ONEOK
ROCKIES MIDSTREAM
A SUBSIDIARY OF ONEOK PARTNERS

SUBMITTED ELECTRONICALLY VIA CERIS

February 6, 2025

Mr. Jim Semerad, Director
North Dakota Department of Environmental Quality
Division of Air Quality
4201 Normandy Street
Bismarck, ND 58503-1324

ONEOK ROCKIES MIDSTREAM, L.L.C.
LOST BRIDGE-CORRAL CREEK COMPRESSOR STATION
PERMIT TO CONSTRUCT

Dear Mr. Semerad,

ONEOK Rockies Midstream, L.L.C. (ORM) operates the Corral Creek Compressor Station in Dunn County, North Dakota pursuant to Permit No. ACP-018109v1.0. The facility is collocated with the Lost Bridge Compressor Station operating under permit ACP-018115v1.0. ORM submits this Permit to Construct to add an additional flare to the Corral Creek facility (CC-FL-3) to control emissions from blowdown events and eliminate the fire/safety risk of the existing flare. As a result, ORM will cease operation of the existing flare CC-FL-1. Process safety venting will be released to atmosphere and emissions are included in the Miscellaneous Venting and Blowdowns to Atmosphere (BD) emission source.

If you need additional information or have any questions, please contact me at 918-588-7862 or Joshua.Hills@oneok.com.

Sincerely,

Joshua Hills
Environmental Professional

xc: T. Bower/K. Rudningen/S. Nies/V. Danzeisen/J. Chrobak /K. Hanner (.pdf)
Tulsa Environmental Files – Lost Bridge-Corral Creek Compressor Station – Permit Actions – ACTS

Permit to Construct Application

Corral Creek Compressor Station

ONEOK Rockies Midstream, L.L.C.

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Submitted to NDDEQ Division of Air Quality
February 2025

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Introduction

ONEOK Rockies Midstream, L.L.C. (ORM) operates the Corral Creek Compressor Station in Dunn County, North Dakota pursuant to Permit No. ACP-018109v1.0. The facility is collocated with the Lost Bridge Compressor Station operating under permit ACP-018115v1.0. ORM submits this Permit to Construct to add an additional flare to the Corral Creek facility (CC-FL-3) to control emissions from blowdown events and eliminate the fire/safety risk of the existing flare. As a result, ORM will cease operation of the existing flare CC-FL-1. Process safety venting will be released to atmosphere and emissions are included in the Miscellaneous Venting and Blowdowns to Atmosphere (BD) emission source.

Facility Equipment

Corral Creek Compressor Station will consist of three (3) electrically driven compressors, six (6) 400-bbl condensate tanks, two (2) 400-bbl produced water tanks, one (1) 400-bbl methanol tank, one (1) process flare for controlling emergency and miscellaneous reliefs, and one (1) VOC flare control emissions from the condensate tanks. Associated emission sources will include condensate truck loading, fugitive emissions and miscellaneous vents and blowdowns.

Process Description

A pipeline gathering system transports field natural gas from wells through an inlet separator where free liquids are removed and stored in the condensate tanks which will be controlled by a flare. Natural gas then passes through a suction header and is routed to the compressors, which boost gas pressure. The compressor units will discharge natural gas into a pipeline for transmission. Condensate is transported off-site via tank truck for sales. Emissions from fugitive components and miscellaneous vents and blowdowns also occur at the facility. A flare will be utilized to combust compressor blowdowns and for emergency upsets.

Regulatory Applicability

The facility is a natural gas compressor station that falls under the North American Industrial Classification System (NAICS) code 211130 (formerly Standard Industrial Classification (SIC) 1311).

New Source Performance Standards 40 CFR Part 60 Subpart JJJJ, Stationary Spark Ignition Internal Combustion Engines (SI-ICE) promulgates emission standards for all new SI engines ordered after June 12, 2006, and all SI engines modified or reconstructed after June 12, 2006, regardless of size. There are no SI-ICE located at this facility.

New Source Performance Standards 40 CFR Part 60 Subpart OOOO, Crude Oil and Natural Gas Production, Transmission and Distribution, establishes emission standards for the following equipment that commences construction, modification, or reconstruction after August 23, 2011 and on or before September 18, 2015 at crude oil and natural gas production, transmission or distribution facilities:

1. Each single gas well;
2. Single centrifugal compressors using wet seals located between the wellhead and the point of custody transfer to the natural gas transmission and storage segment;
3. Single reciprocating compressors located between the wellhead and the point of custody transfer to the natural gas transmission and storage segment;
4. Single continuous bleed natural gas driven pneumatic controllers with a natural gas bleed rate greater than 6 SCFH, located between the wellhead and the point of custody transfer to the natural gas transmission and storage segment and not located at a natural gas processing plant;

5. Single continuous bleed natural gas driven pneumatic controllers located at a natural gas processing plant;
6. Single storage vessels located in the oil and natural gas production segment, natural gas processing segment, or natural gas transmission and storage segment with the potential for VOC emissions equal to or greater than 6 tons per year;
7. All equipment, except compressors, within a process unit at an onshore natural gas processing plant;
8. Sweetening units located at onshore natural gas processing plants.

All equipment at Corral Creek Compressor Station was constructed after September 18, 2015 and will not be subject to this subpart.

New Source Performance Standards 40 CFR Part 60 Subpart OOOOa, Crude Oil and Natural Gas Facilities, establishes emission standards for the following equipment that commences construction, modification or reconstruction after September 18, 2015 at crude oil and natural gas production, transmission or distribution facilities:

1. Each single oil or gas well that conducts a completion following hydraulic fracturing or refracturing;
2. Single centrifugal compressors using wet seals that are not located at a well site;
3. Single reciprocating compressors not located at a well site;
4. Single continuous bleed natural gas driven pneumatic controllers with a natural gas bleed rate greater than 6 SCFH, not located at a natural gas processing plant;
5. Single continuous bleed natural gas driven pneumatic controllers located at a natural gas processing plant;
6. Single storage vessels with the potential for VOC emissions equal to or greater than 6 tons per year;
7. The group of all equipment within a process unit;
8. The group of fugitive emissions equipment at a compressor station;
9. The group of fugitive emissions equipment at a well site;
10. Sweetening units located at onshore natural gas processing plants;
11. Pneumatic pumps at natural gas processing plants and well sites.

Potentially affected equipment at the proposed facility includes the reciprocating compressors associated with each of the compressor engines. ORM will comply with the requirements for rod packing replacement as required. Any continuous bleed pneumatic controllers proposed for the facility will have a bleed rate less than 6 SCFH; therefore, they will not be subject to this subpart. The condensate tanks were constructed after September 18, 2015, but they will be controlled so their emissions will be less than 6 tons per year. ORM requests a federally enforceable emission limitation of 5.99 tons per year for each tank so that they will be exempt from this subpart. The produced water tanks were constructed after September 18, 2015, but will have emissions less than 6 tons per year and therefore are not subject. The facility is subject to the leak detection requirements of this subpart.

