PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Caza Operating, LLC
LEASE NO.:	NMNM-092199
WELL NAME & NO.:	Copperline West 29 Federal 7H
SURFACE HOLE FOOTAGE:	0130' FNL & 2180' FWL
BOTTOM HOLE FOOTAGE	0330' FSL & 2275' FWL
LOCATION:	Section 29, T. 23 S., R 34 E., NMPM
COUNTY:	County, New Mexico

Operator to submit sundry to add "COM" to the well name.

Communitization Agreement

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

A. DRILLING OPERATIONS REQUIREMENTS

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

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

☐ **Lea County**

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

1. A Hydrogen Sulfide (H2S) Drilling Plan shall be activated 500 feet prior to drilling into the **Delaware** 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.

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

3. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works is located, this does not include the dog house or stairway area.

4. **The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.**

B. CASING

Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.

Centralizers required on surface casing per Onshore Order 2.III.B.1.f.

Wait on cement (WOC) for Water Basin:
After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements.

Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.

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

Possible water flows in the Salado, Artesia Group, and Capitan Reef.
Possible lost circulation in the Rustler, Red Beds, Delaware, and Capitan Reef.

1. The **13-3/8** inch surface casing shall be set at approximately **1063** feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface. **If salt is encountered, set casing at least 25 feet above the salt. Excess calculates to 5% - Additional cement may be required.**

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

    b. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.**

    c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.

    d. If cement falls back, remedial cementing will be done prior to drilling out that string.

Formation below the 13-3/8" shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe and the mud weight for the bottom of the hole. Report results to BLM office.

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

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

Formation below the 9-5/8" shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe (not the mud weight required to prevent dissolving the salt formation) and the mud weight for the bottom of the hole. Report results to BLM office.

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

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

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

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

C. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API 53.

2. Variance approved to use flex line from BOP to choke manifold. 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.** If the BLM inspector questions the straightness of the hose, a BLM engineer will be contacted and will review in the field or via picture supplied by inspector to determine if changes are required (operator shall expect delays if this occurs).

3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be psi. **5M system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.**

4. The appropriate BLM office shall be notified a minimum of hours in advance for a representative to witness the tests.

    a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

    a. The tests shall be done by an independent service company utilizing a test plug **not a cup or J-packer**.

    b. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.

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

    d. All tests are required to be recorded on a calibrated test chart. **A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.**

    e. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.

D. DRILL STEM TEST

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

E. WASTE MATERIAL AND FLUIDS

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

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

JAM 082918

PECOS DISTRICT
SURFACE USE
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Caza Operating, LLC
LEASE NO.:	NMNM92199
WELL NAME & NO.:	7H-Copperline West 29 Federal
SURFACE HOLE FOOTAGE:	130'/N & 2180'/W
BOTTOM HOLE FOOTAGE	330'/S & 2275'/W
LOCATION:	Section 29, T.23 S., R.34 E., NMPM
COUNTY:	Lea County, New Mexico

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

Approval Date: 08/31/2018

I. GENERAL PROVISIONS

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

II. PERMIT EXPIRATION

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

III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

IV. NOXIOUS WEEDS

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

V. SPECIAL REQUIREMENT(S)

Hydrology

The entire well pad will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad. Topsoil shall not be used to construct the berm. No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad. The berm shall be maintained through the life of the well and after interim reclamation has been completed. Any water erosion that may occur due to the construction of the well pad during the life of the well will be quickly corrected and proper measures will be taken to prevent future erosion.

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.

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 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.

Range

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.

VI. CONSTRUCTION

A. NOTIFICATION

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

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

B. TOPSOIL

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

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

C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

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

D. FEDERAL MINERAL MATERIALS PIT

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

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

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

F. EXCLOSURE FENCING (CELLARS & PITS)

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

G. ON LEASE ACCESS ROADS

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

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

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

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

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

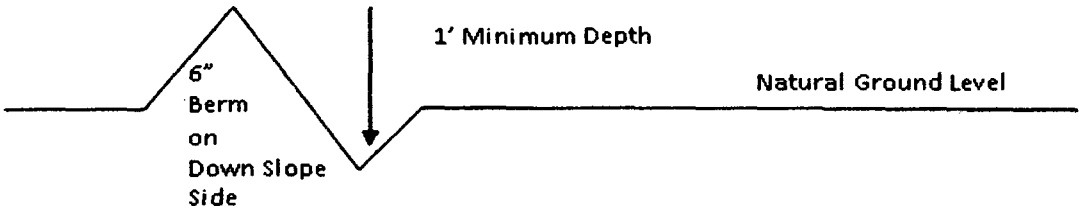
Ditching
Ditching shall be required on both sides of the road.

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

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

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

Cross Section of a Typical Lead-off Ditch



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

Formula for Spacing Interval of Lead-off Ditches

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

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

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

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

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

Construction Steps

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

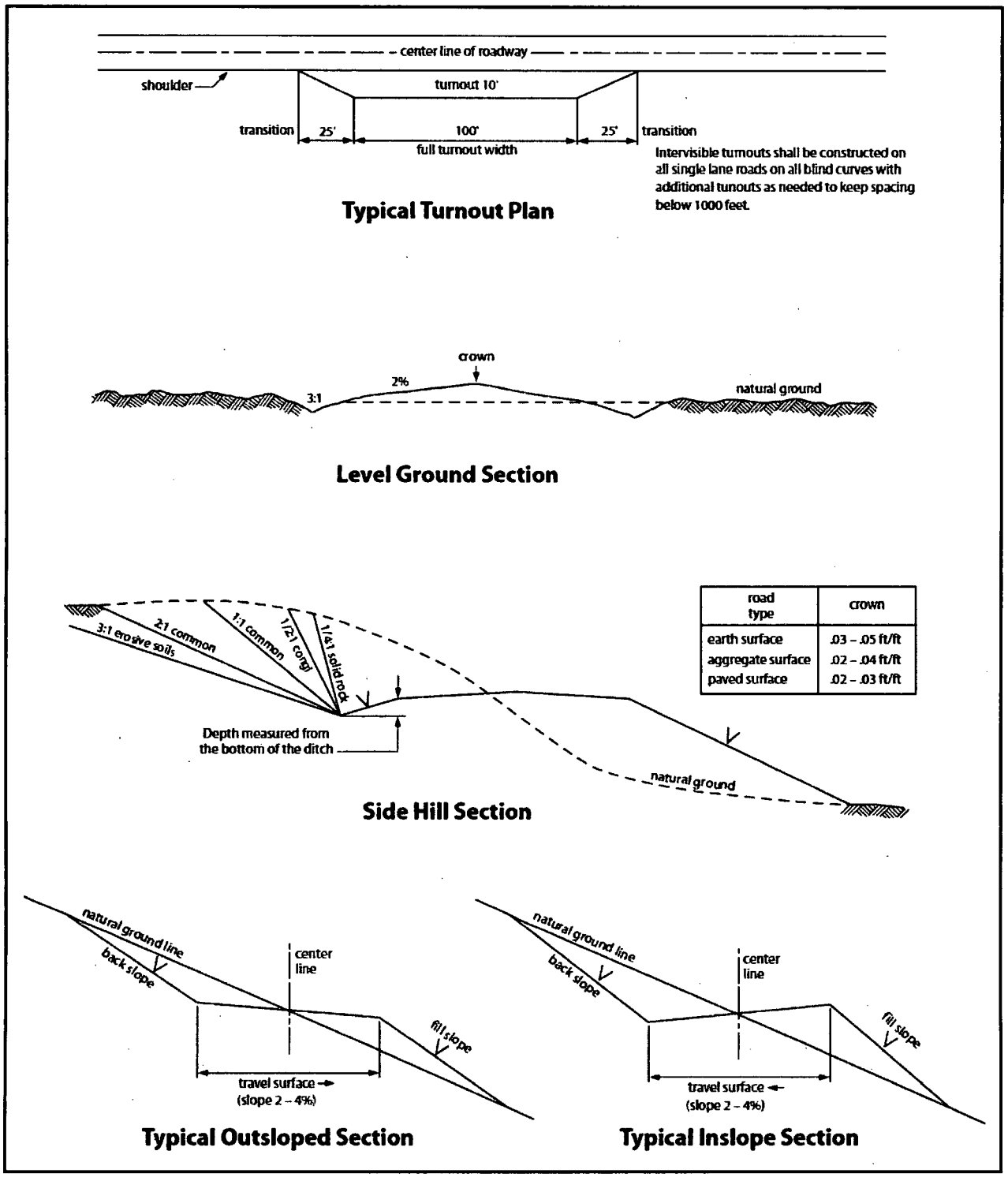


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

VII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

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

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

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

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

Containment Structures

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

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

VIII. INTERIM RECLAMATION

During the life of the development, all disturbed areas not needed for active support of production operations should undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

Within six (6) months of well completion, operators should work with BLM surface management specialists (Jim Amos: 575-234-5909) to devise the best strategies to reduce the size of the location. Interim reclamation should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche that is free of contaminants may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

All disturbed areas after they have been satisfactorily prepared need to be reseeded with the seed mixture provided below.

Upon completion of interim reclamation, the operator shall submit a Sundry Notices and Reports on Wells, Subsequent Report of Reclamation (Form 3160-5).

