

PECOS DISTRICT CONDITIONS OF APPROVAL**May 2013**

OPERATOR'S NAME:	ICA Energy Operating, LLC	HOBBS OCD MAY 10 2013 RECEIVED
LEASE NO.:	NM-108475	
WELL NAME & NO.:	ICA 31 #1	
SURFACE HOLE	660 FSL & 660' FSL	
FOOTAGE:		
BOTTOM HOLE FOOTAGE		
LOCATION:	Section 31, T. 8 S., R. 34 E., NMPM	
COUNTY:	Roosevelt County, New Mexico	

A. GENERAL PROVISIONS

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Approval of the APD does not warrant that any party holds equitable or legal title. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

The Operator shall submit a Sundry Notice (Form 3160-5) to the Bureau of Land Management, Roswell Field Office (address above) for approval prior to beginning any new surface-disturbing activities or operations that are not specifically addressed and approved by this APD.

A site facility diagram (Onshore Order 3, Section III, I. and 43 CFR 3162.7-5(d)) for the purpose of a site security plan (Onshore Order 3, Section III. H and 43 CFR 3162.7-5 c shall be filed no later than 60 calendar days following first production.

Permit Expiration

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD (Filing of a Sundry Notice is required for this 60 day extension).

B. ARCHAEOLOGICAL & HISTORICAL SITES

Any cultural resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. A valuation of the discovery shall be made by the Authorized officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible

for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

C. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations (access road and/or well pad). Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

D. CONSTRUCTION

Notification

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Roswell Field Office at (505) 627-0272 at least three (3) working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved Application for Permit to Drill and Conditions of Approval on the well site and they shall be made available upon request by the Authorized Officer.

Construction over and/or immediately adjacent to existing pipelines shall be coordinated, and in accordance with, the relevant pipeline companies' policy.

Any trench left open for eight (8) hours or less is not required to have escape ramps; however, before the trench is backfilled, an agency approved monitor shall walk the entire length of the open trench and remove all trapped fauna. The bottom surface of the trench will be disturbed a minimum of 2 inches in order to arouse any buried fauna. All fauna will be released a minimum of 100 yards from the trench.

For trenches left open for eight (8) hours or more, earthen escape ramps (built at nor more than a 30 degree slope and spaced no more than 500 feet apart) shall be placed in the trench. Structures will also be authorized within the trench. Metal structures will not be authorized. Structures used as escape ramps will be placed at no more than a 30 degree slope and spaced no more than 500 feet apart.

E. TOPSOIL

The topsoil will be stripped to approximately 6 inches in depth within the area designated for construction of the well pad. The operator shall stockpile the stripped topsoil in shallow rows adjacent to the constructed well pad. The topsoil will be used for interim and final reclamation of the surface disturbance created by the construction of the well pad. The topsoil will not be

used to construct the containment structure or earthen dike that is constructed and maintained on the outside boundaries of the constructed well pad.

F. CLOSED LOOP SYSTEMS

No reserve pit will be used.

Steel tanks are required for drilling operations: No Pits Allowed.

The operator shall properly dispose of drilling contents at an authorized disposal site.

G. FEDERAL MINERAL MATERIALS PIT

The well pads and access roads have been constructed and surfaced with caliche. If additional material is needed payment shall be made to the BLM prior to removal of any federal mineral materials from any site other than the reserve pit. Call the Roswell Field Office (575) 627-0270.

H. WELL PAD SURFACING

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material will be required to be removed at the time of reclamation.

The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational need.

I. ON LEASE ACCESS ROADS

Road Egress and Ingress

The access roads are constructed on corner.

Road Width

The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed thirty (30) feet.

Surfacing

Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material will be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

Crowning

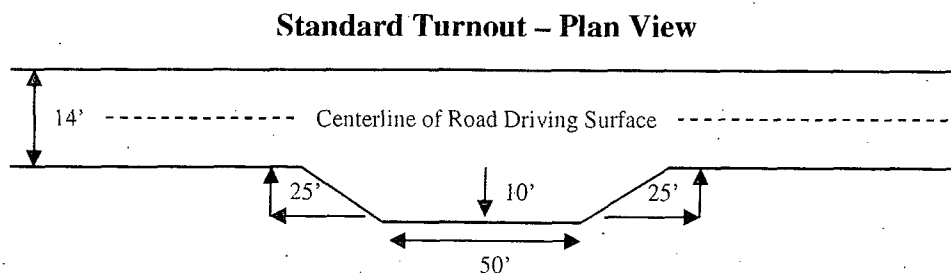
Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

Ditching

Ditching shall be required on both sides of the road.

