PECOS DISTRICT DRILLING
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**Chevron U.S.A. Inc.**
LEASE NO.:	**NMLC-0061936**
WELL NAME & NO.:	**Co Grizzly 3 27 Fed 57H**
SURFACE HOLE FOOTAGE:	**2640' FNL & 1015' FEL**
BOTTOM HOLE FOOTAGE	**0100' FNL & 1782' FEL Sec. 34, T. 24 S., R 32 E.**
LOCATION:	**Section 03, T. 25 S., R 32 E., NMPM**
COUNTY:	**County, New Mexico**

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. 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.

4. **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.

Possibility of water flows in the Salado and Castile.
Possibility of lost circulation in the Red Bed, Rustler, and Delaware.

1. The **13-3/8** inch surface casing shall be set at approximately **895** feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface.

    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 and the mud weight for the bottom of the hole. Report results to BLM office.

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

☐ Cement to surface. If cement does not circulate, contact the appropriate BLM office.

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.

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

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

☐ Cement should tie-back at least 200 feet into previous casing string. Operator shall provide method of verification.

4. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

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. **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 intermediate casing integrity test 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.**

5M 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.

3. 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.

D. DRILL STEM TEST

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

E. 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 121018

PECOS DISTRICT
SURFACE USE
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	CHEVRON USA INC.
LEASE NO.:	NMLC061936
WELL NAME & NO.:	0057H- CO GRIZZLY 3 27 FED
SURFACE HOLE FOOTAGE:	2640'/N & 1015'/E
BOTTOM HOLE FOOTAGE	100'/S & 1782'/E
LOCATION:	Section.3.,T25S., R.32E., 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.

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.

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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.

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.

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.

This authorization is subject to your Certificate of Participation and/or Certificate of Inclusion under the New Mexico Candidate Conservation Agreement. Because it involves surface disturbing activities covered under your Certificate, your Habitat Conservation Fund Account with the Center of Excellence for Hazardous Materials Management (CEHMM) will be debited according to Exhibit B Part 2 of the Certificate of Participation.

VI. CONSTRUCTION

A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the 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 .

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.

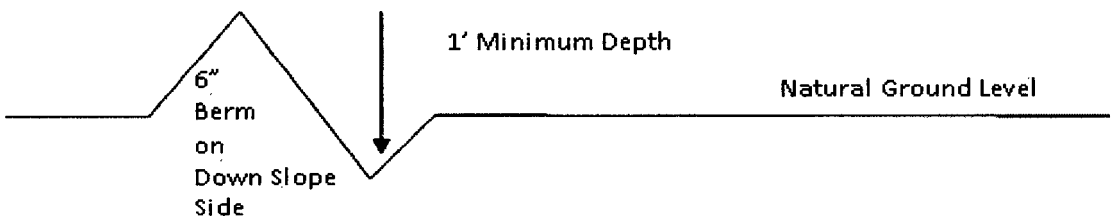
Crowning
Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

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, leadoff ditches, culvert installation, and low water crossings).

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



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

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.

Livestock Watering Requirement
Any damage to structures that provide water to livestock throughout the life of the well, caused by operations from the well site, must be immediately corrected by the operator. The operator must notify the BLM office (575-234-5972) and the private surface landowner or the grazing allotment holder if any damage occurs to structures that provide water to livestock.

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

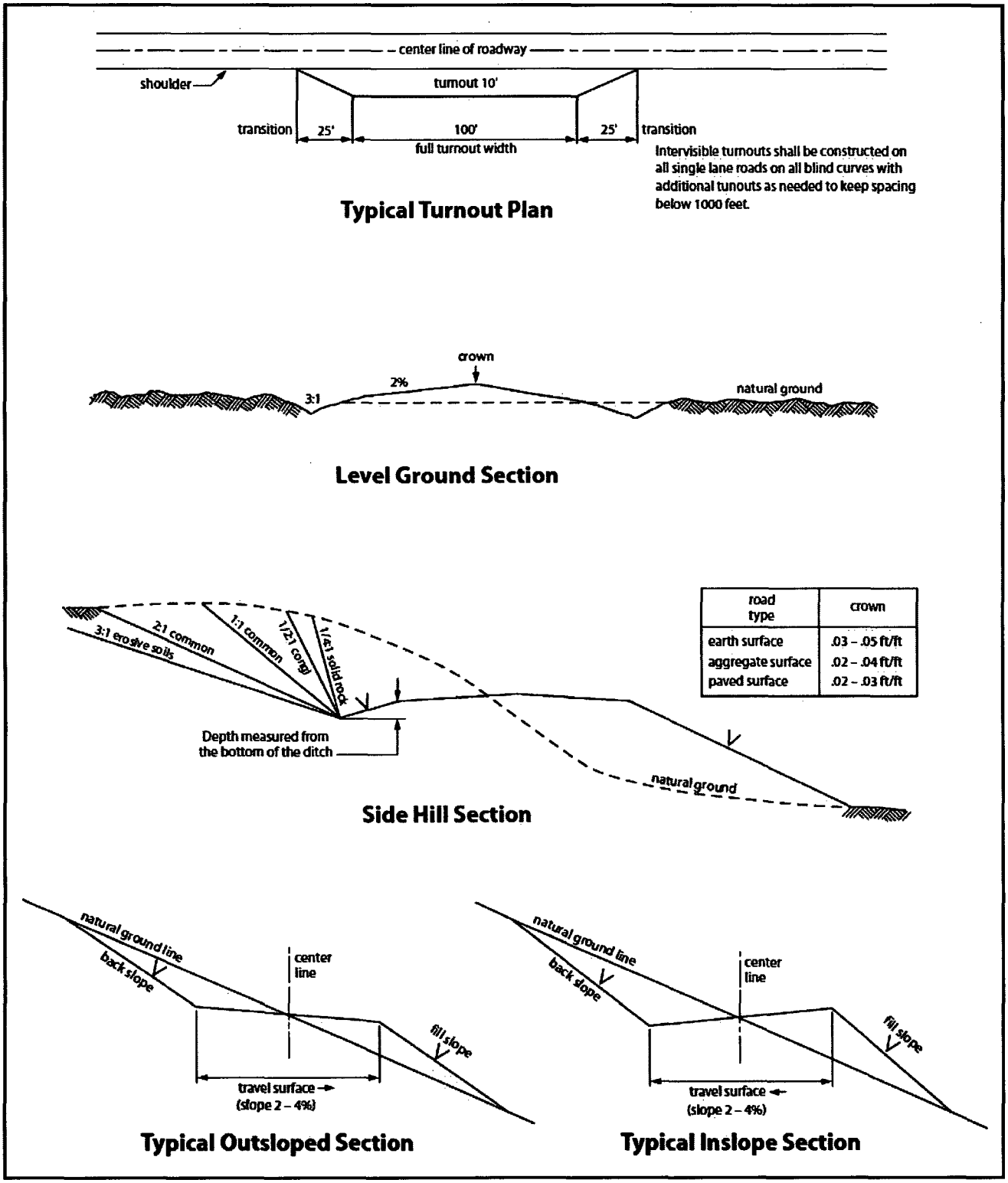


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

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**
STANDARD STIPULATIONS FOR SURFACE INSTALLED PIPELINES

A copy of the application (Grant, Sundry Notice, APD) 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 activity of 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. The holder shall be liable for damage or injury to the United States to the extent provided by 43 CFR Sec. 2883.1-4. The holder shall be held to a standard of strict liability for damage or injury to the United States resulting from pipe rupture, fire, or spills caused or substantially aggravated by any of the following within the right-of-way or permit area:

a. Activities of the holder including, but not limited to construction, operation, maintenance, and termination of the facility.
b. Activities of other parties including, but not limited to:
    (1) Land clearing.
    (2) Earth-disturbing and earth-moving work.
    (3) Blasting.
    (4) Vandalism and sabotage.
c. Acts of God.

