30-805-29,43 RECEIVED

# **EXHIBIT B**

17.00

JUL 27 2010

**HOBBSOCD** 

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# PECOS DISTRICT - RFO CONDITIONS OF APPROVAL

July 20, 2010

**OPERATORS NAME:** Mack Energy Corporation

LEASE NO.: <u>NM-87263</u>

WELL NAME & NO: Mickey Federal Com #1 SURFACE HOLE FOOTAGE: 1830' FNL & 460' FEL BOTTOM HOLE FOOTAGE: 965' FNL & 330' FWL

LOCATION: <u>Section 27, T. 15 S., R. 30 E.</u> COUNTY: <u>Chaves County, New Mexico</u>

#### **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. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

#### I. 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).

# II. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

The project falls within the area covered by the Permian Basin Memorandum of Agreement (MOA). The Permian Basin MOA is an optional method of compliance with Section 106 of the National Historic Preservation Act for energy related projects in a 28 quadrangle area of the Pecos District a portion of which is within the Roswell Field Office. The proponent chose to participate in the Permian Basin MOA by planning to avoid all known NRHP eligible and potentially eligible cultural resources. The proponent has contributed funds commensurate to the undertaking into an account for offsite mitigation. Participation in the MOA serves as mitigation for the effects of this project on cultural resources. If any skeletal remains that might be human or funerary objects are discovered by any activities, the project proponent will cease activities in the area of discovery and notify the BLM within 24 hours as required by the Permian Basin MOA.

#### III. 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.

#### IV. CONSTRUCTION

#### A. NOTIFICATION:

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Roswell Field Office at (505) 627-0209 at least 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.

#### B. TOPSOIL:

The operator shall stockpile the topsoil of the well pad. The topsoil to be stripped is approximately 6 inches in depth. The topsoil shall be used for interim and final reclamation. The soil shall be stockpiled on the southeast corner of the well pad.

#### C. CLOSED LOOP SYSTEM: 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.

#### D. FEDERAL MINERAL MATERIALS PIT:

If the operator elects to surface the access road and/or well pad. Payment shall be made to the BLM prior to removal of any federal mineral materials. Call the Roswell Field Office at (505) 627-0236.

#### E. WELL PAD SURFACING:

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may 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.

#### F. ON LEASE ACCESS ROADS:

#### **Road Egress and Ingress**

The access road shall be constructed to access the northwest corner of the well pad. The access road will traverse the west side of the well location and will continue on to another well location

#### 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 may 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

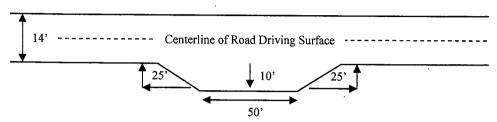
Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

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#### **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:

#### Standard Turnout - Plan View

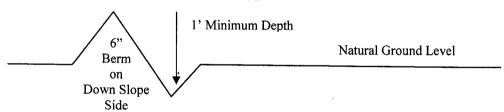


#### **Drainage**

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping and insloping, 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.

### **Cross Section Of Typical 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:

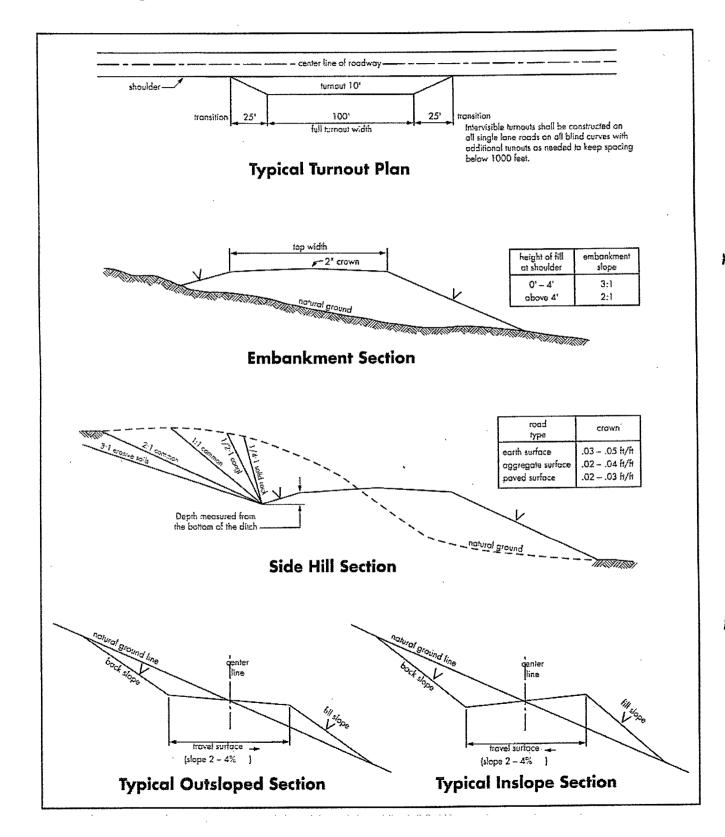
400 foot road with 4% road slope: 
$$\frac{400'}{4\%}$$
 + 100' = 200' lead-off ditch interval