Turnouts

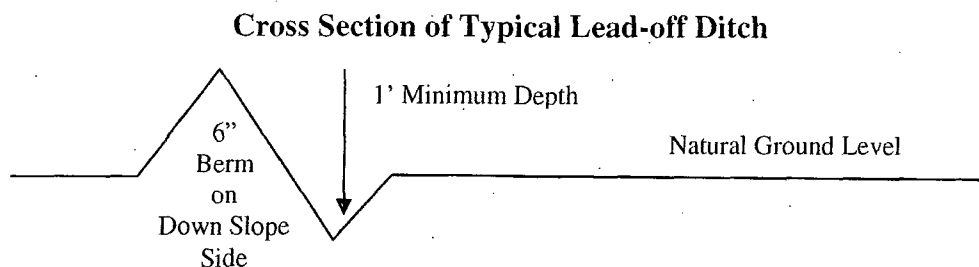
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall be constructed on all blind curves. Turnouts shall conform to the following diagram:



Drainage

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, side hill out sloping and in sloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.



All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

Formula for Spacing Interval of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

$$400 \text{ foot road with } 4\% \text{ road slope: } \frac{400'}{4} + 100' = 200' \text{ lead-off ditch interval}$$

Culvert Installations

Appropriately sized culvert(s) shall be installed at any deep waterway channel flow crossing.

Cattle-guards

An appropriately sized cattle-guard(s) sufficient to carry out the project shall be installed and maintained at fence crossing(s).

Any existing cattle guard(s) on the access road shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattle guard(s) that are in place and are utilized during lease operations. Gates or cattle guards on public lands will not be locked or closed to public use unless closure is specifically determined to be necessary and is authorized in writing by the authorized officer.

A gate shall be constructed and fastened securely to H-braces.

