Inspection Date(s):	11/04/2024 - 11/06/2024	
Media Program:	Air (CAA)	
Regulatory Program(s)	SIP, Title V, NESHAP, NSPS	
Company Name:	**Chalmette Refining L.L.C.**	
Facility Name:	**Chalmette Refinery**	
Facility Physical Location:	500 W St Bernard Hwy	
(city, state, zip code)	Chalmette, LA 70044	
Mailing address:	500 W St Bernard Hwy	
(city, state, zip code)	Chalmette, LA 70044	
County/Parish:	St. Bernard Parish	
Facility Phone Number	504-281-6238	
Facility Contact:	Chris Carrington	Environmental Manager
	Christopher.Carrington@PBFenergy.com	
FRS Number:	110045634774	
Identification/Permit Number:	2822-V4, 3023-V9, 3004-V11	
Media Identifier Number:	LA0000002208700005	
NAICS:	324110	
SIC:	2911	

Personnel participating in inspection:		
Chris Carrington	Chalmette Refining L.L.C.	Environmental Manager
Jeremy Stallings	Chalmette Refining L.L.C.	Field Supervisor – Offsites
Mark Theady	Chalmette Refining L.L.C.	Field Supervisor – Treating Utilities
Charlene Walk	Chalmette Refining L.L.C.	Environmental Staff
Justin Gandy	Chalmette Refining L.L.C.	Environmental Air Advisor
Henry Scheeler	Chalmette Refining L.L.C.	Tank Team Operations Supervisor
Chris Lacoste	Chalmette Refining L.L.C.	Tank Group Manager
Tom Godlewski	PBF Energy	HSE Manager
Ben Rosenthal	EPA R6	Physical Scientist
James Haynes	EPA R6	Physical Scientist
Sophia Ong	EPA R6	Physical Scientist
Constantinos Loukeris	EPA R5	Environmental Engineer
Matthew Schneider	EPA NEIC	Chemical Engineer
Hans Buenning	EPA NEIC	Environmental Engineer
Ben Incaprera	LDEQ	Environmental Scientist
Kristina Timmons	LDEQ	Environmental Scientist

EPA Lead Inspector Signature/Date	BENJAMIN ROSENTHAL Digitally signed by BENJAMIN ROSENTHAL Date: 2025.02.06 12:54:08 -06'00'	
	Benjamin Rosenthal	Date
Supervisor Signature/Date	Leathers, James Digitally signed by Leathers, James Date: 2025.02.06 14:29:43 -06'00'	
	James Leathers	Date

Section I – INTRODUCTION

PURPOSE OF THE INSPECTION

EPA Region 6 inspectors Ben Rosenthal (The author of this report – "I"), James Haynes, and Sophia Ong, along with National Enforcement Investigations Center ("NEIC") inspectors Matthew Schneider, Hans Buenning, EPA Region 5 inspector Constantinos Loukeris, and LDEQ investigators Ben Incaprera and Kristina Timmons ("Inspection Team", "We"), conducted a Partial Compliance Evaluation ("PCE") of the Chalmette Refining L.L.C. ("Chalmette") Chalmette Refinery (the "Facility" or "Refinery") from November 4, 2024, through November 6, 2024, to determine the Facility's compliance with applicable Clean Air Act regulations. On November 4, 2024, the Inspection Team made entry at the Facility at 10:51 a.m., and I presented my credentials to Chris Carrington, Environmental Manager for Chalmette Refining L.L.C. I informed Mr. Carrington that EPA was conducting an inspection to determine the Facility's compliance with the Clean Air Act. The scope of the inspection was a PCE of the Facility's compliance with its Title V operating permits, the Louisiana State Implementation Plan ("SIP"), and applicable Clean Air Act Regulations listed under Parts 60, 61, and 63 of Title 40 of the Code of Federal Regulations ("CFR").

FACILITY DESCRIPTION

The Facility is an oil refinery that uses various processes to produce end-use products from crude oil. The Facility can produce gasoline, diesel, benzene, xylene, distallates, petroleum coke, and sulfur. Refinery processes include crude distillation, fluid catalytic cracking, hydrocracking, HF alkylation, delayed coking, and aromatics recovery. The Facility stores crude oil, intermediate material, and end-use products in above ground storage tanks. The Facility has loading docks for bulk product loading onto marine vessels. The Facility uses different types of control devices for air emissions including flares and carbon adsorption systems ("carbon drums", "carbon canisters", "carbon controls"). The wastewater system is permitted under Part 70 Operating Permit No. 2822-V4. The Benzene Recovery Unit ("BRU") is permitted under Part 70 Permit No. 3023-V9. Oil movement and tankage is permitted under Part 70 Permit No. 3004-V11. The Facility operates continuously and employs around 560 staff and 200-300 contractors. Chalmette Refining L.L.C. is wholly owned by PBF Energy Inc.

Section II – OBSERVATIONS

The Inspection Team and Facility personnel met in a meeting room on-site for an opening conference. After presenting my credentials to Mr. Carrington I explained the scope of the inspection. I stated we would inspect the Facility's wastewater system and evaluate its compliance with the National Emission Standard for Benzene Waste Operations, Subpart FF ("BWON"), and other applicable regulations. I informed Mr. Carrington we would inspect process equipment that are defined as waste management units in 40 CFR § 61.341 to determine if the benzene emission control requirement for each type of unit was installed and operating properly. I stated we would also inspect the Facility's storage tanks and evaluate compliance with the applicable regulations, including the National Emission Standards for Hazardous Air Pollutants From Petroleum Refineries, Subpart CC ("MACT CC") and the Louisiana SIP. I

explained that we would use Thermo-brand Toxic Vapor Analyzer ("TVA") 2020 Flame Ionization Detectors ("FID") calibrated to measure volatile organic compounds ("VOC") for field screening of emissions using procedures in Test Method 21 – Determination of Volatile Organic Compound Leaks ("Method 21" or "M21"), and optical gas imaging ("OGI") with Teledyne FLIR Optical Gas Imaging Cameras ("OGIC") to visually survey emissions from equipment at the site. Photographs and video taken during the inspection are found in Appendix 1 and 2. FID field measurement data is found in Appendix 3. I stated we would collect air samples with passivated stainless-steel canisters for analysis of chemical species with Test Method TO-15 ("Summa Samples"). Summa sample results are found in Appendix 4. We discussed the status of records requested on October 31, 2024; the date EPA notified Chalmette of the inspection (Appendix 5, Requested Information).

Mr. Carrington provided an overview of the Facility and the wastewater collection and treatment process flow. The Refinery tends to process heavy, sour crude slates. The Facility operates a BRU that removes hydrocarbons from several process wastewater and organic waste streams with a stripper. Tanks 6301 and 6302 provide the waste supply to the BRU and are designated as "BRU Feed Tanks" by the Facility. The BRU Feed Tanks receive desalter effluent, Lab Area Sump wastewater, water draws from storage tanks, wastewater from flare drums and other vapor-liquid separators, and wastewater from dock sumps. Several tanks and waste management units with a disposition to the BRU are considered by the Facility to be controlled under BWON standards. Mr. Carrington also provided information on product and crude storage tanks in both the East and West Tank Farms. I informed Mr. Carrington that the Inspection Team would conduct a site walkthrough and survey several process areas of the Facility, starting with the Lab. Mr. Carrington noted that Alliance, the site's LDAR contractor, would be conducting monitoring concurrently with EPA. Evoqua, the site's carbon control monitoring contractor, would conduct benzene monitoring and carbon breakthrough monitoring.

EPA inspectors and Facility personnel arrived at the Lab and began monitoring the Lab Area Sump with Method 21 and OGI at 3:44 p.m. The Lab collects product samples from the Refinery for testing and analysis. After the product is tested it is dumped in sinks, flushed, and conveyed to the Lab Sump. The Lab Sump routes vapor emissions through dual carbon drums. At the Lab Sump, Inspector Schneider measured 50,000 parts per million total VOC ("ppm") at the outlet of the second carbon drum. Chalmette personnel used a photoionization detector ("PID") capable of measuring the concentration of benzene in air and detected 262 ppm of benzene at the outlet of the second carbon drum [Area of Concern "AOC" 1]. EPA inspectors monitored several sinks inside the Lab building and detected emissions from the drain of Sink 4. The inspection team concluded onsite activities and departed the Facility at 4:45 p.m.

The Inspection Team returned to the Facility at 8:00 a.m. on November 5, 2024. After calibrating FIDs, we split into two teams to survey storage tanks in the East Tank Farm with OGI and conduct Method 21 monitoring in the BRU. EPA inspectors arrived in the BRU at 9:09 a.m. We surveyed equipment visually and conducted Method 21. We discussed the BRU process with the Facility. Waste material is conveyed from the East Tank Farm to the BRU through a flexible hose, first entering the Filter Pot, a vessel used to strain out solids, before being conveyed to the strippers. The flexible hose was frayed and appeared

worn and damaged in some places. Emissions were detected by EPA's FID and the Facility's FID on a part of the hose with these visible defects [AOC 6].

EPA inspectors Buenning and Loukeris arrived in the East Tank Farm at 9:00 a.m. EPA inspectors and Facility personnel surveyed storage tanks with OGI. During the inspection, we surveyed over 50 storage tanks and observed hydrocarbon emissions at 31 of those tanks [AOCs 2-5]. More detailed storage tank observations, including video and photo file names and descriptions can be found in Appendix 6. At 10:20 a.m. the EPA inspectors from the BRU arrived at the East Tank Farm. Mr. Carrington informed me that, prior to the EPA inspection, Chalmette personnel had surveyed Tank 1024 with OGI and had noted visible defects. Tank 1024 receives water draws from other tanks in the East Tank Farm. The water draws are hard piped to Tank 1024. Tank 1024 stores the wastewater until it is pumped back to the BRU for treatment. We inspected the tank and noted visible defects on the roof of the tank. These defects include bolted plates without seals on top of the tank, a hole in the roof, and distortions to the shell of the tank on the roof. Emissions were detected from a pressure relief valve and were observed with OGI from a hole and hatch on the top of the roof. We climbed the BRU feed tanks 6301 and 6302. I observed hydrocarbon emissions with OGI from the rim seal on the opposite side of the observation deck on Tank 6302. I observed hydrocarbon emissions with OGI from the rim seal mounting to the floating roof under the observation deck and from a level gauge hatch on Tank 6301. Tank 6301 uses a diaphragm pump to collect skimmed oil from the top of the water column. The pump extracts oil from an open hatch that exposes liquid inside the tank to the atmosphere. The Inspection Team departed the East Tank Farm at 11:45 a.m.

Inspectors Haynes and Buenning surveyed the West Tank Farm at 2:30 p.m. Their storage tank observations from the West Tank Farm are found in Appendix 6. The rest of the Inspection Team arrived at Dock 2 at 2:15 p.m. While at Dock 2, I screened Flare 2, the Facility's process flare, with OGI and observed un-combusted hydrocarbon emissions trailing away from the flare tip. We proceeded to Dock 2 and monitored the closed vent system and carbon drums controlling benzene emissions from the sump. We observed a screw in elbow piping between the primary and secondary carbon canisters, and a screw-sized hole in elbow piping from the sump to the primary carbon canister. EPA's FID flamed-out while monitoring the hole before the primary carbon canister, and the Facility measured 145 ppm benzene with the PID and over 100,000 ppm with the FID from that hole [AOC 6]. We measured 3,800 ppm at the screw between the primary and secondary carbon canisters, and the Facility measured 1 ppm benzene at the outlet to the carbon controls. I collected a summa sample from near the hole before the primary canister and an additional sample from the outlet of the carbon controls.

After Dock 2, Facility personnel and the inspection team continued monitoring waste management units at the metering deck and at Dock 4, where slop tanks 8901 and 8902 are located. I observed emissions from a flange on sump V-09111 and detectable emissions were measured at that component. Several bolts were missing from the flange. We noted the sump's vent pipe was open to the atmosphere and was not routed to a control device.

At 3:50 p.m., we entered the Sulfolane Unit. Mr. Carrington explained that the Sulfolane Unit Sump was out of service for maintenance, and a temporary frac tank had been installed for managing waste material from the unit. EPA inspectors measured emissions above 500 ppm at the frac tank service hatch, manway, and thief hatch [AOC 7]. The frac tank was vented to one carbon drum. The outlet vent of the carbon drum was a flexible hose on the ground. At the outlet of the carbon drum, EPA's FID flamed out and the Facility measured 8,000 ppm before their instrument flamed out. The Facility measured 132 ppm of benzene using a PID, and I collected a summa sample near the outlet. We surveyed a pair of carbon drums that control emissions from Tanks D1200, D1201, and D1203. A hole was visible in the piping to VA114, the primary carbon drum. EPA measured emissions above 500 ppm with the FID and the Facility measured 87 ppm benzene from the hole. The Inspection Team observed significant hydrocarbon emissions with OGI from the top of Tank 1201. The area of the emissions was inaccessible for handheld monitoring. We reviewed our daily observations with Facility personnel and departed the unit and Refinery at 5:05 p.m.

We returned to the site at 8:45 a.m. on November 6, 2024. We divided into two groups. One group proceeded to the Paraxylene Unit and the other group proceeded to the East Tank Farm. The East Tank Farm team's tank observations are detailed in the Appendix 6. In the Paraxylene Unit, we monitored a sump and surveyed process drains. We observed a vent from the process sewer to the atmosphere that did not appear to have a flow indicator. We were later informed that the Paraxylene Unit was out of service. We departed the Paraxylene Unit and continued to the Wastewater Treatment Plant at 10:19 a.m. Mr. Carrington and operators explained the process flow at the Wastewater Treatment Plant. Several tanks store slurried wastewater that is intermittently conveyed to a centrifuge for solids separation. We observed emissions with the OGI from Tank 1706, a mixed slurry tank. I climbed the tank and monitored a pressure vacuum relief valve ("PVRV"). I detected emissions greater than 10,000 ppm from the flange to the valve and on the vacuum side of the valve. The outlet of the carbon drums controlling the slurry tanks measured 80,000 ppm, and the closed vent system had a screwed hole in the piping. A summa sample was collected near the outlet [AOC 6]. We observed a vacuum truck loading material into Tank 5509, a fixed roof tank which receives both controlled and uncontrolled waste streams. Hydrocarbon emissions were observed with OGI from the tank's PVRV during loading. A pair of carbon drums is used to control emissions from the tank, and a hole was observed in the closed vent system associated to the drums. Detectable emissions were measured during loading at the hole and at the outlet of the carbon drums. We monitored the carbon drums of two wastewater sludge tanks 5501 and 5502 that receive material from treatment tanks named PES tanks by the facility. Detectable emissions were measured at the outlet of the carbon drums, but no benzene was detected by the Facility using a PID. We departed the Wastewater Treatment Plan at 11:45 a.m.

In the afternoon myself and EPA Inspectors Haynes and Buenning reviewed records with Mr. Carrington, while the rest of the Inspection Team surveyed the Coker 2 Unit, and the No. 1, 2, and 3, Surge Sumps. During the records review we reviewed the Facility's annual Subpart FF Report, referred to as a TAB or Total Annual Benzene report. We also spoke with the Tank Group Manager, Chris Lacoste, and a contractor, Shane O'Brien, contracted floating roof tank inspector. In reviewing the Facility's most recent TAB from 2023, I noted that only 10 streams contributed to the Facility's benzene quantity of 587

megagrams. In the TAB report under note 1, the Facility states “annual waste quantities and average benzene concentration for controlled wastes were determined by the difference at the location where the waste stream enters the waste management unit (prior to the treatment of the waste that removes benzene.” The sample type listed for the controlled waste streams is listed as the POD or Point of Determination, a concept that is defined in the National Emission Standards for Hazardous Air Pollutants From the Synthetic Organic Chemical Manufacturing Industry (“HON”) rule – 40 CFR § 63.101 – as the point where process wastewater exits the chemical manufacturing unit. We discussed the carbon adsorption inspection and replacement records on the TAB, and I noted the repair dates did not correspond to the inspection dates and were listed for the year prior. Mr. Carrington stated the repair dates were erroneous, and the refinery would provide corrections. I requested additional records from Mr. Carrington during the records review.