New Source Performance Standards 40 CFR Part 60 Subpart OOOOb, Crude Oil and Natural Gas Facilities, establishes emission standards for the following equipment that commences construction, modification or reconstruction after December 6, 2022 at crude oil and natural gas facilities:

1. Each single oil or gas well;;
2. Single centrifugal compressors using wet or dry seals that are not located at a well site;
3. Single reciprocating compressors not located at a well site;
4. Each collection of natural gas-driven process controllers at a well site, centralized production facility, onshore natural gas processing plant, or compressor station;
5. Storage vessel batteries with either the potential for VOC emissions equal to or greater than 6 tons per year or the potential for methane emissions equal to or greater than 20 tons per year;
6. The group of all equipment within a process unit at an onshore natural gas processing plant;

7. Sweetening units;
8. The group of all natural gas-driven pumps at a well site, centralized production facility, onshore natural gas processing plant, or compressor station;
9. The group of fugitive emissions equipment at a well site, centralized production facility or compressor station;

All potentially affected equipment is constructed prior to December 6, 2022 and is not subject to this subpart.

National Emission Standards for Hazardous Air Pollutants 40 CFR Part 63 Subpart ZZZZ, Reciprocating Internal Combustion Engines (RICE), affects any existing, new or reconstructed stationary RICE located at a major or area source of HAP emissions. Owners and operators of new or reconstructed engines at area sources must meet the requirements of Subpart ZZZZ by complying with either 40 CFR Part 60 Subpart IIII (for CI engines) or 40 CFR Part 60 Subpart JJJJ (for SI engines). There are no RICE at this facility; therefore, this subpart is not applicable.

Application Forms

Form SFN 8516 – Permit Application for Air Contaminant Sources

Form SFN 59652 – Permit Application for Flares

PERMIT APPLICATION FOR AIR CONTAMINANT SOURCES

NORTH DAKOTA DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF AIR QUALITY
SFN 8516 (9-2021)

SECTION A - FACILITY INFORMATION

Name of Firm or Organization ONEOK Rockies Midstream, L.L.C.		
Applicant's Name Dick Vande Bossche		
Title Vice President - ONEOK Rockies Midstream Operations	Telephone Number (406) 433-8710	E-mail Address dick.vandebossche@oneok.com
Contact Person for Air Pollution Matters Joshua Hills		
Title Environmental Specialist	Telephone Number (918) 588-7862	E-mail Address Joshua.Hills@oneok.com
Mailing Address (Street & No.) 100 W Fifth St.		
City Tulsa	State Oklahoma	ZIP Code 74102
Facility Name Lost Bridge-Corral Creek Compressor Station		
Facility Address (Street & No.)		
City Oakdale	State North Dakota	ZIP Code

County Dunn	Coordinates NAD 83 in Decimal Degrees (to forth decimal degree) Latitude 47.51730000	 Longitude -102.84840000

Legal Description of Facility Site				
Quarter	Quarter	Section 25	Township 147N	Range 96W

Land Area at Facility Site 8 _____ Acres (or) _____ Sq. Ft.	MSL Elevation at Facility ~2,517 ft

SECTION B – GENERAL NATURE OF BUSINESS

Describe Nature of Business	North American Industry Classification System Number	Standard Industrial Classification Number (SIC)
Natural Gas Compression	211130	1311

SECTION C – GENERAL PERMIT INFORMATION

Type of Permit? ☒ Permit to Construct (PTC) ☐ Permit to Operate (PTO)

If application is for a Permit to Construct, please provide the following data:

Planned Start Construction Date	Planned End Construction Date
02/2025	04/2025

SECTION D – SOURCE IDENTIFICATION AND CATEGORY OF EACH SOURCE INCLUDED ON THIS PERMIT APPLICATION

		Permit to Construct				Minor Source Permit to Operate						
Your Source ID Number	Source or Unit (Equipment, Machines, Devices, Boilers, Processes, Incinerators, Etc.)	New Source	Existing Source Modification	Existing Source Expansion	Existing Source Change of Location	New Source	Existing Source Initial Application	Existing Source After Modification	Existing Source After Expansion	Existing Source After Change of Location	Existing Source After Change of Ownership	Other
CC-FL-3	Process Flare	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
CC-BD	Miscellaneous Venting and Blowdowns to Atm	☐	☑	☐	☐	☐	☐	☐	☐	☐	☐	☐
		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
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		☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Add additional pages if necessary

SECTION D2 – APPLICABLE REGULATIONS

Source ID No.	Applicable Regulations (NSPS/MACT/NESHAP/etc.)

SECTION E – TOTAL POTENTIAL EMISSIONS

Pollutant	Amount (Tons Per Year)
NO_x	0.75
CO	2.46
PM	0.02

Pollutant	Amount (Tons Per Year)
PM_{10} (filterable and condensable)	0.02
$PM_{2.5}$ (filterable and condensable)	0.02
SO_2	0.28
VOC	89.30
GHG (as CO_2e)	2552.12
Largest Single HAP	6.66
Total HAPS	9.5

*If performance test results are available for the unit, submit a copy of test with this application. If manufacturer guarantee is used provide spec sheet.

SECTION F1 – ADDITIONAL FORMS

Indicate which of the following forms are attached and made part of the application

☐ Air Pollution Control Equipment (SFN 8532)	☐ Fuel Burning Equipment Used for Indirect Heating (SFN 8518)
☐ Construct/Operate Incinerators (SFN 8522)	☐ Hazardous Air Pollutant (HAP) Sources (SFN 8329)
☐ Natural Gas Processing Plants (SFN 11408)	☐ Manufacturing or Processing Equipment (SFN 8520)
☐ Glycol Dehydration Units (SFN 58923)	☐ Volatile Organic Compounds Storage Tank (SFN 8535)
■ Flares (SFN 59652)	☐ Internal Combustion Engines and Turbines (SFN 8891)
☐ Grain, Feed, and Fertilizer Operations (SFN 8524)	☐ Oil/Gas Production Facility Registration (SFN 14334)

SECTION F2 – OTHER ATTACHMENTS INCLUDED AS PART OF THIS APPLICATION

1.	Process Description and Regulatory Applicability	4.	Emission Calculations
2.	Area Map	5.	Supporting Documentation
3.	Process Flow Diagram	6.	

I, the undersigned applicant, am fully aware that statements made in this application and the attached exhibits and statements constitute the application for Permit(s) to Construct and/or Operate Air Contaminant sources from the North Dakota Department of Environmental Quality and certify that the information in this application is true, correct and complete to the best of my knowledge and belief. Further, I agree to comply with the provisions of Chapter 23.1-06 of the North Dakota Century Code and all rules and regulations of the Department, or revisions thereof. I also understand the permit is nontransferable and, if granted a permit, I will promptly notify the Department upon sale or legal transfer of this permitted establishment.

