PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Ameredev Operating, LLC.
LEASE NO.:	NMNM-137471
WELL NAME & NO.:	Golden Bell Fed Com 26 36 06 125H
SURFACE HOLE FOOTAGE:	0200' FSL & 2330' FEL
BOTTOM HOLE FOOTAGE	0200' FSL & 2318' FEL Sec. 07, T. 25 S., R 36 E.
LOCATION:	Section 31, T. 25 S., R 36 E., NMPM
COUNTY:	County, New Mexico

Communitization Agreement

- The operator will submit a Communitization Agreement to the Carlsbad Field Office, 620 E Greene St. Carlsbad, New Mexico 88220, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

a. Spudding well (minimum of 24 hours)
b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
c. BOPE tests (minimum of 4 hours)

☐ **Lea County**

Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575) 3933612

1. **Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the**

Hydrogen Sulfide area shall meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

2. 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. **If the drilling rig is removed without approval – an Incident of Non-Compliance will be written and will be a "Major" violation.**

3. **The operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other wells.**

4. Option – Setting surface casing with Surface Rig

   a. Notify the BLM when removing the Surface Rig.

   b. Notify the BLM when moving in the H&P Flex Rig. Rig to be moved in within 60 days of notification that Surface Rig has left the location. Failure to notify or have rig on location within 60 days will result in an Incident of Non-Compliance.

   c. Once the H&P Flex Rig is on location, it shall not be removed from over the hole without prior approval unless the production casing has been run and cemented or the well has been properly plugged. **If the drilling rig is removed without approval – an Incident of Non-Compliance will be written and will be a "Major" violation.**

   d. BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as H&P Flex Rig is rigged up on well. CIT for the surface casing shall be performed and results recorded on subsequent sundry – pressure to be 1200 psi.

5. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works is located, this does not include the dog house or stairway area.

6. **The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If**

available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

B. CASING

Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.

Centralizers required on surface casing per Onshore Order 2.III.B.1.f.

Wait on cement (WOC) for Water Basin:
After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements.

Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.

No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

Capitan Reef
Possibility of water flows in the Castile, Salado, and Capitan Reef.
Possibility of lost circulation in the Red Beds, Rustler, and Delaware.
Abnormal pressures may be encountered when penetrating the 3rd Bone Spring Sandstone and all subsequent formations.

1. The **13-3/8** inch surface casing shall be set at approximately **1191** feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface. **If salt is encountered, set casing at least 25 feet above the salt.**

    a. If cement does not circulate to the surface, the appropriate BLM 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. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.

b. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.**

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 compressive strength, whichever is greater.

d. If cement falls back, remedial cementing will be done prior to drilling out that string.

Formation below the 13-3/8" shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe (not the mud weight required to prevent dissolving the salt formation) and the mud weight for the bottom of the hole. Report results to BLM office.

Special Capitan Reef requirements:

If lost circulation (50% or greater) occurs below the Base of the Salt, the operator shall do the following:

- **Switch to fresh water mud to protect the Capitan Reef and use fresh water mud until setting the intermediate casing. The appropriate BLM office is to be notified for a PET to witness the switch to fresh water.**

- **Daily drilling reports from the Base of the Salt to the setting of the intermediate casing are to be submitted to the BLM CFO engineering staff via e-mail by 0800 hours each morning. Any lost circulation encountered is to be recorded on these drilling reports. The daily drilling report should show mud volume per shift/tour. Failure to submit these reports will result in an Incidence of Non-Compliance being issued for failure to comply with the Conditions of Approval. If not already planned, the operator shall run a caliper survey for the intermediate well bore and submit to the appropriate BLM office.**

2. The minimum required fill of cement behind the **9-5/8** inch 1st intermediate casing is:

☐ Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to Capitan Reef.**

Formation below the 9-5/8" shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe (not the mud weight required to prevent dissolving the salt formation) and the mud weight for the bottom of the hole. Report results to BLM office.

3. The minimum required fill of cement behind the **7-5/8** inch 2nd intermediate casing is:

   ☐ Cement should tie-back at least **50 feet above the Capitan Reef** (Top of Capitan Reef estimated at 3734'). Operator shall provide method of verification. **Excess calculates to 8% - Additional cement may be required.**

Formation below the 7-5/8" shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe and the mud weight for the bottom of the hole. Report results to BLM office.

Centralizers required on horizontal leg, must be type for horizontal service and a minimum of one every other joint.

4. The minimum required fill of cement behind the **5-1/2** inch production casing is:

   ☐ Cement as proposed. Operator shall provide method of verification. **Excess calculates to 16% - Additional cement may be required.**

5. 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.

C. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API 53.

2. Variance approved to use flex line from BOP to choke manifold. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. **Anchor requirements,**

specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor. If the BLM inspector questions the straightness of the hose, a BLM engineer will be contacted and will review in the field or via picture supplied by inspector to determine if changes are required (operator shall expect delays if this occurs).

3. **Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be psi.**
    a. **Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.**
    b. **If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.**
    c. **Manufacturer representative shall install the test plug for the initial BOP test.**
    d. **Operator shall perform the 9-5/8" and 7-5/8" casing integrity tests to 70% of the casing burst. This will test the multi-bowl seals.**
    e. **If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.**

Variance approved to use a 5M annular. The annular must be tested to full working pressure (5000 psi.)

10M system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.

4. The appropriate BLM office shall be notified a minimum of hours in advance for a representative to witness the tests.

    a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after

installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

a. The tests shall be done by an independent service company utilizing a test plug **not a cup or J-packer**.

b. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.

c. The results of the test shall be reported to the appropriate BLM office.

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 appropriate BLM office.**

e. 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. This test shall be performed prior to the test at full stack pressure.

f. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the **Wolfcamp** formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

D. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the **Wolfcamp** formation, and shall be used until production casing is run and cemented.

E. DRILL STEM TEST

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

F. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

JAM 100418

PECOS DISTRICT
SURFACE USE
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	AMEREDEV OPERATING LLC.
LEASE NO.:	NMNM137471
WELL NAME & NO.:	125H- GOLDEN BELL FED COM 362606
SURFACE HOLE FOOTAGE:	200'/S & 2330'/E
BOTTOM HOLE FOOTAGE	200'/S & 2318'/E
LOCATION:	Section. 31.,T25S.,R.36E., NMP
COUNTY:	LEA County, New Mexico

TABLE OF CONTENTS

Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

- ☐ **General Provisions**
- ☐ **Permit Expiration**
- ☐ **Archaeology, Paleontology, and Historical Sites**
- ☐ **Noxious Weeds**
- ☒ **Special Requirements**
  - Lesser Prairie-Chicken Timing Stipulations
  - Ground-level Abandoned Well Marker
  - Hydrology
- ☐ **Construction**
  - Notification
  - Topsoil
  - Closed Loop System
  - Federal Mineral Material Pits
  - Well Pads
  - Roads
- ☐ **Road Section Diagram**
- ☒ **Production (Post Drilling)**
  - Well Structures & Facilities
  - Pipelines
  - Electric Lines
- ☐ **Interim Reclamation**
- ☐ **Final Abandonment & Reclamation**

I. 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.

II. 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.)

III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural and/or paleontological 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. An evaluation 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.

IV. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations. 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.

V. SPECIAL REQUIREMENT(S)

Timing Limitation Stipulation / Condition of Approval for lesser prairie-chicken: Oil and gas activities including 3-D geophysical exploration, and drilling will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Additionally, no new drilling will be allowed within up to 200 meters of leks known at the time of permitting. Normal vehicle use on existing roads will not be restricted. 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.

Timing Limitation Exceptions:
The Carlsbad Field Office will publish an annual map of where the LPC timing and noise stipulations and conditions of approval (Limitations) will apply for the identified year (between March 1 and June 15) based on the latest survey information. The LPC Timing Area map will identify areas which are Habitat Areas (HA), Isolated Population Area (IPA), and Primary Population Area (PPA). The LPC Timing Area map will also have an area in red crosshatch. The red crosshatch area is the only area where an operator is required to submit a request for exception to the LPC Limitations. If an operator is operating outside the red crosshatch area, the LPC Limitations do not apply for that year and an exception to LPC Limitations is not required.

Ground-level Abandoned Well Marker to avoid raptor perching: Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well. For more installation details, contact the Carlsbad Field Office at 575-234-5972.

Hydrology

The entire well pad will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad. The compacted berm shall be constructed at a minimum of 12 inches with impermeable mineral material (e.g. caliche). Topsoil shall not be used to construct the berm. No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad. The integrity of the berm shall be maintained around the surfaced pad throughout the life of the well and around the downsized pad after interim reclamation has been completed. Any water erosion that may occur due to the construction of the well pad during the life of the well will be quickly corrected and proper measures will be taken to prevent future erosion. Stockpiling of topsoil is required. The top soil shall be stockpiled in an appropriate location to prevent loss of soil due to water or wind erosion and not used for berming or erosion control. If fluid collects within the bermed area, the

fluid must be vacuumed into a safe container and disposed of properly at a state approved facility.

Tank battery locations will be lined and bermed. A 20 mil permanent liner will be installed with a 4 oz. felt backing to prevent tears or punctures. Tank battery berms must be large enough to contain 1 ½ times the content of the largest tank or 24 hour production, whichever is greater. Automatic shut off, check valves, or similar systems will be installed for tanks to minimize the effects of catastrophic line failures used in production or drilling.

VI. CONSTRUCTION

A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (575) 234-5909 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 APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

B. TOPSOIL

The operator shall strip the top portion of the soil (root zone) from the entire well pad area and stockpile the topsoil along the edge of the well pad as depicted in the APD. The root zone is typically six (6) inches in depth. All the stockpiled topsoil will be redistributed over the interim reclamation areas. Topsoil shall not be used for berming the pad or facilities. For final reclamation, the topsoil shall be spread over the entire pad area for seeding preparation.

Other subsoil (below six inches) stockpiles must be completely segregated from the topsoil stockpile. Large rocks or subsoil clods (not evident in the surrounding terrain) must be buried within the approved area for interim and final reclamation.

C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

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

D. FEDERAL MINERAL MATERIALS PIT

Payment shall be made to the BLM prior to removal of any federal mineral materials. Call the Carlsbad Field Office at (575) 234-5972.

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 needs.

F. EXCLOSURE FENCING (CELLARS & PITS)

Exclosure Fencing
The operator will install and maintain exclosure fencing for all open well cellars to prevent access to public, livestock, and large forms of wildlife before and after drilling operations until the pit is free of fluids and the operator initiates backfilling. (For examples of exclosure fencing design, refer to BLM's Oil and Gas Gold Book, Exclosure Fence Illustrations, Figure 1, Page 18.)

G. ON LEASE ACCESS ROADS

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 twenty-five (25) 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.

Ditching
Ditching shall be required on both sides of the road.

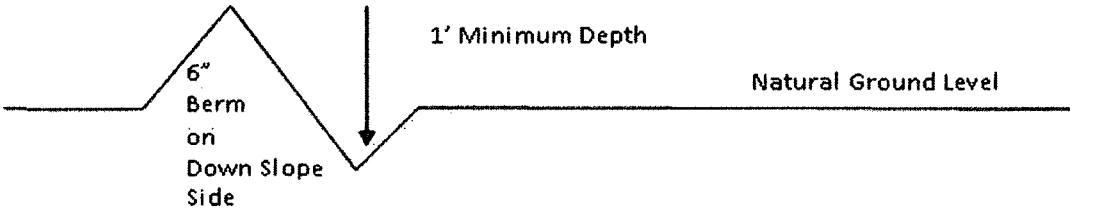
Turnouts
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

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 a 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:

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

Cattle guards

An appropriately sized cattle guard sufficient to carry out the project shall be installed and maintained at fence/road crossings. Any existing cattle guards on the access road route 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 guards that are in place and are utilized during lease operations.

Fence Requirement

Where entry is granted 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 fences.