The maximum limitation for such strict liability damages shall not exceed one million dollars ($1,000,000) for any one event, and any liability in excess of such amount shall be determined by the ordinary rules of negligence of the jurisdiction in which the damage or injury occurred.

This section shall not impose strict liability for damage or injury resulting primarily from an act of war or from the negligent acts or omissions of the United States.

5. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil, salt water, 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, salt water, or other pollutant, wherever found, shall be the responsibility of the holder, regardless of fault. Upon failure of the 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 the holder of any responsibility as provided herein.

6. All construction and maintenance activity will be confined to the authorized right-of-way width of **20** feet. If the pipeline route follows an existing road or buried pipeline right-of-way, the surface pipeline must be

installed no farther than 10 feet from the edge of the road or buried pipeline right-of-way. If existing surface pipelines prevent this distance, the proposed surface pipeline must be installed immediately adjacent to the outer surface pipeline. All construction and maintenance activity will be confined to existing roads or right-of-ways.

7. No blading or clearing of any vegetation will be allowed unless approved in writing by the Authorized Officer.

8. The holder shall install the pipeline on the surface in such a manner that will minimize suspension of the pipeline across low areas in the terrain. In hummocky of duney areas, the pipeline will be "snaked" around hummocks and dunes rather then suspended across these features.

9. The pipeline shall be buried with a minimum of **24** inches under all roads, "two-tracks," and trails. Burial of the pipe will continue for 20 feet on each side of each crossing. The condition of the road, upon completion of construction, shall be returned to at least its former state with no bumps or dips remaining in the road surface.

10. 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.

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. Excluding the pipe, all above-ground structures not subject to safety requirement shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be a color which simulates "Standard Environmental Colors" – **Shale Green**, Munsell Soil Color No. 5Y 4/2; designated by the Rocky Mountain Five State Interagency Committee.

13. 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. Signs will be maintained in a legible condition for the life of the pipeline.

14. 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. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway.

15. 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 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.

16. 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, powerline 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.

17. Surface pipelines must be less than or equal to 4 inches and a working pressure below 125 psi.

18. Special Stipulations:

a. **Lesser Prairie-Chicken:** Oil and gas activities 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 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. Normal vehicle use on existing roads will not be restricted.

b. A leak detection plan will be submitted to the BLM Carlsbad Field Office for approval prior to pipeline installation. The method could incorporate gauges to detect pressure drops, situating values and lines so they can be visually inspected periodically or installing electronic sensors to alarm when a leak is present. The leak detection plan will incorporate an automatic shut off system that will be installed for proposed pipelines to minimize the effects of an undesirable event.

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.

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.

H_2S Preparedness and Contingency Plan Summary

CO Grizzly 3 27 Fed 005 1H, 2H, 5H, 7H, 10H

Training

MCBU Drilling and Completions H_2S training requirements are intended to define the minimum level of training required for employees, contractors and visitors to enter or perform work at MCBU Drilling and Completions locations that have known concentrations of H_2S.

Awareness Level

Employees and visitors to MCBU Drilling and Completions locations that have known concentrations of H_2S, who are not required to perform work in H_2S areas, will be provided with an awareness level of H_2S training prior to entering any H_2S areas. At a minimum, awareness level training will include:

1. Physical and chemical properties of H_2S
2. Health hazards of H_2S
3. Personal protective equipment
4. Information regarding potential sources of H_2S
5. Alarms and emergency evacuation procedures

Awareness level training will be developed and conducted by personnel who are qualified either by specific training, educational experience and/or work-related background.

Advanced Level H_2S Training

Employees and contractors required to work in areas that may contain H_2S will be provided with Advanced Level H_2S training prior to initial assignment. In addition to the Awareness Level requirements, Advanced Level H_2S training will include:

1. H_2S safe work practice procedures;
2. Emergency contingency plan procedures;
3. Methods to detect the presence or release of H_2S (e.g., alarms, monitoring equipment), including hands-on training with direct reading and personal monitoring H_2S equipment.
4. Basic overview of respiratory protective equipment suitable for use in H_2S environments. Note: Employees who work at sites that participate in the Chevron Respirator User program will require separate respirator training as required by the MCBU Respiratory Protection Program;
5. Basic overview of emergency rescue techniques, first aid, CPR and medical evaluation procedures. Employees who may be required to perform "standby" duties are required to receive additional first aid and CPR training, which is not covered in the Advanced Level H_2S training;
6. Proficiency examination covering all course material.

Advanced H_2S training courses will be instructed by personnel who have successfully completed an appropriate H_2S train-the-trainer development course (ANSI/ASSE Z390.1-2006) or who possess significant past experience through educational or work-related background.

H_2S Training Certification

All employees and visitors will be issued an H_2S training certification card (or certificate) upon successful completion of the appropriate H_2S training course. Personnel working in an H_2S environment will carry a current H_2S training certification card as proof of having received the proper training on their person at all times.

Briefing Area

A minimum of two briefing areas will be established in locations that at least one area will be up-wind from the well at all times. Upon recognition of an emergency situation, all personnel should assemble at the designated upwind briefing areas for instructions.

H_2S Equipment

Respiratory Protection

a) Six 30 minute SCBAs – 2 at each briefing area and 2 in the Safety Trailer.

b) Eight 5 minute EBAs – 5 in the dog house at the rig floor, 1 at the accumulator, 1 at the shale shakers and 1 at the mud pits.

Visual Warning System

a) One color code sign, displaying all possible conditions, will be placed at the entrance to the location with a flag displaying the current condition.

b) Two windsocks will be on location, one on the dog house and one on the Drill Site Manager's Trailer.

H_2S Detection and Monitoring System

a) H_2S monitoring system (sensor head, warning light and siren) placed throughout rig.

- Drilling Rig Locations: at a minimum, in the area of the Shale shaker, rig floor, and bell nipple.
- Workover Rig Locations: at a minimum, in the area of the Cellar, rig floor and circulating tanks or shale shaker.

Well Control Equipment

a) Flare Line 150' from wellhead with igniter.

b) Choke manifold with a remotely operated choke.

