PECOS DISTRICT DRILLING
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**Centennial Resource Production, LLC**
LEASE NO.:	**NMNM-117125**
WELL NAME & NO.:	**Sheba Federal Com 711H**
SURFACE HOLE FOOTAGE:	**0300' FSL & 1445' FEL**
BOTTOM HOLE FOOTAGE	**0330' FNL & 0990' FEL**
LOCATION:	**Section 22, T. 24 S., R 34 E., NMPM**
COUNTY:	**County, New Mexico**

Communitization Agreement

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

A. DRILLING OPERATIONS REQUIREMENTS

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

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

☐ **Lea County**

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

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

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

2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval. **If the drilling rig is removed without approval – an Incident of Non-Compliance will be written and will be a "Major" violation.**

3. 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.

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

1. The **13-3/8** inch surface casing shall be set at approximately **1300** feet (**in a competent bed below the Magenta Dolomite, which is a Member of the Rustler, and if salt is encountered, set casing at least 25 feet 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 **7-5/8** inch intermediate casing is:

    ☐ Cement to surface. If cement does not circulate see B.1.a, c-d above.

Formation below the 7-5/8" shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe (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 X 5** inch production casing is:

   ☐ Cement as proposed by operator. 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. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be psi. **10M system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.**

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

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.

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

D. DRILLING MUD

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

E. DRILL STEM TEST

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

F. WASTE MATERIAL AND FLUIDS

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

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.
JAM 092118

PECOS DISTRICT
SURFACE USE
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	CENTENNIAL RESOURCES PRODUCTION LLC.
LEASE NO.:	NMNM117125
WELL NAME & NO.:	711H- SHEBA FEDERAL COM
SURFACE HOLE FOOTAGE:	300'/S & 1445'/E
BOTTOM HOLE FOOTAGE	330'/N & 990'/E
LOCATION:	Section. 22.,T24S.,R.34E., NMP
COUNTY:	LEA County, New Mexico

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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)

Watershed
Surface disturbance will not be allowed (within x feet of drainage; or describe pad restriction).
The entire well pad will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad. Topsoil shall not be used to construct the berm. No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad. The berm shall be maintained through the life of the well and after interim reclamation has been completed.
Any water erosion that may occur due to the construction of the well pad during the life of the well will be quickly corrected and proper measures will be taken to prevent future erosion.
Stockpiling of topsoil is required. The top soil shall be stockpiled in an appropriate location to prevent loss of soil due to water or wind erosion and not used for berming or erosion control.

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

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

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

VI. CONSTRUCTION

A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (575) 234-5909 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

B. TOPSOIL

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

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

C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

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

D. FEDERAL MINERAL MATERIALS PIT

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

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation. The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

F. EXCLOSURE FENCING (CELLARS & PITS)

Exclosure Fencing

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

G. ON LEASE ACCESS ROADS

Road Width

The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed twenty-five (25) feet.

Surfacing

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

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

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

Crowning

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

Ditching

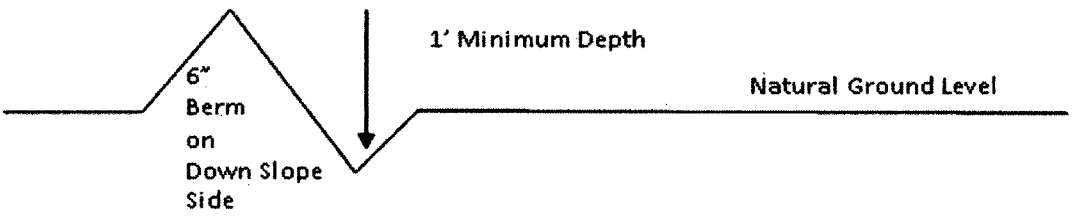
Ditching shall be required on both sides of the road.

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

Drainage
Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping and insloping, lead-off ditches, culvert installation, and low water crossings).

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

Cross Section of a Typical Lead-off Ditch



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

Formula for Spacing Interval of Lead-off Ditches

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

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

Cattle guards
An appropriately sized cattle guard sufficient to carry out the project shall be installed and maintained at fence/road crossings. Any existing cattle guards on the access road route shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattle guards that are in place and are utilized during lease operations.

Fence Requirement

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

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

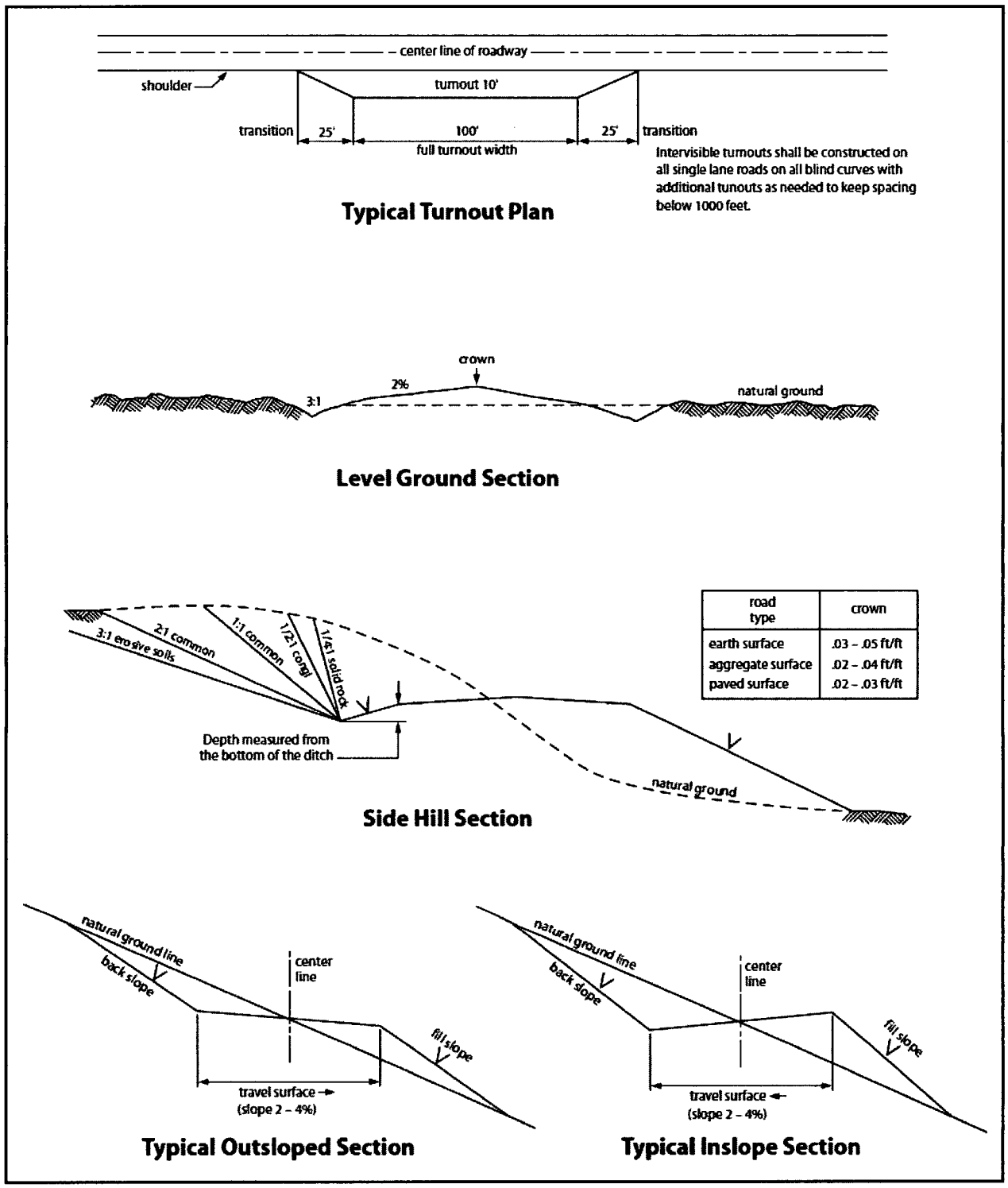


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

without specific written approval granted by the Authorized Officer.

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).

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

CENTENNIAL
RESOURCE DEVELOPMENT, INC

Centennial Resource Development, Inc.