Inspectors, Loukeris, Schneider, Ong, Incaprera, and Timmons, arrived at Coker 2 at 1:54 p.m. The inspectors surveyed the sump and noted drains 81-163, 164, 162, and 160, had low water levels. At 2:29 p.m. the inspectors viewed the #3 Surge Sump and noted damaged gaskets, damaged sealant, and an uncontrolled vent to the atmosphere. Inspectors viewed Sump 9 and noted it was vented to the atmosphere without controls and had a missing bolt and damaged gasket on the cover. Inspectors viewed #2 Surge Sump and noted damaged sealant, three hatches that were not closed, a hole in the vertical wall of the sump, and two holes in the sump cover. Inspectors viewed #1 Surge Sump and noted three holes in the cover, a cracked seam in a cover plate, and damaged material around the edge of the sump. Inspector Ong collected a Summa sample near the edge of the sump. EPA inspectors measured detectable emissions at the defects observed on the #1 and #3 Surge Sump [AOC 9].

The inspection team met with refinery personnel and discussed observations from the inspections at 4:55 p.m. EPA inspectors informed Facility personnel of the Areas of Concern listed below.

Section III – AREAS OF CONCERN

The inspection team conducted a closing conference on November 7, 2024. During the closing conference, we reviewed the following Areas of Concern noted during the inspection. Participants and signatories to the opening and closing conferences are found in Appendix 7.

1) <u>The outlet emissions of two control devices contained significant concentrations of benzene.</u> Facility personnel used a portable PID to measure concentrations of benzene at the outlets of several carbon adsorption systems. Facility personnel detected 262 ppm of benzene in emissions from the Lab Sump outlet, and 132 ppm of benzene from the outlet controlling the Sulfolane Unit sump. The summa sample we collected near the Sulfolane Unit Sump outlet was analyzed with EPA Method TO-15. The analysis resulted in a value of 680 ppm benzene. Under BWON, vapor recovery systems and other control devices are required to control organic emissions with an efficiency of 95 weight percent or greater or control benzene emissions with an efficiency of 98 weight percent or greater. 40 CFR § 61.349(a)(2)(ii). 40 CFR § 61.349(a)(2)(iv)(A).

2) The Inspection team observed emissions from fixed roof tanks routed to closed vent systems and control devices. Tank 1024 is a fixed-roof tank that collects wastewater from water draws in the East Tank Farm. EPA inspectors measured emissions of 60,000 ppm venting from a pressure relief valve on top of the tank. The Facility confirmed detectable emissions from the pressure relief valve with their FID and observed a reading of 59,600 ppm. EPA inspectors also observed a hole and patches of steel on the roof of the tank. Significant emissions from these defects were imaged with OGI but could not be safely monitored with an FID. EPA inspectors also observed visualized hydrocarbon emissions with OGI from Tank 1201 – a wet solvent tank in the Sulfolane Unit. Emissions were also observed from the gauge line opening on the side of the tank. The level gauge design was observed to include openings for the gauge line which may not be compatible with the standard of no detectable emissions. EPA inspectors measured 12,000 ppm with an FID at the flange of a PRD on Tank 1706, a wastewater slurry tank. Under BWON standards, fixed roof tanks are required to route all organic vapors from the tanks to a control device. Fixed roof tank covers and closures must be designed to operate with no detectable emissions. 40 CFR § 61.343(a)(1) and 40 CFR § 61.343(a)(1)(i)(A).

3) Significant hydrocarbon emissions were observed with OGI at roof openings and closure devices on several external floating roof storage tanks. EPA inspectors and Facility personnel observed hydrocarbon emissions from vacuum breakers on Tank 303 (crude); Tanks 400, 401 and 402 (gasoline); Tank 31 (sludge); Tank 5553 (wastewater); Tank 8900 (sour water); and Tanks 3721 and Tank D 1009 (oily stormwater). Hydrocarbon emissions from rim seals were observed on Tanks 300, 305, 308 (crude), Tank 6409 (gasoline), Tank 76 (spent caustic), Tank 3 (untreated naptha), and Tank 60 (naptha). To control air emissions, external floating roofs' automatic bleeder vents and other roof openings are required to be closed when the roof is floating and may only be open when the roof is being floated off its legs or landed. 40 CFR § 60.112b(a)(2)(ii). Primary and secondary seals are closure devices that should completely cover the annular space between the floating roof and the tank wall. 40 CFR § 60.112b(a)(2)(i).

4) Floating roof tanks regulated by BWON may not have had openings equipped with a cover or lid in a closed position at all times. The Inspection team observed level gauges on the external floating roofs of Tanks 6301, 6302, and 71. The design of the level gauge includes a line that extends through a circular opening in a hatch on top of the floating roof. Hydrocarbon emissions were observed with OGI from these circular openings and hatches. Subpart Kb, the Standards of Performance for Volatile Organic Liquid Storage Vessels, is a referenced alternative standard for floating roof tanks in BWON. Subpart Kb requires each opening in the external floating roof to be equipped with a gasketed cover, seal, or lid that is to be maintained in a closed position at all times. 40 CFR § 60.112b(a)(2)(ii).

5) Significant hydrocarbon emissions were observed with OGI from vents on several internal floating roof tanks. EPA inspectors and Facility personnel observed hydrocarbon emissions from vents on Tanks 6303, 6305, and 6309 (gasoline); Tank 8900 (sour water).

6) Emissions were detected from visibly damaged closed vent systems. EPA inspectors and Facility personnel detected emissions from a worn and frayed area of a flexible hose on the Filter Pot in the BRU. Emissions were detected from holes drilled into closed vent system piping and connectors at carbon canister controls in Dock 2, the Sulfolane Unit, and the Wastewater Treatment Plant. The Facility

detected 145 ppm benzene from a hole in a closed vent system on Dock 2, and 87 ppm benzene from a hole in the closed vent system controlling solvent tank emissions in the Sulfolane Unit. BWON standards require closed vent systems to be designed, operated, and maintained with no detectable emissions. 40 CFR § 61.349(a)(1).

7) Detectable emissions were measured from several openings of a container, the Frac tank in service as the Sulfolane Unit sump. BWON defines a container as a portable waste management unit in which a material is stored, treated, or otherwise handled. BWON standards for containers require the covers and all openings to be maintained in a closed, sealed position at all times when containing waste, and be designed to operate with no detectable emissions. 40 CFR § 61.345(a)(1).

8) The Facility may be operating waste management units that manage more than 6 megagrams of benzene waste and are not controlled for air emissions in accordance with BWON standards. As mentioned in AOC 1-7 above, during the inspection we observed fixed roof tanks with detectable emissions, closed vent systems that did not route all organic vapors to a control device, floating roof tanks that did not completely cover stored regulated material, and control devices that may not have controlled benzene emissions with an efficiency of 98 weight percent or greater. In aggregate, these waste management units convey more than 6 megagrams of benzene waste on an annual basis at the Facility. 40 CFR § 61.342(e)(2)(i) requires owners or operators of petroleum refineries to manage and treat aqueous wastes to a benzene quantity of less than 6 megagrams per year for waste streams not controlled for air emissions. Organic wastes must meet the BWON control standards of 40 CFR § 61.343. 61.344, 61.345, 61.346, 61.347, or 61.348(a). 40 CFR § 61.342(e)(1).

9) EPA inspectors observed visibly defective components of Chalmette Refinery's wastewater system. EPA inspectors observed gaps and cracks in caulking and sealant, and holes in the covers of the #1, #2, and #3 Surge sumps. EPA inspectors also observed vents to the atmosphere that are either not controlled for air emissions or lack flow-indicators in the Paraxylene Unit, Dock 4, Sump V-9405, and Sump 9. New Source Performance Standards Subpart QQQ–Standards of Performance for VOC Emissions From Petroleum Refinery Wastewater Systems–requires sewer lines to be closed to the atmosphere and closed drain systems to be routed to a control device through a vent with a flow indicator. 40 CFR 60.692-2(c)(1). 40 CFR 60.692-5(e)(3). 40 CFR 60.693-1(b).

Section IV – FOLLOW UP

Chalmette transmitted information to EPA on December 6, 2024, after exiting the Facility on November 6, 2024. The information was responsive to an EPA request made on November 15, 2024.

Section V – LIST OF APPENDICES

Appendix 1 – Photo Log – 29 photos
Appendix 2 – Video Log – 79 videos
Appendix 3 – Field Measurement Data
Appendix 4 – Summa Sample Results
Appendix 5 – Requested Information

Appendix 6 – Storage Tank Observations
Appendix 7 – Rosters for the Opening and Closing Conferences

Appendix 1
Photo Log

Photo No.	Camera	File Name	Date and Time	Inspector	Description of Image
1	Kit 4	FLIR0219.jpg	11/5/24 10:29	Buenning	Tank 305. Water Draw
2	Kit 5	FLIR0009.jpg	11/5/2024 11:15	Rosenthal	Tank 6301. Oil skimming pump flexible hose through open hatch on floating tank roof.
3	Kit 5	FLIR0010.jpg	11/5/2024 11:15	Rosenthal	Tank 6301. Oil skimming pump flexible hose through open hatch on floating tank roof.
4	Kit 3	FLIR0054.jpg	11/5/24 13:59	Loukeris	9405 Sump. Oily stain on sump cover, cracked caulking around edge of cover plates. Rusted and oily gauge hatch not in closed, latched position.
5	Kit 3	FLIR0055.jpg	11/5/24 13:59	Loukeris	9406 Sump. Rusted and oily gauge hatch not in closed, latched position. Cracks in sealant around pump flange.
6	Kit 3	FLIR0056.jpg	11/5/24 13:59	Loukeris	9407 Sump. Bolt hole in pump flange.
7	Kit 3	FLIR0058.jpg	11/5/24 14:28	Rosenthal	Dock 2. Screw drilled in closed vent system between carbon canisters controlling dock sump emissions. EPA M21 - 4,800 ppm.
8	Kit 3	FLIR0059.jpg	11/5/24 14:28	Rosenthal	Dock 2. Screw drilled in closed vent system between carbon canisters controlling dock sump emissions. EPA M21 - 4,800 ppm.
9	Kit 3	FLIR0060.jpg	11/5/24 14:28	Rosenthal	Dock 2. Hole in inlet piping of CVS going to carbon controls. EPA M21 - flameout.
10	Kit 3	FLIR0061.jpg	11/5/24 14:28	Rosenthal	Dock 2. Hole in inlet piping of CVS going to carbon controls. EPA M21 - flameout.
11	Kit 3	FLIR0065.jpg	11/5/24 15:26	Rosenthal	Dock 4. V-09111 Sump. Flange by pump G-938 missing bolts.
12	Kit 3	FLIR0068.jpg	11/5/24 16:17	Rosenthal	Sulfolane Unit. Hole drilled in CVS piping going to carbon drum VA114.
13	Kit 5	FLIR0014.jpg	11/6/2024	Loukeris	Accidentally taken.
14	Kit 3	FLIR0074.jpg	11/6/24 11:00	Haynes	Tank 5509 CVS. Screw drilled in CVS controlling emissions from Tank 5509.
15	Kit 5	FLIR0023.jpg	11/6/24 13:54	Loukeris	Sump 23. Open oil-water separator.
16	Kit 5	FLIR0024.jpg	11/6/24 13:54	Loukeris	Sump 23. Open oil-water separator.
17	Kit 5	FLIR0025.jpg	11/6/24 13:54	Loukeris	Sump 23. Open oil-water separator.
18	Kit 5	FLIR0027.jpg	11/6/24 13:54	Loukeris	Manhole cover.
19	Kit 5	FLIR0028.jpg	11/6/24 14:29	Loukeris	PES tank pump area drain sump and pump. The sump cover manhole lid was open to the atmosphere.
20	Kit 5	FLIR0029.jpg	11/6/24 15:09	Loukeris	# 3 surge sump. Metal cover plates with oily stains. No visible gaskets or sealant.
21	Kit 5	FLIR0030.jpg	11/6/24 15:09	Loukeris	# 3 surge sump. Cover plates with oily stains. Broken gasket on hatch.

22	Kit 5	FLIR0032.jpg	11/6/24 15:09	Loukeris	# 3 surge sump. Sump cover plates covered in oil.
23	Kit 5	FLIR0033.jpg	11/6/24 15:09	Loukeris	# 3 surge sump. Sump cover plates covered in oil.
24	Kit 5	FLIR0034.jpg	11/6/24 15:09	Loukeris	# 3 surge sump. Sump cover plates covered in oil.
25	Kit 5	FLIR0035.jpg	11/6/24 15:09	Loukeris	# 3 surge sump. Sump cover plates covered in oil.
26	Kit 5	FLIR0036.jpg	11/6/24 15:09	Loukeris	# 3 surge sump. Sump cover plates covered in oil.
27	Kit 5	FLIR0037.jpg	11/6/24 15:09	Loukeris	# 3 surge sump. Sump cover plates covered in oil.
28	Kit 5	FLIR0038.jpg	11/6/24 15:09	Loukeris	# 3 surge sump. Sump cover plates covered in oil.
29	Kit 3	FLIR0071.jpg	11/6/24 16:17	Rosenthal	Sulfolane Unit. Screws or bolts drilled into CVS piping.

Appendix 2
Video Log

Video No.	Camera	File Name	Date and Time	Inspector	Description of Video
1	Kit 3	FLIR0210.mp4	11/4/2024 16:00	Buenning	Lab Sump. OGI observed hydrocarbon emissions from outlet of carbon canister controls.
2	Kit 3	FLIR0032.mp4	11/5/2024 9:00	Loukeris	Tank 301. Liquid draining from roof drain.
3	Kit 3	FLIR0033.mp4	11/5/2024 9:00	Loukeris	Tank 301. OGI observed hydrocarbon emissions from plates and gaskets at the base of the guide pole.
4	Kit 3	FLIR0034.mp4	11/5/2024 9:00	Loukeris	Tank 301. OGI observed hydrocarbon emissions from the rim seal below the roof ladder.
5	Kit 3	FLIR0211.mp4	11/5/2024 9:05	Buenning	Tank 300. OGI observed hydrocarbon emissions from the southeast area of rim seal.
6	Kit 4	FLIR0212.mp4	11/5/2024 9:05	Buenning	Tank 300. OGI observed hydrocarbon emissions from the southeast area of rim seal.
7	Kit 3	FLIR0035.mp4	11/5/2024 9:20	Loukeris	Tank 302. OGI observed hydrocarbon emissions from southeast rim seal.
8	Kit 3	FLIR0036.mp4	11/5/2024 9:20	Loukeris	Tank 302. OGI observed hydrocarbon emissions from south rim seal.
9	Kit 4	FLIR0213.mp4	11/5/2024 9:22	Buenning	Tank 303. OGI observed hydrocarbon emissions from east vacuum breaker.
10	Kit 4	FLIR0214.mp4	11/5/2024 9:27	Buenning	Tank 303. OGI observed hydrocarbon emissions from east vacuum breaker.
11	Kit 4	FLIR0215.mp4	11/5/2024 9:30	Buenning	Tank 303. West and southeast vacuum breakers, no significant observed emissions.
12	Kit 3	FLIR0037.mp4	11/5/2024 9:40	Loukeris	Tank 307. OGI observed hydrocarbon emissions from debris around base plate of gauge pole.
13	Kit 3	FLIR0038.mp4	11/5/2024 9:52	Loukeris	Tank 401. OGI observed hydrocarbon emissions from south rim seal.
14	Kit 3	FLIR0039.mp4	11/5/2024 9:52	Loukeris	Tank 401. OGI observed hydrocarbon emissions from north vacuum breaker.
15	Kit 3	FLIR0040.mp4	11/5/2024 9:52	Loukeris	Tank 401. OGI observed hydrocarbon emissions from southeast rim seal.
16	Kit 4	FLIR0216.mp4	11/5/2024 9:52	Buenning	Tank 402. OGI observed hydrocarbon emissions from southeast vacuum breaker below platform.
17	Kit 3	FLIR0041.mp4	11/5/2024 10:00	Loukeris	Tank 308. OGI observed emissions from rim seal.
18	Kit 3	FLIR0042.mp4	11/5/2024 10:15	Loukeris	Tank 307. OGI observed hydrocarbon emissions from rim vent.
19	Kit 5	FLIR0001.mp4	11/5/2024 10:27	Haynes	Tank 6303. OGI observed hydrocarbon emissions from piping on tank.
20	Kit 3	FLIR0043.mp4	11/5/2024 10:27	Loukeris	Tank 1024. OGI observed hydrocarbon emissions from a hatch and a hole in the top of the roof.
21	Kit 3	FLIR0044.mp4	11/5/2024 10:35	Loukeris	Tank 6309. OGI observed hydrocarbon emissions from perimeter vent.
22	Kit 3	FLIR0045.mp4	11/5/2024 10:35	Loukeris	Tank 6309. OGI observed hydrocarbon emissions from perimeter vent.