Signature	Date
DocuSigned by: Dick Vande Bossche 67B797C4193640F...	2/6/2025

PERMIT APPLICATION FOR FLARES

NORTH DAKOTA DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF AIR QUALITY
SFN 59652 (9-2021)

NOTE: READ INSTRUCTIONS BEFORE COMPLETING THIS FORM.
- Must include SFN 8516 or SFN 52858

SECTION A – GENERAL INFORMATION

Name of Firm or Organization	Facility Name
ONEOK Rockies Midstream, L.L.C.	Lost Bridge-Corral Creek Compressor Station

SECTION B - FLARE INFORMATION

Use: ☐ Emergency ☐ Process ■ Both	Subject to NSPS (40 CFR 60.18) ○ Yes ● No	
Emission Point ID CC-FL-3	Height Above Ground Level (ft.)	Diameter at Top (ft.)
Flame Monitor: ■ Thermocouple ☐ Infrared ☐ Ultraviolet ☐ Acoustic ☐ Other:		
Ignition: ■ Automatic ■ Continuous Burning Pilot ■ Other:		
Average Btu/1000 scf 1.207	Percent H_2S	Maximum Hourly Flow Rate to Flare 40.91lb/hr
List source ID numbers controlled by this unit, if any:		

SECTION C – AIR CONTAMINANTS EMITTED

Pollutant	Amount (Tons Per Year)	Basis of Estimate*
NO_x	0.13	AP-42 Table 1.4-1
CO	0.29	AP-42 Table 1.4-1
PM	0.01	AP-42 Table 1.4-2
PM_{10} (filterable and condensable)	0.01	AP-42 Table 1.4-1 and Mass Balance
$PM_{2.5}$ (filterable and condensable)	0.01	AP-42 Table 1.4-2
SO_2	0.01	AP-42 Table 1.4-2
VOC	0.18	AP-42 Table 1.4-1 and Mass Balance
GHG (as CO_2e)	193.76	40 CFR 98
Largest Single HAP	0.01	AP-42 Table 1.4-1 and Mass Balance
Total HAPS	0.01	AP-42 Table 1.4-1 and Mass Balance

*If performance test results are available for the unit, submit a copy of test with this application. If manufacturer guarantee are used provide spec sheet.

Will flaring of gas comply with applicable Ambient Air Quality Standards? ■ Yes ☐ No

IS THIS UNIT IN COMPLIANCE WITH ALL APPLICABLE AIR POLLUTION CONTROL RULES AND REGULATIONS?

■ YES ☐ NO

If "NO" a Compliance Schedule (SFN 61008) must be completed and attached.

Attach and label separate sheet(s) if you need more space to explain any system or answers or to provide complete listings of Emissions, Contaminants or other items.

SEND COMPLETED APPLICATION AND ALL ATTACHMENTS TO:

North Dakota Department of Environmental Quality
Division of Air Quality
4201 Normandy Street, 2nd Floor
Bismarck, ND 58503-1324
(701)328-5188

Appendix A - Maps and Drawings

Figure 1 – Area Map

Figure 2 – Process Flow Diagram

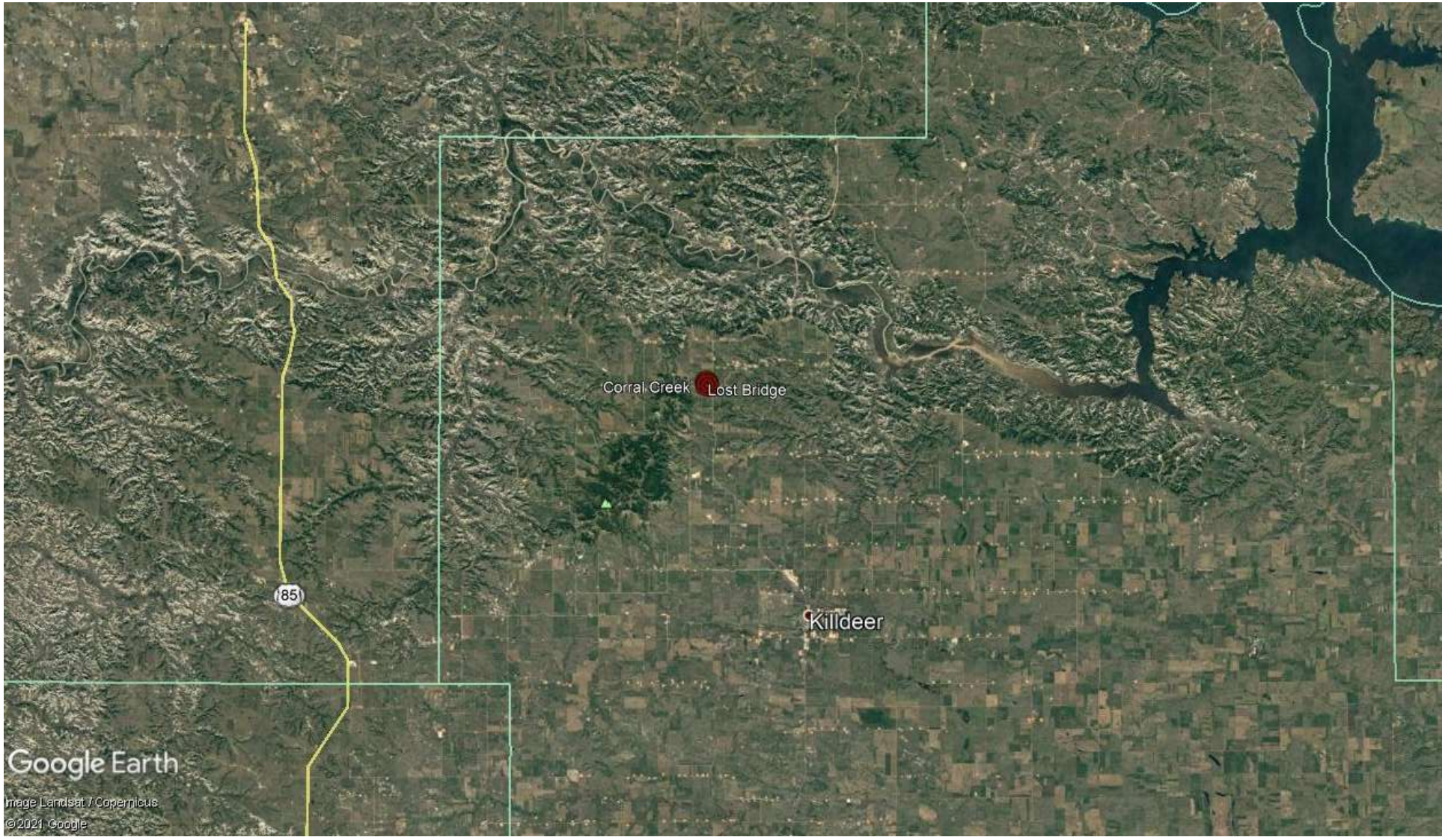

Figure Title: **Area Map**	ONEOK ROCKIES MIDSTREAM A SUBSIDIARY OF ONEOK PARTNERS	**Figure 1.** ONEOK Rockies Midstream, L.L.C. Corral Creek Compressor Station Dunn County, ND

