

**Surface Use Plan**  
**Vaca Draw 20-17 Federal 5H, 6H, 7H, 8H**  
**UL: M, Sec. 20, 25S, 33E**  
**Lea Co., NM**

The following surface use plan of operations will be followed and carried out once the APD is approved. No other disturbance will be created other than what is submitted in this surface use plan without approval. If any other disturbance is needed after the APD is approved, a BLM approved sundry notice or right of way application will be submitted for approval prior to any new surface disturbance.

**1. Existing Roads:**

- Please see Exhibit B and C-1 for existing access road planned to be used to access the proposed project.
- Cimarex Energy will improve or maintain existing roads in a condition the same as or better than before the operations began. Cimarex Energy will repair pot holes, etc. All existing structures on the entire access route such as cattle guards, other range improvement projects, culverts, etc. will be properly repaired or replaced if they are damaged or have deteriorated beyond practical use.
- Cimarex Energy will prevent and abate fugitive dust as needed, whether created by vehicular traffic, equipment operations, or other events.
- Cimarex Energy will obtain written BLM approval prior to the application of surfactants, binding agents, or other dust suppression chemicals on the roadways.
- The maximum width of the driving surface will be 15'. The road will be crowned and ditched with a 2% slope from the tip of the crown to the edge of the driving surface. The ditches will be 1' deep with 3:1 slopes. The driving surface will be made of 6" rolled and compacted caliche.
- Existing access road route to the proposed project is depicted on the public access point map if applicable. Improvements to the driving surface will be done where necessary. No new surface disturbance will be done, unless otherwise noted in the New or Reconstructed Access Roads section of the surface use plan.
- Beginning at the intersection of Jal highway/Highway 128 and j-1/Orla road to the south (located in the SW ¼ of Sec. 15-24S-32E, N.M.P.M.) Proceed in a Southerly direction approximately 10.5 miles to the junction of this road and Pipeline road to the East; Turn left and proceed in an Easterly direction approximately 5.0 to the junction of this road and an existing road to the Northwest; turn left and proceed in a Northwesterly, then Northeasterly, then Northwesterly direction approximately 3.3 miles to the junction of this road and an existing road to the west; turn left and proceed in a Westerly direction approximately .6 miles to the beginning of the proposed access road to the North; follow road flags in a Northerly, then Westerly direction approximately 1,103' to the proposed location.

**2. New of Reconstructed Access Roads:**

- A new road will be constructed for this project.
  - Cimarex Energy plans to construct 1103' of off-lease access road to service the well. The proposed access road does cross lease boundaries, a right of way grant will be submitted to and obtained from the BLM.
  - The maximum width of the driving surface will be 15'. The road will be crowned and ditched with a 2% slope from the tip of the crown to the edge of the driving surface. The ditches will be 1' deep with 3:1 slopes. The driving surface will be made of 6" rolled and compacted caliche.
  - Proposed and existing access road route to the proposed wellsite is depicted on Exhibit C-2. Improvements to the driving surface will be done where necessary. No new surface disturbance will be done without prior approval from the BLM.
  - The operator will prevent and abate fugitive dust as needed, whether created by vehicular traffic, equipment operations, or other events.

**3. Well Radius Map**

Please see Exhibit A for wells within one mile of the proposed well SHL and BHL.

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**4. Proposed Off Pad Production Facilities:**

- If on completion this well is a producer, a tank battery will be used and the necessary production equipment will be installed and production will be sent to the Vaca Draw 20-17 Federal Battery.
  - Please see Exhibit P and Exhibit P-1 for location of the off pad central tank battery.
  - An additional road 314' to access the battery will be constructed. Please see Exhibit P-2.
  - Allocation will be based on well test. Route is on lease, please see Exhibit G. Any changes to on lease route will be submitted via sundry notice. If route is off lease, a right of way will be submitted to the BLM for approval.

**5. Production Flowlines:**

- Cimarex Energy plans to construct on lease flowlines to service the well. Lines will be buried and require a construction width of 30'.
  - Specifications: 4" HP steel for oil, gas, and water production. 4" HP steel for gas lift.
  - Length of Gas Lift Line: 628'
  - Length of Flowlines: 612'
  - MAOP: 1500 psi.
  - Anticipated working pressure: 200-300 psi.

**6. Gas Pipeline:**

- Cimarex plans to construct an off lease gas pipeline to service this battery location.
  - Please see Exhibit G for pipeline route
  - Specification of pipeline: 12" LP Steel, 8" HP Steel, 4" HP Steel
  - Line will be buried and will require a construction width of 30'
  - Length: 14172'
  - MAOP: 1440 psi.
  - Anticipated working pressure: 12"; 300 psi; 8" & 4": 1100 psi.

**7. Salt Water Disposal:**

- Cimarex plans to construct off lease SWD pipelines. Due to expected development in the area, this route provides for disposal at 3 facilities
  - Specifications: One 4" Surface poly, One 12" Buried poly. Both pipelines follow the same route
  - Length: 40,426.72'
  - MAOP: 4" line: 120 psi; 12" line: 150 psi
  - Anticipated Working Pressure: 4" line: 110 psi; 12" line: 225 psi
  - Pipeline follows an existing road and will be constructed 20-30' from and parallel to the road.
  - A ROW will be filed for the route with the BLM and State of New Mexico

**8. Electric Lines:**

- Cimarex Energy plans to construct an off-lease electric line to service the well. The proposed electric line does cross lease boundaries, a right of way grant will be submitted to and obtained from the BLM.
  - Cimarex Energy plans to install and overhead electric line from the proposed well to an existing overhead electric line located in NW of section 29. The proposed electric line will be 2049' in length, 7-40' poles, 480 volt, 4 wire, 3 phase. The electric line will exit off the West side of the well location and travel South 2049' until it would intercept the existing electric line.
  - The electric line will be routed on the East side of lease road and 25-35' from and parallel to lease road in the SWSW of sec 20 and NWNW of sec 29.
  - Please see Exhibit H. Any changes to E-Line route will be submitted via sundry notice.

