Form 3160-3
(June 2015)

FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

HOBBS OCD
DEC 03 2019
RECEIVED

5. Lease Serial No. NMNM114998	
6. If Indian, Allotee or Tribe Name	
1a. Type of work: ☑ DRILL ☐ REENTER	7. If Unit or CA Agreement, Name and No.
1b. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other	8. Lease Name and Well No. SIOUX 25-36 STATE FED COM 10H (326483)
1c. Type of Completion: ☐ Hydraulic Fracturing ☑ Single Zone ☐ Multiple Zone	
2. Name of Operator CAZA OPERATING LLC 249099	9. API Well No. 30-025-46561
3a. Address 200 N. Loraine Street, Suite 1550 Midland TX 79701	3b. Phone No. *(include area code)* (432)682-7424
	10. Field and Pool, or Exploratory 98228 DOGIE DRAW / WC-025 G-09 S253536D
4. Location of Well *(Report location clearly and in accordance with any State requirements.*)* At surface NWNE / 200 FNL / 1497 FEL / LAT 32.108083 / LONG -103.317562 At proposed prod. zone SWSE / 270 FSL / 1680 FEL / LAT 32.080315 / LONG -103.318145	11. Sec., T. R. M. or Blk. and Survey or Area SEC 25 / T25S / R35E / NMP
14. Distance in miles and direction from nearest town or post office* 7 miles	12. County or Parish LEA / 13. State NM
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 200 feet	16. No of acres in lease 760 / 17. Spacing Unit dedicated to this well 320
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 100 feet	19. Proposed Depth 12216 feet / 22420 feet / 20. BLM/BIA Bond No. in file FED: NMB000471
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3085 feet	22. Approximate date work will start* 11/01/2019 / 23. Estimated duration 38 days

24. Attachments

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

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

25. Signature (Electronic Submission)	Name *(Printed/Typed)* Tony B Sam / Ph: (432)682-7424	Date 05/05/2019
Title VP Operations		
Approved by *(Signature)* (Electronic Submission)	Name *(Printed/Typed)* Christopher Walls / Ph: (575)234-2234	Date 11/27/2019
Title Petroleum Engineer	Office CARLSBAD	

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

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

GCP Rec 12/03/19

KZ 12/04/19

APPROVED WITH CONDITIONS

Approval Date: 11/27/2019

(Continued on page 2)

*(Instructions on page 2)

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**CAZA OPERATING LLC**
LEASE NO.:	**NMNM11498**
WELL NAME & NO.:	SIOUX 25-36 STATE FED COM 10H
SURFACE HOLE FOOTAGE:	200'/N & 1497'/E
BOTTOM HOLE FOOTAGE	270'/S & 1680'/E
LOCATION:	Section 25, T.25 S., R.35 E., NMP
COUNTY:	Lea County, New Mexico

COA

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

A. HYDROGEN SULFIDE

Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

B. CASING

1. The **13-3/8** inch surface casing shall be set at approximately **1100 feet** (a minimum of **25 feet (Lea County)** into the Rustler Anhydrite and above the salt) and cemented to the surface.

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

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hours or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)

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

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

Option 1 (Single Stage):

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

Option 2:

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

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

b. Second stage above DV tool:

- Cement to surface. If cement does not circulate, contact the appropriate BLM office.

The Intermediate 1 connection shall be BTC.

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

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

C. PRESSURE CONTROL

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

2.

Option 1:

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

b. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the intermediate casing shoe shall be **10,000 (10M)** psi. **Variance is approved to use a 5000 (5M) Annular which shall be tested to 5000 (5M) psi.**

Option 2:

1. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **10,000 (10M)** psi. **Variance is approved to use a 5000 (5M) Annular which shall be tested to 5000 (5M) psi.**

    a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
    b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
    c. Manufacturer representative shall install the test plug for the initial BOP test.
    d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
    e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

D. SPECIAL REQUIREMENT (S)

Communitization Agreement

- The operator will submit a Communitization Agreement to the Carlsbad Field Office, 620 E Greene St. Carlsbad, New Mexico 88220, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by

the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.

- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

GENERAL REQUIREMENTS

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

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

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

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

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

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

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

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

A. CASING

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

2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.

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

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

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

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

7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

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

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

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

    a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
    b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
    c. Manufacturer representative shall install the test plug for the initial BOP test.
    d. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
    e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.

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

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

hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).

