Natural Gas Analysis Report
GPA 2172-09/API 14.5 Report with GPA 2145-16 Physical Properties

	Sample Information
Sample Name	10. CORRAL 2S COMPRESSOR STATION BEFORE FUEL SKID
Technician	ANTHONY DOMINGUEZ
Analyzer Make & Model	INFICON MICRO GC
Last Calibration/Validation Date	03-02-2023
Meter Number	NA
Air temperature	64
Flow Rate (MCF/Day)	NA
Heat Tracing	Heated Hose & Gasifier
Sample description/mtr name	10. CORRAL 2S COMPRESSOR STATION BEFORE FUEL SKID
Sampling Method	fill and empty
Operator	OCCIDENTAL PETROLEUM
State	New Mexico
Region Name	PERMIAN_RESOURCES
Asset	NEW MEXICO
System	NA
FLOC	NA
Sample Sub Type	NA
Sample Name Type	NA
Vendor	AKM MEASUREMENT
Cylinder #	AKM-5
Sampled by	JONATHAN ALDRICH
Sample date	3-1-2023
Analyzed date	3-2-2023
Method Name	C9
Injection Date	2023-03-02 09:45:07
Report Date	2023-03-02 09:49:45
EZReporter Configuration File	1-16-2023 OXY GPA C9+ H2S #2.cfgx
Source Data File	70c22cb9-a539-4028-ae64-4159b3b6e3c9
NGA Phys. Property Data Source	GPA Standard 2145-16 (FPS)
Data Source	INFICON Fusion Connector

Component Results

Component Name	Peak Area	Raw Amount	Response Factor	Norm Mole%	Gross HV (Dry) (BTU / Ideal cu.ft.)	Relative Gas Density (Dry)	GPM (Dry) (Gal. / 1000 cu.ft.)	
Nitrogen	19700.7	1.1103	0.00005636	1.1056	0.0	0.01069	0.122	
Methane	1055395.8	77.3244	0.00007327	76.9944	779.4	0.42647	13.098	
CO2	2737.5	0.1294	0.00004726	0.1288	0.0	0.00196	0.022	
Ethane	269592.0	12.2683	0.00004551	12.2160	216.7	0.12683	3.278	
H2S	0.0	0.0000	0.00000000	0.0000	0.0	0.00000	0.000	
Propane	186677.9	6.1172	0.00003277	6.0911	153.6	0.09274	1.684	
iso-butane	70411.5	0.7825	0.00001111	0.7792	25.4	0.01564	0.256	
n-Butane	167710.8	1.8422	0.00001098	1.8343	60.0	0.03681	0.580	
iso-pentane	33117.9	0.3217	0.00000971	0.3203	12.8	0.00798	0.118	
n-Pentane	36385.3	0.3445	0.00000947	0.3431	13.8	0.00855	0.125	
hexanes	16694.0	0.1268	0.00000760	0.1263	6.0	0.00376	0.052	
heptanes	8089.0	0.0505	0.00000624	0.0503	2.8	0.00174	0.023	
octanes	1750.0	0.0098	0.00000558	0.0097	0.6	0.00038	0.005	
nonanes+	138.0	0.0009	0.00000619	0.0009	0.1	0.00004	0.001	
Total:		100.4285		100.0000	1271.2	0.73358	19.363	

Results Summary

Result	Dry	Sat.	
Total Un-Normalized Mole%	100.4285		
Pressure Base (psia)	14.730		
Temperature Base (Deg. F)	60.00		
Flowing Temperature (Deg. F)	0.0		
Flowing Pressure (psia)	240.0		

Result	Dry	Sat.
Gross Heating Value (BTU / Ideal cu.ft.)	1271.2	1249.1
Gross Heating Value (BTU / Real cu.ft.)	1275.9	1254.2
Relative Density (G), Real	0.7360	0.7343

Monitored Parameter Report

Parameter	Value	Lower Limit	Upper Limit	Status
Total un-normalized amount	100.4285	97.0000	103.0000	Pass