IX. FINAL ABANDONMENT & RECLAMATION

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

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

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

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

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: 08/31/2018

AFMSS

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

Operator Certification Data Report

08/31/2018

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: Tony B Sam **Signed on:** 12/22/2017

Title: VP Operations

Street Address: 200 N. Loraine Street, Suite 1550

City: Midland **State:** TX **Zip:** 79701

Phone: (432)682-7424

Email address: steve.morris@morcorengineering.com

Field Representative

Representative Name: Kevin Garrett

Street Address: 200 N. Lorraine St. #1550

City: Midland **State:** NM **Zip:** 79701

Phone: (432)556-8508

Email address: kgarrett@cazapetro.com

Caza Oil and Gas

West Copperline
West Copperline 29 Fed 7H
West Copperline 29 Fed 7H
West Copperline 29 Fed 7H

Plan: 160719 West Copperline 29 Fed 7H

MOJO Standard Plan

03 August, 2016

MOJO Standard Plan

Company:	Caza Oil and Gas	**Local Co-ordinate Reference:**	Well West Copperline 29 Fed 7H
Project:	West Copperline	**TVD Reference:**	WELL @ 3580.5usft (Original Well Elev)
Site:	West Copperline 29 Fed 7H	**MD Reference:**	WELL @ 3580.5usft (Original Well Elev)
Well:	West Copperline 29 Fed 7H	**North Reference:**	Grid
Wellbore:	West Copperline 29 Fed 7H	**Survey Calculation Method:**	Minimum Curvature
Design:	160719 West Copperline 29 Fed 7H	**Database:**	EDM 5000.1 Single User Db

Project West Copperline

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site West Copperline 29 Fed 7H

Site Position:		**Northing:**	467,520.66 usft	**Latitude:**	32° 16' 56.986 N
From:	Lat/Long	**Easting:**	800,857.45 usft	**Longitude:**	103° 29' 36.845 W
Position Uncertainty:	1.0 usft	**Slot Radius:**	16 "	**Grid Convergence:**	0.45 °

Well West Copperline 29 Fed 7H

Well Position	**+N/-S**	0.0 usft	**Northing:**	467,520.20 usft	**Latitude:**	32° 16' 56.981 N
	+E/-W	0.0 usft	**Easting:**	800,857.40 usft	**Longitude:**	103° 29' 36.845 W
Position Uncertainty		1.0 usft	**Wellhead Elevation:**	0.0 usft	**Ground Level:**	3,539.0 usft

Wellbore West Copperline 29 Fed 7H

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	7/19/2016	6.92	60.12	48,149

Design 160719 West Copperline 29 Fed 7H

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	178.28

Survey Tool Program **Date** 8/3/2016

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	13,637.0	160719 West Copperline 29 Fed 7H (Wes	MWD	MWD - Standard

Company:	Caza Oil and Gas	**Local Co-ordinate Reference:**	Well West Copperline 29 Fed 7H
Project:	West Copperline	**TVD Reference:**	WELL @ 3580.5usft (Original Well Elev)
Site:	West Copperline 29 Fed 7H	**MD Reference:**	WELL @ 3580.5usft (Original Well Elev)
Well:	West Copperline 29 Fed 7H	**North Reference:**	Grid
Wellbore:	West Copperline 29 Fed 7H	**Survey Calculation Method:**	Minimum Curvature
Design:	160719 West Copperline 29 Fed 7H	**Database:**	EDM 5000.1 Single User Db

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
0.0	0.00	0.00	0.0	-3,580.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
100.0	0.00	0.00	100.0	-3,480.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
120.0	0.00	0.00	120.0	-3,460.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
20" Conductor										
200.0	0.00	0.00	200.0	-3,380.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
300.0	0.00	0.00	300.0	-3,280.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
400.0	0.00	0.00	400.0	-3,180.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
500.0	0.00	0.00	500.0	-3,080.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
600.0	0.00	0.00	600.0	-2,980.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
700.0	0.00	0.00	700.0	-2,880.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
800.0	0.00	0.00	800.0	-2,780.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
900.0	0.00	0.00	900.0	-2,680.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
1,000.0	0.00	0.00	1,000.0	-2,580.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
1,030.5	0.00	0.00	1,030.5	-2,550.0	0.0	0.0	0.0	0.00	467,520.20	800,857.40
Rustler										
1,100.0	0.00	0.00	1,100.0	-2,480.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
1,163.0	0.00	0.00	1,163.0	-2,417.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
13 3/8" Surface Casing										
1,200.0	0.00	0.00	1,200.0	-2,380.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
1,230.5	0.00	0.00	1,230.5	-2,350.0	0.0	0.0	0.0	0.00	467,520.20	800,857.40
Top of Salt										
1,300.0	0.00	0.00	1,300.0	-2,280.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
1,400.0	0.00	0.00	1,400.0	-2,180.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
1,500.0	0.00	0.00	1,500.0	-2,080.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
1,600.0	0.00	0.00	1,600.0	-1,980.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
1,700.0	0.00	0.00	1,700.0	-1,880.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
1,800.0	0.00	0.00	1,800.0	-1,780.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
1,900.0	0.00	0.00	1,900.0	-1,680.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40

MOJO Standard Plan

Company:	Caza Oil and Gas	**Local Co-ordinate Reference:**	Well West Copperline 29 Fed 7H
Project:	West Copperline	**TVD Reference:**	WELL @ 3580.5usft (Original Well Elev)
Site:	West Copperline 29 Fed 7H	**MD Reference:**	WELL @ 3580.5usft (Original Well Elev)
Well:	West Copperline 29 Fed 7H	**North Reference:**	Grid
Wellbore:	West Copperline 29 Fed 7H	**Survey Calculation Method:**	Minimum Curvature
Design:	160719 West Copperline 29 Fed 7H	**Database:**	EDM 5000.1 Single User Db

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
2,000.0	0.00	0.00	2,000.0	-1,580.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
2,100.0	0.00	0.00	2,100.0	-1,480.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
2,200.0	0.00	0.00	2,200.0	-1,380.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
2,300.0	0.00	0.00	2,300.0	-1,280.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
2,400.0	0.00	0.00	2,400.0	-1,180.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
2,500.0	0.00	0.00	2,500.0	-1,080.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
2,600.0	0.00	0.00	2,600.0	-980.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
2,700.0	0.00	0.00	2,700.0	-880.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
2,800.0	0.00	0.00	2,800.0	-780.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
2,900.0	0.00	0.00	2,900.0	-680.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
3,000.0	*0.00*	*0.00*	*3,000.0*	*-580.5*	*0.0*	*0.0*	*0.0*	*0.00*	*467,520.20*	*800,857.40*
3,100.0	0.00	0.00	3,100.0	-480.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
3,200.0	0.00	0.00	3,200.0	-380.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
3,300.0	0.00	0.00	3,300.0	-280.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
3,400.0	0.00	0.00	3,400.0	-180.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
3,500.0	0.00	0.00	3,500.0	-80.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
3,600.0	0.00	0.00	3,600.0	19.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
3,700.0	0.00	0.00	3,700.0	119.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
3,800.0	0.00	0.00	3,800.0	219.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
3,900.0	0.00	0.00	3,900.0	319.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
4,000.0	0.00	0.00	4,000.0	419.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
4,100.0	0.00	0.00	4,100.0	519.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
4,200.0	0.00	0.00	4,200.0	619.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
4,300.0	0.00	0.00	4,300.0	719.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
4,400.0	0.00	0.00	4,400.0	819.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
4,500.0	0.00	0.00	4,500.0	919.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
4,600.0	0.00	0.00	4,600.0	1,019.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40

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Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
4,700.0	0.00	0.00	4,700.0	1,119.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
4,800.0	0.00	0.00	4,800.0	1,219.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
4,830.5	0.00	0.00	4,830.5	1,250.0	0.0	0.0	0.0	0.00	467,520.20	800,857.40
Base of Salt										
4,900.0	0.00	0.00	4,900.0	1,319.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
5,000.0	0.00	0.00	5,000.0	1,419.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
5,056.0	0.00	0.00	5,056.0	1,475.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
9 5/8" Intermediate Casing										
5,100.0	0.00	0.00	5,100.0	1,519.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
5,123.5	0.00	0.00	5,123.5	1,543.0	0.0	0.0	0.0	0.00	467,520.20	800,857.40
Delware										
5,200.0	0.00	0.00	5,200.0	1,619.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
5,300.0	0.00	0.00	5,300.0	1,719.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
5,400.0	0.00	0.00	5,400.0	1,819.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
5,500.0	0.00	0.00	5,500.0	1,919.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
5,600.0	0.00	0.00	5,600.0	2,019.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
5,700.0	0.00	0.00	5,700.0	2,119.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
5,800.0	0.00	0.00	5,800.0	2,219.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
5,820.5	0.00	0.00	5,820.5	2,240.0	0.0	0.0	0.0	0.00	467,520.20	800,857.40
Cherry Canyon										
5,900.0	0.00	0.00	5,900.0	2,319.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
6,000.0	0.00	0.00	6,000.0	2,419.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
6,100.0	0.00	0.00	6,100.0	2,519.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
6,200.0	0.00	0.00	6,200.0	2,619.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
6,300.0	0.00	0.00	6,300.0	2,719.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
6,400.0	0.00	0.00	6,400.0	2,819.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
6,500.0	0.00	0.00	6,500.0	2,919.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
6,600.0	0.00	0.00	6,600.0	3,019.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40

