



April 30, 2022

CERTIFIED: 7016 2710 0000 3305 5507

Department of Environmental Quality
Office of Environmental Compliance
Enforcement Division
P.O. Box 4312
Baton Rouge, LA 70821-4312

Re: NSPS Excess Emissions & CEM Performance Report – 1st Quarter 2022
Valero Refining - Meraux LLC, Agency Interest # 1238
2235 Jacob Drive, St. Bernard Parish, Meraux, LA
Title V Permit Numbers: 2500-00001-V18

Gentlemen,

Valero Refining, Meraux LLC is submitting this Excess Emissions and Monitoring Systems Reports, per LAC 33:III, Chapter 30, 40 CFR 60.7(c), 40 CFR 60.108a(d) and 40 CFR 63.1575 for the First Quarter 2022.

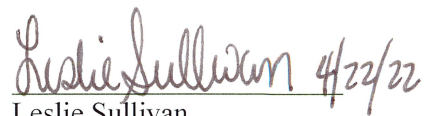
For this reporting period, no CEMS had excess emissions greater than 1% of the total operating time and no CEMS had downtime greater than 5% of the total operating time.

Enclosed are the Data Assessment Reports for the appropriate CEMs and information required by NSPS Subpart Ja, 40 CFR 60.108a(d). Subpart Ja root cause and corrective action analysis reports are included with this submittal. Updates to previously submitted Subpart Ja root cause and corrective action analysis reports are also included if corrective actions were completed in this reporting period.

Should you have any questions regarding this submission, please contact Mr. JC Martin at (504) 271-4141.

I certify, based on information and belief formed after reasonable inquiry, the statements and information in this document are true, accurate, and complete.

Regards,


Leslie Sullivan
Vice President and General Manager
Meraux Refinery

Enclosures

cc: Mr. Jeff Leonick, LDEQ SE Regional Office, New Orleans, LA

SUMMARY REPORT - GASEOUS AND OPACITY EXCESS EMISSIONS AND MONITORING SYSTEMS PERFORMANCE

(per 40 CFR 60.7(d) and 60.108a(d))

Pollutant: **SO₂**

Applicable NSPS Subpart: Ja

Reporting period dates: From 1/1/22 to 3/31/22

Date submitted: 4/30/22

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: SO₂ corrected to 0% O₂ shall not exceed 250 ppm on a 12-hour rolling average

Monitor Manufacturer and Model No.: Ametek 9900(SO₂)/Servomex Oxy 1800(O₂)

Date of Latest CMS Certification or Audit: CGA on 3/15/22

Process Unit(s) Description: #2 SRU Incinerator (EPN 1-93, EQT 0019)

Total source operating time in reporting period: 2,138 hours

Emissions Data Summary¹	
1. Duration of excess emissions in reporting period due to:	<i>(hours)</i>
a. Startup/shutdown	20
b. Control equipment problems	0
c. Process problems	0
d. Other known causes	0
e. Unknown causes	0
2. Total duration of excess emission	20
3. Total duration of excess emissions x (100) [Total source operating time] ²	0.9 %

CMS Performance Summary¹	
1. CMS downtime in reporting period due to:	<i>(hours)</i>
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	1
d. Other known causes	0
e. Unknown causes	0
2. Total CMS Downtime	1
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	0.0 %

¹ For opacity, record all times in minutes. For gases, record all times in hours.

² For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in §60.7(c) shall be submitted.

SUMMARY REPORT - GASEOUS AND OPACITY EXCESS EMISSIONS AND MONITORING SYSTEMS PERFORMANCE

(per 40 CFR 60.7(d) and 60.108a(d))

Pollutant: **SO₂**

Applicable NSPS Subpart: Ja

Reporting period dates: From 1/1/22 to 3/31/22

Date submitted: 4/30/22

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: SO₂ corrected to 0% O₂ shall not exceed 250 ppm on a 12-hour rolling average.

Monitor Manufacturer and Model No.: ABB AO2000 Uras 26(SO₂)/ Magnos 206 (O₂)

Date of Latest CMS Certification or Audit: CGA on 1/18/22

Process Unit(s) Description: #3 SRU Incinerator (EPN 5-00, EQT 0079)

Total source operating time in reporting period: 1,545 hours

Emissions Data Summary¹	
1. Duration of excess emissions in reporting period due to:	<i>(hours)</i>
a. Startup/shutdown	0
b. Control equipment problems	0
c. Process problems	0
d. Other known causes	0
e. Unknown causes	0
2. Total duration of excess emission	0
3. Total duration of excess emissions x (100) [Total source operating time] ²	0.0 %

CMS Performance Summary¹	
1. CMS downtime in reporting period due to:	<i>(hours)</i>
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	1
d. Other known causes	0
e. Unknown causes	0
2. Total CMS Downtime	1
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	0.1 %

¹ For opacity, record all times in minutes. For gases, record all times in hours.

² For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in §60.7(c) shall be submitted.

SUMMARY REPORT - GASEOUS AND OPACITY EXCESS EMISSIONS AND MONITORING SYSTEMS PERFORMANCE

(per 40 CFR 60.7(d))

Pollutant: **H₂S**

Applicable NSPS Subpart: J

Reporting period dates: From 1/1/22 to 3/31/22

Date submitted: 4/30/22

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: Hydrogen Sulfide shall not exceed 162 ppm on a 3-hour rolling average

Monitor Manufacturer and Model No.: Ametek, #4661

Date of Latest CMS Certification or Audit: CGA on 3/8/22

Process Unit(s) Description: Area 1 Fuel Drum for Boiler TB-01 (EPN 1-06, EQT 0010); Boiler B-7 (EPN 1-07, EQT 0011); MDH Product and Fractionator Heaters (EPN 2-92, EQT 0033); DHT Charge Heater (EPN 5-73, EQT 0058)

Total source operating time in reporting period: EQT 0010-2,143 hours, EQT 0011-1,769 hours, EQT 0033-2,133 hours, EQT 0058-0 hours

Emissions Data Summary¹		
	<i>EQT's 0010,0033 (hours)</i>	<i>EQT 0011 (hours)</i>
1. Duration of excess emissions in reporting period due to:		
a. Startup/shutdown	0	0
b. Control equipment problems	0	0
c. Process problems	4	0
d. Other known causes	0	0
e. Unknown causes	0	0
2. Total duration of excess emission	4	0
3. Total duration of excess emissions x (100) [Total source operating time] ²	0.2%	0.0 %

CMS Performance Summary¹	
	<i>EQT's 0010, 0011,0033 (hours)</i>
1. CMS downtime in reporting period due to:	
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	2
d. Other known causes	0
e. Unknown causes	0
2. Total CMS Downtime	2
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	0.1 %

¹ For opacity, record all times in minutes. For gases, record all times in hours.

² For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in §60.7(c) shall be submitted. (Percentage based on the lowest operating time.)

SUMMARY REPORT - GASEOUS AND OPACITY EXCESS EMISSIONS AND MONITORING SYSTEMS PERFORMANCE

(per 40 CFR 60.7(d))

Pollutant: **H₂S**

Applicable NSPS Subpart: J

Reporting period dates: From 1/1/22 to 3/31/22

Date submitted: 4/30/22

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: Subpart J: Hydrogen Sulfide shall not exceed 162 ppm on a 3-hour rolling average.

Monitor Manufacturer and Model No.: Ametek 4661

Date of Latest CMS Certification or Audit: CGA on 3/10/22

Process Unit(s) Description: Area 2 Fuel Drum for: Vacuum Heater (EPN 1-76, EQT 0013); No.1 Crude Heater (EPN 12-72A, EQT 0022); NHT Debut Reboiler (EPN 15-72, EQT 0024); NHT Depent Reboiler (EPN 16-72 EQT 0027); Platformer Charge Heater (EPN 17-72 a,b,c , EQT 0028); Platformer Debut Reboiler (EPN 19-72, EQT 0029); ROSE Heater (EPN 1-80, EQT 0014)

Total source operating time in reporting period: EQT 0013-2,104 hours; EQT 0022-2,107 hours; EQT 0024-1,924 hours; EQT 0027-1,928 hours; EQT 0028-2,007 hours; EQT 0029-1,907 hours; EQT 0014-2,159 hours

Emissions Data Summary¹		
	<i>EQT's 0028, 0014 (hours)</i>	<i>All Other EQT's (hours)</i>
1. Duration of excess emissions in reporting period due to:		
a. Startup/shutdown	0	0
b. Control equipment problems	0	0
c. Process problems	5	0
d. Other known causes	0	0
e. Unknown causes	0	0
2. Total duration of excess emission	5	0
3. Total duration of excess emissions x (100) [Total source operating time] ²	0.2 %	0.0 %

CMS Performance Summary¹	
	<i>All EQT's (hours)</i>
1. CMS downtime in reporting period due to:	
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	0
d. Other known causes	0
e. Unknown causes	0
2. Total CMS Downtime	0
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	0.0 %

¹ For opacity, record all times in minutes. For gases, record all times in hours.

² For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in §60.7(c) shall be submitted.

SUMMARY REPORT - GASEOUS AND OPACITY EXCESS EMISSIONS AND MONITORING SYSTEMS PERFORMANCE

(per 40 CFR 60.7(d) and 60.108a(d))

Pollutant: **H₂S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 1/1/22 to 3/31/22

Date submitted: 4/30/22

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: Subpart Ja: Hydrogen Sulfide shall not exceed 162 ppm on a 3-hour rolling average and 60 ppm on a 365 day rolling average.

Monitor Manufacturer and Model No.: Ametek 4661

Date of Latest CMS Certification or Audit: CGA on 3/10/22

Process Unit(s) Description: Area 2 Fuel Drum for: Benzene Recovery Unit Reboiler (EPN 1-09, EQT 0127); NHT Charge Heater (EPN 1-17, EQT 0159)

Total source operating time in reporting period: EQT 0127-1,574 hours; EQT 0159-1,931 hours

Emissions Data Summary¹		
	<i>EQT 0127 (hours)</i>	<i>EQT 0159 (hours)</i>
1. Duration of excess emissions in reporting period due to:		
a. Startup/shutdown	0	0
b. Control equipment problems	0	0
c. Process problems	5	0
d. Other known causes	0	0
e. Unknown causes	0	0
2. Total duration of excess emission	5	0
3. Total duration of excess emissions x (100) [Total source operating time] ²	0.3 %	0.0 %

CMS Performance Summary¹		
	<i>EQT 0127 (hours)</i>	<i>EQT 0159 (hours)</i>
1. CMS downtime in reporting period due to:		
a. Monitor equipment malfunctions	0	0
b. Non-Monitor equipment malfunctions	0	0
c. Quality assurance calibration	0	0
d. Other known causes	0	0
e. Unknown causes	0	0
2. Total CMS Downtime	0	0
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	0.0 %	0.0 %

¹ For opacity, record all times in minutes. For gases, record all times in hours.

² For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in §60.7(c) shall be submitted.

SUMMARY REPORT - GASEOUS AND OPACITY EXCESS EMISSIONS AND MONITORING SYSTEMS PERFORMANCE

(per 40 CFR 60.7(d))

Pollutant: **H₂S**

Applicable NSPS Subpart: J

Reporting period dates: From 1/1/22 to 3/31/22

Date submitted: 4/30/22

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: Hydrogen Sulfide shall not exceed 162 ppm on a 3-hour rolling average.

Monitor Manufacturer and Model No.: Ametek 4661

Date of Latest CMS Certification or Audit: CGA on 3/10/22

Process Unit(s) Description: Area 4 Fuel Drum for Merox Disulfide Separator to Platformer Charge Heater

Total source operating time in reporting period: 0 hours

Emissions Data Summary¹	
1. Duration of excess emissions in reporting period due to:	<i>(hours)</i>
a. Startup/shutdown	0
b. Control equipment problems	0
c. Process problems	0
d. Other known causes	0
e. Unknown causes	0
2. Total duration of excess emission	0
3. Total duration of excess emissions x (100) [Total source operating time] ²	0.0 %

CMS Performance Summary¹	
1. CMS downtime in reporting period due to:	<i>(hours)</i>
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	0
d. Other known causes	0
e. Unknown causes	0
2. Total CMS Downtime	0
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	0.0 %

¹ For opacity, record all times in minutes. For gases, record all times in hours.

² For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in §60.7(c) shall be submitted.

**SUMMARY REPORT - GASEOUS AND OPACITY EXCESS EMISSIONS AND
MONITORING SYSTEMS PERFORMANCE**

(per 40 CFR 60.7(d))

Pollutant: **H₂S**

Applicable NSPS Subpart: J

Reporting period dates: From 1/1/22 to 3/31/22

Date submitted: 4/30/22

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: Hydrogen Sulfide shall not exceed 162 ppm on a 3-hour rolling average.

Monitor Manufacturer and Model No.: Ametek 4661

Date of Latest CMS Certification or Audit: CGA on 3/8/22

Process Unit(s) Description: Area 6 Fuel Drum for Hydrocracker & Hydrotreater Charge Heaters (EPN 1-00, EQT 0009)

Total source operating time in reporting period: 1,284 hours

Emissions Data Summary¹	
1. Duration of excess emissions in reporting period due to:	<i>(hours)</i>
a. Startup/shutdown	0
b. Control equipment problems	0
c. Process problems	0
d. Other known causes	0
e. Unknown causes	0
2. Total duration of excess emission	0
3. Total duration of excess emissions x (100) [Total source operating time] ²	0.0 %

CMS Performance Summary¹	
1. CMS downtime in reporting period due to:	<i>(hours)</i>
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	0
d. Other known causes	0
e. Unknown causes	0
2. Total CMS Downtime	0
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	0.0 %

¹ For opacity, record all times in minutes. For gases, record all times in hours.

² For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in §60.7(c) shall be submitted.

**SUMMARY REPORT - GASEOUS AND OPACITY EXCESS EMISSIONS AND
MONITORING SYSTEMS PERFORMANCE**

(per 40 CFR 60.7(d))

Pollutant: **H₂S**

Applicable NSPS Subpart: J

Reporting period dates: From 1/1/22 to 3/31/22

Date submitted: 4/30/22

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: Hydrogen Sulfide shall not exceed 162 ppm on a 3-hour rolling average.

Monitor Manufacturer and Model No.: Ametek 4661

Date of Latest CMS Certification or Audit: CGA on 3/17/22

Process Unit(s) Description: Area 6 Fuel Drum for Boiler B-5 (EPN 2-00, EQT 0030) and Boiler B-6 (EPN 3-00, EQT 0048)

Total source operating time in reporting period: EQT 0030-2,159 hours; EQT 0048-0 hours³

Emissions Data Summary¹		
	<i>EQT 0030 (hours)</i>	<i>EQT 0048 (hours)</i>
1. Duration of excess emissions in reporting period due to:		
a. Startup/shutdown	0	0
b. Control equipment problems	0	0
c. Process problems	7	0
d. Other known causes	0	0
e. Unknown causes	0	0
2. Total duration of excess emission	7	0
3. Total duration of excess emissions x (100) [Total source operating time] ²	0.3 %	0.0 %

CMS Performance Summary¹		
	<i>EQT 0030 (hours)</i>	<i>EQT 0048 (hours)</i>
1. CMS downtime in reporting period due to:		
a. Monitor equipment malfunctions	0	0
b. Non-Monitor equipment malfunctions	0	0
c. Quality assurance calibration	1	0
d. Other known causes	0	0
e. Unknown causes	0	0
2. Total CMS Downtime	1	0
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	0.0 %	0.0 %

¹ For opacity, record all times in minutes. For gases, record all times in hours.

² For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in §60.7(c) shall be submitted.

³ Boiler B-6 ran on purchased natural gas for the entire Quarter.

**SUMMARY REPORT - GASEOUS AND OPACITY EXCESS EMISSIONS AND
MONITORING SYSTEMS PERFORMANCE**

(per 40 CFR 60.7(d))

Pollutant: **NO_x**

Applicable NSPS Subpart: Db

Reporting period dates: From 1/1/22 to 3/31/22

Date submitted: 4/30/22

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: Nitrogen Oxide shall not exceed 0.1 pound/MMBtu on a 30-day rolling average.

Monitor Manufacturer and Model No.: ABB AO2000 Uras 26(NOx)/ Magnos 28 (O₂)

Date of Latest CMS Certification or Audit: CGA on 3/22/23

Process Unit(s) Description: Boiler B-5 (EPN 2-00, EQT 0030)

Total source operating time in reporting period: 2,159 hours

Emissions Data Summary¹	
1. Duration of excess emissions in reporting period due to:	<i>(hours)</i>
a. Startup/shutdown	0
b. Control equipment problems	0
c. Process problems	0
d. Other known causes	0
e. Unknown causes	0
2. Total duration of excess emission	0
3. Total duration of excess emissions x (100) [Total source operating time] ²	0.0 %

CMS Performance Summary¹	
1. CMS downtime in reporting period due to:	<i>(hours)</i>
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	1
d. Other known causes	0
e. Unknown causes	0
2. Total CMS Downtime	1
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	0.0 %

¹ For opacity, record all times in minutes. For gases, record all times in hours.