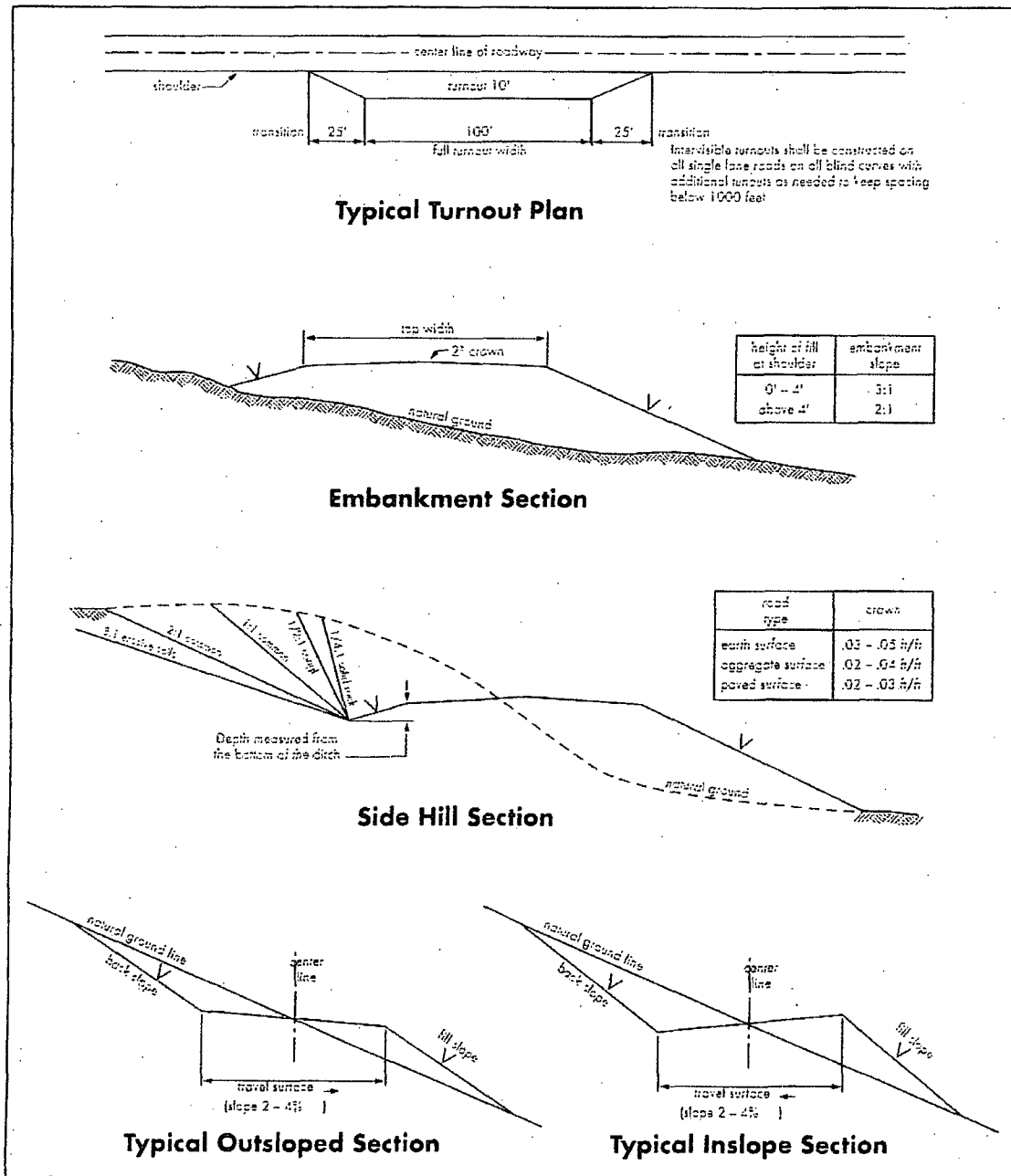
Fence Requirement

Where entry is required across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting. The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fence(s).

Public Access

Public access along this road will not be restricted by the holder without specific written approval being granted by the authorized officer. Gates or cattle guards on public lands will not be locked or closed to public use unless closure is specifically determined to be necessary and is authorized in writing by the authorized officer.

Figure 1 – Cross Sections and Plans For Typical Road Sections



J. DRILLING

DRILLING OPERATIONS REQUIREMENTS

1. Call the Roswell Field Office, 2909 West Second St., Roswell, NM 88201. During or after office hours call (575) 627-0205. Engineer on call during office hours call (575) 627-0275 or after office hours call (575) 626-5749.
2. The BLM is to be notified a minimum of 24 hours in advance for a representative to witness:
 - a. Spudding well
 - b. Setting and/or Cementing of all casing strings
 - c. BOPE Tests
3. A Hydrogen Sulfide (H₂S) Drilling Plan Operation Contingency Plan shall be activated prior to drilling into the San Andres formation. A copy of the plan shall be posted at the drilling site.
4. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
5. Include the API Number assigned to well by NMOCD on the subsequent report of setting the first casing string.
6. The operator will accurately measure the drilling rate in feet/min to set the base of the usable water protection casing string(s) opposite competent rock. The record of the drilling rate along with the caliper-gamma ray-neutron well log run to surface will be submitted to this office as well as all other logs run on the borehole 30 days from completion. **In the case of a horizontal well the gamma ray – neutron log will include the productive interval.**
7. Air, air-mist or fresh water and nontoxic drilling mud shall be used to drill to the base of the usable water protection casing string(s). Any polymers used will be water based and non-toxic.

CASING

1. Deepest depth of usable water occurs at a depth under 200 feet determined by extrapolation of water well data. The operator will run approximately **13- 3/8** inch casing string from surface to an approximate depth of 400 feet opposite competent bedding. This will help protect the water up-hole.
 - a. If cement does not circulate to the surface, the Roswell Field Office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement.
 - b. Wait on cement (WOC) time for a primary cement job will be a minimum 18 hours for a water basin or 500 pounds compression strength, whichever is greater. (This is to include the lead cement).

