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District II
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District III
1000 Rio Brazos Road, Aztec, NM 87410
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1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

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Submit Original
to Appropriate
District Office

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

NOV 19 2019

DISTRICT/ARTESIA/O.C.D.

GAS CAPTURE PLAN

Date: November 5, 2019

☐ Original

Operator & OGRID No.: Murchison Oil and Gas, LLC (15363)

☒ Amended - Reason for Amendment: API numbers added

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 – Rock Ridge CTB

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

Well Name	API	Well Location	Footages	Expected MCF/D	Flared or Vented	Comments
Rock Ridge Federal 3H	30-015-39543	H-30-24S-29E	1520 FNL 350 FEL	85	0	
Rock Ridge Federal WCB 1H	30-015-45728	A-30-24S-29E	310 FNL 300 FEL	3290	0	
Rock Ridge Federal WCXY 2H	30-015-45729	A-30-24S-29E	330 FNL 300 FEL	1350	0	
Rock Ridge Federal BSS 4H	30-015-45730	A-30-24S-29E	350 FNL 300 FEL	1270	0	
Rock Ridge Federal WCXY 5H	30-015-45872	A-30-24S-29E	745 FNL 250 FEL	1350	0	
* Rock Ridge Federal WCXY 6H *	30-015-45873	A-30-24S-29E	765 FNL 250 FEL	1350	0	
Rock Ridge Federal BSS 7H	30-015-45731	A-30-24S-29E	785 FNL 250 FEL	1270	0	
Rock Ridge Federal BSS 8H	30-015-45874	A-30-24S-29E	805 FNL 250 FEL	1270	0	
Rock Ridge Federal WCB 9H	30-015-46330	H-30-24S-29E	2325 FNL 250 FEL	3290	0	
Rock Ridge Federal WCB 10H	30-015-46331	H-30-24S-29E	2345 FNL 250 FEL	3290	0	
Rock Ridge Federal WCB 11H	30-015-46332	H-30-24S-29E	2365 FNL 250 FEL	3290	0	

Gathering System and Pipeline Notification

Well(s) will be connected to a production facility (Rock Ridge Central Tank Battery) after flowback operations are complete. The gas produced from production facility is dedicated to DCP Midstream, LP ("DCP") and will be connected to DCP's High pressure gathering system located in Lea County, New Mexico. It will require no additional pipeline to connect the facility to the High pressure gathering system. Murchison Oil and Gas, LLC ("Murchison") provides (periodically) to DCP a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, Murchison and DCP have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at DCP's Zia II Processing Plant located in Sec. 19, Twn. 19 S, Rng. 32 E, Lea 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. 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 DCP's system at that time. Based on current information, it is Murchison'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