² For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in §60.7(c) shall be submitted.

**SUMMARY REPORT - GASEOUS AND OPACITY EXCESS EMISSIONS AND
MONITORING SYSTEMS PERFORMANCE**

(per 40 CFR 60.7(d))

Pollutant: **NO_x**

Applicable NSPS Subpart: Db

Reporting period dates: From 1/1/22 to 3/31/22

Date submitted: 4/30/22

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: Nitrogen Oxide shall not exceed 0.1 pound/MMBtu on a 30-day rolling average.

Monitor Manufacturer and Model No.: ABB AO2000 Uras 26(NOx)/ Magnos 28 (O₂)

Date of Latest CMS Certification or Audit: CGA on 3/22/22

Process Unit(s) Description: Boiler B-6 (EPN 3-00, EQT 0048)

Total source operating time in reporting period: 2,159 hours

Emissions Data Summary¹	
1. Duration of excess emissions in reporting period due to:	<i>(hours)</i>
a. Startup/shutdown	0
b. Control equipment problems	0
c. Process problems	0
d. Other known causes	0
e. Unknown causes	0
2. Total duration of excess emission	0
3. Total duration of excess emissions x (100) [Total source operating time] ²	0.0 %

CMS Performance Summary¹	
1. CMS downtime in reporting period due to:	<i>(hours)</i>
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	0
d. Other known causes	8
e. Unknown causes	7
2. Total CMS Downtime	15
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	0.7 %

¹ For opacity, record all times in minutes. For gases, record all times in hours.

² For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in §60.7(c) shall be submitted.

**SUMMARY REPORT - GASEOUS AND OPACITY EXCESS EMISSIONS AND
MONITORING SYSTEMS PERFORMANCE**

(per 40 CFR 60.7(d))

Pollutant: **NO_x**

Applicable NSPS Subpart: Db

Reporting period dates: From 1/1/22 to 3/31/22

Date submitted: 4/30/22

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: Nitrogen Oxide shall not exceed 0.1 pound/MMBtu on a 30-day rolling average.

Monitor Manufacturer and Model No.: Thermo Environmental 42i (NO_x)/(O₂)

Date of Latest CMS Certification or Audit: CGA on 3/16/22

Process Unit(s) Description: Boiler TB-01 (EPN 1-06, EQT 0010)

Total source operating time in reporting period: 2,143 hours

Emissions Data Summary¹	
1. Duration of excess emissions in reporting period due to:	<i>(hours)</i>
a. Startup/shutdown	0
b. Control equipment problems	0
c. Process problems	0
d. Other known causes	0
e. Unknown causes	0
2. Total duration of excess emission	0
3. Total duration of excess emissions x (100) [Total source operating time] ²	0.0 %

CMS Performance Summary¹	
1. CMS downtime in reporting period due to:	<i>(hours)</i>
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	0
d. Other known causes	0
e. Unknown causes	0
2. Total CMS Downtime	0
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	0.0 %

¹ For opacity, record all times in minutes. For gases, record all times in hours.

² For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in §60.7(c) shall be submitted.

SUMMARY REPORT - GASEOUS AND OPACITY EXCESS EMISSIONS AND MONITORING SYSTEMS PERFORMANCE

(per 40 CFR 60.7(d) and 60.108a(d))

Pollutant: **NO_x**

Applicable NSPS Subpart: Ja

Reporting period dates: From 1/1/22 to 3/31/22

Date submitted: 4/30/22

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: Nitrogen Oxide corrected to 0% O₂ shall not exceed 40 ppm on a 30-day rolling average

Monitor Manufacturer and Model No.: Thermo Environmental 42i (NO_x)/(O₂)

Date of Latest CMS Certification or Audit: CGA on 3/3/22

Process Unit(s) Description: Benzene Recovery Unit Reboiler (EPN 1-09, EQT 0127)

Total source operating time in reporting period: 1,574 hours

Emissions Data Summary¹	
1. Duration of excess emissions in reporting period due to:	<i>(hours)</i>
a. Startup/shutdown	0
b. Control equipment problems	0
c. Process problems	0
d. Other known causes	0
e. Unknown causes	0
2. Total duration of excess emission	0
3. Total duration of excess emissions x (100) [Total source operating time] ²	0.0 %

CMS Performance Summary¹	
1. CMS downtime in reporting period due to:	<i>(hours)</i>
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	0
d. Other known causes	22
e. Unknown causes	0
2. Total CMS Downtime	22
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	1.4 %

¹ For opacity, record all times in minutes. For gases, record all times in hours.

² For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in §60.7(c) shall be submitted.

SUMMARY REPORT - GASEOUS AND OPACITY EXCESS EMISSIONS AND MONITORING SYSTEMS PERFORMANCE

(per 40 CFR 60.7(d) and 60.108a(d))

Pollutant: **NO_x**

Applicable NSPS Subpart: Ja

Reporting period dates: From 1/1/22 to 3/31/22

Date submitted: 4/30/22

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: Nitrogen Oxide corrected to 0% O₂ shall not exceed 40 ppm on a 30-day rolling average

Monitor Manufacturer and Model No.: ABB AO2000 Uras 26(NO_x)/ Magnos 206 (O₂)

Date of Latest CMS Certification or Audit: CGA on 1/17/22

Process Unit(s) Description: NHT Charge Heater (EPN 1-17, EQT 0159)

Total source operating time in reporting period: 1,931 hours

Emissions Data Summary¹	
1. Duration of excess emissions in reporting period due to:	<i>(hours)</i>
a. Startup/shutdown	0
b. Control equipment problems	0
c. Process problems	0
d. Other known causes	0
e. Unknown causes	0
2. Total duration of excess emission	0
3. Total duration of excess emissions x (100) [Total source operating time] ²	0.0 %

CMS Performance Summary¹	
1. CMS downtime in reporting period due to:	<i>(hours)</i>
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	0
d. Other known causes	0
e. Unknown causes	0
2. Total CMS Downtime	0
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	0.0 %

¹ For opacity, record all times in minutes. For gases, record all times in hours.

² For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in §60.7(c) shall be submitted.

SUMMARY REPORT - GASEOUS AND OPACITY EXCESS EMISSIONS AND MONITORING SYSTEMS PERFORMANCE

(per 40 CFR 60.7(d) and 60.108a(d))

Pollutant: **NO_x**

Applicable NSPS Subpart: N/A (Required by Consent Decree: 3:10-cv-00563-bbc, Paragraph 36.a)

Reporting period dates: From 1/1/22 to 3/31/22

Date submitted: 4/30/22

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: None

Monitor Manufacturer and Model No.: ABB Limas11(NO_x), Magnos27 (O₂)

Date of Latest CMS Certification or Audit: CGA on 3/15/22

Process Unit(s) Description: No.1 Crude Heater (EPN 12-72A, EQT 0022)

Total source operating time in reporting period: 2,107 hours

Emissions Data Summary¹	
1. Duration of excess emissions in reporting period due to:	<i>(hours)</i>
a. Startup/shutdown	0
b. Control equipment problems	0
c. Process problems	0
d. Other known causes	0
e. Unknown causes	0
2. Total duration of excess emission	0
3. Total duration of excess emissions x (100) [Total source operating time] ²	0.0 %

CMS Performance Summary¹	
1. CMS downtime in reporting period due to:	<i>(hours)</i>
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	7
d. Other known causes	29
e. Unknown causes	0
2. Total CMS Downtime	36
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	1.7 %

¹ For opacity, record all times in minutes. For gases, record all times in hours.

² For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in §60.7(c) shall be submitted.

SUMMARY REPORT - GASEOUS AND OPACITY EXCESS EMISSIONS AND MONITORING SYSTEMS PERFORMANCE

(per 40 CFR 60.7(d) and 60.108a(d))

Pollutant: **NO_x**

Applicable NSPS Subpart: N/A (Required by Consent Decree: 3:10-cv-00563-bbc, Paragraph 36.a)

Reporting period dates: From 1/1/22 to 3/31/22

Date submitted: 4/30/22

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: None

Monitor Manufacturer and Model No.: ABB AO2000 Uras 26(NOx)/ Magnos 206 (O₂)

Date of Latest CMS Certification or Audit: CGA on 1/18/22

Process Unit(s) Description: MDH Product and Fractionator Heaters (EPN 2-92, EQT 0033)

Total source operating time in reporting period: 2,133 hours

Emissions Data Summary¹	
1. Duration of excess emissions in reporting period due to:	<i>(hours)</i>
a. Startup/shutdown	0
b. Control equipment problems	0
c. Process problems	0
d. Other known causes	0
e. Unknown causes	0
2. Total duration of excess emission	0
3. Total duration of excess emissions x (100) [Total source operating time] ²	0.0 %

CMS Performance Summary¹	
1. CMS downtime in reporting period due to:	<i>(hours)</i>
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	2
d. Other known causes	0
e. Unknown causes	0
2. Total CMS Downtime	2
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	0.1 %

¹ For opacity, record all times in minutes. For gases, record all times in hours.

² For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in §60.7(c) shall be submitted.

**SUMMARY REPORT - GASEOUS AND OPACITY EXCESS EMISSIONS AND
MONITORING SYSTEMS PERFORMANCE**

(per 40 CFR 60.7(d) and 60.108a(d))

Pollutant: **H₂S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 1/1/22 to 3/31/22

Date submitted: 4/30/22

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: Hydrogen Sulfide shall not exceed 162 ppm on a 3-hour rolling average.

Monitor Manufacturer and Model No.: Ametek 5100

Date of Latest CMS Certification or Audit: CGA on 3/9/22

Process Unit(s) Description: North Flare Stack (EPN 20-72, EQT 0035), North Flare Header

Total source operating time in reporting period: 2,159 hours

Emissions Data Summary¹	
1. Duration of excess emissions in reporting period due to:	<i>(hours)</i>
a. Startup/shutdown	0
b. Control equipment problems	0
c. Process problems	0
d. Other known causes	0
e. Unknown causes	0
2. Total duration of excess emission	0
3. Total duration of excess emissions x (100) [Total source operating time] ²	0.0 %

CMS Performance Summary¹	
1. CMS downtime in reporting period due to:	<i>(hours)</i>
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	0
d. Other known causes	0
e. Unknown causes	0
2. Total CMS Downtime	0
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	0.0 %

¹ For opacity, record all times in minutes. For gases, record all times in hours.

² For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in §60.7(c) shall be submitted.

**SUMMARY REPORT - GASEOUS AND OPACITY EXCESS EMISSIONS AND
MONITORING SYSTEMS PERFORMANCE**

(per 40 CFR 60.7(d) and 60.108a(d))

Pollutant: **H₂S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 1/1/22 to 3/31/22

Date submitted: 4/30/22

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: Hydrogen Sulfide shall not exceed 162 ppm on a 3-hour rolling average.

Monitor Manufacturer and Model No.: Ametek 5100

Date of Latest CMS Certification or Audit: CGA on 3/9/22

Process Unit(s) Description: North Flare Stack (EPN 20-72, EQT 0035), Hydrocracker Flare Header

Total source operating time in reporting period: 2,159 hours

Emissions Data Summary¹	
1. Duration of excess emissions in reporting period due to:	<i>(hours)</i>
a. Startup/shutdown	0
b. Control equipment problems	0
c. Process problems	0
d. Other known causes	0
e. Unknown causes	0
2. Total duration of excess emission	0
3. Total duration of excess emissions x (100) [Total source operating time] ²	0.0 %

CMS Performance Summary¹	
1. CMS downtime in reporting period due to:	<i>(hours)</i>
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	0
d. Other known causes	0
e. Unknown causes	0
2. Total CMS Downtime	0
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	0.0 %

¹ For opacity, record all times in minutes. For gases, record all times in hours.

² For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in §60.7(c) shall be submitted.

**SUMMARY REPORT - GASEOUS AND OPACITY EXCESS EMISSIONS AND
MONITORING SYSTEMS PERFORMANCE**

(per 40 CFR 60.7(d) and 60.108a(d))

Pollutant: **H₂S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 1/1/22 to 3/31/22

Date submitted: 4/30/22

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: Hydrogen Sulfide shall not exceed 162 ppm on a 3-hour rolling average.

Monitor Manufacturer and Model No.: Ametek 5100

Date of Latest CMS Certification or Audit: CGA on 3/9/22

Process Unit(s) Description: South Flare Stack (EPN 3-77, EQT 0049)

Total source operating time in reporting period: 2,159 hours

Emissions Data Summary¹	
1. Duration of excess emissions in reporting period due to:	<i>(hours)</i>
a. Startup/shutdown	0
b. Control equipment problems	0
c. Process problems	0
d. Other known causes	0
e. Unknown causes	0
2. Total duration of excess emission	0
3. Total duration of excess emissions x (100) [Total source operating time] ²	0.0 %

CMS Performance Summary¹	
1. CMS downtime in reporting period due to:	<i>(hours)</i>
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	0
d. Other known causes	0
e. Unknown causes	0
2. Total CMS Downtime	0
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	0.0 %

¹ For opacity, record all times in minutes. For gases, record all times in hours.

² For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in §60.7(c) shall be submitted.

**SUMMARY REPORT - GASEOUS AND OPACITY EXCESS EMISSIONS AND
MONITORING SYSTEMS PERFORMANCE**

(per 40 CFR 60.7(d) and 60.108a(d))

Pollutant: **Total Sulfur**

Applicable NSPS Subpart: Ja (Also Required by Consent Decree: 3:10-cv-00563-bbc, Paragraph 49.a.ii)

Reporting period dates: From 1/1/22 to 3/31/22

Date submitted: 4/30/22

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: None

Monitor Manufacturer and Model No.: Thermo Scientific SOLA II

Date of Latest CMS Certification or Audit: CGA on 3/2/22

Process Unit(s) Description: North Flare Stack (EPN 20-72, EQT 0035), North Flare Header

Total source operating time in reporting period: 2,159 hours

CMS Performance Summary¹	
1. CMS downtime in reporting period due to:	<i>(hours)</i>
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	1
d. Other known causes	0
e. Unknown causes	0
2. Total CMS Downtime	1
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	0.0 %

¹ For opacity, record all times in minutes. For gases, record all times in hours.

² For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in §60.7(c) shall be submitted.

**SUMMARY REPORT - GASEOUS AND OPACITY EXCESS EMISSIONS AND
MONITORING SYSTEMS PERFORMANCE**

(per 40 CFR 60.7(d) and 60.108a(d))

Pollutant: **Total Sulfur**

Applicable NSPS Subpart: Ja (Also Required by Consent Decree: 3:10-cv-00563-bbc, Paragraph 49.a.ii)

Reporting period dates: From 1/1/22 to 3/31/22

Date submitted: 4/30/22

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: None

Monitor Manufacturer and Model No.: Thermo Scientific SOLA II

Date of Latest CMS Certification or Audit: CGA on 3/2/22

Process Unit(s) Description: North Flare Stack (EPN 20-72, EQT 0035), Hydrocracker Flare Header

Total source operating time in reporting period: 2,159 hours

CMS Performance Summary¹	
1. CMS downtime in reporting period due to:	<i>(hours)</i>
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	1
d. Other known causes	0
e. Unknown causes	0
2. Total CMS Downtime	1
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	0.0 %

¹ For opacity, record all times in minutes. For gases, record all times in hours.

² For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in §60.7(c) shall be submitted.

**SUMMARY REPORT - GASEOUS AND OPACITY EXCESS EMISSIONS AND
MONITORING SYSTEMS PERFORMANCE**

(per 40 CFR 60.7(d) and 60.108a(d))

Pollutant: **Total Sulfur**

Applicable NSPS Subpart: Ja (Also Required by Consent Decree: 3:10-cv-00563-bbc, Paragraph 49.a.ii)

Reporting period dates: From 1/1/22 to 3/31/22

Date submitted: 4/30/22

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: None

Monitor Manufacturer and Model No.: Thermo Scientific SOLA II

Date of Latest CMS Certification or Audit: CGA on 3/2/22

Process Unit(s) Description: South Flare Stack (EPN 3-77, EQT 0049)

Total source operating time in reporting period: 2,159 hours

CMS Performance Summary¹	
1. CMS downtime in reporting period due to:	<i>(hours)</i>
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	1
d. Other known causes	0
e. Unknown causes	0
2. Total CMS Downtime	1
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	0.0 %

¹ For opacity, record all times in minutes. For gases, record all times in hours.

² For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in §60.7(c) shall be submitted.

**SUMMARY REPORT - GASEOUS AND OPACITY EXCESS EMISSIONS AND
MONITORING SYSTEMS PERFORMANCE**

(per 40 CFR 60.7(d) and 60.108a(d))

Pollutant: **Flow**

Applicable NSPS Subpart: Ja (Also Required by Consent Decree: 3:10-cv-00563-bbc, Paragraph 49.a.ii)

Reporting period dates: From 1/1/22 to 3/31/22

Date submitted: 4/30/22

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: None

Monitor Manufacturer and Model No.: GE Panametrix GF 868

Date of Latest CMS Certification or Audit: N/A

Process Unit(s) Description: North Flare Stack (EPN 20-72, EQT 0035), North Flare Header

Total source operating time in reporting period: 2,159 hours

CMS Performance Summary¹	
1. CMS downtime in reporting period due to:	<i>(hours)</i>
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	0
d. Other known causes	0
e. Unknown causes	0
2. Total CMS Downtime	0
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	0.0 %

¹ For opacity, record all times in minutes. For gases, record all times in hours.

