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.
[331170]

2. Name of Operator
[229137]

9. API Well No.
30-025-49140

3a. Address	3b. Phone No. *(include area code)*	10. Field and Pool, or Exploratory **[98248]**

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.

GCP Rec 05/18/2021

SL

KZ
07/06/2021

APPROVED WITH CONDITIONS

(Continued on page 2)

*(Instructions on page 2)

Approval Date: 04/22/2021

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: 04/22/2021

Additional Operator Remarks

Location of Well

0. SHL: SWSW / 855 FSL / 1285 FWL / TWSP: 24S / RANGE: 32E / SECTION: 29 / LAT: 32.183502 / LONG: -103.701076 (TVD: 0 feet, MD: 0 feet)

PPP: SWSW / 100 FSL / 1254 FWL / TWSP: 24S / RANGE: 32E / SECTION: 29 / LAT: 32.181426 / LONG: -103.701171 (TVD: 11821 feet, MD: 11900 feet)

BHL: NWNW / 50 FNL / 1254 FWL / TWSP: 24S / RANGE: 32E / SECTION: 20 / LAT: 32.210056 / LONG: -103.701234 (TVD: 11950 feet, MD: 22242 feet)

BLM Point of Contact

Name: Deborah Ham

Title: Legal Landlaw Examiner

Phone: (575) 234-5965

Email: dham@blm.gov

Review and Appeal Rights

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

PECOS DISTRICT
SURFACE USE
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	COG Operating LLC
LEASE NO.:	Lease Number NMNM108968 Lease Number NMNM120908
COUNTY:	Lea

Wells:

Well Pad 1
Azores Federal Com 701H
Surface Hole Location: 855' FSL & 620' FEL, Section 29, T24S, R32E
Bottom Hole Location: 50' FSL & 330' FEL, Section 20, T24S, R32E

Azores Federal Com 702H
Surface Hole Location: 855' FSL & 650' FEL, Section 29, T24S, R32E
Bottom Hole Location: 50' FSL & 1254' FEL, Section 20, T24S, R32E

Well Pad 2
Azores Federal Com 703H
Surface Hole Location: 855' FSL & 2630' FEL, Section 29, T24S, R32E
Bottom Hole Location: 50' FSL & 2178' FEL, Section 20, T24S, R32E

Azores Federal Com 704H
Surface Hole Location: 855' FSL & 2622' FWL, Section 29, T24S, R32E
Bottom Hole Location: 50' FSL & 2178' FWL, Section 20, T24S, R32E

Well Pad 3
Azores Federal Com 705H
Surface Hole Location: 855' FSL & 1285' FWL, Section 29, T24S, R32E
Bottom Hole Location: 50' FNL & 1254' FWL, Section 20, T24S, R32E

Azores Federal Com 706H
Surface Hole Location: 855' FSL & 1255' FWL, Section 29, T24S, R32E
Bottom Hole Location: 50' FNL & 330' FWL, Section 20, T24S, R32E

Approval Date: 04/22/2021

TABLE OF CONTENTS

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

I. GENERAL PROVISIONS

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

II. PERMIT EXPIRATION

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural 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 information below discussing NAGPRA.

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.

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.

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

BURIED/SURFACE LINE(S):
When crossing ephemeral drainages the pipeline(s) will be buried to a minimum depth of 48 inches from the top of pipe to ground level. Erosion control methods such as gabions and/or rock aprons should be placed on both up and downstream sides of the pipeline crossing. In addition, curled (weed free) wood/straw fiber wattles/logs and/or silt fences should be placed on the downstream side for sediment control during construction and maintained until soils and vegetation have stabilized. Water bars should be placed within the ROW to divert and dissipate surface runoff. A pipeline access road is not permitted to cross these ephemeral drainages. Traffic should be diverted to a preexisting route. Additional seeding may be required in floodplains and drainages to restore energy dissipating vegetation.

Prior to pipeline installation/construction a leak detection plan will be developed. The method(s) could incorporate gauges to detect pressure drops, situating valves and lines so they can be visually inspected periodically or installing electronic sensors to alarm when a leak is present.

The leak detection plan will incorporate an automatic shut off system that will be installed for proposed pipelines to minimize the effects of an undesirable event.

ELECTRIC LINE(S):
Any water erosion that may occur due to the construction of overhead electric line and during the life of the power line will be quickly corrected and proper measures will be taken to prevent future erosion. A power pole should not be placed in drainages, playas, wetlands, riparian areas, or floodplains and must span across the features at a distance away that would not promote further erosion.

Range:

Cattleguards
Where a permanent cattlegaurd is approved, an appropriately sized cattleguard(s) sufficient to carry out the project shall be installed and maintained at fence crossing(s). Any existing cattleguard(s) on the access road shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattleguard(s) that are in place and are utilized during lease operations. A gate shall be constructed on one side of the cattleguard and fastened securely to H-braces.

Fence Requirement
Where entry granted across a fence line, the fence must be braced and tied off on both sides of the passageway prior to cutting. Once the work is completed, the fence will be restored to its prior condition, or better. The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fence(s).

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

Wildlife:

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

Timing Limitation Exceptions:
The Carlsbad Field Office will publish an annual map of where the LPC timing and noise stipulations and conditions of approval (Limitations) will apply for the identified year (between March 1 and June 15) based on the latest survey information. The LPC Timing Area map will identify areas which are Habitat Areas (HA), Isolated Population Area (IPA), and Primary Population Area (PPA). The LPC Timing Area map will also have an area in red crosshatch. The red crosshatch area is the only area where an operator is required to submit a request for exception to the LPC Limitations. If an

operator is operating outside the red crosshatch area, the LPC Limitations do not apply for that year and an exception to LPC Limitations is not required.

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

VRM IV:

Above-ground structures including meter housing that are not subject to safety requirements are painted a flat non-reflective paint color, Shale Green from the BLM Standard Environmental Color Chart (CC-001: June 2008).

Short-term mitigation measures include painting all above-ground structures that are not subject to safety requirements (including meter housing) Shale Green, which is a flat non-reflective paint color listed in the BLM Standard Environmental Color Chart (CC-001: June 2013). Long-term mitigation measures include the removal of wells and associated infrastructure following abandonment (end of cost-effective production). Previously impacted areas will be reclaimed by removing structures and caliche pads, returning disturbed areas to natural grade, and revegetating with an approved BLM seed mixture; thereby eliminating visual impacts.

V. CONSTRUCTION

A. NOTIFICATION

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

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

B. TOPSOIL

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

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

C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

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

D. FEDERAL MINERAL MATERIALS PIT

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

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

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

F. EXCLOSURE FENCING (CELLARS & PITS)

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

G. ON LEASE ACCESS ROADS

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

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

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

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

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

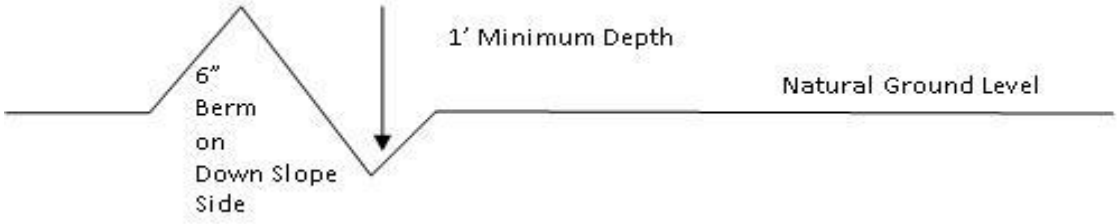
Ditching
Ditching shall be required on both sides of the road.

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

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

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

Cross Section of a Typical Lead-off Ditch



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

Formula for Spacing Interval of Lead-off Ditches

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

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

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

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

Public Access

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

 Approval Date: 04/22/2021

Construction Steps

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

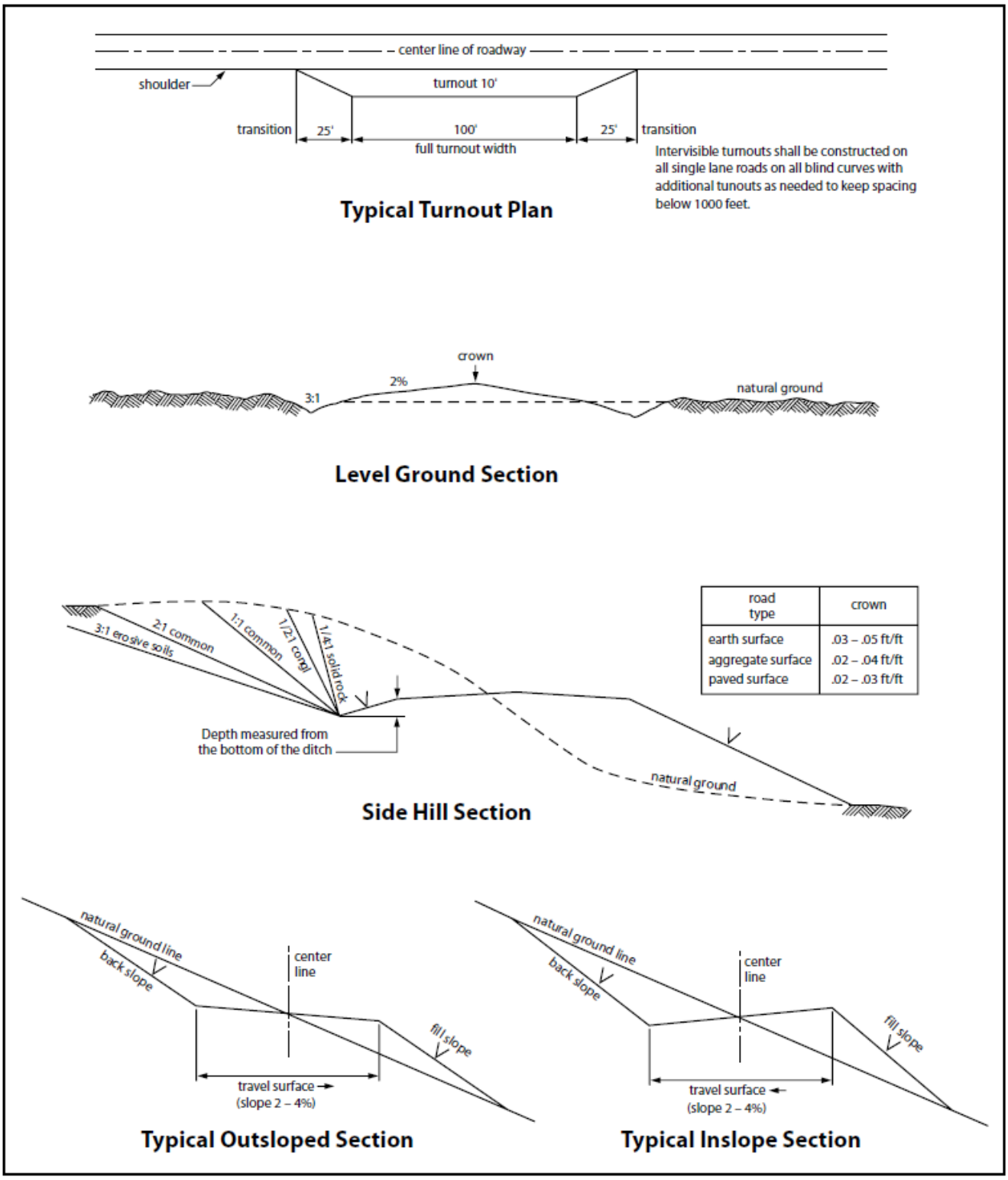


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

granted by the Authorized Officer.

Approval Date: 04/22/2021

VI. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

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

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

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

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

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

Painting Requirement
All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color, **Shale Green** from the BLM Standard Environmental Color Chart (CC-001: June 2008).

B. PIPELINES

- The BLM, Carlsbad Field Office, will be informed immediately if any subsurface drainage channels, passages, or voids are intersected by trenching, and no pipe will be laid in the trench at that point until clearance has been issued by the Authorized Officer.
- If a void is encountered alignments may be rerouted to avoid the karst feature and lessen; the potential of subsidence or collapse of karst features, buildup of toxic or combustible gas, or other possible impacts to cave and karst resources from the buried pipeline.
- Special restoration stipulations or realignment may be required at such intersections, if any.
- A leak detection plan **will be submitted to the BLM Carlsbad Field Office for approval** prior to pipeline installation. The method could incorporate gauges to detect pressure drops, situating values and lines so they can be visually inspected periodically or installing electronic sensors to alarm when a leak is present. The leak detection plan will incorporate an automatic shut off system that will be installed for proposed pipelines to minimize the effects of an undesirable event.
- Regular monitoring is required to quickly identify leaks for their immediate and proper treatment.
- All spills or leaks will be reported to the BLM immediately for their immediate and proper treatment.

BURIED PIPELINE STIPULATIONS

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

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

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

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

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

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

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

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

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

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

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

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

8. The holder shall stockpile an adequate amount of topsoil where blading is allowed. The topsoil to be stripped is approximately ___6___ inches in depth. The topsoil will be segregated from other spoil piles from trench construction. The topsoil will be evenly distributed over the bladed area for the preparation of seeding.

 Approval Date: 04/22/2021

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

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

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

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

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

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

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

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

16. Any cultural 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 17 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.

17. 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."

18. 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.

19. The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes associated roads, pipeline corridor and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

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

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

C. ELECTRIC LINES

- Smaller powerlines will be routed around sinkholes and other karst features to avoid or lessen the possibility of encountering near surface voids and to minimize changes to runoff or possible leaks and spills from entering karst systems. Larger powerlines will adjust their pole spacing to avoid cave and karst features.
- The BLM, Carlsbad Field Office, will be informed immediately if any subsurface drainage channels, cave passages, or voids are penetrated during construction.
- No further construction will be done until clearance has been issued by the Authorized Officer.
- Special restoration stipulations or realignment may be required.

STANDARD STIPULATIONS FOR OVERHEAD ELECTRIC DISTRIBUTION LINES

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

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

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

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

result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.

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

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

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

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

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

7. The BLM serial number assigned to this authorization shall be posted in a permanent, conspicuous manner where the power line crosses roads and at all serviced facilities. Numbers will be at least two inches high and will be affixed to the pole nearest the road crossing and at the facilities served.

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

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

10. Any cultural 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 11 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.

11. 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."

12. 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.

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

Approval Date: 04/22/2021

VII. 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).

VIII. FINAL ABANDONMENT & RECLAMATION

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

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

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

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

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

Seed Mixture 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: 04/22/2021

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**COG**
LEASE NO.:	**NMNM108968**
LOCATION:	Section 29, T.24S., R.32 E., NMPM
COUNTY:	Lea County, New Mexico

WELL NAME & NO.:	Azores Fed Com 705H
SURFACE HOLE FOOTAGE:	855'/S & 1285'/W
BOTTOM HOLE FOOTAGE	50'/N & 1254'/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 **Wolfcamp** 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 **785** feet (a minimum of 25 feet (Lea County) into the Rustler Anhydrite and above the salt) and cemented to the surface.

    a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
    b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8**

 Approval Date: 04/22/2021

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.

2. The minimum required fill of cement behind the **7-5/8** inch intermediate casing is:
   - Cement to surface. If cement does not circulate see B.1.a, c-d above.

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 **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.

Approval Date: 04/22/2021

- 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.

 Approval Date: 04/22/2021

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.
ZS 042021

 Approval Date: 04/22/2021

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) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 SOUTH ST. FRANCIS DR.
Santa Fe, New Mexico 87505

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-025-49140	98248	WC-025 G-08 S243217P;UPR WOLFCAMP

Property Code	Property Name	Well Number
331170	AZORES FEDERAL COM	705H

OGRID No.	Operator Name	Elevation
229137	COG OPERATING, LLC	3503.2'

Surface Location

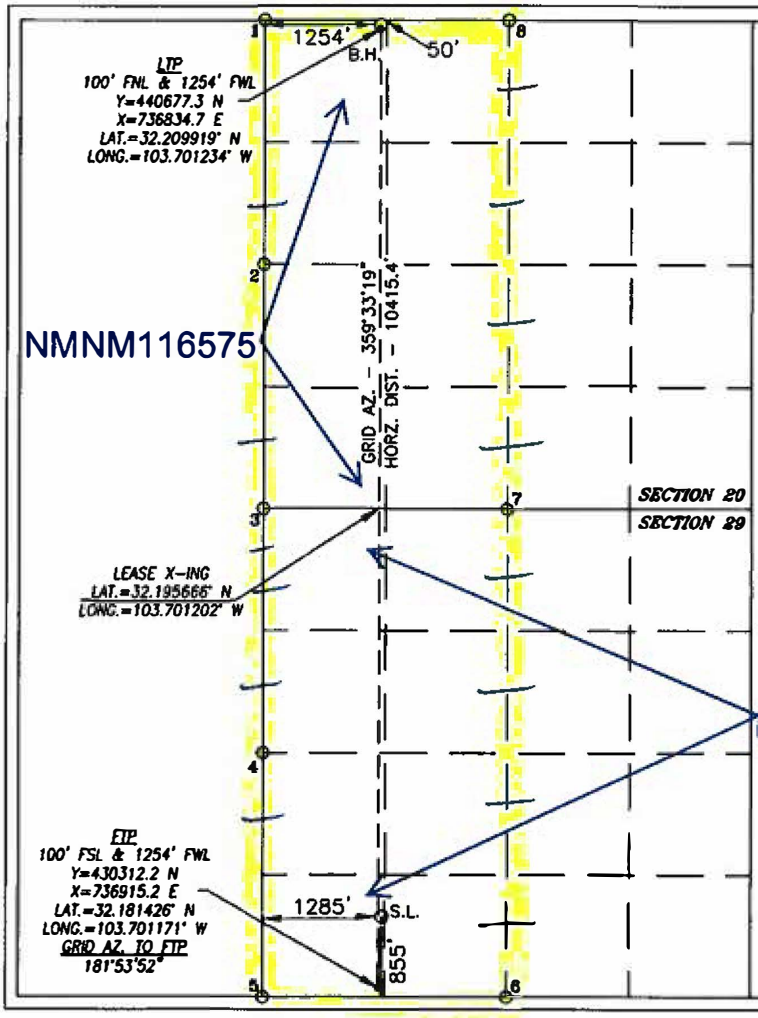
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	29	24-S	32-E		855	SOUTH	1285	WEST	LEA

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
D	20	24-S	32-E		50	NORTH	1254	WEST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
640			

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



NAD 83 NME
PROPOSED BOTTOM HOLE LOCATION
Y=440727.3 N
X=736834.4 E
LAT.=32.210056° N
LONG.=103.701234° W

POINT LEGEND	
1	Y=440762.4 N X=735580.1 E
2	Y=438117.5 N X=735598.4 E
3	Y=435477.4 N X=735628.9 E
4	Y=432836.9 N X=735641.2 E
5	Y=430196.2 N X=735662.0 E
6	Y=430227.7 N X=736302.7 E
7	Y=435509.2 N X=736261.0 E
8	Y=440793.8 N X=736223.0 E

NAD 83 NME
SURFACE LOCATION
Y=431067.5 N
X=736940.2 E
LAT.=32.183502° N
LONG.=103.701076° W

OPERATOR CERTIFICATION

I hereby certify that the information 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 mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Mayte Reyes 1-15-2021
Signature Date

Mayte Reyes
Printed Name

mreyes1@concho.com
E-mail Address

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.

NOVEMBER 20, 2020
Date of Survey

Signature & Seal of Professional Surveyor

CHAD L. HARCROW
NEW MEXICO
17777
LICENSED PROFESSIONAL SURVEYOR

Chad Harcrow 12/8/20

Certificate No. CHAD HARCROW 17777
W.O. # 20-1632 DRAWN BY: AH

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: 1/15/21

☒ Original

Operator & OGRID No.: COG Operating LLC, (229137)

☐ 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
Azores Federal Com 701H	30-025-	P-29-24S-32E	855' FSL & 620' FEL	±1200	None Planned	APD Submission Plan Subject to change
Azores Federal Com 702H	30-025-	P-29-24S-32E	855' FSL & 650' FEL	±1200	None Planned	APD Submission Plan Subject to change
Azores Federal Com 703H	30-025-	O-29-24S-32E	855' FSL & 2630' FEL	±1200	None Planned	APD Submission Plan Subject to change
Azores Federal Com 704H	30-025-	N-29-24S-32E	855' FSL & 2622' FWL	±1200	None Planned	APD Submission Plan Subject to change
Azores Federal Com 705H	30-025-49140	M-29-24S-32E	855' FSL & 1285' FWL	±1200	None Planned	APD Submission Plan Subject to change
Azores Federal Com 706H	30-025-	M-29-24S-32E	855' FSL & 1255' FWL	±1200	None Planned	APD Submission Plan Subject to change

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 Lucid and will be connected to Red Hills low pressure gathering system located in Lea County, New Mexico. COG Operating LLC provides (periodically) to Lucid a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, COG Operating LLC and Lucid have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at Lucid 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

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

APD Print Report
05/18/2021

APD ID: 10400067931
Submission Date: 01/17/2021
Operator Name: COG OPERATING LLC
Federal/Indian APD: FED
Well Name: AZORES FEDERAL COM
Well Number: 705H
Well Type: OIL WELL
Well Work Type: Drill

Highlighted data reflects the most recent changes

Show Final Text

Application

Section 1 - General

APD ID: 10400067931
Tie to previous NOS? N
Submission Date: 01/17/2021
BLM Office: CARLSBAD
User: MAYTE REYES
Title: Regulatory Analyst
Federal/Indian APD: FED
Is the first lease penetrated for production Federal or Indian? FED
Lease number: NMNM120908
Lease Acres:
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: COG OPERATING LLC
Operator letter of designation:

Operator Info

Operator Organization Name: COG OPERATING LLC
Operator Address: 600 West Illinois Ave
Zip: 79701
Operator PO Box:
Operator City: Midland
State: TX
Operator Phone: (432)683-7443
Operator Internet Address: RODOM@CONCHO.COM

Section 2 - Well Information

Well in Master Development Plan? NO
Master Development Plan name:
Well in Master SUPO? NO
Master SUPO name:

Operator Name: COG OPERATING LLC

Well Name: AZORES FEDERAL COM **Well Number:** 705H

Well in Master Drilling Plan? NO **Master Drilling Plan name:**

Well Name: AZORES FEDERAL COM **Well Number:** 705H **Well API Number:**

Field/Pool or Exploratory? Field and Pool **Field Name:** Wildcat **Pool Name:** WOLFCAMP

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

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

Type of Well Pad: MULTIPLE WELL **Multiple Well Pad Name:** AZORES FEDERAL COM **Number:** 705H and 706H

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

Well Work Type: Drill

Well Type: OIL WELL

Describe Well Type:

Well sub-Type: EXPLORATORY (WILDCAT)

Describe sub-type:

Distance to town: 21 Miles **Distance to nearest well:** 30 FT **Distance to lease line:** 50 FT

Reservoir well spacing assigned acres Measurement: 640 Acres

Well plat: COG_Azores_705H_C102_20210117142707.pdf

Well work start Date: 04/01/2021 **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	855	FSL	1285	FWL	24S	32E	29	Aliquot SWSW	32.183502	-103.701076	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 120908	3503	0	0	Y
KOP Leg #1	855	FSL	1285	FWL	24S	32E	29	Aliquot SWSW	32.183502	-103.701076	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 120908	3503	0	0	Y

Operator Name: COG OPERATING LLC

Well Name: AZORES FEDERAL COM **Well Number:** 705H

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	100	FSL	1254	FWL	24S	32E	29	Aliquot SWSW	32.181426	-103.701171	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 120908	-8318	11900	11821	Y
EXIT Leg #1	100	FNL	1254	FWL	24S	32E	20	Aliquot NWNW	32.209919	-103.701234	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 116575	-8447	22192	11950	Y
BHL Leg #1	50	FNL	1254	FWL	24S	32E	20	Aliquot NWNW	32.210056	-103.701234	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 116575	-8447	22242	11950	Y

Drilling Plan

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
1386392	QUATERNARY	3503	0	0	ALLUVIUM	NONE	N
1386389	RUSTLER	2742	761	761	ALLUVIUM	NONE	N
1386372	TOP SALT	2434	1069	1069	SALT	NONE	N
1386387	BOTTOM SALT	-860	4363	4363	ANHYDRITE, SALT	NONE	N
1386390	LAMAR	-1051	4554	4554	SANDSTONE	NONE	N
1386379	BELL CANYON	-1092	4595	4595	LIMESTONE	NONE	N
1386374	CHERRY CANYON	-1971	5474	5474	SANDSTONE	NATURAL GAS, OIL	N
1386380	BRUSHY CANYON	-3427	6930	6930	SANDSTONE	NATURAL GAS, OIL	N
1386384	BONE SPRING LIME	-5002	8505	8505	LIMESTONE	NATURAL GAS, OIL	N
1386376	BONE SPRING 1ST	-6114	9617	9617	SANDSTONE	NATURAL GAS, OIL	N
1386386		-10937	9653	9653			N

Operator Name: COG OPERATING LLC

Well Name: AZORES FEDERAL COM **Well Number:** 705H

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
1386377	BONE SPRING 2ND	-6721	10224	10224	SANDSTONE	NATURAL GAS, OIL	N
1386370	BONE SPRING 3RD	-7998	11501	11501	SANDSTONE	NATURAL GAS, OIL	N
1386381	WOLFCAMP	-8447	11950	11950	SHALE, SILTSTONE	NATURAL GAS, OIL	Y
1548858	WOLFCAMP	-8953	12456	12456	SHALE, SILTSTONE	NATURAL GAS, OIL	N

Section 2 - Blowout Prevention

Pressure Rating (PSI): 10M **Rating Depth:** 11950

Equipment: Annular. The BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold.
Requesting Variance? YES

Variance request: Request a 5M variance on a 10M system. (5M variance attached in section 8). 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.
Testing Procedure: 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 of the components installed will be functional and tested.
Choke Diagram Attachment:

COG_Azores_10M_Choke_20210115184014.pdf

BOP Diagram Attachment:

COG_Azores_10M_BOP_20210115184041.pdf

COG_Azores__Flex_Hose_Variance_20210115184101.pdf

Pressure Rating (PSI): 5M **Rating Depth:** 11471

Equipment: Annular. The BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold.
Requesting Variance? NO

Variance request: 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.
Testing Procedure: 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 of the components installed will be functional and tested.
Choke Diagram Attachment:

COG_Azores_5M_Choke_20210115183103.pdf

BOP Diagram Attachment:

Operator Name: COG OPERATING LLC

Well Name: AZORES FEDERAL COM **Well Number:** 705H

COG_Azores_5M_Choke_20210115183103.pdf

COG_Azores_5M_BOP_20210115183112.pdf

COG_Azores__Flex_Hose_Variance_20210115183807.pdf

Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	14.75	10.75	NEW	API	N	0	1019	0	1019	3503	2484	1019	J-55	45.5	OTHER - BTC	4.59	1.15	DRY	17.17	DRY	152
2	INTERMEDIATE	8.75	7.625	NEW	API	Y	0	11471	0	11471	-6907	-7968	11471	HCP-110	29.7	OTHER - FJM	1.26	1.51	DRY	1.93	DRY	2.
3	PRODUCTION	6.75	5.5	NEW	API	Y	0	22242	0	11471	-6907	-7968	22242	P-110	23	OTHER - Talon HTQ	2.05	2.32	DRY	2.57	DRY	2.

Casing Attachments

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

COG_Azores_705H_Casing_Prog_20210117144512.pdf

Operator Name: COG OPERATING LLC

Well Name: AZORES FEDERAL COM **Well Number:** 705H

Casing Attachments

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

Inspection Document:

Spec Document:

Tapered String Spec:

COG_Azores_705H_Casing_Prog_20210117144548.pdf

Casing Design Assumptions and Worksheet(s):

COG_Azores_705H_Casing_Prog_20210117144613.pdf

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

Inspection Document:

Spec Document:

Tapered String Spec:

COG_Azores_705H_Casing_Prog_20210117144643.pdf

Casing Design Assumptions and Worksheet(s):

COG_Azores_705H_Casing_Prog_20210117144707.pdf

Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead	1	0	1019	420	1.75	13.5	735	50	Class C	4% Gel
SURFACE	Tail		0	1019	250	1.34	14.8	335	50	C	2% CaCl2
INTERMEDIATE	Lead		0	11471	1000	2.8	11	2800	50	NeoCem	No additives
INTERMEDIATE	Tail		0	11471	300	1.1	16.4	330	50	Class H	No additives

Operator Name: COG OPERATING LLC

Well Name: AZORES FEDERAL COM **Well Number:** 705H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
PRODUCTION	Lead	7500	11471	22242	750	2	12.7	1500	35	Lead: 35:65:6 H Blend	No additives
PRODUCTION	Tail		11471	22242	1000	1.24	14.4	1240	35	Tail: 50:50:2 Class H Blend	No additives

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

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

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

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

Describe the mud monitoring system utilized: PVT/Pason/Visual Monitoring

Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
1019	11471	OTHER : Brine Diesel Emulsion	8.6	9.4							Brine Diesel Emulsion
11471	22242	OIL-BASED MUD	10.5	12							OBM
0	1019	OTHER : Fresh water gel	8.4	8.6							Fresh water gel

Operator Name: COG OPERATING LLC

Well Name: AZORES FEDERAL COM **Well Number:** 705H

Section 6 - Test, Logging, Coring

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

None planned

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

COMPENSATED NEUTRON LOG,GAMMA RAY LOG,

Coring operation description for the well:

None planned

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 7460 **Anticipated Surface Pressure:** 4831

Anticipated Bottom Hole Temperature(F): 175

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

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

COG_Azores_H2S_SUP_20210115185729.pdf

COG_Azores_705H_706H_H2S_Schem_20210117145142.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

COG_Azores_705H_AC_RPT_20210117145214.pdf

COG_Azores_705H_Directional_Plan_20210117145222.pdf

Other proposed operations facets description:

Geological formations on Section 2 in AFMSS II are not correct. See drilling program attached for correct formations.
Drilling Program.
Cement Program.
GCP.
Talon.
Proprietary Connections Performance.

Other proposed operations facets attachment:

5.500_23.00__0.415__P110_RY_USS_TALON_HTQ_RD5.900_Data_Sheet_07_21_2020_20210115185901.pdf

COG_Azorezs_Fed_Com_GCP_20210116162810.pdf

Proprietary_Connections_Performance_Data_7.6250_29.7000_0.3750__P110_HC_20210115185909.pdf

Operator Name: COG OPERATING LLC

Well Name: AZORES FEDERAL COM **Well Number:** 705H

COG_Azores_705H_Cement_Prog_20210117145240.pdf

COG_Azores_705H_Drilling_Program_20210117145247.pdf

Other Variance attachment:

COG_5M_Variance_Well_Plan_20200513161353.pdf

SUPO

Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

COG_Azores_Existing_Road_20210115190114.pdf

Existing Road Purpose: ACCESS **Row(s) Exist?** YES

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? YES

New Road Map:

COG_Azores_Road_Plat_20210115190251.pdf

New road type: RESOURCE

Length: 3479.5 Feet **Width (ft.):** 30

Max slope (%): 33 **Max grade (%):** 1

Army Corp of Engineers (ACOE) permit required? N

ACOE Permit Number(s):

New road travel width: 14

New road access erosion control: Water will be diverted where necessary to avoid ponding, prevent erosion, maintain good drainage and to be consistent with local drainage patterns.

New road access plan or profile prepared? N

New road access plan attachment:

Operator Name: COG OPERATING LLC

Well Name: AZORES FEDERAL COM **Well Number:** 705H

Access road engineering design? N

Access road engineering design attachment:

Turnout? N

Access surfacing type: OTHER

Access topsoil source: OFFSITE

Access surfacing type description: Caliche

Access onsite topsoil source depth:

Offsite topsoil source description: Caliche

Onsite topsoil removal process:

Access other construction information:

Access miscellaneous information:

Number of access turnouts: **Access turnout map:**

Drainage Control

New road drainage crossing: OTHER

Drainage Control comments: None needed.

Road Drainage Control Structures (DCS) description: None needed.

Road Drainage Control Structures (DCS) attachment:

Access Additional Attachments

Section 3 - Location of Existing Wells

Existing Wells Map? YES

Attach Well map:

COG_Azores_705H_1_Mile_Data_20210117145346.pdf

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

Submit or defer a Proposed Production Facilities plan? SUBMIT

Production Facilities description:

Production Facilities map:

COG_Azores_Federal_29_N_CTB_20210115190517.pdf
COG_Azores_Oil_Gas_Flowlines_20210115190536.pdf
COG_Azores_Powerlines_20210115190552.pdf

Operator Name: COG OPERATING LLC

Well Name: AZORES FEDERAL COM **Well Number:** 705H

Section 5 - Location and Types of Water Supply

Water Source Table

Water source type: OTHER

Describe type: Fresh Water. See Below.

Water source use type: ICE PAD CONSTRUCTION & MAINTENANCE
SURFACE CASING
STIMULATION

Source latitude: **Source longitude:**

Source datum:

Water source permit type: PRIVATE CONTRACT

Water source transport method: PIPELINE

Source land ownership: PRIVATE

Source transportation land ownership: PRIVATE

Water source volume (barrels): 450000 **Source volume (acre-feet):** 58.001892

Source volume (gal): 18900000

Water source type: OTHER

Describe type: Brine Water. See Below.

Water source use type: INTERMEDIATE/PRODUCTION CASING

Source latitude: **Source longitude:**

Source datum:

Water source permit type: PRIVATE CONTRACT

Water source transport method: TRUCKING

Source land ownership: COMMERCIAL

Source transportation land ownership: COMMERCIAL

Water source volume (barrels): 30000 **Source volume (acre-feet):** 3.866793

Operator Name: COG OPERATING LLC

Well Name: AZORES FEDERAL COM **Well Number:** 705H

Source volume (gal): 1260000

Water source and transportation map:

COG_Azores_Brine_H2O_20210115190706.pdf
COG_Azores_Fresh_H2O_20210115190716.pdf

Water source comments: See attached maps.

New water well? N

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: YES

Construction Materials description: Caliche will be obtained from the actual well site if available. If not available onsite, caliche will be hauled from the nearest BLM approved caliche pit in Section 1, T25S, R31E.

Construction Materials source location attachment:

Operator Name: COG OPERATING LLC

Well Name: AZORES FEDERAL COM **Well Number:** 705H

Section 7 - Methods for Handling Waste

Waste type: SEWAGE

Waste content description: Human waste and gray water

Amount of waste: 1000 gallons

Waste disposal frequency : One Time Only

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: Trucked to an approved disposal facility

Waste type: GARBAGE

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

Amount of waste: 500 pounds

Waste disposal frequency : One Time Only

Safe containment description: Garbage and trash produced during drilling and completion operations will be collected in a trash container and disposed of properly at a state approved disposal facility

Safe containmant attachment:

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

Disposal type description:

Disposal location description: Trucked to an approved disposal facility.

Waste type: DRILLING

Waste content description: Drilling fluids and produced oil land water while drilling and completion operations

Amount of waste: 6000 barrels

Waste disposal frequency : One Time Only

Safe containment description: All drilling waste will be stored safely and disposed of properly

Safe containmant attachment:

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

Disposal type description:

Disposal location description: Trucked to an approved disposal facility

Operator Name: COG OPERATING LLC

Well Name: AZORES FEDERAL COM **Well Number:** 705H

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? Y

Description of cuttings location Roll off cutting containers on tracks

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:

COG_Azores_705H_706H_Layout_20210117145426.pdf

Comments:

Operator Name: COG OPERATING LLC

Well Name: AZORES FEDERAL COM **Well Number:** 705H

Section 10 - Plans for Surface Reclamation

Type of disturbance: New Surface Disturbance

Multiple Well Pad Name: AZORES FEDERAL COM

Multiple Well Pad Number: 705H and 706H

Recontouring attachment:

COG_Azores_705H_706H_Reclamation_20210117145445.pdf

Drainage/Erosion control construction: Immediately following construction, straw waddles will be placed as necessary at the well site to reduce sediment impacts to fragile/sensitive soils.
Drainage/Erosion control reclamation: North 100'. West 100'.

Well pad proposed disturbance (acres): 5.74
Road proposed disturbance (acres): 1.12
Powerline proposed disturbance (acres): 3.31
Pipeline proposed disturbance (acres): 1.86
Other proposed disturbance (acres): 3.67
Total proposed disturbance: 15.7

Well pad interim reclamation (acres): 0.23
Road interim reclamation (acres): 1.12
Powerline interim reclamation (acres): 3.31
Pipeline interim reclamation (acres): 1.86
Other interim reclamation (acres): 3.67
Total interim reclamation: 10.190000000000001

Well pad long term disturbance (acres): 3.67
Road long term disturbance (acres): 1.12
Powerline long term disturbance (acres): 3.31
Pipeline long term disturbance (acres): 1.86
Other long term disturbance (acres): 3.67
Total long term disturbance: 13.629999999999999

Disturbance Comments:

Reconstruction method: Portions of the pad not needed for production operations will be re-contoured to its original state as much as possible. The caliche that is removed will be reused. The stockpiled topsoil will be spread out over reclaimed area and reseeded with BLM approved seed mixture.
Topsoil redistribution: North 100'. West 100',

Soil treatment: None

Existing Vegetation at the well pad: Shinnery Oak/Mesquite grassland

Existing Vegetation at the well pad attachment:

Existing Vegetation Community at the road: Shinnery Oak/Mesquite grassland

Existing Vegetation Community at the road attachment:

Existing Vegetation Community at the pipeline: Shinnery Oak/Mesquite grassland

Existing Vegetation Community at the pipeline attachment:

Existing Vegetation Community at other disturbances: N/A

Existing Vegetation Community at other disturbances attachment:

Operator Name: COG OPERATING LLC

Well Name: AZORES FEDERAL COM **Well Number:** 705H

Non native seed used? N

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? N

Seedling transplant description attachment:

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:

Operator Name: COG OPERATING LLC

Well Name: AZORES FEDERAL COM **Well Number:** 705H

Success standards: N/A

Pit closure description: N/A

Pit closure attachment:

COG_Azores_705H_706H_Closed_Loop_20210117145538.pdf

Section 11 - Surface Ownership

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:**

Section 12 - Other Information

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

ROW Type(s):

ROW Applications

Operator Name: COG OPERATING LLC

Well Name: AZORES FEDERAL COM **Well Number:** 705H

SUPO Additional Information: SUP Attached

Use a previously conducted onsite? Y

Previous Onsite information: Onsite completed on November 19th, 2020 by Gerald Herrera (COG) and Zane Kirsch (BLM).

Other SUPO Attachment

COG_Azores_Existing_Road_20210115191837.pdf
COG_Azores_Federal_29_N_CTB_20210115191849.pdf
COG_Azores_Oil_Gas_Flowlines_20210115191920.pdf
COG_Azores_Powerlines_20210115191936.pdf
COG_Azores_Road_Plat_20210115191823.pdf
COG_Azores_705H_C102_20210117145646.pdf
COG_Azores_705H_SUP_20210117162715.pdf

PWD

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:

Operator Name: COG OPERATING LLC

Well Name: AZORES FEDERAL COM **Well Number:** 705H

Pit liner manufacturers information:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule attachment:

Lined pit reclamation description:

Lined pit reclamation attachment:

Leak detection system description:

Leak detection system attachment:

Lined pit Monitor description:

Lined pit Monitor attachment:

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

Is the reclamation bond a rider under the BLM bond?

Lined pit bond number:

Lined pit bond amount:

Additional bond information attachment:

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:

Operator Name: COG OPERATING LLC

Well Name: AZORES FEDERAL COM **Well Number:** 705H

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?

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

Operator Name: COG OPERATING LLC

Well Name: AZORES FEDERAL COM **Well Number:** 705H

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):

Other PWD type description:

Other PWD type attachment:

Have other regulatory requirements been met?