23	Kit 3	FLIR0046.mp4	11/5/2024 10:55	Loukeris	Tank 6314. OGI observed hydrocarbon emissions from rim seal opposite the viewing platform.
24	Kit 4	FLIR0217.mp4	11/5/2024 11:01	Buenning	Tank 402. OGI observed hydrocarbon emissions from heavily stained north-northwest vacuum breaker.
25	Kit 5	FLIR0002.mp4	11/5/2024 11:02	Rosenthal	Tank 6302. OGI observed hydrocarbon emissions from rim seal opposite the platform.
26	Kit 3	FLIR0047.mp4	11/5/2024 11:02	Loukeris	Tank 6303. OGI observed hydrocarbon emissions from perimeter vent.
27	Kit 3	FLIR0048.mp4	11/5/2024 11:02	Loukeris	Accidentally recorded.
28	Kit 3	FLIR0049.mp4	11/5/2024 11:02	Loukeris	Tank 6303. OGI observed hydrocarbon emissions from center roof vent and perimeter vent behind center roof vent.
29	Kit 4	FLIR0218.mp4	11/5/2024 11:02	Buenning	Tank 402. OGI observed hydrocarbon emissions from heavily stained north-northwest vacuum breaker.
30	Kit 4	FLIR0221.mp4	11/5/2024 11:09	Buenning	Tank 309. Scan of the external floating roof. No significant observed emissions.
31	Kit 5	FLIR0003.mp4	11/5/2024 11:10	Rosenthal	Tank 6301. OGI observed hydrocarbon emissions from the secondary seal fastener below the platform.
32	Kit 5	FLIR0004.mp4	11/5/2024 11:10	Rosenthal	Tank 6301. OGI observed hydrocarbon emissions from the secondary seal fastener below the platform.
33	Kit 5	FLIR0005.mp4	11/5/2024 11:10	Rosenthal	Tank 6301. OGI observed hydrocarbon emissions from the secondary seal fastener below the platform.
34	Kit 5	FLIR0006.mp4	11/5/2024 11:15	Rosenthal	Accidentally recorded
35	Kit 5	FLIR0007.mp4	11/5/2024 11:15	Rosenthal	Accidentally recorded
36	Kit 5	FLIR0008.mp4	11/5/2024 11:15	Rosenthal	Tank 6301. OGI observed hydrocarbon emissions from the gauge hatch and gauge line hole.
37	Kit 3	FLIR0050.mp4	11/5/2024 11:15	Loukeris	Tank 6305 OGI observed hydrocarbon emissions from center vent.
38	Kit 3	FLIR0051.mp4	11/5/2024 11:15	Loukeris	Tank 6305 OGI observed hydrocarbon emissions from perimeter vents.
39	Kit 3	FLIR0052.mp4	11/5/2024 11:15	Loukeris	Tank 6305 OGI observed hydrocarbon emissions from perimeter vent.
40	Kit 5	FLIR0011.mp4	11/5/2024 13:45	Haynes	Tank 71. OGI observed hydrocarbon emissions from the gauge hatch and gauge line hole.
41	Kit 5	FLIR.0012.mp4	11/5/2024 13:45	Haynes	Tank 5554. OGI observed hydrocarbon emissions from vacuum breaker.
42	Kit 5	FLIR.0013.mp4	11/5/2024 13:45	Haynes	Tank 5554. OGI observed hydrocarbon emissions from rim seal.
43	Kit 3	FLIR0053.mp4	11/5/2024 13:59	Loukeris	Accidentally recorded.
44	Kit 3	FLIR0057.mp4	11/5/2024 14:17	Rosenthal	OGI observed hydrocarbon emissions from process flare.
45	Kit 3	FLIR0062.mp4	11/5/2024 14:29	Rosenthal	Dock 2 Sump. OGI observed hydrocarbon emissions from hole in CVS inlet piping going to carbon adsorption system.

46	Kit 4	FLIR0222.mp4	11/5/2024 14:31	Buenning	Tank 76. OGI observed hydrocarbon emissions from north-northeast rim seal.
47	Kit 4	FLIR0223.mp4	11/5/2024 14:47	Buenning	Tank 60. OGI observed hydrocarbon emissions from easst-southeast rim seal.
48	Kit 3	FLIR0063.mp4	11/5/2024 15:00	Rosenthal	Dock 2. OGI observed hydrocarbon emissions from hatch on barge named "Frank John".
49	Kit 3	FLIR0064.mp4	11/5/2024 15:26	Rosenthal	Dock 4. V-09111 Sump. OGI observed hydrocarbon emissions from flange by pump G-938.
50	Kit 4	FLIR0224.mp4	11/5/2024 15:31	Buenning	Tank 31. OGI observed emisssions from east vacuum breaker.
51	Kit 4	FLIR0225.mp4	11/5/2024 15:58	Buenning	Tank 5553. OGI emissions from east vacuum breaker.
52	Kit 3	FLIR0066.mp4	11/5/2024 16:10	Rosenthal	Sulfolane Unit. OGI observed hydrocarbon emissions from outlet of carbon drum controlling Sulfolane Sump.
53	Kit 3	FLIR0067.mp4	11/5/2024 16:10	Rosenthal	Sulfolane Unit. OGI observed hydrocarbon emissions from heat exchangers.
54	Kit 3	FLIR0069.mp4	11/5/2024 16:17	Rosenthal	Sulfolane Unit. OGI observed hydrocarbon emissions from elbow piping of gauge line to Tank 1201.
55	Kit 3	FLIR0070.mp4	11/5/2024 16:17	Rosenthal	Sulfolane Unit. OGI observed hydrocarbon emissions from elbow piping of gauge line to Tank 1201.
56	Kit 4	FLIR0226.mp4	11/5/2024 16:27	Buenning	Tank 1009. OGI observed emissions from south vacuum breaker.
57	Kit 4	FLIR0227.mp4	11/5/2024 16:30	Buenning	Tank 1009. Visible light recording of open south vacuum breaker and closed north vacuum breaker.
58	Kit 4	FLIR0228.mp4	11/5/2024 16:39	Buenning	Tank 1008. Visible light recording of open-vacuum breaker on D-1008.
59	Kit 4	FLIR0220.mp4	11/5/2024 22:38	Buenning	Tank 305. OGI observed hydrocarbon emissions from rim seal to the east/southeast.
60	Kit 5	FLIR0015.mp4	11/6/2024 9:00	Loukeris	Tank 52. OGI observed hydrocarbon emissions from south rim seal.
61	Kit 5	FLIR0016.mp4	11/6/2024 9:20	Loukeris	Tank 8900. OGI observed hydrocarbon emissions from perimeter vents.
62	Kit 5	FLIR0017.mp4	11/6/2024 9:20	Loukeris	Tank 8900. OGI observed hydrocarbon emissions from perimeter vents.
63	Kit 3	FLIR0072.mp4	11/6/2024 9:27	Rosenthal	Paraxylene Unit. Vent pipe to atmosphere with no flow indicator.
64	Kit 5	FLIR0018.mp4	11/6/2024 9:50	Loukeris	Accidently recorded.
65	Kit 5	FLIR0019.mp4	11/6/2024 9:50	Loukeris	Tank 3721. OGI observed hydrocarbon emissions from 3 roof legs.
66	Kit 5	FLIR0020.mp4	11/6/2024 9:50	Loukeris	Tank 3721. OGI observed hydrocarbon emissions from south vacuum breaker.
67	Kit 5	FLIR0021.mp4	11/6/2024 10:15	Loukeris	Tank 3. OGI observed hydrocarbon emissions from south rim seal.
68	Kit 5	FLIR0022.mp4	11/6/2024 10:45	Loukeris	Tank 2. OGI observed hydrocarbon emissions from a gauge hatch.

69	Kit 3	FLIR0073.mp4	11/6/2024 11:00	Haynes	Tank 5509. OGI observed hydrocarbon emissions from PVRV on top of tank..
70	Kit 3	FLIR0074.mp4	11/6/2024 11:00	Haynes	Tank 5509. OGI observed hydrocarbon emissions from outlet of CVS.
71	Kit 5	FLIR0026.mp4	11/6/2024 13:54	Loukeris	Accidentally recorded.
72	Kit 5	FLIR0031.mp4	11/6/2024 15:09	Loukeris	# 3 Surge sump. Visible light recording of sump cover. Sump cover plates and components coated in oily sheen.
73	Kit 5	FLIR0039.mp4	11/6/2024 15:30	Loukeris	# 2 Surge sump. Visible light recording of sump cover holes, peeled caulk, and pitted cover plates.
74	Kit 5	FLIR0040.mp4	11/6/2024 15:30	Loukeris	# 2 Surge sump. Visible light recording of uneven cover plates. Gap in cover plates.
75	Kit 5	FLIR0041.mp4	11/6/2024 15:56	Loukeris	# 1 Surge sump. OGI observed hydrocarbon emissions from concrete and steel cover plate interfaces. Sand observed applied in area of hydrocarbon emissions.
76	Kit 5	FLIR0042.mp4	11/6/2024 15:56	Loukeris	# 1 Surge sump. OGI observed hydrocarbon emissions from seam in cover plate. Degraded caulk on seam.
77	Kit 5	FLIR0043.mp4	11/6/2024 15:56	Loukeris	# 1 Surge sump. OGI observed hydrocarbon emissions from 2 hose holes in cover plate.
78	Kit 5	FLIR0044.mp4	11/6/2024 15:56	Loukeris	# 1 Surge sump. OGI observed hydrocarbon emissions from hole in pump flange.
79	Kit 5	FLIR0045.mp4	11/6/2024 15:56	Loukeris	# 1 Surge sump. OGI observed hydrocarbon emissions from sump vent.

Appendix 3
Field Measurement Data

Unit Area	Waste Management Unit/Component	EPA's Reading in ppm VOC[1]	Facility Reading in ppm VOC	Date	Notes and Observations of Inspector/Measurer
Lab	Lab Sump A – Closed Vent System ("CVS")	50,000	39,000	11/4/24	Second carbon drum outlet to the atmosphere. Schneider. Benzene – specific PID measured 262 ppm. Schneider.
Lab	Lab Sink 4 – Individual Drain System ("IDS")	1,800	1,196	11/4/24	Sink drain. Schneider.
BRU	Filter Pot Piping	650	1,700	11/5/24	Flexible hose outlet of filter pot. Visible damage – frayed and degraded rubber. Schneider.
GHU	Sump V-9405 hatch	Flameout	Not measured	11/5/24	Damaged sealant around the cover plates. No flow indicator on CVS to carbon canisters. Hatch not latched. Sump is nitrogen blanketed and no facility LDAR technician was available for confirmation reading. Schneider.
East Tank Farm	Tank 1024 – Pressure Relief Device	60,000	59,600	11/5/24	PRD on top of tank. Schneider.
Dock #2 – Sump	Carbon Canister – CVS	Flameout	Flameout	11/5/24	Drilled hole into CVS piping before first carbon canister. Facility benzene select PID measurement: 145 ppm benzene. Schneider.
Dock #2 – Sump	Carbon Canister – CVS	3,800	4,571	11/5/24	Drilled screw into CVS piping between primary and secondary carbon canisters. Loukeris.
Dock #4 – Sump	Sump cover	1,700	1,100	11/5/24	Holes in sump cover. Sump vent pipe is uncontrolled. Schneider/Loukeris.
Sulfolane Unit	Solvent Sump – container	750	1,700	11/5/24	Frac tank/temporary solvent sump. Hatch. Schneider.
Sulfolane Unit	Solvent Sump – container	850	1,489	11/5/24	Manway. Schneider.
Sulfolane Unit	Solvent Sump – container	Flameout	3,200	11/5/24	Thief hatch. Schneider.
Sulfolane Unit	Solvent Sump – CVS	Flameout	Flameout	11/5/24	Flexible hose on ground, the outlet to the single carbon drum controlling the Solvent Sump. Schneider. Summa Sample: 680 ppm benzene.
Sulfolane Unit	Tanks D1200, 1201, 1203 – CVS	700	1,218	11/5/24	Drilled hole in closed vent system to carbon drums. Schneider.
WWTP	Tank C 1706	12,000	45,000	11/6/24	PRD on top of tank vented to atmosphere, outlet. Rosenthal

WWTP	Tank C 1706	587	Not measured	11/6/24	PRD on top of tank vacuum side. Rosenthal
WWTP	Sludge Tank CVS	80,000	12,000	11/6/24	Outlet of carbon canisters controlling sludge tanks-1701, 1702, 1706. Rosenthal
WWTP	Sludge Tank CVS	800	Not measured	11/6/24	Loose bolt on inlet piping to CVS from sludge tanks. Schneider
WWTP	Tank 5509 CVS	6,000	16,000	11/6/24	Piping to carbon canisters. Schneider.
WWTP	Tank 5509 CVS	30,000	4,970	11/6/24	Outlet of carbon canisters. Schneider.
WWTP	Tank 5501, 5502 CVS	11,000	12,000	11/6/24	Outlet of carbon canisters. Schneider.
WWTP	#3 Surge Sump	8,000	No reading recorded.	11/6/24	Hatch lid not gasketed or sealed. Schneider.
WWTP	#3 Surge Sump	5,300	No reading recorded.	11/6/24	Damaged sealant on hatch. Schneider
WWTP	#3 Surge Sump	5,000	No reading recorded.	11/6/24	Damaged sealant on hatch. Schneider.
WWTP	#3 Surge Sump	5,000	No reading recorded.	11/6/24	Damaged sealant on hatch. Schneider.
WWTP	#3 Surge Sump	3,000	No reading recorded.	11/6/24	11/6/24. Damaged sealant on hatch. Schneider.
WWTP	# 1 Surge Sump	1,600	1,400	11/6/24	Sump pump flange at cover. Schneider.
WWTP	#1 Surge Sump	10,000	10,000	11/6/24	Open holes in piping. Schneider.
WWTP	#1 Surge Sump	30,000	4,600	11/6/24	Edge of sumps vertical wall.
WWTP	#1 Surge Sump	10,000	3,500	11/6/24	Seam in sump cover plate.

[1]Equipment: Thermo Scientific Toxic Vapor Analyzer 2020. EPA R6 ID Numbers: H1, H2; EPA R5 ID Numbers: 37055.

Cylinder Information:

Zero Air
Part # 6D040283TFS
Expiration Date: August 2027

500 ppm Methane
Lot # 304-402415358-1
Expiration Date: 4/20/2026

2,000 ppm Methane
Lot # 304-402415357-1
Expiration Date: 4/20/2026

10,000 ppm Methane
Lot # 304-402244727-1
Expiration Date: 10/4/2025

Daily Calibration Checks:

November 4, 2024, 3:10 pm		
Calibration Gas: CH4 in air	B37055	
500 ppm	529 ppm	
2,000 ppm	2,010 ppm	
10,000 ppm	10,100 ppm	
November 5, 2024, 8:12 am		
Calibration Gas: CH4 in air	B37055	H2
500 ppm	497 ppm	486 ppm
2,000 ppm	2,011 ppm	1,970 ppm
10,000 ppm	10,200 ppm	10,500 ppm
November 5, 2024, 1:18 pm		
Calibration Gas: CH4 in air	H1	B37055
500 ppm	494 ppm	515 ppm
2,000 ppm	2,019 ppm	
10,000 ppm	10,000 ppm	

November 6, 2024, 8:48 pm		
Calibration Gas: CH4 in air	B37055	H2
500 ppm	495 ppm	514 ppm
2,000 ppm	2,055 ppm	2,011 ppm
10,000 ppm	10,000 ppm	10,000 ppm

Appendix 4
Summa Sample Results

Eastern Research Group
601 Keystone Park Drive
Suite 700
Morrisville, NC 27560

December 31, 2024

Benjamin Rosenthal
Physical Scientist
1201 Elm Street, Suite 500 (MC: ECDAT)
Dallas, TX 75270
Project Name: Chalmette Refining

Dear Benjamin Rosenthal,

This report contains the analytical results for the sample(s) received under chain(s) of custody by Eastern Research Group on 11/12/24 10:22.

