed
2/26/2014 6:04	SO2	Z	0.00	1	1.00	Passed
2/27/2014 6:05	SO2	S	201.50	202	0.00	Passed
2/27/2014 6:05	SO2	Z	0.00	-3	3.00	Passed
2/28/2014 6:04	SO2	S	201.50	204	2.00	Passed
2/28/2014 6:04	SO2	Z	0.00	-1	1.00	Passed
3/1/2014 6:05	SO2	S	201.50	204	2.00	Passed
3/1/2014 6:05	SO2	Z	0.00	-2	2.00	Passed
3/2/2014 6:05	SO2	S	201.50	201	0.00	Passed
3/2/2014 6:05	SO2	Z	0.00	-3	3.00	Passed
3/3/2014 6:04	SO2	S	201.50	198	4.00	Passed
3/3/2014 6:04	SO2	Z	0.00	-6	6.00	Passed
3/4/2014 6:05	SO2	S	201.50	203	2.00	Passed
3/4/2014 6:05	SO2	Z	0.00	-5	5.00	Passed
3/5/2014 6:04	SO2	S	201.50	201	0.00	Passed
3/5/2014 6:04	SO2	Z	0.00	-5	5.00	Passed
3/6/2014 6:05	SO2	S	201.50	201	0.00	Passed
3/6/2014 6:05	SO2	Z	0.00	-5	5.00	Passed
3/7/2014 6:05	SO2	S	201.50	204	2.00	Passed
3/7/2014 6:05	SO2	Z	0.00	-4	4.00	Passed
3/8/2014 6:04	SO2	S	201.50	201	0.00	Passed
3/8/2014 6:04	SO2	Z	0.00	1	1.00	Passed
3/9/2014 5:05	SO2	S	201.50	204	2.00	Passed
3/9/2014 5:05	SO2	Z	0.00	0	0.00	Passed
3/10/2014 5:04	SO2	S	201.50	205	4.00	Passed
3/10/2014 5:04	SO2	Z	0.00	-1	1.00	Passed
3/11/2014 5:05	SO2	S	201.50	201	0.00	Passed
3/11/2014 5:05	SO2	Z	0.00	0	0.00	Passed
3/12/2014 5:05	SO2	S	201.50	200	2.00	Passed
3/12/2014 5:05	SO2	Z	0.00	-1	1.00	Passed
3/13/2014 5:04	SO2	S	201.50	208	6.00	Passed
3/13/2014 5:04	SO2	Z	0.00	0	0.00	Passed
3/14/2014 5:05	SO2	S	201.50	204	2.00	Passed
3/14/2014 5:05	SO2	Z	0.00	-2	2.00	Passed
3/15/2014 5:04	SO2	S	201.50	203	2.00	Passed
3/15/2014 5:04	SO2	Z	0.00	-2	2.00	Passed
3/16/2014 5:05	SO2	S	201.50	201	0.00	Passed
3/16/2014 5:05	SO2	Z	0.00	-1	1.00	Passed

Fluid Catalytic Cracking Unit (FCCU) EPN 42CB2201 Daily SO_2 CEMS Drift Tests						
Date/Time	**Component**	**Type**	**Reference**	**Measurement**	**Difference**	**Pass/Fail**
3/17/2014 5:05	SO2	S	201.50	203	2.00	Passed
3/17/2014 5:05	SO2	Z	0.00	-3	3.00	Passed
3/17/2014 7:30	SO2	S	201.50	205	4.00	Passed
3/17/2014 7:30	SO2	Z	0.00	-1	1.00	Passed
3/18/2014 5:05	SO2	S	201.50	206	4.00	Passed
3/18/2014 5:05	SO2	Z	0.00	-1	1.00	Passed
3/19/2014 5:04	SO2	S	201.50	206	4.00	Passed
3/19/2014 5:04	SO2	Z	0.00	-1	1.00	Passed
3/20/2014 5:05	SO2	S	201.50	206	4.00	Passed
3/20/2014 5:05	SO2	Z	0.00	-2	2.00	Passed
3/21/2014 5:05	SO2	S	201.50	204	2.00	Passed
3/21/2014 5:05	SO2	Z	0.00	-2	2.00	Passed
3/22/2014 5:04	SO2	S	201.50	202	0.00	Passed
3/22/2014 5:04	SO2	Z	0.00	-3	3.00	Passed
3/23/2014 5:05	SO2	S	201.50	207	6.00	Passed
3/23/2014 5:05	SO2	Z	0.00	1	1.00	Passed
3/24/2014 5:04	SO2	S	201.50	203	2.00	Passed
3/24/2014 5:04	SO2	Z	0.00	-4	4.00	Passed
3/25/2014 5:05	SO2	S	201.50	206	4.00	Passed
3/25/2014 5:05	SO2	Z	0.00	-2	2.00	Passed
3/26/2014 5:05	SO2	S	201.50	206	4.00	Passed
3/26/2014 5:05	SO2	Z	0.00	-1	1.00	Passed
3/27/2014 5:04	SO2	S	201.50	203	2.00	Passed
3/27/2014 5:04	SO2	Z	0.00	-2	2.00	Passed
3/28/2014 5:05	SO2	S	201.50	206	4.00	Passed
3/28/2014 5:05	SO2	Z	0.00	0	0.00	Passed
3/29/2014 5:04	SO2	S	201.50	205	4.00	Passed
3/29/2014 5:04	SO2	Z	0.00	-3	3.00	Passed
3/30/2014 5:05	SO2	S	201.50	207	6.00	Passed
3/30/2014 5:05	SO2	Z	0.00	-4	4.00	Passed
3/31/2014 5:05	SO2	S	201.50	203	2.00	Passed
3/31/2014 5:05	SO2	Z	0.00	-5	5.00	Passed
4/1/2014 5:04	SO2	S	201.50	203	2.00	Passed
4/1/2014 5:04	SO2	Z	0.00	-2	2.00	Passed
4/2/2014 5:05	SO2	S	201.50	205	4.00	Passed
4/2/2014 5:05	SO2	Z	0.00	0	0.00	Passed
4/3/2014 5:04	SO2	S	201.80	204	2.00	Passed
4/3/2014 5:04	SO2	Z	0.00	-1	1.00	Passed
4/4/2014 5:04	SO2	S	201.80	206	4.00	Passed
4/4/2014 5:04	SO2	Z	0.00	-1	1.00	Passed
4/5/2014 5:05	SO2	S	201.80	204	2.00	Passed
4/5/2014 5:05	SO2	Z	0.00	-2	2.00	Passed

Fluid Catalytic Cracking Unit (FCCU) EPN 42CB2201 Daily SO_2 CEMS Drift Tests						
Date/Time	**Component**	**Type**	**Reference**	**Measurement**	**Difference**	**Pass/Fail**
4/6/2014 5:04	SO2	S	201.80	203	1.00	Passed
4/6/2014 5:04	SO2	Z	0.00	-2	2.00	Passed
4/7/2014 5:05	SO2	S	201.80	202	0.00	Passed
4/7/2014 5:05	SO2	Z	0.00	-2	2.00	Passed
4/8/2014 5:05	SO2	S	201.80	201	1.00	Passed
4/8/2014 5:05	SO2	Z	0.00	-4	4.00	Passed
4/9/2014 5:04	SO2	S	201.80	207	5.00	Passed
4/9/2014 5:04	SO2	Z	0.00	-2	2.00	Passed
4/10/2014 5:05	SO2	S	201.80	201	1.00	Passed
4/10/2014 5:05	SO2	Z	0.00	-5	5.00	Passed
4/11/2014 5:04	SO2	S	201.80	208	6.00	Passed
4/11/2014 5:04	SO2	Z	0.00	-1	1.00	Passed
4/12/2014 5:05	SO2	S	201.80	206	4.00	Passed
4/12/2014 5:05	SO2	Z	0.00	0	0.00	Passed
4/13/2014 5:05	SO2	S	201.80	204	2.00	Passed
4/13/2014 5:05	SO2	Z	0.00	-1	1.00	Passed
4/14/2014 5:04	SO2	S	201.80	205	3.00	Passed
4/14/2014 5:04	SO2	Z	0.00	1	1.00	Passed
4/15/2014 5:05	SO2	S	201.80	207	5.00	Passed
4/15/2014 5:05	SO2	Z	0.00	-1	1.00	Passed
4/16/2014 5:04	SO2	S	201.80	192	10.00	Passed
4/16/2014 5:04	SO2	Z	0.00	-2	2.00	Passed
4/16/2014 6:37	SO2	S	201.80	207	5.00	Passed
4/16/2014 6:37	SO2	Z	0.00	0	0.00	Passed
4/17/2014 5:04	SO2	S	201.80	202	0.00	Passed
4/17/2014 5:04	SO2	Z	0.00	-2	2.00	Passed
4/18/2014 5:05	SO2	S	201.80	204	2.00	Passed
4/18/2014 5:05	SO2	Z	0.00	-2	2.00	Passed
4/19/2014 5:04	SO2	S	201.80	204	2.00	Passed
4/19/2014 5:04	SO2	Z	0.00	-2	2.00	Passed
4/20/2014 0:00	SO2	S	201.80	203	1.00	Passed
4/20/2014 0:00	SO2	Z	0.00	0	0.00	Passed
4/20/2014 5:05	SO2	S	201.80	200	2.00	Passed
4/20/2014 5:05	SO2	Z	0.00	0	0.00	Passed
4/21/2014 5:04	SO2	S	201.80	201	1.00	Passed
4/21/2014 5:04	SO2	Z	0.00	0	0.00	Passed
4/22/2014 5:04	SO2	S	201.80	198	4.00	Passed
4/22/2014 5:04	SO2	Z	0.00	0	0.00	Passed
4/23/2014 5:05	SO2	S	201.80	198	4.00	Passed
4/23/2014 5:05	SO2	Z	0.00	-1	1.00	Passed
4/24/2014 5:04	SO2	S	201.80	199	3.00	Passed
4/24/2014 5:04	SO2	Z	0.00	0	0.00	Passed

Fluid Catalytic Cracking Unit (FCCU) EPN 42CB2201 Daily SO_2 CEMS Drift Tests						
Date/Time	**Component**	**Type**	**Reference**	**Measurement**	**Difference**	**Pass/Fail**
4/25/2014 5:05	SO2	S	201.80	197	5.00	Passed
4/25/2014 5:05	SO2	Z	0.00	-2	2.00	Passed
4/26/2014 5:04	SO2	S	201.80	197	5.00	Passed
4/26/2014 5:04	SO2	Z	0.00	-1	1.00	Passed
4/27/2014 5:04	SO2	S	201.80	196	6.00	Passed
4/27/2014 5:04	SO2	Z	0.00	-2	2.00	Passed
4/28/2014 5:05	SO2	S	201.80	195	7.00	Passed
4/28/2014 5:05	SO2	Z	0.00	-2	2.00	Passed
4/29/2014 5:04	SO2	S	201.80	195	7.00	Passed
4/29/2014 5:04	SO2	Z	0.00	-2	2.00	Passed
4/30/2014 5:05	SO2	S	201.80	199	3.00	Passed
4/30/2014 5:05	SO2	Z	0.00	-1	1.00	Passed
5/1/2014 5:05	SO2	S	201.80	200	2.00	Passed
5/1/2014 5:05	SO2	Z	0.00	0	0.00	Passed
5/2/2014 5:04	SO2	S	201.80	196	6.00	Passed
5/2/2014 5:04	SO2	Z	0.00	-2	2.00	Passed
5/3/2014 5:05	SO2	S	201.80	197	5.00	Passed
5/3/2014 5:05	SO2	Z	0.00	-2	2.00	Passed
5/4/2014 5:04	SO2	S	201.80	197	5.00	Passed
5/4/2014 5:04	SO2	Z	0.00	-3	3.00	Passed
5/5/2014 5:04	SO2	S	201.80	194	8.00	Passed
5/5/2014 5:04	SO2	Z	0.00	-3	3.00	Passed
5/6/2014 5:05	SO2	S	201.80	196	6.00	Passed
5/6/2014 5:05	SO2	Z	0.00	-2	2.00	Passed
5/7/2014 5:04	SO2	S	201.80	195	7.00	Passed
5/7/2014 5:04	SO2	Z	0.00	-4	4.00	Passed
5/8/2014 5:05	SO2	S	201.80	197	5.00	Passed
5/8/2014 5:05	SO2	Z	0.00	-1	1.00	Passed
5/9/2014 5:05	SO2	S	201.80	198	4.00	Passed
5/9/2014 5:05	SO2	Z	0.00	-1	1.00	Passed
5/10/2014 5:04	SO2	S	201.80	196	6.00	Passed
5/10/2014 5:04	SO2	Z	0.00	-2	2.00	Passed
5/11/2014 5:05	SO2	S	201.80	197	5.00	Passed
5/11/2014 5:05	SO2	Z	0.00	-3	3.00	Passed
5/12/2014 5:04	SO2	S	201.80	194	8.00	Passed
5/12/2014 5:04	SO2	Z	0.00	-3	3.00	Passed
5/13/2014 5:05	SO2	S	201.80	198	4.00	Passed
5/13/2014 5:05	SO2	Z	0.00	0	0.00	Passed
5/14/2014 5:05	SO2	S	201.80	198	4.00	Passed
5/14/2014 5:05	SO2	Z	0.00	0	0.00	Passed
5/15/2014 5:04	SO2	S	201.80	198	4.00	Passed
5/15/2014 5:04	SO2	Z	0.00	-1	1.00	Passed

Fluid Catalytic Cracking Unit (FCCU) EPN 42CB2201 Daily SO_2 CEMS Drift Tests						
Date/Time	**Component**	**Type**	**Reference**	**Measurement**	**Difference**	**Pass/Fail**
5/16/2014 5:05	SO2	S	201.80	198	4.00	Passed
5/16/2014 5:05	SO2	Z	0.00	-2	2.00	Passed
5/17/2014 5:04	SO2	S	201.80	196	6.00	Passed
5/17/2014 5:04	SO2	Z	0.00	-3	3.00	Passed
5/18/2014 5:05	SO2	S	201.80	198	4.00	Passed
5/18/2014 5:05	SO2	Z	0.00	-3	3.00	Passed
5/19/2014 5:05	SO2	S	201.80	197	5.00	Passed
5/19/2014 5:05	SO2	Z	0.00	-3	3.00	Passed
5/20/2014 5:04	SO2	S	201.80	194	8.00	Passed
5/20/2014 5:04	SO2	Z	0.00	-5	5.00	Passed
5/21/2014 5:05	SO2	S	201.80	200	2.00	Passed
5/21/2014 5:05	SO2	Z	0.00	0	0.00	Passed
5/22/2014 5:04	SO2	S	201.80	198	4.00	Passed
5/22/2014 5:04	SO2	Z	0.00	-2	2.00	Passed
5/23/2014 5:05	SO2	S	201.80	197	5.00	Passed
5/23/2014 5:05	SO2	Z	0.00	-3	3.00	Passed
5/24/2014 5:05	SO2	S	201.80	197	5.00	Passed
5/24/2014 5:05	SO2	Z	0.00	-2	2.00	Passed
5/25/2014 5:04	SO2	S	201.80	197	5.00	Passed
5/25/2014 5:04	SO2	Z	0.00	-4	4.00	Passed
5/26/2014 5:05	SO2	S	201.80	197	5.00	Passed
5/26/2014 5:05	SO2	Z	0.00	-2	2.00	Passed
5/27/2014 5:05	SO2	S	201.80	195	7.00	Passed
5/27/2014 5:05	SO2	Z	0.00	-5	5.00	Passed
5/28/2014 5:04	SO2	S	201.80	194	8.00	Passed
5/28/2014 5:04	SO2	Z	0.00	-5	5.00	Passed
5/29/2014 5:05	SO2	S	201.80	193	9.00	Passed
5/29/2014 5:05	SO2	Z	0.00	-6	6.00	Passed
5/29/2014 6:59	SO2	S	201.80	205	3.00	Passed
5/29/2014 6:59	SO2	Z	0.00	2	2.00	Passed
5/30/2014 5:04	SO2	S	201.80	201	1.00	Passed
5/30/2014 5:04	SO2	Z	0.00	-1	1.00	Passed
5/31/2014 5:05	SO2	S	201.80	202	0.00	Passed
5/31/2014 5:05	SO2	Z	0.00	2	2.00	Passed
6/1/2014 5:05	SO2	S	201.80	199	3.00	Passed
6/1/2014 5:05	SO2	Z	0.00	-1	1.00	Passed
6/2/2014 5:04	SO2	S	201.80	201	1.00	Passed
6/2/2014 5:04	SO2	Z	0.00	-2	2.00	Passed
6/3/2014 5:05	SO2	S	201.80	201	1.00	Passed
6/3/2014 5:05	SO2	Z	0.00	-2	2.00	Passed
6/4/2014 5:04	SO2	S	201.80	201	1.00	Passed
6/4/2014 5:04	SO2	Z	0.00	-1	1.00	Passed

Fluid Catalytic Cracking Unit (FCCU) EPN 42CB2201 Daily SO_2 CEMS Drift Tests						
Date/Time	**Component**	**Type**	**Reference**	**Measurement**	**Difference**	**Pass/Fail**
6/5/2014 5:05	SO2	S	201.80	206	4.00	Passed
6/5/2014 5:05	SO2	Z	0.00	1	1.00	Passed
6/6/2014 5:05	SO2	S	201.80	205	3.00	Passed
6/6/2014 5:05	SO2	Z	0.00	0	0.00	Passed
6/7/2014 5:04	SO2	S	201.80	206	4.00	Passed
6/7/2014 5:04	SO2	Z	0.00	-1	1.00	Passed
6/8/2014 5:05	SO2	S	201.80	204	2.00	Passed
6/8/2014 5:05	SO2	Z	0.00	-1	1.00	Passed
6/9/2014 5:04	SO2	S	201.80	206	4.00	Passed
6/9/2014 5:04	SO2	Z	0.00	-1	1.00	Passed
6/10/2014 5:04	SO2	S	201.80	203	1.00	Passed
6/10/2014 5:04	SO2	Z	0.00	-1	1.00	Passed
6/11/2014 5:05	SO2	S	201.80	203	1.00	Passed
6/11/2014 5:05	SO2	Z	0.00	-2	2.00	Passed
6/12/2014 5:04	SO2	S	201.80	202	0.00	Passed
6/12/2014 5:04	SO2	Z	0.00	-2	2.00	Passed
6/13/2014 5:05	SO2	S	201.80	202	0.00	Passed
6/13/2014 5:05	SO2	Z	0.00	1	1.00	Passed
6/14/2014 5:04	SO2	S	201.80	206	4.00	Passed
6/14/2014 5:04	SO2	Z	0.00	0	0.00	Passed
6/15/2014 5:04	SO2	S	201.80	204	2.00	Passed
6/15/2014 5:04	SO2	Z	0.00	1	1.00	Passed
6/16/2014 5:05	SO2	S	201.80	203	1.00	Passed
6/16/2014 5:05	SO2	Z	0.00	-1	1.00	Passed
6/17/2014 5:04	SO2	S	201.80	205	3.00	Passed
6/17/2014 5:04	SO2	Z	0.00	-2	2.00	Passed
6/18/2014 5:05	SO2	S	201.80	199	3.00	Passed
6/18/2014 5:05	SO2	Z	0.00	-2	2.00	Passed
6/19/2014 5:05	SO2	S	201.80	202	0.00	Passed
6/19/2014 5:05	SO2	Z	0.00	-3	3.00	Passed
6/20/2014 5:04	SO2	S	201.80	200	2.00	Passed
6/20/2014 5:04	SO2	Z	0.00	-3	3.00	Passed
6/21/2014 5:05	SO2	S	201.80	201	1.00	Passed
6/21/2014 5:05	SO2	Z	0.00	-4	4.00	Passed
6/22/2014 5:04	SO2	S	201.80	202	0.00	Passed
6/22/2014 5:04	SO2	Z	0.00	-4	4.00	Passed
6/23/2014 5:05	SO2	S	201.80	200	2.00	Passed
6/23/2014 5:05	SO2	Z	0.00	-5	5.00	Passed
6/24/2014 5:05	SO2	S	201.80	199	3.00	Passed
6/24/2014 5:05	SO2	Z	0.00	-5	5.00	Passed
6/25/2014 5:04	SO2	S	201.80	206	4.00	Passed
6/25/2014 5:04	SO2	Z	0.00	0	0.00	Passed

Fluid Catalytic Cracking Unit (FCCU) EPN 42CB2201 Daily SO_2 CEMS Drift Tests						
Date/Time	**Component**	**Type**	**Reference**	**Measurement**	**Difference**	**Pass/Fail**
6/26/2014 5:05	SO2	S	201.80	205	3.00	Passed
6/26/2014 5:05	SO2	Z	0.00	0	0.00	Passed
6/27/2014 5:05	SO2	S	201.80	204	2.00	Passed
6/27/2014 5:05	SO2	Z	0.00	-1	1.00	Passed
6/28/2014 5:04	SO2	S	201.80	204	2.00	Passed
6/28/2014 5:04	SO2	Z	0.00	2	2.00	Passed
6/29/2014 8:20	SO2	S	201.80	203	1.00	Passed
6/29/2014 8:20	SO2	Z	0.00	-2	2.00	Passed
6/30/2014 5:04	SO2	S	201.80	204	2.00	Passed
6/30/2014 5:04	SO2	Z	0.00	0	0.00	Passed

1st Half of 2014 Package Boiler No. 1 CO Analyzer Summary Report

POLLUTANT CO **EMISSION POINT NUMBER:** 81BF01

REPORTING PERIOD DATES **From:** 1/1/2014 **To:** 6/30/2014

COMPANY:	Valero Refining - Texas, L.P. 9701 Manchester Street Houston, Texas 77012
UNIT ID:	81BF01
PROCESS UNIT:	Package Boiler No. 1
EMISSIONS LIMITATION REQUIRED BY:	Permit No. 19637, Special Condition No. 6.
EMISSIONS LIMITATION:	0.035 lb/MMBtu on a 30-day rolling average
TYPE OF REQUIREMENT:	Standard
MONITORING REQUIREMENT:	Permit No. 19637, Special Condition No. 15.
FREQUENCY:	30-day rolling average
REPORT REQUIRED BY:	Permit No. 19637, Special Condition No. 24.
MONITOR MANUFACTURER & MODEL NO:	TECO 48C
DATE OF LAST CEMS CERTIFICATION OR AUDIT:	5/5/2014 CGA
PROCESS UNIT DESCRIPTION	Package Boiler
OPERATING HOURS IN PERIOD	4,343 hours

EMISSIONS DATA SUMMARY

1. Duration of Excess Emission (hours) in Reporting Period Due To:

	0.035 lb/MMBtu on a 30-day rolling average
a) Startup/Shutdown	0.0
b) Control Equipment Problems	0.0
c) Process Problems	0.0
d) Other Known Causes	0.0
e) Unknown Causes	0.0

2. Total Duration of Excess Emissions 0.0 hours

3. Percent Excess Emissions 0.0 %

CEMS PERFORMANCE SUMMARY

1. CEMS Downtime (hours) in Reporting Period Due To:

a) Monitor Equipment Malfunctions	0.0
b) Non-Monitor Equipment Malfunctions	0.0
c) Quality Assurance Calibrations	3.0
d) Other Known Causes	10.0
e) Unknown Causes	0.0

2. Total CEMS Downtime 13.0 hours

3. Percent Downtime 0.3 %

The following summary details the magnitude and duration of monitor downtime at the Package Boiler No. 1 CO CEMS.

1st Half of 2014

1st Half of 2014 Package Boiler No. 1 CO Analyzer Downtime Summary

Event	Start Date/Time	End Date/Time	Duration, Hrs.	Downtime Description	Corrective Action
1H14-PB1 CO-001	1/14/14 7:07AM	1/14/14 8:04AM	1.0	Preventive maintenance.	Install two new parastolic pump and motors with tubing complete and calibrate.
1H14-PB1 CO-002	3/3/14 10AM	3/3/14 11:25AM	2.0	Performed CGAs.	N/A.
1H14-PB1 CO-003	3/25/14 6:45AM	3/25/14 10:00AM	4.0	Exceeded two times the NOx calibration drift.	Install new internal NOx pump, change stack filter,cl5 filters, switched to new sample line calibrated, installed new
1H14-PB1 CO-004	3/26/14 6:40AM	3/26/14 7:10AM	1.0	Exceeded two times the NOx calibration drift.	Re-calibrate.
1H14-PB1 CO-005	3/27/14 7:05AM	3/27/14 7:20AM	1.0	Exceeded one time the NOx calibration drift.	Re-calibrate.
1H14-PB1 CO-006	5/5/14 7:55AM	5/5/14 8:14AM	1.0	Exceeded two times the O2 calibration drift and conduct CGAs	Re-calibrate and conduct the CGAs.
1H14-PB1 CO-007	5/5/14 12:01AM	5/5/14 1:30AM	2.0	Exceeded two times the O2 calibration drift and conduct CGAs	Re-calibrate and conduct the CGAs.
1H14-PB1 CO-008	5/21/14 10:00AM	5/21/14 10:26AM	1.0	Replace chiller and calibrate.	Replace chiller.
		Total Hours of Downtime	13.0		
		Total Operating Hours for the Quarter	4,343		
		Period of Downtime, %	0.3%		

The following summary details the magnitude and duration of monitor downtime at the Package Boiler No. 1 O_2 CEMS.

1st Half of 2014

1st Half of 2014 Package Boiler No. 1 O2 Analyzer Downtime Summary

Event	Start Date/Time	End Date/Time	Duration, Hrs.	Downtime Description	Corrective Action
1H14-PB1 O2-001	1/14/14 7:07AM	1/14/14 8:04AM	1.0	Preventive maintenance.	Install two new parastolic pump and motors with tubing complete and calibrate.
1H14-PB1 O2-001	3/3/14 10AM	3/3/14 11:25AM	2.0	Performed CGAs.	N/A.
1H14-PB1 O2-001	3/25/14 6:45AM	3/25/14 10:00AM	4.0	Exceeded two times the NOx calibration drift.	Install new internal NOx pump, change stack filter,cl5 filters, switched to new sample line calibrated, installed new
1H14-PB1 O2-001	3/26/14 6:40AM	3/26/14 7:10AM	1.0	Exceeded two times the NOx calibration drift.	Re-calibrate.
1H14-PB1 O2-001	3/27/14 7:05AM	3/27/14 7:20AM	1.0	Exceeded one time the NOx calibration drift.	Re-calibrate.
1H14-PB1 O2-001	5/5/14 7:55AM	5/5/14 8:14AM	1.0	Exceeded two times the O2 calibration drift and conduct CGAs	Re-calibrate and conduct the CGAs.
1H14-PB1 O2-001	5/5/14 12:01AM	5/5/14 1:30AM	2.0	Exceeded two times the O2 calibration drift and conduct CGAs	Re-calibrate and conduct the CGAs.
1H14-PB1 O2-001	5/21/14 10:00AM	5/21/14 10:26AM	1.0	Replace chiller and calibrate.	Replace chiller.
		Total Hours of Downtime	13.0		
		Total Operating Hours for the Quarter	4,343		
		Period of Downtime, %	0.3%		

1st Half of 2014 Package Boiler No. 2 CO Analyzer Summary Report

POLLUTANT CO EMISSION POINT NUMBER: 50BF02

REPORTING PERIOD DATES From: 1/1/2014 To: 6/30/2014

COMPANY:	Valero Refining - Texas, L.P. 9701 Manchester Street Houston, Texas 77012
UNIT ID:	50BF02
PROCESS UNIT:	Package Boiler No. 2
EMISSIONS LIMITATION REQUIRED BY:	Permit No. 19637, Special Condition No. 6
EMISSIONS LIMITATION:	0.035 lb/MMBtu on a 30-day rolling average
TYPE OF REQUIREMENT:	Standard
MONITORING REQUIREMENT:	Permit No. 19637, Special Condition No. 15.
FREQUENCY:	30-day rolling average
REPORT REQUIRED BY:	Permit No. 19637, Special Condition No. 24.
MONITOR MANUFACTURER & MODEL NO:	TECO 48C
DATE OF LAST CEMS CERTIFICATION OR AUDIT:	5/6/2014 CGA
PROCESS UNIT DESCRIPTION	Package Boiler
OPERATING HOURS IN PERIOD	4,266 hours

EMISSIONS DATA SUMMARY

1. Duration of Excess Emission (hours) in Reporting Period Due To:

	0.035 lb/MMBtu on a 30-day rolling averag
a) Startup/Shutdown	15.0
b) Control Equipment Problems	0.0
c) Process Problems	0.0
d) Other Known Causes	0.0
e) Unknown Causes	0.0
2. Total Duration of Excess Emissions	15.0 hours
3. Percent Excess Emissions	0.4 %

CEMS PERFORMANCE SUMMARY

1. CEMS Downtime (hours) in Reporting Period Due To:

a) Monitor Equipment Malfunctions	0.0
b) Non-Monitor Equipment Malfunctions	5.0
c) Quality Assurance Calibrations	3.0
d) Other Known Causes	30.0
e) Unknown Causes	0.0
2. Total CEMS Downtime	38.0 hours
3. Percent Downtime	0.9 %

The following summary details the magnitude and duration of monitor downtime at the Package Boiler No. 2 CO CEMS.

1st Half of 2014

1st Half of 2014 Package Boiler No. 2 CO Analyzer Downtime Summary

Event	Start Date/Time	End Date/Time	Duration, Hrs.	Downtime Description	Corrective Action
1H14-PB2 CO-001	2/27/14 6:15 AM	2/28/14 7:00 AM	25.0	Exceeded four times the CO span drift.	Replaced internal pump, calibrated analyzer and reran the validation.
1H14-PB2 CO-002	3/3/14 11:50	3/3/14 13:50	2.0	Performed CGAs.	N/A.
1H14-PB2 CO-003	3/5/14 8:30AM	3/5/14 8:49AM	1.0	Exceeded one time the NOx calibration drift.	Calibrated NOx span and reran the validation.
1H14-PB2 CO-004	4/9/14 7AM	4/9/14 7:25AM	1.0	Exceeded one time the NOx calibration drift.	Calibrated span and reran the validation.
1H14-PB2 CO-005	4/11/14 5:05 AM	4/11/14 8:20 AM	4.0	Failed NOx and CO validations due to faulted sample pump.	Replaced sample pump.
1H14-PB2 CO-006	5/6/14 9:00AM	5/6/14 10:12AM	1.0	Conduct CGAs.	N/A.
1H14-PB2 CO-007	5/13/14 8AM	5/13/14 9;20AM	1.0	Low AGC intensity alarm at the CO analyzer.	Replaced light source and recalibrated analyzer.
1H14-PB2 CO-008	6/6/14 7:30AM	6/6/14 8:30AM	2.0	Exceeded one time the NOx calibration drift.	Calibrated NOx analyzer and ran the validation again.
1H14-PB2 CO-009	6/20/14 7AM	6/20/14 7:20AM	1.0	Exceeded one time the NOx calibration drift.	Calibrated span and reran the validation.
Total Hours of Downtime			38.0		
Total Operating Hours for the Quarter			4,266		
Period of Downtime, %			0.9%		

The following summary details the magnitude and duration of monitor downtime at the Package Boiler No. 2 O_2 CEMS.

1st Half of 2014

1st Half of 2014 Package Boiler No. 2 O2 Analyzer Downtime Summary

Event	Start Date/Time	End Date/Time	Duration, Hrs.	Downtime Description	Corrective Action
1H14-PB2 O2-001	2/28/14 6:30 AM	2/28/14 7:00 AM	1.0	Exceeded four times the CO span drift.	Replaced internal pump, calibrated analyzer and reran the validation.
1H14-PB2 O2-002	3/3/14 11:50	3/3/14 13:50	2.0	Performed CGAs.	N/A.
1H14-PB2 O2-003	3/5/14 8:30AM	3/5/14 8:49AM	1.0	Exceeded one time the NOx calibration drift.	Calibrated NOx span and reran the validation.
1H14-PB2 O2-004	4/9/14 7AM	4/9/14 7:25AM	1.0	Exceeded one time the NOx calibration drift.	Calibrated span and reran the validation.
1H14-PB2 O2-005	4/11/14 5:05 AM	4/11/14 8:20 AM	4.0	Failed NOx and CO validations due to faulted sample pump.	Replaced sample pump.
1H14-PB2 O2-006	5/6/14 9:00AM	5/6/14 10:12AM	1.0	Conduct CGAs.	N/A.
1H14-PB2 O2-007	5/13/14 8AM	5/13/14 9;20AM	1.0	Low AGC intensity alarm at the CO analyzer.	Replaced light source and recalibrated analyzer.
1H14-PB2 O2-008	6/6/14 7:30AM	6/6/14 8:30AM	2.0	Exceeded one time the NOx calibration drift.	Calibrated NOx analyzer and ran the validation again.
1H14-PB2 O2-009	6/20/14 7AM	6/20/14 7:20AM	1.0	Exceeded one time the NOx calibration drift.	Calibrated span and reran the validation.
Total Hours of Downtime			14.0		
Total Operating Hours for the Quarter			4,266		
Period of Downtime, %			0.3%		

1st Half of 2014 Package Boiler No. 2 CO Analyzer Summary Report

POLLUTANT CO EMISSION POINT NUMBER: 50BF03

REPORTING PERIOD DATES From: 1/1/2014 To: 6/30/2014

COMPANY:	Valero Refining - Texas, L.P. 9701 Manchester Street Houston, Texas 77012
UNIT ID:	50BF03
PROCESS UNIT:	Package Boiler No. 3
EMISSIONS LIMITATION REQUIRED BY:	Permit No. 19637, Special Condition No. 6
EMISSIONS LIMITATION:	0.035 lb/MMBtu on a 30-day rolling average
TYPE OF REQUIREMENT:	Standard
MONITORING REQUIREMENT:	Permit No. 19637, Special Condition No. 15
FREQUENCY:	30-day rolling average
REPORT REQUIRED BY:	Permit No. 19637, Special Condition No. 24
MONITOR MANUFACTURER & MODEL NO:	TECO 48C
DATE OF LAST CEMS CERTIFICATION OR A	5/6/2014 CGA
PROCESS UNIT DESCRIPTION	Package Boiler
OPERATING HOURS IN PERIOD	4,253 hours

EMISSIONS DATA SUMMARY

1. Duration of Excess Emission (hours) in Reporting Period Due To:

	0.035 lb/MMBtu on a 30-day rolling averag
a) Startup/Shutdown	0.0
b) Control Equipment Problems	0.0
c) Process Problems	0.0
d) Other Known Causes	0.0
e) Unknown Causes	0.0

2. Total Duration of Excess Emissions 0.0 hours

3. Percent Excess Emissions 0.0 %

CEMS PERFORMANCE SUMMARY

1. CEMS Downtime (hours) in Reporting Period Due To:

a) Monitor Equipment Malfunctions	0.0
b) Non-Monitor Equipment Malfunctions	0.0
c) Quality Assurance Calibrations	2.0
d) Other Known Causes	1.0
e) Unknown Causes	0.0

2. Total CEMS Downtime 3.0 hours

3. Percent Downtime 0.1 %

The following summary details the magnitude and duration of monitor downtime at the Package Boiler No. 3 CO CEMS.

1st Half of 2014

1st Half of 2014 Package Boiler No. 3 CO Analyzer Downtime Summary

Event	Start Date/Time	End Date/Time	Duration, Hrs.	Downtime Description	Corrective Action
1H14-PB3 CO-001	3/3/14 13:50	3/3/14 3:10PM	1.0	Performed CGAs.	N/A.
1H14-PB3 CO-002	3/20/14 7:30AM	3/20/14 7:50AM	1.0	Exceeded one time the NOx calibration drift.	Calibrated span and reran validation for NOx analyzer.
1H14-PB3 CO-003	5/6/14 10:10AM	5/6/14 11:10AM	1.0	Conduct CGAs.	N/A.
		Total Hours of Downtime	3.0		
		Total Operating Hours for the Quarter	4,266		
		Period of Downtime, %	0.1%		

The following summary details the magnitude and duration of monitor downtime at the Package Boiler No. 3 O_2 CEMS.

1st Half of 2014

1st Half of 2014 Package Boiler No. 3 CO Analyzer Downtime Summary

Event	Start Date/Time	End Date/Time	Duration, Hrs.	Downtime Description	Corrective Action
1H14-PB3 O2-001	3/3/14 13:50	3/3/14 3:10PM	1.0	Performed CGAs.	N/A.
1H14-PB3 O2-002	3/20/14 7:30AM	3/20/14 7:50AM	1.0	Exceeded one time the NOx calibration drift.	Calibrated span and reran validation for NOx analyzer.
1H14-PB3 O2-003	5/6/14 10:10AM	5/6/14 11:10AM	1.0	Conduct CGAs.	N/A.
Total Hours of Downtime			3.0		
Total Operating Hours for the Quarter			4,266		
Period of Downtime, %			0.1%		

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Begin: Jan

End: Jul

Valero

CALIBRATION GAS DRIFT REPORT

Monitor: U46 O2 % 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
01/01/14	05:01:30 MCIC:	25.0	S	21.13	20.99	0.14	0.56	
01/01/14	05:01:30 MCIC:	25.0	Z	2.51	2.33	0.18	0.72	
01/02/14	05:01:30 MCIC:	25.0	S	21.13	20.99	0.14	0.56	
01/02/14	05:01:30 MCIC:	25.0	Z	2.51	2.33	0.18	0.72	
01/03/14	05:01:30 MCIC:	25.0	S	21.13	20.87	0.26	1.04	
01/03/14	05:01:30 MCIC:	25.0	Z	2.51	2.32	0.19	0.76	
01/04/14	05:01:30 MCIC:	25.0	S	21.13	20.96	0.17	0.68	
01/04/14	05:01:30 MCIC:	25.0	Z	2.51	2.33	0.18	0.72	
01/05/14	05:01:30 MCIC:	25.0	S	21.13	21.16	0.03	0.12	
01/05/14	05:01:30 MCIC:	25.0	Z	2.51	2.35	0.16	0.64	
01/06/14	05:01:30 MCIC:	25.0	S	21.13	20.86	0.27	1.08	
01/06/14	05:01:30 MCIC:	25.0	Z	2.51	2.31	0.20	0.80	
01/07/14	05:01:00 MCIC:	25.0	Z	2.51	2.33	0.18	0.72	
01/07/14	05:01:01 MCIC:	25.0	S	21.13	20.83	0.30	1.20	
01/07/14	05:01:30 MCIC:	25.0	S	21.13	20.83	0.30	1.20	
01/07/14	05:01:30 MCIC:	25.0	Z	2.51	2.33	0.18	0.72	
01/08/14	05:01:00 MCIC:	25.0	Z	2.51	2.33	0.18	0.72	

01/08/14	05:01:01 MCIC:	25.0	S	21.13	20.94	0.19	0.76
01/08/14	05:01:30 MCIC:	25.0	S	21.13	20.94	0.19	0.76
01/08/14	05:01:30 MCIC:	25.0	Z	2.51	2.33	0.18	0.72
01/09/14	05:01:00 MCIC:	25.0	Z	2.51	2.34	0.17	0.68
01/09/14	05:01:01 MCIC:	25.0	S	21.13	21.07	0.06	0.24

Report produced by Cirrus (00000001)

DAS S/N

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Valero

CALIBRATION GAS DRIFT REPORT

Monitor: U46 O2 % 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
01/09/14	05:01:30 MCIC:	25.0	S	21.13	21.07	0.06	0.24	
01/09/14	05:01:30 MCIC:	25.0	Z	2.51	2.34	0.17	0.68	
01/10/14	05:01:00 MCIC:	25.0	Z	2.51	2.34	0.17	0.68	
01/10/14	05:01:01 MCIC:	25.0	S	21.13	21.11	0.02	0.08	
01/10/14	05:01:30 MCIC:	25.0	S	21.13	21.11	0.02	0.08	
01/10/14	05:01:30 MCIC:	25.0	Z	2.51	2.34	0.17	0.68	
01/11/14	05:01:00 MCIC:	25.0	Z	2.51	2.35	0.16	0.64	
01/11/14	05:01:01 MCIC:	25.0	S	21.13	21.16	0.03	0.12	
01/11/14	05:01:30 MCIC:	25.0	S	21.13	21.16	0.03	0.12	
01/11/14	05:01:30 MCIC:	25.0	Z	2.51	2.35	0.16	0.64	
01/12/14	05:01:00 MCIC:	25.0	Z	2.51	2.32	0.19	0.76	
01/12/14	05:01:01 MCIC:	25.0	S	21.13	20.93	0.20	0.80	
01/13/14	05:01:00 MCIC:	25.0	Z	2.51	2.36	0.15	0.60	
01/13/14	05:01:01 MCIC:	25.0	S	21.13	21.22	0.09	0.36	
01/14/14	06:01:30 MCIC:	25.0	S	21.13	20.91	0.22	0.88	
01/14/14	06:01:30 MCIC:	25.0	Z	2.51	2.30	0.21	0.84	
01/15/14	06:01:30 MCIC:	25.0	S	21.13	20.87	0.26	1.04	

01/15/14	06:01:30 MCIC:	25.0	Z	2.51	2.30	0.21	0.84
01/16/14	06:01:30 MCIC:	25.0	S	21.13	20.92	0.21	0.84
01/16/14	06:01:30 MCIC:	25.0	Z	2.51	2.30	0.21	0.84
01/17/14	06:01:30 MCIC:	25.0	S	21.13	20.88	0.25	1.00
01/17/14	06:01:30 MCIC:	25.0	Z	2.51	2.30	0.21	0.84

Report produced by Cirrus DAS S/N
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CALIBRATION GAS DRIFT REPORT

Monitor: U46 O2 % 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
01/18/14	06:01:30 MCIC:	25.0	S	21.13	20.87	0.26	1.04	
01/18/14	06:01:30 MCIC:	25.0	Z	2.51	2.30	0.21	0.84	
01/19/14	06:01:30 MCIC:	25.0	S	21.13	21.07	0.06	0.24	
01/19/14	06:01:30 MCIC:	25.0	Z	2.51	2.32	0.19	0.76	
01/20/14	06:01:30 MCIC:	25.0	S	21.13	21.03	0.10	0.40	
01/20/14	06:01:30 MCIC:	25.0	Z	2.51	2.31	0.20	0.80	
01/21/14	06:01:30 MCIC:	25.0	S	21.13	20.87	0.26	1.04	
01/21/14	06:01:30 MCIC:	25.0	Z	2.51	2.30	0.21	0.84	
01/22/14	06:01:30 MCIC:	25.0	S	21.13	20.87	0.26	1.04	
01/22/14	06:01:30 MCIC:	25.0	Z	2.51	2.29	0.22	0.88	
01/23/14	06:01:30 MCIC:	25.0	S	21.13	21.05	0.08	0.32	
01/23/14	06:01:30 MCIC:	25.0	Z	2.51	2.32	0.19	0.76	
01/24/14	06:01:30 MCIC:	25.0	S	21.13	20.91	0.22	0.88	
01/24/14	06:01:30 MCIC:	25.0	Z	2.51	2.29	0.22	0.88	
01/24/14	06:36:30 MCIC:	25.0	S	21.13	20.89	0.24	0.96	
01/24/14	06:36:30 MCIC:	25.0	Z	2.51	2.30	0.21	0.84	
01/25/14	06:01:30 MCIC:	25.0	S	21.13	20.87	0.26	1.04	

01/25/14	06:01:30 MCIC:	25.0	Z	2.51	2.29	0.22	0.88
01/26/14	06:01:30 MCIC:	25.0	S	21.13	20.96	0.17	0.68
01/26/14	06:01:30 MCIC:	25.0	Z	2.51	2.31	0.20	0.80
01/27/14	06:01:30 MCIC:	25.0	S	21.13	21.11	0.02	0.08
01/27/14	06:01:30 MCIC:	25.0	Z	2.51	2.33	0.18	0.72

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CALIBRATION GAS DRIFT REPORT

Monitor: U46 O2 % 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
01/27/14	07:33:30	25.0	S	21.13	21.10	0.03	0.12	
	MCIC:							
01/27/14	07:33:30	25.0	Z	2.51	2.32	0.19	0.76	
	MCIC:							
01/28/14	06:01:30	25.0	S	21.13	20.83	0.30	1.20	
	MCIC:							
01/28/14	06:01:30	25.0	Z	2.51	2.29	0.22	0.88	
	MCIC:							
01/29/14	06:01:30	25.0	S	21.13	20.83	0.30	1.20	
	MCIC:							
01/29/14	06:01:30	25.0	Z	2.51	2.28	0.23	0.92	
	MCIC:							
01/30/14	06:01:30	25.0	S	21.13	20.87	0.26	1.04	
	MCIC:							
01/30/14	06:01:30	25.0	Z	2.51	2.29	0.22	0.88	
	MCIC:							
01/31/14	06:01:30	25.0	S	21.13	21.08	0.05	0.20	
	MCIC:							
01/31/14	06:01:30	25.0	Z	2.51	2.31	0.20	0.80	
	MCIC:							
02/01/14	06:01:30	25.0	S	21.13	21.16	0.03	0.12	
	MCIC:							
02/01/14	06:01:30	25.0	Z	2.51	2.33	0.18	0.72	
	MCIC:							
02/02/14	06:01:30	25.0	S	21.13	21.24	0.11	0.44	
	MCIC:							
02/02/14	06:01:30	25.0	Z	2.51	2.34	0.17	0.68	
	MCIC:							
02/03/14	06:01:30	25.0	S	21.13	20.95	0.18	0.72	
	MCIC:							
02/03/14	06:01:30	25.0	Z	2.51	2.30	0.21	0.84	
	MCIC:							
02/04/14	06:01:30	25.0	S	21.13	20.99	0.14	0.56	
	MCIC:							

02/04/14	06:01:30	25.0	Z	2.51	2.30	0.21	0.84
	MCIC:						
02/05/14	06:01:30	25.0	S	21.13	20.96	0.17	0.68
	MCIC:						
02/05/14	06:01:30	25.0	Z	2.51	2.30	0.21	0.84
	MCIC:						
02/06/14	06:01:30	25.0	S	21.13	20.87	0.26	1.04
	MCIC:						
02/06/14	06:01:30	25.0	Z	2.51	2.29	0.22	0.88
	MCIC:						

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CALIBRATION GAS DRIFT REPORT

Monitor: U46 O2 % 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
02/07/14	06:01:30 MCIC:	25.0	S	21.13	20.87	0.26	1.04	
02/07/14	06:01:30 MCIC:	25.0	Z	2.51	2.29	0.22	0.88	
02/07/14	07:41:30 MCIC:	25.0	S	21.13	21.12	0.01	0.04	
02/07/14	07:41:30 MCIC:	25.0	Z	2.51	2.51	0.00	0.00	
02/08/14	06:01:30 MCIC:	25.0	S	21.13	21.18	0.05	0.20	
02/08/14	06:01:30 MCIC:	25.0	Z	2.51	2.46	0.05	0.20	
02/09/14	06:01:30 MCIC:	25.0	S	21.13	21.29	0.16	0.64	
02/09/14	06:01:30 MCIC:	25.0	Z	2.51	2.48	0.03	0.12	
02/10/14	06:01:30 MCIC:	25.0	S	21.13	21.41	0.28	1.12	
02/10/14	06:01:30 MCIC:	25.0	Z	2.51	2.49	0.02	0.08	
02/11/14	06:01:30 MCIC:	25.0	S	21.13	21.17	0.04	0.16	
02/11/14	06:01:30 MCIC:	25.0	Z	2.51	2.46	0.05	0.20	
02/12/14	06:01:30 MCIC:	25.0	S	21.13	21.17	0.04	0.16	
02/12/14	06:01:30 MCIC:	25.0	Z	2.51	2.46	0.05	0.20	
02/13/14	06:01:30 MCIC:	25.0	S	21.13	21.19	0.06	0.24	
02/13/14	06:01:30 MCIC:	25.0	Z	2.51	2.47	0.04	0.16	
02/14/14	06:01:30 MCIC:	25.0	S	21.13	21.29	0.16	0.64	

02/14/14	06:01:30 MCIC:	25.0	Z	2.51	2.48	0.03	0.12
02/15/14	06:01:30 MCIC:	25.0	S	21.13	21.16	0.03	0.12
02/15/14	06:01:30 MCIC:	25.0	Z	2.51	2.46	0.05	0.20
02/16/14	06:01:30 MCIC:	25.0	S	21.13	21.35	0.22	0.88
02/16/14	06:01:30 MCIC:	25.0	Z	2.51	2.49	0.02	0.08

Report produced by Cirrus DAS S/N
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SRUB-TGI Unit 46

Valero

CALIBRATION GAS DRIFT REPORT

Monitor: U46 O2 % 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
02/17/14	06:01:30 MCIC:	25.0	S	21.13	21.45	0.32	1.28	
02/17/14	06:01:30 MCIC:	25.0	Z	2.51	2.51	0.00	0.00	
02/18/14	06:01:30 MCIC:	25.0	S	21.13	21.46	0.33	1.32	
02/18/14	06:01:30 MCIC:	25.0	Z	2.51	2.51	0.00	0.00	
02/19/14	06:01:30 MCIC:	25.0	S	21.13	21.49	0.36	1.44	
02/19/14	06:01:30 MCIC:	25.0	Z	2.51	2.50	0.01	0.04	
02/20/14	06:01:30 MCIC:	25.0	S	21.13	21.42	0.29	1.16	
02/20/14	06:01:30 MCIC:	25.0	Z	2.51	2.50	0.01	0.04	
02/21/14	06:01:30 MCIC:	25.0	S	21.13	20.78	0.35	1.40	
02/21/14	06:01:30 MCIC:	25.0	Z	2.51	2.38	0.13	0.52	
02/22/14	06:02:30 MCIC:	25.0	S	21.13	21.20	0.07	0.28	
02/22/14	06:02:30 MCIC:	25.0	Z	2.51	2.48	0.03	0.12	
02/23/14	06:02:30 MCIC:	25.0	S	21.13	21.38	0.25	1.00	
02/23/14	06:02:30 MCIC:	25.0	Z	2.51	2.50	0.01	0.04	
02/24/14	06:02:30 MCIC:	25.0	S	21.13	21.42	0.29	1.16	
02/24/14	06:02:30 MCIC:	25.0	Z	2.51	2.51	0.00	0.00	
02/25/14	06:02:30 MCIC:	25.0	S	21.13	21.40	0.27	1.08	

02/25/14	06:02:30 MCIC:	25.0	Z	2.51	2.51	0.00	0.00	
02/26/14	06:02:30 MCIC:	25.0	S	21.13	21.24	0.11	0.44	
02/26/14	06:02:30 MCIC:	25.0	Z	2.51	2.49	0.02	0.08	
02/27/14	06:02:30 MCIC:	25.0	S	21.13	21.12	0.01	0.04	
02/27/14	06:02:30 MCIC:	25.0	Z	2.51	2.47	0.04	0.16	

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Monitor: U46 O2 % 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
02/28/14	06:02:30 MCIC:	25.0	S	21.13	21.22	0.09	0.36	
02/28/14	06:02:30 MCIC:	25.0	Z	2.51	2.48	0.03	0.12	
03/01/14	06:02:30 MCIC:	25.0	S	21.13	21.37	0.24	0.96	
03/01/14	06:02:30 MCIC:	25.0	Z	2.51	2.49	0.02	0.08	
03/02/14	06:02:30 MCIC:	25.0	S	21.13	21.34	0.21	0.84	
03/02/14	06:02:30 MCIC:	25.0	Z	2.51	2.49	0.02	0.08	
03/03/14	06:02:30 MCIC:	25.0	S	21.13	21.04	0.09	0.36	
03/03/14	06:02:30 MCIC:	25.0	Z	2.51	2.46	0.05	0.20	
03/04/14	06:02:30 MCIC:	25.0	S	21.13	21.06	0.07	0.28	
03/04/14	06:02:30 MCIC:	25.0	Z	2.51	2.46	0.05	0.20	
03/05/14	06:03:30 MCIC:	25.0	S	21.13	21.04	0.09	0.36	
03/05/14	06:03:30 MCIC:	25.0	Z	2.51	2.46	0.05	0.20	
03/06/14	06:03:30 MCIC:	25.0	S	21.13	21.08	0.05	0.20	
03/06/14	06:03:30 MCIC:	25.0	Z	2.51	2.46	0.05	0.20	
03/07/14	06:03:30 MCIC:	25.0	S	21.13	21.07	0.06	0.24	
03/07/14	06:03:30 MCIC:	25.0	Z	2.51	2.46	0.05	0.20	
03/08/14	06:03:30 MCIC:	25.0	S	21.13	21.18	0.05	0.20	

03/08/14	06:03:30 MCIC:	25.0	Z	2.51	2.47	0.04	0.16
03/09/14	05:02:00 MCIC:	25.0	Z	2.51	2.47	0.04	0.16
03/09/14	05:02:01 MCIC:	25.0	S	21.13	21.14	0.01	0.04
03/09/14	07:02:30 MCIC:	25.0	S	21.13	21.14	0.01	0.04
03/09/14	07:02:30 MCIC:	25.0	Z	2.51	2.48	0.03	0.12

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CALIBRATION GAS DRIFT REPORT

Monitor: U46 O2 % 1 min

Cal Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
03/10/14	05:02:00	25.0	Z	2.51	2.47	0.04	0.16	
	MCIC:							
03/10/14	05:02:01	25.0	S	21.13	21.09	0.04	0.16	
	MCIC:							
03/10/14	06:02:30	25.0	S	21.13	21.10	0.03	0.12	
	MCIC:							
03/10/14	06:02:30	25.0	Z	2.51	2.47	0.04	0.16	
	MCIC:							
03/11/14	05:02:00	25.0	Z	2.51	2.48	0.03	0.12	
	MCIC:							
03/11/14	05:02:01	25.0	S	21.13	21.17	0.04	0.16	
	MCIC:							
03/11/14	06:02:30	25.0	S	21.13	21.17	0.04	0.16	
	MCIC:							
03/11/14	06:02:30	25.0	Z	2.51	2.48	0.03	0.12	
	MCIC:							
03/12/14	05:02:00	25.0	Z	2.51	2.48	0.03	0.12	
	MCIC:							
03/12/14	05:02:01	25.0	S	21.13	21.23	0.10	0.40	
	MCIC:							
03/12/14	06:02:30	25.0	S	21.13	21.23	0.10	0.40	
	MCIC:							
03/12/14	06:02:30	25.0	Z	2.51	2.48	0.03	0.12	
	MCIC:							
03/13/14	05:02:00	25.0	Z	2.51	2.45	0.06	0.24	
	MCIC:							
03/13/14	05:02:01	25.0	S	21.13	20.97	0.16	0.64	
	MCIC:							
03/13/14	06:02:30	25.0	S	21.13	20.97	0.16	0.64	
	MCIC:							
03/13/14	06:02:30	25.0	Z	2.51	2.45	0.06	0.24	
	MCIC:							
03/14/14	05:02:00	25.0	Z	2.51	2.47	0.04	0.16	
	MCIC:							

03/14/14	05:02:01	25.0	S	21.13	21.10	0.03	0.12	
	MCIC:							
03/14/14	06:02:30	25.0	S	21.13	21.10	0.03	0.12	
	MCIC:							
03/14/14	06:02:30	25.0	Z	2.51	2.47	0.04	0.16	
	MCIC:							
03/15/14	06:02:30	25.0	S	21.13	21.24	0.11	0.44	
	MCIC:							
03/15/14	06:02:30	25.0	Z	2.51	2.48	0.03	0.12	
	MCIC:							

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CALIBRATION GAS DRIFT REPORT

Monitor: U46 O2 % 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
03/16/14	05:02:00 MCIC:	25.0	Z	2.51	2.49	0.02	0.08	
03/16/14	05:02:01 MCIC:	25.0	S	21.13	21.32	0.19	0.76	
03/16/14	06:02:30 MCIC:	25.0	S	21.13	21.32	0.19	0.76	
03/16/14	06:02:30 MCIC:	25.0	Z	2.51	2.49	0.02	0.08	
03/17/14	05:02:00 MCIC:	25.0	Z	2.51	2.45	0.06	0.24	
03/17/14	05:02:01 MCIC:	25.0	S	21.13	21.01	0.12	0.48	
03/17/14	06:02:30 MCIC:	25.0	S	21.13	21.02	0.11	0.44	
03/17/14	06:02:30 MCIC:	25.0	Z	2.51	2.45	0.06	0.24	
03/18/14	05:02:00 MCIC:	25.0	Z	2.51	2.47	0.04	0.16	
03/18/14	05:02:01 MCIC:	25.0	S	20.81	20.82	0.01	0.04	
03/18/14	06:02:30 MCIC:	25.0	S	20.81	20.81	0.00	0.00	
03/18/14	06:02:30 MCIC:	25.0	Z	2.51	2.47	0.04	0.16	
03/19/14	05:02:00 MCIC:	25.0	Z	2.51	2.48	0.03	0.12	
03/19/14	05:02:01 MCIC:	25.0	S	20.81	20.94	0.13	0.52	
03/19/14	06:02:30 MCIC:	25.0	S	20.81	20.94	0.13	0.52	
03/19/14	06:02:30 MCIC:	25.0	Z	2.51	2.48	0.03	0.12	
03/20/14	05:02:00 MCIC:	25.0	Z	2.51	2.46	0.05	0.20	

03/20/14	05:02:01 MCIC:	25.0	S	20.81	20.82	0.01	0.04	
03/20/14	06:02:30 MCIC:	25.0	S	20.81	20.83	0.02	0.08	
03/20/14	06:02:30 MCIC:	25.0	Z	2.51	2.46	0.05	0.20	
03/21/14	05:02:00 MCIC:	25.0	Z	2.51	2.47	0.04	0.16	
03/21/14	05:02:01 MCIC:	25.0	S	20.81	20.89	0.08	0.32	

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CALIBRATION GAS DRIFT REPORT

Monitor: U46 O2 % 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
03/21/14	06:02:30 MCIC:	25.0	S	20.81	20.89	0.08	0.32	
03/21/14	06:02:30 MCIC:	25.0	Z	2.51	2.47	0.04	0.16	
03/22/14	06:02:30 MCIC:	25.0	S	20.81	21.00	0.19	0.76	
03/22/14	06:02:30 MCIC:	25.0	Z	2.51	2.48	0.03	0.12	
03/23/14	05:02:00 MCIC:	25.0	Z	2.51	2.49	0.02	0.08	
03/23/14	05:02:01 MCIC:	25.0	S	20.81	21.07	0.26	1.04	
03/23/14	06:02:30 MCIC:	25.0	S	20.81	21.07	0.26	1.04	
03/23/14	06:02:30 MCIC:	25.0	Z	2.51	2.49	0.02	0.08	
03/24/14	05:02:00 MCIC:	25.0	Z	2.51	2.46	0.05	0.20	
03/24/14	05:02:01 MCIC:	25.0	S	20.81	20.85	0.04	0.16	
03/24/14	06:02:30 MCIC:	25.0	S	20.81	20.85	0.04	0.16	
03/24/14	06:02:30 MCIC:	25.0	Z	2.51	2.46	0.05	0.20	
03/25/14	05:02:00 MCIC:	25.0	Z	2.51	2.46	0.05	0.20	
03/25/14	05:02:01 MCIC:	25.0	S	20.81	20.85	0.04	0.16	
03/25/14	06:02:30 MCIC:	25.0	S	20.81	20.85	0.04	0.16	
03/25/14	06:02:30 MCIC:	25.0	Z	2.51	2.46	0.05	0.20	
03/26/14	05:02:00 MCIC:	25.0	Z	2.51	2.46	0.05	0.20	

03/26/14	05:02:01 MCIC:	25.0	S	20.81	20.77	0.04	0.16
03/26/14	06:02:30 MCIC:	25.0	S	20.81	20.77	0.04	0.16
03/26/14	06:02:30 MCIC:	25.0	Z	2.51	2.46	0.05	0.20
03/27/14	05:02:00 MCIC:	25.0	Z	2.51	2.47	0.04	0.16
03/27/14	05:02:01 MCIC:	25.0	S	20.81	20.93	0.12	0.48

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CALIBRATION GAS DRIFT REPORT

Monitor: U46 O2 % 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
03/27/14	06:02:30 MCIC:	25.0	S	20.81	20.93	0.12	0.48	
03/27/14	06:02:30 MCIC:	25.0	Z	2.51	2.47	0.04	0.16	
03/28/14	05:02:00 MCIC:	25.0	Z	2.51	2.48	0.03	0.12	
03/28/14	05:02:01 MCIC:	25.0	S	20.81	21.05	0.24	0.96	
03/28/14	06:02:30 MCIC:	25.0	S	20.81	21.05	0.24	0.96	
03/28/14	06:02:30 MCIC:	25.0	Z	2.51	2.48	0.03	0.12	
03/29/14	06:02:30 MCIC:	25.0	S	20.81	20.91	0.10	0.40	
03/29/14	06:02:30 MCIC:	25.0	Z	2.51	2.47	0.04	0.16	
03/30/14	05:02:00 MCIC:	25.0	Z	2.51	2.46	0.05	0.20	
03/30/14	05:02:01 MCIC:	25.0	S	20.81	20.78	0.03	0.12	
03/30/14	06:02:30 MCIC:	25.0	S	20.81	20.78	0.03	0.12	
03/30/14	06:02:30 MCIC:	25.0	Z	2.51	2.46	0.05	0.20	
03/31/14	05:02:00 MCIC:	25.0	Z	2.51	2.47	0.04	0.16	
03/31/14	05:02:01 MCIC:	25.0	S	20.81	20.88	0.07	0.28	
03/31/14	06:02:30 MCIC:	25.0	S	20.81	20.89	0.08	0.32	
03/31/14	06:02:30 MCIC:	25.0	Z	2.51	2.47	0.04	0.16	
04/01/14	05:02:00 MCIC:	25.0	Z	2.51	2.50	0.01	0.04	

04/01/14	05:02:01 MCIC:	25.0	S	20.81	20.98	0.17	0.68	
04/01/14	06:02:30 MCIC:	25.0	S	20.81	20.99	0.18	0.72	
04/01/14	06:02:30 MCIC:	25.0	Z	2.51	2.50	0.01	0.04	
04/02/14	05:02:00 MCIC:	25.0	Z	2.51	2.50	0.01	0.04	
04/02/14	05:02:01 MCIC:	25.0	S	20.81	21.04	0.23	0.92	

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CALIBRATION GAS DRIFT REPORT

Monitor: U46 O2 % 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
04/02/14	06:02:30 MCIC:	25.0	S	20.81	21.03	0.22	0.88	
04/02/14	06:02:30 MCIC:	25.0	Z	2.51	2.50	0.01	0.04	
04/03/14	05:02:00 MCIC:	25.0	Z	2.51	2.49	0.02	0.08	
04/03/14	05:02:01 MCIC:	25.0	S	20.81	21.01	0.20	0.80	
04/03/14	06:02:30 MCIC:	25.0	S	20.81	21.01	0.20	0.80	
04/03/14	06:02:30 MCIC:	25.0	Z	2.51	2.49	0.02	0.08	
04/04/14	05:02:00 MCIC:	25.0	Z	2.51	2.49	0.02	0.08	
04/04/14	05:02:01 MCIC:	25.0	S	20.81	21.03	0.22	0.88	
04/04/14	06:02:30 MCIC:	25.0	S	20.81	21.03	0.22	0.88	
04/04/14	06:02:30 MCIC:	25.0	Z	2.51	2.49	0.02	0.08	
04/05/14	06:02:30 MCIC:	25.0	S	20.81	20.74	0.07	0.28	
04/05/14	06:02:30 MCIC:	25.0	Z	2.51	2.47	0.04	0.16	
04/06/14	05:02:00 MCIC:	25.0	Z	2.51	2.49	0.02	0.08	
04/06/14	05:02:01 MCIC:	25.0	S	20.81	20.90	0.09	0.36	
04/06/14	06:02:30 MCIC:	25.0	S	20.81	20.91	0.10	0.40	
04/06/14	06:02:30 MCIC:	25.0	Z	2.51	2.49	0.02	0.08	
04/07/14	05:02:00 MCIC:	25.0	Z	2.51	2.48	0.03	0.12	

04/07/14	05:02:01 MCIC:	25.0	S	20.81	20.85	0.04	0.16
04/07/14	06:02:30 MCIC:	25.0	S	20.81	20.85	0.04	0.16
04/07/14	06:02:30 MCIC:	25.0	Z	2.51	2.47	0.04	0.16
04/08/14	05:02:00 MCIC:	25.0	Z	2.51	2.48	0.03	0.12
04/08/14	05:02:01 MCIC:	25.0	S	20.81	20.85	0.04	0.16

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CALIBRATION GAS DRIFT REPORT

Monitor: U46 O2 % 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
04/08/14	06:02:30 MCIC:	25.0	S	20.81	20.84	0.03	0.12	
04/08/14	06:02:30 MCIC:	25.0	Z	2.51	2.48	0.03	0.12	
04/09/14	05:02:00 MCIC:	25.0	Z	2.51	2.47	0.04	0.16	
04/09/14	05:02:01 MCIC:	25.0	S	20.81	20.76	0.05	0.20	
04/09/14	06:02:30 MCIC:	25.0	S	20.81	20.76	0.05	0.20	
04/09/14	06:02:30 MCIC:	25.0	Z	2.51	2.47	0.04	0.16	
04/10/14	14:35:00 MCIC:	25.0	Z	2.51	2.48	0.03	0.12	
04/10/14	14:35:01 MCIC:	25.0	S	20.81	20.89	0.08	0.32	
04/11/14	05:02:00 MCIC:	25.0	Z	2.51	2.49	0.02	0.08	
04/11/14	05:02:01 MCIC:	25.0	S	20.81	20.93	0.12	0.48	
04/13/14	05:02:00 MCIC:	25.0	Z	2.51	2.50	0.01	0.04	
04/13/14	05:02:01 MCIC:	25.0	S	20.81	21.02	0.21	0.84	
04/14/14	05:02:00 MCIC:	25.0	Z	2.51	2.50	0.01	0.04	
04/14/14	05:02:01 MCIC:	25.0	S	20.81	20.98	0.17	0.68	
04/15/14	05:02:00 MCIC:	25.0	Z	2.51	2.46	0.05	0.20	
04/15/14	05:02:01 MCIC:	25.0	S	20.81	20.71	0.10	0.40	
04/16/14	05:02:00 MCIC:	25.0	Z	2.51	2.46	0.05	0.20	

04/16/14	05:02:01 MCIC:	25.0	S	20.81	20.73	0.08	0.32
04/17/14	05:02:00 MCIC:	25.0	Z	2.51	2.48	0.03	0.12
04/17/14	05:02:01 MCIC:	25.0	S	20.81	20.89	0.08	0.32
04/18/14	07:48:00 MCIC:	25.0	Z	2.51	2.48	0.03	0.12
04/18/14	07:48:01 MCIC:	25.0	S	20.81	20.87	0.06	0.24

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CALIBRATION GAS DRIFT REPORT

Monitor: U46 O2 % 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
04/19/14	05:02:00	25.0	Z	2.51	2.49	0.02	0.08	
	MCIC:							
04/19/14	05:02:01	25.0	S	20.81	20.90	0.09	0.36	
	MCIC:							
04/20/14	05:02:00	25.0	Z	2.51	2.50	0.01	0.04	
	MCIC:							
04/20/14	05:02:01	25.0	S	20.81	20.97	0.16	0.64	
	MCIC:							
04/21/14	05:02:00	25.0	Z	2.51	2.50	0.01	0.04	
	MCIC:							
04/21/14	05:02:01	25.0	S	20.81	20.96	0.15	0.60	
	MCIC:							
04/22/14	05:02:00	25.0	Z	2.51	2.50	0.01	0.04	
	MCIC:							
04/22/14	05:02:01	25.0	S	20.81	21.00	0.19	0.76	
	MCIC:							
04/22/14	06:02:30	25.0	S	20.81	21.00	0.19	0.76	
	MCIC:							
04/22/14	06:02:30	25.0	Z	2.51	2.50	0.01	0.04	
	MCIC:							
04/23/14	05:02:00	25.0	Z	2.51	2.50	0.01	0.04	
	MCIC:							
04/23/14	05:02:01	25.0	S	20.81	21.03	0.22	0.88	
	MCIC:							
04/23/14	06:02:30	25.0	S	20.81	21.03	0.22	0.88	
	MCIC:							
04/23/14	06:02:30	25.0	Z	2.51	2.50	0.01	0.04	
	MCIC:							
04/24/14	05:02:00	25.0	Z	2.51	2.50	0.01	0.04	
	MCIC:							
04/24/14	05:02:01	25.0	S	20.81	21.01	0.20	0.80	
	MCIC:							
04/24/14	06:02:30	25.0	S	20.81	21.01	0.20	0.80	
	MCIC:							

04/24/14	06:02:30	25.0	Z	2.51	2.50	0.01	0.04
	MCIC:						
04/25/14	05:02:00	25.0	Z	2.51	2.50	0.01	0.04
	MCIC:						
04/25/14	05:02:01	25.0	S	20.81	20.97	0.16	0.64
	MCIC:						
04/25/14	06:02:30	25.0	S	20.81	20.97	0.16	0.64
	MCIC:						
04/25/14	06:02:30	25.0	Z	2.51	2.50	0.01	0.04
	MCIC:						

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CALIBRATION GAS DRIFT REPORT

Monitor: U46 O2 % 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
04/26/14	06:02:30 MCIC:	25.0	S	20.81	21.01	0.20	0.80	
04/26/14	06:02:30 MCIC:	25.0	Z	2.51	2.50	0.01	0.04	
04/27/14	05:02:00 MCIC:	25.0	Z	2.51	2.50	0.01	0.04	
04/27/14	05:02:01 MCIC:	25.0	S	20.81	20.97	0.16	0.64	
04/27/14	06:02:30 MCIC:	25.0	S	20.81	20.97	0.16	0.64	
04/27/14	06:02:30 MCIC:	25.0	Z	2.51	2.50	0.01	0.04	
04/28/14	05:02:00 MCIC:	25.0	Z	2.51	2.50	0.01	0.04	
04/28/14	05:02:01 MCIC:	25.0	S	20.81	20.95	0.14	0.56	
04/28/14	06:02:30 MCIC:	25.0	S	20.81	20.95	0.14	0.56	
04/28/14	06:02:30 MCIC:	25.0	Z	2.51	2.50	0.01	0.04	
04/29/14	05:02:00 MCIC:	25.0	Z	2.51	2.50	0.01	0.04	
04/29/14	05:02:01 MCIC:	25.0	S	20.81	20.95	0.14	0.56	
04/29/14	06:02:30 MCIC:	25.0	S	20.81	20.96	0.15	0.60	
04/29/14	06:02:30 MCIC:	25.0	Z	2.51	2.50	0.01	0.04	
04/30/14	05:02:00 MCIC:	25.0	Z	2.51	2.47	0.04	0.16	
04/30/14	05:02:01 MCIC:	25.0	S	20.81	20.74	0.07	0.28	
04/30/14	06:02:30 MCIC:	25.0	S	20.81	20.74	0.07	0.28	

04/30/14	06:02:30 MCIC:	25.0	Z	2.51	2.47	0.04	0.16	
05/01/14	05:02:00 MCIC:	25.0	Z	2.51	2.47	0.04	0.16	
05/01/14	05:02:01 MCIC:	25.0	S	20.81	20.77	0.04	0.16	
05/01/14	06:02:30 MCIC:	25.0	S	20.81	20.77	0.04	0.16	
05/01/14	06:02:30 MCIC:	25.0	Z	2.51	2.47	0.04	0.16	

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CALIBRATION GAS DRIFT REPORT

Monitor: U46 O2 % 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
05/02/14	05:02:00 MCIC:	25.0	Z	2.51	2.47	0.04	0.16	
05/02/14	05:02:01 MCIC:	25.0	S	20.81	20.77	0.04	0.16	
05/02/14	06:02:30 MCIC:	25.0	S	20.81	20.78	0.03	0.12	
05/02/14	06:02:30 MCIC:	25.0	Z	2.51	2.47	0.04	0.16	
05/03/14	06:02:30 MCIC:	25.0	S	20.81	20.85	0.04	0.16	
05/03/14	06:02:30 MCIC:	25.0	Z	2.51	2.48	0.03	0.12	
05/04/14	05:02:00 MCIC:	25.0	Z	2.51	2.49	0.02	0.08	
05/04/14	05:02:01 MCIC:	25.0	S	20.81	20.89	0.08	0.32	
05/04/14	06:02:30 MCIC:	25.0	S	20.81	20.88	0.07	0.28	
05/04/14	06:02:30 MCIC:	25.0	Z	2.51	2.49	0.02	0.08	
05/05/14	05:02:00 MCIC:	25.0	Z	2.51	2.49	0.02	0.08	
05/05/14	05:02:01 MCIC:	25.0	S	20.81	20.93	0.12	0.48	
05/05/14	06:02:30 MCIC:	25.0	S	20.81	20.93	0.12	0.48	
05/05/14	06:02:30 MCIC:	25.0	Z	2.51	2.49	0.02	0.08	
05/06/14	05:02:00 MCIC:	25.0	Z	2.51	2.50	0.01	0.04	
05/06/14	05:02:01 MCIC:	25.0	S	20.81	20.97	0.16	0.64	
05/06/14	06:02:30 MCIC:	25.0	S	20.81	20.97	0.16	0.64	

05/06/14	06:02:30 MCIC:	25.0	Z	2.51	2.50	0.01	0.04
05/07/14	05:02:00 MCIC:	25.0	Z	2.51	2.50	0.01	0.04
05/07/14	05:02:01 MCIC:	25.0	S	20.81	20.99	0.18	0.72
05/07/14	06:02:30 MCIC:	25.0	S	20.81	20.98	0.17	0.68
05/07/14	06:02:30 MCIC:	25.0	Z	2.51	2.50	0.01	0.04

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CALIBRATION GAS DRIFT REPORT

Monitor: U46 O2 % 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
05/08/14	05:02:00 MCIC:	25.0	Z	2.51	2.50	0.01	0.04	
05/08/14	05:02:01 MCIC:	25.0	S	20.81	20.96	0.15	0.60	
05/08/14	06:02:30 MCIC:	25.0	S	20.81	20.96	0.15	0.60	
05/08/14	06:02:30 MCIC:	25.0	Z	2.51	2.50	0.01	0.04	
05/09/14	05:02:00 MCIC:	25.0	Z	2.51	2.50	0.01	0.04	
05/09/14	05:02:01 MCIC:	25.0	S	20.81	21.00	0.19	0.76	
05/09/14	06:02:30 MCIC:	25.0	S	20.81	21.01	0.20	0.80	
05/09/14	06:02:30 MCIC:	25.0	Z	2.51	2.50	0.01	0.04	
05/10/14	06:02:30 MCIC:	25.0	S	20.81	21.04	0.23	0.92	
05/10/14	06:02:30 MCIC:	25.0	Z	2.51	2.50	0.01	0.04	
05/11/14	05:02:00 MCIC:	25.0	Z	2.51	2.50	0.01	0.04	
05/11/14	05:02:01 MCIC:	25.0	S	20.81	20.95	0.14	0.56	
05/11/14	06:02:30 MCIC:	25.0	S	20.81	20.95	0.14	0.56	
05/11/14	06:02:30 MCIC:	25.0	Z	2.51	2.50	0.01	0.04	
05/12/14	05:02:00 MCIC:	25.0	Z	2.51	2.49	0.02	0.08	
05/12/14	05:02:01 MCIC:	25.0	S	20.81	20.97	0.16	0.64	
05/12/14	06:02:30 MCIC:	25.0	S	20.81	20.96	0.15	0.60	

05/12/14	06:02:30 MCIC:	25.0	Z	2.51	2.49	0.02	0.08
05/13/14	05:02:00 MCIC:	25.0	Z	2.51	2.51	0.00	0.00
05/13/14	05:02:01 MCIC:	25.0	S	20.81	21.04	0.23	0.92
05/13/14	06:02:30 MCIC:	25.0	S	20.81	21.03	0.22	0.88
05/13/14	06:02:30 MCIC:	25.0	Z	2.51	2.51	0.00	0.00

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CALIBRATION GAS DRIFT REPORT

Monitor: U46 O2 % 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
05/14/14	05:02:00 MCIC:	25.0	Z	2.51	2.49	0.02	0.08	
05/14/14	05:02:01 MCIC:	25.0	S	20.81	20.91	0.10	0.40	
05/14/14	06:02:30 MCIC:	25.0	S	20.81	20.91	0.10	0.40	
05/14/14	06:02:30 MCIC:	25.0	Z	2.51	2.49	0.02	0.08	
05/15/14	05:02:00 MCIC:	25.0	Z	2.51	2.48	0.03	0.12	
05/15/14	05:02:01 MCIC:	25.0	S	20.81	20.82	0.01	0.04	
05/15/14	06:02:30 MCIC:	25.0	S	20.81	20.81	0.00	0.00	
05/15/14	06:02:30 MCIC:	25.0	Z	2.51	2.48	0.03	0.12	
05/16/14	05:02:00 MCIC:	25.0	Z	2.51	2.49	0.02	0.08	
05/16/14	05:02:01 MCIC:	25.0	S	20.81	20.92	0.11	0.44	
05/16/14	06:02:30 MCIC:	25.0	S	20.81	20.91	0.10	0.40	
05/16/14	06:02:30 MCIC:	25.0	Z	2.51	2.49	0.02	0.08	
05/17/14	06:02:30 MCIC:	25.0	S	20.81	20.96	0.15	0.60	
05/17/14	06:02:30 MCIC:	25.0	Z	2.51	2.50	0.01	0.04	
05/18/14	05:02:00 MCIC:	25.0	Z	2.51	2.51	0.00	0.00	
05/18/14	05:02:01 MCIC:	25.0	S	20.81	21.04	0.23	0.92	
05/18/14	06:02:30 MCIC:	25.0	S	20.81	21.03	0.22	0.88	

05/18/14	06:02:30 MCIC:	25.0	Z	2.51	2.51	0.00	0.00
05/19/14	05:02:00 MCIC:	25.0	Z	2.51	2.51	0.00	0.00
05/19/14	05:02:01 MCIC:	25.0	S	20.81	21.09	0.28	1.12
05/19/14	06:02:30 MCIC:	25.0	S	20.81	21.09	0.28	1.12
05/19/14	06:02:30 MCIC:	25.0	Z	2.51	2.51	0.00	0.00

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CALIBRATION GAS DRIFT REPORT

Monitor: U46 O2 % 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
05/20/14	05:02:00	25.0	Z	2.51	2.51	0.00	0.00	
	MCIC:							
05/20/14	05:02:01	25.0	S	20.81	21.09	0.28	1.12	
	MCIC:							
05/20/14	06:02:30	25.0	S	20.81	21.09	0.28	1.12	
	MCIC:							
05/20/14	06:02:30	25.0	Z	2.51	2.51	0.00	0.00	
	MCIC:							
05/21/14	06:02:30	25.0	S	20.81	21.06	0.25	1.00	
	MCIC:							
05/21/14	06:02:30	25.0	Z	2.51	2.51	0.00	0.00	
	MCIC:							
05/21/14	07:51:00	25.0	Z	2.51	2.57	0.06	0.24	
	MCIC:							
05/21/14	07:51:01	25.0	S	20.81	20.85	0.04	0.16	
	MCIC:							
05/21/14	08:51:30	25.0	S	20.81	20.86	0.05	0.20	
	MCIC:							
05/21/14	08:51:30	25.0	Z	2.51	2.57	0.06	0.24	
	MCIC:							
05/22/14	05:02:00	25.0	Z	2.51	2.48	0.03	0.12	
	MCIC:							
05/22/14	05:02:01	25.0	S	20.81	20.84	0.03	0.12	
	MCIC:							
05/22/14	06:02:30	25.0	S	20.81	20.83	0.02	0.08	
	MCIC:							
05/22/14	06:02:30	25.0	Z	2.51	2.48	0.03	0.12	
	MCIC:							
05/23/14	05:02:00	25.0	Z	2.51	2.48	0.03	0.12	
	MCIC:							
05/23/14	05:02:01	25.0	S	20.81	20.83	0.02	0.08	
	MCIC:							
05/23/14	06:02:30	25.0	S	20.81	20.83	0.02	0.08	
	MCIC:							

05/23/14	06:02:30	25.0	Z	2.51	2.48	0.03	0.12
	MCIC:						
05/24/14	06:02:30	25.0	S	20.81	20.85	0.04	0.16
	MCIC:						
05/24/14	06:02:30	25.0	Z	2.51	2.48	0.03	0.12
	MCIC:						
05/25/14	05:02:00	25.0	Z	2.51	2.48	0.03	0.12
	MCIC:						
05/25/14	05:02:01	25.0	S	20.81	20.82	0.01	0.04
	MCIC:						

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CALIBRATION GAS DRIFT REPORT

Monitor: U46 O2 % 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
05/25/14	06:02:30 MCIC:	25.0	S	20.81	20.82	0.01	0.04	
05/25/14	06:02:30 MCIC:	25.0	Z	2.51	2.48	0.03	0.12	
05/26/14	05:02:00 MCIC:	25.0	Z	2.51	2.48	0.03	0.12	
05/26/14	05:02:01 MCIC:	25.0	S	20.81	20.86	0.05	0.20	
05/26/14	06:02:30 MCIC:	25.0	S	20.81	20.86	0.05	0.20	
05/26/14	06:02:30 MCIC:	25.0	Z	2.51	2.48	0.03	0.12	
05/27/14	05:02:00 MCIC:	25.0	Z	2.51	2.48	0.03	0.12	
05/27/14	05:02:01 MCIC:	25.0	S	20.81	20.81	0.00	0.00	
05/27/14	06:02:30 MCIC:	25.0	S	20.81	20.81	0.00	0.00	
05/27/14	06:02:30 MCIC:	25.0	Z	2.51	2.48	0.03	0.12	
05/28/14	05:02:00 MCIC:	25.0	Z	2.51	2.49	0.02	0.08	
05/28/14	05:02:01 MCIC:	25.0	S	20.81	20.87	0.06	0.24	
05/28/14	06:02:30 MCIC:	25.0	S	20.81	20.87	0.06	0.24	
05/28/14	06:02:30 MCIC:	25.0	Z	2.51	2.49	0.02	0.08	
05/29/14	05:02:00 MCIC:	25.0	Z	2.51	2.49	0.02	0.08	
05/29/14	05:02:01 MCIC:	25.0	S	20.81	20.85	0.04	0.16	
05/29/14	06:02:30 MCIC:	25.0	S	20.81	20.85	0.04	0.16	

05/29/14	06:02:30 MCIC:	25.0	Z	2.51	2.49	0.02	0.08
05/30/14	05:02:00 MCIC:	25.0	Z	2.51	2.49	0.02	0.08
05/30/14	05:02:01 MCIC:	25.0	S	20.81	20.87	0.06	0.24
05/30/14	06:02:30 MCIC:	25.0	S	20.81	20.87	0.06	0.24
05/30/14	06:02:30 MCIC:	25.0	Z	2.51	2.49	0.02	0.08

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CALIBRATION GAS DRIFT REPORT

Monitor: U46 O2 % 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
05/31/14	06:02:30 MCIC:	25.0	S	20.81	20.82	0.01	0.04	
05/31/14	06:02:30 MCIC:	25.0	Z	2.51	2.48	0.03	0.12	
06/01/14	06:02:30 MCIC:	25.0	S	20.81	20.85	0.04	0.16	
06/01/14	06:02:30 MCIC:	25.0	Z	2.51	2.48	0.03	0.12	
06/01/14	07:23:00 MCIC:	25.0	Z	2.51	2.47	0.04	0.16	
06/01/14	07:23:01 MCIC:	25.0	S	20.81	20.88	0.07	0.28	
06/01/14	08:23:30 MCIC:	25.0	S	20.81	20.87	0.06	0.24	
06/01/14	08:23:30 MCIC:	25.0	Z	2.51	2.47	0.04	0.16	
06/02/14	05:02:00 MCIC:	25.0	Z	2.51	2.46	0.05	0.20	
06/02/14	05:02:01 MCIC:	25.0	S	20.81	20.83	0.02	0.08	
06/02/14	06:02:30 MCIC:	25.0	S	20.81	20.83	0.02	0.08	
06/02/14	06:02:30 MCIC:	25.0	Z	2.51	2.46	0.05	0.20	
06/03/14	05:02:00 MCIC:	25.0	Z	2.51	2.46	0.05	0.20	
06/03/14	05:02:01 MCIC:	25.0	S	20.81	20.80	0.01	0.04	
06/03/14	06:02:30 MCIC:	25.0	S	20.81	20.80	0.01	0.04	
06/03/14	06:02:30 MCIC:	25.0	Z	2.51	2.46	0.05	0.20	
06/04/14	05:02:00 MCIC:	25.0	Z	2.52	2.47	0.05	0.20	

06/04/14	05:02:01 MCIC:	25.0	S	20.81	20.80	0.01	0.04
06/04/14	06:02:30 MCIC:	25.0	S	20.81	20.80	0.01	0.04
06/04/14	06:02:30 MCIC:	25.0	Z	2.52	2.47	0.05	0.20
06/05/14	05:02:00 MCIC:	25.0	Z	2.52	2.47	0.05	0.20
06/05/14	05:02:01 MCIC:	25.0	S	20.81	20.80	0.01	0.04

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CALIBRATION GAS DRIFT REPORT

Monitor: U46 O2 % 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
06/05/14	06:02:30 MCIC:	25.0	S	20.81	20.80	0.01	0.04	
06/05/14	06:02:30 MCIC:	25.0	Z	2.52	2.47	0.05	0.20	
06/06/14	05:02:00 MCIC:	25.0	Z	2.52	2.47	0.05	0.20	
06/06/14	05:02:01 MCIC:	25.0	S	20.81	20.83	0.02	0.08	
06/06/14	06:02:30 MCIC:	25.0	S	20.81	20.83	0.02	0.08	
06/06/14	06:02:30 MCIC:	25.0	Z	2.52	2.47	0.05	0.20	
06/07/14	06:02:30 MCIC:	25.0	S	20.81	20.80	0.01	0.04	
06/07/14	06:02:30 MCIC:	25.0	Z	2.52	2.47	0.05	0.20	
06/08/14	05:02:00 MCIC:	25.0	Z	2.52	2.47	0.05	0.20	
06/08/14	05:02:01 MCIC:	25.0	S	20.81	20.83	0.02	0.08	
06/08/14	06:02:30 MCIC:	25.0	S	20.81	20.82	0.01	0.04	
06/08/14	06:02:30 MCIC:	25.0	Z	2.52	2.47	0.05	0.20	
06/09/14	05:02:00 MCIC:	25.0	Z	2.52	2.46	0.06	0.24	
06/09/14	05:02:01 MCIC:	25.0	S	20.81	20.79	0.02	0.08	
06/09/14	06:02:30 MCIC:	25.0	S	20.81	20.78	0.03	0.12	
06/09/14	06:02:30 MCIC:	25.0	Z	2.52	2.46	0.06	0.24	
06/10/14	05:02:00 MCIC:	25.0	Z	2.52	2.47	0.05	0.20	

06/10/14	05:02:01 MCIC:	25.0	S	20.81	20.84	0.03	0.12
06/10/14	06:02:30 MCIC:	25.0	S	20.81	20.84	0.03	0.12
06/10/14	06:02:30 MCIC:	25.0	Z	2.52	2.47	0.05	0.20
06/11/14	05:02:00 MCIC:	25.0	Z	2.52	2.47	0.05	0.20
06/11/14	05:02:01 MCIC:	25.0	S	20.81	20.87	0.06	0.24

Report produced by Cirrus DAS S/N
(00000001)

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Valero

CALIBRATION GAS DRIFT REPORT

Monitor: U46 O2 % 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
06/11/14	06:02:30 MCIC:	25.0	S	20.81	20.86	0.05	0.20	
06/11/14	06:02:30 MCIC:	25.0	Z	2.52	2.47	0.05	0.20	
06/12/14	05:02:00 MCIC:	25.0	Z	2.52	2.47	0.05	0.20	
06/12/14	05:02:01 MCIC:	25.0	S	20.81	20.83	0.02	0.08	
06/12/14	06:02:30 MCIC:	25.0	S	20.81	20.83	0.02	0.08	
06/12/14	06:02:30 MCIC:	25.0	Z	2.52	2.47	0.05	0.20	
06/13/14	05:02:00 MCIC:	25.0	Z	2.52	2.47	0.05	0.20	
06/13/14	05:02:01 MCIC:	25.0	S	20.81	20.79	0.02	0.08	
06/13/14	06:02:30 MCIC:	25.0	S	20.81	20.79	0.02	0.08	
06/13/14	06:02:30 MCIC:	25.0	Z	2.52	2.47	0.05	0.20	
06/14/14	06:02:30 MCIC:	25.0	S	20.81	20.84	0.03	0.12	
06/14/14	06:02:30 MCIC:	25.0	Z	2.52	2.47	0.05	0.20	
06/15/14	05:02:00 MCIC:	25.0	Z	2.52	2.47	0.05	0.20	
06/15/14	05:02:01 MCIC:	25.0	S	20.81	20.83	0.02	0.08	
06/15/14	06:02:30 MCIC:	25.0	S	20.81	20.83	0.02	0.08	
06/15/14	06:02:30 MCIC:	25.0	Z	2.52	2.47	0.05	0.20	
06/16/14	05:02:00 MCIC:	25.0	Z	2.52	2.46	0.06	0.24	

06/16/14	05:02:01 MCIC:	25.0	S	20.81	20.77	0.04	0.16
06/16/14	06:02:30 MCIC:	25.0	S	20.81	20.77	0.04	0.16
06/16/14	06:02:30 MCIC:	25.0	Z	2.52	2.46	0.06	0.24
06/17/14	05:02:00 MCIC:	25.0	Z	2.52	2.46	0.06	0.24
06/17/14	05:02:01 MCIC:	25.0	S	20.81	20.77	0.04	0.16

Report produced by Cirrus DAS S/N
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Date: Jul 29 2014 Begin: Jan
01, 2014 00:00
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SRUB-TGI Unit 46

Valero

CALIBRATION GAS DRIFT REPORT

Monitor: U46 O2 % 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
06/17/14	06:02:30 MCIC:	25.0	S	20.81	20.77	0.04	0.16	
06/17/14	06:02:30 MCIC:	25.0	Z	2.52	2.46	0.06	0.24	
06/18/14	05:02:00 MCIC:	25.0	Z	2.52	2.46	0.06	0.24	
06/18/14	05:02:01 MCIC:	25.0	S	20.81	20.78	0.03	0.12	
06/18/14	06:02:30 MCIC:	25.0	S	20.81	20.78	0.03	0.12	
06/18/14	06:02:30 MCIC:	25.0	Z	2.52	2.46	0.06	0.24	
06/19/14	05:02:00 MCIC:	25.0	Z	2.52	2.46	0.06	0.24	
06/19/14	05:02:01 MCIC:	25.0	S	20.81	20.82	0.01	0.04	
06/19/14	06:02:30 MCIC:	25.0	S	20.81	20.82	0.01	0.04	
06/19/14	06:02:30 MCIC:	25.0	Z	2.52	2.46	0.06	0.24	
06/20/14	05:02:00 MCIC:	25.0	Z	2.52	2.46	0.06	0.24	
06/20/14	05:02:01 MCIC:	25.0	S	20.81	20.83	0.02	0.08	
06/20/14	06:02:30 MCIC:	25.0	S	20.81	20.83	0.02	0.08	
06/20/14	06:02:30 MCIC:	25.0	Z	2.52	2.46	0.06	0.24	
06/21/14	06:02:30 MCIC:	25.0	S	20.81	20.81	0.00	0.00	
06/21/14	06:02:30 MCIC:	25.0	Z	2.52	2.46	0.06	0.24	
06/22/14	05:02:00 MCIC:	25.0	Z	2.52	2.47	0.05	0.20	

06/22/14	05:02:01 MCIC:	25.0	S	20.81	20.83	0.02	0.08
06/22/14	06:02:30 MCIC:	25.0	S	20.81	20.83	0.02	0.08
06/22/14	06:02:30 MCIC:	25.0	Z	2.52	2.47	0.05	0.20
06/23/14	06:02:30 MCIC:	25.0	S	20.81	20.80	0.01	0.04
06/23/14	06:02:30 MCIC:	25.0	Z	2.52	2.46	0.06	0.24

Report produced by Cirrus DAS S/N
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Valero

CALIBRATION GAS DRIFT REPORT

Monitor: U46 O2 % 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
06/23/14	07:44:00	25.0	Z	2.52	2.46	0.06	0.24	
	MCIC:							
06/23/14	07:44:01	25.0	S	20.81	20.83	0.02	0.08	
	MCIC:							
06/23/14	08:44:30	25.0	S	20.81	20.83	0.02	0.08	
	MCIC:							
06/23/14	08:44:30	25.0	Z	2.52	2.46	0.06	0.24	
	MCIC:							
06/24/14	06:02:30	25.0	S	20.81	20.82	0.01	0.04	
	MCIC:							
06/24/14	06:02:30	25.0	Z	2.52	2.46	0.06	0.24	
	MCIC:							
06/24/14	22:05:00	25.0	Z	2.52	2.59	0.07	0.28	
	MCIC:							
06/24/14	22:05:01	25.0	S	20.81	20.79	0.02	0.08	
	MCIC:							
06/24/14	22:48:30	25.0	S	20.81	20.99	0.18	0.72	
	MCIC:							
06/24/14	22:48:30	25.0	Z	2.52	2.52	0.00	0.00	
	MCIC:							
06/24/14	23:05:30	25.0	S	20.81	20.80	0.01	0.04	
	MCIC:							
06/24/14	23:05:30	25.0	Z	2.52	2.59	0.07	0.28	
	MCIC:							
06/25/14	06:02:30	25.0	S	20.81	20.00	0.81	3.24	
>1X								
	MCIC:							
06/25/14	06:02:30	25.0	Z	2.52	2.41	0.11	0.44	
	MCIC:							
06/25/14	08:30:00	25.0	Z	2.52	2.62	0.10	0.40	
	MCIC:							
06/25/14	08:30:01	25.0	S	20.81	20.92	0.11	0.44	
	MCIC:							
06/25/14	09:30:30	25.0	S	20.81	20.91	0.10	0.40	

	MCIC:						
06/25/14	09:30:30	25.0	Z	2.52	2.62	0.10	0.40
	MCIC:						
06/26/14	05:02:00	25.0	Z	2.52	2.54	0.02	0.08
	MCIC:						
06/26/14	05:02:01	25.0	S	20.81	20.98	0.17	0.68
	MCIC:						
06/26/14	06:02:30	25.0	S	20.81	20.97	0.16	0.64
	MCIC:						
06/26/14	06:02:30	25.0	Z	2.52	2.54	0.02	0.08
	MCIC:						

Report produced by Cirrus DAS S/N
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CALIBRATION GAS DRIFT REPORT

Monitor: U46 O2 % 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
06/27/14	05:02:00	25.0	Z	2.52	2.54	0.02	0.08	
	MCIC:							
06/27/14	05:02:01	25.0	S	20.81	20.92	0.11	0.44	
	MCIC:							
06/27/14	06:02:30	25.0	S	20.81	20.92	0.11	0.44	
	MCIC:							
06/27/14	06:02:30	25.0	Z	2.52	2.54	0.02	0.08	
	MCIC:							
06/28/14	06:02:30	25.0	S	20.81	20.95	0.14	0.56	
	MCIC:							
06/28/14	06:02:30	25.0	Z	2.52	2.54	0.02	0.08	
	MCIC:							
06/29/14	05:02:00	25.0	Z	2.52	2.54	0.02	0.08	
	MCIC:							
06/29/14	05:02:01	25.0	S	20.81	20.96	0.15	0.60	
	MCIC:							
06/29/14	06:02:30	25.0	S	20.81	20.95	0.14	0.56	
	MCIC:							
06/29/14	06:02:30	25.0	Z	2.52	2.54	0.02	0.08	
	MCIC:							
06/30/14	05:02:00	25.0	Z	2.52	2.54	0.02	0.08	
	MCIC:							
06/30/14	05:02:01	25.0	S	20.81	20.96	0.15	0.60	
	MCIC:							
06/30/14	06:02:30	25.0	S	20.81	20.95	0.14	0.56	
	MCIC:							
06/30/14	06:02:30	25.0	Z	2.52	2.54	0.02	0.08	
	MCIC:							

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SRUB-TGI Unit 46

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CALIBRATION GAS DRIFT REPORT

Monitor: U46 SO2 ppm 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
01/01/14	05:01:30 MCIC:	500.0	S	394.60	390.78	3.82	0.76	
01/01/14	05:01:30 MCIC:	500.0	Z	0.00	-2.73	2.73	0.55	
01/02/14	05:01:30 MCIC:	500.0	S	394.60	391.17	3.43	0.69	
01/02/14	05:01:30 MCIC:	500.0	Z	0.00	-1.77	1.77	0.35	
01/03/14	05:01:30 MCIC:	500.0	S	394.60	390.50	4.10	0.82	
01/03/14	05:01:30 MCIC:	500.0	Z	0.00	0.12	0.12	0.02	
01/04/14	05:01:30 MCIC:	500.0	S	394.60	391.11	3.49	0.70	
01/04/14	05:01:30 MCIC:	500.0	Z	0.00	-2.19	2.19	0.44	
01/05/14	05:01:30 MCIC:	500.0	S	394.60	390.47	4.13	0.83	
01/05/14	05:01:30 MCIC:	500.0	Z	0.00	0.08	0.08	0.02	
01/06/14	05:01:30 MCIC:	500.0	S	394.60	390.21	4.39	0.88	
01/06/14	05:01:30 MCIC:	500.0	Z	0.00	2.84	2.84	0.57	
01/07/14	05:01:00 MCIC:	500.0	Z	0.00	11.35	11.35	2.27	
01/07/14	05:01:01 MCIC:	500.0	S	394.60	352.87	41.73	8.35	>2X
01/07/14	05:01:30 MCIC:	500.0	S	394.60	352.44	42.16	8.43	>2X
01/07/14	05:01:30 MCIC:	500.0	Z	0.00	11.45	11.45	2.29	

01/08/14	05:01:00 MCIC:	500.0	Z	0.00	0.79	0.79	0.16	
01/08/14	05:01:01 MCIC:	500.0	S	394.60	389.22	5.38	1.08	
01/08/14	05:01:30 MCIC:	500.0	S	394.60	389.20	5.40	1.08	
01/08/14	05:01:30 MCIC:	500.0	Z	0.00	0.84	0.84	0.17	
01/09/14	05:01:00 MCIC:	500.0	Z	0.00	-1.04	1.04	0.21	
01/09/14	05:01:01 MCIC:	500.0	S	394.60	389.17	5.43	1.09	

Report produced by Cirrus DAS S/N
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SRUB-TGI Unit 46

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CALIBRATION GAS DRIFT REPORT

Monitor: U46 SO2 ppm 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
01/09/14	05:01:30 MCIC:	500.0	S	394.60	389.12	5.48	1.10	
01/09/14	05:01:30 MCIC:	500.0	Z	0.00	-1.04	1.04	0.21	
01/10/14	05:01:00 MCIC:	500.0	Z	0.00	-0.79	0.79	0.16	
01/10/14	05:01:01 MCIC:	500.0	S	394.60	390.25	4.35	0.87	
01/10/14	05:01:30 MCIC:	500.0	S	394.60	390.21	4.39	0.88	
01/10/14	05:01:30 MCIC:	500.0	Z	0.00	-0.74	0.74	0.15	
01/11/14	05:01:00 MCIC:	500.0	Z	0.00	2.63	2.63	0.53	
01/11/14	05:01:01 MCIC:	500.0	S	394.60	391.86	2.74	0.55	
01/11/14	05:01:30 MCIC:	500.0	S	394.60	391.80	2.80	0.56	
01/11/14	05:01:30 MCIC:	500.0	Z	0.00	2.63	2.63	0.53	
01/12/14	05:01:00 MCIC:	500.0	Z	0.00	0.09	0.09	0.02	
01/12/14	05:01:01 MCIC:	500.0	S	394.60	390.96	3.64	0.73	
01/13/14	05:01:00 MCIC:	500.0	Z	0.00	1.58	1.58	0.32	
01/13/14	05:01:01 MCIC:	500.0	S	394.60	392.30	2.30	0.46	
01/14/14	06:01:30 MCIC:	500.0	S	394.60	392.57	2.03	0.41	
01/14/14	06:01:30 MCIC:	500.0	Z	0.00	0.71	0.71	0.14	
01/15/14	06:01:30 MCIC:	500.0	S	394.60	392.94	1.66	0.33	

01/15/14	06:01:30 MCIC:	500.0	Z	0.00	-0.03	0.03	0.01
01/16/14	06:01:30 MCIC:	500.0	S	391.90	390.91	0.99	0.20
01/16/14	06:01:30 MCIC:	500.0	Z	0.00	-0.71	0.71	0.14
01/17/14	06:01:30 MCIC:	500.0	S	391.90	391.67	0.23	0.05
01/17/14	06:01:30 MCIC:	500.0	Z	0.00	-0.35	0.35	0.07

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Valero

CALIBRATION GAS DRIFT REPORT

Monitor: U46 SO2 ppm 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
01/18/14	06:01:30	500.0	S	391.90	393.14	1.24	0.25	
	MCIC:							
01/18/14	06:01:30	500.0	Z	0.00	-0.78	0.78	0.16	
	MCIC:							
01/19/14	06:01:30	500.0	S	391.90	392.01	0.11	0.02	
	MCIC:							
01/19/14	06:01:30	500.0	Z	0.00	-0.61	0.61	0.12	
	MCIC:							
01/20/14	06:01:30	500.0	S	391.90	392.56	0.66	0.13	
	MCIC:							
01/20/14	06:01:30	500.0	Z	0.00	-0.51	0.51	0.10	
	MCIC:							
01/21/14	06:01:30	500.0	S	391.90	393.72	1.82	0.36	
	MCIC:							
01/21/14	06:01:30	500.0	Z	0.00	0.64	0.64	0.13	
	MCIC:							
01/22/14	06:01:30	500.0	S	391.90	393.04	1.14	0.23	
	MCIC:							
01/22/14	06:01:30	500.0	Z	0.00	-0.21	0.21	0.04	
	MCIC:							
01/23/14	06:01:30	500.0	S	391.90	391.66	0.24	0.05	
	MCIC:							
01/23/14	06:01:30	500.0	Z	0.00	-0.62	0.62	0.12	
	MCIC:							
01/24/14	06:01:30	500.0	S	391.90	356.76	35.14	7.03	>2X
	MCIC:							
01/24/14	06:01:30	500.0	Z	0.00	0.01	0.01	0.00	
	MCIC:							
01/24/14	06:36:30	500.0	S	391.90	372.72	19.18	3.84	>1X
	MCIC:							
01/24/14	06:36:30	500.0	Z	0.00	2.57	2.57	0.51	
	MCIC:							

01/25/14	06:01:30	500.0	S	391.90	397.57	5.67	1.13	
	MCIC:							
01/25/14	06:01:30	500.0	Z	0.00	1.22	1.22	0.24	
	MCIC:							
01/26/14	06:01:30	500.0	S	391.90	415.32	23.42	4.68	>1X
	MCIC:							
01/26/14	06:01:30	500.0	Z	0.00	-0.91	0.91	0.18	
	MCIC:							
01/27/14	06:01:30	500.0	S	391.90	413.84	21.94	4.39	>1X
	MCIC:							
01/27/14	06:01:30	500.0	Z	0.00	-0.08	0.08	0.02	
	MCIC:							

Report produced by Cirrus DAS S/N
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Valero

CALIBRATION GAS DRIFT REPORT

Monitor: U46 SO2 ppm 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
01/27/14	07:33:30	500.0	S	391.90	394.94	3.04	0.61	
	MCIC:							
01/27/14	07:33:30	500.0	Z	0.00	-0.08	0.08	0.02	
	MCIC:							
01/28/14	06:01:30	500.0	S	391.90	395.77	3.87	0.77	
	MCIC:							
01/28/14	06:01:30	500.0	Z	0.00	-0.49	0.49	0.10	
	MCIC:							
01/29/14	06:01:30	500.0	S	391.90	374.80	17.10	3.42	>1X
	MCIC:							
01/29/14	06:01:30	500.0	Z	0.00	0.20	0.20	0.04	
	MCIC:							
01/30/14	06:01:30	500.0	S	391.90	386.84	5.06	1.01	
	MCIC:							
01/30/14	06:01:30	500.0	Z	0.00	-0.90	0.90	0.18	
	MCIC:							
01/31/14	06:01:30	500.0	S	391.90	393.56	1.66	0.33	
	MCIC:							
01/31/14	06:01:30	500.0	Z	0.00	-0.80	0.80	0.16	
	MCIC:							
02/01/14	06:01:30	500.0	S	391.90	395.26	3.36	0.67	
	MCIC:							
02/01/14	06:01:30	500.0	Z	0.00	0.81	0.81	0.16	
	MCIC:							
02/02/14	06:01:30	500.0	S	391.90	395.85	3.95	0.79	
	MCIC:							
02/02/14	06:01:30	500.0	Z	0.00	2.58	2.58	0.52	
	MCIC:							
02/03/14	06:01:30	500.0	S	391.90	394.26	2.36	0.47	
	MCIC:							
02/03/14	06:01:30	500.0	Z	0.00	0.46	0.46	0.09	
	MCIC:							
02/04/14	06:01:30	500.0	S	391.90	395.49	3.59	0.72	

	MCIC:							
02/04/14	06:01:30	500.0	Z	0.00	0.49	0.49	0.10	
	MCIC:							
02/05/14	06:01:30	500.0	S	391.90	396.13	4.23	0.85	
	MCIC:							
02/05/14	06:01:30	500.0	Z	0.00	-0.20	0.20	0.04	
	MCIC:							
02/06/14	06:01:30	500.0	S	391.90	387.03	4.87	0.97	
	MCIC:							
02/06/14	06:01:30	500.0	Z	0.00	-0.63	0.63	0.13	
	MCIC:							

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Valero

CALIBRATION GAS DRIFT REPORT

Monitor: U46 SO2 ppm 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
02/07/14	06:01:30 MCIC:	500.0	S	391.90	380.87	11.03	2.21	
02/07/14	06:01:30 MCIC:	500.0	Z	0.00	-0.55	0.55	0.11	
02/08/14	06:01:30 MCIC:	500.0	S	391.90	389.57	2.33	0.47	
02/08/14	06:01:30 MCIC:	500.0	Z	0.00	-1.22	1.22	0.24	
02/09/14	06:01:30 MCIC:	500.0	S	391.90	395.44	3.54	0.71	
02/09/14	06:01:30 MCIC:	500.0	Z	0.00	-1.02	1.02	0.20	
02/10/14	06:01:30 MCIC:	500.0	S	391.90	393.92	2.02	0.40	
02/10/14	06:01:30 MCIC:	500.0	Z	0.00	-0.98	0.98	0.20	
02/11/14	06:01:30 MCIC:	500.0	S	391.90	390.84	1.06	0.21	
02/11/14	06:01:30 MCIC:	500.0	Z	0.00	-0.54	0.54	0.11	
02/12/14	06:01:30 MCIC:	500.0	S	391.90	376.65	15.25	3.05	>1X
02/12/14	06:01:30 MCIC:	500.0	Z	0.00	0.56	0.56	0.11	
02/13/14	06:01:30 MCIC:	500.0	S	391.90	394.18	2.28	0.46	
02/13/14	06:01:30 MCIC:	500.0	Z	0.00	-0.97	0.97	0.19	
02/14/14	06:01:30 MCIC:	500.0	S	410.80	412.44	1.64	0.33	
02/14/14	06:01:30 MCIC:	500.0	Z	0.00	-0.96	0.96	0.19	
02/15/14	06:01:30 MCIC:	500.0	S	410.80	414.94	4.14	0.83	

02/15/14	06:01:30 MCIC:	500.0	Z	0.00	0.92	0.92	0.18	
02/16/14	06:01:30 MCIC:	500.0	S	410.80	413.57	2.77	0.55	
02/16/14	06:01:30 MCIC:	500.0	Z	0.00	0.03	0.03	0.01	
02/17/14	06:01:30 MCIC:	500.0	S	410.80	415.41	4.61	0.92	
02/17/14	06:01:30 MCIC:	500.0	Z	0.00	3.52	3.52	0.70	

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CALIBRATION GAS DRIFT REPORT

Monitor: U46 SO2 ppm 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
02/18/14	06:01:30 MCIC:	500.0	S	410.80	416.77	5.97	1.19	
02/18/14	06:01:30 MCIC:	500.0	Z	0.00	6.07	6.07	1.21	
02/19/14	06:01:30 MCIC:	500.0	S	410.80	415.50	4.70	0.94	
02/19/14	06:01:30 MCIC:	500.0	Z	0.00	3.84	3.84	0.77	
02/20/14	06:01:30 MCIC:	500.0	S	410.80	414.00	3.20	0.64	
02/20/14	06:01:30 MCIC:	500.0	Z	0.00	1.44	1.44	0.29	
02/21/14	06:01:30 MCIC:	500.0	S	410.80	403.76	7.04	1.41	
02/21/14	06:01:30 MCIC:	500.0	Z	0.00	-11.86	11.86	2.37	
02/22/14	06:02:30 MCIC:	500.0	S	410.80	407.59	3.21	0.64	
02/22/14	06:02:30 MCIC:	500.0	Z	0.00	-1.14	1.14	0.23	
02/23/14	06:02:30 MCIC:	500.0	S	410.80	406.56	4.24	0.85	
02/23/14	06:02:30 MCIC:	500.0	Z	0.00	-1.74	1.74	0.35	
02/24/14	06:02:30 MCIC:	500.0	S	410.80	406.95	3.85	0.77	
02/24/14	06:02:30 MCIC:	500.0	Z	0.00	-2.20	2.20	0.44	
02/25/14	06:02:30 MCIC:	500.0	S	410.80	404.52	6.28	1.26	
02/25/14	06:02:30 MCIC:	500.0	Z	0.00	-2.51	2.51	0.50	
02/26/14	06:02:30 MCIC:	500.0	S	410.80	407.00	3.80	0.76	

02/26/14	06:02:30 MCIC:	500.0	Z	0.00	-2.22	2.22	0.44	
02/27/14	06:02:30 MCIC:	500.0	S	410.80	399.73	11.07	2.21	
02/27/14	06:02:30 MCIC:	500.0	Z	0.00	-2.51	2.51	0.50	
02/28/14	06:02:30 MCIC:	500.0	S	410.80	407.76	3.04	0.61	
02/28/14	06:02:30 MCIC:	500.0	Z	0.00	-2.52	2.52	0.50	

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CALIBRATION GAS DRIFT REPORT

Monitor: U46 SO2 ppm 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
03/01/14	06:02:30	500.0	S	410.80	410.08	0.72	0.14	
	MCIC:							
03/01/14	06:02:30	500.0	Z	0.00	-1.27	1.27	0.25	
	MCIC:							
03/02/14	06:02:30	500.0	S	410.80	409.23	1.57	0.31	
	MCIC:							
03/02/14	06:02:30	500.0	Z	0.00	-0.50	0.50	0.10	
	MCIC:							
03/03/14	06:02:30	500.0	S	410.80	390.13	20.67	4.13	
>1X								
	MCIC:							
03/03/14	06:02:30	500.0	Z	0.00	-0.95	0.95	0.19	
	MCIC:							
03/04/14	06:02:30	500.0	S	410.80	388.72	22.08	4.42	
>1X								
	MCIC:							
03/04/14	06:02:30	500.0	Z	0.00	12.87	12.87	2.57	
>1X								
	MCIC:							
03/04/14	19:21:30	500.0	S	410.80	410.32	0.48	0.10	
	MCIC:							
03/04/14	19:21:30	500.0	Z	0.00	6.08	6.08	1.22	
	MCIC:							
03/05/14	06:03:30	500.0	S	410.80	415.31	4.51	0.90	
	MCIC:							
03/05/14	06:03:30	500.0	Z	0.00	-5.55	5.55	1.11	
	MCIC:							
03/06/14	06:03:30	500.0	S	410.80	421.73	10.93	2.19	
	MCIC:							
03/06/14	06:03:30	500.0	Z	0.00	-6.85	6.85	1.37	
	MCIC:							
03/07/14	06:03:30	500.0	S	410.80	420.42	9.62	1.92	
	MCIC:							
03/07/14	06:03:30	500.0	Z	0.00	-7.00	7.00	1.40	

	MCIC:							
03/08/14	06:03:30	500.0	S	410.80	419.53	8.73	1.75	
	MCIC:							
03/08/14	06:03:30	500.0	Z	0.00	-6.57	6.57	1.31	
	MCIC:							
03/09/14	06:02:00	500.0	Z	0.00	-4.33	4.33	0.87	
	MCIC:							
03/09/14	06:02:01	500.0	S	410.80	415.66	4.86	0.97	
	MCIC:							
03/09/14	07:02:30	500.0	S	410.80	415.56	4.76	0.95	
	MCIC:							
03/09/14	07:02:30	500.0	Z	0.00	-4.31	4.31	0.86	
	MCIC:							

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CALIBRATION GAS DRIFT REPORT

Monitor: U46 SO2 ppm 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
03/10/14	05:02:00 MCIC:	500.0	Z	0.00	-4.46	4.46	0.89	
03/10/14	05:02:01 MCIC:	500.0	S	410.80	416.07	5.27	1.05	
03/10/14	06:02:30 MCIC:	500.0	S	410.80	415.93	5.13	1.03	
03/10/14	06:02:30 MCIC:	500.0	Z	0.00	-4.43	4.43	0.89	
03/11/14	05:02:00 MCIC:	500.0	Z	0.00	-4.63	4.63	0.93	
03/11/14	05:02:01 MCIC:	500.0	S	410.80	415.90	5.10	1.02	
03/11/14	06:02:30 MCIC:	500.0	S	410.80	415.78	4.98	1.00	
03/11/14	06:02:30 MCIC:	500.0	Z	0.00	-4.61	4.61	0.92	
03/12/14	05:02:00 MCIC:	500.0	Z	0.00	-4.89	4.89	0.98	
03/12/14	05:02:01 MCIC:	500.0	S	410.80	413.75	2.95	0.59	
03/12/14	06:02:30 MCIC:	500.0	S	410.80	413.60	2.80	0.56	
03/12/14	06:02:30 MCIC:	500.0	Z	0.00	-4.81	4.81	0.96	
03/13/14	05:02:00 MCIC:	500.0	Z	0.00	-4.01	4.01	0.80	
03/13/14	05:02:01 MCIC:	500.0	S	410.80	415.92	5.12	1.02	
03/13/14	06:02:30 MCIC:	500.0	S	410.80	415.65	4.85	0.97	
03/13/14	06:02:30 MCIC:	500.0	Z	0.00	-3.99	3.99	0.80	
03/14/14	05:02:00 MCIC:	500.0	Z	0.00	-4.15	4.15	0.83	

03/14/14	05:02:01 MCIC:	500.0	S	410.80	416.20	5.40	1.08	
03/14/14	06:02:30 MCIC:	500.0	S	410.80	416.09	5.29	1.06	
03/14/14	06:02:30 MCIC:	500.0	Z	0.00	-4.08	4.08	0.82	
03/15/14	06:02:30 MCIC:	500.0	S	410.80	416.55	5.75	1.15	
03/15/14	06:02:30 MCIC:	500.0	Z	0.00	-4.66	4.66	0.93	

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CALIBRATION GAS DRIFT REPORT

Monitor: U46 SO2 ppm 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
03/16/14	05:02:00 MCIC:	500.0	Z	0.00	-5.17	5.17	1.03	
03/16/14	05:02:01 MCIC:	500.0	S	410.80	414.56	3.76	0.75	
03/16/14	06:02:30 MCIC:	500.0	S	410.80	414.39	3.59	0.72	
03/16/14	06:02:30 MCIC:	500.0	Z	0.00	-5.14	5.14	1.03	
03/17/14	05:02:00 MCIC:	500.0	Z	0.00	-4.57	4.57	0.91	
03/17/14	05:02:01 MCIC:	500.0	S	410.80	415.48	4.68	0.94	
03/17/14	06:02:30 MCIC:	500.0	S	410.80	415.31	4.51	0.90	
03/17/14	06:02:30 MCIC:	500.0	Z	0.00	-4.46	4.46	0.89	
03/18/14	05:02:00 MCIC:	500.0	Z	0.00	-4.86	4.86	0.97	
03/18/14	05:02:01 MCIC:	500.0	S	410.80	415.29	4.49	0.90	
03/18/14	06:02:30 MCIC:	500.0	S	410.80	415.14	4.34	0.87	
03/18/14	06:02:30 MCIC:	500.0	Z	0.00	-4.83	4.83	0.97	
03/19/14	05:02:00 MCIC:	500.0	Z	0.00	-1.30	1.30	0.26	
03/19/14	05:02:01 MCIC:	500.0	S	410.80	419.75	8.95	1.79	
03/19/14	06:02:30 MCIC:	500.0	S	410.80	419.63	8.83	1.77	
03/19/14	06:02:30 MCIC:	500.0	Z	0.00	-1.28	1.28	0.26	
03/20/14	05:02:00 MCIC:	500.0	Z	0.00	-1.14	1.14	0.23	

03/20/14	05:02:01 MCIC:	500.0	S	410.80	419.65	8.85	1.77	
03/20/14	06:02:30 MCIC:	500.0	S	410.80	419.51	8.71	1.74	
03/20/14	06:02:30 MCIC:	500.0	Z	0.00	-1.06	1.06	0.21	
03/21/14	05:02:00 MCIC:	500.0	Z	0.00	-1.14	1.14	0.23	
03/21/14	05:02:01 MCIC:	500.0	S	410.80	420.88	10.08	2.02	

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CALIBRATION GAS DRIFT REPORT

Monitor: U46 SO2 ppm 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
03/21/14	06:02:30 MCIC:	500.0	S	410.80	420.76	9.96	1.99	
03/21/14	06:02:30 MCIC:	500.0	Z	0.00	-1.13	1.13	0.23	
03/22/14	06:02:30 MCIC:	500.0	S	410.80	420.55	9.75	1.95	
03/22/14	06:02:30 MCIC:	500.0	Z	0.00	0.53	0.53	0.11	
03/23/14	05:02:00 MCIC:	500.0	Z	0.00	1.92	1.92	0.38	
03/23/14	05:02:01 MCIC:	500.0	S	410.80	423.32	12.52	2.50	>1X
03/23/14	06:02:30 MCIC:	500.0	S	410.80	423.17	12.37	2.47	
03/23/14	06:02:30 MCIC:	500.0	Z	0.00	1.97	1.97	0.39	
03/24/14	05:02:00 MCIC:	500.0	Z	0.00	-1.78	1.78	0.36	
03/24/14	05:02:01 MCIC:	500.0	S	410.80	422.81	12.01	2.40	
03/24/14	06:02:30 MCIC:	500.0	S	410.80	422.76	11.96	2.39	
03/24/14	06:02:30 MCIC:	500.0	Z	0.00	-1.75	1.75	0.35	
03/25/14	05:02:00 MCIC:	500.0	Z	0.00	-3.43	3.43	0.69	
03/25/14	05:02:01 MCIC:	500.0	S	410.80	419.90	9.10	1.82	
03/25/14	06:02:30 MCIC:	500.0	S	410.80	419.82	9.02	1.80	
03/25/14	06:02:30 MCIC:	500.0	Z	0.00	-3.37	3.37	0.67	
03/26/14	05:02:00 MCIC:	500.0	Z	0.00	-1.62	1.62	0.32	

03/26/14	05:02:01 MCIC:	500.0	S	410.80	421.50	10.70	2.14	
03/26/14	06:02:30 MCIC:	500.0	S	410.80	421.35	10.55	2.11	
03/26/14	06:02:30 MCIC:	500.0	Z	0.00	-1.52	1.52	0.30	
03/27/14	05:02:00 MCIC:	500.0	Z	0.00	-3.19	3.19	0.64	
03/27/14	05:02:01 MCIC:	500.0	S	410.80	419.40	8.60	1.72	

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CALIBRATION GAS DRIFT REPORT

Monitor: U46 SO2 ppm 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
03/27/14	06:02:30 MCIC:	500.0	S	410.80	419.29	8.49	1.70	
03/27/14	06:02:30 MCIC:	500.0	Z	0.00	-3.19	3.19	0.64	
03/28/14	05:02:00 MCIC:	500.0	Z	0.00	-4.34	4.34	0.87	
03/28/14	05:02:01 MCIC:	500.0	S	410.80	420.64	9.84	1.97	
03/28/14	06:02:30 MCIC:	500.0	S	410.80	420.55	9.75	1.95	
03/28/14	06:02:30 MCIC:	500.0	Z	0.00	-4.32	4.32	0.86	
03/29/14	06:02:30 MCIC:	500.0	S	410.80	419.78	8.98	1.80	
03/29/14	06:02:30 MCIC:	500.0	Z	0.00	-5.38	5.38	1.08	
03/30/14	05:02:00 MCIC:	500.0	Z	0.00	-5.03	5.03	1.01	
03/30/14	05:02:01 MCIC:	500.0	S	410.80	420.19	9.39	1.88	
03/30/14	06:02:30 MCIC:	500.0	S	410.80	420.04	9.24	1.85	
03/30/14	06:02:30 MCIC:	500.0	Z	0.00	-4.99	4.99	1.00	
03/31/14	05:02:00 MCIC:	500.0	Z	0.00	-4.84	4.84	0.97	
03/31/14	05:02:01 MCIC:	500.0	S	410.80	418.88	8.08	1.62	
03/31/14	06:02:30 MCIC:	500.0	S	410.80	418.75	7.95	1.59	
03/31/14	06:02:30 MCIC:	500.0	Z	0.00	-4.84	4.84	0.97	
04/01/14	05:02:00 MCIC:	500.0	Z	0.00	-4.72	4.72	0.94	

04/01/14	05:02:01 MCIC:	500.0	S	410.80	419.68	8.88	1.78
04/01/14	06:02:30 MCIC:	500.0	S	410.80	419.53	8.73	1.75
04/01/14	06:02:30 MCIC:	500.0	Z	0.00	-4.62	4.62	0.92
04/02/14	05:02:00 MCIC:	500.0	Z	0.00	-5.16	5.16	1.03
04/02/14	05:02:01 MCIC:	500.0	S	410.80	417.05	6.25	1.25

Report produced by Cirrus DAS S/N
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CALIBRATION GAS DRIFT REPORT

Monitor: U46 SO2 ppm 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
04/02/14	06:02:30	500.0	S	410.80	416.94	6.14	1.23	
	MCIC:							
04/02/14	06:02:30	500.0	Z	0.00	-5.13	5.13	1.03	
	MCIC:							
04/03/14	05:02:00	500.0	Z	0.00	-4.97	4.97	0.99	
	MCIC:							
04/03/14	05:02:01	500.0	S	410.80	417.74	6.94	1.39	
	MCIC:							
04/03/14	06:02:30	500.0	S	410.80	417.65	6.85	1.37	
	MCIC:							
04/03/14	06:02:30	500.0	Z	0.00	-4.95	4.95	0.99	
	MCIC:							
04/04/14	05:02:00	500.0	Z	0.00	-4.97	4.97	0.99	
	MCIC:							
04/04/14	05:02:01	500.0	S	410.80	418.45	7.65	1.53	
	MCIC:							
04/04/14	06:02:30	500.0	S	410.80	418.31	7.51	1.50	
	MCIC:							
04/04/14	06:02:30	500.0	Z	0.00	-4.97	4.97	0.99	
	MCIC:							
04/05/14	06:02:30	500.0	S	410.80	419.28	8.48	1.70	
	MCIC:							
04/05/14	06:02:30	500.0	Z	0.00	-5.15	5.15	1.03	
	MCIC:							
04/06/14	05:02:00	500.0	Z	0.00	-4.62	4.62	0.92	
	MCIC:							
04/06/14	05:02:01	500.0	S	410.80	419.15	8.35	1.67	
	MCIC:							
04/06/14	06:02:30	500.0	S	410.80	419.12	8.32	1.66	
	MCIC:							
04/06/14	06:02:30	500.0	Z	0.00	-4.62	4.62	0.92	
	MCIC:							
04/07/14	05:02:00	500.0	Z	0.00	-4.00	4.00	0.80	
	MCIC:							

04/07/14	05:02:01	500.0	S	410.80	419.97	9.17	1.83	
	MCIC:							
04/07/14	06:02:30	500.0	S	410.80	419.82	9.02	1.80	
	MCIC:							
04/07/14	06:02:30	500.0	Z	0.00	-3.97	3.97	0.79	
	MCIC:							
04/08/14	05:02:00	500.0	Z	0.00	-5.35	5.35	1.07	
	MCIC:							
04/08/14	05:02:01	500.0	S	410.80	418.94	8.14	1.63	
	MCIC:							

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CALIBRATION GAS DRIFT REPORT

Monitor: U46 SO2 ppm 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
04/08/14	06:02:30 MCIC:	500.0	S	410.80	418.80	8.00	1.60	
04/08/14	06:02:30 MCIC:	500.0	Z	0.00	-5.33	5.33	1.07	
04/09/14	05:02:00 MCIC:	500.0	Z	0.00	-4.70	4.70	0.94	
04/09/14	05:02:01 MCIC:	500.0	S	410.80	419.22	8.42	1.68	
04/09/14	06:02:30 MCIC:	500.0	S	410.80	419.17	8.37	1.67	
04/09/14	06:02:30 MCIC:	500.0	Z	0.00	-4.65	4.65	0.93	
04/10/14	14:35:00 MCIC:	500.0	Z	0.00	-4.18	4.18	0.84	
04/10/14	14:35:01 MCIC:	500.0	S	410.80	421.48	10.68	2.14	
04/11/14	05:02:00 MCIC:	500.0	Z	0.00	-4.46	4.46	0.89	
04/11/14	05:02:01 MCIC:	500.0	S	410.80	419.30	8.50	1.70	
04/13/14	05:02:00 MCIC:	500.0	Z	0.00	-4.93	4.93	0.99	
04/13/14	05:02:01 MCIC:	500.0	S	410.80	416.86	6.06	1.21	
04/14/14	05:02:00 MCIC:	500.0	Z	0.00	-4.69	4.69	0.94	
04/14/14	05:02:01 MCIC:	500.0	S	410.80	417.73	6.93	1.39	
04/15/14	05:02:00 MCIC:	500.0	Z	0.00	-3.97	3.97	0.79	
04/15/14	05:02:01 MCIC:	500.0	S	410.80	419.04	8.24	1.65	
04/16/14	05:02:00 MCIC:	500.0	Z	0.00	-4.04	4.04	0.81	

04/16/14	05:02:01 MCIC:	500.0	S	410.80	418.57	7.77	1.55
04/17/14	05:02:00 MCIC:	500.0	Z	0.00	-4.06	4.06	0.81
04/17/14	05:02:01 MCIC:	500.0	S	410.80	418.75	7.95	1.59
04/18/14	07:48:00 MCIC:	500.0	Z	0.00	-1.02	1.02	0.20
04/18/14	07:48:01 MCIC:	500.0	S	409.30	411.81	2.51	0.50

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CALIBRATION GAS DRIFT REPORT

Monitor: U46 SO2 ppm 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
04/19/14	05:02:00 MCIC:	500.0	Z	0.00	-0.62	0.62	0.12	
04/19/14	05:02:01 MCIC:	500.0	S	409.30	412.63	3.33	0.67	
04/20/14	05:02:00 MCIC:	500.0	Z	0.00	-1.25	1.25	0.25	
04/20/14	05:02:01 MCIC:	500.0	S	409.30	412.76	3.46	0.69	
04/21/14	05:02:00 MCIC:	500.0	Z	0.00	-0.89	0.89	0.18	
04/21/14	05:02:01 MCIC:	500.0	S	409.30	412.15	2.85	0.57	
04/22/14	05:02:00 MCIC:	500.0	Z	0.00	-0.99	0.99	0.20	
04/22/14	05:02:01 MCIC:	500.0	S	409.30	412.80	3.50	0.70	
04/22/14	06:02:30 MCIC:	500.0	S	409.30	412.69	3.39	0.68	
04/22/14	06:02:30 MCIC:	500.0	Z	0.00	-0.97	0.97	0.19	
04/23/14	05:02:00 MCIC:	500.0	Z	0.00	-0.69	0.69	0.14	
04/23/14	05:02:01 MCIC:	500.0	S	409.30	411.10	1.80	0.36	
04/23/14	06:02:30 MCIC:	500.0	S	409.30	410.97	1.67	0.33	
04/23/14	06:02:30 MCIC:	500.0	Z	0.00	-0.64	0.64	0.13	
04/24/14	05:02:00 MCIC:	500.0	Z	0.00	0.12	0.12	0.02	
04/24/14	05:02:01 MCIC:	500.0	S	409.30	413.67	4.37	0.87	
04/24/14	06:02:30 MCIC:	500.0	S	409.30	413.48	4.18	0.84	

04/24/14	06:02:30 MCIC:	500.0	Z	0.00	0.17	0.17	0.03
04/25/14	05:02:00 MCIC:	500.0	Z	0.00	0.31	0.31	0.06
04/25/14	05:02:01 MCIC:	500.0	S	409.30	413.19	3.89	0.78
04/25/14	06:02:30 MCIC:	500.0	S	409.30	413.10	3.80	0.76
04/25/14	06:02:30 MCIC:	500.0	Z	0.00	0.34	0.34	0.07

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CALIBRATION GAS DRIFT REPORT

Monitor: U46 SO2 ppm 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
04/26/14	06:02:30 MCIC:	500.0	S	409.30	411.03	1.73	0.35	
04/26/14	06:02:30 MCIC:	500.0	Z	0.00	-0.05	0.05	0.01	
04/27/14	05:02:00 MCIC:	500.0	Z	0.00	0.12	0.12	0.02	
04/27/14	05:02:01 MCIC:	500.0	S	409.30	413.54	4.24	0.85	
04/27/14	06:02:30 MCIC:	500.0	S	409.30	413.40	4.10	0.82	
04/27/14	06:02:30 MCIC:	500.0	Z	0.00	0.14	0.14	0.03	
04/28/14	05:02:00 MCIC:	500.0	Z	0.00	0.48	0.48	0.10	
04/28/14	05:02:01 MCIC:	500.0	S	409.30	412.47	3.17	0.63	
04/28/14	06:02:30 MCIC:	500.0	S	409.30	412.27	2.97	0.59	
04/28/14	06:02:30 MCIC:	500.0	Z	0.00	0.60	0.60	0.12	
04/29/14	05:02:00 MCIC:	500.0	Z	0.00	0.91	0.91	0.18	
04/29/14	05:02:01 MCIC:	500.0	S	409.30	413.53	4.23	0.85	
04/29/14	06:02:30 MCIC:	500.0	S	409.30	413.43	4.13	0.83	
04/29/14	06:02:30 MCIC:	500.0	Z	0.00	0.96	0.96	0.19	
04/30/14	05:02:00 MCIC:	500.0	Z	0.00	0.23	0.23	0.05	
04/30/14	05:02:01 MCIC:	500.0	S	409.30	413.84	4.54	0.91	
04/30/14	06:02:30 MCIC:	500.0	S	409.30	413.71	4.41	0.88	

04/30/14	06:02:30 MCIC:	500.0	Z	0.00	0.27	0.27	0.05
05/01/14	05:02:00 MCIC:	500.0	Z	0.00	0.30	0.30	0.06
05/01/14	05:02:01 MCIC:	500.0	S	409.30	412.48	3.18	0.64
05/01/14	06:02:30 MCIC:	500.0	S	409.30	412.31	3.01	0.60
05/01/14	06:02:30 MCIC:	500.0	Z	0.00	0.30	0.30	0.06

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CALIBRATION GAS DRIFT REPORT

