Form 3160-3
(June 2015)

OCD – HOBBS
11/09/2020
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FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.: NMNM086144

6. If Indian, Allotee or Tribe Name:

1a. Type of work: ☑ DRILL ☐ REENTER

1b. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other

1c. Type of Completion: ☐ Hydraulic Fracturing ☑ Single Zone ☐ Multiple Zone

7. If Unit or CA Agreement, Name and No.:

8. Lease Name and Well No.: DIAMONDBACK 24-25 FED COM 2BS [322152] 5H

2. Name of Operator: CHISHOLM ENERGY OPERATING LLC [372137]

9. API Well No.: 30-025-48038

3a. Address: 801 Cherry St., Suite 1200 Unit 20, Fort Worth, TX 76102

3b. Phone No. *(include area code)*: (817) 469-1104

10. Field and Pool, or Exploratory: LUSK/BONE SPRING, EAST [41442]

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface: NENE / 250 FNL / 705 FEL / LAT 32.6523689 / LONG -103.7134505

At proposed prod. zone: SESE / 100 FSL / 380 FEL / LAT 32.6242843 / LONG -103.7123512

11. Sec., T. R. M. or Blk. and Survey or Area: SEC 24/T19S/R32E/NMP

14. Distance in miles and direction from nearest town or post office*: 12 miles

12. County or Parish: LEA

13. State: NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any): 125 feet

16. No of acres in lease: 160

17. Spacing Unit dedicated to this well: 320.0

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.: 60 feet

19. Proposed Depth: 9901 feet / 19952 feet

20. BLM/BIA Bond No. in file: FED: NMB001468

21. Elevations (Show whether DF, KDB, RT, GL, etc.): 3621 feet

22. Approximate date work will start*: 05/01/2020

23. Estimated duration: 30 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be requested by the BLM.

25. Signature: (Electronic Submission)

Name *(Printed/Typed)*: JENNIFER ELROD / Ph: (817) 469-1104

Date: 12/19/2019

Title: Senior Regulatory Technician

Approved by *(Signature)*: (Electronic Submission)

Name *(Printed/Typed)*: Cody Layton / Ph: (575) 234-5959

Date: 11/05/2020

Title: Assistant Field Manager Lands & Minerals

Office: Carlsbad Field Office

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

GCP Rec 11/05/2020

SL

APPROVED WITH CONDITIONS

KZ 11/23/2020

Approval Date: 11/05/2020

(Continued on page 2)

*(Instructions on page 2)

INSTRUCTIONS

GENERAL: This form is designed for submitting proposals to perform certain well operations, as indicated on Federal and Indian lands and leases for action by appropriate Federal agencies, pursuant to applicable Federal laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from local Federal offices.

ITEM I: If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable Federal regulations concerning subsequent work proposals or reports on the well.

ITEM 4: Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local Federal offices for specific instructions.

ITEM 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on the reverse side, showing the roads to, and the surveyed location of, the wen, and any other required information, should be furnished when required by Federal agency offices.

ITEMS 15 AND 18: If well is to be, or has been directionany drilled, give distances for subsurface location of hole in any present or objective productive zone.

ITEM 22: Consult applicable Federal regulations, or appropriate officials, concerning approval of the proposal before operations are started.

ITEM 24: If the proposal will involve hydraulic fracturing operations, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

NOTICES

The Privacy Act of 1974 and regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 25 U.S.C. 396; 43 CFR 3160

PRINCIPAL PURPOSES: The information will be used to: (1) process and evaluate your application for a permit to drill a new oil, gas, or service wen or to reenter a plugged and abandoned well; and (2) document, for administrative use, information for the management, disposal and use of National Resource Lands and resources including (a) analyzing your proposal to discover and extract the Federal or Indian resources encountered; (b) reviewing procedures and equipment and the projected impact on the land involved; and (c) evaluating the effects of the proposed operation on the surface and subsurface water and other environmental impacts.

ROUTINE USE: Information from the record and/or the record win be transferred to appropriate Federal, State, and local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecution, in connection with congressional inquiries and for regulatory responsibilities.

EFFECT OF NOT PROVIDING INFORMATION: Filing of this application and disclosure of the information is mandatory only if you elect to initiate a drilling or reentry operation on an oil and gas lease.

The Paperwork Reduction Act of 1995 requires us to inform you that:
The BLM conects this information to anow evaluation of the technical, safety, and environmental factors involved with drilling for oil and/or gas on Federal and Indian oil and gas leases. This information will be used to analyze and approve applications. Response to this request is mandatory only if the operator elects to initiate drilling or reentry operations on an oil and gas lease. The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

BURDEN HOURS STATEMENT: Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Conection Clearance Officer (WO-630), 1849 C Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.

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Additional Operator Remarks

Location of Well

0. SHL: NENE / 250 FNL / 705 FEL / TWSP: 19S / RANGE: 32E / SECTION: 24 / LAT: 32.6523689 / LONG: -103.7134505 (TVD: 0 feet, MD: 0 feet)

PPP: NESE / 2639 FSL / 365 FEL / TWSP: 19S / RANGE: 32E / SECTION: 24 / LAT: 32.64578 / LONG: -103.712385 (TVD: 9798 feet, MD: 12644 feet)

PPP: NENE / 100 FNL / 380 FEL / TWSP: 19S / RANGE: 32E / SECTION: 24 / LAT: 32.6527793 / LONG: -103.7123954 (TVD: 9763 feet, MD: 10103 feet)

BHL: SESE / 100 FSL / 380 FEL / TWSP: 19S / RANGE: 32E / SECTION: 25 / LAT: 32.6242843 / LONG: -103.7123512 (TVD: 9901 feet, MD: 19952 feet)

BLM Point of Contact

Name: Deborah Ham

Title: Legal Landlaw Examiner

Phone: (575) 234-5965

Email: dham@blm.gov

Review and Appeal Rights

A person contesting a decision shall request a State Director review. This request must be filed within 20 working days of receipt of the Notice with the appropriate State Director (see 43 CFR 3165.3). The State Director review decision may be appealed to the Interior Board of Land Appeals, 801 North Quincy Street, Suite 300, Arlington, VA 22203 (see 43 CFR 3165.4). Contact the above listed Bureau of Land Management office for further information.

PECOS DISTRICT
SURFACE USE
CONDITIONS OF APPROVAL

Chisholm Energy Operating LLC

Lease Number NMNM086144

DIAMONDBACK 24-25 FED COM 2BS 4H
Surface Hole Location: 250 FNL / 765 FEL, Section 24, T. 19 S, R. 32 E
Bottom Hole Location: 100 FSL / 1515 FEL, Section 25, T. 19 S, R. 32 E

DIAMONDBACK 24-25 FED COM 2BS 5H
Surface Hole Location: 250 FNL / 705 FEL, Section 24, T. 19 S, R. 32 E
Bottom Hole Location: 100 FSL / 380 FEL, Section 25, T. 19 S, R. 32 E

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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.

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 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.

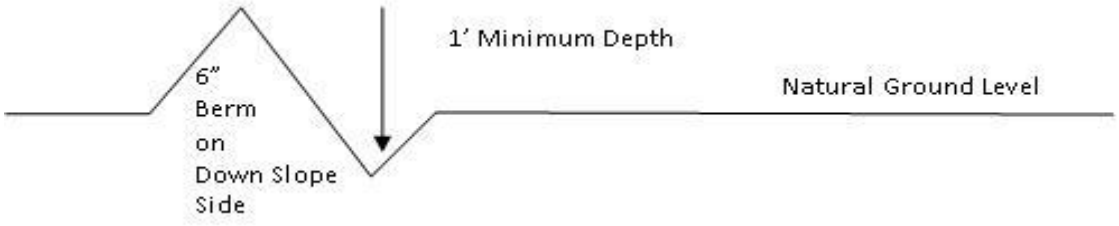
Turnouts
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

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:

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

Cattle guards

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

Fence Requirement

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

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

Construction Steps

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

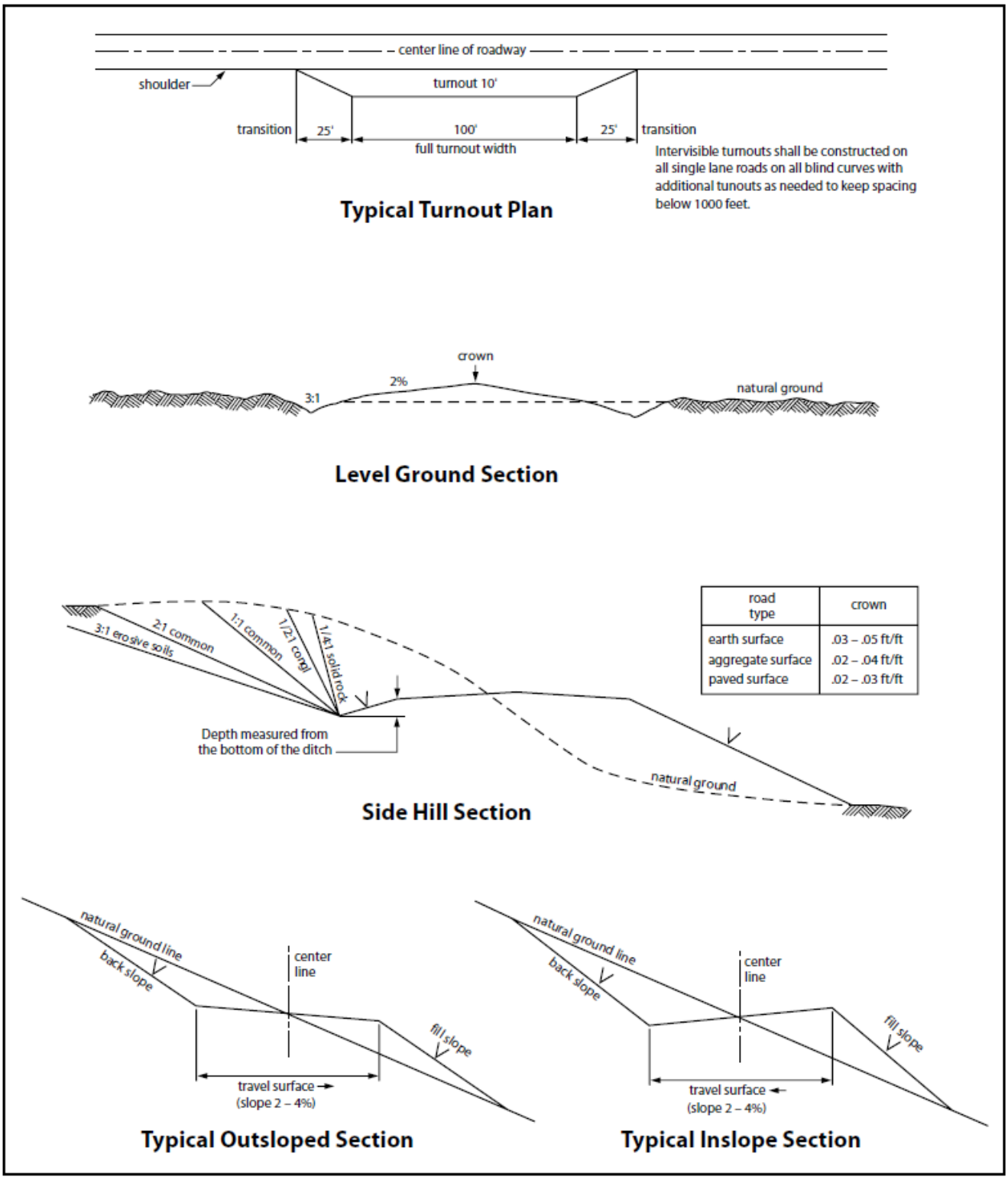


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

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

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**CHISHOLM ENERGY OPERATING LLC**
LEASE NO.:	**NMNM086144**
WELL NAME & NO.:	DIAMONDBACK 24-25 FED COM 2BS 5H
SURFACE HOLE FOOTAGE:	250'/N & 705/E
BOTTOM HOLE FOOTAGE	100'/S & 380'/E
LOCATION:	Section 24, T.19 S., R.32 E., NMPM
COUNTY:	Lea County, New Mexico

COA

H2S	◉ Yes	○ No	
Potash	○ None	◉ Secretary	○ R-111-P
Cave/Karst Potential	◉ Low	○ Medium	○ High
Cave/Karst Potential	○ Critical		
Variance	○ None	◉ Flex Hose	○ Other
Wellhead	○ Conventional	○ Multibowl	◉ Both
Other	☐ 4 String Area	☑ Capitan Reef	☐ WIPP
Other	☑ Fluid Filled	☐ Cement Squeeze	☐ Pilot Hole
Special Requirements	☐ Water Disposal	☑ COM	☐ Unit

A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H2S) Drilling Plan shall be activated 500 feet prior to drilling into the Yates-7 Rivers formation. As a result, the Hydrogen Sulfide area must meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.

B. CASING

Casing Design:

1. The **13-3/8** inch surface casing shall be set at approximately **1250** feet (a minimum of **25 feet (Lea County)** 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 will be a minimum of **24 hours in the Potash Area** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)

c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
d. If cement falls back, remedial cementing will be done prior to drilling out that string.

Intermediate casing must be kept fluid filled to meet BLM minimum collapse requirement.

2. The **9-5/8** inch intermediate casing shall be set at approximately **5575** feet. The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:

Option 1 (Single Stage):

- Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.**
  Excess cement calculates to 16%, additional cement might be required.

Option 2:

Operator has proposed a DV tool, the depth may be adjusted as long as the cement is changed proportionally. The DV tool may be cancelled if cement circulates to surface on the first stage.

a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.

b. Second stage above DV tool:

- Cement to surface. If cement does not circulate, contact the appropriate BLM office.
  Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.

❖ In Secretary Potash Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.

- ❖ In Capitan Reef Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.

- ❖ **Special Capitan Reef requirements.** If lost circulation (50% or greater) occurs below the Base of the Salt, the operator shall do the following:
  (Use this for 3 string wells in the Capitan Reef, if 4 string well ensure FW based mud used across the capitan interval)

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

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

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

   - Cement to surface. If cement does not circulate see B.1.a, c-d above.
     Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.
     Excess cement calculates to -19%, additional cement might be required.

C. PRESSURE CONTROL

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'

2.

Option 1:

a. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **2000 (2M)** psi.

b. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the intermediate casing shoe shall be **3000 (3M)** psi.

Option 2:

1. 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 **5000 (5M)** 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. 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.
    e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

D. SPECIAL REQUIREMENT (S)

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.

GENERAL 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)

☒ Eddy County
Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822

☒ Lea County
Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575) 393-3612

1. 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.

   a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
   b. When the operator proposes to set surface casing with Spudder Rig
      - Notify the BLM when moving in and removing the Spudder Rig.
      - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
      - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.

2. 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 are located, this does not include the dog house or stairway area.

3. 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.

A. CASING

1. 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.

2. Wait on cement (WOC) for Potash Areas: 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 for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.

3. 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. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.

4. 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.

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

6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.

7. 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.
8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. 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 RP 53 Sec. 17.

2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.

3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.

4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:

    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. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
    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.

5. The appropriate BLM office shall be notified a minimum of 4 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).

b. In potash areas, 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. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).

c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

d. 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.

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

f. 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.

g. 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.

h. 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.

C. 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.

D. 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.

OTA11022020

Chisholm Energy Operating, LLC plans to operate a Closed Loop System.

APD ID: 10400052602 **Submission Date:** 12/19/2019

Operator Name: CHISHOLM ENERGY OPERATING LLC

Well Name: DIAMONDBACK 24-25 FED COM 2BS **Well Number:** 5H

Well Type: OIL WELL **Well Work Type:** Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
613396	RUSTLER	3621	1214	1214	ANHYDRITE	NONE	N
613397	SALADO	2096	1525	1525	SALT	NONE	N
613402	YATES	460	3161	3161	SANDSTONE, SHALE	NONE	N
613398	CAPITAN REEF	269	3352	3352	DOLOMITE, LIMESTONE	NONE	N
613399	DELAWARE	-1906	5527	5527	SANDSTONE, SHALE, SILTSTONE	NATURAL GAS, OIL	N
613400	BONE SPRING	-4065	7686	7686	LIMESTONE, SHALE	NATURAL GAS, OIL	N
613401	BONE SPRING 1ST	-5202	8823	8823	SANDSTONE, SHALE, SILTSTONE	NATURAL GAS, OIL	N
613403	BONE SPRING 2ND	-5837	9458	9458	SANDSTONE, SHALE, SILTSTONE	NATURAL GAS, OIL	Y

Section 2 - Blowout Prevention

Pressure Rating (PSI): 5M **Rating Depth:** 12500

Equipment: Rotating head, remote kill line, mud gas sperator

Requesting Variance? YES

Variance request: WE PROPOSE UTILIZING A CACTUS SPEED HEAD MULTI-BOWL WELLHEAD FOR THIS WELL. PLEASE SEE ATTACHED DIAGRAM AND PRESSURE TESTING STATEMENT. ALSO WE REQUEST TO USE A FLEX CHOKE HOSE; PLEASE SEE ATTACHMENT.
Testing Procedure: BOP testing procedure -N/U the rigs BOP. Use 3rd party testers to perform the following: -Test the pipe rams, blind rams, floor valves (IBOP and/or upper Kelly valve), choke lines and manifold to 250 psi/5,000 psi with a test plug and a test pump. -Test the Hydril annular to 250 psi/2,500 psi with same as above.
Choke Diagram Attachment:

5M_Choke_Manifold_Diagram_20171019093052.pdf

BOP Diagram Attachment:

5m_BOP_Diagram_20191219074124.pdf

5m_BOP_Diagram_2_20191219074124.pdf

Operator Name: CHISHOLM ENERGY OPERATING LLC

Well Name: DIAMONDBACK 24-25 FED COM 2BS **Well Number:** 5H

5M_Choke_Manifold_Diagram_20171019093052.pdf

5m_BOP_Diagram_20191219074124.pdf

5m_BOP_Diagram_2_20191219074124.pdf

Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	17.5	13.375	NEW	API	N	0	1250	0	1250	3621	2371	1250	J-55	54.5	BUTT	1.93	4.67	DRY	13.34	DRY	12.52
2	INTERMEDIATE	12.25	9.625	NEW	API	N	0	5575	0	5575	3620	-1954	5575	J-55	40	LT&C	1.74	1.34	DRY	2.33	DRY	2.83
3	PRODUCTION	8.75	5.5	NEW	API	N	0	19952	0	9901	3621	-6280	19952	P-110	20	BUTT	2.27	2.58	DRY	3.37	DRY	3.24

Casing Attachments

Casing ID: 1 **String Type:** SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Casing_Calculator___Diamondback_24_25_Fed_Com_2BS_5H_20191219125729.pdf

Operator Name: CHISHOLM ENERGY OPERATING LLC

Well Name: DIAMONDBACK 24-25 FED COM 2BS **Well Number:** 5H

Casing Attachments

Casing ID: 2 **String Type:** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Casing_Calculator___Diamondback_24_25_Fed_Com_2BS_5H_20191219125841.pdf

Casing ID: 3 **String Type:** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Casing_Calculator___Diamondback_24_25_Fed_Com_2BS_5H_20191219125936.pdf

Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	800	555	2	12.8	1116	100	Class C	Sodium Metasilicate, Defoamer, KCL, Kol-Seal, Cellophane Flakes, ROF SealCheck
SURFACE	Tail		800	1250	470	1.33	14.8	625	100	Class C	Fluid Loss, Dispercent, Retarder
INTERMEDIATE	Lead	3000	0	3000	885	2.37	11.5	2097	200	C	Bentonite, Compressive Strength Enhancer, Silica Fume Alternative, Fluid Loss, Defoamer, Sodium Metasilicate,

Operator Name: CHISHOLM ENERGY OPERATING LLC

Well Name: DIAMONDBACK 24-25 FED COM 2BS **Well Number:** 5H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
											Retarder
INTERMEDIATE	Lead	3000	3000	5075	550	2.37	11.5	1304	100	Class C	Bentonite, Compressive Strength Enhancer, Silica Fume Alternative, Fluid Loss, Defoamer, Sodium Metasilicate, Retarder
INTERMEDIATE	Tail		5075	5575	290	1.08	14.8	313	100	Class C	Fluid Loss, Suspension Agent, Retarder, Defoamer, Dispersant
PRODUCTION	Lead		4500	8200	405	2.62	11.3	1061	15	Class H	Sodium Metasilicate, Defoamer, KCL
PRODUCTION	Tail		8200	19763	1680	1.82	13.2	3058	15	Class H	none

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

Description of the equipment for the circulating system in accordance with Onshore Order #2:

Diagram of the equipment for the circulating system in accordance with Onshore Order #2:

Describe what will be on location to control well or mitigate other conditions: Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

Describe the mud monitoring system utilized: Pason PVT system will be in place throughout the well as well as visual checks

Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	1205	SPUD MUD	8.5	9.2							32-38 FV 4-6 PV

Operator Name: CHISHOLM ENERGY OPERATING LLC

Well Name: DIAMONDBACK 24-25 FED COM 2BS **Well Number:** 5H

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
											2-5 YP
1250	5575	SALT SATURATED	10	10.3							28-32 FV
5575	19763	OIL-BASED MUD	9	9.5							15-20 PV 8-12 YP

Section 6 - Test, Logging, Coring

List of production tests including testing procedures, equipment and safety measures:

none

List of open and cased hole logs run in the well:

CEMENT BOND LOG,DIRECTIONAL SURVEY,GAMMA RAY LOG,MEASUREMENT WHILE DRILLING,

Coring operation description for the well:

none

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 4891 **Anticipated Surface Pressure:** 2712

Anticipated Bottom Hole Temperature(F): 163

Anticipated abnormal pressures, temperatures, or potential geologic hazards? NO

Describe:

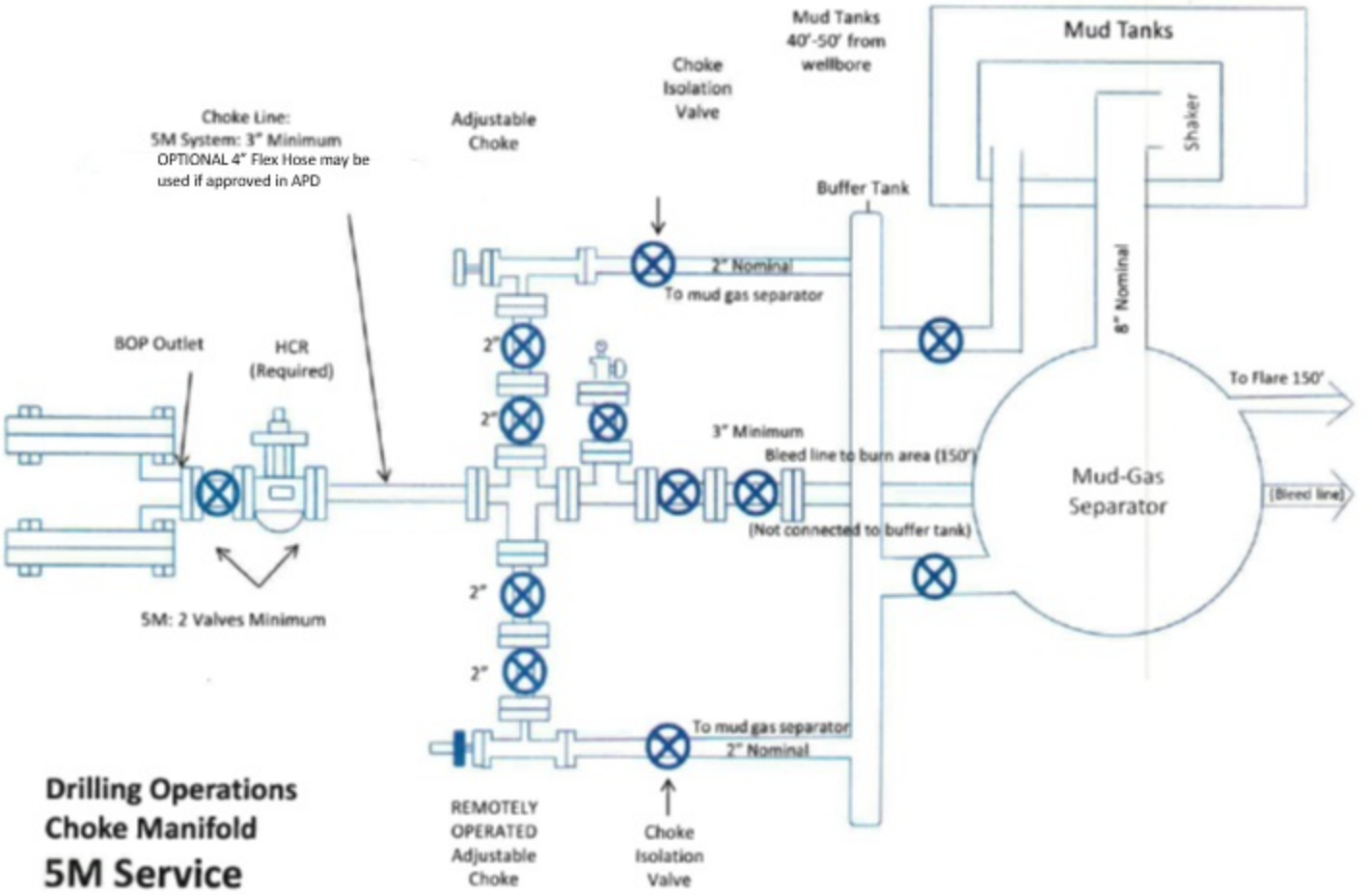
Contingency Plans geoharzards description:

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

Lea_County_H2S_plan_20180517150448.pdf



Drilling Operations
Choke Manifold
5M Service

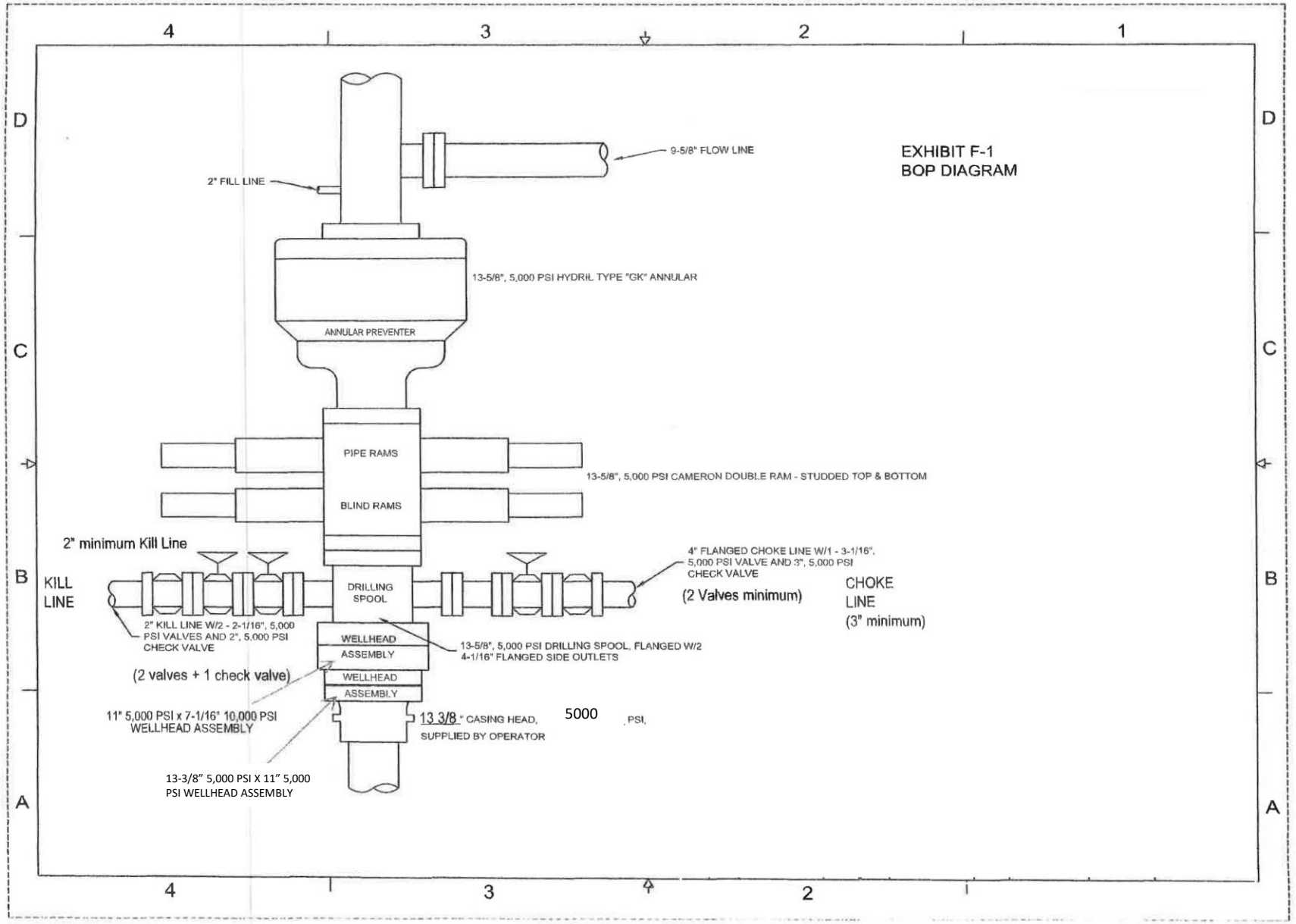
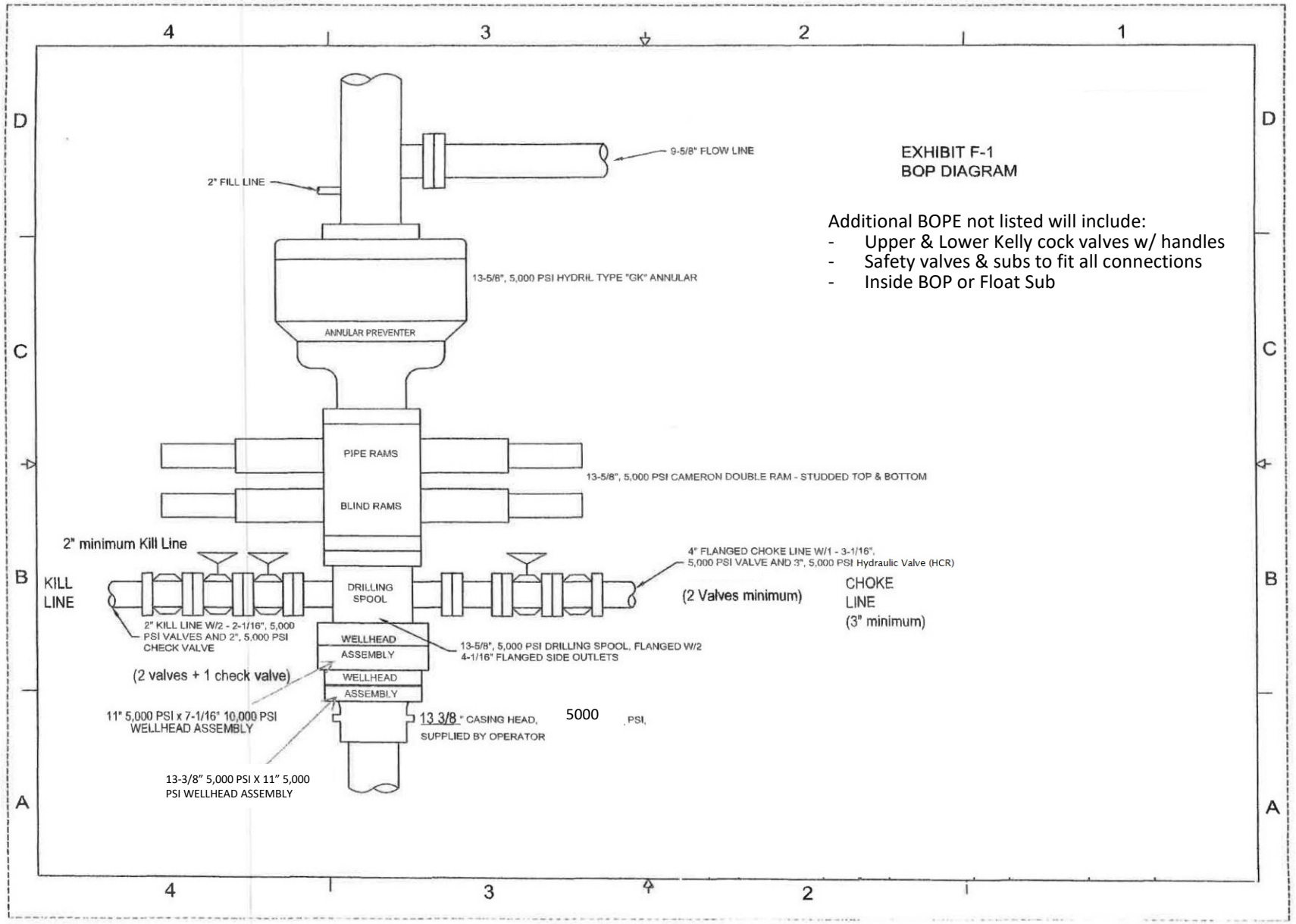


EXHIBIT F-1
BOP DIAGRAM
9-5/8" FLOW LINE
2" FILL LINE
13-5/8", 5,000 PSI HYDRIL TYPE "GK" ANNULAR
ANNULAR PREVENTER
PIPE RAMS
BLIND RAMS
13-5/8", 5,000 PSI CAMERON DOUBLE RAM - STUDDED TOP & BOTTOM
2" minimum Kill Line
KILL LINE
4" FLANGED CHOKE LINE W/1 - 3-1/16", 5,000 PSI VALVE AND 3", 5,000 PSI CHECK VALVE
(2 Valves minimum)
CHOKE LINE
(3" minimum)
DRILLING SPOOL
2" KILL LINE W/2 - 2-1/16", 5,000 PSI VALVES AND 2", 5,000 PSI CHECK VALVE
13-5/8", 5,000 PSI DRILLING SPOOL, FLANGED W/2 4-1/16" FLANGED SIDE OUTLETS
WELLHEAD ASSEMBLY
(2 valves + 1 check valve)
WELLHEAD ASSEMBLY
11" 5,000 PSI x 7-1/16" 10,000 PSI WELLHEAD ASSEMBLY
13 3/8" CASING HEAD, SUPPLIED BY OPERATOR
5000
PSI,
13-3/8" 5,000 PSI X 11" 5,000 PSI WELLHEAD ASSEMBLY



Additional BOPE not listed will include:

- Upper & Lower Kelly cock valves w/ handles
- Safety valves & subs to fit all connections
- Inside BOP or Float Sub

Casing Program: Diamondback 24-25 Fed Com 2BS 5H

Open Hole Size (Inches)	Casing Depth; From (ft)	Casing Setting Depth (ft) MD	Casing Setting Depth (ft) TVD	Casing Size (inches)	Casing Weight (lb/ft)	Casing Grade	Thread	Condition	Anticipated Mud Weight (ppg)	Burst (psi)	Burst SF (1.125)	Collapse (psi)	Collapse SF (1.125)	Tension Joint (klbs)	Air Weight (lbs)	Tension Joint SF (1.8)	Tension Body (klbs)	Air Weight (lbs)	Tension Body SF (1.8)
Surface																			
17.5"	0'	1,250'	1,250'	13 3/8"	54.5	J-55	BTC	New	9.0	2730	4.67	1130	1.93	909,000	68,125	13.34	853,000	68,125	12.52
Intermediate																			
12.25"	0'	5,575'	5,575'	9 5/8"	40	J-55	LTC	New	10.2	3950	1.34	2570	1.74	520,000	223,000	2.33	630,000	223,000	2.83
Production																			
8.75"	0'	19,952'	9,901'	5 1/2"	20	P-110	BTC	New	9.5	12640	2.58	11100	2.27	667,000	198,020	3.37	641,000	198,020	3.24

Casing Design Criteria and Casing Loading Assumptions:

Surface

Tension	A 1.8 design factor with effects of buoyancy with a fluid equal to a mud weight of:	9.0	ppg
Collapse	A 1.125 design factor with full internal evacuation and collapse force equal to a mud gradient of:	9.0	ppg
Burst	A 1.125 design factor with full external evacuation and burst force equal to a mud gradient of:	9.0	ppg

Intermediate

Tension	A 1.8 design factor with effects of buoyancy with a fluid equal to a mud weight of:	10.2	ppg
Collapse	A 1.125 design factor with 1/2 TVD internal evacuation and collapse force equal to a mud gradient of:	10.2	ppg
Burst	A 1.125 design factor with full external evacuation and burst force equal to a mud gradient of:	10.2	ppg

Production

Tension	A 1.8 design factor with effects of buoyancy with a fluid equal to a mud weight of:	9.5	ppg
Collapse	A 1.125 design factor with full internal evacuation and collapse force equal to a mud gradient of:	9.5	ppg
Burst	A 1.125 design factor with full external evacuation and burst force equal to a mud gradient of:	9.5	ppg

Chisholm Energy Operating, LLC

801 Cherry St., Suite 1200-Unit 20

Fort Worth, TX 76102

H2S Contingency Plan

Lea County, NM

Escape

Crews shall escape upwind of escaping gas in the event of an emergency release of gas. Escape can be facilitated from the location entrance road. Crew should then block entrance to the location from the lease road so as not to allow anyone traversing into a hazardous area. The blockade should be at a safe distance outside of the ROE. There are NO homes or buildings in or near the ROE.

Assumed 100 ppm ROE = 3000'
100 ppm H2S concentration shall trigger activation of this plan

Emergency Procedures

In the event of a release of gas containing H2S, the first responder(s) must:

- « Isolate the area and prevent entry by other persons into the 100 ppm ROE.
- « Evacuate any public places encompassed by the 100 ppm ROE.
- « Be equipped with H2S monitors and air packs in order to control the release.
- « Use the "buddy system" to ensure no injuries occur during the response.
- « Take precautions to avoid personal injury during this operation.
- « Contact operator and/or local officials to aid in operation. See list of phone numbers attached.
- « Have received training

  in the: Detection of

  H2S, and

  Measures for protection against the gas,

  Equipment used for protection and emergency response.

Ignition of Gas Source

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (S02). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally, the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever there is an ignition of the gas.

Characteristics of H2S and SO,

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H2S	1.189 Air=1	10 ppm	100 ppm/hr	600 ppm
Sulfur Dioxide	SO2	2.21 Air=1	2 ppm	N/A	1000 ppm

Contacting Authorities

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

Hydrogen Sulfide Drilling Operations Plan

1. All Company and Contract personnel admitted on location must be trained by a qualified H2S safety instructor to the following:
   A. Characteristics of H2S
   B. Physical effects and hazards
   C. Principal and operation of H2S detectors, warning system and briefing areas.
   D. Evacuation procedure, routes and first aid.
   E. Proper use of safety equipment & life support systems
   F. Essential personnel meeting Medical Evaluation criteria will receive additional training on the proper use of 30-minute pressure demand air packs.
2. H2S Detection and Alarm Systems:
   a. H2S sensors/detectors to be located on the drilling rig floor, in the base of the sub structure/cellar area, on the mud pits in the shale shaker area. Additional H2S detectors may play placed as deemed necessary.
   b. An audio alarm system will be installed on the derrick floor and in the top doghouse.
3. Windsock and/or wind streamers:
   a. Windsock at mudpit area should be high enough to be visible.
   b. Windsock on the rig floor and/ or top doghouse should be high enough to be visible.
4. Condition Flags and Signs
   a. Warning sign on access road to location.
   b. Flags to be displayed on sign at entrance to location. Green flag indicates normal safe condition. Yellow flag indicates potential pressure and danger. Red flag indicates danger (H2S present in dangerous concentration). Only H2S trained and certified personnel

admitted to location.

5. Well control equipment:
   a. See exhibit BOP and Choke Diagrams

6. Communication:
   a. While working under masks chalkboards will be used for communication.
   b. Hand signals will be used where chalk board is inappropriate.
   c. Two-way radio will be used to communicate off location in case of emergency help is required. In most cases, cellular telephones will be available at most drilling foreman's trailer or living quarters.

7. Drill stem Testing:
   No DSTs are planned at this time.

8. Drilling contractor supervisor will be required to be familiar with the effects H2S has on tubular goods and other mechanical equipment.
9. If H25 is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas separator will be brought into service along with H2S scavengers if necessary.

Emergency Assistance Telephone List

Chisholm Energy Holdings, LLC

Chisholm Energy Operating, LLC	Office:	(817)953-6063
Vice President of Operations-Brad Grandstaff	Office:	(817)953-3150
	Cell:	(972)977-9221
Drilling Superintendent-Russell Simons	Cell:	(830)285-7501
Production Superintendent-Paul Martinez	Cell:	(325)206-1722

Public Safety:			**911 or**
Lea County Sheriff's Department		Number:	(575)396-3611
Lea County Emergency Management-Lorenzo Velasquez		Number:	(575)391-2983
Lea County Fire Marshal			
Lorenzo Velasquez, Director		Number:	(575)391-2983
Jeff Broom, Deputy Fire Marshal		Number:	(575)391-2988
Fire Department:			
Knowles Fire Department		Number:	(505)392-2810
City of Hobbs Fire Department		Number:	(505)397-9308
Jal Volunteer Fire Department		Number:	(505)395-2221
Lovington Fire Department		Number:	(575)396-2359
Maljamar Fire Department		Number:	(505)676-4100
Tatum Volunteer Fire Department		Number:	(505)398-3473
Eunice Fire Department		Number:	(575)394-3258
Hospital: Lea Regional Medical Center		Number:	(575)492-5000
AirMed: Medevac		Number:	(888)303-9112
Dept. of Public Safety		Number:	(505)827-9000
New Mexico OCD-Dist. 1-Hobbs-	Office	Number:	(575)393-6161
	Emergency	Number:	(575)370-3186
Lea County Road Department		Number:	(575)391-2940
NMDOT		Number:	(505)827-5100

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JDC 7 Chisholm Rev2

CHISHOLM ENERGY

BOREHOLE	WELL	FIELD	STRUCTURE
Diamondback 24-25 Fed Com 2BS 5H	Diamondback 24-25 Fed Com 2BS 5H	NM Lea County (NAD 83)	Chisholm Diamondback 24-25 Fed Com 2BS

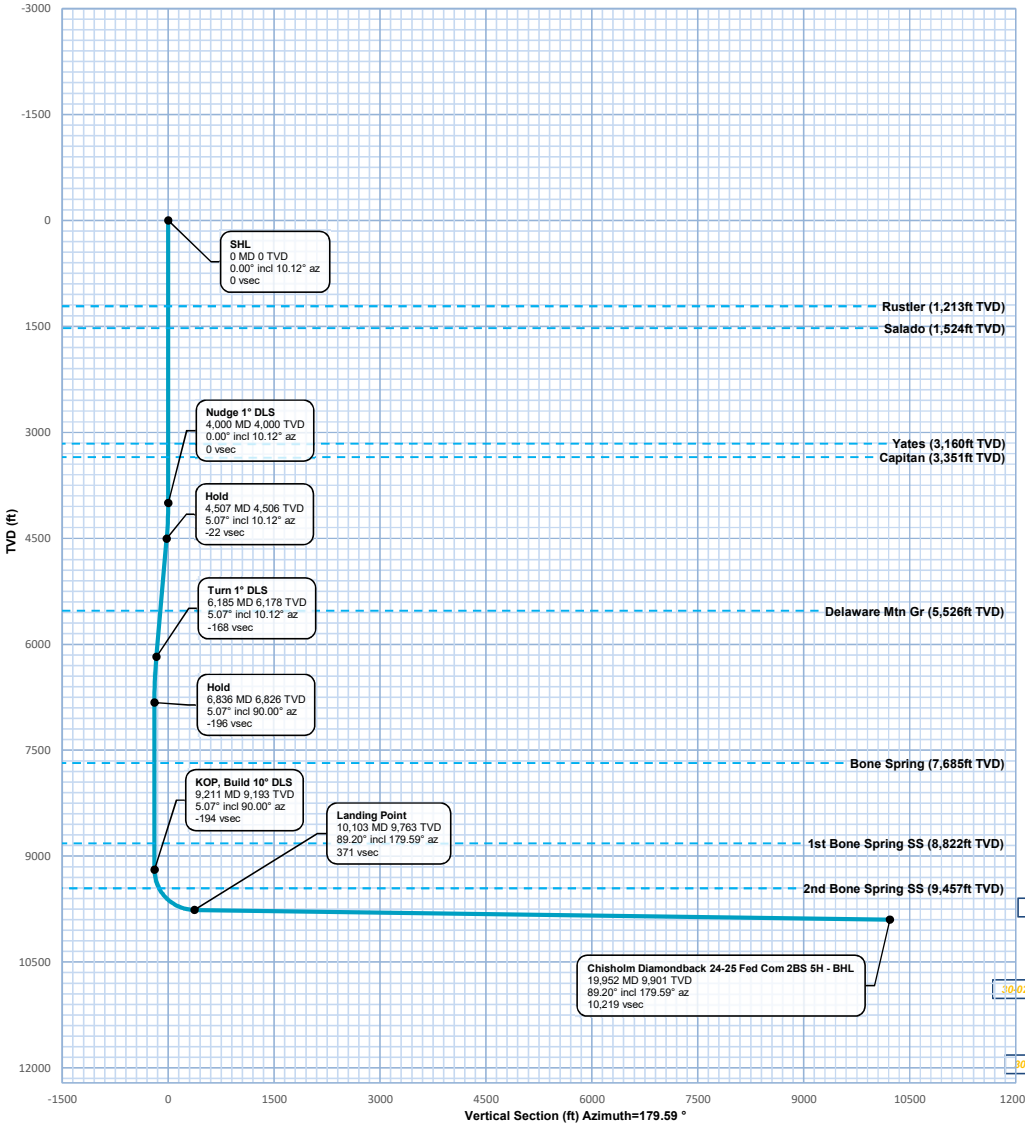
Critical Point	MD (ft)	Incl (°)	Azim (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (deg/100ft)
SHL	0.00	0.00	10.12	0.00	0.00	0.00	0.00	
13.375 in Casing	1,500.10	0.00	10.12	1,500.10	0.00	0.00	0.00	0.00
Nudge 1° DLS	4,000.00	0.00	10.12	4,000.00	0.00	0.00	0.00	0.00
Hold	4,506.76	5.07	10.12	4,506.10	-22.02	22.05	3.94	1.00
Turn 1° DLS	6,185.22	5.07	10.12	6,178.00	-167.78	168.00	30.00	0.00
Hold	6,835.51	5.07	90.00	6,826.44	-195.84	196.30	63.82	1.00
9.62499999999999 in Casing	8,478.09	5.07	90.00	8,462.60	-194.80	196.30	208.98	0.00
KOP, Build 10° DLS	9,211.36	5.07	90.00	9,193.00	-194.34	196.30	273.78	0.00
Landing Point	10,103.03	89.20	179.59	9,763.36	370.65	-368.31	327.72	10.00
Chisholm Diamondback 24-25 Fed Com 2BS 5H - BHL	19,952.05	89.20	179.59	9,900.69	10,218.71	-10,216.12	398.09	0.00

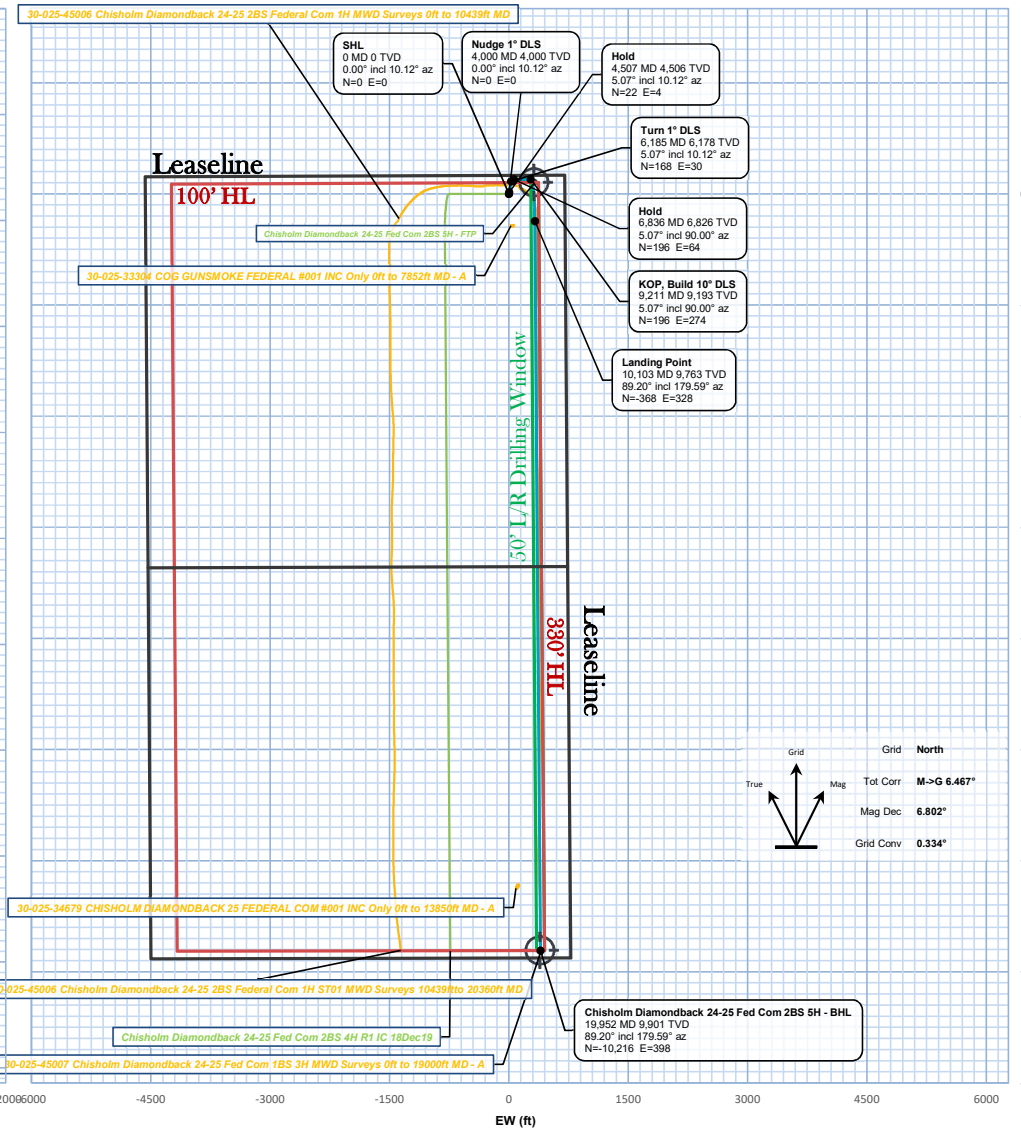
GRAVITY & MAGNETICS PARAMETERS						SURFACE LOCATION	NAD83 New Mexico State Plane, Eastern Zone, US Feet		
Model	HDGM 2019 GARM	Dip	60.551°	Date	07-Nov-19	Lat	32°39'8.53"N	Northing	601,619.62 ftUS	Grid Conv	0.334°
MagDec	6.802°	FS	48,171.747nT	Gravity FS	998.506mgn (9.80665 Based)	Lon	103°42'48.42"W	Easting	732,122.37 ftUS	Scale Fact	0.99995077

MISCELLANEOUS

Slot — TVD Reference RKB (3652.200 ft above MSL)

Plan Chisholm Diamondback 24-25 Fed Com 2BS 5H R2 IC 17Dec19 — Seabed / Ground Elevation 3621.200 ft above MSL