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

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

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

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

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

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

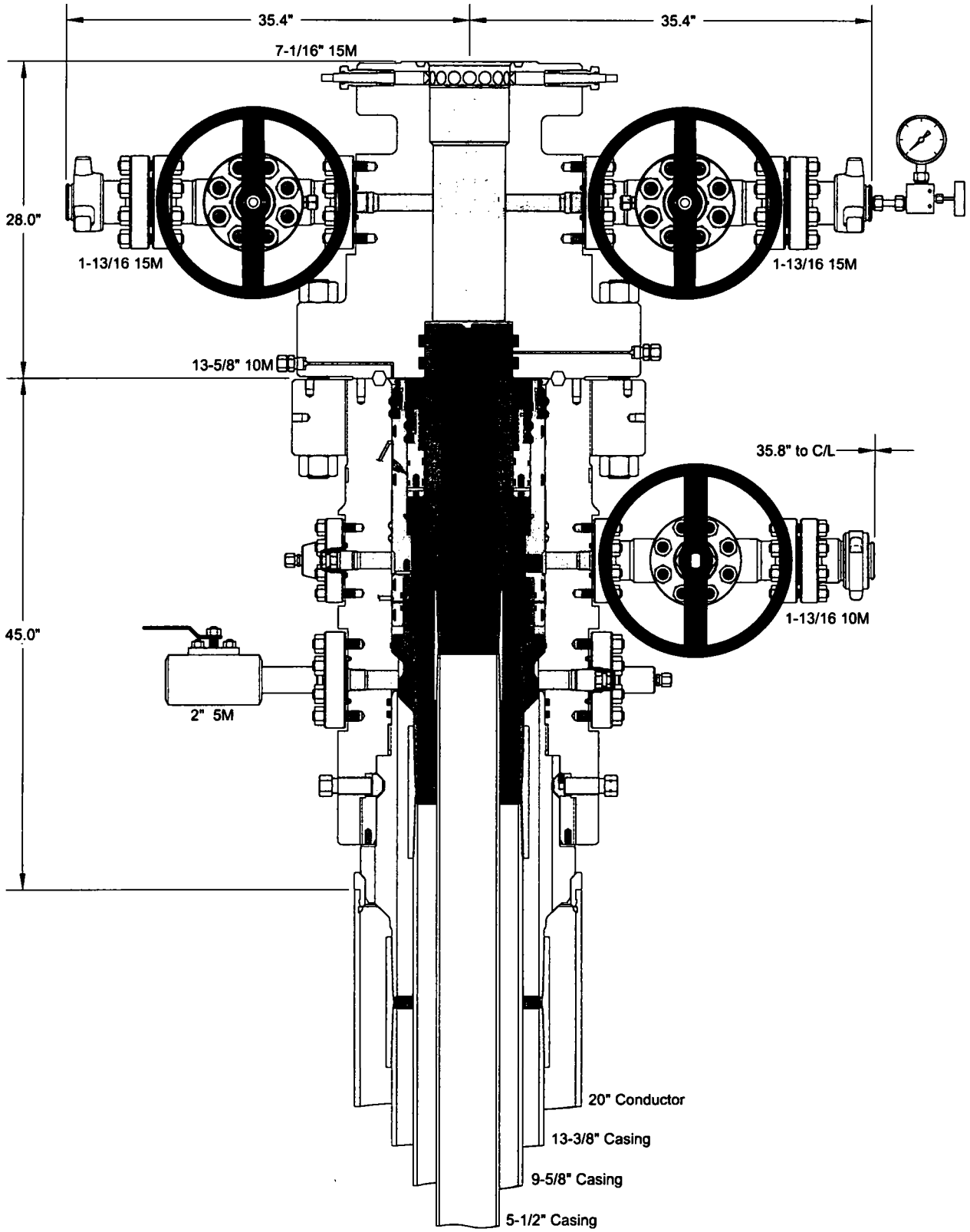
C. DRILLING MUD

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

D. WASTE MATERIAL AND FLUIDS

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

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



ALL DIMENSIONS APPROXIMATE

CACTUS WELLHEAD LLC

CAZA PETROLEUM
PERMIAN BASIN

13-3/8" x 9-5/8" x 5-1/2" MBU-3T-CFL-R-DBLO Wellhead System
With 13-5/8" 10M x 7-1/16" 15M CTH-DBLHPS Tubing Head
And 13-3/8", 9-5/8" & 5-1/2" Mandrel Casing Hangers

DRAWN	DLE	25SEP19
APPRV		

DRAWING NO. ODE0003135

Operator	Caza Operating LLC
Well Name & No.	Sioux 25-36 State Fed Com 10H
County	Lea
Location (S/T/R/All)	
Lease Number	
ATS or EC #	APD### or EC###

Colors:
Choose casings
Fill in, if applicable

Name	
Date	
Version	

Remarks	

Type of Casing	Size of Hole (in)	Size of Casing (in)	Weight per Foot (lbs/ft)	Grade	Yield	Coupling #:	Top (ft)	Bottom (MD) (ft)	Setting Depth (TVD) (TVD of entire string) (ft)	Min Mud Weight (ppg)	Max Mud Weight (ppg)	ID	Drift ID	Cplg OD
Surface	17.500	13.375	54.50	J	55	stc	0	1105	1104	8.40	8.90	12.6150	12.4900	14.3750
Int 1	12.250	9.625	40.00	hcl	80	btc	0	7200	8602	9.20	10.00	8.8350	8.7500	10.6250
Int 1 Taper 1	12.250	9.625	47.00	hcl	80	btc	7200	8656	8602	9.20	10.00	8.6810	8.6250	10.6250
<Choose Casing>	12.250													
Prod 1	8.500	5.500	20.00	p	110	btc	0	22420	12215	9.20	12.50	4.7780	4.6530	6.0500
<Choose Casing>														
<Choose Casing>														

Cement

Surface			Int 1			Prod 1			<Choose Casing>			<Choose Casing>		
TOC	0		TOC	0		TOC	0		TOC			TOC		
DV Depth			DV Depth	4927		DV Depth			DV Depth			DV Depth		
	Sacks	Yield (ft3/sx)		Sacks	Yield (ft3/sx)		Sacks	Yield (ft3/sx)		Sacks	Yield (ft3/sx)		Sacks	Yield (ft3/sx)
Lead	580	1.93	Lead	725	2.13	Lead 1	2450	2.38	Lead 1			Lead 1		
Tail	309	1.35	Tail	588	1.35	Tail 1	3054	1.62	Tail 1			Tail 1		
DV Lead			DV Lead	1353	2.13	DV Lead			DV Lead			DV Lead		
DV Tail			DV Tail	232	1.35	DV Tail			DV Tail			DV Tail		
Cmt Added	1536.55	cuft	Cement Added	2338.1 / 3195.1	cuft	Cement Added	10778.48	cuft	Cement Added	#N/A	cuft	Cement Added	#N/A	cuft
Cmt Req.	768	cuft	Cement Req.	1167.9 / 1597.8	cuft	Cement Req.	5388	cuft	Cement Req.	0	cuft	Cement Req.	0	cuft
Excess	100.18%		Excess	100.2% / 100%		Excess	100.03%		Excess	#N/A		Excess	#N/A	

Clearances	In Hole	In Surface	In Int 1	In Int 1 Taper 1		In Prod 1		
Surface								
Int 1								
Int 1 Taper 1		No Overlap	No Overlap					
Prod 1					No Overlap			

Safety Factors	Joint/Body	Collapse	Burst	Alt Burst
Surface	8.54	2.21		1.06
Int 1	2.57	1.13		1.10
Int 1 Taper 1	15.87	1.59		1.31
Prod 1	2.62	1.40	1.59	2.41

BOP Requirements After the Shoe

Surface		Int 1		Prod 1	
Max. Surf. Pressure	2576 psi	Max. Surf. Pressure	5245 psi	Max. Surf. Pressur	psi
BOP Required	3M System	BOP Required	10M System	BOP Required	System
<Choose Casing>					
Max. Surf. Pressure	psi				
BOP Required	System				

Caza Oil and Gas, Inc

H2S Drilling Operations Plan

Sioux 25-36 State Fed Com 9H

Lea County, New Mexico

Prepared by: Steve Morris

Date: 06/27/2018

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:

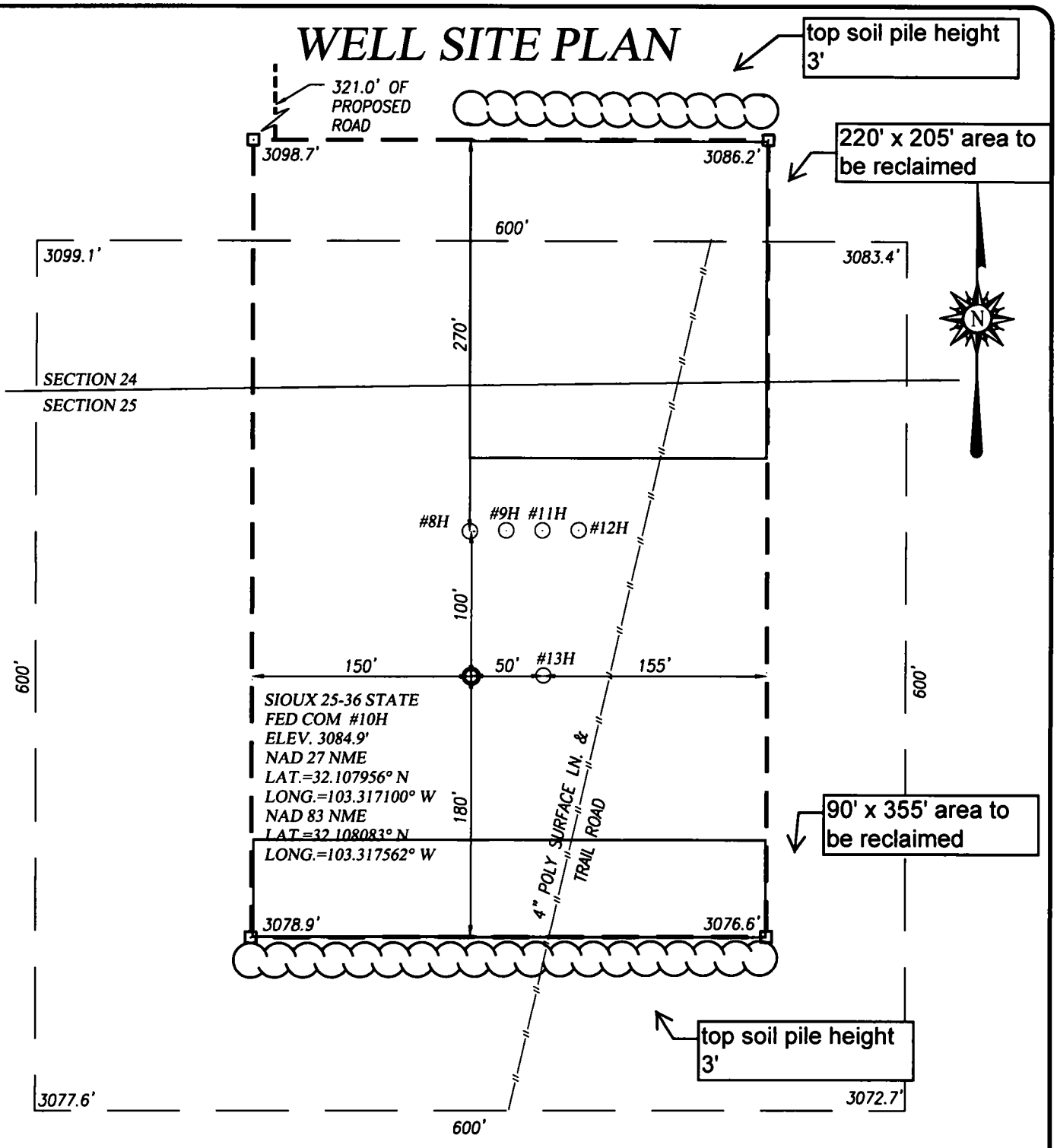
All evacuees will migrate laterally toward the wind direction.