- c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compression strength, whichever is greater.
- d. If cement falls back, remedial action will be done prior to drilling out that string.
2. The minimum required fill of cement behind the 5 1/2 inch intermediate casing is sufficient to circulate to the surface. If cement does not circulate see B.1 a-d above.
3. The minimum required fill of cement behind the 5-1/2 inch production casing is sufficient to tie back 500 feet above the uppermost perforation in the pay zone. If cement does not circulate, a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement.
4. If hard-band drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
5. All casing shall be new or reconditioned and tested casing and meet API standards for new casing. The use of reconditioned and tested casing shall be subject to approval by the authorized officer. Approval will be contingent upon the wall thickness of any casing being verified to be at least 87-1/2 per cent of the nominal wall thickness of new casing.

PRESSURE CONTROL

1. Before drilling below the 13-3/8 inch surface casing shoe, the blowout preventer assembly shall consist of a minimum of One Annular Preventer or Two Ram-Type Preventers and a Kelly Cock/Stabbing Valve.
2. Before drilling below the 13-3/8 inch surface casing shoe, minimum working pressure of the blowout preventer and related equipment (BOPE) shall be 2000 psi.
3. The BOPE shall be installed before drilling below the 13-3/8 inch surface casing shoe and shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.
 - a. The BLM Roswell Field office shall be notified a minimum of 24 hours in advance for a representative to witness the tests.
 - b. The tests shall be done by an independent service company.
 - c. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.

- d. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test will be submitted to the BLM Roswell Field Office at 2909 West Second Street, Roswell, New Mexico 88201.
- e. Testing fluid must be water or an appropriate clear liquid suitable for sub-freezing temperatures. Use of drilling mud for testing is not permitted since it can mask small leaks.
- f. Testing must be done in a safe workman like manner. Hard line connections shall be required.

PRODUCTION

Placement of Production Facilities

Production facilities should be placed on the well pad to allow for maximum interim re-contouring and re-vegetation of the well location.

Containment Structures

The containment structure shall be constructed to hold the capacity of the entire contents of the largest tank, plus 24 hour production, unless more stringent protective requirements are deemed necessary by the Authorized Officer.

Painting Requirement

All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color, *Covert Green* (Standard Environmental Color Chart June 2008).

Completion Report

In accordance with 43 CFR 3160, Form 3160-4 (Well Completion or Re-completion Report and Log) must be submitted to the Bureau of Land Management, Roswell Field Office within 30 days after completion of the well or producer. Copies of all open hole and cased hole logs, core descriptions, core analyses, well test data, geologic summaries, sample descriptions, formation test reports, stimulation reports, directional survey (if applicable), and all other surveys or data obtained and compiled during the drilling, completion, and/or work over operations, shall be included with Form 3160-4.

K. INTERIM RECLAMATION

Reclamation earthwork for interim and/or final reclamation shall be completed within 6 months of well completion or well plugging (weather permitting), and shall consist of: 1) backfilling pits, 2) re-contouring and stabilizing the well site, access road, cut/fill slopes, drainage channels, utility and pipeline corridors, and all other disturbed areas, to approximately the original contour, shape, function, and configuration that existed before construction (any compacted backfilling activities shall ensure proper spoils placement, settling, and stabilization), 3) surface ripping,

prior to topsoil placement, to a depth of 18-24 inches deep on 18-24 inch centers to reduce compaction, 4) final grading and replacement of all topsoil so that no topsoil's remains in the stockpile, 5) seeding in accordance with reclamation portions of the APD and these COA's.

Any subsequent re-disturbance of interim reclamation shall be reclaimed within six (6) months by the same means described herein.

Prior to conducting interim reclamation, the operator is required to:

- Submit a Sundry Notices and Reports on Wells (Notice of Intent), Form 3160-5, prior to conducting interim reclamation.
- Contact BLM at least three (3) working days prior to conducting any interim reclamation activities, and prior to seeding.

During reclamation, the removal of caliche is important to increasing the success of vegetating the site. Removed caliche may be used in road repairs, fire walls or for building other roads and locations. In addition, in order to operate the well or complete work-over operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously.