² For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in §60.7(c) shall be submitted.

**SUMMARY REPORT - GASEOUS AND OPACITY EXCESS EMISSIONS AND
MONITORING SYSTEMS PERFORMANCE**

(per 40 CFR 60.7(d) and 60.108a(d))

Pollutant: **Flow**

Applicable NSPS Subpart: Ja (Also Required by Consent Decree: 3:10-cv-00563-bbc, Paragraph 49.a.ii)

Reporting period dates: From 1/1/22 to 3/31/22

Date submitted: 4/30/22

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: None

Monitor Manufacturer and Model No.: GE Panametrics GF 868

Date of Latest CMS Certification or Audit: N/A

Process Unit(s) Description: North Flare Stack (EPN 20-72, EQT 0035), Hydrocracker Flare Header

Total source operating time in reporting period: 2,159 hours

CMS Performance Summary¹	
1. CMS downtime in reporting period due to:	<i>(hours)</i>
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	0
d. Other known causes	0
e. Unknown causes	0
2. Total CMS Downtime	0
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	0.0 %

¹ For opacity, record all times in minutes. For gases, record all times in hours.

² For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in §60.7(c) shall be submitted.

**SUMMARY REPORT - GASEOUS AND OPACITY EXCESS EMISSIONS AND
MONITORING SYSTEMS PERFORMANCE**

(per 40 CFR 60.7(d) and 60.108a(d))

Pollutant: **Flow**

Applicable NSPS Subpart: Ja (Also Required by Consent Decree: 3:10-cv-00563-bbc, Paragraph 49.a.ii)

Reporting period dates: From 1/1/22 to 3/31/22

Date submitted: 4/30/22

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: None

Monitor Manufacturer and Model No.: GE Panametrics GF 868, (1/1/22 – 3/16/22)

SICK FLOWSIC100 Flare, (3/18/22-3/31/22)

Date of Latest CMS Certification or Audit: N/A

Process Unit(s) Description: South Flare Stack (EPN 3-77, EQT 0049)

Total source operating time in reporting period: 2,159 hours

CMS Performance Summary¹	
1. CMS downtime in reporting period due to:	<i>(hours)</i>
a. Monitor equipment malfunctions	0
b. Non-Monitor equipment malfunctions	0
c. Quality assurance calibration	0
d. Other known causes	55
e. Unknown causes	0
2. Total CMS Downtime	55
3. Total duration of CMS Downtime x (100) [Total source operating time] ²	2.5 %

¹ For opacity, record all times in minutes. For gases, record all times in hours.

² For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in §60.7(c) shall be submitted.

**SUMMARY REPORT - GASEOUS AND OPACITY EXCESS EMISSIONS AND
MONITORING SYSTEMS PERFORMANCE**

(per 40 CFR 60.7(d) and 60.108a(d))

On 7/26/21, the computer processor for SO₂ CEMS on the #2 SRU Incinerator (EPN 1-93, EQT 0019) failed and could not be repaired. Valero installed a temporary rental SO₂ analyzer on 7/27/21. The original O₂ analyzer was retained. The rental SO₂ analyzer was in operation for the entire 1st Quarter 2022. Valero will purchase new SO₂ and O₂ analyzers and estimates they will be installed in the 2nd Quarter 2022.

On 3/16/22, the GE Panametrics 868 flow meter on the South Flare Stack (EPN 3-77, EQT 0049) was shut down and replaced with a SICK FLOWSIC100 Flare flow meter. The SICK flow meter began operation on 3/18/22.

For all other CMS covered in this report, no changes were made in the 1st Quarter 2022 to CMS, process, or controls.

I certify that the information contained in this report is true, accurate, and complete.

 Dan Patroad

Name

Signature

 Sr. Environmental Engineer

Title

**GASEOUS AND OPACITY EXCESS EMISSIONS AND
MONITORING SYSTEMS PERFORMANCE**

(per 40 CFR 60.7(c) and 60.108a(d))

Pollutant: **SO₂**

Applicable NSPS Subpart: Ja

Reporting period dates: From 1/1/22 to 3/31/22

Date submitted: 4/30/22

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: SO₂ corrected to 0% O₂ shall not exceed 250 ppm on a 12-hour rolling average

Monitor Manufacturer and Model No.: Ametek 9900(SO₂)/Servomex Oxy 1800(O₂)

Date of Latest CMS Certification or Audit: CGA on 3/15/22

Process Unit(s) Description: #2 SRU Incinerator (EPN 1-93, EQT 0019)

Total source operating time in reporting period: 2,138 hours

Ja EXCESS EMISSIONS						
Date	Start	End	Duration (hours)	Max 12-HRA (ppm)	Cause	Corrective Action
2/16/22	13:00	21:00	8	590	SO ₂ at 0% O ₂ greater than 250 ppm, 12-HRA, with combined SO ₂ emissions from the #2 and #3 SRU less than 500 lbs/day above allowable during unit start up with no acid gas feed to the unit and the TGT bypassed. Start up was following a planned shutdown to repair a steam piping leak.	
3/23/22	01:00	13:00	12	473	SO ₂ at 0% O ₂ greater than 250 ppm, 12-HRA, with combined SO ₂ emissions from the #2 and #3 SRU less than 500 lbs/day above allowable during unit start up with no acid gas feed to the unit and the TGT bypassed. Start up was following a unit trip due to a partial loss of electrical power during a severe thunderstorm and tornado in the area.	
TOTAL			20			

Ja CMS PERFORMANCE ¹						
Date	Start	End	Duration (hours)	Cause	Corrective Action	
3/15/22	10:00	11:00	1	SO ₂ and O ₂ cylinder gas audit.	N/A	
TOTAL			1			

¹In accordance with 40 CFR 60.108a(d)(6), changes made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit have been compared with operation of the control system and affected facility before and following the period of data unavailability to ensure that any changes made in operation of the emission control system during the period of data unavailability did not affect the ability of the system to meet the applicable emission limit.

**GASEOUS AND OPACITY EXCESS EMISSIONS AND
MONITORING SYSTEMS PERFORMANCE**

(per 40 CFR 60.7(c) and 60.108a(d))

Pollutant: **SO₂**

Applicable NSPS Subpart: Ja

Reporting period dates: From 1/1/22 to 3/31/22

Date submitted: 4/30/22

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: SO₂ corrected to 0% O₂ shall not exceed 250 ppm on a 12-hour rolling average.

Monitor Manufacturer and Model No.: ABB AO2000 Uras 26(SO₂)/ Magnox 206 (O₂)

Date of Latest CMS Certification or Audit: CGA on 1/18/22

Process Unit(s) Description: #3 SRU Incinerator (EPN 5-00, EQT 0079)

Total source operating time in reporting period: 1,545 hours

Ja EXCESS EMISSIONS						
Date	Start	End	Duration (hours)	Max 12-HRA (ppm)	Cause	Corrective Action
None.						
TOTAL			0			

Ja CMS PERFORMANCE ¹					
Date	Start	End	Duration (hours)	Cause	Corrective Action
1/18/22	08:00	09:00	1	SO ₂ and O ₂ cylinder gas audit.	N/A
TOTAL			1		

¹In accordance with 40 CFR 60.108a(d)(6), changes made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit have been compared with operation of the control system and affected facility before and following the period of data unavailability to ensure that any changes made in operation of the emission control system during the period of data unavailability did not affect the ability of the system to meet the applicable emission limit.

**GASEOUS AND OPACITY EXCESS EMISSIONS AND
MONITORING SYSTEMS PERFORMANCE**

(per 40 CFR 60.7(c) and 60.108a(d))

Pollutant: **H₂S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 1/1/22 to 3/31/22

Date submitted: 4/30/22

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: Hydrogen Sulfide shall not exceed 162 ppm on a 3-hour rolling average and 60 ppm on a 365 day rolling average

Monitor Manufacturer and Model No.: Ametek 4661

Date of Latest CMS Certification or Audit: CGA on 3/10/22

Process Unit(s) Description: Area 2 Fuel Drum for: Benzene Recovery Unit Reboiler (EPN 1-09, EQT 0127); NHT Charge Heater (EPN 1-17, EQT 0159)

Total source operating time in reporting period: EQT 0127-1,574 hours; EQT 0159-1,931 hours

Ja EXCESS EMISSIONS – EQT 0127						
Date	Start	End	Duration (hours)	Max 3-HRA (ppm)	Cause	Corrective Action
3/22/22	23:00		5	300	H ₂ S greater than 162 ppm, 3-HRA, with SO ₂ emissions less than 500 lbs/day due to a refinery upset caused by a partial loss of electrical power during a severe thunderstorm and tornado in the area.	Valero shut down or stabilized refinery units and restored lean amine flow to the refinery to remove H ₂ S from gaseous streams.
3/23/22		04:00				
TOTAL			5			

Ja EXCESS EMISSIONS –EQT 0159						
Date	Start	End	Duration (hours)	Max 3-HRA (ppm)	Cause	Corrective Action
None.						
TOTAL			0			

Ja CMS PERFORMANCE¹ – Both EQT's						
Date	Start	End	Duration (hours)	Cause	Corrective Action	
None						
TOTAL			0			

¹In accordance with 40 CFR 60.108a(d)(6), changes made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit have been compared with operation of the control system and affected facility before and following the period of data unavailability to ensure that any changes made in operation of the emission control system during the period of data unavailability did not affect the ability of the system to meet the applicable emission limit.

**GASEOUS AND OPACITY EXCESS EMISSIONS AND
MONITORING SYSTEMS PERFORMANCE**

(per 40 CFR 60.7(c) and 60.108a(d))

Pollutant: **NO_x**

Applicable NSPS Subpart: Ja

Reporting period dates: From 1/1/22 to 3/31/22

Date submitted: 4/30/22

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: Nitrogen Oxide corrected to 0% O₂ shall not exceed 40 ppm on a 30-day rolling average

Monitor Manufacturer and Model No.: Thermo Environmental 42i (NO_x)/(O₂)

Date of Latest CMS Certification or Audit: CGA on 3/3/22

Process Unit(s) Description: Benzene Recovery Unit Reboiler (EPN 1-09, EQT 0127)

Total source operating time in reporting period: 1,574 hours

Ja EXCESS EMISSIONS						
Date	Start	End	Duration (hours)	Max 30-DRA (ppm)	Cause	Corrective Action
None.						
TOTAL			0			

Ja CMS PERFORMANCE ¹						
Date	Start	End	Duration (hours)	Cause	Corrective Action	
1/16/22	06:00	12:00	6	Periodic sample line purge solenoid stuck open leaving the analyzer continuously sampling instrument air.	Valero exercised the sample line purge solenoid and verified that it was operating properly.	
1/16/22	20:00		16	Periodic sample line purge solenoid stuck open leaving the analyzer continuously sampling instrument air.	Valero replaced the sample line purge solenoid.	
1/17/22		12:00				
TOTAL			22			

¹In accordance with 40 CFR 60.108a(d)(6), changes made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit have been compared with operation of the control system and affected facility before and following the period of data unavailability to ensure that any changes made in operation of the emission control system during the period of data unavailability did not affect the ability of the system to meet the applicable emission limit.

**GASEOUS AND OPACITY EXCESS EMISSIONS AND
MONITORING SYSTEMS PERFORMANCE**

(per 40 CFR 60.7(c) and 60.108a(d))

Pollutant: **NO_x**

Applicable NSPS Subpart: Ja

Reporting period dates: From 1/1/22 to 3/31/22

Date submitted: 4/30/22

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: Nitrogen Oxide corrected to 0% O₂ shall not exceed 40 ppm on a 30-day rolling average

Monitor Manufacturer and Model No.: ABB Limas11(NOx), Magnos27 (O₂)

Date of Latest CMS Certification or Audit: CGA on 1/17/22

Process Unit(s) Description: NHT Charge Heater (EPN 1-17, EQT 0159)

Total source operating time in reporting period: 1,931 hours

Ja EXCESS EMISSIONS						
Date	Start	End	Duration (hours)	Max 30-DRA (ppm)	Cause	Corrective Action
None.						
TOTAL			0			

Ja CMS PERFORMANCE ¹						
Date	Start	End	Duration (hours)	Cause	Corrective Action	
None.						
TOTAL			0			

¹In accordance with 40 CFR 60.108a(d)(6), changes made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit have been compared with operation of the control system and affected facility before and following the period of data unavailability to ensure that any changes made in operation of the emission control system during the period of data unavailability did not affect the ability of the system to meet the applicable emission limit.

**GASEOUS AND OPACITY EXCESS EMISSIONS AND
MONITORING SYSTEMS PERFORMANCE**

(per 40 CFR 60.7(c) and 60.108a(d))

Pollutant: **H₂S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 1/1/22 to 3/31/22

Date submitted: 4/30/22

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: Hydrogen Sulfide shall not exceed 162 ppm on a 3-hour rolling average.

Monitor Manufacturer and Model No.: Ametek 5100

Date of Latest CMS Certification or Audit: CGA on 3/9/22

Process Unit(s) Description: North Flare Stack (EPN 20-72, EQT 0035), North Flare Header

Total source operating time in reporting period: 2,159 hours

Ja EXCESS EMISSIONS						
Date	Start	End	Duration (hours)	Max 3-HRA (ppm)	Cause	Corrective Action
None.						
TOTAL			0			

Ja CMS PERFORMANCE ²						
Date	Start	End	Duration (hours)	Cause	Corrective Action	
None.						
TOTAL			0			

¹Due to the physical arrangement of the headers supplying the North Flare Stack (EPN 20-72, EQT 0035), two analyzers are required to measure H₂S concentration of the gas combusted in the North Flare. Conservatively, excess emission on either of these analyzers will be considered excess emissions at the North Flare. However, the CEMS performance will be tracked separately.

²In accordance with 40 CFR 60.108a(d)(6), changes made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit have been compared with operation of the control system and affected facility before and following the period of data unavailability to ensure that any changes made in operation of the emission control system during the period of data unavailability did not affect the ability of the system to meet the applicable emission limit.

**GASEOUS AND OPACITY EXCESS EMISSIONS AND
MONITORING SYSTEMS PERFORMANCE**

(per 40 CFR 60.7(c) and 60.108a(d))

Pollutant: **H₂S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 1/1/22 to 3/31/22

Date submitted: 4/30/22

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: Hydrogen Sulfide shall not exceed 162 ppm on a 3-hour rolling average.

Monitor Manufacturer and Model No.: Ametek 5100

Date of Latest CMS Certification or Audit: CGA on 3/9/22

Process Unit(s) Description: North Flare Stack (EPN 20-72, EQT 0035), Hydrocracker Flare Header

Total source operating time in reporting period: 2,159 hours

Ja EXCESS EMISSIONS						
Date	Start	End	Duration (hours)	Max 3-HRA (ppm)	Cause	Corrective Action
None.						
TOTAL			0			

Ja CMS PERFORMANCE ²						
Date	Start	End	Duration (hours)	Cause	Corrective Action	
None.						
TOTAL			0			

¹Due to the physical arrangement of the headers supplying the North Flare Stack (EPN 20-72, EQT 0035), two analyzers are required to measure H₂S concentration of the gas combusted in the North Flare. Conservatively, excess emission on either of these analyzers will be considered excess emissions at the North Flare. However, the CEMS performance will be tracked separately.

²In accordance with 40 CFR 60.108a(d)(6), changes made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit have been compared with operation of the control system and affected facility before and following the period of data unavailability to ensure that any changes made in operation of the emission control system during the period of data unavailability did not affect the ability of the system to meet the applicable emission limit.

**GASEOUS AND OPACITY EXCESS EMISSIONS AND
MONITORING SYSTEMS PERFORMANCE**

(per 40 CFR 60.7(c) and 60.108a(d))

Pollutant: **H₂S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 1/1/22 to 3/31/22

Date submitted: 4/30/22

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: Hydrogen Sulfide shall not exceed 162 ppm on a 3-hour rolling average.

Monitor Manufacturer and Model No.: Ametek 5100

Date of Latest CMS Certification or Audit: CGA on 3/9/22

Process Unit(s) Description: South Flare Stack (EPN 3-77, EQT 0049)

Total source operating time in reporting period: 2,159 hours

Ja EXCESS EMISSIONS						
Date	Start	End	Duration (hours)	Max 3-HRA (ppm)	Cause	Corrective Action
None.						
TOTAL			0			

Ja CMS PERFORMANCE ²						
Date	Start	End	Duration (hours)	Cause	Corrective Action	
None.						
TOTAL			0			

¹In accordance with 40 CFR 60.108a(d)(6), changes made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit have been compared with operation of the control system and affected facility before and following the period of data unavailability to ensure that any changes made in operation of the emission control system during the period of data unavailability did not affect the ability of the system to meet the applicable emission limit.

