



Certificate of Analysis

Number: 6030-21050241-002A

Artesia Laboratory

200 E Main St.

Artesia, NM 88210

Phone 575-746-3481

Redwood
Redwood
4910 N. Midkiff Rd.
Midland, TX 79705

May 26, 2021

Station Name: Hawk 8K Fed
Station Number: 75141-00
Station Location: Redwood
Sample Point: Meter run
Instrument: 70104251 (Inficon GC-MicroFusion)
Last Inst. Cal.: 05/18/2021 0:00 AM
Analyzed: 05/26/2021 07:22:42 by KNF

Sampled By: Javier Lazo
Sample Of: Gas Spot
Sample Date: 05/24/2021
Sample Conditions: 44 psig, @ 105 °F Ambient: 80 °F
Effective Date: 05/24/2021
Method: GPA-2261M
Cylinder No: 1111-003911

Analytical Data

Components	Un-normalized Mol %	Mol. %	Wt. %	GPM at 14.696 psia
Nitrogen	1.108	1.11924	1.210	
Carbon Dioxide	2.221	2.24413	3.810	
Methane	63.067	63.72963	39.442	
Ethane	16.346	16.51802	19.162	4.431
Propane	8.499	8.58778	14.610	2.373
Iso-Butane	1.182	1.19422	2.678	0.392
n-Butane	2.809	2.83800	6.364	0.898
Iso-Pentane	0.769	0.77667	2.162	0.285
n-Pentane	0.776	0.78456	2.184	0.285
Hexanes	0.619	0.62530	2.079	0.258
Heptanes	1.327	1.34074	5.183	0.621
Octanes	0.146	0.14794	0.652	0.076
Nonanes Plus	0.093	0.09377	0.464	0.053
	98.962	100.00000	100.000	9.672

Calculated Physical Properties

Calculated Molecular Weight	Total	C9+
Compressibility Factor	25.92	128.26
Relative Density Real Gas	0.9943	
	0.8997	4.4283

GPA 2172 Calculation:

Calculated Gross BTU per ft³ @ 14.696 psia & 60°F

Real Gas Dry BTU	1473.7	6996.3
Water Sat. Gas Base BTU	1448.6	6874.3
Ideal, Gross HV - Dry at 14.696 psia	1465.3	6996.3
Ideal, Gross HV - Wet	1439.8	6874.3

Comments: H₂S Field Content 2.2 %
Mcf/day 555

Report generated by: Eric Ramirez

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

HAWK 8/17 CTB
Location 32.75873 -104.30046

Meter Type	Prod Date	Entry Date	Disposition	Product	UOM	Volume	Vol Rate	Energy Factor	Energy	Flow Temp	Gas Gravity	Base Temp	Base Press	Flow Press	Run Hours	Meter Begin	Meter End	Begin Date	End Date	Last Updated
FLARE	7/21/2021	7/22/2021	FLARE	GAS	MCF	445	445	1	445	60	0.6	60	14.73	13	24	74,965	75,410	7/21/2021 0:00	7/21/2021 0:00	COLEJOHNSON
FLARE	7/20/2021	7/21/2021	FLARE	GAS	MCF	506	506	1	506	60	0.6	60	14.73	18	24	74,459	74,965	7/20/2021 0:00	7/20/2021 0:00	COLEJOHNSON

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 37973

QUESTIONS

Operator: Redwood Operating LLC PO Box 1370 Artesia, NM 88211370	OGRID: 330211
	Action Number: 37973
	Action Type: [C-129] Venting and/or Flaring (C-129)

QUESTIONS**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 or is this venting or flaring caused by an emergency or malfunction	No
Did or will this venting or flaring last eight hours or more cumulatively within any 24-hour period from a single event	Yes
Is this considered a submission for a notification of a major venting or flaring	Yes, major venting or flaring of natural gas.
The operator shall file a form C-141 instead of a form C-129 for a release that includes liquid during venting or flaring that is or may be a major or minor release under 19.13.297 NMAC	
Was there or will there be at least 50 MCF of natural gas vented or flared during this event	Yes
Did this venting or flaring 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

Unregistered Facility Site

Please provide the facility details, if the venting or flaring occurred or is occurring at a facility that does not have an Facility ID (##) yet.

Facility or Site Name	Hawk 8/17 CTB
Facility Type	Tank Battery - (TB)

Equipment Involved

Primary Equipment Involved	Not answered.
Additional details for Equipment Involved. Please specify	Not answered.

Representative Compositional Analysis of Vented or Flared Natural Gas

Please provide the mole percent for the percentage questions in this group.

Methane (CH4) percentage	64
Nitrogen (N2) percentage, if greater than one percent	1
Hydrogen Sulfide (H2S) PPM, rounded up	0
Carbon Dioxide (CO2) percentage, if greater than one percent	2
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	Not answered.
Nitrogen (N2) percentage quality requirement	Not answered.
Hydrogen Sulfide (H2S) PPM quality requirement	Not answered.
Carbon Dioxide (CO2) percentage quality requirement	Not answered.
Oxygen (O2) percentage quality requirement	Not answered.

Date(s) and Time(s)

Date venting or flaring was discovered or commenced	07/20/2021
Time venting or flaring was discovered or commenced	05:00 PM
Is the venting or flaring event complete	Yes
Date venting or flaring was terminated	07/22/2021
Time venting or flaring was terminated	11:00 AM
Total duration of venting or flaring in hours, if venting or flaring has terminated	42
Longest duration of cumulative hours within any 24-hour period 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	Not answered.
Other Released Details	Cause: Midstream Scheduled Maintenance Pipeline (Any) Natural Gas Flared Spilled: 951 Mcf Recovered: 0 Mcf Lost: 951 Mcf]
Additional details for Measured or Estimated Volume(s). Please specify	Not answered.
Is this a gas only submission (i.e. only Mcf values reported)	Yes, according to supplied volumes this appears to be a "gas only" report.

Venting or Flaring Resulting from Downstream Activity

Was or is this venting or flaring a result of downstream activity	Not answered.
Date notified of downstream activity requiring this venting or flaring	Not answered.
Time notified of downstream activity requiring this venting or flaring	Not answered.

Steps and Actions to Prevent Waste

For this event, the operator could not have reasonably anticipated the current event and it was beyond the operator's control.	False
Please explain reason for why this event was beyond your operator's control	Not answered.
Steps taken to limit the duration and magnitude of venting or flaring	During flaring Redwood only flares newer/higher oil production wells and shut in all smaller/older production.
Corrective actions taken to eliminate the cause and reoccurrence of venting or flaring	Flaring was caused from DCP needing Redwood to curtail production to repair and maintenance, unfortunately the only thing we can do is continue communication with the Midstream Operator.

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CONDITIONS

Action 37973

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Operator: Redwood Operating LLC PO Box 1370 Artesia, NM 882111370	OGRID: 330211
	Action Number: 37973
	Action Type: [C-129] Venting and/or Flaring (C-129)

CONDITIONS

Created By	Condition	Condition Date
system	If the information provided in this report requires an amendment, submit a [C-129] Request to Amend Venting and/or Flaring Incident, utilizing your incident number from this event.	7/26/2021