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.

WELL SITE PLAN



NOTE:
1) SEE "TOPOGRAPHICAL AND ACCESS ROAD MAP" FOR PROPOSED ROAD LOCATION.

100 0 100 200 Feet

Scale: 1"=100'

DIRECTIONS TO LOCATION:

FROM THE INTERSECTION OF STATE HWY. 128 AND CO. RD. J2(BATTLE AX) GO SOUTHEAST APPROX. 7.3 MILES ON STATE HWY 128 TURN RIGHT AND GO SOUTH-SOUTHWEST APPROX. 2.5 MILES TO ROAD SURVEY. FOLLOW ROAD STAKED SOUTH 321' TO THIS WELL PAD.

CAZA OPERATING, LLC

SIOUX 25-36 STATE FED COM #10H WELL LOCATED
200 FEET FROM THE NORTH LINE AND 1497 FEET FROM
THE EAST LINE OF SECTION 25,
TOWNSHIP 25 SOUTH, RANGE 35 EAST, N.M.P.M.,
LEA COUNTY, NEW MEXICO

PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO HOBBS, N.M. 88240
(575) 393-3117 www.jwsc.biz
TBPLS# 10021000

Survey Date: 10/02/18	CAD Date: 11/16/18	Drawn By: LSL
W.O. No.: 18111076	Rev: .	Rel. W.O.:	Sheet 1 of 1

Caza Petroleum

Caza Operating LLC

Sioux 25-26 State Fed Com 10H
Sioux 25-26 State Fed Com 10H
Sioux 25-26 State Fed Com 10H
Sioux 25-26 State Fed Com 10H

Plan: 191119 Sioux 25-36 State Fed Com 10H

Morcor Standard Plan

19 November, 2019

Company:	Caza Operating LLC	**Local Co-ordinate Reference:**	Well Sioux 25-26 State Fed Com 10H
Project:	Sioux 25-26 State Fed Com 10H	**TVD Reference:**	WELL @ 3107.0usft (Original Well Elev)
Site:	Sioux 25-26 State Fed Com 10H	**MD Reference:**	WELL @ 3107.0usft (Original Well Elev)
Well:	Sioux 25-26 State Fed Com 10H	**North Reference:**	Grid
Wellbore:	Sioux 25-26 State Fed Com 10H	**Survey Calculation Method:**	Minimum Curvature
Design:	191119 Sioux 25-36 State Fed Com 10H	**Database:**	EDM 5000.1 Single User Db

Project Sioux 25-26 State Fed Com 10H

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

Site Sioux 25-26 State Fed Com 10H

Site Position:		**Northing:**	404,659.84 usft	**Latitude:**	32° 6' 30.290 N
From:	Map	**Easting:**	855,900.40 usft	**Longitude:**	103° 19' 2.645 W
Position Uncertainty:	1.0 usft	**Slot Radius:**	17-1/2 "	**Grid Convergence:**	0.54 °

Well Sioux 25-26 State Fed Com 10H

Well Position	**+N/-S**	0.0 usft	**Northing:**	404,659.84 usft	**Latitude:**	32° 6' 30.290 N
	+E/-W	0.0 usft	**Easting:**	855,900.40 usft	**Longitude:**	103° 19' 2.645 W
Position Uncertainty		1.0 usft	**Wellhead Elevation:**	usft	**Ground Level:**	3,086.0 usft

Wellbore Sioux 25-26 State Fed Com 10H

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	12/30/2018	6.52	59.93	47,820

Design 191119 Sioux 25-36 State Fed Com 10H

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	180.76

Survey Tool Program Date 11/19/2019

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	22,420.0	191119 Sioux 25-36 State Fed Com 10H (S	MWD	MWD - Standard

Company:	Caza Operating LLC	**Local Co-ordinate Reference:**	Well Sioux 25-26 State Fed Com 10H
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Wellbore:	Sioux 25-26 State Fed Com 10H	**Survey Calculation Method:**	Minimum Curvature
Design:	191119 Sioux 25-36 State Fed Com 10H	**Database:**	EDM 5000.1 Single User Db

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	Easting (usft)	Northing (usft)	V. Sec (usft)	DLeg (°/100usft)
0.0	0.00	0.00	0.0	-3,107.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
100.0	0.00	310.00	100.0	-3,007.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
120.0	0.00	310.00	120.0	-2,987.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
20" Conductor										
200.0	0.00	310.00	200.0	-2,907.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
300.0	0.00	310.00	300.0	-2,807.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
400.0	0.00	310.00	400.0	-2,707.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
500.0	0.00	310.00	500.0	-2,607.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
600.0	0.00	310.00	600.0	-2,507.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
700.0	0.00	310.00	700.0	-2,407.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
767.0	0.00	310.00	767.0	-2,340.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
Rustler										
800.0	0.00	310.00	800.0	-2,307.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
900.0	0.00	310.00	900.0	-2,207.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
1,000.0	0.00	310.00	1,000.0	-2,107.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
1,100.0	0.00	310.00	1,100.0	-2,007.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
13 3/8" Surface Casing										
1,147.0	0.00	310.00	1,147.0	-1,960.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
Top of Salt										
1,200.0	0.00	310.00	1,200.0	-1,907.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
1,300.0	0.00	310.00	1,300.0	-1,807.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
1,400.0	0.00	310.00	1,400.0	-1,707.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
1,500.0	0.00	310.00	1,500.0	-1,607.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
1,600.0	0.00	310.00	1,600.0	-1,507.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
1,700.0	0.00	310.00	1,700.0	-1,407.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
1,800.0	0.00	310.00	1,800.0	-1,307.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
1,900.0	0.00	310.00	1,900.0	-1,207.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
2,000.0	0.00	310.00	2,000.0	-1,107.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00