Values below the MDL for QC results in this report are recorded as ND, however the actual values are reported in the accompanying Excel report with a "U" flag (Under the detection limit). The actual values are reported in AQS.

This test is accredited under the 2016 TNI Standard for Environmental Laboratories (FL DOH Certification # E87673). All analyses were performed as described in the US EPA-approved QAPP, under the contract for National Hazardous Air Pollutant Support (US EPA Contract No. 68HERH22D0002). This cover page is an integral part of this report, and any exceptions or comments are noted on the last page.

Release of the data contained in this data package and in the data submitted in the electronic data deliverable, has been authorized by the Program Manager, or the Program Manager's designee as verified by the following signature.

The issuance of the final Certificate of Analysis takes precedence over any previous Report. If you have any questions, please contact me at [redacted].

Sincerely,

Randolph Bower
Deputy Program Manager
[redacted]

CERTIFICATE OF ANALYSIS

OECA
1201 Elm Street, Suite 500 (MC: ECDAT)
Dallas, TX 75270
ATTN: Benjamin Rosenthal
PHONE: (214) 665-6453 **FAX:** (732) 321-6616

FILE #: 0453.32.001.120
REPORTED: 12/31/24 09:53
SUBMITTED: 11/12/24
AQS SITE CODE:
SITE CODE: Chalmette Refining

ANALYTICAL REPORT FOR SAMPLES

SampleName	LabNumber	Matrix	Sampled	Received
Chalmette Refining	4111214-01	Air	11/06/24 17:38	11/12/24 10:22
Chalmette Refining	4111214-02	Air	11/05/24 14:56	11/12/24 10:22
Chalmette Refining	4111214-03	Air	11/05/24 16:10	11/12/24 10:22
Chalmette Refining	4111214-04	Air	11/06/24 15:09	11/12/24 10:22
Chalmette Refining	4111214-05	Air	11/06/24 15:56	11/12/24 10:22
Chalmette Refining	4111214-06	Air	11/05/24 14:52	11/12/24 10:22
Chalmette Refining	4111214-07	Air	11/06/24 13:17	11/12/24 10:22

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FILE #: 0453.32.001.120
REPORTED: 12/31/24 09:53
SUBMITTED: 11/12/24
AQS SITE CODE:
SITE CODE: Chalmette Refining

Description: Chalmette Refining **Lab ID:** 4111214-01 **Sampled:** 11/06/24 17:38
Pressure @ Receipt: **Canister #:** 11608 **Received:** 11/12/24 10:22
Comments: Background -visitor parking, ambient **Analyzed:** 11/20/24 17:30

Air Toxics by EPA Compendium Method TO-15

Analyte	Results ppbv	Results ug/m³	Flag	MDL ppbv
Dichlorodifluoromethane	**0.458**	**2.27**		**0.00604**
Chloromethane	**0.714**	**1.48**		**0.00970**
Dichlorotetrafluoroethane	**0.0159**	**0.11**		**0.00526**
Vinyl chloride	ND	ND	U	0.00513
1,3-Butadiene	ND	ND	CF, LL, U	0.0220
Ethylene oxide	**0.320**	**0.58**	CF, LK	**0.0255**
Bromomethane	**0.0106**	**0.04**		**0.0104**
Chloroethane	ND	ND	U	0.0136
Acetonitrile	**0.174**	**0.29**	CF, LK, R-F	**0.0330**
Acrolein	**0.288**	**0.66**	CF, LK	**0.0826**
Trichlorofluoromethane	**0.219**	**1.23**		**0.00950**
Acrylonitrile	ND	ND	U	0.0116
1,1-Dichloroethene	ND	ND	U	0.0158
Dichloromethane	**0.270**	**0.94**		**0.0234**
Carbon Disulfide	**0.0688**	**0.22**	CF, EC, LK	**0.0392**
Trichlorotrifluoroethane	**0.0666**	**0.51**		**0.0210**
trans-1,2-Dichloroethylene	ND	ND	U	0.00972
1,1-Dichloroethane	ND	ND	U	0.0142
Methyl tert-Butyl Ether	ND	ND	U	0.0101
Chloroprene	ND	ND	U	0.0123
cis-1,2-Dichloroethylene	ND	ND	U	0.0131
Bromochloromethane	ND	ND	U	0.00905
Chloroform	**0.0173**	**0.08**		**0.0134**
Ethyl tert-Butyl Ether	ND	ND	U	0.00893
1,2-Dichloroethane	ND	ND	U	0.0116
1,1,1-Trichloroethane	ND	ND	U	0.00952
Benzene	**0.209**	**0.67**	R-F	**0.0101**
Carbon Tetrachloride	**0.0752**	**0.47**		**0.00750**
tert-Amyl Methyl Ether	ND	ND	U	0.0126
1,2-Dichloropropane	ND	ND	U	0.0215
Ethyl Acrylate	ND	ND	U	0.00780
Bromodichloromethane	ND	ND	U	0.00889
Trichloroethylene	0.00430	0.02	U	0.00680
Methyl Methacrylate	ND	ND	U	0.0330
cis-1,3-Dichloropropene	ND	ND	U	0.00753
Methyl Isobutyl Ketone	**0.0872**	**0.36**		**0.0578**
trans-1,3-Dichloropropene	ND	ND	U	0.00822
1,1,2-Trichloroethane	ND	ND	U	0.00400
Toluene	**0.304**	**1.15**	R-F	**0.0380**
Dibromochloromethane	ND	ND	U	0.00884
1,2-Dibromoethane	ND	ND	U	0.00660

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Dallas, TX 75270
ATTN: Benjamin Rosenthal
PHONE: (214) 665-6453 **FAX:** (732) 321-6616

FILE #: 0453.32.001.120
REPORTED: 12/31/24 09:53
SUBMITTED: 11/12/24
AQS SITE CODE:
SITE CODE: Chalmette Refining

Description: Chalmette Refining **Lab ID:** 4111214-01 **Sampled:** 11/06/24 17:38
Pressure @ Receipt: **Canister #:** 11608 **Received:** 11/12/24 10:22
Comments: Background -visitor parking, ambient **Analyzed:** 11/20/24 17:30

Air Toxics by EPA Compendium Method TO-15

	Results			MDL
Analyte	**ppbv**	**ug/m³**	**Flag**	**ppbv**
n-Octane	**0.0629**	**0.29**		**0.0258**
Tetrachloroethylene	0.00330	0.02	U	0.00860
Chlorobenzene	ND	ND	U	0.00820
Ethylbenzene	**0.0513**	**0.22**	R-F	**0.0130**
m,p-Xylene	**0.113**	**0.49**		**0.0418**
Bromoform	0.00350	0.04	U	0.0108
Styrene	0.00360	0.02	U	0.0273
1,1,2,2-Tetrachloroethane	ND	ND	U	0.0190
o-Xylene	**0.0535**	**0.23**		**0.0235**
1,3,5-Trimethylbenzene	0.00390	0.02	U	0.0316
1,2,4-Trimethylbenzene	0.0202	0.10	U	0.0320
m-Dichlorobenzene	0.00130	0.01	U	0.0173
p-Dichlorobenzene	0.00910	0.05	U	0.0366
o-Dichlorobenzene	0.00200	0.01	U	0.0364
1,2,4-Trichlorobenzene	0.00340	0.03	U	0.0792
Hexachloro-1,3-butadiene	0.00140	0.02	U	0.0363

CERTIFICATE OF ANALYSIS

OECA
1201 Elm Street, Suite 500 (MC: ECDAT)
Dallas, TX 75270
ATTN: Benjamin Rosenthal
PHONE: (214) 665-6453 **FAX:** (732) 321-6616

FILE #: 0453.32.001.120
REPORTED: 12/31/24 09:53
SUBMITTED: 11/12/24
AQS SITE CODE:
SITE CODE: Chalmette Refining

Description: Chalmette Refining **Lab ID:** 4111214-02 **Sampled:** 11/05/24 14:56
Pressure @ Receipt: **Canister #:** 16916 **Received:** 11/12/24 10:22
Comments: Dock 2 FF, Sump outlet of 1st carbon drum, 0.97 ppm Benzene **Analyzed:** 11/21/24 00:36

Air Toxics by EPA Compendium Method TO-15

	Results			MDL
Analyte	**ppbv**	**ug/m³**	**Flag**	**ppbv**
Dichlorodifluoromethane	**0.306**	**1.52**	D	**0.0313**
Chloromethane	**0.424**	**0.88**	D	**0.0502**
Dichlorotetrafluoroethane	0.0113	0.08	D, U	0.0272
Vinyl chloride	ND	ND	D, U	0.0265
1,3-Butadiene	ND	ND	CF, D, LL, U	0.114
Ethylene oxide	ND	ND	D, U	0.132
Bromomethane	ND	ND	D, U	0.0538
Chloroethane	ND	ND	D, U	0.0704
Acetonitrile	ND	ND	CF, D, LK, R-F, U	0.171
Acrolein	0.232	0.53	CF, D, LK, U	0.427
Trichlorofluoromethane	**0.136**	**0.77**	D	**0.0492**
Acrylonitrile	ND	ND	D, U	0.0600
1,1-Dichloroethene	ND	ND	D, U	0.0818
Dichloromethane	0.0557	0.19	D, U	0.121
Carbon Disulfide	0.0626	0.20	CF, D, EC, LK, U	0.203
Trichlorotrifluoroethane	0.0490	0.38	D, U	0.109
trans-1,2-Dichloroethylene	ND	ND	D, U	0.0503
1,1-Dichloroethane	ND	ND	D, U	0.0735
Methyl tert-Butyl Ether	ND	ND	D, U	0.0523
Chloroprene	ND	ND	D, U	0.0637
cis-1,2-Dichloroethylene	ND	ND	D, U	0.0678
Bromochloromethane	ND	ND	D, U	0.0468
Chloroform	ND	ND	D, U	0.0693
Ethyl tert-Butyl Ether	ND	ND	D, U	0.0462
1,2-Dichloroethane	ND	ND	D, U	0.0600
1,1,1-Trichloroethane	0.0295	0.16	D, U	0.0493
Benzene	**13.0**	**41.60**	D, R-F, E	**0.0523**
Carbon Tetrachloride	**0.0504**	**0.32**	D	**0.0388**
tert-Amyl Methyl Ether	ND	ND	D, U	0.0652
1,2-Dichloropropane	ND	ND	D, U	0.111
Ethyl Acrylate	ND	ND	D, U	0.0404
Bromodichloromethane	ND	ND	D, U	0.0460
Trichloroethylene	ND	ND	D, U	0.0352
Methyl Methacrylate	ND	ND	D, U	0.171
cis-1,3-Dichloropropene	ND	ND	D, U	0.0390
Methyl Isobutyl Ketone	ND	ND	D, U	0.299
trans-1,3-Dichloropropene	ND	ND	D, U	0.0425
1,1,2-Trichloroethane	ND	ND	D, U	0.0207
Toluene	**196**	**740.00**	D, R-F, E	**1.09**
Dibromochloromethane	ND	ND	D, U	0.0457

CERTIFICATE OF ANALYSIS

OECA
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Dallas, TX 75270
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PHONE: (214) 665-6453 **FAX:** (732) 321-6616

FILE #: 0453.32.001.120
REPORTED: 12/31/24 09:53
SUBMITTED: 11/12/24
AQS SITE CODE:
SITE CODE: Chalmette Refining

Description: Chalmette Refining **Lab ID:** 4111214-02 **Sampled:** 11/05/24 14:56
Pressure @ Receipt: **Canister #:** 16916 **Received:** 11/12/24 10:22
Comments: Dock 2 FF, Sump outlet of 1st carbon drum, 0.97 ppm Benzene **Analyzed:** 11/21/24 00:36

Air Toxics by EPA Compendium Method TO-15

	Results			MDL
Analyte	**ppbv**	**ug/m³**	**Flag**	**ppbv**
1,2-Dibromoethane	ND	ND	D, U	0.0342
n-Octane	**2.73**	**12.80**	D	**0.134**
Tetrachloroethylene	ND	ND	D, U	0.0445
Chlorobenzene	ND	ND	D, U	0.0424
Ethylbenzene	**0.446**	**1.94**	D, R-F	**0.0673**
m,p-Xylene	**2.35**	**10.20**	D	**0.216**
Bromoform	ND	ND	D, U	0.0559
Styrene	ND	ND	D, U	0.141
1,1,2,2-Tetrachloroethane	ND	ND	D, U	0.0983
o-Xylene	**0.141**	**0.61**	D	**0.122**
1,3,5-Trimethylbenzene	0.0408	0.20	D, U	0.164
1,2,4-Trimethylbenzene	0.108	0.53	D, U	0.166
m-Dichlorobenzene	ND	ND	D, U	0.0895
p-Dichlorobenzene	ND	ND	D, U	0.189
o-Dichlorobenzene	ND	ND	D, U	0.188
1,2,4-Trichlorobenzene	ND	ND	D, U	0.410
Hexachloro-1,3-butadiene	ND	ND	D, U	0.188

CERTIFICATE OF ANALYSIS

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FILE #: 0453.32.001.120
REPORTED: 12/31/24 09:53
SUBMITTED: 11/12/24
AQS SITE CODE:
SITE CODE: Chalmette Refining

Description: Chalmette Refining **Lab ID:** 4111214-03 **Sampled:** 11/05/24 16:10
Pressure @ Receipt: **Canister #:** 11620 **Received:** 11/12/24 10:22
Comments: Sulfolane unit sump carbon drum outlet, 132 ppm Benzene **Analyzed:** 11/20/24 19:32

Air Toxics by EPA Compendium Method TO-15

	Results			MDL
Analyte	**ppbv**	**ug/m³**	**Flag**	**ppbv**
Dichlorodifluoromethane	38.1	189.00	D, U, E	75.0
Chloromethane	**238**	**492.00**	D, E	**120**
Dichlorotetrafluoroethane	ND	ND	D, U	65.3
Vinyl chloride	ND	ND	D, U	63.7
1,3-Butadiene	**470**	**1,040.00**	CF, D, LL, E	**273**
Ethylene oxide	ND	ND	CF, D, LK, U	317
Bromomethane	ND	ND	D, U	129
Chloroethane	ND	ND	D, U	169
Acetonitrile	**661**	**1,110.00**	D, R-F, E	**410**
Acrolein	**1050**	**2,410.00**	CF, D, LK, E	**1030**
Trichlorofluoromethane	18.3	103.00	D, U, E	118
Acrylonitrile	ND	ND	D, U	144
1,1-Dichloroethene	ND	ND	D, U	196
Dichloromethane	111	386.00	D, U, E	291
Carbon Disulfide	48.9	153.00	CF, D, LK, U, E	487
Trichlorotrifluoroethane	ND	ND	D, U	261
trans-1,2-Dichloroethylene	ND	ND	D, U	121
1,1-Dichloroethane	ND	ND	D, U	176
Methyl tert-Butyl Ether	ND	ND	D, U	125
Chloroprene	ND	ND	D, U	153
cis-1,2-Dichloroethylene	ND	ND	D, U	163
Bromochloromethane	ND	ND	D, U	112
Chloroform	ND	ND	D, U	166
Ethyl tert-Butyl Ether	ND	ND	D, U	111
1,2-Dichloroethane	ND	ND	D, U	144
1,1,1-Trichloroethane	ND	ND	D, U	118
Benzene	**680000**	**180,000.0**	D, R-F, E	**125**
Carbon Tetrachloride	ND	ND	D, U	93.1
tert-Amyl Methyl Ether	ND	ND	D, U	156
1,2-Dichloropropane	ND	ND	D, U	267
Ethyl Acrylate	**408**	**1,670.00**	D, E	**96.9**
Bromodichloromethane	ND	ND	D, U	110
Trichloroethylene	64.8	349.00	D, U, E	84.5
Methyl Methacrylate	ND	ND	D, U	410
cis-1,3-Dichloropropene	ND	ND	D, U	93.5
Methyl Isobutyl Ketone	**1560**	**6,400.00**	D, E	**718**
trans-1,3-Dichloropropene	ND	ND	D, U	102
1,1,2-Trichloroethane	ND	ND	D, U	49.7
Toluene	**292000**	**100,000.0**	D, R-F, E	**472**
Dibromochloromethane	ND	ND	D, U	110
1,2-Dibromoethane	ND	ND	D, U	82.0