**GASEOUS AND OPACITY EXCESS EMISSIONS AND
MONITORING SYSTEMS PERFORMANCE**

(per 40 CFR 60.7(c) and 60.108a(d))

Pollutant: **Total Sulfur**

Applicable NSPS Subpart: Ja (Required by Consent Decree: 3:10-cv-00563-bbc, Paragraph 49.a.ii)

Reporting period dates: From 1/1/22 to 3/31/22

Date submitted: 4/30/22

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: None

Monitor Manufacturer and Model No.: Thermo Scientific SOLA II

Date of Latest CMS Certification or Audit: CGA on 3/2/22

Process Unit(s) Description: North Flare Stack (EPN 20-72, EQT 0035), North Flare Header

Total source operating time in reporting period: 2,159 hours

Ja CMS PERFORMANCE²					
Date	Start	End	Duration (hours)	Cause	Corrective Action
3/2/22	10:00	11:00	1	Cylinder Gas Audit	N/A
TOTAL			1		

¹In accordance with 40 CFR 60.108a(d)(6), changes made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit have been compared with operation of the control system and affected facility before and following the period of data unavailability to ensure that any changes made in operation of the emission control system during the period of data unavailability did not affect the ability of the system to meet the applicable emission limit.

**GASEOUS AND OPACITY EXCESS EMISSIONS AND
MONITORING SYSTEMS PERFORMANCE**

(per 40 CFR 60.7(c) and 60.108a(d))

Pollutant: **Total Sulfur**

Applicable NSPS Subpart: Ja (Also Required by Consent Decree: 3:10-cv-00563-bbc, Paragraph 49.a.ii)

Reporting period dates: From 1/1/22 to 3/31/22

Date submitted: 4/30/22

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: None

Monitor Manufacturer and Model No.: Thermo Scientific SOLA II

Date of Latest CMS Certification or Audit: CGA on 3/2/22

Process Unit(s) Description: North Flare Stack (EPN 20-72, EQT 0035), Hydrocracker Flare Header

Total source operating time in reporting period: 2,159 hours

Ja CMS PERFORMANCE ²					
Date	Start	End	Duration (hours)	Cause	Corrective Action
3/2/22	10:00	11:00	1	Cylinder Gas Audit	N/A
TOTAL			1		

¹In accordance with 40 CFR 60.108a(d)(6), changes made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit have been compared with operation of the control system and affected facility before and following the period of data unavailability to ensure that any changes made in operation of the emission control system during the period of data unavailability did not affect the ability of the system to meet the applicable emission limit.

**GASEOUS AND OPACITY EXCESS EMISSIONS AND
MONITORING SYSTEMS PERFORMANCE**

(per 40 CFR 60.7(c) and 60.108a(d))

Pollutant: **Total Sulfur**

Applicable NSPS Subpart: Ja (Also Required by Consent Decree: 3:10-cv-00563-bbc, Paragraph 49.a.ii)

Reporting period dates: From 1/1/22 to 3/31/22

Date submitted: 4/30/22

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: None

Monitor Manufacturer and Model No.: Thermo Scientific SOLA II

Date of Latest CMS Certification or Audit: CGA on 3/2/22

Process Unit(s) Description: South Flare Stack (EPN 3-77, EQT 0049)

Total source operating time in reporting period: 2,159 hours

Ja CMS PERFORMANCE²					
Date	Start	End	Duration (hours)	Cause	Corrective Action
3/2/22	10:00	11:00	1	Cylinder Gas Audit	N/A
TOTAL			1		

¹In accordance with 40 CFR 60.108a(d)(6), changes made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit have been compared with operation of the control system and affected facility before and following the period of data unavailability to ensure that any changes made in operation of the emission control system during the period of data unavailability did not affect the ability of the system to meet the applicable emission limit.

**GASEOUS AND OPACITY EXCESS EMISSIONS AND
MONITORING SYSTEMS PERFORMANCE**

(per 40 CFR 60.7(c) and 60.108a(d))

Pollutant: **Flow**

Applicable NSPS Subpart: Ja (Also Required by Consent Decree: 3:10-cv-00563-bbc, Paragraph 49.a.ii)

Reporting period dates: From 1/1/22 to 3/31/22

Date submitted: 4/30/22

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: None

Monitor Manufacturer and Model No.: GE Panametrics GF 868

Date of Latest CMS Certification or Audit: N/A

Process Unit(s) Description: North Flare Stack (EPN 20-72, EQT 0035), North Flare Header

Total source operating time in reporting period: 2,159 hours

Ja CMS PERFORMANCE²					
Date	Start	End	Duration (hours)	Cause	Corrective Action
None.					
TOTAL			0		

¹In accordance with 40 CFR 60.108a(d)(6), changes made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit have been compared with operation of the control system and affected facility before and following the period of data unavailability to ensure that any changes made in operation of the emission control system during the period of data unavailability did not affect the ability of the system to meet the applicable emission limit.

**GASEOUS AND OPACITY EXCESS EMISSIONS AND
MONITORING SYSTEMS PERFORMANCE**

(per 40 CFR 60.7(c) and 60.108a(d))

Pollutant: **Flow**

Applicable NSPS Subpart: Ja (Also Required by Consent Decree: 3:10-cv-00563-bbc, Paragraph 49.a.ii)

Reporting period dates: From 1/1/22 to 3/31/22

Date submitted: 4/30/22

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: None

Monitor Manufacturer and Model No.: GE Panametrics GF 868

Date of Latest CMS Certification or Audit: N/A

Process Unit(s) Description: North Flare Stack (EPN 20-72, EQT 0035), Hydrocracker Flare Header

Total source operating time in reporting period: 2,159 hours

Ja CMS PERFORMANCE ²					
Date	Start	End	Duration (hours)	Cause	Corrective Action
None.					
TOTAL			0		

¹In accordance with 40 CFR 60.108a(d)(6), changes made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit have been compared with operation of the control system and affected facility before and following the period of data unavailability to ensure that any changes made in operation of the emission control system during the period of data unavailability did not affect the ability of the system to meet the applicable emission limit.

**GASEOUS AND OPACITY EXCESS EMISSIONS AND
MONITORING SYSTEMS PERFORMANCE**

(per 40 CFR 60.7(c) and 60.108a(d))

Pollutant: **Flow**

Applicable NSPS Subpart: Ja (Also Required by Consent Decree: 3:10-cv-00563-bbc, Paragraph 49.a.ii)

Reporting period dates: From 1/1/22 to 3/31/22

Date submitted: 4/30/22

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: None

Monitor Manufacturer and Model No.: GE Panametrics GF 868, (1/1/22 – 3/16/22)

SICK FLOWSIC100 Flare, (3/18/22-3/31/22)

Date of Latest CMS Certification or Audit: N/A

Process Unit(s) Description: South Flare Stack (EPN 3-77, EQT 0049)

Total source operating time in reporting period: 2,159 hours

Ja CMS PERFORMANCE²					
Date	Start	End	Duration (hours)	Cause	Corrective Action
3/16/22	10:00	17:00	55	GE Panametrics flow meter shut down and removed. SICK flow meter installed and commissioned.	N/A
TOTAL			55		

¹In accordance with 40 CFR 60.108a(d)(6), changes made in operation of the emission control system during the period of data unavailability which could affect the ability of the system to meet the applicable emission limit have been compared with operation of the control system and affected facility before and following the period of data unavailability to ensure that any changes made in operation of the emission control system during the period of data unavailability did not affect the ability of the system to meet the applicable emission limit.

DATA ASSESSMENT REPORT

(per 40 CFR 60, Appendix F, Section 7)

Pollutant: **SO₂**

Applicable NSPS Subpart: Ja

Reporting period dates: From 1/1/22 to 3/31/22

Date submitted: 4/30/22

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: SO₂ corrected to 0% O₂ shall not exceed 250 ppm on a 12-hour rolling average.

Monitor Manufacturer and Model No.: Ametek 9900(SO₂)/Servomex Oxy 1800(O₂)

Source unit: #2 SRU Incinerator (EPN 1-93, EQT 0019)

CEM Sampling Location: #2 SRU Incinerator (#1-93)

CEM Span Value: Sulfur Dioxide 500 ppm; Oxygen 25%

I. ACCURACY ASSESSMENT RESULTS (CGA):

	SO ₂ #1 <u>(low scale)</u>	SO ₂ #2 <u>(high scale)</u>	O ₂ #1 <u>(low scale)</u>	O ₂ #2 <u>(high scale)</u>
Date of Audit	3/15/22	3/15/22	3/15/22	3/15/22
Audit Gas Cylinder No.	SG9150051BAL	CC125741	CC483689	SG9152263BAL
Date of Audit Gas Cert.	5/27/16	5/27/16	5/23/16	5/23/16
Type of Certification	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1
Certified Audit Value	124.9 ppmv	274.5 ppmv	5.99 vol %	10.05 vol %
CEM Response Value	123.1 ppmv	270.7 ppmv	5.83 vol %	10.10 vol %
Accuracy	1.4%	1.4%	2.7%	0.5%
Standard	<15%	<15%	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

(per 40 CFR 60, Appendix F, Section 7)

Pollutant: **SO₂**

Applicable NSPS Subpart: Ja

Reporting period dates: From 1/1/22 to 3/31/22

Date submitted: 4/30/22

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: SO₂ corrected to 0% O₂ shall not exceed 250 ppm on a 12-hour rolling average.

Monitor Manufacturer and Model No.: ABB AO2000 Uras 26(SO₂)/ Magnos 206 (O₂)

Source unit: #3 SRU Incinerator (EPN 5-00, EQT 0079)

CEM Sampling Location: #3 SRU Incinerator (#5-00)

CEM Span Value: Sulfur Dioxide 500 ppm; Oxygen 25%

I. ACCURACY ASSESSMENT RESULTS (CGA):

	SO ₂ #1 <u>(low scale)</u>	SO ₂ #2 <u>(high scale)</u>	O ₂ #1 <u>(low scale)</u>	O ₂ #2 <u>(high scale)</u>
Date of Audit	1/18/22	1/18/22	1/18/22	1/18/22
Audit Gas Cylinder No.	XC022957B	CC94008	CC483694	EB0063979
Date of Audit Gas Cert.	5/27/16	5/27/16	5/23/16	5/23/16
Type of Certification	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1
Certified Audit Value	125.3 ppmv	275.3 ppmv	5.99 vol %	9.98 vol %
CEM Response Value	128.9 ppmv	280.6 ppmv	5.96 vol %	10.05 vol %
Accuracy	2.9%	1.9%	0.5%	0.7%
Standard	<15%	<15%	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

(per 40 CFR 60, Appendix F, Section 7)

Pollutant: **H₂S**

Applicable NSPS Subpart: J

Reporting period dates: From 1/1/22 to 3/31/22

Date submitted: 4/30/22

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: Hydrogen Sulfide shall not exceed 162 ppm on a 3-hour rolling average.

Monitor Manufacturer and Model No.: Ametek 4661

Source Unit: Area 1 Fuel Drum for Boiler TB-01 (EPN 1-06, EQT 0010); Boiler B-7 (EPN 1-07, EQT 0011); MDH Product and Fractionator Heaters (EPN 2-92, EQT 0033); DHT Charge Heater (EPN 5-73, EQT 0058)

CEM Sampling Location: Area 1 Fuel Drum

CEM Span Value: Hydrogen Sulfide, 300 ppm

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H ₂ S #1 <u>(low scale)</u>	H ₂ S #2 <u>(high scale)</u>
Date of Audit	3/8/22	3/8/22
Audit Gas Cylinder No.	LL41203	BLM001397
Date of Audit Gas Cert.	9/24/19	9/24/19
Type of Certification	EPA Protocol 1	EPA Protocol 1
Certified Audit Value (ppmv)	75.6	163.7
CEM Response Value (ppmv)	70.3	147.7
Accuracy	7.0%	9.8%
Standard	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

(per 40 CFR 60, Appendix F, Section 7)

Pollutant: **H₂S**

Applicable NSPS Subpart: J and Ja

Reporting period dates: From 1/1/22 to 3/31/22

Date submitted: 4/30/22

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: Hydrogen Sulfide shall not exceed 162 ppm on a 3-hour rolling average(J and Ja) and 60 ppm on a 365 day rolling average (Ja only)

Monitor Manufacturer and Model No.: Ametek 4661

Source Unit: Area 2 Fuel Drum for: No.1 Crude Heater (EPN 12-72A, EQT 022); ROSE Heater (EPN 1-80, EQT 0014); Vacuum Heater (EPN 1-76, EQT 0013); Platformer Charge Heater (EPN 17-72 a,b,c , EQT 0028); Platformer Debut Reboiler (EPN 19-72, EQT 0029); NHT Charge Heater (EPN 14-72, EQT 0023); NHT Debut Reboiler (EPA 15-72, EQT 0024); NHT Depent Reboiler (EPA 16-72, EQT 0027); Benzene Recovery Unit Reboiler (EPN 1-09, EQT 0127); NHT Charge Heater (EPN 1-17, EQT 0159)

CEM Sampling Location: Area 2 Fuel Drum

CEM Span Value: Hydrogen Sulfide, 300 ppm

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H ₂ S #1 <u>(low scale)</u>	H ₂ S #2 <u>(high scale)</u>
Date of Audit	3/10/22	3/10/22
Audit Gas Cylinder No.	CC58723	APL001013
Date of Audit Gas Cert.	9/18/19	9/18/19
Type of Certification	EPA Protocol 1	EPA Protocol 1
Certified Audit Value (ppmv)	77.1	177.6
CEM Response Value (ppmv)	74.4	181.2
Accuracy	3.5%	2.0%
Standard	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

(per 40 CFR 60, Appendix F, Section 7)

Pollutant: **H₂S**

Applicable NSPS Subpart: J

Reporting period dates: From 1/1/22 to 3/31/22

Date submitted: 4/30/22

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: Hydrogen Sulfide shall not exceed 162 ppm on a 3-hour rolling average.

Monitor Manufacturer and Model No.: Ametek 4661

Process Unit(s) Description: Area 4 Fuel Drum for Merox Disulfide Separator to Platformer Charge Heater

CEM Sampling Location: Area 4 Fuel Drum

CEM Span Value: Hydrogen Sulfide, 300 ppm

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H ₂ S #1 <u>(low scale)</u>	H ₂ S #2 <u>(high scale)</u>
Date of Audit	3/10/22	3/10/22
Audit Gas Cylinder No.	XL000609B	LL62684
Date of Audit Gas Cert.	9/24/19	9/24/19
Type of Certification	EPA Protocol 1	EPA Protocol 1
Certified Audit Value (ppmv)	75.6	165.5
CEM Response Value (ppmv)	68.7	152.3
Accuracy	9.1%	8.0%
Standard	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

(per 40 CFR 60, Appendix F, Section 7)

Pollutant: **H₂S**

Applicable NSPS Subpart: J

Reporting period dates: From 1/1/22 to 3/31/22

Date submitted: 4/30/22

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: Hydrogen Sulfide shall not exceed 162 ppm on a 3-hour rolling average.

Monitor Manufacturer and Model No.: Ametek 4661

Process Unit(s) Description: Area 6 Fuel Drum for Hydrocracker & Hydrotreater Charge Heaters (EPN 1-00, EQT 0009)

CEM Sampling Location: Area 6 Fuel Drum

CEM Span Value: Hydrogen Sulfide, 300 ppm

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H ₂ S #1 <u>(low scale)</u>	H ₂ S #2 <u>(high scale)</u>
Date of Audit	3/8/22	3/8/22
Audit Gas Cylinder No.	BLM001939	LL71653
Date of Audit Gas Cert.	9/24/19	9/24/19
Type of Certification	EPA Protocol 1	EPA Protocol 1
Certified Audit Value (ppmv)	75.3	165.9
CEM Response Value (ppmv)	71.7	156.3
Accuracy	4.8%	5.8%
Standard	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

(per 40 CFR 60, Appendix F, Section 7)

Pollutant: **H₂S**

Applicable NSPS Subpart: J

Reporting period dates: From 1/1/22 to 3/31/22

Date submitted: 4/30/22

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: Hydrogen Sulfide shall not exceed 162 ppm on a 3-hour rolling average.

Monitor Manufacturer and Model No.: Ametek 4661

Process Unit(s) Description: Area 6 Fuel Drum for Boilers B-5 (EPN 2-00, EQT 0030) and B-6 (EPN 3-00, EQT 0048)

CEM Sampling Location: Area 6 Fuel Drum

CEM Span Value: Hydrogen Sulfide, 300 ppm

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H ₂ S #1 <u>(low scale)</u>	H ₂ S #2 <u>(high scale)</u>
Date of Audit	3/17/22	3/17/22
Audit Gas Cylinder No.	ALM040395	ALM040542
Date of Audit Gas Cert.	9/18/19	9/18/19
Type of Certification	EPA Protocol 1	EPA Protocol 1
Certified Audit Value (ppmv)	75.0	175.7
CEM Response Value (ppmv)	74.2	174.0
Accuracy	1.1%	1.0%
Standard	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

(per 40 CFR 60, Appendix F, Section 7)

Pollutant: **NO_x**

Applicable NSPS Subpart: Db

Reporting period dates: From 1/1/22 to 3/31/22

Date submitted: 4/30/22

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: Nitrogen Oxide shall not exceed 0.1 pound/MMBtu on a 30-day rolling average.

