Form 3160-3
(June 2015)

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.

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.

[326056]

2. Name of Operator

[215099]

9. API Well No.

30-025-50120

3a. Address

3b. Phone No. *(include area code)*

10. Field and Pool, or Exploratory **[98309]**

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

At surface

At proposed prod. zone

11. Sec., T. R. M. or Blk. and Survey or Area

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

12. County or Parish

13. State

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No of acres in lease	17. Spacing Unit dedicated to this well
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. in file
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration

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	Name *(Printed/Typed)*	Date
Title		
Approved by *(Signature)*	Name *(Printed/Typed)*	Date
Title	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.

NGMP Rec 04/28/2022

KZ
05/09/2022

SL

APPROVED WITH CONDITIONS

(Continued on page 2)

*(Instructions on page 2)

Approval Date: 10/22/2021

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.

Approval Date: 10/22/2021

Additional Operator Remarks

Location of Well

0. SHL: NENW / 255 FNL / 1580 FWL / TWSP: 24S / RANGE: 32E / SECTION: 12 / LAT: 32.238754 / LONG: -103.631707 (TVD: 0 feet, MD: 0 feet)

PPP: NENW / 0 FNL / 1386 FWL / TWSP: 24S / RANGE: 32E / SECTION: 13 / LAT: 32.224911 / LONG: -103.632347 (TVD: 12367 feet, MD: 17205 feet)

PPP: NESW / 2640 FNL / 1386 FWL / TWSP: 24S / RANGE: 32E / SECTION: 12 / LAT: 32.232194 / LONG: -103.632339 (TVD: 12381 feet, MD: 14555 feet)

PPP: NENW / 255 FNL / 1386 FWL / TWSP: 24S / RANGE: 32E / SECTION: 12 / LAT: 32.238753 / LONG: -103.632334 (TVD: 12235 feet, MD: 12318 feet)

BHL: SESW / 100 FSL / 1386 FWL / TWSP: 24S / RANGE: 32E / SECTION: 13 / LAT: 32.21069 / LONG: -103.632359 (TVD: 12340 feet, MD: 22379 feet)

BLM Point of Contact

Name: JORDAN NAVARRETTE
Title: LIE
Phone: (575) 234-5972
Email: jnavarrette@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

OPERATOR'S NAME:	Cimarex Energy Company
LEASE NO.:	NMNM001917
COUNTY:	Lea County

Wells:

Dos Equis 12-13 Fed Com #48H
Surface Hole Location: 255' FNL & 1580' FWL Section 12-24S-32E
Bottom Hole Location: 100' FSL & 1386' FWL Section 13-24S-32E

Dos Equis 12-13 Fed Com #49H
Surface Hole Location: 195' FNL & 1540' FWL Section 12-24S-32E
Bottom Hole Location: 100' FSL & 1430' FWL Section 13-24S-32E

Dos Equis 12-13 Fed Com #50H
Surface Hole Location: 195' FNL & 1520' FWL Section 12-24S-32E
Bottom Hole Location: 100' FSL & 1560' FWL Section 13-24S-32E

Dos Equis 12-13 Fed Com #51H
Surface Hole Location: 195' FNL & 1500' FWL Section 12-24S-32E
Bottom Hole Location: 100' FSL & 1540' FWL Section 13-24S-32E

Dos Equis 12-13 Fed Com #52H
Surface Hole Location: 195' FNL & 1480' FWL Section 12-24S-32E
Bottom Hole Location: 100' FSL & 1520' FWL Section 13-24S-32E

Dos Equis 12-13 Fed Com #75H
Surface Hole Location: 300' FNL & 2410' FWL Section 12-24S-32E
Bottom Hole Location: 100' FSL & 2000' FWL Section 13-24S-32E

Dos Equis 12-13 Fed Com #76H
Surface Hole Location: 300' FNL & 2430' FWL Section 12-24S-32E
Bottom Hole Location: 100' FSL & 2100' FWL Section 13-24S-32E

Dos Equis 12-13 Fed Com #77H
Surface Hole Location: 300' FNL & 2130' FWL Section 12-24S-32E
Bottom Hole Location: 100' FSL & 2130' FWL Section 13-24S-32E

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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.

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Topsoil
Closed Loop System
Federal Mineral Material Pits
Well Pads
Roads

☐**Road Section Diagram**

☒**Production (Post Drilling)**

Well Structures & Facilities

☐**Interim Reclamation**

☐**Final Abandonment & Reclamation**

Approval Date: 10/22/2021

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

OR

If the entire project is covered under the Permian Basin Programmatic Agreement (cultural resources only):

The proponent has contributed funds commensurate to the undertaking into an account for offsite mitigation. Participation in the PA serves as mitigation for the effects of this project on cultural resources. If any human skeletal remains, funerary objects, sacred objects, or objects of cultural patrimony are discovered at any time during construction, all construction activities shall halt and the BLM will be notified as soon as possible within 24 hours. Work shall not resume until a Notice to Proceed is issued by the BLM. See Stipulation 6 for more information.

If the proposed project is split between a Class III inventory and a Permian Basin Programmatic Agreement contribution, the portion of the project covered under Class III inventory should default to the first paragraph stipulations.

The holder is hereby obligated to comply with procedures established in the Native American Graves Protection and Repatriation Act (NAGPRA) to protect such cultural items as human remains, associated funerary objects, sacred objects, and objects of cultural patrimony discovered inadvertently during the course of project implementation. In the event that any of the cultural items listed above are discovered during the course of project work, the proponent shall immediately halt the disturbance and contact the BLM within 24 hours for instructions. The proponent or initiator of any project shall be held responsible for protecting, evaluating, reporting, excavating, treating, and disposing of these cultural items according to the procedures established by the BLM in consultation with Indian Tribes."

Any paleontological resource (historic or prehistoric site or object) discovered by the holder, or

any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

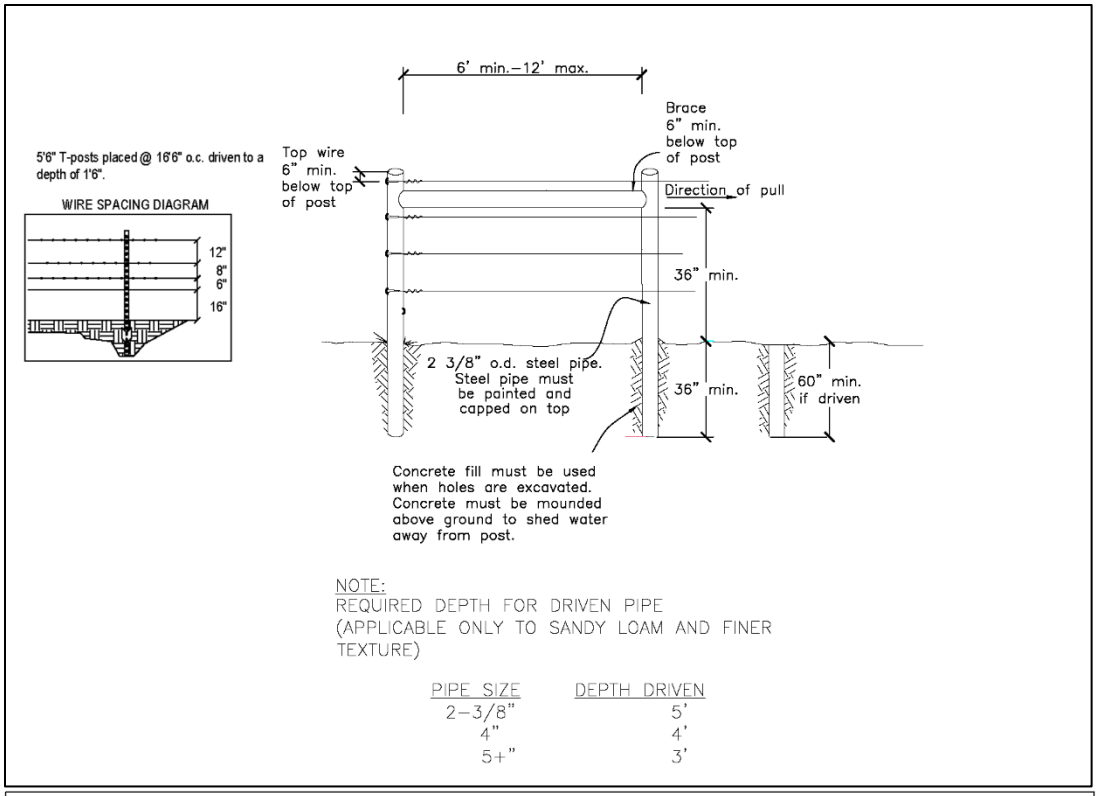
IV. NOXIOUS WEEDS

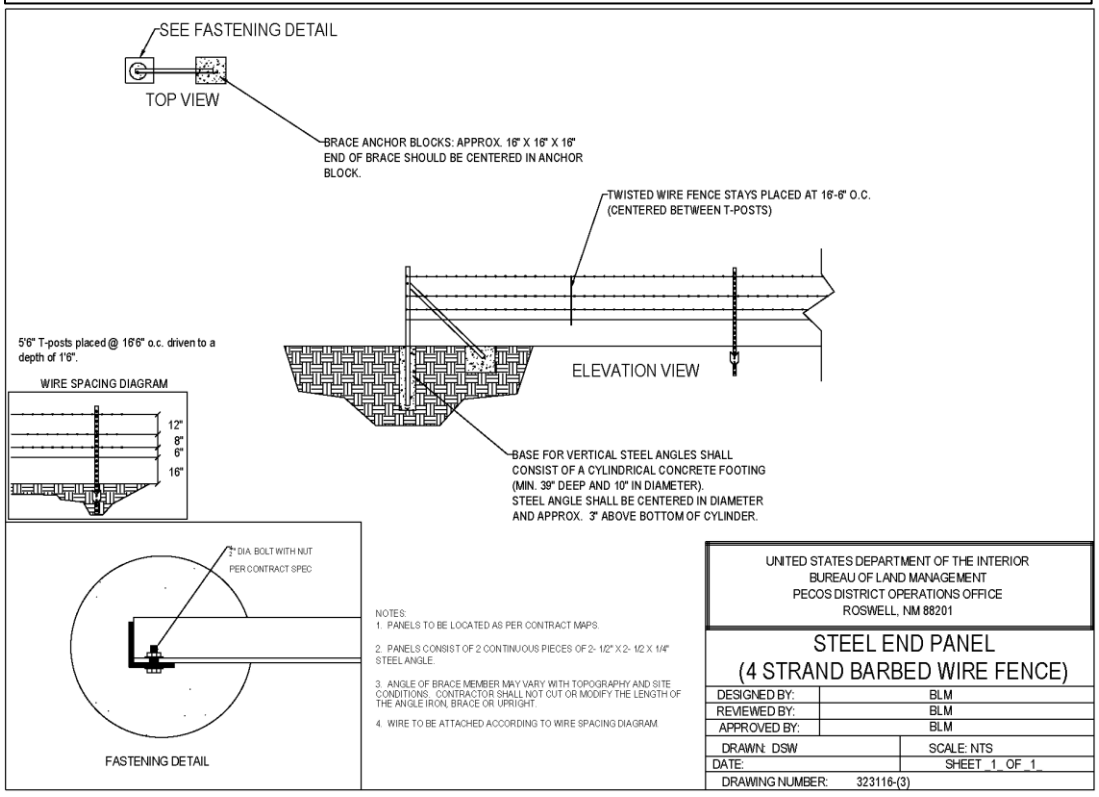
The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds 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:

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





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.

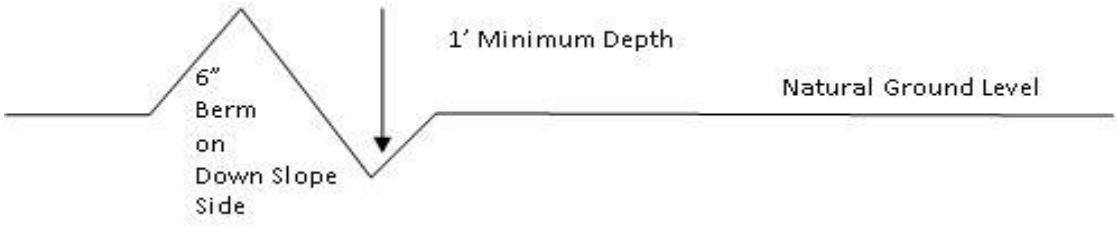
Ditching
Ditching shall be required on both sides of the road.

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

Public Access

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

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Construction Steps

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

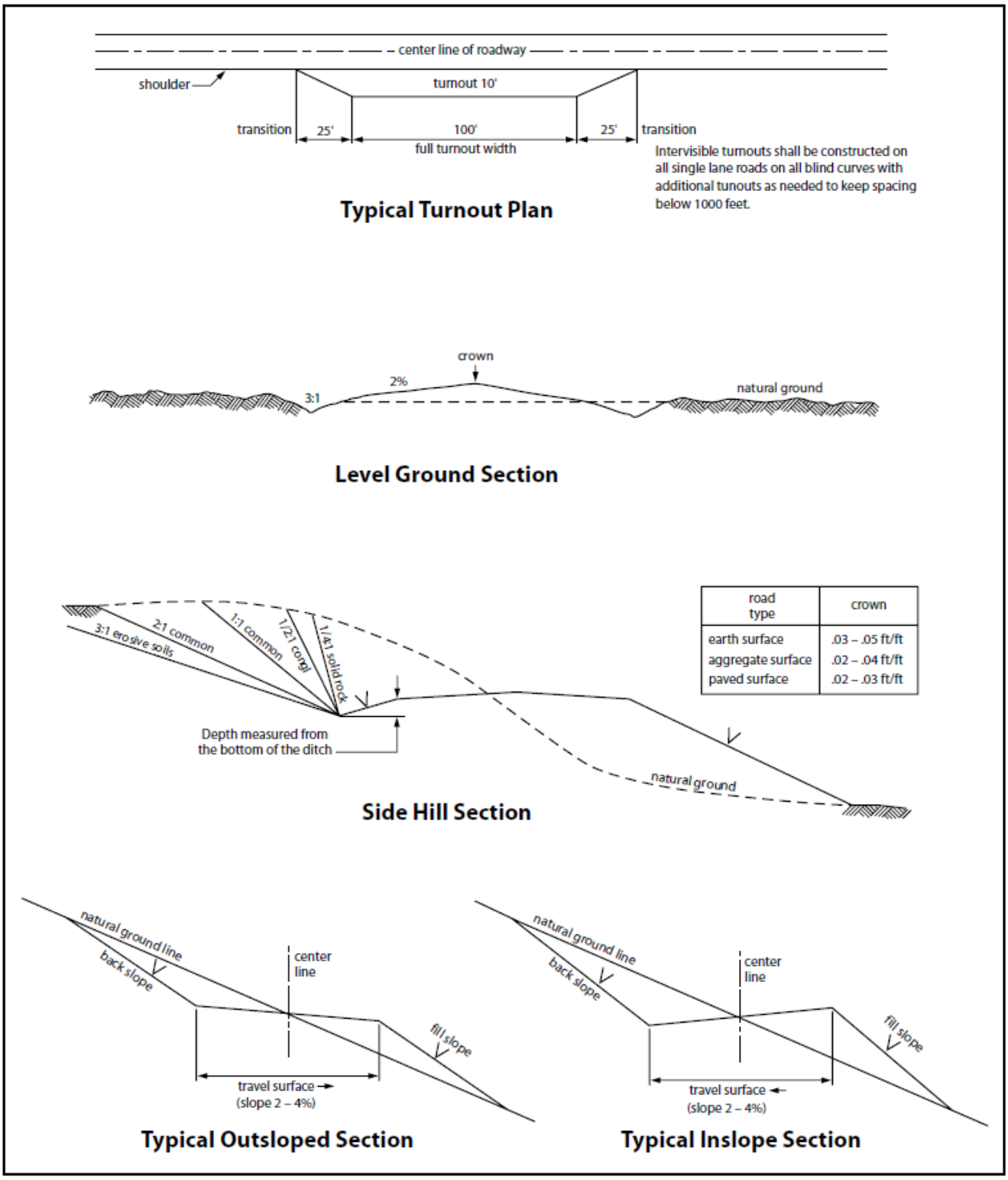

Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

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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.

Approval Date: 10/22/2021

Seed Mixture 2, for Sandy Sites

The 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 will be done in accordance with State law (s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will 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). The 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. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will 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
Sand dropseed (Sporobolus cryptandrus)	1.0
Sand love grass (Eragrostis trichodes)	1.0
Plains bristlegrass (Setaria macrostachya)	2.0

*Pounds of pure live seed:

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

Approval Date: 10/22/2021

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**Cimarex**
LEASE NO.:	**NMNM001917**
LOCATION:	Section 12, T.24 S., R.32 E., NMPM
COUNTY:	Lea County, New Mexico

WELL NAME & NO.:	Dos Equis 12-13 Fed Com 48H
SURFACE HOLE FOOTAGE:	255'/N & 1580'/W
BOTTOM HOLE FOOTAGE	100'/S & 1386'/W

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 **Delaware Group** 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

1. The **10-3/4** inch surface casing shall be set at approximately **1520** feet (a minimum of 25 feet (Lea County) into the Rustler Anhydrite and above the salt) and cemented to the surface. **Excess calculates to 18%. Additional cement maybe requried.**

    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 **8**

Approval Date: 10/22/2021

hours 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 1/3rd fluid filled to meet BLM minimum collapse requirement.

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

3. The minimum required fill of cement behind the **5-1/2** inch production casing is:
   - Cement should tie-back at least **200 feet** into previous casing string. Operator shall provide method of verification.

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. 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 **10,000 (10M)** psi. **Variance is approved to use a 5000 (5M) Annular which shall be tested to 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 Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, 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.
ZS081121

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U.S. Department of the Interior
Bureau of Land Management

Application for Permit to Drill

APD Package Report

Date Printed:

APD ID:	Well Status:
APD Received Date:	Well Name:
Operator:	Well Number:

APD Package Report Contents

- Form 3160-3

- Operator Certification Report

- Application Report
- Application Attachments
  -- Well Plat: 2 file(s)

- Drilling Plan Report
- Drilling Plan Attachments
  -- Blowout Prevention Choke Diagram Attachment: 2 file(s)
  -- Blowout Prevention BOP Diagram Attachment: 2 file(s)
  -- Casing Taperd String Specs: 2 file(s)
  -- Casing Design Assumptions and Worksheet(s): 4 file(s)
  -- Hydrogen sulfide drilling operations plan: 1 file(s)
  -- Proposed horizontal/directional/multi-lateral plan submission: 2 file(s)
  -- Other Facets: 2 file(s)
  -- Other Variances: 3 file(s)

- SUPO Report
- SUPO Attachments
  -- Existing Road Map: 1 file(s)
  -- Attach Well map: 1 file(s)
  -- Production Facilities map: 4 file(s)
  -- Water source and transportation map: 1 file(s)
  -- Well Site Layout Diagram: 2 file(s)
  -- Recontouring attachment: 1 file(s)
  -- Other SUPO Attachment: 1 file(s)

- PWD Report
- PWD Attachments
  -- None

- Bond Report
- Bond Attachments
  -- None

AFMSS

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

Operator Certification Data Report

07/07/2020

Operator Certification

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

NAME: Amithy Crawford **Signed on:** 05/14/2020

Title: Regulatory Analyst

Street Address: 600 N MARIENFELD STE 600

City: MIDLAND **State:** TX **Zip:** 79701

Phone: (432)620-1909

Email address: acrawford@cimarex.com

Field Representative

Representative Name:

Street Address:

City: **State:** **Zip:**

Phone:

Email address:

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

Application Data Report
07/07/2020

APD ID: 10400058037
Submission Date: 07/06/2020
Operator Name: CIMAREX ENERGY COMPANY
Well Name: DOS EQUIS 12-13 FEDERAL COM
Well Number: 48H
Well Type: OIL WELL
Well Work Type: Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - General

APD ID: 10400058037
Tie to previous NOS? Y
Submission Date: 07/06/2020
BLM Office: CARLSBAD
User: Amithy Crawford
Title: Regulatory Analyst
Federal/Indian APD: FED
Is the first lease penetrated for production Federal or Indian? FED
Lease number: NMNM0001917
Lease Acres: 800
Surface access agreement in place?
Allotted?
Reservation:
Agreement in place? NO
Federal or Indian agreement:
Agreement number:
Agreement name:
Keep application confidential? Y
Permitting Agent? NO
APD Operator: CIMAREX ENERGY COMPANY
Operator letter of designation:

Operator Info

Operator Organization Name: CIMAREX ENERGY COMPANY
Operator Address: 600 N. Marienfeld St., Suite 600
Zip: 79701
Operator PO Box:
Operator City: Midland
State: TX
Operator Phone: (432)620-1936
Operator Internet Address: tstathem@cimarex.com

Section 2 - Well Information

Well in Master Development Plan? NO
Master Development Plan name:
Well in Master SUPO? NO
Master SUPO name:
Well in Master Drilling Plan? NO
Master Drilling Plan name:
Well Name: DOS EQUIS 12-13 FEDERAL COM
Well Number: 48H
Well API Number: x1Y2z
Field/Pool or Exploratory? Field and Pool
Field Name: WC-025 G-08 S243213C; WOLFCAMP
Pool Name: WC-025 G-08 S243213C; WOLFCAMP
Is the proposed well in an area containing other mineral resources? USEABLE WATER,NATURAL GAS,OIL

Operator Name: CIMAREX ENERGY COMPANY

Well Name: DOS EQUIS 12-13 FEDERAL COM **Well Number:** 48H

Is the proposed well in an area containing other mineral resources? USEABLE WATER,NATURAL GAS,OIL

Is the proposed well in a Helium production area? N **Use Existing Well Pad?** Y **New surface disturbance?** N

Type of Well Pad: MULTIPLE WELL **Multiple Well Pad Name:** Dos Equis 12-13 Federal Com **Number:** E2W2 Pad 3

Well Class: HORIZONTAL **Number of Legs:** 1

Well Work Type: Drill

Well Type: OIL WELL

Describe Well Type:

Well sub-Type: INFILL

Describe sub-type:

Distance to town: 27 Miles **Distance to nearest well:** 20 FT **Distance to lease line:** 255 FT

Reservoir well spacing assigned acres Measurement: 320 Acres

Well plat: Dos_Equis_12_13_Fed_Com_48H_Lease_Map_20200623122114.pdf

Dos_Equis_12_13_Fed_Com_48H_C102_20200623122121.pdf

Well work start Date: 11/30/2020 **Duration:** 30 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83 **Vertical Datum:** NAVD88

Survey number: **Reference Datum:** GROUND LEVEL

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this lease?
SHL Leg #1	255	FNL	1580	FWL	24S	32E	12	Aliquot NENW	32.238754	-103.631707	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 0001917	3606	0	0	Y
KOP Leg #1	255	FNL	1580	FWL	24S	32E	12	Aliquot NENW	32.238754	-103.631707	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 0001917	-8177	11783	11783	Y

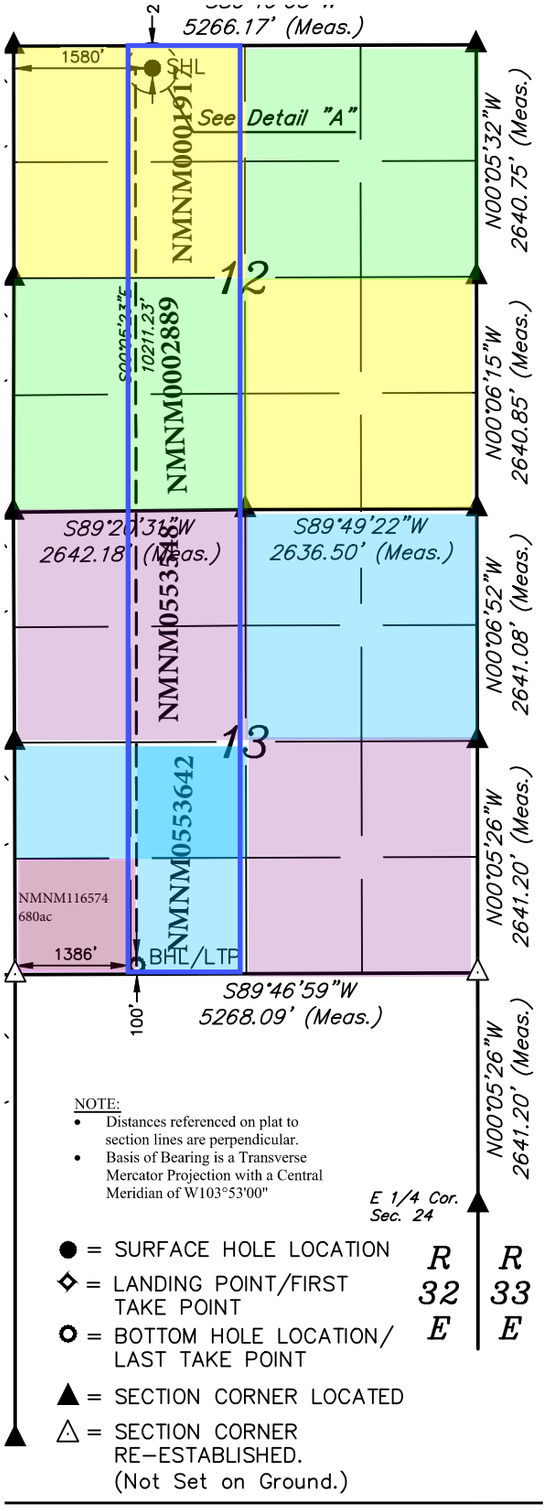
Operator Name: CIMAREX ENERGY COMPANY

Well Name: DOS EQUIS 12-13 FEDERAL COM **Well Number:** 48H

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this lease?
PPP Leg #1-1	255	FNL	1386	FWL	24S	32E	12	Aliquot NENW	32.238753	-103.632334	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 0001917	-8629	12318	12235	Y
PPP Leg #1-2	2640	FNL	1386	FWL	24S	32E	12	Aliquot NESW	32.232194	-103.632339	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 0002889	-8775	14555	12381	Y
PPP Leg #1-3	0	FNL	1386	FWL	24S	32E	13	Aliquot NENW	32.224911	-103.632347	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 0001917	-8761	17205	12367	Y
EXIT Leg #1	100	FSL	1386	FWL	24S	32E	13	Aliquot SESW	32.21069	-103.632359	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 0553642	-8734	22379	12340	Y
BHL Leg #1	100	FSL	1386	FWL	24S	32E	13	Aliquot SESW	32.21069	-103.632359	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 0553642	-8734	22379	12340	Y

Dos Equis 12-13 Fed Com 48H

Lease Map



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

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-025-50120	98309	WC-025-G-08 S243213C;WOLFCAMP

[4] Property Code	[5] Property Name	[6] Well Number
326056	DOS EQUIS 12-13 FEDERAL COM	48H

[7] OGRID No.	[8] Operator Name	[9] Elevation
215099	CIMAREX ENERGY CO.	3606.7'

[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
C	12	24S	32E		255	NORTH	1580	WEST	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
N	13	24S	32E		100	SOUTH	1386	WEST	LEA

