# **AKM MEASUREMENT SERVICES**

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

### **Sample Information**

	Sample Information
Sample Name	RANA SALADA L PAD
Effective/Start Date	12-1-2021
WELL NAME	
Laboratory	D RICO
Analyzer Type	NAT. GAS ANALYZER
Analyzer Make & Model	INFICON MICRO GC
Last Calibration/Validation Date	2-28-2022
Sampling Flow Rate	
Air Temperature	37
Heat Tracing	Heated Hose & Gasifier
Type of Sample	SPOT PORTABLE GC
Sampling Method	FILL AND EMPTY
Company Collecting Sample	AKM Measurement
Method Name	C9
Injection Date	2022-03-15 08:12:49
Report Date	2022-03-15 08:25:01
EZReporter Configuration File	BLM Onshore.Extended.GPA 2145-16.FlowCal.H2S.cfgx
Source Data File	13f25d87-16be-4e06-a4c4-8557943aa637
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	20203.6	1.4090	0.00006974	1.4103	0.0	0.01364	0.000
Methane	880657.5	78.7838	0.00008946	78.8538	798.3	0.43677	0.000
CO2	1631.4	0.0929	0.00005696	0.0930	0.0	0.00141	0.000
Ethane	209820.4	11.6338	0.00005545	11.6441	206.5	0.12089	3.124
H2S	0.0	0.0000	0.00000000	0.0000	0.0	0.00000	0.000
Propane	116113.1	4.7135	0.00004059	4.7177	119.0	0.07183	1.304
iso-butane	42255.5	0.7286	0.00001724	0.7292	23.8	0.01463	0.239
n-Butane	82056.9	1.4126	0.00001722	1.4139	46.2	0.02837	0.447
iso-pentane	22849.6	0.3427	0.00001500	0.3430	13.8	0.00854	0.126
n-Pentane	23225.3	0.3433	0.00001478	0.3436	13.8	0.00856	0.125
hexanes	19103.0	0.2252	0.00001179	0.2254	10.7	0.00671	0.093
heptanes	14580.0	0.1395	0.00000956	0.1396	7.7	0.00483	0.065
octanes	9238.0	0.0724	0.00000784	0.0725	4.5	0.00286	0.037
nonanes+	1885.0	0.0139	0.00000735	0.0139	1.0	0.00062	0.008
Total:		99.9112		100.0000	1245.3	0.71966	5.568

## **Results Summary**

Result	Dry	Sat.
Total Un-Normalized Mole%	99.9112	
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.)	1245.3	1223.6
Gross Heating Value (BTU / Real cu.ft.)	1249.7	1228.4
Relative Density (G), Real	0.7219	0.7205

# **Monitored Parameter Report**

Received by OCD: 3/29/2022 9:57:42 AM

AKM MEASUREMENT SERVICES

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Parameter	Value	Lower Limit	Upper Limit	Status	
Total un-normalized amount	99.9112	97.0000	103.0000	Pass	

<b>Production Date</b>	Site Name	Meter Description	Sum of Volume Notes	
3/13/2022	Culebra Bluff CTB 2	LP Flare Meter	203	
3/14/2022	Culebra Bluff CTB 2	LP Flare Meter	219	
3/14/2022	Culebra Bluff CTB 3	LP Flare Meter	276	
3/15/2022	Culebra Bluff CTB 2	HP Flare Meter	913 Crestwood outage. Line	maintenece
3/15/2022	Culebra Bluff CTB 2	LP Flare Meter	638	
3/15/2022	Culebra Bluff CTB 3	HP Flare Meter	1,335 Crestwood outage. Line	maintenece
3/15/2022	Culebra Bluff CTB 3	LP Flare Meter	112	
3/15/2022	Rana Salada FC Pad L CTB	HP Flare Meter	1,188 Crestwood pipeline tie-	in
3/15/2022	Rana Salada FC Pad L CTB	LP Flare Meter	386	
3/16/2022	Culebra Bluff CTB 2	LP Flare Meter	329	
3/16/2022	Culebra Bluff CTB 3	LP Flare Meter	233	
3/17/2022	Culebra Bluff CTB 2	LP Flare Meter	210	
3/17/2022	Culebra Bluff CTB 3	LP Flare Meter	257	
3/17/2022	Rana Salada FC Pad E CTB	RS Pad E LP Flare Meter	71	
3/17/2022	Rana Salada FC Pad L CTB	HP Flare Meter	234 Crestwood pipeline tie-	in
3/17/2022	Rana Salada FC Pad L CTB	LP Flare Meter	413	
3/18/2022	Culebra Bluff CTB 2	LP Flare Meter	302	
3/18/2022	Culebra Bluff CTB 3	LP Flare Meter	251	
3/18/2022	Rana Salada FC Pad L CTB	LP Flare Meter	379	
3/19/2022	Culebra Bluff CTB 2	LP Flare Meter	267	
3/19/2022	Culebra Bluff CTB 3	LP Flare Meter	323	
3/19/2022	Rana Salada FC Pad L CTB	HP Flare Meter	330 Crestwood pipeline tie-	in
3/19/2022	Rana Salada FC Pad L CTB	LP Flare Meter	514	
3/20/2022	Culebra Bluff CTB 2	LP Flare Meter	220	
3/20/2022	Culebra Bluff CTB 3	LP Flare Meter	235	
3/20/2022	Rana Salada FC Pad L CTB	LP Flare Meter	635	
3/21/2022	Culebra Bluff CTB 2	LP Flare Meter	190	
3/21/2022	Culebra Bluff CTB 3	LP Flare Meter	315	
3/21/2022	Rana Salada FC Pad E CTB	RS Pad E LP Flare Meter	69 Flare stack malfunction	
3/21/2022	Rana Salada FC Pad L CTB	HP Flare Meter	298	
3/21/2022	Rana Salada FC Pad L CTB	LP Flare Meter	923	

