



2030 Afton Place
Farmington, NM 87401
(505) 325-6622

Analysis No: HM20230054
Cust No: 33700-10265

Well/Lease Information

Customer Name: HARVEST MIDSTREAM
Well Name: 32-9 CDP
County/State:
Location:
Lease/PA/CA:
Formation:
Cust. Stn. No.:

Source: Meter Run
Well Flowing: Y
Pressure: 103 PSIG
Flow Temp: 68 DEG. F
Ambient Temp: 73 DEG. F
Flow Rate: 25 MCF/D
Sample Method:
Sample Date: 05/18/2023
Sample Time: 12.12 PM
Sampled By: David Whitehorn
Sampled by (CO): HARVEST

Heat Trace: N
Remarks: Calculated Molecular Weight: 21.27

Analysis

Component:	Mole%:	Unnormalized %:	**GPM:	*BTU:	*SP Gravity:
Nitrogen	0.0671	0.0665	0.0070	0.00	0.0006
CO2	17.4187	17.2641	2.9800	0.00	0.2647
Methane	80.9431	80.2246	13.7540	817.53	0.4483
Ethane	1.0322	1.0230	0.2770	18.27	0.0107
Propane	0.2248	0.2228	0.0620	5.66	0.0034
Iso-Butane	0.0271	0.0269	0.0090	0.88	0.0005
N-Butane	0.0308	0.0305	0.0100	1.00	0.0006
Neopentane 2,2 dmc3	0.2321	0.2300	0.0890	9.25	0.0058
I-Pentane	0.0066	0.0065	0.0020	0.26	0.0002
N-Pentane	0.0041	0.0041	0.0020	0.17	0.0001
Neohexane	0.0001	N/R	0.0000	0.00	0.0000
2-3-Dimethylbutane	0.0001	N/R	0.0000	0.00	0.0000
Cyclopentane	0.0001	N/R	0.0000	0.00	0.0000
2-Methylpentane	0.0009	N/R	0.0000	0.04	0.0000
3-Methylpentane	0.0003	N/R	0.0000	0.01	0.0000
C6	0.0011	0.0133	0.0000	0.05	0.0000
Methylcyclopentane	0.0007	N/R	0.0000	0.03	0.0000
Benzene	0.0002	N/R	0.0000	0.01	0.0000
Cyclohexane	0.0005	N/R	0.0000	0.02	0.0000
2-Methylhexane	0.0003	N/R	0.0000	0.02	0.0000
3-Methylhexane	0.0002	N/R	0.0000	0.01	0.0000
2-2-4-Trimethylpentane	0.0001	N/R	0.0000	0.01	0.0000
i-heptanes	0.0003	N/R	0.0000	0.02	0.0000
Heptane	0.0012	N/R	0.0010	0.07	0.0000

Methylcyclohexane	0.0016	N/R	0.0010	0.08	0.0001
Toluene	0.0008	N/R	0.0000	0.04	0.0000
2-Methylheptane	0.0004	N/R	0.0000	0.02	0.0000
4-Methylheptane	0.0002	N/R	0.0000	0.01	0.0000
i-Octanes	0.0005	N/R	0.0000	0.03	0.0000
Octane	0.0008	N/R	0.0000	0.05	0.0000
Ethylbenzene	0.0001	N/R	0.0000	0.01	0.0000
m, p Xylene	0.0009	N/R	0.0000	0.05	0.0000
o Xylene (& 2,2,4 tmc7)	0.0002	N/R	0.0000	0.01	0.0000
i-C9	0.0004	N/R	0.0000	0.03	0.0000
C9	0.0005	N/R	0.0000	0.03	0.0000
i-C10	0.0006	N/R	0.0000	0.04	0.0000
C10	0.0002	N/R	0.0000	0.02	0.0000
i-C11	0.0000	N/R	0.0000	0.00	0.0000
C11	0.0001	N/R	0.0000	0.01	0.0000
C12P	0.0001	N/R	0.0000	0.01	0.0000
Total	100.00	99.112	17.194	853.75	0.7355