Monitor: U46 SO2 ppm 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
05/02/14	05:02:00	500.0	Z	0.00	0.14	0.14	0.03	
	MCIC:							
05/02/14	05:02:01	500.0	S	409.30	413.65	4.35	0.87	
	MCIC:							
05/02/14	06:02:30	500.0	S	409.30	413.55	4.25	0.85	
	MCIC:							
05/02/14	06:02:30	500.0	Z	0.00	0.15	0.15	0.03	
	MCIC:							
05/03/14	06:02:30	500.0	S	409.30	413.22	3.92	0.78	
	MCIC:							
05/03/14	06:02:30	500.0	Z	0.00	0.77	0.77	0.15	
	MCIC:							
05/04/14	05:02:00	500.0	Z	0.00	0.92	0.92	0.18	
	MCIC:							
05/04/14	05:02:01	500.0	S	409.30	414.12	4.82	0.96	
	MCIC:							
05/04/14	06:02:30	500.0	S	409.30	414.04	4.74	0.95	
	MCIC:							
05/04/14	06:02:30	500.0	Z	0.00	0.92	0.92	0.18	
	MCIC:							
05/05/14	05:02:00	500.0	Z	0.00	0.80	0.80	0.16	
	MCIC:							
05/05/14	05:02:01	500.0	S	409.30	413.98	4.68	0.94	
	MCIC:							
05/05/14	06:02:30	500.0	S	409.30	413.91	4.61	0.92	
	MCIC:							
05/05/14	06:02:30	500.0	Z	0.00	0.83	0.83	0.17	
	MCIC:							
05/06/14	05:02:00	500.0	Z	0.00	0.70	0.70	0.14	
	MCIC:							
05/06/14	05:02:01	500.0	S	409.30	413.38	4.08	0.82	
	MCIC:							
05/06/14	06:02:30	500.0	S	409.30	413.30	4.00	0.80	
	MCIC:							

05/06/14	06:02:30	500.0	Z	0.00	0.75	0.75	0.15
	MCIC:						
05/07/14	05:02:00	500.0	Z	0.00	0.87	0.87	0.17
	MCIC:						
05/07/14	05:02:01	500.0	S	409.30	412.89	3.59	0.72
	MCIC:						
05/07/14	06:02:30	500.0	S	409.30	412.77	3.47	0.69
	MCIC:						
05/07/14	06:02:30	500.0	Z	0.00	0.92	0.92	0.18
	MCIC:						

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CALIBRATION GAS DRIFT REPORT

Monitor: U46 SO2 ppm 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
05/08/14	05:02:00 MCIC:	500.0	Z	0.00	1.29	1.29	0.26	
05/08/14	05:02:01 MCIC:	500.0	S	409.30	412.01	2.71	0.54	
05/08/14	06:02:30 MCIC:	500.0	S	409.30	411.83	2.53	0.51	
05/08/14	06:02:30 MCIC:	500.0	Z	0.00	1.39	1.39	0.28	
05/09/14	05:02:00 MCIC:	500.0	Z	0.00	0.45	0.45	0.09	
05/09/14	05:02:01 MCIC:	500.0	S	409.30	413.65	4.35	0.87	
05/09/14	06:02:30 MCIC:	500.0	S	409.30	413.58	4.28	0.86	
05/09/14	06:02:30 MCIC:	500.0	Z	0.00	0.47	0.47	0.09	
05/10/14	06:02:30 MCIC:	500.0	S	409.30	413.26	3.96	0.79	
05/10/14	06:02:30 MCIC:	500.0	Z	0.00	0.39	0.39	0.08	
05/11/14	05:02:00 MCIC:	500.0	Z	0.00	1.00	1.00	0.20	
05/11/14	05:02:01 MCIC:	500.0	S	409.30	412.69	3.39	0.68	
05/11/14	06:02:30 MCIC:	500.0	S	409.30	412.50	3.20	0.64	
05/11/14	06:02:30 MCIC:	500.0	Z	0.00	1.04	1.04	0.21	
05/12/14	05:02:00 MCIC:	500.0	Z	0.00	0.62	0.62	0.12	
05/12/14	05:02:01 MCIC:	500.0	S	409.30	410.29	0.99	0.20	
05/12/14	06:02:30 MCIC:	500.0	S	409.30	410.15	0.85	0.17	

05/12/14	06:02:30 MCIC:	500.0	Z	0.00	0.70	0.70	0.14	
05/13/14	05:02:00 MCIC:	500.0	Z	0.00	0.44	0.44	0.09	
05/13/14	05:02:01 MCIC:	500.0	S	409.30	412.91	3.61	0.72	
05/13/14	06:02:30 MCIC:	500.0	S	409.30	412.71	3.41	0.68	
05/13/14	06:02:30 MCIC:	500.0	Z	0.00	0.52	0.52	0.10	

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CALIBRATION GAS DRIFT REPORT

Monitor: U46 SO2 ppm 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
05/14/14	05:02:00 MCIC:	500.0	Z	0.00	0.26	0.26	0.05	
05/14/14	05:02:01 MCIC:	500.0	S	409.30	411.91	2.61	0.52	
05/14/14	06:02:30 MCIC:	500.0	S	409.30	411.78	2.48	0.50	
05/14/14	06:02:30 MCIC:	500.0	Z	0.00	0.30	0.30	0.06	
05/15/14	05:02:00 MCIC:	500.0	Z	0.00	0.97	0.97	0.19	
05/15/14	05:02:01 MCIC:	500.0	S	409.30	414.11	4.81	0.96	
05/15/14	06:02:30 MCIC:	500.0	S	409.30	414.03	4.73	0.95	
05/15/14	06:02:30 MCIC:	500.0	Z	0.00	1.01	1.01	0.20	
05/16/14	05:02:00 MCIC:	500.0	Z	0.00	1.38	1.38	0.28	
05/16/14	05:02:01 MCIC:	500.0	S	409.30	413.22	3.92	0.78	
05/16/14	06:02:30 MCIC:	500.0	S	409.30	413.02	3.72	0.74	
05/16/14	06:02:30 MCIC:	500.0	Z	0.00	1.48	1.48	0.30	
05/17/14	06:02:30 MCIC:	500.0	S	409.30	413.68	4.38	0.88	
05/17/14	06:02:30 MCIC:	500.0	Z	0.00	1.94	1.94	0.39	
05/18/14	05:02:00 MCIC:	500.0	Z	0.00	1.73	1.73	0.35	
05/18/14	05:02:01 MCIC:	500.0	S	409.30	413.72	4.42	0.88	
05/18/14	06:02:30 MCIC:	500.0	S	409.30	413.64	4.34	0.87	

05/18/14	06:02:30 MCIC:	500.0	Z	0.00	1.76	1.76	0.35
05/19/14	05:02:00 MCIC:	500.0	Z	0.00	1.94	1.94	0.39
05/19/14	05:02:01 MCIC:	500.0	S	409.30	413.86	4.56	0.91
05/19/14	06:02:30 MCIC:	500.0	S	409.30	413.79	4.49	0.90
05/19/14	06:02:30 MCIC:	500.0	Z	0.00	2.00	2.00	0.40

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CALIBRATION GAS DRIFT REPORT

Monitor: U46 SO2 ppm 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
05/20/14	05:02:00 MCIC:	500.0	Z	0.00	1.94	1.94	0.39	
05/20/14	05:02:01 MCIC:	500.0	S	409.30	414.08	4.78	0.96	
05/20/14	06:02:30 MCIC:	500.0	S	409.30	413.94	4.64	0.93	
05/20/14	06:02:30 MCIC:	500.0	Z	0.00	1.97	1.97	0.39	
05/21/14	05:02:00 MCIC:	500.0	Z	0.00	2.12	2.12	0.42	
05/21/14	05:02:01 MCIC:	500.0	S	409.30	414.66	5.36	1.07	
05/21/14	06:02:30 MCIC:	500.0	S	409.30	414.49	5.19	1.04	
05/21/14	06:02:30 MCIC:	500.0	Z	0.00	2.20	2.20	0.44	
05/22/14	05:02:00 MCIC:	500.0	Z	0.00	1.57	1.57	0.31	
05/22/14	05:02:01 MCIC:	500.0	S	409.30	415.00	5.70	1.14	
05/22/14	06:02:30 MCIC:	500.0	S	409.30	414.85	5.55	1.11	
05/22/14	06:02:30 MCIC:	500.0	Z	0.00	1.64	1.64	0.33	
05/23/14	05:02:00 MCIC:	500.0	Z	0.00	1.53	1.53	0.31	
05/23/14	05:02:01 MCIC:	500.0	S	409.30	414.67	5.37	1.07	
05/23/14	06:02:30 MCIC:	500.0	S	409.30	414.57	5.27	1.05	
05/23/14	06:02:30 MCIC:	500.0	Z	0.00	1.59	1.59	0.32	
05/24/14	06:02:30 MCIC:	500.0	S	409.30	415.12	5.82	1.16	

05/24/14	06:02:30 MCIC:	500.0	Z	0.00	1.11	1.11	0.22	
05/25/14	05:02:00 MCIC:	500.0	Z	0.00	1.25	1.25	0.25	
05/25/14	05:02:01 MCIC:	500.0	S	409.30	412.80	3.50	0.70	
05/25/14	06:02:30 MCIC:	500.0	S	409.30	412.67	3.37	0.67	
05/25/14	06:02:30 MCIC:	500.0	Z	0.00	1.38	1.38	0.28	

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CALIBRATION GAS DRIFT REPORT

Monitor: U46 SO2 ppm 1 min

Cal Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
05/26/14	05:02:00	500.0	Z	0.00	0.86	0.86	0.17	
	MCIC:							
05/26/14	05:02:01	500.0	S	409.30	414.64	5.34	1.07	
	MCIC:							
05/26/14	06:02:30	500.0	S	409.30	414.50	5.20	1.04	
	MCIC:							
05/26/14	06:02:30	500.0	Z	0.00	0.90	0.90	0.18	
	MCIC:							
05/27/14	05:02:00	500.0	Z	0.00	1.05	1.05	0.21	
	MCIC:							
05/27/14	05:02:01	500.0	S	409.30	413.33	4.03	0.81	
	MCIC:							
05/27/14	06:02:30	500.0	S	409.30	413.25	3.95	0.79	
	MCIC:							
05/27/14	06:02:30	500.0	Z	0.00	1.08	1.08	0.22	
	MCIC:							
05/28/14	05:02:00	500.0	Z	0.00	1.39	1.39	0.28	
	MCIC:							
05/28/14	05:02:01	500.0	S	409.30	411.71	2.41	0.48	
	MCIC:							
05/28/14	06:02:30	500.0	S	409.30	411.60	2.30	0.46	
	MCIC:							
05/28/14	06:02:30	500.0	Z	0.00	1.42	1.42	0.28	
	MCIC:							
05/29/14	05:02:00	500.0	Z	0.00	1.59	1.59	0.32	
	MCIC:							
05/29/14	05:02:01	500.0	S	409.30	414.45	5.15	1.03	
	MCIC:							
05/29/14	06:02:30	500.0	S	409.30	414.26	4.96	0.99	
	MCIC:							
05/29/14	06:02:30	500.0	Z	0.00	1.69	1.69	0.34	
	MCIC:							
05/30/14	05:02:00	500.0	Z	0.00	1.52	1.52	0.30	
	MCIC:							

05/30/14	05:02:01	500.0	S	409.30	414.71	5.41	1.08	
	MCIC:							
05/30/14	06:02:30	500.0	S	409.30	414.62	5.32	1.06	
	MCIC:							
05/30/14	06:02:30	500.0	Z	0.00	1.52	1.52	0.30	
	MCIC:							
05/31/14	06:02:30	500.0	S	409.30	414.46	5.16	1.03	
	MCIC:							
05/31/14	06:02:30	500.0	Z	0.00	1.09	1.09	0.22	
	MCIC:							

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CALIBRATION GAS DRIFT REPORT

Monitor: U46 SO2 ppm 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
06/01/14	06:02:30 MCIC:	500.0	S	409.30	412.19	2.89	0.58	
06/01/14	06:02:30 MCIC:	500.0	Z	0.00	1.67	1.67	0.33	
06/01/14	07:23:00 MCIC:	500.0	Z	0.00	-0.65	0.65	0.13	
06/01/14	07:23:01 MCIC:	500.0	S	409.30	419.01	9.71	1.94	
06/01/14	08:23:30 MCIC:	500.0	S	409.30	418.91	9.61	1.92	
06/01/14	08:23:30 MCIC:	500.0	Z	0.00	-0.65	0.65	0.13	
06/02/14	05:02:00 MCIC:	500.0	Z	0.00	0.59	0.59	0.12	
06/02/14	05:02:01 MCIC:	500.0	S	409.30	416.77	7.47	1.49	
06/02/14	06:02:30 MCIC:	500.0	S	409.30	416.72	7.42	1.48	
06/02/14	06:02:30 MCIC:	500.0	Z	0.00	0.65	0.65	0.13	
06/03/14	05:02:00 MCIC:	500.0	Z	0.00	1.16	1.16	0.23	
06/03/14	05:02:01 MCIC:	500.0	S	409.30	415.41	6.11	1.22	
06/03/14	06:02:30 MCIC:	500.0	S	409.30	415.38	6.08	1.22	
06/03/14	06:02:30 MCIC:	500.0	Z	0.00	1.21	1.21	0.24	
06/04/14	05:02:00 MCIC:	500.0	Z	0.00	0.91	0.91	0.18	
06/04/14	05:02:01 MCIC:	500.0	S	409.30	417.67	8.37	1.67	
06/04/14	06:02:30 MCIC:	500.0	S	409.30	417.54	8.24	1.65	

06/04/14	06:02:30 MCIC:	500.0	Z	0.00	0.94	0.94	0.19
06/05/14	05:02:00 MCIC:	500.0	Z	0.00	1.01	1.01	0.20
06/05/14	05:02:01 MCIC:	500.0	S	409.30	416.73	7.43	1.49
06/05/14	06:02:30 MCIC:	500.0	S	409.30	416.58	7.28	1.46
06/05/14	06:02:30 MCIC:	500.0	Z	0.00	1.02	1.02	0.20

Report produced by Cirrus DAS S/N
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CALIBRATION GAS DRIFT REPORT

Monitor: U46 SO2 ppm 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
06/06/14	05:02:00 MCIC:	500.0	Z	0.00	2.28	2.28	0.46	
06/06/14	05:02:01 MCIC:	500.0	S	409.30	413.03	3.73	0.75	
06/06/14	06:02:30 MCIC:	500.0	S	409.30	412.83	3.53	0.71	
06/06/14	06:02:30 MCIC:	500.0	Z	0.00	2.30	2.30	0.46	
06/07/14	06:02:30 MCIC:	500.0	S	409.30	411.63	2.33	0.47	
06/07/14	06:02:30 MCIC:	500.0	Z	0.00	2.42	2.42	0.48	
06/08/14	05:02:00 MCIC:	500.0	Z	0.00	2.33	2.33	0.47	
06/08/14	05:02:01 MCIC:	500.0	S	409.30	412.89	3.59	0.72	
06/08/14	06:02:30 MCIC:	500.0	S	409.30	412.67	3.37	0.67	
06/08/14	06:02:30 MCIC:	500.0	Z	0.00	2.33	2.33	0.47	
06/09/14	05:02:00 MCIC:	500.0	Z	0.00	2.83	2.83	0.57	
06/09/14	05:02:01 MCIC:	500.0	S	409.30	411.15	1.85	0.37	
06/09/14	06:02:30 MCIC:	500.0	S	409.30	411.07	1.77	0.35	
06/09/14	06:02:30 MCIC:	500.0	Z	0.00	2.87	2.87	0.57	
06/10/14	05:02:00 MCIC:	500.0	Z	0.00	2.96	2.96	0.59	
06/10/14	05:02:01 MCIC:	500.0	S	409.30	411.62	2.32	0.46	
06/10/14	06:02:30 MCIC:	500.0	S	409.30	411.50	2.20	0.44	

06/10/14	06:02:30 MCIC:	500.0	Z	0.00	2.99	2.99	0.60	
06/11/14	05:02:00 MCIC:	500.0	Z	0.00	2.56	2.56	0.51	
06/11/14	05:02:01 MCIC:	500.0	S	409.30	413.26	3.96	0.79	
06/11/14	06:02:30 MCIC:	500.0	S	409.30	413.07	3.77	0.75	
06/11/14	06:02:30 MCIC:	500.0	Z	0.00	2.56	2.56	0.51	

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CALIBRATION GAS DRIFT REPORT

Monitor: U46 SO2 ppm 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
06/12/14	05:02:00 MCIC:	500.0	Z	0.00	2.78	2.78	0.56	
06/12/14	05:02:01 MCIC:	500.0	S	409.30	415.03	5.73	1.15	
06/12/14	06:02:30 MCIC:	500.0	S	409.30	414.93	5.63	1.13	
06/12/14	06:02:30 MCIC:	500.0	Z	0.00	2.81	2.81	0.56	
06/13/14	05:02:00 MCIC:	500.0	Z	0.00	3.24	3.24	0.65	
06/13/14	05:02:01 MCIC:	500.0	S	409.30	415.75	6.45	1.29	
06/13/14	06:02:30 MCIC:	500.0	S	409.30	415.64	6.34	1.27	
06/13/14	06:02:30 MCIC:	500.0	Z	0.00	3.29	3.29	0.66	
06/14/14	06:02:30 MCIC:	500.0	S	409.30	413.35	4.05	0.81	
06/14/14	06:02:30 MCIC:	500.0	Z	0.00	3.35	3.35	0.67	
06/15/14	05:02:00 MCIC:	500.0	Z	0.00	3.70	3.70	0.74	
06/15/14	05:02:01 MCIC:	500.0	S	409.30	414.85	5.55	1.11	
06/15/14	06:02:30 MCIC:	500.0	S	409.30	414.62	5.32	1.06	
06/15/14	06:02:30 MCIC:	500.0	Z	0.00	3.78	3.78	0.76	
06/16/14	05:02:00 MCIC:	500.0	Z	0.00	3.39	3.39	0.68	
06/16/14	05:02:01 MCIC:	500.0	S	409.30	415.50	6.20	1.24	
06/16/14	06:02:30 MCIC:	500.0	S	409.30	415.41	6.11	1.22	

06/16/14	06:02:30 MCIC:	500.0	Z	0.00	3.42	3.42	0.68
06/17/14	05:02:00 MCIC:	500.0	Z	0.00	4.33	4.33	0.87
06/17/14	05:02:01 MCIC:	500.0	S	409.30	413.02	3.72	0.74
06/17/14	06:02:30 MCIC:	500.0	S	409.30	412.89	3.59	0.72
06/17/14	06:02:30 MCIC:	500.0	Z	0.00	4.36	4.36	0.87

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CALIBRATION GAS DRIFT REPORT

Monitor: U46 SO2 ppm 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
06/18/14	05:02:00	500.0	Z	0.00	4.62	4.62	0.92	
	MCIC:							
06/18/14	05:02:01	500.0	S	409.30	412.84	3.54	0.71	
	MCIC:							
06/18/14	06:02:30	500.0	S	409.30	412.65	3.35	0.67	
	MCIC:							
06/18/14	06:02:30	500.0	Z	0.00	4.68	4.68	0.94	
	MCIC:							
06/19/14	05:02:00	500.0	Z	0.00	4.60	4.60	0.92	
	MCIC:							
06/19/14	05:02:01	500.0	S	409.30	413.05	3.75	0.75	
	MCIC:							
06/19/14	06:02:30	500.0	S	409.30	412.94	3.64	0.73	
	MCIC:							
06/19/14	06:02:30	500.0	Z	0.00	4.61	4.61	0.92	
	MCIC:							
06/20/14	05:02:00	500.0	Z	0.00	4.46	4.46	0.89	
	MCIC:							
06/20/14	05:02:01	500.0	S	409.30	415.87	6.57	1.31	
	MCIC:							
06/20/14	06:02:30	500.0	S	409.30	415.66	6.36	1.27	
	MCIC:							
06/20/14	06:02:30	500.0	Z	0.00	4.53	4.53	0.91	
	MCIC:							
06/21/14	06:02:30	500.0	S	409.30	413.58	4.28	0.86	
	MCIC:							
06/21/14	06:02:30	500.0	Z	0.00	4.86	4.86	0.97	
	MCIC:							
06/22/14	05:02:00	500.0	Z	0.00	4.83	4.83	0.97	
	MCIC:							
06/22/14	05:02:01	500.0	S	409.30	416.73	7.43	1.49	
	MCIC:							
06/22/14	06:02:30	500.0	S	409.30	416.62	7.32	1.46	
	MCIC:							

06/22/14	06:02:30	500.0	Z	0.00	4.84	4.84	0.97
	MCIC:						
06/23/14	06:02:30	500.0	S	409.30	413.44	4.14	0.83
	MCIC:						
06/23/14	06:02:30	500.0	Z	0.00	5.09	5.09	1.02
	MCIC:						
06/23/14	07:44:00	500.0	Z	0.00	0.30	0.30	0.06
	MCIC:						
06/23/14	07:44:01	500.0	S	406.10	406.39	0.29	0.06
	MCIC:						

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CALIBRATION GAS DRIFT REPORT

Monitor: U46 SO2 ppm 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
06/23/14	08:44:30 MCIC:	500.0	S	406.10	406.17	0.07	0.01	
06/23/14	08:44:30 MCIC:	500.0	Z	0.00	0.30	0.30	0.06	
06/24/14	06:02:30 MCIC:	500.0	S	406.10	403.91	2.19	0.44	
06/24/14	06:02:30 MCIC:	500.0	Z	0.00	0.30	0.30	0.06	
06/24/14	21:48:00 MCIC:	500.0	Z	0.00	-1.33	1.33	0.27	
06/24/14	21:48:01 MCIC:	500.0	S	406.10	408.47	2.37	0.47	
06/24/14	22:48:30 MCIC:	500.0	S	406.10	408.37	2.27	0.45	
06/24/14	22:48:30 MCIC:	500.0	Z	0.00	-1.42	1.42	0.28	
06/25/14	05:02:00 MCIC:	500.0	Z	0.00	2.50	2.50	0.50	
06/25/14	05:02:01 MCIC:	500.0	S	406.10	404.03	2.07	0.41	
06/25/14	06:02:30 MCIC:	500.0	S	406.10	403.89	2.21	0.44	
06/25/14	06:02:30 MCIC:	500.0	Z	0.00	2.56	2.56	0.51	
06/26/14	05:02:00 MCIC:	500.0	Z	0.00	1.74	1.74	0.35	
06/26/14	05:02:01 MCIC:	500.0	S	406.10	406.76	0.66	0.13	
06/26/14	06:02:30 MCIC:	500.0	S	406.10	406.64	0.54	0.11	
06/26/14	06:02:30 MCIC:	500.0	Z	0.00	1.81	1.81	0.36	
06/27/14	05:02:00 MCIC:	500.0	Z	0.00	2.15	2.15	0.43	

06/27/14	05:02:01 MCIC:	500.0	S	406.10	404.69	1.41	0.28	
06/27/14	06:02:30 MCIC:	500.0	S	406.10	404.62	1.48	0.30	
06/27/14	06:02:30 MCIC:	500.0	Z	0.00	2.15	2.15	0.43	
06/28/14	06:02:30 MCIC:	500.0	S	406.10	407.21	1.11	0.22	
06/28/14	06:02:30 MCIC:	500.0	Z	0.00	2.20	2.20	0.44	

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CALIBRATION GAS DRIFT REPORT

Monitor: U46 SO2 ppm 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
06/29/14	05:02:00	500.0	Z	0.00	2.44	2.44	0.49	
	MCIC:							
06/29/14	05:02:01	500.0	S	406.10	406.39	0.29	0.06	
	MCIC:							
06/29/14	06:02:30	500.0	S	406.10	406.30	0.20	0.04	
	MCIC:							
06/29/14	06:02:30	500.0	Z	0.00	2.45	2.45	0.49	
	MCIC:							
06/30/14	05:02:00	500.0	Z	0.00	2.29	2.29	0.46	
	MCIC:							
06/30/14	05:02:01	500.0	S	406.10	407.44	1.34	0.27	
	MCIC:							
06/30/14	06:02:30	500.0	S	406.10	407.31	1.21	0.24	
	MCIC:							
06/30/14	06:02:30	500.0	Z	0.00	2.35	2.35	0.47	
	MCIC:							

Report produced by Cirrus DAS S/N
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Valero

CALIBRATION GAS DRIFT REPORT

Monitor: U39 O2 % 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
01/01/14	06:01:30 MCIC:	25.0	S	20.80	20.84	0.04	0.16	
01/01/14	06:01:30 MCIC:	25.0	Z	2.53	2.45	0.08	0.32	
01/02/14	06:01:30 MCIC:	25.0	S	20.80	20.87	0.07	0.28	
01/02/14	06:01:30 MCIC:	25.0	Z	2.53	2.45	0.08	0.32	
01/03/14	05:01:30 MCIC:	25.0	S	20.96	20.78	0.18	0.72	
01/03/14	05:01:30 MCIC:	25.0	Z	2.55	2.44	0.11	0.44	
01/04/14	05:01:30 MCIC:	25.0	S	20.96	20.81	0.15	0.60	
01/04/14	05:01:30 MCIC:	25.0	Z	2.55	2.45	0.10	0.40	
01/04/14	06:44:30 MCIC:	25.0	S	20.96	20.83	0.13	0.52	
01/04/14	06:44:30 MCIC:	25.0	Z	2.55	2.45	0.10	0.40	
01/05/14	05:01:30 MCIC:	25.0	S	20.96	20.90	0.06	0.24	
01/05/14	05:01:30 MCIC:	25.0	Z	2.55	2.46	0.09	0.36	
01/05/14	05:33:30 MCIC:	25.0	S	20.96	20.93	0.03	0.12	
01/05/14	05:33:30 MCIC:	25.0	Z	2.55	2.46	0.09	0.36	
01/06/14	05:01:30 MCIC:	25.0	S	20.96	20.76	0.20	0.80	
01/06/14	05:01:30 MCIC:	25.0	Z	2.55	2.44	0.11	0.44	
01/07/14	05:01:00 MCIC:	25.0	Z	2.55	2.44	0.11	0.44	

01/07/14	05:01:01 MCIC:	25.0	S	20.96	20.75	0.21	0.84
01/07/14	05:01:30 MCIC:	25.0	S	20.96	20.74	0.22	0.88
01/07/14	05:01:30 MCIC:	25.0	Z	2.55	2.44	0.11	0.44
01/08/14	05:01:00 MCIC:	25.0	Z	2.55	2.45	0.10	0.40
01/08/14	05:01:01 MCIC:	25.0	S	20.96	20.82	0.14	0.56

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CALIBRATION GAS DRIFT REPORT

Monitor: U39 O2 % 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
01/08/14	05:01:30 MCIC:	25.0	S	20.96	20.82	0.14	0.56	
01/08/14	05:01:30 MCIC:	25.0	Z	2.55	2.45	0.10	0.40	
01/09/14	05:01:00 MCIC:	25.0	Z	2.55	2.46	0.09	0.36	
01/09/14	05:01:01 MCIC:	25.0	S	20.96	20.92	0.04	0.16	
01/09/14	05:01:30 MCIC:	25.0	S	20.96	20.92	0.04	0.16	
01/09/14	05:01:30 MCIC:	25.0	Z	2.55	2.46	0.09	0.36	
01/10/14	05:01:00 MCIC:	25.0	Z	2.55	2.46	0.09	0.36	
01/10/14	05:01:01 MCIC:	25.0	S	20.96	20.93	0.03	0.12	
01/10/14	05:01:30 MCIC:	25.0	S	20.96	20.94	0.02	0.08	
01/10/14	05:01:30 MCIC:	25.0	Z	2.55	2.46	0.09	0.36	
01/11/14	05:01:00 MCIC:	25.0	Z	2.55	2.47	0.08	0.32	
01/11/14	05:01:01 MCIC:	25.0	S	20.96	20.98	0.02	0.08	
01/11/14	05:01:30 MCIC:	25.0	S	20.96	20.97	0.01	0.04	
01/11/14	05:01:30 MCIC:	25.0	Z	2.55	2.47	0.08	0.32	
01/12/14	05:01:00 MCIC:	25.0	Z	2.55	2.45	0.10	0.40	
01/12/14	05:01:01 MCIC:	25.0	S	20.96	20.81	0.15	0.60	
01/13/14	05:01:00 MCIC:	25.0	Z	2.55	2.47	0.08	0.32	

01/13/14	05:01:01 MCIC:	25.0	S	20.96	20.95	0.01	0.04
01/14/14	06:01:30 MCIC:	25.0	S	20.80	20.79	0.01	0.04
01/14/14	06:01:30 MCIC:	25.0	Z	2.53	2.45	0.08	0.32
01/15/14	06:01:30 MCIC:	25.0	S	20.80	20.78	0.02	0.08
01/15/14	06:01:30 MCIC:	25.0	Z	2.53	2.45	0.08	0.32

Report produced by Cirrus DAS S/N
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CALIBRATION GAS DRIFT REPORT

Monitor: U39 O2 % 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
01/16/14	06:01:30 MCIC:	25.0	S	20.80	20.79	0.01	0.04	
01/16/14	06:01:30 MCIC:	25.0	Z	2.53	2.46	0.07	0.28	
01/17/14	06:01:30 MCIC:	25.0	S	20.80	20.83	0.03	0.12	
01/17/14	06:01:30 MCIC:	25.0	Z	2.53	2.46	0.07	0.28	
01/18/14	06:01:30 MCIC:	25.0	S	20.80	20.76	0.04	0.16	
01/18/14	06:01:30 MCIC:	25.0	Z	2.53	2.46	0.07	0.28	
01/19/14	06:01:30 MCIC:	25.0	S	20.80	20.91	0.11	0.44	
01/19/14	06:01:30 MCIC:	25.0	Z	2.53	2.47	0.06	0.24	
01/20/14	06:01:30 MCIC:	25.0	S	20.80	20.85	0.05	0.20	
01/20/14	06:01:30 MCIC:	25.0	Z	2.53	2.47	0.06	0.24	
01/21/14	06:01:30 MCIC:	25.0	S	20.80	20.82	0.02	0.08	
01/21/14	06:01:30 MCIC:	25.0	Z	2.53	2.46	0.07	0.28	
01/22/14	06:01:30 MCIC:	25.0	S	20.80	20.75	0.05	0.20	
01/22/14	06:01:30 MCIC:	25.0	Z	2.53	2.46	0.07	0.28	
01/23/14	06:01:30 MCIC:	25.0	S	20.80	20.89	0.09	0.36	
01/23/14	06:01:30 MCIC:	25.0	Z	2.53	2.47	0.06	0.24	
01/24/14	06:01:30 MCIC:	25.0	S	20.80	20.81	0.01	0.04	

01/24/14	06:01:30 MCIC:	25.0	Z	2.53	2.45	0.08	0.32
01/25/14	06:01:30 MCIC:	25.0	S	20.80	20.76	0.04	0.16
01/25/14	06:01:30 MCIC:	25.0	Z	2.53	2.45	0.08	0.32
01/26/14	06:01:30 MCIC:	25.0	S	20.80	20.81	0.01	0.04
01/26/14	06:01:30 MCIC:	25.0	Z	2.53	2.45	0.08	0.32

Report produced by Cirrus DAS S/N
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CALIBRATION GAS DRIFT REPORT

Monitor: U39 O2 % 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
01/26/14	11:00:30 MCIC:	25.0	S	20.80	20.77	0.03	0.12	
01/26/14	11:00:30 MCIC:	25.0	Z	2.53	2.45	0.08	0.32	
01/27/14	06:01:30 MCIC:	25.0	S	20.80	20.91	0.11	0.44	
01/27/14	06:01:30 MCIC:	25.0	Z	2.53	2.46	0.07	0.28	
01/28/14	06:01:30 MCIC:	25.0	S	20.80	20.74	0.06	0.24	
01/28/14	06:01:30 MCIC:	25.0	Z	2.53	2.45	0.08	0.32	
01/29/14	06:01:30 MCIC:	25.0	S	20.80	20.74	0.06	0.24	
01/29/14	06:01:30 MCIC:	25.0	Z	2.53	2.45	0.08	0.32	
01/30/14	06:01:30 MCIC:	25.0	S	20.80	20.76	0.04	0.16	
01/30/14	06:01:30 MCIC:	25.0	Z	2.53	2.45	0.08	0.32	
01/31/14	06:01:30 MCIC:	25.0	S	20.80	20.90	0.10	0.40	
01/31/14	06:01:30 MCIC:	25.0	Z	2.53	2.46	0.07	0.28	
02/01/14	06:01:30 MCIC:	25.0	S	20.80	20.92	0.12	0.48	
02/01/14	06:01:30 MCIC:	25.0	Z	2.53	2.46	0.07	0.28	
02/02/14	06:01:30 MCIC:	25.0	S	20.80	20.93	0.13	0.52	
02/02/14	06:01:30 MCIC:	25.0	Z	2.53	2.47	0.06	0.24	
02/03/14	06:01:30 MCIC:	25.0	S	20.80	20.79	0.01	0.04	

02/03/14	06:01:30 MCIC:	25.0	Z	2.53	2.46	0.07	0.28
02/04/14	06:01:30 MCIC:	25.0	S	20.80	20.82	0.02	0.08
02/04/14	06:01:30 MCIC:	25.0	Z	2.53	2.46	0.07	0.28
02/05/14	06:01:30 MCIC:	25.0	S	20.80	20.82	0.02	0.08
02/05/14	06:01:30 MCIC:	25.0	Z	2.53	2.46	0.07	0.28

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CALIBRATION GAS DRIFT REPORT

Monitor: U39 O2 % 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
02/06/14	06:01:30 MCIC:	25.0	S	20.80	20.75	0.05	0.20	
02/06/14	06:01:30 MCIC:	25.0	Z	2.53	2.45	0.08	0.32	
02/07/14	06:01:30 MCIC:	25.0	S	20.80	20.75	0.05	0.20	
02/07/14	06:01:30 MCIC:	25.0	Z	2.53	2.45	0.08	0.32	
02/08/14	06:01:30 MCIC:	25.0	S	20.80	20.78	0.02	0.08	
02/08/14	06:01:30 MCIC:	25.0	Z	2.53	2.46	0.07	0.28	
02/09/14	06:01:30 MCIC:	25.0	S	20.80	20.82	0.02	0.08	
02/09/14	06:01:30 MCIC:	25.0	Z	2.53	2.47	0.06	0.24	
02/10/14	06:01:30 MCIC:	25.0	S	20.80	20.90	0.10	0.40	
02/10/14	06:01:30 MCIC:	25.0	Z	2.53	2.47	0.06	0.24	
02/11/14	06:01:30 MCIC:	25.0	S	20.80	20.78	0.02	0.08	
02/11/14	06:01:30 MCIC:	25.0	Z	2.53	2.46	0.07	0.28	
02/12/14	06:01:30 MCIC:	25.0	S	20.80	20.77	0.03	0.12	
02/12/14	06:01:30 MCIC:	25.0	Z	2.53	2.46	0.07	0.28	
02/13/14	06:01:30 MCIC:	25.0	S	20.80	20.77	0.03	0.12	
02/13/14	06:01:30 MCIC:	25.0	Z	2.53	2.46	0.07	0.28	
02/14/14	06:01:30 MCIC:	25.0	S	20.80	20.81	0.01	0.04	

02/14/14	06:01:30 MCIC:	25.0	Z	2.53	2.46	0.07	0.28
02/15/14	06:01:30 MCIC:	25.0	S	20.80	20.78	0.02	0.08
02/15/14	06:01:30 MCIC:	25.0	Z	2.53	2.46	0.07	0.28
02/16/14	06:01:30 MCIC:	25.0	S	20.80	20.83	0.03	0.12
02/16/14	06:01:30 MCIC:	25.0	Z	2.53	2.47	0.06	0.24

Report produced by Cirrus DAS S/N
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CALIBRATION GAS DRIFT REPORT

Monitor: U39 O2 % 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
02/17/14	06:01:30 MCIC:	25.0	S	20.80	20.89	0.09	0.36	
02/17/14	06:01:30 MCIC:	25.0	Z	2.53	2.47	0.06	0.24	
02/18/14	06:01:30 MCIC:	25.0	S	20.80	20.89	0.09	0.36	
02/18/14	06:01:30 MCIC:	25.0	Z	2.53	2.48	0.05	0.20	
02/19/14	06:01:30 MCIC:	25.0	S	20.80	20.90	0.10	0.40	
02/19/14	06:01:30 MCIC:	25.0	Z	2.53	2.48	0.05	0.20	
02/20/14	06:01:30 MCIC:	25.0	S	20.80	20.91	0.11	0.44	
02/20/14	06:01:30 MCIC:	25.0	Z	2.53	2.47	0.06	0.24	
02/21/14	06:01:30 MCIC:	25.0	S	20.80	20.79	0.01	0.04	
02/21/14	06:01:30 MCIC:	25.0	Z	2.53	2.46	0.07	0.28	
02/22/14	06:01:30 MCIC:	25.0	S	20.80	20.78	0.02	0.08	
02/22/14	06:01:30 MCIC:	25.0	Z	2.53	2.46	0.07	0.28	
02/23/14	06:01:30 MCIC:	25.0	S	20.80	20.87	0.07	0.28	
02/23/14	06:01:30 MCIC:	25.0	Z	2.53	2.47	0.06	0.24	
02/24/14	06:01:30 MCIC:	25.0	S	20.80	20.89	0.09	0.36	
02/24/14	06:01:30 MCIC:	25.0	Z	2.53	2.48	0.05	0.20	
02/25/14	06:01:30 MCIC:	25.0	S	20.80	20.89	0.09	0.36	

02/25/14	06:01:30 MCIC:	25.0	Z	2.53	2.48	0.05	0.20
02/26/14	06:01:30 MCIC:	25.0	S	20.80	20.89	0.09	0.36
02/26/14	06:01:30 MCIC:	25.0	Z	2.53	2.47	0.06	0.24
02/27/14	06:01:30 MCIC:	25.0	S	20.80	20.76	0.04	0.16
02/27/14	06:01:30 MCIC:	25.0	Z	2.53	2.46	0.07	0.28

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CALIBRATION GAS DRIFT REPORT

Monitor: U39 O2 % 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
02/28/14	06:01:30 MCIC:	25.0	S	20.80	20.80	0.00	0.00	
02/28/14	06:01:30 MCIC:	25.0	Z	2.53	2.47	0.06	0.24	
03/01/14	06:01:30 MCIC:	25.0	S	20.80	20.92	0.12	0.48	
03/01/14	06:01:30 MCIC:	25.0	Z	2.53	2.49	0.04	0.16	
03/02/14	06:01:30 MCIC:	25.0	S	20.80	20.95	0.15	0.60	
03/02/14	06:01:30 MCIC:	25.0	Z	2.53	2.49	0.04	0.16	
03/03/14	06:01:30 MCIC:	25.0	S	20.80	20.76	0.04	0.16	
03/03/14	06:01:30 MCIC:	25.0	Z	2.53	2.47	0.06	0.24	
03/04/14	06:01:30 MCIC:	25.0	S	20.80	20.71	0.09	0.36	
03/04/14	06:01:30 MCIC:	25.0	Z	2.53	2.47	0.06	0.24	
03/05/14	06:01:30 MCIC:	25.0	S	20.80	20.75	0.05	0.20	
03/05/14	06:01:30 MCIC:	25.0	Z	2.53	2.48	0.05	0.20	
03/06/14	06:01:30 MCIC:	25.0	S	20.80	20.79	0.01	0.04	
03/06/14	06:01:30 MCIC:	25.0	Z	2.53	2.48	0.05	0.20	
03/07/14	06:01:30 MCIC:	25.0	S	20.80	20.76	0.04	0.16	
03/07/14	06:01:30 MCIC:	25.0	Z	2.53	2.47	0.06	0.24	
03/08/14	06:01:30 MCIC:	25.0	S	20.80	20.82	0.02	0.08	

03/08/14	06:01:30 MCIC:	25.0	Z	2.53	2.48	0.05	0.20
03/09/14	05:01:00 MCIC:	25.0	Z	2.53	2.48	0.05	0.20
03/09/14	05:01:01 MCIC:	25.0	S	20.80	20.82	0.02	0.08
03/09/14	07:01:30 MCIC:	25.0	S	20.80	20.84	0.04	0.16
03/09/14	07:01:30 MCIC:	25.0	Z	2.53	2.48	0.05	0.20

Report produced by Cirrus DAS S/N
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CALIBRATION GAS DRIFT REPORT

Monitor: U39 O2 % 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
03/10/14	05:01:00	25.0	Z	2.53	2.49	0.04	0.16	
	MCIC:							
03/10/14	05:01:01	25.0	S	20.80	20.81	0.01	0.04	
	MCIC:							
03/10/14	06:01:30	25.0	S	20.80	20.81	0.01	0.04	
	MCIC:							
03/10/14	06:01:30	25.0	Z	2.53	2.49	0.04	0.16	
	MCIC:							
03/11/14	05:01:00	25.0	Z	2.53	2.48	0.05	0.20	
	MCIC:							
03/11/14	05:01:01	25.0	S	20.80	20.80	0.00	0.00	
	MCIC:							
03/11/14	06:01:30	25.0	S	20.80	20.80	0.00	0.00	
	MCIC:							
03/11/14	06:01:30	25.0	Z	2.53	2.48	0.05	0.20	
	MCIC:							
03/12/14	05:01:00	25.0	Z	2.53	2.48	0.05	0.20	
	MCIC:							
03/12/14	05:01:01	25.0	S	20.80	20.81	0.01	0.04	
	MCIC:							
03/12/14	06:01:30	25.0	S	20.80	20.82	0.02	0.08	
	MCIC:							
03/12/14	06:01:30	25.0	Z	2.53	2.48	0.05	0.20	
	MCIC:							
03/13/14	05:01:00	25.0	Z	2.53	2.48	0.05	0.20	
	MCIC:							
03/13/14	05:01:01	25.0	S	20.80	20.71	0.09	0.36	
	MCIC:							
03/13/14	06:01:30	25.0	S	20.80	20.72	0.08	0.32	
	MCIC:							
03/13/14	06:01:30	25.0	Z	2.53	2.48	0.05	0.20	
	MCIC:							
03/14/14	06:01:30	25.0	S	20.80	20.75	0.05	0.20	
	MCIC:							

03/14/14	06:01:30	25.0	Z	2.53	1.45	1.08	4.32	
>2X								
	MCIC:							
03/14/14	12:50:00	25.0	Z	2.53	1.45	1.08	4.32	
>2X								
	MCIC:							
03/14/14	12:50:01	25.0	S	20.80	20.76	0.04	0.16	
	MCIC:							
03/14/14	13:50:30	25.0	S	20.80	20.49	0.31	1.24	
	MCIC:							
03/15/14	06:01:30	25.0	S	20.80	19.74	1.06	4.24	
>2X								
	MCIC:							

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Monitor: U39 O2 % 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
03/15/14	06:01:30	25.0	Z	2.53	1.54	0.99	3.96	>1X
	MCIC:							
03/15/14	11:59:30	25.0	S	20.80	20.84	0.04	0.16	
	MCIC:							
03/15/14	11:59:30	25.0	Z	2.53	2.47	0.06	0.24	
	MCIC:							
03/16/14	05:01:00	25.0	Z	2.53	2.45	0.08	0.32	
	MCIC:							
03/16/14	05:01:01	25.0	S	20.80	20.85	0.05	0.20	
	MCIC:							
03/16/14	06:01:30	25.0	S	20.80	20.85	0.05	0.20	
	MCIC:							
03/16/14	06:01:30	25.0	Z	2.53	2.45	0.08	0.32	
	MCIC:							
03/17/14	05:01:00	25.0	Z	2.53	2.41	0.12	0.48	
	MCIC:							
03/17/14	05:01:01	25.0	S	20.80	20.69	0.11	0.44	
	MCIC:							
03/17/14	06:01:30	25.0	S	20.80	20.69	0.11	0.44	
	MCIC:							
03/17/14	06:01:30	25.0	Z	2.53	2.41	0.12	0.48	
	MCIC:							
03/18/14	05:01:00	25.0	Z	2.53	2.41	0.12	0.48	
	MCIC:							
03/18/14	05:01:01	25.0	S	20.80	20.74	0.06	0.24	
	MCIC:							
03/18/14	06:01:30	25.0	S	20.80	20.73	0.07	0.28	
	MCIC:							
03/18/14	06:01:30	25.0	Z	2.53	2.41	0.12	0.48	
	MCIC:							
03/19/14	05:01:00	25.0	Z	2.53	2.42	0.11	0.44	
	MCIC:							
03/19/14	05:01:01	25.0	S	20.80	20.77	0.03	0.12	

	MCIC:							
03/19/14	06:01:30	25.0	S	20.80	20.77	0.03	0.12	
	MCIC:							
03/19/14	06:01:30	25.0	Z	2.53	2.42	0.11	0.44	
	MCIC:							
03/20/14	05:01:00	25.0	Z	2.53	2.40	0.13	0.52	
	MCIC:							
03/20/14	05:01:01	25.0	S	20.80	20.69	0.11	0.44	
	MCIC:							
03/20/14	06:01:30	25.0	S	20.80	20.68	0.12	0.48	
	MCIC:							

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CALIBRATION GAS DRIFT REPORT

Monitor: U39 O2 % 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
03/20/14	06:01:30 MCIC:	25.0	Z	2.53	2.40	0.13	0.52	
03/21/14	05:01:00 MCIC:	25.0	Z	2.53	2.41	0.12	0.48	
03/21/14	05:01:01 MCIC:	25.0	S	20.80	20.76	0.04	0.16	
03/21/14	06:01:30 MCIC:	25.0	S	20.80	20.77	0.03	0.12	
03/21/14	06:01:30 MCIC:	25.0	Z	2.53	2.41	0.12	0.48	
03/22/14	06:01:30 MCIC:	25.0	S	20.80	20.80	0.00	0.00	
03/22/14	06:01:30 MCIC:	25.0	Z	2.53	2.42	0.11	0.44	
03/23/14	05:01:00 MCIC:	25.0	Z	2.53	2.42	0.11	0.44	
03/23/14	05:01:01 MCIC:	25.0	S	20.80	20.84	0.04	0.16	
03/23/14	06:01:30 MCIC:	25.0	S	20.80	20.84	0.04	0.16	
03/23/14	06:01:30 MCIC:	25.0	Z	2.53	2.42	0.11	0.44	
03/24/14	05:01:00 MCIC:	25.0	Z	2.53	2.40	0.13	0.52	
03/24/14	05:01:01 MCIC:	25.0	S	20.80	20.75	0.05	0.20	
03/24/14	06:01:30 MCIC:	25.0	S	20.80	20.75	0.05	0.20	
03/24/14	06:01:30 MCIC:	25.0	Z	2.53	2.40	0.13	0.52	
03/25/14	05:01:00 MCIC:	25.0	Z	2.53	2.40	0.13	0.52	
03/25/14	05:01:01 MCIC:	25.0	S	20.80	20.74	0.06	0.24	

03/25/14	06:01:30 MCIC:	25.0	S	20.80	20.75	0.05	0.20	
03/25/14	06:01:30 MCIC:	25.0	Z	2.53	2.40	0.13	0.52	
03/26/14	05:01:00 MCIC:	25.0	Z	2.53	2.39	0.14	0.56	
03/26/14	05:01:01 MCIC:	25.0	S	20.80	20.67	0.13	0.52	
03/26/14	06:01:30 MCIC:	25.0	S	20.80	20.68	0.12	0.48	

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CALIBRATION GAS DRIFT REPORT

Monitor: U39 O2 % 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
03/26/14	06:01:30 MCIC:	25.0	Z	2.53	2.39	0.14	0.56	
03/27/14	05:01:00 MCIC:	25.0	Z	2.53	2.41	0.12	0.48	
03/27/14	05:01:01 MCIC:	25.0	S	20.80	20.79	0.01	0.04	
03/27/14	06:01:30 MCIC:	25.0	S	20.80	20.79	0.01	0.04	
03/27/14	06:01:30 MCIC:	25.0	Z	2.53	2.41	0.12	0.48	
03/28/14	05:01:00 MCIC:	25.0	Z	2.53	2.42	0.11	0.44	
03/28/14	05:01:01 MCIC:	25.0	S	20.80	20.89	0.09	0.36	
03/28/14	06:01:30 MCIC:	25.0	S	20.80	20.89	0.09	0.36	
03/28/14	06:01:30 MCIC:	25.0	Z	2.53	2.42	0.11	0.44	
03/29/14	06:01:30 MCIC:	25.0	S	20.80	20.80	0.00	0.00	
03/29/14	06:01:30 MCIC:	25.0	Z	2.53	2.41	0.12	0.48	
03/30/14	05:01:00 MCIC:	25.0	Z	2.53	2.39	0.14	0.56	
03/30/14	05:01:01 MCIC:	25.0	S	20.80	20.67	0.13	0.52	
03/30/14	06:01:30 MCIC:	25.0	S	20.80	20.66	0.14	0.56	
03/30/14	06:01:30 MCIC:	25.0	Z	2.53	2.39	0.14	0.56	
03/31/14	05:01:00 MCIC:	25.0	Z	2.53	2.40	0.13	0.52	
03/31/14	05:01:01 MCIC:	25.0	S	20.80	20.76	0.04	0.16	

03/31/14	06:01:30 MCIC:	25.0	S	20.80	20.76	0.04	0.16
03/31/14	06:01:30 MCIC:	25.0	Z	2.53	2.40	0.13	0.52
04/01/14	05:01:00 MCIC:	25.0	Z	2.53	2.41	0.12	0.48
04/01/14	05:01:01 MCIC:	25.0	S	20.80	20.85	0.05	0.20
04/01/14	06:01:30 MCIC:	25.0	S	20.80	20.84	0.04	0.16

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CALIBRATION GAS DRIFT REPORT

Monitor: U39 O2 % 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
04/01/14	06:01:30	25.0	Z	2.53	2.41	0.12	0.48	
	MCIC:							
04/02/14	05:01:00	25.0	Z	2.53	2.41	0.12	0.48	
	MCIC:							
04/02/14	05:01:01	25.0	S	20.80	20.86	0.06	0.24	
	MCIC:							
04/02/14	06:01:30	25.0	S	20.80	20.86	0.06	0.24	
	MCIC:							
04/02/14	06:01:30	25.0	Z	2.53	2.41	0.12	0.48	
	MCIC:							
04/03/14	05:01:00	25.0	Z	2.53	2.41	0.12	0.48	
	MCIC:							
04/03/14	05:01:01	25.0	S	20.80	20.84	0.04	0.16	
	MCIC:							
04/03/14	06:01:30	25.0	S	20.80	20.84	0.04	0.16	
	MCIC:							
04/03/14	06:01:30	25.0	Z	2.53	2.41	0.12	0.48	
	MCIC:							
04/04/14	05:01:00	25.0	Z	2.53	2.41	0.12	0.48	
	MCIC:							
04/04/14	05:01:01	25.0	S	20.80	20.88	0.08	0.32	
	MCIC:							
04/04/14	06:01:30	25.0	S	20.80	20.88	0.08	0.32	
	MCIC:							
04/04/14	06:01:30	25.0	Z	2.53	2.41	0.12	0.48	
	MCIC:							
04/05/14	06:01:30	25.0	S	20.80	20.70	0.10	0.40	
	MCIC:							
04/05/14	06:01:30	25.0	Z	2.53	2.47	0.06	0.24	
	MCIC:							
04/06/14	05:01:00	25.0	Z	2.53	2.49	0.04	0.16	
	MCIC:							
04/06/14	05:01:01	25.0	S	20.80	20.81	0.01	0.04	
	MCIC:							

04/06/14	06:01:30	25.0	S	20.80	20.81	0.01	0.04
	MCIC:						
04/06/14	06:01:30	25.0	Z	2.53	2.49	0.04	0.16
	MCIC:						
04/07/14	05:01:00	25.0	Z	2.53	2.49	0.04	0.16
	MCIC:						
04/07/14	05:01:01	25.0	S	20.80	20.81	0.01	0.04
	MCIC:						
04/07/14	06:01:30	25.0	S	20.80	20.82	0.02	0.08
	MCIC:						

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CALIBRATION GAS DRIFT REPORT

Monitor: U39 O2 % 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
04/07/14	06:01:30	25.0	Z	2.53	2.49	0.04	0.16	
	MCIC:							
04/08/14	05:01:00	25.0	Z	2.53	2.48	0.05	0.20	
	MCIC:							
04/08/14	05:01:01	25.0	S	20.80	20.76	0.04	0.16	
	MCIC:							
04/08/14	06:01:30	25.0	S	20.80	20.76	0.04	0.16	
	MCIC:							
04/08/14	06:01:30	25.0	Z	2.53	2.48	0.05	0.20	
	MCIC:							
04/09/14	05:01:00	25.0	Z	2.53	2.47	0.06	0.24	
	MCIC:							
04/09/14	05:01:01	25.0	S	20.80	20.72	0.08	0.32	
	MCIC:							
04/09/14	06:01:30	25.0	S	20.80	20.72	0.08	0.32	
	MCIC:							
04/09/14	06:01:30	25.0	Z	2.53	2.47	0.06	0.24	
	MCIC:							
04/10/14	14:34:00	25.0	Z	2.53	2.48	0.05	0.20	
	MCIC:							
04/10/14	14:34:01	25.0	S	20.80	20.79	0.01	0.04	
	MCIC:							
04/11/14	05:01:00	25.0	Z	2.53	2.49	0.04	0.16	
	MCIC:							
04/11/14	05:01:01	25.0	S	20.80	20.82	0.02	0.08	
	MCIC:							
04/13/14	05:01:00	25.0	Z	2.53	2.50	0.03	0.12	
	MCIC:							
04/13/14	05:01:01	25.0	S	20.80	20.87	0.07	0.28	
	MCIC:							
04/14/14	05:01:00	25.0	Z	2.53	2.50	0.03	0.12	
	MCIC:							
04/14/14	05:01:01	25.0	S	20.80	20.90	0.10	0.40	
	MCIC:							

04/15/14	05:01:00	25.0	Z	2.53	2.48	0.05	0.20
	MCIC:						
04/15/14	05:01:01	25.0	S	20.80	20.72	0.08	0.32
	MCIC:						
04/16/14	05:01:00	25.0	Z	2.53	2.47	0.06	0.24
	MCIC:						
04/16/14	05:01:01	25.0	S	20.80	20.73	0.07	0.28
	MCIC:						
04/17/14	05:01:00	25.0	Z	2.53	2.48	0.05	0.20
	MCIC:						

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CALIBRATION GAS DRIFT REPORT

Monitor: U39 O2 % 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
04/17/14	05:01:01 MCIC:	25.0	S	20.80	20.78	0.02	0.08	
04/18/14	08:10:00 MCIC:	25.0	Z	2.53	2.48	0.05	0.20	
04/18/14	08:10:01 MCIC:	25.0	S	20.80	20.79	0.01	0.04	
04/19/14	05:01:00 MCIC:	25.0	Z	2.53	2.48	0.05	0.20	
04/19/14	05:01:01 MCIC:	25.0	S	20.80	20.79	0.01	0.04	
04/20/14	05:01:00 MCIC:	25.0	Z	2.53	2.49	0.04	0.16	
04/20/14	05:01:01 MCIC:	25.0	S	20.80	20.85	0.05	0.20	
04/21/14	05:01:00 MCIC:	25.0	Z	2.53	2.49	0.04	0.16	
04/21/14	05:01:01 MCIC:	25.0	S	20.80	20.84	0.04	0.16	
04/22/14	05:01:00 MCIC:	25.0	Z	2.53	2.49	0.04	0.16	
04/22/14	05:01:01 MCIC:	25.0	S	20.80	20.87	0.07	0.28	
04/22/14	06:01:30 MCIC:	25.0	S	20.80	20.88	0.08	0.32	
04/22/14	06:01:30 MCIC:	25.0	Z	2.53	2.49	0.04	0.16	
04/23/14	05:01:00 MCIC:	25.0	Z	2.53	2.49	0.04	0.16	
04/23/14	05:01:01 MCIC:	25.0	S	20.80	20.89	0.09	0.36	
04/23/14	06:01:30 MCIC:	25.0	S	20.80	20.89	0.09	0.36	
04/23/14	06:01:30 MCIC:	25.0	Z	2.53	2.49	0.04	0.16	

04/24/14	05:01:00 MCIC:	25.0	Z	2.53	2.49	0.04	0.16	
04/24/14	05:01:01 MCIC:	25.0	S	20.80	20.89	0.09	0.36	
04/24/14	06:01:30 MCIC:	25.0	S	20.80	20.89	0.09	0.36	
04/24/14	06:01:30 MCIC:	25.0	Z	2.53	2.49	0.04	0.16	
04/25/14	05:01:00 MCIC:	25.0	Z	2.53	2.49	0.04	0.16	

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CALIBRATION GAS DRIFT REPORT

Monitor: 039 O2 % 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
04/25/14	05:01:01 MCIC:	25.0	S	20.80	20.90	0.10	0.40	
04/25/14	06:01:30 MCIC:	25.0	S	20.80	20.90	0.10	0.40	
04/25/14	06:01:30 MCIC:	25.0	Z	2.53	2.49	0.04	0.16	
04/26/14	06:01:30 MCIC:	25.0	S	20.80	20.89	0.09	0.36	
04/26/14	06:01:30 MCIC:	25.0	Z	2.53	2.49	0.04	0.16	
04/27/14	05:01:00 MCIC:	25.0	Z	2.53	2.49	0.04	0.16	
04/27/14	05:01:01 MCIC:	25.0	S	20.80	20.89	0.09	0.36	
04/27/14	06:01:30 MCIC:	25.0	S	20.80	20.89	0.09	0.36	
04/27/14	06:01:30 MCIC:	25.0	Z	2.53	2.49	0.04	0.16	
04/28/14	05:01:00 MCIC:	25.0	Z	2.53	2.49	0.04	0.16	
04/28/14	05:01:01 MCIC:	25.0	S	20.80	20.89	0.09	0.36	
04/28/14	06:01:30 MCIC:	25.0	S	20.80	20.89	0.09	0.36	
04/28/14	06:01:30 MCIC:	25.0	Z	2.53	2.49	0.04	0.16	
04/29/14	05:01:00 MCIC:	25.0	Z	2.53	2.49	0.04	0.16	
04/29/14	05:01:01 MCIC:	25.0	S	20.80	20.91	0.11	0.44	
04/29/14	06:01:30 MCIC:	25.0	S	20.80	20.91	0.11	0.44	
04/29/14	06:01:30 MCIC:	25.0	Z	2.53	2.49	0.04	0.16	

04/30/14	05:01:00 MCIC:	25.0	Z	2.53	2.47	0.06	0.24	
04/30/14	05:01:01 MCIC:	25.0	S	20.80	20.70	0.10	0.40	
04/30/14	06:01:30 MCIC:	25.0	S	20.80	20.70	0.10	0.40	
04/30/14	06:01:30 MCIC:	25.0	Z	2.53	2.47	0.06	0.24	
05/01/14	05:01:00 MCIC:	25.0	Z	2.53	2.47	0.06	0.24	

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CALIBRATION GAS DRIFT REPORT

Monitor: U39 O2 % 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
05/01/14	05:01:01 MCIC:	25.0	S	20.80	20.72	0.08	0.32	
05/01/14	06:01:30 MCIC:	25.0	S	20.80	20.72	0.08	0.32	
05/01/14	06:01:30 MCIC:	25.0	Z	2.53	2.47	0.06	0.24	
05/02/14	05:01:00 MCIC:	25.0	Z	2.53	2.47	0.06	0.24	
05/02/14	05:01:01 MCIC:	25.0	S	20.80	20.73	0.07	0.28	
05/02/14	06:01:30 MCIC:	25.0	S	20.80	20.73	0.07	0.28	
05/02/14	06:01:30 MCIC:	25.0	Z	2.53	2.47	0.06	0.24	
05/03/14	06:01:30 MCIC:	25.0	S	20.80	20.76	0.04	0.16	
05/03/14	06:01:30 MCIC:	25.0	Z	2.53	2.48	0.05	0.20	
05/04/14	05:01:00 MCIC:	25.0	Z	2.53	2.48	0.05	0.20	
05/04/14	05:01:01 MCIC:	25.0	S	20.80	20.79	0.01	0.04	
05/04/14	06:01:30 MCIC:	25.0	S	20.80	20.78	0.02	0.08	
05/04/14	06:01:30 MCIC:	25.0	Z	2.53	2.48	0.05	0.20	
05/05/14	05:01:00 MCIC:	25.0	Z	2.53	2.48	0.05	0.20	
05/05/14	05:01:01 MCIC:	25.0	S	20.80	20.80	0.00	0.00	
05/05/14	06:01:30 MCIC:	25.0	S	20.80	20.80	0.00	0.00	
05/05/14	06:01:30 MCIC:	25.0	Z	2.53	2.48	0.05	0.20	

05/06/14	05:01:00 MCIC:	25.0	Z	2.53	2.49	0.04	0.16	
05/06/14	05:01:01 MCIC:	25.0	S	20.80	20.84	0.04	0.16	
05/06/14	06:01:30 MCIC:	25.0	S	20.80	20.84	0.04	0.16	
05/06/14	06:01:30 MCIC:	25.0	Z	2.53	2.49	0.04	0.16	
05/07/14	05:01:00 MCIC:	25.0	Z	2.53	2.49	0.04	0.16	

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CALIBRATION GAS DRIFT REPORT

Monitor: U39 O2 % 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
05/07/14	05:01:01 MCIC:	25.0	S	20.80	20.88	0.08	0.32	
05/07/14	06:01:30 MCIC:	25.0	S	20.80	20.88	0.08	0.32	
05/07/14	06:01:30 MCIC:	25.0	Z	2.53	2.49	0.04	0.16	
05/08/14	05:01:00 MCIC:	25.0	Z	2.53	2.50	0.03	0.12	
05/08/14	05:01:01 MCIC:	25.0	S	20.80	20.92	0.12	0.48	
05/08/14	06:01:30 MCIC:	25.0	S	20.80	20.92	0.12	0.48	
05/08/14	06:01:30 MCIC:	25.0	Z	2.53	2.50	0.03	0.12	
05/09/14	05:01:00 MCIC:	25.0	Z	2.53	2.50	0.03	0.12	
05/09/14	05:01:01 MCIC:	25.0	S	20.80	20.93	0.13	0.52	
05/09/14	06:01:30 MCIC:	25.0	S	20.80	20.93	0.13	0.52	
05/09/14	06:01:30 MCIC:	25.0	Z	2.53	2.50	0.03	0.12	
05/10/14	06:01:30 MCIC:	25.0	S	20.80	20.89	0.09	0.36	
05/10/14	06:01:30 MCIC:	25.0	Z	2.53	2.49	0.04	0.16	
05/11/14	05:01:00 MCIC:	25.0	Z	2.53	2.50	0.03	0.12	
05/11/14	05:01:01 MCIC:	25.0	S	20.80	20.91	0.11	0.44	
05/11/14	06:01:30 MCIC:	25.0	S	20.80	20.90	0.10	0.40	
05/11/14	06:01:30 MCIC:	25.0	Z	2.53	2.50	0.03	0.12	

05/12/14	05:01:00 MCIC:	25.0	Z	2.53	2.50	0.03	0.12
05/12/14	05:01:01 MCIC:	25.0	S	20.80	20.90	0.10	0.40
05/12/14	06:01:30 MCIC:	25.0	S	20.80	20.90	0.10	0.40
05/12/14	06:01:30 MCIC:	25.0	Z	2.53	2.50	0.03	0.12
05/13/14	05:01:00 MCIC:	25.0	Z	2.53	2.50	0.03	0.12

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CALIBRATION GAS DRIFT REPORT

Monitor: U39 O2 % 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
05/13/14	05:01:01	25.0	S	20.80	20.88	0.08	0.32	
	MCIC:							
05/13/14	06:01:30	25.0	S	20.80	20.89	0.09	0.36	
	MCIC:							
05/13/14	06:01:30	25.0	Z	2.53	2.50	0.03	0.12	
	MCIC:							
05/14/14	05:01:00	25.0	Z	2.53	2.49	0.04	0.16	
	MCIC:							
05/14/14	05:01:01	25.0	S	20.80	20.83	0.03	0.12	
	MCIC:							
05/14/14	06:01:30	25.0	S	20.80	20.82	0.02	0.08	
	MCIC:							
05/14/14	06:01:30	25.0	Z	2.53	2.49	0.04	0.16	
	MCIC:							
05/15/14	05:01:00	25.0	Z	2.53	2.48	0.05	0.20	
	MCIC:							
05/15/14	05:01:01	25.0	S	20.80	20.74	0.06	0.24	
	MCIC:							
05/15/14	06:01:30	25.0	S	20.80	20.74	0.06	0.24	
	MCIC:							
05/15/14	06:01:30	25.0	Z	2.53	2.48	0.05	0.20	
	MCIC:							
05/16/14	05:01:00	25.0	Z	2.53	2.48	0.05	0.20	
	MCIC:							
05/16/14	05:01:01	25.0	S	20.80	20.77	0.03	0.12	
	MCIC:							
05/16/14	06:01:30	25.0	S	20.80	20.77	0.03	0.12	
	MCIC:							
05/16/14	06:01:30	25.0	Z	2.53	2.48	0.05	0.20	
	MCIC:							
05/17/14	06:01:30	25.0	S	20.80	20.80	0.00	0.00	
	MCIC:							
05/17/14	06:01:30	25.0	Z	2.53	2.49	0.04	0.16	
	MCIC:							

05/18/14	05:01:00	25.0	Z	2.53	2.49	0.04	0.16
	MCIC:						
05/18/14	05:01:01	25.0	S	20.80	20.86	0.06	0.24
	MCIC:						
05/18/14	06:01:30	25.0	S	20.80	20.86	0.06	0.24
	MCIC:						
05/18/14	06:01:30	25.0	Z	2.53	2.49	0.04	0.16
	MCIC:						
05/19/14	05:01:00	25.0	Z	2.53	2.49	0.04	0.16
	MCIC:						

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CALIBRATION GAS DRIFT REPORT

Monitor: U39 O2 % 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
05/19/14	05:01:01 MCIC:	25.0	S	20.80	20.86	0.06	0.24	
05/19/14	06:01:30 MCIC:	25.0	S	20.80	20.86	0.06	0.24	
05/19/14	06:01:30 MCIC:	25.0	Z	2.53	2.49	0.04	0.16	
05/20/14	05:01:00 MCIC:	25.0	Z	2.53	2.50	0.03	0.12	
05/20/14	05:01:01 MCIC:	25.0	S	20.80	20.87	0.07	0.28	
05/20/14	06:01:30 MCIC:	25.0	S	20.80	20.87	0.07	0.28	
05/20/14	06:01:30 MCIC:	25.0	Z	2.53	2.50	0.03	0.12	
05/21/14	05:01:00 MCIC:	25.0	Z	2.53	2.50	0.03	0.12	
05/21/14	05:01:01 MCIC:	25.0	S	20.80	20.89	0.09	0.36	
05/21/14	06:01:30 MCIC:	25.0	S	20.80	20.89	0.09	0.36	
05/21/14	06:01:30 MCIC:	25.0	Z	2.53	2.50	0.03	0.12	
05/22/14	05:01:00 MCIC:	25.0	Z	2.53	2.50	0.03	0.12	
05/22/14	05:01:01 MCIC:	25.0	S	20.80	20.90	0.10	0.40	
05/22/14	06:01:30 MCIC:	25.0	S	20.80	20.91	0.11	0.44	
05/22/14	06:01:30 MCIC:	25.0	Z	2.53	2.50	0.03	0.12	
05/23/14	05:01:00 MCIC:	25.0	Z	2.53	2.50	0.03	0.12	
05/23/14	05:01:01 MCIC:	25.0	S	20.80	20.88	0.08	0.32	

05/23/14	06:01:30 MCIC:	25.0	S	20.80	20.89	0.09	0.36
05/23/14	06:01:30 MCIC:	25.0	Z	2.53	2.50	0.03	0.12
05/24/14	06:01:30 MCIC:	25.0	S	20.80	20.89	0.09	0.36
05/24/14	06:01:30 MCIC:	25.0	Z	2.53	2.50	0.03	0.12
05/25/14	05:01:00 MCIC:	25.0	Z	2.53	2.50	0.03	0.12

Report produced by Cirrus DAS S/N
(00000001)

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Valero

CALIBRATION GAS DRIFT REPORT

Monitor: U39 O2 % 1 min

Cal Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
05/25/14	05:01:01 MCIC:	25.0	S	20.80	20.88	0.08	0.32	
05/25/14	06:01:30 MCIC:	25.0	S	20.80	20.88	0.08	0.32	
05/25/14	06:01:30 MCIC:	25.0	Z	2.53	2.50	0.03	0.12	
05/26/14	05:01:00 MCIC:	25.0	Z	2.53	2.50	0.03	0.12	
05/26/14	05:01:01 MCIC:	25.0	S	20.80	20.87	0.07	0.28	
05/26/14	06:01:30 MCIC:	25.0	S	20.80	20.87	0.07	0.28	
05/26/14	06:01:30 MCIC:	25.0	Z	2.53	2.50	0.03	0.12	
05/27/14	05:01:00 MCIC:	25.0	Z	2.53	2.50	0.03	0.12	
05/27/14	05:01:01 MCIC:	25.0	S	20.80	20.91	0.11	0.44	
05/27/14	06:01:30 MCIC:	25.0	S	20.80	20.91	0.11	0.44	
05/27/14	06:01:30 MCIC:	25.0	Z	2.53	2.50	0.03	0.12	
05/28/14	05:01:00 MCIC:	25.0	Z	2.53	2.50	0.03	0.12	
05/28/14	05:01:01 MCIC:	25.0	S	20.80	20.87	0.07	0.28	
05/28/14	06:01:30 MCIC:	25.0	S	20.80	20.87	0.07	0.28	
05/28/14	06:01:30 MCIC:	25.0	Z	2.53	2.50	0.03	0.12	
05/29/14	05:01:00 MCIC:	25.0	Z	2.53	2.50	0.03	0.12	
05/29/14	05:01:01 MCIC:	25.0	S	20.80	20.85	0.05	0.20	

05/29/14	06:01:30 MCIC:	25.0	S	20.80	20.85	0.05	0.20
05/29/14	06:01:30 MCIC:	25.0	Z	2.53	2.50	0.03	0.12
05/30/14	05:01:00 MCIC:	25.0	Z	2.53	2.50	0.03	0.12
05/30/14	05:01:01 MCIC:	25.0	S	20.80	20.88	0.08	0.32
05/30/14	06:01:30 MCIC:	25.0	S	20.80	20.87	0.07	0.28

Report produced by Cirrus DAS S/N
(00000001)

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CALIBRATION GAS DRIFT REPORT

Monitor: U39 O2 % 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
05/30/14	06:01:30 MCIC:	25.0	Z	2.53	2.50	0.03	0.12	
05/31/14	06:01:30 MCIC:	25.0	S	20.80	20.87	0.07	0.28	
05/31/14	06:01:30 MCIC:	25.0	Z	2.53	2.50	0.03	0.12	
06/01/14	05:01:00 MCIC:	25.0	Z	2.53	2.50	0.03	0.12	
06/01/14	05:01:01 MCIC:	25.0	S	20.80	20.87	0.07	0.28	
06/01/14	06:01:30 MCIC:	25.0	S	20.80	20.87	0.07	0.28	
06/01/14	06:01:30 MCIC:	25.0	Z	2.53	2.50	0.03	0.12	
06/02/14	05:01:00 MCIC:	25.0	Z	2.53	2.50	0.03	0.12	
06/02/14	05:01:01 MCIC:	25.0	S	20.80	20.85	0.05	0.20	
06/02/14	06:01:30 MCIC:	25.0	S	20.80	20.86	0.06	0.24	
06/02/14	06:01:30 MCIC:	25.0	Z	2.53	2.50	0.03	0.12	
06/03/14	05:01:00 MCIC:	25.0	Z	2.58	2.43	0.15	0.60	
06/03/14	05:01:01 MCIC:	25.0	S	20.85	20.86	0.01	0.04	
06/03/14	06:01:30 MCIC:	25.0	S	20.85	20.86	0.01	0.04	
06/03/14	06:01:30 MCIC:	25.0	Z	2.58	2.43	0.15	0.60	
06/04/14	05:01:00 MCIC:	25.0	Z	2.58	2.43	0.15	0.60	
06/04/14	05:01:01 MCIC:	25.0	S	20.85	20.83	0.02	0.08	

06/04/14	06:01:30 MCIC:	25.0	S	20.85	20.82	0.03	0.12
06/04/14	06:01:30 MCIC:	25.0	Z	2.58	2.43	0.15	0.60
06/05/14	05:01:00 MCIC:	25.0	Z	2.58	2.43	0.15	0.60
06/05/14	05:01:01 MCIC:	25.0	S	20.85	20.82	0.03	0.12
06/05/14	06:01:30 MCIC:	25.0	S	20.85	20.82	0.03	0.12

Report produced by Cirrus DAS S/N
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Valero

CALIBRATION GAS DRIFT REPORT

Monitor: U39 O2 % 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
06/05/14	06:01:30 MCIC:	25.0	Z	2.58	2.43	0.15	0.60	
06/06/14	05:01:00 MCIC:	25.0	Z	2.58	2.43	0.15	0.60	
06/06/14	05:01:01 MCIC:	25.0	S	20.85	20.82	0.03	0.12	
06/06/14	06:01:30 MCIC:	25.0	S	20.85	20.81	0.04	0.16	
06/06/14	06:01:30 MCIC:	25.0	Z	2.58	2.43	0.15	0.60	
06/07/14	06:01:30 MCIC:	25.0	S	20.85	20.77	0.08	0.32	
06/07/14	06:01:30 MCIC:	25.0	Z	2.58	2.43	0.15	0.60	
06/07/14	08:57:30 MCIC:	25.0	S	20.85	20.96	0.11	0.44	
06/07/14	08:57:30 MCIC:	25.0	Z	2.58	2.40	0.18	0.72	
06/08/14	05:01:00 MCIC:	25.0	Z	2.58	2.40	0.18	0.72	
06/08/14	05:01:01 MCIC:	25.0	S	20.85	20.93	0.08	0.32	
06/08/14	06:01:30 MCIC:	25.0	S	20.85	20.93	0.08	0.32	
06/08/14	06:01:30 MCIC:	25.0	Z	2.58	2.40	0.18	0.72	
06/09/14	05:01:00 MCIC:	25.0	Z	2.58	2.40	0.18	0.72	
06/09/14	05:01:01 MCIC:	25.0	S	20.85	20.92	0.07	0.28	
06/09/14	06:01:30 MCIC:	25.0	S	20.85	20.92	0.07	0.28	
06/09/14	06:01:30 MCIC:	25.0	Z	2.58	2.40	0.18	0.72	

06/10/14	05:01:00 MCIC:	25.0	Z	2.58	2.40	0.18	0.72
06/10/14	05:01:01 MCIC:	25.0	S	20.85	20.93	0.08	0.32
06/10/14	06:01:30 MCIC:	25.0	S	20.85	20.92	0.07	0.28
06/10/14	06:01:30 MCIC:	25.0	Z	2.58	2.40	0.18	0.72
06/11/14	05:01:00 MCIC:	25.0	Z	2.58	2.40	0.18	0.72

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CALIBRATION GAS DRIFT REPORT

Monitor: U39 O2 % 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
06/11/14	05:01:01 MCIC:	25.0	S	20.85	20.90	0.05	0.20	
06/11/14	06:01:30 MCIC:	25.0	S	20.85	20.90	0.05	0.20	
06/11/14	06:01:30 MCIC:	25.0	Z	2.58	2.40	0.18	0.72	
06/12/14	05:01:00 MCIC:	25.0	Z	2.58	2.41	0.17	0.68	
06/12/14	05:01:01 MCIC:	25.0	S	20.85	20.94	0.09	0.36	
06/12/14	06:01:30 MCIC:	25.0	S	20.85	20.94	0.09	0.36	
06/12/14	06:01:30 MCIC:	25.0	Z	2.58	2.41	0.17	0.68	
06/13/14	05:01:00 MCIC:	25.0	Z	2.58	2.40	0.18	0.72	
06/13/14	05:01:01 MCIC:	25.0	S	20.85	20.93	0.08	0.32	
06/13/14	06:01:30 MCIC:	25.0	S	20.85	20.92	0.07	0.28	
06/13/14	06:01:30 MCIC:	25.0	Z	2.58	2.40	0.18	0.72	
06/14/14	06:01:30 MCIC:	25.0	S	20.85	20.96	0.11	0.44	
06/14/14	06:01:30 MCIC:	25.0	Z	2.58	2.39	0.19	0.76	
06/15/14	05:01:00 MCIC:	25.0	Z	2.58	2.39	0.19	0.76	
06/15/14	05:01:01 MCIC:	25.0	S	20.85	20.93	0.08	0.32	
06/15/14	06:01:30 MCIC:	25.0	S	20.85	20.94	0.09	0.36	
06/15/14	06:01:30 MCIC:	25.0	Z	2.58	2.39	0.19	0.76	

06/16/14	05:01:00 MCIC:	25.0	Z	2.58	2.40	0.18	0.72
06/16/14	05:01:01 MCIC:	25.0	S	20.85	20.93	0.08	0.32
06/16/14	06:01:30 MCIC:	25.0	S	20.85	20.93	0.08	0.32
06/16/14	06:01:30 MCIC:	25.0	Z	2.58	2.40	0.18	0.72
06/17/14	05:01:00 MCIC:	25.0	Z	2.58	2.39	0.19	0.76

Report produced by Cirrus DAS S/N
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CALIBRATION GAS DRIFT REPORT

Monitor: U39 O2 % 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
06/17/14	05:01:01	25.0	S	20.85	20.93	0.08	0.32	
	MCIC:							
06/17/14	06:01:30	25.0	S	20.85	20.93	0.08	0.32	
	MCIC:							
06/17/14	06:01:30	25.0	Z	2.58	2.39	0.19	0.76	
	MCIC:							
06/18/14	05:01:00	25.0	Z	2.58	2.40	0.18	0.72	
	MCIC:							
06/18/14	05:01:01	25.0	S	20.85	20.92	0.07	0.28	
	MCIC:							
06/18/14	06:01:30	25.0	S	20.85	20.92	0.07	0.28	
	MCIC:							
06/18/14	06:01:30	25.0	Z	2.58	2.40	0.18	0.72	
	MCIC:							
06/19/14	05:01:00	25.0	Z	2.58	2.40	0.18	0.72	
	MCIC:							
06/19/14	05:01:01	25.0	S	20.85	20.93	0.08	0.32	
	MCIC:							
06/19/14	06:01:30	25.0	S	20.85	20.93	0.08	0.32	
	MCIC:							
06/19/14	06:01:30	25.0	Z	2.58	2.39	0.19	0.76	
	MCIC:							
06/20/14	05:01:00	25.0	Z	2.58	2.40	0.18	0.72	
	MCIC:							
06/20/14	05:01:01	25.0	S	20.85	20.93	0.08	0.32	
	MCIC:							
06/20/14	06:01:30	25.0	S	20.85	20.93	0.08	0.32	
	MCIC:							
06/20/14	06:01:30	25.0	Z	2.58	2.40	0.18	0.72	
	MCIC:							
06/21/14	06:01:30	25.0	S	20.85	20.94	0.09	0.36	
	MCIC:							
06/21/14	06:01:30	25.0	Z	2.58	2.40	0.18	0.72	
	MCIC:							

06/22/14	05:01:00	25.0	Z	2.58	2.40	0.18	0.72
	MCIC:						
06/22/14	05:01:01	25.0	S	20.85	20.93	0.08	0.32
	MCIC:						
06/22/14	06:01:30	25.0	S	20.85	20.93	0.08	0.32
	MCIC:						
06/22/14	06:01:30	25.0	Z	2.58	2.40	0.18	0.72
	MCIC:						
06/23/14	05:01:00	25.0	Z	2.58	2.40	0.18	0.72
	MCIC:						

Report produced by Cirrus DAS S/N
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CALIBRATION GAS DRIFT REPORT

Monitor: U39 O2 % 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
06/23/14	05:01:01	25.0	S	20.85	20.94	0.09	0.36	
	MCIC:							
06/23/14	06:01:30	25.0	S	20.85	20.94	0.09	0.36	
	MCIC:							
06/23/14	06:01:30	25.0	Z	2.58	2.40	0.18	0.72	
	MCIC:							
06/24/14	05:01:00	25.0	Z	2.58	2.41	0.17	0.68	
	MCIC:							
06/24/14	05:01:01	25.0	S	20.85	20.97	0.12	0.48	
	MCIC:							
06/24/14	06:01:30	25.0	S	20.85	20.97	0.12	0.48	
	MCIC:							
06/24/14	06:01:30	25.0	Z	2.58	2.41	0.17	0.68	
	MCIC:							
06/25/14	05:01:00	25.0	Z	2.58	2.40	0.18	0.72	
	MCIC:							
06/25/14	05:01:01	25.0	S	20.85	20.97	0.12	0.48	
	MCIC:							
06/25/14	06:01:30	25.0	S	20.85	20.97	0.12	0.48	
	MCIC:							
06/25/14	06:01:30	25.0	Z	2.58	2.40	0.18	0.72	
	MCIC:							
06/26/14	05:01:00	25.0	Z	2.58	2.40	0.18	0.72	
	MCIC:							
06/26/14	05:01:01	25.0	S	20.85	20.96	0.11	0.44	
	MCIC:							
06/26/14	06:01:30	25.0	S	20.85	20.96	0.11	0.44	
	MCIC:							
06/26/14	06:01:30	25.0	Z	2.58	2.40	0.18	0.72	
	MCIC:							
06/27/14	05:01:00	25.0	Z	2.58	2.40	0.18	0.72	
	MCIC:							
06/27/14	05:01:01	25.0	S	20.85	20.96	0.11	0.44	
	MCIC:							

06/27/14	06:01:30	25.0	S	20.85	20.96	0.11	0.44
	MCIC:						
06/27/14	06:01:30	25.0	Z	2.58	2.41	0.17	0.68
	MCIC:						
06/28/14	06:01:30	25.0	S	20.85	20.96	0.11	0.44
	MCIC:						
06/28/14	06:01:30	25.0	Z	2.58	2.40	0.18	0.72
	MCIC:						
06/29/14	05:01:00	25.0	Z	2.58	2.40	0.18	0.72
	MCIC:						

Report produced by Cirrus DAS S/N
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Valero

CALIBRATION GAS DRIFT REPORT

Monitor: U39 O2 % 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
06/29/14	05:01:01	25.0	S	20.85	20.96	0.11	0.44	
	MCIC:							
06/29/14	06:01:30	25.0	S	20.85	20.97	0.12	0.48	
	MCIC:							
06/29/14	06:01:30	25.0	Z	2.58	2.40	0.18	0.72	
	MCIC:							
06/30/14	05:01:00	25.0	Z	2.58	2.40	0.18	0.72	
	MCIC:							
06/30/14	05:01:01	25.0	S	20.85	20.96	0.11	0.44	
	MCIC:							
06/30/14	06:01:30	25.0	S	20.85	20.96	0.11	0.44	
	MCIC:							
06/30/14	06:01:30	25.0	Z	2.58	2.40	0.18	0.72	
	MCIC:							

Report produced by Cirrus DAS S/N
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Date: Jul 29 2014 Begin: Jan
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CALIBRATION GAS DRIFT REPORT

Monitor: U39 SO2 ppm 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
01/01/14	06:01:30	500.0	S	392.20	396.50	4.30	0.86	
	MCIC:							
	MCIC:							
01/02/14	06:01:30	500.0	S	392.20	403.60	11.40	2.28	
	MCIC:							
01/02/14	06:01:30	500.0	Z	0.00	6.06	6.06	1.21	
	MCIC:							
01/03/14	05:01:30	500.0	S	399.20	399.02	0.18	0.04	
	MCIC:							
01/03/14	05:01:30	500.0	Z	0.00	2.84	2.84	0.57	
	MCIC:							
01/04/14	05:01:30	500.0	S	399.20	398.62	0.58	0.12	
	MCIC:							
01/04/14	05:01:30	500.0	Z	0.00	3.65	3.65	0.73	
	MCIC:							
01/04/14	06:44:30	500.0	S	399.20	398.73	0.47	0.09	
	MCIC:							
01/04/14	06:44:30	500.0	Z	0.00	3.70	3.70	0.74	
	MCIC:							
01/05/14	05:01:30	500.0	S	399.20	402.53	3.33	0.67	
	MCIC:							
01/05/14	05:01:30	500.0	Z	0.00	9.30	9.30	1.86	
	MCIC:							
01/05/14	05:33:30	500.0	S	399.20	403.92	4.72	0.94	
	MCIC:							
01/05/14	05:33:30	500.0	Z	0.00	8.27	8.27	1.65	
	MCIC:							
01/06/14	05:01:30	500.0	S	399.20	397.82	1.38	0.28	
	MCIC:							
01/06/14	05:01:30	500.0	Z	0.00	3.24	3.24	0.65	
	MCIC:							
01/07/14	05:01:00	500.0	Z	0.00	2.98	2.98	0.60	
	MCIC:							

01/07/14	05:01:01	500.0	S	399.20	398.29	0.91	0.18	
	MCIC:							
01/07/14	05:01:30	500.0	S	399.20	397.85	1.35	0.27	
	MCIC:							
01/07/14	05:01:30	500.0	Z	0.00	3.01	3.01	0.60	
	MCIC:							
01/08/14	05:01:00	500.0	Z	0.00	5.57	5.57	1.11	
	MCIC:							
01/08/14	05:01:01	500.0	S	399.20	400.73	1.53	0.31	
	MCIC:							

Report produced by Cirrus DAS S/N
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Valero

CALIBRATION GAS DRIFT REPORT

Monitor: U39 SO2 ppm 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
01/08/14	05:01:30	500.0	S	399.20	400.55	1.35	0.27	
	MCIC:							
01/08/14	05:01:30	500.0	Z	0.00	5.69	5.69	1.14	
	MCIC:							
01/09/14	05:01:00	500.0	Z	0.00	6.26	6.26	1.25	
	MCIC:							
01/09/14	05:01:01	500.0	S	399.20	402.17	2.97	0.59	
	MCIC:							
01/09/14	05:01:30	500.0	S	399.20	401.90	2.70	0.54	
	MCIC:							
01/09/14	05:01:30	500.0	Z	0.00	6.35	6.35	1.27	
	MCIC:							
01/10/14	05:01:00	500.0	Z	0.00	10.13	10.13	2.03	
	MCIC:							
01/10/14	05:01:01	500.0	S	399.20	404.00	4.80	0.96	
	MCIC:							
01/10/14	05:01:30	500.0	S	399.20	403.67	4.47	0.89	
	MCIC:							
01/10/14	05:01:30	500.0	Z	0.00	10.23	10.23	2.05	
	MCIC:							
01/11/14	05:01:00	500.0	Z	0.00	8.03	8.03	1.61	
	MCIC:							
01/11/14	05:01:01	500.0	S	399.20	404.02	4.82	0.96	
	MCIC:							
01/11/14	05:01:30	500.0	S	399.20	403.83	4.63	0.93	
	MCIC:							
01/11/14	05:01:30	500.0	Z	0.00	8.06	8.06	1.61	
	MCIC:							
01/12/14	05:01:00	500.0	Z	0.00	6.00	6.00	1.20	
	MCIC:							
01/12/14	05:01:01	500.0	S	399.20	404.94	5.74	1.15	
	MCIC:							
01/13/14	05:01:00	500.0	Z	0.00	12.18	12.18	2.44	
	MCIC:							

01/13/14	05:01:01	500.0	S	399.20	407.59	8.39	1.68	
	MCIC:							
01/14/14	06:01:30	500.0	S	392.20	400.83	8.63	1.73	
	MCIC:							
01/14/14	06:01:30	500.0	Z	0.00	7.96	7.96	1.59	
	MCIC:							
01/15/14	06:01:30	500.0	S	392.20	402.14	9.94	1.99	
	MCIC:							
01/15/14	06:01:30	500.0	Z	0.00	7.11	7.11	1.42	
	MCIC:							

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CALIBRATION GAS DRIFT REPORT

Monitor: U39 SO2 ppm 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
01/16/14	06:01:30	500.0	S	392.20	397.09	4.89	0.98	
	MCIC:							
01/16/14	06:01:30	500.0	Z	0.00	4.11	4.11	0.82	
	MCIC:							
01/17/14	06:01:30	500.0	S	392.20	403.74	11.54	2.31	
	MCIC:							
01/17/14	06:01:30	500.0	Z	0.00	6.60	6.60	1.32	
	MCIC:							
01/18/14	06:01:30	500.0	S	392.20	397.22	5.02	1.00	
	MCIC:							
01/18/14	06:01:30	500.0	Z	0.00	5.04	5.04	1.01	
	MCIC:							
01/19/14	06:01:30	500.0	S	392.20	403.72	11.52	2.30	
	MCIC:							
01/19/14	06:01:30	500.0	Z	0.00	9.93	9.93	1.99	
	MCIC:							
01/20/14	06:01:30	500.0	S	392.20	402.45	10.25	2.05	
	MCIC:							
01/20/14	06:01:30	500.0	Z	0.00	8.52	8.52	1.70	
	MCIC:							
01/21/14	06:01:30	500.0	S	392.20	403.76	11.56	2.31	
	MCIC:							
01/21/14	06:01:30	500.0	Z	0.00	9.79	9.79	1.96	
	MCIC:							
01/22/14	06:01:30	500.0	S	392.20	401.12	8.92	1.78	
	MCIC:							
01/22/14	06:01:30	500.0	Z	0.00	7.88	7.88	1.58	
	MCIC:							
01/23/14	06:01:30	500.0	S	392.20	403.69	11.49	2.30	
	MCIC:							
01/23/14	06:01:30	500.0	Z	0.00	9.69	9.69	1.94	
	MCIC:							
01/24/14	06:01:30	500.0	S	404.00	408.45	4.45	0.89	
	MCIC:							

01/24/14	06:01:30	500.0	Z	0.00	8.63	8.63	1.73	
	MCIC:							
01/25/14	06:01:30	500.0	S	404.00	410.39	6.39	1.28	
	MCIC:							
01/25/14	06:01:30	500.0	Z	0.00	9.05	9.05	1.81	
	MCIC:							
01/26/14	06:01:30	500.0	S	404.00	416.78	12.78	2.56	
>1X								
	MCIC:							
01/26/14	06:01:30	500.0	Z	0.00	13.10	13.10	2.62	
>1X								
	MCIC:							

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CALIBRATION GAS DRIFT REPORT

Monitor: U39 SO2 ppm 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
01/26/14	11:00:30 MCIC:	500.0	S	404.00	404.71	0.71	0.14	
01/26/14	11:00:30 MCIC:	500.0	Z	0.00	5.11	5.11	1.02	
01/27/14	06:01:30 MCIC:	500.0	S	404.00	405.45	1.45	0.29	
01/27/14	06:01:30 MCIC:	500.0	Z	0.00	-1.59	1.59	0.32	
01/28/14	06:01:30 MCIC:	500.0	S	404.00	403.19	0.81	0.16	
01/28/14	06:01:30 MCIC:	500.0	Z	0.00	-4.79	4.79	0.96	
01/29/14	06:01:30 MCIC:	500.0	S	404.00	398.94	5.06	1.01	
01/29/14	06:01:30 MCIC:	500.0	Z	0.00	-7.57	7.57	1.51	
01/30/14	06:01:30 MCIC:	500.0	S	404.00	401.26	2.74	0.55	
01/30/14	06:01:30 MCIC:	500.0	Z	0.00	-8.54	8.54	1.71	
01/31/14	06:01:30 MCIC:	500.0	S	404.00	405.23	1.23	0.25	
01/31/14	06:01:30 MCIC:	500.0	Z	0.00	-2.09	2.09	0.42	
02/01/14	06:01:30 MCIC:	500.0	S	404.00	409.88	5.88	1.18	
02/01/14	06:01:30 MCIC:	500.0	Z	0.00	2.40	2.40	0.48	
02/02/14	06:01:30 MCIC:	500.0	S	404.00	408.21	4.21	0.84	
02/02/14	06:01:30 MCIC:	500.0	Z	0.00	-2.00	2.00	0.40	
02/03/14	06:01:30 MCIC:	500.0	S	404.00	403.98	0.02	-0.00	

02/03/14	06:01:30 MCIC:	500.0	Z	0.00	-2.45	2.45	0.49	
02/04/14	06:01:30 MCIC:	500.0	S	404.00	401.58	2.42	0.48	
02/04/14	06:01:30 MCIC:	500.0	Z	0.00	-1.13	1.13	0.23	
02/05/14	06:01:30 MCIC:	500.0	S	404.00	405.83	1.83	0.37	
02/05/14	06:01:30 MCIC:	500.0	Z	0.00	-0.89	0.89	0.18	

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Valero

CALIBRATION GAS DRIFT REPORT

Monitor: U39 SO2 ppm 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
02/06/14	06:01:30 MCIC:	500.0	S	404.00	399.33	4.67	0.93	
02/06/14	06:01:30 MCIC:	500.0	Z	0.00	-2.96	2.96	0.59	
02/07/14	06:01:30 MCIC:	500.0	S	404.00	396.06	7.94	1.59	
02/07/14	06:01:30 MCIC:	500.0	Z	0.00	-5.06	5.06	1.01	
02/08/14	06:01:30 MCIC:	500.0	S	404.00	402.51	1.49	0.30	
02/08/14	06:01:30 MCIC:	500.0	Z	0.00	-5.43	5.43	1.09	
02/09/14	06:01:30 MCIC:	500.0	S	404.00	407.69	3.69	0.74	
02/09/14	06:01:30 MCIC:	500.0	Z	0.00	-2.27	2.27	0.45	
02/10/14	06:01:30 MCIC:	500.0	S	404.00	407.59	3.59	0.72	
02/10/14	06:01:30 MCIC:	500.0	Z	0.00	0.65	0.65	0.13	
02/11/14	06:01:30 MCIC:	500.0	S	404.00	403.28	0.72	0.14	
02/11/14	06:01:30 MCIC:	500.0	Z	0.00	-3.88	3.88	0.78	
02/12/14	06:01:30 MCIC:	500.0	S	404.00	404.86	0.86	0.17	
02/12/14	06:01:30 MCIC:	500.0	Z	0.00	-1.43	1.43	0.29	
02/13/14	06:01:30 MCIC:	500.0	S	404.00	405.46	1.46	0.29	
02/13/14	06:01:30 MCIC:	500.0	Z	0.00	-3.72	3.72	0.74	
02/14/14	06:01:30 MCIC:	500.0	S	404.00	402.30	1.70	0.34	

02/14/14	06:01:30 MCIC:	500.0	Z	0.00	-1.72	1.72	0.34
02/15/14	06:01:30 MCIC:	500.0	S	404.00	407.07	3.07	0.61
02/15/14	06:01:30 MCIC:	500.0	Z	0.00	-3.64	3.64	0.73
02/16/14	06:01:30 MCIC:	500.0	S	404.00	407.36	3.36	0.67
02/16/14	06:01:30 MCIC:	500.0	Z	0.00	0.74	0.74	0.15

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CALIBRATION GAS DRIFT REPORT

Monitor: U39 SO2 ppm 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
02/17/14	06:01:30	500.0	S	404.00	409.84	5.84	1.17	
	MCIC:							
02/17/14	06:01:30	500.0	Z	0.00	3.16	3.16	0.63	
	MCIC:							
02/18/14	06:01:30	500.0	S	404.00	407.72	3.72	0.74	
	MCIC:							
02/18/14	06:01:30	500.0	Z	0.00	1.29	1.29	0.26	
	MCIC:							
02/19/14	06:01:30	500.0	S	404.00	410.23	6.23	1.25	
	MCIC:							
02/19/14	06:01:30	500.0	Z	0.00	0.85	0.85	0.17	
	MCIC:							
02/20/14	06:01:30	500.0	S	404.00	409.48	5.48	1.10	
	MCIC:							
02/20/14	06:01:30	500.0	Z	0.00	2.92	2.92	0.58	
	MCIC:							
02/21/14	06:01:30	500.0	S	404.00	382.08	21.92	4.38	
>1X								
	MCIC:							
02/21/14	06:01:30	500.0	Z	0.00	1.59	1.59	0.32	
	MCIC:							
02/22/14	06:01:30	500.0	S	404.00	386.61	17.39	3.48	
>1X								
	MCIC:							
02/22/14	06:01:30	500.0	Z	0.00	-0.30	0.30	0.06	
	MCIC:							
02/23/14	06:01:30	500.0	S	404.00	390.58	13.42	2.68	
>1X								
	MCIC:							
02/23/14	06:01:30	500.0	Z	0.00	2.81	2.81	0.56	
	MCIC:							
02/24/14	06:01:30	500.0	S	404.00	388.25	15.75	3.15	
>1X								
	MCIC:							

02/24/14	06:01:30	500.0	Z	0.00	3.77	3.77	0.75
	MCIC:						
02/25/14	06:01:30	500.0	S	404.00	393.83	10.17	2.03
	MCIC:						
02/25/14	06:01:30	500.0	Z	0.00	5.26	5.26	1.05
	MCIC:						
02/26/14	06:01:30	500.0	S	404.00	391.89	12.11	2.42
	MCIC:						
02/26/14	06:01:30	500.0	Z	0.00	4.04	4.04	0.81
	MCIC:						
02/27/14	06:01:30	500.0	S	404.00	382.35	21.65	4.33
>1X							
	MCIC:						
02/27/14	06:01:30	500.0	Z	0.00	0.46	0.46	0.09
	MCIC:						

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CALIBRATION GAS DRIFT REPORT

Monitor: U39 SO2 ppm 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
02/28/14	06:01:30	500.0	S	404.00	381.44	22.56	4.51	>1X
	MCIC:							
02/28/14	06:01:30	500.0	Z	0.00	2.19	2.19	0.44	
	MCIC:							
03/01/14	06:01:30	500.0	S	404.00	394.88	9.12	1.82	
	MCIC:							
03/01/14	06:01:30	500.0	Z	0.00	1.78	1.78	0.36	
	MCIC:							
03/02/14	06:01:30	500.0	S	404.00	389.97	14.03	2.81	>1X
	MCIC:							
03/02/14	06:01:30	500.0	Z	0.00	3.86	3.86	0.77	
	MCIC:							
03/03/14	06:01:30	500.0	S	404.00	389.32	14.68	2.94	>1X
	MCIC:							
03/03/14	06:01:30	500.0	Z	0.00	-0.93	0.93	0.19	
	MCIC:							
03/04/14	06:01:30	500.0	S	404.00	385.59	18.41	3.68	>1X
	MCIC:							
03/04/14	06:01:30	500.0	Z	0.00	-3.99	3.99	0.80	
	MCIC:							
03/05/14	06:01:30	500.0	S	404.00	386.41	17.59	3.52	>1X
	MCIC:							
03/05/14	06:01:30	500.0	Z	0.00	-2.76	2.76	0.55	
	MCIC:							
03/06/14	06:01:30	500.0	S	404.00	385.73	18.27	3.65	>1X
	MCIC:							
03/06/14	06:01:30	500.0	Z	0.00	-3.36	3.36	0.67	
	MCIC:							

03/07/14	06:01:30	500.0	S	404.00	388.78	15.22	3.04
>1X							
	MCIC:						
03/07/14	06:01:30	500.0	Z	0.00	-4.59	4.59	0.92
	MCIC:						
03/08/14	06:01:30	500.0	S	404.00	399.34	4.66	0.93
	MCIC:						
03/08/14	06:01:30	500.0	Z	0.00	0.65	0.65	0.13
	MCIC:						
03/09/14	06:01:00	500.0	Z	0.00	-0.12	0.12	0.02
	MCIC:						
03/09/14	06:01:01	500.0	S	404.00	397.30	6.70	1.34
	MCIC:						
03/09/14	07:01:30	500.0	S	404.00	396.76	7.24	1.45
	MCIC:						
03/09/14	07:01:30	500.0	Z	0.00	-0.07	0.07	0.01
	MCIC:						

Report produced by Cirrus DAS S/N
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CALIBRATION GAS DRIFT REPORT

Monitor: U39 SO2 ppm 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
03/10/14	05:01:00 MCIC:	500.0	Z	0.00	0.65	0.65	0.13	
03/10/14	05:01:01 MCIC:	500.0	S	404.00	395.17	8.83	1.77	
03/10/14	06:01:30 MCIC:	500.0	S	404.00	394.53	9.47	1.89	
03/10/14	06:01:30 MCIC:	500.0	Z	0.00	0.72	0.72	0.14	
03/11/14	05:01:00 MCIC:	500.0	Z	0.00	0.93	0.93	0.19	
03/11/14	05:01:01 MCIC:	500.0	S	404.00	398.44	5.56	1.11	
03/11/14	06:01:30 MCIC:	500.0	S	404.00	398.01	5.99	1.20	
03/11/14	06:01:30 MCIC:	500.0	Z	0.00	1.03	1.03	0.21	
03/12/14	05:01:00 MCIC:	500.0	Z	0.00	1.90	1.90	0.38	
03/12/14	05:01:01 MCIC:	500.0	S	404.00	403.40	0.60	0.12	
03/12/14	06:01:30 MCIC:	500.0	S	404.00	402.82	1.18	0.24	
03/12/14	06:01:30 MCIC:	500.0	Z	0.00	2.00	2.00	0.40	
03/13/14	05:01:00 MCIC:	500.0	Z	0.00	-0.62	0.62	0.12	
03/13/14	05:01:01 MCIC:	500.0	S	404.00	392.50	11.50	2.30	
03/13/14	06:01:30 MCIC:	500.0	S	404.00	392.12	11.88	2.38	
03/13/14	06:01:30 MCIC:	500.0	Z	0.00	-0.56	0.56	0.11	
03/14/14	05:01:00 MCIC:	500.0	Z	0.00	0.71	0.71	0.14	

03/14/14	05:01:01 MCIC:	500.0	S	404.00	399.61	4.39	0.88	
03/14/14	06:01:30 MCIC:	500.0	S	404.00	399.26	4.74	0.95	
03/14/14	06:01:30 MCIC:	500.0	Z	0.00	0.83	0.83	0.17	
03/15/14	06:01:30 MCIC:	500.0	S	404.00	402.65	1.35	0.27	
03/15/14	06:01:30 MCIC:	500.0	Z	0.00	1.18	1.18	0.24	

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CALIBRATION GAS DRIFT REPORT

Monitor: U39 SO2 ppm 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
03/15/14	11:59:30 MCIC:	500.0	S	404.00	403.70	0.30	0.06	
03/15/14	11:59:30 MCIC:	500.0	Z	0.00	-0.18	0.18	0.04	
03/16/14	05:01:00 MCIC:	500.0	Z	0.00	4.22	4.22	0.84	
03/16/14	05:01:01 MCIC:	500.0	S	404.00	403.23	0.77	0.15	
03/16/14	06:01:30 MCIC:	500.0	S	404.00	402.99	1.01	0.20	
03/16/14	06:01:30 MCIC:	500.0	Z	0.00	4.34	4.34	0.87	
03/17/14	05:01:00 MCIC:	500.0	Z	0.00	-0.45	0.45	0.09	
03/17/14	05:01:01 MCIC:	500.0	S	404.00	395.76	8.24	1.65	
03/17/14	06:01:30 MCIC:	500.0	S	404.00	395.28	8.72	1.74	
03/17/14	06:01:30 MCIC:	500.0	Z	0.00	-0.37	0.37	0.07	
03/18/14	05:01:00 MCIC:	500.0	Z	0.00	0.52	0.52	0.10	
03/18/14	05:01:01 MCIC:	500.0	S	404.00	398.01	5.99	1.20	
03/18/14	06:01:30 MCIC:	500.0	S	404.00	397.45	6.55	1.31	
03/18/14	06:01:30 MCIC:	500.0	Z	0.00	0.62	0.62	0.12	
03/19/14	05:01:00 MCIC:	500.0	Z	0.00	1.48	1.48	0.30	
03/19/14	05:01:01 MCIC:	500.0	S	404.00	398.80	5.20	1.04	
03/19/14	06:01:30 MCIC:	500.0	S	404.00	398.31	5.69	1.14	

03/19/14	06:01:30 MCIC:	500.0	Z	0.00	1.55	1.55	0.31	
03/20/14	05:01:00 MCIC:	500.0	Z	0.00	1.54	1.54	0.31	
03/20/14	05:01:01 MCIC:	500.0	S	404.00	399.42	4.58	0.92	
03/20/14	06:01:30 MCIC:	500.0	S	404.00	399.08	4.92	0.98	
03/20/14	06:01:30 MCIC:	500.0	Z	0.00	1.64	1.64	0.33	

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CALIBRATION GAS DRIFT REPORT

Monitor: U39 SO2 ppm 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
03/21/14	05:01:00	500.0	Z	0.00	2.72	2.72	0.54	
	MCIC:							
03/21/14	05:01:01	500.0	S	404.00	400.48	3.52	0.70	
	MCIC:							
03/21/14	06:01:30	500.0	S	404.00	400.03	3.97	0.79	
	MCIC:							
03/21/14	06:01:30	500.0	Z	0.00	2.85	2.85	0.57	
	MCIC:							
03/22/14	06:01:30	500.0	S	404.00	403.22	0.78	0.16	
	MCIC:							
03/22/14	06:01:30	500.0	Z	0.00	4.19	4.19	0.84	
	MCIC:							
03/23/14	05:01:00	500.0	Z	0.00	1.90	1.90	0.38	
	MCIC:							
03/23/14	05:01:01	500.0	S	404.00	399.74	4.26	0.85	
	MCIC:							
03/23/14	06:01:30	500.0	S	404.00	399.40	4.60	0.92	
	MCIC:							
03/23/14	06:01:30	500.0	Z	0.00	1.96	1.96	0.39	
	MCIC:							
03/24/14	05:01:00	500.0	Z	0.00	2.83	2.83	0.57	
	MCIC:							
03/24/14	05:01:01	500.0	S	404.00	399.84	4.16	0.83	
	MCIC:							
03/24/14	06:01:30	500.0	S	404.00	399.27	4.73	0.95	
	MCIC:							
03/24/14	06:01:30	500.0	Z	0.00	2.95	2.95	0.59	
	MCIC:							
03/25/14	05:01:00	500.0	Z	0.00	1.73	1.73	0.35	
	MCIC:							
03/25/14	05:01:01	500.0	S	404.00	399.36	4.64	0.93	
	MCIC:							
03/25/14	06:01:30	500.0	S	404.00	399.28	4.72	0.94	
	MCIC:							

03/25/14	06:01:30	500.0	Z	0.00	1.78	1.78	0.36	
	MCIC:							
03/26/14	05:01:00	500.0	Z	0.00	0.04	0.04	0.01	
	MCIC:							
03/26/14	05:01:01	500.0	S	404.00	390.33	13.67	2.73	>1X
	MCIC:							
03/26/14	06:01:30	500.0	S	404.00	389.91	14.09	2.82	>1X
	MCIC:							
03/26/14	06:01:30	500.0	Z	0.00	0.08	0.08	0.02	
	MCIC:							

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CALIBRATION GAS DRIFT REPORT

Monitor: U39 SO2 ppm 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
03/27/14	05:01:00 MCIC:	500.0	Z	0.00	3.29	3.29	0.66	
03/27/14	05:01:01 MCIC:	500.0	S	404.00	396.02	7.98	1.60	
03/27/14	06:01:30 MCIC:	500.0	S	404.00	395.58	8.42	1.68	
03/27/14	06:01:30 MCIC:	500.0	Z	0.00	3.36	3.36	0.67	
03/28/14	05:01:00 MCIC:	500.0	Z	0.00	-0.92	0.92	0.18	
03/28/14	05:01:01 MCIC:	500.0	S	404.00	392.18	11.82	2.36	
03/28/14	06:01:30 MCIC:	500.0	S	404.00	391.91	12.09	2.42	
03/28/14	06:01:30 MCIC:	500.0	Z	0.00	-0.87	0.87	0.17	
03/29/14	06:01:30 MCIC:	500.0	S	404.00	395.56	8.44	1.69	
03/29/14	06:01:30 MCIC:	500.0	Z	0.00	-0.64	0.64	0.13	
03/30/14	05:01:00 MCIC:	500.0	Z	0.00	0.60	0.60	0.12	
03/30/14	05:01:01 MCIC:	500.0	S	404.00	397.12	6.88	1.38	
03/30/14	06:01:30 MCIC:	500.0	S	404.00	396.84	7.16	1.43	
03/30/14	06:01:30 MCIC:	500.0	Z	0.00	0.70	0.70	0.14	
03/31/14	05:01:00 MCIC:	500.0	Z	0.00	1.99	1.99	0.40	
03/31/14	05:01:01 MCIC:	500.0	S	404.00	400.07	3.93	0.79	
03/31/14	06:01:30 MCIC:	500.0	S	404.00	399.58	4.42	0.88	

03/31/14	06:01:30 MCIC:	500.0	Z	0.00	2.01	2.01	0.40
04/01/14	05:01:00 MCIC:	500.0	Z	0.00	3.44	3.44	0.69
04/01/14	05:01:01 MCIC:	500.0	S	404.00	401.88	2.12	0.42
04/01/14	06:01:30 MCIC:	500.0	S	404.00	401.45	2.55	0.51
04/01/14	06:01:30 MCIC:	500.0	Z	0.00	3.50	3.50	0.70

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CALIBRATION GAS DRIFT REPORT

Monitor: U39 SO2 ppm 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
04/02/14	05:01:00	500.0	Z	0.00	1.84	1.84	0.37	
	MCIC:							
04/02/14	05:01:01	500.0	S	404.00	395.89	8.11	1.62	
	MCIC:							
04/02/14	06:01:30	500.0	S	404.00	395.45	8.55	1.71	
	MCIC:							
04/02/14	06:01:30	500.0	Z	0.00	2.03	2.03	0.41	
	MCIC:							
04/03/14	05:01:00	500.0	Z	0.00	0.35	0.35	0.07	
	MCIC:							
04/03/14	05:01:01	500.0	S	404.00	396.56	7.44	1.49	
	MCIC:							
04/03/14	06:01:30	500.0	S	404.00	396.30	7.70	1.54	
	MCIC:							
04/03/14	06:01:30	500.0	Z	0.00	0.41	0.41	0.08	
	MCIC:							
04/04/14	05:01:00	500.0	Z	0.00	-0.93	0.93	0.19	
	MCIC:							
04/04/14	05:01:01	500.0	S	404.00	397.78	6.22	1.24	
	MCIC:							
04/04/14	06:01:30	500.0	S	404.00	397.32	6.68	1.34	
	MCIC:							
04/04/14	06:01:30	500.0	Z	0.00	-0.85	0.85	0.17	
	MCIC:							
04/05/14	06:01:30	500.0	S	404.00	398.10	5.90	1.18	
	MCIC:							
04/05/14	06:01:30	500.0	Z	0.00	0.99	0.99	0.20	
	MCIC:							
04/06/14	05:01:00	500.0	Z	0.00	0.61	0.61	0.12	
	MCIC:							
04/06/14	05:01:01	500.0	S	404.00	392.02	11.98	2.40	
	MCIC:							
04/06/14	06:01:30	500.0	S	404.00	391.48	12.52	2.50	

>1X

	MCIC:						
04/06/14	06:01:30	500.0	Z	0.00	0.64	0.64	0.13
	MCIC:						
04/07/14	05:01:00	500.0	Z	0.00	0.80	0.80	0.16
	MCIC:						
04/07/14	05:01:01	500.0	S	404.00	393.63	10.37	2.07
	MCIC:						
04/07/14	06:01:30	500.0	S	404.00	393.03	10.97	2.19
	MCIC:						
04/07/14	06:01:30	500.0	Z	0.00	0.90	0.90	0.18
	MCIC:						

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CALIBRATION GAS DRIFT REPORT

Monitor: U39 SO2 ppm 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
04/08/14	05:01:00	500.0	Z	0.00	5.23	5.23	1.05	
	MCIC:							
04/08/14	05:01:01	500.0	S	404.00	398.27	5.73	1.15	
	MCIC:							
04/08/14	06:01:30	500.0	S	404.00	398.02	5.98	1.20	
	MCIC:							
04/08/14	06:01:30	500.0	Z	0.00	5.29	5.29	1.06	
	MCIC:							
04/09/14	05:01:00	500.0	Z	0.00	0.08	0.08	0.02	
	MCIC:							
04/09/14	05:01:01	500.0	S	404.00	405.78	1.78	0.36	
	MCIC:							
04/09/14	06:01:30	500.0	S	404.00	405.61	1.61	0.32	
	MCIC:							
04/09/14	06:01:30	500.0	Z	0.00	0.20	0.20	0.04	
	MCIC:							
04/10/14	14:34:00	500.0	Z	0.00	9.27	9.27	1.85	
	MCIC:							
04/10/14	14:34:01	500.0	S	404.00	388.25	15.75	3.15	
>1X								
	MCIC:							
04/11/14	05:01:00	500.0	Z	0.00	7.16	7.16	1.43	
	MCIC:							
04/11/14	05:01:01	500.0	S	404.00	396.31	7.69	1.54	
	MCIC:							
04/13/14	05:01:00	500.0	Z	0.00	4.36	4.36	0.87	
	MCIC:							
04/13/14	05:01:01	500.0	S	404.00	397.89	6.11	1.22	
	MCIC:							
04/14/14	05:01:00	500.0	Z	0.00	0.78	0.78	0.16	
	MCIC:							
04/14/14	05:01:01	500.0	S	404.00	387.27	16.73	3.35	
>1X								
	MCIC:							

04/15/14	05:01:00	500.0	Z	0.00	2.02	2.02	0.40
	MCIC:						
04/15/14	05:01:01	500.0	S	404.00	381.29	22.71	4.54
>1X							
	MCIC:						
04/16/14	05:01:00	500.0	Z	0.00	0.51	0.51	0.10
	MCIC:						
04/16/14	05:01:01	500.0	S	404.00	396.76	7.24	1.45
	MCIC:						
04/17/14	05:01:00	500.0	Z	0.00	9.36	9.36	1.87
	MCIC:						
04/17/14	05:01:01	500.0	S	404.00	400.05	3.95	0.79
	MCIC:						

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CALIBRATION GAS DRIFT REPORT

Monitor: U39 SO2 ppm 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
04/18/14	08:10:00	500.0	Z	0.00	3.44	3.44	0.69	
	MCIC:							
04/18/14	08:10:01	500.0	S	404.00	392.91	11.09	2.22	
	MCIC:							
04/19/14	05:01:00	500.0	Z	0.00	3.83	3.83	0.77	
	MCIC:							
04/19/14	05:01:01	500.0	S	404.00	394.07	9.93	1.99	
	MCIC:							
04/20/14	05:01:00	500.0	Z	0.00	5.13	5.13	1.03	
	MCIC:							
04/20/14	05:01:01	500.0	S	404.00	395.94	8.06	1.61	
	MCIC:							
04/21/14	05:01:00	500.0	Z	0.00	4.56	4.56	0.91	
	MCIC:							
04/21/14	05:01:01	500.0	S	404.00	401.57	2.43	0.49	
	MCIC:							
04/22/14	05:01:00	500.0	Z	0.00	3.37	3.37	0.67	
	MCIC:							
04/22/14	05:01:01	500.0	S	404.00	395.46	8.54	1.71	
	MCIC:							
04/22/14	06:01:30	500.0	S	404.00	394.85	9.15	1.83	
	MCIC:							
04/22/14	06:01:30	500.0	Z	0.00	3.49	3.49	0.70	
	MCIC:							
04/23/14	05:01:00	500.0	Z	0.00	3.80	3.80	0.76	
	MCIC:							
04/23/14	05:01:01	500.0	S	404.00	398.52	5.48	1.10	
	MCIC:							
04/23/14	06:01:30	500.0	S	404.00	397.94	6.06	1.21	
	MCIC:							
04/23/14	06:01:30	500.0	Z	0.00	3.91	3.91	0.78	
	MCIC:							
04/24/14	05:01:00	500.0	Z	0.00	5.65	5.65	1.13	
	MCIC:							

04/24/14	05:01:01	500.0	S	404.00	395.02	8.98	1.80	
	MCIC:							
04/24/14	06:01:30	500.0	S	404.00	394.40	9.60	1.92	
	MCIC:							
04/24/14	06:01:30	500.0	Z	0.00	5.77	5.77	1.15	
	MCIC:							
04/25/14	05:01:00	500.0	Z	0.00	4.91	4.91	0.98	
	MCIC:							
04/25/14	05:01:01	500.0	S	404.00	383.96	20.04	4.01	
>1X								
	MCIC:							

Report produced by Cirrus DAS S/N
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CALIBRATION GAS DRIFT REPORT

Monitor: U39 SO2 ppm 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
04/25/14	06:01:30	500.0	S	404.00	383.46	20.54	4.11	>1X
	MCIC:							
04/25/14	06:01:30	500.0	Z	0.00	5.01	5.01	1.00	
	MCIC:							
04/26/14	06:01:30	500.0	S	404.00	383.78	20.22	4.04	>1X
	MCIC:							
04/26/14	06:01:30	500.0	Z	0.00	2.65	2.65	0.53	
	MCIC:							
04/27/14	06:01:30	500.0	S	404.00	378.62	25.38	5.08	>2X
	MCIC:							
04/27/14	06:01:30	500.0	Z	0.00	2.28	2.28	0.46	
	MCIC:							
04/27/14	07:21:00	500.0	Z	0.00	12.49	12.49	2.50	
	MCIC:							
04/27/14	07:21:01	500.0	S	404.00	411.99	7.99	1.60	
	MCIC:							
04/27/14	08:21:30	500.0	S	404.00	411.68	7.68	1.54	
	MCIC:							
04/27/14	08:21:30	500.0	Z	0.00	12.66	12.66	2.53	>1X
	MCIC:							
04/28/14	05:01:00	500.0	Z	0.00	1.34	1.34	0.27	
	MCIC:							
04/28/14	05:01:01	500.0	S	404.00	395.31	8.69	1.74	
	MCIC:							
04/28/14	06:01:30	500.0	S	404.00	394.86	9.14	1.83	
	MCIC:							
04/28/14	06:01:30	500.0	Z	0.00	1.52	1.52	0.30	
	MCIC:							
04/29/14	05:01:00	500.0	Z	0.00	3.28	3.28	0.66	
	MCIC:							

04/29/14	05:01:01	500.0	S	404.00	398.88	5.12	1.02	
	MCIC:							
04/29/14	06:01:30	500.0	S	404.00	398.59	5.41	1.08	
	MCIC:							
04/29/14	06:01:30	500.0	Z	0.00	3.34	3.34	0.67	
	MCIC:							
04/30/14	05:01:00	500.0	Z	0.00	3.91	3.91	0.78	
	MCIC:							
04/30/14	05:01:01	500.0	S	404.00	401.48	2.52	0.50	
	MCIC:							
04/30/14	06:01:30	500.0	S	404.00	401.41	2.59	0.52	
	MCIC:							
04/30/14	06:01:30	500.0	Z	0.00	4.01	4.01	0.80	
	MCIC:							

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CALIBRATION GAS DRIFT REPORT

Monitor: U39 SO2 ppm 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
05/01/14	05:01:00	500.0	Z	0.00	3.19	3.19	0.64	
	MCIC:							
05/01/14	05:01:01	500.0	S	404.00	402.27	1.73	0.35	
	MCIC:							
05/01/14	06:01:30	500.0	S	404.00	401.87	2.13	0.43	
	MCIC:							
05/01/14	06:01:30	500.0	Z	0.00	3.27	3.27	0.65	
	MCIC:							
05/02/14	05:01:00	500.0	Z	0.00	2.93	2.93	0.59	
	MCIC:							
05/02/14	05:01:01	500.0	S	404.00	401.05	2.95	0.59	
	MCIC:							
05/02/14	06:01:30	500.0	S	404.00	400.56	3.44	0.69	
	MCIC:							
05/02/14	06:01:30	500.0	Z	0.00	3.03	3.03	0.61	
	MCIC:							
05/03/14	06:01:30	500.0	S	404.00	407.36	3.36	0.67	
	MCIC:							
05/03/14	06:01:30	500.0	Z	0.00	0.92	0.92	0.18	
	MCIC:							
05/04/14	05:01:00	500.0	Z	0.00	3.70	3.70	0.74	
	MCIC:							
05/04/14	05:01:01	500.0	S	404.00	397.46	6.54	1.31	
	MCIC:							
05/04/14	06:01:30	500.0	S	404.00	396.99	7.01	1.40	
	MCIC:							
05/04/14	06:01:30	500.0	Z	0.00	3.73	3.73	0.75	
	MCIC:							
05/05/14	05:01:00	500.0	Z	0.00	4.82	4.82	0.96	
	MCIC:							
05/05/14	05:01:01	500.0	S	404.00	397.20	6.80	1.36	
	MCIC:							
05/05/14	06:01:30	500.0	S	404.00	396.42	7.58	1.52	
	MCIC:							

05/05/14	06:01:30	500.0	Z	0.00	4.97	4.97	0.99
	MCIC:						
05/06/14	05:01:00	500.0	Z	0.00	5.81	5.81	1.16
	MCIC:						
05/06/14	05:01:01	500.0	S	404.00	402.77	1.23	0.25
	MCIC:						
05/06/14	06:01:30	500.0	S	404.00	402.04	1.96	0.39
	MCIC:						
05/06/14	06:01:30	500.0	Z	0.00	5.91	5.91	1.18
	MCIC:						

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Date: Jul 29 2014 Begin: Jan 01, 2014 00:00
Time: 08:49 End: Jul 01, 2014 00:00
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CALIBRATION GAS DRIFT REPORT

Monitor: U39 SO2 ppm 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
05/07/14	05:01:00 MCIC:	500.0	Z	0.00	2.84	2.84	0.57	
05/07/14	05:01:01 MCIC:	500.0	S	404.00	397.21	6.79	1.36	
05/07/14	06:01:30 MCIC:	500.0	S	404.00	396.60	7.40	1.48	
05/07/14	06:01:30 MCIC:	500.0	Z	0.00	2.94	2.94	0.59	
05/08/14	05:01:00 MCIC:	500.0	Z	0.00	0.95	0.95	0.19	
05/08/14	05:01:01 MCIC:	500.0	S	404.00	395.29	8.71	1.74	
05/08/14	06:01:30 MCIC:	500.0	S	404.00	394.93	9.07	1.81	
05/08/14	06:01:30 MCIC:	500.0	Z	0.00	1.05	1.05	0.21	
05/09/14	05:01:00 MCIC:	500.0	Z	0.00	0.02	0.02	0.00	
05/09/14	05:01:01 MCIC:	500.0	S	404.00	403.74	0.26	0.05	
05/09/14	06:01:30 MCIC:	500.0	S	404.00	403.25	0.75	0.15	
05/09/14	06:01:30 MCIC:	500.0	Z	0.00	0.09	0.09	0.02	
05/10/14	06:01:30 MCIC:	500.0	S	404.00	403.58	0.42	0.08	
05/10/14	06:01:30 MCIC:	500.0	Z	0.00	1.85	1.85	0.37	
05/11/14	05:01:00 MCIC:	500.0	Z	0.00	0.32	0.32	0.06	
05/11/14	05:01:01 MCIC:	500.0	S	404.00	401.45	2.55	0.51	
05/11/14	06:01:30 MCIC:	500.0	S	404.00	400.88	3.12	0.62	

05/11/14	06:01:30 MCIC:	500.0	Z	0.00	0.40	0.40	0.08
05/12/14	05:01:00 MCIC:	500.0	Z	0.00	5.85	5.85	1.17
05/12/14	05:01:01 MCIC:	500.0	S	404.00	400.19	3.81	0.76
05/12/14	06:01:30 MCIC:	500.0	S	404.00	399.59	4.41	0.88
05/12/14	06:01:30 MCIC:	500.0	Z	0.00	5.96	5.96	1.19

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CALIBRATION GAS DRIFT REPORT

Monitor: U39 SO2 ppm 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
05/13/14	05:01:00	500.0	Z	0.00	2.40	2.40	0.48	
	MCIC:							
05/13/14	05:01:01	500.0	S	404.00	402.53	1.47	0.29	
	MCIC:							
05/13/14	06:01:30	500.0	S	404.00	402.17	1.83	0.37	
	MCIC:							
05/13/14	06:01:30	500.0	Z	0.00	2.47	2.47	0.49	
	MCIC:							
05/14/14	05:01:00	500.0	Z	0.00	5.39	5.39	1.08	
	MCIC:							
05/14/14	05:01:01	500.0	S	404.00	414.60	10.60	2.12	
	MCIC:							
05/14/14	06:01:30	500.0	S	404.00	414.34	10.34	2.07	
	MCIC:							
05/14/14	06:01:30	500.0	Z	0.00	5.55	5.55	1.11	
	MCIC:							
05/15/14	05:01:00	500.0	Z	0.00	6.50	6.50	1.30	
	MCIC:							
05/15/14	05:01:01	500.0	S	404.00	411.81	7.81	1.56	
	MCIC:							
05/15/14	06:01:30	500.0	S	404.00	411.58	7.58	1.52	
	MCIC:							
05/15/14	06:01:30	500.0	Z	0.00	6.50	6.50	1.30	
	MCIC:							
05/16/14	05:01:00	500.0	Z	0.00	6.86	6.86	1.37	
	MCIC:							
05/16/14	05:01:01	500.0	S	404.00	415.71	11.71	2.34	
	MCIC:							
05/16/14	06:01:30	500.0	S	404.00	415.43	11.43	2.29	
	MCIC:							
05/16/14	06:01:30	500.0	Z	0.00	6.90	6.90	1.38	
	MCIC:							
05/17/14	06:01:30	500.0	S	404.00	413.54	9.54	1.91	
	MCIC:							

05/17/14	06:01:30	500.0	Z	0.00	6.72	6.72	1.34
	MCIC:						
05/18/14	05:01:00	500.0	Z	0.00	9.01	9.01	1.80
	MCIC:						
05/18/14	05:01:01	500.0	S	404.00	414.96	10.96	2.19
	MCIC:						
05/18/14	06:01:30	500.0	S	404.00	414.75	10.75	2.15
	MCIC:						
05/18/14	06:01:30	500.0	Z	0.00	9.06	9.06	1.81
	MCIC:						

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CALIBRATION GAS DRIFT REPORT

Monitor: U39 SO2 ppm 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
05/19/14	05:01:00 MCIC:	500.0	Z	0.00	7.40	7.40	1.48	
05/19/14	05:01:01 MCIC:	500.0	S	404.00	411.19	7.19	1.44	
05/19/14	06:01:30 MCIC:	500.0	S	404.00	410.97	6.97	1.39	
05/19/14	06:01:30 MCIC:	500.0	Z	0.00	7.49	7.49	1.50	
05/20/14	05:01:00 MCIC:	500.0	Z	0.00	6.30	6.30	1.26	
05/20/14	05:01:01 MCIC:	500.0	S	404.00	410.44	6.44	1.29	
05/20/14	06:01:30 MCIC:	500.0	S	404.00	410.05	6.05	1.21	
05/20/14	06:01:30 MCIC:	500.0	Z	0.00	6.38	6.38	1.28	
05/21/14	05:01:00 MCIC:	500.0	Z	0.00	5.10	5.10	1.02	
05/21/14	05:01:01 MCIC:	500.0	S	404.00	410.55	6.55	1.31	
05/21/14	06:01:30 MCIC:	500.0	S	404.00	410.22	6.22	1.24	
05/21/14	06:01:30 MCIC:	500.0	Z	0.00	5.19	5.19	1.04	
05/22/14	05:01:00 MCIC:	500.0	Z	0.00	5.07	5.07	1.01	
05/22/14	05:01:01 MCIC:	500.0	S	404.00	410.82	6.82	1.36	
05/22/14	06:01:30 MCIC:	500.0	S	404.00	410.42	6.42	1.28	
05/22/14	06:01:30 MCIC:	500.0	Z	0.00	5.19	5.19	1.04	
05/23/14	05:01:00 MCIC:	500.0	Z	0.00	5.27	5.27	1.05	

05/23/14	05:01:01 MCIC:	500.0	S	404.00	409.40	5.40	1.08	
05/23/14	06:01:30 MCIC:	500.0	S	404.00	409.22	5.22	1.04	
05/23/14	06:01:30 MCIC:	500.0	Z	0.00	5.30	5.30	1.06	
05/24/14	06:01:30 MCIC:	500.0	S	404.00	410.36	6.36	1.27	
05/24/14	06:01:30 MCIC:	500.0	Z	0.00	9.03	9.03	1.81	

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CALIBRATION GAS DRIFT REPORT

Monitor: U39 SO2 ppm 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
05/25/14	05:01:00 MCIC:	500.0	Z	0.00	7.97	7.97	1.59	
05/25/14	05:01:01 MCIC:	500.0	S	404.00	411.11	7.11	1.42	
05/25/14	06:01:30 MCIC:	500.0	S	404.00	410.58	6.58	1.32	
05/25/14	06:01:30 MCIC:	500.0	Z	0.00	8.14	8.14	1.63	
05/26/14	05:01:00 MCIC:	500.0	Z	0.00	10.70	10.70	2.14	
05/26/14	05:01:01 MCIC:	500.0	S	404.00	405.73	1.73	0.35	
05/26/14	06:01:30 MCIC:	500.0	S	404.00	405.46	1.46	0.29	
05/26/14	06:01:30 MCIC:	500.0	Z	0.00	10.75	10.75	2.15	
05/27/14	05:01:00 MCIC:	500.0	Z	0.00	9.61	9.61	1.92	
05/27/14	05:01:01 MCIC:	500.0	S	404.00	408.66	4.66	0.93	
05/27/14	06:01:30 MCIC:	500.0	S	404.00	408.32	4.32	0.86	
05/27/14	06:01:30 MCIC:	500.0	Z	0.00	9.72	9.72	1.94	
05/28/14	05:01:00 MCIC:	500.0	Z	0.00	10.59	10.59	2.12	
05/28/14	05:01:01 MCIC:	500.0	S	404.00	409.55	5.55	1.11	
05/28/14	06:01:30 MCIC:	500.0	S	404.00	409.27	5.27	1.05	
05/28/14	06:01:30 MCIC:	500.0	Z	0.00	10.80	10.80	2.16	
05/29/14	05:01:00 MCIC:	500.0	Z	0.00	10.12	10.12	2.02	

05/29/14	05:01:01 MCIC:	500.0	S	404.00	406.47	2.47	0.49
05/29/14	06:01:30 MCIC:	500.0	S	404.00	406.25	2.25	0.45
05/29/14	06:01:30 MCIC:	500.0	Z	0.00	10.23	10.23	2.05
05/30/14	05:01:00 MCIC:	500.0	Z	0.00	9.86	9.86	1.97
05/30/14	05:01:01 MCIC:	500.0	S	404.00	406.52	2.52	0.50

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CALIBRATION GAS DRIFT REPORT

Monitor: U39 SO2 ppm 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
05/30/14	06:01:30	500.0	S	404.00	406.17	2.17	0.43	
	MCIC:							
05/30/14	06:01:30	500.0	Z	0.00	9.96	9.96	1.99	
	MCIC:							
05/31/14	06:01:30	500.0	S	404.00	408.67	4.67	0.93	
	MCIC:							
05/31/14	06:01:30	500.0	Z	0.00	9.94	9.94	1.99	
	MCIC:							
06/01/14	05:01:00	500.0	Z	0.00	11.25	11.25	2.25	
	MCIC:							
06/01/14	05:01:01	500.0	S	404.00	405.01	1.01	0.20	
	MCIC:							
06/01/14	06:01:30	500.0	S	404.00	404.67	0.67	0.13	
	MCIC:							
06/01/14	06:01:30	500.0	Z	0.00	11.38	11.38	2.28	
	MCIC:							
06/02/14	05:01:00	500.0	Z	0.00	12.81	12.81	2.56	
>1X								
	MCIC:							
06/02/14	05:01:01	500.0	S	404.00	401.05	2.95	0.59	
	MCIC:							
06/02/14	06:01:30	500.0	S	404.00	400.40	3.60	0.72	
	MCIC:							
06/02/14	06:01:30	500.0	Z	0.00	12.99	12.99	2.60	
>1X								
	MCIC:							
06/03/14	05:01:00	500.0	Z	0.00	11.19	11.19	2.24	
	MCIC:							
06/03/14	05:01:01	500.0	S	407.90	398.77	9.13	1.83	
	MCIC:							
06/03/14	06:01:30	500.0	S	407.90	397.95	9.95	1.99	
	MCIC:							
06/03/14	06:01:30	500.0	Z	0.00	11.43	11.43	2.29	
	MCIC:							

06/04/14	05:01:00	500.0	Z	0.00	13.58	13.58	2.72	
>1X								
	MCIC:							
06/04/14	05:01:01	500.0	S	407.90	398.23	9.67	1.93	
	MCIC:							
06/04/14	06:01:30	500.0	S	407.90	397.48	10.42	2.08	
	MCIC:							
06/04/14	06:01:30	500.0	Z	0.00	13.75	13.75	2.75	
>1X								
	MCIC:							
06/05/14	05:01:00	500.0	Z	0.00	16.03	16.03	3.21	
>1X								
	MCIC:							
06/05/14	05:01:01	500.0	S	407.90	398.35	9.55	1.91	
	MCIC:							

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CALIBRATION GAS DRIFT REPORT

Monitor: U39 SO2 ppm 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
06/05/14	06:01:30	500.0	S	407.90	398.10	9.80	1.96	
	MCIC:							
06/05/14	06:01:30	500.0	Z	0.00	16.29	16.29	3.26	
>1X								
	MCIC:							
06/06/14	05:01:00	500.0	Z	0.00	18.52	18.52	3.70	
>1X								
	MCIC:							
06/06/14	05:01:01	500.0	S	407.90	398.08	9.82	1.96	
	MCIC:							
06/06/14	06:01:30	500.0	S	407.90	397.57	10.33	2.07	
	MCIC:							
06/06/14	06:01:30	500.0	Z	0.00	18.82	18.82	3.76	
>1X								
	MCIC:							
06/07/14	06:01:30	500.0	S	407.90	379.59	28.31	5.66	
>2X								
	MCIC:							
06/07/14	06:01:30	500.0	Z	0.00	6.19	6.19	1.24	
	MCIC:							
06/07/14	07:59:30	500.0	S	407.90	387.42	20.48	4.10	
>1X								
	MCIC:							
06/07/14	07:59:30	500.0	Z	0.00	2.75	2.75	0.55	
	MCIC:							
06/07/14	08:57:30	500.0	S	407.90	409.96	2.06	0.41	
	MCIC:							
06/07/14	08:57:30	500.0	Z	0.00	2.40	2.40	0.48	
	MCIC:							
06/08/14	05:01:00	500.0	Z	0.00	6.68	6.68	1.34	
	MCIC:							
06/08/14	05:01:01	500.0	S	407.90	397.61	10.29	2.06	
	MCIC:							
06/08/14	06:01:30	500.0	S	407.90	397.31	10.59	2.12	

	MCIC:							
06/08/14	06:01:30	500.0	Z	0.00	6.73	6.73	1.35	
	MCIC:							
06/09/14	05:01:00	500.0	Z	0.00	7.65	7.65	1.53	
	MCIC:							
06/09/14	05:01:01	500.0	S	407.90	393.86	14.04	2.81	
>1X								
	MCIC:							
06/09/14	06:01:30	500.0	S	407.90	393.68	14.22	2.84	
>1X								
	MCIC:							
06/09/14	06:01:30	500.0	Z	0.00	7.70	7.70	1.54	
	MCIC:							
06/10/14	05:01:00	500.0	Z	0.00	7.41	7.41	1.48	
	MCIC:							
06/10/14	05:01:01	500.0	S	407.90	395.52	12.38	2.48	
	MCIC:							

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CALIBRATION GAS DRIFT REPORT

Monitor: U39 SO2 ppm 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
06/10/14	06:01:30	500.0	S	407.90	395.08	12.82	2.56	>1X
	MCIC:							
06/10/14	06:01:30	500.0	Z	0.00	7.48	7.48	1.50	
	MCIC:							
06/11/14	05:01:00	500.0	Z	0.00	12.38	12.38	2.48	
	MCIC:							
06/11/14	05:01:01	500.0	S	407.90	402.33	5.57	1.11	
	MCIC:							
06/11/14	06:01:30	500.0	S	407.90	402.07	5.83	1.17	
	MCIC:							
06/11/14	06:01:30	500.0	Z	0.00	12.43	12.43	2.49	
	MCIC:							
06/12/14	05:01:00	500.0	Z	0.00	14.77	14.77	2.95	>1X
	MCIC:							
06/12/14	05:01:01	500.0	S	407.90	405.97	1.93	0.39	
	MCIC:							
06/12/14	06:01:30	500.0	S	407.90	405.69	2.21	0.44	
	MCIC:							
06/12/14	06:01:30	500.0	Z	0.00	14.81	14.81	2.96	>1X
	MCIC:							
06/13/14	05:01:00	500.0	Z	0.00	15.25	15.25	3.05	>1X
	MCIC:							
06/13/14	05:01:01	500.0	S	407.90	405.71	2.19	0.44	
	MCIC:							
06/13/14	06:01:30	500.0	S	407.90	405.41	2.49	0.50	
	MCIC:							
06/13/14	06:01:30	500.0	Z	0.00	15.28	15.28	3.06	>1X
	MCIC:							
06/14/14	06:01:30	500.0	S	407.90	400.81	7.09	1.42	

	MCIC:						
06/14/14	06:01:30	500.0	Z	0.00	7.63	7.63	1.53
	MCIC:						
06/15/14	05:01:00	500.0	Z	0.00	6.38	6.38	1.28
	MCIC:						
06/15/14	05:01:01	500.0	S	407.90	399.76	8.14	1.63
	MCIC:						
06/15/14	06:01:30	500.0	S	407.90	399.53	8.37	1.67
	MCIC:						
06/15/14	06:01:30	500.0	Z	0.00	6.43	6.43	1.29
	MCIC:						
06/16/14	05:01:00	500.0	Z	0.00	7.22	7.22	1.44
	MCIC:						
06/16/14	05:01:01	500.0	S	407.90	398.46	9.44	1.89
	MCIC:						

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CALIBRATION GAS DRIFT REPORT

Monitor: U39 SO2 ppm 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
06/16/14	06:01:30 MCIC:	500.0	S	407.90	398.04	9.86	1.97	
06/16/14	06:01:30 MCIC:	500.0	Z	0.00	7.27	7.27	1.45	
06/17/14	05:01:00 MCIC:	500.0	Z	0.00	7.11	7.11	1.42	
06/17/14	05:01:01 MCIC:	500.0	S	407.90	398.29	9.61	1.92	
06/17/14	06:01:30 MCIC:	500.0	S	407.90	398.05	9.85	1.97	
06/17/14	06:01:30 MCIC:	500.0	Z	0.00	7.16	7.16	1.43	
06/18/14	05:01:00 MCIC:	500.0	Z	0.00	8.06	8.06	1.61	
06/18/14	05:01:01 MCIC:	500.0	S	407.90	399.21	8.69	1.74	
06/18/14	06:01:30 MCIC:	500.0	S	407.90	398.91	8.99	1.80	
06/18/14	06:01:30 MCIC:	500.0	Z	0.00	8.14	8.14	1.63	
06/19/14	05:01:00 MCIC:	500.0	Z	0.00	8.61	8.61	1.72	
06/19/14	05:01:01 MCIC:	500.0	S	407.90	398.60	9.30	1.86	
06/19/14	06:01:30 MCIC:	500.0	S	407.90	398.38	9.52	1.90	
06/19/14	06:01:30 MCIC:	500.0	Z	0.00	8.68	8.68	1.74	
06/20/14	05:01:00 MCIC:	500.0	Z	0.00	7.49	7.49	1.50	
06/20/14	05:01:01 MCIC:	500.0	S	407.90	399.52	8.38	1.68	
06/20/14	06:01:30 MCIC:	500.0	S	407.90	399.30	8.60	1.72	

06/20/14	06:01:30 MCIC:	500.0	Z	0.00	7.55	7.55	1.51	
06/21/14	06:01:30 MCIC:	500.0	S	407.90	395.86	12.04	2.41	
06/21/14	06:01:30 MCIC:	500.0	Z	0.00	6.56	6.56	1.31	
06/22/14	05:01:00 MCIC:	500.0	Z	0.00	8.54	8.54	1.71	
06/22/14	05:01:01 MCIC:	500.0	S	407.90	397.25	10.65	2.13	

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CALIBRATION GAS DRIFT REPORT

Monitor: U39 SO2 ppm 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
06/22/14	06:01:30	500.0	S	407.90	397.07	10.83	2.17	
	MCIC:							
06/22/14	06:01:30	500.0	Z	0.00	8.62	8.62	1.72	
	MCIC:							
06/23/14	05:01:00	500.0	Z	0.00	8.76	8.76	1.75	
	MCIC:							
06/23/14	05:01:01	500.0	S	407.90	395.83	12.07	2.41	
	MCIC:							
06/23/14	06:01:30	500.0	S	407.90	395.59	12.31	2.46	
	MCIC:							
06/23/14	06:01:30	500.0	Z	0.00	8.80	8.80	1.76	
	MCIC:							
06/24/14	05:01:00	500.0	Z	0.00	7.50	7.50	1.50	
	MCIC:							
06/24/14	05:01:01	500.0	S	407.90	397.24	10.66	2.13	
	MCIC:							
06/24/14	06:01:30	500.0	S	407.90	396.93	10.97	2.19	
	MCIC:							
06/24/14	06:01:30	500.0	Z	0.00	7.61	7.61	1.52	
	MCIC:							
06/25/14	05:01:00	500.0	Z	0.00	8.80	8.80	1.76	
	MCIC:							
06/25/14	05:01:01	500.0	S	407.90	395.28	12.62	2.52	
>1X								
	MCIC:							
06/25/14	06:01:30	500.0	S	407.90	394.91	12.99	2.60	
>1X								
	MCIC:							
06/25/14	06:01:30	500.0	Z	0.00	8.93	8.93	1.79	
	MCIC:							
06/26/14	05:01:00	500.0	Z	0.00	7.77	7.77	1.55	
	MCIC:							
06/26/14	05:01:01	500.0	S	407.90	400.66	7.24	1.45	
	MCIC:							

06/26/14	06:01:30	500.0	S	407.90	400.48	7.42	1.48
	MCIC:						
06/26/14	06:01:30	500.0	Z	0.00	7.90	7.90	1.58
	MCIC:						
06/27/14	05:01:00	500.0	Z	0.00	9.00	9.00	1.80
	MCIC:						
06/27/14	05:01:01	500.0	S	407.90	397.47	10.43	2.09
	MCIC:						
06/27/14	06:01:30	500.0	S	407.90	397.04	10.86	2.17
	MCIC:						
06/27/14	06:01:30	500.0	Z	0.00	9.05	9.05	1.81
	MCIC:						

Report produced by Cirrus DAS S/N
(00000001)

Date: Jul 29 2014 Begin: Jan
01, 2014 00:00
Time: 08:49 End: Jul
01, 2014 00:00
SRUC-TGI Unit 39
(Page 026)

Valero

CALIBRATION GAS DRIFT REPORT

Monitor: U39 SO2 ppm 1 min

Date	Time	Span Value	Cal Lvl	Ref Value	Monitor Response	Abs Diff	% of Span	Cal Stat
06/28/14	06:01:30 MCIC:	500.0	S	407.90	403.81	4.09	0.82	
06/28/14	06:01:30 MCIC:	500.0	Z	0.00	7.04	7.04	1.41	
06/29/14	05:01:00 MCIC:	500.0	Z	0.00	8.07	8.07	1.61	
06/29/14	05:01:01 MCIC:	500.0	S	407.90	402.08	5.82	1.16	
06/29/14	06:01:30 MCIC:	500.0	S	407.90	401.77	6.13	1.23	
06/29/14	06:01:30 MCIC:	500.0	Z	0.00	8.14	8.14	1.63	
06/30/14	05:01:00 MCIC:	500.0	Z	0.00	8.25	8.25	1.65	
06/30/14	05:01:01 MCIC:	500.0	S	407.90	405.59	2.31	0.46	
06/30/14	06:01:30 MCIC:	500.0	S	407.90	405.39	2.51	0.50	
06/30/14	06:01:30 MCIC:	500.0	Z	0.00	8.29	8.29	1.66	

Report produced by Cirrus DAS S/N
(00000001)

Appendix F
CGA and RATA Reports

AirCO/HG-0130-C/RN100219310/RP

GOLDEN SPECIALTY

THE GOLD STANDARD FOR AIR TESTING

Air Quality Test Report

CEMS Cylinder Gas Audit (CGA)
First Quarter, 2014

Valero Refining-Texas, L.P.
Houston, Texas

Multiple Sources

Operating Permit No. 01381

Report Number: VALHR-14-0193
Date Tested: February 20, March 3, 4 and 7, 2014
Date Prepared: April 1, 2014

PREPARED FOR
Valero Refining – Texas, L.P.
Houston Refinery
9701 Manchester Road
Houston, Texas 77012

Phone 713.923.3378

Prepared by:
GOLDEN SPECIALTY, INC.
888.472.9898
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Air Quality Test Report

CEMS Cylinder Gas Audit (CGA)
First Quarter, 2014

Valero Refining-Texas, L.P.
Houston, Texas

Multiple Sources

This report is supported by GOLDEN's Quality Assurance Manual. The information included in the report is authentic and accurate, and GOLDEN operated in conformance with ASTM D7036 to the best of our knowledge during this test program.