Other regulatory requirements attachment:

Bond Info

Bond Information

Federal/Indian APD: FED

BLM Bond number:

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:

Operator Name: COG OPERATING LLC

Well Name: AZORES FEDERAL COM **Well Number:** 705H

Operator Certification

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: MAYTE REYES **Signed on:** 01/17/2021

Title: Regulatory Analyst

Street Address: 925 N ELDRIDGE PARKWAY

City: HOUSTON **State:** TX **Zip:** 77252

Phone: (281)293-1000

Email address: MAYTE.X.REYES@CONOCOPHILLIPS.COM

Field Representative

Representative Name: Gerald Herrera

Street Address: 2208 West Main Street

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

Phone: (575)748-6940

Email address: gherrera@concho.com

Payment Info

Payment

APD Fee Payment Method: PAY.GOV

pay.gov Tracking ID: 26R08NKB

COG Operating, LLC - Azores Federal Com #705H

1. Geologic Formations

TVD of target	11,950' EOL	Pilot hole depth	NA
MD at TD:	22,242'	Deepest expected fresh water:	380'

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
Quaternary Fill	Surface	Water	
Rustler	761	Water	
Top of Salt	1069	Salt	
Base of Salt	4363	Salt	
Lamar	4554	Salt Water	
Bell Canyon	4595	Salt Water	
Cherry Canyon	5474	Oil/Gas	
Brushy Canyon	6930	Oil/Gas	
Bone Spring Lime	8505	Oil/Gas	
1st Bone Spring Sand	9617	Oil/Gas	
2nd Bone Spring Sand	10224	Oil/Gas	
3rd Bone Spring Sand	11501	Oil/Gas	
Wolfcamp	11950	Oil/Gas	
Wolfcamp B	12456	Oil/Gas	

2. Casing Program

Hole Size	Casing Interval From	Casing Interval To	Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Body	SF Joint
14.75"	0	1019	10.75"	45.5	J-55	BTC	4.59	1.15	15.42	17.17
9.875"	0	8000	7.625"	29.7	HCL80	BTC	1.59	1.17	3.06	3.09
8.750"	8000	11471	7.625"	29.7	HCP 110	FJM	1.26	1.51	2.76	1.93
6.75"	0	11271	5.5"	23	P110	CDC-HTQ	2.05	2.32	2.65	2.76
6.75"	11271	22,242	5.5"	23	P110	Talon HTQ	2.05	2.32	2.65	2.57
			BLM Minimum Safety Factor				1.125	1	1.6 Dry 1.8 Wet	1.6 Dry 1.8 Wet

Intermediate casing will be kept at least 1/3 full while running casing.to mitigate collapse. Intermediate burst based on 0.7 frac gradient at the shoe with Gas Gradient 0.1 psi/ft to surface.
All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

	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.	N
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?	
Is well within the designated 4 string boundary?	
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?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2nd string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

3. Cementing Program

Casing	# Sks	Wt. lb/ gal	Yld ft3/ sack	H_20 gal/sk	500# Comp. Strength (hours)	Slurry Description
Surf.	420	13.5	1.75	9	12	Lead: Class C + 4% Gel
	250	14.8	1.34	6.34	8	Tail: Class C + 2% CaCl2
Inter.	1000	11	2.8	19	48	Lead: NeoCem
	300	16.4	1.1	5	8	Tail: Class H
5.5 Prod	750	12.7	2	10.6	16	Lead: 35:65:6 H Blend
	1000	14.4	1.24	5.7	19	Tail: 50:50:2 Class H Blend

Volumes Subject to Observed Hole Conditions and/or Fluid Caliper Results
Lab reports with the 500 psi compressive strength time for the cement will be onsite for review.

Casing String	TOC	% Excess
Surface	0’	50%
1st Intermediate	0’	50%
Production	7,500'	35%

COG Operating, LLC - Azores Federal Com #705H

4. Pressure Control Equipment

N	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	x	Tested to:
9-7/8"	13-5/8"	5M	Annular	x	2500psi
			Blind Ram	x	5000psi
			Pipe Ram	x	
			Double Ram	x	
			Other*		
6-3/4"	13-5/8"	10M	5M Annular	x	3500 psi
			Blind Ram	x	10000psi
			Pipe Ram	x	
			Double Ram	x	
			Other*		

BOP and BOPE will be installed per Onshore Order #2 requirements prior to drilling below the surface casing and will be rated to the above pressure rating or greater, see attached diagrams. Required safety valves, with appropriate wrenches and subs for the drill string being utilized, will be in the open position and accessible on the rig floor. 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 valves (inside BOP and full-opening valve) with appropriate wrenches and choke lines and choke manifold. See attached schematics.

Y	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.
Y	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?
Y	A multibowl wellhead is being used. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested.

5. Mud Program

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From	To				
0	Surf. Shoe	FW Gel	8.4 - 8.6	28-29	N/C
Surf csg	Int shoe	Diesel Brine Emul	8.6 - 9.4	30-40	N/C
Int shoe	Lateral TD	OBM	10.5 - 12	30-40	20

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

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.	
Y	Will run GR/CNL from TD to surface (horizontal well – vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM.
N	Are Logs are planned based on well control or offset log information.
N	Drill stem test? If yes, explain.
N	Coring? If yes, explain.

Additional logs planned		Interval
N	Resistivity	Pilot Hole TD to ICP
N	Density	Pilot Hole TD to ICP
Y	CBL	Production casing (If cement not circulated to surface)
Y	Mud log	Intermediate shoe to TD
N	PEX	

7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	7460 psi at 11950’ TVD
Abnormal Temperature	NO 175 Deg. F.

No abnormal pressure or temperature conditions are anticipated. Sufficient mud materials to maintain mud properties and weight increase requirements will be kept on location at all times.

Sufficient supplies of Paper/LCM for periodic sweeps to control seepage and losses will be maintained on location.

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.	
N	H2S is present
Y	H2S Plan attached

8. Other Facets of Operation

Y	Is it a walking operation?
Y	Is casing pre-set?

x	H2S Plan.
x	BOP & Choke Schematics.
x	Directional Plan
x	5M Annular Variance

DELAWARE BASIN EAST

BULLDOG PROSPECT (NM-E)
AZORES FEDERAL PROJECT (BULLDOG 2432)
AZORES FED COM #705H

OWB

Plan: PWP1

Standard Survey Report

11 December, 2020

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well AZORES FED COM #705H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Site:	AZORES FEDERAL PROJECT (BULLDOG 2432)	**MD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Well:	AZORES FED COM #705H	**North Reference:**	Grid
Wellbore:	OWB	**Survey Calculation Method:**	Minimum Curvature
Design:	PWP1	**Database:**	edm

Project	BULLDOG PROSPECT (NM-E)		
Map System:	US State Plane 1927 (Exact solution)	**System Datum:**	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Well	AZORES FED COM #705H				
Well Position	**+N/-S**	0.0 usft	**Northing:**	431,009.00 usft	**Latitude:**	32° 11' 0.161 N
	+E/-W	0.0 usft	**Easting:**	695,755.40 usft	**Longitude:**	103° 42' 2.148 W
Position Uncertainty		3.0 usft	**Wellhead Elevation:**	usft	**Ground Level:**	3,503.2 usft

Wellbore	OWB				
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF2020	10/26/2020	6.68	59.87	47,522.12239391

Design	PWP1				
Audit Notes:					
Version:		**Phase:**	PLAN	**Tie On Depth:**	0.0
Vertical Section:	**Depth From (TVD) (usft)**	**+N/-S (usft)**	**+E/-W (usft)**	**Direction (°)**	
	0.0	0.0	0.0	359.37	

Survey Tool Program **Date** 12/11/2020

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	22,242.1	PWP1 (OWB)	MWD+IFR1+FDIR	OWSG MWD + IFR1 + FDIR Correction

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well AZORES FED COM #705H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Site:	AZORES FEDERAL PROJECT (BULLDOG 2432)	**MD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Well:	AZORES FED COM #705H	**North Reference:**	Grid
Wellbore:	OWB	**Survey Calculation Method:**	Minimum Curvature
Design:	PWP1	**Database:**	edm

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
Start Build 2.00									
2,600.0	2.00	181.72	2,600.0	-1.7	-0.1	-1.7	2.00	2.00	0.00
2,700.0	4.00	181.72	2,699.8	-7.0	-0.2	-7.0	2.00	2.00	0.00
2,770.0	5.40	181.72	2,769.6	-12.7	-0.4	-12.7	2.00	2.00	0.00
Start 8099.7 hold at 2770.0 MD									
2,800.0	5.40	181.72	2,799.5	-15.5	-0.5	-15.5	0.00	0.00	0.00
2,900.0	5.40	181.72	2,899.0	-24.9	-0.7	-24.9	0.00	0.00	0.00
3,000.0	5.40	181.72	2,998.6	-34.3	-1.0	-34.3	0.00	0.00	0.00
3,100.0	5.40	181.72	3,098.1	-43.7	-1.3	-43.7	0.00	0.00	0.00
3,200.0	5.40	181.72	3,197.7	-53.2	-1.6	-53.1	0.00	0.00	0.00
3,300.0	5.40	181.72	3,297.2	-62.6	-1.9	-62.5	0.00	0.00	0.00
3,400.0	5.40	181.72	3,396.8	-72.0	-2.2	-71.9	0.00	0.00	0.00
3,500.0	5.40	181.72	3,496.4	-81.4	-2.4	-81.3	0.00	0.00	0.00
3,600.0	5.40	181.72	3,595.9	-90.8	-2.7	-90.7	0.00	0.00	0.00
3,700.0	5.40	181.72	3,695.5	-100.2	-3.0	-100.1	0.00	0.00	0.00
3,800.0	5.40	181.72	3,795.0	-109.6	-3.3	-109.6	0.00	0.00	0.00
3,900.0	5.40	181.72	3,894.6	-119.0	-3.6	-119.0	0.00	0.00	0.00
4,000.0	5.40	181.72	3,994.1	-128.4	-3.9	-128.4	0.00	0.00	0.00
4,100.0	5.40	181.72	4,093.7	-137.8	-4.1	-137.8	0.00	0.00	0.00
4,200.0	5.40	181.72	4,193.3	-147.2	-4.4	-147.2	0.00	0.00	0.00
4,300.0	5.40	181.72	4,292.8	-156.6	-4.7	-156.6	0.00	0.00	0.00
4,400.0	5.40	181.72	4,392.4	-166.0	-5.0	-166.0	0.00	0.00	0.00
4,500.0	5.40	181.72	4,491.9	-175.4	-5.3	-175.4	0.00	0.00	0.00
4,600.0	5.40	181.72	4,591.5	-184.8	-5.5	-184.8	0.00	0.00	0.00
4,700.0	5.40	181.72	4,691.0	-194.2	-5.8	-194.2	0.00	0.00	0.00
4,800.0	5.40	181.72	4,790.6	-203.7	-6.1	-203.6	0.00	0.00	0.00
4,900.0	5.40	181.72	4,890.1	-213.1	-6.4	-213.0	0.00	0.00	0.00
5,000.0	5.40	181.72	4,989.7	-222.5	-6.7	-222.4	0.00	0.00	0.00
5,100.0	5.40	181.72	5,089.3	-231.9	-7.0	-231.8	0.00	0.00	0.00
5,200.0	5.40	181.72	5,188.8	-241.3	-7.2	-241.2	0.00	0.00	0.00
5,300.0	5.40	181.72	5,288.4	-250.7	-7.5	-250.6	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well AZORES FED COM #705H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Site:	AZORES FEDERAL PROJECT (BULLDOG 2432)	**MD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Well:	AZORES FED COM #705H	**North Reference:**	Grid
Wellbore:	OWB	**Survey Calculation Method:**	Minimum Curvature
Design:	PWP1	**Database:**	edm

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,400.0	5.40	181.72	5,387.9	-260.1	-7.8	-260.0	0.00	0.00	0.00
5,500.0	5.40	181.72	5,487.5	-269.5	-8.1	-269.4	0.00	0.00	0.00
5,600.0	5.40	181.72	5,587.0	-278.9	-8.4	-278.8	0.00	0.00	0.00
5,700.0	5.40	181.72	5,686.6	-288.3	-8.6	-288.2	0.00	0.00	0.00
5,800.0	5.40	181.72	5,786.2	-297.7	-8.9	-297.6	0.00	0.00	0.00
5,900.0	5.40	181.72	5,885.7	-307.1	-9.2	-307.0	0.00	0.00	0.00
6,000.0	5.40	181.72	5,985.3	-316.5	-9.5	-316.4	0.00	0.00	0.00
6,100.0	5.40	181.72	6,084.8	-325.9	-9.8	-325.8	0.00	0.00	0.00
6,200.0	5.40	181.72	6,184.4	-335.3	-10.1	-335.2	0.00	0.00	0.00
6,300.0	5.40	181.72	6,283.9	-344.7	-10.3	-344.6	0.00	0.00	0.00
6,400.0	5.40	181.72	6,383.5	-354.2	-10.6	-354.0	0.00	0.00	0.00
6,500.0	5.40	181.72	6,483.0	-363.6	-10.9	-363.4	0.00	0.00	0.00
6,600.0	5.40	181.72	6,582.6	-373.0	-11.2	-372.8	0.00	0.00	0.00
6,700.0	5.40	181.72	6,682.2	-382.4	-11.5	-382.2	0.00	0.00	0.00
6,800.0	5.40	181.72	6,781.7	-391.8	-11.8	-391.6	0.00	0.00	0.00
6,900.0	5.40	181.72	6,881.3	-401.2	-12.0	-401.0	0.00	0.00	0.00
7,000.0	5.40	181.72	6,980.8	-410.6	-12.3	-410.4	0.00	0.00	0.00
7,100.0	5.40	181.72	7,080.4	-420.0	-12.6	-419.8	0.00	0.00	0.00
7,200.0	5.40	181.72	7,179.9	-429.4	-12.9	-429.2	0.00	0.00	0.00
7,300.0	5.40	181.72	7,279.5	-438.8	-13.2	-438.6	0.00	0.00	0.00
7,400.0	5.40	181.72	7,379.1	-448.2	-13.4	-448.0	0.00	0.00	0.00
7,500.0	5.40	181.72	7,478.6	-457.6	-13.7	-457.4	0.00	0.00	0.00
7,600.0	5.40	181.72	7,578.2	-467.0	-14.0	-466.9	0.00	0.00	0.00
7,700.0	5.40	181.72	7,677.7	-476.4	-14.3	-476.3	0.00	0.00	0.00
7,800.0	5.40	181.72	7,777.3	-485.8	-14.6	-485.7	0.00	0.00	0.00
7,900.0	5.40	181.72	7,876.8	-495.3	-14.9	-495.1	0.00	0.00	0.00
8,000.0	5.40	181.72	7,976.4	-504.7	-15.1	-504.5	0.00	0.00	0.00
8,100.0	5.40	181.72	8,075.9	-514.1	-15.4	-513.9	0.00	0.00	0.00
8,200.0	5.40	181.72	8,175.5	-523.5	-15.7	-523.3	0.00	0.00	0.00
8,300.0	5.40	181.72	8,275.1	-532.9	-16.0	-532.7	0.00	0.00	0.00
8,400.0	5.40	181.72	8,374.6	-542.3	-16.3	-542.1	0.00	0.00	0.00
8,500.0	5.40	181.72	8,474.2	-551.7	-16.6	-551.5	0.00	0.00	0.00
8,600.0	5.40	181.72	8,573.7	-561.1	-16.8	-560.9	0.00	0.00	0.00
8,700.0	5.40	181.72	8,673.3	-570.5	-17.1	-570.3	0.00	0.00	0.00
8,800.0	5.40	181.72	8,772.8	-579.9	-17.4	-579.7	0.00	0.00	0.00
8,900.0	5.40	181.72	8,872.4	-589.3	-17.7	-589.1	0.00	0.00	0.00
9,000.0	5.40	181.72	8,972.0	-598.7	-18.0	-598.5	0.00	0.00	0.00
9,100.0	5.40	181.72	9,071.5	-608.1	-18.2	-607.9	0.00	0.00	0.00
9,200.0	5.40	181.72	9,171.1	-617.5	-18.5	-617.3	0.00	0.00	0.00
9,300.0	5.40	181.72	9,270.6	-626.9	-18.8	-626.7	0.00	0.00	0.00
9,400.0	5.40	181.72	9,370.2	-636.3	-19.1	-636.1	0.00	0.00	0.00
9,500.0	5.40	181.72	9,469.7	-645.8	-19.4	-645.5	0.00	0.00	0.00
9,600.0	5.40	181.72	9,569.3	-655.2	-19.7	-654.9	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well AZORES FED COM #705H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Site:	AZORES FEDERAL PROJECT (BULLDOG 2432)	**MD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Well:	AZORES FED COM #705H	**North Reference:**	Grid
Wellbore:	OWB	**Survey Calculation Method:**	Minimum Curvature
Design:	PWP1	**Database:**	edm

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,700.0	5.40	181.72	9,668.8	-664.6	-19.9	-664.3	0.00	0.00	0.00
9,800.0	5.40	181.72	9,768.4	-674.0	-20.2	-673.7	0.00	0.00	0.00
9,900.0	5.40	181.72	9,868.0	-683.4	-20.5	-683.1	0.00	0.00	0.00
10,000.0	5.40	181.72	9,967.5	-692.8	-20.8	-692.5	0.00	0.00	0.00
10,100.0	5.40	181.72	10,067.1	-702.2	-21.1	-701.9	0.00	0.00	0.00
10,200.0	5.40	181.72	10,166.6	-711.6	-21.3	-711.3	0.00	0.00	0.00
10,300.0	5.40	181.72	10,266.2	-721.0	-21.6	-720.7	0.00	0.00	0.00
10,400.0	5.40	181.72	10,365.7	-730.4	-21.9	-730.1	0.00	0.00	0.00
10,500.0	5.40	181.72	10,465.3	-739.8	-22.2	-739.5	0.00	0.00	0.00
10,600.0	5.40	181.72	10,564.9	-749.2	-22.5	-748.9	0.00	0.00	0.00
10,700.0	5.40	181.72	10,664.4	-758.6	-22.8	-758.3	0.00	0.00	0.00
10,800.0	5.40	181.72	10,764.0	-768.0	-23.0	-767.7	0.00	0.00	0.00
10,869.7	5.40	181.72	10,833.3	-774.6	-23.2	-774.3	0.00	0.00	0.00
Start Drop -1.00									
10,900.0	5.10	181.72	10,863.5	-777.4	-23.3	-777.1	1.00	-1.00	0.00
11,000.0	4.10	181.72	10,963.2	-785.4	-23.6	-785.1	1.00	-1.00	0.00
11,100.0	3.10	181.72	11,063.0	-791.6	-23.7	-791.3	1.00	-1.00	0.00
11,200.0	2.10	181.72	11,162.9	-796.2	-23.9	-795.9	1.00	-1.00	0.00
11,300.0	1.10	181.72	11,262.9	-799.0	-24.0	-798.6	1.00	-1.00	0.00
11,400.0	0.10	181.72	11,362.9	-800.0	-24.0	-799.7	1.00	-1.00	0.00
11,409.6	0.00	0.00	11,372.5	-800.0	-24.0	-799.7	1.00	-1.00	1,848.88
Start 100.0 hold at 11409.6 MD									
11,500.0	0.00	0.00	11,462.9	-800.0	-24.0	-799.7	0.00	0.00	0.00
11,509.6	0.00	0.00	11,472.5	-800.0	-24.0	-799.7	0.00	0.00	0.00
Start DLS 12.00 TFO 359.63									
11,600.0	10.84	359.63	11,562.3	-791.5	-24.1	-791.2	12.00	12.00	0.00
11,700.0	22.84	359.63	11,657.9	-762.6	-24.2	-762.2	12.00	12.00	0.00
11,800.0	34.84	359.63	11,745.3	-714.4	-24.6	-714.1	12.00	12.00	0.00
11,900.0	46.84	359.63	11,820.8	-649.1	-25.0	-648.8	12.00	12.00	0.00
12,000.0	58.84	359.63	11,881.1	-569.6	-25.5	-569.3	12.00	12.00	0.00
12,100.0	70.84	359.63	11,923.5	-479.2	-26.1	-478.9	12.00	12.00	0.00
12,200.0	82.84	359.63	11,946.2	-382.0	-26.7	-381.7	12.00	12.00	0.00
12,259.6	90.00	359.63	11,950.0	-322.5	-27.1	-322.2	12.00	12.00	0.00
Start 4747.6 hold at 12259.6 MD									
12,300.0	90.00	359.63	11,950.0	-282.2	-27.4	-281.9	0.00	0.00	0.00
12,400.0	90.00	359.63	11,950.0	-182.2	-28.0	-181.9	0.00	0.00	0.00
12,500.0	90.00	359.63	11,950.0	-82.2	-28.7	-81.9	0.00	0.00	0.00
12,600.0	90.00	359.63	11,950.0	17.8	-29.4	18.1	0.00	0.00	0.00
12,700.0	90.00	359.63	11,950.0	117.8	-30.0	118.1	0.00	0.00	0.00
12,800.0	90.00	359.63	11,950.0	217.8	-30.7	218.1	0.00	0.00	0.00
12,900.0	90.00	359.63	11,950.0	317.8	-31.3	318.1	0.00	0.00	0.00
13,000.0	90.00	359.63	11,950.0	417.8	-32.0	418.1	0.00	0.00	0.00
13,100.0	90.00	359.63	11,950.0	517.8	-32.6	518.1	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well AZORES FED COM #705H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Site:	AZORES FEDERAL PROJECT (BULLDOG 2432)	**MD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Well:	AZORES FED COM #705H	**North Reference:**	Grid
Wellbore:	OWB	**Survey Calculation Method:**	Minimum Curvature
Design:	PWP1	**Database:**	edm

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
13,200.0	90.00	359.63	11,950.0	617.8	-33.3	618.1	0.00	0.00	0.00
13,300.0	90.00	359.63	11,950.0	717.8	-33.9	718.1	0.00	0.00	0.00
13,400.0	90.00	359.63	11,950.0	817.8	-34.6	818.1	0.00	0.00	0.00
13,500.0	90.00	359.63	11,950.0	917.8	-35.2	918.1	0.00	0.00	0.00
13,600.0	90.00	359.63	11,950.0	1,017.8	-35.9	1,018.1	0.00	0.00	0.00
13,700.0	90.00	359.63	11,950.0	1,117.8	-36.5	1,118.1	0.00	0.00	0.00
13,800.0	90.00	359.63	11,950.0	1,217.8	-37.2	1,218.1	0.00	0.00	0.00
13,900.0	90.00	359.63	11,950.0	1,317.8	-37.9	1,318.1	0.00	0.00	0.00
14,000.0	90.00	359.63	11,950.0	1,417.8	-38.5	1,418.1	0.00	0.00	0.00
14,100.0	90.00	359.63	11,950.0	1,517.8	-39.2	1,518.1	0.00	0.00	0.00
14,200.0	90.00	359.63	11,950.0	1,617.8	-39.8	1,618.1	0.00	0.00	0.00
14,300.0	90.00	359.63	11,950.0	1,717.8	-40.5	1,718.1	0.00	0.00	0.00
14,400.0	90.00	359.63	11,950.0	1,817.8	-41.1	1,818.1	0.00	0.00	0.00
14,500.0	90.00	359.63	11,950.0	1,917.8	-41.8	1,918.1	0.00	0.00	0.00
14,600.0	90.00	359.63	11,950.0	2,017.8	-42.4	2,018.1	0.00	0.00	0.00
14,700.0	90.00	359.63	11,950.0	2,117.8	-43.1	2,118.1	0.00	0.00	0.00
14,800.0	90.00	359.63	11,950.0	2,217.8	-43.7	2,218.1	0.00	0.00	0.00
14,900.0	90.00	359.63	11,950.0	2,317.8	-44.4	2,318.1	0.00	0.00	0.00
15,000.0	90.00	359.63	11,950.0	2,417.8	-45.1	2,418.1	0.00	0.00	0.00
15,100.0	90.00	359.63	11,950.0	2,517.8	-45.7	2,518.1	0.00	0.00	0.00
15,200.0	90.00	359.63	11,950.0	2,617.7	-46.4	2,618.1	0.00	0.00	0.00
15,300.0	90.00	359.63	11,950.0	2,717.7	-47.0	2,718.1	0.00	0.00	0.00
15,400.0	90.00	359.63	11,950.0	2,817.7	-47.7	2,818.1	0.00	0.00	0.00
15,500.0	90.00	359.63	11,950.0	2,917.7	-48.3	2,918.1	0.00	0.00	0.00
15,600.0	90.00	359.63	11,950.0	3,017.7	-49.0	3,018.1	0.00	0.00	0.00
15,700.0	90.00	359.63	11,950.0	3,117.7	-49.6	3,118.1	0.00	0.00	0.00
15,800.0	90.00	359.63	11,950.0	3,217.7	-50.3	3,218.1	0.00	0.00	0.00
15,900.0	90.00	359.63	11,950.0	3,317.7	-50.9	3,318.1	0.00	0.00	0.00
16,000.0	90.00	359.63	11,950.0	3,417.7	-51.6	3,418.1	0.00	0.00	0.00
16,100.0	90.00	359.63	11,950.0	3,517.7	-52.2	3,518.1	0.00	0.00	0.00
16,200.0	90.00	359.63	11,950.0	3,617.7	-52.9	3,618.1	0.00	0.00	0.00
16,300.0	90.00	359.63	11,950.0	3,717.7	-53.6	3,718.1	0.00	0.00	0.00
16,400.0	90.00	359.63	11,950.0	3,817.7	-54.2	3,818.1	0.00	0.00	0.00
16,500.0	90.00	359.63	11,950.0	3,917.7	-54.9	3,918.1	0.00	0.00	0.00
16,600.0	90.00	359.63	11,950.0	4,017.7	-55.5	4,018.1	0.00	0.00	0.00
16,700.0	90.00	359.63	11,950.0	4,117.7	-56.2	4,118.1	0.00	0.00	0.00
16,800.0	90.00	359.63	11,950.0	4,217.7	-56.8	4,218.1	0.00	0.00	0.00
16,900.0	90.00	359.63	11,950.0	4,317.7	-57.5	4,318.1	0.00	0.00	0.00
17,000.0	90.00	359.63	11,950.0	4,417.7	-58.1	4,418.1	0.00	0.00	0.00
17,007.2	90.00	359.63	11,950.0	4,424.9	-58.2	4,425.3	0.00	0.00	0.00
Start DLS 2.00 TFO -89.83									
17,014.3	90.00	359.48	11,950.0	4,432.0	-58.2	4,432.4	2.00	0.01	-2.00
Start 5227.8 hold at 17014.3 MD									

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well AZORES FED COM #705H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Site:	AZORES FEDERAL PROJECT (BULLDOG 2432)	**MD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Well:	AZORES FED COM #705H	**North Reference:**	Grid
Wellbore:	OWB	**Survey Calculation Method:**	Minimum Curvature
Design:	PWP1	**Database:**	edm

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
17,100.0	90.00	359.48	11,950.0	4,517.7	-59.0	4,518.1	0.00	0.00	0.00
17,200.0	90.00	359.48	11,950.0	4,617.7	-59.9	4,618.1	0.00	0.00	0.00
17,300.0	90.00	359.48	11,950.0	4,717.7	-60.8	4,718.1	0.00	0.00	0.00
17,400.0	90.00	359.48	11,950.0	4,817.7	-61.7	4,818.1	0.00	0.00	0.00
17,500.0	90.00	359.48	11,950.0	4,917.7	-62.6	4,918.1	0.00	0.00	0.00
17,600.0	90.00	359.48	11,950.0	5,017.7	-63.5	5,018.1	0.00	0.00	0.00
17,700.0	90.00	359.48	11,950.0	5,117.7	-64.4	5,118.1	0.00	0.00	0.00
17,800.0	90.00	359.48	11,950.0	5,217.7	-65.3	5,218.1	0.00	0.00	0.00
17,900.0	90.00	359.48	11,950.0	5,317.7	-66.2	5,318.1	0.00	0.00	0.00
18,000.0	90.00	359.48	11,950.0	5,417.7	-67.1	5,418.1	0.00	0.00	0.00
18,100.0	90.00	359.48	11,950.0	5,517.7	-68.0	5,518.1	0.00	0.00	0.00
18,200.0	90.00	359.48	11,950.0	5,617.7	-68.9	5,618.1	0.00	0.00	0.00
18,300.0	90.00	359.48	11,950.0	5,717.7	-69.8	5,718.1	0.00	0.00	0.00
18,400.0	90.00	359.48	11,950.0	5,817.7	-70.7	5,818.1	0.00	0.00	0.00
18,500.0	90.00	359.48	11,950.0	5,917.6	-71.6	5,918.1	0.00	0.00	0.00
18,600.0	90.00	359.48	11,950.0	6,017.6	-72.5	6,018.1	0.00	0.00	0.00
18,700.0	90.00	359.48	11,950.0	6,117.6	-73.4	6,118.1	0.00	0.00	0.00
18,800.0	90.00	359.48	11,950.0	6,217.6	-74.3	6,218.1	0.00	0.00	0.00
18,900.0	90.00	359.48	11,950.0	6,317.6	-75.3	6,318.1	0.00	0.00	0.00
19,000.0	90.00	359.48	11,950.0	6,417.6	-76.2	6,418.1	0.00	0.00	0.00
19,100.0	90.00	359.48	11,950.0	6,517.6	-77.1	6,518.1	0.00	0.00	0.00
19,200.0	90.00	359.48	11,950.0	6,617.6	-78.0	6,618.1	0.00	0.00	0.00
19,300.0	90.00	359.48	11,950.0	6,717.6	-78.9	6,718.1	0.00	0.00	0.00
19,400.0	90.00	359.48	11,950.0	6,817.6	-79.8	6,818.1	0.00	0.00	0.00
19,500.0	90.00	359.48	11,950.0	6,917.6	-80.7	6,918.1	0.00	0.00	0.00
19,600.0	90.00	359.48	11,950.0	7,017.6	-81.6	7,018.1	0.00	0.00	0.00
19,700.0	90.00	359.48	11,950.0	7,117.6	-82.5	7,118.1	0.00	0.00	0.00
19,800.0	90.00	359.48	11,950.0	7,217.6	-83.4	7,218.1	0.00	0.00	0.00
19,900.0	90.00	359.48	11,950.0	7,317.6	-84.3	7,318.1	0.00	0.00	0.00
20,000.0	90.00	359.48	11,950.0	7,417.6	-85.2	7,418.1	0.00	0.00	0.00
20,100.0	90.00	359.48	11,950.0	7,517.6	-86.1	7,518.1	0.00	0.00	0.00
20,200.0	90.00	359.48	11,950.0	7,617.6	-87.0	7,618.1	0.00	0.00	0.00
20,300.0	90.00	359.48	11,950.0	7,717.6	-87.9	7,718.1	0.00	0.00	0.00
20,400.0	90.00	359.48	11,950.0	7,817.6	-88.8	7,818.1	0.00	0.00	0.00
20,500.0	90.00	359.48	11,950.0	7,917.6	-89.7	7,918.1	0.00	0.00	0.00
20,600.0	90.00	359.48	11,950.0	8,017.6	-90.6	8,018.1	0.00	0.00	0.00
20,700.0	90.00	359.48	11,950.0	8,117.6	-91.5	8,118.1	0.00	0.00	0.00
20,800.0	90.00	359.48	11,950.0	8,217.6	-92.4	8,218.1	0.00	0.00	0.00
20,900.0	90.00	359.48	11,950.0	8,317.6	-93.3	8,318.1	0.00	0.00	0.00
21,000.0	90.00	359.48	11,950.0	8,417.5	-94.2	8,418.1	0.00	0.00	0.00
21,100.0	90.00	359.48	11,950.0	8,517.5	-95.1	8,518.1	0.00	0.00	0.00
21,200.0	90.00	359.48	11,950.0	8,617.5	-96.0	8,618.1	0.00	0.00	0.00

Concho Resources LLC

Survey Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well AZORES FED COM #705H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Site:	AZORES FEDERAL PROJECT (BULLDOG 2432)	**MD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Well:	AZORES FED COM #705H	**North Reference:**	Grid
Wellbore:	OWB	**Survey Calculation Method:**	Minimum Curvature
Design:	PWP1	**Database:**	edm

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
21,300.0	90.00	359.48	11,950.0	8,717.5	-96.9	8,718.1	0.00	0.00	0.00
21,400.0	90.00	359.48	11,950.0	8,817.5	-97.8	8,818.1	0.00	0.00	0.00
21,500.0	90.00	359.48	11,950.0	8,917.5	-98.7	8,918.1	0.00	0.00	0.00
21,600.0	90.00	359.48	11,950.0	9,017.5	-99.6	9,018.1	0.00	0.00	0.00
21,700.0	90.00	359.48	11,950.0	9,117.5	-100.5	9,118.1	0.00	0.00	0.00
21,800.0	90.00	359.48	11,950.0	9,217.5	-101.4	9,218.1	0.00	0.00	0.00
21,900.0	90.00	359.48	11,950.0	9,317.5	-102.3	9,318.1	0.00	0.00	0.00
22,000.0	90.00	359.48	11,950.0	9,417.5	-103.2	9,418.1	0.00	0.00	0.00
22,100.0	90.00	359.48	11,950.0	9,517.5	-104.1	9,518.1	0.00	0.00	0.00
22,200.0	90.00	359.48	11,950.0	9,617.5	-105.0	9,618.1	0.00	0.00	0.00
22,242.1	90.00	359.48	11,950.0	9,659.6	-105.4	9,660.2	0.00	0.00	0.00
TD at 22242.1									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
POI 1 (AZORES FED - plan hits target center - Rectangle (sides W100.0 H5,190.0 D20.0)	0.00	179.63	11,950.0	4,424.9	-58.2	435,433.94	695,697.21	32° 11' 43.953 N	103° 42' 2.522 W
PBHL (AZORES FED - plan hits target center - Rectangle (sides W100.0 H5,238.0 D20.0)	0.00	179.48	11,950.0	9,659.6	-105.4	440,668.60	695,650.00	32° 12' 35.757 N	103° 42' 2.713 W
FTP (AZORES FED C - plan misses target center by 167.2usft at 11900.0usft MD (11820.8 TVD, -649.1 N, -25.0 E) - Circle (radius 50.0)	0.00	0.00	11,950.0	-755.3	-25.0	430,253.70	695,730.40	32° 10' 52.688 N	103° 42' 2.490 W
LTP (AZORES FED C - plan misses target center by 0.2usft at 22192.1usft MD (11950.0 TVD, 9609.6 N, -104.9 E) - Point	0.00	0.00	11,950.0	9,609.6	-105.1	440,618.60	695,650.30	32° 12' 35.262 N	103° 42' 2.713 W

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
2500	2500	0	0	Start Build 2.00
2770	2770	-13	0	Start 8099.7 hold at 2770.0 MD
10,870	10,833	-775	-23	Start Drop -1.00
11,410	11,373	-800	-24	Start 100.0 hold at 11409.6 MD
11,510	11,473	-800	-24	Start DLS 12.00 TFO 359.63
12,260	11,950	-323	-27	Start 4747.6 hold at 12259.6 MD
17,007	11,950	4425	-58	Start DLS 2.00 TFO -89.83
17,014	11,950	4432	-58	Start 5227.8 hold at 17014.3 MD
22,242	11,950	9660	-105	TD at 22242.1

Checked By: _____ Approved By: _____ Date: _____

CONCHO

Project:	BULLDOG PROSPECT (NM-E)
Site:	AZORES FEDERAL PROJECT (BULLDOG 2432)
Well:	AZORES FED COM #705H
Wellbore:	OWB
Design:	PWP1
GL:	3503.2
KB=26' @ 3529.2usft (McVay 8)	

WELL DETAILS: AZORES FED COM #705H

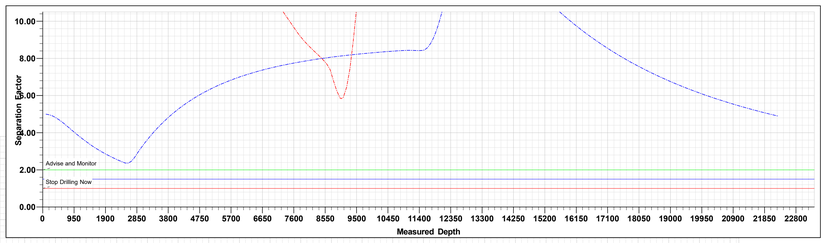
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	431009.00	695755.40	32° 11' 0.161 N	103° 42' 2.148 W

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
FTP (AZORES FED COM #705H)	11950.0	-755.3	-25.0	430253.70	695730.40	32° 10' 52.688 N	103° 42' 2.490 W
LTP (AZORES FED COM #705H)	11950.0	9609.6	-105.1	440618.60	695650.30	32° 12' 35.262 N	103° 42' 2.713 W
PBHL (AZORES FED COM #705H)	11950.0	9659.6	-105.4	440668.60	695650.00	32° 12' 35.757 N	103° 42' 2.713 W
POI 1 (AZORES FED COM #705H)	11950.0	4424.9	-58.2	435433.94	695697.21	32° 11' 43.953 N	103° 42' 2.522 W

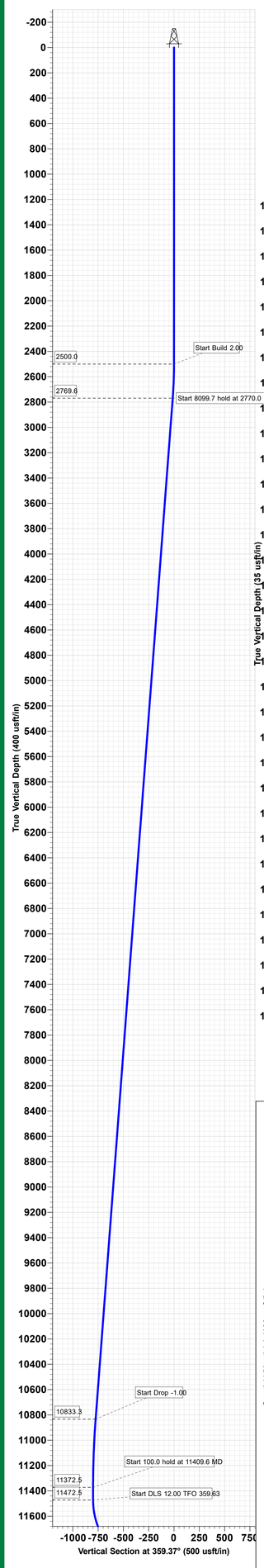
Azimuths to Grid North
True North: -0.34°
Magnetic North: 6.34°