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

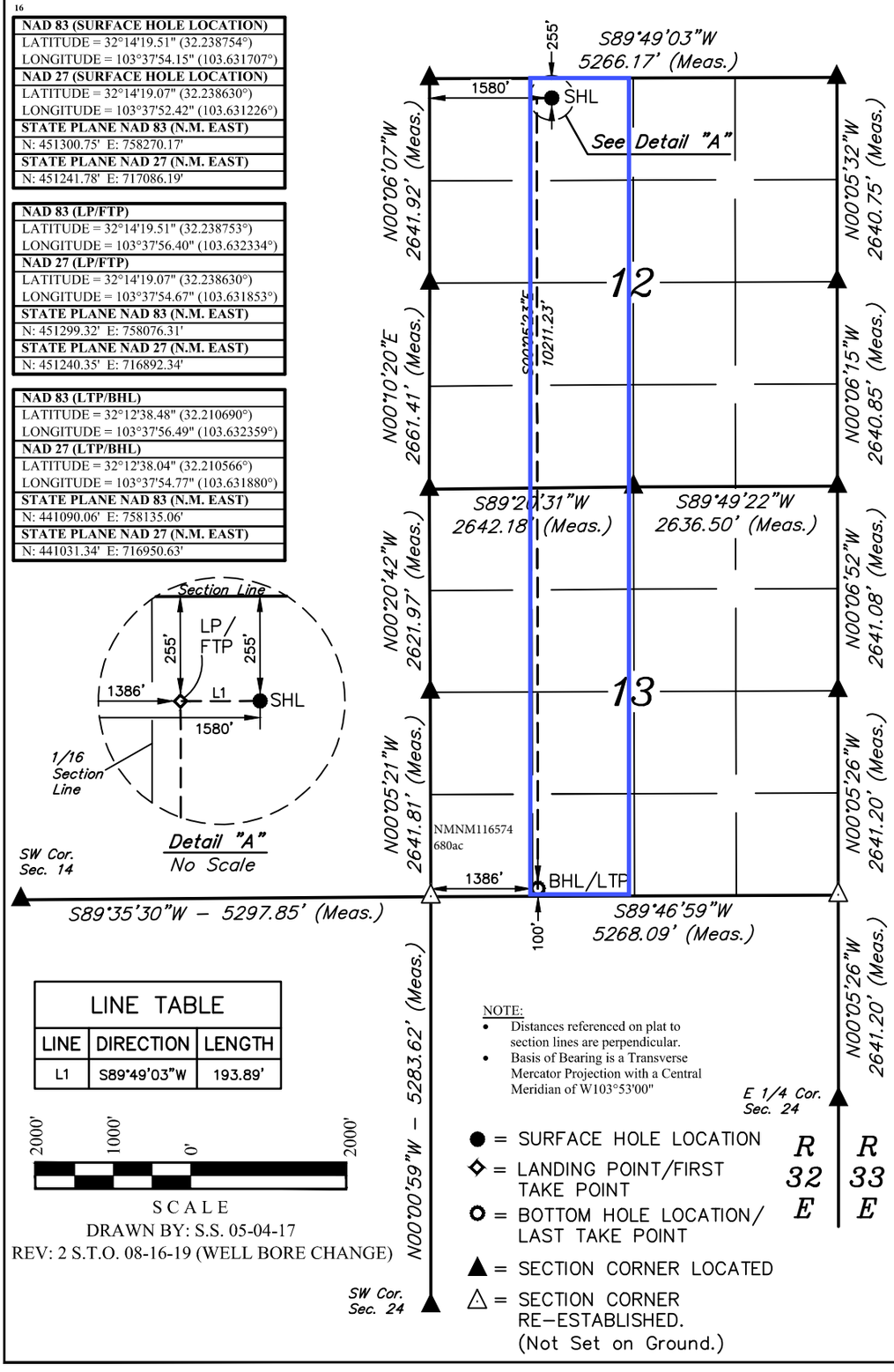
No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

[16]

NAD 83 (SURFACE HOLE LOCATION)
LATITUDE = 32°14'19.51" (32.238754°)
LONGITUDE = 103°37'54.15" (103.631707°)
NAD 27 (SURFACE HOLE LOCATION)
LATITUDE = 32°14'19.07" (32.238630°)
LONGITUDE = 103°37'52.42" (103.631226°)
STATE PLANE NAD 83 (N.M. EAST)
N: 451300.75' E: 758270.17'
STATE PLANE NAD 27 (N.M. EAST)
N: 451241.78' E: 717086.19'

NAD 83 (LP/FTP)
LATITUDE = 32°14'19.51" (32.238753°)
LONGITUDE = 103°37'56.40" (103.632334°)
NAD 27 (LP/FTP)
LATITUDE = 32°14'19.07" (32.238630°)
LONGITUDE = 103°37'54.67" (103.631853°)
STATE PLANE NAD 83 (N.M. EAST)
N: 451299.32' E: 758076.31'
STATE PLANE NAD 27 (N.M. EAST)
N: 451240.35' E: 716892.34'

NAD 83 (LTP/BHL)
LATITUDE = 32°12'38.48" (32.210690°)
LONGITUDE = 103°37'56.49" (103.632359°)
NAD 27 (LTP/BHL)
LATITUDE = 32°12'38.04" (32.210566°)
LONGITUDE = 103°37'54.77" (103.631880°)
STATE PLANE NAD 83 (N.M. EAST)
N: 441090.06' E: 758135.06'
STATE PLANE NAD 27 (N.M. EAST)
N: 441031.34' E: 716950.63'



LINE TABLE		
LINE	DIRECTION	LENGTH
L1	S89°49'03"W	193.89'

2000' 1000' 0' 2000'

SCALE

DRAWN BY: S.S. 05-04-17
REV: 2 S.T.O. 08-16-19 (WELL BORE CHANGE)

NOTE:
- Distances referenced on plat to section lines are perpendicular.
- Basis of Bearing is a Transverse Mercator Projection with a Central Meridian of W103°53'00"

● = SURFACE HOLE LOCATION
◇ = LANDING POINT/FIRST TAKE POINT
○ = BOTTOM HOLE LOCATION/ LAST TAKE POINT
▲ = SECTION CORNER LOCATED
△ = SECTION CORNER RE-ESTABLISHED. (Not Set on Ground.)

[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.

Hope Knauls 4-30-20
Signature Date

Hope Knauls
Printed Name

hknauls@cimarex.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.

April 23, 2018
Date of Survey

Signature and Seal of Professional Surveyor:

PAUL BUCHELE
NEW MEXICO
23782
PROFESSIONAL SURVEYOR
08-16-19

Certificate Number:

AFMSS

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

Drilling Plan Data Report

07/07/2020

APD ID: 10400058037
Submission Date: 07/06/2020
Operator Name: CIMAREX ENERGY COMPANY
Well Name: DOS EQUIS 12-13 FEDERAL COM
Well Number: 48H
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
759007	RUSTLER	0	1185	1185	LIMESTONE	USEABLE WATER	N
759008	SALADO	-1500	1500	1500	ANHYDRITE	NONE	N
759009	BASE OF SALT	-4650	4650	4675	ANHYDRITE	NONE	N
759010	BELL CANYON	-4947	4947	4975	SANDSTONE	NONE	N
759011	CHERRY CANYON	-5874	5874	5912	SANDSTONE	NONE	N
759012	BRUSHY CANYON	-7311	7311	7352	SANDSTONE	NONE	N
759013	BONE SPRING	-8845	8845	8886	LIMESTONE	NATURAL GAS, OIL	N
759014	AVALON SAND	-9283	9283	9324	SHALE	NATURAL GAS, OIL	N
759015	BONE SPRING 1ST	-9980	9980	10021	SANDSTONE	NATURAL GAS, OIL	N
759016	BONE SPRING 2ND	-10640	10640	10681	LIMESTONE	NATURAL GAS, OIL	N
759017	BONE SPRING 3RD	-11090	11090	11131	LIMESTONE	NATURAL GAS, OIL	N
759018	WOLFCAMP	-12235	12235	12404	SANDSTONE	NATURAL GAS, OIL	Y

Section 2 - Blowout Prevention

Pressure Rating (PSI): 10M
Rating Depth: 22379

Equipment: A BOP consisting of three rams, including one blind ram and two pipe rams and one annular preventer. An accumulator that meets the requirements in Onshore Order #2 for the pressure rating of the BOP stack. A rotating head may be installed as needed. A Kelly clock will be installed and maintained in operable condition and a drill string safety valve in the open position will be available on the rig floor
Requesting Variance? YES

Variance request: Co-flex line between the BOP and choke manifold. Certification for proposed co-flex hose is attached. The hose is not required by the manufacturer to be anchored. In the event the specific hose is not available, one of equal or higher rating will be used. Variance to include Hammer Union connections on lines downstream of the buffer tank only.

Operator Name: CIMAREX ENERGY COMPANY

Well Name: DOS EQUIS 12-13 FEDERAL COM **Well Number:** 48H

Cimarex requests a 5M annular variance for the 10M BOP system. See attached procedure

Testing Procedure: A multi-bowl wellhead system will be utilized. After running the 10-3/4" surface casing, a 13 5/8 BOP/BOPE system with a minimum working pressure of 10000 psi will be installed on the wellhead system and will be pressure tested to 250 psi low followed by a 10000 psi test. Annular will be tested to 50% of working pressure. The pressure test will be repeated at least every 30 days, as per Onshore Order No. 2. The multi-bowl wellhead will be installed by vendors representative. A copy of the installation instructions has been sent to the BLM field office. The wellhead will be installed by a third-party welder, monitored by the wellhead vendor representative. All BOP equipment will be tested utilizing a conventional test plug. Not a cup or J-packer type. A solid steel body pack-off will be utilized after running and cementing the intermediate casing. After installation the pack-off and lower flange will be pressure tested to 10000 psi. The surface casing string will be tested as per Onshore Order No. 2 to at least 0.22 psi/ft or 1500 psi, whichever is greater. The casing string utilizing steel body pack-off will be tested to 70% of casing burst. If well conditions dictate conventional slips will be set and BOPE will be tested to appropriate pressures based on permitted pressure requirements.

Choke Diagram Attachment:

Dos_Equis_12_13_Fed_Com_48H_Choke_10M_20200623123424.pdf

BOP Diagram Attachment:

Dos_Equis_12_13_Fed_Com_48H_BOP_10M_20200623123439.pdf

Pressure Rating (PSI): 5M **Rating Depth:** 12556

Equipment: A BOP consisting of three rams, including one blind ram and two pipe rams and one annular preventer. An accumulator that meets the requirements in Onshore Order #2 for the pressure rating of the BOP stack. A rotating head may be installed as needed. A Kelly clock will be installed and maintained in operable condition and a drill string safety valve in the open position will be available on the rig floor.

Requesting Variance? YES

Variance request: Co-flex line between the BOP and choke manifold. Certification for proposed co-flex hose is attached. The hose is not required by the manufacturer to be anchored. In the event the specific hose is not available, one of equal or higher rating will be used. Variance to include Hammer Union connections on lines downstream of the buffer tank only.

Testing Procedure: A multi-bowl wellhead system will be utilized. After running the 10-3/4" surface casing, a 13 5/8 BOP/BOPE system with a minimum working pressure of 5000 psi will be installed on the wellhead system and will be pressure tested to 250 psi low followed by a 5000 psi test. Annular will be tested to 50% of working pressure. The pressure test will be repeated at least every 30 days, as per Onshore Order No. 2. The multi-bowl wellhead will be installed by vendors representative. A copy of the installation instructions has been sent to the BLM field office. The wellhead will be installed by a third-party welder, monitored by the wellhead vendor representative. All BOP equipment will be tested utilizing a conventional test plug. Not a cup or J-packer type. A solid steel body pack-off will be utilized after running and cementing the intermediate casing. After installation the pack-off and lower flange will be pressure tested to 5000 psi. The surface casing string will be tested as per Onshore Order No. 2 to at least 0.22 psi/ft or 1500 psi, whichever is greater. The casing string utilizing steel body pack-off will be tested to 70% of casing burst. If well conditions dictate conventional slips will be set and BOPE will be tested to appropriate pressures based on permitted pressure requirements.

Choke Diagram Attachment:

Dos_Equis_12_13_Fed_Com_48H_Choke_5M_20200623123354.pdf

BOP Diagram Attachment:

Dos_Equis_12_13_Fed_Com_48H_BOP_5M_20200623123400.pdf

Operator Name: CIMAREX ENERGY COMPANY

Well Name: DOS EQUIS 12-13 FEDERAL COM **Well Number:** 48H

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	14.75	10.75	NEW	API	N	0	1235	0	1235	3606	2371	1235	J-55	40.5	BUTT	2.95	5.85	BUOY	12.58	BUOY	12.58
2	PRODUCTION	6.75	5.5	NEW	API	Y	0	11683	0	11683	3608	-8077	11683	L-80	20	LT&C	1.25	1.21	BUOY	1.86	BUOY	1.86
3	INTERMEDIATE	9.875	7.625	NEW	API	N	0	12556	0	12341	3608	-8735	12556	L-80	29.7	BUTT	2.49	1.19	BUOY	1.81	BUOY	1.81
4	PRODUCTION	6.75	5.0	NEW	API	Y	11683	22379	11683	12417	-8077	-8811	10696	P-110	18	BUTT	1.67	1.69	BUOY	43.9	BUOY	43.9

Casing Attachments

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Dos_Equis_12_13_Fed_Com_48H_Casing_Assumptions_20200623123743.pdf

Operator Name: CIMAREX ENERGY COMPANY

Well Name: DOS EQUIS 12-13 FEDERAL COM **Well Number:** 48H

Casing Attachments

Casing ID: 2 **String Type:** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Dos_Equis_12_13_Federal_Com_Tapered_Casing_Specs_20200623124041.pdf

Casing Design Assumptions and Worksheet(s):

Dos_Equis_12_13_Fed_Com_48H_Casing_Assumptions_20200623124058.pdf

Casing ID: 3 **String Type:** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Dos_Equis_12_13_Fed_Com_48H_Casing_Assumptions_20200623123840.pdf

Casing ID: 4 **String Type:** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Dos_Equis_12_13_Federal_Com_Tapered_Casing_Specs_20200623124203.pdf

Casing Design Assumptions and Worksheet(s):

Dos_Equis_12_13_Fed_Com_48H_Casing_Assumptions_20200623124235.pdf

Section 4 - Cement

Operator Name: CIMAREX ENERGY COMPANY

Well Name: DOS EQUIS 12-13 FEDERAL COM **Well Number:** 48H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
PRODUCTION	Lead		0	0	0	0	0	0	0	0	0
SURFACE	Lead		0	1235	480	1.72	13.5	825	45	Class C	Bentonite
SURFACE	Tail		0	1235	128	1.34	14.8	171	45	Class C	LCM
INTERMEDIATE	Lead	4900	0	4900	782	1.88	12.9	1470	37	35:65 POZ C	Salt Bentontie
INTERMEDIATE	Lead	4900	4900	12556	590	3.64	10.3	2147	47	Tuned Light	LCM
INTERMEDIATE	Tail		4900	12556	200	1.34	14.8	268	47	Class C	LCM
PRODUCTION	Lead		0	22379	851	1.3	14.2	1106	25	50:50 POZ H	Salt Benotnite, Fluid Loss, Dispersant, SMS

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 will be kept on location at all times in order to combat lost circulation or unexpected kicks. In order to run DSTs, open hole logs, and casing, the viscosity and water loss may have to be adjusted in order to meet these needs.
Describe the mud monitoring system utilized: PVT/Pason/Visual Monitoring

Circulating Medium Table

Operator Name: CIMAREX ENERGY COMPANY

Well Name: DOS EQUIS 12-13 FEDERAL COM **Well Number:** 48H

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	1235	OTHER : Fresh Water	7.83	8.33							
1235	12556	OTHER : Brine Diesel Emulsion-The Brine Emulsion is completely saturated brine fluid that ties diesel into itself to lower the weight of the fluid. The drilling fluid is completely salt saturated.	8.5	9							
12556	22379	OIL-BASED MUD	12	12.5							

Section 6 - Test, Logging, Coring

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

No DST Planned

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

GAMMA RAY LOG,COMPENSATED NEUTRON LOG,DIRECTIONAL SURVEY,

Coring operation description for the well:

N/A

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 8071 **Anticipated Surface Pressure:** 5347

Anticipated Bottom Hole Temperature(F): 191

Anticipated abnormal pressures, temperatures, or potential geologic hazards? YES

Describe:

Lost circulation may be encountered in the Delaware mountain group. Abnormal pressure as well as hole stability issues may be encountered in the Wolfcamp.

Contingency Plans geoharzards description:

Lost circulation material will be available, as well as additional drilling fluid along with the fluid volume in the drilling rig pit system. Drilling fluid can be mixed on location or mixed in vendor mud plant and trucked to location if needed. Sufficient

Operator Name: CIMAREX ENERGY COMPANY

Well Name: DOS EQUIS 12-13 FEDERAL COM **Well Number:** 48H

barite will be available to maintain appropriate mud weight for the Wolfcamp interval

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

Dos_Equis_12_13_Fed_Com_48H_H2S_Plan_20200623124749.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Dos_Equis_12_13_Fed_Com_48H_Directional_20200623125147.pdf
Dos_Equis_12_13_Fed_Com_48H_AC_Report_20200623125154.pdf

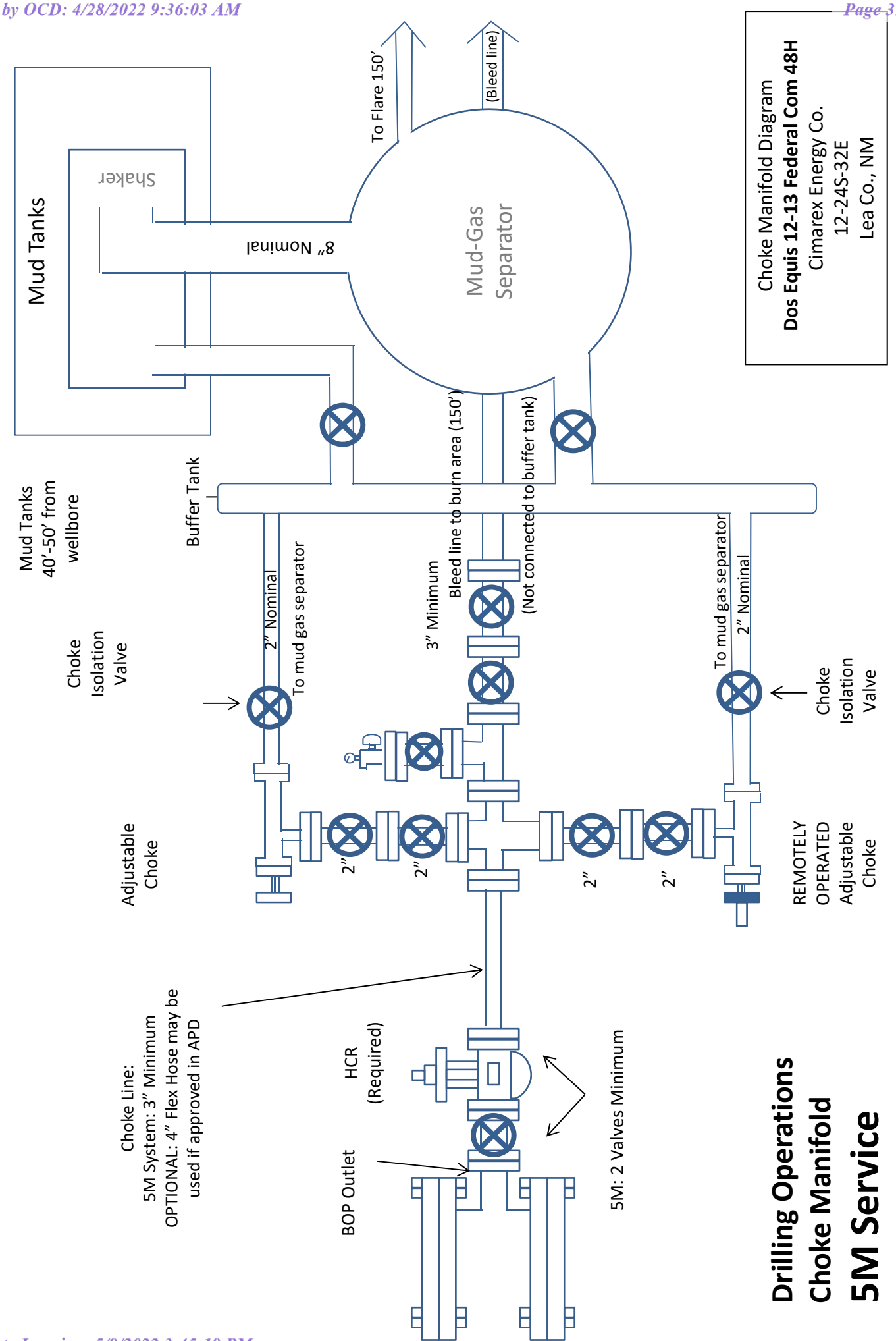
Other proposed operations facets description:

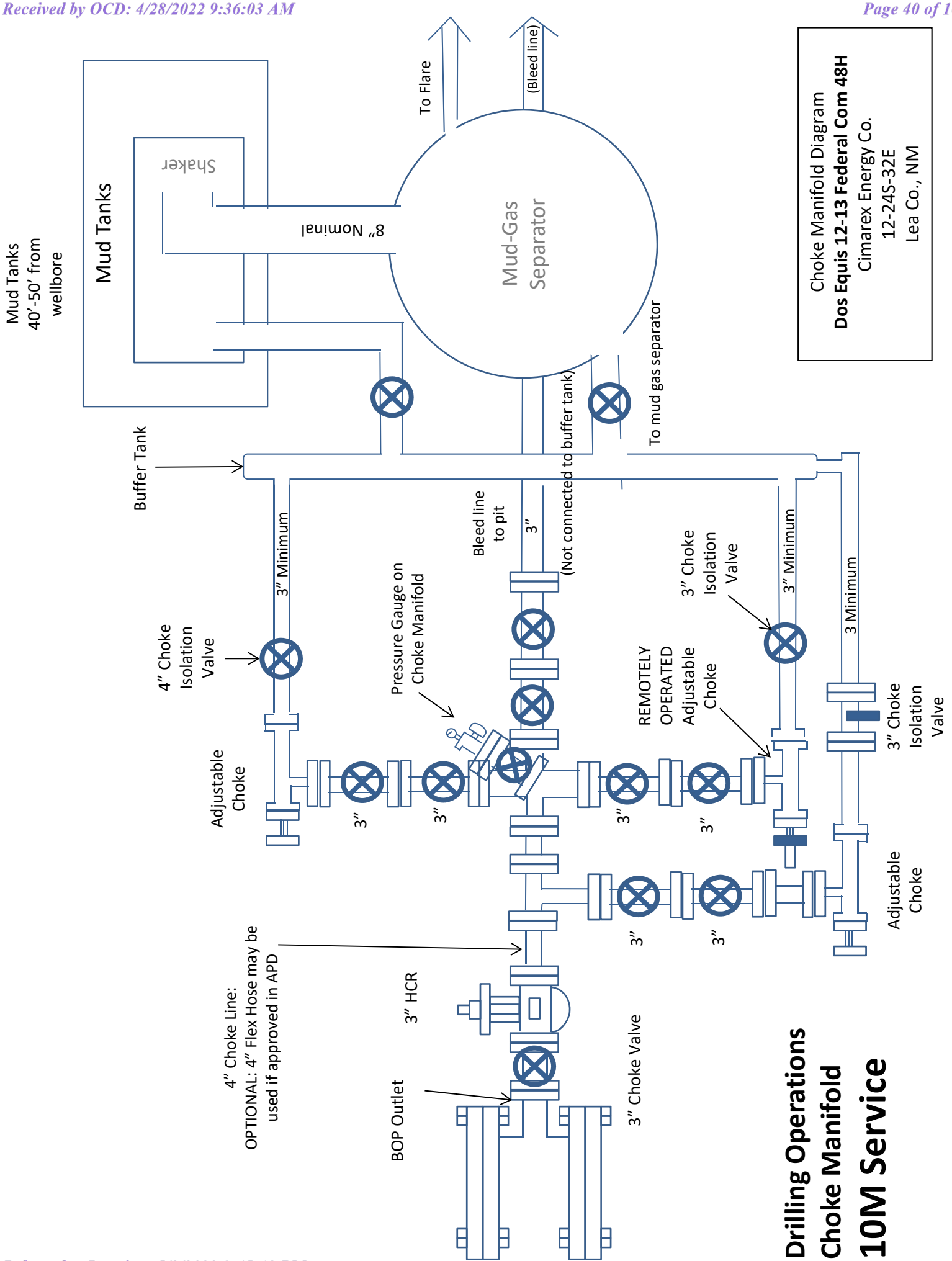
Other proposed operations facets attachment:

Dos_Equis_12_13_Fed_Com_48H_Drilling_Plan_20200623124901.pdf
Dos_Equis_12_13_Fed_Com_48H_Gas_Capture_Plan_20200623124910.pdf

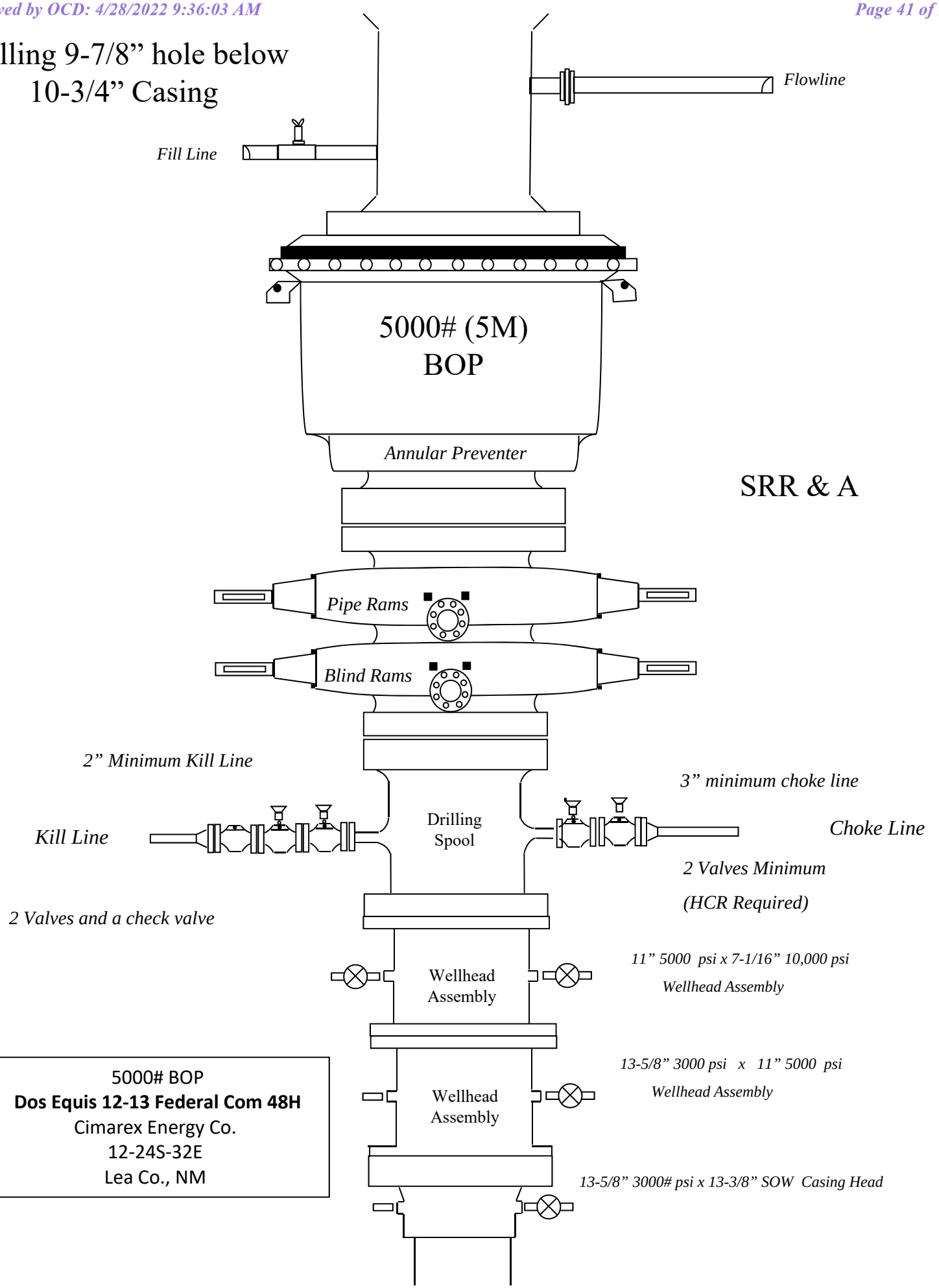
Other Variance attachment:

Dos_Equis_12_13_Fed_Com_48H_Multibowl_Wellhead_20200623124818.pdf
Dos_Equis_12_13_Fed_Com_48H_Well_Control_10M_w_5M_annular_Plan__BLM_Approved__20200623124827.pdf
Dos_Equis_12_13_Fed_Com_48H_Flex_Hose_20200623124843.pdf