* @ 14.730 PSIA DRY & UNCORRECTED FOR COMPRESSIBILITY

**@ 14.730 PSIA & 60 DEG. F.

COMPRESSIBILITY FACTOR (1/Z): 1.0026
 BTU/CU.FT IDEAL: 855.7
 BTU/CU.FT (DRY) CORRECTED FOR (1/Z): 857.9
 BTU/CU.FT (WET) CORRECTED FOR (1/Z): 843.0
 DRY BTU @ 15.025: 875.1
 REAL SPECIFIC GRAVITY: 0.7371

CYLINDER #: 8
 CYLINDER PRESSURE: 91 PSIG
 ANALYSIS DATE: 05/19/2023
 ANALYSIS TIME: 01:29:07 AM
 ANALYSIS RUN BY: ELAINE MORRISON

GPM, BTU, and SPG calculations as shown above are based on current GPA constants.

GPA Standard: GPA 2286-14

GC: SRI Instruments 8610 Last Cal/Verify: 05/19/2023

GC Method: C12+BTEX Gas



HARVEST MIDSTREAM
WELL ANALYSIS COMPARISON

Lease: 32-9 CDP

Meter Run

05/19/2023

Stn. No.:

33700-10265

Mtr. No.:

Smpl Date:	05/18/2023	04/22/2022	05/26/2021	05/14/2020	08/28/2019	06/06/2019
Test Date:	05/19/2023	05/02/2022	06/02/2021	05/19/2020	08/29/2019	06/11/2019
Run No:	HM20230054	HM20220039	HM2021056	HM200043	HM190045	HM190037
Nitrogen:	0.0671	0.0494	0.0707	0.0202	0.0795	0.0257
CO2:	17.4187	15.5859	17.5688	17.7291	19.8778	17.4919
Methane:	80.9431	83.2839	81.0029	81.2632	77.6978	81.5905
Ethane:	1.0322	0.8779	1.0412	0.7967	1.6280	0.7078
Propane:	0.2248	0.1610	0.2385	0.1485	0.5238	0.1425
I-Butane:	0.0271	0.0188	0.0330	0.0160	0.0750	0.0140
N-Butane:	0.0308	0.0186	0.0288	0.0207	0.0762	0.0152
2,2 dmc3:	0.2321	0.0000	0.0000	0.0000	0.0000	0.0004
I-Pentane:	0.0066	0.0026	0.0092	0.0017	0.0181	0.0053
N-Pentane:	0.0041	0.0018	0.0069	0.0009	0.0096	0.0009
Neohexane:	0.0001	0.0000	0.0000	0.0000	0.0001	0.0000
2-3-	0.0001	0.0000	0.0000	0.0001	0.0003	0.0000
Cyclopentane:	0.0001	0.0000	0.0000	0.0001	0.0003	0.0000
2-Methylpentane:	0.0009	0.0000	0.0000	0.0004	0.0021	0.0001
3-Methylpentane:	0.0003	0.0000	0.0000	0.0001	0.0006	0.0002
C6:	0.0011	0.0000	0.0000	0.0004	0.0020	0.0000
Methylcyclopentane:	0.0007	0.0000	0.0000	0.0002	0.0015	0.0004
Benzene:	0.0002	0.0000	0.0000	0.0000	0.0003	0.0002
Cyclohexane:	0.0005	0.0000	0.0000	0.0002	0.0008	0.0002
2-Methylhexane:	0.0003	0.0000	0.0000	0.0000	0.0002	0.0001
3-Methylhexane:	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
2-2-4-	0.0001	0.0000	0.0000	0.0000	0.0001	0.0000
i-heptanes:	0.0003	0.0000	0.0000	0.0000	0.0000	0.0001
Heptane:	0.0012	0.0000	0.0000	0.0003	0.0008	0.0004
Methylcyclohexane:	0.0016	0.0000	0.0000	0.0003	0.0017	0.0008
Toluene:	0.0008	0.0000	0.0000	0.0002	0.0005	0.0015
2-Methylheptane:	0.0004	0.0000	0.0000	0.0001	0.0003	0.0002
4-Methylheptane:	0.0002	0.0000	0.0000	0.0000	0.0001	0.0001
i-Octanes:	0.0005	0.0000	0.0000	0.0000	0.0002	0.0002
Octane:	0.0008	0.0000	0.0000	0.0002	0.0004	0.0003
Ethylbenzene:	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
m, p Xylene:	0.0009	0.0000	0.0000	0.0001	0.0003	0.0003
o Xylene (& 2,2,4	0.0002	0.0000	0.0000	0.0000	0.0001	0.0000
i-C9:	0.0004	0.0000	0.0000	0.0001	0.0002	0.0001
C9:	0.0005	0.0000	0.0000	0.0001	0.0001	0.0001
i-C10:	0.0006	0.0000	0.0000	0.0001	0.0001	0.0000
C10:	0.0002	0.0000	0.0000	0.0000	0.0001	0.0001
i-C11:	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
C11:	0.0001	0.0000	0.0000	0.0001	0.0000	0.0000
C12P:	0.0001	0.0000	0.0000	0.0000	0.0000	0.0000
BTU:	857.9	866.3	849.4	844.1	837.7	845.7
GPM:	17.1090	17.1150	17.1490	17.1130	17.2610	17.1020
SPG:	0.7371	0.7125	0.7340	0.7327	0.7640	0.7300