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FILE #: 0453.32.001.120
REPORTED: 12/31/24 09:53
SUBMITTED: 11/12/24
AQS SITE CODE:
SITE CODE: Chalmette Refining

Description: Chalmette Refining **Lab ID:** 4111214-03 **Sampled:** 11/05/24 16:10
Pressure @ Receipt: **Canister #:** 11620 **Received:** 11/12/24 10:22
Comments: Sulfolane unit sump carbon drum outlet, 132 ppm Benzene **Analyzed:** 11/20/24 19:32

Air Toxics by EPA Compendium Method TO-15

	Results			MDL
Analyte	**ppbv**	**ug/m³**	**Flag**	**ppbv**
n-Octane	**29700**	**.39,000.0(**	D, E	**320**
Tetrachloroethylene	ND	ND	D, U	107
Chlorobenzene	ND	ND	D, U	102
Ethylbenzene	**3280**	**14,300.00**	D, R-F, E	**161**
m,p-Xylene	**5660**	**24,600.00**	D, E	**519**
Bromoform	ND	ND	D, U	134
Styrene	54.9	234.00	D, U, E	339
1,1,2,2-Tetrachloroethane	ND	ND	D, U	236
o-Xylene	**388**	**1,690.00**	D, E	**292**
1,3,5-Trimethylbenzene	28.0	138.00	D, U, E	392
1,2,4-Trimethylbenzene	33.5	165.00	D, U, E	397
m-Dichlorobenzene	29.0	175.00	D, U, E	215
p-Dichlorobenzene	37.3	225.00	D, U, E	455
o-Dichlorobenzene	40.5	244.00	D, U, E	452
1,2,4-Trichlorobenzene	101	751.00	D, U, E	984
Hexachloro-1,3-butadiene	91.1	974.00	D, U, E	451

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FILE #: 0453.32.001.120
REPORTED: 12/31/24 09:53
SUBMITTED: 11/12/24
AQS SITE CODE:
SITE CODE: Chalmette Refining

Description: Chalmette Refining
Pressure @ Receipt:
Comments: #3 surge sump, 5300 ppm VOC

Lab ID: 4111214-04
Canister #: 11622

Sampled: 11/06/24 15:09
Received: 11/12/24 10:22
Analyzed: 11/20/24 20:33

Air Toxics by EPA Compendium Method TO-15

Analyte	Results ppbv	Results ug/m³	Flag	MDL ppbv
Dichlorodifluoromethane	1.58	7.83	D, U	1.88
Chloromethane	**5.94**	**12.30**	D	**3.01**
Dichlorotetrafluoroethane	0.284	1.99	D, U	1.63
Vinyl chloride	**2.20**	**5.64**	D	**1.59**
1,3-Butadiene	ND	ND	CF, D, LL, U	6.83
Ethylene oxide	ND	ND	CF, D, LK, U	7.92
Bromomethane	ND	ND	D, U	3.23
Chloroethane	3.29	8.70	D, U	4.22
Acetonitrile	**14.5**	**24.40**	D, R-F, E	**10.2**
Acrolein	14.6	33.50	CF, D, LK, U, E	25.6
Trichlorofluoromethane	0.801	4.51	D, U	2.95
Acrylonitrile	ND	ND	D, U	3.60
1,1-Dichloroethene	ND	ND	D, U	4.91
Dichloromethane	7.10	24.70	D, U	7.27
Carbon Disulfide	10.1	31.50	CF, D, EC, LK, U	12.2
Trichlorotrifluoroethane	0.622	4.78	D, U	6.52
trans-1,2-Dichloroethylene	ND	ND	D, U	3.02
1,1-Dichloroethane	ND	ND	D, U	4.41
Methyl tert-Butyl Ether	ND	ND	D, U	3.14
Chloroprene	ND	ND	D, U	3.82
cis-1,2-Dichloroethylene	**15.8**	**62.80**	D, E	**4.07**
Bromochloromethane	ND	ND	D, U	2.81
Chloroform	**12.6**	**61.60**	D, E	**4.16**
Ethyl tert-Butyl Ether	ND	ND	D, U	2.77
1,2-Dichloroethane	ND	ND	D, U	3.60
1,1,1-Trichloroethane	ND	ND	D, U	2.96
Benzene	**460**	**1,470.00**	D, R-F, E	**3.14**
Carbon Tetrachloride	0.764	4.82	D, U	2.33
tert-Amyl Methyl Ether	ND	ND	D, U	3.91
1,2-Dichloropropane	ND	ND	D, U	6.68
Ethyl Acrylate	ND	ND	D, U	2.42
Bromodichloromethane	ND	ND	D, U	2.76
Trichloroethylene	**12.8**	**68.90**	D, E	**2.11**
Methyl Methacrylate	ND	ND	D, U	10.2
cis-1,3-Dichloropropene	ND	ND	D, U	2.34
Methyl Isobutyl Ketone	ND	ND	D, U	17.9
trans-1,3-Dichloropropene	ND	ND	D, U	2.55
1,1,2-Trichloroethane	ND	ND	D, U	1.24
Toluene	**5810**	**21,900.00**	D, R-F, E	**30.6**
Dibromochloromethane	1.30	11.10	D, U	2.74

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FILE #: 0453.32.001.120
REPORTED: 12/31/24 09:53
SUBMITTED: 11/12/24
AQS SITE CODE:
SITE CODE: Chalmette Refining

Description: Chalmette Refining
Pressure @ Receipt:
Comments: #3 surge sump, 5300 ppm VOC

Lab ID: 4111214-04
Canister #: 11622

Sampled: 11/06/24 15:09
Received: 11/12/24 10:22
Analyzed: 11/20/24 20:33

Air Toxics by EPA Compendium Method TO-15

Analyte	Results ppbv	Results ug/m³	Flag	MDL ppbv
1,2-Dibromoethane	0.619	4.77	D, U	2.05
n-Octane	**4470**	**20,900.00**	D, E	**8.01**
Tetrachloroethylene	**3.21**	**21.80**	D	**2.67**
Chlorobenzene	ND	ND	D, U	2.55
Ethylbenzene	**1330**	**5,790.00**	D, R-F, E	**4.04**
m,p-Xylene	**5510**	**24,000.00**	D, E	**13.0**
Bromoform	0.843	8.73	D, U	3.35
Styrene	**100**	**427.00**	D, E	**8.48**
1,1,2,2-Tetrachloroethane	ND	ND	D, U	5.90
o-Xylene	**2530**	**11,000.00**	D, E	**7.30**
1,3,5-Trimethylbenzene	**1080**	**5,320.00**	D, E	**9.81**
1,2,4-Trimethylbenzene	**3130**	**15,400.00**	D, E	**9.94**
m-Dichlorobenzene	ND	ND	D, U	5.37
p-Dichlorobenzene	ND	ND	D, U	11.4
o-Dichlorobenzene	ND	ND	D, U	11.3
1,2,4-Trichlorobenzene	2.78	20.70	D, U	24.6
Hexachloro-1,3-butadiene	2.19	23.40	D, U	11.3

CERTIFICATE OF ANALYSIS

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FILE #: 0453.32.001.120
REPORTED: 12/31/24 09:53
SUBMITTED: 11/12/24
AQS SITE CODE:
SITE CODE: Chalmette Refining

Description: Chalmette Refining **Lab ID:** 4111214-05 **Sampled:** 11/06/24 15:56
Pressure @ Receipt: **Canister #:** 16918 **Received:** 11/12/24 10:22
Comments: #1 surge sump, crack in concrete, 30,000 ppm VOC **Analyzed:** 11/20/24 21:34

Air Toxics by EPA Compendium Method TO-15

	Results			MDL
Analyte	**ppbv**	**ug/m³**	**Flag**	**ppbv**
Dichlorodifluoromethane	1.67	8.28	D, U	1.94
Chloromethane	**7.27**	**15.00**	D	**3.12**
Dichlorotetrafluoroethane	0.434	3.04	D, U	1.69
Vinyl chloride	**33.6**	**86.10**	D, E	**1.65**
1,3-Butadiene	ND	ND	CF, D, LL, U	7.08
Ethylene oxide	ND	ND	CE, D, U	8.20
Bromomethane	ND	ND	D, U	3.35
Chloroethane	ND	ND	D, U	4.38
Acetonitrile	**86.7**	**146.00**	D, R-F, E	**10.6**
Acrolein	14.4	33.10	D, U, E	26.6
Trichlorofluoromethane	1.05	5.91	D, U	3.06
Acrylonitrile	ND	ND	D, U	3.73
1,1-Dichloroethene	ND	ND	D, U	5.08
Dichloromethane	**10.4**	**36.20**	D, E	**7.53**
Carbon Disulfide	**830**	**2,590.00**	CF, D, LK, E	**12.6**
Trichlorotrifluoroethane	0.704	5.41	D, U	6.76
trans-1,2-Dichloroethylene	1.09	4.33	D, U	3.13
1,1-Dichloroethane	ND	ND	D, U	4.57
Methyl tert-Butyl Ether	ND	ND	D, U	3.25
Chloroprene	ND	ND	D, U	3.96
cis-1,2-Dichloroethylene	**74.4**	**296.00**	D, E	**4.21**
Bromochloromethane	**3.79**	**20.10**	D	**2.91**
Chloroform	**47.2**	**231.00**	D, E	**4.31**
Ethyl tert-Butyl Ether	ND	ND	D, U	2.87
1,2-Dichloroethane	ND	ND	D, U	3.73
1,1,1-Trichloroethane	ND	ND	D, U	3.06
Benzene	**837**	**2,680.00**	D, R-F, E	**3.25**
Carbon Tetrachloride	0.936	5.90	D, U	2.41
tert-Amyl Methyl Ether	ND	ND	D, U	4.05
1,2-Dichloropropane	ND	ND	D, U	6.92
Ethyl Acrylate	ND	ND	D, U	2.51
Bromodichloromethane	ND	ND	D, U	2.86
Trichloroethylene	**62.1**	**334.00**	D, E	**2.19**
Methyl Methacrylate	ND	ND	D, U	10.6
cis-1,3-Dichloropropene	ND	ND	D, U	2.42
Methyl Isobutyl Ketone	ND	ND	D, U	18.6
trans-1,3-Dichloropropene	ND	ND	D, U	2.64
1,1,2-Trichloroethane	ND	ND	D, U	1.29
Toluene	**9310**	**35,200.00**	D, R-F, E	**374**
Dibromochloromethane	**3.15**	**26.90**	D, LJ	**2.84**
1,2-Dibromoethane	ND	ND	D, LJ, U	2.12

CERTIFICATE OF ANALYSIS

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FILE #: 0453.32.001.120
REPORTED: 12/31/24 09:53
SUBMITTED: 11/12/24
AQS SITE CODE:
SITE CODE: Chalmette Refining

Description: Chalmette Refining **Lab ID:** 4111214-05 **Sampled:** 11/06/24 15:56
Pressure @ Receipt: **Canister #:** 16918 **Received:** 11/12/24 10:22
Comments: #1 surge sump, crack in concrete, 30,000 ppm VOC **Analyzed:** 11/21/24 22:33

Air Toxics by EPA Compendium Method TO-15

	Results			MDL
Analyte	**ppbv**	**ug/m³**	**Flag**	**ppbv**
n-Octane	**55900**	**!62,000.0(**	D, E	**254**
Tetrachloroethylene	**7.23**	**49.10**	D, LJ	**2.77**
Chlorobenzene	ND	ND	D, LJ, U	2.64
Ethylbenzene	**2310**	**10,100.00**	D, LJ, R-F, E	**4.18**
m,p-Xylene	**10400**	**45,300.00**	D, E	**412**
Bromoform	ND	ND	D, LJ, U	3.47
Styrene	**19.6**	**83.70**	D, LJ, E	**8.78**
1,1,2,2-Tetrachloroethane	ND	ND	D, LJ, U	6.11
o-Xylene	**4080**	**17,800.00**	D, E	**231**
1,3,5-Trimethylbenzene	**3880**	**19,100.00**	D, E	**311**
1,2,4-Trimethylbenzene	**9820**	**48,400.00**	D, E	**315**
m-Dichlorobenzene	ND	ND	D, LJ, U	5.57
p-Dichlorobenzene	ND	ND	D, LJ, U	11.8
o-Dichlorobenzene	ND	ND	D, LJ, U	11.7
1,2,4-Trichlorobenzene	4.69	34.90	D, LJ, U	25.5
Hexachloro-1,3-butadiene	2.42	25.90	D, LJ, U	11.7

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FILE #: 0453.32.001.120
REPORTED: 12/31/24 09:53
SUBMITTED: 11/12/24
AQS SITE CODE:
SITE CODE: Chalmette Refining

Description: Chalmette Refining **Lab ID:** 4111214-06 **Sampled:** 11/05/24 14:52
Pressure @ Receipt: **Canister #:** 16925 **Received:** 11/12/24 10:22
Comments: Dock 2 FF controlled sump, hole in CVS 1st carbon drum, 40,0(**Analyzed:** 11/20/24 22:35

Air Toxics by EPA Compendium Method TO-15

Analyte	Results ppbv	Results ug/m³	Flag	MDL ppbv
Dichlorodifluoromethane	1.81	8.97	D, U	1.88
Chloromethane	**3.71**	**7.68**	D	**3.01**
Dichlorotetrafluoroethane	0.539	3.78	D, U	1.63
Vinyl chloride	ND	ND	D, U	1.59
1,3-Butadiene	ND	ND	CF, D, LL, U	6.83
Ethylene oxide	ND	ND	CE, D, U	7.92
Bromomethane	ND	ND	D, U	3.23
Chloroethane	ND	ND	D, U	4.22
Acetonitrile	ND	ND	D, R-F, U	10.2
Acrolein	ND	ND	CF, D, LK, U	25.6
Trichlorofluoromethane	ND	ND	D, U	2.95
Acrylonitrile	ND	ND	D, U	3.60
1,1-Dichloroethene	ND	ND	D, U	4.91
Dichloromethane	ND	ND	D, U	7.27
Carbon Disulfide	ND	ND	CF, D, LK, U	12.2
Trichlorotrifluoroethane	0.612	4.70	D, U	6.52
trans-1,2-Dichloroethylene	ND	ND	D, U	3.02
1,1-Dichloroethane	ND	ND	D, U	4.41
Methyl tert-Butyl Ether	ND	ND	D, U	3.14
Chloroprene	ND	ND	D, U	3.82
cis-1,2-Dichloroethylene	ND	ND	D, U	4.07
Bromochloromethane	1.75	9.28	D, U	2.81
Chloroform	ND	ND	D, U	4.16
Ethyl tert-Butyl Ether	ND	ND	D, U	2.77
1,2-Dichloroethane	ND	ND	D, U	3.60
1,1,1-Trichloroethane	ND	ND	D, U	2.96
Benzene	**9360**	**30,000.00**	D, R-F, E	**13.1**
Carbon Tetrachloride	0.636	4.01	D, U	2.33
tert-Amyl Methyl Ether	ND	ND	D, U	3.91
1,2-Dichloropropane	ND	ND	D, U	6.68
Ethyl Acrylate	ND	ND	D, U	2.42
Bromodichloromethane	ND	ND	D, U	2.76
Trichloroethylene	ND	ND	D, U	2.11
Methyl Methacrylate	ND	ND	D, U	10.2
cis-1,3-Dichloropropene	ND	ND	D, U	2.34
Methyl Isobutyl Ketone	ND	ND	D, U	17.9
trans-1,3-Dichloropropene	ND	ND	D, U	2.55
1,1,2-Trichloroethane	ND	ND	D, U	1.24
Toluene	**2360**	**8,910.00**	CF, D, LK, R-F, E	**11.8**
Dibromochloromethane	ND	ND	D, U	2.74
1,2-Dibromoethane	0.528	4.07	D, U	2.05