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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** 

DEFINITIONS

Action 93868

#### **DEFINITIONS**

Operator:	OGRID:
NOVO OIL & GAS NORTHERN DELAWARE, LLC	372920
1001 West Wilshire Blvd	Action Number:
Oklahoma City, OK 73116	93868
	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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# **State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division** 1220 S. St Francis Dr. **Santa Fe, NM 87505**

QUESTIONS

Action 93868

Q	UESTIONS	
Operator:	<u> </u>	OGRID:
NOVO OIL & GAS NORTHERN DELAWARE, LLC		372920
1001 West Wilshire Blvd Oklahoma City, OK 73116		Action Number: 93868
		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 t	these issues before continuing wit	h the rest of the questions.
Incident Well	Not answered.	
Incident Facility	[fAPP2207532618] Rana S	alada Pad L CTB
Determination of Deserting Deserting		
Determination of Reporting Requirements		
Answer all questions that apply. The Reason(s) statements are calculated based on your answers are		
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	enting 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 <b>ANY</b> 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	
Fautomont Involved		
Equipment Involved	T	
Primary Equipment Involved	Not answered.	
Additional details for Equipment Involved. Please specify	Not answered.	
Parvacentative Compositional Analysis of Vented or Flored Natural Cos		
Representative Compositional Analysis of Vented or Flared Natural Gas  Please provide the mole percent for the percentage questions in this group.		
Methane (CH4) percentage	76	
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	
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 93868

QUESTI	ONS (continued)
Operator: NOVO OIL & GAS NORTHERN DELAWARE, LLC	OGRID: 372920
1001 West Wilshire Blvd Oklahoma City, OK 73116	Action Number: 93868
	Action Type: [C-129] Venting and/or Flaring (C-129)
QUESTIONS	
Date(s) and Time(s)	
Date vent or flare was discovered or commenced	03/17/2022
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: Other   Other (Specify)   Natural Gas Flared   Released: 71 Mcf   Recovered: 0 Mcf   Lost: 71 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.
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	vru down
Steps taken to limit the duration and magnitude of vent or flare	monitored while vru was having issues
Corrective actions taken to eliminate the cause and reoccurrence of vent or flare	repair vru

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ACKNOWLEDGMENTS

Action 93868

### **ACKNOWLEDGMENTS**

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NOVO OIL & GAS NORTHERN DELAWARE, LLC	372920
1001 West Wilshire Blvd	Action Number:
Oklahoma City, OK 73116	93868
	Action Type:
	[C-129] Venting and/or Flaring (C-129)

### **ACKNOWLEDGMENTS**

✓	I acknowledge that I am authorized to submit a <i>Venting and/or Flaring</i> (C-129) report on behalf of this operator and understand that this report can be <b>a complete</b> C-129 submission per 19.15.27.8 and 19.15.28.8 NMAC.
V	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.
V	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.
V	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 93868

### **CONDITIONS**

Operator:	OGRID:
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1001 West Wilshire Blvd	Action Number:
Oklahoma City, OK 73116	93868
	Action Type:
	[C-129] Venting and/or Flaring (C-129)

### CONDITIONS

Created B	Condition	Condition Date
bwheat	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.	3/29/2022