#### **Public Access**

Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

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Figure 1 - Cross Sections and Plans For Typical Road Sections



#### V. DRILLING

### A. DRILLING OPERATIONS REQUIREMENTS

- 1. Call the Roswell Field Office, 2909 West Second St., Roswell, NM 88201. During office hours call (575) 627-0205 or after office hours call (575) 420-2832. 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

The BLM is to be notified a minimum of 4 hours in advance for a representative to witness:

**BOPE Tests** 

- 3. 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.
- 4. Include the API Number assigned to well by NMOCD on the subsequent report of setting the first casing string.
- 5. A Communitization Agreement covering the acreage dedicated to this well must be filed for approval with the BLM. The effective date of the agreement shall be prior to any sales.
- 6. The operator will accurately measure the drilling rate in ft/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.

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7. Fresh water gel will 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.

#### **B. CASING**

1. The <u>9-5/8</u> inch usable water protection casing string(s) shall be set at approximately 600 feet in competent bedrock.

However if the bedrock at this depth is not competent for cementing casing (in other words washouts of greater than 2 to 3 inches will occur drilling out the cement) the operator will drill to the next thick competent bedrock (i.e. 15 to 25 ft or greater) to set usable protection string.

Well logs in the area indicate the bedrock at the surface casing depth of 600' appears to be a shale (mudstone).

Competent bedrock in the redbeds is hard to find. In this case the basal Santa Rosa formation occurs just above 600'. If the well did not lose circulation in this zone, this maybe a good point to set surface casing. Between 600' and the top of the Rustler

# anhydrite at 790' there is one interval from 650' to 700' which may not washout after drilling through the cement.

- 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 a 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 <u>7</u> inch intermediate casing is <u>sufficient to circulate to the surface</u>. If cement does not circulate see B.1.a-d above.
- 3. There is no required fill of cement behind the <u>4-1/2</u> inch production liner since a Peak Systems Completion Liner Assembly will be used for lateral and will not require cementing.
- 4. If hardband 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.

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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.

#### C. PRESSURE CONTROL

- 1. Before drilling below the <u>9-5/8</u> 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. Before drilling below the <u>7</u> inch intermediate casing shoe, the blowout preventer assembly shall consist of a minimum of One Annular Preventer, Two Ram-Type Preventers, and a Kelly Cock/Stabbing Valve.
- 2. Before drilling below the  $\underline{9-5/8}$  inch surface casing shoe, minimum working pressure of the blowout preventer and related equipment (BOPE) shall be  $\underline{2000}$  psi. Before drilling below the  $\underline{7}$  inch intermediate casing shoe, minimum working pressure of the blowout preventer and related equipment (BOPE) shall be  $\underline{3000}$  psi.
- 3. The BOPE shall be installed before drilling below the <u>9-5/8</u> inch surface and the <u>7</u> inch intermediate casing 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 4 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 chart and a copy of independent service company 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.
- g. The requested variance to test the 9-5/8 inch BOPE prior to drilling below the 9-5/8 inch surface casing to the reduced pressure of 1000 psi using the rig pumps is approved.

#### D. DRILLING MUD

1. Fresh water and non toxic drilling mud shall be used to 450 feet to drill the 17-1/2 inch hole for the 13-3/8 inch surface casing to be set at 450 feet.