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ATTN: Benjamin Rosenthal
PHONE: (214) 665-6453 **FAX:** (732) 321-6616

FILE #: 0453.32.001.120
REPORTED: 12/31/24 09:53
SUBMITTED: 11/12/24
AQS SITE CODE:
SITE CODE: Chalmette Refining

Description: Chalmette Refining
Pressure @ Receipt:
Comments: Dock 2 FF controlled sump, hole in CVS 1st carbon drum, 40,0(

Lab ID: 4111214-06
Canister #: 16925

Sampled: 11/05/24 14:52
Received: 11/12/24 10:22
Analyzed: 11/20/24 22:35

Air Toxics by EPA Compendium Method TO-15

Analyte	Results ppbv	Results ug/m³	Flag	MDL ppbv
n-Octane	**1930**	**9,040.00**	D, E	**8.01**
Tetrachloroethylene	0.824	5.60	D, U	2.67
Chlorobenzene	ND	ND	D, U	2.55
Ethylbenzene	**364**	**1,580.00**	D, R-F, E	**4.04**
m,p-Xylene	**1620**	**7,050.00**	D, E	**13.0**
Bromoform	0.528	5.47	D, U	3.35
Styrene	1.40	5.98	D, U	8.48
1,1,2,2-Tetrachloroethane	ND	ND	D, U	5.90
o-Xylene	**376**	**1,640.00**	D, E	**7.30**
1,3,5-Trimethylbenzene	**97.1**	**478.00**	D, E	**9.81**
1,2,4-Trimethylbenzene	**171**	**842.00**	D, E	**9.94**
m-Dichlorobenzene	0.728	4.39	D, U	5.37
p-Dichlorobenzene	1.01	6.08	D, U	11.4
o-Dichlorobenzene	0.900	5.42	D, U	11.3
1,2,4-Trichlorobenzene	1.70	12.60	D, U	24.6
Hexachloro-1,3-butadiene	1.60	17.10	D, U	11.3

CERTIFICATE OF ANALYSIS

OECA
1201 Elm Street, Suite 500 (MC: ECDAT)
Dallas, TX 75270
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FILE #: 0453.32.001.120
REPORTED: 12/31/24 09:53
SUBMITTED: 11/12/24
AQS SITE CODE:
SITE CODE: Chalmette Refining

Description: Chalmette Refining **Lab ID:** 4111214-07 **Sampled:** 11/06/24 13:17
Pressure @ Receipt: **Canister #:** 16712 **Received:** 11/12/24 10:22
Comments: Outlet of carbon control system - sludge tank feeding centrifug **Analyzed:** 11/22/24 00:35

Air Toxics by EPA Compendium Method TO-15

	Results			MDL
Analyte	**ppbv**	**ug/m³**	**Flag**	**ppbv**
Dichlorodifluoromethane	**0.327**	**1.62**	D	**0.0270**
Chloromethane	**0.458**	**0.95**	D	**0.0433**
Dichlorotetrafluoroethane	ND	ND	D, U	0.0235
Vinyl chloride	**0.538**	**1.38**	D	**0.0229**
1,3-Butadiene	ND	ND	CF, D, LL, U	0.0983
Ethylene oxide	ND	ND	CE, D, U	0.114
Bromomethane	ND	ND	D, U	0.0465
Chloroethane	ND	ND	D, U	0.0608
Acetonitrile	**0.320**	**0.54**	CF, D, LK, R-F	**0.147**
Acrolein	0.242	0.56	CF, D, LK, U	0.369
Trichlorofluoromethane	**0.139**	**0.78**	D	**0.0424**
Acrylonitrile	ND	ND	D, U	0.0518
1,1-Dichloroethene	ND	ND	D, U	0.0706
Dichloromethane	**0.816**	**2.84**	D	**0.105**
Carbon Disulfide	0.0866	0.27	D, LK, CF, U	0.175
Trichlorotrifluoroethane	0.0529	0.41	D, U	0.0938
trans-1,2-Dichloroethylene	ND	ND	D, U	0.0434
1,1-Dichloroethane	ND	ND	D, U	0.0634
Methyl tert-Butyl Ether	ND	ND	D, U	0.0451
Chloroprene	ND	ND	D, U	0.0550
cis-1,2-Dichloroethylene	ND	ND	D, U	0.0585
Bromochloromethane	ND	ND	D, U	0.0404
Chloroform	ND	ND	D, U	0.0599
Ethyl tert-Butyl Ether	ND	ND	D, U	0.0399
1,2-Dichloroethane	ND	ND	D, U	0.0518
1,1,1-Trichloroethane	0.0364	0.20	D, U	0.0425
Benzene	**0.368**	**1.18**	D, R-F	**0.0451**
Carbon Tetrachloride	**0.0343**	**0.22**	D	**0.0335**
tert-Amyl Methyl Ether	ND	ND	D, U	0.0563
1,2-Dichloropropane	ND	ND	D, U	0.0961
Ethyl Acrylate	ND	ND	D, U	0.0349
Bromodichloromethane	ND	ND	D, U	0.0397
Trichloroethylene	0.0146	0.08	D, U	0.0304
Methyl Methacrylate	ND	ND	D, U	0.147
cis-1,3-Dichloropropene	ND	ND	D, U	0.0336
Methyl Isobutyl Ketone	0.0634	0.26	D, U	0.258
trans-1,3-Dichloropropene	ND	ND	D, U	0.0367
1,1,2-Trichloroethane	ND	ND	D, U	0.0179
Toluene	**1.43**	**5.40**	CF, D, LK, R-F	**0.170**
Dibromochloromethane	ND	ND	D, U	0.0395
1,2-Dibromoethane	ND	ND	D, U	0.0295

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FILE #: 0453.32.001.120
REPORTED: 12/31/24 09:53
SUBMITTED: 11/12/24
AQS SITE CODE:
SITE CODE: Chalmette Refining

Description: Chalmette Refining
Pressure @ Receipt:
Comments: Outlet of carbon control system - sludge tank feeding centrifug

Lab ID: 4111214-07
Canister #: 16712

Sampled: 11/06/24 13:17
Received: 11/12/24 10:22
Analyzed: 11/22/24 00:35

Air Toxics by EPA Compendium Method TO-15

	Results			MDL
Analyte	**ppbv**	**ug/m³**	**Flag**	**ppbv**
n-Octane	**0.452**	**2.12**	D	**0.115**
Tetrachloroethylene	**0.110**	**0.75**	D	**0.0384**
Chlorobenzene	ND	ND	D, U	0.0366
Ethylbenzene	**0.0808**	**0.35**	D, R-F	**0.0581**
m,p-Xylene	**0.317**	**1.38**	D	**0.187**
Bromoform	ND	ND	D, U	0.0483
Styrene	0.0171	0.07	D, U	0.122
1,1,2,2-Tetrachloroethane	ND	ND	D, U	0.0849
o-Xylene	**0.108**	**0.47**	D	**0.105**
1,3,5-Trimethylbenzene	0.0471	0.23	D, U	0.141
1,2,4-Trimethylbenzene	0.130	0.64	D, U	0.143
m-Dichlorobenzene	ND	ND	D, U	0.0773
p-Dichlorobenzene	ND	ND	D, U	0.164
o-Dichlorobenzene	ND	ND	D, U	0.163
1,2,4-Trichlorobenzene	ND	ND	D, U	0.354
Hexachloro-1,3-butadiene	ND	ND	D, U	0.162

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FILE #: 0453.32.001.120
REPORTED: 12/31/24 09:53
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AQS SITE CODE:
SITE CODE: Chalmette Refining

Analyte	Result	Units	Source Result	RPD	RPD Limit	Notes
Air Toxics by EPA Compendium Method TO-15 - Quality Control						
Batch B4K1809 - Summa Canister Prep						
Blank (B4K1809-BLK1)			Prepared: 11/18/24 Analyzed: 11/20/24			
Dichlorodifluoromethane	ND	ppbv				U
Chloromethane	ND	ppbv				U
Dichlorotetrafluoroethane	ND	ppbv				U
Vinyl chloride	ND	ppbv				U
1,3-Butadiene	ND	ppbv				U
Ethylene oxide	ND	ppbv				U
Bromomethane	ND	ppbv				U
Chloroethane	ND	ppbv				U
Acetonitrile	ND	ppbv				U
Acrolein	ND	ppbv				U
Trichlorofluoromethane	ND	ppbv				U
Acrylonitrile	ND	ppbv				U
1,1-Dichloroethene	ND	ppbv				U
Dichloromethane	ND	ppbv				U
Carbon Disulfide	ND	ppbv				U
Trichlorotrifluoroethane	ND	ppbv				U
trans-1,2-Dichloroethylene	ND	ppbv				U
1,1-Dichloroethane	ND	ppbv				U
Methyl tert-Butyl Ether	ND	ppbv				U
Chloroprene	ND	ppbv				U
cis-1,2-Dichloroethylene	ND	ppbv				U
Bromochloromethane	ND	ppbv				U
Chloroform	ND	ppbv				U
Ethyl tert-Butyl Ether	ND	ppbv				U
1,2-Dichloroethane	ND	ppbv				U
1,1,1-Trichloroethane	ND	ppbv				U
Benzene	ND	ppbv				U
Carbon Tetrachloride	ND	ppbv				U
tert-Amyl Methyl Ether	ND	ppbv				U
1,2-Dichloropropane	ND	ppbv				U
Ethyl Acrylate	ND	ppbv				U
Bromodichloromethane	ND	ppbv				U
Trichloroethylene	ND	ppbv				U
Methyl Methacrylate	ND	ppbv				U
cis-1,3-Dichloropropene	ND	ppbv				U
Methyl Isobutyl Ketone	ND	ppbv				U
trans-1,3-Dichloropropene	ND	ppbv				U

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Analyte	Result	Units	Source Result	RPD	RPD Limit	Notes
Air Toxics by EPA Compendium Method TO-15 - Quality Control						
Batch B4K1809 - Summa Canister Prep						
Blank (B4K1809-BLK1) Continued			Prepared: 11/18/24 Analyzed: 11/20/24			
1,1,2-Trichloroethane	ND	ppbv				U
Toluene	ND	ppbv				U
Dibromochloromethane	ND	ppbv				U
1,2-Dibromoethane	ND	ppbv				U
n-Octane	ND	ppbv				U
Tetrachloroethylene	ND	ppbv				U
Chlorobenzene	ND	ppbv				U
Ethylbenzene	ND	ppbv				U
m,p-Xylene	ND	ppbv				U
Bromoform	ND	ppbv				U
Styrene	ND	ppbv				U
1,1,2,2-Tetrachloroethane	ND	ppbv				U
o-Xylene	ND	ppbv				U
1,3,5-Trimethylbenzene	ND	ppbv				U
1,2,4-Trimethylbenzene	ND	ppbv				U
m-Dichlorobenzene	ND	ppbv				U
p-Dichlorobenzene	ND	ppbv				U
o-Dichlorobenzene	ND	ppbv				U
1,2,4-Trichlorobenzene	ND	ppbv				U
Hexachloro-1,3-butadiene	ND	ppbv				U
Duplicate (B4K1809-DUP1)		**Source: 4111214-01**	Prepared: 11/06/24 Analyzed: 11/20/24			
Dichlorodifluoromethane	0.500	ppbv	0.46	8.82	25	
Chloromethane	0.769	ppbv	0.71	7.34	25	
Dichlorotetrafluoroethane	0.0162	ppbv	0.02	1.87	25	
Vinyl chloride	ND	ppbv	ND		25	U
1,3-Butadiene	ND	ppbv	ND		25	CF, LL, U
Ethylene oxide	0.347	ppbv	0.32	8.12	25	CF, LK
Bromomethane	0.0106	ppbv	0.01	0.00	25	
Chloroethane	ND	ppbv	ND		25	U
Acetonitrile	0.242	ppbv	0.17	32.9	25	CF, LK, R-F
Acrolein	0.369	ppbv	0.29	24.9	25	CF, LK
Trichlorofluoromethane	0.238	ppbv	0.22	8.48	25	
Acrylonitrile	ND	ppbv	ND		25	U
1,1-Dichloroethene	ND	ppbv	ND		25	U
Dichloromethane	0.290	ppbv	0.27	7.28	25	
Carbon Disulfide	0.0900	ppbv	0.07	26.7	25	CF, EC, LK
Trichlorotrifluoroethane	0.0700	ppbv	0.07	4.98	25	

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Air Toxics by EPA Compendium Method TO-15 - Quality Control

Batch B4K1809 - Summa Canister Prep

Duplicate (B4K1809-DUP1) Continued **Source: 4111214-01** Prepared: 11/06/24 Analyzed: 11/20/24

Analyte	Result	Units	Source Result	RPD	RPD Limit	Notes
trans-1,2-Dichloroethylene	ND	ppbv	ND		25	U
1,1-Dichloroethane	ND	ppbv	ND		25	U
Methyl tert-Butyl Ether	ND	ppbv	ND		25	U
Chloroprene	ND	ppbv	ND		25	U
cis-1,2-Dichloroethylene	ND	ppbv	ND		25	U
Bromochloromethane	ND	ppbv	ND		25	U
Chloroform	0.0182	ppbv	0.02	5.07	25	
Ethyl tert-Butyl Ether	ND	ppbv	ND		25	U
1,2-Dichloroethane	0.0120	ppbv	ND		25	
1,1,1-Trichloroethane	ND	ppbv	ND		25	U
Benzene	0.292	ppbv	0.21	33.0	25	R-F
Carbon Tetrachloride	0.0799	ppbv	0.08	6.06	25	
tert-Amyl Methyl Ether	ND	ppbv	ND		25	U
1,2-Dichloropropane	ND	ppbv	ND		25	U
Ethyl Acrylate	ND	ppbv	ND		25	U
Bromodichloromethane	ND	ppbv	ND		25	U
Trichloroethylene	ND	ppbv	ND		25	U
Methyl Methacrylate	ND	ppbv	ND		25	U
cis-1,3-Dichloropropene	ND	ppbv	ND		25	U
Methyl Isobutyl Ketone	0.180	ppbv	0.09	69.3	25	
trans-1,3-Dichloropropene	ND	ppbv	ND		25	U
1,1,2-Trichloroethane	ND	ppbv	ND		25	U
Toluene	0.711	ppbv	0.30	80.3	25	R-F
Dibromochloromethane	ND	ppbv	ND		25	U
1,2-Dibromoethane	ND	ppbv	ND		25	U
n-Octane	0.116	ppbv	0.06	59.5	25	
Tetrachloroethylene	ND	ppbv	ND		25	U
Chlorobenzene	ND	ppbv	ND		25	U
Ethylbenzene	0.0847	ppbv	0.05	49.1	25	R-F
m,p-Xylene	0.173	ppbv	0.11	41.7	25	
Bromoform	ND	ppbv	ND		25	U
Styrene	ND	ppbv	ND		25	U
1,1,2,2-Tetrachloroethane	ND	ppbv	ND		25	U
o-Xylene	0.0844	ppbv	0.05	44.8	25	
1,3,5-Trimethylbenzene	ND	ppbv	ND		25	U
1,2,4-Trimethylbenzene	0.0390	ppbv	ND		25	
m-Dichlorobenzene	ND	ppbv	ND		25	U