Public Access

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

Construction Steps

1. Salvage topsoil
2. Construct road
3. Redistribute topsoil
4. Revegetate slopes

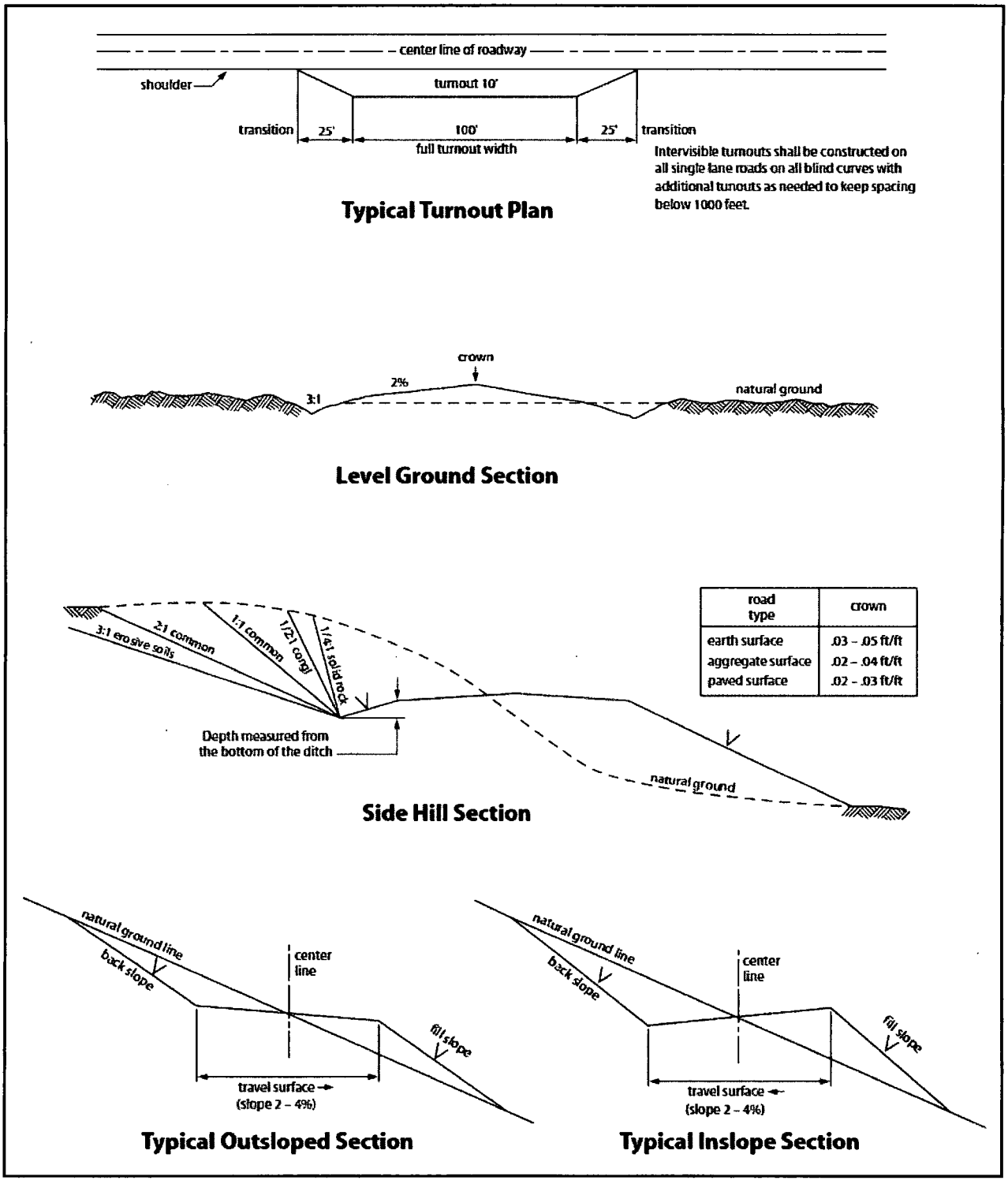


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

VII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

Placement of Production Facilities
Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

Exclosure Netting (Open-top Tanks)
Immediately following active drilling or completion operations, the operator will take actions necessary to prevent wildlife and livestock access, including avian wildlife, to all open-topped tanks that contain or have the potential to contain salinity sufficient to cause harm to wildlife or livestock, hydrocarbons, or Resource Conservation and Recovery Act of 1976-exempt hazardous substances. At a minimum, the operator will net, screen, or cover open-topped tanks to exclude wildlife and livestock and prevent mortality. If the operator uses netting, the operator will cover and secure the open portion of the tank to prevent wildlife entry. The operator will net, screen, or cover the tanks until the operator removes the tanks from the location or the tanks no longer contain substances that could be harmful to wildlife or livestock. Use a maximum netting mesh size of 1 ½ inches. The netting must not be in contact with fluids and must not have holes or gaps.

Chemical and Fuel Secondary Containment and Exclosure Screening
The operator will prevent all hazardous, poisonous, flammable, and toxic substances from coming into contact with soil and water. At a minimum, the operator will install and maintain an impervious secondary containment system for any tank or barrel containing hazardous, poisonous, flammable, or toxic substances sufficient to contain the contents of the tank or barrel and any drips, leaks, and anticipated precipitation. The operator will dispose of fluids within the containment system that do not meet applicable state or U. S. Environmental Protection Agency livestock water standards in accordance with state law; the operator must not drain the fluids to the soil or ground. The operator will design, construct, and maintain all secondary containment systems to prevent wildlife and livestock exposure to harmful substances. At a minimum, the operator will install effective wildlife and livestock exclosure systems such as fencing, netting, expanded metal mesh, lids, and grate covers. Use a maximum netting mesh size of 1 ½ inches.

Open-Vent Exhaust Stack Exclosures
The operator will construct, modify, equip, and maintain all open-vent exhaust stacks on production equipment to prevent birds and bats from entering, and to discourage perching, roosting, and nesting. (*Recommended exclosure structures on open-vent exhaust stacks are in the shape of a cone.*) Production equipment includes, but may not be limited to, tanks, heater-treaters, separators, dehydrators, flare stacks, in-line units, and compressor mufflers.

Containment Structures

Proposed production facilities such as storage tanks and other vessels will have a secondary containment structure that is constructed to hold the capacity of 1.5 times the largest tank, plus freeboard to account for precipitation, unless more stringent protective requirements are deemed necessary.

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, **Shale Green** from the BLM Standard Environmental Color Chart (CC-001: June 2008).

B. PIPELINES

BURIED PIPELINE STIPULATIONS

A copy of the application (Grant, APD, or Sundry Notice) and attachments, including conditions of approval, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. The Holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.

2. The Holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.

3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C.6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of

the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

4. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil or other pollutant should be discharged from the pipeline system, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil or other pollutant, wherever found, shall be the responsibility of holder, regardless of fault. Upon failure of holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages resulting therefrom, on the Federal lands, the Authorized Officer may take such measures as he deems necessary to control and clean up the discharge and restore the area, including where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve holder of any responsibility as provided herein.

5. All construction and maintenance activity will be confined to the authorized right-of-way.

6. The pipeline will be buried with a minimum cover of **36** inches between the top of the pipe and ground level.

7. The maximum allowable disturbance for construction in this right-of-way will be **30** feet:

- Blading of vegetation within the right-of-way will be allowed: maximum width of blading operations will not exceed **20** feet. The trench is included in this area. (*Blading is defined as the complete removal of brush and ground vegetation.*)

- Clearing of brush species within the right-of-way will be allowed: maximum width of clearing operations will not exceed **30** feet. The trench and bladed area are included in this area. (*Clearing is defined as the removal of brush while leaving ground vegetation (grasses, weeds, etc.) intact. Clearing is best accomplished by holding the blade 4 to 6 inches above the ground surface.*)

- The remaining area of the right-of-way (if any) shall only be disturbed by compressing the vegetation. (*Compressing can be caused by vehicle tires, placement of equipment, etc.*)

8. The holder shall stockpile an adequate amount of topsoil where blading is allowed. The topsoil to be stripped is approximately 6 inches in depth. The topsoil will be segregated from other spoil piles from trench construction. The topsoil will be evenly distributed over the bladed area for the preparation of seeding.

9. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

10. Vegetation, soil, and rocks left as a result of construction or maintenance activity will be randomly scattered on this right-of-way and will not be left in rows, piles, or berms, unless otherwise approved by the Authorized Officer. The entire right-of-way shall be recontoured to match the surrounding landscape. The backfilled soil shall be compacted and a 6 inch berm will be left over the ditch line to allow for settling back to grade.

11. In those areas where erosion control structures are required to stabilize soil conditions, the holder will install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound resource management practices.

12. The holder will reseed all disturbed areas. Seeding will be done according to the attached seeding requirements, using the following seed mix.

( ) seed mixture 1	( ) seed mixture 3
( ) seed mixture 2	( ) seed mixture 4
(**X**) seed mixture 2/LPC	( ) Aplomado Falcon Mixture

13. All above-ground structures not subject to safety requirements shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be color which simulates "Standard Environmental Colors" – **Shale Green**, Munsell Soil Color No. 5Y 4/2.

14. The pipeline will be identified by signs at the point of origin and completion of the right-of-way and at all road crossings. At a minimum, signs will state the holder's name, BLM serial number, and the product being transported. All signs and information thereon will be posted in a permanent, conspicuous manner, and will be maintained in a legible condition for the life of the pipeline.

15. The holder shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the holder before maintenance begins. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway. As determined necessary during the life of the pipeline, the Authorized Officer may ask the holder to construct temporary deterrence structures.

16. Any cultural and/or paleontological resources (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the Authorized Officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

17. The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes associated roads, 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.

18. Escape Ramps - The operator will construct and maintain pipeline/utility trenches [that are not otherwise fenced, screened, or netted] to prevent livestock, wildlife, and humans from becoming entrapped. At a minimum, the operator will construct and maintain escape ramps, ladders, or other methods of avian and terrestrial wildlife escape in the trenches according to the following criteria:

a. Any trench left open for eight (8) hours or less is not required to have escape ramps; however, before the trench is backfilled, the contractor/operator shall inspect the trench for wildlife, remove all trapped wildlife, and release them at least 100 yards from the trench.
b. For trenches left open for eight (8) hours or more, earthen escape ramps (built at no more than a 30 degree slope and spaced no more than 500 feet apart) shall be placed in the trench.

19. Special Stipulations:

Wildlife Mitigation Measures

Timing Limitation Stipulation/Condition of Approval for Lesser Prairie-Chicken:
Oil and gas activities including 3-D geophysical exploration, and drilling will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, geophysical exploration other than 3-D operations, and pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Additionally, no new drilling will be allowed within up to 200 meters of leks known at the time of permitting. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 ft. from the source of the noise.

Timing Limitation Exceptions:
The Carlsbad Field Office will publish an annual map of where the LPC timing and noise stipulations and conditions of approval (Limitations) will apply for the identified year (between March 1 and June 15) based on the latest survey information. The LPC Timing Area map will identify areas which are Habitat Areas (HA), Isolated Population Area (IPA), and Primary Population Area (PPA). The LPC Timing Area map will also have an area in red crosshatch. The red crosshatch area is the only area where an operator is required to submit a request for exception to the LPC Limitations. If an operator is operating outside the red crosshatch area, the LPC Limitations do not apply for that year and an exception to LPC Limitations is not required.

C. ELECTRIC LINES

STANDARD STIPULATIONS FOR OVERHEAD ELECTRIC DISTRIBUTION LINES

A copy of the grant and attachments, including stipulations, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. The holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.

2. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR, Part 702-799 and

especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.

3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

4. There will be no clearing or blading of the right-of-way unless otherwise agreed to in writing by the Authorized Officer.

5. Power lines shall be constructed and designed in accordance to standards outlined in "Suggested Practices for Avian Protection on Power lines: The State of the Art in 2006" Edison Electric Institute, APLIC, and the California Energy Commission 2006 . The holder shall assume the burden and expense of proving that pole designs not shown in the above publication deter raptor perching, roosting, and nesting. Such proof shall be provided by a raptor expert approved by the Authorized Officer. The BLM reserves the right to require modification or additions to all powerline structures placed on this right-of-way, should they be necessary to ensure the safety of large perching birds. Such modifications and/or additions shall be made by the holder without liability or expense to the United States.

Raptor deterrence will consist of but not limited to the following: triangle perch discouragers shall be placed on each side of the cross arms and a nonconductive perching deterrence shall be placed on all vertical poles that extend past the cross arms.

6. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

7. The BLM serial number assigned to this authorization shall be posted in a permanent, conspicuous manner where the power line crosses roads and at all serviced facilities.

Numbers will be at least two inches high and will be affixed to the pole nearest the road crossing and at the facilities served.

8. Upon cancellation, relinquishment, or expiration of this grant, the holder shall comply with those abandonment procedures as prescribed by the Authorized Officer.

9. All surface structures (poles, lines, transformers, etc.) shall be removed within 180 days of abandonment, relinquishment, or termination of use of the serviced facility or facilities or within 180 days of abandonment, relinquishment, cancellation, or expiration of this grant, whichever comes first. This will not apply where the power line extends service to an active, adjoining facility or facilities.

10. Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the Authorized Officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

11. Special Stipulations:
- For reclamation remove poles, lines, transformer, etc. and dispose of properly.
- Fill in any holes from the poles removed.

Timing Limitation Stipulation/Condition of Approval for Lesser Prairie-Chicken: Oil and gas activities including 3-D geophysical exploration, and drilling will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, geophysical exploration other than 3-D operations, and pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Additionally, no new drilling will be allowed within up to 200 meters of leks known at the time of permitting. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 ft. from the source of the noise.

VIII. 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.

Within six (6) months of well completion, operators should work with BLM surface management specialists (Jim Amos: 575-234-5909) to devise the best strategies to reduce the size of the location. Interim reclamation should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche that is free of contaminants may be used for road repairs, fire walls or for building other roads and locations. 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.

All disturbed areas after they have been satisfactorily prepared need to be reseeded with the seed mixture provided below.

Upon completion of interim reclamation, the operator shall submit a Sundry Notices and Reports on Wells, Subsequent Report of Reclamation (Form 3160-5).

IX. FINAL ABANDONMENT & RECLAMATION

At final abandonment, well locations, production facilities, and access roads must undergo "final" reclamation so that the character and productivity of the land are restored.

Earthwork for final reclamation must be completed within six (6) months of well plugging. All pads, pits, facility locations and roads must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact.

After all disturbed areas have been satisfactorily prepared, these areas need to be revegetated with the seed mixture provided below. Seeding should be accomplished by drilling on the contour whenever practical or by other approved methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (Jim Amos: 575-234-5909).

Ground-level Abandoned Well Marker to avoid raptor perching: Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well.