Lea Co., NM (NAD83)
Sheba Federal Com
711H

OH

Plan: Plan #1

Standard Planning Report

19 February, 2018

LATITUDE
ENERGY PARTNERS

CENTENNIAL
RESOURCE DEVELOPMENT, INC

Project: Lea Co., NM (NAD83)
Site: Sheba Federal Com
Well: 711H
Wellbore: OH
Design: Plan #1
Lat: 32.196605
Long: -103.453954
GL: 3494.00
KB: KB=25' @ 3519.00usft (H&P 650)

ALTITUDE ENERGY PARTNERS

WELL DETAILS: 711H

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	436371.64	813356.06	32.196605	-103.453954

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
Sheba FC 711H FTP	12373.00	49.61	454.92	436424.97	813810.56	Point
Sheba FC 711H PBHL	12373.00	4645.50	456.51	441020.72	813774.56	Point

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1500.00	0.00	0.00	1500.00	0.00	0.00	0.00	0.00	0.00	Build 1.5°/100'
1881.72	5.73	83.78	1881.08	2.07	18.95	1.50	83.78	3.91	4204' Hold
6086.53	5.73	83.78	6064.92	47.54	435.98	0.00	0.00	89.95	Drop 1.5°/100'
6468.25	0.00	0.00	6446.00	49.61	454.92	1.50	180.00	93.86	5354' Hold
11822.29	0.00	0.00	11800.04	49.61	454.92	0.00	0.00	93.86	Build 10°/100'
12722.29	90.00	0.02	12373.00	622.57	455.12	10.00	0.02	664.09	4022' Hold
16745.22	90.00	0.02	12373.00	4645.50	456.51	0.00	0.00	4667.88	TD at 16745.22

Formation Tops

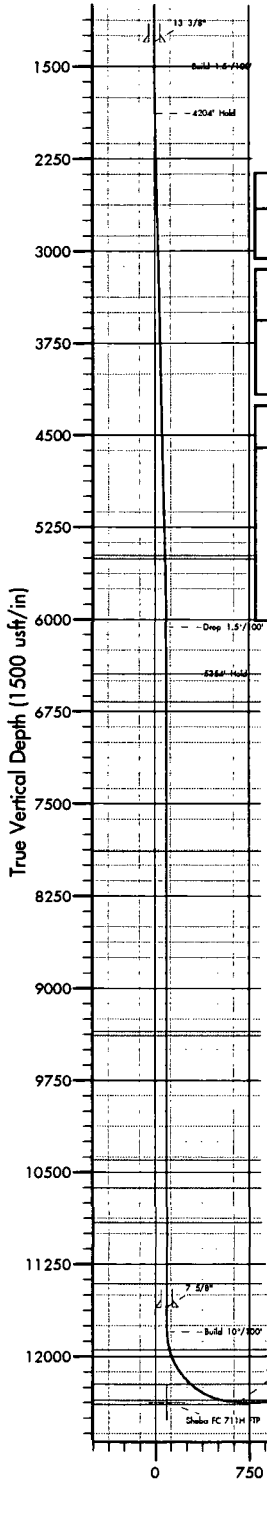
TVDPath	Formation
5480.00	Lamar
5508.00	Bell Canyon
6446.00	Cherry Canyon
6671.00	Manzanita Lime
7887.00	Brushy Canyon
9352.00	Bone Spring Lime
9386.00	Leonard Shale
10398.00	FBSG Sand
10628.00	SBSG Shale
10911.00	SBSG Sand
11411.00	TBSG Carb
11945.00	TBSG Sand
12225.00	WFMP
12356.00	Target Top at 0°VS

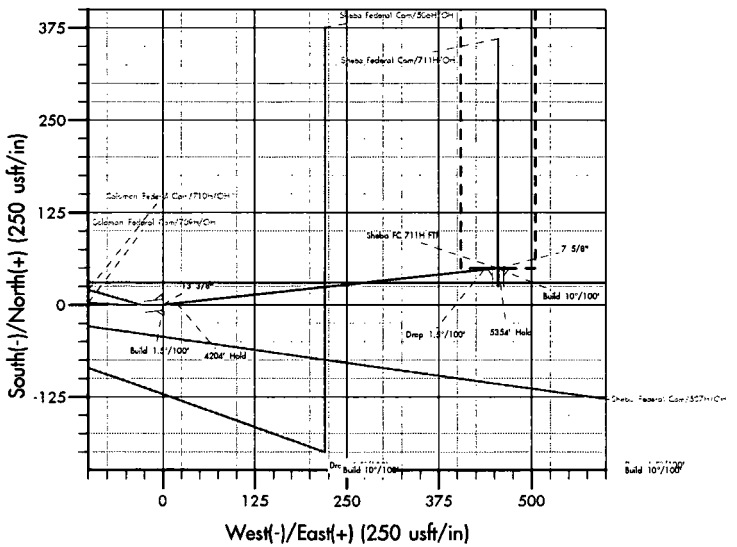
CASING DETAILS

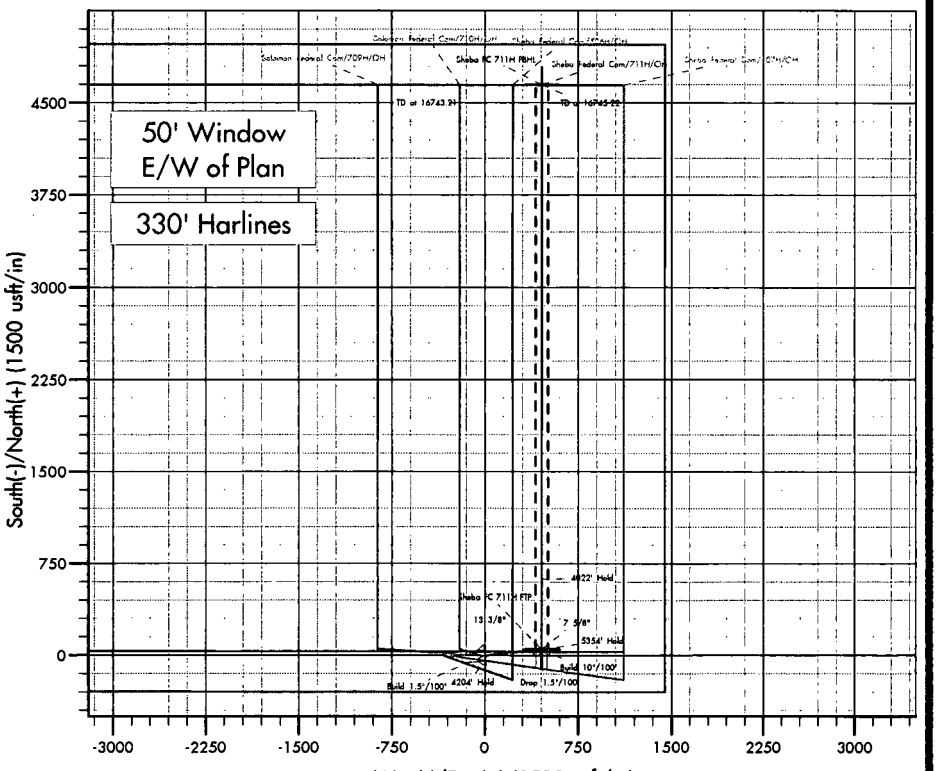
TVD	MD	Name	Size
1300.00	1300.00	13 3/8"	13-3/8
11600.00	11622.25	7 5/8"	7-5/8

Azimuths to True North
Magnetic North: 7.69°

Magnetic Field
Strength: 48788.8snT
Dip Angle: 60.24°
Date: 12/31/2009
Model: IGRF200510







Plan: Plan #1 (711H/OH)
Created By: Dusty Mayer Date: 13:01, February 19 2018

Database:	EDM 5000.14 Single User Db	**Local Co-ordinate Reference:**	Well 711H
Company:	Centennial Resource Development, Inc.	**TVD Reference:**	KB=25' @ 3519.00usft (H&P 650)
Project:	Lea Co., NM (NAD83)	**MD Reference:**	KB=25' @ 3519.00usft (H&P 650)
Site:	Sheba Federal Com	**North Reference:**	True
Well:	711H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Project	Lea Co., NM (NAD83)		
Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Sheba Federal Com				
Site Position:		**Northing:**	436,369.09 usft	**Latitude:**	32.196606
From:	Map	**Easting:**	813,016.11 usft	**Longitude:**	-103.455053
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.47 °

Well	711H					
Well Position	**+N/-S**	-0.23 usft	**Northing:**	436,371.64 usft	**Latitude:**	32.196605
	+E/-W	339.96 usft	**Easting:**	813,356.06 usft	**Longitude:**	-103.453954
Position Uncertainty		0.00 usft	**Wellhead Elevation:**		**Ground Level:**	3,494.00 usft

Wellbore	OH				
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF200510	12/31/09	7.69	60.24	48,788.83202862

Design	Plan #1				
Audit Notes:					
Version:		**Phase:**	PLAN	**Tie On Depth:**	0.00
Vertical Section:	**Depth From (TVD) (usft)**	**+N/-S (usft)**	**+E/-W (usft)**	**Direction (°)**	
	0.00	0.00	0.00	5.61	