Certified by:

Reviewed by Jason M Burrows for
Scott B. Swiggard, Ph. D., QSTI 2006-025
Technical Director

Daniel A. Loubiere, QSTI 2008-128
Project Manager

Curtis W Berridge
Curtis Berridge
Onsite QI

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Air Quality Test Report

EXECUTIVE SUMMARY

Golden Specialty, Inc. (GOLDEN) was contracted Valero Refining-Texas, L.P. (Valero) to perform air testing at their facility located in Houston, Texas. GOLDEN performed Cylinder Gas Audits (CGAs) on multiple continuous emissions monitoring systems (CEMS) installed at their facility. The audit was conducted in accordance with Operating Permit No. 01381.

The CGAs performed on February 20 and March 3, 4 and 7, 2014, were managed by Mr. Dan Loubiere and performed by Messrs. Curtis Berridge and Justin Jones. No agency personnel were onsite during testing. The results of the CGAs, presented in Table 1-1, demonstrate that the average response for the analyzer was within the 15% requirement 40 CFR Part 60, Appendix F, for each source.

Unit	Test Date	Cylinder Gas	Mid-Range Audit Gas	High-Range Audit Gas	*Allowable*
			Accuracy (%)	Accuracy (%)	
Boiler No. 1	3/3/2014	O_2	0.57	0.93	*15%*
		NO_x	-0.58	2.51	*15%*
		CO	2.01	0.83	*15%*
Boiler No. 2	3/3/2014	O_2	-1.36	-1.06	*15%*
		NO_x	-9.91	-0.35	*15%*
		CO	-11.09	-3.91	*15%*
Boiler No. 3	3/3/2014	O_2	-1.23	-0.20	*15%*
		NO_x	-2.86	-2.36	*15%*
		CO	-6.17	-2.99	*15%*
FCCU Scrubber	3/7/2014	O_2	-1.69	-4.30	*15%*
		SO_2	5.85	5.18	*15%*
		NO_x	-0.14	0.89	*15%*
		CO	-4.32	-3.26	*15%*
Fuel Gas Drum	2/20/2014	H_2S	11.40	12.48	*15%*
Crude Atmospheric Heater North Stack	3/4/2014	O_2	-1.23	-4.87	*15%*
		NO_x	1.50	1.74	*15%*
		CO	-8.45	-3.91	*15%*
Crude Atmospheric Heater South Stack	3/4/2014	O_2	-1.23	-4.73	*15%*
		NO_x	-4.99	0.79	*15%*
		CO	-7.86	-2.59	*15%*

Table 1-1. First Quarter 2014 CGA Results vs. Allowable

Based on the results shown in this report, the CEMS are operating within the limits of 40 CFR 60 Appendix F, Quality Assurance requirements for gas continuous emissions monitoring system used for compliance determination.

INTRODUCTION

Purpose of Test

The Audit was performed to demonstrate compliance with the requirements of 40 CFR Part 60, Appendix F, Quality Assurance requirements for gas continuous emissions monitoring systems used for compliance determination. The test procedures referenced in this report are in accordance with the Test Plan for this project. Deviations from the Test Plan or published Reference Methods are documented in the Problems, Deviations and/or Exceptions section of this report.

Problems, Deviations and/or Exceptions

No problems were encountered during this test program.

Air Quality Test Report

PERFORMANCE TEST PROCEDURES

Cylinder Gas Audit (CGA)

The CGA was performed in accordance with procedures outlined in 40 CFR 60 Appendix F. The audit consisted of alternately challenging the CEMS with mid and high level EPA Protocol Calibration gas standards. Triplicate runs were performed. The average response was compared to the respective calibration gas value and used to calculate the percent error for each audit point using the calculation presented below. *(GOLDEN SOP: GSC-TM054)*

$$Percent\ Error = \left(\frac{Gas\ Value - Response}{Gas\ Value} \right) x100\%$$

SAMPLE CALCULATIONS

The following calculations were used in the determination of the accuracy for each CEMS audit point. The values listed below in Table 1-2 are the actual data obtained for the O_2 mid range calibration gas during the cylinder gas audit testing of the Boiler No. 1 CEMS and are presented to demonstrate the calculations for the CGA.

Run#	1 (%)	2 (%)	3 (%)
C_M	5.02	5.03	5.03
C_a	5.00	5.00	5.00
D_i *	0.02	0.03	0.03

Table 1-2. Cylinder Gas Audit Data

Cylinder Gas Audit Calculations

Average Difference (d_{avg})

$$\bar{d} = \left[\frac{1}{n}\sum_{i=1}^{n} d_i\right]$$

Where:

d = Average difference between response and cylinder value data
n = Number of data points
d_i = Difference between response and cylinder value for any given point

$$\bar{d} = \frac{1}{3}[d_1 + d_2 + d_3]$$

Accuracy

$$A = \frac{C_m - C_a}{C_a} \times 100$$

Where:

C_m = Average CEMS response during audit
C_a = Certified gas value used for audit

AUDIT RESULTS

The certifications of each gas used for the CGA program are presented in Appendix B. Assessment Data Printouts from the CGAs are presented in Appendices A through H. A printout of the CEMS performance, provided by Valero, is presented in each appendix.

Unit	Test Date	Cylinder Gas	Mid-Range Audit Gas Accuracy (%)	High-Range Audit Gas Accuracy (%)	*Allowable*
Boiler No. 1	3/3/2014	O_2	0.57	0.93	*15%*
		NO_x	-0.58	2.51	*15%*
		CO	2.01	0.83	*15%*
Boiler No. 2	3/3/2014	O_2	-1.36	-1.06	*15%*
		NO_x	-9.91	-0.35	*15%*
		CO	-11.09	-3.91	*15%*
Boiler No. 3	3/3/2014	O_2	-1.23	-0.20	*15%*
		NO_x	-2.86	-2.36	*15%*
		CO	-6.17	-2.99	*15%*
FCCU Scrubber	3/7/2014	O_2	-1.69	-4.30	*15%*
		SO_2	5.85	5.18	*15%*
		NO_x	-0.14	0.89	*15%*
		CO	-4.32	-3.26	*15%*
Fuel Gas Drum	2/20/2014	H_2S	11.40	12.48	*15%*
Crude Atmospheric Heater North Stack	3/4/2014	O_2	-1.23	-4.87	*15%*
		NO_x	1.50	1.74	*15%*
		CO	-8.45	-3.91	*15%*
Crude Atmospheric Heater South Stack	3/4/2014	O_2	-1.23	-4.73	*15%*
		NO_x	-4.99	0.79	*15%*
		CO	-7.86	-2.59	*15%*

Table 1-1. First Quarter 2014 CGA Results vs. Allowable

GOLDEN SPECIALTY

Air Quality Test Report

APPENDIX A –
Calibration Data

Airgas

CERTIFICATE OF ANALYSIS
Grade of Product: EPA Protocol

Part Number:	E02NI90E15A0228	Reference Number:	122-124370757-1
Cylinder Number:	CC432504	Cylinder Volume:	145.2 CF
Laboratory:	ASG - Durham - NC	Cylinder Pressure:	2015 PSIG
PGVP Number:	B22013	Valve Outlet:	590
Gas Code:	O2,BALN	Certification Date:	Apr 22, 2013

Expiration Date: Apr 22, 2021

Certification performed in accordance with "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards (May 2012)" document EPA 600/R-12/531, using the assay procedures listed. Analytical Methodology does not require correction for analytical interference. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted.

Do Not Use This Cylinder below 100 psig, i.e. 0.7 megapascals.

ANALYTICAL RESULTS

Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty	Assay Dates
OXYGEN	10.00 %	10.07 %	G1	+/- 0.7% NIST Traceable	04/22/2013
NITROGEN	Balance				

CALIBRATION STANDARDS

Type	Lot ID	Cylinder No	Concentration	Uncertainty	Expiration Date
NTRM	8265818	SG9163064BAL	9.507 % OXYGEN/NITROGEN	+/- 0.6%	Dec 01, 2015

ANALYTICAL EQUIPMENT

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Horiba MPA510 O2 41499150042	Paramagnetic	Apr 09, 2013

Triad Data Available Upon Request

Notes:

Signature on file

Approved for Release

Airgas

Airgas Specialty Gases
630 United Drive
Durham, NC 27713
(919)544-3773 Fax: (919)544-3774
www.airgas.com

CERTIFICATE OF ANALYSIS
Grade of Product: EPA Protocol

Part Number:	E02NI95E15A3186	Reference Number:	122-124395700-1
Cylinder Number:	XC025367B	Cylinder Volume:	144.8 CF
Laboratory:	ASG - Durham - NC	Cylinder Pressure:	2015 PSIG
PGVP Number:	B22013	Valve Outlet:	580
Gas Code:	O2,BALN	Certification Date:	Sep 23, 2013

Expiration Date: Sep 23, 2021

Certification performed in accordance with "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards (May 2012)" document EPA 600/R-12/531, using the assay procedures listed. Analytical Methodology does not require correction for analytical interference. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted.

Do Not Use This Cylinder below 100 psig, i.e. 0.7 megapascals.

ANALYTICAL RESULTS

Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty	Assay Dates
OXYGEN	5.000 %	4.998 %	G1	+/- 0.5% NIST Traceable	09/23/2013
NITROGEN	Balance				

CALIBRATION STANDARDS

Type	Lot ID	Cylinder No	Concentration	Uncertainty	Expiration Date
NTRM	11060715	CC338174	4.861 % OXYGEN/NITROGEN	+/- 0.4%	Jan 21, 2017

ANALYTICAL EQUIPMENT

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Horiba MPA510 O2 41499150042	Paramagnetic	Sep 29, 2013

Triad Data Available Upon Request

Notes

C.S. Williams

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CERTIFICATE OF ANALYSIS
Grade of Product: EPA Protocol

Part Number:	E02NI99E15A0280	Reference Number:	122-124417724-1
Cylinder Number:	CC320495	Cylinder Volume:	144.4 CF
Laboratory:	ASG - Durham - NC	Cylinder Pressure:	2015 PSIG
PGVP Number:	B22014	Valve Outlet:	660
Gas Code:	SO2,BALN	Certification Date:	Feb 11, 2014

Expiration Date: Feb 11, 2022

Certification performed in accordance with "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards (May 2012)" document EPA 600/R-12/531, using the assay procedures listed. Analytical Methodology does not require correction for analytical interference. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted.

Do Not Use This Cylinder below 100 psig, i.e. 0.7 megapascals.

ANALYTICAL RESULTS

Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty	Assay Dates
SULFUR DIOXIDE	135.0 PPM	138.6 PPM	G1	+/- 1.0% NIST Traceable	02/04/2014, 02/11/2014
NITROGEN	Balance				

CALIBRATION STANDARDS

Type	Lot ID	Cylinder No	Concentration	Uncertainty	Expiration Date
NTRM	11060845	CC341882	241.0 PPM SULFUR DIOXIDE/NITROGEN	+/- 0.9%	May 13, 2017

ANALYTICAL EQUIPMENT

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Nicolet 6700 AHR0801549 SO2	FTIR	Jan 17, 2014

Triad Data Available Upon Request

Notes:

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CERTIFICATE OF ANALYSIS
Grade of Product: EPA Protocol

Part Number:	E02NI99E15A3645	Reference Number:	122-124417725-1
Cylinder Number:	CC208494	Cylinder Volume:	144.4 CF
Laboratory:	ASG - Durham - NC	Cylinder Pressure:	2015 PSIG
PGVP Number:	B22014	Valve Outlet:	660
Gas Code:	SO2,BALN	Certification Date:	Feb 14, 2014

Expiration Date: Feb 14, 2022

Certification performed in accordance with "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards (May 2012)" document EPA 600/R-12/531, using the assay procedures listed. Analytical Methodology does not require correction for analytical interference. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted.

Do Not Use This Cylinder below 100 psig, i.e. 0.7 megapascals.

ANALYTICAL RESULTS

Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty	Assay Dates
SULFUR DIOXIDE	65.00 PPM	63.40 PPM	G1	+/- 1.0% NIST Traceable	02/05/2014, 02/14/2014
NITROGEN	Balance				

CALIBRATION STANDARDS

Type	Lot ID	Cylinder No	Concentration	Uncertainty	Expiration Date
NTRM	11060219	CC281084	49.67 PPM SULFUR DIOXIDE/NITROGEN	+/- 1.2%	May 13, 2017
NTRM	11060239	CC284796	49.67 PPM SULFUR DIOXIDE/NITROGEN	+/- 1.2%	May 13, 2017

ANALYTICAL EQUIPMENT

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Nicolet 6700 AHR0801333 SO2	FTIR	Jan 31, 2014

Triad Data Available Upon Request

Notes:

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630 United Drive
Durham, NC 27713
(919)544-3773 Fax: (919)544-3774
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CERTIFICATE OF ANALYSIS
Grade of Product: EPA Protocol

Part Number:	E03NI99E15A6HM7	Reference Number:	122-124406641-1
Cylinder Number:	CC65695	Cylinder Volume:	144.4 CF
Laboratory:	ASG - Durham - NC	Cylinder Pressure:	2015 PSIG
PGVP Number:	B22013	Valve Outlet:	660
Gas Code:	CO,NO,BALN	Certification Date:	Dec 02, 2013

Expiration Date: Dec 02, 2021

Certification performed in accordance with "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards (May 2012)" document EPA 600/R-12/531, using the assay procedures listed. Analytical Methodology does not require correction for analytical interference. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted.

Do Not Use This Cylinder below 100 psig, i.e. 0.7 megapascals.

ANALYTICAL RESULTS

Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty	Assay Dates
NOX	283.0 PPM	284.7 PPM	G1	+/- 0.7% NIST Traceable	11/25/2013, 12/02/2013
NITRIC OXIDE	283.0 PPM	283.8 PPM	G1	+/- 0.7% NIST Traceable	11/25/2013, 12/02/2013
CARBON MONOXIDE	600.0 PPM	587.6 PPM	G1	+/- 0.6% NIST Traceable	11/25/2013
NITROGEN	Balance				

CALIBRATION STANDARDS

Type	Lot ID	Cylinder No	Concentration	Uncertainty	Expiration Date
NTRM	12061940	CC367662	250.8 PPM NITRIC OXIDE/NITROGEN	+/- 0.5%	May 04, 2018
PRM	PRM	680179	10.01 PPM NITROGEN DIOXIDE/NITROGEN	+/- 2.0%	Feb 14, 2012
GMIS	GMIS	CC323701	4.761 PPM NITROGEN DIOXIDE/NITROGEN	+/- 2.0%	Aug 17, 2015
NTRM	11060314	CC166818	988.8 PPM CARBON MONOXIDE/NITROGEN	+/- 0.4%	Dec 13, 2016

The SRM or PRM noted above is only in reference to the GMIS used in the assay and not part of the analysis.

ANALYTICAL EQUIPMENT

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Nicolet 6700 AHR0801549 CO	FTIR	Nov 21, 2013
Nicolet 6700 AHR0801549 NO	FTIR	Nov 21, 2013
Nicolet 6700 AHR0801549 NO	FTIR	Nov 21, 2013

Triad Data Available Upon Request

Notes:

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Airgas Specialty Gases
630 United Drive
Durham , NC 27713
919-544-3773 Fax: 919-544-3774
www.airgas.com

CERTIFICATE OF ANALYSIS
Grade of Product: EPA Protocol

Part Number:	E03NI99E15A02G9	Reference Number:	122-124417716-1
Cylinder Number:	CC16093	Cylinder Volume:	144.4 CF
Laboratory:	ASG - Durham - NC	Cylinder Pressure:	2015 PSIG
PGVP Number:	B22014	Valve Outlet:	660
Gas Code:	CO,NO,BALN	Certification Date:	Feb 11, 2014

Expiration Date: Feb 11, 2022

Certification performed in accordance with "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards (May 2012)" document EPA 600/R-12/531, using the assay procedures listed. Analytical Methodology does not require correction for analytical interference. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted.

Do Not Use This Cylinder below 100 psig, i.e. 0.7 megapascals.

ANALYTICAL RESULTS

Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty	Assay Dates
NOX	275.0 PPM	269.7 PPM	G1	+/- 0.6% NIST Traceable	02/04/2014, 02/11/2014
CARBON MONOXIDE	275.0 PPM	274.4 PPM	G1	+/- 0.6% NIST Traceable	02/04/2014
NITRIC OXIDE	275.0 PPM	269.0 PPM	G1	+/- 0.6% NIST Traceable	02/04/2014, 02/11/2014
NITROGEN	Balance				

CALIBRATION STANDARDS

Type	Lot ID	Cylinder No	Concentration	Uncertainty	Expiration Date
NTRM	12060304	CC353916	249.3 PPM CARBON MONOXIDE/NITROGEN	+/- 0.4%	Oct 26, 2017
PRM	12328	680179	10.01 PPM NITROGEN DIOXIDE/NITROGEN	+/- 2.0%	Feb 14, 2012
NTRM	12061904	CC367427	250.6 PPM NITRIC OXIDE/NITROGEN	+/- 0.5%	May 04, 2016
NTRM	12061905	CC367439	250.8 PPM NITRIC OXIDE/NITROGEN	+/- 0.5%	May 04, 2018
GMIS	124206889135	CC323701	4.761 PPM NITROGEN DIOXIDE/NITROGEN	+/- 2.0%	Aug 17, 2015
GMIS	124206889107	CC322685	4.958 PPM NITROGEN DIOXIDE/NITROGEN	+/- 2.0%	Dec 12, 2015

The SRM, PRM or RGM noted above is only in reference to the GMIS used in the assay and not part of the analysis.

ANALYTICAL EQUIPMENT

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Nicolet 6700 AHR0801549 CO	FTIR	Jan 17, 2014
Nicolet 6700 AHR0801333 NO	FTIR	Jan 31, 2014
Nicolet 6700 AHR0801333 NO2	FTIR	Jan 31, 2014

Triad Data Available Upon Request

Notes:

Approved for Release

Airgas

Airgas Specialty Gases
630 United Drive
Durham , NC 27713
919-544-3773 Fax: 919-544-3774
www.airgas.com

CERTIFICATE OF ANALYSIS
Grade of Product: EPA Protocol

Part Number:	E03NI99E15A0362	Reference Number:	122-124417714-1
Cylinder Number:	CC216262	Cylinder Volume:	144.4 CF
Laboratory:	ASG - Durham - NC	Cylinder Pressure:	2015 PSIG
PGVP Number:	B22014	Valve Outlet:	660
Gas Code:	CO,NO,BALN	Certification Date:	Feb 11, 2014

Expiration Date: Feb 11, 2022

Certification performed in accordance with "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards (May 2012)" document EPA 600/R-12/531, using the assay procedures listed. Analytical Methodology does not require correction for analytical interference. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted.

Do Not Use This Cylinder below 100 psig, i.e. 0.7 megapascals.

ANALYTICAL RESULTS

Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty	Assay Dates
NOX	125.0 PPM	128.8 PPM	G1	+/- 1.1% NIST Traceable	02/04/2014, 02/11/2014
CARBON MONOXIDE	125.0 PPM	123.6 PPM	G1	+/- 0.8% NIST Traceable	02/04/2014
NITRIC OXIDE	125.0 PPM	127.8 PPM	G1	+/- 1.0% NIST Traceable	02/04/2014, 02/11/2014
NITROGEN	Balance				

CALIBRATION STANDARDS

Type	Lot ID	Cylinder No	Concentration	Uncertainty	Expiration Date
NTRM	12062203	CC126005	97.55 PPM CARBON MONOXIDE/NITROGEN	+/- 0.6%	May 25, 2018
PRM	12328	680179	10.01 PPM NITROGEN DIOXIDE/NITROGEN	+/- 2.0%	Feb 14, 2012
NTRM	13061039	CC423413	99.86 PPM NITRIC OXIDE/NITROGEN	+/- 0.8%	Nov 19, 2019
GMIS	124206889135	CC323701	4.761 PPM NITROGEN DIOXIDE/NITROGEN	+/- 2.0%	Aug 17, 2015

The SRM, PRM or RGM noted above is only in reference to the GMIS used in the assay and not part of the analysis.

ANALYTICAL EQUIPMENT

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Nicolet 6700 AHR0801549 CO	FTIR	Jan 17, 2014
Nicolet 6700 AHR0801549 NO	FTIR	Jan 17, 2014
Nicolet 6700 AHR0801549 NO	FTIR	Jan 17, 2014

Triad Data Available Upon Request

Notes:

Approved for Release

CERTIFICATE OF ANALYSIS
Grade of Product: EPA Protocol

Part Number:	E02NI99E15AC1Q6	Reference Number:	122-124373614-1
Cylinder Number:	CC287378	Cylinder Volume:	144.3 CF
Laboratory:	ASG - Durham - NC	Cylinder Pressure:	2015 PSIG
PGVP Number:	B22013	Valve Outlet:	660
Gas Code:	NO,BALN	Certification Date:	May 16, 2013

Expiration Date: May 16, 2021

Certification performed in accordance with "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards (May 2012)" document EPA 600/R-12/531, using the assay procedures listed. Analytical Methodology does not require correction for analytical interference. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted

Do Not Use This Cylinder below 100 psig, i.e. 0.7 megapascals.

ANALYTICAL RESULTS

Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty	Assay Dates
NOX	110.0 PPM	113.4 PPM	G1	+/- 0.9% NIST Traceable	05/08/2013, 05/16/2013
NITRIC OXIDE	110.0 PPM	112.7 PPM	G1	+/- 0.9% NIST Traceable	05/08/2013, 05/16/2013
NITROGEN	Balance				

CALIBRATION STANDARDS

Type	Lot ID	Cylinder No	Concentration	Uncertainty	Expiration Date
NTRM	11060530	CC331273	101.2 PPM NITRIC OXIDE/NITROGEN	+/- 0.5%	Feb 16, 2017
PRM	PRM	680179	10.01 PPM NITROGEN DIOXIDE/NITROGEN	+/- 2.0%	Feb 14, 2012
NTRM	11060530	CC331660	101.2 PPM NITRIC OXIDE/NITROGEN	+/- 0.5%	Feb 16, 2017
GMIS	GMIS	CC323701	4.761 PPM NITROGEN DIOXIDE/NITROGEN	+/- 2.0%	Sep 17, 2015

The SRM, PRM or RGM noted above is only in reference to the GMIS used in the assay and not part of the analysis

ANALYTICAL EQUIPMENT

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Nicolet 6700 AHR0801549 NO	FTIR	May 10, 2013
Nicolet 6700 AHR0801549 NO	FTIR	May 10, 2013

Triad Data Available Upon Request

Permanent Notes:CHEVRON ON CERT/LABEL:
SAP# 10624484 1544ANCEMS CGA NOX HIGH

Notes:CHEVRON SAP#10624484
1544ANCEMS,CGA NOX HIGH

Signature on file

Approved for Release

Airgas

Airgas Specialty Gases
630 United Drive
Durham , NC 27713
919-544-3773 Fax: 919-544-3774
www.airgas.com

CERTIFICATE OF ANALYSIS
Grade of Product: EPA Protocol

Part Number:	E03NI99E15A00M8	Reference Number:	122-124417726-1
Cylinder Number:	CC213571	Cylinder Volume:	144.3 CF
Laboratory:	ASG - Durham - NC	Cylinder Pressure:	2015 PSIG
PGVP Number:	B22014	Valve Outlet:	660
Gas Code:	CO,NO,BALN	Certification Date:	Feb 11, 2014

Expiration Date: Feb 11, 2017

Certification performed in accordance with "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards (May 2012)" document EPA 600/R-12/531, using the assay procedures listed. Analytical Methodology does not require correction for analytical interference. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted.

Do Not Use This Cylinder below 100 psig, i.e. 0.7 megapascals.

ANALYTICAL RESULTS

Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty	Assay Dates
NOX	50.00 PPM	50.13 PPM	G1	+/- 0.9% NIST Traceable	02/04/2014, 02/11/2014
NITRIC OXIDE	50.00 PPM	49.76 PPM	G1	+/- 0.9% NIST Traceable	02/04/2014, 02/11/2014
CARBON MONOXIDE	125.0 PPM	123.3 PPM	G1	+/- 0.8% NIST Traceable	02/04/2014
NITROGEN	Balance				

CALIBRATION STANDARDS

Type	Lot ID	Cylinder No	Concentration	Uncertainty	Expiration Date
NTRM	13061232	CC403925	49.40 PPM NITRIC OXIDE/NITROGEN	+/- 0.8%	Nov 19, 2019
PRM	12328	680179	10.01 PPM NITROGEN DIOXIDE/NITROGEN	+/- 2.0%	Feb 14, 2012
GMIS	124206889135	CC323701	4.761 PPM NITROGEN DIOXIDE/NITROGEN	+/- 2.0%	Aug 17, 2015
NTRM	12062203	CC128005	97.56 PPM CARBON MONOXIDE/NITROGEN	+/- 0.6%	May 25, 2018

The SRM, PRM or RGM noted above is only in reference to the GMIS used in the assay and not part of the analysis.

ANALYTICAL EQUIPMENT

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Nicolet 6700 AHR0801549 CO	FTIR	Jan 17, 2014
Nicolet 6700 AHR0801549 NO	FTIR	Jan 17, 2014
Nicolet 6700 AHR0801549 NO	FTIR	Jan 17, 2014

Triad Data Available Upon Request

Notes:

Approved for Release

Airgas

Airgas Specialty Gases
630 United Drive
Durham, NC 27713
(919)544-3773 Fax: (919)544-3774
www.airgas.com

CERTIFICATE OF ANALYSIS
Grade of Product: EPA Protocol

Part Number:	E02NI99E15A0160	Reference Number:	122-124406408-1
Cylinder Number:	CC215867	Cylinder Volume:	144.4 CF
Laboratory:	ASG - Durham - NC	Cylinder Pressure:	2015 PSIG
PGVP Number:	B22013	Valve Outlet:	330
Gas Code:	H2S,BALN	Certification Date:	Dec 03, 2013

Expiration Date: Dec 03, 2016

Certification performed in accordance with "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards (May 2012)" document EPA 600/R-12/531, using the assay procedures listed. Analytical Methodology does not require correction for analytical interference. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted.

Do Not Use This Cylinder below 100 psig, i.e. 0.7 megapascals.

ANALYTICAL RESULTS

Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty	Assay Dates
HYDROGEN SULFIDE	165.0 PPM	167.6 PPM	G1	+/- 1.1%	11/26/2013, 12/03/2013
NITROGEN	Balance				

CALIBRATION STANDARDS

Type	Lot ID	Cylinder No	Concentration	Uncertainty	Expiration Date
GMIS	GMIS	CC281702	100.6 PPM HYDROGEN SULFIDE/NITROGEN	+/- 1.1%	Mar 09, 2015
PRM	PRM	D248570	100.1 PPM HYDROGEN SULFIDE/NITROGEN	+/- 1.0%	Feb 01, 2013

The SRM or PRM noted above is only in reference to the GMIS used in the assay and not part of the analysis.

ANALYTICAL EQUIPMENT

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Ametek 9000 H2S (0-200 ppm)	Ultraviolet	Nov 21, 2013

Triad Data Available Upon Request

Notes:

Approved for Release

Airgas

CERTIFICATE OF ANALYSIS
Grade of Product: EPA Protocol

Part Number:	E02NI99E15A00Y1	Reference Number:	122-124409625-1
Cylinder Number:	CC354912	Cylinder Volume:	144.4 CF
Laboratory:	ASG - Durham - NC	Cylinder Pressure:	2015 PSIG
PGVP Number:	B22013	Valve Outlet:	330
		Certification Date:	Dec 26, 2013

Expiration Date: Dec 26, 2016

Certification performed in accordance with "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards (May 2012)" document EPA 600/R-12/531, using the assay procedures listed. Analytical Methodology does not require correction for analytical interference. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted.

Do Not Use This Cylinder below 100 psig, i.e. 0.7 megapascals.

ANALYTICAL RESULTS

Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty	Assay Dates
HYDROGEN SULFIDE	65.00 PPM	65.39 PPM	G1	+/- 1.1% NIST Traceable	12/17/2013, 12/26/2013
NITROGEN	Balance				

CALIBRATION STANDARDS

Type	Lot ID	Cylinder No	Concentration	Uncertainty	Expiration Date
GMIS	GMIS	CC315775	74.80 PPM HYDROGEN SULFIDE/NITROGEN	+/- 0.8%	Dec 06, 2015
PRM	PRM	D248570	100.1 PPM HYDROGEN SULFIDE/NITROGEN	+/- 1.0%	Feb 01, 2013

The SRM, PRM or RGM noted above is only in reference to the GMIS used in the assay and not part of the analysis.

ANALYTICAL EQUIPMENT

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Ametek 9000 H2S (0-200 ppm)	Ultraviolet	Dec 19, 2013

Triad Data Available Upon Request

Notes:

Signature on file

Approved for Release

GOLDEN SPECIALTY

Air Quality Test Report

APPENDIX B – Boiler No. 1 CGA Results

CYLINDER GAS AUDIT (CGA) ASSESSMENT DATA SHEET

Company: Valero Refining-Texas, L.P.
Location: Houston, TX
Source: Boiler No. 1
CEMS type: O_2
Audit Date: March 3, 2014
Project No.: VALHR-14-0193

Analyzer Info
Manufacturer: Servomex
Model No: 1440
Range (%): 0 - 25 %
Serial No.: 01440DIV02/3659
Personnel.: CB/JJ

$$\text{Accuracy} = \left(\frac{C_m - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

	Response
Trial No. 1:	5.02
Trial No. 2:	5.03
Trial No. 3:	5.03
Average (C_m) :	5.03

Gas type: Protocol
Concentration (C_a): 4.998 %
Tank serial #: XC025367B
Expiration Date: September 23, 2021

Accuracy %: 0.57

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

	Response
Trial No. 1:	10.16
Trial No. 2:	10.17
Trial No. 3:	10.16
Average (C_m) :	10.16

Gas type: Protocol
Concentration (C_a): 10.07 %
Tank serial #: CC432504
Expiration Date: April 22, 2021

Accuracy %: 0.93

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value, ± 5 ppm, or ≤ 0.7% O_2 or CO_2

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Company: Valero Refining-Texas, L.P.
Location: Houston, TX
Source: Boiler No. 1
CEMS type: NO_x
Audit Date: March 3, 2014
Project No.: VALHR-14-0193

Analyzer Info
Manufacturer: TECO
Model No: 42C LS
Range (ppm): 0 - 500 ppm
Serial No.: 0432408934
Personnel.: CB/JJ

$$\text{Accuracy} = \left(\frac{C_m - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

	Response
Trial No. 1:	123.19
Trial No. 2:	129.80
Trial No. 3:	131.16
Average (C_m) :	128.05

Gas type: Protocol
Concentration (C_a): 128.8 ppm
Tank serial #: CC216262
Expiration Date: February 11, 2022

Accuracy %: -0.58

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

	Response
Trial No. 1:	274.08
Trial No. 2:	277.43
Trial No. 3:	277.86
Average (C_m) :	276.46

Gas type: Protocol
Concentration (C_a): 269.7 ppm
Tank serial #: CC16093
Expiration Date: February 11, 2022

Accuracy %: 2.51

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value, ± 5 ppm, or ≤ 0.7% O_2 or CO_2

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Company: Valero Refining-Texas, L.P.
Location: Houston, TX
Source: Boiler No. 1
CEMS type: CO
Audit Date: March 3, 2014
Project No.: VALHR-14-0193

Analyzer Info
Manufacturer: TECO
Model No: 48C
Range (ppm): 0 - 500 ppm
Serial No.: 0432408935
Personnel.: CB/JJ

$$\text{Accuracy} = \left(\frac{C_m - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

	Response
Trial No. 1:	125.79
Trial No. 2:	126.25
Trial No. 3:	126.20
Average (C_m) :	126.08

Gas type: Protocol
Concentration (C_a): 123.6 ppm
Tank serial #: CC216262
Expiration Date: February 11, 2022

Accuracy %: 2.01

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

	Response
Trial No. 1:	276.68
Trial No. 2:	276.66
Trial No. 3:	276.67
Average (C_m) :	276.67

Gas type: Protocol
Concentration (C_a): 274.4 ppm
Tank serial #: CC16093
Expiration Date: February 11, 2022

Accuracy %: 0.83

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value, ± 5 ppm, or ≤ 0.7% O_2 or CO_2

FORM# GSC-WP004-001
REV 2013-01, EFF 3/1/13

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Valero

Company: Refining-Texas, L.P. **Analyzer Info**
Location: Houston, TX **Manufacturer:** Servomex
Source: Boiler No. 1 **Model No:** 1440
CEMS type: O2 **Range (ppm/%):** 0-25%
Audit Date: 3-3-14 **Serial No.:** 01440DIV02/3659
Time Period: 1000-1125 **Personnel:** CB, JJ
Project No.: VALHR140193

$$\text{Accuracy} = \left(\frac{\overline{C_m} - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

Response

Trial No. 1: 5.02
Trial No. 2: 5.03
Trial No. 3: 5.03
Average (C_m): 5.027

Gas type: Protocol
Concentration (C_a): 4.998 ppm/%
Cylinder serial #: XC025367B
Expiration Date: 9-23-2021

Accuracy %: 0.60 CB 3-3-14 0.57 CB 3-3-14

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

Response

Trial No. 1: 10.16
Trial No. 2: 10.17
Trial No. 3: 10.16
Average (C_m): 10.16

Gas type: Protocol
Concentration (C_a): 10.07 ppm/%
Cylinder serial #: CC432504
Expiration Date: 4-22-2021

Accuracy %: 0.89 CB 3-3-14 92

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value or +/- 5 ppm

FORM# GSC-WP004-001
REV 2013-01, EFF 3/1/13

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Valero

Company: Refining-Texas, L.P. **Analyzer Info**
Location: Houston, TX **Manufacturer:** TECO
Source: Boiler No. 1 **Model No:** 42C LS
CEMS type: NOx **Range (ppm/%):** 0-500 ppm
Audit Date: 3-3-14 **Serial No.:** 0432408934
Time Period: 1000-1125 **Personnel:** CB, JJ
Project No.: VALHR140193

$$\text{Accuracy} = \left(\frac{\overline{C_m} - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

Response

Trial No. 1: 123.19
Trial No. 2: 129.80
Trial No. 3: 131.16
Average (C_m): 128.05

Gas type: Protocol
Concentration (C_a): 128.8 ppm/%
Cylinder serial #: CC216262
Expiration Date: 2-11-2022

Accuracy %: -0.58

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

Response

Trial No. 1: 274.08
Trial No. 2: 277.43
Trial No. 3: 277.86
Average (C_m): 276.45

Gas type: Protocol
Concentration (C_a): 269.7 ppm/%
Cylinder serial #: CC160093
Expiration Date: 2-11-2022

Accuracy %: 2.50

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value or +/- 5 ppm

FORM# GSC-WP004-001
REV 2013-01, EFF 3/1/13

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Valero

Company: Refining-Texas, L.P. **Analyzer Info**
Location: Houston, TX **Manufacturer:** TECO
Source: Boiler No. 1 **Model No:** 48C
CEMS type: CO **Range (ppm/%):** 0-500 ppm
Audit Date: 3-3-14 **Serial No.:** 0432408935
Time Period: 1000-1125 **Personnel:** CB, JJ
Project No.: VALHRM0193

$$\text{Accuracy} = \left(\frac{\overline{C_m} - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

Response

Trial No. 1: 125.79
Trial No. 2: 126.25
Trial No. 3: 126.20
Average (C_m): 126.08

Gas type: Protocol
Concentration (C_a): 123.6 ppm/%
Cylinder serial #: CC216262
Expiration Date: 2-11-2022

Accuracy %: 2.00

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

Response

Trial No. 1: 276.68
Trial No. 2: 276.66
Trial No. 3: 276.67
Average (C_m): 276.67

Gas type: Protocol
Concentration (C_a): 279.9 ppm/%
Cylinder serial #: CC16093
Expiration Date: 2-11-2022

Accuracy %: 0.82

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value or +/- 5 ppm

reports bf01 cga 3-3-14

REALTIME DATA SAMPLES AND AVERAGES REPORT
Cirrus - Process Analysts, Inc.

Title: BF01 CGA 3-3-14
Sample Interval: 10 seconds
Average Interval: 60 seconds

Date	Time	81BF01-O2 % dry	81BF01-NOx ppm dry	81BF01-CO ppm dry		
14-03-03	09:23:20	2.19294	5.75859	28.11080	0.00000	0.00000
14-03-03	09:24:20	2.29859	5.83421	22.10014	0.00000	0.00000
14-03-03	09:25:20	2.38697	6.25017	12.17868	0.00000	0.00000
14-03-03	09:26:20	2.36239	6.27178	19.36567	0.00000	0.00000
14-03-03	09:27:20	2.31349	6.26638	19.70103	0.00000	0.00000
14-03-03	09:28:20	2.22615	6.27178	21.58936	0.00000	0.00000
14-03-03	09:29:20	2.28839	6.25557	24.06585	0.00000	0.00000
14-03-03	09:30:20	2.32343	6.27718	17.62697	0.00000	0.00000
14-03-03	09:31:20	2.31977	6.26638	18.30284	0.00000	0.00000
14-03-03	09:32:20	2.26014	6.27178	22.76569	0.00000	0.00000
14-03-03	09:33:20	2.21098	6.27178	23.42093	0.00000	0.00000
14-03-03	09:34:20	2.32630	6.25557	18.02940	0.00000	0.00000
14-03-03	09:35:20	2.33860	6.27718	13.21055	0.00000	0.00000
14-03-03	09:36:20	2.42149	6.26098	15.29494	0.00000	0.00000
14-03-03	09:37:20	2.43901	6.25557	11.02298	0.00000	0.00000
14-03-03	09:38:20	2.28185	6.09891	12.25091	0.00000	0.00000
14-03-03	09:39:20	2.45679	6.25557	22.61091	0.00000	0.00000
14-03-03	09:40:20	2.71019	6.25557	11.91555	0.00000	0.00000
14-03-03	09:41:20	2.41051	6.81199	12.65850	0.00000	0.00000
14-03-03	09:42:20	2.39874	6.78497	18.30800	0.00000	0.00000
14-03-03	09:43:20	2.30878	6.79578	19.20057	0.00000	0.00000
14-03-03	09:44:20	2.14654	6.67967	25.10776	0.00000	0.00000
14-03-03	09:45:20	10.38333	15.73958	37.64583	0.00000	0.00000
14-03-03	09:46:20	20.74193	21.51042	25.47396	0.00000	0.00000
14-03-03	09:47:20	20.90026	0.41667	3.20833	0.00000	0.00000
14-03-03	09:48:20	20.92787	0.07813	3.14062	0.00000	0.00000
14-03-03	09:49:20	6.83125	43.86458	63.55729	0.00000	0.00000
14-03-03	09:50:20	-0.06068	363.54687	395.31250	0.00000	0.00000
14-03-03	09:51:20	-0.09375	408.52083	408.76042	0.00000	0.00000
14-03-03	09:52:20	-0.10729	411.13021	408.57812	0.00000	0.00000
14-03-03	09:53:20	0.62813	393.13021	396.72917	0.00000	0.00000
14-03-03	09:54:20	2.80516	99.08681	80.79236	0.00000	0.00000
14-03-03	09:55:20	2.58676	7.98126	6.53949	0.00000	0.00000
14-03-03	09:56:20	1.99603	7.88293	32.91416	0.00000	0.00000
14-03-03	09:57:20	1.98844	7.73803	55.46058	0.00000	0.00000
14-03-03	09:58:20	2.09880	7.33955	37.10873	0.00000	0.00000
14-03-03	09:59:20	2.01250	6.98247	37.54211	0.00000	0.00000
14-03-03	10:00:20	1.96020	6.64609	55.12523	0.00000	0.00000
14-03-03	10:01:20	2.18405	6.30971	30.50474	0.00000	0.00000
14-03-03	10:02:20	2.40711	6.32006	19.53593	0.00000	0.00000
14-03-03	10:03:20	2.29414	5.95781	18.38539	0.00000	0.00000
14-03-03	10:04:20	2.24419	5.82325	17.71468	0.00000	0.00000
14-03-03	10:05:20	2.32474	5.78703	20.92380	0.00000	0.00000
14-03-03	10:06:20	2.64325	5.80773	10.77533	0.00000	0.00000
14-03-03	10:07:20	2.78184	5.86465	5.81202	0.00000	0.00000
14-03-03	10:08:20	3.24627	25.22461	13.78324	0.00000	0.00000
14-03-03	10:09:20	5.00775	33.43745	29.47287	0.00000	0.00000
14-03-03	10:10:20	5.01534	0.29627	0.09287	0.00000	0.00000
14-03-03	10:11:20	5.02004	0.15590	0.01161	0.00000	0.00000
14-03-03	10:12:20	5.02135	0.00000	0.01677	0.00000	0.00000
14-03-03	10:13:20	5.02266	0.00000	0.00903	0.00000	0.00000

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14-03-03 10:14:20	8.63349	0.00000	0.00387	0.00000	0.00000
14-03-03 10:15:20	10.14393	0.09703	0.01161	0.00000	0.00000
14-03-03 10:16:20	10.15282	0.00000	0.02193	0.00000	0.00000
14-03-03 10:17:20	10.15831	0.00000	0.01548	0.00000	0.00000
14-03-03 10:18:20	10.16119	0.00000	0.01548	0.00000	0.00000
14-03-03 10:19:20	10.16406	0.00000	0.02193	0.00000	0.00000
14-03-03 10:20:20	6.28441	0.00000	0.01161	0.00000	0.00000
14-03-03 10:21:20	5.04410	0.00000	0.02322	0.00000	0.00000
14-03-03 10:22:20	5.03966	0.00000	0.01677	0.00000	0.00000
14-03-03 10:23:20	5.03521	0.00000	0.02838	0.00000	0.00000
14-03-03 10:24:20	5.03364	0.00000	0.03741	0.00000	0.00000
14-03-03 10:25:20	5.03050	0.00000	0.01677	0.00000	0.00000
14-03-03 10:26:20	8.92637	0.00000	0.01419	0.00000	0.00000
14-03-03 10:27:20	10.15204	0.00000	0.02709	0.00000	0.00000
14-03-03 10:28:20	10.16145	0.00000	0.01419	0.00000	0.00000
14-03-03 10:29:20	10.16563	0.00000	0.02451	0.00000	0.00000
14-03-03 10:30:20	10.17060	0.00000	0.01548	0.00000	0.00000
14-03-03 10:31:20	10.17008	-0.02911	0.00903	0.00000	0.00000
14-03-03 10:32:20	6.27892	0.00000	0.01677	0.00000	0.00000
14-03-03 10:33:20	5.04829	0.00000	0.00903	0.00000	0.00000
14-03-03 10:34:20	5.04018	0.00000	0.01677	0.00000	0.00000
14-03-03 10:35:20	5.03626	0.00000	0.02709	0.00000	0.00000
14-03-03 10:36:20	5.03469	0.00000	0.01290	0.00000	0.00000
14-03-03 10:37:20	5.03286	0.00000	0.01032	0.00000	0.00000
14-03-03 10:38:20	9.11099	0.00000	0.02193	0.00000	0.00000
14-03-03 10:39:20	10.15648	0.00000	0.02580	0.00000	0.00000
14-03-03 10:40:20	10.16459	0.00000	0.01032	0.00000	0.00000
14-03-03 10:41:20	10.16537	0.00000	0.03354	0.00000	0.00000
14-03-03 10:42:20	10.16825	0.00000	0.00903	0.00000	0.00000
14-03-03 10:43:20	10.16982	0.00000	0.02580	0.00000	0.00000
14-03-03 10:44:20	4.45494	11.03908	14.14827	0.00000	0.00000
14-03-03 10:45:20	0.00304	111.02736	117.21817	0.00000	0.00000
14-03-03 10:46:20	0.00000	119.01767	125.52990	0.00000	0.00000
14-03-03 10:47:20	0.00000	120.64783	125.80335	0.00000	0.00000
14-03-03 10:48:20	0.00000	121.84844	125.80851	0.00000	0.00000
14-03-03 10:49:20	0.00000	123.19396	125.79819	0.00000	0.00000
14-03-03 10:50:20	0.00000	124.29108	125.79819	0.00000	0.00000
14-03-03 10:51:20	0.32809	125.68835	126.37088	0.00000	0.00000
14-03-03 10:52:20	0.01329	204.70657	221.99453	0.00000	0.00000
14-03-03 10:53:20	0.00000	268.99134	276.42066	0.00000	0.00000
14-03-03 10:54:20	0.00000	271.24767	276.66315	0.00000	0.00000
14-03-03 10:55:20	0.00000	273.00720	276.67346	0.00000	0.00000
14-03-03 10:56:20	0.00000	274.08362	276.68378	0.00000	0.00000
14-03-03 10:57:20	0.00000	274.77191	276.82309	0.00000	0.00000
14-03-03 10:58:20	0.00000	271.53231	274.02156	0.00000	0.00000
14-03-03 10:59:20	0.00000	156.80607	162.17172	0.00000	0.00000
14-03-03 11:00:20	0.00000	130.18549	126.30381	0.00000	0.00000
14-03-03 11:01:20	0.00000	129.78701	126.24190	0.00000	0.00000
14-03-03 11:02:20	0.00000	129.79736	126.24190	0.00000	0.00000
14-03-03 11:03:20	0.00000	129.80771	126.25738	0.00000	0.00000
14-03-03 11:04:20	0.00000	129.82324	125.99425	0.00000	0.00000
14-03-03 11:05:20	0.00000	176.78187	167.24853	0.00000	0.00000
14-03-03 11:06:20	0.00000	271.91526	274.05767	0.00000	0.00000
14-03-03 11:07:20	0.00000	276.41758	276.40518	0.00000	0.00000
14-03-03 11:08:20	0.00000	277.26628	276.58060	0.00000	0.00000
14-03-03 11:09:20	0.00000	277.43705	276.66315	0.00000	0.00000
14-03-03 11:10:20	0.00000	278.10465	276.67346	0.00000	0.00000
14-03-03 11:11:20	0.00000	245.23775	252.56376	0.00000	0.00000
14-03-03 11:12:20	0.00000	135.01901	137.41192	0.00000	0.00000
14-03-03 11:13:20	0.00000	131.67591	126.26769	0.00000	0.00000
14-03-03 11:14:20	0.00000	131.35506	126.26254	0.00000	0.00000
14-03-03 11:15:20	0.00000	131.16358	126.20578	0.00000	0.00000
14-03-03 11:16:20	0.00000	131.34988	126.19546	0.00000	0.00000

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14-03-03 11:17:20	0.00000	143.36123	136.17884	0.00000	0.00000
14-03-03 11:18:20	0.00000	267.56820	258.82723	0.00000	0.00000
14-03-03 11:19:20	0.00000	277.43188	276.41034	0.00000	0.00000
14-03-03 11:20:20	0.00000	277.84589	276.66830	0.00000	0.00000
14-03-03 11:21:20	0.00000	277.86141	276.67346	0.00000	0.00000
14-03-03 11:22:20	0.00000	277.85625	276.99335	0.00000	0.00000
14-03-03 11:23:20	1.10074	244.85479	256.93374	0.00000	0.00000
14-03-03 11:24:20	2.39743	20.60844	37.74849	0.00000	0.00000
14-03-03 11:25:20	2.29963	6.22691	11.18808	0.00000	0.00000
14-03-03 11:26:20	2.28917	5.80255	12.83908	0.00000	0.00000
14-03-03 11:27:20	2.47588	5.80255	12.82876	0.00000	0.00000
14-03-03 11:28:20	2.48791	5.70940	8.85089	0.00000	0.00000

GOLDEN SPECIALTY

Air Quality Test Report

APPENDIX C – Boiler No. 2 CGA Results

CYLINDER GAS AUDIT (CGA) ASSESSMENT DATA SHEET

Company: Valero Refining-Texas, L.P.
Location: Houston, TX
Source: Boiler No. 2
CEMS type: O_2
Audit Date: March 3, 2014
Project No.: VALHR-14-0193

Analyzer Info
Manufacturer: Servomex
Model No: 1440
Range (%): 0 - 25 %
Serial No.: 01440DIV02/3696
Personnel.: CB/JJ

$$\text{Accuracy} = \left(\frac{\overline{C_m} - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

	Response
Trial No. 1:	4.92
Trial No. 2:	4.93
Trial No. 3:	4.94
Average (C_m) :	4.93
Accuracy %:	-1.36

Gas type:	Protocol
Concentration (C_a):	4.998 %
Tank serial #:	XC025367B
Expiration Date:	September 23, 2021

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

	Response
Trial No. 1:	9.96
Trial No. 2:	9.96
Trial No. 3:	9.97
Average (C_m) :	9.96
Accuracy %:	-1.06

Gas type:	Protocol
Concentration (C_a):	10.07 %
Tank serial #:	CC432504
Expiration Date:	April 22, 2021

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value, ± 5 ppm, or ≤ 0.7% O_2 or CO_2

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Company: Valero Refining-Texas, L.P.
Location: Houston, TX
Source: Boiler No. 2
CEMS type: NO_x
Audit Date: March 3, 2014
Project No.: VALHR-14-0193

Analyzer Info
Manufacturer: TECO
Model No: 42C LS
Range (ppm): 0 - 500 ppm
Serial No.: 0505310679
Personnel.: CB/JJ

$$\text{Accuracy} = \left(\frac{\overline{C_m} - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

	Response
Trial No. 1:	115.23
Trial No. 2:	116.18
Trial No. 3:	116.69
Average (C_m) :	116.03

Gas type: Protocol
Concentration (C_a): 128.8 ppm
Tank serial #: CC216262
Expiration Date: February 11, 2022

Accuracy %: -9.91

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

	Response
Trial No. 1:	267.77
Trial No. 2:	268.51
Trial No. 3:	269.99
Average (C_m) :	268.76

Gas type: Protocol
Concentration (C_a): 269.7 ppm
Tank serial #: CC16093
Expiration Date: February 11, 2022

Accuracy %: -0.35

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value, ± 5 ppm, or ≤ 0.7% O_2 or CO_2

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Company: Valero Refining-Texas, L.P.
Location: Houston, TX
Source: Boiler No. 2
CEMS type: CO
Audit Date: March 3, 2014
Project No.: VALHR-14-0193

Analyzer Info
Manufacturer: TECO
Model No: 48C
Range (ppm): 0 - 500 ppm
Serial No.: 0505310682
Personnel.: CB/JJ

$$\text{Accuracy} = \left(\frac{\overline{C_m} - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

	Response
Trial No. 1:	109.73
Trial No. 2:	109.99
Trial No. 3:	109.96
Average (C_m) :	109.89

Gas type: Protocol
Concentration (C_a): 123.6 ppm
Tank serial #: CC216262
Expiration Date: February 11, 2022

Accuracy %: -11.09

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

	Response
Trial No. 1:	263.79
Trial No. 2:	263.55
Trial No. 3:	263.71
Average (C_m) :	263.68

Gas type: Protocol
Concentration (C_a): 274.4 ppm
Tank serial #: CC16093
Expiration Date: February 11, 2022

Accuracy %: -3.91

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value, ± 5 ppm, or ≤ 0.7% O_2 or CO_2

FORM# GSC-WP004-001
REV 2013-01, EFF 3/1/13

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Valero

Company: Refining-Texas, L.P **Analyzer Info**
Location: Houston, TX **Manufacturer:** Servomex
Source: Boiler No. 2 **Model No:** 1440
CEMS type: O2 **Range (ppm/%):** 0-25%
Audit Date: 3-3-14 **Serial No.:** 01440DIV02/3696
Time Period: 1210 - 1345 **Personnel:** CB, JJ
Project No.: VALHR140193

$$\text{Accuracy} = \left(\frac{C_m - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

Response
Trial No. 1: 4.92
Trial No. 2: 4.93
Trial No. 3: 4.94
Average (C_m): 4.93

Gas type: Protocol
Concentration (C_a): 4.998 ppm/%
Cylinder serial #: XC025367B
Expiration Date: 9-23-2021

3/25/14 BS

Accuracy %: -1.2036 3/31/14

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

Response
Trial No. 1: 9.96
Trial No. 2: 9.96
Trial No. 3: 9.97
Average (C_m): 9.96

Gas type: Protocol
Concentration (C_a): 10.07 ppm/%
Cylinder serial #: CC432504
Expiration Date: 4-22-2021

Accuracy %: -1.05

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value or +/- 5 ppm

FORM# GSC-WP004-001
REV 2013-01, EFF 3/1/13

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Valero

Company: Refining-Texas, L.P **Analyzer Info**
Location: Houston, TX **Manufacturer:** TECO
Source: Boiler No. 2 **Model No:** 42C LS
CEMS type: NOx **Range (ppm/%):** 0-500 ppm
Audit Date: 3-3-14 **Serial No.:** 0505310679
Time Period: 1210-1345 **Personnel:** CB, JJ
Project No.: VALHR140193

$$\text{Accuracy} = \left(\frac{C_m - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

Response
Trial No. 1: 115.23
Trial No. 2: 116.18
Trial No. 3: 116.69
Average (C_m): 116.03

Gas type: Protocol
Concentration (C_a): 128.8 ppm/%
Cylinder serial #: CC216262
Expiration Date: 2-11-2022

Accuracy %: -9.91

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

Response
Trial No. 1: 267.77
Trial No. 2: 268.51
Trial No. 3: 269.99
Average (C_m): 268.75

Gas type: Protocol
Concentration (C_a): 269.7 ppm/%
Cylinder serial #: CC160093
Expiration Date: 2-11-2022

Accuracy %: -0.34

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value or +/- 5 ppm

FORM# GSC-WP004-001
REV 2013-01, EFF 3/1/13

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Valero

Company: Refining-Texas, L.P. **Analyzer info**
Location: Houston, TX **Manufacturer:** TECO
Source: Boiler No. 2 **Model No:** 48C
CEMS type: CO **Range (ppm/%):** 0-500 ppm
Audit Date: 3-3-14 **Serial No.:** 0505310682
Time Period: 1210 - 1345 **Personnel:** CB, JJ
Project No.: ~~VALHRQ~~ CB 3-3-14
VALHR14D193

$$\text{Accuracy} = \left(\frac{C_m - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

Response

Trial No. 1: 109.73
Trial No. 2: 109.99
Trial No. 3: 109.96
Average (C_m): 109.89

Gas type: Protocol
Concentration (C_a): 123.6 ppm/%
Cylinder serial #: CC216262
Expiration Date: 2-11-2022

Accuracy %: -11.08

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

Response

Trial No. 1: ~~269.7~~ 263.79
Trial No. 2: 263.55
Trial No. 3: 263.71
Average (C_m): 263.68

Gas type: Protocol
Concentration (C_a): 274.4 ppm/%
Cylinder serial #: CC160093
Expiration Date: 2-11-2022

Accuracy %: -3.90

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value or +/- 5 ppm

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REALTIME DATA SAMPLES AND AVERAGES REPORT
Cirrus - Process Analysts, Inc.

Title: BFO2 CGA 3-3-14
Sample Interval: 10 seconds
Average Interval: 60 seconds

Date	Time	50BFO2-O2 % dry	50BFO2-NOx ppm dry	50BFO2-CO ppm dry		
14-03-03	11:42:20	4.65475	6.30490	26.47437	0.00000	0.00000
14-03-03	11:43:20	4.66459	5.85959	26.47942	0.00000	0.00000
14-03-03	11:44:20	4.68556	5.77271	24.59020	0.00000	0.00000
14-03-03	11:45:20	4.64180	6.05510	23.39807	0.00000	0.00000
14-03-03	11:46:20	4.69048	6.32119	22.90303	0.00000	0.00000
14-03-03	11:47:20	4.68478	6.04967	30.54075	0.00000	0.00000
14-03-03	11:48:20	4.61824	5.78357	24.44371	0.00000	0.00000
14-03-03	11:49:20	4.64128	5.77814	29.79819	0.00000	0.00000
14-03-03	11:50:20	4.55247	5.77271	37.30457	0.00000	0.00000
14-03-03	11:51:20	4.62626	6.22344	34.80413	0.00000	0.00000
14-03-03	11:52:20	4.65487	6.32791	27.83531	0.00000	0.00000
14-03-03	11:53:20	11.32891	8.51562	40.76042	0.00000	0.00000
14-03-03	11:54:20	20.57656	11.39583	15.80729	0.00000	0.00000
14-03-03	11:55:20	20.50000	0.76562	0.07292	0.00000	0.00000
14-03-03	11:56:20	20.52057	0.34896	-0.14583	0.00000	0.00000
14-03-03	11:57:20	20.53203	0.35937	-0.18750	0.00000	0.00000
14-03-03	11:58:20	14.37214	3.12500	4.82292	0.00000	0.00000
14-03-03	11:59:20	0.20547	235.09375	309.35937	0.00000	0.00000
14-03-03	12:00:20	0.10729	385.21875	420.27083	0.00000	0.00000
14-03-03	12:01:20	0.08438	408.21354	413.60937	0.00000	0.00000
14-03-03	12:02:20	0.07135	410.43750	412.59375	0.00000	0.00000
14-03-03	12:03:20	0.88099	411.53646	408.33854	0.00000	0.00000
14-03-03	12:04:20	4.65625	181.59896	156.84375	0.00000	0.00000
14-03-03	12:05:20	4.64464	10.17430	42.69687	0.00000	0.00000
14-03-03	12:06:20	4.47479	7.79828	46.13441	0.00000	0.00000
14-03-03	12:07:20	4.59908	7.15401	38.10774	0.00000	0.00000
14-03-03	12:08:20	4.63481	6.97877	22.57469	0.00000	0.00000
14-03-03	12:09:20	4.61643	6.72621	26.23696	0.00000	0.00000
14-03-03	12:10:20	4.57966	6.46850	27.54022	0.00000	0.00000
14-03-03	12:11:20	4.55532	6.48912	37.15302	0.00000	0.00000
14-03-03	12:12:20	4.58043	6.13863	35.28906	0.00000	0.00000
14-03-03	12:13:20	4.57008	5.99947	31.26815	0.00000	0.00000
14-03-03	12:14:20	4.56593	5.96855	32.88459	0.00000	0.00000
14-03-03	12:15:20	4.53538	5.97885	37.62281	0.00000	0.00000
14-03-03	12:16:20	4.78939	29.32215	41.43661	0.00000	0.00000
14-03-03	12:17:20	4.92688	9.42700	4.51595	0.00000	0.00000
14-03-03	12:18:20	4.92740	0.56696	0.09093	0.00000	0.00000
14-03-03	12:19:20	4.92740	0.47418	0.02526	0.00000	0.00000
14-03-03	12:20:20	4.92792	0.48449	0.02526	0.00000	0.00000
14-03-03	12:21:20	- 4.92843	0.30410	0.01852	0.00000	0.00000
14-03-03	12:22:20	9.21913	0.00258	0.02442	0.00000	0.00000
14-03-03	12:23:20	9.94930	0.00258	0.01431	0.00000	0.00000
14-03-03	12:24:20	9.96018	0.00086	0.01515	0.00000	0.00000
14-03-03	12:25:20	- 9.96096	0.00172	0.01347	0.00000	0.00000
14-03-03	12:26:20	9.96717	0.00172	0.02442	0.00000	0.00000
14-03-03	12:27:20	7.30047	0.00172	0.02947	0.00000	0.00000
14-03-03	12:28:20	4.95174	0.00172	0.01852	0.00000	0.00000
14-03-03	12:29:20	4.94190	0.00172	0.03031	0.00000	0.00000
14-03-03	12:30:20	4.93646	0.00945	0.01936	0.00000	0.00000
14-03-03	12:31:20	4.93542	0.01460	0.02526	0.00000	0.00000
14-03-03	12:32:20	- 4.93335	0.00859	0.00842	0.00000	0.00000

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14-03-03 12:33:20	8.79034	0.00773	0.00505	0.00000	0.00000
14-03-03 12:34:20	9.95319	0.00687	0.02021	0.00000	0.00000
14-03-03 12:35:20	9.96199	0.00086	0.00842	0.00000	0.00000
14-03-03 12:36:20	9.96846	0.00601	0.01515	0.00000	0.00000
14-03-03 12:37:20	9.96691	0.01203	0.01347	0.00000	0.00000
14-03-03 12:38:20	9.97054	0.00172	0.01515	0.00000	0.00000
14-03-03 12:39:20	9.97131	0.00086	0.01431	0.00000	0.00000
14-03-03 12:40:20	6.19097	0.00086	0.04041	0.00000	0.00000
14-03-03 12:41:20	4.95536	0.00172	0.01515	0.00000	0.00000
14-03-03 12:42:20	4.94526	0.00086	0.00842	0.00000	0.00000
14-03-03 12:43:20	4.94371	0.00172	0.03031	0.00000	0.00000
14-03-03 12:44:20	4.94112	0.01203	0.01936	0.00000	0.00000
14-03-03 12:45:20	4.93801	0.00258	0.03452	0.00000	0.00000
14-03-03 12:46:20	8.75539	0.00172	0.01431	0.00000	0.00000
14-03-03 12:47:20	9.96095	0.00172	0.01431	0.00000	0.00000
14-03-03 12:48:20	9.96846	0.01546	0.00926	0.00000	0.00000
14-03-03 12:49:20	9.97468	0.01890	0.01010	0.00000	0.00000
14-03-03 12:50:20	9.97494	0.00258	0.01852	0.00000	0.00000
14-03-03 12:51:20	9.97261	0.00172	0.02526	0.00000	0.00000
14-03-03 12:52:20	2.40570	22.46108	30.83878	0.00000	0.00000
14-03-03 12:53:20	0.00518	98.75417	104.72052	0.00000	0.00000
14-03-03 12:54:20	0.00000	106.42360	106.73602	0.00000	0.00000
14-03-03 12:55:20	0.00000	107.23281	107.06942	0.00000	0.00000
14-03-03 12:56:20	0.00000	107.65545	107.04921	0.00000	0.00000
14-03-03 12:57:20	0.30087	108.86669	120.40005	0.00000	0.00000
14-03-03 12:58:20	0.00000	208.33728	238.21379	0.00000	0.00000
14-03-03 12:59:20	0.00000	256.22997	254.27723	0.00000	0.00000
14-03-03 13:00:20	0.00000	264.49214	262.26348	0.00000	0.00000
14-03-03 13:01:20	0.00000	241.42200	221.06934	0.00000	0.00000
14-03-03 13:02:20	0.00000	120.13373	114.25755	0.00000	0.00000
14-03-03 13:03:20	0.00000	115.72175	109.83253	0.00000	0.00000
14-03-03 13:04:20	0.00000	115.23726	109.88810	0.00000	0.00000
14-03-03 13:05:20	0.00000	115.23210	109.73655	0.00000	0.00000
14-03-03 13:06:20	0.00000	115.30426	109.49409	0.00000	0.00000
14-03-03 13:07:20	0.00000	115.22695	109.59006	0.00000	0.00000
14-03-03 13:08:20	0.00000	147.13650	155.76488	0.00000	0.00000
14-03-03 13:09:20	0.00000	262.03359	260.73795	0.00000	0.00000
14-03-03 13:10:20	0.00000	265.63637	263.24345	0.00000	0.00000
14-03-03 13:11:20	0.00000	266.63112	263.78900	0.00000	0.00000
14-03-03 13:12:20	0.00000	267.20839	263.31921	0.00000	0.00000
14-03-03 13:13:20	0.00000	267.43518	263.55664	0.00000	0.00000
14-03-03 13:14:20	0.00000	267.77535	263.79405	0.00000	0.00000
14-03-03 13:15:20	0.00000	268.03307	263.71828	0.00000	0.00000
14-03-03 13:16:20	0.00000	217.71791	188.14939	0.00000	0.00000
14-03-03 13:17:20	0.00000	118.57717	111.17620	0.00000	0.00000
14-03-03 13:18:20	0.00000	116.85567	109.97397	0.00000	0.00000
14-03-03 13:19:20	0.00000	116.52580	109.97902	0.00000	0.00000
14-03-03 13:20:20	0.00000	116.29387	109.89315	0.00000	0.00000
14-03-03 13:21:20	0.00000	116.53096	109.99418	0.00000	0.00000
14-03-03 13:22:20	0.00000	116.18048	109.98913	0.00000	0.00000
14-03-03 13:23:20	0.00000	117.09792	112.96945	0.00000	0.00000
14-03-03 13:24:20	0.00000	221.57323	232.45519	0.00000	0.00000
14-03-03 13:25:20	0.00000	267.47126	263.21819	0.00000	0.00000
14-03-03 13:26:20	0.00000	268.45055	263.14746	0.00000	0.00000
14-03-03 13:27:20	0.00000	268.51241	263.79910	0.00000	0.00000
14-03-03 13:28:20	0.00000	268.51756	263.55664	0.00000	0.00000
14-03-03 13:29:20	0.00000	269.25460	263.80920	0.00000	0.00000
14-03-03 13:30:20	0.00000	229.60345	202.24784	0.00000	0.00000
14-03-03 13:31:20	0.00000	119.69563	111.67124	0.00000	0.00000
14-03-03 13:32:20	0.00000	117.67003	109.97902	0.00000	0.00000
14-03-03 13:33:20	0.00000	117.17523	109.98912	0.00000	0.00000
14-03-03 13:34:20	0.00000	117.19069	109.89315	0.00000	0.00000
14-03-03 13:35:20	0.00000	116.69074	109.96892	0.00000	0.00000

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14-03-03 13:36:20	0.00000	116.86083	109.65573	0.00000	0.00000
14-03-03 13:37:20	0.00000	159.97557	178.36988	0.00000	0.00000
14-03-03 13:38:20	0.00000	266.97130	261.45020	0.00000	0.00000
14-03-03 13:39:20	0.00000	269.08451	262.99088	0.00000	0.00000
14-03-03 13:40:20	0.00000	269.40923	263.30911	0.00000	0.00000
14-03-03 13:41:20	0.00000	269.99165	263.71323	0.00000	0.00000
14-03-03 13:42:20	0.00000	270.48130	260.64704	0.00000	0.00000
14-03-03 13:43:20	0.00000	258.77614	254.44393	0.00000	0.00000
14-03-03 13:44:20	1.80809	254.45692	237.70865	0.00000	0.00000
14-03-03 13:45:20	4.55713	81.40003	69.68402	0.00000	0.00000
14-03-03 13:46:20	4.55376	7.93229	28.93440	0.00000	0.00000
14-03-03 13:47:20	4.49473	6.72621	32.85934	0.00000	0.00000
14-03-03 13:48:20	4.51441	6.14379	33.66251	0.00000	0.00000

GOLDEN SPECIALTY

Air Quality Test Report

APPENDIX D – Boiler No. 3 CGA Results

CYLINDER GAS AUDIT (CGA) ASSESSMENT DATA SHEET

Company:	Valero Refining-Texas, L.P.	**Analyzer Info**	
Location:	Houston, TX	**Manufacturer:**	Servomex
Source:	Boiler No. 3	**Model No:**	1440
CEMS type:	O_2	**Range (%):**	0 - 25 %
Audit Date:	March 3, 2014	**Serial No.:**	01440DIV02/3693
Project No.:	VALHR-14-0193	**Personnel.:**	CB/JJ

$$\text{Accuracy} = \left(\frac{C_m - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

	Response		
Trial No. 1:	4.93	Gas type:	Protocol
Trial No. 2:	4.94	Concentration (C_a):	4.998 %
Trial No. 3:	4.94	Tank serial #:	XC025367B
Average (C_m) :	4.94	Expiration Date:	September 23, 2021
Accuracy %:	-1.23		

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

	Response		
Trial No. 1:	10.05	Gas type:	Protocol
Trial No. 2:	10.05	Concentration (C_a):	10.07 %
Trial No. 3:	10.05	Tank serial #:	CC432504
Average (C_m) :	10.05	Expiration Date:	April 22, 2021
Accuracy %:	-0.20		

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value, ± 5 ppm, or ≤ 0.7% O_2 or CO_2

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Company: Valero Refining-Texas, L.P.
Location: Houston, TX
Source: Boiler No. 3
CEMS type: NO_x
Audit Date: March 3, 2014
Project No.: VALHR-14-0193

Analyzer Info
Manufacturer: TECO
Model No: 42C LS
Range (ppm): 0 - 500 ppm
Serial No.: 0530613423
Personnel.: CB/JJ

$$\text{Accuracy} = \left(\frac{\overline{C_m} - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

	Response
Trial No. 1:	125.64
Trial No. 2:	124.89
Trial No. 3:	124.81
Average (C_m) :	125.11

Gas type: Protocol
Concentration (C_a): 128.8 ppm
Tank serial #: CC216262
Expiration Date: February 11, 2022

Accuracy %: -2.86

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

	Response
Trial No. 1:	263.99
Trial No. 2:	263.18
Trial No. 3:	262.86
Average (C_m) :	263.34

Gas type: Protocol
Concentration (C_a): 269.7 ppm
Tank serial #: CC16093
Expiration Date: February 11, 2022

Accuracy %: -2.36

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value, ± 5 ppm, or ≤ 0.7% O_2 or CO_2

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Company: Valero Refining-Texas, L.P.
Location: Houston, TX
Source: Boiler No. 3
CEMS type: CO
Audit Date: March 3, 2014
Project No.: VALHR-14-0193

Analyzer Info
Manufacturer: TECO
Model No: 48C
Range (ppm): 0 - 500 ppm
Serial No.: 0530613424
Personnel.: CB/JJ

$$\text{Accuracy} = \left(\frac{\overline{C_m} - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

	Response
Trial No. 1:	115.57
Trial No. 2:	116.23
Trial No. 3:	116.14
Average (C_m) :	115.98

Gas type: Protocol
Concentration (C_a): 123.6 ppm
Tank serial #: CC216262
Expiration Date: February 11, 2022

Accuracy %: -6.17

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

	Response
Trial No. 1:	266.28
Trial No. 2:	266.71
Trial No. 3:	265.57
Average (C_m) :	266.19

Gas type: Protocol
Concentration (C_a): 274.4 ppm
Tank serial #: CC16093
Expiration Date: February 11, 2022

Accuracy %: -2.99

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value, ± 5 ppm, or ≤ 0.7% O_2 or CO_2

FORM# GSC-WP004-001
REV 2013-01, EFF 3/1/13

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Valero

Company: Refining-Texas, L.P. **Analyzer Info**
Location: Houston, TX — **Manufacturer:** Servomex
Source: Boiler No. 3 — **Model No:** 1440
CEMS type: O2 — **Range (ppm/%):** 0-25%
Audit Date: 3-3-19 — **Serial No.:** 01440DIV02/3693
Time Period: 1350-1500 — **Personnel:** CB, JJ
Project No.: VALHR140193

$$\text{Accuracy} = \left(\frac{C_m - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

Response
Trial No. 1: 4.93
Trial No. 2: 4.94
Trial No. 3: 4.94
Average (C_m): 4.93

Gas type: Protocol
Concentration (C_a): 4.998 ppm/%
Cylinder serial #: XC025367B
Expiration Date: 9-23-2021

3/25/19 BS

Accuracy %: -1.06 23 3/25/19

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

Response
Trial No. 1: 10.05
Trial No. 2: 10.05
Trial No. 3: 10.05
Average (C_m): 10.05

Gas type: Protocol
Concentration (C_a): 10.07 ppm/%
Cylinder serial #: CC432504
Expiration Date: 4-22-2021

Accuracy %: -0.19

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value or +/- 5 ppm

FORM# GSC-WP004-001
REV 2013-01, EFF 3/1/13

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Valero

Company: Refining-Texas, L.P. **Analyzer Info**
Location: Houston, TX — **Manufacturer:** TECO
Source: Boiler No. 3 — **Model No:** 42C LS
CEMS type: NOx — **Range (ppm/%):** 0-500 ppm
Audit Date: 3-3-19 — **Serial No.:** 0530613423
Time Period: 1350-1500 — **Personnel:** CB, JJ
Project No.: VALHR140193

$$\text{Accuracy} = \left(\frac{C_m - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

Response
Trial No. 1: 125.64
Trial No. 2: 124.89
Trial No. 3: 124.81
Average (C_m): 125.11

Gas type: Protocol
Concentration (C_a): 128.8 ppm/%
Cylinder serial #: CC216262
Expiration Date: 2-11-2022

Accuracy %: -2.86

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

Response
Trial No. 1: 263.99
Trial No. 2: 263.18
Trial No. 3: 262.86
Average (C_m): 263.34

Gas type: Protocol
Concentration (C_a): 269.7 ppm/%
Cylinder serial #: CC16093
Expiration Date: 2-11-2022

Accuracy %: -2.35

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value or +/- 5 ppm

FORM# GSC-WP004-001
REV 2013-01, EFF 3/1/13

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Valero

Company: Refining-Texas, L.P. **Analyzer Info**
Location: Houston, TX **Manufacturer:** TECO
Source: Boiler No. 3 **Model No:** 48C
CEMS type: CO **Range (ppm/%):** 0-500 ppm
Audit Date: 3-3-14 **Serial No.:** 0530613424
Time Period: 1350-1500 **Personnel:** CB, JJ
Project No.: VALR140193

$$\text{Accuracy} = \left(\frac{C_m - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

Response

Trial No. 1: 115.57
Trial No. 2: 116.23
Trial No. 3: 116.14
Average (C_m): 115.98

Gas type: Protocol
Concentration (C_a): 123.6 ppm/%
Cylinder serial #: CC216262
Expiration Date: 2-11-2022

Accuracy %: -6.16

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

Response

Trial No. 1: 266.28
Trial No. 2: 266.71
Trial No. 3: 265.57
Average (C_m): 266.18

Gas type: Protocol
Concentration (C_a): 274.4 ppm/%
Cylinder serial #: CC116093
Expiration Date: 2-11-2022

Accuracy %: -2.99

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value or +/- 5 ppm

reports bfo3 cga 3-3-14

REALTIME DATA SAMPLES AND AVERAGES REPORT
Cirrus - Process Analysts, Inc.

Title: BFO3 CGA 3-3-14
Sample Interval: 10 seconds
Average Interval: 60 seconds

Date	Time	50BFO3-O2 % dry	50BFO3-NOx ppm dry	50BFO3-CO ppm dry		
14-03-03	13:53:00	4.94299	0.00000	0.02537	0.00000	0.00000
14-03-03	13:54:00	4.94144	0.00000	0.01438	0.00000	0.00000
14-03-03	13:55:00	4.93574	0.00000	0.00000	0.00000	0.00000
14-03-03	13:56:00	4.93962	0.00000	0.00930	0.00000	0.00000
14-03-03	13:57:00	4.94014	0.00000	0.00169	0.00000	0.00000
14-03-03	13:58:00	7.42719	0.00000	0.00085	0.00000	0.00000
14-03-03	13:59:00	10.04951	0.00000	0.00169	0.00000	0.00000
14-03-03	14:00:00	10.05728	-0.00785	0.01353	0.00000	0.00000
14-03-03	14:01:00	10.05832	0.00000	0.00846	0.00000	0.00000
14-03-03	14:02:00	10.05910	0.00000	0.00930	0.00000	0.00000
14-03-03	14:03:00	10.05936	0.00000	0.01438	0.00000	0.00000
14-03-03	14:04:00	10.06039	0.00262	0.01522	0.00000	0.00000
14-03-03	14:05:00	10.06065	0.00262	0.01945	0.00000	0.00000
14-03-03	14:06:00	7.56272	0.00000	0.02453	0.00000	0.00000
14-03-03	14:07:00	4.96036	0.00785	0.00169	0.00000	0.00000
14-03-03	14:08:00	4.94869	0.00523	0.00930	0.00000	0.00000
14-03-03	14:09:00	4.94999	0.00785	0.01438	0.00000	0.00000
14-03-03	14:10:00	4.94507	0.00785	0.01184	0.00000	0.00000
14-03-03	14:11:00	6.19960	0.00262	0.00761	0.00000	0.00000
14-03-03	14:12:00	10.04536	0.00000	0.02030	0.00000	0.00000
14-03-03	14:13:00	10.05599	0.00523	0.02537	0.00000	0.00000
14-03-03	14:14:00	10.05521	0.00262	0.01945	0.00000	0.00000
14-03-03	14:15:00	10.05314	0.00262	0.01861	0.00000	0.00000
14-03-03	14:16:00	6.08610	0.00000	0.00169	0.00000	0.00000
14-03-03	14:17:00	4.94792	0.00000	0.01438	0.00000	0.00000
14-03-03	14:18:00	4.94299	0.00000	0.00423	0.00000	0.00000
14-03-03	14:19:00	4.94507	0.00000	0.01945	0.00000	0.00000
14-03-03	14:20:00	5.07334	0.00000	0.01353	0.00000	0.00000
14-03-03	14:21:00	9.73620	0.00000	0.00423	0.00000	0.00000
14-03-03	14:22:00	10.05029	0.00000	0.00338	0.00000	0.00000
14-03-03	14:23:00	10.05547	0.00262	0.00423	0.00000	0.00000
14-03-03	14:24:00	10.05651	0.00000	0.01353	0.00000	0.00000
14-03-03	14:25:00	10.05858	0.00000	0.00930	0.00000	0.00000
14-03-03	14:26:00	9.02665	0.00000	0.10657	0.00000	0.00000
14-03-03	14:27:00	0.18607	91.29432	63.84445	0.00000	0.00000
14-03-03	14:28:00	0.00000	125.64834	115.40311	0.00000	0.00000
14-03-03	14:29:00	0.00000	125.62219	115.41834	0.00000	0.00000
14-03-03	14:30:00	0.00000	125.64834	115.57058	0.00000	0.00000
14-03-03	14:31:00	0.00000	125.47575	115.89028	0.00000	0.00000
14-03-03	14:32:00	0.00000	125.15148	115.80909	0.00000	0.00000
14-03-03	14:33:00	0.00000	125.21947	115.98670	0.00000	0.00000
14-03-03	14:34:00	0.22572	176.45371	145.20666	0.00000	0.00000
14-03-03	14:35:00	0.00000	263.72869	260.75186	0.00000	0.00000
14-03-03	14:36:00	0.00000	263.90651	265.87220	0.00000	0.00000
14-03-03	14:37:00	0.00000	263.99019	266.13608	0.00000	0.00000
14-03-03	14:38:00	0.00000	264.06864	266.28832	0.00000	0.00000
14-03-03	14:39:00	0.00000	263.69207	266.55728	0.00000	0.00000
14-03-03	14:40:00	0.00000	160.49140	189.28525	0.00000	0.00000
14-03-03	14:41:00	0.00000	125.54374	117.05238	0.00000	0.00000
14-03-03	14:42:00	0.00000	125.15148	116.14909	0.00000	0.00000
14-03-03	14:43:00	0.00000	124.89521	116.23029	0.00000	0.00000

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14-03-03 14:44:00	0.00000	124.65985	116.55507	0.00000	0.00000
14-03-03 14:45:00	0.00000	175.17233	147.41921	0.00000	0.00000
14-03-03 14:46:00	0.00000	262.60944	261.42679	0.00000	0.00000
14-03-03 14:47:00	0.00000	262.95985	265.96354	0.00000	0.00000
14-03-03 14:48:00	0.00000	263.18475	265.00443	0.00000	0.00000
14-03-03 14:49:00	0.00000	263.11676	266.71460	0.00000	0.00000
14-03-03 14:50:00	0.00000	263.04353	266.05489	0.00000	0.00000
14-03-03 14:51:00	0.00000	171.33865	193.74589	0.00000	0.00000
14-03-03 14:52:00	0.00000	125.40776	117.12850	0.00000	0.00000
14-03-03 14:53:00	0.00000	125.16194	116.57029	0.00000	0.00000
14-03-03 14:54:00	0.00000	124.81675	116.14909	0.00000	0.00000
14-03-03 14:55:00	0.00000	124.72784	116.48910	0.00000	0.00000
14-03-03 14:56:00	0.00000	149.50291	128.23188	0.00000	0.00000
14-03-03 14:57:00	0.00000	260.66906	251.45506	0.00000	0.00000
14-03-03 14:58:00	0.00000	262.39500	265.92801	0.00000	0.00000
14-03-03 14:59:00	0.00000	262.71927	266.07011	0.00000	0.00000
14-03-03 15:00:00	0.00000	262.86048	265.57787	0.00000	0.00000
14-03-03 15:01:00	0.00000	262.85526	265.63876	0.00000	0.00000

APPENDIX E – FCCU
Scrubber CGA Results

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Company: Valero Refining-Texas, L.P.
Location: Houston, TX
Source: FCCU Scrubber
CEMS type: O_2
Audit Date: March 7, 2014
Project No.: VALHR-14-0193

Analyzer Info
Manufacturer: Servomex
Model No: 1440
Span (%): 0 - 10 %
Serial No.: 01440DIV02/3739
Personnel.: CB/JJ

$$\text{Accuracy} = \left(\frac{\overline{C_m} - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

	Response
Trial No. 1:	4.91
Trial No. 2:	4.92
Trial No. 3:	4.91
Average (C_m) :	4.91

Gas type: Protocol
Concentration (C_a): 4.998 %
Tank serial #: XC025367B
Expiration Date: September 23, 2021

Accuracy %: -1.69

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

	Response
Trial No. 1:	9.65
Trial No. 2:	9.65
Trial No. 3:	9.61
Average (C_m) :	9.64

Gas type: Protocol
Concentration (C_a): 10.07 %
Tank serial #: CC432504
Expiration Date: April 22, 2021

Accuracy %: -4.30

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value, ± 5 ppm, or ≤ 0.7% O_2 or CO_2

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Company: Valero Refining-Texas, L.P.
Location: Houston, TX
Source: FCCU Scrubber
CEMS type: SO_2
Audit Date: March 7, 2014
Project No.: VALHR-14-0193

Analyzer Info
Manufacturer: CAI
Model No: ZRE
Range (ppm): 0 - 250 ppm
Serial No.: A11 4416T
Personnel.: CB/JJ

$$\text{Accuracy} = \left(\frac{\overline{C_m} - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

	Response
Trial No. 1:	66.55
Trial No. 2:	67.39
Trial No. 3:	67.58
Average (C_m) :	67.17

Gas type: Protocol
Concentration (C_a): 63.46 ppm
Tank serial #: CC208494
Expiration Date: February 14, 2022

Accuracy %: 5.85

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

	Response
Trial No. 1:	145.21
Trial No. 2:	145.86
Trial No. 3:	146.27
Average (C_m) :	145.78

Gas type: Protocol
Concentration (C_a): 138.6 ppm
Tank serial #: CC320495
Expiration Date: February 11, 2022

Accuracy %: 5.18

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value, ± 5 ppm, or ≤ 0.7% O_2 or CO_2

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Company: Valero Refining-Texas, L.P.
Location: Houston, TX
Source: FCCU Scrubber
CEMS type: NO_x
Audit Date: March 7, 2014
Project No.: VALHR-14-0193

Analyzer Info
Manufacturer: TECO
Model No: 42C LS
Range (ppm): 0 - 500 ppm
Serial No.: 0505310681
Personnel.: CB/JJ

$$\text{Accuracy} = \left(\frac{\overline{C_m} - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

	Response
Trial No. 1:	112.54
Trial No. 2:	113.05
Trial No. 3:	114.12
Average (C_m) :	113.24

Gas type: Protocol
Concentration (C_a): 113.4 ppm
Tank serial #: CC287378
Expiration Date: May 16, 2021

Accuracy %: -0.14

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

	Response
Trial No. 1:	286.41
Trial No. 2:	287.51
Trial No. 3:	287.82
Average (C_m) :	287.25

Gas type: Protocol
Concentration (C_a): 284.7 ppm
Tank serial #: CC65695
Expiration Date: December 2, 2021

Accuracy %: 0.89

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value, ± 5 ppm, or ≤ 0.7% O_2 or CO_2

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Company: Valero Refining-Texas, L.P.
Location: Houston, TX
Source: FCCU Scrubber
CEMS type: CO
Audit Date: March 7, 2014
Project No.: VALHR-14-0193

Analyzer Info
Manufacturer: TECO
Model No: 48C
Range (ppm): 0 - 1,000 ppm
Serial No.: 0505310683
Personnel.: CB/JJ

$$\text{Accuracy} = \left(\frac{\overline{C_m} - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

	Response
Trial No. 1:	262.56
Trial No. 2:	262.48
Trial No. 3:	262.56
Average (C_m) :	262.53

Gas type: Protocol
Concentration (C_a): 274.4 ppm
Tank serial #: CC16093
Expiration Date: February 11, 2022

Accuracy %: -4.32

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

	Response
Trial No. 1:	567.30
Trial No. 2:	568.32
Trial No. 3:	569.67
Average (C_m) :	568.43

Gas type: Protocol
Concentration (C_a): 587.6 ppm
Tank serial #: CC65695
Expiration Date: December 2, 2021

Accuracy %: -3.26

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value, ± 5 ppm, or ≤ 0.7% O_2 or CO_2

FORM# GSC-WP004-001
REV 2013-01, EFF 3/1/13

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Valero

Company: Refining-Texas, L.P. **Analyzer Info**
Location: Houston, TX
Source: FCCU Scrubber
CEMS type: O2
Audit Date: 3-7-19
Time Period: 845-1140
Project No.: VALHR140193

Manufacturer: Servomex
Model No: 1440
Range (ppm/%): 0-10%
Serial No.: 01440DIV02/3739
Personnel: CB, JJ

$$\text{Accuracy} = \left(\frac{C_m - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

Response
Trial No. 1: 4.91
Trial No. 2: 4.92
Trial No. 3: 4.91
Average (C_m): 4.91

Gas type: Protocol
Concentration (C_a): 4.998 ppm/%
Cylinder serial #: XC025367B
Expiration Date: 9-23-2021

3/25/M BB

Accuracy %: -1.53169 03/26/M

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

Response
Trial No. 1: 9.65
Trial No. 2: 9.65
Trial No. 3: 9.61
Average (C_m): 9.63

Gas type: Protocol
Concentration (C_a): 10.07 ppm/%
Cylinder serial #: CC432504
Expiration Date: 4-22-2021

Accuracy %: -4.30

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value or +/- 5 ppm

FORM# GSC-WP004-001
REV 2013-01, EFF 3/1/13

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Valero

Company: Refining-Texas, L.P. **Analyzer Info**
Location: Houston, TX
Source: FCCU Scrubber
CEMS type: SO2
Audit Date: 3-7-19
Time Period: 845-
Project No.: VALHR140193

Manufacturer: CAI
Model No: ZRE
Range (ppm/%): 0-250 ppm
Serial No.: A11 4416T
Personnel: CB, JJ

$$\text{Accuracy} = \left(\frac{C_m - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

Response 03-7-19
Trial No. 1: ~~66.55~~ 66.55
Trial No. 2: 67.39
Trial No. 3: 67.58
Average (C_m): 67.17

Gas type: Protocol
Concentration (C_a): 63.46 ppm/%
Cylinder serial #: CC208497 4
Expiration Date: 2-14-2022

3/25/M BB

Accuracy %: 5.85

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

Response
Trial No. 1: 145.21
Trial No. 2: 145.86
Trial No. 3: 146.27
Average (C_m): 145.78

Gas type: Protocol
Concentration (C_a): 138.6 ppm/%
Cylinder serial #: CC320495
Expiration Date: 2-11-2022

Accuracy %: 5.18

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value or +/- 5 ppm

FORM# GSC-WP004-001
REV 2013-01, EFF 3/1/13

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Valero

Company: Refining-Texas, L.P
Location: Houston, TX
Source: FCCU Scrubber
CEMS type: NOx
Audit Date: 3-7-14
Time Period: 845
Project No.: VALHR140193

Analyzer Info
Manufacturer: TECO
Model No: 42C LS
Range (ppm/%): 0-500 ppm
Serial No.: 0505310681
Personnel: CB, JJ

$$\text{Accuracy} = \left(\frac{C_m - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

Response
Trial No. 1: 112.54
Trial No. 2: 113.05
Trial No. 3: 114.12
Average (C_m): 113.23

Gas type: Protocol
Concentration (C_a): 113.4 ppm/%
Cylinder serial #: CC287378
Expiration Date: 5-16-2021

(2-3)2014

Accuracy %: ~~0.20~~ -0.14

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

Response
Trial No. 1: ~~269.81~~ CB 3-7-14 286.41
Trial No. 2: 287.51
Trial No. 3: 287.82
Average (C_m): 287.24

Gas type: Protocol
Concentration (C_a): 284.7 ppm/%
Cylinder serial #: CC656695
Expiration Date: 12-2-2021

Accuracy %: 0.89

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value or +/- 5 ppm

FORM# GSC-WP004-001
REV 2013-01, EFF 3/1/13

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Valero

Company: Refining-Texas, L.P
Location: Houston, TX
Source: FCCU Scrubber
CEMS type: CO
Audit Date: 3-7-14
Time Period: 845
Project No.: VALHR140193

Analyzer Info
Manufacturer: TECO
Model No: 48C
Range (ppm/%): 0-1,000 ppm
Serial No.: 0505310683
Personnel: CB, JJ

$$\text{Accuracy} = \left(\frac{C_m - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

Response
Trial No. 1: 262.56
Trial No. 2: 262.98
Trial No. 3: 262.56
Average (C_m): 262.53

Gas type: Protocol
Concentration (C_a): 274.4 ppm/%
Cylinder serial #: CC160093
Expiration Date: 2-11-2022

Accuracy %: -4.32

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

Response
Trial No. 1: 567.30
Trial No. 2: 568.32
Trial No. 3: 569.67
Average (C_m): 568.43

Gas type: Protocol
Concentration (C_a): 587.6 ppm/%
Cylinder serial #: CC656695
Expiration Date: 12-2-2021

Accuracy %: -3.26

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value or +/- 5 ppm

FCCU 03-07-14

REALTIME DATA SAMPLES AND AVERAGES REPORT
Cirrus - Process Analysts, Inc.

Title: FCCU CGA 03-07-2014
Sample Interval: 10 seconds
Average Interval: 60 seconds

Date	Time	FCCU-O2 % dry	FCCU-SO2 ppm dry	FCCU-NOx ppm dry	FCCU-CO ppm dry	
14-03-07	08:19:00	2.81354	0.04167	-0.55729	33.15625	0.00000
14-03-07	08:20:00	2.72135	0.09896	-0.54167	31.58333	0.00000
14-03-07	08:21:00	3.11641	0.05208	0.77083	29.42708	0.00000
14-03-07	08:22:00	2.76823	0.24219	-0.44271	34.04167	0.00000
14-03-07	08:23:00	2.97604	0.12500	-0.20833	31.41667	0.00000
14-03-07	08:24:00	2.76901	0.25521	-0.21875	31.89583	0.00000
14-03-07	08:25:00	3.27500	0.28125	-0.45833	31.10417	0.00000
14-03-07	08:26:00	3.19010	0.15885	-0.54167	37.84375	0.00000
14-03-07	08:27:00	2.71693	0.04427	-0.50521	36.69792	0.00000
14-03-07	08:28:00	2.45547	0.04687	-0.54687	32.19792	0.00000
14-03-07	08:29:00	2.44688	0.32292	-0.53646	31.42708	0.00000
14-03-07	08:30:00	2.58698	0.04427	-0.46354	30.59375	0.00000
14-03-07	08:31:00	2.64141	0.48958	-0.37500	29.06250	0.00000
14-03-07	08:32:00	2.81406	0.12760	-0.52604	28.70833	0.00000
14-03-07	08:33:00	2.45755	0.13021	-0.53125	27.08333	0.00000
14-03-07	08:34:00	2.74896	0.22917	-0.55729	28.06250	0.00000
14-03-07	08:35:00	3.07682	0.07813	-0.54687	32.16667	0.00000
14-03-07	08:36:00	2.82318	0.05729	-0.54167	32.98958	0.00000
14-03-07	08:37:00	2.51563	0.14323	-0.54687	31.87500	0.00000
14-03-07	08:38:00	2.54766	0.14844	-0.55208	30.88542	0.00000
14-03-07	08:39:00	2.94896	0.25000	1.52604	30.26042	0.00000
14-03-07	08:40:00	2.66536	0.33594	-0.54167	32.69792	0.00000
14-03-07	08:41:00	2.92943	0.49740	-0.35937	31.25000	0.00000
14-03-07	08:42:00	2.77552	0.06771	-0.46354	31.32292	0.00000
14-03-07	08:43:00	2.72318	0.17969	-0.45312	31.06250	0.00000
14-03-07	08:44:00	2.63932	0.33333	0.34896	29.21875	0.00000
14-03-07	08:45:00	2.58932	0.32292	-0.29167	30.20833	0.00000
14-03-07	08:46:00	2.77135	0.00260	-0.47917	32.15625	0.00000
14-03-07	08:47:00	2.63776	0.00000	0.33333	27.38542	0.00000
14-03-07	08:48:00	3.87344	14.96354	2.90625	28.50000	0.00000
14-03-07	08:49:00	4.91354	0.24219	0.26042	13.05208	0.00000
14-03-07	08:50:00	4.91432	0.00000	-0.55729	4.40625	0.00000
14-03-07	08:51:00	4.91354	0.17448	-0.53646	3.40625	0.00000
14-03-07	08:52:00	4.91016	0.04948	-0.53646	3.73958	0.00000
14-03-07	08:53:00	4.91589	0.09115	-0.54167	3.45833	0.00000
14-03-07	08:54:00	8.02786	0.02604	-0.54687	3.71875	0.00000
14-03-07	08:55:00	9.63333	0.00000	-0.55208	4.40625	0.00000
14-03-07	08:56:00	9.64635	0.11458	-0.54687	4.44792	0.00000
14-03-07	08:57:00	9.64818	0.09896	-0.53646	4.42708	0.00000
14-03-07	08:58:00	9.65807	0.14583	-0.54687	4.41667	0.00000
14-03-07	08:59:00	9.62031	0.17969	-0.21875	4.42708	0.00000
14-03-07	09:00:00	6.57786	0.21354	-0.47396	4.40625	0.00000
14-03-07	09:01:00	4.93203	0.03906	-0.46354	3.88542	0.00000
14-03-07	09:02:00	4.91979	0.01823	-0.51562	3.42708	0.00000
14-03-07	09:03:00	4.91797	0.15104	-0.53646	3.41667	0.00000
14-03-07	09:04:00	4.92109	0.20312	-0.54687	3.40625	0.00000
14-03-07	09:05:00	4.91875	0.00781	-0.53125	3.46875	0.00000
14-03-07	09:06:00	7.89609	0.48437	-0.54687	3.39583	0.00000
14-03-07	09:07:00	9.64349	0.65885	-0.54167	4.43750	0.00000
14-03-07	09:08:00	9.65521	0.92708	-0.53125	4.44792	0.00000
14-03-07	09:09:00	9.65677	0.65365	-0.55208	4.45833	0.00000

14-03-07	09:10:00	9.65755	0.43750	-0.55208	4.40625	0.00000
14-03-07	09:11:00	9.65391	0.32031	-0.54687	4.41667	0.00000
14-03-07	09:12:00	8.41797	0.19792	-0.54687	4.44792	0.00000
14-03-07	09:13:00	4.94375	0.10938	-0.54167	4.11458	0.00000
14-03-07	09:14:00	4.92396	0.20312	-0.55208	3.40625	0.00000
14-03-07	09:15:00	4.92005	0.35417	-0.52083	3.44792	0.00000
14-03-07	09:16:00	4.91172	0.25781	-0.54687	3.46875	0.00000
14-03-07	09:17:00	4.90234	0.68229	-0.54687	3.42708	0.00000
14-03-07	09:18:00	7.01484	0.21094	-0.52604	3.76042	0.00000
14-03-07	09:19:00	9.59688	0.17188	-0.53125	4.46875	0.00000
14-03-07	09:20:00	9.61068	0.21875	-0.30208	4.44792	0.00000
14-03-07	09:21:00	9.61094	0.00781	-0.53646	4.40625	0.00000
14-03-07	09:22:00	9.61589	0.39844	-0.55208	4.41667	0.00000
14-03-07	09:23:00	9.61589	0.05469	-0.53646	4.43750	0.00000
14-03-07	09:24:00	4.97214	0.07813	10.69271	4.41667	0.00000
14-03-07	09:25:00	-0.14323	0.11979	102.98438	4.40625	0.00000
14-03-07	09:26:00	-0.16953	0.00000	112.32813	4.43750	0.00000
14-03-07	09:27:00	-0.18073	0.16927	112.56771	4.40625	0.00000
14-03-07	09:28:00	-0.19010	0.13802	112.58854	4.38542	0.00000
14-03-07	09:29:00	-0.18906	0.00000	112.54688	4.37500	0.00000
14-03-07	09:30:00	-0.19349	0.14063	112.56250	4.44792	0.00000
14-03-07	09:31:00	-0.18750	3.86979	113.15104	4.43750	0.00000
14-03-07	09:32:00	-0.18542	2.91406	216.44271	132.39583	0.00000
14-03-07	09:33:00	-0.18880	0.16927	269.00000	258.85417	0.00000
14-03-07	09:34:00	-0.18906	0.36198	269.92187	260.86458	0.00000
14-03-07	09:35:00	-0.19271	0.11198	269.83333	261.02083	0.00000
14-03-07	09:36:00	-0.18984	0.17708	269.81771	260.69792	0.00000
14-03-07	09:37:00	-0.19297	0.02604	270.23958	260.85417	0.00000
14-03-07	09:38:00	-0.18896	0.10156	268.92187	260.85417	0.00000
14-03-07	09:39:00	-0.20234	0.03646	162.23958	124.09375	0.00000
14-03-07	09:40:00	-0.20573	0.00000	113.64583	5.93750	0.00000
14-03-07	09:41:00	-0.20547	0.15104	113.31250	4.42708	0.00000
14-03-07	09:42:00	-0.20443	0.10677	113.06250	4.43750	0.00000
14-03-07	09:43:00	-0.21198	0.08594	113.05729	4.44792	0.00000
14-03-07	09:44:00	-0.20833	0.00781	113.06771	4.44792	0.00000
14-03-07	09:45:00	-0.21016	0.11719	113.22917	4.39583	0.00000
14-03-07	09:46:00	-0.20911	0.00000	200.10937	242.40625	0.00000
14-03-07	09:47:00	-0.21068	0.11719	272.24479	560.32292	0.00000
14-03-07	09:48:00	-0.21406	0.17708	283.84375	565.69792	0.00000
14-03-07	09:49:00	-0.21432	0.03906	285.33854	565.52083	0.00000
14-03-07	09:50:00	-0.21120	0.00000	285.83333	566.70833	0.00000
14-03-07	09:51:00	-0.21068	0.27865	286.41146	566.36458	0.00000
14-03-07	09:52:00	-0.21302	0.31250	286.38542	565.50000	0.00000
14-03-07	09:53:00	-0.21250	0.00000	269.49479	542.40625	0.00000
14-03-07	09:54:00	-0.21745	0.01563	115.79688	95.94792	0.00000
14-03-07	09:55:00	-0.21979	0.12760	114.61979	5.61458	0.00000
14-03-07	09:56:00	-0.21901	0.17708	114.21354	4.91667	0.00000
14-03-07	09:57:00	-0.21693	0.00000	114.12500	4.40625	0.00000
14-03-07	09:58:00	-0.21797	0.00000	114.04688	4.41667	0.00000
14-03-07	09:59:00	-0.21328	0.00260	128.05208	12.28125	0.00000
14-03-07	10:00:00	-0.21120	0.02344	268.85937	407.63542	0.00000
14-03-07	10:01:00	-0.21120	0.05469	285.90104	562.81250	0.00000
14-03-07	10:02:00	-0.21380	0.32292	287.23958	564.98958	0.00000
14-03-07	10:03:00	-0.21354	0.26823	287.33333	564.97917	0.00000
14-03-07	10:04:00	-0.21458	0.04948	287.51042	565.81250	0.00000
14-03-07	10:05:00	-0.21302	0.18750	287.48958	566.01042	0.00000
14-03-07	10:06:00	-0.21250	0.00000	273.50521	551.75000	0.00000
14-03-07	10:07:00	-0.21927	0.10156	130.53646	135.38542	0.00000
14-03-07	10:08:00	-0.22734	0.00000	114.86979	5.91667	0.00000
14-03-07	10:09:00	-0.22760	0.10677	114.53646	5.10417	0.00000
14-03-07	10:10:00	-0.21484	0.02083	114.53125	4.44792	0.00000
14-03-07	10:11:00	-0.21693	0.07292	114.54688	4.36458	0.00000
14-03-07	10:12:00	-0.21745	0.15365	114.37500	4.42708	0.00000

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14-03-07 10:13:00	-0.21120	0.06250	127.11979	12.06250	0.00000
14-03-07 10:14:00	-0.20938	0.07292	279.16146	340.97917	0.00000
14-03-07 10:15:00	-0.21302	0.00521	287.05729	563.97917	0.00000
14-03-07 10:16:00	-0.20990	0.14323	287.72396	567.15625	0.00000
14-03-07 10:17:00	-0.20990	0.15625	287.82292	566.30208	0.00000
14-03-07 10:18:00	-0.17734	1.51302	287.89583	568.35417	0.00000
14-03-07 10:19:00	-0.13594	1.33854	284.90104	554.16667	0.00000
14-03-07 10:20:00	-0.15156	0.61979	272.90104	314.54167	0.00000
14-03-07 10:21:00	-0.14401	1.18229	274.30729	262.46875	0.00000
14-03-07 10:22:00	-0.14740	1.55208	274.40104	262.54167	0.00000
14-03-07 10:23:00	-0.14896	1.24740	274.13021	262.14583	0.00000
14-03-07 10:24:00	-0.14714	1.86979	274.05729	262.56250	0.00000
14-03-07 10:25:00	-0.14635	1.60156	274.22396	261.98958	0.00000
14-03-07 10:26:00	-0.14557	1.46094	274.89062	265.19792	0.00000
14-03-07 10:27:00	-0.14271	1.63802	287.48437	488.44792	0.00000
14-03-07 10:28:00	-0.14635	1.07031	288.49479	567.31250	0.00000
14-03-07 10:29:00	-0.14375	1.68750	288.32812	567.30208	0.00000
14-03-07 10:30:00	-0.14661	1.26563	288.40104	566.63542	0.00000
14-03-07 10:31:00	-0.14661	1.58073	288.57812	567.30208	0.00000
14-03-07 10:32:00	-0.15052	0.87500	288.89583	567.13542	0.00000
14-03-07 10:33:00	-0.14740	0.97396	287.30729	565.12500	0.00000
14-03-07 10:34:00	-0.14818	1.50260	275.06250	361.70833	0.00000
14-03-07 10:35:00	-0.14479	1.29948	274.54687	263.66667	0.00000
14-03-07 10:36:00	-0.14635	1.56510	274.63021	262.28125	0.00000
14-03-07 10:37:00	-0.14583	1.26823	274.88542	262.85417	0.00000
14-03-07 10:38:00	-0.14531	1.17448	274.95833	262.48958	0.00000
14-03-07 10:39:00	-0.14635	1.48698	274.88021	262.50000	0.00000
14-03-07 10:40:00	-0.14583	0.89583	274.86458	264.85417	0.00000
14-03-07 10:41:00	-0.14479	0.99219	284.32292	419.29167	0.00000
14-03-07 10:42:00	-0.14427	1.50781	288.65104	564.95833	0.00000
14-03-07 10:43:00	-0.14323	1.21354	288.89583	568.33333	0.00000
14-03-07 10:44:00	-0.14948	0.77865	289.38542	568.82292	0.00000
14-03-07 10:45:00	-0.14740	1.77083	289.31250	567.46875	0.00000
14-03-07 10:46:00	-0.14427	0.91406	289.38542	568.32292	0.00000
14-03-07 10:47:00	-0.14167	1.15104	289.29687	569.16667	0.00000
14-03-07 10:48:00	-0.14557	1.34375	282.88542	516.38542	0.00000
14-03-07 10:49:00	-0.14245	1.21094	275.03646	293.42708	0.00000
14-03-07 10:50:00	-0.14063	1.28906	274.96354	262.96875	0.00000
14-03-07 10:51:00	-0.14401	1.29427	275.31771	263.05208	0.00000
14-03-07 10:52:00	-0.14714	0.95833	275.14062	262.65625	0.00000
14-03-07 10:53:00	-0.14167	1.03385	275.22917	262.56250	0.00000
14-03-07 10:54:00	-0.14453	1.18490	275.21875	262.66667	0.00000
14-03-07 10:55:00	-0.14870	1.38281	276.46875	273.42708	0.00000
14-03-07 10:56:00	-0.14557	1.36458	289.13021	517.31250	0.00000
14-03-07 10:57:00	-0.13906	2.09896	289.53646	568.47917	0.00000
14-03-07 10:58:00	-0.14245	1.47396	289.81250	566.32292	0.00000
14-03-07 10:59:00	-0.14479	0.57812	289.29687	569.59375	0.00000
14-03-07 11:00:00	-0.14141	1.59635	289.63542	570.30208	0.00000
14-03-07 11:01:00	-0.14219	2.10677	289.54167	570.16667	0.00000
14-03-07 11:02:00	-0.14036	1.39323	289.69792	569.67708	0.00000
14-03-07 11:03:00	-0.14557	1.82031	289.87500	569.44792	0.00000
14-03-07 11:04:00	-0.14297	23.64844	266.23958	523.15625	0.00000
14-03-07 11:05:00	-0.15313	64.05729	6.33854	105.76042	0.00000
14-03-07 11:06:00	-0.15078	65.44271	2.33854	5.95833	0.00000
14-03-07 11:07:00	-0.15729	65.96094	1.64583	5.42708	0.00000
14-03-07 11:08:00	-0.15521	66.55469	1.42187	4.75000	0.00000
14-03-07 11:09:00	-0.15651	66.92188	0.92187	4.45833	0.00000
14-03-07 11:10:00	-0.15208	92.72135	6.08333	9.62500	0.00000
14-03-07 11:11:00	-0.15938	143.38542	6.76562	13.43750	0.00000
14-03-07 11:12:00	-0.15807	144.17969	3.14583	4.57292	0.00000
14-03-07 11:13:00	-0.15521	144.91667	2.50000	4.41667	0.00000
14-03-07 11:14:00	-0.15599	145.21615	2.25000	4.44792	0.00000
14-03-07 11:15:00	-0.15417	144.87500	1.92708	4.42708	0.00000

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14-03-07 11:16:00	-0.15599	121.00000	1.82812	4.38542	0.00000
14-03-07 11:17:00	-0.15391	67.52865	0.57812	4.39583	0.00000
14-03-07 11:18:00	-0.15443	67.47656	0.43750	4.44792	0.00000
14-03-07 11:19:00	-0.15234	67.55990	0.43229	4.39583	0.00000
14-03-07 11:20:00	-0.15495	67.39844	0.43229	4.41667	0.00000
14-03-07 11:21:00	-0.15234	67.45052	0.43750	4.43750	0.00000
14-03-07 11:22:00	-0.15182	76.69271	0.43229	4.40625	0.00000
14-03-07 11:23:00	-0.15573	142.92708	1.49479	4.44792	0.00000
14-03-07 11:24:00	-0.15495	145.36458	1.41146	4.41667	0.00000
14-03-07 11:25:00	-0.15625	145.32552	1.41667	4.42708	0.00000
14-03-07 11:26:00	-0.15417	145.86198	1.41146	4.37500	0.00000
14-03-07 11:27:00	-0.15547	145.79167	1.41667	4.43750	0.00000
14-03-07 11:28:00	-0.15182	132.22135	1.40625	4.41667	0.00000
14-03-07 11:29:00	-0.15469	68.29427	0.52604	4.44792	0.00000
14-03-07 11:30:00	-0.15313	67.43750	0.26562	4.41667	0.00000
14-03-07 11:31:00	-0.15573	67.24479	-0.05729	4.41667	0.00000
14-03-07 11:32:00	-0.15495	67.58073	0.43229	4.39583	0.00000
14-03-07 11:33:00	-0.15651	67.04427	0.43750	4.42708	0.00000
14-03-07 11:34:00	-0.15443	97.42448	0.59375	4.44792	0.00000
14-03-07 11:35:00	-0.15286	145.15885	1.58333	4.45833	0.00000
14-03-07 11:36:00	-0.15469	145.76823	1.42187	4.44792	0.00000
14-03-07 11:37:00	-0.15677	145.67708	1.40625	4.39583	0.00000
14-03-07 11:38:00	-0.15885	146.27865	1.42187	4.39583	0.00000
14-03-07 11:39:00	-0.15859	144.59115	1.41667	4.45833	0.00000
14-03-07 11:40:00	0.33073	139.16146	1.40625	4.43750	0.00000

GOLDEN SPECIALTY

Air Quality Test Report

APPENDIX F – Fuel Gas Drum CGA Results

CYLINDER GAS AUDIT (CGA) ASSESSMENT DATA SHEET

Company:	Valero Refining-Texas, L.P.	**Analyzer Info**	
Location:	Houston, TX	**Manufacturer:**	Siemens
Source:	Fuel Gas Drum	**Model No:**	Maxum II
CEMS type:	H_2S	**Range (ppm):**	0 - 300 ppm
Audit Date:	February 20, 2014	**Serial No.:**	5083970001
Project No.:	VALHR-14-0193	**Personnel.:**	CB/JJ

$$\text{Accuracy} = \left(\frac{C_m - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

	Response			
Trial No. 1:	72.78	Gas type:	Protocol	
Trial No. 2:	73.34	Concentration (C_a):	65.39	ppm
Trial No. 3:	72.41	Tank serial #:	CC354912	
Average (C_m) :	72.84	Expiration Date:	December 26, 2016	
Accuracy %:	11.40			

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

	Response			
Trial No. 1:	185.97	Gas type:	Protocol	
Trial No. 2:	189.35	Concentration (C_a):	167.6	ppm
Trial No. 3:	190.22	Tank serial #:	CC215867	
Average (C_m) :	188.51	Expiration Date:	December 3, 2016	
Accuracy %:	12.48			

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value, ± 5 ppm, or ≤ 0.7% O_2 or CO_2

FORM# GSC-WP004-001
REV 2013-01, EFF 3/1/13

CYLINDER GAS AUDIT (CGA) ASSESSMENT DATA SHEET

Project No.: VALHRI40193

Valero

Company: Refining-Texas, L.P. **Analyzer Info**
Location: Houston, TX **Manufacturer:** SIEMENS
Source: Fuel Gas (drum) **Model No:** MAXUM II
CEMS type: H_2S **Range (ppm/%):** 0-300ppm
Audit Date: 2-20-14 **Serial No.:** 5083970001
Time Period: 1325-1435 Personnel: CB, JJ

$$\text{Accuracy} = \left(\frac{C_m - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

Response

Trial No. 1: 72.78
Trial No. 2: 73.34
Trial No. 3: 72.41
Average (C_m): 72.84

Gas type: Protocol
Concentration (C_a): 65.39
Cylinder serial #: CC354917 ppm/%
Expiration Date: 12/16 (2/24/14)
12/26/16

Accuracy %: 11.39

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

Response

Trial No. 1: 185.97
Trial No. 2: 189.35
Trial No. 3: 190.22
Average (C_m): 188.51

Gas type: Protocol
Concentration (C_a): 167.6 ppm
Tank serial #: CC215867
Expiration Date: 12/16
12/3/2016

3/25/14 CB

Accuracy %: 12.48

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value or +/- 5 ppm

Fuelgas 022014

REALTIME DATA SAMPLES AND AVERAGES REPORT
Cirrus - Process Analysts, Inc.

Title: Fuel Gas CGA 022014
Sample Interval: 10 seconds
Average Interval: 60 seconds

Date	Time	Fuel Gas-H2S ppm				
14-02-20	12:58:10	0.32501	0.00000	0.00000	0.00000	0.00000
14-02-20	12:59:10	0.21057	0.00000	0.00000	0.00000	0.00000
14-02-20	13:00:10	0.09613	0.00000	0.00000	0.00000	0.00000
14-02-20	13:01:10	0.17624	0.00000	0.00000	0.00000	0.00000
14-02-20	13:02:10	0.25635	0.00000	0.00000	0.00000	0.00000
14-02-20	13:03:10	0.24490	0.00000	0.00000	0.00000	0.00000
14-02-20	13:04:10	0.23346	0.00000	0.00000	0.00000	0.00000
14-02-20	13:05:10	0.25253	0.00000	0.00000	0.00000	0.00000
14-02-20	13:06:10	0.27924	0.00000	0.00000	0.00000	0.00000
14-02-20	13:07:10	0.27924	0.00000	0.00000	0.00000	0.00000
14-02-20	13:08:10	0.27924	0.00000	0.00000	0.00000	0.00000
14-02-20	13:09:10	0.22583	0.00000	0.00000	0.00000	0.00000
14-02-20	13:10:10	0.11902	0.00000	0.00000	0.00000	0.00000
14-02-20	13:11:10	0.11139	0.00000	0.00000	0.00000	0.00000
14-02-20	13:12:10	0.09613	0.00000	0.00000	0.00000	0.00000
14-02-20	13:13:10	0.10376	0.00000	0.00000	0.00000	0.00000
14-02-20	13:14:10	0.11902	0.00000	0.00000	0.00000	0.00000
14-02-20	13:15:10	0.11139	0.00000	0.00000	0.00000	0.00000
14-02-20	13:16:10	0.09613	0.00000	0.00000	0.00000	0.00000
14-02-20	13:17:10	0.13046	0.00000	0.00000	0.00000	0.00000
14-02-20	13:18:10	0.21057	0.00000	0.00000	0.00000	0.00000
14-02-20	13:19:10	0.21820	0.00000	0.00000	0.00000	0.00000
14-02-20	13:20:10	0.23346	0.00000	0.00000	0.00000	0.00000
14-02-20	13:21:10	0.23727	0.00000	0.00000	0.00000	0.00000
14-02-20	13:22:10	0.25635	0.00000	0.00000	0.00000	0.00000
14-02-20	13:23:10	0.24490	0.00000	0.00000	0.00000	0.00000
14-02-20	13:24:10	0.18768	0.00000	0.00000	0.00000	0.00000
14-02-20	13:25:10	0.18387	0.00000	0.00000	0.00000	0.00000
14-02-20	13:26:10	0.16479	0.00000	0.00000	0.00000	0.00000
14-02-20	13:27:10	0.17624	0.00000	0.00000	0.00000	0.00000
14-02-20	13:28:10	0.23346	0.00000	0.00000	0.00000	0.00000
14-02-20	13:29:10	0.23727	0.00000	0.00000	0.00000	0.00000
14-02-20	13:30:10	75.81406	0.00000	0.00000	0.00000	0.00000
14-02-20	13:31:10	75.80261	0.00000	0.00000	0.00000	0.00000
14-02-20	13:32:10	76.85165	0.00000	0.00000	0.00000	0.00000
14-02-20	13:33:10	76.84402	0.00000	0.00000	0.00000	0.00000
14-02-20	13:34:10	77.08435	0.00000	0.00000	0.00000	0.00000
14-02-20	13:35:10	77.08054	0.00000	0.00000	0.00000	0.00000
14-02-20	13:36:10	77.40097	0.00000	0.00000	0.00000	0.00000
14-02-20	13:37:10	77.43912	0.00000	0.00000	0.00000	0.00000
14-02-20	13:38:10	77.88925	0.00000	0.00000	0.00000	0.00000
14-02-20	13:39:10	77.88544	0.00000	0.00000	0.00000	0.00000
14-02-20	13:40:10	77.17209	0.00000	0.00000	0.00000	0.00000
14-02-20	13:41:10	77.03476	0.00000	0.00000	0.00000	0.00000
14-02-20	13:42:10	72.99881	0.00000	0.00000	0.00000	0.00000
14-02-20	13:43:10	72.20535	0.00000	0.00000	0.00000	0.00000
14-02-20	13:44:10	72.59064	0.00000	0.00000	0.00000	0.00000
14-02-20	13:45:10	72.78137	0.00000	0.00000	0.00000	0.00000
14-02-20	13:46:10	73.18573	0.00000	0.00000	0.00000	0.00000
14-02-20	13:47:10	73.37265	0.00000	0.00000	0.00000	0.00000
14-02-20	13:48:10	73.38028	0.00000	0.00000	0.00000	0.00000

Fuelgas 022014

14-02-20 13:49:10	73.37646	0.00000	0.00000	0.00000	0.00000
14-02-20 13:50:10	150.66986	0.00000	0.00000	0.00000	0.00000
14-02-20 13:51:10	189.31274	0.00000	0.00000	0.00000	0.00000
14-02-20 13:52:10	185.98633	0.00000	0.00000	0.00000	0.00000
14-02-20 13:53:10	184.32312	0.00000	0.00000	0.00000	0.00000
14-02-20 13:54:10	185.97107	0.00000	0.00000	0.00000	0.00000
14-02-20 13:55:10	187.61902	0.00000	0.00000	0.00000	0.00000
14-02-20 13:56:10	188.31711	0.00000	0.00000	0.00000	0.00000
14-02-20 13:57:10	189.01520	0.00000	0.00000	0.00000	0.00000
14-02-20 13:58:10	188.98087	0.00000	0.00000	0.00000	0.00000
14-02-20 13:59:10	188.94653	0.00000	0.00000	0.00000	0.00000
14-02-20 14:00:10	131.17676	0.00000	0.00000	0.00000	0.00000
14-02-20 14:01:10	73.41080	0.00000	0.00000	0.00000	0.00000
14-02-20 14:02:10	73.35358	0.00000	0.00000	0.00000	0.00000
14-02-20 14:03:10	73.30399	0.00000	0.00000	0.00000	0.00000
14-02-20 14:04:10	73.34213	0.00000	0.00000	0.00000	0.00000
14-02-20 14:05:10	73.39172	0.00000	0.00000	0.00000	0.00000
14-02-20 14:06:10	73.63205	0.00000	0.00000	0.00000	0.00000
14-02-20 14:07:10	74.10889	0.00000	0.00000	0.00000	0.00000
14-02-20 14:08:10	112.82425	0.00000	0.00000	0.00000	0.00000
14-02-20 14:09:10	190.29694	0.00000	0.00000	0.00000	0.00000
14-02-20 14:10:10	188.81302	0.00000	0.00000	0.00000	0.00000
14-02-20 14:11:10	185.85663	0.00000	0.00000	0.00000	0.00000
14-02-20 14:12:10	187.02393	0.00000	0.00000	0.00000	0.00000
14-02-20 14:13:10	189.35852	0.00000	0.00000	0.00000	0.00000
14-02-20 14:14:10	189.59503	0.00000	0.00000	0.00000	0.00000
14-02-20 14:15:10	190.06805	0.00000	0.00000	0.00000	0.00000
14-02-20 14:16:10	190.85770	0.00000	0.00000	0.00000	0.00000
14-02-20 14:17:10	194.80591	0.00000	0.00000	0.00000	0.00000
14-02-20 14:18:10	174.38965	0.00000	0.00000	0.00000	0.00000
14-02-20 14:19:10	72.29691	0.00000	0.00000	0.00000	0.00000
14-02-20 14:20:10	72.29309	0.00000	0.00000	0.00000	0.00000
14-02-20 14:21:10	72.28928	0.00000	0.00000	0.00000	0.00000
14-02-20 14:22:10	72.41135	0.00000	0.00000	0.00000	0.00000
14-02-20 14:23:10	72.97592	0.00000	0.00000	0.00000	0.00000
14-02-20 14:24:10	72.98355	0.00000	0.00000	0.00000	0.00000
14-02-20 14:25:10	72.97211	0.00000	0.00000	0.00000	0.00000
14-02-20 14:26:10	72.97974	0.00000	0.00000	0.00000	0.00000
14-02-20 14:27:10	78.08762	0.00000	0.00000	0.00000	0.00000
14-02-20 14:28:10	78.10669	0.00000	0.00000	0.00000	0.00000
14-02-20 14:29:10	190.43427	0.00000	0.00000	0.00000	0.00000
14-02-20 14:30:10	190.43427	0.00000	0.00000	0.00000	0.00000
14-02-20 14:31:10	190.22827	0.00000	0.00000	0.00000	0.00000
14-02-20 14:32:10	190.22827	0.00000	0.00000	0.00000	0.00000
14-02-20 14:33:10	190.29694	0.00000	0.00000	0.00000	0.00000
14-02-20 14:34:10	190.29694	0.00000	0.00000	0.00000	0.00000
14-02-20 14:35:10	189.75906	0.00000	0.00000	0.00000	0.00000
14-02-20 14:36:10	189.75525	0.00000	0.00000	0.00000	0.00000
14-02-20 14:37:10	31.74286	0.00000	0.00000	0.00000	0.00000
14-02-20 14:38:10	0.14191	0.00000	0.00000	0.00000	0.00000

GOLDEN SPECIALTY

Air Quality Test Report

APPENDIX G – Crude Atmospheric Heater North Stack CGA Results

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Company: Valero Refining-Texas, L.P.
Location: Houston, TX
Source: Crude Atmospheric Heater North Stack
CEMS type: O_2
Audit Date: March 4, 2014
Project No.: VALHR-14-0193

Analyzer Info
Manufacturer: Servomex
Model No: 1440
Range (%): 0 - 25 %
Serial No.: 1056
Personnel.: CB/JJ

$$\text{Accuracy} = \left(\frac{\overline{C_m} - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

	Response
Trial No. 1:	4.93
Trial No. 2:	4.94
Trial No. 3:	4.94
Average (C_m) :	4.94

Gas type: Protocol
Concentration (C_a): 4.998 %
Tank serial #: XC025367B
Expiration Date: September 23, 2021

Accuracy %: -1.23

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

	Response
Trial No. 1:	9.58
Trial No. 2:	9.58
Trial No. 3:	9.58
Average (C_m) :	9.58

Gas type: Protocol
Concentration (C_a): 10.07 %
Tank serial #: CC432504
Expiration Date: April 22, 2021

Accuracy %: -4.87

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value, ± 5 ppm, or ≤ 0.7% O_2 or CO_2

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Company: Valero Refining-Texas, L.P.
Location: Houston, TX
Source: Crude Atmospheric Heater North Stack
CEMS type: NO_x
Audit Date: March 4, 2014
Project No.: VALHR-14-0193

Analyzer Info
Manufacturer: TECO
Model No: 42C-HL
Range (ppm): 0 - 200 ppm
Serial No.: 42CHL-63970-342
Personnel.: CB/JJ

$$\text{Accuracy} = \left(\frac{\overline{C_m} - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

	Response
Trial No. 1:	50.84
Trial No. 2:	50.80
Trial No. 3:	51.01
Average (C_m) :	50.88

Gas type: Protocol
Concentration (C_a): 50.13 ppm
Tank serial #: CC213571
Expiration Date: February 11, 2017

Accuracy %: 1.50

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

	Response
Trial No. 1:	115.30
Trial No. 2:	115.52
Trial No. 3:	115.33
Average (C_m) :	115.37

Gas type: Protocol
Concentration (C_a): 113.4 ppm
Tank serial #: CC287378
Expiration Date: May 16, 2021

Accuracy %: 1.74

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value, ± 5 ppm, or ≤ 0.7% O_2 or CO_2

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Company: Valero Refining-Texas, L.P.
Location: Houston, TX
Source: Crude Atmospheric Heater North Stack
CEMS type: CO
Audit Date: March 4, 2014
Project No.: VALHR-14-0193

Analyzer Info
Manufacturer: TECO
Model No: 48C-HL
Range (ppm): 0 - 500 ppm
Serial No.: 48C-64042-342
Personnel.: CB/JJ

$$\text{Accuracy} = \left(\frac{\overline{C_m} - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

	Response
Trial No. 1:	112.85
Trial No. 2:	112.78
Trial No. 3:	113.02
Average (C_m) :	112.88
Accuracy %:	-8.45

Gas type: Protocol
Concentration (C_a): 123.3 ppm
Tank serial #: CC213571
Expiration Date: February 11, 2017

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

	Response
Trial No. 1:	264.47
Trial No. 2:	263.17
Trial No. 3:	263.39
Average (C_m) :	263.68
Accuracy %:	-3.91

Gas type: Protocol
Concentration (C_a): 274.4 ppm
Tank serial #: CC16093
Expiration Date: February 11, 2022

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value, ± 5 ppm, or ≤ 0.7% O_2 or CO_2

FORM# GSC-WP004-001
REV 2013-01, EFF 3/1/13

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Company: Valero Refining-Texas, L.P.
Location: Houston, TX
Source: Crude Atmospheric HTR
CEMS type: O2 North Stack
Audit Date: 3-4-14
Time Period: 1225-1417
Project No.: VALHR140193

Analyzer Info
Manufacturer: Servomex
Model No: 1440
Range (ppm/%): 0-25%
Serial No.: 1056
Personnel: CB, JJ

$$\text{Accuracy} = \left(\frac{\overline{C_m} - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

	Response
Trial No. 1:	4.93
Trial No. 2:	4.94
Trial No. 3:	4.94
Average (C_m) :	4.93

Gas type: Protocol
Concentration (C_a): 4.998 ppm/%
Cylinder serial #: XC025367B
Expiration Date: 9-23-2021

3/25/14 BS

Accuracy %: -1.~~06~~ 23 [illegible]

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

	Response
Trial No. 1:	9.58
Trial No. 2:	9.58
Trial No. 3:	9.58
Average (C_m) :	9.58
Accuracy %:	-4.86

Gas type: Protocol
Concentration (C_a): 10.07 ppm/%
Cylinder serial #: CC432504
Expiration Date: 4-22-2021

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value or +/- 5 ppm

FORM# GSC-WP004-001
REV 2013-01, EFF 3/1/13

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Valero

Company: Refining-Texas, L.P. **Analyzer Info**
Location: Houston, TX **Manufacturer:** TECO
Source: Crude Atmospheric HTR **Model No:** 42C-HL
CEMS type: NOx North Stack **Range (ppm/%):** 0-200 ppm
Audit Date: 3-4-14 **Serial No.:** 42CHL-63970-342
Time Period: 1225-1417 **Personnel:** CB, JJ
Project No.: VALHR140193

$$\text{Accuracy} = \left(\frac{C_m - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

Response
Trial No. 1: 50.84
Trial No. 2: 50.80
Trial No. 3: 51.01
Average (C_m): 50.88

Gas type: Protocol
Concentration (C_a): 50.13 ppm/%
Cylinder serial #: CC213571
Expiration Date: 7-11-2017

Accuracy %: 1.50

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

Response
Trial No. 1: 115.30
Trial No. 2: 115.52
Trial No. 3: 115.33
Average (C_m): 115.37

Gas type: Protocol
Concentration (C_a): 113.4 ppm/%
Cylinder serial #: CC287378
Expiration Date: 5-16-2021

Accuracy %: 1.74

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value or +/- 5 ppm

FORM# GSC-WP004-001
REV 2013-01, EFF 3/1/13

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Valero

Company: Refining-Texas, L.P. **Analyzer Info**
Location: Houston, TX **Manufacturer:** TECO
Source: Crude Atmospheric HTR **Model No:** 48C-HL
CEMS type: CO North Stack **Range (ppm/%):** 0-500 ppm
Audit Date: 3-4-14 **Serial No.:** 48C-64042-342
Time Period: 1225-1417 **Personnel:** CB, JJ
Project No.: VALHR140193

$$\text{Accuracy} = \left(\frac{C_m - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

Response
Trial No. 1: 112.85
Trial No. 2: 112.78
Trial No. 3: 113.02
Average (C_m): 112.88

Gas type: Protocol
Concentration (C_a): 123.3 ppm/%
Cylinder serial #: CC213571
Expiration Date: 2/11/2017 3/25/14 BS

Accuracy %: -8.44

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

Response
Trial No. 1: 264.17
Trial No. 2: 263.17
Trial No. 3: 263.39
Average (C_m): 263.67

Gas type: Protocol
Concentration (C_a): 274.9 ppm/%
Cylinder serial #: CC16093
Expiration Date: 2-11-2022

Accuracy %: -3.90

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value or +/- 5 ppm

reports ah stack1 cga 3-4-14

REALTIME DATA SAMPLES AND AVERAGES REPORT
Cirrus - Process Analysts, Inc.

