

**Atchafalaya Measurement, Inc.**  
 416 East Main Street Artesia, NM 88210 575-746-3481

**Inficon Micro GC Fusion F08904 R03RR2**

	Sample Information
Sample Name	Cimarex__Hallertau 4 Federal 4 CDP Check__GC1-111618-09
Station Number	NCP9728009
Lease Name	Hallertau 4 Federal 4 CDP Check
Analysis For	Cimarex Energy
Producer	Cimarex Energy
Field Name	N/A
County/State	N/A
Frequency/Spot Sample	Spot
Sampling Method	Fill Empty
Sample Deg F	88
Atmos Deg F	N/A
Flow Rate	N/A
Line PSIG	585
Date/Time Sampled	10-28-18
Cylinder Number	N/A
Cylinder Clean Date	N/A
Sampled By	Coty B
Analysis By	Pat Silvas
Verified/Calibration Date	11-12-18
Report Date	2018-11-16 08:38:15

**Component Results**

Component Name	Ret. Time	Peak Area	Norm%	PPMV	GPM (Dry) (Gal. / 1000 cu.ft.)
Nitrogen	22.260	12703.3	2.54301	25430.100	0.000
H2S	46.680	54.9	0.00000	0.000	0.000
Methane	23.100	285808.6	73.56905	735690.500	0.000
Carbon Dioxide	26.800	35533.1	5.96032	59603.200	0.000
Ethane	37.200	64565.1	9.93860	99386.000	2.667
Propane	79.240	41679.1	4.77953	47795.300	1.321
i-butane	28.780	43795.0	0.65290	6529.000	0.214
n-Butane	30.380	98706.1	1.41781	14178.100	0.448
i-pentane	35.460	28009.9	0.34132	3413.200	0.125
n-Pentane	37.540	30635.7	0.36337	3633.700	0.132
Hexanes Plus	120.000	37341.0	0.43409	4340.900	0.189
Total:			100.00000	1000000.000	5.097

**Results Summary**

Result	Dry	Sat. (Base)
Total Raw Mole% (Dry)	98.32228	
Pressure Base (psia)	14.730	
Temperature Base	60.00	
Gross Heating Value (BTU / Ideal cu.ft.)	1159.8	1139.6
Gross Heating Value (BTU / Real cu.ft.)	1164.0	1144.2
Relative Density (G), Ideal	0.7717	0.7691
Relative Density (G), Real	0.7741	0.7718
Compressibility (Z) Factor	0.9964	0.9960

HALLERTAU 4 FEDERAL CDP FLARE			Digital (gas)				8453	
			6/21/2021	6/20/2021	6/19/2021	6/18/2021	6/17/2021	6/16/2021
> Static	(PSI)	B	13	13	13	31	26	13
Differential	(In H2O)	D	0	0	0	3	2	0
Gas Flowed	(MCF)	D	0.0	0.0	196.0	180.0	244.0	65.0
FlareReason					FACILITY COMPRE	FACILITY COMPRE	FACILITY ISSUES	FACILITY ISSUES
Comments (F5)					compressor not ke	compressor not ke	compressor not ke	compressor down

TABLE 1: HALLERTAU 4 FED BATTERY

DATE	TIME	FLARE	STATUS	VALUE
6/15/2021	3151	HALLERTAU 4 FED 1,3,4,7,8H	1	2.55
6/16/2021	3151	HALLERTAU 4 FED 1,3,4,7,8H	1	14.70
6/17/2021	3151	HALLERTAU 4 FED 1,3,4,7,8H	1	11.29
6/18/2021	3151	HALLERTAU 4 FED 1,3,4,7,8H	1	5.60

**District I**

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**District II**

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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 32799

**QUESTIONS**

Operator: CIMAREX ENERGY CO. OF COLORADO 600 N. Marienfeld Street Midland, TX 79701	OGRID: 162683 Action Number: 32799 Action Type: [C-129] Venting and/or Flaring (C-129)
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**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	Yes
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 19.13.29.7 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	HALLERTAU 4 FEDERAL CDP FLARE
Facility Type	Flare Stack - (FS)

**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	73
Nitrogen (N2) percentage, if greater than one percent	3
Hydrogen Sulfide (H2S) PPM, rounded up	0
Carbon Dioxide (CO2) percentage, if greater than one percent	6
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	06/16/2021
Time venting or flaring was discovered or commenced	07:15 AM
Is the venting or flaring event complete	Yes
Date venting or flaring was terminated	06/19/2021
Time venting or flaring was terminated	01:00 AM
Total duration of venting or flaring in hours, if venting or flaring has terminated	35
Longest duration of cumulative hours within any 24-hour period during this event	14

**Measured or Estimated Volume of Vented or Flared Natural Gas**

Natural Gas Vented (Mcf) Details	Not answered.
Natural Gas Flared (Mcf) Details	Cause: Equipment Failure   Gas Compressor Station   Natural Gas Flared   Spilled: 686 Mcf   Recovered: 0 Mcf   Lost: 686 Mcf ]
Other Released Details	Not answered.
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	Yes
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**

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For this event, the operator could not have reasonably anticipated the current event and it was beyond the operator's control.	True
Please explain reason for why this event was beyond your operator's control	Flaring due to compression repairs. With compressor finally running consistently, the extra flaring was due to handling flush production after all of the downtime.
Steps taken to limit the duration and magnitude of venting or flaring	Compressor operating conditions are being fine-tuned to better handle the gas.
Corrective actions taken to eliminate the cause and reoccurrence of venting or flaring	We are adding equipment to work with our existing well kill system to ensure the wells shut-in quicker when compression issues are observed.

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CONDITIONS  
  
Action 32799

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Operator: CIMAREX ENERGY CO. OF COLORADO 600 N. Marienfeld Street Midland, TX 79701	OGRID: 162683
	Action Number: 32799
	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.	7/1/2021