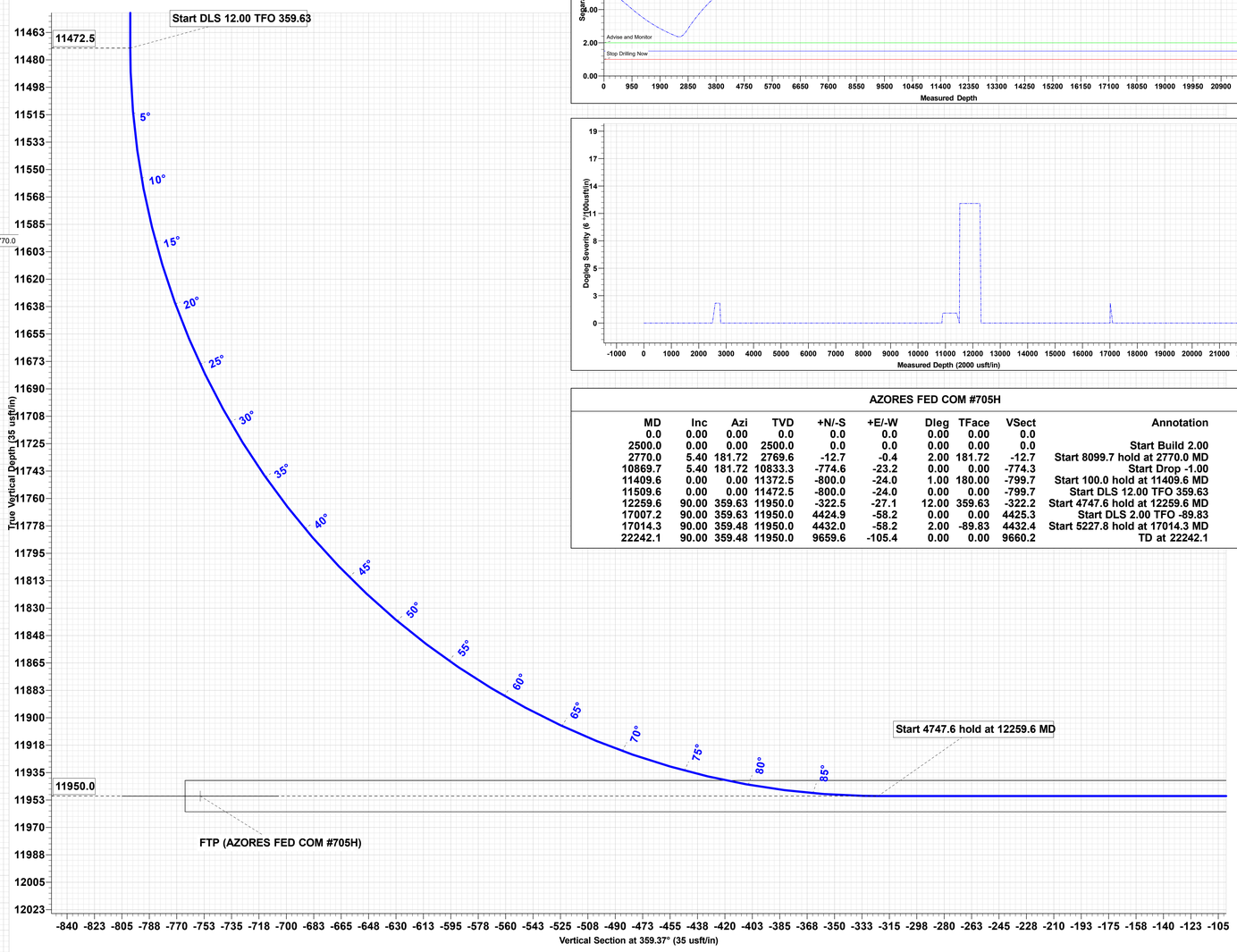
Magnetic Field
Strength: 47522.1nT
Dip Angle: 59.87°
Date: 10/26/2020
Model: IGRF2020

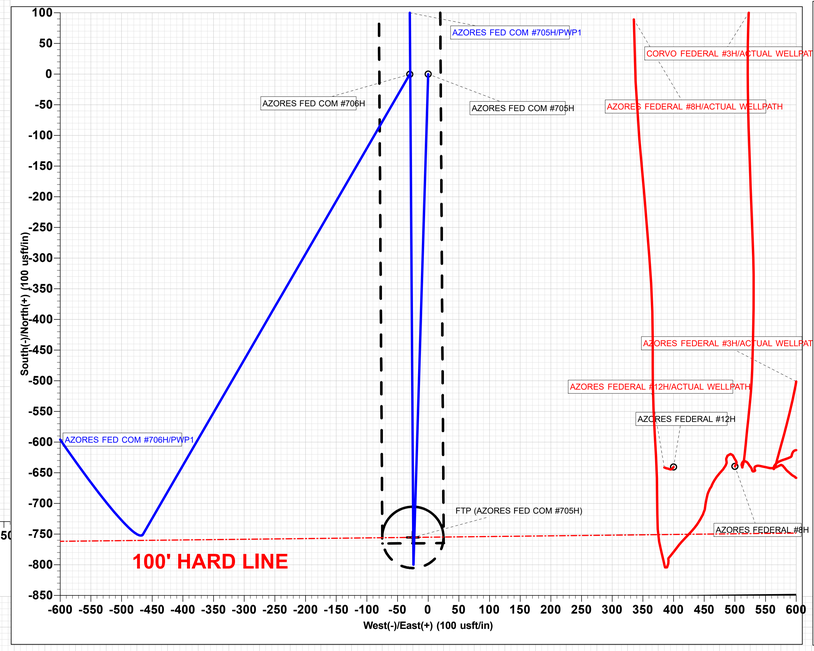


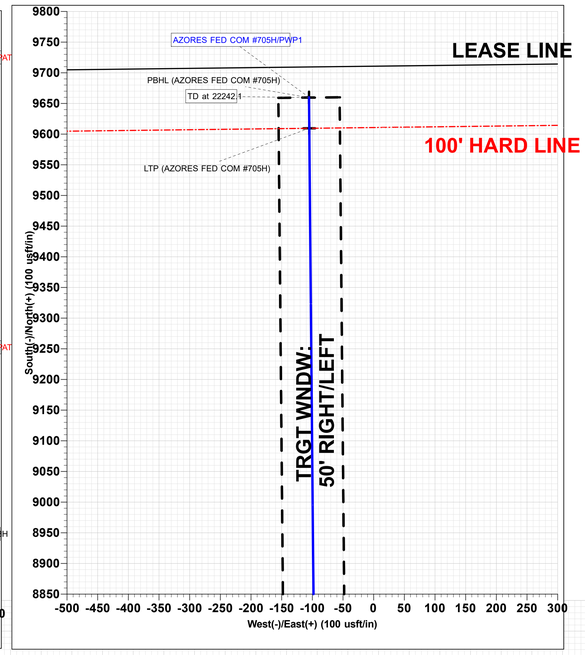
AZORES FED COM #705H

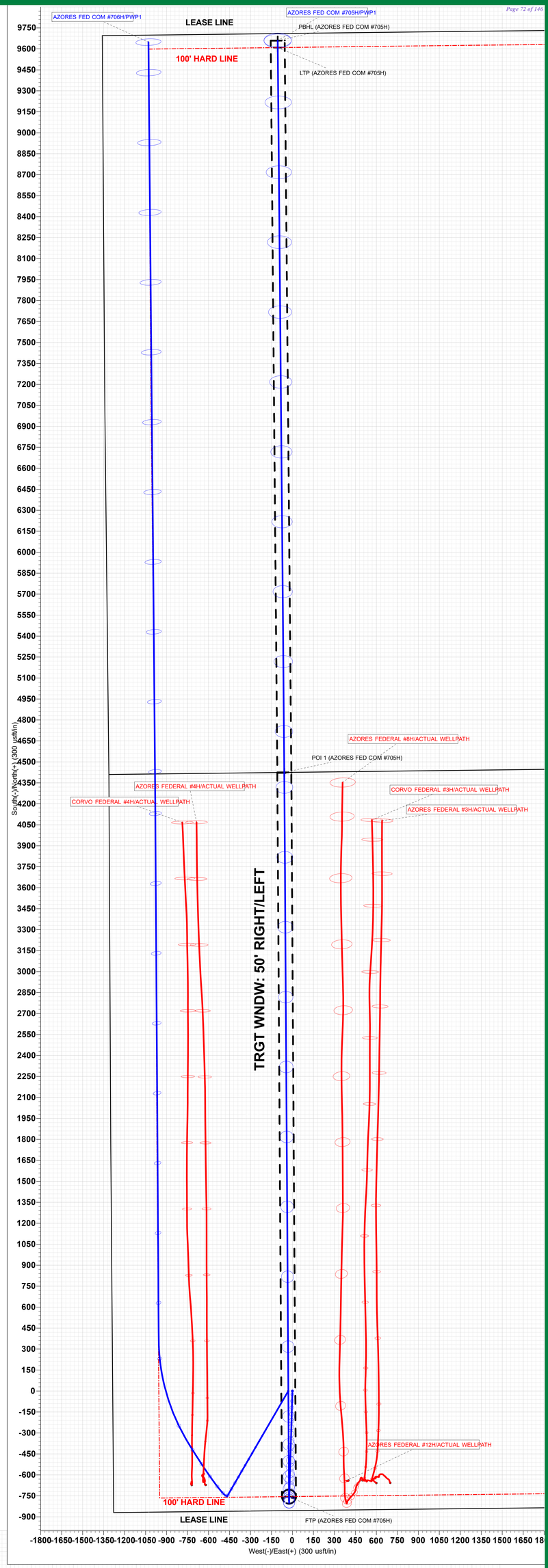
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2500.0	0.00	0.00	2500.0	0.0	0.0	0.00	0.00	0.0	Start Build 2.00
2770.0	5.40	181.72	2769.6	-12.7	-0.4	2.00	181.72	-12.7	Start 8099.7 hold at 2770.0 MD
10869.7	5.40	181.72	10833.3	-774.6	-23.2	0.00	0.00	-774.3	Start Drop -1.00
11409.6	0.00	0.00	11372.5	-800.0	-24.0	1.00	180.00	-799.7	Start 100.0 hold at 11409.6 MD
11509.6	0.00	0.00	11472.5	-800.0	-24.0	0.00	0.00	-799.7	Start DLS 12.00 TFO 359.63
12259.6	90.00	359.63	11950.0	-322.5	-27.1	12.00	359.63	-322.2	Start 4747.6 hold at 12259.6 MD
17007.2	90.00	359.63	11950.0	4424.9	-58.2	0.00	0.00	4425.3	Start DLS 2.00 TFO -89.83
17014.3	90.00	359.48	11950.0	4432.0	-58.2	2.00	-89.83	4432.4	Start 5227.8 hold at 17014.3 MD
22242.1	90.00	359.48	11950.0	9659.6	-105.4	0.00	0.00	9660.2	TD at 22242.1



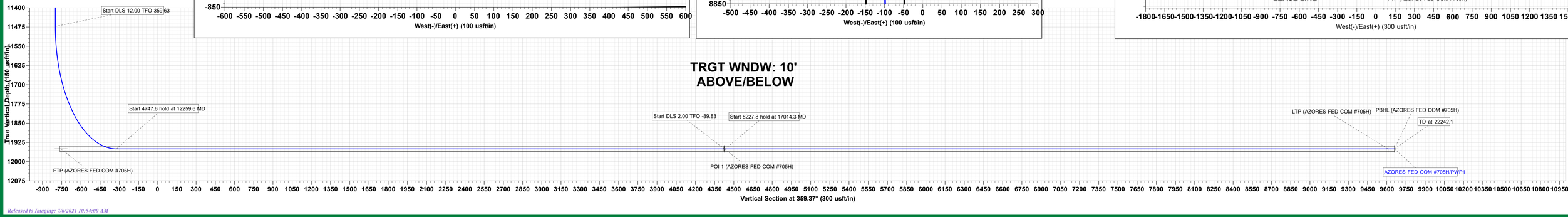








TRGT WNDW: 10' ABOVE/BELOW



DELAWARE BASIN EAST

BULLDOG PROSPECT (NM-E)
AZORES FEDERAL PROJECT (BULLDOG 2432)
AZORES FED COM #705H

OWB
PWP1

Anticollision Report

11 December, 2020

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well AZORES FED COM #705H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Reference Site:	AZORES FEDERAL PROJECT (BULLDOG 2432)	**MD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	AZORES FED COM #705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	3.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	edm
Reference Design:	PWP1	**Offset TVD Reference:**	Offset Datum

Reference PWP1

Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	Stations	**Error Model:**	ISCWSA
Depth Range:	Unlimited	**Scan Method:**	Closest Approach 3D
Results Limited by:	Maximum ellipse separation of 2,000.0 usft	**Error Surface:**	Pedal Curve
Warning Levels Evaluated at:	2.00 **Sigma**	**Casing Method:**	Not applied

Survey Tool Program **Date** 12/11/2020

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	22,242.1	PWP1 (OWB)	MWD+IFR1+FDIR	OWSG MWD + IFR1 + FDIR Correction

Summary

Site Name Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
AZORES FEDERAL PROJECT (BULLDOG 2432)						
AZORES FED COM #706H - OWB - PWP1	2,416.5	2,416.9	30.0	17.6	2.424	CC
AZORES FED COM #706H - OWB - PWP1	2,500.0	2,500.4	30.0	17.3	2.365	ES
AZORES FED COM #706H - OWB - PWP1	2,600.0	2,600.0	30.8	17.8	2.364	SF
AZORES FEDERAL #12H - OWB - ACTUAL WELLPATH	879.0	872.0	748.0	739.8	90.741	CC, ES
AZORES FEDERAL #12H - OWB - ACTUAL WELLPATH	1,000.0	872.0	757.7	749.3	89.260	SF
AZORES FEDERAL #3H - OWB - ACTUAL WELLPATH	9,990.8	9,950.0	586.8	539.4	12.378	CC
AZORES FEDERAL #3H - OWB - ACTUAL WELLPATH	10,000.0	9,958.8	586.8	539.4	12.368	ES
AZORES FEDERAL #3H - OWB - ACTUAL WELLPATH	10,300.0	10,206.1	594.9	546.1	12.192	SF
AZORES FEDERAL #4H - OWB - ACTUAL WELLPATH	9,542.8	9,506.5	606.0	569.2	16.484	CC
AZORES FEDERAL #4H - OWB - ACTUAL WELLPATH	9,600.0	9,555.7	606.4	569.2	16.318	ES
AZORES FEDERAL #4H - OWB - ACTUAL WELLPATH	10,400.0	10,296.6	640.0	597.9	15.199	SF
AZORES FEDERAL #8H - OWB - ACTUAL WELLPATH	9,031.8	9,077.1	387.7	321.2	5.830	CC, ES, SF
CORVO FEDERAL #3H - OWB - ACTUAL WELLPATH	8,177.2	8,147.1	539.0	500.6	14.028	CC, ES
CORVO FEDERAL #3H - OWB - ACTUAL WELLPATH	8,300.0	8,242.3	544.7	505.7	13.981	SF
CORVO FEDERAL #4H - OWB - ACTUAL WELLPATH	8,228.2	8,238.9	701.2	667.8	21.014	CC, ES
CORVO FEDERAL #4H - OWB - ACTUAL WELLPATH	8,400.0	8,316.5	716.7	682.0	20.669	SF

Offset Design AZORES FEDERAL PROJECT (BULLDOG 2432) - AZORES FED COM #706H - OWB - PWP1 — **Offset Site Error:** 0.0 usft

Survey Program: 0-Standard Keeper 104, 11494-MWD+IFR1+FDIR — **Offset Well Error:** 3.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.4	0.4	3.0	3.0	-90.57	-0.3	-30.0	30.0				
100.0	100.0	100.4	100.4	3.0	3.0	-90.57	-0.3	-30.0	30.0	24.0	6.00	4.998	
200.0	200.0	200.4	200.4	3.0	3.0	-90.57	-0.3	-30.0	30.0	24.0	6.04	4.966	
300.0	300.0	300.4	300.4	3.1	3.0	-90.57	-0.3	-30.0	30.0	23.9	6.12	4.900	
400.0	400.0	400.4	400.4	3.2	3.0	-90.57	-0.3	-30.0	30.0	23.8	6.24	4.805	
500.0	500.0	500.4	500.4	3.4	3.1	-90.57	-0.3	-30.0	30.0	23.6	6.40	4.688	
600.0	600.0	600.4	600.4	3.6	3.1	-90.57	-0.3	-30.0	30.0	23.4	6.59	4.554	
700.0	700.0	700.4	700.4	3.8	3.1	-90.57	-0.3	-30.0	30.0	23.2	6.80	4.410	
800.0	800.0	800.4	800.4	4.0	3.2	-90.57	-0.3	-30.0	30.0	23.0	7.04	4.261	
900.0	900.0	900.4	900.4	4.2	3.2	-90.57	-0.3	-30.0	30.0	22.7	7.30	4.110	
1,000.0	1,000.0	1,000.4	1,000.4	4.5	3.2	-90.57	-0.3	-30.0	30.0	22.4	7.57	3.961	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well AZORES FED COM #705H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Reference Site:	AZORES FEDERAL PROJECT (BULLDOG 2432)	**MD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	AZORES FED COM #705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	3.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	edm
Reference Design:	PWP1	**Offset TVD Reference:**	Offset Datum

Offset Design AZORES FEDERAL PROJECT (BULLDOG 2432) - AZORES FED COM #706H - OWB - PWP1 — **Offset Site Error:** 0.0 usft

Survey Program: 0-Standard Keeper 104, 11494-MWD+IFR1+FDIR — **Offset Well Error:** 3.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
1,100.0	1,100.0	1,100.4	1,100.4	4.8	3.3	-90.57	-0.3	-30.0	30.0	22.1	7.86	3.815	
1,200.0	1,200.0	1,200.4	1,200.4	5.1	3.4	-90.57	-0.3	-30.0	30.0	21.8	8.16	3.675	
1,300.0	1,300.0	1,300.4	1,300.4	5.4	3.4	-90.57	-0.3	-30.0	30.0	21.5	8.48	3.540	
1,400.0	1,400.0	1,400.4	1,400.4	5.7	3.5	-90.57	-0.3	-30.0	30.0	21.2	8.80	3.411	
1,500.0	1,500.0	1,500.4	1,500.4	6.0	3.5	-90.57	-0.3	-30.0	30.0	20.9	9.12	3.288	
1,600.0	1,600.0	1,600.4	1,600.4	6.3	3.6	-90.57	-0.3	-30.0	30.0	20.5	9.46	3.171	
1,700.0	1,700.0	1,700.4	1,700.4	6.6	3.7	-90.57	-0.3	-30.0	30.0	20.2	9.80	3.061	
1,800.0	1,800.0	1,800.4	1,800.4	6.9	3.8	-90.57	-0.3	-30.0	30.0	19.9	10.15	2.956	
1,900.0	1,900.0	1,900.4	1,900.4	7.2	3.9	-90.57	-0.3	-30.0	30.0	19.5	10.50	2.858	
2,000.0	2,000.0	2,000.4	2,000.4	7.6	3.9	-90.57	-0.3	-30.0	30.0	19.1	10.85	2.764	
2,100.0	2,100.0	2,100.4	2,100.4	7.9	4.0	-90.57	-0.3	-30.0	30.0	18.8	11.21	2.675	
2,200.0	2,200.0	2,200.4	2,200.4	8.2	4.1	-90.57	-0.3	-30.0	30.0	18.4	11.58	2.591	
2,300.0	2,300.0	2,300.4	2,300.4	8.6	4.2	-90.57	-0.3	-30.0	30.0	18.1	11.94	2.512	
2,400.0	2,400.0	2,400.4	2,400.4	8.9	4.3	-90.57	-0.3	-30.0	30.0	17.7	12.31	2.436	
2,416.5	2,416.5	2,416.9	2,416.9	9.0	4.3	-90.57	-0.3	-30.0	30.0	17.6	12.37	2.424	CC
2,500.0	2,500.0	2,500.4	2,500.4	9.2	4.4	-90.57	-0.3	-30.0	30.0	17.3	12.69	2.365	ES
2,600.0	2,600.0	2,600.0	2,600.0	9.6	4.4	88.14	-1.8	-30.9	30.8	17.8	13.04	2.364	SF
2,700.0	2,699.8	2,699.3	2,699.1	9.9	4.4	89.32	-6.3	-33.5	33.3	19.9	13.38	2.488	
2,770.0	2,769.6	2,768.8	2,768.4	10.1	4.4	90.44	-11.2	-36.3	36.0	22.4	13.62	2.643	
2,800.0	2,799.5	2,798.7	2,798.2	10.2	4.4	90.82	-13.7	-37.8	37.4	23.7	13.73	2.724	
2,900.0	2,899.0	2,898.6	2,897.6	10.5	4.4	91.81	-22.2	-42.7	42.1	28.0	14.09	2.986	
3,000.0	2,998.6	2,998.5	2,997.0	10.8	4.3	92.59	-30.6	-47.6	46.8	32.3	14.45	3.235	
3,100.0	3,098.1	3,098.4	3,096.4	11.1	4.3	93.24	-39.1	-52.5	51.4	36.6	14.82	3.471	
3,200.0	3,197.7	3,198.3	3,195.8	11.4	4.3	93.77	-47.6	-57.4	56.1	40.9	15.20	3.695	
3,300.0	3,297.2	3,298.2	3,295.2	11.8	4.3	94.22	-56.0	-62.3	60.8	45.3	15.57	3.907	
3,400.0	3,396.8	3,398.0	3,394.6	12.1	4.3	94.61	-64.5	-67.2	65.5	49.6	15.95	4.108	
3,500.0	3,496.4	3,497.9	3,494.0	12.4	4.3	94.95	-72.9	-72.1	70.3	53.9	16.34	4.299	
3,600.0	3,595.9	3,597.8	3,593.4	12.8	4.3	95.24	-81.4	-77.0	75.0	58.2	16.73	4.481	
3,700.0	3,695.5	3,697.7	3,692.9	13.1	4.4	95.50	-89.9	-81.9	79.7	62.6	17.12	4.654	
3,800.0	3,795.0	3,797.6	3,792.3	13.4	4.4	95.73	-98.3	-86.9	84.4	66.9	17.52	4.818	
3,900.0	3,894.6	3,897.5	3,891.7	13.8	4.4	95.94	-106.8	-91.8	89.1	71.2	17.91	4.974	
4,000.0	3,994.1	3,997.4	3,991.1	14.1	4.4	96.12	-115.2	-96.7	93.8	75.5	18.31	5.122	
4,100.0	4,093.7	4,097.3	4,090.5	14.4	4.5	96.29	-123.7	-101.6	98.5	79.8	18.72	5.264	
4,200.0	4,193.3	4,197.2	4,189.9	14.8	4.5	96.44	-132.2	-106.5	103.2	84.1	19.12	5.399	
4,300.0	4,292.8	4,297.0	4,289.3	15.1	4.5	96.58	-140.6	-111.4	108.0	88.4	19.53	5.527	
4,400.0	4,392.4	4,396.9	4,388.7	15.5	4.6	96.71	-149.1	-116.3	112.7	92.7	19.94	5.650	
4,500.0	4,491.9	4,496.8	4,488.1	15.8	4.6	96.83	-157.6	-121.2	117.4	97.0	20.36	5.767	
4,600.0	4,591.5	4,596.7	4,587.5	16.2	4.7	96.93	-166.0	-126.1	122.1	101.3	20.77	5.879	
4,700.0	4,691.0	4,696.6	4,686.9	16.5	4.8	97.03	-174.5	-131.0	126.8	105.6	21.19	5.985	
4,800.0	4,790.6	4,796.5	4,786.3	16.9	4.8	97.13	-182.9	-135.9	131.5	109.9	21.61	6.087	
4,900.0	4,890.1	4,896.4	4,885.8	17.2	4.9	97.21	-191.4	-140.8	136.3	114.2	22.03	6.185	
5,000.0	4,989.7	4,996.3	4,985.2	17.5	4.9	97.29	-199.9	-145.7	141.0	118.5	22.46	6.278	
5,100.0	5,089.3	5,096.1	5,084.6	17.9	5.0	97.37	-208.3	-150.7	145.7	122.8	22.88	6.368	
5,200.0	5,188.8	5,196.0	5,184.0	18.2	5.1	97.44	-216.8	-155.6	150.4	127.1	23.31	6.453	
5,300.0	5,288.4	5,295.9	5,283.4	18.6	5.2	97.51	-225.2	-160.5	155.1	131.4	23.74	6.535	
5,400.0	5,387.9	5,395.8	5,382.8	19.0	5.2	97.57	-233.7	-165.4	159.9	135.7	24.17	6.614	
5,500.0	5,487.5	5,495.7	5,482.2	19.3	5.3	97.63	-242.2	-170.3	164.6	140.0	24.60	6.689	
5,600.0	5,587.0	5,595.6	5,581.6	19.7	5.4	97.68	-250.6	-175.2	169.3	144.3	25.04	6.762	
5,700.0	5,686.6	5,695.5	5,681.0	20.0	5.5	97.73	-259.1	-180.1	174.0	148.6	25.48	6.831	
5,800.0	5,786.2	5,795.4	5,780.4	20.4	5.6	97.78	-267.6	-185.0	178.7	152.8	25.91	6.898	
5,900.0	5,885.7	5,895.3	5,879.8	20.7	5.6	97.83	-276.0	-189.9	183.5	157.1	26.35	6.962	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well AZORES FED COM #705H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Reference Site:	AZORES FEDERAL PROJECT (BULLDOG 2432)	**MD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	AZORES FED COM #705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	3.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	edm
Reference Design:	PWP1	**Offset TVD Reference:**	Offset Datum

Offset Design AZORES FEDERAL PROJECT (BULLDOG 2432) - AZORES FED COM #706H - OWB - PWP1 — **Offset Site Error:** 0.0 usft

Survey Program: 0-Standard Keeper 104, 11494-MWD+IFR1+FDIR — **Offset Well Error:** 3.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
6,000.0	5,985.3	5,995.1	5,979.2	21.1	5.7	97.88	-284.5	-194.8	188.2	161.4	26.79	7.023	
6,100.0	6,084.8	6,095.0	6,078.7	21.4	5.8	97.92	-292.9	-199.7	192.9	165.7	27.24	7.083	
6,200.0	6,184.4	6,194.9	6,178.1	21.8	5.9	97.96	-301.4	-204.6	197.6	169.9	27.68	7.140	
6,300.0	6,283.9	6,294.8	6,277.5	22.1	6.0	98.00	-309.9	-209.5	202.4	174.2	28.13	7.194	
6,400.0	6,383.5	6,394.7	6,376.9	22.5	6.1	98.04	-318.3	-214.5	207.1	178.5	28.57	7.247	
6,500.0	6,483.0	6,494.6	6,476.3	22.9	6.2	98.07	-326.8	-219.4	211.8	182.8	29.02	7.298	
6,600.0	6,582.6	6,594.5	6,575.7	23.2	6.3	98.10	-335.2	-224.3	216.5	187.0	29.47	7.347	
6,700.0	6,682.2	6,694.4	6,675.1	23.6	6.4	98.14	-343.7	-229.2	221.2	191.3	29.92	7.394	
6,800.0	6,781.7	6,794.3	6,774.5	23.9	6.5	98.17	-352.2	-234.1	226.0	195.6	30.37	7.439	
6,900.0	6,881.3	6,894.1	6,873.9	24.3	6.6	98.20	-360.6	-239.0	230.7	199.9	30.83	7.483	
7,000.0	6,980.8	6,994.0	6,973.3	24.6	6.7	98.23	-369.1	-243.9	235.4	204.1	31.28	7.525	
7,100.0	7,080.4	7,093.9	7,072.7	25.0	6.8	98.25	-377.6	-248.8	240.1	208.4	31.74	7.566	
7,200.0	7,179.9	7,193.8	7,172.1	25.4	6.9	98.28	-386.0	-253.7	244.8	212.7	32.20	7.605	
7,300.0	7,279.5	7,293.7	7,271.6	25.7	7.0	98.30	-394.5	-258.6	249.6	216.9	32.65	7.643	
7,400.0	7,379.1	7,393.6	7,371.0	26.1	7.1	98.33	-402.9	-263.5	254.3	221.2	33.11	7.680	
7,500.0	7,478.6	7,493.5	7,470.4	26.4	7.2	98.35	-411.4	-268.4	259.0	225.4	33.57	7.715	
7,600.0	7,578.2	7,593.4	7,569.8	26.8	7.3	98.38	-419.9	-273.3	263.7	229.7	34.03	7.749	
7,700.0	7,677.7	7,693.2	7,669.2	27.2	7.4	98.40	-428.3	-278.3	268.5	234.0	34.50	7.782	
7,800.0	7,777.3	7,793.1	7,768.6	27.5	7.5	98.42	-436.8	-283.2	273.2	238.2	34.96	7.814	
7,900.0	7,876.8	7,893.0	7,868.0	27.9	7.6	98.44	-445.2	-288.1	277.9	242.5	35.43	7.845	
8,000.0	7,976.4	7,992.9	7,967.4	28.2	7.7	98.46	-453.7	-293.0	282.6	246.7	35.89	7.874	
8,100.0	8,075.9	8,092.8	8,066.8	28.6	7.8	98.48	-462.2	-297.9	287.3	251.0	36.36	7.903	
8,200.0	8,175.5	8,192.7	8,166.2	29.0	7.9	98.50	-470.6	-302.8	292.1	255.2	36.83	7.931	
8,300.0	8,275.1	8,292.6	8,265.6	29.3	8.0	98.51	-479.1	-307.7	296.8	259.5	37.30	7.958	
8,400.0	8,374.6	8,392.5	8,365.0	29.7	8.2	98.53	-487.6	-312.6	301.5	263.7	37.77	7.984	
8,500.0	8,474.2	8,492.4	8,464.5	30.0	8.3	98.55	-496.0	-317.5	306.2	268.0	38.24	8.009	
8,600.0	8,573.7	8,592.2	8,563.9	30.4	8.4	98.56	-504.5	-322.4	311.0	272.3	38.71	8.033	
8,700.0	8,673.3	8,692.1	8,663.3	30.8	8.5	98.58	-512.9	-327.3	315.7	276.5	39.18	8.057	
8,800.0	8,772.8	8,792.0	8,762.7	31.1	8.6	98.59	-521.4	-332.2	320.4	280.7	39.66	8.080	
8,900.0	8,872.4	8,891.9	8,862.1	31.5	8.7	98.61	-529.9	-337.1	325.1	285.0	40.13	8.102	
9,000.0	8,972.0	8,991.8	8,961.5	31.9	8.8	98.62	-538.3	-342.1	329.8	289.2	40.61	8.123	
9,100.0	9,071.5	9,091.7	9,060.9	32.2	9.0	98.64	-546.8	-347.0	334.6	293.5	41.08	8.144	
9,200.0	9,171.1	9,191.6	9,160.3	32.6	9.1	98.65	-555.2	-351.9	339.3	297.7	41.56	8.164	
9,300.0	9,270.6	9,291.5	9,259.7	32.9	9.2	98.66	-563.7	-356.8	344.0	302.0	42.04	8.183	
9,400.0	9,370.2	9,391.3	9,359.1	33.3	9.3	98.68	-572.2	-361.7	348.7	306.2	42.52	8.202	
9,500.0	9,469.7	9,491.2	9,458.5	33.7	9.4	98.69	-580.6	-366.6	353.5	310.5	43.00	8.221	
9,600.0	9,569.3	9,591.1	9,557.9	34.0	9.6	98.70	-589.1	-371.5	358.2	314.7	43.48	8.238	
9,700.0	9,668.8	9,691.0	9,657.4	34.4	9.7	98.71	-597.6	-376.4	362.9	318.9	43.96	8.255	
9,800.0	9,768.4	9,790.9	9,756.8	34.8	9.8	98.73	-606.0	-381.3	367.6	323.2	44.44	8.272	
9,900.0	9,868.0	9,890.8	9,856.2	35.1	9.9	98.74	-614.5	-386.2	372.4	327.4	44.93	8.288	
10,000.0	9,967.5	9,990.7	9,955.6	35.5	10.0	98.75	-622.9	-391.1	377.1	331.7	45.41	8.304	
10,100.0	10,067.1	10,090.6	10,055.0	35.8	10.2	98.76	-631.4	-396.0	381.8	335.9	45.90	8.319	
10,200.0	10,166.6	10,190.5	10,154.4	36.2	10.3	98.77	-639.9	-400.9	386.5	340.1	46.38	8.333	
10,300.0	10,266.2	10,290.3	10,253.8	36.6	10.4	98.78	-648.3	-405.9	391.2	344.4	46.87	8.348	
10,400.0	10,365.7	10,390.2	10,353.2	36.9	10.5	98.79	-656.8	-410.8	396.0	348.6	47.36	8.361	
10,500.0	10,465.3	10,490.1	10,452.6	37.3	10.7	98.80	-665.2	-415.7	400.7	352.8	47.85	8.375	
10,600.0	10,564.9	10,590.0	10,552.0	37.7	10.8	98.81	-673.7	-420.6	405.4	357.1	48.33	8.388	
10,700.0	10,664.4	10,689.9	10,651.4	38.0	10.9	98.82	-682.2	-425.5	410.1	361.3	48.82	8.400	
10,800.0	10,764.0	10,789.8	10,750.8	38.4	11.0	98.83	-690.6	-430.4	414.9	365.5	49.32	8.412	
10,869.7	10,833.3	10,859.4	10,820.1	38.6	11.1	98.83	-696.5	-433.8	418.1	368.5	49.66	8.421	
10,900.0	10,863.5	10,889.7	10,850.3	38.8	11.2	98.84	-699.1	-435.3	419.6	369.8	49.81	8.424	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well AZORES FED COM #705H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Reference Site:	AZORES FEDERAL PROJECT (BULLDOG 2432)	**MD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	AZORES FED COM #705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	3.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	edm
Reference Design:	PWP1	**Offset TVD Reference:**	Offset Datum

Offset Design AZORES FEDERAL PROJECT (BULLDOG 2432) - AZORES FED COM #706H - OWB - PWP1 — **Offset Site Error:** 0.0 usft

Survey Program: 0-Standard Keeper 104, 11494-MWD+IFR1+FDIR — **Offset Well Error:** 3.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
11,000.0	10,963.2	10,989.6	10,949.7	39.1	11.3	98.71	-707.6	-440.2	424.1	373.8	50.30	8.431	
11,100.0	11,063.0	11,089.4	11,049.0	39.5	11.4	98.34	-716.0	-445.1	428.3	377.5	50.79	8.433	
11,200.0	11,162.9	11,189.2	11,148.4	39.8	11.6	97.76	-724.5	-450.0	432.4	381.1	51.28	8.431	
11,300.0	11,262.9	11,289.0	11,247.6	40.2	11.7	96.95	-732.9	-454.9	436.3	384.5	51.78	8.426	
11,409.6	11,372.5	11,398.2	11,356.3	40.6	11.8	-82.45	-742.2	-460.3	440.4	388.1	52.30	8.421	
11,509.6	11,472.5	11,496.4	11,454.1	40.9	11.9	-83.59	-750.5	-465.1	444.3	391.6	52.69	8.431	
11,525.0	11,487.9	11,506.2	11,463.8	40.9	11.9	-83.25	-751.2	-465.7	445.0	392.3	52.73	8.439	
11,550.0	11,512.8	11,525.0	11,482.5	41.0	11.9	-83.36	-752.1	-467.0	446.5	393.7	52.80	8.456	
11,575.0	11,537.7	11,537.8	11,495.3	41.1	11.9	-83.38	-752.3	-468.2	448.3	395.4	52.86	8.480	
11,600.0	11,562.3	11,550.0	11,507.4	41.2	11.9	-83.36	-752.2	-469.4	450.5	397.6	52.93	8.511	
11,625.0	11,586.7	11,569.3	11,526.6	41.3	11.9	-83.52	-751.6	-471.7	453.0	400.0	53.01	8.547	
11,650.0	11,610.8	11,585.0	11,542.1	41.3	11.9	-83.59	-750.6	-473.9	456.0	402.9	53.08	8.590	
11,675.0	11,634.6	11,600.0	11,556.9	41.4	11.9	-83.64	-749.2	-476.2	459.3	406.1	53.16	8.640	
11,700.0	11,657.9	11,616.1	11,572.6	41.5	11.9	-83.72	-747.3	-479.0	463.0	409.8	53.23	8.698	
11,725.0	11,680.6	11,631.6	11,587.7	41.5	11.9	-83.78	-745.0	-481.9	467.1	413.7	53.30	8.762	
11,750.0	11,702.8	11,650.0	11,605.4	41.6	11.9	-83.94	-741.8	-485.6	471.5	418.1	53.38	8.834	
11,775.0	11,724.4	11,662.3	11,617.1	41.7	11.9	-83.86	-739.3	-488.3	476.3	422.9	53.45	8.913	
11,800.0	11,745.3	11,675.0	11,629.1	41.7	12.0	-83.76	-736.4	-491.3	481.6	428.1	53.51	8.999	
11,825.0	11,765.4	11,692.7	11,645.7	41.8	12.0	-83.88	-732.0	-495.7	487.2	433.6	53.58	9.093	
11,850.0	11,784.8	11,707.8	11,659.6	41.9	12.0	-83.86	-727.8	-499.6	493.1	439.5	53.64	9.194	
11,875.0	11,803.2	11,725.0	11,675.3	41.9	12.0	-83.92	-722.5	-504.4	499.5	445.8	53.69	9.303	
11,900.0	11,820.8	11,737.7	11,686.7	42.0	12.0	-83.75	-718.3	-508.1	506.2	452.5	53.74	9.419	
11,925.0	11,837.4	11,750.0	11,697.6	42.0	12.0	-83.51	-713.9	-511.8	513.3	459.6	53.79	9.543	
11,950.0	11,853.0	11,767.3	11,712.6	42.1	12.0	-83.53	-707.4	-517.3	520.8	467.0	53.83	9.674	
11,975.0	11,867.6	11,781.9	11,725.2	42.1	12.0	-83.38	-701.5	-522.1	528.6	474.8	53.87	9.813	
12,000.0	11,881.1	11,796.5	11,737.4	42.2	12.0	-83.20	-695.4	-527.1	536.8	482.9	53.91	9.958	
12,025.0	11,893.5	11,811.0	11,749.3	42.2	12.0	-82.98	-688.9	-532.2	545.3	491.4	53.94	10.111	
12,050.0	11,904.7	11,825.0	11,760.5	42.2	12.0	-82.71	-682.3	-537.3	554.2	500.2	53.96	10.270	
12,075.0	11,914.7	11,839.8	11,772.2	42.3	12.1	-82.46	-675.0	-542.9	563.4	509.4	53.98	10.436	
12,100.0	11,923.5	11,854.2	11,783.2	42.3	12.1	-82.15	-667.7	-548.4	572.9	518.9	54.00	10.608	
12,125.0	11,931.1	11,868.4	11,793.9	42.3	12.1	-81.81	-660.1	-554.1	582.7	528.6	54.02	10.787	
12,150.0	11,937.4	11,882.7	11,804.2	42.4	12.1	-81.43	-652.3	-559.9	592.7	538.7	54.03	10.971	
12,175.0	11,942.5	11,896.8	11,814.2	42.4	12.1	-81.03	-644.2	-565.8	603.1	549.1	54.04	11.160	
12,200.0	11,946.2	11,911.0	11,824.0	42.4	12.1	-80.60	-635.8	-571.9	613.7	559.7	54.05	11.354	
12,225.0	11,948.7	11,925.0	11,833.3	42.4	12.1	-80.13	-627.3	-577.9	624.6	570.5	54.06	11.553	
12,250.0	11,949.9	11,939.3	11,842.5	42.4	12.2	-79.66	-618.4	-584.3	635.7	581.6	54.07	11.755	
12,259.6	11,950.0	11,944.8	11,845.9	42.4	12.2	-79.46	-614.9	-586.8	640.0	585.9	54.08	11.835	
12,300.0	11,950.0	11,968.7	11,860.3	42.5	12.2	-81.06	-599.2	-597.7	658.7	604.6	54.11	12.173	
12,400.0	11,950.0	12,037.1	11,896.0	42.5	12.3	-84.87	-551.1	-630.5	708.5	654.2	54.28	13.053	
12,500.0	11,950.0	12,119.3	11,927.5	42.6	12.5	-87.97	-487.7	-672.0	760.8	706.2	54.57	13.943	
12,600.0	11,950.0	12,213.5	11,947.0	42.7	12.7	-89.72	-409.9	-721.1	813.3	758.4	54.96	14.799	
12,700.0	11,950.0	12,368.1	11,950.0	42.8	13.2	-89.97	-276.1	-798.3	863.3	807.6	55.71	15.497	
12,800.0	11,950.0	12,609.9	11,950.0	43.0	14.2	-89.97	-52.7	-889.9	900.8	843.8	57.03	15.796	
12,900.0	11,950.0	12,879.3	11,950.0	43.1	15.5	-89.97	210.4	-946.2	921.2	862.8	58.42	15.769	
13,000.0	11,950.0	13,081.1	11,950.0	43.3	16.5	-89.97	411.8	-956.3	924.3	864.9	59.41	15.559	
13,100.0	11,950.0	13,181.1	11,950.0	43.5	17.1	-89.97	511.8	-956.9	924.3	864.2	60.13	15.371	
13,200.0	11,950.0	13,281.1	11,950.0	43.7	17.6	-89.97	611.8	-957.6	924.3	863.4	60.90	15.178	
13,300.0	11,950.0	13,381.1	11,950.0	43.9	18.2	-89.97	711.8	-958.2	924.3	862.6	61.70	14.979	
13,400.0	11,950.0	13,481.1	11,950.0	44.1	18.8	-89.97	811.8	-958.9	924.3	861.7	62.55	14.777	
13,500.0	11,950.0	13,581.1	11,950.0	44.4	19.4	-89.97	911.8	-959.5	924.3	860.9	63.43	14.572	
13,600.0	11,950.0	13,681.1	11,950.0	44.6	20.0	-89.97	1,011.8	-960.1	924.3	859.9	64.34	14.366	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well AZORES FED COM #705H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Reference Site:	AZORES FEDERAL PROJECT (BULLDOG 2432)	**MD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	AZORES FED COM #705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	3.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	edm
Reference Design:	PWP1	**Offset TVD Reference:**	Offset Datum