Company:	Caza Operating LLC	**Local Co-ordinate Reference:**	Well Sioux 25-26 State Fed Com 10H
Project:	Sioux 25-26 State Fed Com 10H	**TVD Reference:**	WELL @ 3107.0usft (Original Well Elev)
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Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	Easting (usft)	Northing (usft)	V. Sec (usft)	DLeg (°/100usft)
2,100.0	0.00	310.00	2,100.0	-1,007.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
2,200.0	0.00	310.00	2,200.0	-907.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
2,300.0	0.00	310.00	2,300.0	-807.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
2,400.0	0.00	310.00	2,400.0	-707.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
2,472.0	0.00	310.00	2,472.0	-635.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
Base of Salt										
2,500.0	0.00	310.00	2,500.0	-607.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
2,600.0	0.00	310.00	2,600.0	-507.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
2,700.0	0.00	310.00	2,700.0	-407.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
2,800.0	0.00	310.00	2,800.0	-307.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
2,900.0	0.00	310.00	2,900.0	-207.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
3,000.0	0.00	310.00	3,000.0	-107.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
3,100.0	0.00	310.00	3,100.0	-7.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
3,200.0	0.00	310.00	3,200.0	93.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
3,300.0	0.00	310.00	3,300.0	193.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
3,400.0	0.00	310.00	3,400.0	293.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
3,500.0	0.00	310.00	3,500.0	393.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
3,600.0	0.00	310.00	3,600.0	493.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
3,700.0	0.00	310.00	3,700.0	593.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
3,800.0	0.00	310.00	3,800.0	693.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
3,900.0	0.00	310.00	3,900.0	793.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
4,000.0	0.00	310.00	4,000.0	893.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
4,100.0	0.00	310.00	4,100.0	993.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
4,200.0	0.00	310.00	4,200.0	1,093.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
4,300.0	0.00	310.00	4,300.0	1,193.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
4,400.0	0.00	310.00	4,400.0	1,293.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
4,500.0	0.00	310.00	4,500.0	1,393.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00

Company:	Caza Operating LLC	**Local Co-ordinate Reference:**	Well Sioux 25-26 State Fed Com 10H
Project:	Sioux 25-26 State Fed Com 10H	**TVD Reference:**	WELL @ 3107.0usft (Original Well Elev)
Site:	Sioux 25-26 State Fed Com 10H	**MD Reference:**	WELL @ 3107.0usft (Original Well Elev)
Well:	Sioux 25-26 State Fed Com 10H	**North Reference:**	Grid
Wellbore:	Sioux 25-26 State Fed Com 10H	**Survey Calculation Method:**	Minimum Curvature
Design:	191119 Sioux 25-36 State Fed Com 10H	**Database:**	EDM 5000.1 Single User Db

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	Easting (usft)	Northing (usft)	V. Sec (usft)	DLeg (°/100usft)
4,600.0	0.00	310.00	4,600.0	1,493.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
4,700.0	0.00	310.00	4,700.0	1,593.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
4,800.0	0.00	310.00	4,800.0	1,693.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
4,900.0	0.00	310.00	4,900.0	1,793.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
4,947.0	0.00	310.00	4,947.0	1,840.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
Delaware										
5,000.0	0.00	310.00	5,000.0	1,893.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
5,100.0	0.00	310.00	5,100.0	1,993.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
5,200.0	0.00	310.00	5,200.0	2,093.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
5,300.0	0.00	310.00	5,300.0	2,193.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
5,400.0	0.00	310.00	5,400.0	2,293.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
5,500.0	0.00	310.00	5,500.0	2,393.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
5,600.0	0.00	310.00	5,600.0	2,493.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
5,667.0	0.00	310.00	5,667.0	2,560.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
Cherry Canyon										
5,700.0	0.00	310.00	5,700.0	2,593.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
5,800.0	0.00	310.00	5,800.0	2,693.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
5,900.0	0.00	310.00	5,900.0	2,793.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
6,000.0	0.00	310.00	6,000.0	2,893.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
6,100.0	0.00	310.00	6,100.0	2,993.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
6,200.0	0.00	310.00	6,200.0	3,093.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
6,300.0	0.00	310.00	6,300.0	3,193.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
6,400.0	0.00	310.00	6,400.0	3,293.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
6,500.0	0.00	310.00	6,500.0	3,393.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
6,600.0	0.00	310.00	6,600.0	3,493.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
6,700.0	0.00	310.00	6,700.0	3,593.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
6,800.0	0.00	310.00	6,800.0	3,693.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00

Company:	Caza Operating LLC	**Local Co-ordinate Reference:**	Well Sioux 25-26 State Fed Com 10H
Project:	Sioux 25-26 State Fed Com 10H	**TVD Reference:**	WELL @ 3107.0usft (Original Well Elev)
Site:	Sioux 25-26 State Fed Com 10H	**MD Reference:**	WELL @ 3107.0usft (Original Well Elev)
Well:	Sioux 25-26 State Fed Com 10H	**North Reference:**	Grid
Wellbore:	Sioux 25-26 State Fed Com 10H	**Survey Calculation Method:**	Minimum Curvature
Design:	191119 Sioux 25-36 State Fed Com 10H	**Database:**	EDM 5000.1 Single User Db

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	Easting (usft)	Northing (usft)	V. Sec (usft)	DLeg (°/100usft)
6,900.0	0.00	310.00	6,900.0	3,793.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
7,000.0	0.00	310.00	7,000.0	3,893.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
7,100.0	0.00	310.00	7,100.0	3,993.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
7,200.0	0.00	310.00	7,200.0	4,093.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
7,300.0	0.00	310.00	7,300.0	4,193.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
7,327.0	0.00	310.00	7,327.0	4,220.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
Brushy Canyon										
7,400.0	0.00	310.00	7,400.0	4,293.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
7,500.0	0.00	310.00	7,500.0	4,393.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
7,600.0	0.00	310.00	7,600.0	4,493.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
7,700.0	0.00	310.00	7,700.0	4,593.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
7,730.0	0.00	310.00	7,730.0	4,623.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
Start Build 3.00										
7,800.0	0.00	310.00	7,800.0	4,693.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
7,900.0	0.00	310.00	7,900.0	4,793.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
7,930.0	0.00	310.00	7,930.0	4,823.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
Start 3470.0 hold at 7930.0 MD										
8,000.0	0.00	310.00	8,000.0	4,893.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
8,100.0	0.00	310.00	8,100.0	4,993.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
8,200.0	0.00	310.00	8,200.0	5,093.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
8,300.0	0.00	310.00	8,300.0	5,193.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
8,337.0	0.00	310.00	8,337.0	5,230.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
Lower Brushy Canyon										
8,400.0	0.00	310.00	8,400.0	5,293.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
8,500.0	0.00	310.00	8,500.0	5,393.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
8,550.0	0.00	310.00	8,550.0	5,443.0	0.0	0.0	855,900.40	404,659.84	0.00	0.00
8,582.0	0.96	310.00	8,582.0	5,475.0	0.2	-0.2	855,900.19	404,660.01	-0.17	3.00
Bone Spring										

Company:	Caza Operating LLC	**Local Co-ordinate Reference:**	Well Sioux 25-26 State Fed Com 10H
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Site:	Sioux 25-26 State Fed Com 10H	**MD Reference:**	WELL @ 3107.0usft (Original Well Elev)
Well:	Sioux 25-26 State Fed Com 10H	**North Reference:**	Grid
Wellbore:	Sioux 25-26 State Fed Com 10H	**Survey Calculation Method:**	Minimum Curvature
Design:	191119 Sioux 25-36 State Fed Com 10H	**Database:**	EDM 5000.1 Single User Db