MOJO Standard Plan

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6,700.0	0.00	0.00	6,700.0	3,119.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
6,800.0	0.00	0.00	6,800.0	3,219.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
6,900.0	0.00	0.00	6,900.0	3,319.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
7,000.0	0.00	0.00	7,000.0	3,419.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
7,100.0	0.00	0.00	7,100.0	3,519.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
7,180.5	0.00	0.00	7,180.5	3,600.0	0.0	0.0	0.0	0.00	467,520.20	800,857.40
Brushy Canyon										
7,200.0	0.00	0.00	7,200.0	3,619.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
7,300.0	0.00	0.00	7,300.0	3,719.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
7,400.0	0.00	0.00	7,400.0	3,819.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
7,500.0	0.00	0.00	7,500.0	3,919.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
7,600.0	0.00	0.00	7,600.0	4,019.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
7,700.0	0.00	0.00	7,700.0	4,119.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
7,800.0	0.00	0.00	7,800.0	4,219.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
7,900.0	0.00	0.00	7,900.0	4,319.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
8,000.0	0.00	0.00	8,000.0	4,419.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
8,100.0	0.00	0.00	8,100.0	4,519.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
8,200.0	0.00	0.00	8,200.0	4,619.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
8,300.0	0.00	0.00	8,300.0	4,719.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
8,400.0	0.00	0.00	8,400.0	4,819.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
8,463.0	0.00	0.00	8,463.0	4,882.5	0.0	0.0	0.0	0.00	467,520.20	800,857.40
Start Build 10.00										
8,490.5	2.75	141.00	8,490.5	4,910.0	-0.5	0.4	0.5	10.00	467,519.69	800,857.82
Lower Brushy Canyon										
8,500.0	3.70	141.00	8,500.0	4,919.5	-0.9	0.8	1.0	10.00	467,519.27	800,858.15
8,563.0	10.00	141.00	8,562.5	4,982.0	-6.8	5.5	6.9	10.00	467,513.44	800,862.88
Start DLS 10.03 TFO 12.79										
8,600.0	13.64	144.48	8,598.7	5,018.2	-12.8	10.0	13.1	10.03	467,507.39	800,867.44

MOJO Standard Plan

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Site:	West Copperline 29 Fed 7H	**MD Reference:**	WELL @ 3580.5usft (Original Well Elev)
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Wellbore:	West Copperline 29 Fed 7H	**Survey Calculation Method:**	Minimum Curvature
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Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
8,663.0	19.90	147.50	8,659.0	5,078.5	-27.9	20.1	28.5	10.03	467,492.28	800,877.52
Start DLS 10.06 TFO 18.67										
8,675.3	21.07	148.60	8,670.5	5,090.0	-31.6	22.4	32.2	10.06	467,488.63	800,879.80
Bone Spring/ Gloreitta										
8,700.0	23.46	150.49	8,693.4	5,112.9	-39.6	27.1	40.4	10.06	467,480.56	800,884.54
8,763.0	29.60	154.00	8,749.7	5,169.2	-64.6	40.1	65.7	10.06	467,455.63	800,897.55
Start DLS 10.01 TFO 22.26										
8,800.0	33.05	156.57	8,781.3	5,200.8	-82.0	48.2	83.4	10.01	467,438.16	800,905.57
8,863.0	39.03	160.00	8,832.2	5,251.7	-116.5	61.8	118.3	10.01	467,403.72	800,919.20
Start DLS 10.01 TFO 26.62										
8,873.7	39.99	160.75	8,840.5	5,260.0	-122.9	64.1	124.8	10.01	467,397.30	800,921.48
Avalon Shale										
8,900.0	42.37	162.46	8,860.3	5,279.8	-139.3	69.5	141.3	10.01	467,380.88	800,926.94
8,963.0	48.15	166.00	8,904.6	5,324.1	-182.4	81.6	184.7	10.01	467,337.82	800,939.03
Start DLS 10.02 TFO 24.95										
9,000.0	51.53	168.00	8,928.5	5,348.0	-209.9	88.0	212.5	10.02	467,310.28	800,945.37
9,063.0	57.35	171.00	8,965.1	5,384.6	-260.3	97.3	263.1	10.02	467,259.91	800,954.66
Start DLS 10.02 TFO 27.32										
9,100.0	60.66	172.95	8,984.2	5,403.7	-291.7	101.7	294.6	10.02	467,228.51	800,959.08
9,163.0	66.35	176.00	9,012.3	5,431.8	-347.8	107.1	350.8	10.02	467,172.41	800,964.47
Start DLS 9.38 TFO 19.96										
9,200.0	69.62	177.26	9,026.1	5,445.6	-382.0	109.1	385.1	9.38	467,138.18	800,966.48
9,263.0	75.20	179.30	9,045.2	5,464.7	-442.0	110.9	445.1	9.38	467,078.18	800,968.26
Start DLS 9.15 TFO 0.31										
9,300.0	78.59	179.32	9,053.6	5,473.1	-478.1	111.3	481.2	9.15	467,042.15	800,968.70
9,363.0	84.35	179.35	9,062.9	5,482.4	-540.3	112.0	543.4	9.15	466,979.88	800,969.42
Start DLS 10.01 TFO 2.21										
9,400.0	88.05	179.49	9,065.4	5,484.9	-577.2	112.4	580.3	10.01	466,942.97	800,969.79

Company:	Caza Oil and Gas	**Local Co-ordinate Reference:**	Well West Copperline 29 Fed 7H
Project:	West Copperline	**TVD Reference:**	WELL @ 3580.5usft (Original Well Elev)
Site:	West Copperline 29 Fed 7H	**MD Reference:**	WELL @ 3580.5usft (Original Well Elev)
Well:	West Copperline 29 Fed 7H	**North Reference:**	Grid
Wellbore:	West Copperline 29 Fed 7H	**Survey Calculation Method:**	Minimum Curvature
Design:	160719 West Copperline 29 Fed 7H	**Database:**	EDM 5000.1 Single User Db

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
9,420.0	90.05	179.57	9,065.7	5,485.2	-597.2	112.6	600.3	10.01	466,922.97	800,969.96
Start 4217.0 hold at 9420.0 MD										
9,500.0	90.05	179.57	9,065.6	5,485.1	-677.2	113.2	680.3	0.00	466,842.97	800,970.56
9,600.0	90.05	179.57	9,065.5	5,485.0	-777.2	113.9	780.3	0.00	466,742.97	800,971.31
9,700.0	90.05	179.57	9,065.4	5,484.9	-877.2	114.7	880.3	0.00	466,642.98	800,972.06
9,800.0	90.05	179.57	9,065.4	5,484.9	-977.2	115.4	980.2	0.00	466,542.98	800,972.81
9,900.0	90.05	179.57	9,065.3	5,484.8	-1,077.2	116.2	1,080.2	0.00	466,442.98	800,973.56
10,000.0	90.05	179.57	9,065.2	5,484.7	-1,177.2	116.9	1,180.2	0.00	466,342.99	800,974.31
10,100.0	90.05	179.57	9,065.1	5,484.6	-1,277.2	117.7	1,280.2	0.00	466,242.99	800,975.06
10,200.0	90.05	179.57	9,065.0	5,484.5	-1,377.2	118.4	1,380.1	0.00	466,142.99	800,975.81
10,300.0	90.05	179.57	9,064.9	5,484.4	-1,477.2	119.2	1,480.1	0.00	466,042.99	800,976.56
10,400.0	90.05	179.57	9,064.8	5,484.3	-1,577.2	119.9	1,580.1	0.00	465,943.00	800,977.31
10,500.0	90.05	179.57	9,064.7	5,484.2	-1,677.2	120.7	1,680.1	0.00	465,843.00	800,978.06
10,600.0	90.05	179.57	9,064.7	5,484.2	-1,777.2	121.4	1,780.0	0.00	465,743.00	800,978.81
10,700.0	90.05	179.57	9,064.6	5,484.1	-1,877.2	122.2	1,880.0	0.00	465,643.01	800,979.56
10,800.0	90.05	179.57	9,064.5	5,484.0	-1,977.2	122.9	1,980.0	0.00	465,543.01	800,980.31
10,900.0	90.05	179.57	9,064.4	5,483.9	-2,077.2	123.7	2,080.0	0.00	465,443.01	800,981.06
11,000.0	90.05	179.57	9,064.3	5,483.8	-2,177.2	124.4	2,179.9	0.00	465,343.01	800,981.81
11,100.0	90.05	179.57	9,064.2	5,483.7	-2,277.2	125.2	2,279.9	0.00	465,243.02	800,982.56
11,200.0	90.05	179.57	9,064.1	5,483.6	-2,377.2	125.9	2,379.9	0.00	465,143.02	800,983.31
11,300.0	90.05	179.57	9,064.0	5,483.5	-2,477.2	126.7	2,479.9	0.00	465,043.02	800,984.06
11,400.0	90.05	179.57	9,064.0	5,483.5	-2,577.2	127.4	2,579.8	0.00	464,943.03	800,984.81
11,500.0	90.05	179.57	9,063.9	5,483.4	-2,677.2	128.2	2,679.8	0.00	464,843.03	800,985.57
11,600.0	90.05	179.57	9,063.8	5,483.3	-2,777.2	128.9	2,779.8	0.00	464,743.03	800,986.32
11,700.0	90.05	179.57	9,063.7	5,483.2	-2,877.2	129.7	2,879.8	0.00	464,643.03	800,987.07
11,800.0	90.05	179.57	9,063.6	5,483.1	-2,977.2	130.4	2,979.7	0.00	464,543.04	800,987.82
11,900.0	90.05	179.57	9,063.5	5,483.0	-3,077.2	131.2	3,079.7	0.00	464,443.04	800,988.57

MOJO Standard Plan

Company:	Caza Oil and Gas	**Local Co-ordinate Reference:**	Well West Copperline 29 Fed 7H
Project:	West Copperline	**TVD Reference:**	WELL @ 3580.5usft (Original Well Elev)
Site:	West Copperline 29 Fed 7H	**MD Reference:**	WELL @ 3580.5usft (Original Well Elev)
Well:	West Copperline 29 Fed 7H	**North Reference:**	Grid
Wellbore:	West Copperline 29 Fed 7H	**Survey Calculation Method:**	Minimum Curvature
Design:	160719 West Copperline 29 Fed 7H	**Database:**	EDM 5000.1 Single User Db