Offset Design AZORES FEDERAL PROJECT (BULLDOG 2432) - AZORES FED COM #706H - OWB - PWP1 — **Offset Site Error:** 0.0 usft

Survey Program: 0-Standard Keeper 104, 11494-MWD+IFR1+FDIR — **Offset Well Error:** 3.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
13,700.0	11,950.0	13,781.1	11,950.0	44.9	20.7	-89.97	1,111.8	-960.8	924.3	859.0	65.28	14.158	
13,800.0	11,950.0	13,881.1	11,950.0	45.2	21.3	-89.97	1,211.8	-961.4	924.3	858.0	66.25	13.950	
13,900.0	11,950.0	13,981.1	11,950.0	45.5	22.0	-89.97	1,311.8	-962.1	924.2	857.0	67.25	13.743	
14,000.0	11,950.0	14,081.1	11,950.0	45.9	22.7	-89.97	1,411.8	-962.7	924.2	856.0	68.28	13.537	
14,100.0	11,950.0	14,181.1	11,950.0	46.2	23.4	-89.97	1,511.8	-963.4	924.2	854.9	69.33	13.331	
14,200.0	11,950.0	14,281.1	11,950.0	46.5	24.1	-89.97	1,611.8	-964.0	924.2	853.8	70.40	13.128	
14,300.0	11,950.0	14,381.1	11,950.0	46.9	24.9	-89.97	1,711.8	-964.7	924.2	852.7	71.50	12.927	
14,400.0	11,950.0	14,481.1	11,950.0	47.3	25.6	-89.97	1,811.8	-965.3	924.2	851.6	72.61	12.728	
14,500.0	11,950.0	14,581.1	11,950.0	47.7	26.3	-89.97	1,911.8	-966.0	924.2	850.4	73.75	12.532	
14,600.0	11,950.0	14,681.1	11,950.0	48.1	27.1	-89.97	2,011.8	-966.6	924.2	849.3	74.90	12.338	
14,700.0	11,950.0	14,781.1	11,950.0	48.5	27.8	-89.97	2,111.8	-967.3	924.2	848.1	76.08	12.148	
14,800.0	11,950.0	14,881.1	11,950.0	48.9	28.6	-89.97	2,211.8	-967.9	924.2	846.9	77.27	11.960	
14,900.0	11,950.0	14,981.1	11,950.0	49.3	29.4	-89.97	2,311.8	-968.5	924.2	845.7	78.48	11.776	
15,000.0	11,950.0	15,081.1	11,950.0	49.8	30.1	-89.97	2,411.8	-969.2	924.2	844.5	79.70	11.595	
15,100.0	11,950.0	15,181.1	11,950.0	50.2	30.9	-89.97	2,511.8	-969.8	924.1	843.2	80.94	11.418	
15,200.0	11,950.0	15,281.1	11,950.0	50.7	31.7	-89.97	2,611.8	-970.5	924.1	841.9	82.19	11.243	
15,300.0	11,950.0	15,381.1	11,950.0	51.2	32.5	-89.97	2,711.8	-971.1	924.1	840.7	83.46	11.072	
15,400.0	11,950.0	15,481.1	11,950.0	51.7	33.3	-89.97	2,811.8	-971.8	924.1	839.4	84.74	10.905	
15,500.0	11,950.0	15,581.1	11,950.0	52.2	34.0	-89.97	2,911.8	-972.4	924.1	838.1	86.04	10.741	
15,600.0	11,950.0	15,681.1	11,950.0	52.7	34.8	-89.97	3,011.8	-973.1	924.1	836.8	87.35	10.580	
15,700.0	11,950.0	15,781.1	11,950.0	53.2	35.6	-89.98	3,111.8	-973.7	924.1	835.4	88.67	10.422	
15,800.0	11,950.0	15,881.1	11,950.0	53.7	36.4	-89.98	3,211.8	-974.4	924.1	834.1	90.00	10.268	
15,900.0	11,950.0	15,981.1	11,950.0	54.3	37.2	-89.98	3,311.8	-975.0	924.1	832.7	91.34	10.117	
16,000.0	11,950.0	16,081.1	11,950.0	54.8	38.0	-89.98	3,411.8	-975.7	924.1	831.4	92.69	9.969	
16,100.0	11,950.0	16,181.1	11,950.0	55.4	38.9	-89.98	3,511.8	-976.3	924.1	830.0	94.06	9.825	
16,200.0	11,950.0	16,281.1	11,950.0	55.9	39.7	-89.98	3,611.8	-976.9	924.1	828.6	95.43	9.683	
16,300.0	11,950.0	16,381.1	11,950.0	56.5	40.5	-89.98	3,711.8	-977.6	924.0	827.2	96.81	9.545	
16,400.0	11,950.0	16,481.1	11,950.0	57.1	41.3	-89.98	3,811.8	-978.2	924.0	825.8	98.20	9.409	
16,500.0	11,950.0	16,581.1	11,950.0	57.6	42.1	-89.98	3,911.8	-978.9	924.0	824.4	99.60	9.277	
16,600.0	11,950.0	16,681.1	11,950.0	58.2	42.9	-89.98	4,011.7	-979.5	924.0	823.0	101.01	9.147	
16,700.0	11,950.0	16,781.1	11,950.0	58.8	43.8	-89.98	4,111.7	-980.2	924.0	821.6	102.43	9.021	
16,800.0	11,950.0	16,881.1	11,950.0	59.4	44.6	-89.98	4,211.7	-980.8	924.0	820.2	103.86	8.897	
16,900.0	11,950.0	16,981.1	11,950.0	60.0	45.4	-89.98	4,311.7	-981.5	924.0	818.7	105.29	8.776	
16,998.7	11,950.0	17,079.8	11,950.0	60.6	46.2	-89.98	4,410.5	-982.1	924.0	817.3	106.71	8.659	
17,007.2	11,950.0	17,087.1	11,950.0	60.7	46.3	-89.98	4,417.7	-982.2	924.0	817.2	106.83	8.649	
17,014.3	11,950.0	17,093.1	11,950.0	60.7	46.3	-89.98	4,423.7	-982.2	924.0	817.1	106.93	8.641	
17,100.0	11,950.0	17,178.7	11,950.0	61.3	47.0	-89.98	4,509.4	-983.0	924.0	815.8	108.17	8.542	
17,200.0	11,950.0	17,278.7	11,950.0	61.9	47.9	-89.98	4,609.4	-983.9	924.0	814.4	109.62	8.429	
17,300.0	11,950.0	17,378.7	11,950.0	62.5	48.7	-89.98	4,709.4	-984.8	924.0	812.9	111.09	8.318	
17,400.0	11,950.0	17,478.7	11,950.0	63.2	49.5	-89.98	4,809.3	-985.7	924.0	811.4	112.56	8.209	
17,500.0	11,950.0	17,578.7	11,950.0	63.8	50.3	-89.98	4,909.3	-986.6	924.0	810.0	114.03	8.103	
17,600.0	11,950.0	17,678.7	11,950.0	64.4	51.2	-89.98	5,009.3	-987.5	924.0	808.5	115.51	7.999	
17,700.0	11,950.0	17,778.7	11,950.0	65.1	52.0	-89.98	5,109.3	-988.4	924.0	807.0	117.00	7.897	
17,800.0	11,950.0	17,878.7	11,950.0	65.7	52.8	-89.98	5,209.3	-989.3	924.0	805.5	118.49	7.798	
17,900.0	11,950.0	17,978.7	11,950.0	66.4	53.7	-89.98	5,309.3	-990.2	924.0	804.0	119.99	7.701	
18,000.0	11,950.0	18,078.7	11,950.0	67.1	54.5	-89.98	5,409.3	-991.1	924.0	802.5	121.50	7.605	
18,100.0	11,950.0	18,178.7	11,950.0	67.7	55.4	-89.98	5,509.3	-992.0	924.0	801.0	123.01	7.512	
18,200.0	11,950.0	18,278.7	11,950.0	68.4	56.2	-89.98	5,609.3	-992.9	924.0	799.5	124.52	7.421	
18,300.0	11,950.0	18,378.7	11,950.0	69.1	57.0	-89.98	5,709.3	-993.8	924.0	798.0	126.04	7.331	
18,400.0	11,950.0	18,478.7	11,950.0	69.8	57.9	-89.98	5,809.3	-994.7	924.0	796.5	127.56	7.244	
18,500.0	11,950.0	18,578.7	11,950.0	70.5	58.7	-89.98	5,909.3	-995.6	924.0	794.9	129.09	7.158	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well AZORES FED COM #705H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Reference Site:	AZORES FEDERAL PROJECT (BULLDOG 2432)	**MD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	AZORES FED COM #705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	3.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	edm
Reference Design:	PWP1	**Offset TVD Reference:**	Offset Datum

Offset Design AZORES FEDERAL PROJECT (BULLDOG 2432) - AZORES FED COM #706H - OWB - PWP1 — **Offset Site Error:** 0.0 usft

Survey Program: 0-Standard Keeper 104, 11494-MWD+IFR1+FDIR — **Offset Well Error:** 3.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
18,600.0	11,950.0	18,678.7	11,950.0	71.2	59.6	-89.98	6,009.3	-996.5	924.0	793.4	130.62	7.074	
18,700.0	11,950.0	18,778.7	11,950.0	71.9	60.4	-89.98	6,109.3	-997.4	924.0	791.9	132.16	6.992	
18,800.0	11,950.0	18,878.7	11,950.0	72.6	61.2	-89.98	6,209.3	-998.3	924.0	790.3	133.70	6.911	
18,900.0	11,950.0	18,978.7	11,950.0	73.3	62.1	-89.98	6,309.3	-999.2	924.0	788.8	135.25	6.832	
19,000.0	11,950.0	19,078.7	11,950.0	74.0	62.9	-89.98	6,409.3	-1,000.1	924.0	787.2	136.80	6.755	
19,100.0	11,950.0	19,178.7	11,950.0	74.7	63.8	-89.98	6,509.3	-1,001.0	924.0	785.7	138.35	6.679	
19,200.0	11,950.0	19,278.7	11,950.0	75.4	64.6	-89.98	6,609.3	-1,001.9	924.0	784.1	139.91	6.605	
19,300.0	11,950.0	19,378.7	11,950.0	76.1	65.5	-89.98	6,709.3	-1,002.8	924.0	782.6	141.47	6.532	
19,400.0	11,950.0	19,478.7	11,950.0	76.8	66.3	-89.98	6,809.3	-1,003.8	924.0	781.0	143.03	6.460	
19,500.0	11,950.0	19,578.7	11,950.0	77.5	67.1	-89.98	6,909.3	-1,004.7	924.0	779.4	144.60	6.390	
19,600.0	11,950.0	19,678.7	11,950.0	78.3	68.0	-89.98	7,009.3	-1,005.6	924.0	777.9	146.17	6.322	
19,700.0	11,950.0	19,778.7	11,950.0	79.0	68.8	-89.98	7,109.3	-1,006.5	924.0	776.3	147.74	6.254	
19,800.0	11,950.0	19,878.7	11,950.0	79.7	69.7	-89.98	7,209.3	-1,007.4	924.0	774.7	149.32	6.188	
19,900.0	11,950.0	19,978.7	11,950.0	80.4	70.5	-89.98	7,309.2	-1,008.3	924.0	773.1	150.90	6.124	
20,000.0	11,950.0	20,078.7	11,950.0	81.2	71.4	-89.98	7,409.2	-1,009.2	924.0	771.6	152.48	6.060	
20,100.0	11,950.0	20,178.7	11,950.0	81.9	72.2	-89.98	7,509.2	-1,010.1	924.0	770.0	154.06	5.998	
20,200.0	11,950.0	20,278.7	11,950.0	82.7	73.1	-89.98	7,609.2	-1,011.0	924.0	768.4	155.65	5.937	
20,300.0	11,950.0	20,378.7	11,950.0	83.4	73.9	-89.98	7,709.2	-1,011.9	924.0	766.8	157.24	5.877	
20,400.0	11,950.0	20,478.7	11,950.0	84.1	74.8	-89.98	7,809.2	-1,012.8	924.0	765.2	158.83	5.818	
20,500.0	11,950.0	20,578.7	11,950.0	84.9	75.6	-89.98	7,909.2	-1,013.7	924.0	763.6	160.43	5.760	
20,600.0	11,950.0	20,678.7	11,950.0	85.6	76.5	-89.98	8,009.2	-1,014.6	924.0	762.0	162.03	5.703	
20,700.0	11,950.0	20,778.7	11,950.0	86.4	77.3	-89.98	8,109.2	-1,015.5	924.0	760.4	163.63	5.647	
20,800.0	11,950.0	20,878.7	11,950.0	87.1	78.2	-89.98	8,209.2	-1,016.4	924.0	758.8	165.23	5.592	
20,900.0	11,950.0	20,978.7	11,950.0	87.9	79.0	-89.98	8,309.2	-1,017.3	924.0	757.2	166.84	5.539	
21,000.0	11,950.0	21,078.7	11,950.0	88.6	79.9	-89.98	8,409.2	-1,018.2	924.0	755.6	168.44	5.486	
21,100.0	11,950.0	21,178.7	11,950.0	89.4	80.7	-89.98	8,509.2	-1,019.1	924.0	754.0	170.05	5.434	
21,200.0	11,950.0	21,278.7	11,950.0	90.2	81.6	-89.98	8,609.2	-1,020.0	924.0	752.4	171.66	5.383	
21,300.0	11,950.0	21,378.7	11,950.0	90.9	82.4	-89.98	8,709.2	-1,020.9	924.1	750.8	173.28	5.333	
21,400.0	11,950.0	21,478.7	11,950.0	91.7	83.3	-89.98	8,809.2	-1,021.8	924.1	749.2	174.89	5.283	
21,500.0	11,950.0	21,578.7	11,950.0	92.5	84.1	-89.98	8,909.2	-1,022.7	924.1	747.5	176.51	5.235	
21,600.0	11,950.0	21,678.7	11,950.0	93.2	85.0	-89.98	9,009.2	-1,023.6	924.1	745.9	178.13	5.187	
21,700.0	11,950.0	21,778.7	11,950.0	94.0	85.8	-89.98	9,109.2	-1,024.5	924.1	744.3	179.75	5.141	
21,800.0	11,950.0	21,878.7	11,950.0	94.8	86.7	-89.98	9,209.2	-1,025.4	924.1	742.7	181.38	5.095	
21,900.0	11,950.0	21,978.7	11,950.0	95.5	87.5	-89.98	9,309.2	-1,026.3	924.1	741.1	183.00	5.049	
22,000.0	11,950.0	22,078.7	11,950.0	96.3	88.4	-89.98	9,409.2	-1,027.2	924.1	739.4	184.63	5.005	
22,100.0	11,950.0	22,178.7	11,950.0	97.1	89.2	-89.98	9,509.2	-1,028.1	924.1	737.8	186.26	4.961	
22,200.0	11,950.0	22,278.7	11,950.0	97.9	90.1	-89.98	9,609.2	-1,029.0	924.1	736.2	187.89	4.918	
22,203.7	11,950.0	22,282.4	11,950.0	97.9	90.1	-89.98	9,612.8	-1,029.1	924.1	736.1	187.94	4.917	
22,242.1	11,950.0	22,318.2	11,950.0	98.2	90.4	-89.98	9,648.6	-1,029.4	924.1	735.5	188.56	4.901	
22,242.6	11,950.0	22,318.2	11,950.0	98.2	90.4	-89.98	9,648.6	-1,029.4	924.1	735.5	188.56	4.901	

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well AZORES FED COM #705H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Reference Site:	AZORES FEDERAL PROJECT (BULLDOG 2432)	**MD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	AZORES FED COM #705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	3.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	edm
Reference Design:	PWP1	**Offset TVD Reference:**	Offset Datum

Offset Design AZORES FEDERAL PROJECT (BULLDOG 2432) - AZORES FEDERAL #12H - OWB - ACTUAL WELL — **Offset Site Error:** 0.0 usft

Survey Program: 100-PHX_SPT_GTD, 872-MWD — **Offset Well Error:** 3.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	3.0	3.0	148.01	-640.5	400.1	755.2				
100.0	100.0	89.3	89.3	3.0	3.0	148.04	-640.9	399.9	755.4	749.4	6.01	125.791	
200.0	200.0	187.9	187.9	3.0	3.0	148.14	-642.1	399.0	756.0	749.9	6.07	124.479	
300.0	300.0	291.0	291.0	3.1	3.1	148.29	-643.5	397.6	756.5	750.2	6.23	121.498	
400.0	400.0	393.8	393.7	3.2	3.3	148.40	-644.4	396.4	756.5	750.1	6.45	117.217	
500.0	500.0	503.6	503.6	3.4	3.4	148.51	-644.4	394.8	755.8	749.0	6.76	111.818	
600.0	600.0	606.7	606.6	3.6	3.6	148.62	-643.7	392.6	754.1	747.0	7.12	105.941	
700.0	700.0	708.3	708.2	3.8	3.9	148.75	-643.0	390.2	752.3	744.8	7.53	99.885	
800.0	800.0	811.7	811.5	4.0	4.1	148.95	-642.0	386.6	749.6	741.7	7.95	94.311	
879.0	879.0	872.0	871.8	4.2	4.1	149.02	-641.3	385.0	748.0	739.8	8.24	90.741	CC, ES
900.0	900.0	872.0	871.8	4.2	4.1	149.02	-641.3	385.0	748.3	740.0	8.29	90.214	
1,000.0	1,000.0	872.0	871.8	4.5	4.1	149.02	-641.3	385.0	757.7	749.3	8.49	89.260	SF
1,100.0	1,100.0	872.0	871.8	4.8	4.1	149.02	-641.3	385.0	780.0	771.4	8.60	90.720	
1,200.0	1,200.0	872.0	871.8	5.1	4.1	149.02	-641.3	385.0	814.0	805.4	8.63	94.326	
1,300.0	1,300.0	872.0	871.8	5.4	4.1	149.02	-641.3	385.0	858.4	849.8	8.60	99.777	
1,400.0	1,400.0	872.0	871.8	5.7	4.1	149.02	-641.3	385.0	911.6	903.0	8.54	106.766	
1,500.0	1,500.0	872.0	871.8	6.0	4.1	149.02	-641.3	385.0	972.2	963.8	8.45	115.004	
1,600.0	1,600.0	872.0	871.8	6.3	4.1	149.02	-641.3	385.0	1,038.9	1,030.6	8.36	124.229	
1,700.0	1,700.0	872.0	871.8	6.6	4.1	149.02	-641.3	385.0	1,110.7	1,102.4	8.28	134.210	
1,800.0	1,800.0	872.0	871.8	6.9	4.1	149.02	-641.3	385.0	1,186.5	1,178.3	8.20	144.751	
1,900.0	1,900.0	872.0	871.8	7.2	4.1	149.02	-641.3	385.0	1,265.7	1,257.6	8.13	155.686	
2,000.0	2,000.0	872.0	871.8	7.6	4.1	149.02	-641.3	385.0	1,347.7	1,339.6	8.08	166.875	
2,100.0	2,100.0	872.0	871.8	7.9	4.1	149.02	-641.3	385.0	1,431.9	1,423.9	8.04	178.205	
2,200.0	2,200.0	872.0	871.8	8.2	4.1	149.02	-641.3	385.0	1,518.1	1,510.1	8.01	189.579	
2,300.0	2,300.0	872.0	871.8	8.6	4.1	149.02	-641.3	385.0	1,605.9	1,597.9	7.99	200.921	
2,400.0	2,400.0	872.0	871.8	8.9	4.1	149.02	-641.3	385.0	1,695.0	1,687.0	7.99	212.166	
2,500.0	2,500.0	872.0	871.8	9.2	4.1	149.02	-641.3	385.0	1,785.3	1,777.3	8.00	223.261	
2,600.0	2,600.0	872.0	871.8	9.6	4.1	-30.45	-641.3	385.0	1,875.9	1,867.9	8.00	234.471	
2,700.0	2,699.8	872.0	871.8	9.9	4.1	-28.38	-641.3	385.0	1,966.3	1,958.3	8.00	245.736	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well AZORES FED COM #705H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Reference Site:	AZORES FEDERAL PROJECT (BULLDOG 2432)	**MD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	AZORES FED COM #705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	3.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	edm
Reference Design:	PWP1	**Offset TVD Reference:**	Offset Datum

Offset Design AZORES FEDERAL PROJECT (BULLDOG 2432) - AZORES FEDERAL #3H - OWB - ACTUAL WELLP — **Offset Site Error:** 0.0 usft

Survey Program: 100- VES GyroFlex, 10100-MWD — **Offset Well Error:** 2.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	3.0	2.0	133.20	-657.1	699.8	960.1				
100.0	100.0	81.8	81.8	3.0	2.0	133.21	-657.2	699.7	960.0	955.0	5.00	191.879	
200.0	200.0	184.5	184.5	3.0	2.0	133.23	-657.5	699.5	960.0	954.9	5.04	190.398	
300.0	300.0	296.3	296.3	3.1	2.0	133.22	-656.9	698.9	959.3	954.1	5.13	186.963	
400.0	400.0	398.7	398.7	3.2	2.0	133.20	-655.6	698.0	957.7	952.4	5.27	181.757	
500.0	500.0	500.1	500.0	3.4	2.1	133.16	-653.9	697.2	956.0	950.5	5.45	175.340	
600.0	600.0	601.9	601.8	3.6	2.1	133.11	-651.9	696.4	954.1	948.4	5.67	168.153	
700.0	700.0	704.3	704.2	3.8	2.2	133.05	-649.7	695.5	952.0	946.0	5.93	160.513	
800.0	800.0	806.7	806.6	4.0	2.2	132.97	-647.0	694.6	949.6	943.4	6.22	152.760	
900.0	900.0	906.6	906.4	4.2	2.3	132.85	-643.9	694.1	947.1	940.6	6.52	145.232	
1,000.0	1,000.0	1,013.7	1,013.5	4.5	2.4	132.73	-640.4	693.2	944.2	937.3	6.85	137.761	
1,100.0	1,100.0	1,115.4	1,115.1	4.8	2.5	132.65	-637.1	691.6	940.8	933.6	7.21	130.514	
1,200.0	1,200.0	1,211.8	1,211.4	5.1	2.5	132.62	-634.5	689.6	937.5	930.0	7.58	123.694	
1,300.0	1,300.0	1,304.4	1,304.0	5.4	2.6	132.62	-632.8	687.8	934.9	926.9	7.96	117.396	
1,400.0	1,400.0	1,404.8	1,404.4	5.7	2.7	132.62	-631.3	686.1	932.6	924.2	8.37	111.464	
1,500.0	1,500.0	1,508.2	1,507.8	6.0	2.8	132.65	-629.9	683.9	930.1	921.3	8.78	105.894	
1,600.0	1,600.0	1,609.5	1,609.0	6.3	3.0	132.67	-628.3	681.6	927.4	918.1	9.21	100.716	
1,700.0	1,700.0	1,712.6	1,712.1	6.6	3.1	132.71	-626.6	678.9	924.3	914.7	9.64	95.863	
1,800.0	1,800.0	1,811.9	1,811.3	6.9	3.2	132.73	-624.7	676.4	921.2	911.1	10.08	91.381	
1,900.0	1,900.0	1,908.8	1,908.2	7.2	3.3	132.73	-622.9	674.3	918.3	907.8	10.52	87.251	
2,000.0	2,000.0	2,009.5	2,008.8	7.6	3.4	132.73	-620.9	672.2	915.5	904.5	10.98	83.393	
2,100.0	2,100.0	2,112.9	2,112.1	7.9	3.6	132.73	-618.8	669.9	912.4	901.0	11.44	79.764	
2,200.0	2,200.0	2,212.9	2,212.1	8.2	3.7	132.72	-616.5	667.6	909.2	897.3	11.90	76.390	
2,300.0	2,300.0	2,304.1	2,303.3	8.6	3.8	132.70	-614.5	666.0	906.4	894.1	12.36	73.355	
2,400.0	2,400.0	2,403.1	2,402.3	8.9	3.9	132.66	-612.6	664.8	904.2	891.4	12.82	70.526	
2,500.0	2,500.0	2,503.2	2,502.3	9.2	4.1	132.63	-610.8	663.5	902.1	888.8	13.29	67.868	
2,600.0	2,600.0	2,600.0	2,599.1	9.6	4.2	-49.22	-609.4	662.1	898.9	885.2	13.75	65.397	
2,700.0	2,699.8	2,696.4	2,695.6	9.9	4.3	-49.53	-608.5	660.8	893.9	879.7	14.18	63.023	
2,770.0	2,769.6	2,760.1	2,759.2	10.1	4.4	-49.84	-608.2	660.1	889.4	874.9	14.47	61.483	
2,800.0	2,799.5	2,787.3	2,786.4	10.2	4.4	-49.95	-608.3	659.8	887.3	872.8	14.59	60.836	
2,900.0	2,899.0	2,888.2	2,887.3	10.5	4.5	-50.38	-608.5	659.0	880.8	865.8	14.99	58.743	
3,000.0	2,998.6	3,004.6	3,003.7	10.8	4.7	-50.90	-607.7	657.4	873.4	857.9	15.45	56.512	
3,100.0	3,098.1	3,107.9	3,106.9	11.1	4.8	-51.42	-605.6	655.4	864.7	848.8	15.91	54.339	
3,200.0	3,197.7	3,208.9	3,207.8	11.4	4.9	-51.96	-603.1	653.4	855.7	839.3	16.37	52.268	
3,300.0	3,297.2	3,308.3	3,307.3	11.8	5.1	-52.50	-600.7	651.3	846.7	829.9	16.83	50.299	
3,400.0	3,396.8	3,403.8	3,402.7	12.1	5.2	-53.00	-598.6	649.3	838.0	820.7	17.29	48.455	
3,500.0	3,496.4	3,502.7	3,501.5	12.4	5.4	-53.53	-596.9	647.2	829.7	811.9	17.76	46.708	
3,600.0	3,595.9	3,605.5	3,604.3	12.8	5.5	-54.03	-595.5	644.5	821.2	802.9	18.23	45.037	
3,700.0	3,695.5	3,706.9	3,705.6	13.1	5.6	-54.46	-594.7	640.9	812.4	793.7	18.70	43.450	
3,800.0	3,795.0	3,800.0	3,798.7	13.4	5.8	-54.84	-594.4	637.4	803.7	784.5	19.15	41.963	
3,900.0	3,894.6	3,895.5	3,894.2	13.8	5.9	-55.22	-594.6	634.1	795.7	776.1	19.60	40.592	
4,000.0	3,994.1	3,995.8	3,994.4	14.1	6.0	-55.62	-595.1	631.1	788.2	768.1	20.05	39.311	
4,100.0	4,093.7	4,094.7	4,093.2	14.4	6.1	-56.03	-595.5	628.1	780.7	760.2	20.50	38.080	
4,200.0	4,193.3	4,188.6	4,187.1	14.8	6.2	-56.44	-596.0	625.6	773.6	752.7	20.94	36.939	
4,300.0	4,292.8	4,278.9	4,277.4	15.1	6.2	-56.82	-597.2	623.8	767.6	746.2	21.35	35.951	
4,400.0	4,392.4	4,374.7	4,373.1	15.5	6.3	-57.19	-599.4	622.4	762.6	740.8	21.73	35.096	
4,500.0	4,491.9	4,473.6	4,472.0	15.8	6.3	-57.57	-601.9	621.1	757.8	735.7	22.09	34.300	
4,600.0	4,591.5	4,572.8	4,571.1	16.2	6.3	-57.99	-604.1	620.2	753.2	730.7	22.46	33.540	
4,700.0	4,691.0	4,672.6	4,671.0	16.5	6.3	-58.47	-605.7	619.5	748.6	725.8	22.81	32.816	
4,800.0	4,790.6	4,771.5	4,769.8	16.9	6.3	-58.98	-607.1	619.1	744.1	720.9	23.17	32.119	
4,900.0	4,890.1	4,870.8	4,869.1	17.2	6.3	-59.48	-608.7	618.7	739.8	716.3	23.52	31.453	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well AZORES FED COM #705H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Reference Site:	AZORES FEDERAL PROJECT (BULLDOG 2432)	**MD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	AZORES FED COM #705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	3.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	edm
Reference Design:	PWP1	**Offset TVD Reference:**	Offset Datum

Offset Design AZORES FEDERAL PROJECT (BULLDOG 2432) - AZORES FEDERAL #3H - OWB - ACTUAL WELLP — **Offset Site Error:** 0.0 usft

Survey Program: 100- VES GyroFlex, 10100-MWD — **Offset Well Error:** 2.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,000.0	4,989.7	4,970.6	4,968.9	17.5	6.4	-60.00	-610.1	618.4	735.6	711.7	23.87	30.813	
5,100.0	5,089.3	5,071.5	5,069.8	17.9	6.4	-60.57	-611.1	618.3	731.3	707.1	24.22	30.192	
5,200.0	5,188.8	5,172.1	5,170.4	18.2	6.4	-61.17	-611.8	618.2	726.9	702.4	24.58	29.574	
5,300.0	5,288.4	5,271.8	5,270.1	18.6	6.4	-61.79	-612.3	618.0	722.6	697.6	24.95	28.966	
5,400.0	5,387.9	5,370.4	5,368.7	19.0	6.4	-62.40	-612.8	618.0	718.3	693.0	25.31	28.384	
5,500.0	5,487.5	5,470.7	5,469.0	19.3	6.4	-63.01	-613.6	617.8	714.3	688.6	25.68	27.819	
5,600.0	5,587.0	5,571.4	5,569.7	19.7	6.5	-63.64	-614.3	617.6	710.1	684.1	26.07	27.244	
5,700.0	5,686.6	5,672.0	5,670.3	20.0	6.6	-64.29	-614.7	617.3	705.9	679.5	26.49	26.654	
5,800.0	5,786.2	5,772.1	5,770.4	20.4	6.7	-64.95	-614.9	617.0	701.7	674.8	26.93	26.053	
5,900.0	5,885.7	5,873.4	5,871.7	20.7	6.8	-65.63	-615.1	616.6	697.5	670.1	27.41	25.447	
6,000.0	5,985.3	5,973.7	5,972.0	21.1	7.0	-66.32	-615.2	615.9	693.1	665.2	27.90	24.840	
6,100.0	6,084.8	6,072.6	6,070.9	21.4	7.1	-67.01	-615.2	615.4	688.8	660.4	28.40	24.251	
6,200.0	6,184.4	6,172.8	6,171.1	21.8	7.2	-67.72	-615.1	614.8	684.7	655.8	28.91	23.684	
6,300.0	6,283.9	6,275.0	6,273.3	22.1	7.4	-68.45	-615.0	614.0	680.4	651.0	29.42	23.127	
6,400.0	6,383.5	6,374.8	6,373.1	22.5	7.5	-69.18	-614.7	613.0	676.0	646.0	29.93	22.583	
6,500.0	6,483.0	6,474.4	6,472.7	22.9	7.7	-69.94	-614.2	612.2	671.7	641.2	30.45	22.061	
6,600.0	6,582.6	6,574.2	6,572.5	23.2	7.8	-70.69	-613.9	611.2	667.4	636.5	30.96	21.558	
6,700.0	6,682.2	6,673.9	6,672.2	23.6	8.0	-71.44	-613.7	610.1	663.3	631.8	31.47	21.074	
6,800.0	6,781.7	6,771.8	6,770.0	23.9	8.1	-72.18	-613.6	609.1	659.3	627.3	31.98	20.615	
6,900.0	6,881.3	6,874.2	6,872.5	24.3	8.3	-72.95	-613.6	608.1	655.6	623.1	32.49	20.174	
7,000.0	6,980.8	6,973.9	6,972.2	24.6	8.4	-73.73	-613.3	606.7	651.5	618.4	33.01	19.736	
7,100.0	7,080.4	7,075.0	7,073.2	25.0	8.6	-74.53	-612.9	605.4	647.5	614.0	33.53	19.314	
7,200.0	7,179.9	7,174.6	7,172.8	25.4	8.7	-75.31	-612.7	603.8	643.4	609.4	34.04	18.904	
7,300.0	7,279.5	7,275.6	7,273.8	25.7	8.9	-76.07	-613.0	602.0	639.4	604.9	34.54	18.511	
7,400.0	7,379.1	7,375.4	7,373.6	26.1	9.0	-76.83	-613.1	600.0	635.3	600.3	35.05	18.125	
7,500.0	7,478.6	7,471.9	7,470.1	26.4	9.1	-77.57	-613.3	598.3	631.6	596.0	35.55	17.765	
7,600.0	7,578.2	7,567.5	7,565.6	26.8	9.3	-78.29	-613.9	597.1	628.5	592.5	36.04	17.441	
7,700.0	7,677.7	7,664.8	7,663.0	27.2	9.4	-79.06	-614.3	596.5	626.2	589.7	36.52	17.146	
7,800.0	7,777.3	7,764.3	7,762.5	27.5	9.5	-79.87	-614.7	596.1	624.1	587.1	37.00	16.869	
7,900.0	7,876.8	7,863.9	7,862.1	27.9	9.6	-80.67	-615.2	595.6	622.1	584.6	37.46	16.605	
8,000.0	7,976.4	7,963.8	7,962.0	28.2	9.7	-81.43	-616.0	595.0	620.2	582.3	37.92	16.357	
8,100.0	8,075.9	8,064.1	8,062.3	28.6	9.8	-82.19	-617.1	594.3	618.4	580.0	38.37	16.117	
8,200.0	8,175.5	8,162.3	8,160.4	29.0	9.9	-82.92	-618.3	593.6	616.6	577.8	38.81	15.888	
8,300.0	8,275.1	8,260.6	8,258.7	29.3	9.9	-83.68	-619.3	593.2	615.3	576.1	39.24	15.681	
8,400.0	8,374.6	8,359.5	8,357.6	29.7	10.0	-84.44	-620.4	593.0	614.2	574.6	39.66	15.489	
8,500.0	8,474.2	8,459.2	8,457.3	30.0	10.0	-85.19	-621.7	592.8	613.4	573.3	40.07	15.308	
8,600.0	8,573.7	8,561.1	8,559.2	30.4	10.1	-85.98	-622.8	592.5	612.5	572.0	40.50	15.122	
8,700.0	8,673.3	8,661.8	8,659.8	30.8	10.2	-86.77	-623.7	591.8	611.3	570.3	40.97	14.920	
8,800.0	8,772.8	8,763.3	8,761.4	31.1	10.4	-87.61	-624.2	591.0	610.1	568.6	41.46	14.713	
8,900.0	8,872.4	8,866.7	8,864.8	31.5	10.5	-88.47	-624.8	589.7	608.5	566.5	41.97	14.497	
9,000.0	8,972.0	8,968.5	8,966.6	31.9	10.6	-89.29	-625.5	587.8	606.5	564.0	42.49	14.276	
9,100.0	9,071.5	9,071.9	9,069.9	32.2	10.8	-90.11	-626.6	585.5	604.2	561.2	43.00	14.052	
9,200.0	9,171.1	9,173.9	9,171.9	32.6	10.9	-90.90	-627.8	582.6	601.5	558.0	43.51	13.823	
9,300.0	9,270.6	9,273.6	9,271.6	32.9	11.1	-91.69	-628.9	579.6	598.6	554.6	44.03	13.598	
9,400.0	9,370.2	9,374.5	9,372.4	33.3	11.2	-92.50	-629.9	576.4	595.9	551.3	44.54	13.378	
9,500.0	9,469.7	9,473.8	9,471.6	33.7	11.4	-93.29	-631.1	573.2	593.0	548.0	45.05	13.164	
9,600.0	9,569.3	9,568.9	9,566.7	34.0	11.5	-94.04	-632.5	570.4	590.7	545.2	45.54	12.971	
9,700.0	9,668.8	9,666.8	9,664.5	34.4	11.6	-94.78	-634.1	568.4	589.2	543.2	46.03	12.800	
9,800.0	9,768.4	9,764.9	9,762.6	34.8	11.8	-95.49	-636.1	566.4	587.9	541.4	46.52	12.639	
9,900.0	9,868.0	9,862.7	9,860.3	35.1	11.9	-96.21	-638.1	564.8	587.1	540.1	46.99	12.494	
9,990.8	9,958.3	9,950.0	9,947.6	35.4	12.0	-96.80	-640.2	563.7	586.8	539.4	47.41	12.378	CC

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well AZORES FED COM #705H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Reference Site:	AZORES FEDERAL PROJECT (BULLDOG 2432)	**MD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	AZORES FED COM #705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	3.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	edm
Reference Design:	PWP1	**Offset TVD Reference:**	Offset Datum

Offset Design AZORES FEDERAL PROJECT (BULLDOG 2432) - AZORES FEDERAL #3H - OWB - ACTUAL WELLP — **Offset Site Error:** 0.0 usft