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	Easting (usft)	Northing (usft)	V. Sec (usft)	DLeg (°/100usft)
8,600.0	1.50	310.00	8,600.0	5,493.0	0.4	-0.5	855,899.90	404,660.26	-0.41	3.00
8,632.0	2.46	310.00	8,632.0	5,525.0	1.1	-1.3	855,899.05	404,660.97	-1.11	3.00
9 5/8" Intermediate Casing										
8,700.0	4.50	310.00	8,699.8	5,592.8	3.8	-4.5	855,895.89	404,663.62	-3.72	3.00
8,750.0	6.00	310.00	8,749.6	5,642.6	6.7	-8.0	855,892.39	404,666.57	-6.62	3.00
8,800.0	6.00	310.00	8,799.4	5,692.4	10.1	-12.0	855,888.38	404,669.92	-9.93	0.00
8,900.0	6.00	310.00	8,898.8	5,791.8	16.8	-20.0	855,880.37	404,676.64	-16.54	0.00
9,000.0	6.00	310.00	8,998.3	5,891.3	23.5	-28.0	855,872.37	404,683.36	-23.15	0.00
9,100.0	6.00	310.00	9,097.7	5,990.7	30.2	-36.0	855,864.36	404,690.08	-29.76	0.00
9,200.0	6.00	310.00	9,197.2	6,090.2	37.0	-44.0	855,856.35	404,696.80	-36.38	0.00
9,300.0	6.00	310.00	9,296.6	6,189.6	43.7	-52.1	855,848.34	404,703.52	-42.99	0.00
9,400.0	6.00	310.00	9,396.1	6,289.1	50.4	-60.1	855,840.34	404,710.24	-49.60	0.00
9,500.0	6.00	310.00	9,495.5	6,388.5	57.1	-68.1	855,832.33	404,716.96	-56.21	0.00
9,600.0	6.00	310.00	9,595.0	6,488.0	63.8	-76.1	855,824.32	404,723.68	-62.83	0.00
9,700.0	6.00	310.00	9,694.4	6,587.4	70.6	-84.1	855,816.32	404,730.40	-69.44	0.00
9,732.7	6.00	310.00	9,727.0	6,620.0	72.8	-86.7	855,813.69	404,732.60	-71.61	0.00
1st Bone Spring Sand										
9,800.0	6.00	310.00	9,793.9	6,686.9	77.3	-92.1	855,808.31	404,737.11	-76.05	0.00
9,900.0	6.00	310.00	9,893.3	6,786.3	84.0	-100.1	855,800.30	404,743.83	-82.67	0.00
10,000.0	6.00	310.00	9,992.8	6,885.8	90.7	-108.1	855,792.29	404,750.55	-89.28	0.00
10,100.0	6.00	310.00	10,092.2	6,985.2	97.4	-116.1	855,784.29	404,757.27	-95.89	0.00
10,200.0	6.00	310.00	10,191.7	7,084.7	104.2	-124.1	855,776.28	404,763.99	-102.50	0.00
10,235.5	6.00	310.00	10,227.0	7,120.0	106.5	-127.0	855,773.44	404,766.38	-104.85	0.00
2nd Bone Spring Sand										
10,300.0	6.00	310.00	10,291.1	7,184.1	110.9	-132.1	855,768.27	404,770.71	-109.12	0.00
10,400.0	6.00	310.00	10,390.6	7,283.6	117.6	-140.1	855,760.26	404,777.43	-115.73	0.00
10,500.0	6.00	310.00	10,490.0	7,383.0	124.3	-148.1	855,752.26	404,784.15	-122.34	0.00

Company:	Caza Operating LLC	**Local Co-ordinate Reference:**	Well Sioux 25-26 State Fed Com 10H
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Site:	Sioux 25-26 State Fed Com 10H	**MD Reference:**	WELL @ 3107.0usft (Original Well Elev)
Well:	Sioux 25-26 State Fed Com 10H	**North Reference:**	Grid
Wellbore:	Sioux 25-26 State Fed Com 10H	**Survey Calculation Method:**	Minimum Curvature
Design:	191119 Sioux 25-36 State Fed Com 10H	**Database:**	EDM 5000.1 Single User Db

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	Easting (usft)	Northing (usft)	V. Sec (usft)	DLeg (°/100usft)
10,597.5	6.00	310.00	10,587.0	7,480.0	130.9	-155.9	855,744.45	404,790.70	-128.79	0.00
2nd Bone Spring Lime										
10,600.0	6.00	310.00	10,589.5	7,482.5	131.0	-156.2	855,744.25	404,790.87	-128.95	0.00
10,700.0	6.00	310.00	10,689.0	7,582.0	137.7	-164.2	855,736.24	404,797.58	-135.57	0.00
10,800.0	6.00	310.00	10,788.4	7,681.4	144.5	-172.2	855,728.23	404,804.30	-142.18	0.00
10,900.0	6.00	310.00	10,887.9	7,780.9	151.2	-180.2	855,720.23	404,811.02	-148.79	0.00
11,000.0	6.00	310.00	10,987.3	7,880.3	157.9	-188.2	855,712.22	404,817.74	-155.41	0.00
11,100.0	6.00	310.00	11,086.8	7,979.8	164.6	-196.2	855,704.21	404,824.46	-162.02	0.00
11,200.0	6.00	310.00	11,186.2	8,079.2	171.3	-204.2	855,696.21	404,831.18	-168.63	0.00
11,300.0	6.00	310.00	11,285.7	8,178.7	178.1	-212.2	855,688.20	404,837.90	-175.24	0.00
11,400.0	6.00	310.00	11,385.1	8,278.1	184.8	-220.2	855,680.19	404,844.62	-181.86	0.00
Start Drop -3.00										
11,500.0	3.00	310.00	11,484.8	8,377.8	189.8	-226.2	855,674.18	404,849.66	-186.82	3.00
11,600.0	0.00	0.00	11,584.8	8,477.8	191.5	-228.2	855,672.18	404,851.34	-188.48	3.00
Start 20.0 hold at 11600.0 MD										
11,620.0	0.00	179.50	11,604.8	8,497.8	191.5	-228.2	855,672.18	404,851.34	-188.48	0.00
Start Build 11.90										
11,632.2	1.47	179.50	11,617.0	8,510.0	191.3	-228.2	855,672.18	404,851.19	-188.32	12.03
3rd Bone Spring Sand										
11,700.0	9.62	179.50	11,684.4	8,577.4	184.8	-228.2	855,672.23	404,844.64	-181.78	12.03
11,800.0	21.65	179.50	11,780.5	8,673.5	157.9	-227.9	855,672.47	404,817.74	-154.88	12.03
11,900.0	33.68	179.50	11,868.9	8,761.9	111.6	-227.5	855,672.87	404,771.40	-108.55	12.03
11,953.9	40.16	179.50	11,912.0	8,805.0	79.2	-227.2	855,673.16	404,739.03	-76.18	12.03
Wolfcamp										
12,000.0	45.70	179.50	11,945.7	8,838.7	47.8	-227.0	855,673.43	404,707.66	-44.82	12.03
12,100.0	57.73	179.50	12,007.6	8,900.6	-30.5	-226.3	855,674.11	404,629.31	33.51	12.03
12,200.0	69.76	179.50	12,051.7	8,944.7	-120.0	-225.5	855,674.89	404,539.80	123.01	12.03
12,300.0	81.78	179.50	12,076.3	8,969.3	-216.8	-224.7	855,675.74	404,443.05	219.74	12.03