Drilling Operations
Choke Manifold
5M Service
Choke Manifold Diagram
Dos Equis 12-13 Federal Com 48H
Cimarex Energy Co.
12-24S-32E
Lea Co., NM
Mud Tanks
Shaker
8" Nominal
Mud-Gas Separator
To Flare 150'
(Bleed line)
Mud Tanks 40'-50' from wellbore
Buffer Tank
Choke Isolation Valve
2" Nominal
To mud gas separator
3" Minimum
Bleed line to burn area (150')
(Not connected to buffer tank)
To mud gas separator
2" Nominal
Choke Isolation Valve
Adjustable Choke
2"
2"
2"
2"
REMOTELY OPERATED Adjustable Choke
Choke Line:
5M System: 3" Minimum
OPTIONAL: 4" Flex Hose may be used if approved in APD
HCR (Required)
BOP Outlet
5M: 2 Valves Minimum


Mud Tanks
40'-50' from wellbore
Mud Tanks
Shaker
8" Nominal
Mud-Gas Separator
To Flare
(Bleed line)
Choke Manifold Diagram
Dos Equis 12-13 Federal Com 48H
Cimarex Energy Co.
12-24S-32E
Lea Co., NM
Buffer Tank
To mud gas separator
(Not connected to buffer tank)
Bleed line to pit
3"
3" Minimum
4" Choke Isolation Valve
Pressure Gauge on Choke Manifold
3" Choke Isolation Valve
3" Minimum
3 Minimum
REMOTELY OPERATED Adjustable Choke
Adjustable Choke
3" Choke Isolation Valve
Adjustable Choke
3"
3"
3"
3"
3"
3"
4" Choke Line:
OPTIONAL: 4" Flex Hose may be used if approved in APD
3" HCR
3" Choke Valve
BOP Outlet
Drilling Operations
Choke Manifold
10M Service

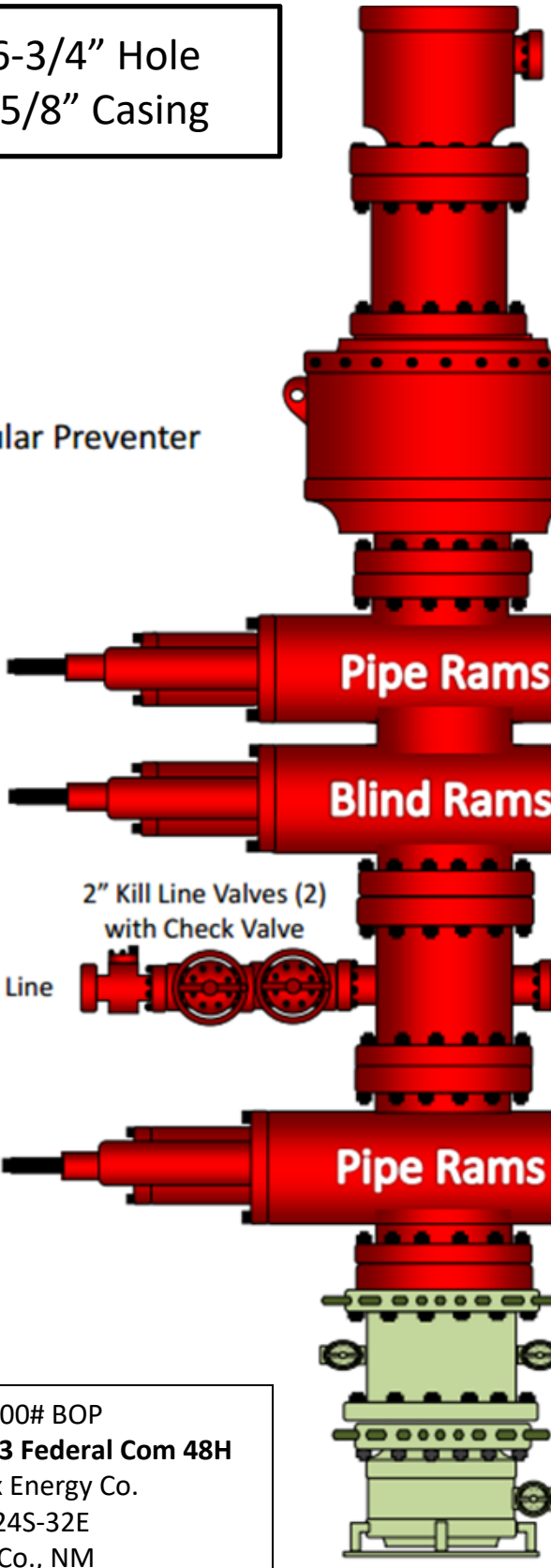
Drilling 9-7/8” hole below 10-3/4” Casing



SRR & A

5000# BOP
Dos Equis 12-13 Federal Com 48H
Cimarex Energy Co.
12-24S-32E
Lea Co., NM

Drilling 6-3/4" Hole
below 7-5/8" Casing



10,000# BOP
Dos Equis 12-13 Federal Com 48H
Cimarex Energy Co.
12-24S-32E
Lea Co., NM

Technical Data Sheet AXIS 5 1/2" 20# P110CY BTC

TUBULAR PARAMETERS

Nominal OD, (inch)	5.500
Wall Thickness, (inch)	.361
Pipe Grade	P110CY
Coupling	Regular
Coupling Grade	P110CY
Drift	Standard

Pipe Body Properties

PE Weight, (lbs/ft)	19.83
Nominal Weight, (lbs/ft)	20.00
Nominal ID, (inch)	4.778
Drift Diameter, (inch)	4.653
Yield Strength in Tension, (klbs)	641
Internal Yield Pressure, (psi)	12,360
Collapse Pressure, (psi)	11,100

Technical Data Sheet AXIS 5 1/2" 20# P110CY BTC

TUBULAR PARAMETERS

Nominal OD, (inch)	5.500
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Pipe Grade	P110CY
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Nominal ID, (inch)	4.778
Drift Diameter, (inch)	4.653
Yield Strength in Tension, (klbs)	641
Internal Yield Pressure, (psi)	12,360
Collapse Pressure, (psi)	11,100

Dos Equis 12-13 Fed Com 48H

Casing Assumptions

Hole Size	Casing Depth From	Casing Depth To	Setting Depth TVD	Casing Size	Weight (lb/ft)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
14 3/4	0	1235	1235	10-3/4"	40.50	J-55	BT&C	2.95	5.85	12.58
9 7/8	0	12556	12341	7-5/8"	29.70	L-80	BT&C	2.49	1.19	1.81
6 3/4	0	11683	11683	5-1/2"	20.00	HCL-80	LT&C	1.25	1.21	1.86
6 3/4	11683	22379	12417	5"	18.00	P-110	BT&C	1.67	1.69	43.90
					BLM Minimum Safety Factor			1.125	1	1.6 Dry 1.8 Wet

Dos Equis 12-13 Fed Com 48H

Casing Assumptions

Hole Size	Casing Depth From	Casing Depth To	Setting Depth TVD	Casing Size	Weight (lb/ft)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
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9 7/8	0	12556	12341	7-5/8"	29.70	L-80	BT&C	2.49	1.19	1.81
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6 3/4	11683	22379	12417	5"	18.00	P-110	BT&C	1.67	1.69	43.90
					BLM Minimum Safety Factor			1.125	1	1.6 Dry 1.8 Wet

Dos Equis 12-13 Fed Com 48H

Casing Assumptions

Hole Size	Casing Depth From	Casing Depth To	Setting Depth TVD	Casing Size	Weight (lb/ft)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
14 3/4	0	1235	1235	10-3/4"	40.50	J-55	BT&C	2.95	5.85	12.58
9 7/8	0	12556	12341	7-5/8"	29.70	L-80	BT&C	2.49	1.19	1.81
6 3/4	0	11683	11683	5-1/2"	20.00	HCL-80	LT&C	1.25	1.21	1.86
6 3/4	11683	22379	12417	5"	18.00	P-110	BT&C	1.67	1.69	43.90
					BLM Minimum Safety Factor			1.125	1	1.6 Dry 1.8 Wet

Dos Equis 12-13 Fed Com 48H

Casing Assumptions

Hole Size	Casing Depth From	Casing Depth To	Setting Depth TVD	Casing Size	Weight (lb/ft)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
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9 7/8	0	12556	12341	7-5/8"	29.70	L-80	BT&C	2.49	1.19	1.81
6 3/4	0	11683	11683	5-1/2"	20.00	HCL-80	LT&C	1.25	1.21	1.86
6 3/4	11683	22379	12417	5"	18.00	P-110	BT&C	1.67	1.69	43.90
					BLM Minimum Safety Factor			1.125	1	1.6 Dry 1.8 Wet

Hydrogen Sulfide Drilling Operations Plan
Dos Equis 12-13 Federal Com 48H
Cimarex Energy Co.
UL: C, Sec. 12, 24S, 32E
Lea Co., NM

1 All Company and Contract personnel admitted on location must be trained by a qualified H2S safety instructor to the following:

A. Characteristics of H_2S
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.

H_2S 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 (H_2S present in dangerous concentration). Only H2S trained and certified personnel admitted to location.

5 Well control equipment:

A. See exhibit "E-1"

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 Drillstem Testing:
No DSTs r cores are planned at this time.

8 Drilling contractor supervisor will be required to be familiar with the effects H_2S has on tubular goods and other mechanical equipment.

9 If H2S is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas separator will be brought into service along with H2S scavengers if necessary.

H_2S Contingency Plan
Dos Equis 12-13 Federal Com 48H
Cimarex Energy Co.
UL: C, Sec. 12, 24S, 32E
Lea Co., NM

Emergency Procedures

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

« Isolate the area and prevent entry by other persons into the 100 ppm ROE.
« Evacuate any public places encompassed by the 100 ppm ROE.
« Be equipped with H_2S monitors and air packs in order to control the release.
« Use the "buddy system" to ensure no injuries occur during the 432-620-1975
« 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 H_2S, and
  · Measures for protection against the gas,
  · Equipment used for protection and emergency response.

Ignition of Gas Source

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

Characteristics of H_2S and SO_2

Please see attached International Chemical Safety Cards.

Contacting Authorities

Cimarex Energy Co. of Colorado's 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 site. The following call list of essential and potential responders has been prepared for use during a release. Cimarex Energy Co. of Colorado's response must be in coordination with the State of New Mexico's "Hazardous Materials Emergency Response Plan" (HMER).

H_2S Contingency Plan Emergency Contacts
Dos Equis 12-13 Federal Com 48H
Cimarex Energy Co.
UL: C, Sec. 12, 24S, 32E
Lea Co., NM

Company Office			
Cimarex Energy Co. of Colorado		800-969-4789	
Co. Office and After-Hours Menu			

Key Personnel

Name	**Title**	**Office**	**Mobile**
Larry Seigrist	Drilling Manager	432-620-1934	580-243-8485
Charlie Pritchard	Drilling Superintendent	432-620-1975	432-238-7084
Roy Shirley	Construction Superintendent		432-634-2136

Artesia			
Ambulance		911	
State Police		575-746-2703	
City Police		575-746-2703	
Sheriff's Office		575-746-9888	
Fire Department		**575-746-2701**	
Local Emergency Planning Committee		575-746-2122	
New Mexico Oil Conservation Division		575-748-1283	

Carlsbad			
Ambulance		911	
State Police		575-885-3137	
City Police		575-885-2111	
Sheriff's Office		575-887-7551	
Fire Department		**575-887-3798**	
Local Emergency Planning Committee		575-887-6544	
US Bureau of Land Management		575-887-6544	

Santa Fe			
New Mexico Emergency Response Commission (Santa Fe)		505-476-9600	
New Mexico Emergency Response Commission (Santa Fe) 24 Hrs		505-827-9126	
New Mexico State Emergency Operations Center		505-476-9635	

National			
National Emergency Response Center (Washington, D.C.)		800-424-8802	

Medical			
Flight for Life - 4000 24th St.; Lubbock, TX		806-743-9911	
Aerocare - R3, Box 49F; Lubbock, TX		806-747-8923	
Med Flight Air Amb - 2301 Yale Blvd S.E., #D3; Albuquerque, NM		505-842-4433	
SB Air Med Service - 2505 Clark Carr Loop S.E.; Albuquerque, NM		505-842-4949	

Other			
Boots & Coots IWC	800-256-9688	or	281-931-8884
Cudd Pressure Control	432-699-0139	or	432-563-3356
Halliburton	575-746-2757		
B.J. Services	575-746-3569		

Schlumberger

CIMAREX

Cimarex Dos Equis 12-13 Federal Com #48H Rev0 RM 13Sept19

(Non-Def Plan)

Report Date:	October 03, 2019 - 08:52 AM	**Survey / DLS Computation:**	Minimum Curvature / Lubinski
Client:	Cimarex Energy	**Vertical Section Azimuth:**	179.670 ° (Grid North)
Field:	NM Lea County (NAD 83)	**Vertical Section Origin:**	0.000 ft, 0.000 ft
Structure / Slot:	Cimarex Dos Equis 12-13 Federal Com #48H / New Slot	**TVD Reference Datum:**	RKB
Well:	Dos Equis 12-13 Federal Com #48H	**TVD Reference Elevation:**	3632.700 ft above MSL
Borehole:	Dos Equis 12-13 Federal Com #48H	**Seabed / Ground Elevation:**	3606.700 ft above MSL
UWI / API#:	Unknown / Unknown	**Magnetic Declination:**	6.655 °
Survey Name:	Cimarex Dos Equis 12-13 Federal Com #48H Rev0 RM 13Sept19	**Total Gravity Field Strength:**	998.4381mgn (9.80665 Based)
Survey Date:	September 24, 2019	**Gravity Model:**	GARM
Tort / AHD / DDI / ERD Ratio:	108.144 ° / 10280.659 ft / 6.303 / 0.830	**Total Magnetic Field Strength:**	47883.004 nT
Coordinate Reference System:	NAD83 New Mexico State Plane, Eastern Zone, US Feet	**Magnetic Dip Angle:**	59.895 °
Location Lat / Long:	N 32° 14' 19.51367", W 103° 37' 54.14509"	**Declination Date:**	October 03, 2019
Location Grid N/E Y/X:	N 451300.750 ftUS, E 758270.170 ftUS	**Magnetic Declination Model:**	HDGM 2019
CRS Grid Convergence Angle:	0.3743 °	**North Reference:**	Grid North
Grid Scale Factor:	0.99996299	**Grid Convergence Used:**	0.3743 °
Version / Patch:	2.10.782.0	**Total Corr Mag North->Grid North:**	6.2809 °
		Local Coord Referenced To:	Well Head

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
SHL [255' FNL, 1580' FWL]	0.00	0.00	180.76	0.00	0.00	0.00	0.00	N/A	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	100.00	0.00	234.36	100.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	200.00	0.00	234.36	200.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	300.00	0.00	234.36	300.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	400.00	0.00	234.36	400.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	500.00	0.00	234.36	500.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	600.00	0.00	234.36	600.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	700.00	0.00	234.36	700.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	800.00	0.00	234.36	800.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	900.00	0.00	234.36	900.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	1000.00	0.00	234.36	1000.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	1100.00	0.00	234.36	1100.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
Rustler	*1185.00*	*0.00*	*234.36*	*1185.00*	*0.00*	*0.00*	*0.00*	*0.00*	*451300.75*	*758270.17*	*N 32 14 19.51*	*W 103 37 54.15*
	1200.00	0.00	234.36	1200.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	1300.00	0.00	234.36	1300.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	1400.00	0.00	234.36	1400.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
Salado (Top Salt)	1500.00	0.00	234.36	1500.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	1600.00	0.00	234.36	1600.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	1700.00	0.00	234.36	1700.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	1800.00	0.00	234.36	1800.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	1900.00	0.00	234.36	1900.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	2000.00	0.00	234.36	2000.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	2100.00	0.00	234.36	2100.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	2200.00	0.00	234.36	2200.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	2300.00	0.00	234.36	2300.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	2400.00	0.00	234.36	2400.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	2500.00	0.00	234.36	2500.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	2600.00	0.00	234.36	2600.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	2700.00	0.00	234.36	2700.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	2800.00	0.00	234.36	2800.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	2900.00	0.00	234.36	2900.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	3000.00	0.00	234.36	3000.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	3100.00	0.00	234.36	3100.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	3200.00	0.00	234.36	3200.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	3300.00	0.00	234.36	3300.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	3400.00	0.00	234.36	3400.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	3500.00	0.00	234.36	3500.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	3600.00	0.00	234.36	3600.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	3700.00	0.00	234.36	3700.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	3800.00	0.00	234.36	3800.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	3900.00	0.00	234.36	3900.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	4000.00	0.00	234.36	4000.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	4100.00	0.00	234.36	4100.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	4200.00	0.00	234.36	4200.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	4300.00	0.00	234.36	4300.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	4400.00	0.00	234.36	4400.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	4500.00	0.00	234.36	4500.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	4600.00	0.00	234.36	4600.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
Base fo Salt	*4650.00*	*0.00*	*234.36*	*4650.00*	*0.00*	*0.00*	*0.00*	*0.00*	*451300.75*	*758270.17*	*N 32 14 19.51*	*W 103 37 54.15*
	4700.00	0.00	234.36	4700.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	4800.00	0.00	234.36	4800.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	4900.00	0.00	234.36	4900.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
Bell Canyon	*4947.00*	*0.00*	*234.36*	*4947.00*	*0.00*	*0.00*	*0.00*	*0.00*	*451300.75*	*758270.17*	*N 32 14 19.51*	*W 103 37 54.15*
	5000.00	0.00	234.36	5000.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	5100.00	0.00	234.36	5100.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	5200.00	0.00	234.36	5200.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	5300.00	0.00	234.36	5300.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	5400.00	0.00	234.36	5400.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	5500.00	0.00	234.36	5500.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	5600.00	0.00	234.36	5600.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	5700.00	0.00	234.36	5700.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	5800.00	0.00	234.36	5800.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
Cherry Canyon	*5874.00*	*0.00*	*234.36*	*5874.00*	*0.00*	*0.00*	*0.00*	*0.00*	*451300.75*	*758270.17*	*N 32 14 19.51*	*W 103 37 54.15*
	5900.00	0.00	234.36	5900.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	6000.00	0.00	234.36	6000.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	6100.00	0.00	234.36	6100.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	6200.00	0.00	234.36	6200.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	6300.00	0.00	234.36	6300.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	6400.00	0.00	234.36	6400.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	6500.00	0.00	234.36	6500.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	6600.00	0.00	234.36	6600.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	6700.00	0.00	234.36	6700.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	6800.00	0.00	234.36	6800.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	6900.00	0.00	234.36	6900.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	7000.00	0.00	234.36	7000.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	7100.00	0.00	234.36	7100.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	7200.00	0.00	234.36	7200.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	7300.00	0.00	234.36	7300.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
Brushy Canyon	*7311.00*	*0.00*	*234.36*	*7311.00*	*0.00*	*0.00*	*0.00*	*0.00*	*451300.75*	*758270.17*	*N 32 14 19.51*	*W 103 37 54.15*
	7400.00	0.00	234.36	7400.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	7500.00	0.00	234.36	7500.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	7600.00	0.00	234.36	7600.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	7700.00	0.00	234.36	7700.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	7800.00	0.00	234.36	7800.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	7900.00	0.00	234.36	7900.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	8000.00	0.00	234.36	8000.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	8100.00	0.00	234.36	8100.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	8200.00	0.00	234.36	8200.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	8300.00	0.00	234.36	8300.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	8400.00	0.00	234.36	8400.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	8500.00	0.00	234.36	8500.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	8600.00	0.00	234.36	8600.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	8700.00	0.00	234.36	8700.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	8800.00	0.00	234.36	8800.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
Bone Spring	*8845.00*	*0.00*	*234.36*	*8845.00*	*0.00*	*0.00*	*0.00*	*0.00*	*451300.75*	*758270.17*	*N 32 14 19.51*	*W 103 37 54.15*
	8900.00	0.00	234.36	8900.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	9000.00	0.00	234.36	9000.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	9100.00	0.00	234.36	9100.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	9200.00	0.00	234.36	9200.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
Avalon	*9283.00*	*0.00*	*234.36*	*9283.00*	*0.00*	*0.00*	*0.00*	*0.00*	*451300.75*	*758270.17*	*N 32 14 19.51*	*W 103 37 54.15*
	9300.00	0.00	234.36	9300.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	9400.00	0.00	234.36	9400.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	9500.00	0.00	234.36	9500.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	9600.00	0.00	234.36	9600.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	9700.00	0.00	234.36	9700.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	9800.00	0.00	234.36	9800.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	9900.00	0.00	234.36	9900.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
1st Bone Spring Sand	*9980.00*	*0.00*	*234.36*	*9980.00*	*0.00*	*0.00*	*0.00*	*0.00*	*451300.75*	*758270.17*	*N 32 14 19.51*	*W 103 37 54.15*
	10000.00	0.00	234.36	10000.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	10100.00	0.00	234.36	10100.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	10200.00	0.00	234.36	10200.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	10300.00	0.00	234.36	10300.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	10400.00	0.00	234.36	10400.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	10500.00	0.00	234.36	10500.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	10600.00	0.00	234.36	10600.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
2nd Bone Spring Sand	*10640.00*	*0.00*	*234.36*	*10640.00*	*0.00*	*0.00*	*0.00*	*0.00*	*451300.75*	*758270.17*	*N 32 14 19.51*	*W 103 37 54.15*
	10700.00	0.00	234.36	10700.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	10800.00	0.00	234.36	10800.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	10900.00	0.00	234.36	10900.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	11000.00	0.00	234.36	11000.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
3rd Bone Spring Carb	*11090.00*	*0.00*	*234.36*	*11090.00*	*0.00*	*0.00*	*0.00*	*0.00*	*451300.75*	*758270.17*	*N 32 14 19.51*	*W 103 37 54.15*
	11100.00	0.00	234.36	11100.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	11200.00	0.00	234.36	11200.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	11300.00	0.00	234.36	11300.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	11400.00	0.00	234.36	11400.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	11500.00	0.00	234.36	11500.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	11600.00	0.00	234.36	11600.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	11700.00	0.00	234.36	11700.00	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
KOP - Build 12°/100' DLS	11782.99	0.00	234.36	11782.99	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
	11800.00	2.04	234.36	11800.00	0.18	-0.18	-0.25	12.00	451300.57	758269.92	N 32 14 19.51	W 103 37 54.15
3rd Bone Spring Sand	*11825.05*	*5.05*	*234.36*	*11825.00*	*1.07*	*-1.08*	*-1.50*	*12.00*	*451299.67*	*758268.67*	*N 32 14 19.50*	*W 103 37 54.16*
	11900.00	14.04	234.36	11898.83	8.25	-8.31	-11.59	12.00	451292.44	758258.58	N 32 14 19.43	W 103 37 54.28
	12000.00	26.04	234.36	11992.61	28.02	-28.25	-39.39	12.00	451272.50	758230.78	N 32 14 19.24	W 103 37 54.61
Build & Turn 12°/100' DLS	12074.65	35.00	234.36	12056.85	49.92	-50.32	-70.17	12.00	451250.43	758200.00	N 32 14 19.02	W 103 37 54.97
	12100.00	36.21	229.56	12077.46	58.94	-59.41	-81.78	12.00	451241.34	758188.40	N 32 14 18.93	W 103 37 55.10
	12200.00	42.54	213.42	12154.93	106.26	-106.97	-123.03	12.00	451193.79	758147.15	N 32 14 18.46	W 103 37 55.59

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)		Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	12300.00	50.62	201.15	12223.74	170.56	-171.46	-155.71	12.00	451129.29	758114.47	N	32 14 17.83	W 103 37 55.97
Wolfcamp	*12318.05*	*52.20*	*199.26*	*12235.00*	*183.78*	*-184.71*	*-160.58*	*12.00*	*451116.05*	*758109.60*	*N*	*32 14 17.70*	*W 103 37 56.03*
	12400.00	59.71	191.58	12280.89	249.06	-250.09	-178.40	12.00	451050.67	758091.77	N	32 14 17.05	W 103 37 56.24
	12500.00	69.37	183.68	12323.88	338.31	-339.41	-190.11	12.00	450961.35	758080.06	N	32 14 16.17	W 103 37 56.38
Build 4°/100' DLS	12556.66	75.00	179.67	12341.21	392.19	-393.30	-191.66	12.00	450907.47	758078.52	N	32 14 15.63	W 103 37 56.41
	12600.00	76.73	179.67	12351.80	434.22	-435.33	-191.42	4.00	450865.44	758078.76	N	32 14 15.22	W 103 37 56.41
	12700.00	80.73	179.67	12371.33	532.27	-533.38	-190.85	4.00	450767.39	758079.32	N	32 14 14.25	W 103 37 56.41
	12800.00	84.73	179.67	12383.97	631.45	-632.55	-190.28	4.00	450668.22	758079.89	N	32 14 13.27	W 103 37 56.41
	12900.00	88.73	179.67	12389.67	731.26	-732.37	-189.71	4.00	450568.41	758080.47	N	32 14 12.28	W 103 37 56.41
Wolfcamp Y Target	*12924.07*	*89.70*	*179.67*	*12390.00*	*755.33*	*-756.44*	*-189.57*	*4.00*	*450544.34*	*758080.61*	*N*	*32 14 12.04*	*W 103 37 56.41*
Wolfcamp Y Target Landing Point	12939.24	90.30	179.67	12390.00	770.50	-771.61	-189.48	4.00	450529.17	758080.70	N	32 14 11.89	W 103 37 56.41
	13000.00	90.30	179.67	12389.68	831.26	-832.36	-189.13	0.00	450468.42	758081.05	N	32 14 11.29	W 103 37 56.41
	13100.00	90.30	179.67	12389.15	931.26	-932.36	-188.56	0.00	450368.43	758081.62	N	32 14 10.30	W 103 37 56.41
	13200.00	90.30	179.67	12388.62	1031.26	-1032.36	-187.98	0.00	450268.43	758082.20	N	32 14 9.31	W 103 37 56.41
	13300.00	90.30	179.67	12388.09	1131.26	-1132.35	-187.40	0.00	450168.44	758082.77	N	32 14 8.32	W 103 37 56.41
	13400.00	90.30	179.67	12387.56	1231.25	-1232.35	-186.83	0.00	450068.45	758083.35	N	32 14 7.33	W 103 37 56.41
	13500.00	90.30	179.67	12387.03	1331.25	-1332.35	-186.25	0.00	449968.45	758083.93	N	32 14 6.34	W 103 37 56.41
	13600.00	90.30	179.67	12386.50	1431.25	-1432.34	-185.68	0.00	449868.46	758084.50	N	32 14 5.35	W 103 37 56.42
	13700.00	90.30	179.67	12385.97	1531.25	-1532.34	-185.10	0.00	449768.47	758085.08	N	32 14 4.36	W 103 37 56.42
	13800.00	90.30	179.67	12385.44	1631.25	-1632.34	-184.52	0.00	449668.48	758085.65	N	32 14 3.37	W 103 37 56.42
	13900.00	90.30	179.67	12384.91	1731.25	-1732.33	-183.95	0.00	449568.48	758086.23	N	32 14 2.38	W 103 37 56.42
	14000.00	90.30	179.67	12384.38	1831.25	-1832.33	-183.37	0.00	449468.49	758086.80	N	32 14 1.39	W 103 37 56.42
	14100.00	90.30	179.67	12383.85	1931.24	-1932.33	-182.80	0.00	449368.50	758087.38	N	32 14 0.41	W 103 37 56.42
	14200.00	90.30	179.67	12383.32	2031.24	-2032.33	-182.22	0.00	449268.50	758087.96	N	32 13 59.42	W 103 37 56.42
	14300.00	90.30	179.67	12382.79	2131.24	-2132.32	-181.64	0.00	449168.51	758088.53	N	32 13 58.43	W 103 37 56.42
	14400.00	90.30	179.67	12382.26	2231.24	-2232.32	-181.07	0.00	449068.52	758089.11	N	32 13 57.44	W 103 37 56.42
	14500.00	90.30	179.67	12381.73	2331.24	-2332.32	-180.49	0.00	448968.52	758089.68	N	32 13 56.45	W 103 37 56.42
Lease NMNM0001917 - NMNM0002889 Crossing	*14555.40*	*90.30*	*179.67*	*12381.44*	*2386.64*	*-2387.71*	*-180.17*	*0.00*	*448913.13*	*758090.00*	*N*	*32 13 55.90*	*W 103 37 56.42*
	14600.00	90.30	179.67	12381.20	2431.24	-2432.31	-179.92	0.00	448868.53	758090.26	N	32 13 55.46	W 103 37 56.42
	14700.00	90.30	179.67	12380.67	2531.24	-2532.31	-179.34	0.00	448768.54	758090.84	N	32 13 54.47	W 103 37 56.43
	14800.00	90.30	179.67	12380.14	2631.23	-2632.31	-178.76	0.00	448668.55	758091.41	N	32 13 53.48	W 103 37 56.43
	14900.00	90.30	179.67	12379.61	2731.23	-2732.30	-178.19	0.00	448568.55	758091.99	N	32 13 52.49	W 103 37 56.43
	15000.00	90.30	179.67	12379.08	2831.23	-2832.30	-177.61	0.00	448468.56	758092.56	N	32 13 51.50	W 103 37 56.43
	15100.00	90.30	179.67	12378.56	2931.23	-2932.30	-177.04	0.00	448368.57	758093.14	N	32 13 50.51	W 103 37 56.43
	15200.00	90.30	179.67	12378.03	3031.23	-3032.30	-176.46	0.00	448268.57	758093.72	N	32 13 49.52	W 103 37 56.43
	15300.00	90.30	179.67	12377.50	3131.23	-3132.29	-175.89	0.00	448168.58	758094.29	N	32 13 48.53	W 103 37 56.43
	15400.00	90.30	179.67	12376.97	3231.23	-3232.29	-175.31	0.00	448068.59	758094.87	N	32 13 47.54	W 103 37 56.43
	15500.00	90.30	179.67	12376.44	3331.22	-3332.29	-174.73	0.00	447968.59	758095.44	N	32 13 46.55	W 103 37 56.43
	15600.00	90.30	179.67	12375.91	3431.22	-3432.28	-174.16	0.00	447868.60	758096.02	N	32 13 45.56	W 103 37 56.43
	15700.00	90.30	179.67	12375.38	3531.22	-3532.28	-173.58	0.00	447768.61	758096.60	N	32 13 44.57	W 103 37 56.43
	15800.00	90.30	179.67	12374.85	3631.22	-3632.28	-173.01	0.00	447668.61	758097.17	N	32 13 43.58	W 103 37 56.44
	15900.00	90.30	179.67	12374.32	3731.22	-3732.27	-172.43	0.00	447568.62	758097.75	N	32 13 42.59	W 103 37 56.44
	16000.00	90.30	179.67	12373.79	3831.22	-3832.27	-171.85	0.00	447468.63	758098.32	N	32 13 41.60	W 103 37 56.44
	16100.00	90.30	179.67	12373.26	3931.22	-3932.27	-171.28	0.00	447368.64	758098.90	N	32 13 40.62	W 103 37 56.44
	16200.00	90.30	179.67	12372.73	4031.21	-4032.26	-170.70	0.00	447268.64	758099.47	N	32 13 39.63	W 103 37 56.44
	16300.00	90.30	179.67	12372.20	4131.21	-4132.26	-170.13	0.00	447168.65	758100.05	N	32 13 38.64	W 103 37 56.44
	16400.00	90.30	179.67	12371.67	4231.21	-4232.26	-169.55	0.00	447068.66	758100.63	N	32 13 37.65	W 103 37 56.44
	16500.00	90.30	179.67	12371.14	4331.21	-4332.26	-168.97	0.00	446968.66	758101.20	N	32 13 36.66	W 103 37 56.44
	16600.00	90.30	179.67	12370.61	4431.21	-4432.25	-168.40	0.00	446868.67	758101.78	N	32 13 35.67	W 103 37 56.44
	16700.00	90.30	179.67	12370.08	4531.21	-4532.25	-167.82	0.00	446768.68	758102.35	N	32 13 34.68	W 103 37 56.44