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
12,000.0	90.05	179.57	9,063.4	5,482.9	-3,177.2	131.9	3,179.7	0.00	464,343.04	800,989.32
12,100.0	90.05	179.57	9,063.3	5,482.8	-3,277.2	132.7	3,279.7	0.00	464,243.05	800,990.07
12,200.0	90.05	179.57	9,063.3	5,482.8	-3,377.2	133.4	3,379.6	0.00	464,143.05	800,990.82
12,300.0	90.05	179.57	9,063.2	5,482.7	-3,477.1	134.2	3,479.6	0.00	464,043.05	800,991.57
12,400.0	90.05	179.57	9,063.1	5,482.6	-3,577.1	134.9	3,579.6	0.00	463,943.05	800,992.32
12,500.0	90.05	179.57	9,063.0	5,482.5	-3,677.1	135.7	3,679.6	0.00	463,843.06	800,993.07
12,600.0	90.05	179.57	9,062.9	5,482.4	-3,777.1	136.4	3,779.5	0.00	463,743.06	800,993.82
12,700.0	90.05	179.57	9,062.8	5,482.3	-3,877.1	137.2	3,879.5	0.00	463,643.06	800,994.57
12,800.0	90.05	179.57	9,062.7	5,482.2	-3,977.1	137.9	3,979.5	0.00	463,543.07	800,995.32
12,900.0	90.05	179.57	9,062.6	5,482.1	-4,077.1	138.7	4,079.5	0.00	463,443.07	800,996.07
13,000.0	90.05	179.57	9,062.6	5,482.1	-4,177.1	139.4	4,179.4	0.00	463,343.07	800,996.82
13,100.0	90.05	179.57	9,062.5	5,482.0	-4,277.1	140.2	4,279.4	0.00	463,243.07	800,997.57
13,200.0	90.05	179.57	9,062.4	5,481.9	-4,377.1	140.9	4,379.4	0.00	463,143.08	800,998.32
13,300.0	90.05	179.57	9,062.3	5,481.8	-4,477.1	141.7	4,479.4	0.00	463,043.08	800,999.07
13,400.0	90.05	179.57	9,062.2	5,481.7	-4,577.1	142.4	4,579.3	0.00	462,943.08	800,999.82
13,500.0	90.05	179.57	9,062.1	5,481.6	-4,677.1	143.2	4,679.3	0.00	462,843.09	801,000.57
13,600.0	90.05	179.57	9,062.0	5,481.5	-4,777.1	143.9	4,779.3	0.00	462,743.09	801,001.33
13,637.0	90.05	179.57	9,062.0	5,481.5	-4,814.1	144.2	4,816.3	0.00	462,706.09	801,001.60

TD at 13637.0 - 5 1/2" Production Casing

Company:	Caza Oil and Gas	**Local Co-ordinate Reference:**	Well West Copperline 29 Fed 7H
Project:	West Copperline	**TVD Reference:**	WELL @ 3580.5usft (Original Well Elev)
Site:	West Copperline 29 Fed 7H	**MD Reference:**	WELL @ 3580.5usft (Original Well Elev)
Well:	West Copperline 29 Fed 7H	**North Reference:**	Grid
Wellbore:	West Copperline 29 Fed 7H	**Survey Calculation Method:**	Minimum Curvature
Design:	160719 West Copperline 29 Fed 7H	**Database:**	EDM 5000.1 Single User Db

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
120.0	120.0	20" Conductor	20	26
1,163.0	1,163.0	13 3/8" Surface Casing	13-3/8	17-1/2
5,056.0	5,056.0	9 5/8" Intermediate Casing	9-5/8	12-1/4
13,637.0	9,062.0	5 1/2" Production Casing	5-1/2	8-3/4

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
8,873.7	8,840.5	Avalon Shale		0.00	
8,490.5	8,490.5	Lower Brushy Canyon		0.00	
4,830.5	4,830.5	Base of Salt		0.00	
1,230.5	1,230.5	Top of Salt		0.00	
5,820.5	5,820.5	Cherry Canyon		0.00	
8,675.3	8,670.5	Bone Spring/ Gloreitta		0.00	
5,123.5	5,123.5	Delware		0.00	
1,030.5	1,030.5	Rustler		0.00	
7,180.5	7,180.5	Brushy Canyon		0.00	

Company:	Caza Oil and Gas	**Local Co-ordinate Reference:**	Well West Copperline 29 Fed 7H
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Site:	West Copperline 29 Fed 7H	**MD Reference:**	WELL @ 3580.5usft (Original Well Elev)
Well:	West Copperline 29 Fed 7H	**North Reference:**	Grid
Wellbore:	West Copperline 29 Fed 7H	**Survey Calculation Method:**	Minimum Curvature
Design:	160719 West Copperline 29 Fed 7H	**Database:**	EDM 5000.1 Single User Db

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
8,463.0	8,463.0	0.0	0.0	Start Build 10.00
8,563.0	8,562.5	-6.8	5.5	Start DLS 10.03 TFO 12.79
8,663.0	8,659.0	-27.9	20.1	Start DLS 10.06 TFO 18.67
8,763.0	8,749.7	-64.6	40.1	Start DLS 10.01 TFO 22.26
8,863.0	8,832.2	-116.5	61.8	Start DLS 10.01 TFO 26.62
8,963.0	8,904.6	-182.4	81.6	Start DLS 10.02 TFO 24.95
9,063.0	8,965.1	-260.3	97.3	Start DLS 10.02 TFO 27.32
9,163.0	9,012.3	-347.8	107.1	Start DLS 9.38 TFO 19.96
9,263.0	9,045.2	-442.0	110.9	Start DLS 9.15 TFO 0.31
9,363.0	9,062.9	-540.3	112.0	Start DLS 10.01 TFO 2.21
9,420.0	9,065.7	-597.2	112.6	Start 4217.0 hold at 9420.0 MD
13,637.0	9,062.0	-4,814.1	144.2	TD at 13637.0

Checked By: _____ Approved By: _____ Date: _____

Azimuths to Grid North
True North: -0.45°
Magnetic North: 6.47°

Magnetic Field
Strength: 48148.8snT
Dip Angle: 60.12°
Date: 7/19/2016
Model: IGRF2010

Caza Oil&Gas, Inc.

'ECT DETAILS: West Copperline

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone

System Datum: Mean Sea Level

FORMATION TOP DETAILS

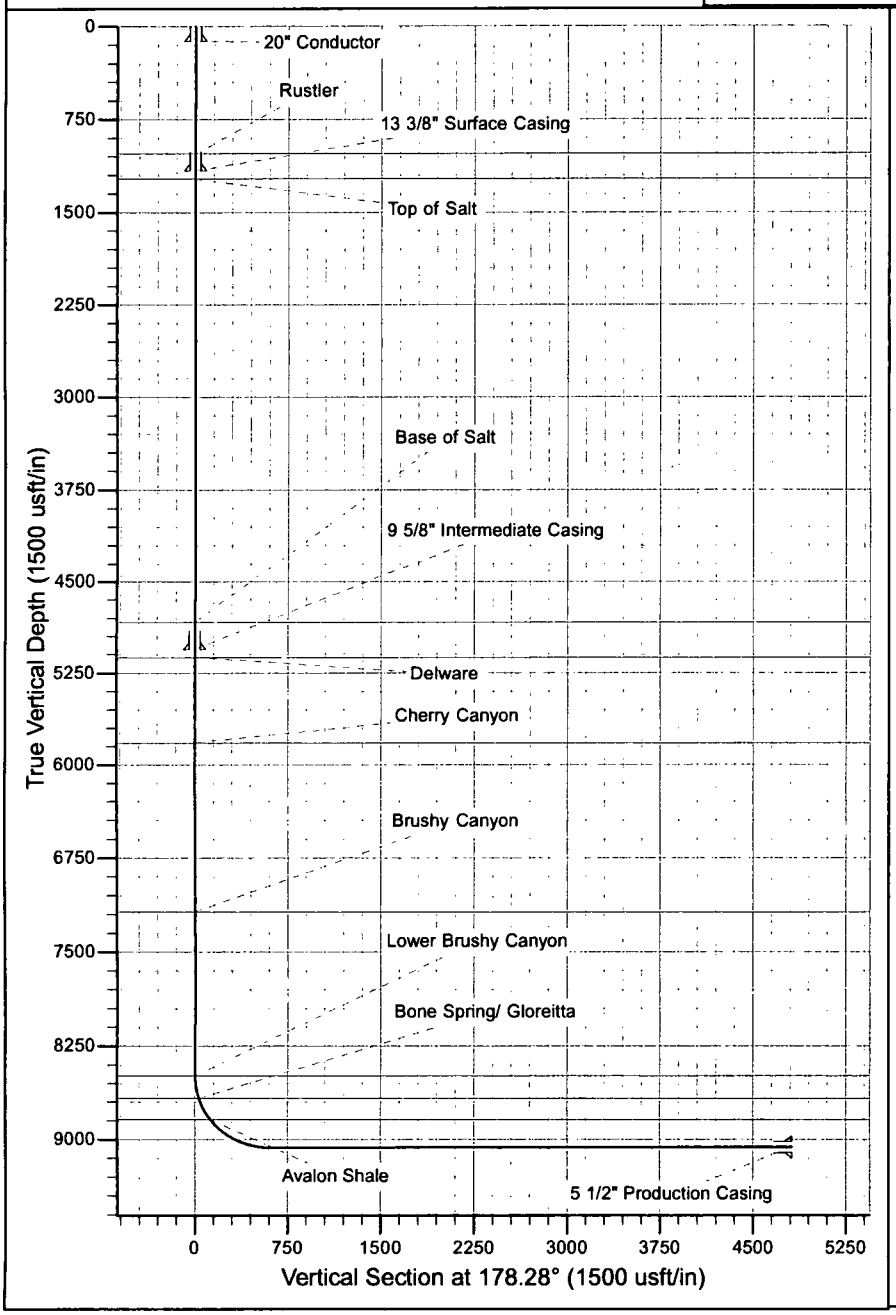
TVDPath	MDPath	Formation
1030.5	1030.5	Rustler
1230.5	1230.5	Top of Salt
4830.5	4830.5	Base of Salt
5123.5	5123.5	Delware
5820.5	5820.5	Cherry Canyon
7180.5	7180.5	Brushy Canyon
8490.5	8490.5	Lower Brushy Canyon
8670.5	8675.3	Bone Spring/ Gloreitta
8840.5	8873.7	Avalon Shale