c) Mud / gas separator

Mud Program

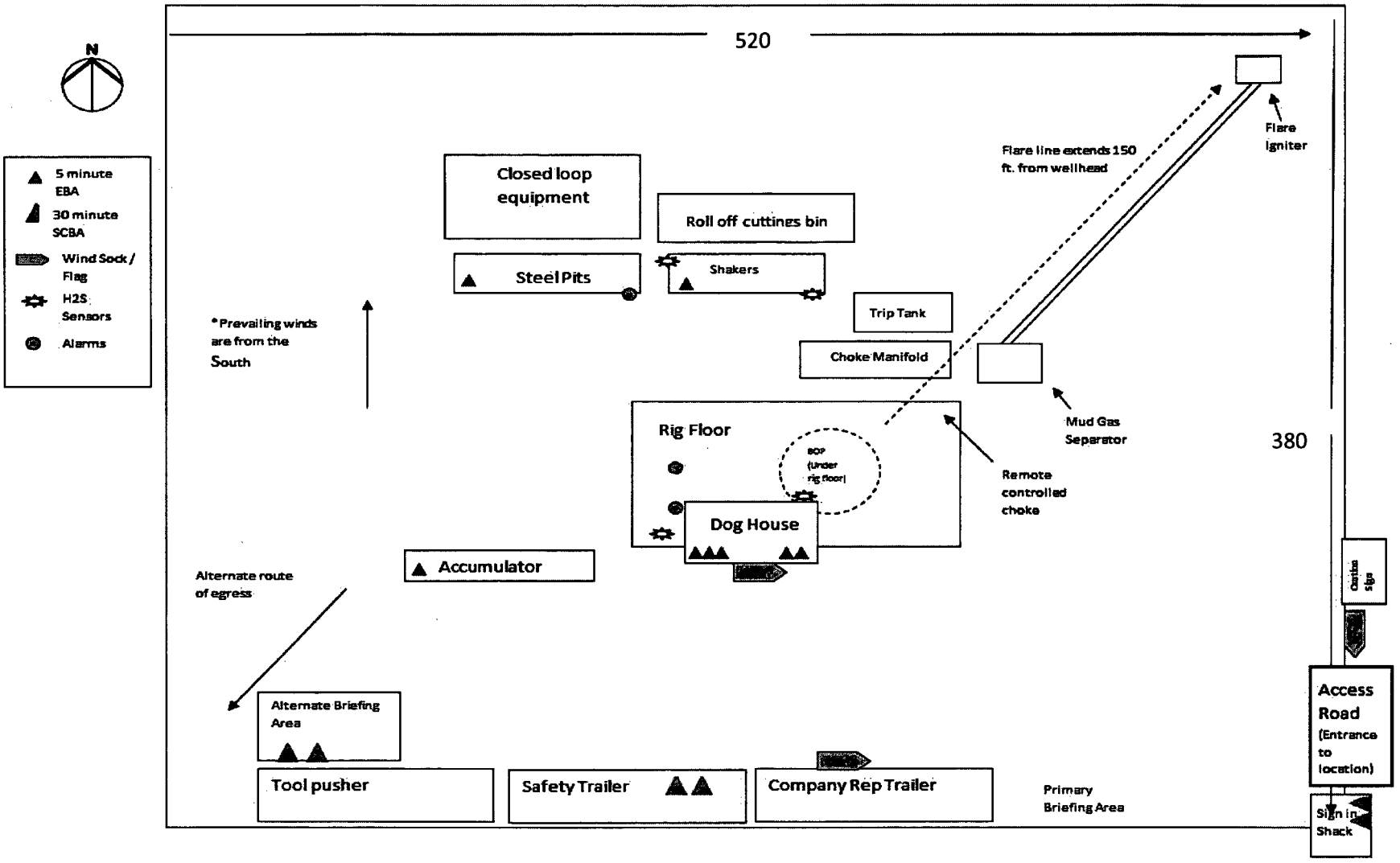
In the event of drilling, completions, workover and well servicing operations involving a hydrogen sulfide concentration of 100 ppm or greater the following shall be considered:

1. Use of a degasser
2. Use of a zinc based mud treatment
3. Increasing mud weight

Public Safety - Emergency Assistance

Agency	Telephone Number
Eddy County Sheriff's Department	575-887-7551
Carlsbad Fire Department	575-885-3125
Carlsbad Medical Center	575-887-4100
Eddy County Emergency Management	575-885-3581
Poison Control Center	800-222-1222

H_2S Preparedness and Contingency Plan Summary



CHEVRON U.S.A. Inc.
CO GRIZZLY 3 27 FED 0057H
USA NMLC 061936
SECTION 3, T25S-R32E SECTION 34, T24S, R32E
SHL 2,640' FNL & 1,015' FEL BHL 100' FNL & 1,782' FEL

APD Surface Use Plan of Operations

Existing Roads (Road Plat Attached)

- 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. We 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.
- Driving Directions – From Jal, New Mexico. The location is approximately 29 miles from the nearest town, which is Jal, New Mexico. From Jal, proceed west on Highway 128 approximately 27 miles and turn left (South) onto CR1 (Orla Hwy) and go approximately 2 miles on CR1 until the road reaches a lease road on the left. Turn left (east) onto lease road (Chevron has an agreement and easement for use of this road) and travel easterly approximately .5 miles, then bear left (north) approximately .5 miles on lease road to the well location.

New or Reconstructed Access Roads (Well Plat Attached)

- There will be 7,174.39 of new road construction for the well pad and facilities.
- Road Width: The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed 20'. The maximum width of surface disturbance shall not exceed 25'.
- Maximum Grade: 3%
- Crown Design: Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2%. The road shall conform to cross section and plans for typical road construction found in the BLM Gold Book.
- Turnouts: 50-60'
- Ditch Design: Ditching will be constructed on both sides of road.
- Cattle guards: None suggestion
- Major Cuts and Fills: 2:1 during drilling and completions. Cuts and fills taken back to 3:1 at interim.

- Type of Surfacing Material: Caliche. The road will also have a dust abatement polymer coating to decrease dust as well as help maintain the road, Envirotac II.

Location of Existing Wells (Diagram Attached)

- 1-Mile radius map is attached

Location of Existing and/or Proposed Production Facilities (Work Area Detail Map Attached)

- Facilities:
  - A proposed **CTB production site** will be located on the SW corner of the well pad in Sec. 3, T26S-R32E where oil and gas sales will take place. Please see CTB site plat and Cut & Fill plat attached hereto.
  - A proposed **Compressor Station** will be located approximately .5 miles south of the above-referenced CTB Production Facility in Sec. 3, T26S-R32E where oil and gas sales will take place. Please see compressor station site plat and Cut & Fill plat attached hereto.
  - A proposed **Frac Pond** will be in the NE4 of Sec. 9, T25S-R32E. Please see frac pond site plat and Cut & Fill plat attached hereto.
  - Open top tanks or open containments will be netted.
  - Open vent exhaust stacks will be modified to prevent birds or bats from entering, discourage perching, roosting, and nesting.
  - Facilities will have a secondary containment 1.5 times the holding capacity of largest storage tank.
  - All above ground structures will be painted non-reflective shale green for blending with surrounding environment.
  - The tank battery will be connected to the existing water gathering system in the field for permanent water disposal.

Location of Proposed ROW (Work Area Detail Map Attached)

- Pipelines: 5 - 4" buried flowlines, approximately 190.28', will be laid from well to the CTB production facility at the SW corner of the well site.
  - All construction activity will be confined to the approved ROW.
- Pipelines: 2 - 4" buried gas lift pipelines, approximately 2,738.97', will be laid from the well site running adjacent to the lease road to the Compressor facility in Sec. 3, T26S-R32E.
  - All construction activity will be confined to the approved ROW.
  - Pipeline will run parallel to existing disturbances and will stay within approved ROW.

- Power lines: A powerline, approximately 6,985.42, will be installed from the existing powerline running along the Orla Road in Section 10 and will be routed along the lease road to the proposed well site.
    - This will cross lease lines and a ROW will be applied for through the BLM.
    - All construction activity will be confined to the approved ROW.
    - Power line will run parallel to the road and will stay within approved ROW.

Location and Types of Water Supply (Work Area Detail Map Attached)

- A proposed **Frac Pond** will be in the NE4 of Sec. 9, T25S-R32E. (Please see frac pond site plat and Cut & Fill plat attached hereto) and will be utilized for fresh water and recycled water.
- Fresh water will be obtained from a private water source.
- A temporary 10" expanding pipe water transfer line will run west and north along the lease road approximately 7,229.42' from the proposed frac pond to the proposed well location in Section 3.
    - Fresh water line will run parallel to road and will stay within 10' of access road.
    - This will cross lease lines and a BLM ROW will be required for the water transfer line.

Construction Material

- Caliche will be used to construct well pad and roads. Material will be purchased from the private land owners (Oliver Kiehne) caliche pit located in Sec 27, T26, R33E, Lea County, NM.

- The proposed source of construction material will be located and purchased by Chevron U.S.A. Inc.
    - Notification shall be given to BLM at (575) 234-5909 at least 3 working days prior to commencing construction of access road and/or well pad.

Methods for Handling Waste

- Drilling fluids and produced oil and water from the well during drilling and completion operations will be stored safely and disposed of properly in an NMOCD approved disposal facility.
- Garbage and trash produced during drilling and completion operations will be collected in a trash container and disposed of properly at a state approved disposal facility. All trash on and around the well site will be collected for disposal.