Seed Mixture for LPC Sand/Shinnery Sites

Holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed shall be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed shall be either certified or registered seed. The seed container shall be tagged in accordance with State law(s) and available for inspection by the Authorized Officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). Holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. Seeding shall be repeated until a satisfactory stand is established as determined by the Authorized Officer. Evaluation of growth may not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed* per acre:

Species	lb/acre
Plains Bristlegrass	5lbs/A
Sand Bluestem	5lbs/A
Little Bluestem	3lbs/A
Big Bluestem	6lbs/A
Plains Coreopsis	2lbs/A
Sand Dropseed	1lbs/A

*Pounds of pure live seed:

Pounds of seed **x** percent purity **x** percent germination = pounds pure live seed

AMEREDEV

H_2S Drilling Operation Plan

1. **All Company and Contract personnel admitted on location must be trained by a qualified H_2S safety instructor to the following:**
    a. Characteristics of H_2S
    b. Physical effects and hazards
    c. Principal and operation of H_2s detectors, warning system and briefing areas
    d. Evacuation procedure, routes and first aid
    e. Proper use of safety equipment and life support systems
    f. Essential personnel meeting Medical Evaluation criteria will receive additional training on the proper use of 30 minute pressure demand air packs.

2. **Briefing Area:**
    a. Two perpendicular areas will be designated by signs and readily accessible.
    b. Upon location entry there will be a designated area to establish all safety compliance criteria (1.) has been met.

3. **H_2S Detection and Alarm Systems:**
    a. H_2S sensors/detectors shall be located on the drilling rig floor, in the base of the sub structure/cellar area, and on the mud pits in the shale shaker area. Additional H_2S detectors may be placed as deemed necessary. All detectors will be set to initiate visual alarm at 10 ppm and visual with audible at 14 ppm and all equipment will be calibrated every 30 days or as needed.
    b. An audio alarm will be installed on the derrick floor and in the top doghouse.

4. **Protective Equipment for Essential Personnel:**
    a. **Breathing Apparatus:**
        i. Rescue Packs (SCBA) - 1 Unit shall be placed at each briefing area.
        ii. Two (SCBA) Units will be stored in safety trailer on location.
        iii. Work/Escape packs - 1 Unit will be available on rig floor in doghouse for emergency evacuation for driller.
    b. **Auxiliary Rescue Equipment:**
        i. Stretcher
        ii. 2 - OSHA full body harnesses
        iii. 100 ft. 5/8" OSHA approved rope
        iv. 1 - 20# class ABC fire extinguisher

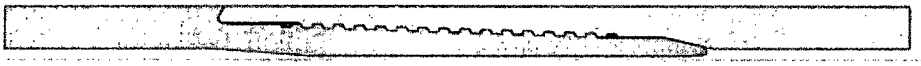
5. **Windsock and/or Wind Streamers:**
    a. Windsock at mud pit area should be high enough to be visible.
    b. Windsock on the rig floor should be high enough to be visible.

6. **Communication:**
    a. While working under mask scripting boards will be used for communication where applicable.
    b. Hand signals will be used when script boards are not applicable.

U. S. Steel Tubular Products

6/6/2017 6:18:53 PM

7.625" 29.70lbs/ft (0.375" Wall) P110 HC USS-LIBERTY FJM®



MECHANICAL PROPERTIES	Pipe	USS-LIBERTY FJM®	
Minimum Yield Strength	110,000	--	psi
Maximum Yield Strength	140,000	--	psi
Minimum Tensile Strength	125,000	--	psi
DIMENSIONS	**Pipe**	**USS-LIBERTY FJM®**	
Outside Diameter	7.625	7.625	in.
Wall Thickness	0.375	--	in.
Inside Diameter	6.875	6.789	in.
Standard Drift	6.750	6.750	in.
Alternate Drift	--	--	in.
Nominal Linear Weight, T&C	29.70	--	lbs/ft
Plain End Weight	29.06	--	lbs/ft
SECTION AREA	**Pipe**	**USS-LIBERTY FJM®**	
Critical Area	8.541	5.074	sq. in.
Joint Efficiency	--	59.4	%
PERFORMANCE	**Pipe**	**USS-LIBERTY FJM®**	
Minimum Collapse Pressure	6,700	6,700	psi
Minimum Internal Yield Pressure	9,460	9,460	psi
Minimum Pipe Body Yield Strength	940,000	--	lbs
Joint Strength	--	558,000	lbs
Compression Rating	--	558,000	lbs
Reference Length	--	12,810	ft
Maximum Uniaxial Bend Rating	--	39.3	deg/100 ft
[illegible]	[illegible]	USS-LIBERTY FJM®	
Make-Up Loss	--	3.92	in.
Minimum Make-Up Torque	--	10,800	ft-lbs
Maximum Make-Up Torque	--	15,250	ft-lbs

1. Other than proprietary collapse and connection values, performance properties have been calculated using standard equations defined by API 5C3 and do not incorporate any additional design or safety factors. Calculations assume nominal pipe OD, nominal wall thickness and Specified Minimum Yield Strength (SMYS).
2. Compressive & Tensile Connection Efficiencies are calculated by dividing the connection critical area by the pipe body area.
3. Uniaxial bending rating shown is structural only, and equal to compression efficiency.
4. USS-LIBERTY FJM™ connections are optimized for each combination of OD and wall thickness and cannot be interchanged.
5. Torques have been calculated assuming a thread compound friction factor of 1.0 and are recommended only. Field make-up torques may require adjustment based on actual field conditions (e.g. make-up speed, temperature, thread compound, etc.).
6. Reference length is calculated by joint strength divided by nominal plain end weight with 1.5 safety factor.
7. Connection external pressure leak resistance has been verified to 100% API pipe body collapse pressure following the guidelines of API 5C5 Cal III.

U. S. Steel Tubular Products
10343 Sam Houston Park Dr., #120
Houston, TX 77064

1-877-893-9461
connections@uss.com
www.usstubular.com

c. Two way radios will be used to communicate off location in case of emergency help is required. In most cases cellular telephones will be available at Drilling Foreman's Office.

7. **Drill Stem Testing:** - No Planned DST at this time.

8. **Mud program:**
   a. If H2S is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas separator will be brought into service along with H2S scavengers if necessary.

9. **Metallurgy:**
   a. All drill strings, casing, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H_2S service.
   b. Drilling Contractor supervisor will be required to be familiar with the effect H_2S has on tubular goods and other mechanical equipment provided through contractor.

H_2S Contingency Plan

Emergency Procedures

In the event of a release of H_2S, the first responder(s) must:

- Isolate the area and prevent entry by other persons into the 100 ppm ROE.
- Evacuate any public places encompassed by the 100 ppm ROE.
- Be equipped with H_2S monitors and air packs in order to control the release.
- Use the "buddy system" to ensure no injuries occur during the response.
- Take precautions to avoid personal injury during this operation.
- Contact Operator and/or local officials the aid in operation. See list of phone numbers attached.
- Have received training in the:
    - Detection of H_2S and
    - Measures for protection against the gas,
    - Equipment used for protection and emergency response.

Ignition of Gas Source

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO_2). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally, the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever there is an ignition of the gas.

Characteristics of H_2S and SO_2

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H_2S	1.189 Air=1	10 ppm	100 ppm/hr	600 ppm
Sulfur Dioxide	SO_2	2.21 Air=1	2 ppm	N/A	1000 ppm

Contacting Authorities

Ameredev Operating LLC personnel must liaise with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available including direction to site. The following call list of essential and potential responders has been prepared for use during a release. Ameredev Operating LLC's response must be in coordination with the State of New Mexico's "Hazardous Materials Emergency Response Plan" (HMER)

AMEREDEV

H_2S Contingency Plan

Ameredev Operating LLC – Emergency Phone 737-300-4799			
Key Personnel:			
Name	Title	Office	Mobile
Floyd Hammond	Chief Operating officer	737-300-4724	512-783-6810
Zachary Boyd	Operations Superintendent	737-300-4725	432-385-6996
Blake Estrada	Construction Foreman		432-385-5831

Artesia	
Ambulance	911
State Police	575-746-2703
City Police	575-746-2703
Sheriff's Office	575-746-9888
Fire Department	575-746-2701
Local Emergency Planning Committee	575-746-2122
New Mexico Oil Conservation Division	575-748-1283
Carlsbad	
Ambulance	911
State Police	575-885-3137
City Police	575-885-2111
Sheriff's Office	575-887-7551
Fire Department	575-887-3798
Local Emergency Planning Committee	575-887-6544
US Bureau of Land Management	575-887-6544
Santa Fe	
New Mexico Emergency Response Commission (Santa Fe)	505-476-9600
New Mexico Emergency Response Commission (Santa Fe) 24 Hrs	505-827-9126
New Mexico State Emergency Operations Center	505-476-9635
National	
National Emergency Response Center (Washington, D.C.)	800-424-8802
Medical	
Flight for Life - 4000 24th St.; Lubbock, TX	806-743-9911
Aerocare - R3, Box 49F; Lubbock, TX	806-747-8923
Med Flight Air Amb - 2301 Yale Blvd S.E., #D3; Albuquerque, NM	505-842-4433
.'SB Air Med Service - 2505 Clark Carr Loop S.E.; Albuquerque, NM	505-842-4949

AMEREDEV

Ameredev Operating, LLC

Lea County, NM (NAD83 NME)
(Golden Bell) Sec-31_T-25-S_R-36-E
Golden Bell Fed Com 26-36-06 #125H

OWB

Plan: Plan #2

Standard Planning Report

26 June, 2018

INTREPID

Database:	EDM5000	**Local Co-ordinate Reference:**	Well Golden Bell Fed Com 26-36-06 #125H
Company:	Ameredev Operating, LLC	**TVD Reference:**	KB @ 3041.0usft (H&P 616)
Project:	Lea County, NM (NAD83 NME)	**MD Reference:**	KB @ 3041.0usft (H&P 616)
Site:	(Golden Bell) Sec-31_T-25-S_R-36-E	**North Reference:**	Grid
Well:	Golden Bell Fed Com 26-36-06 #125H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #2		

Project Lea County, NM (NAD83 NME)

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site (Golden Bell) Sec-31_T-25-S_R-36-E

Site Position:		**Northing:**	394,411.00 usft	**Latitude:**	32.0801271
From:	Map	**Easting:**	860,417.00 usft	**Longitude:**	-103.3031324
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.55 °

Well Golden Bell Fed Com 26-36-06 #125H

Well Position	**+N/-S**	0.0 usft	**Northing:**	394,411.00 usft	**Latitude:**	32.0801276
	+E/-W	-20.0 usft	**Easting:**	860,397.00 usft	**Longitude:**	-103.3031970
Position Uncertainty		0.0 usft	**Wellhead Elevation:**		**Ground Level:**	3,014.0 usft

Wellbore OWB

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	2018/04/25	6.72	59.96	47,795.66410485

Design Plan #2

Audit Notes:

Version:		**Phase:**	PLAN	**Tie On Depth:**	0.0
Vertical Section:	**Depth From (TVD) (usft)**	**+N/-S (usft)**	**+E/-W (usft)**	**Direction (°)**	
	0.0	0.0	0.0	178.16	

Plan Survey Tool Program **Date** 2018/06/25

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	22,822.4	Plan #2 (OWB)	MWD	
				MWD - Standard	

Database:	EDM5000	**Local Co-ordinate Reference:**	Well Golden Bell Fed Com 26-36-06 #125H
Company:	Ameredev Operating, LLC	**TVD Reference:**	KB @ 3041.0usft (H&P 616)
Project:	Lea County, NM (NAD83 NME)	**MD Reference:**	KB @ 3041.0usft (H&P 616)
Site:	(Golden Bell) Sec-31_T-25-S_R-36-E	**North Reference:**	Grid
Well:	Golden Bell Fed Com 26-36-06 #125H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #2		

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,100.0	2.00	343.30	2,100.0	1.7	-0.5	2.00	2.00	0.00	343.30	
3,495.9	2.00	343.30	3,495.0	48.3	-14.5	0.00	0.00	0.00	0.00	
3,595.9	0.00	0.00	3,595.0	50.0	-15.0	2.00	-2.00	0.00	180.00	
11,877.9	0.00	0.00	11,877.0	50.0	-15.0	0.00	0.00	0.00	0.00	
12,777.9	90.00	177.00	12,450.0	-522.2	15.0	10.00	10.00	0.00	177.00	
12,896.5	90.00	179.37	12,450.0	-640.7	18.7	2.00	0.00	2.00	90.01	
22,692.4	90.00	179.37	12,450.0	-10,436.0	126.0	0.00	0.00	0.00	0.00	LTP (Golden Bell F
22,822.4	90.00	179.37	12,450.0	-10,566.0	127.4	0.00	0.00	0.00	0.00	PBHL (Golden Bell