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CHISHOLM ENERGY

Chisholm Diamondback 24-25 Fed Com 2BS 5H R2 IC 17Dec19 Proposal
Geodetic Report
Def Plan

Report Date:	December 19, 2019 - 02:15 PM (UTC 0)	**Survey / DLS Computation:**	Minimum Curvature / Lubinski
Client:	Chisholm	**Vertical Section Azimuth:**	179.590 °(GRID North)
Field:	NM Lea County (NAD 83)	**Vertical Section Origin:**	0.000 ft, 0.000 ft
Structure / Slot:	Chisholm Diamondback 24-25 Fed Com 2BS	**TVD Reference Datum:**	RKB
Well:	Diamondback 24-25 Fed Com 2BS 5H	**TVD Reference Elevation:**	3652.200 ft above MSL
Borehole:	Diamondback 24-25 Fed Com 2BS 5H	**Seabed / Ground Elevation:**	3621.200 ft above MSL
UWI / API#:	Unknown / Unknown	**Magnetic Declination:**	6.802°
Survey Name:	Chisholm Diamondback 24-25 Fed Com 2BS 5H R2 IC 17Dec19	**Total Gravity Field Strength:**	998.5061mgn (9.80665 Based)
Survey Date:	December 18, 2019	**Gravity Model:**	GARM
Tort / AHD / DDI / ERD Ratio:	100.740 ° / 10849.816 ft / 6.343 / 1.096	**Total Magnetic Field Strength:**	48171.747 nT
Coordinate Reference System:	NAD83 New Mexico State Plane, Eastern Zone, US Feet	**Magnetic Dip Angle:**	60.551°
Location Lat / Long:	32°39'8.52810"N , 103°42'48.42170"W	**Declination Date:**	November 07, 2019
Location Grid N/E Y/X:	N 601619.620 ftUS , E 732122.370 ftUS	**Magnetic Declination Model:**	HDGM 2019
CRS Grid Convergence Angle:	0.3345°	**North Reference:**	Grid North
Grid Scale Factor:	0.99995077	**Grid Convergence Used:**	0.3345°
Version / Patch:	2019.8.0.1	**Total Corr Mag North->Grid North:**	6.4674°
		Local Coord Referenced To:	Well Head

Comments	MD (ft)	Incl (°)	Azim (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)	DLS (°/100ft)	BR (°/100ft)	TR (°/100ft)
SHL	0.00	0.00	10.12	0.00	-3,652.20	0.00	0.00	0.00	601,619.62	732,122.37	32.65	-103.71			
Nudge 1° DLS	4,000.00	0.00	10.12	4,000.00	347.80	0.00	0.00	0.00	601,619.62	732,122.37	32.65	-103.71	0.00	0.00	0.00
Hold	4,506.76	5.07	10.12	4,506.10	853.90	-22.02	22.05	3.94	601,641.67	732,126.31	32.65	-103.71	1.00	1.00	0.00
Turn 1° DLS	6,185.22	5.07	10.12	6,178.00	2,525.80	-167.78	168.00	30.00	601,787.61	732,152.37	32.65	-103.71	0.00	0.00	0.00
Hold	6,835.51	5.07	90.00	6,826.44	3,174.24	-195.84	196.30	63.82	601,815.91	732,186.19	32.65	-103.71	1.00	0.00	12.28
KOP, Build 10° DLS	9,211.36	5.07	90.00	9,193.00	5,540.80	-194.34	196.30	273.78	601,815.91	732,396.14	32.65	-103.71	0.00	0.00	0.00
Landing Point	10,103.03	89.20	179.59	9,763.36	6,111.16	370.65	-368.31	327.72	601,251.33	732,450.08	32.65	-103.71	10.00	9.93	1.55
Chisholm Diamondback 24-25 Fe	19,952.05	89.20	179.59	9,900.69	6,248.49	10,218.71	-10,216.12	398.09	591,404.02	732,520.44	32.62	-103.71	0.00	0.00	0.00

Survey Type: Def Plan

Survey Error Model: ISCWSA0 3 - D 95 % Confidence 2.7955 sigma
Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Expected Max Inclination (deg)	Survey Tool Type	Borehole / Survey
	1	0.000	4,000.000	1/100.000	17.500			NAL_MWD_1.0_DEG	Diamondback 24-25 Fed Com 2E
	1	4,000.000	9,211.360	1/100.000	12.250			NAL_MWD_1.0_DEG	Diamondback 24-25 Fed Com 2E
	1	9,211.360	10,103.030	1/100.000	8.750			NAL_MWD_1.0_DEG	Diamondback 24-25 Fed Com 2E
	1	10,103.030	19,952.050	1/100.000	8.500			NAL_MWD_1.0_DEG	Diamondback 24-25 Fed Com 2E

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Chisholm Diamondback 24-25 Fed Com 2BS 5H R2 IC 17Dec19 Proposal
Geodetic Report
Def Plan

Report Date:	December 19, 2019 - 02:15 PM (UTC 0)	**Survey / DLS Computation:**	Minimum Curvature / Lubinski
Client:	Chisholm	**Vertical Section Azimuth:**	179.590 °(GRID North)
Field:	NM Lea County (NAD 83)	**Vertical Section Origin:**	0.000 ft, 0.000 ft
Structure / Slot:	Chisholm Diamondback 24-25 Fed Com 2BS	**TVD Reference Datum:**	RKB
Well:	Diamondback 24-25 Fed Com 2BS 5H	**TVD Reference Elevation:**	3652.200 ft above MSL
Borehole:	Diamondback 24-25 Fed Com 2BS 5H	**Seabed / Ground Elevation:**	3621.200 ft above MSL
UWI / API#:	Unknown / Unknown	**Magnetic Declination:**	6.802°
Survey Name:	Chisholm Diamondback 24-25 Fed Com 2BS 5H R2 IC 17Dec19	**Total Gravity Field Strength:**	998.5061mgn (9.80665 Based)
Survey Date:	December 18, 2019	**Gravity Model:**	GARM
Tort / AHD / DDI / ERD Ratio:	100.740 ° / 10849.816 ft / 6.343 / 1.096	**Total Magnetic Field Strength:**	48171.747 nT
Coordinate Reference System:	NAD83 New Mexico State Plane, Eastern Zone, US Feet	**Magnetic Dip Angle:**	60.551°
Location Lat / Long:	32°39'8.52810"N , 103°42'48.42170"W	**Declination Date:**	November 07, 2019
Location Grid N/E Y/X:	N 601619.620 ftUS , E 732122.370 ftUS	**Magnetic Declination Model:**	HDGM 2019
CRS Grid Convergence Angle:	0.3345°	**North Reference:**	Grid North
Grid Scale Factor:	0.99995077	**Grid Convergence Used:**	0.3345°
Version / Patch:	2019.8.0.1	**Total Corr Mag North->Grid North:**	6.4674°
		Local Coord Referenced To:	Well Head

Comments	MD (ft)	Incl (°)	Azim (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	AHD (ft)	NS (ft)	EW (ft)	DeltaMD (ft)	DeltaTVD (ft)	DLS (°/100ft)	BR (°/100ft)	TR (°/100ft)	GTF (°)	MTF (°)	TF (°)	Northing (ftUS)	Easting (fUS)	Latitude (° ' ")	Longitude (° ' ")	Latitude (°)	Longitude (°)	Closure (ft)	Closure Azimuth (°)	Directional Difficulty Index	Tortuosity (°)	ERD Ratio
SHL	0.00	0.00	10.12	0.00	-3,652.20	0.00	0.00	0.00	0.00									601,619.62	732,122.37	32°39'8.528103"N	103°42'48.421696"W	32.65	-103.71	0.00	0.00	0.00	0.00	0.00
Rustler	1,213.20	0.00	10.12	1,213.20	-2,439.00	0.00	0.00	0.00	0.00	1,213.20	1,213.20	0.00	0.00	0.00	HS	10.12	10.12M	601,619.62	732,122.37	32°39'8.528103"N	103°42'48.421696"W	32.65	-103.71	0.00	0.00	0.00	0.00	0.00
13.375 in Casing	1,500.10	0.00	10.12	1,500.10	-2,152.10	0.00	0.00	0.00	0.00	286.90	286.90	0.00	0.00	0.00	HS	10.12	10.12M	601,619.62	732,122.37	32°39'8.528103"N	103°42'48.421696"W	32.65	-103.71	0.00	0.00	0.00	0.00	0.00
Salado	1,524.20	0.00	10.12	1,524.20	-2,128.00	0.00	0.00	0.00	0.00	24.10	24.10	0.00	0.00	0.00	HS	10.12	10.12M	601,619.62	732,122.37	32°39'8.528103"N	103°42'48.421696"W	32.65	-103.71	0.00	0.00	0.00	0.00	0.00
Yates	3,160.20	0.00	10.12	3,160.20	-492.00	0.00	0.00	0.00	0.00	1,636.00	1,636.00	0.00	0.00	0.00	HS	10.12	10.12M	601,619.62	732,122.37	32°39'8.528103"N	103°42'48.421696"W	32.65	-103.71	0.00	0.00	0.00	0.00	0.00
Capitan	3,351.20	0.00	10.12	3,351.20	-301.00	0.00	0.00	0.00	0.00	191.00	191.00	0.00	0.00	0.00	HS	10.12	10.12M	601,619.62	732,122.37	32°39'8.528103"N	103°42'48.421696"W	32.65	-103.71	0.00	0.00	0.00	0.00	0.00
Nudge 1° DLS	4,000.00	0.00	10.12	4,000.00	347.80	0.00	0.00	0.00	0.00	648.80	648.80	0.00	0.00	0.00	HS	10.12	10.12M	601,619.62	732,122.37	32°39'8.528103"N	103°42'48.421696"W	32.65	-103.71	0.00	0.00	0.00	0.00	0.00
Hold	4,506.76	5.07	10.12	4,506.10	853.90	-22.02	22.40	22.05	3.94	506.76	506.10	1.00	1.00	0.00	HS	10.12	10.12M	601,641.67	732,126.31	32°39'8.746021"N	103°42'48.374144"W	32.65	-103.71	22.40	10.12	2.06	5.07	0.00
Delaware Mtn Gr	5,530.86	5.07	10.12	5,526.20	1,874.00	-110.95	112.86	111.10	19.84	1,024.10	1,020.10	0.00	0.00	0.00	HS	10.12	10.12M	601,730.71	732,142.21	32°39'9.626209"N	103°42'48.182078"W	32.65	-103.71	112.86	10.12	2.76	5.07	0.02
Turn 1° DLS	6,185.22	5.07	10.12	6,178.00	2,525.80	-167.78	170.66	168.00	30.00	654.36	651.80	0.00	0.00	0.00	129.81R	90.00	90M	601,787.61	732,152.37	39°10.188613"N	103°42'48.059355"W	32.65	-103.71	170.66	10.12	2.94	5.07	0.03
Hold	6,835.51	5.07	90.00	6,826.44	3,174.24	-195.84	219.46	196.30	63.82	650.29	648.44	1.00	0.00	12.28	HS	90.00	90M	601,815.91	732,186.19	39°10.466706"N	103°42'47.661883"W	32.65	-103.71	206.42	18.01	3.41	11.57	0.03
Bone Spring	7,697.64	5.07	90.00	7,685.20	4,033.00	-195.30	295.65	196.30	140.01	862.13	858.76	0.00	0.00	0.00	HS	90.00	90M	601,815.91	732,262.37	39°10.462303"N	103°42'46.770802"W	32.65	-103.71	241.12	35.50	3.53	11.57	0.04
9.624999999999 in Casing	8,478.09	5.07	90.00	8,462.60	4,810.40	-194.80	364.62	196.30	208.98	780.45	777.40	0.00	0.00	0.00	HS	90.00	90M	601,815.91	732,331.34	39°10.458316"N	103°42'45.964144"W	32.65	-103.71	286.72	46.79	3.63	11.57	0.04
1st Bone Spring SS	8,839.11	5.07	90.00	8,822.20	5,170.00	-194.58	396.53	196.30	240.88	361.02	359.60	0.00	0.00	0.00	HS	90.00	90M	601,815.91	732,363.24	39°10.456471"N	103°42'45.591003"W	32.65	-103.71	310.74	50.82	3.66	11.57	0.04
KOP, Build 10° DLS	9,211.36	5.07	90.00	9,193.00	5,540.80	-194.34	429.43	196.30	273.78	372.26	370.80	0.00	0.00	0.00	89.66R	170.07	170.07M	601,815.91	732,396.14	39°10.454568"N	103°42'45.206245"W	32.65	-103.71	336.88	54.36	3.70	11.57	0.05
2nd Bone Spring SS	9,487.16	28.04	170.07	9,457.20	5,805.00	-129.06	500.92	131.20	297.60	275.80	264.20	10.00	8.33	29.03	10.84R	179.59	10.84R	601,750.81	732,419.96	39°9'9.809004"N	103°42'44.932046"W	32.65	-103.71	325.24	66.21	4.29	39.15	0.05
Landing Point	10,103.03	89.20	179.59	9,763.36	6,111.16	370.65	1,001.75	-368.31	327.72	615.87	306.16	10.00	9.93	1.55	32.57R	179.59	32.57R	601,251.33	732,450.08	39°4'.864955"N	103°42'44.613945"W	32.65	-103.71	493.01	138.34	5.02	100.74	0.10
Chisholm Diamondback 24-25 F	19,952.05	89.20	179.59	9,900.69	6,248.49	10,218.71	10,849.82	-10,216.12	398.09	9,849.02	137.33	0.00	0.00	0.00				591,404.02	732,520.44	37°27.423460"N	103°42'44.464235"W	32.62	-103.71	10,223.88	177.77	6.34	100.74	1.10

Survey Type: Def Plan

Survey Error Model: ISCWSA0 3 - D 95 % Confidence 2.7955 sigma
Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Expected Max Inclination (deg)	Survey Tool Type	Borehole / Survey
	1	0.000	4,000.000	1/100.000	17.500			NAL_MWD_1.0_DEG	Diamondback 24-25 Fed Com 2
	1	4,000.000	9,211.360	1/100.000	12.250			NAL_MWD_1.0_DEG	Diamondback 24-25 Fed Com 2
	1	9,211.360	10,103.030	1/100.000	8.750			NAL_MWD_1.0_DEG	Diamondback 24-25 Fed Com 2
	1	10,103.030	19,952.050	1/100.000	8.500			NAL_MWD_1.0_DEG	Diamondback 24-25 Fed Com 2

Schlumberger

Chisholm Diamondback 24-25 Fed Com 2BS 5H R2 IC 17Dec19 Proposal
Geodetic Report
Def Plan

CHISHOLM ENERGY

Report Date:	December 19, 2019 - 02:15 PM (UTC 0)	**Survey / DLS Computation:**	Minimum Curvature / Lubinski
Client:	Chisholm	**Vertical Section Azimuth:**	179.590 °(GRID North)
Field:	NM Lea County (NAD 83)	**Vertical Section Origin:**	0.000 ft, 0.000 ft
Structure / Slot:	Chisholm Diamondback 24-25 Fed Com 2BS	**TVD Reference Datum:**	RKB
Well:	Diamondback 24-25 Fed Com 2BS 5H	**TVD Reference Elevation:**	3652.200 ft above MSL
Borehole:	Diamondback 24-25 Fed Com 2BS 5H	**Seabed / Ground Elevation:**	3621.200 ft above MSL
UWI / API#:	Unknown / Unknown	**Magnetic Declination:**	6.802°
Survey Name:	Chisholm Diamondback 24-25 Fed Com 2BS 5H R2 IC 17Dec19	**Total Gravity Field Strength:**	998.5061mgn (9.80665 Based)
Survey Date:	December 18, 2019	**Gravity Model:**	GARM
Tort / AHD / DDI / ERD Ratio:	100.740 ° / 10849.816 ft / 6.343 / 1.096	**Total Magnetic Field Strength:**	48171.747 nT
Coordinate Reference System:	NAD83 New Mexico State Plane, Eastern Zone, US Feet	**Magnetic Dip Angle:**	60.551°
Location Lat / Long:	32°39'8.52810"N , 103°42'48.42170"W	**Declination Date:**	November 07, 2019
Location Grid N/E Y/X:	N 601619.620 ftUS , E 732122.370 ftUS	**Magnetic Declination Model:**	HDGM 2019
CRS Grid Convergence Angle:	0.3345°	**North Reference:**	Grid North
Grid Scale Factor:	0.99995077	**Grid Convergence Used:**	0.3345°
Version / Patch:	2019.8.0.1	**Total Corr Mag North->Grid North:**	6.4674°
		Local Coord Referenced To:	Well Head

Comments	MD (ft)	Incl (°)	Azim (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)	DLS (°/100ft)	BR (°/100ft)	TR (°/100ft)
SHL	0.00	0.00	10.12	0.00	-3,652.20	0.00	0.00	0.00	601,619.62	732,122.37	32.65	-103.71			
	100.00	0.00	10.12	100.00	-3,552.20	0.00	0.00	0.00	601,619.62	732,122.37	32.65	-103.71	0.00	0.00	0.00
	200.00	0.00	10.12	200.00	-3,452.20	0.00	0.00	0.00	601,619.62	732,122.37	32.65	-103.71	0.00	0.00	0.00
	300.00	0.00	10.12	300.00	-3,352.20	0.00	0.00	0.00	601,619.62	732,122.37	32.65	-103.71	0.00	0.00	0.00
	400.00	0.00	10.12	400.00	-3,252.20	0.00	0.00	0.00	601,619.62	732,122.37	32.65	-103.71	0.00	0.00	0.00
	500.00	0.00	10.12	500.00	-3,152.20	0.00	0.00	0.00	601,619.62	732,122.37	32.65	-103.71	0.00	0.00	0.00
	600.00	0.00	10.12	600.00	-3,052.20	0.00	0.00	0.00	601,619.62	732,122.37	32.65	-103.71	0.00	0.00	0.00
	700.00	0.00	10.12	700.00	-2,952.20	0.00	0.00	0.00	601,619.62	732,122.37	32.65	-103.71	0.00	0.00	0.00
	800.00	0.00	10.12	800.00	-2,852.20	0.00	0.00	0.00	601,619.62	732,122.37	32.65	-103.71	0.00	0.00	0.00
	900.00	0.00	10.12	900.00	-2,752.20	0.00	0.00	0.00	601,619.62	732,122.37	32.65	-103.71	0.00	0.00	0.00
	1,000.00	0.00	10.12	1,000.00	-2,652.20	0.00	0.00	0.00	601,619.62	732,122.37	32.65	-103.71	0.00	0.00	0.00
	1,100.00	0.00	10.12	1,100.00	-2,552.20	0.00	0.00	0.00	601,619.62	732,122.37	32.65	-103.71	0.00	0.00	0.00
	1,200.00	0.00	10.12	1,200.00	-2,452.20	0.00	0.00	0.00	601,619.62	732,122.37	32.65	-103.71	0.00	0.00	0.00
Rustler	1,213.20	0.00	10.12	1,213.20	-2,439.00	0.00	0.00	0.00	601,619.62	732,122.37	32.65	-103.71	0.00	0.00	0.00
	1,300.00	0.00	10.12	1,300.00	-2,352.20	0.00	0.00	0.00	601,619.62	732,122.37	32.65	-103.71	0.00	0.00	0.00
	1,400.00	0.00	10.12	1,400.00	-2,252.20	0.00	0.00	0.00	601,619.62	732,122.37	32.65	-103.71	0.00	0.00	0.00
	1,500.00	0.00	10.12	1,500.00	-2,152.20	0.00	0.00	0.00	601,619.62	732,122.37	32.65	-103.71	0.00	0.00	0.00
Salado	1,524.20	0.00	10.12	1,524.20	-2,128.00	0.00	0.00	0.00	601,619.62	732,122.37	32.65	-103.71	0.00	0.00	0.00
	1,600.00	0.00	10.12	1,600.00	-2,052.20	0.00	0.00	0.00	601,619.62	732,122.37	32.65	-103.71	0.00	0.00	0.00
	1,700.00	0.00	10.12	1,700.00	-1,952.20	0.00	0.00	0.00	601,619.62	732,122.37	32.65	-103.71	0.00	0.00	0.00
	1,800.00	0.00	10.12	1,800.00	-1,852.20	0.00	0.00	0.00	601,619.62	732,122.37	32.65	-103.71	0.00	0.00	0.00
	1,900.00	0.00	10.12	1,900.00	-1,752.20	0.00	0.00	0.00	601,619.62	732,122.37	32.65	-103.71	0.00	0.00	0.00
	2,000.00	0.00	10.12	2,000.00	-1,652.20	0.00	0.00	0.00	601,619.62	732,122.37	32.65	-103.71	0.00	0.00	0.00
	2,100.00	0.00	10.12	2,100.00	-1,552.20	0.00	0.00	0.00	601,619.62	732,122.37	32.65	-103.71	0.00	0.00	0.00
	2,200.00	0.00	10.12	2,200.00	-1,452.20	0.00	0.00	0.00	601,619.62	732,122.37	32.65	-103.71	0.00	0.00	0.00
	2,300.00	0.00	10.12	2,300.00	-1,352.20	0.00	0.00	0.00	601,619.62	732,122.37	32.65	-103.71	0.00	0.00	0.00
	2,400.00	0.00	10.12	2,400.00	-1,252.20	0.00	0.00	0.00	601,619.62	732,122.37	32.65	-103.71	0.00	0.00	0.00
	2,500.00	0.00	10.12	2,500.00	-1,152.20	0.00	0.00	0.00	601,619.62	732,122.37	32.65	-103.71	0.00	0.00	0.00
	2,600.00	0.00	10.12	2,600.00	-1,052.20	0.00	0.00	0.00	601,619.62	732,122.37	32.65	-103.71	0.00	0.00	0.00
	2,700.00	0.00	10.12	2,700.00	-952.20	0.00	0.00	0.00	601,619.62	732,122.37	32.65	-103.71	0.00	0.00	0.00
	2,800.00	0.00	10.12	2,800.00	-852.20	0.00	0.00	0.00	601,619.62	732,122.37	32.65	-103.71	0.00	0.00	0.00
	2,900.00	0.00	10.12	2,900.00	-752.20	0.00	0.00	0.00	601,619.62	732,122.37	32.65	-103.71	0.00	0.00	0.00
	3,000.00	0.00	10.12	3,000.00	-652.20	0.00	0.00	0.00	601,619.62	732,122.37	32.65	-103.71	0.00	0.00	0.00
	3,100.00	0.00	10.12	3,100.00	-552.20	0.00	0.00	0.00	601,619.62	732,122.37	32.65	-103.71	0.00	0.00	0.00
Yates	3,160.20	0.00	10.12	3,160.20	-492.00	0.00	0.00	0.00	601,619.62	732,122.37	32.65	-103.71	0.00	0.00	0.00
	3,200.00	0.00	10.12	3,200.00	-452.20	0.00	0.00	0.00	601,619.62	732,122.37	32.65	-103.71	0.00	0.00	0.00
	3,300.00	0.00	10.12	3,300.00	-352.20	0.00	0.00	0.00	601,619.62	732,122.37	32.65	-103.71	0.00	0.00	0.00
Capitan	3,351.20	0.00	10.12	3,351.20	-301.00	0.00	0.00	0.00	601,619.62	732,122.37	32.65	-103.71	0.00	0.00	0.00
	3,400.00	0.00	10.12	3,400.00	-252.20	0.00	0.00	0.00	601,619.62	732,122.37	32.65	-103.71	0.00	0.00	0.00
	3,500.00	0.00	10.12	3,500.00	-152.20	0.00	0.00	0.00	601,619.62	732,122.37	32.65	-103.71	0.00	0.00	0.00
	3,600.00	0.00	10.12	3,600.00	-52.20	0.00	0.00	0.00	601,619.62	732,122.37	32.65	-103.71	0.00	0.00	0.00
	3,700.00	0.00	10.12	3,700.00	47.80	0.00	0.00	0.00	601,619.62	732,122.37	32.65	-103.71	0.00	0.00	0.00
	3,800.00	0.00	10.12	3,800.00	147.80	0.00	0.00	0.00	601,619.62	732,122.37	32.65	-103.71	0.00	0.00	0.00
	3,900.00	0.00	10.12	3,900.00	247.80	0.00	0.00	0.00	601,619.62	732,122.37	32.65	-103.71	0.00	0.00	0.00
Nudge 1° DLS	4,000.00	0.00	10.12	4,000.00	347.80	0.00	0.00	0.00	601,619.62	732,122.37	32.65	-103.71	0.00	0.00	0.00
	4,100.00	1.00	10.12	4,099.99	447.79	-0.86	0.86	0.15	601,620.48	732,122.52	32.65	-103.71	1.00	1.00	0.00
	4,200.00	2.00	10.12	4,199.96	547.76	-3.43	3.44	0.61	601,623.06	732,122.98	32.65	-103.71	1.00	1.00	0.00
	4,300.00	3.00	10.12	4,299.86	647.66	-7.72	7.73	1.38	601,627.35	732,123.75	32.65	-103.71	1.00	1.00	0.00
	4,400.00	4.00	10.12	4,399.68	747.48	-13.72	13.74	2.45	601,633.36	732,124.82	32.65	-103.71	1.00	1.00	0.00
	4,500.00	5.00	10.12	4,499.37	847.17	-21.44	21.46	3.83	601,641.08	732,126.20	32.65	-103.71	1.00	1.00	0.00
Hold	4,506.76	5.07	10.12	4,506.10	853.90	-22.02	22.05	3.94	601,641.67	732,126.31	32.65	-103.71	1.00	1.00	0.00
	4,600.00	5.07	10.12	4,598.98	946.78	-30.12	30.15	5.38	601,649.77	732,127.75	32.65	-103.71	0.00	0.00	0.00
	4,700.00	5.07	10.12	4,698.58	1,046.38	-38.80	38.85	6.94	601,658.47	732,129.31	32.65	-103.71	0.00	0.00	0.00
	4,800.00	5.07	10.12	4,798.19	1,145.99	-47.48	47.55	8.49	601,667.16	732,130.86	32.65	-103.71	0.00	0.00	0.00
	4,900.00	5.07	10.12	4,897.80	1,245.60	-56.17	56.24	10.04	601,675.86	732,132.41	32.65	-103.71	0.00	0.00	0.00
	5,000.00	5.07	10.12	4,997.41	1,345.21	-64.85	64.94	11.60	601,684.55	732,133.97	32.65	-103.71	0.00	0.00	0.00
	5,100.00	5.07	10.12	5,097.02	1,444.82	-73.54	73.63	13.15	601,693.25	732,135.52	32.65	-103.71	0.00	0.00	0.00
	5,200.00	5.07	10.12	5,196.63	1,544.43	-82.22	82.33	14.70	601,701.94	732,137.07	32.65	-103.71	0.00	0.00	0.00
	5,300.00	5.07	10.12	5,296.24	1,644.04	-90.91	91.02	16.25	601,710.64	732,138.62	32.65	-103.71	0.00	0.00	0.00
	5,400.00	5.07	10.12	5,395.85	1,743.65	-99.59	99.72	17.81	601,719.33	732,140.18	32.65	-103.71	0.00	0.00	0.00
	5,500.00	5.07	10.12	5,495.46	1,843.26	-108.27	108.42	19.36	601,728.03	732,141.73	32.65	-103.71	0.00	0.00	0.00
Delaware Mtn Gr	5,530.86	5.07	10.12	5,526.20	1,874.00	-110.95	111.10	19.84	601,730.71	732,142.21	32.65	-103.71	0.00	0.00	0.00
	5,600.00	5.07	10.12	5,595.07	1,942.87	-116.96	117.11	20.91	601,736.73	732,143.28	32.65	-103.71	0.00	0.00	0.00
	5,700.00	5.07	10.12	5,694.68	2,042.48	-125.64	125.81	22.47	601,745.42	732,144.83	32.65	-103.71	0.00	0.00	0.00
	5,800.00	5.07	10.12	5,794.28	2,142.08	-134.33	134.50	24.02	601,754.12	732,146.39	32.65	-103.71	0.00	0.00	0.00
	5,900.00	5.07	10.12	5,893.89	2,241.69	-143.01	143.20	25.57	601,762.81	732,147.94	32.65	-103.71	0.00	0.00	0.00
	6,000.00	5.07	10.12	5,993.50	2,341.30	-151.70	151.89	27.12	601,771.51	732,149.49	32.65	-103.71	0.00	0.00	0.00
	6,100.00	5.07	10.12	6,093.11	2,440.91	-160.38	160.59	28.68	601,780.20	732,151.05	32.65	-103.71	0.00	0.00	0.00
Turn 1° DLS	6,185.22	5.07	10.12	6,178.00	2,525.80	-167.78	168.00	30.00	601,787.61	732,152.37	32.65	-103.71	0.00	0.00	0.00
	6,200.00	4.97	11.43	6,192.72	2,540.52	-169.05	169.27	30.24	601,788.88	732,152.61	32.65	-103.71	1.00	-0.63	8.86
	6,300.00	4.42	21.64	6,292.39	2,640.19	-176.87	177.10	32.52	601,796.71	732,154.89	32.65	-103.71	1.00	-0.55	10.20
	6,400.00	4.04	34.22	6,392.12	2,739.92	-183.34	183.60	35.93	601,803.21	732,158.29	32.65	-103.71	1.00	-0.38	12.58
	6,500.00	3.89	48.55	6,491.88	2,839.68	-188.47	188.76	40.45	601,808.37	732,162.82	32.65	-103.71	1.00	-0.15	14.33
	6,600.00	3.99	63.06	6,591.65	2,939.45	-192.25	192.59	46.10	601,812.20	732,168.47	32.65	-103.71	1.00	0.10	14.51
	6,700.00	4.33	76.08	6,691.38	3,039.18	-194.69	195.07	52.87	601,814.68	732,175.23	32.65	-103.71	1.00	0.34	13.02
	6,800.00	4.85	86.77	6,791.06	3,138.86	-195.78	196.22	60.75	601,815.83	732,183.12	32.65	-103.71	1.00	0.52	10.69
Hold	6,835.51	5.07	90.00	6,826.44	3,174.24	-195.84	196.30	63.82	601,815.91	732,186.19	32.65	-103.71	1.00	0.62	9.09
	6,900.00	5.07	90.00	6,890.68	3,238.48	-195.80	196.30	69.52	601,815.91	732,191.88	32.65	-103.71	0.00	0.00	0.00
	7,000.00	5.07	90.00	6,990.29	3,338.09	-195.74	196.30	78.36	601,815.91	732,200.72	32.65	-103.71	0.00	0.00	0.00
	7,100.00	5.07	90.00	7,089.90	3,437.70	-195.67	196.30	87.19	601,815.91	732,209.56	32.65	-103.71	0.00	0.00	0.00
	7,200.00	5.07	90.00	7,189.51	3,537.31	-195.61	196.30	96.03	601,815.91	732,218.40	32.65	-103.71	0.00	0.00	0.00
	7,300.00	5.07	90.00	7,289.11	3,636.91	-195.55	196.30	104.87	601,815.91	732,227.23	32.65	-103.71	0.00	0.00	0.00
	7,400.00	5.07	90.00	7,388.72	3,736.52	-195.49	196.30	113.70	601,815.91	732,236.07	32.65	-103.71	0.00	0.00	0.00
	7,500.00	5.07	90.00	7,488.33	3,836.13	-195.42	196.30	122.54	601,815.91	732,244.91	32.65	-103.71	0.00	0.00	0.00
	7,600.00	5.07	90.00	7,587.94	3,935.74	-195.36	196.30	131.38	601,815.91	732,253.74	32.65	-103.71	0.00	0.00	0.00
Bone Spring	7,697.64	5.07	90.00	7,685.20	4,033.00	-195.30	196.30	140.01	601,815.91	732,262.37	32.65	-103.71	0.00	0.00	0.00
	7,700.00	5.07	90.00	7,687.55	4,035.35	-195.30	196.30	140.22	601,815.91	732,262.58	32.65	-103.71	0.00	0.00	0.00
	7,800.00	5.07	90.00	7,787.16	4,134.96	-195.23	196.30	149.05	601,815.91	732,271.42	32.65	-103.71	0.00	0.00	0.00
	7,900.00	5.07	90.00	7,886.77	4,234.57	-195.17	196.30	157.89	601,815.91	732,280.25	32.65	-103.71	0.00	0.00	0.00
	8,000.00	5.07	90.00	7,986.38	4,334.18	-195.11	196.30	166.73	601,815.91	732,289.09	32.65	-103.71	0.00	0.00	0.00
	8,100.00	5.07	90.00	8,085.98	4,433.78	-195.04	196.30	175.57	601,815.91	732,297.93	32.65	-103.71	0.00	0.00	0.00
	8,200.00	5.07	90.00	8,185.59	4,533.39	-194.98	196.30	184.40	601,815.91	732,306.76	32.65	-103.71	0.00	0.00	0.00
	8,300.00	5.07	90.00	8,285.20	4,633.00	-194.92	196.30	193.24	601,815.91	732,315.60	32.65	-103.71	0.00	0.00	0.00
	8,400.00	5.07	90.00	8,384.81	4,732.61	-194.85	196.30	202.08	601,815.91	732,324.44	32.65	-103.71	0.00	0.00	0.00
	8,500.00	5.07	90.00	8,484.42	4,832.22	-194.79	196.30	210.91	601,815.91	732,333.27	32.65	-103.71	0.00	0.00	0.00
	8,600.00	5.07	90.00	8,584.03	4,931.83	-194.73	196.30	219.75	601,815.91	732,342.11	32.65	-103.71	0.00	0.00	0.00
	8,700.00	5.07	90.00	8,683.64	5,031.44	-194.66	196.30	228.59	601,815.91	732,350.95	32.65	-103.71	0.00	0.00	0.00
	8,800.00	5.07	90.00	8,783.25	5,131.05	-194.60	196.30	237.43	601,815.91	732,359.78	32.65	-103.71	0.00	0.00	0.00
1st Bone Spring SS	8,839.11	5.07	90.00	8,822.20	5,170.00	-194.58	196.30	240.88	601,815.91	732,363.24	32.65	-103.71	0.00	0.00	0.00
	8,900.00	5.07	90.00	8,882.85	5,230.65	-194.54	196.30	246.26	601,815.91	732,368.62	32.65	-103.71	0.00	0.00	0.00