UPSET FLARING EVENT SPECIFIC JUSTIFICATIONS FORM

Facility: Corral 2S CS

Flare Date: 03/13/2023

Duration of event: 55 Minutes

MCF Flared: 235

Start Time: 10:25 AM

End Time: 11:20 AM

Cause: Equipment Malfunction > Corral 2 North CS > Compressor Malfunctions > Fuel Skid > Compression Equipment Shut Down

Method of Flared Gas Measurement: Gas Flare Meter

Comments:

---

1. Reason why this event was beyond Operator's control:

This emissions event was caused by the unforeseen, unexpected, sudden, and unavoidable breakdown of equipment or process that was beyond the owner/operator's control and did not stem from activity that could have been foreseen and avoided, and could not have been avoided by good design, operation, and preventative maintenance practices. Oxy engages in respectable and good facility operation practices while also maintaining its continuous facility equipment preventative maintenance program. In this case, the fuel skid malfunctioned over at the Corral 2 North compressor station, which in turn, caused a shutdown of all four (4) of the gas compressors, which then triggered a flaring event to occur. The Corral 2 North compressor station compression equipment was working normally and in good working operation prior to the fuel skid malfunctioning. Once the Oxy production tech received the compressor malfunction alarms as well as a flare alarm, the techs, who were in the area, arrived at the facility to troubleshoot the issues. As soon as flaring was triggered, the facility's mitigation optimizer adjusted injection rates to wells in the field to reduce sales gas and also shut in some wells. Once it was determined that the fuel skid was the issue, the techs quickly began making the repairs needed to correct the fuel skid. Once the fuel skid was repaired, the alarm panels were cleared on all compression equipment and then the techs restarted all compression. This event could not have been avoided or prevented from happening as technical or automated equipment, internally and externally, are inherently dynamic and its breakdown and/or malfunction can be sudden, reasonably unforeseeable and unexpected, which impact compression equipment operations and trigger additional malfunctions within the compressors as well as other type of equipment. This event is out of OXY's control yet, OXY made every effort to control and minimize emissions as much as possible. Though sudden and unexpected malfunctioning compressor issues occurred at Corral 2 North compressor station, OXY routed the overflow of stranded gas to flare at the Corral 2S compressor station in an effort to mitigate emissions for this event as the flare at this location can accommodate a higher volume of gas and in an effort to protect equipment, environment, and personnel.

2. Steps Taken to limit duration and magnitude of venting or flaring:

This facility is unmanned, except when Oxy production techs are gathering data daily or conducting daily walk-throughs to ensure that there are no problems, circumstances and/or assist other personnel on-site for maintenance purposes. It is OXY's policy to route all stranded gas to a flare during an unforeseen and unavoidable emergency or malfunction, as the part of the overall process or steps to take to limit duration and magnitude of flaring. Oxy personnel are in the field 24/7 and can physically see when we are flaring, which in turn, are communicated to additional Oxy field personnel. Internal OXY procedures ensure that upon gas compressor unit and/or multiple unit shutdown, increased sensor pressure/level alarms, other process equipment issues, etc., field production technician personnel are promptly notified, and are instructed to assess the issue as soon as possible in order to take prompt corrective action and minimize emissions. Oxy production technicians must assess whether the issue or circumstance is due to damage and repair is needed, or whether there are other reasons for its cause. The flare at this facility has a 98% combustion efficiency in order to lessen emissions as much as possible. In this case, the fuel skid malfunctioned over at the Corral 2 North compressor station, which in turn, caused a shutdown of all four (4) of the gas compressors, which then triggered a flaring event to occur. The Corral 2 North compressor station compression equipment was working normally and in good working operation prior to the fuel skid malfunctioning. Once the Oxy production tech received the compressor malfunction alarms as well as a flare alarm, the techs, who were in the area, arrived at the facility to troubleshoot the issues. As soon as flaring was triggered, the facility's mitigation optimizer adjusted injection rates to wells in the field to reduce sales gas and also shut in some wells. Once it was determined that the fuel skid was the issue, the techs quickly began making the repairs needed to correct the fuel skid. Once the fuel skid was repaired, the alarm panels were cleared on all compression equipment and then the techs restarted all compression. This event could not have been avoided or prevented from happening as technical or automated equipment, internally and externally, are inherently dynamic and its breakdown and/or malfunction can be sudden, reasonably unforeseeable and unexpected, which impact compression equipment operations and trigger additional malfunctions within the compressors as well as other type of equipment. This event is out of OXY's control yet, OXY made every effort to control and minimize emissions as much as possible. Though sudden and unexpected malfunctioning compressor issues occurred at Corral 2 North compressor station, OXY routed the overflow of stranded gas to flare at the Corral 2S compressor station in an effort to mitigate emissions for this event as the flare at this location can accommodate a higher volume of gas and in an effort to protect equipment, environment, and personnel.