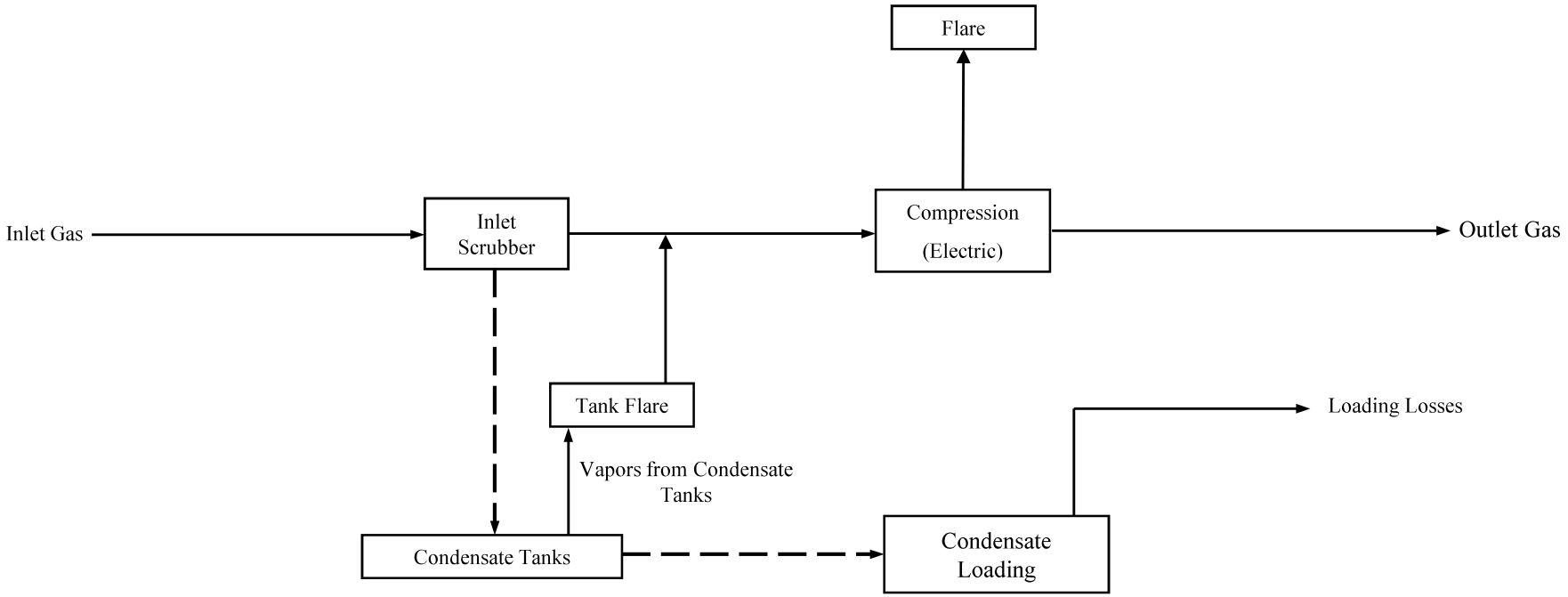

Figure Title: **Process Flow Diagram**

ONEOK ROCKIES MIDSTREAM
A SUBSIDIARY OF ONEOK PARTNERS

Figure 2.

ONEOK Rockies Midstream, L.L.C.
Corral Creek Compressor Station
Dunn County, ND

Appendix B – Emissions Calculations

ONEOK Rockies Midstream, L.L.C.
Lost Bridge Compressor Station/Corral Creek Compressor Station
Facility Emissions Summary - Annual

Unit ID	Description	NOx	CO	VOC	SO_2	PM	HCHO	HAP	CO_2e
		TPY	TPY	TPY	TPY	TPY	TPY	TPY	TPY
Lost Bridge Compressor Station									
LB-TK-1	400-bbl Condensate Tank	--	--	5.81	--	--	--	0.15	8.94
LB-TK-2	400-bbl Condensate Tank	--	--	0.22	--	--	--	0.03	0.00
LB-TK-3	400-bbl Condensate Tank	--	--	0.22	--	--	--	0.03	0.00
LB-TK-4	400-bbl Condensate Tank	--	--	5.81	--	--	--	0.15	8.94
LB-TK-5	400-bbl Condensate Tank	--	--	0.22	--	--	--	0.03	0.00
LB-TK-6	400-bbl Condensate Tank	--	--	0.22	--	--	--	0.03	0.00
LB-TL-1	Condensate Truck Loading	--	--	19.20	--	--	--	3.73	24.31
LB-FL-1	Emergency Flare	0.14	0.29	0.20	0.28	0.01	<0.01	<0.01	196.54
LB-MTK-1	200-bbl Methanol Tank	--	--	0.17	--	--	--	0.17	--
LB-FUG	Fugitive Emissions	--	--	4.65	--	--	--	0.33	398.00
LB-BD	Miscellaneous Venting and Blowdowns to Atmosphere	--	--	5.59	--	--	--	0.03	213.19
Corral Creek Compressor Station									
CC-TK-1	400-bbl Condensate Tank	--	--	5.64	--	--	--	0.28	10.27
CC-TK-2	400-bbl Condensate Tank	--	--	0.04	--	--	--	<0.01	0.00
CC-TK-3	400-bbl Condensate Tank	--	--	0.04	--	--	--	<0.01	0.00
CC-TK-4	400-bbl Condensate Tank	--	--	5.64	--	--	--	0.28	10.27
CC-TK-5	400-bbl Condensate Tank	--	--	0.04	--	--	--	<0.01	0.00
CC-TK-6	400-bbl Condensate Tank	--	--	0.04	--	--	--	<0.01	0.00
CC-TL-1	Condensate Truck Loading	--	--	19.20	--	--	--	3.73	24.31
CC-FL-3	**Process Flare**	**0.13**	**0.29**	**0.18**	**<0.01**	**0.01**	**<0.01**	**<0.01**	**193.76**
CC-FL-2	VOC Flare	0.48	1.88	<0.01	<0.01	0.01	<0.01	<0.01	786.56
CC-MTK-1	400-bbl Methanol Tank	--	--	0.34	--	--	--	0.34	--
CC-FUG	Fugitive Emissions	--	--	4.37	--	--	--	0.16	164.81
CC-BD	**Miscellaneous Venting and Blowdowns to Atmosphe**	**--**	**--**	**11.48**	**--**	**--**	**--**	**0.07**	**512.21**
	Total =	**0.75**	**2.46**	**89.30**	**0.28**	**0.02**	**<0.01**	**9.50**	**2,552.12**

[1]Miscellaneous venting and blowdowns to atmosphere include, but are not limited to, miscellaneous planned and unplanned venting to atmosphere from pressure relief valves, startup, shut-down, maintenance, compressor blowdowns, pigging actions, and/or pneumatic controllers.