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FILE #: 0453.32.001.120
REPORTED: 12/31/24 09:53
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AQS SITE CODE:
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Analyte	Result	Units	Source Result	RPD	RPD Limit	Notes
Air Toxics by EPA Compendium Method TO-15 - Quality Control						
Batch B4K1809 - Summa Canister Prep						
Duplicate (B4K1809-DUP1) Continued	**Source: 4111214-01**		Prepared: 11/06/24 Analyzed: 11/20/24			
p-Dichlorobenzene	ND	ppbv	ND		25	U
o-Dichlorobenzene	ND	ppbv	ND		25	U
1,2,4-Trichlorobenzene	ND	ppbv	ND		25	U
Hexachloro-1,3-butadiene	ND	ppbv	ND		25	U

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SITE CODE: Chalmette Refining

Air Toxics by EPA Compendium Method TO-15 - Quality Control

Sequence 2411048

Calibration Check (2411048-CCV1) Prepared: 11/18/24 Analyzed: 11/20/24

Analyte	Result	Units	% Difference	Limit (%)	Notes
Dichlorodifluoromethane	1.07	ppbv	4.2	30.00	
Chloromethane	1.05	ppbv	3.0	30.00	
Dichlorotetrafluoroethane	1.07	ppbv	3.8	30.00	
Vinyl chloride	1.09	ppbv	5.7	30.00	
1,3-Butadiene	1.10	ppbv	6.1	30.00	
Ethylene oxide	0.851	ppbv	-11.0	30.00	
Bromomethane	1.09	ppbv	6.0	30.00	
Chloroethane	1.12	ppbv	7.4	30.00	
Acetonitrile	1.05	ppbv	0.5	30.00	
Acrolein	0.996	ppbv	-1.9	30.00	
Trichlorofluoromethane	1.13	ppbv	8.8	30.00	
Acrylonitrile	1.17	ppbv	5.2	30.00	
1,1-Dichloroethene	1.13	ppbv	8.6	30.00	
Dichloromethane	1.09	ppbv	4.7	30.00	
Carbon Disulfide	1.18	ppbv	8.4	30.00	
Trichlorotrifluoroethane	1.09	ppbv	5.4	30.00	
trans-1,2-Dichloroethylene	1.13	ppbv	7.8	30.00	
1,1-Dichloroethane	1.12	ppbv	7.9	30.00	
Methyl tert-Butyl Ether	1.13	ppbv	9.1	30.00	
Chloroprene	1.11	ppbv	6.1	30.00	
cis-1,2-Dichloroethylene	1.09	ppbv	5.2	30.00	
Bromochloromethane	1.08	ppbv	4.1	30.00	
Chloroform	1.12	ppbv	6.2	30.00	
Ethyl tert-Butyl Ether	1.08	ppbv	4.3	30.00	
1,2-Dichloroethane	1.08	ppbv	4.0	30.00	
1,1,1-Trichloroethane	1.13	ppbv	9.4	30.00	
Benzene	1.11	ppbv	6.4	30.00	
Carbon Tetrachloride	1.15	ppbv	10.2	30.00	
tert-Amyl Methyl Ether	1.08	ppbv	3.9	30.00	
1,2-Dichloropropane	1.09	ppbv	4.9	30.00	
Ethyl Acrylate	1.15	ppbv	9.8	30.00	
Bromodichloromethane	1.15	ppbv	10.3	30.00	
Trichloroethylene	1.11	ppbv	6.7	30.00	
Methyl Methacrylate	1.08	ppbv	3.6	30.00	

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Air Toxics by EPA Compendium Method TO-15 - Quality Control

Sequence 2411048

Analyte	Result	Units	% Difference	Limit (%)	Notes
Calibration Check (2411048-CCV1) Continued			Prepared: 11/18/24	Analyzed: 11/20/24	
cis-1,3-Dichloropropene	1.16	ppbv	10.2	30.00	
Methyl Isobutyl Ketone	1.04	ppbv	-0.3	30.00	
trans-1,3-Dichloropropene	1.22	ppbv	16.2	30.00	
1,1,2-Trichloroethane	1.11	ppbv	6.1	30.00	
Toluene	0.995	ppbv	-4.5	30.00	
Dibromochloromethane	1.12	ppbv	7.6	30.00	
1,2-Dibromoethane	1.09	ppbv	4.8	30.00	
n-Octane	1.07	ppbv	2.8	30.00	
Tetrachloroethylene	1.07	ppbv	2.5	30.00	
Chlorobenzene	1.07	ppbv	2.3	30.00	
Ethylbenzene	1.06	ppbv	1.6	30.00	
m,p-Xylene	2.13	ppbv	3.0	30.00	
Bromoform	1.11	ppbv	7.1	30.00	
Styrene	1.07	ppbv	2.0	30.00	
1,1,2,2-Tetrachloroethane	1.07	ppbv	2.1	30.00	
o-Xylene	1.09	ppbv	4.2	30.00	
1,3,5-Trimethylbenzene	1.07	ppbv	2.1	30.00	
1,2,4-Trimethylbenzene	1.06	ppbv	1.3	30.00	
m-Dichlorobenzene	1.05	ppbv	0.2	30.00	
p-Dichlorobenzene	1.05	ppbv	0.8	30.00	
o-Dichlorobenzene	1.04	ppbv	-0.9	30.00	
1,2,4-Trichlorobenzene	1.11	ppbv	3.0	30.00	
Hexachloro-1,3-butadiene	1.11	ppbv	2.3	30.00	
Calibration Check (2411048-CCV2)			Prepared: 11/18/24	Analyzed: 11/21/24	
Dichlorodifluoromethane	1.15	ppbv	11.4	30.00	
Chloromethane	1.11	ppbv	8.7	30.00	
Dichlorotetrafluoroethane	1.15	ppbv	11.2	30.00	
Vinyl chloride	1.13	ppbv	9.0	30.00	
1,3-Butadiene	1.11	ppbv	7.1	30.00	
Ethylene oxide	0.928	ppbv	-3.0	30.00	
Bromomethane	1.12	ppbv	8.7	30.00	
Chloroethane	1.15	ppbv	10.3	30.00	
Acetonitrile	1.05	ppbv	1.3	30.00	
Acrolein	1.02	ppbv	0.8	30.00	

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Air Toxics by EPA Compendium Method TO-15 - Quality Control

Sequence 2411048

Calibration Check (2411048-CCV2) Continued Prepared: 11/18/24 Analyzed: 11/21/24

Analyte	Result	Units	% Difference	Limit (%)	Notes
Trichlorofluoromethane	1.16	ppbv	11.9	30.00	
Acrylonitrile	1.19	ppbv	6.8	30.00	
1,1-Dichloroethene	1.16	ppbv	10.7	30.00	
Dichloromethane	1.10	ppbv	5.5	30.00	
Carbon Disulfide	1.20	ppbv	10.0	30.00	
Trichlorotrifluoroethane	1.12	ppbv	8.7	30.00	
trans-1,2-Dichloroethylene	1.15	ppbv	9.8	30.00	
1,1-Dichloroethane	1.13	ppbv	9.0	30.00	
Methyl tert-Butyl Ether	1.16	ppbv	11.8	30.00	
Chloroprene	1.13	ppbv	8.5	30.00	
cis-1,2-Dichloroethylene	1.10	ppbv	5.8	30.00	
Bromochloromethane	1.12	ppbv	8.7	30.00	
Chloroform	1.14	ppbv	8.6	30.00	
Ethyl tert-Butyl Ether	1.10	ppbv	5.7	30.00	
1,2-Dichloroethane	1.14	ppbv	9.8	30.00	
1,1,1-Trichloroethane	1.13	ppbv	9.5	30.00	
Benzene	1.12	ppbv	7.2	30.00	
Carbon Tetrachloride	1.16	ppbv	10.9	30.00	
tert-Amyl Methyl Ether	1.08	ppbv	4.4	30.00	
1,2-Dichloropropane	1.11	ppbv	6.4	30.00	
Ethyl Acrylate	1.15	ppbv	9.4	30.00	
Bromodichloromethane	1.14	ppbv	9.3	30.00	
Trichloroethylene	1.12	ppbv	7.8	30.00	
Methyl Methacrylate	1.08	ppbv	3.5	30.00	
cis-1,3-Dichloropropene	1.14	ppbv	8.4	30.00	
Methyl Isobutyl Ketone	1.05	ppbv	0.4	30.00	
trans-1,3-Dichloropropene	1.17	ppbv	11.2	30.00	
1,1,2-Trichloroethane	1.14	ppbv	8.4	30.00	
Toluene	1.07	ppbv	2.8	30.00	
Dibromochloromethane	1.17	ppbv	12.3	30.00	
1,2-Dibromoethane	1.16	ppbv	11.3	30.00	
n-Octane	1.12	ppbv	7.9	30.00	
Tetrachloroethylene	1.15	ppbv	9.9	30.00	
Chlorobenzene	1.13	ppbv	8.0	30.00	

CERTIFICATE OF ANALYSIS

OECA
1201 Elm Street, Suite 500 (MC: ECDAT)
Dallas, TX 75270
ATTN: Benjamin Rosenthal
PHONE: (214) 665-6453 **FAX:** (732) 321-6616

FILE #: 0453.32.001.120
REPORTED: 12/31/24 09:53
SUBMITTED: 11/12/24
AQS SITE CODE:
SITE CODE: Chalmette Refining

Air Toxics by EPA Compendium Method TO-15 - Quality Control

Sequence 2411048

Calibration Check (2411048-CCV2) Continued Prepared: 11/18/24 Analyzed: 11/21/24

Analyte	Result	Units	% Difference	Limit (%)	Notes
Ethylbenzene	1.12	ppbv	8.4	30.00	
m,p-Xylene	2.24	ppbv	8.3	30.00	
Bromoform	1.16	ppbv	12.1	30.00	
Styrene	1.13	ppbv	8.6	30.00	
1,1,2,2-Tetrachloroethane	1.11	ppbv	6.4	30.00	
o-Xylene	1.14	ppbv	8.8	30.00	
1,3,5-Trimethylbenzene	1.12	ppbv	7.7	30.00	
1,2,4-Trimethylbenzene	1.12	ppbv	6.2	30.00	
m-Dichlorobenzene	1.13	ppbv	7.8	30.00	
p-Dichlorobenzene	1.13	ppbv	7.9	30.00	
o-Dichlorobenzene	1.12	ppbv	6.3	30.00	
1,2,4-Trichlorobenzene	1.17	ppbv	8.2	30.00	
Hexachloro-1,3-butadiene	1.18	ppbv	8.6	30.00	

Sequence 2411053

Initial Cal Check (2411053-ICV1) Prepared: 11/19/24 Analyzed: 11/20/24

Analyte	Result	Units	% Difference	Limit (%)	Notes
Dichlorodifluoromethane	2.61	ppbv	-2.2	30.00	
Chloromethane	2.47	ppbv	-6.7	30.00	
Dichlorotetrafluoroethane	2.48	ppbv	-0.2	30.00	
Vinyl chloride	2.61	ppbv	-2.4	30.00	
1,3-Butadiene	2.61	ppbv	0.4	30.00	
Ethylene oxide	2.24	ppbv	-10.9	30.00	
Bromomethane	2.67	ppbv	-1.8	30.00	
Chloroethane	2.71	ppbv	1.4	30.00	
Acetonitrile	2.62	ppbv	-3.1	30.00	
Acrolein	2.44	ppbv	-9.5	30.00	
Trichlorofluoromethane	2.64	ppbv	-5.2	30.00	
Acrylonitrile	2.90	ppbv	1.4	30.00	
1,1-Dichloroethene	2.90	ppbv	0.8	30.00	
Dichloromethane	2.76	ppbv	-4.6	30.00	
Carbon Disulfide	2.88	ppbv	1.9	30.00	
Trichlorotrifluoroethane	2.77	ppbv	-2.5	30.00	
trans-1,2-Dichloroethylene	2.92	ppbv	1.8	30.00	
1,1-Dichloroethane	2.90	ppbv	1.3	30.00	
Methyl tert-Butyl Ether	2.93	ppbv	3.6	30.00	

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FILE #: 0453.32.001.120
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Air Toxics by EPA Compendium Method TO-15 - Quality Control

Sequence 2411053

Initial Cal Check (2411053-ICV1) Continued Prepared: 11/19/24 Analyzed: 11/20/24

Analyte	Result	Units	% Difference	Limit (%)	Notes
cis-1,2-Dichloroethylene	2.76	ppbv	-2.0	30.00	
Bromochloromethane	2.81	ppbv	-0.8	30.00	
Chloroform	2.84	ppbv	-1.9	30.00	
Ethyl tert-Butyl Ether	2.85	ppbv	1.4	30.00	
1,2-Dichloroethane	2.76	ppbv	-3.1	30.00	
1,1,1-Trichloroethane	2.70	ppbv	-5.6	30.00	
Benzene	2.79	ppbv	-1.1	30.00	
Carbon Tetrachloride	2.82	ppbv	-2.0	30.00	
tert-Amyl Methyl Ether	2.75	ppbv	-4.0	30.00	
1,2-Dichloropropane	2.70	ppbv	-6.1	30.00	
Ethyl Acrylate	2.92	ppbv	3.7	30.00	
Bromodichloromethane	2.85	ppbv	-0.4	30.00	
Trichloroethylene	2.78	ppbv	-2.6	30.00	
Methyl Methacrylate	2.88	ppbv	1.6	30.00	
cis-1,3-Dichloropropene	2.87	ppbv	9.1	30.00	
Methyl Isobutyl Ketone	2.76	ppbv	-2.9	30.00	
trans-1,3-Dichloropropene	2.98	ppbv	11.1	30.00	
1,1,2-Trichloroethane	2.72	ppbv	-2.4	30.00	
Toluene	2.56	ppbv	-10.0	30.00	
Dibromochloromethane	2.80	ppbv	-1.8	30.00	
1,2-Dibromoethane	2.74	ppbv	-2.6	30.00	
n-Octane	2.76	ppbv	-3.5	30.00	
Tetrachloroethylene	2.76	ppbv	-2.3	30.00	
Chlorobenzene	2.74	ppbv	-3.7	30.00	
Ethylbenzene	2.72	ppbv	-3.9	30.00	
m,p-Xylene	2.91	ppbv	-1.1	30.00	
Bromoform	2.72	ppbv	-2.1	30.00	
Styrene	2.76	ppbv	-4.3	30.00	
1,1,2,2-Tetrachloroethane	2.71	ppbv	-2.9	30.00	
o-Xylene	2.79	ppbv	-0.5	30.00	
1,3,5-Trimethylbenzene	2.76	ppbv	-2.1	30.00	
1,2,4-Trimethylbenzene	2.64	ppbv	-4.2	30.00	
m-Dichlorobenzene	2.73	ppbv	-4.1	30.00	
p-Dichlorobenzene	2.77	ppbv	0.2	30.00	

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FILE #: 0453.32.001.120
REPORTED: 12/31/24 09:53
SUBMITTED: 11/12/24
AQS SITE CODE:
SITE CODE: Chalmette Refining

Analyte	Result	Units	% Difference	Limit (%)	Notes
Air Toxics by EPA Compendium Method TO-15 - Quality Control					
Sequence 2411053					
Initial Cal Check (2411053-ICV1) Continued			Prepared: 11/19/24	Analyzed: 11/20/24	
o-Dichlorobenzene	2.67	ppbv	-3.1	30.00	
1,2,4-Trichlorobenzene	2.66	ppbv	-2.0	30.00	
Hexachloro-1,3-butadiene	2.50	ppbv	-9.9	30.00	

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AQS SITE CODE:
SITE CODE: Chalmette Refining

Notes and Definitions

U	Under Detection Limit
R-F	Replicate exceeds DQO criteria.
LL	Analyte identified; Reported value may be biased low.
LK	Analyte identified; Reported value may be biased high.
LJ	Identification of analyte is acceptable; reported value is an estimate.
EC	Null data: Exceeds a critical criterion
E	The concentration for this analyte is an estimated value above the calibration range of the instrument.
D	This result obtained by dilution.
CF	Canister bias: NATTS/UATMP data for compounds that have failed certification for the canister
CE	Not reportable due to a co-eluting compound.
ND	Analyte NOT DETECTED
NR	Not Reported
MDL	Method Detection Limit
RPD	Relative Percent Difference

Note: This test is accredited under the 2016 TNI Standard; however the following analytes are not accredited: acetylene, bromodichloroethane, dichlorotetrafluoromethane, ethyl tert butyl ether, n-octane, tert amyl methyl ether, trichlorofluoroethane, and bromochloromethane.