Plan Survey Tool Program **Date** 02/19/18

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	16,745.22	Plan #1 (OH)	MWD+IFR1+MS	
				OWSG MWD + IFR1 + Multi-St	

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,881.72	5.73	83.78	1,881.08	2.07	18.95	1.50	1.50	0.00	83.78	
6,086.53	5.73	83.78	6,064.92	47.54	435.98	0.00	0.00	0.00	0.00	
6,468.25	0.00	0.00	6,446.00	49.61	454.92	1.50	-1.50	0.00	180.00	
11,822.29	0.00	0.00	11,800.04	49.61	454.92	0.00	0.00	0.00	0.00	
12,722.29	90.00	0.02	12,373.00	622.57	455.12	10.00	10.00	0.00	0.02	
16,745.22	90.00	0.02	12,373.00	4,645.50	456.51	0.00	0.00	0.00	0.00	Sheba FC 711H PBHI

Database:	EDM 5000.14 Single User Db	**Local Co-ordinate Reference:**	Well 711H
Company:	Centennial Resource Development, Inc.	**TVD Reference:**	KB=25' @ 3519.00usft (H&P 650)
Project:	Lea Co., NM (NAD83)	**MD Reference:**	KB=25' @ 3519.00usft (H&P 650)
Site:	Sheba Federal Com	**North Reference:**	True
Well:	711H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
13 3/8"									
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
Build 1.5°/100'									
1,600.00	1.50	83.78	1,599.99	0.14	1.30	0.27	1.50	1.50	0.00
1,700.00	3.00	83.78	1,699.91	0.57	5.20	1.07	1.50	1.50	0.00
1,800.00	4.50	83.78	1,799.69	1.28	11.71	2.42	1.50	1.50	0.00
1,881.72	5.73	83.78	1,881.08	2.07	18.95	3.91	1.50	1.50	0.00
4204' Hold									
1,900.00	5.73	83.78	1,899.27	2.26	20.76	4.28	0.00	0.00	0.00
2,000.00	5.73	83.78	1,998.77	3.35	30.68	6.33	0.00	0.00	0.00
2,100.00	5.73	83.78	2,098.28	4.43	40.59	8.38	0.00	0.00	0.00
2,200.00	5.73	83.78	2,197.78	5.51	50.51	10.42	0.00	0.00	0.00
2,300.00	5.73	83.78	2,297.28	6.59	60.43	12.47	0.00	0.00	0.00
2,400.00	5.73	83.78	2,396.78	7.67	70.35	14.51	0.00	0.00	0.00
2,500.00	5.73	83.78	2,496.28	8.75	80.27	16.56	0.00	0.00	0.00
2,600.00	5.73	83.78	2,595.78	9.83	90.18	18.61	0.00	0.00	0.00
2,700.00	5.73	83.78	2,695.28	10.92	100.10	20.65	0.00	0.00	0.00
2,800.00	5.73	83.78	2,794.78	12.00	110.02	22.70	0.00	0.00	0.00
2,900.00	5.73	83.78	2,894.28	13.08	119.94	24.75	0.00	0.00	0.00
3,000.00	5.73	83.78	2,993.79	14.16	129.86	26.79	0.00	0.00	0.00
3,100.00	5.73	83.78	3,093.29	15.24	139.77	28.84	0.00	0.00	0.00
3,200.00	5.73	83.78	3,192.79	16.32	149.69	30.89	0.00	0.00	0.00
3,300.00	5.73	83.78	3,292.29	17.41	159.61	32.93	0.00	0.00	0.00
3,400.00	5.73	83.78	3,391.79	18.49	169.53	34.98	0.00	0.00	0.00
3,500.00	5.73	83.78	3,491.29	19.57	179.45	37.02	0.00	0.00	0.00
3,600.00	5.73	83.78	3,590.79	20.65	189.36	39.07	0.00	0.00	0.00
3,700.00	5.73	83.78	3,690.29	21.73	199.28	41.12	0.00	0.00	0.00
3,800.00	5.73	83.78	3,789.79	22.81	209.20	43.16	0.00	0.00	0.00
3,900.00	5.73	83.78	3,889.30	23.90	219.12	45.21	0.00	0.00	0.00
4,000.00	5.73	83.78	3,988.80	24.98	229.04	47.26	0.00	0.00	0.00
4,100.00	5.73	83.78	4,088.30	26.06	238.95	49.30	0.00	0.00	0.00
4,200.00	5.73	83.78	4,187.80	27.14	248.87	51.35	0.00	0.00	0.00
4,300.00	5.73	83.78	4,287.30	28.22	258.79	53.40	0.00	0.00	0.00
4,400.00	5.73	83.78	4,386.80	29.30	268.71	55.44	0.00	0.00	0.00
4,500.00	5.73	83.78	4,486.30	30.39	278.62	57.49	0.00	0.00	0.00
4,600.00	5.73	83.78	4,585.80	31.47	288.54	59.53	0.00	0.00	0.00
4,700.00	5.73	83.78	4,685.30	32.55	298.46	61.58	0.00	0.00	0.00
4,800.00	5.73	83.78	4,784.81	33.63	308.38	63.63	0.00	0.00	0.00

Database:	EDM 5000.14 Single User Db	**Local Co-ordinate Reference:**	Well 711H
Company:	Centennial Resource Development, Inc.	**TVD Reference:**	KB=25' @ 3519.00usft (H&P 650)
Project:	Lea Co., NM (NAD83)	**MD Reference:**	KB=25' @ 3519.00usft (H&P 650)
Site:	Sheba Federal Com	**North Reference:**	True
Well:	711H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,900.00	5.73	83.78	4,884.31	34.71	318.30	65.67	0.00	0.00	0.00
5,000.00	5.73	83.78	4,983.81	35.79	328.21	67.72	0.00	0.00	0.00
5,100.00	5.73	83.78	5,083.31	36.87	338.13	69.77	0.00	0.00	0.00
5,200.00	5.73	83.78	5,182.81	37.96	348.05	71.81	0.00	0.00	0.00
5,300.00	5.73	83.78	5,282.31	39.04	357.97	73.86	0.00	0.00	0.00
5,400.00	5.73	83.78	5,381.81	40.12	367.89	75.91	0.00	0.00	0.00
5,498.68	5.73	83.78	5,480.00	41.19	377.67	77.93	0.00	0.00	0.00
Lamar									
5,500.00	5.73	83.78	5,481.31	41.20	377.80	77.95	0.00	0.00	0.00
5,526.82	5.73	83.78	5,508.00	41.49	380.46	78.50	0.00	0.00	0.00
Bell Canyon									
5,600.00	5.73	83.78	5,580.81	42.28	387.72	80.00	0.00	0.00	0.00
5,700.00	5.73	83.78	5,680.31	43.36	397.64	82.04	0.00	0.00	0.00
5,800.00	5.73	83.78	5,779.82	44.45	407.56	84.09	0.00	0.00	0.00
5,900.00	5.73	83.78	5,879.32	45.53	417.48	86.14	0.00	0.00	0.00
6,000.00	5.73	83.78	5,978.82	46.61	427.39	88.18	0.00	0.00	0.00
6,086.53	5.73	83.78	6,064.92	47.54	435.98	89.95	0.00	0.00	0.00
Drop 1.5°/100'									
6,100.00	5.52	83.78	6,078.32	47.69	437.29	90.23	1.50	-1.50	0.00
6,200.00	4.02	83.78	6,177.97	48.59	445.56	91.93	1.50	-1.50	0.00
6,300.00	2.52	83.78	6,277.81	49.21	451.24	93.10	1.50	-1.50	0.00
6,400.00	1.02	83.78	6,377.75	49.54	454.31	93.74	1.50	-1.50	0.00
6,468.25	0.00	0.00	6,446.00	49.61	454.92	93.86	1.50	-1.50	0.00
5354' Hold - Cherry Canyon									
6,500.00	0.00	0.00	6,477.75	49.61	454.92	93.86	0.00	0.00	0.00
6,600.00	0.00	0.00	6,577.75	49.61	454.92	93.86	0.00	0.00	0.00
6,693.25	0.00	0.00	6,671.00	49.61	454.92	93.86	0.00	0.00	0.00
Manzanita Lime									
6,700.00	0.00	0.00	6,677.75	49.61	454.92	93.86	0.00	0.00	0.00
6,800.00	0.00	0.00	6,777.75	49.61	454.92	93.86	0.00	0.00	0.00
6,900.00	0.00	0.00	6,877.75	49.61	454.92	93.86	0.00	0.00	0.00
7,000.00	0.00	0.00	6,977.75	49.61	454.92	93.86	0.00	0.00	0.00
7,100.00	0.00	0.00	7,077.75	49.61	454.92	93.86	0.00	0.00	0.00
7,200.00	0.00	0.00	7,177.75	49.61	454.92	93.86	0.00	0.00	0.00
7,300.00	0.00	0.00	7,277.75	49.61	454.92	93.86	0.00	0.00	0.00
7,400.00	0.00	0.00	7,377.75	49.61	454.92	93.86	0.00	0.00	0.00
7,500.00	0.00	0.00	7,477.75	49.61	454.92	93.86	0.00	0.00	0.00
7,600.00	0.00	0.00	7,577.75	49.61	454.92	93.86	0.00	0.00	0.00
7,700.00	0.00	0.00	7,677.75	49.61	454.92	93.86	0.00	0.00	0.00
7,800.00	0.00	0.00	7,777.75	49.61	454.92	93.86	0.00	0.00	0.00
7,900.00	0.00	0.00	7,877.75	49.61	454.92	93.86	0.00	0.00	0.00
7,909.25	0.00	0.00	7,887.00	49.61	454.92	93.86	0.00	0.00	0.00
Brushy Canyon									
8,000.00	0.00	0.00	7,977.75	49.61	454.92	93.86	0.00	0.00	0.00
8,100.00	0.00	0.00	8,077.75	49.61	454.92	93.86	0.00	0.00	0.00
8,200.00	0.00	0.00	8,177.75	49.61	454.92	93.86	0.00	0.00	0.00
8,300.00	0.00	0.00	8,277.75	49.61	454.92	93.86	0.00	0.00	0.00
8,400.00	0.00	0.00	8,377.75	49.61	454.92	93.86	0.00	0.00	0.00
8,500.00	0.00	0.00	8,477.75	49.61	454.92	93.86	0.00	0.00	0.00
8,600.00	0.00	0.00	8,577.75	49.61	454.92	93.86	0.00	0.00	0.00
8,700.00	0.00	0.00	8,677.75	49.61	454.92	93.86	0.00	0.00	0.00
8,800.00	0.00	0.00	8,777.75	49.61	454.92	93.86	0.00	0.00	0.00
8,900.00	0.00	0.00	8,877.75	49.61	454.92	93.86	0.00	0.00	0.00