ONEOK Rockies Midstream, L.L.C.
Corral Creek Compressor Station
Facility Emissions Summary - Hourly

Unit ID	Description	NOx	CO	VOC	SO_2	PM	HCHO	HAP	CO_2e
		lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr	lb/hr
CC-TK-1	400-bbl Condensate Tank	--	--	1.29	--	--	--	0.06	2.34
CC-TK-2	400-bbl Condensate Tank	--	--	0.01	--	--	--	<0.01	0.00
CC-TK-3	400-bbl Condensate Tank	--	--	0.01	--	--	--	<0.01	0.00
CC-TK-4	400-bbl Condensate Tank	--	--	1.29	--	--	--	0.06	2.34
CC-TK-5	400-bbl Condensate Tank	--	--	0.01	--	--	--	<0.01	0.00
CC-TK-6	400-bbl Condensate Tank	--	--	0.01	--	--	--	<0.01	0.00
CC-TL-1	Condensate Truck Loading	--	--	4.38	--	--	--	0.85	5.55
CC-FL-3	**Process Flare**	**0.18**	**0.72**	**0.58**	**<0.01**	**<0.01**	**<0.01**	**<0.01**	**319.09**
CC-FL-2	VOC Flare	0.11	0.43	<0.01	<0.01	<0.01	<0.01	<0.01	181.75
MTK-2	400-bbl Methanol Tank	--	--	0.00	--	--	--	0.00	--
CC-FUG	Fugitive Emissions	--	--	1.00	--	--	--	0.04	37.63
CC-BD	**Miscellaneous Venting and Blowdowns to Atmosphere**	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**--**
	Total =	**0.29**	**1.15**	**8.58**	**<0.01**	**<0.01**	**<0.01**	**1.02**	**548.71**

ONEOK Rockies Midstream, L.L.C.
Corral Creek Compressor Station
Facility Analyses

Component	Molecular Weight	Stream 1 Inlet Gas				Stream 2 Condensate				Stream 3 Flash Gas			
		Mole %	Equiv. Wt. Basis	Weight %	HC Weight %	Mole %	Equiv. Wt. Basis	Weight %	HC Weight %	Mole %	Equiv. Wt. Basis	Weight %	HC Weight %
Hydrogen Sulfide	34.081	0.0001%	0.00	0.00%	-	0.0000%	0.00	0.00%	-	0.0000%	0.00	0.00%	-
Carbon Dioxide	44.010	1.0613%	0.47	2.00%	-	0.0054%	0.00	0.00%	-	0.3620%	0.16	0.42%	-
Nitrogen	28.013	3.0318%	0.85	3.64%	-	0.0018%	0.00	0.00%	-	1.3400%	0.38	0.98%	-
Helium	4.003	0.0000%	0.00	0.00%	-	0.0000%	0.00	0.00%	-	0.0000%	0.00	0.00%	-
Oxygen	31.999	0.0000%	0.00	0.00%	-	0.0000%	0.00	0.00%	-	0.0000%	0.00	0.00%	-
Methane	16.043	64.6032%	10.36	44.36%	47.01%	0.1110%	0.02	0.02%	0.02%	22.9000%	3.67	9.60%	9.74%
Ethane	30.069	19.5481%	5.88	25.16%	26.66%	1.0300%	0.31	0.35%	0.35%	30.0000%	9.02	23.57%	23.91%
Propane	44.096	8.2431%	3.63	15.56%	16.49%	3.0900%	1.36	1.54%	1.54%	23.5000%	10.36	27.08%	27.46%
i-Butane	58.122	0.7570%	0.44	1.88%	2.00%	1.0500%	0.61	0.69%	0.69%	2.9100%	1.69	4.42%	4.48%
n-Butane	58.122	2.0285%	1.18	5.05%	5.35%	5.3200%	3.09	3.49%	3.49%	9.8100%	5.70	14.90%	15.11%
i-Pentane	72.149	0.2446%	0.18	0.76%	0.80%	3.2400%	2.34	2.64%	2.64%	2.2600%	1.63	4.26%	4.32%
n-Pentane	72.149	0.3202%	0.23	0.99%	1.05%	7.0100%	5.06	5.71%	5.71%	3.5100%	2.53	6.62%	6.71%
n-Hexane	86.175	0.0240%	0.02	0.09%	0.09%	15.0000%	12.93	14.59%	14.59%	1.9700%	1.70	4.44%	4.50%
Other Hexanes	86.175	0.1035%	0.09	0.38%	0.40%	0.0000%	0.00	0.00%	0.00%	0.0000%	0.00	0.00%	0.00%
Heptanes	100.202	0.0111%	0.01	0.05%	0.05%	25.6000%	25.65	28.95%	28.95%	0.9830%	0.98	2.57%	2.61%
Benzene	78.114	0.0053%	0.00	0.02%	0.02%	0.8640%	0.67	0.76%	0.76%	0.1100%	0.09	0.22%	0.23%
Toluene	92.141	0.0046%	0.00	0.02%	0.02%	1.4500%	1.34	1.51%	1.51%	0.0492%	0.05	0.12%	0.12%
Ethylbenzene	106.167	0.0002%	0.00	0.00%	0.00%	0.4850%	0.51	0.58%	0.58%	0.0050%	0.01	0.01%	0.01%
Xylenes	106.167	0.0012%	0.00	0.01%	0.01%	1.6500%	1.75	1.98%	1.98%	0.0136%	0.01	0.04%	0.04%
Octanes	114.229	0.0078%	0.01	0.04%	0.04%	20.3000%	23.19	26.17%	26.17%	0.2220%	0.25	0.66%	0.67%
2,2,4-Trimethylpentane	114.231	0.0043%	0.00	0.02%	0.02%	0.0000%	0.00	0.00%	0.00%	0.0000%	0.00	0.00%	0.00%
Nonanes	128.255	0.0000%	0.00	0.00%	0.00%	7.6100%	9.76	11.02%	11.02%	0.0239%	0.03	0.08%	0.08%
Decanes	142.282	0.0000%	0.00	0.00%	0.00%	0.0000%	0.00	0.00%	0.00%	0.0000%	0.00	0.00%	0.00%
Totals =		99.9999%	23.36	100.00%	100.00%	93.8172%	88.59	100.00%	100.00%	99.9687%	38.27	100.00%	100.00%
		Total HC =	**22.05**	**Total VOC =**	**26.33%**	**Total HC =**	**88.59**	**Total VOC =**	**99.63%**	**Total HC =**	**37.73**	**Total VOC =**	**66.36%**
				Total HAP =	**0.16%**			**Total HAP =**	**19.42%**			**Total HAP =**	**4.90%**

Notes:
1) Condensate and flash gas compositions calculated with site-specific ProMax process simulation.