- Human waste and grey water will be properly contained and disposed of properly at a state approved disposal facility.
- 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.
- The well will be drilled utilizing a closed loop system. Drill cutting will be properly disposed of into steel tanks and taken to an NMOCD approved disposal facility.

Ancillary Facilities

None

Well Site Layout (Well Plat Attached)

- Well Plat
  - Exterior well pad dimensions are 380' x 520'.
  - Interior well pad dimensions from point of entry (well head) of the easternmost well are N-120', S-260', E-210', W-310'. The length to the west includes 25' spacing for next well on multi-well pad (five wells). Total disturbance area needed for construction of well pad will be 4.54 acres.
  - Topsoil placement is on the east where interim reclamation is planned to be completed upon completion of well and evaluation of best management practices.

Proposed Pad Cut & Fill (Plat Attached)

- Cut and fill: will be minimal.

Rig Layout (Attached)

Plans for Surface Reclamation (Pad Plat Attached)

Reclamation Objectives

- The objective of interim reclamation is to restore vegetative cover and a portion of the landform sufficient to maintain healthy, biologically active topsoil; control erosion; and minimize habitat and forage loss, visual impact, and weed infestation, during the life of the well or facilities.
- 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.
- The BLM will be notified at least 3 days prior to commencement of any reclamation

procedures.

- If circumstances allow, interim reclamation and/or final reclamation actions will be completed no later than 6 months from when the final well on the location has been completed or plugged. We will gain written permission from the BLM if more time is needed.
- Reclamation will be performed by using the following procedures:

Interim Reclamation Procedures

- Within 6 months, Chevron will contact BLM Surface Management Specialists to devise the best strategies to reduce the size of the location. Current plans for interim reclamation include reducing the pad size to approximately 2.59 acres from the proposed size of 4.54 acres. 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. A plan will be submitted showing where interim reclamation will be completed in order to allow for safe operations, protection of the environment outside of drilled well, and following best management practices found in the BLM "Gold Book".
- 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.
- The areas planned for interim reclamation will then be recontoured 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 recontoured to the above ratios during interim reclamation.
- Topsoil will be evenly re-spread and aggressively revegetated over the entire disturbed area not needed for all-weather operations including cuts & fills. To seed the area, the proper BLM seed mixture (BLM #2), free of noxious weeds, will be used.
- Proper erosion control methods will be used on the area to control erosion, runoff and siltation of the surrounding area.
- The interim reclamation will be monitored periodically to ensure that vegetation has reestablished

Final Reclamation (well pad, buried pipelines, and power lines, etc.)

- Prior to final reclamation procedures, the well pad, road, and surrounding area will be cleared of material, trash, and equipment.
- All surfacing material will be removed and returned to the original mineral pit or recycled to repair or build roads and well pads.
- All disturbed areas, including roads, pipelines, pads, production facilities, and

interim reclaimed areas will be recontoured to the contour existing prior to initial construction or a contour that blends in distinguishably with the surrounding landscape. Topsoil that was spread over the interim reclamation areas will be stockpiled prior to recontouring. The topsoil will be redistributed evenly over the entire disturbed site to ensure successful revegetation.

- After all the disturbed areas have been properly prepared; the areas will be seeded with the proper BLM seed mixture (BLM #2), free of noxious weeds.
- Proper erosion control methods will be used on the entire area to control erosion, runoff and siltation of the surrounding area.

Surface Ownership

- All subject property and infrastructure is on Federal Surface.
- **Nearest Post Office:** Jal Post Office; 29 Miles East

Other Information

- On-site performed by BLM NRS: Paul Murphy 3/22/2018
- Cultural report attached: **N/A** Participating Agreement attached: **Yes**
- Erosion / Drainage: Drainage control system shall be constructed on the entire length of road by the use of any of the following: ditches, side hill out-sloping and in-sloping, lead-off ditches, culvert installation, or low water crossings.
- Exclosure fencing will be installed around open cellar to prevent livestock or large wildlife from being trapped after installation. Fencing will remain in place while no activity is present and until backfilling takes place.
- Terrain: Landscape is flat
- Soil: Sandy loam
- Vegetation: Vegetation present in surrounding area includes mesquite, shrubs, and grass (needle-grass, burro grass, dropseed).
- Wildlife: No wildlife observed, but it is likely that deer, rabbits, coyotes, and rodents pass through the area.
- Surface Water: No surface water concerns.
- Cave Karst: Low Karst area with no caves or visual signs of caves found.
- Watershed Protection: The entire perimeter of the well pad will be bermed to prevent oil, salt, and other chemical contaminates from leaving the well pad.
- Water wells: No known water wells within the 1- mile radius.
- Residences and Buildings: No dwellings within the immediate vicinity of the proposed location.
- Well Signs: Well signs will be in compliance per federal and state requirements and specifications.

CHEVRON U.S.A. Inc.
CO GRIZZLY 3 27 FED 0057H
USA NMLC 061936
SECTION 3, T25S-R32E SECTION 34, T24S, R32E
SHL 2,640' FNL & 1,015' FEL BHL 100' FNL & 1,782' FEL

Chevron Representatives

Primary point of contact:
W Mark Woodard
432 687 7999

Chevron Functional Contacts

Project Manager Name: Sam Storrick Address: 6301 Deauville Midland, Texas 79706 Phone: (432) 687-7769 Email: storrick@chevron.com	**Drilling Engineer** Name: Jason Hannen Address: 1400 Smith Street Houston, TX 77002 Phone: (713) 372-1169 Email: jason.hannen@chevron.com
Surface Land Representative Name: W Mark Woodard Address: 6301 Deauville Midland, Texas 79706 Phone: (432) 687-7999 Email: markwoodard@Chevron.com	**Facility Lead** Name: Max Vilmar Address: 6301 Deauville Midland, Texas 79706 Phone: (432) 687-7327 Email: mvilmar@chevron.com
Geologist Name: Michael Smerilli Address: 6301 Deauville Midland, Texas 79706 Phone: (713) 687-7887 Email: michael.smerilli@chevron.com	**Regulatory Specialist** Name: Laura Becerra Address: 6301 Deauville Midland, Texas 79706 Office: (432) 687-7665 Email: lbecerra@chevron.com

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APD Surface Use Plan of Operations

Existing Roads (Road Plat Attached)

- 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. We 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.
- Driving Directions – From Jal, New Mexico. The location is approximately 29 miles from the nearest town, which is Jal, New Mexico. From Jal, proceed west on Highway 128 approximately 27 miles and turn left (South) onto CR1 (Orla Hwy) and go approximately 2 miles on CR1 until the road reaches a lease road on the left. Turn left (east) onto lease road (Chevron has an agreement and easement for use of this road) and travel easterly approximately .5 miles, then bear left (north) approximately .5 miles on lease road to the well location.

New or Reconstructed Access Roads (Well Plat Attached)

- There will be 7,174.39 of new road construction for the well pad and facilities.
- Road Width: The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed 20'. The maximum width of surface disturbance shall not exceed 25'.
- Maximum Grade: 3%
- Crown Design: Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2%. The road shall conform to cross section and plans for typical road construction found in the BLM Gold Book.
- Turnouts: 50-60'
- Ditch Design: Ditching will be constructed on both sides of road.
- Cattle guards: None suggestion
- Major Cuts and Fills: 2:1 during drilling and completions. Cuts and fills taken back to 3:1 at interim.

- Type of Surfacing Material: Caliche. The road will also have a dust abatement polymer coating to decrease dust as well as help maintain the road, Envirotac II.