Survey Program: 100- VES GyroFlex, 10100-MWD — **Offset Well Error:** 2.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,000.0	9,967.5	9,958.8	9,956.4	35.5	12.0	-96.86	-640.5	563.6	586.8	539.4	47.45	12.368	ES
10,100.0	10,067.1	10,053.7	10,051.3	35.8	12.0	-97.52	-642.6	563.2	587.3	539.5	47.88	12.267	
10,200.0	10,166.6	10,143.5	10,141.0	36.2	12.1	-98.20	-643.9	563.6	588.9	540.6	48.29	12.194	
10,300.0	10,266.2	10,206.1	10,203.4	36.6	12.3	-99.15	-639.6	565.9	594.9	546.1	48.79	12.192	SF
10,400.0	10,365.7	10,259.0	10,254.7	36.9	12.4	-100.73	-627.3	569.4	607.5	558.3	49.21	12.344	
10,500.0	10,465.3	10,323.0	10,313.7	37.3	12.5	-103.34	-603.6	575.9	627.9	578.4	49.53	12.677	
10,600.0	10,564.9	10,362.4	10,348.1	37.7	12.6	-105.21	-585.0	581.0	656.5	606.8	49.72	13.204	
10,700.0	10,664.4	10,399.2	10,377.9	38.0	12.6	-107.16	-564.3	586.3	693.7	643.9	49.84	13.918	
10,800.0	10,764.0	10,431.1	10,401.9	38.4	12.7	-108.99	-543.8	591.4	739.4	689.5	49.87	14.827	
10,869.7	10,833.3	10,449.0	10,414.5	38.6	12.7	-110.06	-531.4	594.2	775.6	725.8	49.83	15.567	
10,900.0	10,863.5	10,465.0	10,425.4	38.8	12.8	-111.21	-519.8	596.6	792.4	742.5	49.86	15.891	
11,000.0	10,963.2	10,500.7	10,448.2	39.1	12.9	-114.04	-492.9	601.5	850.9	801.1	49.84	17.074	
11,100.0	11,063.0	10,532.2	10,466.7	39.5	13.0	-116.68	-467.7	605.0	914.1	864.3	49.78	18.362	
11,200.0	11,162.9	10,557.6	10,480.4	39.8	13.1	-119.02	-446.4	607.0	981.3	931.6	49.69	19.748	
11,300.0	11,262.9	10,576.0	10,489.5	40.2	13.2	-120.99	-430.4	608.1	1,052.2	1,002.6	49.57	21.227	
11,409.6	11,372.5	10,608.0	10,504.1	40.6	13.3	57.87	-402.0	609.7	1,133.4	1,083.9	49.53	22.882	
11,509.6	11,472.5	10,608.0	10,504.1	40.9	13.3	57.87	-402.0	609.7	1,210.3	1,161.0	49.34	24.530	
11,525.0	11,487.9	10,608.0	10,504.1	40.9	13.3	56.29	-402.0	609.7	1,222.3	1,173.0	49.31	24.787	
11,550.0	11,512.8	10,608.0	10,504.1	41.0	13.3	53.29	-402.0	609.7	1,241.7	1,192.4	49.27	25.201	
11,575.0	11,537.7	10,622.4	10,510.0	41.1	13.4	49.89	-388.9	610.4	1,260.5	1,211.2	49.32	25.556	
11,600.0	11,562.3	10,626.3	10,511.5	41.2	13.4	47.24	-385.3	610.5	1,279.1	1,229.8	49.31	25.941	
11,625.0	11,586.7	10,639.0	10,516.3	41.3	13.5	44.52	-373.5	611.1	1,297.3	1,248.0	49.35	26.290	
11,650.0	11,610.8	10,639.0	10,516.3	41.3	13.5	42.47	-373.5	611.1	1,314.9	1,265.6	49.31	26.669	
11,675.0	11,634.6	10,639.0	10,516.3	41.4	13.5	40.59	-373.5	611.1	1,332.1	1,282.8	49.27	27.039	
11,700.0	11,657.9	10,639.0	10,516.3	41.5	13.5	38.88	-373.5	611.1	1,348.8	1,299.6	49.23	27.400	
11,725.0	11,680.6	10,639.0	10,516.3	41.5	13.5	37.30	-373.5	611.1	1,365.0	1,315.8	49.19	27.750	
11,750.0	11,702.8	10,652.7	10,521.0	41.6	13.5	35.62	-360.7	611.6	1,380.3	1,331.1	49.24	28.036	
11,775.0	11,724.4	10,657.5	10,522.5	41.7	13.5	34.26	-356.1	611.8	1,395.2	1,346.0	49.23	28.342	
11,800.0	11,745.3	10,671.0	10,526.6	41.7	13.6	32.92	-343.3	612.3	1,409.5	1,360.3	49.27	28.608	
11,825.0	11,765.4	10,671.0	10,526.6	41.8	13.6	31.89	-343.3	612.3	1,423.0	1,373.8	49.24	28.902	
11,850.0	11,784.8	10,671.0	10,526.6	41.9	13.6	30.95	-343.3	612.3	1,435.8	1,386.6	49.20	29.183	
11,875.0	11,803.2	10,671.0	10,526.6	41.9	13.6	30.10	-343.3	612.3	1,448.0	1,398.9	49.17	29.450	
11,900.0	11,820.8	10,688.1	10,531.4	42.0	13.7	29.19	-326.8	613.0	1,459.3	1,410.0	49.22	29.646	
11,925.0	11,837.4	10,703.0	10,535.1	42.0	13.8	28.41	-312.5	613.6	1,469.9	1,420.6	49.26	29.836	
11,950.0	11,853.0	10,703.0	10,535.1	42.1	13.8	27.82	-312.5	613.6	1,479.5	1,430.3	49.24	30.049	
11,975.0	11,867.6	10,713.0	10,537.5	42.1	13.9	27.24	-302.7	614.0	1,488.4	1,439.1	49.25	30.220	
12,000.0	11,881.1	10,722.5	10,539.7	42.2	13.9	26.73	-293.5	614.4	1,496.4	1,447.1	49.27	30.373	
12,025.0	11,893.5	10,734.0	10,542.2	42.2	14.0	26.30	-282.3	614.8	1,503.5	1,454.2	49.29	30.503	
12,050.0	11,904.7	10,734.0	10,542.2	42.2	14.0	25.95	-282.3	614.8	1,509.8	1,460.5	49.28	30.639	
12,075.0	11,914.7	10,746.5	10,544.6	42.3	14.1	25.64	-270.0	615.3	1,515.1	1,465.8	49.31	30.724	
12,100.0	11,923.5	10,753.5	10,545.9	42.3	14.1	25.39	-263.1	615.5	1,519.6	1,470.3	49.33	30.803	
12,125.0	11,931.1	10,766.0	10,547.9	42.3	14.2	25.20	-250.8	616.0	1,523.2	1,473.9	49.37	30.852	
12,150.0	11,937.4	10,766.0	10,547.9	42.4	14.2	25.06	-250.8	616.0	1,525.9	1,476.6	49.38	30.903	
12,175.0	11,942.5	10,766.0	10,547.9	42.4	14.2	24.96	-250.8	616.0	1,527.8	1,478.5	49.39	30.935	
12,200.0	11,946.2	10,781.4	10,550.0	42.4	14.3	24.93	-235.6	616.4	1,528.7	1,479.3	49.46	30.909	
12,225.0	11,948.7	10,798.0	10,551.7	42.4	14.4	24.95	-219.1	616.9	1,528.9	1,479.3	49.53	30.865	
12,250.0	11,949.9	10,798.0	10,551.7	42.4	14.4	25.00	-219.1	616.9	1,527.9	1,478.4	49.56	30.828	
12,259.6	11,950.0	10,798.0	10,551.7	42.4	14.4	25.02	-219.1	616.9	1,527.4	1,477.8	49.58	30.808	
12,300.0	11,950.0	10,820.7	10,553.5	42.5	14.6	25.08	-196.4	617.4	1,525.0	1,475.3	49.69	30.689	
12,400.0	11,950.0	10,863.8	10,555.6	42.5	15.0	25.13	-153.4	617.9	1,521.4	1,471.4	50.02	30.416	
12,452.8	11,950.0	10,892.0	10,555.8	42.6	15.2	25.15	-125.2	618.1	1,521.2	1,470.9	50.24	30.281	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well AZORES FED COM #705H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Reference Site:	AZORES FEDERAL PROJECT (BULLDOG 2432)	**MD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	AZORES FED COM #705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	3.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	edm
Reference Design:	PWP1	**Offset TVD Reference:**	Offset Datum

Offset Design AZORES FEDERAL PROJECT (BULLDOG 2432) - AZORES FEDERAL #3H - OWB - ACTUAL WELLP — **Offset Site Error:** 0.0 usft

Survey Program: 100- VES GyroFlex, 10100-MWD — **Offset Well Error:** 2.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,500.0	11,950.0	10,930.1	10,555.6	42.6	15.5	25.16	-87.1	618.1	1,521.5	1,471.1	50.42	30.176	
12,600.0	11,950.0	11,045.3	10,555.0	42.7	16.7	25.15	28.1	617.3	1,522.0	1,471.1	50.88	29.916	
12,700.0	11,950.0	11,183.0	10,558.0	42.8	18.3	25.16	165.7	615.5	1,519.6	1,468.1	51.49	29.512	
12,800.0	11,950.0	11,300.9	10,561.4	43.0	19.7	25.15	283.5	612.7	1,516.2	1,464.1	52.09	29.105	
12,900.0	11,950.0	11,396.4	10,564.5	43.1	21.0	25.13	378.9	610.0	1,512.3	1,459.6	52.72	28.688	
13,000.0	11,950.0	11,504.5	10,568.1	43.3	22.4	25.09	487.0	606.5	1,508.2	1,454.8	53.41	28.238	
13,100.0	11,950.0	11,586.0	10,570.7	43.5	23.5	25.06	568.4	603.9	1,504.3	1,450.2	54.11	27.801	
13,200.0	11,950.0	11,663.6	10,572.7	43.7	24.7	25.07	645.9	602.8	1,501.7	1,446.9	54.87	27.371	
13,300.0	11,950.0	11,745.5	10,573.7	43.9	25.8	25.10	727.8	602.7	1,500.8	1,445.1	55.68	26.955	
13,340.7	11,950.0	11,780.4	10,573.8	44.0	26.3	25.11	762.7	602.6	1,500.8	1,444.7	56.02	26.788	
13,400.0	11,950.0	11,834.2	10,573.8	44.1	27.1	25.11	816.5	602.3	1,500.9	1,444.3	56.54	26.546	
13,500.0	11,950.0	11,928.2	10,573.1	44.4	28.5	25.10	910.5	601.7	1,501.5	1,444.0	57.44	26.140	
13,600.0	11,950.0	12,031.5	10,572.1	44.6	30.0	25.07	1,013.8	600.6	1,502.2	1,443.8	58.39	25.726	
13,700.0	11,950.0	12,128.5	10,571.1	44.9	31.5	25.02	1,110.8	599.1	1,502.8	1,443.4	59.37	25.313	
13,800.0	11,950.0	12,227.8	10,569.9	45.2	33.0	24.98	1,210.1	597.9	1,503.6	1,443.2	60.38	24.900	
13,900.0	11,950.0	12,358.0	10,570.2	45.5	35.0	25.00	1,340.3	597.4	1,503.6	1,442.1	61.52	24.439	
14,000.0	11,950.0	12,447.3	10,571.5	45.9	36.4	25.07	1,429.5	598.3	1,502.9	1,440.2	62.65	23.990	
14,069.3	11,950.0	12,509.0	10,572.5	46.1	37.4	25.14	1,491.2	599.5	1,502.7	1,439.2	63.44	23.685	
14,100.0	11,950.0	12,535.0	10,572.8	46.2	37.8	25.18	1,517.2	600.1	1,502.7	1,438.9	63.80	23.555	
14,200.0	11,950.0	12,620.6	10,573.5	46.5	39.1	25.29	1,602.8	602.4	1,503.5	1,438.5	64.97	23.140	
14,300.0	11,950.0	12,725.0	10,574.1	46.9	40.7	25.41	1,707.1	605.1	1,504.3	1,438.1	66.22	22.716	
14,400.0	11,950.0	12,820.0	10,574.1	47.3	42.2	25.52	1,802.1	607.5	1,505.6	1,438.1	67.48	22.311	
14,500.0	11,950.0	12,904.5	10,573.4	47.7	43.5	25.61	1,886.6	610.0	1,507.9	1,439.1	68.74	21.936	
14,600.0	11,950.0	13,006.7	10,572.6	48.1	45.1	25.72	1,988.7	613.0	1,510.2	1,440.1	70.07	21.554	
14,700.0	11,950.0	13,108.1	10,571.8	48.5	46.7	25.83	2,090.1	615.8	1,512.3	1,440.9	71.41	21.179	
14,800.0	11,950.0	13,222.9	10,571.2	48.9	48.5	25.94	2,204.8	618.5	1,514.1	1,441.3	72.81	20.795	
14,900.0	11,950.0	13,345.4	10,572.4	49.3	50.5	26.05	2,327.3	620.4	1,514.1	1,439.8	74.26	20.389	
14,964.5	11,950.0	13,404.7	10,573.2	49.6	51.4	26.10	2,386.6	621.1	1,513.9	1,438.8	75.15	20.144	
15,000.0	11,950.0	13,432.8	10,573.4	49.8	51.9	26.12	2,414.8	621.5	1,514.0	1,438.4	75.64	20.018	
15,100.0	11,950.0	13,520.8	10,573.3	50.2	53.3	26.19	2,502.7	622.9	1,515.1	1,438.1	77.02	19.671	
15,200.0	11,950.0	13,622.4	10,573.1	50.7	54.9	26.26	2,604.3	624.6	1,516.3	1,437.8	78.46	19.325	
15,300.0	11,950.0	13,729.3	10,573.0	51.2	56.6	26.34	2,711.2	626.2	1,517.4	1,437.4	79.93	18.984	
15,400.0	11,950.0	13,844.1	10,573.4	51.7	58.5	26.40	2,826.0	627.0	1,517.6	1,436.2	81.43	18.638	
15,500.0	11,950.0	13,945.6	10,574.8	52.2	60.1	26.49	2,927.4	628.3	1,517.2	1,434.3	82.93	18.296	
15,552.4	11,950.0	13,992.7	10,575.6	52.4	60.9	26.54	2,974.6	629.3	1,517.1	1,433.4	83.71	18.122	
15,600.0	11,950.0	14,034.1	10,576.1	52.7	61.5	26.59	3,016.0	630.2	1,517.2	1,432.8	84.43	17.971	
15,700.0	11,950.0	14,127.5	10,576.7	53.2	63.0	26.69	3,109.3	632.2	1,517.9	1,431.9	85.95	17.660	
15,800.0	11,950.0	14,209.7	10,576.8	53.7	64.4	26.78	3,191.5	634.2	1,519.2	1,431.8	87.46	17.372	
15,900.0	11,950.0	14,289.0	10,575.6	54.3	65.6	26.84	3,270.8	636.2	1,522.0	1,433.0	88.95	17.111	
16,000.0	11,950.0	14,402.8	10,572.8	54.8	67.5	26.91	3,384.5	638.8	1,525.6	1,435.0	90.56	16.846	
16,100.0	11,950.0	14,520.1	10,571.9	55.4	69.4	26.98	3,501.8	640.6	1,527.2	1,435.0	92.19	16.566	
16,200.0	11,950.0	14,615.3	10,570.7	55.9	70.9	26.98	3,596.9	640.7	1,528.6	1,434.9	93.72	16.312	
16,300.0	11,950.0	14,740.9	10,569.6	56.5	72.9	26.98	3,722.5	640.3	1,529.6	1,434.3	95.31	16.049	
16,400.0	11,950.0	14,872.7	10,571.6	57.1	75.1	27.02	3,854.3	639.7	1,528.3	1,431.4	96.95	15.764	
16,500.0	11,950.0	14,968.0	10,574.4	57.6	76.6	27.10	3,949.6	640.1	1,526.2	1,427.6	98.58	15.482	
16,600.0	11,950.0	15,049.0	10,576.0	58.2	78.0	27.16	4,030.6	640.5	1,524.9	1,424.8	100.17	15.224	
16,656.9	11,950.0	15,098.0	10,576.7	58.6	78.7	27.20	4,079.5	640.9	1,524.7	1,423.6	101.08	15.083	
16,700.0	11,950.0	15,098.0	10,576.7	58.8	78.7	27.20	4,079.5	640.9	1,525.2	1,423.6	101.66	15.003	
16,800.0	11,950.0	15,098.0	10,576.7	59.4	78.7	27.20	4,079.5	640.9	1,531.3	1,428.5	102.82	14.893	
16,900.0	11,950.0	15,098.0	10,576.7	60.0	78.7	27.20	4,079.5	640.9	1,543.9	1,440.2	103.69	14.889	
17,007.2	11,950.0	15,098.0	10,576.7	60.7	78.7	27.20	4,079.5	640.9	1,564.3	1,460.0	104.31	14.997	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well AZORES FED COM #705H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Reference Site:	AZORES FEDERAL PROJECT (BULLDOG 2432)	**MD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	AZORES FED COM #705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	3.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	edm
Reference Design:	PWP1	**Offset TVD Reference:**	Offset Datum

Offset Design AZORES FEDERAL PROJECT (BULLDOG 2432) - AZORES FEDERAL #3H - OWB - ACTUAL WELLP

Offset Site Error: 0.0 usft

Survey Program: 100- VES GyroFlex, 10100-MWD

Offset Well Error: 2.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
17,014.3	11,950.0	15,098.0	10,576.7	60.7	78.7	27.17	4,079.5	640.9	1,565.9	1,461.6	104.34	15.008	
17,100.0	11,950.0	15,098.0	10,576.7	61.3	78.7	27.17	4,079.5	640.9	1,587.7	1,483.1	104.58	15.182	
17,200.0	11,950.0	15,098.0	10,576.7	61.9	78.7	27.17	4,079.5	640.9	1,618.6	1,513.9	104.62	15.470	
17,300.0	11,950.0	15,098.0	10,576.7	62.5	78.7	27.17	4,079.5	640.9	1,654.9	1,550.5	104.43	15.847	
17,400.0	11,950.0	15,098.0	10,576.7	63.2	78.7	27.17	4,079.5	640.9	1,696.3	1,592.3	104.02	16.308	
17,500.0	11,950.0	15,098.0	10,576.7	63.8	78.7	27.17	4,079.5	640.9	1,742.5	1,639.1	103.44	16.846	
17,600.0	11,950.0	15,098.0	10,576.7	64.4	78.7	27.17	4,079.5	640.9	1,793.1	1,690.4	102.71	17.458	
17,700.0	11,950.0	15,098.0	10,576.7	65.1	78.7	27.17	4,079.5	640.9	1,847.8	1,745.9	101.87	18.138	
17,800.0	11,950.0	15,098.0	10,576.7	65.7	78.7	27.17	4,079.5	640.9	1,906.1	1,805.1	100.95	18.881	
17,900.0	11,950.0	15,098.0	10,576.7	66.4	78.7	27.17	4,079.5	640.9	1,967.7	1,867.8	99.97	19.683	

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well AZORES FED COM #705H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Reference Site:	AZORES FEDERAL PROJECT (BULLDOG 2432)	**MD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	AZORES FED COM #705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	3.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	edm
Reference Design:	PWP1	**Offset TVD Reference:**	Offset Datum

Offset Design AZORES FEDERAL PROJECT (BULLDOG 2432) - AZORES FEDERAL #4H - OWB - ACTUAL WELLP

Offset Site Error: 0.0 usft

Survey Program: 100-GYD_DP_MS, 9584-MWD

Offset Well Error: 2.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	3.0	2.0	-137.31	-671.9	-619.9	914.2				
100.0	100.0	90.0	90.0	3.0	2.0	-137.30	-672.0	-620.0	914.3	909.3	5.00	182.707	
200.0	200.0	190.1	190.1	3.0	2.0	-137.29	-672.1	-620.4	914.6	909.6	5.05	181.098	
300.0	300.0	290.0	290.0	3.1	2.0	-137.28	-672.2	-620.7	914.9	909.8	5.14	178.121	
400.0	400.0	393.9	393.9	3.2	2.0	-137.29	-672.4	-620.7	915.1	909.8	5.25	174.174	
500.0	500.0	494.3	494.3	3.4	2.0	-137.28	-672.2	-620.7	914.9	909.5	5.41	169.039	
588.6	588.6	581.4	581.4	3.5	2.0	-137.27	-671.9	-620.8	914.8	909.2	5.58	163.983	
600.0	600.0	592.6	592.6	3.6	2.0	-137.26	-671.9	-620.8	914.8	909.2	5.60	163.313	
700.0	700.0	692.3	692.3	3.8	2.1	-137.24	-671.7	-621.1	914.9	909.0	5.82	157.250	
800.0	800.0	792.9	792.9	4.0	2.1	-137.23	-671.6	-621.3	914.9	908.8	6.06	151.079	
830.8	830.8	823.6	823.6	4.1	2.1	-137.23	-671.6	-621.3	914.9	908.8	6.13	149.183	
900.0	900.0	892.4	892.4	4.2	2.1	-137.21	-671.4	-621.5	914.9	908.6	6.31	144.956	
1,000.0	1,000.0	990.4	990.4	4.5	2.1	-137.19	-671.3	-621.9	915.1	908.5	6.58	139.018	
1,100.0	1,100.0	1,090.0	1,090.0	4.8	2.1	-137.15	-671.1	-622.4	915.3	908.5	6.87	133.309	
1,200.0	1,200.0	1,191.6	1,191.6	5.1	2.1	-137.12	-670.9	-623.0	915.6	908.4	7.16	127.850	
1,300.0	1,300.0	1,291.0	1,291.0	5.4	2.1	-137.10	-670.9	-623.3	915.7	908.3	7.46	122.690	
1,400.0	1,400.0	1,389.6	1,389.6	5.7	2.1	-137.09	-670.9	-623.7	916.0	908.2	7.78	117.812	
1,500.0	1,500.0	1,489.7	1,489.6	6.0	2.2	-137.06	-670.8	-624.2	916.4	908.3	8.09	113.222	
1,600.0	1,600.0	1,587.9	1,587.9	6.3	2.2	-137.03	-670.8	-624.9	916.8	908.4	8.42	108.919	
1,700.0	1,700.0	1,690.9	1,690.9	6.6	2.2	-137.00	-670.7	-625.6	917.2	908.4	8.75	104.872	
1,800.0	1,800.0	1,799.7	1,799.7	6.9	2.2	-136.95	-670.0	-625.9	916.9	907.9	9.08	101.039	
1,900.0	1,900.0	1,900.5	1,900.5	7.2	2.2	-136.88	-668.7	-626.2	916.2	906.7	9.41	97.376	
2,000.0	2,000.0	2,010.8	2,010.7	7.6	2.2	-136.77	-666.3	-626.4	914.7	905.0	9.74	93.872	
2,100.0	2,100.0	2,116.6	2,116.5	7.9	2.2	-136.62	-663.0	-626.4	912.4	902.3	10.08	90.490	
2,200.0	2,200.0	2,217.4	2,217.2	8.2	2.3	-136.45	-659.2	-626.5	909.7	899.3	10.42	87.269	
2,300.0	2,300.0	2,316.3	2,316.1	8.6	2.3	-136.25	-655.1	-627.0	907.1	896.4	10.77	84.238	
2,400.0	2,400.0	2,416.2	2,415.9	8.9	2.3	-136.04	-650.9	-627.6	904.5	893.4	11.12	81.375	
2,500.0	2,500.0	2,507.1	2,506.7	9.2	2.3	-135.89	-647.9	-628.0	902.5	891.0	11.46	78.722	
2,600.0	2,600.0	2,603.5	2,603.1	9.6	2.3	42.63	-645.6	-628.6	899.8	888.0	11.80	76.283	
2,700.0	2,699.8	2,700.1	2,699.7	9.9	2.3	43.05	-643.4	-629.5	895.0	882.9	12.11	73.888	
2,770.0	2,769.6	2,774.9	2,774.4	10.1	2.3	43.49	-641.7	-630.1	890.1	877.8	12.34	72.151	
2,800.0	2,799.5	2,806.2	2,805.7	10.2	2.4	43.66	-641.0	-630.1	887.6	875.2	12.43	71.393	
2,900.0	2,899.0	2,901.4	2,900.9	10.5	2.4	44.16	-639.1	-630.3	879.6	866.8	12.76	68.957	
3,000.0	2,998.6	2,998.0	2,997.5	10.8	2.4	44.69	-637.3	-630.9	872.0	858.9	13.08	66.660	
3,100.0	3,098.1	3,100.7	3,100.1	11.1	2.4	45.29	-635.0	-631.9	864.4	851.0	13.41	64.465	
3,200.0	3,197.7	3,199.8	3,199.2	11.4	2.4	45.93	-632.2	-633.1	856.8	843.0	13.74	62.356	
3,300.0	3,297.2	3,299.1	3,298.4	11.8	2.4	46.58	-629.3	-634.3	849.2	835.2	14.07	60.343	
3,400.0	3,396.8	3,398.7	3,398.0	12.1	2.5	47.24	-626.6	-635.4	841.8	827.4	14.41	58.420	
3,500.0	3,496.4	3,492.3	3,491.6	12.4	2.5	47.87	-624.1	-636.7	834.8	820.0	14.75	56.602	
3,600.0	3,595.9	3,595.7	3,594.9	12.8	2.5	48.62	-621.1	-638.7	828.0	813.0	15.09	54.880	
3,700.0	3,695.5	3,695.9	3,695.0	13.1	2.5	49.41	-617.2	-640.8	821.1	805.6	15.43	53.212	
3,800.0	3,795.0	3,805.0	3,804.0	13.4	2.6	50.32	-612.3	-642.8	813.6	797.8	15.77	51.589	
3,900.0	3,894.6	3,895.3	3,894.2	13.8	2.6	51.03	-608.9	-643.9	806.3	790.1	16.12	50.019	
4,000.0	3,994.1	4,004.6	4,003.5	14.1	2.6	51.86	-605.1	-644.9	799.0	782.5	16.46	48.536	
4,100.0	4,093.7	4,115.9	4,114.6	14.4	2.6	52.66	-600.8	-643.8	790.1	773.3	16.80	47.023	
4,200.0	4,193.3	4,200.0	4,198.7	14.8	2.6	53.22	-598.4	-642.7	781.7	764.6	17.16	45.552	
4,300.0	4,292.8	4,295.5	4,294.2	15.1	2.6	53.81	-596.9	-641.9	774.6	757.1	17.51	44.230	
4,400.0	4,392.4	4,392.6	4,391.3	15.5	2.6	54.34	-596.6	-641.0	768.1	750.3	17.87	42.995	
4,500.0	4,491.9	4,492.3	4,490.9	15.8	2.6	54.87	-596.7	-640.0	761.9	743.6	18.22	41.818	
4,600.0	4,591.5	4,589.4	4,588.1	16.2	2.6	55.40	-596.8	-639.2	755.8	737.2	18.57	40.691	
4,700.0	4,691.0	4,686.4	4,685.1	16.5	2.6	55.95	-596.9	-638.8	750.1	731.2	18.93	39.630	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well AZORES FED COM #705H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Reference Site:	AZORES FEDERAL PROJECT (BULLDOG 2432)	**MD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	AZORES FED COM #705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	3.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	edm
Reference Design:	PWP1	**Offset TVD Reference:**	Offset Datum

Offset Design AZORES FEDERAL PROJECT (BULLDOG 2432) - AZORES FEDERAL #4H - OWB - ACTUAL WELLP — **Offset Site Error:** 0.0 usft

Survey Program: 100-GYD_DP_MS, 9584-MWD — **Offset Well Error:** 2.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,800.0	4,790.6	4,789.2	4,787.9	16.9	2.7	56.55	-596.9	-638.4	744.6	725.3	19.28	38.613	
4,900.0	4,890.1	4,887.6	4,886.2	17.2	2.7	57.11	-597.0	-637.6	738.8	719.2	19.64	37.619	
5,000.0	4,989.7	4,988.5	4,987.2	17.5	2.7	57.69	-597.2	-636.9	733.2	713.2	20.00	36.666	
5,100.0	5,089.3	5,089.0	5,087.6	17.9	2.7	58.26	-597.5	-635.9	727.5	707.2	20.36	35.740	
5,200.0	5,188.8	5,188.1	5,186.8	18.2	2.7	58.85	-597.5	-635.0	721.8	701.1	20.72	34.844	
5,300.0	5,288.4	5,284.2	5,282.9	18.6	2.7	59.46	-597.5	-634.5	716.5	695.4	21.08	33.993	
5,400.0	5,387.9	5,386.3	5,385.0	19.0	2.7	60.13	-597.2	-634.2	711.4	690.0	21.44	33.184	
5,500.0	5,487.5	5,483.4	5,482.1	19.3	2.7	60.79	-596.8	-633.9	706.3	684.5	21.80	32.395	
5,600.0	5,587.0	5,586.0	5,584.6	19.7	2.7	61.50	-596.4	-633.7	701.3	679.1	22.16	31.644	
5,700.0	5,686.6	5,682.3	5,681.0	20.0	2.7	62.21	-595.7	-633.5	696.3	673.8	22.53	30.913	
5,800.0	5,786.2	5,785.3	5,784.0	20.4	2.8	62.99	-594.7	-633.5	691.6	668.7	22.88	30.222	
5,900.0	5,885.7	5,885.9	5,884.5	20.7	2.8	63.74	-593.8	-633.0	686.5	663.3	23.25	29.531	
6,000.0	5,985.3	5,983.2	5,981.8	21.1	2.8	64.48	-593.0	-632.6	681.7	658.1	23.61	28.868	
6,100.0	6,084.8	6,084.2	6,082.8	21.4	2.8	65.27	-592.1	-632.3	677.1	653.1	23.98	28.238	
6,200.0	6,184.4	6,182.6	6,181.2	21.8	2.8	66.07	-590.9	-632.0	672.5	648.1	24.34	27.625	
6,300.0	6,283.9	6,280.4	6,279.0	22.1	2.9	66.86	-589.9	-631.9	668.2	643.5	24.71	27.044	
6,400.0	6,383.5	6,378.1	6,376.7	22.5	2.9	67.64	-589.4	-631.9	664.4	639.3	25.07	26.497	
6,500.0	6,483.0	6,475.2	6,473.8	22.9	2.9	68.40	-589.1	-632.2	660.9	635.5	25.44	25.985	
6,600.0	6,582.6	6,575.3	6,573.9	23.2	2.9	69.18	-589.1	-632.5	657.9	632.1	25.79	25.505	
6,700.0	6,682.2	6,676.0	6,674.6	23.6	2.9	69.93	-589.4	-632.6	654.7	628.5	26.15	25.031	
6,800.0	6,781.7	6,776.0	6,774.6	23.9	2.9	70.70	-589.4	-632.6	651.5	625.0	26.51	24.573	
6,900.0	6,881.3	6,873.1	6,871.7	24.3	2.9	71.47	-589.4	-632.7	648.6	621.7	26.87	24.135	
7,000.0	6,980.8	6,971.9	6,970.5	24.6	2.9	72.23	-589.8	-633.1	646.1	618.9	27.24	23.723	
7,100.0	7,080.4	7,063.3	7,061.9	25.0	2.9	72.92	-590.5	-633.8	644.2	616.6	27.61	23.337	
7,196.5	7,176.4	7,153.5	7,152.1	25.3	2.9	73.53	-592.2	-635.5	643.9	615.9	27.96	23.028	
7,200.0	7,179.9	7,156.9	7,155.5	25.4	2.9	73.55	-592.3	-635.6	643.9	615.9	27.98	23.017	
7,300.0	7,279.5	7,255.8	7,254.3	25.7	2.9	74.23	-594.2	-637.9	644.1	615.7	28.34	22.725	
7,400.0	7,379.1	7,355.3	7,353.8	26.1	2.9	74.89	-596.5	-640.2	644.4	615.6	28.71	22.443	
7,500.0	7,478.6	7,456.2	7,454.6	26.4	2.9	75.56	-598.7	-642.6	644.7	615.6	29.08	22.171	
7,600.0	7,578.2	7,562.8	7,561.1	26.8	2.9	76.30	-600.7	-644.6	644.6	615.2	29.45	21.892	
7,700.0	7,677.7	7,665.4	7,663.7	27.2	2.9	77.03	-602.0	-645.5	643.6	613.8	29.82	21.585	
7,800.0	7,777.3	7,766.7	7,765.1	27.5	2.9	77.76	-603.3	-646.2	642.5	612.3	30.19	21.284	
7,900.0	7,876.8	7,872.0	7,870.4	27.9	2.9	78.51	-604.7	-646.4	641.0	610.4	30.56	20.977	
8,000.0	7,976.4	7,970.9	7,969.3	28.2	2.9	79.20	-606.0	-646.0	638.9	608.0	30.93	20.660	
8,100.0	8,075.9	8,070.5	8,068.8	28.6	2.9	79.89	-607.6	-645.8	637.3	606.0	31.30	20.363	
8,200.0	8,175.5	8,172.1	8,170.4	29.0	2.9	80.60	-609.1	-645.4	635.5	603.8	31.67	20.069	
8,300.0	8,275.1	8,276.3	8,274.6	29.3	2.9	81.31	-610.8	-644.5	633.4	601.3	32.04	19.771	
8,400.0	8,374.6	8,380.9	8,379.2	29.7	2.9	82.02	-612.5	-642.8	630.5	598.1	32.40	19.458	
8,500.0	8,474.2	8,482.8	8,481.1	30.0	2.9	82.78	-613.5	-640.5	627.2	594.4	32.77	19.137	
8,600.0	8,573.7	8,578.4	8,576.6	30.4	2.9	83.50	-614.4	-638.5	624.0	590.9	33.14	18.830	
8,700.0	8,673.3	8,675.3	8,673.5	30.8	2.9	84.23	-615.3	-637.1	621.7	588.2	33.51	18.552	
8,800.0	8,772.8	8,775.9	8,774.0	31.1	2.9	84.99	-616.5	-635.8	619.6	585.7	33.88	18.287	
8,900.0	8,872.4	8,880.3	8,878.4	31.5	2.9	85.72	-618.3	-634.0	617.1	582.9	34.25	18.017	
9,000.0	8,972.0	8,977.1	8,975.2	31.9	2.9	86.30	-621.1	-631.9	614.4	579.8	34.62	17.747	
9,100.0	9,071.5	9,076.6	9,074.6	32.2	2.9	86.86	-624.4	-630.2	612.2	577.2	34.99	17.497	
9,200.0	9,171.1	9,175.3	9,173.3	32.6	2.9	87.40	-627.9	-628.5	610.1	574.7	35.36	17.254	
9,300.0	9,270.6	9,273.9	9,271.7	32.9	2.9	87.87	-632.2	-627.0	608.3	572.5	35.73	17.024	
9,400.0	9,370.2	9,368.5	9,366.2	33.3	2.9	88.28	-636.7	-626.0	606.9	570.8	36.10	16.812	
9,500.0	9,469.7	9,469.7	9,467.3	33.7	2.9	88.68	-642.1	-625.6	606.2	569.7	36.47	16.623	
9,542.8	9,512.4	9,506.5	9,504.0	33.8	2.9	88.82	-644.1	-625.5	606.0	569.2	36.76	16.484	CC
9,600.0	9,569.3	9,555.7	9,553.1	34.0	3.1	89.07	-646.0	-625.9	606.4	569.2	37.16	16.318	ES

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well AZORES FED COM #705H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Reference Site:	AZORES FEDERAL PROJECT (BULLDOG 2432)	**MD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	AZORES FED COM #705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	3.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	edm
Reference Design:	PWP1	**Offset TVD Reference:**	Offset Datum

Offset Design AZORES FEDERAL PROJECT (BULLDOG 2432) - AZORES FEDERAL #4H - OWB - ACTUAL WELLP — **Offset Site Error:** 0.0 usft

Survey Program: 100-GYD_DP_MS, 9584-MWD — **Offset Well Error:** 2.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,700.0	9,668.8	9,648.1	9,645.5	34.4	3.5	89.69	-648.1	-628.0	608.5	570.6	37.94	16.040	
9,800.0	9,768.4	9,746.5	9,743.9	34.8	3.8	90.39	-649.8	-630.9	611.4	572.8	38.55	15.860	
9,900.0	9,868.0	9,846.9	9,844.2	35.1	3.9	91.14	-651.1	-633.7	614.3	575.2	39.07	15.722	
10,000.0	9,967.5	9,948.0	9,945.2	35.5	4.1	91.90	-652.3	-636.4	617.1	577.5	39.62	15.576	
10,100.0	10,067.1	10,041.9	10,039.1	35.8	4.3	92.81	-651.1	-638.6	620.0	579.8	40.15	15.442	
10,200.0	10,166.6	10,149.4	10,144.3	36.2	4.9	95.57	-630.8	-639.7	623.8	583.1	40.70	15.325	
10,300.0	10,266.2	10,232.1	10,220.5	36.6	5.4	99.16	-598.6	-637.3	628.9	587.6	41.29	15.228	
10,400.0	10,365.7	10,296.6	10,276.1	36.9	5.7	102.53	-566.2	-635.0	640.0	597.9	42.11	15.199	SF
10,500.0	10,465.3	10,351.0	10,320.4	37.3	5.9	105.64	-534.8	-633.4	659.2	616.1	43.11	15.292	
10,600.0	10,564.9	10,402.0	10,360.0	37.7	6.1	108.68	-502.6	-632.4	686.9	642.8	44.12	15.569	
10,700.0	10,664.4	10,444.4	10,390.6	38.0	6.3	111.32	-473.3	-631.2	723.0	678.0	45.06	16.048	
10,800.0	10,764.0	10,485.3	10,417.9	38.4	6.5	113.95	-442.9	-629.5	767.1	721.2	45.83	16.739	
10,869.7	10,833.3	10,509.7	10,433.2	38.6	6.6	115.54	-423.9	-628.1	802.1	755.8	46.26	17.338	
10,900.0	10,863.5	10,523.0	10,441.1	38.8	6.7	116.58	-413.3	-627.3	818.3	771.9	46.43	17.625	
11,000.0	10,963.2	10,554.0	10,458.8	39.1	6.9	119.21	-387.9	-625.0	875.7	828.8	46.88	18.679	
11,100.0	11,063.0	10,571.7	10,468.2	39.5	7.0	121.02	-373.1	-623.5	938.2	891.0	47.18	19.887	
11,200.0	11,162.9	10,586.0	10,475.6	39.8	7.1	122.68	-360.8	-622.4	1,005.1	957.8	47.37	21.219	
11,300.0	11,262.9	10,617.0	10,490.4	40.2	7.4	125.36	-333.7	-619.6	1,075.6	1,028.0	47.60	22.598	
11,409.6	11,372.5	10,632.6	10,497.3	40.6	7.6	-51.05	-319.8	-618.1	1,156.3	1,108.6	47.73	24.228	
11,509.6	11,472.5	10,649.0	10,504.1	40.9	7.7	-50.12	-305.0	-616.5	1,232.9	1,185.0	47.85	25.767	
11,525.0	11,487.9	10,649.0	10,504.1	40.9	7.7	-48.04	-305.0	-616.5	1,244.8	1,196.9	47.85	26.013	
11,550.0	11,512.8	10,649.0	10,504.1	41.0	7.7	-45.46	-305.0	-616.5	1,263.9	1,216.0	47.86	26.408	
11,575.0	11,537.7	10,649.0	10,504.1	41.1	7.7	-43.09	-305.0	-616.5	1,282.6	1,234.7	47.86	26.797	
11,600.0	11,562.3	10,662.0	10,509.2	41.2	7.9	-40.43	-293.1	-615.2	1,300.7	1,252.7	47.94	27.132	
11,625.0	11,586.7	10,666.4	10,510.9	41.3	7.9	-38.36	-289.0	-614.8	1,318.3	1,270.4	47.96	27.486	
11,650.0	11,610.8	10,671.1	10,512.6	41.3	8.0	-36.49	-284.7	-614.3	1,335.5	1,287.5	47.99	27.829	
11,675.0	11,634.6	10,685.0	10,517.5	41.4	8.1	-34.54	-271.8	-612.9	1,352.1	1,304.1	48.06	28.133	
11,700.0	11,657.9	10,685.0	10,517.5	41.5	8.1	-33.17	-271.8	-612.9	1,368.0	1,319.9	48.06	28.466	
11,725.0	11,680.6	10,685.0	10,517.5	41.5	8.1	-31.92	-271.8	-612.9	1,383.3	1,335.2	48.05	28.789	
11,750.0	11,702.8	10,685.0	10,517.5	41.6	8.1	-30.79	-271.8	-612.9	1,397.9	1,349.9	48.04	29.100	
11,775.0	11,724.4	10,685.0	10,517.5	41.7	8.1	-29.76	-271.8	-612.9	1,412.0	1,364.0	48.03	29.399	
11,800.0	11,745.3	10,698.2	10,521.8	41.7	8.3	-28.60	-259.4	-611.6	1,425.1	1,377.1	48.08	29.638	
11,825.0	11,765.4	10,702.5	10,523.1	41.8	8.3	-27.70	-255.3	-611.3	1,437.7	1,389.6	48.09	29.894	
11,850.0	11,784.8	10,717.0	10,527.2	41.9	8.5	-26.76	-241.4	-610.1	1,449.7	1,401.5	48.15	30.107	
11,875.0	11,803.2	10,717.0	10,527.2	41.9	8.5	-26.11	-241.4	-610.1	1,460.6	1,412.5	48.13	30.344	
11,900.0	11,820.8	10,717.0	10,527.2	42.0	8.5	-25.52	-241.4	-610.1	1,470.8	1,422.7	48.12	30.566	
11,925.0	11,837.4	10,717.0	10,527.2	42.0	8.5	-25.00	-241.4	-610.1	1,480.3	1,432.2	48.10	30.774	
11,950.0	11,853.0	10,717.0	10,527.2	42.1	8.5	-24.53	-241.4	-610.1	1,489.0	1,441.0	48.09	30.965	
11,975.0	11,867.6	10,717.0	10,527.2	42.1	8.5	-24.11	-241.4	-610.1	1,497.0	1,449.0	48.08	31.140	
12,000.0	11,881.1	10,733.8	10,531.4	42.2	8.7	-23.62	-225.2	-609.0	1,503.8	1,455.7	48.14	31.240	
12,025.0	11,893.5	10,748.0	10,534.3	42.2	8.9	-23.22	-211.3	-608.3	1,510.1	1,461.9	48.19	31.339	
12,050.0	11,904.7	10,748.0	10,534.3	42.2	8.9	-22.97	-211.3	-608.3	1,515.3	1,467.2	48.18	31.453	
12,075.0	11,914.7	10,748.0	10,534.3	42.3	8.9	-22.76	-211.3	-608.3	1,519.7	1,471.6	48.17	31.549	
12,100.0	11,923.5	10,748.0	10,534.3	42.3	8.9	-22.59	-211.3	-608.3	1,523.4	1,475.2	48.17	31.626	
12,125.0	11,931.1	10,748.0	10,534.3	42.3	8.9	-22.46	-211.3	-608.3	1,526.2	1,478.0	48.17	31.683	
12,150.0	11,937.4	10,748.0	10,534.3	42.4	8.9	-22.37	-211.3	-608.3	1,528.2	1,480.1	48.18	31.720	
12,175.0	11,942.5	10,764.6	10,537.0	42.4	9.1	-22.29	-194.9	-607.7	1,528.9	1,480.7	48.26	31.681	
12,200.0	11,946.2	10,768.9	10,537.6	42.4	9.2	-22.28	-190.6	-607.6	1,529.1	1,480.8	48.29	31.662	
12,225.0	11,948.7	10,784.0	10,539.2	42.4	9.4	-22.31	-175.7	-607.4	1,528.5	1,480.2	48.37	31.599	
12,250.0	11,949.9	10,784.0	10,539.2	42.4	9.4	-22.39	-175.7	-607.4	1,526.8	1,478.4	48.40	31.546	
12,259.6	11,950.0	10,784.0	10,539.2	42.4	9.4	-22.43	-175.7	-607.4	1,525.9	1,477.5	48.41	31.520	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well AZORES FED COM #705H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Reference Site:	AZORES FEDERAL PROJECT (BULLDOG 2432)	**MD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	AZORES FED COM #705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	3.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	edm
Reference Design:	PWP1	**Offset TVD Reference:**	Offset Datum