Database:	EDM5000	**Local Co-ordinate Reference:**	Well Golden Bell Fed Com 26-36-06 #125H
Company:	Ameredev Operating, LLC	**TVD Reference:**	KB @ 3041.0usft (H&P 616)
Project:	Lea County, NM (NAD83 NME)	**MD Reference:**	KB @ 3041.0usft (H&P 616)
Site:	(Golden Bell) Sec-31_T-25-S_R-36-E	**North Reference:**	Grid
Well:	Golden Bell Fed Com 26-36-06 #125H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #2		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,066.0	0.00	0.00	1,066.0	0.0	0.0	0.0	0.00	0.00	0.00
Rustler									
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,506.0	0.00	0.00	1,506.0	0.0	0.0	0.0	0.00	0.00	0.00
Salado									
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
BUILD - 2.00									
2,100.0	2.00	343.30	2,100.0	1.7	-0.5	-1.7	2.00	2.00	0.00
HOLD - 1395.9 at 2100.0 MD									
2,200.0	2.00	343.30	2,199.9	5.0	-1.5	-5.1	0.00	0.00	0.00
2,300.0	2.00	343.30	2,299.9	8.4	-2.5	-8.4	0.00	0.00	0.00
2,400.0	2.00	343.30	2,399.8	11.7	-3.5	-11.8	0.00	0.00	0.00
2,500.0	2.00	343.30	2,499.7	15.0	-4.5	-15.2	0.00	0.00	0.00
2,600.0	2.00	343.30	2,599.7	18.4	-5.5	-18.6	0.00	0.00	0.00
2,700.0	2.00	343.30	2,699.6	21.7	-6.5	-21.9	0.00	0.00	0.00
2,800.0	2.00	343.30	2,799.6	25.1	-7.5	-25.3	0.00	0.00	0.00
2,900.0	2.00	343.30	2,899.5	28.4	-8.5	-28.7	0.00	0.00	0.00
3,000.0	2.00	343.30	2,999.4	31.8	-9.5	-32.0	0.00	0.00	0.00
3,100.0	2.00	343.30	3,099.4	35.1	-10.5	-35.4	0.00	0.00	0.00
3,200.0	2.00	343.30	3,199.3	38.4	-11.5	-38.8	0.00	0.00	0.00
3,234.7	2.00	343.30	3,234.0	39.6	-11.9	-40.0	0.00	0.00	0.00
Tansill									
3,300.0	2.00	343.30	3,299.2	41.8	-12.5	-42.2	0.00	0.00	0.00
3,400.0	2.00	343.30	3,399.2	45.1	-13.5	-45.5	0.00	0.00	0.00
3,495.9	2.00	343.30	3,495.0	48.3	-14.5	-48.8	0.00	0.00	0.00
DROP - 2.00									
3,500.0	1.92	343.30	3,499.1	48.5	-14.5	-48.9	2.00	-2.00	0.00
3,595.9	0.00	0.00	3,595.0	50.0	-15.0	-50.5	2.00	-2.00	0.00
HOLD - 8282.0 at 3595.9 MD									
3,600.0	0.00	0.00	3,599.1	50.0	-15.0	-50.5	0.00	0.00	0.00
3,700.0	0.00	0.00	3,699.1	50.0	-15.0	-50.5	0.00	0.00	0.00
3,800.0	0.00	0.00	3,799.1	50.0	-15.0	-50.5	0.00	0.00	0.00
3,900.0	0.00	0.00	3,899.1	50.0	-15.0	-50.5	0.00	0.00	0.00
4,000.0	0.00	0.00	3,999.1	50.0	-15.0	-50.5	0.00	0.00	0.00

Database:	EDM5000	**Local Co-ordinate Reference:**	Well Golden Bell Fed Com 26-36-06 #125H
Company:	Ameredev Operating, LLC	**TVD Reference:**	KB @ 3041.0usft (H&P 616)
Project:	Lea County, NM (NAD83 NME)	**MD Reference:**	KB @ 3041.0usft (H&P 616)
Site:	(Golden Bell) Sec-31_T-25-S_R-36-E	**North Reference:**	Grid
Well:	Golden Bell Fed Com 26-36-06 #125H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #2		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,100.0	0.00	0.00	4,099.1	50.0	-15.0	-50.5	0.00	0.00	0.00
4,200.0	0.00	0.00	4,199.1	50.0	-15.0	-50.5	0.00	0.00	0.00
4,300.0	0.00	0.00	4,299.1	50.0	-15.0	-50.5	0.00	0.00	0.00
4,400.0	0.00	0.00	4,399.1	50.0	-15.0	-50.5	0.00	0.00	0.00
4,500.0	0.00	0.00	4,499.1	50.0	-15.0	-50.5	0.00	0.00	0.00
4,600.0	0.00	0.00	4,599.1	50.0	-15.0	-50.5	0.00	0.00	0.00
4,700.0	0.00	0.00	4,699.1	50.0	-15.0	-50.5	0.00	0.00	0.00
4,800.0	0.00	0.00	4,799.1	50.0	-15.0	-50.5	0.00	0.00	0.00
4,900.0	0.00	0.00	4,899.1	50.0	-15.0	-50.5	0.00	0.00	0.00
5,000.0	0.00	0.00	4,999.1	50.0	-15.0	-50.5	0.00	0.00	0.00
5,033.9	0.00	0.00	5,033.0	50.0	-15.0	-50.5	0.00	0.00	0.00
Lamar									
5,068.9	0.00	0.00	5,068.0	50.0	-15.0	-50.5	0.00	0.00	0.00
Bell Canyon									
5,083.9	0.00	0.00	5,083.0	50.0	-15.0	-50.5	0.00	0.00	0.00
9.625"									
5,100.0	0.00	0.00	5,099.1	50.0	-15.0	-50.5	0.00	0.00	0.00
5,200.0	0.00	0.00	5,199.1	50.0	-15.0	-50.5	0.00	0.00	0.00
5,300.0	0.00	0.00	5,299.1	50.0	-15.0	-50.5	0.00	0.00	0.00
5,400.0	0.00	0.00	5,399.1	50.0	-15.0	-50.5	0.00	0.00	0.00
5,500.0	0.00	0.00	5,499.1	50.0	-15.0	-50.5	0.00	0.00	0.00
5,600.0	0.00	0.00	5,599.1	50.0	-15.0	-50.5	0.00	0.00	0.00
5,700.0	0.00	0.00	5,699.1	50.0	-15.0	-50.5	0.00	0.00	0.00
5,800.0	0.00	0.00	5,799.1	50.0	-15.0	-50.5	0.00	0.00	0.00
5,900.0	0.00	0.00	5,899.1	50.0	-15.0	-50.5	0.00	0.00	0.00
6,000.0	0.00	0.00	5,999.1	50.0	-15.0	-50.5	0.00	0.00	0.00
6,100.0	0.00	0.00	6,099.1	50.0	-15.0	-50.5	0.00	0.00	0.00
6,200.0	0.00	0.00	6,199.1	50.0	-15.0	-50.5	0.00	0.00	0.00
6,300.0	0.00	0.00	6,299.1	50.0	-15.0	-50.5	0.00	0.00	0.00
6,400.0	0.00	0.00	6,399.1	50.0	-15.0	-50.5	0.00	0.00	0.00
6,500.0	0.00	0.00	6,499.1	50.0	-15.0	-50.5	0.00	0.00	0.00
6,600.0	0.00	0.00	6,599.1	50.0	-15.0	-50.5	0.00	0.00	0.00
6,700.0	0.00	0.00	6,699.1	50.0	-15.0	-50.5	0.00	0.00	0.00
6,800.0	0.00	0.00	6,799.1	50.0	-15.0	-50.5	0.00	0.00	0.00
6,900.0	0.00	0.00	6,899.1	50.0	-15.0	-50.5	0.00	0.00	0.00
7,000.0	0.00	0.00	6,999.1	50.0	-15.0	-50.5	0.00	0.00	0.00
7,100.0	0.00	0.00	7,099.1	50.0	-15.0	-50.5	0.00	0.00	0.00
7,111.9	0.00	0.00	7,111.0	50.0	-15.0	-50.5	0.00	0.00	0.00
Brushy Canyon									
7,200.0	0.00	0.00	7,199.1	50.0	-15.0	-50.5	0.00	0.00	0.00
7,300.0	0.00	0.00	7,299.1	50.0	-15.0	-50.5	0.00	0.00	0.00
7,400.0	0.00	0.00	7,399.1	50.0	-15.0	-50.5	0.00	0.00	0.00
7,500.0	0.00	0.00	7,499.1	50.0	-15.0	-50.5	0.00	0.00	0.00
7,600.0	0.00	0.00	7,599.1	50.0	-15.0	-50.5	0.00	0.00	0.00
7,700.0	0.00	0.00	7,699.1	50.0	-15.0	-50.5	0.00	0.00	0.00
7,800.0	0.00	0.00	7,799.1	50.0	-15.0	-50.5	0.00	0.00	0.00
7,900.0	0.00	0.00	7,899.1	50.0	-15.0	-50.5	0.00	0.00	0.00
8,000.0	0.00	0.00	7,999.1	50.0	-15.0	-50.5	0.00	0.00	0.00
8,100.0	0.00	0.00	8,099.1	50.0	-15.0	-50.5	0.00	0.00	0.00
8,200.0	0.00	0.00	8,199.1	50.0	-15.0	-50.5	0.00	0.00	0.00
8,300.0	0.00	0.00	8,299.1	50.0	-15.0	-50.5	0.00	0.00	0.00
8,336.9	0.00	0.00	8,336.0	50.0	-15.0	-50.5	0.00	0.00	0.00
Bone Spring Lime									
8,400.0	0.00	0.00	8,399.1	50.0	-15.0	-50.5	0.00	0.00	0.00

Database:	EDM5000	**Local Co-ordinate Reference:**	Well Golden Bell Fed Com 26-36-06 #125H
Company:	Ameredev Operating, LLC	**TVD Reference:**	KB @ 3041.0usft (H&P 616)
Project:	Lea County, NM (NAD83 NME)	**MD Reference:**	KB @ 3041.0usft (H&P 616)
Site:	(Golden Bell) Sec-31_T-25-S_R-36-E	**North Reference:**	Grid
Well:	Golden Bell Fed Com 26-36-06 #125H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #2		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,500.0	0.00	0.00	8,499.1	50.0	-15.0	-50.5	0.00	0.00	0.00
8,600.0	0.00	0.00	8,599.1	50.0	-15.0	-50.5	0.00	0.00	0.00
8,700.0	0.00	0.00	8,699.1	50.0	-15.0	-50.5	0.00	0.00	0.00
8,800.0	0.00	0.00	8,799.1	50.0	-15.0	-50.5	0.00	0.00	0.00
8,900.0	0.00	0.00	8,899.1	50.0	-15.0	-50.5	0.00	0.00	0.00
9,000.0	0.00	0.00	8,999.1	50.0	-15.0	-50.5	0.00	0.00	0.00
9,100.0	0.00	0.00	9,099.1	50.0	-15.0	-50.5	0.00	0.00	0.00
9,200.0	0.00	0.00	9,199.1	50.0	-15.0	-50.5	0.00	0.00	0.00
9,300.0	0.00	0.00	9,299.1	50.0	-15.0	-50.5	0.00	0.00	0.00
9,400.0	0.00	0.00	9,399.1	50.0	-15.0	-50.5	0.00	0.00	0.00
9,500.0	0.00	0.00	9,499.1	50.0	-15.0	-50.5	0.00	0.00	0.00
9,600.0	0.00	0.00	9,599.1	50.0	-15.0	-50.5	0.00	0.00	0.00
9,700.0	0.00	0.00	9,699.1	50.0	-15.0	-50.5	0.00	0.00	0.00
9,712.9	0.00	0.00	9,712.0	50.0	-15.0	-50.5	0.00	0.00	0.00
First Bone Spring									
9,800.0	0.00	0.00	9,799.1	50.0	-15.0	-50.5	0.00	0.00	0.00
9,900.0	0.00	0.00	9,899.1	50.0	-15.0	-50.5	0.00	0.00	0.00
10,000.0	0.00	0.00	9,999.1	50.0	-15.0	-50.5	0.00	0.00	0.00
10,100.0	0.00	0.00	10,099.1	50.0	-15.0	-50.5	0.00	0.00	0.00
10,200.0	0.00	0.00	10,199.1	50.0	-15.0	-50.5	0.00	0.00	0.00
10,271.9	0.00	0.00	10,271.0	50.0	-15.0	-50.5	0.00	0.00	0.00
Second Bone Spring									
10,300.0	0.00	0.00	10,299.1	50.0	-15.0	-50.5	0.00	0.00	0.00
10,400.0	0.00	0.00	10,399.1	50.0	-15.0	-50.5	0.00	0.00	0.00
10,500.0	0.00	0.00	10,499.1	50.0	-15.0	-50.5	0.00	0.00	0.00
10,600.0	0.00	0.00	10,599.1	50.0	-15.0	-50.5	0.00	0.00	0.00
10,700.0	0.00	0.00	10,699.1	50.0	-15.0	-50.5	0.00	0.00	0.00
10,800.0	0.00	0.00	10,799.1	50.0	-15.0	-50.5	0.00	0.00	0.00
10,858.9	0.00	0.00	10,858.0	50.0	-15.0	-50.5	0.00	0.00	0.00
Third Bone Spring Upper									
10,900.0	0.00	0.00	10,899.1	50.0	-15.0	-50.5	0.00	0.00	0.00
11,000.0	0.00	0.00	10,999.1	50.0	-15.0	-50.5	0.00	0.00	0.00
11,100.0	0.00	0.00	11,099.1	50.0	-15.0	-50.5	0.00	0.00	0.00
11,200.0	0.00	0.00	11,199.1	50.0	-15.0	-50.5	0.00	0.00	0.00
11,300.0	0.00	0.00	11,299.1	50.0	-15.0	-50.5	0.00	0.00	0.00
11,400.0	0.00	0.00	11,399.1	50.0	-15.0	-50.5	0.00	0.00	0.00
11,456.9	0.00	0.00	11,456.0	50.0	-15.0	-50.5	0.00	0.00	0.00
Third Bone Spring									
11,500.0	0.00	0.00	11,499.1	50.0	-15.0	-50.5	0.00	0.00	0.00
11,600.0	0.00	0.00	11,599.1	50.0	-15.0	-50.5	0.00	0.00	0.00
11,700.0	0.00	0.00	11,699.1	50.0	-15.0	-50.5	0.00	0.00	0.00
11,720.9	0.00	0.00	11,720.0	50.0	-15.0	-50.5	0.00	0.00	0.00
Wolfcamp									
11,800.0	0.00	0.00	11,799.1	50.0	-15.0	-50.5	0.00	0.00	0.00
11,877.9	0.00	0.00	11,877.0	50.0	-15.0	-50.5	0.00	0.00	0.00
KOP - BUILD 10.00 - 251' FNL, 2344' FEL - 7.625"									
11,900.0	2.21	177.00	11,899.1	49.6	-15.0	-50.0	10.00	10.00	0.00
11,950.0	7.21	177.00	11,948.9	45.5	-14.8	-45.9	10.00	10.00	0.00
12,000.0	12.21	177.00	11,998.2	37.1	-14.3	-37.5	10.00	10.00	0.00
12,050.0	17.21	177.00	12,046.5	24.4	-13.7	-24.8	10.00	10.00	0.00
12,094.0	21.61	177.00	12,088.0	9.8	-12.9	-10.2	10.00	10.00	0.00
Wolfcamp B									
12,100.0	22.21	177.00	12,093.6	7.5	-12.8	-7.9	10.00	10.00	0.00