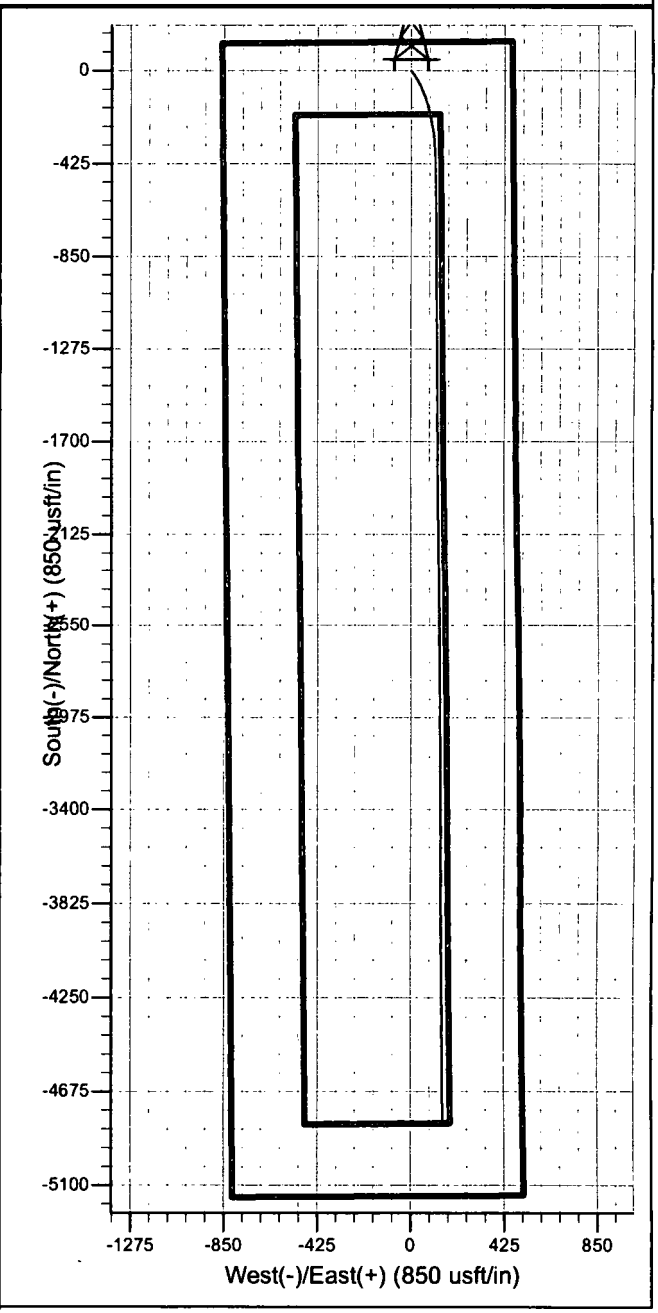
ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	VSec	Departure	Annotation
8463.0	8463.0	0.00	0.00	0.0	0.0	0.0	0.0	Start Build 10.00
8562.5	8563.0	10.00	141.00	-6.8	5.5	6.9	8.7	Start DLS 10.03 TFO 12.79
8659.0	8663.0	19.90	147.50	-27.9	20.1	28.5	34.5	Start DLS 10.06 TFO 18.67
8749.7	8763.0	29.60	154.00	-64.6	40.1	65.7	76.2	Start DLS 10.01 TFO 22.26
8832.2	8863.0	39.03	160.00	-116.5	61.8	118.3	132.5	Start DLS 10.01 TFO 26.62
8904.6	8963.0	48.15	166.00	-182.4	81.6	184.7	201.4	Start DLS 10.02 TFO 24.95
8965.1	9063.0	57.35	171.00	-260.3	97.3	263.1	280.9	Start DLS 10.02 TFO 27.32
9012.3	9163.0	66.35	176.00	-347.8	107.1	350.8	368.9	Start DLS 9.38 TFO 19.96
9045.2	9263.0	75.20	179.30	-442.0	110.9	445.1	463.3	Start DLS 9.15 TFO 0.31
9062.9	9363.0	84.35	179.35	-540.3	112.0	543.4	561.6	Start DLS 10.01 TFO 2.21
9065.7	9420.0	90.05	179.57	-597.2	112.6	600.3	618.5	Start 4217.0 hold at 9420.0 MD
9062.0	13637.0	90.05	179.57	-4814.1	144.2	4816.3	4835.5	TD at 13637.0

CASING DETAILS

TVD	MD	Name	Size
120.0	120.0	20" Conductor	20
1163.0	1163.0	13 3/8" Surface Casing	13-3/8
5056.0	5056.0	9 5/8" Intermediate Casing	9-5/8
9062.0	13637.0	5 1/2" Production Casing	5-1/2





Caza Oil and Gas, Inc

H2S Drilling Operations Plan

Copperline West 29 Fed 5H

Lea County, New Mexico

Prepared by: Steve Morris

Date: 04/28/2018

Gas Capture Plan

1. The anticipated completion date is Sept 28, 2018.
2. The anticipated production date is Oct 14, 2018.
    a. 1000bbls oil/day is expected for initial production
    b. 1500MCF/day is expected for initial gas production
    c. The gas will be approximately 1400Btu
    d. It is estimated that the well will decline using Exponential Variables at a Terminal Decline Rate of 7%/year.
3. The West copperline 29 State Com 1H is 200' to the east and is currently producing gas into an existing line. All gas is being sold to Versado Gas Processors.
4. The Copperline West 29 Fed 7H will be connected to the same gas line as the West Copperline 29 State Com 1H offset well. The gas produced from production facility is dedicated to Versado Gas Processors and will be connected to Versado Gas Processors low/high pressure gathering system located in Lea County, New Mexico. It will require 200' of pipeline to connect the facility to low/high pressure gathering system. Caza Operating Inc provides (periodically) to Versado Gas Processors a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, Caza Operating Inc and Versado Gas Processors have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at Versado Gas Processors Processing Plant located in Sec.29, Twn.19S, Rng.37E, Lea County, New Mexico.
5. After the fracture treatment/completion operations, the well 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 Versado Gas Processors system at that time. Based on current information, it is Caza Operating Inc's belief the system can take this gas upon completion of the well.

Table of Contents

H2S Contingency Plan Section

Scope:

This contingency plan provides an organized plan of action for alerting and protecting the public within an area of exposure prior to an intentional release, of following the accidental release of a potentially hazardous volume of hydrogen sulfide. The plan establishes guidelines for all personnel whose work activity may involve exposure to Hydrogen Sulfide Gas (H2S).

Objective:

Prevent any and all accidents, and prevent the uncontrolled release of H2S into the atmosphere.

Provide proper evacuation procedures to cope with emergencies.

Provide immediate and adequate medical attention should an injury occur.

Implementation: This plan, with all details, is to be fully implemented 1000' before drilling into the first sour zone.

Emergency Response Procedure: This section outlines the conditions and denotes steps to be taken in the event of an emergency.

Emergency Equipment and Procedure: This section outlines the safety and emergency equipment that will be required for the drilling of this well.

Training Provisions: This section outlines the training provisions that must be adhered to 1000' before drilling into the first sour zone.

Emergency Call Lists: Included are the telephone numbers of all persons that would need to be contacted, should an H2S emergency occur.

Briefing: This section deals with the briefing of all persons involved with the drilling of this well.

Public Safety: Public safety personnel will be made aware of the drilling of this well.

Check Lists: Status check lists and procedural check lists have been included to ensure adherence to the plan.

General Information: A general information section has been included to supply support information.

Emergency Procedures Section

Emergency Procedures

I. **In the event of any evidence of H2S level above 10 ppm, take the following steps immediately:**
   A. Secure breathing apparatus.
   B. Order non-essential personnel out of the danger zone.
   C. Take steps to determine if the H2S level can be corrected or suppressed, and if so, proceed with normal operations.

II. **If uncontrollable conditions occur, proceed with the following:**
   A. Take steps to protect and/or remove any public downwind of the rig, including partial evacuation or isolation. Notify necessary public safety personnel and the New Mexico Oil & Gas of the situation.
   B. Remove all personnel to the safe briefing area.
   C. Notify public safety personnel for help with maintaining roadblocks and implementing evacuation.
   D. Determine and proceed with the best possible plan to regain control of the well. Maintain tight security and safety measures.

III. **Responsibility:**
   A. The company approved supervisor shall be responsible for the total implementation of the plan.
   B. The company approved supervisor shall be in complete command during any emergency.
   C. The company approved supervisor shall designate a backup supervisor in the event that he/she is not available.