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C6+ ☐ C9+ ☐ C12+ BTEX ☐ Helium ☐
N2 Flowback ☐ Sulfurs ☐ Ext. Liquid ☐
Other _____

Sampled By: (Co.) Harvest MidstreamDate 5-18-23Sampled by: (Person) David WhitehornTime 12:12 ☐ AM ☒ PMCompany: Harvest MidstreamWell Flowing: ☒ Yes ☐ NoWell Name: 32-9 CDPHeat Trace: ☐ Yes ☒ NoLocation: 32-9 CDPFlow Pressure (PSIG): 103County/State: San Juan Co.Flow Temp (°F): 68°

Formation: _____

Ambient Temp (°F): 73°Flow Rate (MCF/D): 25 MCFSource: ☒ Meter Run ☐ Tubing ☐ Casing ☐ Bradenhead ☐ Other _____Sample Type: ☒ Spot ☐ Composite Sample Method: ☒ Purge & Fill ☐ Other _____

Meter Number: _____

Cylinder Number: 1068Contact: 505-787-7710Remarks: Extended Sample33700-10215 HM 20230054

Line Leak Calc - Dehydrator Dump Valve

Maximum Flow Rate	1620 Mcfd
% Open	1%
Pressure	910 psig
Time/date Discovered	8/5/2023 9:21
Time/date Isolated	8/16/2023 11:00
Total Hours Blown	265.65 hours

Lost Gas From Dump Valve	179.3 Mcf
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Line Leak Calc - 1" Ball Valve

Orifice Diameter	0.063 inches
Pressure	85 psig
Time/date Discovered	8/5/2023 9:21
Time/date Isolated	8/16/2023 11:00
Total Hours Blown	265.65 hours
Area of Orifice	0.003 sq. inches

Lost Gas From Leaking Ball Valve	88.204 Mcf
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Total Gas Loss	446.83 Mcf
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Online Kimray Gas Sizing Calculator

Gas Specific Gravity	<input type="text" value=".72"/>
Flowing Temp. °fahrenheit ▼	<input type="text" value="60"/>
Critical Flow Factor (C_f)	<input type="text" value=".78"/>
Upstream Pressure psig ▼	<input type="text" value="910"/>
*** Based on your current inputs, Critical Flow would begin when Upstream Pressure is greater than or equal to:	
Downstream Pressure	<input type="text" value="1"/>
*** Based on your current inputs, Critical Flow would begin when Downstream Pressure is less than or equal to:	
Flow Rate mcf/d ▼	<input type="text" value="1619.9015025"/>
<input type="button" value="Calculate Cv"/> 	
Valve Flow Coefficient (C_v)	<input type="text" value="2.17"/>
<input type="button" value="Calculate Flow Rate"/> 	