Database:	EDM5000	**Local Co-ordinate Reference:**	Well Golden Bell Fed Com 26-36-06 #125H
Company:	Ameredev Operating, LLC	**TVD Reference:**	KB @ 3041.0usft (H&P 616)
Project:	Lea County, NM (NAD83 NME)	**MD Reference:**	KB @ 3041.0usft (H&P 616)
Site:	(Golden Bell) Sec-31_T-25-S_R-36-E	**North Reference:**	Grid
Well:	Golden Bell Fed Com 26-36-06 #125H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #2		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
12,150.0	27.21	177.00	12,139.0	-13.3	-11.7	12.9	10.00	10.00	0.00
12,200.0	32.21	177.00	12,182.4	-38.1	-10.4	37.7	10.00	10.00	0.00
12,250.0	37.21	177.00	12,223.5	-66.5	-8.9	66.2	10.00	10.00	0.00
12,300.0	42.21	177.00	12,261.9	-98.4	-7.2	98.1	10.00	10.00	0.00
12,350.0	47.21	177.00	12,297.5	-133.5	-5.4	133.3	10.00	10.00	0.00
12,400.0	52.21	177.00	12,329.8	-171.6	-3.4	171.4	10.00	10.00	0.00
12,435.7	55.78	177.00	12,350.8	-200.4	-1.9	200.2	10.00	10.00	0.00
Sec 31 & 6 Cross - 2333' FEL									
12,450.0	57.21	177.00	12,358.7	-212.3	-1.3	212.2	10.00	10.00	0.00
12,500.0	62.21	177.00	12,383.9	-255.4	1.0	255.3	10.00	10.00	0.00
12,550.0	67.21	177.00	12,405.2	-300.5	3.4	300.5	10.00	10.00	0.00
12,600.0	72.21	177.00	12,422.6	-347.4	5.8	347.4	10.00	10.00	0.00
12,650.0	77.21	177.00	12,435.7	-395.5	8.3	395.6	10.00	10.00	0.00
12,700.0	82.21	177.00	12,444.7	-444.6	10.9	444.7	10.00	10.00	0.00
12,750.0	87.21	177.00	12,449.3	-494.3	13.5	494.5	10.00	10.00	0.00
12,777.9	90.00	177.00	12,450.0	-522.2	15.0	522.4	10.00	10.00	0.00
EOC/TURN - DLS 2.00 TFO 90.01									
12,785.8	90.00	177.16	12,450.0	-530.1	15.4	530.3	2.00	0.00	2.00
FTP (Golden Bell Fed Com 26-36-06 #105H) - FTP (Golden Bell Fed Com 26-36-06 #125H)									
12,800.0	90.00	177.44	12,450.0	-544.3	16.1	544.5	2.00	0.00	2.00
12,896.5	90.00	179.37	12,450.0	-640.7	18.7	641.0	2.00	0.00	2.00
HOLD - 9822.4 at 12869.8 MD									
12,900.0	90.00	179.37	12,450.0	-644.2	18.8	644.5	0.01	0.00	0.01
13,000.0	90.00	179.37	12,450.0	-744.2	19.9	744.5	0.00	0.00	0.00
13,100.0	90.00	179.37	12,450.0	-844.2	21.0	844.4	0.00	0.00	0.00
13,200.0	90.00	179.37	12,450.0	-944.2	22.1	944.4	0.00	0.00	0.00
13,300.0	90.00	179.37	12,450.0	-1,044.2	23.2	1,044.4	0.00	0.00	0.00
13,400.0	90.00	179.37	12,450.0	-1,144.2	24.3	1,144.4	0.00	0.00	0.00
13,500.0	90.00	179.37	12,450.0	-1,244.2	25.3	1,244.4	0.00	0.00	0.00
13,600.0	90.00	179.37	12,450.0	-1,344.2	26.4	1,344.3	0.00	0.00	0.00
13,700.0	90.00	179.37	12,450.0	-1,444.2	27.5	1,444.3	0.00	0.00	0.00
13,800.0	90.00	179.37	12,450.0	-1,544.2	28.6	1,544.3	0.00	0.00	0.00
13,900.0	90.00	179.37	12,450.0	-1,644.2	29.7	1,644.3	0.00	0.00	0.00
14,000.0	90.00	179.37	12,450.0	-1,744.1	30.8	1,744.2	0.00	0.00	0.00
14,100.0	90.00	179.37	12,450.0	-1,844.1	31.9	1,844.2	0.00	0.00	0.00
14,200.0	90.00	179.37	12,450.0	-1,944.1	33.0	1,944.2	0.00	0.00	0.00
14,300.0	90.00	179.37	12,450.0	-2,044.1	34.1	2,044.2	0.00	0.00	0.00
14,400.0	90.00	179.37	12,450.0	-2,144.1	35.2	2,144.2	0.00	0.00	0.00
14,500.0	90.00	179.37	12,450.0	-2,244.1	36.3	2,244.1	0.00	0.00	0.00
14,600.0	90.00	179.37	12,450.0	-2,344.1	37.4	2,344.1	0.00	0.00	0.00
14,700.0	90.00	179.37	12,450.0	-2,444.1	38.5	2,444.1	0.00	0.00	0.00
14,800.0	90.00	179.37	12,450.0	-2,544.1	39.6	2,544.1	0.00	0.00	0.00
14,900.0	90.00	179.37	12,450.0	-2,644.1	40.7	2,644.0	0.00	0.00	0.00
15,000.0	90.00	179.37	12,450.0	-2,744.1	41.8	2,744.0	0.00	0.00	0.00
15,100.0	90.00	179.37	12,450.0	-2,844.1	42.9	2,844.0	0.00	0.00	0.00
15,200.0	90.00	179.37	12,450.0	-2,944.1	44.0	2,944.0	0.00	0.00	0.00
15,300.0	90.00	179.37	12,450.0	-3,044.1	45.1	3,043.9	0.00	0.00	0.00
15,400.0	90.00	179.37	12,450.0	-3,144.1	46.2	3,143.9	0.00	0.00	0.00
15,500.0	90.00	179.37	12,450.0	-3,244.1	47.2	3,243.9	0.00	0.00	0.00
15,600.0	90.00	179.37	12,450.0	-3,344.1	48.3	3,343.9	0.00	0.00	0.00
15,700.0	90.00	179.37	12,450.0	-3,444.0	49.4	3,443.9	0.00	0.00	0.00
15,800.0	90.00	179.37	12,450.0	-3,544.0	50.5	3,543.8	0.00	0.00	0.00
15,900.0	90.00	179.37	12,450.0	-3,644.0	51.6	3,643.8	0.00	0.00	0.00

Database:	EDM5000	**Local Co-ordinate Reference:**	Well Golden Bell Fed Com 26-36-06 #125H
Company:	Ameredev Operating, LLC	**TVD Reference:**	KB @ 3041.0usft (H&P 616)
Project:	Lea County, NM (NAD83 NME)	**MD Reference:**	KB @ 3041.0usft (H&P 616)
Site:	(Golden Bell) Sec-31_T-25-S_R-36-E	**North Reference:**	Grid
Well:	Golden Bell Fed Com 26-36-06 #125H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #2		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
16,000.0	90.00	179.37	12,450.0	-3,744.0	52.7	3,743.8	0.00	0.00	0.00
16,100.0	90.00	179.37	12,450.0	-3,844.0	53.8	3,843.8	0.00	0.00	0.00
16,200.0	90.00	179.37	12,450.0	-3,944.0	54.9	3,943.7	0.00	0.00	0.00
16,300.0	90.00	179.37	12,450.0	-4,044.0	56.0	4,043.7	0.00	0.00	0.00
16,400.0	90.00	179.37	12,450.0	-4,144.0	57.1	4,143.7	0.00	0.00	0.00
16,500.0	90.00	179.37	12,450.0	-4,244.0	58.2	4,243.7	0.00	0.00	0.00
16,600.0	90.00	179.37	12,450.0	-4,344.0	59.3	4,343.7	0.00	0.00	0.00
16,700.0	90.00	179.37	12,450.0	-4,444.0	60.4	4,443.6	0.00	0.00	0.00
16,800.0	90.00	179.37	12,450.0	-4,544.0	61.5	4,543.6	0.00	0.00	0.00
16,900.0	90.00	179.37	12,450.0	-4,644.0	62.6	4,643.6	0.00	0.00	0.00
17,000.0	90.00	179.37	12,450.0	-4,744.0	63.7	4,743.6	0.00	0.00	0.00
17,100.0	90.00	179.37	12,450.0	-4,844.0	64.8	4,843.5	0.00	0.00	0.00
17,200.0	90.00	179.37	12,450.0	-4,944.0	65.9	4,943.5	0.00	0.00	0.00
17,300.0	90.00	179.37	12,450.0	-5,043.9	67.0	5,043.5	0.00	0.00	0.00
17,400.0	90.00	179.37	12,450.0	-5,143.9	68.1	5,143.5	0.00	0.00	0.00
17,500.0	90.00	179.37	12,450.0	-5,243.9	69.1	5,243.5	0.00	0.00	0.00
17,600.0	90.00	179.37	12,450.0	-5,343.9	70.2	5,343.4	0.00	0.00	0.00
17,700.0	90.00	179.37	12,450.0	-5,443.9	71.3	5,443.4	0.00	0.00	0.00
17,738.9	90.00	179.37	12,450.0	-5,482.8	71.8	5,482.3	0.00	0.00	0.00
Sec 6 & 7 Cross - 5283' FNL, 2318' FEL									
17,800.0	90.00	179.37	12,450.0	-5,543.9	72.4	5,543.4	0.00	0.00	0.00
17,900.0	90.00	179.37	12,450.0	-5,643.9	73.5	5,643.4	0.00	0.00	0.00
18,000.0	90.00	179.37	12,450.0	-5,743.9	74.6	5,743.3	0.00	0.00	0.00
18,100.0	90.00	179.37	12,450.0	-5,843.9	75.7	5,843.3	0.00	0.00	0.00
18,200.0	90.00	179.37	12,450.0	-5,943.9	76.8	5,943.3	0.00	0.00	0.00
18,300.0	90.00	179.37	12,450.0	-6,043.9	77.9	6,043.3	0.00	0.00	0.00
18,400.0	90.00	179.37	12,450.0	-6,143.9	79.0	6,143.3	0.00	0.00	0.00
18,500.0	90.00	179.37	12,450.0	-6,243.9	80.1	6,243.2	0.00	0.00	0.00
18,600.0	90.00	179.37	12,450.0	-6,343.9	81.2	6,343.2	0.00	0.00	0.00
18,700.0	90.00	179.37	12,450.0	-6,443.9	82.3	6,443.2	0.00	0.00	0.00
18,800.0	90.00	179.37	12,450.0	-6,543.9	83.4	6,543.2	0.00	0.00	0.00
18,900.0	90.00	179.37	12,450.0	-6,643.9	84.5	6,643.1	0.00	0.00	0.00
19,000.0	90.00	179.37	12,450.0	-6,743.8	85.6	6,743.1	0.00	0.00	0.00
19,100.0	90.00	179.37	12,450.0	-6,843.8	86.7	6,843.1	0.00	0.00	0.00
19,200.0	90.00	179.37	12,450.0	-6,943.8	87.8	6,943.1	0.00	0.00	0.00
19,300.0	90.00	179.37	12,450.0	-7,043.8	88.9	7,043.1	0.00	0.00	0.00
19,400.0	90.00	179.37	12,450.0	-7,143.8	90.0	7,143.0	0.00	0.00	0.00
19,500.0	90.00	179.37	12,450.0	-7,243.8	91.0	7,243.0	0.00	0.00	0.00
19,600.0	90.00	179.37	12,450.0	-7,343.8	92.1	7,343.0	0.00	0.00	0.00
19,700.0	90.00	179.37	12,450.0	-7,443.8	93.2	7,443.0	0.00	0.00	0.00
19,800.0	90.00	179.37	12,450.0	-7,543.8	94.3	7,542.9	0.00	0.00	0.00
19,900.0	90.00	179.37	12,450.0	-7,643.8	95.4	7,642.9	0.00	0.00	0.00
20,000.0	90.00	179.37	12,450.0	-7,743.8	96.5	7,742.9	0.00	0.00	0.00
20,100.0	90.00	179.37	12,450.0	-7,843.8	97.6	7,842.9	0.00	0.00	0.00
20,200.0	90.00	179.37	12,450.0	-7,943.8	98.7	7,942.9	0.00	0.00	0.00
20,300.0	90.00	179.37	12,450.0	-8,043.8	99.8	8,042.8	0.00	0.00	0.00
20,400.0	90.00	179.37	12,450.0	-8,143.8	100.9	8,142.8	0.00	0.00	0.00
20,500.0	90.00	179.37	12,450.0	-8,243.8	102.0	8,242.8	0.00	0.00	0.00
20,600.0	90.00	179.37	12,450.0	-8,343.8	103.1	8,342.8	0.00	0.00	0.00
20,700.0	90.00	179.37	12,450.0	-8,443.7	104.2	8,442.7	0.00	0.00	0.00
20,800.0	90.00	179.37	12,450.0	-8,543.7	105.3	8,542.7	0.00	0.00	0.00
20,900.0	90.00	179.37	12,450.0	-8,643.7	106.4	8,642.7	0.00	0.00	0.00
21,000.0	90.00	179.37	12,450.0	-8,743.7	107.5	8,742.7	0.00	0.00	0.00
21,100.0	90.00	179.37	12,450.0	-8,843.7	108.6	8,842.7	0.00	0.00	0.00