Location of Existing Wells (Diagram Attached)

- 1-Mile radius map is attached

Location of Existing and/or Proposed Production Facilities (Work Area Detail Map Attached)

- Facilities:
  - A proposed **CTB production site** will be located on the SW corner of the well pad in Sec. 3, T26S-R32E where oil and gas sales will take place. Please see CTB site plat and Cut & Fill plat attached hereto.
  - A proposed **Compressor Station** will be located approximately .5 miles south of the above-referenced CTB Production Facility in Sec. 3, T26S-R32E where oil and gas sales will take place. Please see compressor station site plat and Cut & Fill plat attached hereto.
  - A proposed **Frac Pond** will be in the NE4 of Sec. 9, T25S-R32E. Please see frac pond site plat and Cut & Fill plat attached hereto.
  - Open top tanks or open containments will be netted.
  - Open vent exhaust stacks will be modified to prevent birds or bats from entering, discourage perching, roosting, and nesting.
  - Facilities will have a secondary containment 1.5 times the holding capacity of largest storage tank.
  - All above ground structures will be painted non-reflective shale green for blending with surrounding environment.
  - The tank battery will be connected to the existing water gathering system in the field for permanent water disposal.

Location of Proposed ROW (Work Area Detail Map Attached)

- Pipelines: 5 - 4" buried flowlines, approximately 190.28', will be laid from well to the CTB production facility at the SW corner of the well site.
  - All construction activity will be confined to the approved ROW.
- Pipelines: 2 - 4" buried gas lift pipelines, approximately 2,738.97', will be laid from the well site running adjacent to the lease road to the Compressor facility in Sec. 3, T26S-R32E.
  - All construction activity will be confined to the approved ROW.
  - Pipeline will run parallel to existing disturbances and will stay within approved ROW.

- Power lines: A powerline, approximately 6,985.42, will be installed from the existing powerline running along the Orla Road in Section 10 and will be routed along the lease road to the proposed well site.
    - This will cross lease lines and a ROW will be applied for through the BLM.
    - All construction activity will be confined to the approved ROW.
    - Power line will run parallel to the road and will stay within approved ROW.

Location and Types of Water Supply (Work Area Detail Map Attached)

- A proposed **Frac Pond** will be in the NE4 of Sec. 9, T25S-R32E. (Please see frac pond site plat and Cut & Fill plat attached hereto) and will be utilized for fresh water and recycled water.
- Fresh water will be obtained from a private water source.
- A temporary 10" expanding pipe water transfer line will run west and north along the lease road approximately 7,229.42' from the proposed frac pond to the proposed well location in Section 3.
    - Fresh water line will run parallel to road and will stay within 10' of access road.
    - This will cross lease lines and a BLM ROW will be required for the water transfer line.

Construction Material

- Caliche will be used to construct well pad and roads. Material will be purchased from the private land owners (Oliver Kiehne) caliche pit located in Sec 27, T26, R33E, Lea County, NM.

- The proposed source of construction material will be located and purchased by Chevron U.S.A. Inc.
    - Notification shall be given to BLM at (575) 234-5909 at least 3 working days prior to commencing construction of access road and/or well pad.

Methods for Handling Waste

- Drilling fluids and produced oil and water from the well during drilling and completion operations will be stored safely and disposed of properly in an NMOCD approved disposal facility.
- Garbage and trash produced during drilling and completion operations will be collected in a trash container and disposed of properly at a state approved disposal facility. All trash on and around the well site will be collected for disposal.

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Chevron Functional Contacts

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Surface Land Representative Name: W Mark Woodard Address: 6301 Deauville Midland, Texas 79706 Phone: (432) 687-7999 Email: markwoodard@Chevron.com	**Facility Lead** Name: Max Vilmar Address: 6301 Deauville Midland, Texas 79706 Phone: (432) 687-7327 Email: mvilmar@chevron.com
Geologist Name: Michael Smerilli Address: 6301 Deauville Midland, Texas 79706 Phone: (713) 687-7887 Email: michael.smerilli@chevron.com	**Regulatory Specialist** Name: Laura Becerra Address: 6301 Deauville Midland, Texas 79706 Office: (432) 687-7665 Email: lbecerra@chevron.com

DENTIFICATION

S.A. Inc.

, NM

Jpper BN SPRN Shale (Lea County, NM)

iec 3 FED Com Permitting

ATION

NAD27 / TM New Mexico SP, Eastern Zone (3001), US feet

Grid

0.999959

0.37° East

WellArchitect® 5.0

Tranlam

2/6/2018 at 3:15:57 PM

WA_Midland/ev512.xml

Local North [ft]	Local East [ft]	Easting [US ft]	Northing [US ft]	Latitude	Longitude
0	100	709325	422373	32°09'33.884"N	103°39'24.890"W
		709225	422373	32°09'33.890"N	103°39'26.053"W
		152400.3	0	30°59'42.846"N	105°26'33.659"W

	Minimum curvature
int	Slot
	Rig on 7H (RT)
	Rig on 7H (RT)
	Mean Sea Level
Vertical Datum	0.00ft
iea Level	0.00ft
l Level at Slot (7H)	0.00ft
	N 0.00, E 0.00 ft
	0.00°

