M AKM MEASUREMENT SERVICES LLC Natural Gas Analysis Report GPA 2172-09/API 14.5 Report with GPA 2145-16 Physical Properties

Sample Information

	Sample Information
Sample Name	ASTRODOG 235H
WELL NAME	ASTRODOG 235H
Technician	JACOB O'BRAIN
Analyzer Type	NAT. GAS ANALYZER
Analyzer Make & Model	INFICON MICRO GC
Last Calibration/Validation Date	06-06-2022
Sampling Flow Rate	0
Air Temperature	76
Heat Tracing	Heated Hose & Gasifier
Type of Sample	spot-portable GC
Sampling Method	fill and empty
Operator	AKM MEASUREMENT
Method Name	C9
Injection Date	2022-06-06 08:53:07
Report Date	2022-06-06 08:59:10
EZReporter Configuration File	GPA C9+ H2S.cfgx
Source Data File	abfd0e83-2a67-489a-adab-72b2d2cb9211
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	11591.5	0.8022	0.00006921	0.8034	0.0	0.00777	0.000	
Methane	898591.8	80.3949	0.00008947	80.5128	815.1	0.44596	0.000	
CO2	1650.4	0.0959	0.00005810	0.0960	0.0	0.00146	0.000	
Ethane	195139.6	11.0151	0.00005645	11.0312	195.7	0.11453	2.960	
H2S	0.0	0.0000	0.00000000	0.0000	0.0	0.00000	0.000	
Propane	106779.8	4.3732	0.00004096	4.3796	110.5	0.06668	1.210	
iso-butane	65364.2	0.6952	0.00001064	0.6962	22.7	0.01397	0.229	
n-Butane	127675.0	1.3549	0.00001061	1.3569	44.4	0.02723	0.429	
iso-pentane	37013.4	0.3461	0.00000935	0.3466	13.9	0.00863	0.127	
n-Pentane	38534.9	0.3558	0.00000923	0.3563	14.3	0.00888	0.130	
hexanes	32267.0	0.2395	0.00000742	0.2399	11.4	0.00714	0.099	
heptanes	20602.0	0.1280	0.00000621	0.1282	7.1	0.00444	0.059	
octanes	9456.0	0.0502	0.00000531	0.0503	3.2	0.00198	0.026	
nonanes+	475.0	0.0026	0.00000540	0.0026	0.2	0.00012	0.001	
Total:		99.8537		100.0000	1238.3	0.70878	5.270	

Results Summary

Result	Dry
Total Un-Normalized Mole%	99.8537
Pressure Base (psia)	14.730
Temperature Base (Deg. F)	60.00
Flowing Temperature (Deg. F)	0.0
Flowing Pressure (psia)	0.0
Gross Heating Value (BTU / Ideal cu.ft.)	1238.3
Gross Heating Value (BTU / Real cu.ft.)	1242.6
Relative Density (G), Real	0.7109

Monitored Parameter Report

Parameter	Value	Lower Limit	Upper Limit	Status	
Total un-normalized amount	99.8537	97.0000	103.0000	Pass	

Production Date	Site Name	Meter Description	Sum of Volume	Notes
6/20/2022	Astrodog Pad S CTB	LP Flare Meter	336	
6/20/2022	Culebra Bluff CTB 3	LP Flare Meter	62	
6/20/2022	Rana Salada FC Pad E CTB	RS Pad E LP Flare Meter	260	VRU off line waiting on parts
6/20/2022	Rana Salada FC Pad L CTB	LP Flare Meter	54	
6/21/2022	Astrodog Pad S CTB	HP Flare Meter	853	
6/21/2022	Astrodog Pad S CTB	LP Flare Meter	921	
6/21/2022	Culebra Bluff CTB 3	LP Flare Meter	141	
6/21/2022	Rana Salada FC Pad E CTB	RS Pad E LP Flare Meter	242	VRU off line waiting on parts
6/21/2022	Rana Salada FC Pad L CTB	LP Flare Meter	214	
6/22/2022	Astrodog Pad S CTB	LP Flare Meter	805	
6/22/2022	Culebra Bluff CTB 3	LP Flare Meter	153	
6/22/2022	Rana Salada FC Pad E CTB	RS Pad E LP Flare Meter	236	VRU off line waiting on parts
6/22/2022	Rana Salada FC Pad L CTB	LP Flare Meter	97	
6/23/2022	Astrodog Pad S CTB	LP Flare Meter	734	
6/23/2022	Culebra Bluff CTB 3	LP Flare Meter	159	
6/23/2022	Rana Salada FC Pad E CTB	RS Pad E LP Flare Meter	235	VRU off line waiting on parts
6/23/2022	Rana Salada FC Pad L CTB	LP Flare Meter	59	
6/24/2022	Astrodog Pad S CTB	LP Flare Meter	560	
6/24/2022	Culebra Bluff CTB 3	LP Flare Meter	158	
6/24/2022	Rana Salada FC Pad E CTB	RS Pad E LP Flare Meter	236	VRU off line waiting on parts
6/25/2022	Astrodog Pad S CTB	LP Flare Meter	478	
6/25/2022	Culebra Bluff CTB 3	LP Flare Meter	164	
6/25/2022	Rana Salada FC Pad A CTB	RS Pad A HP Flare	606	
6/25/2022	Rana Salada FC Pad E CTB	RS Pad E HP Flare Meter	306	
6/25/2022	Rana Salada FC Pad E CTB	RS Pad E LP Flare Meter	233	VRU off line waiting on parts
6/26/2022	Astrodog Pad S CTB	HP Flare Meter	1,385	
6/26/2022	Astrodog Pad S CTB	LP Flare Meter	853	
6/26/2022	Culebra Bluff CTB 3	LP Flare Meter	183	
6/26/2022	Rana Salada FC Pad A CTB	RS Pad A HP Flare	192	
6/26/2022	Rana Salada FC Pad E CTB	RS Pad E LP Flare Meter	214	VRU off line waiting on parts
6/26/2022	Rana Salada FC Pad L CTB	LP Flare Meter	377	