The following Soils or Soil associations may represent these ecological sites:
 Alama-Poquita, Alama-Reeves, Anthony sandy loam, Berino, Blakeney-Ima, Cacique, Dona Ana,
 Glendale-Harkey, Harkey sandy loam, Karro loam, Kermit-Berino fine sands, Mobeetie fine sandy
 Pajarito-Bluepoint, Poquita, Potter-Simona complex, Sharvana-Redona, Simona, Simona-Bippus c
 Sotim-Berino, Sotim-Simona association, moderately undulating, Tonuco loamy sands, Vinton

Ecological Site: Shallow Sand SD-3

Ecological Site: Sandy SD-3

April 4, 2006

<u>Common Name and Preferred Variety</u>	<u>Scientific Name</u>	<u>Pounds of Pure Live Seed Per Acre</u>
Black grama or Blue grama.	(<i>Bouteloua eriopoda</i>) (<i>Bouteloua gracilis</i>)	3.0
Sideoats grama	(<i>Bouteloua curtipendula</i>)	2.0
Sand dropseed or Mesa dropseed or Spike dropseed	(<i>Sporobolus cryptandrus</i>) (<i>S. flexuosus</i>) (<i>S. contractus</i>)	1.5
Desert or Scarlet Globemallow	(<i>Sphaeralcea ambigua</i>) or (<i>S. coccinea</i>)	1.0
Croton	(<i>Croton</i> spp.)	1.0
TOTAL POUNDS PURE LIVE SEED (pls) PER ACRE Certified Weed Free Seed		8.5

IF ONE SPECIES IS NOT AVAILABLE,
 INCREASE ALL OTHERS PROPORTIONATELY

Use no less than 4 species, including 1 forb

No less than 8.5 pounds pls per acre shall be applied

APPROVED: /s/ Douglas J. Burger
 District Manager- Pecos District

Disturbing vegetated areas for production or work over operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be vegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

Disturbing re-vegetated areas for production or work over operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be re-vegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

Use a certified noxious weed-free seed mixture. Use seed tested for viability and purity in accordance with State law(s) within nine months prior to purchase. Use a commercial seed mixture certified or registered and tagged in accordance with State law(s). Make the seed mixture labels available for BLM inspection.

L. FINAL ABANDONMENT

1. Upon abandonment of the well a Notice of Intent for Plug and Abandonment describing plugging procedures. Followed within 30 days you shall file with this office, a Subsequent Report of Abandonment (Form 3160-5). To be included with this report is where the plugs were placed; volumes of cement used and well bore schematic as plugged.
2. As described in the operators POD when the well becomes a dry hole, the pad and road area will be re-counted to match the existing terrain. When the road is abandoned, it will be ripped at least sixteen inches deep, including turnouts. The caliche will be reclaimed for re-use before ripping. All culverts or other structures will be removed. All fill material will be replaced into cut areas; barrow and lead-off ditches, drainage dips, or other erosion control earthwork will be filled or smoothed; and the abandoned road returned to the natural contours, as closely as possible. Traffic barriers will be installed at all vehicular access points to prevent further use of the road. Topsoil will be spread to the extent possible. Reclamation will begin within 6 months after plugging and abandon procedures. Surface material will be removed from the pad and access road. Once the caliche is removed, the entire area will be re-countered to match the surround area.
3. Upon abandonment of the well, all casing shall be cut-off at the base of the cellar or 3-feet below final restored ground level (whichever is deeper). The well bore shall then be covered with a metal plate at least ¼ inch thick and welded in place. The following information shall be permanently inscribed on the dry hole marker: Well name and number, the name of the operator, the lease serial number, the surveyed location (the quarter-quarter section, section, township and range or other authorized survey designation acceptable to the authorized officer; such as metes and bounds).
4. **The Operator shall promptly plug and abandoned each newly completed, re-completed or producing well which is not capable of producing in paying quantities.** No well may be temporarily abandoned for more than 30 days without prior approval from this office. When justified by the Operator, BLM may authorize additional delays, no one of which may exceed an additional 12 months. Upon removal of drilling or producing equipment from the site of a well which is to be permanently-abandoned, the

surface of the lands disturbed shall be reclaimed in accordance with an approved Notice of Intent for reclamation.