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**9. Fresh Water Temporary ROW:**

- A temporary surface fresh water pipeline(s) will be utilized for this project.
  - The surface pipeline(s) will follow the road from a frac pit to the well.
  - Cimarex plans to lay the fresh water surface pipeline(s) prior to commencement of the simulation job.
  - Fresh water will be purchased from a 3<sup>rd</sup> party
  - See Exhibit K for proposed route
  - Specification of line: 10" lay-flat surface pipeline
  - Length: 3,104'
  - Operating pressure: <140 psi

**10. Construction Material:**

- If possible, native caliche will be obtained from the excavation of drill site. The primary way of obtaining caliche will be by "turning over" the location. This means caliche will be obtained from the actual well site. A caliche permit will be obtained from BLM prior to pushing up any caliche. 2400 cu yds. is the max amount of caliche needed for pad and roads. Amount will vary for each pad. The procedure below has been approved by BLM personnel:
- The top 6 inches of topsoil is pushed off and stockpiled along the side of the location
- An approximate 120' x 120' area is used within the proposed well site to remove caliche
- Subsoil is removed and piled alongside the 120' by 120' area within the pad site.
- When caliche is found, material will be stockpiled within the pad site to build the location and road.
- Then subsoil is pushed back in the hole and caliche is spread accordingly across entire location and road.
- Once well is drilled, the stockpiled top soil will be used for interim reclamation and spread along areas where caliche is picked up and the location size is reduced. Neither caliche nor subsoil will be stockpiled outside of the well pad. Topsoil will be stockpiled along the edge of the pad as depicted in Exhibit D – Rig Layout Diagram.
- In the event that no caliche is found onsite, caliche will be hauled in from BLM-approved caliche pit.

**11. Methods of Handling Waste:**

- Drilling fluids, produced oil, and water from the well during drilling and completion operations will be stored safely and disposed of properly in a NMOCD approved disposal facility.
- Garbage and trash produced during drilling and completion operations will be collected in a trash container and disposed of properly at a state approved disposal facility. All trash on and around well site will be collected for disposal.
- Human waste and grey water will be properly contained and disposed of properly at a state approved disposal site.
- After drilling and completion operations, trash, chemicals, salts, frac sand and other waste will be removed and disposed of properly at a state approved disposal site.
- The well will be drilled utilizing a closed loop system. Drill cuttings will be properly disposed of into steel tanks and taken to an NMOCD approved disposal facility.

**12. Ancillary Facilities:**

No camps or airstrips to be constructed

**13. Well Site Layout:**

- Exhibit D: Rig Layout
  - The rig layout, flare line and v-door are subject to change depending on rig availability. The pad dimensions and orientation will remain the same and will not require additional surface disturbance.
- Exhibit D-2: Well Site layout plat
- Mud pits in the closed circulation system will be steel pits and the cuttings will be stored in steel containment pits.
- Cuttings will be stored in steel pits until they are hauled to a state-approved disposal facility.
- If the well is a producer, those areas of the location not essential to production facilities will be reclaimed and seeded per BLM requirements. Exhibit D-1: Interim Reclamation Diagram.

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### 14. Interim and Final Reclamation:

- Rehabilitation of the location will start in a timely manner after all proposed drilling wells have been drilled from the pad or if drilling operations have ceased as indicated below:
  - No approved or pending drill permits for wells located on this drill pad or
  - No drilling activity for 5 years from this drill pad
- In areas planned for interim and final reclamation, surfacing materials will be removed and returned to a mineral pit or recycled to repair or build roads and well pads.
- Drainage systems, if any, will be reshaped to the original configuration with provisions made to alleviate erosion. These may need to be modified in certain circumstances to prevent inundation of the location's pad and surface facilities. After the area has been shaped and contoured, topsoil from the spoil pile will be placed over the disturbed area to the extent possible. Revegetation procedures will comply with BLM standards.
- Exhibit D-1 illustrates the proposed Interim Reclamation plans after cessation of drilling operations as outlined above.
  - The areas of the location not essential to production facilities and operations will be reclaimed and seeded per BLM requirements.

### 15. Surface Ownership:

- The wellsite is on surface owned by Bureau of Land Management, 620 E Greene Street Carlsbad, NM 88220, 575-234-5972.
- The land is used mainly for farming, cattle ranching, recreational use, and oil and gas production.

### 16. Other Information:

- Topography consists of a sloping plane with loose tan sands. Vegetation is mainly yucca, mesquite and shin oak.
- In lieu of an archaeological survey report, Cimarex will be submitting an MOA for this well pad and proposed road as they are located within the MOA boundary.
- There are no known dwellings within 1½ miles of this location.

### 17. On Site Notes and Information:

Onsite with BLM (Jeff Robertson) and Cimarex (Barry Hunt) on December 8, 2016. 500' X 560' pad (From #1H pad is 190' north, 180' west, 370' south and 320' east). Top soil west. Interim reclamation: All sides. Access road from SE corner of pad, south, to the east/west lease road to the Cascade 29 Federal 1H.