Database:	EDM 5000.14 Single User Db	**Local Co-ordinate Reference:**	Well 711H
Company:	Centennial Resource Development, Inc.	**TVD Reference:**	KB=25' @ 3519.00usft (H&P 650)
Project:	Lea Co., NM (NAD83)	**MD Reference:**	KB=25' @ 3519.00usft (H&P 650)
Site:	Sheba Federal Com	**North Reference:**	True
Well:	711H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,000.00	0.00	0.00	8,977.75	49.61	454.92	93.86	0.00	0.00	0.00
9,100.00	0.00	0.00	9,077.75	49.61	454.92	93.86	0.00	0.00	0.00
9,200.00	0.00	0.00	9,177.75	49.61	454.92	93.86	0.00	0.00	0.00
9,300.00	0.00	0.00	9,277.75	49.61	454.92	93.86	0.00	0.00	0.00
9,374.25	0.00	0.00	9,352.00	49.61	454.92	93.86	0.00	0.00	0.00
Bone Spring Lime									
9,400.00	0.00	0.00	9,377.75	49.61	454.92	93.86	0.00	0.00	0.00
9,408.25	0.00	0.00	9,386.00	49.61	454.92	93.86	0.00	0.00	0.00
Leonard Shale									
9,500.00	0.00	0.00	9,477.75	49.61	454.92	93.86	0.00	0.00	0.00
9,600.00	0.00	0.00	9,577.75	49.61	454.92	93.86	0.00	0.00	0.00
9,700.00	0.00	0.00	9,677.75	49.61	454.92	93.86	0.00	0.00	0.00
9,800.00	0.00	0.00	9,777.75	49.61	454.92	93.86	0.00	0.00	0.00
9,900.00	0.00	0.00	9,877.75	49.61	454.92	93.86	0.00	0.00	0.00
10,000.00	0.00	0.00	9,977.75	49.61	454.92	93.86	0.00	0.00	0.00
10,100.00	0.00	0.00	10,077.75	49.61	454.92	93.86	0.00	0.00	0.00
10,200.00	0.00	0.00	10,177.75	49.61	454.92	93.86	0.00	0.00	0.00
10,300.00	0.00	0.00	10,277.75	49.61	454.92	93.86	0.00	0.00	0.00
10,400.00	0.00	0.00	10,377.75	49.61	454.92	93.86	0.00	0.00	0.00
10,420.25	0.00	0.00	10,398.00	49.61	454.92	93.86	0.00	0.00	0.00
FBSG Sand									
10,500.00	0.00	0.00	10,477.75	49.61	454.92	93.86	0.00	0.00	0.00
10,600.00	0.00	0.00	10,577.75	49.61	454.92	93.86	0.00	0.00	0.00
10,650.25	0.00	0.00	10,628.00	49.61	454.92	93.86	0.00	0.00	0.00
SBSG Shale									
10,700.00	0.00	0.00	10,677.75	49.61	454.92	93.86	0.00	0.00	0.00
10,800.00	0.00	0.00	10,777.75	49.61	454.92	93.86	0.00	0.00	0.00
10,900.00	0.00	0.00	10,877.75	49.61	454.92	93.86	0.00	0.00	0.00
10,933.25	0.00	0.00	10,911.00	49.61	454.92	93.86	0.00	0.00	0.00
SBSG Sand									
11,000.00	0.00	0.00	10,977.75	49.61	454.92	93.86	0.00	0.00	0.00
11,100.00	0.00	0.00	11,077.75	49.61	454.92	93.86	0.00	0.00	0.00
11,200.00	0.00	0.00	11,177.75	49.61	454.92	93.86	0.00	0.00	0.00
11,300.00	0.00	0.00	11,277.75	49.61	454.92	93.86	0.00	0.00	0.00
11,400.00	0.00	0.00	11,377.75	49.61	454.92	93.86	0.00	0.00	0.00
11,433.25	0.00	0.00	11,411.00	49.61	454.92	93.86	0.00	0.00	0.00
TBSG Carb									
11,500.00	0.00	0.00	11,477.75	49.61	454.92	93.86	0.00	0.00	0.00
11,600.00	0.00	0.00	11,577.75	49.61	454.92	93.86	0.00	0.00	0.00
11,622.25	0.00	0.00	11,600.00	49.61	454.92	93.86	0.00	0.00	0.00
7 5/8"									
11,700.00	0.00	0.00	11,677.75	49.61	454.92	93.86	0.00	0.00	0.00
11,800.00	0.00	0.00	11,777.75	49.61	454.92	93.86	0.00	0.00	0.00
11,822.29	0.00	0.00	11,800.04	49.61	454.92	93.86	0.00	0.00	0.00
Build 10°/100'									
11,850.00	2.77	0.02	11,827.74	50.28	454.92	94.53	10.00	10.00	0.00
11,900.00	7.77	0.02	11,877.51	54.87	454.92	99.10	10.00	10.00	0.00
11,950.00	12.77	0.02	11,926.70	63.78	454.93	107.97	10.00	10.00	0.00
11,968.84	14.66	0.02	11,945.00	68.25	454.93	112.42	10.00	10.00	0.00
TBSG Sand									
12,000.00	17.77	0.02	11,974.92	76.95	454.93	121.07	10.00	10.00	0.00
12,050.00	22.77	0.02	12,021.80	94.27	454.94	138.31	10.00	10.00	0.00
12,100.00	27.77	0.02	12,067.00	115.61	454.94	159.54	10.00	10.00	0.00