† = interpolated/extrapolated station

0	293.406	700	0	0	0	709325	422373	32°09'33.884"N	103°39'24.890"W	0	0	
0	293.406	800	0	0	0	709325	422373	32°09'33.884"N	103°39'24.890"W	0	0	
0	293.406	900	0	0	0	709325	422373	32°09'33.884"N	103°39'24.890"W	0	0	
0	293.406	1000	0	0	0	709325	422373	32°09'33.884"N	103°39'24.890"W	0	0	
0	293.406	1100	0	0	0	709325	422373	32°09'33.884"N	103°39'24.890"W	0	0	
0	293.406	1200	0	0	0	709325	422373	32°09'33.884"N	103°39'24.890"W	0	0	
0	293.406	1300	0	0	0	709325	422373	32°09'33.884"N	103°39'24.890"W	0	0	
0	293.406	1400	0	0	0	709325	422373	32°09'33.884"N	103°39'24.890"W	0	0	
0	293.406	1500	0	0	0	709325	422373	32°09'33.884"N	103°39'24.890"W	0	0	
1	293.406	1599.99	0.35	0.35	-0.8	709324.2	422373.4	32°09'33.887"N	103°39'24.899"W	1	1	-66.5
2	293.406	1699.96	1.39	1.39	-3.2	709321.8	422374.4	32°09'33.898"N	103°39'24.927"W	1	1	
3	293.406	1799.86	3.12	3.12	-7.21	709317.8	422376.1	32°09'33.915"N	103°39'24.973"W	1	1	
4	293.406	1899.68	5.54	5.54	-12.81	709312.2	422378.5	32°09'33.940"N	103°39'25.038"W	1	1	
5	293.406	1999.37	8.66	8.66	-20.01	709305	422381.7	32°09'33.971"N	103°39'25.122"W	1	1	
6	293.406	2098.9	12.47	12.47	-28.8	709296.2	422385.5	32°09'34.009"N	103°39'25.224"W	1	1	
7	293.406	2198.26	16.97	16.97	-39.19	709285.8	422390	32°09'34.054"N	103°39'25.344"W	1	1	
8	293.406	2297.4	22.15	22.15	-51.17	709273.8	422395.2	32°09'34.106"N	103°39'25.483"W	1	1	
9	293.406	2396.3	28.02	28.02	-64.74	709260.3	422401	32°09'34.165"N	103°39'25.641"W	1	1	
10	293.406	2494.93	34.58	34.58	-79.88	709245.1	422407.6	32°09'34.231"N	103°39'25.816"W	1	1	
11	293.406	2593.26	41.82	41.82	-96.61	709228.4	422414.8	32°09'34.304"N	103°39'26.010"W	1	1	
12	293.406	2691.25	49.74	49.74	-114.9	709210.1	422422.7	32°09'34.383"N	103°39'26.223"W	1	1	
13	293.406	2788.87	58.34	58.34	-134.76	709190.2	422431.3	32°09'34.470"N	103°39'26.453"W	1	1	
14	293.406	2886.11	67.61	67.61	-156.19	709168.8	422440.6	32°09'34.563"N	103°39'26.702"W	1	1	
15	293.406	2982.92	77.55	77.55	-179.17	709145.8	422450.6	32°09'34.662"N	103°39'26.968"W	1	1	
15	293.406	3079.52	87.84	87.84	-202.92	709122.1	422460.8	32°09'34.766"N	103°39'27.244"W	0	0	
15	293.406	3176.11	98.12	98.12	-226.67	709098.3	422471.1	32°09'34.869"N	103°39'27.519"W	0	0	
15	293.406	3272.7	108.4	108.4	-250.42	709074.6	422481.4	32°09'34.972"N	103°39'27.795"W	0	0	
15	293.406	3369.29	118.68	118.68	-274.17	709050.8	422491.7	32°09'35.075"N	103°39'28.070"W	0	0	
15	293.406	3465.89	128.96	128.96	-297.93	709027.1	422502	32°09'35.179"N	103°39'28.346"W	0	0	
15	293.406	3562.48	139.24	139.24	-321.68	709003.3	422512.2	32°09'35.282"N	103°39'28.621"W	0	0	
15	293.406	3659.07	149.53	149.53	-345.43	708979.6	422522.5	32°09'35.385"N	103°39'28.897"W	0	0	
15	293.406	3755.66	159.81	159.81	-369.18	708955.8	422532.8	32°09'35.488"N	103°39'29.172"W	0	0	
15	293.406	3852.26	170.09	170.09	-392.93	708932.1	422543.1	32°09'35.591"N	103°39'29.448"W	0	0	
15	293.406	3948.85	180.37	180.37	-416.69	708908.3	422553.4	32°09'35.695"N	103°39'29.723"W	0	0	
15	293.406	4045.44	190.65	190.65	-440.44	708884.6	422563.6	32°09'35.798"N	103°39'29.999"W	0	0	
15	293.406	4142.03	200.93	200.93	-464.19	708860.8	422573.9	32°09'35.901"N	103°39'30.274"W	0	0	
15	293.406	4238.63	211.21	211.21	-487.94	708837.1	422584.2	32°09'36.004"N	103°39'30.550"W	0	0	
15	293.406	4335.22	221.5	221.5	-511.7	708813.3	422594.5	32°09'36.107"N	103°39'30.826"W	0	0	
15	293.406	4431.81	231.78	231.78	-535.45	708789.6	422604.8	32°09'36.211"N	103°39'31.101"W	0	0	
15	293.406	4528.41	242.06	242.06	-559.2	708765.8	422615.1	32°09'36.314"N	103°39'31.377"W	0	0	
15	293.406	4625	252.34	252.34	-582.95	708742.1	422625.3	32°09'36.417"N	103°39'31.652"W	0	0	

)	5.736	293.406	5606.37	326.07	326.07	-753.27	708571.8	422699.1	32°09'37.157"N	103°39'33.628"W	1	-1	
)	4.736	293.406	5705.95	329.69	329.69	-761.65	708563.4	422702.7	32°09'37.194"N	103°39'33.725"W	1	-1	
)	3.736	293.406	5805.68	332.63	332.63	-768.43	708556.6	422705.6	32°09'37.223"N	103°39'33.804"W	1	-1	
)	2.736	293.406	5905.52	334.87	334.87	-773.61	708551.4	422707.9	32°09'37.246"N	103°39'33.864"W	1	-1	
)	1.736	293.406	6005.44	336.42	336.42	-777.19	708547.8	422709.4	32°09'37.261"N	103°39'33.905"W	1	-1	
)	0.736	293.406	6105.42	337.27	337.27	-779.17	708545.9	422710.3	32°09'37.270"N	103°39'33.928"W	1	-1	
)	0	0	6179.02	337.46	337.46	-779.6	708545.4	422710.5	32°09'37.272"N	103°39'33.933"W	1	-1	90.4
)	0	0	6205.41	337.46	337.46	-779.6	708545.4	422710.5	32°09'37.272"N	103°39'33.933"W	0	0	
)	0	0	6305.41	337.46	337.46	-779.6	708545.4	422710.5	32°09'37.272"N	103°39'33.933"W	0	0	
)	0	0	6405.41	337.46	337.46	-779.6	708545.4	422710.5	32°09'37.272"N	103°39'33.933"W	0	0	
)	0	0	6505.41	337.46	337.46	-779.6	708545.4	422710.5	32°09'37.272"N	103°39'33.933"W	0	0	
)	0	0	6605.41	337.46	337.46	-779.6	708545.4	422710.5	32°09'37.272"N	103°39'33.933"W	0	0	
)	0	0	6705.41	337.46	337.46	-779.6	708545.4	422710.5	32°09'37.272"N	103°39'33.933"W	0	0	
)	0	0	6805.41	337.46	337.46	-779.6	708545.4	422710.5	32°09'37.272"N	103°39'33.933"W	0	0	
)	0	0	6905.41	337.46	337.46	-779.6	708545.4	422710.5	32°09'37.272"N	103°39'33.933"W	0	0	
)	0	0	7005.41	337.46	337.46	-779.6	708545.4	422710.5	32°09'37.272"N	103°39'33.933"W	0	0	
)	0	0	7105.41	337.46	337.46	-779.6	708545.4	422710.5	32°09'37.272"N	103°39'33.933"W	0	0	
)	0	0	7205.41	337.46	337.46	-779.6	708545.4	422710.5	32°09'37.272"N	103°39'33.933"W	0	0	
)	0	0	7305.41	337.46	337.46	-779.6	708545.4	422710.5	32°09'37.272"N	103°39'33.933"W	0	0	
)	0	0	7405.41	337.46	337.46	-779.6	708545.4	422710.5	32°09'37.272"N	103°39'33.933"W	0	0	
)	0	0	7505.41	337.46	337.46	-779.6	708545.4	422710.5	32°09'37.272"N	103°39'33.933"W	0	0	
)	0	0	7605.41	337.46	337.46	-779.6	708545.4	422710.5	32°09'37.272"N	103°39'33.933"W	0	0	
)	0	0	7705.41	337.46	337.46	-779.6	708545.4	422710.5	32°09'37.272"N	103°39'33.933"W	0	0	
)	0	0	7805.41	337.46	337.46	-779.6	708545.4	422710.5	32°09'37.272"N	103°39'33.933"W	0	0	
)	0	0	7905.41	337.46	337.46	-779.6	708545.4	422710.5	32°09'37.272"N	103°39'33.933"W	0	0	
)	0	0	8005.41	337.46	337.46	-779.6	708545.4	422710.5	32°09'37.272"N	103°39'33.933"W	0	0	
)	0	0	8105.41	337.46	337.46	-779.6	708545.4	422710.5	32°09'37.272"N	103°39'33.933"W	0	0	
)	0	0	8205.41	337.46	337.46	-779.6	708545.4	422710.5	32°09'37.272"N	103°39'33.933"W	0	0	
)	0	0	8305.41	337.46	337.46	-779.6	708545.4	422710.5	32°09'37.272"N	103°39'33.933"W	0	0	
)	0	0	8405.41	337.46	337.46	-779.6	708545.4	422710.5	32°09'37.272"N	103°39'33.933"W	0	0	
)	0	0	8505.41	337.46	337.46	-779.6	708545.4	422710.5	32°09'37.272"N	103°39'33.933"W	0	0	
)	0	0	8605.41	337.46	337.46	-779.6	708545.4	422710.5	32°09'37.272"N	103°39'33.933"W	0	0	
)	0	0	8705.41	337.46	337.46	-779.6	708545.4	422710.5	32°09'37.272"N	103°39'33.933"W	0	0	
)	0	0	8805.41	337.46	337.46	-779.6	708545.4	422710.5	32°09'37.272"N	103°39'33.933"W	0	0	
)	0	0	8905.41	337.46	337.46	-779.6	708545.4	422710.5	32°09'37.272"N	103°39'33.933"W	0	0	
)	0	0	9005.41	337.46	337.46	-779.6	708545.4	422710.5	32°09'37.272"N	103°39'33.933"W	0	0	
)	0	0	9105.41	337.46	337.46	-779.6	708545.4	422710.5	32°09'37.272"N	103°39'33.933"W	0	0	
)	0	0	9205.41	337.46	337.46	-779.6	708545.4	422710.5	32°09'37.272"N	103°39'33.933"W	0	0	
)	0	0	9305.41	337.46	337.46	-779.6	708545.4	422710.5	32°09'37.272"N	103°39'33.933"W	0	0	
)	0	0	9405.41	337.46	337.46	-779.6	708545.4	422710.5	32°09'37.272"N	103°39'33.933"W	0	0	
)	0	0	9505.41	337.46	337.46	-779.6	708545.4	422710.5	32°09'37.272"N	103°39'33.933"W	0	0	