Comments	MD (ft)	Incl (°)	Azim (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)	DLS (°/100ft)	BR (°/100ft)	TR (°/100ft)
	9,000.00	5.07	90.00	8,982.46	5,330.26	-194.47	196.30	255.10	601,815.91	732,377.46	32.65	-103.71	0.00	0.00	0.00
	9,100.00	5.07	90.00	9,082.07	5,429.87	-194.41	196.30	263.94	601,815.91	732,386.29	32.65	-103.71	0.00	0.00	0.00
	9,200.00	5.07	90.00	9,181.68	5,529.48	-194.35	196.30	272.78	601,815.91	732,395.13	32.65	-103.71	0.00	0.00	0.00
KOP, Build 10° DLS	9,211.36	5.07	90.00	9,193.00	5,540.80	-194.34	196.30	273.78	601,815.91	732,396.14	32.65	-103.71	0.00	0.00	0.00
	9,300.00	10.23	150.21	9,280.93	5,628.73	-187.44	189.46	281.62	601,809.07	732,403.98	32.65	-103.71	10.00	5.82	67.92
	9,400.00	19.54	165.18	9,377.51	5,725.31	-163.45	165.53	290.33	601,785.14	732,412.69	32.65	-103.71	10.00	9.31	14.98
2nd Bone Spring SS	9,487.16	28.04	170.07	9,457.20	5,805.00	-129.06	131.20	297.60	601,750.81	732,419.96	32.65	-103.71	10.00	9.75	5.61
	9,500.00	29.30	170.56	9,468.46	5,816.26	-122.99	125.13	298.64	601,744.74	732,420.99	32.65	-103.71	10.00	9.83	3.84
	9,600.00	39.17	173.41	9,551.04	5,898.84	-67.28	69.48	306.30	601,689.09	732,428.65	32.65	-103.71	10.00	9.87	2.85
	9,700.00	49.09	175.25	9,622.73	5,970.53	1.97	0.27	313.07	601,619.89	732,435.42	32.65	-103.71	10.00	9.92	1.84
	9,800.00	59.03	176.61	9,681.35	6,029.15	82.66	-80.39	318.74	601,539.24	732,441.10	32.65	-103.71	10.00	9.94	1.36
	9,900.00	68.98	177.71	9,725.13	6,072.93	172.35	-170.05	323.16	601,449.58	732,445.51	32.65	-103.71	10.00	9.95	1.10
	10,000.00	78.94	178.67	9,752.73	6,100.53	268.31	-265.98	326.17	601,353.65	732,448.53	32.65	-103.71	10.00	9.96	0.96
	10,100.00	88.90	179.56	9,763.31	6,111.11	367.62	-365.28	327.70	601,254.36	732,450.05	32.65	-103.71	10.00	9.96	0.90
Landing Point	10,103.03	89.20	179.59	9,763.36	6,111.16	370.65	-368.31	327.72	601,251.33	732,450.08	32.65	-103.71	10.00	9.96	0.88
	10,200.00	89.20	179.59	9,764.72	6,112.52	467.61	-465.27	328.42	601,154.38	732,450.77	32.65	-103.71	0.00	0.00	0.00
	10,300.00	89.20	179.59	9,766.11	6,113.91	567.60	-565.26	329.13	601,054.39	732,451.49	32.65	-103.71	0.00	0.00	0.00
	10,400.00	89.20	179.59	9,767.51	6,115.31	667.59	-665.24	329.85	600,954.41	732,452.20	32.65	-103.71	0.00	0.00	0.00
	10,500.00	89.20	179.59	9,768.90	6,116.70	767.58	-765.23	330.56	600,854.43	732,452.92	32.65	-103.71	0.00	0.00	0.00
	10,600.00	89.20	179.59	9,770.30	6,118.10	867.57	-865.22	331.28	600,754.44	732,453.63	32.65	-103.71	0.00	0.00	0.00
	10,700.00	89.20	179.59	9,771.70	6,119.50	967.56	-965.21	332.00	600,654.46	732,454.35	32.65	-103.71	0.00	0.00	0.00
	10,800.00	89.20	179.59	9,773.09	6,120.89	1,067.55	-1,065.19	332.71	600,554.48	732,455.06	32.65	-103.71	0.00	0.00	0.00
	10,900.00	89.20	179.59	9,774.49	6,122.29	1,167.54	-1,165.18	333.43	600,454.50	732,455.78	32.65	-103.71	0.00	0.00	0.00
	11,000.00	89.20	179.59	9,775.88	6,123.68	1,267.53	-1,265.17	334.14	600,354.51	732,456.49	32.65	-103.71	0.00	0.00	0.00
	11,100.00	89.20	179.59	9,777.28	6,125.08	1,367.52	-1,365.16	334.86	600,254.53	732,457.21	32.65	-103.71	0.00	0.00	0.00
	11,200.00	89.20	179.59	9,778.68	6,126.48	1,467.51	-1,465.15	335.57	600,154.55	732,457.93	32.65	-103.71	0.00	0.00	0.00
	11,300.00	89.20	179.59	9,780.07	6,127.87	1,567.50	-1,565.13	336.29	600,054.57	732,458.64	32.65	-103.71	0.00	0.00	0.00
	11,400.00	89.20	179.59	9,781.47	6,129.27	1,667.49	-1,665.12	337.00	599,954.58	732,459.36	32.65	-103.71	0.00	0.00	0.00
	11,500.00	89.20	179.59	9,782.86	6,130.66	1,767.48	-1,765.11	337.72	599,854.60	732,460.07	32.65	-103.71	0.00	0.00	0.00
	11,600.00	89.20	179.59	9,784.26	6,132.06	1,867.47	-1,865.10	338.43	599,754.62	732,460.79	32.65	-103.71	0.00	0.00	0.00
	11,700.00	89.20	179.59	9,785.65	6,133.45	1,967.46	-1,965.08	339.15	599,654.64	732,461.50	32.65	-103.71	0.00	0.00	0.00
	11,800.00	89.20	179.59	9,787.05	6,134.85	2,067.45	-2,065.07	339.86	599,554.65	732,462.22	32.65	-103.71	0.00	0.00	0.00
	11,900.00	89.20	179.59	9,788.44	6,136.24	2,167.44	-2,165.06	340.58	599,454.67	732,462.93	32.65	-103.71	0.00	0.00	0.00
	12,000.00	89.20	179.59	9,789.84	6,137.64	2,267.43	-2,265.05	341.30	599,354.69	732,463.65	32.65	-103.71	0.00	0.00	0.00
	12,100.00	89.20	179.59	9,791.24	6,139.04	2,367.42	-2,365.03	342.01	599,254.71	732,464.36	32.65	-103.71	0.00	0.00	0.00
	12,200.00	89.20	179.59	9,792.63	6,140.43	2,467.41	-2,465.02	342.73	599,154.72	732,465.08	32.65	-103.71	0.00	0.00	0.00
	12,300.00	89.20	179.59	9,794.03	6,141.83	2,567.40	-2,565.01	343.44	599,054.74	732,465.79	32.65	-103.71	0.00	0.00	0.00
	12,400.00	89.20	179.59	9,795.42	6,143.22	2,667.39	-2,665.00	344.16	598,954.76	732,466.51	32.65	-103.71	0.00	0.00	0.00
	12,500.00	89.20	179.59	9,796.82	6,144.62	2,767.38	-2,764.99	344.87	598,854.78	732,467.22	32.64	-103.71	0.00	0.00	0.00
	12,600.00	89.20	179.59	9,798.21	6,146.01	2,867.37	-2,864.97	345.59	598,754.79	732,467.94	32.64	-103.71	0.00	0.00	0.00
	12,700.00	89.20	179.59	9,799.61	6,147.41	2,967.36	-2,964.96	346.30	598,654.81	732,468.65	32.64	-103.71	0.00	0.00	0.00
	12,800.00	89.20	179.59	9,801.00	6,148.80	3,067.35	-3,064.95	347.02	598,554.83	732,469.37	32.64	-103.71	0.00	0.00	0.00
	12,900.00	89.20	179.59	9,802.40	6,150.20	3,167.34	-3,164.94	347.73	598,454.85	732,470.08	32.64	-103.71	0.00	0.00	0.00
	13,000.00	89.20	179.59	9,803.79	6,151.59	3,267.33	-3,264.92	348.45	598,354.86	732,470.80	32.64	-103.71	0.00	0.00	0.00
	13,100.00	89.20	179.59	9,805.19	6,152.99	3,367.32	-3,364.91	349.16	598,254.88	732,471.51	32.64	-103.71	0.00	0.00	0.00
	13,200.00	89.20	179.59	9,806.58	6,154.38	3,467.31	-3,464.90	349.88	598,154.90	732,472.23	32.64	-103.71	0.00	0.00	0.00
	13,300.00	89.20	179.59	9,807.98	6,155.78	3,567.30	-3,564.89	350.59	598,054.92	732,472.94	32.64	-103.71	0.00	0.00	0.00
	13,400.00	89.20	179.59	9,809.37	6,157.17	3,667.30	-3,664.88	351.31	597,954.93	732,473.66	32.64	-103.71	0.00	0.00	0.00
	13,500.00	89.20	179.59	9,810.77	6,158.57	3,767.29	-3,764.86	352.02	597,854.95	732,474.37	32.64	-103.71	0.00	0.00	0.00
	13,600.00	89.20	179.59	9,812.16	6,159.96	3,867.28	-3,864.85	352.74	597,754.97	732,475.09	32.64	-103.71	0.00	0.00	0.00
	13,700.00	89.20	179.59	9,813.56	6,161.36	3,967.27	-3,964.84	353.45	597,654.98	732,475.80	32.64	-103.71	0.00	0.00	0.00
	13,800.00	89.20	179.59	9,814.95	6,162.75	4,067.26	-4,064.83	354.16	597,555.00	732,476.52	32.64	-103.71	0.00	0.00	0.00
	13,900.00	89.20	179.59	9,816.35	6,164.15	4,167.25	-4,164.81	354.88	597,455.02	732,477.23	32.64	-103.71	0.00	0.00	0.00
	14,000.00	89.20	179.59	9,817.74	6,165.54	4,267.24	-4,264.80	355.59	597,355.04	732,477.95	32.64	-103.71	0.00	0.00	0.00
	14,100.00	89.20	179.59	9,819.14	6,166.94	4,367.23	-4,364.79	356.31	597,255.05	732,478.66	32.64	-103.71	0.00	0.00	0.00
	14,200.00	89.20	179.59	9,820.53	6,168.33	4,467.22	-4,464.78	357.02	597,155.07	732,479.38	32.64	-103.71	0.00	0.00	0.00
	14,300.00	89.20	179.59	9,821.93	6,169.73	4,567.21	-4,564.76	357.74	597,055.09	732,480.09	32.64	-103.71	0.00	0.00	0.00
	14,400.00	89.20	179.59	9,823.32	6,171.12	4,667.20	-4,664.75	358.45	596,955.11	732,480.80	32.64	-103.71	0.00	0.00	0.00
	14,500.00	89.20	179.59	9,824.72	6,172.52	4,767.19	-4,764.74	359.17	596,855.12	732,481.52	32.64	-103.71	0.00	0.00	0.00
	14,600.00	89.20	179.59	9,826.11	6,173.91	4,867.18	-4,864.73	359.88	596,755.14	732,482.23	32.64	-103.71	0.00	0.00	0.00
	14,700.00	89.20	179.59	9,827.50	6,175.30	4,967.17	-4,964.72	360.60	596,655.16	732,482.95	32.64	-103.71	0.00	0.00	0.00
	14,800.00	89.20	179.59	9,828.90	6,176.70	5,067.16	-5,064.70	361.31	596,555.18	732,483.66	32.64	-103.71	0.00	0.00	0.00
	14,900.00	89.20	179.59	9,830.29	6,178.09	5,167.15	-5,164.69	362.03	596,455.19	732,484.38	32.64	-103.71	0.00	0.00	0.00
	15,000.00	89.20	179.59	9,831.69	6,179.49	5,267.14	-5,264.68	362.74	596,355.21	732,485.09	32.64	-103.71	0.00	0.00	0.00
	15,100.00	89.20	179.59	9,833.08	6,180.88	5,367.13	-5,364.67	363.45	596,255.23	732,485.81	32.64	-103.71	0.00	0.00	0.00
	15,200.00	89.20	179.59	9,834.48	6,182.28	5,467.12	-5,464.65	364.17	596,155.25	732,486.52	32.64	-103.71	0.00	0.00	0.00
	15,300.00	89.20	179.59	9,835.87	6,183.67	5,567.11	-5,564.64	364.88	596,055.26	732,487.23	32.64	-103.71	0.00	0.00	0.00
	15,400.00	89.20	179.59	9,837.27	6,185.07	5,667.10	-5,664.63	365.60	595,955.28	732,487.95	32.64	-103.71	0.00	0.00	0.00
	15,500.00	89.20	179.59	9,838.66	6,186.46	5,767.09	-5,764.62	366.31	595,855.30	732,488.66	32.64	-103.71	0.00	0.00	0.00
	15,600.00	89.20	179.59	9,840.05	6,187.85	5,867.08	-5,864.61	367.03	595,755.32	732,489.38	32.64	-103.71	0.00	0.00	0.00
	15,700.00	89.20	179.59	9,841.45	6,189.25	5,967.07	-5,964.59	367.74	595,655.33	732,490.09	32.64	-103.71	0.00	0.00	0.00
	15,800.00	89.20	179.59	9,842.84	6,190.64	6,067.06	-6,064.58	368.45	595,555.35	732,490.81	32.64	-103.71	0.00	0.00	0.00
	15,900.00	89.20	179.59	9,844.24	6,192.04	6,167.05	-6,164.57	369.17	595,455.37	732,491.52	32.64	-103.71	0.00	0.00	0.00
	16,000.00	89.20	179.59	9,845.63	6,193.43	6,267.04	-6,264.56	369.88	595,355.38	732,492.23	32.64	-103.71	0.00	0.00	0.00
	16,100.00	89.20	179.59	9,847.02	6,194.82	6,367.03	-6,364.54	370.60	595,255.40	732,492.95	32.63	-103.71	0.00	0.00	0.00
	16,200.00	89.20	179.59	9,848.42	6,196.22	6,467.02	-6,464.53	371.31	595,155.42	732,493.66	32.63	-103.71	0.00	0.00	0.00
	16,300.00	89.20	179.59	9,849.81	6,197.61	6,567.01	-6,564.52	372.03	595,055.44	732,494.38	32.63	-103.71	0.00	0.00	0.00
	16,400.00	89.20	179.59	9,851.20	6,199.00	6,667.00	-6,664.51	372.74	594,955.45	732,495.09	32.63	-103.71	0.00	0.00	0.00
	16,500.00	89.20	179.59	9,852.60	6,200.40	6,766.99	-6,764.49	373.45	594,855.47	732,495.81	32.63	-103.71	0.00	0.00	0.00
	16,600.00	89.20	179.59	9,853.99	6,201.79	6,866.98	-6,864.48	374.17	594,755.49	732,496.52	32.63	-103.71	0.00	0.00	0.00
	16,700.00	89.20	179.59	9,855.39	6,203.19	6,966.97	-6,964.47	374.88	594,655.51	732,497.23	32.63	-103.71	0.00	0.00	0.00
	16,800.00	89.20	179.59	9,856.78	6,204.58	7,066.96	-7,064.46	375.60	594,555.52	732,497.95	32.63	-103.71	0.00	0.00	0.00
	16,900.00	89.20	179.59	9,858.17	6,205.97	7,166.95	-7,164.45	376.31	594,455.54	732,498.66	32.63	-103.71	0.00	0.00	0.00
	17,000.00	89.20	179.59	9,859.57	6,207.37	7,266.95	-7,264.43	377.02	594,355.56	732,499.38	32.63	-103.71	0.00	0.00	0.00
	17,100.00	89.20	179.59	9,860.96	6,208.76	7,366.94	-7,364.42	377.74	594,255.58	732,500.09	32.63	-103.71	0.00	0.00	0.00
	17,200.00	89.20	179.59	9,862.35	6,210.15	7,466.93	-7,464.41	378.45	594,155.59	732,500.80	32.63	-103.71	0.00	0.00	0.00
	17,300.00	89.20	179.59	9,863.75	6,211.55	7,566.92	-7,564.40	379.17	594,055.61	732,501.52	32.63	-103.71	0.00	0.00	0.00
	17,400.00	89.20	179.59	9,865.14	6,212.94	7,666.91	-7,664.38	379.88	593,955.63	732,502.23	32.63	-103.71	0.00	0.00	0.00
	17,500.00	89.20	179.59	9,866.53	6,214.33	7,766.90	-7,764.37	380.59	593,855.65	732,502.94	32.63	-103.71	0.00	0.00	0.00
	17,600.00	89.20	179.59	9,867.93	6,215.73	7,866.89	-7,864.36	381.31	593,755.66	732,503.66	32.63	-103.71	0.00	0.00	0.00
	17,700.00	89.20	179.59	9,869.32	6,217.12	7,966.88	-7,964.35	382.02	593,655.68	732,504.37	32.63	-103.71	0.00	0.00	0.00
	17,800.00	89.20	179.59	9,870.71	6,218.51	8,066.87	-8,064.34	382.74	593,555.70	732,505.09	32.63	-103.71	0.00	0.00	0.00
	17,900.00	89.20	179.59	9,872.11	6,219.91	8,166.86	-8,164.32	383.45	593,455.72	732,505.80	32.63	-103.71	0.00	0.00	0.00
	18,000.00	89.20	179.59	9,873.50	6,221.30	8,266.85	-8,264.31	384.16	593,355.73	732,506.51	32.63	-103.71	0.00	0.00	0.00
	18,100.00	89.20	179.59	9,874.89	6,222.69	8,366.84	-8,364.30	384.88	593,255.75	732,507.23	32.63	-103.71	0.00	0.00	0.00
	18,200.00	89.20	179.59	9,876.29	6,224.09	8,466.83	-8,464.29	385.59	593,155.77	732,507.94	32.63	-103.71	0.00	0.00	0.00
	18,300.00	89.20	179.59	9,877.68	6,225.48	8,566.82	-8,564.27	386.30	593,055.78	732,508.65	32.63	-103.71	0.00	0.00	0.00
	18,400.00	89.20	179.59	9,879.07	6,226.87	8,666.81	-8,664.26	387.02	592,955.80	732,509.37	32.63	-103.71	0.00	0.00	0.00
	18,500.00	89.20	179.59	9,880.47	6,228.27	8,766.80	-8,764.25	387.73	592,855.82	732,510.08	32.63	-103.71	0.00	0.00	0.00
	18,600.00	89.20	179.59	9,881.86	6,229.66	8,866.79	-8,864.24	388.44	592,755.84	732,510.79	32.63	-103.71	0.00	0.00	0.00
	18,700.00	89.20	179.59	9,883.25	6,231.05	8,966.78	-8,964.23	389.16	592,655.85	732,511.51	32.63	-103.71	0.00	0.00	0.00
	18,800.00	89.20	179.59	9,884.65	6,232.45	9,066.77	-9,064.21	389.87	592,555.87	732,512.22	32.63	-103.71	0.00	0.00	0.00
	18,900.00	89.20	179.59	9,886.04	6,233.84	9,166.76	-9,164.20	390.59	592,455.89	732,512.94	32.63	-103.71	0.00	0.00	0.00
	19,000.00	89.20	179.59	9,887.43	6,235.23	9,266.75	-9,264.19	391.30	592,355.91	732,513.65	32.63	-103.71	0.00	0.00	0.00
	19,100.00	89.20	179.59	9,888.82	6,236.62	9,366.74	-9,364.18	392.01	592,255.92	732,514.36	32.63	-103.71	0.00	0.00	0.00
	19,200.00	89.20	179.59	9,890.22	6,238.02	9,466.73	-9,464.16	392.73	592,155.94	732,515.08	32.63	-103.71	0.00	0.00	0.00
	19,300.00	89.20	179.59	9,891.61	6,239.41	9,566.72	-9,564.15	393.44	592,055.96	732,515.79	32.63	-103.71	0.00	0.00	0.00
	19,400.00	89.20	179.59	9,893.00	6,240.80	9,666.71	-9,664.14	394.15	591,955.98	732,516.50	32.63	-103.71	0.00	0.00	0.00
	19,500.00	89.20	179.59	9,894.39	6,242.19	9,766.70	-9,764.13	394.87	591,855.99	732,517.22	32.63	-103.71	0.00	0.00	0.00
	19,600.00	89.20	179.59	9,895.79	6,243.59	9,866.69	-9,864.11	395.58	591,756.01	732,517.93	32.63	-103.71	0.00	0.00	0.00
	19,700.00	89.20	179.59	9,897.18	6,244.98	9,966.68	-9,964.10	396.29	591,656.03	732,518.64	32.62	-103.71	0.00	0.00	0.00
	19,800.00	89.20	179.59	9,898.57	6,246.37	10,066.67	-10,064.09	397.01	591,556.05	732,519.36	32.62	-103.71	0.00	0.00	0.00
	19,900.00	89.20	179.59	9,899.96	6,247.76	10,166.66	-10,164.08	397.72	591,456.06	732,520.07	32.62	-103.71	0.00	0.00	0.00
Chisholm Diamondback 24-25 Fe	19,952.05	89.20	179.59	9,900.69	6,248.49	10,218.71	-10,216.12	398.09	591,404.02	732,520.44	32.62	-103.71	0.00	0.00	0.00