ONEOK Rockies Midstream, L.L.C.
Corral Creek Compressor Station
Estimated Extended Gas Analysis

Component	Production	
	GRI Fraction	Estimated Mole %
Other Hexanes	0.6385	0.1035
n-Hexane	0.1479	0.0240
Heptane	0.0687	0.0111
2,2,4-Trimethylpentane	0.0267	0.0043
Octanes+	0.0480	0.0078
Benzene	0.0331	0.0054
Toluene	0.0285	0.0046
Ethylbenzene	0.0014	0.0002
Xylenes	0.0072	0.0012
Total=		0.1621

C6+ Value From Gas Analysis = 0.1621 mole %

ONEOK Rockies Midstream, L.L.C.
Corral Creek Compressor Station
Flare Information and Emission Factors

Equipment Information	
	CC-FL-3
Description	Process Flare
VOC to Flare (lb/hr)	28.91
Stream Heat Content (Btu/scf)	1,207
Stream Net Btu Value (Btu/hr)	2,279,624
Operating Hours	600
Control Efficiency	98%
Pilot Stream Heat Content (Btu/scf)	1,026
Pilot Gas Flow Rate (scfh)	200
Pilot Gas Capacity (MMBtu/hr)	0.21
Pilot Operating Hours	8,760

AP-42/EPA Emission Factors[1]			
	Flare Stream		**Pilot Gas**
NOx (lb/mmBtu)	0.068	**NOx (lb/mmscf)**	100.0
CO (lb/mmBtu)	0.31	**CO (lb/mmscf)**	84.0
VOC	Mass Balance	**VOC (lb/mmscf)**	5.5
SO_2	Stoichiometric	**SO_2 (lb/mmscf)**	0.6
$PM_{10/2.5}$	--	**$PM_{10/2.5}$ (lb/mmscf)**	1.9
PM_{COND}	--	**PM_{COND} (lb/mmscf)**	5.7
PM_{TOT}	--	**PM_{TOT} (lb/mmscf)**	7.6
Formaldehyde	--	**Formaldehyde (lb/mmscf)**	7.50E-02
n-Hexane	Mass Balance	**n-Hexane (lb/mmscf)**	1.80E+00
Benzene	Mass Balance	**Benzene (lb/mmscf)**	2.10E-03
Toluene	Mass Balance	**Toluene (lb/mmscf)**	3.40E-03
Ethylbenzene	Mass Balance	**Ethylbenzene**	--
Xylenes	Mass Balance	**Xylenes**	--
Other HAP	Mass Balance	**Other HAP (lb/mmscf)**	1.90E-03
Carbon Dioxide (CO_2) (kg/mmBtu)	53.06/Mass Balance	**Carbon Dioxide (CO_2) (kg/mmBtu)**	53.06
Methane (CH_4) (kg/mmBtu)	0.001/Mass Balance	**Methane (CH_4) (kg/mmBtu)**	1.00E-03
Nitrous Oxide (N_2O) (kg/mmBtu)	0.0001/Mass Balance	**Nitrous Oxide (N_2O) (kg/mmBtu)**	1.00E-04

Notes:
1) NOx and CO emission factors (lb/mmBtu), flare stream: AP-42, Table 13.5-1 (2/2018). Pilot criteria and HAP emission factors (lb/mmscf): AP-42, Table 1.4-1, -2 (7/98). GHG emission factors (kg/mmBtu): 40 CFR 98.

ONEOK Rockies Midstream, L.L.C.
Corral Creek Compressor Station
Flare Emissions Calculations

Unit ID: **CC-FL-3**

Total: Stream + Pilot

Pollutant	Hourly Emissions		Annual Emissions	
NOx	0.18	lb/hr	0.13	TPY
CO	0.72	lb/hr	0.29	TPY
VOC	0.58	lb/hr	0.18	TPY
SO_2	<0.01	lb/hr	<0.01	TPY
$PM_{10/2.5}$	<0.01	lb/hr	<0.01	TPY
PM_{COND}	<0.01	lb/hr	<0.01	TPY
PM_{TOT}	<0.01	lb/hr	0.01	TPY
Formaldehyde	<0.01	lb/hr	<0.01	TPY
n-Hexane	<0.01	lb/hr	<0.01	TPY
Benzene	<0.01	lb/hr	<0.01	TPY
Toluene	<0.01	lb/hr	<0.01	TPY
Ethylbenzene	<0.01	lb/hr	<0.01	TPY
Xylenes	<0.01	lb/hr	<0.01	TPY
Other HAP	<0.01	lb/hr	<0.01	TPY
CO_2	292.99	lb/hr	185.83	TPY
CH_4	1.04	lb/hr	0.31	TPY
N_2O	<0.01	lb/hr	<0.01	TPY

Stream Emissions

Pollutant	Emission Factor			Capacity			Conversion			Hourly Emissions			Operating Hours		Conversion			Annual Emissions	
NOx	6.80E-02	lb/mmBtu	X	2.28E+00	mmBtu/hr	X	-	-	=	0.16	lb/hr	X	600	X	0.0005	ton/lb	=	0.05	TPY
CO	3.10E-01	lb/mmBtu	X	2.28E+00	mmBtu/hr	X	-	-	=	0.71	lb/hr	X	600	X	0.0005	ton/lb	=	0.21	TPY
VOC	-	-	-	-	-	-	-	-	=	0.58	lb/hr	X	600	X	0.0005	ton/lb	=	0.17	TPY
SO_2	-	-	-	-	-	-	-	-	=	<0.01	lb/hr	X	600	X	0.0005	ton/lb	=	<0.01	TPY
n-Hexane	-	-	-	-	-	-	-	-	=	<0.01	lb/hr	X	600	X	0.0005	ton/lb	=	<0.01	TPY
Benzene	-	-	-	-	-	-	-	-	=	<0.01	lb/hr	X	600	X	0.0005	ton/lb	=	<0.01	TPY
Toluene	-	-	-	-	-	-	-	-	=	<0.01	lb/hr	X	600	X	0.0005	ton/lb	=	<0.01	TPY
Ethylbenzene	-	-	-	-	-	-	-	-	=	<0.01	lb/hr	X	300	X	0.0005	ton/lb	=	<0.01	TPY
Xylenes	-	-	-	-	-	-	-	-	=	<0.01	lb/hr	X	300	X	0.0005	ton/lb	=	<0.01	TPY
Other HAP	-	-	-	-	-	-	-	-	=	<0.01	lb/hr	X	600	X	0.0005	ton/lb	=	<0.01	TPY
CO_2	5.31E+01	kg/mmBtu	X	2.28E+00	mmBtu/hr	X	2.20462	lb/kg	=	266.66	lb/hr	X	600	X	0.0005	ton/lb	=	80.00	TPY
CO_2	-	-	-	-	-	-	-	-	=	2.33	lb/hr	X	600	X	0.0005	ton/lb	=	0.70	TPY
CH_4	1.00E-03	kg/mmBtu	X	2.28E+00	mmBtu/hr	X	2.20462	lb/kg	=	0.01	lb/hr	X	600	X	0.0005	ton/lb	=	<0.01	TPY
CH_4	-	-	-	-	-	-	-	-	=	1.03	lb/hr	X	600	X	0.0005	ton/lb	=	0.31	TPY
N_2O	1.00E-04	kg/mmBtu	X	2.28E+00	mmBtu/hr	X	2.20462	lb/kg	=	<0.01	lb/hr	X	600	X	0.0005	ton/lb	=	<0.01	TPY