Appendix 5
Requested Information

1. Provide descriptions for all process areas including the following information:

   a. List of process units at the refinery
   b. Simplified process flow diagrams for main refinery process units and waste streams
   c. Annual crude oil process rates for 2020-2023
   d. Final products made, annual quantities for 2020-2023, and their modes of shipping (i.e., ship, truck, rail, pipeline, etc.)

2. List and description of all wastewater management/treatment units including, but not limited to, desalters, sour water strippers, water washers, neutralization basins, dissolved gas floatation units, and oil/water separators.

3. For wastewater have available:
   a. The last three annual (BWON) TAB reports for benzene waste
   b. Any available site-specific compliance manual, compliance strategy guidance, or other document that describes how the facility is complying with the requirements of Part 61, Subpart FF (BWON)
   c. Inspection records going back three years for all BWON-regulated waste management units (individual drain systems, oil-water separators, closed-vent systems etc.)
   d. Supporting documentation for the reported uncontrolled benzene waste streams
   e. Continuous compliance monitoring data for any control device or treatment system used to comply with BWON
   f. Process flow diagram of the wastewater treatment system, including inflows from each process unit, any catch basins, lift stations, junction boxes, tanks, oil-water separators, treatment processes, etc.
   g. The most recent BWON End-of-Line sampling plan for each plant in the refinery, if applicable.
   h. Any applicable BWON end of line sampling results for past 3 years.
   i. Engineering Design Documentation for each waste management unit and treatment process required by 40 C.F.R. § 61.356(d)
   J. Carbon Canister Design Evaluations for Each Carbon System (BWON and NSPS Subpart QQQ)
   K. Carbon Canister Breakthrough Monitoring results for Each System (BWON and NSPS Subpart QQQ) – most recent 5 years
   L. Individual Drain Systems (IDS) for BWON and NSPS Subpart QQQ – identification of all components and respective compliance strategy
   M. Semi-Annual NSPS Subpart QQQ Reports – most recent 5 years
   N. Database and/or records of NSPS Subpart QQQ visual inspection results – most recent 5 years
   O. Parametric Monitoring Data for Treatment Processes – most recent 5 years

4. For each above-ground storage tank storing product with a maximum true vapor pressure greater than 0.5 psi, have available (copies of items designated below– most items can be compiled in a single table):
   a. Tank number and type of product stored
   b. Date of construction of tank
   c. Volume capacity (gallons/barrels) and height and diameter of tank
   d. Type of control device (external/internal floating, closed vent system and control device, etc.)
   e. Type of floating roof (external, internal, domed, etc.), if applicable, and floating roof construction type (e.g., steel full contact, aluminum skin and pontoon, etc.)

f. Deck seam type (welded, bolted), if applicable
g. Type of floating rim seals (both primary and secondary, if applicable)
h. Type of floating roof support (legs/cable suspended), if applicable
i. Date of installation of the floating roof, if applicable
j. Date of last out of service, or top-side, floating roof inspection, if applicable
k. Date of last primary seal inspection for tanks with an external floating roof. Indicate whether the tank was in service or out of service during the inspection
l. Date of most recent annual tank-top floating roof inspection for tanks with an internal floating roof
m. Date of the most recent emptying and degassing for each tank
n. List of applicable CAA regulations by tank, including group category (Group 1 or Group 2) under 40 CFR Part 63, Subpart CC (e.g., 40 CFR Part 60, Subpart Kb; or 40 CFR Part 63, Subpart WW). Also, indicate the compliance option selected to meet MACT CC requirements, if subject to the overlap provisions of 40 CFR Part 63, Subpart CC.
o. Facility map labelling the locations and ID number of each tank
p. Compliance dates for each storage vessel subject to 40 CFR Part 63, Subpart CC, including all documents referencing storage vessels which did not meet the requirements of 40 C.F.R §63.1063(a)(2)(i) through (a)(2)(viii) as of June 30, 2014
q. Standard operating procedures used by PBF Energy (or its contractors) for conducting floating roof inspections required under 40 CFR Part 63, Subpart CC or 40 CFR Part 60, Subpart Kb.

5. Provide a list of work orders for the month of October 2024, and November 1-3, 2024.

Appendix 6
Storage Tank Observations

Tank #	Contents	Tank Type	Photo	Video
D-0300	Crude Oil	EFR	-	FLIR0211.mp4, FLIR0212.mp4
Observations: 11/5/2024, 9:05 a.m. EPA inspector used optical gas imaging (OGI) and observed hydrocarbon emissions from the southeast area of rim seal. Buenning.				

Tank #	Contents	Tank Type	Photo	Video
D-0301	Crude Oil	EFR	-	FLIR0032.mp4, FLIR0033.mp4, FLIR0034.mp4
Observations: 11/5/2024, 9:00 a.m. OGI observed hydrocarbon emissions from plates and gaskets at the base of the guide pole and rim seal below roof ladder. Loukeris.				

Tank #	Contents	Tank Type	Photo	Video
D-0302	Crude Oil	EFR	-	FLIR0035.mp4, FLIR0036.mp4
Observations: 11/5/2024, 9:00 a.m. OGI observed hydrocarbon emissions from southeast rim seal and behind deck ladder. Loukeris.				

Tank #	Contents	Tank Type	Photo	Video
D-303	Crude Oil	EFR	-	FLIR0213.mp4, FLIR0214.mp4
Observations: 11/5/2024, 9:22 a.m. OGI observed hydrocarbon emissions from east vacuum breaker. Buenning.				

Tank #	Contents	Tank Type	Photo	Video
D-305	Crude/Slop Oil	EFR	FLIR0219.jpeg	FLIR0220.mp4
Observations: 11/5/2024 12:38 p.m. OGI observed hydrocarbon emissions from rim seal to the east/southeast. Buenning				

Tank #	Contents	Tank Type	Photo	Video
D-308	Crude Oil	EFR		FLIR0041.mp4
Observations: 11/5/2024, 10:00 a.m. OGI observed hydrocarbon emissions from northeast rim seal. Loukeris.				

Tank #	Contents	Tank Type	Photo	Video
D-400	Gasoline	EFR	-	FLIR0037.mp4
Observations: 11/5/2024. OGI observed hydrocarbon emissions near base of gauge pole, underneath debris on floating roof. Loukeris.				

Tank #	Contents	Tank Type	Photo	Video
D-401	Gasoline	EFR	-	FLIR0038.mp4, FLIR0039.mp4, FLIR0040.mp4
Observations: 11/5/2024, 9:52 a.m. OGI observed hydrocarbon emissions from north vacuum breaker and south, southeast rim seal. Loukeris.				

Tank #	Contents	Tank Type	Photo	Video
D-402	Gasoline	EFR	-	FLIR0216.mp4 FLIR0217.mp4, FLIR0218.mp4
Observations: 11/5/2024, 9:52 a.m. OGI observed hydrocarbon emissions from southeast vacuum breaker below platform and north-northeast vacuum breaker. Hydrocarbon odors. Buenning.				

Tank #	Contents	Tank Type	Photo	Video
D-1024	Water Draws	Fixed Roof	-	FLIR0043.mp4
Observations: 11/5/2024, 10:30 a.m. OGI observed hydrocarbon emissions from a hatch and a hole in the top of the roof. Metal plates were fixed to the top of the roof in a patchwork fashion. The roof of the tank was warped. Loukeris.				

Tank #	Contents	Tank Type	Photo	Video
D-6303	Gasoline	IFR		FLIR0041.mp4, FLIR0047.mp4, FLIR0049.mp4
Observations: 11/5/2024, OGI observed hydrocarbon emissions from perimeter vent, center roof vent, and piping. Haynes and Loukeris.				

Tank #	Contents	Tank Type	Photo	Video
D-6305	Gasoline	IFR	-	FLIR0050.mp4, FLIR0051.mp4, FLIR0052.mp4
Observations: 11/5/2024, 11:00 a.m. OGI observed hydrocarbon emissions from the center vent and breather vent. Loukeris.				

Tank #	Contents	Tank Type	Photo	Video
D-6309	Gasoline	IFR		FLIR0044.mp4, FLIR0045.mp4
Observations: 11/5/2024, OGI observed hydrocarbon emissions from perimeter vents. Loukeris				

Tank #	Contents	Tank Type	Photo	Video
D-6314	Gasoline	EFR		FLIR0046.mp4
Observations: 11/5/2024, OGI observed hydrocarbon emissions from rim seal opposite the viewing platform.				

Tank #	Contents	Tank Type	Photo	Video
D-6301	BRU Feed	EFR	FLIR0009.jpeg, FLIR0010.jpeg	FLIR0003.mp4, FLIR0004.mp4, FLIR0008.mp4
Observations: 11/5/2024, 11:30 a.m. OGI observed hydrocarbon emissions from the secondary seal fastener section below observation platform and the gauge hatch and gauge line hole. An oil skimming pump was connected to piping that ran through a hatch on the floating roof open to the atmosphere Rosenthal.				

Tank #	Contents	Tank Type	Photo	Video
D-6302	BRU Feed	EFR	-	FLIR0002.mp4
Observations: 11/5/2024, 11:00 a.m. OGI observed hydrocarbon emissions from rim seal opposite the observation platform and welded seam by vacuum breaker. Rosenthal.				

Tank #	Contents	Tank Type	Photo	Video
D-0076	Spent Caustic	EFR	-	FLIR0222.mp4
Observations: 11/5/2024, 2:31 p.m. OGI observed hydrocarbon emissions from north-northeast rim seal and secondary seal fastener section. Buenning.				

Tank #	Contents	Tank Type	Photo	Video
D-0060	Naptha	EFR	-	FLIR0223.mp4

Observations: 11/5/2024, 2:47 p.m. OGI observed hydrocarbon emissions east-southeast rim seal.

Tank #	Contents	Tank Type	Photo	Video
D-0071	Waste Water	EFR	-	FLIR0011.mp4

Observations: 11/5/24. OGI observed hydrocarbon emissions from gauge hatch and gauge line hole. Haynes.

Tank #	Contents	Tank Type	Photo	Video
D-0031	Sludge Tank	EFR	-	FLIR0224.mp4

Observations: 11/5/2024, 3:13 p.m. OGI observed hydrocarbon emissions east vacuum breaker. Buenning.

Tank #	Contents	Tank Type	Photo	Video
D-5553	Wastewater	EFR	-	FLIR0225.mp4

Observations: 11/5/2024, 3:58 p.m. OGI observed hydrocarbon emissions from east vacuum breaker. Vacuum breaker was black and discolored. Buenning.

Tank #	Contents	Tank Type	Photo	Video
D-5554	Wastewater	EFR	-	FLIR0012.mp4, FLIR0013.mp4

Observations: OGI observed emissions from the vacuum breaker and secondary seal. Haynes.

Tank #	Contents	Tank Type	Photo	Video
D-1008	Oily Stormwater	EFR	-	FLIR0228.mp4

Observations: 11/5/2024, 4:39 p.m. South vacuum breaker was open. Buenning.

Tank #	Contents	Tank Type	Photo	Video
D-1009	Oily Stormwater	EFR	-	FLIR0226.mp4 FLIR0227.mp4

Observations: 11/5/2024, 4:27 p.m. OGI observed emissions from south vacuum breaker. Vacuum breaker was open. Buenning.

Tank #	Contents	Tank Type	Photo	Video
D-0052	Intermediate	EFR	-	FLIR0015.mp4

Observations: 11/6/2024. OGI observed hydrocarbon emissions from the southeast rim seal. Loukeris.

Tank #	Contents	Tank Type	Photo	Video
D-8900	Sour Water	IFR	-	FLIR0016.mp4, FLIR0017.mp4

Observations: 11/6/2024. OGI observed hydrocarbon emissions from perimeter vents. Loukeris.

Tank #	Contents	Tank Type	Photo	Video
D-3721	Oily Stormwater	EFR	-	FLIR0019.mp4, FLIR0020.mp4

Observations: 11/6/2024. OGI observed hydrocarbon emissions from 3 roof legs and south vacuum breaker. Loukeris.

Tank #	Contents	Tank Type	Photo	Video
D-0003	Untreated Naptha	EFR	-	FLIR0021.mp4
Observations: 11/6/2024. OGI observed hydrocarbon emissions from south rim seal. Loukeris.				

Tank #	Contents	Tank Type	Photo	Video
D-0002	Aromatics/Clay Tower Feed	EFR	-	FLIR0022.mp4
Observations: 11/6/2024. OGI observed hydrocarbon emissions from gauge hatch. Loukeris.				

Tank #	Contents	Tank Type	Photo	Video
D-1024	Wet Solvent	Fixed Roof	-	FLIR0069.mp4, FLIR0070.mp4
Observations: 11/5/2024. 4:17 p.m. OGI observed hydrocarbon emissions from elbow piping on level gauge and from gauge line opening. Hydrocarbon emissions from unknown source on roof. Rosenthal.				

Tank #	Contents	Tank Type	Photo	Video
D-5509	Wastewater	IFR	-	FLIR0073.mp4
Observations: 11/6/2024, 11:00 a.m. OGI observed hydrocarbon emissions from PVRV on roof of tank. Vacuum truck observed loading material.				

Appendix 7
Rosters for Opening and Closing Conference

Opening/Pre-Inspection Meeting

Commence opening/pre-inspection meeting ..... Time: 11:18am

Name	Title	Representing	Telephone No.
Chris Carnahan	Env Manager	PBF	[redacted]
Ben Incaprera	Env Scientist	LDEQ	
KRISTINA TIMMONS	ENV. SCIENTIST	LDEQ	
Tom Godlewski	Corp HSE	PBF	
Constantinos Loukeris	~~EPA~~ Env. Engineer	EPA-R5	
Ben Rosenthal	Physical Scientist	EPA R6	
HANS BUENING	ENV. ENGINEER	EPA-NETC	
Matthew Schneider	Chem Engr.	EPA NEIC	
Sophia Ong	Physical Scientist	EPA R6	
Anastasia Zhilyaeva	Ops. Manager	PBF	
Jared Wimberley	Refinery Manager	PBF	
Matthew Cassidy	Mechanical Integrity & Reliability Manager	PBF	
Layne Araki	Economics and Planning Mgr	PBF	
Tom Godlewski			
Kevin Faras	Technical Mgr	PBF	
PETER WHITFIELD	ATTORNEY	SIDLEY	

Conclude opening/pre-inspection meeting ..... Time: 12:15pm

Sara Valentine Refinery Attorney PBF [redacted]

Katherine Orgeron HSE manager PBF

Initials / Date: SLO / 11/4/24

Exit interview / Out-briefing Meeting

Commenced meeting..... Time: 4:55pm

Name	Title	Representing	Telephone No.
Sara Valentine	Refinery Attorney	PBF	[redacted]
Tom Godlewski	PBF HSE Mgr	PBF	
K. Oregeron	PBF HSE mgr	PBF	
Chris Carrington	PBF Energy Env Manager		
Justin Gandy	PBF Energy Env. Air Advisor		
Ben Rosenthal	[redacted] EPA RC	Phys. Scientist	
Matthew Schneider	EPA - NEIC	Chem. Engineer	
HANS BUENING	EPA - NEIC	ENV. ENGINEER	
Ben Incaprera	LDEQ - Environmental Scientist	LDEQ	
KRISTINA TIMMONS	LDEQ - Environmental Scientist	LDEQ	
James Haynes	Physical Scientist	EPA - R6	
Sophia Ong	Physical Scientist	EPA. R6	
Anastasia Zhikyeva	Ops. Manager	PBF	
PETER WHITFIELD	Atty	SIDLEY	
Constantinos Loukeris	EPA R5	Env. Engr.	

Conclude meeting..... Time: 5:20 pm

Exit interview / Out-briefing Meeting Notes:

Initials / Date: SKO / 11/6/24