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	16800.00	90.30	179.67	12369.55	4631.21	-4632.25	-167.25	0.00	446668.68	758102.93	N 32 13 33.69	W 103 37 56.44
	16900.00	90.30	179.67	12369.02	4731.20	-4732.24	-166.67	0.00	446568.69	758103.51	N 32 13 32.70	W 103 37 56.45
	17000.00	90.30	179.67	12368.49	4831.20	-4832.24	-166.09	0.00	446468.70	758104.08	N 32 13 31.71	W 103 37 56.45
	17100.00	90.30	179.67	12367.96	4931.20	-4932.24	-165.52	0.00	446368.71	758104.66	N 32 13 30.72	W 103 37 56.45
	17200.00	90.30	179.67	12367.43	5031.20	-5032.23	-164.94	0.00	446268.71	758105.23	N 32 13 29.73	W 103 37 56.45
Lease NMNM0002889 - NMNM0553548 Crossing	*17205.10*	*90.30*	*179.67*	*12367.40*	*5036.30*	*-5037.33*	*-164.91*	*0.00*	*446263.61*	*758105.26*	*N 32 13 29.68*	*W 103 37 56.45*
	17300.00	90.30	179.67	12366.90	5131.20	-5132.23	-164.37	0.00	446168.72	758105.81	N 32 13 28.74	W 103 37 56.45
	17400.00	90.30	179.67	12366.37	5231.20	-5232.23	-163.79	0.00	446068.73	758106.39	N 32 13 27.75	W 103 37 56.45
	17500.00	90.30	179.67	12365.84	5331.20	-5332.22	-163.21	0.00	445968.73	758106.96	N 32 13 26.76	W 103 37 56.45
	17600.00	90.30	179.67	12365.31	5431.19	-5432.22	-162.64	0.00	445868.74	758107.54	N 32 13 25.77	W 103 37 56.45
	17700.00	90.30	179.67	12364.78	5531.19	-5532.22	-162.06	0.00	445768.75	758108.11	N 32 13 24.78	W 103 37 56.45
	17800.00	90.30	179.67	12364.25	5631.19	-5632.22	-161.49	0.00	445668.75	758108.69	N 32 13 23.79	W 103 37 56.45
	17900.00	90.30	179.67	12363.72	5731.19	-5732.21	-160.91	0.00	445568.76	758109.27	N 32 13 22.80	W 103 37 56.45
	18000.00	90.30	179.67	12363.19	5831.19	-5832.21	-160.34	0.00	445468.77	758109.84	N 32 13 21.81	W 103 37 56.45
	18100.00	90.30	179.67	12362.66	5931.19	-5932.21	-159.76	0.00	445368.78	758110.42	N 32 13 20.83	W 103 37 56.46
	18200.00	90.30	179.67	12362.14	6031.19	-6032.20	-159.18	0.00	445268.78	758110.99	N 32 13 19.84	W 103 37 56.46
	18300.00	90.30	179.67	12361.61	6131.19	-6132.20	-158.61	0.00	445168.79	758111.57	N 32 13 18.85	W 103 37 56.46
	18400.00	90.30	179.67	12361.08	6231.18	-6232.20	-158.03	0.00	445068.80	758112.14	N 32 13 17.86	W 103 37 56.46
	18500.00	90.30	179.67	12360.55	6331.18	-6332.19	-157.46	0.00	444968.80	758112.72	N 32 13 16.87	W 103 37 56.46
	18600.00	90.30	179.67	12360.02	6431.18	-6432.19	-156.88	0.00	444868.81	758113.30	N 32 13 15.88	W 103 37 56.46
	18700.00	90.30	179.67	12359.49	6531.18	-6532.19	-156.30	0.00	444768.82	758113.87	N 32 13 14.89	W 103 37 56.46
	18800.00	90.30	179.67	12358.96	6631.18	-6632.18	-155.73	0.00	444668.82	758114.45	N 32 13 13.90	W 103 37 56.46
	18900.00	90.30	179.67	12358.43	6731.18	-6732.18	-155.15	0.00	444568.83	758115.02	N 32 13 12.91	W 103 37 56.46
	19000.00	90.30	179.67	12357.90	6831.18	-6832.18	-154.58	0.00	444468.84	758115.60	N 32 13 11.92	W 103 37 56.46
	19100.00	90.30	179.67	12357.37	6931.17	-6932.18	-154.00	0.00	444368.84	758116.18	N 32 13 10.93	W 103 37 56.46
	19200.00	90.30	179.67	12356.84	7031.17	-7032.17	-153.42	0.00	444268.85	758116.75	N 32 13 9.94	W 103 37 56.47
	19300.00	90.30	179.67	12356.31	7131.17	-7132.17	-152.85	0.00	444168.86	758117.33	N 32 13 8.95	W 103 37 56.47
	19400.00	90.30	179.67	12355.78	7231.17	-7232.17	-152.27	0.00	444068.87	758117.90	N 32 13 7.96	W 103 37 56.47
	19500.00	90.30	179.67	12355.25	7331.17	-7332.16	-151.70	0.00	443968.87	758118.48	N 32 13 6.97	W 103 37 56.47
	19600.00	90.30	179.67	12354.72	7431.17	-7432.16	-151.12	0.00	443868.88	758119.06	N 32 13 5.98	W 103 37 56.47
	19700.00	90.30	179.67	12354.19	7531.17	-7532.16	-150.54	0.00	443768.89	758119.63	N 32 13 4.99	W 103 37 56.47
	19800.00	90.30	179.67	12353.66	7631.16	-7632.15	-149.97	0.00	443668.89	758120.21	N 32 13 4.00	W 103 37 56.47
Lease NMNM0553548 - NMNM0553642 Crossing	*19837.70*	*90.30*	*179.67*	*12353.46*	*7668.86*	*-7669.85*	*-149.75*	*0.00*	*443631.20*	*758120.42*	*N 32 13 3.63*	*W 103 37 56.47*
	19900.00	90.30	179.67	12353.13	7731.16	-7732.15	-149.39	0.00	443568.90	758120.78	N 32 13 3.01	W 103 37 56.47
	20000.00	90.30	179.67	12352.60	7831.16	-7832.15	-148.82	0.00	443468.91	758121.36	N 32 13 2.02	W 103 37 56.47
	20100.00	90.30	179.67	12352.07	7931.16	-7932.15	-148.24	0.00	443368.91	758121.94	N 32 13 1.04	W 103 37 56.47
	20200.00	90.30	179.67	12351.54	8031.16	-8032.14	-147.66	0.00	443268.92	758122.51	N 32 13 0.05	W 103 37 56.47
	20300.00	90.30	179.67	12351.01	8131.16	-8132.14	-147.09	0.00	443168.93	758123.09	N 32 12 59.06	W 103 37 56.48
	20400.00	90.30	179.67	12350.48	8231.16	-8232.14	-146.51	0.00	443068.94	758123.66	N 32 12 58.07	W 103 37 56.48
	20500.00	90.30	179.67	12349.95	8331.15	-8332.13	-145.94	0.00	442968.94	758124.24	N 32 12 57.08	W 103 37 56.48
	20600.00	90.30	179.67	12349.42	8431.15	-8432.13	-145.36	0.00	442868.95	758124.81	N 32 12 56.09	W 103 37 56.48
	20700.00	90.30	179.67	12348.89	8531.15	-8532.13	-144.79	0.00	442768.96	758125.39	N 32 12 55.10	W 103 37 56.48
	20800.00	90.30	179.67	12348.36	8631.15	-8632.12	-144.21	0.00	442668.96	758125.97	N 32 12 54.11	W 103 37 56.48
	20900.00	90.30	179.67	12347.83	8731.15	-8732.12	-143.63	0.00	442568.97	758126.54	N 32 12 53.12	W 103 37 56.48
	21000.00	90.30	179.67	12347.30	8831.15	-8832.12	-143.06	0.00	442468.98	758127.12	N 32 12 52.13	W 103 37 56.48
	21100.00	90.30	179.67	12346.77	8931.15	-8932.11	-142.48	0.00	442368.98	758127.69	N 32 12 51.14	W 103 37 56.48
	21200.00	90.30	179.67	12346.24	9031.14	-9032.11	-141.91	0.00	442268.99	758128.27	N 32 12 50.15	W 103 37 56.48
	21300.00	90.30	179.67	12345.72	9131.14	-9132.11	-141.33	0.00	442169.00	758128.85	N 32 12 49.16	W 103 37 56.48
	21400.00	90.30	179.67	12345.19	9231.14	-9232.11	-140.75	0.00	442069.00	758129.42	N 32 12 48.17	W 103 37 56.49
	21500.00	90.30	179.67	12344.66	9331.14	-9332.10	-140.18	0.00	441969.01	758130.00	N 32 12 47.18	W 103 37 56.49

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	21600.00	90.30	179.67	12344.13	9431.14	-9432.10	-139.60	0.00	441869.02	758130.57	N 32 12 46.19	W 103 37 56.49
	21700.00	90.30	179.67	12343.60	9531.14	-9532.10	-139.03	0.00	441769.03	758131.15	N 32 12 45.20	W 103 37 56.49
	21800.00	90.30	179.67	12343.07	9631.14	-9632.09	-138.45	0.00	441669.03	758131.73	N 32 12 44.21	W 103 37 56.49
	21900.00	90.30	179.67	12342.54	9731.13	-9732.09	-137.87	0.00	441569.04	758132.30	N 32 12 43.22	W 103 37 56.49
	22000.00	90.30	179.67	12342.01	9831.13	-9832.09	-137.30	0.00	441469.05	758132.88	N 32 12 42.23	W 103 37 56.49
	22100.00	90.30	179.67	12341.48	9931.13	-9932.08	-136.72	0.00	441369.05	758133.45	N 32 12 41.25	W 103 37 56.49
	22200.00	90.30	179.67	12340.95	10031.13	-10032.08	-136.15	0.00	441269.06	758134.03	N 32 12 40.26	W 103 37 56.49
	22300.00	90.30	179.67	12340.42	10131.13	-10132.08	-135.57	0.00	441169.07	758134.60	N 32 12 39.27	W 103 37 56.49
Cimarex Dos Equis 12-13 Federal Com #48H - PBHL [100' FSL, 1386' FWL]	22379.01	90.30	179.67	12340.00	10210.14	-10211.09	-135.12	0.00	441090.06	758135.06	N 32 12 38.48	W 103 37 56.49

Survey Type: Non-Def Plan

Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% 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	26.000	1/100.000	17.500	13.375		NAL_MWD_IFR1+MS-Depth Only	Dos Equis 12-13 Federal Com #48H / Cimarex Dos Equis 12-13 Federal Com #48H Rev0 RM
	1	26.000	22379.013	1/100.000	17.500	13.375		NAL_MWD_IFR1+MS	Dos Equis 12-13 Federal Com #48H / Cimarex Dos Equis 12-13

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CIMAREX

Cimarex Dos Equis 12-13 Federal Com #48H Rev0 RM 13Sept19

(Non-Def Plan)

Report Date:	October 03, 2019 - 08:52 AM	**Survey / DLS Computation:**	Minimum Curvature / Lubinski
Client:	Cimarex Energy	**Vertical Section Azimuth:**	179.670 ° (Grid North)
Field:	NM Lea County (NAD 83)	**Vertical Section Origin:**	0.000 ft, 0.000 ft
Structure / Slot:	Cimarex Dos Equis 12-13 Federal Com #48H / New Slot	**TVD Reference Datum:**	RKB
Well:	Dos Equis 12-13 Federal Com #48H	**TVD Reference Elevation:**	3632.700 ft above MSL
Borehole:	Dos Equis 12-13 Federal Com #48H	**Seabed / Ground Elevation:**	3606.700 ft above MSL
UWI / API#:	Unknown / Unknown	**Magnetic Declination:**	6.655 °
Survey Name:	Cimarex Dos Equis 12-13 Federal Com #48H Rev0 RM 13Sept19	**Total Gravity Field Strength:**	998.4381mgn (9.80665 Based)
Survey Date:	September 24, 2019	**Gravity Model:**	GARM
Tort / AHD / DDI / ERD Ratio:	108.144 ° / 10280.659 ft / 6.303 / 0.830	**Total Magnetic Field Strength:**	47883.004 nT
Coordinate Reference System:	NAD83 New Mexico State Plane, Eastern Zone, US Feet	**Magnetic Dip Angle:**	59.895 °
Location Lat / Long:	N 32° 14' 19.51367", W 103° 37' 54.14509"	**Declination Date:**	October 03, 2019
Location Grid N/E Y/X:	N 451300.750 ftUS, E 758270.170 ftUS	**Magnetic Declination Model:**	HDGM 2019
CRS Grid Convergence Angle:	0.3743 °	**North Reference:**	Grid North
Grid Scale Factor:	0.99996299	**Grid Convergence Used:**	0.3743 °
Version / Patch:	2.10.782.0	**Total Corr Mag North->Grid North:**	6.2809 °
		Local Coord Referenced To:	Well Head

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
SHL [255' FNL, 1580' FWL]	0.00	0.00	180.76	0.00	0.00	0.00	0.00	N/A	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
KOP - Build 12°/100' DLS	11782.99	0.00	234.36	11782.99	0.00	0.00	0.00	0.00	451300.75	758270.17	N 32 14 19.51	W 103 37 54.15
Build & Turn 12°/100' DLS	12074.65	35.00	234.36	12056.85	49.92	-50.32	-70.17	12.00	451250.43	758200.00	N 32 14 19.02	W 103 37 54.97
Build 4°/100' DLS	12556.66	75.00	179.67	12341.21	392.19	-393.30	-191.66	12.00	450907.47	758078.52	N 32 14 15.63	W 103 37 56.41
Landing Point Cimarex Dos Equis 12-13 Federal Com #48H - PBHL [100' FSL, 1386' FWL]	12939.24	90.30	179.67	12390.00	770.50	-771.61	-189.48	4.00	450529.17	758080.70	N 32 14 11.89	W 103 37 56.41
	22379.01	90.30	179.67	12340.00	10210.14	-10211.09	-135.12	0.00	441090.06	758135.06	N 32 12 38.48	W 103 37 56.49

Survey Type: Non-Def Plan

Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% 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	26.000	1/100.000	17.500	13.375		NAL_MWD_IFR1+MS-Depth Only	Dos Equis 12-13 Federal Com #48H / Cimarex Dos Equis 12-13 Federal Com #48H Rev0 RM
	1	26.000	22379.013	1/100.000	17.500	13.375		NAL_MWD_IFR1+MS	Dos Equis 12-13 Federal Com #48H / Cimarex Dos Equis 12-13

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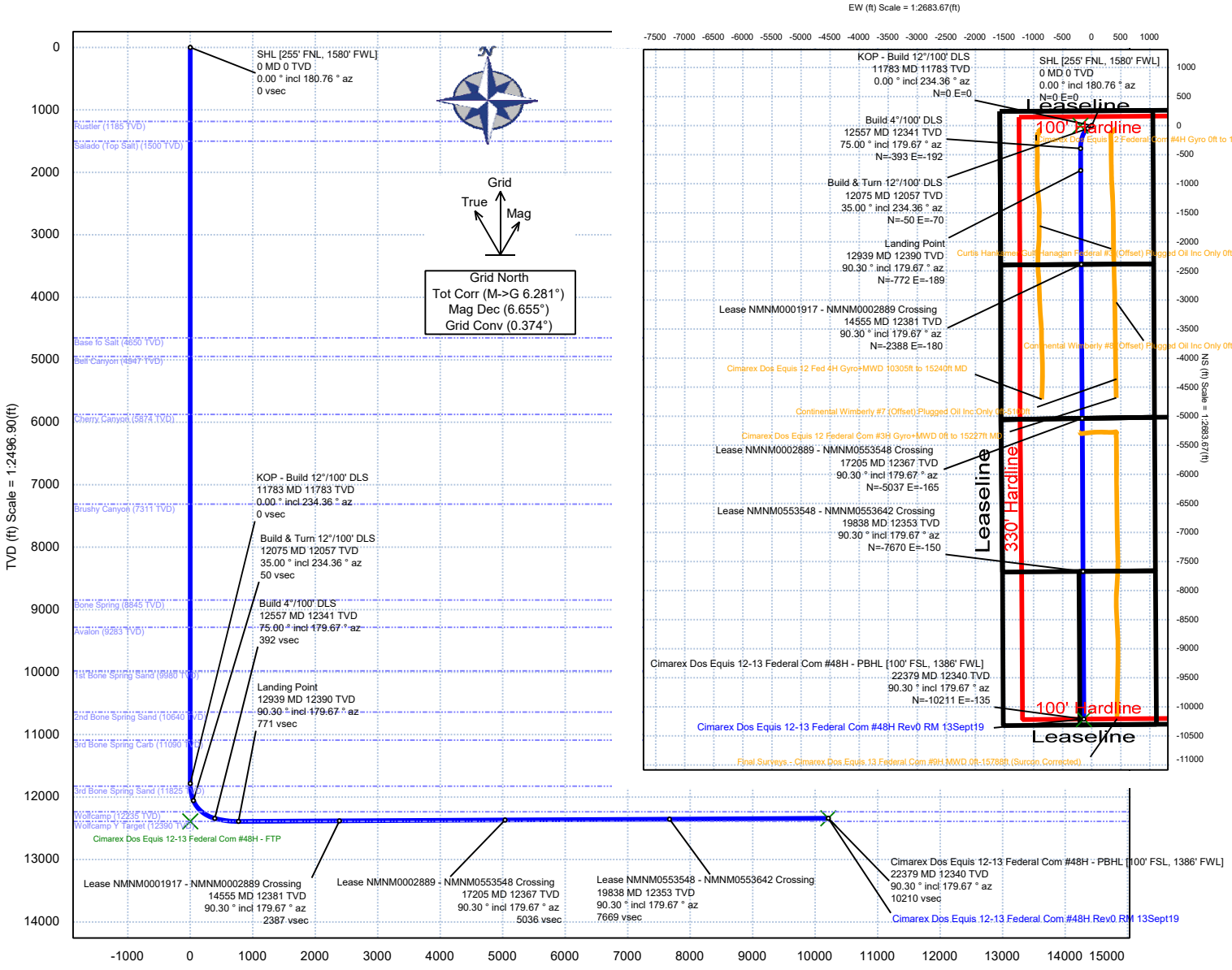
Cimarex Energy Rev 0

CIMAREX

Borehole:	Well:	Field:	Structure:
Dos Equis 12-13 Federal Com #48H	Dos Equis 12-13 Federal Com #48H	NM Lea County (NAD 83)	Cimarex Dos Equis 12-13 Federal Com # 48H

Gravity & Magnetic Parameters						Surface Location	NAD83 New Mexico State Plane, Eastern Zone, US Feet					Miscellaneous				
Model:	HDGM 2019	Dip:	59.895°	Date:	03-Oct-2019	Lat:	N 32 14 19.51	Northing:	451300.75ftUS	Grid Conv:	0.3743°	Slot:	New Slot	TVD Ref:	RKB(3632.7ft above MSL)	
MagDec:	6.655°	FS:	47883.004nT	Gravity FS:	998.438mgn (9.80665 Based)	Lon:	W 103 37 54.15	Easting:	758270.17ftUS	Scale Fact:	0.99996299	Plan:	Cimarex Dos Equis 12-13 Federal Com #48H Rev0 RM 13Sept19			



Vertical Section (ft) Azim = 179.67° Scale = 1:2496.90(ft) Origin = 0N/-S, 0E/-W

Critical Points

Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+)/S(-)	E(+)/W(-)	DLS
SHL [255' FNL, 1580' FWL]	0.00	0.00	180.76	0.00	0.00	0.00	0.00	
Rustler	1185.00	0.00	234.36	1185.00	0.00	0.00	0.00	0.00
Salado (Top Salt)	1500.00	0.00	234.36	1500.00	0.00	0.00	0.00	0.00
Base fo Salt	4650.00	0.00	234.36	4650.00	0.00	0.00	0.00	0.00
Bell Canyon	4947.00	0.00	234.36	4947.00	0.00	0.00	0.00	0.00
Cherry Canyon	5874.00	0.00	234.36	5874.00	0.00	0.00	0.00	0.00
Brushy Canyon	7311.00	0.00	234.36	7311.00	0.00	0.00	0.00	0.00
Bone Spring	8845.00	0.00	234.36	8845.00	0.00	0.00	0.00	0.00
Avalon	9283.00	0.00	234.36	9283.00	0.00	0.00	0.00	0.00
1st Bone Spring Sand	9980.00	0.00	234.36	9980.00	0.00	0.00	0.00	0.00
2nd Bone Spring Sand	10640.00	0.00	234.36	10640.00	0.00	0.00	0.00	0.00
3rd Bone Spring Carb	11090.00	0.00	234.36	11090.00	0.00	0.00	0.00	0.00
KOP - Build 12°/100' DLS	11782.99	0.00	234.36	11782.99	0.00	0.00	0.00	0.00
3rd Bone Spring Sand	11825.05	5.05	234.36	11825.00	1.07	-1.08	-1.50	12.00
Build & Turn 12°/100' DLS	12074.65	35.00	234.36	12056.85	49.92	-50.32	-70.17	12.00
Wolfcamp	12318.05	52.20	199.26	12235.00	183.78	-184.71	-160.58	12.00
Build 4°/100' DLS	12556.66	75.00	179.67	12341.21	392.19	-393.30	-191.66	12.00
Wolfcamp Y Target	12924.07	89.70	179.67	12390.00	755.33	-756.44	-189.57	4.00
Wolfcamp Y Target	12939.24	90.30	179.67	12390.00	770.50	-771.60	-189.48	4.00
Landing Point	12939.24	90.30	179.67	12390.00	770.50	-771.61	-189.48	4.00
Lease NMNM0001917 - NMNM0002889 Crossing	14555.40	90.30	179.67	12381.44	2386.64	-2387.71	-180.17	0.00
Lease NMNM0002889 - NMNM0553548 Crossing	17205.10	90.30	179.67	12367.40	5036.30	-5037.33	-164.91	0.00
Lease NMNM0553548 - NMNM0553642 Crossing	19837.70	90.30	179.67	12353.46	7668.86	-7669.85	-149.75	0.00
Cimarex Dos Equis 12-13 Federal Com #48H - PBHL [100' FSL, 1386' FWL]	22379.01	90.30	179.67	12340.00	10210.14	-10211.09	-135.12	0.00
Wolfcamp A1	NaN			12417.00				

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Cimarex Dos Equis 12-13 Federal Com #48H Rev0 RM 13Sept19 Anti-Collision Summary Report

Analysis Date-24hr Time:	October 03, 2019 - 08:53	**Analysis Method:**	3D Least Distance
Client:	Cimarex Energy	**Reference Trajectory:**	Cimarex Dos Equis 12-13 Federal Com #48H Rev0 RM 13Sept19 (Non-Def
Field:	NM Lea County (NAD 83)	**Depth Interval:**	Every 10.00 Measured Depth (ft)
Structure:	Cimarex Dos Equis 12-13 Federal Com #48H	**Rule Set:**	NAL Procedure: D&M AntiCollision Standard S002
Slot:	New Slot	**Min Pts:**	All local minima indicated.
Well:	Dos Equis 12-13 Federal Com #48H	**Version / Patch:**	2.10.782.0
Borehole:	Dos Equis 12-13 Federal Com #48H	**Database \ Project:**	US1153APP452.dir.slb.com\drilling-NM Lea County 2.10
Scan MD Range:	0.00ft ~ 22379.01ft		

Trajectory Error Model: ISCWSA0 3-D 95.000% Confidence 2.7955 sigma, for subject well. For offset wells, error model version is specified with each well respectively.