Title: ATMOS# 1 CGA 3-4-14
Sample Interval: 10 seconds
Average Interval: 60 seconds

Date	Time	AH1-O2 % dry	AH1-NOx ppm dry	AH1-CO ppm dry		
14-03-04	12:26:00	0.00000	49.97202	112.60999	0.00000	0.00000
14-03-04	12:27:00	0.00000	49.94214	112.52734	0.00000	0.00000
14-03-04	12:28:00	0.00000	50.04260	112.60046	0.00000	0.00000
14-03-04	12:29:00	0.00000	50.01780	112.85000	0.00000	0.00000
14-03-04	12:30:00	0.00000	50.01144	112.68788	0.00000	0.00000
14-03-04	12:31:00	0.00000	114.71924	169.55634	0.00000	0.00000
14-03-04	12:32:00	0.00000	200.00000	262.56167	0.00000	0.00000
14-03-04	12:33:00	0.00000	200.00000	264.14956	0.00000	0.00000
14-03-04	12:34:00	0.00000	200.00000	264.38640	0.00000	0.00000
14-03-04	12:35:00	0.00000	200.00000	264.47382	0.00000	0.00000
14-03-04	12:36:00	0.00000	200.00000	264.14002	0.00000	0.00000
14-03-04	12:37:00	0.00000	148.57201	193.71646	0.00000	0.00000
14-03-04	12:38:00	0.00000	52.93863	114.09616	0.00000	0.00000
14-03-04	12:39:00	0.00000	51.54053	113.27916	0.00000	0.00000
14-03-04	12:40:00	0.00000	51.10628	113.10114	0.00000	0.00000
14-03-04	12:41:00	0.00000	50.94543	112.78325	0.00000	0.00000
14-03-04	12:42:00	0.00000	50.80873	113.02167	0.00000	0.00000
14-03-04	12:43:00	0.00000	113.39615	166.81449	0.00000	0.00000
14-03-04	12:44:00	0.00000	200.00000	261.64454	0.00000	0.00000
14-03-04	12:45:00	0.00000	200.00000	263.96359	0.00000	0.00000
14-03-04	12:46:00	0.00000	200.00000	263.71881	0.00000	0.00000
14-03-04	12:47:00	0.00000	200.00000	263.17362	0.00000	0.00000
14-03-04	12:48:00	0.00000	200.00000	262.75081	0.00000	0.00000
14-03-04	12:49:00	0.00000	186.60131	211.13082	0.00000	0.00000
14-03-04	12:50:00	0.00000	53.60431	115.68246	0.00000	0.00000
14-03-04	12:51:00	0.00000	51.80629	113.27758	0.00000	0.00000
14-03-04	12:52:00	0.00000	51.30655	113.10432	0.00000	0.00000
14-03-04	12:53:00	0.00000	51.01282	112.77689	0.00000	0.00000
14-03-04	12:54:00	0.00000	51.01091	113.02326	0.00000	0.00000
14-03-04	12:55:00	0.00000	50.87422	112.35568	0.00000	0.00000
14-03-04	12:56:00	0.00000	108.63088	165.72887	0.00000	0.00000
14-03-04	12:57:00	0.00000	200.00000	260.73059	0.00000	0.00000
14-03-04	12:58:00	0.00000	200.00000	264.62800	0.00000	0.00000
14-03-04	12:59:00	0.00000	200.00000	263.31350	0.00000	0.00000
14-03-04	13:00:00	0.00000	200.00000	263.39774	0.00000	0.00000
14-03-04	13:01:00	0.00000	200.00000	262.64274	0.00000	0.00000
14-03-04	13:02:00	0.01033	200.00000	237.73874	0.00000	0.00000
14-03-04	13:03:00	0.00000	141.28964	36.11938	0.00000	0.00000
14-03-04	13:04:00	0.00000	116.06457	2.11878	0.00000	0.00000
14-03-04	13:05:00	0.00000	115.40335	1.62127	0.00000	0.00000
14-03-04	13:06:00	0.00000	115.36139	1.36854	0.00000	0.00000
14-03-04	13:07:00	0.00000	115.30226	1.20006	0.00000	0.00000
14-03-04	13:08:00	0.00000	115.10325	1.28430	0.00000	0.00000
14-03-04	13:09:00	0.00000	137.04064	82.98524	0.00000	0.00000
14-03-04	13:10:00	0.00000	200.00000	256.82205	0.00000	0.00000
14-03-04	13:11:00	0.00000	200.00000	262.69996	0.00000	0.00000
14-03-04	13:12:00	0.54384	200.00000	240.42179	0.00000	0.00000
14-03-04	13:13:00	0.00000	142.80028	120.59078	0.00000	0.00000
14-03-04	13:14:00	0.00000	51.83808	112.02824	0.00000	0.00000
14-03-04	13:15:00	0.00000	51.10628	112.85954	0.00000	0.00000
14-03-04	13:16:00	0.00000	51.00710	113.19810	0.00000	0.00000

14-03-04	13:17:00	0.00000	50.84243	112.94219	0.00000	0.00000
14-03-04	13:18:00	0.00000	50.81381	112.36044	0.00000	0.00000
14-03-04	13:19:00	0.00000	62.14109	96.93929	0.00000	0.00000
14-03-04	13:20:00	0.00000	113.79416	10.23308	0.00000	0.00000
14-03-04	13:21:00	0.00000	115.39699	1.53703	0.00000	0.00000
14-03-04	13:22:00	0.00000	115.43450	1.20006	0.00000	0.00000
14-03-04	13:23:00	0.00000	115.52987	1.11582	0.00000	0.00000
14-03-04	13:24:00	0.00000	115.53750	1.11582	0.00000	0.00000
14-03-04	13:25:00	0.00000	100.38847	21.47548	0.00000	0.00000
14-03-04	13:26:00	0.00000	51.40764	105.73549	0.00000	0.00000
14-03-04	13:27:00	0.00000	50.94288	112.94219	0.00000	0.00000
14-03-04	13:28:00	0.00000	50.80936	112.68311	0.00000	0.00000
14-03-04	13:29:00	0.00000	50.80682	113.03279	0.00000	0.00000
14-03-04	13:30:00	0.00000	50.90982	113.09478	0.00000	0.00000
14-03-04	13:31:00	0.00000	69.95562	76.57009	0.00000	0.00000
14-03-04	13:32:00	0.00000	115.19672	3.22506	0.00000	0.00000
14-03-04	13:33:00	0.00000	115.29653	1.42259	0.00000	0.00000
14-03-04	13:34:00	0.00000	115.43259	1.20006	0.00000	0.00000
14-03-04	13:35:00	0.00000	115.33595	1.11582	0.00000	0.00000
14-03-04	13:36:00	0.00000	115.16938	1.11582	0.00000	0.00000
14-03-04	13:37:00	2.11107	91.84405	1.03316	0.00000	0.00000
14-03-04	13:38:00	2.14890	29.39841	1.11582	0.00000	0.00000
14-03-04	13:39:00	3.45776	44.56906	4.07225	0.00000	0.00000
14-03-04	13:40:00	0.83249	36.75962	51.36886	0.00000	0.00000
14-03-04	13:41:00	0.00000	49.63950	111.44808	0.00000	0.00000
14-03-04	13:42:00	0.00000	50.57857	112.18719	0.00000	0.00000
14-03-04	13:43:00	0.00000	50.87612	113.02803	0.00000	0.00000
14-03-04	13:44:00	0.00000	51.01282	112.52893	0.00000	0.00000
14-03-04	13:45:00	0.00000	51.00901	113.26168	0.00000	0.00000
14-03-04	13:46:00	1.86518	54.82948	71.75714	0.00000	0.00000
14-03-04	13:47:00	2.13865	28.12110	4.14537	0.00000	0.00000
14-03-04	13:48:00	4.34866	17.90010	18.09148	0.00000	0.00000
14-03-04	13:49:00	4.91460	1.10183	1.20006	0.00000	0.00000
14-03-04	13:50:00	4.92684	0.66885	1.03316	0.00000	0.00000
14-03-04	13:51:00	4.93391	0.49973	1.03316	0.00000	0.00000
14-03-04	13:52:00	4.93359	0.40436	1.11582	0.00000	0.00000
14-03-04	13:53:00	8.68207	3.33918	1.03316	0.00000	0.00000
14-03-04	13:54:00	9.56844	0.46794	1.11582	0.00000	0.00000
14-03-04	13:55:00	9.57798	0.40182	1.11582	0.00000	0.00000
14-03-04	13:56:00	9.58290	0.20409	1.11582	0.00000	0.00000
14-03-04	13:57:00	9.58465	0.20600	1.11582	0.00000	0.00000
14-03-04	13:58:00	9.58410	0.19837	1.11582	0.00000	0.00000
14-03-04	13:59:00	5.01044	0.37257	1.11582	0.00000	0.00000
14-03-04	14:00:00	4.95727	0.17103	0.86786	0.00000	0.00000
14-03-04	14:01:00	4.94742	0.00000	0.95528	0.00000	0.00000
14-03-04	14:02:00	4.94122	0.00000	0.86786	0.00000	0.00000
14-03-04	14:03:00	4.94098	0.00000	0.86786	0.00000	0.00000
14-03-04	14:04:00	8.42870	0.10109	1.03316	0.00000	0.00000
14-03-04	14:05:00	9.56884	0.00000	1.11582	0.00000	0.00000
14-03-04	14:06:00	9.58187	0.00000	1.11582	0.00000	0.00000
14-03-04	14:07:00	9.58807	0.00000	1.11582	0.00000	0.00000
14-03-04	14:08:00	9.58926	0.00000	1.11582	0.00000	0.00000
14-03-04	14:09:00	5.79875	0.06994	1.11582	0.00000	0.00000
14-03-04	14:10:00	4.96300	0.00000	1.03316	0.00000	0.00000
14-03-04	14:11:00	4.95267	0.00000	1.03316	0.00000	0.00000
14-03-04	14:12:00	4.94869	0.00000	1.03316	0.00000	0.00000
14-03-04	14:13:00	4.94663	0.00000	1.03316	0.00000	0.00000
14-03-04	14:14:00	8.43490	0.00000	1.11582	0.00000	0.00000
14-03-04	14:15:00	9.57178	0.00000	1.11582	0.00000	0.00000
14-03-04	14:16:00	9.57996	0.00000	1.11582	0.00000	0.00000
14-03-04	14:17:00	9.58616	0.00000	1.11582	0.00000	0.00000

GOLDEN SPECIALTY

Air Quality Test Report

APPENDIX H – Crude Atmospheric Heater South Stack CGA Results

CYLINDER GAS AUDIT (CGA) ASSESSMENT DATA SHEET

Company: Valero Refining-Texas, L.P.
Location: Houston, TX
Source: Crude Atmospheric Heater South Stack
CEMS type: O_2
Audit Date: March 4, 2014
Project No.: VALHR-14-0193

Analyzer Info
Manufacturer: Servomex
Model No: 1440
Range (%): 0 - 25 %
Serial No.: 1056
Personnel.: CB/JJ

$$\text{Accuracy} = \left(\frac{C_m - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

	Response
Trial No. 1:	4.95
Trial No. 2:	4.93
Trial No. 3:	4.93
Average (C_m) :	4.94

Gas type: Protocol
Concentration (C_a): 4.998 %
Tank serial #: XC025367B
Expiration Date: September 23, 2021

Accuracy %: -1.23

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

	Response
Trial No. 1:	9.60
Trial No. 2:	9.59
Trial No. 3:	9.59
Average (C_m) :	9.59

Gas type: Protocol
Concentration (C_a): 10.07 %
Tank serial #: CC432504
Expiration Date: April 22, 2021

Accuracy %: -4.73

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value, ± 5 ppm, or ≤ 0.7% O_2 or CO_2

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Company: Valero Refining-Texas, L.P.
Location: Houston, TX
Source: Crude Atmospheric Heater South Stack
CEMS type: NO_x
Audit Date: March 4, 2014
Project No.: VALHR-14-0193

Analyzer Info
Manufacturer: TECO
Model No: 42C-HL
Range (ppm): 0 - 200 ppm
Serial No.: 42CHL-63970-342
Personnel.: CB/JJ

$$\text{Accuracy} = \left(\frac{C_m - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

	Response
Trial No. 1:	46.84
Trial No. 2:	47.87
Trial No. 3:	48.17
Average (C_m) :	47.63

Gas type: Protocol
Concentration (C_a): 50.13 ppm
Tank serial #: CC213571
Expiration Date: February 11, 2017

Accuracy %: -4.99

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

	Response
Trial No. 1:	113.03
Trial No. 2:	114.46
Trial No. 3:	115.39
Average (C_m) :	114.29

Gas type: Protocol
Concentration (C_a): 113.4 ppm
Tank serial #: CC287378
Expiration Date: May 16, 2021

Accuracy %: 0.79

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value, ± 5 ppm, or ≤ 0.7% O_2 or CO_2

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Company: Valero Refining-Texas, L.P.
Location: Houston, TX
Source: Crude Atmospheric Heater South Stack
CEMS type: CO
Audit Date: March 4, 2014
Project No.: VALHR-14-0193

Analyzer Info
Manufacturer: TECO
Model No: 48C-HL
Range (ppm): 0 - 500 ppm
Serial No.: 48C-64042-342
Personnel.: CB/JJ

$$\text{Accuracy} = \left(\frac{C_m - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

	Response
Trial No. 1:	113.61
Trial No. 2:	113.52
Trial No. 3:	113.69
Average (C_m) :	113.61

Gas type: Protocol
Concentration (C_a): 123.3 ppm
Tank serial #: CC213571
Expiration Date: February 11, 2017

Accuracy %: -7.86

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

	Response
Trial No. 1:	267.81
Trial No. 2:	267.39
Trial No. 3:	266.71
Average (C_m) :	267.30

Gas type: Protocol
Concentration (C_a): 274.4 ppm
Tank serial #: CC16093
Expiration Date: February 11, 2022

Accuracy %: -2.59

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value, ± 5 ppm, or ≤ 0.7% O_2 or CO_2

FORM# GSC-WP004-001
REV 2013-01, EFF 3/1/13

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Valero

Company: Refining-Texas, L.P. **Analyzer Info**
Location: Houston, TX **Manufacturer:** Servomex
Source: Crude Atmospheric HTR **Model No:** 1440
CEMS type: O2 South Stack **Range (ppm/%):** 0-25%
Audit Date: 3-4-14 **Serial No.:** 1056
Time Period: 1000-1220 **Personnel:** CB, JJ
Project No.: VALHR140193

$$\text{Accuracy} = \left(\frac{C_m - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

Response

Trial No. 1: 4.95
Trial No. 2: 4.93
Trial No. 3: 4.93
Average (C_m): 4.93

Gas type: Protocol
Concentration (C_a): 4.998 ppm/%
Cylinder serial #: XC025367B
Expiration Date: 9-23-2021

3/26/14 ES

Accuracy %: -1.06 23 Rounded

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

Response

Trial No. 1: 9.60
Trial No. 2: 9.59
Trial No. 3: 9.59
Average (C_m): 9.59

Gas type: Protocol
Concentration (C_a): 10.07 ppm/%
Cylinder serial #: CC432504
Expiration Date: 4-22-2021

Accuracy %: -4.73

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value or +/- 5 ppm

FORM# GSC-WP004-001
REV 2013-01, EFF 3/1/13

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Valero

Company: Refining-Texas, L.P. **Analyzer Info**
Location: Houston, TX **Manufacturer:** TECO
Source: Crude Atmospheric HTR **Model No:** 42C-HL
CEMS type: NOx South Stack **Range (ppm/%):** 0-200 ppm
Audit Date: 3-4-14 **Serial No.:** 42CHL-63970-342
Time Period: 1000-1220 **Personnel:** CB, JJ
Project No.: VALHR140193

$$\text{Accuracy} = \left(\frac{C_m - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

Response

Trial No. 1: 46.89
Trial No. 2: 47.87
Trial No. 3: 48.17
Average (C_m): 47.62

Gas type: Protocol
Concentration (C_a): 50.13 ppm/%
Cylinder serial #: CC213571
Expiration Date: 2-11-2017

Accuracy %: -4.99

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

Response

Trial No. 1: 113.03
Trial No. 2: 114.46
Trial No. 3: 115.39
Average (C_m): 114.29

Gas type: Protocol
Concentration (C_a): 113.9 ppm/%
Cylinder serial #: CC287378
Expiration Date: 5-16-2021

Accuracy %: 0.78

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value or +/- 5 ppm

FORM# GSC-WP004-001
REV 2013-01, EFF 3/1/13

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Valero

Company: Refining-Texas, L.P. **Analyzer Info**
Location: Houston, TX **Manufacturer:** TECO
Source: Crude Atmospheric HTR **Model No:** 48C-HL
CEMS type: CO South Stack **Range (ppm/%):** 0-500 ppm
Audit Date: 3-4-14 **Serial No.:** 48C-64042-342
Time Period: 1000-1220 **Personnel:** CB, JJ
Project No.: VALHR140193

$$\text{Accuracy} = \left(\frac{C_m - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

Response

Trial No. 1: 113.61
Trial No. 2: 113.52
Trial No. 3: 113.69
Average (C_m): 113.60

Gas type: Protocol
Concentration (C_a): 123.3 ppm/%
Cylinder serial #: CC213571
Expiration Date: 2-11-2017

Accuracy %: -7.86

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

Response

Trial No. 1: 267.81
Trial No. 2: 267.39
Trial No. 3: 266.71
Average (C_m): 267.30

Gas type: Protocol
Concentration (C_a): 274.4 ppm/%
Cylinder serial #: CC160093
Expiration Date: 2-11-2022

Accuracy %: -2.58

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value or +/- 5 ppm

reports ah stack2 cga 3-4-14

REALTIME DATA SAMPLES AND AVERAGES REPORT
Cirrus - Process Analysts, Inc.

Title: ATMOS#2 CGA 3-4-14
Sample Interval: 10 seconds
Average Interval: 60 seconds

Date	Time	AH2-O2 % dry	AH2-NOx ppm dry	AH2-CO ppm dry		
14-03-04	10:13:20	4.95600	0.00000	0.70255	0.00000	0.00000
14-03-04	10:14:20	4.95521	0.00000	0.61990	0.00000	0.00000
14-03-04	10:15:20	4.95735	0.00000	0.62467	0.00000	0.00000
14-03-04	10:16:20	4.95648	0.00000	0.86786	0.00000	0.00000
14-03-04	10:17:20	4.95497	0.00000	0.70255	0.00000	0.00000
14-03-04	10:18:20	4.95696	0.00000	0.78997	0.00000	0.00000
14-03-04	10:19:20	4.95553	0.00000	0.70255	0.00000	0.00000
14-03-04	10:20:20	4.95855	0.00000	0.70255	0.00000	0.00000
14-03-04	10:21:20	4.95894	0.00000	0.61990	0.00000	0.00000
14-03-04	10:22:20	4.95871	0.00000	0.61990	0.00000	0.00000
14-03-04	10:23:20	4.95425	0.00000	0.62467	0.00000	0.00000
14-03-04	10:24:20	4.95505	0.00000	0.78520	0.00000	0.00000
14-03-04	10:25:20	4.95449	0.00000	0.70255	0.00000	0.00000
14-03-04	10:26:20	4.95576	0.00000	0.78520	0.00000	0.00000
14-03-04	10:27:20	4.95521	0.00000	0.70255	0.00000	0.00000
14-03-04	10:28:20	4.95529	0.00000	0.61990	0.00000	0.00000
14-03-04	10:29:20	4.95497	0.00000	0.61990	0.00000	0.00000
14-03-04	10:30:20	4.96880	0.00000	0.78997	0.00000	0.00000
14-03-04	10:31:20	4.34898	13.96900	0.61990	0.00000	0.00000
14-03-04	10:32:20	9.54428	0.43488	0.78520	0.00000	0.00000
14-03-04	10:33:20	9.59324	0.00000	1.03316	0.00000	0.00000
14-03-04	10:34:20	9.60540	0.00000	1.11582	0.00000	0.00000
14-03-04	10:35:20	9.60746	0.00000	1.11582	0.00000	0.00000
14-03-04	10:36:20	9.60746	0.00000	1.11582	0.00000	0.00000
14-03-04	10:37:20	9.60746	0.00000	1.11582	0.00000	0.00000
14-03-04	10:38:20	6.19842	13.48834	0.70255	0.00000	0.00000
14-03-04	10:39:20	2.84724	25.78266	0.12398	0.00000	0.00000
14-03-04	10:40:20	2.90517	25.68475	0.12398	0.00000	0.00000
14-03-04	10:41:20	4.94663	16.96422	2.55748	0.00000	0.00000
14-03-04	10:42:20	4.58613	20.00458	0.53883	0.00000	0.00000
14-03-04	10:43:20	4.93256	0.33824	0.61990	0.00000	0.00000
14-03-04	10:44:20	4.93280	0.00191	0.61990	0.00000	0.00000
14-03-04	10:45:20	4.93097	0.00000	0.61990	0.00000	0.00000
14-03-04	10:46:20	4.93264	0.00000	0.61990	0.00000	0.00000
14-03-04	10:47:20	7.95138	1.03443	2.97869	0.00000	0.00000
14-03-04	10:48:20	9.58235	0.00000	0.95846	0.00000	0.00000
14-03-04	10:49:20	9.59029	0.00000	0.61990	0.00000	0.00000
14-03-04	10:50:20	9.59220	0.00000	0.61990	0.00000	0.00000
14-03-04	10:51:20	9.59769	0.00000	0.61990	0.00000	0.00000
14-03-04	10:52:20	9.59451	0.00000	0.61990	0.00000	0.00000
14-03-04	10:53:20	5.07982	0.00000	0.62467	0.00000	0.00000
14-03-04	10:54:20	4.93979	0.00000	0.61990	0.00000	0.00000
14-03-04	10:55:20	4.93598	0.00000	0.62467	0.00000	0.00000
14-03-04	10:56:20	4.93462	0.00000	0.61990	0.00000	0.00000
14-03-04	10:57:20	4.93105	0.00000	0.61990	0.00000	0.00000
14-03-04	10:58:20	8.98963	0.00000	0.61990	0.00000	0.00000
14-03-04	10:59:20	9.58823	0.00000	0.61990	0.00000	0.00000
14-03-04	11:00:20	9.59355	0.00000	0.61990	0.00000	0.00000
14-03-04	11:01:20	9.59634	0.00000	0.61990	0.00000	0.00000
14-03-04	11:02:20	9.59880	0.00000	0.65169	0.00000	0.00000
14-03-04	11:03:20	9.59856	0.00000	0.61990	0.00000	0.00000

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14-03-04 11:04:20	8.39151	0.00000	0.62943	0.00000	0.00000
14-03-04 11:05:20	2.49119	17.47094	0.20663	0.00000	0.00000
14-03-04 11:06:20	3.25947	23.76020	1.29384	0.00000	0.00000
14-03-04 11:07:20	0.00334	33.99837	79.31989	0.00000	0.00000
14-03-04 11:08:20	0.00000	42.70428	107.95758	0.00000	0.00000
14-03-04 11:09:20	0.00000	43.56641	107.87016	0.00000	0.00000
14-03-04 11:10:20	0.00000	44.09857	108.54251	0.00000	0.00000
14-03-04 11:11:20	0.00000	44.83546	108.04659	0.00000	0.00000
14-03-04 11:12:20	0.00000	45.50304	107.88605	0.00000	0.00000
14-03-04 11:13:20	0.00000	46.16744	108.12130	0.00000	0.00000
14-03-04 11:14:20	0.00000	46.43448	108.62039	0.00000	0.00000
14-03-04 11:15:20	0.00000	46.84011	108.46463	0.00000	0.00000
14-03-04 11:16:20	0.00000	47.03784	108.03547	0.00000	0.00000
14-03-04 11:17:20	0.32831	72.56873	53.20789	0.00000	0.00000
14-03-04 11:18:20	0.00000	113.43366	1.04111	0.00000	0.00000
14-03-04 11:19:20	0.00000	113.17045	0.61990	0.00000	0.00000
14-03-04 11:20:20	0.00000	113.03503	0.70732	0.00000	0.00000
14-03-04 11:21:20	0.00000	113.22958	0.61990	0.00000	0.00000
14-03-04 11:22:20	0.00000	82.76303	49.70944	0.00000	0.00000
14-03-04 11:23:20	0.00000	47.64439	107.71439	0.00000	0.00000
14-03-04 11:24:20	0.00000	47.61133	108.04341	0.00000	0.00000
14-03-04 11:25:20	0.00000	47.74230	108.04500	0.00000	0.00000
14-03-04 11:26:20	0.00000	47.87645	107.83678	0.00000	0.00000
14-03-04 11:27:20	0.00000	48.00870	107.95917	0.00000	0.00000
14-03-04 11:28:20	0.00000	88.41077	39.04879	0.00000	0.00000
14-03-04 11:29:20	0.00000	114.50116	0.95051	0.00000	0.00000
14-03-04 11:30:20	0.00000	114.63277	0.62943	0.00000	0.00000
14-03-04 11:31:20	0.00000	114.46682	0.62943	0.00000	0.00000
14-03-04 11:32:20	0.00000	114.53549	0.61990	0.00000	0.00000
14-03-04 11:33:20	0.00000	87.73111	37.89642	0.00000	0.00000
14-03-04 11:34:20	0.00000	47.93749	106.71937	0.00000	0.00000
14-03-04 11:35:20	0.00000	48.07418	108.29773	0.00000	0.00000
14-03-04 11:36:20	0.00000	48.03667	107.95440	0.00000	0.00000
14-03-04 11:37:20	0.00000	48.17337	108.21508	0.00000	0.00000
14-03-04 11:38:20	0.00000	48.30434	108.21508	0.00000	0.00000
14-03-04 11:39:20	0.00000	77.44780	51.20673	0.00000	0.00000
14-03-04 11:40:20	0.00000	115.13631	1.00932	0.00000	0.00000
14-03-04 11:41:20	0.00000	115.26538	0.63420	0.00000	0.00000
14-03-04 11:42:20	0.00000	115.33405	0.70732	0.00000	0.00000
14-03-04 11:43:20	0.00000	115.39890	0.61990	0.00000	0.00000
14-03-04 11:44:20	0.00000	115.20307	0.62943	0.00000	0.00000
14-03-04 11:45:20	0.00000	85.63172	50.20377	0.00000	0.00000
14-03-04 11:46:20	0.01868	43.30065	107.37901	0.00000	0.00000
14-03-04 11:47:20	0.00000	46.79878	107.61902	0.00000	0.00000
14-03-04 11:48:20	0.00000	48.73604	112.10772	0.00000	0.00000
14-03-04 11:49:20	0.00000	48.46711	113.52236	0.00000	0.00000
14-03-04 11:50:20	0.00000	48.53831	113.61137	0.00000	0.00000
14-03-04 11:51:20	0.00000	48.67565	113.27758	0.00000	0.00000
14-03-04 11:52:20	0.00000	116.95086	180.45383	0.00000	0.00000
14-03-04 11:53:20	0.00000	200.00000	265.56896	0.00000	0.00000
14-03-04 11:54:20	0.00000	200.00000	266.88982	0.00000	0.00000
14-03-04 11:55:20	0.00000	200.00000	266.31285	0.00000	0.00000
14-03-04 11:56:20	0.00000	200.00000	267.81967	0.00000	0.00000
14-03-04 11:57:20	0.00000	200.00000	267.40799	0.00000	0.00000
14-03-04 11:58:20	0.00000	149.37438	204.27539	0.00000	0.00000
14-03-04 11:59:20	0.00000	51.34407	115.27078	0.00000	0.00000
14-03-04 12:00:20	0.00000	49.87729	113.94834	0.00000	0.00000
14-03-04 12:01:20	0.00000	49.40490	114.10410	0.00000	0.00000
14-03-04 12:02:20	0.00000	49.40108	113.52394	0.00000	0.00000
14-03-04 12:03:20	0.00000	49.40490	113.51759	0.00000	0.00000
14-03-04 12:04:20	0.00000	117.18801	179.03283	0.00000	0.00000
14-03-04 12:05:20	0.00000	200.00000	265.47678	0.00000	0.00000
14-03-04 12:06:20	0.00000	200.00000	264.97609	0.00000	0.00000

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14-03-04 12:07:20	0.00000	200.00000	268.30924	0.00000	0.00000
14-03-04 12:08:20	0.00000	200.00000	267.39688	0.00000	0.00000
14-03-04 12:09:20	0.00000	200.00000	266.97090	0.00000	0.00000
14-03-04 12:10:20	0.00000	142.18992	175.54075	0.00000	0.00000
14-03-04 12:11:20	0.00000	51.53925	113.43811	0.00000	0.00000
14-03-04 12:12:20	0.00000	50.27721	113.51759	0.00000	0.00000
14-03-04 12:13:20	0.00000	49.97711	113.69402	0.00000	0.00000
14-03-04 12:14:20	0.00000	49.80735	113.52236	0.00000	0.00000
14-03-04 12:15:20	0.00000	119.24798	187.80836	0.00000	0.00000
14-03-04 12:16:20	0.00000	200.00000	264.39116	0.00000	0.00000
14-03-04 12:17:20	0.00000	200.00000	266.47816	0.00000	0.00000
14-03-04 12:18:20	0.00000	200.00000	266.90730	0.00000	0.00000
14-03-04 12:19:20	0.00000	200.00000	266.71817	0.00000	0.00000
14-03-04 12:20:20	0.00000	200.00000	266.23337	0.00000	0.00000
14-03-04 12:21:20	0.00000	200.00000	265.89798	0.00000	0.00000
14-03-04 12:22:20	0.00000	200.00000	265.89798	0.00000	0.00000

GOLDEN SPECIALTY

THE GOLD STANDARD FOR AIR TESTING

Air Quality Test Report

Annual Relative Accuracy Test Audit for O_2 and SO_2 CEMS

Valero Refining-Texas, L.P.
Houston, Texas

Sulfur Recovery Unit (SRU) B Incinerator – Unit 46

NSR Permit for SRUs 2507A; Operating Permit No.: O1381; EPN: 46CB6301

Report Number: VALHR-14-0193-B
Date Tested: March 25, 2014
Date Prepared: April 17, 2014

PREPARED FOR
Valero Refining – Texas, L.P.
Houston Refinery
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Prepared by:
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Air Quality Test Report

Annual Relative Accuracy Test Audit for O_2 and SO_2 CEMS

Valero Refining-Texas, L.P.
Houston, Texas

Sulfur Recovery Unit (SRU) B Incinerator – Unit 46

This report is supported by GOLDEN's Quality Assurance Manual. The information included in the report is authentic and accurate, and GOLDEN operated in conformance with ASTM D7036 to the best of our knowledge during this test program.

Certified by:

Scott B. Swiggard, Ph. D., QSTI 2006-025
Technical Director

Daniel A. Loubiere, QSTI 2008-128
Project Manager / Onsite QSTI

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GOLDEN SPECIALTY

Air Quality Test Report

EXECUTIVE SUMMARY

Golden Specialty, Inc. (GOLDEN) was contracted by Valero Refining-Texas, L.P., to perform air testing at their facility located in Houston, Texas. Testing was conducted on March 25, 2014. GOLDEN was contracted to perform an annual relative accuracy test audit (RATA) on a continuous emissions monitoring system (CEMS) located on the Sulfur Recovery Unit (SRU) B Incinerator exhaust stack. The measured parameters were oxygen (O_2) and sulfur dioxide (SO_2). The test was conducted in accordance with all appropriate United States Environmental Protection Agency (USEPA) Methodologies; as well as all applicable Texas Commission on Environmental Quality (TCEQ) mandates.

The purpose of the tests performed was to provide RATA results for demonstrating compliance of the CEMS with the applicable regulations, 40 CFR 60, Appendix B, Performance Specifications 2 and 3 O_2 and SO_2 CEMS. See Table 1-1 below for specifics on CEMS numbers and ranges for each CEMS component.

Component	*Make/Model*	*Serial Number*	*Range*
O_2	AMETEK / 2000	10209509	0-25 %
SO_2	Western Research / 921CE	AX-921-9764-1	0-500 ppm

Table 1-1. SRU B Incinerator CEMS Analyzers

The relative accuracy (RA) for each compound was based on calculated data collected from nine (9) twenty-one minute runs. A total of ten (10) runs were performed, with the results of the run with the highest deviation being discarded. All RA runs are presented in this report. The calculated RA results presented below. The RA for SO_2 was calculated using concentrations in terms of part per million by volume, dry basis, corrected to 0% O_2 (ppmvd @ 0% O_2). The RA results for O_2 are on a dry percent (% vd) basis. During the RATA test program, the SRU B Incinerator was operated at or near a production rate of 33 Long Tons per Day (LTPD). The estimated normal production rate is 60 LTPD. The maximum rated capacity is 225 LTPD.

RATA Calculations Nine - 21 minute average		
	SO_2 (ppmvd @ 0% O_2)	O_2 (% vd)
*Average RM Data	31.90	5.539
*Average CEMS Data	29.77	5.217
D-Bar=	2.13	0.322
Sigma-D=	0.87	0.022
CC=	0.67	0.017
RA (%RM)	6.78%	0.322
App. Std.	250.0	
RA(%CS)	1.12%	
RA Limit	10% App. Std.	1% O2
PASS RA?	YES	YES

Table 1-2. CEMS RATA Results vs. Allowable.

Based on the results shown in this report, the CEMS installed on the SRU B Incinerator is operating within the limits of the Code of Federal Regulations, 40 CFR 60 Appendix B as applicable.

INTRODUCTION

Purpose of Test

The purpose of the test conducted on the SRU B Incinerator was to verify that the CEMS, which was installed to continuously monitor emissions of O_2 and SO_2, were operating within the limitations set forth in the CFR and the Texas Administrative Code (30 TAC). The tolerances to be met for the RA portion of this test program are set forth in the Performance Specifications (PS) section of The Code of Federal Regulations, Title 40, Part 60 (40 CFR 60) Appendix B for O_2 and SO_2 CEMS. Mr. Dan Loubiere managed the project and, with the assistance of Messrs. Curtis Berridge and Justin Jones, performed the testing according to all applicable state and federal regulations. No agency personnel were onsite during testing.

Relative Accuracy Test Audit (RATA)

During the RATA performance tests, the exhaust gas stream was analyzed for the targeted pollutant and diluent gas concentrations. This sampling was conducted according to USEPA Reference Methods 3A and 6C for determination of O_2 and SO_2, respectively. These methods utilize instrument analysis to determine the gaseous concentrations for the required constituents within the stack. The reference methods are discussed in greater detail in the Performance Test Procedures section of this report.

The RATA testing consisted of drawing a representative sample of the exhaust gas stream into a conditioning system for removal of moisture. The sample was then allowed to pass into a set of hardware reference method (RM) analyzers, where the concentrations of the targeted pollutant and diluent gas concentrations were measured. These instantaneous readings were compiled in a data acquisition system (DAS) data based on a one-minute-average basis for comparison to the CEMS data. Reference methods employed for each of the targeted gases are described in the Performance Test Procedures section of this report.

The CEMS provides a record of the pollutant and diluent gas concentration data from the subject flue gas stream. This data was subsequently compared to the RM data for determination of the relative accuracy (RA) of the CEMS. The RA calculations are discussed in greater detail in the Sample Calculations section of this report.

GOLDEN utilized a single sampling system for the performance of this Test Program. The sampling system (System One) was utilized for relative accuracy (RA) determinations of O_2 and SO_2. The RA for SO_2 was calculated using concentrations in terms of part per million by volume, dry basis (ppmvd) corrected to 0% O_2. The RA results for O_2 are on a dry percent (% vd) basis. The test procedures referenced in this report are in accordance with the Test Plan for this project. Deviations from the Test Plan or published Reference Methods are documented in the Problems, Deviations and/or Exceptions section of this report.

Problems, Deviations and/or Exceptions

GOLDEN operates its instrumental test trailers utilizing redundant systems in accordance with SOP GSC-EF009. Due to a system malfunction with System Two, only System One was utilized for this test program.

PERFORMANCE TEST PROCEDURES

Instrumental Analyzer Procedure

Stack gas emissions of O_2 and SO_2 from the source were measured with RM analyzers. These tests were performed in accordance with the applicable regulations, as outlined in Title 40, Part 60, Appendix A of the Code of Federal Regulations. All field data collected during the testing and photocopies of the actual O_2 and SO_2 one-minute averaging are provided in this report.

Sampling System

A gas sample was continuously extracted from the source with a stainless steel probe and channeled through a heated sample line to a gas sample conditioner. The entire sample extraction and delivery system was maintained at a temperature above 225°F to the point the sample enters the sample conditioner. The sample conditioner was employed to decrease the dewpoint of the combustion gases to a repeatable, stable, low dew point. Condensed moisture was continuously removed from the sample conditioner by peristaltic pump and drained. The conditioned gas then traveled through a network of ¼-inch Teflon® tubing to a manifold in the mobile laboratory. From the manifold, the sample was directed to a set of rotometers, where the flow of the sample gas into the analyzers was maintained at approximately 1 liter per minute (L/min).

Analyzer Calibration

The calibration of the instruments was performed using Protocol certified gas standards composed of a known concentration of the given component in zero-grade nitrogen. A copy of the certification standards for each of the certified calibration standards used during the testing is included in Appendix C. All of the values obtained during the calibration process, including analyzer calibration, system bias analysis, and drift values, can be found in Appendix C of this report. The analyzer calibration procedures are identical, regardless of the constituent being evaluated by each analyzer. The range used for each analyzer was determined based on the expected concentration levels of the flue gas stream.

The first step in the analyzer calibration was to set the zero point on the analyzer using zero-grade nitrogen. The nitrogen is introduced directly to the back of each analyzer, and the zero potentiometer on the analyzer is adjusted until the proper output from the analyzer is realized. Next, a high-range calibration gas is introduced to each analyzer, with a concentration within the appropriate range of the instrument. The span potentiometer on each analyzer is then adjusted until the output from the analyzer corresponds to the value of the calibration standard. Finally, a mid-range calibration standard with a concentration approximately one-half of the high-range calibration standard is used to determine the linearity of the analyzer within the given range. For certain constituents, more than one mid-range value is required. The specific requirements for each constituent are discussed later in this section.

Analyzer Calibration Error

The Analyzer Calibration Error (ACE) is the difference between the gas concentration exhibited by the gas analyzer and the concentration of the calibration gas when introduced directly to the analyzer. The maximum allowable variance for the zero, mid-range, and high-range calibration gases is ± 2% of the span. The calibration values and corresponding percent errors associated with this project can be found in Appendix C of this report, and is determined by the following equation.

$$ACE = \left(\frac{Analyzer\ Response - Cylinder\ Value}{Calibration\ Span} \right) x100$$

System Bias Check

Following the analyzer calibration error procedure, a second test is required to determine the amount of bias the sampling system has on the calibration standard concentrations. In this procedure, the same calibration standards that were used to perform the analyzer calibration error test are introduced to the sampling system via a separate network of ¼-inch Teflon® tubing. The calibration gases are allowed to flood the system via a "t" connection at the end of the sample probe at a rate of approximately 2 L/min higher than the sample rate. The excess calibration gas flows out the tip of the probe, preventing stack gas from being drawn into the sampling system during calibrations. The gas is then drawn back through the system by the conditioning pumps, and is introduced to the analyzers. The output from the analyzers is recorded, without adjusting the zero or span potentiometers. The bias created by the sampling system is then determined by the following equation.

$$Bias = \left(\frac{System\ Response - Calibration\ Error\ Response}{Calibration\ Span} \right) x100$$

The maximum allowable system bias for any one analyzer is ±5% of the corresponding span value. The values determined for this portion of the calibration procedure can be found in Appendix C of this report.

Analyzer Drift

Utilizing the data obtained during the post-test bias check, a third test is performed to determine the amount of drift experienced during the test run. The analyzer response from the post-test system bias check is compared to the pre-test response for the same calibration standard for drift determinations. If the drift value is greater than the allowable value, the test run is considered invalid and the analyzers must be re-calibrated before continuing the test. The drift for each constituent is determined using the equation below.

$$Drift = \left(\frac{\left| Final\ System\ Calibration\ Response - Initial\ System\ Calibration\ Response \right|}{Calibration\ Span} \right) x100$$

The maximum allowable calibration drift for any one analyzer is 3% of the span over the period of each run. The values determined for this portion of the calibration procedure can be found in Appendix C of this report.

Response Time

System response times for each analyzer were determined during the initial pretest bias prior to run number 1. The response time is determined by the length of time it takes the analyzer response to be within 95% or 0.5 ppm (whichever is less restrictive) of the certified gas concentration. The start of each run was a minimum of twice the response time following the completion of calibration checks.

USEPA Reference Methods

This section provides a detailed description of the individual USEPA Reference Methods employed in this test (40 CFR 60, Appendix A). A schematic of the sampling system used to perform the test program on the SRU B Incinerator can be found in Figure 1-1. Specifics for each analyzer utilized in this test program are presented in Appendix A.

USEPA Method 3A: Oxygen and Carbon Dioxide Analysis (Instrumental Procedure)

This method was employed to determine the concentration of O_2 in the flue gas stream with the use of analytical instruments. A sample was continuously extracted from the stack and introduced to a RM analyzer for determination of concentration. The minimum detection limit for this instrument is one-hundredth of one percent (0.01%). The instrument is connected to a DAS computer via an analog-to-digital converter for recording resulting values, and the data was recorded in one-minute averages. Zero-grade nitrogen and USEPA Protocol-1 calibration standards were used to calibrate the analytical instrument. The general guidelines for the calibration of a RM analyzer are described above, with the specifics pertaining to the calibration of an O_2 analyzer being set forth in USEPA Method 3A (40 CFR Part 60, Appendix A). *(GOLDEN SOP: GSC-TM013)*

USEPA Method 6C: Sulfur Dioxide Analysis (Instrumental Procedure)

This method was employed to determine the concentration of SO_2 present in the exhaust gas stream. A sample was continuously extracted from the stack and introduced to a RM analyzer for determination of concentration. The minimum detection limit of this analyzer is 0.1 ppm. An analog-to-digital converter connected to a laptop computer directed the resulting values, where the data was recorded in one-minute averages. Zero-grade nitrogen and USEPA Protocol-1 calibration standards were used to calibrate the analytical instrument. The general guidelines for the calibration of a RM analyzer are described above, with the specifics pertaining to the calibration of a SO_2 analyzer being set forth in USEPA Method 6C (40 CFR Part 60, Appendix A). *(GOLDEN SOP: GSC-TM020)*

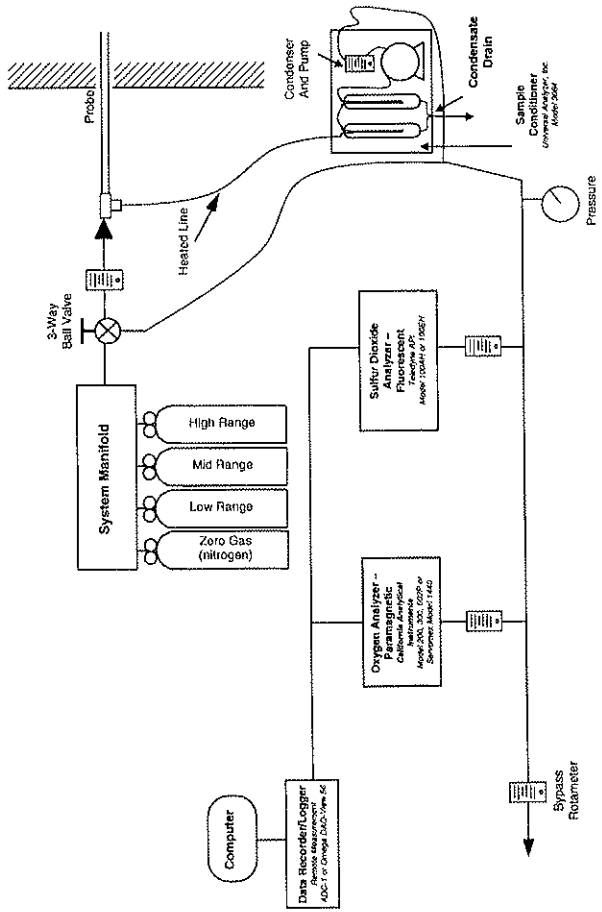


Figure 1-1. Sampling System Schematic

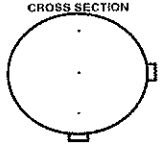
SOURCE INFORMATION

The purpose of the Sulfur Recovery Unit (SRU) is to process the hydrogen sulfide bearing gas (acid gas) from the amine regeneration unit and sour water stripping (SWS) unit. Approximately 96% of the feed is converted and recovered and elemental sulfur.

The testing location on the SRU B Incinerator Exhaust Stack consisted of two 4.0-inch diameter port on a 100.5 inch diameter circular stack. The sample port was positioned a distance of 100.0 feet upstream and 75.0 feet downstream from the nearest disturbances. This meets the requirements established in the Code of Federal Regulations for sample locations.

Traversing was performed at the sample points identified below in Figure 1-2. Data for System One is presented in Appendix E and may be compared minute by minute for the referenced test periods.

CROSS SECTION



TRAVERSE POINTS: 3
NUMBER OF PORTS: 1
POINTS/PORT: 3
STACK ID: 100.5 In.
PORT LENGTH: 6.0 In.

TRAVERSE POINT NO.	DISTANCE FROM INSIDE WALL, In.
1	16.8
2	50.3
3	83.7

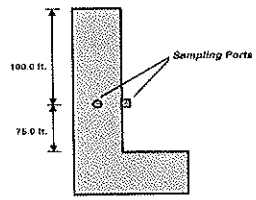


Figure 1-2. Diagram of Testing Location

SAMPLE CALCULATIONS

The following calculations were used in the determination of the relative accuracy for any one constituent being evaluated. The values listed in Table 1-3 below are the actual CEMS and RM SO_2 data obtained during the test. The units of comparison are in ppmvd @ 0% O_2.

Run #	1	2	3	4	5	6	7	8	9	10
C_{RM}	36.95	34.10	29.68	30.60	29.19	31.30	30.73	31.86	33.22	30.06
C_{CEMS}	26.99	23.78	19.68	20.16	19.46	21.23	20.80	21.36	22.55	21.14
D_i *	0.27	1.63	2.81	3.14	2.68	2.43	2.50	2.91	2.58	1.39

*The nine lowest differences between RM and CEMS Data were used in determination of relative accuracy.

Table 1-3. SRU B Incinerator RM and CEMS Data for SO_2 in ppmvd @ 0% O_2

Relative Accuracy Calculations

Determination of Average Difference (d_{avg})

$$\bar{d} = \left[\frac{1}{n}\sum_{i=1}^{n} d_i\right]$$

$$\bar{d} = \frac{1}{9}[d_1 + d_2 + d_3 + \ldots.]$$

Where:

$\bar{d}$ = *Average difference between RM and CEMS data*
n = *Number of data points*
d_i = *Difference between RM and CEMS data for any given point*

Determination of Standard Deviation (S_d)

$$S_d = \left[\frac{\sum_{i=1}^{n} d_i^2 - \frac{\left(\sum_{i=1}^{n} d_i\right)^2}{n}}{n-1}\right]^{1/2}$$

Where:

S_d = *Standard Deviation*
n = *Number of data points*
d_i = *Difference between RM and CEMS data for any given point*

Determination of Confidence Coefficient

$$CC = \left[\frac{(t_{0.975})(S_d)}{\sqrt{n}}\right]$$

Where:

CC = *Confidence coefficient*
$t_{0.975}$ = *t- value ($t_{0.975}$ = 2.306)*
S_d = *Standard deviation*
n = *Number of data points = 9*

Determination of Relative Accuracy

$$RA = \left[\frac{|\bar{d}| + |CC|}{RM_{avg}}\right] x100\%$$

Where:

RA = *Relative accuracy (%)*
$\bar{d}$ = *Average difference between RM and CEMS data (ppmvd)*
CC = *Confidence coefficient*
RM_{avg} = *Average reference method value (ppmvd)*

Determination of Alternate Relative Accuracy for SO_2

$$ALT\ RA = \left[\frac{|\bar{d}| + |CC|}{App.\ Std.}\right] x100\%$$

Where:

$ALT\ RA$ = *Alternative relative accuracy*
$\bar{d}$ = *Average difference between RM and CEMS data*
CC = *Confidence coefficient*
$App.\ Std.$ = *Applicable standard*

Determination of Relative Accuracy for O_2

$$RA = |\bar{d}|$$

$$\bar{d} = \frac{1}{9}[d_1 + d_2 + d_3 + ...]$$

Where:

RA = Relative accuracy (absolute difference)
$\bar{d}$ = Average difference between RM and CEMS data
d_i = Difference between RM and CEMS data for any given point

Calibration Correction

$$C_{gas} = (\overline{C} - C_o)(\frac{C_{ma}}{C_m - C_o})$$

Where:

C_{gas} = Effluent gas concentration (ppmvd or % vd)
C = Average gas concentration of gas analyzer (ppmvd or % vd)
C_o = Average of initial and final system calibration bias check responses for zero gas (ppmvd or % vd)
C_m = Average of initial and final system calibration bias check responses for the upscale calibration gas (ppmvd or % vd)
C_{ma} = Actual concentration of the upscale calibration gas (ppmvd or % vd)

Concentration (Corrected to 0% O_2)

$$C_{ppmvd\ @\ 0\%\ O2} = C_{gas}\ x\ ((20.9) \div (20.9 - O_2))$$

Where:

$C_{ppmvd\ @\ 0\%\ O2}$ = Concentration corrected to 0% O_2 (ppmvd)
C_{gas} = Effluent gas concentration (ppmvd)
% O_2 = Stack O_2 concentration (% vd)

TEST RESULTS

The RATA results for the SRU B Incinerator are listed on the following pages. The RA results for SO_2 are listed on a ppmvd corrected to 0% O_2 basis and O_2 results are shown as a dry percent (% vd). The limitations for each parameter are presented below with the results. Based on these limitations the SRU B Incinerator CEMS is operating within the relative accuracy limitations established.

RATA Calculations Nine - 21 minute average		
	SO_2 (ppmvd @ 0% O_2)	O_2 (% vd)
*Average RM Data	31.90	5.539
*Average CEMS Data	29.77	5.217
D-Bar=	2.13	0.322
Sigma-D=	0.87	0.022
CC=	0.67	0.017
RA (%RM)	8.78%	0.322
App. Std.	250.0	
RA(%ES)	1.12%	
RA Limit	10% App. Std.	1% O2
PASS RA?	YES	YES

Table 1-2. CEMS RATA Results vs. Allowable.

RUN #	Start Time	RATA Reference Method Data			CEMS Data		
		SO_2 (ppmvd)	SO_2 (ppmvd @ 0% O_2)	O_2 (% vd)	SO_2 (ppmvd)	SO_2 (ppmvd @ 0% O_2)	O_2 (% vd)
1	10:37	27.19	36.95	5.517	26.99	36.67	5.209
2	11:12	24.97	34.10	5.595	23.78	32.47	5.308
3	11:46	21.73	29.68	5.595	19.68	26.87	5.252
4	12:22	22.46	30.60	5.556	20.16	27.46	5.246
5	12:58	21.43	29.19	5.552	19.46	26.50	5.246
6	13:32	23.02	31.30	5.531	21.23	28.87	5.218
7	14:05	22.65	30.73	5.498	20.80	28.23	5.167
8	14:38	23.50	31.86	5.464	21.36	28.95	5.124
9	15:11	24.45	33.22	5.517	22.55	30.64	5.167
10	15:44	22.17	30.06	5.491	21.14	28.67	5.140

RUN #	Difference		Used Sensor	
	SO_2 (ppmvd @ 0% O_2)	O_2 (% vd)	SO_2 (Y/N)	O_2 (Y/N)
1	0.27	0.308	Y	Y
2	1.63	0.286	Y	Y
3	2.81	0.343	Y	Y
4	3.14	0.310	N	Y
5	2.68	0.306	Y	Y
6	2.43	0.314	Y	Y
7	2.50	0.331	Y	Y
8	2.91	0.360	Y	N
9	2.58	0.350	Y	Y
10	1.39	0.350	Y	Y
Total # Runs			9	9
t-value			2.30600	2.30600

RATA Calculations Nine - 21 minute average		
	SO_2 (ppmvd @ 0% O_2)	O_2 (% vd)
*Average RM Data	31.90	5.539
*Average CEMS Data	29.77	5.217
D-Bar=	2.13	0.322
Sigma-D=	0.67	0.022
CC=	0.67	0.017
RA (%RM)	6.78%	0.322
App. Std.	250.0	
RA(%ES)	1.12%	
RA Limit	10% App. Std.	1% O2
PASS RA?	YES	YES

*The nine runs with the lowest differences between RM and CEMS Data were used

Table 1-4. SRU B Incinerator CEMS RATA Results

APPENDIX A –
Testing Equipment

Testing Equipment

Provided in the Table 1-5 below is a list of all testing equipment used in the in the determination of the RA of the SRU B Incinerator CEMS.

Golden Specialty, Inc.			
Trailer 10			
Constituent	**Make / Model**	**Operating Range**	**Serial Number**
O_2_1	Servomex / 1440	0-25% vd	01440D1/4034
SO_2_1	API / 100EH	0-100 ppmvd	111

Table 1-5. Testing Equipment Used

APPENDIX B –
Resumes

SCOTT B. SWIGGARD, Ph.D., QSTI
PRESIDENT / TECHNICAL DIRECTOR

Professional Experience Summary

- Broad background in environmental compliance and regulatory issues. Has directed projects associated with air permitting, groundwater contamination, air toxins emissions control, hazardous materials control and reporting, wastewater process control (metals removal), energy conservation, industrial ventilation, noise control, bioremediation, and storm water control.
- Extensive background in emission testing, with over 1,600 tests personally conducted and/or supervised.
- Responsible for the continued development of testing capabilities and their research and development.
- Provides project management for testing at assigned client's facilities. Provides field support to the project managers on testing protocols and methods.
- Responsible for verification and validation on test data as part of a Quality Assurance/ Quality Control Program.

Selected Publications/Presentations

Swiggard, Scott and Spellicy, Robert, PhD., FTIR Monitoring in High Water and Carbon Dioxide Environments. Presented at the 2003 Air and Waste Management Association 96th Annual Conference and Exhibition, San Diego, CA, June 22-26, 2003.

Swiggard, Scott B., Comparative study of NH3 analysis and methods for SCR Slippage. Presented at Source Evaluation Society Annual Meeting, Kiawah Island, North Carolina, 2004

Swiggard, Scott B., Identifying In-Stack Detection Limits and Handling of Non-Detect Data, Presented at Source Evaluation Society Annual Meeting, Rohnert Park California, 2005

Swiggard, Scott B., Why Cooling Towers and Vents matter in Texas!, Presented at Source Evaluation Society Annual Meeting, Hilton Head North Carolina, 2006

Swiggard, Scott B., How accurate are your standards?, Presented at Source Evaluation Society Annual Meeting, Hilton Head North Carolina, 2006

Swiggard, Scott B., Bonnette Sidney, PhD., and Palomarez Jorge., Gas Chromatography (GC) Analysis of HRVOC's in Cooling Towers and Vents; including degradation 1,3-Butadiene in the presence of NOx compounds, Presented at the GAS2006 Conference, Galveston, Texas, April 2006

Swiggard, S., McCulloch, R. Stack Testing for Dummies®, Golden Specialty Edition. Indianapolis: Wiley Publishing, 2011.

Professional Affiliations

Source Evaluation Society (SES) – QSTI I-III #2006-025
Air and Waste Management Association (AWMA)
Source Testing Accreditation Council (STAC) – Member and Board of Directors
ASTM International, Voting Member D22, #395691

GOLDEN SPECIALTY

Air Quality Test Report

TROY M. BURROWS,
MBA, QSTO, ASQ-CQA, CSSBB, CMQ/QE
MANAGER OF QUALITY ASSURANCE AND SAFETY
DEPUTY TECHNICAL DIRECTOR

Professional Work Summary

- Effectively carry out the responsibilities of laboratory's quality and safety policies by emphasizing the importance of commitment and accountability.
- Created multiple Quality Management Systems from start-up through implementation.
- Proficient at preparing and implementing quality guidelines and safety procedures.
- Administer accurate safety logs and complete training records.
- Continuously perform thorough internal audits reducing deficiencies from regulatory or client audits.
- Manage and obtain all laboratory accreditations and licenses.
- Review and approve analytical data.
- Successfully implemented the quality rules detailed in the QA Manual.
- Performed and scheduled all trainings pertaining to the quality system.
- Responsible for the coordination of all audits, their deficiencies and corrective actions.
- Efficiently managed all levels of QA and Safety in accordance to regulatory and federal requirements.
- Recruited, hired and trained personnel in quality policies, safety and analytical methods.
- Created and provided both online and in-person training materials for Stack Testing firms.

Work Experience

Golden Specialty, Inc. (August 2013 – Present): QA/Safety Manager / Deputy Technical Director
Entec Services, Inc. (July 2010 – June 2013): Corporate Quality Manager
Dominion Virginia Power (February 2004 – July 2010): Quality Specialist / Instrument Technician III
Kelly Scientific Resources (October 2003 – February 2004): (Contract) Environmental Specialist
Battelle Memorial Institute (February 1993 – March 2003): Environmental Chemist / QC Inspector

Selected Publications/Presentations

Burrows, T.M., Quality Management Requirements for Source Testing Companies, SSSAAP Conference (SES), Point Clear, AL, March, 2014.

Burrows, T.M., Elam, D. The Rosetta Stone for Quality Management, SSSAAP Conference (SES), Hilton Head, SC, March, 2013.

Burrows, T.M., Quality Management Systems for Source Testers, SSSAAP Conference (SES), Panama City, FL, February, 2010.

Professional Affiliations

Source Evaluation Society (SES): QSTO I–III, QSTI IV #2008-113
The NELAC Institute (TNI), Field Activities Committee member
American Society for Testing and Materials (ASTM), D.22 Committee member
American Society for Quality (ASQ), Senior Member, Deputy Editor of the Quality Management Forum
Stack Testing Accreditation Council (STAC), Chair, Technical Assessment Board
American Association for Laboratory Accreditation (A2LA), Accreditation Council

Education

MBA, University of Maryland University College (UMUC), Adelphi, Maryland, 2013
B.S., Environmental Management / Business Law & Public Policy, University of Maryland University College (UMUC), Adelphi, Maryland, 2011

DANIEL A. LOUBIERE, QSTI
PROJECT MANAGER

Professional Experience Summary

- Responsible for designing, planning and managing sampling programs, daily assignments of field testing crews, sample analysis, data reduction, QA/QC reviews, and reporting activities.
- Broad background in environmental compliance and regulatory issues. Extensive experience designing and managing test programs to meet federal, state and local compliance demonstration requirements.
- Participated in or supervised over 1,700 tests across the United States, including hazardous waste incinerator trial burns, continuous emission monitoring systems (CEMS) certification, and compliance testing.
- Sampling experience includes flow stream characterization and monitoring of a number of types of flow streams for engineering purposes; emissions sampling for regulatory compliance demonstration; emissions sampling for systems audit requirements of continuous emission monitoring systems (CEMS) and predictive emissions monitoring systems (PEMS).
- Developed and manufactured equipment to perform sampling for highly reactive volatile organic compounds (HRVOC) to comply with TCEQ Chapter 115 Subchapter H requirements. Experienced in modified El Paso Method, Appendix P, (Cooling Tower Sampling for Volatile Organic Compounds); applicable to sampling and troubleshooting leaks in process systems.
- Assist clients in troubleshooting and repairing existing emissions monitoring systems, or designing and implementing new systems.

Work Experience

Golden Specialty, Inc. (June 2007 – Present)
Position: Project Manager

ARI Environmental, Inc. (March 1994 – June 2007)
Position: South Central Regional Manager

Professional Affiliations

Source Evaluation Society (SES) – QSTI I & III #2008-128, QI Groups II & IV
Air and Waste Management Association (AWMA)

Professional Education

24 Hour Hazwoper Training 29 CFR 1910.120
Preparation for the SES QSTI Exam Workshop, Walter Smith and Associates, 2007
Studies towards BS Degree in Environmental Science
Visible Emissions Certified (EPA Method 9)
Qualified Individual – Cylinder Gas Audits
Man-Lift Training, August 2006

PAULA M. METZ, QSTI
REPORTS DEPARTMENT MANAGER

Professional Experience Summary

- Experience with EPA testing regulations, including 40 CFR, Part 60, Part 75, and Part 266, and TCEQ testing regulations, including 30TAC115, 30TAC117, and TCEQ Sampling Procedures Manual.
- Over 12 years of experience and participation in over 600 tests in Texas, Arkansas, Ohio, Mississippi, South Dakota, Iowa, Kansas, Louisiana and Michigan.
- CEM instrumentation projects include continuous analysis for carbon monoxide (CO), total oxides of nitrogen (NO_x), oxygen (O_2), carbon dioxide (CO_2), total hydrocarbons (THC), and sulfur dioxide (SO_2).
- Sampling experience includes flow stream characterization and monitoring of a number of types of flow streams for engineering purposes; including analysis using 3-D spherical probes per Method 2F, emissions sampling for regulatory compliance demonstration; emissions sampling for systems audit requirements of continuous emission monitoring systems (CEMS).
- Conducted isokinetic sampling and calculations for Methods 1, 1A, 2, 2A, 2F, 3, 3B, 4, and 5, including sample recovery, preservation, and storage at the test site with associate sample custody requirements for the methods listed.
- Knowledgeable in the testing requirements and procedures for the testing and analysis of Predictive Emissions Monitoring Systems (PEMS). Participated in several new source performance standards (NSPS) for development of new PEMS, including initial data collection of emissions.
- Experienced in modified El Paso Method, Appendix P, (Cooling Tower Sampling for Volatile Organic Compounds); applicable to monthly sampling and troubleshooting leaks in Process systems.
- Experienced in report writing, review, and finished product.

Work Experience

Golden Specialty, Inc. (February 2001 – Present)
Position: Reports Department Manager

Professional Affiliations

Source Evaluation Society (SES) – QSTI I-III #2006-026

Education

Associate of Arts – Chemistry, San Jacinto Community College, December 2010
Visible Emissions Certified (EPA Method 9), 2004-2007
12 Hour Basic Instrumentation Training, California Analytical Instruments, January 2003
Source Sampling and CEMS Workshop, Walter Smith & Associates, 2002, 2003 and 2004
Preparation for the SES QSTI Exam Workshop, Walter Smith and Associates, 2005
SkillPath® Seminars, Employee Management and Supervision Workshop, 2003
Hazardous Materials Shipping Qualified, 2006
Man-Lift Training, August 2006
Fred Pryor®:Team Building Seminar, 2007
Fred Pryor®:Excel: Beyond the Basics" Seminar, 2007
Qualified Individual – EPA Method 320 & ASTM 6348-03

BARBARA L. SCHMEITZ
RECORDS COMPLIANCE ANALYST

Professional Experience Summary

- Proficient in operating and maintaining ambient air quality sampling equipment.
- Proficient in collection, processing and analysis of meteorological and chemistry data. Species include carbon monoxide (CO), total oxides of nitrogen (NO_x), oxygen (O_2), carbon dioxide (CO_2), and sulfur dioxide (SO_2).
- Proficient in maintaining, preparing and launching of meteorological, ozone (O_3), and sulfur dioxide (SO_2) sampling equipment.
- Responsible for documenting and maintaining the tracking of project data and test reports.
- Proficient in data importation for PEMS and CEMS RATAs, as well as multiple compliance test projects.
- Experienced in report writing, review and finished product.
- Proficient in Microsoft Word, Excel, Power Point and Access.
- Proficient in Esri GIS software ArcMAP, ArcGIS and ArcView.
- Experienced in WaveMetrics scientific graphing, data analysis, image processing and programming software IGOR.
- Experienced in C++ and MATLAB programming
- Fluent in Dutch and English, experienced in German and French.

Work Experience

Golden Specialty, Inc. (February 2011 – Present)
Position: Records Compliance Analyst

University of Houston, IMAQS – Institute for Multi-Dimensional Air Quality Studies (January 2009 – February 2011)
Position: Research Technician

C. Hecht & Co. (Netherlands) (November 2002 – November 2004)
Position: Sales & Production Coordinator

Grafico (Netherlands) (October 2000 – October 2002)
Position: Sales & Production Coordinator

Grafico (Netherlands) (August 1997 – October 2000)
Position: Engraver

Education

Bachelors of Science – Environmental Science, Environmental Systems & Modeling, University of Houston, May 2010
Associates of Science – Engineering / Environmental Science, Houston Community College, August 2007

CURTIS W. BERRIDGE
ENVIRONMENTAL TECHNICIAN

Professional Experience Summary

- In training for instrumentation methods: carbon monoxide (CO), total oxides of nitrogen (NO_x), oxygen (O_2), and carbon dioxide (CO_2).
- In training of USEPA testing regulations, including 40 CFR Part 60 and Part 75.
- In training for testing requirements and procedures for the testing and analysis of Continuous Emission Monitoring Systems (CEMS) and Predictive Emissions Monitoring Systems (PEMS) in accordance with Title 30 of the Texas Administrative Code, Chapter 117.
- In training for modified El Paso Method, Appendix P (Cooling Tower Sampling for Volatile Organic Compounds.
- In training for performing maintenance, repair and calibrations on a variety of air testing equipment.

Work Experience

Golden Specialty, Inc. (June 2012 – present)
Position: Environmental Technician

Guardian Maritime Services (August 2010 – April 2012)
Position: Drive / Agent

Academy Sport and Outdoors (October 2000 – July 2010)
Position: Manager

Education

Pasadena H.S. – Graduated, May 1997
Basic Plus Training (H.A.C.S.C.)
Qualified Individual – Appendix P & Method 18
Qualified Individual – Cylinder Gas Audits

JUSTIN C. JONES

ENVIRONMENTAL TECHNICIAN IN TRAINING

Professional Work Summary

- In training for instrumentation methods: carbon monoxide (CO), total oxides of nitrogen (NO_x), oxygen (O_2), and carbon dioxide (CO_2).
- In training of EPA testing regulations, including 40 CFR Part 60 and Part 75.
- In training for source compliance testing and emission sampling methodologies for stack gas velocity, moisture, and a variety of isokinetic (wet chemistry/particulate) testing.
- In training for performing maintenance and calibrations on a variety of air testing equipment.
- Proficient in Microsoft Word, Excel, and Power Point.

Work Experience

Golden Specialty, Inc. (May 2013 – Present)
Position: Environmental Technician in Training

Cooper Crouse Hinds (September 2012 – February 2013)
Position: Material Handler

Kids 'R' Kids (July 2010 – September 2012)
Position: Food Manager/Chef

Education/Training

HASC Basic Plus, 2013
40 hour Hazwoper certification
OSHA 10-hr Health and Safety Training
Lead Abatement Certification
Asbestos Remediation Certification

APPENDIX C –
Calibration Data

Valero Refining-Texas, L.P.
Houston Refinery
Houston, TX

Calibration Data

SRU 8 Incinerator
March 25, 2014

Calibration Gas & Analyzer Configuration Data		O_2..1	SO_2..1
Trailer 10	Mfg. And Model No.:	Servomex 1440	API 100EH
	Serial Number:	01440D1/4034	111
	Range Setting:	25	100
	Calibration Span:	20.02	95.5
	Units:	% vd	ppmvd
Zero Gas (N_2)	Cyl #:	Nitrogen	Nitrogen
	value:	0.00	0.0
Mid Calibration Gas	Cyl #:	CC429414	CC29920
	value:	9.61	50.44
High Calibration Gas	Cyl #:	CC437169	ALM005953
	value:	20.02	95.5
Bias Gas Used		MID	MID
Calibration Error			
	Zero Reading	**-0.03**	**-0.1**
	Mid Reading	**9.65**	**50.2**
	High Reading	**19.97**	**95.4**
Percent Error	Zero Reading	**0.15%**	**0.10%**
	Mid Reading	**0.20%**	**0.25%**
	High Reading	**0.25%**	**0.10%**
RA Run 1		O_2..1	SO_2..1
Pretest Bias	Zero Reading	**-0.03**	**0.6**
	Upscale Reading	**9.62**	50.4
	Zero Bias	0.00%	0.73%
	Span Bias	-0.15%	0.21%
Post Test Bias	Zero Reading	**-0.02**	**0.7**
	Upscale Reading	**9.71**	**49.4**
	Zero Bias	0.05%	0.84%
	Span Bias	0.30%	-0.84%
	Zero Drift	0.05%	0.10%
	Span Drift	0.45%	1.05%
Calculated Data			
	Avg. Zero Reading (C_o)=	-0.026	0.650
	Avg. Upscale Reading (C_m)=	9.665	49.900
	Actual Upscale Concentration (C_{ma})=	9.61	50.44
	Measured Concentration (C_{avg}) =		
	RA Run 1	5.538	27.203
	Corrected Concentration (C_{cor}) =		
	C_{cor}= (C_{avg}-C_o) x (C_{ma}/(C_m-C_o))		
	RA Run 1	**5.517**	**27.19**
RA Run 2		O_2..1	SO_2..1
Pretest Bias	Zero Reading	**-0.02**	**0.7**
	Upscale Reading	**9.71**	**49.4**
	Zero Bias	0.05%	0.84%
	Span Bias	0.30%	-0.84%
Post Test Bias	Zero Reading	**-0.04**	**0.8**
	Upscale Reading	**9.58**	**49.3**
	Zero Bias	-0.05%	0.94%
	Span Bias	-0.35%	-0.94%
	Zero Drift	0.10%	0.10%
	Span Drift	0.65%	0.10%
Calculated Data			
	Avg. Zero Reading (C_o)=	-0.030	0.750
	Avg. Upscale Reading (C_m)=	9.645	49.350
	Actual Upscale Concentration (C_{ma})=	9.61	50.44
	Measured Concentration (C_{avg}) =		
	RA Run 2	5.602	24.813
	Corrected Concentration (C_{cor}) =		
	C_{cor}= (C_{avg}-C_o) x (C_{ma}/(C_m-C_o))		
	RA Run 2	**5.595**	**24.97**

Valero Refining-Texas, L.P.
Houston Refinery
Houston, TX

Calibration Data

SRU 8 Incinerator
March 25, 2014

RA Run 3		O_2..1	SO_2..1
Pretest Bias	Zero Reading	**-0.04**	**0.8**
	Upscale Reading	**9.58**	**49.3**
	Zero Bias	-0.05%	0.94%
	Span Bias	-0.35%	-0.94%
Post Test Bias	Zero Reading	**-0.03**	**0.9**
	Upscale Reading	**9.58**	**49.5**
	Zero Bias	0.00%	1.05%
	Span Bias	-0.35%	-0.73%
	Zero Drift	0.05%	0.10%
	Span Drift	0.00%	0.21%
Calculated Data			
	Avg. Zero Reading (C_o)=	-0.035	0.850
	Avg. Upscale Reading (C_m)=	9.580	49.400
	Actual Upscale Concentration (C_{ma})=	9.61	50.44
	Measured Concentration (C_{avg}) =		
	RA Run 3	5.563	21.770
	Corrected Concentration (C_{cor}) =		
	C_{cor}= (C_{avg}-C_o) x (C_{ma}/(C_m-C_o))		
	RA Run 3	**5.595**	**21.73**
RA Run 4		O_2..1	SO_2..1
Pretest Bias	Zero Reading	**-0.03**	**0.9**
	Upscale Reading	**9.58**	**49.6**
	Zero Bias	0.00%	1.05%
	Span Bias	-0.35%	-0.73%
Post Test Bias	Zero Reading	**-0.04**	**0.8**
	Upscale Reading	**9.57**	**49.6**
	Zero Bias	-0.05%	0.94%
	Span Bias	-0.40%	-0.63%
	Zero Drift	0.05%	0.10%
	Span Drift	0.05%	0.10%
Calculated Data			
	Avg. Zero Reading (C_o)=	-0.035	0.850
	Avg. Upscale Reading (C_m)=	9.575	49.550
	Actual Upscale Concentration (C_{ma})=	9.61	50.44
	Measured Concentration (C_{avg}) =		
	RA Run 4	5.521	22.536
	Corrected Concentration (C_{cor}) =		
	C_{cor}= (C_{avg}-C_o) x (C_{ma}/(C_m-C_o))		
	RA Run 4	**5.556**	**22.46**
RA Run 5		O_2..1	SO_2..1
Pretest Bias	Zero Reading	**-0.04**	**0.8**
	Upscale Reading	**9.57**	**49.6**
	Zero Bias	-0.05%	0.94%
	Span Bias	-0.40%	-0.63%
Post Test Bias	Zero Reading	**-0.05**	**1.3**
	Upscale Reading	**9.56**	**50.8**
	Zero Bias	-0.10%	1.47%
	Span Bias	-0.45%	0.63%
	Zero Drift	0.05%	0.52%
	Span Drift	0.05%	1.26%
Calculated Data			
	Avg. Zero Reading (C_o)=	-0.045	1.050
	Avg. Upscale Reading (C_m)=	9.565	50.200
	Actual Upscale Concentration (C_{ma})=	9.61	50.44
	Measured Concentration (C_{avg}) =		
	RA Run 5	5.507	21.937
	Corrected Concentration (C_{cor}) =		
	C_{cor}= (C_{avg}-C_o) x (C_{ma}/(C_m-C_o))		
	RA Run 5	**5.552**	**21.43**

Valero Refining-Texas, L.P.
Houston Refinery
Houston, TX

Calibration Data

SRU B Incinerator
March 25, 2014

RA Run 6		O_2_1	SO_2_1
Pretest Bias	Zero Reading	-0.05	1.3
	Upscale Reading	9.56	50.8
	Zero Bias	-0.10%	1.47%
	Span Bias	-0.45%	0.63%
Post Test Bias	Zero Reading	-0.05	1.3
	Upscale Reading	9.56	50.7
	Zero Bias	-0.10%	1.47%
	Span Bias	-0.45%	0.52%
	Zero Drift	0.00%	0.00%
	Span Drift	0.00%	0.10%
Calculated Data			
	Avg. Zero Reading (C_o)=	-0.050	1.300
	Avg. Upscale Reading (C_m)=	9.560	50.750
	Actual Upscale Concentration (C_{ma})=	9.61	50.44
	Measured Concentration (C_{avg}) =		
	RA Run 6	5.481	23.866
	Corrected Concentration (C_{gas}) =		
	C_{gas}= (C_{avg}-C_o) x (C_{ma}/(C_m-C_o))		
	RA Run 6	**5.531**	**23.02**
RA Run 7		O_2_1	SO_2_1
Pretest Bias	Zero Reading	-0.05	1.3
	Upscale Reading	9.56	50.7
	Zero Bias	-0.10%	1.47%
	Span Bias	-0.45%	0.52%
Post Test Bias	Zero Reading	-0.04	1.1
	Upscale Reading	9.55	50.5
	Zero Bias	-0.05%	1.26%
	Span Bias	-0.50%	0.31%
	Zero Drift	0.05%	0.21%
	Span Drift	0.05%	0.21%
Calculated Data			
	Avg. Zero Reading (C_o)=	-0.045	1.200
	Avg. Upscale Reading (C_m)=	9.555	50.600
	Actual Upscale Concentration (C_{ma})=	9.61	50.44
	Measured Concentration (C_{avg}) =		
	RA Run 7	5.447	23.380
	Corrected Concentration (C_{gas}) =		
	C_{gas}= (C_{avg}-C_o) x (C_{ma}/(C_m-C_o))		
	RA Run 7	**5.498**	**22.65**
RA Run 8		O_2_1	SO_2_1
Pretest Bias	Zero Reading	-0.04	1.1
	Upscale Reading	9.55	50.5
	Zero Bias	-0.05%	1.26%
	Span Bias	-0.50%	0.31%
Post Test Bias	Zero Reading	-0.02	0.9
	Upscale Reading	9.56	50.7
	Zero Bias	0.05%	1.05%
	Span Bias	-0.45%	0.52%
	Zero Drift	0.10%	0.21%
	Span Drift	0.05%	0.21%
Calculated Data			
	Avg. Zero Reading (C_o)=	-0.030	1.000
	Avg. Upscale Reading (C_m)=	9.555	50.600
	Actual Upscale Concentration (C_{ma})=	9.61	50.44
	Measured Concentration (C_{avg}) =		
	RA Run 8	5.440	24.108
	Corrected Concentration (C_{gas}) =		
	C_{gas}= (C_{avg}-C_o) x (C_{ma}/(C_m-C_o))		
	RA Run 8	**5.484**	**23.50**

Valero Refining-Texas, L.P.
Houston Refinery
Houston, TX

Calibration Data

SRU B Incinerator
March 25, 2014

RA Run 9		O_2_1	SO_2_1
Pretest Bias	Zero Reading	-0.02	0.9
	Upscale Reading	9.56	50.7
	Zero Bias	0.05%	1.05%
	Span Bias	-0.45%	0.52%
Post Test Bias	Zero Reading	0.01	1.3
	Upscale Reading	9.56	51.0
	Zero Bias	0.20%	1.47%
	Span Bias	-0.45%	0.84%
	Zero Drift	0.15%	0.42%
	Span Drift	0.00%	0.31%
Calculated Data			
	Avg. Zero Reading (C_o)=	-0.005	1.100
	Avg. Upscale Reading (C_m)=	9.560	50.850
	Actual Upscale Concentration (C_{ma})=	9.61	50.44
	Measured Concentration (C_{avg}) =		
	RA Run 9	5.486	25.218
	Corrected Concentration (C_{gas}) =		
	C_{gas}= (C_{avg}-C_o) x (C_{ma}/(C_m-C_o))		
	RA Run 9	**5.517**	**24.45**
RA Run 10		O_2_1	SO_2_1
Pretest Bias	Zero Reading	0.01	1.3
	Upscale Reading	9.56	51.0
	Zero Bias	0.20%	1.47%
	Span Bias	-0.45%	0.84%
Post Test Bias	Zero Reading	0.04	1.5
	Upscale Reading	9.56	51.3
	Zero Bias	0.35%	1.68%
	Span Bias	-0.35%	1.15%
	Zero Drift	0.15%	0.21%
	Span Drift	0.10%	0.31%
Calculated Data			
	Avg. Zero Reading (C_o)=	0.025	1.400
	Avg. Upscale Reading (C_m)=	9.570	51.150
	Actual Upscale Concentration (C_{ma})=	9.61	50.44
	Measured Concentration (C_{avg}) =		
	RA Run 10	5.479	23.262
	Corrected Concentration (C_{gas}) =		
	C_{gas}= (C_{avg}-C_o) x (C_{ma}/(C_m-C_o))		
	RA Run 10	**5.491**	**22.17**

Airgas

Airgas Specialty Gases
630 United Drive
Durham, NC 27713
(919)544-3773 Fax: (919)544-3774
www.airgas.com

CERTIFICATE OF ANALYSIS
Grade of Product: EPA Protocol

Part Number:	E04NI80E15ACLD7	Reference Number:	122-124384207-1
Cylinder Number:	CC437169	Cylinder Volume:	159.2 CF
Laboratory:	ASG - Durham - NC	Cylinder Pressure:	2015 PSIG
PGVP Number:	B22013	Valve Outlet:	590
Gas Code:	CO,CO2,O2,BALN	Certification Date:	Jul 12, 2013

Expiration Date: Jul 12, 2021

Certification performed in accordance with "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards (May 2012)" document EPA 600/R-12/531, using the assay procedures listed. Analytical Methodology does not require correction for analytical interference. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted.

Do Not Use This Cylinder below 100 psig, i.e. 0.7 megapascals.

ANALYTICAL RESULTS

Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty	Assay Dates
CARBON MONOXIDE	397.0 PPM	392.2 PPM	G1	+/- 0.6% NIST Traceable	07/12/2013
CARBON DIOXIDE	19.50 %	19.11 %	G1	+/- 0.6% NIST Traceable	07/12/2013
OXYGEN	20.00 %	20.02 %	G1	+/- 0.8% NIST Traceable	07/12/2013
NITROGEN	Balance				

CALIBRATION STANDARDS

Type	Lot ID	Cylinder No	Concentration	Uncertainty	Expiration Date
NTRM	12062423	CC366870	487.1 PPM CARBON MONOXIDE/NITROGEN	+/- 0.6%	Jun 22, 2018
NTRM	12061551	CC354889	19.87 % CARBON DIOXIDE/NITROGEN	+/- 0.6%	Jan 27, 2018
NTRM	09061416	CC273522	22.53 % OXYGEN/NITROGEN	+/- 0.4%	Mar 06, 2019

ANALYTICAL EQUIPMENT

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Horiba VIA510 CO2 42399380022	Nondispersive Infrared (NDIR)	Jul 05, 2013
Horiba VIA510 CO RS2EGL0K	Nondispersive Infrared (NDIR)	Jul 03, 2013
Horiba MPA510 O2 41499150042	Paramagnetic	Jul 03, 2013

Triad Data Available Upon Request

Permanent Notes:GOLDEN
SPECIALTY BLEND # 9

Notes:

A. Williams

Approved for Release

AIR LIQUIDE Air Liquide America Specialty Gases LLC | SCOTT

RATA CLASS
Dual-Analyzed Calibration Standard

1290 COMBERMERE STREET, TROY, MI 48083 Phone: 248-589-2950 Fax: 248-589-2134

CERTIFICATE OF ACCURACY: EPA Protocol Gas

Assay Laboratory : PGVP Vendor ID: A22013
AIR LIQUIDE AMERICA SPECIALTY GASES LLC
1290 COMBERMERE STREET
TROY, MI 48083

P.O. No.: 2013057
Document # : 80076284-001
Folio #:Golden-10

Customer
GOLDEN SPECIALTY CONSULTING, LTD

DIRECT ATTENTION JIM HARR
931 SEACO COURT
DEER PARK TX 77536
US

ANALYTICAL INFORMATION Gas Type : CO,CO2,O2,BALN

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

Cylinder Number:	CC429414	Certification Date:	29Apr2013	Exp. Date:	30Apr2021
Cylinder Pressure***:	2000 PSIG			Batch No:	TRO0080419

COMPONENT	CERTIFIED CONCENTRATION (Moles)		ACCURACY**	TRACEABILITY
CARBON MONOXIDE	196	PPM	+/- 1%	Direct NIST and VSL
CARBON DIOXIDE	9.58	%	+/- 1%	Direct NIST and VSL
OXYGEN	9.61	%	+/- 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 1081	28Jul2016	KAL003005	970.1	PPM	CARBON MONOXIDE
NTRM 2300	17Aug2016	KD26052	23.04	%	CARBON DIOXIDE
NTRM 2350 23	04Jan2018	KD24582	23.20	%	OXYGEN

INSTRUMENTATION

INSTRUMENT/MODEL/SERIAL#	DATE LAST CALIBRATED	ANALYTICAL PRINCIPLE
SIEMENS IR/ULTRAMAT 6E/N1-VN-0548	12Apr2013	NDIR
PIR/2000/609015	25Apr2013	NDIR
CAI/110P/V03018	01Apr2013	PARAMAGNETIC

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

CARBON MONOXIDE

First Triad Analysis
Date: 22Apr2013 Response Unit: MV
Z1=0.00000 R1=970.1000 T1=212.8000
R2=970.1000 Z2=0.00000 T2=212.8000
Z3=0.00000 T3=212.8000 R3=970.1000
Avg. Concentration: 196.0 PPM

Second Triad Analysis
Date: 30Apr2013 Response Unit: MV
Z1=0.00000 R1=240.8000 T1=196.5000
R2=240.8000 Z2=0.00000 T2=196.5000
Z3=0.00000 T3=196.5000 R3=240.8000
Avg. Concentration: 196.6 PPM

Calibration Curve
Concentration = A + Bx + Cx2 + Dx3 + Ex4
r=0.999999
Constants: A=0.17839233
B=0.982300769 C=8.8286E-05
D=0 E=0

CARBON DIOXIDE

First Triad Analysis
Date: 25Apr2013 Response Unit: MV
Z1=0.00000 R1=95.80000 T1=56.70000
R2=95.80000 Z2=0.00000 T2=56.70000
Z3=0.00000 T3=56.70000 R3=95.80000
Avg. Concentration: 9.584 %

Calibration Curve
Concentration = A + Bx + Cx2 + Dx3 + Ex4
r=0.999998
Constants: A=-0.00478797
B=0.127655111 C=8.0053E-05
D=0.000311465 E=0

OXYGEN

First Triad Analysis
Date: 24Apr2013 Response Unit: %
Z1=0.00000 R1=23.20000 T1=9.62000
R2=23.20000 Z2=0.00000 T2=9.62000
Z3=0.00000 T3=9.62000 R3=23.20000
Avg. Concentration: 9.610 %

Calibration Curve
Concentration = A + Bx + Cx2 + Dx3 + Ex4
r=0.999999
Constants: A=-0.0117569
B=1.000226378 C=0
D=0 E=0

Special Notes: Golden-10

APPROVED BY: JEFF CROTEAU

AIR LIQUIDE Air Liquide America Specialty Gases LLC SCOTT

RATA CLASS

Dual-Analyzed Calibration Standard

1290 COMBERMERE STREET, TROY, MI 48083 Phone: 248-589-2950 Fax: 248-589-2134

CERTIFICATE OF ACCURACY: EPA Protocol Gas

Assay Laboratory - PGVP Vendor ID: A22013

AIR LIQUIDE AMERICA SPECIALTY GASES LLC
1290 COMBERMERE STREET
TROY, MI 48083

P.O. No.: 2013067
Document # : 80226085-003
Folio #:Golden-6

Customer
GOLDEN SPECIALTY CONSULTING, LTD

SHIP DIRECT TO RUSS FORTS
931 SEACO COURT
DEER PARK TX 77536
US

ANALYTICAL INFORMATION Gas Type : SO2,BALN

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

Cylinder Number: ALM006953 Certification Date: 18May2013 Exp. Date: 18May2021
Cylinder Pressure***: 1967 PSIG Batch No: TRO0082268

COMPONENT	CERTIFIED CONCENTRATION (Moles)	ACCURACY**	TRACEABILITY
SULFUR DIOXIDE *	95.5 PPM	+/- 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 1693	01Dec2015	KAL003867	60.20 PPM	SULFUR DIOXIDE

INSTRUMENTATION

INSTRUMENT/MODEL/SERIAL#	DATE LAST CALIBRATED	ANALYTICAL PRINCIPLE
FTIR/0828621	25Apr2013	FTIR

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

First Triad Analysis

SULFUR DIOXIDE *
Date: 10May2013 Response Unit: PPM
Z1 = -0.00792 R1 = 100.2461 T1 = 95.38584
R2 = 100.2473 Z2 = 0.00002 T2 = 95.41646
Z3 = 0.00017 T3 = 95.51056 R3 = 100.3507
Avg. Concentration: 95.55 PPM

Second Triad Analysis

Date: 18May2013 Response Unit: PPM
Z1 = -0.03738 R1 = 49.89426 T1 = 94.72900
R2 = 49.94409 Z2 = -0.03025 T2 = 94.99267
Z3 = -0.01262 T3 = 95.15143 R3 = 49.96508
Avg. Concentration: 95.43 PPM

Calibration Curve

Concentration = A + Bx + Cx2 + Dx3 + Ex4
r = 9.99999E-1
Constants: A = 0.00000E+0
B = 1.00805E+0 C = -2.40000E-5
D = 0.00000E+0 E = 0.00000E+0

Special Notes: Golden-6

APPROVED BY: _____
Rob McCrandall

Airgas

Airgas Specialty Gases
638 United Drive
Durham, NC 27713
919-544-3773 Fax: 919-544-3774
www.airgas.com

CERTIFICATE OF ANALYSIS
Grade of Product: EPA Protocol

Part Number:	E02NI99E15A0350	Reference Number:	122-124347896-2
Cylinder Number:	CC29920	Cylinder Volume:	144.4 CF
Laboratory:	ASG - Durham - NC	Cylinder Pressure:	2015 PSIG
PGVP Number:	B22012	Valve Outlet:	660
Gas Code:	SO2	Analysis Date:	Dec 10, 2012

Expiration Date: Dec 10, 2020

Certification performed in accordance with "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards (May 2012)" document EPA 600/R-12/531, using the assay procedures listed. Analytical Methodology does not require correction for analytical interference. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted.

Do Not Use This Cylinder below 100 psig, i.e. 0.7 megapascals.

ANALYTICAL RESULTS

Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty
SULFUR DIOXIDE	50.00 PPM	50.44 PPM	G1	+/- 1% NIST Traceable
NITROGEN	Balance			

CALIBRATION STANDARDS

Type	Lot ID	Cylinder No	Concentration	Expiration Date
110602	110602	CC283912	49.67 PPM SULFUR DIOXIDE/NITROGEN	May 13, 2017

ANALYTICAL EQUIPMENT

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Nicolet 6700 AHR0801649 SO2	FTIR	Nov 26, 2012

Triad Data Available Upon Request

Notes:

Approved for Release

GOLDEN SPECIALTY

Hand Check Calculations

FACILITY:	Valero Refining		DATE:	3/25/2014
SOURCE NAME:	SRU B	CITY, STATE:	Houston, TX	RUN NO: 2

	O_2	CO_2	SO_2	NO_x	CO	THC
Upscale gas - C_{ma}	9.61	/	50.44	/	/	/
Span (ppm,%) *	20.02	/	95.5	/	/	/

Difference = Final Reading - Initial Reading %Zero = (Zero difference / Span)*100 %Span = (Span difference / Span)*100

Run No. and Pollutant	ZERO Initial Reading	ZERO Final Reading	ZERO Average (C_o) (ppm, %) *	UPSCALE Initial Reading	UPSCALE Final Reading	UPSCALE Average (C_m) (ppm, %) *
6 O_2	-0.05	-0.05	-0.05	9.56	9.56	9.56
CO_2						
6 SO_2	1.3	1.3	1.3	50.8	50.7	50.75
NO_x						
CO						
THC						

O_2 for Correction %	F Factor dscf/mmBtu	GCV	Fuel Flow Rate	Conversion Factor	Q_{sd} dscf/hr	Q_s scf/hr
0						

C_o = (Initial Zero Reading + Final Zero Reading)/2
C_m = (Initial Span Reading + Final Span Reading)/2
C_{gas} = [C_{ma} - C_o] * [C_{ma} / (C_m-C_o)]
C_{gas} Corrected = C_{gas} * [(20.9 - Corr. O_2) / (20.9 - % O_2)]

C_d = [C_{gas} * M.W.) / (385.4 * 1,000,000)
lb/MMBtu = C_d * F Factor * [20.9 / (20.9 - %O_2)]
lb/hr = lb/MMBtu * GCV * Fuel Flow Rate * Conversion Factor
lb/hr = lb/dscf x Q_{sd} (dscf/hr)

Run No. and Pollutant	C_{avg} Uncorrected Stack Gas Concentration (ppm, %) *	C_o Average of Zero Gas	C_m Average of Upscale Gas	C_{gas} Corrected Stack Gas Concentration (ppm, %) *	M.W. Molecular Weight	C_{gas} Corrected Concentration in ppm @ 0% O_2	C_d Concentration in lb/dscf	lb/MMBtu Emission Rate lb/MMBtu	lb/hr Emission Rate lb/hr
6 O_2	5.481	-0.05	9.56	5.531 ✓	NA	NA	NA	NA	NA
CO_2					NA	NA	NA	NA	NA
6 SO_2	23.86	1.3	50.75	23.018 ✓	64	31.30 ✓			
NO_x					46				
CO					28				
THC					44.097 (as C_3H_8)				

Note * O_2 and CO_2 are expressed in percent.

Calc. QA Performed by 4/15/14

GOLDEN SPECIALTY

Relative Accuracy Hand Check Calculations

FACILITY:	Valero Houston	DATE:	3/22/2014 (25) 04/15/14
SOURCE NAME:	SRU B	CITY, STATE:	Houston, TX
COMPOUND:	SO_2	UNITS:	ppmvd @ 0% O_2

Relative Accuracy Test No.	Date	Start Time	Reference Sample (RM)	Analyzer Reading	Difference DIFF	No. of Sets	$t_{0.975}$ Values for No. of Sets	Difference Squared Diff²
1	3/22/14	10:39	36.95	36.67	0.28	1	NA	0.08
2			34.16	32.47	1.63	2	12.706	2.66
3			23.68	26.87	2.81	3	4.303	7.90
4			29.19	26.50	2.69	4	3.182	7.24
5			31.32	28.89	2.43	5	2.776	5.90
6			30.73	28.23	2.50	6	2.571	6.25
7			31.86	28.95	2.91	7	2.447	8.47
8			33.22	30.64	2.58	8	2.365	6.66
9		15:44	30.06	28.67	1.39	9	2.306	1.93
10						10	2.262	
						11	2.228	
						12	2.201	

Excluded Runs: 4 Avg. RM = 31.90 SUM DIFF = 19.22 Sum Diff² = 47.88

cc = confidence coefficient.
S_d = Standard Deviation.
AS = applicable standard.
Avg. RM = average reference method value.
|d| = absolute value of mean of the differences.
|cc| = absolute value of the confidence coefficient.
Diff = RM - Analyzer Reading

|d| = [SUM DIFF] / No. of Sets |d| = 2.14 ✓

S_d = ([Sum Diff²] - ([SUM DIFF]² / n)] / n-1)^0.5 S_d = 0.87 ✓

cc = $t_{0.975}$ * [Sd / ($n^{0.5}$)] cc = 0.67 ✓

Relative Accuracy versus Mean Reference Method Sample

RA = [[|d| + |cc|] / Avg. RM] * 100 =

RA = 8.79 % ✓

Allowable Limits:
Limit: 10% - CO Limit: 20% - O_2 & CO_2
Limit: 20% - NO_x Limit: 20% - SO_2
Allowable Limits Acid Rain :
Limit: 10% - NO_x/O_2 System in lb/MMBtu

Relative Accuracy versus Applicable Standard = 250

RA = [[|d| + |cc|] / applicable standard] * 100

RA = 1.12 % ✓

Allowable Limits:
Limit: 5% - CO Limit: 1% - O_2 & CO_2
Limit: 10% - NO_x Limit: 10% - SO_2
Allowable Limits Acid Rain :
Limit: 0.02 lb/MMBtu for sources with emissions of < 0.20 lb/MMBtu
PS 4A: |d| + |cc| Limit: 5 ppm
NO_x : TCEQ Rule 117: |d| + |cc| Limit: 2 ppm

*Difference due to significant figures used

Calc. QA Performed by 4/15/14

GOLDEN SPECIALTY

Relative Accuracy Hand Check Calculations

FACILITY: Valero Houston	DATE: 3/22/2014 6/4/14
SOURCE NAME: SRU B	CITY, STATE: Houston, TX
COMPOUND: O_2	UNITS: % v.d.

Relative Accuracy Test No.	Date	Start Time	Reference Sample (RM)	Analyzer Reading	Difference DIFF	No. of Sets	$t_{0.95}$ Values for No. of Sets	Difference Squared Diff²
1	3/22/14	10:32	5.517	5.201	0.306	1	NA	$9.49e^{-2}$
2			5.595	5.308	0.287	2	12.706	$8.24e^{-2}$
3			5.595	5.252	0.343	3	4.303	$1.18e^{-1}$
4			5.556	5.246	0.310	4	3.182	$9.61e^{-2}$
5			5.552	5.246	0.306	5	2.776	$9.36e^{-2}$
6			5.531	5.218	0.313	6	2.571	$9.80e^{-2}$
7			5.498	5.167	0.331	7	2.447	$1.10e^{-1}$
8			5.517	5.167	0.350	8	2.365	$1.23e^{-1}$
9		15:44	5.491	5.140	0.351	9	2.306	$1.23e^{-1}$
						10	2.262	
						11	2.228	
						12	2.201	

Excluded Runs: 8 | **Avg. RM =** 5.539 | **SUM DIFF =** 2.899 | **Sum Diff² =** $9.38e^{-1}$

cc = confidence coefficient. Avg. RM = average reference method value. Diff = RM - Analyzer Reading
S_d = Standard Deviation. |d| = absolute value of mean of the differences.
AS = applicable standard. |cc| = absolute value of the confidence coefficient.

$|d| = |\text{SUM DIFF}| / \text{No. of Sets}$ $|d| =$ 0.322 ✓

$S_d = (\{[\text{Sum Diff}^2] - \{(\text{SUM DIFF})^2 / n\}\} / n-1)^{0.5}$ $S_d =$ 0.022 ✓

$cc = t_{0.975} * [Sd / (n^{0.5})]$ $cc =$ 0.017 ✓

Relative Accuracy versus Mean Reference Method Sample

RA = ~~[(|d| + |cc|) / Avg. RM] * 100~~ =

RA = $|d| =$ 0.322

Allowable Limits:
Limit: 10% - CO Limit: 20% - O_2 & CO_2
Limit: 20% - NO_x Limit: 20% - SO_2
Allowable Limits Acid Rain :
Limit: 10% - NO_x/O_2 System in lb/MMBtu

Relative Accuracy versus Applicable Standard

RA = [(|d| + |cc|) / applicable standard] * 100

RA = N/A

Allowable Limits:
Limit: 5% - CO Limit: 1% - O_2 & CO_2
Limit: 10% - NO_x Limit: 10% - SO_2
Allowable Limits Acid Rain :
Limit: 0.02 lb/MMBtu for sources with emissions of < 0.20 lb/MMBtu
PS 4A: |d| + |cc| Limit: 5 ppm
NO_x : TCEQ Rule 117: |d| + |cc| Limit: 2 ppm

*Difference due to significant figures used

Calc. QA Performed by 6/4/2014

GOLDEN SPECIALTY

Air Quality Test Report

APPENDIX D –
Field Data

FORM# GSC-TM007-001
REV 2010-02, EFF 2/7/11

FIELD DATA SHEET 1
Sampling Velocity Traverse Points

Client/Plant Name: Vareco Job#: VARHR140195

City/State: Houston, TX Date/Time: 3/25/14

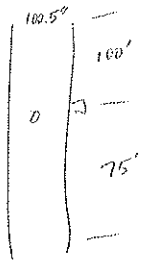
Test Location: SRU B Incinerator Personnel: [illegible], CB

Port I.D.	4"		
Distance from Far Wall to Outside of Port	106.5"		
Nipple Length and/or Wall Thickness	6"		
Stack/Duct (✓) Blue Print ( ) Measured (✓)			
Depth/Diameter (>12 in. ?)	100.5"		
Width (if rectangular)			
Equiv. Diameter (if rect.) $D_e = 2\,D\,W/(D + W)$			
Area (A) (>113in.²?) $A = \pi D^2/4$ or $D\,W$			
	Distance	D_e	No. Pts*
Upstream (≥ 2 D_e?)	75'		
Downstream (≥ 0.5 D_e?)	100'		
Cyclonic Flow Checked?	Yes	No	NA
Rectangular Matrix			

Pt.	%Duct Depth	Dist from Inside Wall*	Dist from Oustide of Port
1	0.167	16.8	22.8"
2	0.500	50.2	56.2"
3	0.833	83.7	89.7"
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

*Do not place closer to stack walls than:
1.0 in. for stack dia > 24 in.
0.5 in. for stack dia 12 to ≤ 24 in.

*Circle larger of two



Sketch of Location: In the space above, sketch a flow diagram of the test location; show the distance from the ports to the distrubances before & after. Sketch the cross-sectional area; show sampling port locations. In horizontal ducts, check for dust buildups & measure or estimate the depth.

QA/QC Check
Completeness ✓ Legibility ✓ Accuracy ✓ Specifications ✓ Reasonableness ✓

Checked by: [signature] Personnel (Signature/Date) [signature] Team Leader (Signature/Date)

GOLDEN SPECIALTY

Operating Discipline Checklist

Project ID: Vareco - Houston, TX	Test Date: 3/25/14
Plant Source: SRU B Incinerator	Team Members: TR
Description: VARHR140195	Trailer Unit: T-10

	Item to Check	(Initials Required)
1	Checklist for GOLDEN Trailer Set-Up (Form #GSC-WP001-001)	[initials]
2	EPA Protocol 1 Gases Used	[initials]
3	Fully Redundant Sampling System System 1 ✓ System 2 NA	[initials]
4	Stratification Test Conducted an Documented Start time: Finish Time: File Name:	—
5	Documentation of Probe Geometry and Location (Form #GSC-WP007-003)	[initials]
6	Measurement of Ambient Conditions: Barometer: 30.30 Rel.Humidity: 35% Temperature: 65°F	[initials]
7	Flanged Sample Probe or Port Closures	[initials]
8	Heated Sample Lines Set Temperature: 265°F Measured Temperature: 259°F	[initials]
9	Grounding and electrical requirements	[initials]
10	Data Exclusion Log (Form # GSC-WP007-002)	[initials]
11	Staggered Calibrations	—
12	Data Storage and Formatting: Headers on and checked? ✓ Yes ___ No Data Logging ON? ✓ Yes ___ No	[initials]
13	Gas Conditioning System Temperature System 1: 4.1°C System 2: —	[initials]
14	Reasons for any exceptions:	

Signature of Person Recording Information:	[signature]	Date:	3/25/14
Approval of Client to Proceed with Testing:		Date:	

Form # GSC-WP007-004
REV 2010-01, EFF 11/1/10

GOLDEN SPECIALTY

FORM GSC-WP007-002
REV 2010-01, EFF 11/1/10

Data Exclusion Log

Project ID: Valero Houston	Test Dates From: 8/25/14	To:	
Plant: Valero - Houston, TX	Trailer#: T-10	Analysts:	
Source: SMR B Incinerator	Data for Filename:		
Description: NOx			

Date	System #	Start Time	End Time	Reason
8/25/14	1	10:10		Start cal gas
		10:16		Start sys/cal bias
		10:27		Start RA-1

Page ____ of ____

REFERENCE METHOD
Analyzer Calibration Error

GOLDEN SPECIALTY

Project ID: Valero - Houston, TX	Test Date: 8/25/14	Analyst:	
Plant:	Trailer Unit: 10	Analyzer System: 1	
Source: SMR B Incinerator	Assigned Data:		
Description: Valero 140195			

Component	Cylinder Number	Range	Analyzer Response System 1	Analyzer Response System 2	Actual Conc.	Cylinder Exp. Date
Oxides of Nitrogen	AAL10104	High			95.4 ppm	5/14
	ALM014818	Mid			55.5 ppm	6/19
	N2	Zero			0 ppm	-
Nitrogen Dioxide	CC339862	n/a			49.43 ppm	12/15
Carbon Monoxide	CC437169	High			392.2 ppm	7/21
	CC429414	Mid			196 ppm	4/21
	N2	Zero			0 ppm	-
Oxygen	CC437169	High	19.97		20.02 %	7/21
	CC429414	Mid	9.65		9.61 %	4/21
	N2	Zero	-0.03		0 %	-
Total Hydrocarbons		High				
		Mid				
		Low				
		Zero				
Sulfur Dioxide	ALM005953	High	95.4		96.5 ppm	5/21
	CC29920	Mid	50.2		50.44 ppm	12/20
	N2	Zero	-0.1		0 ppm	
Carbon Dioxide	CC437169	High			19.11%	7/21
	CC429414	Mid			9.58%	4/21
	N2	Zero			0%	-

ANALYZER INFORMATION

Analyzer Type	SYSTEM #1 Model	SYSTEM #1 Serial #	SYSTEM #1 Range	SYSTEM #2 Model	SYSTEM #2 Serial #	SYSTEM #2 Range
NO_x	CAI 400	U02028	0 – 100 ppm	CAI 400	6L12004	0 – 100 ppm
CO	Thermo 48i	0708021118	0 – 500 ppm	CAI-600-P	W08046-M	0 – 500 ppm
O2	Servomex 1440	1440D-4034	0 – 25 %	CAI-600-P	W08046-M	0 – 25 %
CO_2	Servomex 1440	1440D-4034	0 -20 %	CAI-600-P	W08046-M	0 -20 %
SO_2	API 100EH	111	0-100 ppm			
VOC						

Form # GSC-WP007-005
REV 2010-01, EFF 10/6/10

Page ____ of ____

GOLDEN SPECIALTY

REFERENCE METHOD
Analyzer System Bias

Project ID: Plant: Valero - Houston, TX	Test Date(s): 3/26/14
Source: Description: SMR Incinerator	Analyst: DL
	Trailer Unit: TRO
	Analyzer System: 1
	Assigned Data:

Valero HR 140195

RUN NO: 1	Calibration Gas / Conc.	Pre-Test Calibration ZERO	Pre-Test Calibration SPAN	Post Test Calibration ZERO	Post Test Calibration SPAN	Bias <5% (Check)	**Response time (Zero & Span)
Date: 3/26/14	NO_x						sec
	CO						sec
Start Time: 1037	O_2	-0.03	9.62	-0.02	9.71		33/33 sec
	CO_2						sec
End Time: 1058	THC						sec
	SO_2	0.6	52.4	0.7	49.4		49/49 sec

RUN NO: 2	Calibration Gas / Conc.	Pre-Test Calibration ZERO	Pre-Test Calibration SPAN	Post Test Calibration ZERO	Post Test Calibration SPAN	Bias <5% (Check)	Drift <3% Of Span
Date:	NO_x						
	CO						
Start Time: 1112	O_2			-0.04	9.58		
	CO_2						
End Time: 1133	THC						
	SO_2			0.8	49.2		

RUN NO: 3	Calibration Gas / Conc.	Pre-Test Calibration ZERO	Pre-Test Calibration SPAN	Post Test Calibration ZERO	Post Test Calibration SPAN	Bias <5% (Check)	Drift <3% Of Span
Date:	NO_x						
	CO						
Start Time: 1146	O_2			-0.03	9.58		
	CO_2						
End Time: 1207	THC						
	SO_2			0.9	49.5		

RUN NO: 4	Calibration Gas / Conc.	Pre-Test Calibration ZERO	Pre-Test Calibration SPAN	Post Test Calibration ZERO	Post Test Calibration SPAN	Bias <5% (Check)	Drift <3% Of Span
Date:	NO_x						
	CO						
Start Time: 1217	O_2			-0.04	9.57		
	CO_2						
End Time: 1243	THC						
	SO_2			0.8	49.6		

RUN NO: 5	Calibration Gas / Conc.	Pre-Test Calibration ZERO	Pre-Test Calibration SPAN	Post Test Calibration ZERO	Post Test Calibration SPAN	Bias <5% (Check)	Drift <3% Of Span
Date:	NO_x						
	CO						
Start Time: 1258	O_2			-0.05	9.56		
	CO_2						
End Time: 1319	THC						
	SO_2			1.3	50.8		

Comments:

**Record response times for run 1 only for each component tested pulled = post-test unless noted

GOLDEN SPECIALTY

REFERENCE METHOD
Analyzer System Bias

Project ID: Plant: Valero - Houston, TX	Test Date(s): 3/26/14
Source: Description: SMR Incinerator	Analyst: DL
	Trailer Unit: TRO
	Analyzer System: 1
	Assigned Data:

Valero HR 140195

RUN NO: 6	Calibration Gas / Conc.	Pre-Test Calibration ZERO	Pre-Test Calibration SPAN	Post Test Calibration ZERO	Post Test Calibration SPAN	Bias <5% (Check)	**Response time (Zero & Span)
Date:	NO_x						sec
	CO						sec
Start Time: 1332	O_2			-0.05	9.56		sec
	CO_2						sec
End Time: 1353	THC						sec
	SO_2			1.3	50.7		sec

RUN NO: 7	Calibration Gas / Conc.	Pre-Test Calibration ZERO	Pre-Test Calibration SPAN	Post Test Calibration ZERO	Post Test Calibration SPAN	Bias <5% (Check)	Drift <3% Of Span
Date:	NO_x						
	CO						
Start Time: 1405	O_2			-0.04	9.55		
	CO_2						
End Time: 1426	THC						
	SO_2			1.1	50.5		

RUN NO: 8	Calibration Gas / Conc.	Pre-Test Calibration ZERO	Pre-Test Calibration SPAN	Post Test Calibration ZERO	Post Test Calibration SPAN	Bias <5% (Check)	Drift <3% Of Span
Date:	NO_x						
	CO						
Start Time: 1438	O_2			-0.02	9.56		
	CO_2						
End Time: 1459	THC						
	SO_2			0.9	50.7		

RUN NO: 9	Calibration Gas / Conc.	Pre-Test Calibration ZERO	Pre-Test Calibration SPAN	Post Test Calibration ZERO	Post Test Calibration SPAN	Bias <5% (Check)	Drift <3% Of Span
Date:	NO_x						
	CO						
Start Time: 1511	O_2			0.01	9.56		
	CO_2						
End Time: 1532	THC						
	SO_2			1.3	51.0		

RUN NO: 10	Calibration Gas / Conc.	Pre-Test Calibration ZERO	Pre-Test Calibration SPAN	Post Test Calibration ZERO	Post Test Calibration SPAN	Bias <5% (Check)	Drift <3% Of Span
Date:	NO_x						
	CO						
Start Time: 1546	O_2			0.04	9.58		
	CO_2						
End Time: 1605	THC						
	SO_2			1.5	51.3		

Comments:

**Record response times for run 1 only for each component tested pulled = post-test unless noted

GOLDEN SPECIALTY

Air Quality Test Report

APPENDIX E – Reference Method Data

Valero Refining-Texas, L.P.
Houston Refinery
Houston, TX

One-Minute Reference Method Data
Trailer 10

SRU 8 Incinerator

Date	Time	O_2_1	SO_2_1	Calibration Status
		System 1		
		% vd	ppmvd	
3/25/2014	10:08:00	2.485	15.51	
3/25/2014	10:09:00	-0.023	0.23	Calibrating System 1
3/25/2014	10:10:00	-0.025	0.21	Calibrating System 1
3/25/2014	10:11:00	0.027	62.21	Calibrating System 1
3/25/2014	10:12:00	-0.024	95.15	Calibrating System 1
3/25/2014	10:13:00	-0.026	95.44	Calibrating System 1
3/25/2014	10:14:00	0.010	47.10	Calibrating System 1
3/25/2014	10:15:00	-0.026	50.85	Calibrating System 1
3/25/2014	10:16:00	-0.027	50.16	Calibrating System 1
3/25/2014	10:17:00	-0.027	50.19	Calibrating System 1
3/25/2014	10:18:00	12.820	21.57	
3/25/2014	10:19:00	20.439	-0.09	Calibrating System 1
3/25/2014	10:20:00	19.968	-0.09	Calibrating System 1
3/25/2014	10:21:00	19.972	-0.10	Calibrating System 1
3/25/2014	10:22:00	11.234	-0.09	Calibrating System 1
3/25/2014	10:23:00	0.644	-0.09	Calibrating System 1
3/25/2014	10:24:00	9.852	-0.09	Calibrating System 1
3/25/2014	10:25:00	6.659	11.86	
3/25/2014	10:26:00	0.054	2.83	Calibrating System 1
3/25/2014	10:27:00	-0.035	0.71	Calibrating System 1
3/25/2014	10:28:00	-0.027	0.58	Calibrating System 1
3/25/2014	10:29:00	0.611	0.642	Calibrating System 1
3/25/2014	10:30:00	9.624	0.709	Calibrating System 1
3/25/2014	10:31:00	9.615	0.446	Calibrating System 1
3/25/2014	10:32:00	9.234	0.652	Calibrating System 1
3/25/2014	10:33:00	0.132	42.988	Calibrating System 1
3/25/2014	10:34:00	0.069	50.25	Calibrating System 1
3/25/2014	10:35:00	0.063	50.38	Calibrating System 1
3/25/2014	10:36:00	0.626	48.70	
3/25/2014	10:37:00	5.443	27.26	
3/25/2014	10:38:00	5.442	27.79	
3/25/2014	10:39:00	5.418	27.77	
3/25/2014	10:40:00	5.463	27.42	
3/25/2014	10:41:00	5.459	27.35	
3/25/2014	10:42:00	5.468	27.68	
3/25/2014	10:43:00	5.424	27.93	
3/25/2014	10:44:00	5.490	27.94	
3/25/2014	10:45:00	5.480	27.74	
3/25/2014	10:46:00	5.526	27.65	
3/25/2014	10:47:00	5.519	27.92	
3/25/2014	10:48:00	5.545	27.60	
3/25/2014	10:49:00	5.562	27.126	
3/25/2014	10:50:00	5.583	26.749	
3/25/2014	10:51:00	5.596	26.856	
3/25/2014	10:52:00	5.635	26.802	
3/25/2014	10:53:00	5.611	26.826	
3/25/2014	10:54:00	5.588	26.836	
3/25/2014	10:55:00	5.595	26.50	
3/25/2014	10:56:00	5.646	26.29	
3/25/2014	10:57:00	5.647	26.15	
3/25/2014	10:58:00	5.621	26.36	
3/25/2014	10:59:00	5.607	26.23	
3/25/2014	11:00:00	7.243	19.48	
3/25/2014	11:01:00	9.693	1.62	Calibrating System 1
3/25/2014	11:02:00	9.705	0.88	Calibrating System 1
3/25/2014	11:03:00	5.311	0.94	Calibrating System 1
3/25/2014	11:04:00	0.051	0.99	Calibrating System 1
3/25/2014	11:05:00	0.025	0.74	Calibrating System 1
3/25/2014	11:06:00	0.023	15.95	Calibrating System 1
3/25/2014	11:07:00	0.020	47.96	Calibrating System 1
3/25/2014	11:08:00	-0.007	49.11	Calibrating System 1
3/25/2014	11:09:00	-0.021	49.35	Calibrating System 1
3/25/2014	11:10:00	2.885	37.72	
3/25/2014	11:11:00	5.420	25.55	
3/25/2014	11:12:00	5.444	25.99	

Valero Refining-Texas, L.P.
Houston Refinery
Houston, TX

One-Minute Reference Method Data
Trailer 10

SRU B Incinerator

Date	Time	O_2..1	SO_2..1	Calibration Status
		System 1		
		% vd	ppmvd	
3/25/2014	11:13:00	5.450	26.81	
3/25/2014	11:14:00	5.465	25.93	
3/25/2014	11:15:00	5.486	25.76	
3/25/2014	11:16:00	5.496	26.03	
3/25/2014	11:17:00	5.500	25.98	
3/25/2014	11:18:00	5.560	25.94	
3/25/2014	11:19:00	5.614	25.45	
3/25/2014	11:20:00	5.657	25.22	
3/25/2014	11:21:00	5.645	25.37	
3/25/2014	11:22:00	5.622	25.26	
3/25/2014	11:23:00	5.609	25.75	
3/25/2014	11:24:00	5.651	25.82	
3/25/2014	11:25:00	5.715	24.83	
3/25/2014	11:26:00	5.681	24.26	
3/25/2014	11:27:00	5.686	23.76	
3/25/2014	11:28:00	5.652	24.07	
3/25/2014	11:29:00	5.659	23.82	
3/25/2014	11:30:00	5.659	23.46	
3/25/2014	11:31:00	5.629	22.78	
3/25/2014	11:32:00	5.627	22.76	
3/25/2014	11:33:00	5.589	22.60	
3/25/2014	11:34:00	5.112	22.14	
3/25/2014	11:35:00	9.567	2.93	Calibrating System 1
3/25/2014	11:36:00	9.577	0.96	Calibrating System 1
3/25/2014	11:37:00	7.915	0.66	Calibrating System 1
3/25/2014	11:38:00	0.009	0.90	Calibrating System 1
3/25/2014	11:39:00	0.018	0.81	Calibrating System 1
3/25/2014	11:40:00	0.029	4.49	Calibrating System 1
3/25/2014	11:41:00	-0.022	46.10	Calibrating System 1
3/25/2014	11:42:00	-0.043	48.89	Calibrating System 1
3/25/2014	11:43:00	-0.026	49.27	Calibrating System 1
3/25/2014	11:44:00	1.421	44.75	
3/25/2014	11:45:00	5.418	21.64	
3/25/2014	11:46:00	5.412	22.35	
3/25/2014	11:47:00	5.458	22.27	
3/25/2014	11:48:00	5.465	22.31	
3/25/2014	11:49:00	5.498	22.27	
3/25/2014	11:50:00	5.511	22.13	
3/25/2014	11:51:00	5.544	21.79	
3/25/2014	11:52:00	5.516	21.77	
3/25/2014	11:53:00	5.553	21.87	
3/25/2014	11:54:00	5.562	21.92	
3/25/2014	11:55:00	5.607	21.71	
3/25/2014	11:56:00	5.598	21.52	
3/25/2014	11:57:00	5.598	21.49	
3/25/2014	11:58:00	5.640	21.35	
3/25/2014	11:59:00	5.626	20.04	
3/25/2014	12:00:00	5.668	21.00	
3/25/2014	12:01:00	5.616	21.22	
3/25/2014	12:02:00	5.603	21.55	
3/25/2014	12:03:00	5.581	21.40	
3/25/2014	12:04:00	5.529	22.05	
3/25/2014	12:05:00	5.560	22.36	
3/25/2014	12:06:00	5.531	22.19	
3/25/2014	12:07:00	5.508	22.08	
3/25/2014	12:08:00	5.544	21.79	
3/25/2014	12:09:00	5.557	21.49	
3/25/2014	12:10:00	6.031	21.22	
3/25/2014	12:11:00	9.561	3.04	
3/25/2014	12:12:00	9.578	0.89	Calibrating System 1
3/25/2014	12:13:00	7.774	1.14	Calibrating System 1
3/25/2014	12:14:00	0.019	1.52	Calibrating System 1
3/25/2014	12:15:00	-0.018	1.20	Calibrating System 1
3/25/2014	12:16:00	0.007	4.34	Calibrating System 1
3/25/2014	12:17:00	-0.030	45.98	Calibrating System 1

Valero Refining-Texas, L.P.
Houston Refinery
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One-Minute Reference Method Data
Trailer 10

SRU B Incinerator

Date	Time	O_2..1	SO_2..1	Calibration Status
		System 1		
		% vd	ppmvd	
3/25/2014	12:18:00	-0.030	48.91	Calibrating System 1
3/25/2014	12:19:00	-0.034	49.52	Calibrating System 1
3/25/2014	12:20:00	1.434	44.59	
3/25/2014	12:21:00	5.410	22.04	
3/25/2014	12:22:00	5.453	23.26	
3/25/2014	12:23:00	5.487	23.37	
3/25/2014	12:24:00	5.512	23.05	
3/25/2014	12:25:00	5.522	22.58	
3/25/2014	12:26:00	5.517	22.20	
3/25/2014	12:27:00	5.527	22.06	
3/25/2014	12:28:00	5.517	22.39	
3/25/2014	12:29:00	5.535	22.22	
3/25/2014	12:30:00	5.565	22.57	
3/25/2014	12:31:00	5.549	22.57	
3/25/2014	12:32:00	5.498	22.61	
3/25/2014	12:33:00	5.487	22.39	
3/25/2014	12:34:00	5.515	22.45	
3/25/2014	12:35:00	5.477	22.71	
3/25/2014	12:36:00	5.469	22.64	
3/25/2014	12:37:00	5.504	22.25	
3/25/2014	12:38:00	5.586	22.17	
3/25/2014	12:39:00	5.551	22.35	
3/25/2014	12:40:00	5.570	22.69	
3/25/2014	12:41:00	5.626	22.67	
3/25/2014	12:42:00	5.531	22.87	
3/25/2014	12:43:00	5.498	22.69	
3/25/2014	12:44:00	5.512	23.09	
3/25/2014	12:45:00	5.546	23.29	
3/25/2014	12:46:00	6.091	23.02	
3/25/2014	12:47:00	9.553	3.14	
3/25/2014	12:48:00	9.567	0.92	Calibrating System 1
3/25/2014	12:49:00	7.781	0.77	Calibrating System 1
3/25/2014	12:50:00	0.016	1.40	Calibrating System 1
3/25/2014	12:51:00	-0.009	1.64	Calibrating System 1
3/25/2014	12:52:00	-0.001	5.15	Calibrating System 1
3/25/2014	12:53:00	-0.041	46.41	Calibrating System 1
3/25/2014	12:54:00	-0.047	49.05	Calibrating System 1
3/25/2014	12:55:00	-0.041	49.58	Calibrating System 1
3/25/2014	12:56:00	1.464	44.72	
3/25/2014	12:57:00	5.406	22.47	
3/25/2014	12:58:00	5.388	23.34	
3/25/2014	12:59:00	5.434	23.16	
3/25/2014	13:00:00	5.484	22.93	
3/25/2014	13:01:00	5.512	22.56	
3/25/2014	13:02:00	5.554	22.43	
3/25/2014	13:03:00	5.523	22.09	
3/25/2014	13:04:00	5.575	22.11	
3/25/2014	13:05:00	5.560	21.87	
3/25/2014	13:06:00	5.524	21.84	
3/25/2014	13:07:00	5.554	21.61	
3/25/2014	13:08:00	5.602	21.44	
3/25/2014	13:09:00	5.569	21.10	
3/25/2014	13:10:00	5.566	21.24	
3/25/2014	13:11:00	5.562	21.17	
3/25/2014	13:12:00	5.524	21.46	
3/25/2014	13:13:00	5.506	21.56	
3/25/2014	13:14:00	5.470	21.39	
3/25/2014	13:15:00	5.452	21.55	
3/25/2014	13:16:00	5.410	21.65	
3/25/2014	13:17:00	5.436	21.60	
3/25/2014	13:18:00	5.401	22.84	
3/25/2014	13:19:00	5.442	23.18	
3/25/2014	13:20:00	5.651	23.41	
3/25/2014	13:21:00	9.544	4.44	
3/25/2014	13:22:00	9.564	1.26	Calibrating System 1

Valero Refining-Texas, L.P.
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One-Minute Reference Method Data
Trailer 10

SRU B Incinerator

Date	Time	O_2..1 System 1	SO_2..1 System 1	Calibration Status
		% vd	ppmvd	
3/25/2014	13:23:00	8.510	1.29	Calibrating System 1
3/25/2014	13:24:00	0.012	1.97	Calibrating System 1
3/25/2014	13:25:00	-0.044	1.68	Calibrating System 1
3/25/2014	13:26:00	-0.004	2.82	Calibrating System 1
3/25/2014	13:27:00	-0.039	45.49	Calibrating System 1
3/25/2014	13:28:00	-0.041	49.96	Calibrating System 1
3/25/2014	13:29:00	-0.047	50.82	Calibrating System 1
3/25/2014	13:30:00	1.027	47.81	
3/25/2014	13:31:00	5.475	23.90	
3/25/2014	13:32:00	5.471	24.78	
3/25/2014	13:33:00	5.465	24.73	
3/25/2014	13:34:00	5.461	24.85	
3/25/2014	13:35:00	5.436	24.67	
3/25/2014	13:36:00	5.409	24.17	
3/25/2014	13:37:00	5.465	24.02	
3/25/2014	13:38:00	5.487	23.77	
3/25/2014	13:39:00	5.505	23.91	
3/25/2014	13:40:00	5.485	23.74	
3/25/2014	13:41:00	5.467	23.82	
3/25/2014	13:42:00	5.489	23.44	
3/25/2014	13:43:00	5.496	23.74	
3/25/2014	13:44:00	5.508	23.75	
3/25/2014	13:45:00	5.465	23.73	
3/25/2014	13:46:00	5.463	24.03	
3/25/2014	13:47:00	5.439	23.70	
3/25/2014	13:48:00	5.493	23.49	
3/25/2014	13:49:00	5.468	23.65	
3/25/2014	13:50:00	5.473	23.639	
3/25/2014	13:51:00	5.509	23.380	
3/25/2014	13:52:00	5.439	23.256	
3/25/2014	13:53:00	5.669	23.798	
3/25/2014	13:54:00	9.530	4.239	
3/25/2014	13:55:00	9.558	1.262	Calibrating System 1
3/25/2014	13:56:00	8.475	1.310	Calibrating System 1
3/25/2014	13:57:00	0.011	1.715	Calibrating System 1
3/25/2014	13:58:00	-0.020	1.624	Calibrating System 1
3/25/2014	13:59:00	-0.008	3.09	Calibrating System 1
3/25/2014	14:00:00	-0.043	46.16	Calibrating System 1
3/25/2014	14:01:00	-0.039	50.44	Calibrating System 1
3/25/2014	14:02:00	-0.049	50.72	Calibrating System 1
3/25/2014	14:03:00	0.976	47.94	
3/25/2014	14:04:00	5.300	23.62	
3/25/2014	14:05:00	5.307	24.47	
3/25/2014	14:06:00	5.399	24.68	
3/25/2014	14:07:00	5.363	24.36	
3/25/2014	14:08:00	5.369	24.26	
3/25/2014	14:09:00	5.411	23.99	
3/25/2014	14:10:00	5.447	23.76	
3/25/2014	14:11:00	5.442	23.41	
3/25/2014	14:12:00	5.434	23.63	
3/25/2014	14:13:00	5.453	23.22	
3/25/2014	14:14:00	5.449	23.18	
3/25/2014	14:15:00	5.475	23.36	
3/25/2014	14:16:00	5.463	23.32	
3/25/2014	14:17:00	5.456	23.54	
3/25/2014	14:18:00	5.483	23.19	
3/25/2014	14:19:00	5.431	23.20	
3/25/2014	14:20:00	5.466	22.81	
3/25/2014	14:21:00	5.454	22.13	
3/25/2014	14:22:00	5.453	22.69	
3/25/2014	14:23:00	5.426	23.12	
3/25/2014	14:24:00	5.412	22.99	
3/25/2014	14:25:00	5.428	22.89	
3/25/2014	14:26:00	5.676	23.25	
3/25/2014	14:27:00	9.531	4.47	