Monitor Manufacturer and Model No.: ABB AO2000 Uras 26(NO_x)/ Magnos 28 (O₂)

Process Unit(s) Description: Boiler B-5 (EPN 2-00, EQT 0030)

CEM Sampling Location: Boiler B-5

CEM Span Value: Nitrogen Oxide 100 ppm, Oxygen 25 %

I. ACCURACY ASSESSMENT RESULTS (CGA):

	NO _x #1 <u>(low scale)</u>	NO _x #2 <u>(high scale)</u>	O ₂ #1 <u>(low scale)</u>	O ₂ #2 <u>(high scale)</u>
Date of Audit	3/22/22	3/22/22	3/22/22	3/22/22
Audit Gas Cylinder No.	BLM003457	LL64747	CC483685	LL167062
Date of Audit Gas Cert.	10/4/19	5/3/16	5/23/16	1/28/14
Type of Certification	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1
Certified Audit Value	25.3 ppmv	54.5 ppmv	6.00 vol %	10.01 vol %
CEM Response Value	24.9 ppmv	54.0 ppmv	5.77 vol %	9.92 vol %
Accuracy	1.6%	0.9%	3.8%	0.9%
Standard	<15%	<15%	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

(per 40 CFR 60, Appendix F, Section 7)

Pollutant: **NO_x**

Applicable NSPS Subpart: Db

Reporting period dates: From 1/1/22 to 3/31/22

Date submitted: 4/30/22

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: Nitrogen Oxide shall not exceed 0.1 pound/MMBtu on a 30-day rolling average.

Monitor Manufacturer and Model No.: ABB AO2000 Uras 26(NO_x)/ Magnos 28 (O₂)

Process Unit(s) Description: Boiler B-6 (EPN 3-00, EQT 0048)

CEM Sampling Location: Boiler B-6

CEM Span Value: Nitrogen Oxide 100 ppm, Oxygen 25 %

I. ACCURACY ASSESSMENT RESULTS (CGA):

	NO _x #1 <u>(low scale)</u>	NO _x #2 <u>(high scale)</u>	O ₂ #1 <u>(low scale)</u>	O ₂ #2 <u>(high scale)</u>
Date of Audit	3/22/22	3/22/22	3/22/22	3/22/22
Audit Gas Cylinder No.	BLM003457	LL64747	CC483685	LL167062
Date of Audit Gas Cert.	10/4/19	5/3/16	5/23/16	1/28/14
Type of Certification	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1
Certified Audit Value	25.3 ppmv	54.5 ppmv	6.00 vol %	10.01 vol %
CEM Response Value	25.0 ppmv	54.5 ppmv	5.98 vol %	9.96 vol %
Accuracy	1.2%	0.0%	0.3%	0.5%
Standard	<15%	<15%	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

(per 40 CFR 60, Appendix F, Section 7)

Pollutant: **NO_x**

Applicable NSPS Subpart: Db

Reporting period dates: From 1/1/22 to 3/31/22

Date submitted: 4/30/22

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: Nitrogen Oxide shall not exceed 0.1 pound/MMBtu on a 30-day rolling average.

Monitor Manufacturer and Model No.: Thermo Environmental Model 42i (NO_x)/(O₂)

Process Unit(s) Description: Boiler TB-01 (EPN 1-06, EQT 0010)

CEM Sampling Location: Boiler TB-01

CEM Span Value: Nitrogen Oxide 500 ppm, Oxygen 25 %

I. ACCURACY ASSESSMENT RESULTS (CGA):

	NO _x #1 <u>(low scale)</u>	NO _x #2 <u>(high scale)</u>	O ₂ #1 <u>(low scale)</u>	O ₂ #2 <u>(high scale)</u>
Date of Audit	3/16/22	3/16/22	3/16/22	3/16/22
Audit Gas Cylinder No.	SG9167966BAL	CC89303	LL269	LL168197
Date of Audit Gas Cert.	5/31/16	5/31/16	4/25/16	4/25/16
Type of Certification	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1
Certified Audit Value	126.9 ppmv	270.5 ppmv	6.03 vol %	10.10 vol %
CEM Response Value	125.6 ppmv	263.3 ppmv	5.80 vol %	9.60 vol %
Accuracy	1.0%	2.7%	3.8%	5.0%
Standard	<15%	<15%	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

(per 40 CFR 60, Appendix F, Section 7)

Pollutant: **NO_x**

Applicable NSPS Subpart: Ja

Reporting period dates: From 1/1/22 to 3/31/22

Date submitted: 4/30/22

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: Nitrogen Oxide corrected to 0% O₂ shall not exceed 40 ppm on a 30-day rolling average

Monitor Manufacturer and Model No.: Thermo Environmental Model 42i (NO_x)/(O₂)

Process Unit(s) Description: Benzene Recovery Unit Reboiler (EPN 1-09, EQT 0127)

CEM Sampling Location: Benzene Recovery Unit Reboiler

CEM Span Value: Nitrogen Oxide 100 ppm, Oxygen 25 %

I. ACCURACY ASSESSMENT RESULTS (CGA):

	NO _x #1 <u>(low scale)</u>	NO _x #2 <u>(high scale)</u>	O ₂ #1 <u>(low scale)</u>	O ₂ #2 <u>(high scale)</u>
Date of Audit	3/3/22	3/3/22	3/3/22	3/3/22
Audit Gas Cylinder No.	BLM003457	CC307733	CC483658	CC87078
Date of Audit Gas Cert.	10/4/19	6/2/16	5/23/16	5/23/16
Type of Certification	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1
Certified Audit Value	25.3 ppmv	55.8 ppmv	5.96 vol %	9.94 vol %
CEM Response Value	24.0 ppmv	53.1 ppmv	5.73 vol %	9.80 vol %
Accuracy	5.1%	4.8%	3.9%	1.4%
Standard	<15%	<15%	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

(per 40 CFR 60, Appendix F, Section 7)

Pollutant: **NO_x**

Applicable NSPS Subpart: Ja

Reporting period dates: From 1/1/22 to 3/31/22

Date submitted: 4/30/22

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: Nitrogen Oxide corrected to 0% O₂ shall not exceed 40 ppm on a 30-day rolling average

Monitor Manufacturer and Model No.: ABB AO2000 Uras 26(NO_x)/ Magnos 206 (O₂)

Process Unit(s) Description: NHT Charge Heater (EPN 1-17, EQT 0159)

CEM Sampling Location: NHT Charge Heater

CEM Span Value: Nitrogen Oxide 100 ppm, Oxygen 25 %

I. ACCURACY ASSESSMENT RESULTS (CGA):

<u>CGA</u>	<u>NO_x #1</u> <u>(low scale)</u>	<u>NO_x #2</u> <u>(high scale)</u>	<u>O₂ #1</u> <u>(low scale)</u>	<u>O₂ #2</u> <u>(high scale)</u>
Date of Audit	1/17/22	1/17/22	1/17/22	1/17/22
Audit Gas Cylinder No.	BLM000328	CC416948	CC483649	CC148318
Date of Audit Gas Cert.	10/4/19	6/2/16	5/23/16	5/23/16
Type of Certification	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1
Certified Audit Value	25.2 ppmv	55.5 ppmv	6.00 vol %	9.99 vol %
CEM Response Value	25.3 ppmv	55.0 ppmv	6.03 vol %	10.10 vol %
Accuracy	0.5%	0.9%	0.5%	1.1%
Standard	<15%	<15%	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

(per 40 CFR 60, Appendix F, Section 7)

Pollutant: **NO_x**

Applicable NSPS Subpart: N/A (Required by Consent Decree: 3:10-cv-00563-bbc, Paragraph 36.a)

Reporting period dates: From 1/1/22 to 3/31/22

Date submitted: 4/30/22

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: None

Monitor Manufacturer and Model No.: ABB Limas11 (NO_x), Magnos27 (O₂)

Process Unit(s) Description: No.1 Crude Heater (EPN 12-72A, EQT 0022)

CEM Sampling Location: No.1 Crude Heater

CEM Span Value: Nitrogen Oxide 100 ppm, Oxygen 25 %

I. ACCURACY ASSESSMENT RESULTS (CGA):

<u>CGA</u>	<u>NO_x #1 (low scale)</u>	<u>NO_x #2 (high scale)</u>	<u>O₂ #1 (low scale)</u>	<u>O₂ #2 (high scale)</u>
Date of Audit	3/15/22	3/15/22	3/15/22	3/15/22
Audit Gas Cylinder No.	LL67375	CC319153	CC483638	CC222165
Date of Audit Gas Cert.	10/4/19	6/2/16	5/23/16	5/23/16
Type of Certification	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1
Certified Audit Value	25.2 ppmv	55.4 ppmv	5.99 vol %	9.96 vol %
CEM Response Value	25.5 ppmv	58.2 ppmv	5.95 vol %	9.96 vol %
Accuracy	1.1%	5.0%	0.6%	0.0%
Standard	<15%	<15%	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

(per 40 CFR 60, Appendix F, Section 7)

Pollutant: **NO_x**

Applicable NSPS Subpart: N/A (Required by Consent Decree: 3:10-cv-00563-bbc, Paragraph 36.a)

Reporting period dates: From 1/1/22 to 3/31/22

Date submitted: 4/30/22

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: None

Monitor Manufacturer and Model No.: ABB AO2000 Uras 26(NOx)/ Magnos 206 (O₂)

Process Unit(s) Description: MDH Product and Fractionator Heaters (EPN 2-92, EQT 0033)

CEM Sampling Location: MDH Product and Fractionator Heaters

CEM Span Value: Nitrogen Oxide 100 ppm, Oxygen 25 %

I. ACCURACY ASSESSMENT RESULTS (CGA):

<u>CGA</u>	<u>NO_x #1 (low scale)</u>	<u>NO_x #2 (high scale)</u>	<u>O₂ #1 (low scale)</u>	<u>O₂ #2 (high scale)</u>
Date of Audit	1/18/22	1/18/22	1/18/22	1/18/22
Audit Gas Cylinder No.	BLM000328	LL64381	LL100497	LL67009
Date of Audit Gas Cert.	10/4/19	5/6/19	4/22/19	4/22/19
Type of Certification	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1	EPA Protocol 1
Certified Audit Value	25.2 ppmv	55.2 ppmv	6.02 vol %	10.03 vol %
CEM Response Value	24.2 ppmv	54.3 ppmv	6.04 vol %	10.01 vol %
Accuracy	4.0%	1.6%	0.3%	0.2%
Standard	<15%	<15%	<15%	<15%

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

(per 40 CFR 60, Appendix F, Section 7)

Pollutant: **H₂S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 1/1/22 to 3/31/22

Date submitted: 4/30/22

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: Hydrogen Sulfide shall not exceed 162 ppm on a 3-hour rolling average.

Monitor Manufacturer and Model No.: Ametek 5100

Process Unit(s) Description: North Flare Stack (EPN 20-72, EQT 0035), North Flare Header

CEM Sampling Location: North Flare Stack, North Flare Header (Y-AT-801)

CEM Span Value: Hydrogen Sulfide, 300 ppm

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H ₂ S #1 <u>(low scale)</u>	H ₂ S #2 <u>(high scale)</u>
Date of Audit	3/9/22	3/9/22
Audit Gas Cylinder No.	CC416499	XC012872B
Date of Audit Gas Cert.	12/10/19	12/16/19
Type of Certification	Certified Gas ¹	Certified Gas ¹
Certified Audit Value	79.5 ppmv	172.7 ppmv
CEM Response Value	88.3 ppmv	183.3 ppmv
Accuracy	11.1%	6.1%
Standard	<15%	<15%

¹ Valero unable to obtain EPA Protocol 1 certified gases for the Methane balanced audit gas required by this analyzer.

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

(per 40 CFR 60, Appendix F, Section 7)

Pollutant: **H₂S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 1/1/22 to 3/31/22

Date submitted: 4/30/22

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: Hydrogen Sulfide shall not exceed 162 ppm on a 3-hour rolling average.

Monitor Manufacturer and Model No.: Ametek 5100

Process Unit(s) Description: North Flare Stack (EPN 20-72, EQT 0035), Hydrocracker Flare Header

CEM Sampling Location: North Flare Stack, Hydrocracker Flare Header (Y-AT-800)

CEM Span Value: Hydrogen Sulfide, 300 ppm

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H ₂ S #1 <u>(low scale)</u>	H ₂ S #2 <u>(high scale)</u>
Date of Audit	3/9/22	3/9/22
Audit Gas Cylinder No.	CC416499	XC012872B
Date of Audit Gas Cert.	12/10/19	12/16/19
Type of Certification	Certified Gas ¹	Certified Gas ¹
Certified Audit Value	79.5 ppmv	172.7 ppmv
CEM Response Value	76.7 ppmv	170.7 ppmv
Accuracy	3.5%	1.2%
Standard	<15%	<15%

¹ Valero unable to obtain EPA Protocol 1 certified gases for the Methane balanced audit gas required by this analyzer.

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

(per 40 CFR 60, Appendix F, Section 7)

Pollutant: **H₂S**

Applicable NSPS Subpart: Ja

Reporting period dates: From 1/1/22 to 3/31/22

Date submitted: 4/30/22

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: Hydrogen Sulfide shall not exceed 162 ppm on a 3-hour rolling average.

Monitor Manufacturer and Model No.: Ametek 5100

Process Unit(s) Description: South Flare Stack (EPN 3-77, EQT 0049)

CEM Sampling Location: South Flare Stack (Y-AT-802)

CEM Span Value: Hydrogen Sulfide, 300 ppm

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H ₂ S #1 <u>(low scale)</u>	H ₂ S #2 <u>(high scale)</u>
Date of Audit	3/9/22	3/9/22
Audit Gas Cylinder No.	CC416499	XC012872B
Date of Audit Gas Cert.	12/10/19	12/16/19
Type of Certification	Certified Gas ¹	Certified Gas ¹
Certified Audit Value	79.5 ppmv	172.7 ppmv
CEM Response Value	90.0 ppmv	183.0 ppmv
Accuracy	13.2%	6.0%
Standard	<15%	<15%

¹ Valero unable to obtain EPA Protocol 1 certified gases for the Methane balanced audit gas required by this analyzer.

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

(per 40 CFR 60, Appendix F, Section 7)

Pollutant: **Total Sulfur**

Applicable NSPS Subpart: Ja (Required by Consent Decree: 3:10-cv-00563-bbc, Paragraph 49.a.ii)

Reporting period dates: From 1/1/22 to 3/31/22

Date submitted: 4/30/22

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: None

Monitor Manufacturer and Model No.: Thermo Scientific SOLA II

Process Unit(s) Description: North Flare Stack (EPN 20-72, EQT 0035), North Flare Header

CEM Sampling Location: North Flare Stack, North Flare Header (Y-AT-303)

CEM Span Value: Total Sulfur, Dual Range: 0-10,000 ppm, 10,000-1,000,000 ppm

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H ₂ S #1 <u>(low scale)</u>	H ₂ S #2 <u>(high scale)</u>
Date of Audit	3/2/22	3/2/22
Audit Gas Cylinder No.	CC431101	SG9133262BAL
Date of Audit Gas Cert.	4/29/20	11/5/20
Type of Certification	EPA Protocol 1	Primary Standard 1
Certified Audit Value (ppmv)	1030.0 ppmv	5559.0 ppmv
CEM Response Value (ppmv)	976.2 ppmv	5678.7 ppmv
Accuracy	5.2%	2.2%
Standard	<15%	<15%

¹ Valero unable to obtain EPA Protocol 1 certified gases greater than 1000 ppm.

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

(per 40 CFR 60, Appendix F, Section 7)

Pollutant: **Total Sulfur**

Applicable NSPS Subpart: Ja (Required by Consent Decree: 3:10-cv-00563-bbc, Paragraph 49.a.ii)

Reporting period dates: From 1/1/22 to 3/31/22

Date submitted: 4/30/22

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: None

Monitor Manufacturer and Model No.: Thermo Scientific SOLA II

Process Unit(s) Description: North Flare Stack (EPN 20-72, EQT 0035), Hydrocracker Flare Header

CEM Sampling Location: North Flare Stack, Hydrocracker Flare Header (Y-AT-302)

CEM Span Value: Total Sulfur, Dual Range: 0-10,000 ppm, 10,000-1,000,000 ppm

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H ₂ S #1 <u>(low scale)</u>	H ₂ S #2 <u>(high scale)</u>
Date of Audit	3/2/22	3/2/22
Audit Gas Cylinder No.	CC431101	SG9133262BAL
Date of Audit Gas Cert.	4/29/20	11/5/20
Type of Certification	EPA Protocol 1	Primary Standard 1
Certified Audit Value (ppmv)	1030.0 ppmv	5559.0 ppmv
CEM Response Value (ppmv)	987.4 ppmv	5738.7 ppmv
Accuracy	4.1%	3.2%
Standard	<15%	<15%

¹ Valero unable to obtain EPA Protocol 1 certified gases greater than 1000 ppm.

