

Flare Emissions Calculations - **FOR REFERENCE**
PURPOSES ONLY**INPUT FIELDS**

Event Volume	1,400	MSCF/event
Event Volume	1,400,000	SCF/event
H ₂ S Concentration	2,100	ppm
	0.2%	mol%
Flare Control Efficiency	98.00%	
Propane Control Efficiency	99.00%	

Pollutant	Emission Factor (lb/mmBtu)	lb/event	Reportable Quantity (RQ) (lb)	Exceeded RQ? (YES/NO)
NOx	0.0641	88.51	5,000	NO
CO	0.5496	758.88	5,000	NO
VOC	Mass Balance	441.54	5,000	NO
H ₂ S	Mass Balance	5.28	100	NO
SO ₂	Stoichiometric	487.17	500	NO
Benzene	Mass Balance	0.00	10	NO
Toluene	Mass Balance	0.00	1,000	NO
Ethylbenzene	Mass Balance	0.00	100	NO
Xylenes	Mass Balance	0.00	100	NO

*200 lb in nonattainment counties, Nueces County, and San Patricio County

*100 lb in HGB and BPA

HD. Schenck Flare Mtr.

Components	Mol Wt	Wellhead Gas			Wellhead Gas			Component Net Heating Value Btu/scf	Net Btu Value Rate Btu/event
		Lab Analysis	Normalized Analysis	1,400,000.00 scf	Uncontrolled		Controlled Emissions		
		Mole%	Mole%	lb/event	lb/event	scf/event	lb/event		
Water	18.015	1.740%	1.751%	1,163.96	1,163.96	24,513	1,163.96	0.00	0
Hydrogen Sulfide	34.080	1.570%	0.210%	264.09	264.09	2,940	5.28	637.11	1,873,103
Nitrogen	28.013	2.968%	2.987%	3,087.76	3,087.76	41,819	3,087.76	0.00	0
Carbon Dioxide	44.010	24.762%	24.917%	40,465.39	40,465.39	348,843	40,465.39	0.00	0
Helium	4.003	0.000%	0.000%	0.00	0.00	0	0.00	0.00	0
Oxygen	15.999	0.000%	0.000%	0.00	0.00	0	0.00	0.00	0
Methane	16.042	45.705%	45.992%	27,225.49	27,225.49	643,894	544.51	919.00	591,738,770
Ethane	30.069	10.833%	10.901%	12,095.81	12,095.81	152,621	241.92	1,619.00	247,092,930
Propane	44.096	6.562%	6.603%	10,744.29	10,744.29	92,443	107.44	2,315.00	214,006,362
Isobutane	58.122	0.946%	0.952%	2,042.11	2,042.11	13,330	40.84	3,000.00	39,990,506
n-Butane	58.122	2.495%	2.511%	5,384.33	5,384.33	35,147	107.69	3,011.00	105,827,660
Isopentane	72.149	0.752%	0.756%	2,013.86	2,013.86	10,590	40.28	3,699.00	39,172,526
n-Pentane	72.149	0.819%	0.824%	2,192.83	2,192.83	11,531	43.86	3,707.00	42,745,851
n-Hexane	86.175	1.585%	1.595%	5,071.52	5,071.52	22,328	101.43	4,404.00	98,333,586
Other Hexanes	86.175	0.000%	0.000%	0.00	0.00	0	0.00	4,404.00	0
Heptanes (as n-Heptane)	100.202	0.000%	0.000%	0.00	0.00	0	0.00	5,100.00	0
Benzene	78.114	0.000%	0.000%	0.00	0.00	0	0.00	3,590.90	0
Toluene	92.141	0.000%	0.000%	0.00	0.00	0	0.00	4,273.60	0
Ethylbenzene	106.167	0.000%	0.000%	0.00	0.00	0	0.00	4,970.50	0
Xylenes	106.500	0.000%	0.000%	0.00	0.00	0	0.00	4,957.10	0
Octanes (as n-Octane)	114.229	0.000%	0.000%	0.00	0.00	0	0.00	4,273.60	0
2,2,4-Trimethylpentane	114.230	0.000%	0.000%	0.00	0.00	0	0.00	4,943.70	0
Total =		100.736%	100.000%	111,751.44	111,751.44	1,400,000.0	45,950.35	Btu/event	#####
Total VOC =		13.158%	13.241%	27,448.94	27,448.94	-	441.54	Heat Value (Btu/scf)	986
				Total HAP =	5,071.52	-	101.43		
				Total H ₂ S =	264.09	-	5.28		
MW (Stream) =						30.28			

C6+ Value from Gas Analysis = mole% 0.8500%

Component	GRI Fraction	Estimate Mole%
Other Hexanes	0.6385	0.5427%
n-Hexane	0.1479	0.1257%
Heptane	0.0687	0.0584%
2,2,4-Trimethylpentane	0.0267	0.0227%
Octanes+	0.0480	0.0408%
Benzene	0.0331	0.0281%
Toluene	0.0285	0.0242%
Ethylbenzene	0.0014	0.0012%
Xylenes	0.0072	0.0061%
Total =		0.8500%

Key Definitions

30 TAC §101.1(28) **Emissions event**—Any upset event or unscheduled maintenance, startup, or shutdown activity, from a common cause that results in unauthorized emissions of air contaminants from one or more emissions points at a regulated entity.

30 TAC §101.1(72) **Non-reportable emissions event**—Any emissions event that in any 24-hour period does not result in an unauthorized emission from any emissions point equal to or in excess of the reportable quantity as defined in this section.

30 TAC §101.1(88) **Reportable emissions event**—Any emissions event that in any 24-hour period, results in an unauthorized emission from any emissions point equal to or in excess of the reportable quantity as defined in this section.

WARD/SCHENCK FLARE MTR		Sap Id: 104100		Disp Type: Flare		State: New Mexico	
		STAKEHOLDER MIDSTREAM, LLC	11/03/2021	24:00:00	128.000	Emergency	
Nov 2021 Totals:				24:00:00	128.00		

HD Schenck Flare

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 60419

QUESTIONS

Operator: APACHE CORPORATION 303 Veterans Airpark Ln Midland, TX 79705	OGRID: 873
	Action Number: 60419
	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	Not answered.
Incident Facility	[fAPP2130946736] HD Schenck Flare

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 and/or flaring caused by an emergency or malfunction	Yes
Did or will this venting and/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 venting and/or flaring 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 or will there be at least 50 MCF of natural gas vented and/or flared during this event	Yes
Did this venting and/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
Was the venting and/or flaring 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	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	46
Nitrogen (N2) percentage, if greater than one percent	3
Hydrogen Sulfide (H2S) PPM, rounded up	2
Carbon Dioxide (CO2) percentage, if greater than one percent	25
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 and/or flaring was discovered or commenced	11/03/2021
Time venting and/or flaring was discovered or commenced	08:00 AM
Time venting and/or flaring 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: Equipment Failure Gas Compressor Station Natural Gas Flared Released: 128 Mcf Recovered: 0 Mcf Lost: 128 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 or is this venting and/or flaring a result of downstream activity	Not answered.
Was notification of downstream activity received by you or your operator	Not answered.
Downstream OGRID that should have notified you or your operator	Not answered.
Date notified of downstream activity requiring this venting and/or flaring	Not answered.
Time notified of downstream activity requiring this venting and/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.	True
Please explain reason for why this event was beyond your operator's control	Booster compressor had mechanical issues.
Steps taken to limit the duration and magnitude of venting and/or flaring	Gas compressor went down causing issues beyond Apache's control.
Corrective actions taken to eliminate the cause and reoccurrence of venting and/or flaring	Work w/gatherer to minimize compressor down time.

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CONDITIONS

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CONDITIONS

Created By	Condition	Condition Date
sandrabelt	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.	11/5/2021