Valero Refining-Texas, L.P.
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Houston, TX

One-Minute Reference Method Data
Trailer 10

SRU B Incinerator

Date	Time	O_2..1 System 1	SO_2..1 System 1	Calibration Status
		% vd	ppmvd	
3/25/2014	14:28:00	9.554	1.73	Calibrating System 1
3/25/2014	14:29:00	8.523	1.14	Calibrating System 1
3/25/2014	14:30:00	0.022	1.75	Calibrating System 1
3/25/2014	14:31:00	-0.017	1.94	Calibrating System 1
3/25/2014	14:32:00	0.009	3.69	Calibrating System 1
3/25/2014	14:33:00	-0.026	46.43	Calibrating System 1
3/25/2014	14:34:00	-0.038	50.27	Calibrating System 1
3/25/2014	14:35:00	-0.038	50.47	Calibrating System 1
3/25/2014	14:36:00	1.033	47.68	
3/25/2014	14:37:00	5.363	24.31	
3/25/2014	14:38:00	5.347	24.93	
3/25/2014	14:39:00	5.362	24.63	
3/25/2014	14:40:00	5.404	24.58	
3/25/2014	14:41:00	5.376	23.71	
3/25/2014	14:42:00	5.424	23.71	
3/25/2014	14:43:00	5.431	23.66	
3/25/2014	14:44:00	5.444	23.46	
3/25/2014	14:45:00	5.442	23.81	
3/25/2014	14:46:00	5.481	23.66	
3/25/2014	14:47:00	5.449	23.53	
3/25/2014	14:48:00	5.457	23.42	
3/25/2014	14:49:00	5.427	23.29	
3/25/2014	14:50:00	5.495	23.90	
3/25/2014	14:51:00	5.371	24.57	
3/25/2014	14:52:00	5.380	25.18	
3/25/2014	14:53:00	5.362	25.27	
3/25/2014	14:54:00	5.401	25.11	
3/25/2014	14:55:00	5.450	24.48	
3/25/2014	14:56:00	5.464	24.13	
3/25/2014	14:57:00	5.451	24.18	
3/25/2014	14:58:00	5.513	23.85	
3/25/2014	14:59:00	5.738	24.13	
3/25/2014	15:00:00	9.545	4.52	
3/25/2014	15:01:00	9.560	1.25	Calibrating System 1
3/25/2014	15:02:00	8.493	0.87	Calibrating System 1
3/25/2014	15:03:00	0.053	1.72	Calibrating System 1
3/25/2014	15:04:00	0.027	2.21	Calibrating System 1
3/25/2014	15:05:00	0.051	4.00	Calibrating System 1
3/25/2014	15:06:00	-0.007	46.52	Calibrating System 1
3/25/2014	15:07:00	-0.016	50.09	Calibrating System 1
3/25/2014	15:08:00	-0.013	50.67	Calibrating System 1
3/25/2014	15:09:00	1.096	47.91	
3/25/2014	15:10:00	5.412	23.85	
3/25/2014	15:11:00	5.401	25.13	
3/25/2014	15:12:00	5.441	24.90	
3/25/2014	15:13:00	5.460	24.97	
3/25/2014	15:14:00	5.487	24.47	
3/25/2014	15:15:00	5.500	24.20	
3/25/2014	15:16:00	5.526	24.42	
3/25/2014	15:17:00	5.515	24.19	
3/25/2014	15:18:00	5.524	24.11	
3/25/2014	15:19:00	5.561	24.22	
3/25/2014	15:20:00	5.509	24.17	
3/25/2014	15:21:00	5.540	25.01	
3/25/2014	15:22:00	5.475	25.44	
3/25/2014	15:23:00	5.464	25.65	
3/25/2014	15:24:00	5.437	25.64	
3/25/2014	15:25:00	5.452	25.69	
3/25/2014	15:26:00	5.428	25.96	
3/25/2014	15:27:00	5.426	26.14	
3/25/2014	15:28:00	5.409	26.26	
3/25/2014	15:29:00	5.401	26.34	
3/25/2014	15:30:00	5.431	26.14	
3/25/2014	15:31:00	5.460	26.00	
3/25/2014	15:32:00	5.682	25.67	

Valero Refining-Texas, L.P.
Houston Refinery
Houston, TX

One-Minute Reference Method Data
Trailer 10

SRU B Incinerator

Date	Time	O_2_1	SO_2_1	Calibration Status
		System 1		
		% vd	ppmvd	
3/25/2014	15:33:00	9.544	4.81	
3/25/2014	15:34:00	9.564	1.43	Calibrating System 1
3/25/2014	15:35:00	8.474	1.26	Calibrating System 1
3/25/2014	15:36:00	0.081	2.23	Calibrating System 1
3/25/2014	15:37:00	0.039	2.68	Calibrating System 1
3/25/2014	15:38:00	0.056	4.08	Calibrating System 1
3/25/2014	15:39:00	0.007	46.25	Calibrating System 1
3/25/2014	15:40:00	0.008	50.32	Calibrating System 1
3/25/2014	15:41:00	0.010	50.98	Calibrating System 1
3/25/2014	15:42:00	1.081	48.34	
3/25/2014	15:43:00	5.305	24.85	
3/25/2014	15:44:00	5.364	24.83	
3/25/2014	15:45:00	5.388	24.11	
3/25/2014	15:46:00	5.426	24.23	
3/25/2014	15:47:00	5.459	24.57	
3/25/2014	15:48:00	5.472	24.32	
3/25/2014	15:49:00	5.476	23.82	
3/25/2014	15:50:00	5.495	23.71	
3/25/2014	15:51:00	5.502	23.52	
3/25/2014	15:52:00	5.510	23.25	
3/25/2014	15:53:00	5.545	23.10	
3/25/2014	15:54:00	5.514	23.08	
3/25/2014	15:55:00	5.488	23.22	
3/25/2014	15:56:00	5.481	23.30	
3/25/2014	15:57:00	5.493	23.43	
3/25/2014	15:58:00	5.483	23.16	
3/25/2014	15:59:00	5.449	22.94	
3/25/2014	16:00:00	5.421	22.56	
3/25/2014	16:01:00	5.466	22.62	
3/25/2014	16:02:00	5.426	22.41	
3/25/2014	16:03:00	5.445	22.46	
3/25/2014	16:04:00	5.451	22.37	
3/25/2014	16:05:00	5.675	22.27	
3/25/2014	16:06:00	9.550	4.44	
3/25/2014	16:07:00	9.579	1.45	Calibrating System 1
3/25/2014	16:08:00	8.441	1.47	Calibrating System 1
3/25/2014	16:09:00	0.054	2.26	Calibrating System 1
3/25/2014	16:10:00	0.046	2.28	Calibrating System 1
3/25/2014	16:11:00	0.068	3.23	Calibrating System 1
3/25/2014	16:12:00	0.037	46.27	Calibrating System 1
3/25/2014	16:13:00	0.035	50.53	Calibrating System 1
3/25/2014	16:14:00	0.035	51.21	Calibrating System 1
3/25/2014	16:15:00	1.115	46.10	

GOLDEN SPECIALTY

Air Quality Test Report

APPENDIX F –
CEMS Data

Valero Refining-Texas, L.P.
Houston Refinery
Houston, TX

CEMS RUN DATA

SRU B Incinerator

Date/Time	O_2 (% vd)	SO_2 (ppmvd)	SO_2 (ppmvd, corrected)
3/25/2014 10:37:00	5.23	28.19	37.61
3/25/2014 10:38:00	5.21	28.08	37.42
3/25/2014 10:39:00	5.19	28.08	37.36
3/25/2014 10:40:00	5.16	28.29	37.56
3/25/2014 10:41:00	5.17	28.51	37.86
3/25/2014 10:42:00	5.17	28.46	37.82
3/25/2014 10:43:00	5.16	28.62	38.01
3/25/2014 10:44:00	5.16	28.63	38.25
3/25/2014 10:45:00	5.17	28.67	38.11
3/25/2014 10:46:00	5.18	28.40	37.77
3/25/2014 10:47:00	5.21	28.12	37.45
3/25/2014 10:48:00	5.22	27.95	37.25
3/25/2014 10:49:00	5.23	27.56	36.76
3/25/2014 10:50:00	5.24	27.03	36.07
3/25/2014 10:51:00	5.23	26.65	35.55
3/25/2014 10:52:00	5.24	26.43	35.28
3/25/2014 10:53:00	5.26	26.32	35.18
3/25/2014 10:54:00	5.26	26.25	35.08
3/25/2014 10:55:00	5.23	26.26	35.03
3/25/2014 10:56:00	5.22	25.86	34.50
3/25/2014 10:57:00	5.25	25.63	34.23
Run 1 Average:	**5.21**	**27.53**	**36.67**

Date/Time	O_2 (% vd)	SO_2 (ppmvd)	SO_2 (ppmvd, corrected)
3/25/2014 11:12:00	5.19	24.86	33.06
3/25/2014 11:13:00	5.20	24.86	33.11
3/25/2014 11:14:00	5.21	24.88	33.13
3/25/2014 11:15:00	5.21	24.92	33.19
3/25/2014 11:16:00	5.23	24.87	33.17
3/25/2014 11:17:00	5.24	24.85	33.17
3/25/2014 11:18:00	5.24	24.94	33.29
3/25/2014 11:19:00	5.27	24.85	33.23
3/25/2014 11:20:00	5.32	24.59	32.98
3/25/2014 11:21:00	5.35	24.37	32.77
3/25/2014 11:22:00	5.37	24.32	32.72
3/25/2014 11:23:00	5.35	24.24	32.58
3/25/2014 11:24:00	5.33	24.47	32.84
3/25/2014 11:25:00	5.35	24.70	33.19
3/25/2014 11:26:00	5.39	24.43	32.93
3/25/2014 11:27:00	5.40	23.84	32.13
3/25/2014 11:28:00	5.40	23.31	31.43
3/25/2014 11:29:00	5.37	23.07	31.06
3/25/2014 11:30:00	5.37	22.98	30.91
3/25/2014 11:31:00	5.35	22.80	30.65
3/25/2014 11:32:00	5.33	22.57	30.30
Run 2 Average:	**5.31**	**24.22**	**32.47**

Date/Time	O_2 (% vd)	SO_2 (ppmvd)	SO_2 (ppmvd, corrected)
3/25/2014 11:46:00	5.16	20.76	27.56
3/25/2014 11:47:00	5.15	20.55	27.28
3/25/2014 11:48:00	5.16	20.48	27.22
3/25/2014 11:49:00	5.19	20.44	27.20
3/25/2014 11:50:00	5.20	20.36	27.10
3/25/2014 11:51:00	5.22	20.29	27.04
3/25/2014 11:52:00	5.23	20.14	26.87
3/25/2014 11:53:00	5.23	19.92	26.56
3/25/2014 11:54:00	5.24	19.84	26.48
3/25/2014 11:55:00	5.27	19.94	26.66
3/25/2014 11:56:00	5.29	19.86	26.59
3/25/2014 11:57:00	5.29	19.74	26.43
3/25/2014 11:58:00	5.29	19.77	26.47
3/25/2014 11:59:00	5.32	19.77	26.52
3/25/2014 12:00:00	5.32	19.75	26.50
3/25/2014 12:01:00	5.35	19.81	26.64
3/25/2014 12:02:00	5.32	19.84	26.62
3/25/2014 12:03:00	5.29	19.95	26.72
3/25/2014 12:04:00	5.27	20.14	26.94
3/25/2014 12:05:00	5.23	20.47	27.31
3/25/2014 12:06:00	5.25	20.71	27.65
Run 3 Average:	**5.25**	**20.12**	**26.87**

Date/Time	O_2 (% vd)	SO_2 (ppmvd)	SO_2 (ppmvd, corrected)
3/25/2014 12:22:00	5.21	20.33	27.08
3/25/2014 12:23:00	5.22	20.76	27.68
3/25/2014 12:24:00	5.24	21.06	28.11
3/25/2014 12:25:00	5.25	21.03	28.09
3/25/2014 12:26:00	5.27	20.75	27.74
3/25/2014 12:27:00	5.26	20.33	27.17
3/25/2014 12:28:00	5.26	20.23	27.04
3/25/2014 12:29:00	5.25	20.37	27.20
3/25/2014 12:30:00	5.25	20.43	27.29
3/25/2014 12:31:00	5.26	20.45	27.36
3/25/2014 12:32:00	5.26	20.54	27.48
3/25/2014 12:33:00	5.24	20.51	27.37
3/25/2014 12:34:00	5.22	20.52	27.36
3/25/2014 12:35:00	5.23	20.53	27.38
3/25/2014 12:36:00	5.21	20.64	27.49
3/25/2014 12:37:00	5.20	20.75	27.63
3/25/2014 12:38:00	5.22	20.53	27.39
3/25/2014 12:39:00	5.27	20.48	27.36
3/25/2014 12:40:00	5.27	20.41	27.30
3/25/2014 12:41:00	5.28	20.57	27.45
3/25/2014 12:42:00	5.26	20.68	27.64
Run 4 Average:	**5.25**	**20.55**	**27.46**

Date/Time	O_2 (% vd)	SO_2 (ppmvd)	SO_2 (ppmvd, corrected)
3/25/2014 12:58:00	5.17	21.05	27.97
3/25/2014 12:59:00	5.17	20.87	27.74
3/25/2014 13:00:00	5.19	20.78	27.64
3/25/2014 13:01:00	5.23	20.65	27.54
3/25/2014 13:02:00	5.25	20.44	27.30
3/25/2014 13:03:00	5.29	20.24	27.09
3/25/2014 13:04:00	5.28	20.05	26.85
3/25/2014 13:05:00	5.30	19.92	26.69
3/25/2014 13:06:00	5.31	19.85	26.61
3/25/2014 13:07:00	5.28	19.84	26.55
3/25/2014 13:08:00	5.27	19.82	26.49
3/25/2014 13:09:00	5.30	19.65	26.33
3/25/2014 13:10:00	5.31	19.32	25.89
3/25/2014 13:11:00	5.29	19.30	25.84
3/25/2014 13:12:00	5.29	19.33	25.88
3/25/2014 13:13:00	5.26	19.29	25.79
3/25/2014 13:14:00	5.24	19.21	25.65
3/25/2014 13:15:00	5.21	19.12	25.47
3/25/2014 13:16:00	5.19	19.26	25.61
3/25/2014 13:17:00	5.15	19.43	25.78
3/25/2014 13:18:00	5.16	19.49	25.88
Run 5 Average:	**5.25**	**19.85**	**26.50**

Date/Time	O_2 (% vd)	SO_2 (ppmvd)	SO_2 (ppmvd, corrected)
3/25/2014 13:32:00	5.27	21.65	28.95
3/25/2014 13:33:00	5.25	21.88	29.21
3/25/2014 13:34:00	5.23	22.01	29.37
3/25/2014 13:35:00	5.23	22.09	29.46
3/25/2014 13:36:00	5.22	22.00	29.32
3/25/2014 13:37:00	5.19	21.94	29.18
3/25/2014 13:38:00	5.21	21.97	29.26
3/25/2014 13:39:00	5.23	21.94	29.26
3/25/2014 13:40:00	5.24	21.78	29.07
3/25/2014 13:41:00	5.22	21.71	28.94
3/25/2014 13:42:00	5.20	21.68	28.86
3/25/2014 13:43:00	5.21	21.63	28.81
3/25/2014 13:44:00	5.23	21.66	28.88
3/25/2014 13:45:00	5.22	21.63	28.84
3/25/2014 13:46:00	5.20	21.61	28.77
3/25/2014 13:47:00	5.20	21.59	28.75
3/25/2014 13:48:00	5.19	21.37	28.43
3/25/2014 13:49:00	5.20	21.09	28.08
3/25/2014 13:50:00	5.20	21.11	28.11
3/25/2014 13:51:00	5.20	21.29	28.34
3/25/2014 13:52:00	5.22	21.34	28.44
Run 6 Average:	**5.22**	**21.67**	**28.87**

Valero Refining-Texas, L.P.
Houston Refinery
Houston, TX

CEMS RUN DATA

SRU B Incinerator

Date/Time	O_2 (% vd)	SO_2 (ppmvd)	SO_2 (ppmvd, corrected)
3/25/2014 14:05:00	5.09	21.91	28.97
3/25/2014 14:06:00	5.08	21.86	28.88
3/25/2014 14:07:00	5.13	22.00	29.16
3/25/2014 14:08:00	5.13	22.03	29.19
3/25/2014 14:09:00	5.13	22.03	29.20
3/25/2014 14:10:00	5.17	21.88	29.07
3/25/2014 14:11:00	5.19	21.57	28.70
3/25/2014 14:12:00	5.19	21.40	28.48
3/25/2014 14:13:00	5.18	21.21	28.20
3/25/2014 14:14:00	5.19	20.94	27.86
3/25/2014 14:15:00	5.19	20.88	27.78
3/25/2014 14:16:00	5.20	21.02	27.98
3/25/2014 14:17:00	5.20	20.99	27.94
3/25/2014 14:18:00	5.19	20.92	27.83
3/25/2014 14:19:00	5.20	20.85	27.76
3/25/2014 14:20:00	5.17	20.80	27.64
3/25/2014 14:21:00	5.18	20.90	27.78
3/25/2014 14:22:00	5.18	20.86	27.74
3/25/2014 14:23:00	5.16	20.75	27.58
3/25/2014 14:24:00	5.17	20.76	27.59
3/25/2014 14:25:00	5.16	20.72	27.51
Run 7 Average:	**5.17**	**21.25**	**28.23**

Date/Time	O_2 (% vd)	SO_2 (ppmvd)	SO_2 (ppmvd, corrected)
3/25/2014 14:38:00	5.12	21.96	29.09
3/25/2014 14:39:00	5.11	21.94	29.04
3/25/2014 14:40:00	5.10	21.95	29.04
3/25/2014 14:41:00	5.13	21.97	29.11
3/25/2014 14:42:00	5.11	21.76	28.84
3/25/2014 14:43:00	5.13	21.69	28.74
3/25/2014 14:44:00	5.13	21.57	28.59
3/25/2014 14:45:00	5.14	21.40	28.38
3/25/2014 14:46:00	5.15	21.22	28.16
3/25/2014 14:47:00	5.16	21.25	28.24
3/25/2014 14:48:00	5.17	21.23	28.21
3/25/2014 14:49:00	5.15	21.10	28.01
3/25/2014 14:50:00	5.13	21.12	27.99
3/25/2014 14:51:00	5.11	21.46	28.40
3/25/2014 14:52:00	5.09	22.10	29.20
3/25/2014 14:53:00	5.07	22.70	29.97
3/25/2014 14:54:00	5.06	22.86	30.15
3/25/2014 14:55:00	5.08	22.96	30.33
3/25/2014 14:56:00	5.13	22.71	30.10
3/25/2014 14:57:00	5.16	22.10	29.35
3/25/2014 14:58:00	5.16	21.88	29.05
Run 8 Average:	**5.12**	**21.85**	**28.95**

Date/Time	O_2 (% vd)	SO_2 (ppmvd)	SO_2 (ppmvd, corrected)
3/25/2014 15:11:00	5.12	22.34	29.58
3/25/2014 15:12:00	5.13	22.33	29.59
3/25/2014 15:13:00	5.14	22.43	29.75
3/25/2014 15:14:00	5.17	22.54	29.94
3/25/2014 15:15:00	5.19	22.41	29.81
3/25/2014 15:16:00	5.20	22.29	29.66
3/25/2014 15:17:00	5.22	22.17	29.54
3/25/2014 15:18:00	5.22	22.05	29.43
3/25/2014 15:19:00	5.23	22.12	29.50
3/25/2014 15:20:00	5.26	22.00	29.41
3/25/2014 15:21:00	5.23	22.02	29.36
3/25/2014 15:22:00	5.22	22.50	29.99
3/25/2014 15:23:00	5.19	23.23	30.91
3/25/2014 15:24:00	5.16	23.69	31.46
3/25/2014 15:25:00	5.13	23.90	31.69
3/25/2014 15:26:00	5.13	24.13	31.97
3/25/2014 15:27:00	5.12	24.21	32.07
3/25/2014 15:28:00	5.11	24.32	32.20
3/25/2014 15:29:00	5.11	24.59	32.54
3/25/2014 15:30:00	5.12	24.66	32.66
3/25/2014 15:31:00	5.11	24.49	32.42
Run 9 Average:	**5.17**	**23.07**	**30.64**

Date/Time	O_2 (% vd)	SO_2 (ppmvd)	SO_2 (ppmvd, corrected)
3/25/2014 15:44:00	5.01	23.09	30.39
3/25/2014 15:45:00	5.06	22.90	30.22
3/25/2014 15:46:00	5.09	22.55	29.82
3/25/2014 15:47:00	5.12	22.34	29.59
3/25/2014 15:48:00	5.14	22.25	29.52
3/25/2014 15:49:00	5.16	22.20	29.48
3/25/2014 15:50:00	5.18	21.96	29.19
3/25/2014 15:51:00	5.19	21.74	28.91
3/25/2014 15:52:00	5.19	21.59	28.72
3/25/2014 15:53:00	5.19	21.46	28.55
3/25/2014 15:54:00	5.21	21.31	28.38
3/25/2014 15:55:00	5.21	21.26	28.32
3/25/2014 15:56:00	5.19	21.42	28.49
3/25/2014 15:57:00	5.17	21.47	28.52
3/25/2014 15:58:00	5.15	21.38	28.38
3/25/2014 15:59:00	5.14	21.26	28.20
3/25/2014 16:00:00	5.12	21.13	27.99
3/25/2014 16:01:00	5.10	20.90	27.66
3/25/2014 16:02:00	5.11	20.82	27.58
3/25/2014 16:03:00	5.10	20.57	27.21
3/25/2014 16:04:00	5.11	20.59	27.25
Run 10 Average:	**5.14**	**21.52**	**28.57**

Valero Refining-Texas, L.P.
Houston Refinery
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CEMS DATA

SRU B Incinerator

Date	Time	O_2	SO_2	SO_2 @ 0%O_2
		% vd	ppmvd	ppmvd
3/25/2014	14:04:00	5.13	21.89	29.01
3/25/2014	14:05:00	5.09	21.91	28.97
3/25/2014	14:06:00	5.08	21.86	28.86
3/25/2014	14:07:00	5.13	22.00	29.16
3/25/2014	14:08:00	5.13	22.03	29.19
3/25/2014	14:09:00	5.13	22.03	29.20
3/25/2014	14:10:00	5.17	21.88	29.07
3/25/2014	14:11:00	5.19	21.57	28.70
3/25/2014	14:12:00	5.19	21.40	28.48
3/25/2014	14:13:00	5.18	21.21	28.20
3/25/2014	14:14:00	5.19	20.94	27.86
3/25/2014	14:15:00	5.19	20.88	27.78
3/25/2014	14:16:00	5.20	21.02	27.98
3/25/2014	14:17:00	5.20	20.99	27.94
3/25/2014	14:18:00	5.19	20.92	27.83
3/25/2014	14:19:00	5.20	20.85	27.76
3/25/2014	14:20:00	5.17	20.80	27.64
3/25/2014	14:21:00	5.18	20.90	27.78
3/25/2014	14:22:00	5.18	20.86	27.74
3/25/2014	14:23:00	5.18	20.75	27.58
3/25/2014	14:24:00	5.17	20.76	27.59
3/25/2014	14:25:00	5.16	20.72	27.51
3/25/2014	14:26:00	5.16	20.73	27.52
3/25/2014	14:27:00	5.15	20.87	27.70
3/25/2014	14:28:00	5.15	21.00	27.86
3/25/2014	14:29:00	5.18	21.08	28.03
3/25/2014	14:30:00	5.20	21.02	27.98
3/25/2014	14:31:00	5.24	20.96	27.97
3/25/2014	14:32:00	5.23	21.03	28.04
3/25/2014	14:33:00	5.22	21.02	28.03
3/25/2014	14:34:00	5.22	21.05	28.05
3/25/2014	14:35:00	5.18	21.20	28.18
3/25/2014	14:36:00	5.13	21.48	28.47
3/25/2014	14:37:00	5.11	21.79	28.85
3/25/2014	14:38:00	5.12	21.96	29.09
3/25/2014	14:39:00	5.11	21.94	29.04
3/25/2014	14:40:00	5.10	21.95	29.04
3/25/2014	14:41:00	5.13	21.97	29.11
3/25/2014	14:42:00	5.11	21.78	28.84
3/25/2014	14:43:00	5.13	21.69	28.74
3/25/2014	14:44:00	5.13	21.57	28.59
3/25/2014	14:45:00	5.14	21.40	28.38
3/25/2014	14:46:00	5.15	21.22	28.16
3/25/2014	14:47:00	5.18	21.25	28.24
3/25/2014	14:48:00	5.17	21.23	28.21
3/25/2014	14:49:00	5.15	21.10	28.01
3/25/2014	14:50:00	5.13	21.12	27.99
3/25/2014	14:51:00	5.11	21.46	28.40
3/25/2014	14:52:00	5.08	22.10	29.20
3/25/2014	14:53:00	5.07	22.70	29.97
3/25/2014	14:54:00	5.06	22.86	30.15
3/25/2014	14:55:00	5.08	22.96	30.33
3/25/2014	14:56:00	5.13	22.71	30.10
3/25/2014	14:57:00	5.16	22.10	29.35
3/25/2014	14:58:00	5.16	21.88	29.05
3/25/2014	14:59:00	5.18	21.86	29.05
3/25/2014	15:00:00	5.16	21.84	29.01
3/25/2014	15:01:00	5.17	21.93	29.13
3/25/2014	15:02:00	5.15	21.94	29.10
3/25/2014	15:03:00	5.14	22.11	29.32
3/25/2014	15:04:00	5.15	22.48	29.83

Valero Refining-Texas, L.P.
Houston Refinery
Houston, TX

CEMS DATA

SRU B Incinerator

Date	Time	O_2	SO_2	SO_2 @ 0%O_2
		% vd	ppmvd	ppmvd
3/25/2014	15:05:00	5.14	22.61	29.99
3/25/2014	15:06:00	5.13	22.60	29.95
3/25/2014	15:07:00	5.11	22.76	30.12
3/25/2014	15:08:00	5.10	22.81	30.17
3/25/2014	15:09:00	5.09	22.77	30.11
3/25/2014	15:10:00	5.10	22.66	29.98
3/25/2014	15:11:00	5.12	22.34	29.58
3/25/2014	15:12:00	5.13	22.33	29.59
3/25/2014	15:13:00	5.14	22.43	29.76
3/25/2014	15:14:00	5.17	22.54	29.94
3/25/2014	15:15:00	5.19	22.41	29.81
3/25/2014	15:16:00	5.20	22.28	29.66
3/25/2014	15:17:00	5.22	22.17	29.54
3/25/2014	15:18:00	5.22	22.08	29.43
3/25/2014	15:19:00	5.23	22.12	29.50
3/25/2014	15:20:00	5.26	22.00	29.41
3/25/2014	15:21:00	5.23	22.02	29.36
3/25/2014	15:22:00	5.22	22.50	29.99
3/25/2014	15:23:00	5.19	23.23	30.91
3/25/2014	15:24:00	5.16	23.69	31.46
3/25/2014	15:25:00	5.13	23.90	31.69
3/25/2014	15:26:00	5.13	24.13	31.97
3/25/2014	15:27:00	5.12	24.21	32.07
3/25/2014	15:28:00	5.11	24.32	32.20
3/25/2014	15:29:00	5.11	24.59	32.54
3/25/2014	15:30:00	5.12	24.66	32.66
3/25/2014	15:31:00	5.11	24.49	32.42
3/25/2014	15:32:00	5.13	24.24	32.12
3/25/2014	15:33:00	5.11	23.86	31.62
3/25/2014	15:34:00	5.08	23.75	31.38
3/25/2014	15:35:00	5.05	23.89	31.50
3/25/2014	15:36:00	5.03	23.77	31.30
3/25/2014	15:37:00	5.01	23.78	31.27
3/25/2014	15:38:00	4.99	23.87	31.35
3/25/2014	15:39:00	4.98	24.00	31.51
3/25/2014	15:40:00	4.97	24.07	31.57
3/25/2014	15:41:00	4.97	23.96	31.42
3/25/2014	15:42:00	5.00	23.55	30.94
3/25/2014	15:43:00	4.99	23.22	30.50
3/25/2014	15:44:00	5.01	23.09	30.38
3/25/2014	15:45:00	5.06	22.90	30.22
3/25/2014	15:46:00	5.09	22.55	29.82
3/25/2014	15:47:00	5.12	22.34	29.59
3/25/2014	15:48:00	5.14	22.25	29.52
3/25/2014	15:49:00	5.16	22.20	29.48
3/25/2014	15:50:00	5.18	21.96	29.19
3/25/2014	15:51:00	5.19	21.74	28.91
3/25/2014	15:52:00	5.19	21.59	28.72
3/25/2014	15:53:00	5.19	21.46	28.55
3/25/2014	15:54:00	5.21	21.31	28.38
3/25/2014	15:55:00	5.21	21.26	28.32
3/25/2014	15:56:00	5.19	21.42	28.49
3/25/2014	15:57:00	5.17	21.47	28.52
3/25/2014	15:58:00	5.15	21.38	28.38
3/25/2014	15:59:00	5.14	21.26	28.20
3/25/2014	16:00:00	5.12	21.13	27.99
3/25/2014	16:01:00	5.10	20.90	27.66
3/25/2014	16:02:00	5.11	20.62	27.28
3/25/2014	16:03:00	5.10	20.57	27.21
3/25/2014	16:04:00	5.11	20.59	27.25
3/25/2014	16:05:00	5.12	20.49	27.13

GOLDEN SPECIALTY

THE GOLD STANDARD FOR AIR TESTING

Air Quality Test Report

Annual Relative Accuracy Test Audit for O_2 and SO_2 CEMS

Valero Refining-Texas, L.P.
Houston, Texas

Sulfur Recovery Unit (SRU) C Incinerator – Unit 39

NSR Permit for SRUs 2507A; Operating Permit No.: O1381; EPN: 39CB2001

Report Number: VALHR-14-0193-A
Date Tested: February 20, 2014
Date Prepared: April 1, 2014

PREPARED FOR
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Air Quality Test Report

Annual Relative Accuracy Test Audit for O_2 and SO_2 CEMS

Valero Refining-Texas, L.P.
Houston, Texas

Sulfur Recovery Unit (SRU) C Incinerator – Unit 39

This report is supported by GOLDEN's Quality Assurance Manual. The information included in the report is authentic and accurate, and GOLDEN operated in conformance with ASTM D7036 to the best of our knowledge during this test program.

Certified by:

Reviewed by

Scott B. Swiggard, Ph. D., QSTI 2006-025
Technical Director

Daniel A. Loubiere, QSTI 2008-128
Project Manager / Onsite QSTI

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Air Quality Test Report

EXECUTIVE SUMMARY

Golden Specialty, Inc. (GOLDEN) was contracted by Valero Refining-Texas, L.P., to perform air testing at their facility located in Houston, Texas. Testing was conducted on February 20, 2014. GOLDEN was contracted to perform an annual relative accuracy test audit (RATA) on a continuous emissions monitoring system (CEMS) located on the Sulfur Recovery Unit (SRU) C Incinerator exhaust stack. The measured parameters were oxygen (O_2) and sulfur dioxide (SO_2). The test was conducted in accordance with all appropriate United States Environmental Protection Agency (USEPA) Methodologies; as well as all applicable Texas Commission on Environmental Quality (TCEQ) mandates.

The purpose of the tests performed was to provide RATA results for demonstrating compliance of the CEMS with the applicable regulations, 40 CFR 60, Appendix B, Performance Specifications 2 and 3 O_2 and SO_2 CEMS. See Table 1-1 below for specifics on CEMS numbers and ranges for each CEMS component.

Component	*Make/Model*	*Serial Number*	*Range*
O_2	AMETEK / 2000	10209586	0-25 %
SO_2	Western Research / 921CE	AD-921-9816-2	0-500 ppm

Table 1-1. SRU C Incinerator CEMS Analyzers

The relative accuracy (RA) for each compound was based on calculated data collected from nine (9) twenty-one minute runs. A total of ten (10) runs were performed, with the results of the run with the highest deviation being discarded. All RA runs are presented in this report. The calculated RA results presented below. The RA for SO_2 was calculated using concentrations in terms of part per million by volume, dry basis, corrected to 0% O_2 (ppmvd @ 0% O_2). The RA results for O_2 are on a dry percent (% vd) basis. During the RATA test program, the SRU C Incinerator was operated at or near a production rate of 89 Long Tons per Day (LTPD) (86.4% of normal). The normal production rate is 103 LTPD maximum rated capacity is 247 LTPD.

RATA Calculations Nine - 21 minute average		
	SO_2 (ppmvd @ 0% O_2)	O_2 (% vd)
*Average RM Data	149.52	7.107
*Average CEMS Data	139.63	7.112
D-Bar=	9.89	0.005
Sigma-D=	5.44	0.043
CC=	4.18	0.033
RA (%RM)	9.41%	0.005
App. Std.	250.0	
RA(%ES)	5.63%	
RA Limit	20 % RM	1% O2
PASS RA?	YES	YES

*The nine runs with the lowest differences between RM and CEMS Data were used.

Table 1-2. CEMS RATA Results vs. Allowable.

Based on the results shown in this report, the CEMS installed on the SRU C Incinerator is operating within the limits of the Code of Federal Regulations, 40 CFR 60 Appendix B as applicable.

INTRODUCTION

Purpose of Test

The purpose of the test conducted on the SRU C Incinerator was to verify that the CEMS, which was installed to continuously monitor emissions of O_2 and SO_2, were operating within the limitations set forth in the CFR and the Texas Administrative Code (30 TAC). The tolerances to be met for the RA portion of this test program are set forth in the Performance Specifications (PS) section of The Code of Federal Regulations, Title 40, Part 60 (40 CFR 60) Appendix B for O_2 and SO_2 CEMS. Mr. Dan Loubiere managed the project and, with the assistance of Mr. Brian Johnson, performed the testing according to all applicable state and federal regulations. No agency personnel were onsite during testing.

Relative Accuracy Test Audit (RATA)

During the RATA performance tests, the exhaust gas stream was analyzed for the targeted pollutant and diluent gas concentrations. This sampling was conducted according to USEPA Reference Methods 3A and 6C for determination of O_2 and SO_2, respectively. These methods utilize instrument analysis to determine the gaseous concentrations for the required constituents within the stack. The reference methods are discussed in greater detail in the Performance Test Procedures section of this report.

The RATA testing consisted of drawing a representative sample of the exhaust gas stream into a conditioning system for removal of moisture. The sample was then allowed to pass into a set of hardware reference method (RM) analyzers, where the concentrations of the targeted pollutant and diluent gas concentrations were measured. These instantaneous readings were compiled in a data acquisition system (DAS) data based on a one-minute-average basis for comparison to the CEMS data. Reference methods employed for each of the targeted gases are described in the Performance Test Procedures section of this report.

The CEMS provides a record of the pollutant and diluent gas concentration data from the subject flue gas stream. This data was subsequently compared to the RM data for determination of the relative accuracy (RA) of the CEMS. The RA calculations are discussed in greater detail in the Sample Calculations section of this report.

GOLDEN utilized two independent sampling systems for the performance of this Test Program. The first sampling system (System One) was utilized for relative accuracy (RA) determinations of O_2 and SO_2. The second sampling system (System Two) was used for backup purposes. The RA for SO_2 was calculated using concentrations in terms of part per million by volume, dry basis (ppmvd) corrected to 0% O_2. The RA results for O_2 are on a dry percent (% vd) basis. The test procedures referenced in this report are in accordance with the Test Plan for this project. Deviations from the Test Plan or published Reference Methods are documented in the Problems, Deviations and/or Exceptions section of this report.

Problems, Deviations and/or Exceptions

No problems were encountered during this test program.

PERFORMANCE TEST PROCEDURES

Instrumental Analyzer Procedure

Stack gas emissions of O_2 and SO_2 from the source were measured with RM analyzers. These tests were performed in accordance with the applicable regulations, as outlined in Title 40, Part 60, Appendix A of the Code of Federal Regulations. All field data collected during the testing and photocopies of the actual O_2 and SO_2 one-minute averaging are provided in this report.

Sampling System

A gas sample was continuously extracted from the source with a stainless steel probe and channeled through a heated sample line to a gas sample conditioner. The entire sample extraction and delivery system was maintained at a temperature above 225°F to the point the sample enters the sample conditioner. The sample conditioner was employed to decrease the dewpoint of the combustion gases to a repeatable, stable, low dew point. Condensed moisture was continuously removed from the sample conditioner by peristaltic pump and drained. The conditioned gas then traveled through a network of ¼-inch Teflon® tubing to a manifold in the mobile laboratory. From the manifold, the sample was directed to a set of rotometers, where the flow of the sample gas into the analyzers was maintained at approximately 1 liter per minute (L/min).

Analyzer Calibration

The calibration of the instruments was performed using Protocol certified gas standards composed of a known concentration of the given component in zero-grade nitrogen. A copy of the certification standards for each of the certified calibration standards used during the testing is included in Appendix C. All of the values obtained during the calibration process, including analyzer calibration, system bias analysis, and drift values, can be found in Appendix C of this report. The analyzer calibration procedures are identical, regardless of the constituent being evaluated by each analyzer. The range used for each analyzer was determined based on the expected concentration levels of the flue gas stream.

The first step in the analyzer calibration was to set the zero point on the analyzer using zero-grade nitrogen. The nitrogen is introduced directly to the back of each analyzer, and the zero potentiometer on the analyzer is adjusted until the proper output from the analyzer is realized. Next, a high-range calibration gas is introduced to each analyzer, with a concentration within the appropriate range of the instrument. The span potentiometer on each analyzer is then adjusted until the output from the analyzer corresponds to the value of the calibration standard. Finally, a mid-range calibration standard with a concentration approximately one-half of the high-range calibration standard is used to determine the linearity of the analyzer within the given range. For certain constituents, more than one mid-range value is required. The specific requirements for each constituent are discussed later in this section.

Analyzer Calibration Error

The Analyzer Calibration Error (ACE) is the difference between the gas concentration exhibited by the gas analyzer and the concentration of the calibration gas when introduced directly to the analyzer. The maximum allowable variance for the zero, mid-range, and high-range calibration gases is ± 2% of the span. The calibration values and corresponding percent errors associated with this project can be found in Appendix C of this report, and is determined by the following equation.

$$ACE = \left(\frac{Analyzer\ Response - Cylinder\ Value}{Calibration\ Span} \right) x100$$

System Bias Check

Following the analyzer calibration procedure, a second test is required to determine the amount of bias the sampling system has on the calibration standard concentrations. In this procedure, the same calibration standards that were used to perform the analyzer calibration error test are introduced to the sampling system via a separate network of ¼-inch Teflon® tubing. The calibration gases are allowed to flood the system via a "t" connection at the end of the sample probe at a rate of approximately 2 L/min higher than the sample rate. The excess calibration gas flows out the tip of the probe, preventing stack gas from being drawn into the sampling system during calibrations. The gas is then drawn back through the system by the conditioning pumps, and is introduced to the analyzers. The output from the analyzers is recorded, without adjusting the zero or span potentiometers. The bias created by the sampling system is then determined by the following equation.

$$Bias = \left(\frac{System\ Response - Calibration\ Error\ Response}{Calibration\ Span} \right) x100$$

The maximum allowable system bias for any one analyzer is ±5% of the corresponding span value. The values determined for this portion of the calibration procedure can be found in Appendix C of this report.

Analyzer Drift

Utilizing the data obtained during the post-test bias check, a third test is performed to determine the amount of drift experienced during the test run. The analyzer response from the post-test system bias check is compared to the pre-test response for the same calibration standard for drift determinations. If the drift value is greater than the allowable value, the test run is considered invalid and the analyzers must be re-calibrated before continuing the test. The drift for each constituent is determined using the equation below.

$$Drift = \left(\frac{\left| Final\ System\ Calibration\ Response - Initial\ System\ Calibration\ Response \right|}{Calibration\ Span} \right) x100$$

The maximum allowable calibration drift for any one analyzer is 3% of the span over the period of each run. The values determined for this portion of the calibration procedure can be found in Appendix C of this report.

Response Time

System response times for each analyzer were determined during the initial pretest bias prior to run number 1. The response time is determined by the length of time it takes the analyzer response to be within 95% or 0.5 ppm (whichever is less restrictive) of the certified gas concentration. The start of each run was a minimum of twice the response time following the completion of calibration checks.

USEPA Reference Methods

This section provides a detailed description of the individual USEPA Reference Methods employed in this test (40 CFR 60, Appendix A). A schematic of the sampling system used to perform the test program on the SRU C Incinerator can be found in Figure 1-1. Specifics for each analyzer utilized in this test program are presented in Appendix A.

USEPA Method 3A: Oxygen and Carbon Dioxide Analysis (Instrumental Procedure)

This method was employed to determine the concentration of O_2 in the flue gas stream with the use of analytical instruments. A sample was continuously extracted from the stack and introduced to a RM analyzer for determination of concentration. The minimum detection limit for this instrument is one-hundredth of one percent (0.01%). The instrument is connected to a DAS computer via an analog-to-digital converter for recording resulting values, and the data was recorded in one-minute averages. Zero-grade nitrogen and USEPA Protocol-1 calibration standards were used to calibrate the analytical instrument. The general guidelines for the calibration of a RM analyzer are described above, with the specifics pertaining to the calibration of an O_2 analyzer being set forth in USEPA Method 3A (40 CFR Part 60, Appendix A). *(GOLDEN SOP: GSC-TM013)*

USEPA Method 6C: Sulfur Dioxide Analysis (Instrumental Procedure)

This method was employed to determine the concentration of SO_2 present in the exhaust gas stream. A sample was continuously extracted from the stack and introduced to a RM analyzer for determination of concentration. The minimum detection limit of this analyzer is 0.1 ppm. An analog-to-digital converter connected to a laptop computer directed the resulting values, where the data was recorded in one-minute averages. Zero-grade nitrogen and USEPA Protocol-1 calibration standards were used to calibrate the analytical instrument. The general guidelines for the calibration of a RM analyzer are described above, with the specifics pertaining to the calibration of a SO_2 analyzer being set forth in USEPA Method 6C (40 CFR Part 60, Appendix A). *(GOLDEN SOP: GSC-TM020)*

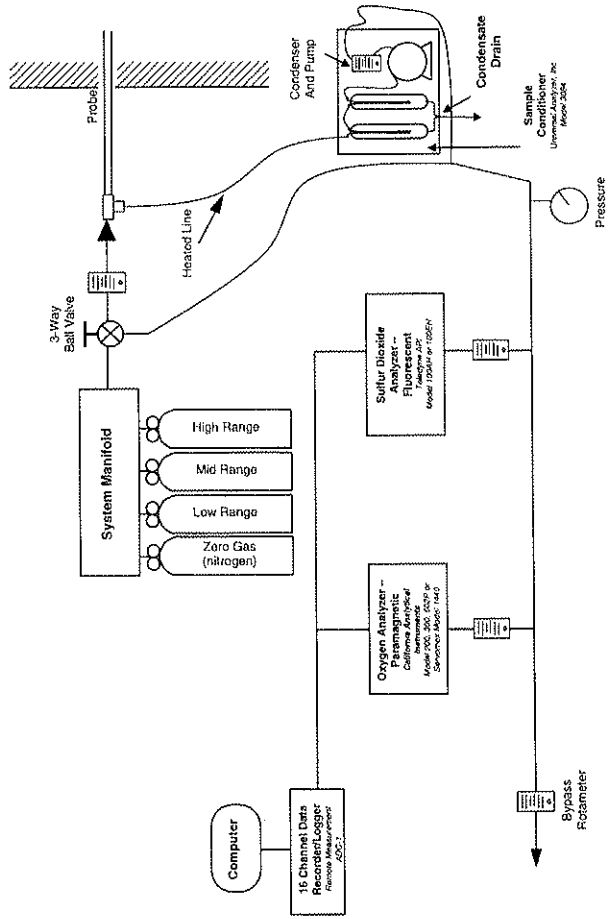


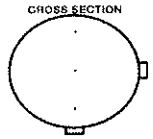
Figure 1-1. Sampling System Schematic

SOURCE INFORMATION

The purpose of the Sulfur Recovery Unit (SRU) is to process the hydrogen sulfide bearing gas (acid gas) from the amine regeneration unit and sour water stripping (SWS) unit. Approximately 96% of the feed is converted and recovered and elemental sulfur.

The testing location on the SRU C Incinerator Exhaust Stack consisted of two 3.0-inch diameter port on a 65.75 inch diameter circular stack. The sample port was positioned a distance of 67.0 feet upstream and 11.0 feet downstream from the nearest disturbances. This meets the requirements established in the Code of Federal Regulations for sample locations.

Traversing was performed at the sample points identified below in Figure 1-2. Data for Systems One and Two are presented in Appendix E and may be compared minute by minute for the referenced test periods.



TRAVERSE POINTS: 3
NUMBER OF PORTS: 1
POINTS/PORT: 3
STACK ID: 65.75 in.
PORT LENGTH: 6.0 in.

TRAVERSE POINT NO.	DISTANCE FROM INSIDE WALL, in.
1	11.0
2	32.9
3	54.8

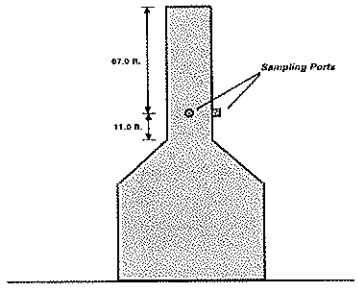


Figure 1-2. Diagram of Testing Location

SAMPLE CALCULATIONS

The following calculations were used in the determination of the relative accuracy for any one constituent being evaluated. The values listed in Table 1-3 below are the actual CEMS and RM SO_2 data obtained during the test. The units of comparison are in ppmvd @ 0% O_2.

Run #	1	2	3	4	5	6	7	8	9	10
C_{RM}	163.36	159.55	157.90	148.92	155.83	155.18	154.98	137.41	112.57	107.63
C_{CEMS}	160.74	147.60	150.39	139.80	144.22	141.71	138.56	136.61	97.00	88.15
D_i*	2.62	11.95	7.51	9.12	11.60	13.46	16.42	0.80	15.57	19.48

*The nine lowest differences between RM and CEMS Data were used in determination of relative accuracy.

Table 1-3. SRU C Incinerator RM and CEMS Data for SO_2 in ppmvd @ 0% O_2

Relative Accuracy Calculations

Determination of Average Difference (d_{avg})

$$\bar{d} = \left[\frac{1}{n}\sum_{i=1}^{n} d_i\right]$$

Where:

d = Average difference between RM and CEMS data
n = Number of data points
d_i= Difference between RM and CEMS data for any given point

$$\bar{d} = \frac{1}{9}\left[d_1 + d_2 + d_3 + \ldots.\right]$$

Determination of Standard Deviation (S_d)

$$S_d = \left[\frac{\sum_{i=1}^{n} d_i^2 - \frac{\left(\sum_{i=1}^{n} d_i\right)^2}{n}}{n-1}\right]^{1/2}$$

Determination of Confidence Coefficient

$$CC = \left[\frac{(t_{0.975})(S_d)}{\sqrt{n}}\right]$$

Where:

$t_{0.975}$ = t- value ($t_{0.975}$ = 2.306)
S_d = Standard deviation
n = Number of data points = 9

Determination of Relative Accuracy

$$RA = \left[\frac{|\bar{d}| + |CC|}{RM_{avg}}\right] x\,100\%$$

Determination of Alternate Relative Accuracy for SO_2

$$ALT\ RA = \left[\frac{|\bar{d}| + |CC|}{App.\ Std.}\right] x\,100\%$$

Determination of Relative Accuracy for O_2

$$RA = |\bar{d}|$$

Where:

$\bar{d}$ = Average difference between RM and CEMS data
d_i = Difference between RM and CEMS data for any given point

$$\bar{d} = \frac{1}{9}\left[d_1 + d_2 + d_3 + \ldots.\right]$$

Calibration Correction

$$C_{gas} = (\overline{C} - C_o)(\frac{C_{ma}}{C_m - C_o})$$

Where:

C_{gas} = *Effluent gas concentration (ppmvd or % vd)*

C = *Average gas concentration of gas analyzer (ppmvd or % vd)*

C_o = *Average of initial and final system calibration bias check responses for zero gas (ppmvd or % vd)*

C_m = *Average of initial and final system calibration bias check responses for the upscale calibration gas (ppmvd or % vd)*

C_{ma} = *Actual concentration of the upscale calibration gas (ppmvd or % vd)*

Concentration (Corrected to 0% O_2)

$$C_{ppmvd\ @\ 0\%\ O_2} = C_{ppmvd}\ x\left(\frac{20.9}{20.9 - \%\ O_2}\right)$$

TEST RESULTS

The RATA results for the SRU C Incinerator are listed on the following pages. The RA results for SO_2 are listed on a ppmvd corrected to 0% O_2 basis and O_2 results are shown as a dry percent (% vd). The limitations for each parameter are presented below with the results. Based on these limitations the SRU C Incinerator CEMS is operating within the relative accuracy limitations established.

RATA Calculations Nine - 21 minute average		
	SO_2 (ppmvd @ 0% O_2)	O_2 (% vd)
*Average RM Data	149.52	7.107
*Average CEMS Data	139.63	7.112
D-Bar=	9.89	0.005
Sigma-D=	5.44	0.043
CC=	4.18	0.033
RA (%RM)	9.41%	0.005
App. Std.	250.0	
RA(%ES)	5.63%	
RA Limit	20 % RM	1% O2
PASS RA?	YES	YES

*The nine runs with the lowest differences between RM and CEMS Data were used.

Table 1-2. CEMS RATA Results vs. Allowable.

RUN #	Start Time	RATA Reference Method Data			CEMS Data	
		SO_2 (ppmvd)	SO_2 (ppmvd @ 0% O_2)	O_2 (% vd)	SO_2 (ppmvd @ 0% O_2)	O_2 (% vd)
1	11:26	108.47	163.36	7.023	160.74	7.035
2	11:56	106.38	159.55	6.985	147.60	7.008
3	12:27	105.34	157.90	6.957	150.39	6.974
4	12:57	99.47	148.92	6.941	139.80	6.921
5	13:26	104.15	155.83	6.931	144.22	6.909
6	14:08	103.40	155.18	6.973	141.71	6.924
7	14:38	103.62	154.98	6.926	138.56	6.923
8	15:08	89.99	137.41	7.213	136.61	6.987
9	15:38	71.72	112.57	7.584	97.00	7.555
10	16:08	68.14	107.63	7.667	88.15	7.758

RUN #	Difference		Used Sensor	
	SO_2 (ppmvd @ 0% O_2)	O_2 (% vd)	SO_2 (Y/N)	O_2 (Y/N)
1	2.62	-0.013	Y	Y
2	11.95	-0.043	Y	Y
3	7.51	-0.017	Y	Y
4	9.12	0.019	Y	Y
5	11.60	0.022	Y	Y
6	13.46	0.049	Y	Y
7	16.42	0.003	Y	Y
8	0.80	0.226	Y	N
9	15.57	0.029	Y	Y
10	19.48	-0.091	N	Y
Total # Runs			9	9
t-value			2.30600	2.30600

RATA Calculations Nine - 21 minute average		
	SO_2 (ppmvd @ 0% O_2)	O_2 (% vd)
*Average RM Data	149.52	7.107
*Average CEMS Data	139.63	7.112
D-Bar=	9.89	0.005
Sigma-D=	5.44	0.043
CC=	4.18	0.033
RA (%RM)	9.41%	0.005
App. Std.	250.0	
RA(%ES)	5.63%	
RA Limit	20 % RM	1% O2
PASS RA?	YES	YES

*The nine runs with the lowest differences between RM and CEMS Data were used.

Table 1-4. SRU C Incinerator CEMS RATA Results

APPENDIX A –
Testing Equipment

Testing Equipment

Provided in the Table 1-5 below is a list of all testing equipment used in the in the determination of the RA of the SRU C Incinerator CEMS.

Golden Specialty, Inc.			
Trailer 10			
Constituent	**Make / Model**	**Operating Range**	**Serial Number**
O_2_1	Servomex / 1440	0-25% vd	01440D1/4034
SO_2_1	API / 100AH	0-500 ppmvd	111
O_2_2	CAI / 300	0-25 % vd	S03034

Table 1-5. Testing Equipment Used

APPENDIX B – Resumes

SCOTT B. SWIGGARD, Ph.D., QSTI
PRESIDENT / TECHNICAL DIRECTOR

Professional Experience Summary

- Broad background in environmental compliance and regulatory issues. Has directed projects associated with air permitting, groundwater contamination, air toxins emissions control, hazardous materials control and reporting, wastewater process control (metals removal), energy conservation, industrial ventilation, noise control, bioremediation, and storm water control.
- Extensive background in emission testing, with over 1,600 tests personally conducted and/or supervised.
- Responsible for the continued development of testing capabilities and their research and development.
- Provides project management for testing at assigned client's facilities. Provides field support to the project managers on testing protocols and methods.
- Responsible for verification and validation on test data as part of a Quality Assurance/ Quality Control Program.

Selected Publications/Presentations

Swiggard, Scott and Spellicy, Robert, PhD., FTIR Monitoring in High Water and Carbon Dioxide Environments. Presented at the 2003 Air and Waste Management Association 96th Annual Conference and Exhibition, San Diego, CA, June 22-26, 2003.

Swiggard, Scott B., Comparative study of NH3 analysis and methods for SCR Slippage. Presented at Source Evaluation Society Annual Meeting, Kiawah Island, North Carolina, 2004

Swiggard, Scott B., Identifying In-Stack Detection Limits and Handling of Non-Detect Data, Presented at Source Evaluation Society Annual Meeting, Rohnert Park California, 2005

Swiggard, Scott B., Why Cooling Towers and Vents matter in Texas!, Presented at Source Evaluation Society Annual Meeting, Hilton Head North Carolina, 2006

Swiggard, Scott B., How accurate are your standards?, Presented at Source Evaluation Society Annual Meeting, Hilton Head North Carolina, 2006

Swiggard, Scott B., Bonnette Sidney, PhD., and Palomarez Jorge., Gas Chromatography (GC) Analysis of HRVOC's in Cooling Towers and Vents; including degradation 1,3-Butadiene in the presence of NOx compounds, Presented at the GAS2006 Conference, Galveston, Texas, April 2006

Swiggard, S., McCulloch, R. Stack Testing for Dummies®, Golden Specialty Edition. Indianapolis: Wiley Publishing, 2011.

Professional Affiliations

Source Evaluation Society (SES) – QSTI I-III #2006-025
Air and Waste Management Association (AWMA)
Source Testing Accreditation Council (STAC) – Member and Board of Directors
ASTM International, Voting Member D22, #395691

TROY M. BURROWS,
MBA, QSTO, ASQ-CQA, CSSBB, CMQ/QE
MANAGER OF QUALITY ASSURANCE AND SAFETY
DEPUTY TECHNICAL DIRECTOR

Professional Work Summary

- Effectively carry out the responsibilities of laboratory's quality and safety policies by emphasizing the importance of commitment and accountability.
- Created multiple Quality Management Systems from start-up through implementation.
- Proficient at preparing and implementing quality guidelines and safety procedures.
- Administer accurate safety logs and complete training records.
- Continuously perform thorough internal audits while reducing deficiencies from regulatory or client audits.
- Manage and obtain all laboratory accreditations and licenses.
- Review and approve analytical data.
- Successfully implemented the quality rules detailed in the QA Manual.
- Performed and scheduled all trainings pertaining to the quality system.
- Responsible for the coordination of all audits, their deficiencies and corrective actions.
- Efficiently managed all levels of QA and Safety in accordance to regulatory and federal requirements.
- Recruited, hired and trained personnel in quality policies, safety and analytical methods.
- Created and provided both online and in-person training materials for Stack Testing firms.

Work Experience

Golden Specialty, Inc. (August 2013 – Present): QA/Safety Manager / Deputy Technical Director
Entec Services, Inc. (July 2010 – June 2013): Corporate Quality Manager
Dominion Virginia Power (February 2004 – July 2010): Quality Specialist / Instrument Technician III
Kelly Scientific Resources (October 2003 – February 2004): (Contract) Environmental Specialist
Battelle Memorial Institute (February 1993 – March 2003): Environmental Chemist / QC Inspector

Selected Publications/Presentations

Burrows, T.M., Quality Management Requirements for Source Testing Companies, SSSAAP Conference (SES), Point Clear, AL, March, 2014.
Burrows, T.M., Elam, D. The Rosetta Stone for Quality Management, SSSAAP Conference (SES), Hilton Head, SC, March, 2013.
Burrows, T.M., Quality Management Systems for Source Testers, SSSAAP Conference (SES), Panama City, FL, February, 2010.

Professional Affiliations

Source Evaluation Society (SES): QSTO I–III, QSTI IV #2008-113
The NELAC Institute (TNI), Field Activities Committee member
American Society for Testing and Materials (ASTM), D.22 Committee member
American Society for Quality (ASQ), Senior Member, Deputy Editor of the Quality Management Forum
Stack Testing Accreditation Council (STAC), Technical Assessment Board
American Association for Laboratory Accreditation (A2LA), Accreditation Council

Education

MBA, University of Maryland University College (UMUC), Adelphi, Maryland, 2013
B.S., Environmental Management / Business Law & Public Policy, University of Maryland University College (UMUC), Adelphi, Maryland, 2011

DANIEL A. LOUBIERE, QSTI
PROJECT MANAGER

Professional Experience Summary

- Responsible for designing, planning and managing sampling programs, daily assignments of field testing crews, sample analysis, data reduction, QA/QC reviews, and reporting activities.
- Broad background in environmental compliance and regulatory issues. Extensive experience designing and managing test programs to meet federal, state and local compliance demonstration requirements.
- Participated in or supervised over 1,700 tests across the United States, including hazardous waste incinerator trial burns, continuous emission monitoring systems (CEMS) certification, and compliance testing.
- Sampling experience includes flow stream characterization and monitoring of a number of types of flow streams for engineering purposes; emissions sampling for regulatory compliance demonstration; emissions sampling for systems audit requirements of continuous emission monitoring systems (CEMS) and predictive emissions monitoring systems (PEMS).
- Developed and manufactured equipment to perform sampling for highly reactive volatile organic compounds (HRVOC) to comply with TCEQ Chapter 115 Subchapter H requirements. Experienced in modified El Paso Method, Appendix P, (Cooling Tower Sampling for Volatile Organic Compounds); applicable to sampling and troubleshooting leaks in process systems.
- Assist clients in troubleshooting and repairing existing emissions monitoring systems, or designing and implementing new systems.

Work Experience

Golden Specialty, Inc. (June 2007 – Present)
Position: Project Manager

ARI Environmental, Inc. (March 1994 – June 2007)
Position: South Central Regional Manager

Professional Affiliations

Source Evaluation Society (SES) – QSTI I & III #2008-128, QI Groups II & IV
Air and Waste Management Association (AWMA)

Professional Education

24 Hour Hazwoper Training 29 CFR 1910.120
Preparation for the SES QSTI Exam Workshop, Walter Smith and Associates, 2007
Studies towards BS Degree in Environmental Science
Visible Emissions Certified (EPA Method 9)
Qualified Individual – Cylinder Gas Audits
Man-Lift Training, August 2006

PAULA M. METZ, QSTI
REPORTS DEPARTMENT MANAGER

Professional Experience Summary

- Experience with EPA testing regulations, including 40 CFR, Part 60, Part 75, and Part 266, and TCEQ testing regulations, including 30TAC115, 30TAC117, and TCEQ Sampling Procedures Manual.
- Over 12 years of experience and participation in over 600 tests in Texas, Arkansas, Ohio, Mississippi, South Dakota, Iowa, Kansas, Louisiana and Michigan.
- CEM instrumentation projects include continuous analysis for carbon monoxide (CO), total oxides of nitrogen (NO_x), oxygen (O_2), carbon dioxide (CO_2), total hydrocarbons (THC), and sulfur dioxide (SO_2).
- Sampling experience includes flow stream characterization and monitoring of a number of types of flow streams for engineering purposes; including analysis using 3-D spherical probes per Method 2F, emissions sampling for regulatory compliance demonstration; emissions sampling for systems audit requirements of continuous emission monitoring systems (CEMS).
- Conducted isokinetic sampling and calculations for Methods 1, 1A, 2, 2A, 2F, 3, 3B, 4, and 5, including sample recovery, preservation, and storage at the test site with associate sample custody requirements for the methods listed.
- Knowledgeable in the testing requirements and procedures for the testing and analysis of Predictive Emissions Monitoring Systems (PEMS). Participated in several new source performance standards (NSPS) for development of new PEMS, including initial data collection of emissions.
- Experienced in modified El Paso Method, Appendix P, (Cooling Tower Sampling for Volatile Organic Compounds); applicable to monthly sampling and troubleshooting leaks in Process systems.
- Experienced in report writing, review, and finished product.

Work Experience

Golden Specialty, Inc. (February 2001 – Present)
Position: Reports Department Manager

Professional Affiliations

Source Evaluation Society (SES) – QSTI I-III #2006-026

Education

Associate of Arts – Chemistry, San Jacinto Community College, December 2010
Visible Emissions Certified (EPA Method 9), 2004-2007
12 Hour Basic Instrumentation Training, California Analytical Instruments, January 2003
Source Sampling and CEMS Workshop, Walter Smith & Associates, 2002, 2003 and 2004
Preparation for the SES QSTI Exam Workshop, Walter Smith and Associates, 2005
SkillPath® Seminars, Employee Management and Supervision Workshop, 2003
Hazardous Materials Shipping Qualified, 2006
Man-Lift Training, August 2006
Fred Pryor®:Team Building Seminar, 2007
Fred Pryor®:Excel: Beyond the Basics" Seminar, 2007
Qualified Individual – EPA Method 320 & ASTM 6348-03

BARBARA L. SCHMEITZ
RECORDS COMPLIANCE ANALYST

Professional Experience Summary

- Proficient in operating and maintaining ambient air quality sampling equipment.
- Proficient in collection, processing and analysis of meteorological and chemistry data. Species include carbon monoxide (CO), total oxides of nitrogen (NO_x), oxygen (O_2), carbon dioxide (CO_2), and sulfur dioxide (SO_2).
- Proficient in maintaining, preparing and launching of meteorological, ozone (O_3), and sulfur dioxide (SO_2) sampling equipment.
- Responsible for documenting and maintaining the tracking of project data and test reports.
- In training for data importation for PEMS and CEMS RATAs, as well as multiple compliance test projects.
- In training for report writing, review and finished product.
- Proficient in Microsoft Word, Excel, Power Point and Access.
- Proficient in Esri GIS software ArcMAP, ArcGIS and ArcView.
- Experienced in WaveMetrics scientific graphing, data analysis, image processing and programming software IGOR.
- Experienced in C++ and MATLAB programming
- Fluent in Dutch and English, experienced in German and French.

Work Experience

Golden Specialty, Inc. (February 2011 – Present)
Position: Records Compliance Analyst

University of Houston, IMAQS – Institute for Multi-Dimensional Air Quality Studies (January 2009 – February 2011)
Position: Research Technician

C. Hecht & Co. (Netherlands) (November 2002 – November 2004)
Position: Sales & Production Coordinator

Grafico (Netherlands) (October 2000 – October 2002)
Position: Sales & Production Coordinator

Grafico (Netherlands) (August 1997 – October 2000)
Position: Engraver

Education

Bachelors of Science – Environmental Science, Environmental Systems & Modeling, University of Houston, May 2010
Associates of Science – Engineering / Environmental Science, Houston Community College, August 2007

Air Quality Test Report

BRYAN JOHNSON
ENVIRONMENTAL TECHNICIAN

Professional Experience Summary

- Experience with EPA testing regulations, including 40 CFR, Part 60 and Part 75.
- CEM instrumentation projects include continuous analysis for carbon monoxide (CO), total oxides of nitrogen (NO_x), oxygen (O_2), and carbon dioxide (CO_2).
- Knowledgeable in all required regulations and methodologies for the testing and analysis of stack gas velocity and moisture content analysis.
- Knowledgeable in testing requirements and procedures for the testing and analysis of Predictive Emissions monitoring systems (PEMS) in accordance with Title 30 of the Texas Administrative Code, Chapter 117.
- Knowledgeable in OSHA, ISO 9001 regulations.

Work Experience

Golden Specialty, Inc. (September 2003 – Present)
Position: Environmental Technician

Texas Department of Criminal Justice (August 2002 – June 2003)
Position: Correctional Officer (COIII)

TASC Environmental Services (February 1999 – October 2001)
Position: Environmental Specialist

Baker Hughes Petrolite Corporation (May 1991 – February 1999)
Position: Chemical Operator

Professional Affiliations

Source Evaluation Society (SES)

Education

Source Sampling and CEMS Workshop, Walter Smith & Associates, 2003 and 2004
Correctional Officer Training Program, College of the Mainland, 2002
ISO 9000 Course, San Jacinto College, 1996
Lamar Industrial Fire School, Lamar University, 1995
Chemical Process Technician Course, Petrolite Corporation, 1992
Man-Lift Training (3/1/05)
Source Sampling and CEMS Workshop, Walter Smith & Associates, 2004
Preparation for the SES QSTI Exam Workshop, Walter Smith and Associates, 2005
Fred Pryor®:Team Building Seminar, 2007
Qualified Individual – Cylinder Gas Audits
Qualified Individual – Portable Combustion Analyzer
Qualified Individual – USEPA Reference Methods 1-4

GOLDEN SPECIALTY

Air Quality Test Report

APPENDIX C – Calibration Data

Calibration Gas & Analyzer Configuration Data		O_2_1	SO_2_1
Trailer 10	Mfg. And Model No.:	Servomex 1440	API 100AH
	Serial Number:	01440D1/4034	111
	Range Setting:	25	500
	Calibration Span:	20.02	203.3
	Units:	% vd	ppmvd
Zero Gas (N_2)	Cyl #:	Nitrogen	Nitrogen
	value:	0.00	0.0
Mid Calibration Gas	Cyl #:	CC443658	ALM005953
	value:	9.962	95.5
High Calibration Gas	Cyl #:	CC437169	CC325325
	value:	20.02	203.3
Bias Gas Used		MID	MID
Calibration Error			
	Zero Reading	**0.02**	**0.1**
	Mid Reading	9.95	95.5
	High Reading	**20.03**	**203.2**
Percent Error	Zero Reading	**0.10%**	**0.05%**
	Mid Reading	**0.06%**	**0.00%**
	High Reading	**0.05%**	**0.05%**
RA Run 1		O_2_1	SO_2_1
Pretest Bias	Zero Reading	**-0.01**	**0.0**
	Upscale Reading	**9.93**	**95.6**
	Zero Bias	-0.15%	-0.05%
	Span Bias	-0.10%	0.15%
Post Test Bias	Zero Reading	**0.02**	**0.1**
	Upscale Reading	**9.96**	**92.0**
	Zero Bias	0.00%	0.00%
	Span Bias	0.05%	-1.72%
	Zero Drift	0.15%	0.05%
	Span Drift	0.15%	1.87%
Calculated Data			
	Avg. Zero Reading (C_o)=	0.005	0.050
	Avg. Upscale Reading (C_m)=	9.945	93.800
	Actual Upscale Concentration (C_{ma})=	9.96	95.50
	Measured Concentration (C_{avg}) =		
	RA Run 1	7.012	106.644
	Corrected Concentration (C_{gas}) =		
	C_{gas}= (C_{avg}-C_o) x (C_{ma}/(C_m-C_o))		
	RA Run 1	**7.023**	**108.47**
RA Run 2		O_2_1	SO_2_1
Pretest Bias	Zero Reading	**0.02**	**0.1**
	Upscale Reading	**9.95**	**92.0**
	Zero Bias	0.00%	0.00%
	Span Bias	0.05%	-1.72%
Post Test Bias	Zero Reading	**0.02**	**0.1**
	Upscale Reading	**9.96**	**92.4**
	Zero Bias	0.00%	0.00%
	Span Bias	0.05%	-1.52%
	Zero Drift	0.00%	0.00%
	Span Drift	0.00%	0.20%
Calculated Data			
	Avg. Zero Reading (C_o)=	0.020	0.100
	Avg. Upscale Reading (C_m)=	9.960	92.200
	Actual Upscale Concentration (C_{ma})=	9.96	95.50
	Measured Concentration (C_{avg}) =		
	RA Run 2	6.970	102.691
	Corrected Concentration (C_{gas}) =		
	C_{gas}= (C_{avg}-C_o) x (C_{ma}/(C_m-C_o))		
	RA Run 2	**6.965**	**108.38**

RA Run 3		O_2..1	SO_2..1
Pretest Bias	Zero Reading	0.02	0.1
	Upscale Reading	9.96	92.4
	Zero Bias	0.00%	0.00%
	Span Bias	0.05%	-1.52%
Post Test Bias	Zero Reading	0.03	0.0
	Upscale Reading	9.96	94.2
	Zero Bias	0.05%	-0.05%
	Span Bias	0.05%	-0.64%
	Zero Drift	0.05%	0.05%
	Span Drift	0.00%	0.89%
Calculated Data			
	Avg. Zero Reading (C_o)=	0.025	0.050
	Avg. Upscale Reading (C_m)=	9.960	93.300
	Actual Upscale Concentration (C_{ma})=	9.96	95.50
	Measured Concentration (C_{avg}) =		
	RA Run 3	6.963	102.934
	Corrected Concentration (C_{gas}) =		
	C_{gas}= (C_{avg}-C_o) x (C_{ma}/(C_m-C_o))		
	RA Run 3	6.957	105.34
RA Run 4		O_2..1	SO_2..1
Pretest Bias	Zero Reading	0.03	0.0
	Upscale Reading	9.96	94.2
	Zero Bias	0.05%	-0.05%
	Span Bias	0.05%	-0.64%
Post Test Bias	Zero Reading	0.04	0.1
	Upscale Reading	9.95	95.5
	Zero Bias	0.10%	0.00%
	Span Bias	0.00%	0.00%
	Zero Drift	0.05%	0.05%
	Span Drift	0.05%	0.64%
Calculated Data			
	Avg. Zero Reading (C_o)=	0.035	0.050
	Avg. Upscale Reading (C_m)=	9.955	94.850
	Actual Upscale Concentration (C_{ma})=	9.96	95.50
	Measured Concentration (C_{avg}) =		
	RA Run 4	6.946	98.787
	Corrected Concentration (C_{gas}) =		
	C_{gas}= (C_{avg}-C_o) x (C_{ma}/(C_m-C_o))		
	RA Run 4	6.941	99.47
RA Run 5		O_2..1	SO_2..1
Pretest Bias	Zero Reading	0.04	0.1
	Upscale Reading	9.95	95.5
	Zero Bias	0.10%	0.00%
	Span Bias	0.00%	0.00%
Post Test Bias	Zero Reading	0.02	0.1
	Upscale Reading	9.95	95.0
	Zero Bias	0.00%	0.00%
	Span Bias	0.00%	-0.25%
	Zero Drift	0.10%	0.00%
	Span Drift	0.00%	0.25%
Calculated Data			
	Avg. Zero Reading (C_o)=	0.030	0.100
	Avg. Upscale Reading (C_m)=	9.950	95.250
	Actual Upscale Concentration (C_{ma})=	9.96	95.50
	Measured Concentration (C_{avg}) =		
	RA Run 5	6.931	103.871
	Corrected Concentration (C_{gas}) =		
	C_{gas}= (C_{avg}-C_o) x (C_{ma}/(C_m-C_o))		
	RA Run 5	6.931	104.15

RA Run 6		O_2..1	SO_2..1
Pretest Bias	Zero Reading	0.02	0.1
	Upscale Reading	9.95	95.0
	Zero Bias	0.00%	0.00%
	Span Bias	0.00%	-0.25%
Post Test Bias	Zero Reading	0.02	0.0
	Upscale Reading	9.93	91.9
	Zero Bias	0.00%	-0.05%
	Span Bias	-0.10%	-1.77%
	Zero Drift	0.00%	0.05%
	Span Drift	0.10%	1.52%
Calculated Data			
	Avg. Zero Reading (C_o)=	0.020	0.050
	Avg. Upscale Reading (C_m)=	9.940	93.450
	Actual Upscale Concentration (C_{ma})=	9.86	95.50
	Measured Concentration (C_{avg}) =		
	RA Run 6	6.964	101.178
	Corrected Concentration (C_{gas}) =		
	C_{gas}= (C_{avg}-C_o) x (C_{ma}/(C_m-C_o))		
	RA Run 6	6.973	103.40
RA Run 7		O_2..1	SO_2..1
Pretest Bias	Zero Reading	0.02	0.0
	Upscale Reading	9.93	91.9
	Zero Bias	0.00%	-0.05%
	Span Bias	-0.10%	-1.77%
Post Test Bias	Zero Reading	0.03	0.1
	Upscale Reading	9.94	90.8
	Zero Bias	0.05%	0.00%
	Span Bias	-0.05%	-2.31%
	Zero Drift	0.05%	0.05%
	Span Drift	0.05%	0.54%
Calculated Data			
	Avg. Zero Reading (C_o)=	0.025	0.050
	Avg. Upscale Reading (C_m)=	9.935	91.350
	Actual Upscale Concentration (C_{ma})=	9.96	95.50
	Measured Concentration (C_{avg}) =		
	RA Run 7	6.914	99.118
	Corrected Concentration (C_{gas}) =		
	C_{gas}= (C_{avg}-C_o) x (C_{ma}/(C_m-C_o))		
	RA Run 7	6.926	103.62
RA Run 8		O_2..1	SO_2..1
Pretest Bias	Zero Reading	0.03	0.1
	Upscale Reading	9.94	90.8
	Zero Bias	0.05%	0.00%
	Span Bias	-0.05%	-2.31%
Post Test Bias	Zero Reading	0.06	0.1
	Upscale Reading	9.92	92.4
	Zero Bias	0.20%	0.00%
	Span Bias	-0.15%	-1.52%
	Zero Drift	0.15%	0.00%
	Span Drift	0.10%	0.78%
Calculated Data			
	Avg. Zero Reading (C_o)=	0.045	0.100
	Avg. Upscale Reading (C_m)=	9.930	91.600
	Actual Upscale Concentration (C_{ma})=	9.96	95.50
	Measured Concentration (C_{avg}) =		
	RA Run 8	7.202	88.317
	Corrected Concentration (C_{gas}) =		
	C_{gas}= (C_{avg}-C_o) x (C_{ma}/(C_m-C_o))		
	RA Run 8	7.213	89.99

Valero Refining-Texas, L.P.
Houston Refinery
Houston, TX

Calibration Data

SRU C Incinerator
February 20, 2014

RA Run 9		O_2_1	SO_2_1
Pretest Bias	Zero Reading	0.06	0.1
	Upscale Reading	9.92	92.4
	Zero Bias	0.20%	0.00%
	Span Bias	-0.15%	-1.52%
Post Test Bias	Zero Reading	0.02	0.0
	Upscale Reading	9.93	92.3
	Zero Bias	0.00%	-0.05%
	Span Bias	-0.10%	-1.57%
	Zero Drift	0.20%	0.05%
	Span Drift	0.05%	0.05%
Calculated Data			
	Avg. Zero Reading (C_o)=	0.040	0.050
	Avg. Upscale Reading (C_m)=	9.925	92.350
	Actual Upscale Concentration (C_{ma})=	9.96	95.50
	Measured Concentration (C_{avg}) = RA Run 9	7.565	69.370
	Corrected Concentration (C_{gas}) = C_{gas}= (C_{avg}-C_o) x (C_{ma}/(C_m-C_o)) RA Run 9	7.564	71.72
RA Run 10		O_2_1	SO_2_1
Pretest Bias	Zero Reading	0.02	0.0
	Upscale Reading	9.93	92.3
	Zero Bias	0.00%	-0.05%
	Span Bias	-0.10%	-1.57%
Post Test Bias	Zero Reading	0.01	0.0
	Upscale Reading	9.93	92.5
	Zero Bias	-0.05%	-0.05%
	Span Bias	-0.10%	-1.46%
	Zero Drift	0.05%	0.00%
	Span Drift	0.00%	0.10%
Calculated Data			
	Avg. Zero Reading (C_o)=	0.015	0.000
	Avg. Upscale Reading (C_m)=	9.930	92.400
	Actual Upscale Concentration (C_{ma})=	9.96	95.50
	Measured Concentration (C_{avg}) = RA Run 10	7.646	65.932
	Corrected Concentration (C_{gas}) = C_{gas}= (C_{avg}-C_o) x (C_{ma}/(C_m-C_o)) RA Run 10	7.667	68.14

Airgas

Airgas Specialty Gases
630 United Drive
Durham, NC 27713
(919)544-3773 Fax: (919)544-3774
www.airgas.com

CERTIFICATE OF ANALYSIS
Grade of Product: EPA Protocol

Part Number:	E04NI60E15ACLD7	Reference Number:	122-124384207-1
Cylinder Number:	CC437169	Cylinder Volume:	159.2 CF
Laboratory:	ASG - Durham - NC	Cylinder Pressure:	2015 PSIG
PGVP Number:	B22013	Valve Outlet:	590
Gas Code:	CO,CO2,O2,BALN	Certification Date:	Jul 12, 2013

Expiration Date: Jul 12, 2021

Certification performed in accordance with "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards (May 2012)" document EPA 600/R-12/531, using the assay procedures listed. Analytical Methodology does not require correction for analytical interference. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted.

Do Not Use This Cylinder below 100 psig, i.e. 0.7 megapascals.

ANALYTICAL RESULTS

Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty	Assay Dates
CARBON MONOXIDE	397.0 PPM	392.2 PPM	G1	+/- 0.6% NIST Traceable	07/12/2013
CARBON DIOXIDE	19.50 %	19.11 %	G1	+/- 0.6% NIST Traceable	07/12/2013
OXYGEN	20.00 %	20.02 %	G1	+/- 0.8% NIST Traceable	07/12/2013
NITROGEN	Balance				

CALIBRATION STANDARDS

Type	Lot ID	Cylinder No	Concentration	Uncertainty	Expiration Date
NTRM	12062423	CC366870	487.1 PPM CARBON MONOXIDE/NITROGEN	+/- 0.6%	Jun 22, 2018
NTRM	12061551	CC364869	19.87 % CARBON DIOXIDE/NITROGEN	+/- 0.6%	Jan 27, 2018
NTRM	09061416	CC273522	22.53 % OXYGEN/NITROGEN	+/- 0.4%	Mar 06, 2019

ANALYTICAL EQUIPMENT

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Horiba VIA510 CO2 42399380022	Nondispersive Infrared (NDIR)	Jul 05, 2013
Horiba VIA510 CO RS2EGL6K	Nondispersive Infrared (NDIR)	Jul 03, 2013
Horiba MPA510 O2 41499150042	Paramagnetic	Jul 03, 2013

Triad Data Available Upon Request

Permanent Notes:GOLDEN
SPECIALTY BLEND # 9

Notes:

CS Williams

Approved for Release

Airgas

Airgas Specialty Gases
630 United Drive
Durham , NC 27713
919-544-3773 Fax: 919-544-3774
www.airgas.com

CERTIFICATE OF ANALYSIS
Grade of Product: EPA Protocol

Part Number:	E04NI79E15A3938	Reference Number:	122-124411970-1
Cylinder Number:	CC443658	Cylinder Volume:	150.9 CF
Laboratory:	ASG - Durham - NC	Cylinder Pressure:	2015 PSIG
PGVP Number:	B22013	Valve Outlet:	590
Gas Code:	CO,CO2,O2,BALN	Certification Date:	Dec 31, 2013

Expiration Date: Dec 31, 2021

Certification performed in accordance with "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards (May 2012)" document EPA 600/R-12/531, using the assay procedures listed. Analytical Methodology does not require correction for analytical interference. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted.

Do Not Use This Cylinder below 100 psig, i.e. 0.7 megapascals.

ANALYTICAL RESULTS

Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty	Assay Dates
CARBON MONOXIDE	195.0 PPM	197.7 PPM	G1	+/- 0.4% NIST Traceable	12/31/2013
CARBON DIOXIDE	10.00 %	9.883 %	G1	+/- 0.6% NIST Traceable	12/31/2013
OXYGEN	10.00 %	9.962 %	G1	+/- 0.5% NIST Traceable	12/31/2013
NITROGEN	Balance				

CALIBRATION STANDARDS

Type	Lot ID	Cylinder No	Concentration	Uncertainty	Expiration Date
NTRM	12060318	CC353951	249.3 PPM CARBON MONOXIDE/NITROGEN	+/- 0.4%	Oct 26, 2017
NTRM	12061348	CC360808	11.002 % CARBON DIOXIDE/NITROGEN	+/- 0.6%	Jan 11, 2018
NTRM	09061416	CC273522	22.53 % OXYGEN/NITROGEN	+/- 0.4%	Mar 08, 2019

ANALYTICAL EQUIPMENT

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Horiba VIA510 CO2 42399380022	Nondispersive Infrared (NDIR)	Dec 13, 2013
Horiba VIA510 CO RS2EGL6K	Nondispersive Infrared (NDIR)	Dec 12, 2013
Horiba MPA510 O2 41499150042	Paramagnetic	Dec 12, 2013

Triad Data Available Upon Request

Notes:

Approved for Release

Airgas

Airgas Specialty Gases
1075 Cajuns Drive
Port Allen, LA 70767
225.388.0000
FAX: 225.388.0059
www.airgas.com

CERTIFICATE OF ANALYSIS
Grade of Product: EPA Protocol

Part Number:	E02NI99E15A1042	Reference Number:	83-124415050-1
Cylinder Number:	CC325325	Cylinder Volume:	144.4 CF
Laboratory:	ASG - Port Allen - LA	Cylinder Pressure:	2015 PSIG
PGVP Number:	B42014	Valve Outlet:	660
Gas Code:	SO2,BALN	Certification Date:	Feb 07, 2014

Expiration Date: Feb 07, 2022

Certification performed in accordance with "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards (May 2012)" document EPA 600/R-12/531, using the assay procedures listed. Analytical Methodology does not require correction for analytical interference. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted.

Do Not Use This Cylinder below 100 psig, i.e. 0.7 megapascals.

ANALYTICAL RESULTS

Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty	Assay Dates
SULFUR DIOXIDE	210.0 PPM	203.3 PPM	G1	+/- 1.0% NIST Traceable	01/31/2014, 02/07/2014
NITROGEN	Balance				

CALIBRATION STANDARDS

Type	Lot ID	Cylinder No	Concentration	Uncertainty	Expiration Date
NTRM/SO2	11060823	CC336411	241 PPM SULFUR DIOXIDE/NITROGEN	+/- 0.9%	May 13, 2017

ANALYTICAL EQUIPMENT

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Nicolet 6700 AHR0801556 SO2 MSO2	FTIR	Jan 20, 2014

Triad Data Available Upon Request

Notes:

Approved for Release

AIR LIQUIDE Air Liquide America Specialty Gases LLC | Scott

RATA CLASS

Dual-Analyzed Calibration Standard

1290 COMBERMERE STREET, TROY, MI 48083 Phone: 248-589-2960 Fax: 248-589-2134

CERTIFICATE OF ACCURACY: EPA Protocol Gas

Assay Laboratory - PGVP Vendor ID: A22013
AIR LIQUIDE AMERICA SPECIALTY GASES LLC
1290 COMBERMERE STREET
TROY, MI 48083

P.O. No.: 2013067
Document # : 80225085-003
Folio #:Golden-6

Customer
GOLDEN SPECIALTY CONSULTING, LTD

SHIP DIRECT TO RUSS FORTS
931 SEACO COURT
DEER PARK TX 77536
US

ANALYTICAL INFORMATION Gas Type : SO2,BALN

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

Cylinder Number: ALM005953 Certification Date: 18May2013 Exp. Date: 19May2021
Cylinder Pressure***: 1967 PSIG Batch No: TRO00B2268

COMPONENT	CERTIFIED CONCENTRATION (Moles)	ACCURACY**	TRACEABILITY
SULFUR DIOXIDE *	95.5 PPM	+/- 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 1693	01Dec2015	KAL003867	50.20 PPM	SULFUR DIOXIDE

INSTRUMENTATION

INSTRUMENT/MODEL/SERIAL#	DATE LAST CALIBRATED	ANALYTICAL PRINCIPLE
FTIR//0928621	25Apr2013	FTIR

ANALYZER READINGS

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

First Tried Analysis

SULFUR DIOXIDE *
Date: 18May2013 Response Unit: PPM
Z1 = -0.00792 R1 = 100.2461 T1 = 95.38584
R2 = 100.2473 Z2 = 0.00002 T2 = 95.41646
Z3 = 0.00017 T3 = 99.51055 R3 = 100.3507
Avg. Concentration: 95.55 PPM

Second Tried Analysis

Date: 18May2013 Response Unit: PPM
Z1 = -0.03738 R1 = 49.89428 T1 = 94.72900
R2 = 49.94409 Z2 = -0.03025 T2 = 94.98267
Z3 = 0.01262 T3 = 99.19143 R3 = 49.98508
Avg. Concentration: 95.43 PPM

Calibration Curve

Concentration = A + Bx + Cx2 + Dx3 + Ex4
r = 0.99999E-1
Constants:
A = 0.00000E+0
B = 1.008086E+0
C = -2.40000E-5
D = 0.00000E+0
E = 0.00000E+0

Special Notes: Golden-6

APPROVED BY: Rob McCrandell

GOLDEN SPECIALTY

Hand Check Calculations

FACILITY: Valero Refining DATE: 3/20/13
SOURCE NAME: SRU C CITY, STATE: Houston, TX RUN NO: 5

	O_2	CO_2	SO_2	NO	CO	THC
Upscale gas - C_{ma}	9.962	/	95.5	/	/	/
Span (ppm,%) *	20.02	/	203	/	/	/

Difference = Final Reading - Initial Reading %Zero = (Zero difference / Span)*100 %Span = (Span difference / Span)*100

Run No. and Pollutant	ZERO Initial Reading	ZERO Final Reading	ZERO Average (C_o) (ppm, %) *	UPSCALE Initial Reading	UPSCALE Final Reading	UPSCALE Average (C_m) (ppm, %) *
O_2	0.04	0.02	0.03	9.95	9.95	9.95
CO_2						
SO_2	0.1	0.1	0.1	95.5	95.0	95.25
NO_x						
CO						
THC						

O_2 for Correction %	F Factor dscf/mmBtu	GCV	Fuel Flow Rate	Conversion Factor	Q_{sd} dscf/hr	Q_s scf/hr
0						

C_o = (Initial Zero Reading + Final Zero Reading)/2
C_m = (Initial Span Reading + Final Span Reading)/2
$C_{gas} = [C_{avg} - C_o] * [C_{ma} / (C_m - C_o)]$
C_{gas} Corrected = $C_{gas} * ((20.9 - Corr.\ O_2) / (20.9 - \%\ O_2))$

$C_d = (C_{gas} * M.W.) / (385.4 * 1,000,000)$
lb/MMBtu = C_d * F Factor * [20.9 / (20.9 - $\%O_2$)]
lb/hr = lb/MMBtu * GCV * Fuel Flow Rate * Conversion Factor
lb/hr = lb/dscf x Q_{sd} (dscf/hr)

Run No. and Pollutant	C_{avg} Uncorrected Stack Gas Concentration (ppm, %) *	C_o Average of Zero Gas	C_m Average of Upscale Gas	C_{gas} Corrected Stack Gas Concentration (ppm, %) *	M.W. Molecular Weight	C_{gas} Corrected Concentration in ppm @ 0% O_2	C_d Concentration in lb/dscf	lb/MMBtu Emission Rate lb/MMBtu	lb/hr Emission Rate lb/hr
O_2	6.931	0.03	9.95	6.930	NA	NA	NA	NA	NA
CO_2					NA	NA	NA	NA	NA
SO_2	103.871	0.1	95.25	104.153	64	155.82			
NO_x					46				
CO					28				
THC					44.097 (as C_3H_8)				

Note * O_2 and CO_2 are expressed in percent.

Calc. QA Performed by C. 3/29/13

GOLDEN SPECIALTY

Relative Accuracy Hand Check Calculations

FACILITY:	Valero Houston	DATE:	2/20/14
SOURCE NAME:	SRU C	CITY, STATE:	Houston TX
COMPOUND:	SO_2	UNITS:	ppmvd @ 0% O_2

Relative Accuracy Test No.	Date	Start Time	Reference Sample (RM)	Analyzer Reading	Difference DIFF	No. of Sets	$t_{0.975}$ Values for No. of Sets	Difference Squared Diff²
1	2/20/14	11:26	163.36	160.74	2.62	1	NA	6.86
2			159.55	147.60	11.95	2	12.706	142.80
3			157.90	150.39	7.51	3	4.303	56.40
4			148.92	139.80	9.12	4	3.182	83.17
5			155.83	144.22	11.61	5	2.776	134.79
6			155.18	141.71	13.47	6	2.571	181.44
7			154.98	138.56	16.42	7	2.447	269.62
8			137.41	136.61	0.80	8	2.365	0.64
9		15:39	112.57	97.00	15.57	9	2.306	242.42
						10	2.262	
						11	2.228	
						12	2.201	

Excluded Runs: 10 **Avg. RM =** 149.52 **SUM DIFF =** 89.07 **Sum Diff² =** 1,118.16

cc = confidence coefficient. Avg. RM = average reference method value. Diff = RM - Analyzer Reading
S_d = Standard Deviation. |d| = absolute value of mean of the differences.
AS = applicable standard. |cc| = absolute value of the confidence coefficient.

$|d| = |\text{SUM DIFF}| / \text{No. of Sets}$ $|d| =$ 9.89 ✓

$S_d = (\{[\text{Sum Diff}^2] - ([\text{SUM DIFF}]^2 / n)\} / n-1)^{.5}$ $S_d =$ 5.44 ✓

$cc = t_{0.975} * [Sd / (n^{.5})]$ $cc =$ 4.18 ✓

Relative Accuracy versus Mean Reference Method Sample

RA = {(|d| + |cc|) / Avg. RM} * 100 =

RA = 9.41 % ✓

Allowable Limits:
Limit: 10% - CO Limit: 20% - O_2 & CO_2
Limit: 20% - NO_x Limit: 20% - SO_2
Allowable Limits Acid Rain :
Limit: 10% - NO_x/O_2 System in lb/MMBtu

Relative Accuracy versus Applicable Standard = 2.500

RA = {(|d| + |cc|) / applicable standard} * 100

RA = 5.63 % ✓

Allowable Limits:
Limit: 5% - CO Limit: 1% - O_2 & CO_2
Limit: 10% - NO_x Limit: 10% - SO_2
Allowable Limits Acid Rain :
Limit: 0.02 lb/MMBtu for sources with emissions of < 0.20 lb/MMBtu
PS 4A: |d| + |cc| Limit: 5 ppm
NO_x : TCEQ Rule 117: |d| + |cc| Limit: 2 ppm

*Difference due to significant figures used

Calc. QA Performed by A 3/27/14

GOLDEN SPECIALTY

Relative Accuracy Hand Check Calculations

FACILITY:	Valero Houston	DATE:	2/20/14
SOURCE NAME:	SRU C	CITY, STATE:	Houston, TX
COMPOUND:	O_2	UNITS:	% vd

Relative Accuracy Test No.	Date	Start Time	Reference Sample (RM)	Analyzer Reading	Difference DIFF	No. of Sets	$t_{0.975}$ Values for No. of Sets	Difference Squared Diff²
1	2/20/14	11:26	7.023	7.035	-0.012	1	NA	$1.44e^{-4}$
2			6.965	7.008	-0.043	2	12.706	$1.85e^{-3}$
3			6.957	6.974	-0.017	3	4.303	$2.89e^{-4}$
4			6.941	6.921	0.020	4	3.182	$4.00e^{-4}$
5			6.931	6.909	0.022	5	2.776	$4.84e^{-4}$
6			6.973	6.924	0.049	6	2.571	$2.40e^{-3}$
7			6.926	6.923	0.003	7	2.447	$9.00e^{-6}$
8			7.594	7.555	0.039	8	2.365	$8.41e^{-4}$
9		16:08	7.667	7.758	-0.091	9	2.306	$8.28e^{-3}$
						10	2.262	
						11	2.228	
						12	2.201	

Excluded Runs: 8 **Avg. RM =** 7.107 **SUM DIFF =** -0.040 **Sum Diff² =** $1.47e^{-2}$

cc = confidence coefficient. Avg. RM = average reference method value. Diff = RM - Analyzer Reading
S_d = Standard Deviation. |d| = absolute value of mean of the differences.
AS = applicable standard. |cc| = absolute value of the confidence coefficient

$|d| = |\text{SUM DIFF}| / \text{No. of Sets}$ $|d| =$ 0.0005 ✓

$S_d = (\{[\text{Sum Diff}^2] - ([\text{SUM DIFF}]^2 / n)\} / n-1)^{.5}$ $S_d =$ 0.043 ✓

$cc = t_{0.975} * [Sd / (n^{.5})]$ $cc =$ 0.033 ✓

Relative Accuracy versus Mean Reference Method Sample

RA = ~~[(|d| + |cc|) / Avg. RM] * 100 =~~

RA = |d| = 0.0005 ✓

Allowable Limits:
Limit: 10% - CO Limit: 20% - O_2 & CO_2
Limit: 20% - NO_x Limit: 20% - SO_2
Allowable Limits Acid Rain :
Limit: 10% - NO_x/O_2 System in lb/MMBtu

Relative Accuracy versus Applicable Standard

RA = {(|d| + |cc|) / applicable standard} * 100

RA = N/A

Allowable Limits:
Limit: 5% - CO Limit: 1% - O_2 & CO_2
Limit: 10% - NO_x Limit: 10% - SO_2
Allowable Limits Acid Rain :
Limit: 0.02 lb/MMBtu for sources with emissions of < 0.20 lb/MMBtu
PS 4A: |d| + |cc| Limit: 5 ppm
NO_x : TCEQ Rule 117: |d| + |cc| Limit: 2 ppm

*Difference due to significant figures used

Calc. QA Performed by A 3/27/14

GOLDEN SPECIALTY

Air Quality Test Report

APPENDIX D – Field Data

FORM# GSC-TM002-0C
REV 2010-02, EFF 2/7/1

FIELD DATA SHEET 1
Sampling Velocity Traverse Points

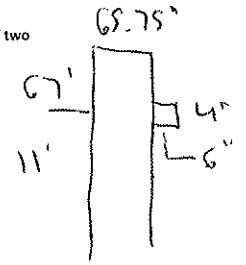
Client/Plant Name Valero Job# Val HR140193

City/State TX Date/Time 2-20-14

Test Location SRU C Personnel BJ / RL

Port I.D.	4"		
Distance from Far Wall to Outside of Port	6 77.75"		
Nipple Length and/or Wall Thickness RJ	6"		
Stack/Duct (✓) Blue Print ( ) 2.20.14 Measured ( )			
Depth/Diameter (>12 in. ?)	65.75"		
Width (if rectangular)			
Equiv. Diameter (if rect.) $D_e = 2\,D\,W/(D + W)$			
Area (A) (>113in.²?) $A = \pi D^2/4$ or $D\,W$			
	Distance	D_e	No. Pts*
Upstream (≥ 2 D_e?)	132		3
Downstream (≥ 0.5 D_e?)	2388		3
Cyclonic Flow Checked?	Yes	No	NA
Rectangular Matrix			2/3/14

*Circle larger of two



Pt.	%Duct Depth	Dist from Inside Wall*	Dist from Oustide of Port
1	83.3	54.77	60.77
2	50	32.88	38.88
3	16.7	10.98	16.98
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

*Do not place closer to stack walls than:
1.0 in. for stack dia > 24 in.
0.5 in. for stack dia 12 to ≤ 24 in.

Sketch of Location: In the space above, sketch a flow diagram of the test location; show the distance from the ports to the distrubances before & after. Sketch the cross-sectional area; show sampling port locations. In horizontal ducts, check for dust buildups & measure or estimate the depth.

QA/QC Check
Completeness ✓ Legibility ✓ Accuracy ✓ Specifications ✓ Reasonableness ✓

Checked by: [signature]
Personnel (Signature/Date)

[signature] 4/1/14
Team Leader (Signature/Date)

GOLDEN SPECIALTY

Operating Discipline Checklist

Project ID: VALVA140197	Test Date: 2.20.14
Plant: Velco	Team Members: BT/DL
Source: Sam-E	Trailer Unit: T-10
Description:	

	Item to Check	(Initials Required)
1	Checklist for GOLDEN Trailer Set-Up (Form #GSC-WP001-001)	BT
2	EPA Protocol 1 Gases Used	BT
3	Fully Redundant Sampling System System 1: ✓ System 2: ✓	BT
4	Stratification Test Conducted an Documented Start time: Finish Time: File Name:	BT
5	Documentation of Probe Geometry and Location (Form #GSC-WP007-003)	BT
6	Measurement of Ambient Conditions: Barometer: 29.82 Rel Humidity: 80% Temperature: 77F	DL
7	Flanged Sample Probe or Port Closures	BT
8	Heated Sample Lines Set Temperature: 290 Measured Temperature: 291	BT
9	Grounding and electrical requirements	BT
10	Data Exclusion Log (Form # GSC-WP007-002)	BT
11	Staggered Calibrations	DL
12	Data Storage and Formatting: Headers on and checked? ✓ Yes ___ No Data Logging ON? ✓ Yes ___ No	BT
13	Gas Conditioning System Temperature System 1: 39 System 2: 40.0	BT
14	Reasons for any exceptions:	

Signature of Person Recording Information:	BT	Date:	2.20.14
Approval of Client to Proceed with Testing:		Date:	

Form # GSC-WP007-004
REV 2010-01, EFF 11/1/10

GOLDEN SPECIALTY

FORM GSC-WP007-002
REV 2010-01, EFF 11/1/10

Data Exclusion Log

Project ID: VALVA140197	Test Dates From: 2.20.14	To: 2/20/14
Plant: Velco	Trailer#: T-10	Analysts: BT/DL
Source: Sam-E	Data for Filename:	
Description: Valve		

Date	System #	Start Time	End Time	Reason
2.20.14	1-2	1029	1126	
↓	↓	1126	1137	Stratification
↓	↓	1126		Test

Page ____ of ____

REFERENCE METHOD
Analyzer Calibration Error

GOLDEN SPECIALTY

Project ID: VALHALLA 0197		Test Date: 2.20.14	Analyst: RJ/DL
Plant:		Trailer Unit: T-1	Analyzer System: 1-2
Source: Valero		Assigned Data: RATA	
Description: SRU-C			

Component	Cylinder Number	Range	Analyzer Response System 1	Analyzer Response System 2	Actual Conc.	Cylinder Exp. Date
Oxides of Nitrogen		High			ppm	
		Mid			ppm	
		Zero			ppm	
Nitrogen Dioxide		n/a			ppm	
Carbon Monoxide		High			ppm	
		Mid			ppm	
		Zero			ppm	
Oxygen	CC437165	High	20.03	20.02	20.02 %	7.21
	CC413658	Mid	9.55	9.94	9.922 %	12.21
	N2	Zero	0.02	0.01	0 %	—
Total Hydrocarbons		High			ppm	
		Mid			ppm	
		Low			ppm	
		Zero			ppm	
Sulfur Dioxide	CC372525	High	207.2		207.3 ppm	2.22
	ALM005553	Mid	95.5		95.5 ppm	5.21
	N2	Zero	0.1		0 ppm	
Carbon Dioxide		High			%	
		Mid			%	
		Zero			%	

ANALYZER INFORMATION

Analyzer Type	SYSTEM #1 Model	SYSTEM #1 Serial #	SYSTEM #1 Range	SYSTEM #2 Model	SYSTEM #2 Serial #	SYSTEM #2 Range
NO_x			ppm			ppm
CO			ppm			ppm
O2	Servomex 1440	0114M001-4037	25 %	300	5070379	25 %
CO_2			%			%
SO_2	API 100 GA	111	500 ppm			ppm
VOC			ppm			ppm

Form # GSC-WP007-005
REV 2010-01, EFF 11/1/10

Page ____ of ____

REFERENCE METHOD
Analyzer System Bias

GOLDEN SPECIALTY

Project ID: VALHALLA 0197		Test Date(s): 2.20.14	Analyst: RJ/DL
Plant:		Trailer Unit: T-1	Analyzer System: 1
Source: Valero		Assigned Data: RATA	
Description: SRU-C			

RUN NO: 1	Calibration Gas / Conc.	Pre-Test Calibration ZERO	Pre-Test Calibration SPAN	Post Test Calibration ZERO	Post Test Calibration SPAN	Bias <5% (Check)	**Response time (Zero & Span)
Date:	NO_x						7 sec
	CO						sec
Start Time: 1126	O_2	-0.21	9.93	0.02	9.96		28/19 sec
	CO_2						sec
End Time: 1147	THC						sec
	SO_2	0.0	95.2	0.1	92.0		30/71 sec

RUN NO: 2	Calibration Gas / Conc.	Pre-Test Calibration ZERO	Pre-Test Calibration SPAN	Post Test Calibration ZERO	Post Test Calibration SPAN	Bias <5% (Check)	Drift <3% Of Span
Date:	NO_x						
	CO			0			
Start Time: 1156	O_2			0.02	9.96		
	CO_2						
End Time: 1217	THC						
	SO_2			0.1	92.4		

RUN NO: 3	Calibration Gas / Conc.	Pre-Test Calibration ZERO	Pre-Test Calibration SPAN	Post Test Calibration ZERO	Post Test Calibration SPAN	Bias <5% (Check)	Drift <3% Of Span
Date:	NO_x						
	CO						
Start Time: 1227	O_2			0.03	9.96		
	CO_2						
End Time: 1249	THC						
	SO_2			0.0	94.2		

RUN NO: 4	Calibration Gas / Conc.	Pre-Test Calibration ZERO	Pre-Test Calibration SPAN	Post Test Calibration ZERO	Post Test Calibration SPAN	Bias <5% (Check)	Drift <3% Of Span
Date:	NO_x						
	CO						
Start Time: 1257	O_2			0.04	9.98		
	CO_2						
End Time: 1318	THC						
	SO_2			0.1	95.5		

RUN NO: 5	Calibration Gas / Conc.	Pre-Test Calibration ZERO	Pre-Test Calibration SPAN	Post Test Calibration ZERO	Post Test Calibration SPAN	Bias <5% (Check)	Drift <3% Of Span
Date:	NO_x						
	CO						
Start Time: 1328	O_2			0.02	9.95		
	CO_2						
End Time: 1359	THC						
	SO_2			0.1	95.0		

Comments: Post RATA Run 2 Next Run

**Record response times for run 1 only for each component tested

Form # GSC-WP007-006
REV 2010-01, EFF 11/1/10

PAGE ____ of ____

GOLDEN SPECIALTY

REFERENCE METHOD
Analyzer System Bias

Project ID: / Plant: VALHALLA		Test Date(s): 2-20-14	Analyst: BMM
Source: Valero		Trailer Unit: T-10	Analyzer System: 1
Description: SRU-C		Assigned Data: RATA	

RUN NO: 6	Calibration Gas / Conc.	Pre-Test Calibration ZERO	Pre-Test Calibration SPAN	Post Test Calibration ZERO	Post Test Calibration SPAN	Bias <5% (Check)	**Response time (Zero & Span)
Date:	NO_x						sec
	CO						sec
Start Time: 1408	O_2			0.02	9.93		sec
	CO_2						sec
End Time: 1429	THC						sec
	SO_2			0.0	91.9		sec

RUN NO: 7	Calibration Gas / Conc.	Pre-Test Calibration ZERO	Pre-Test Calibration SPAN	Post Test Calibration ZERO	Post Test Calibration SPAN	Bias <5% (Check)	Drift <3% Of Span
Date:	NO_x						
	CO						
Start Time: 1439	O_2			0.03	9.94		
	CO_2						
End Time: 1458	THC						
	SO_2			0.1	90.8		

RUN NO: 8	Calibration Gas / Conc.	Pre-Test Calibration ZERO	Pre-Test Calibration SPAN	Post Test Calibration ZERO	Post Test Calibration SPAN	Bias <5% (Check)	Drift <3% Of Span
Date:	NO_x						
	CO						
Start Time: 1508	O_2			0.06	9.92		
	CO_2						
End Time: 1529	THC						
	SO_2			0.1	92.4		

RUN NO: 9	Calibration Gas / Conc.	Pre-Test Calibration ZERO	Pre-Test Calibration SPAN	Post Test Calibration ZERO	Post Test Calibration SPAN	Bias <5% (Check)	Drift <3% Of Span
Date:	NO_x						
	CO						
Start Time: 1538	O_2			0.02	9.93		
	CO_2						
End Time: 1559	THC						
	SO_2			0.0	92.3		

RUN NO: 10	Calibration Gas / Conc.	Pre-Test Calibration ZERO	Pre-Test Calibration SPAN	Post Test Calibration ZERO	Post Test Calibration SPAN	Bias <5% (Check)	Drift <3% Of Span
Date:	NO_x						
	CO						
Start Time: 1609	O_2			0.01	9.93		
	CO_2						
End Time: 1629	THC						
	SO_2			0.0	92.5		

Comments: Post Bias Pre next Run

**Record response times for run 1 only for each component tested

GOLDEN SPECIALTY

REFERENCE METHOD
Analyzer System Bias

Project ID: / Plant: VALHALLA		Test Date(s): 2-20-14	Analyst: DJM
Source: Valero		Trailer Unit: T-10	Analyzer System: 2
Description: SRU-C		Assigned Data: Rata	

RUN NO: 1	Calibration Gas / Conc.	Pre-Test Calibration ZERO	Pre-Test Calibration SPAN	Post Test Calibration ZERO	Post Test Calibration SPAN	Bias <5% (Check)	**Response time (Zero & Span)
Date:	NO_x						sec
	CO						sec
Start Time: 1124	O_2	-0.02	9.89	0.01	9.92		67/2nsec
	CO_2						sec
End Time: 1143	THC						sec
	SO_2						sec

RUN NO: 2	Calibration Gas / Conc.	Pre-Test Calibration ZERO	Pre-Test Calibration SPAN	Post Test Calibration ZERO	Post Test Calibration SPAN	Bias <5% (Check)	Drift <3% Of Span
Date:	NO_x						
	CO						
Start Time: 1151	O_2			0.04	9.96		
	CO_2						
End Time: 1211	THC						
	SO_2						

RUN NO: 3	Calibration Gas / Conc.	Pre-Test Calibration ZERO	Pre-Test Calibration SPAN	Post Test Calibration ZERO	Post Test Calibration SPAN	Bias <5% (Check)	Drift <3% Of Span
Date:	NO_x						
	CO						
Start Time: 1217	O_2			0.01	9.96		
	CO_2						
End Time: 1238	THC						
	SO_2						

RUN NO: 4	Calibration Gas / Conc.	Pre-Test Calibration ZERO	Pre-Test Calibration SPAN	Post Test Calibration ZERO	Post Test Calibration SPAN	Bias <5% (Check)	Drift <3% Of Span
Date:	NO_x						
	CO						
Start Time: 1257	O_2			0.03	9.95		
	CO_2						
End Time: 1318	THC						
	SO_2						

RUN NO: 5	Calibration Gas / Conc.	Pre-Test Calibration ZERO	Pre-Test Calibration SPAN	Post Test Calibration ZERO	Post Test Calibration SPAN	Bias <5% (Check)	Drift <3% Of Span
Date:	NO_x						
	CO						
Start Time: 1329	O_2			0.03	9.93		
	CO_2						
End Time: 1350	THC						
	SO_2						

Comments: Post Bias Pre next Run

**Record response times for run 1 only for each component tested

GOLDEN SPECIALTY

REFERENCE METHOD
Analyzer System Bias

Project ID: Plant: VALNR 140197		Test Date(s): 2-20-14	Analyst: BJA
Source: Description: Water SAM-C		Trailer Unit: T-10	Analyzer System: 2
		Assigned Data: Bench-yl	

RUN NO: 6	Calibration Gas / Conc.	Pre-Test Calibration ZERO	Pre-Test Calibration SPAN	Post Test Calibration ZERO	Post Test Calibration SPAN	Bias <5% (Check)	**Response time (Zero & Span)
Date:	NO_x						sec
	CO						sec
Start Time: 1409	O_2			0.09	5.94		sec
	CO_2						sec
End Time: 1429	THC						sec
	SO_2						sec

RUN NO: 7	Calibration Gas / Conc.	Pre-Test Calibration ZERO	Pre-Test Calibration SPAN	Post Test Calibration ZERO	Post Test Calibration SPAN	Bias <5% (Check)	Drift <3% Of Span
Date:	NO_x						
	CO						
Start Time: 1438	O_2			0.13	9.99		
	CO_2						
End Time: 1458	THC						
	SO_2						

RUN NO: 9	Calibration Gas / Conc.	Pre-Test Calibration ZERO	Pre-Test Calibration SPAN	Post Test Calibration ZERO	Post Test Calibration SPAN	Bias <5% (Check)	Drift <3% Of Span
Date:	NO_x						
	CO						
Start Time: 1508	O_2			0.19	9.90		
	CO_2						
End Time: 1529	THC						
	SO_2						

RUN NO: 9	Calibration Gas / Conc.	Pre-Test Calibration ZERO	Pre-Test Calibration SPAN	Post Test Calibration ZERO	Post Test Calibration SPAN	Bias <5% (Check)	Drift <3% Of Span
Date:	NO_x						
	CO						
Start Time: 1538	O_2			0.03	9.95		
	CO_2						
End Time: 1558	THC						
	SO_2						

RUN NO: 1*	Calibration Gas / Conc.	Pre-Test Calibration ZERO	Pre-Test Calibration SPAN	Post Test Calibration ZERO	Post Test Calibration SPAN	Bias <5% (Check)	Drift <3% Of Span
Date:	NO_x						
	CO						
Start Time: 1608	O_2			0.02	9.92		
	CO_2						
End Time: 1625	THC						
	SO_2						

Comments: Post test Air pre next Run

**Record response times for run 1 only for each component tested

PAGE ____ of ____

Form # GSC-WP007-008
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GOLDEN SPECIALTY

Air Quality Test Report

APPENDIX E –
Reference Method Data

Valero Refining-Texas, L.P.
Houston Refinery
Houston, TX

One-Minute Reference Method Data
Trailer 10

SRU C Incinerator

Date	Time	O_2_1	SO_2_1	O_2_2	Calibration Status
		System 1		System 2	
		% vd	ppmvd	% vd	
2/20/2014	10:29:00	0.020	0.05	0.013	Calibrating System 1
2/20/2014	10:30:00	0.016	0.06	0.014	Calibrating System 1
2/20/2014	10:31:00	12.678	0.05	13.016	Calibrating System 1
2/20/2014	10:32:00	20.035	0.05	20.019	
2/20/2014	10:33:00	16.686	0.11	12.056	Calibrating System 1
2/20/2014	10:34:00	9.951	0.15	9.944	Calibrating System 1
2/20/2014	10:35:00	5.692	0.15	5.014	Calibrating System 1
2/20/2014	10:36:00	0.014	0.45	0.014	Calibrating System 1
2/20/2014	10:37:00	0.015	0.31	0.015	Calibrating System 1
2/20/2014	10:38:00	0.016	0.25	0.015	Calibrating System 1
2/20/2014	10:39:00	0.016	0.29	0.015	Calibrating System 1
2/20/2014	10:40:00	0.016	0.23	0.015	Calibrating System 1
2/20/2014	10:41:00	0.015	154.20	0.015	Calibrating System 1
2/20/2014	10:42:00	0.018	203.21	0.015	Calibrating System 1
2/20/2014	10:43:00	0.016	105.21	0.016	Calibrating System 1
2/20/2014	10:44:00	0.012	95.52	0.004	Calibrating System 1
2/20/2014	10:45:00	0.451	-2.49	-0.016	Calibrating System 1
2/20/2014	10:46:00	0.031	0.35	-0.019	Calibrating System 1
2/20/2014	10:47:00	-0.012	0.35	-0.019	Calibrating System 1
2/20/2014	10:48:00	-0.009	0.34	-0.020	Calibrating System 1
2/20/2014	10:49:00	-0.023	0.20	-0.020	Calibrating System 1
2/20/2014	10:50:00	9.371	0.00	5.048	Calibrating System 1
2/20/2014	10:51:00	9.934	-0.25	9.941	Calibrating System 1
2/20/2014	10:52:00	7.107	28.79	7.109	
2/20/2014	10:53:00	-0.013	214.93	0.024	Calibrating System 1
2/20/2014	10:54:00	-0.026	147.59	-0.002	Calibrating System 1
2/20/2014	10:55:00	-0.030	97.82	-0.009	Calibrating System 1
2/20/2014	10:56:00	-0.036	95.798	-0.013	Calibrating System 1
2/20/2014	10:57:00	-0.034	96.216	-0.015	Calibrating System 1
2/20/2014	10:58:00	0.524	58.929	-0.001	
2/20/2014	10:59:00	-0.031	7.057	-0.018	Calibrating System 1
2/20/2014	11:00:00	-0.044	4.097	-0.019	Calibrating System 1
2/20/2014	11:01:00	0.216	3.06	-0.020	
2/20/2014	11:02:00	20.423	3.39	0.021	
2/20/2014	11:03:00	20.883	1.91	0.021	
2/20/2014	11:04:00	20.897	1.26	0.021	
2/20/2014	11:05:00	20.908	0.98	0.020	
2/20/2014	11:06:00	20.910	0.80	0.020	
2/20/2014	11:07:00	20.917	0.66	0.020	
2/20/2014	11:08:00	20.918	0.66	0.020	
2/20/2014	11:09:00	19.091	6.08	0.967	
2/20/2014	11:10:00	8.817	100.01	5.892	
2/20/2014	11:11:00	7.140	99.86	6.678	
2/20/2014	11:12:00	1.794	41.19	7.930	
2/20/2014	11:13:00	-0.002	4.43	7.358	Calibrating System 1
2/20/2014	11:14:00	-0.004	2.79	5.259	Calibrating System 1
2/20/2014	11:15:00	-0.029	1.71	0.640	Calibrating System 1
2/20/2014	11:16:00	0.005	0.065	0.030	Calibrating System 1
2/20/2014	11:17:00	3.039	37.229	2.794	
2/20/2014	11:18:00	6.972	107.163	7.167	
2/20/2014	11:19:00	7.002	107.591	7.193	
2/20/2014	11:20:00	7.020	107.700	7.167	
2/20/2014	11:21:00	7.023	110.130	7.131	
2/20/2014	11:22:00	8.997	39.73	9.022	Calibrating System 1
2/20/2014	11:23:00	9.972	3.00	10.140	Calibrating System 1
2/20/2014	11:24:00	9.528	11.32	9.585	Calibrating System 1
2/20/2014	11:25:00	7.059	107.09	7.068	
2/20/2014	11:26:00	7.041	109.79	6.976	
2/20/2014	11:27:00	7.051	107.30	6.972	
2/20/2014	11:28:00	7.056	105.63	6.952	
2/20/2014	11:29:00	7.012	106.26	6.890	
2/20/2014	11:30:00	7.063	106.09	6.925	
2/20/2014	11:31:00	7.039	105.84	6.901	
2/20/2014	11:32:00	7.031	106.49	6.892	
2/20/2014	11:33:00	7.004	107.22	6.899	

Valero Refining-Texas, L.P.
Houston Refinery
Houston, TX

One-Minute Reference Method Data
Trailer 10

SRU C Incinerator

Date	Time	O_2_1	SO_2_1	O_2_2	Calibration Status
		System 1		System 2	
		% vd	ppmvd	% vd	
2/20/2014	11:34:00	7.026	107.39	6.936	
2/20/2014	11:35:00	6.980	107.69	6.882	
2/20/2014	11:36:00	6.988	108.07	6.882	
2/20/2014	11:37:00	7.043	107.66	6.928	
2/20/2014	11:38:00	6.993	107.57	6.879	
2/20/2014	11:39:00	7.002	107.79	6.880	
2/20/2014	11:40:00	7.042	107.25	6.921	
2/20/2014	11:41:00	6.991	106.77	6.866	
2/20/2014	11:42:00	7.006	106.16	6.883	
2/20/2014	11:43:00	6.975	105.14	6.847	
2/20/2014	11:44:00	6.977	105.72	6.849	
2/20/2014	11:45:00	6.983	105.42	6.858	
2/20/2014	11:46:00	7.014	104.91	6.887	
2/20/2014	11:47:00	6.975	107.15	6.844	
2/20/2014	11:48:00	3.194	56.26	3.196	
2/20/2014	11:49:00	0.021	3.91	0.058	Calibrating System 1
2/20/2014	11:50:00	5.983	0.05	5.787	Calibrating System 1
2/20/2014	11:51:00	9.960	0.08	9.975	Calibrating System 1
2/20/2014	11:52:00	4.194	41.18	4.458	
2/20/2014	11:53:00	0.016	92.04	0.067	Calibrating System 1
2/20/2014	11:54:00	3.619	102.83	3.472	
2/20/2014	11:55:00	6.960	104.88	6.975	
2/20/2014	11:56:00	7.009	102.33	7.029	
2/20/2014	11:57:00	6.977	101.99	7.011	
2/20/2014	11:58:00	6.995	101.73	7.020	
2/20/2014	11:59:00	7.005	101.26	7.034	
2/20/2014	12:00:00	6.959	101.36	6.989	
2/20/2014	12:01:00	6.986	100.83	7.009	
2/20/2014	12:02:00	7.000	100.47	7.022	
2/20/2014	12:03:00	7.010	99.97	7.037	
2/20/2014	12:04:00	6.973	100.69	7.004	
2/20/2014	12:05:00	6.996	101.36	7.022	
2/20/2014	12:06:00	6.937	101.41	6.954	
2/20/2014	12:07:00	6.954	101.79	6.974	
2/20/2014	12:08:00	6.983	101.47	7.016	
2/20/2014	12:09:00	6.977	101.67	6.997	
2/20/2014	12:10:00	6.943	102.12	6.966	
2/20/2014	12:11:00	6.935	102.92	6.962	
2/20/2014	12:12:00	6.945	103.02	6.968	
2/20/2014	12:13:00	6.973	103.88	6.992	
2/20/2014	12:14:00	6.973	106.51	6.967	
2/20/2014	12:15:00	6.956	106.66	6.974	
2/20/2014	12:16:00	6.955	107.00	6.974	
2/20/2014	12:17:00	6.935	108.40	6.953	
2/20/2014	12:18:00	6.975	108.61	6.989	
2/20/2014	12:19:00	4.754	85.20	4.857	
2/20/2014	12:20:00	0.021	5.51	0.091	Calibrating System 1
2/20/2014	12:21:00	5.903	2.48	5.735	Calibrating System 1
2/20/2014	12:22:00	9.980	0.09	9.965	Calibrating System 1
2/20/2014	12:23:00	4.027	44.00	4.196	
2/20/2014	12:24:00	0.013	92.41	0.051	Calibrating System 1
2/20/2014	12:25:00	3.761	105.09	3.682	
2/20/2014	12:26:00	6.984	107.63	6.990	
2/20/2014	12:27:00	6.981	104.86	7.001	
2/20/2014	12:28:00	6.955	104.12	6.979	
2/20/2014	12:29:00	7.004	102.65	7.025	
2/20/2014	12:30:00	7.000	103.13	7.022	
2/20/2014	12:31:00	7.011	102.50	7.026	
2/20/2014	12:32:00	7.019	102.31	7.035	
2/20/2014	12:33:00	6.970	102.97	6.997	
2/20/2014	12:34:00	6.961	102.01	6.974	
2/20/2014	12:35:00	6.977	102.59	6.986	
2/20/2014	12:36:00	6.979	102.17	6.994	
2/20/2014	12:37:00	6.966	102.31	6.981	
2/20/2014	12:38:00	7.013	102.25	7.031	

Valero Refining-Texas, L.P.
Houston Refinery
Houston, TX

One-Minute Reference Method Data
Trailer 10

SRU C Incinerator

Date	Time	O_2_1	SO_2_1	O_2_2	Calibration Status
		System 1		System 2	
		% vd	ppmvd	% vd	
2/20/2014	12:39:00	6.993	102.91	7.009	
2/20/2014	12:40:00	6.939	103.39	6.956	
2/20/2014	12:41:00	6.931	102.90	6.944	
2/20/2014	12:42:00	6.939	102.45	6.959	
2/20/2014	12:43:00	6.979	103.24	6.986	
2/20/2014	12:44:00	6.946	103.46	6.961	
2/20/2014	12:45:00	6.921	103.54	6.933	
2/20/2014	12:46:00	6.921	102.99	6.934	
2/20/2014	12:47:00	6.908	103.07	6.924	
2/20/2014	12:48:00	6.892	104.02	6.908	
2/20/2014	12:49:00	6.910	103.41	6.925	
2/20/2014	12:50:00	2.809	54.17	2.903	
2/20/2014	12:51:00	0.026	3.73	0.045	Calibrating System 1
2/20/2014	12:52:00	0.448	0.02	0.294	Calibrating System 1
2/20/2014	12:53:00	9.957	0.07	9.956	Calibrating System 1
2/20/2014	12:54:00	3.631	48.30	3.751	
2/20/2014	12:55:00	0.022	94.17	0.038	Calibrating System 1
2/20/2014	12:56:00	4.485	104.76	4.382	
2/20/2014	12:57:00	6.929	105.34	6.928	
2/20/2014	12:58:00	6.869	102.85	6.891	
2/20/2014	12:59:00	6.972	100.61	6.989	
2/20/2014	13:00:00	6.942	100.67	6.953	
2/20/2014	13:01:00	6.908	99.90	6.913	
2/20/2014	13:02:00	6.954	99.16	6.959	
2/20/2014	13:03:00	6.958	99.27	6.968	
2/20/2014	13:04:00	6.983	98.53	6.992	
2/20/2014	13:05:00	7.023	98.27	7.025	
2/20/2014	13:06:00	6.961	97.54	6.972	
2/20/2014	13:07:00	6.982	97.39	6.987	
2/20/2014	13:08:00	6.963	97.07	6.970	
2/20/2014	13:09:00	6.992	97.21	6.999	
2/20/2014	13:10:00	6.936	97.61	6.941	
2/20/2014	13:11:00	6.901	97.65	6.912	
2/20/2014	13:12:00	6.930	98.34	6.940	
2/20/2014	13:13:00	6.927	98.18	6.935	
2/20/2014	13:14:00	6.969	98.66	6.975	
2/20/2014	13:15:00	6.917	98.97	6.930	
2/20/2014	13:16:00	6.942	98.73	6.951	
2/20/2014	13:17:00	6.897	98.65	6.907	
2/20/2014	13:18:00	6.949	98.67	6.952	
2/20/2014	13:19:00	6.000	92.35	5.947	
2/20/2014	13:20:00	0.039	8.29	0.065	Calibrating System 1
2/20/2014	13:21:00	5.315	0.07	5.244	Calibrating System 1
2/20/2014	13:22:00	9.948	0.05	9.949	Calibrating System 1
2/20/2014	13:23:00	9.612	2.72	9.376	Calibrating System 1
2/20/2014	13:24:00	0.123	83.76	0.432	Calibrating System 1
2/20/2014	13:25:00	0.030	95.52	0.041	Calibrating System 1
2/20/2014	13:26:00	5.784	107.89	5.725	
2/20/2014	13:27:00	6.930	105.78	6.940	
2/20/2014	13:28:00	6.957	103.62	6.968	
2/20/2014	13:29:00	6.941	102.97	6.955	
2/20/2014	13:30:00	6.933	103.06	6.944	
2/20/2014	13:31:00	6.941	102.47	6.946	
2/20/2014	13:32:00	6.931	103.58	6.938	
2/20/2014	13:33:00	6.950	103.41	6.965	
2/20/2014	13:34:00	6.941	103.36	6.949	
2/20/2014	13:35:00	6.909	103.70	6.919	
2/20/2014	13:36:00	6.937	104.19	6.948	
2/20/2014	13:37:00	6.972	104.15	6.976	
2/20/2014	13:38:00	6.917	105.09	6.933	
2/20/2014	13:39:00	6.936	104.70	6.949	
2/20/2014	13:40:00	6.937	104.88	6.949	
2/20/2014	13:41:00	6.915	106.62	6.924	
2/20/2014	13:42:00	6.957	106.55	6.970	
2/20/2014	13:43:00	6.907	105.88	6.924	

Valero Refining-Texas, L.P.
Houston Refinery
Houston, TX

One-Minute Reference Method Data
Trailer 10

SRU C Incinerator

Date	Time	O_2_1	SO_2_1	O_2_2	Calibration Status
		System 1		System 2	
		% vd	ppmvd	% vd	
2/20/2014	13:44:00	6.893	104.34	6.908	
2/20/2014	13:45:00	6.921	102.61	6.936	
2/20/2014	13:46:00	6.949	102.75	6.954	
2/20/2014	13:47:00	6.913	102.13	6.930	
2/20/2014	13:48:00	6.947	102.18	6.958	
2/20/2014	13:49:00	6.913	102.67	6.931	
2/20/2014	13:50:00	6.906	103.97	6.913	
2/20/2014	13:51:00	6.935	103.84	6.948	
2/20/2014	13:52:00	6.937	103.43	6.939	
2/20/2014	13:53:00	6.955	103.36	6.958	
2/20/2014	13:54:00	6.953	103.55	6.964	
2/20/2014	13:55:00	6.909	103.70	6.920	
2/20/2014	13:56:00	6.936	103.08	6.944	
2/20/2014	13:57:00	6.977	102.78	6.984	
2/20/2014	13:58:00	7.002	102.33	7.004	
2/20/2014	13:59:00	6.948	102.49	6.958	
2/20/2014	14:00:00	2.935	52.47	3.044	
2/20/2014	14:01:00	0.016	0.05	0.027	Calibrating System 1
2/20/2014	14:02:00	4.959	0.06	4.865	Calibrating System 1
2/20/2014	14:03:00	9.947	0.14	9.931	Calibrating System 1
2/20/2014	14:04:00	7.019	51.65	6.030	
2/20/2014	14:05:00	0.021	94.97	0.032	Calibrating System 1
2/20/2014	14:06:00	3.135	101.16	3.120	
2/20/2014	14:07:00	6.902	104.87	6.902	
2/20/2014	14:08:00	6.900	103.03	6.917	
2/20/2014	14:09:00	6.910	102.01	6.922	
2/20/2014	14:10:00	6.970	101.76	6.977	
2/20/2014	14:11:00	6.948	101.84	6.964	
2/20/2014	14:12:00	6.955	102.31	6.960	
2/20/2014	14:13:00	6.963	102.84	6.966	
2/20/2014	14:14:00	6.900	102.36	6.916	
2/20/2014	14:15:00	6.946	101.53	6.944	
2/20/2014	14:16:00	6.906	100.98	6.914	
2/20/2014	14:17:00	6.992	100.798	6.994	
2/20/2014	14:18:00	6.934	101.721	6.945	
2/20/2014	14:19:00	7.012	101.619	7.008	
2/20/2014	14:20:00	6.977	102.109	6.985	
2/20/2014	14:21:00	7.016	102.135	7.016	
2/20/2014	14:22:00	7.002	102.072	7.017	
2/20/2014	14:23:00	7.003	101.600	6.994	
2/20/2014	14:24:00	6.953	100.221	6.964	
2/20/2014	14:25:00	6.977	99.110	6.979	
2/20/2014	14:26:00	6.939	99.57	6.950	
2/20/2014	14:27:00	6.980	98.73	6.987	
2/20/2014	14:28:00	6.995	98.70	6.997	
2/20/2014	14:29:00	6.962	99.72	6.969	
2/20/2014	14:30:00	2.413	47.41	2.377	
2/20/2014	14:31:00	0.021	3.39	0.030	Calibrating System 1
2/20/2014	14:32:00	5.432	0.15	5.485	Calibrating System 1
2/20/2014	14:33:00	9.934	0.03	9.937	Calibrating System 1
2/20/2014	14:34:00	5.419	32.41	5.342	
2/20/2014	14:35:00	0.024	91.89	0.040	Calibrating System 1
2/20/2014	14:36:00	4.456	101.48	4.473	
2/20/2014	14:37:00	6.935	103.12	6.950	
2/20/2014	14:38:00	6.921	102.71	6.927	
2/20/2014	14:39:00	6.906	101.03	6.920	
2/20/2014	14:40:00	6.913	99.12	6.925	
2/20/2014	14:41:00	6.909	97.29	6.918	
2/20/2014	14:42:00	6.883	97.01	6.892	
2/20/2014	14:43:00	6.946	97.13	6.955	
2/20/2014	14:44:00	6.934	97.95	6.941	
2/20/2014	14:45:00	6.907	97.86	6.919	
2/20/2014	14:46:00	6.929	97.35	6.938	
2/20/2014	14:47:00	6.931	97.77	6.939	
2/20/2014	14:48:00	6.894	98.32	6.904	

Valero Refining-Texas, L.P.
Houston Refinery
Houston, TX

One-Minute Reference Method Data
Trailer 10

SRU C Incinerator

Date	Time	O_2 1	SO_2 1	O_2 2	Calibration Status
		System 1		System 2	
		% vd	ppmvd	% vd	
2/20/2014	14:49:00	6.925	98.59	6.931	
2/20/2014	14:50:00	6.899	99.83	6.913	
2/20/2014	14:51:00	6.919	98.83	6.930	
2/20/2014	14:52:00	6.894	99.47	6.902	
2/20/2014	14:53:00	6.931	98.80	6.942	
2/20/2014	14:54:00	6.901	100.48	6.906	
2/20/2014	14:55:00	6.947	101.07	6.947	
2/20/2014	14:56:00	6.917	101.12	6.923	
2/20/2014	14:57:00	6.895	100.79	6.909	
2/20/2014	14:58:00	6.901	100.55	6.900	
2/20/2014	14:59:00	6.922	100.12	6.926	
2/20/2014	15:00:00	2.286	46.85	2.233	
2/20/2014	15:01:00	0.025	0.07	0.034	Calibrating System 1
2/20/2014	15:02:00	5.461	1.93	5.559	Calibrating System 1
2/20/2014	15:03:00	9.935	1.31	9.941	Calibrating System 1
2/20/2014	15:04:00	8.601	21.82	8.482	
2/20/2014	15:05:00	0.027	90.78	0.052	Calibrating System 1
2/20/2014	15:06:00	1.784	97.89	1.847	
2/20/2014	15:07:00	6.868	103.22	6.839	
2/20/2014	15:08:00	6.878	101.37	6.890	
2/20/2014	15:09:00	6.877	100.86	6.883	
2/20/2014	15:10:00	6.933	100.12	6.947	
2/20/2014	15:11:00	6.870	99.83	6.878	
2/20/2014	15:12:00	6.911	98.92	6.916	
2/20/2014	15:13:00	6.899	97.84	6.909	
2/20/2014	15:14:00	6.937	97.80	6.944	
2/20/2014	15:15:00	7.077	95.27	7.087	
2/20/2014	15:16:00	7.208	92.70	7.214	
2/20/2014	15:17:00	7.277	90.82	7.282	
2/20/2014	15:18:00	7.312	88.14	7.315	
2/20/2014	15:19:00	7.317	85.04	7.324	
2/20/2014	15:20:00	7.337	81.75	7.334	
2/20/2014	15:21:00	7.357	80.26	7.357	
2/20/2014	15:22:00	7.370	78.13	7.372	
2/20/2014	15:23:00	7.360	77.33	7.358	
2/20/2014	15:24:00	7.367	75.89	7.375	
2/20/2014	15:25:00	7.358	75.10	7.361	
2/20/2014	15:26:00	7.352	74.71	7.348	
2/20/2014	15:27:00	7.374	74.16	7.372	
2/20/2014	15:28:00	7.387	73.80	7.386	
2/20/2014	15:29:00	7.367	74.15	7.371	
2/20/2014	15:30:00	6.911	72.61	6.697	
2/20/2014	15:31:00	0.056	10.44	0.191	Calibrating System 1
2/20/2014	15:32:00	3.084	0.07	3.207	Calibrating System 1
2/20/2014	15:33:00	9.923	0.08	9.897	Calibrating System 1
2/20/2014	15:34:00	3.984	44.11	3.859	
2/20/2014	15:35:00	0.014	92.37	0.021	Calibrating System 1
2/20/2014	15:36:00	4.577	87.05	4.627	
2/20/2014	15:37:00	7.374	76.12	7.374	
2/20/2014	15:38:00	7.394	74.75	7.403	
2/20/2014	15:39:00	7.379	73.59	7.386	
2/20/2014	15:40:00	7.443	73.43	7.444	
2/20/2014	15:41:00	7.485	72.97	7.486	
2/20/2014	15:42:00	7.526	72.67	7.527	
2/20/2014	15:43:00	7.560	72.45	7.567	
2/20/2014	15:44:00	7.587	71.84	7.591	
2/20/2014	15:45:00	7.587	70.81	7.580	
2/20/2014	15:46:00	7.518	69.76	7.527	
2/20/2014	15:47:00	7.558	68.53	7.567	
2/20/2014	15:48:00	7.542	67.07	7.547	
2/20/2014	15:49:00	7.502	68.36	7.508	
2/20/2014	15:50:00	7.579	67.93	7.583	
2/20/2014	15:51:00	7.646	67.52	7.657	
2/20/2014	15:52:00	7.606	67.60	7.609	
2/20/2014	15:53:00	7.625	68.18	7.638	