Database:	EDM 5000.14 Single User Db	**Local Co-ordinate Reference:**	Well 711H
Company:	Centennial Resource Development, Inc.	**TVD Reference:**	KB=25' @ 3519.00usft (H&P 650)
Project:	Lea Co., NM (NAD83)	**MD Reference:**	KB=25' @ 3519.00usft (H&P 650)
Site:	Sheba Federal Com	**North Reference:**	True
Well:	711H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
12,150.00	32.77	0.02	12,110.17	140.80	454.95	184.62	10.00	10.00	0.00
12,200.00	37.77	0.02	12,150.98	169.66	454.96	213.35	10.00	10.00	0.00
12,250.00	42.77	0.02	12,189.12	201.97	454.97	245.50	10.00	10.00	0.00
12,300.00	47.77	0.02	12,224.30	237.49	454.99	280.84	10.00	10.00	0.00
12,301.05	47.88	0.02	12,225.00	238.26	454.99	281.62	10.00	10.00	0.00
WFMP									
12,350.00	52.77	0.02	12,256.24	275.93	455.00	319.10	10.00	10.00	0.00
12,400.00	57.77	0.02	12,284.72	317.01	455.01	359.99	10.00	10.00	0.00
12,450.00	62.77	0.02	12,309.51	360.41	455.03	403.19	10.00	10.00	0.00
12,500.00	67.77	0.02	12,330.42	405.81	455.04	448.37	10.00	10.00	0.00
12,550.00	72.77	0.02	12,347.29	452.86	455.06	495.20	10.00	10.00	0.00
12,582.37	76.01	0.02	12,356.00	484.04	455.07	526.22	10.00	10.00	0.00
Target Top at 0'VS									
12,600.00	77.77	0.02	12,360.00	501.20	455.08	543.31	10.00	10.00	0.00
12,650.00	82.77	0.02	12,368.45	550.47	455.09	592.34	10.00	10.00	0.00
12,700.00	87.77	0.02	12,372.57	600.28	455.11	641.91	10.00	10.00	0.00
12,722.29	90.00	0.02	12,373.00	622.57	455.12	664.09	10.00	10.00	0.00
4022' Hold									
12,800.00	90.00	0.02	12,373.00	700.28	455.15	741.43	0.00	0.00	0.00
12,900.00	90.00	0.02	12,373.00	800.28	455.18	840.96	0.00	0.00	0.00
13,000.00	90.00	0.02	12,373.00	900.28	455.22	940.48	0.00	0.00	0.00
13,100.00	90.00	0.02	12,373.00	1,000.28	455.25	1,040.01	0.00	0.00	0.00
13,200.00	90.00	0.02	12,373.00	1,100.28	455.28	1,139.53	0.00	0.00	0.00
13,300.00	90.00	0.02	12,373.00	1,200.28	455.32	1,239.05	0.00	0.00	0.00
13,400.00	90.00	0.02	12,373.00	1,300.28	455.35	1,338.58	0.00	0.00	0.00
13,500.00	90.00	0.02	12,373.00	1,400.28	455.39	1,438.10	0.00	0.00	0.00
13,600.00	90.00	0.02	12,373.00	1,500.28	455.42	1,537.63	0.00	0.00	0.00
13,700.00	90.00	0.02	12,373.00	1,600.28	455.46	1,637.15	0.00	0.00	0.00
13,800.00	90.00	0.02	12,373.00	1,700.28	455.49	1,736.67	0.00	0.00	0.00
13,900.00	90.00	0.02	12,373.00	1,800.28	455.53	1,836.20	0.00	0.00	0.00
14,000.00	90.00	0.02	12,373.00	1,900.28	455.56	1,935.72	0.00	0.00	0.00
14,100.00	90.00	0.02	12,373.00	2,000.28	455.60	2,035.25	0.00	0.00	0.00
14,200.00	90.00	0.02	12,373.00	2,100.28	455.63	2,134.77	0.00	0.00	0.00
14,300.00	90.00	0.02	12,373.00	2,200.28	455.66	2,234.29	0.00	0.00	0.00
14,400.00	90.00	0.02	12,373.00	2,300.28	455.70	2,333.82	0.00	0.00	0.00
14,500.00	90.00	0.02	12,373.00	2,400.28	455.73	2,433.34	0.00	0.00	0.00
14,600.00	90.00	0.02	12,373.00	2,500.28	455.77	2,532.87	0.00	0.00	0.00
14,700.00	90.00	0.02	12,373.00	2,600.28	455.80	2,632.39	0.00	0.00	0.00
14,800.00	90.00	0.02	12,373.00	2,700.28	455.84	2,731.91	0.00	0.00	0.00
14,900.00	90.00	0.02	12,373.00	2,800.28	455.87	2,831.44	0.00	0.00	0.00
15,000.00	90.00	0.02	12,373.00	2,900.28	455.91	2,930.96	0.00	0.00	0.00
15,100.00	90.00	0.02	12,373.00	3,000.28	455.94	3,030.49	0.00	0.00	0.00
15,200.00	90.00	0.02	12,373.00	3,100.28	455.98	3,130.01	0.00	0.00	0.00
15,300.00	90.00	0.02	12,373.00	3,200.28	456.01	3,229.53	0.00	0.00	0.00
15,400.00	90.00	0.02	12,373.00	3,300.28	456.05	3,329.06	0.00	0.00	0.00
15,500.00	90.00	0.02	12,373.00	3,400.28	456.08	3,428.58	0.00	0.00	0.00
15,600.00	90.00	0.02	12,373.00	3,500.28	456.11	3,528.11	0.00	0.00	0.00
15,700.00	90.00	0.02	12,373.00	3,600.28	456.15	3,627.63	0.00	0.00	0.00
15,800.00	90.00	0.02	12,373.00	3,700.28	456.18	3,727.15	0.00	0.00	0.00
15,900.00	90.00	0.02	12,373.00	3,800.28	456.22	3,826.68	0.00	0.00	0.00
16,000.00	90.00	0.02	12,373.00	3,900.28	456.25	3,926.20	0.00	0.00	0.00
16,100.00	90.00	0.02	12,373.00	4,000.28	456.29	4,025.73	0.00	0.00	0.00
16,200.00	90.00	0.02	12,373.00	4,100.28	456.32	4,125.25	0.00	0.00	0.00

Database:	EDM 5000.14 Single User Db	**Local Co-ordinate Reference:**	Well 711H
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Project:	Lea Co., NM (NAD83)	**MD Reference:**	KB=25' @ 3519.00usft (H&P 650)
Site:	Sheba Federal Com	**North Reference:**	True
Well:	711H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
16,300.00	90.00	0.02	12,373.00	4,200.28	456.36	4,224.77	0.00	0.00	0.00
16,400.00	90.00	0.02	12,373.00	4,300.28	456.39	4,324.30	0.00	0.00	0.00
16,500.00	90.00	0.02	12,373.00	4,400.28	456.43	4,423.82	0.00	0.00	0.00
16,600.00	90.00	0.02	12,373.00	4,500.28	456.46	4,523.35	0.00	0.00	0.00
16,700.00	90.00	0.02	12,373.00	4,600.28	456.49	4,622.87	0.00	0.00	0.00
16,745.22	90.00	0.02	12,373.00	4,645.50	456.51	4,667.88	0.00	0.00	0.00
TD at 16745.22									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Sheba FC 711H FTP - plan misses target center by 237.33usft at 12271.17usft MD (12204.39 TVD, 216.63 N, 454.98 E) - Point	0.00	0.00	12,373.00	49.61	454.92	436,424.97	813,810.56	32.196742	-103.452483
Sheba FC 711H PBHL - plan hits target center - Point	0.00	0.00	12,373.00	4,645.50	456.51	441,020.72	813,774.56	32.209374	-103.452478

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
1,300.00	1,300.00	13 3/8"	13-3/8	17-1/2
11,622.25	11,600.00	7 5/8"	7-5/8	12-1/4