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

DATA ASSESSMENT REPORT

(per 40 CFR 60, Appendix F, Section 7)

Pollutant: **Total Sulfur**

Applicable NSPS Subpart: Ja (Required by Consent Decree: 3:10-cv-00563-bbc, Paragraph 49.a.ii)

Reporting period dates: From 1/1/22 to 3/31/22

Date submitted: 4/30/22

Company: Valero Refining - Meraux LLC

Address: 2500 East St. Bernard Highway, Meraux, LA 70075

Emission Limitation: None

Monitor Manufacturer and Model No.: Thermo Scientific SOLA II

Process Unit(s) Description: South Flare Stack (EPN 3-77, EQT 0049)

CEM Sampling Location: South Flare Stack (Y-AT-304)

CEM Span Value: Total Sulfur, Dual Range: 0-10,000 ppm, 10,000-1,000,000 ppm

I. ACCURACY ASSESSMENT RESULTS (CGA):

	H ₂ S #1 <u>(low scale)</u>	H ₂ S #2 <u>(high scale)</u>
Date of Audit	3/2/22	3/2/22
Audit Gas Cylinder No.	CC431101	SG9133262BAL
Date of Audit Gas Cert.	4/29/20	11/5/20
Type of Certification	EPA Protocol 1	Primary Standard1
Certified Audit Value	1030.0 ppmv	5559.0 ppmv
CEM Response Value	991.6 ppmv	5772.9 ppmv
Accuracy	3.7%	3.8%
Standard	<15%	<15%

¹ Valero unable to obtain EPA Protocol 1 certified gases greater than 1000 ppm.

II. CALIBRATION DRIFT ASSESSMENT

A. Out of Control Periods:

1. Dates: N/A

2. Number of Days N/A

B. Corrective Actions: N/A

Appendix A

Ja Root Cause and Corrective Action Analysis

Subpart Ja Root Cause / Corrective Action Analysis		Incident Number: <u>454383</u>
<i>The information contained below satisfies the requirements of the NSPS Subpart Ja 60.108a(c)(6).</i>		
Report:	<u>Initial</u>	
Refinery:	<u>Valero (Meraux)</u>	
Incident Type:	<u>Flaring (Flow)</u>	Date of Event: <u>2/20/22</u>
Emissions Source(s):	<u>North Flare (EPN 20-72, EQT 0035)</u>	Date Analysis Completed: <u>3/25/22</u>
(1.) (60.108a(c)(6)(i))		
A description of the Discharge:		
<i>On February 20 2023 at approximately 03:30, Valero experienced an automatic shutdown of the Recycle Gas Compressor in the Hydrocracker Unit due to a mechanical failure of the Recycle Gas Compressor steam turbine. Valero visually inspected the steam turbine and determined that it was damaged and could not be restarted. The loss of the Recycle Gas Compressor initiated an automatic depressurization of the Hydrocracker Unit to the North Flare. Additional venting to the flare was required to cooldown and place the unit in a safe condition.</i>		
(2.) (60.108a(c)(6)(ii)) and (60.108a(c)(6)(ix))		
Date and Time the discharge was first identified	<u>2/20/22 3:30</u>	
Date/Time the discharge had ceased	<u>2/26/22 18:20</u>	
Duration of Discharge (Calculated)	<u>158.8</u> hrs.	
(3.) (60.108a(c)(6)(viii))		
The steps taken to limit the emissions during the discharge:		
<i>Valero followed its Flare Minimization Plan and Operations Procedures to minimize the volume flared from this discharge. During periods of Nitrogen venting, additional supplemental natural gas was required to comply with the Net Heating Value of the Combustion Zone limit (> 270 Btu/scf) of 40 CFR 63.670, that became effective on January 30, 2019.</i>		
(4.) (60.108a(c)(6)(xi))		
Necessity of RC/CAA: Determine and state whether a RC/CAA is necessary:		
<i>Note: If the discharge was a result of a planned startup or shutdown, a RC/CAA analysis is not required if the flare management plan was followed.</i>		
Did the discharge result from a planned startup or shutdown?	<u>No</u>	(Yes/No)
Was the flare management plan followed?	<u>Yes</u>	(Yes/No/N/A)
Is the event exempt from a RC/CCA based on the answers above?	<u>No</u>	(Yes/No)
- If yes, skip section 5-7.		
(5.) (60.108a(c)(6)(ix))		
Root Cause Analysis: Describe in detail the Root Cause(s) of the Incident, to the extent determinable:		
Did this discharge result from root causes identified in a previous analysis?	<u>No</u> (Yes/No)	
<i>Valero determined the root cause of this discharge to be the mechanical failure of the steam turbine that drives the Recycle Gas Compressor. Valero believes that this mechanical failure was caused by a crack on the 3rd stage wheel, a crack on the turbine shaft, and the governor controller not properly controlling the speed of the steam turbine during steam system pressure transients due to a stuck feedback arm and slow response time. Valero has sent the steam turbine to a 3rd party for detailed forensic analysis.</i>		
(6.) (60.108a(c)(6)(ix))		
Corrective Action Analysis: Include a description of the recommended corrective action(s) or an explanation of why corrective action is not		
Is corrective action required?	<u>Yes</u> (Yes/No)	
1) Modify preventative maintenance/long range planning to include a more detailed inspection of the steam turbine and include replacement of the steam turbine every 4-6 years.		
2) Install a new servo control system and rack feedback arm for the governor controller.		
3) Design an upgrade for the governor controller system.		
4) Review the detailed forensic analysis of the steam turbine once it is complete and determine if any further corrective actions are required.		

(7.)

(60.108a(c)(6)(x))

Corrective Action Schedule: Include corrective actions already completed within the first 45 days following the discharge. For those not completed, provide a schedule for implementation, including proposed commencement and completion dates.

1) *Modify the preventative maintenance schedule and long range planning to include a more detailed inspection of the steam turbine and replacement of the steam turbine every 4-6 years.*

Commencement Date: 3/25/22

Estimated Completion Date: 6/7/22

2) *Install a new servo control system and rack feedback arm for the governor controller.*

Completed Date: 3/29/22

2) *Design an upgrade for the governor controller system.*

Commencement Date: 3/25/22

Estimated Completion Date: 12/6/22

3) *Review the detailed forensic analysis of the steam turbine once it is complete and determine if any further corrective actions are required.*

Commencement Date: 3/25/22

Estimated Completion Date: 6/21/22

(8.)					
The measured or calculated cumulative quantity of gas discharged over the discharge duration.					
<i>Note: Measured sulfur concentrations are shown as flow-weighted averages if multiple measurement devices were used.</i>					
		(60.108a(c)(6)(iii))	(60.108a(c)(6)(iv))	(60.108a(c)(6)(vii))	(60.108a(c)(6)(vii))
First hour of 24-hr Period	Last hour of 24-hr Period	24-hr cumulative volume of flared gas above Baseline	TRS or H2S ppm (24-hr average, flow-weighted)	24-hr cumulative SO2	24-hr cumulative reduced sulfur
		SCF	ppmv	lbs	lbs as H2S
2/19/22 3:00	2/20/22 2:00	107,313	3	0.2	0.0
2/19/22 4:00	2/20/22 3:00	1,743,030	295	80.2	0.4
2/19/22 5:00	2/20/22 4:00	2,594,156	286	120.7	0.6
2/19/22 6:00	2/20/22 5:00	3,179,253	1593	276.6	1.5
2/19/22 7:00	2/20/22 6:00	3,768,660	3938	664.8	3.6
2/19/22 8:00	2/20/22 7:00	4,175,400	2845	859.6	4.6
2/19/22 9:00	2/20/22 8:00	4,510,202	2533	1003.1	5.4
2/19/22 10:00	2/20/22 9:00	4,787,404	2752	1132.8	6.1
2/19/22 11:00	2/20/22 10:00	5,038,748	2179	1226.3	6.6
2/19/22 12:00	2/20/22 11:00	5,254,338	2018	1301.0	7.0
2/19/22 13:00	2/20/22 12:00	5,505,216	1485	1364.6	7.3
2/19/22 14:00	2/20/22 13:00	5,666,134	680	1383.6	7.4
2/19/22 15:00	2/20/22 14:00	5,741,861	215	1386.6	7.5
2/19/22 16:00	2/20/22 15:00	5,816,453	217	1389.6	7.5
2/19/22 17:00	2/20/22 16:00	5,915,749	101	1391.4	7.5
2/19/22 18:00	2/20/22 17:00	5,918,058	75	1391.5	7.5
2/19/22 19:00	2/20/22 18:00	5,956,142	1289	1401.5	7.5
2/19/22 20:00	2/20/22 19:00	5,984,171	287	1403.3	7.5
2/19/22 21:00	2/20/22 20:00	5,984,157	62	1403.3	7.5
2/19/22 22:00	2/20/22 21:00	5,993,695	1959	1409.4	7.6
2/19/22 23:00	2/20/22 22:00	6,038,935	2995	1436.2	7.7
2/20/22 0:00	2/20/22 23:00	6,254,053	719	1462.7	7.9
2/20/22 1:00	2/21/22 0:00	6,484,147	468	1481.1	8.0
2/20/22 2:00	2/21/22 1:00	6,718,618	395	1497.0	8.0
2/20/22 3:00	2/21/22 2:00	6,951,058	339	1510.5	8.1
2/20/22 4:00	2/21/22 3:00	5,549,933	311	1443.0	7.8
2/20/22 5:00	2/21/22 4:00	4,934,682	299	1414.5	7.6
2/20/22 6:00	2/21/22 5:00	4,584,335	296	1270.5	6.8
2/20/22 7:00	2/21/22 6:00	4,231,036	293	894.1	4.8
2/20/22 8:00	2/21/22 7:00	4,062,275	292	711.2	3.8
2/20/22 9:00	2/21/22 8:00	3,965,926	292	579.6	3.1
2/20/22 10:00	2/21/22 9:00	3,928,746	292	461.9	2.5
2/20/22 11:00	2/21/22 10:00	3,912,564	292	380.1	2.0
2/20/22 12:00	2/21/22 11:00	3,843,571	286	312.8	1.7
2/20/22 13:00	2/21/22 12:00	3,593,834	81	249.3	1.3
2/20/22 14:00	2/21/22 13:00	3,580,548	572	245.1	1.3
2/20/22 15:00	2/21/22 14:00	3,609,287	1022	261.2	1.4
2/20/22 16:00	2/21/22 15:00	3,633,055	1136	278.3	1.5
2/20/22 17:00	2/21/22 16:00	3,716,535	600	295.4	1.6
2/20/22 18:00	2/21/22 17:00	3,917,538	475	311.9	1.7
2/20/22 19:00	2/21/22 18:00	4,129,287	379	318.0	1.7
2/20/22 20:00	2/21/22 19:00	4,334,637	379	331.4	1.8
2/20/22 21:00	2/21/22 20:00	4,582,614	339	345.6	1.9
2/20/22 22:00	2/21/22 21:00	4,854,829	288	353.4	1.9
2/20/22 23:00	2/21/22 22:00	5,147,839	231	339.8	1.8
2/21/22 0:00	2/21/22 23:00	5,319,630	202	326.5	1.8
2/21/22 1:00	2/22/22 0:00	5,491,572	179	320.2	1.7
2/21/22 2:00	2/22/22 1:00	5,656,592	183	316.6	1.7
2/21/22 3:00	2/22/22 2:00	5,834,023	171	314.9	1.7
2/21/22 4:00	2/22/22 3:00	5,966,835	178	313.5	1.7

(8.)					
The measured or calculated cumulative quantity of gas discharged over the discharge duration.					
<i>Note: Measured sulfur concentrations are shown as flow-weighted averages if multiple measurement devices were used.</i>					
		(60.108a(c)(6)(iii))	(60.108a(c)(6)(iv))	(60.108a(c)(6)(vii))	(60.108a(c)(6)(vii))
First hour of 24-hr Period	Last hour of 24-hr Period	24-hr cumulative volume of flared gas above Baseline	TRS or H2S ppm (24-hr average, flow-weighted)	24-hr cumulative SO2	24-hr cumulative reduced sulfur
		SCF	ppmv	lbs	lbs as H2S
2/21/22 5:00	2/22/22 4:00	6,101,444	167	311.8	1.7
2/21/22 6:00	2/22/22 5:00	6,224,996	177	310.6	1.7
2/21/22 7:00	2/22/22 6:00	6,344,088	186	310.0	1.7
2/21/22 8:00	2/22/22 7:00	6,464,260	170	308.4	1.7
2/21/22 9:00	2/22/22 8:00	6,597,205	148	305.7	1.6
2/21/22 10:00	2/22/22 9:00	6,810,808	159	305.8	1.6
2/21/22 11:00	2/22/22 10:00	7,079,289	173	308.7	1.7
2/21/22 12:00	2/22/22 11:00	7,395,888	171	314.6	1.7
2/21/22 13:00	2/22/22 12:00	7,748,183	183	325.4	1.7
2/21/22 14:00	2/22/22 13:00	7,927,273	186	320.9	1.7
2/21/22 15:00	2/22/22 14:00	8,032,459	251	310.8	1.7
2/21/22 16:00	2/22/22 15:00	8,102,852	290	299.2	1.6
2/21/22 17:00	2/22/22 16:00	8,093,848	288	288.9	1.6
2/21/22 18:00	2/22/22 17:00	8,079,286	258	280.7	1.5
2/21/22 19:00	2/22/22 18:00	8,036,458	224	272.5	1.5
2/21/22 20:00	2/22/22 19:00	8,034,177	186	264.7	1.4
2/21/22 21:00	2/22/22 20:00	8,031,638	161	257.2	1.4
2/21/22 22:00	2/22/22 21:00	8,003,482	147	249.7	1.3
2/21/22 23:00	2/22/22 22:00	7,923,230	139	242.6	1.3
2/22/22 0:00	2/22/22 23:00	7,795,790	136	235.4	1.3
2/22/22 1:00	2/23/22 0:00	7,654,311	134	229.2	1.2
2/22/22 2:00	2/23/22 1:00	7,518,492	131	222.9	1.2
2/22/22 3:00	2/23/22 2:00	7,374,477	129	216.9	1.2
2/22/22 4:00	2/23/22 3:00	7,271,578	126	211.6	1.1
2/22/22 5:00	2/23/22 4:00	7,169,331	126	206.9	1.1
2/22/22 6:00	2/23/22 5:00	7,079,656	133	202.3	1.1
2/22/22 7:00	2/23/22 6:00	6,986,413	129	196.9	1.1
2/22/22 8:00	2/23/22 7:00	6,899,622	123	192.3	1.0
2/22/22 9:00	2/23/22 8:00	6,832,263	106	188.5	1.0
2/22/22 10:00	2/23/22 9:00	6,687,224	105	181.9	1.0
2/22/22 11:00	2/23/22 10:00	6,497,768	97	172.4	0.9
2/22/22 12:00	2/23/22 11:00	6,354,803	88	163.9	0.9
2/22/22 13:00	2/23/22 12:00	6,327,445	85	157.7	0.8
2/22/22 14:00	2/23/22 13:00	6,327,654	87	152.2	0.8
2/22/22 15:00	2/23/22 14:00	6,444,994	91	148.3	0.8
2/22/22 16:00	2/23/22 15:00	6,602,925	97	145.1	0.8
2/22/22 17:00	2/23/22 16:00	6,755,833	97	141.8	0.8
2/22/22 18:00	2/23/22 17:00	6,893,898	95	138.6	0.7
2/22/22 19:00	2/23/22 18:00	7,013,500	94	135.9	0.7
2/22/22 20:00	2/23/22 19:00	7,109,496	90	133.5	0.7
2/22/22 21:00	2/23/22 20:00	7,190,989	81	131.3	0.7
2/22/22 22:00	2/23/22 21:00	7,263,800	76	129.1	0.7
2/22/22 23:00	2/23/22 22:00	7,332,642	78	127.3	0.7
2/23/22 0:00	2/23/22 23:00	7,400,255	81	125.8	0.7
2/23/22 1:00	2/24/22 0:00	7,465,915	83	124.5	0.7
2/23/22 2:00	2/24/22 1:00	7,528,205	86	123.3	0.7
2/23/22 3:00	2/24/22 2:00	7,588,374	85	122.1	0.7
2/23/22 4:00	2/24/22 3:00	7,650,017	86	121.2	0.7
2/23/22 5:00	2/24/22 4:00	7,707,732	86	120.2	0.6
2/23/22 6:00	2/24/22 5:00	7,765,280	91	119.1	0.6