3. Corrective Actions taken to eliminate the cause and reoccurrence of venting or flaring:

Oxy is limited in the corrective actions to eliminate this type of cause and potential reoccurrence of flaring as notwithstanding typical operation field equipment design and operation, various forms of mechanical or technical issues can be sudden, reasonably unforeseeable and unexpected which can cause equipment malfunctions to occur without warning or advance notice. Oxy continually strives to maintain and operate its facility equipment in a manner consistent with good practices for minimizing emissions and reducing the number of emission events. Oxy has a strong and positive equipment preventative maintenance program in place. The only actions that Oxy can take and handle that is within its control, is to keep continue with its compression equipment preventative maintenance program for this facility. As a potential remedy to prevent this type of circumstance occurring from happening in the future, Oxy production techs, during daily inspections of the facility, will be monitoring the fuel skid operation more closely.

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

DEFINITIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 206442
	Action Type: [C-129] Venting and/or Flaring (C-129)

DEFINITIONS

For the sake of brevity and completeness, please allow for the following in all groups of questions and for the rest of this application:

- this application's operator, hereinafter "this operator";
- venting and/or flaring, hereinafter "vent or flare";
- any notification or report(s) of the C-129 form family, hereinafter "any C-129 forms";
- the statements in (and/or attached to) this, hereinafter "the statements in this";
- and the past tense will be used in lieu of mixed past/present tense questions and statements.

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS

Action 206442

QUESTIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 206442
	Action Type: [C-129] Venting and/or Flaring (C-129)

QUESTIONS

Prerequisites	
Any messages presented in this section, will prevent submission of this application. Please resolve these issues before continuing with the rest of the questions.	
Incident Well	*Unavailable.*
Incident Facility	**[fAPP2126640958] CORRAL #2 SOUTH COMP STATION**

Determination of Reporting Requirements	
Answer all questions that apply. The Reason(s) statements are calculated based on your answers and may provide addional guidance.	
Was this vent or flare caused by an emergency or malfunction	Yes
Did this vent or flare last eight hours or more cumulatively within any 24-hour period from a single event	No
Is this considered a submission for a vent or flare event	**Yes, minor venting and/or flaring of natural gas.**
An operator shall file a form C-141 instead of a form C-129 for a release that, includes liquid during venting and/or flaring that is or may be a major or minor release under 19.15.29.7 NMAC.	
Was there **at least 50 MCF** of natural gas vented and/or flared during this event	Yes
Did this vent or flare result in the release of **ANY** liquids (not fully and/or completely flared) that reached (or has a chance of reaching) the ground, a surface, a watercourse, or otherwise, with reasonable probability, endanger public health, the environment or fresh water	No
Was the vent or flare within an incorporated municipal boundary or withing 300 feet from an occupied permanent residence, school, hospital, institution or church in existence	No

Equipment Involved	
Primary Equipment Involved	Other (Specify)
Additional details for Equipment Involved. Please specify	Equipment Malfunction > Corral 2 North CS > Compressor Malfunctions > Fuel Skid > Compression Equipment Shut Down

