



Certificate of Analysis

Number: 6030-22090412-002A

Artesia Laboratory

200 E Main St.

Artesia, NM 88210

Phone 575-746-3481

Paul Martinez
Earthstone
801 Cherry St, Suite 1200
Fort Worth, TX 76102

Sep. 28, 2022

Station Name: Grama Ridge East 34 9H LG
Station Number: 29410214
Station Location: Chisholm
Sample Point: Meter Run
Type of Sample: Spot-Cylinder
Heat Trace Used: N/A
Sampling Method: Fill and Purge
Sampling Company: SPL
Analyzed: 09/28/2022 07:37:43 by EBH

Sampled By: Arnulfo Herrera
Sample Of: Gas Spot
Sample Date: 09/23/2022
Sample Conditions: 560 psig Ambient: 83 °F
Effective Date: 09/23/2022
Method: GPA-2261M
Cylinder No: 5030-00474
Instrument: 70104251 (Inficon GC-MicroFusion)
Last Inst. Cal.: 09/26/2022 0:00 AM

Analytical Data

Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.73 psia		
Hydrogen Sulfide	0.000	0.00025	0.000		GPM TOTAL C2+	6.530
Nitrogen	1.622	1.63020	2.072		GPM TOTAL C3+	3.236
Methane	74.768	75.16473	54.714		GPM TOTAL iC5+	0.662
Carbon Dioxide	0.394	0.39559	0.790			
Ethane	12.209	12.27325	16.745	3.294		
Propane	6.085	6.11767	12.240	1.692		
Iso-butane	0.827	0.83169	2.193	0.273		
n-Butane	1.915	1.92556	5.078	0.609		
Iso-pentane	0.439	0.44173	1.446	0.162		
n-Pentane	0.452	0.45470	1.489	0.165		
Hexanes Plus	0.761	0.76463	3.233	0.335		
	99.472	100.00000	100.000	6.530		

Calculated Physical Properties

Relative Density Real Gas	Total	C6+
	0.7637	3.2176
Calculated Molecular Weight	22.04	93.19
Compressibility Factor	0.9961	

GPA 2172 Calculation:

Calculated Gross BTU per ft³ @ 14.73 psia & 60°F

Real Gas Dry BTU	1303	5141
Water Sat. Gas Base BTU	1281	5052
Ideal, Gross HV - Dry at 14.73 psia	1298.3	5141.1
Ideal, Gross HV - Wet	1275.7	5051.6

Comments: H2S Field Content 2.5 ppm

Hydrocarbon Laboratory Manager

Quality Assurance: The above analyses are performed in accordance with ASTM, UOP, GPA guidelines for quality assurance, unless otherwise stated.

Calculations for the total Mcf flared

End Meter Volume – the Begin Meter Volume.

***Composition for the gas has been entered into the question portion of the C-129.

If further back up is needed please let us know and will provide requested data.

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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
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DEFINITIONS

Action 169154

DEFINITIONS

Operator: Earthstone Operating, LLC 1400 Woodloch Forest; Ste 300 The Woodlands, TX 77380	OGRID: 331165
	Action Number: 169154
	Action Type: [C-129] Amend Venting and/or Flaring (C-129A)

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.
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QUESTIONS

Action 169154

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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 Operator	[331165] Earthstone Operating, LLC
Incident Type	Flare
Incident Status	Closure Approved
Incident Well	Unavailable.
Incident Facility	[fAPP2123832175] GRAMA RIDGE EAST 34 STATE COM SOUTH BATTERY

Only valid Vent, Flare or Vent with Flaring incidents (selected above in the Application Details section) that are assigned to your current operator can be amended with this C-129A application.

Determination of Reporting Requirements
Answer all questions that apply. The Reason(s) statements are calculated based on your answers and may provide additional 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	Yes
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	Gas Plant
Additional details for Equipment Involved. Please specify	Slam valve needed reset delek had no alarm

Representative Compositional Analysis of Vented or Flared Natural Gas
Please provide the mole percent for the percentage questions in this group.

Methane (CH4) percentage	75
Nitrogen (N2) percentage, if greater than one percent	2
Hydrogen Sulfide (H2S) PPM, rounded up	0
Carbon Dioxide (C02) percentage, if greater than one percent	0
Oxygen (O2) 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	0
Nitrogen (N2) percentage quality requirement	0
Hydrogen Sufide (H2S) PPM quality requirement	0
Carbon Dioxide (C02) percentage quality requirement	0
Oxygen (O2) percentage quality requirement	0

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QUESTIONS, Page 2

Action 169154

QUESTIONS (continued)

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QUESTIONS

Date(s) and Time(s)	
Date vent or flare was discovered or commenced	12/03/2022
Time vent or flare was discovered or commenced	12:00 AM
Time vent or flare was terminated	11:59 PM
Cumulative hours during this event	24

Measured or Estimated Volume of Vented or Flared Natural Gas	
Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Cause: Midstream Emergency Maintenance Gas Plant Natural Gas Flared Released: 188 MCF Recovered: 0 MCF Lost: 188 MCF.
Other Released Details	Not answered.
Additional details for Measured or Estimated Volume(s). Please specify	Metered at flare
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	Yes
Was notification of downstream activity received by this operator	No
Downstream OGRID that should have notified this operator	[372603] 3BEAR FIELD SERVICES, LLC
Date notified of downstream activity requiring this vent or flare	
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	Equipment downtime emissions controlled by flare.
Steps taken to limit the duration and magnitude of vent or flare	Standard emission control of equipment downtime. Working with vendor to coordinate service time and minimize downtime.
Corrective actions taken to eliminate the cause and reoccurrence of vent or flare	No way to avoid periodic downtime for repairs to address unforeseen condition. Process equipment emissions controlled by flare.

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ACKNOWLEDGMENTS

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ACKNOWLEDGMENTS

☒	I acknowledge that with this application I will be amending an existing incident file (assigned to this operator) for a vent or flare event, pursuant to 19.15.27 and 19.15.28 NMAC.
☒	I acknowledge that amending an incident file does not replace original submitted application(s) or information and understand that any C-129 forms submitted to the OCD will be logged and stored as public record.
☒	I hereby certify the statements in this amending 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.

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CONDITIONS

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CONDITIONS

Created By	Condition	Condition Date
kmcbride	If the information provided in this report requires further amendment(s), submit a [C-129] Amend Venting and/or Flaring Incident (C-129A), utilizing your incident number from this event.	12/20/2022