Flare Emissions Calculations (Continued)

ONEOK Rockies Midstream, L.L.C.
Corral Creek Compressor Station

Pilot Emissions

Pollutant	Emission Factor			Capacity			Conversion			Hourly Emissions			Operating Hours			Conversion			Annual Emissions	
NOx	1.00E+02	lb/mmscf	X	2.00E-04	mmscf/hr	X	-	-	=	**0.02**	**lb/hr**	X	8,760	X	0.0005	ton/lb	=	**0.09**	**TPY**
CO	8.40E+01	lb/mmscf	X	2.00E-04	mmscf/hr	X	-	-	=	**0.02**	**lb/hr**	X	8,760	X	0.0005	ton/lb	=	**0.07**	**TPY**
VOC	5.50E+00	lb/mmscf	X	2.00E-04	mmscf/hr	X	-	-	=	**<0.01**	**lb/hr**	X	8,760	X	0.0005	ton/lb	=	**<0.01**	**TPY**
SO_2	6.00E-01	lb/mmscf	X	2.00E-04	mmscf/hr	X	-	-	=	**<0.01**	**lb/hr**	X	8,760	X	0.0005	ton/lb	=	**<0.01**	**TPY**
$PM_{10/2.5}$	1.90E+00	lb/mmscf	X	2.00E-04	mmscf/hr	X	-	-	=	**<0.01**	**lb/hr**	X	8,760	X	0.0005	ton/lb	=	**<0.01**	**TPY**
PM_{COND}	5.70E+00	lb/mmscf	X	2.00E-04	mmscf/hr	X	-	-	=	**<0.01**	**lb/hr**	X	8,760	X	0.0005	ton/lb	=	**<0.01**	**TPY**
PM_{TOT}	7.60E+00	lb/mmscf	X	2.00E-04	mmscf/hr	X	-	-	=	**<0.01**	**lb/hr**	X	8,760	X	0.0005	ton/lb	=	**0.01**	**TPY**
Formaldehyde	7.50E-02	lb/mmscf	X	2.00E-04	mmscf/hr	X	-	-	=	**<0.01**	**lb/hr**	X	8,760	X	0.0005	ton/lb	=	**<0.01**	**TPY**
n-Hexane	1.80E+00	lb/mmscf	X	2.00E-04	mmscf/hr	X	-	-	=	**<0.01**	**lb/hr**	X	8,760	X	0.0005	ton/lb	=	**<0.01**	**TPY**
Benzene	2.10E-03	lb/mmscf	X	2.00E-04	mmscf/hr	X	-	-	=	**<0.01**	**lb/hr**	X	8,760	X	0.0005	ton/lb	=	**<0.01**	**TPY**
Toluene	3.40E-03	lb/mmscf	X	2.00E-04	mmscf/hr	X	-	-	=	**<0.01**	**lb/hr**	X	8,760	X	0.0005	ton/lb	=	**<0.01**	**TPY**
Other HAP	1.90E-03	lb/mmscf	X	2.00E-04	mmscf/hr	X	-	-	=	**<0.01**	**lb/hr**	X	8,760	X	0.0005	ton/lb	=	**<0.01**	**TPY**
CO_2	5.31E+01	kg/mmBtu	X	2.05E-01	mmBtu/hr	X	2.20462	lb/kg	=	**24.00**	**lb/hr**	X	8,760	X	0.0005	ton/lb	=	**105.14**	**TPY**
CH_4	1.00E-03	kg/mmBtu	X	2.05E-01	mmBtu/hr	X	2.20462	lb/kg	=	**<0.01**	**lb/hr**	X	8,760	X	0.0005	ton/lb	=	**<0.01**	**TPY**
N_2O	1.00E-04	kg/mmBtu	X	2.05E-01	mmBtu/hr	X	2.20462	lb/kg	=	**<0.01**	**lb/hr**	X	8,760	X	0.0005	ton/lb	=	**<0.01**	**TPY**

ONEOK Rockies Midstream, L.L.C.
Corral Creek Compressor Station
Flare Emissions Calculations - Flare Stream Analysis