Offset Design AZORES FEDERAL PROJECT (BULLDOG 2432) - AZORES FEDERAL #4H - OWB - ACTUAL WELLP — **Offset Site Error:** 0.0 usft

Survey Program: 100-GYD_DP_MS, 9584-MWD — **Offset Well Error:** 2.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,300.0	11,950.0	10,784.0	10,539.2	42.5	9.4	-22.43	-175.7	-607.4	1,522.4	1,474.0	48.47	31.409	
12,400.0	11,950.0	10,823.1	10,541.4	42.5	10.0	-22.46	-136.7	-607.6	1,517.1	1,468.4	48.76	31.111	
12,500.0	11,950.0	10,878.0	10,542.5	42.6	10.7	-22.48	-81.8	-608.1	1,515.4	1,466.3	49.10	30.861	
12,512.5	11,950.0	10,885.2	10,542.5	42.6	10.8	-22.48	-74.6	-608.2	1,515.4	1,466.2	49.15	30.830	
12,600.0	11,950.0	10,941.0	10,541.6	42.7	11.6	-22.47	-18.8	-608.5	1,516.5	1,467.0	49.50	30.638	
12,700.0	11,950.0	11,045.0	10,539.0	42.8	13.1	-22.43	85.2	-609.1	1,518.8	1,468.9	49.96	30.402	
12,800.0	11,950.0	11,151.3	10,537.4	43.0	14.8	-22.41	191.5	-610.0	1,520.3	1,469.8	50.48	30.114	
12,900.0	11,950.0	11,234.6	10,535.6	43.1	16.0	-22.39	274.7	-610.8	1,522.5	1,471.4	51.05	29.821	
13,000.0	11,950.0	11,345.8	10,533.4	43.3	17.8	-22.37	385.9	-611.8	1,524.3	1,472.6	51.70	29.482	
13,100.0	11,950.0	11,447.5	10,530.5	43.5	19.4	-22.30	487.6	-611.8	1,526.7	1,474.3	52.41	29.132	
13,200.0	11,950.0	11,590.7	10,530.4	43.7	21.7	-22.27	630.7	-611.8	1,526.3	1,473.0	53.26	28.659	
13,300.0	11,950.0	11,703.2	10,532.3	43.9	23.5	-22.30	743.2	-612.6	1,524.8	1,470.7	54.08	28.193	
13,400.0	11,950.0	11,796.2	10,534.1	44.1	25.0	-22.33	836.3	-613.3	1,523.1	1,468.1	54.92	27.731	
13,500.0	11,950.0	11,885.0	10,535.1	44.4	26.4	-22.34	925.0	-613.7	1,522.0	1,466.2	55.79	27.280	
13,560.8	11,950.0	11,934.8	10,535.2	44.5	27.2	-22.33	974.8	-613.9	1,521.7	1,465.4	56.33	27.014	
13,600.0	11,950.0	11,966.6	10,535.1	44.6	27.7	-22.33	1,006.6	-614.0	1,521.8	1,465.1	56.68	26.849	
13,700.0	11,950.0	12,085.7	10,534.7	44.9	29.7	-22.29	1,125.7	-613.9	1,521.9	1,464.2	57.66	26.392	
13,800.0	11,950.0	12,204.2	10,536.0	45.2	31.6	-22.28	1,244.2	-613.7	1,520.5	1,461.8	58.70	25.904	
13,900.0	11,950.0	12,307.2	10,538.8	45.5	33.3	-22.33	1,347.2	-614.9	1,518.2	1,458.4	59.76	25.403	
14,000.0	11,950.0	12,395.6	10,540.9	45.9	34.7	-22.40	1,435.6	-616.3	1,516.4	1,455.6	60.83	24.927	
14,100.0	11,950.0	12,490.2	10,542.5	46.2	36.2	-22.45	1,530.1	-618.0	1,515.2	1,453.3	61.94	24.462	
14,200.0	11,950.0	12,588.0	10,544.0	46.5	37.8	-22.51	1,627.9	-619.5	1,514.2	1,451.1	63.09	24.001	
14,300.0	11,950.0	12,680.7	10,545.0	46.9	39.4	-22.55	1,720.6	-620.8	1,513.5	1,449.2	64.25	23.558	
14,400.0	11,950.0	12,777.5	10,545.4	47.3	40.9	-22.57	1,817.4	-622.0	1,513.3	1,447.8	65.43	23.127	
14,500.0	11,950.0	12,876.1	10,545.7	47.7	42.5	-22.57	1,916.0	-622.6	1,513.0	1,446.4	66.64	22.704	
14,527.9	11,950.0	12,902.1	10,545.7	47.8	43.0	-22.57	1,941.9	-622.7	1,513.0	1,446.0	66.98	22.589	
14,600.0	11,950.0	12,958.6	10,545.5	48.1	43.9	-22.57	1,998.4	-623.0	1,513.3	1,445.4	67.84	22.308	
14,700.0	11,950.0	13,040.2	10,543.7	48.5	45.2	-22.54	2,080.1	-623.6	1,515.2	1,446.1	69.05	21.944	
14,800.0	11,950.0	13,156.8	10,542.4	48.9	47.1	-22.56	2,196.6	-625.4	1,516.6	1,446.2	70.38	21.548	
14,900.0	11,950.0	13,252.1	10,541.8	49.3	48.7	-22.62	2,291.9	-627.8	1,517.8	1,446.2	71.69	21.172	
15,000.0	11,950.0	13,345.0	10,541.0	49.8	50.2	-22.68	2,384.8	-630.6	1,519.5	1,446.5	73.02	20.810	
15,100.0	11,950.0	13,444.4	10,539.7	50.2	51.9	-22.74	2,484.1	-633.6	1,521.6	1,447.2	74.38	20.457	
15,200.0	11,950.0	13,563.6	10,539.2	50.7	53.8	-22.85	2,603.2	-637.6	1,523.1	1,447.3	75.83	20.087	
15,300.0	11,950.0	13,676.4	10,540.4	51.2	55.7	-22.98	2,716.0	-641.8	1,523.3	1,446.0	77.29	19.708	
15,391.3	11,950.0	13,766.1	10,542.2	51.6	57.2	-23.15	2,805.5	-646.4	1,523.2	1,444.6	78.64	19.368	
15,400.0	11,950.0	13,774.0	10,542.4	51.7	57.3	-23.16	2,813.4	-646.8	1,523.2	1,444.4	78.77	19.337	
15,500.0	11,950.0	13,853.6	10,543.7	52.2	58.6	-23.34	2,892.9	-651.8	1,523.9	1,443.7	80.23	18.995	
15,600.0	11,950.0	13,923.6	10,543.7	52.7	59.8	-23.48	2,962.7	-656.3	1,526.2	1,444.5	81.65	18.692	
15,700.0	11,950.0	14,014.6	10,541.3	53.2	61.3	-23.58	3,053.5	-660.8	1,530.3	1,447.1	83.12	18.410	
15,800.0	11,950.0	14,169.9	10,540.0	53.7	63.9	-23.76	3,208.7	-667.6	1,532.6	1,447.8	84.85	18.064	
15,900.0	11,950.0	14,283.1	10,542.0	54.3	65.7	-23.92	3,321.7	-672.2	1,532.3	1,445.9	86.44	17.726	
16,000.0	11,950.0	14,378.6	10,543.5	54.8	67.3	-24.01	3,417.2	-675.0	1,531.9	1,443.9	87.97	17.414	
16,038.6	11,950.0	14,413.7	10,543.8	55.0	67.9	-24.04	3,452.2	-675.9	1,531.9	1,443.3	88.56	17.298	
16,100.0	11,950.0	14,476.9	10,544.4	55.4	68.9	-24.10	3,515.4	-677.7	1,531.9	1,442.4	89.51	17.114	
16,200.0	11,950.0	14,576.0	10,545.5	55.9	70.6	-24.17	3,614.5	-680.1	1,531.6	1,440.6	91.06	16.820	
16,207.3	11,950.0	14,582.4	10,545.5	56.0	70.7	-24.18	3,620.9	-680.2	1,531.6	1,440.4	91.17	16.800	
16,300.0	11,950.0	14,678.5	10,545.9	56.5	72.3	-24.22	3,717.0	-682.0	1,531.7	1,439.1	92.61	16.540	
16,400.0	11,950.0	14,809.0	10,547.8	57.1	74.4	-24.27	3,847.5	-683.5	1,530.6	1,436.4	94.21	16.246	
16,500.0	11,950.0	14,900.3	10,549.8	57.6	75.9	-24.31	3,938.7	-684.2	1,528.7	1,432.9	95.75	15.965	
16,600.0	11,950.0	14,983.7	10,551.0	58.2	77.3	-24.34	4,022.2	-685.1	1,527.6	1,430.3	97.28	15.702	
16,654.6	11,950.0	15,030.0	10,551.4	58.5	78.0	-24.35	4,068.4	-685.7	1,527.3	1,429.2	98.12	15.565	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well AZORES FED COM #705H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Reference Site:	AZORES FEDERAL PROJECT (BULLDOG 2432)	**MD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	AZORES FED COM #705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	3.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	edm
Reference Design:	PWP1	**Offset TVD Reference:**	Offset Datum

Offset Design AZORES FEDERAL PROJECT (BULLDOG 2432) - AZORES FEDERAL #4H - OWB - ACTUAL WELLP

Offset Site Error: 0.0 usft

Survey Program: 100-GYD_DP_MS, 9584-MWD

Offset Well Error: 2.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
16,700.0	11,950.0	15,030.0	10,551.4	58.8	78.0	-24.35	4,068.4	-685.7	1,527.9	1,429.2	98.70	15.481	
16,800.0	11,950.0	15,030.0	10,551.4	59.4	78.0	-24.35	4,068.4	-685.7	1,534.2	1,434.4	99.78	15.375	
16,900.0	11,950.0	15,030.0	10,551.4	60.0	78.0	-24.35	4,068.4	-685.7	1,546.8	1,446.2	100.59	15.377	
17,007.2	11,950.0	15,030.0	10,551.4	60.7	78.0	-24.35	4,068.4	-685.7	1,567.4	1,466.3	101.15	15.495	
17,014.3	11,950.0	15,030.0	10,551.4	60.7	78.0	-24.38	4,068.4	-685.7	1,569.0	1,467.8	101.18	15.507	
17,100.0	11,950.0	15,030.0	10,551.4	61.3	78.0	-24.38	4,068.4	-685.7	1,590.7	1,489.4	101.38	15.690	
17,200.0	11,950.0	15,030.0	10,551.4	61.9	78.0	-24.38	4,068.4	-685.7	1,621.5	1,520.1	101.39	15.993	
17,300.0	11,950.0	15,030.0	10,551.4	62.5	78.0	-24.38	4,068.4	-685.7	1,657.7	1,556.5	101.16	16.386	
17,400.0	11,950.0	15,030.0	10,551.4	63.2	78.0	-24.38	4,068.4	-685.7	1,699.0	1,598.3	100.74	16.865	
17,500.0	11,950.0	15,030.0	10,551.4	63.8	78.0	-24.38	4,068.4	-685.7	1,745.1	1,645.0	100.15	17.425	
17,600.0	11,950.0	15,030.0	10,551.4	64.4	78.0	-24.38	4,068.4	-685.7	1,795.6	1,696.2	99.42	18.061	
17,700.0	11,950.0	15,030.0	10,551.4	65.1	78.0	-24.38	4,068.4	-685.7	1,850.1	1,751.5	98.58	18.767	
17,800.0	11,950.0	15,030.0	10,551.4	65.7	78.0	-24.38	4,068.4	-685.7	1,908.3	1,810.6	97.67	19.539	
17,900.0	11,950.0	15,030.0	10,551.4	66.4	78.0	-24.38	4,068.4	-685.7	1,969.8	1,873.1	96.69	20.372	

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well AZORES FED COM #705H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Reference Site:	AZORES FEDERAL PROJECT (BULLDOG 2432)	**MD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	AZORES FED COM #705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	3.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	edm
Reference Design:	PWP1	**Offset TVD Reference:**	Offset Datum

Offset Design AZORES FEDERAL PROJECT (BULLDOG 2432) - AZORES FEDERAL #8H - OWB - ACTUAL WELLP — **Offset Site Error:** 0.0 usft

Survey Program: 100-PHX_SPT_GTD, 876-MWD — **Offset Well Error:** 3.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	3.0	3.0	141.97	-639.5	500.1	811.9				
100.0	100.0	96.7	96.6	3.0	3.0	141.94	-639.0	500.3	811.6	805.5	6.01	135.131	
200.0	200.0	196.4	196.4	3.0	3.0	141.85	-637.7	500.9	811.0	804.9	6.08	133.424	
300.0	300.0	295.7	295.7	3.1	3.1	141.75	-636.4	501.8	810.4	804.2	6.23	130.059	
400.0	400.0	396.8	396.8	3.2	3.3	141.66	-635.2	502.4	809.9	803.4	6.46	125.314	
500.0	500.0	499.1	499.0	3.4	3.4	141.59	-634.0	502.7	809.1	802.4	6.77	119.557	
600.0	600.0	607.6	607.6	3.6	3.7	141.51	-632.1	502.5	807.7	800.5	7.15	112.937	
700.0	700.0	712.9	712.8	3.8	3.9	141.47	-629.9	501.5	805.5	797.9	7.59	106.104	
800.0	800.0	813.7	813.6	4.0	4.1	141.45	-627.5	500.0	802.7	794.7	7.99	100.481	
900.0	900.0	913.1	912.9	4.2	4.4	141.42	-625.2	498.8	800.0	791.6	8.40	95.211	
1,000.0	1,000.0	1,014.6	1,014.4	4.5	4.8	141.38	-622.7	497.4	797.3	788.4	8.85	90.078	
1,100.0	1,100.0	1,112.4	1,112.2	4.8	5.2	141.36	-620.4	495.9	794.5	785.1	9.41	84.436	
1,200.0	1,200.0	1,207.2	1,206.9	5.1	5.5	141.43	-619.3	493.9	792.2	782.2	10.05	78.825	
1,300.0	1,300.0	1,299.2	1,298.9	5.4	5.7	141.58	-619.5	491.4	790.8	780.1	10.68	74.063	
1,373.2	1,373.2	1,365.4	1,365.0	5.6	5.8	141.72	-620.5	489.7	790.5	779.4	11.10	71.225	
1,400.0	1,400.0	1,389.5	1,389.2	5.7	5.8	141.78	-621.0	489.1	790.5	779.2	11.27	70.126	
1,500.0	1,500.0	1,483.0	1,482.6	6.0	6.0	142.01	-623.7	487.0	791.3	779.5	11.82	66.966	
1,600.0	1,600.0	1,579.1	1,578.7	6.3	6.2	142.18	-626.2	486.0	792.7	780.4	12.34	64.217	
1,700.0	1,700.0	1,677.8	1,677.4	6.6	6.7	142.28	-628.4	486.0	794.5	781.7	12.82	61.957	
1,800.0	1,800.0	1,778.5	1,778.0	6.9	7.2	142.36	-630.5	486.3	796.3	783.0	13.34	59.692	
1,900.0	1,900.0	1,881.1	1,880.6	7.2	7.7	142.42	-632.3	486.6	797.9	784.1	13.88	57.498	
2,000.0	2,000.0	1,984.6	1,984.1	7.6	8.2	142.48	-633.8	486.6	799.1	784.7	14.43	55.392	
2,100.0	2,100.0	2,082.7	2,082.1	7.9	8.6	142.57	-635.4	486.3	800.2	785.2	14.98	53.406	
2,200.0	2,200.0	2,180.0	2,179.4	8.2	9.0	142.76	-638.0	485.1	801.5	786.0	15.54	51.568	
2,300.0	2,300.0	2,281.6	2,280.9	8.6	9.4	143.01	-641.4	483.1	803.0	786.8	16.18	49.622	
2,400.0	2,400.0	2,383.4	2,382.6	8.9	9.8	143.32	-644.9	480.4	804.3	787.4	16.83	47.777	
2,500.0	2,500.0	2,485.9	2,485.0	9.2	10.2	143.63	-648.4	477.5	805.2	787.7	17.53	45.941	
2,600.0	2,600.0	2,587.0	2,586.0	9.6	10.6	-37.87	-651.4	474.5	804.6	786.4	18.20	44.216	
2,700.0	2,699.8	2,683.9	2,682.9	9.9	11.0	-37.86	-654.4	472.0	801.4	782.5	18.83	42.558	
2,770.0	2,769.6	2,751.7	2,750.7	10.1	11.3	-37.97	-656.5	470.4	797.7	778.4	19.28	41.383	
2,800.0	2,799.5	2,782.0	2,780.9	10.2	11.4	-38.02	-657.5	469.8	795.8	776.4	19.47	40.884	
2,900.0	2,899.0	2,882.7	2,881.6	10.5	11.8	-38.21	-660.5	467.9	789.7	769.6	20.10	39.279	
3,000.0	2,998.6	2,983.0	2,981.8	10.8	12.2	-38.42	-663.1	466.1	783.4	762.6	20.74	37.770	
3,100.0	3,098.1	3,082.7	3,081.4	11.1	12.6	-38.67	-665.5	464.8	777.1	755.7	21.38	36.355	
3,200.0	3,197.7	3,183.4	3,182.2	11.4	13.1	-38.96	-667.5	463.9	770.8	748.8	22.02	35.011	
3,300.0	3,297.2	3,285.0	3,283.7	11.8	13.5	-39.29	-669.2	463.1	764.3	741.7	22.66	33.725	
3,400.0	3,396.8	3,385.3	3,384.0	12.1	14.0	-39.65	-670.4	462.5	757.7	734.4	23.31	32.498	
3,500.0	3,496.4	3,485.0	3,483.7	12.4	14.5	-40.03	-671.5	462.0	751.0	727.1	23.97	31.332	
3,600.0	3,595.9	3,585.0	3,583.7	12.8	15.0	-40.42	-672.6	461.7	744.4	719.8	24.63	30.224	
3,700.0	3,695.5	3,686.7	3,685.4	13.1	15.3	-40.80	-673.8	460.9	737.7	712.4	25.30	29.161	
3,800.0	3,795.0	3,784.6	3,783.2	13.4	15.7	-41.15	-675.0	459.8	730.9	704.9	25.96	28.153	
3,900.0	3,894.6	3,883.0	3,881.7	13.8	16.0	-41.52	-676.4	459.1	724.5	697.8	26.63	27.201	
4,000.0	3,994.1	3,981.3	3,980.0	14.1	16.4	-41.89	-678.0	458.5	718.2	690.9	27.30	26.304	
4,100.0	4,093.7	4,080.6	4,079.2	14.4	16.8	-42.25	-679.8	457.7	712.1	684.1	27.98	25.448	
4,200.0	4,193.3	4,180.2	4,178.8	14.8	17.2	-42.61	-681.7	456.8	706.0	677.3	28.67	24.627	
4,300.0	4,292.8	4,279.7	4,278.3	15.1	17.6	-42.97	-683.6	456.0	700.0	670.6	29.35	23.846	
4,400.0	4,392.4	4,379.0	4,377.6	15.5	18.0	-43.36	-685.4	455.4	694.0	664.0	30.03	23.108	
4,500.0	4,491.9	4,480.4	4,479.0	15.8	18.3	-43.80	-686.9	455.0	688.1	657.4	30.72	22.399	
4,600.0	4,591.5	4,580.7	4,579.2	16.2	18.6	-44.28	-688.0	454.8	682.0	650.6	31.40	21.716	
4,700.0	4,691.0	4,677.5	4,676.1	16.5	18.9	-44.75	-689.1	454.6	675.9	643.8	32.08	21.070	
4,800.0	4,790.6	4,770.9	4,769.5	16.9	19.3	-45.11	-691.4	454.1	670.7	638.0	32.74	20.484	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well AZORES FED COM #705H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Reference Site:	AZORES FEDERAL PROJECT (BULLDOG 2432)	**MD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	AZORES FED COM #705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	3.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	edm
Reference Design:	PWP1	**Offset TVD Reference:**	Offset Datum

Offset Design AZORES FEDERAL PROJECT (BULLDOG 2432) - AZORES FEDERAL #8H - OWB - ACTUAL WELLP — **Offset Site Error:** 0.0 usft

Survey Program: 100-PHX_SPT_GTD, 876-MWD — **Offset Well Error:** 3.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,900.0	4,890.1	4,866.7	4,865.2	17.2	19.7	-45.38	-695.3	453.2	666.4	633.0	33.41	19.945	
5,000.0	4,989.7	4,965.1	4,963.4	17.5	20.2	-45.64	-699.6	452.5	662.4	628.3	34.09	19.431	
5,100.0	5,089.3	5,064.8	5,063.0	17.9	20.6	-45.92	-704.0	451.9	658.6	623.8	34.78	18.938	
5,200.0	5,188.8	5,165.6	5,163.7	18.2	21.0	-46.20	-708.4	451.2	654.7	619.3	35.47	18.458	
5,300.0	5,288.4	5,268.6	5,266.6	18.6	21.4	-46.49	-712.9	450.2	650.6	614.4	36.19	17.980	
5,400.0	5,387.9	5,372.7	5,370.6	19.0	21.8	-46.72	-717.3	448.3	645.9	609.0	36.90	17.502	
5,500.0	5,487.5	5,473.0	5,470.7	19.3	22.1	-46.92	-721.5	446.0	640.8	603.1	37.63	17.030	
5,600.0	5,587.0	5,572.6	5,570.3	19.7	22.5	-47.14	-725.6	443.8	635.7	597.3	38.35	16.576	
5,700.0	5,686.6	5,674.9	5,672.5	20.0	22.9	-47.39	-729.5	441.6	630.4	591.3	39.09	16.127	
5,800.0	5,786.2	5,776.9	5,774.4	20.4	23.3	-47.66	-733.0	439.2	624.8	584.9	39.83	15.685	
5,900.0	5,885.7	5,877.0	5,874.5	20.7	23.6	-47.93	-736.2	436.8	619.0	578.4	40.58	15.253	
6,000.0	5,985.3	5,977.3	5,974.7	21.1	24.0	-48.22	-739.4	434.4	613.1	571.8	41.33	14.835	
6,100.0	6,084.8	6,078.3	6,075.5	21.4	24.4	-48.49	-742.7	431.7	607.1	565.0	42.09	14.426	
6,200.0	6,184.4	6,178.8	6,176.0	21.8	24.8	-48.75	-745.9	428.8	601.0	558.1	42.84	14.027	
6,300.0	6,283.9	6,278.6	6,275.6	22.1	25.1	-49.02	-749.1	425.9	594.8	551.2	43.60	13.641	
6,400.0	6,383.5	6,378.5	6,375.5	22.5	25.5	-49.29	-752.3	422.9	588.6	544.3	44.36	13.268	
6,500.0	6,483.0	6,478.7	6,475.6	22.9	25.8	-49.58	-755.3	420.1	582.4	537.3	45.13	12.906	
6,600.0	6,582.6	6,578.3	6,575.1	23.2	26.2	-49.89	-758.2	417.3	576.2	530.3	45.89	12.556	
6,700.0	6,682.2	6,677.6	6,674.3	23.6	26.6	-50.23	-760.9	414.7	570.0	523.4	46.65	12.218	
6,800.0	6,781.7	6,776.7	6,773.4	23.9	26.9	-50.59	-763.7	412.2	564.0	516.6	47.42	11.894	
6,900.0	6,881.3	6,875.8	6,872.4	24.3	27.3	-50.93	-766.6	409.8	558.1	509.9	48.18	11.584	
7,000.0	6,980.8	6,975.0	6,971.5	24.6	27.7	-51.27	-769.7	407.3	552.3	503.4	48.93	11.288	
7,100.0	7,080.4	7,074.2	7,070.6	25.0	28.0	-51.62	-772.9	404.9	546.7	497.0	49.69	11.002	
7,200.0	7,179.9	7,174.7	7,171.0	25.4	28.4	-51.98	-776.2	402.5	541.1	490.6	50.45	10.725	
7,300.0	7,279.5	7,275.3	7,271.6	25.7	28.8	-52.35	-779.3	399.9	535.3	484.1	51.22	10.453	
7,400.0	7,379.1	7,374.3	7,370.5	26.1	29.1	-52.71	-782.4	397.4	529.6	477.6	51.98	10.189	
7,500.0	7,478.6	7,473.6	7,469.7	26.4	29.5	-53.06	-785.8	394.8	524.0	471.3	52.74	9.935	
7,600.0	7,578.2	7,574.7	7,570.8	26.8	29.9	-53.56	-788.2	392.8	518.4	464.8	53.59	9.673	
7,700.0	7,677.7	7,674.6	7,670.7	27.2	30.4	-54.29	-788.9	392.0	512.5	458.1	54.43	9.416	
7,800.0	7,777.3	7,771.5	7,767.6	27.5	30.7	-55.06	-789.4	391.7	507.1	451.9	55.24	9.181	
7,900.0	7,876.8	7,868.9	7,864.9	27.9	31.1	-55.81	-790.4	391.5	502.3	446.3	56.02	8.966	
8,000.0	7,976.4	7,967.1	7,963.1	28.2	31.5	-56.58	-791.8	391.7	497.9	441.2	56.76	8.772	
8,100.0	8,075.9	8,065.5	8,061.5	28.6	31.8	-57.35	-793.3	392.0	493.9	436.4	57.51	8.590	
8,200.0	8,175.5	8,164.2	8,160.1	29.0	32.1	-58.01	-795.9	391.9	490.3	432.0	58.24	8.418	
8,300.0	8,275.1	8,265.0	8,260.9	29.3	32.5	-58.54	-799.6	391.1	486.8	427.8	58.98	8.253	
8,400.0	8,374.6	8,368.3	8,364.1	29.7	32.9	-59.11	-803.0	390.0	482.7	423.0	59.75	8.079	
8,500.0	8,474.2	8,474.4	8,470.2	30.0	33.2	-59.80	-805.4	388.4	477.8	417.3	60.50	7.898	
8,600.0	8,573.7	8,581.8	8,577.6	30.4	33.6	-60.83	-804.6	386.6	471.4	410.2	61.26	7.696	
8,700.0	8,673.3	8,792.7	8,781.6	30.8	34.2	-67.39	-760.3	376.2	452.0	390.9	61.11	7.397	
8,800.0	8,772.8	8,883.2	8,860.8	31.1	34.5	-73.71	-716.7	373.6	425.3	362.7	62.56	6.798	
8,900.0	8,872.4	8,985.1	8,939.3	31.5	34.8	-83.66	-651.9	372.7	402.5	338.2	64.30	6.259	
9,000.0	8,972.0	9,061.0	8,989.1	31.9	35.0	-92.64	-594.8	369.9	388.7	322.5	66.14	5.876	
9,031.8	9,003.6	9,077.1	8,998.4	32.0	35.1	-94.69	-581.7	369.1	387.7	321.2	66.50	5.830	CC, ES, SF
9,100.0	9,071.5	9,103.7	9,012.8	32.2	35.1	-98.19	-559.3	367.9	392.5	326.0	66.51	5.902	
9,200.0	9,171.1	9,132.7	9,026.9	32.6	35.2	-102.06	-534.0	366.9	417.1	352.5	64.67	6.450	
9,300.0	9,270.6	9,165.0	9,041.1	32.9	35.3	-106.36	-505.1	366.3	460.6	398.9	61.75	7.459	
9,400.0	9,370.2	9,174.9	9,045.2	33.3	35.3	-107.66	-496.0	366.3	518.2	460.3	57.92	8.948	
9,500.0	9,469.7	9,195.0	9,052.8	33.7	35.4	-110.28	-477.4	366.2	586.5	531.7	54.78	10.707	
9,600.0	9,569.3	9,208.0	9,057.5	34.0	35.4	-111.93	-465.4	366.2	662.2	610.2	52.02	12.729	
9,700.0	9,668.8	9,222.9	9,062.6	34.4	35.4	-113.81	-451.3	366.1	743.1	693.2	49.92	14.885	
9,800.0	9,768.4	9,242.0	9,068.8	34.8	35.5	-116.14	-433.3	366.2	827.8	779.3	48.43	17.093	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well AZORES FED COM #705H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Reference Site:	AZORES FEDERAL PROJECT (BULLDOG 2432)	**MD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	AZORES FED COM #705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	3.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	edm
Reference Design:	PWP1	**Offset TVD Reference:**	Offset Datum

Offset Design AZORES FEDERAL PROJECT (BULLDOG 2432) - AZORES FEDERAL #8H - OWB - ACTUAL WELLP

Offset Site Error: 0.0 usft

Survey Program: 100-PHX_SPT_GTD, 876-MWD

Offset Well Error: 3.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,900.0	9,868.0	9,242.0	9,068.8	35.1	35.5	-116.14	-433.3	366.2	915.2	868.3	46.87	19.527	
10,000.0	9,967.5	9,242.0	9,068.8	35.5	35.5	-116.14	-433.3	366.2	1,005.0	959.3	45.68	22.002	
10,100.0	10,067.1	9,263.7	9,075.3	35.8	35.6	-118.71	-412.6	366.0	1,096.0	1,050.8	45.22	24.235	
10,200.0	10,166.6	9,270.4	9,077.1	36.2	35.6	-119.49	-406.1	365.9	1,188.5	1,143.9	44.64	26.624	
10,300.0	10,266.2	9,290.0	9,082.0	36.6	35.6	-121.74	-387.1	365.5	1,282.3	1,237.9	44.46	28.844	
10,400.0	10,365.7	9,290.0	9,082.0	36.9	35.6	-121.74	-387.1	365.5	1,376.6	1,332.5	44.04	31.257	
10,500.0	10,465.3	9,290.0	9,082.0	37.3	35.6	-121.74	-387.1	365.5	1,471.6	1,427.9	43.75	33.640	
10,600.0	10,564.9	9,290.0	9,082.0	37.7	35.6	-121.74	-387.1	365.5	1,567.3	1,523.7	43.55	35.990	
10,700.0	10,664.4	9,290.0	9,082.0	38.0	35.6	-121.74	-387.1	365.5	1,663.4	1,620.0	43.43	38.303	
10,800.0	10,764.0	9,290.0	9,082.0	38.4	35.6	-121.74	-387.1	365.5	1,760.0	1,716.6	43.37	40.577	
10,869.7	10,833.3	9,290.0	9,082.0	38.6	35.6	-121.74	-387.1	365.5	1,827.5	1,784.1	43.37	42.138	
10,900.0	10,863.5	9,290.0	9,082.0	38.8	35.6	-122.77	-387.1	365.5	1,856.9	1,813.6	43.37	42.812	
11,000.0	10,963.2	9,290.0	9,082.0	39.1	35.6	-126.10	-387.1	365.5	1,954.0	1,910.6	43.41	45.013	

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well AZORES FED COM #705H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Reference Site:	AZORES FEDERAL PROJECT (BULLDOG 2432)	**MD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	AZORES FED COM #705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	3.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	edm
Reference Design:	PWP1	**Offset TVD Reference:**	Offset Datum

Offset Design AZORES FEDERAL PROJECT (BULLDOG 2432) - CORVO FEDERAL #3H - OWB - ACTUAL WELLPA

Offset Site Error: 0.0 usft

Survey Program: 100- VES GyroFlex, 7852-MWD

Offset Well Error: 2.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	3.0	2.0	137.64	-658.2	600.2	890.9				
100.0	100.0	86.8	86.8	3.0	2.0	137.65	-658.2	599.9	890.6	885.6	5.00	177.997	
200.0	200.0	186.4	186.4	3.0	2.0	137.67	-658.1	599.3	890.1	885.1	5.05	176.372	
300.0	300.0	297.0	297.0	3.1	2.0	137.67	-657.3	598.7	889.2	884.1	5.15	172.821	
400.0	400.0	398.8	398.8	3.2	2.1	137.69	-656.2	597.3	887.5	882.2	5.29	167.693	
500.0	500.0	499.7	499.6	3.4	2.1	137.73	-655.2	595.6	885.6	880.2	5.48	161.508	
600.0	600.0	607.2	607.1	3.6	2.2	137.77	-653.9	593.4	883.3	877.6	5.72	154.477	
700.0	700.0	713.0	712.8	3.8	2.2	137.80	-651.7	590.9	880.2	874.2	5.99	146.971	
800.0	800.0	808.1	807.9	4.0	2.3	137.82	-649.6	588.6	877.0	870.7	6.28	139.549	
900.0	900.0	904.0	903.8	4.2	2.4	137.84	-648.0	586.7	874.4	867.8	6.61	132.358	
1,000.0	1,000.0	1,000.0	999.8	4.5	2.5	137.86	-646.6	585.1	872.2	865.3	6.95	125.496	
1,100.0	1,100.0	1,097.2	1,097.0	4.8	2.6	137.86	-645.3	583.9	870.4	863.1	7.31	119.005	
1,200.0	1,200.0	1,197.0	1,196.7	5.1	2.7	137.85	-644.1	582.9	868.8	861.1	7.70	112.881	
1,300.0	1,300.0	1,293.4	1,293.1	5.4	2.7	137.85	-643.0	582.0	867.4	859.3	8.09	107.218	
1,400.0	1,400.0	1,393.0	1,392.8	5.7	2.9	137.85	-642.1	581.3	866.2	857.7	8.50	101.927	
1,500.0	1,500.0	1,495.5	1,495.2	6.0	3.0	137.85	-641.2	580.4	864.9	856.0	8.92	96.959	
1,600.0	1,600.0	1,595.2	1,594.9	6.3	3.1	137.84	-640.0	579.5	863.5	854.2	9.35	92.360	
1,700.0	1,700.0	1,693.2	1,692.9	6.6	3.2	137.84	-639.1	578.7	862.2	852.4	9.78	88.124	
1,800.0	1,800.0	1,791.6	1,791.3	6.9	3.3	137.84	-638.3	578.0	861.2	850.9	10.22	84.221	
1,900.0	1,900.0	1,890.3	1,890.0	7.2	3.4	137.86	-637.8	577.2	860.2	849.6	10.67	80.627	
2,000.0	2,000.0	1,990.5	1,990.2	7.6	3.6	137.88	-637.4	576.4	859.4	848.3	11.12	77.295	
2,100.0	2,100.0	2,088.7	2,088.4	7.9	3.7	137.91	-637.2	575.5	858.6	847.1	11.56	74.293	
2,200.0	2,200.0	2,185.8	2,185.4	8.2	3.8	137.96	-637.3	574.7	858.1	846.2	11.97	71.697	
2,300.0	2,300.0	2,284.8	2,284.5	8.6	3.9	138.02	-637.8	573.8	857.9	845.6	12.36	69.419	
2,400.0	2,400.0	2,386.3	2,386.0	8.9	3.9	138.10	-638.4	572.7	857.6	844.9	12.75	67.277	
2,500.0	2,500.0	2,486.8	2,486.4	9.2	4.0	138.20	-639.0	571.4	857.2	844.1	13.14	65.221	
2,600.0	2,600.0	2,588.5	2,588.1	9.6	4.1	-43.52	-639.7	569.8	855.5	841.9	13.53	63.234	
2,700.0	2,699.8	2,687.0	2,686.6	9.9	4.2	-43.69	-640.6	568.1	851.1	837.2	13.90	61.245	
2,770.0	2,769.6	2,760.5	2,760.1	10.1	4.3	-43.93	-641.3	566.6	846.5	832.4	14.16	59.761	
2,800.0	2,799.5	2,792.5	2,792.0	10.2	4.3	-44.03	-641.5	565.8	844.2	829.9	14.28	59.109	
2,900.0	2,899.0	2,894.0	2,893.5	10.5	4.4	-44.33	-642.0	563.3	836.1	821.4	14.69	56.936	
3,000.0	2,998.6	2,995.9	2,995.4	10.8	4.6	-44.63	-642.4	560.5	827.8	812.7	15.10	54.827	
3,100.0	3,098.1	3,104.3	3,103.8	11.1	4.7	-44.97	-642.3	557.1	818.9	803.4	15.53	52.716	
3,200.0	3,197.7	3,208.7	3,208.1	11.4	4.9	-45.30	-641.5	553.2	809.1	793.1	15.99	50.618	
3,300.0	3,297.2	3,306.2	3,305.5	11.8	5.0	-45.61	-640.6	549.5	799.2	782.8	16.44	48.626	
3,400.0	3,396.8	3,404.7	3,404.0	12.1	5.1	-45.94	-639.9	545.8	789.5	772.6	16.89	46.743	
3,500.0	3,496.4	3,500.0	3,499.2	12.4	5.3	-46.27	-639.1	542.4	780.0	762.6	17.35	44.961	
3,600.0	3,595.9	3,596.2	3,595.3	12.8	5.4	-46.64	-638.5	539.5	770.9	753.1	17.81	43.290	
3,700.0	3,695.5	3,689.5	3,688.6	13.1	5.5	-47.01	-638.4	537.3	762.7	744.4	18.26	41.775	
3,800.0	3,795.0	3,787.5	3,786.5	13.4	5.7	-47.37	-639.0	535.1	755.1	736.4	18.69	40.393	
3,900.0	3,894.6	3,880.8	3,879.8	13.8	5.8	-47.72	-639.8	533.2	747.9	728.8	19.10	39.148	
4,000.0	3,994.1	3,973.4	3,972.4	14.1	5.8	-48.11	-641.0	532.3	741.7	722.3	19.48	38.079	
4,100.0	4,093.7	4,069.9	4,069.0	14.4	5.9	-48.53	-642.5	532.0	736.4	716.5	19.81	37.171	
4,200.0	4,193.3	4,168.8	4,167.8	14.8	5.8	-49.03	-643.7	532.4	731.2	711.1	20.12	36.347	
4,300.0	4,292.8	4,271.9	4,271.0	15.1	5.8	-49.55	-644.9	532.6	726.1	705.6	20.43	35.536	
4,400.0	4,392.4	4,371.0	4,370.0	15.5	5.8	-50.08	-645.7	532.7	720.5	699.8	20.75	34.721	
4,500.0	4,491.9	4,472.1	4,471.1	15.8	5.8	-50.65	-646.3	533.1	715.2	694.1	21.06	33.959	
4,600.0	4,591.5	4,576.1	4,575.1	16.2	5.8	-51.24	-646.6	533.1	709.5	688.1	21.41	33.133	
4,700.0	4,691.0	4,677.3	4,676.3	16.5	5.9	-51.79	-647.0	532.4	703.3	681.5	21.84	32.202	
4,800.0	4,790.6	4,777.4	4,776.4	16.9	6.1	-52.34	-647.3	531.7	697.1	674.8	22.29	31.271	
4,900.0	4,890.1	4,877.5	4,876.5	17.2	6.2	-52.89	-647.6	530.8	690.9	668.2	22.75	30.370	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well AZORES FED COM #705H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Reference Site:	AZORES FEDERAL PROJECT (BULLDOG 2432)	**MD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	AZORES FED COM #705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	3.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	edm
Reference Design:	PWP1	**Offset TVD Reference:**	Offset Datum