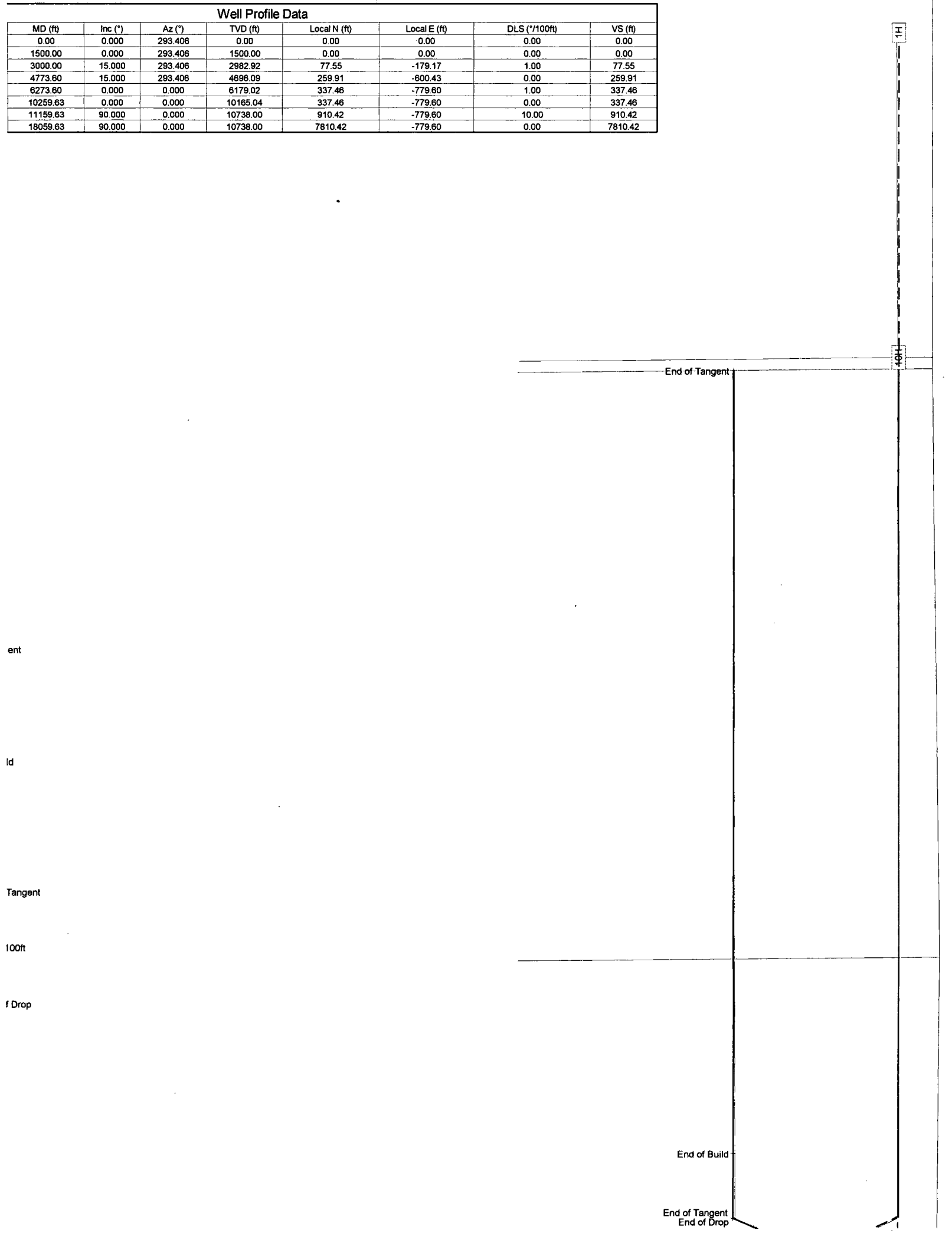
24.037	0	10398.42	387.13	387.13	-779.6	708545.4	422760.1	32°09'37.763"N	103°39'33.930"W	10	10	
34.037	0	10485.74	435.62	435.62	-779.6	708545.4	422808.6	32°09'38.243"N	103°39'33.926"W	10	10	
44.037	0	10563.32	498.53	498.53	-779.6	708545.4	422871.5	32°09'38.865"N	103°39'33.922"W	10	10	
54.037	0	10628.79	573.94	573.94	-779.6	708545.4	422946.9	32°09'39.612"N	103°39'33.916"W	10	10	
64.037	0	10680.18	659.59	659.59	-779.6	708545.4	423032.6	32°09'40.459"N	103°39'33.910"W	10	10	
74.037	0	10715.91	752.85	752.85	-779.6	708545.4	423125.8	32°09'41.382"N	103°39'33.903"W	10	10	
84.037	0	10734.9	850.9	850.9	-779.6	708545.4	423223.9	32°09'42.352"N	103°39'33.896"W	10	10	
90	0	10738	910.42	910.42	-779.6	708545.4	423283.4	32°09'42.941"N	103°39'33.892"W	10	10	
90	0	10738	950.79	950.79	-779.6	708545.4	423323.8	32°09'43.341"N	103°39'33.889"W	0	0	
90	0	10738	1050.79	1050.79	-779.6	708545.4	423423.8	32°09'44.330"N	103°39'33.881"W	0	0	
90	0	10738	1150.79	1150.79	-779.6	708545.4	423523.7	32°09'45.320"N	103°39'33.874"W	0	0	
90	0	10738	1250.79	1250.79	-779.6	708545.4	423623.7	32°09'46.309"N	103°39'33.867"W	0	0	
90	0	10738	1350.79	1350.79	-779.6	708545.4	423723.7	32°09'47.299"N	103°39'33.860"W	0	0	
90	0	10738	1450.79	1450.79	-779.6	708545.4	423823.7	32°09'48.288"N	103°39'33.852"W	0	0	
90	0	10738	1550.79	1550.79	-779.6	708545.4	423923.7	32°09'49.278"N	103°39'33.845"W	0	0	
90	0	10738	1650.79	1650.79	-779.6	708545.4	424023.7	32°09'50.267"N	103°39'33.838"W	0	0	
90	0	10738	1750.79	1750.79	-779.6	708545.4	424123.7	32°09'51.257"N	103°39'33.830"W	0	0	
90	0	10738	1850.79	1850.79	-779.6	708545.4	424223.7	32°09'52.247"N	103°39'33.823"W	0	0	
90	0	10738	1950.79	1950.79	-779.6	708545.4	424323.7	32°09'53.236"N	103°39'33.816"W	0	0	
90	0	10738	2050.79	2050.79	-779.6	708545.4	424423.7	32°09'54.226"N	103°39'33.809"W	0	0	
90	0	10738	2150.79	2150.79	-779.6	708545.4	424523.7	32°09'55.215"N	103°39'33.801"W	0	0	
90	0	10738	2250.79	2250.79	-779.6	708545.4	424623.7	32°09'56.205"N	103°39'33.794"W	0	0	
90	0	10738	2350.79	2350.79	-779.6	708545.4	424723.7	32°09'57.194"N	103°39'33.787"W	0	0	
90	0	10738	2450.79	2450.79	-779.6	708545.4	424823.7	32°09'58.184"N	103°39'33.779"W	0	0	
90	0	10738	2550.79	2550.79	-779.6	708545.4	424923.7	32°09'59.173"N	103°39'33.772"W	0	0	
90	0	10738	2650.79	2650.79	-779.6	708545.4	425023.7	32°10'00.163"N	103°39'33.765"W	0	0	
90	0	10738	2750.79	2750.79	-779.6	708545.4	425123.7	32°10'01.152"N	103°39'33.758"W	0	0	
90	0	10738	2850.79	2850.79	-779.6	708545.4	425223.7	32°10'02.142"N	103°39'33.750"W	0	0	
90	0	10738	2950.79	2950.79	-779.6	708545.4	425323.7	32°10'03.131"N	103°39'33.743"W	0	0	
90	0	10738	3050.79	3050.79	-779.6	708545.4	425423.7	32°10'04.121"N	103°39'33.736"W	0	0	
90	0	10738	3150.79	3150.79	-779.6	708545.4	425523.7	32°10'05.111"N	103°39'33.728"W	0	0	
90	0	10738	3250.79	3250.79	-779.6	708545.4	425623.7	32°10'06.100"N	103°39'33.721"W	0	0	
90	0	10738	3350.79	3350.79	-779.6	708545.4	425723.7	32°10'07.090"N	103°39'33.714"W	0	0	
90	0	10738	3450.79	3450.79	-779.6	708545.4	425823.6	32°10'08.079"N	103°39'33.707"W	0	0	
90	0	10738	3550.79	3550.79	-779.6	708545.4	425923.6	32°10'09.069"N	103°39'33.699"W	0	0	
90	0	10738	3650.79	3650.79	-779.6	708545.4	426023.6	32°10'10.058"N	103°39'33.692"W	0	0	
90	0	10738	3750.79	3750.79	-779.6	708545.4	426123.6	32°10'11.048"N	103°39'33.685"W	0	0	
90	0	10738	3850.79	3850.79	-779.6	708545.4	426223.6	32°10'12.037"N	103°39'33.677"W	0	0	
90	0	10738	3950.79	3950.79	-779.6	708545.4	426323.6	32°10'13.027"N	103°39'33.670"W	0	0	
90	0	10738	4050.79	4050.79	-779.6	708545.4	426423.6	32°10'14.016"N	103°39'33.663"W	0	0	
90	0	10738	4150.79	4150.79	-779.6	708545.4	426523.6	32°10'15.006"N	103°39'33.656"W	0	0	
90	0	10738	4250.79	4250.79	-779.6	708545.4	426623.6	32°10'15.995"N	103°39'33.648"W	0	0	