6/27/2022 Astrodog Pad S CTB	LP Flare Meter	1,023	
6/27/2022 Culebra Bluff CTB 3	LP Flare Meter	180	
6/27/2022 Rana Salada FC Pad E CTB	RS Pad E LP Flare Meter	214	
6/27/2022 Rana Salada FC Pad L CTB	LP Flare Meter	196	
6/28/2022 Astrodog Pad S CTB	HP Flare Meter	328	
6/28/2022 Astrodog Pad S CTB	LP Flare Meter	1,274	
6/28/2022 Culebra Bluff CTB 2	LP Flare Meter	87	
6/28/2022 Culebra Bluff CTB 3	LP Flare Meter	220	
6/28/2022 Rana Salada FC Pad E CTB	RS Pad E LP Flare Meter	224	
6/28/2022 Rana Salada FC Pad L CTB	LP Flare Meter	392	

District I
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District III 1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

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

Action 121625

DEFINITIONS

Operator:	OGRID:
NOVO OIL & GAS NORTHERN DELAWARE, LLC	372920
1001 West Wilshire Blvd	Action Number:
Oklahoma City, OK 73116	121625
	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.

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1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170 **District IV**

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

QUESTIONS

Action 121625

1220 S. St Francis Dr., Santa Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462	i Fe, ivivi 6/303		
Ω	UESTIONS		
Operator:	OGRID:		
NOVO OIL & GAS NORTHERN DELAWARE, LLC	372920		
1001 West Wilshire Blvd Oklahoma City, OK 73116	Action Number: 121625		
	Action Type: [C-129] Venting and/or Flaring (C-129)		
QUESTIONS	[O 120] Forming and of Finding (O 120)		
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	Not answered.		
Incident Facility	[fAPP2216747738] ASTRODOG PAD S CTB 4		
Determination of Reporting Requirements			
Answer all questions that apply. The Reason(s) statements are calculated based on your answers at			
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 v	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	No		
watercourse, or otherwise, with reasonable probability, endanger public health, the environment or fresh water			
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	No		
existence			
Equipment Involved			
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	80		
Nitrogen (N2) percentage, if greater than one percent	0		
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		
Oxygen (62) personage, ii greater than one person	<u> </u>		
If you are venting and/or flaring because of Pipeline Specification, please provide the required spec	ifications 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.		

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

QUESTIONS, Page 2

Action 121625

QUESTIONS (co	ntinued)
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QUESTI	ONS (continued)		
Operator: NOVO OIL & GAS NORTHERN DELAWARE, LLC	OGRID: 372920		
1001 West Wilshire Blvd Oklahoma City, OK 73116	Action Number:		
Okianoma Gity, Ok 73116	121625 Action Type:		
	[C-129] Venting and/or Flaring (C-129)		
QUESTIONS			
Date(s) and Time(s)			
Date vent or flare was discovered or commenced	06/20/2022		
Time vent or flare was discovered or commenced	08:00 AM		
Time vent or flare was terminated	08:00 AM		
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: High Line Pressure Pipeline (Any) Natural Gas Flared Released: 336 Mcf Recovered: 0 Mcf Lost: 336 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 significant Mcf values reported)	Yes, according to supplied volumes this appears to be a "gas only" report.		
te a min			
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	Yes		
Downstream OGRID that should have notified this operator	[237967] ENTERPRISE FIELD SERVICES, LLC		
Date notified of downstream activity requiring this vent or flare	06/20/2022		
Time notified of downstream activity requiring this vent or flare	08:00 AM		
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	Enterprise unable to take all gas due to high pressures		
Steps taken to limit the duration and magnitude of vent or flare	Monitored flare		

Wait for response from Enterprise

Corrective actions taken to eliminate the cause and reoccurrence of vent or flare

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ACKNOWLEDGMENTS

Action 121625

ACKNOWLEDGMENTS

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1001 West Wilshire Blvd	Action Number:
Oklahoma City, OK 73116	121625
	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.

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CONDITIONS

Action 121625

CONDITIONS

Operator:	OGRID:
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1001 West Wilshire Blvd	Action Number:
Oklahoma City, OK 73116	121625
	Action Type:
	[C-129] Venting and/or Flaring (C-129)

CONDITIONS

Created By	Condition	Condition Date
bwheato	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.	6/29/2022