Database:	EDM5000	**Local Co-ordinate Reference:**	Well Golden Bell Fed Com 26-36-06 #125H
Company:	Ameredev Operating, LLC	**TVD Reference:**	KB @ 3041.0usft (H&P 616)
Project:	Lea County, NM (NAD83 NME)	**MD Reference:**	KB @ 3041.0usft (H&P 616)
Site:	(Golden Bell) Sec-31_T-25-S_R-36-E	**North Reference:**	Grid
Well:	Golden Bell Fed Com 26-36-06 #125H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #2		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
21,200.0	90.00	179.37	12,450.0	-8,943.7	109.7	8,942.6	0.00	0.00	0.00
21,300.0	90.00	179.37	12,450.0	-9,043.7	110.8	9,042.6	0.00	0.00	0.00
21,400.0	90.00	179.37	12,450.0	-9,143.7	111.8	9,142.6	0.00	0.00	0.00
21,500.0	90.00	179.37	12,450.0	-9,243.7	112.9	9,242.6	0.00	0.00	0.00
21,600.0	90.00	179.37	12,450.0	-9,343.7	114.0	9,342.5	0.00	0.00	0.00
21,700.0	90.00	179.37	12,450.0	-9,443.7	115.1	9,442.5	0.00	0.00	0.00
21,800.0	90.00	179.37	12,450.0	-9,543.7	116.2	9,542.5	0.00	0.00	0.00
21,900.0	90.00	179.37	12,450.0	-9,643.7	117.3	9,642.5	0.00	0.00	0.00
22,000.0	90.00	179.37	12,450.0	-9,743.7	118.4	9,742.5	0.00	0.00	0.00
22,100.0	90.00	179.37	12,450.0	-9,843.7	119.5	9,842.4	0.00	0.00	0.00
22,200.0	90.00	179.37	12,450.0	-9,943.7	120.6	9,942.4	0.00	0.00	0.00
22,300.0	90.00	179.37	12,450.0	-10,043.7	121.7	10,042.4	0.00	0.00	0.00
22,400.0	90.00	179.37	12,450.0	-10,143.6	122.8	10,142.4	0.00	0.00	0.00
22,500.0	90.00	179.37	12,450.0	-10,243.6	123.9	10,242.3	0.00	0.00	0.00
22,600.0	90.00	179.37	12,450.0	-10,343.6	125.0	10,342.3	0.00	0.00	0.00
22,692.4	90.00	179.37	12,450.0	-10,436.0	126.0	10,434.7	0.00	0.00	0.00
LTP - LTP (Golden Bell Fed Com 26-36-06 #105H) - LTP (Golden Bell Fed Com 26-36-06 #125H)									
22,700.0	90.00	179.37	12,450.0	-10,443.6	126.1	10,442.3	0.00	0.00	0.00
22,800.0	90.00	179.37	12,450.0	-10,543.6	127.2	10,542.3	0.00	0.00	0.00
22,822.4	90.00	179.37	12,450.0	-10,566.0	127.4	10,564.6	0.00	0.00	0.00
PBHL - 10366' FNL, 2318' FEL - PBHL (Golden Bell Fed Com 26-36-06 #125H)									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
LTP (Golden Bell Fed - plan hits target center - Point	0.00	179.37	12,450.0	-10,436.0	126.0	383,975.00	860,523.00	32.0514406	-103.3031119
FTP (Golden Bell Fed - plan misses target center by 1.6usft at 12785.8usft MD (12450.0 TVD, -530.1 N, 15.4 E) - Point	0.00	0.01	12,450.0	-530.0	17.0	393,881.00	860,414.00	32.0786704	-103.3031585
PBHL (Golden Bell Fe - plan misses target center by 0.4usft at 22822.4usft MD (12450.0 TVD, -10566.0 N, 127.4 E) - Point	0.00	0.01	12,450.0	-10,566.0	127.0	383,845.00	860,524.00	32.0510833	-103.3031126

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
5,083.9	5,083.0	9.625"	9-5/8	12-1/4
11,877.9	11,877.0	7.625"	7-5/8	8-3/4
22,822.4	12,450.0	5 1/2"	5-1/2	6-3/4

Ameredev Operating, LLC
Golden Bell Fed Com 26 36 06 125H
Section 06, Township 26S, Range 36E
Lea County, New Mexico

Surface Use Plan of Operations

Introduction

The following Surface Use Plan of Operations will be implemented by Ameredev Operating, LLC (Ameredev), after APD approval. No disturbance will be created other than those described in this surface use plan. If any additional surface disturbance becomes necessary after APD approval, the appropriate BLM approved sundry notice or right of way application will be acquired prior to such disturbance. This Surface Use Plan includes Ameredev's well pad, battery site, electrical, water and flow lines, and access roads.

Before any surface disturbance is created, stakes or flagging will be installed to mark boundaries of permitted areas of disturbance, including soil storage areas. As necessary, slope, grade, and other construction control stakes will be placed to ensure construction is in accordance with the surface use plan. All boundary markers will be maintained in place until final construction cleanup is completed. If disturbance boundary markers are displaced, they will be replaced before construction proceeds. Adjacent operators will be contacted before construction starts to mark adjacent pipelines.

Directions to proposed pad:

At the intersection of NM-205 & 3rd St/NM-128/Frying Pan Rd, Head south on 3rd St/NM-128/Frying Pan Road approximately 5.6 miles. Turn west (right) on Anthony Road and proceed approximately 3.4 miles. Turn North (right) on unnamed road and proceed approximately .3 miles. Turn east (right) on Pipeline Road and proceed approximately .3 miles. Turn north (left) on unnamed road and proceed approximately 1 mile. Turn west (left) on unnamed lease road and proceed 6,791 ft. Location is on the North side of the road. See *Exhibit 1 – Well Pad Access* for a map of the route.

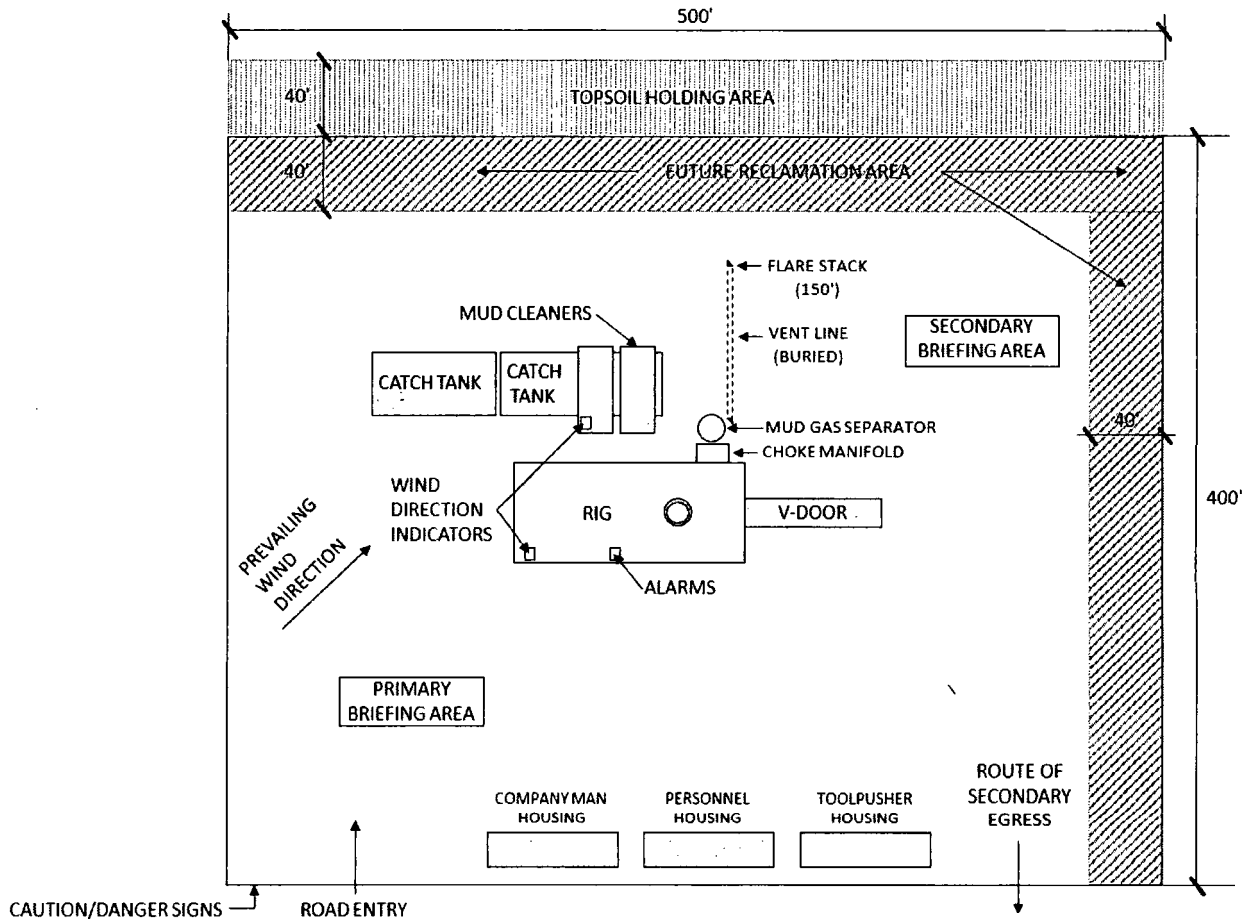


Exhibit 5 – Enlarged Well Site Diagram

Ameredev Operating, LLC
Golden Bell Fed Com 26 36 06 125H
Section 06, Township 26S, Range 36E
Lea County, New Mexico

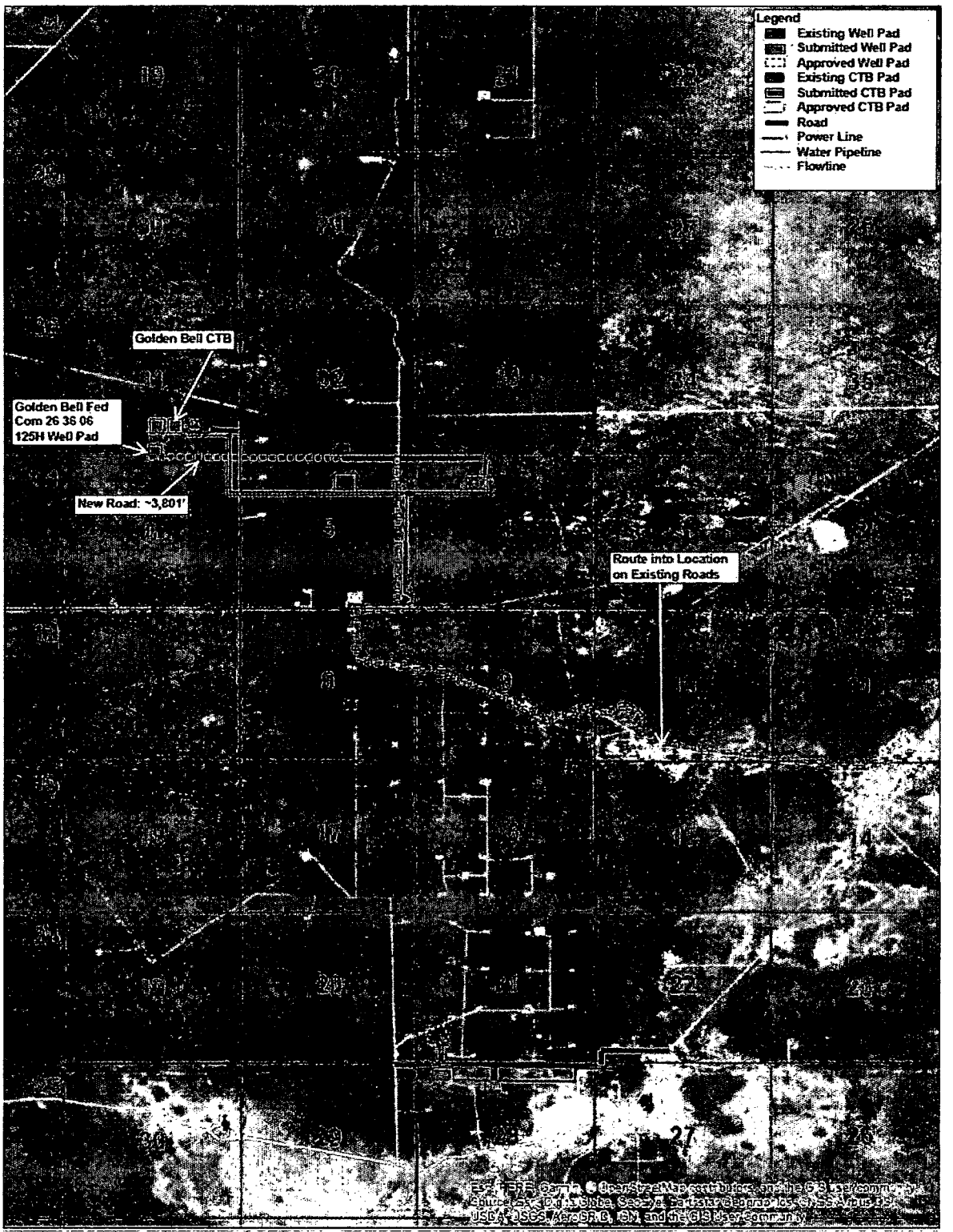


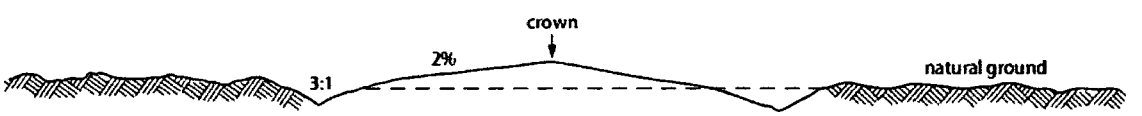
Exhibit 1 – Well Pad Access

Section 1 – Existing Roads

A. The existing access road route to the proposed project is depicted on *Exhibit 1 – Well Pad Access*. 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 this surface use plan.
B. Right-Of-Way will be acquired before construction begins.
C. The operator will improve or maintain existing roads in a condition the same as or better than before operations begin. The operator will repair pot holes, clear ditches, repair the crown, 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.
D. Operator will prevent and abate fugitive dust as needed, whether created by vehicular traffic, equipment operations, or wind events. BLM written approval will be acquired before application of surfactants, binding agents, or other dust suppression chemicals on roadways.

Section 2 – New or Reconstructed Access Roads

A. A section of new access road will be needed for this proposed project. See *Exhibit 1 – Well Pad Access*, for locations.
B. The length of new access road needed to be constructed for this proposed project is approximately 3,801 feet.
C. New access road will be constructed with 6 inches of compacted caliche.
D. The maximum driving width of the access road will be 20 feet. The maximum width of surface disturbance when constructing the access road will not exceed 30 feet. All areas outside of the driving surface will be revegetated.
E. When the road travels on fairly level ground, the road will be crowned and ditched with a maximum 2% slope from the tip of the road crown to the edge of the driving surface. Ditches will be constructed on each side of the road. The ditches will be 3 feet wide with 3:1 slopes. See road cross section diagram below:



F. No turnouts will be constructed on the new portions of access road.
G. No cattle guards will be installed on the new portions of access road.
H. Right-Of-Way will be acquired before construction begins.
I. No culverts or low water crossings will be constructed for the new portions of access road.

J. Since the access road is on level ground, no lead-off ditches will be constructed for the new portions of access road.
K. Any sharp turns in the in the new road will be rounded to facilitate turning by trucks.
L. Newly constructed or reconstructed roads, on surface under the jurisdiction of the Bureau of Land Management, will be constructed as outlined in the BLM "Gold Book" and to meet the standards of the anticipated traffic flow and all anticipated weather requirements as needed. Construction will include ditching, draining, crowning and capping or sloping and dipping the roadbed as necessary to provide a well-constructed and safe road.
M. All topsoil and fragmented rock removed in excavation will be used as directed in approved plan.

Section 3 – Location of Existing Wells

Exhibit 2 – One Mile Radius Existing Wells depicts all known wells within a one mile radius of the Golden Bell Fed Com 26 36 06 125H. See *Exhibit 2a – One Mile Radius Wells List* for a list of wells depicted.

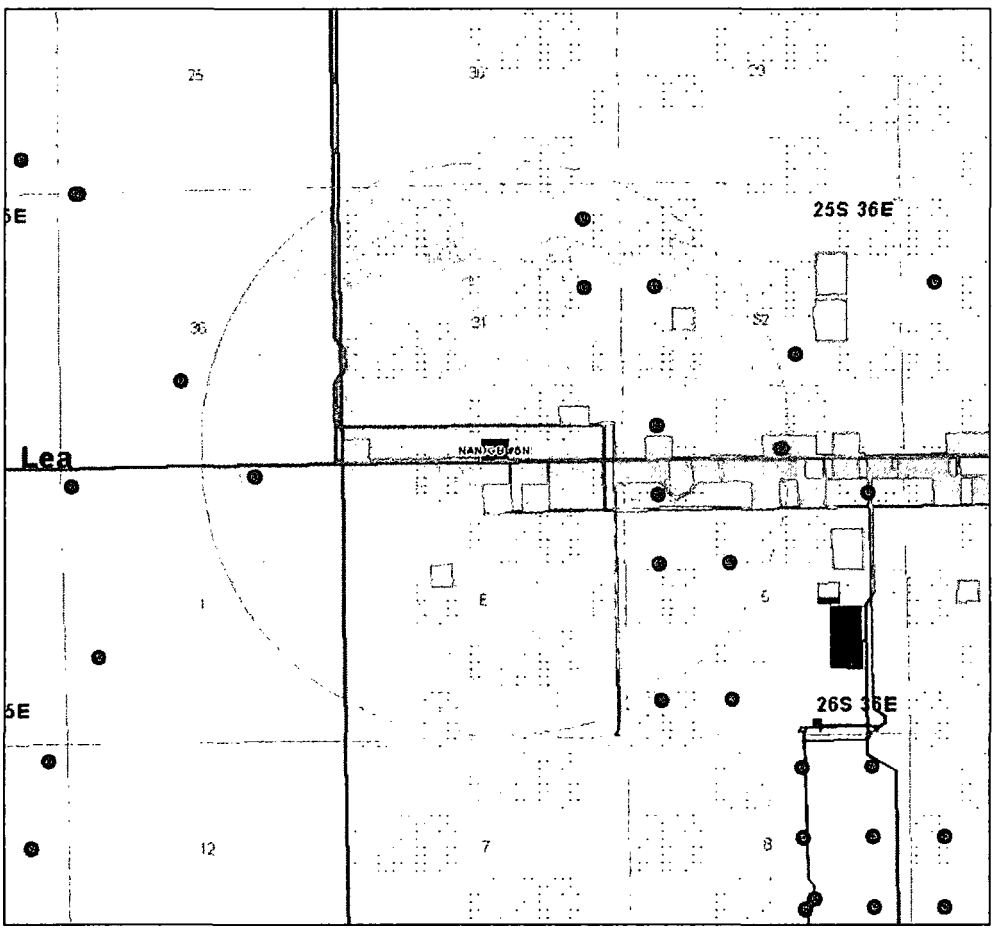


Exhibit 2 – One Mile Radius Existing Wells

API	WELL NAME	STATUS	TD
30025260090000	STANDING BEAR 1	PLUGOIL	3280
30025260100000	SPOTTED TAIL FED 1	OIL	3336
30025260170000	SITTING BULL 1	OIL	3379
30025260270000	SITTING BULL 1	OIL	3368
30025268760000	STANDING BEAR FED 2	PLUGOIL	3311
30025259400000	BUSSELL FEDERAL 1	ABDNLOC	
30025261530000	SPOTTED TAIL FED 2	ABDNLOC	
30025444700000	REDBUD 25-36-32 STAT 105H	PERMIT	
30025444710000	REDBUD 25-36-32 STAT 115H	PERMIT	
30025444710100	REDBUD 25-36-32 STAT 115H	PERMIT	
30025445050000	USHANKA FEDERAL COM 023H	AT-TD	12500
30025445050100	USHANKA FEDERAL COM 023H	PERMIT	

Exhibit 2a – One Mile Radius Existing Wells List

Section 4 - Location of Existing and/or Proposed Production Facilities

A. The multiple well pad will be located on Section 31, and will measure 400'x500'. The top 6" of soil and brush will be stockpiled north of the well pad. Should any type of production facilities be located on the well pad, they will be strategically placed to allow for maximum interim reclamation, re-contouring, and revegetation of the well location.

B. Production from the proposed well will be transported to a new production facility named Golden Bell CTB, north of the well pad.

C. A 4" Poly Flowline will be buried and run approximately 1,305' (805' Needing ROW) from the Golden Bell 26 36 06 125H to the Golden Bell CTB that will be north of the well pad. A 20' pipeline ROW containing three 12" poly water lines and one 8" steel crude line will be run from the Golden Bell CTB to the right of way (NM-138148) approved pipeline corridor. The new lines will be 1,380'. A power line will be run parallel to the pipeline corridor and connect to a power line that will be built in an existing approved right of way (NM-138148). The power line will be approximately 1,360'. The Golden Bell CTB will be 500'x525' and will include a separator, Heat Exchanger, VRU, VRT, meter run and a tank battery. The new production facility will have a secondary containment structure that is constructed to hold the capacity of 1-1/2 times the largest tank, plus freeboard to account for precipitation, unless more stringent protective requirements are deemed necessary. Because this facility goes off lease on BLM owned surface, the pipeline, road, electric corridors, and the Golden Bell CTB will need ROW from the BLM. The new production facility will have a secondary containment structure that is constructed to hold the capacity of 1-1/2 times the largest tank, plus freeboard to account for precipitation, unless more stringent protective requirements are deemed necessary.

D. All permanent (lasting more than six months) above ground structures including but not limited to pump jacks, storage tanks, barrels, pipeline risers, meter housing, etc., that are not subject to safety requirements will be painted a non-reflective paint color, Shale Green, from the BLM Standard Environmental Colors chart, unless another color is required in the APD Conditions of Approval.

E. If any plans change regarding the production facility or other infrastructure (pipeline, electrical lines, etc.), Ameredev will submit a sundry notice or right-of-way (if applicable) prior to installation or construction.

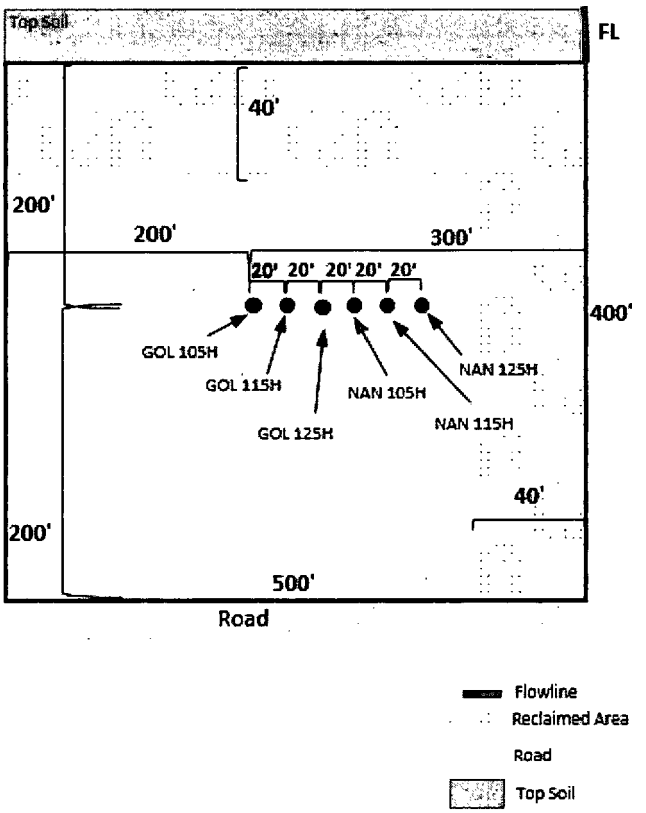


Exhibit 3 – Well Site Diagram

Section 5 - Location and Types of Water Supply

A. This location will be drilled using a combination of water and mud systems (outlined in the Drilling Program). The water will be obtained from preexisting water wells, by running a pump directly to the drilling rig. See *Exhibit 4 - Water Wells*, for a list of available water wells. In cases where a polyline is used to transport water for drilling or completion purposes, the existing and proposed roads into location will be utilized.

Permit #	Well Name	Location (Lat/Lon)
CP 1049 POD 2	Bennett	32°04'14.32" N, 103°12'32.30" W
CP 1378	S. Eppenour	32°05'40.62" N, 103°13' 35.26" W
CP 1285	Sec. 5	32°03'56.50" N, 103°17'37.04" W
CP 857	Capped	32°04'39.70" N, 103°16'51.13" W
C 2287	#1	32°03'59.0" N, 103°33'16.8" W
C 2286	#2	32°03'59.2" N, 103°33'15.2" W
C 2290	#3	32°04'1.0" N, 103°33' 12.6" W
C 2285	#4	32°04'3.7" N, 103°33'9.7" W
C 2288	#5	32°04'0.5" N, 103°33'8.4" W
C 2294	Garden	32°03'3.2" N, 103°32'38.1" W
C 2293	House	32°03'2.3" N, 103°32'36.8" W
J-11-S-3	Farm Well #2	32°03'08.4" N, 103°16'35.2" W
J-11-S-2	Farm Well #3	32°03'11.5" N, 103°17'02.0" W
J-11-S	Farm Well #4	32°03'24.6" N, 103°17'02.1" W
CP 1170 POD 1	CB 1	32°03'57.2" N, 103°18'45.3" W
CP 1170 POD 5		32°07'17.1" N, 103°17'48.0" W
CP 1263 POD 5	CB 2	32°03'56.27" N, 103°18'27.4" W
CP 1263 POD 3	CB 3	32°03'54.90" N, 103°18'16.74" W
CP 1351 POD 1	CB 4	32°03'57.16" N, 103°17'45.13" W
CP 1351 POD 2	CB 5	32°03'30.70" N, 103°17'45.70" W
J 26	Ryan	32°01'20.41" N, 103°15'49.46" W
J 3		32°02'41.5" N, 103°18'55.8" W

Exhibit 4 – Water Wells

Section 6 – Construction/Construction Materials

A. Caliche will be obtained from the caliche pit located at Lat: 32° 6'28.78"N, Long: 103°16'58.77"Wor the caliche pit at Lat: 32° 6'33.14"N, Long: 103°18'44.16"Wor the caliche pit at Lat: 32° 3'8.30"N, Long: 103°13'57.00"W.