Valero Refining-Texas, L.P.
Houston Refinery
Houston, TX

One-Minute Reference Method Data
Trailer 10

SRU C Incinerator

Date	Time	O_2 1	SO_2 1	O_2 2	Calibration Status
		System 1		System 2	
		% vd	ppmvd	% vd	
2/20/2014	15:54:00	7.627	67.71	7.627	
2/20/2014	15:55:00	7.624	67.15	7.633	
2/20/2014	15:56:00	7.629	67.22	7.630	
2/20/2014	15:57:00	7.627	66.96	7.632	
2/20/2014	15:58:00	7.619	66.88	7.627	
2/20/2014	15:59:00	7.600	67.04	7.604	
2/20/2014	16:00:00	2.714	34.59	2.643	
2/20/2014	16:01:00	0.020	2.80	0.027	Calibrating System 1
2/20/2014	16:02:00	6.208	0.04	6.288	Calibrating System 1
2/20/2014	16:03:00	9.933	0.03	9.945	Calibrating System 1
2/20/2014	16:04:00	4.066	43.57	3.967	
2/20/2014	16:05:00	0.021	92.27	0.030	Calibrating System 1
2/20/2014	16:06:00	4.742	82.72	4.793	
2/20/2014	16:07:00	7.613	69.03	7.626	
2/20/2014	16:08:00	7.590	68.16	7.602	
2/20/2014	16:09:00	7.624	67.31	7.626	
2/20/2014	16:10:00	7.603	66.96	7.617	
2/20/2014	16:11:00	7.616	66.77	7.624	
2/20/2014	16:12:00	7.641	66.42	7.654	
2/20/2014	16:13:00	7.629	66.19	7.641	
2/20/2014	16:14:00	7.625	65.80	7.633	
2/20/2014	16:15:00	7.639	65.71	7.646	
2/20/2014	16:16:00	7.632	65.73	7.644	
2/20/2014	16:17:00	7.655	65.53	7.661	
2/20/2014	16:18:00	7.677	65.61	7.692	
2/20/2014	16:19:00	7.719	65.60	7.732	
2/20/2014	16:20:00	7.732	65.67	7.734	
2/20/2014	16:21:00	7.682	65.63	7.690	
2/20/2014	16:22:00	7.655	65.71	7.665	
2/20/2014	16:23:00	7.655	65.44	7.670	
2/20/2014	16:24:00	7.655	64.89	7.664	
2/20/2014	16:25:00	7.587	65.01	7.590	
2/20/2014	16:26:00	7.624	67.31	7.626	
2/20/2014	16:27:00	7.603	66.96	7.617	
2/20/2014	16:28:00	7.655	65.44	7.670	
2/20/2014	16:29:00	7.655	64.89	7.664	
2/20/2014	16:30:00	2.785	33.89	2.727	
2/20/2014	16:31:00	0.014	2.52	0.023	Calibrating System 1
2/20/2014	16:32:00	3.202	0.02	3.303	Calibrating System 1
2/20/2014	16:33:00	9.928	0.18	9.915	Calibrating System 1
2/20/2014	16:34:00	3.832	46.37	3.722	
2/20/2014	16:35:00	0.014	92.48	0.025	Calibrating System 1
2/20/2014	16:36:00	5.086	78.98	5.130	

GOLDEN SPECIALTY

Air Quality Test Report

APPENDIX F – CEMS Data

Valero Refining-Texas, L.P.
Houston Refinery
Houston, TX

SRU-C Incinerator

CEMS RUN DATA

DateTime	O_2 (% vd)	SO_2 (ppmvd, corrected)
2/20/2014 11:26:00	7.23	151.8
2/20/2014 11:27:00	7.30	150.4
2/20/2014 11:28:00	7.35	151.2
2/20/2014 11:29:00	7.35	152.2
2/20/2014 11:30:00	7.33	151.6
2/20/2014 11:31:00	7.32	152.5
2/20/2014 11:32:00	7.31	155.2
2/20/2014 11:33:00	7.32	155.5
2/20/2014 11:34:00	7.33	154.1
2/20/2014 11:35:00	7.35	152.7
2/20/2014 11:36:00	7.37	151.1
2/20/2014 11:37:00	7.10	150.5
2/20/2014 11:38:00	7.05	150.4
2/20/2014 11:39:00	7.03	150.9
2/20/2014 11:40:00	7.03	150.3
2/20/2014 11:41:00	7.09	150.3
2/20/2014 11:42:00	7.00	150.1
2/20/2014 11:43:00	7.02	150.7
2/20/2014 11:44:00	6.99	150.3
2/20/2014 11:45:00	7.05	150.4
2/20/2014 11:46:00	7.03	150.3
Run 1 Average:	7.04	150.7

DateTime	O_2 (% vd)	SO_2 (ppmvd, corrected)
2/20/2014 12:57:00	6.88	144.2
2/20/2014 12:58:00	6.83	144.1
2/20/2014 12:59:00	6.88	144.7
2/20/2014 13:00:00	6.91	144.5
2/20/2014 13:01:00	6.95	141.7
2/20/2014 13:02:00	6.99	141.9
2/20/2014 13:03:00	6.91	142.4
2/20/2014 13:04:00	6.93	143.7
2/20/2014 13:05:00	6.94	141.3
2/20/2014 13:06:00	6.91	140.1
2/20/2014 13:07:00	6.97	138.7
2/20/2014 13:08:00	6.88	137.6
2/20/2014 13:09:00	6.92	138.7
2/20/2014 13:10:00	6.96	139.4
2/20/2014 13:11:00	6.98	139.5
2/20/2014 13:12:00	6.99	138.3
2/20/2014 13:13:00	6.96	139.7
2/20/2014 13:14:00	6.97	139.9
2/20/2014 13:15:00	6.97	139.6
2/20/2014 13:16:00	6.93	139.8
2/20/2014 13:17:00	6.88	139.0
Run 4 Average:	6.92	139.8

DateTime	O_2 (% vd)	SO_2 (ppmvd, corrected)
2/20/2014 11:56:00	6.77	157.1
2/20/2014 11:57:00	7.01	154.8
2/20/2014 11:58:00	7.02	153.2
2/20/2014 11:59:00	7.00	151.5
2/20/2014 12:00:00	7.01	151.3
2/20/2014 12:01:00	7.01	150.6
2/20/2014 12:02:00	7.01	149.4
2/20/2014 12:03:00	7.00	148.1
2/20/2014 12:04:00	6.95	145.3
2/20/2014 12:05:00	6.98	144.7
2/20/2014 12:06:00	7.02	146.5
2/20/2014 12:07:00	7.00	147.1
2/20/2014 12:08:00	7.02	144.2
2/20/2014 12:09:00	7.06	144.1
2/20/2014 12:10:00	7.04	145.2
2/20/2014 12:11:00	7.01	142.9
2/20/2014 12:12:00	7.01	142.3
2/20/2014 12:13:00	7.01	144.5
2/20/2014 12:14:00	6.98	144.6
2/20/2014 12:15:00	7.03	145.5
2/20/2014 12:16:00	7.02	145.5
Run 2 Average:	7.01	147.6

DateTime	O_2 (% vd)	SO_2 (ppmvd, corrected)
2/20/2014 12:27:00	6.92	154.3
2/20/2014 12:28:00	6.91	152.2
2/20/2014 12:29:00	6.91	149.2
2/20/2014 12:30:00	6.94	151.4
2/20/2014 12:31:00	6.91	149.5
2/20/2014 12:32:00	6.86	147.1
2/20/2014 12:33:00	6.87	145.7
2/20/2014 12:34:00	6.89	144.4
2/20/2014 12:35:00	6.90	142.4
2/20/2014 12:36:00	6.92	139.5
2/20/2014 12:37:00	6.95	140.6
2/20/2014 12:38:00	6.89	142.8
2/20/2014 12:39:00	6.91	143.9
2/20/2014 12:40:00	6.90	144.0
2/20/2014 12:41:00	6.97	143.1
2/20/2014 12:42:00	6.91	144.0
2/20/2014 12:43:00	6.97	140.9
2/20/2014 12:44:00	6.92	141.9
2/20/2014 12:45:00	6.85	144.9
2/20/2014 12:46:00	6.94	145.7
Run 3 Average:	6.91	144.2

DateTime	O_2 (% vd)	SO_2 (ppmvd, corrected)
2/20/2014 14:06:00	6.92	143.3
2/20/2014 14:07:00	6.94	142.5
2/20/2014 14:08:00	6.92	140.8
2/20/2014 14:09:00	6.92	141.3
2/20/2014 14:10:00	6.92	141.8
2/20/2014 14:11:00	6.92	142.6
2/20/2014 14:12:00	6.95	143.1
2/20/2014 14:13:00	6.93	140.4
2/20/2014 14:14:00	6.92	138.8
2/20/2014 14:15:00	6.93	139.6
2/20/2014 14:16:00	6.88	141.1
2/20/2014 14:17:00	6.84	141.7
2/20/2014 14:18:00	6.88	141.9
2/20/2014 14:19:00	6.91	142.2
2/20/2014 14:20:00	6.85	141.8
2/20/2014 14:21:00	6.92	142.6
2/20/2014 14:22:00	6.96	143.1
2/20/2014 14:23:00	6.89	141.6
2/20/2014 14:24:00	6.91	141.6
2/20/2014 14:25:00	6.95	141.8
2/20/2014 14:26:00	6.89	142.8
2/20/2014 14:27:00	6.95	143.2
2/20/2014 14:28:00	6.96	143.8
Run 5 Average:	6.92	141.7

CEMS RUN DATA

Date/Time	O_2 (% vd)	SO_2 (ppmvd, corrected)
2/20/2014 14:38:00	6.94	139.3
2/20/2014 14:39:00	6.99	138.5
2/20/2014 14:40:00	6.97	139.9
2/20/2014 14:41:00	6.87	139.7
2/20/2014 14:42:00	6.97	139.8
2/20/2014 14:43:00	6.99	141.2
2/20/2014 14:44:00	6.97	141.1
2/20/2014 14:45:00	6.95	140.8
2/20/2014 14:46:00	6.98	140.1
2/20/2014 14:47:00	6.93	140.5
2/20/2014 14:48:00	6.87	140.1
2/20/2014 14:49:00	6.92	139.6
2/20/2014 14:50:00	6.89	138.4
2/20/2014 14:51:00	6.90	136.5
2/20/2014 14:52:00	6.93	135.0
2/20/2014 14:53:00	6.89	136.1
2/20/2014 14:54:00	6.86	136.2
2/20/2014 14:55:00	6.91	136.4
2/20/2014 14:56:00	6.93	136.7
2/20/2014 14:57:00	6.87	137.1
2/20/2014 14:58:00	6.90	137.2
Run 7 Average:	**6.92**	**138.6**

Date/Time	O_2 (% vd)	SO_2 (ppmvd, corrected)
2/20/2014 15:09:00	6.89	141.7
2/20/2014 15:09:00	6.89	142.7
2/20/2014 15:10:00	6.84	142.0
2/20/2014 15:11:00	6.90	140.4
2/20/2014 15:12:00	6.90	139.5
2/20/2014 15:13:00	6.89	140.3
2/20/2014 15:14:00	6.88	139.4
2/20/2014 15:15:00	6.85	139.9
2/20/2014 15:16:00	6.93	140.1
2/20/2014 15:17:00	6.89	140.5
2/20/2014 15:18:00	6.93	138.1
2/20/2014 15:19:00	6.92	138.7
2/20/2014 15:20:00	6.88	138.9
2/20/2014 15:21:00	6.87	139.3
2/20/2014 15:22:00	6.90	138.9
2/20/2014 15:23:00	7.00	136.0
2/20/2014 15:24:00	7.16	131.4
2/20/2014 15:25:00	7.22	130.3
2/20/2014 15:26:00	7.29	129.0
2/20/2014 15:27:00	7.36	123.2
2/20/2014 15:28:00	7.38	118.4
Run 8 Average:	**6.99**	**136.6**

Date/Time	O_2 (% vd)	SO_2 (ppmvd, corrected)
2/20/2014 15:38:00	7.49	100.4
2/20/2014 15:39:00	7.45	100.3
2/20/2014 15:40:00	7.45	98.6
2/20/2014 15:41:00	7.47	98.5
2/20/2014 15:42:00	7.47	98.3
2/20/2014 15:43:00	7.47	98.3
2/20/2014 15:44:00	7.50	99.1
2/20/2014 15:45:00	7.49	98.9
2/20/2014 15:46:00	7.47	98.9
2/20/2014 15:47:00	7.46	98.8
2/20/2014 15:48:00	7.54	99.5
2/20/2014 15:49:00	7.55	98.2
2/20/2014 15:50:00	7.59	97.8
2/20/2014 15:51:00	7.61	99.1
2/20/2014 15:52:00	7.70	97.7
2/20/2014 15:53:00	7.68	95.8
2/20/2014 15:54:00	7.63	94.8
2/20/2014 15:55:00	7.65	92.5
2/20/2014 15:56:00	7.66	91.1
2/20/2014 15:57:00	7.66	90.4
2/20/2014 15:58:00	7.53	89.9
Run 9 Average:	**7.55**	**97.0**

Date/Time	O_2 (% vd)	SO_2 (ppmvd, corrected)
2/20/2014 16:08:00	7.74	89.3
2/20/2014 16:09:00	7.72	89.3
2/20/2014 16:10:00	7.72	88.6
2/20/2014 16:11:00	7.77	88.7
2/20/2014 16:12:00	7.77	90.0
2/20/2014 16:13:00	7.76	88.7
2/20/2014 16:14:00	7.74	87.9
2/20/2014 16:15:00	7.76	88.9
2/20/2014 16:16:00	7.74	88.7
2/20/2014 16:17:00	7.76	88.8
2/20/2014 16:18:00	7.75	88.9
2/20/2014 16:19:00	7.72	87.3
2/20/2014 16:20:00	7.75	87.3
2/20/2014 16:21:00	7.80	87.5
2/20/2014 16:22:00	7.75	86.8
2/20/2014 16:23:00	7.75	87.4
2/20/2014 16:24:00	7.76	88.1
2/20/2014 16:25:00	7.78	87.9
2/20/2014 16:26:00	7.78	87.8
2/20/2014 16:27:00	7.82	88.1
2/20/2014 16:28:00	7.83	88.2
Run 10 Average:	**7.76**	**88.2**

CEMS DATA

Date	Time	O_2 % vd	SO_2 @ 0% O_2 ppmvd
2/20/2014	11:00	7.09	179.2
2/20/2014	11:01	7.09	197.7
2/20/2014	11:02	1.05	212.5
2/20/2014	11:03	5.97	202.1
2/20/2014	11:04	6.93	186.1
2/20/2014	11:05	6.98	178.0
2/20/2014	11:06	6.98	174.3
2/20/2014	11:07	7.06	171.8
2/20/2014	11:08	7.08	167.3
2/20/2014	11:09	7.05	164.2
2/20/2014	11:10	7.01	160.2
2/20/2014	11:11	7.03	160.2
2/20/2014	11:12	7.05	161.3
2/20/2014	11:13	7.05	159.8
2/20/2014	11:14	7.06	160.1
2/20/2014	11:15	7.09	157.7
2/20/2014	11:16	7.07	157.5
2/20/2014	11:17	7.03	157.9
2/20/2014	11:18	7.02	157.5
2/20/2014	11:19	7.02	156.4
2/20/2014	11:20	7.02	155.3
2/20/2014	11:21	6.94	155.0
2/20/2014	11:22	6.99	153.6
2/20/2014	11:23	6.97	155.3
2/20/2014	11:24	6.97	157.9
2/20/2014	11:25	7.00	159.0
2/20/2014	11:26	7.03	159.8
2/20/2014	11:27	7.00	160.4
2/20/2014	11:28	7.05	161.2
2/20/2014	11:29	7.05	162.2
2/20/2014	11:30	7.03	161.6
2/20/2014	11:31	7.02	162.5
2/20/2014	11:32	7.01	165.2
2/20/2014	11:33	7.02	165.5
2/20/2014	11:34	7.03	164.1
2/20/2014	11:35	7.05	162.7
2/20/2014	11:36	7.07	161.1
2/20/2014	11:37	7.10	160.6
2/20/2014	11:38	7.05	159.4
2/20/2014	11:39	7.03	158.9
2/20/2014	11:40	7.03	158.3
2/20/2014	11:41	7.09	159.3
2/20/2014	11:42	7.00	160.1
2/20/2014	11:43	7.02	155.7
2/20/2014	11:44	6.99	157.3
2/20/2014	11:45	7.05	160.4
2/20/2014	11:46	7.03	159.3
2/20/2014	11:47	6.99	158.7
2/20/2014	11:48	7.01	154.5
2/20/2014	11:49	6.99	154.7
2/20/2014	11:50	6.95	156.0
2/20/2014	11:51	7.00	154.4
2/20/2014	11:52	6.90	152.1
2/20/2014	11:53	6.97	153.4
2/20/2014	11:54	7.01	152.7
2/20/2014	11:55	6.98	154.6
2/20/2014	11:56	6.97	157.1
2/20/2014	11:57	7.01	154.8

CEMS DATA

Date	Time	O_2	SO_2 @ 0%O_2
		% vd	ppmvd
2/20/2014	11:58	7.02	153.2
2/20/2014	11:59	7.00	151.6
2/20/2014	12:00	7.01	151.3
2/20/2014	12:01	7.01	150.6
2/20/2014	12:02	7.01	148.4
2/20/2014	12:03	7.00	148.1
2/20/2014	12:04	6.95	145.3
2/20/2014	12:05	6.98	144.7
2/20/2014	12:06	7.02	146.5
2/20/2014	12:07	7.00	147.1
2/20/2014	12:08	7.02	144.2
2/20/2014	12:09	7.06	144.1
2/20/2014	12:10	7.04	145.2
2/20/2014	12:11	7.01	142.9
2/20/2014	12:12	7.01	143.3
2/20/2014	12:13	7.01	144.5
2/20/2014	12:14	6.98	144.6
2/20/2014	12:15	7.03	145.5
2/20/2014	12:16	7.02	146.5
2/20/2014	12:17	7.06	147.0
2/20/2014	12:18	6.97	146.2
2/20/2014	12:19	6.96	146.6
2/20/2014	12:20	6.98	148.6
2/20/2014	12:21	6.99	149.1
2/20/2014	12:22	6.93	151.2
2/20/2014	12:23	6.95	153.9
2/20/2014	12:24	6.96	152.8
2/20/2014	12:25	6.96	154.1
2/20/2014	12:26	6.96	156.1
2/20/2014	12:27	6.99	156.3
2/20/2014	12:28	6.93	155.6
2/20/2014	12:29	6.95	154.9
2/20/2014	12:30	6.98	156.4
2/20/2014	12:31	6.94	157.2
2/20/2014	12:32	7.00	155.7
2/20/2014	12:33	6.99	155.1
2/20/2014	12:34	6.96	154.0
2/20/2014	12:35	6.98	151.3
2/20/2014	12:36	7.00	149.9
2/20/2014	12:37	7.04	149.2
2/20/2014	12:38	6.99	147.1
2/20/2014	12:39	6.99	146.6
2/20/2014	12:40	7.02	145.7
2/20/2014	12:41	6.97	146.8
2/20/2014	12:42	6.92	148.5
2/20/2014	12:43	6.94	146.8
2/20/2014	12:44	6.98	146.5
2/20/2014	12:45	6.96	147.2
2/20/2014	12:46	6.96	143.9
2/20/2014	12:47	7.00	143.5
2/20/2014	12:48	7.00	145.3
2/20/2014	12:49	6.93	144.8
2/20/2014	12:50	6.92	143.5
2/20/2014	12:51	6.91	142.4
2/20/2014	12:52	6.90	143.7
2/20/2014	12:53	6.90	145.4
2/20/2014	12:54	6.89	145.7
2/20/2014	12:55	6.92	144.0

CEMS DATA

Date	Time	O_2	SO_2 @ 0%O_2
		% vd	ppmvd
2/20/2014	12:56	6.88	143.8
2/20/2014	12:57	6.88	144.2
2/20/2014	12:58	6.83	144.1
2/20/2014	12:59	6.88	144.7
2/20/2014	13:00	6.91	144.5
2/20/2014	13:01	6.86	141.4
2/20/2014	13:02	6.93	141.7
2/20/2014	13:03	6.91	141.9
2/20/2014	13:04	6.91	142.4
2/20/2014	13:05	6.90	143.7
2/20/2014	13:06	6.94	141.3
2/20/2014	13:07	6.91	140.1
2/20/2014	13:08	6.97	138.7
2/20/2014	13:09	6.88	137.8
2/20/2014	13:10	6.92	138.7
2/20/2014	13:11	6.88	135.4
2/20/2014	13:12	6.98	135.5
2/20/2014	13:13	6.99	136.3
2/20/2014	13:14	6.98	135.7
2/20/2014	13:15	6.97	135.9
2/20/2014	13:16	6.95	135.8
2/20/2014	13:17	6.98	136.0
2/20/2014	13:18	6.99	135.4
2/20/2014	13:19	6.92	133.5
2/20/2014	13:20	6.92	134.3
2/20/2014	13:21	6.93	135.1
2/20/2014	13:22	6.94	136.5
2/20/2014	13:23	6.92	137.7
2/20/2014	13:24	6.87	137.3
2/20/2014	13:25	6.89	136.8
2/20/2014	13:26	6.87	135.9
2/20/2014	13:27	6.92	135.0
2/20/2014	13:28	6.92	134.3
2/20/2014	13:29	6.91	142.2
2/20/2014	13:30	6.95	149.2
2/20/2014	13:31	6.91	151.0
2/20/2014	13:32	6.94	151.4
2/20/2014	13:33	6.91	149.5
2/20/2014	13:34	6.86	147.1
2/20/2014	13:35	6.87	145.7
2/20/2014	13:36	6.89	144.4
2/20/2014	13:37	6.90	142.4
2/20/2014	13:38	6.92	139.6
2/20/2014	13:39	6.95	140.6
2/20/2014	13:40	6.89	142.8
2/20/2014	13:41	6.91	143.9
2/20/2014	13:42	6.90	144.0
2/20/2014	13:43	6.87	143.1
2/20/2014	13:44	6.91	144.0
2/20/2014	13:45	6.97	140.9
2/20/2014	13:46	6.92	141.9
2/20/2014	13:47	6.85	144.9
2/20/2014	13:48	6.94	145.7
2/20/2014	13:49	6.93	146.7
2/20/2014	13:50	6.93	148.6
2/20/2014	13:51	6.92	148.3
2/20/2014	13:52	6.92	146.0
2/20/2014	13:53	6.92	141.6

Valero Refining-Texas, L.P.
Houston Refinery
Houston, TX

CEMS DATA

SRU C Incinerator

Date	Time	O_2	SO_2 @ 0%O_2
		% vd	ppmvd
2/20/2014	13:54	6.92	141.6
2/20/2014	13:55	6.92	142.2
2/20/2014	13:56	6.93	140.2
2/20/2014	13:57	6.93	141.2
2/20/2014	13:58	6.89	143.6
2/20/2014	13:59	6.89	144.8
2/20/2014	14:00	6.90	144.3
2/20/2014	14:01	6.91	144.1
2/20/2014	14:02	6.93	142.6
2/20/2014	14:03	6.94	142.0
2/20/2014	14:04	6.95	142.2
2/20/2014	14:05	6.96	142.4
2/20/2014	14:06	6.98	142.5
2/20/2014	14:07	6.94	142.7
2/20/2014	14:08	6.89	143.3
2/20/2014	14:09	6.94	140.8
2/20/2014	14:10	6.92	140.8
2/20/2014	14:11	6.92	141.3
2/20/2014	14:12	6.96	141.8
2/20/2014	14:13	6.92	141.9
2/20/2014	14:14	6.92	142.6
2/20/2014	14:15	6.93	143.1
2/20/2014	14:16	6.93	140.4
2/20/2014	14:17	6.94	138.8
2/20/2014	14:18	6.86	139.6
2/20/2014	14:19	6.91	141.1
2/20/2014	14:20	6.95	141.7
2/20/2014	14:21	6.92	141.9
2/20/2014	14:22	6.96	142.2
2/20/2014	14:23	6.89	141.6
2/20/2014	14:24	6.91	141.6
2/20/2014	14:25	6.95	141.8
2/20/2014	14:26	6.89	142.8
2/20/2014	14:27	6.95	143.2
2/20/2014	14:28	6.96	143.6
2/20/2014	14:29	7.01	144.0
2/20/2014	14:30	7.02	144.8
2/20/2014	14:31	7.01	145.2
2/20/2014	14:32	6.95	144.5
2/20/2014	14:33	6.95	142.1
2/20/2014	14:34	6.95	139.9
2/20/2014	14:35	6.96	139.4
2/20/2014	14:36	6.99	140.5
2/20/2014	14:37	6.95	139.6
2/20/2014	14:38	6.94	138.3
2/20/2014	14:39	6.99	139.8
2/20/2014	14:40	6.97	139.9
2/20/2014	14:41	6.87	139.7
2/20/2014	14:42	6.97	139.8
2/20/2014	14:43	6.99	141.2
2/20/2014	14:44	6.97	141.1
2/20/2014	14:45	6.96	140.8
2/20/2014	14:46	6.98	140.1
2/20/2014	14:47	6.93	140.5
2/20/2014	14:48	6.87	140.1
2/20/2014	14:49	6.92	139.6
2/20/2014	14:50	6.89	138.4
2/20/2014	14:51	6.90	135.5

Valero Refining-Texas, L.P.
Houston Refinery
Houston, TX

CEMS DATA

SRU C Incinerator

Date	Time	O_2	SO_2 @ 0%O_2
		% vd	ppmvd
2/20/2014	14:52	6.93	135.3
2/20/2014	14:53	6.89	136.1
2/20/2014	14:54	6.86	136.2
2/20/2014	14:55	6.91	136.4
2/20/2014	14:56	6.88	136.7
2/20/2014	14:57	6.87	137.1
2/20/2014	14:58	6.90	137.2
2/20/2014	14:59	6.91	137.5
2/20/2014	15:00	6.91	138.6
2/20/2014	15:01	6.92	140.1
2/20/2014	15:02	6.92	139.2
2/20/2014	15:03	6.95	137.2
2/20/2014	15:04	6.91	139.4
2/20/2014	15:05	6.89	139.0
2/20/2014	15:06	6.87	138.5
2/20/2014	15:07	6.92	140.5
2/20/2014	15:08	6.89	141.7
2/20/2014	15:09	6.89	142.7
2/20/2014	15:10	6.84	142.3
2/20/2014	15:11	6.90	140.4
2/20/2014	15:12	6.90	139.5
2/20/2014	15:13	6.89	140.3
2/20/2014	15:14	6.88	139.4
2/20/2014	15:15	6.85	138.9
2/20/2014	15:16	6.93	140.1
2/20/2014	15:17	6.89	140.5
2/20/2014	15:18	6.93	138.1
2/20/2014	15:19	6.92	138.7
2/20/2014	15:20	6.86	139.9
2/20/2014	15:21	6.87	139.3
2/20/2014	15:22	6.90	138.9
2/20/2014	15:23	7.00	136.0
2/20/2014	15:24	7.16	131.4
2/20/2014	15:25	7.22	130.3
2/20/2014	15:26	7.29	129.0
2/20/2014	15:27	7.36	123.2
2/20/2014	15:28	7.38	118.4
2/20/2014	15:29	7.39	114.8
2/20/2014	15:30	7.48	111.6
2/20/2014	15:31	7.50	109.4
2/20/2014	15:32	7.49	105.8
2/20/2014	15:33	7.49	103.6
2/20/2014	15:34	7.44	102.0
2/20/2014	15:35	7.50	100.1
2/20/2014	15:36	7.49	98.5
2/20/2014	15:37	7.49	99.3
2/20/2014	15:38	7.49	100.4
2/20/2014	15:39	7.45	100.3
2/20/2014	15:40	7.48	98.6
2/20/2014	15:41	7.47	98.5
2/20/2014	15:42	7.47	98.3
2/20/2014	15:43	7.47	98.3
2/20/2014	15:44	7.50	99.1
2/20/2014	15:45	7.49	98.9
2/20/2014	15:46	7.47	98.9
2/20/2014	15:47	7.46	98.8
2/20/2014	15:48	7.54	99.5
2/20/2014	15:49	7.55	98.2

Valero Refining-Texas, L.P.
Houston Refinery
Houston, TX

CEMS DATA

SRU C Incinerator

Date	Time	O_2	SO_2 @ 0%O_2
		% vd	ppmvd
2/20/2014	15:50	7.59	97.8
2/20/2014	15:51	7.61	99.1
2/20/2014	15:52	7.70	97.7
2/20/2014	15:53	7.68	95.8
2/20/2014	15:54	7.63	94.8
2/20/2014	15:55	7.65	92.5
2/20/2014	15:56	7.66	91.1
2/20/2014	15:57	7.66	90.4
2/20/2014	15:58	7.63	89.9
2/20/2014	15:59	7.70	88.7
2/20/2014	16:00	7.73	89.7
2/20/2014	16:01	7.75	91.9
2/20/2014	16:02	7.76	91.5
2/20/2014	16:03	7.72	91.6
2/20/2014	16:04	7.74	90.5
2/20/2014	16:05	7.73	89.7
2/20/2014	16:06	7.74	89.9
2/20/2014	16:07	7.78	89.8
2/20/2014	16:08	7.74	89.3
2/20/2014	16:09	7.70	89.3
2/20/2014	16:10	7.70	88.6
2/20/2014	16:11	7.77	88.7
2/20/2014	16:12	7.77	90.0
2/20/2014	16:13	7.76	88.7
2/20/2014	16:14	7.74	87.9
2/20/2014	16:15	7.76	88.9
2/20/2014	16:16	7.74	88.7
2/20/2014	16:17	7.76	86.8
2/20/2014	16:18	7.75	86.9
2/20/2014	16:19	7.72	87.3
2/20/2014	16:20	7.75	87.3
2/20/2014	16:21	7.80	87.5
2/20/2014	16:22	7.75	86.8
2/20/2014	16:23	7.75	87.4
2/20/2014	16:24	7.76	88.1
2/20/2014	16:25	7.78	87.9
2/20/2014	16:26	7.78	87.8
2/20/2014	16:27	7.82	88.1
2/20/2014	16:28	7.83	89.2
2/20/2014	16:29	7.87	89.4
2/20/2014	16:30	7.86	88.5
2/20/2014	16:31	7.80	88.7
2/20/2014	16:32	7.76	88.9
2/20/2014	16:33	7.81	87.6
2/20/2014	16:34	7.72	88.0
2/20/2014	16:35	7.77	88.2
2/20/2014	16:36	7.81	86.8
2/20/2014	16:37	7.80	86.8
2/20/2014	16:38	7.92	87.4
2/20/2014	16:39	8.07	88.7
2/20/2014	16:40	8.12	86.5
2/20/2014	16:41	8.11	86.4
2/20/2014	16:42	8.08	83.1
2/20/2014	16:43	8.05	78.9
2/20/2014	16:44	8.07	76.4
2/20/2014	16:45	7.99	74.4
2/20/2014	16:46	8.01	74.7
2/20/2014	16:47	7.97	77.1

Valero Refining-Texas, L.P.
Houston Refinery
Houston, TX

CEMS DATA

SRU C Incinerator

Date	Time	O_2	SO_2 @ 0%O_2
		% vd	ppmvd
2/20/2014	16:48	7.90	79.6
2/20/2014	16:49	7.93	82.1
2/20/2014	16:50	7.94	80.8
2/20/2014	16:51	7.93	80.0
2/20/2014	16:52	7.88	81.6
2/20/2014	16:53	7.97	82.0
2/20/2014	16:54	7.88	82.4
2/20/2014	16:55	7.84	81.8
2/20/2014	16:56	7.83	81.8
2/20/2014	16:57	7.90	81.1
2/20/2014	16:58	7.88	80.1
2/20/2014	16:59	7.86	79.4
2/20/2014	17:00	7.85	80.1

AirCO/HG-0130-C/RN100219310/RP

GOLDEN SPECIALTY

THE GOLD STANDARD FOR AIR TESTING

Air Quality Test Report

CEMS Cylinder Gas Audit (CGA)
Second Quarter, 2014

Valero Refining-Texas, L.P.
Houston, Texas

Multiple Sources

Operating Permit No. 01381

Report Number: VALHR-14-0196
Date Tested: May 5-8, 2014
Date Prepared: May 27, 2014

PREPARED FOR
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Air Quality Test Report

CEMS Cylinder Gas Audit (CGA)
Second Quarter, 2014

Valero Refining-Texas, L.P.
Houston, Texas

Multiple Sources

This report is supported by GOLDEN's Quality Assurance Manual. The information included in the report is authentic and accurate, and GOLDEN operated in conformance with ASTM D7036 to the best of our knowledge during this test program.

Certified by:

reviewed by

Scott B. Sweigard, Ph. D., QSTI 2006-025
Technical Director

Daniel A. Loubiere, QSTI 2008-128
Project Manager / Onsite QSTI

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Air Quality Test Report

EXECUTIVE SUMMARY

Golden Specialty, Inc. (GOLDEN) was contracted Valero Refining-Texas, L.P. (Valero) to perform air testing at their facility located in Houston, Texas. GOLDEN performed Cylinder Gas Audits (CGAs) on multiple continuous emissions monitoring systems (CEMS) installed at their facility. The audit was conducted in accordance with Operating Permit No. 01381.

The CGAs performed on May 5-8, 2014, were managed and performed by Mr. Dan Loubiere, with the assistance of Messrs. Justin Jones and Paul Lastovica. No agency personnel were onsite during testing. The results of the CGAs, presented in Table 1-1, demonstrate that the average response for the analyzer was within the 15% requirement 40 CFR Part 60, Appendix F, for each source.

INTRODUCTION

Purpose of Test

The Audit was performed to demonstrate compliance with the requirements of 40 CFR Part 60, Appendix F, Quality Assurance requirements for gas continuous emissions monitoring systems used for compliance determination. The test procedures referenced in this report are in accordance with the Test Plan for this project. Deviations from the Test Plan or published Reference Methods are documented in the Problems, Deviations and/or Exceptions section of this report.

Problems, Deviations and/or Exceptions

No problems were encountered during this test program.

GOLDEN SPECIALTY

Air Quality Test Report

AUDIT RESULTS

The certifications of each gas used for the CGA program are presented in Appendix B. Assessment Data Printouts from the CGAs are presented in Appendices A through I. A printout of the CEMS performance, provided by Valero, is presented in each appendix.

Unit	Test Date	Cylinder Gas	Mid-Range Audit Gas	High-Range Audit Gas	*Allowable*
			Accuracy (%)	Accuracy (%)	
Boiler No. 1	5/5/2014	O_2	5.78	0.96	*15%*
		NO_x	1.45	1.88	*15%*
		CO	2.37	1.58	*15%*
Boiler No. 2	5/6/2014	O_2	0.13	-4.10	*15%*
		NO_x	-12.34	-3.00	*15%*
		CO	-2.83	-0.21	*15%*
Boiler No. 3	5/6/2014	O_2	0.33	-3.97	*15%*
		NO_x	-0.83	-0.31	*15%*
		CO	-5.15	-2.50	*15%*
FCCU Scrubber	5/8/2014	O_2	-1.59	-5.26	*15%*
		SO_2	0.80	0.65	*15%*
		NO_x	0.67	0.70	*15%*
		CO	-3.56	-4.09	*15%*
Fuel Gas Drum	5/7/2014	H_2S	1.85	13.13	*15%*
Crude Atmospheric Heater North Stack	5/7/2014	O_2	0.93	-4.10	*15%*
		NO_x	-8.11	-8.81	*15%*
		CO	-0.87	7.35	*15%*
Crude Atmospheric Heater South Stack	5/7/2014	O_2	0.40	-3.05	*15%*
		NO_x	-3.85	-8.73	*15%*
		CO	-3.51	9.73	*15%*
SRU C Incinerator	5/8/2014	O_2	-3.59	-8.04	*15%*
		SO_2	4.67	3.76	*15%*

Table 1-1. Second Quarter 2014 CGA Results vs. Allowable

Based on the results shown in this report, the CEMS are operating within the limits of 40 CFR 60 Appendix F, Quality Assurance requirements for gas continuous emissions monitoring system used for compliance determination.

PERFORMANCE TEST PROCEDURES

Cylinder Gas Audit (CGA)

The CGA was performed in accordance with procedures outlined in 40 CFR 60 Appendix F. The audit consisted of alternately challenging the CEMS with mid and high level EPA Protocol Calibration gas standards. Triplicate runs were performed. The average response was compared to the respective calibration gas value and used to calculate the percent error for each audit point using the calculation presented below. *(GOLDEN SOP: GSC-TM054)*

$$Percent\ Error = \left(\frac{Gas\ Value - Response}{Gas\ Value} \right) x100\%$$

SAMPLE CALCULATIONS

The following calculations were used in the determination of the accuracy for each CEMS audit point. The values listed below in Table 1-2 are the actual data obtained for the O_2 mid range calibration gas during the cylinder gas audit testing of the Boiler No. 1 CEMS and are presented to demonstrate the calculations for the CGA.

Run#	1 (%)	2 (%)	3 (%)
C_M	5.32	5.31	5.30
C_a	5.02	5.02	5.02
D_i *	0.30	0.29	0.28

Table 1-2. Cylinder Gas Audit Data

Cylinder Gas Audit Calculations

Average Difference (d_{avg})

$$\bar{d} = \left[\frac{1}{n} \sum_{i=1}^{n} d \right]$$

Where:

d = Average difference between response and cylinder value data
n = Number of data points
d_i = Difference between response and cylinder value for any given point

$$\bar{d} = \frac{1}{3}[d_1 + d_2 + d_3]$$

Accuracy

$$A = \frac{C_m - C_a}{C_a} \times 100$$

Where:

C_m = Average CEMS response during audit
C_a = Certified gas value used for audit

GOLDEN SPECIALTY

Air Quality Test Report

APPENDIX A – Calibration Data

Airgas

CERTIFICATE OF ANALYSIS
Grade of Product: EPA Protocol

Part Number:	E02NI90E15A0228	Reference Number:	122-124370757-1
Cylinder Number:	CC432504	Cylinder Volume:	145.2 CF
Laboratory:	ASG - Durham - NC	Cylinder Pressure:	2015 PSIG
PGVP Number:	B22013	Valve Outlet:	590
Gas Code:	O2,BALN	Certification Date:	Apr 22, 2013

Expiration Date: Apr 22, 2021

Certification performed in accordance with "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards (May 2012)" document EPA 600/R-12/531, using the assay procedures listed. Analytical Methodology does not require correction for analytical interference. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted.

Do Not Use This Cylinder below 100 psig, i.e. 0.7 megapascals.

ANALYTICAL RESULTS

Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty	Assay Dates
OXYGEN	10.00 %	10.07 %	G1	+/- 0.7% NIST Traceable	04/22/2013
NITROGEN	Balance				

CALIBRATION STANDARDS

Type	Lot ID	Cylinder No	Concentration	Uncertainty	Expiration Date
NTRM	8265818	SG9163064BAL	9.507 % OXYGEN/NITROGEN	+/- 0.6%	Dec 01, 2015

ANALYTICAL EQUIPMENT

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Horiba MPA510 O2 41499150042	Paramagnetic	Apr 09, 2013

Triad Data Available Upon Request

Notes:

Signature on file

Approved for Release

AIR LIQUIDE | Air Liquide America Specialty Gases LLC | Intertek

RATA CLASS

Dual-Analyzed Calibration Standard

8832 DICE ROAD, SANTA FE SPRINGS, CA 90670-2516 Phone: 800-323-2212 Fax: 562 464 5262

CERTIFICATE OF ACCURACY: EPA Protocol Gas

Assay Laboratory - PGVP Vendor ID: A62013

AIR LIQUIDE AMERICA SPECIALTY GASES LLC
8832 DICE ROAD
SANTA FE SPRINGS, CA 90670-2516

P.O. No.: 2013067
Document # : 49931715-002
Folio #:5 P O2

Customer
GOLDEN SPECIALTY CONSULTING, LTD

GORDON GOSSETT
931 SEACO COURT
DEER PARK TX 77536
US

ANALYTICAL INFORMATION Gas Type : O2,BALN

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

Cylinder Number: AAL8305 Certification Date: 22Mar2013 Exp. Date: 23Mar2021
Cylinder Pressure***: 2000 PSIG Batch No: SB00066852

COMPONENT	CERTIFIED CONCENTRATION (Moles)	ACCURACY**	TRACEABILITY
OXYGEN	5.02 %	+/- 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 2658	01Feb2016	K018285	10.03 %	OXYGEN

INSTRUMENTATION

INSTRUMENT/MODEL/SERIAL#	DATE LAST CALIBRATED	ANALYTICAL PRINCIPLE
VARIAN 8/3400/2806	22Feb2013	FID & TCD

ANALYZER READINGS

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

First Trial Analysis	Second Trial Analysis	Calibration Curve
OXYGEN		
Date: 22Mar2013 Response Unit: AREA		Concentration = A + Bx + Cx2 + Dx3 + Ex4
Z1 = 0.00000 R1 = 5028614. T1 = 2510673.		r = 0.999995 2656
R2 = 5028403. Z2 = 0.00000 T2 = 2513752.		Constants: A = 0.005027263
Z3 = 0.00000 T3 = 2516166. R3 = 5032851.		B = 0.000001978 C =
Avg. Concentration: 5.016 %		D = E =

APPROVED BY: DC

Airgas

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CERTIFICATE OF ANALYSIS
Grade of Product: EPA Protocol

Part Number:	E02NI99E15A3823	Reference Number:	122-124422872-1
Cylinder Number:	CC166667	Cylinder Volume:	144.4 CF
Laboratory:	ASG - Durham - NC	Cylinder Pressure:	2015 PSIG
PGVP Number:	B22014	Valve Outlet:	660
Gas Code:	SO2,BALN	Certification Date:	Mar 17, 2014

Expiration Date: Mar 17, 2022

Certification performed in accordance with "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards (May 2012)" document EPA 600/R-12/531, using the assay procedures listed. Analytical Methodology does not require correction for analytical interference. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted.

Do Not Use This Cylinder below 100 psig, i.e. 0.7 megapascals.

ANALYTICAL RESULTS

Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty	Assay Dates
SULFUR DIOXIDE	275.0 PPM	279.0 PPM	G1	+/- 0.8% NIST Traceable	03/10/2014, 03/17/2014
NITROGEN	Balance				

CALIBRATION STANDARDS

Type	Lot ID	Cylinder No	Concentration	Uncertainty	Expiration Date
NTRM	11060846	CC341882	241.0 PPM SULFUR DIOXIDE/NITROGEN	+/- 0.8%	May 13, 2017

ANALYTICAL EQUIPMENT

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Nicolet 6700 AHR0801549 SO2	FTIR	Mar 13, 2014

Triad Data Available Upon Request

Notes:

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CERTIFICATE OF ANALYSIS
Grade of Product: EPA Protocol

Part Number:	E02NI99E15A0280	Reference Number:	122-124417724-1
Cylinder Number:	CC320495	Cylinder Volume:	144.4 CF
Laboratory:	ASG - Durham - NC	Cylinder Pressure:	2015 PSIG
PGVP Number:	B22014	Valve Outlet:	660
Gas Code:	SO2,BALN	Certification Date:	Feb 11, 2014

Expiration Date: Feb 11, 2022

Certification performed in accordance with "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards (May 2012)" document EPA 600/R-12/531, using the assay procedures listed. Analytical Methodology does not require correction for analytical interference. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted.

Do Not Use This Cylinder below 100 psig, i.e. 0.7 megapascals.

ANALYTICAL RESULTS

Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty	Assay Dates
SULFUR DIOXIDE	135.0 PPM	138.6 PPM	G1	+/- 1.0% NIST Traceable	02/04/2014, 02/11/2014
NITROGEN	Balance				

CALIBRATION STANDARDS

Type	Lot ID	Cylinder No	Concentration	Uncertainty	Expiration Date
NTRM	11060845	CC341882	241.0 PPM SULFUR DIOXIDE/NITROGEN	+/- 0.9%	May 13, 2017

ANALYTICAL EQUIPMENT

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Nicolet 6700 AHR0801549 SO2	FTIR	Jan 17, 2014

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Notes:

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CERTIFICATE OF ANALYSIS
Grade of Product: EPA Protocol

Part Number:	E02NI99E15A3645	Reference Number:	122-124417725-1
Cylinder Number:	CC208494	Cylinder Volume:	144.4 CF
Laboratory:	ASG - Durham - NC	Cylinder Pressure:	2015 PSIG
PGVP Number:	B22014	Valve Outlet:	660
Gas Code:	SO2,BALN	Certification Date:	Feb 14, 2014

Expiration Date: Feb 14, 2022

Certification performed in accordance with "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards (May 2012)" document EPA 600/R-12/531, using the assay procedures listed. Analytical Methodology does not require correction for analytical interference. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted.

Do Not Use This Cylinder below 100 psig, i.e. 0.7 megapascals.

ANALYTICAL RESULTS

Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty	Assay Dates
SULFUR DIOXIDE	65.00 PPM	63.46 PPM	G1	+/- 1.0% NIST Traceable	02/05/2014, 02/14/2014
NITROGEN	Balance				

CALIBRATION STANDARDS

Type	Lot ID	Cylinder No	Concentration	Uncertainty	Expiration Date
NTRM	11060219	CC281084	49.67 PPM SULFUR DIOXIDE/NITROGEN	+/- 1.2%	May 13, 2017
NTRM	11060239	CC284796	49.67 PPM SULFUR DIOXIDE/NITROGEN	+/- 1.2%	May 13, 2017

ANALYTICAL EQUIPMENT

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Nicolet 6700 AHR0801333 SO2	FTIR	Jan 31, 2014

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Notes:

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CERTIFICATE OF ANALYSIS
Grade of Product: EPA Protocol

Part Number:	E03NI99E15A0743	Reference Number:	122-124422874-1
Cylinder Number:	CC365204	Cylinder Volume:	144.4 CF
Laboratory:	ASG - Durham - NC	Cylinder Pressure:	2015 PSIG
PGVP Number:	B22014	Valve Outlet:	660
Gas Code:	CO,NO,BALN	Certification Date:	Mar 14, 2014

Expiration Date: Mar 14, 2022

Certification performed in accordance with "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards (May 2012)" document EPA 600/R-12/531, using the assay procedures listed. Analytical Methodology does not require correction for analytical interference. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted.

Do Not Use This Cylinder below 100 psig, i.e. 0.7 megapascals.

ANALYTICAL RESULTS

Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty	Assay Dates
NOX	275.0 PPM	278.2 PPM	G1	+/- 0.7% NIST Traceable	03/07/2014, 03/14/2014
NITRIC OXIDE	275.0 PPM	277.6 PPM	G1	+/- 0.6% NIST Traceable	03/07/2014, 03/14/2014
CARBON MONOXIDE	550.0 PPM	559.5 PPM	G1	+/- 1.0% NIST Traceable	03/07/2014
NITROGEN	Balance				

CALIBRATION STANDARDS

Type	Lot ID	Cylinder No	Concentration	Uncertainty	Expiration Date
NTRM	12061908	CC367439	250.8 PPM NITRIC OXIDE/NITROGEN	+/- 0.5%	May 04, 2018
PRM	12328	660179	10.01 PPM NITROGEN DIOXIDE/NITROGEN	+/- 2.0%	Feb 14, 2012
NTRM	12061944	CC367703	250.8 PPM NITRIC OXIDE/NITROGEN	+/- 0.5%	May 04, 2018
GMIS	124206889135	CC323701	4.761 PPM NITROGEN DIOXIDE/NITROGEN	+/- 2.0%	Aug 17, 2015
GMIS	124206889107	CC322685	4.958 PPM NITROGEN DIOXIDE/NITROGEN	+/- 2.0%	Dec 12, 2015
NTRM	12062410	CC212161	487.1 PPM CARBON MONOXIDE/NITROGEN	+/- 0.6%	Jun 22, 2018

The SRM, PRM or RGM noted above is only in reference to the GMIS used in the assay and not part of the analysis.

ANALYTICAL EQUIPMENT

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Nicolet 6700 AHR0801333 CO	FTIR	Feb 26, 2014
Nicolet 6700 AHR0801549 NO	FTIR	Mar 13, 2014
Nicolet 6700 AHR0801549 NO	FTIR	Mar 13, 2014

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Notes:

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www.airgas.com

CERTIFICATE OF ANALYSIS
Grade of Product: EPA Protocol

Part Number:	E03NI99E15A02G9	Reference Number:	122-124417716-1
Cylinder Number:	CC16093	Cylinder Volume:	144.4 CF
Laboratory:	ASG - Durham - NC	Cylinder Pressure:	2015 PSIG
PGVP Number:	B22014	Valve Outlet:	660
Gas Code:	CO,NO,BALN	Certification Date:	Feb 11, 2014

Expiration Date: Feb 11, 2022

Certification performed in accordance with "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards (May 2012)" document EPA 600/R-12/531, using the assay procedures listed. Analytical Methodology does not require correction for analytical interference. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted.

Do Not Use This Cylinder below 100 psig, i.e. 0.7 megapascals.

ANALYTICAL RESULTS

Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty	Assay Dates
NOX	275.0 PPM	269.7 PPM	G1	+/- 0.6% NIST Traceable	02/04/2014, 02/11/2014
CARBON MONOXIDE	275.0 PPM	274.4 PPM	G1	+/- 0.6% NIST Traceable	02/04/2014
NITRIC OXIDE	275.0 PPM	269.0 PPM	G1	+/- 0.6% NIST Traceable	02/04/2014, 02/11/2014
NITROGEN	Balance				

CALIBRATION STANDARDS

Type	Lot ID	Cylinder No	Concentration	Uncertainty	Expiration Date
NTRM	12060304	CC353916	249.3 PPM CARBON MONOXIDE/NITROGEN	+/- 0.4%	Oct 26, 2017
PRM	12328	660179	10.01 PPM NITROGEN DIOXIDE/NITROGEN	+/- 2.0%	Feb 14, 2012
NTRM	12061904	CC367427	250.8 PPM NITRIC OXIDE/NITROGEN	+/- 0.5%	May 04, 2018
NTRM	12061908	CC367439	250.8 PPM NITRIC OXIDE/NITROGEN	+/- 0.5%	May 04, 2018
GMIS	124206889135	CC323701	4.761 PPM NITROGEN DIOXIDE/NITROGEN	+/- 2.0%	Aug 17, 2015
GMIS	124206889107	CC322685	4.958 PPM NITROGEN DIOXIDE/NITROGEN	+/- 2.0%	Dec 12, 2015

The SRM, PRM or RGM noted above is only in reference to the GMIS used in the assay and not part of the analysis.

ANALYTICAL EQUIPMENT

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Nicolet 6700 AHR0801549 CO	FTIR	Jan 17, 2014
Nicolet 6700 AHR0801333 NO	FTIR	Jan 31, 2014
Nicolet 6700 AHR0801333 NO2	FTIR	Jan 31, 2014

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Notes:

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CERTIFICATE OF ANALYSIS
Grade of Product: EPA Protocol

Part Number:	E03NI99E15A8N25	Reference Number:	122-124423081-1
Cylinder Number:	CC341989	Cylinder Volume:	144.4 CF
Laboratory:	ASG - Durham - NC	Cylinder Pressure:	2015 PSIG
PGVP Number:	B22014	Valve Outlet:	660
Gas Code:	CO,NO,NOX,BALN	Certification Date:	Mar 17, 2014

Expiration Date: Mar 17, 2022

Certification performed in accordance with "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards (May 2012)" document EPA 600/R-12/531, using the assay procedures listed. Analytical Methodology does not require correction for analytical interference. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted.

Do Not Use This Cylinder below 100 psig, i.e. 0.7 megapascals.

ANALYTICAL RESULTS

Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty	Assay Dates
NOX	125.0 PPM	129.8 PPM	G1	+/- 0.9% NIST Traceable	03/10/2014, 03/17/2014
NITRIC OXIDE	125.0 PPM	129.0 PPM	G1	+/- 0.9% NIST Traceable	03/10/2014, 03/17/2014
CARBON MONOXIDE	275.0 PPM	276.6 PPM	G1	+/- 0.5% NIST Traceable	03/10/2014
NITROGEN	Balance				

CALIBRATION STANDARDS

Type	Lot ID	Cylinder No	Concentration	Uncertainty	Expiration Date
NTRM	13061040	CC423414	99.66 PPM NITRIC OXIDE/NITROGEN	+/- 0.8%	Nov 19, 2019
PRM	12328	680179	10.01 PPM NITROGEN DIOXIDE/NITROGEN	+/- 2.0%	Feb 14, 2012
GMIS	124206889107	CC322665	4.958 PPM NITROGEN DIOXIDE/NITROGEN	+/- 2.0%	Dec 12, 2015
NTRM	12060321	CC353954	249.3 PPM CARBON MONOXIDE/NITROGEN	+/- 0.4%	Oct 26, 2017

The SRM, PRM or RGM noted above is only in reference to the GMIS used in the assay and not part of the analysis.

ANALYTICAL EQUIPMENT

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Nicolet 6700 AHR0801333 CO	FTIR	Feb 26, 2014
Nicolet 6700 AHR0801333 NO	FTIR	Feb 26, 2014
Nicolet 6700 AHR0801333 NO2	FTIR	Feb 26, 2014

Triad Data Available Upon Request

Notes:

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CERTIFICATE OF ANALYSIS
Grade of Product: EPA Protocol

Part Number:	E03NI99E15A0362	Reference Number:	122-124417714-1
Cylinder Number:	CC216262	Cylinder Volume:	144.4 CF
Laboratory:	ASG - Durham - NC	Cylinder Pressure:	2015 PSIG
PGVP Number:	B22014	Valve Outlet:	660
Gas Code:	CO,NO,BALN	Certification Date:	Feb 11, 2014

Expiration Date: Feb 11, 2022

Certification performed in accordance with "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards (May 2012)" document EPA 600/R-12/531, using the assay procedures listed. Analytical Methodology does not require correction for analytical interference. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted.

Do Not Use This Cylinder below 100 psig, i.e. 0.7 megapascals.

ANALYTICAL RESULTS

Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty	Assay Dates
NOX	125.0 PPM	128.8 PPM	G1	+/- 1.1% NIST Traceable	02/04/2014, 02/11/2014
CARBON MONOXIDE	125.0 PPM	123.6 PPM	G1	+/- 0.8% NIST Traceable	02/04/2014
NITRIC OXIDE	125.0 PPM	127.8 PPM	G1	+/- 1.0% NIST Traceable	02/04/2014, 02/11/2014
NITROGEN	Balance				

CALIBRATION STANDARDS

Type	Lot ID	Cylinder No	Concentration	Uncertainty	Expiration Date
NTRM	12062203	CC128005	97.66 PPM CARBON MONOXIDE/NITROGEN	+/- 0.6%	May 25, 2018
PRM	12328	680179	10.01 PPM NITROGEN DIOXIDE/NITROGEN	+/- 2.0%	Feb 14, 2012
NTRM	13061039	CC423413	99.86 PPM NITRIC OXIDE/NITROGEN	+/- 0.8%	Nov 19, 2019
GMIS	124206889135	CC323701	4.761 PPM NITROGEN DIOXIDE/NITROGEN	+/- 2.0%	Aug 17, 2015

The SRM, PRM or RGM noted above is only in reference to the GMIS used in the assay and not part of the analysis.

ANALYTICAL EQUIPMENT

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Nicolet 6700 AHR0801549 CO	FTIR	Jan 17, 2014
Nicolet 6700 AHR0801549 NO	FTIR	Jan 17, 2014
Nicolet 6700 AHR0801549 NO	FTIR	Jan 17, 2014

Triad Data Available Upon Request

Notes:

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CERTIFICATE OF ANALYSIS
Grade of Product: EPA Protocol

Part Number:	E03NI99E15A1474	Reference Number:	122-124423162-1A
Cylinder Number:	CC306674	Cylinder Volume:	144.4 CF
Laboratory:	ASG - Durham - NC	Cylinder Pressure:	2015 PSIG
PGVP Number:	B22014	Valve Outlet:	660
Gas Code:	CO,NO,BALN	Certification Date:	Mar 24, 2014

Expiration Date: Mar 24, 2022

Certification performed in accordance with "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards (May 2012)" document EPA 600/R-12/531, using the assay procedures listed. Analytical Methodology does not require correction for analytical interference. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted.

Do Not Use This Cylinder below 100 psig, i.e. 0.7 megapascals.

ANALYTICAL RESULTS

Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty	Assay Dates
NOX	110.0 PPM	111.8 PPM	G1	+/- 1.2% NIST Traceable	03/17/2014, 03/24/2014
NITRIC OXIDE	110.0 PPM	111.0 PPM	G1	+/- 1.1% NIST Traceable	03/17/2014, 03/24/2014
CARBON MONOXIDE	275.0 PPM	274.2 PPM	G1	+/- 0.8% NIST Traceable	03/17/2014
NITROGEN	Balance				

CALIBRATION STANDARDS

Type	Lot ID	Cylinder No	Concentration	Uncertainty	Expiration Date
NTRM	13061040	CC423414	99.86 PPM NITRIC OXIDE/NITROGEN	+/- 0.8%	Nov 19, 2019
PRM	12328	680179	10.01 PPM NITROGEN DIOXIDE/NITROGEN	+/- 2.0%	Feb 14, 2012
GMIS	124206889107	CC322665	4.958 PPM NITROGEN DIOXIDE/NITROGEN	+/- 2.0%	Dec 12, 2015
GMIS	0207201401	CC500402	4.841 PPM NITROGEN DIOXIDE/NITROGEN	+/- 2.0%	Feb 07, 2017
NTRM	12060321	CC353854	249.3 PPM CARBON MONOXIDE/NITROGEN	+/- 0.4%	Oct 26, 2017

The SRM, PRM or RGM noted above is only in reference to the GMIS used in the assay and not part of the analysis.

ANALYTICAL EQUIPMENT

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Nicolet 6700 AHR0801333 CO	FTIR	Feb 26, 2014
Nicolet 6700 AHR0801333 NO	FTIR	Mar 20, 2014
Nicolet 6700 AHR0801333 NO2	FTIR	Mar 20, 2014

Triad Data Available Upon Request

Notes:

Approved for Release

Airgas

Airgas Specialty Gases
630 United Drive
Durham , NC 27713
919-544-3773 Fax: 919-544-3774
www.airgas.com

CERTIFICATE OF ANALYSIS
Grade of Product: EPA Protocol

Part Number:	E03NI99E15A00M8	Reference Number:	122-124417726-1
Cylinder Number:	CC213571	Cylinder Volume:	144.3 CF
Laboratory:	ASG - Durham - NC	Cylinder Pressure:	2015 PSIG
PGVP Number:	B22014	Valve Outlet:	660
Gas Code:	CO,NO,BALN	Certification Date:	Feb 11, 2014

Expiration Date: Feb 11, 2017

Certification performed in accordance with "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards (May 2012)" document EPA 600/R-12/531, using the assay procedures listed. Analytical Methodology does not require correction for analytical interference. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted.

Do Not Use This Cylinder below 100 psig, i.e. 0.7 megapascals.

ANALYTICAL RESULTS

Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty	Assay Dates
NOX	50.00 PPM	50.13 PPM	G1	+/- 0.9% NIST Traceable	02/04/2014, 02/11/2014
NITRIC OXIDE	50.00 PPM	49.76 PPM	G1	+/- 0.9% NIST Traceable	02/04/2014, 02/11/2014
CARBON MONOXIDE	125.0 PPM	123.3 PPM	G1	+/- 0.8% NIST Traceable	02/04/2014
NITROGEN	Balance				

CALIBRATION STANDARDS

Type	Lot ID	Cylinder No	Concentration	Uncertainty	Expiration Date
NTRM	13061232	CC403925	49.40 PPM NITRIC OXIDE/NITROGEN	+/- 0.8%	Nov 19, 2019
PRM	12328	680179	10.01 PPM NITROGEN DIOXIDE/NITROGEN	+/- 2.0%	Feb 14, 2012
GMIS	124206889135	CC323701	4.761 PPM NITROGEN DIOXIDE/NITROGEN	+/- 2.0%	Aug 17, 2015
NTRM	12062203	CC128005	97.56 PPM CARBON MONOXIDE/NITROGEN	+/- 0.8%	May 25, 2016

The SRM, PRM or RGM noted above is only in reference to the GMIS used in the assay and not part of the analysis.

ANALYTICAL EQUIPMENT

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Nicolet 6700 AHR0801549 CO	FTIR	Jan 17, 2014
Nicolet 6700 AHR0801549 NO	FTIR	Jan 17, 2014
Nicolet 6700 AHR0801549 NO	FTIR	Jan 17, 2014

Triad Data Available Upon Request

Notes:

Approved for Release

Airgas

Airgas Specialty Gases
630 United Drive
Durham, NC 27713
(919)544-3773 Fax: (919)544-3774
www.airgas.com

CERTIFICATE OF ANALYSIS
Grade of Product: EPA Protocol

Part Number:	E02NI99E15A0160	Reference Number:	122-124406408-1
Cylinder Number:	CC215867	Cylinder Volume:	144.4 CF
Laboratory:	ASG - Durham - NC	Cylinder Pressure:	2015 PSIG
PGVP Number:	B22013	Valve Outlet:	330
Gas Code:	H2S,BALN	Certification Date:	Dec 03, 2013

Expiration Date: Dec 03, 2016

Certification performed in accordance with "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards (May 2012)" document EPA 600/R-12/531, using the assay procedures listed. Analytical Methodology does not require correction for analytical interference. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted.

Do Not Use This Cylinder below 100 psig, i.e. 0.7 megapascals.

ANALYTICAL RESULTS

Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty	Assay Dates
HYDROGEN SULFIDE	165.0 PPM	167.6 PPM	G1	+/- 1.1%	11/26/2013, 12/03/2013
NITROGEN	Balance				

CALIBRATION STANDARDS

Type	Lot ID	Cylinder No	Concentration	Uncertainty	Expiration Date
GMIS	GMIS	CC281702	100.6 PPM HYDROGEN SULFIDE/NITROGEN	+/- 1.1%	Mar 09, 2015
PRM	PRM	D248570	100.1 PPM HYDROGEN SULFIDE/NITROGEN	+/- 1.0%	Feb 01, 2013

The SRM or PRM noted above is only in reference to the GMIS used in the assay and not part of the analysis.

ANALYTICAL EQUIPMENT

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Ametek 9000 H2S (0-200 ppm)	Ultraviolet	Nov 21, 2013

Triad Data Available Upon Request

Notes:

Approved for Release

Airgas

CERTIFICATE OF ANALYSIS
Grade of Product: EPA Protocol

Part Number:	E02NI99E15A00Y1	Reference Number:	122-124409625-1
Cylinder Number:	CC354912	Cylinder Volume:	144.4 CF
Laboratory:	ASG - Durham - NC	Cylinder Pressure:	2015 PSIG
PGVP Number:	B22013	Valve Outlet:	330
		Certification Date:	Dec 26, 2013

Expiration Date: Dec 26, 2016

Certification performed in accordance with "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards (May 2012)" document EPA 600/R-12/531, using the assay procedures listed. Analytical Methodology does not require correction for analytical interference. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted.

Do Not Use This Cylinder below 100 psig, i.e. 0.7 megapascals.

ANALYTICAL RESULTS

Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty	Assay Dates
HYDROGEN SULFIDE	65.00 PPM	65.39 PPM	G1	+/- 1.1% NIST Traceable	12/17/2013, 12/26/2013
NITROGEN	Balance				

CALIBRATION STANDARDS

Type	Lot ID	Cylinder No	Concentration	Uncertainty	Expiration Date
GMIS	GMIS	CC315775	74.80 PPM HYDROGEN SULFIDE/NITROGEN	+/- 0.8%	Dec 06, 2015
PRM	PRM	D248570	100.1 PPM HYDROGEN SULFIDE/NITROGEN	+/- 1.0%	Feb 01, 2013

The SRM, PRM or RGM noted above is only in reference to the GMIS used in the assay and not part of the analysis.

ANALYTICAL EQUIPMENT

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Ametek 9000 H2S (0-200 ppm)	Ultraviolet	Dec 19, 2013

Triad Data Available Upon Request

Notes:

Signature on file

Approved for Release

GOLDEN SPECIALTY

Air Quality Test Report

APPENDIX B – Boiler No. 1 CGA Results

CYLINDER GAS AUDIT (CGA) ASSESSMENT DATA SHEET

Company:	Valero Refining-Texas, L.P.	**Analyzer Info**	
Location:	Houston, TX	**Manufacturer:**	Servomex
Source:	Boiler No. 1	**Model No:**	1440
CEMS type:	O_2	**Range (%):**	0 - 25 %
Audit Date:	May 5, 2014	**Serial No.:**	01440DIV02/3659
Project No.:	VALHR-14-0196	**Personnel.:**	DL/PL

$$\text{Accuracy} = \left(\frac{C_m - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

	Response			
Trial No. 1:	5.32	Gas type:	Protocol	
Trial No. 2:	5.31	Concentration (C_a):	5.02	%
Trial No. 3:	5.30	Tank serial #:	AAL8305	
Average (C_m) :	5.31	Expiration Date:	March 23, 2021	
Accuracy %:	5.78			

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

	Response			
Trial No. 1:	10.18	Gas type:	Protocol	
Trial No. 2:	10.16	Concentration (C_a):	10.07	%
Trial No. 3:	10.16	Tank serial #:	CC432504	
Average (C_m) :	10.17	Expiration Date:	April 22, 2021	
Accuracy %:	0.96			

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value, ± 5 ppm, or ≤ 0.7% O_2 or CO_2

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Company: Valero Refining-Texas, L.P.
Location: Houston, TX
Source: Boiler No. 1
CEMS type: NO_x
Audit Date: May 5, 2014
Project No.: VALHR-14-0196

Analyzer Info
Manufacturer: TECO
Model No: 42C LS
Range (ppm): 0 - 500 ppm
Serial No.: 0432408934
Personnel.: DL/PL

$$\text{Accuracy} = \left(\frac{\overline{C_m} - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

	Response
Trial No. 1:	129.2
Trial No. 2:	131.4
Trial No. 3:	131.4
Average (C_m) :	130.67

Gas type: Protocol
Concentration (C_a): 128.8 ppm
Tank serial #: CC216262
Expiration Date: February 11, 2022

Accuracy %: 1.45

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

	Response
Trial No. 1:	274.7
Trial No. 2:	275.1
Trial No. 3:	274.5
Average (C_m) :	274.77

Gas type: Protocol
Concentration (C_a): 269.7 ppm
Tank serial #: CC16093
Expiration Date: February 11, 2022

Accuracy %: 1.88

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value, ± 5 ppm, or ≤ 0.7% O_2 or CO_2

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Company: Valero Refining-Texas, L.P.
Location: Houston, TX
Source: Boiler No. 1
CEMS type: CO
Audit Date: May 5, 2014
Project No.: VALHR-14-0196

Analyzer Info
Manufacturer: TECO
Model No: 48C
Range (ppm): 0 - 500 ppm
Serial No.: 0432408935
Personnel.: DL/PL

$$\text{Accuracy} = \left(\frac{\overline{C_m} - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

	Response
Trial No. 1:	126.2
Trial No. 2:	126.7
Trial No. 3:	126.7
Average (C_m) :	126.53

Gas type: Protocol
Concentration (C_a): 123.6 ppm
Tank serial #: CC216262
Expiration Date: February 11, 2022

Accuracy %: 2.37

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

	Response
Trial No. 1:	278.8
Trial No. 2:	278.6
Trial No. 3:	278.8
Average (C_m) :	278.73

Gas type: Protocol
Concentration (C_a): 274.4 ppm
Tank serial #: CC16093
Expiration Date: February 11, 2022

Accuracy %: 1.56

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value, ± 5 ppm, or ≤ 0.7% O_2 or CO_2

FORM# GSC-WP004-001
REV 2013-01, EFF 3/1/13

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Company: Valero Refining-Texas, L.P.
Location: Houston, TX
Source: Boiler No. 1
CEMS type: O2
Audit Date: 5-5-14
Time Period: 11:16 – 11:45
Project No.: VALHR-14-0196

Analyzer Info
Manufacturer: Servomex
Model No: 1440
Range (ppm/%): 0-25%
Serial No.: 01440DIV02/3659
Personnel: DL, PL

$$\text{Accuracy} = \left(\frac{\overline{C_m} - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

Response
Trial No. 1: 5.32
Trial No. 2: 5.31
Trial No. 3: 5.30
Average (C_m): 5.31

Gas type: Protocol
Concentration (C_a): 5.02 ppm/%
Cylinder serial #: ALM 8305
Expiration Date: 3-23-2021

Accuracy %: 5.78

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

Response
Trial No. 1: 10.18
Trial No. 2: 10.16
Trial No. 3: 10.16
Average (C_m): 10.17

Gas type: Protocol
Concentration (C_a): 10.07 ppm/%
Cylinder serial #: CC 432504
Expiration Date: 4-22-2021

Accuracy %: 0.960

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value or +/- 5 ppm

FORM# GSC-WP004-001
REV 2013-01, EFF 3/1/13

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Company: Valero Refining-Texas, L.P.
Location: Houston, TX
Source: Boiler No. 1
CEMS type: NOx
Audit Date: 5-5-14
Time Period: 11:95 – 12:13
Project No.: VALHR-14-0196

Analyzer Info
Manufacturer: TECO
Model No: 42C LS
Range (ppm/%): 0-500 ppm
Serial No.: 0432408934
Personnel: DL, PL

$$\text{Accuracy} = \left(\frac{\overline{C_m} - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

Response
Trial No. 1: 129.2
Trial No. 2: 131.4
Trial No. 3: 131.4
Average (C_m): 130.7

Gas type: Protocol
Concentration (C_a): 128.8 ppm/%
Cylinder serial #: CC216262
Expiration Date: 2-11-2022

Accuracy %: 1.45

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

Response
Trial No. 1: 274.7
Trial No. 2: 275.1
Trial No. 3: 274.5
Average (C_m): 274.8

Gas type: Protocol
Concentration (C_a): 269.7 ppm/%
Cylinder serial #: CC 16093
Expiration Date: 2-11-2022

Accuracy %: 1.88

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value or +/- 5 ppm

FORM# GSC-WP004-001
REV 2013-01, EFF 3/1/13

CYLINDER GAS AUDIT (CGA) ASSESSMENT DATA SHEET

Valero

Company: Refining-Texas, L.P **Analyzer Info**
Location: Houston, TX **Manufacturer:** TECO
Source: Boiler No. 1 **Model No:** 48C
CEMS type: CO **Range (ppm/%):** 0-500 ppm
Audit Date: 5-5-14 **Serial No.:** 0432408935
Time Period: 11:45 - 12:15 **Personnel:** DL, PL
Project No.: VALHR-14-0196

$$\text{Accuracy} = \left(\frac{C_m - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

Response

Trial No. 1: 126.2
Trial No. 2: 126.7
Trial No. 3: 126.7
Average (C_m): 126.5

Gas type: Protocol
Concentration (C_a): 123.6 ppm/%
Cylinder serial #: CC216262
Expiration Date: 2-11-2022

Accuracy %: 2.37

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

Response

Trial No. 1: 278.8
Trial No. 2: 278.6
Trial No. 3: 278.8
Average (C_m): 278.7

Gas type: Protocol
Concentration (C_a): ~~CC166993 278.4~~ ppm/% 274.4
Cylinder serial #: CC160993
Expiration Date: 2-11-2022

Accuracy %: 1.58

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value or +/- 5 ppm

REALTIME DATA SAMPLES AND AVERAGES REPORT
Cirrus - Process Analysts, Inc.

Title: BF01 CGA 5-5-14
Sample Interval: 10 seconds
Average Interval: 60 seconds

Date	Time	81BF01-O2 % dry	81BF01-NOx ppm dry	81BF01-CO ppm dry
14-05-05	11:16:10	2.65	6.54	5.65
14-05-05	11:17:10	2.67	6.89	3.15
14-05-05	11:18:10	2.67	6.94	3.90
14-05-05	11:19:10	5.47	38.32	38.54
14-05-05	11:20:10	5.32	0.48	0.75
14-05-05	11:21:10	5.32	0.41	0.00
14-05-05	11:22:10	5.32	0.01	0.00
14-05-05	11:23:10	8.05	0.00	0.02
14-05-05	11:24:10	10.19	0.48	0.00
14-05-05	11:25:10	10.19	0.00	0.01
14-05-05	11:26:10	10.18	0.00	0.01
14-05-05	11:27:10	6.29	0.00	0.01
14-05-05	11:28:10	5.32	0.00	0.01
14-05-05	11:29:10	5.31	0.00	0.01
14-05-05	11:30:10	5.31	-0.01	0.01
14-05-05	11:31:10	5.31	0.00	0.01
14-05-05	11:32:10	10.04	0.00	0.00
14-05-05	11:33:10	10.16	0.00	0.02
14-05-05	11:34:10	10.16	0.00	0.01
14-05-05	11:35:10	9.00	0.00	0.02
14-05-05	11:36:10	5.32	0.00	0.00
14-05-05	11:37:10	5.30	0.00	0.02
14-05-05	11:38:10	5.30	0.00	0.01
14-05-05	11:39:10	8.94	0.00	0.01
14-05-05	11:40:10	10.16	0.00	0.01
14-05-05	11:41:10	10.16	0.00	0.01
14-05-05	11:42:10	10.16	0.00	0.02
14-05-05	11:43:10	2.93	48.78	36.77
14-05-05	11:44:10	0.00	126.88	123.51
14-05-05	11:45:10	0.00	128.63	125.83
14-05-05	11:46:10	0.00	129.22	126.15
14-05-05	11:47:10	0.32	133.33	149.47
14-05-05	11:48:10	0.00	258.99	270.31
14-05-05	11:49:10	0.00	272.77	277.80
14-05-05	11:50:10	0.00	273.38	278.17
14-05-05	11:51:10	0.00	273.88	278.49
14-05-05	11:52:10	0.00	273.87	278.59
14-05-05	11:53:10	0.00	274.29	278.74
14-05-05	11:54:10	0.00	274.71	278.80
14-05-05	11:55:10	0.00	261.50	270.20
14-05-05	11:56:10	0.00	141.18	148.97
14-05-05	11:57:10	0.00	131.42	126.74
14-05-05	11:58:10	0.00	131.42	126.66
14-05-05	11:59:10	0.00	131.41	126.57
14-05-05	12:00:10	0.00	131.42	126.75
14-05-05	12:01:10	0.09	176.81	156.90
14-05-05	12:02:10	0.00	273.73	275.82
14-05-05	12:03:10	0.00	275.15	278.66
14-05-05	12:04:10	0.00	274.89	278.81
14-05-05	12:05:10	0.00	264.76	263.58
14-05-05	12:06:10	0.00	136.61	135.91
14-05-05	12:07:10	0.00	131.91	126.75

REALTIME DATA SAMPLES AND AVERAGES REPORT
Cirrus - Process Analysts, Inc.

Title: BF01 CGA 5-5-14
Sample Interval: 10 seconds
Average Interval: 60 seconds

Date	Time	81BF01-O2 % dry	81BF01-NOx ppm dry	81BF01-CO ppm dry
14-05-05	12:08:10	0.00	131.40	126.74
14-05-05	12:09:10	0.00	131.39	126.75
14-05-05	12:10:10	0.00	146.43	139.82
14-05-05	12:11:10	0.00	268.48	263.89
14-05-05	12:12:10	0.00	274.37	278.55
14-05-05	12:13:10	0.00	274.38	278.81
14-05-05	12:14:10	0.00	274.52	278.79
14-05-05	12:15:10	1.57	234.43	231.22
14-05-05	12:16:10	11.00	23.86	39.89

GOLDEN SPECIALTY

Air Quality Test Report

APPENDIX C – Boiler No. 2 CGA Results

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Company: Valero Refining-Texas, L.P.
Location: Houston, TX
Source: Boiler No. 2
CEMS type: O_2
Audit Date: May 6, 2014
Project No.: VALHR-14-0196

Analyzer Info
Manufacturer: Servomex
Model No: 1440
Range (%): 0 - 25 %
Serial No.: 01440DIV02/3696
Personnel.: DL/PL

$$\text{Accuracy} = \left(\frac{C_m - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

	Response
Trial No. 1:	5.02
Trial No. 2:	5.03
Trial No. 3:	5.03
Average (C_m) :	5.03

Gas type: Protocol
Concentration (C_a): 5.02 %
Tank serial #: AAL8305
Expiration Date: March 23, 2021

Accuracy %: 0.13

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

	Response
Trial No. 1:	9.65
Trial No. 2:	9.66
Trial No. 3:	9.66
Average (C_m) :	9.66

Gas type: Protocol
Concentration (C_a): 10.07 %
Tank serial #: CC432504
Expiration Date: April 22, 2021

Accuracy %: -4.10

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value, ± 5 ppm, or ≤ 0.7% O_2 or CO_2

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Company: Valero Refining-Texas, L.P.
Location: Houston, TX
Source: Boiler No. 2
CEMS type: NO_x
Audit Date: May 6, 2014
Project No.: VALHR-14-0196

Analyzer Info
Manufacturer: TECO
Model No: 42C LS
Range (ppm): 0 - 500 ppm
Serial No.: 0505310679
Personnel.: DL/PL

$$\text{Accuracy} = \left(\frac{C_m - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

	Response
Trial No. 1:	112.5
Trial No. 2:	113.1
Trial No. 3:	113.1
Average (C_m) :	112.90

Gas type: Protocol
Concentration (C_a): 128.8 ppm
Tank serial #: CC216262
Expiration Date: February 11, 2022

Accuracy %: -12.34

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

	Response
Trial No. 1:	259.7
Trial No. 2:	261.7
Trial No. 3:	263.4
Average (C_m) :	261.60

Gas type: Protocol
Concentration (C_a): 269.7 ppm
Tank serial #: CC16093
Expiration Date: February 11, 2022

Accuracy %: -3.00

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value, ± 5 ppm, or ≤ 0.7% O_2 or CO_2

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Company: Valero Refining-Texas, L.P.
Location: Houston, TX
Source: Boiler No. 2
CEMS type: CO
Audit Date: May 6, 2014
Project No.: VALHR-14-0196

Analyzer Info
Manufacturer: TECO
Model No: 48C
Range (ppm): 0 - 500 ppm
Serial No.: 0505310682
Personnel.: DL/PL

$$\text{Accuracy} = \left(\frac{C_m - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

	Response
Trial No. 1:	119.9
Trial No. 2:	120.2
Trial No. 3:	120.2
Average (C_m) :	120.10

Gas type: Protocol
Concentration (C_a): 123.6 ppm
Tank serial #: CC216262
Expiration Date: February 11, 2022

Accuracy %: -2.83

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

	Response
Trial No. 1:	273.8
Trial No. 2:	274.1
Trial No. 3:	273.6
Average (C_m) :	273.83

Gas type: Protocol
Concentration (C_a): 274.4 ppm
Tank serial #: CC16093
Expiration Date: February 11, 2022

Accuracy %: -0.21

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value, ± 5 ppm, or ≤ 0.7% O_2 or CO_2

FORM# GSC-WP004-001
REV 2013-01, EFF 3/1/13

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Company: Valero Refining-Texas, L.P
Location: Houston, TX
Source: Boiler No. 2
CEMS type: O2
Audit Date: 5-6-14
Time Period: 8:59 - 9:26
Project No.: VALHR-14-0196

Analyzer Info
Manufacturer: Servomex
Model No: 1440
Range (ppm/%): 0-25%
Serial No.: 01440DIV02/3696
Personnel: DL, PL

$$\text{Accuracy} = \left(\frac{C_m - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

	Response
Trial No. 1:	5.02
Trial No. 2:	5.03
Trial No. 3:	5.03
Average (C_m) :	5.03

Gas type: Protocol
Concentration (C_a): 5.02 ppm/%
Cylinder serial #: ALM305
Expiration Date: 3-23-2021

Accuracy %: 0.133

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

	Response
Trial No. 1:	9.65
Trial No. 2:	9.66
Trial No. 3:	9.66
Average (C_m) :	9.66

Gas type: Protocol
Concentration (C_a): 10.87 ppm/%
Cylinder serial #: CC432509
Expiration Date: 4-22-2021

Accuracy %: -4.11

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value or +/- 5 ppm

FORM# GSC-WP004-001
REV 2013-01, EFF 3/1/13

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Company: Valero Refining-Texas, L.P
Location: Houston, TX
Source: Boiler No. 2
CEMS type: NOx
Audit Date: 5-6-14
Time Period: 9:27 - 10:07
Project No.: VALHR-14-0196

Analyzer Info
Manufacturer: TECO
Model No: 42C LS
Range (ppm/%): 0-500 ppm
Serial No.: 0505310679
Personnel: DL, PL

$$\text{Accuracy} = \left(\frac{\overline{C_m} - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

Response
Trial No. 1: 112.5
Trial No. 2: 113.1
Trial No. 3: 113.1
Average (C_m): 112.9

Gas type: Protocol
Concentration (C_a): 126.9 ppm/%
Cylinder serial #: CC216262
Expiration Date: 2-11-2022

Accuracy %: -12.3

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

Response
Trial No. 1: 259.7
Trial No. 2: 261.7
Trial No. 3: 263.4
Average (C_m): 261.6

Gas type: Protocol
Concentration (C_a): 269.7 ppm/%
Cylinder serial #: CC160493
Expiration Date: 2-11-2022

Accuracy %: -3.00

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value or +/- 5 ppm

FORM# GSC-WP004-001
REV 2013-01, EFF 3/1/13

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Company: Valero Refining-Texas, L.P
Location: Houston, TX
Source: Boiler No. 2
CEMS type: CO
Audit Date: 5-6-14
Time Period: 9:27 - 10:07
Project No.: VALHR-14-0196

Analyzer Info
Manufacturer: TECO
Model No: 48C
Range (ppm/%): 0-500 ppm
Serial No.: 0505310682
Personnel: DL, PL

$$\text{Accuracy} = \left(\frac{\overline{C_m} - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

Response
Trial No. 1: 119.9
Trial No. 2: 120.2
Trial No. 3: 120.2
Average (C_m): 120.1

Gas type: Protocol
Concentration (C_a): 123.6 ppm/%
Cylinder serial #: CC216262
Expiration Date: 2-11-2022

Accuracy %: -2.83

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

Response
Trial No. 1: 273.8
Trial No. 2: 274.1
Trial No. 3: 273.6
Average (C_m): 273.8

Gas type: Protocol
Concentration (C_a): 274.4 ppm/%
Cylinder serial #: ~~CC2162~~ CC160493
Expiration Date: 2-11-22

R 5-6-14

Accuracy %: -0.207

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value or +/- 5 ppm

REALTIME DATA SAMPLES AND AVERAGES REPORT
Cirrus - Process Analysts, Inc.

Title: BF02 CGA 5-6-14
Sample Interval: 10 seconds
Average Interval: 60 seconds

Date	Time	50BF02-O2 % dry	50BF02-NOx ppm dry	50BF02-CO ppm dry
14-05-06	7:55:30	4.45	6.23	5.56
14-05-06	7:56:30	4.46	6.74	7.03
14-05-06	7:57:30	4.37	6.73	4.21
14-05-06	7:58:30	8.79	17.36	28.13
14-05-06	7:59:30	5.13	1.72	2.42
14-05-06	8:00:30	5.02	0.43	0.50
14-05-06	8:01:30	5.02	0.01	0.52
14-05-06	8:02:30	6.33	0.02	0.50
14-05-06	8:03:30	9.63	0.02	0.52
14-05-06	8:04:30	9.64	0.01	0.51
14-05-06	8:05:30	9.65	0.01	0.54
14-05-06	8:06:30	9.66	0.03	0.49
14-05-06	8:07:30	7.12	0.01	0.51
14-05-06	8:08:30	5.04	0.02	0.49
14-05-06	8:09:30	5.03	0.01	0.51
14-05-06	8:10:30	5.03	0.01	0.50
14-05-06	8:11:30	5.03	0.01	0.50
14-05-06	8:12:30	8.99	0.01	0.51
14-05-06	8:13:30	9.65	0.02	0.53
14-05-06	8:14:30	9.65	0.01	0.52
14-05-06	8:15:30	9.66	0.02	0.50
14-05-06	8:16:30	9.66	0.01	0.50
14-05-06	8:17:30	5.28	0.01	0.50
14-05-06	8:18:30	5.04	0.02	0.51
14-05-06	8:19:30	5.03	0.03	0.52
14-05-06	8:20:30	7.88	0.01	0.52
14-05-06	8:21:30	9.65	0.01	0.51
14-05-06	8:22:30	9.65	0.02	0.52
14-05-06	8:23:30	9.65	0.01	0.52
14-05-06	8:24:30	9.66	0.02	0.50
14-05-06	8:25:30	4.74	0.55	13.71
14-05-06	8:26:30	0.02	87.07	107.70
14-05-06	8:27:30	0.00	104.79	119.55
14-05-06	8:28:30	0.00	105.70	119.99
14-05-06	8:29:30	0.00	106.06	119.96
14-05-06	8:30:30	0.00	106.47	119.96
14-05-06	8:31:30	0.00	106.97	119.96
14-05-06	8:32:30	0.08	107.06	122.98
14-05-06	8:33:30	0.00	248.39	326.05
14-05-06	8:34:30	0.00	412.75	413.25
14-05-06	8:35:30	0.00	420.04	410.54
14-05-06	8:36:30	0.00	256.90	205.98
14-05-06	8:37:30	0.00	114.95	120.94
14-05-06	8:38:30	0.00	113.30	120.14
14-05-06	8:39:30	0.00	112.98	119.98
14-05-06	8:40:30	0.00	112.61	119.98
14-05-06	8:41:30	0.00	112.53	119.99
14-05-06	8:42:30	0.28	126.21	185.67
14-05-06	8:43:30	0.00	251.63	273.15
14-05-06	8:44:30	0.00	259.70	273.83
14-05-06	8:45:30	0.00	261.23	274.20
14-05-06	8:46:30	0.00	256.67	249.92

REALTIME DATA SAMPLES AND AVERAGES REPORT
Cirrus - Process Analysts, Inc.

Title: BF02 CGA 5-6-14
Sample Interval: 10 seconds
Average Interval: 60 seconds

Date	Time	50BF02-O2 % dry	50BF02-NOx ppm dry	50BF02-CO ppm dry
14-05-06	8:47:30	0.00	129.73	125.89
14-05-06	8:48:30	0.00	113.36	120.49
14-05-06	8:49:30	0.00	113.17	120.49
14-05-06	8:50:30	0.00	113.14	120.24
14-05-06	8:51:30	0.00	114.86	144.51
14-05-06	8:52:30	0.00	235.38	262.54
14-05-06	8:53:30	0.00	260.48	273.67
14-05-06	8:54:30	0.00	260.97	273.82
14-05-06	8:55:30	0.00	261.66	273.73
14-05-06	8:56:30	0.00	261.74	274.09
14-05-06	8:57:30	0.00	221.87	213.21
14-05-06	8:58:30	0.00	115.80	121.53
14-05-06	8:59:30	0.00	113.91	120.50
14-05-06	9:00:30	0.00	113.39	120.48
14-05-06	9:01:30	0.00	113.16	120.22
14-05-06	9:02:30	0.00	146.00	182.01
14-05-06	9:03:30	0.00	259.94	273.05
14-05-06	9:04:30	0.00	261.99	274.00
14-05-06	9:05:30	0.00	263.25	273.65
14-05-06	9:06:30	0.00	263.40	273.56
14-05-06	9:07:30	1.32	257.94	258.44

GOLDEN SPECIALTY

Air Quality Test Report

APPENDIX D – Boiler No. 3 CGA Results

CYLINDER GAS AUDIT (CGA) ASSESSMENT DATA SHEET

Company: Valero Refining-Texas, L.P.
Location: Houston, TX
Source: Boiler No. 3
CEMS type: O_2
Audit Date: May 6, 2014
Project No.: VALHR-14-0196

Analyzer Info
Manufacturer: Servomex
Model No: 1440
Range (%): 0 - 25 %
Serial No.: 01440DIV02/3693
Personnel,: DL/PL

$$\text{Accuracy} = \left(\frac{C_m - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

	Response
Trial No. 1:	5.03
Trial No. 2:	5.04
Trial No. 3:	5.04
Average (C_m) :	5.04

Accuracy %: 0.33

Gas type: Protocol
Concentration (C_a): 5.02 %
Tank serial #: AAL8305
Expiration Date: March 23, 2021

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

	Response
Trial No. 1:	9.67
Trial No. 2:	9.67
Trial No. 3:	9.67
Average (C_m) :	9.67

Accuracy %: -3.97

Gas type: Protocol
Concentration (C_a): 10.07 %
Tank serial #: CC432504
Expiration Date: April 22, 2021

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value, ± 5 ppm, or ≤ 0.7% O_2 or CO_2

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Company: Valero Refining-Texas, L.P.
Location: Houston, TX
Source: Boiler No. 3
CEMS type: NO_x
Audit Date: May 6, 2014
Project No.: VALHR-14-0196

Analyzer Info
Manufacturer: TECO
Model No: 42C LS
Range (ppm): 0 - 500 ppm
Serial No.: 0530613423
Personnel.: DL/PL

$$\text{Accuracy} = \left(\frac{\overline{C_m} - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

	Response
Trial No. 1:	127.4
Trial No. 2:	127.9
Trial No. 3:	127.9
Average (C_m) :	127.73

Gas type: Protocol
Concentration (C_a): 128.8 ppm
Tank serial #: CC216262
Expiration Date: February 11, 2022

Accuracy %: -0.83

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

	Response
Trial No. 1:	269.9
Trial No. 2:	269.2
Trial No. 3:	267.5
Average (C_m) :	268.87

Gas type: Protocol
Concentration (C_a): 269.7 ppm
Tank serial #: CC16093
Expiration Date: February 11, 2022

Accuracy %: -0.31

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value, ± 5 ppm, or ≤ 0.7% O_2 or CO_2

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Company: Valero Refining-Texas, L.P.
Location: Houston, TX
Source: Boiler No. 3
CEMS type: CO
Audit Date: May 6, 2014
Project No.: VALHR-14-0196

Analyzer Info
Manufacturer: TECO
Model No: 48C
Range (ppm): 0 - 500 ppm
Serial No.: 0530613424
Personnel.: DL/PL

$$\text{Accuracy} = \left(\frac{\overline{C_m} - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

	Response
Trial No. 1:	117.2
Trial No. 2:	117.2
Trial No. 3:	117.3
Average (C_m) :	117.23

Gas type: Protocol
Concentration (C_a): 123.6 ppm
Tank serial #: CC216262
Expiration Date: February 11, 2022

Accuracy %: -5.15

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

	Response
Trial No. 1:	267.3
Trial No. 2:	267.0
Trial No. 3:	268.3
Average (C_m) :	267.53

Gas type: Protocol
Concentration (C_a): 274.4 ppm
Tank serial #: CC16093
Expiration Date: February 11, 2022

Accuracy %: -2.50

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value, ± 5 ppm, or ≤ 0.7% O_2 or CO_2

FORM# GSC-WP004-001
REV 2013-01, EFF 3/1/13

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Valero

Company: Refining-Texas, L.P. **Analyzer Info**
Location: Houston, TX **Manufacturer:** Servomex
Source: Boiler No. 3 **Model No:** 1440
CEMS type: O2 **Range (ppm/%):** 0-25%
Audit Date: 5-6-14 **Serial No.:** 01440DIV02/3693
Time Period: 10:15 – 10:41 **Personnel:** PL, PL
Project No.: VALHR-14-0196

$$\text{Accuracy} = \left(\frac{C_m - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

Response
Trial No. 1: 5.03
Trial No. 2: 5.04
Trial No. 3: 5.04
Average (C_m): 5.04

Gas type: Protocol
Concentration (C_a): 5.02 ppm/%
Cylinder serial #: ALM8305
Expiration Date: 3-23-2021

Accuracy %: 0.332

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

Response
Trial No. 1: 9.67
Trial No. 2: 9.67
Trial No. 3: 9.67
Average (C_m): 9.67

Gas type: Protocol
Concentration (C_a): 10.07 ppm/%
Cylinder serial #: CC432504
Expiration Date: 4-22-~~2015~~ 2021 pL 5-6-14

Accuracy %: -3.97

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value or +/- 5 ppm

FORM# GSC-WP004-001
REV 2013-01, EFF 3/1/13

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Valero

Company: Refining-Texas, L.P. **Analyzer Info**
Location: Houston, TX **Manufacturer:** TECO
Source: Boiler No. 3 **Model No:** 42C LS
CEMS type: NOx **Range (ppm/%):** 0-500 ppm
Audit Date: 5-6-14 **Serial No.:** 0530613423
Time Period: 9:42 – 10:04 pL 5-6-14 **Personnel:** PL, PL
Project No.: VALHR-14-0196 10:42 – 11:04

$$\text{Accuracy} = \left(\frac{C_m - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

Response
Trial No. 1: 127.4
Trial No. 2: 127.9
Trial No. 3: 127.9
Average (C_m): 127.7

Gas type: Protocol
Concentration (C_a): 128.8 ppm/%
Cylinder serial #: CC216262
Expiration Date: 2-11-2022

Accuracy %: -0.828

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

Response
Trial No. 1: 269.9
Trial No. 2: 269.2
Trial No. 3: 267.5
Average (C_m): 268.9

Gas type: Protocol
Concentration (C_a): 269.7 ppm/%
Cylinder serial #: CC16093
Expiration Date: 2-11-2022

Accuracy %: -0.309

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value or +/- 5 ppm

FORM# GSC-WP004-001
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CYLINDER GAS AUDIT (CGA) ASSESSMENT DATA SHEET

Valero

Company: Refining-Texas, L.P. **Analyzer Info**
Location: Houston, TX **Manufacturer:** TECO
Source: Boiler No. 3 **Model No:** 48C
CEMS type: CO **Range (ppm/%):** 0-500 ppm
Audit Date: 5-6-14 **Serial No.:** 0530613424
Time Period: ~~9:42 - 10:09~~ PL 5-6-14 **Personnel:** DL, PL
Project No.: VALHR-14-0196 10:42 - 11:04

$$\text{Accuracy} = \left(\frac{C_m - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

Response

Trial No. 1: 117.2
Trial No. 2: 117.2
Trial No. 3: 117.3
Average (C_m): 117.2

Gas type: Protocol
Concentration (C_a): 123.6 ppm/%
Cylinder serial #: CC216262
Expiration Date: 2-11-2022

Accuracy %: -5.15

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

Response

Trial No. 1: 267.3
Trial No. 2: 267.0
Trial No. 3: 268.3
Average (C_m): 267.5

Gas type: Protocol
Concentration (C_a): 274.4 ppm/%
Cylinder serial #: CC160973
Expiration Date: 2-11-2022

Accuracy %: -2.51

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value or +/- 5 ppm

REALTIME DATA SAMPLES AND AVERAGES REPORT
Cirrus - Process Analysis, Inc.

Title: BF03 CGA 5-6-14
Sample Interval: 10 seconds
Average Interval: 60 seconds

Date	Time	50BF03-O2 % dry	50BF03-NOx ppm dry	50BF03-CO ppm dry
14-05-06	9:10:30	4.74	6.51	3.00
14-05-06	9:11:30	4.59	6.48	3.50
14-05-06	9:12:30	4.66	6.51	3.58
14-05-06	9:13:30	5.12	27.82	6.40
14-05-06	9:14:30	5.04	24.03	20.78
14-05-06	9:15:30	5.03	0.17	0.58
14-05-06	9:16:30	5.03	0.00	0.51
14-05-06	9:17:30	5.03	0.01	0.48
14-05-06	9:18:30	5.03	0.01	0.48
14-05-06	9:19:30	6.80	0.01	0.48
14-05-06	9:20:30	9.66	0.01	0.51
14-05-06	9:21:30	9.66	0.00	0.49
14-05-06	9:22:30	9.67	0.01	0.50
14-05-06	9:23:30	5.91	0.01	0.49
14-05-06	9:24:30	5.04	0.01	0.51
14-05-06	9:25:30	5.04	0.01	0.48
14-05-06	9:26:30	9.42	0.01	0.50
14-05-06	9:27:30	9.66	0.00	0.49
14-05-06	9:28:30	9.67	0.02	0.49
14-05-06	9:29:30	6.73	0.02	0.49
14-05-06	9:30:30	5.04	0.02	0.50
14-05-06	9:31:30	5.04	0.01	0.49
14-05-06	9:32:30	5.04	0.01	0.50
14-05-06	9:33:30	9.40	0.00	0.52
14-05-06	9:34:30	9.67	0.01	0.50
14-05-06	9:35:30	9.67	0.00	0.51
14-05-06	9:36:30	9.67	0.01	0.49
14-05-06	9:37:30	5.89	0.01	0.49
14-05-06	9:38:30	5.04	0.01	0.48
14-05-06	9:39:30	5.03	0.01	0.49
14-05-06	9:40:30	5.04	0.01	0.51
14-05-06	9:41:30	5.03	0.00	0.50
14-05-06	9:42:30	1.95	54.43	23.31
14-05-06	9:43:30	0.01	127.73	111.43
14-05-06	9:44:30	0.00	127.82	116.79
14-05-06	9:45:30	0.00	127.64	116.97
14-05-06	9:46:30	0.12	127.39	117.22
14-05-06	9:47:30	0.04	237.77	192.22
14-05-06	9:48:30	0.00	269.28	267.51
14-05-06	9:49:30	0.00	269.85	267.33
14-05-06	9:50:30	0.00	270.02	268.24
14-05-06	9:51:30	0.00	215.70	234.56
14-05-06	9:52:30	0.00	128.65	123.68
14-05-06	9:53:30	0.00	127.97	117.46
14-05-06	9:54:30	0.00	127.90	117.24
14-05-06	9:55:30	0.00	146.80	120.46
14-05-06	9:56:30	0.00	262.69	240.94
14-05-06	9:57:30	0.00	269.33	268.01
14-05-06	9:58:30	0.00	269.18	267.03
14-05-06	9:59:30	0.00	142.42	157.66
14-05-06	10:00:30	0.00	128.13	117.62
14-05-06	10:01:30	0.00	127.91	117.40

REALTIME DATA SAMPLES AND AVERAGES REPORT
Cirrus - Process Analysts, Inc.

Title: BF03 CGA 5-6-14
Sample Interval: 10 seconds
Average Interval: 60 seconds

Date	Time	50BF03-O2 % dry	50BF03-NOx ppm dry	50BF03-CO ppm dry
14-05-06	10:02:30	0.00	190.56	144.38
14-05-06	10:03:30	0.00	268.92	265.37
14-05-06	10:04:30	0.00	269.51	268.34
14-05-06	10:05:30	3.19	151.72	196.42
14-05-06	10:06:30	4.87	7.23	7.65

GOLDEN SPECIALTY

Air Quality Test Report

APPENDIX E – FCCU
Scrubber CGA Results

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Company: Valero Refining-Texas, L.P.
Location: Houston, TX
Source: FCCU Scrubber
CEMS type: O_2
Audit Date: May 8, 2014
Project No.: VALHR-14-0196

Analyzer Info
Manufacturer: Servomex
Model No: 1440
Span (%): 0 - 10 %
Serial No.: 01440DIV02/3739
Personnel.: DL/PL

$$\text{Accuracy} = \left(\frac{C_m - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

	Response
Trial No. 1:	4.93
Trial No. 2:	4.95
Trial No. 3:	4.94
Average (C_m) :	4.94

Gas type: Protocol
Concentration (C_a): 5.02 %
Tank serial #: AAL8305
Expiration Date: March 23, 2021

Accuracy %: -1.59

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

	Response
Trial No. 1:	9.54
Trial No. 2:	9.55
Trial No. 3:	9.53
Average (C_m) :	9.54

Gas type: Protocol
Concentration (C_a): 10.07 %
Tank serial #: CC432504
Expiration Date: April 22, 2021

Accuracy %: -5.26

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value, ± 5 ppm, or ≤ 0.7% O_2 or CO_2

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Company: Valero Refining-Texas, L.P.
Location: Houston, TX
Source: FCCU Scrubber
CEMS type: SO_2
Audit Date: May 8, 2014
Project No.: VALHR-14-0196

Analyzer Info
Manufacturer: CAI
Model No: ZRE
Range (ppm): 0 - 250 ppm
Serial No.: A11 4416T
Personnel.: DL/PL

$$\text{Accuracy} = \left(\frac{C_m - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

	Response
Trial No. 1:	60.7
Trial No. 2:	65.0
Trial No. 3:	66.2
Average (C_m) :	63.97

Gas type: Protocol
Concentration (C_a): 63.46 ppm
Tank serial #: CC208494
Expiration Date: February 14, 2022

Accuracy %: 0.80

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

	Response
Trial No. 1:	137.9
Trial No. 2:	141.0
Trial No. 3:	139.6
Average (C_m) :	139.50

Gas type: Protocol
Concentration (C_a): 138.6 ppm
Tank serial #: CC320495
Expiration Date: February 11, 2022

Accuracy %: 0.65

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value, ± 5 ppm, or ≤ 0.7% O_2 or CO_2

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Company: Valero Refining-Texas, L.P.
Location: Houston, TX
Source: FCCU Scrubber
CEMS type: NO_x
Audit Date: May 8, 2014
Project No.: VALHR-14-0196

Analyzer Info
Manufacturer: TECO
Model No: 42C LS
Range (ppm): 0 - 500 ppm
Serial No.: 0505310681
Personnel.: DL/PL

$$\text{Accuracy} = \left(\frac{C_m - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

	Response
Trial No. 1:	130.0
Trial No. 2:	130.4
Trial No. 3:	131.0
Average (C_m) :	130.47

Gas type: Protocol
Concentration (C_a): 129.6 ppm
Tank serial #: CC341989
Expiration Date: March 17, 2022

Accuracy %: 0.67

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

	Response
Trial No. 1:	280.4
Trial No. 2:	282.0
Trial No. 3:	281.1
Average (C_m) :	281.17

Gas type: Protocol
Concentration (C_a): 279.2 ppm
Tank serial #: CC365204
Expiration Date: March 14, 2022

Accuracy %: 0.70

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value, ± 5 ppm, or ≤ 0.7% O_2 or CO_2

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Company: Valero Refining-Texas, L.P.
Location: Houston, TX
Source: FCCU Scrubber
CEMS type: CO
Audit Date: May 8, 2014
Project No.: VALHR-14-0196

Analyzer Info
Manufacturer: TECO
Model No: 48C
Range (ppm): 0 - 1,000 ppm
Serial No.: 0505310683
Personnel.: DL/PL

$$\text{Accuracy} = \left(\frac{C_m - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

	Response
Trial No. 1:	266.0
Trial No. 2:	266.3
Trial No. 3:	266.2
Average (C_m) :	266.17

Gas type: Protocol
Concentration (C_a): 276.0 ppm
Tank serial #: CC341989
Expiration Date: March 17, 2022

Accuracy %: -3.56

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

	Response
Trial No. 1:	537.0
Trial No. 2:	537.1
Trial No. 3:	535.8
Average (C_m) :	536.63

Gas type: Protocol
Concentration (C_a): 559.5 ppm
Tank serial #: CC365204
Expiration Date: March 14, 2022

Accuracy %: -4.09

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value, ± 5 ppm, or ≤ 0.7% O_2 or CO_2

FORM# GSC-WP004-001
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CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Valero

Company: Refining-Texas, L.P. **Analyzer Info**
Location: Houston, TX — **Manufacturer:** Servomex
Source: FCCU Scrubber — **Model No:** 1440
CEMS type: O2 — **Range (ppm/%):** 0-10%
Audit Date: 5-8-14 — **Serial No.:** 01440DIV02/3739
Time Period: 9:55 - 10:21 — **Personnel:** DL PL
Project No.: VALHR-14-0196

$$\text{Accuracy} = \left(\frac{\overline{C_m} - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

Response
Trial No. 1: 4.93
Trial No. 2: 4.95
Trial No. 3: 4.94
Average (C_m): 4.94

Gas type: Protocol
Concentration (C_a): 5.02 ppm/%
Cylinder serial #: AAL8305
Expiration Date: 3-23-2021

L 4.27
H 5.77

Accuracy %: -8 -1.59 PL 5-9-14

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

Response
Trial No. 1: 9.54
Trial No. 2: 9.55
Trial No. 3: 9.53
Average (C_m): 9.54

Gas type: Protocol
Concentration (C_a): 10.07 ppm/%
Cylinder serial #: CC432504
Expiration Date: 4-22-2022 21

L 8.56
H 11.58

Accuracy %: -5.26 MS 12/14

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value or +/- 5 ppm

FORM# GSC-WP004-001
REV 2013-01, EFF 3/1/13

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Valero

Company: Refining-Texas, L.P. **Analyzer Info**
Location: Houston, TX — **Manufacturer:** CAI
Source: FCCU Scrubber — **Model No:** ZRE
CEMS type: SO2 — **Range (ppm/%):** 0-250 ppm
Audit Date: 5-8-14 — **Serial No.:** A11 4416T
Time Period: 10:48 - 11:07 — **Personnel:** DL, PL
Project No.: VALHR-14-0196

$$\text{Accuracy} = \left(\frac{\overline{C_m} - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

Response
Trial No. 1: 60.7
Trial No. 2: 65.0
Trial No. 3: 66.2
Average (C_m): 64.0

Gas type: Protocol
Concentration (C_a): 63.46 ppm/%
Cylinder serial #: CC208494
Expiration Date: 2-14-2022

L 53.9
H 73.0

Accuracy %: 0.798

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

Response
Trial No. 1: 137.9
Trial No. 2: 141.0
Trial No. 3: 139.6
Average (C_m): 139.5

Gas type: Protocol
Concentration (C_a): 138.6 ppm/%
Cylinder serial #: CC320495
Expiration Date: 2-11-2022

L 47.8
H 159.4

Accuracy %: 0.649

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value or +/- 5 ppm

FORM# GSC-WP004-001
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CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Valero

Company: Refining-Texas, L.P **Analyzer Info**
Location: Houston, TX **Manufacturer:** TECO
Source: FCCU Scrubber **Model No:** 42C LS
CEMS type: NOx **Range (ppm/%):** 0-500 ppm
Audit Date: 5-8-14 **Serial No.:** 0505310681
Time Period: 10:22 - 10:45 **Personnel:** PL, PL
Project No.: VALHR-14-0196

$$\text{Accuracy} = \left(\frac{C_m - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

Response
Trial No. 1: 130.0
Trial No. 2: 130.4
Trial No. 3: 131.0
Average (C_m): 130.5

Gas type: Protocol
Concentration (C_a): 129.6 ppm/%
Cylinder serial #: CC341989
Expiration Date: 3-17-2022

L 110.2
H 149.0

Accuracy %: 0.669

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

Response
Trial No. 1: 280.4
Trial No. 2: 282.0
Trial No. 3: 281.1
Average (C_m): 281.2

Gas type: Protocol
Concentration (C_a): 279.2 ppm/%
Cylinder serial #: CC36S204
Expiration Date: 3-14-2022

L 237.3
H 321.1

Accuracy %: 0.704

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value or +/- 5 ppm

FORM# GSC-WP004-001
REV 2013-01, EFF 3/1/13

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Valero

Company: Refining-Texas, L.P **Analyzer Info**
Location: Houston, TX **Manufacturer:** TECO
Source: FCCU Scrubber **Model No:** 48C
CEMS type: CO **Range (ppm/%):** 0-1,000 ppm
Audit Date: 5-8-14 **Serial No.:** 0505310683
Time Period: 10:22 - 10:45 **Personnel:** PL, PL
Project No.: VALHR-14-0196

$$\text{Accuracy} = \left(\frac{C_m - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

5-9-14 PL
Response
Trial No. 1: ~~265~~ 266.0
Trial No. 2: 266.3
Trial No. 3: 266.2
Average (C_m): 266.2

Gas type: Protocol
Concentration (C_a): 276.6 ppm/%
Cylinder serial #: CC341989
Expiration Date: 3-17-2022

L 235.1
H 318.1

Accuracy %: -3.77

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

Response
Trial No. 1: ~~530~~ 537.0 PL
Trial No. 2: 537.1
Trial No. 3: 535.8
Average (C_m): 536.6

Gas type: Protocol
Concentration (C_a): ~~559.5~~ 559.5 5-8-14 ppm/%
Cylinder serial #: CC365204
Expiration Date: 3-14-2022

L 475.6
H 643.4

Accuracy %: -4.09

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value or +/- 5 ppm

REALTIME DATA SAMPLES AND AVERAGES REPORT
Cirrus - Process Analysts, Inc.

Title: FCCU CGA 5-8-2014
Sample Interval: 10 seconds
Average Interval: 60 seconds

Date	Time	FCCU-O2 % dry	FCCU-SO2 ppm dry	FCCU-NOx ppm dry	FCCU-CO ppm dry
14-05-08	9:51:10	4.95	0.07	-0.06	4.40
14-05-08	9:52:10	4.95	0.00	-0.06	4.40
14-05-08	9:53:10	4.95	0.00	-0.07	4.42
14-05-08	9:54:10	4.95	0.05	-0.06	4.45
14-05-08	9:55:10	4.95	0.04	-0.07	4.41
14-05-08	9:56:10	4.95	0.00	-0.07	4.42
14-05-08	9:57:10	4.95	0.01	-0.06	4.40
14-05-08	9:58:10	4.95	0.04	-0.06	4.46
14-05-08	9:59:10	4.95	0.13	-0.05	4.45
14-05-08	10:00:10	4.94	0.00	-0.08	4.40
14-05-08	10:01:10	4.94	0.00	-0.06	4.42
14-05-08	10:02:10	4.93	0.00	-0.06	4.47
14-05-08	10:03:10	4.93	0.00	-0.05	4.48
14-05-08	10:04:10	4.93	0.00	-0.06	4.40
14-05-08	10:05:10	6.82	0.00	-0.07	4.40
14-05-08	10:06:10	9.53	0.00	-0.07	4.41
14-05-08	10:07:10	9.54	0.04	-0.05	4.43
14-05-08	10:08:10	6.71	0.02	-0.08	4.45
14-05-08	10:09:10	4.96	0.00	-0.07	4.44
14-05-08	10:10:10	4.95	0.00	-0.06	4.43
14-05-08	10:11:10	7.23	0.00	-0.07	4.40
14-05-08	10:12:10	9.53	0.00	-0.05	4.46
14-05-08	10:13:10	9.55	0.00	-0.05	4.43
14-05-08	10:14:10	7.15	0.04	-0.04	4.43
14-05-08	10:15:10	4.96	0.03	-0.06	4.43
14-05-08	10:16:10	4.94	0.09	-0.08	4.40
14-05-08	10:17:10	7.31	0.08	-0.08	4.39
14-05-08	10:18:10	9.52	0.01	-0.06	4.45
14-05-08	10:19:10	9.53	0.30	-0.07	4.40
14-05-08	10:20:10	9.53	0.03	-0.06	4.45
14-05-08	10:21:10	3.27	5.51	78.86	59.13
14-05-08	10:22:10	-0.08	0.00	276.61	481.81
14-05-08	10:23:10	-0.10	0.00	280.13	532.98
14-05-08	10:24:10	-0.11	0.13	280.36	535.33
14-05-08	10:25:10	-0.12	0.03	280.45	536.64
14-05-08	10:26:10	-0.01	0.00	182.77	433.40
14-05-08	10:27:10	-0.12	0.00	130.61	269.54
14-05-08	10:28:10	-0.13	0.15	130.01	265.92
14-05-08	10:29:10	-0.12	0.00	129.85	265.06
14-05-08	10:30:10	-0.12	0.08	175.89	298.50
14-05-08	10:31:10	-0.12	0.00	279.63	509.40
14-05-08	10:32:10	-0.12	0.00	280.89	537.34
14-05-08	10:33:10	-0.12	0.00	281.83	538.16
14-05-08	10:34:10	-0.12	0.00	281.91	537.13
14-05-08	10:35:10	-0.13	0.00	176.61	424.64
14-05-08	10:36:10	-0.13	0.03	131.02	270.25
14-05-08	10:37:10	-0.13	0.28	130.52	266.20
14-05-08	10:38:10	-0.13	0.01	130.36	266.29
14-05-08	10:39:10	-0.12	0.14	236.77	382.99
14-05-08	10:40:10	-0.12	0.00	281.07	535.79
14-05-08	10:41:10	-0.13	0.09	281.49	537.32
14-05-08	10:42:10	-0.13	0.00	265.42	518.26

REALTIME DATA SAMPLES AND AVERAGES REPORT
Cirrus - Process Analysts, Inc.

Title: FCCU CGA 5-8-2014
Sample Interval: 10 seconds
Average Interval: 60 seconds

Date	Time	FCCU-O2 % dry	FCCU-SO2 ppm dry	FCCU-NOx ppm dry	FCCU-CO ppm dry
14-05-08	10:43:10	-0.13	0.00	132.74	308.94
14-05-08	10:44:10	-0.13	0.00	131.07	266.91
14-05-08	10:45:10	-0.12	0.00	130.99	266.20
14-05-08	10:46:10	2.18	0.00	105.92	216.49
14-05-08	10:47:10	1.69	9.79	22.93	65.33
14-05-08	10:48:10	-0.11	57.38	13.09	46.66
14-05-08	10:49:10	-0.13	59.45	1.56	5.81
14-05-08	10:50:10	-0.13	60.71	1.14	5.38
14-05-08	10:51:10	-0.13	95.56	18.02	12.10
14-05-08	10:52:10	-0.13	136.28	5.26	10.27
14-05-08	10:53:10	-0.13	137.89	2.91	4.61
14-05-08	10:54:10	-0.13	131.07	2.41	4.42
14-05-08	10:55:10	-0.13	66.45	1.32	4.42
14-05-08	10:56:10	-0.13	63.98	0.92	4.45
14-05-08	10:57:10	-0.13	64.51	0.42	4.44
14-05-08	10:58:10	-0.13	99.03	1.26	4.44
14-05-08	10:59:10	-0.13	139.67	2.08	4.43
14-05-08	11:00:10	-0.13	140.59	1.91	4.48
14-05-08	11:01:10	-0.13	140.92	1.91	4.41
14-05-08	11:02:10	-0.13	83.93	1.49	4.45
14-05-08	11:03:10	-0.13	66.13	0.42	4.41
14-05-08	11:04:10	-0.13	66.20	0.42	4.39
14-05-08	11:05:10	-0.13	96.05	0.75	4.46
14-05-08	11:06:10	-0.13	139.63	1.91	4.43
14-05-08	11:07:10	-0.12	139.95	1.91	4.42
14-05-08	11:08:10	0.80	121.96	2.91	4.79
14-05-08	11:09:10	3.10	8.47	14.99	21.97

GOLDEN SPECIALTY

Air Quality Test Report

APPENDIX F – Fuel Gas Drum CGA Results

CYLINDER GAS AUDIT (CGA) ASSESSMENT DATA SHEET

Company:	Valero Refining-Texas, L.P.	**Analyzer Info**	
Location:	Houston, TX	**Manufacturer:**	Siemens
Source:	Fuel Gas Drum	**Model No:**	Maxum II
CEMS type:	H_2S	**Range (ppm):**	0 - 300 ppm
Audit Date:	May 7, 2014	**Serial No.:**	5083970001
Project No.:	VALHR-14-0196	**Personnel.:**	PL/DL

$$\text{Accuracy} = \left(\frac{C_m - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

	Response		
Trial No. 1:	65.9	Gas type:	Protocol
Trial No. 2:	66.9	Concentration (C_a):	65.39 ppm
Trial No. 3:	67.0	Tank serial #:	CC354912
Average (C_m) :	66.60	Expiration Date:	December 26, 2016
Accuracy %:	1.85		

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

	Response		
Trial No. 1:	188.8	Gas type:	Protocol
Trial No. 2:	190.0	Concentration (C_a):	167.6 ppm
Trial No. 3:	190.0	Tank serial #:	CC215867
Average (C_m) :	189.60	Expiration Date:	December 3, 2016
Accuracy %:	13.13		

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value, ± 5 ppm, or ≤ 0.7% O_2 or CO_2

FORM# GSC-WP004-001
REV 2013-01, EFF 3/1/13

CYLINDER GAS AUDIT (CGA) ASSESSMENT DATA SHEET

Company: Valero Refining-Texas, L.P.
Location: Houston, TX
Source: Fuel Gas Drum
CEMS type: H2S
Audit Date: 5-7-14
Time Period: 8:22 - 8:51
Project No.: VAL H6-14-0196

Analyzer Info
Manufacturer: Siemens
Model No: Maxum II
Range (ppm/%): 0-300 ppm
Serial No.: 5083970001
Personnel: PL / DL

$$\text{Accuracy} = \left(\frac{C_m - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

Response
Trial No. 1: 65.9
Trial No. 2: 66.9
Trial No. 3: 67.0
Average (C_m): 66.6 ~~67.0~~ PL 5-7-14

Gas type: Protocol
Concentration (C_a): 65.39 ppm/%
Cylinder serial #: CC354912
Expiration Date: 12-26-2016

L - 55.58
H - 75.20

Accuracy %: 1.85

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

Response
Trial No. 1: 188.8
Trial No. 2: 190.0
Trial No. 3: 190.0
Average (C_m): 189.6

Gas type: Protocol
Concentration (C_a): 167.6 ppm/%
Cylinder serial #: CC215867
Expiration Date: 12-3-2016

L - 142.50
H - 192.74

Accuracy %: 13.1

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value or +/- 5 ppm

REALTIME DATA SAMPLES AND AVERAGES REPORT
Cirrus - Process Analysts, Inc.

Title: BF03 CGA 5-6-14
Sample Interval: 10 seconds
Average Interval: 60 seconds

Date	Time	Fuel Gas-H2S ppm dry
14-05-07	8:15:00	30.79
14-05-07	8:16:00	21.54
14-05-07	8:17:00	22.09
14-05-07	8:18:00	22.19
14-05-07	8:19:00	22.24
14-05-07	8:20:00	22.26
14-05-07	8:21:00	51.56
14-05-07	8:22:00	66.26
14-05-07	8:23:00	66.27
14-05-07	8:24:00	66.26
14-05-07	8:25:00	66.02
14-05-07	8:26:00	65.90
14-05-07	8:27:00	147.98
14-05-07	8:28:00	189.04
14-05-07	8:29:00	189.30
14-05-07	8:30:00	189.56
14-05-07	8:31:00	189.48
14-05-07	8:32:00	189.40
14-05-07	8:33:00	189.10
14-05-07	8:34:00	188.79
14-05-07	8:35:00	127.87
14-05-07	8:36:00	66.94
14-05-07	8:37:00	66.95
14-05-07	8:38:00	66.97
14-05-07	8:39:00	66.92
14-05-07	8:40:00	66.86
14-05-07	8:41:00	107.35
14-05-07	8:42:00	188.35
14-05-07	8:43:00	188.87
14-05-07	8:44:00	189.93
14-05-07	8:45:00	149.72
14-05-07	8:46:00	69.31
14-05-07	8:47:00	68.87
14-05-07	8:48:00	66.98
14-05-07	8:49:00	87.37
14-05-07	8:50:00	189.36
14-05-07	8:51:00	189.53
14-05-07	8:52:00	190.30

GOLDEN SPECIALTY

Air Quality Test Report

APPENDIX G – Crude Atmospheric Heater North Stack CGA Results

CYLINDER GAS AUDIT (CGA) ASSESSMENT DATA SHEET

Company: Valero Refining-Texas, L.P.
Location: Houston, TX
Source: Crude Atmospheric Heater North Stack
CEMS type: O_2
Audit Date: May 7, 2014
Project No.: VALHR-14-0196

Analyzer Info
Manufacturer: Servomex
Model No: 1440
Range (%): 0 - 25 %
Serial No.: 1056
Personnel.: DL/PL

$$\text{Accuracy} = \left(\frac{C_m - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

	Response
Trial No. 1:	5.04
Trial No. 2:	5.08
Trial No. 3:	5.08
Average (C_m) :	5.07

Accuracy %: 0.93

Gas type: Protocol
Concentration (C_a): 5.02 %
Tank serial #: AAL8305
Expiration Date: March 23, 2021

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

	Response
Trial No. 1:	9.40
Trial No. 2:	9.78
Trial No. 3:	9.79
Average (C_m) :	9.66

Accuracy %: -4.10

Gas type: Protocol
Concentration (C_a): 10.07 %
Tank serial #: CC432504
Expiration Date: April 22, 2021

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value, ± 5 ppm, or ≤ 0.7% O_2 or CO_2

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Company: Valero Refining-Texas, L.P.
Location: Houston, TX
Crude Atmospheric
Source: Heater North Stack
CEMS type: NO_x
Audit Date: May 7, 2014
Project No.: VALHR-14-0196

Analyzer Info
Manufacturer: TECO
Model No: 42C-HL
Range (ppm): 0 - 200 ppm
Serial No.: 42CHL-63970-342
Personnel.: DL/PL

$$\text{Accuracy} = \left(\frac{C_m - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

	Response
Trial No. 1:	45.3
Trial No. 2:	47.6
Trial No. 3:	45.3
Average (C_m) :	46.07

Gas type: Protocol
Concentration (C_a): 50.13 ppm
Tank serial #: CC213571
Expiration Date: February 11, 2017

Accuracy %: -8.11

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

	Response
Trial No. 1:	107.7
Trial No. 2:	108.4
Trial No. 3:	108.9
Average (C_m) :	108.33

Gas type: Protocol
Concentration (C_a): 118.8 ppm
Tank serial #: CC306674
Expiration Date: March 24, 2022

Accuracy %: -8.81

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value, ± 5 ppm, or ≤ 0.7% O_2 or CO_2

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Company: Valero Refining-Texas, L.P.
Location: Houston, TX
Crude Atmospheric
Source: Heater North Stack
CEMS type: CO
Audit Date: May 7, 2014
Project No.: VALHR-14-0196

Analyzer Info
Manufacturer: TECO
Model No: 48C-HL
Range (ppm): 0 - 500 ppm
Serial No.: 48C-64042-342
Personnel.: DL/PL

$$\text{Accuracy} = \left(\frac{C_m - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

	Response
Trial No. 1:	122.9
Trial No. 2:	122.7
Trial No. 3:	121.1
Average (C_m) :	122.23

Gas type: Protocol
Concentration (C_a): 123.3 ppm
Tank serial #: CC213571
Expiration Date: February 11, 2017

Accuracy %: -0.87

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

	Response
Trial No. 1:	294.6
Trial No. 2:	294.8
Trial No. 3:	293.7
Average (C_m) :	294.37

Gas type: Protocol
Concentration (C_a): 274.2 ppm
Tank serial #: CC306674
Expiration Date: March 24, 2022

Accuracy %: 7.35

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value, ± 5 ppm, or ≤ 0.7% O_2 or CO_2

FORM# GSC-WP004-001
REV 2013-01, EFF 3/1/13

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Valero

Company: Refining-Texas, L.P. **Analyzer Info**
Location: Houston, TX **Manufacturer:** Servomex
Source: Crude Atmospheric HTR **Model No:** 1440
CEMS type: O2 North Stack **Range (ppm/%):** 0-25%
Audit Date: 5/7/14 **Serial No.:** 1056
Time Period: 1124 1024-1143 as listed **Personnel:** [illegible]
Project No.: VAL HR-14-0196

$$\text{Accuracy} = \left(\frac{\overline{C_m} - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

Response
Trial No. 1: 5.04
Trial No. 2: 5.08
Trial No. 3: 5.08
Average (C_m): 5.07

Gas type: Protocol
Concentration (C_a): 5.02 ppm/%
Cylinder serial #: AAL 8305
Expiration Date: 3-23-2021

L - 4.27
H - 5.77

Accuracy %: 0.930

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

Response
Trial No. 1: 9.40
Trial No. 2: 9.78
Trial No. 3: 9.79
Average (C_m): 9.66

Gas type: Protocol
Concentration (C_a): 10.07 ppm/%
Cylinder serial #: CC 432564
Expiration Date: 4-22-2021 as listed

L 8.56
H 11.58

Accuracy %: -4.11

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value or +/- 5 ppm

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CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Valero

Company: Refining-Texas, L.P. **Analyzer Info**
Location: Houston, TX **Manufacturer:** TECO
Source: Crude Atmospheric HTR **Model No:** 42C-HL
CEMS type: NOx North Stack **Range (ppm/%):** 0-200 ppm
Audit Date: 5/7/14 **Serial No.:** 42CHL-63970-342
Time Period: 1055-1120 **Personnel:** [illegible]
Project No.: VAL HR-14-0196

$$\text{Accuracy} = \left(\frac{\overline{C_m} - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

Response
Trial No. 1: 45.3
Trial No. 2: 47.6
Trial No. 3: 45.3
Average (C_m): 46.1

Gas type: Protocol
Concentration (C_a): 50.13 ppm/%
Cylinder serial #: CC 213571
Expiration Date: 2-11-2017

L 42.61
H 57.65

Accuracy %: -8.11

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

Response
Trial No. 1: 107.7
Trial No. 2: 108.4
Trial No. 3: 108.9
Average (C_m): 108.3

Gas type: Protocol
Concentration (C_a): 118.8 ppm/%
Cylinder serial #: CC 306674
Expiration Date: 3-24-2022

L 100.98
H 136.62

Accuracy %: -8.81

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value or +/- 5 ppm

FORM# GSC-WP004-001
REV 2013-01, EFF 3/1/13

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Valero

Company: Refining-Texas, L.P. **Analyzer Info**
Location: Houston, TX **Manufacturer:** TECO
Source: Crude Atmospheric HTR **Model No:** 48C-HL
CEMS type: CO North Stack **Range (ppm/%):** 0-500 ppm
Audit Date: 5/7/14 **Serial No.:** 48C-64042-342
Time Period: 1055-1120 **Personnel:** DL, PL
Project No.: VAHR-14-0196

$$\text{Accuracy} = \left(\frac{C_m - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

Response

Trial No. 1: 122.9
Trial No. 2: 122.7
Trial No. 3: 121.
Average (C_m): 122.2

Gas type: Protocol
Concentration (C_a): 123.3 ppm/%
Cylinder serial #: CC213571
Expiration Date: 2-11-2017

L 104.81
H 141.80

Accuracy %: -0.865

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

Response

Trial No. 1: 294.6
Trial No. 2: 294.8
Trial No. 3: 293.7
Average (C_m): 294.4

Gas type: Protocol
Concentration (C_a): 274.2 ppm/%
Cylinder serial #: CC306674
Expiration Date: 3-24-2022

L 233.07
H 315.33

Accuracy %: 7.36

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value or +/- 5 ppm

REALTIME DATA SAMPLES AND AVERAGES REPORT
Cirrus - Process Analysts, Inc.

Title: ATMOS# 2 CGA 5-7-14
Sample Interval: 10 seconds
Average Interval: 60 seconds

Date	Time	AH2-O2 % dry	AH2-NOx ppm dry	AH2-CO ppm dry
14-05-07	10:41:40	3.99	22.40	1.12
14-05-07	10:42:40	3.99	22.40	1.12
14-05-07	10:43:40	3.99	22.40	1.12
14-05-07	10:44:40	3.99	22.40	1.12
14-05-07	10:45:40	3.99	22.40	1.12
14-05-07	10:46:40	3.99	22.40	1.12
14-05-07	10:47:40	3.99	22.40	1.12
14-05-07	10:48:40	3.99	22.40	1.12
14-05-07	10:49:40	3.99	22.40	1.12
14-05-07	10:50:40	3.99	22.40	1.12
14-05-07	10:51:40	3.99	22.40	1.12
14-05-07	10:52:40	0.00	102.14	255.25
14-05-07	10:53:40	0.00	107.57	294.81
14-05-07	10:54:40	0.00	107.73	294.64
14-05-07	10:55:40	0.00	107.73	295.56
14-05-07	10:56:40	0.00	107.83	296.97
14-05-07	10:57:40	0.06	106.59	291.82
14-05-07	10:58:40	0.00	66.98	162.96
14-05-07	10:59:40	0.00	44.13	123.09
14-05-07	11:00:40	0.00	45.33	122.91
14-05-07	11:01:40	0.00	46.44	123.00
14-05-07	11:02:40	0.00	75.81	204.92
14-05-07	11:03:40	0.00	108.99	293.89
14-05-07	11:04:40	0.00	108.39	294.89
14-05-07	11:05:40	0.00	107.53	295.31
14-05-07	11:06:40	0.00	71.59	166.14
14-05-07	11:07:40	0.00	47.40	123.17
14-05-07	11:08:40	0.00	47.57	122.68
14-05-07	11:09:40	0.00	47.24	122.33
14-05-07	11:10:40	0.00	82.88	234.90
14-05-07	11:11:40	0.00	108.86	293.65
14-05-07	11:12:40	0.00	109.07	295.06
14-05-07	11:13:40	1.17	108.66	277.69
14-05-07	11:14:40	5.02	17.07	40.03
14-05-07	11:15:40	5.04	1.98	1.53
14-05-07	11:16:40	5.05	1.08	1.36
14-05-07	11:17:40	5.05	0.80	1.35
14-05-07	11:18:40	2.71	51.52	100.18
14-05-07	11:19:40	2.73	36.16	35.99
14-05-07	11:20:40	0.00	53.43	124.55
14-05-07	11:21:40	0.00	45.53	121.09
14-05-07	11:22:40	0.00	45.39	121.67
14-05-07	11:23:40	3.23	36.03	84.50
14-05-07	11:24:40	5.04	2.48	2.73
14-05-07	11:25:40	5.05	0.94	1.37
14-05-07	11:26:40	9.68	0.53	1.12
14-05-07	11:27:40	9.73	0.33	1.11
14-05-07	11:28:40	9.76	0.20	1.11
14-05-07	11:29:40	9.40	0.13	1.11
14-05-07	11:30:40	5.11	0.00	1.10
14-05-07	11:31:40	5.08	0.00	1.11
14-05-07	11:32:40	5.08	0.00	1.12

REALTIME DATA SAMPLES AND AVERAGES REPORT
Cirrus - Process Analysts, Inc.