M. SURFACE USE PLAN OF OPERATIONS

1. Surface Reclamation must be completed within 6 months of well plugging. The Operator shall submit to this office a Notice of Intent for Reclamation with described procedures, Form 3160-5.
2. No surface use is allowed during the following time periods; unless otherwise specified. This stipulation does not apply to the operation and maintenance of production facilities.

N. PIPELINE PROTECTION REQUIREMENT

Precautionary measures shall be taken by the operator during construction of the access road to protect existing pipelines that the access road will cross over. An earthen berm; 2 feet high by 3 feet wide and 14 feet across the access road travel way (2' X 3' X 14'), shall be constructed over existing pipelines. The operator shall be held responsible for any damage to existing pipelines. If the pipeline is ruptured and/or damaged the operator shall immediately cease construction operations and repair the pipeline. The operator shall be held liable for any unsafe construction operations that threaten human life and/or cause the destruction of equipment.

O. RANGE REQUIREMENT

The Operator shall keep traffic to a minimum, with the speed limit less than 20 MPH. When conflicts with livestock do arise as a result of the access road and well pad construction, in consultation with the allottee, measures will be taken to resolve the conflicts.

P. WILDLIFE EQUIPMENT

Netting storage tanks and installation of cones on separator stacks would alleviate losses of wildlife species. Interim and final rehabilitation through re-vegetation would return to wildlife previous levels.

Q. PALEONTOLOGICAL RESOURCES

If previously undocumented paleontological sites are encountered during construction, the project proponent will immediately stop all construction activities in the immediate vicinity of the discovery. The proponent will then immediately notify the paleontological monitor (if required), or the BLM/RFO paleontology resource staff. It is necessary to protect fossil material and their geological context upon discovered during construction. The BLM would then evaluate the site. Should the discovery be evaluated as significant, it will be protected in place until mitigation measures can be developed and implemented according to guidelines set by the BLM. Mitigation measures such as data and fossil recovery may be required by the BLM to prevent impacts to newly identified paleontological resources.

R. WASTES, HAZARDOUS AND SOLID

Waste materials produced during all phases of operation will be disposed of promptly in an approved manner so it will not impact the air, soil, water, vegetation or animals. "Waste" means all discarded matter including, but not limited to, human waste, trash, garbage, refuse, oil drums, petroleum products, ashes and equipment. All liquid waste, completion fluids and drilling products associated with oil and gas operations will be contained and then removed and deposited in an approved disposal site. Portable toilets will remain on site throughout well pad construction, drilling and reclamation.

The operator and contractors shall ensure that all use, production, storage, transportation and disposal of hazardous materials, solid wastes and hazardous wastes associated with the drilling, completion and production of this well will be in accordance with all applicable existing or hereafter promulgated federal, state and local government rules, regulations and guidelines. All project related activities involving hazardous materials will be conducted in a manner to minimize potential environmental impacts. A file will be maintained onsite containing current Material Safety Data Sheets (MSDS) for all chemicals, compounds and/or substances which are used in the course of construction, drilling, completion and production operations.

SPECIAL CONDITIONS OF APPROVAL

April 2013

SPECIAL STATUS SPEICES

PRAIRIE CHICKENS

No surface use is allowed during the following time periods; unless otherwise specified. This stipulation does not apply to the operation and maintenance of production facilities.

On the land described below:

T. 8 S., R. 34 E., NMPM. Roosevelt County, New Mexico
Section 31, S½SE¼ (80 acres).

For the purpose of: Protecting Lesser Prairie-Chickens

Drilling for oil and gas, and 3-D geophysical exploration operations will not be allowed in Lesser Prairie Chicken Habitat during the period of March 1 through June 15, each year. During that period, between 3:00 a.m. and 9:00 a.m., other activities that produce noise and involve human activity, such as geophysical exploration other than 3-D operations, and pipeline, road, and well pad construction, will not be allowed. Noise producing activities which do not require a human presence, such as venting, flaring, or pumping, are exempt from the 3:00 a.m. and 9:00 a.m. restriction. Regardless of the time of year, exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 feet from the source of the noise.