Offset Trajectories Summary

Offset Selection Criteria
Wellhead distance scan: Not performed!
Selection filters: Definitive Surveys - Definitive Plans - Definitive surveys exclude definitive plans
- All Non-Def Surveys when no Def-Survey is set in a borehole - All Non-Def Plans when no Def-Plan is set in a borehole

Offset Trajectory	Separation			Allow	Sep.	Controlling	Reference Trajectory		Risk Level			Alert	Status
	Ct-Ct (ft)	MAS (ft)	EOU (ft)	Dev. (ft)	Fact.	Rule	MD (ft)	TVD (ft)	Alert	Minor	Major		
Results highlighted: Sep-Factor separation <= 1.50 ft													
Gulf Oil Hanagan D Federal #2 (Offset) Plugged Oil Blind 0ft-5100ft (Def Survey)													Warning Alert
	4282.50	32.81	4281.21	4249.69	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	4282.16	32.81	4280.83	4249.35	94788.09	MAS = 10.00 (m)	26.00	26.00				MinPt-O-SF	
	4281.95	1287.74	3423.02	2994.20	4.99	OSF1.50	4210.00	4210.00	OSF<5.00			Enter Alert	
	4281.95	1586.39	3223.92	2695.55	4.05	OSF1.50	5160.00	5160.00				MinPt-CtCt	
	4281.95	1589.09	3222.12	2692.85	4.04	OSF1.50	5170.00	5170.00				MinPts	
	4761.02	1429.66	3807.48	3331.36	5.00	OSF1.50	7250.00	7250.00	OSF>5.00			Exit Alert	
	7896.21	652.84	7460.55	7243.37	18.18	OSF1.50	15240.00	12377.81				MinPt-CtCt	
	7896.28	653.01	7460.52	7243.27	18.17	OSF1.50	15270.00	12377.65				MINPT-O-EOU	
	7896.47	653.23	7460.56	7243.25	18.17	OSF1.50	15300.00	12377.50				MinPt-O-ADP	
	10167.08	1139.32	9407.11	9027.76	13.40	OSF1.50	21640.00	12343.91				MinPt-O-SF	
	10648.10	1188.42	9855.39	9459.68	13.45	OSF1.50	22379.01	12340.00				TD	
Cimarex Dos Equis 12 Federal Com #3H Gyro+MWD 0ft to 15227ft MD (Def Survey)													Pass
	411.48	32.81	409.50	378.67	N/A	MAS = 10.00 (m)	0.00	0.00				MinPts	
	411.52	32.81	409.52	378.71	19784.35	MAS = 10.00 (m)	26.00	26.00				WRP	
	404.89	32.81	396.24	372.08	60.43	MAS = 10.00 (m)	1420.00	1420.00				MinPts	
	406.02	32.81	394.48	373.21	42.27	MAS = 10.00 (m)	2200.00	2200.00				MINPT-O-EOU	
	403.78	32.81	388.16	370.97	29.44	MAS = 10.00 (m)	3070.00	3070.00				MinPts	
	403.63	32.81	385.93	370.82	25.55	MAS = 10.00 (m)	3520.00	3520.00				MinPts	
	403.72	32.81	385.84	370.91	25.28	MAS = 10.00 (m)	3560.00	3560.00				MINPT-O-EOU	
	403.31	32.81	383.88	370.50	22.99	MAS = 10.00 (m)	3910.00	3910.00				MinPts	
	403.35	32.81	383.83	370.54	22.88	MAS = 10.00 (m)	3930.00	3930.00				MINPT-O-EOU	
	404.21	32.81	382.58	371.41	20.47	MAS = 10.00 (m)	4400.00	4400.00				MinPts	
	404.27	32.81	382.51	371.46	20.34	MAS = 10.00 (m)	4430.00	4430.00				MINPT-O-EOU	
	362.65	65.47	318.31	297.18	8.53	OSF1.50	9490.00	9490.00				MinPt-CtCt	
	353.47	71.25	305.27	282.22	7.62	OSF1.50	10340.00	10340.00				MinPt-CtCt	
	353.49	71.32	305.24	282.17	7.61	OSF1.50	10350.00	10350.00				MINPT-O-EOU	
	353.54	71.39	305.25	282.15	7.61	OSF1.50	10360.00	10360.00				MinPt-O-ADP	
	355.28	71.93	306.63	283.35	7.59	OSF1.50	10440.00	10440.00				MinPt-O-SF	
	1478.75	46.50	1447.09	1432.25	49.76	OSF1.50	13090.00	12389.20				MinPt-CtCt	
	1479.25	48.01	1446.59	1431.24	48.14	OSF1.50	13170.00	12388.78				MINPT-O-EOU	
	1481.49	53.15	1445.40	1428.34	43.37	OSF1.50	13390.00	12387.61				MINPT-O-EOU	
	1483.13	55.10	1445.74	1428.03	41.82	OSF1.50	13470.00	12387.19				MinPt-O-ADP	
	1486.15	61.95	1444.19	1424.20	37.12	OSF1.50	13720.00	12385.86				MINPT-O-EOU	
	1475.78	90.31	1414.91	1385.47	25.03	OSF1.50	14650.00	12380.94				MinPt-CtCt	
	1474.84	101.30	1406.65	1373.55	22.24	OSF1.50	14980.00	12379.19				MinPt-CtCt	
	1472.88	112.62	1397.14	1360.26	19.94	OSF1.50	15320.00	12377.39				MinPt-CtCt	
	1474.46	116.39	1396.21	1358.07	19.31	OSF1.50	15450.00	12376.70				MINPT-O-EOU	
	1470.70	128.50	1384.37	1342.20	17.41	OSF1.50	15790.00	12374.90				MinPt-CtCt	
	1469.30	143.78	1372.79	1325.52	15.52	OSF1.50	16230.00	12372.57				MinPt-CtCt	
	1469.85	145.38	1372.27	1324.47	15.35	OSF1.50	16290.00	12372.25				MINPT-O-EOU	
	1470.51	146.16	1372.41	1324.35	15.28	OSF1.50	16320.00	12372.09				MinPt-O-ADP	
	1473.02	149.77	1372.51	1323.25	14.93	OSF1.50	16420.00	12371.56				MINPT-O-EOU	
	1473.43	150.24	1372.61	1323.19	14.89	OSF1.50	16440.00	12371.46				MinPt-O-ADP	
	1487.58	171.26	1372.75	1316.32	13.16	OSF1.50	16880.00	12369.13				MinPts	
	1491.39	172.23	1375.91	1319.16	13.12	OSF1.50	16970.00	12368.65				MinPt-O-SF	
	5714.14	111.27	5639.30	5602.87	78.40	OSF1.50	22379.01	12340.00				TD	
Cimarex Dos Equis 12 Fed 4H Gyro+MWD 10305ft to 15240ft MD (Def Survey)													Pass
	915.11	32.81	913.13	882.30	N/A	MAS = 10.00 (m)	0.00	0.00				MinPts	
	915.11	32.81	913.12	882.30	102647.85	MAS = 10.00 (m)	26.00	26.00				WRP	
	917.44	32.81	910.54	884.63	186.12	MAS = 10.00 (m)	1020.00	1020.00				MINPT-O-EOU	
	917.68	32.81	907.30	884.87	109.06	MAS = 10.00 (m)	1920.00	1920.00				MinPts	
	922.15	32.81	903.60	889.34	55.52	MAS = 10.00 (m)	3660.00	3660.00				MINPT-O-EOU	
	922.80	32.81	903.53	890.00	53.25	MAS = 10.00 (m)	3820.00	3820.00				MINPT-O-EOU	
	900.41	46.58	868.70	853.83	30.22	OSF1.50	6730.00	6730.00				MinPt-CtCt	
	901.26	49.21	867.80	852.05	28.56	OSF1.50	7120.00	7120.00				MINPT-O-EOU	
	902.35	50.50	868.03	851.86	27.84	OSF1.50	7310.00	7310.00				MinPt-O-ADP	
	912.66	58.80	872.80	853.85	24.04	OSF1.50	8520.00	8520.00				MINPT-O-EOU	
	913.34	59.61	872.94	853.73	23.72	OSF1.50	8630.00	8630.00				MinPt-O-ADP	
	958.53	73.35	908.97	885.18	20.10	OSF1.50	10610.00	10610.00				MinPt-O-SF	
	962.41	73.59	912.69	888.81	20.12	OSF1.50	10660.00	10660.00				MinPt-O-SF	
	1640.80	47.28	1608.62	1593.52	54.27	OSF1.50	12950.00	12389.94				MINPT-O-EOU	
	1641.03	47.55	1608.67	1593.48	53.95	OSF1.50	12970.00	12389.84				MinPt-O-ADP	
	1621.18	64.23	1577.70	1556.95	39.01	OSF1.50	13690.00	12386.02				MinPt-CtCt	
	1624.68	77.38	1572.43	1547.30	32.28	OSF1.50	14140.00	12383.64				MINPT-O-EOU	

Offset Trajectory	Separation			Allow	Sep.	Controlling	Reference Trajectory		Risk Level			Alert	Status
	Ct-Ct (ft)	MAS (ft)	EOU (ft)	Dev. (ft)	Fact.	Rule	MD (ft)	TVD (ft)	Alert	Minor	Major		
	1625.55	78.40	1572.62	1547.15	31.87	OSF1.50	14180.00	12383.43				MinPt-O-ADP	
	1631.18	86.67	1572.74	1544.51	28.86	OSF1.50	14400.00	12382.26				MinPt-CtCt	
	1594.51	152.72	1492.04	1441.79	15.85	OSF1.50	16410.00	12371.62				MinPt-CtCt	
	1600.99	187.59	1475.27	1413.40	12.92	OSF1.50	16910.00	12368.97				MinPts	
	1605.22	188.62	1478.82	1416.60	12.89	OSF1.50	17000.00	12368.49				MinPt-O-SF	
	5727.57	119.97	5646.93	5607.60	72.79	OSF1.50	22379.01	12340.00				TD	
Cimarex Dos Equis 12 Federal Com #4H Gyro 0ft to 11189ft MD (Def Survey)													Pass
	915.11	32.81	913.13	882.30	N/A	MAS = 10.00 (m)	0.00	0.00				MinPts	
	915.11	32.81	913.12	882.30	102647.85	MAS = 10.00 (m)	26.00	26.00				WRP	
	917.44	32.81	910.54	884.63	186.12	MAS = 10.00 (m)	1020.00	1020.00				MINPT-O-EOU	
	917.68	32.81	907.30	884.87	109.06	MAS = 10.00 (m)	1920.00	1920.00				MinPts	
	922.15	32.81	903.60	889.34	55.52	MAS = 10.00 (m)	3660.00	3660.00				MINPT-O-EOU	
	922.80	32.81	903.53	890.00	53.25	MAS = 10.00 (m)	3820.00	3820.00				MINPT-O-EOU	
	900.41	46.58	868.70	853.83	30.22	OSF1.50	6730.00	6730.00				MinPt-CtCt	
	901.26	49.21	867.80	852.05	28.56	OSF1.50	7120.00	7120.00				MINPT-O-EOU	
	902.35	50.50	868.03	851.86	27.84	OSF1.50	7310.00	7310.00				MinPt-O-ADP	
	912.66	58.80	872.80	853.85	24.04	OSF1.50	8520.00	8520.00				MINPT-O-EOU	
	913.34	59.61	872.94	853.73	23.72	OSF1.50	8630.00	8630.00				MinPt-O-ADP	
	973.96	77.92	921.36	896.04	19.20	OSF1.50	11220.00	11220.00				MinPt-O-SF	
	1795.10	64.85	1751.21	1730.25	42.78	OSF1.50	13410.00	12387.51				MinPt-O-SF	
	10149.95	92.38	10087.70	10057.57	168.38	OSF1.50	22379.01	12340.00				TD	
Cimarex Dos Equis 12-13 Federal Com #73H Rev0 RM 2Jan19 (Non-Def Plan)													Pass
	1340.05	32.81	1338.07	1307.24	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	1340.04	32.81	1338.06	1307.23	N/A	MAS = 10.00 (m)	26.00	26.00				WRP	
	1340.04	32.81	1329.04	1307.23	148.31	MAS = 10.00 (m)	1500.00	1500.00				MinPts	
	1340.12	32.81	1328.96	1307.31	145.85	MAS = 10.00 (m)	1530.00	1530.00				MINPT-O-EOU	
	1710.25	57.24	1671.43	1653.01	46.37	OSF1.50	6190.00	6190.00				MinPt-O-SF	
	1713.35	104.82	1642.80	1608.52	24.96	OSF1.50	11782.99	11782.99				MinPts	
	1713.60	104.88	1643.02	1608.72	24.95	OSF1.50	11800.00	11800.00				MinPt-O-SF	
	1902.01	175.18	1784.56	1726.83	16.46	OSF1.50	17580.00	12365.42				MinPt-CtCt	
	1902.18	316.89	1690.26	1585.29	9.05	OSF1.50	22379.01	12340.00				MinPts	
Cimarex Dos Equis 12-13 Federal Com #5H Rev0 RM 2Jan19 (Non-Def Plan)													Pass
	1359.99	32.81	1358.01	1327.18	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	1359.98	32.81	1358.00	1327.18	N/A	MAS = 10.00 (m)	26.00	26.00				WRP	
	1359.98	32.81	1348.98	1327.18	150.53	MAS = 10.00 (m)	1500.00	1500.00				MinPts	
	1360.02	32.81	1348.93	1327.21	149.04	MAS = 10.00 (m)	1520.00	1520.00				MINPT-O-EOU	
	1706.72	45.01	1676.06	1661.71	59.43	OSF1.50	5210.00	5210.00				MinPt-O-SF	
	1709.40	75.55	1658.38	1633.85	34.81	OSF1.50	9160.00	9160.00				MINPT-O-EOU	
	1709.50	75.66	1658.40	1633.84	34.76	OSF1.50	9180.00	9180.00				MinPt-O-ADP	
	1718.96	76.62	1667.22	1642.34	34.50	OSF1.50	9490.00	9490.00				MinPt-O-SF	
	3333.04	318.69	3119.92	3014.35	15.78	OSF1.50	22379.01	12340.00				MinPts	
Final Surveys - Cimarex Dos Equis 13 Federal Com #9H MWD 0ft-15788ft (Surcon Corrected) (Def Survey)													Pass
	5282.23	32.81	5280.94	5249.42	N/A	MAS = 10.00 (m)	0.00	0.00				MinPts	
	5282.23	32.81	5280.91	5249.42	166291.09	MAS = 10.00 (m)	26.00	26.00				WRP	
	5283.80	32.81	5279.10	5251.00	1543.35	MAS = 10.00 (m)	770.00	770.00				MinPts	
	5283.76	32.81	5277.80	5250.95	1130.09	MAS = 10.00 (m)	1070.00	1070.00				MinPts	
	5283.69	32.81	5277.24	5250.88	1022.70	MAS = 10.00 (m)	1170.00	1170.00				MINPT-O-EOU	
	5277.20	32.81	5265.29	5244.39	489.73	MAS = 10.00 (m)	2460.00	2460.00				MinPts	
	5277.41	32.81	5264.63	5244.60	452.87	MAS = 10.00 (m)	2660.00	2660.00				MinPts	
	5277.69	32.81	5264.38	5244.88	433.20	MAS = 10.00 (m)	2780.00	2780.00				MINPT-O-EOU	
	5294.50	32.81	5274.98	5261.69	287.80	MAS = 10.00 (m)	4180.00	4180.00				MinPts	
	5294.77	32.81	5274.79	5261.96	280.88	MAS = 10.00 (m)	4280.00	4280.00				MINPT-O-EOU	
	5274.50	47.43	5242.53	5227.07	170.46	OSF1.50	6940.00	6940.00				MinPt-CtCt	
	5275.07	49.21	5241.92	5225.86	164.17	OSF1.50	7190.00	7190.00				MINPT-O-EOU	
	5275.66	49.93	5242.03	5225.73	161.78	OSF1.50	7290.00	7290.00				MinPt-O-ADP	
	5289.50	59.37	5249.58	5230.13	135.96	OSF1.50	8610.00	8610.00				MinPt-O-ADP	
	5284.18	64.50	5240.84	5219.68	124.84	OSF1.50	9330.00	9330.00				MinPt-CtCt	
	5281.76	67.48	5236.44	5214.29	119.19	OSF1.50	9750.00	9750.00				MinPt-CtCt	
	5281.88	67.81	5236.34	5214.08	118.61	OSF1.50	9800.00	9800.00				MINPT-O-EOU	
	5281.99	67.94	5236.36	5214.05	118.38	OSF1.50	9820.00	9820.00				MinPt-O-ADP	
	5429.51	79.43	5376.21	5350.08	103.85	OSF1.50	11782.99	11782.99				MinPt-O-SF	
	1463.65	138.09	1371.24	1325.55	16.01	OSF1.50	18350.00	12361.34				MinPt-CtCt	
	1464.98	141.36	1370.40	1323.62	15.65	OSF1.50	18480.00	12360.65				MINPT-O-EOU	
	1467.47	144.35	1370.89	1323.12	15.35	OSF1.50	18600.00	12360.02				MinPts	
	1463.70	149.98	1363.37	1313.72	14.73	OSF1.50	18830.00	12358.80				MinPt-CtCt	
	1426.48	200.98	1292.15	1225.49	10.69	OSF1.50	20750.00	12348.63				MinPt-CtCt	
	1422.66	220.25	1275.49	1202.42	9.73	OSF1.50	21440.00	12344.97				MinPt-CtCt	
	1425.04	229.24	1271.87	1195.80	9.36	OSF1.50	21760.00	12343.28				MINPT-O-EOU	
	1421.67	246.76	1256.82	1174.90	8.67	OSF1.50	22379.01	12340.00				MinPts	
Cimarex Dos Equis 12 Federal Com #2H ST02 Gyro+MWD 13330ft to 15399ft MD (Def Survey)													Pass
	1713.82	32.81	1711.84	1681.01	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	1713.80	32.81	1711.82	1681.00	N/A	MAS = 10.00 (m)	26.00	26.00				WRP	
	1706.19	32.81	1695.34	1673.38	192.20	MAS = 10.00 (m)	1630.00	1630.00				MinPts	
	1706.27	32.81	1695.27	1673.46	188.89	MAS = 10.00 (m)	1690.00	1690.00				MINPT-O-EOU	
	1706.23	32.81	1694.47	1673.42	174.25	MAS = 10.00 (m)	1950.00	1950.00				MinPts	
	1705.54	32.81	1691.85	1672.73	145.45	MAS = 10.00 (m)	2360.00	2360.00				MinPts	
	1705.62	32.81	1691.78	1672.81	143.61	MAS = 10.00 (m)	2410.00	2410.00				MINPT-O-EOU	
	1701.58	32.81	1683.64	1668.77	106.46	MAS = 10.00 (m)	3330.00	3330.00				MinPts	
	1701.69	32.81	1683.55	1668.89	105.13	MAS = 10.00 (m)	3390.00	3390.00				MINPT-O-EOU	
	1705.38	32.81	1684.89	1672.58	91.99	MAS = 10.00 (m)	4080.00	4080.00				MINPT-O-EOU	
	1701.06	49.78	1667.21	1651.28	53.35	OSF1.50	7180.00	7180.00				MinPt-CtCt	
	1701.12	49.98	1667.13	1651.14	53.13	OSF1.50	7210.00	7210.00				MINPT-O-EOU	
	1701.22	50.11	1667.15	1651.11	52.98	OSF1.50	7230.00	7230.00				MinPt-O-ADP	
	1658.42	71.61	1609.98	1586.81	35.75	OSF1.50	10440.00	10440.00				MinPt-O-SF	
	1612.51	75.40	1561.50	1537.10	33.01	OSF1.50	10870.00	10870.00				MinPts	
	1612.56	75.47	1561.50	1537.08	32.97	OSF1.50	10880.00	10880.00				MinPt-O-ADP	
	1620.00	76.25	1568.44	1543.74	32.76	OSF1.50	11030.00	11030.00				MinPt-O-SF	

Offset Trajectory	Separation			Allow	Sep.	Controlling	Reference Trajectory		Risk Level			Alert	Status
	Ct-Ct (ft)	MAS (ft)	EOU (ft)	Dev. (ft)	Fact.	Rule	MD (ft)	TVD (ft)	Alert	Minor	Major		
	1764.34	77.32	1712.14	1687.02	35.09	OSF1.50	11640.00	11640.00				MinPt-O-SF	
	2213.54	72.96	2164.23	2140.57	46.73	OSF1.50	13040.00	12389.47				MinPt-CtCt	
	2215.54	79.06	2162.18	2136.49	43.08	OSF1.50	13330.00	12387.93				MINPT-O-EOU	
	2217.35	96.29	2152.49	2121.06	35.23	OSF1.50	13860.00	12385.12				MinPt-CtCt	
	2218.21	98.80	2151.68	2119.41	34.33	OSF1.50	13960.00	12384.59				MINPT-O-EOU	
	2219.04	99.77	2151.87	2119.28	34.01	OSF1.50	14000.00	12384.38				MinPt-O-ADP	
	2280.07	132.00	2191.41	2148.07	26.28	OSF1.50	14880.00	12379.72				MinPt-O-ADP	
	2283.80	136.68	2192.02	2147.12	25.41	OSF1.50	14930.00	12379.46				MinPts	
	2353.37	283.29	2163.85	2070.08	12.54	OSF1.50	16890.00	12369.07				MinPts	
	2354.56	283.51	2164.89	2071.05	12.53	OSF1.50	16930.00	12368.86				MinPt-O-SF	
	6017.83	159.32	5910.96	5858.51	57.35	OSF1.50	22379.01	12340.00				TD	
Cimarex Dos Equis 12 Federal Com #2H ST01 Gyro+MWD 10486ft to 13433ft MD (Def Survey)													Pass
	1713.82	32.81	1711.84	1681.01	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	1713.80	32.81	1711.82	1681.00	N/A	MAS = 10.00 (m)	26.00	26.00				WRP	
	1706.19	32.81	1695.34	1673.38	192.20	MAS = 10.00 (m)	1630.00	1630.00				MinPts	
	1706.27	32.81	1695.27	1673.46	188.89	MAS = 10.00 (m)	1690.00	1690.00				MINPT-O-EOU	
	1706.23	32.81	1694.47	1673.42	174.25	MAS = 10.00 (m)	1950.00	1950.00				MinPts	
	1705.54	32.81	1691.85	1672.73	145.45	MAS = 10.00 (m)	2360.00	2360.00				MinPts	
	1705.62	32.81	1691.78	1672.81	143.61	MAS = 10.00 (m)	2410.00	2410.00				MINPT-O-EOU	
	1701.58	32.81	1683.64	1668.77	106.46	MAS = 10.00 (m)	3330.00	3330.00				MinPts	
	1701.69	32.81	1683.55	1668.89	105.13	MAS = 10.00 (m)	3390.00	3390.00				MINPT-O-EOU	
	1705.38	32.81	1684.89	1672.58	91.99	MAS = 10.00 (m)	4080.00	4080.00				MINPT-O-EOU	
	1701.06	49.78	1667.21	1651.28	53.35	OSF1.50	7180.00	7180.00				MinPt-CtCt	
	1701.12	49.98	1667.13	1651.14	53.13	OSF1.50	7210.00	7210.00				MINPT-O-EOU	
	1701.22	50.11	1667.15	1651.11	52.98	OSF1.50	7230.00	7230.00				MinPt-O-ADP	
	1658.42	71.61	1609.98	1586.81	35.75	OSF1.50	10440.00	10440.00				MinPt-O-SF	
	1612.51	75.40	1561.50	1537.10	33.01	OSF1.50	10870.00	10870.00				MinPts	
	1612.56	75.47	1561.50	1537.08	32.97	OSF1.50	10880.00	10880.00				MinPt-O-ADP	
	1620.00	76.25	1568.44	1543.74	32.76	OSF1.50	11030.00	11030.00				MinPt-O-SF	
	1764.34	77.32	1712.14	1687.02	35.09	OSF1.50	11640.00	11640.00				MinPt-O-SF	
	2213.54	72.96	2164.23	2140.57	46.73	OSF1.50	13040.00	12389.47				MinPt-CtCt	
	2215.54	79.06	2162.18	2136.49	43.08	OSF1.50	13330.00	12387.93				MINPT-O-EOU	
	2217.35	96.29	2152.49	2121.06	35.23	OSF1.50	13860.00	12385.12				MinPt-CtCt	
	2218.21	98.80	2151.68	2119.41	34.33	OSF1.50	13960.00	12384.59				MINPT-O-EOU	
	2219.04	99.77	2151.87	2119.28	34.01	OSF1.50	14000.00	12384.38				MinPt-O-ADP	
	2280.07	132.00	2191.41	2148.07	26.28	OSF1.50	14880.00	12379.72				MinPt-O-ADP	
	2289.13	208.27	2149.62	2080.86	16.63	OSF1.50	15020.00	12378.98				MinPts	
	7832.22	122.74	7749.74	7709.48	97.26	OSF1.50	22379.01	12340.00				TD	
Cimarex Dos Equis 12 Federal Com #2H Pilot Gyro+MWD 0ft to 12650ft (Def Survey)													Pass
	1713.82	32.81	1711.84	1681.01	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	1713.80	32.81	1711.82	1681.00	N/A	MAS = 10.00 (m)	26.00	26.00				WRP	
	1706.19	32.81	1695.34	1673.38	192.20	MAS = 10.00 (m)	1630.00	1630.00				MinPts	
	1706.27	32.81	1695.27	1673.46	188.89	MAS = 10.00 (m)	1690.00	1690.00				MINPT-O-EOU	
	1706.23	32.81	1694.47	1673.42	174.25	MAS = 10.00 (m)	1950.00	1950.00				MinPts	
	1705.54	32.81	1691.85	1672.73	145.45	MAS = 10.00 (m)	2360.00	2360.00				MinPts	
	1705.62	32.81	1691.78	1672.81	143.61	MAS = 10.00 (m)	2410.00	2410.00				MINPT-O-EOU	
	1701.58	32.81	1683.64	1668.77	106.46	MAS = 10.00 (m)	3330.00	3330.00				MinPts	
	1701.69	32.81	1683.55	1668.89	105.13	MAS = 10.00 (m)	3390.00	3390.00				MINPT-O-EOU	
	1705.38	32.81	1684.89	1672.58	91.99	MAS = 10.00 (m)	4080.00	4080.00				MINPT-O-EOU	
	1701.06	49.78	1667.21	1651.28	53.35	OSF1.50	7180.00	7180.00				MinPt-CtCt	
	1701.12	49.98	1667.13	1651.14	53.13	OSF1.50	7210.00	7210.00				MINPT-O-EOU	
	1701.22	50.11	1667.15	1651.11	52.98	OSF1.50	7230.00	7230.00				MinPt-O-ADP	
	1626.82	80.63	1572.32	1546.18	31.07	OSF1.50	11800.00	11800.00				MinPts	
	10272.94	85.46	10215.31	10187.48	184.55	OSF1.50	22379.01	12340.00				TD	
Curtis Hankamer Gulf Hanagan Federal #3 (Offset) Plugged Oil Inc Only 0ft-5049ft (Def Survey)													Pass
	1944.26	32.81	1942.98	1911.45	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	1943.82	32.81	1942.49	1911.01	41587.56	MAS = 10.00 (m)	26.00	26.00				MinPt-O-SF	
	1938.82	37.57	1913.34	1901.25	80.10	OSF1.50	650.00	650.00				MinPt-CtCt	
	1937.15	103.15	1867.95	1834.00	28.51	OSF1.50	2000.00	2000.00				MinPt-CtCt	
	1929.79	185.72	1805.55	1744.08	15.69	OSF1.50	3550.00	3550.00				MinPt-CtCt	
	1932.57	241.47	1771.16	1691.10	12.06	OSF1.50	4620.00	4620.00				MinPt-CtCt	
	1934.03	245.72	1769.79	1688.32	11.86	OSF1.50	4740.00	4740.00				MINPT-O-EOU	
	1935.79	247.79	1770.16	1688.00	11.77	OSF1.50	4800.00	4800.00				MinPt-O-ADP	
	1944.12	265.73	1766.53	1678.39	11.02	OSF1.50	5120.00	5120.00				MinPts	
	7324.93	50.39	7290.91	7274.54	223.73	OSF1.50	13930.00	12384.75				MinPt-CtCt	
	7325.77	52.62	7290.26	7273.14	214.01	OSF1.50	14040.00	12384.17				MINPT-O-EOU	
	7326.92	53.99	7290.50	7272.93	208.50	OSF1.50	14100.00	12383.85				MinPt-O-ADP	
	9961.35	238.47	9801.94	9722.88	62.99	OSF1.50	20680.00	12349.00				MinPt-O-SF	
	11182.78	261.50	11008.02	10921.28	64.46	OSF1.50	22379.01	12340.00				TD	
Cimarex Dos Equis 12-13 Federal Com #87H Rev0 RM 13Sept19 (Non-Def Plan)													Pass
	2238.28	32.81	2236.99	2205.47	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	2238.27	32.81	2236.98	2205.46	N/A	MAS = 10.00 (m)	26.00	26.00				WRP	
	2238.27	111.73	2163.35	2126.53	30.38	OSF1.50	11782.99	11782.99				MinPts	
	2238.87	111.85	2163.87	2127.02	30.36	OSF1.50	11810.00	11809.99				MinPt-O-SF	
	2495.75	313.57	2286.27	2182.17	11.98	OSF1.50	22379.01	12340.00				MinPts	
Cimarex Dos Equis 12-13 Federal Com #86H Rev0 RM 2Jan19 (Non-Def Plan)													Pass
	2258.26	32.81	2256.28	2225.45	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	2258.25	32.81	2256.27	2225.44	N/A	MAS = 10.00 (m)	26.00	26.00				WRP	
	2258.25	32.81	2247.26	2225.44	250.40	MAS = 10.00 (m)	1500.00	1500.00				MinPts	
	2258.30	32.81	2247.17	2225.49	246.55	MAS = 10.00 (m)	1530.00	1530.00				MINPT-O-EOU	
	3358.37	82.21	3302.91	3276.16	62.75	OSF1.50	8990.00	8990.00				MinPt-O-SF	
	3359.68	101.51	3291.34	3258.17	50.60	OSF1.50	11782.99	11782.99				MinPts	
	3359.93	101.56	3291.57	3258.37	50.58	OSF1.50	11800.00	11800.00				MinPt-O-SF	
	3551.75	321.47	3336.78	3230.28	16.67	OSF1.50	22379.01	12340.00				MinPts	