B. Caliche utilized for the drilling pad will be obtained either from the locations listed above, an existing approved mineral pit, or by benching into a hill, which will allow the pad to be level with existing caliche from the cut, or extracted by "flipping" the well location. A mineral material permit will be obtained from the BLM prior to excavating any caliche on Federal Lands. Amount will vary for each pad. The procedure for "flipping" a well location is as follows:

1. An adequate amount of topsoil/root zone (usually top 6 inches of soil) will be stripped from the proposed well location and stockpiled along the side of the well location as depicted on the *Exhibit 3 - Well Site Diagram.*
2. An area will be used within the proposed well site dimensions to excavate caliche.
3. Subsoil will be removed and stockpiled within the surveyed well pad dimensions.
4. Once caliche/surfacing mineral is found, the mineral material will be excavated and stock piled within the approved drilling pad dimensions.
5. Subsoil will then be pushed back in the excavated hole and caliche will be spread accordingly across the entire well pad and road (if available).
6. Neither caliche, nor subsoil will be stockpiled outside of the well pad dimensions. Topsoil will be stockpiled along the edge of the pad as depicted in *Exhibit 5 – Enlarged Well Site Diagram.*
7. In the event that no caliche is found onsite, caliche will be hauled in from a BLM approved caliche pit or other established mineral pit. A BLM mineral material permit will be acquired prior to obtaining any mineral material from BLM pits or federal land.

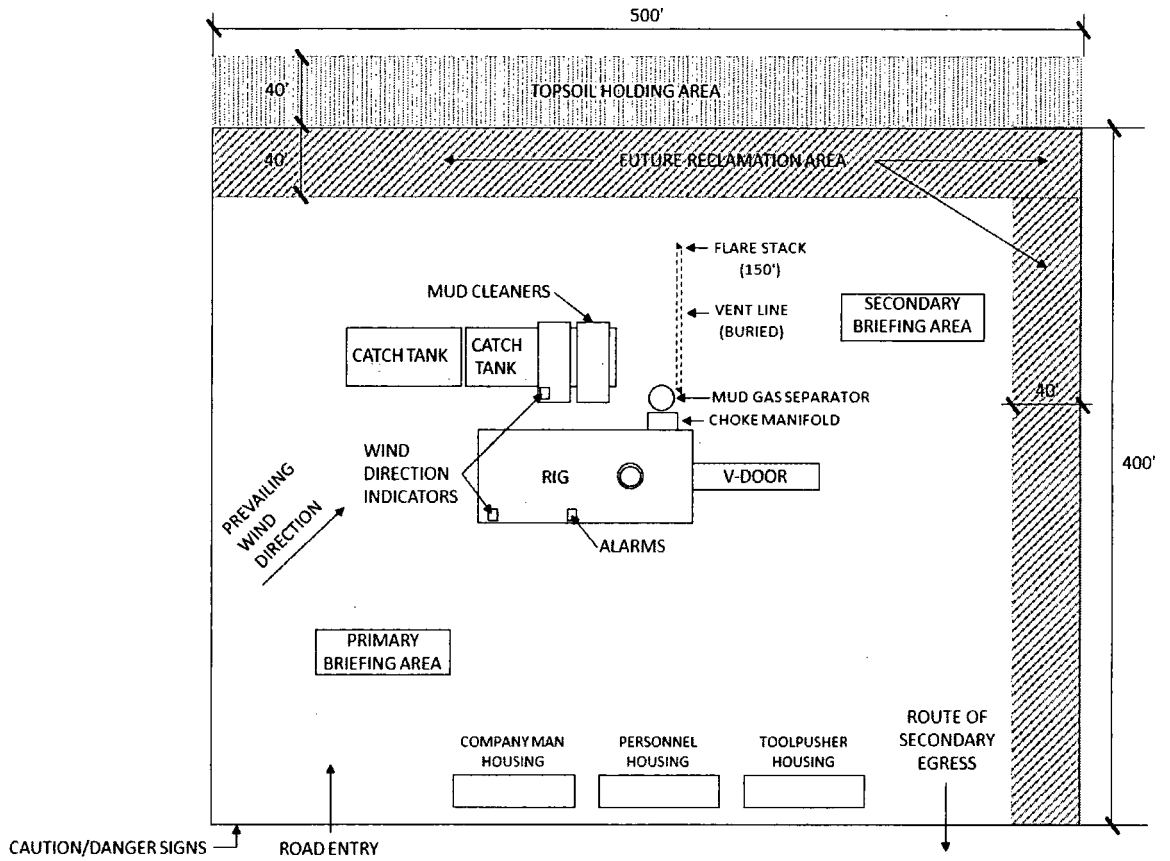


Exhibit 5 – Enlarged Well Site Diagram

Section 7 - Methods of Handling Waste

A. Drill cuttings, mud, salts and other chemicals will be properly disposed of into steel tanks on site and hauled to a State approved commercial disposal facility.

B. Garbage and trash produced during drilling and completion operations will be collected in a portable metal trash container and disposed of properly at a state approved disposal facility. All trash on and around the well site will be collected for disposal.

C. Human waste and grey water will be properly contained and disposed of properly at a state approved disposal facility.

D. After drilling and completion operations, trash, chemicals, salts, frac sand and other waste material will be removed and disposed of properly at a state approved disposal facility.

Section 8 - Ancillary Facilities

A. No ancillary facilities will be needed for the proposed project.

Section 9 - Well Site Layout

A. See *Exhibit 3 - Well Site Diagram* and *Exhibit 5 – Enlarged Well Site Diagram.* The following information is presented:
1. Reasonable scale
2. Well pad dimensions/orientation
3. Drilling rig components/layout
4. Proposed access road
5. Topsoil stockpile

B. The proposed drilling pad was staked and surveyed by a professional surveyor. The attached survey plat of the well site depicts the drilling pad layout as staked.

C. Topsoil salvaging
1. Grass, forbs, and small woody vegetation such as mesquite will be excavated as the topsoil is removed. Large woody vegetation will be stripped and stored separately and re-spread evenly on the site following topsoil re-spreading. Topsoil depth is defined as the top layer of soil that contains 80% of the roots. In areas to be heavily disturbed, the top 6 inches of soil material will be stripped and stockpiled on the perimeter of the well location and along the perimeter of the access road to control run-on and run-off, to keep topsoil viable, and to make redistribution of topsoil more efficient during interim reclamation. Stockpiled topsoil should include vegetative material. Topsoil will be clearly segregated and stored separately from subsoils. Contaminated soil will not be stockpiled, but properly treated and handled prior to topsoil salvaging.

Section 10 - Plans for Final Surface Reclamation

Reclamation Objectives

A. The objective of interim reclamation is to restore vegetative cover and a portion of the landform sufficient to maintain healthy, biologically active topsoil, to control erosion, and to minimize habitat and forage loss, visual impact, and weed infestation during the life of the well or facilities.

B. The long-term objective of final reclamation is to return the land to a condition similar to what existed prior to disturbance. This includes restoration of the landform and natural vegetative community, hydrologic systems, visual resources, and wildlife habitats. To ensure that the long-term objective will be reached through human and natural processes, actions will be taken to ensure standards are met for site stability, visual quality, hydrological functioning, and vegetative productivity.

C. The BLM will be notified at least 3 days prior to the commencement of any reclamation procedures.

D. If circumstances allow, interim reclamation and/or final reclamation actions will be completed no later than 6 months from when the final well on location has been completed or plugged. Ameredev will gain written permission from the BLM if more time is needed.
E. Interim reclamation will be performed on the well site after the well is drilled and completed. *Exhibit 3 – Well Site Diagram* and *Exhibit 5 – Enlarged Well Site Diagram* depict the location and dimension of the planned interim reclamation for the well site.

Interim Reclamation Procedures (if performed)

A. Within 30 days of well completion, the well location and surrounding areas will be cleared of, and maintained free of, all materials, trash, and equipment not required for production.
B. In areas planned for interim reclamation, all the surfacing material will be removed and returned to the original mineral pit or recycled to repair or build roads and well pads.
C. The areas planned for interim reclamation will then be contoured to the original contour if feasible, or if not feasible, to an interim contour that blends with the surrounding topography as much as possible. Where applicable, the fill material of the well pad will be backfilled into the cut to bring the area back to the original contour. The interim cut and fill slopes prior to re-seeding will not be steeper than a 3:1 Ratio, unless the adjacent native topography is steeper. Note: Constructed slopes may be much steeper during drilling, but will be re-contoured to the above ratios during interim reclamation.
D. Topsoil will be evenly re-spread and aggressively revegetated over the entire disturbed area not needed for all-weather operations, including cuts and fills. To seed the area, the proper BLM mixture, free of noxious weeds, will be used. Final seedbed preparation will consist of contour cultivating to a depth of 4 to 6 inches within 24 hours prior to seeding, dozer tracking, or other imprinting, in order to break the soil crust and create seed germination micro-sites.
E. Proper erosion control methods will be used on the area to control erosion, runoff, and siltation of the surrounding area.
F. The interim reclamation will be monitored periodically to ensure that vegetation has reestablished and that erosion is controlled.

Final Reclamation Procedures (well pad, buried pipelines, etc.)

A. Prior to final reclamation procedures, the well pad, road, and surrounding area will be cleared of material, trash, and equipment.
B. All surfacing material will be removed and returned to the original mineral pit or recycled to repair or build roads and well pads.
C. All disturbed areas, including roads, pipelines, pads, production facilities, and interim reclaimed areas will be re-contoured to the contour existing prior to initial construction or a contour that blends indistinguishably with the surrounding landscape. Topsoil that was spread over the interim reclamation areas will be stockpiled prior to re-contouring. The topsoil will be redistributed evenly over the entire disturbed site to ensure successful revegetation.
D. After all the disturbed areas have been properly prepared, the areas will be seeded with the proper BLM seed mixture, free of noxious weeds. Final seedbed preparation will consist of

contour cultivating to a depth of 4 to 6 inches within 24 hours prior to seeding, dozer tracking, or other imprinting, in order to break the soil crust and create seed germination micro-sites.

E. Proper erosion control methods will be used on the area to control erosion, runoff, and siltation of the surrounding area.

F. All unused equipment and structures including pipelines, electric line poles, tanks, etc. that serviced the well will be removed.

G. All reclaimed areas will be monitored periodically to ensure that revegetation occurs, that the area is not re-disturbed, and that erosion is controlled.

Section 11 - Surface Ownership

A. BLM has surface ownership for proposed project area.

Section 12 - Other Information

A. There are no dwellings within 1 mile of this location.

B. An on-site meeting for Ameredev's Golden Bell Fed Com 26 36 06 125H well was held on May 23, 2018.

C. The well pad described in this document - Nandina/Golden Bell (NAN_GB #6N) - will contain 6 wells that produce into two central tank batteries (CTBs) located north of the well pad. The wells share a common pad access road, and the six flowlines from the individual wells will share a common corridor that will terminate into the appropriate CTB. Both CTBs will be tied into the same pipeline and electrical corridor. The wells that share the pad are:

- Nandina Fed Com 25 36 31 125H, APD ID# 10400031760
- Nandina Fed Com 25 36 31 115H, APD ID# 10400031906
- Nandina Fed Com 25 36 31 105H, APD ID# 10400031932
- Golden Bell Fed Com 26 36 06 125H, APD ID# 10400032278
- Golden Bell Fed Com 26 36 06 115H, APD ID# 10400032648
- Golden Bell Fed Com 26 36 06 105H, APD ID# 10400032663

Ameredev field representative:

Zac Boyd, Operations Supervisor

Cell: (432) 385-6996

Email: zboyd@ameredev.com

Ameredev office contact:

Christie Hanna, Regulatory Coordinator

Direct: (737) 300-4723

Email: channa@ameredev.com

Ameredev Operating, LLC Address: 5707 Southwest Parkway Building 1, Suite 275 Austin, Texas 78735

AFMSS

U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

PWD Data Report
10/24/2018

Section 1 - General

Would you like to address long-term produced water disposal? NO

Section 2 - Lined Pits

Would you like to utilize Lined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit specifications:

Pit liner description:

Pit liner manufacturers information:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule attachment:

Lined pit reclamation description:

Lined pit reclamation attachment:

Leak detection system description:

Leak detection system attachment:

Lined pit Monitor description:

Lined pit Monitor attachment:

Lined pit: do you have a reclamation bond for the pit?

Is the reclamation bond a rider under the BLM bond?

Lined pit bond number:

Lined pit bond amount:

Additional bond information attachment: