

Surface Use Plan
COG Operating LLC
Skull Cap Federal Com #2H
SHL: 2590' FSL & 1980' FEL UL J
Section 32, T24S, R35E
BHL: 330' FSL & 1980' FEL UL O
Section 5, T24S, R35E
Lea County, New Mexico

Surface Use & Operating Plan

Skull Cap Federal Com #2H

- Surface Owner: State of New Mexico
- New Road: 2391'
- Flow Line: On well pad
- Facilities: Will be constructed on well pad – see Exhibit 3

- **Well Site Information**

V Door: East

Topsoil: North

Interim Reclamation: Northwest

Notes

- This well was planned and permitted with a State APD. The well pad is built.

Onsite: Onsite needed.

SURFACE USE AND OPERATING PLAN

1. Existing & Proposed Access Roads

- A. The well site survey and elevation plat for the proposed well is attached with this application. It was staked by Harcrow Surveying, Artesia, NM.
- B. All roads to the location are shown on the Location Verification Map Exhibit 2. The existing lease roads are illustrated and are adequate for travel during drilling and production operations. Upgrading existing roads prior to drilling the well will be done where necessary. The road route to the well site is depicted in Exhibit #2. The road shown in Exhibit #2 will be used to access the well.
- C. Directions to location: See 600 x 600 plat
- D. Based on current road maintenance performed on other roads serving existing wells, we anticipate maintaining the lease roads leading to the proposed well pad at least once a year on dry conditions and twice a year in wetter conditions.

2. Proposed Access Road:

The Location Verification Map shows that 2,391' of new access road was constructed to access the well pad for this location. If any road is required it will be constructed as follows:

The maximum width of the running surface will be 14'. The road will be crowned, ditched and constructed of 6" rolled and compacted caliche. Ditches will be at 3:1 slope and 4 feet wide. Water will be diverted where necessary to avoid ponding, prevent erosion, maintain good drainage, and to be consistent with local drainage patterns.

- A. The average grade will be less than 1%.
- B. No turnouts are planned.
- C. No cattleguard, culvert, gates, low water crossings or fence cuts are necessary.
- D. Surfacing material consist of native caliche. Caliche was obtained from caliche pit from Bert Madera, 524 Antelope Road, Jal, NM 88252. (575) 390-2861.

3. Location of Existing Well:

The One-Mile Radius Map Exhibit 4 shows existing wells within a one-mile radius of the proposed wellbore.

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Location of Existing and/or Proposed Facilities:

- A. COG Operating LLC does not operate an oil production facility on this lease.
- B. If the well is productive, contemplated facilities will be as follows:
 - 1) A tank battery and facilities will be constructed as shown on Exhibit 3.
 - 2) The tank battery and facilities including all flow lines and piping will be installed according to API specifications.
 - 3) Any additional caliche will be obtained from the actual well site. If caliche does not exist or is not plentiful from the well site, the caliche will be hauled from caliche pit from Bert Madera, 524 Antelope Road, Jal, NM 88252. (575) 390-2861. Any additional construction materials were purchased from contractors.
 - 4) It will be necessary to run electric power if this well is productive. Power will be provided by Xcel Energy and they will submit a separate plan and ROW for service to the well location.
 - 5) If the well is productive, rehabilitation plans will include the following:
 - The original topsoil from the well site will be returned to the location, and the site will be re-contoured as close as possible to the original site.

4. Location and Type of Water Supply:

The well will be drilled with combination brine and fresh water mud system as outlined in the drilling program. The water will be obtained from a private source Glenn's Water Service, Tatum, NM 88267 (575) 398-2424. No water well will be drilled on the location.

5. Source of Construction Materials and Location "Turn-Over" Procedure:

Obtaining caliche: One primary way of obtaining caliche to build locations and roads will be by "turning over" the location. This means, caliche will be obtained from the actual well site. Amount will vary for each pad. For this well caliche was obtained from caliche pit from Bert Madera, 524 Antelope Road, Jal, NM 88252. (575) 390-2861. The procedure below has been approved by BLM personnel:

- A. Equipment that was needed to construct the proposed location was as follows: Two dozers, one blade, one morograder, one backhoe, one water truck and two dump trucks.

- B. The time line to complete construction was approximately 10 days.
- C. The top 6 inches of topsoil is pushed off and stockpiled along the side of the location.
- D. An approximate 160' X 160' area is used within the proposed well site to remove caliche.
- E. Subsoil is removed and stockpiled within the surveyed well pad.
- F. When caliche is found, material will be stock piled within the pad site to build the location and road.
- G. Then subsoil is pushed back in the hole and caliche is spread accordingly across entire location and road.
- H. Once well is drilled, the stock piled top soil will be used for interim reclamation and spread along areas where caliche is picked up and the location size is reduced.
- I. Neither caliche, nor subsoil will be stock piled outside of the well pad. Topsoil will be stockpiled along the edge of the pad as depicted in the Well Site Layout or survey plat.