Stipulation attached to lease instrument: Bureau of Land Management SENM-S-22

Lesser Prairie-Chicken

Construction of the location and around-the-clock noise generated from drilling of the well could impact the lesser prairie-chicken by reducing the establishment of seasonal "booming grounds" or leks, thus possibly reducing reproductive success in the species. It is believed that the noise generated by drilling rigs and/or propane/diesel operated pumpjack motors (unmuffled) could mask the booming of the male prairie-chicken and thus, the females cannot hear the booming. In turn, female lesser prairie-chicken would not arrive at the booming ground, and subsequently, there would be decreased courtship interaction and possibly decreased reproduction. Decreased reproduction and the loss of recruitment into the local population would result in an absence of younger male lesser prairie-chickens to replace mature male lesser prairie-chicken once they expire, eventually causing the lek to disband and become inactive. Additionally, habitat fragmentation caused by development could possibly decrease the habitat available for nesting, brooding and feeding activities. Accordingly, approval of this permit to drill has been granted subject to the following conditions:

It known at this time that an active booming grounds is associated with this specific location. It is vitally important that the RFO take every precaution to ensure that an active booming ground is protected.

Exceptions to these requirements will be considered *in emergency situations such as mechanical failures*, however, these exceptions will not be granted if BLM determines, on the basis of biological data or other relevant facts or circumstances, that the grant of an exception would disrupt prairie-chicken booming activity during the breeding season. Requests for exceptions *on a non-emergency basis* may also be considered, but these exceptions will not be granted if BLM determines that there are prairie-chicken sightings, historic leks and or active leks within 1.5 miles of the proposed location, or any combination of the above mentioned criteria combined with suitable habitat.

Raptors have been observed using plugged and abandoned well markers as perches. Artificial perches may increase raptor presences in a given area. Furthermore, artificial perches may provide strategically-located vantage points and may improve the hunting efficiency of raptors. In order to improve the probability of maintaining a stable lesser prairie-chicken population low profile plugged and abandoned well markers will be installed. The well marker will be approximately 2 inches above ground level and contain the following information: operator name, lease name, and well number and location, including unit letter, section, township, and range. The previous listed information will be welded, stamped, or otherwise permanently engraved into the metal of the marker.

Construction of overhead power lines can have a negative effect on LPC according to best available science. Both the greater and lesser prairie-chickens avoid power lines. This avoidance has created an unintentional buffer along power lines. They appear to place nests and leks away from power lines (Pruett et al. 2009). To mitigate these impacts any overhead power lines associated with this location will be buried. There is an active lek within 2 miles of this location.

BLM's 2008 Special Status Species Resource Management Plan Amendment reads.

These mitigation measures are ranked in order of effectiveness of reducing impacts from power lines:

Burying new distribution power lines within 2 miles of occupied lesser prairie-chicken habitat (measured from the lek) and suitable lesser prairie-chicken habitat within 2 miles of an active lek.

Due to the fact that this project falls within the Primary Population Area and is located in lesser prairie-chicken habitat exceptions to the timing stipulation and power line burial will not be considered.

- The location referenced above is in lesser prairie-chicken habitat based on the presence of a sand/shinnery oak habitat type which generally consists of a combination of shinnery oak, sand and giant dropseed, bluestem grasses, sand sage, a variety of forbs including spectacle pod and annual buckwheat, and in some cases, mesquite. Construction activities would be conducted outside of the period of March 1st through June 15th to protect lesser prairie-chicken (*Tympanuchus pallidicinctus*) habitat.

- Upon abandonment, a low profile abandoned well marker will be installed to prevent raptor perching.
- Bury power lines associated with this location.

FRAC POND

If frac ponds are necessary submit for approval a right-of-way application or sundry notice (Form 3160-5) to the BLM, Roswell Field Office 2909 West Second Roswell, NM 88201. If frac pond is located on private/State surface and support the enhanced production of federal minerals BLM approval is necessary.

The frac pond will only be authorized to contain freshwater and testing of water quality is required. Additives are not allowed without consent of the authorized officer. If at any time the water in the frac pond becomes polluted with salts or other contaminants, use of the frac pond will cease and desist, and all liquids will be removed from the frac pond and disposed of properly. Mineral materials extracted during construction of the frac pond will be stored on-location and/or used for constructing the frac pond.