#### VI. PRODUCTION

#### A. WELL STRUCTURES & FACILITIES

#### 1. 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.

#### 2. 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.

# 3. 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, **Juniper Green**, Standard Environmental Colors.

#### VII. INTERIM RECLAMATION

#### A. INTERIM RECLAMATION

If the well is a producer, interim reclamation shall be conducted on the well site within 6 months of well completion. The operator shall submit a Sundry Notices and Reports on Wells (Notice of Intent), Form 3160-5, prior to conducting interim reclamation.

During the life of the development, all disturbed areas not needed for active support of production operations should undergo "interim" reclamation in order to minimize the environmental impacts of development on other resources and uses.

The operator should work with BLM surface management specialists to devise the best strategies to reduce the size of the location. Any reductions should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

#### B. DPC SEED MIXTURE

During reclamation, the removal of caliche is important to increasing the success of re-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 workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing re-vegetated areas for production or workover 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.

The following seed mixture shall be used for interim reclamation and upon abandonment of the well on all areas of disturbance:

Sand	Hills	CP-2	Ecol	logical	Site
Dana	TITIO	C1 -2		iogicai	DILL

Common Name	2	Pounds of Pure	
and Preferred Variety	Scientific Name	Live Seed Per Acre	
Sand bluestem	(Andropogon hallii)	0.50 lb.	
Little bluestem	(Schizachyrium scoparium)	0.50 lb.	
Sideoats grama,	(Bouteloua curtipendula)	1.50 lbs.	
Sand dropseed	(Sporobolus cryptandrus)	0.50 lb.	
Spike dropseed	(S. contractus)	0.50 lb.	
Mesa dropseed	(S. flexuosus)	0.50 lb.	
Plains bristlegrass	(Setaria macrostachya)	2.00 lbs.	
Desert or Scarlet	(Sphaeralcea ambigua)	0.50 lb.	
Globemallow or	(S. coccinea)		
Buckwheat	(Eriogonum spp.)	1.50 lbs.	
TOTAL POUNDS PURE LIV	8.00 lbs.		

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IF ONE SPECIES IS NOT AVAILABLE, INCREASE ALL OTHER PROPORTIONATELY. NO LESS THAN SIX (6) SPECIES WITH A MINIMUM OF ONE (1) FORB. NO LESS THAN 8.0 POUNDS PLS PER ACRE SHALL BE APPLIED. CERTIFIED WEED FREE SEED.

# VIII. FINAL ABANDONMENT & REHABILITATION REQUIREMENTS

During the life of the development, all disturbed areas not needed for active support of production operations should undergo "interim" reclamation in order to minimize the environmental impacts of development on other resources and uses. Earthwork for interim and final reclamation must be completed within 6 months of well completion or well plugging (weather permitting). The operator shall submit a Sundry Notices and Reports on Wells (Notice of Intent), Form 3160-5, prior to conducting interim reclamation.

During reclamation, the removal of caliche is important to increasing the success of revegetating 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 workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

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# IX. 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.

# X. Wildlife Requirement

The operator shall cover with netting open top storage tanks and install cones on separator stacks. All distribution lines (electrical, telephone, etc.) shall be buried at a minimum depth of 38 inches utilizing the most direct route from the originating source.

# XI. SEASONAL DRILLING REQUIREMENT - Lesser Prairie Chicken Stipulation:

The Roswell Approved Resource Management Plan and Record of Decision addresses the preservation of the Lesser Prairie Chicken wildlife habitat.

1. There shall be no earthmoving construction activities, well exploratory and/or developmental drilling, well completion, plugging and abandonment activities, between March 1<sup>st</sup> through June 15<sup>th</sup>, of each year. During that period, other activities, including the operation and maintenance of oil and gas facilities, will not be allowed between 3:00 A.M. and 9:00 A.M.. To the extent practicable, activities occurring for a short period of time may be conducted so long as they do not commence until after 9:00 A.M.. Any deviation from this stipulation must be approved in writing by the Roswell Field Office Manager or the appropriate Authorized Officer.

- 2. All motors or engines that produce high noise levels shall have mufflers installed that effectively reduce excessive noise levels within prairie chicken habitat. High noise levels produced by motors or engines shall be reduced and muffled so as not to exceed 75 db measured at 30 feet from the source of the noise.
- 3. Upon abandonment of the well, reclamation activities can be conducted between March 1<sup>st</sup> through June 15<sup>th</sup>, so long as reclamation work shall not be conducted between the hours of 3:00 AM to 9:00 AM. Any deviation from this requirement shall require prior approval by the Authorized Officer.