Representative Compositional Analysis of Vented or Flared Natural Gas	
Please provide the mole percent for the percentage questions in this group.	
Methane (CH4) percentage	77
Nitrogen (N2) percentage, if greater than one percent	1
Hydrogen Sulfide (H2S) PPM, rounded up	0
Carbon Dioxide (C02) percentage, if greater than one percent	0
Oxygen (02) percentage, if greater than one percent	0
If you are venting and/or flaring because of Pipeline Specification, please provide the required specifications for each gas.	
Methane (CH4) percentage quality requirement	*Not answered.*
Nitrogen (N2) percentage quality requirement	*Not answered.*
Hydrogen Sufide (H2S) PPM quality requirement	*Not answered.*
Carbon Dioxide (C02) percentage quality requirement	*Not answered.*
Oxygen (02) percentage quality requirement	*Not answered.*

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

QUESTIONS (continued)

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 206442
	Action Type: [C-129] Venting and/or Flaring (C-129)

QUESTIONS

Date(s) and Time(s)	
Date vent or flare was discovered or commenced	03/13/2023
Time vent or flare was discovered or commenced	10:25 AM
Time vent or flare was terminated	11:20 AM
Cumulative hours during this event	1

Measured or Estimated Volume of Vented or Flared Natural Gas	
Natural Gas Vented (Mcf) Details	*Not answered.*
Natural Gas Flared (Mcf) Details	Cause: Other | Other (Specify) | Natural Gas Flared | Released: 235 Mcf | Recovered: 0 Mcf | Lost: 235 Mcf.
Other Released Details	*Not answered.*
Additional details for Measured or Estimated Volume(s). Please specify	Gas Flare Meter
Is this a gas only submission (i.e. only significant Mcf values reported)	**Yes, according to supplied volumes this appears to be a "gas only" report.**

Venting or Flaring Resulting from Downstream Activity	
Was this vent or flare a result of downstream activity	No
Was notification of downstream activity received by this operator	*Not answered.*
Downstream OGRID that should have notified this operator	*Not answered.*
Date notified of downstream activity requiring this vent or flare	*Not answered.*
Time notified of downstream activity requiring this vent or flare	*Not answered.*