Caliche was obtained from caliche pit from Bert Madera, 524 Antelope Road, Jal, NM 88252. (575) 390-2861.

6. Methods of Handling Water Disposal:

- A. The well will be drilled utilizing a closed loop mud system. Drill cuttings will be held in roll-off style mud boxes and taken to R360's disposal site located at 4507 West Carlsbad Highway, Hobbs, NM 88240.
- B. Drilling fluids will be contained in steel mud pits and taken to R360's disposal site located at 4507 West Carlsbad Highway, Hobbs, NM 88240.
- C. Water produced from the well during completion will be held temporarily in steel tanks and then taken to an NMOCD approved commercial disposal facility. R360's disposal site located at 4507 West Carlsbad Highway, Hobbs, NM 88240.
- D. It is anticipated that the disposal of produced water will be trucked to the Gettysburg 16 State SWD 1 Section 16, T23S, R34 and the Gunner 16 State SWD 1 Section 16, T26S, R34E.

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- E. Garbage and trash produced during drilling or completion operations will be collected in a trash bin and hauled to an approved landfill-Lea Landfill LLC. Located at Mile Marker 64, Highway 62-180 East, P O Box 3247, Carlsbad, NM 88221. No toxic waste or hazardous chemicals will be produced by this operation.
- F. Human waste and grey water will need to be properly contained and disposed of. Proper disposal and elimination of waste and grey water may include but are not limited to portable septic systems and/or portable waste gathering systems (i.e. portable toilets).
- G. After the rig is moved out and the well is either completed or abandoned, all waste materials will be cleaned up within 30 days. In the event of a dry hole only a dry hole marker will remain.

7. Ancillary Facilities:

No airstrip, campsite or other facilities will be built as a result of the operation on this well.

8. Well Site Layout:

- A. The drill pad layout, with elevations staked by Harcrow Surveying, is shown in the Elevation Plat. Dimensions of the pad and pits are shown on the Rig Layout. V door direction is East. Topsoil, if available, will be stockpiled per BLM specifications. Because the pad is almost level no major cuts will be required.
- B. The Rig Layout Closed-Loop exhibit shows the proposed orientation of closed loop system and access road. No permanent living facilities are planned, but a temporary foreman/toolpusher's trailer will be on location during the drilling operations.

9. Plans for Restoration of the Surface:

- A. Interim Reclamation will take place after the well has been completed. The pad will be downsized by reclaiming the areas not needed for production operations. The portions of the pad that are not needed for production operations will be re-contoured to its original state as much as possible. The caliche that is removed will be reused to either build another pad site or for road repairs within the lease. The stockpiled topsoil will then be spread out reclaimed area and reseeded with a BLM approved seed mixture. In the event that the well must be worked over or maintained, it may be necessary to drive, park, and/or operate machinery on reclaimed land. This area will be repaired or reclaimed after work is complete.

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- B. Final Reclamation: Upon plugging and abandoning the well all caliche for well pad and lease road will be removed and surface will be recountoured to reflect its surroundings as much as possible. Caliche will be recycled for road repair or reused for another well pad within the lease. If any topsoil remains, it will be spread out and the area will be re-seeded with a BLM approved mixture and re-vegetated as per BLM orders. When required by BLM, the well pad site will be restored to match pre-construction grades.

10. Sedimentation and Erosion Control

Approximately 400' of straw wattles will be placed on the top edge of the South and 100' across the Southeast corner of the location to reduce sediment impacts to fragile/sensitive soils. The tank battery will be on the East side, and there is no need for straw wattles since there are berms around the tank battery, which detours water from running off location.

11. Surface Ownership:

- A. The surface is owned by the State of New Mexico. The surface is multiple uses with the primary uses of the region for grazing of livestock and the production of oil and gas.
- B. The proposed road routes and surface location will be restored as directed by the BLM.

12. Other Information:

- A. The area around the well site is grassland and the topsoil is sandy. The vegetation is moderately sparse with native prairie grasses, some mesquite and shinnery oak. No wildlife was observed but it is likely that mule deer, rabbits, coyotes and rodents traverse the area.
- B. There is no permanent or live water in the immediate area.
- C. There are no dwellings within 2 miles of this location.
- D. If needed, a Cultural Resources Examination is being prepared by Boone Arch Services of NM, LLC., 2030 North Canal, Carlsbad, New Mexico, 88220, phone # 575-885-1352 and the results will be forwarded to your office in the near future. Otherwise, **COG will be participating in the Permian Basin MOA Program.**

13. Bond Coverage:

Bond Coverage is Statewide Bonds # NMB000740 and NMB000215

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14. Lessee's and Operator's Representative:

The COG Operating LLC representative responsible for assuring compliance with the surface use plan is as follows:

Sheryl Baker
Drilling Superintendent
COG Operating LLC
2208 West Main Street
Artesia, NM 88210
Phone (575) 748-6940 (office)
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