(8.)					
The measured or calculated cumulative quantity of gas discharged over the discharge duration.					
<i>Note: Measured sulfur concentrations are shown as flow-weighted averages if multiple measurement devices were used.</i>					
		(60.108a(c)(6)(iii))	(60.108a(c)(6)(iv))	(60.108a(c)(6)(vii))	(60.108a(c)(6)(vii))
First hour of 24-hr Period	Last hour of 24-hr Period	24-hr cumulative volume of flared gas above Baseline	TRS or H2S ppm (24-hr average, flow-weighted)	24-hr cumulative SO2	24-hr cumulative reduced sulfur
		SCF	ppmv	lbs	lbs as H2S
2/23/22 7:00	2/24/22 6:00	7,829,862	90	118.3	0.6
2/23/22 8:00	2/24/22 7:00	7,885,689	85	117.3	0.6
2/23/22 9:00	2/24/22 8:00	7,912,781	97	117.3	0.6
2/23/22 10:00	2/24/22 9:00	7,909,812	159	120.0	0.6
2/23/22 11:00	2/24/22 10:00	7,596,556	22	114.9	0.6
2/23/22 12:00	2/24/22 11:00	7,276,300	20	110.2	0.6
2/23/22 13:00	2/24/22 12:00	6,950,203	19	105.5	0.6
2/23/22 14:00	2/24/22 13:00	6,788,195	624	118.6	0.6
2/23/22 15:00	2/24/22 14:00	6,658,451	282	123.1	0.7
2/23/22 16:00	2/24/22 15:00	6,528,235	227	125.4	0.7
2/23/22 17:00	2/24/22 16:00	6,651,603	151	131.5	0.7
2/23/22 18:00	2/24/22 17:00	6,812,427	152	138.7	0.7
2/23/22 19:00	2/24/22 18:00	6,973,977	121	143.4	0.8
2/23/22 20:00	2/24/22 19:00	7,138,950	117	148.1	0.8
2/23/22 21:00	2/24/22 20:00	7,301,805	297	168.0	0.9
2/23/22 22:00	2/24/22 21:00	7,449,893	427	197.8	1.1
2/23/22 23:00	2/24/22 22:00	7,593,506	452	229.2	1.2
2/24/22 0:00	2/24/22 23:00	7,722,397	406	255.8	1.4
2/24/22 1:00	2/25/22 0:00	7,880,846	443	287.2	1.5
2/24/22 2:00	2/25/22 1:00	8,031,549	434	317.2	1.7
2/24/22 3:00	2/25/22 2:00	8,181,105	419	346.0	1.9
2/24/22 4:00	2/25/22 3:00	8,324,526	402	372.9	2.0
2/24/22 5:00	2/25/22 4:00	8,456,405	412	399.8	2.1
2/24/22 6:00	2/25/22 5:00	8,458,502	483	421.6	2.3
2/24/22 7:00	2/25/22 6:00	8,485,150	337	436.7	2.3
2/24/22 8:00	2/25/22 7:00	8,592,719	375	459.5	2.5
2/24/22 9:00	2/25/22 8:00	8,674,234	368	479.6	2.6
2/24/22 10:00	2/25/22 9:00	8,774,548	354	495.6	2.7
2/24/22 11:00	2/25/22 10:00	9,198,782	336	519.5	2.8
2/24/22 12:00	2/25/22 11:00	9,636,614	316	542.8	2.9
2/24/22 13:00	2/25/22 12:00	10,024,149	347	565.4	3.0
2/24/22 14:00	2/25/22 13:00	10,336,239	367	576.9	3.1
2/24/22 15:00	2/25/22 14:00	10,551,044	304	588.4	3.2
2/24/22 16:00	2/25/22 15:00	10,718,706	226	594.6	3.2
2/24/22 17:00	2/25/22 16:00	10,646,608	191	595.3	3.2
2/24/22 18:00	2/25/22 17:00	10,558,924	194	595.9	3.2
2/24/22 19:00	2/25/22 18:00	10,524,116	216	602.4	3.2
2/24/22 20:00	2/25/22 19:00	10,485,025	189	607.2	3.3
2/24/22 21:00	2/25/22 20:00	10,461,002	149	594.4	3.2
2/24/22 22:00	2/25/22 21:00	10,443,513	119	569.5	3.1
2/24/22 23:00	2/25/22 22:00	10,424,347	95	541.0	2.9
2/25/22 0:00	2/25/22 23:00	10,424,579	80	516.0	2.8
2/25/22 1:00	2/26/22 0:00	10,395,164	69	485.3	2.6
2/25/22 2:00	2/26/22 1:00	10,377,942	61	455.3	2.4
2/25/22 3:00	2/26/22 2:00	10,356,163	54	426.0	2.3
2/25/22 4:00	2/26/22 3:00	10,365,463	48	398.2	2.1
2/25/22 5:00	2/26/22 4:00	10,380,951	41	369.8	2.0
2/25/22 6:00	2/26/22 5:00	10,499,448	47	346.4	1.9
2/25/22 7:00	2/26/22 6:00	10,604,413	28	328.5	1.8
2/25/22 8:00	2/26/22 7:00	10,634,733	13	302.1	1.6

(8.)

The measured or calculated cumulative quantity of gas discharged over the discharge duration.

Note: Measured sulfur concentrations are shown as flow-weighted averages if multiple measurement devices were used.

		(60.108a(c)(6)(iii))	(60.108a(c)(6)(iv))	(60.108a(c)(6)(vii))	(60.108a(c)(6)(vii))
First hour of 24-hr Period	Last hour of 24-hr Period	24-hr cumulative volume of flared gas above Baseline	TRS or H2S ppm (24-hr average, flow-weighted)	24-hr cumulative SO2	24-hr cumulative reduced sulfur
		SCF	ppmv	lbs	lbs as H2S
2/25/22 9:00	2/26/22 8:00	10,641,700	11	277.3	1.5
2/25/22 10:00	2/26/22 9:00	10,662,574	12	254.0	1.4
2/25/22 11:00	2/26/22 10:00	10,674,435	15	231.1	1.2
2/25/22 12:00	2/26/22 11:00	10,661,970	20	209.3	1.1
2/25/22 13:00	2/26/22 12:00	10,668,809	44	189.5	1.0
2/25/22 14:00	2/26/22 13:00	10,521,186	99	165.7	0.9
2/25/22 15:00	2/26/22 14:00	10,482,815	118	152.0	0.8
2/25/22 16:00	2/26/22 15:00	10,512,116	124	146.3	0.8
2/25/22 17:00	2/26/22 16:00	10,464,500	192	144.9	0.8
2/25/22 18:00	2/26/22 17:00	10,173,188	466	140.9	0.8
2/25/22 19:00	2/26/22 18:00	9,734,305	392	126.0	0.7
2/25/22 20:00	2/26/22 19:00	9,281,280	29	111.7	0.6
2/25/22 21:00	2/26/22 20:00	8,815,531	22	100.0	0.5
2/25/22 22:00	2/26/22 21:00	8,358,485	19	90.9	0.5
2/25/22 23:00	2/26/22 22:00	7,907,201	17	83.7	0.4
2/26/22 0:00	2/26/22 23:00	7,450,936	19	77.6	0.4
2/26/22 1:00	2/27/22 0:00	6,995,665	20	72.4	0.4
2/26/22 2:00	2/27/22 1:00	6,536,201	22	67.7	0.4
2/26/22 3:00	2/27/22 2:00	6,082,387	22	63.6	0.3
2/26/22 4:00	2/27/22 3:00	5,603,471	22	59.8	0.3
2/26/22 5:00	2/27/22 4:00	5,130,107	22	56.5	0.3
2/26/22 6:00	2/27/22 5:00	4,683,293	22	53.1	0.3
2/26/22 7:00	2/27/22 6:00	4,225,101	22	51.0	0.3
2/26/22 8:00	2/27/22 7:00	3,759,985	24	50.0	0.3
2/26/22 9:00	2/27/22 8:00	3,340,317	22	49.2	0.3
2/26/22 10:00	2/27/22 9:00	2,913,501	25	48.4	0.3
2/26/22 11:00	2/27/22 10:00	2,476,443	20	47.3	0.3
2/26/22 12:00	2/27/22 11:00	2,051,088	12	45.9	0.2
2/26/22 13:00	2/27/22 12:00	1,656,743	13	43.0	0.2
2/26/22 14:00	2/27/22 13:00	1,327,342	15	37.5	0.2
2/26/22 15:00	2/27/22 14:00	953,656	15	30.1	0.2
2/26/22 16:00	2/27/22 15:00	569,012	82	22.1	0.1
2/26/22 17:00	2/27/22 16:00	267,069	134	12.2	0.1

Subpart Ja Root Cause / Corrective Action Analysis		Incident Number: <u>N/A</u>
<i>The information contained below satisfies the requirements of the NSPS Subpart Ja 60.108a(c)(6).</i>		
Report:	<u>Final</u>	
Refinery:	<u>Valero (Meraux)</u>	
Incident Type:	<u>Flaring (Flow)</u>	Date of Event: <u>3/30/22</u>
Emissions Source(s):	<u>North Flare (EPN 20-72, EQT 0035)</u> <u>South Flare (EPN 3-77, EQT 0049)</u>	Date Analysis Completed: <u>N/A</u>
(1.)		(60.108a(c)(6)(i))
A description of the Discharge:		
<i>This discharge resulted from the planned shutdown of all refinery units for a maintenance turnaround and Hydrocracker catalyst replacement. The discharge included activities such as reactor cooldown, depressurization, and Nitrogen purging. After completion of venting for the last unit, the Hydrocracker, the alternate baseline for maintenance turnarounds of 2,160,000 scf/day was applied per the Flare Management Plan.</i>		
(2.)		(60.108a(c)(6)(ii)) and (60.108a(c)(6)(ix))
Date and Time the discharge was first identified	<u>3/30/22 23:40</u>	
Date/Time the discharge had ceased	<u>4/8/22 7:40</u>	
Duration of Discharge (Calculated)	<u>200.0</u> hrs.	
(3.)		(60.108a(c)(6)(viii))
The steps taken to limit the emissions during the discharge:		
<i>Valero followed its Flare Minimization Plan and Operations Procedures to minimize the volume flared from this discharge. Additional purges and Nitrogen volume was required to comply with the maintenance vent provisions of 40 CFR 63.643 as well as additional supplemental natural gas required to comply with the Net Heating Value of the Combustion Zone limit (> 270 Btu/scf) of 40 CFR 63.670, that became effective on January 30, 2019.</i>		
(4.)		(60.108a(c)(6)(xi))
Necessity of RC/CAA: Determine and state whether a RC/CAA is necessary:		
<i>Note: If the discharge was a result of a planned startup or shutdown, a RC/CAA analysis is not required if the flare management plan was followed.</i>		
Did the discharge result from a planned startup or shutdown?	<u>Yes</u>	(Yes/No)
Was the flare management plan followed?	<u>Yes</u>	(Yes/No/N/A)
Is the event exempt from a RC/CCA based on the answers above?	<u>Yes</u>	(Yes/No)
- If yes, skip section 5-7.		
(5.)		(60.108a(c)(6)(ix))
Root Cause Analysis: Describe in detail the Root Cause(s) of the Incident, to the extent determinable:		
Did this discharge result from root causes identified in a previous analysis?	<u>No</u>	(Yes/No)
N/A		
(6.)		(60.108a(c)(6)(ix))
Corrective Action Analysis: Include a description of the recommended corrective action(s) or an explanation of why corrective action is not		
Is corrective action required?	<u>No</u>	(Yes/No)
N/A		
(7.)		(60.108a(c)(6)(x))
Corrective Action Schedule: Include corrective actions already completed within the first 45 days following the discharge. For those not completed, provide a schedule for implementation, including proposed commencement and completion dates.		
N/A		

(8.)					
The measured or calculated cumulative quantity of gas discharged over the discharge duration.					
<i>Note: Measured sulfur concentrations are shown as flow-weighted averages if multiple measurement devices were used.</i>					
		(60.108a(c)(6)(iii))	(60.108a(c)(6)(iv))	(60.108a(c)(6)(vii))	(60.108a(c)(6)(vii))
First hour of 24-hr Period	Last hour of 24-hr Period	24-hr cumulative volume of flared gas above Baseline	TRS or H2S ppm (24-hr average, flow-weighted)	24-hr cumulative SO2	24-hr cumulative reduced sulfur
		SCF	ppmv	lbs	lbs as H2S
3/29/22 23:00	3/30/22 22:00	288,948	29	5.5	0.0
3/30/22 0:00	3/30/22 23:00	297,152	28	5.6	0.0
3/30/22 1:00	3/31/22 0:00	321,861	77	6.0	0.0
3/30/22 2:00	3/31/22 1:00	339,975	35	6.2	0.0
3/30/22 3:00	3/31/22 2:00	363,468	224	7.3	0.0
3/30/22 4:00	3/31/22 3:00	382,146	1552	18.7	0.1
3/30/22 5:00	3/31/22 4:00	374,549	1048	22.6	0.1
3/30/22 6:00	3/31/22 5:00	397,017	714	26.3	0.1
3/30/22 7:00	3/31/22 6:00	407,664	480	28.7	0.2
3/30/22 8:00	3/31/22 7:00	405,651	401	30.6	0.2
3/30/22 9:00	3/31/22 8:00	428,888	332	32.4	0.2
3/30/22 10:00	3/31/22 9:00	460,346	292	34.3	0.2
3/30/22 11:00	3/31/22 10:00	524,815	373	38.8	0.2
3/30/22 12:00	3/31/22 11:00	612,547	163	41.4	0.2
3/30/22 13:00	3/31/22 12:00	670,881	254	44.4	0.2
3/30/22 14:00	3/31/22 13:00	712,699	344	48.6	0.3
3/30/22 15:00	3/31/22 14:00	771,463	468	53.9	0.3
3/30/22 16:00	3/31/22 15:00	803,458	534	58.7	0.3
3/30/22 17:00	3/31/22 16:00	849,592	471	62.9	0.3
3/30/22 18:00	3/31/22 17:00	915,973	513	69.2	0.4
3/30/22 19:00	3/31/22 18:00	942,342	107	69.8	0.4
3/30/22 20:00	3/31/22 19:00	988,262	353	72.9	0.4
3/30/22 21:00	3/31/22 20:00	1,016,505	219	74.2	0.4
3/30/22 22:00	3/31/22 21:00	1,047,327	157	75.2	0.4
3/30/22 23:00	3/31/22 22:00	1,087,209	108	76.0	0.4
3/31/22 0:00	3/31/22 23:00	1,130,294	162	77.5	0.4
3/31/22 1:00	4/1/22 0:00	1,198,350	214	80.7	0.4
3/31/22 2:00	4/1/22 1:00	1,267,334	125	82.6	0.4
3/31/22 3:00	4/1/22 2:00	1,316,956	149	83.4	0.4
3/31/22 4:00	4/1/22 3:00	1,358,819	171	74.4	0.4
3/31/22 5:00	4/1/22 4:00	1,410,122	164	72.4	0.4
3/31/22 6:00	4/1/22 5:00	1,456,877	343	73.1	0.4
3/31/22 7:00	4/1/22 6:00	1,522,057	251	74.6	0.4
3/31/22 8:00	4/1/22 7:00	1,611,564	162	75.8	0.4
3/31/22 9:00	4/1/22 8:00	1,703,177	195	78.0	0.4
3/31/22 10:00	4/1/22 9:00	1,810,928	154	79.8	0.4
3/31/22 11:00	4/1/22 10:00	1,882,028	137	78.6	0.4
3/31/22 12:00	4/1/22 11:00	1,942,394	87	78.2	0.4
3/31/22 13:00	4/1/22 12:00	1,989,521	173	78.5	0.4
3/31/22 14:00	4/1/22 13:00	2,040,690	180	77.9	0.4
3/31/22 15:00	4/1/22 14:00	2,108,216	94	74.2	0.4
3/31/22 16:00	4/1/22 15:00	2,155,240	77	69.4	0.4
3/31/22 17:00	4/1/22 16:00	2,177,183	102	64.9	0.3
3/31/22 18:00	4/1/22 17:00	2,173,960	91	59.7	0.3
3/31/22 19:00	4/1/22 18:00	2,198,135	69	59.7	0.3
3/31/22 20:00	4/1/22 19:00	2,199,536	93	57.4	0.3
3/31/22 21:00	4/1/22 20:00	2,204,718	120	56.9	0.3
3/31/22 22:00	4/1/22 21:00	2,213,934	208	57.5	0.3
3/31/22 23:00	4/1/22 22:00	2,215,575	178	58.1	0.3
4/1/22 0:00	4/1/22 23:00	2,206,971	62	57.1	0.3