Company:	Caza Operating LLC	**Local Co-ordinate Reference:**	Well Sioux 25-26 State Fed Com 10H
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Site:	Sioux 25-26 State Fed Com 10H	**MD Reference:**	WELL @ 3107.0usft (Original Well Elev)
Well:	Sioux 25-26 State Fed Com 10H	**North Reference:**	Grid
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Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	Easting (usft)	Northing (usft)	V. Sec (usft)	DLeg (°/100usft)
12,362.0	89.24	179.50	12,081.1	8,974.1	-278.6	-224.1	855,676.28	404,381.28	281.49	12.03
12,370.0	89.24	179.50	12,081.2	8,974.2	-286.6	-224.1	855,676.35	404,373.29	289.49	0.00
Start 10190.0 hold at 12370.0 MD										
12,400.0	89.24	179.50	12,081.6	8,974.6	-316.6	-223.8	855,676.61	404,343.29	319.48	0.00
12,500.0	89.24	179.50	12,082.9	8,975.9	-416.5	-222.9	855,677.48	404,243.30	419.44	0.00
12,600.0	89.24	179.50	12,084.3	8,977.3	-516.5	-222.0	855,678.35	404,143.31	519.41	0.00
12,700.0	89.24	179.50	12,085.6	8,978.6	-616.5	-221.2	855,679.23	404,043.33	619.38	0.00
12,800.0	89.24	179.50	12,086.9	8,979.9	-716.5	-220.3	855,680.10	403,943.34	719.34	0.00
12,900.0	89.24	179.50	12,088.2	8,981.2	-816.5	-219.4	855,680.97	403,843.35	819.31	0.00
13,000.0	89.24	179.50	12,089.6	8,982.6	-916.5	-218.6	855,681.85	403,743.37	919.28	0.00
13,100.0	89.24	179.50	12,090.9	8,983.9	-1,016.5	-217.7	855,682.72	403,643.38	1,019.25	0.00
13,200.0	89.24	179.50	12,092.2	8,985.2	-1,116.4	-216.8	855,683.59	403,543.39	1,119.21	0.00
13,300.0	89.24	179.50	12,093.5	8,986.5	-1,216.4	-215.9	855,684.46	403,443.40	1,219.18	0.00
13,400.0	89.24	179.50	12,094.9	8,987.9	-1,316.4	-215.1	855,685.34	403,343.42	1,319.15	0.00
13,500.0	89.24	179.50	12,096.2	8,989.2	-1,416.4	-214.2	855,686.21	403,243.43	1,419.11	0.00
13,600.0	89.24	179.50	12,097.5	8,990.5	-1,516.4	-213.3	855,687.08	403,143.44	1,519.08	0.00
13,700.0	89.24	179.50	12,098.9	8,991.9	-1,616.4	-212.4	855,687.95	403,043.45	1,619.05	0.00
13,800.0	89.24	179.50	12,100.2	8,993.2	-1,716.4	-211.6	855,688.83	402,943.47	1,719.02	0.00
13,900.0	89.24	179.50	12,101.5	8,994.5	-1,816.4	-210.7	855,689.70	402,843.48	1,818.98	0.00
14,000.0	89.24	179.50	12,102.8	8,995.8	-1,916.3	-209.8	855,690.57	402,743.49	1,918.95	0.00
14,100.0	89.24	179.50	12,104.2	8,997.2	-2,016.3	-209.0	855,691.44	402,643.50	2,018.92	0.00
14,200.0	89.24	179.50	12,105.5	8,998.5	-2,116.3	-208.1	855,692.32	402,543.52	2,118.88	0.00
14,300.0	89.24	179.50	12,106.8	8,999.8	-2,216.3	-207.2	855,693.19	402,443.53	2,218.85	0.00
14,400.0	89.24	179.50	12,108.1	9,001.1	-2,316.3	-206.3	855,694.06	402,343.54	2,318.82	0.00
14,500.0	89.24	179.50	12,109.5	9,002.5	-2,416.3	-205.5	855,694.93	402,243.55	2,418.79	0.00
14,600.0	89.24	179.50	12,110.8	9,003.8	-2,516.3	-204.6	855,695.81	402,143.57	2,518.75	0.00
14,700.0	89.24	179.50	12,112.1	9,005.1	-2,616.3	-203.7	855,696.68	402,043.58	2,618.72	0.00

Company:	Caza Operating LLC	**Local Co-ordinate Reference:**	Well Sioux 25-26 State Fed Com 10H
Project:	Sioux 25-26 State Fed Com 10H	**TVD Reference:**	WELL @ 3107.0usft (Original Well Elev)
Site:	Sioux 25-26 State Fed Com 10H	**MD Reference:**	WELL @ 3107.0usft (Original Well Elev)
Well:	Sioux 25-26 State Fed Com 10H	**North Reference:**	Grid
Wellbore:	Sioux 25-26 State Fed Com 10H	**Survey Calculation Method:**	Minimum Curvature
Design:	191119 Sioux 25-36 State Fed Com 10H	**Database:**	EDM 5000.1 Single User Db

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	Easting (usft)	Northing (usft)	V. Sec (usft)	DLeg (°/100usft)
14,800.0	89.24	179.50	12,113.4	9,006.4	-2,716.2	-202.8	855,697.55	401,943.59	2,718.69	0.00
14,900.0	89.24	179.50	12,114.8	9,007.8	-2,816.2	-202.0	855,698.42	401,843.60	2,818.65	0.00
15,000.0	89.24	179.50	12,116.1	9,009.1	-2,916.2	-201.1	855,699.30	401,743.62	2,918.62	0.00
15,100.0	89.24	179.50	12,117.4	9,010.4	-3,016.2	-200.2	855,700.17	401,643.63	3,018.59	0.00
15,200.0	89.24	179.50	12,118.7	9,011.7	-3,116.2	-199.4	855,701.04	401,543.64	3,118.56	0.00
15,300.0	89.24	179.50	12,120.1	9,013.1	-3,216.2	-198.5	855,701.91	401,443.66	3,218.52	0.00
15,400.0	89.24	179.50	12,121.4	9,014.4	-3,316.2	-197.6	855,702.79	401,343.67	3,318.49	0.00
15,500.0	89.24	179.50	12,122.7	9,015.7	-3,416.2	-196.7	855,703.66	401,243.68	3,418.46	0.00
15,600.0	89.24	179.50	12,124.1	9,017.1	-3,516.1	-195.9	855,704.53	401,143.69	3,518.43	0.00
15,700.0	89.24	179.50	12,125.4	9,018.4	-3,616.1	-195.0	855,705.40	401,043.71	3,618.39	0.00
15,800.0	89.24	179.50	12,126.7	9,019.7	-3,716.1	-194.1	855,706.28	400,943.72	3,718.36	0.00
15,900.0	89.24	179.50	12,128.0	9,021.0	-3,816.1	-193.3	855,707.15	400,843.73	3,818.33	0.00
16,000.0	89.24	179.50	12,129.4	9,022.4	-3,916.1	-192.4	855,708.02	400,743.74	3,918.29	0.00
16,100.0	89.24	179.50	12,130.7	9,023.7	-4,016.1	-191.5	855,708.90	400,643.76	4,018.26	0.00
16,200.0	89.24	179.50	12,132.0	9,025.0	-4,116.1	-190.6	855,709.77	400,543.77	4,118.23	0.00
16,300.0	89.24	179.50	12,133.3	9,026.3	-4,216.1	-189.8	855,710.64	400,443.78	4,218.20	0.00
16,400.0	89.24	179.50	12,134.7	9,027.7	-4,316.0	-188.9	855,711.51	400,343.79	4,318.16	0.00
16,500.0	89.24	179.50	12,136.0	9,029.0	-4,416.0	-188.0	855,712.39	400,243.81	4,418.13	0.00
16,600.0	89.24	179.50	12,137.3	9,030.3	-4,516.0	-187.1	855,713.26	400,143.82	4,518.10	0.00
16,700.0	89.24	179.50	12,138.6	9,031.6	-4,616.0	-186.3	855,714.13	400,043.83	4,618.06	0.00
16,800.0	89.24	179.50	12,140.0	9,033.0	-4,716.0	-185.4	855,715.00	399,943.84	4,718.03	0.00
16,900.0	89.24	179.50	12,141.3	9,034.3	-4,816.0	-184.5	855,715.88	399,843.86	4,818.00	0.00
17,000.0	89.24	179.50	12,142.6	9,035.6	-4,916.0	-183.7	855,716.75	399,743.87	4,917.97	0.00
17,100.0	89.24	179.50	12,144.0	9,037.0	-5,016.0	-182.8	855,717.62	399,643.88	5,017.93	0.00
17,200.0	89.24	179.50	12,145.3	9,038.3	-5,115.9	-181.9	855,718.49	399,543.89	5,117.90	0.00
17,300.0	89.24	179.50	12,146.6	9,039.6	-5,215.9	-181.0	855,719.37	399,443.91	5,217.87	0.00
17,400.0	89.24	179.50	12,147.9	9,040.9	-5,315.9	-180.2	855,720.24	399,343.92	5,317.83	0.00