Emergency Procedure Implementation

I. **Drilling or Tripping:**
   A. All Personnel
      1. When alarm sounds, don escape unit and report to upwind safe briefing area.
      2. Check status of other personnel (buddy system).
      3. Secure breathing apparatus.
      4. Wait for orders from supervisor.
   B. Drilling Foreman
      1. Report to the upwind safe briefing area.
      2. Don breathing apparatus and return to the point of release with the Tool pusher of Driller (buddy system).
      3. Determine the concentration of H2S.
      4. Address the situation and take appropriate control measures.
   C. Tool Pusher
      1. Report to the upwind safe briefing area.
      2. Don breathing apparatus and return to the point of release with the Drilling Foreman or the Driller (buddy system).

3. Determine the concentration.
4. Address the situation and take appropriate control measures.

D. Driller
1. Check the status of other personnel (in a rescue attempt, always use the buddy system).
2. Assign the least essential person to notify the Drilling Foreman and Tool Pusher, in the event of their absence.
3. Assume the responsibility of the Drilling Foreman and the Tool Pusher until they arrive, in the event of their absence.

E. Derrick Man and Floor Hands
1. Remain in the upwind safe briefing area until otherwise instructed by a supervisor.

F. Mud Engineer
1. Report to the upwind safe briefing area.
2. When instructed, begin check of mud for PH level and H2S level.

G. Safety Personnel
1. Don breathing apparatus.
2. Check the status of all personnel.
3. Wait for instructions from Drilling Foreman or Tool Pusher.

II. **Taking a Kick:**
A. All personnel report to the upwind safe briefing area.
B. Follow standard BOP procedures.

III. **Open Hole Logging:**
A. All unnecessary personnel should leave the rig floor.
B. Drilling Foreman and Safety personnel should monitor the conditions and make necessary safety equipment recommendations.

IV. **Running Casing or Plugging:**
A. Follow "Drilling or Tripping" procedures.
B. Assure that all personnel have access to protective equipment.

Simulated Blowout Control Drills

All drills will be initiated by activating alarm devices (air horn). One long blast on the air horn for ACTUAL and SIMULATED blowout control drills. This operation will be performed by the Drilling Foreman or Tool Pusher at least one time per week for each of the following conditions, with each crew:

Drill #1	On-bottom Drilling
Drill #2	Tripping Drill Pipe

In each of these drills, the initial reaction time to shutting in the well shall be timed as well as the total time for the crew to complete its entire put drill assignment. The times must be recorded on the IADC Driller's log as "Blowout Control Drill".

Drill No.:		
Reaction Time to Shut-in:	minutes,	seconds.
Total Time to Complete Assignment:	minutes,	seconds.

I. Drill Overviews:
   A. Drill No. 1 – On-bottom Drilling
      1. Sound the alarm immediately.
      2. Stop the rotary and hoist the Kelly joint above the rotary table.
      3. Stop the circulatory pump.
      4. Close the drill pipe rams.
      5. Record casing and drill pipe shut-in pressures and pit volume increases.
   B. Drill No. 2 – Tripping Drill Pipe:
      1. Sound the alarm immediately.
      2. Position the upper tool joint just above the rotary table and set the slips.
      3. Install a full opening valve inside blowout preventer tool in order to close the drill pipe.
      4. Close the drill pipe rams.
      5. Record the shut-in annular pressure.

II. Crew Assignments
   A. Drill No. 1 – On-bottom Drilling:
      1. Driller
         a) Stop the rotary and hoist the Kelly joint above the rotary table.
         b) Stop the circulatory pump.
         c) Check flow.
         d) If flowing, sound the alarm immediately.
         e) Record the shut-in drill pipe pressure.
         f) Determine the mud weight increase needed or other courses of action.
      2. Derrick Man
         a) Open choke line valve at BOP.
         b) Signal Floor Man #1 at accumulator that choke line is open.
         c) Close choke upstream valve after pipe rams have been closed.
         d) Read the shut-in annular pressure and report readings to Driller.
      3. Floor Man #1
         a) Close the pipe rams after receiving the signal from the Derrick Man.
         b) Report to Driller for further instructions.
      4. Floor Man #2
         a) Notify the Tool Pusher and Operator Representative of the H2S alarms.
         b) Check for open fires and, if safe to do so, extinguish them.
         c) Stop all welding operations.
         d) Turn-off all non-explosive proof lights and instruments.

e) Report to Driller for further instructions.

5. Tool Pusher
   a) Report to the rig floor.
   b) Have a meeting with all crews.
   c) Compile and summarize all information.
   d) Calculate the proper kill weight.
   e) Ensure that proper well procedures are put into action.
6. Operator Representative
   a) Notify the Drilling Superintendent.
   b) Determine if an emergency exists and if so, activate the contingency plan.

B. Drill No. 2 – Tripping Pipe:
   1. Driller
      a) Sound the alarm immediately when mud volume increase has been detected.
      b) Position the upper tool joint just above the rotary table and set slips.
      c) Install a full opening valve or inside blowout preventer tool to close the drill pipe.
      d) Check flow.
      e) Record all data reported by the crew.
      f) Determine the course of action.
   2. Derrick Man
      a) Come down out of derrick.
      b) Notify Tool Pusher and Operator Representative.
      c) Check for open fires and, if safe to do so, extinguish them.
      d) Stop all welding operations.
      e) Report to Driller for further instructions.

   3. Floor Man #1
      a) Pick up full opening valve or inside blowout preventer tool and slab into tool join above rotary table (with Floor Man #2)
      b) Tighten valve with back-up tongs.
      c) Close pipe rams after signal from Floor Man #2.
      d) Read accumulator pressure and check for possible high pressure fluid leaks in valves or piping.
      e) Report to Driller for further instructions.
   4. Floor Man #2
      a) Pick-up full opening valve or inside blowout preventer tool and tab into tool joint above rotary table (with Floor Man #1)
      b) Position back-up tongs on drill pipe.
      c) Open choke line valve at BOP.
      d) Signal Floor Man #1 at accumulator that choke line is open.
      e) Close choke and upstream valve after pipe rams have been closed.
      f) Check for leaks on BOP stack and choke manifold.

g) Read annular pressure.
h) Report readings to the Driller.

5. Tool Pusher
   a) Report to the rig floor.
   b) Have a meeting with all of the crews.
   c) Compile and summarize all information.
   d) See that proper well kill procedures are put into action.
6. Operator Representative
   a) Notify Drilling Superintendent.
   b) Determine if an emergency exists, and if so, activate the contingency plan

Ignition Procedures

Responsibility:

The decision to ignite the well is responsibility of the DRILLING FOREMAN in concurrence with the STATE POLICE. In the event of the Drilling Foreman is incapacitated, it becomes the responsibility of the RIG TOOL PUSHER. This decision should be made only as a last resort and in a situation where it is clear that:

1. Human life and property are endangered.
2. There is no hope of controlling the blowout under the prevailing conditions.

If time permits, notify the main office, but do not delay if human life is in danger. Initiate the first phase of the evacuation plan.

Instructions for Igniting the Well:

1. Two people are required for the actual igniting operation. Both men must wear self-contained breathing apparatus and must use a full body harness and attach a retrievable safety line to the D-Ring in the back. One man must monitor the atmosphere for explosive gases with the LEL monitor, while the Drilling Foreman is responsible for igniting the well.
2. The primary method to ignite is a 25mm flare gun with a range of approximately 500 feet.
3. Ignite from upwind and do not approach any closer than is warranted.
4. Select the ignition site best suited for protection and which offers an easy escape route.
5. Before igniting, check for the presence of combustible gases.
6. After igniting, continue emergency actions and procedures as before.
7. All unassigned personnel will limit their actions to those directed by the Drilling Foreman.

NOTE: After the well is ignited, burning Hydrogen Sulfide will convert to Sulfur Dioxide, which is also highly toxic. Do not assume the area is safe after the well is ignited.

Training Program

When working in an area where Hydrogen Sulfide (H2S) might be encountered, definite training requirements for all personnel must be carried out. The Company Supervisor will ensure that all personnel at the well site have had adequate training in the following:

1. Hazards and Characteristics of Hydrogen Sulfide.
2. Physicals effects of Hydrogen Sulfide on the human body.
3. Toxicity of Hydrogen Sulfide and Sulfur Dioxide.
4. H2S detection, emergency alarm and sensor location.
5. Emergency rescue.
6. Resuscitators.
7. First aid and artificial resuscitation.
8. The effects of Hydrogen Sulfide on metals.
9. Location safety.

Service company personnel and visiting personnel must be notified if the zone contains H2S, and each service company must provide adequate training and equipment for their employees before they arrive at the well site.

Emergency Equipment Requirements

Lease Entrance Sign:

Should be located at the lease entrance with the following information:

CAUTION- POTENTIAL POISON GAS HYDROGEN SULFIDE

Well Control Equipment:

- A flare line will be located a minimum of 150' from the wellhead to be ignited by a flare gun.
- The choke manifold will include a remotely operated choke.
- A mud/gas separator will be installed to separate gas from the drilling mud.

Mud Program:

The drilling mud program has been designed to minimize the volume of hydrogen sulfide (H2S) circulated to surface. The operator will have the necessary mud products on location to minimize the hazards while drilling in H2S-bearing zones.

Metallurgy:

- All drill strings , casings, tubing, wellhead equipment , the blowout preventer , the drilling spool, kill lines, choke manifold and lines, and all valves shall be suitable for H2S service.
- All elastomers used for packing and seals shall be H2S trim.