Survey Type: Def Plan

Survey Error Model: ISCWSA0 3 - D 95 % Confidence 2.7955 sigma

Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Expected Max Inclination (deg)	Survey Tool Type	Borehole / Survey

Comments	MD (ft)	Incl (°)	Azim (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	NS (ft)	EW (ft)	Northing (ftUS)	Easting (ftUS)	Latitude (°)	Longitude (°)	DLS (°/100ft)	BR (°/100ft)	TR (°/100ft)
		1	0.000	4,000.000	1/100.000	17.500			NAL_MWD_1.0_DEG		Diamondback 24-25 Fed Com 2E				
		1	4,000.000	9,211.360	1/100.000	12.250			NAL_MWD_1.0_DEG		Diamondback 24-25 Fed Com 2E				
		1	9,211.360	10,103.030	1/100.000	8.750			NAL_MWD_1.0_DEG		Diamondback 24-25 Fed Com 2E				
		1	10,103.030	19,952.050	1/100.000	8.500			NAL_MWD_1.0_DEG		Diamondback 24-25 Fed Com 2E				

Schlumberger

Chisholm Diamondback 24-25 Fed Com 2BS 5H R2 IC 17Dec19 Proposal
Geodetic Report
Def Plan

Report Date:	December 19, 2019 - 02:15 PM (UTC 0)
Client:	Chisholm
Field:	NM Lea County (NAD 83)
Structure / Slot:	Chisholm Diamondback 24-25 Fed Com 2BS
Well:	Diamondback 24-25 Fed Com 2BS 5H
Borehole:	Diamondback 24-25 Fed Com 2BS 5H
UWI / API#:	Unknown / Unknown
Survey Name:	Chisholm Diamondback 24-25 Fed Com 2BS 5H R2 IC 17Dec19
Survey Date:	December 18, 2019
Tort / AHD / DDI / ERD Ratio:	100.740 ° / 10849.816 ft / 6.343 / 1.096
Coordinate Reference System:	NAD83 New Mexico State Plane, Eastern Zone, US Feet
Location Lat / Long:	32°39'8.52810"N , 103°42'48.42170"W
Location Grid N/E Y/X:	N 601619.620 ftUS , E 732122.370 ftUS
CRS Grid Convergence Angle:	0.3345°
Grid Scale Factor:	0.99995077
Version / Patch:	2019.8.0.1

Survey / DLS Computation:	Minimum Curvature / Lubinski
Vertical Section Azimuth:	179.590 °(GRID North)
Vertical Section Origin:	0.000 ft, 0.000 ft
TVD Reference Datum:	RKB
TVD Reference Elevation:	3652.200 ft above MSL
Seabed / Ground Elevation:	3621.200 ft above MSL
Magnetic Declination:	6.802°
Total Gravity Field Strength:	998.5061mgn (9.80665 Based)
Gravity Model:	GARM
Total Magnetic Field Strength:	48171.747 nT
Magnetic Dip Angle:	60.551°
Declination Date:	November 07, 2019
Magnetic Declination Model:	HDGM 2019
North Reference:	Grid North
Grid Convergence Used:	0.3345°
Total Corr Mag North->Grid North:	6.4674°
Local Coord Referenced To:	Well Head

Comments	MD (ft)	Incl (°)	Azim (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	AHD (ft)	NS (ft)	EW (ft)	DeltaMD (ft)	DeltaTVD (ft)	DLS (°/100ft)	BR (°/100ft)	TR (°/100ft)	GTF (°)	MTF (°)	TF (°)	Northing (ftUS)	Easting (ftUS)	Latitude (° ' ")	Longitude (° ' ")	Latitude (°)	Longitude (°)	Closure (ft)	Closure Azimuth (°)	Directional Difficulty Index	Tortuosity (°)	ERD Ratio
SHL	0.00	0.00	10.12	0.00	-3.652.20	0.00	0.00	0.00	0.00						HS	10.12	10.12M	601.619.62	732.122.37	°39'8.528103"N	2'48.421696"W	32.65	-103.71			0.00	0.00	0.00
	100.00	0.00	10.12	100.00	-3.552.20	0.00	0.00	0.00	0.00	100.00	100.00	0.00	0.00	0.00	HS	10.12	10.12M	601.619.62	732.122.37	°39'8.528103"N	2'48.421696"W	32.65	-103.71	0.00	0.00	0.00	0.00	0.00
	200.00	0.00	10.12	200.00	-3.452.20	0.00	0.00	0.00	0.00	100.00	100.00	0.00	0.00	0.00	HS	10.12	10.12M	601.619.62	732.122.37	°39'8.528103"N	2'48.421696"W	32.65	-103.71	0.00	0.00	0.00	0.00	0.00
	300.00	0.00	10.12	300.00	-3.352.20	0.00	0.00	0.00	0.00	100.00	100.00	0.00	0.00	0.00	HS	10.12	10.12M	601.619.62	732.122.37	°39'8.528103"N	2'48.421696"W	32.65	-103.71	0.00	0.00	0.00	0.00	0.00
	400.00	0.00	10.12	400.00	-3.252.20	0.00	0.00	0.00	0.00	100.00	100.00	0.00	0.00	0.00	HS	10.12	10.12M	601.619.62	732.122.37	°39'8.528103"N	2'48.421696"W	32.65	-103.71	0.00	0.00	0.00	0.00	0.00
	500.00	0.00	10.12	500.00	-3.152.20	0.00	0.00	0.00	0.00	100.00	100.00	0.00	0.00	0.00	HS	10.12	10.12M	601.619.62	732.122.37	°39'8.528103"N	2'48.421696"W	32.65	-103.71	0.00	0.00	0.00	0.00	0.00
	600.00	0.00	10.12	600.00	-3.052.20	0.00	0.00	0.00	0.00	100.00	100.00	0.00	0.00	0.00	HS	10.12	10.12M	601.619.62	732.122.37	°39'8.528103"N	2'48.421696"W	32.65	-103.71	0.00	0.00	0.00	0.00	0.00
	700.00	0.00	10.12	700.00	-2.952.20	0.00	0.00	0.00	0.00	100.00	100.00	0.00	0.00	0.00	HS	10.12	10.12M	601.619.62	732.122.37	°39'8.528103"N	2'48.421696"W	32.65	-103.71	0.00	0.00	0.00	0.00	0.00
	800.00	0.00	10.12	800.00	-2.852.20	0.00	0.00	0.00	0.00	100.00	100.00	0.00	0.00	0.00	HS	10.12	10.12M	601.619.62	732.122.37	°39'8.528103"N	2'48.421696"W	32.65	-103.71	0.00	0.00	0.00	0.00	0.00
	900.00	0.00	10.12	900.00	-2.752.20	0.00	0.00	0.00	0.00	100.00	100.00	0.00	0.00	0.00	HS	10.12	10.12M	601.619.62	732.122.37	°39'8.528103"N	2'48.421696"W	32.65	-103.71	0.00	0.00	0.00	0.00	0.00
	1.000.00	0.00	10.12	1.000.00	-2.652.20	0.00	0.00	0.00	0.00	100.00	100.00	0.00	0.00	0.00	HS	10.12	10.12M	601.619.62	732.122.37	°39'8.528103"N	2'48.421696"W	32.65	-103.71	0.00	0.00	0.00	0.00	0.00
	1.100.00	0.00	10.12	1.100.00	-2.552.20	0.00	0.00	0.00	0.00	100.00	100.00	0.00	0.00	0.00	HS	10.12	10.12M	601.619.62	732.122.37	°39'8.528103"N	2'48.421696"W	32.65	-103.71	0.00	0.00	0.00	0.00	0.00
	1.200.00	0.00	10.12	1.200.00	-2.452.20	0.00	0.00	0.00	0.00	100.00	100.00	0.00	0.00	0.00	HS	10.12	10.12M	601.619.62	732.122.37	°39'8.528103"N	2'48.421696"W	32.65	-103.71	0.00	0.00	0.00	0.00	0.00
Rustler	1.213.20	0.00	10.12	1.213.20	-2.439.00	0.00	0.00	0.00	0.00	13.20	13.20	0.00	0.00	0.00	HS	10.12	10.12M	601.619.62	732.122.37	°39'8.528103"N	2'48.421696"W	32.65	-103.71	0.00	0.00	0.00	0.00	0.00
	1.300.00	0.00	10.12	1.300.00	-2.352.20	0.00	0.00	0.00	0.00	86.80	86.80	0.00	0.00	0.00	HS	10.12	10.12M	601.619.62	732.122.37	°39'8.528103"N	2'48.421696"W	32.65	-103.71	0.00	0.00	0.00	0.00	0.00
	1.400.00	0.00	10.12	1.400.00	-2.252.20	0.00	0.00	0.00	0.00	100.00	100.00	0.00	0.00	0.00	HS	10.12	10.12M	601.619.62	732.122.37	°39'8.528103"N	2'48.421696"W	32.65	-103.71	0.00	0.00	0.00	0.00	0.00
	1.500.00	0.00	10.12	1.500.00	-2.152.20	0.00	0.00	0.00	0.00	100.00	100.00	0.00	0.00	0.00	HS	10.12	10.12M	601.619.62	732.122.37	°39'8.528103"N	2'48.421696"W	32.65	-103.71	0.00	0.00	0.00	0.00	0.00
13.375 in Casing	1.500.10	0.00	10.12	1.500.10	-2.152.10	0.00	0.00	0.00	0.00	0.10	0.10	0.00	0.00	0.00	HS	10.12	10.12M	601.619.62	732.122.37	°39'8.528103"N	2'48.421696"W	32.65	-103.71	0.00	0.00	0.00	0.00	0.00
Salado	1.524.20	0.00	10.12	1.524.20	-2.128.00	0.00	0.00	0.00	0.00	24.10	24.10	0.00	0.00	0.00	HS	10.12	10.12M	601.619.62	732.122.37	°39'8.528103"N	2'48.421696"W	32.65	-103.71	0.00	0.00	0.00	0.00	0.00
	1.600.00	0.00	10.12	1.600.00	-2.052.20	0.00	0.00	0.00	0.00	75.80	75.80	0.00	0.00	0.00	HS	10.12	10.12M	601.619.62	732.122.37	°39'8.528103"N	2'48.421696"W	32.65	-103.71	0.00	0.00	0.00	0.00	0.00
	1.700.00	0.00	10.12	1.700.00	-1.952.20	0.00	0.00	0.00	0.00	100.00	100.00	0.00	0.00	0.00	HS	10.12	10.12M	601.619.62	732.122.37	°39'8.528103"N	2'48.421696"W	32.65	-103.71	0.00	0.00	0.00	0.00	0.00
	1.800.00	0.00	10.12	1.800.00	-1.852.20	0.00	0.00	0.00	0.00	100.00	100.00	0.00	0.00	0.00	HS	10.12	10.12M	601.619.62	732.122.37	°39'8.528103"N	2'48.421696"W	32.65	-103.71	0.00	0.00	0.00	0.00	0.00
	1.900.00	0.00	10.12	1.900.00	-1.752.20	0.00	0.00	0.00	0.00	100.00	100.00	0.00	0.00	0.00	HS	10.12	10.12M	601.619.62	732.122.37	°39'8.528103"N	2'48.421696"W	32.65	-103.71	0.00	0.00	0.00	0.00	0.00
	2.000.00	0.00	10.12	2.000.00	-1.652.20	0.00	0.00	0.00	0.00	100.00	100.00	0.00	0.00	0.00	HS	10.12	10.12M	601.619.62	732.122.37	°39'8.528103"N	2'48.421696"W	32.65	-103.71	0.00	0.00	0.00	0.00	0.00
	2.100.00	0.00	10.12	2.100.00	-1.552.20	0.00	0.00	0.00	0.00	100.00	100.00	0.00	0.00	0.00	HS	10.12	10.12M	601.619.62	732.122.37	°39'8.528103"N	2'48.421696"W	32.65	-103.71	0.00	0.00	0.00	0.00	0.00
	2.200.00	0.00	10.12	2.200.00	-1.452.20	0.00	0.00	0.00	0.00	100.00	100.00	0.00	0.00	0.00	HS	10.12	10.12M	601.619.62	732.122.37	°39'8.528103"N	2'48.421696"W	32.65	-103.71	0.00	0.00	0.00	0.00	0.00
	2.300.00	0.00	10.12	2.300.00	-1.352.20	0.00	0.00	0.00	0.00	100.00	100.00	0.00	0.00	0.00	HS	10.12	10.12M	601.619.62	732.122.37	°39'8.528103"N	2'48.421696"W	32.65	-103.71	0.00	0.00	0.00	0.00	0.00
	2.400.00	0.00	10.12	2.400.00	-1.252.20	0.00	0.00	0.00	0.00	100.00	100.00	0.00	0.00	0.00	HS	10.12	10.12M	601.619.62	732.122.37	°39'8.528103"N	2'48.421696"W	32.65	-103.71	0.00	0.00	0.00	0.00	0.00
	2.500.00	0.00	10.12	2.500.00	-1.152.20	0.00	0.00	0.00	0.00	100.00	100.00	0.00	0.00	0.00	HS	10.12	10.12M	601.619.62	732.122.37	°39'8.528103"N	2'48.421696"W	32.65	-103.71	0.00	0.00	0.00	0.00	0.00
	2.600.00	0.00	10.12	2.600.00	-1.052.20	0.00	0.00	0.00	0.00	100.00	100.00	0.00	0.00	0.00	HS	10.12	10.12M	601.619.62	732.122.37	°39'8.528103"N	2'48.421696"W	32.65	-103.71	0.00	0.00	0.00	0.00	0.00
	2.700.00	0.00	10.12	2.700.00	-952.20	0.00	0.00	0.00	0.00	100.00	100.00	0.00	0.00	0.00	HS	10.12	10.12M	601.619.62	732.122.37	°39'8.528103"N	2'48.421696"W	32.65	-103.71	0.00	0.00	0.00	0.00	0.00
	2.800.00	0.00	10.12	2.800.00	-852.20	0.00	0.00	0.00	0.00	100.00	100.00	0.00	0.00	0.00	HS	10.12	10.12M	601.619.62	732.122.37	°39'8.528103"N	2'48.421696"W	32.65	-103.71	0.00	0.00	0.00	0.00	0.00
	2.900.00	0.00	10.12	2.900.00	-752.20	0.00	0.00	0.00	0.00	100.00	100.00	0.00	0.00	0.00	HS	10.12	10.12M	601.619.62	732.122.37	°39'8.528103"N	2'48.421696"W	32.65	-103.71	0.00	0.00	0.00	0.00	0.00
	3.000.00	0.00	10.12	3.000.00	-652.20	0.00	0.00	0.00	0.00	100.00	100.00	0.00	0.00	0.00	HS	10.12	10.12M	601.619.62	732.122.37	°39'8.528103"N	2'48.421696"W	32.65	-103.71	0.00	0.00	0.00	0.00	0.00
	3.100.00	0.00	10.12	3.100.00	-552.20	0.00	0.00	0.00	0.00	100.00	100.00	0.00	0.00	0.00	HS	10.12	10.12M	601.619.62	732.122.37	°39'8.528103"N	2'48.421696"W	32.65	-103.71	0.00	0.00	0.00	0.00	0.00
Yates	3.160.20	0.00	10.12	3.160.20	-492.00	0.00	0.00	0.00	0.00	60.20	60.20	0.00	0.00	0.00	HS	10.12	10.12M	601.619.62	732.122.37	°39'8.528103"N	2'48.421696"W	32.65	-103.71	0.00	0.00	0.00	0.00	0.00
	3.200.00	0.00	10.12	3.200.00	-452.20	0.00	0.00	0.00	0.00	39.80	39.80	0.00	0.00	0.00	HS	10.12	10.12M	601.619.62	732.122.37	°39'8.528103"N	2'48.421696"W	32.65	-103.71	0.00	0.00	0.00	0.00	0.00
	3.300.00	0.00	10.12	3.300.00	-352.20	0.00	0.00	0.00	0.00	100.00	100.00	0.00	0.00	0.00	HS	10.12	10.12M	601.619.62	732.122.37	°39'8.528103"N	2'48.421696"W	32.65	-103.71	0.00	0.00	0.00	0.00	0.00
Capitan	3.351.20	0.00	10.12	3.351.20	-301.00	0.00	0.00	0.00	0.00	51.20	51.20	0.00	0.00	0.00	HS	10.12	10.12M	601.619.62	732.122.37	°39'8.528103"N	2'48.421696"W	32.65	-103.71	0.00	0.00	0.00	0.00	0.00
	3.400.00	0.00	10.12	3.400.00	-252.20	0.00	0.00	0.00	0.00	48.80	48.80	0.00	0.00	0.00	HS	10.12	10.12M	601.619.62	732.122.37	°39'8.528103"N	2'48.421696"W	32.65	-103.71	0.00	0.00	0.00	0.00	0.00
	3.500.00	0.00	10.12	3.500.00	-152.20	0.00	0.00	0.00	0.00	100.00	100.00	0.00	0.00	0.00	HS	10.12	10.12M	601.619.62	732.122.37	°39'8.528103"N	2'48.421696"W	32.65	-103.71	0.00	0.00	0.00	0.00	0.00
	3.600.00	0.00	10.12	3.600.00	-52.20	0.00	0.00	0.00	0.00	100.00	100.00	0.00	0.00	0.00	HS	10.12	10.12M	601.619.62	732.122.37	°39'8.528103"N	2'48.421696"W	32.65	-103.71	0.00	0.00	0.00	0.00	0.00
	3.700.00	0.00	10.12	3.700.00	47.80	0.00	0.00	0.00	0.00	100.00	100.00	0.00	0.00	0.00	HS	10.12	10.12M	601.619.62	732.122.37	°39'8.528103"N	2'48.421696"W	32.65	-103.71	0.00	0.00	0.00	0.00	0.00
	3.800.00	0.00	10.12	3.800.00	147.80	0.00	0.00	0.00	0.00	100.00	100.00	0.00	0.00	0.00	HS	10.12	10.12M	601.619.62	732.122.37	°39'8.528103"N	2'48.421696"W	32.65	-103.71	0.00	0.00	0.00	0.00	0.00
	3.900.00	0.00	10.12	3.900.00	247.80	0.00	0.00	0.00	0.00	100.00	100.00	0.00	0.00	0.00	HS	10.12	10.12M	601.619.62	732.122.37	°39'8.528103"N	2'48.421696"W	32.65	-103.71	0.00	0.00	0.00	0.00	0.00
Nudge 1° DLS	4.000.00	0.00	10.12	4.000.00	347.80	0.00	0.00	0.00	0.00	100.00	100.00	0.00	0.00	0.00	HS	10.12	10.12M	601.619.62	732.122.37	°39'8.528103"N	2'48.421696"W	32.65	-103.71	0.00	0.00	0.00	0.00	0.00
	4.100.00	1.00	10.12	4.099.99	447.79	-0.86	0.87	0.86	0.15	100.00	99.99	1.00	1.00	0.00	HS	10.12	10.12M	601.620.48	732.122.52	°39'8.536594"N	2'48.419843"W	32.65	-103.71	0.87	10.12	0.00	1.00	0.00
	4.200.00	2.00	10.12	4.199.96	547.76	-3.43	3.49	3.44	0.61	100.00	99.96	1.00	1.00	0.00	HS	10.12	10.12M	601.623.06	732.122.98	°39'8.562064"N	2'48.414285"W	32.65	-103.71	3.49	10.12	0.84	2.00	0.00
	4.300.00	3.00	10.12	4.299.86	647.66	-7.72	7.85	7.73	1.38	100.00	99.90	1.00	1.00	0.00	HS	10.12	10.12M	601.627.35	732.123.75	°39'8.604505"N	2'48.405024"W	32.65	-103.71	7.85	10.12	1.37	3.00	0.00
	4.400.00	4.00	10.12	4.399.68	747.48	-13.72	13.96	13.74	2.45	100.00	99.81	1.00	1.00	0.00	HS	10.12	10.12M	601.633.36	732.124.82	°39'8.663905"N	2'48.392063"W	32.65	-103.71	13.96	10.12	1.75	4.00	0.00
	4.500.00	5.00	10.12	4.499.37	847.17	-21.44	21.80	21.46	3.83	100.00	99.69	1.00	1.00	0.00	HS	10.12	10.12M	601.641.08	732.126.20	°39'8.740246"N	2'48.375404"W	32.65	-103.71	21.80	10.12	2.04	5.00	0.00
Hold	4.506.76	5.07	10.12	4.506.10	853.90	-22.02	22.40	22.05	3.94	6.76	6.74	1.00	1.00	0.00	HS	10.12	10.12M	601.641.67	732.126.31	°39'8.746021"N	2'48.374144"W	32.65	-103.71	22.40	10.12	2.06	5.07	0.00
	4.600.00	5.07	10.12	4.598.98	946.78	-30.12	30.63	30.15	5.38	93.24	92.87	0.00	0.00	0.00	HS	10.12	10.12M	601.649.77	732.127.75	°39'8.826154"N	2'48.356658"W	32.65	-103.71	30.63	10.12	2.19	5.07	0.01
	4.700.00	5.07	10.12	4.698.58	1.046.38	-38.80	39.47	38.85	6.94	100.00	99.61	0.00	0.00	0.00	HS	10.12	10.12M	601.658.47	732.129.31	°39'8.912102"N	2'48.337904"W	32.65	-103.71	39.47	10.12	2.30	5.07	0.01
	4.800.00	5.07	10.12	4.798.19	1.145.99	-47.48	48.30	47.55	8.49	100.00	99.61	0.00	0.00	0.00	HS	10.12	10.12M	601.667.16	732.130.86	°39'8.998049"N	2'48.319149"W	32.65	-103.71	48.30	10.12	2.39	5.07	0.01
	4.900.00	5.07	10.12	4.897.80	1.245.60	-56.17	57.13	56.24	10.04	100.00	99.61	0.00	0.00	0.00	HS	10.12	10.12M	601.675.86	732.132.41	°39'9.083997"N	2'48.300394"W	32.65	-103.71	57.13	10.12	2.46	5.07	0.01
	5.000.00	5.07	10.12	4.997.41	1.345.21	-64.85	65.96	64.94	11.60	100.00	99.61	0.00	0.00	0.00	HS	10.12	10.12M	601.684.55	732.133.97	°39'9.169945"N	2'48.281640"W	32.65	-103.71	65.96	10.12	2.52	5.07	0.01
	5.100.00	5.07	10.12	5.097.02	1.444.82	-73.54	74.80	73.63	13.15	100.00	99.61	0.00	0.00	0.00	HS	10.12	10.12M	601.693.25	732.135.52	°39'9.255892"N	2'48.262885"W	32.65	-103.71	74.80	10.12	2.58	5.07	0.01
	5.200.00	5.07	10.12	5.196.63	1.544.43	-82.22	83.63	82.33	14.70	100.00	99.61	0.00	0.00	0.00	HS	10.12	10.12M	601.701.94	732.137.07	°39'9.341840"N	2'48.244130"W	32.65	-103.71	83.63	10.12	2.63	5.07	0.02
	5.300.00	5.07	10.12	5.296.24	1.644.04	-90.91	92.46	91.02	16.25	100.00	99.61	0.00	0.00	0.00	HS	10.12	10.12M	601.710.64	732.138.62	°39'9.427787"N	2'48.225376"W	32.65	-103.71	92.46	10.12	2.67	5.07	0.02
	5.400.00	5.07	10.12	5.395.85	1.743.65	-99.59	101.30	99.72	17.81	100.00	99.61	0.00	0.00	0.00	HS	10.12	10.12M	601.719.33	732.140.18	°39'9.513735"N	2'48.206621"W	32.65	-103.71	101.30	10.12	2.71	5.07	0.02
	5.500.00	5.07	10.12	5.495.46	1.843.26	-108.27	110.13	108.42	19.36	100.00	99.61	0.00	0.00	0.00	HS	10.12	10.12M	601.728.03	732.141.73	°39'9.599682"N	2'48.187866"W	32.65	-103.71	110.13	10.12	2.75	5.07	0.02
Delaware Mtn Gr	5.530.86	5.07	10.12	5.526.20	1.874.00	-110.95	112.86	111.10	19.84	30.86	30.74	0.00	0.00	0.00	HS	10.12	10.12M	601.730.71	732.142.21	°39'9.626209"N	2'48.182078"W	32.65	-103.71	112.86	10.12	2.76	5.07	0.02
	5.600.00	5.07	10.12	5.595.07	1.942.87	-116.96	118.96	117.11	20.91	69.14	68.87	0.00	0.00	0.00	HS	10.12	10.12M	601.736.73	732.143.28	°39'9.685630"N	2'48.169112"W	32.65	-103.71	118.96	10.12	2.78	5.07	0.02
	5.700.00	5.07	10.12	5.694.68	2.042.48	-125.64	127.80	125.81	22.47	100.00	99.61	0.00	0.00	0.00	HS	10.12	10.12M	601.745.42	732.144.83	°39'9.771577"N	2'48.150357"W	32.65	-103.71	127.80	10.12	2.81	5.07	0.02
	5.800.00	5.07	10.12	5.794.28	2.142.08	-134.33	136.63	134.50	24.02	100.00	99.61	0.00	0.00	0.00	HS	10.12	10.12M	601.754.12	732.146.39	°39'9.857525"N	2'48.131602"W	32.65	-103.71	136.63	10.12	2.84	5.07	0.02
	5.900.00	5.07	10.12	5.893.89	2.241.69	-143.01	145.46	143.20	25.57	100.00	99.61	0.00	0.00	0.00	HS	10.12	10.12M	601.762.81	732.147.94	°39'9.943472"N	2'48.112847"W	32.65	-103.71	145.46	10.12	2.87	5.07	0.02
	6.000.00	5.07	10.12	5.993.50	2.341.30	-151.70	154.30	151.89	27.12	100.00	99.61	0.00	0.00	0.00	HS	10.12	10.12M	601.771.51	732.149.49	39'10.029420"N	2'48.094093"W	32.65	-103.71	154.30	10.12	2.89	5.07	0.03
	6.100.00	5.07	10.12	6.093.11	2.440.91	-160.38	163.13	160.59	28.68	100.00	99.61	0.00	0.00	0.00	HS	10.12	10.12M	601.780.20	732.151.05	39'10.115367"N	2'48.075338"W	32.65	-103.71	163.13	10.12	2.92	5.07	0.03
Turn 1° DLS	6.185.22	5.07	10.12	6.178.00	2.525.80	-167.78	170.66	168.00	30.00	85.22	84.89	0.00	0.00	0.00	129.81R	11.43	11.43M	601.787.61	732.152.37	39'10.188613"N	2'48.059355"W	32.65	-103.71	170.66	10.12	2.94	5.07	0.03
	6.200.00	4.97	11.43	6.192.72	2.540.52	-169.05	171.95	169.27	30.24	14.78	14.72	1.00	-0.63	8.86	128.51R	21.64	21.64M	601.788.88	732.152.61	39'10.201170"N	2'48.056441"W	32.65	-103.71	171.95	10.13	2.95	5.22	0.03
	6.300.00	4.42	21.64	6.292.39	2.640.19	-176.87	180.12	177.10	32.52	100.00	99.67	1.00	-0.55	10.20	118.34R	34.22	34.22M	601.796.71	732.154.89	39'10.278536"N	2'48.029230"W	32.65	-103.71	180.06	10.41	3.05	6.22	0.03
	6.400.00	4.04	34.22	6.392.12	2.739.92	-183.34	187.47	183.60	35.93	100.00	99.73	1.00	-0.38	12.58	105.79R	48.55	48.55M	601.803.21	732.158.29	39'10.342635"N	2'47.988971"W	32.65	-103.71	187.08	11.07	3.13	7.22	0.03
	6.500.00	3.89	48.55	6.491.88	2.839.68	-188.47	194.35	188.76	40.45	100.00	99.76	1.00	-0.15	14.33	91.5R	63.06	63.06M	601.808.37	732.162.82	39'10.393450"N	2'47.935678"W	32.65	-103.71	193.05	12.10	3.20	8.22	0.03
	6.600.00	3.99	63.06	6.591.65	2.939.45	-192.25	201.19	192.59	46.10	100.00	99.77	1.00	0.10	14.51	77.02R	76.08	76.08M	601.812.20	732.168.47	39'10.430964"N	2'47.869367"W	32.65	-103.71	198.03	13.46	3.27	9.22	0.03
	6.700.00	4.33	76.08	6.691.38	3.039.18	-194.69	208.42	195.07	52.87	100.00	99.74	1.00	0.34	13.02	64.03R	86.77	86.77M	601.814.68	732.175.23	39'10.455165"N	2'47.790057"W	32.65	-103.71	202.11	15.16	3.33	10.22	0.03
	6.800.00	4.85	86.77	6.791.06	3.138.86	-195.78	216.40	196.22	60.75	100.00	99.68	1.00	0.52	10.69	53.37R	90.00	90M	601.815.83	732.183.12	39'10.466047"N	2'47.697772"W	32.65	-103.71	205.41	17.20	3.39	11.22	0.03
Hold	6.835.51	5.07	90.00	6.826.44	3.174.24	-195.84	219.46	196.30	63.82	35.51	35.38	1.00	0.62	9.09	HS	90.00	90M	601.815.91	732.186.19	39'10.466706"N	2'47.661883"W	32.65	-103.71	206.42	18.01	3.41	11.57	0.03
	6.900.00	5.07	90.00	6.890.68	3.238.48	-195.80	225.16	196.30	69.52	64.49	64.24	0.00	0.00	0.00	HS	90.00	90M	601.815.91	732.191.88	39'10.466377"N	2'47.595230"W	32.65	-103.71	208.25	19.50	3.42	11.57	0.03
	7.000.00	5.07	90.00	6.990.29	3.338.09	-195.74	234.00	196.30	78.36	100.00	99.61	0.00	0.00	0.00	HS	90.00	90M	601.815.91	732.200.72	39'10.465866"N	2'47.491872"W	32.65	-103.71	211.36	21.76	3.43	11.57	0.03
	7.100.00	5.07	90.00	7.089.90	3.437.70	-195.67	242.84	196.30	87.19	100.00	99.61	0.00	0.00	0.00	HS	90.00	90M	601.815.91	732.209.56	39'10.465355"N	2'47.388513"W	32.65	-103.71	214.80	23.95	3.45	11.57	0.03
	7.200.00	5.07	90.00	7.189.51	3.537.31	-195.61	251.68	196.30	96.03	100.00	99.61	0.00	0.00	0.00	HS	90.00	90M	601.815.91	732.218.40	39'10.464845"N	2'47.285155"W	32.65	-103.71	218.53	26.07	3.46	11.57	0.04
	7.300.00	5.07	90.00	7.289.11	3.636.91	-195.55	260.51	196.30	104.87	100.00	99.61	0.00	0.00	0.00	HS	90.00	90M	601.815.91	732.227.23	39'10.464334"N	2'47.181797"W	32.65	-103.71	222.56	28.11	3.48	11.57	0.04
	7.400.00	5.07	90.00	7.388.72	3.736.52	-195.49	269.35	196.30	113.70	100.00	99.61	0.00	0.00	0.00	HS	90.00	90M	601.815.91	732.236.07	39'10.463823"N	2'47.078439"W	32.65	-103.71	226.86	30.08	3.49	11.57	0.04
	7.500.00	5.07	90.00	7.488.33	3.836.13	-195.42	278.19	196.30	122.54	100.00	99.61	0.00	0.00	0.00	HS	90.00	90M	601.815.91	732.244.91	39'10.463312"N	2'46.975080"W	32.65	-103.71	231.41	31.97	3.51	11.57	0.04
	7.600.00	5.07	90.00	7.587.94	3.935.74	-195.36	287.02	196.30	131.38	100.00	99.61	0.00	0.00	0.00	HS	90.00	90M	601.815.91	732.253.74	39'10.462802"N	2'46.871722"W	32.65	-103.71	236.21	33.79	3.52	11.57	0.04
Bone Spring	7.697.64	5.07	90.00	7.685.20	4.033.00	-195.30	295.65	196.30	140.01	97.64	97.26	0.00	0.00	0.00	HS	90.00	90M	601.815.91	732.262.37	39'10.462303"N	2'46.770802"W	32.65	-103.71	241.12	35.50	3.53	11.57	0.04
	7.700.00	5.07	90.00	7.687.55	4.035.35	-195.30	295.86	196.30	140.22	2.36	2.35	0.00	0.00	0.00	HS	90.00	90M	601.815.91	732.262.58	39'10.462291"N	2'46.768364"W	32.65	-103.71	241.24	35.54	3.54	11.57	0.04
	7.800.00	5.07	90.00	7.787.16	4.134.96	-195.23	304.70	196.30	149.05	100.00	99.61	0.00	0.00	0.00	HS	90.00	90M	601.815.91	732.271.42	39'10.461780"N	2'46.665006"W	32.65	-103.71	246.48	37.21	3.55	11.57	0.04
	7.900.00	5.07	90.00	7.886.77	4.234.57	-195.17	313.54	196.30	157.89	100.00	99.61	0.00	0.00	0.00	HS	90.00	90M	601.815.91	732.280.25	39'10.461269"N	2'46.561648"W	32.65	-103.71	251.92	38.81	3.56	11.57	0.04
	8.000.00	5.07	90.00	7.986.38	4.334.18	-195.11	322.37	196.30	166.73	100.00	99.61	0.00	0.00	0.00	HS	90.00	90M	601.815.91	732.289.09	39'10.460758"N	2'46.458289"W	32.65	-103.71	257.55	40.34	3.57	11.57	0.04
	8.100.00	5.07	90.00	8.085.98	4.433.78	-195.04	331.21	196.30	175.57	100.00	99.61	0.00	0.00	0.00	HS	90.00	90M	601.815.91	732.297.93	39'10.460247"N	2'46.354931"W	32.65	-103.71	263.36	41.81	3.58	11.57	0.04
	8.200.00	5.07	90.00	8.185.59	4.533.39	-194.98	340.05	196.30	184.40	100.00	99.61	0.00	0.00	0.00	HS	90.00	90M	601.815.91	732.306.76	39'10.459736"N	2'46.251573"W	32.65	-103.71	269.33	43.21	3.60	11.57	0.04
	8.300.00	5.07	90.00	8.285.20	4.633.00	-194.92	348.89	196.30	193.24	100.00	99.61	0.00	0.00	0.00	HS	90.00	90M	601.815.91	732.315.60	39'10.459226"N	2'46.148215"W	32.65	-103.71	275.46	44.55	3.61	11.57	0.04
	8.400.00	5.07	90.00	8.384.81	4.732.61	-194.85	357.72	196.30	202.08	100.00	99.61	0.00	0.00	0.00	HS	90.00	90M	601.815.91	732.324.44	39'10.458715"N	2'46.044857"W	32.65	-103.71	281.73	45.83	3.62	11.57	0.04
9.62499999999999 in Casing	8.478.09	5.07	90.00	8.462.60	4.810.40	-194.80	364.62	196.30	208.98	78.09	77.78	0.00	0.00	0.00	HS	90.00	90M	601.815.91	732.331.34	39'10.458316"N	2'45.964144"W	32.65	-103.71	286.72	46.79	3.63	11.57	0.04
	8.500.00	5.07	90.00	8.484.42	4.832.22	-194.79	366.56	196.30	210.91	21.91	21.82	0.00	0.00	0.00	HS	90.00	90M	601.815.91	732.333.27	39'10.458204"N	2'45.941498"W	32.65	-103.71	288.13	47.05	3.63	11.57	0.04