1" Cf & Cv VALUES				
Line Size	Flow Characteristic	Trim Size	Cf	Cv
1"	Quick Opening (Carbide)	1/8"	0.73	0.45
		3/16"	0.74	1.00
		1/4"	0.68	1.93
		3/8"	0.74	3.86
		1/2"	0.90	5.70
	Nominal	1/8"	0.58	1.06
		3/16"	0.59	1.51
		1/4"	0.78	2.17
		3/8"	0.91	3.22
		1/2"	0.94	5.72

1/4" nominal trim size

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Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
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Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

DEFINITIONS

Action 261405

DEFINITIONS

Operator: Harvest Four Corners, LLC 1755 Arroyo Dr Bloomfield, NM 87413	OGRID: 373888
	Action Number: 261405
	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: <ul style="list-style-type: none">• 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 261405

QUESTIONS

Operator: Harvest Four Corners, LLC 1755 Arroyo Dr Bloomfield, NM 87413	OGRID: 373888
	Action Number: 261405
	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 these issues before continuing with the rest of the questions.*

Incident Well	Unavailable.
Incident Facility	[fAPP2123052765] HARVEST FOUR CORNERS GATHER SYSTEM

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	No
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	Tank (Any)
Additional details for Equipment Involved. Please specify	Produced water tank was blowing gas from dehy dump controller

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

Methane (CH4) percentage	81
Nitrogen (N2) percentage, if greater than one percent	0
Hydrogen Sulfide (H2S) PPM, rounded up	0
Carbon Dioxide (CO2) percentage, if greater than one percent	17
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.

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QUESTIONS, Page 2

Action 261405

QUESTIONS (continued)

Operator: Harvest Four Corners, LLC 1755 Arroyo Dr Bloomfield, NM 87413	OGRID: 373888
	Action Number: 261405
	Action Type: [C-129] Venting and/or Flaring (C-129)

QUESTIONS

Date(s) and Time(s)	
Date vent or flare was discovered or commenced	09/01/2023
Time vent or flare was discovered or commenced	08:25 AM
Time vent or flare was terminated	11:00 AM
Cumulative hours during this event	266

Measured or Estimated Volume of Vented or Flared Natural Gas	
Natural Gas Vented (Mcf) Details	Cause: Equipment Failure Tank (Any) Natural Gas Vented Released: 447 Mcf Recovered: 0 Mcf Lost: 447 Mcf.
Natural Gas Flared (Mcf) Details	Not answered.
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	No
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	failed dump controller outside of operations control. daily walk through's help to discover events.
Steps taken to limit the duration and magnitude of vent or flare	upon discovery tank was shut in and repairs were made
Corrective actions taken to eliminate the cause and reoccurrence of vent or flare	repairs completed on failed dump controller. Unable to anticipate failure, daily facility checks help in preventing further reoccurrence.

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ACKNOWLEDGMENTS

Action 261405

ACKNOWLEDGMENTS

Operator: Harvest Four Corners, LLC 1755 Arroyo Dr Bloomfield, NM 87413	OGRID: 373888
	Action Number: 261405
	Action Type: [C-129] Venting and/or Flaring (C-129)

ACKNOWLEDGMENTS

<input checked="" type="checkbox"/>	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 a complete C-129 submission per 19.15.27.8 and 19.15.28.8 NMAC.
<input checked="" type="checkbox"/>	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.
<input checked="" type="checkbox"/>	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.
<input checked="" type="checkbox"/>	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.
<input checked="" type="checkbox"/>	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 261405

CONDITIONS

Operator: Harvest Four Corners, LLC 1755 Arroyo Dr Bloomfield, NM 87413	OGRID: 373888
	Action Number: 261405
	Action Type: [C-129] Venting and/or Flaring (C-129)

CONDITIONS

Created By	Condition	Condition Date
mosmith	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.	9/1/2023