Company:	Caza Operating LLC	**Local Co-ordinate Reference:**	Well Sioux 25-26 State Fed Com 10H
Project:	Sioux 25-26 State Fed Com 10H	**TVD Reference:**	WELL @ 3107.0usft (Original Well Elev)
Site:	Sioux 25-26 State Fed Com 10H	**MD Reference:**	WELL @ 3107.0usft (Original Well Elev)
Well:	Sioux 25-26 State Fed Com 10H	**North Reference:**	Grid
Wellbore:	Sioux 25-26 State Fed Com 10H	**Survey Calculation Method:**	Minimum Curvature
Design:	191119 Sioux 25-36 State Fed Com 10H	**Database:**	EDM 5000.1 Single User Db

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	Easting (usft)	Northing (usft)	V. Sec (usft)	DLeg (°/100usft)
17,500.0	89.24	179.50	12,149.3	9,042.3	-5,415.9	-179.3	855,721.11	399,243.93	5,417.80	0.00
17,600.0	89.24	179.50	12,150.6	9,043.6	-5,515.9	-178.4	855,721.98	399,143.94	5,517.77	0.00
17,700.0	89.24	179.50	12,151.9	9,044.9	-5,615.9	-177.5	855,722.86	399,043.96	5,617.74	0.00
17,800.0	89.24	179.50	12,153.2	9,046.2	-5,715.9	-176.7	855,723.73	398,943.97	5,717.70	0.00
17,900.0	89.24	179.50	12,154.6	9,047.6	-5,815.9	-175.8	855,724.60	398,843.98	5,817.67	0.00
18,000.0	89.24	179.50	12,155.9	9,048.9	-5,915.8	-174.9	855,725.47	398,744.00	5,917.64	0.00
18,100.0	89.24	179.50	12,157.2	9,050.2	-6,015.8	-174.1	855,726.35	398,644.01	6,017.60	0.00
18,200.0	89.24	179.50	12,158.5	9,051.5	-6,115.8	-173.2	855,727.22	398,544.02	6,117.57	0.00
18,300.0	89.24	179.50	12,159.9	9,052.9	-6,215.8	-172.3	855,728.09	398,444.03	6,217.54	0.00
18,400.0	89.24	179.50	12,161.2	9,054.2	-6,315.8	-171.4	855,728.96	398,344.05	6,317.51	0.00
18,500.0	89.24	179.50	12,162.5	9,055.5	-6,415.8	-170.6	855,729.84	398,244.06	6,417.47	0.00
18,600.0	89.24	179.50	12,163.8	9,056.8	-6,515.8	-169.7	855,730.71	398,144.07	6,517.44	0.00
18,700.0	89.24	179.50	12,165.2	9,058.2	-6,615.8	-168.8	855,731.58	398,044.08	6,617.41	0.00
18,800.0	89.24	179.50	12,166.5	9,059.5	-6,715.7	-167.9	855,732.45	397,944.10	6,717.37	0.00
18,900.0	89.24	179.50	12,167.8	9,060.8	-6,815.7	-167.1	855,733.33	397,844.11	6,817.34	0.00
19,000.0	89.24	179.50	12,169.2	9,062.2	-6,915.7	-166.2	855,734.20	397,744.12	6,917.31	0.00
19,100.0	89.24	179.50	12,170.5	9,063.5	-7,015.7	-165.3	855,735.07	397,644.13	7,017.28	0.00
19,200.0	89.24	179.50	12,171.8	9,064.8	-7,115.7	-164.5	855,735.94	397,544.15	7,117.24	0.00
19,300.0	89.24	179.50	12,173.1	9,066.1	-7,215.7	-163.6	855,736.82	397,444.16	7,217.21	0.00
19,400.0	89.24	179.50	12,174.5	9,067.5	-7,315.7	-162.7	855,737.69	397,344.17	7,317.18	0.00
19,500.0	89.24	179.50	12,175.8	9,068.8	-7,415.7	-161.8	855,738.56	397,244.18	7,417.15	0.00
19,600.0	89.24	179.50	12,177.1	9,070.1	-7,515.6	-161.0	855,739.44	397,144.20	7,517.11	0.00
19,700.0	89.24	179.50	12,178.4	9,071.4	-7,615.6	-160.1	855,740.31	397,044.21	7,617.08	0.00
19,800.0	89.24	179.50	12,179.8	9,072.8	-7,715.6	-159.2	855,741.18	396,944.22	7,717.05	0.00
19,900.0	89.24	179.50	12,181.1	9,074.1	-7,815.6	-158.3	855,742.05	396,844.23	7,817.01	0.00
20,000.0	89.24	179.50	12,182.4	9,075.4	-7,915.6	-157.5	855,742.93	396,744.25	7,916.98	0.00
20,100.0	89.24	179.50	12,183.7	9,076.7	-8,015.6	-156.6	855,743.80	396,644.26	8,016.95	0.00

Company:	Caza Operating LLC	**Local Co-ordinate Reference:**	Well Sioux 25-26 State Fed Com 10H
Project:	Sioux 25-26 State Fed Com 10H	**TVD Reference:**	WELL @ 3107.0usft (Original Well Elev)
Site:	Sioux 25-26 State Fed Com 10H	**MD Reference:**	WELL @ 3107.0usft (Original Well Elev)
Well:	Sioux 25-26 State Fed Com 10H	**North Reference:**	Grid
Wellbore:	Sioux 25-26 State Fed Com 10H	**Survey Calculation Method:**	Minimum Curvature
Design:	191119 Sioux 25-36 State Fed Com 10H	**Database:**	EDM 5000.1 Single User Db