Comments	MD (ft)	Incl (°)	Azim (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	AHD (ft)	NS (ft)	EW (ft)	DeltaMD (ft)	DeltaTVD (ft)	DLS (°/100ft)	BR (°/100ft)	TR (°/100ft)	GTF (°)	MTF (°)	TF (°)	Northing (ftUS)	Easting (ftUS)	Latitude (° ' ")	Longitude (° ' ")	Latitude (°)	Longitude (°)	Closure (ft)	Closure Azimuth (°)	Directional Difficulty Index	Tortuosity (°)	ERD Ratio
	8.600.00	5.07	90.00	8.584.03	4.931.83	-194.73	375.40	196.30	219.75	100.00	99.61	0.00	0.00	0.00	HS	90.00	90M	601.815.91	732.342.11	39'10.457693"N	2'45.838140"W	32.65	-103.71	294.66	48.23	3.64	11.57	0.04
	8.700.00	5.07	90.00	8.683.64	5.031.44	-194.66	384.23	196.30	228.59	100.00	99.61	0.00	0.00	0.00	HS	90.00	90M	601.815.91	732.350.95	39'10.457182"N	2'45.734782"W	32.65	-103.71	301.31	49.35	3.65	11.57	0.04
	8.800.00	5.07	90.00	8.783.25	5.131.05	-194.60	393.07	196.30	237.43	100.00	99.61	0.00	0.00	0.00	HS	90.00	90M	601.815.91	732.359.78	39'10.456670"N	2'45.631424"W	32.65	-103.71	308.07	50.42	3.66	11.57	0.04
1st Bone Spring SS	8.839.11	5.07	90.00	8.822.20	5.170.00	-194.58	396.53	196.30	240.88	39.11	38.95	0.00	0.00	0.00	HS	90.00	90M	601.815.91	732.363.24	39'10.456471"N	2'45.591003"W	32.65	-103.71	310.74	50.82	3.66	11.57	0.04
	8.900.00	5.07	90.00	8.882.85	5.230.65	-194.54	401.91	196.30	246.26	60.89	60.65	0.00	0.00	0.00	HS	90.00	90M	601.815.91	732.368.62	39'10.456159"N	2'45.528066"W	32.65	-103.71	314.93	51.44	3.67	11.57	0.05
	9.000.00	5.07	90.00	8.982.46	5.330.26	-194.47	410.75	196.30	255.10	100.00	99.61	0.00	0.00	0.00	HS	90.00	90M	601.815.91	732.377.46	39'10.455648"N	2'45.424707"W	32.65	-103.71	321.89	52.42	3.68	11.57	0.05
	9.100.00	5.07	90.00	9.082.07	5.429.87	-194.41	419.58	196.30	263.94	100.00	99.61	0.00	0.00	0.00	HS	90.00	90M	601.815.91	732.386.29	39'10.455137"N	2'45.321349"W	32.65	-103.71	328.94	53.36	3.69	11.57	0.05
	9.200.00	5.07	90.00	9.181.68	5.529.48	-194.35	428.42	196.30	272.78	100.00	99.61	0.00	0.00	0.00	HS	90.00	90M	601.815.91	732.395.13	39'10.454626"N	2'45.217991"W	32.65	-103.71	336.07	54.26	3.70	11.57	0.05
KOP. Build 10° DLS	9.211.36	5.07	90.00	9.193.00	5.540.80	-194.34	429.43	196.30	273.78	11.36	11.32	0.00	0.00	0.00	89.66R	150.21	150.21M	601.815.91	732.396.14	39'10.454568"N	2'45.206245"W	32.65	-103.71	336.88	54.36	3.70	11.57	0.05
	9.300.00	10.23	150.21	9.280.93	5.628.73	-187.44	440.28	189.46	281.62	88.64	87.93	10.00	5.82	67.92	29.85R	165.18	29.85R	601.809.07	732.403.98	39'10.386416"N	2'45.114996"W	32.65	-103.71	339.42	56.07	3.95	20.43	0.05
	9.400.00	19.54	165.18	9.377.51	5.725.31	-163.45	465.81	165.53	290.33	100.00	96.57	10.00	9.31	14.98	15.32R	170.07	15.32R	601.785.14	732.412.69	39'10.149138"N	2'45.014768"W	32.65	-103.71	334.20	60.31	4.15	30.43	0.05
2nd Bone Spring SS	9.487.16	28.04	170.07	9.457.20	5.805.00	-129.06	500.92	131.20	297.60	87.16	79.69	10.00	9.75	5.61	10.84R	170.56	10.84R	601.750.81	732.419.96	°39'9.809004"N	2'44.932046"W	32.65	-103.71	325.24	66.21	4.29	39.15	0.05
	9.500.00	29.30	170.56	9.468.46	5.816.26	-122.99	507.08	125.13	298.64	12.84	11.26	10.00	9.83	3.84	10.4R	173.41	10.4R	601.744.74	732.420.99	°39'9.748887"N	2'44.920354"W	32.65	-103.71	323.79	67.27	4.31	40.43	0.05
	9.600.00	39.17	173.41	9.551.04	5.898.84	-67.28	563.26	69.48	306.30	100.00	82.58	10.00	9.87	2.85	8.04R	175.25	8.04R	601.689.09	732.428.65	°39'9.197825"N	2'44.834621"W	32.65	-103.71	314.08	77.22	4.46	50.43	0.06
	9.700.00	49.09	175.25	9.622.73	5.970.53	1.97	632.80	0.27	313.07	100.00	71.69	10.00	9.92	1.84	6.72R	176.61	6.72R	601.619.89	732.435.42	°39'8.512696"N	2'44.760176"W	32.65	-103.71	313.07	89.95	4.59	60.43	0.07
	9.800.00	59.03	176.61	9.681.35	6.029.15	82.66	713.66	-80.39	318.74	100.00	58.62	10.00	9.94	1.36	5.92R	177.71	5.92R	601.539.24	732.441.10	°39'7.714316"N	2'44.699278"W	32.65	-103.71	328.72	104.15	4.71	70.43	0.07
	9.900.00	68.98	177.71	9.725.13	6.072.93	172.35	803.43	-170.05	323.16	100.00	43.78	10.00	9.95	1.10	5.43R	178.67	5.43R	601.449.58	732.445.51	°39'6.826944"N	2'44.653780"W	32.65	-103.71	365.17	117.75	4.82	80.43	0.08
	10.000.00	78.94	178.67	9.752.73	6.100.53	268.31	899.41	-265.98	326.17	100.00	27.60	10.00	9.96	0.96	5.17R	179.56	5.17R	601.353.65	732.448.53	°39'5.877542"N	2'44.625063"W	32.65	-103.71	420.88	129.20	4.92	90.43	0.09
	10.100.00	88.90	179.56	9.763.31	6.111.11	367.62	998.72	-365.28	327.70	100.00	10.58	10.00	9.96	0.90	5.07R	179.59	5.07R	601.254.36	732.450.05	°39'4.894958"N	2'44.613999"W	32.65	-103.71	490.73	138.10	5.02	100.43	0.10
Landing Point	10.103.03	89.20	179.59	9.763.36	6.111.16	370.65	1.001.75	-368.31	327.72	3.03	0.05	10.00	9.96	0.88	HS	179.59	HS	601.251.33	732.450.08	°39'4.864955"N	2'44.613945"W	32.65	-103.71	493.01	138.34	5.02	100.74	0.10
	10.200.00	89.20	179.59	9.764.72	6.112.52	467.61	1.098.71	-465.27	328.42	96.97	1.35	0.00	0.00	0.00	HS	179.59	HS	601.154.38	732.450.77	°39'3.905609"N	2'44.612459"W	32.65	-103.71	569.50	144.78	5.06	100.74	0.11
	10.300.00	89.20	179.59	9.766.11	6.113.91	567.60	1.198.70	-565.26	329.13	100.00	1.40	0.00	0.00	0.00	HS	179.59	HS	601.054.39	732.451.49	°39'2.916259"N	2'44.610927"W	32.65	-103.71	654.10	149.79	5.11	100.74	0.12
	10.400.00	89.20	179.59	9.767.51	6.115.31	667.59	1.298.69	-665.24	329.85	100.00	1.40	0.00	0.00	0.00	HS	179.59	HS	600.954.41	732.452.20	°39'1.926909"N	2'44.609396"W	32.65	-103.71	742.53	153.63	5.14	100.74	0.13
	10.500.00	89.20	179.59	9.768.90	6.116.70	767.58	1.398.68	-765.23	330.56	100.00	1.40	0.00	0.00	0.00	HS	179.59	HS	600.854.43	732.452.92	°39'0.937559"N	2'44.607865"W	32.65	-103.71	833.58	156.64	5.18	100.74	0.14
	10.600.00	89.20	179.59	9.770.30	6.118.10	867.57	1.498.67	-865.22	331.28	100.00	1.40	0.00	0.00	0.00	HS	179.59	HS	600.754.44	732.453.63	38'59.948209"N	2'44.606334"W	32.65	-103.71	926.47	159.05	5.21	100.74	0.15
	10.700.00	89.20	179.59	9.771.70	6.119.50	967.56	1.598.66	-965.21	332.00	100.00	1.40	0.00	0.00	0.00	HS	179.59	HS	600.654.46	732.454.35	38'58.958859"N	2'44.604803"W	32.65	-103.71	1.020.71	161.02	5.25	100.74	0.16
	10.800.00	89.20	179.59	9.773.09	6.120.89	1.067.55	1.698.65	-1.065.19	332.71	100.00	1.40	0.00	0.00	0.00	HS	179.59	HS	600.554.48	732.455.06	38'57.969508"N	2'44.603272"W	32.65	-103.71	1.115.95	162.65	5.28	100.74	0.17
	10.900.00	89.20	179.59	9.774.49	6.122.29	1.167.54	1.798.64	-1.165.18	333.43	100.00	1.40	0.00	0.00	0.00	HS	179.59	HS	600.454.50	732.455.78	38'56.980158"N	2'44.601742"W	32.65	-103.71	1,211.95	164.03	5.31	100.74	0.18
	11.000.00	89.20	179.59	9.775.88	6.123.68	1.267.53	1.898.63	-1.265.17	334.14	100.00	1.40	0.00	0.00	0.00	HS	179.59	HS	600.354.51	732.456.49	38'55.990808"N	2'44.600212"W	32.65	-103.71	1.308.55	165.21	5.33	100.74	0.19
	11.100.00	89.20	179.59	9.777.28	6.125.08	1.367.52	1.998.62	-1.365.16	334.86	100.00	1.40	0.00	0.00	0.00	HS	179.59	HS	600.254.53	732.457.21	38'55.001457"N	2'44.598682"W	32.65	-103.71	1.405.63	166.22	5.36	100.74	0.20
	11.200.00	89.20	179.59	9.778.68	6.126.48	1.467.51	2.098.61	-1.465.15	335.57	100.00	1.40	0.00	0.00	0.00	HS	179.59	HS	600.154.55	732.457.93	38'54.012107"N	2'44.597153"W	32.65	-103.71	1.503.08	167.10	5.38	100.74	0.21
	11.300.00	89.20	179.59	9.780.07	6.127.87	1.567.50	2.198.61	-1.565.13	336.29	100.00	1.40	0.00	0.00	0.00	HS	179.59	HS	600.054.57	732.458.64	38'53.022757"N	2'44.595623"W	32.65	-103.71	1.600.85	167.87	5.41	100.74	0.22
	11.400.00	89.20	179.59	9.781.47	6.129.27	1.667.49	2.298.60	-1.665.12	337.00	100.00	1.40	0.00	0.00	0.00	HS	179.59	HS	599.954.58	732.459.36	38'52.033406"N	2'44.594094"W	32.65	-103.71	1.698.88	168.56	5.43	100.74	0.23
	11.500.00	89.20	179.59	9.782.86	6.130.66	1.767.48	2.398.59	-1.765.11	337.72	100.00	1.40	0.00	0.00	0.00	HS	179.59	HS	599.854.60	732.460.07	38'51.044056"N	2'44.592566"W	32.65	-103.71	1.797.13	169.17	5.45	100.74	0.25
	11.600.00	89.20	179.59	9.784.26	6.132.06	1.867.47	2.498.58	-1.865.10	338.43	100.00	1.40	0.00	0.00	0.00	HS	179.59	HS	599.754.62	732.460.79	38'50.054705"N	2'44.591037"W	32.65	-103.71	1.895.55	169.72	5.47	100.74	0.26
	11.700.00	89.20	179.59	9.785.65	6.133.45	1.967.46	2.598.57	-1.965.08	339.15	100.00	1.40	0.00	0.00	0.00	HS	179.59	HS	599.654.64	732.461.50	38'49.065354"N	2'44.589509"W	32.65	-103.71	1.994.14	170.21	5.50	100.74	0.27
	11.800.00	89.20	179.59	9.787.05	6.134.85	2.067.45	2.698.56	-2.065.07	339.86	100.00	1.40	0.00	0.00	0.00	HS	179.59	HS	599.554.65	732.462.22	38'48.076004"N	2'44.587981"W	32.65	-103.71	2.092.85	170.65	5.52	100.74	0.28
	11.900.00	89.20	179.59	9.788.44	6.136.24	2.167.44	2.798.55	-2.165.06	340.58	100.00	1.40	0.00	0.00	0.00	HS	179.59	HS	599.454.67	732.462.93	38'47.086653"N	2'44.586453"W	32.65	-103.71	2.191.68	171.06	5.53	100.74	0.29
	12.000.00	89.20	179.59	9.789.84	6.137.64	2.267.43	2.898.54	-2.265.05	341.30	100.00	1.40	0.00	0.00	0.00	HS	179.59	HS	599.354.69	732.463.65	38'46.097302"N	2'44.584925"W	32.65	-103.71	2.290.62	171.43	5.55	100.74	0.30
	12.100.00	89.20	179.59	9.791.24	6.139.04	2.367.42	2.998.53	-2.365.03	342.01	100.00	1.40	0.00	0.00	0.00	HS	179.59	HS	599.254.71	732.464.36	38'45.107951"N	2'44.583398"W	32.65	-103.71	2.389.64	171.77	5.57	100.74	0.31
	12.200.00	89.20	179.59	9.792.63	6.140.43	2.467.41	3.098.52	-2.465.02	342.73	100.00	1.40	0.00	0.00	0.00	HS	179.59	HS	599.154.72	732.465.08	38'44.118600"N	2'44.581871"W	32.65	-103.71	2.488.73	172.08	5.59	100.74	0.32
	12.300.00	89.20	179.59	9.794.03	6.141.83	2.567.40	3.198.51	-2.565.01	343.44	100.00	1.40	0.00	0.00	0.00	HS	179.59	HS	599.054.74	732.465.79	38'43.129249"N	2'44.580344"W	32.65	-103.71	2.587.90	172.37	5.61	100.74	0.33
	12.400.00	89.20	179.59	9.795.42	6.143.22	2.667.39	3.298.50	-2.665.00	344.16	100.00	1.40	0.00	0.00	0.00	HS	179.59	HS	598.954.76	732.466.51	38'42.139898"N	2'44.578817"W	32.65	-103.71	2.687.13	172.64	5.62	100.74	0.34
	12.500.00	89.20	179.59	9.796.82	6.144.62	2.767.38	3.398.49	-2.764.99	344.87	100.00	1.40	0.00	0.00	0.00	HS	179.59	HS	598.854.78	732.467.22	38'41.150547"N	2'44.577291"W	32.64	-103.71	2.786.41	172.89	5.64	100.74	0.35
	12.600.00	89.20	179.59	9.798.21	6.146.01	2.867.37	3.498.48	-2.864.97	345.59	100.00	1.40	0.00	0.00	0.00	HS	179.59	HS	598.754.79	732.467.94	38'40.161196"N	2'44.575765"W	32.64	-103.71	2.885.74	173.12	5.66	100.74	0.36
	12.700.00	89.20	179.59	9.799.61	6.147.41	2.967.36	3.598.47	-2.964.96	346.30	100.00	1.40	0.00	0.00	0.00	HS	179.59	HS	598.654.81	732.468.65	38'39.171845"N	2'44.574239"W	32.64	-103.71	2.985.12	173.34	5.67	100.74	0.37
	12.800.00	89.20	179.59	9.801.00	6.148.80	3.067.35	3.698.46	-3.064.95	347.02	100.00	1.40	0.00	0.00	0.00	HS	179.59	HS	598.554.83	732.469.37	38'38.182494"N	2'44.572713"W	32.64	-103.71	3.084.53	173.54	5.69	100.74	0.38
	12.900.00	89.20	179.59	9.802.40	6.150.20	3.167.34	3.798.45	-3.164.94	347.73	100.00	1.40	0.00	0.00	0.00	HS	179.59	HS	598.454.85	732.470.08	38'37.193143"N	2'44.571188"W	32.64	-103.71	3.183.98	173.73	5.70	100.74	0.39
	13.000.00	89.20	179.59	9.803.79	6.151.59	3.267.33	3.898.44	-3.264.92	348.45	100.00	1.40	0.00	0.00	0.00	HS	179.59	HS	598.354.86	732.470.80	38'36.203791"N	2'44.569663"W	32.64	-103.71	3.283.47	173.91	5.72	100.74	0.40
	13.100.00	89.20	179.59	9.805.19	6.152.99	3.367.32	3.998.43	-3.364.91	349.16	100.00	1.40	0.00	0.00	0.00	HS	179.59	HS	598.254.88	732.471.51	38'35.214440"N	2'44.568138"W	32.64	-103.71	3.382.98	174.08	5.73	100.74	0.41
	13.200.00	89.20	179.59	9.806.58	6.154.38	3.467.31	4.098.42	-3.464.90	349.88	100.00	1.40	0.00	0.00	0.00	HS	179.59	HS	598.154.90	732.472.23	38'34.225089"N	2'44.566613"W	32.64	-103.71	3.482.52	174.23	5.74	100.74	0.42
	13.300.00	89.20	179.59	9.807.98	6.155.78	3.567.30	4.198.41	-3.564.89	350.59	100.00	1.40	0.00	0.00	0.00	HS	179.59	HS	598.054.92	732.472.94	38'33.235737"N	2'44.565089"W	32.64	-103.71	3.582.09	174.38	5.76	100.74	0.43
	13.400.00	89.20	179.59	9.809.37	6.157.17	3.667.30	4.298.40	-3.664.88	351.31	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	597.954.93	732.473.66	38'32.246386"N	2'44.563565"W	32.64	-103.71	3,681.67	174.52	5.77	100.74	0.44
	13.500.00	89.20	179.59	9.810.77	6.158.57	3.767.29	4.398.39	-3.764.86	352.02	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	597.854.95	732.474.37	38'31.257034"N	2'44.562041"W	32.64	-103.71	3.781.28	174.66	5.79	100.74	0.45
	13.600.00	89.20	179.59	9.812.16	6.159.96	3.867.28	4.498.38	-3.864.85	352.74	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	597.754.97	732.475.09	38'30.267682"N	2'44.560517"W	32.64	-103.71	3.880.91	174.79	5.80	100.74	0.46
	13.700.00	89.20	179.59	9.813.56	6.161.36	3.967.27	4.598.37	-3.964.84	353.45	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	597.654.98	732.475.80	38'29.278331"N	2'44.558994"W	32.64	-103.71	3.980.56	174.91	5.81	100.74	0.47
	13.800.00	89.20	179.59	9.814.95	6.162.75	4.067.26	4.698.36	-4.064.83	354.16	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	597.555.00	732.476.52	38'28.288979"N	2'44.557471"W	32.64	-103.71	4.080.23	175.02	5.82	100.74	0.48
	13.900.00	89.20	179.59	9.816.35	6.164.15	4.167.25	4.798.35	-4.164.81	354.88	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	597.455.02	732.477.23	38'27.299627"N	2'44.555948"W	32.64	-103.71	4.179.91	175.13	5.84	100.74	0.49
	14.000.00	89.20	179.59	9.817.74	6.165.54	4.267.24	4.898.34	-4.264.80	355.59	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	597.355.04	732.477.95	38'26.310276"N	2'44.554425"W	32.64	-103.71	4.279.60	175.23	5.85	100.74	0.50
	14.100.00	89.20	179.59	9.819.14	6.166.94	4.367.23	4.998.33	-4.364.79	356.31	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	597.255.05	732.478.66	38'25.320924"N	2'44.552903"W	32.64	-103.71	4.379.31	175.33	5.86	100.74	0.51
	14.200.00	89.20	179.59	9.820.53	6.168.33	4.467.22	5.098.32	-4.464.78	357.02	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	597.155.07	732.479.38	38'24.331572"N	2'44.551380"W	32.64	-103.71	4.479.03	175.43	5.87	100.74	0.52