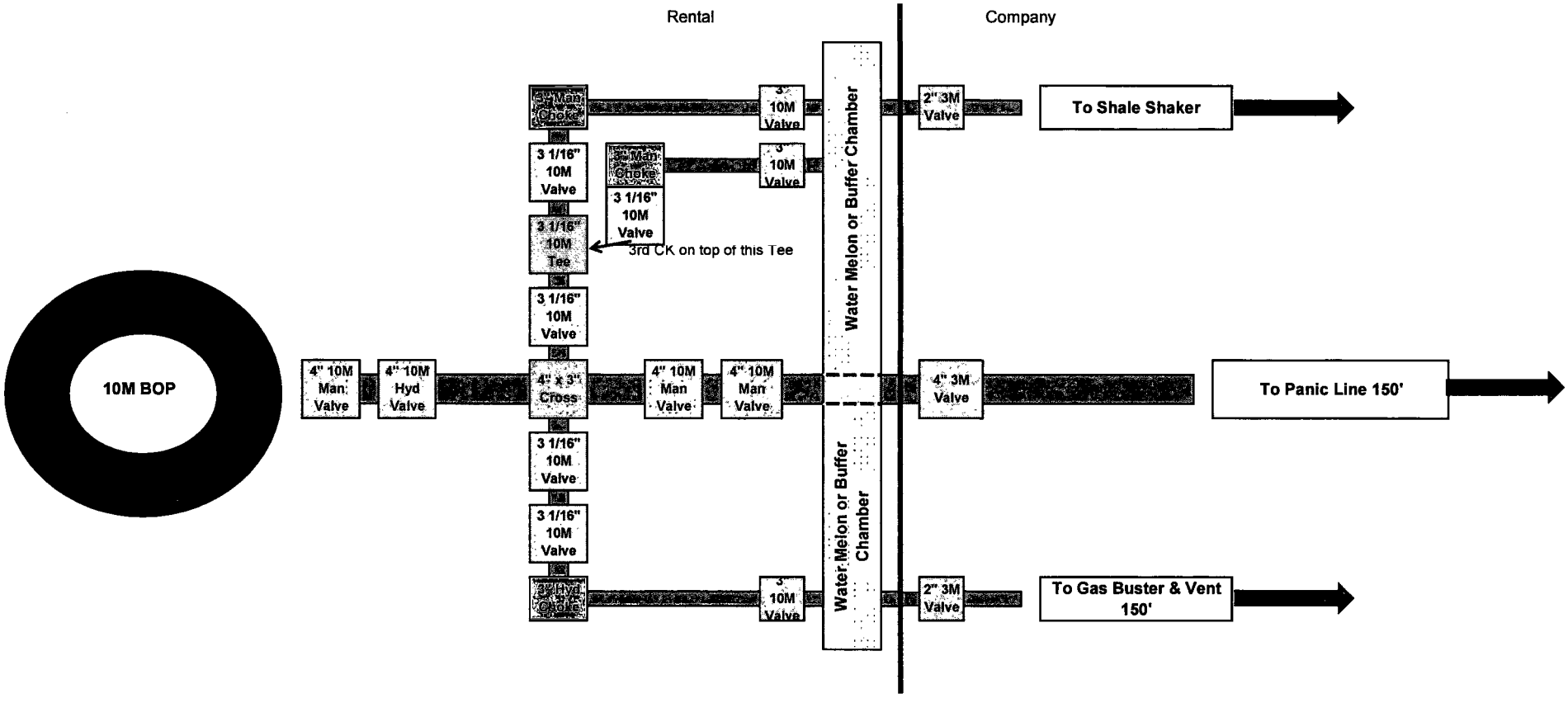
Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
5,498.68	5,480.00	Lamar		0.00	
5,526.82	5,508.00	Bell Canyon		0.00	
6,468.25	6,446.00	Cherry Canyon		0.00	
6,693.25	6,671.00	Manzanita Lime		0.00	
7,909.25	7,887.00	Brushy Canyon		0.00	
9,374.25	9,352.00	Bone Spring Lime		0.00	
9,408.25	9,386.00	Leonard Shale		0.00	
10,420.25	10,398.00	FBSG Sand		0.00	
10,650.25	10,628.00	SBSG Shale		0.00	
10,933.25	10,911.00	SBSG Sand		0.00	
11,433.25	11,411.00	TBSG Carb		0.00	
11,968.84	11,945.00	TBSG Sand		0.00	
12,301.05	12,225.00	WFMP		0.00	
12,582.37	12,356.00	Target Top at 0'VS		0.00	

Database:	EDM 5000.14 Single User Db	**Local Co-ordinate Reference:**	Well 711H
Company:	Centennial Resource Development, Inc.	**TVD Reference:**	KB=25' @ 3519.00usft (H&P 650)
Project:	Lea Co., NM (NAD83)	**MD Reference:**	KB=25' @ 3519.00usft (H&P 650)
Site:	Sheba Federal Com	**North Reference:**	True
Well:	711H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
1,500.00	1,500.00	0.00	0.00	Build 1.5°/100'
1,881.72	1,881.08	2.07	18.95	4204' Hold
6,086.53	6,064.92	47.54	435.98	Drop 1.5°/100'
6,468.25	6,446.00	49.61	454.92	5354' Hold
11,822.29	11,800.04	49.61	454.92	Build 10°/100'
12,722.29	12,373.00	622.57	455.12	4022' Hold
16,745.22	12,373.00	4,645.50	456.51	TD at 16745.22


Rental
Company
10M BOP
4" 10M Man Valve
4" 10M Hyd Valve
4" x 3" Cross
4" 10M Man Valve
4" 10M Man Valve
4" 3M Valve
To Panic Line 150'
3" Man Choke
3" 10M Valve
2" 3M Valve
To Shale Shaker
3 1/16" 10M Valve
3" Man Choke
3" 10M Valve
3 1/16" 10M Valve
3rd CK on top of this Tee
3 1/16" 10M Tee
3 1/16" 10M Valve
Water Melon or Buffer Chamber
3 1/16" 10M Valve
3 1/16" 10M Valve
3" Hyd Choke
3" 10M Valve
2" 3M Valve
To Gas Buster & Vent 150'
Water Melon or Buffer Chamber

Centennial Resource Development - Well Control Plan

A. Component and Preventer Compatibility Table

Component	OD (inches)	Preventer	RWP
Drillpipe	4	Upper VBR: 3.5 – 5.5 Lower VBR: 3.5 – 5.5	10M
Heavyweight Drillpipe	4	Upper VBR: 3.5 – 5.5 Lower VBR: 3.5 – 5.5	10M
Drill collars and MWD tools	4 ¾	Upper VBR: 3.5 – 5.5 Lower VBR: 3.5 – 5.5	10M
Mud Motor	4 ¾	Upper VBR: 3.5 – 5.5 Lower VBR: 3.5 – 5.5	10M
Production Casing	5.5 & 5	Upper VBR: 3.5 – 5.5 Lower VBR: 3.5 – 5.5	10M
All	0 – 13 5/8	Annular	5M
Open-hole	-	Blind rams	10M

VBR = Variable Bore Rams

RWP = Rated Working Pressure

MWD = Measurement While Drilling (directional tools)

B. Well Control Procedures

I. General Procedures While Drilling:

1. Sound alarm (alert crew).
2. Space out drill-string.
3. Shut down pumps and stop rotary.
4. Open HCR
5. Shut-in well – utilizing upper VBRs.
6. Close choke
7. Confirm shut-in.
8. Notify rig manager and Centennial company representative.
9. Call Centennial drilling engineer
10. Read and record
    - I. Shut-in drillpipe pressure (SIDPP) and shut-in casing pressure (SCIP).
    - II. Pit gain
    - III. Time
11. Regroup, identify forward plan

II. General Procedure While Tripping

1. Sound alarm (alert crew).
2. Stab full opening safety valve and close
3. Space out drillstring.
4. Open HCR
5. Shut-in well – utilizing upper VBRs
6. Close choke
7. Confirm shut-in.
8. Notify rig manager and Centennial company representative.
9. Call Centennial drilling engineer
10. Read and record:
    I. SIDPP AND SICP
    II. Pit gain
    III. Time
11. Regroup and identify forward plan.

III. General Procedure While Running Casing

1. Sound alarm (alert crew)
2. Stab full opening safety valve and close
3. Space out string.
4. Open HCR
5. Shut-in well – utilizing upper VBRs.
6. Close choke
7. Confirm shut-in.
8. Notify rig manager and Centennial company representative.
9. Call Centennial drilling engineer
10. Read and record:
    I. SIDPP AND SICP
    II. Pit gain
    III. Time
11. Regroup and identify forward plan.

IV. General Procedure With No Pipe In Hole (Open Hole)

1. Sound alarm (alert crew)
2. Open HCR
3. Shut-in with blind rams
4. Close choke
5. Confirm shut-in
6. Notify rig manager and Centennial company representative.
7. Call Centennial drilling engineer
8. Read and record:
    I. SIDPP AND SICP
    II. Pit gain
    III. Time
9. Regroup and identify forward plan.