Title: ATMOS# 2 CGA 5-7-14
Sample Interval: 10 seconds
Average Interval: 60 seconds

Date	Time	AH2-O2 % dry	AH2-NOx ppm dry	AH2-CO ppm dry
14-05-07	11:33:40	5.08	0.00	1.11
14-05-07	11:34:40	9.48	0.00	1.11
14-05-07	11:35:40	9.78	0.00	1.11
14-05-07	11:36:40	9.78	0.00	1.02
14-05-07	11:37:40	5.92	0.00	1.11
14-05-07	11:38:40	5.09	0.00	1.11
14-05-07	11:39:40	5.08	0.00	1.12
14-05-07	11:40:40	9.67	0.00	1.11
14-05-07	11:41:40	9.78	0.00	1.10
14-05-07	11:42:40	9.79	0.00	1.11

GOLDEN SPECIALTY

Air Quality Test Report

APPENDIX H – Crude Atmospheric Heater South Stack CGA Results

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Company: Valero Refining-Texas, L.P.
Location: Houston, TX
Source: Crude Atmospheric Heater South Stack
CEMS type: O_2
Audit Date: May 7, 2014
Project No.: VALHR-14-0196

Analyzer Info
Manufacturer: Servomex
Model No: 1440
Range (%): 0 - 25 %
Serial No.: 1056
Personnel.: DL/PL

$$\text{Accuracy} = \left(\frac{C_m - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

	Response
Trial No. 1:	4.94
Trial No. 2:	5.09
Trial No. 3:	5.09
Average (C_m) :	5.04

Gas type: Protocol
Concentration (C_a): 5.02 %
Tank serial #: AAL8305
Expiration Date: March 23, 2021

Accuracy %: 0.40

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

	Response
Trial No. 1:	9.76
Trial No. 2:	9.76
Trial No. 3:	9.77
Average (C_m) :	9.76

Gas type: Protocol
Concentration (C_a): 10.07 %
Tank serial #: CC432504
Expiration Date: April 22, 2021

Accuracy %: -3.05

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value, ± 5 ppm, or ≤ 0.7% O_2 or CO_2

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Company: Valero Refining-Texas, L.P.
Location: Houston, TX
Source: Crude Atmospheric Heater South Stack
CEMS type: NO_x
Audit Date: May 7, 2014
Project No.: VALHR-14-0196

Analyzer Info
Manufacturer: TECO
Model No: 42C-HL
Range (ppm): 0 - 200 ppm
Serial No.: 42CHL-63970-342
Personnel.: DL/PL

$$\text{Accuracy} = \left(\frac{C_m - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

	Response
Trial No. 1:	47.4
Trial No. 2:	48.6
Trial No. 3:	48.6
Average (C_m) :	48.20

Gas type: Protocol
Concentration (C_a): 50.13 ppm
Tank serial #: CC213571
Expiration Date: February 11, 2017

Accuracy %: -3.85

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

	Response
Trial No. 1:	107.8
Trial No. 2:	108.6
Trial No. 3:	108.9
Average (C_m) :	108.43

Gas type: Protocol
Concentration (C_a): 118.8 ppm
Tank serial #: CC306674
Expiration Date: March 24, 2022

Accuracy %: -8.73

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value, ± 5 ppm, or ≤ 0.7% O_2 or CO_2

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Company: Valero Refining-Texas, L.P.
Location: Houston, TX
Source: Crude Atmospheric Heater South Stack
CEMS type: CO
Audit Date: May 7, 2014
Project No.: VALHR-14-0196

Analyzer Info
Manufacturer: TECO
Model No: 48C-HL
Range (ppm): 0 - 500 ppm
Serial No.: 48C-64042-342
Personnel.: DL/PL

$$\text{Accuracy} = \left(\frac{\overline{C_m} - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

	Response
Trial No. 1:	112.7
Trial No. 2:	113.4
Trial No. 3:	130.8
Average (C_m) :	118.97
Accuracy %:	-3.51

Gas type: Protocol
Concentration (C_a): 123.3 ppm
Tank serial #: CC213571
Expiration Date: February 11, 2017

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

	Response
Trial No. 1:	263.6
Trial No. 2:	317.3
Trial No. 3:	321.7
Average (C_m) :	300.87
Accuracy %:	9.73

Gas type: Protocol
Concentration (C_a): 274.2 ppm
Tank serial #: CC306674
Expiration Date: March 24, 2022

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value, ± 5 ppm, or ≤ 0.7% O_2 or CO_2

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CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Company: Valero Refining-Texas, L.P.
Location: Houston, TX
Source: Crude Atmospheric HTR
CEMS type: O2 South Stack
Audit Date: 5/7/14
Time Period: 934-1006
Project No.: VAL HR-14-0196

Analyzer Info
Manufacturer: Servomex
Model No: 1440
Range (ppm/%): 0-25%
Serial No.: 1056
Personnel: DL, PL

$$\text{Accuracy} = \left(\frac{\overline{C_m} - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

	Response
Trial No. 1:	4.94
Trial No. 2:	5.09
Trial No. 3:	5.09
Average (C_m) :	5.04
Accuracy %:	0.398

Gas type: Protocol
Concentration (C_a): 5.02 ppm/%
Cylinder serial #: AAL8305
Expiration Date: 3-23-2021

L 4.27
H 5.77

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

	Response
Trial No. 1:	9.76
Trial No. 2:	9.76
Trial No. 3:	9.77
Average (C_m) :	9.76
Accuracy %:	-3.05

Gas type: Protocol
Concentration (C_a): 10.07 ppm/%
Cylinder serial #: CC432504
Expiration Date: 4-22-2022 21 [illegible]

L 8.56
H 11.58

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value or +/- 5 ppm

FORM# GSC-WP004-001
REV 2013-01, EFF 3/1/13

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Valero

Company: Refining-Texas, L.P. **Analyzer Info**
Location: Houston, TX **Manufacturer:** TECO
Source: Crude Atmospheric HTR **Model No:** 42C-HL
CEMS type: NOx South Stack **Range (ppm/%):** 0-200 ppm
Audit Date: 5/7/14 **Serial No.:** 42CHL-63970-342
Time Period: 1010-1135 **Personnel:** BL, PL
Project No.: VALHR-14-0196

$$\text{Accuracy} = \left(\frac{C_m - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

Response

Trial No. 1: 47.4
Trial No. 2: 48.6
Trial No. 3: 48.6
Average (C_m): 48.2

Gas type: Protocol
Concentration (C_a): 50.13 ppm/%
Cylinder serial #: CC213571
Expiration Date: 2-11-2017

L 42.61
H 57.65

Accuracy %: -3.85

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

Response

Trial No. 1: 107.8
Trial No. 2: 108.6
Trial No. 3: 108.4
Average (C_m): 108.4

Gas type: Protocol
Concentration (C_a): 118.8 ppm/%
Cylinder serial #: CC306674
Expiration Date: 3-24-2022

L 100.98
H 136.62

Accuracy %: -8.73

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value or +/- 5 ppm

FORM# GSC-WP004-001
REV 2013-01, EFF 3/1/13

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Valero

Company: Refining-Texas, L.P. **Analyzer Info**
Location: Houston, TX **Manufacturer:** TECO
Source: Crude Atmospheric HTR **Model No:** 48C-HL
CEMS type: CO South Stack **Range (ppm/%):** 0-500 ppm
Audit Date: 5/7/14 **Serial No.:** 48C-64042-342
Time Period: **Personnel:** BL, PL
Project No.: ~~VALHR-14-0196~~
VALHR-14-0196

$$\text{Accuracy} = \left(\frac{C_m - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

Response

Trial No. 1: 112.7
Trial No. 2: 113.4
Trial No. 3: 130.8
Average (C_m): 119.0

Gas type: Protocol
Concentration (C_a): 123.3 ppm/%
Cylinder serial #: CC213571
Expiration Date: 2-11-2017

L 104.81
H 141.86

Accuracy %: -3.51

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

Response

Trial No. 1: 263.6
Trial No. 2: 317.3
Trial No. 3: 321.7
Average (C_m): 300.9

Gas type: Protocol
Concentration (C_a): 274.2 ppm/%
Cylinder serial #: CC306674
Expiration Date: 3-24-2022

L 233.07
H 315.33

Accuracy %: 9.73

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value or +/- 5 ppm

REALTIME DATA SAMPLES AND AVERAGES REPORT
Cirrus - Process Analysts, Inc.

Title: ATMOS# 1 CGA 5-7-14
Sample Interval: 10 seconds
Average Interval: 60 seconds

Date	Time	AH1-O2 % dry	AH1-NOx ppm dry	AH1-CO ppm dry
14-05-07	9:27:00	2.01	19.23	37.88
14-05-07	9:28:00	1.98	19.26	26.45
14-05-07	9:29:00	1.72	19.36	25.47
14-05-07	9:30:00	1.71	19.40	26.22
14-05-07	9:31:00	2.12	19.90	22.03
14-05-07	9:32:00	2.44	19.57	17.85
14-05-07	9:33:00	3.57	1.07	5.47
14-05-07	9:34:00	4.92	0.07	1.28
14-05-07	9:35:00	4.94	0.00	1.45
14-05-07	9:36:00	4.95	0.00	1.11
14-05-07	9:37:00	14.93	0.00	1.12
14-05-07	9:38:00	12.02	0.00	1.12
14-05-07	9:39:00	9.60	0.00	1.11
14-05-07	9:40:00	9.77	0.00	1.11
14-05-07	9:41:00	8.87	0.00	1.12
14-05-07	9:42:00	5.13	0.00	1.20
14-05-07	9:43:00	5.10	0.00	1.27
14-05-07	9:44:00	5.09	0.00	1.11
14-05-07	9:45:00	8.78	0.00	1.11
14-05-07	9:46:00	9.76	0.00	1.11
14-05-07	9:47:00	9.77	0.00	1.10
14-05-07	9:48:00	9.77	0.00	1.11
14-05-07	9:49:00	9.77	0.00	1.11
14-05-07	9:50:00	9.77	0.00	1.12
14-05-07	9:51:00	6.56	0.00	1.11
14-05-07	9:52:00	5.11	0.00	1.11
14-05-07	9:53:00	5.10	0.00	1.10
14-05-07	9:54:00	5.09	0.00	1.21
14-05-07	9:55:00	8.17	0.00	1.11
14-05-07	9:56:00	9.75	0.00	1.11
14-05-07	9:57:00	9.76	0.00	1.11
14-05-07	9:58:00	9.77	0.00	1.11
14-05-07	9:59:00	9.77	0.00	1.11
14-05-07	10:00:00	9.77	0.00	1.12
14-05-07	10:01:00	9.77	0.00	1.11
14-05-07	10:02:00	9.78	0.00	1.12
14-05-07	10:03:00	9.78	0.00	1.11
14-05-07	10:04:00	9.78	0.00	1.11
14-05-07	10:05:00	9.78	0.00	1.10
14-05-07	10:06:00	9.78	0.00	1.11
14-05-07	10:07:00	4.97	10.40	23.13
14-05-07	10:08:00	0.04	45.64	106.46
14-05-07	10:09:00	0.00	46.80	112.44
14-05-07	10:10:00	0.00	47.38	112.67
14-05-07	10:11:00	0.00	47.48	112.68
14-05-07	10:12:00	0.59	41.27	93.20
14-05-07	10:13:00	0.00	88.58	207.44
14-05-07	10:14:00	0.00	107.28	263.56
14-05-07	10:15:00	0.00	107.83	263.52
14-05-07	10:16:00	0.00	108.19	264.58
14-05-07	10:17:00	0.00	108.49	263.22
14-05-07	10:18:00	0.00	74.76	181.20

REALTIME DATA SAMPLES AND AVERAGES REPORT
Cirrus - Process Analysts, Inc.

Title: ATMOS# 1 CGA 5-7-14
Sample Interval: 10 seconds
Average Interval: 60 seconds

Date	Time	AH1-O2 % dry	AH1-NOx ppm dry	AH1-CO ppm dry
14-05-07	10:19:00	0.00	48.94	114.18
14-05-07	10:20:00	0.00	48.64	113.35
14-05-07	10:21:00	0.00	48.57	114.93
14-05-07	10:22:00	0.00	63.21	186.73
14-05-07	10:23:00	0.00	107.67	314.76
14-05-07	10:24:00	0.00	108.36	314.84
14-05-07	10:25:00	0.00	108.66	317.25
14-05-07	10:26:00	0.00	108.70	331.42
14-05-07	10:27:00	0.36	108.67	316.25
14-05-07	10:28:00	1.91	34.73	92.69
14-05-07	10:29:00	2.40	20.57	37.24
14-05-07	10:30:00	2.23	21.07	14.59
14-05-07	10:31:00	0.15	62.76	155.54
14-05-07	10:32:00	0.00	53.10	144.82
14-05-07	10:33:00	0.00	48.61	130.67
14-05-07	10:34:00	0.00	48.71	130.76
14-05-07	10:35:00	0.00	48.84	129.84
14-05-07	10:36:00	0.00	49.20	131.60
14-05-07	10:37:00	0.00	83.35	248.35
14-05-07	10:38:00	0.00	108.76	321.15
14-05-07	10:39:00	0.00	109.00	321.72

GOLDEN SPECIALTY

Air Quality Test Report

APPENDIX I – SRU C
Incinerator CGA Results

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Company:	Valero Refining-Texas, L.P.	**Analyzer Info**	
Location:	Houston, TX	**Manufacturer:**	Thermox
Source:	SRU C Incinerator	**Model No:**	CEM O2
CEMS type:	O_2	**Range (%):**	0 - 25 %
Audit Date:	May 8, 2014	**Serial No.:**	10209586
Project No.:	VALHR-14-0196	**Personnel:**	DL/PL

$$\text{Accuracy} = \left(\frac{\overline{C_m} - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

	Response		
Trial No. 1:	4.82	Gas type:	Protocol
Trial No. 2:	4.85	Concentration (C_a):	5.02 %
Trial No. 3:	4.85	Tank serial #:	AAL8305
Average (C_m) :	4.84	Expiration Date:	March 23, 2021
Accuracy %:	-3.59		

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

	Response		
Trial No. 1:	9.15	Gas type:	Protocol
Trial No. 2:	9.21	Concentration (C_a):	10.07 %
Trial No. 3:	9.42	Tank serial #:	CC432504
Average (C_m) :	9.26	Expiration Date:	April 22, 2021
Accuracy %:	-8.04		

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value, ± 5 ppm, or ≤ 0.7% O_2 or CO_2

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Company:	Valero Refining-Texas, L.P.	**Analyzer Info**	
Location:	Houston, TX	**Manufacturer:**	Ametek
Source:	SRU C Incinerator	**Model No:**	921
CEMS type:	SO_2	**Range (ppm):**	0 - 500 ppm
Audit Date:	May 8, 2014	**Serial No.:**	AD-921-9816-2
project No.:	VALHR-14-0196	**Personnel:**	DL/PL

$$\text{Accuracy} = \left(\frac{\overline{C_m} - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

	Response		
Trial No. 1:	139.7	Gas type:	Protocol
Trial No. 2:	148.2	Concentration (C_a):	138.6 ppm
Trial No. 3:	147.3	Tank serial #:	CC320495
Average (C_m) :	145.07	Expiration Date:	February 11, 2022
Accuracy %:	4.67		

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

	Response		
Trial No. 1:	286.8	Gas type:	Protocol
Trial No. 2:	290.4	Concentration (C_a):	279.0 ppm
Trial No. 3:	291.3	Tank serial #:	CC166667
Average (C_m) :	289.50	Expiration Date:	March 17, 2022
Accuracy %:	3.76		

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value, ± 5 ppm, or ≤ 0.7% O_2 or CO_2

FORM# GSC-WP004-001
REV 2013-01, EFF 3/1/13

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Company:	Valero Refining-Texas, L.P.	**Analyzer Info**	
Location:	Houston, TX	**Manufacturer:**	Thermox
Source:	SRU C Incinerator	**Model No:**	CEM 02
CEMS type:	O2	**Range (ppm/%):**	0-25%
Audit Date:	5-8-14	**Serial No.:**	10209586
Time Period:	9:30 – 9:54	**Personnel:**	DL, PL
Project No.:	VALHR-14-0196		

$$\text{Accuracy} = \left(\frac{\overline{C_m} - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

	Response		
Trial No. 1:	4.82	Gas type:	Protocol
Trial No. 2:	4.85	Concentration (C_a):	5.02 ppm/%
Trial No. 3:	4.85	Cylinder serial #:	AAL8305
Average (C_m) :	4.84	Expiration Date:	3-23-2021
Accuracy %:	- 3.59		

L 4.27
H 5.77

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

	Response		
Trial No. 1:	9.15	Gas type:	Protocol
Trial No. 2:	9.21	Concentration (C_a):	10.07 ppm/%
Trial No. 3:	9.42	Cylinder serial #:	CC432504
Average (C_m) :	9.26	Expiration Date:	4-22-~~2022~~ 21
Accuracy %:	- 8.04		

8.56
L ~~4.27~~ PL 5-8-1
H ~~5.77~~ 11.58

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value or +/- 5 ppm

FORM# GSC-WP004-001
REV 2013-01, EFF 3/1/13

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Valero

Company: Refining-Texas, L.P. **Analyzer Info**
Location: Houston, TX **Manufacturer:** Ametek
Source: SRU C Incinerator **Model No:** 921
CEMS type: SO2 **Range (ppm/%):** 0-500 ppm
Audit Date: 5-8-14 **Serial No.:** AD-921-9816-2
Time Period: 8:52 - 9:22 **Personnel:** DL, PL
Project No.: VALHR-14-0196

$$\text{Accuracy} = \left(\frac{C_m - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

Response

Trial No. 1: 139.7
Trial No. 2: 148.2
Trial No. 3: 147.3
Average (C_m): 145.1

Gas type: Protocol
Concentration (C_a): 138.6 ppm/%
Cylinder serial #: CC320495
Expiration Date: 2-11-22

L 117.8
H 159.4

Accuracy %: DL 5-8-14 4.69 4.67

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

Response

Trial No. 1: 286.8
Trial No. 2: 290.4
Trial No. 3: 291.3
Average (C_m): 289.5

Gas type: Protocol
Concentration (C_a): 279 ppm/%
Cylinder serial #: CC166667
Expiration Date: 3-17-2022

L 237.2
H 320.9

Accuracy %: 3.76

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value or +/- 5 ppm

REALTIME DATA SAMPLES AND AVERAGES REPORT
Cirrus - Process Analysts, Inc.

Title: C Train CGA 5-8-14
Sample Interval: 10 seconds
Average Interval: 60 seconds

Date	Time	U39-SO2 ppm dry	U39-O2 % dry
14-05-08	8:42:10	30.74	8.84
14-05-08	8:43:10	30.58	8.88
14-05-08	8:44:10	30.03	8.86
14-05-08	8:45:10	30.17	8.87
14-05-08	8:46:10	30.02	8.88
14-05-08	8:47:10	30.86	8.34
14-05-08	8:48:10	45.52	4.76
14-05-08	8:49:10	99.30	0.30
14-05-08	8:50:10	118.79	0.16
14-05-08	8:51:10	127.99	0.13
14-05-08	8:52:10	133.30	0.12
14-05-08	8:53:10	135.69	0.11
14-05-08	8:54:10	137.33	0.11
14-05-08	8:55:10	138.39	0.11
14-05-08	8:56:10	139.70	0.11
14-05-08	8:57:10	143.12	0.10
14-05-08	8:58:10	174.95	0.10
14-05-08	8:59:10	264.42	0.10
14-05-08	9:00:10	283.06	0.10
14-05-08	9:01:10	288.23	0.10
14-05-08	9:02:10	286.85	0.10
14-05-08	9:03:10	252.75	0.10
14-05-08	9:04:10	167.10	0.09
14-05-08	9:05:10	152.94	0.10
14-05-08	9:06:10	149.62	0.09
14-05-08	9:07:10	148.22	0.09
14-05-08	9:08:10	157.24	0.09
14-05-08	9:09:10	219.55	0.09
14-05-08	9:10:10	282.37	0.09
14-05-08	9:11:10	290.53	0.09
14-05-08	9:12:10	290.40	0.09
14-05-08	9:13:10	261.67	0.09
14-05-08	9:14:10	169.53	0.09
14-05-08	9:15:10	152.41	0.09
14-05-08	9:16:10	148.93	0.09
14-05-08	9:17:10	147.25	0.09
14-05-08	9:18:10	162.36	0.09
14-05-08	9:19:10	247.99	0.09
14-05-08	9:20:10	286.00	0.09
14-05-08	9:21:10	291.26	0.09
14-05-08	9:22:10	291.55	0.17
14-05-08	9:23:10	247.75	1.21
14-05-08	9:24:10	67.39	4.54
14-05-08	9:25:10	18.49	4.79
14-05-08	9:26:10	9.94	4.80
14-05-08	9:27:10	5.92	4.81
14-05-08	9:28:10	3.40	4.81
14-05-08	9:29:10	1.50	4.81
14-05-08	9:30:10	0.20	4.82
14-05-08	9:31:10	-0.71	4.82
14-05-08	9:32:10	-1.48	4.82
14-05-08	9:33:10	29.50	4.31

REALTIME DATA SAMPLES AND AVERAGES REPORT
Cirrus - Process Analysts, Inc.

Title: C Train CGA 5-8-14
Sample Interval: 10 seconds
Average Interval: 60 seconds

Date	Time	U39-SO2 ppm dry	U39-O2 % dry
14-05-08	9:34:10	212.92	1.83
14-05-08	9:35:10	292.26	3.25
14-05-08	9:36:10	44.48	9.17
14-05-08	9:37:10	7.62	9.39
14-05-08	9:38:10	1.53	9.15
14-05-08	9:39:10	-1.04	7.38
14-05-08	9:40:10	-2.40	4.90
14-05-08	9:41:10	-3.23	4.85
14-05-08	9:42:10	-3.91	5.10
14-05-08	9:43:10	-4.31	6.88
14-05-08	9:44:10	-4.78	9.36
14-05-08	9:45:10	-5.15	9.41
14-05-08	9:46:10	-5.37	9.21
14-05-08	9:47:10	-5.46	7.61
14-05-08	9:48:10	-5.59	4.92
14-05-08	9:49:10	-5.74	4.85
14-05-08	9:50:10	-5.93	5.08
14-05-08	9:51:10	-6.16	6.81
14-05-08	9:52:10	-6.42	9.35
14-05-08	9:53:10	-6.53	9.42
14-05-08	9:54:10	-6.64	9.42
14-05-08	9:55:10	-6.73	9.43

GOLDEN SPECIALTY

THE GOLD STANDARD FOR AIR TESTING

Air Quality Test Report

CEMS Cylinder Gas Audit (CGA)
Second Quarter, 2014

Valero Refining-Texas, L.P.
Houston, Texas

Sulfur Recovery Unit (SRU) B Incinerator – Unit 46

Operating Permit No. 01381

Report Number: 140129
Date Tested: June 5, 2014
Date Prepared: July 25, 2014

PREPARED FOR
Valero Refining – Texas, L.P.
Houston Refinery
9701 Manchester Road
Houston, Texas 77012

Phone 713.923.3378

Prepared by:
GOLDEN SPECIALTY, INC.
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goldenspecialty.com

Air Quality Test Report

CEMS Cylinder Gas Audit (CGA)
Second Quarter, 2014

Valero Refining-Texas, L.P.
Houston, Texas

Sulfur Recovery Unit (SRU) B Incinerator – Unit 46

This report is supported by GOLDEN's Quality Assurance Manual. The information included in the report is authentic and accurate, and GOLDEN operated in conformance with ASTM D7036 to the best of our knowledge during this test program.

Certified by:

Reviewed by

Scott B. Swaggard, Ph. D., QSTI 2006-025
Technical Director

Daniel A. Loubiere, QSTI 2008-128
Project Manager / Onsite QI

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Air Quality Test Report

EXECUTIVE SUMMARY

Golden Specialty, Inc. (GOLDEN) was contracted Valero Refining-Texas, L.P. (Valero) to perform air testing at their facility located in Houston, Texas. GOLDEN performed Cylinder Gas Audits (CGAs) on the Sulfur Recovery Unit (SRU) B Incinerator continuous emissions monitoring systems (CEMS) installed at their facility. The audit was conducted in accordance with Operating Permit No. 01381.

The CGA performed on June 5, 2014, was managed and performed by Mr. Dan Loubiere, with the assistance of Mr. Paul Lastovica. No agency personnel were onsite during testing. The results of the CGAs, presented in Table 1, demonstrate that the average response for the analyzer was within the 15% requirement 40 CFR Part 60, Appendix F.

INTRODUCTION

Purpose of Test

The Audit was performed to demonstrate compliance with the requirements of 40 CFR Part 60, Appendix F, Quality Assurance requirements for gas continuous emissions monitoring systems used for compliance determination. The test procedures referenced in this report are in accordance with the Test Plan for this project. Deviations from the Test Plan or published Reference Methods are documented in the Problems, Deviations and/or Exceptions section of this report.

Problems, Deviations and/or Exceptions

No problems were encountered during this test program.

AUDIT RESULTS

The certifications of each gas used for the SRU B CGA program are presented in Appendix A. Assessment Data Printouts from the CGAs are presented in Appendix B. A printout of the CEMS performance, provided by Valero, is presented in Appendix B.

Unit	Test Date	Cylinder Gas	Mid-Range Audit Gas	High-Range Audit Gas	*Allowable*
			Accuracy (%)	Accuracy (%)	
SRU B Incinerator	6/5/2014	O_2	-1.28	-1.04	*15%*
		SO_2	3.49	2.58	*15%*

Table 1. Second Quarter 2014 SRU B CGA Results vs. Allowable

Based on the results shown in this report, the CEMS are operating within the limits of 40 CFR 60 Appendix F, Quality Assurance requirements for gas continuous emissions monitoring system used for compliance determination.

PERFORMANCE TEST PROCEDURES

Cylinder Gas Audit (CGA)

The CGA was performed in accordance with procedures outlined in 40 CFR 60 Appendix F. The audit consisted of alternately challenging the CEMS with mid and high level EPA Protocol Calibration gas standards. Triplicate runs were performed. The average response was compared to the respective calibration gas value and used to calculate the percent error for each audit point using the calculation presented below. *(GOLDEN SOP: GSC-TM054)*

$$Percent\ Error = \left(\frac{Gas\ Value - Response}{Gas\ Value}\right) x100\%$$

SAMPLE CALCULATIONS

The following calculations were used in the determination of the accuracy for each CEMS audit point. The values listed below in Table 2 are the actual data obtained for the O_2 mid range calibration gas during the cylinder gas audit testing of the SRU B Incinerator CEMS and are presented to demonstrate the calculations for the CGA.

Run#	1 (%)	2 (%)	3 (%)
C_M	4.86	4.88	4.89
C_a	4.94	4.94	4.94
D_i	-0.08	-0.06	-0.05

Table 2. Cylinder Gas Audit Data

Cylinder Gas Audit Calculations

Average Difference (d_{Avg})

$$\bar{d} = \left[\frac{1}{n}\sum_{i=1}^{n} d_i\right]$$

Where:

d = Average difference between response and cylinder value data
n = Number of data points
d_i = Difference between response and cylinder value for any given point

$$\bar{d} = \frac{1}{3}\{d_1 + d_2 + d_3\}$$

Accuracy

$$A = \frac{C_m - C_a}{C_a} \times 100$$

Where:

C_m = Average CEMS response during audit
C_a = Certified gas value used for audit

GOLDEN SPECIALTY

Air Quality Test Report

APPENDIX A –
Calibration Data

AIR LIQUIDE | Air Liquide America Specialty Gases LLC | Scott

RATA CLASS

Guaranteed +/- 1% Accuracy

11426 FAIRMONT PKWY, LA PORTE, TX 77571 Phone: 800-248-1427 Fax: 281-474-8419

CERTIFICATE OF ACCURACY: EPA Protocol Gas

Assay Laboratory : PGVP Vendor ID: A62014
AIR LIQUIDE AMERICA SPECIALTY GASES LLC
8802 DICE ROAD
SANTA FE SPRINGS, CA 90670-2516

P.O. No.: 2014014
Document # : 54945214-002
Folio #:Golden-12

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DEER PARK TX 77536
US

ANALYTICAL INFORMATION Gas Type : CO,CO2,O2,BALN

This certification was performed according to EPA Traceability Protocol For Assay & Certification of Gaseous Calibration Standards, Procedure G-1, EPA/600/R-12/531, May 2012. Do not use this standard if pressure is less than 100 psig.

Cylinder Number: ALM017200 Certification Date: 05Feb2014 Exp. Date: 06Feb2022
Cylinder Pressure: 2000 PSIG Batch No: LAP0083115

COMPONENT	CERTIFIED CONCENTRATION (Moles)		ACCURACY (ABSOLUTE / RELATIVE)		
CARBON DIOXIDE	9.61	%	0.06	% / 0.6	%
CARBON MONOXIDE	19.6	PPM	0.17	PPM / 0.9	%
OXYGEN	9.57	%	0.07	% / 0.7	%
NITROGEN	BALANCE				

TRACEABILITY

REFERENCE STANDARD COMPONENT	CONCENTRATION		UNCERTAINTY		CYLINDER	TYPE/SRM SAMPLE	EXP. DATE
CARBON DIOXIDE	7.0180	%	0.0350	%	K003719	NTRM 1674	03Feb2016
CARBON MONOXIDE	25.2100	PPM	0.2000	PPM	KAL003101	NTRM 2635	05May2016
OXYGEN	10.0300	%	0.0700	%	K019295	NTRM 2658	01Feb2016

ANALYTICAL METHOD

1st Analysis: 05Feb2014

COMPONENT	INSTRUMENT	ANALYTICAL PRINCIPLE	CALIBRATED	CONCENTRATION
CARBON DIOXIDE	VARIAN 8/3400/2806	FID & TCD	04Feb2014	9.613 %
CARBON MONOXIDE	LOW CO/APMA-360CE/4289880031	NDIR	08Jan2014	19.58 PPM
OXYGEN	VARIAN 8/3400/2806	FID & TCD	31Jan2014	9.566 %

Special Notes: CERTS AND TAGS TO INCLUDE GOLDEN # 12

APPROVED BY: _____
MT

Page 1 of 1

AIR LIQUIDE | 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 - PGVP Vendor ID: A52013
AIR LIQUIDE AMERICA SPECIALTY GASES LLC
6832 DICE ROAD
SANTA FE SPRINGS, CA 90670-2516

P.O. No.: 2014014
Document # : 55250412-001
Folio #:Golden-13

Customer
GOLDEN SPECIALTY CONSULTING, LTD

PULL FROM DOCK STOCK
931 SEACO COURT
DEER PARK TX 77536
US

ANALYTICAL INFORMATION Gas Type : CO,CO2,O2,BALN

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

Cylinder Number: CC18727 **Certification Date:** 11Apr2013 **Exp. Date:** 12Apr2021
Cylinder Pressure*:** 2000 PSIG **Batch No:** LAP0083420

COMPONENT	CERTIFIED CONCENTRATION (Moles)		ACCURACY**	TRACEABILITY
CARBON MONOXIDE	10.0	PPM	+/- 1%	Direct NIST and VSL
CARBON DIOXIDE	5.02	%	+/- 1%	Direct NIST and VSL
OXYGEN	4.94	%	+/- 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 2639	01Jun2016	AAL073280	25.54	PPM	CARBON MONOXIDE
NTRM 2000	01Jun2013	X026573	5.006	%	CARBON DIOXIDE
NTRM 2058	01Feb2016	X019296	10.03	%	OXYGEN

INSTRUMENTATION

INSTRUMENT/MODEL/SERIAL#	DATE LAST CALIBRATED	ANALYTICAL PRINCIPLE
LOW CO ANALYZ/APMA-360CE/4286000031	21Mar2013	NDIR
VARIAN 8/3400/2606	26Mar2013	FID & TCD
VARIAN 8/3400/2606	25Mar2013	FID & TCD

ANALYZER READINGS

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

CARBON MONOXIDE

First Triad Analysis			Second Triad Analysis			Calibration Curve
Date: 08Apr2013	Response Unit: PPM		Date: 12Apr2013	Response Unit: PPM		Concentration = A + Bx + Cx2 + Dx3 + Ex4
Z1 = 0.00000	R1 = 9.64500	T1 = 9.84200	Z1 = 0.00000	R1 = 9.66000	T1 = 9.82900	r = 0.9999924435
R2 = 9.67000	Z2 = 0.00000	T2 = 9.78600	R2 = 9.66000	Z2 = 0.00000	T2 = 9.83600	Constants: A = 0.03009141
Z3 = 0.00000	T3 = 9.81300	R3 = 9.68100	Z3 = 0.00000	T3 = 9.83200	R3 = 9.81200	B = 1.02814298 C = 0
Avg. Concentration:	10.00	PPM	Avg. Concentration:	10.00	PPM	D = 0 E = 0

CARBON DIOXIDE

Date: 11Apr2013	Response Unit: AREA					Concentration = A + Bx + Cx2 + Dx3 + Ex4
Z1 = 0.00000	R1 = 2808502.	T1 = 2819453.				r = 0.9999995197
R2 = 2808746.	Z2 = 0.00000	T2 = 2819485.				Constants: A = 0.015874203
Z3 = 0.00000	T3 = 2812792.	R3 = 2804030.				B = 02000166327 C = 0
Avg. Concentration:	5.024	%				D = 0 E = 0

OXYGEN

Date: 11Apr2013	Response Unit: AREA					Concentration = A + Bx + Cx2 + Dx3 + Ex4
Z1 = 0.00000	R1 = 4711832.	T1 = 2320999.				r = 0.9999998713
R2 = 4710766.	Z2 = 0.00000	T2 = 2319831.				Constants: A = 0.006018448
Z3 = 0.00000	T3 = 2316605.	R3 = 4709532.				B = 02000198749 C = 0
Avg. Concentration:	4.938	%				D = 0 E = 0

Special Notes: RANGE: 4.5-5.5% CO2 & O2 GOLDEN 13

APPROVED BY: _____
MT

Airgas

Airgas Specialty Gases
630 United Drive
Durham, NC 27713
919-544-3773 Fax: 919-544-3774
www.airgas.com

CERTIFICATE OF ANALYSIS
Grade of Product: EPA Protocol

Part Number:	E02NI99E15A3823	Reference Number:	122-124422872-1
Cylinder Number:	CC166667	Cylinder Volume:	144.4 CF
Laboratory:	ASG - Durham - NC	Cylinder Pressure:	2015 PSIG
PGVP Number:	B22014	Valve Outlet:	660
Gas Code:	SO2,BALN	Certification Date:	Mar 17, 2014

Expiration Date: Mar 17, 2022

Certification performed in accordance with "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards (May 2012)" document EPA 600/R-12/531, using the assay procedures listed. Analytical Methodology does not require correction for analytical interference. This cylinder has a total analytical uncertainty as stated below with a confidence level of 99%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted.

Do Not Use This Cylinder below 100 psig, i.e. 0.7 megapascals.

ANALYTICAL RESULTS

Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty	Assay Dates
SULFUR DIOXIDE	275.0 PPM	279.0 PPM	G1	+/- 0.9% NIST Traceable	03/10/2014, 03/17/2014
NITROGEN	Balance				

CALIBRATION STANDARDS

Type	Lot ID	Cylinder No	Concentration	Uncertainty	Expiration Date
NTRM	110808A5	CC341882	241.0 PPM SULFUR DIOXIDE/NITROGEN	+/- 0.9%	May 13, 2017

ANALYTICAL EQUIPMENT

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Nicolet 6700 AHR0801549 SO2	FTIR	Mar 13, 2014

Triad Data Available Upon Request

Notes:

Approved for Release

Airgas

Airgas Specialty Gases
609 United Drive
Durham, NC 27713
919-544-3773 Fax: 919-544-3774
www.airgas.com

CERTIFICATE OF ANALYSIS
Grade of Product: EPA Protocol

Part Number:	E02NI99E15A0280	Reference Number:	122-124417724-1
Cylinder Number:	CC320495	Cylinder Volume:	144.4 CF
Laboratory:	ASG - Durham - NC	Cylinder Pressure:	2015 PSIG
PGVP Number:	B22014	Valve Outlet:	660
Gas Code:	SO2,BALN	Certification Date:	Feb 11, 2014

Expiration Date: Feb 11, 2022

Certification performed in accordance with "EPA Traceability Protocol for Assay and Certification of Gaseous Calibration Standards (May 2012)" document EPA 600/R-12/531, using the assay procedures listed. Analytical Methodology does not require correction for analytical interference. This cylinder has a total analytical uncertainty as stated below with a confidence level of 95%. There are no significant impurities which affect the use of this calibration mixture. All concentrations are on a volume/volume basis unless otherwise noted.

Do Not Use This Cylinder below 100 psig, i.e. 0.7 megapascals.

ANALYTICAL RESULTS

Component	Requested Concentration	Actual Concentration	Protocol Method	Total Relative Uncertainty	Assay Dates
SULFUR DIOXIDE	135.0 PPM	138.6 PPM	G1	+/- 1.0% NIST Traceable	02/04/2014, 02/11/2014
NITROGEN	Balance				

CALIBRATION STANDARDS

Type	Lot ID	Cylinder No	Concentration	Uncertainty	Expiration Date
NTRM	11080845	CC341882	241.0 PPM SULFUR DIOXIDE/NITROGEN	+/- 0.9%	May 13, 2017

ANALYTICAL EQUIPMENT

Instrument/Make/Model	Analytical Principle	Last Multipoint Calibration
Nicolet 6700 AHR0801549 SO2	FTIR	Jan 17, 2014

Triad Data Available Upon Request

Notes:

Approved for Release

GOLDEN SPECIALTY

Air Quality Test Report

APPENDIX B – SRU B
Incinerator CGA Results

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Company: Valero Refining-Texas, L.P.
Location: Houston, TX
Source: SRU B Incinerator
CEMS type: O_2
Audit Date: June 5, 2014
Project No.: 140129

Analyzer Info
Manufacturer: Thermox
Model No: CEM O2
Range (%): 0 - 25 %
Serial No.: 10209509
Personnel: DL/PL

$$\text{Accuracy} = \left(\frac{C_m - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

	Response
Trial No. 1:	4.86
Trial No. 2:	4.88
Trial No. 3:	4.89
Average (C_m) :	4.86

Gas type: Protocol
Concentration (C_a): 4.94 %
Tank serial #: CC18727
Expiration Date: April 12, 2021

Accuracy %: -1.28

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

	Response
Trial No. 1:	9.48
Trial No. 2:	9.47
Trial No. 3:	9.46
Average (C_m) :	9.47

Gas type: Protocol
Concentration (C_a): 9.57 %
Tank serial #: ALM017200
Expiration Date: February 6, 2022

Accuracy %: -1.04

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value, ± 5 ppm, or ≤ 0.7% O_2 or CO_2

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Company: Valero Refining-Texas, L.P.
Location: Houston, TX
Source: SRU B Incinerator
CEMS type: SO_2
Audit Date: June 5, 2014
project No.: 140129

Analyzer Info
Manufacturer: Ametek
Model No: 921
Range (ppm): 0 - 500 ppm
Serial No.: AD-921-0764-1
Personnel: DL/PL

$$\text{Accuracy} = \left(\frac{C_m - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

	Response
Trial No. 1:	140.7
Trial No. 2:	144.8
Trial No. 3:	144.8
Average (C_m) :	143.43

Gas type: Protocol
Concentration (C_a): 138.6 ppm
Tank serial #: CC320495
Expiration Date: February 11, 2022

Accuracy %: 3.49

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

	Response
Trial No. 1:	285.3
Trial No. 2:	286.4
Trial No. 3:	286.8
Average (C_m) :	286.20

Gas type: Protocol
Concentration (C_a): 279.0 ppm
Tank serial #: CC166667
Expiration Date: March 17, 2022

Accuracy %: 2.58

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value, ± 5 ppm, or ≤ 0.7% O_2 or CO_2

FORM# GSC-WP004-001
REV 2013-01, EFF 3/1/13

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Company: Valero
Location: Houston
Source: SRG B
CEMS type: O2
Audit Date: 6-5-14
Time Period: 9:32 – 10:07
Project No.: VALHR 140129

Analyzer Info
Manufacturer: Thermex
Model No: CEM02
Range (ppm/%): 0-25%
Serial No.: 10279579
Personnel: DL, PL

$$\text{Accuracy} = \left(\frac{C_m - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

Response
Trial No. 1: 4.86
Trial No. 2: 4.88
Trial No. 3: 4.89
Average (C_m): 4.88

Gas type: Protocol
Concentration (C_a): 4.94 ppm/%
Cylinder serial #: CC 187 27
Expiration Date: 4-21

L 4.19
H 5.68

Accuracy %: -1.2X8 [illegible]

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

Response
Trial No. 1: 9.48
Trial No. 2: 9.47
Trial No. 3: 9.46
Average (C_m): 9.47

Gas type: Protocol
Concentration (C_a): 9.57 ppm/%
Cylinder serial #: ALM017200
Expiration Date: 2-22

L 8.13
H 11.00

Accuracy %: -1.04

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value or +/- 5 ppm

FORM# GSC-WP004-001
REV 2013-01, EFF 3/1/13

CYLINDER GAS AUDIT (CGA)
ASSESSMENT DATA SHEET

Company: Valero
Location: Houston
Source: SRG B
CEMS type: SO2
Audit Date: 6-5-14
Time Period: 10:08 – 10:42
Project No.: VALHR 140129

Analyzer Info
Manufacturer: [illegible]
Model No: 921
Range (ppm/%): 0-500 ppm
Serial No.: AX-921-6764-1
Personnel: DL, PL

$$\text{Accuracy} = \left(\frac{C_m - C_a}{C_a}\right) \times 100$$

Mid Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 20 - 30 % of span	CO analyzers (200 ppm span) - 60 - 80 ppm
Oxygen analyzers - 4 - 6 % O_2	CO analyzers (3,000 ppm span) - 900 - 1200 ppm
Carbon dioxide analyzers - 5 -8 % CO_2	Oxygen analyzers - 8 - 10 % O_2

Response
Trial No. 1: 140.7
Trial No. 2: 144.8
Trial No. 3: 144.8
Average (C_m): 143.4

Gas type: Protocol
Concentration (C_a): 138.6 ppm/%
Cylinder serial #: CC 320495
Expiration Date: 2-22

L 117.81
H 159.39

Accuracy %: 3.469 [illegible]

High Level Calibration Gas	
40 CFR 60 App. F Sources	40 CFR 266 Appendix IX Sources
Pollutant analyzers - 50 - 60 % of span	CO analyzers (200 ppm span) - 140 - 160 ppm
Oxygen analyzers - 8 - 12 % O_2	CO analyzers (3,000 ppm span) - 2100 - 2400 ppm
Carbon dioxide analyzers - 10 -14 % CO_2	Oxygen analyzers - 14 - 16 % O_2

Response
Trial No. 1: 285.3
Trial No. 2: 286.4
Trial No. 3: 286.8
Average (C_m): 286.2

Gas type: Protocol
Concentration (C_a): 279.0 ppm/%
Cylinder serial #: CC 166667
Expiration Date: 3-22

L 237.15
H 320.85

Accuracy %: 2.58

40 CFR 266 Allowable Limit - 0.5 % O_2 or 5% of span for CO
40 CFR 60 Allowable limit - 15 % average response value or +/- 5 ppm

REALTIME DATA SAMPLES AND AVERAGES REPORT
Cirrus - Process Analysts, Inc.

Title: B SRU CGA 6-5-14
Sample Interval: 10 seconds
Average Interval: 60 seconds

Date/Time	U46 SO2 ppm 1 min	U46 O2 % 1 min			
14-06-05 09:29:30	33.74500	4.27500	0.00000	0.00000	0.00000
14-06-05 09:30:30	33.91000	4.29000	0.00000	0.00000	0.00000
14-06-05 09:31:30	33.91500	4.32000	0.00000	0.00000	0.00000
14-06-05 09:32:30	33.70000	4.75500	0.00000	0.00000	0.00000
14-06-05 09:33:30	24.37000	5.15500	0.00000	0.00000	0.00000
14-06-05 09:34:30	9.50500	4.99000	0.00000	0.00000	0.00000
14-06-05 09:35:30	2.61500	4.86000	0.00000	0.00000	0.00000
14-06-05 09:36:30	0.95000	4.86000	0.00000	0.00000	0.00000
14-06-05 09:37:30	0.27500	4.86000	0.00000	0.00000	0.00000
14-06-05 09:38:30	-0.06500	4.86000	0.00000	0.00000	0.00000
14-06-05 09:39:30	-0.26500	6.81500	0.00000	0.00000	0.00000
14-06-05 09:40:30	-0.37500	9.10500	0.00000	0.00000	0.00000
14-06-05 09:41:30	-0.51000	9.45000	0.00000	0.00000	0.00000
14-06-05 09:42:30	-0.65500	9.46500	0.00000	0.00000	0.00000
14-06-05 09:43:30	-0.72000	9.47500	0.00000	0.00000	0.00000
14-06-05 09:44:30	-0.77000	9.48000	0.00000	0.00000	0.00000
14-06-05 09:45:30	-0.80500	7.68500	0.00000	0.00000	0.00000
14-06-05 09:46:30	-0.82000	5.40000	0.00000	0.00000	0.00000
14-06-05 09:47:30	-0.82000	4.90000	0.00000	0.00000	0.00000
14-06-05 09:48:30	-0.82500	4.88500	0.00000	0.00000	0.00000
14-06-05 09:49:30	-0.85000	4.88000	0.00000	0.00000	0.00000
14-06-05 09:50:30	-0.92000	4.87500	0.00000	0.00000	0.00000
14-06-05 09:51:30	-0.97000	6.26500	0.00000	0.00000	0.00000
14-06-05 09:52:30	-0.97000	8.54500	0.00000	0.00000	0.00000
14-06-05 09:53:30	-0.97000	9.44500	0.00000	0.00000	0.00000
14-06-05 09:54:30	-0.99000	9.47000	0.00000	0.00000	0.00000
14-06-05 09:55:30	-1.00500	9.44500	0.00000	0.00000	0.00000
14-06-05 09:56:30	-0.98500	7.37000	0.00000	0.00000	0.00000
14-06-05 09:57:30	-0.98000	5.12000	0.00000	0.00000	0.00000
14-06-05 09:58:30	-1.00000	4.90500	0.00000	0.00000	0.00000
14-06-05 09:59:30	-1.05000	4.89500	0.00000	0.00000	0.00000
14-06-05 10:00:30	-1.11000	4.88500	0.00000	0.00000	0.00000
14-06-05 10:01:30	-1.11000	6.73000	0.00000	0.00000	0.00000
14-06-05 10:02:30	-1.08500	9.00500	0.00000	0.00000	0.00000
14-06-05 10:03:30	-1.06000	9.43500	0.00000	0.00000	0.00000
14-06-05 10:04:30	-1.08000	9.44500	0.00000	0.00000	0.00000
14-06-05 10:05:30	-1.09500	9.46000	0.00000	0.00000	0.00000
14-06-05 10:06:30	38.61500	5.73000	0.00000	0.00000	0.00000
14-06-05 10:07:30	103.56000	1.07000	0.00000	0.00000	0.00000
14-06-05 10:08:30	132.09500	0.13500	0.00000	0.00000	0.00000

REALTIME DATA SAMPLES AND AVERAGES REPORT
Cirrus - Process Analysts, Inc.

Title: B SRU CGA 6-5-14
Sample Interval: 10 seconds
Average Interval: 60 seconds

Date/Time	U46 SO2 ppm 1 min	U46 O2 % 1 min			
14-06-05 10:09:30	136.55000	0.11000	0.00000	0.00000	0.00000
14-06-05 10:10:30	138.34500	0.10000	0.00000	0.00000	0.00000
14-06-05 10:11:30	139.30500	0.09500	0.00000	0.00000	0.00000
14-06-05 10:12:30	139.91000	0.08500	0.00000	0.00000	0.00000
14-06-05 10:13:30	140.78500	0.16500	0.00000	0.00000	0.00000
14-06-05 10:14:30	191.05000	0.29000	0.00000	0.00000	0.00000
14-06-05 10:15:30	258.66000	0.20500	0.00000	0.00000	0.00000
14-06-05 10:16:30	279.27000	0.08000	0.00000	0.00000	0.00000
14-06-05 10:17:30	283.10000	0.07500	0.00000	0.00000	0.00000
14-06-05 10:18:30	284.80000	0.07000	0.00000	0.00000	0.00000
14-06-05 10:19:30	285.66000	0.07000	0.00000	0.00000	0.00000
14-06-05 10:20:30	285.26000	0.07000	0.00000	0.00000	0.00000
14-06-05 10:21:30	229.95000	0.07000	0.00000	0.00000	0.00000
14-06-05 10:22:30	161.99500	0.07000	0.00000	0.00000	0.00000
14-06-05 10:23:30	146.97000	0.06500	0.00000	0.00000	0.00000
14-06-05 10:24:30	144.80000	0.06000	0.00000	0.00000	0.00000
14-06-05 10:25:30	144.04000	0.06000	0.00000	0.00000	0.00000
14-06-05 10:26:30	189.83500	0.06000	0.00000	0.00000	0.00000
14-06-05 10:27:30	258.40000	0.06000	0.00000	0.00000	0.00000
14-06-05 10:28:30	282.91000	0.06000	0.00000	0.00000	0.00000
14-06-05 10:29:30	285.70000	0.06000	0.00000	0.00000	0.00000
14-06-05 10:30:30	286.39000	0.06000	0.00000	0.00000	0.00000
14-06-05 10:31:30	230.64000	0.06000	0.00000	0.00000	0.00000
14-06-05 10:32:30	162.10500	0.06000	0.00000	0.00000	0.00000
14-06-05 10:33:30	147.70500	0.06000	0.00000	0.00000	0.00000
14-06-05 10:34:30	145.66500	0.06000	0.00000	0.00000	0.00000
14-06-05 10:35:30	144.80000	0.06000	0.00000	0.00000	0.00000
14-06-05 10:36:30	147.21000	0.06000	0.00000	0.00000	0.00000
14-06-05 10:37:30	206.09500	0.06000	0.00000	0.00000	0.00000
14-06-05 10:38:30	272.78000	0.06000	0.00000	0.00000	0.00000
14-06-05 10:39:30	284.77000	0.06000	0.00000	0.00000	0.00000
14-06-05 10:40:30	286.78500	0.06000	0.00000	0.00000	0.00000
14-06-05 10:41:30	287.61000	0.06000	0.00000	0.00000	0.00000
14-06-05 10:42:30	286.89500	0.06000	0.00000	0.00000	0.00000
14-06-05 10:43:30	193.49000	1.70500	0.00000	0.00000	0.00000

AirCO/HG-0130-C/RN100219310/RP

GOLDEN SPECIALTY

THE GOLD STANDARD FOR AIR TESTING

Air Quality Test Report

Relative Accuracy Test Audit for Flow Meter

Valero Refining-Texas, L.P.
Houston, Texas

Fluidized Catalytic Cracking Unit (FCCU) Belco Scrubber

TCEQ Permit No.: 01381; EPN: 42CB2201

Report Number: 140135-A
Date Tested: June 3-5, 2014
Date Prepared: July 28, 2014

PREPARED FOR
Valero Refining – Texas, L.P.
Houston Refinery
9701 Manchester Road
Houston, Texas 77012

Phone 713.923.3378

Prepared by:
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goldenspecialty.com

Air Quality Test Report

Relative Accuracy Test Audit for Flow Meter

Valero Refining-Texas, L.P.
Houston, Texas

Fluidized Catalytic Cracking Unit (FCCU) Belco Scrubber

This report is supported by GOLDEN's Quality Assurance Manual. The information included in the report is authentic and accurate, and GOLDEN operated in conformance with ASTM D7036 to the best of our knowledge during this test program.

Certified by:

Scott B. Sweggard, Ph.D., QSTI 2006-025
Technical Director

Daniel A. Loubiere, QSTI 2008-128
Project Manager / Onsite QSTI

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Air Quality Test Report

EXECUTIVE SUMMARY

Golden Specialty, Inc.'s (GOLDEN) Gulf Coast Regional Office was contracted by Valero Refining-Texas, L.P., to perform air testing at their facility located in Houston, Texas. Testing was conducted on June 3-5, 2014. The purpose of this test was to perform a relative accuracy test audit (RATA) for their Flow Meter installed on the Fluidized Catalytic Cracking Unit (FCCU) Belco Scrubber. The test was conducted in accordance with all appropriate United States Environmental Protection Agency (USEPA) Methodologies; as well as all applicable Texas Commission on Environmental Quality (TCEQ) mandates.

Constituent	Analyzer Manufacturer	Model Number	Serial Number	Range
Flow	EMRC	DP-75 Mark 2	1303	0-286 KSCFH

Table 1. FCCU Belco Scrubber Analyzer Information

Testing consisted of nine (9) runs for volumetric flow rates. A total of eleven (11) runs were performed, with the results of the two (2) runs with the highest deviation being discarded from relative accuracy (RA) calculations. Testing was conducted for the determination of volumetric flow rates and molecular weight in accordance with USEPA Methods 1-3. Volumetric flow rates have been compared to Valero's Flow Meter data for RA determinations in accordance with Appendix B, Performance Specification 6 (PS-6). Flow results are listed in a standard cubic feet per hour (SCFH), wet basis.

The unit was operating at or near a coke production rate of 56,673 pounds per hour (lb/hr) during the RATA test program.

Table 2 below indicates the results of the RATA test program.

RATA Calculations Nine (9) 60-minute averages	
	Flow (SCFH, wet)
*Average RM Data	12,592,574
*Average Flow Monitor Data	12,042,423
D-Bar=	550,151
Sigma-D=	182.758
CC=	140,480
RA=	5.48%
RA Limit	20% RM
PASS RA?	YES

*The nine runs with the lowest differences between RM and Continuous Flow Monitor Data were used, with the exception of Run 4 (See the Problems, Deviations, and/or Exceptions Section).

Table 2. Flow RATA and Analysis Results vs. Allowable

Based on the results shown in this report, the FCCU Belco Scrubber Flow Meter is operating within the limits for Relative Accuracy established in 40 CFR Part 60 Appendix B, Performance Specification 6.

INTRODUCTION

Purpose of Test

The purpose of the test conducted on the Flow Meter installed on the FCCU Belco Scrubber was to provide RATA data results for demonstrating compliance with requirements of Valero's TCEQ Permit. The tolerances to be met for the RA portion of this test program are set forth in the Performance Specifications (PS) section of The Code of Federal Regulations Title 40, Part 60 (40 CFR Part 60) Appendix B (PS-6 for Flow).

Mr. Dan Loubiere managed the project and performed the testing was performed with the assistance of Messrs. Bryan Johnson and Curtis Berridge. No agency personnel were onsite during testing. The RM and Flow Meter data were calculated using sixty (60) minute averages.

During the RATA performance tests, the exhaust gas stream was analyzed for flow, in accordance with USEPA Method 2. Oxygen (O_2) and carbon dioxide (CO_2) concentrations were determined in accordance with USEPA Method 3 for determination of molecular weight. Moisture determinations were made utilizing USEPA Method 4. Volumetric flow rates were averaged for RA comparisons to Flow Meter data. The reference methods are discussed in detail in the Performance Test Procedures section of this report.

The flow meter provides a record of the emission rate data from the subject flue gas stream. This data was subsequently compared to the Reference Method data for determination of the RA of the Flow Meter. The RA calculations are discussed in greater detail in the Sample Calculations section of this report. The test procedures referenced in this report are in accordance with the Test Plan for this project. Deviations from the Test Plan or published Reference Methods are documented in the Problems, Deviations and/or Exceptions section of this report.

Problems, Deviations and/or Exceptions

The meterbox used for sampling (S/N 902044), had exceeded the annual calibration date. The meterbox was recalibrated on June 18, 2014, in accordance with EPA Method 5, Section 10.3.2, and the new Y factor produced was compared to the Y factor from the previous calibration. The lower Y factor was used in the calculations. Both calibrations are provided in Appendix C of this report.

The Continuous Flow Monitor data collected for June 4, 2014, does not include the first part of Run 4 therefore the run was excluded from RA calculations.

TEST RESULTS

Detailed results for the RATA testing performed on the FCCU Belco Scrubber are listed below in Table 3. All supporting calibration, process, and field data collected for this project are provided in the Appendices of this report.

RUN #	Start Time	RM Data Flow (SCFH, wet)	Flow Monitor Flow (SCFH, wet)	Difference Flow (SCFH, wet)	Used Sensor Flow (Y or N)
1	12:08	12,541,874	12,014,551	527,323	Y
2	15:00	12,650,811	11,860,566	790,245	Y
3	16:23	12,622,325	12,015,947	606,378	Y
4	7:40	12,703,956	*12,079,226	624,730	N
5	9:26	12,573,346	12,016,461	556,885	Y
6	11:00	12,551,759	12,214,237	337,522	Y
7	13:16	12,590,421	12,333,120	257,301	Y
8	14:55	12,625,714	12,194,727	430,987	Y
9	7:35	12,637,806	11,889,500	748,306	Y
10	10:25	12,539,113	11,842,701	696,411	Y
11	12:12	12,620,643	11,743,635	877,007	N
				Total # Runs	9
				t-value	2.30600

*Does not cover entire run time.

RATA Calculations Nine (9) 60-minute averages	Flow (SCFH, wet)
**Average RM Data	12,592,574
**Average Flow Monitor Data	12,042,423
D-Bar=	550,151
Sigma-D=	182,758
CC=	140,480
RA=	5.48%
RA Limit	20% RM
PASS RA?	YES

**The nine runs with the lowest differences between RM and Continuous Flow Monitor Data were used, with the exception of Run 4 (See the Problems, Deviations, and/or Exceptions Section)

Table 3. FCCU Belco Scrubber Flow RATA Results

PERFORMANCE TEST PROCEDURES

USEPA Reference Methods

This section provides a detailed description of the individual USEPA Reference Methods employed in this test (40 CFR 60, Appendix A). Schematics of the various sampling systems used to perform the test program on the FCCU Belco Scrubber can be found in Figure 1. Specifics for the test equipment utilized in this program are presented in Appendix A.

USEPA Method 1: Sample and Velocity Traverses for Stationary Sources

Traverse points were determined following USEPA Method 1 - "Sample and Velocity Traverses for Stationary Sources." The number of sampling points and their distances from the duct wall are determined depending on the proximity of each sampling location to the nearest upstream and downstream disturbance.

After the required number of traverse points were determined from 40 CFR 60 App. A, Method 1, Figure 1-2 and Table 1-2, a cyclonic flow check was performed at each sampling location according to the procedures in USEPA Method 1. *(GOLDEN SOP: GSC-TM002)*

USEPA Method 2: Determination of Stack Gas Velocity and Volumetric Flow Rate

Velocity and volumetric flow rates were determined from the measurement of the stack gas velocity head with a Type-S Pitot tube and inclined manometer. The Pitot tube was constructed per USEPA Method 2 design specifications. Based on the face opening alignments, external tubing diameter, and base-to-opening plane distances, a coefficient value of 0.84 was assigned to the Pitot tube. A cyclonic flow check was performed on July 8, 2014. *(GOLDEN SOP: GSC-TM003)*

USEPA Method 3: Molecular Weight

This method was employed to determine the concentrations of O_2 and CO_2 in the gas stream with the use of a Fyrite combustion analyzer. Samples were passed through selective adsorbent solutions for determination of diluent concentrations by volumetric difference. *(GOLDEN SOP: GSC-TM012)*

USEPA Method 4: Determination of Moisture Content in Stack Gases

The stack gas moisture content was determined in accordance with USEPA Method 4 as shown in Figure 1. Specifically, stack gas was extracted at a constant rate through a glass condenser train consisting of four impingers connected in series with leak free, glass U-tube connections. The extracted stack gas sample temperature was maintained at a temperature below 68°F by use of an ice bath surrounding the glass impingers. The gas sample was extracted through the impinger train using a rotary vane vacuum pump, and the amount of gas sampled was measured with a calibrated dry gas meter. The pump flow was adjusted to maintain flow rate through the dry gas meter in order to obtain at least 21.0 dry, standard cubic feet (dscf) of sample gas during the test run. At the end of each run, the pump was turned off and the final readings were recorded. The amount of moisture in the gas stream was determined by

measuring the volume of condensed moisture in impingers one through three and weighing the silica gel impinger to calculate percent moisture in the stack flue gas stream. *(GOLDEN SOP: GSC-TM016)*

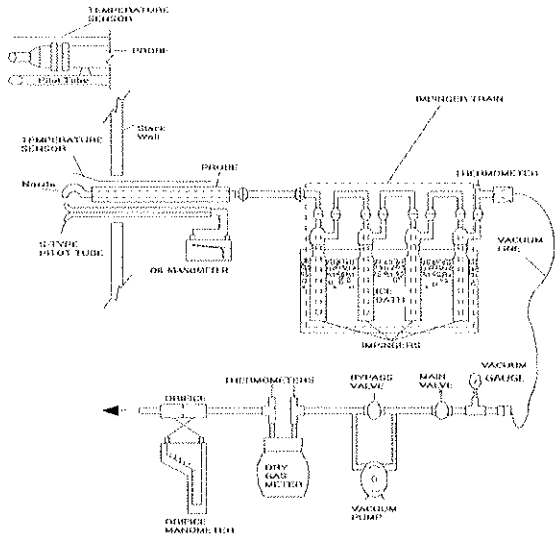
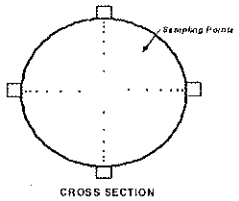


Figure 1. Method 4 Sampling Train

SOURCE INFORMATION

The charge to the Fluidized Catalytic Cracking Unit (FCCU) takes heavy oils and cracks the hydrocarbon bonds to form lighter useful hydrocarbon such as gasoline.

As presented below in Figure 2, the testing location on the FCCU Belco Scrubber consisted of four (4) sampling ports on the 146.0-inch ID stack.



TRAVERSE POINTS: 24
NUMBER OF PORTS: 4
POINTS/PORT: 6
STACK ID: 146.0 in.
PORT LENGTH: 6.0 in.

TRAVERSE POINT NO.	DISTANCE FROM INSIDE WALL, in.
1	3.1
2	9.8
3	17.2
4	25.8
5	38.5
6	52.0

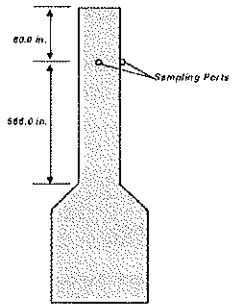


Figure 2. Diagram of Testing Location

SAMPLE CALCULATIONS

The following calculations were used in the determination of the relative accuracy for any one constituent being evaluated. The values listed below in Table 4 are the actual Flow Meter and RM Flow data obtained during the test. The units are in standard cubic feet per hour (SCFH), wet basis.

Run#	1	2	3	4	5	6	7	8	9	10	11
C_{RM}	12,341,874	12,650,811	12,622,325	12,703,950	12,673,346	12,551,759	12,589,421	12,625,714	12,637,806	12,539,113	12,620,643
C_{CEMS}	12,014,551	11,860,566	12,015,947	12,079,220	12,016,461	12,214,237	12,333,120	12,194,727	11,889,500	11,842,701	11,743,635
D_i *	527,323	790,245	606,378	624,730	550,885	337,522	257,301	430,987	748,306	696,411	877,007

*The nine lowest differences between RM and CERMS Data were used in determination of relative accuracy.

Table 4. RM and Continuous Monitor Data for Flow

Relative Accuracy Calculations

Determination of Average Difference (d_{avg})

$$\bar{d} = \left[\frac{1}{n}\sum_{i=1}^{n} d_i\right]$$

Where:

d = Average difference between RM and Flow Monitor data
n = Number of data points
d_i= Difference between RM and Flow Monitor data for any given point

$$\bar{d} = \frac{1}{9}\left[d_1 + d_2 + d_3 + \ldots.\right]$$

Determination of Standard Deviation (S_d)

$$S_d = \left[\frac{\sum_{i=1}^{n} d_i^2 - \frac{\left(\sum_{i=1}^{n} d_i\right)^2}{n}}{n-1}\right]^{1/2}$$

Determination of Confidence Coefficient

$$CC = \left[\frac{(t_{0.975})(S_d)}{\sqrt{n}}\right]$$

Where:

$t_{0.975}$ = t- value ($t_{0.975}$ = 2.306)
S_d = Standard deviation
n = Number of data points = 10

Determination of Relative Accuracy

$$RA = \left[\frac{|\bar{d}| + |CC|}{RM_{avg}}\right] x100\%$$

Absolute Stack Gas Pressure (P_s)

$$P_s = P_{bar} + \frac{P_{static}}{13.6}$$

Where: P_{bar} = Barometric pressure (in. Hg)
P_{static} = Static pressure of stack gas (in. H_2O)

Molecular Weight of Stack Gas, Dry Basis

$$M_d = \left((0.44 \times \%CO_2) + (0.32 \times \%O_2) + (0.28 \times (100 - \%CO_2 - \%O_2))\right)$$

Where:

M_d = Molecular weight of the stack gas, dry basis (lb/lb-mole)
% CO_2 = Amount of CO_2 found in the exhaust flow
% O_2 = Amount of O_2 found in the exhaust flow

Molecular Weight of Stack Gas, Wet Basis

$$M_s = M_d(1 - (\%H_2O \div 100)) + 18(\%H_2O \div 100)$$

Where:

M_d = Molecular weight of the stack gas, dry basis (lb/lb-mole)
$\%H_2O$ = Moisture content in the stack gas (%)
M_s = Molecular weight of stack gas, wet basis (lb/lb-mole)

Determination of Stack Gas Velocity

$$v_s = (85.49)(C_p)(avg\sqrt{\Delta P})\sqrt{\frac{T_s}{(P_s)(M_s)}}$$

Where:

v_s = Stack gas velocity (ft/sec)
C_p = Pitot coefficient (0.84)
T_s = Average stack temperature (°R)
P_s = Absolute stack gas pressure (in. Hg)
M_s = Molecular weight of stack gas, wet basis (lb/lb-mole)

Volumetric Flow Rate (Actual cubic feet per min)

$$Q_{aw} = v_s \, x \, A_s \, x \, 60$$

Where:

Q_{aw} = Volumetric flow rate (acfm)
v_s = Stack gas velocity (ft/sec)
A_s = Stack area (ft^2)

Volumetric Flow Rate (Standard Conditions, wet basis)

$$Q_{stdw} = \left(\frac{528}{29.92}\right) \times Q_{raw} \times \left(\frac{P_s}{T_s}\right)$$

Where:

Q_{stdw} = Volumetric flow rate (scfm, wet basis)
Q_{aw} = Volumetric flow rate (acfm)
P_s = Absolute stack gas pressure (in. Hg)
T_s = Average stack temperature (°R)

APPENDIX A – Testing Equipment

Testing Equipment

Provided in the Table 5 below is a list of all testing equipment used in the in the test program.

Golden Specialty, Inc.			
Constituent	**Make/Model**	**Operating Range**	**Serial Number**
Velocity	Apex / Type-S	0-100%	GSCP019
Moisture	Apex / XC-522	0-10 in.	902044
O_2/CO_2	Fyrite	0-25%/0-20%	10-5020 / GC-1

Table 5. Testing Equipment Used

APPENDIX B – Resumes

SCOTT B. SWIGGARD, Ph.D., QSTI
PRESIDENT / TECHNICAL DIRECTOR

Professional Experience Summary

- Broad background in environmental compliance and regulatory issues. Has directed projects associated with air permitting, groundwater contamination, air toxins emissions control, hazardous materials control and reporting, wastewater process control (metals removal), energy conservation, industrial ventilation, noise control, bioremediation, and storm water control.
- Extensive background in emission testing, with over 1,600 tests personally conducted and/or supervised.
- Responsible for the continued development of testing capabilities and their research and development.
- Provides project management for testing at assigned client's facilities. Provides field support to the project managers on testing protocols and methods.
- Responsible for verification and validation on test data as part of a Quality Assurance/ Quality Control Program.

Selected Publications/Presentations

Swiggard, Scott and Spellicy, Robert, PhD., FTIR Monitoring in High Water and Carbon Dioxide Environments. Presented at the 2003 Air and Waste Management Association 96th Annual Conference and Exhibition, San Diego, CA, June 22-26, 2003.

Swiggard, Scott B., Comparative study of NH3 analysis and methods for SCR Slippage. Presented at Source Evaluation Society Annual Meeting, Kiawah Island, North Carolina, 2004

Swiggard, Scott B., Identifying In-Stack Detection Limits and Handling of Non-Detect Data, Presented at Source Evaluation Society Annual Meeting, Rohnert Park California, 2005

Swiggard, Scott B., Why Cooling Towers and Vents matter in Texas!, Presented at Source Evaluation Society Annual Meeting, Hilton Head North Carolina, 2006

Swiggard, Scott B., How accurate are your standards?, Presented at Source Evaluation Society Annual Meeting, Hilton Head North Carolina, 2006

Swiggard, Scott B., Bonnette Sidney, PhD., and Palomarez Jorge., Gas Chromatography (GC) Analysis of HRVOC's in Cooling Towers and Vents; including degradation 1,3-Butadiene in the presence of NOx compounds, Presented at the GAS2006 Conference, Galveston, Texas, April 2006

Swiggard, S., McCulloch, R. Stack Testing for Dummies®, Golden Specialty Edition. Indianapolis: Wiley Publishing, 2011.

Professional Affiliations

Source Evaluation Society (SES) – QSTI I, III & IV #2006-025
Air and Waste Management Association (AWMA)
Source Testing Accreditation Council (STAC) – Member and Board of Directors
ASTM International, Voting Member D22, #395691

TROY M. BURROWS,
MBA, QSTO, ASQ-CQA, CSSBB, CMQ/QE

MANAGER OF QUALITY ASSURANCE AND SAFETY
DEPUTY TECHNICAL DIRECTOR

Professional Work Summary

- Effectively carry out the responsibilities of laboratory's quality and safety policies by emphasizing the importance of commitment and accountability.
- Created multiple Quality Management Systems from start-up through implementation.
- Proficient at preparing and implementing quality guidelines and safety procedures.
- Administer accurate safety logs and complete training records.
- Continuously perform thorough internal audits reducing deficiencies from regulatory or client audits.
- Manage and obtain all laboratory accreditations and licenses.
- Review and approve analytical data.
- Successfully implemented the quality rules detailed in the QA Manual.
- Performed and scheduled all trainings pertaining to the quality system.
- Responsible for the coordination of all audits, their deficiencies and corrective actions.
- Efficiently managed all levels of QA and Safety in accordance to regulatory and federal requirements.
- Recruited, hired and trained personnel in quality policies, safety and analytical methods.
- Created and provided both online and in-person training materials for Stack Testing firms.

Work Experience

Golden Specialty, Inc. (August 2013 – Present): QA/Safety Manager / Deputy Technical Director

Entec Services, Inc. (July 2010 – June 2013): Corporate Quality Manager

Dominion Virginia Power (February 2004 – July 2010): Quality Specialist / Instrument Technician III

Kelly Scientific Resources (October 2003 – February 2004): (Contract) Environmental Specialist

Battelle Memorial Institute (February 1993 – March 2003): Environmental Chemist / QC Inspector

Selected Publications/Presentations

Burrows, T.M., Elam, D. The Rosetta Stone for Quality Management, SSSAAP Conference (SES), Hilton Head, SC, March, 2013.

Burrows, T.M., Quality Management Systems for Source Testers, SSSAAP Conference (SES), Panama City, FL, February, 2010.

Professional Affiliations

Source Evaluation Society (SES): QSTO I–III, QSTI IV #2008-113
The NELAC Institute (TNI), Field Activities Committee member
American Society for Testing and Materials (ASTM), D.22 Committee member
American Society for Quality (ASQ), Senior Member, Deputy Editor of the Quality Management Forum
Stack Testing Accreditation Council (STAC), Chair, Technical Assessment Board

Education

MBA, University of Maryland University College (UMUC), Adelphi, Maryland, 2013
B.S., Environmental Management / Business Law & Public Policy, University of Maryland University College (UMUC), Adelphi, Maryland, 2011

DANIEL A. LOUBIERE, QSTI

PROJECT MANAGER

Professional Experience Summary

- Responsible for designing, planning and managing sampling programs, daily assignments of field testing crews, sample analysis, data reduction, QA/QC reviews, and reporting activities.
- Broad background in environmental compliance and regulatory issues. Extensive experience designing and managing test programs to meet federal, state and local compliance demonstration requirements.
- Participated in or supervised over 1,700 tests across the United States, including hazardous waste incinerator trial burns, continuous emission monitoring systems (CEMS) certification, and compliance testing.
- Sampling experience includes flow stream characterization and monitoring of a number of types of flow streams for engineering purposes; emissions sampling for regulatory compliance demonstration; emissions sampling for systems audit requirements of continuous emission monitoring systems (CEMS) and predictive emissions monitoring systems (PEMS).
- Developed and manufactured equipment to perform sampling for highly reactive volatile organic compounds (HRVOC) to comply with TCEQ Chapter 115 Subchapter H requirements. Experienced in modified El Paso Method, Appendix P, (Cooling Tower Sampling for Volatile Organic Compounds); applicable to sampling and troubleshooting leaks in process systems.
- Assist clients in troubleshooting and repairing existing emissions monitoring systems, or designing and implementing new systems.

Work Experience

Golden Specialty, Inc. (June 2007 - Present)
Position: Project Manager

ARI Environmental, Inc. (March 1994 – June 2007)
Position: South Central Regional Manager

Professional Affiliations

Source Evaluation Society (SES) – QSTI I & III #2008-128, QI Groups II & IV
Air and Waste Management Association (AWMA)

Professional Education

24 Hour Hazwoper Training 29 CFR 1910.120
Preparation for the SES QSTI Exam Workshop, Walter Smith and Associates, 2007
Studies towards BS Degree in Environmental Science
Visible Emissions Certified (EPA Method 9)
Qualified Individual – Cylinder Gas Audits
Man-Lift Training, August 2006

PAULA M. METZ, QSTI
REPORTS DEPARTMENT MANAGER

Professional Experience Summary

- Experience with EPA testing regulations, including 40 CFR, Part 60, Part 75, and Part 266, and TCEQ testing regulations, including 30TAC115, 30TAC117, and TCEQ Sampling Procedures Manual.
- Over 6 years of experience and participation in over 500 tests in Texas, Arkansas, Ohio, Mississippi, and Louisiana.
- CEM instrumentation projects include continuous analysis for carbon monoxide (CO), total oxides of nitrogen (NO_x), oxygen (O_2), carbon dioxide (CO_2), total hydrocarbons (THC), and sulfur dioxide (SO_2).
- Sampling experience includes flow stream characterization and monitoring of a number of types of flow streams for engineering purposes; including analysis using 3-D spherical probes per Method 2F, emissions sampling for regulatory compliance demonstration; emissions sampling for systems audit requirements of continuous emission monitoring systems (CEMS).
- Conducted isokinetic sampling and calculations for Methods 1, 1A, 2, 2A, 2F, 3, 3B, 4, and 5, including sample recovery, preservation, and storage at the test site with associate sample custody requirements for the methods listed.
- Knowledgeable in the testing requirements and procedures for the testing and analysis of Predictive Emissions Monitoring Systems (PEMS). Participated in several new source performance standards (NSPS) for development of new PEMS, including initial data collection of emissions.
- Experienced in modified El Paso Method, Appendix P, (Cooling Tower Sampling for Volatile Organic Compounds); applicable to monthly sampling and troubleshooting leaks in Process systems.
- Experienced in report writing, review, and finished product.

Work Experience

Golden Specialty, Inc. (February 2001 - Present)
Position: Reports Department Manager

Professional Affiliations

Source Evaluation Society (SES) – QSTI I-III 2006-026

Education

Associate of Arts – Chemistry, San Jacinto Community College, December 2010
Visible Emissions Certified (EPA Method 9), 2004-2007
12 Hour Basic Instrumentation Training, California Analytical Instruments, January 2003
Source Sampling and CEMS Workshop, Walter Smith & Associates, 2002, 2003 and 2004
Preparation for the SES QSTI Exam Workshop, Walter Smith and Associates, 2005
SkillPath® Seminars, Employee Management and Supervision Workshop, 2003
Hazardous Materials Shipping Qualified, 2006
Man-Lift Training, August 2006
Fred Pryor®:Team Building Seminar, 2007
Fred Pryor®:Excel: Beyond the Basics" Seminar, 2007
Qualified Individual – EPA Method 320 & ASTM 6348-03

BRYAN JOHNSON
ENVIRONMENTAL TECHNICIAN

Professional Experience Summary

- Experience with EPA testing regulations, including 40 CFR, Part 60 and Part 75.
- CEM instrumentation projects include continuous analysis for carbon monoxide (CO), total oxides of nitrogen (NO_x), oxygen (O_2), and carbon dioxide (CO_2).
- Knowledgeable in all required regulations and methodologies for the testing and analysis of stack gas velocity and moisture content analysis.
- Knowledgeable in testing requirements and procedures for the testing and analysis of Predictive Emissions monitoring systems (PEMS) in accordance with Title 30 of the Texas Administrative Code, Chapter 117.
- Knowledgeable in OSHA, ISO 9001 regulations.

Work Experience

Golden Specialty, Inc. (September 2003 – Present)
Position: Environmental Technician

Texas Department of Criminal Justice (August 2002 – June 2003)
Position: Correctional Officer (COIII)

TASC Environmental Services (February 1999 – October 2001)
Position: Environmental Specialist

Baker Hughes Petrolite Corporation (May 1991 – February 1999)
Position: Chemical Operator

Professional Affiliations

Source Evaluation Society (SES)

Education

Source Sampling and CEMS Workshop, Walter Smith & Associates, 2003 and 2004
Correctional Officer Training Program, College of the Mainland, 2002
ISO 9000 Course, San Jacinto College, 1996
Lamar Industrial Fire School, Lamar University, 1995
Chemical Process Technician Course, Petrolite Corporation, 1992
Man-Lift Training (3/1/05)
Source Sampling and CEMS Workshop, Walter Smith & Associates, 2004
Preparation for the SES QSTI Exam Workshop, Walter Smith and Associates, 2005
Fred Pryor®:Team Building Seminar, 2007
Qualified Individual – Cylinder Gas Audits
Qualified Individual – Portable Combustion Analyzer
Qualified Individual – USEPA Reference Methods 1-4

CURTIS W. BERRIDGE
ENVIRONMENTAL TECHNICIAN

Professional Experience Summary

- In training for instrumentation methods: carbon monoxide (CO), total oxides of nitrogen (NO_x), oxygen (O_2), and carbon dioxide (CO_2).
- In training of USEPA testing regulations, including 40 CFR Part 60 and Part 75.
- In training for testing requirements and procedures for the testing and analysis of Continuous Emission Monitoring Systems (CEMS) and Predictive Emissions Monitoring Systems (PEMS) in accordance with Title 30 of the Texas Administrative Code, Chapter 117.
- In training for modified El Paso Method, Appendix P (Cooling Tower Sampling for Volatile Organic Compounds.
- In training for performing maintenance, repair and calibrations on a variety of air testing equipment.

Work Experience

Golden Specialty, Inc. (June 2012 – present)
Position: Environmental Technician

Guardian Maritime Services (August 2010 – April 2012)
Position: Drive / Agent

Academy Sport and Outdoors (October 2000 – July 2010)
Position: Manager

Education

Pasadena H.S. – Graduated, May 1997
Basic Plus Training (H.A.C.S.C.)
Qualified Individual – Appendix P & Method 18
Qualified Individual – Cylinder Gas Audits

Air Quality Test Report

APPENDIX C – Calibration Data

GOLDEN SPECIALTY

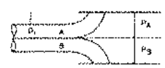
FORM# TM003-002
REV 2012-02, EFF 12/7/12

S-TYPE PITOT TUBE INSPECTION

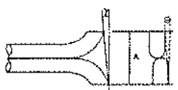
Pitot tube No: GSC-P019 Date: 6-2-14 Performed By: C. BERRIDGE

Pitot tube assembly level? ✓ Yes ____ No

Pitot tube openings damaged? ____ Yes (explain below) ✓ No

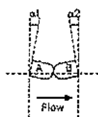


D_t (in.): 0.375 3/16 in.<D_t<3/8 in. ? YES
P_A (in.): 0.467 P_A = ____ x D_t (P_A/D_t)
P_B (in.): 0.468 P_B = ____ x D_t (P_B/D_t)

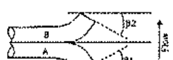


γ : 0 °
θ : 0 °
A (in.): 0.935

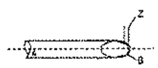
1.05*D_t<P_A<1.5*D_t ? YES
1.05*D_t<P_B<1.5*D_t ? YES
P_A=P_B ± 0.063 in. ? YES



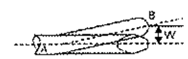
$α_1$: 0 ° (<10°)
$α_2$: 0 ° (<10°)



$β_1$: 0 ° (<5°)
$β_2$: 0 ° (<5°)



z = (A sin γ): 0 in. (< 0.125)



w = (A sin θ): 0 in. (< 0.03125)

Comments:

Calibration Required? ____ Yes ✓ No

Pitot tube No. ____ meets Method 2 specifications and is assigned a calibration factor of 0.84.

Signature: Curtis W. Berridge

APEX INSTRUMENTS
METHOD 5 XC-522 CONSOLE CALIBRATION
for
GOLDEN SPECIALTIES

Meter/Console Information	
Console Model Number	XC-522
Console Serial Number	902044
DGM Model Number	S-110
DGM Serial Number	328931

Calibration Conditions			
Date	3-Oct-12	Time	1:34
Barometric Pressure	29.70	in Hg	
Calibration Technician	SB		
Calibration Meter Gamma	0.9999		

Standardized Factors/Conversions		
Temperature	528	R
Pressure	29.92	in Hg
K_1	17.647	R/in Hg

Calibration Data

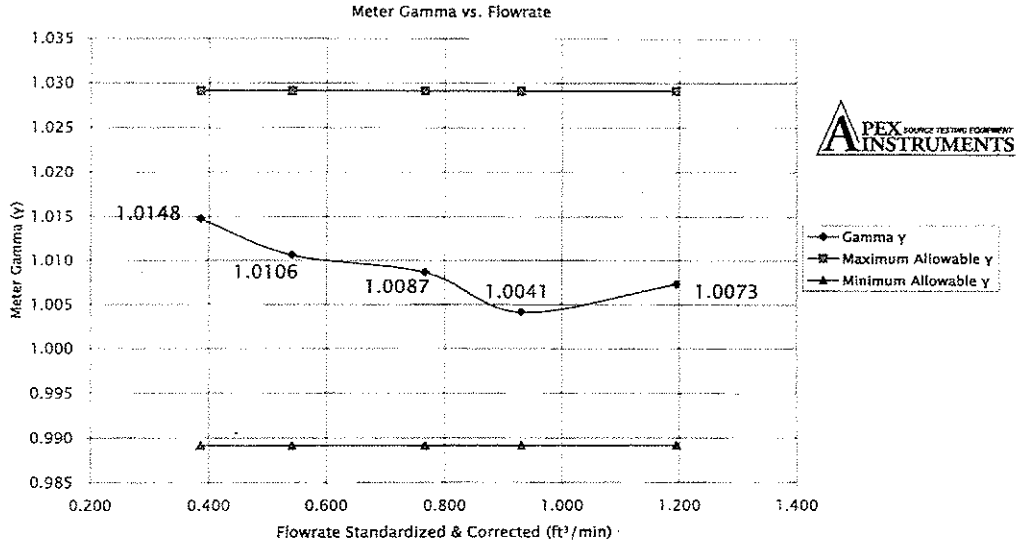
Run Time Elapsed θ (min)	DGM Orifice ΔH (P_m) (in H_2O)	Dry Gas Meter Volume Initial V_m (cubic feet)	Volume Final V_m (cubic feet)	Sample Volume V_m (cubic feet)	Outlet Temp Initial t_m (°F)	Outlet Temp Final t_m (°F)	Calibration Meter Volume Initial V_c (cubic feet)	Volume Final V_c (cubic feet)	Sample Volume V_c (cubic feet)	Outlet Temp Initial t_c (°F)	Outlet Temp Final t_c (°F)
5.00	5.00	103.265	109.331	6.066	82.0	83.0	408.891	415.025	6.134	77.0	77.0
6.00	3.00	109.331	115.053	5.722	83.0	83.0	415.025	420.750	5.725	77.0	77.0
7.00	2.00	115.053	120.544	5.491	83.0	84.0	420.750	426.250	5.500	77.0	77.0
10.00	1.00	120.544	126.091	5.547	84.0	84.0	426.250	431.798	5.548	77.0	77.0
15.00	0.50	126.091	132.015	5.924	84.0	84.0	431.798	437.740	5.942	77.0	77.0

Results

Dry Gas Meter Vstd (cubic feet)	Dry Gas Meter Qstd (cfm)	Calibration Meter Vstd (cubic feet)	Calibration Meter Qstd (cfm)	Calibration Factor Value Y	Calibration Factor Variation ΔY	Dry Gas Meter Flowrate Qm(std) (cfm)	ΔH@ Value ($ΔH_@$ in H_2O)	ΔH@ Variation
5.933	1.187	5.976	1.195	1.0073	-0.002	1.195	1.903	0.044
5.564	0.927	5.587	0.931	1.0041	-0.005	0.931	1.880	0.021
5.321	0.760	5.368	0.767	1.0087	0.000	0.767	1.845	-0.012
5.357	0.536	5.414	0.541	1.0106	0.002	0.541	1.850	-0.009
5.715	0.381	5.789	0.387	1.0148	0.006	0.387	1.8	-0.044
				1.0091	Y Average		1.859	ΔH@ Average

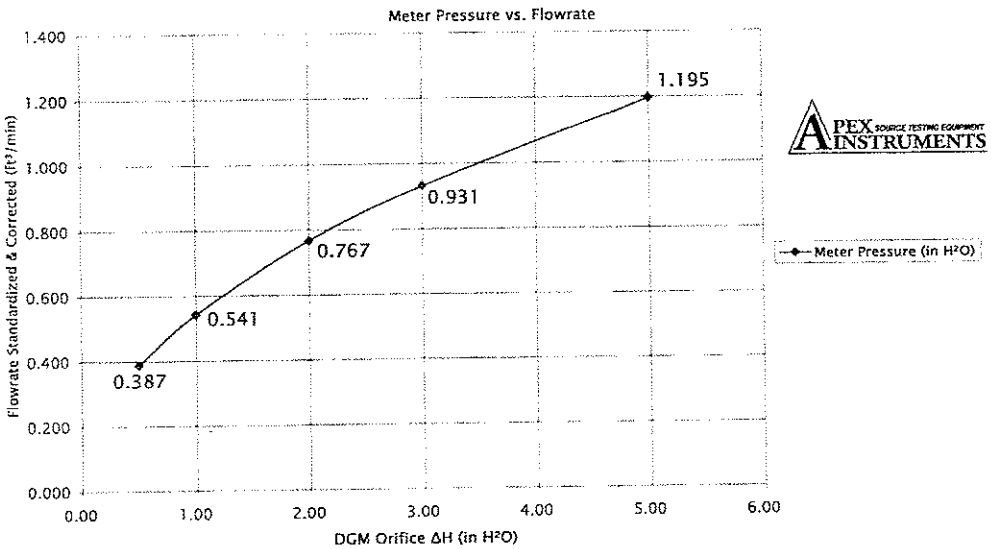
APEX INSTRUMENTS
SOURCE TESTING EQUIPMENT

APEX INSTRUMENTS
METHOD 5 XC-522 CONSOLE CALIBRATION
for
GOLDEN SPECIALTIES
CONSOLE SN 902044 - DGM SN 328931 - October 3, 2012



APEX INSTRUMENTS · 204 Technology Park Lane · Fuquay-Varina, North Carolina 27526 (919) 557-7300 · FAX (919) 557-7110

APEX INSTRUMENTS
METHOD 5 XC-522 CONSOLE CALIBRATION
for
GOLDEN SPECIALTIES
CONSOLE SN 902044 - DGM SN 328931 - October 3, 2012



APEX INSTRUMENTS · 204 Technology Park Lane · Fuquay-Varina, North Carolina 27526 · (919) 557-7300 · FAX (919) 557-7110

APEX INSTRUMENTS
EPA Method 5
S23 Series Meter Box Calibration
Precision Critical Orifice Method
English Meter Box Units, English K' Factor

Meter #: 4321
Serial #: 4500XA

Date: 6/18/2014
Barometric Pressure: 30.32 (in. Hg)
Theoretical Critical Vacuum: 14.18 (in. Hg)

!!!!!!!!!!
IMPORTANT: For valid test results, the Actual Vacuum should be 1 to 2 in. Hg greater than the Theoretical Critical Vacuum shown above.
IMPORTANT: The Critical Orifice Coefficient, K', must be entered in English units, (ft^3)(deg.R)^0.5/(in. Hg)(min).
!!!!!!!!!!

ΔH (in. H2O)	Time (min)	Volume Initial (ft^3)	Volume Final (ft^3)	Volume Total (ft^3)	Initial DGM Outlet Temps. (deg.F)	Final DGM Outlet Temps. (deg.F)	Orifice Serial #	K' Orifice Coefficient (deg.R)^0.5/(in.Hg)(min)	Actual Vacuum (in. Hg)	Ambient Temperature - Initial (°F)	Ambient Temperature - Final (°F)	Ambient Temperature - Average (°F)	DGM Outlet Temps. (°F)	Ambient Temps. (°R)
0.63	15.00	871.205	877.045	5.840	80.0	84.0	CO-48	0.3385	29.0	85.0	85.0	85.0	542.5	545.0
1.10	15.00	882.126	891.211	9.111	80.0	86.0	CO-48	0.3385	29.0	85.0	85.0	85.0	545.0	545.0
1.90	15.00	891.600	901.425	11.825	80.0	86.0	CO-48	0.3385	29.0	85.0	85.0	85.0	545.5	545.0
3.70	15.00	901.600	918.786	16.546	80.0	86.0	CO-73	0.6977	13.0	85.0	85.0	85.0	545.5	545.0
7.90	15.00	920.000	939.922	19.922	82.0	84.0	CO-47	0.9968	10.0	85.0	85.0	85.0	550.0	545.0

RESULTS

DRY GAS METER: VOLUME CORRECTED (dscf)	DRY GAS METER: VOLUME CORRECTED (dscm)	ORIFICE: VOLUME CORRECTED Vm(std) (dscf)	ORIFICE: VOLUME CORRECTED Vm(std) (dscm)	ORIFICE: VOLUME NOMINAL Vcr (dscf)	DRY GAS METER: Y Value (number)	DRY GAS METER: Y Variation (number)	DRY GAS METER: Pass / Fail	ORIFICE: CALIBRATION FACTOR Value (number)	ORIFICE: CALIBRATION FACTOR Variation (number)	ORIFICE: CALIBRATION FACTOR Pass / Fail
5.582	158.1	6.529	184.9	6.720	0.992	0.006		1.729	-0.679	Pass
8.877	251.4	8.708	246.8	9.011	0.996	0.000	Pass	1.765	-0.648	Pass
11.513	326.0	11.346	321.3	11.677	0.996	0.000	Pass	1.811	-0.604	Pass
15.749	446.0	15.454	437.6	15.915	0.989	-0.004	Pass	1.861	-0.557	Pass
19.373	548.8	19.073	540.1	19.629	0.994	-0.002	Pass	1.876	-0.542	Pass
					Average Y ——>	0.9865		Average DH@ ——>	1.815	45.06

Note: For Calibration Factor Y, the ratio of the reading of the calibration meter to the dry gas meter, acceptable tolerance of individual values from the average is +/- 0.02.

For Orifice Calibration Factor ΔH@, the orifice differential pressure in inches of H2O that equates to 0.75 cfm of air at 68 F and 29.92 inches of Hg, acceptable tolerance of individual values from the average is +/- 0.2.

SIGNE: Brian Johnson — Date: 6/18/2014

Golden Specialty, Inc — Deer Park, Texas

Example Flow Calculations

Source: Unit 2 Run: RA 9
Test Date: 6/3/2014 Personnel: DL/BJ/CB

Values from Field Data Sheet

Avg. √ΔP	0.568	T_s	605.5	°R	P_{bar}	29.84	P_s	-0.25	C_p	0.84	
Avg. ΔH	1.68	T_m	532.0	°R	V_m	43.767	A_s	116.26	M_n	NA	
Meter Y	0.986	O_2	1.00	%	CO_2	18.00	%	V_{lc}	299.1	θ	60 min.
Meter ΔH@	1.746				D_n	NA					

Calculated Values

1. Nozzle Area = $A_n = (3.1416 / (144*4))*(D_n)^2$

2. Stack Standard Pressure = $P_s = P_{bar} + (P_{static}/13.6)$

3. Standard Sample Volume = $V_{m(std)} = \dfrac{(V_m)(Y)(528)(P_{bar} + \Delta H/13.6))}{(T_m)(29.92)}$

4. Water Vapor Collected = $V_w = (0.0415)(V_{lc})$

5. Moisture Content = Bws = $\dfrac{V_w}{(V_w + V_{m(std)})}$

6. Stack Gas Dry Molecular Weight = M_d *If "NA" for O_2 & CO_2, 29.0 from Section 8.6 of Method 2 was used.*
$M_d = 0.44(CO_2\%) + 0.32(O_2\%) + 0.28(100-(CO_2\%+O_2\%))$

7. Stack Gas Molecular Weight = $M_s = M_d(1-B_{ws}) + 18(B_{ws})$

8. Stack Gas Velocity = $V_s = 85.49\ (C_p)\ (\text{Avg. } \sqrt{\Delta P})\ (\sqrt{(T_s/(M_s P_s))})$

9. Stack Gas Velocity = ACFM = V_s X 60 X A_s

10. Standard Volumetric Flow Rate (wet) = SCFH = ACFM X (528/ T_s) X (P_s X 29.92)

Example Flow Calculations

Source: Unit 2 Run #: RA 9
Test Date: 6/3/2014 Completed By: DL/BJ/CB

Values from Field Data Sheet

Avg. $\sqrt{\Delta P}$	0.568	T_s	605.5	°R	P_{bar}	29.84	P_g	-0.25	C_p	0.84	
Avg. ΔH	1.677	T_m	532.0	°R	V_m	43.767	A_s	116.26	M_n	NA	
Meter Y	0.986	O_2	1.00		CO_2	18.00	V_k	299.1	θ	60	min.
Meter $\Delta H@$	1.746				D_n	NA					

Calculated Values

1. A_n = (3.1416 / (144*4)* (NA)^2 = NA

2. P_s = (29.84) + (-0.3 / 13.6) = 29.82

3. $V_{m(std)}$ = (43.767)(0.986)(528)(29.84 + 1.68 /13.6) = 42.888
(532.0)(29.92)

4. V_w = (0.04715)(299.1) = 14.10

5. B_{ws} = (14.10)/ (14.10 + 42.888) = 0.2475

6. M_d = 0.44(18.00)+ .32(1.00)+ .28(100- (18.00 + 1.00)) = 30.92

7. M_s = (30.92)(1- 0.2475) + 18 (0.2475) = 27.72

8. V_s = 85.49(0.84)(0.568)(√(605.5 / 27.72 * 29.82)) = 34.90

9. ACFM = (34.90)(60)(116.26) = 243,431

10. SCFH = 243,431 X (528.0 / 605.5) X (29.82 / 29.92) X 60 = 12,694,523

Relative Accuracy Example Calculations

FACILITY: Valero Refining - Texas, L.P.		DATE:	6/3 - 6/5/2014
SOURCE NAME: FCCU Scrubber Stack		CITY, STATE:	Houston, TX
COMPOUND: Flow		UNITS:	SCFH, wet

Relative Accuracy

Test No.	Date	Start Time	Reference Sample (RM)	Analyzer Reading	Difference DIFF	No. of Sets	$t_{0.975}$ Values for No. of Sets	Difference Squared Diff^2
1	6/3/2014	12:08	12,541,874	12,014,551	527,323	1	NA	2.78E+11
2	6/3/2014	15:00	12,650,811	11,860,566	790,245	2	12.706	6.24E+11
3	6/3/2014	18:23	12,622,325	12,015,947	606,378	3	4.303	3.68E+11
4	6/4/2014	9:26	12,573,346	12,016,461	556,885	4	3.182	3.10E+11
5	6/4/2014	11:00	12,551,759	12,214,237	337,522	5	2.776	1.14E+11
6	6/4/2014	13:16	12,590,421	12,333,120	257,301	6	2.571	6.62E+10
7	6/4/2014	14:55	12,625,714	12,194,727	430,987	7	2.447	1.86E+11
8	6/4/2014	7:35	12,637,806	11,889,500	748,306	8	2.365	5.60E+11
9	6/5/2014	10:25	12,539,113	11,842,701	696,411	9	2.306	4.85E+11
						10	2.262	
						11	2.228	
						12	2.201	
Excluded Runs: 4 & 11		Avg. RM =	12,592,574	SUM DIFF =	4,951,359	Sum Diff^2 =		2.99E+12

cc = confidence coefficient. Avg. RM = average reference method value. Diff = RM - Analyzer Reading
S_d = Standard Deviation. |d| = absolute value of mean of the differences.
AS = applicable standard. |cc| = absolute value of the confidence coefficient.

$|d| = \{ \text{SUM DIFF} \} / \text{No. of Sets}$
$|d| =$ [4,951,359] / 9 = 550,151

$S_d = \{ \{ [\text{Sum Diff}^2] - \{ [\text{SUM DIFF}^2 / n] \} / n-1 \}^{.5}$
$S_d =$ { [2.99E+12] - { [4,951,359]^2 / 9 } } / 9-1)^.5 = 182,758

$cc = t_{.975} * [Sd / (n^{.5})]$
$cc =$ 2.306 * [182,758 / 3] = 140,480

Relative Accuracy

RA = [{ |d| + |cc| } / Avg. RM] * 100 =

RA = [{ 550,151 + 140,480 } / 12,592,574] * 100

RA = 5.48%

Allowable Limits:
Limit: 10% - CO Limit: 1% - O_2 & CO_2
Limit: 20% - NO_x Limit: 20% - SO_2
Allowable Limits Acid Rain :
Limit: 10% - NO_x/O_2 System in lb/MMBtu

Relative Accuracy versus Applicable Standard

ALT RA = [{ |d| + |cc| } / App. Std.] * 100 =

ALT RA = [{ 550,151 + 140,480 } / 9.00] * 100

ALT RA = NA

Allowable Limits:
Limit: 5% - CO Limit: 1% - O_2 & CO_2
Limit: 10% - NO_x Limit: 10% - SO_2
Allowable Limits Acid Rain :
Limit: 0.02 lb/MMBtu for sources with emissions of < 0.20 lb/MMBtu
PS 4A: |d| + |cc| Limit: 5 ppm
NO_x : TCEQ Rule 117: |d| + |cc| Limit: 2 ppm

Calc. QA Performed by .....

GOLDEN SPECIALTY

Air Quality Test Report

APPENDIX D – Field Data

FORM# GSC-TM002-001
REV 2010-02, EFF 2/7/11

FIELD DATA SHEET 1
Sampling Velocity Traverse Points

Client/Plant Name Vmax Job# 140135

City/State Houston, TX Date/Time 6/3/14

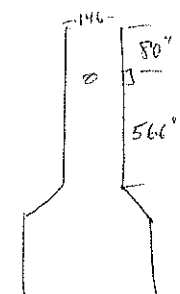
Test Location FCCU Scrubber Stack Personnel [illegible]

Port I.D.	4"		
Distance from Far Wall to Outside of Port	154-"		
Nipple Length and/or Wall Thickness	8-"		
Stack/Duct (✓) Blue Print ( ) Measured (X)			
Depth/Diameter (>12 in. ?)	146-"		
Width (if rectangular)	—		
Equiv. Diameter (if rect.) $D_e = 2\,D\,W/(D + W)$			
Area (A) (>113in.²?) $A = \pi D^2/4$ or $D\,W$			
	Distance	D_e	No. Pts*
Upstream (≥ 2 D_e?)	566	3.8	
Downstream (≥ 0.5 D_e?)	80	0.55	
Cyclonic Flow Checked?	Yes	No	NA
Rectangular Matrix			

Pt.	%Duct Depth	Dist from Inside Wall*	Dist from Oustide of Port
1	0.021	3.1	11.1
2	0.067	9.8	17.8
3	0.118	17.2	25.2
4	0.177	25.8	33.8
5	0.260	36.5	44.5
6	0.356	52.0	60.0
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			

*Do not place closer to stack walls than:
1.0 in. for stack dia > 24 in.
0.5 in. for stack dia 12 to ≤ 24 in.

*Circle larger of two



Sketch of Location: In the space above, sketch a flow diagram of the test location; show the distance from the ports to the distrubances before & after. Sketch the cross-sectional area; show sampling port locations. In horizontal ducts, check for dust buildups & measure or estimate the depth.

QA/QC Check
Completeness ✓ Legibility ✓ Accuracy ✓ Specifications ✓ Reasonableness ✓

Checked by: [signature] Personnel (Signature/Date) [signature] Team Leader (Signature/Date)

0.32" [illegible]

CYCLONIC FLOW DETERMINATIONS

FORM # GSC-TM002-003
REV 2010-01, EFF 11/1/10

Plant Name Valero
City/State Houston TX
Test Loc. FCC
Barometric Pres. (Pbar) 30.07 In. Hg
Pitot/Orfices ID GC-U-72-P-1
Thermocouple ID —

Job No. 140135
Date 7-8-14
Personnel BS
Static Pres. (Pg) -0.21 In. H_2O
Pitot Coef. (C_p) 0.84 Pres. Gauge Set ID _____
Duct Length/Diamter _____ Width _____
Specify Inches (") or feet (')

Horizontal Duct Flyash/Dust Buildup > 1" Depth (√)? Yes ____ No ✓ (If Yes, see Page 2 for instructions.)

PRELIMINARY TRAVERSES
Start - Finish Times
1245 - 1335

Test Pt.	Yaw Angle, °ø
A 1	2
2	1
3	1
4	3
5	1
6	1
B 1	3
2	1
3	2
4	2
5	3
6	3
C 1	2
2	1
3	2
4	2
5	2
6	3
D 1	3
2	1
3	1
4	3
5	3
6	2
Avg.	

ALIGNMENT APPROACH DATA
(OMIT IF AVERAGE OF YAW ANGLES ≤ 20°

Run No.*		Run No.*		Run No.*	
Base Time	Min/ Point**	Base Time	Min/ Point**	Base Time	Min/ Point**
Avg. ΔP_v***		Avg. ΔP_v***		Avg. ΔP_v***	

Note: Yaw angle average is sume of the absolute values divided by# of measurements, and must be ≤20°.
ΔP average is square of average square root
* From Isokinetic sampling field data sheet
** Minutes/Point = cosø (Base Time)
*** Average ΔP = [(Σcosø/ΔP) / n]³

Page ___ of ___

USEPA Method 5B Field Data Sheet

SPECIALTY

Project Number: 140135
Location: Houston, Valero
Process: Flexicoker
Source Name: Flue Stack
P_{bar} (in. Hg): 29.81
P_{static} (in. H_2O): -0.25
A_n (ft²): —
Nozzle Dia. (in.): 0.3401

Test Date: 7-8-14
Run Number: 1-1
Operator: BS
Pilot Coeff: 0.84
Filter Number: 76816
Ref. Temp (F): 68

Meter Box ID: 20206H
Probe/Pitot ID: GC-U-72-P-1
Impinger Box ID: —
Heater Box ID: —
Meter Y: 0.9963
ΔH@: 1.8812

Pitot Line: Pre-test: ✓ Post-test: ✓
O_2 %: — 1
CO_2 %: — 18
Time (min.): 60

Leak Check (Pre): 0.001
Leak Rate: 15 Vac: 15
If needed: (Mid) — (Mid)
Leak Rate: — Vac: —
B_{ws}: —

Traverse Point	Time	ΔP (in. H_2O)	ΔH	Meter Conditions: Meter Volume	Temperature (°F): Stack	Probe	Oven	Meter (°F): In	Out	Imp Out (°F)	Vac (in. Hg)
A 1	1208 0	0.35	1.85	326.537	146	329	341		67	59	-5
2	1213.5 4.5	0.35	1.84	333.31	146	329	326		67	55	-5
3	1218 9	0.31	1.53	340.32	147	329	316		67	59	-5
4	1223.5 13.5	0.29	1.53	346.73	147	328	315		67	59	-5
5	1228 18	0.36	1.52	353.15	146	328	315		67	59	-5
6	1233.5 23.5	0.29	1.53	359.63	146	326	320		66	55	-5
B 1	1238 28	0.31	1.67	366.17	147	327	320		66	55	-5
2	1243.5 33.5	0.33	1.69	372.93	146	327	320		66	55	-5
3	1248 38	0.33	1.74	351.61	146	326	321		66	58	-5
4	1253.5 43.5	0.31	1.68	356.54	146	326	321		70	60	-5
5	1258 48	0.33	1.76	361.12	146	325	322		74	60	-5
6	1303.5 53.5	0.33	1.71	365.67	146	325	322		74	61	-5
C 1	1308 58	0.33	1.76	370.26	145	325	322		74	61	-5
2	1313.5 63.5	0.32	1.71	374.84	146	324	321		75	61	-5
3	1318 68	0.33	1.77	379.43	146	326	321		76	61	-5
4	1323.5 73.5	0.33	1.77	384.02	145	327	321		76	62	-5
5	1328 78	0.32	1.76	388.62	145	327	322		77	62	-5
6	1333.5 83.5	0.31	1.67	393.21	145	327	323		77	62	-5
D 1	1338 88	0.32	1.72	397.80	145	327	323		77	62	-5
2	1343.5 93.5	0.33	1.78	402.57	145	327	322		76	62	-5
3	1348 98	0.32	1.72	407.36	146	327	322		76	62	-5
4	1353.5 103.5	0.31	1.67	412.16	146	327	321		76	62	-5
5	1358 108	0.32	1.72	416.96	145	327	321		76	62	-5
6	1403 113	0.32	1.72	421.76	145	327	322		76	62	-5

Impinger Weight/Volume

	Final	Initial	Diff.
1	787.6	709.1	77.9
2	804.5	716.0	88.5
3	691.5	638.6	52.9
4	922.2	883.9	38.3
5			
6			
Total:			256.6

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USEPA Method 5B Field Data Sheet

Page ___ of ___

SPECIALTY

Project Number: 140135
Location: Hoa
Process: Kiln
Source Name: Flue Stack
P_{bar} (in. H_g): 29.21
P_{static} (in. H_2O): -0.25
A_s (ft^2): —
Nozzle Dia. (in.): 0.301

Test Date: 6.3.14 (6/4/14)
Run Number: 2+1-2
Operator: BS
Pitot Coeff: 0.84
Filter Number: 2060
S-type / 0.3475
Ref. Temp (F): 68

Meter Box ID: G02044
Probe/Pitot ID: G5CP05
Impinger Box ID: —
Heater Box ID: —
Meter Y: 0.993
ΔH@: 1.817

Pitot Line
Pre-test: ✓
Post-test: ✓
Time (min.): 60

Leak Check
	(Pre)	(Post)
Leak Rate:	0.001	0.001
Vac:	15	15
If needed:	(Mid)	(Mid)
Leak Rate:	—	—
Vac:	—	—
B_{ws}:	✓	8.0

O_2 %: ~~1~~ 0.5
CO_2 %: ~~17~~ 6.3

Impinger Weight/Volume

	Final	Initial	Diff
1	0202	7335	1867
2	804.5	731.1	73.4
3	668.6	657.2	11.4
4	908.8	757.7	151
5			
6		Condensate	
		Total:	2866

Traverse Point	Time	ΔP (in. H_2O)	Meter Conditions ΔH	Meter Volume	Temperature (°F) Stack	Probe	Oven	Meter (°F) In	Meter (°F) Out	Imp Out (°F)	Vac (in. Hg)
A 1	1508 0	0.31	1.50	351.300	145	321	71	0.8	323	57	-4
2	2.5	0.32	1.54	355.12	145	320	71	0.8	322	57	-4
3	5	0.33	1.75	359.12	146	319	71		321	57	-4
4	7.5	0.33	1.75	363.61	146	319	72		321	58	-4
5	10	0.32	1.70	368.37	145	319	72		321	58	-4
6	12.5	0.31	1.65	372.25	145	320	72		322	58	-4
B 1	1549/1554 15	0.33	1.75	376.75	146	323	72		323	59	-4
2	17.5	0.34	1.81	381.18	146	321	72		324	59	-4
3	20	0.33	1.76	385.69	145	322	73		325	59	-4
4	22.5	0.33	1.76	390.71	146	322	73		324	59	-4
5	25	0.34	1.81	395.35	146	321	73		327	60	-4
6	27.5	0.32	1.71	401.21	146	321	73		323	60	-4
C 1	1537/1541 30	0.30	1.60	407.57	145	320	74		323	60	-4
2	32.5	0.30	1.61	405.25	145	320	71		322	61	-4
3	35	0.31	1.66	407.67	146	321	76		321	62	-4
4	37.5	0.32	1.71	408.12	146	322	76		321	62	-4
5	40	0.34	1.83	410.71	145	323	77		321	62	-4
6	42.5	0.35	1.88	412.62	145	323	77		321	62	-4
D 1	1556/1601 45	0.32	1.72	414.17	146	323	77		322	62	-4
2	47.5	0.31	1.67	416.61	145	321	75		321	63	-4
3	50	0.33	1.78	418.35	145	322	80		321	63	-4
4	52.5	0.32	1.73	420.12	145	321	81		322	63	-4
5	55	0.31	1.69	421.12	146	321	82		323	63	-4
6	57.5	0.31	1.66	423.15	145	321	83		323	63	-4

1616 60 — 426.275 — 65° C-18-14

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USEPA Method 5.6 Field Data Sheet

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SPECIALTY

Project Number: 140135
Location: Hoa Valley
Process: Kiln
Source Name: Flue Stack
P_{bar} (in. H_g): 29.21
P_{static} (in. H_2O): -0.25
A_s (ft^2): —
Nozzle Dia. (in.): 0.301

Test Date: 6.3.14 (6/4/14)
Run Number: 3+1-3
Operator: BS
Pitot Coeff: 0.84
Filter Number: 2058
S-type
Ref. Temp (F): 68

Meter Box ID: G02044
Probe/Pitot ID: G5CP05
Impinger Box ID: —
Heater Box ID: —
Meter Y: 0.9943
ΔH@: 1.812

Pitot Line
Pre-test: ✓
Post-test: ✓
Time (min.): 60

Leak Check
	(Pre)	(Post)
Leak Rate:	0.001	0.001
Vac:	15	15
If needed:	(Mid)	(Mid)
Leak Rate:		
Vac:		
B_{ws}:	✓	

O_2 %: ~~1~~ 0.5
CO_2 %: ~~17~~ 6.2

Impinger Weight/Volume

	Final	Initial	Diff
1	933.7	726.8	206.9
2	825.9	770.4	55.5
3	673.2	662.3	10.9
4	909.2	892.6	16.6
5			
6			
		Total:	289.4

Traverse Point	Time	ΔP (in. H_2O)	Meter Conditions ΔH 2nd=1.84	Meter Volume	Temperature (°F) Stack	Probe	Oven	Meter (°F) In	Meter (°F) Out	Imp Out (°F)	Vac (in. Hg)
A 1	1629 0	0.33	1.88 72	726.523	145	321	321		73	57	-4
2	2.5	0.31	1.72	428.95	145	322	321		73	57	-4
3	5	0.32	1.67	430.29	141	322	322		73	58	-4
4	7.5	0.33	1.72	432.61	141	321	322		74	58	-4
5	10	0.31	1.62	435.37	141	321	321		75	58	-4
6	12.5	0.31	1.62	435.21	145	320	321		75	59	-4
D 1	1633/1638 15	0.30	1.57	437.19	144	314	322		75	59	-4
2	17.5	0.31	1.63	439.25	144	318	323		75	60	-4
3	20	0.32	1.69	440.87	145	319	323		76	61	-4
4	22.5	0.32	1.68	442.65	145	321	322		77	61	-4
5	25	0.33	1.74	444.35	146	322	321		78	62	-4
6	27.5	0.34	1.79	446.12	146	322	321		77	62	-4
C 1	1643/1708 30	0.35	1.84	448.18	147	323	321		78	63	-4
2	32.5	0.34	1.79	450.61	146	323	322		79	62	-4
3	35	0.33	1.74	452.77	146	322	323		79	63	-4
4	37.5	0.32	1.69	453.92	145	323	323		80	63	-4
5	40	0.31	1.64	455.35	145	324	323		81	63	-4
6	42.5	0.32	1.70	457.23	145	324	322		82	64	-4
D 1	1716/1724 45	0.33	1.76	459.17	144	322	322		82	58	-4
2	47.5	0.33	1.76	461.13	145	322	321		83	59	-4
3	50	0.32	1.70	463.41	146	321	315		83	59	-4
4	52.5	0.31	1.65	464.36	146	321	318		83	59	-4
5	55	0.32	1.70	466.67	146	322	318		82	55	-4
6	1737 57.5	0.32	1.70	468.95	145	323	315		82	60	-4

1739 60 — 478.230

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FORM# GSC-TM012-002
REV 2010-01, EFF 9/11/10

FIELD DATA SHEET 3
Dry Molecular Weight

Client/Plant Name: Valero — Job #: 140135

City/State: Houston TX — Date: 6.3.14

Test Location/Run#: Fccu — Personnel: DL

Orsat/Fyrite (Single-point, Grab or Integrated, Sampling and Analysis)						
Orsat ID:		Fyrite ID: 105260, 4972		Analyzer Leak-Check OK?: ____		
Time of Sample Collection	Time of Analysis	%Co_2 Rdg (A)	%O_2 Rdg (B)	%O_2 (B-A)	% (CO + N_2) (100-B)	M_d Lb/lb-mole
1-1		19	1.0			
1-2		19	1.0			
1-3		18	1.0			
M_d = 0.440%CO_2 + 0.320 % O_2 + 0.280 %(Co + N_2)					Average	
Bag ID:			*Each M_d≤0.3 lb/lb-mole from average?* ____			
Bag Leak-Check OK? ____			***Train Leak-Check OK?*** ____			

Note: The equation for M_d does not consider argon in air (about 0.9%), M = 39.9) and introduces a negative error of about 0.4%

Multi-point, Integrated Sampling			
Time	Traverse Pt.	Flow Rate, Q	% Deviation
	Average		≤±10%?

% Dev. = {Q-Q_{avg}}/Q_{avg} x 100, < ±10%

QA/QC Check:

Completeness ✓ Legibility ✓ Accuracy ✓ Specification ✓ Reasonableness ✓

Checked by: _____ Personnel (Signature/Date) _____ Team Leader (Signature/Date)

USEPA Method 5B Field Data Sheet

Page ___ of ___

Project Number: 140135 Test Date 6-3-14 Meter Box ID Q1210A9

Location: Valero Run Number 2-1 Probe/Pitot ID: S-type #5

Process: RAT Operator DL Impinger Box ID: -

Source Name: FCCU Stack Pitot Coeff: 0.84 Heater Box ID: -

P_{bar} (in H_g): 26.52 Filter Number: 20453 Meter Y: 0.993

P_{static} (in H_2O): -2.5 $\Delta H@$: 1.812

A_s (ft²): Nozzle Dia. (in.): 0.391 Ref. Temp (F): 68

Pitot Line: Pre-test: / Post-test: / O_2 %: - CO_2 %: -

Leak Check (Pre): Leak Rate: 0.001 Vac: 15 Leak Rate: — Vac: — B_{ws}: —

Leak Check (Post): Leak Rate: 0.001 Vac: 15 # needed: (Mid): — Leak Rate: — (Mid): — Vac: —

Traverse Point	Time	ΔP (in. H_2O)	ΔH	Meter Conditions Meter Volume	Temperature (°F) Stack	Probe	Oven	Meter (°F) In	Out	Imp Out (°F)	Vac (in. Hg)
A 1	1700 0	0.33	1.5	467.662	196	314	312	/	62	57	-4
2	2.5	0.34	1.65	472.82	196	317	317		61	57	-4
3	5	0.33	1.76	476.71	196	316	313		63	57	-4
4	7.5	0.33	1.69	476.63	195	317	315		63	57	-4
5	10	0.31	1.55	477.14	195	315	314		63	57	-4
6	12.5	0.34	1.76	476.25	197	318	316		62	57	-4
B 1	1725/6-3-14	0.32	1.69	481.02	195	315	314		63	58	-4
2	17.5	0.33	1.69	482.71	196	316	316		63	58	-4
3	22.5	0.31	1.55	486.21	196	320	318		64	58	-4
4	25	0.33	1.69	486.77	195	320	318		64	59	-4
5	27.5	0.32	1.64	488.36.77	196	319	319		65	59	-4
6	30	0.32	1.64	490.12	196	319	318		66	59	-4
C 1	1814/6-3-14	0.32	1.70	496.31	195	315	315		65	59	-4
2	32.5	0.32	1.61	496.94.21	195	316	316		66	60	-4
3	35	0.34	1.76	496.66.76	196	316	316		67	60	-4
4	37.5	0.33	1.76	498.68.68	196	320	320		68	61	-4
5	40	0.33	1.71	500.15	196	320	320		68	61	-4
6	42.5	0.33	1.71	501.65	196	321	320		69	62	-4
D 1	1831/6-3-14	0.31	1.61	505.65	196	321	321		70	62	-4
2	47.5	0.32	1.67	506.96	196	321	321		72	63	-4
3	50	0.31	1.62	508.67	196	321	320		72	63	-4
4	52.5	0.30	1.57	509.96	195	321	320		73	63	-4
5	55	0.31	1.62	511.67	195	320	320		74	63	-4
6	57.5	0.31	1.62	512.74	196	320	320		75	63	-4

Impinger Weight/Volume

	Final	Initial	Diff
1	465.6	362.6	103.0
2	765.9	711.5	54.4
3	1498.8	1359.4	139
4	1498	1330.1	167
Total			463

514.753

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GOSS ENGINEERING
SPECIALTY

USEPA Method 5B Field Data Sheet

Page ___ of ___

Project Number: 140135
Location: Wallace
Process: Kiln
Source Name: Kiln Stack
P_{bar} (in. H_g): 29.91
P_{static} (in. H_2O): -0.75
A_s (ft^2):
Nozzle Dia. (in.): 0.301

Test Date: 6.4.14
Run Number: 2-2
Operator: RS
Pitot Coeff: 0.84
Filter Number: 2057
0.3433 ~~0.3464~~ RS
Ref. Temp (F): 68 0.9am

Meter Box ID: 502044
Probe/Pitot ID: 656P-15
Impinger Box ID: -
Heater Box ID: -
Meter Y: 0.953
ΔH@: 1.812

Pitot Line
Pre-test: ✓
Post-test: ✓

Leak Check
(Pre) (Post)
Leak Rate: 0.001 0.001
Vac: 15 15
If needed: (Mid) (Mid)
O_2 %: -
CO_2 %: -
Time (min.): 60
Leak Rate: —
Vac: —
B_{wo}: ✓

Impinger Weight/Volume	Final	Initial	Diff.
1	919.8	724.3	195.5
2	868.6	719.9	148.7
3	800.1	789.1	11.0
4	930.4	913.3	17.1
5			
6			
Total:			372.3

Traverse Point	Time	ΔP (in. H_2O)	Meter Conditions ΔH	Meter Volume	Temperature (°F) Stack	Probe	Oven	Meter (°F) In	Out	Imp Out (°F)	Vac (in. Hg)	
A 1	926 0	0.31	1.5	514.919	146	323	320		70	58	-1	
2	2.5	0.32	1.61	516.18	146	321	322		71	56	-5	
3	5	0.32	1.66	518.71	146	322	321		71	59	-5	
4	7.5	0.31	1.61	520.12	145	320	321		72	58	-5	
5	10	0.32	1.72	522.37	146	320	321		72	58	-5	
6	12.5	0.32	1.67	523.21	146	320	321		72	59	-5	
B 1	15	0.33	1.72	525.77	146	320	321		73	59	-5	
2	17.5	0.32	1.67	527.95	145	320	321		73	59	-5	
3	20	0.31	1.62	529.18	145	319	321		73	60	-5	
4	22.5	0.32	1.67	531.63	145	319	321		74	60	-5	
5	25	0.32	1.67	533.76	144	318	320		74	60	-5	
6	27.5	0.33	1.73	534.17	144	319	320		74	61	-5	
C 1	30	0.31	1.62	536.85	144	316	321		74	62	-5	
2	32.5	0.32	1.68	538.92	144	318	321		75	63	-5	
3	35	0.32	1.68	540.27	145	319	321		75	62	-5	
4	37.5	0.32	1.68	542.45	145	318	320		76	63	-5	
5	40	0.31	1.65	543.13	145	318	320		76	63	-5	
6	42.5	0.30	1.58	545.65	145	318	320		77	63	-5	
D 1	45	0.32	1.68	547.25	146	319	320		77	63	-5	
2	47.5	0.32	1.68	549.77	146	319	321		77	63	-5	
3	50	0.32	1.69	551.13	145	319	322		78	64	-5	
4	52.5	0.31	1.63	552.85	146	319	322		78	64	-5	
5	55	0.31	1.59	554.77	146	320	322		79	64	-5	
6	57.5	0.31	1.67	556.76	146	320	322		79	64	-5	

1042 60

~~0.4464~~ 0.4425 ~~556.425~~ 556.425

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GOSS ENGINEERING
SPECIALTY

USEPA Method 5B Field Data Sheet

Page ___ of ___

Project Number: 140135
Location: Wallace
Process: Kiln
Source Name: Kiln Stack
P_{bar} (in H_g): 29.92
P_{static} (in. H_2O): -0.25
A_s (ft^2):
Nozzle Dia. (in.): 0.301

Test Date: 6.4.14
Run Number: 2-3
Operator: RS
Pitot Coeff: 0.84
Filter Number: 2051
0.3433
Ref. Temp (F): 68

Meter Box ID: 502044
Probe/Pitot ID: 656P-15
Impinger Box ID: -
Heater Box ID: -
Meter Y: 0.953
ΔH@: 1.812

Pitot Line
Pre-test: ✓
Post-test: ✓

Leak Check
(Pre) (Post)
Leak Rate: 0.001 0.001
Vac: 15 15
If needed: (Mid) (Mid)
O_2 %: -
CO_2 %: -
Time (min.): 60
Leak Rate: —
Vac: —
B_{wo}: —

Impinger Weight/Volume	Final	Initial	Diff.
1	970.4	733.5	236.9
2	776.7	731.6	45.1
3	664.6	659.5	5.1
4	925.0	914.0	11
5			
6			
Total			298.1

Traverse Point	Time	ΔP (in. H_2O)	Meter Conditions ΔH	Meter Volume	Temperature (°F) Stack	Probe	Oven	Meter (°F) In	Out	Imp Out (°F)	Vac (in. Hg)	
A 1	1105 0	0.32	1.50	558.994	144	319	323		77	56	-4	
2	2.5	0.33	1.74	560.21	144	319	323		77	56	-4	
3	5	0.31	1.63	562.37	145	318	323		77	59	-4	
4	7.5	0.30	1.58	564.59	145	318	324		77	59	-4	
5	10	0.31	1.63	566.21	144	317	324		79	59	-4	
6	12.5	0.32	1.69	568.53	144	318	324		79	59	-4	
B 1	15	0.33	1.74	569.76	145	319	324		78	60	-4	
2	17.5	0.32	1.69	571.45	145	319	323		78	61	-4	
3	20	0.31	1.64	573.18	145	319	323		79	61	-4	
4	22.5	0.31	1.64	575.22	145	319	323		79	61	-4	
5	25	0.32	1.69	577.71	144	319	322		79	57	-4	
6	27.5	0.31	1.64	579.62	145	319	322		79	57	-4	
C 1	30	0.32	1.69	581.19	145	318	322		79	57	-4	
2	32.5	0.32	1.69	582.20	145	318	323		80	57	-4	
3	35	0.32	1.69	584.25	146	318	323		80	57	-4	
4	37.5	0.32	1.74	586.13	146	319	324		80	58	-4	
5	40	0.31	1.64	587.19	146	319	324		80	58	-4	
6	42.5	0.31	1.64	589.19	146	319	324		81	58	-4	
D 1	45	0.32	1.69	591.32	146	319	324		81	58	-4	
2	47.5	0.33	1.75	593.21	145	320	324		81	58	-4	
3	50	0.32	1.75	595.19	145	320	324		81	58	-4	
4	52.5	0.32	1.70	597.23	145	320	323		82	58	-4	
5	55	0.31	1.65	598.85	145	320	323		83	58	-4	
6	57.5	0.31	1.65	600.67	146	320	323		83	58	-4	

1216 60

602.505

GSC-TEMP-FIELD-001

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1216

GREENLEAF SPECIALTY

USEPA Method 5B Field Data Sheet

Page ___ of ___

Project Number: 140135
Location: Valero
Process: Reformer
Source Name: Feed Surge
P_{bar} (in. H_g): 29.92
P_{static} (in. H_2O): -0.25
A_s (ft^2):
Nozzle Dia. (in.): 0.301

Test Date: 6.4.14
Run Number: 3-1
Operator: RDS
Pitot Coeff: 0.84
Filter Number: 2051 / 0.3486
Ref. Temp (F): 68

Meter Box ID: 4026044
Probe/Pitot ID: GSCP-015
Impinger Box ID: -
Heater Box ID: -
Meter Y: 0.993
ΔH@: 1.812

Pitot Line: Pre-test: ✓ Post-test: /
O_2 %: -
CO_2 %: -
Time (min.): 60

Leak Check (Pre) / (Post)
Leak Rate: 0.001 / 0.001
Vac: 15 / 11
If needed: (Mid) / (Mid)
Leak Rate: - / -
Vac: - / -
B_{ws}: - / -

Impinger Weight/Volume	Final	Initial	Diff.
1	921.6	733.4	188.2
2	839.5	766.2	73.3
3	672.4	661.3	11.1
4	919.5	904.8	14.7
5			
6			
Total:			287.3

Traverse Point	Time	ΔP (in. H_2O)	Meter Conditions ΔH	Meter Volume	Temperature (°F) Stack	Probe	Oven	Meter (°F) In	Out	Imp Out (°F)	Vac (in. Hg)
A-1	1316 0	0.31	1.50	602.715	146	323	324		71	55	-4
2	2.5	0.32	1.66	604.13	146	323	324		71	55	-4
3	5	0.32	1.66	605.57	146	323	324		71	56	-4
4	7.5	0.32	1.66	609.63	146	322	324		72	56	-4
5	10	0.33	1.72	610.75	145	322	323		72	56	-4
6	12.5	0.33	1.72	611.10	145	322	323		73	56	-4
B 1	1327/1330 15	0.32	1.67	613.17	145	322	323		73	56	-4
2	17.5	0.31	1.62	615.12	145	323	323		73	57	-4
3	20	0.31	1.62	617.32	145	323	322		75	57	-4
4	22.5	0.33	1.73	619.21	146	322	323		75	57	-4
5	25	0.34	1.78	621.65	146	322	322		76	57	-4
6	27.5	0.33	1.73	622.27	146	321	322		76	57	-4
C 1	1331/1333 30	0.32	1.66	624.25	146	321	322		77	57	-4
2	32.5	0.31	1.63	626.17	145	321	321		78	58	-4
3	35	0.31	1.63	628.12	145	322	321		78	57	-4
4	37.5	0.32	1.69	630.13	145	322	321		79	57	-4
5	40	0.32	1.69	631.65	145	321	321		79	57	-4
6	42.5	0.33	1.74	633.69	145	321	322		79	58	-4
D 1	1340/1343 45	0.32	1.69	635.51	145	321	322		80	58	-4
2	47.5	0.31	1.64	637.18	146	321	322		80	59	-4
3	50	0.31	1.64	639.93	146	322	321		79	59	-4
4	52.5	0.31	1.61	640.73	146	322	321		80	59	-4
5	55	0.30	1.59	642.18	146	322	321		81	59	-4
6	57.5	0.30	1.59	644.22	146	322	322		81	59	-4

1431 60 646.430

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GREENLEAF SPECIALTY

USEPA Method 5B Field Data Sheet

Page ___ of ___

Project Number: 140135
Location: Valero
Process: Reformer
Source Name: Feed Surge
P_{bar} (in. H_g) 29.97
P_{static} (in. H_2O) -0.25
A_s (ft^2):
Nozzle Dia. (in.): 0.301

Test Date: 6.4.14
Run Number: 3-2
Operator: RDS
Pitot Coeff: 0.84
Filter Number: 2056
0.3504
Ref. Temp (F): 68

Meter Box ID: 4026044
Probe/Pitot ID: GSCP-015
Impinger Box ID: -
Heater Box ID: -
Meter Y: 0.993
ΔH@: 1.812

Pitot Line: Pre-test: ✓ Post-test: /
O_2 %: -
CO_2 %: -
Time (min.): 60

Leak Check (Pre) / (Post)
Leak Rate: 0.001 / 0.001
Vac: 15 / 15
If needed: (Mid) / (Mid)
Leak Rate: - / -
Vac: - / -
B_{ws}: - / -

Impinger Weight/Volume	Final	Initial	Diff.
1	783.8	738.3	45.5
2	835.5	790.2	45.3
3	623.1	616.4	6.7
4	965.9	955.9	10.0
5			
6			
Total:			107.5

Traverse Point	Time	ΔP (in. H_2O)	Meter Conditions ΔH	Meter Volume	Temperature (°F) Stack	Probe	Oven	Meter (°F) In	Out	Imp Out (°F)	Vac (in. Hg)
D 1	1455 0	0.31	1.5	647.625	144	321	317		68	56	-4
2	2.5	0.32	1.69	649.35	144	321	318		69	58	-4
3	5	0.33	1.74	651.22	144	321	317		69	58	-4
4	7.5	0.33	1.75	653.17	144	322	317		69	58	-4
5	10	0.32	1.70	654.52	144	322	317		69	59	-4
6	12.5	0.32	1.70	656.23	143	322	316		69	58	-4
E 1	1510/1513 15	0.31	1.65	658.23	143	321	318		69	58	-4
2	17.5	0.31	1.65	660.17	145	321	318		69	58	-4
3	20	0.31	1.65	662.13	143	321	321		69	58	-4
4	22.5	0.33	1.76	663.73	145	321	322		69	58	-4
5	25	0.33	1.76	665.7	145	321	323		69	58	-4
6	27.5	0.32	1.71	667.41	144	321	322		69	60	-4
C 1	1521/1524 30	0.33	1.76	669.	144	321	323		69	60	-4
2	32.5		1.76	671	145	321	323		69	61	-4
3	35	0.32	1.71	672.74	144	321	323		69	62	-4
4	37.5	0.31	1.66	674.17	144	321	321		69	62	-4
5	40	0.31	1.66	676.05	144	322	321		69	62	-4
6	42.5	0.32	1.71	678.32	144	322	321		69	63	-4
D 1	1535/1538 45	0.33	1.77	680.73	144	321	322			63	-4
2	47.5	0.33	1.77	682.11	144	321	322		69	63	-4
3	50	0.33	1.77	684 3	145	322	321		69	64	-4
4	52.5	0.32	1.72	685 5	145	322	322		69	64	-4
5		0.31	1.66	687.60	145	322	321		69	65	-4
6		0.31	1.67	689.92	145	321	322		69	65	-4

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FORM# GSC-TM012-002
REV 2010-01, EFF 9/11/10

FIELD DATA SHEET 3
Dry Molecular Weight

Client/Plant Name: Valero Job #: 140135

City/State: Houston TX Date: 6.4.14

Test Location/Run#: Fccu Personnel: DL

Orsat/Fyrite (Single-point, Grab or Integrated, Sampling and Analysis)						
Orsat ID:		Fyrite ID: 10520. 472		Analyzer Leak-Check OK?: _____		
Time of Sample Collection	Time of Analysis	%Co_2 Rdg (A)	%O_2 Rdg (B)	%O_2 (B-A)	% (CO + N_2) (100-B)	M_d Lb/lb-mole
2-1		17	1.0			
2-2		17	1.0			
2-3		18	1.0			
M_d = 0.440%CO_2 + 0.320 % O_2 + 0.280 %(Co + N_2)					Average	
Bag ID:			*Each M_d ≤0.3 lb/lb-mole from average?* _____			
Bag Leak-Check OK? _____			*Train Leak-Check OK?* _____			

Note: The equation for M_d does not consider argon in air (about 0.9%), M = 39.9) and introduces a negative error of about 0.4%

Multi-point, Integrated Sampling			
Time	Traverse Pt.	Flow Rate, Q	% Deviation
	Average		S±10%?