(8.)					
The measured or calculated cumulative quantity of gas discharged over the discharge duration.					
<i>Note: Measured sulfur concentrations are shown as flow-weighted averages if multiple measurement devices were used.</i>					
		(60.108a(c)(6)(iii))	(60.108a(c)(6)(iv))	(60.108a(c)(6)(vii))	(60.108a(c)(6)(vii))
First hour of 24-hr Period	Last hour of 24-hr Period	24-hr cumulative volume of flared gas above Baseline	TRS or H2S ppm (24-hr average, flow-weighted)	24-hr cumulative SO2	24-hr cumulative reduced sulfur
		SCF	ppmv	lbs	lbs as H2S
4/1/22 1:00	4/2/22 0:00	2,156,971	40	53.8	0.3
4/1/22 2:00	4/2/22 1:00	2,108,398	40	52.1	0.3
4/1/22 3:00	4/2/22 2:00	2,087,221	163	51.7	0.3
4/1/22 4:00	4/2/22 3:00	2,065,656	102	50.3	0.3
4/1/22 5:00	4/2/22 4:00	2,054,511	92	49.3	0.3
4/1/22 6:00	4/2/22 5:00	2,042,771	95	45.9	0.2
4/1/22 7:00	4/2/22 6:00	2,010,791	93	42.9	0.2
4/1/22 8:00	4/2/22 7:00	1,949,610	101	40.7	0.2
4/1/22 9:00	4/2/22 8:00	1,883,763	85	37.5	0.2
4/1/22 10:00	4/2/22 9:00	1,789,032	119	34.8	0.2
4/1/22 11:00	4/2/22 10:00	1,701,753	95	32.5	0.2
4/1/22 12:00	4/2/22 11:00	1,587,497	451	33.4	0.2
4/1/22 13:00	4/2/22 12:00	1,503,460	555	33.5	0.2
4/1/22 14:00	4/2/22 13:00	1,452,582	265	33.1	0.2
4/1/22 15:00	4/2/22 14:00	1,452,990	142	34.3	0.2
4/1/22 16:00	4/2/22 15:00	1,475,031	67	34.3	0.2
4/1/22 17:00	4/2/22 16:00	1,508,657	58	33.9	0.2
4/1/22 18:00	4/2/22 17:00	1,563,551	76	34.4	0.2
4/1/22 19:00	4/2/22 18:00	1,627,751	75	35.3	0.2
4/1/22 20:00	4/2/22 19:00	1,677,079	81	35.8	0.2
4/1/22 21:00	4/2/22 20:00	1,734,420	88	36.4	0.2
4/1/22 22:00	4/2/22 21:00	1,788,048	91	36.3	0.2
4/1/22 23:00	4/2/22 22:00	1,805,467	164	36.6	0.2
4/2/22 0:00	4/2/22 23:00	1,817,605	225	38.5	0.2
4/2/22 1:00	4/3/22 0:00	1,831,542	110	39.3	0.2
4/2/22 2:00	4/3/22 1:00	1,853,886	244	42.0	0.2
4/2/22 3:00	4/3/22 2:00	1,870,541	175	42.6	0.2
4/2/22 4:00	4/3/22 3:00	1,878,617	102	42.8	0.2
4/2/22 5:00	4/3/22 4:00	1,882,300	69	42.6	0.2
4/2/22 6:00	4/3/22 5:00	1,879,129	39	41.9	0.2
4/2/22 7:00	4/3/22 6:00	1,888,061	158	42.8	0.2
4/2/22 8:00	4/3/22 7:00	1,914,301	226	45.0	0.2
4/2/22 9:00	4/3/22 8:00	1,934,145	44	44.8	0.2
4/2/22 10:00	4/3/22 9:00	1,954,954	74	44.7	0.2
4/2/22 11:00	4/3/22 10:00	1,991,454	251	47.6	0.3
4/2/22 12:00	4/3/22 11:00	2,050,066	86	45.9	0.2
4/2/22 13:00	4/3/22 12:00	2,106,957	62	43.2	0.2
4/2/22 14:00	4/3/22 13:00	2,082,972	35	40.1	0.2
4/2/22 15:00	4/3/22 14:00	1,973,449	6	36.7	0.2
4/2/22 16:00	4/3/22 15:00	1,868,174	7	35.2	0.2
4/2/22 17:00	4/3/22 16:00	1,768,790	7	34.0	0.2
4/2/22 18:00	4/3/22 17:00	1,677,280	7	32.4	0.2
4/2/22 19:00	4/3/22 18:00	1,589,052	8	30.9	0.2
4/2/22 20:00	4/3/22 19:00	1,519,338	25	29.6	0.2
4/2/22 21:00	4/3/22 20:00	1,454,814	21	28.3	0.2
4/2/22 22:00	4/3/22 21:00	1,387,849	84	27.3	0.1
4/2/22 23:00	4/3/22 22:00	1,355,284	78	25.9	0.1
4/3/22 0:00	4/3/22 23:00	1,326,515	62	23.9	0.1
4/3/22 1:00	4/4/22 0:00	1,295,864	59	23.0	0.1
4/3/22 2:00	4/4/22 1:00	1,254,710	64	20.3	0.1

(8.)					
The measured or calculated cumulative quantity of gas discharged over the discharge duration.					
<i>Note: Measured sulfur concentrations are shown as flow-weighted averages if multiple measurement devices were used.</i>					
		(60.108a(c)(6)(iii))	(60.108a(c)(6)(iv))	(60.108a(c)(6)(vii))	(60.108a(c)(6)(vii))
First hour of 24-hr Period	Last hour of 24-hr Period	24-hr cumulative volume of flared gas above Baseline	TRS or H2S ppm (24-hr average, flow-weighted)	24-hr cumulative SO2	24-hr cumulative reduced sulfur
		SCF	ppmv	lbs	lbs as H2S
4/3/22 3:00	4/4/22 2:00	1,212,261	61	18.5	0.1
4/3/22 4:00	4/4/22 3:00	1,178,035	342	19.4	0.1
4/3/22 5:00	4/4/22 4:00	1,147,150	245	20.1	0.1
4/3/22 6:00	4/4/22 5:00	1,118,867	100	20.3	0.1
4/3/22 7:00	4/4/22 6:00	1,081,447	91	18.9	0.1
4/3/22 8:00	4/4/22 7:00	1,031,907	202	17.0	0.1
4/3/22 9:00	4/4/22 8:00	990,454	139	17.2	0.1
4/3/22 10:00	4/4/22 9:00	952,564	117	17.0	0.1
4/3/22 11:00	4/4/22 10:00	900,444	185	14.4	0.1
4/3/22 12:00	4/4/22 11:00	837,571	502	16.2	0.1
4/3/22 13:00	4/4/22 12:00	780,651	135	16.1	0.1
4/3/22 14:00	4/4/22 13:00	762,946	53	16.1	0.1
4/3/22 15:00	4/4/22 14:00	768,351	68	16.5	0.1
4/3/22 16:00	4/4/22 15:00	769,190	49	16.7	0.1
4/3/22 17:00	4/4/22 16:00	769,724	41	17.0	0.1
4/3/22 18:00	4/4/22 17:00	769,432	11	17.0	0.1
4/3/22 19:00	4/4/22 18:00	783,346	96	17.7	0.1
4/3/22 20:00	4/4/22 19:00	1,080,492	40	19.7	0.1
4/3/22 21:00	4/4/22 20:00	1,459,789	21	21.1	0.1
4/3/22 22:00	4/4/22 21:00	1,904,176	10	21.3	0.1
4/3/22 23:00	4/4/22 22:00	2,352,985	8	21.5	0.1
4/4/22 0:00	4/4/22 23:00	2,759,550	7	21.6	0.1
4/4/22 1:00	4/5/22 0:00	3,064,823	8	21.7	0.1
4/4/22 2:00	4/5/22 1:00	3,130,040	29	21.8	0.1
4/4/22 3:00	4/5/22 2:00	3,159,129	66	22.2	0.1
4/4/22 4:00	4/5/22 3:00	3,205,531	98	21.4	0.1
4/4/22 5:00	4/5/22 4:00	3,217,553	117	20.8	0.1
4/4/22 6:00	4/5/22 5:00	3,252,469	116	21.6	0.1
4/4/22 7:00	4/5/22 6:00	3,265,389	93	21.8	0.1
4/4/22 8:00	4/5/22 7:00	3,314,330	633	29.5	0.2
4/4/22 9:00	4/5/22 8:00	3,355,354	227	31.5	0.2
4/4/22 10:00	4/5/22 9:00	3,394,510	177	33.0	0.2
4/4/22 11:00	4/5/22 10:00	3,443,891	121	33.6	0.2
4/4/22 12:00	4/5/22 11:00	3,512,882	84	31.9	0.2
4/4/22 13:00	4/5/22 12:00	3,569,173	79	32.2	0.2
4/4/22 14:00	4/5/22 13:00	3,624,187	75	33.0	0.2
4/4/22 15:00	4/5/22 14:00	3,647,879	95	33.6	0.2
4/4/22 16:00	4/5/22 15:00	3,665,930	146	34.6	0.2
4/4/22 17:00	4/5/22 16:00	3,684,046	25	34.6	0.2
4/4/22 18:00	4/5/22 17:00	3,701,804	14	34.6	0.2
4/4/22 19:00	4/5/22 18:00	3,704,354	15	34.0	0.2
4/4/22 20:00	4/5/22 19:00	3,417,927	32	32.1	0.2
4/4/22 21:00	4/5/22 20:00	3,038,387	28	30.8	0.2
4/4/22 22:00	4/5/22 21:00	2,593,104	11	30.1	0.2
4/4/22 23:00	4/5/22 22:00	2,143,930	20	29.6	0.2
4/5/22 0:00	4/5/22 23:00	1,737,255	9	29.1	0.2
4/5/22 1:00	4/6/22 0:00	1,463,839	54	29.3	0.2
4/5/22 2:00	4/6/22 1:00	1,447,914	69	29.8	0.2
4/5/22 3:00	4/6/22 2:00	1,463,859	78	30.1	0.2
4/5/22 4:00	4/6/22 3:00	1,464,751	249	32.3	0.2

(8.)					
The measured or calculated cumulative quantity of gas discharged over the discharge duration.					
<i>Note: Measured sulfur concentrations are shown as flow-weighted averages if multiple measurement devices were used.</i>					
		(60.108a(c)(6)(iii))	(60.108a(c)(6)(iv))	(60.108a(c)(6)(vii))	(60.108a(c)(6)(vii))
First hour of 24-hr Period	Last hour of 24-hr Period	24-hr cumulative volume of flared gas above Baseline	TRS or H2S ppm (24-hr average, flow-weighted)	24-hr cumulative SO2	24-hr cumulative reduced sulfur
		SCF	ppmv	lbs	lbs as H2S
4/5/22 5:00	4/6/22 4:00	1,547,543	89	33.2	0.2
4/5/22 6:00	4/6/22 5:00	1,906,620	30	34.0	0.2
4/5/22 7:00	4/6/22 6:00	2,286,522	17	34.5	0.2
4/5/22 8:00	4/6/22 7:00	2,615,347	5	25.9	0.1
4/5/22 9:00	4/6/22 8:00	2,908,077	3	23.2	0.1
4/5/22 10:00	4/6/22 9:00	3,148,629	15	21.8	0.1
4/5/22 11:00	4/6/22 10:00	3,336,899	14	20.6	0.1
4/5/22 12:00	4/6/22 11:00	3,336,899	24	19.6	0.1
4/5/22 13:00	4/6/22 12:00	3,290,801	45	18.7	0.1
4/5/22 14:00	4/6/22 13:00	3,247,877	31	17.8	0.1
4/5/22 15:00	4/6/22 14:00	3,291,997	25	17.2	0.1
4/5/22 16:00	4/6/22 15:00	3,571,684	42	18.2	0.1
4/5/22 17:00	4/6/22 16:00	4,192,244	17	19.9	0.1
4/5/22 18:00	4/6/22 17:00	4,799,363	7	20.5	0.1
4/5/22 19:00	4/6/22 18:00	5,423,745	5	20.9	0.1
4/5/22 20:00	4/6/22 19:00	6,143,290	25	23.8	0.1
4/5/22 21:00	4/6/22 20:00	6,953,846	11	25.1	0.1
4/5/22 22:00	4/6/22 21:00	7,735,990	11	26.5	0.1
4/5/22 23:00	4/6/22 22:00	8,532,680	17	28.7	0.2
4/6/22 0:00	4/6/22 23:00	9,378,974	53	36.4	0.2
4/6/22 1:00	4/7/22 0:00	10,240,752	32	40.7	0.2
4/6/22 2:00	4/7/22 1:00	11,108,500	36	45.4	0.2
4/6/22 3:00	4/7/22 2:00	11,935,276	30	48.8	0.3
4/6/22 4:00	4/7/22 3:00	12,722,782	19	47.9	0.3
4/6/22 5:00	4/7/22 4:00	13,337,121	9	47.1	0.3
4/6/22 6:00	4/7/22 5:00	13,591,458	26	48.0	0.3
4/6/22 7:00	4/7/22 6:00	13,858,573	24	49.5	0.3
4/6/22 8:00	4/7/22 7:00	14,155,865	14	50.7	0.3
4/6/22 9:00	4/7/22 8:00	14,577,729	7	51.5	0.3
4/6/22 10:00	4/7/22 9:00	15,053,484	7	51.6	0.3
4/6/22 11:00	4/7/22 10:00	15,559,109	8	52.0	0.3
4/6/22 12:00	4/7/22 11:00	16,157,247	14	53.1	0.3
4/6/22 13:00	4/7/22 12:00	16,716,930	15	54.2	0.3
4/6/22 14:00	4/7/22 13:00	17,246,796	35	57.2	0.3
4/6/22 15:00	4/7/22 14:00	17,765,710	163	73.6	0.4
4/6/22 16:00	4/7/22 15:00	17,939,681	88	78.7	0.4
4/6/22 17:00	4/7/22 16:00	17,884,027	18	78.7	0.4
4/6/22 18:00	4/7/22 17:00	17,858,170	10	79.0	0.4
4/6/22 19:00	4/7/22 18:00	17,819,260	8	79.3	0.4
4/6/22 20:00	4/7/22 19:00	17,688,749	7	76.8	0.4
4/6/22 21:00	4/7/22 20:00	17,325,418	9	76.1	0.4
4/6/22 22:00	4/7/22 21:00	17,068,766	7	75.3	0.4
4/6/22 23:00	4/7/22 22:00	16,944,008	26	76.0	0.4
4/7/22 0:00	4/7/22 23:00	16,770,556	11	69.5	0.4
4/7/22 1:00	4/8/22 0:00	16,469,978	25	67.2	0.4
4/7/22 2:00	4/8/22 1:00	16,234,910	7	62.4	0.3
4/7/22 3:00	4/8/22 2:00	15,931,518	11	59.1	0.3
4/7/22 4:00	4/8/22 3:00	15,491,718	26	58.3	0.3
4/7/22 5:00	4/8/22 4:00	15,141,678	14	58.0	0.3
4/7/22 6:00	4/8/22 5:00	14,836,049	17	56.2	0.3

(8.)

The measured or calculated cumulative quantity of gas discharged over the discharge duration.

Note: Measured sulfur concentrations are shown as flow-weighted averages if multiple measurement devices were used.

		(60.108a(c)(6)(iii))	(60.108a(c)(6)(iv))	(60.108a(c)(6)(vii))	(60.108a(c)(6)(vii))
First hour of 24-hr Period	Last hour of 24-hr Period	24-hr cumulative volume of flared gas above Baseline	TRS or H2S ppm (24-hr average, flow-weighted)	24-hr cumulative SO2	24-hr cumulative reduced sulfur
		SCF	ppmv	lbs	lbs as H2S
4/7/22 7:00	4/8/22 6:00	14,373,194	16	54.0	0.3
4/7/22 8:00	4/8/22 7:00	13,740,187	13	52.6	0.3
4/7/22 9:00	4/8/22 8:00	10,859,556	68	52.4	0.3
4/7/22 10:00	4/8/22 9:00	10,148,499	141	53.5	0.3
4/7/22 11:00	4/8/22 10:00	9,444,058	283	56.2	0.3
4/7/22 12:00	4/8/22 11:00	8,817,565	267	58.2	0.3
4/7/22 13:00	4/8/22 12:00	8,286,800	267	60.2	0.3
4/7/22 14:00	4/8/22 13:00	7,785,903	242	60.0	0.3
4/7/22 15:00	4/8/22 14:00	7,236,698	459	49.1	0.3
4/7/22 16:00	4/8/22 15:00	6,805,770	159	43.7	0.2
4/7/22 17:00	4/8/22 16:00	6,264,058	130	43.5	0.2
4/7/22 18:00	4/8/22 17:00	5,706,521	25	42.8	0.2
4/7/22 19:00	4/8/22 18:00	5,145,469	102	43.3	0.2
4/7/22 20:00	4/8/22 19:00	4,570,323	290	45.5	0.2
4/7/22 21:00	4/8/22 20:00	4,138,941	210	46.5	0.2
4/7/22 22:00	4/8/22 21:00	3,629,641	59	46.3	0.2
4/7/22 23:00	4/8/22 22:00	2,973,917	62	43.9	0.2
4/8/22 0:00	4/8/22 23:00	2,317,664	91	43.4	0.2
4/8/22 1:00	4/9/22 0:00	1,741,342	74	41.4	0.2
4/8/22 2:00	4/9/22 1:00	1,076,143	19	40.7	0.2
4/8/22 3:00	4/9/22 2:00	524,264	19	39.8	0.2
4/8/22 4:00	4/9/22 3:00	142,001	796	44.7	0.2