Offset Design AZORES FEDERAL PROJECT (BULLDOG 2432) - CORVO FEDERAL #3H - OWB - ACTUAL WELLPA — **Offset Site Error:** 0.0 usft

Survey Program: 100- VES GyroFlex, 7852-MWD — **Offset Well Error:** 2.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
5,000.0	4,989.7	4,978.2	4,977.2	17.5	6.3	-53.47	-647.8	529.9	684.7	661.5	23.23	29.478	
5,100.0	5,089.3	5,079.8	5,078.8	17.9	6.5	-54.10	-647.4	529.1	678.3	654.5	23.73	28.583	
5,200.0	5,188.8	5,178.7	5,177.7	18.2	6.6	-54.76	-646.6	528.5	671.8	647.6	24.24	27.717	
5,300.0	5,288.4	5,276.7	5,275.6	18.6	6.7	-55.46	-645.8	528.1	665.6	640.9	24.74	26.905	
5,400.0	5,387.9	5,376.1	5,375.1	19.0	6.7	-56.17	-645.0	527.9	659.7	634.4	25.24	26.139	
5,500.0	5,487.5	5,476.8	5,475.7	19.3	6.8	-56.91	-644.1	527.6	653.7	628.0	25.73	25.402	
5,600.0	5,587.0	5,578.3	5,577.2	19.7	6.9	-57.67	-643.1	527.1	647.6	621.4	26.24	24.682	
5,700.0	5,686.6	5,677.8	5,676.8	20.0	7.0	-58.43	-641.9	526.5	641.5	614.7	26.74	23.985	
5,800.0	5,786.2	5,778.3	5,777.2	20.4	7.2	-59.22	-640.7	525.8	635.4	608.1	27.25	23.313	
5,900.0	5,885.7	5,877.2	5,876.2	20.7	7.3	-59.98	-639.7	525.0	629.3	601.5	27.77	22.665	
6,000.0	5,985.3	5,976.0	5,974.9	21.1	7.4	-60.77	-638.7	524.3	623.5	595.2	28.28	22.049	
6,100.0	6,084.8	6,075.8	6,074.7	21.4	7.5	-61.57	-637.7	523.5	617.8	589.0	28.79	21.462	
6,200.0	6,184.4	6,178.6	6,177.5	21.8	7.7	-62.43	-636.4	522.7	612.0	582.7	29.30	20.891	
6,300.0	6,283.9	6,276.2	6,275.0	22.1	7.8	-63.28	-635.0	521.7	606.1	576.3	29.80	20.336	
6,400.0	6,383.5	6,374.8	6,373.7	22.5	7.9	-64.12	-633.8	520.9	600.6	570.3	30.31	19.816	
6,500.0	6,483.0	6,475.3	6,474.1	22.9	8.0	-64.99	-632.8	519.9	595.3	564.5	30.82	19.314	
6,600.0	6,582.6	6,575.6	6,574.4	23.2	8.2	-65.84	-632.0	518.7	589.9	558.5	31.33	18.825	
6,700.0	6,682.2	6,672.9	6,671.7	23.6	8.3	-66.64	-631.5	517.4	584.7	552.8	31.85	18.358	
6,800.0	6,781.7	6,769.5	6,768.3	23.9	8.5	-67.47	-631.1	516.6	580.1	547.7	32.35	17.933	
6,900.0	6,881.3	6,869.9	6,868.7	24.3	8.6	-68.38	-630.5	516.2	575.9	543.1	32.84	17.536	
7,000.0	6,980.8	6,968.6	6,967.4	24.6	8.7	-69.22	-630.4	515.4	571.7	538.3	33.33	17.149	
7,100.0	7,080.4	7,066.5	7,065.3	25.0	8.8	-70.04	-630.7	514.7	567.9	534.1	33.82	16.792	
7,200.0	7,179.9	7,166.8	7,165.6	25.4	8.9	-70.89	-631.1	514.2	564.3	530.0	34.29	16.459	
7,300.0	7,279.5	7,267.3	7,266.1	25.7	9.0	-71.66	-632.1	513.1	560.7	525.9	34.74	16.140	
7,400.0	7,379.1	7,364.9	7,363.7	26.1	9.1	-72.35	-633.8	511.9	557.2	522.0	35.17	15.843	
7,500.0	7,478.6	7,462.4	7,461.2	26.4	9.2	-73.08	-635.4	511.3	554.3	518.7	35.58	15.578	
7,600.0	7,578.2	7,560.5	7,559.3	26.8	9.2	-73.87	-636.7	511.0	551.8	515.8	35.97	15.340	
7,700.0	7,677.7	7,657.8	7,656.6	27.2	9.2	-74.68	-637.7	511.2	549.7	513.3	36.33	15.129	
7,800.0	7,777.3	7,755.8	7,754.6	27.5	9.2	-75.50	-639.1	511.7	548.2	511.5	36.68	14.945	
7,900.0	7,876.8	7,856.4	7,855.2	27.9	9.2	-76.30	-640.8	512.2	546.8	509.8	37.03	14.766	
8,000.0	7,976.4	7,957.1	7,955.7	28.2	9.4	-77.57	-638.0	513.0	544.7	507.1	37.59	14.489	
8,100.0	8,075.9	8,082.8	8,075.8	28.6	9.5	-82.39	-603.5	517.7	540.9	502.8	38.07	14.209	
8,177.2	8,152.8	8,147.1	8,132.2	28.9	9.5	-86.20	-573.0	520.9	539.0	500.6	38.42	14.028	CC, ES
8,200.0	8,175.5	8,166.5	8,148.6	29.0	9.6	-87.48	-562.5	522.0	539.2	500.6	38.53	13.994	
8,300.0	8,275.1	8,242.3	8,209.0	29.3	9.7	-92.90	-517.0	526.3	544.7	505.7	38.96	13.981	SF
8,400.0	8,374.6	8,310.0	8,257.3	29.7	10.0	-98.30	-469.6	528.8	558.9	519.6	39.30	14.222	
8,500.0	8,474.2	8,356.0	8,285.8	30.0	10.1	-102.25	-433.6	529.5	584.3	544.9	39.40	14.832	
8,600.0	8,573.7	8,388.0	8,303.7	30.4	10.3	-105.06	-407.1	530.1	622.0	582.8	39.21	15.861	
8,700.0	8,673.3	8,417.0	8,318.6	30.8	10.5	-107.61	-382.2	530.5	670.3	631.4	38.88	17.239	
8,800.0	8,772.8	8,441.9	8,330.4	31.1	10.6	-109.80	-360.3	530.7	727.6	689.1	38.46	18.917	
8,900.0	8,872.4	8,471.0	8,343.5	31.5	10.8	-112.32	-334.4	530.7	792.1	754.0	38.08	20.801	
9,000.0	8,972.0	8,496.0	8,354.3	31.9	11.0	-114.46	-311.8	530.4	862.3	824.6	37.71	22.865	
9,100.0	9,071.5	8,511.0	8,360.5	32.2	11.1	-115.73	-298.1	530.1	937.1	899.8	37.32	25.111	
9,200.0	9,171.1	8,526.7	8,366.5	32.6	11.2	-117.04	-283.6	529.6	1,015.8	978.8	37.02	27.437	
9,300.0	9,270.6	8,542.0	8,372.0	32.9	11.4	-118.32	-269.3	529.0	1,097.7	1,060.9	36.80	29.830	
9,400.0	9,370.2	8,542.0	8,372.0	33.3	11.4	-118.32	-269.3	529.0	1,182.2	1,145.6	36.52	32.372	
9,500.0	9,469.7	8,557.6	8,377.2	33.7	11.5	-119.59	-254.7	528.5	1,268.7	1,232.2	36.44	34.817	
9,600.0	9,569.3	8,574.0	8,382.3	34.0	11.6	-120.92	-239.1	527.8	1,356.9	1,320.5	36.42	37.254	
9,700.0	9,668.8	8,574.0	8,382.3	34.4	11.6	-120.92	-239.1	527.8	1,446.4	1,410.1	36.33	39.810	
9,800.0	9,768.4	8,584.6	8,385.5	34.8	11.7	-121.76	-229.0	527.4	1,537.2	1,500.8	36.37	42.270	
9,900.0	9,868.0	8,592.7	8,387.9	35.1	11.8	-122.40	-221.3	527.1	1,628.9	1,592.5	36.42	44.723	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well AZORES FED COM #705H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Reference Site:	AZORES FEDERAL PROJECT (BULLDOG 2432)	**MD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	AZORES FED COM #705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	3.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	edm
Reference Design:	PWP1	**Offset TVD Reference:**	Offset Datum

Offset Design AZORES FEDERAL PROJECT (BULLDOG 2432) - CORVO FEDERAL #3H - OWB - ACTUAL WELLPA

Offset Site Error: 0.0 usft

Survey Program: 100- VES GyroFlex, 7852-MWD

Offset Well Error: 2.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,000.0	9,967.5	8,605.0	8,391.4	35.5	11.9	-123.35	-209.5	526.7	1,721.5	1,685.0	36.54	47.113	
10,100.0	10,067.1	8,605.0	8,391.4	35.8	11.9	-123.35	-209.5	526.7	1,814.8	1,778.2	36.61	49.565	
10,200.0	10,166.6	8,616.4	8,394.5	36.2	12.0	-124.22	-198.5	526.3	1,908.6	1,871.9	36.78	51.893	

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well AZORES FED COM #705H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Reference Site:	AZORES FEDERAL PROJECT (BULLDOG 2432)	**MD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	AZORES FED COM #705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	3.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	edm
Reference Design:	PWP1	**Offset TVD Reference:**	Offset Datum

Offset Design AZORES FEDERAL PROJECT (BULLDOG 2432) - CORVO FEDERAL #4H - OWB - ACTUAL WELLPA

Offset Site Error: 0.0 usft

Survey Program: 100-GYD_DP_MS, 7764-MWD

Offset Well Error: 2.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.0	0.0	0.0	0.0	3.0	2.0	-133.09	-673.2	-719.7	985.5				
100.0	100.0	99.0	99.0	3.0	2.0	-133.05	-672.4	-719.8	985.1	980.1	5.00	196.836	
200.0	200.0	195.7	195.7	3.0	2.0	-132.98	-671.1	-720.2	984.4	979.3	5.05	194.852	
300.0	300.0	296.3	296.3	3.1	2.0	-132.90	-669.8	-720.7	983.9	978.7	5.14	191.363	
400.0	400.0	392.1	392.1	3.2	2.0	-132.84	-668.7	-721.2	983.5	978.2	5.27	186.699	
500.0	500.0	499.0	499.0	3.4	2.0	-132.78	-667.6	-721.5	983.0	977.6	5.43	181.108	
585.2	585.2	575.9	575.8	3.5	2.1	-132.75	-667.0	-721.6	982.7	977.1	5.59	175.930	
600.0	600.0	589.2	589.1	3.6	2.1	-132.74	-666.9	-721.7	982.7	977.1	5.61	175.013	
700.0	700.0	685.2	685.2	3.8	2.1	-132.69	-666.5	-722.6	983.1	977.2	5.83	168.651	
800.0	800.0	786.3	786.2	4.0	2.1	-132.67	-666.6	-723.2	983.6	977.5	6.07	162.140	
900.0	900.0	887.7	887.7	4.2	2.1	-132.65	-666.6	-723.7	984.0	977.6	6.32	155.633	
1,000.0	1,000.0	990.0	989.9	4.5	2.1	-132.64	-666.7	-723.9	984.2	977.6	6.59	149.406	
1,100.0	1,100.0	1,092.7	1,092.7	4.8	2.1	-132.65	-666.7	-723.8	984.1	977.2	6.87	143.306	
1,200.0	1,200.0	1,191.9	1,191.9	5.1	2.1	-132.66	-666.8	-723.5	983.9	976.7	7.16	137.405	
1,273.7	1,273.7	1,264.4	1,264.3	5.3	2.1	-132.67	-666.8	-723.4	983.9	976.5	7.38	133.373	
1,300.0	1,300.0	1,290.2	1,290.1	5.4	2.1	-132.66	-666.8	-723.5	983.9	976.4	7.45	131.983	
1,400.0	1,400.0	1,389.1	1,389.0	5.7	2.1	-132.66	-666.8	-723.6	984.0	976.2	7.76	126.772	
1,500.0	1,500.0	1,491.4	1,491.3	6.0	2.1	-132.65	-666.7	-723.7	984.0	976.0	8.07	121.900	
1,600.0	1,600.0	1,591.7	1,591.6	6.3	2.1	-132.65	-666.6	-723.7	983.9	975.5	8.39	117.255	
1,700.0	1,700.0	1,691.7	1,691.7	6.6	2.1	-132.64	-666.5	-723.7	983.8	975.1	8.72	112.886	
1,800.0	1,800.0	1,790.7	1,790.7	6.9	2.1	-132.64	-666.3	-723.7	983.8	974.7	9.04	108.857	
1,900.0	1,900.0	1,891.0	1,890.9	7.2	2.1	-132.64	-666.4	-723.7	983.7	974.4	9.37	104.995	
2,000.0	2,000.0	1,992.4	1,992.3	7.6	2.1	-132.63	-666.2	-723.7	983.7	973.9	9.70	101.375	
2,100.0	2,100.0	2,092.4	2,092.4	7.9	2.2	-132.62	-665.9	-723.7	983.5	973.4	10.04	97.920	
2,200.0	2,200.0	2,193.0	2,192.9	8.2	2.2	-132.59	-665.5	-723.8	983.3	972.9	10.39	94.661	
2,272.1	2,272.1	2,262.7	2,262.7	8.5	2.2	-132.58	-665.2	-724.0	983.2	972.5	10.63	92.456	
2,300.0	2,300.0	2,289.6	2,289.6	8.6	2.2	-132.57	-665.2	-724.0	983.2	972.5	10.73	91.632	
2,400.0	2,400.0	2,391.7	2,391.7	8.9	2.2	-132.55	-664.9	-724.3	983.2	972.1	11.07	88.779	
2,500.0	2,500.0	2,490.4	2,490.4	9.2	2.2	-132.54	-664.7	-724.4	983.1	971.7	11.41	86.138	
2,540.5	2,540.5	2,531.5	2,531.5	9.4	2.2	45.75	-664.8	-724.4	983.0	971.4	11.54	85.147	
2,600.0	2,600.0	2,592.5	2,592.4	9.6	2.2	45.83	-664.7	-724.3	981.9	970.1	11.74	83.660	
2,700.0	2,699.8	2,689.0	2,689.0	9.9	2.2	46.11	-664.6	-724.4	978.2	966.1	12.05	81.202	
2,770.0	2,769.6	2,758.7	2,758.6	10.1	2.2	46.41	-664.6	-724.5	974.3	962.1	12.27	79.418	
2,800.0	2,799.5	2,788.7	2,788.7	10.2	2.2	46.53	-664.6	-724.6	972.4	960.1	12.36	78.648	
2,900.0	2,899.0	2,887.5	2,887.4	10.5	2.2	46.94	-664.7	-724.8	966.1	953.5	12.69	76.160	
3,000.0	2,998.6	2,987.9	2,987.8	10.8	2.2	47.37	-664.6	-725.1	959.9	946.9	13.01	73.781	
3,100.0	3,098.1	3,088.1	3,088.0	11.1	2.2	47.80	-664.5	-725.3	953.7	940.3	13.33	71.530	
3,200.0	3,197.7	3,189.5	3,189.5	11.4	2.2	48.22	-664.5	-725.2	947.3	933.7	13.66	69.357	
3,300.0	3,297.2	3,288.2	3,288.1	11.8	2.2	48.64	-664.5	-725.2	941.0	927.0	13.99	67.284	
3,400.0	3,396.8	3,388.3	3,388.3	12.1	2.3	49.08	-664.3	-725.2	934.7	920.4	14.32	65.287	
3,500.0	3,496.4	3,484.8	3,484.8	12.4	2.3	49.51	-664.4	-725.2	928.6	914.0	14.65	63.400	
3,600.0	3,595.9	3,584.4	3,584.3	12.8	2.3	49.95	-664.5	-725.5	922.8	907.8	14.99	61.579	
3,700.0	3,695.5	3,684.9	3,684.8	13.1	2.3	50.42	-664.5	-725.7	916.9	901.6	15.33	59.822	
3,800.0	3,795.0	3,786.0	3,786.0	13.4	2.3	50.89	-664.4	-725.8	911.0	895.3	15.67	58.138	
3,900.0	3,894.6	3,887.5	3,887.4	13.8	2.3	51.36	-664.3	-725.8	904.9	888.9	16.01	56.514	
4,000.0	3,994.1	3,988.0	3,987.9	14.1	2.3	51.84	-664.0	-725.6	898.8	882.4	16.36	54.941	
4,100.0	4,093.7	4,095.1	4,095.1	14.4	2.3	52.37	-663.3	-725.1	892.2	875.5	16.71	53.410	
4,200.0	4,193.3	4,192.5	4,192.4	14.8	2.3	52.84	-662.7	-724.3	885.4	868.3	17.06	51.913	
4,300.0	4,292.8	4,283.1	4,283.0	15.1	2.3	53.27	-662.5	-723.8	879.2	861.8	17.40	50.529	
4,400.0	4,392.4	4,385.7	4,385.6	15.5	2.3	53.79	-662.5	-723.8	873.6	855.9	17.74	49.240	
4,500.0	4,491.9	4,484.1	4,484.0	15.8	2.3	54.28	-662.4	-723.6	867.8	849.7	18.09	47.959	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well AZORES FED COM #705H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Reference Site:	AZORES FEDERAL PROJECT (BULLDOG 2432)	**MD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	AZORES FED COM #705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	3.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	edm
Reference Design:	PWP1	**Offset TVD Reference:**	Offset Datum

Offset Design AZORES FEDERAL PROJECT (BULLDOG 2432) - CORVO FEDERAL #4H - OWB - ACTUAL WELLPA — **Offset Site Error:** 0.0 usft

Survey Program: 100-GYD_DP_MS, 7764-MWD — **Offset Well Error:** 2.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
4,600.0	4,591.5	4,582.4	4,582.3	16.2	2.3	54.77	-662.4	-723.5	862.2	843.8	18.44	46.748	
4,700.0	4,691.0	4,681.5	4,681.4	16.5	2.3	55.28	-662.4	-723.4	856.8	838.0	18.79	45.599	
4,800.0	4,790.6	4,782.4	4,782.3	16.9	2.3	55.80	-662.5	-723.4	851.4	832.3	19.14	44.487	
4,900.0	4,890.1	4,880.9	4,880.8	17.2	2.3	56.32	-662.4	-723.3	846.1	826.6	19.49	43.411	
5,000.0	4,989.7	4,981.2	4,981.1	17.5	2.3	56.85	-662.4	-723.2	840.9	821.0	19.84	42.384	
5,100.0	5,089.3	5,083.9	5,083.8	17.9	2.4	57.42	-662.2	-723.1	835.5	815.3	20.20	41.369	
5,200.0	5,188.8	5,184.9	5,184.8	18.2	2.4	57.97	-661.9	-722.6	829.8	809.3	20.56	40.371	
5,300.0	5,288.4	5,281.4	5,281.3	18.6	2.4	58.51	-661.6	-722.2	824.4	803.4	20.92	39.414	
5,400.0	5,387.9	5,381.3	5,381.2	19.0	2.4	59.10	-661.2	-722.1	819.2	797.9	21.28	38.503	
5,500.0	5,487.5	5,479.6	5,479.6	19.3	2.4	59.69	-660.6	-722.1	814.1	792.5	21.64	37.623	
5,600.0	5,587.0	5,579.0	5,578.9	19.7	2.4	60.31	-659.9	-722.3	809.2	787.2	22.00	36.783	
5,700.0	5,686.6	5,681.3	5,681.2	20.0	2.4	60.98	-658.9	-722.5	804.3	782.0	22.36	35.969	
5,800.0	5,786.2	5,779.1	5,779.1	20.4	2.5	61.63	-657.7	-722.6	799.3	776.6	22.73	35.174	
5,900.0	5,885.7	5,881.7	5,881.6	20.7	2.5	62.35	-656.2	-722.9	794.5	771.4	23.09	34.413	
6,000.0	5,985.3	5,978.7	5,978.6	21.1	2.5	63.01	-655.1	-722.8	789.6	766.1	23.45	33.668	
6,100.0	6,084.8	6,077.9	6,077.8	21.4	2.5	63.68	-654.2	-723.0	785.1	761.3	23.82	32.963	
6,200.0	6,184.4	6,177.0	6,176.9	21.8	2.5	64.36	-653.3	-723.0	780.7	756.5	24.18	32.283	
6,300.0	6,283.9	6,277.7	6,277.5	22.1	2.6	65.06	-652.4	-723.1	776.3	751.8	24.55	31.627	
6,400.0	6,383.5	6,375.2	6,375.1	22.5	2.6	65.73	-651.5	-723.2	772.1	747.2	24.91	30.992	
6,500.0	6,483.0	6,473.7	6,473.6	22.9	2.6	66.40	-651.1	-723.3	768.2	743.0	25.28	30.391	
6,600.0	6,582.6	6,573.9	6,573.7	23.2	2.6	67.06	-650.9	-723.4	764.5	738.8	25.64	29.813	
6,700.0	6,682.2	6,672.9	6,672.8	23.6	2.6	67.71	-650.8	-723.3	760.8	734.8	26.00	29.258	
6,800.0	6,781.7	6,771.6	6,771.5	23.9	2.6	68.35	-651.0	-723.3	757.3	730.9	26.37	28.723	
6,900.0	6,881.3	6,871.9	6,871.8	24.3	2.6	68.99	-651.3	-723.3	754.0	727.2	26.73	28.206	
7,000.0	6,980.8	6,970.3	6,970.2	24.6	2.6	69.60	-652.0	-723.1	750.7	723.6	27.10	27.703	
7,100.0	7,080.4	7,071.9	7,071.8	25.0	2.6	70.21	-653.0	-722.9	747.5	720.1	27.46	27.219	
7,200.0	7,179.9	7,173.2	7,173.1	25.4	2.6	70.81	-654.0	-722.3	744.1	716.3	27.83	26.738	
7,300.0	7,279.5	7,270.3	7,270.2	25.7	2.6	71.38	-655.1	-721.7	740.8	712.6	28.20	26.271	
7,400.0	7,379.1	7,369.9	7,369.7	26.1	2.6	71.95	-656.6	-721.3	737.9	709.4	28.57	25.831	
7,500.0	7,478.6	7,470.6	7,470.5	26.4	2.6	72.55	-658.0	-720.8	734.9	706.0	28.93	25.400	
7,600.0	7,578.2	7,572.4	7,572.2	26.8	2.6	73.16	-659.1	-720.2	731.9	702.6	29.30	24.975	
7,700.0	7,677.7	7,673.8	7,673.6	27.2	2.6	73.75	-660.5	-719.2	728.6	698.9	29.67	24.554	
7,800.0	7,777.3	7,770.5	7,770.3	27.5	2.6	74.28	-662.3	-718.1	725.3	695.3	30.04	24.146	
7,900.0	7,876.8	7,866.9	7,866.7	27.9	2.7	74.81	-664.3	-717.5	722.7	692.2	30.49	23.702	
8,000.0	7,976.4	7,997.6	7,995.6	28.2	4.2	77.13	-646.5	-717.6	717.2	685.4	31.77	22.571	
8,100.0	8,075.9	8,157.8	8,135.1	28.6	5.6	84.32	-569.5	-718.8	708.9	676.3	32.65	21.715	
8,200.0	8,175.5	8,225.9	8,184.5	29.0	5.9	88.49	-522.8	-717.0	701.6	668.4	33.20	21.130	
8,228.2	8,203.6	8,238.9	8,193.4	29.1	6.0	89.32	-513.3	-716.8	701.2	667.8	33.37	21.014	CC, ES
8,300.0	8,275.1	8,268.6	8,213.4	29.3	6.0	91.27	-491.3	-716.7	703.9	670.1	33.85	20.795	
8,400.0	8,374.6	8,316.5	8,244.0	29.7	6.2	94.47	-454.5	-717.1	716.7	682.0	34.67	20.669	SF
8,500.0	8,474.2	8,361.1	8,271.3	30.0	6.3	97.49	-419.2	-717.7	739.3	703.8	35.47	20.844	
8,600.0	8,573.7	8,407.9	8,298.7	30.4	6.5	100.66	-381.3	-718.2	771.3	735.1	36.16	21.328	
8,700.0	8,673.3	8,443.0	8,318.0	30.8	6.8	103.05	-352.0	-718.2	811.7	775.1	36.63	22.159	
8,800.0	8,772.8	8,474.9	8,334.3	31.1	7.0	105.23	-324.6	-718.0	860.3	823.4	36.94	23.292	
8,900.0	8,872.4	8,500.5	8,346.8	31.5	7.3	106.97	-302.3	-717.7	915.9	878.8	37.08	24.702	
9,000.0	8,972.0	8,516.0	8,354.0	31.9	7.4	108.02	-288.6	-717.5	977.7	940.6	37.06	26.381	
9,100.0	9,071.5	8,536.9	8,363.3	32.2	7.7	109.43	-269.8	-717.3	1,044.8	1,007.7	37.06	28.193	
9,200.0	9,171.1	8,548.0	8,367.9	32.6	7.8	110.17	-259.7	-717.2	1,116.3	1,079.4	36.96	30.206	
9,300.0	9,270.6	8,564.1	8,374.3	32.9	8.0	111.25	-244.9	-716.9	1,191.6	1,154.7	36.91	32.283	
9,400.0	9,370.2	8,579.0	8,379.8	33.3	8.2	112.24	-231.1	-716.6	1,270.1	1,233.2	36.87	34.444	
9,500.0	9,469.7	8,579.0	8,379.8	33.7	8.2	112.24	-231.1	-716.6	1,351.1	1,314.4	36.74	36.772	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well AZORES FED COM #705H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Reference Site:	AZORES FEDERAL PROJECT (BULLDOG 2432)	**MD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	AZORES FED COM #705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	3.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	edm
Reference Design:	PWP1	**Offset TVD Reference:**	Offset Datum

Offset Design AZORES FEDERAL PROJECT (BULLDOG 2432) - CORVO FEDERAL #4H - OWB - ACTUAL WELLPA

Offset Site Error: 0.0 usft

Survey Program: 100-GYD_DP_MS, 7764-MWD

Offset Well Error: 2.0 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
9,600.0	9,569.3	8,594.0	8,385.0	34.0	8.3	113.24	-217.0	-716.2	1,434.4	1,397.6	36.76	39.015	
9,700.0	9,668.8	8,611.0	8,390.5	34.4	8.6	114.36	-201.0	-715.8	1,519.6	1,482.8	36.83	41.261	
9,800.0	9,768.4	8,611.0	8,390.5	34.8	8.6	114.36	-201.0	-715.8	1,606.3	1,569.5	36.80	43.647	
9,900.0	9,868.0	8,611.0	8,390.5	35.1	8.6	114.36	-201.0	-715.8	1,694.5	1,657.7	36.81	46.035	
10,000.0	9,967.5	8,627.3	8,395.5	35.5	8.8	115.41	-185.5	-715.4	1,783.7	1,746.8	36.95	48.278	
10,100.0	10,067.1	8,642.0	8,399.9	35.8	9.0	116.34	-171.4	-715.2	1,874.0	1,836.9	37.10	50.514	
10,200.0	10,166.6	8,642.0	8,399.9	36.2	9.0	116.34	-171.4	-715.2	1,965.1	1,927.9	37.19	52.845	

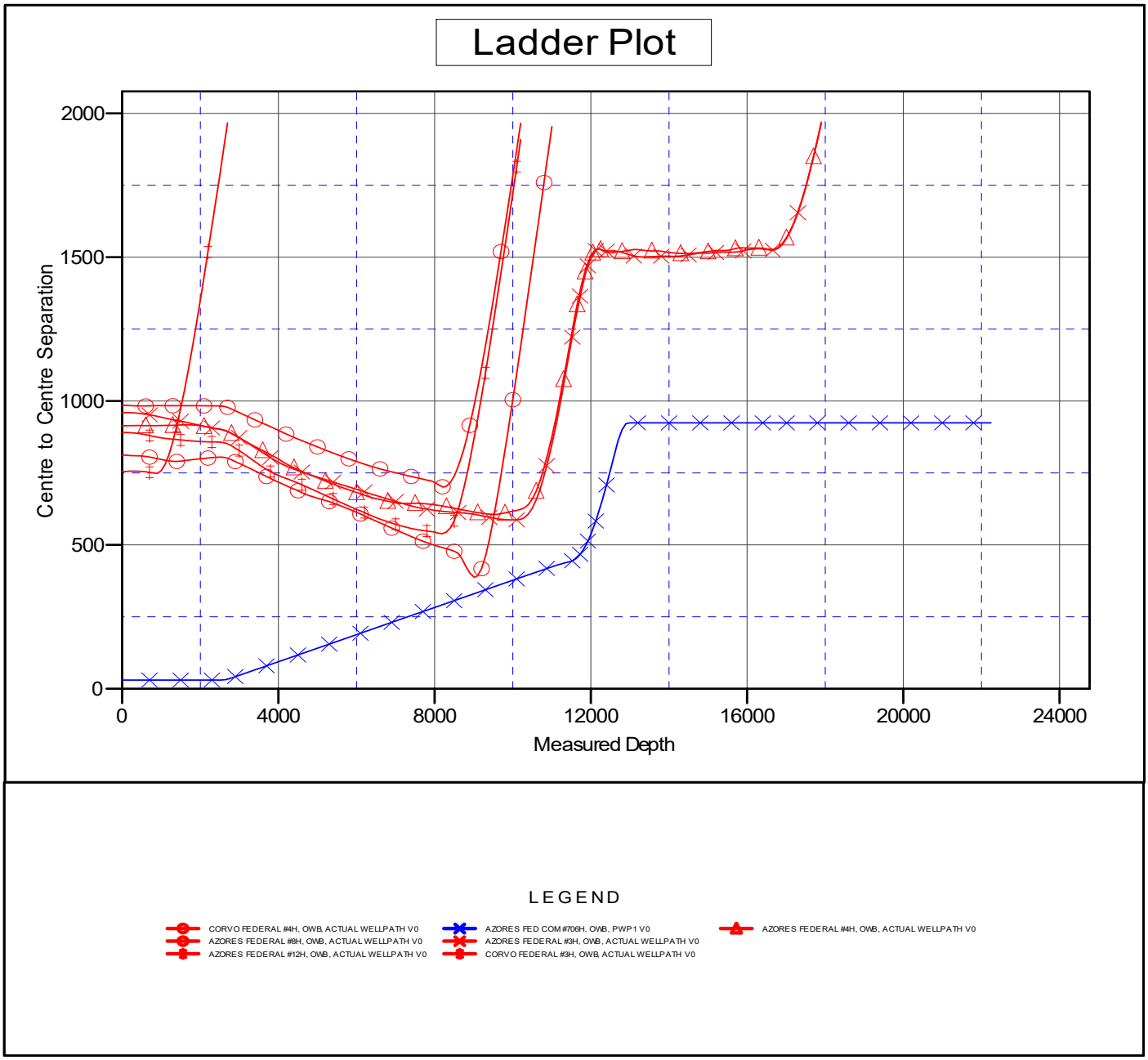
Concho Resources LLC

Anticollision Report

Company:	DELAWARE BASIN EAST	**Local Co-ordinate Reference:**	Well AZORES FED COM #705H
Project:	BULLDOG PROSPECT (NM-E)	**TVD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Reference Site:	AZORES FEDERAL PROJECT (BULLDOG 2432)	**MD Reference:**	KB=26' @ 3529.2usft (McVay 8)
Site Error:	0.0 usft	**North Reference:**	Grid
Reference Well:	AZORES FED COM #705H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	3.0 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OWB	**Database:**	edm
Reference Design:	PWP1	**Offset TVD Reference:**	Offset Datum

Reference Depths are relative to KB=26' @ 3529.2usft (McVay 8)
Offset Depths are relative to Offset Datum
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to: AZORES FED COM #705H
Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30
Grid Convergence at Surface is: 0.34°



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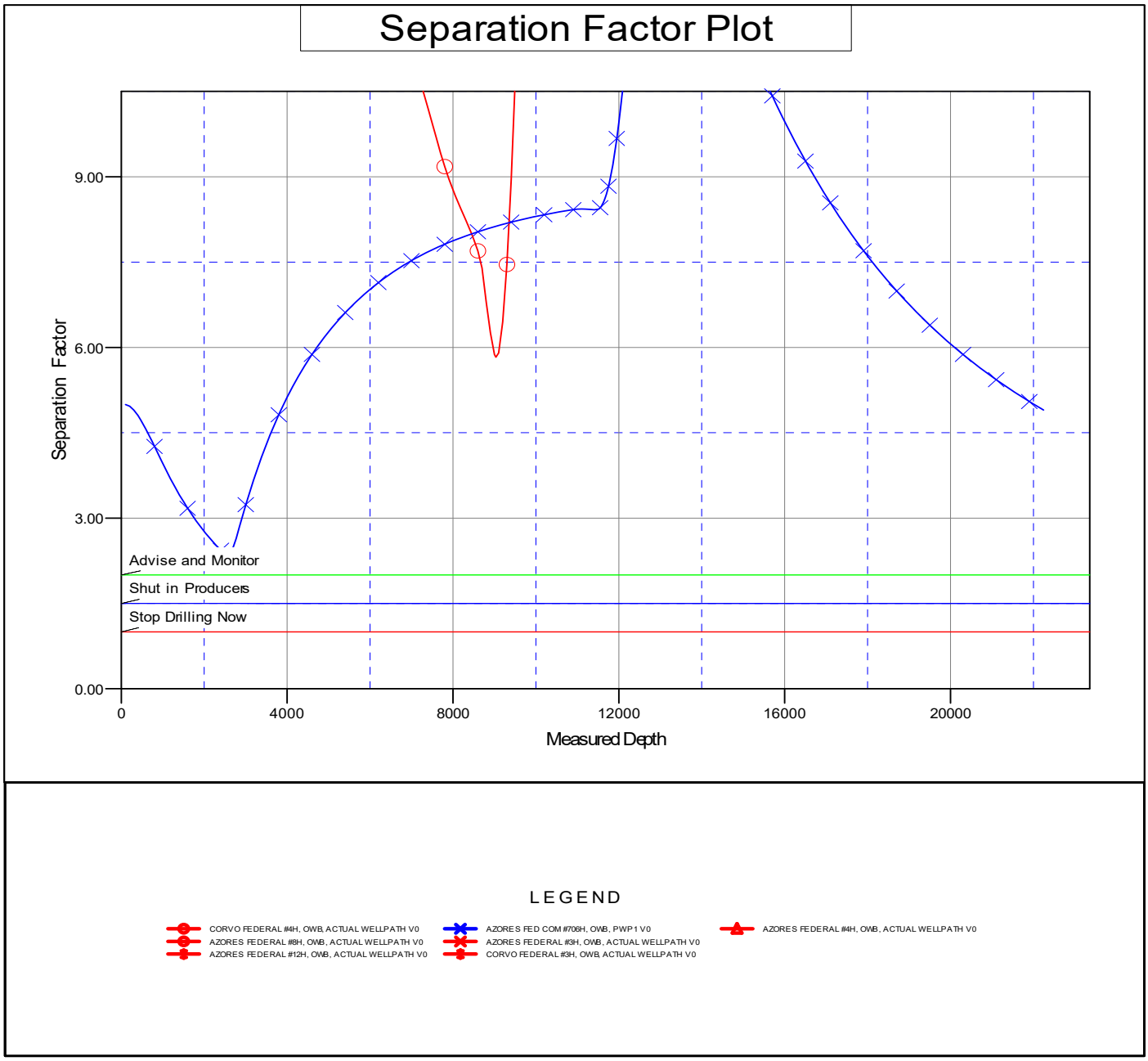


PECOS DISTRICT
SURFACE USE
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	COG Operating LLC
LEASE NO.:	Lease Number NMNM108968 Lease Number NMNM120908
COUNTY:	Lea

Wells:

Well Pad 1
Azores Federal Com 701H
Surface Hole Location: 855' FSL & 620' FEL, Section 29, T24S, R32E
Bottom Hole Location: 50' FSL & 330' FEL, Section 20, T24S, R32E

Azores Federal Com 702H
Surface Hole Location: 855' FSL & 650' FEL, Section 29, T24S, R32E
Bottom Hole Location: 50' FSL & 1254' FEL, Section 20, T24S, R32E

Well Pad 2
Azores Federal Com 703H
Surface Hole Location: 855' FSL & 2630' FEL, Section 29, T24S, R32E
Bottom Hole Location: 50' FSL & 2178' FEL, Section 20, T24S, R32E

Azores Federal Com 704H
Surface Hole Location: 855' FSL & 2622' FWL, Section 29, T24S, R32E
Bottom Hole Location: 50' FSL & 2178' FWL, Section 20, T24S, R32E

Well Pad 3
Azores Federal Com 705H
Surface Hole Location: 855' FSL & 1285' FWL, Section 29, T24S, R32E
Bottom Hole Location: 50' FNL & 1254' FWL, Section 20, T24S, R32E

Azores Federal Com 706H
Surface Hole Location: 855' FSL & 1255' FWL, Section 29, T24S, R32E
Bottom Hole Location: 50' FNL & 330' FWL, Section 20, T24S, R32E

Approval Date: 04/22/2021

TABLE OF CONTENTS

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

I. GENERAL PROVISIONS

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

II. PERMIT EXPIRATION

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural 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 information below discussing NAGPRA.

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.

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.

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

BURIED/SURFACE LINE(S):
When crossing ephemeral drainages the pipeline(s) will be buried to a minimum depth of 48 inches from the top of pipe to ground level. Erosion control methods such as gabions and/or rock aprons should be placed on both up and downstream sides of the pipeline crossing. In addition, curled (weed free) wood/straw fiber wattles/logs and/or silt fences should be placed on the downstream side for sediment control during construction and maintained until soils and vegetation have stabilized. Water bars should be placed within the ROW to divert and dissipate surface runoff. A pipeline access road is not permitted to cross these ephemeral drainages. Traffic should be diverted to a preexisting route. Additional seeding may be required in floodplains and drainages to restore energy dissipating vegetation.

Prior to pipeline installation/construction a leak detection plan will be developed. The method(s) could incorporate gauges to detect pressure drops, situating valves and lines so they can be visually inspected periodically or installing electronic sensors to alarm when a leak is present.

The leak detection plan will incorporate an automatic shut off system that will be installed for proposed pipelines to minimize the effects of an undesirable event.

ELECTRIC LINE(S):
Any water erosion that may occur due to the construction of overhead electric line and during the life of the power line will be quickly corrected and proper measures will be taken to prevent future erosion. A power pole should not be placed in drainages, playas, wetlands, riparian areas, or floodplains and must span across the features at a distance away that would not promote further erosion.

Range:

Cattleguards
Where a permanent cattlegaurd is approved, an appropriately sized cattleguard(s) sufficient to carry out the project shall be installed and maintained at fence crossing(s). Any existing cattleguard(s) on the access road shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattleguard(s) that are in place and are utilized during lease operations. A gate shall be constructed on one side of the cattleguard and fastened securely to H-braces.

Fence Requirement
Where entry granted across a fence line, the fence must be braced and tied off on both sides of the passageway prior to cutting. Once the work is completed, the fence will be restored to its prior condition, or better. The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fence(s).

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

Wildlife:

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

Timing Limitation Exceptions:
The Carlsbad Field Office will publish an annual map of where the LPC timing and noise stipulations and conditions of approval (Limitations) will apply for the identified year (between March 1 and June 15) based on the latest survey information. The LPC Timing Area map will identify areas which are Habitat Areas (HA), Isolated Population Area (IPA), and Primary Population Area (PPA). The LPC Timing Area map will also have an area in red crosshatch. The red crosshatch area is the only area where an operator is required to submit a request for exception to the LPC Limitations. If an

operator is operating outside the red crosshatch area, the LPC Limitations do not apply for that year and an exception to LPC Limitations is not required.