Offset Trajectory	Separation			Allow	Sep.	Controlling	Reference Trajectory		Risk Level			Alert	Status
	Ct-Ct (ft)	MAS (ft)	EOU (ft)	Dev. (ft)	Fact.	Rule	MD (ft)	TVD (ft)	Alert	Minor	Major		
Cimarex Dos Equis 12-13 Federal Com #6H - Rev0 RM 2Jan19 (Non-Def Plan)													Pass
	2278.23	32.81	2276.25	2245.42	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	2278.22	32.81	2276.24	2245.41	N/A	MAS = 10.00 (m)	26.00	26.00				WRP	
	2278.22	32.81	2267.23	2245.41	252.61	MAS = 10.00 (m)	1500.00	1500.00				MinPts	
	2278.27	32.81	2267.15	2245.46	248.88	MAS = 10.00 (m)	1530.00	1530.00				MINPT-O-EOU	
	3356.53	76.32	3304.99	3280.21	67.68	OSF1.50	8510.00	8510.00				MinPt-O-SF	
	3357.73	79.52	3304.05	3278.21	64.92	OSF1.50	9190.00	9190.00				MINPT-O-EOU	
	3357.86	79.68	3304.08	3278.18	64.78	OSF1.50	9220.00	9220.00				MinPt-O-ADP	
	3414.69	83.75	3358.20	3330.94	62.60	OSF1.50	10070.00	10070.00				MinPt-O-SF	
	4481.84	331.31	4260.31	4150.53	20.40	OSF1.50	22379.01	12340.00				MinPts	
Cimarex Dos Equis 13 Federal #2H XEM + MWD 0ft to 15311 (Def Survey)													Pass
	5532.93	32.81	5530.95	5500.12	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	5532.91	32.81	5530.93	5500.10	N/A	MAS = 10.00 (m)	10.00	10.00				MinPt-O-SF	
	5532.91	32.81	5530.93	5500.10	N/A	MAS = 10.00 (m)	20.00	20.00				MinPts	
	5532.91	32.81	5530.93	5500.10	N/A	MAS = 10.00 (m)	26.00	26.00				WRP	
	5536.77	32.81	5527.56	5503.96	765.31	MAS = 10.00 (m)	1260.00	1260.00				MINPT-O-EOU	
	5654.27	65.58	5609.89	5588.69	133.31	OSF1.50	9380.00	9380.00				MinPt-CtCt	
	5644.49	72.73	5595.34	5571.76	119.63	OSF1.50	10520.00	10520.00				MinPt-CtCt	
	5644.57	72.93	5595.29	5571.64	119.30	OSF1.50	10550.00	10550.00				MINPT-O-EOU	
	5644.62	72.99	5595.30	5571.63	119.19	OSF1.50	10560.00	10560.00				MinPt-O-ADP	
	5771.68	79.61	5717.95	5692.08	111.49	OSF1.50	11782.99	11782.99				MinPt-O-SF	
	2333.03	132.70	2243.91	2200.33	26.75	OSF1.50	17970.00	12363.35				MinPt-CtCt	
	2333.35	133.63	2243.61	2199.72	26.56	OSF1.50	18010.00	12363.14				MINPT-O-EOU	
	2333.71	134.09	2243.66	2199.62	26.47	OSF1.50	18030.00	12363.04				MinPt-O-ADP	
	2345.48	243.49	2182.49	2101.99	14.56	OSF1.50	20940.00	12347.62				MinPt-CtCt	
	2358.19	276.56	2173.16	2081.63	12.87	OSF1.50	21720.00	12343.49				MINPT-O-EOU	
	2370.87	290.82	2176.33	2080.05	12.30	OSF1.50	22060.00	12341.69				MinPt-O-ADP	
	2381.13	316.09	2169.74	2065.03	11.36	OSF1.50	22260.00	12340.63				MinPts	
	2383.70	316.51	2172.03	2067.19	11.36	OSF1.50	22300.00	12340.42				MinPt-O-SF	
	2390.74	317.10	2178.68	2073.64	11.37	OSF1.50	22379.01	12340.00				TD	
Continental Wimberly #4 (Offset) Plugged Oil Inc Only 0ft· 5030ft (Def Survey)													Pass
	2658.16	32.81	2656.87	2625.35	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	2657.95	32.81	2656.64	2625.14	114241.04	MAS = 10.00 (m)	20.00	20.00				MinPt-O-SF	
	2657.92	32.81	2656.61	2625.11	132939.91	MAS = 10.00 (m)	26.00	26.00				WRP	
	2657.89	32.81	2656.56	2625.08	53998.05	MAS = 10.00 (m)	40.00	40.00				MinPts	
	2658.80	65.20	2614.90	2593.60	62.37	OSF1.50	1310.00	1310.00				MinPt-CtCt	
	2657.66	107.38	2585.64	2550.27	37.56	OSF1.50	2120.00	2120.00				MinPt-CtCt	
	2656.75	161.65	2548.55	2495.10	24.84	OSF1.50	3160.00	3160.00				MinPt-CtCt	
	2656.72	208.07	2517.58	2448.66	19.26	OSF1.50	4040.00	4040.00				MinPt-CtCt	
	2658.36	261.20	2483.79	2397.15	15.33	OSF1.50	5070.00	5070.00				MinPts	
	2658.38	261.21	2483.82	2397.18	15.33	OSF1.50	5080.00	5080.00				MinPt-O-SF	
	7650.71	89.27	7590.77	7561.44	130.41	OSF1.50	13910.00	12384.86				MinPt-CtCt	
	7650.92	89.88	7590.57	7561.04	129.51	OSF1.50	13970.00	12384.54				MINPT-O-EOU	
	7651.20	90.21	7590.63	7560.99	129.04	OSF1.50	14000.00	12384.38				MinPt-O-ADP	
	10154.15	238.34	9994.83	9915.81	64.24	OSF1.50	20590.00	12349.48				MinPt-O-SF	
	11410.33	261.52	11235.55	11148.80	65.76	OSF1.50	22379.01	12340.00				TD	
Cimarex Dos Equis 12 Federal Com #1H ST01 Gyro+MWD 10506ft to 15399ft MD (Def Survey)													Pass
	2883.37	32.81	2881.39	2850.56	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	2883.35	32.81	2881.37	2850.54	N/A	MAS = 10.00 (m)	10.00	10.00				MinPts	
	2883.36	32.81	2881.37	2850.55	707542.24	MAS = 10.00 (m)	26.00	26.00				WRP	
	2883.45	32.81	2881.33	2850.64	21186.17	MAS = 10.00 (m)	70.00	70.00				MINPT-O-EOU	
	2888.47	32.81	2878.05	2855.66	341.91	MAS = 10.00 (m)	1820.00	1820.00				MinPts	
	2873.06	32.81	2852.10	2840.25	151.28	MAS = 10.00 (m)	4170.00	4170.00				MinPts	
	2873.12	32.81	2852.05	2840.31	150.40	MAS = 10.00 (m)	4200.00	4200.00				MINPT-O-EOU	
	2898.86	72.68	2849.74	2826.17	61.47	OSF1.50	10460.00	10460.00				MinPt-CtCt	
	2898.91	72.85	2849.68	2826.06	61.31	OSF1.50	10490.00	10490.00				MINPT-O-EOU	
	2899.00	72.97	2849.70	2826.03	61.21	OSF1.50	10510.00	10510.00				MinPt-O-ADP	
	2983.22	78.54	2930.20	2904.67	58.41	OSF1.50	11440.00	11440.00				MinPt-O-SF	
	3116.08	78.99	3062.77	3037.10	60.66	OSF1.50	11930.00	11927.69				MinPt-O-SF	
	3423.29	81.75	3368.13	3341.54	64.34	OSF1.50	13200.00	12388.62				MinPts	
	3450.73	102.11	3382.00	3348.62	51.67	OSF1.50	13800.00	12385.44				MINPT-O-EOU	
	3453.11	104.91	3382.51	3348.20	50.29	OSF1.50	13900.00	12384.91				MinPt-O-ADP	
	3454.58	115.26	3377.08	3339.32	45.72	OSF1.50	14080.00	12383.96				MinPt-CtCt	
	3454.70	121.82	3372.83	3332.88	43.22	OSF1.50	14240.00	12383.11				MinPt-CtCt	
	3464.13	166.87	3352.22	3297.26	31.50	OSF1.50	15230.00	12377.87				MinPt-CtCt	
	3468.29	204.82	3331.08	3263.47	25.63	OSF1.50	16010.00	12373.73				MinPt-CtCt	
	3455.00	269.07	3274.96	3185.93	19.39	OSF1.50	16850.00	12369.29				MinPt-CtCt	
	3455.04	269.23	3274.90	3185.81	19.38	OSF1.50	16870.00	12369.18				MINPT-O-EOU	
	3455.11	269.31	3274.91	3185.80	19.38	OSF1.50	16880.00	12369.13				MinPt-O-ADP	
	3460.64	270.34	3279.75	3190.30	19.33	OSF1.50	17050.00	12368.23				MinPt-O-SF	
	6517.63	192.93	6388.35	6324.70	51.18	OSF1.50	22379.01	12340.00				TD	
Cimarex Dos Equis 12 Federal Com #1H Gyro 0ft to 11268ft MD (Def Survey)													Pass
	2883.37	32.81	2881.39	2850.56	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	2883.35	32.81	2881.37	2850.54	N/A	MAS = 10.00 (m)	10.00	10.00				MinPts	
	2883.36	32.81	2881.37	2850.55	707542.24	MAS = 10.00 (m)	26.00	26.00				WRP	
	2883.45	32.81	2881.33	2850.64	21186.17	MAS = 10.00 (m)	70.00	70.00				MINPT-O-EOU	
	2888.47	32.81	2878.05	2855.66	341.91	MAS = 10.00 (m)	1820.00	1820.00				MinPts	
	2873.06	32.81	2852.10	2840.25	151.28	MAS = 10.00 (m)	4170.00	4170.00				MinPts	
	2873.12	32.81	2852.05	2840.31	150.40	MAS = 10.00 (m)	4200.00	4200.00				MINPT-O-EOU	
	2898.86	72.68	2849.74	2826.17	61.47	OSF1.50	10460.00	10460.00				MinPt-CtCt	
	2898.91	72.85	2849.68	2826.06	61.31	OSF1.50	10490.00	10490.00				MINPT-O-EOU	
	2899.00	72.97	2849.70	2826.03	61.21	OSF1.50	10510.00	10510.00				MinPt-O-ADP	
	2941.42	80.56	2887.05	2860.86	56.11	OSF1.50	11640.00	11640.00				MinPt-O-SF	
	10609.37	104.49	10539.05	10504.88	155.21	OSF1.50	22379.01	12340.00				TD	
Continental Wimberly #2 (Offset) Plugged Oil Inc Only 0ft· 5038ft (Def Survey)													Pass
	3056.13	32.81	3054.85	3023.32	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	3055.96	32.81	3054.66	3023.16	170265.19	MAS = 10.00 (m)	20.00	20.00				MinPt-O-SF	

Offset Trajectory	Separation			Allow	Sep.	Controlling	Reference Trajectory		Risk Level			Alert	Status
	Ct-Ct (ft)	MAS (ft)	EOU (ft)	Dev. (ft)	Fact.	Rule	MD (ft)	TVD (ft)	Alert	Minor	Major		
	3055.94	32.81	3054.64	3023.13	211984.13	MAS = 10.00 (m)	26.00	26.00				WRP	
	3055.92	32.81	3054.56	3023.12	39171.34	MAS = 10.00 (m)	40.00	40.00				MinPts	
	3049.99	70.90	3002.30	2979.09	65.70	OSF1.50	1470.00	1470.00				MinPt-CtCt	
	3049.32	129.51	2962.55	2919.81	35.66	OSF1.50	2600.00	2600.00				MinPt-CtCt	
	3057.89	221.80	2909.60	2836.09	20.79	OSF1.50	4370.00	4370.00				MinPt-CtCt	
	3061.28	232.04	2906.15	2829.24	19.89	OSF1.50	4630.00	4630.00				MINPT-O-EOU	
	3055.22	257.69	2883.00	2797.53	17.87	OSF1.50	5070.00	5070.00				MinPts	
	3055.22	257.69	2883.00	2797.53	17.87	OSF1.50	5080.00	5080.00				MinPt-O-ADP	
	3055.26	257.70	2883.03	2797.56	17.87	OSF1.50	5090.00	5090.00				MinPt-O-SF	
	10617.37	232.51	10461.93	10384.86	68.87	OSF1.50	19570.00	12354.88				MinPt-O-SF	
	12643.09	264.34	12466.44	12378.75	72.09	OSF1.50	22379.01	12340.00				TD	
Continental Wimberly #8 (Offset) Plugged Oil Inc Only 0ft· 5070ft (Def Survey)													Pass
	3062.47	32.81	3061.19	3029.66	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	3062.28	32.81	3060.98	3029.48	142399.74	MAS = 10.00 (m)	20.00	20.00				MinPt-O-SF	
	3062.25	32.81	3060.95	3029.45	160681.27	MAS = 10.00 (m)	26.00	26.00				WRP	
	3062.23	32.81	3060.90	3029.42	81909.69	MAS = 10.00 (m)	40.00	40.00				MinPts	
	3064.01	58.10	3024.84	3005.91	80.86	OSF1.50	1230.00	1230.00				MinPt-CtCt	
	3062.73	113.86	2986.40	2948.87	40.79	OSF1.50	2310.00	2310.00				MinPt-CtCt	
	3057.08	174.81	2940.12	2882.28	26.42	OSF1.50	3480.00	3480.00				MinPt-CtCt	
	3059.16	232.26	2903.89	2826.90	19.86	OSF1.50	4580.00	4580.00				MinPt-CtCt	
	3061.80	242.89	2899.44	2818.91	19.00	OSF1.50	4850.00	4850.00				MINPT-O-EOU	
	3064.70	246.39	2900.02	2818.32	18.75	OSF1.50	4950.00	4950.00				MinPt-O-ADP	
	3071.16	260.30	2897.20	2810.86	17.78	OSF1.50	5110.00	5110.00				MinPts	
	3071.24	260.32	2897.26	2810.92	17.78	OSF1.50	5130.00	5130.00				MinPt-O-SF	
	7294.33	73.65	7244.81	7220.69	151.18	OSF1.50	15250.00	12377.76				MinPt-CtCt	
	7295.30	76.41	7243.93	7218.89	145.64	OSF1.50	15370.00	12377.12				MINPT-O-EOU	
	7296.52	77.88	7244.17	7218.64	142.86	OSF1.50	15430.00	12376.81				MinPt-O-ADP	
	9617.82	241.63	9456.30	9376.19	60.02	OSF1.50	21520.00	12344.55				MinPt-O-SF	
	10198.52	254.38	10028.51	9944.14	60.44	OSF1.50	22379.01	12340.00				TD	
Cimarex Dos Equis 13 Federal #1H Pilot Hole Extreme 0ft to 11400ft (Def Survey)													Pass
	6141.74	32.81	6139.76	6108.93	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	6141.67	32.81	6139.69	6108.86	922909.68	MAS = 10.00 (m)	20.00	20.00				MinPt-O-SF	
	6141.66	32.81	6139.68	6108.85	N/A	MAS = 10.00 (m)	26.00	26.00				WRP	
	6141.63	32.81	6139.17	6108.82	12845.88	MAS = 10.00 (m)	160.00	160.00				MinPts	
	6142.77	32.81	6138.81	6109.97	3090.51	MAS = 10.00 (m)	500.00	500.00				MINPT-O-EOU	
	6143.12	32.81	6138.47	6110.31	2293.54	MAS = 10.00 (m)	660.00	660.00				MinPts	
	6144.74	32.81	6137.69	6111.93	1211.96	MAS = 10.00 (m)	1190.00	1190.00				MINPT-O-EOU	
	6145.13	32.81	6137.68	6112.33	1123.07	MAS = 10.00 (m)	1280.00	1280.00				MINPT-O-EOU	
	6154.13	32.81	6135.45	6121.32	368.37	MAS = 10.00 (m)	3820.00	3820.00				MinPts	
	6153.63	32.81	6133.05	6120.82	330.67	MAS = 10.00 (m)	4240.00	4240.00				MinPts	
	6153.82	32.81	6132.84	6121.01	323.73	MAS = 10.00 (m)	4330.00	4330.00				MINPT-O-EOU	
	6228.89	61.08	6187.51	6167.81	158.04	OSF1.50	8900.00	8900.00				MINPT-O-EOU	
	6228.74	63.32	6185.87	6165.42	152.27	OSF1.50	9220.00	9220.00				MinPt-CtCt	
	6226.44	68.30	6180.24	6158.13	140.77	OSF1.50	9980.00	9980.00				MinPt-CtCt	
	6226.78	69.13	6180.03	6157.65	139.05	OSF1.50	10100.00	10100.00				MINPT-O-EOU	
	6227.31	69.78	6180.13	6157.53	137.72	OSF1.50	10200.00	10200.00				MinPt-O-ADP	
	6229.36	77.09	6177.31	6152.27	124.37	OSF1.50	11320.00	11320.00				MinPt-CtCt	
	6229.51	77.56	6177.15	6151.96	123.60	OSF1.50	11390.00	11390.00				MINPT-O-EOU	
	6229.95	78.64	6176.86	6151.31	121.86	OSF1.50	11470.00	11470.00				MinPts	
	6240.80	80.61	6186.40	6160.19	119.02	OSF1.50	11800.00	11800.00				MinPt-O-SF	
	3369.15	125.32	3284.94	3243.83	40.95	OSF1.50	17610.00	12365.26				MinPt-CtCt	
	3369.39	126.08	3284.68	3243.31	40.70	OSF1.50	17650.00	12365.05				MINPT-O-EOU	
	3369.69	126.46	3284.72	3243.23	40.58	OSF1.50	17670.00	12364.94				MinPt-O-ADP	
	3514.41	140.76	3419.91	3373.65	37.96	OSF1.50	18610.00	12359.96				MinPt-O-SF	
	5839.03	145.26	5741.52	5693.76	61.11	OSF1.50	22379.01	12340.00				TD	
Continental Wimberly #3 (Offset) Plugged Oil Inc Only 0ft· 3570ft (Def Survey)													Pass
	3474.31	32.81	3473.02	3441.50	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	3473.94	32.81	3472.60	3441.13	72407.88	MAS = 10.00 (m)	26.00	26.00				MinPt-O-SF	
	3473.75	32.81	3472.30	3440.94	22369.13	MAS = 10.00 (m)	70.00	70.00				MinPts	
	3471.45	61.87	3429.78	3409.58	85.92	OSF1.50	1340.00	1340.00				MinPt-CtCt	
	3471.03	120.02	3390.59	3351.01	43.83	OSF1.50	2460.00	2460.00				MinPt-CtCt	
	3473.73	127.89	3388.04	3345.84	41.14	OSF1.50	2690.00	2690.00				MINPT-O-EOU	
	3489.67	200.89	3355.32	3288.79	26.22	OSF1.50	3960.00	3960.00				MinPt-CtCt	
	3489.96	201.68	3355.08	3288.29	26.11	OSF1.50	4010.00	4010.00				MINPT-O-EOU	
	3490.22	201.99	3355.14	3288.24	26.08	OSF1.50	4030.00	4030.00				MinPt-O-ADP	
	3486.84	241.27	3325.57	3245.57	21.79	OSF1.50	4750.00	4750.00				MinPt-CtCt	
	3487.67	243.80	3324.71	3243.87	21.56	OSF1.50	4850.00	4850.00				MINPT-O-EOU	
	3488.67	245.04	3324.88	3243.63	21.46	OSF1.50	4900.00	4900.00				MinPt-O-ADP	
	3495.48	263.22	3319.57	3232.26	20.01	OSF1.50	5140.00	5140.00				MinPts	
	3495.68	263.25	3319.75	3232.43	20.01	OSF1.50	5170.00	5170.00				MinPt-O-SF	
	7944.15	119.61	7863.98	7824.54	100.69	OSF1.50	13920.00	12384.81				MinPt-CtCt	
	7944.25	119.88	7863.90	7824.36	100.46	OSF1.50	13960.00	12384.59				MINPT-O-EOU	
	7944.37	120.03	7863.92	7824.34	100.34	OSF1.50	13980.00	12384.49				MinPt-O-ADP	
	10270.25	241.81	10108.62	10028.44	64.04	OSF1.50	20430.00	12350.32				MinPt-O-SF	
	11603.86	266.23	11425.94	11337.63	65.69	OSF1.50	22379.01	12340.00				TD	
Cimarex Dos Equis 13 Federal #1H ST01 Xern+MWD 0ft to 15250ft (Def Survey)													Pass
	6141.74	32.81	6139.76	6108.93	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	6141.67	32.81	6139.69	6108.86	922909.68	MAS = 10.00 (m)	20.00	20.00				MinPt-O-SF	
	6141.66	32.81	6139.68	6108.85	N/A	MAS = 10.00 (m)	26.00	26.00				WRP	
	6141.63	32.81	6139.17	6108.82	12845.88	MAS = 10.00 (m)	160.00	160.00				MinPts	
	6142.77	32.81	6138.81	6109.97	3090.51	MAS = 10.00 (m)	500.00	500.00				MINPT-O-EOU	
	6143.12	32.81	6138.47	6110.31	2293.54	MAS = 10.00 (m)	660.00	660.00				MinPts	
	6144.74	32.81	6137.69	6111.93	1211.96	MAS = 10.00 (m)	1190.00	1190.00				MINPT-O-EOU	
	6145.13	32.81	6137.68	6112.33	1123.07	MAS = 10.00 (m)	1280.00	1280.00				MINPT-O-EOU	
	6154.13	32.81	6135.45	6121.32	368.37	MAS = 10.00 (m)	3820.00	3820.00				MinPts	
	6153.63	32.81	6133.05	6120.82	330.67	MAS = 10.00 (m)	4240.00	4240.00				MinPts	
	6153.82	32.81	6132.84	6121.01	323.73	MAS = 10.00 (m)	4330.00	4330.00				MINPT-O-EOU	
	6228.89	61.08	6187.51	6167.81	158.04	OSF1.50	8900.00	8900.00				MINPT-O-EOU	
	6228.74	63.32	6185.87	6165.42	152.27	OSF1.50	9220.00	9220.00				MinPt-CtCt	
	6226.44	68.30	6180.24	6158.13	140.77	OSF1.50	9980.00	9980.00				MinPt-CtCt	
	6226.78	69.13	6180.03	6157.65	139.05	OSF1.50	10100.00	10100.00				MINPT-O-EOU	

Offset Trajectory	Separation			Allow	Sep.	Controlling	Reference Trajectory		Risk Level			Alert	Status
	Ct-Ct (ft)	MAS (ft)	EOU (ft)	Dev. (ft)	Fact.	Rule	MD (ft)	TVD (ft)	Alert	Minor	Major		
	6227.31	69.78	6180.13	6157.53	137.72	OSF1.50	10200.00	10200.00				MinPt-O-ADP	
	6350.93	79.01	6297.59	6271.92	123.63	OSF1.50	11782.99	11782.99				MinPt-O-SF	
	3495.23	146.95	3396.60	3348.28	36.14	OSF1.50	18420.00	12360.97				MinPt-CtCt	
	3496.21	150.10	3395.48	3346.11	35.39	OSF1.50	18540.00	12360.33				MINPT-O-EOU	
	3497.74	151.94	3395.79	3345.80	34.97	OSF1.50	18610.00	12359.96				MinPt-O-ADP	
	3497.31	189.92	3370.04	3307.39	27.90	OSF1.50	19560.00	12354.93				MinPt-CtCt	
	3501.83	203.19	3365.71	3298.64	26.09	OSF1.50	19920.00	12353.02				MINPT-O-EOU	
	3503.44	205.61	3365.71	3297.83	25.79	OSF1.50	19980.00	12352.71				MINPT-O-EOU	
	3505.43	208.47	3365.79	3296.96	25.45	OSF1.50	20050.00	12352.34				MinPt-O-ADP	
	3518.44	229.71	3364.64	3288.73	23.16	OSF1.50	20460.00	12350.16				MinPt-CtCt	
	3524.03	249.38	3357.12	3274.65	21.35	OSF1.50	20940.00	12347.62				MINPT-O-EOU	
	3526.02	252.15	3357.26	3273.87	21.13	OSF1.50	21010.00	12347.25				MINPT-O-EOU	
	3510.76	344.90	3280.17	3165.86	15.35	OSF1.50	22110.00	12341.42				MinPt-CtCt	
	3510.92	345.31	3280.05	3165.61	15.33	OSF1.50	22140.00	12341.27				MINPT-O-EOU	
	3511.03	345.43	3280.08	3165.59	15.33	OSF1.50	22150.00	12341.21				MinPt-O-ADP	
	3520.62	347.64	3288.20	3172.98	15.27	OSF1.50	22370.00	12340.05				MinPt-O-SF	
	3521.30	347.70	3288.84	3173.60	15.27	OSF1.50	22379.01	12340.00				TD	
Jubilee Energy Gulf Federal #1 (Offset) Plugged Oil Inc Only 0ft-5020ft (Def Survey)													Pass
	3815.10	32.81	3813.81	3782.29	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	3814.91	32.81	3813.60	3782.10	162740.20	MAS = 10.00 (m)	20.00	20.00				MinPt-O-SF	
	3814.88	32.81	3813.57	3782.07	163503.59	MAS = 10.00 (m)	26.00	26.00				WRP	
	3814.83	32.81	3813.45	3782.02	42808.89	MAS = 10.00 (m)	50.00	50.00				MinPts	
	3814.12	99.81	3747.14	3714.30	58.05	OSF1.50	1980.00	1980.00				MinPt-CtCt	
	3809.96	203.79	3673.66	3606.17	28.21	OSF1.50	3950.00	3950.00				MinPt-CtCt	
	3819.40	262.40	3644.04	3557.01	21.93	OSF1.50	5060.00	5060.00				MinPt-CtCt	
	3819.40	262.45	3644.01	3556.96	21.93	OSF1.50	5070.00	5070.00				MinPts	
	3819.48	262.46	3644.08	3557.02	21.93	OSF1.50	5090.00	5090.00				MinPt-O-SF	
	7862.82	115.94	7785.10	7746.88	102.85	OSF1.50	14920.00	12379.51				MinPt-CtCt	
	7863.05	116.65	7784.86	7746.41	102.22	OSF1.50	14980.00	12379.19				MINPT-O-EOU	
	7863.46	117.14	7784.94	7746.32	101.79	OSF1.50	15020.00	12378.98				MinPt-O-ADP	
	10082.18	246.32	9917.53	9835.86	61.71	OSF1.50	21230.00	12346.09				MinPt-O-SF	
	10838.49	262.04	10663.37	10576.46	62.34	OSF1.50	22379.01	12340.00				TD	
Continental Wimberly #7 (Offset) Plugged Oil Inc Only 0ft-5100ft (Def Survey)													Pass
	4374.16	32.81	4372.88	4341.36	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	4374.12	32.81	4372.82	4341.31	697742.85	MAS = 10.00 (m)	10.00	10.00				MinPt-O-SF	
	4374.09	32.81	4372.80	4341.28	838971.28	MAS = 10.00 (m)	26.00	26.00				MinPts	
	4374.06	40.31	4346.75	4333.74	168.07	OSF1.50	890.00	890.00				MinPt-CtCt	
	4373.63	77.03	4321.85	4296.60	86.59	OSF1.50	1590.00	1590.00				MinPt-CtCt	
	4373.17	128.58	4287.02	4244.59	51.52	OSF1.50	2580.00	2580.00				MinPt-CtCt	
	4370.74	178.69	4251.18	4192.04	36.94	OSF1.50	3540.00	3540.00				MinPt-CtCt	
	4375.38	237.63	4216.53	4137.74	27.76	OSF1.50	4670.00	4670.00				MinPt-CtCt	
	4379.76	250.64	4212.24	4129.12	26.34	OSF1.50	5020.00	5020.00				MINPT-O-EOU	
	4381.07	261.74	4206.15	4119.33	25.22	OSF1.50	5130.00	5130.00				MinPts	
	4381.21	261.76	4206.27	4119.45	25.22	OSF1.50	5160.00	5160.00				MinPt-O-SF	
	7270.20	100.32	7202.89	7169.88	110.09	OSF1.50	16570.00	12370.77				MinPt-CtCt	
	7271.20	103.17	7201.98	7168.02	107.03	OSF1.50	16690.00	12370.13				MINPT-O-EOU	
	7272.43	104.66	7202.23	7167.77	105.51	OSF1.50	16750.00	12369.82				MinPt-O-ADP	
	9281.71	249.78	9114.77	9031.94	56.02	OSF1.50	22340.00	12340.21				MinPt-O-SF	
	9306.02	250.42	9138.64	9055.60	56.02	OSF1.50	22379.01	12340.00				TD	
Stanolind Wimberly A Unit B #1 Inc Only (Def Survey)													Pass
	5933.67	32.81	5931.69	5900.86	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	5933.57	32.81	5931.58	5900.76	569411.67	MAS = 10.00 (m)	20.00	20.00				MinPt-O-SF	
	5933.56	32.81	5931.57	5900.75	662625.64	MAS = 10.00 (m)	26.00	26.00				WRP	
	5823.92	554.32	5453.68	5269.60	15.81	OSF1.50	5020.00	5020.00				MinPt-O-SF	
	5823.57	554.25	5453.37	5269.31	15.81	OSF1.50	5070.00	5070.00				MinPt-O-ADP	
	5823.55	554.23	5453.37	5269.31	15.81	OSF1.50	5080.00	5080.00				MINPT-O-EOU	
	5823.55	554.21	5453.38	5269.33	15.82	OSF1.50	5090.00	5090.00				MinPt-CtCt	
	7502.47	176.00	7384.47	7326.46	64.65	OSF1.50	17800.00	12364.25				MinPt-CtCt	
	7503.60	179.15	7383.51	7324.46	63.51	OSF1.50	17930.00	12363.57				MINPT-O-EOU	
	7505.42	181.31	7383.89	7324.11	62.76	OSF1.50	18010.00	12363.14				MinPt-O-ADP	
	8789.73	376.92	8537.79	8412.81	35.16	OSF1.50	22379.01	12340.00				MinPt-O-SF	
Westates Petroleum Wolley #1 (Offset) Plugged Oil Blind 0ft-5063ft (Def Survey)													Pass
	10096.56	32.81	10095.27	10063.75	N/A	MAS = 10.00 (m)	0.00	0.00				Surface	
	10096.45	32.81	10095.16	10063.65	810534.04	MAS = 10.00 (m)	26.00	26.00				WRP	
	10096.42	1575.35	9045.75	8521.06	9.62	OSF1.50	5110.00	5110.00				MinPt-CtCt	
	10096.42	1577.46	9044.35	8518.96	9.61	OSF1.50	5120.00	5120.00				MinPts	
	10206.09	1110.90	9465.06	9095.19	13.80	OSF1.50	15390.00	12377.02				MinPt-O-SF	
	7908.21	674.83	7457.90	7233.39	17.61	OSF1.50	21840.00	12342.86				MinPt-CtCt	
	7908.51	675.60	7457.68	7232.90	17.59	OSF1.50	21910.00	12342.48				MINPT-O-EOU	
	7909.10	676.31	7457.80	7232.79	17.57	OSF1.50	21960.00	12342.22				MinPt-O-ADP	
	7926.45	686.87	7468.11	7239.58	17.34	OSF1.50	22379.01	12340.00				MinPt-O-SF	