90	0	10738	5350.79	5350.79	-779.6	708545.4	427723.6	32°10'26.880"N	103°39'33.568"W	0	0	
90	0	10738	5450.79	5450.79	-779.6	708545.4	427823.6	32°10'27.870"N	103°39'33.561"W	0	0	
90	0	10738	5550.79	5550.79	-779.6	708545.4	427923.6	32°10'28.859"N	103°39'33.554"W	0	0	
90	0	10738	5650.79	5650.79	-779.6	708545.4	428023.6	32°10'29.849"N	103°39'33.546"W	0	0	
90	0	10738	5750.79	5750.79	-779.6	708545.4	428123.6	32°10'30.838"N	103°39'33.539"W	0	0	
90	0	10738	5850.79	5850.79	-779.6	708545.4	428223.5	32°10'31.828"N	103°39'33.532"W	0	0	
90	0	10738	5950.79	5950.79	-779.6	708545.4	428323.5	32°10'32.818"N	103°39'33.524"W	0	0	
90	0	10738	6050.79	6050.79	-779.6	708545.4	428423.5	32°10'33.807"N	103°39'33.517"W	0	0	
90	0	10738	6150.79	6150.79	-779.6	708545.4	428523.5	32°10'34.797"N	103°39'33.510"W	0	0	
90	0	10738	6250.79	6250.79	-779.6	708545.4	428623.5	32°10'35.786"N	103°39'33.503"W	0	0	
90	0	10738	6350.79	6350.79	-779.6	708545.4	428723.5	32°10'36.776"N	103°39'33.495"W	0	0	
90	0	10738	6450.79	6450.79	-779.6	708545.4	428823.5	32°10'37.765"N	103°39'33.488"W	0	0	
90	0	10738	6550.79	6550.79	-779.6	708545.4	428923.5	32°10'38.755"N	103°39'33.481"W	0	0	
90	0	10738	6650.79	6650.79	-779.6	708545.4	429023.5	32°10'39.744"N	103°39'33.473"W	0	0	
90	0	10738	6750.79	6750.79	-779.6	708545.4	429123.5	32°10'40.734"N	103°39'33.466"W	0	0	
90	0	10738	6850.79	6850.79	-779.6	708545.4	429223.5	32°10'41.723"N	103°39'33.459"W	0	0	
90	0	10738	6950.79	6950.79	-779.6	708545.4	429323.5	32°10'42.713"N	103°39'33.452"W	0	0	
90	0	10738	7050.79	7050.79	-779.6	708545.4	429423.5	32°10'43.702"N	103°39'33.444"W	0	0	
90	0	10738	7150.79	7150.79	-779.6	708545.4	429523.5	32°10'44.692"N	103°39'33.437"W	0	0	
90	0	10738	7250.79	7250.79	-779.6	708545.4	429623.5	32°10'45.681"N	103°39'33.430"W	0	0	
90	0	10738	7350.79	7350.79	-779.6	708545.4	429723.5	32°10'46.671"N	103°39'33.422"W	0	0	
90	0	10738	7450.79	7450.79	-779.6	708545.4	429823.5	32°10'47.661"N	103°39'33.415"W	0	0	
90	0	10738	7550.79	7550.79	-779.6	708545.4	429923.5	32°10'48.650"N	103°39'33.408"W	0	0	
90	0	10738	7650.79	7650.79	-779.6	708545.4	430023.5	32°10'49.640"N	103°39'33.400"W	0	0	
90	0	10738	7750.79	7750.79	-779.6	708545.4	430123.5	32°10'50.629"N	103°39'33.393"W	0	0	
90	0	10738	7810.42	7810.42	-779.6	708545.4	430183.1	32°10'51.219"N	103°39'33.389"W	0	0	

TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape	Comment
10738	7810.42	-779.6	708545.4	430183.09	32°10'51.219"N	103°39'33.389"W	point	

Well Profile Data

MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
0.00	0.000	293.406	0.00	0.00	0.00	0.00	0.00
1500.00	0.000	293.406	1500.00	0.00	0.00	0.00	0.00
3000.00	15.000	293.406	2982.92	77.55	-179.17	1.00	77.55
4773.60	15.000	293.406	4696.09	259.91	-600.43	0.00	259.91
6273.60	0.000	0.000	6179.02	337.46	-779.60	1.00	337.46
10259.63	0.000	0.000	10165.04	337.46	-779.60	0.00	337.46
11159.63	90.000	0.000	10738.00	910.42	-779.60	10.00	910.42
18059.63	90.000	0.000	10738.00	7810.42	-779.60	0.00	7810.42



ent

ld

Tangent

100ft

f Drop