% Dev. = (Q-Q_{avg})/Q_{avg} x 100, < ±10%

QA/QC Check:

Completeness ✓ Legibility ✓ Accuracy ✓ Specifications ✓ Reasonableness ✓

Checked by: B Johnson

Personnel (Signature/Date)

Team Leader (Signature/Date)

FORM# GSC-TM012-002
REV 2010-01, EFF 9/11/10

FIELD DATA SHEET 3
Dry Molecular Weight

Client/Plant Name: Valero Job #: 140135

City/State: Houston TX Date: 6.4.14

Test Location/Run#: Fccu Personnel: DL

Orsat/Fyrite (Single-point, Grab or Integrated, Sampling and Analysis)						
Orsat ID:		Fyrite ID: 10520. 472		Analyzer Leak-Check OK?: _____		
Time of Sample Collection	Time of Analysis	%Co_2 Rdg (A)	%O_2 Rdg (B)	%O_2 (B-A)	% (CO + N_2) (100-B)	M_d Lb/lb-mole
3-1		17	1.0			
3-1		17	1.0			
M_d = 0.440%CO_2 + 0.320 % O_2 + 0.280 %(Co + N_2)					Average	
Bag ID:			*Each M_d ≤0.3 lb/lb-mole from average?* _____			
Bag Leak-Check OK? _____			*Train Leak-Check OK?* _____			

Note: The equation for M_d does not consider argon in air (about 0.9%), M = 39.9) and introduces a negative error of about 0.4%

Multi-point, Integrated Sampling			
Time	Traverse Pt.	Flow Rate, Q	% Deviation
	Average		S±10%?

% Dev. = (Q-Q_{avg})/Q_{avg} x 100, < ±10%

QA/QC Check:

Completeness ✓ Legibility ✓ Accuracy ✓ Specifications ✓ Reasonableness ✓

Checked by: B Johnson

Personnel (Signature/Date)

Team Leader (Signature/Date)

SPECIALTY

USEPA Method 5B Field Data Sheet

Page ___ of ___

Project Number: 140135
Location: Valero
Process: Ref
Source Name: Fccu Scrub
P_{bar} (in. H_g): 29.84
P_{static} (in. H_2O): -0.25
A_s (ft^2):
Nozzle Dia. (in.): 0.301

Test Date: 6.5.19
Run Number: 4.1
Operator: BS
Pitot Coeff: 0.84
Filter Number: 20572 / 0353
Ref. Temp (F): 68

Meter Box ID: 9020819
Probe/Pitot ID: GSCP014
Impinger Box ID: -
Heater Box ID: -
Meter Y: 0.993
ΔH@: 1.817

Pitot Line
Pre-test: /
Post-test: /

Leak Check
(Pre) (Post)
Leak Rate: 0.001 0.002
Vac: 15 15
If needed: (Mid) (Mid)
Leak Rate: — /
Vac: /
B_{ws}: /

Time (min.): 60

Impinger Weight/Volume	Final	Initial	Diff.
1	923.1	722.1	201
2	738.7	716.0	66.7
3	604.2	591.3	13.5
4	905.9	887.1	18.8
5			
6			
Total:			299.1

Traverse Point	Time	ΔP (in. H_2O)	Meter Conditions ΔH	Meter Volume	Temperature (°F) Stack	Probe	Oven	Meter (°F) In	Out	Imp Out (°F)	Vac (in. Hg)
A 1	735 0	0.31	1.5	691.200	320	323	146		66	51	-5
2	7.5	0.31	1.66	693.21	320	324	146		67	51	-5
3	5	0.31	1.6	695.21	320	324	146		69	51	-5
4	7.5	0.32	1.65	697.27	321	323	146		69	51	-5
5	10		1.71	699.27	321	325	145		69	57	-5
6	12.5	0.32	1.6	701.32	321	324	145		69	57	-5
	735/7345	0.32	1.71	703.03	321	324	145		70		-5
2	17.5	0.31	1.72	704.6	322	324	145		71	57	-5
3	20	0.31		706	322	324	145		71	57	-5
4	22.5		1.66	708	321	323	145		71	57	-5
5	25	0.32	1.67	709.91	321	323	146		72	57	-5
6	27.5	0.32	1.72	711.35	320	324	146		73	57	-5
C 1	800/8053	0.34	1.77	713.17	320	325	145		73	59	-5
2	32.5		1.77	715.07	320	325	146		73	59	-5
3	35	0.33	1.77	1	321	325	145		73		-1
4	37.5	0		719.19	321	325	145		74	58	-5
5		0.32	1.6	721.21	322	324	145		74	58	-5
6	42.5	0.32	1.67	723.41	323	325	145		74	58	-5
D 1	830/835	0.31	1.62	725.35	323	324	1		74	58	-5
2	47.5	0.32	1.68	726.73	323	324	145		75	59	
3	50		1.68	728.18	322	323	145		75	59	-5
4	52.5	0.32	1.6	730.21	322	323	146		76	59	-5
5	55	0.33	1.77	732.03	322	323	145		76	59	-5
6		0.32	1.62	733.91	321	327	145		76	58	-5

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USEPA Method 5B Field Data Sheet

Page ___ of ___

Project Number: 140135
Location: Valero
Process: Ref
Source Name: Fccu Scrub
P_{bar} (in. H_g): 29.85
P_{static} (in. H_2O): -0.25
A_s (ft^2):
Nozzle Dia. (in.): 0.301

Test Date: 6.5.19
Run Number: 4.2
Operator: BS
Pitot Coeff: 0.84
Filter Number: 20574 / 0342
Ref Temp (F): 68

Meter Box ID: 9020819
Probe/Pitot ID: GSCP014
Impinger Box ID: -
Heater Box ID: -
Meter Y: 0.993
ΔH@: 1.817

Pitot Line
Pre-test: /
Post-test: /

Leak Check
(Pre) (Post)
Leak Rate: 0.001 0.001
Vac: 15 15
If needed: (Mid) (Mid)
Leak Rate: — —
Vac: / /
B_{ws}: /

Time (min.): 60

Impinger Weight/Volume	Final	Initial	Diff.
1	920.2	749.1	171.1
2	739.0	732.5	91.5
3	662.1	627.2	5.9
4	982.4	966.6	12.5
5			
6			
Total:			281

Traverse Point	Time	ΔP (in. H_2O)	Meter Conditions ΔH	Meter Volume	Temperature (°F) Stack	Probe	Oven	Meter (°F) In	Out	Imp Out (°F)	Vac (in. Hg)
A 1	1025 0	0.33	1.5	735.755	146	321	325		76	59	-4
2	2.5	0.33	1.74	737.61	144	321	323		77	59	-4
3	5	0.32	1.64	739.47	144	321	324		76	59	-4
4	7.5	0.31	1.64	741.25	145	324	328		80	60	-4
5	10	0.31	1.64	743.00	145	321	326		80	60	-4
6	12.5	0.32	1.7	744.81	145	322	325		81	60	-4
D 1	1040/1044.5	0.37	1.75	746.67	146	322	325		82	61	-4
2	17.5	0.32	1.70	748.42	146	321	325		82	61	-4
3	20	0.32	1.7	750.31	145	321	325		83	61	-4
4	22.5	0.31	1.65	752.02	145	321	325		83	62	-4
5	25	0.31	1.65	753.81	145	321	326		84	63	-4
6	27.5	0.32	1.70	755.67	146	321	326		84	63	-4
C 1	1054/1103	0.31	1.70	757.58	146	322	326		84	63	-4
2	32.5	0.33	1.76	759.38	145	322	325		84	59	-4
3	35	0.32	1.71	761.11	145	322	325		85	58	-4
4	37.5	0.31	1.65	762.96	146	321	324		85	58	-4
5	40	0.31	1.66	764.77	146	320	324		86	58	-4
6	42.5	0.31	1.66	766.54	145	320	324		87	57	-4
H 1	1120/1127	0.31	1.66	768.33	145	320	325		88	57	-4
2	47.5	0.32	1.72	770.12	146	321	325		88	57	-4
3	50	0.32	1.72	771.96	146	320	326		88	57	-4
4	52.5	0.31	1.67	773.77	144	320	325		89	57	-4
5	55	0.31	1.67	775.51	144	321	325		89	57	-4
6	57.5	0.32	1.73	777.37	144	321	325		90	57	-4

1142 60

729 4.23

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USEPA Method 5B Field Data Sheet

Page ___ of ___

SPECIALTY

Project Number: 140135
Location: Walker
Process: R&P
Source Name: Fish Scrub
P_{bar} (in. H_g): 29.89
P_{static} (in. H_2O): -0.25
A_s (ft^2):
Nozzle Dia. (in.): 0.361

Test Date: 6.3.14
Run Number: 4-3
Operator: BS
Pitot Coeff: 0.84
Filter Number: 2065 / 0 3477
Ref. Temp (F): 68

Meter Box ID: 902044
Probe/Pitot ID: 6502044
Impinger Box ID: -
Heater Box ID: -
Meter Y: 0.993
ΔH@: 1.817

Pitot Line
Pre-test: 0.6 ✓
Post-test: 6 ✓
O_2 %: -
CO_2 %: -
Time (min.): 60

Leak Check

	(Pre)	(Post)
Leak Rate:	0.021	0.021
Vac:	15	15
If needed:	(Mid)	(Mid)
Leak Rate:		
Vac:		
B_{ws}:		

Impinger Weight/Volume			
	Final	Initial	Diff
1	968.8	736.5	232.3
2	769.6	736.5	33.1
3	667.9	666.7	1.2
4	968.8	896.2	72.6
5	969.5		
6			
Total			339

Traverse Point	Time	ΔP (in. H_2O)	Meter Conditions ΔH	Meter Volume	Temperature (°F) Stack	Probe	Oven	Meter (°F) In	Meter (°F) Out	Imp Out (°F)	Vac (in. Hg)		
A 1	1212 6	0.33	1.50	779.82	146	321	325		72	57	-4		
2	2.5	0.32	1.72	781.54	146	321	323		72	57	-4		
3	5	0.31	1.63	783.17	146	322	325		73	57	-4		
4	7.5	0.31	1.62	784.46	145	321	326		73	57	-4		
5	10	0.32	1.67	787.03	145	321	325		74	57	-4		
6	12.5	0.31	1.62	788.82	145	322	324		74	58	-4		
B 1	1223/1233 15	0.31	1.62	790.61	146	322	324		75	58	-4		
2	17.5	0.31	1.63	792.47	146	321	324		76	58	-4		
3	20	0.33	1.73	794.22	146	320	324		76	58	-4		
4	22.5	0.33	1.73	796.13	146	320	323		77	59	-4		
5	25	0.33	1.74	797.99	145	320	325		77	59	-4		
6	27.5	0.31	1.64	799.76	145	321	325		77	59	-4		
C 1	1239/1249 30	0.30	1.63	801.55	145	321	325		77	60	-4		
2	32.5	0.29	1.56	803.32	145	321	325		78	60	-4		
3	35	0.31	1.63	805.91	146	322	324		78	6	-4		
4	37.5	0.32	1.66	808.77	146	322	325		80	60	-4		
5	40	0.33	1.70	810.566	146	322	325		79	60	-4		
D 6	42.5	0.31	1.75	812.47	146	321	326		81	59	-4		
1	1307/1317 45	0.34	1.81	814.28	145	321	326		82	59	-4		
2	47.5	0.34	1.81	816.12	146	321	326		83	59	-4		
3	50	0.34	1.81	817.91	146	322	326		83	59	-4		
4	52.5	0.32	1.77	819.81	145	322	326		84	59	-4		
5	55	0.33	1.77	821.74	145	323	325		83	59	-4		
6	57.5	0.33	1.77	823.52	145	323	325		1	58	-4		
	1326 60			825.611									

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USEPA Method 5B Field Data Sheet

Page ___ of ___

SPECIALTY

Project Number: 140135
Location: Hoh
Process: Fish Scrubber
Source Name:

Test Date: 6.3.14
Run Number: 1-1

Post-Test Thermocouple Verification

Channel	Description	TC (°F)	Ref TM (°F)
1	Amb	75	75
2			
3			
4			
5			
6			
7			

TC/Ref TM difference (must be +/- 2 °F):

Daily Balance Verification

Balance ID	857		
Weight set ID	1000 → 69376		
Mass	1000.0	Result	999.8
Mass	1000.0	Result	999.9

Notes

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GSC-TEMP-FIELD-001

FORM# GSC-TM012-002
REV 2010-01, EFF 9/11/10

FIELD DATA SHEET 3
Dry Molecular Weight

Client/Plant Name: Valero Job #: 140135

City/State: Houston TX Date: 6.5.14

Test Location/Run#: FCCU Personnel: DL

Orsat/Fyrite (Single-point, Grab or Integrated, Sampling and Analysis)						
Orsat ID:		Fyrite ID: 10520. 472		Analyzer Leak-Check OK?: ____		
Time of Sample Collection	Time of Analysis	$\%CO_2$ Rdg (A)	$\%O_2$ Rdg (B)	$\%O_2$ (B-A)	% ($CO + N_2$) (100-B)	M_d Lb/lb-mole
4-1		18	1.0			
4.2		18	1.0			
4.3		18	1.0			
$M_d = 0.440\%CO_2 + 0.320\ \%O_2 + 0.280\ \%(Co + N_2)$					Average	
Bag ID:			*Each M_d ≤0.3 lb/lb-mole from average?* ____			
Bag Leak-Check OK? ____			*Train Leak-Check OK?* ____			

Note: The equation for M_d does not consider argon in air (about 0.9%), M = 39.9) and introduces a negative error of about 0.4%

Multi-point, Integrated Sampling			
Time	Traverse Pt.	Flow Rate, Q	% Deviation
Average			≤±10%?

% Dev. = $(Q-Q_{ave})/Q_{ave} \times 100$, < ±10%

QA/QC Check:

Completeness ✓ Legibility ✓ Accuracy ✓ Specifications ✓ Reasonableness ✓

Checked by: _____ _____

Personnel (Signature/Date) Team Leader (Signature/Date)

GOLDEN SPECIALTY

Air Quality Test Report

APPENDIX E –
Reference Method Data

Input Data	Units	Test Run Number											
		RA 1	RA 2	RA 3	RA 4	RA 5	RA 6	RA 7	RA 8	RA 9	RA 10	RA 11	Average
Test Date		6/3/14	6/3/14	6/3/14	6/4/14	6/4/14	6/4/14	6/4/14	6/4/14	6/5/14	6/5/14	6/5/14	
Start Time		12:08	15:00	16:23	7:40	9:26	11:00	13:16	14:55	7:35	10:25	12:12	
End Time		13:26	16:16	17:39	8:55	10:42	12:16	14:31	16:01	8:51	11:42	13:26	
Run Time	min.	60	60	60	60	60	60	60	60	60	60	60	
Barometric Pressure	in. Hg	29.81	29.81	29.81	29.92	29.92	29.92	29.92	29.92	29.84	29.85	29.84	29.87
Pitot Coefficient		0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
DGM Corr. Factor	Y	0.986	0.986	0.986	0.986	0.986	0.986	0.986	0.986	0.986	0.986	0.986	0.9860
Avg. dP:	avg., in. H_2O	0.319	0.322	0.322	0.324	0.317	0.316	0.318	0.320	0.323	0.318	0.322	0.320
Avg. SQRT dP:	avg., in. H_2O	0.565	0.567	0.567	0.569	0.563	0.563	0.564	0.566	0.568	0.563	0.567	0.566
Avg. Delta H	avg., in. H_2O	1.698	1.727	1.701	1.660	1.651	1.670	1.664	1.701	1.677	1.682	1.692	1.684
Meter Volume	ft^3	44.441	44.945	43.707	44.153	43.506	43.511	43.715	43.550	43.767	43.668	45.799	44.069
Meter Temperature	°F	73.17	75.17	78.21	66.92	74.58	79.46	76.25	83.96	72.04	83.95	78.38	76.55
Volume Collected	mL	282.6	286.6	295.9	304.3	282.3	292.7	287.3	290.5	299.1	281.0	313.9	290.56
Stack Temp	avg., °F	145.8	145.5	145.4	145.5	145.3	145.0	145.5	144.5	145.5	145.1	145.5	145.3
Static Pressure	avg., in. H_2O	-0.25	-0.25	-0.25	-0.25	-0.25	-0.25	-0.25	-0.25	-0.25	-0.25	-0.25	-0.25

Calculated Data	units	RA 1	RA 2	RA 3	RA 4	RA 5	RA 6	RA 7	RA 8	RA 9	RA 10	RA 11
Absolute Stack Pressure P_s =	in. Hg	29.79	29.79	29.79	29.90	29.90	29.90	29.90	29.90	29.82	29.83	29.82
Stack Temp T_s K =	°K	336.2	336.1	336.0	336.0	336.0	335.8	336.1	335.5	336.1	335.8	336.1
T_s =	°R	605.8	605.5	605.4	605.5	605.3	605.0	605.5	604.5	605.5	605.1	605.5
Meter Temp T_m =	°R	533.2	535.2	536.2	526.9	534.6	539.5	536.3	544.0	532.0	544.0	538.4
Volume Sampled at std V_{meter} =	ft^3	43.416	43.747	42.299	43.802	42.541	42.163	42.613	41.555	42.986	41.868	44.353
B_{ws} collected at std V_{wstd} =	ft^3	12.38	13.51	13.95	14.35	13.31	13.80	13.55	13.70	14.10	13.25	14.80
Stack moisture at saturation B_{ws} (saturated) =	% H_2O	22.16	22.86	22.77	22.73	22.66	22.49	22.78	22.16	22.81	22.57	22.84
Stack moisture measured B_{ws} =	% H_2O	22.19	23.60	24.80	24.67	23.83	24.66	24.12	24.66	24.75	24.04	25.02
B_{ws} used for calculations B_{ws} =	% H_2O	22.16	22.86	22.77	22.73	22.66	22.49	22.78	22.16	22.81	22.57	22.84
Stack Gas Composition for Molecular Weight	% O_2	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
	% CO_2	18.0	17.0	18.0	17.0	17.0	18.0	17.0	17.0	18.0	18.0	18.0
Dry molecular weight M_d =	M_d	30.92	30.76	30.92	30.76	30.76	30.92	30.76	30.76	30.92	30.92	30.92
Wet molecular weight M_s =	M_s	28.06	27.84	27.98	27.86	27.87	28.01	27.85	27.93	27.97	28.00	27.97
Stack gas velocity v_s =	fps	34.53	34.81	34.73	34.83	34.46	34.39	34.52	34.56	34.74	34.43	34.70
Stack Area A_s =	ft^2	116.26	116.26	116.26	116.26	116.26	116.26	116.26	116.26	116.26	116.26	116.26
Actual cubic feet per minute Q_s =	ft^3/min	240,862	242,854	242,249	242,943	240,395	239,868	240,805	241,048	242,343	240,205	242,031
Standard conditions, wet basis Q_{std} =	SCFM, wb	209,031	210,847	210,372	211,733	209,556	209,196	209,840	210,429	210,630	208,985	210,344
	SCFH, wb	12,541,874	12,650,811	12,622,325	12,703,956	12,573,346	12,551,759	12,590,421	12,625,714	12,637,806	12,539,113	12,620,643
	KSCFH, wb	12,542	12,651	12,622	12,704	12,573	12,552	12,590	12,626	12,638	12,539	12,621
Standard Conditions, dry basis Q_{std} =	SCFM, db	162,709	162,643	162,478	163,607	162,074	162,143	162,044	163,790	162,575	161,619	162,304
	SCFH, db	9,762,473	9,758,566	9,748,675	9,816,394	9,724,480	9,728,575	9,722,657	9,827,394	9,754,491	9,709,133	9,738,229
	KSCFH, db	9,762	9,759	9,749	9,816	9,724	9,729	9,723	9,827	9,754	9,709	9,738

GOLDEN SPECIALTY

Air Quality Test Report

APPENDIX F – Flow Monitor and Process Data

Valero Refining-Texas, L.P.
Houston Refinery
Houston, TX

Flow Monitor Data

FCCU Belco Scrubber

REALTIME DATA SAMPLES AND AVERAGES REPORT
Cirrus - Process Analysts, Inc.

Title: FCCU RATA 060414
Sample Interval: 10 seconds
Average Interval: 60 seconds

Date	Time	FCCU- Flow SCFH
14-06-03	12:00:00	12,046,000
14-06-03	12:01:00	11,694,000
14-06-03	12:02:00	11,306,000
14-06-03	12:03:00	11,827,000
14-06-03	12:04:00	12,574,000
14-06-03	12:05:00	12,281,000
14-06-03	12:06:00	12,004,000
14-06-03	12:07:00	12,243,000
14-06-03	12:08:00	12,478,000
14-06-03	12:09:00	12,513,000
14-06-03	12:10:00	12,346,000
14-06-03	12:11:00	11,978,000
14-06-03	12:12:00	11,863,000
14-06-03	12:13:00	12,107,000
14-06-03	12:14:00	12,089,000
14-06-03	12:15:00	12,147,000
14-06-03	12:16:00	12,257,000
14-06-03	12:17:00	11,912,000
14-06-03	12:18:00	11,735,000
14-06-03	12:19:00	11,843,000
14-06-03	12:20:00	12,110,000
14-06-03	12:21:00	12,190,000
14-06-03	12:22:00	12,067,000
14-06-03	12:23:00	12,130,000
14-06-03	12:24:00	12,059,000
14-06-03	12:25:00	12,124,000
14-06-03	12:26:00	12,221,000
14-06-03	12:27:00	12,030,000
14-06-03	12:28:00	11,895,000
14-06-03	12:29:00	12,268,000
14-06-03	12:30:00	12,120,000
14-06-03	12:31:00	11,880,000
14-06-03	12:32:00	11,608,000
14-06-03	12:33:00	11,684,000
14-06-03	12:34:00	12,283,000
14-06-03	12:35:00	11,799,000
14-06-03	12:36:00	12,231,000
14-06-03	12:37:00	12,125,000
14-06-03	12:38:00	11,864,000
14-06-03	12:39:00	11,761,000
14-06-03	12:40:00	12,276,000
14-06-03	12:41:00	12,096,000
14-06-03	12:42:00	11,798,000
14-06-03	12:43:00	11,352,000
14-06-03	12:44:00	12,360,000
14-06-03	12:45:00	11,957,000
14-06-03	12:46:00	11,770,000
14-06-03	12:47:00	12,024,000

Valero Refining-Texas, L.P.
Houston Refinery
Houston, TX

Flow Monitor Data

FCCU Belco Scrubber

REALTIME DATA SAMPLES AND AVERAGES REPORT
Cirrus - Process Analysts, Inc.

Title: FCCU RATA 060414
Sample Interval: 10 seconds
Average Interval: 60 seconds

Date	Time	FCCU- Flow SCFH
14-06-03	12:48:00	11,913,000
14-06-03	12:49:00	11,974,000
14-06-03	12:50:00	11,886,000
14-06-03	12:51:00	11,890,000
14-06-03	12:52:00	11,786,000
14-06-03	12:53:00	12,045,000
14-06-03	12:54:00	12,353,000
14-06-03	12:55:00	12,066,000
14-06-03	12:56:00	12,436,000
14-06-03	12:57:00	11,795,000
14-06-03	12:58:00	12,232,000
14-06-03	12:59:00	11,884,000
14-06-03	13:00:00	12,334,000
14-06-03	13:01:00	11,842,000
14-06-03	13:02:00	12,360,000
14-06-03	13:03:00	12,181,000
14-06-03	13:04:00	11,776,000
14-06-03	13:05:00	11,959,000
14-06-03	13:06:00	11,628,000
14-06-03	13:07:00	12,201,000
14-06-03	13:08:00	11,928,000
14-06-03	13:09:00	12,181,000
14-06-03	13:10:00	12,258,000
14-06-03	13:11:00	11,337,000
14-06-03	13:12:00	11,678,000
14-06-03	13:13:00	11,805,000
14-06-03	13:14:00	11,765,000
14-06-03	13:15:00	12,321,000
14-06-03	13:16:00	12,000,000
14-06-03	13:17:00	12,055,000
14-06-03	13:18:00	11,928,000
14-06-03	13:19:00	12,181,000
14-06-03	13:20:00	11,796,000
14-06-03	13:21:00	11,938,000
14-06-03	13:22:00	11,927,000
14-06-03	13:23:00	11,980,000
14-06-03	13:24:00	12,217,000
14-06-03	13:25:00	12,209,000
14-06-03	13:26:00	12,216,000
14-06-03	13:27:00	11,829,000
14-06-03	13:28:00	12,014,000
14-06-03	13:29:00	11,783,000
14-06-03	13:30:00	11,810,000
14-06-03	13:31:00	12,038,000
14-06-03	13:32:00	11,841,000
14-06-03	13:33:00	12,029,000
14-06-03	13:34:00	11,877,000
14-06-03	13:35:00	11,883,000

Valero Refining-Texas, L.P.
Houston Refinery
Houston, TX

Flow Monitor Data

FCCU Belco Scrubber

REALTIME DATA SAMPLES AND AVERAGES REPORT
Cirrus - Process Analysts, Inc.

Title: FCCU RATA 060414
Sample Interval: 10 seconds
Average Interval: 60 seconds

Date	Time	FCCU- Flow SCFH
14-06-03	13:36:00	11,710,000
14-06-03	13:37:00	11,226,000
14-06-03	13:38:00	11,742,000
14-06-03	13:39:00	11,589,000
14-06-03	13:40:00	11,984,000
14-06-03	13:41:00	12,004,000
14-06-03	13:42:00	11,854,000
14-06-03	13:43:00	12,119,000
14-06-03	13:44:00	12,253,000
14-06-03	13:45:00	11,815,000
14-06-03	13:46:00	11,840,000
14-06-03	13:47:00	11,583,000
14-06-03	13:48:00	11,630,000
14-06-03	13:49:00	11,773,000
14-06-03	13:50:00	12,058,000
14-06-03	13:51:00	12,119,000
14-06-03	13:52:00	12,179,000
14-06-03	13:53:00	12,064,000
14-06-03	13:54:00	12,052,000
14-06-03	13:55:00	11,452,000
14-06-03	13:56:00	11,933,000
14-06-03	13:57:00	12,151,000
14-06-03	13:58:00	11,958,000
14-06-03	13:59:00	11,927,000
14-06-03	14:00:00	11,628,000
14-06-03	14:01:00	12,117,000
14-06-03	14:02:00	12,227,000
14-06-03	14:03:00	12,177,000
14-06-03	14:04:00	12,054,000
14-06-03	14:05:00	12,079,000
14-06-03	14:06:00	12,203,000
14-06-03	14:07:00	12,154,000
14-06-03	14:08:00	12,411,000
14-06-03	14:09:00	11,929,000
14-06-03	14:10:00	12,338,000
14-06-03	14:11:00	11,862,000
14-06-03	14:12:00	11,766,000
14-06-03	14:13:00	11,449,000
14-06-03	14:14:00	11,881,000
14-06-03	14:15:00	12,112,000
14-06-03	14:16:00	11,776,000
14-06-03	14:17:00	12,410,000
14-06-03	14:18:00	12,394,000
14-06-03	14:19:00	11,681,000
14-06-03	14:20:00	11,925,000
14-06-03	14:21:00	11,627,000
14-06-03	14:22:00	11,550,000
14-06-03	14:23:00	12,101,000

Valero Refining-Texas, L.P.
Houston Refinery
Houston, TX

Flow Monitor Data

FCCU Belco Scrubber

REALTIME DATA SAMPLES AND AVERAGES REPORT
Cirrus - Process Analysts, Inc.

Title: FCCU RATA 060414
Sample Interval: 10 seconds
Average Interval: 60 seconds

Date	Time	FCCU- Flow SCFH
14-06-03	14:24:00	11,664,000
14-06-03	14:25:00	11,769,000
14-06-03	14:26:00	12,007,000
14-06-03	14:27:00	11,625,000
14-06-03	14:28:00	12,081,000
14-06-03	14:29:00	11,879,000
14-06-03	14:30:00	12,250,000
14-06-03	14:31:00	11,829,000
14-06-03	14:32:00	12,114,000
14-06-03	14:33:00	12,054,000
14-06-03	14:34:00	11,649,000
14-06-03	14:35:00	11,816,000
14-06-03	14:36:00	12,340,000
14-06-03	14:37:00	11,974,000
14-06-03	14:38:00	12,190,000
14-06-03	14:39:00	11,471,000
14-06-03	14:40:00	11,826,000
14-06-03	14:41:00	11,744,000
14-06-03	14:42:00	11,763,000
14-06-03	14:43:00	11,654,000
14-06-03	14:44:00	11,370,000
14-06-03	14:45:00	11,560,000
14-06-03	14:46:00	11,896,000
14-06-03	14:47:00	11,453,000
14-06-03	14:48:00	11,779,000
14-06-03	14:49:00	11,960,000
14-06-03	14:50:00	12,087,000
14-06-03	14:51:00	11,862,000
14-06-03	14:52:00	12,077,000
14-06-03	14:53:00	11,757,000
14-06-03	14:54:00	11,492,000
14-06-03	14:55:00	11,885,000
14-06-03	14:56:00	11,642,000
14-06-03	14:57:00	11,260,000
14-06-03	14:58:00	11,454,000
14-06-03	14:59:00	11,638,000
14-06-03	15:00:00	11,666,000
14-06-03	15:01:00	12,061,000
14-06-03	15:02:00	11,815,000
14-06-03	15:03:00	12,211,000
14-06-03	15:04:00	11,871,000
14-06-03	15:05:00	11,967,000
14-06-03	15:06:00	11,849,000
14-06-03	15:07:00	11,589,000
14-06-03	15:08:00	11,619,000
14-06-03	15:09:00	11,661,000
14-06-03	15:10:00	11,836,000
14-06-03	15:11:00	11,580,000

Valero Refining-Texas, L.P.
Houston Refinery
Houston, TX

Flow Monitor Data

FCCU Belco Scrubber

REALTIME DATA SAMPLES AND AVERAGES REPORT
Cirrus - Process Analysts, Inc.

Title: FCCU RATA 060414
Sample Interval: 10 seconds
Average Interval: 60 seconds

Date	Time	FCCU- Flow SCFH
14-06-03	15:12:00	11,886,000
14-06-03	15:13:00	12,042,000
14-06-03	15:14:00	11,566,000
14-06-03	15:15:00	11,510,000
14-06-03	15:16:00	11,744,000
14-06-03	15:17:00	11,581,000
14-06-03	15:18:00	12,183,000
14-06-03	15:19:00	11,996,000
14-06-03	15:20:00	11,802,000
14-06-03	15:21:00	11,855,000
14-06-03	15:22:00	12,145,000
14-06-03	15:23:00	12,328,000
14-06-03	15:24:00	12,016,000
14-06-03	15:25:00	11,632,000
14-06-03	15:26:00	11,754,000
14-06-03	15:27:00	11,633,000
14-06-03	15:28:00	11,542,000
14-06-03	15:29:00	11,602,000
14-06-03	15:30:00	12,036,000
14-06-03	15:31:00	11,478,000
14-06-03	15:32:00	11,871,000
14-06-03	15:33:00	11,780,000
14-06-03	15:34:00	11,957,000
14-06-03	15:35:00	11,581,000
14-06-03	15:36:00	11,563,000
14-06-03	15:37:00	11,904,000
14-06-03	15:38:00	11,540,000
14-06-03	15:39:00	11,979,000
14-06-03	15:40:00	11,953,000
14-06-03	15:41:00	11,576,000
14-06-03	15:42:00	11,909,000
14-06-03	15:43:00	12,087,000
14-06-03	15:44:00	11,684,000
14-06-03	15:45:00	12,103,000
14-06-03	15:46:00	12,212,000
14-06-03	15:47:00	12,076,000
14-06-03	15:48:00	11,544,000
14-06-03	15:49:00	11,719,000
14-06-03	15:50:00	11,441,000
14-06-03	15:51:00	11,728,000
14-06-03	15:52:00	12,437,000
14-06-03	15:53:00	12,125,000
14-06-03	15:54:00	12,057,000
14-06-03	15:55:00	11,652,000
14-06-03	15:56:00	12,012,000
14-06-03	15:57:00	11,677,000
14-06-03	15:58:00	12,005,000
14-06-03	15:59:00	11,590,000

Valero Refining-Texas, L.P.
Houston Refinery
Houston, TX

Flow Monitor Data

FCCU Belco Scrubber

REALTIME DATA SAMPLES AND AVERAGES REPORT
Cirrus - Process Analysts, Inc.

Title: FCCU RATA 060414
Sample Interval: 10 seconds
Average Interval: 60 seconds

Date	Time	FCCU- Flow SCFH
14-06-03	16:00:00	11,560,000
14-06-03	16:01:00	12,155,000
14-06-03	16:02:00	11,685,000
14-06-03	16:03:00	11,871,000
14-06-03	16:04:00	12,322,000
14-06-03	16:05:00	12,215,000
14-06-03	16:06:00	11,842,000
14-06-03	16:07:00	11,700,000
14-06-03	16:08:00	11,612,000
14-06-03	16:09:00	11,900,000
14-06-03	16:10:00	11,854,000
14-06-03	16:11:00	12,087,000
14-06-03	16:12:00	12,000,000
14-06-03	16:13:00	12,061,000
14-06-03	16:14:00	11,643,000
14-06-03	16:15:00	12,199,000
14-06-03	16:16:00	12,345,000
14-06-03	16:17:00	11,924,000
14-06-03	16:18:00	12,006,000
14-06-03	16:19:00	11,811,000
14-06-03	16:20:00	12,269,000
14-06-03	16:21:00	11,942,000
14-06-03	16:22:00	11,688,000
14-06-03	16:23:00	12,201,000
14-06-03	16:24:00	12,162,000
14-06-03	16:25:00	11,622,000
14-06-03	16:26:00	11,600,000
14-06-03	16:27:00	11,679,000
14-06-03	16:28:00	12,062,000
14-06-03	16:29:00	11,765,000
14-06-03	16:30:00	11,902,000
14-06-03	16:31:00	12,070,000
14-06-03	16:32:00	12,045,000
14-06-03	16:33:00	11,923,000
14-06-03	16:34:00	11,777,000
14-06-03	16:35:00	11,995,000
14-06-03	16:36:00	12,351,000
14-06-03	16:37:00	11,938,000
14-06-03	16:38:00	11,334,000
14-06-03	16:39:00	12,419,000
14-06-03	16:40:00	11,558,000
14-06-03	16:41:00	12,354,000
14-06-03	16:42:00	12,140,000
14-06-03	16:43:00	11,914,000
14-06-03	16:44:00	12,163,000
14-06-03	16:45:00	12,335,000
14-06-03	16:46:00	11,985,000
14-06-03	16:47:00	11,619,000

Valero Refining-Texas, L.P.
Houston Refinery
Houston, TX

Flow Monitor Data

FCCU Belco Scrubber

REALTIME DATA SAMPLES AND AVERAGES REPORT
Cirrus - Process Analysts, Inc.

Title: FCCU RATA 060414
Sample Interval: 10 seconds
Average Interval: 60 seconds

Date	Time	FCCU- Flow SCFH
14-06-03	16:48:00	11,937,000
14-06-03	16:49:00	11,681,000
14-06-03	16:50:00	12,076,000
14-06-03	16:51:00	12,006,000
14-06-03	16:52:00	12,399,000
14-06-03	16:53:00	11,806,000
14-06-03	16:54:00	11,950,000
14-06-03	16:55:00	11,795,000
14-06-03	16:56:00	11,755,000
14-06-03	16:57:00	11,992,000
14-06-03	16:58:00	11,837,000
14-06-03	16:59:00	12,097,000
14-06-03	17:00:00	11,939,000
14-06-03	17:01:00	12,099,000
14-06-03	17:02:00	12,101,000
14-06-03	17:03:00	11,787,000
14-06-03	17:04:00	12,017,000
14-06-03	17:05:00	11,870,000
14-06-03	17:06:00	11,958,000
14-06-03	17:07:00	11,999,000
14-06-03	17:08:00	12,040,000
14-06-03	17:09:00	11,869,000
14-06-03	17:10:00	11,993,000
14-06-03	17:11:00	11,876,000
14-06-03	17:12:00	11,886,000
14-06-03	17:13:00	12,067,000
14-06-03	17:14:00	12,093,000
14-06-03	17:15:00	11,783,000
14-06-03	17:16:00	12,013,000
14-06-03	17:17:00	12,037,000
14-06-03	17:18:00	12,337,000
14-06-03	17:19:00	12,171,000
14-06-03	17:20:00	12,015,000
14-06-03	17:21:00	12,264,000
14-06-03	17:22:00	12,259,000
14-06-03	17:23:00	12,261,000
14-06-03	17:24:00	12,000,000
14-06-03	17:25:00	11,853,000
14-06-03	17:26:00	11,966,000
14-06-03	17:27:00	12,551,000
14-06-03	17:28:00	12,155,000
14-06-03	17:29:00	12,512,000
14-06-03	17:30:00	11,845,000
14-06-03	17:31:00	11,971,000
14-06-03	17:32:00	12,273,000
14-06-03	17:33:00	11,921,000
14-06-03	17:34:00	12,563,000
14-06-03	17:35:00	12,561,000

Valero Refining-Texas, L.P.
Houston Refinery
Houston, TX

Flow Monitor Data

FCCU Belco Scrubber

REALTIME DATA SAMPLES AND AVERAGES REPORT
Cirrus - Process Analysts, Inc.

Title: FCCU RATA 060414
Sample Interval: 10 seconds
Average Interval: 60 seconds

Date	Time	FCCU- Flow SCFH
14-06-03	17:36:00	12,201,000
14-06-03	17:37:00	12,284,000
14-06-03	17:38:00	11,745,000
14-06-03	17:39:00	12,034,000
14-06-03	17:40:00	12,148,000
14-06-04	8:03:50	12,024,000
14-06-04	8:04:50	11,952,000
14-06-04	8:05:50	11,996,000
14-06-04	8:06:50	12,350,000
14-06-04	8:07:50	12,392,000
14-06-04	8:08:50	12,432,000
14-06-04	8:09:50	11,773,000
14-06-04	8:10:50	12,112,000
14-06-04	8:11:50	12,410,000
14-06-04	8:12:50	12,098,000
14-06-04	8:13:50	12,795,000
14-06-04	8:14:50	12,526,000
14-06-04	8:15:50	12,463,000
14-06-04	8:16:50	12,459,000
14-06-04	8:17:50	12,141,000
14-06-04	8:18:50	12,339,000
14-06-04	8:19:50	11,584,000
14-06-04	8:20:50	12,158,000
14-06-04	8:21:50	11,839,000
14-06-04	8:22:50	12,072,000
14-06-04	8:23:50	12,552,000
14-06-04	8:24:50	11,791,000
14-06-04	8:25:50	11,921,000
14-06-04	8:26:50	11,889,000
14-06-04	8:27:50	11,859,000
14-06-04	8:28:50	12,348,000
14-06-04	8:29:50	12,176,000
14-06-04	8:30:50	11,921,000
14-06-04	8:31:50	11,363,000
14-06-04	8:32:50	11,435,000
14-06-04	8:33:50	12,345,000
14-06-04	8:34:50	11,912,000
14-06-04	8:35:50	11,958,000
14-06-04	8:36:50	12,227,000
14-06-04	8:37:50	11,941,000
14-06-04	8:38:50	12,275,000
14-06-04	8:39:50	12,100,000
14-06-04	8:40:50	12,111,000
14-06-04	8:41:50	12,032,000
14-06-04	8:42:50	12,083,000
14-06-04	8:43:50	11,676,000
14-06-04	8:44:50	12,018,000

Valero Refining-Texas, L.P.
Houston Refinery
Houston, TX

Flow Monitor Data

FCCU Belco Scrubber

REALTIME DATA SAMPLES AND AVERAGES REPORT
Cirrus - Process Analysts, Inc.

Title: FCCU RATA 060414
Sample Interval: 10 seconds
Average Interval: 60 seconds

Date	Time	FCCU- Flow SCFH
14-06-04	8:45:50	11,881,000
14-06-04	8:46:50	12,591,000
14-06-04	8:47:50	12,130,000
14-06-04	8:48:50	11,226,000
14-06-04	8:49:50	12,229,000
14-06-04	8:50:50	11,636,000
14-06-04	8:51:50	11,910,000
14-06-04	8:52:50	11,947,000
14-06-04	8:53:50	12,082,000
14-06-04	8:54:50	12,581,000
14-06-04	8:55:50	12,138,000
14-06-04	8:56:50	11,815,000
14-06-04	8:57:50	12,552,000
14-06-04	8:58:50	11,893,000
14-06-04	8:59:50	11,467,000
14-06-04	9:00:50	12,003,000
14-06-04	9:01:50	11,786,000
14-06-04	9:02:50	11,902,000
14-06-04	9:03:50	11,817,000
14-06-04	9:04:50	12,014,000
14-06-04	9:05:50	12,181,000
14-06-04	9:06:50	12,090,000
14-06-04	9:07:50	12,022,000
14-06-04	9:08:50	12,464,000
14-06-04	9:09:50	11,935,000
14-06-04	9:10:50	12,432,000
14-06-04	9:11:50	11,860,000
14-06-04	9:12:50	11,910,000
14-06-04	9:13:50	11,945,000
14-06-04	9:14:50	12,311,000
14-06-04	9:15:50	12,212,000
14-06-04	9:16:50	12,286,000
14-06-04	9:17:50	12,033,000
14-06-04	9:18:50	11,516,000
14-06-04	9:19:50	11,788,000
14-06-04	9:20:50	12,171,000
14-06-04	9:21:50	12,014,000
14-06-04	9:22:50	11,832,000
14-06-04	9:23:50	12,029,000
14-06-04	9:24:50	12,440,000
14-06-04	9:25:50	11,737,000
14-06-04	9:26:50	11,682,000
14-06-04	9:27:50	12,186,000
14-06-04	9:28:50	12,147,000
14-06-04	9:29:50	12,174,000
14-06-04	9:30:50	12,008,000
14-06-04	9:31:50	11,518,000
14-06-04	9:32:50	11,880,000

Valero Refining-Texas, L.P.
Houston Refinery
Houston, TX

Flow Monitor Data

FCCU Belco Scrubber

REALTIME DATA SAMPLES AND AVERAGES REPORT
Cirrus - Process Analysts, Inc.

Title: FCCU RATA 060414
Sample Interval: 10 seconds
Average Interval: 60 seconds

Date	Time	FCCU- Flow SCFH
14-06-04	9:33:50	12,106,000
14-06-04	9:34:50	12,146,000
14-06-04	9:35:50	11,984,000
14-06-04	9:36:50	12,191,000
14-06-04	9:37:50	11,713,000
14-06-04	9:38:50	11,660,000
14-06-04	9:39:50	11,615,000
14-06-04	9:40:50	11,791,000
14-06-04	9:41:50	12,391,000
14-06-04	9:42:50	12,085,000
14-06-04	9:43:50	12,322,000
14-06-04	9:44:50	12,013,000
14-06-04	9:45:50	12,001,000
14-06-04	9:46:50	12,042,000
14-06-04	9:47:50	12,044,000
14-06-04	9:48:50	11,653,000
14-06-04	9:49:50	11,682,000
14-06-04	9:50:50	12,446,000
14-06-04	9:51:50	12,190,000
14-06-04	9:52:50	11,817,000
14-06-04	9:53:50	12,087,000
14-06-04	9:54:50	11,887,000
14-06-04	9:55:50	12,105,000
14-06-04	9:56:50	12,060,000
14-06-04	9:57:50	11,831,000
14-06-04	9:58:50	11,736,000
14-06-04	9:59:50	11,570,000
14-06-04	10:00:50	11,751,000
14-06-04	10:01:50	12,169,000
14-06-04	10:02:50	12,231,000
14-06-04	10:03:50	12,105,000
14-06-04	10:04:50	11,867,000
14-06-04	10:05:50	11,818,000
14-06-04	10:06:50	11,722,000
14-06-04	10:07:50	12,320,000
14-06-04	10:08:50	11,999,000
14-06-04	10:09:50	11,843,000
14-06-04	10:10:50	12,256,000
14-06-04	10:11:50	12,077,000
14-06-04	10:12:50	12,138,000
14-06-04	10:13:50	11,706,000
14-06-04	10:14:50	12,325,000
14-06-04	10:15:50	11,481,000
14-06-04	10:16:50	11,468,000
14-06-04	10:17:50	11,895,000
14-06-04	10:18:50	12,375,000
14-06-04	10:19:50	11,766,000
14-06-04	10:20:50	11,917,000

Valero Refining-Texas, L.P.
Houston Refinery
Houston, TX

Flow Monitor Data

FCCU Belco Scrubber

REALTIME DATA SAMPLES AND AVERAGES REPORT
Cirrus - Process Analysts, Inc.

Title: FCCU RATA 060414
Sample Interval: 10 seconds
Average Interval: 60 seconds

Date	Time	FCCU- Flow SCFH
14-06-04	10:21:50	11,875,000
14-06-04	10:22:50	12,284,000
14-06-04	10:23:50	11,981,000
14-06-04	10:24:50	12,034,000
14-06-04	10:25:50	12,089,000
14-06-04	10:26:50	11,963,000
14-06-04	10:27:50	12,202,000
14-06-04	10:28:50	12,522,000
14-06-04	10:29:50	11,833,000
14-06-04	10:30:50	12,105,000
14-06-04	10:31:50	12,195,000
14-06-04	10:32:50	12,147,000
14-06-04	10:33:50	12,782,000
14-06-04	10:34:50	11,901,000
14-06-04	10:35:50	12,152,000
14-06-04	10:36:50	12,480,000
14-06-04	10:37:50	12,276,000
14-06-04	10:38:50	11,992,000
14-06-04	10:39:50	12,121,000
14-06-04	10:40:50	12,158,000
14-06-04	10:41:50	12,190,000
14-06-04	10:42:50	11,659,000
14-06-04	10:43:50	11,829,000
14-06-04	10:44:50	12,224,000
14-06-04	10:45:50	11,793,000
14-06-04	10:46:50	12,078,000
14-06-04	10:47:50	11,832,000
14-06-04	10:48:50	12,339,000
14-06-04	10:49:50	12,383,000
14-06-04	10:50:50	12,220,000
14-06-04	10:51:50	11,837,000
14-06-04	10:52:50	11,975,000
14-06-04	10:53:50	11,748,000
14-06-04	10:54:50	12,219,000
14-06-04	10:55:50	12,408,000
14-06-04	10:56:50	11,724,000
14-06-04	10:57:50	11,973,000
14-06-04	10:58:50	12,449,000
14-06-04	10:59:50	11,947,000
14-06-04	11:00:50	11,805,000
14-06-04	11:01:50	12,128,000
14-06-04	11:02:50	12,286,000
14-06-04	11:03:50	12,517,000
14-06-04	11:04:50	12,254,000
14-06-04	11:05:50	12,408,000
14-06-04	11:06:50	12,083,000
14-06-04	11:07:50	11,879,000
14-06-04	11:08:50	12,125,000

Valero Refining-Texas, L.P.
Houston Refinery
Houston, TX

Flow Monitor Data

FCCU Belco Scrubber

REALTIME DATA SAMPLES AND AVERAGES REPORT
Cirrus - Process Analysts, Inc.

Title: FCCU RATA 060414
Sample Interval: 10 seconds
Average Interval: 60 seconds

Date	Time	FCCU- Flow SCFH
14-06-04	11:09:50	12,064,000
14-06-04	11:10:50	12,902,000
14-06-04	11:11:50	12,521,000
14-06-04	11:12:50	12,132,000
14-06-04	11:13:50	11,869,000
14-06-04	11:14:50	12,620,000
14-06-04	11:15:50	11,951,000
14-06-04	11:16:50	12,188,000
14-06-04	11:17:50	11,883,000
14-06-04	11:18:50	12,033,000
14-06-04	11:19:50	12,123,000
14-06-04	11:20:50	11,872,000
14-06-04	11:21:50	11,944,000
14-06-04	11:22:50	12,046,000
14-06-04	11:23:50	12,462,000
14-06-04	11:24:50	12,111,000
14-06-04	11:25:50	12,236,000
14-06-04	11:26:50	12,110,000
14-06-04	11:27:50	11,866,000
14-06-04	11:28:50	12,086,000
14-06-04	11:29:50	11,859,000
14-06-04	11:30:50	11,524,000
14-06-04	11:31:50	11,875,000
14-06-04	11:32:50	12,004,000
14-06-04	11:33:50	11,560,000
14-06-04	11:34:50	11,938,000
14-06-04	11:35:50	12,045,000
14-06-04	11:36:50	12,119,000
14-06-04	11:37:50	11,908,000
14-06-04	11:38:50	12,444,000
14-06-04	11:39:50	11,842,000
14-06-04	11:40:50	12,140,000
14-06-04	11:41:50	12,059,000
14-06-04	11:42:50	11,852,000
14-06-04	11:43:50	12,365,000
14-06-04	11:44:50	11,931,000
14-06-04	11:45:50	11,821,000
14-06-04	11:46:50	11,996,000
14-06-04	11:47:50	12,340,000
14-06-04	11:48:50	12,482,000
14-06-04	11:49:50	11,818,000
14-06-04	11:50:50	12,087,000
14-06-04	11:51:50	11,797,000
14-06-04	11:52:50	12,198,000
14-06-04	11:53:50	12,057,000
14-06-04	11:54:50	11,797,000
14-06-04	11:55:50	12,386,000
14-06-04	11:56:50	12,450,000

Valero Refining-Texas, L.P.
Houston Refinery
Houston, TX

Flow Monitor Data

FCCU Belco Scrubber

REALTIME DATA SAMPLES AND AVERAGES REPORT
Cirrus - Process Analysts, Inc.

Title: FCCU RATA 060414
Sample Interval: 10 seconds
Average Interval: 60 seconds

Date	Time	FCCU- Flow SCFH
14-06-04	11:57:50	12,195,000
14-06-04	11:58:50	12,500,000
14-06-04	11:59:50	12,872,000
14-06-04	12:00:50	11,980,000
14-06-04	12:01:50	12,975,000
14-06-04	12:02:50	12,318,000
14-06-04	12:03:50	12,269,000
14-06-04	12:04:50	12,527,000
14-06-04	12:05:50	12,260,000
14-06-04	12:06:50	12,612,000
14-06-04	12:07:50	12,262,000
14-06-04	12:08:50	12,654,000
14-06-04	12:09:50	12,652,000
14-06-04	12:10:50	12,782,000
14-06-04	12:11:50	12,890,000
14-06-04	12:12:50	12,650,000
14-06-04	12:13:50	12,285,000
14-06-04	12:14:50	12,403,000
14-06-04	12:15:50	12,967,000
14-06-04	12:16:50	12,816,000
14-06-04	12:17:50	12,783,000
14-06-04	12:18:50	12,876,000
14-06-04	12:19:50	12,490,000
14-06-04	12:20:50	12,814,000
14-06-04	12:21:50	12,981,000
14-06-04	12:22:50	12,679,000
14-06-04	12:23:50	12,644,000
14-06-04	12:24:50	11,996,000
14-06-04	12:25:50	12,300,000
14-06-04	12:26:50	12,303,000
14-06-04	12:27:50	12,727,000
14-06-04	12:28:50	12,406,000
14-06-04	12:29:50	12,569,000
14-06-04	12:30:50	12,498,000
14-06-04	12:31:50	12,301,000
14-06-04	12:32:50	12,717,000
14-06-04	12:33:50	11,977,000
14-06-04	12:34:50	12,745,000
14-06-04	12:35:50	12,734,000
14-06-04	12:36:50	12,658,000
14-06-04	12:37:50	12,389,000
14-06-04	12:38:50	12,552,000
14-06-04	12:39:50	12,677,000
14-06-04	12:40:50	12,587,000
14-06-04	12:41:50	12,570,000
14-06-04	12:42:50	12,670,000
14-06-04	12:43:50	12,794,000
14-06-04	12:44:50	12,668,000

Valero Refining-Texas, L.P.
Houston Refinery
Houston, TX

Flow Monitor Data

FCCU Belco Scrubber

REALTIME DATA SAMPLES AND AVERAGES REPORT
Cirrus - Process Analysts, Inc.

Title: FCCU RATA 060414
Sample Interval: 10 seconds
Average Interval: 60 seconds

Date	Time	FCCU- Flow SCFH
14-06-04	12:45:50	12,473,000
14-06-04	12:46:50	12,444,000
14-06-04	12:47:50	13,048,000
14-06-04	12:48:50	12,350,000
14-06-04	12:49:50	12,432,000
14-06-04	12:50:50	12,457,000
14-06-04	12:51:50	12,777,000
14-06-04	12:52:50	12,182,000
14-06-04	12:53:50	12,230,000
14-06-04	12:54:50	12,337,000
14-06-04	12:55:50	12,639,000
14-06-04	12:56:50	12,615,000
14-06-04	12:57:50	12,705,000
14-06-04	12:58:50	12,730,000
14-06-04	12:59:50	12,514,000
14-06-04	13:00:50	12,465,000
14-06-04	13:01:50	11,983,000
14-06-04	13:02:50	12,557,000
14-06-04	13:03:50	12,202,000
14-06-04	13:04:50	12,520,000
14-06-04	13:05:50	12,220,000
14-06-04	13:06:50	12,746,000
14-06-04	13:07:50	12,345,000
14-06-04	13:08:50	13,011,000
14-06-04	13:09:50	12,787,000
14-06-04	13:10:50	12,579,000
14-06-04	13:11:50	12,927,000
14-06-04	13:12:50	13,059,000
14-06-04	13:13:50	12,703,000
14-06-04	13:14:50	12,538,000
14-06-04	13:15:50	12,823,000
14-06-04	13:16:50	11,949,000
14-06-04	13:17:50	12,874,000
14-06-04	13:18:50	12,759,000
14-06-04	13:19:50	12,398,000
14-06-04	13:20:50	12,816,000
14-06-04	13:21:50	12,668,000
14-06-04	13:22:50	12,550,000
14-06-04	13:23:50	12,560,000
14-06-04	13:24:50	12,437,000
14-06-04	13:25:50	12,322,000
14-06-04	13:26:50	12,301,000
14-06-04	13:27:50	12,837,000
14-06-04	13:28:50	12,514,000
14-06-04	13:29:50	12,167,000
14-06-04	13:30:50	11,857,000
14-06-04	13:31:50	11,899,000
14-06-04	13:32:50	13,106,000

Valero Refining-Texas, L.P.
Houston Refinery
Houston, TX

Flow Monitor Data

FCCU Belco Scrubber

REALTIME DATA SAMPLES AND AVERAGES REPORT
Cirrus - Process Analysts, Inc.

Title: FCCU RATA 060414
Sample Interval: 10 seconds
Average Interval: 60 seconds

Date	Time	FCCU- Flow SCFH
14-06-04	13:33:50	12,612,000
14-06-04	13:34:50	12,048,000
14-06-04	13:35:50	11,921,000
14-06-04	13:36:50	11,870,000
14-06-04	13:37:50	12,612,000
14-06-04	13:38:50	12,649,000
14-06-04	13:39:50	12,574,000
14-06-04	13:40:50	12,505,000
14-06-04	13:41:50	12,516,000
14-06-04	13:42:50	12,362,000
14-06-04	13:43:50	12,145,000
14-06-04	13:44:50	12,142,000
14-06-04	13:45:50	13,119,000
14-06-04	13:46:50	12,837,000
14-06-04	13:47:50	12,179,000
14-06-04	13:48:50	12,542,000
14-06-04	13:49:50	12,624,000
14-06-04	13:50:50	12,145,000
14-06-04	13:51:50	12,418,000
14-06-04	13:52:50	11,935,000
14-06-04	13:53:50	12,510,000
14-06-04	13:54:50	11,763,000
14-06-04	13:55:50	11,807,000
14-06-04	13:56:50	12,583,000
14-06-04	13:57:50	12,362,000
14-06-04	13:58:50	11,664,000
14-06-04	13:59:50	12,206,000
14-06-04	14:00:50	11,770,000
14-06-04	14:01:50	12,125,000
14-06-04	14:02:50	12,139,000
14-06-04	14:03:50	11,485,000
14-06-04	14:04:50	11,974,000
14-06-04	14:05:50	12,211,000
14-06-04	14:06:50	12,412,000
14-06-04	14:07:50	12,499,000
14-06-04	14:08:50	12,217,000
14-06-04	14:09:50	11,890,000
14-06-04	14:10:50	12,832,000
14-06-04	14:11:50	11,866,000
14-06-04	14:12:50	12,271,000
14-06-04	14:13:50	11,806,000
14-06-04	14:14:50	12,287,000
14-06-04	14:15:50	12,741,000
14-06-04	14:16:50	12,784,000
14-06-04	14:17:50	12,171,000
14-06-04	14:18:50	12,202,000
14-06-04	14:19:50	12,085,000
14-06-04	14:20:50	12,353,000

Valero Refining-Texas, L.P.
Houston Refinery
Houston, TX

Flow Monitor Data

FCCU Belco Scrubber

REALTIME DATA SAMPLES AND AVERAGES REPORT
Cirrus - Process Analysts, Inc.

Title: FCCU RATA 060414
Sample Interval: 10 seconds
Average Interval: 60 seconds

Date	Time	FCCU- Flow SCFH
14-06-04	14:21:50	12,502,000
14-06-04	14:22:50	11,963,000
14-06-04	14:23:50	12,341,000
14-06-04	14:24:50	12,453,000
14-06-04	14:25:50	12,233,000
14-06-04	14:26:50	12,317,000
14-06-04	14:27:50	12,416,000
14-06-04	14:28:50	12,451,000
14-06-04	14:29:50	12,504,000
14-06-04	14:30:50	12,560,000
14-06-04	14:31:50	12,409,000
14-06-04	14:32:50	12,536,000
14-06-04	14:33:50	12,339,000
14-06-04	14:34:50	12,060,000
14-06-04	14:35:50	12,139,000
14-06-04	14:36:50	12,423,000
14-06-04	14:37:50	13,034,000
14-06-04	14:38:50	12,814,000
14-06-04	14:39:50	12,455,000
14-06-04	14:40:50	11,754,000
14-06-04	14:41:50	11,493,000
14-06-04	14:42:50	11,472,000
14-06-04	14:43:50	11,781,000
14-06-04	14:44:50	12,813,000
14-06-04	14:45:50	12,366,000
14-06-04	14:46:50	12,182,000
14-06-04	14:47:50	11,967,000
14-06-04	14:48:50	12,206,000
14-06-04	14:49:50	11,967,000
14-06-04	14:50:50	12,403,000
14-06-04	14:51:50	11,717,000
14-06-04	14:52:50	12,217,000
14-06-04	14:53:50	11,658,000
14-06-04	14:54:50	12,236,000
14-06-04	14:55:50	12,123,000
14-06-04	14:56:50	12,898,000
14-06-04	14:57:50	12,503,000
14-06-04	14:58:50	12,049,000
14-06-04	14:59:50	12,166,000
14-06-04	15:00:50	11,820,000
14-06-04	15:01:50	12,434,000
14-06-04	15:02:50	12,517,000
14-06-04	15:03:50	12,072,000
14-06-04	15:04:50	12,738,000
14-06-04	15:05:50	12,590,000
14-06-04	15:06:50	12,718,000
14-06-04	15:07:50	12,501,000
14-06-04	15:08:50	12,547,000

Valero Refining-Texas, L.P.
Houston Refinery
Houston, TX

Flow Monitor Data

FCCU Belco Scrubber

REALTIME DATA SAMPLES AND AVERAGES REPORT
Cirrus - Process Analysts, Inc.

Title: FCCU RATA 060414
Sample Interval: 10 seconds
Average Interval: 60 seconds

Date	Time	FCCU- Flow SCFH
14-06-04	15:09:50	12,347,000
14-06-04	15:10:50	12,798,000
14-06-04	15:11:50	12,628,000
14-06-04	15:12:50	12,555,000
14-06-04	15:13:50	12,632,000
14-06-04	15:14:50	12,169,000
14-06-04	15:15:50	12,506,000
14-06-04	15:16:50	12,322,000
14-06-04	15:17:50	11,890,000
14-06-04	15:18:50	12,343,000
14-06-04	15:19:50	12,564,000
14-06-04	15:20:50	11,812,000
14-06-04	15:21:50	11,709,000
14-06-04	15:22:50	12,150,000
14-06-04	15:23:50	11,761,000
14-06-04	15:24:50	11,611,000
14-06-04	15:25:50	11,987,000
14-06-04	15:26:50	11,782,000
14-06-04	15:27:50	12,158,000
14-06-04	15:28:50	12,053,000
14-06-04	15:29:50	11,998,000
14-06-04	15:30:50	12,258,000
14-06-04	15:31:50	12,405,000
14-06-04	15:32:50	11,900,000
14-06-04	15:33:50	11,858,000
14-06-04	15:34:50	12,051,000
14-06-04	15:35:50	11,807,000
14-06-04	15:36:50	12,049,000
14-06-04	15:37:50	11,496,000
14-06-04	15:38:50	12,089,000
14-06-04	15:39:50	12,111,000
14-06-04	15:40:50	12,500,000
14-06-04	15:41:50	11,569,000
14-06-04	15:42:50	12,731,000
14-06-04	15:43:50	12,085,000
14-06-04	15:44:50	11,994,000
14-06-04	15:45:50	12,301,000
14-06-04	15:46:50	12,466,000
14-06-04	15:47:50	12,146,000
14-06-04	15:48:50	12,330,000
14-06-04	15:49:50	12,034,000
14-06-04	15:50:50	11,864,000
14-06-04	15:51:50	12,685,000
14-06-04	15:52:50	12,003,000
14-06-04	15:53:50	12,212,000
14-06-04	15:54:50	11,576,000
14-06-04	15:55:50	11,953,000
14-06-04	15:56:50	11,822,000

Valero Refining-Texas, L.P.
Houston Refinery
Houston, TX

Flow Monitor Data

FCCU Belco Scrubber

REALTIME DATA SAMPLES AND AVERAGES REPORT
Cirrus - Process Analysts, Inc.

Title: FCCU RATA 060414
Sample Interval: 10 seconds
Average Interval: 60 seconds

Date	Time	FCCU- Flow SCFH
14-06-04	15:57:50	12,437,000
14-06-04	15:58:50	12,508,000
14-06-04	15:59:50	11,828,000
14-06-04	16:00:50	12,333,000
14-06-04	16:01:50	12,123,000
14-06-04	16:02:50	11,892,000
14-06-05	7:34:50	11,969,000
14-06-05	7:35:50	11,923,000
14-06-05	7:36:50	11,678,000
14-06-05	7:37:50	12,068,000
14-06-05	7:38:50	11,943,000
14-06-05	7:39:50	11,857,000
14-06-05	7:40:50	11,917,000
14-06-05	7:41:50	12,029,000
14-06-05	7:42:50	12,041,000
14-06-05	7:43:50	11,541,000
14-06-05	7:44:50	12,031,000
14-06-05	7:45:50	12,020,000
14-06-05	7:46:50	12,208,000
14-06-05	7:47:50	12,094,000
14-06-05	7:48:50	11,957,000
14-06-05	7:49:50	11,966,000
14-06-05	7:50:50	11,684,000
14-06-05	7:51:50	11,831,000
14-06-05	7:52:50	11,925,000
14-06-05	7:53:50	12,197,000
14-06-05	7:54:50	12,081,000
14-06-05	7:55:50	11,776,000
14-06-05	7:56:50	12,055,000
14-06-05	7:57:50	12,168,000
14-06-05	7:58:50	11,587,000
14-06-05	7:59:50	11,710,000
14-06-05	8:00:50	11,959,000
14-06-05	8:01:50	12,011,000
14-06-05	8:02:50	12,131,000
14-06-05	8:03:50	11,998,000
14-06-05	8:04:50	11,762,000
14-06-05	8:05:50	11,827,000
14-06-05	8:06:50	11,862,000
14-06-05	8:07:50	11,808,000
14-06-05	8:08:50	11,894,000
14-06-05	8:09:50	11,725,000
14-06-05	8:10:50	11,621,000
14-06-05	8:11:50	12,238,000
14-06-05	8:12:50	12,026,000
14-06-05	8:13:50	11,698,000
14-06-05	8:14:50	11,524,000

Valero Refining-Texas, L.P.
Houston Refinery
Houston, TX

Flow Monitor Data

FCCU Belco Scrubber

REALTIME DATA SAMPLES AND AVERAGES REPORT
Cirrus - Process Analysts, Inc.

Title: FCCU RATA 060414
Sample Interval: 10 seconds
Average Interval: 60 seconds

Date	Time	FCCU- Flow SCFH
14-06-05	8:15:50	11,820,000
14-06-05	8:16:50	11,884,000
14-06-05	8:17:50	11,516,000
14-06-05	8:18:50	11,466,000
14-06-05	8:19:50	11,714,000
14-06-05	8:20:50	12,107,000
14-06-05	8:21:50	11,724,000
14-06-05	8:22:50	11,910,000
14-06-05	8:23:50	11,521,000
14-06-05	8:24:50	11,511,000
14-06-05	8:25:50	11,946,000
14-06-05	8:26:50	11,877,000
14-06-05	8:27:50	11,698,000
14-06-05	8:28:50	11,988,000
14-06-05	8:29:50	11,893,000
14-06-05	8:30:50	11,901,000
14-06-05	8:31:50	12,224,000
14-06-05	8:32:50	12,443,000
14-06-05	8:33:50	11,856,000
14-06-05	8:34:50	11,960,000
14-06-05	8:35:50	11,370,000
14-06-05	8:36:50	11,730,000
14-06-05	8:37:50	12,100,000
14-06-05	8:38:50	11,969,000
14-06-05	8:39:50	11,899,000
14-06-05	8:40:50	11,846,000
14-06-05	8:41:50	12,351,000
14-06-05	8:42:50	11,965,000
14-06-05	8:43:50	11,942,000
14-06-05	8:44:50	11,752,000
14-06-05	8:45:50	12,267,000
14-06-05	8:46:50	12,187,000
14-06-05	8:47:50	12,235,000
14-06-05	8:48:50	11,676,000
14-06-05	8:49:50	11,682,000
14-06-05	8:50:50	11,776,000
14-06-05	8:51:50	11,448,000
14-06-05	8:52:50	11,700,000
14-06-05	8:53:50	12,108,000
14-06-05	8:54:50	11,823,000
14-06-05	8:55:50	11,907,000
14-06-05	8:56:50	11,467,000
14-06-05	8:57:50	12,005,000
14-06-05	8:58:50	12,074,000
14-06-05	8:59:50	11,783,000
14-06-05	9:00:50	12,128,000
14-06-05	9:01:50	11,675,000
14-06-05	9:02:50	12,089,000

Valero Refining-Texas, L.P.
Houston Refinery
Houston, TX

Flow Monitor Data

FCCU Belco Scrubber

REALTIME DATA SAMPLES AND AVERAGES REPORT
Cirrus - Process Analysts, Inc.

Title: FCCU RATA 060414
Sample Interval: 10 seconds
Average Interval: 60 seconds

Date	Time	FCCU- Flow SCFH
14-06-05	9:03:50	11,670,000
14-06-05	9:04:50	11,802,000
14-06-05	9:05:50	11,784,000
14-06-05	9:06:50	11,651,000
14-06-05	9:07:50	11,910,000
14-06-05	9:08:50	11,549,000
14-06-05	9:09:50	11,965,000
14-06-05	9:10:50	11,992,000
14-06-05	9:11:50	11,680,000
14-06-05	9:12:50	12,012,000
14-06-05	9:13:50	11,645,000
14-06-05	9:14:50	12,047,000
14-06-05	9:15:50	11,903,000
14-06-05	9:16:50	11,591,000
14-06-05	9:17:50	11,492,000
14-06-05	9:18:50	11,609,000
14-06-05	9:19:50	11,533,000
14-06-05	9:20:50	11,627,000
14-06-05	9:21:50	11,802,000
14-06-05	9:22:50	11,949,000
14-06-05	9:23:50	11,585,000
14-06-05	9:24:50	11,534,000
14-06-05	9:25:50	12,136,000
14-06-05	9:26:50	11,870,000
14-06-05	9:27:50	11,780,000
14-06-05	9:28:50	11,780,000
14-06-05	9:29:50	11,939,000
14-06-05	9:30:50	11,779,000
14-06-05	9:31:50	11,714,000
14-06-05	9:32:50	11,965,000
14-06-05	9:33:50	12,133,000
14-06-05	9:34:50	11,898,000
14-06-05	9:35:50	11,557,000
14-06-05	9:36:50	11,053,000
14-06-05	9:37:50	11,447,000
14-06-05	9:38:50	12,120,000
14-06-05	9:39:50	12,144,000
14-06-05	9:40:50	11,996,000
14-06-05	9:41:50	11,817,000
14-06-05	9:42:50	11,910,000
14-06-05	9:43:50	11,712,000
14-06-05	9:44:50	11,867,000
14-06-05	9:45:50	11,823,000
14-06-05	9:46:50	12,028,000
14-06-05	9:47:50	11,869,000
14-06-05	9:48:50	11,512,000
14-06-05	9:49:50	11,971,000
14-06-05	9:50:50	12,226,000

Valero Refining-Texas, L.P.
Houston Refinery
Houston, TX

Flow Monitor Data

FCCU Belco Scrubber

REALTIME DATA SAMPLES AND AVERAGES REPORT
Cirrus - Process Analysts, Inc.

Title: FCCU RATA 060414
Sample Interval: 10 seconds
Average Interval: 60 seconds

Date	Time	FCCU- Flow SCFH
14-06-05	9:51:50	11,639,000
14-06-05	9:52:50	11,673,000
14-06-05	9:53:50	11,659,000
14-06-05	9:54:50	11,904,000
14-06-05	9:55:50	11,484,000
14-06-05	9:56:50	12,109,000
14-06-05	9:57:50	12,032,000
14-06-05	9:58:50	12,131,000
14-06-05	9:59:50	11,856,000
14-06-05	10:00:50	12,038,000
14-06-05	10:01:50	11,597,000
14-06-05	10:02:50	11,675,000
14-06-05	10:03:50	11,434,000
14-06-05	10:04:50	11,558,000
14-06-05	10:05:50	12,195,000
14-06-05	10:06:50	11,481,000
14-06-05	10:07:50	11,740,000
14-06-05	10:08:50	11,977,000
14-06-05	10:09:50	11,725,000
14-06-05	10:10:50	11,609,000
14-06-05	10:11:50	11,991,000
14-06-05	10:12:50	11,366,000
14-06-05	10:13:50	11,943,000
14-06-05	10:14:50	11,504,000
14-06-05	10:15:50	12,009,000
14-06-05	10:16:50	11,591,000
14-06-05	10:17:50	12,081,000
14-06-05	10:18:50	11,560,000
14-06-05	10:19:50	11,587,000
14-06-05	10:20:50	11,283,000
14-06-05	10:21:50	11,777,000
14-06-05	10:22:50	12,112,000
14-06-05	10:23:50	12,082,000
14-06-05	10:24:50	12,173,000
14-06-05	10:25:50	12,020,000
14-06-05	10:26:50	11,973,000
14-06-05	10:27:50	11,835,000
14-06-05	10:28:50	11,723,000
14-06-05	10:29:50	12,209,000
14-06-05	10:30:50	11,755,000
14-06-05	10:31:50	11,650,000
14-06-05	10:32:50	11,753,000
14-06-05	10:33:50	11,963,000
14-06-05	10:34:50	11,387,000
14-06-05	10:35:50	11,618,000
14-06-05	10:36:50	11,477,000
14-06-05	10:37:50	11,613,000
14-06-05	10:38:50	12,163,000

Valero Refining-Texas, L.P.
Houston Refinery
Houston, TX

Flow Monitor Data

FCCU Belco Scrubber

REALTIME DATA SAMPLES AND AVERAGES REPORT
Cirrus - Process Analysts, Inc.

Title: FCCU RATA 060414
Sample Interval: 10 seconds
Average Interval: 60 seconds

Date	Time	FCCU- Flow SCFH
14-06-05	10:39:50	11,782,000
14-06-05	10:40:50	11,896,000
14-06-05	10:41:50	11,608,000
14-06-05	10:42:50	11,815,000
14-06-05	10:43:50	11,848,000
14-06-05	10:44:50	11,700,000
14-06-05	10:45:50	11,574,000
14-06-05	10:46:50	11,904,000
14-06-05	10:47:50	12,228,000
14-06-05	10:48:50	11,895,000
14-06-05	10:49:50	11,799,000
14-06-05	10:50:50	11,900,000
14-06-05	10:51:50	11,641,000
14-06-05	10:52:50	11,687,000
14-06-05	10:53:50	11,805,000
14-06-05	10:54:50	11,942,000
14-06-05	10:55:50	11,838,000
14-06-05	10:56:50	11,947,000
14-06-05	10:57:50	11,810,000
14-06-05	10:58:50	11,684,000
14-06-05	10:59:50	12,103,000
14-06-05	11:00:50	11,784,000
14-06-05	11:01:50	12,077,000
14-06-05	11:02:50	11,777,000
14-06-05	11:03:50	11,764,000
14-06-05	11:04:50	11,896,000
14-06-05	11:05:50	11,908,000
14-06-05	11:06:50	11,668,000
14-06-05	11:07:50	11,927,000
14-06-05	11:08:50	12,109,000
14-06-05	11:09:50	12,056,000
14-06-05	11:10:50	11,979,000
14-06-05	11:11:50	11,766,000
14-06-05	11:12:50	12,311,000
14-06-05	11:13:50	11,946,000
14-06-05	11:14:50	11,722,000
14-06-05	11:15:50	11,766,000
14-06-05	11:16:50	12,349,000
14-06-05	11:17:50	11,939,000
14-06-05	11:18:50	11,702,000
14-06-05	11:19:50	12,108,000
14-06-05	11:20:50	11,999,000
14-06-05	11:21:50	11,959,000
14-06-05	11:22:50	12,377,000
14-06-05	11:23:50	11,665,000
14-06-05	11:24:50	11,763,000
14-06-05	11:25:50	11,555,000
14-06-05	11:26:50	11,951,000

Valero Refining-Texas, L.P.
Houston Refinery
Houston, TX

Flow Monitor Data

FCCU Belco Scrubber

REALTIME DATA SAMPLES AND AVERAGES REPORT
Cirrus - Process Analysts, Inc.

Title: FCCU RATA 060414
Sample Interval: 10 seconds
Average Interval: 60 seconds

Date	Time	FCCU- Flow SCFH
14-06-05	11:27:50	11,546,000
14-06-05	11:28:50	11,773,000
14-06-05	11:29:50	11,765,000
14-06-05	11:30:50	12,136,000
14-06-05	11:31:50	11,681,000
14-06-05	11:32:50	11,715,000
14-06-05	11:33:50	12,065,000
14-06-05	11:34:50	11,477,000
14-06-05	11:35:50	11,525,000
14-06-05	11:36:50	11,662,000
14-06-05	11:37:50	11,729,000
14-06-05	11:38:50	11,924,000
14-06-05	11:39:50	11,775,000
14-06-05	11:40:50	11,996,000
14-06-05	11:41:50	11,687,000
14-06-05	11:42:50	12,084,000
14-06-05	11:43:50	11,997,000
14-06-05	11:44:50	12,042,000
14-06-05	11:45:50	11,911,000
14-06-05	11:46:50	11,987,000
14-06-05	11:47:50	11,464,000
14-06-05	11:48:50	12,048,000
14-06-05	11:49:50	12,001,000
14-06-05	11:50:50	11,751,000
14-06-05	11:51:50	11,859,000
14-06-05	11:52:50	11,509,000
14-06-05	11:53:50	11,796,000
14-06-05	11:54:50	11,818,000
14-06-05	11:55:50	11,906,000
14-06-05	11:56:50	11,725,000
14-06-05	11:57:50	11,949,000
14-06-05	11:58:50	11,503,000
14-06-05	11:59:50	12,052,000
14-06-05	12:00:50	12,063,000
14-06-05	12:01:50	11,704,000
14-06-05	12:02:50	11,825,000
14-06-05	12:03:50	11,453,000
14-06-05	12:04:50	12,053,000
14-06-05	12:05:50	11,750,000
14-06-05	12:06:50	11,581,000
14-06-05	12:07:50	11,859,000
14-06-05	12:08:50	11,272,000
14-06-05	12:09:50	12,014,000
14-06-05	12:10:50	11,544,000
14-06-05	12:11:50	11,868,000
14-06-05	12:12:50	11,853,000
14-06-05	12:13:50	12,094,000
14-06-05	12:14:50	11,718,000

Valero Refining-Texas, L.P.
Houston Refinery
Houston, TX

Flow Monitor Data

FCCU Belco Scrubber

REALTIME DATA SAMPLES AND AVERAGES REPORT
Cirrus - Process Analysts, Inc.

Title: FCCU RATA 060414
Sample Interval: 10 seconds
Average Interval: 60 seconds

Date	Time	FCCU- Flow SCFH
14-06-05	12:15:50	11,579,000
14-06-05	12:16:50	11,937,000
14-06-05	12:17:50	11,903,000
14-06-05	12:18:50	11,566,000
14-06-05	12:19:50	11,688,000
14-06-05	12:20:50	11,931,000
14-06-05	12:21:50	11,544,000
14-06-05	12:22:50	11,406,000
14-06-05	12:23:50	11,652,000
14-06-05	12:24:50	11,834,000
14-06-05	12:25:50	11,449,000
14-06-05	12:26:50	11,234,000
14-06-05	12:27:50	11,709,000
14-06-05	12:28:50	12,052,000
14-06-05	12:29:50	11,604,000
14-06-05	12:30:50	11,899,000
14-06-05	12:31:50	11,738,000
14-06-05	12:32:50	11,679,000
14-06-05	12:33:50	11,864,000
14-06-05	12:34:50	11,583,000
14-06-05	12:35:50	11,015,000
14-06-05	12:36:50	11,436,000
14-06-05	12:37:50	11,564,000
14-06-05	12:38:50	11,775,000
14-06-05	12:39:50	11,895,000
14-06-05	12:40:50	11,604,000
14-06-05	12:41:50	11,584,000
14-06-05	12:42:50	12,026,000
14-06-05	12:43:50	11,683,000
14-06-05	12:44:50	12,115,000
14-06-05	12:45:50	12,116,000
14-06-05	12:46:50	11,761,000
14-06-05	12:47:50	11,972,000
14-06-05	12:48:50	11,861,000
14-06-05	12:49:50	11,148,000
14-06-05	12:50:50	11,742,000
14-06-05	12:51:50	11,514,000
14-06-05	12:52:50	11,593,000
14-06-05	12:53:50	11,405,000
14-06-05	12:54:50	11,704,000
14-06-05	12:55:50	11,934,000
14-06-05	12:56:50	11,837,000
14-06-05	12:57:50	11,288,000
14-06-05	12:58:50	11,456,000
14-06-05	12:59:50	12,086,000
14-06-05	13:00:50	11,763,000
14-06-05	13:01:50	11,934,000
14-06-05	13:02:50	11,714,000

Valero Refining-Texas, L.P.
Houston Refinery
Houston, TX

Flow Monitor Data

FCCU Belco Scrubber

REALTIME DATA SAMPLES AND AVERAGES REPORT
Cirrus - Process Analysts, Inc.

Title: FCCU RATA 060414
Sample Interval: 10 seconds
Average Interval: 60 seconds

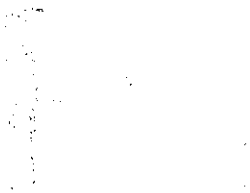
Date	Time	FCCU- Flow SCFH
14-06-05	13:03:50	11,947,000
14-06-05	13:04:50	11,816,000
14-06-05	13:05:50	11,470,000
14-06-05	13:06:50	11,832,000
14-06-05	13:07:50	11,748,000
14-06-05	13:08:50	11,503,000
14-06-05	13:09:50	11,667,000
14-06-05	13:10:50	11,905,000
14-06-05	13:11:50	11,866,000
14-06-05	13:12:50	11,744,000
14-06-05	13:13:50	11,980,000
14-06-05	13:14:50	11,818,000
14-06-05	13:15:50	11,589,000
14-06-05	13:16:50	11,715,000
14-06-05	13:17:50	11,594,000
14-06-05	13:18:50	11,434,000
14-06-05	13:19:50	11,673,000
14-06-05	13:20:50	11,980,000
14-06-05	13:21:50	12,190,000
14-06-05	13:22:50	12,154,000
14-06-05	13:23:50	11,907,000
14-06-05	13:24:50	12,234,000
14-06-05	13:25:50	12,040,000
14-06-05	13:26:50	11,835,000

6/3/14
1-1: 1208 – 1326 = 55,469 lb/hr coke burn
1-2: 1500 – 1616 = 55,678 lb/hr coke burn
1-3: 1623 – 1735 = 55,693 lb/hr coke burn

6/4/14
2-1: 0740 – 0855 = 57,066 lb/hr coke burn
2-2: 0926 – 1042 = 56,612 lb/hr coke burn
2-3: 1100 – 1216 = 56,342 lb/hr coke burn

6/4/14
3-1: 1316 – 1431 = 56,876 lb/hr coke burn
3-2: 1455 – 1601 = 55,378 lb/hr coke burn

6/5/14
4-1: 0735 – 0851 = 55,387 lb/hr coke burn
4-2: 1025 – 1142 = 55,320 lb/hr coke burn
4-3: 1212 – 1326 = 54,980 lb/hr coke burn



Scan

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RECEIVE

SEP - 4 2014

Air Toxics & Inspection Coordination Branch 6EN-A

VALERO

August 28, 2014

CERTIFIED MAIL 7011 2970 0000 3522 2810

Director, Multimedia Planning and Permitting Division
Air Toxics Program
U.S. EPA Region 6
1445 Ross Avenue
Dallas, TX 75202-2733

Re: ***Refinery MACT Notification of Compliance Status Update***
Refinery MACT Periodic Reports 40 CFR §63.655(g)
TCEQ Account No. HG-0130-C
Operating Permit Nos. O1381
Regulated Entity No. RN100219310
Valero Refining – Texas, L.P., Houston Refinery

Dear Sir or Madam:

Valero Refining– Texas, L.P. (Valero) owns and operates a petroleum refinery at 9701 Manchester Avenue in Houston, Texas. This petroleum refinery is affected by 40 CFR Part 63, Subparts A and CC.

In accordance with §63.655(g) (1)–(6), Valero is submitting the semi-annual periodic reports affected by Subpart CC for the period of January 1, 2014 through June 30 2014. An updated report of the Notification of Compliance Status and a signed Certification by the Responsible Official (RO) (Form OP-CRO1) is enclosed. Also enclosed is a Delegation of Responsible Official authority (OP-DEL) Form signed by the Responsible official designating a Duly Authorized Representative (DAR).

Should you have any questions regarding these reports, please contact Preethi Joseph of my staff at 713-923-3345.

Sincerely,
VALERO REFINING - TEXAS, L.P.

Matt Lindquist

Matthew Lindquist
Manager Environmental Engineering
Attachments

cc:
Mr. Andy Goodridge, Air Section Manager, TCEQ – Region 12, 7011 2970 0000 3522 2827
Mr. Richard Hyde, Executive Director, TCEQ Austin, 7011 2970 0000 3522 2834

Form OP-CRO1
Certification by Responsible Official
Federal Operating Permit Program

All initial permit application, revision, renewal, and reopening submittals requiring certification must be addressed using this form. Updates to site operating permit (SOP) and temporary operating permit (TOP) applications, other than public notice verification materials, must be certified prior to authorization of public notice or start of public announcement. Updates to general operating permit (GOP) applications must be certified prior to receiving an authorization to operate under a GOP.

I. IDENTIFYING INFORMATION

A. RN: RN100219310	B. CN: CN600127468	C. Account No.: HG-0130-C
D. Permit No.: O1381	E. Project No.:	
F. Area Name: Houston Refinery		
G. Company Name: Valero Refining – Texas, L.P.		

II. CERTIFICATION TYPE *(Please mark the appropriate box)*

A. ☒ Responsible Official:	B. ☐ Duly Authorized Representative:

III. SUBMITTAL TYPE *(Place an "X" in the appropriate box) (Only one response can be accepted per form)*

☐ SOP/TOP Initial Permit Application	☐ Update to Permit Application
☐ GOP Initial Permit Application	☐ Permit Revision, Renewal, or Reopening
☒ Other: Semiannual Report	

IV. CERTIFICATION OF TRUTH

This certification does not extend to information which is designated by the TCEQ as information for reference only.

I, Robert E. Moore certify that I am the RO for this application
(Certifier Name printed or typed) *(RO or DAR)*

and that, based on information and belief formed after reasonable inquiry, the statements and information dated during the time period in Section IV.A below, or on the specific date(s) in Section IV.B below, are true, accurate, and complete:

Note: Enter EITHER a Time Period OR Specific Date(s) for each certification. This section must be completed. The certification is not valid without documentation date(s).

A. Time Period: From _____ to _____
*Start Date** *End Date**

OR

B. Specific Dates: 8/28/2014 _____ _____ _____ _____ _____ _____ _____
*Date 1** *Date 2** *Date 3** *Date 4** *Date 5** *Date 6** *Date 7** *Date 8**

**The Time Period option may only be used when the "Submittal Type" is 'Update to Permit Application' and there are multiple uncertified submittals; or a submittal package has multiple dates recorded in the documentation. Do not use the Time Period option if the "Submittal Type" is 'Other.'*

Signature: Robert E Moore Signature Date: 8/28/14

Title: Vice-President & General Manager

Form OP-DEL
Change of Responsible Official Information
Federal Operating Permit Program

A Responsible Official (RO may choose to delegate signature authority to a Duly Authorized Representative (DAR). Such delegation may be made to an individual that has responsibility for the overall operation of one or more manufacturing, production, or operating facilities applying for, or subject to, a federal operating permit. Signature stamps can be accepted in place of an original signature. Faxes, photocopies, and electronic submittals can be accepted in place of an original Form OP-DEL; however, a follow-up submittal of the original Form OP-DEL is requested

I. Identifying Information					
Account No.:	HG-0130-C	RN:	100219310	CN:	600127468
Permit No.:	O1381	Area Name:	Houston Refinery		
Company Name:	Valero Refining-Texas, L.P				
II. Duly Authorized Representative Information					
Action Type:	☒ New DAR Identification	☐ Administrative Information Change			
Name: (☒ Mr. ☐ Mrs. ☐ Ms. ☐ Dr.)	Lon Brenner				
Title:	Director Refinery Operations	Delegation Effective Date:	08/28/2014		
Telephone No.:	(713) 923-3318	Fax No.:			
Mailing Address:	9701 Manchester Street				
City:	Houston	State:	TX	ZIP:	77012
Delivery Address:	9701 Manchester Street				
City:	Houston	State:	TX	ZIP:	77012

III. Certification of Truth, Accuracy, and Completeness

I, Robert E. Moore ,certify that, based on
(RO or DAR name printed or typed)

information and belief formed after reasonable inquiry, the statements, and information stated above are true, accurate, and complete.

Responsible Official Signature: [signature]

Date: 8/28/14 Title: Vice President & General Manager

Duly Authorized Representative Signature: [signature]

Date: 8/28/14 Title: Director Refinery Operations

IV. Removal of Duly Authorized Representative(s)

The following should be removed as Duly Authorized Representative(s):

_____ Effective Date: _____
(RO or DAR name Printed or typed)

Responsible Official Signature: _____

Date: _____ Title: _____

Form OP-DEL
Change of Responsible Official Information
Federal Operating Permit Program
(Extension)

V. Additional Identifying Information		
Account No.:	RN:	CN:
Permit No.:	Area Name:	
Account No.:	RN:	CN:
Permit No.:	Area Name:	
Account No.:	RN:	CN:
Permit No.:	Area Name:	
Account No.:	RN:	CN:
Permit No.:	Area Name:	
Account No.:	RN:	CN:
Permit No.:	Area Name:	
Account No.:	RN:	CN:
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Account No.:	RN:	CN:
Permit No.:	Area Name:	
Account No.:	RN:	CN:
Permit No.:	Area Name:	
Account No.:	RN:	CN:
Permit No.:	Area Name:	
Account No.:	RN:	CN:
Permit No.:	Area Name:	
Account No.:	RN:	CN:
Permit No.:	Area Name:	

Reset Form

VALERO

VALERO HOUSTON REFINERY - HOUSTON, TEXAS
40 CFR 63, SUBPART CC
NOTIFICATION OF COMPLIANCE STATUS REPORT
DATE: 08/26/2014

I. Storage Vessels – 63.655(f)(1)(i)

A. Group 1 Storage Vessels – Existing Sources

Storage Vessel ID	Compliance Method
90FB001	IFR
90FB002	EFR
90FB003	EFR
90FB004	EFR
90FB005	EFR
90FB204	***IFR***
90FB205	EFR
90FB225	EFR
90FB226	EFR
90FB227	IFR
90FB228	EFR
90FB230	EFR
90FB505	EFR
90FB506	EFR
90FB507	EFR
90FB511	EFR
90FB210	EFR
91FB901	EFR
91FB911	EFR
91FB912	IFR
91FB913	IFR
91FB915	***IFR***
91FB922	IFR
91FB924	IFR
91FB931	EFR
91FB920	IFR
91FB921	IFR

B. Group 1 Storage Vessels – Applicability Changes/Updates?

☐ No ☒ **Yes**

1. New IFR tank 90FB204- start of service 06/20/2014
2. New IFR tank 91FB915- start of service 04/10/2014

C. **Group 2 Storage Vessels – Existing Sources**

Storage Vessel ID		
42FB2802	90FB224	91FB916
45FB7401	90FB231	91FB917
45FB7402	90FB232	91FB918
45FB7403	90FB233	91FB927
47FB321	90FB234	
47FB323	90FB735	
90FB006	91FB907	
90FB213	91FB909	
90FB215	92FA4001	
90FB216	92FA4002	

D. **Group 2 Storage Vessels – Applicability Changes/Updates?**

☒ No ☐ **Yes** –Please describe below.

E. **Deviations:** No deviations occurred during the reporting period.

II. Process Vents – 63.655(f)(1)(ii)

A. **Miscellaneous Process Vents**

None

B. **Miscellaneous Process Vents – Applicability Changes/Updates?**

☒ No ☐ **Yes**

III. Flare Operating Parameters – 63.11(b)(5) – Applicability Changes/Updates?

☒ No ☐ **Yes** – Please describe below.

IV Heat Exchange System – 63.655 (f)(vi) –Existing sources

EPN	Type
22CWT3	Cooling Tower
23CWT7	Cooling Tower
27CWT2	Cooling Tower
42CWT10	Cooling Tower
44CWT9	Cooling Tower
40CWT11	Cooling Tower

V. Heat Exchange System – 63.655 (f)(vi) – Applicability Changes/Updates?

☒ No ☐ **Yes** – Please describe below.

Semi-Annual Report for Refinery MACT
40 CFR §63.654(g)(1)-(9)
01/01/2014 – 06/30/2014

63.654(g)(1) For Storage vessels: Periodic report information is included in sections 63.654(g)(2) through g(5)

63.654(g)(2) Internal Floating Roof Tanks

	Yes	No
Were inspections and/or seal gap measurements performed during the previous six months?	X	
Were any failures[2] noted during inspections?	X	
If yes, complete the following table for tanks in which a deficiency was detected.		

Tank Number	Date of Inspection	Description of Deficiency	Type of Repair Made	Date of Repair or Emptying	Extension of Time Requested?[1]
90FB227	01/31/2014	FCC feed (RVP-0.0002 psia) accumulated on roof and 25% of roof support cables failed.	Pending- Majority of the liquid was pumped out of the tank. Tank 227 is not actively used. Safe repair options are being evaluated.	Pending	Yes

[1]If yes, attach documentation.

[2]A failure is defined as any time in which the internal floating roof is not resting on the surface of the liquid; there is liquid on the floating roof; the seal is detached from the roof; there are holes, tears or other openings in the seal or seal fabric; there are visible gaps between the seal and the wall of the tank. For tanks part of a new source, a failure is, in addition to the above, gaskets that no longer close off the liquid surface from the atmosphere; slotted membrane that has more than a 10% open area.

63.654(g)(3) External Floating Roof Tanks

	Yes	No
Were inspections and/or seal gap measurements performed during the previous six months?	X	
Were any failures noted during inspections? [3]		X
If yes, complete the following table for tanks in which a deficiency was detected.		

Tank Number	Date of Seal Gap Measurement[4]	Description of Deficiency or Exceeded Parameters	Type of Repair Made	Date of Repair or Emptying	Extension of Time Requested?[5]

[3]A failure is defined as a seal gap exceedance; holes, tears or openings in the seal system; defects in the floating roof; holes or other openings in the primary seal or seal fabric; holes, tears or other openings in the seal or seal fabric of the secondary seal. For tanks part of a new source, a failure is, in addition to the above, gaskets that no longer close off the liquid surface from the atmosphere; slotted membrane that has more than 10% open area.

[4]Attach raw data obtained in seal gap measurements, plus calculations described in §63.120(b)(3) and (4).

[5]If yes, attach documentation.

63.654(g)(4) EFR converted to an IFR

	Yes	No
Any external floating roof converted to an internal floating?		X
If yes, comply with the periodic reporting requirements of paragraph (g)(2) of this section.		

Semi-Annual Report for Refinery MACT
40 CFR §63.654(g)(1)-(9)
01/01/2014 – 06/30/2014

63.654(g)(5) Closed Vent System and Control Device

	Yes	No
Any closed vent system and control devices subject to standard?		X
Answer the following questions for all closed vent systems with control devices.		
1. Was routine maintenance performed on the control device during the past six months? *If yes, complete the table below.*		
2. Is routine maintenance planned for the control device during the next six months?		
3. Will the routine maintenance cause the control device to NOT reduce inlet emissions by 95% (or by 90% if installed before 12/31/92)?		

Maintenance Performed in Past Six Months					
Control Device ID	Date of Maintenance Performed	Description of Maintenance Performed	Frequency of Maintenance Performed	Length of Maintenance	Total Hours Control Device Did Not Meet Requirements

63.654(g)(6) Miscellaneous process vents

	Yes	No
Any miscellaneous vents subject to standard?		X
(i) If yes, any periods of excess emission?		
(ii) If yes, excess emissions shall be reported for the operating parameters specified in table 10 of this subpart unless other site-specific parameter(s) have been approved by the operating permit authority.		

63.654(g)(7) New EPN or an EPN that changed from Group 2 to Group 1

	Yes	No
Any new emission point or for an emission point that has changed from Group 2 to Group 1?		X
If yes, any performance test for determination of compliance?		
If yes, is the performance test included in the Periodic Report.		

63.654(g)(8) Emission Averaging

	Yes	No
Is emission averaging used?		X

Semi-Annual Report for Refinery MACT
40 CFR §63.654(g)(1)-(9)
01/01/2014 – 06/30/2014

63.654(g)(9) Heat Exchange Systems

	Yes	No
Any Heat exchangers subject to the standard?	X	
If Yes, number of heat exchange systems in HAP service. 6 cooling towers		
Heat exchangers leaking?	X	
The number of heat exchange systems in HAP service found to be leaking? 2 cooling towers		
If yes, summary of the monitoring data that indicate a leak, including the number of leaks determined to be equal to or greater than the leak definitions specified in §63.654(c)(2)		

EPN	Leak identified date	Source identified date	Date of repair	Summary of Delayed repair (if any)	Reason for delay	If applicable, VOC emissions for each delayed repair
22CWT3	01/02/2014	01/03/2014	01/04/2014	NA	NA	NA
42CWT10	03/02/2014	03/10/2014	03/11/2014	NA	NA	NA
22CWT3	06/17/2014	06/18/2014	06/18/2014	NA	NA	NA
22CWT3	06/28/2014	06/29/2014	06/29/2014	NA	NA	NA

Semi-Annual Report for Refinery MACT
40 CFR §63.655(h)
07/01/2013 – 12/31/2013

Additional reporting requirements

63.655(h) (1) –Degassing activity occurred at tank 90FB506 during the reporting period and no excess emissions occurred.

63.655(h) (2) - For storage vessels, the Administrator was notified in writing at least 30 calendar days prior to filling and refilling of each storage vessel that was emptied and degassed.

63.655(h) (3) Emission averaging method is **not applicable.**

63.655(h) (4) Requests for approval to monitor a different parameter than those listed in §63.644 for miscellaneous process vents or who is required by §63.653(a)(8) to establish a site-specific monitoring parameter for a point in an emissions average is **not applicable.**

63.655(h) (5) Alternatives to the continuous operating parameter monitoring and recordkeeping provisions is **not applicable.**

63.655(h) (6) An updated Notice of compliance status is submitted with this report.

Tank Inspection Reports

VALERO

Via U.S. Certified Mail No. 7011 2970 0000 3522 6610 and Facsimile (713) 767-3761

March 13, 2014

Ashley Wadick
Regional Director
TCEQ-Region 12
5425 Polk Street, Suite H
Houston, Texas 77023-1486

Re: Tank 90FB227 Request for 30-Day Extension for Repair
Permit Number: 106909
Valero Refining-Texas, L.P. (Valero)
Houston Refinery, Harris County
TCEQ Account No. HG-0130-C
Federal Operating Permit No. O-01381
TCEQ Customer No. CN600127468
TCEQ Regulated Entity No. RN100219310

Dear Ms. Wadick:

The purpose of this letter is to respectfully request a 30-day extension as allowed under 40 Code of Federal Regulation (CFR) Part 60, Subpart Kb §60.113b(a)(2) to empty Tank 90FB227 and take it out of service in order to conduct required maintenance and repairs. Upon approval of this extension request, the compliance date for Tank 90FB227 will be April 16, 2014.

Tank 90FB227 is an internal floating roof tank that entered service on June 6, 2013. Tank 90FB227 is equipped with a mechanical shoe primary seal. A certification of control was submitted to your office on June 14, 2013. The tank is subject to the provisions of 40 CFR 60 Subparts A and Kb, 40 CFR 63 Subpart 63, and 30 Texas Administrative Code (TAC) 115. However, Tank 90FB227 is currently storing FCCU Feed, which has a RVP of 0.0002 psia.

The facility does not believe Tank 90FB227 is currently subject to the repair timeline requirements of Subpart Kb due to the low vapor pressure material stored. In abundance of caution, the facility is formally requesting an extension from your office. Please note that Tank 90FB227 has been storing FCCU Feed since entering service.

The tank is approximately 150 ft in diameter and 55 ft high with a nominal capacity of 173,000 barrels. The tank is permitted to store distillate fluid naphtha with a RVP of 3.0 psia and FCCU Feed with a RVP of 0.0002 psia.

On January 31, 2014, the facility conducted a monthly tank level gauging activity on Tank 90FB227. During this gauging activity, it was discovered that low vapor pressure FCCU Feed liquids had accumulated on top of the floating roof. It was also discovered that approximately 25% of the support cables along the perimeter of the internal floating roof had failed.

Houston Refinery • Valero Refining-Texas, L.P.
9701 Manchester St. • Houston, Texas 77012-2408 • Telephone (713) 923-3300

Semi-Annual Report for Refinery MACT
40 CFR §63.654(g)(1)-(9)
01/01/2014 – 06/30/2014

63.654(g)(5) Closed Vent System and Control Device

	Yes	No
Any closed vent system and control devices subject to standard?		X
Answer the following questions for all closed vent systems with control devices.		
1. Was routine maintenance performed on the control device during the past six months? *If yes, complete the table below.*		
2. Is routine maintenance planned for the control device during the next six months?		
3. Will the routine maintenance cause the control device to NOT reduce inlet emissions by 95% (or by 90% if installed before 12/31/92)?		

Maintenance Performed in Past Six Months					
Control Device ID	Date of Maintenance Performed	Description of Maintenance Performed	Frequency of Maintenance Performed	Length of Maintenance	Total Hours Control Device Did Not Meet Requirements

63.654(g)(6) Miscellaneous process vents

	Yes	No
Any miscellaneous vents subject to standard?		X
(i) If yes, any periods of excess emission?		
(ii) If yes, excess emissions shall be reported for the operating parameters specified in table 10 of this subpart unless other site-specific parameter(s) have been approved by the operating permit authority.		

63.654(g)(7) New EPN or an EPN that changed from Group 2 to Group 1

	Yes	No
Any new emission point or for an emission point that has changed from Group 2 to Group 1?		X
If yes, any performance test for determination of compliance?		
If yes, is the performance test included in the Periodic Report.		

63.654(g)(8) Emission Averaging

	Yes	No
Is emission averaging used?		X

Semi-Annual Report for Refinery MACT
40 CFR §63.654(g)(1)-(9)
01/01/2014 – 06/30/2014

63.654(g)(9) Heat Exchange Systems

	Yes	No
Any Heat exchangers subject to the standard?	X	
If Yes, number of heat exchange systems in HAP service. 6 cooling towers		
Heat exchangers leaking?	X	
The number of heat exchange systems in HAP service found to be leaking? 2 cooling towers		
If yes, summary of the monitoring data that indicate a leak, including the number of leaks determined to be equal to or greater than the leak definitions specified in §63.654(c)(2)		

EPN	Leak identified date	Source identified date	Date of repair	Summary of Delayed repair (if any)	Reason for delay	If applicable, VOC emissions for each delayed repair
22CWT3	01/02/2014	01/03/2014	01/04/2014	NA	NA	NA
42CWT10	03/02/2014	03/10/2014	03/11/2014	NA	NA	NA
22CWT3	06/17/2014	06/18/2014	06/18/2014	NA	NA	NA
22CWT3	06/28/2014	06/29/2014	06/29/2014	NA	NA	NA

The tank inspection provisions in 40 CFR Part 60, Subpart Kb §60.113b(a)(2) allow for a 45-day period in which repairs must be completed or the tank must be taken out of service (March 17, 2014). After a thorough inspection, it is feared that the internal floating roof may not be structurally sound to land due to the loss of support cables for the internal floating roof.

Tank 90FB227 is not being actively used during this time. Further complicating efforts in emptying the tank contents is that material has hardened and cannot be removed by conventional means such as pumping without permanently damaging the floating roof and potentially resulting in adverse safety and environmental concerns. This has resulted in significant and extensive planning, which may involve putting personnel on top of the internal floating roof, to ensure no adverse safety and environmental incidents occur.

Therefore, Valero may not be able to empty the contents of Tank 90FB227 within the 45-day compliance timeframe specified in §60.113b(a)(2). Please note that the majority of the FCCU feed was pumped out after the discovery of material accumulation.

To satisfy the 30-day extension request provisions of 40 CFR §60.113b(a)(2), Valero is providing the following information:

1) Unavailability of Alternative Storage Capacity: It appears that there is limited availability of alternative storage capacity and as noted above, the FCCU feed material has hardened and cannot be removed by conventional means. Removing the material may risk the loss of the internal roof and further safety and environmental concerns.

2) Schedule to Place Tank 90FB227 Out-of-Service: There are approximately 20,000 bbls of FCCU feed remaining in Tank 90FB227. In order to empty Tank 90FB227, the contents need to be gradually emptied from the tank and the floating roof pontoons. It is anticipated that this gradual emptying of the tank contents along with the difficulty of accessing and emptying liquid from the tank floating roof pontoons cannot be completed within the current deadline of March 17, 2014. However, it is anticipated that the contents of Tank 90FB227 along with the contents of the floating roof pontoons can be removed and the tank taken out of service by April 16, 2014. Valero will ensure that Tank 90FB227 will be taken out-of-service as soon as practicable with consideration given to ensuring no safety incidents and minimizing environmental impacts.

Valero would appreciate an expedited response to this request. Should you have any questions or need additional information, please contact me at (713) 923-3379.

Sincerely,

Vinh H. Do
Senior Environmental Engineer

cc: Director, Air, Pesticides, and Toxics Division, U.S. EPA, Dallas, TX
Certified Mail No. 7011 2970 0000 3522 6627

Mr. Richard Hyde, Executive Director, TCEQ, Austin
Certified Mail No. 7011 2970 0000 3522 6634

Mr. Arturo Blanco, Pollution Chief, BAQC – City of Houston, Houston, TX
Certified Mail No. 7011 2970 0000 3522 6641

Mr. Bob Allen, Director, Pollution Control Division, HCPCD, Pasadena, TX
Certified Mail No. 7011 2970 0000 3522 6658

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RECEIVE

NOV - 3 2014

Air Toxics & Inspection
Coordination Branch
6EN-A

VALERO

Certified Mail No. 7011 2970 0000 3522 2759

October 29, 2014

Mr. Richard Hyde
Executive Director - TCEQ
P.O. Box 13087
Austin, Texas 78711-3087

Re: Title V Deviation Report, Reporting Period: 4/1/2014 through 9/30/2014
Valero Refining-Texas, L.P. (Valero)
Houston Refinery, Harris County
TCEQ Account No. HG-0130-C
Federal Operating Permit (FOP) No. O-01381
TCEQ Customer No. CN600127468
TCEQ Regulated Entity No. RN100219310

Dear Mr. Hyde:

Valero hereby provides the Title V Deviation Report for the above referenced FOP #O-01381 as required by FOP No. O-01381, 30 TAC §122.145 (2), §122.146 (1), & §122.165 (b-c) for the reporting period of April 1, 2014 through September 30, 2014. With the possible exception of the deviations in the enclosed report form, Valero-Houston was in continuous compliance with all the terms and conditions of the permit during the reporting period.

In accordance with the provisions in 30 TAC §122.165(a)(7-8), a Certification by Responsible Official (OP-CRO1) Form signed by the Responsible Official certifying the information contained in this report is enclosed. Also enclosed is the Permit Compliance Certification (PCC) Form.

If you have any questions, please contact me at 713-923-3378 or Preethi Joseph at 713-923-3345.

Sincerely,

Matt Lindquist

Matthew Lindquist
Manager, Environmental Engineering

Enclosures

cc: US-EPA Region 6, Air Enforcement 6EN-A, 1445 Ross Ave, Ste. 1200, Dallas, Texas, 75202
Certified Mail No. 7011 2970 0000 3522 2766(In Duplicate)

Ms. Ashley Wadick, Regional Director, TCEQ Region 12, Houston, TX
Certified Mail No. 7011 2970 0000 3522 2773

Mr. Arturo Blanco, Pollution Chief, BAQC – City of Houston, Houston, TX
Certified Mail No. 7011 2970 0000 3522 2780

Mr. Michael Shaffer, Director, Pollution Control Division, HCPCD, Pasadena, TX
Certified Mail No. 7011 2970 0000 3522 2797

Form OP-CRO1
Certification by Responsible Official
Federal Operating Permit Program

All initial permit application, revision, renewal, and reopening submittals requiring certification must be addressed using this form. Updates to site operating permit (SOP) and temporary operating permit (TOP) applications, other than public notice verification materials, must be certified prior to authorization of public notice or start of public announcement. Updates to general operating permit (GOP) applications must be certified prior to receiving an authorization to operate under a GOP.

I. IDENTIFYING INFORMATION

A. RN: 100219310	B. CN: 600127468	C. Account No.: HG-0130-C
D. Permit No.: O-01381	E. Project No.:	
F. Area Name: Houston Refinery		
G. Company Name: Valero Refining – Texas, L.P.		

II. CERTIFICATION TYPE *(Please mark the appropriate box)*

A. ☒ Responsible Official:	B. ☐ Duly Authorized Representative:

III. SUBMITTAL TYPE *(Place an "X" in the appropriate box) (Only one response can be accepted per form)*

☐ SOP/TOP Initial Permit Application	☐ Update to Permit Application
☐ GOP Initial Permit Application	☐ Permit Revision, Renewal, or Reopening
☒ Other: Semi-Annual Title V deviation Report	

IV. CERTIFICATION OF TRUTH

This certification does not extend to information which is designated by the TCEQ as information for reference only.

I, Robert E. Moore, certify that I am the RO for this application
(Certifier Name printed or typed) *(RO or DAR)*

and that, based on information and belief formed after reasonable inquiry, the statements and information dated during the time period in Section IV.A below, or on the specific date(s) in Section IV.B below, are true, accurate, and complete:

Note: Enter EITHER a Time Period OR Specific Date(s) for each certification. This section must be completed. The certification is not valid without documentation date(s).

A. Time Period: From _____ to _____
*Start Date** *End Date**

OR

B. Specific Dates: 10/29/2014 _____ _____ _____ _____ _____ _____
*Date 1** *Date 2** *Date 3** *Date 4** *Date 5** *Date 6** *Date 7** *Date 8**

**The Time Period option may only be used when the "Submittal Type" is 'Update to Permit Application' and there are multiple uncertified submittals; or a submittal package has multiple dates recorded in the documentation. Do not use the Time Period option if the "Submittal Type" is 'Other.'*

Signature: [signature] Signature Date: 10/29/2014

Title: Vice President & General Manager

Texas Commission on Environmental Quality
Federal Operating Permit Form
Permit Compliance Certification - PCC (Part 1)

AIR CO/ HG0130C /RP

Permit Holder Name	Valero Refining - Texas L.P.	**Customer Number /CN**	CN 600127468
Area Name	Houston Refinery	**Account Number**	HG-0130-C
Operating Permit Number	O -01381	**Report Submittal Date**	Oct 29, 2014
Certification Period Start Date	Apr 1, 2014	**End Date**	Sep 30, 2014

I. Certification of Continuous Compliance with Permit Terms and Conditions (Indicate response by placing a 'x' in the appropriate column for each of the following questions)	**Response:**
With the possible exception of those permit terms and conditions identified in the 'Summary of Deviations' found using, at a minimum, but not limited to, the continuous or intermittent compliance method data from monitoring, recordkeeping, reporting, or testing required by the permit and any other credible evidence or information, was the permit holder in continuous compliance with all the terms and conditions of the permit over the Certification Period?	☒ Yes ☐ No

II. Summary of Deviations (Indicate response by placing a 'x' in the appropriate column for each of the following questions)	**Response:**
A. Were there any deviations from any permit requirements during the Certification Period that have *previously* been reported to the agency? If the answer to this question is 'Yes', please complete and attach Part 2 to this submittal. Important Note: If previously submitted reports did not contain specific information on monitoring methods, frequency and the total number of deviations experienced over the entire certification period, then use form DevRep to provide that information.	☒ Yes ☐ No
B. Were there any deviations from any terms or conditions of the permit during the Certification Period that are *currently* being submitted to the agency? If the answer to this questions is 'Yes', please include the relevant reports along with this page.	☒ Yes ☐ No

Texas Commission on Environmental Quality
Federal Operating Permit Form
Permit Compliance Certification - PCC (Part 2)

AIR CO/ HG0130C /RP

Permit Holder Name	Valero Refining - Texas L.P.	**Customer Number /CN**	CN 600127468
Area Name	Houston Refinery	**Account Number**	HG-0130-C
Operating Permit Number	0 -01381	**Report Submittal Date**	Oct 29, 2014
Certification Period Start Date	Apr 1, 2014	**End Date**	Sep 30, 2014

Identification of Deviation Reports Submitted During the Certification Period
(Note: All reports must be certified to truth, accuracy, and completeness by the Responsible Official)

Report Date	Report Description (Name of Unit, Name of Rule, Driver for Report, etc.)	Report Submitted To	Report Previously Certified?
10/29/2014	Semiannual Title V deviation report- 04/1/2014 through September 30, 2014	Houston TCEQ	☐ Yes ☒ No
4/7/2014	Annual BWON TAB/BQ6 NESHAP FF Report (2013 Calendar Year)	Houston TCEQ, US EPA	☒ Yes ☐ No
4/28 & 7/29	4/28/2014- Quarterly NESHAP FF Report (1st Qtr 2014); 7/26/2014- Quarterly NESHAP FF Report (2nd Qtr 2014)	Houston TCEQ, US EPA	☒ Yes ☐ No
7/29/2014	7/22/2014-Fugitive Emissions Monitoring Report (January 1 to June 30, 2014) 7/29/2014- Excess Emissions & CMS Downtime Report (January 1 to June 30, 2014) 7/29/2014- MACT UUU SSM Report (January 1 to June 30, 2012)	Houston TCEQ, US EPA	☒ Yes ☐ No
8/29,6/27/14	MACT CC semiannual report Toxic Release inventory (Reporting year 2013)	Houston TCEQ, US EPA	☒ Yes ☐ No
07/16/2014	07/16/2014-MACT GGGGG Semiannual Compliance Report (January 1 to June 30, 2014) 07/16/2014-NSPS QQQ Semiannual Report (January 1 to June 30, 2014)	Houston TCEQ, US EPA	☒ Yes ☐ No

Texas Commission On Environmental Quality
Federal Operating Permit Deviation Report Form
Form Dev Rep (Part 1)

Air CO/HG0130C/RP

Company Name/ Permit Holder Name	Valero Refining - Texas L.P.	Regulated Entity No.	RN100219310	Customer Reference No..	CN600127468
Area Name	Houston Refinery	Account No.	HG-0130-C	Operating Permit No.	O-01381
Report Period Began on	4/1/2014	And Ended on	9/30/2014	Report Submittal Date	10/29/2014

Details of Deviations from Above Referenced Requirement
(Note: All elements, except Event No. are Required for Each Period of Deviation)

ID Number		Title V Term & Condition No.	Pollutant	Regulatory Requirement Citation	Type of Requirement	SOP or GOP Index Number	Monitoring Method	Monitoring Frequency	Dev Item No.	STEERS Incident No.	Deviation Period				No. of Dev	Cause of Deviation	Corrective Action Taken To Remedy or Mitigate Deviation Situation
											Start		End				
Unit ID	Group ID										Date	Time	Date	Time			
42CB2201	N/A	Standard Permit 50232; MAERT limit.	SO2	Standard Permit 50232; MAERT limit.	Standard	N/A	Permit	Continuous	1	N/A	4/19/2014	6:00 PM	4/19/2014	7:00 PM	1	The FCCU unit scrubber had a SO2 lb/hr exceedance due to lower caustic supply to the scrubber.	The amount of water blended was reduced and the caustic flow was increased as quickly as possible.
22FUG	N/A	101.201(b), FOP SC 2	VOC	101.201(b), FOP SC 2	Standard	N/A	N/A	N/A	2	N/A	5/9/2014	7:30 PM	5/17/2014	9:00 AM	1	De-isobutanizer 2 reboiler developed a small pinhole leak in the condensate return system.	The equipment was isolated and the repairs were performed before returning back to service.
39CB2001	N/A	NSR Permit 2507A SC 9E	SO2	NSR Permit 2507A SC 9E	Monitoring	N/A	Permit	Continuous	3	N/A	5/12/2014	9:00 AM	5/12/2014	1:00 PM	1	The temperature controller had configuration issues in auto mode. This resulted in SO2 ppm exceedance greater than 250 ppm at SRU C stack.	The acid gas load was quickly routed to the SRUB parallel train and the temperature controller configuration was repaired.
22FUG	N/A	NSR Permit #2501A, SC# 4E, FOP SC 1A, 19, 115.352(4), & 60.482-6	VOC	NSR Permit #2501A, SC# 4E, FOP SC 1A, 19, 115.352(4), & 60.482-6	Standard	R5780-FUG, R5352-FUG, 63CC-FUG	N/A	N/A	4	N/A	6/4/2014	9:00 AM	6/4/14	12:00 PM	1	An open ended line (OEL) was discovered at Complex 1 area.	Necessary caps/plugs were installed to eliminate the OEL.
30FUG	N/A	FOP SC 1A, 19, 115.352(4), & 60.482-6	VOC	FOP SC 1A, 19, 115.352(4), & 60.482-6	Standard	R5780-FUG, R5352-FUG, 63CC-FUG	N/A	N/A	5	N/A	6/11/2014	9:00 AM	6/11/14	12:00 PM	1	An OEL was discovered in the Complex 5 area.	Necessary caps/plugs were installed to eliminate the OEL.
22CWT3	N/A	NSR Permit #2501A MAERT, SC1, FOP SC 19	VOC	NSR Permit #2501A MAERT, SC1, FOP SC 19	Standard	N/A	Permit	Continuous	6	N/A	6/16/2014	7:00 AM	6/18/2014	4:00 AM	1	The cooling tower 3 had VOC lb/hr exceedances.	The leaking exchanger location was investigated and identified. The leaking exchanger was isolated from service to minimize the exceedance.
23FUG	N/A	Permit 48982, SC# 6E, FOP SC 1A, 19, 115.352(4), & 60.482-6	VOC	Permit 48982, SC# 6E, FOP SC 1A, 19, 115.352(4), & 60.482-6	Standard	R5780-FUG, R5352-FUG, 63CC-FUG	N/A	N/A	7	N/A	6/18/2014	9:00 AM	6/18/2014	12:00 PM	1	An OEL was discovered in the complex 2 area.	Necessary caps/plugs were installed to eliminate the OEL.
22CWT3	N/A	NSR Permit #2501A MAERT, SC1, FOP SC 19	VOC	NSR Permit #2501A MAERT, SC1, FOP SC 19	Standard	N/A	Permit	Continuous	8	N/A	6/28/2014	12:00 PM	6/29/2014	5:00 AM	1	The cooling tower 3 had VOC lb/hr exceedances.	The condensers were isolated and the exceedance was stopped as quickly as possible
39CB2001	N/A	NSR Permit 2507A SC 14	N/A	NSR Permit 2507A SC 14	Monitoring	N/A	Permit	Continuous	9	N/A	7/4/2014	6:12 PM	7/4/14	6:18 PM	1	During a severe rainstorm, the SRU C incinerator temperature dropped below the required 6 minute average temperature.	The incinerator temperature was quickly raised to minimize the duration of the incident.
22CWT3	N/A	NSR Permit #2501A MAERT, SC1, FOP SC 19	VOC	NSR Permit #2501A MAERT, SC1, FOP SC 19	Standard	N/A	Permit	Continuous	10	N/A	7/8/2014	12:00 AM	7/8/2014	11:00 AM	1	The cooling tower 3 had VOC lb/hr exceedances.	Troubleshooting of the cooling tower was initiated by checking LEL reading and isolating exchanger.
50BF02	N/A	Permit Number 19637 MAERT limit, SC#1	NOx	Permit Number 19637 MAERT limit, SC#1	Standard	N/A	Permit	Continuous	11	N/A	7/26/2014	5:00 AM	7/26/14	7:00 AM	1	Boiler 2 lost communication due to problem in the I/O communication card. This resulted in NOx lb/hr exceedance.	The system was manually controlled and the I/O card/the CNI communication module were reset. The replacement of the cards were completed.
30FL1	N/A	101.201(b), FOP SC 2	VOC, NOx, CO, H_2S, & SO_2	101.201(b), FOP SC 2	Standard	N/A	Permit	Continuous	12	N/A	7/26/2014	4:51 AM	7/26/2014	5:19 AM	1	Crude Sat Gas compressor tripped resulting in flaring.	The system was manually controlled and the sat gas compressor was started back up to minimize the exceedance.
46CB6301 39CB2001	N/A	NSR Permit 2507A SC 14 and 9E	SO2	NSR Permit 2507A SC 14 and 9E	Monitoring	N/A	Permit	Continuous	13	N/A	7/26/2014	4:54 AM	7/26/14	7:59 AM	3	Plantwide natural gas issues/low burner pressure resulted in SRU-B (46CB6301) and C train (39CB2001) temperatures dropping below the 6 minute average. During this period, the 1-hr average SO2 ppm exceeded 250 ppm at the SRU B (46CB6301) stack.	Once the natural gas supply was re-established, the temperature was quickly raised to reduce the duration of the exceedance.
45FUG	N/A	NSR Permit #2507A, SC# 3E, FOP SC 1A, 19, 115.352(4), & 60.482-6	VOC	NSR Permit #2507A, SC# 3E, FOP SC 1A, 19, 115.352(4), & 60.482-6	Standard	R5780-FUG, R5352-FUG, 63CC-FUG	N/A	N/A	16	N/A	7/30/2014	9:00 AM	7/30/2014	12:00 PM	1	An OEL was discovered in the Complex 1 area.	Necessary caps/plugs were installed to eliminate the OEL.
30FL1	N/A	101.201(b), FOP SC 2	VOC, NOx, CO, H_2S, & SO_2	101.201(b), FOP SC 2	Standard	N/A	Permit	Continuous	17	N/A	8/1/2014	2:32 PM	8/1/14	8:52 PM	1	Crude Sat Gas compressor tripped resulting in flaring.	The FGRU compressors were started up immediately. Since there was maintenance work occuring at the crude unit tower, the loads were adjusted safely and quickly as possible.
22CWT3	N/A	NSR Permit #2501A MAERT,SC1, FOP SC 19	VOC	NSR Permit #2501A MAERT,SC1, FOP SC 19	Standard	N/A	Permit	Continuous	18	N/A	8/1/2014	5:00 PM	8/22/2014	1:00 PM	1	The cooling tower 3 had VOC lb/hr exceedances.	After rigourous trouble shooting of the cooling tower exchangers, it was determined that one of the exchangers had to to be replaced. Similar exchanger was ordered and replaced safely and quickly as possible to minimize the exceedance.
27AFUG	N/A	101.201(b), FOP SC 2	VOC	101.201(b), FOP SC 2	Standard	N/A	N/A	N/A	19	N/A	8/12/2014	10:00 AM	8/12/14	12:00 PM	1	A leak developed on the C-Unifiner charge pump suction line while inspections was checking pipe integrity.	Operational adjustments were made and the leak was stopped quickly to minimize the duration of the event.
23CWT7	N/A	NSR Permit 48982 MAERT, SC1, FOP SC 19	VOC	NSR Permit 48982 MAERT, SC1, FOP SC 19	Standard	N/A	Permit	Continuous	20	N/A	8/21/2014	6:15 PM	8/22/2014	1:00 PM	1	The cooling tower 7 had VOC lb/hr exceedances.	The leaking exchanger was isolated from service, eliminating the leak source from the cooling tower.

Texas Commission On Environmental Quality
Federal Operating Permit Deviation Report Form
Form Dev Rep (Part 1)

Air CO/HG0130C/RP

Company Name/ Permit Holder Name	Valero Refining - Texas L.P.	Regulated Entity No.	RN100219310	Customer Reference No..	CN600127468
Area Name	Houston Refinery	Account No.	HG-0130-C	Operating Permit No.	O-01381
Report Period Began on	4/1/2014	And Ended on	9/30/2014	Report Submittal Date	10/29/2014

Details of Deviations from Above Referenced Requirement
(Note: All elements, except Event No. are Required for Each Period of Deviation)

ID Number		Title V Term & Condition No.	Pollutant	Regulatory Requirement Citation	Type of Requirement	SOP or GOP Index Number	Monitoring Method	Monitoring Frequency	Dev Item No.	STEERS Incident No.	Deviation Period				No. of Dev	Cause of Deviation	Corrective Action Taken To Remedy or Mitigate Deviation Situation
											Start		End				
Unit ID	Group ID										Date	Time	Date	Time			
40FUG	N/A	101.201(b), FOP SC 2	VOC	101.201(b), FOP SC 2	Standard	N/A	N/A	N/A	21	N/A	9/11/2014	12:00 PM	9/11/2014	6:00 PM	1	The ULSD sulfur analyzer enclosure was found leaking Diesel.	Operations isolated the ULSD supply to the analyzer and cleaned the affected area using absorbent pads and vacuum trucks.The faulty/damaged fitting and hose were replaced before re-commissioning.
22CWT3	N/A	NSR Permit #2501A MAERT,SC1, FOP SC 19	VOC	NSR Permit #2501A MAERT,SC1, FOP SC 19	Standard	N/A	Permit	Continuous	22	N/A	9/17/2014	8:00 PM	9/17/2014	12:00 PM	1	The cooling tower 3 had lb/hr exceedances.	The leaking exchanger was isolated from service, eliminating the leak source from the cooling tower.
23FUG	N/A	101.201(b), FOP SC 2	VOC	101.201(b), FOP SC 2	Standard	N/A	N/A	N/A	23	N/A	9/17/2014	9:40 AM	9/17/2014	10:40 AM	1	During planned maintenance, 15 gallons of slop oil was spilled.	Spill was cleaned up as quickly as possible.
42FUG	N/A	101.201(b), FOP SC 2	SO2, CO and NOx	101.201(b), FOP SC 2	Standard	N/A	N/A	N/A	24	N/A	9/20/2014	11:00 AM	9/20/2014	11:15 AM	1	FCC Unit shutdown due to a power train surge.	Maintained the regenerator hot and restarted the unit
30FL1	N/A	101.201(b), FOP SC 2	VOC, NOx, CO, H_2S, & SO_2	101.201(b), FOP SC 2	Standard	N/A	Permit	Continuous	25	N/A	9/21/2014	5:03 AM	9/21/2014	5:38 AM	1	During startup of the FCCU unit, there was intermittent flaring.	Flaring was minimized.
47FUG	N/A	101.201(b), FOP SC 2	VOC	101.201(b), FOP SC 2	Standard	N/A	N/A	N/A	26	N/A	9/29/2014	7:45 PM	9/29/2014	10:45 PM	1	Suction hose on diaphragm pump that was pumping oil on top of 503 tank came loose and spilled slop oil to the ground	The valve coming out of 503 tank was blocked and spill was cleaned up using absorbent pads and vacuum trucks..
42CB2201	N/A	101.201(b), FOP SC 2	VOC	101.201(b), FOP SC 2	Standard	N/A	N/A	N/A	27	N/A	3/27/2014	9:00 AM	9/30/2014	11:59 PM	1	Hydrogen cyanide emissions were identified from the existing stack 42CB2201 based on derived emission factor. An EPCRA continuous report was submitted on 4/1/2014.	Valero has an air permit application pending with the TCEQ to fully authorize these emissions. Air dispersion modeling conducted in the reported emissions indicate no offsite exceedance of state standards or effects screening levels.
90FB227	N/A	60.113b(a)(2) 30TAC 115.114(a)(1)(B)	VOC	60.113b(a)(2) 30TAC 115.114(a)(1)(B)	Standard	N/A	N/A	N/A	28	N/A	4/17/2014	12:00 AM	9/30/2014	11:59 AM	1	Inspection on Tank 227 revealed that FCC feed (RVP-0.0002 PSIA) accumulated on floating IFR roof.	Safe repair options are being evaluated.
50BF02 50BF03	N/A	30 TAC §117.345(b)(2	N/A	30 TAC §117.345(b)(2	Report	N/A	N/A	N/A	29	N/A	8/21/2014	12:00 AM	8/22/2014	3:00 PM	1	RATA for Boiler 2 (EPN 50BF02) was completed on August 5, 2014 and the RATA for Boiler 3 (EPN 50BF03) was completed on August 6, 2014. The notification was submitted after 15 days.	The notification was submitted on the 16th and 17th day of RATA completion (8/22/2014).
40FUG	N/A	101.201(b), FOP SC 2	VOC	101.201(b), FOP SC 2	Standard	N/A	N/A	N/A	30	N/A	4/1/2014	12:00 AM	10/19/2014	9:00 AM	1	A very small pinhole leak was observed in the EA1009A Feed/Reactor Effluent Exchanger.	The leak was monitored daily and the unit was shutdown for a planned turnaround activity on 10/19/2014.
23FUG	N/A	101.201(b), FOP SC 2	VOC	101.201(b), FOP SC 2	Standard	N/A	N/A	N/A	31	N/A	4/1/2014	12:00 AM	8/20/14	11:59 PM	1	A small pinhole leak was observed in the crude unit atmospheric tower.	The repairs were safely performed at the next available opportunity.
42AFUG	N/A	101.201(b), FOP SC 2	VOC	101.201(b), FOP SC 2	Standard	N/A	N/A	N/A	32	N/A	4/1/14	12:00 AM	10/1/14	12:00 AM	1	Waste Heat Cooler has a small pin hole leak.	Repairs were performed on the waste heat cooler. Additional evaluations will be performed during the next unit turnaround/shutdown activity.
													Total Number of Deviations		32	Is there a Part 2 Miscellaneous Monitoring/Credible Evidence form supporting this deviation report	Yes ☑ No

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Mark Hansen

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Air Toxics & Inspection Coordination Branch 6EN-A

VALERO

November 25, 2014

CERTIFIED MAIL 7011 2970 0000 3522 2254

Director, Multimedia Planning and Permitting Division
Air Toxics Program
U.S. EPA Region 6
1445 Ross Avenue
Dallas, TX 75202-2733

RE: Notification of New Cooling Tower for MACT Standards
Valero Refining – Texas, L.P., Houston Refinery
TCEQ Account No. HG-0130-C
Operating Permit No. O1381
Regulated Entity No. RN100219310
Valero Refining – Texas, L.P., Houston Refinery

Dear Sir or Madam:

Valero Refining – Texas, L.P. (Valero) owns and operates a Refinery located in Houston, Texas. A new/replacement cooling tower (23CWT7) authorized under Permit by rule 30 TAC 106.371 is in the process of being constructed.

The new unit will be subject to the National Emission Standards for Hazardous Air Pollutant for Source Categories (MACT Standards) 40 CFR §63 Subpart A – General Provisions and 40 CFR §63 Subpart CC for Petroleum Refineries.

This letter satisfies the notification requirement of 40 CFR §63.9(b)(5)(i).

If you have any questions, please feel free to contact me at 713-923-3378

Sincerely,
Valero Refining – Texas, L.P.

Matthew Lindquist
Manager Environmental Engineering

Cc:
Mr. Andy Goodridge, Air Section Manager, TCEQ – Region 12, 7011 2970 0000 3522 2261
Mr. Richard Hyde, Executive Director, TCEQ Austin, 7011 2970 0000 3522 2278

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Steve V.
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Air Toxics & Inspection
Coordination Branc
6EN-A

VALERO

Certified Mail No. 7011 2970 0000 3522 9383

December 4, 2014

Mr. Zak Covar
Executive Director
TCEQ
P.O. Box 13087
Austin, Texas 78711-3087

Re: Notice of External Floating Roof Tank Primary and Secondary Seal Gap Measurements
Tanks 002, 003, 004, 205, 210, 225, 226, 228, 230, 503, 504, 505, 506, 507, 509, 511, 901, and 931.
Valero Refining-Texas, L.P. (Valero)
Houston Refinery, Harris County
TCEQ Account No. HG-0130-C
Federal Operating Permit No. O-01381
Regulated Entity No. RN100219310
Customer Reference No. CN600127468

Dear Mr. Covar:

Valero hereby provides the 30-day advance notice as required under 40 CFR 60.113a(a)(1)(iv), 40 CFR 60.113b(b)(5), and 40 CFR 63.654(h)(2)(ii). The secondary seal gap measurements will be performed on the referenced external floating roof tanks according to the schedule listed below:

TANK ID	SCHEDULE DATE
Tanks 90FB004 and 90FB225	Between January 4 – 31, 2015
Tank 91FB931	Between February 1 – 28, 2015
Tanks 90FB003	Between March 1 – 31, 2015
Tanks 90FB205 and 90FB210	Between April 1 – 30, 2015
Tank 90FB002 and 90FB226	Between May 1 - 31, 2015
Tanks 90FB230	Between June 1 – 30, 2015
Tanks 90FB228 and 47FB503	Between July 1 – 31, 2015
Tank 90FB506	Between August 1 – 31, 2015

TANK ID	SCHEDULE DATE
Tanks 90FB507 and 47FB509	Between September 1 – 30, 2015
Tank 91FB901	Between October 1 – 31, 2015
Tanks 47FB504 and 90FB505	Between November 1 – 30, 2015
Tank 90FB511	Between December 1 – 31, 2015

The primary seal gap measurements will be performed on a select number of referenced external floating roof tanks according to the schedule listed below:

TANK ID	SCHEDULE DATE
Tank 90FB004	Between January 4 – 31, 2015
Tank 90FB226	Between May 1 – 31, 2015
Tank 47FB503	Between July 1 – 31, 2015
Tanks 90FB506	Between August 1 – 31, 2015
Tank 47FB504	Between November 1 – 30, 2015

If you have any questions, please contact me at (713) 923-3379.

Sincerely,

Vinh H. Do
Senior Environmental Engineer

cc: Director, Air, Pesticides, and Toxics Division, U.S. EPA, Dallas, TX
Certified Mail No. 7011 2970 0000 3522 9369 (In Duplicate)

Ms. Ashley Wadick , Regional Director, TCEQ Region 12, Houston, TX
Certified Mail No. 7011 2970 0000 3522 9390

Mr. Arturo Blanco, Pollution Chief, BAQC – City of Houston, Houston, TX
Certified Mail No. 7011 2970 0000 3522 9406

Mr. Bob Allen, Director, Pollution Control Division, HCPCD, Pasadena, TX
Certified Mail No. 7011 2970 0000 3522 9413