Respiratory Equipment:

- Fresh air breathing equipment should be placed at the safe briefing areas and should include the following: Two SCBA's will be placed at each briefing area. A moveable breathing air trailer with 2 SCBA's, 5 work/escape units, ample breathing air hose and manifolds will be on location. The breathing air hose will be installed on the rig floor and derrick along with breathing air manifolds so that it will not restrict work activity. All employees that may wear respiratory will complete a MEQ and be quantitative fit tested 1000' prior to the 1st zone that may contain H2S.

Windsocks or Wind Streamers:

- A minimum of two 10" windsocks located at strategic locations so that they may be seen from any point on location. More will be used if necessary for wind consciousness.
- Wind streamers (if preferred) should be placed at various locations on the well site to ensure wind consciousness at all times. (Corners of location).

Hydrogen Sulfide Detector and Alarms:

- 1 - Four channel H2S monitor with audible and visual alarms, strategically located to be seen and heard by all employees working on the well site. All sensors will be bump tested or calibrated if necessary on a weekly basis. The alarms will be set to visually alarm at 10 PPM and audible at 14 PPM.
- Four (4) sensors located as follows: #1 -Rig Floor, #2 & #3- Bell Nipple, #4- End of flow line where wellbore fluid is discharged.
- Portable color metric tube detector with tubes will be stored in the Tool Pusher trailer.

Well Condition Sign and Flags:

The Well Condition Sign with flags should be placed a minimum of 150' before entry to the location. It should have three (3) color coded flags (green, yellow and red) that will be used to denote the following location conditions:

GREEN - Normal Operating Conditions

YELLOW - Potential Danger

RED - Danger, H2S Gas Present

Auxiliary Rescue Equipment:

- Stretcher (drilling contractor)
- 2- 100' OSHA approved Rescue lines (drilling contractor)
- First Aid Kit properly stocked (drilling contractor)

Mud Inspection Equipment:

Garret Gas Train or Hach Tester for inspection of Hydrogen Sulfide in the drilling mud system.

Fire Extinguishers:

Adequate fire extinguishers shall be located at strategic locations (provided by drilling contractor)

Blowout Preventer:

- The well shall have hydraulic BOP equipment for the anticipated BHP.
- The BOP should be tested upon installation.
- BOP, Choke Line and Kill Line will be tested as specified by Operator.

Confined Space Monitor:

There should be a portable multi-gas monitor with at least 3 sensors (02, LEL & H2S). This instrument should be used to test the atmosphere of any confined space before entering. It should also be used for atmospheric testing for LEL gas before beginning any type of Hot Work. Proper calibration documentation will need to be provided. (Supplied by Drilling Contractor)

Communication Equipment:

- Proper communication equipment such as cell phones or 2 -way radios should be available at the rig.
- Radio communication shall be available for communication between the company man's trailer, rig floor and the tool pusher's trailer.
- Communication equipment shall be available on the vehicles.

Special Control Equipment:

- Hydraulic BOP equipment with remote control on the ground.
- Rotating head at the surface casing point.
- BOP, Choke Manifold and Process Flow Diagrams (see the attached - previously submitted)
- Patriot Rig #5 SM Choke Manifold Equipment (see the attached - previously submitted)

Evacuation Plan:

- Evacuation routes should be established prior to spudding the well.
- Should be discussed with all rig personnel.

Designated Areas:

Parking and Visitor area:

- All vehicles are to be parked at a pre-determined safe distance from the wellhead.
- Designated smoking area.

Safe Briefing Areas:

- Two safe briefing Areas shall be designated on either side of the location at the maximum allowable distance from the well bore so they offset prevailing winds or they are at a 180 degree angle if wind directions tend to shift in the area.
- Personal protective equipment should be stored at both briefing areas or if a moveable cascade trailer is used, it should be kept upwind of existing winds. When wind is from the prevailing direction, both briefing areas should be accessible.

NOTES:

- Additional personal H2S monitors are available for all employees on location.
- Automatic Flare Igniters are recommended for installation on the rig.

CHECK LISTS

Status Check List

Note: Date each item as they are implemented.

1. Sign at location entrance.
2. Two (2) wind socks (in required locations).
3. Wind Streamers (if required).
4. SCBA's on location for all rig personnel and mud loggers.
5. Air packs, inspected and ready for use.
6. Spare bottles for each air pack (if required).
7. Cascade system for refilling air bottles.
8. Cascade system and hose line hook up.
9. Choke manifold hooked-up and tested. (Before drilling out surface casing.)
10. Remote Hydraulic BOP control (hooked-up and tested before drilling out surface casing).
11. BOP tested (before drilling out surface casing).
12. Mud engineer on location with equipment to test mud for H2S.
13. Safe Briefing Areas set-up.
14. Well Condition sign and flags on location and ready.
15. Hydrogen Sulfide detection system hooked-up & tested.
16. Hydrogen Sulfide alarm system hooked-up & tested.
17. Stretcher on location at Safe Briefing Area.
18. 2-100' OSHA Approved Life Lines on location.
19. 1-20# Fire Extinguisher in safety trailer.
20. Confined Space Monitor on location and tested.
21. All rig crews and supervisor trained (as required).
22. Access restricted for unauthorized personnel.
23. Drills on H2S and well control procedures.
24. All outside service contractors advised of potential H2S on the well.
25. NO SMOKING sign posted.
26. H2S Detector Pump w/tubes on location.
27. 25mm Flare Gun on location w/flares.
28. Automatic Flare Igniter installed on rig.

Procedural Check List

Perform the following on each tour:

1. Check fire extinguishers to see that they have the proper charge.
2. Check breathing equipment to insure that they have not been tampered with.
3. Check pressure on the supply air bottles to make sure they are capable of recharging.
4. Make sure all of the Hydrogen Sulfide detection systems are operative.

Perform the following each week:

1. Check each piece of breathing equipment to make sure that they are fully charged and operational. This requires that the air cylinder be opened and the mask assembly be put on and tested to make sure that the regulators and

masks are properly working. Negative and positive pressure should be conducted on all masks.
2. BOP skills.
3. Check supply pressure on BOP accumulator stand-by source.
4. Check all breathing air mask assemblies to see that straps are loosened and turned back, ready to use.
5. Check pressure on cascade air cylinders to make sure they are fully charged and ready to use for refill purposes if necessary.
6. Check all cascade system regulators to make sure they work properly.
7. Perform breathing drills with on-site personnel.
8. Check the following supplies for availability:
    - Stretcher
    - Safety Belts and ropes.
    - Spare air bottles.
    - Spare oxygen bottles (if resuscitator required).
    - Gas Detector Pump and tubes.
    - Emergency telephone lists.
9. Test the Confined Space Monitor to verify the batteries are good and that the unit is in good working condition and has been properly calibrated according to manufacturer's recommendations.

Briefing Procedures

The following scheduled briefings will be held to ensure the effective drilling and operation of this project:

Pre-Spud Meeting

Date: Prior to spudding the well.

Attendance: Drilling Supervisor
Drilling Engineer
Drilling Foreman
Rig Tool Pushers
Mud Engineer
All Safety Personnel
Key Service Company Personnel

Purpose: Review and discuss the well program, step-by-step, to ensure complete understanding of assignments and responsibilities.

Evacuation Plan

General Plan

The direct lines of action prepared by Caza SAFETY, to protect the public from hazardous gas situations are as follows:

1. When the company approved supervisor (Drilling Foremen, Tool Pusher or Driller) determine that Hydrogen Sulfide gas cannot be limited to the well location, and the public will be involved, he will activate the evacuation plan. Escape routes are noted on the Area Map.
2. Company safety personnel or designee will notify the appropriate local government agency that a hazardous condition exists and evacuation needs to be implemented.
3. Company approved safety personnel that have been trained in the use of the proper emergency equipment will be utilized.
4. Law enforcement personnel (State Police, Local Police Department, Fire Department, and the Sheriff's Department) will be called to aid in setting up and maintaining road blocks. Also, they will aid in evacuation of the public if necessary.

NOTE: Law enforcement personnel will not be asked to come into a contaminated area. Their assistance will be limited to uncontaminated areas. Constant radio contact will be maintained with them.

5. After the discharge of gas has been controlled, "Company" safety personnel will determine when the area is safe for re-entry.

Emergency Assistance Telephone List

PUBLIC SAFETY: 911 or

Lea County Sheriff or Police..... (575) 396-3611

Fire Department .....(575) 397-9308

Hospital ..... (575) 492-5000

Ambulance 911

Department of Public Safety..... (392) 392-5588

Oil Conservation Division .....(575) 748-1823

New Mexico Energy, Minerals & Natural Resources Department .....(575) 748-1283

Caza Oil and Gas, Inc:

Office .....(423) 682-7424

VP Operations: Tony Sam

Office .....(423) 682-7424

Cell .....(432) 556-6708

Project Manager: Steve Morris

Cell .....(972) 835-3315

Project Manager: Joel Stockford

Cell .....(972) 835-3349

The geologic zones that will be encountered during drilling may contain hazardous quantities of H2S. The accompanying map illustrates the affected areas of the community. The residents within this radius will be notified via a hand delivered written notice describing the activities, potential hazards, and conditions of evacuation, evacuation drill siren alarms and other precautionary measures.

Evacuee Description:

Residents: THERE ARE NO RESIDENTS WITHIN 3000' ROE.

Notification Process:

A continuous siren audible to all residence will be activated, signaling evacuation of previously notified and informed residents.

Evacuation Plan:

All evacuees will migrate laterally toward the wind direction.

Caza Oil and Gas, Inc. will identify all home bound or highly susceptible individuals and make special evacuation preparations, interfacing with the local and emergency medical service as necessary.