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

VRM IV:

Above-ground structures including meter housing that are not subject to safety requirements are painted a flat non-reflective paint color, Shale Green from the BLM Standard Environmental Color Chart (CC-001: June 2008).

Short-term mitigation measures include painting all above-ground structures that are not subject to safety requirements (including meter housing) Shale Green, which is a flat non-reflective paint color listed in the BLM Standard Environmental Color Chart (CC-001: June 2013). Long-term mitigation measures include the removal of wells and associated infrastructure following abandonment (end of cost-effective production). Previously impacted areas will be reclaimed by removing structures and caliche pads, returning disturbed areas to natural grade, and revegetating with an approved BLM seed mixture; thereby eliminating visual impacts.

V. CONSTRUCTION

A. NOTIFICATION

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

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

B. TOPSOIL

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

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

C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

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

D. FEDERAL MINERAL MATERIALS PIT

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

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

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

F. EXCLOSURE FENCING (CELLARS & PITS)

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

G. ON LEASE ACCESS ROADS

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

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

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

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

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

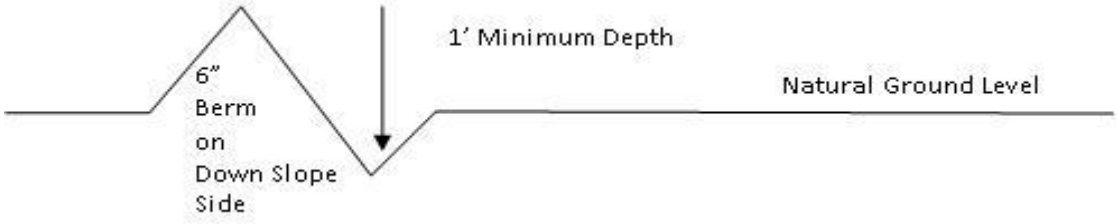
Ditching
Ditching shall be required on both sides of the road.

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

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

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

Cross Section of a Typical Lead-off Ditch



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

Formula for Spacing Interval of Lead-off Ditches

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

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

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

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

Public Access

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

 Approval Date: 04/22/2021

Construction Steps

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

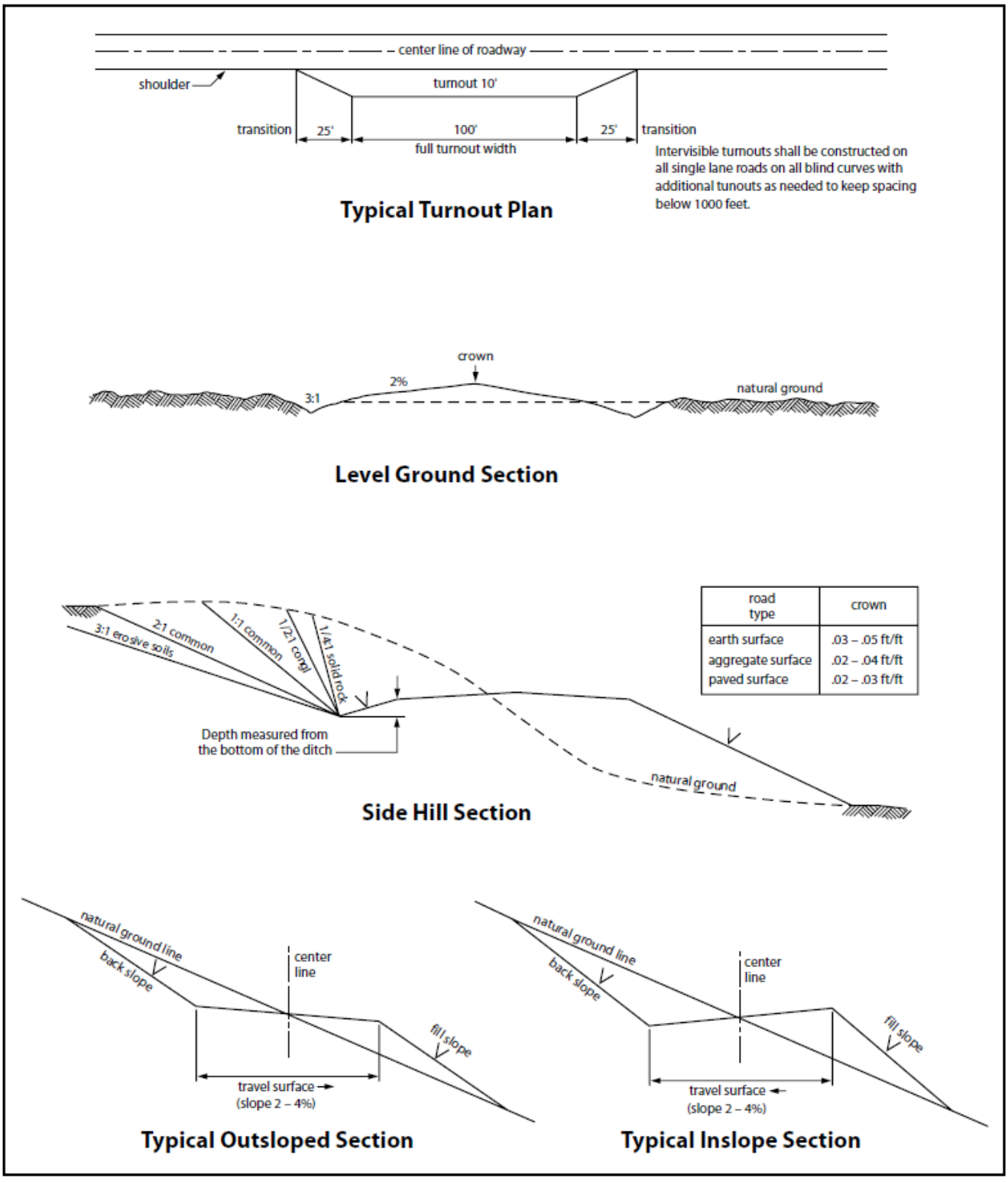


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

granted by the Authorized Officer.

Approval Date: 04/22/2021

VI. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

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

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

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

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

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

Painting Requirement
All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color, **Shale Green** from the BLM Standard Environmental Color Chart (CC-001: June 2008).

B. PIPELINES

- The BLM, Carlsbad Field Office, will be informed immediately if any subsurface drainage channels, passages, or voids are intersected by trenching, and no pipe will be laid in the trench at that point until clearance has been issued by the Authorized Officer.
- If a void is encountered alignments may be rerouted to avoid the karst feature and lessen; the potential of subsidence or collapse of karst features, buildup of toxic or combustible gas, or other possible impacts to cave and karst resources from the buried pipeline.
- Special restoration stipulations or realignment may be required at such intersections, if any.
- A leak detection plan **will be submitted to the BLM Carlsbad Field Office for approval** prior to pipeline installation. The method could incorporate gauges to detect pressure drops, situating values and lines so they can be visually inspected periodically or installing electronic sensors to alarm when a leak is present. The leak detection plan will incorporate an automatic shut off system that will be installed for proposed pipelines to minimize the effects of an undesirable event.
- Regular monitoring is required to quickly identify leaks for their immediate and proper treatment.
- All spills or leaks will be reported to the BLM immediately for their immediate and proper treatment.

BURIED PIPELINE STIPULATIONS

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

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

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

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

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

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

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

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

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

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

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

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

8. The holder shall stockpile an adequate amount of topsoil where blading is allowed. The topsoil to be stripped is approximately ___6___ inches in depth. The topsoil will be segregated from other spoil piles from trench construction. The topsoil will be evenly distributed over the bladed area for the preparation of seeding.

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

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

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

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

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

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

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

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

16. Any cultural 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 17 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.

17. 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."

18. 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.

19. The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes associated roads, pipeline corridor and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

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

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

C. ELECTRIC LINES

- Smaller powerlines will be routed around sinkholes and other karst features to avoid or lessen the possibility of encountering near surface voids and to minimize changes to runoff or possible leaks and spills from entering karst systems. Larger powerlines will adjust their pole spacing to avoid cave and karst features.
- The BLM, Carlsbad Field Office, will be informed immediately if any subsurface drainage channels, cave passages, or voids are penetrated during construction.
- No further construction will be done until clearance has been issued by the Authorized Officer.
- Special restoration stipulations or realignment may be required.

STANDARD STIPULATIONS FOR OVERHEAD ELECTRIC DISTRIBUTION LINES

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

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

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

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

result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.

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

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

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

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

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

7. The BLM serial number assigned to this authorization shall be posted in a permanent, conspicuous manner where the power line crosses roads and at all serviced facilities. Numbers will be at least two inches high and will be affixed to the pole nearest the road crossing and at the facilities served.

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

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

10. Any cultural 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 11 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.

11. 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."

12. 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.

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

Approval Date: 04/22/2021

VII. 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).

VIII. FINAL ABANDONMENT & RECLAMATION

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

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

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

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

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

Seed Mixture 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: 04/22/2021

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**COG**
LEASE NO.:	**NMNM108968**
LOCATION:	Section 29, T.24S., R.32 E., NMPM
COUNTY:	Lea County, New Mexico

WELL NAME & NO.:	Azores Fed Com 705H
SURFACE HOLE FOOTAGE:	855'/S & 1285'/W
BOTTOM HOLE FOOTAGE	50'/N & 1254'/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	[x] COM	[ ] Unit

A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H2S) Drilling Plan shall be activated 500 feet prior to drilling into the **Wolfcamp** 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 **785** feet (a minimum of 25 feet (Lea County) into the Rustler Anhydrite and above the salt) and cemented to the surface.

    a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
    b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8**

Approval Date: 04/22/2021

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.

2. The minimum required fill of cement behind the **7-5/8** inch intermediate casing is:
   - Cement to surface. If cement does not circulate see B.1.a, c-d above.

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 **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.

 Approval Date: 04/22/2021

- 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.
ZS 042021

 Approval Date: 04/22/2021

COG OPERATING LLC
HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

1. HYDROGEN SULFIDE TRAINING

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well:

a. The hazards and characteristics of hydrogen sulfide (H_2S).
b. The proper use and maintenance of personal protective equipment and life support systems.
c. The proper use of H_2S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.
d. The proper techniques for first aid and rescue procedures.

In addition, supervisory personnel will be trained in the following areas:

a. The effects of H2S on metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.
b. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
c. The contents and requirements of the H_2S Drilling Operations Plan and the Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable H2S zone (within 3 days or 500 feet) and weekly H2S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H2S Drilling Operations Plan and the Public Protection Plan. This plan shall be available at the well site. All personnel will be required to carry documentation that they have received the proper training.

2. H_2S SAFETY EQUIPMENT AND SYSTEMS

Note: All H_2S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonably expected to contain H2S. If H2S greater than 100 ppm is encountered in the gas stream we will shut in and install H2S equipment.

a. Well Control Equipment:
Flare line.
Choke manifold with remotely operated choke.
Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit.
Auxiliary equipment to include: annular preventer, mud-gas separator, rotating head.

b. Protective equipment for essential personnel:
Mark II Surviveair 30-minute units located in the dog house and at briefing areas.

c. H2S detection and monitoring equipment:
2 - portable H2S monitor positioned on location for best coverage and response. These units have warning lights and audible sirens when H2S levels of 20 ppm are reached.

d. Visual warning systems:
Caution/Danger signs shall be posted on roads providing direct access to location. Signs will be painted a high visibility yellow with black lettering of sufficient size to be readable at a reasonable distance from the immediate location. Bilingual signs will be used, when appropriate. See example attached.

e. Mud Program:
The mud program has been designed to minimize the volume of H2S circulated to the surface.

f. Metallurgy:
All drill strings, casings, tubing, wellhead, blowout preventers, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H2S service.

g. Communication:
Company vehicles equipped with cellular telephone.

COG OPERATING LLC has conducted a review to determine if an H2S contingency plan is required for the above referenced well. We were able to conclude that any potential hazardous volume would be minimal. H2S concentrations of wells in this area from surface to TD are low enough; therefore, we do not believe that an H2S contingency plan is necessary.

W A R N I N G

YOU ARE ENTERING AN H_2S AREA
AUTHORIZED PERSONNEL ONLY

1. ***BEARDS OR CONTACT LENSES NOT ALLOWED***
2. ***HARD HATS REQUIRED***
3. ***SMOKING IN DESIGNATED AREAS ONLY***
4. ***BE WIND CONSCIOUS AT ALL TIMES***
5. ***CK WITH COG OPERATING LLC FOREMAN AT MAIN OFFICE***

COG OPERATING LLC

1-575-748-6940

EMERGENCY CALL LIST

	OFFICE	MOBILE
COG OPERATING LLC OFFICE	575-748-6940	
SETH WILD	432-683-7443	432-528-3633
WALTER ROYE	575-748-6940	432-934-1886

EMERGENCY RESPONSE NUMBERS

	OFFICE
STATE POLICE	575-748-9718
EDDY COUNTY SHERIFF	575-746-2701
EMERGENCY MEDICAL SERVICES (AMBULANCE)	911 or 575-746-2701
EDDY COUNTY EMERGENCY MANAGEMENT (HARRY BURGESS)	575-887-9511
STATE EMERGENCY RESPONSE CENTER (SERC)	575-476-9620
CARLSBAD POLICE DEPARTMENT	575-885-2111
CARLSBAD FIRE DEPARTMENT	575-885-3125
NEW MEXICO OIL CONSERVATION DIVISION	575-748-1283
INDIAN FIRE & SAFETY	800-530-8693
HALLIBURTON SERVICES	800-844-8451

COG Operating LLC

Rig Plat & Closed Loop Equipment Diagram

Well pad will be 500' X 500' with cellar in center of pad

Flare Lines will be from both Choke Manifold & Separator to edge of location.

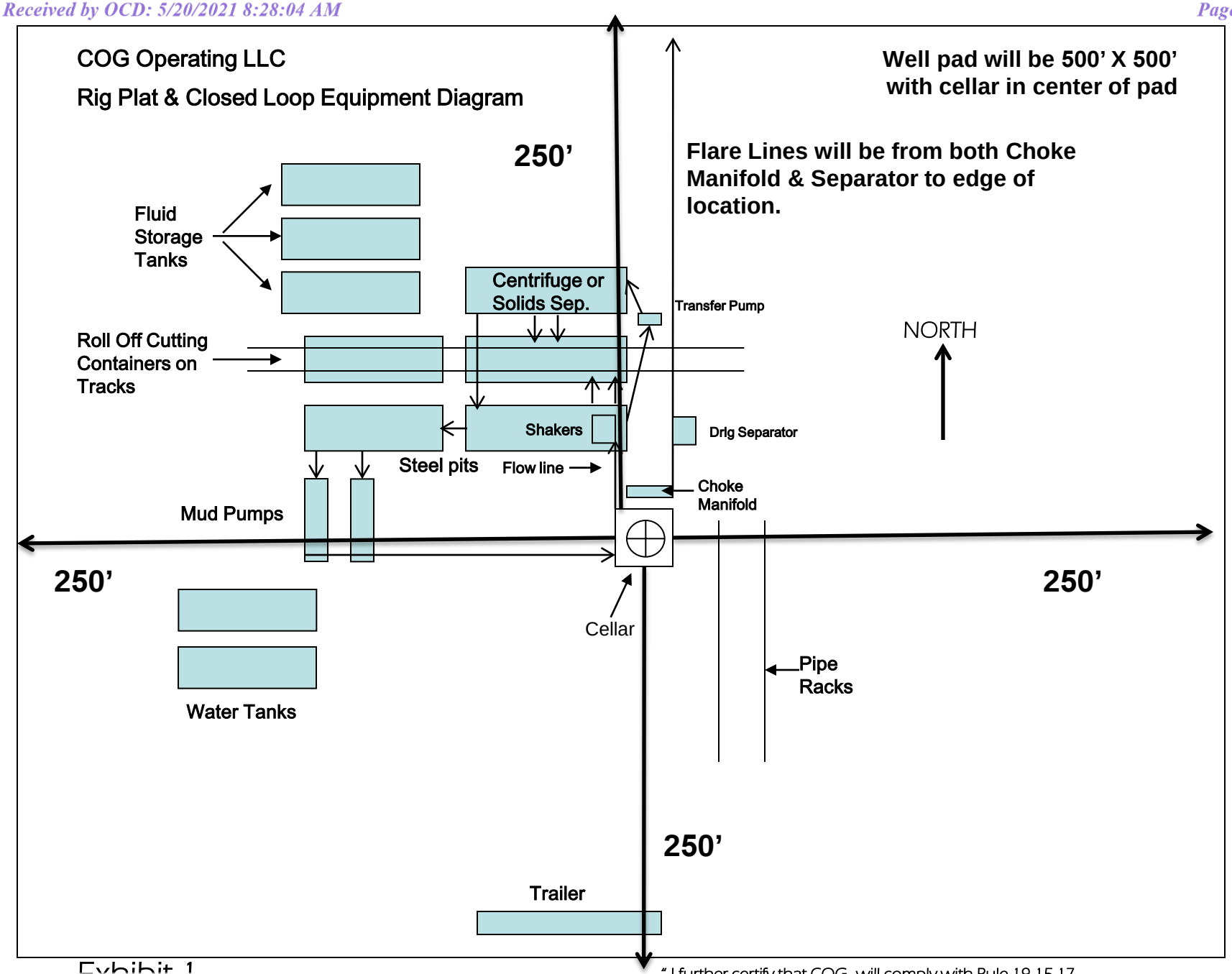


Exhibit 1

"I further certify that COG will comply with Rule 19.15.17 NMAC by using a Closed Loop System."

Intent ☐ As Drilled ☐

API #		
Operator Name:	Property Name:	Well Number

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
Latitude					Longitude				NAD

Is this well the defining well for the Horizontal Spacing Unit? ☐

Is this well an infill well? ☐

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

API #		
Operator Name:	Property Name:	Well Number

KZ 06/29/2018

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

Drilling Plan Data Report
05/18/2021

APD ID: 10400067931
Submission Date: 01/17/2021
Operator Name: COG OPERATING LLC
Well Name: AZORES FEDERAL COM
Well Number: 705H
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
1386392	QUATERNARY	3503	0	0	ALLUVIUM	NONE	N
1386389	RUSTLER	2742	761	761	ALLUVIUM	NONE	N
1386372	TOP SALT	2434	1069	1069	SALT	NONE	N
1386387	BOTTOM SALT	-860	4363	4363	ANHYDRITE, SALT	NONE	N
1386390	LAMAR	-1051	4554	4554	SANDSTONE	NONE	N
1386379	BELL CANYON	-1092	4595	4595	LIMESTONE	NONE	N
1386374	CHERRY CANYON	-1971	5474	5474	SANDSTONE	NATURAL GAS, OIL	N
1386380	BRUSHY CANYON	-3427	6930	6930	SANDSTONE	NATURAL GAS, OIL	N
1386384	BONE SPRING LIME	-5002	8505	8505	LIMESTONE	NATURAL GAS, OIL	N
1386376	BONE SPRING 1ST	-6114	9617	9617	SANDSTONE	NATURAL GAS, OIL	N
1386386		-10937	9653	9653			N
1386377	BONE SPRING 2ND	-6721	10224	10224	SANDSTONE	NATURAL GAS, OIL	N
1386370	BONE SPRING 3RD	-7998	11501	11501	SANDSTONE	NATURAL GAS, OIL	N
1386381	WOLFCAMP	-8447	11950	11950	SHALE, SILTSTONE	NATURAL GAS, OIL	Y
1548858	WOLFCAMP	-8953	12456	12456	SHALE, SILTSTONE	NATURAL GAS, OIL	N

Section 2 - Blowout Prevention

Operator Name: COG OPERATING LLC

Well Name: AZORES FEDERAL COM **Well Number:** 705H

Pressure Rating (PSI): 10M **Rating Depth:** 11950

Equipment: Annular. The BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold.
Requesting Variance? YES

Variance request: Request a 5M variance on a 10M system. (5M variance attached in section 8). 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.
Testing Procedure: 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 of the components installed will be functional and tested.
Choke Diagram Attachment:

COG_Azores_10M_Choke_20210115184014.pdf

BOP Diagram Attachment:

COG_Azores_10M_BOP_20210115184041.pdf

COG_Azores__Flex_Hose_Variance_20210115184101.pdf

Pressure Rating (PSI): 5M **Rating Depth:** 11471

Equipment: Annular. The BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold.
Requesting Variance? NO

Variance request: 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.
Testing Procedure: 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 of the components installed will be functional and tested.
Choke Diagram Attachment:

COG_Azores_5M_Choke_20210115183103.pdf

BOP Diagram Attachment:

COG_Azores_5M_BOP_20210115183112.pdf

COG_Azores__Flex_Hose_Variance_20210115183807.pdf

Operator Name: COG OPERATING LLC

Well Name: AZORES FEDERAL COM **Well Number:** 705H

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	1019	0	1019	3503	2484	1019	J-55	45.5	OTHER - BTC	4.59	1.15	DRY	17.17	DRY	15.42
2	INTERMEDIATE	8.75	7.625	NEW	API	Y	0	11471	0	11471	-6907	-7968	11471	HCP-110	29.7	OTHER - FJM	1.26	1.51	DRY	1.93	DRY	2.76
3	PRODUCTION	6.75	5.5	NEW	API	Y	0	22242	0	11471	-6907	-7968	22242	P-110	23	OTHER - Talon HTQ	2.05	2.32	DRY	2.57	DRY	2.65

Casing Attachments

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

COG_Azores_705H_Casing_Prog_20210117144512.pdf

Operator Name: COG OPERATING LLC

Well Name: AZORES FEDERAL COM **Well Number:** 705H

Casing Attachments

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

Inspection Document:

Spec Document:

Tapered String Spec:

COG_Azores_705H_Casing_Prog_20210117144548.pdf

Casing Design Assumptions and Worksheet(s):

COG_Azores_705H_Casing_Prog_20210117144613.pdf

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

Inspection Document:

Spec Document:

Tapered String Spec:

COG_Azores_705H_Casing_Prog_20210117144643.pdf

Casing Design Assumptions and Worksheet(s):

COG_Azores_705H_Casing_Prog_20210117144707.pdf

Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead	1	0	1019	420	1.75	13.5	735	50	Class C	4% Gel
SURFACE	Tail		0	1019	250	1.34	14.8	335	50	C	2% CaCl2
INTERMEDIATE	Lead		0	11471	1000	2.8	11	2800	50	NeoCem	No additives
INTERMEDIATE	Tail		0	11471	300	1.1	16.4	330	50	Class H	No additives
PRODUCTION	Lead	7500	11471	22242	750	2	12.7	1500	35	Lead: 35:65:6 H Blend	No additives

Operator Name: COG OPERATING LLC

Well Name: AZORES FEDERAL COM **Well Number:** 705H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
PRODUCTION	Tail		11471	22242	1000	1.24	14.4	1240	35	Tail: 50:50:2 Class H Blend	No additives

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

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

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

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

Describe the mud monitoring system utilized: PVT/Pason/Visual Monitoring

Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
1019	11471	OTHER : Brine Diesel Emulsion	8.6	9.4							Brine Diesel Emulsion
11471	22242	OIL-BASED MUD	10.5	12							OBM
0	1019	OTHER : Fresh water gel	8.4	8.6							Fresh water gel

Operator Name: COG OPERATING LLC

Well Name: AZORES FEDERAL COM **Well Number:** 705H

Section 6 - Test, Logging, Coring

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

None planned

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

COMPENSATED NEUTRON LOG,GAMMA RAY LOG,

Coring operation description for the well:

None planned

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 7460 **Anticipated Surface Pressure:** 4831

Anticipated Bottom Hole Temperature(F): 175

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

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

COG_Azores_H2S_SUP_20210115185729.pdf

COG_Azores_705H_706H_H2S_Schem_20210117145142.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

COG_Azores_705H_AC_RPT_20210117145214.pdf

COG_Azores_705H_Directional_Plan_20210117145222.pdf

Other proposed operations facets description:

Geological formations on Section 2 in AFMSS II are not correct. See drilling program attached for correct formations.
Drilling Program.
Cement Program.
GCP.
Talon.
Proprietary Connections Performance.

Other proposed operations facets attachment:

5.500_23.00__0.415__P110_RY_USS_TALON_HTQ_RD5.900_Data_Sheet_07_21_2020_20210115185901.pdf

COG_Azorezs_Fed_Com_GCP_20210116162810.pdf

Proprietary_Connections_Performance_Data_7.6250_29.7000_0.3750__P110_HC_20210115185909.pdf

COG_Azores_705H_Cement_Prog_20210117145240.pdf

COG_Azores_705H_Drilling_Program_20210117145247.pdf

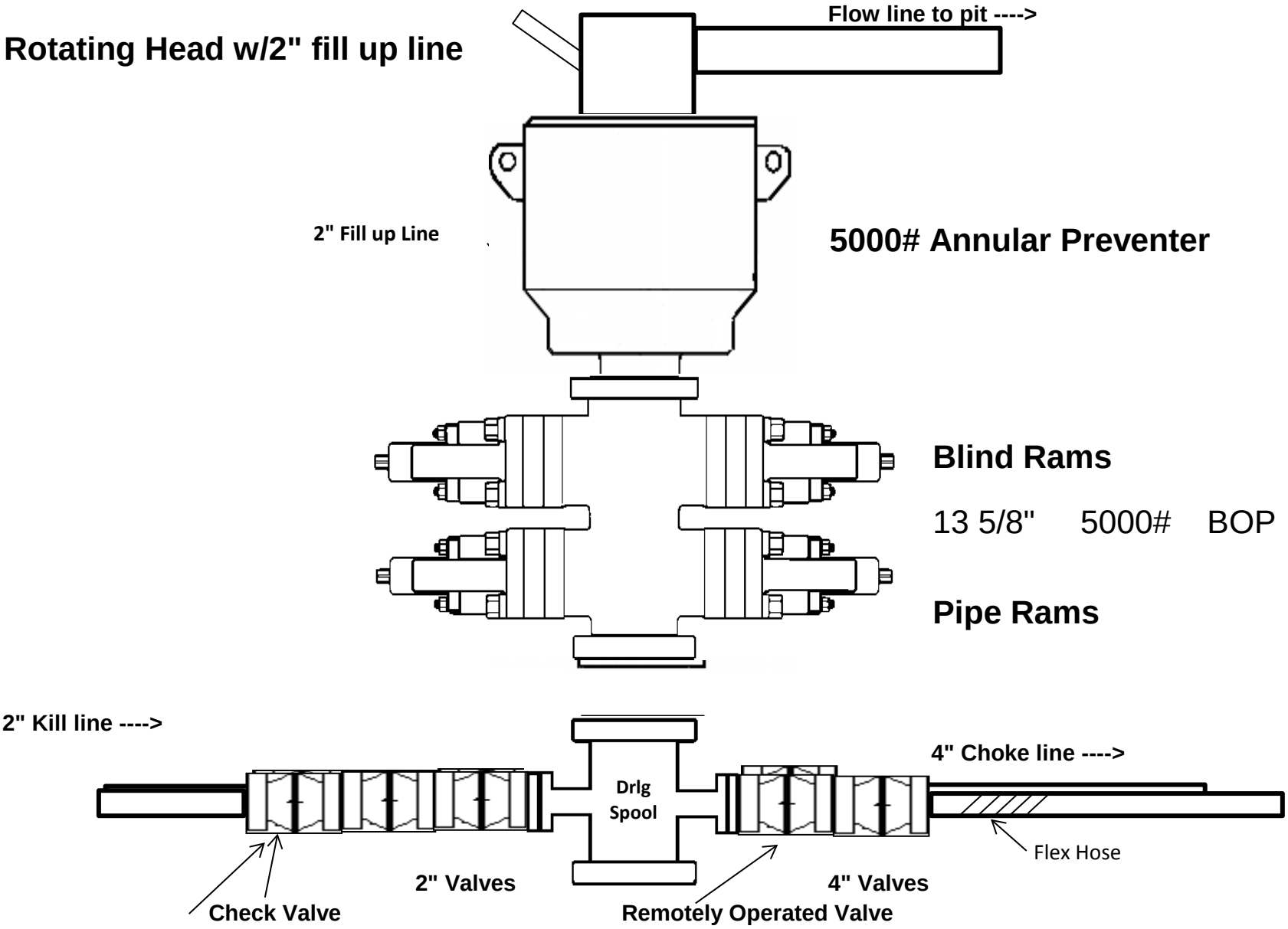
Operator Name: COG OPERATING LLC

Well Name: AZORES FEDERAL COM **Well Number:** 705H

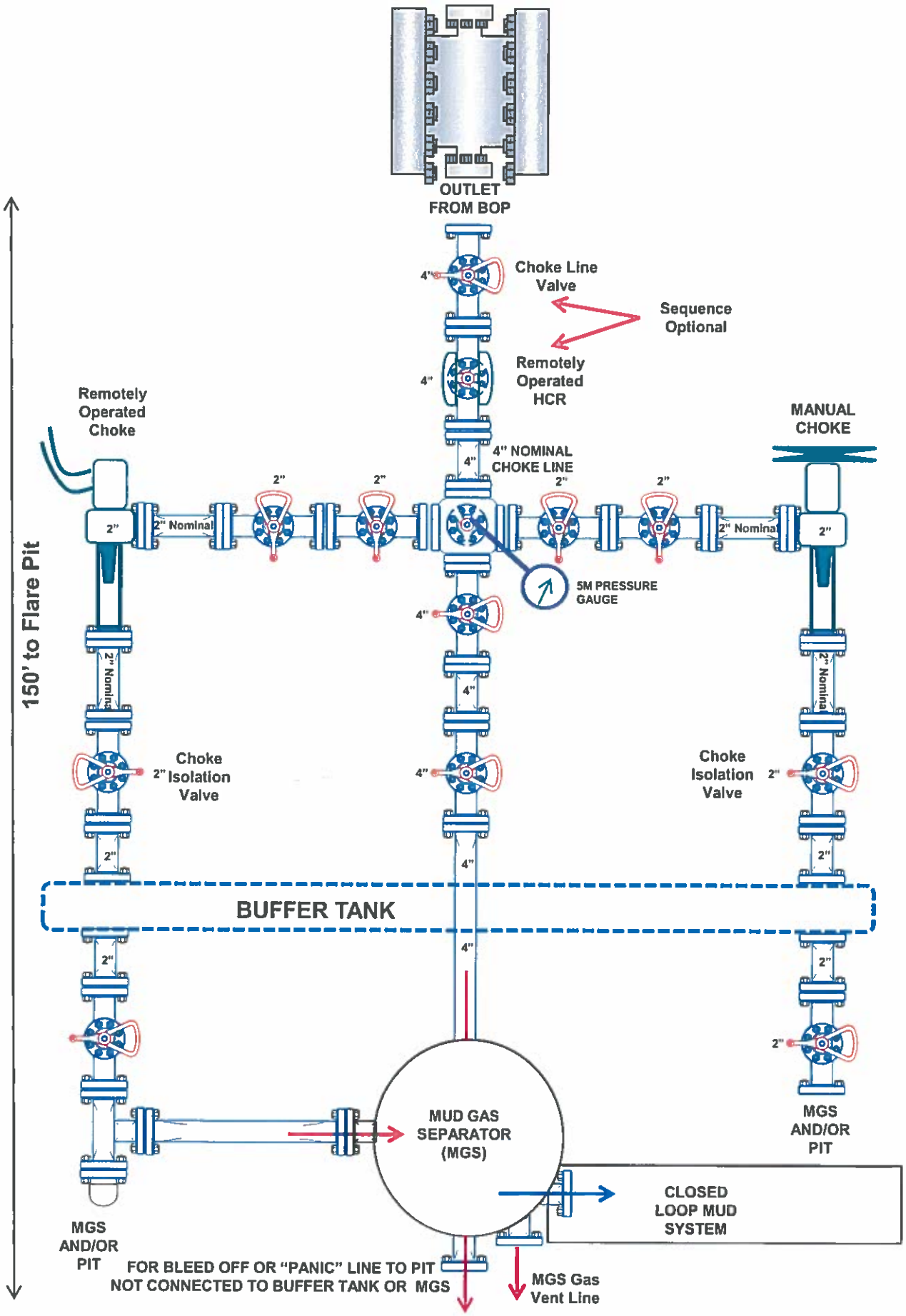
Other Variance attachment:

COG_5M_Variance_Well_Plan_20200513161353.pdf

5,000 psi BOP Schematic

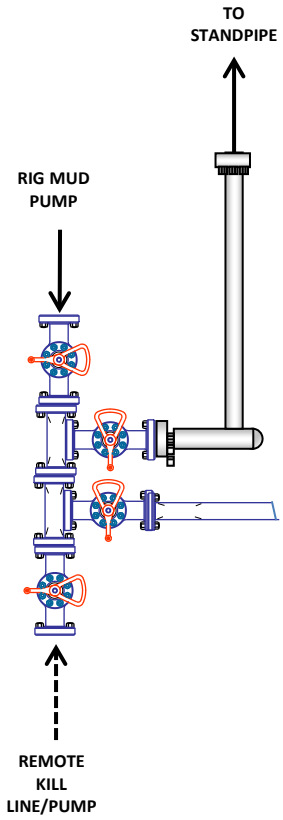


5M Choke Manifold Equipment (WITH MGS + CLOSED LOOP)

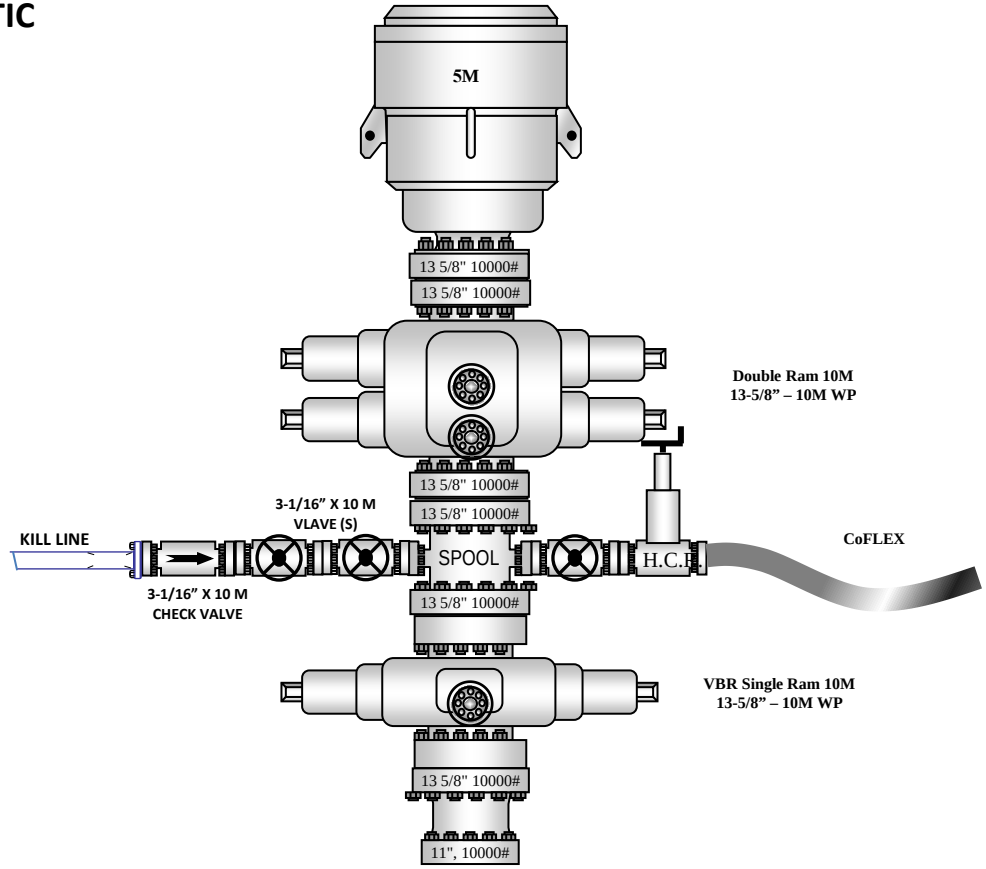


10M BOP Stack

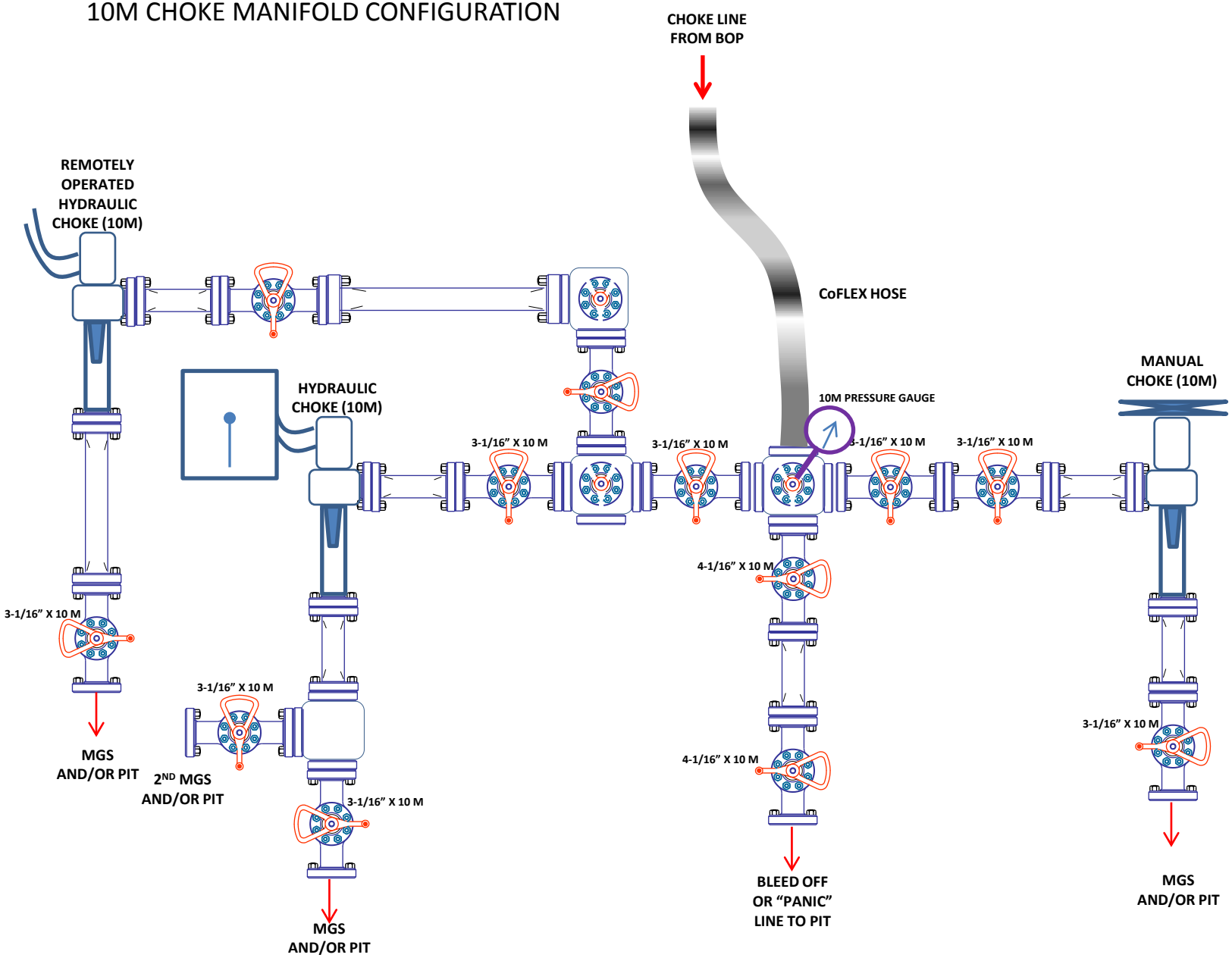
10M REMOTE KILL SCHEMATIC



10M BOP Stack
(5M Annular)



10M CHOKE MANIFOLD CONFIGURATION



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 28926

CONDITIONS

Operator: COG OPERATING LLC 600 W Illinois Ave Midland, TX 79701	OGRID: 229137
	Action Number: 28926
	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	7/6/2021
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	7/6/2021