V. General Procedures While Pulling BHA Thru BOP Stack

1. **Prior to pulling last joint of drillpipe thru stack**:
   - I. Perform flow check, if flowing
     - a. Sound alarm, alert crew
     - b. Stab full opening safety valve and close
     - c. Space out drillstring with tool joint just beneath the upper pipe ram.
     - d. Open HCR
     - e. Shut-in utilizing upper VBRs
     - f. Close choke
     - g. Confirm shut-in
     - h. Notify rig manager and Centennial company representative.
     - i. Call Centennial drilling engineer
     - j. Read and record:
       - i. SIDPP and SICP
       - ii. Pit gain
       - iii. Time
   - II. Regroup and identify forward plan

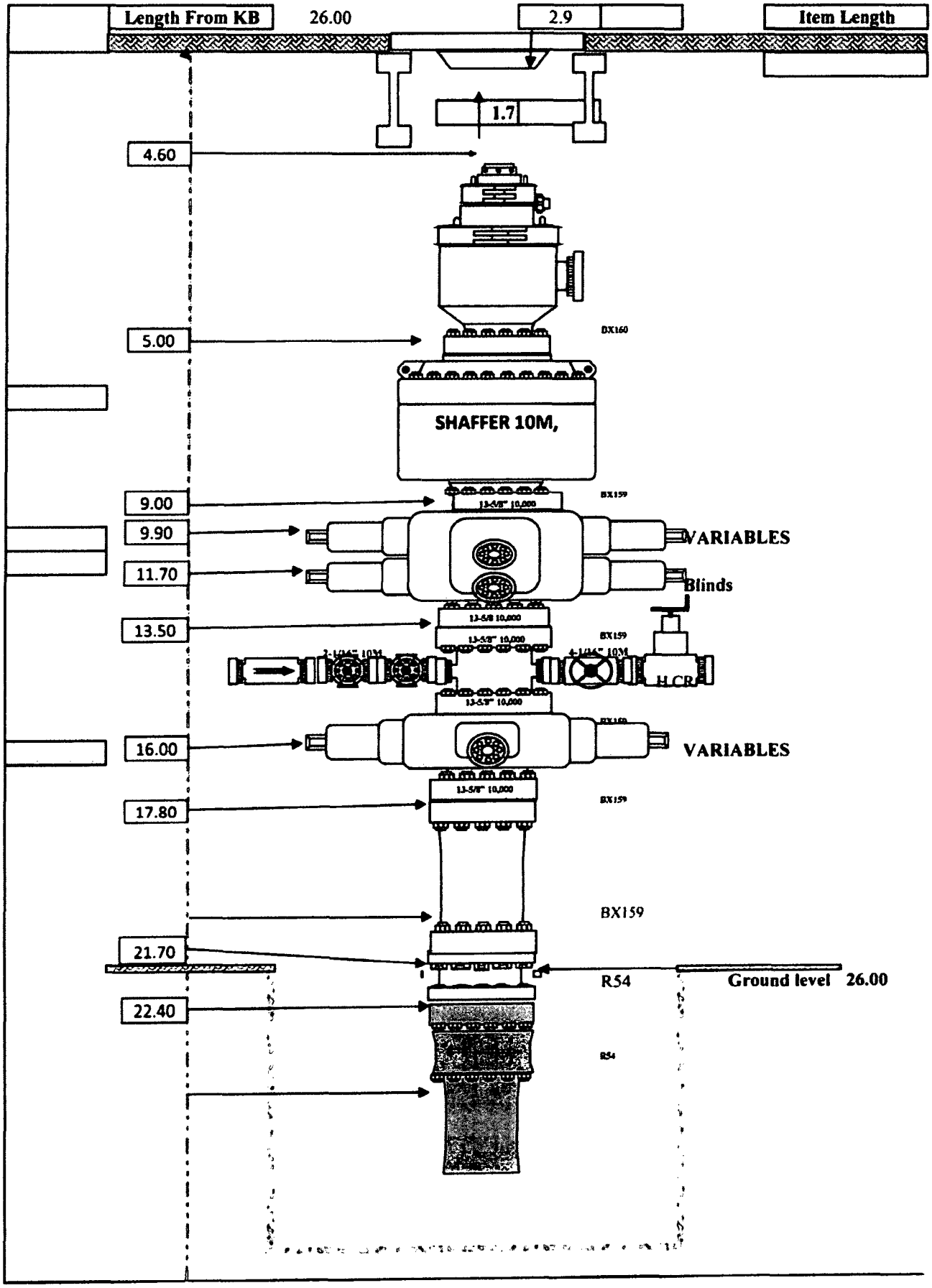
2. **With BHA in the BOP stack and compatible ram preventer and pipe combo immediately available**:
   - a. Sound alarm, alert crew
   - b. Stab full opening safety valve and close
   - c. Space out drillstring with tool joint just beneath the upper pipe ram.
   - d. Open HCR
   - e. Shut-in utilizing upper VBRs
   - f. Close choke
   - g. Confirm shut-in
   - h. Notify rig manager and Centennial company representative.
   - i. Call Centennial drilling engineer
   - j. Read and record:
     - i. SIDPP and SICP
     - ii. Pit gain
     - iii. Time
   - II. Regroup and identify forward plan

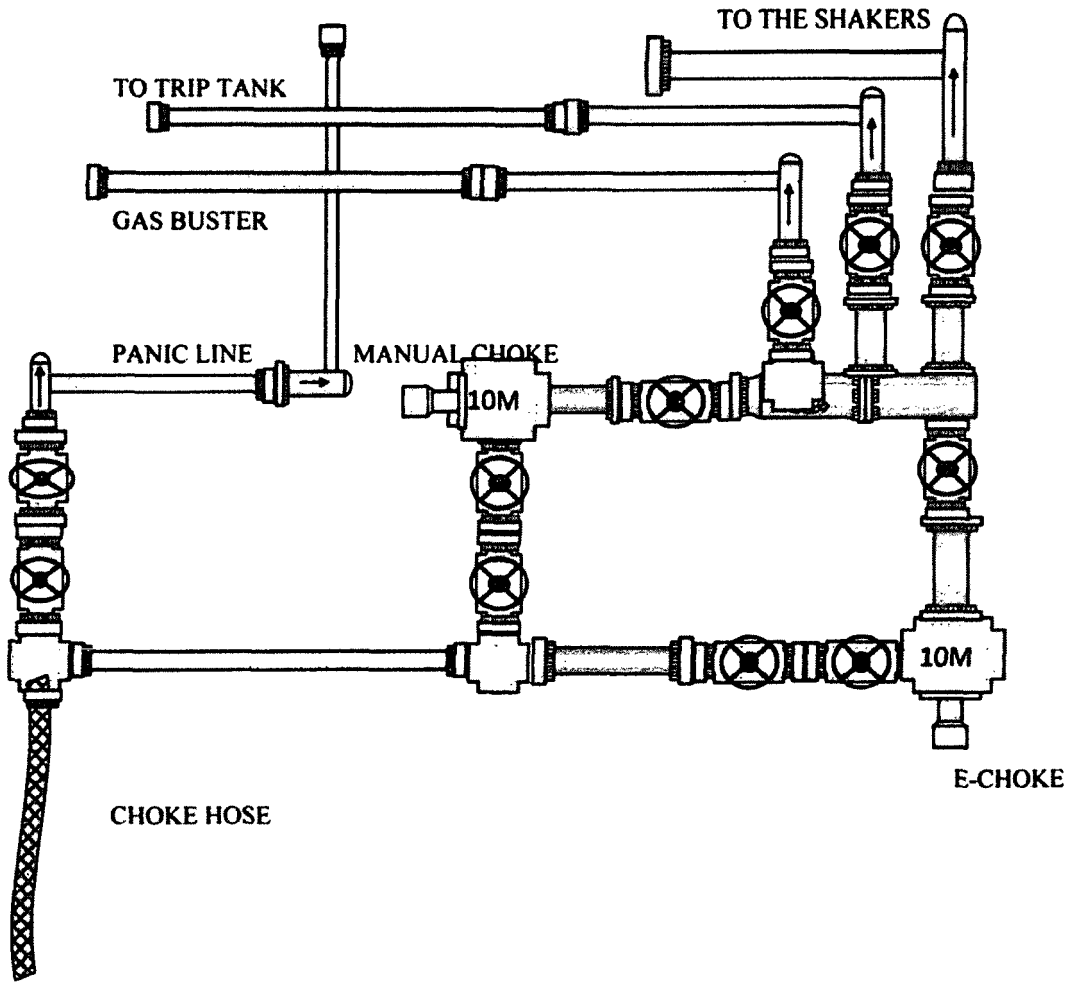
3. **With BHA in the BOP stack and no compatible ram preventer and pipe combo immediately availiable**:
    I. Sound alarm, alert crew.
    II. If possible to pick up high enough, pull string clear of the stack and follow Open Hole (III) scenario.
    III. If impossible to pick up high enough to pull the string clear of the stack:
        a. Stab crossover, make up one joint/stand of drill pipe and full opening safety valve and close.
        b. Space out drillstring with tool joint just beneath the upper pipe ram.
        c. Open HCR
        d. Shut-in utilizing upper VBRs.
        e. Close choke
        f. Confirm shut-in
        g. Notify rig manager and Centennial company representative.
        h. Call Centennial drilling engineer
        i. Read and record:
            i. SIDPP and SICP
            ii. Pit gain
            iii. Time
    IV. Regroup and identify forward plan.