Unit ID: **CC-FL-3**

Component	Molecular Weight	Stream 1 Compressor Blowdowns		Total Streams Burned in Flare					Net Heating Value	Net Btu Rate
		1.89E+03	scfh	Uncontrolled		scfd	Controlled			
		Mole %	lb/hr	lb/hr	TPY		lb/hr	TPY	Btu/scf	Btu/hr
Water	18.0153	0.000%	0.00	0.00	0.00	0	0.00	0.00	0.00	0
Hydrogen Sulfide	34.081	0.000%	<0.01	<0.01	<0.01	0	<0.01	<0.01	586.80	1
Carbon Dioxide	44.010	1.061%	2.33	2.33	0.70	481	2.33	0.70	0.00	0
Nitrogen	28.013	3.032%	4.23	4.23	1.27	1,374	4.23	1.27	0.00	0
Helium	4.003	0.000%	0.00	0.00	0.00	0	0.00	0.00	0.00	0
Oxygen	31.999	0.000%	0.00	0.00	0.00	0	0.00	0.00	0.00	0
Methane	16.043	64.603%	51.60	51.60	15.48	29,289	1.03	0.31	909.40	1,109,790
Ethane	30.069	19.548%	29.27	29.27	8.78	8,862	0.59	0.18	1,618.70	597,727
Propane	44.096	8.243%	18.10	18.10	5.43	3,737	0.36	0.11	2,314.90	360,458
i-Butane	58.122	0.757%	2.19	2.19	0.66	343	0.04	0.01	3,000.40	42,905
n-Butane	58.122	2.029%	5.87	5.87	1.76	920	0.12	0.04	3,010.80	115,369
i-Pentane	72.149	0.245%	0.88	0.88	0.26	111	0.02	0.01	3,699.00	17,091
n-Pentane	72.149	0.320%	1.15	1.15	0.35	145	0.02	0.01	3,706.90	22,421
n-Hexane	86.175	0.024%	0.10	0.10	0.03	11	<0.01	<0.01	4,403.80	1,997
Other Hexanes	86.175	0.104%	0.44	0.44	0.13	47	0.01	<0.01	4,403.80	8,610
Heptanes	100.202	0.011%	0.06	0.06	0.02	5	<0.01	<0.01	5,100.00	1,069
Benzene	78.114	0.005%	0.02	0.02	0.01	2	<0.01	<0.01	3,590.90	360
Toluene	92.141	0.005%	0.02	0.02	0.01	2	<0.01	<0.01	4,273.60	371
Ethylbenzene	106.167	0.000%	<0.01	<0.01	<0.01	0	<0.01	<0.01	4,970.50	19
Xylenes	106.167	0.001%	0.01	0.01	<0.01	1	<0.01	<0.01	4,957.10	112
Octanes	114.229	0.008%	0.04	0.04	0.01	4	<0.01	<0.01	5,796.00	854
2,2,4-Trimethylpentane	114.231	0.004%	0.02	0.02	0.01	2	<0.01	<0.01	5,778.80	469
Nonanes	128.255	0.000%	0.00	0.00	0.00	0	0.00	0.00	6,493.20	0
Decanes	142.282	0.000%	0.00	0.00	0.00	0	0.00	0.00	7,189.60	0
Totals =		**100.000%**	**116.33**	**116.33**	**34.90**	**45,336**	**--**	**--**	**--**	**2,279,624**
Total VOC =		**11.755%**	**28.91**	**28.91**	**8.67**	**--**	**0.58**	**0.17**	**Heat Value (Btu/scf)**	**1,207**
Total HAP =				**0.18**	**0.05**	**--**	**<0.01**	**<0.01**		
Total H_2S=				**<0.01**	**<0.01**	**--**	**<0.01**	**<0.01**		
MW of Stream =						**23.36**				

Notes:
1) Stream composition assumed to be inlet gas. Estimated 300 compressor blowdowns at 1.889 MCF and one hour each.

ONEOK Rockies Midstream, L.L.C.
Corral Creek Compressor Station
Miscellaneous Venting and Blowdowns to Atmosphere

Component	Molecular Weight	Stream 1 Inlet Gas	Emissions	
		Mole %	scf/yr[1]	TPY[2]
Hydrogen Sulfide	34.081	0.000%	2	<0.01
Carbon Dioxide	44.010	1.061%	15,920	0.92
Nitrogen	28.013	3.032%	45,477	1.68
Helium	4.003	0.000%	0	0.00
Oxygen	31.999	0.000%	0	0.00
Methane	16.043	64.603%	969,048	20.49
Ethane	30.069	19.548%	293,222	11.62
Propane	44.096	8.243%	123,647	7.19
i-Butane	58.122	0.757%	11,355	0.87
n-Butane	58.122	2.029%	30,428	2.33
i-Pentane	72.149	0.245%	3,669	0.35
n-Pentane	72.149	0.320%	4,803	0.46
n-Hexane	86.175	0.024%	360	0.04
Other Hexanes	86.175	0.104%	1,553	0.18
Heptanes	100.202	0.011%	167	0.02
Benzene	78.114	0.005%	80	0.01
Toluene	92.141	0.005%	69	0.01
Ethylbenzene	106.167	0.000%	3	<0.01
Xylenes	106.167	0.001%	18	<0.01
Octanes	114.229	0.008%	117	0.02
2,2,4-Trimethylpentane	114.231	0.004%	65	0.01
Nonanes	128.255	0.000%	0	0.00
Decanes	142.282	0.000%	0	0.00
	Totals =	100.000%	**1,499,999**	**46.19**
		Total VOC =	**176,331**	**11.48**
		Total HAP =	**594**	**0.07**

Estimated Annual Volume 1,500,000 scf/yr
Molar volume conversion @60° F and 1 atm: 1 lb/mole = 379.4 scf

Notes:
1) Calculated as follows: Total Losses scf/yr * mol% of component.
2) Calculated as follows: component scf/yr / 379.4 molar volume conversion * MW component / 2000 lb/ton.

Appendix C – Support Documents

Inlet Gas Sample

Meter Sample and Analysis

January 2025

Meter #: 610012167
Name: CORRAL CREEK DISCHARGE
ORM_DAILY_TECH_10
Meter Analysis Effective Date: 1/6/2025 0:00:00
Meter Analysis Effective End Date: 1/6/2025 7:00:00

Sample

Company Name: SPL
Type: Spot Sample - Other
Sample Date: 1/ 6/2025 15:06:00

Bottle Cleaned: N/A
Flow Rate: 25388.7
Pressure: 813.1 psia
Temperature: 88.1
Ambient Air Temp.: 11.0
Heat Trace Indicator: Yes
Sample Tech: Austin Olson

Analysis

Lab Name: SPL
Analyzer Type: Gas Chromatograph
Analysis Date: 1/6/2025 15:06:00
Make & Model: Inficion Fusion
Calibration Date: 1/6/2025 0:00:00
Analysis Tech: Austin Olson

C6+: 60 - 30 - 10

Component	Mole %	Liquid Content	Mass %
Carbon Dioxide (CO2)	1.0613		1.9985
Nitrogen (N2)	3.0318		3.6341
Methane (C1)	64.6032		44.3462
Ethane (C2)	19.5481	5.2492	25.1508
Propane (C3)	8.2431	2.2802	15.5530
Isobutane (IC4)	0.7570	0.2487	1.8826
n-Butane (NC4)	2.0285	0.6421	5.0448
Isopentane (IC5)	0.2446	0.0898	0.7551
n-Pentane (NC5)	0.3202	0.1165	0.9885
Hexanes Plus (C6+)	0.1621	0.0710	0.6463
Argon (Ar)			
Carbon Monoxide (CO)			
Hydrogen (H2)			
Oxygen (O2)			
Helium (He)			
Water (H2O)			
Hydrogen Sulfide (H2S)	0.0001		0.0001
Total:	100.0000	8.6975	100.0000

Un-Normalized Total: 100.6886

Property	Total Sample
Pressure Base	14.730
Temperature Base	60.00
Relative Density	0.8101
HV, Dry @ Base P,T	1336.39
Ideal Heating Value:	1330.64
HV, Sat @ Base P,T	1313.13
HV, Sat @ Sample P,T	
Fws Factor	
Cricondentherm	
HCDP @ Sample Pressure	79.162
Testcar Permian	0.657
Testcar Panhandle	0.613
26 # RVP Gasoline	0.399
Testcar Midcon	0.537
Free Water	
Stock Tank Condensate Bbl/MMscf	