	14.300.00	89.20	179.59	9.821.93	6.169.73	4.567.21	5.198.31	-4.564.76	357.74	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	597.055.09	732.480.09	38'23.342220"N	2'44.549859"W	32.64	-103.71	4.578.76	175.52	5.88	100.74	0.53
	14.400.00	89.20	179.59	9.823.32	6.171.12	4.667.20	5.298.30	-4.664.75	358.45	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	596.955.11	732.480.80	38'22.352868"N	2'44.548337"W	32.64	-103.71	4.678.50	175.61	5.89	100.74	0.54
	14.500.00	89.20	179.59	9.824.72	6.172.52	4.767.19	5.398.29	-4.764.74	359.17	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	596.855.12	732.481.52	38'21.363516"N	2'44.546815"W	32.64	-103.71	4.778.26	175.69	5.90	100.74	0.55
	14.600.00	89.20	179.59	9.826.11	6.173.91	4.867.18	5.498.28	-4.864.73	359.88	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	596.755.14	732.482.23	38'20.374164"N	2'44.545294"W	32.64	-103.71	4.878.02	175.77	5.92	100.74	0.56
	14.700.00	89.20	179.59	9.827.50	6.175.30	4.967.17	5.598.27	-4.964.72	360.60	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	596.655.16	732.482.95	38'19.384812"N	2'44.543773"W	32.64	-103.71	4.977.79	175.85	5.93	100.74	0.57
	14.800.00	89.20	179.59	9.828.90	6.176.70	5.067.16	5.698.26	-5.064.70	361.31	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	596.555.18	732.483.66	38'18.395460"N	2'44.542252"W	32.64	-103.71	5.077.57	175.92	5.94	100.74	0.58
	14.900.00	89.20	179.59	9.830.29	6.178.09	5.167.15	5.798.25	-5.164.69	362.03	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	596.455.19	732.484.38	38'17.406107"N	2'44.540732"W	32.64	-103.71	5.177.36	175.99	5.95	100.74	0.59
	15.000.00	89.20	179.59	9.831.69	6.179.49	5.267.14	5.898.25	-5.264.68	362.74	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	596.355.21	732.485.09	38'16.416755"N	2'44.539212"W	32.64	-103.71	5.277.16	176.06	5.96	100.74	0.60
	15.100.00	89.20	179.59	9.833.08	6.180.88	5.367.13	5.998.24	-5.364.67	363.45	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	596.255.23	732.485.81	38'15.427403"N	2'44.537692"W	32.64	-103.71	5.376.96	176.12	5.97	100.74	0.61
	15.200.00	89.20	179.59	9.834.48	6.182.28	5.467.12	6.098.23	-5.464.65	364.17	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	596.155.25	732.486.52	38'14.438051"N	2'44.536172"W	32.64	-103.71	5.476.77	176.19	5.98	100.74	0.62
	15.300.00	89.20	179.59	9.835.87	6.183.67	5.567.11	6.198.22	-5.564.64	364.88	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	596.055.26	732.487.23	38'13.448698"N	2'44.534652"W	32.64	-103.71	5.576.59	176.25	5.99	100.74	0.63
	15.400.00	89.20	179.59	9.837.27	6.185.07	5.667.10	6.298.21	-5.664.63	365.60	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	595.955.28	732.487.95	38'12.459346"N	2'44.533133"W	32.64	-103.71	5.676.42	176.31	6.00	100.74	0.64
	15.500.00	89.20	179.59	9.838.66	6.186.46	5.767.09	6.398.20	-5.764.62	366.31	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	595.855.30	732.488.66	38'11.469993"N	2'44.531614"W	32.64	-103.71	5.776.24	176.36	6.01	100.74	0.65
	15.600.00	89.20	179.59	9.840.05	6.187.85	5.867.08	6.498.19	-5.864.61	367.03	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	595.755.32	732.489.38	38'10.480641"N	2'44.530095"W	32.64	-103.71	5.876.08	176.42	6.02	100.74	0.66
	15.700.00	89.20	179.59	9.841.45	6.189.25	5.967.07	6.598.18	-5.964.59	367.74	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	595.655.33	732.490.09	°38'9.491288"N	2'44.528577"W	32.64	-103.71	5.975.92	176.47	6.03	100.74	0.67
	15.800.00	89.20	179.59	9.842.84	6.190.64	6.067.06	6.698.17	-6.064.58	368.45	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	595.555.35	732.490.81	°38'8.501935"N	2'44.527059"W	32.64	-103.71	6.075.76	176.52	6.03	100.74	0.68
	15.900.00	89.20	179.59	9.844.24	6.192.04	6.167.05	6.798.16	-6.164.57	369.17	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	595.455.37	732.491.52	°38'7.512583"N	2'44.525541"W	32.64	-103.71	6.175.61	176.57	6.04	100.74	0.69
	16.000.00	89.20	179.59	9.845.63	6.193.43	6.267.04	6.898.15	-6.264.56	369.88	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	595.355.38	732.492.23	°38'6.523230"N	2'44.524023"W	32.64	-103.71	6.275.47	176.62	6.05	100.74	0.70
	16.100.00	89.20	179.59	9.847.02	6.194.82	6.367.03	6.998.14	-6.364.54	370.60	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	595.255.40	732.492.95	°38'5.533877"N	2'44.522505"W	32.63	-103.71	6.375.32	176.67	6.06	100.74	0.71
	16.200.00	89.20	179.59	9.848.42	6.196.22	6.467.02	7.098.13	-6.464.53	371.31	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	595.155.42	732.493.66	°38'4.544524"N	2'44.520988"W	32.63	-103.71	6.475.19	176.71	6.07	100.74	0.72
	16.300.00	89.20	179.59	9.849.81	6.197.61	6.567.01	7.198.12	-6.564.52	372.03	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	595.055.44	732.494.38	°38'3.555171"N	2'44.519471"W	32.63	-103.71	6.575.05	176.76	6.08	100.74	0.73
	16.400.00	89.20	179.59	9.851.20	6.199.00	6.667.00	7.298.11	-6.664.51	372.74	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	594.955.45	732.495.09	°38'2.565818"N	2'44.517954"W	32.63	-103.71	6.674.92	176.80	6.09	100.74	0.74
	16.500.00	89.20	179.59	9.852.60	6.200.40	6.766.99	7.398.10	-6.764.49	373.45	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	594.855.47	732.495.81	°38'1.576465"N	2'44.516438"W	32.63	-103.71	6.774.80	176.84	6.10	100.74	0.75
	16.600.00	89.20	179.59	9.853.99	6.201.79	6.866.98	7.498.09	-6.864.48	374.17	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	594.755.49	732.496.52	°38'0.587112"N	2'44.514921"W	32.63	-103.71	6.874.67	176.88	6.10	100.74	0.76
	16.700.00	89.20	179.59	9.855.39	6.203.19	6.966.97	7.598.08	-6.964.47	374.88	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	594.655.51	732.497.23	37'59.597759"N	2'44.513405"W	32.63	-103.71	6.974.55	176.92	6.11	100.74	0.77
	16.800.00	89.20	179.59	9.856.78	6.204.58	7.066.96	7.698.07	-7.064.46	375.60	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	594.555.52	732.497.95	37'58.608406"N	2'44.511889"W	32.63	-103.71	7.074.44	176.96	6.12	100.74	0.78
	16.900.00	89.20	179.59	9.858.17	6.205.97	7.166.95	7.798.06	-7.164.45	376.31	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	594.455.54	732.498.66	37'57.619053"N	2'44.510374"W	32.63	-103.71	7.174.32	176.99	6.13	100.74	0.79
	17.000.00	89.20	179.59	9.859.57	6.207.37	7.266.95	7.898.05	-7.264.43	377.02	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	594.355.56	732.499.38	37'56.629700"N	2'44.508858"W	32.63	-103.71	7.274.21	177.03	6.14	100.74	0.80
	17.100.00	89.20	179.59	9.860.96	6.208.76	7.366.94	7.998.04	-7.364.42	377.74	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	594.255.58	732.500.09	37'55.640346"N	2'44.507343"W	32.63	-103.71	7.374.10	177.06	6.15	100.74	0.81
	17.200.00	89.20	179.59	9.862.35	6.210.15	7.466.93	8.098.03	-7.464.41	378.45	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	594.155.59	732.500.80	37'54.650993"N	2'44.505828"W	32.63	-103.71	7.474.00	177.10	6.15	100.74	0.82
	17.300.00	89.20	179.59	9.863.75	6.211.55	7.566.92	8.198.02	-7.564.40	379.17	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	594.055.61	732.501.52	37'53.661640"N	2'44.504314"W	32.63	-103.71	7.573.89	177.13	6.16	100.74	0.83
	17.400.00	89.20	179.59	9.865.14	6.212.94	7.666.91	8.298.01	-7.664.38	379.88	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	593.955.63	732.502.23	37'52.672286"N	2'44.502799"W	32.63	-103.71	7.673.79	177.16	6.17	100.74	0.84
	17.500.00	89.20	179.59	9.866.53	6.214.33	7.766.90	8.398.00	-7.764.37	380.59	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	593.855.65	732.502.94	37'51.682933"N	2'44.501285"W	32.63	-103.71	7.773.69	177.19	6.18	100.74	0.85
	17.600.00	89.20	179.59	9.867.93	6.215.73	7.866.89	8.497.99	-7.864.36	381.31	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	593.755.66	732.503.66	37'50.693579"N	2'44.499771"W	32.63	-103.71	7.873.60	177.22	6.18	100.74	0.86
	17.700.00	89.20	179.59	9.869.32	6.217.12	7.966.88	8.597.98	-7.964.35	382.02	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	593.655.68	732.504.37	37'49.704226"N	2'44.498258"W	32.63	-103.71	7.973.50	177.25	6.19	100.74	0.87
	17.800.00	89.20	179.59	9.870.71	6.218.51	8.066.87	8.697.97	-8.064.34	382.74	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	593.555.70	732.505.09	37'48.714872"N	2'44.496744"W	32.63	-103.71	8.073.41	177.28	6.20	100.74	0.88
	17.900.00	89.20	179.59	9.872.11	6.219.91	8.166.86	8.797.96	-8.164.32	383.45	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	593.455.72	732.505.80	37'47.725518"N	2'44.495231"W	32.63	-103.71	8.173.32	177.31	6.21	100.74	0.89
	18.000.00	89.20	179.59	9.873.50	6.221.30	8.266.85	8.897.95	-8.264.31	384.16	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	593.355.73	732.506.51	37'46.736165"N	2'44.493718"W	32.63	-103.71	8.273.23	177.34	6.21	100.74	0.90
	18.100.00	89.20	179.59	9.874.89	6.222.69	8.366.84	8.997.94	-8.364.30	384.88	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	593.255.75	732.507.23	37'45.746811"N	2'44.492206"W	32.63	-103.71	8.373.15	177.37	6.22	100.74	0.91
	18.200.00	89.20	179.59	9.876.29	6.224.09	8.466.83	9.097.93	-8.464.29	385.59	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	593.155.77	732.507.94	37'44.757457"N	2'44.490693"W	32.63	-103.71	8.473.06	177.39	6.23	100.74	0.92
	18.300.00	89.20	179.59	9.877.68	6.225.48	8.566.82	9.197.92	-8.564.27	386.30	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	593.055.78	732.508.65	37'43.768103"N	2'44.489181"W	32.63	-103.71	8.572.98	177.42	6.23	100.74	0.93
	18.400.00	89.20	179.59	9.879.07	6.226.87	8.666.81	9.297.91	-8.664.26	387.02	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	592.955.80	732.509.37	37'42.778749"N	2'44.487669"W	32.63	-103.71	8.672.90	177.44	6.24	100.74	0.94
	18.500.00	89.20	179.59	9.880.47	6.228.27	8.766.80	9.397.91	-8.764.25	387.73	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	592.855.82	732.510.08	37'41.789395"N	2'44.486157"W	32.63	-103.71	8.772.82	177.47	6.25	100.74	0.95
	18.600.00	89.20	179.59	9.881.86	6.229.66	8.866.79	9.497.90	-8.864.24	388.44	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	592.755.84	732.510.79	37'40.800041"N	2'44.484646"W	32.63	-103.71	8.872.74	177.49	6.26	100.74	0.96
	18.700.00	89.20	179.59	9.883.25	6.231.05	8.966.78	9.597.89	-8.964.23	389.16	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	592.655.85	732.511.51	37'39.810687"N	2'44.483135"W	32.63	-103.71	8.972.67	177.51	6.26	100.74	0.97
	18.800.00	89.20	179.59	9.884.65	6.232.45	9.066.77	9.697.88	-9.064.21	389.87	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	592.555.87	732.512.22	37'38.821333"N	2'44.481624"W	32.63	-103.71	9.072.59	177.54	6.27	100.74	0.98
	18.900.00	89.20	179.59	9.886.04	6.233.84	9.166.76	9.797.87	-9.164.20	390.59	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	592.455.89	732.512.94	37'37.831979"N	2'44.480113"W	32.63	-103.71	9.172.52	177.56	6.28	100.74	0.99
	19.000.00	89.20	179.59	9.887.43	6.235.23	9.266.75	9.897.86	-9.264.19	391.30	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	592.355.91	732.513.65	37'36.842625"N	2'44.478603"W	32.63	-103.71	9.272.45	177.58	6.28	100.74	1.00
	19.100.00	89.20	179.59	9.888.82	6.236.62	9.366.74	9.997.85	-9.364.18	392.01	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	592.255.92	732.514.36	37'35.853271"N	2'44.477093"W	32.63	-103.71	9.372.38	177.60	6.29	100.74	1.01
	19.200.00	89.20	179.59	9.890.22	6.238.02	9.466.73	10.097.84	-9.464.16	392.73	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	592.155.94	732.515.08	37'34.863916"N	2'44.475583"W	32.63	-103.71	9.472.31	177.62	6.30	100.74	1.02
	19.300.00	89.20	179.59	9.891.61	6.239.41	9.566.72	10.197.83	-9.564.15	393.44	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	592.055.96	732.515.79	37'33.874562"N	2'44.474073"W	32.63	-103.71	9.572.24	177.64	6.30	100.74	1.03
	19.400.00	89.20	179.59	9.893.00	6.240.80	9.666.71	10.297.82	-9.664.14	394.15	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	591.955.98	732.516.50	37'32.885208"N	2'44.472563"W	32.63	-103.71	9.672.17	177.66	6.31	100.74	1.04
	19.500.00	89.20	179.59	9.894.39	6.242.19	9.766.70	10.397.81	-9.764.13	394.87	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	591.855.99	732.517.22	37'31.895853"N	2'44.471054"W	32.63	-103.71	9.772.11	177.68	6.31	100.74	1.05
	19.600.00	89.20	179.59	9.895.79	6.243.59	9.866.69	10.497.80	-9.864.11	395.58	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	591.756.01	732.517.93	37'30.906499"N	2'44.469545"W	32.63	-103.71	9.872.04	177.70	6.32	100.74	1.06
	19.700.00	89.20	179.59	9.897.18	6.244.98	9.966.68	10.597.79	-9.964.10	396.29	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	591.656.03	732.518.64	37'29.917144"N	2'44.468036"W	32.62	-103.71	9.971.98	177.72	6.33	100.74	1.07
	19.800.00	89.20	179.59	9.898.57	6.246.37	10.066.67	10.697.78	-10.064.09	397.01	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	591.556.05	732.519.36	37'28.927789"N	2'44.466528"W	32.62	-103.71	10.071.92	177.74	6.33	100.74	1.08
	19.900.00	89.20	179.59	9.899.96	6.247.76	10.166.66	10.797.77	-10.164.08	397.72	100.00	1.39	0.00	0.00	0.00	HS	179.59	HS	591.456.06	732.520.07	37'27.938435"N	2'44.465020"W	32.62	-103.71	10.171.86	177.76	6.34	100.74	1.09
Chisholm Diamondback 24-25 F	19.952.05	89.20	179.59	9.900.69	6.248.49	10.218.71	10.849.82	-10.216.12	398.09	52.05	0.72	0.00	0.00	0.00				591.404.02	732.520.44	37'27.423460"N	2'44.464235"W	32.62	-103.71	10.223.88	177.77	6.34	100.74	1.10