Planned Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	TVDSS (usft)	N/S (usft)	E/W (usft)	Easting (usft)	Northing (usft)	V. Sec (usft)	DLeg (°/100usft)
20,200.0	89.24	179.50	12,185.1	9,078.1	-8,115.6	-155.7	855,744.67	396,544.27	8,116.92	0.00
20,300.0	89.24	179.50	12,186.4	9,079.4	-8,215.6	-154.9	855,745.54	396,444.29	8,216.88	0.00
20,400.0	89.24	179.50	12,187.7	9,080.7	-8,315.5	-154.0	855,746.42	396,344.30	8,316.85	0.00
20,500.0	89.24	179.50	12,189.0	9,082.0	-8,415.5	-153.1	855,747.29	396,244.31	8,416.82	0.00
20,600.0	89.24	179.50	12,190.4	9,083.4	-8,515.5	-152.2	855,748.16	396,144.32	8,516.78	0.00
20,700.0	89.24	179.50	12,191.7	9,084.7	-8,615.5	-151.4	855,749.03	396,044.34	8,616.75	0.00
20,800.0	89.24	179.50	12,193.0	9,086.0	-8,715.5	-150.5	855,749.91	395,944.35	8,716.72	0.00
20,900.0	89.24	179.50	12,194.4	9,087.4	-8,815.5	-149.6	855,750.78	395,844.36	8,816.69	0.00
21,000.0	89.24	179.50	12,195.7	9,088.7	-8,915.5	-148.7	855,751.65	395,744.37	8,916.65	0.00
21,100.0	89.24	179.50	12,197.0	9,090.0	-9,015.5	-147.9	855,752.52	395,644.39	9,016.62	0.00
21,200.0	89.24	179.50	12,198.3	9,091.3	-9,115.4	-147.0	855,753.40	395,544.40	9,116.59	0.00
21,300.0	89.24	179.50	12,199.7	9,092.7	-9,215.4	-146.1	855,754.27	395,444.41	9,216.55	0.00
21,400.0	89.24	179.50	12,201.0	9,094.0	-9,315.4	-145.3	855,755.14	395,344.42	9,316.52	0.00
21,500.0	89.24	179.50	12,202.3	9,095.3	-9,415.4	-144.4	855,756.01	395,244.44	9,416.49	0.00
21,600.0	89.24	179.50	12,203.6	9,096.6	-9,515.4	-143.5	855,756.89	395,144.45	9,516.46	0.00
21,700.0	89.24	179.50	12,205.0	9,098.0	-9,615.4	-142.6	855,757.76	395,044.46	9,616.42	0.00
21,800.0	89.24	179.50	12,206.3	9,099.3	-9,715.4	-141.8	855,758.63	394,944.47	9,716.39	0.00
21,900.0	89.24	179.50	12,207.6	9,100.6	-9,815.4	-140.9	855,759.50	394,844.49	9,816.36	0.00
22,000.0	89.24	179.50	12,208.9	9,101.9	-9,915.3	-140.0	855,760.38	394,744.50	9,916.32	0.00
22,100.0	89.24	179.50	12,210.3	9,103.3	-10,015.3	-139.2	855,761.25	394,644.51	10,016.29	0.00
22,200.0	89.24	179.50	12,211.6	9,104.6	-10,115.3	-138.3	855,762.12	394,544.52	10,116.26	0.00
22,300.0	89.24	179.50	12,212.9	9,105.9	-10,215.3	-137.4	855,762.99	394,444.54	10,216.23	0.00
22,400.0	89.24	179.50	12,214.3	9,107.3	-10,315.3	-136.5	855,763.87	394,344.55	10,316.19	0.00
22,420.0	89.24	179.50	12,214.5	9,107.5	-10,335.3	-136.4	855,764.04	394,324.55	10,336.19	0.00

5 1/2" Production Casing

Company:	Caza Operating LLC	**Local Co-ordinate Reference:**	Well Sioux 25-26 State Fed Com 10H
Project:	Sioux 25-26 State Fed Com 10H	**TVD Reference:**	WELL @ 3107.0usft (Original Well Elev)
Site:	Sioux 25-26 State Fed Com 10H	**MD Reference:**	WELL @ 3107.0usft (Original Well Elev)
Well:	Sioux 25-26 State Fed Com 10H	**North Reference:**	Grid
Wellbore:	Sioux 25-26 State Fed Com 10H	**Survey Calculation Method:**	Minimum Curvature
Design:	191119 Sioux 25-36 State Fed Com 10H	**Database:**	EDM 5000.1 Single User Db

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
1,100.0	1,100.0	13 3/8" Surface Casing	13-3/8	17-1/2
120.0	120.0	20" Conductor	20	26
22,420.0	12,214.5	5 1/2" Production Casing	5-1/2	8-1/2
8,632.0	8,632.0	9 5/8" Intermediate Casing	9-5/8	12-1/4

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
2,472.0	2,472.0	Base of Salt		0.00	
9,732.7	9,727.0	1st Bone Spring Sand		0.00	
8,337.0	8,337.0	Lower Brushy Canyon		0.00	
11,632.2	11,617.0	3rd Bone Spring Sand		0.00	
8,582.0	8,582.0	Bone Spring		0.00	
4,947.0	4,947.0	Delaware		0.00	
11,953.9	11,912.0	Wolfcamp		0.00	
7,327.0	7,327.0	Brushy Canyon		0.00	
10,235.5	10,227.0	2nd Bone Spring Sand		0.00	
1,147.0	1,147.0	Top of Salt		0.00	
5,667.0	5,667.0	Cherry Canyon		0.00	
10,597.5	10,587.0	2nd Bone Spring Lime		0.00	
767.0	767.0	Rustler		0.00	

Company:	Caza Operating LLC	**Local Co-ordinate Reference:**	Well Sioux 25-26 State Fed Com 10H
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Site:	Sioux 25-26 State Fed Com 10H	**MD Reference:**	WELL @ 3107.0usft (Original Well Elev)
Well:	Sioux 25-26 State Fed Com 10H	**North Reference:**	Grid
Wellbore:	Sioux 25-26 State Fed Com 10H	**Survey Calculation Method:**	Minimum Curvature
Design:	191119 Sioux 25-36 State Fed Com 10H	**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
7,730.0	7,730.0	0.0	0.0	Start Build 3.00
7,930.0	7,930.0	0.0	0.0	Start 3470.0 hold at 7930.0 MD
11,400.0	11,386.8	190.3	-171.4	Start Drop -3.00
11,600.0	11,586.4	198.1	-178.4	Start 20.0 hold at 11600.0 MD
11,620.0	11,606.4	198.1	-178.4	Start Build 11.90
12,370.0	12,082.9	-280.0	-174.2	Start 10190.0 hold at 12370.0 MD
22,560.0				TD at 22560.0

Checked By: _____ Approved By: _____ Date: _____

Project: Sioux 25-26 State Fed Com 10H
Site: Sioux 25-26 State Fed Com 10H
Well: Sioux 25-26 State Fed Com 10H
Wellbore: Sioux 25-26 State Fed Com 10H
Design: 191119 Sioux 25-36 State Fed Com 10H

Caza Petroleum

T M

Azimuths to Grid North
True North: -0.54°
Magnetic North: 5.98°

Magnetic Field
Strength: 47820.5snT
Dip Angle: 59.93°
Date: 12/30/2018
Model: IGRF2010

CASING DETAILS

TVD	MD	Name	Size
120.0	120.0	20" Conductor	20
1100.0	1100.0	13 3/8" Surface Casing	13-3/8
8632.0	8632.0	9 5/8" Intermediate Casing	9-5/8
12214.5	22420.0	5 1/2" Production Casing	5-1/2

FORMATION TOP DETAILS

TVDPath	MDPath	Formation	DipAngle	DipDir
767.0	767.0	Rustler	0.00	
1147.0	1147.0	Top of Salt	0.00	
2472.0	2472.0	Base of Salt	0.00	
4947.0	4947.0	Delaware	0.00	
5667.0	5667.0	Cherry Canyon	0.00	
7327.0	7327.0	Brushy Canyon	0.00	
8337.0	8337.0	Lower Brushy Canyon	0.00	
8582.0	8582.0	Bone Spring	0.00	
9727.0	9732.7	1st Bone Spring Sand	0.00	
10227.0	10235.5	2nd Bone Spring Sand	0.00	
10587.0	10597.5	2nd Bone Spring Lime	0.00	
11617.0	11632.2	3rd Bone Spring Sand	0.00	
11912.0	11953.9	Wolfcamp	0.00