1. Geological Formations

TVD of target 12,340
MD at TD 22,379

Pilot Hole TD N/A
Deepest expected fresh water

Formation	Depth (TVD) from KB	Water/Mineral Bearing/Target Zone	Hazards
Rustler	1185	N/A	
Salado (Top Salt)	1500	N/A	
Base of Salt	4650	N/A	
Bell Canyon	4947	N/A	
Cherry Canyon	4947	N/A	
Brushy Canyon	7311	Hydrocarbons	
Bone Spring	8845	Hydrocarbons	
Avalon	9283	Hydrocarbons	
1st Bone Spring Sand	9980	Hydrocarbons	
2nd Bone Spring Sand	10640	Hydrocarbons	
3rd Bone Spring Carb	11090	Hydrocarbons	
3rd Bone Spring Sand	11825	Hydrocarbons	
Wolfcamp	12235	Hydrocarbons	
Wolfcamp (Target)	12390	Hydrocarbons	

2. Casing Program

Hole Size	Casing Depth From	Casing Depth To	Setting Depth TVD	Casing Size	Weight (lb/ft)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
14 3/4	0	1235	1235	10-3/4"	40.50	J-55	BT&C	2.95	5.85	12.58
9 7/8	0	12556	12341	7-5/8"	29.70	L-80	BT&C	2.49	1.19	1.81
6 3/4	0	11683	11683	5-1/2"	20.00	L-80	LT&C	1.25	1.21	1.86
6 3/4	11683	22379	12417	5"	18.00	P-110	BT&C	1.67	1.69	43.90
					BLM Minimum Safety Factor			1.125	1	1.6 Dry 1.8 Wet

TVD was used on all calculations.
All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

Request Variance for 5-1/2" x 7-5/8" annular clearance. The portion that does not meet clearance will not be cemented

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Does casing meet API specifications? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	Y
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	N
Is well within the designated 4 string boundary.	N
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3rd string cement tied back 500' into previous casing?	N
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	N
Is 2nd string set 100' to 600' below the base of salt?	N
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	N
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	N
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	N
Is AC Report included?	Y

3. Cementing Program

Casing	# Sks	Wt. lb/gal	Yld ft3/sack	H2O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surface	480	13.50	1.72	9.15	15.5	Lead: Class C + Bentonite
	128	14.80	1.34	6.32	9.5	Tail: Class C + LCM
Intermediate Stage 1	590	10.30	3.64	22.18		Lead: Tuned Light + LCM
	200	14.80	1.34	6.32	9.5	Tail: Class C + LCM
Intermediate Stage 2	782	12.90	1.88	9.65	12	Lead: 35:65 (Poz:C) + Salt + Bentonite
Production	851	14.20	1.30	5.86	14:30	Tail: 50:50 (Poz:H) + Salt + Bentonite + Fluid Loss + Dispersant + SMS

DV tool with possible annular casing packer as needed is proposed at a depth of +/- 4,900'.

Casing String	TOC	% Excess
Surface	0	45
Intermediate Stage 1	4900	47
Intermediate Stage 2	0	37
Production	12356	25

Cimarex request the ability to perform casing integrity tests after plug bump of cement job.

4. Pressure Control Equipment

	A variance is requested for the use of a diverter on the surface casing. See attached for schematic.

BOP installed and tested before drilling which hole?	Size	Min Required WP	Type		Tested To
9 7/8	13 5/8	5M	Annular	X	50% of working pressure
			Blind Ram		5M
			Pipe Ram	X	
			Double Ram	X	
			Other		
6 3/4	13 5/8	10M	Annular	X	50% of working pressure
			Blind Ram		10M
			Pipe Ram	X	
			Double Ram	X	
			Other		

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. See attached schematics.

X	Formation integrity test will be performed per Onshore Order #2. On Exploratory wells or 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. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.	
X	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.	
	N	Are anchors required by manufacturer?

5. Mud Program

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0' to 1235'	Fresh Water	7.83 - 8.33	28	N/C
1235' to 12556'	Brine Diesel Emulsion	8.50 - 9.00	30-35	N/C
12556' to 22379'	OBM	12.00 - 12.50	50-70	N/C

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

The Brine Emulsion is completely saturated brine fluid that ties diesel into itself to lower the weight of the fluid. The drilling fluid is completely salt saturated.

What will be used to monitor the loss or gain of fluid?	PVT/Pason/Visual Monitoring

6. Logging and Testing Procedures

Logging, Coring and Testing	
	Will run GR/CNL fromTD to surface (horizontal well – vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM.
	No logs are planned based on well control or offset log information.
	Drill stem test?
	Coring?

Additional Logs Planned	Interval

7. Drilling Conditions

Condition	
BH Pressure at deepest TVD	8071 psi
Abnormal Temperature	No

Hydrogen Sulfide (H2S) monitors will be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.	
	H2S is present
	H2S plan is attached

8. Other Facets of Operation

9. Wellhead

A multi-bowl wellhead system will be utilized.

After running the 10-3/4" surface casing, a 13 5/8" BOP/BOPE system with a minimum working pressure of 10000 psi will be installed on the wellhead system and will be pressure tested to 250 psi low followed by a 10000 psi test. Annular will be tested to 50% of working pressure. The pressure test will be repeated at least every 30 days, as per Onshore Order No. 2.

The multi-bowl wellhead will be installed by vendor's representative. A copy of the installation instructions has been sent to the BLM field office.

The wellhead will be installed by a third-party welder while being monitored by the wellhead vendor representative.

All BOP equipment will be tested utilizing a conventional test plug. Not a cup or J-packer type.

A solid steel body pack-off will be utilized after running and cementing the intermediate casing. After installation the pack-off and lower flange will be pressure tested to 10000 psi.

All casing strings will be tested as per Onshore Order No.2 to atleast 0.22 psi/ft or 1,500 whichever is greater and not to exceed 70% of casing burst.

If well conditions dictate conventional slips will be set and BOPE will be tested to appropriate pressures based on permitted pressure requirements.

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

GAS CAPTURE PLAN

Date: 4/30/20

☒ Original Operator & OGRID No.: Cimarex Energy Co- 215099

☐ Amended - Reason for Amendment:

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
Dos Equis 12-13 Fed Com 48H	Pending	12-24S-32E	255'FNL & 1580' FWL	5000		

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 Gas Transporter and will be connected to Gas Transporter low/high pressure gathering system located in _Lea___ County, New Mexico. It will require _500_ ' of pipeline to connect the facility to low/high pressure gathering system. Operator provides (periodically) to Gas Transporter a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, Operator and Gas Transporter have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at Gas Transporter Processing Plant located in _Sec 13-24S-33E , _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 Gas Transporter system at that time. Based on current information, it is Operator's 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

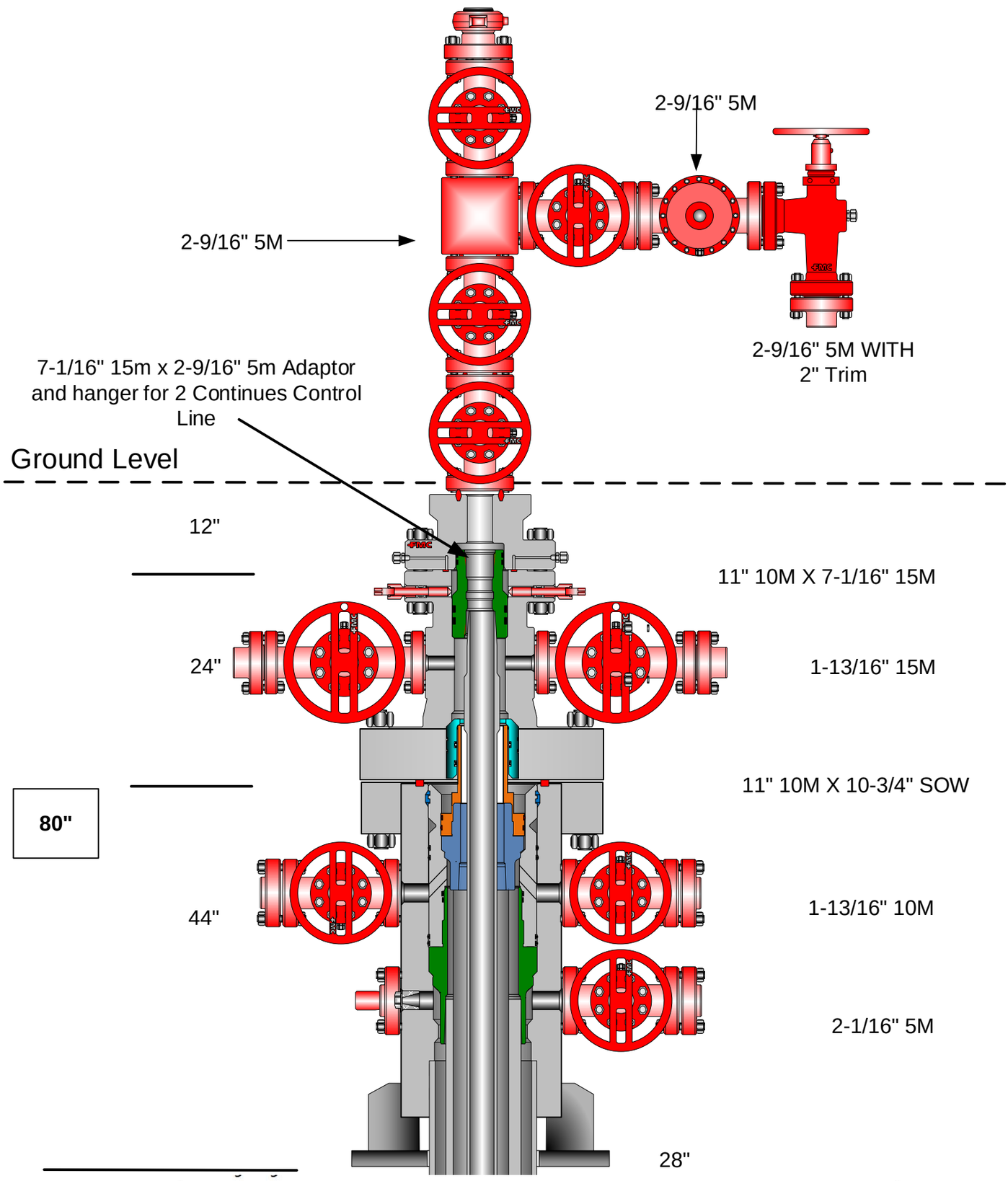
CIMAREX

Dos Equis 12-13 Fed Com #48H

CACTUS FOR SERVICE
WEARBUSHING
IN CASING HEAD &
CASING SPOOL

LEA CO., NM

Multi-bowl Wellhead Diagram



Hole Size	Casing Depth From	Casing Depth To	Setting Depth TVD	Casing Size	Weight (lb/ft)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
14 3/4	0	1235	1235	10-3/4"	40.50	J-55	BT&C	2.95	5.85	12.58
9 7/8	0	12556	12341	7-5/8"	29.70	L-80	BT&C	2.49	1.19	1.81
6 3/4	0	11683	11683	5-1/2"	20.00	HCL-80	LT&C	1.25	1.21	1.86
6 3/4	11683	22379	12417	5"	18.00	P-110	BT&C	1.67	1.69	43.90
						BLM Minimum Safety Factor		1.125	1	1.6 Dry 1.8 Wet

Cimarex 10M Well Control Plan

Version 1.0

BOPE Preventer Utilization

The table below displays all BHA components, drill pipe, casing, or open hole that could be present during a required shut in and the associated preventer component that would provide a barrier to flow. It is specific to the hole section that requires a 10M system. The mud system being utilized in the hole will always assumed to be the first barrier to flow. The below table, combined with the mud program, documents that two barriers to flow can be maintained at all times, independent of the rating of the annular preventer.

Drill String Element	OD	Preventer	RWP
4" Drillpipe	4"	Lower Ram 3 1/2" - 5 ½" VBR* Upper Ram 3 1/2" - 5 ½" VBR*	10M
4.5" Drillpipe	4.5"	Lower Ram 3 1/2" - 5 ½" VBR* Upper Ram 3 1/2" - 5 ½" VBR*	10M
4" HWDP Drillpipe	4"	Lower Ram 3 1/2" - 5 ½" VBR* Upper Ram 3 1/2" - 5 ½" VBR*	10M
4.5" HWDP Drillpipe	4.5"	Lower Ram 3 1/2" - 5 ½" VBR* Upper Ram 3 1/2" - 5 ½" VBR*	10M
Drill Collars (including non-magnetic)	4.75-5.25"	Lower Ram 3 1/2" - 5 ½" VBR* Upper Ram 3 1/2" - 5 ½" VBR*	10M
Production Casing	5.5"	Lower Ram 3 1/2" - 5 ½" VBR* Upper Ram 3 1/2" - 5 ½" VBR*	10M
Production Casing	5"	Lower Ram 3 1/2" - 5 ½" VBR* Upper Ram 3 1/2" - 5 ½" VBR*	10M
Production Casing	4.5"	Lower Ram 3 1/2" - 5 ½" VBR* Upper Ram 3 1/2" - 5 ½" VBR*	10M
ALL	0-13 5/8"	Annular	5M
0pen Hole		Blind Rams	10M

*VBR – Variable Bore Ram

Well Control Procedures

Proper well control response is highly specific to current well conditions and must be adapted based on environment as needed. The procedures below are given in "common" operating conditions to cover the basic and most necessary operations required during the wellbore construction. These include drilling ahead, tripping pipe, tripping BHA, running casing, and pipe out of the hole/open hole. In some of the procedures below, there will be a switch of control from the lesser RWP annular to the appropriate 10M RWP ram. The pressure at which this is done is variable based on overall well conditions that must be evaluated situationally. The pressure that control is switched may be equal to or less than the RWP but at no time will the pressure on the annular preventer exceed the RWP of the annular. The annular will be tested to 5,000 psi. This will be the RWP of the annular preventer.

Shutting In While Drilling

1. Sound alarm to alert crew
2. Space out drill string
3. Shut down pumps
4. Shut in uppermost BOPE preventer (typically the annular preventer) and open HCR.
5. Verify well is shut-in and flow has stopped
6. Notify supervisory personnel
7. Record data (SIDP, SICP, Pit Gain, and Time)
8. Hold pre-job safety meeting and discuss kill procedure

9. If pressure is anticipated to climb to the RWP of the annular preventer during kill procedure, swap control of the well to the upper pipe ram

Shutting In While Tripping

1. Sound alarm and alert crew
2. Install open, full open safety valve and close valve
3. Shut in uppermost BOPE preventer (typically the annular preventer) and open HCR.
4. Verify well is shut-in and flow has stopped
5. Notify supervisory personnel
6. Record data (SIDP, SICP, Pit Gain, and Time)
7. Hold pre-job safety meeting and discuss kill procedure
8. If pressure is anticipated to climb to the RWP of the annular preventer during kill procedure, swap control of the well to the upper pipe ram

Shutting In While Running Casing

1. Sound alarm and alert crew
2. Install circulating swedge. Close high pressure, low torque valves.
3. Shut in uppermost BOPE preventer (typically the annular preventer) and open HCR.
4. Verify well is shut-in and flow has stopped
5. Notify supervisory personnel
6. Record data (SIDP, SICP, Pit Gain, and Time)
7. Hold Pre-job safety meeting and discuss kill procedure
8. If pressure is anticipated to climb to the RWP of the annular preventer during kill procedure, swap control of the well to the upper pipe ram

Shutting in while out of hole

1. Sound alarm
2. Shut-in well: close blind rams
3. Verify well is shut-in and monitor pressures
4. Notify supervisory personnel
5. Record data (SIDP, SICP, Pit Gain, and Time)
6. Hold Pre-job safety meeting and discuss kill procedure

Shutting in prior to pulling BHA through stack

1. Prior to pulling last joint of drill pipe thru the stack space out and check flow. If flowing see steps below.
2. Sound alarm and alert crew
3. Install open, full open safety valve and close valve
4. Shut in upper pipe ram and open HCR.

5. Verify well is shut-in and flow has stopped
6. Notify supervisory personnel
7. Record data (SIDP, SICP, Pit Gain, and Time)
8. Hold pre-job safety meeting and discuss kill procedure

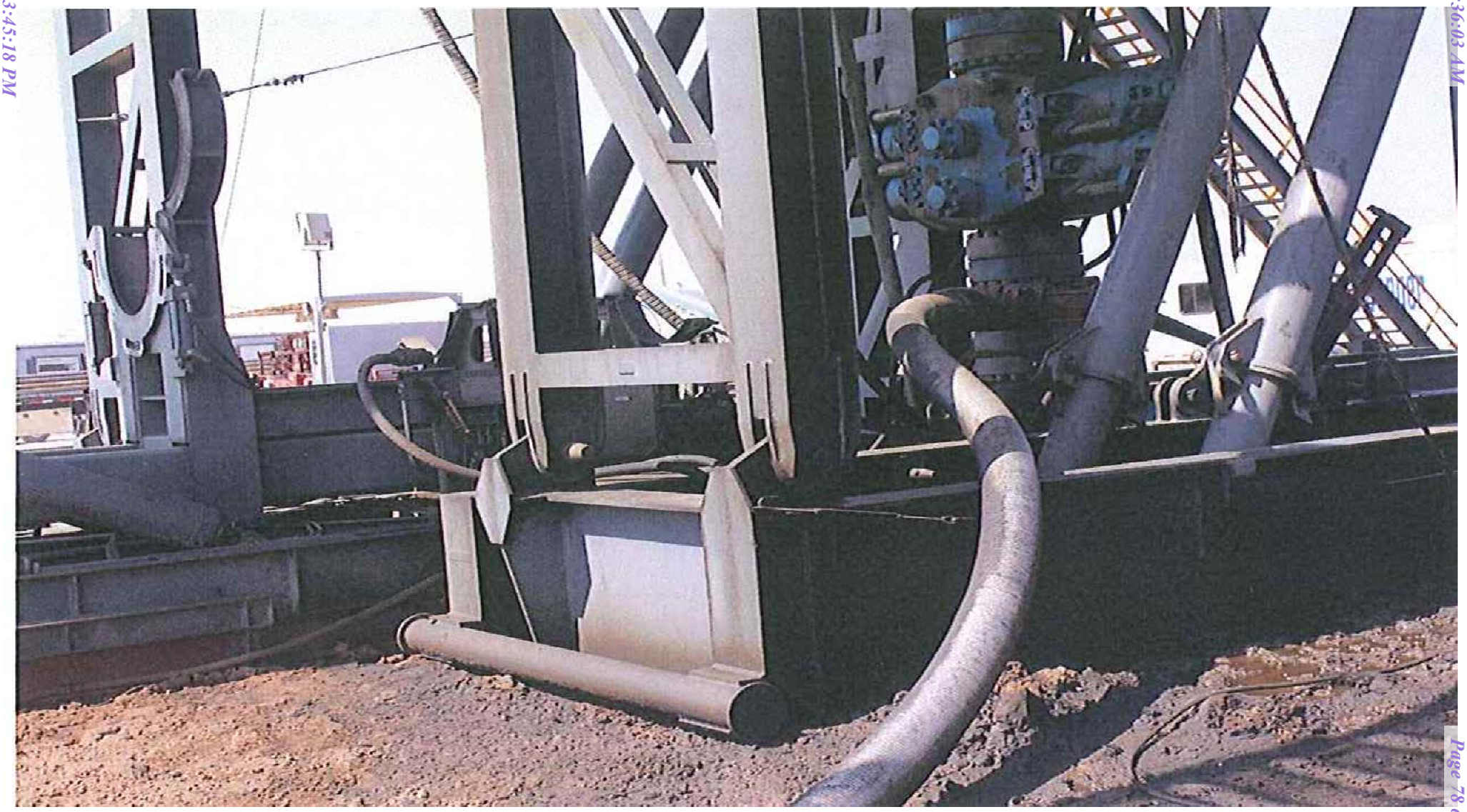
Shutting in while BHA is in the stack and ram preventer and combo immediately available

1. Sound alarm and alert crew
2. Stab Crossover and install open, full open safety valve and close valve
3. Space out drill string with upset just beneath the compatible pipe ram.
4. Shut in upper compatible pipe ram and open HCR.
5. Verify well is shut-in and flow has stopped
6. Notify supervisory personnel
7. Record data (SIDP, SICP, Pit Gain, and Time)
8. Hold pre-job safety meeting and discuss kill procedure

Shutting in while BHA is in the stack and no ram preventer or combo immediately available

1. Sound alarm and alert crew
2. If possible pick up high enough, to pull string clear and follow “Open Hole” scenario
3. If not possible to pick up high enough:
    1. Stab Crossover, make up one joint/stand of drill pipe, and install open, full open safety valve and close valve
4. Space out drill string with upset just beneath the compatible pipe ram.
5. Shut in upper compatible pipe ram and open HCR.
6. Verify well is shut-in and flow has stopped
7. Notify supervisory personnel
8. Record data (SIDP, SICP, Pit Gain, and Time)
9. Hold pre-job safety meeting and discuss kill procedure

Co-Flex Hose
Dos Equis 12-13 Federal Com 48H
Cimarex Energy Co.
12-24S-32E
Lea Co., NM



Co-Flex Hose Hydrostatic Test
Dos Equis 12-13 Federal Com 48H
Cimarex Energy Co.
12-24S-32E
Lea Co., NM

Midwest Hose & Specialty, Inc.

INTERNAL HYDROSTATIC TEST REPORT

Customer:	P.O. Number:
Oderco Inc	odyd-271

HOSE SPECIFICATIONS

Type:	Hose Length:
Stainless Steel Armor Choke & Kill Hose	45'ft.

I.D.	O.D.
4 INCHES	9 INCHES

WORKING PRESSURE	TEST PRESSURE	BURST PRESSURE
10,000 PSI	15,000 PSI	0 PSI

COUPLINGS

Stem Part No.	Ferrule No.
OKC OKC	OKC OKC
Type of Coupling: Swage-It	

PROCEDURE

Hose assembly pressure tested with water at ambient temperature.

TIME HELD AT TEST PRESSURE	ACTUAL BURST PRESSURE:
15 MIN.	0 PSI

Hose Assembly Serial Number:	Hose Serial Number:
79793	OKC

Comments:

Date:	Tested:	Approved:
3/8/2011	A. Jaime Sanchez	

Co-Flex Hose Hydrostatic Test
Dos Equis 12-13 Federal Com 48H
Cimarex Energy Co.
12-24S-32E
Lea Co., NM

Midwest Hose & Specialty, Inc.

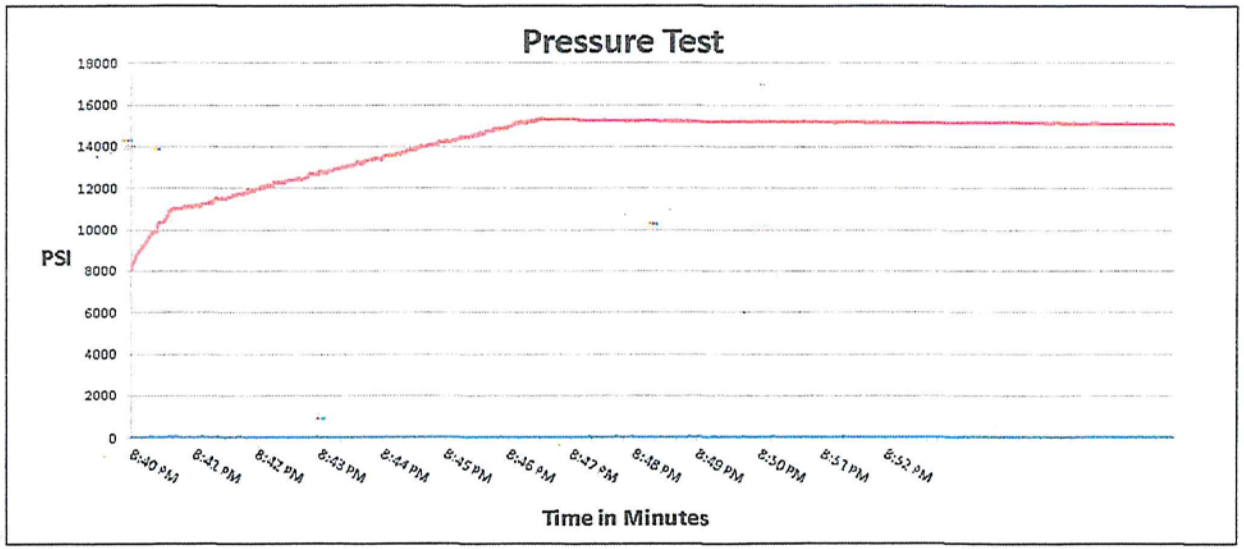
Internal Hydrostatic Test Graph

March 3, 2011

Customer: Houston

Pick Ticket #: 94260

Hose Specifications		Verification	
Hose Type	Length	Type of Fitting	Coupling Method
C & K	45'	4 1/16 10K	Swage
I.D.	O.D.	Die Size	Final O.D.
4"	6.09"	6.38"	6.25"
Working Pressure	Burst Pressure	Hose Serial #	Hose Assembly Serial #
10000 PSI	Standard Safety Multiplier Applies	5544	79793



Test Pressure	Time Held at Test Pressure	Actual Burst Pressure	Peak Pressure
15000 PSI	11 Minutes		15483 PSI

Comments: Hose assembly pressure tested with water at ambient temperature.

Tested By: *Zac Mcconnell*

Approved By: *Kim Thomas*

Co-Flex Hose
Dos Equis 12-13 Federal Com 48H
Cimarex Energy Co.
12-24S-32E
Lea Co., NM

Midwest Hose
& Specialty, Inc.

Certificate of Conformity	
Customer: DEM	**PO** ODYD-271
SPECIFICATIONS	
Sales Order 79793	**Dated:** 3/8/2011

We hereby cerify that the material supplied for the referenced purchase order to be true according to the requirements of the purchase order and current industry standards

Supplier:
Midwest Hose & Specialty, Inc.
10640 Tanner Road
Houston, Texas 77041

Comments:	
Approved: Ismael Garcia	**Date:** 3/8/2011

Midwest Hose & Specialty, Inc.

Co-Flex Hose
Dos Equis 12-13 Federal Com 48H
Cimarex Energy Co.
12-24S-32E
Lea Co., NM

Specification Sheet
Choke & Kill Hose

The Midwest Hose & Specialty Choke & Kill hose is manufactured with only premium componets.The reinforcement cables, inner liner and cover are made of the highest quality material to handle the tough drilling applications of today's industry. The end connections are available with API flanges, API male threads, hubs, hammer unions or other special fittings upon request. Hose assembly is manufactured to API 7K. This assembly is wrapped with fire resistant vermculite coated fiberglass insulation, rated at 2000 degrees with stainless steel armor cover.

Working Pressure:	5,000 or 10,000 psi working pressure
Test Pressure:	10,000 or 15,000 psi test pressure
Reinforcement:	Multiple steel cables
Cover:	Stainless Steel Armor
Inner Tube:	Petroleum resistant, Abrasion resistant
End Fitting:	API flanges, API male threads, threaded or butt weld hammer unions, unibolt and other special connections
Maximum Length:	110 Feet
ID:	2-1/2", 3", 3-1/2", 4"
Operating Temperature:	-22 deg F to +180 deg F (-30 deg C to +82 deg C)

P.O. Box 96558 – 1421 S.E. 29th St. Oklahoma City, OK 73143 * (405) 670-6718 * Fax: (405) 670-6816

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

SUPO Data Report
07/07/2020

APD ID: 10400058037
Submission Date: 07/06/2020
Operator Name: CIMAREX ENERGY COMPANY
Well Name: DOS EQUIS 12-13 FEDERAL COM
Well Number: 48H
Well Type: OIL WELL
Well Work Type: Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

Dos_Equis_12_13_Fed_Com_E2W2_Pad_3_Existing_Access_Road_20200513153456.pdf

Existing Road Purpose: ACCESS,FLUID TRANSPORT

Row(s) Exist? NO

ROW ID(s)

ID:

Do the existing roads need to be improved? NO

Existing Road Improvement Description:

Existing Road Improvement Attachment:

Section 2 - New or Reconstructed Access Roads

Will new roads be needed? NO

Section 3 - Location of Existing Wells

Existing Wells Map? YES

Attach Well map:

Dos_Equis_12_13_Fed_Com_E2W2_Pad_3_Mile_Radius_Existing_Wells_20200513153648.pdf

Operator Name: CIMAREX ENERGY COMPANY

Well Name: DOS EQUIS 12-13 FEDERAL COM **Well Number:** 48H

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

Submit or defer a Proposed Production Facilities plan? SUBMIT

Production Facilities description: 500 x 560 pads were staked with the BLM for construction and use previously approved Dos Equis 12-13 Fed Com West Zone 2 CTB and existing Dos Equis 12-13 Fed Com East Zone 1 CTB will be utilized for this project. Existing Roads will be used. Bulkline: 4165 of 8-12" buried steel Bulk lines will be constructed in the same 60 trench. Please see Attachment M for route.

Production Facilities map:

Dos_Equis_12_13_Fed_Com_E2W2_Bulk_Flowline_20200514062552.pdf

Dos_Equis_12_13_Fed_Com_East_Zone_1_CTB_Battery_Layout_Previously_Approved_20200514063438.pdf

Dos_Equis_12_13_Fed_Com_West_Zone_2_CTB_Battery_Layout_20200514062524.pdf

Dos_Equis_12_13_Fed_Com_48H_SUPO_20200623125653.pdf

Section 5 - Location and Types of Water Supply

Water Source Table

Water source type: MUNICIPAL

Water source use type: SURFACE CASING

INTERMEDIATE/PRODUCTION CASING

Source latitude: **Source longitude:**

Source datum:

Water source permit type: WATER RIGHT

Permit Number:

Water source transport method: TRUCKING

Source land ownership: FEDERAL

Source transportation land ownership: FEDERAL

Water source volume (barrels): 5000 **Source volume (acre-feet):** 0.64446548

Source volume (gal): 210000

Water source and transportation map:

Dos_Equis_12_13_Fed_Com_E2W2_Pad_3_Drilling_Water_Route_20200514064121.pdf

Water source comments:

New water well? N

Operator Name: CIMAREX ENERGY COMPANY

Well Name: DOS EQUIS 12-13 FEDERAL COM **Well Number:** 48H

New Water Well Info

Well latitude: **Well Longitude:** **Well datum:**

Well target aquifer:

Est. depth to top of aquifer(ft): **Est thickness of aquifer:**

Aquifer comments:

Aquifer documentation:

Well depth (ft): **Well casing type:**

Well casing outside diameter (in.): **Well casing inside diameter (in.):**

New water well casing? **Used casing source:**

Drilling method: **Drill material:**

Grout material: **Grout depth:**

Casing length (ft.): **Casing top depth (ft.):**

Well Production type: **Completion Method:**

Water well additional information:

State appropriation permit:

Additional information attachment:

Section 6 - Construction Materials

Using any construction materials: NO

Construction Materials description:

Construction Materials source location attachment:

Section 7 - Methods for Handling Waste

Waste type: DRILLING

Waste content description: Drilling Fluids, drill cuttings, water and other waste produced from the well during drilling operations.

Amount of waste: 15000 barrels

Waste disposal frequency : Weekly

Safe containment description: N/A

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** COMMERCIAL

Disposal type description:

Disposal location description: Haul to R360 Environmental Solutions, 4507 Carlsbad Hwy, Hobbs, NM 88240

Operator Name: CIMAREX ENERGY COMPANY

Well Name: DOS EQUIS 12-13 FEDERAL COM **Well Number:** 48H

Waste type: SEWAGE

Waste content description: Human Waste

Amount of waste: 300 gallons

Waste disposal frequency : Weekly

Safe containment description: Waste will be properly contained and disposed of properly at a state approved disposal facility.

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** PRIVATE

Disposal type description:

Disposal location description: A licensed 3rd party contractor will be used to haul and dispose human waste to City of Toyah TX waste water facility.

Waste type: GARBAGE

Waste content description: Garbage and trash produced during drilling and completion operations

Amount of waste: 32500 pounds

Waste disposal frequency : Weekly

Safe containment description: N/A

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** COMMERCIAL

Disposal type description:

Disposal location description: A licensed 3rd party hauls trash to Lea County Landfill

Reserve Pit

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit? NO

Reserve pit length (ft.) **Reserve pit width (ft.)**

Reserve pit depth (ft.) **Reserve pit volume (cu. yd.)**

Is at least 50% of the reserve pit in cut?

Reserve pit liner

Reserve pit liner specifications and installation description

Cuttings Area

Cuttings Area being used? NO

Are you storing cuttings on location? N

Operator Name: CIMAREX ENERGY COMPANY

Well Name: DOS EQUIS 12-13 FEDERAL COM **Well Number:** 48H

Description of cuttings location

Cuttings area length (ft.) **Cuttings area width (ft.)**

Cuttings area depth (ft.) **Cuttings area volume (cu. yd.)**

Is at least 50% of the cuttings area in cut?

WCuttings area liner

Cuttings area liner specifications and installation description

Section 8 - Ancillary Facilities

Are you requesting any Ancillary Facilities?: N

Ancillary Facilities attachment:

Comments:

Section 9 - Well Site Layout

Well Site Layout Diagram:

Dos_Equis_12_13_Fed_E2W2_Pad_3_Well_list_20200514065854.docx

Dos_Equis_12_13_Fed_Com_48H_Wellsite_Layout_20200623130103.pdf

Comments:

Section 10 - Plans for Surface Reclamation

Type of disturbance: No New Surface Disturbance **Multiple Well Pad Name:** Dos Equis 12-13 Federal Com

Multiple Well Pad Number: E2W2 Pad 3

Recontouring attachment:

Dos_Equis_12_13_Fed_Com_E2W2_Pad_3_Interim_Reclaim_20200514065929.pdf

Drainage/Erosion control construction: To control and prevent potentially contaminated precipitation from leaving the pad site, a perimeter berm and settlement pond will be installed. Contaminated water will be removed from pond, stored in waste tanks, and disposed of at a state approved facility. Standing water or puddles will not be allowed. Drainage ditches would be established and maintained on the pad and along access roads to divert water away from operations. Natural drainage areas disturbed during construction would be re-contoured to near original condition prior to construction. Erosion Control Best Management Practices would be used where necessary and consist of seeding, fiber rolls, water bars, silt fences, and temporary diversion dikes. Areas disturbed during construction that are no longer needed for operations would be obliterated, re-contoured to near original condition prior to construction. Erosion Control Best Management Practices would be used where necessary and consist of seeding, fiber rolls, water bars, silt fences, and temporary diversion dikes. Areas disturbed during construction that are no longer needed for operations would be obliterated, re-contoured, and reclaimed to near original condition to re-establish natural drainage.

Drainage/Erosion control reclamation: All disturbed and re-contoured areas would be reseeded according to specifications. Approved seed mixtures would be certified weed free and consist of grasses, forbs, or shrubs similar to the surrounding area. Compacted soil areas may need to be obliterated and reclaimed to near natural conditions by re-contouring all slopes to facilitate and re-establish natural drainage.

Operator Name: CIMAREX ENERGY COMPANY

Well Name: DOS EQUIS 12-13 FEDERAL COM **Well Number:** 48H

Well pad proposed disturbance (acres):
Road proposed disturbance (acres):
Powerline proposed disturbance (acres):
Pipeline proposed disturbance (acres):
Other proposed disturbance (acres):
Total proposed disturbance: 0

Well pad interim reclamation (acres): 0
Road interim reclamation (acres): 0
Powerline interim reclamation (acres): 0
Pipeline interim reclamation (acres): 0
Other interim reclamation (acres): 0
Total interim reclamation: 0

Well pad long term disturbance (acres): 0
Road long term disturbance (acres): 0
Powerline long term disturbance (acres): 0
Pipeline long term disturbance (acres): 0
Other long term disturbance (acres): 0
Total long term disturbance: 0

Disturbance Comments:

Reconstruction method: After well plugging, all disturbed areas would be returned to the original contour or a contour that blends with the surrounding landform including roads unless the surface owner requests that they be left intact. In consultation with the surface owners it will be determined if any gravel or similar materials used to reinforce an area are to be removed, buried, or left in place during final reclamation. Salvaged topsoil, if any, would be re-spread evenly over the surfaces to be re-vegetated. As necessary, the soil surface would be prepared to provide a seedbed for re-establishment of desirable vegetation. Site preparation may include gouging, scarifying, dozer track-walking, mulching, or fertilizing. Reclamation, Re-vegetation, and Drainage: All disturbed and re-contoured areas would be reseeded using techniques outlined under Phase I and II of this plan or as specified by the land owner. Approved seed mixtures would be certified weed free and consist of grasses, forbs, or shrubs similar to the surrounding area. Compacted soil areas may need to be obliterated and reclaimed to near natural conditions by re-contouring all slopes to facilitate and re-establish natural drainage.
Topsoil redistribution: The original stock piled topsoil, if any, will be spread evenly over the areas being reclaimed and the original landform will be restored for all disturbed areas including well pad, production facilities, roads, pipelines, and power line corridors as close as possible to the original topography. The location will then be seeded.
Soil treatment: The soil surface would be prepared to provide a seedbed for reestablishment of desirable vegetation. Establish control of erosion and invasion of non-native plants to reestablish plant community.
Existing Vegetation at the well pad: N/A

Existing Vegetation at the well pad attachment:

Existing Vegetation Community at the road: N/A

Existing Vegetation Community at the road attachment:

Existing Vegetation Community at the pipeline: N/A

Existing Vegetation Community at the pipeline attachment:

Existing Vegetation Community at other disturbances: N/A

Existing Vegetation Community at other disturbances attachment:

Non native seed used? N

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? N

Seedling transplant description attachment:

Operator Name: CIMAREX ENERGY COMPANY

Well Name: DOS EQUIS 12-13 FEDERAL COM **Well Number:** 48H

Will seed be harvested for use in site reclamation? N

Seed harvest description:

Seed harvest description attachment:

Seed Management

Seed Table

Seed Summary

Total pounds/Acre:

Seed Type	Pounds/Acre

Seed reclamation attachment:

Operator Contact/Responsible Official Contact Info

First Name: **Last Name:**

Phone: **Email:**

Seedbed prep:

Seed BMP:

Seed method:

Existing invasive species? N

Existing invasive species treatment description:

Existing invasive species treatment attachment:

Weed treatment plan description: N/A

Weed treatment plan attachment:

Monitoring plan description: N/A

Monitoring plan attachment:

Success standards: N/A

Pit closure description: n/A

Pit closure attachment:

Section 11 - Surface Ownership

Operator Name: CIMAREX ENERGY COMPANY

Well Name: DOS EQUIS 12-13 FEDERAL COM **Well Number:** 48H

Disturbance type: WELL PAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Disturbance type: PIPELINE

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Operator Name: CIMAREX ENERGY COMPANY

Well Name: DOS EQUIS 12-13 FEDERAL COM **Well Number:** 48H

Section 12 - Other Information

Right of Way needed? Y **Use APD as ROW?** Y

ROW Type(s): 288100 ROW – O&G Pipeline

ROW Applications

SUPO Additional Information:

Use a previously conducted onsite? Y

Previous Onsite information: V-Door West Top soil west. Interim reclamation: All sides. Access road at SE corner (Adjacent lease road). Gas lift/production line to the batteries directly to the south.

Other SUPO Attachment

Dos_Equis_12_13_Fed_Com_E2W2_Pad_3_Road_Description_20200514070324.pdf

AFMSS

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

PWD Data Report

07/07/2020

APD ID: 10400058037 **Submission Date:** 07/06/2020

Operator Name: CIMAREX ENERGY COMPANY

Well Name: DOS EQUIS 12-13 FEDERAL COM **Well Number:** 48H

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

Section 1 - General

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

Section 2 - Lined Pits

Would you like to utilize Lined Pit PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit specifications:

Pit liner description:

Pit liner manufacturers information:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule attachment:

Lined pit reclamation description:

Lined pit reclamation attachment:

Leak detection system description:

Leak detection system attachment:

Operator Name: CIMAREX ENERGY COMPANY

Well Name: DOS EQUIS 12-13 FEDERAL COM **Well Number:** 48H

Lined pit Monitor description:

Lined pit Monitor attachment:

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

Is the reclamation bond a rider under the BLM bond?

Lined pit bond number:

Lined pit bond amount:

Additional bond information attachment:

Section 3 - Unlined Pits

Would you like to utilize Unlined Pit PWD options? N

Produced Water Disposal (PWD) Location:

PWD disturbance (acres): **PWD surface owner:**

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit specifications:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule attachment:

Unlined pit reclamation description:

Unlined pit reclamation attachment:

Unlined pit Monitor description:

Unlined pit Monitor attachment:

Do you propose to put the produced water to beneficial use?

Beneficial use user confirmation:

Estimated depth of the shallowest aquifer (feet):

Does the produced water have an annual average Total Dissolved Solids (TDS) concentration equal to or less than that of the existing water to be protected?

TDS lab results:

Geologic and hydrologic evidence:

State authorization:

Unlined Produced Water Pit Estimated percolation:

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

Operator Name: CIMAREX ENERGY COMPANY

Well Name: DOS EQUIS 12-13 FEDERAL COM **Well Number:** 48H

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

Additional bond information attachment:

Section 4 - Injection

Would you like to utilize Injection PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

Injection well type:

Injection well number: **Injection well name:**

Assigned injection well API number? **Injection well API number:**

Injection well new surface disturbance (acres):

Minerals protection information:

Mineral protection attachment:

Underground Injection Control (UIC) Permit?

UIC Permit attachment:

Section 5 - Surface Discharge

Would you like to utilize Surface Discharge PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Surface discharge PWD discharge volume (bbl/day):

Surface Discharge NPDES Permit?

Surface Discharge NPDES Permit attachment:

Surface Discharge site facilities information:

Surface discharge site facilities map:

Section 6 - Other

Would you like to utilize Other PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Other PWD discharge volume (bbl/day):

Operator Name: CIMAREX ENERGY COMPANY

Well Name: DOS EQUIS 12-13 FEDERAL COM **Well Number:** 48H

Other PWD type description:

Other PWD type attachment:

Have other regulatory requirements been met?

Other regulatory requirements attachment:

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

Bond Info Data Report
07/07/2020

APD ID: 10400058037
Submission Date: 07/06/2020
Operator Name: CIMAREX ENERGY COMPANY
Well Name: DOS EQUIS 12-13 FEDERAL COM
Well Number: 48H
Well Type: OIL WELL
Well Work Type: Drill

Highlighted data reflects the most recent changes

Show Final Text

Bond Information

Federal/Indian APD: FED

BLM Bond number: NMB001188

BIA Bond number:

Do you have a reclamation bond? NO

Is the reclamation bond a rider under the BLM bond?

Is the reclamation bond BLM or Forest Service?

BLM reclamation bond number:

Forest Service reclamation bond number:

Forest Service reclamation bond attachment:

Reclamation bond number:

Reclamation bond amount:

Reclamation bond rider amount:

Additional reclamation bond information attachment:

State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

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

NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

Section 1 – Plan Description
Effective May 25, 2021

I. Operator: Cimarex Energy Company **OGRID:** 215099 **Date:** 4 / 28 / 2022

II.Type: ☒ Original ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other.

If Other, please describe: _____

III. Well(s): Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
Dos Equis 12-13 Federal Com 48H		C, Sec 12, T24S, R32E	255 FNL/1580FEL	1200	8400	5000

IV. Central Delivery Point Name: Dos Equis 12-13 CTB CDP Sales [See 19.15.27.9(D)(1) NMAC]

V. Anticipated Schedule: Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
Dos Equis 12-13 Federeal Com 48H		1/1/2023	3/1/2023	6/1/2023	8/1/2023	8/12023

VI. Separation Equipment: ☒ Attach a complete description of how Operator will size separation equipment to optimize gas capture.

VII. Operational Practices: ☒ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.

VIII. Best Management Practices: ☒ Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

Section 2 – Enhanced Plan

EFFECTIVE APRIL 1, 2022

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

☒ Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

IX. Anticipated Natural Gas Production:

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF

X. Natural Gas Gathering System (NGGS):

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in

XI. Map. ☐ Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

XII. Line Capacity. The natural gas gathering system ☐ will ☐ will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.

XIII. Line Pressure. Operator ☐ does ☐ does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).

☐ Attach Operator's plan to manage production in response to the increased line pressure.

XIV. Confidentiality: ☐ Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

Section 3 - Certifications

Effective May 25, 2021

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

☒ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system. ***If Operator checks this box, Operator will select one of the following:***

Well Shut-In. ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

Venting and Flaring Plan. ☐ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- **(a)** power generation on lease;
- **(b)** power generation for grid;
- **(c)** compression on lease;
- **(d)** liquids removal on lease;
- **(e)** reinjection for underground storage;
- **(f)** reinjection for temporary storage;
- **(g)** reinjection for enhanced oil recovery;
- **(h)** fuel cell production; and
- **(i)** other alternative beneficial uses approved by the division.

Section 4 - Notices

1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or

(b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.

2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

Signature:	Sarah Jordan
Printed Name:	Sarah Jordan
Title:	Regulatory Analyst
E-mail Address:	sarah.jordan@coterra.com
Date:	4/28/2022
Phone:	432/620-1909

OIL CONSERVATION DIVISION **(Only applicable when submitted as a standalone form)**
Approved By:
Title:
Approval Date:
Conditions of Approval:

From State of New Mexico, Natural Gas Management Plan

VI. Separation Equipment: Attach a complete description of how Operator will size separation equipment to optimize gas capture.

XEC Standard Response

Standard facility gas process flow begins at the inlet separator. These vessels are designed based off of forecasted rates and residence times in accordance with, and often greater than, API 12J. The separated gas is then routed to an additional separation vessel (ie sales scrubber) in order to extract liquids that may have carried over or developed due to the decrease in pressure. The sales scrubber is sized based on API 521. From the sales scrubber, the gas leaves the facility and enters the gas midstream gathering network.

Cimarex
VII. Operational Practices

Cimarex values the sustainable development of New Mexico's natural resources. Venting and flaring of natural gas is a source of waste in the industry, and Cimarex will ensure that its values are aligned with those of NMOCD. As such, Cimarex plans to take pointed steps to ensure compliance with Subsection A through F of 19.15.27.8 NMAC.

Specifically, below are the steps Cimarex will plan to follow under routine well commissioning and operations.

1. Capture or combust natural gas during drilling operations where technically feasible, using the best industry practices and control technologies.
    a. All flares during these operations will be a minimum of 100ft away from the nearest surface-hole location.
2. All gas present during post-completion drill-out and flow back will be routed through separation equipment, and, if technically feasible, flare unsellable vapors rather than vent. Lastly, formal sales separator commissioning to process well-stream fluids and send gas to a gas flow line/collection system or use the gas for on-site fuel or beneficial usage, gas as soon as is safe and technically feasible.
3. Cimarex will ensure the flare or combustion equipment is properly sized to handle expected flow rates, ensure this equipment is equipped with an automatic or continuous ignition source, and ensure this equipment is designed for proper combustion efficiency.
4. If Cimarex must flare because gas is not meeting pipeline specifications, Cimarex will limit flaring to <60 days, analyze gas composition at least twice per week, and route gas into a gathering pipeline as soon as pipeline specifications are met.
5. Under routine production operations, Cimarex will not flare/vent unless:
    a. Venting or flaring occurs due to an emergency or equipment malfunction.
    b. Venting or flaring occurs as a result of unloading practices, and an operator is onsite (or within 30 minutes of drive time and posts contact information at the wellsite) until the end of unloading practice.
    c. The venting or flaring occurs during automated plungerlift operations, in which case the Cimarex operator will work to optimize the plungerlift system to minimize venting/flaring.
    d. The venting or flaring occurs during downhole well maintenance, in which case Cimarex will work to minimize venting or flaring operations to the extent that it does not pose a risk to safe operations.
    e. The well is an exploratory well, the division has approved the well as an exploratory well, venting or flaring is limited to 12 months, as approved by the division, and venting/flaring does not cause Cimarex to breach its State-wide 98% gas capture requirement.
    f. Venting or flaring occurs because the stock tanks or other low-pressure vessels are being gauged, sampled, or liquids are being loaded out.
    g. The venting or flaring occurs because pressurized vessels are being maintained and are being blown-down or depressurized.
    h. Venting or flaring occurs as a result of normal dehydration unit operations.

i. Venting or flaring occurs as a result of bradenhead testing.
j. Venting or flaring occurs as a result of normal compressor operations, including general compressor operations, compressor engines and turbines.
k. Venting or flaring occurs as a result of a packer leakage test.
l. Venting or flaring occurs as a result of a production test lasting less than 24 hours unless otherwise approved by the division.
m. Venting or flaring occurs as a result of new equipment commissioning and is necessary to purge impurities from the pipeline or production equipment.

6. Cimarex will maintain its equipment in accordance with its Operations and Maintenance Program, to ensure venting or flaring events are minimized and that equipment is properly functioning.
7. Cimarex will install automatic tank gauging equipment on all production facilities constructed after May 25, 2021, to ensure minimal emissions from tank gauging practices.
8. By November 25, 2022, all Cimarex facilities equipped with flares or combustors will be equipped with continuous pilots or automatic igniters, and technology to ensure proper function, i.e. thermocouple, fire-eye, etc…
9. Cimarex will perform AVO (audio, visual, olfactory) facility inspections in accordance with NMOCD requirements. Specifically, Cimarex will:
    a. Perform weekly inspections during the first year of production, and so long as production is greater than 60 MCFD.
    b. If production is less than 60 MCFD, Cimarex will perform weekly AVO inspections when an operator is present on location, and inspections at least once per calendar month with at least 20 calendar days between inspections.
10. Cimarex will measure or estimate the volume of vented, flared or beneficially used natural gas, regardless of the reason or authorization for such venting or flaring.
11. On all facilities constructed after May 25, 2021, Cimarex will install metering where feasible and in accordance with available technology and best engineering practices, in an effort to measure how much gas could have been vented or flared.
    a. In areas where metering is not technically feasible, such as low-pressure/low volume venting or flaring applications, engineering estimates will be used such that the methodology could be independently verified.
12. Cimarex will fulfill the division's requirements for reporting and filing of venting or flaring that exceeds 50 MCF in volume or last eight hours or more cumulatively within any 24-hour period.

VIII. Best Management Practices to minimize venting during active and planned maintenance

Cimarex strives to ensure minimal venting occurs during active and planned maintenance activities. Below is a description of common maintenance practices, and the steps Cimarex takes to limit venting exposure.

- **Workovers:**
  - Always strive to kill well when performing downhole maintenance.
  - If vapors or trapped pressure is present and must be relieved then:
    - Initial blowdown to production facility:
      - Route vapors to LP flare if possible/applicable
    - Blowdown to portable gas buster tank:
      - Vent to existing or portable flare if applicable.

- **Stock tank servicing:**
  - Minimize time spent with thief hatches open.
  - When cleaning or servicing via manway, suck tank bottoms to ensure minimal volatiles exposed to atmosphere.
    - Connect vacuum truck to low pressure flare while cleaning bottoms to limit venting.
  - Isolate the vent lines and overflows on the tank being serviced from other tanks.

- **Pressure vessel/compressor servicing and associated blowdowns:**
  - Route to flare where possible.
  - Blow vessel down to minimum available pressure via pipeline, prior to venting vessel.
  - Preemptively changing anodes to reduce failures and extended corrosion related servicing.
  - When cleaning or servicing via manway, suck vessel bottoms to ensure minimal volatiles exposed to atmosphere.

- **Flare/combustor maintenance:**
  - Minimize downtime by coordinating with vendor and Cimarex staff travel logistics.
  - Utilizing preventative and predictive maintenance programs to replace high wear components before failure.
  - Because the flare/combustor is the primary equipment used to limit venting practices, ensure flare/combustor is properly maintained and fully operational at all times via routine maintenance, temperature telemetry, onsite visual inspections.

The Cimarex expectation is to limit all venting exposure. Equipment that may not be listed on this document is still expected to be maintained and associated venting during such maintenance minimized.

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 Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 102362

CONDITIONS

Operator: CIMAREX ENERGY CO. 600 N. Marienfeld Street Midland, TX 79701	OGRID: 215099
	Action Number: 102362
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
pkautz	Will require a File As Drilled C-102 and a Directional Survey with the C-104	5/9/2022
pkautz	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string	5/9/2022
pkautz	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system	5/9/2022
pkautz	Cement is required to circulate on both surface and intermediate1 strings of casing	5/9/2022