**** If annular is used to shut-in well and pressure builds to OR is expected to get to 50% of RWP, confirm space-out and swap to upper VBRs for shut-in.**

Operator : COMPTON -2H
H&P Rig 650

Date : 9-Feb-17




TO THE SHAKERS
TO TRIP TANK
GAS BUSTER
PANIC LINE
MANUAL CHOKE
10M
10M
E-CHOKE
CHOKE HOSE

CASING ASSUMPTIONS WORKSHEET:

Centralizer Program:

Surface: - 3 welded bow spring centralizers, one on each of the bottom 3 joints, plus one on the shoe joint (4 minimum)
- No Cement baskets will be run

Production: - 1 welded bow spring centralizer on a stop ring 6' above float shoe
- 1 centralizer every other joint to the top of the tail cement
- 1 centralizer every 4 joints to 500' below the top of the lead cement
- The actual number and placement of centralizers will be determined from hole deviation and potential production zones. Centralizers will be run for maximum practical standoff and through all potential productive zones.

- All casing strings below the conductor shall be tested, prior to drilling out the casing shoe, to 0.22 psi/ft of casing string length or 1500 psi, whichever is greater, but not to exceed 70% of the internal yield pressure of the casing. If pressure declines more than 10 percent in 30 minutes, corrective action will be taken.

No freshly hard banded pipe will be rotated in the surface casing

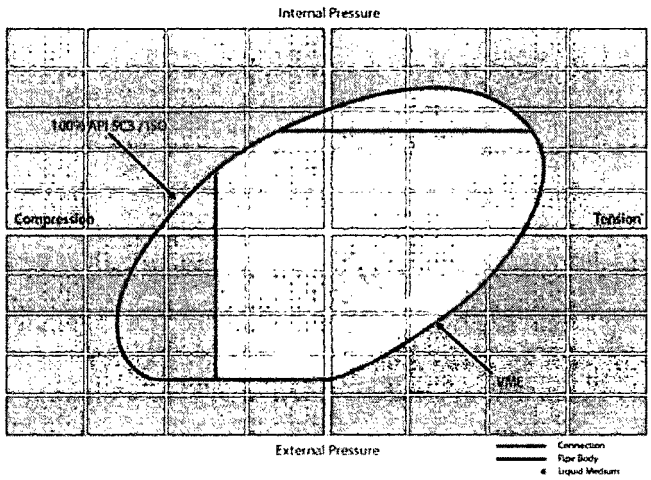
- CENTENNIAL RESOURCE DEVELOPOMENT will not employ an air-drill rig for the surface casing. The casing shoe will be tested by drilling 5'-10' out from under the shoe and pressure testing to the maximum expected mud weight equivalent as shown in the mud program listed in the drilling plan.

TECHNICAL DATA SHEET TMK UP DQX 5 X 18 P110 HC

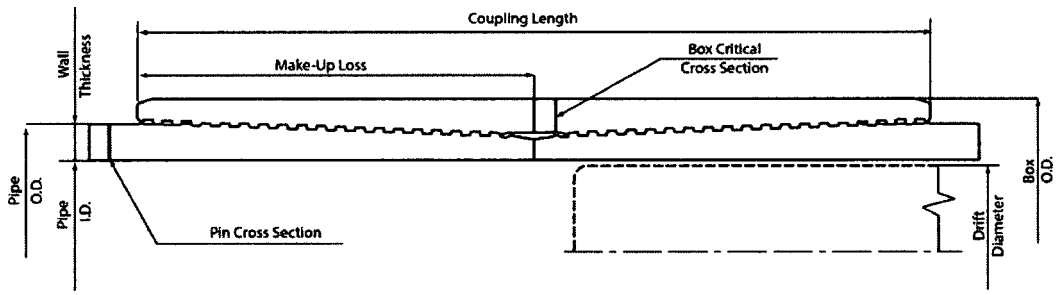
TUBULAR PARAMETERS	
Nominal OD, (inch)	5.000
Wall Thickness, (inch)	0.362
Pipe Grade	P110 HC
Coupling	Regular
Coupling Grade	P110 HC
Drift	Standard

CONNECTION PARAMETERS	
Connection OD (inch)	5.56
Connection ID, (inch)	4.276
Make-Up Loss, (inch)	4.097
Connection Critical Area, (sq inch)	5.275
Yield Strength in Tension, (klbs)	580
Yeld Strength in Compression, (klbs)	580
Tension Efficiency	100%
Compression Efficiency	100%
Min. Internal Yield Pressure, (psi)	13 940
Collapse Pressure, (psi)	14 820
Uniaxial Bending (deg/100ft)	100.9

PIPE BODY PROPERTIES	
PE Weight, (lbs/ft)	17.93
Nominal Weight, (lbs/ft)	18.00
Nominal ID, (inch)	4.276
Drift Diameter, (inch)	4.151
Nominal Pipe Body Area, (sq inch)	5.275
Yield Strength in Tension, (klbs)	580
Min. Internal Yield Pressure, (psi)	13 940
Collapse Pressure, (psi)	14 820



MAKE-UP TORQUES	
Yield Torque, (ft-lb)	17 500
Minimum Make-Up Torque, (ft-lb)	9 800
Optimum Make-Up Torque, (ft-lb)	10 900
Maximum Make-Up Torque, (ft-lb)	11 900



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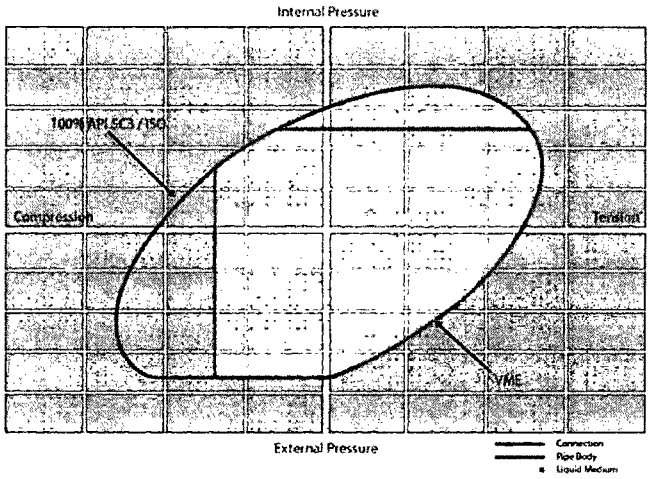
TECHNICAL DATA SHEET TMK UP DQX 5.5 X 20 P110 HC

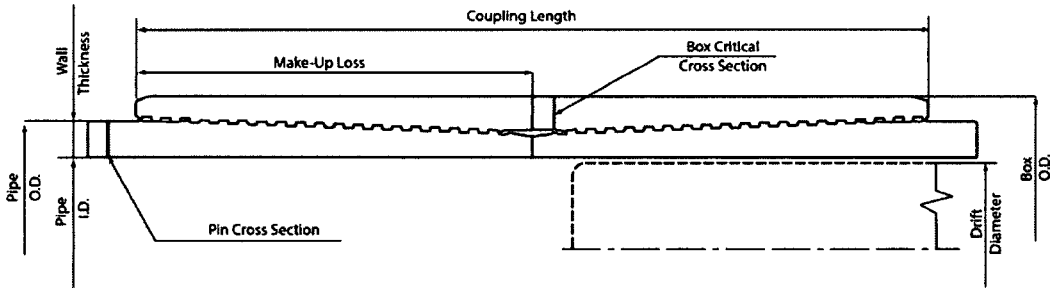
TUBULAR PARAMETERS	
Nominal OD, (inch)	5.500
Wall Thickness, (inch)	0.361
Pipe Grade	P110 HC
Coupling	Regular
Coupling Grade	P110 HC
Drift	Standard

CONNECTION PARAMETERS	
Connection OD (inch)	6.05
Connection ID, (inch)	4.778
Make-Up Loss, (inch)	4.122
Connection Critical Area, (sq inch)	5.828
Yield Strength in Tension, (klbs)	641
Yeld Strength in Compression, (klbs)	641
Tension Efficiency	100%
Compression Efficiency	100%
Min. Internal Yield Pressure, (psi)	12 640
Collapse Pressure, (psi)	12 780
Uniaxial Bending (deg/100ft)	91.7

PIPE BODY PROPERTIES	
PE Weight, (lbs/ft)	19.81
Nominal Weight, (lbs/ft)	20.00
Nominal ID, (inch)	4.778
Drift Diameter, (inch)	4.653
Nominal Pipe Body Area, (sq inch)	5.828
Yield Strength in Tension, (klbs)	641
Min. Internal Yield Pressure, (psi)	12 640
Collapse Pressure, (psi)	12 780



MAKE-UP TORQUES	
Yield Torque, (ft-lb)	20 600
Minimum Make-Up Torque, (ft-lb)	11 600
Optimum Make-Up Torque, (ft-lb)	12 900
Maximum Make-Up Torque, (ft-lb)	14 100



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