

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources Department

Submit Original  
to Appropriate  
District Office

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

**NM OIL CONSERVATION**  
**ARTESIA DISTRICT**

**AUG 07 2018 GAS CAPTURE PLAN**

Date: 1/31/18

☒ Original **RECEIVED** Operator & OGRID No.: Cimarex Energy Co- 215099  
☐ Amended - Reason for Amendment: \_\_\_\_\_

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomple to new zone, re-frac) activity.

*Note: Form C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule (Subsection A of 19.15.18.12 NMAC).*

**Well(s)/Production Facility – Name of facility**

The well(s) that will be located at the production facility are shown in the table below.

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
Cottonberry 20 Fed Com 1H	Pending	20-25S-27E	950 FNL & 609 FWL	4000		
30-015-45147						

**Gathering System and Pipeline Notification**

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility is dedicated to Gas Transporter and will be connected to Gas Transporter low/high pressure gathering system located in Eddy County, New Mexico. It will require 4611 ' of pipeline to connect the facility to low/high pressure gathering system. Operator provides (periodically) to Gas Transporter a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, Operator and Gas Transporter have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at Gas Transporter Processing Plant located in Sec 32-23S-28E, Eddy County, New Mexico. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

**Flowback Strategy**

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on Gas Transporter system at that time. Based on current information, it is Operator's belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

**Alternatives to Reduce Flaring**

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation – On lease
  - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas – On lease
  - Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal – On lease
  - Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines

## Cimarex Cottonberry 20 Federal 1H Rev0 RM 19Jan18 Anti-Collision Summary Report

Analysis Date-24hr Time: January 19, 2018 - 16:18

Client: Cimarex

Field: NM Eddy County (NAD 83)

Structure: Cimarex Cottonberry 20 Federal 1H

Slot: Cimarex Cottonberry 20 Federal 1H

Well: Cimarex Cottonberry 20 Federal 1H

Borehole: Original Borehole

Scan MD Range: 0.00ft ~ 11110.90ft

Analysis Method:

3D Least Distance

Reference Trajectory:

Cimarex Cottonberry 20 Federal 1H Rev0 RM 19Jan18 (Non-Def Plan)

Depth Interval:

Every 10.00 Measured Depth (ft)

Rule Set:

NAL Procedure: D&M AntiCollision Standard S002

Min Pts:

All local minima indicated.

Version / Patch:

2.10.696.0

Database \ Project:

US1153APP452.dir.slb.com\drilling-NM Eddy County 2.10

ISCWSA0 3-D 95.000% Confidence 2.7955 sigma, for subject well. For offset wells, error model version is specified with each well respectively.

### Trajectory Error Model:

### Offset Trajectories Summary

### Offset Selection Criteria

Wellhead distance scan:

Not performed!

Selection filters:

Definitive Surveys - Definitive Plans - Definitive surveys exclude definitive plans

- All Non-Def Surveys when no Def-Survey is set in a borehole - All Non-Def Plans when no Def-Plan is set in a borehole

Offset Trajectory	Separation			Allow Dev. (ft)	Sep. Fact.	Controlling Rule	Reference Trajectory		Risk Level			Alert	Status
	Ct-Ct (ft)	MAS (ft)	EOU (ft)				MD (ft)	TVD (ft)	Alert	Minor	Major		

Results highlighted: Sep-Factor separation <= 1.50 ft

Cimarex Cottonberry 20  
Federal 5H Rev0 RM 19Jan18  
(Non-Def Plan)

													Warning Alert
40.02	32.51	37.52	7.50	N/A	MAS = 9.91 (m)	0.00	0.00		CtCt<=15m<15.00			Enter Alert	
40.01	32.51	37.51	7.50	N/A	MAS = 9.91 (m)	24.00	24.00					WRP	
40.01	32.51	28.36	7.50	4.10	MAS = 9.91 (m)	1520.00	1520.00					MinPts	
40.25	32.51	27.78	7.74	3.79	MAS = 9.91 (m)	1660.00	1660.00					MINPT-O-EOU	
42.34	32.51	29.03	9.83	3.68	MAS = 9.91 (m)	1810.00	1810.00					MinPt-O-SF	
42.72	32.51	22.92	10.21	2.33	MAS = 9.91 (m)	3110.00	3108.15					MinPts	
43.70	32.51	22.03	11.19	2.15	MAS = 9.91 (m)	3450.00	3447.51					MINPT-O-EOU	
45.08	32.91	22.31	12.18	2.10	OSF1.50	3640.00	3637.16					MinPt-O-ADP	
48.06	35.39	23.64	12.68	2.08	OSF1.50	3920.00	3916.64					MinPt-O-SF	
114.14	57.66	74.87	56.48	3.04	OSF1.50	6760.00	6756.37					MinPts	
187.06	58.26	147.39	128.80	4.96	OSF1.50	7040.00	7020.08		OSF>5.00			Exit Alert	
390.62	119.20	310.33	271.43	4.99	OSF1.50	10800.00	7422.02		OSF<5.00			Enter Alert	
372.58	128.79	285.86	243.77	4.40	OSF1.50	11110.90	7440.00					MinPts	