Steps and Actions to Prevent Waste	
For this event, this operator could not have reasonably anticipated the current event and it was beyond this operator's control.	True
Please explain reason for why this event was beyond this operator's control	This emissions event was caused by the unforeseen, unexpected, sudden, and unavoidable breakdown of equipment or process that was beyond the owner/operator's control and did not stem from activity that could have been foreseen and avoided, and could not have been avoided by good design, operation, and preventative maintenance practices. Oxy engages in respectable and good facility operation practices while also maintaining its continuous facility equipment preventative maintenance program. In this case, the fuel skid malfunctioned over at the Corral 2 North compressor station, which in turn, caused a shutdown of all four (4) of the gas compressors, which then triggered a flaring event to occur. The Corral 2 North compressor station compression equipment was working normally and in good working operation prior to the fuel skid malfunctioning. Once the Oxy production tech received the compressor malfunction alarms as well as a flare alarm, the techs, who were in the area, arrived at the facility to troubleshoot the issues. As soon as flaring was triggered, the facility's mitigation optimizer adjusted injection rates to wells in the field to reduce sales gas and also shut in some wells. Once it was determined that the fuel skid was the issue, the techs quickly began making the repairs needed to correct the fuel skid. Once the fuel skid was repaired, the alarm panels were cleared on all compression equipment and then the techs restarted all compression. This event could not have been avoided or prevented from happening as technical or automated equipment, internally and externally, are inherently dynamic and its breakdown and/or malfunction can be sudden, reasonably unforeseeable and unexpected, which impact compression equipment operations and trigger additional malfunctions within the compressors as well as other type of equipment. This event is out of OXY's control yet, OXY made every effort to control and minimize emissions as much as possible.
Steps taken to limit the duration and magnitude of vent or flare	This facility is unmanned, except when Oxy production techs are gathering data daily or conducting daily walk-throughs to ensure that there are no problems, circumstances and/or assist other personnel on-site for maintenance purposes. It is OXY's policy to route all stranded gas to a flare during an unforeseen and unavoidable emergency or malfunction, as the part of the overall process or steps to take to limit duration and magnitude of flaring. Oxy personnel are in the field 24/7 and can physically see when we are flaring, which in turn, are communicated to additional Oxy field personnel. Internal OXY procedures ensure that upon gas compressor unit and/or multiple unit shutdown, increased sensor pressure/level alarms, other process equipment issues, etc., field production technician personnel are promptly notified, and are instructed to assess the issue as soon as possible in order to take prompt corrective action and minimize emissions. Oxy production technicians must assess whether the issue or circumstance is due to damage and repair is needed, or whether there are other reasons for its cause. The flare at this facility has a 98% combustion efficiency in order to lessen emissions as much as possible. In this case, the fuel skid malfunctioned over at the Corral 2 North compressor station, which in turn, caused a shutdown of all four (4) of the gas compressors, which then triggered a flaring event to occur. The Corral 2 North compressor station compression equipment was working normally and in good working operation prior to the fuel skid malfunctioning. Once the Oxy production tech received the compressor malfunction alarms as well as a flare alarm, the techs, who were in the area, arrived at the facility to troubleshoot the issues. As soon as flaring was triggered, the facility's mitigation optimizer adjusted injection rates to wells in the field to reduce sales gas and also shut in some wells.
Corrective actions taken to eliminate the cause and reoccurrence of vent or flare	Oxy is limited in the corrective actions to eliminate this type of cause and potential reoccurrence of flaring as notwithstanding typical operation field equipment design and operation, various forms of mechanical or technical issues can be sudden, reasonably unforeseeable and unexpected which can cause equipment malfunctions to occur without warning or advance notice. Oxy continually strives to maintain and operate its facility equipment in a manner consistent with good practices for minimizing emissions and reducing the number of emission events. Oxy has a strong and positive equipment preventative maintenance program in place. The only actions that Oxy can take and handle that is within its control, is to keep continue with its compression equipment preventative maintenance program for this facility. As a potential remedy to prevent this type of circumstance occurring from happening in the future, Oxy production techs, during daily inspections of the facility, will be monitoring the fuel skid operation more closely.

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

ACKNOWLEDGMENTS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 206442
	Action Type: [C-129] Venting and/or Flaring (C-129)

ACKNOWLEDGMENTS

☑	I acknowledge that I am authorized to submit a *Venting and/or Flaring* (C-129) report on behalf of this operator and understand that this report can be **a complete** C-129 submission per 19.15.27.8 and 19.15.28.8 NMAC.
☑	I acknowledge that upon submitting this application, I will be creating a new incident file (assigned to this operator) to track any C-129 forms, pursuant to 19.15.27.7 and 19.15.28.8 NMAC and understand that this submission meets the notification requirements of Paragraph (1) of Subsection G and F respectively.
☑	I hereby certify the statements in this report are true and correct to the best of my knowledge and acknowledge that any false statement may be subject to civil and criminal penalties under the Oil and Gas Act.
☑	I acknowledge that the acceptance of any C-129 forms by the OCD does not relieve this operator of liability should their operations have failed to adequately investigate, report, and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment.
☑	I acknowledge that OCD acceptance of any C-129 forms does not relieve this operator of responsibility for compliance with any other applicable federal, state, or local laws and/or regulations.

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 206442

CONDITIONS

Operator: OXY USA INC P.O. Box 4294 Houston, TX 772104294	OGRID: 16696
	Action Number: 206442
	Action Type: [C-129] Venting and/or Flaring (C-129)

CONDITIONS

Created By	Condition	Condition Date
marialuna2	If the information provided in this report requires an amendment, submit a [C-129] Amend Venting and/or Flaring Incident (C-129A), utilizing your incident number from this event.	4/11/2023