MAPS AND PLATS

See the attached map showing the 3000' ROE clarification.

APD ID: 10400007991 **Submission Date:** 12/22/2017

Operator Name: CAZA OPERATING LLC

Well Name: COPPERLINE WEST 29 FEDERAL **Well Number:** 7H

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

Show Final Text

Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

Copperline_West_29_Federal_7H_Well_Site_Plan_and_Roads_08-23-2017.pdf

Existing Road Purpose: ACCESS,FLUID TRANSPORT **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? NO

Section 3 - Location of Existing Wells

Existing Wells Map? YES

Attach Well map:

Copperline_West_29_Federal_7H_One_Mile_Circles_08-23-2017.pdf

STATE OF NEW MEXICO)
:ss
COUNTY OF LEA)

SURFACE DAMAGE AGREEMENT

WHEREAS, Limestone Livestock, LLC ("Owner") P.O. Box 189, Lovington, New Mexico, 88260 owns the following surface estate ("the land"), to wit:

Cell
575-396-1942

NW/4 of Section 29, Township 23 South, Range 34 East, Lea County, NM

WHEREAS, Caza Petroleum, Inc. and it's subsidiary Caza Operating, LLC ("Company") desires to drill oil and/or gas wells on the land and has sought Owner's agreement as to surface damages:

NOW, THEREFORE, in consideration of the terms, conditions and covenants herein below expressed, the parties hereto agree as follows:

(1) Company shall pay to Owner the cash sum of $10,000.00 for each drill site location which shall represent surface damages for the reasonable use of the surface of "the land" for the drill site location, including the drill site and reserve pit. Additionally, Company shall pay the Owner the cash sum of $10,000.00 per year which shall represent surface damages for the reasonable use of the surface of "the land" for the frac pit location. Any injury or damage occurring to groundwater, lands adjacent to the drillsite location, other lands owned by Owner or injury or damage occurring to any cattle, as a result of Company's activities, is not hereby released. Company can drill more than one well on the drill site location and will pay Owner the amount of $2,724.80 per acre if it is necessary to enlarge the drill site location to accommodate additional wells on the same drill site location.

Additionally, Company agrees to purchase water supplied by Owner delivered to the well head at a competitive market price.

(2) Company shall pay to Owner the cash sum of $50.00 per rod for deeded land and $20.00 per rod for lease land for the use of existing roads or for any new roads constructed on Owner's land. Company shall pay to Owner the cash sum of $50.00 per rod for deeded land and $20.00 per rod for lease land for the installation of pipelines or power lines.

All roads ("the roads") to be built by Company on Owner's land shall be located as agreed upon by and between Owner and Company but Owner may not reasonably withhold permission to build a road on "the land" and shall be reasonable in its location. These roads shall contain speed bumps every 1,000 feet which shall be constructed and maintained by Company. If any fence is cut

by Company, it shall properly brace same with 3 post H brace constructed out of pipe before cutting and shall install and maintain a proper cattle guard, and at the request of Owner shall install a pipe gate across the cattle guard capable of being locked. Company shall paint all H braces, cattle guards and the like, with ranch red paint. Keys will be distributed only to those requiring access to "the land". For so long as the road is used by Company, it shall maintain the road and shall not permit or cause production vehicles (or any other vehicles) to enlarge the margin of the road. Company's use of "the road" shall be limited to the development of minerals under Owner's land.

Cattle guards shall be used by the Company during the drilling and completion stage of the well. After completion and during the production stage of the well, the cattle guards installed by Company shall be removed and metal gates shall be installed in place thereof. Each such gate shall be kept closed and locked at all times and keys distributed only to the appropriate personnel. Owner may request at Owner's option that any one or more cattle guards remain in place rather than being replaced with a metal gate, and at Owner's option may further request that a pipe gate, which can be locked, be installed across the cattle guard. Company shall be responsible for the maintenance and upkeep of each such gate and each such cattle guard that it uses.

Company shall keep all of its production equipment located on Owner's land painted BLM Tan.

(2a). Until such time the well is plugged and abandoned, Company shall pay to Owner, an annual road use fee in the amount of $1,500.00 per location pad, per year, for roads used by Company located on Owner's land. If Company uses the road to access three (3) location pads, then the annual road use payment would be $4,500.00. When Company no longer uses "the road" to access its wells, on "the land", Company shall, within six (6) months thereof, remove, "the road" and restore the surface. Upon final abandonment, "the road(s)" must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the surface owner to keep the road intact. After "the road(s)" created by the Company have been satisfactory 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.

Seed Mixture

The "Company" 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. Thre shall be no primary or secondary noxious weeds in the seed mixture. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s).

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 "Company" shall take appropriate measures to ensure that this does not occur. Where drilling is not possible, seed will be broadcast and the areas 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.

Species to be planted in pounds of pure live seed per acre:

Species	lb/acre
Plains Bristlegrass	5 lbs/A
Sand Bluestem	5 lbs/A
Little Bluestem	3 lbs/A
Big Bluestem	6 lbs/A
Plains Coreopsis	2 lbs/A
Sand Dropseed	1 lbs/A

*Pounds of pure live seed

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

(2b). Company shall purchase topsoil from Owner for $6.00 per loose yard and Company shall purchase caliche from Owner for $5.00 per loose yard for its operations.

(3) All pits used by Company shall be lined with plastic material of sufficient thickness to prevent the escape of saltwater and other materials on or into "the land". If requested by Owner, Company shall fence off the entire well location, including drill site pad, reserve pit, and, if applicable, tank batteries and pumping unit, so as to prevent any livestock from coming on the drill site location at any time. If livestock enter upon the drill site location and become "oiled" or otherwise injured due to Company's negligence in fencing off the location, Company shall be liable to Owner for such damages.

(4) No fresh water from beneath Owner's land shall ever be used for secondary recovery or repressure operations (or any like operations) by Company. Upon written request of Owner, Company agrees to bury all production lines, flow lines or injection lines (or any type "line") at least 24" beneath the surface, and to thereafter clean and level the land affected thereby (with there being no mound or rocks over the ditch line) and restore it, as nearly as practical, to its state of condition prior to the burying thereof.

(5) Company shall stockpile, adjacent to the location, the topsoil taken during the building of the drill site location. If the well is a producer, Company shall redistribute the topsoil over the reserve pit area and restore the surface, as nearly as practical, to its condition prior to drilling operations. If the well is a dry hole, Company shall pick up the caliche pad, redistribute the topsoil over the drill site location and restore the surface, as nearly as practical, to its condition prior to drilling operations.

Upon completion of the drilling operations, the reserve pit will be "cutout' and allowed to evaporate until dry, after which all plastic and contents of the pit, except cuttings, shall be removed and disposed of off-site of Owner's land. Company will wash and clean cuttings so as to remove all foreign materials from the cuttings and sun dried per new regulations, then use the cuttings on the roads on "the land". Clean margins will be established both horizontally and vertically in the removal of reserve pit contents. Company will purchase clean soil from Owner at $6.00 per yard to back fill reserve pit. The pit shall be leveled, leaving such land suitable for replanting. Rocks larger than 3" in diameter will be buried below ground level. After the above procedures are completed, the Company shall reseed the reserve pit area with native grass seed.

Company will cooperate with Owner as to the type and quantity of seed to be planted and the time of year and technique of planting grass seed until a native stand of grass has been established.

Company agrees that it will not bring topsoil and/or caliche into the ranch from a source outside of the boundaries of the ranch.

(6) Company agrees to remove the rig and its associated equipment from "the land" within thirty (30) days of completion of the well. Should, for whatever reason, the rig and equipment not be removed by that time, the Company shall owe and pay to Owner a daily rental of $60.00 per day.

Upon cessation of production, or if the well is non-commercial, Company shall within six (6) months, remove all equipment, all production lines and all other items of equipment used directly or indirectly by Company as it pertains to the well drilled by it on "the land", and restore the site to its original condition.

(7) In the event of a dry hole or upon cessation of production and the abandonment of the well, Company agrees that all caliche and all other material as may have been placed or otherwise deposited on "the land" by it shall be removed by Company within six (6) months of abandonment thereof. Company also agrees to remove and/or remediate any and all soil and water contamination resulting from the Company's operations within twenty (20) days of such occurrences.

(8) Company shall indemnify, defend and hold Owner and its Trustees, officers, employees and agents harmless from and against any and all claims, demands, causes of action, costs, expenses, and liability of any nature whatsoever, including court costs, attorney's fees, and any expenses incurred, which may result from, arise out of, be related to, or in any way be connected with Company's operations; provided, however that nothing herein shall be construed to require or obligate Company to indemnify Owner against, or hold Owner harmless from Owner's own negligent acts or omissions. Further, Company shall indemnify and save Owner and its Trustees, officers, employees and agents harmless from any and all damages, cleanup expenses, fines, or penalties, resulting from a fire or any violation of, or non-compliance with, applicable local, state, or federal laws and regulations resulting from Company's operations.

(9) The parties agree, with respect to any other matters, damages or uses which are not provided for herein, that they will diligently and in good faith negotiate same on an issue by issue basis.

THIS AGREEMENT shall be binding on Company's successors, assigns and agents and it shall be binding on Owner's heirs, successors, representatives, administrators and assigns. Company agrees to provide copies of this Surface Damage Agreement to its agents and independent contractors who will enter upon "the land" and shall require that the agents and independent contractors comply with the terms and conditions set forth therein. The covenants hereunder shall be performable in Lovington, Lea County, New Mexico.

SIGNED this 10 day of August, 2013.

OWNER: **Limestone Livestock, LLC**

By: _____
Managing Partner

COMPANY

Caza Petroleum, Inc.

By: _____

HB