Survey Type: Def Plan

Comments	MD (ft)	Incl (°)	Azim (°)	TVD (ft)	TVDSS (ft)	VSEC (ft)	AHD (ft)	NS (ft)	EW (ft)	DeltaMD (ft)	DeltaTVD (ft)	DLS (°/100ft)	BR (°/100ft)	TR (°/100ft)	GTF (°)	MTF (°)	TF (°)	Northing (ftUS)	Easting (ftUS)	Latitude (° ' ")	Longitude (° ' ")	Latitude (°)	Longitude (°)	Closure (ft)	Closure Azimuth (°)	Directional Difficulty Index	Tortuosity (°)	ERD Ratio

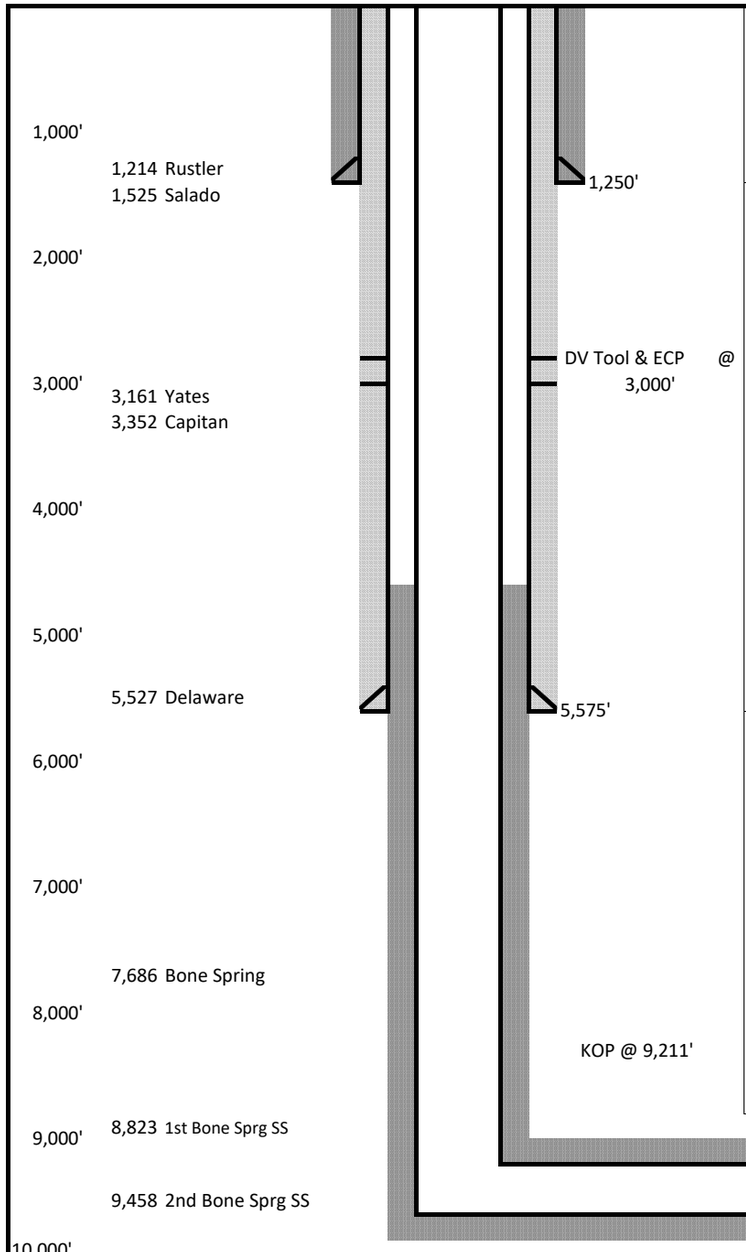
Survey Error Model: ISCWSA0 3 - D 95 % Confidence 2.7955 sigma
Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Expected Max Inclination (deg)	Survey Tool Type	Borehole / Survey
	1	0.000	4,000.000	1/100.000	17.500			NAL_MWD_1.0_DEG	Diamondback 24-25 Fed Com 2
	1	4,000.000	9,211.360	1/100.000	12.250			NAL_MWD_1.0_DEG	Diamondback 24-25 Fed Com 2
	1	9,211.360	10,103.030	1/100.000	8.750			NAL_MWD_1.0_DEG	Diamondback 24-25 Fed Com 2
	1	10,103.030	19,952.050	1/100.000	8.500			NAL_MWD_1.0_DEG	Diamondback 24-25 Fed Com 2

Diamondback 24-25 Fed Com 2BS 5H

API # 30-025-xxx

Updated: 12/19/2019



TVD ft-RKB	Geological Tops	Wellbore Sketch	Hole Size	Casing	Drilling Fluids	Cement	OH Logs/Evaluation
			17-1/2"	Surface: 13-3/8" 54.5# J55 BTC	FW Spud Mud 8.5 - 9.2 ppg 32 - 38 FV 4-6 PV 2-5 YP	Top of Lead: Surface 12.8 ppg 2.01 cuft/sk 555 sks - 100% XS Top of Tail: 800' 14.8 ppg 1.33 cuft/sk 470 sks - 100% XS	No Mud Loggers
			12-1/4"	Intermediate: 9-5/8"40# J55 LTC	Saturated Brine 10.0 - 10.3 ppg 28 - 32 FV	Stage 1 Top of Lead: 3,000' 11.5 ppg 2.37 cuft/sk 550 sks - 100% XS Top of Tail: 5,075' 14.8 ppg 1.08 cuft/sk 290 sks - 100% XS Stage 2 Top of Lead: Surface 11.5 ppg 2.37 cuft/sk 885 sks - 200% XS	No Mud Loggers No OH Logging
			8-3/4" Thru Curve 8-1/2" Lateral	Production: 5-1/2" 20# P110 BTC	OBM 9.0 - 9.5 ppg 15 - 20 PV 8 - 12 YP	Top of Lead: 4,500' 11.3 ppg 2.62 cuft/sk 430 sks - 15% XS Top of Tail: 8,450' 13.2 ppg 1.82 cuft/sk 1,675 sks - 15% XS	No Mud Loggers OH Logging: Quad Combo in 8.75" Hole

Cactus Wellhead

Installation Procedure Prepared For:

Chisholm Energy

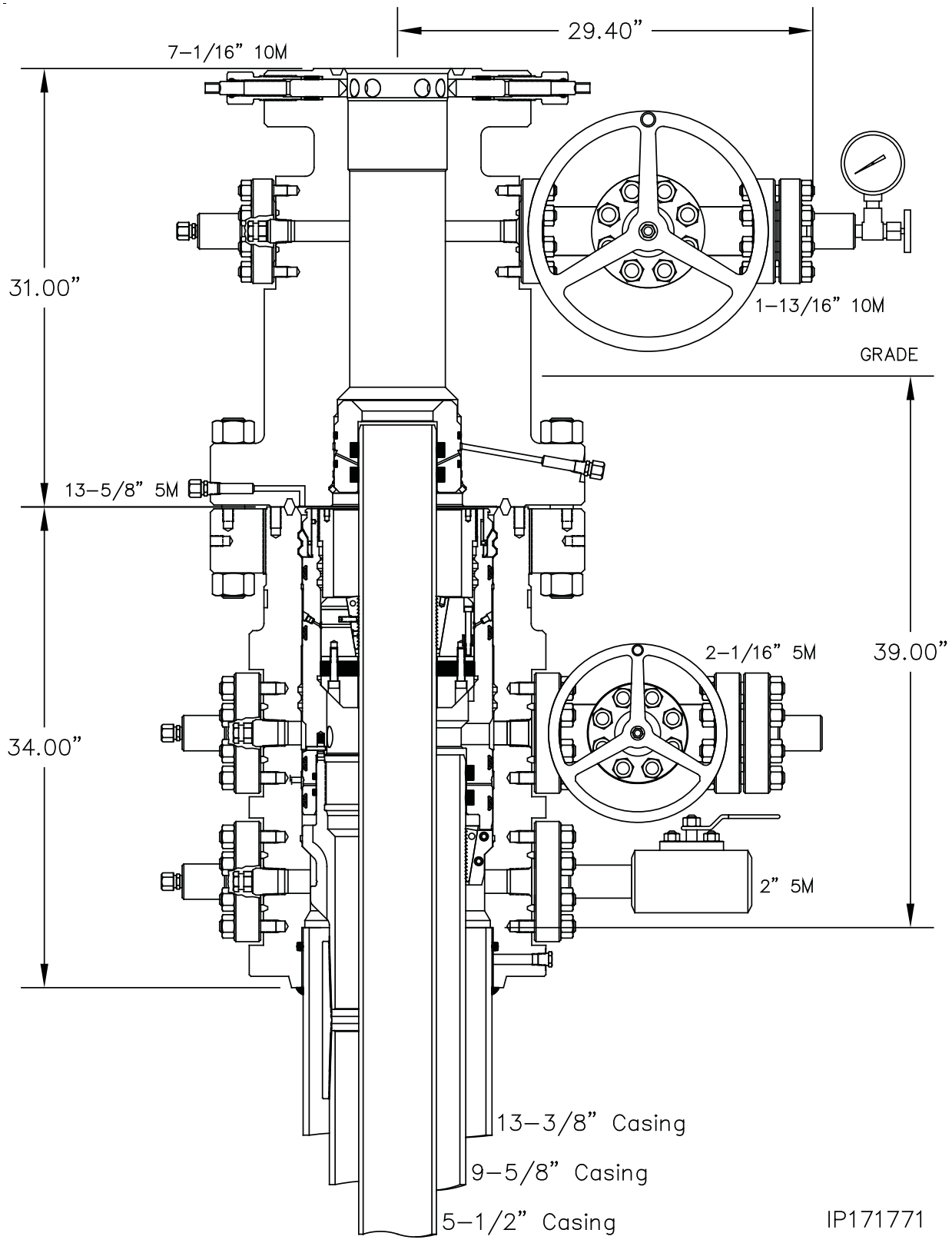
13-3/8” x 9-5/8” x 5-1/2” 5/10M MBU-3T Wellhead System With CTH-HPS-F MOD Tubing Head

Publication # IP0571

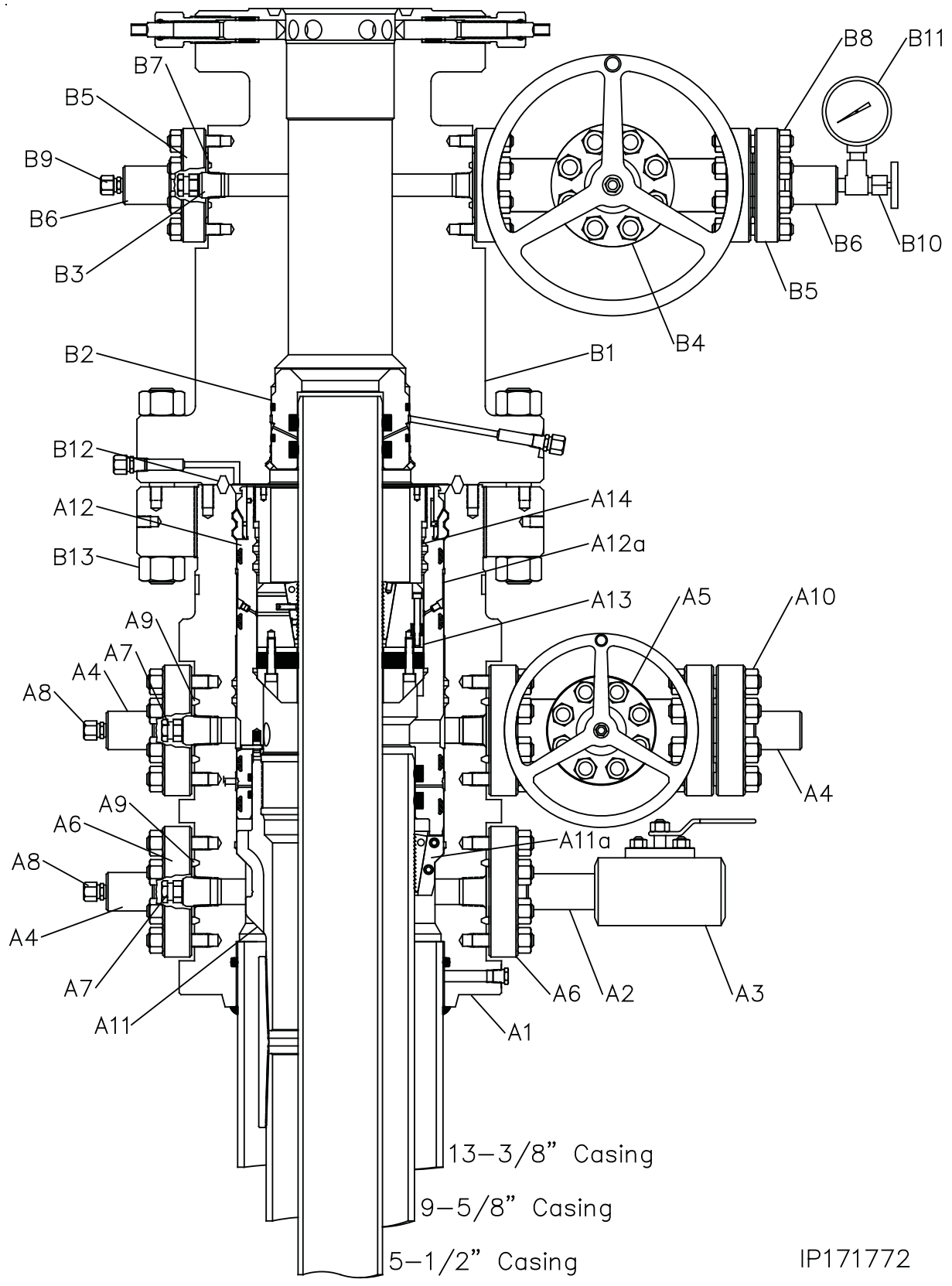
May, 2017

Table of Contents

System Drawing



Bill of Materials



MBU-3T HOUSING ASSEMBLY

Item	Qty	Description
A1	1	Housing, CW, MBU-3T, 13.5/8" 5M x 13-3/8" SOW, with two 2-1/16" 5M studded upper and lower outlets with o-ring, 6A-PU-AA-1-2 Part # 117620
A2	1	Nipple, 2" line pipe x 6" long Part # NP6A
A3	1	Ball Valve, TV, 2" RP, 5M x 2" LP, WCB body SS trim, Delrin seats, HNBR seals, nace with locking handle Part # 115184
A4	3	Bull Plug, 2" line pipe x 1/2" line pipe, 4130 60K Part # BP2T
A5	1	Gate valve, CW1, 2-1/16" 3/5M, flanged end, handwheel operated, AA/DD-NL trim, (6A-LU-AA/DD-NL-1-2) Part # 610003
A6	4	Companion Flange, 2-1/16" 5M x 2" line pipe, 4130 CMS-102, CMS-002 Part # 200002
A7	2	VR Plug, 1-1/2" Sharp Vee x 1-1/4" hex Part # VR2
A8	2	Fitting, grease, vented cap, 1/2" NPT alloy non-nace Part # FTG1
A9	5	Ring Gasket, R-24, 2-1/16" 3/5M Part # R24
A10	8	Studs, all thread with two nuts, black, 7/8" x 6-1/2" long, B7/2H Part # 780067

MBU-3T HOUSING ASSEMBLY

Item	Qty	Description
A11	1	Casing Hanger, CW, MBU--3T-LWR-TP, fluted, 13-5/8" x 9-5/8" (40#) LC bottom x 10.250" 4 Stub Acme 2G RH box top, with 11-1/2" OD neck, 6A-U-AA-1-2 Part # 120251
A12	1	Packoff, CW, MBU-3T, Mandrel, 13-5/8" nested x 11" with 11.250" 4 Stub Acme 2G LH box top, 1/8" NPT test ports, 6A-U-AA-1-1 Part # 117152
A13	1	Casing Hanger, C2, 11" x 5-1/2" Part # 108067
A14	1	Hold Down Ring, for C2 hanger, 11" x 7 through 4-1/2", arranged for packoff MBU-3T, 13-5/8" with 11.250" 4 Stub Acme 2G LH pin x 9.06" ID x 6.25" long, with 2.12" thread length, 4140 110K Part # 117418

TUBING HEAD ASSEMBLY

Item	Qty	Description
B1	1	Tubing Head, CW, CTH-HPS-F, 9" (MOD), 13-5/8" 5M x 7-1/16" 10M, with two 1-13/16" 10M studded outlets, round bar, 17-4PH lockscrews, 6A-PU-EE-0,5-2-1 Part #
B2	1	Secondary Seal, CW, HPS-F, 9 MOD x 5-1/2", 6A-PU-DD-NL-1-2 Part # 110503
B3	1	VR Plug, 1-1/4" Sharp Vee x 1-1/4" hex Part # VR1
B4	1	Gate valve, AOZE, 1-13/16" 10M, flanged end, handwheel operated, EE-0,5 trim, (6A-LU-EE-0,5-3-1) Part # 103188
B5	2	Companion Flange, 1-13/16" 10M x 2" LP, 5000 psi max WP, 6A-KU-EE-NL-1 Part # 200010
B6	2	Bull Plug, 2" line pipe x 1/2" line pipe, 4130 60K Part # BP2T
B7	3	Ring Gasket, BX151, 1-13/16" 10M Part # BX-151
B8	8	Studs, all thread with two nuts, black, 3/4" x 5-1/2" long, B7/2H Part # 780080
B9	1	Fitting, grease, vented cap, 1/2" NPT alloy non-nace Part # FTG1
B10	1	Needle Valve, MFA, 1/2" NPT 10M service Part # NVA
B11	1	Pressure Gauge, 5M, 4-1/2" face, liquid filled, 1/2" NPT PG5M
B12	1	Ring Gasket, BX-160, 13-5/8" 15M Part # BX-160
B13	16	Studs, all thread with two nuts, black, 1-5/8" x 12-3/4" long, B7/2H Part # 780087

RECOMMENDED SERVICE TOOLS

Item	Qty	Description
ST1	1	Test Plug/Retrieving Tool, CW, 13-5/8" x 4-1/2" IF (NC-50), 1-1/4" LP bypass and spring loaded lift dogs Part # 104467
ST2	1	Wear Bushing, CW, MBU-3T-LWR, 13-5/8" x 12.31" ID x 27.0" long with 3/8" o-ring Part # 116974
ST3	1	Casing Hanger Running Tool, CW, MBU-3T-LR-TP, 13-5/8" x 9-5/8" LC box top x 10.250" 4 Stub Acme 2G RH pin bottom, max load capacity 1000K, max torque 18000 ft-lbs. spec for rotating casing Part # 105845
ST4	1	Torque Collar, CW, for use with running tool, TP, 10.250 4 stub Acme 2G RH pin bottom and arranged for 11.50" OD x 5.00" long box hanger neck, maximum torque 18,000 ft-lbs Part # 118906
ST5	1	Wash Tool, CW, Casing Hanger, MBU-LR/MBS2, fluted, 13-5/8" x 4-1/2" IF (NC-50) box top threads, with brushes Part # 106277
ST6	1	Packoff Running Tool, CW, MBU-3T UPR, 13-5/8" nested, with 11.250" 4 Stub Acme 2G LH pin bottom x 4-1/2" IF (NC-50) box top with seal sleeve Part # 117310
ST7	1	Test Plug, CW, MBU-2LR Inner, 11" x 4-1/2" IF, 1-1/4" LP bypass Part # 108848
ST8	1	Wear Bushing, MBU-3T-UPR, nested, 13-5/8" x 11" x 9.00" I.D. x 20.0" long, arranged for 13-5/8" tool Part # 117158

RENTAL EQUIPMENT

Item	Qty	Description
R1	1	Threaded Hub, CW, MBU-3T, 13-5/8" 5M With 19.000" 2 Stub Acme-2G Left Hand Box Thread Part # 117268
R2	1	Drilling Adapter, CW, MBU-3T, 13-5/8" 5M Quick Connect Bottom x 13-5/8" 5M Studded Top, Temp Rating PU Part # 117278
R3	1	TA Cap, CW, MBU-3T-HPS, 13-5/8" 5M quick connect, with one 2" LPO & 1/2" NPT port, with 1/2" NPT needle valve and 2" LP nipple and valve, 6A-U-AA-1-1 Part # 117317
	1	Secondary Seal Bushing, CW, HPS, 9" x 5-1/2 Part # 109026
R4	4	Lift Eyes, 3/4", side pull hoist ring Part # 115542

EMERGENCY EQUIPMENT

Item	Qty	Description
A11a	1	Casing Hanger, CW, MBU-3T, 13-5/8" x 9-5/8" 6A-PU-DD-3-1 Part # 116998
A12a	1	Packoff, CW, MBU-3T, Emergency, 13-5/8" nested x 11" with 11.250" 4 Stub Acme 2G LH box top, 1/8" NPT test ports, 6A-U-AA-1-1 Part # 117184

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate District Office

☐ AMENDED REPORT

OCD – HOBBS
11/09/2020
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WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-025-48038	41442	LUSK; BONE SPRING, EAST

[4] Property Code	[5] Property Name	[6] Well Number
322152	**DIAMONDBACK 24-25 FED COM 2BS**	**5H**

[7] OGRID No.	[8] Operator Name	[9] Elevation
372137	**CHISHOLM ENERGY OPERATING, LLC**	**3621.2**

[10] Surface Location

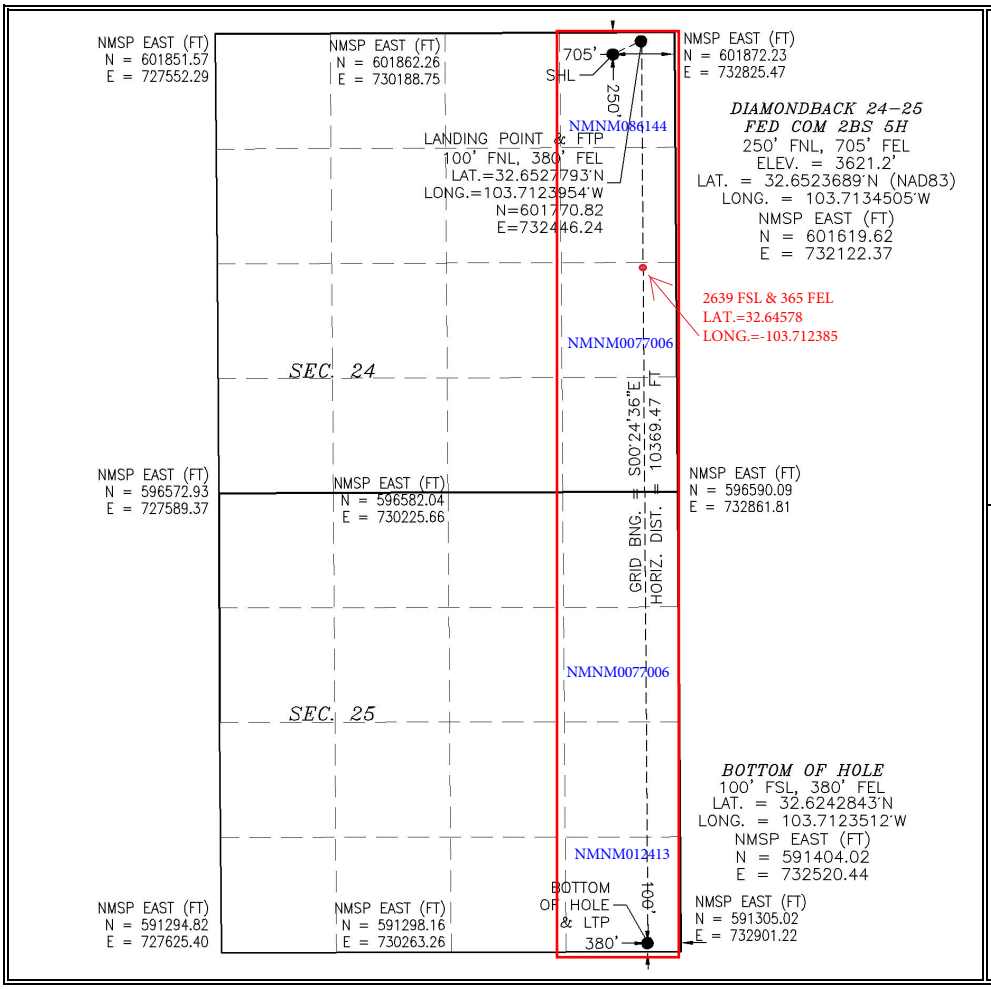
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	**24**	**19 S**	**32 E**		**250**	**NORTH**	**705**	**EAST**	**LEA**

[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	**25**	**19 S**	**32 E**		**100**	**SOUTH**	**380**	**EAST**	**LEA**

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
320			

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



[17] OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Jennifer Elrod — 12/18/19
Signature — Date

JENNIFER ELROD
Printed Name

JELROD@CHISHOLMENERGY.COM
E-mail Address

[18] SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

DECEMBER 6, 2019
Date of Survey

Signature and Seal of Professional Surveyor:

Certificate Number: ELMON F. JARAMILLO, PLS 12797

SURVEY NO. 7551A

Intent [X] As Drilled [ ]

API #
30-025-48038

Operator Name:	Property Name:	Well Number
CHISHOLM ENERGY OPERATING, LLC	DIAMONDBACK 24-25 FED COM 2BS	5H

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
A	24	19S	32E		250	NORTH	705	EAST	LEA

Latitude	Longitude	NAD
32.6523689	103.7134505	83

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
A	24	19S	32E		100	NORTH	380	EAST	LEA

Latitude	Longitude	NAD
32.6527793	103.7123954	83

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
P	25	19S	32E		100	SOUTH	380	EAST	LEA

Latitude	Longitude	NAD
32.6242843	103.7123512	83

Is this well the defining well for the Horizontal Spacing Unit? NO

Is this well an infill well? YES

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #
30-025-45007

Operator Name:	Property Name:	Well Number
CHISHOLM ENERGY OPERATING, LLC	DIAMONDBACK 24-25 FED COM 1BS	3H

KZ 06/29/2018

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit Original
to Appropriate
District Office

OCD – HOBBS
11/09/2020
RECEIVED

GAS CAPTURE PLAN

Date: 12/19/2019

☒ Original
☐ Amended - Reason for Amendment:

Operator & OGRID No.: CHISHOLM ENERGY OPERATING, LLC 372137

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomplete to new zone, re-frac) activity.

Note: Form C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule (Subsection A of 19.15.18.12 NMAC).

Well(s)/Production Facility – Name of facility

The well(s) that will be located at the production facility are shown in the table below.

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
DIAMONDBACK 24-25 FED COM 2BS 5H	30-025-48038	A-24-19S-32E	250 FNL 705 FEL	1200	FLARED	FLARED ONLY WHEN NEEDED

Gathering System and Pipeline Notification

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility is dedicated to 3 Bear Delaware Operating-NM. LLC and will be connected to 3 Bear Delaware Operating-NM. LLC low/high pressure gathering system located in _LEA_ County, New Mexico. It will require Flowlines to connect the facility to low/high pressure gathering system. Chisholm Energy Operating, LLC provides (periodically) to 3 Bear Delaware Operating-NM. LLC a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, Chisholm Energy Operating, LLC and 3 Bear Delaware Operating-NM. LLC have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at 3 Bear Delaware Operating-NM. LLC Libby Gas Processing Plant located in Sec._26____, Twn._20S_, Rng.__34e_, _LEA___ County, New Mexico. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

Flowback Strategy

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on 3 Bear Delaware Operating-NM. LLC system at that time. Based on current information, it is Chisholm Energy Operating, LLC belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

Alternatives to Reduce Flaring

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation – On lease
  - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas – On lease
  - Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal – On lease
  - Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines